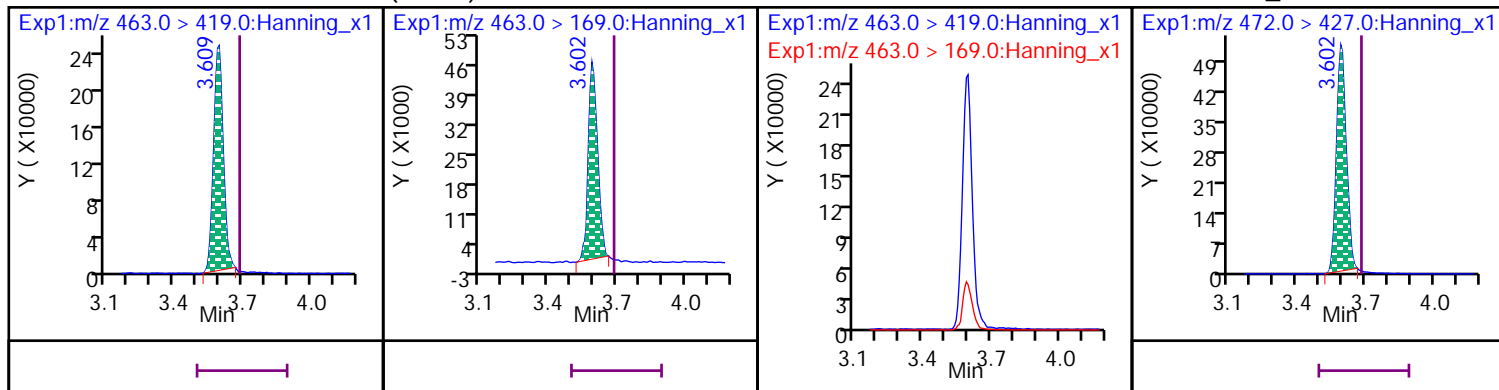


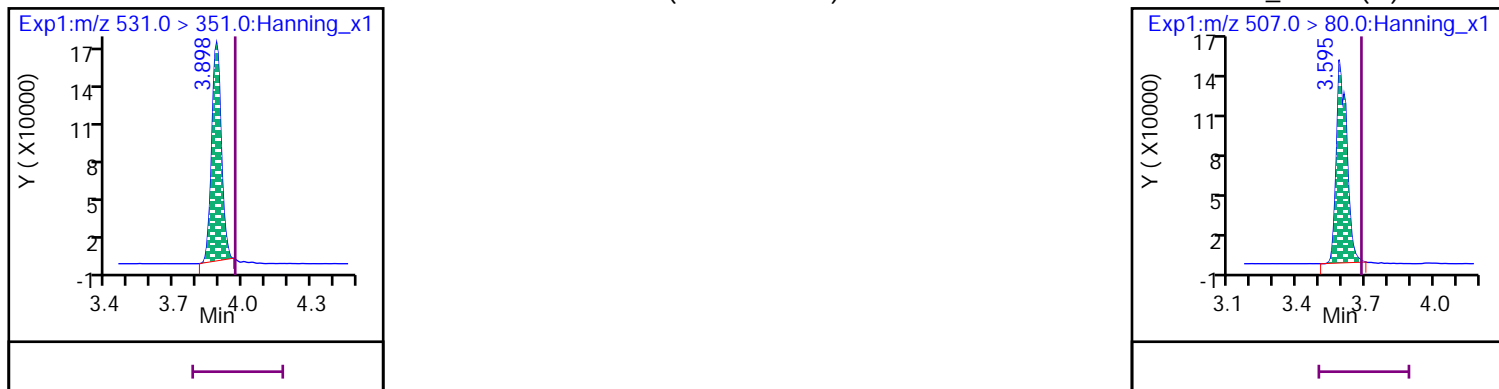
17 Perfluoro-n-nonanoic acid (PFNA)

D 56 13C9_PFNA



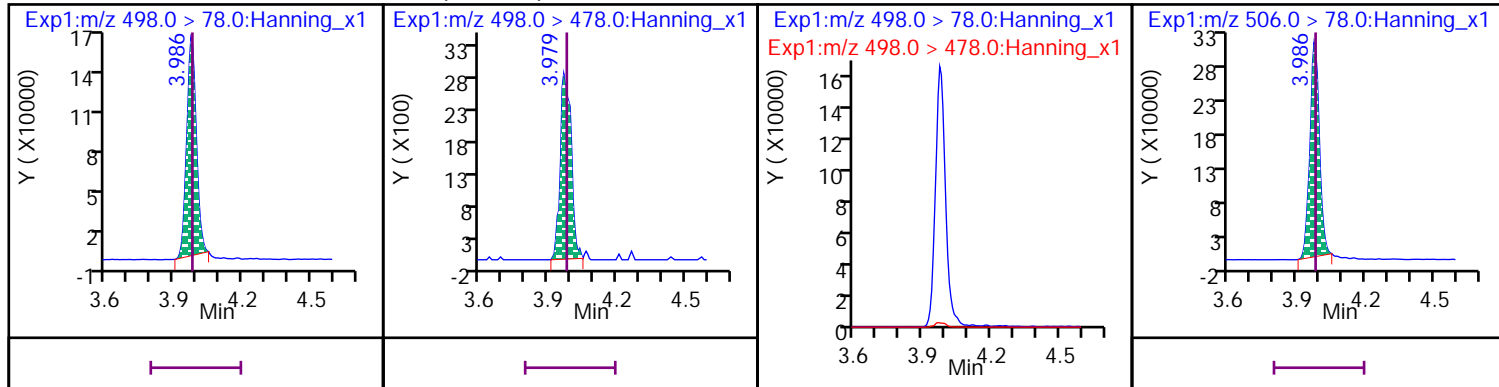
30 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)

D 54 13C8_PFOS (M)



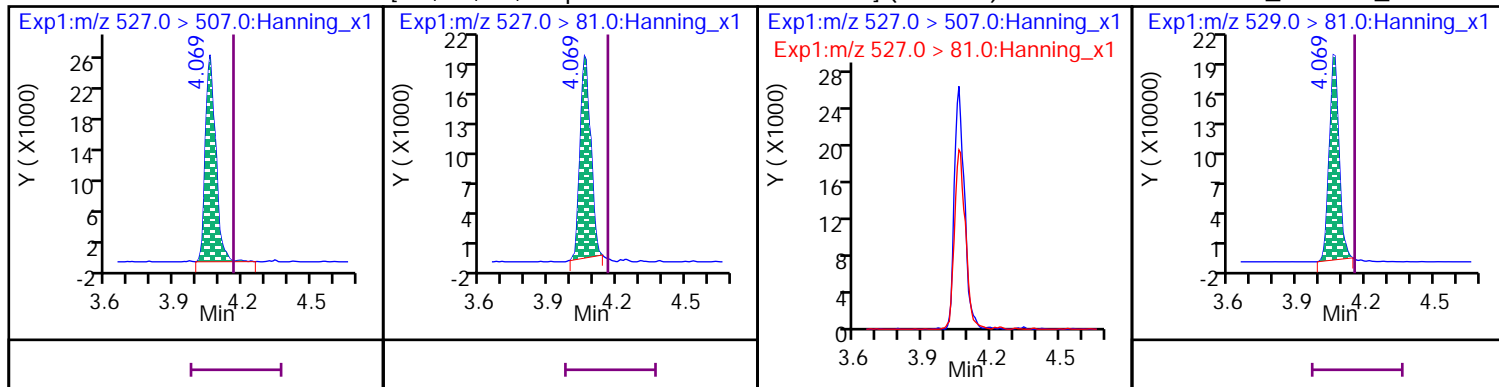
19 Perfluoro-1-octanesulfonamide (PFOSA)

D 55 13C8_PFOSA



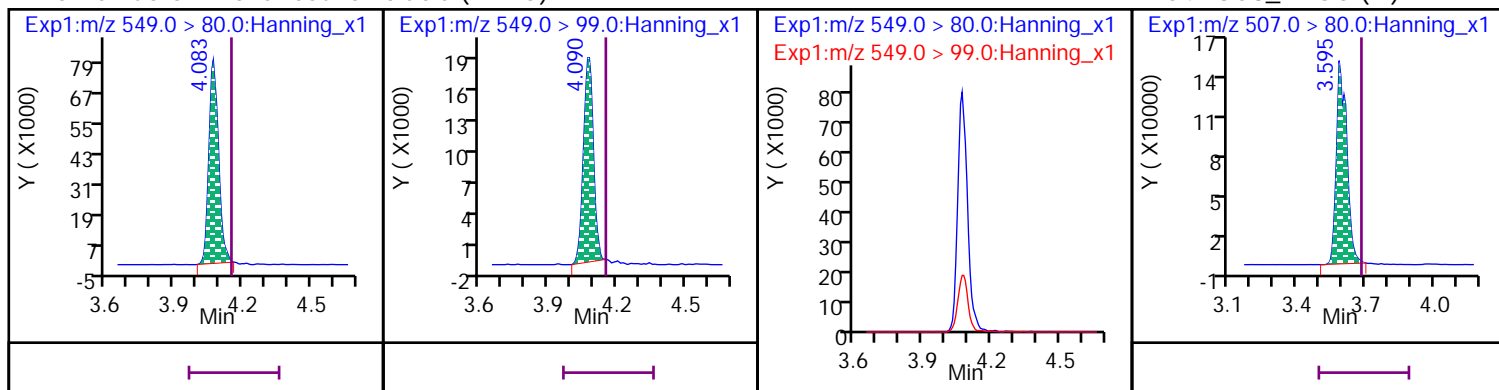
3 Fluorotelomer sulfonate 8:2 [1H,1H,2H,2H-perfluorodecane sulfonate] (8:2 FTS)

D 65 13C2_8:2 FTS_2



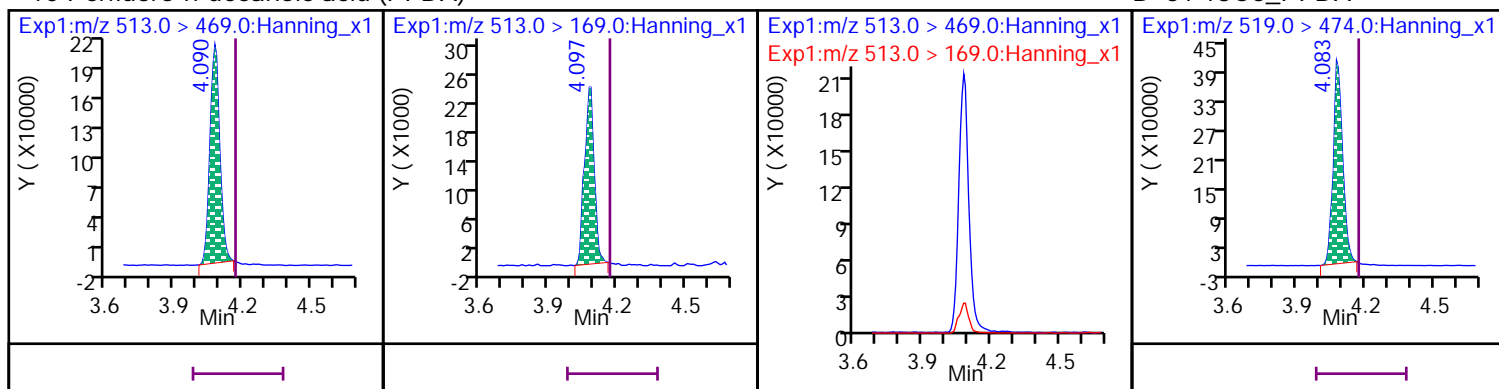
16 Perfluoro-1-nonanesulfonic acid (PFNS)

D 54 13C8_PFOS (M)



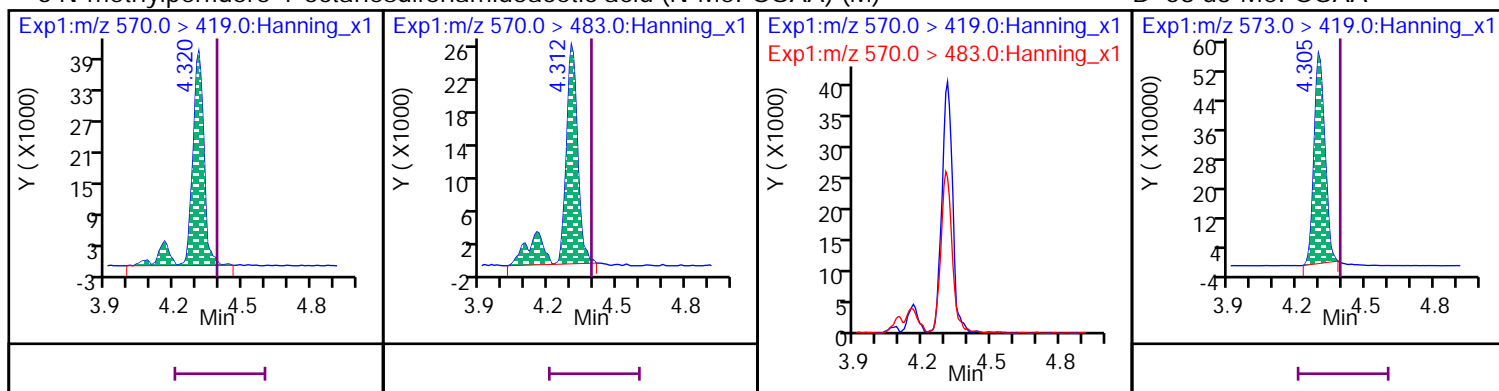
10 Perfluoro-n-decanoic acid (PFDA)

D 51 13C6_PFDA



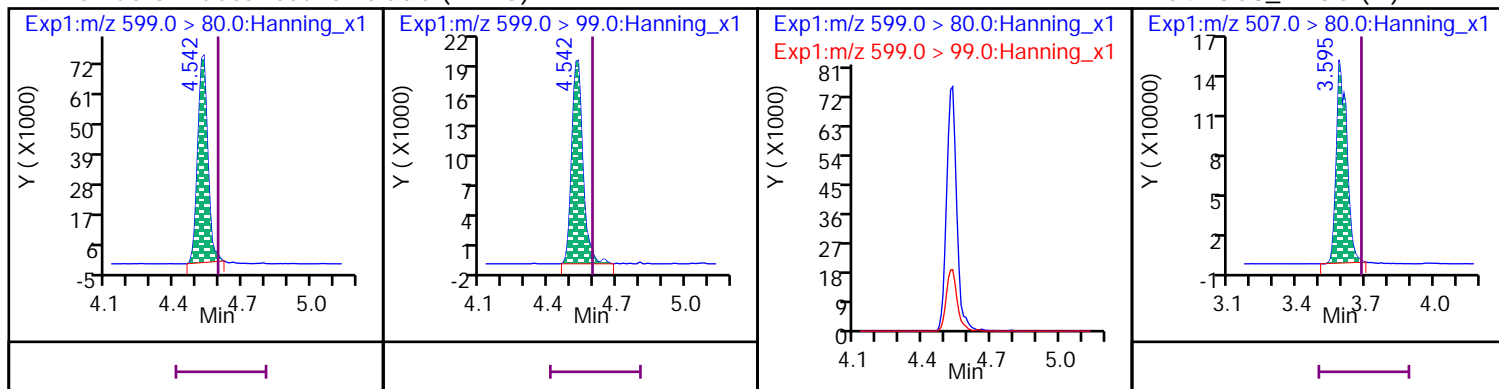
6 N-methylperfluoro-1-octanesulfonamidoacetic acid (N-MeFOSAA) (M)

D 58 d3-MeFOSAA

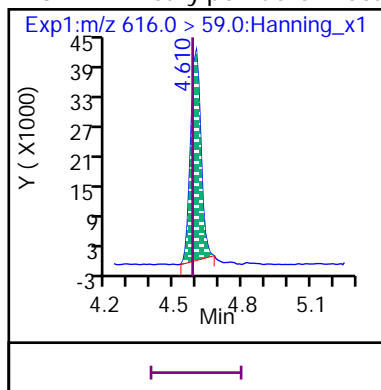


9 Perfluoro-1-decanesulfonic acid (PFDS)

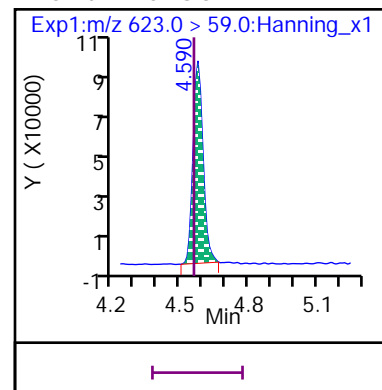
D 54 13C8_PFOS (M)



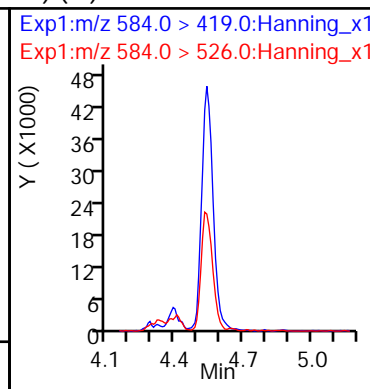
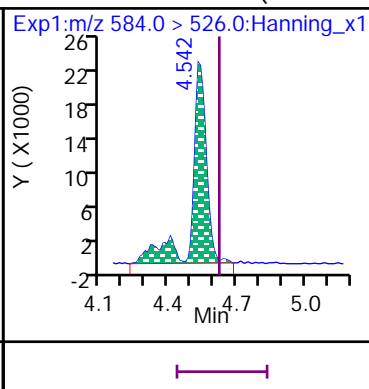
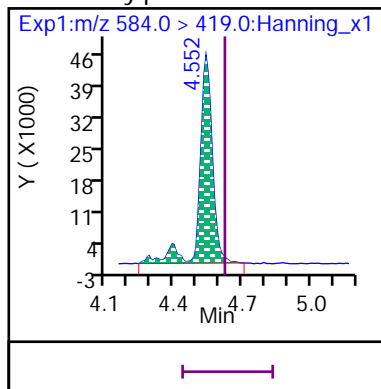
32 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)



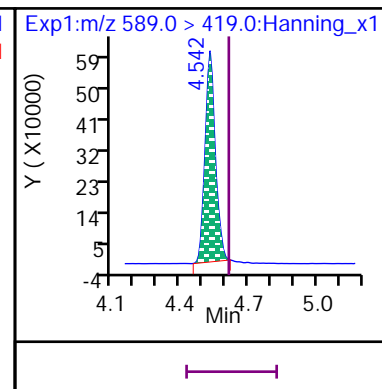
D 61 d7-MeFOSE



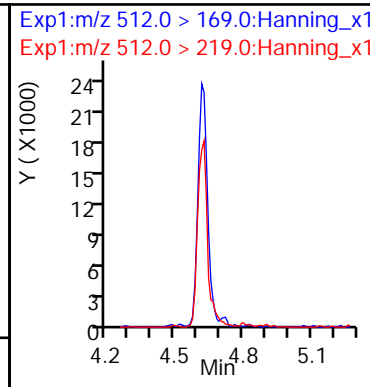
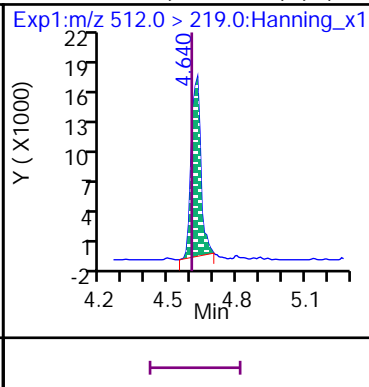
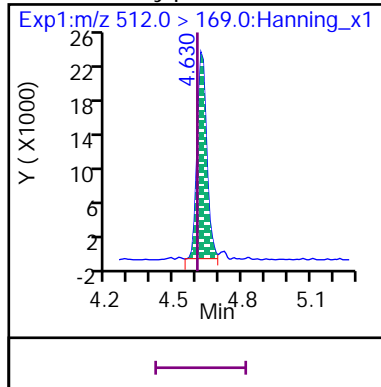
5 N-ethylperfluoro-1-octanesulfonamidoacetic acid (N-EtFOSAA) (M)



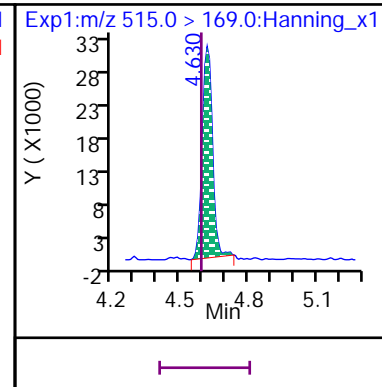
D 60 d5-EtFOSAA



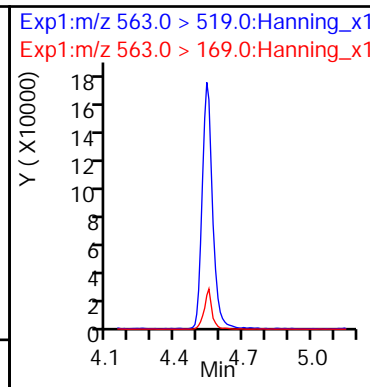
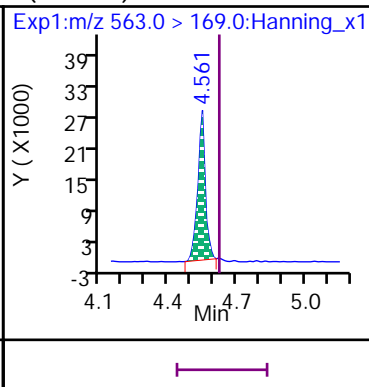
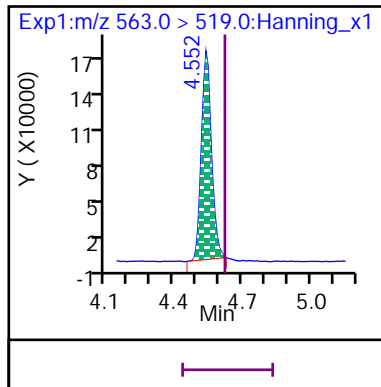
26 N-methylperfluoro-1-octanesulfonamide (MeFOSA) (M)



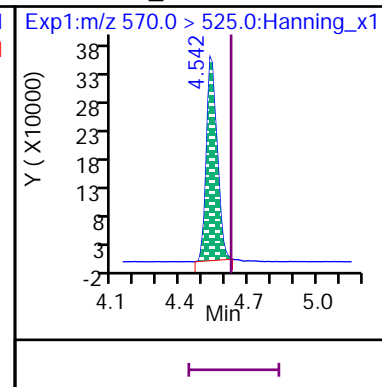
D 57 d3-MeFOSA



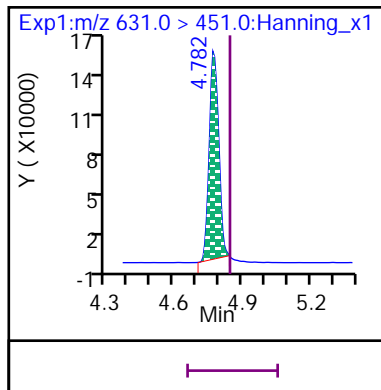
25 Perfluoro-n-undecanoic acid (PFUdA)



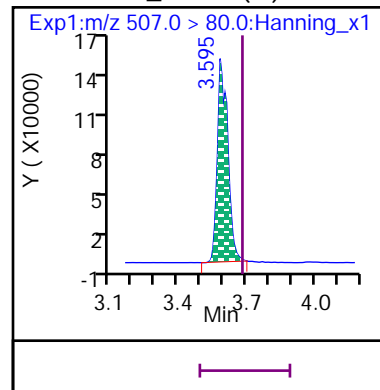
D 52 13C7_PFUdA



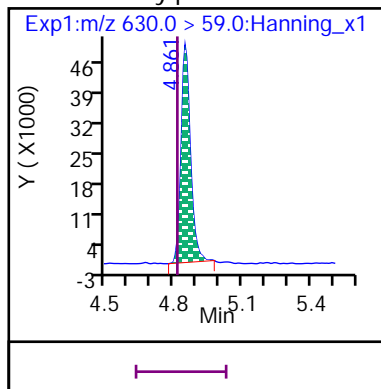
31 11-chloroeicosafuoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)



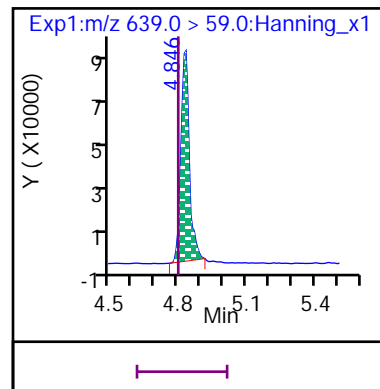
D 54 13C8_PFOS (M)



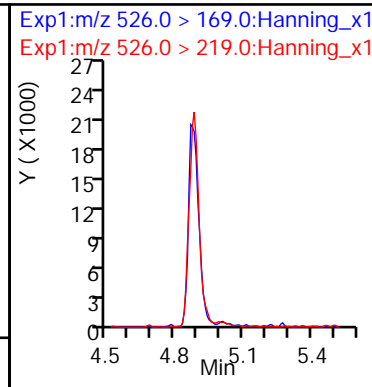
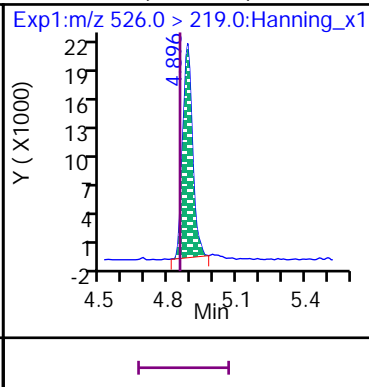
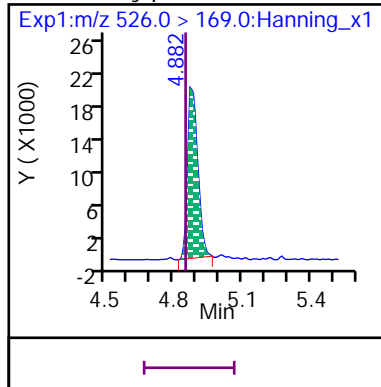
33 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)



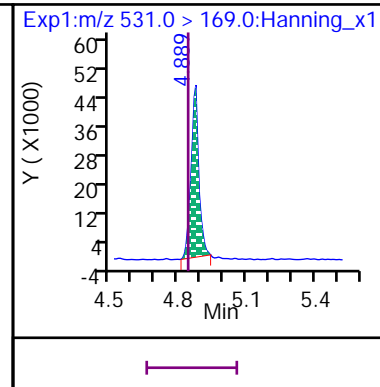
D 62 d9-EtFOSE



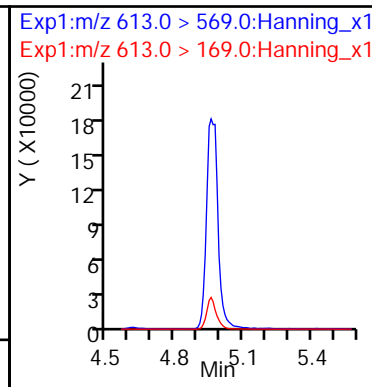
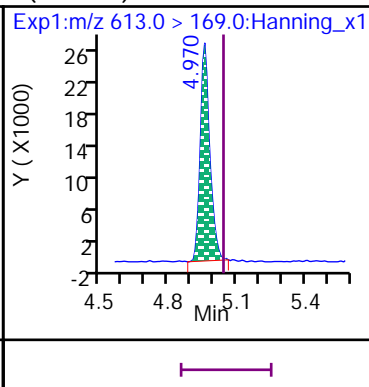
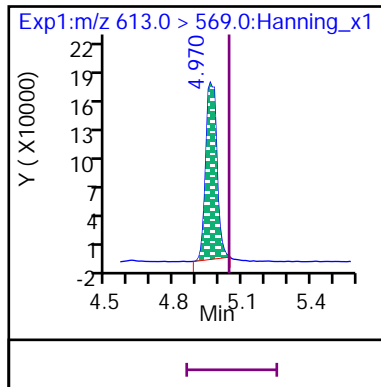
27 N-ethylperfluoro-1-octanesulfonamide (EtFOSA)



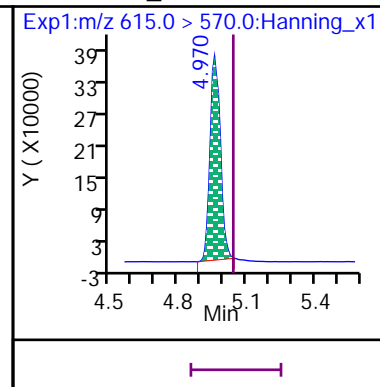
D 59 d5-EtFOSA



11 Perfluoro-n-dodecanoic acid (PFDoA)

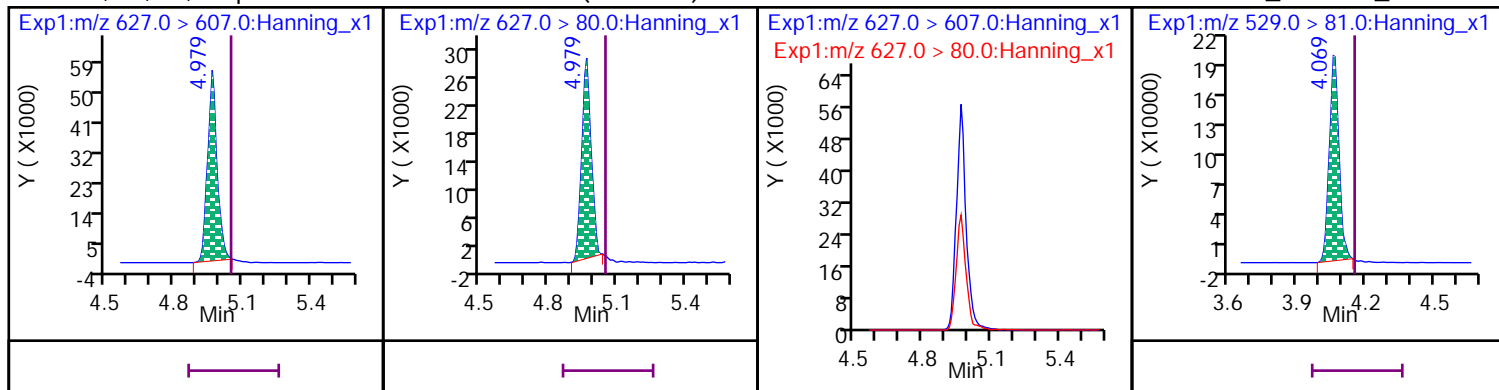


D 38 13C2_PFDoA



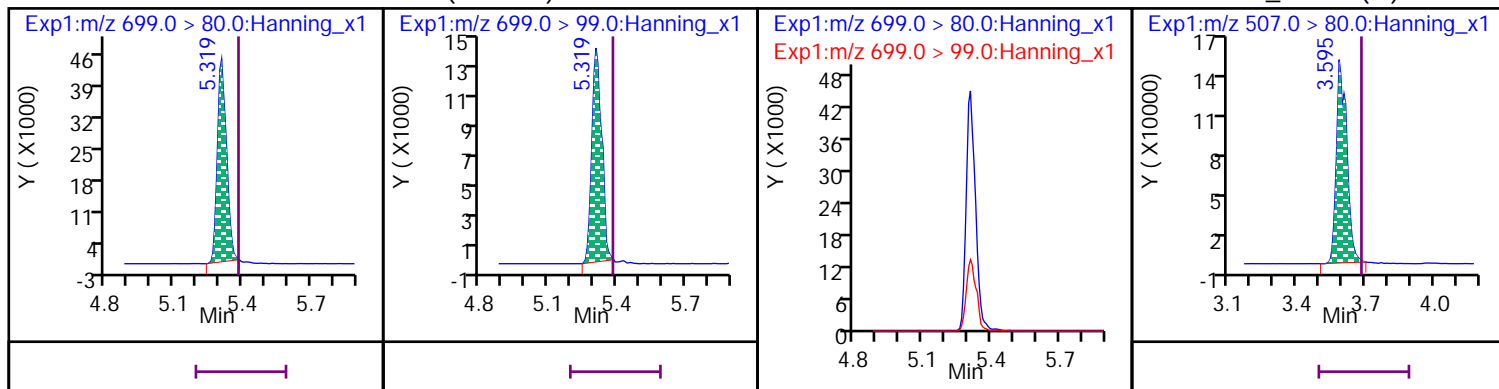
4 1H,1H,2H,2H-perfluorododecane sulfonate (10:2FTS)

D 65 13C2_8:2 FTS_2



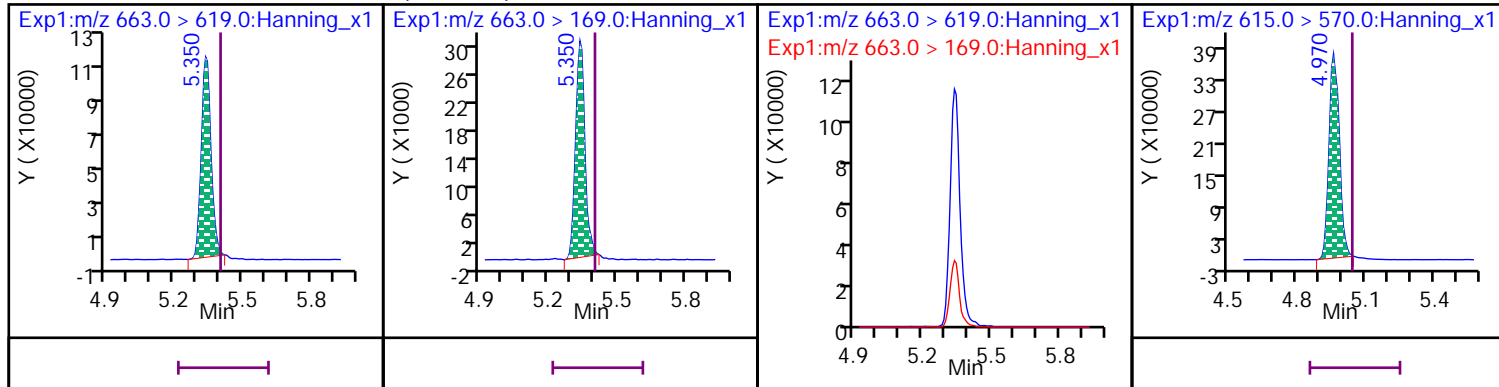
34 Perfluorododecanesulfonic acid (PFDOS)

D 54 13C8_PFOS (M)



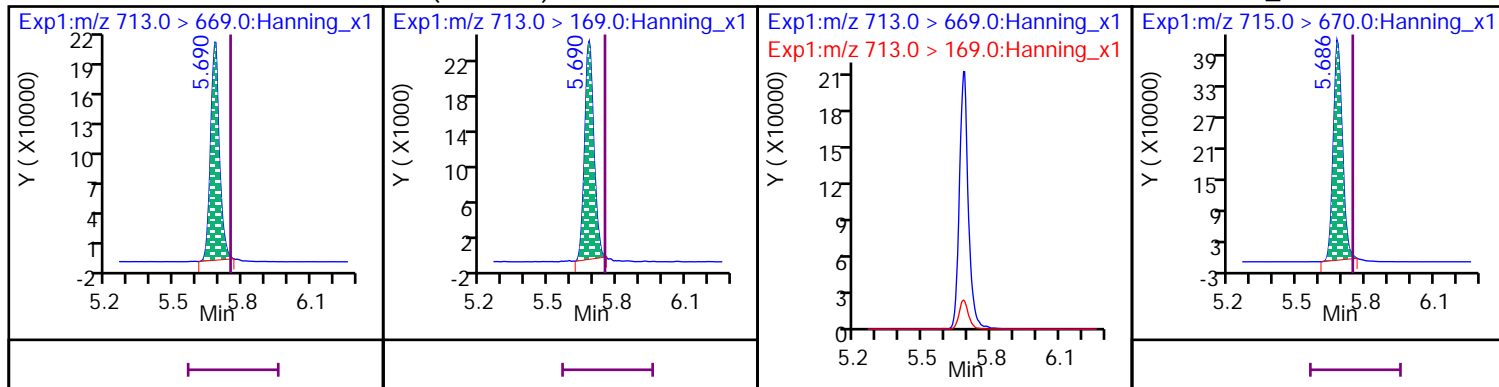
24 Perfluoro-n-tridecanoic acid (PFTTrDA)

D 38 13C2_PFDaA



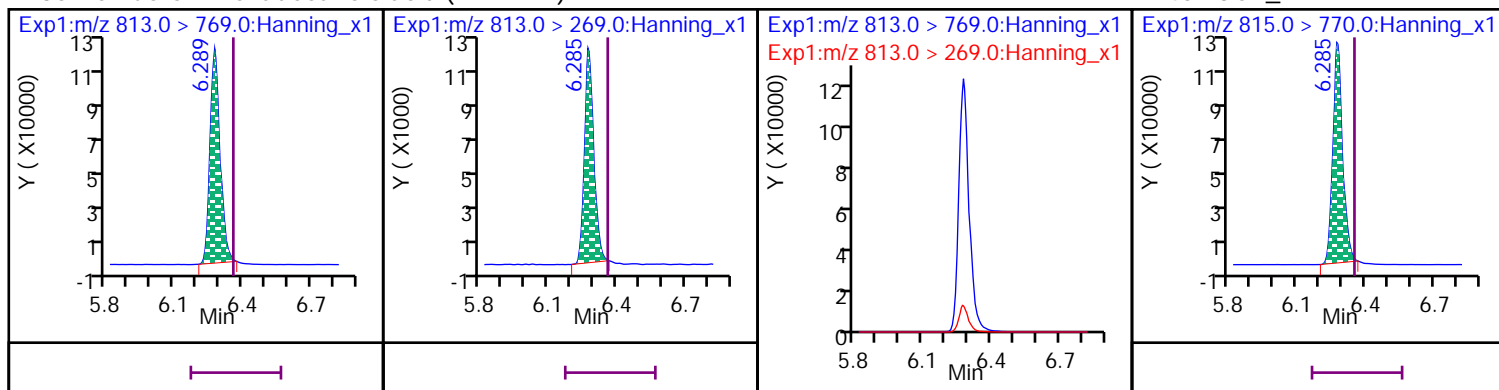
23 Perfluoro-n-tetradecanoic acid (PFTeDA)

D 42 13C2_PFTeDA



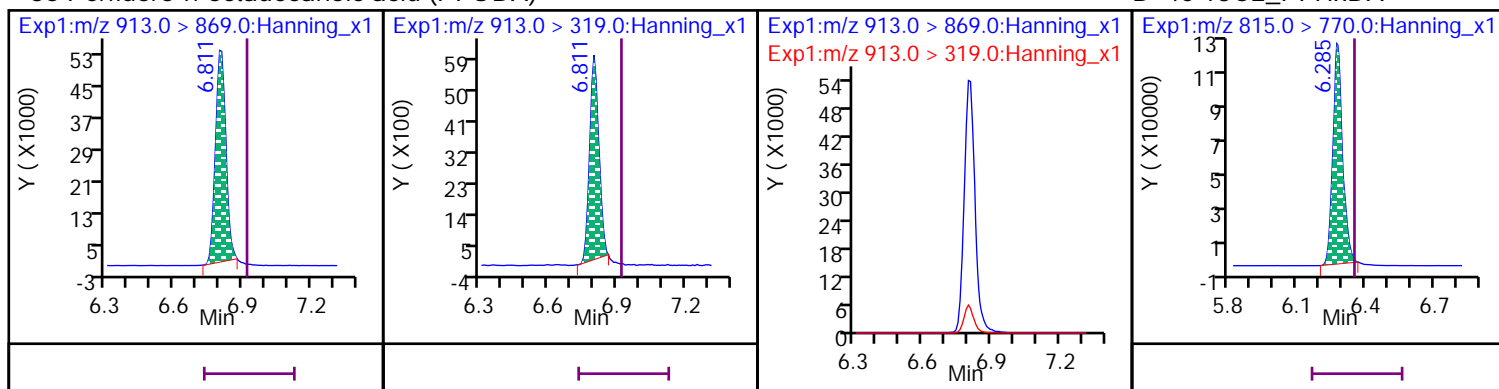
35 Perfluoro-n-hexadecanoic acid (PFHxDA)

D 40 13C2_PFHxDA



36 Perfluoro-n-octadecanoic acid (PFODA)

D 40 13C2_PFHxDA

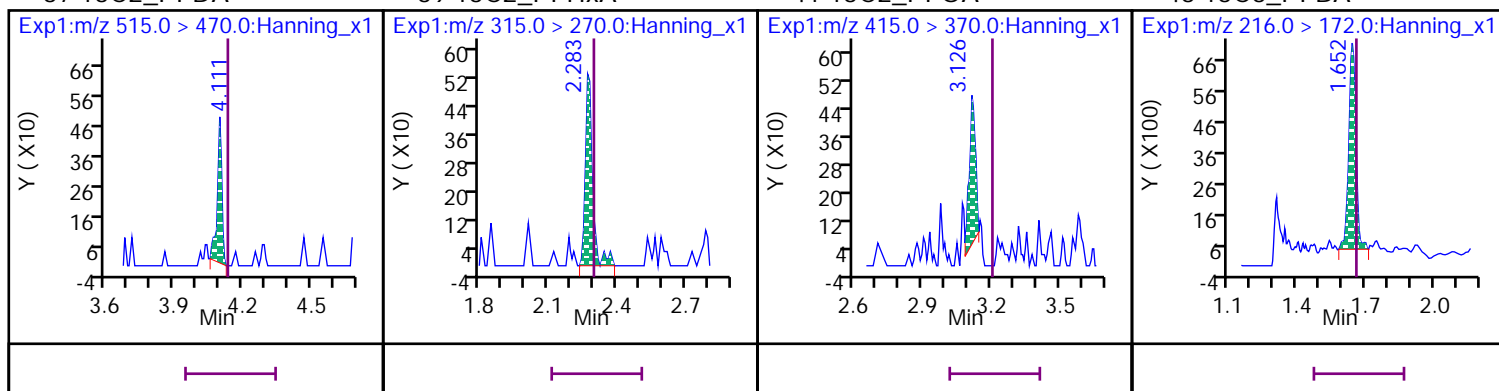


* 37 13C2_PFDA

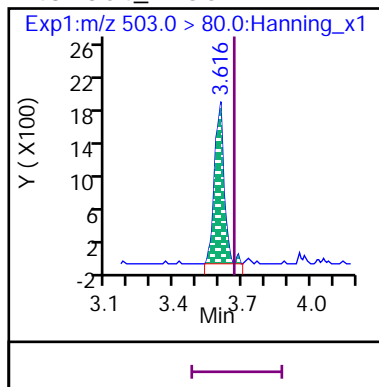
* 39 13C2_PFHxA

* 41 13C2_PFOA

* 43 13C3_PFBA



* 48 13C4_PFOS



Manual Integration Report

Data File: \\Organics\LL\LCMSMS01.i\091122-nonDOD.b\091122043.d

Injection Date: 11-Sep-2022 20:59:32

Inst. ID: LCMSMS01.i

Client ID:

Lab ID: CCV 1000_SVLC_2200

Sample Info: CCV 1000_SVLC_2200

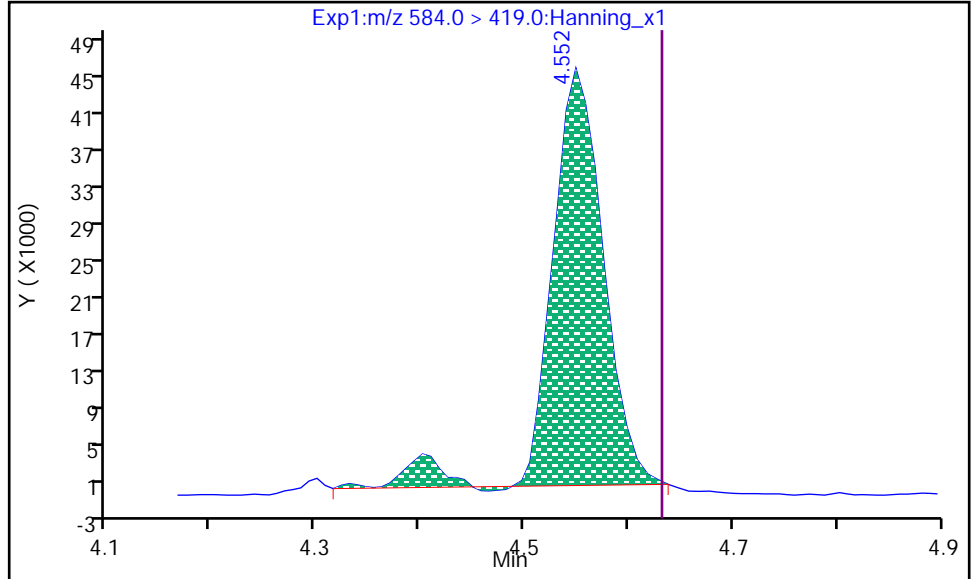
Dil. Factor: 1

Operator: eqi.svoa

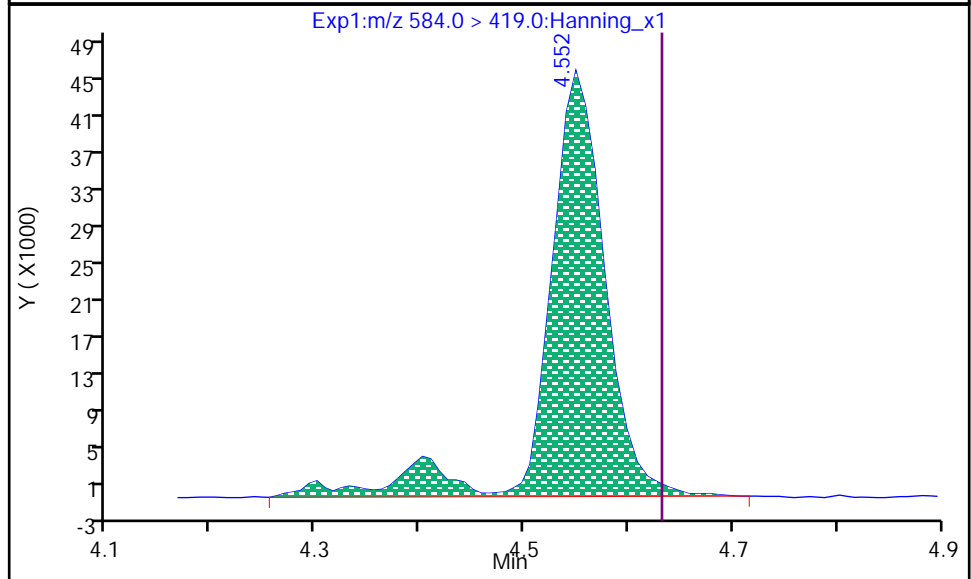
5 N-EtFOSAA, CAS: 2991-50-6

Processing Integration Results

RT: 4.552
Area: 156584
Amount: 828.72
Amount Units: ng/L



RT: 4.552
Area: 176938
Amount: 936.45
Amount Units: ng/L



Data Editor: xiang.zhu, 12-Sep-2022 16:25:16
Audit Action: Mint
Audit Reason: Invalid Integration

Manual Integration Report

Data File: \\Organics\LL\LCMSMS01.i\091122-nonDOD.b\091122043.d

Injection Date: 11-Sep-2022 20:59:32

Inst. ID: LCMSMS01.i

Client ID:

Lab ID: CCV 1000_SVLC_2200

Sample Info: CCV 1000_SVLC_2200

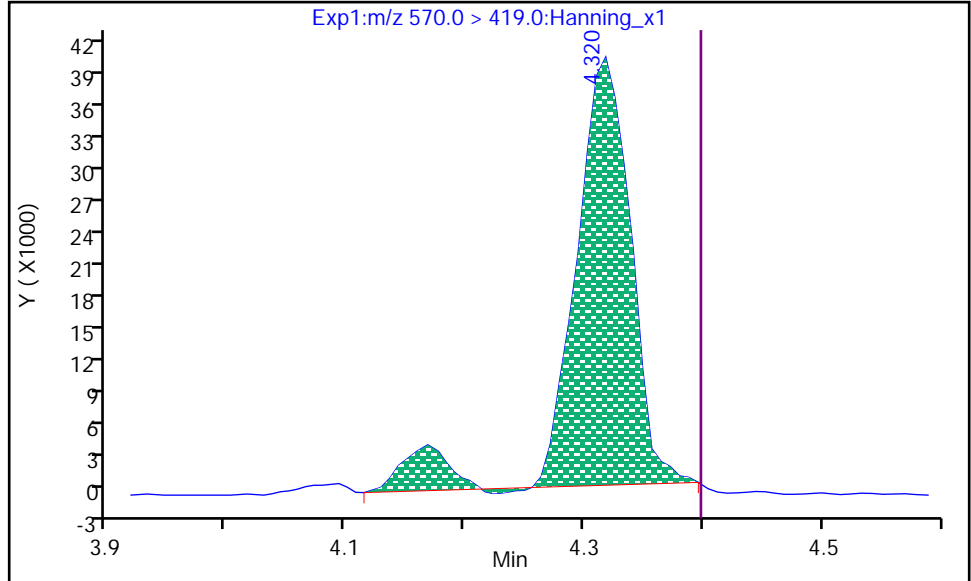
Dil. Factor: 1

Operator: eqi.svoa

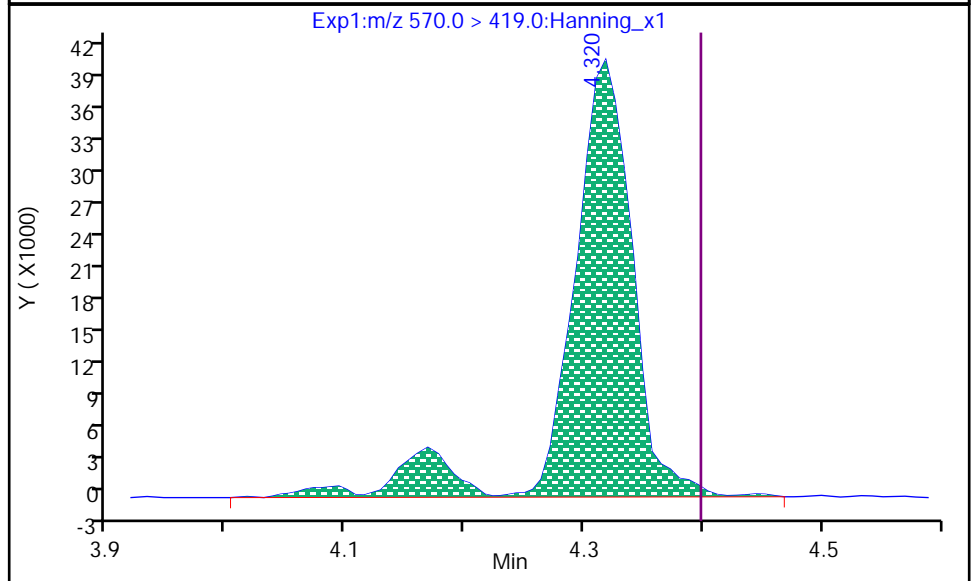
6 N-MeFOSAA, CAS: 2355-31-9

RT: 4.320
Area: 130792
Amount: 858.64
Amount Units: ng/L

Processing Integration Results



RT: 4.320
Area: 145744
Amount: 956.80
Amount Units: ng/L



Data Editor: xiang.zhu, 12-Sep-2022 16:24:41

Audit Action: Mint

Audit Reason: Invalid Integration

Manual Integration Report

Data File: \\Organics\LL\LCMSMS01.i\091122-nonDOD.b\091122043.d

Injection Date: 11-Sep-2022 20:59:32

Inst. ID: LCMSMS01.i

Client ID:

Lab ID: CCV 1000_SVLC_2200

Sample Info: CCV 1000_SVLC_2200

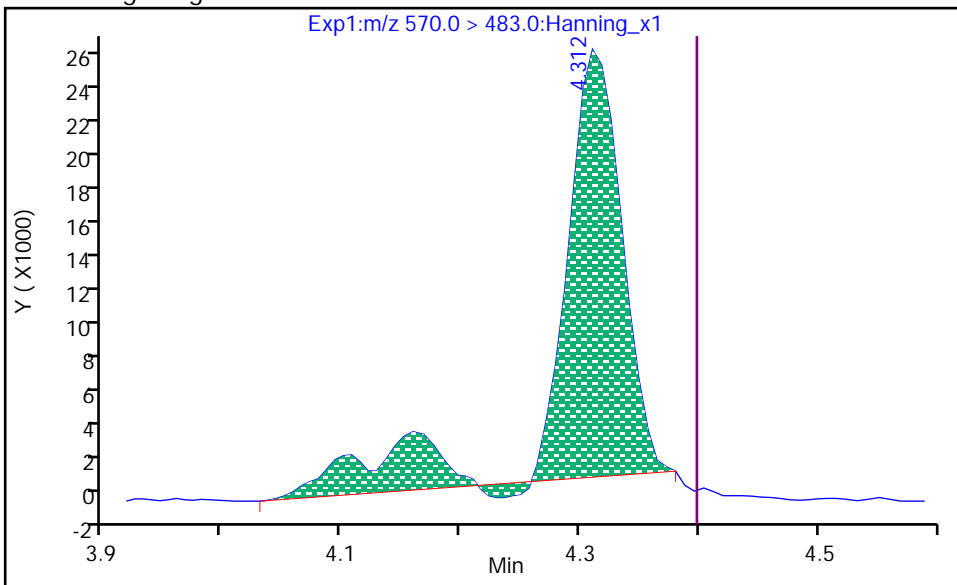
Dil. Factor: 1

Operator: eqi.svoa

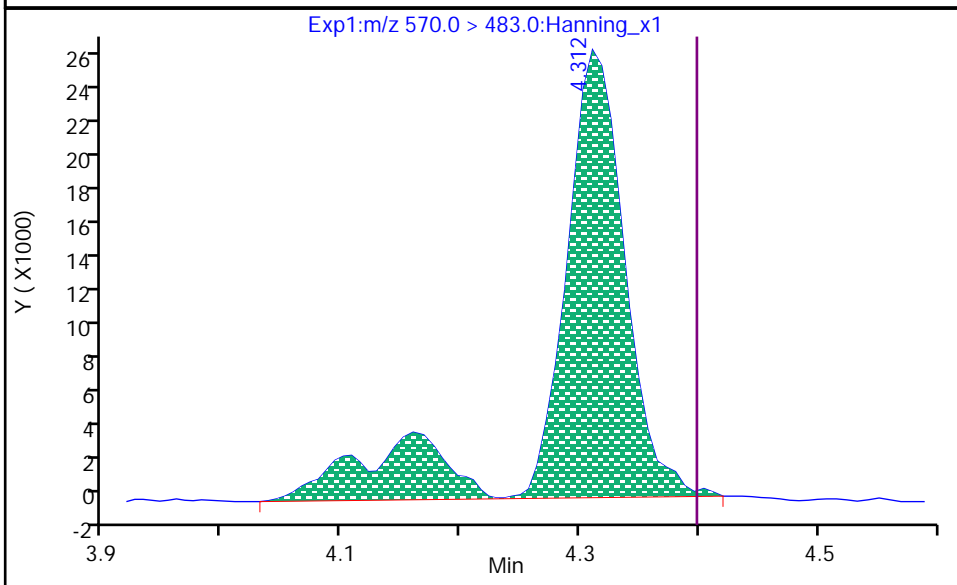
6 N-MeFOSAA, CAS: 2355-31-9

Processing Integration Results

RT: 4.312
Area: 88959
Amount: 956.80
Amount Units: ng/L



RT: 4.312
Area: 104767
Amount: 956.80
Amount Units: ng/L



Data Editor: xiang.zhu, 12-Sep-2022 16:24:46

Audit Action: Mint

Audit Reason: Invalid Integration

Manual Integration Report

Data File: \\Organics\LL\LCMSMS01.i\091122-nonDOD.b\091122043.d

Injection Date: 11-Sep-2022 20:59:32

Inst. ID: LCMSMS01.i

Client ID:

Lab ID: CCV 1000_SVLC_2200

Sample Info: CCV 1000_SVLC_2200

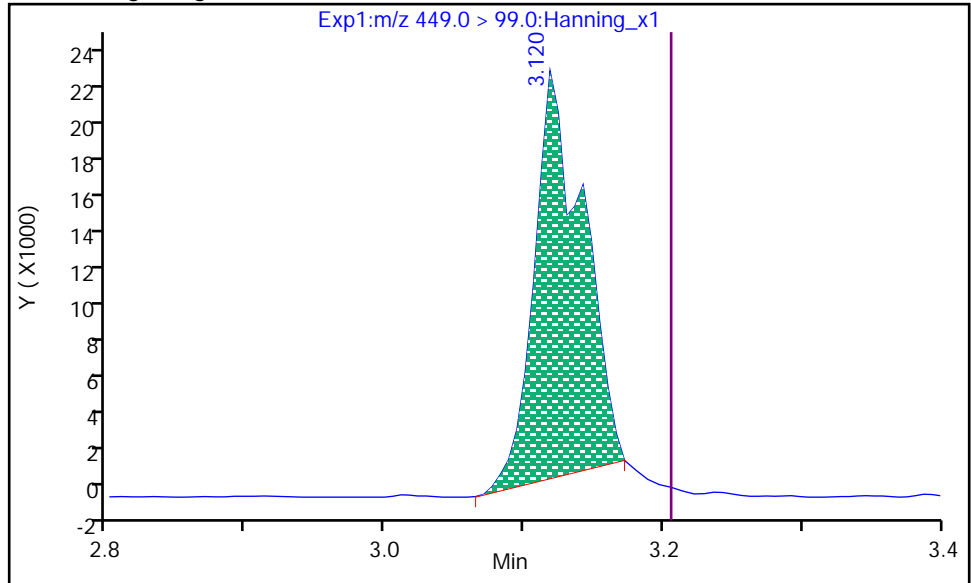
Dil. Factor: 1

Operator: eqi.svoa

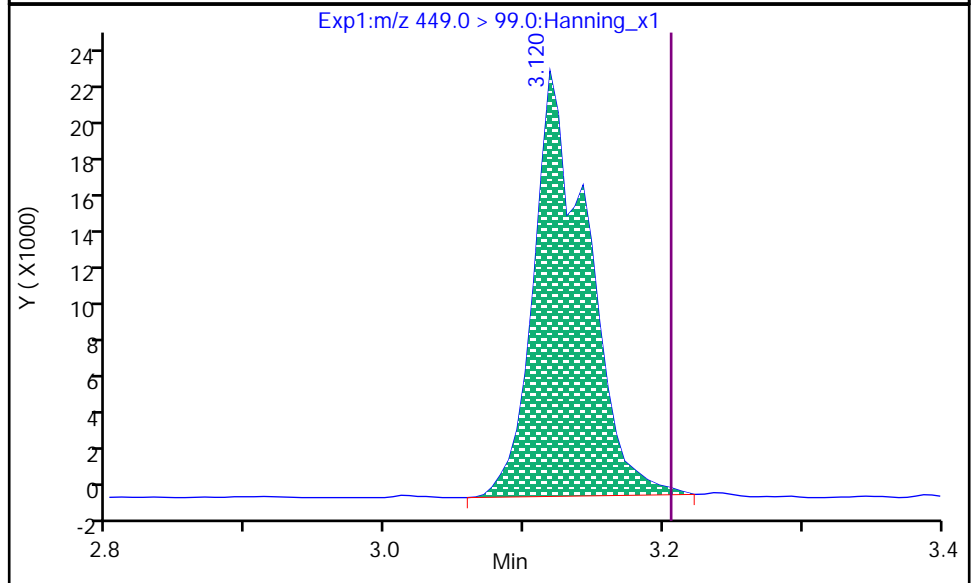
12 PFHpS, CAS: 375-92-8

Processing Integration Results

RT: 3.120
Area: 53435
Amount: 937.37
Amount Units: ng/L



RT: 3.120
Area: 61404
Amount: 937.37
Amount Units: ng/L



Data Editor: xiang.zhu, 12-Sep-2022 16:24:00

Audit Action: Mint

Audit Reason: Invalid Integration

Manual Integration Report

Data File: \\Organics\LL\LCMSMS01.i\091122-nonDOD.b\091122043.d

Injection Date: 11-Sep-2022 20:59:32

Inst. ID: LCMSMS01.i

Client ID:

Lab ID: CCV 1000_SVLC_2200

Sample Info: CCV 1000_SVLC_2200

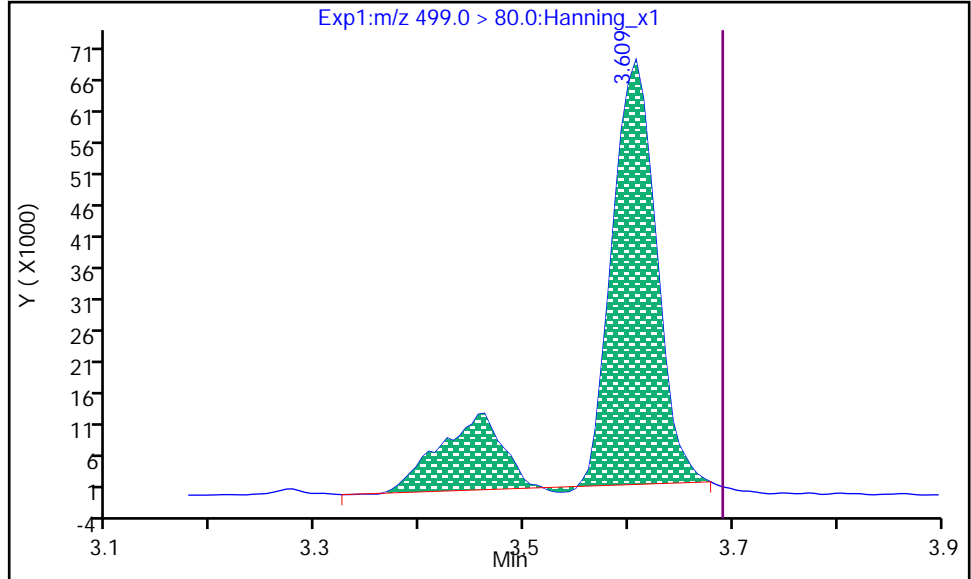
Dil. Factor: 1

Operator: eqi.svoa

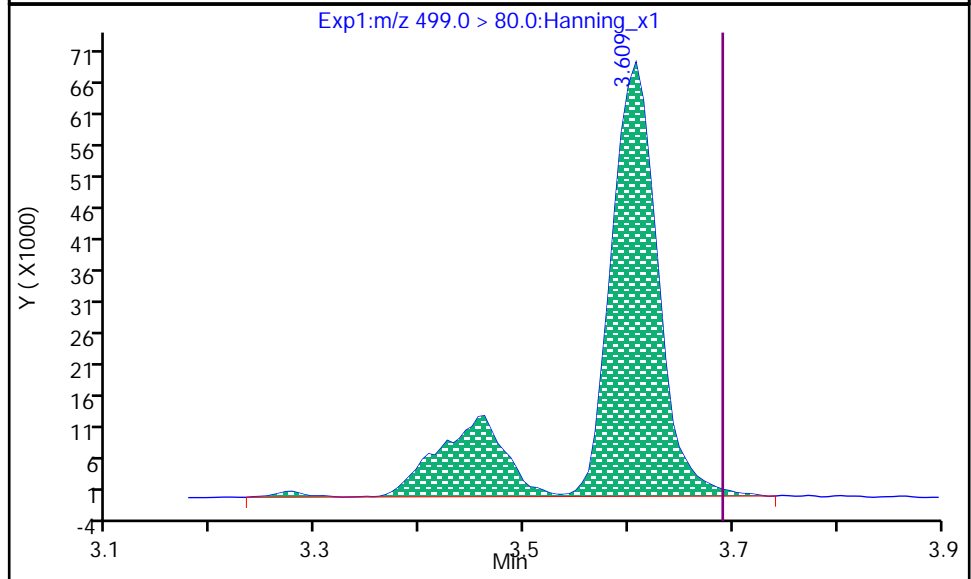
18 PFOS, CAS: 1763-23-1

Processing Integration Results

RT: 3.609
Area: 246552
Amount: 1103.20
Amount Units: ng/L



RT: 3.609
Area: 270391
Amount: 993.29
Amount Units: ng/L



Data Editor: xiang.zhu, 12-Sep-2022 16:24:15
Audit Action: Mint
Audit Reason: Invalid Integration

Manual Integration Report

Data File: \\Organics\LL\LCMSMS01.i\091122-nonDOD.b\091122043.d

Injection Date: 11-Sep-2022 20:59:32

Inst. ID: LCMSMS01.i

Client ID:

Lab ID: CCV 1000_SVLC_2200

Sample Info: CCV 1000_SVLC_2200

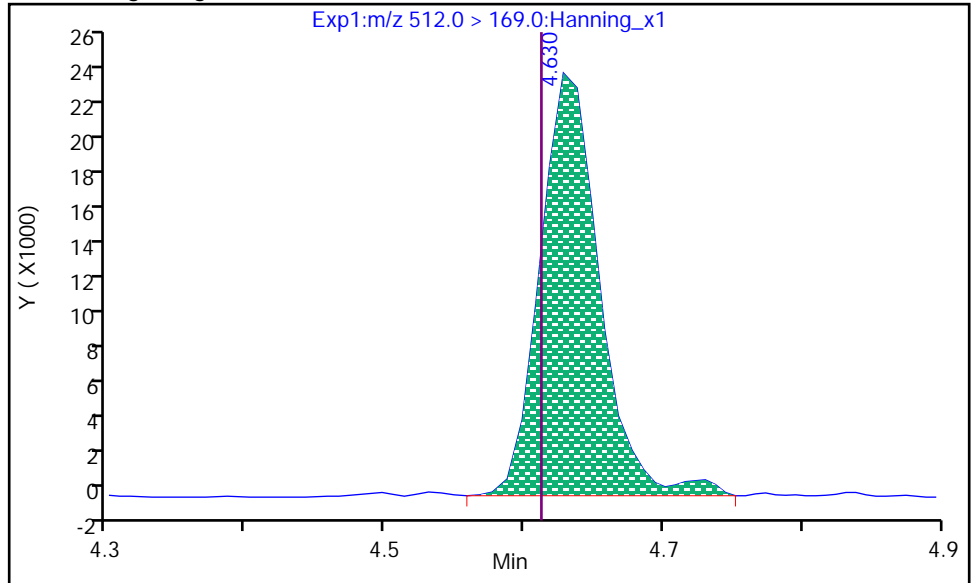
Dil. Factor: 1

Operator: eqi.svoa

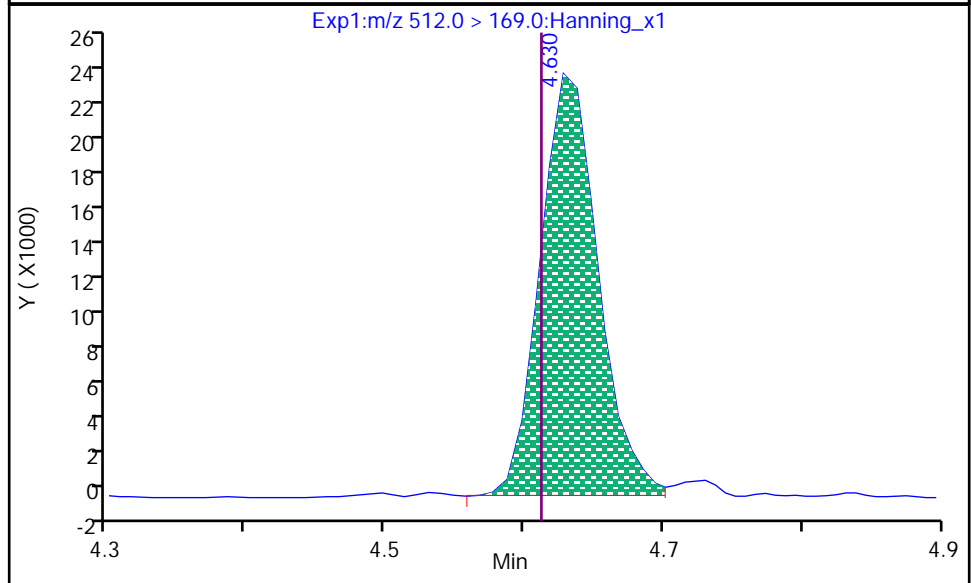
26 MeFOSA, CAS: 31506-32-8

Processing Integration Results

RT: 4.630
Area: 68552
Amount: 1353.62
Amount Units: ng/L



RT: 4.630
Area: 66411
Amount: 1311.35
Amount Units: ng/L



Data Editor: xiang.zhu, 12-Sep-2022 16:25:03

Audit Action: Mint

Audit Reason: Invalid Integration

Manual Integration Report

Data File: \\Organics\LL\LCMSMS01.i\091122-nonDOD.b\091122043.d

Injection Date: 11-Sep-2022 20:59:32

Inst. ID: LCMSMS01.i

Client ID:

Lab ID: CCV 1000_SVLC_2200

Sample Info: CCV 1000_SVLC_2200

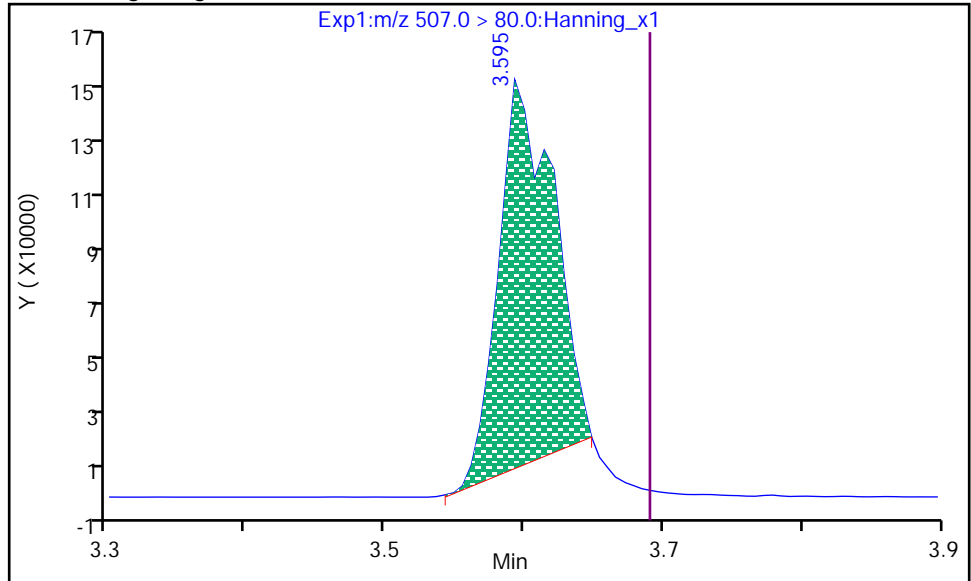
Dil. Factor: 1

Operator: eqi.svoa

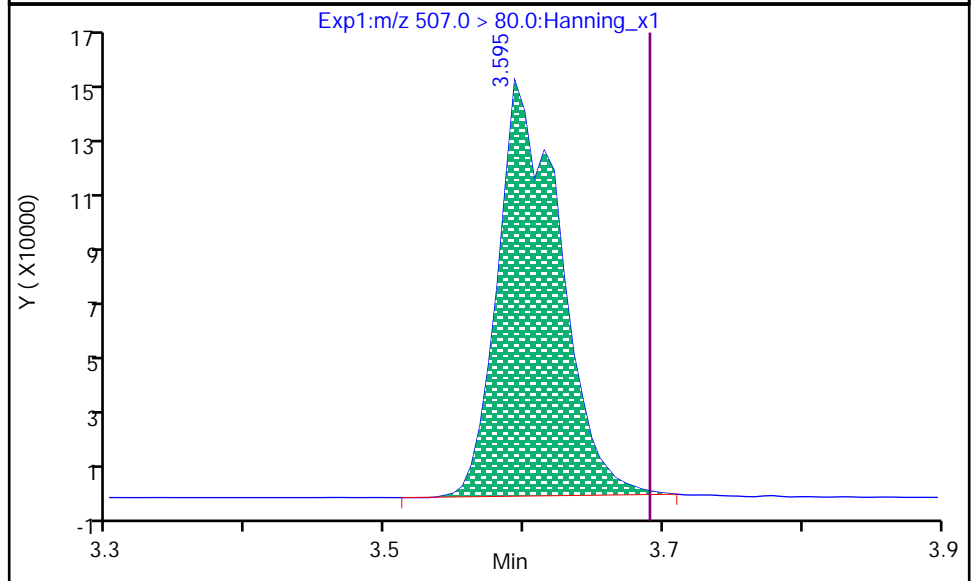
D 54 13C8_PFOS, CAS: SESI-0098

Processing Integration Results

RT: 3.595
Area: 385351
Amount: 1567.34
Amount Units: ng/L



RT: 3.595
Area: 469372
Amount: 1909.08
Amount Units: ng/L



Data Editor: xiang.zhu, 12-Sep-2022 16:24:21

Audit Action: Mint

Audit Reason: Invalid Integration

Pace Environmental Services, LLC
Continuing Calibration Verification Report

Data File: \\Organics\LL\LCMSMS01.i\091222-nonDOD.b\091222006.d
Injection Date: 12-Sep-2022 14:33:10 Injection Vol: 10.0 uL
Sample Type: CCV Auto Sampler: 95
Sample Info: CCV 200_SVLC_2163 Misc. Info:
Inst. ID: LCMSMS01.i Operator: eqi.svoa
Method: LCMSMS01_PFAS-ID2 Version: V16 30-Jun-2022 10:54:24
Calib Method: PFAS-ID2 Lock State: Unlocked
Quant Method: IsoDil Integrator: picker

Reagent: Analytes Conc. Level: L-3 Vol. Added: 1.00 ml

Compound	Std Area	CCV Area	Exp. Conc ng/L	Conc ng/L	%Rec	%Rec Limits
D 46 13C4_PFBA	2458285	2392972			97.3	50 - 150
8 PFBA			200.00	201.05	100.5	70 - 130
21 PFPeA			200.00	197.90	99	70 - 130
D 50 13C5_PFPeA	1563383	1599974			102.3	50 - 150
D 44 13C3_PFBs	621804	586478			94.3	50 - 150
7 PFBs			176.80	171.79	97.2	70 - 130
D 63 13C2_4:2 FTS_2	474746	506769			106.7	50 - 150
1 4:2 FTS			186.80	175.14	93.8	70 - 130
D 49 13C5_PFHxA	2164519	1690154			78.1	50 - 150
15 PFHxA			200.00	218.44	109.2	70 - 130
22 PFPeS			187.60	179.78	95.8	70 - 130
28 GenX			400.00	398.01	99.5	70 - 130
D 66 13C3_GenX	1386326	1247009			90	50 - 150
13 PFHpA			200.00	223.63	111.8	70 - 130
D 47 13C4_PFHpA	1676296	1544635			92.1	50 - 150
D 45 13C3_PFHxS	455187	398871			87.6	50 - 150
14 PFHxS			182.00	169.79	93.3	70 - 130
29 ADONA			188.40	150.75	80	70 - 130
2 6:2 FTS			189.60	215.26	113.5	70 - 130
D 64 13C2_6:2 FTS_2	366378	432458			118	50 - 150
D 53 13C8_PFOA	1460944	1379286			94.4	50 - 150
20 PFOA			200.00	225.21	112.6	70 - 130
12 PFHpS			190.40	201.75	106	70 - 130
18 PFOS			185.60	189.97	102.4	70 - 130
D 54 13C8_PFOS	554480	515554			93	50 - 150
17 PFNA			200.00	220.35	110.2	70 - 130
D 56 13C9_PFNA	1627151	1373592			84.4	50 - 150
30 9CI-PF3ONS			186.40	177.32	95.1	70 - 130
D 55 13C8_PFOA	1012869	880888			87	50 - 150
19 PFOSA			200.00	166.33	83.2	70 - 130
D 65 13C2_8:2 FTS_2	384981	390251			101.4	50 - 150
16 PFNS			192.00	181.32	94.4	70 - 130
3 8:2 FTS			191.60	188.99	98.6	70 - 130
D 51 13C6_PFDA	1313671	1270798			96.7	50 - 150
10 PFDA			200.00	189.48	94.7	70 - 130
D 58 d3-MeFOSAA	1739400	1375015			79.1	50 - 150

Compound	Std Area	CCV Area	Exp. Conc ng/L	Conc ng/L	%Rec	%Rec Limits
6 N-MeFOSAA			200.00	210.51	105.3	70 - 130
D 61 d7-MeFOSE	272708	239634			87.9	50 - 150
32 MeFOSE			200.00	191.42	95.7	70 - 130
9 PFDS			192.80	175.87	91.2	70 - 130
5 N-EtFOSAA			200.00	187.37	93.7	70 - 130
D 57 d3-MeFOSA	117129	125682			107.3	50 - 150
26 MeFOSA			200.00	175.49	87.7	70 - 130
D 60 d5-EtFOSAA	1459560	1370840			93.9	50 - 150
D 52 13C7_PFUdA	1114391	1158026			103.9	50 - 150
25 PFUdA			200.00	200.33	100.2	70 - 130
D 62 d9-EtFOSE	242839	232388			95.7	50 - 150
31 11Cl-PF3OUDS			188.40	178.07	94.5	70 - 130
33 EtFOSE			200.00	220.03	110	70 - 130
D 59 d5-EtFOSA	114605	107506			93.8	50 - 150
27 EtFOSA			200.00	205.81	102.9	70 - 130
D 38 13C2_PFDoA	1198347	1027902			85.8	50 - 150
11 PFDoA			200.00	210.02	105	70 - 130
4 10:2 FTS			192.80	169.55	87.9	70 - 130
34 PFDOS			193.60	166.13	85.8	70 - 130
24 PFTrDA			200.00	183.89	91.9	70 - 130
23 PFTeDA			200.00	236.68	118.3	70 - 130
D 42 13C2_PFTeDA	1230201	1037162			84.3	50 - 150
D 40 13C2_PFHxDA	665654	559085			84	50 - 150
35 PFHxDA			200.00	202.51	101.3	70 - 130
36 PFODA			200.00	158.69	79.3	70 - 130

Pace Environmental Services, LLC
 Analyte Quantitation Report

Data File: \\Organics\LL\LCMSMS01.i\091222-nonDOD.b\091222006.d
 Injection Date: 12-Sep-2022 14:33:10 Injection Vol: 10.0 uL
 Sample Type: CCV Auto Sampler: 95
 Sample Info: CCV 200_SVLC_2163 Misc. Info:
 Inst. ID: LCMSMS01.i Operator: eqi.svoa
 Method: LCMSMS01_PFAS-ID2 Version: V16 30-Jun-2022 10:54:24
 Calib Method: PFAS-ID2 Lock State: Unlocked
 Quant Method: IsoDil Integrator: picker

Reagent: Analytes Conc. Level: L-3 Vol. Added: 1.00 ml

Signal	Quant Std	RT (min.)	Exp RT (min.)	□ RT (secs.)	Response	Peak Pts	S/N	Ion Ratio	Isomer Ratio	Cal Conc ng/L	OnCol Conc ng/L	%Drift/%Rec	Flags
D 46 13C4_PFBA CAS: SESI-0111													
217 > 172		1.670	1.670	1	2392972	19	>100:1			2000.00	2260.55	97.3	
8 Perfluoro-n-butanoic acid (PFBA) CAS: 375-22-4													
212.9 > 168.9	46	1.675	1.675	1/0	233862	17	73:1			200.00	201.05		
D 50 13C5_PFPeA CAS: SESI-0112													
267.9 > 223		1.975	1.975	1	1599974	15	>100:1			2000.00	2262.11	102.3	
21 Perfluoro-n-pentanoic acid (PFPeA) CAS: 2706-90-3													
262.9 > 218.9	50	1.975	1.975	1/0	169701	15	>100:1			200.00	197.90		
D 44 13C3_PFBs CAS: SESI-0116													
302 > 80		2.025	2.025	2	586478	15	>100:1			2000.00	2079.51	94.3	
7 Perfluoro-1-butanefulfonate (PFBs) CAS: 375-73-5													
298.9 > 80	44	2.025	2.025	2/0	60287	17	>100:1	Target = 3.91		176.80	171.79		
298.9 > 99	44	2.015	2.025		19270	17	>100:1	3.12 (1.95-5.87)					
22 Perfluoro-1-pentanesulfonic acid (PFPeS) CAS: 2706-91-4													
349 > 80	44	2.355	2.355	2/0	52324	21	>100:1	Target = 3.48		187.60	179.78		
349 > 99	44	2.346	2.355		13994	16	>100:1	3.73 (1.74-5.22)					
D 63 13C2_4:2 FTS_2 CAS: SESI-0104													
329 > 81		2.283	2.283	2	506769	18	>100:1			10000	12872	106.7	
1 Fluorotelomer sulfonate 4:2 [1H,1H,2H,2H-perfluorohexane sulfonate] (4:2 FTS) CAS: 757124-72-4													
327 > 307	63	2.283	2.283	2/0	17483	17	>100:1	Target = 1.33		186.80	175.14		
327 > 81	63	2.283	2.283		14200	18	93:1	1.23 (0.66-2.00)					
D 49 13C5_PFHxA CAS: SESI-0113													
318 > 273		2.319	2.319	1	1690154	18	>100:1			2000.00	2004.40	78.1	
15 Perfluoro-n-hexanoic acid (PFHxA) CAS: 307-24-4													
313 > 269	49	2.319	2.319	1/0	172848	18	>100:1	Target = 16.74		200.00	218.44		
313 > 119	49	2.319	2.319		9598	19	30:1	18.00 (8.37-25.11)					
D 66 13C3_GenX CAS: SESI-0121													
287 > 185		2.436	2.436	1	1247009	17	>100:1			10000	10498	90	
28 Hexafluoropropylene oxide dimer acid (GenX) CAS: 13252-13-6													
285 > 119	66	2.436	2.436	1/0	34562	19	>100:1	Target = 0.71		400.00	398.01		
285 > 185	66	2.436	2.436		49902	18	>100:1	0.69 (0.35-1.06)					
D 47 13C4_PFHpA CAS: SESI-0114													
367 > 322		2.717	2.717	2	1544635	18	>100:1			2000.00	2164.75	92.1	
13 Perfluoro-n-heptanoic acid (PFHpA) CAS: 375-85-9													
363 > 319	47	2.717	2.717	2/0	157268	16	>100:1	Target = 3.28		200.00	223.63		
363 > 169	47	2.707	2.717		47060	21	83:1	3.34 (1.64-4.92)					
D 45 13C3_PFHxS CAS: SESI-0096													
402 > 80		2.727	2.727	1	398871	18	>100:1			2000.00	2030.14	87.6	
14 Perfluorohexanesulfonate (PFHxS) CAS: 355-46-4													
399 > 80	45	2.727	2.727	1/0	38514	29	>100:1	Target = 3.96	4.80	182.00	169.79		
399 > 99	45	2.727	2.727		11853	37	69:1	3.24 (1.98-5.94)	8.89				

Signal	Quant Std	RT (min.)	Exp RT (min.)	□ RT (secs.)	Response	Peak Pts	S/N	Ion Ratio	Isomer Ratio	Cal Conc ng/L	OnCol Conc ng/L	%Drift/%Rec	Flags
29 4,8-dioxo-3H-perfluorononanoic acid (ADONA) CAS: 919005-14-4													
377 > 251	45	2.767	2.767	2/1	170675	18	>100:1	Target = 2.26		188.40	150.75		
377 > 85	45	2.757	2.767		83456	17	>100:1	2.04 (1.13-3.39)					
12 Perfluoro-1-heptanesulfonic acid (PFHpS) CAS: 375-92-8													
449 > 80	45	3.162	3.162	1/0	45786	23	>100:1	Target = 3.87		190.40	201.75		
449 > 99	45	3.162	3.162		12900	23	84:1	3.54 (1.93-5.81)					
D 64 13C2_6:2 FTS_2 CAS: SESI-0105													
429 > 81		3.114	3.114	1	432458	26	>100:1			10000	14710	118	
2 Fluorotelomer sulfonate 6:2 [1H,1H,2H,2H-perfluorooctane sulfonate] (6:2 FTS) CAS: 27619-97-2													
427 > 407	64	3.126	3.126	2/1	14923	22	>100:1	Target = 1.29		189.60	215.26		
427 > 81	64	3.126	3.126		10867	23	>100:1	1.37 (0.64-1.93)					
D 53 13C8_PFOA CAS: SESI-0097													
421 > 376		3.156	3.156	2	1379286	24	>100:1			2000.00	2163.19	94.4	
20 Perfluoro-n-octanoic acid (PFOA) CAS: 335-67-1													
413 > 369	53	3.150	3.150	1/-1	148228	22	34:1	Target = 2.65		200.00	225.21		
413 > 169	53	3.150	3.150		52594	20	32:1	2.81 (1.32-3.97)					
D 54 13C8_PFOS CAS: SESI-0098													
507 > 80		3.637	3.637	1	515554	25	>100:1			2000.00	2096.91	93	
18 Perfluorooctanesulfonate (PFOS) CAS: 1763-23-1													
499 > 80	54	3.637	3.637	0/-1	56802	52	>100:1	Target = 4.46	3.78	185.60	189.97		
499 > 99	54	3.637	3.637		11850	49	>100:1	4.79 (2.23-6.70)	5.75				
30 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS) CAS: 756426-58-1													
531 > 351	54	3.923	3.923	0/-1	95974	23	>100:1			186.40	177.32		
16 Perfluoro-1-nonanesulfonic acid (PFNS) CAS: 68259-12-1													
549 > 80	54	4.118	4.118	1/0	44939	22	>100:1	Target = 4.17		192.00	181.32		
549 > 99	54	4.118	4.118		13372	20	>100:1	3.36 (2.08-6.26)					
9 Perfluoro-1-decanesulfonic acid (PFDS) CAS: 335-77-3													
599 > 80	54	4.563	4.563	0/-1	44444	17	>100:1	Target = 4.23		192.80	175.87		
599 > 99	54	4.572	4.563		11589	13	>100:1	3.83 (2.11-6.34)					
31 11-chloroeicosafuoro-3-oxaundecane-1-sulfonic acid (11CI-PF3OUdS) CAS: 763051-92-9													
631 > 451	54	4.813	4.813	0/-1	86742	20	>100:1			188.40	178.07		
34 Perfluorododecanesulfonic acid (PFDOS) CAS: 79780-39-5													
699 > 80	54	5.347	5.347	0/-1	36539	20	>100:1	Target = 3.53		193.60	166.13		
699 > 99	54	5.347	5.347		9574	18	>100:1	3.81 (1.76-5.30)					
D 56 13C9_PFNA CAS: SESI-0099													
472 > 427		3.644	3.644	1	1373592	26	>100:1			2000.00	2107.07	84.4	
17 Perfluoro-n-nonanoic acid (PFNA) CAS: 375-95-1													
463 > 419	56	3.644	3.644	0/-1	137166	32	>100:1	Target = 5.02		200.00	220.35		
463 > 169	56	3.630	3.644		25757	32	79:1	5.32 (2.51-7.53)					
D 55 13C8_PFOA CAS: SESI-0107													
506 > 78		3.985	3.985	-1	880888	22	>100:1			2000.00	2050.89	87	
19 Perfluoro-1-octanesulfonamide (PFOSA) CAS: 754-91-6													
498 > 78	55	3.985	3.985	0/1	78698	21	85:1	Target = 54.56		200.00	166.33		
498>478	55	3.971	3.985		1662	15	13:1	47.35 (27.28-81.85)					
D 65 13C2_8:2 FTS_2 CAS: SESI-0106													
529 > 81		4.118	4.118	1	390251	23	>100:1			10000	12089	101.4	
3 Fluorotelomer sulfonate 8:2 [1H,1H,2H,2H-perfluorododecane sulfonate] (8:2 FTS) CAS: 39108-34-4													
527 > 507	65	4.111	4.111	0/-1	9058	36	>100:1	Target = 1.21		191.60	188.99		
527 > 81	65	4.111	4.111		8322	28	88:1	1.08 (0.60-1.82)					
4 1H,1H,2H,2H-perfluorododecane sulfonate (10:2FTS) CAS: 120226-60-0													
627 > 607	65	5.009	5.009	0/-1	9143	21	>100:1	Target = 2.03		192.80	169.55		
627 > 80	65	5.018	5.009		5027	25	61:1	1.81 (1.01-3.05)					
D 51 13C6_PFDA CAS: SESI-0115													
519 > 474		4.132	4.132	1	1270798	22	>100:1			2000.00	2346.87	96.7	
10 Perfluoro-n-decanoic acid (PFDA) CAS: 335-76-2													
513 > 469	51	4.125	4.125	0/-1	121173	32	>100:1	Target = 10.03		200.00	189.48		
513 > 169	51	4.125	4.125		11184	19	71:1	10.83 (5.01-15.04)					
D 58 d3-MeFOSAA CAS: SESI-0102													
573 > 419		4.353	4.353	1	1375015	21	>100:1			10000	9431.17	79.1	

Signal	Quant Std	RT (min.)	Exp RT (min.)	□ RT (secs.)	Response	Peak Pts	S/N	Ion Ratio	Isomer Ratio	Cal Conc ng/L	OnCol Conc ng/L	%Drift/%Rec	Flags
6 N-methylperfluoro-1-octanesulfonamidoacetic acid (N-MeFOSAA) CAS: 2355-31-9													
570 > 419	58	4.345	4.345	0/-1	24375	58	85:1	Target = 1.51	6.50	200.00	210.51		M
570 > 483	58	4.345	4.345		18234	50	>100:1	1.33 (0.75-2.27)	4.15				M
D 61 d7-MeFOSE CAS: SESI-0129													
623 > 59		4.583	4.583	-2	239634	17	>100:1			2000.00	2112.83	87.9	
32 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE) CAS: 24448-09-7													
616 > 59	61	4.604	4.604	-1/1	24033	15	79:1			200.00	191.42		
D 57 d3-MeFOSA CAS: SESI-0109													
515 > 169		4.614	4.614	-2	125682	21	>100:1			2000.00	2463.02	107.3	
26 N-methylperfluoro-1-octanesulfonamide (MeFOSA) CAS: 31506-32-8													
512 > 169	57	4.624	4.624	-2/0	11691	16	45:1	Target = 1.12		200.00	175.49		
512 > 219	57	4.624	4.624		10064	14	73:1	1.16 (0.56-1.68)					
D 52 13C7_PFUdA CAS: SESI-0117													
570 > 525		4.583	4.583	0	1158026	18	>100:1			2000.00	2386.40	103.9	
25 Perfluoro-n-undecanoic acid (PFUdA) CAS: 2058-94-8													
563 > 519	52	4.583	4.583	0/0	105984	16	>100:1	Target = 8.93		200.00	200.33		
563 > 169	52	4.594	4.583		10377	19	76:1	10.21 (4.46-13.40)					
D 60 d5-EtFOSAA CAS: SESI-0110													
589 > 419		4.583	4.583	1	1370840	20	>100:1			10000	11115	93.9	
5 N-ethylperfluoro-1-octanesulfonamidoacetic acid (N-EtFOSAA) CAS: 2991-50-6													
584 > 419	60	4.594	4.594	1/0	26244	49	>100:1	Target = 1.91	7.19	200.00	187.37		
584 > 526	60	4.583	4.594		15477	41	>100:1	1.69 (0.95-2.87)	2.92				
D 62 d9-EtFOSE CAS: SESI-0130													
639 > 59		4.834	4.834	-2	232388	21	>100:1			2000.00	2155.38	95.7	
33 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE) CAS: 1691-99-2													
630 > 59	62	4.849	4.849	-2/0	21102	24	99:1			200.00	220.03		
D 59 d5-EtFOSA CAS: SESI-0108													
531 > 169		4.870	4.870	-2	107506	21	>100:1			2000.00	2188.93	93.8	
27 N-ethylperfluoro-1-octanesulfonamide (EtFOSA) CAS: 4151-50-2													
526 > 169	59	4.885	4.885	-1/1	12442	21	98:1	Target = 1.02		200.00	205.81		
526 > 219	59	4.877	4.885		11052	23	>100:1	1.12 (0.51-1.54)					
D 38 13C2_PFDaA CAS: SESI-0118													
615 > 570		5.001	5.001	0	1027902	19	>100:1			2000.00	1982.85	85.8	
11 Perfluoro-n-dodecanoic acid (PFDaA) CAS: 307-55-1													
613 > 569	38	5.001	5.001	0/0	104142	26	>100:1	Target = 6.96		200.00	210.02		
613 > 169	38	5.001	5.001		14296	19	92:1	7.28 (3.48-10.45)					
24 Perfluoro-n-tridecanoic acid (PFTrDA) CAS: 72629-94-8													
663 > 619	38	5.378	5.378	0/0	50241	19	>100:1	Target = 3.41		200.00	183.89		
663 > 169	38	5.385	5.378		15935	21	>100:1	3.15 (1.70-5.11)					
D 42 13C2_PFTeDA CAS: SESI-0119													
715 > 670		5.711	5.711	-1	1037162	35	>100:1			2000.00	1887.76	84.3	
23 Perfluoro-n-tetradecanoic acid (PFTeDA) CAS: 376-06-7													
713 > 669	42	5.711	5.711	-1/0	93186	36	>100:1	Target = 6.93		200.00	236.68		
713 > 169	42	5.715	5.711		11831	37	>100:1	7.87 (3.46-10.39)					
D 40 13C2_PFHxDA CAS: SESI-0103													
815 > 770		6.298	6.298	-1	559085	25	>100:1			2000.00	1984.33	84	
35 Perfluoro-n-hexadecanoic acid (PFHxDA) CAS: 67905-19-5													
813 > 769	40	6.307	6.307	-1/0	68356	24	>100:1	Target = 9.01		200.00	202.51		
813 > 269	40	6.307	6.307		7398	31	>100:1	9.23 (4.50-13.52)					
36 Perfluoro-n-octadecanoic acid (PFODA) CAS: 16517-11-6													
913 > 869	40	6.850	6.850	0/1	43127	30	>100:1	Target = 10.58		200.00	158.69		
913 > 319	40	6.841	6.850		4305	38	>100:1	10.01 (5.29-15.88)					M
* 37 13C2_PFDA													
515 > 470		4.090	4.090	-3	195	15	2.6:1			2000.00			
* 39 13C2_PFHxA CAS: SESI-0120													
315 > 270		2.319	2.319	1	1299	13	26:1			2000.00			
* 41 13C2_PFOA CAS: 864071-08-9													
415 > 370		3.120	3.120	-1	455	11	2.8:1			2000.00			

Signal	Quant Std	RT (min.)	Exp RT (min.)	□ RT (secs.)	Response	Peak Pts	S/N	Ion Ratio	Isomer Ratio	Cal Conc ng/L	OnCol Conc ng/L	%Drift/%Rec	Flags
* 43 13C3_PFB													
216 > 172		1.675	1.675	1	12946	17	48:1			2000.00			
* 48 13C4_PFOS CAS: 2795-39-3													
503 > 80		3.630	3.630	1	4368	17	34:1			2000.00			

Compound Type Legend

D - Isotopic Dilution Std.
* - ISTD

QC Flag Legend

M - Compound Hit/Peak Manually Integrated

Data File: \\Organics\LL\LCMSMS01.i\091222-nonDOD.b\091222006.d

Injection Date: 12-Sep-2022 14:33:10

Inst. ID: LCMSMS01.i

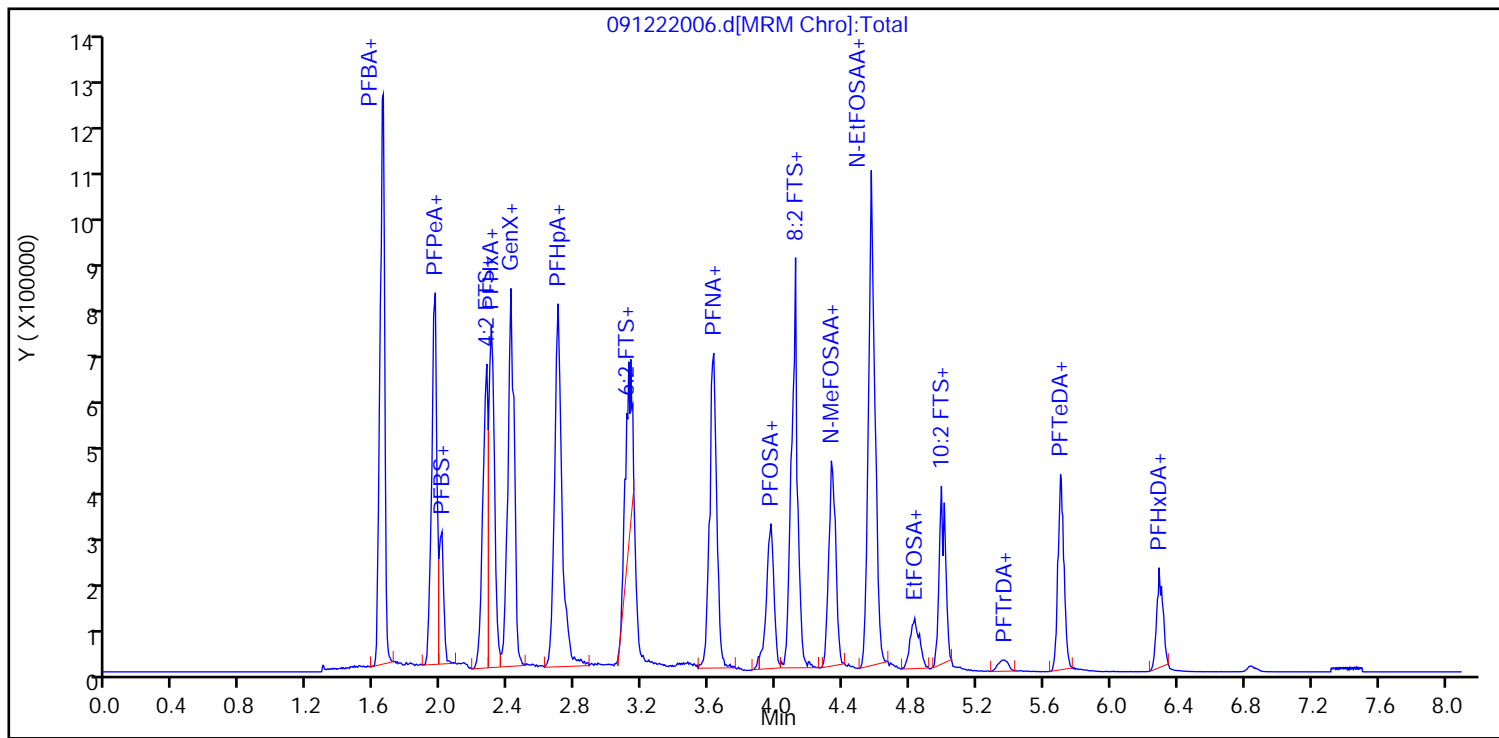
Client ID:

Lab ID: CCV 200_SVLC_2163

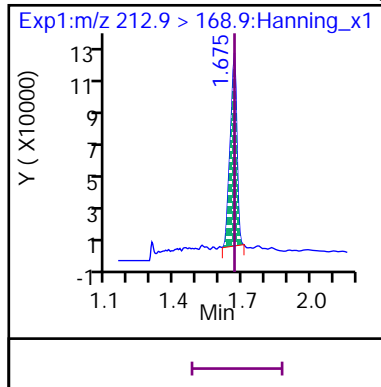
Sample Info: CCV 200_SVLC_2163

Dil. Factor: 1

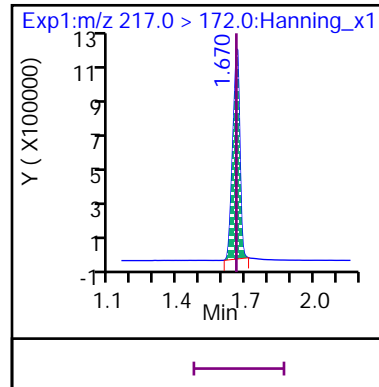
Operator: eqi.svoa



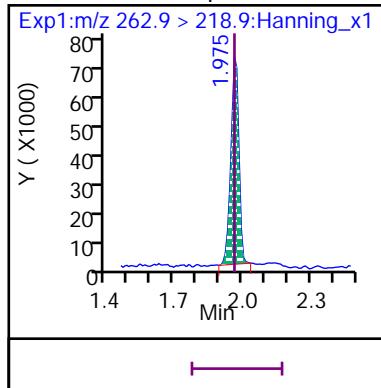
8 Perfluoro-n-butanoic acid (PFBA)



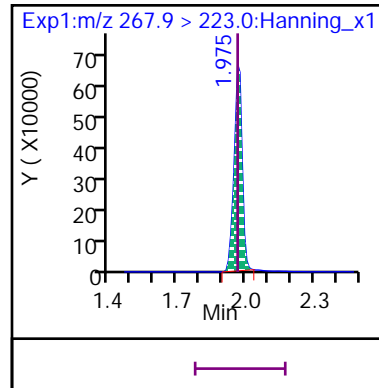
D 46 13C4_PFBA



21 Perfluoro-n-pentanoic acid (PFPeA)

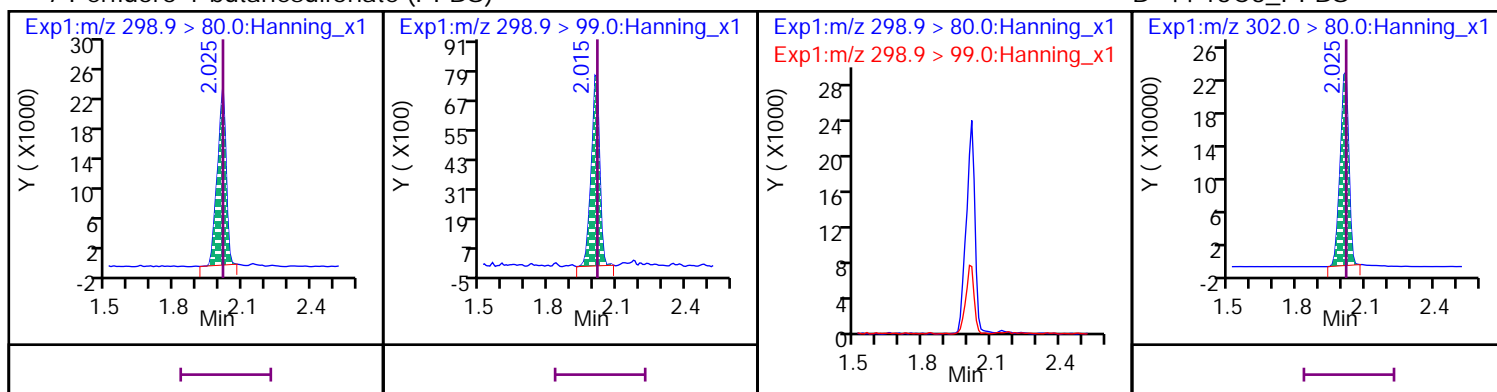


D 50 13C5_PFPeA



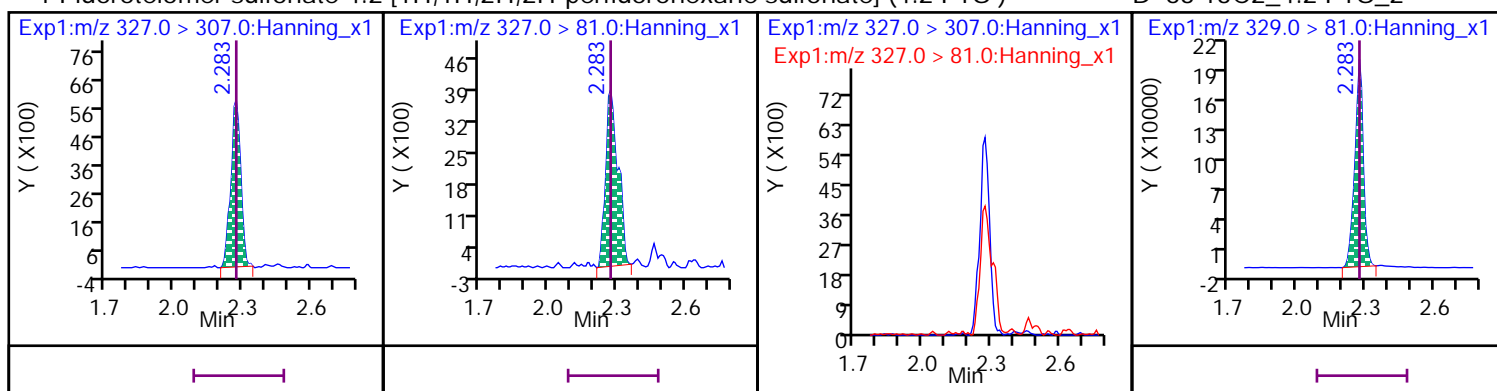
7 Perfluoro-1-butanesulfonate (PFBS)

D 44 13C3_PFBS



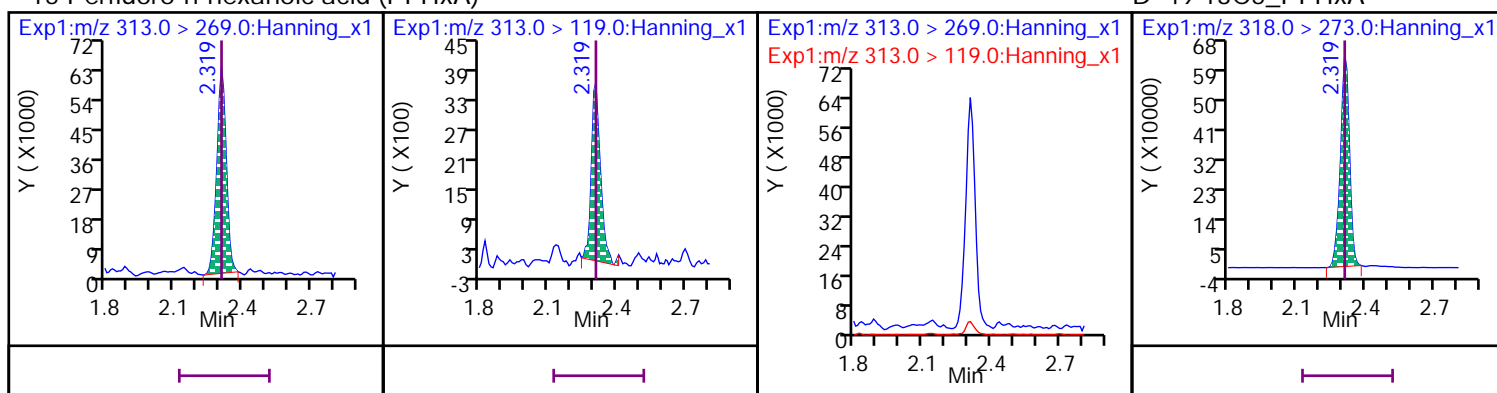
1 Fluorotelomer sulfonate 4:2 [1H,1H,2H,2H-perfluorohexane sulfonate] (4:2 FTS)

D 63 13C2_4:2 FTS_2



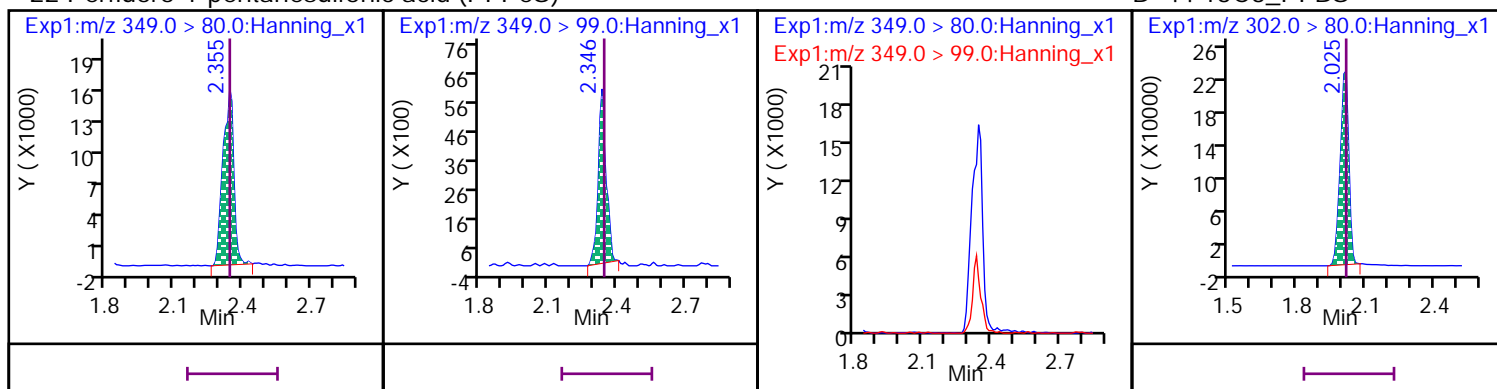
15 Perfluoro-n-hexanoic acid (PFHxA)

D 49 13C5_PFHxA



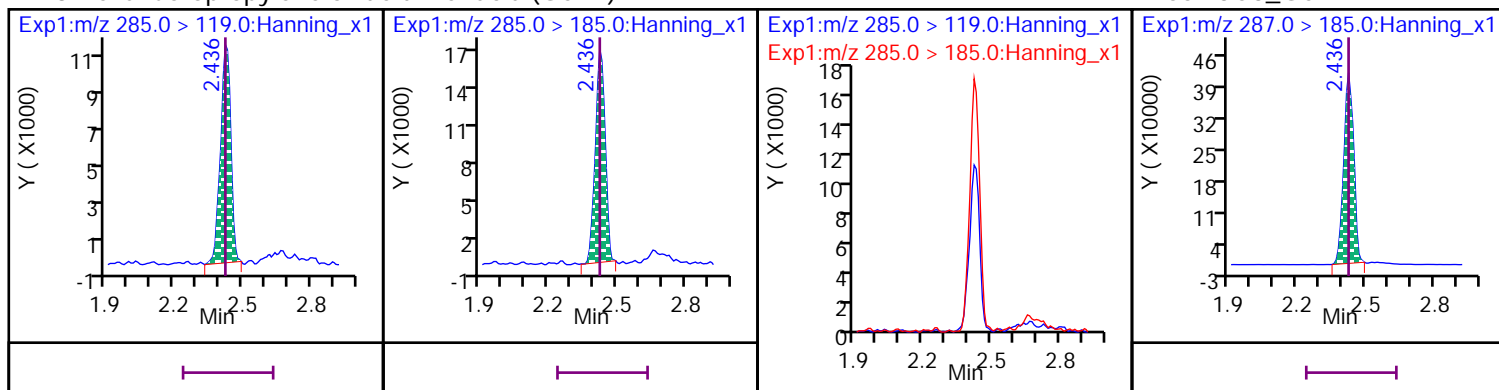
22 Perfluoro-1-pentanesulfonic acid (PFPeS)

D 44 13C3_PFBS



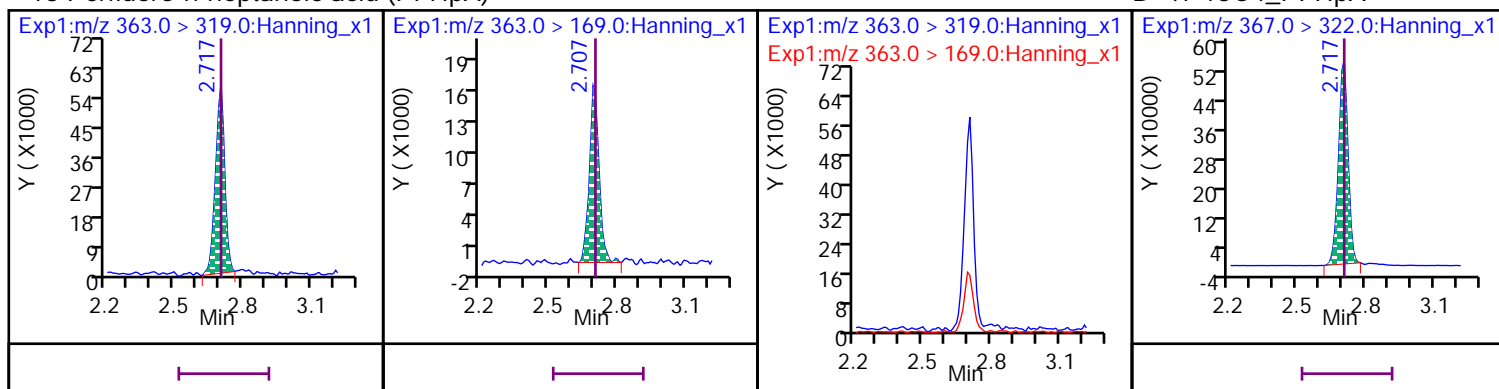
28 Hexafluoropropylene oxide dimer acid (GenX)

D 66 13C3_GenX



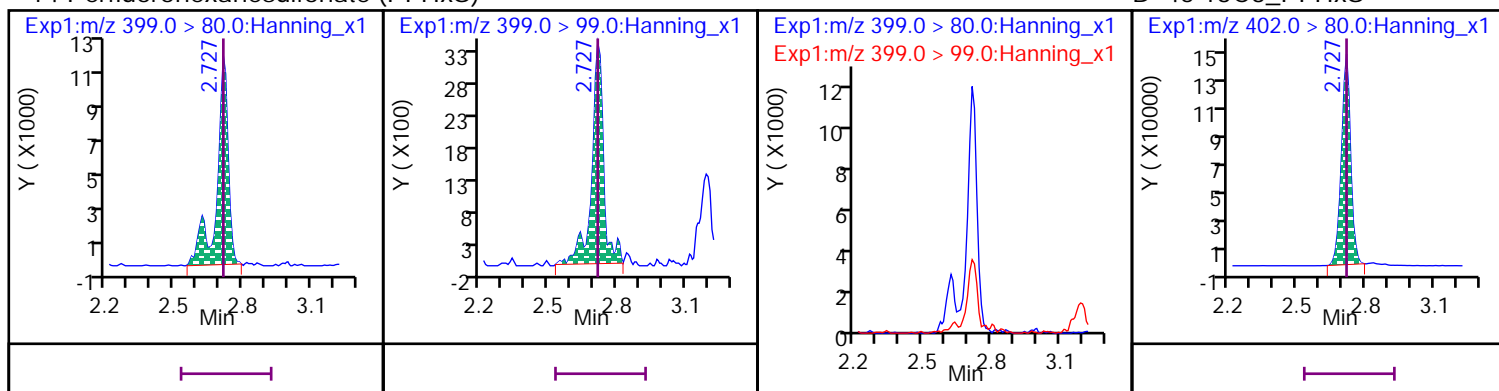
13 Perfluoro-n-heptanoic acid (PFHpA)

D 47 13C4_PFHpA



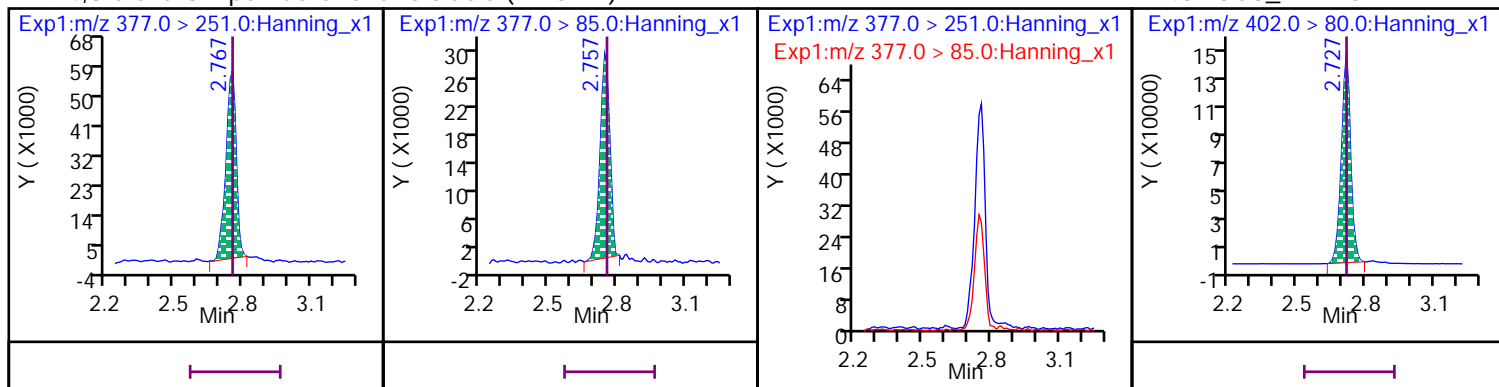
14 Perfluorohexanesulfonate (PFHxS)

D 45 13C3_PFHxS



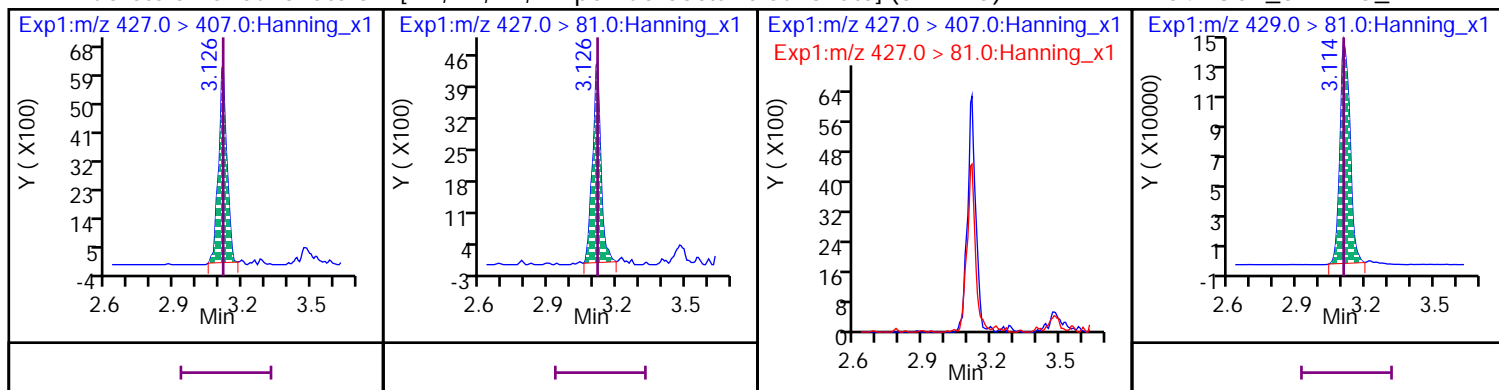
29 4,8-dioxa-3H-perfluorononanoic acid (ADONA)

D 45 13C3_PFHxS



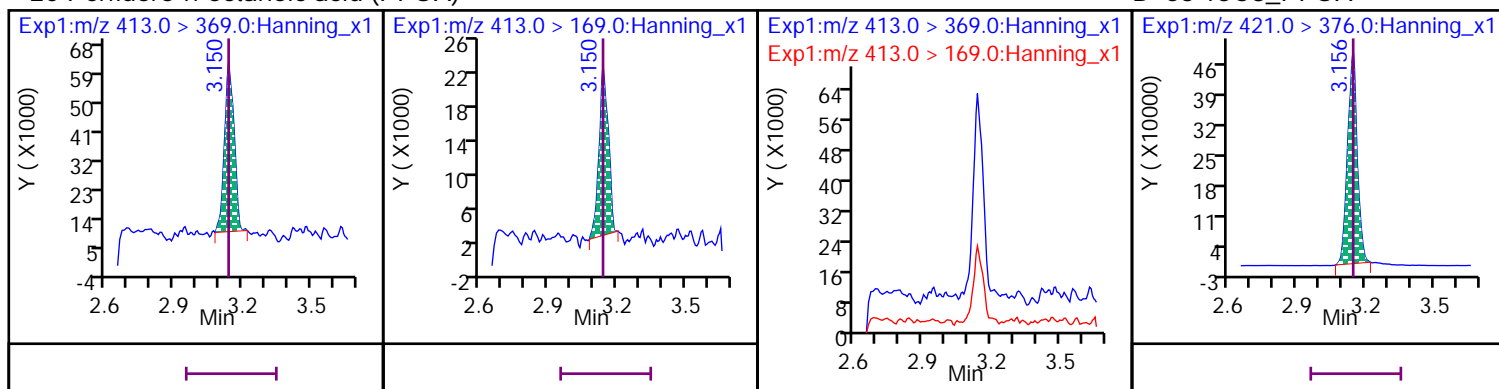
2 Fluorotelomer sulfonate 6:2 [1H,1H,2H,2H-perfluorooctane sulfonate] (6:2 FTS)

D 64 13C2_6:2 FTS_2



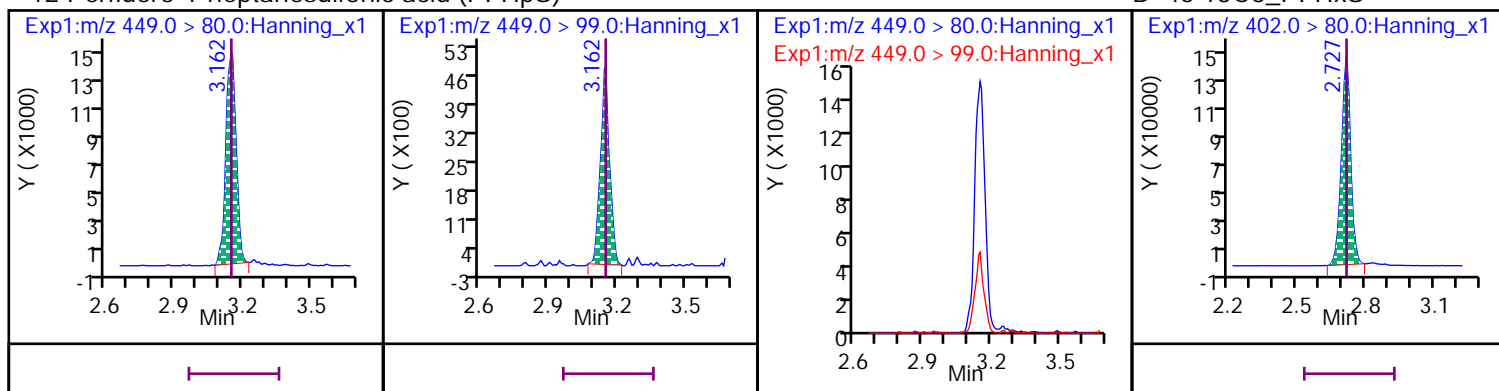
20 Perfluoro-n-octanoic acid (PFOA)

D 53 13C8_PFOA



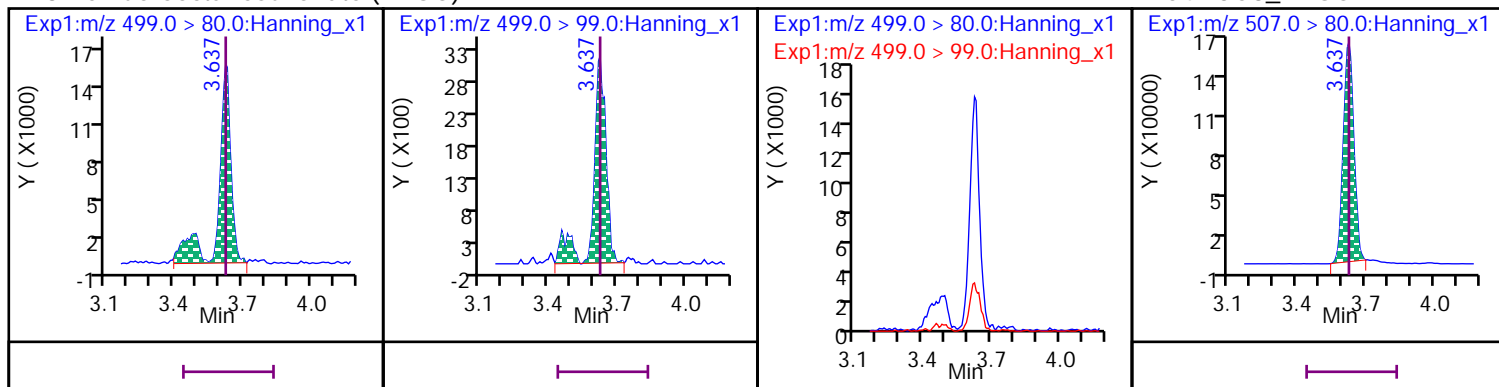
12 Perfluoro-1-heptanesulfonic acid (PFHpS)

D 45 13C3_PFHxS



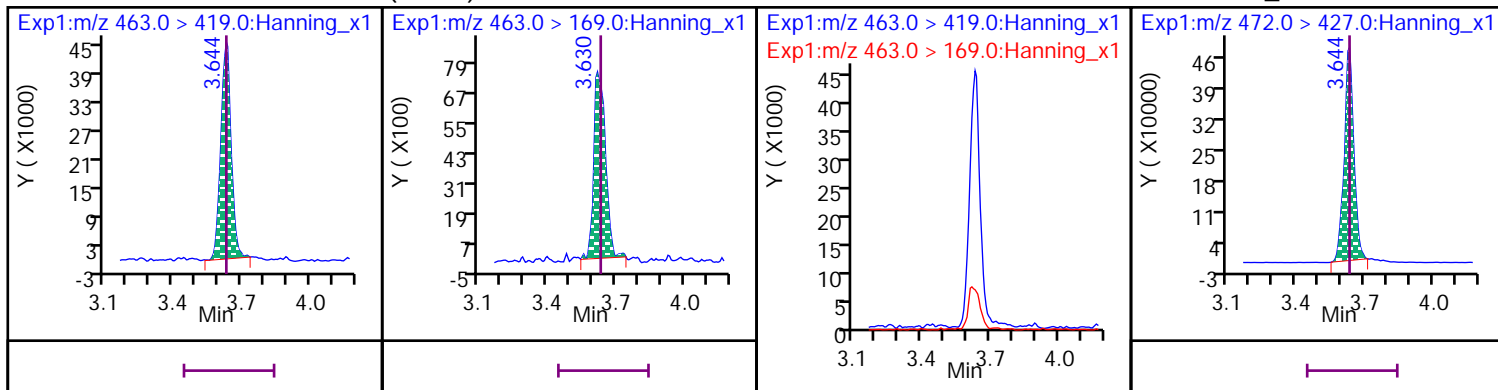
18 Perfluorooctanesulfonate (PFOS)

D 54 13C8_PFOS



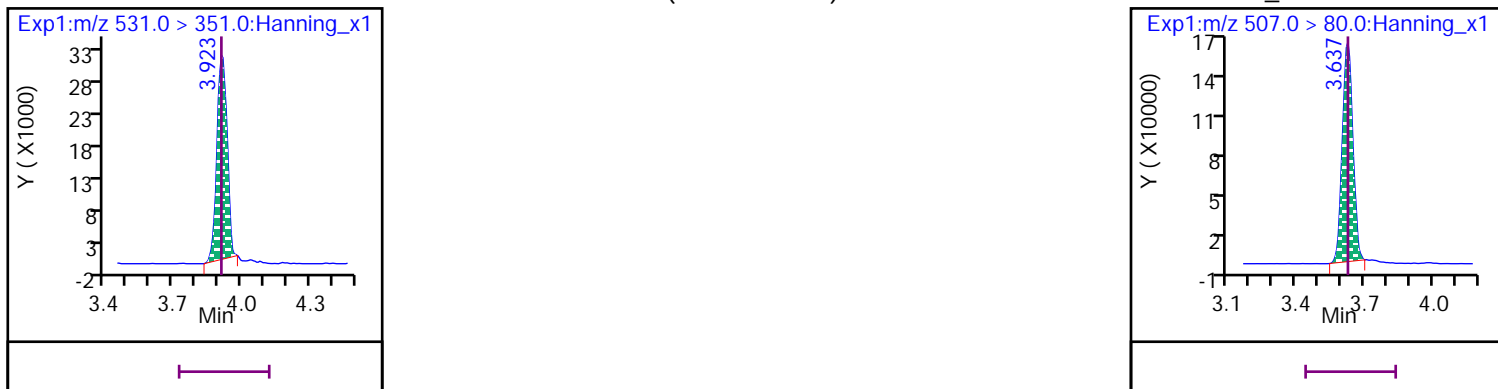
17 Perfluoro-n-nonanoic acid (PFNA)

D 56 13C9_PFNA



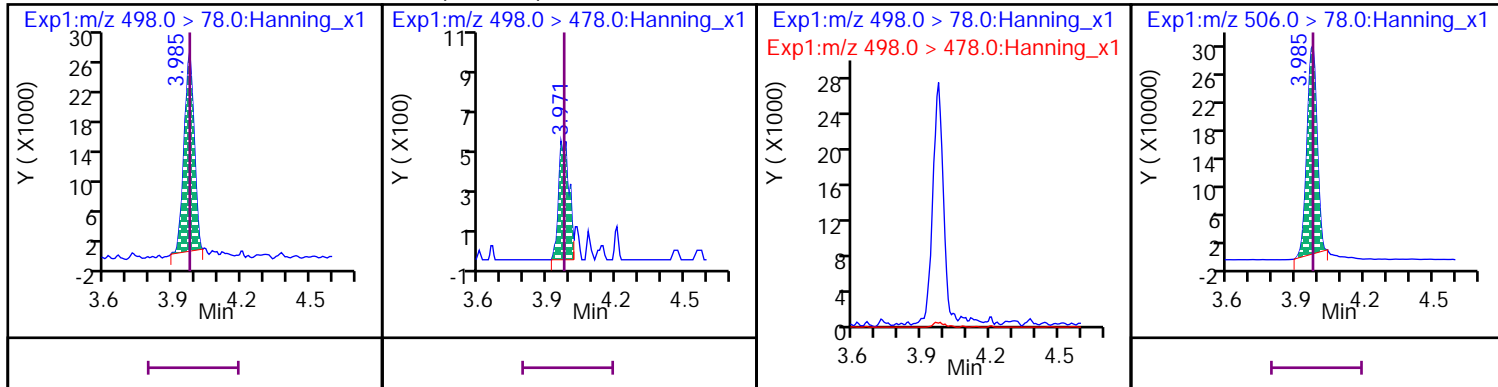
30 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)

D 54 13C8_PFOS



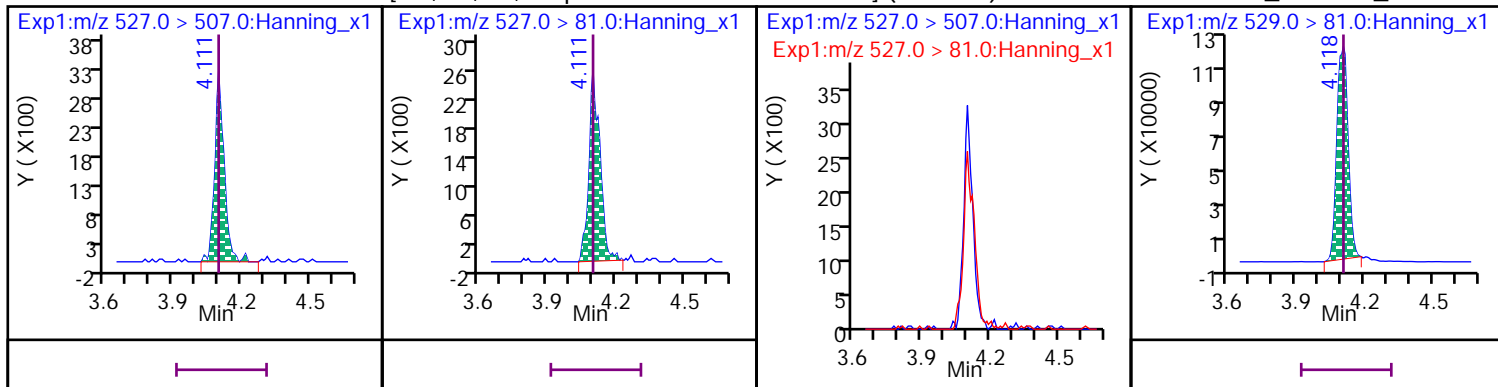
19 Perfluoro-1-octanesulfonamide (PFOSA)

D 55 13C8_PFOSA



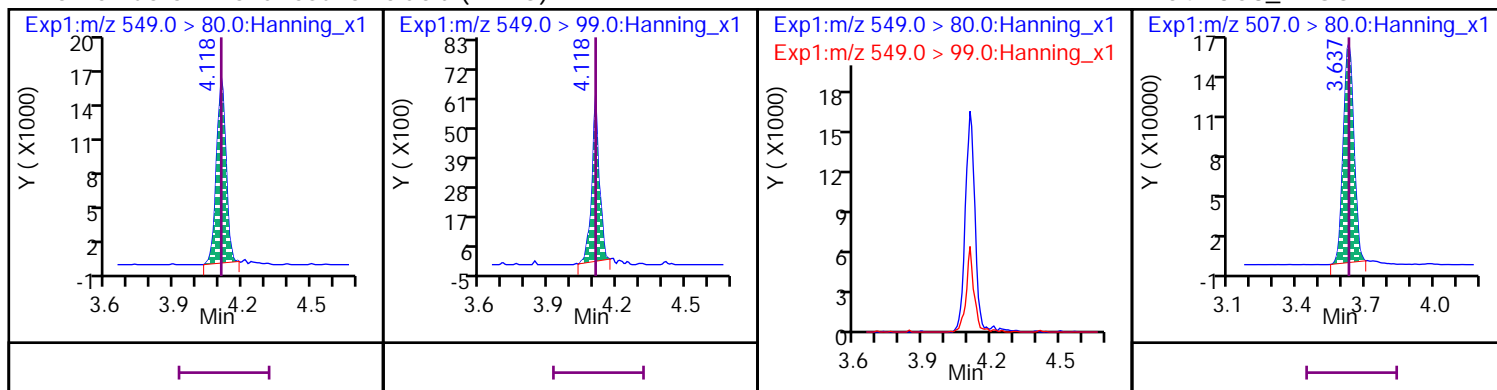
3 Fluorotelomer sulfonate 8:2 [1H,1H,2H,2H-perfluorodecane sulfonate] (8:2 FTS)

D 65 13C2_8:2 FTS_2



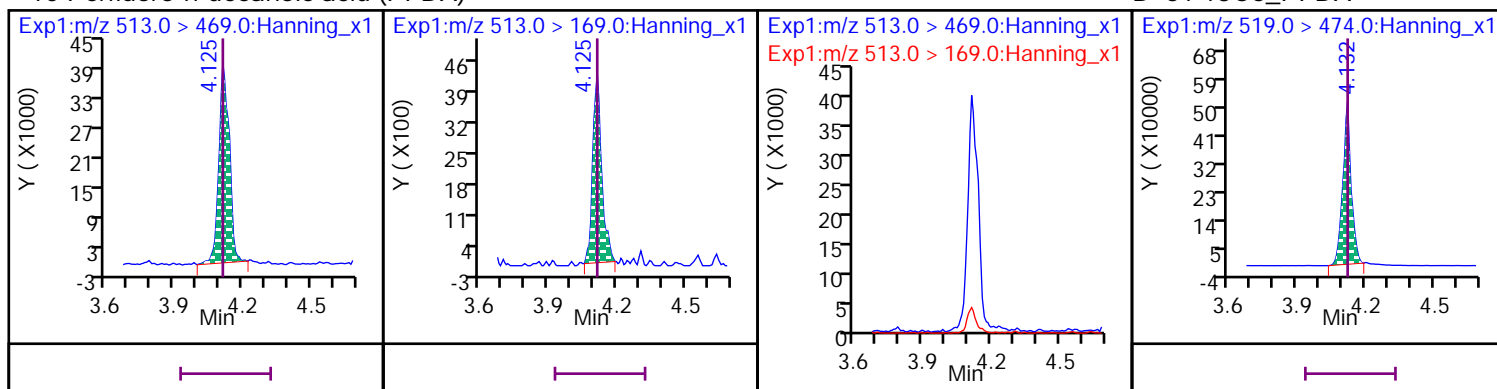
16 Perfluoro-1-nonanesulfonic acid (PFNS)

D 54 13C8_PFOS



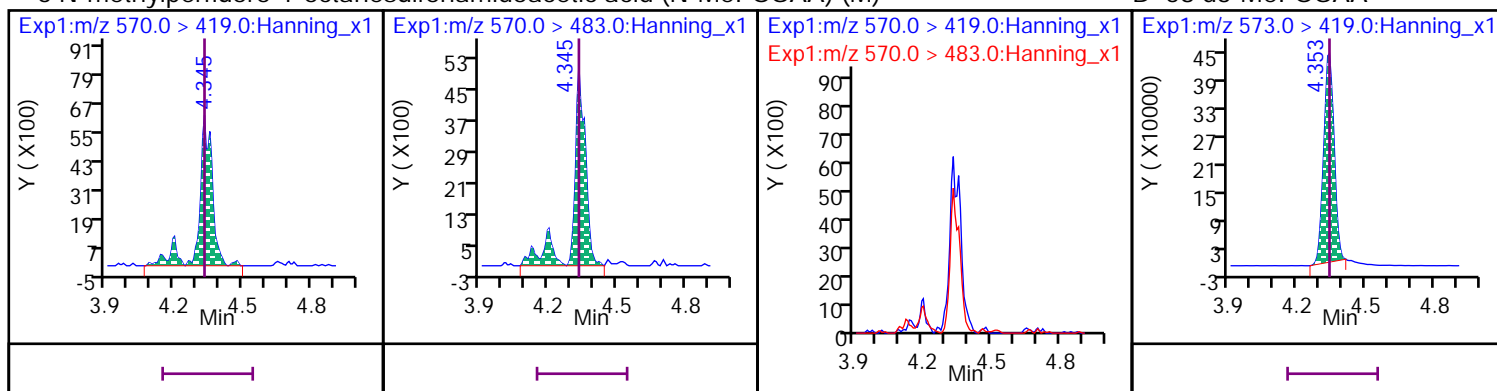
10 Perfluoro-n-decanoic acid (PFDA)

D 51 13C6_PFDA



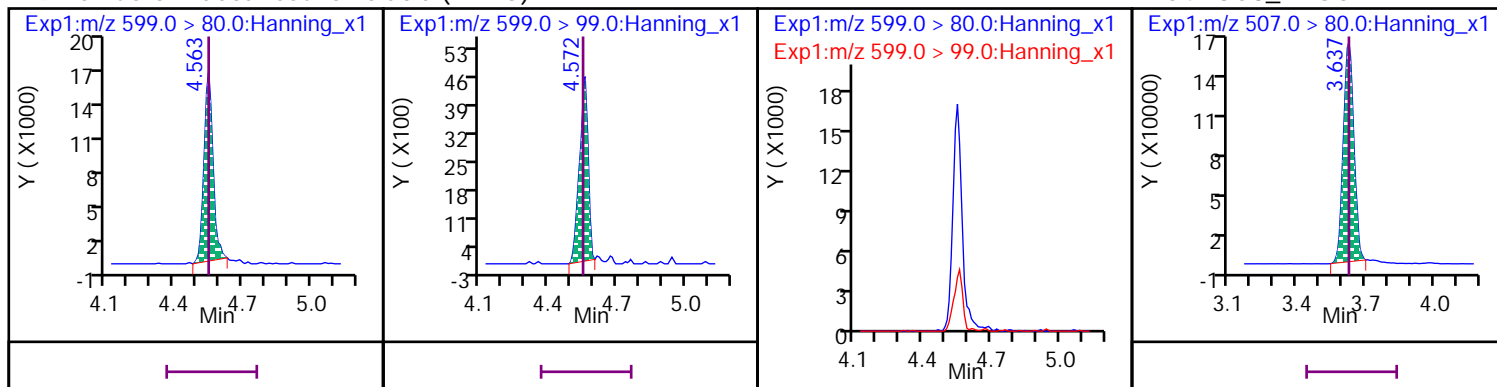
6 N-methylperfluoro-1-octanesulfonamidoacetic acid (N-MeFOSAA) (M)

D 58 d3-MeFOSAA

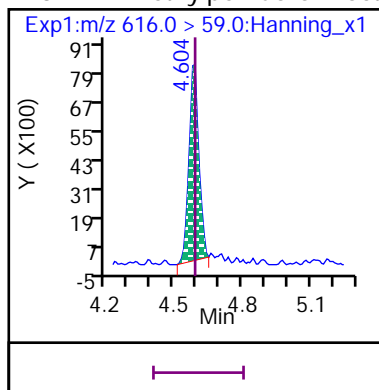


9 Perfluoro-1-decanesulfonic acid (PFDS)

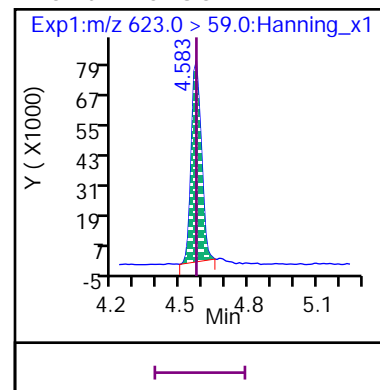
D 54 13C8_PFOS



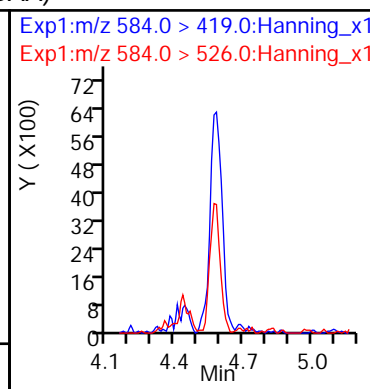
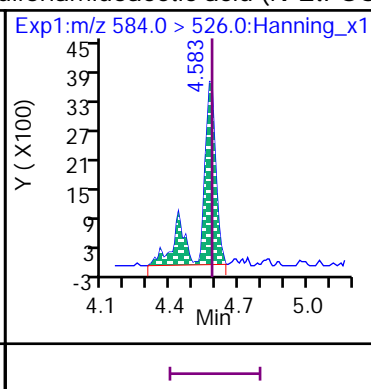
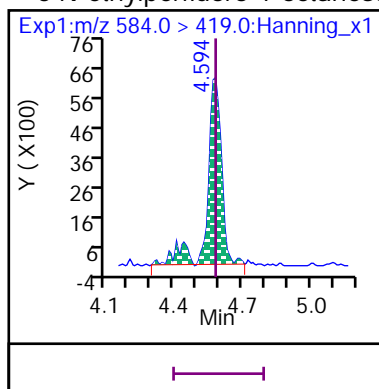
32 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)



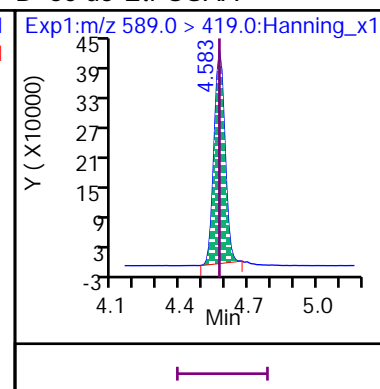
D 61 d7-MeFOSE



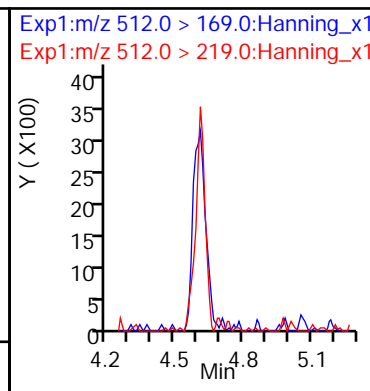
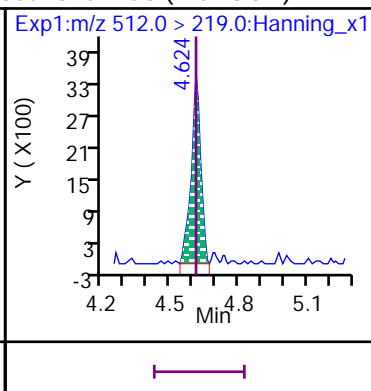
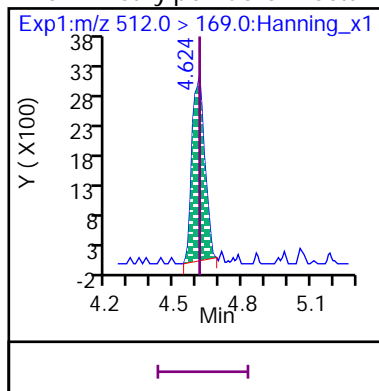
5 N-ethylperfluoro-1-octanesulfonamidoacetic acid (N-EtFOSAA)



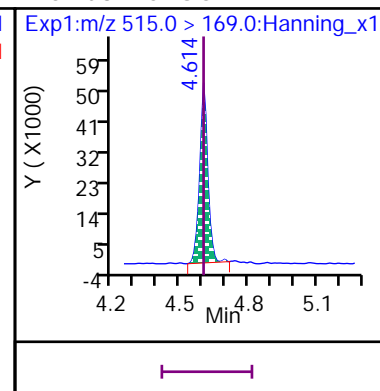
D 60 d5-EtFOSAA



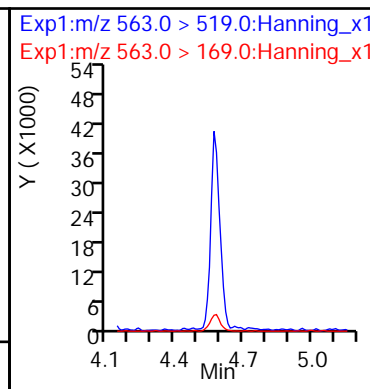
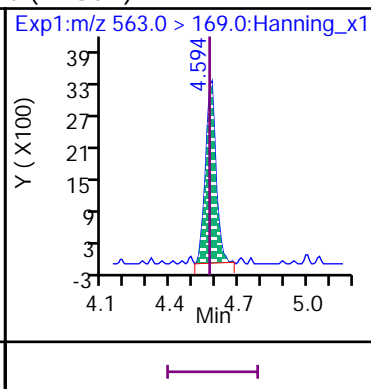
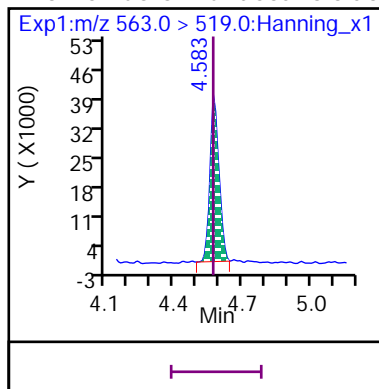
26 N-methylperfluoro-1-octanesulfonamide (MeFOSA)



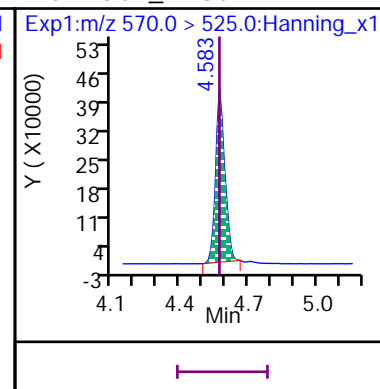
D 57 d3-MeFOSA



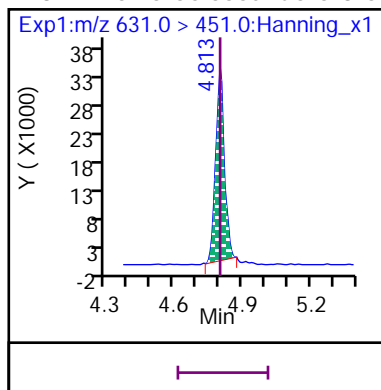
25 Perfluoro-n-undecanoic acid (PFUdA)



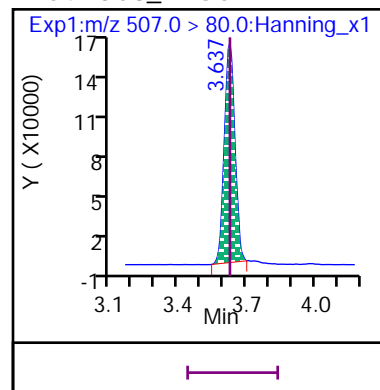
D 52 13C7_PFUdA



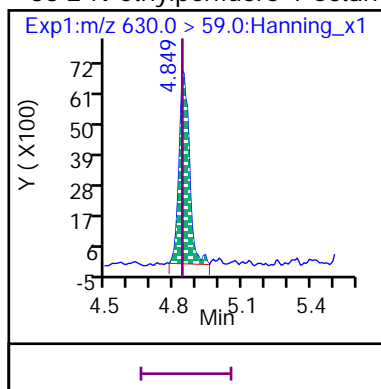
31 11-chloroeicosafuoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)



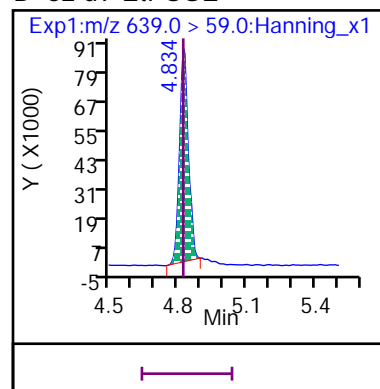
D 54 13C8_PFOS



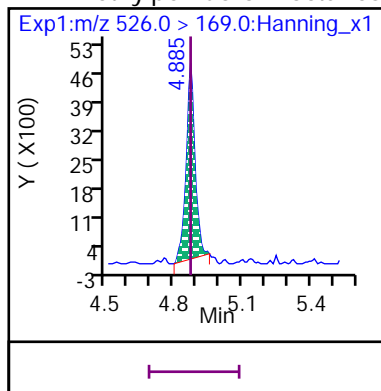
33 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)



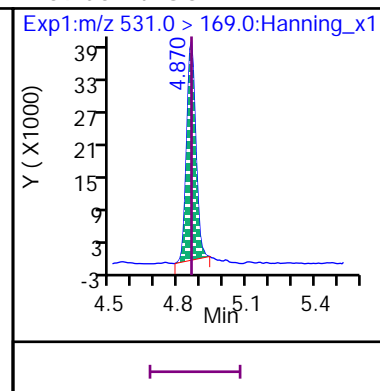
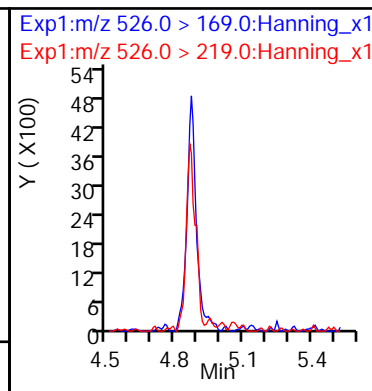
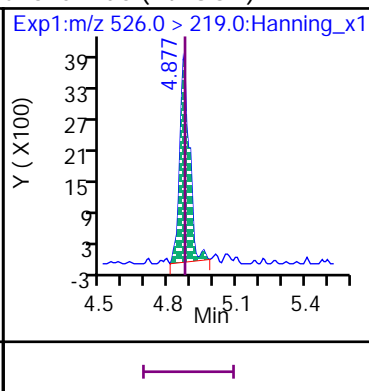
D 62 d9-EtFOSE



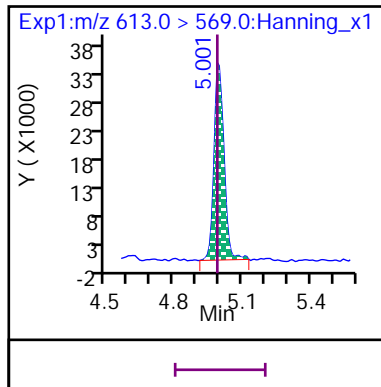
27 N-ethylperfluoro-1-octanesulfonamide (EtFOSA)



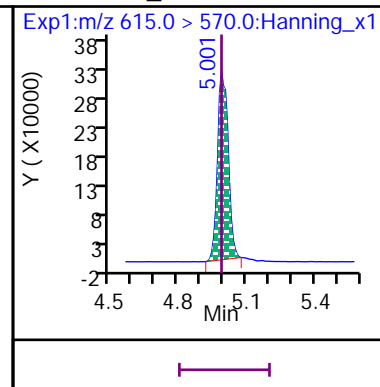
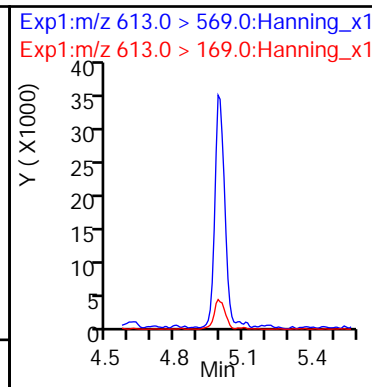
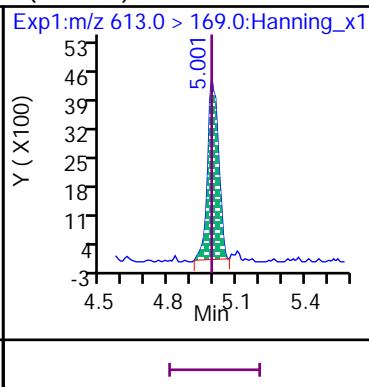
D 59 d5-EtFOSA



11 Perfluoro-n-dodecanoic acid (PFDoA)

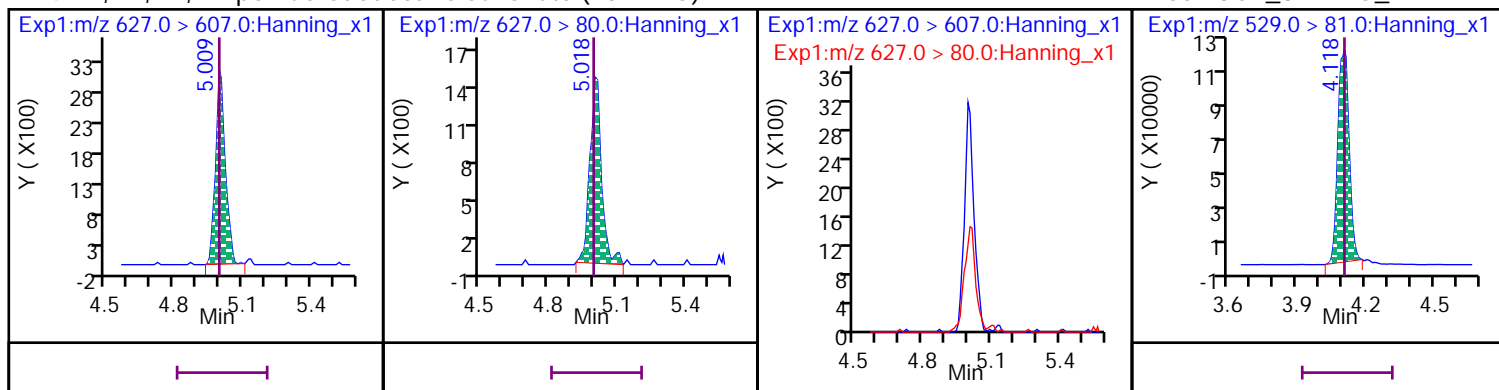


D 38 13C2_PFDoA



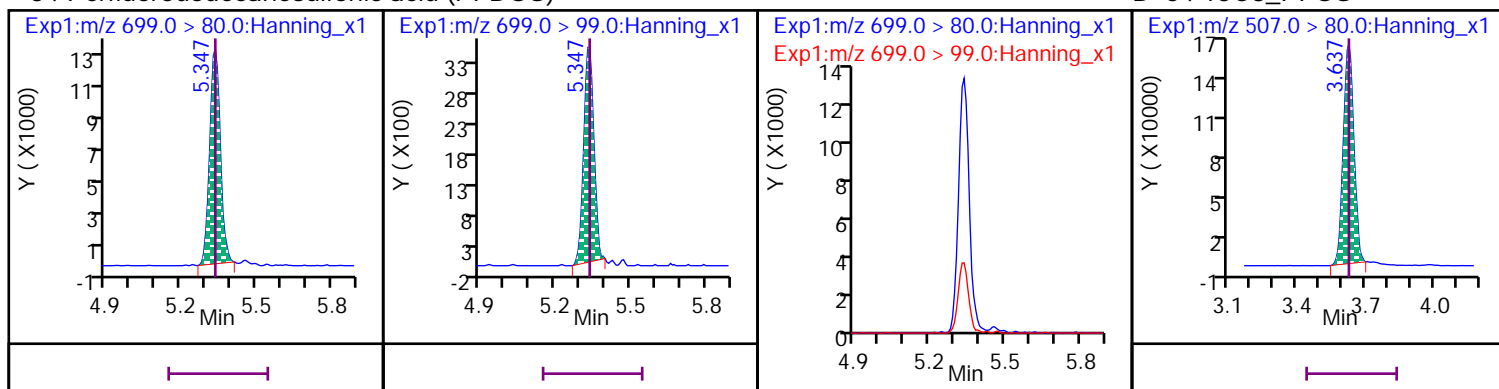
4 1H,1H,2H,2H-perfluorododecane sulfonate (10:2FTS)

D 65 13C2_8:2 FTS_2



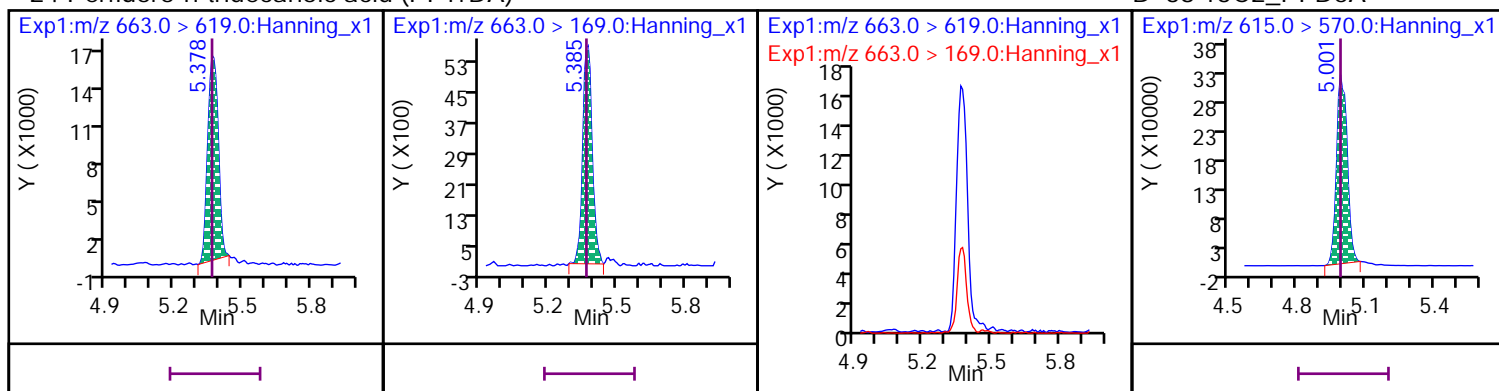
34 Perfluorododecanesulfonic acid (PFDOS)

D 54 13C8_PFOS



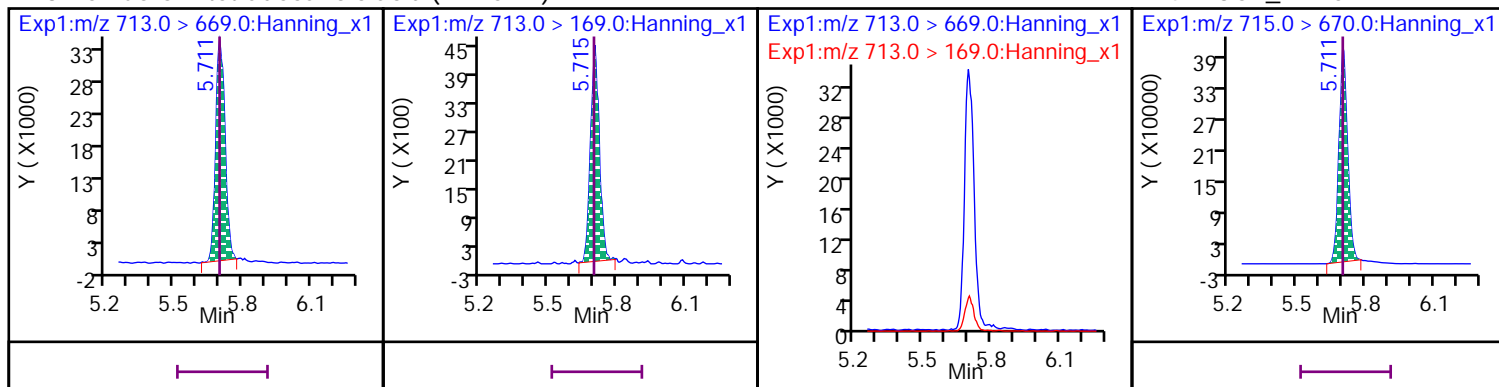
24 Perfluoro-n-tridecanoic acid (PFTrDA)

D 38 13C2_PFDaA



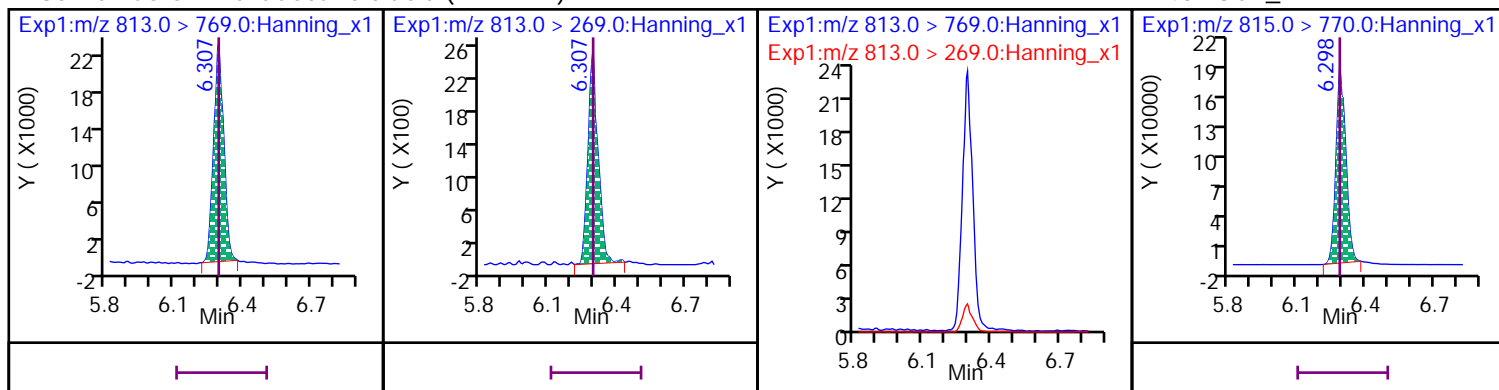
23 Perfluoro-n-tetradecanoic acid (PFTeDA)

D 42 13C2_PFTeDA



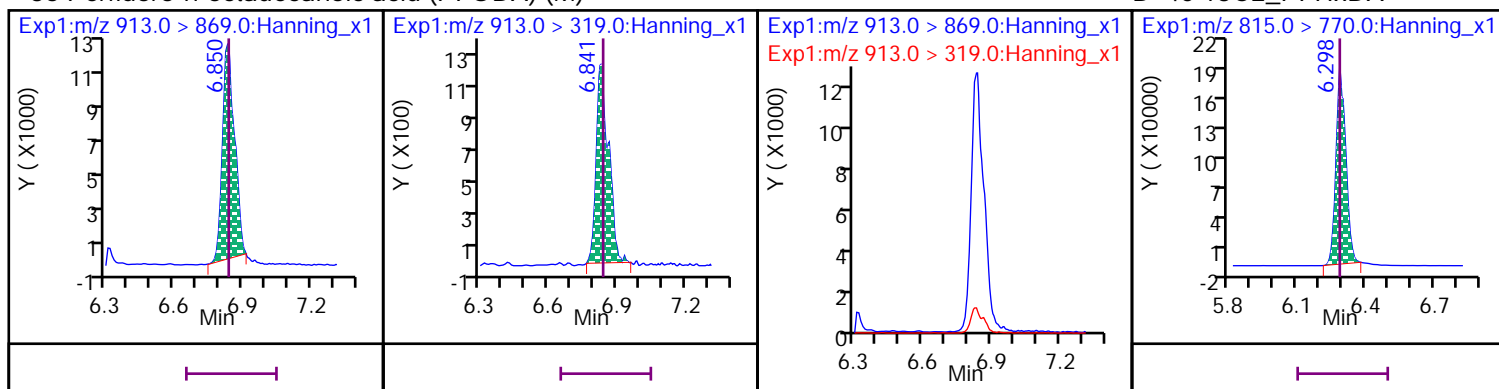
35 Perfluoro-n-hexadecanoic acid (PFHxDA)

D 40 13C2_PFHxDA



36 Perfluoro-n-octadecanoic acid (PFODA) (M)

D 40 13C2_PFHxDA

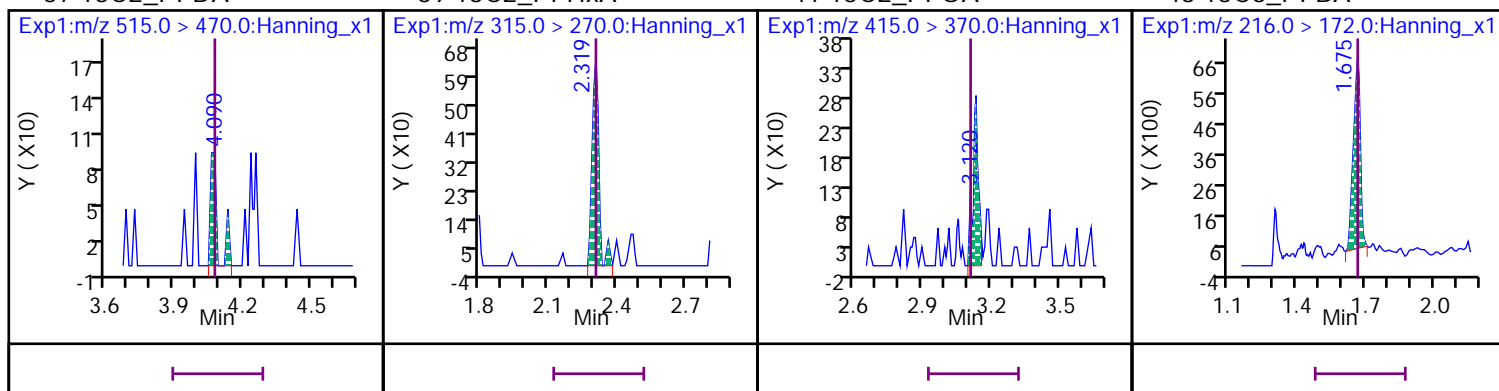


* 37 13C2_PFDA

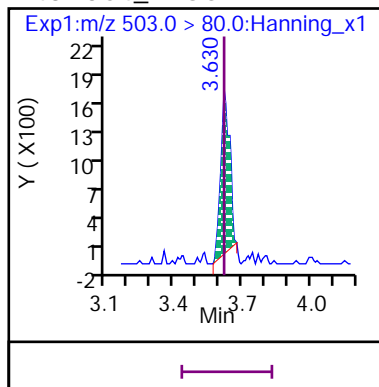
* 39 13C2_PFHxA

* 41 13C2_PFOA

* 43 13C3_PFBA



* 48 13C4_PFOS



Manual Integration Report

Data File: \\Organics\LL\LCMSMS01.i\091222-nonDOD.b\091222006.d

Injection Date: 12-Sep-2022 14:33:10

Inst. ID: LCMSMS01.i

Client ID:

Lab ID: CCV 200_SVLC_2163

Sample Info: CCV 200_SVLC_2163

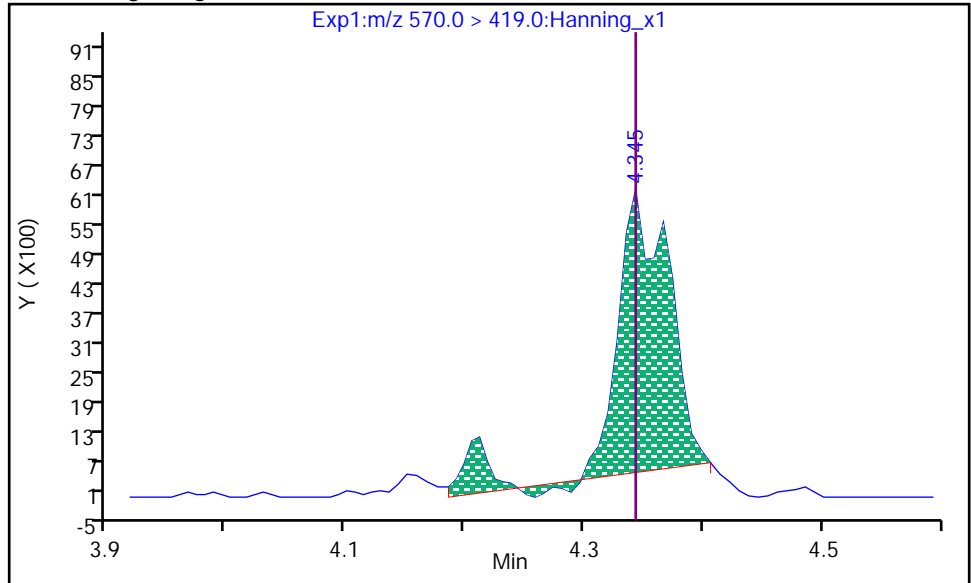
Dil. Factor: 1

Operator: eqi.svoa

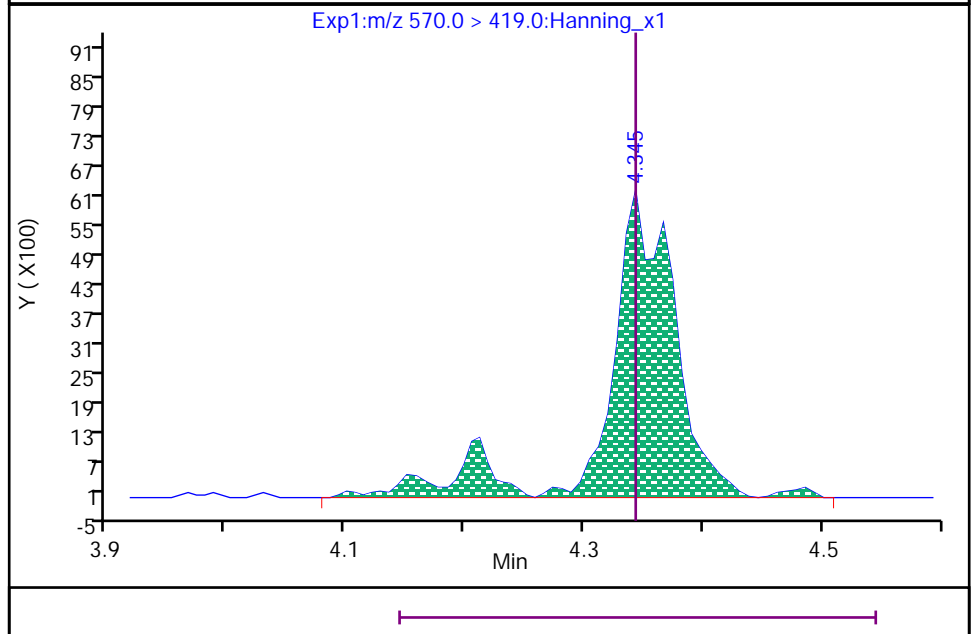
6 N-MeFOSAA, CAS: 2355-31-9

Processing Integration Results

RT: 4.345
Area: 17742
Amount: 152.47
Amount Units: ng/L



RT: 4.345
Area: 24375
Amount: 210.51
Amount Units: ng/L



Data Editor: xiang.zhu, 13-Sep-2022 15:58:42

Audit Action: Mint

Audit Reason: Invalid Integration

Manual Integration Report

Data File: \\Organics\LL\LCMSMS01.i\091222-nonDOD.b\091222006.d

Injection Date: 12-Sep-2022 14:33:10

Inst. ID: LCMSMS01.i

Client ID:

Lab ID: CCV 200_SVLC_2163

Sample Info: CCV 200_SVLC_2163

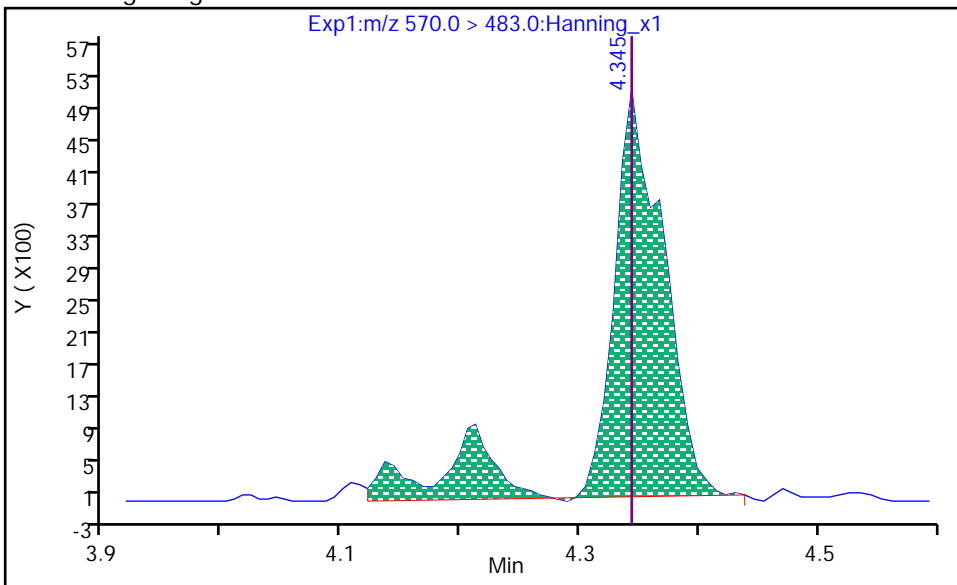
Dil. Factor: 1

Operator: eqi.svoa

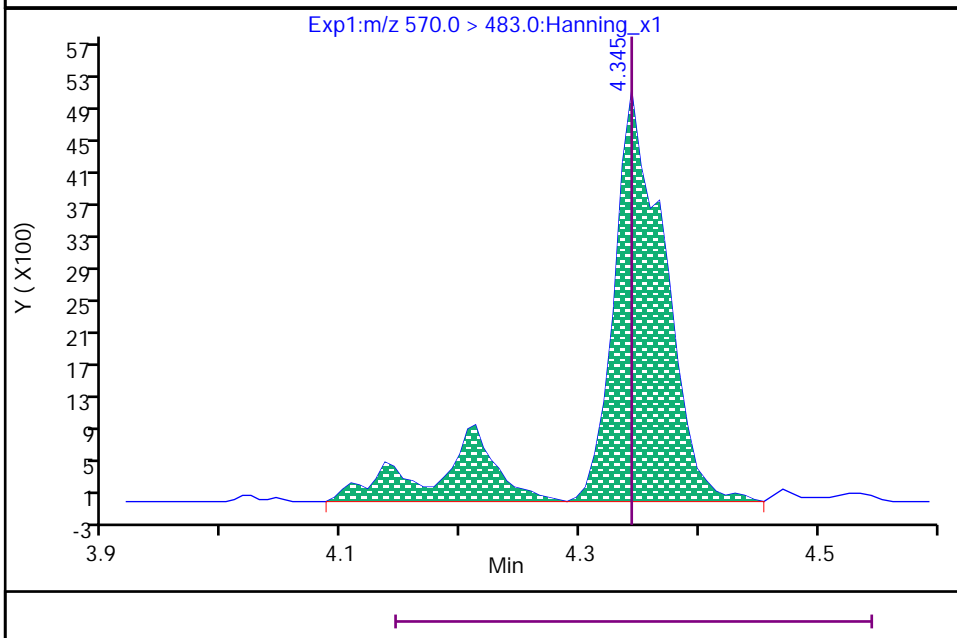
6 N-MeFOSAA, CAS: 2355-31-9

Processing Integration Results

RT: 4.345
Area: 17178
Amount: 210.51
Amount Units: ng/L



RT: 4.345
Area: 18234
Amount: 210.51
Amount Units: ng/L



Data Editor: xiang.zhu, 13-Sep-2022 15:58:52

Audit Action: Mint

Audit Reason: Invalid Integration

Manual Integration Report

Data File: \\Organics\LL\LCMSMS01.i\091222-nonDOD.b\091222006.d

Injection Date: 12-Sep-2022 14:33:10

Inst. ID: LCMSMS01.i

Client ID:

Lab ID: CCV 200_SVLC_2163

Sample Info: CCV 200_SVLC_2163

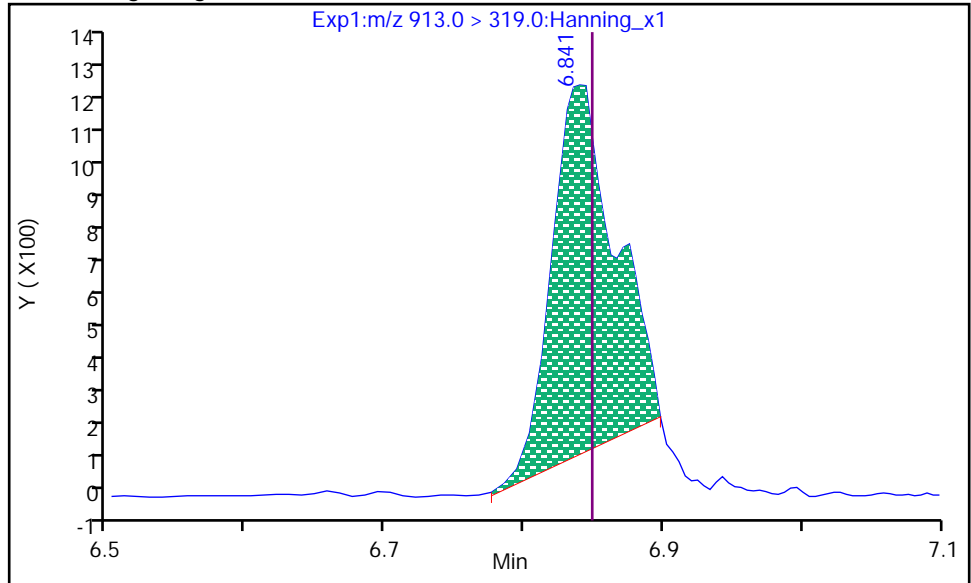
Dil. Factor: 1

Operator: eqi.svoa

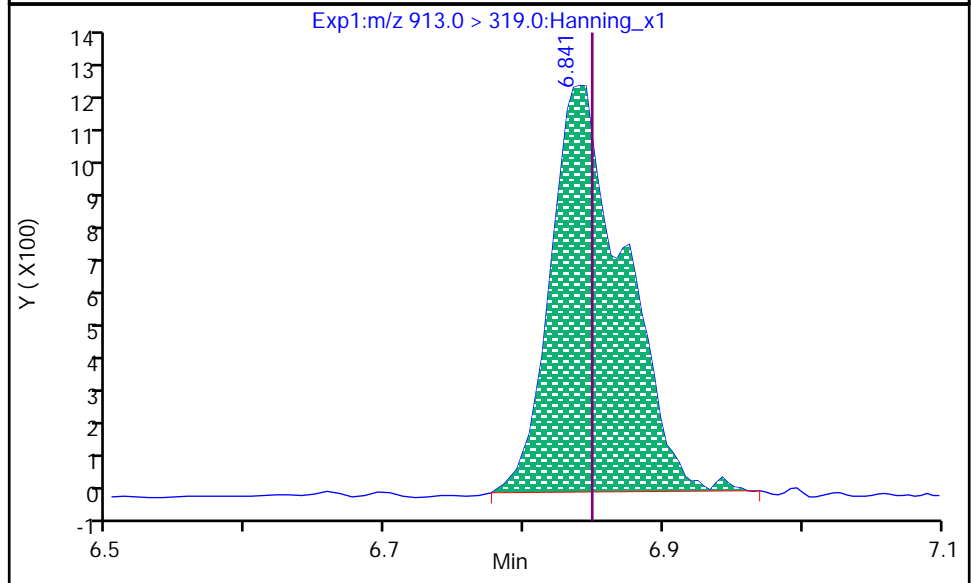
36 PFODA, CAS: 16517-11-6

Processing Integration Results

RT: 6.841
Area: 3393
Amount: 158.69
Amount Units: ng/L



RT: 6.841
Area: 4305
Amount: 158.69
Amount Units: ng/L



Data Editor: xiang.zhu, 13-Sep-2022 15:59:13

Audit Action: Mint

Audit Reason: Invalid Integration

Pace Environmental Services, LLC
Continuing Calibration Verification Report

Data File: \\Organics\LL\LCMSMS01.i\091222-nonDOD.b\091222015.d
Injection Date: 12-Sep-2022 16:29:37 Injection Vol: 10.0 uL
Sample Type: CCV Auto Sampler: 8
Sample Info: CCV 1000_SVLC_2200 Misc. Info:
Inst. ID: LCMSMS01.i Operator: eqi.svoa
Method: LCMSMS01_PFAS-ID2 Version: V16 30-Jun-2022 10:54:24
Calib Method: PFAS-ID2 Lock State: Unlocked
Quant Method: IsoDil Integrator: picker

Reagent: Analytes Conc. Level: L-5 Vol. Added: 1.00 ml

Compound	Std Area	CCV Area	Exp. Conc ng/L	Conc ng/L	%Rec	%Rec Limits
D 46 13C4_PFBA	2392972	2177553			91	50 - 150
8 PFBA			1000.00	1023.72	102.4	70 - 130
21 PFPeA			1000.00	1003.53	100.4	70 - 130
D 50 13C5_PFPeA	1599974	1465041			91.6	50 - 150
D 44 13C3_PFBS	586478	566808			96.6	50 - 150
7 PFBS			884.00	920.33	104.1	70 - 130
D 63 13C2_4:2 FTS_2	506769	450629			88.9	50 - 150
1 4:2 FTS			934.00	980.11	104.9	70 - 130
D 49 13C5_PFHxA	1690154	1679154			99.3	50 - 150
15 PFHxA			1000.00	1032.83	103.3	70 - 130
22 PFPeS			938.00	946.06	100.9	70 - 130
28 GenX			2000.00	2277.84	113.9	70 - 130
D 66 13C3_GenX	1247009	1180316			94.7	50 - 150
13 PFHpA			1000.00	1162.86	116.3	70 - 130
D 47 13C4_PFHpA	1544635	1394685			90.3	50 - 150
D 45 13C3_PFHxS	398871	394302			98.9	50 - 150
14 PFHxS			910.00	869.44	95.5	70 - 130
29 ADONA			942.00	994.98	105.6	70 - 130
2 6:2 FTS			948.00	1138.95	120.1	70 - 130
D 64 13C2_6:2 FTS_2	432458	315053			72.9	50 - 150
D 53 13C8_PFOA	1379286	1329872			96.4	50 - 150
20 PFOA			1000.00	933.11	93.3	70 - 130
12 PFHpS			952.00	963.48	101.2	70 - 130
18 PFOS			928.00	893.57	96.3	70 - 130
D 54 13C8_PFOS	515554	518570			100.6	50 - 150
17 PFNA			1000.00	1063.86	106.4	70 - 130
D 56 13C9_PFNA	1373592	1345756			98	50 - 150
30 9Cl-PF3ONS			932.00	894.20	95.9	70 - 130
D 55 13C8_PFOA	880888	857953			97.4	50 - 150
19 PFOSA			1000.00	988.96	98.9	70 - 130
D 65 13C2_8:2 FTS_2	390251	334587			85.7	50 - 150
16 PFNS			960.00	954.05	99.4	70 - 130
3 8:2 FTS			958.00	1114.05	116.3	70 - 130
D 51 13C6_PFDA	1270798	941985			74.1	50 - 150
10 PFDA			1000.00	1136.86	113.7	70 - 130
D 58 d3-MeFOSAA	1375015	1415244			102.9	50 - 150

Compound	Std Area	CCV Area	Exp. Conc ng/L	Conc ng/L	%Rec	%Rec Limits
6 N-MeFOSAA			1000.00	926.76	92.7	70 - 130
D 61 d7-MeFOSE	239634	223207			93.1	50 - 150
32 MeFOSE			1000.00	1052.83	105.3	70 - 130
9 PFDS			964.00	961.17	99.7	70 - 130
5 N-EtFOSAA			1000.00	979.43	97.9	70 - 130
D 57 d3-MeFOSA	125682	86517			68.8	50 - 150
26 MeFOSA			1000.00	1230.17	123	70 - 130
D 60 d5-EtFOSAA	1370840	1281056			93.5	50 - 150
D 52 13C7_PFUdA	1158026	986058			85.1	50 - 150
25 PFUdA			1000.00	1004.00	100.4	70 - 130
D 62 d9-EtFOSE	232388	217980			93.8	50 - 150
31 11Cl-PF3OUDS			942.00	898.04	95.3	70 - 130
33 EtFOSE			1000.00	1145.76	114.6	70 - 130
D 59 d5-EtFOSA	107506	94907			88.3	50 - 150
27 EtFOSA			1000.00	1023.52	102.4	70 - 130
D 38 13C2_PFDoA	1027902	1003991			97.7	50 - 150
11 PFDoA			1000.00	1013.37	101.3	70 - 130
4 10:2 FTS			964.00	992.59	103	70 - 130
34 PFDOS			968.00	881.37	91.1	70 - 130
24 PFTrDA			1000.00	867.89	86.8	70 - 130
23 PFTeDA			1000.00	1284.27	128.4	70 - 130
D 42 13C2_PFTeDA	1037162	971565			93.7	50 - 150
D 40 13C2_PFHxDA	559085	509619			91.2	50 - 150
35 PFHxDA			1000.00	1287.93	128.8	70 - 130
36 PFODA			1000.00	871.93	87.2	70 - 130

Pace Environmental Services, LLC
Analyte Quantitation Report

Data File: \\Organics\LL\LCMSMS01.i\091222-nonDOD.b\091222015.d
 Injection Date: 12-Sep-2022 16:29:37 Injection Vol: 10.0 uL
 Sample Type: CCV Auto Sampler: 8
 Sample Info: CCV 1000_SVLC_2200 Misc. Info:
 Inst. ID: LCMSMS01.i Operator: eqi.svoa
 Method: LCMSMS01_PFAS-ID2 Version: V16 30-Jun-2022 10:54:24
 Calib Method: PFAS-ID2 Lock State: Unlocked
 Quant Method: IsoDil Integrator: picker

Reagent: Analytes Conc. Level: L-5 Vol. Added: 1.00 ml

Signal	Quant Std	RT (min.)	Exp RT (min.)	□ RT (secs.)	Response	Peak Pts	S/N	Ion Ratio	Isomer Ratio	Cal Conc ng/L	OnCol Conc ng/L	%Drift/%Rec	Flags
D 46 13C4_PFBFA CAS: SESI-0111													
217 > 172		1.663	1.670	0	2177553	19	>100:1			2000.00	2057.05	91	
8 Perfluoro-n-butanoic acid (PFBA) CAS: 375-22-4													
212.9 > 168.9	46	1.668	1.675	0/0	1083584	18	>100:1			1000.00	1023.72		
D 50 13C5_PFPeA CAS: SESI-0112													
267.9 > 223		1.974	1.975	0	1465041	14	>100:1			2000.00	2071.33	91.6	
21 Perfluoro-n-pentanoic acid (PFPeA) CAS: 2706-90-3													
262.9 > 218.9	50	1.974	1.975	0/0	787957	15	>100:1			1000.00	1003.53		
D 44 13C3_PFBFS CAS: SESI-0116													
302 > 80		2.014	2.025	-1	566808	14	>100:1			2000.00	2009.77	96.6	
7 Perfluoro-1-butanefulfonate (PFBS) CAS: 375-73-5													
298.9 > 80	44	2.014	2.025	-1/0	312149	16	>100:1	Target = 3.91		884.00	920.33		
298.9 > 99	44	2.014	2.025		80002	15	>100:1	3.90 (1.95-5.87)					
22 Perfluoro-1-pentanesulfonic acid (PFPeS) CAS: 2706-91-4													
349 > 80	44	2.353	2.355	0/1	266107	18	>100:1	Target = 3.48		938.00	946.06		
349 > 99	44	2.353	2.355		83946	19	>100:1	3.16 (1.74-5.22)					
D 63 13C2_4:2 FTS_2 CAS: SESI-0104													
329 > 81		2.281	2.283	0	450629	18	>100:1			10000	11446	88.9	
1 Fluorotelomer sulfonate 4:2 [1H,1H,2H,2H-perfluorohexane sulfonate] (4:2 FTS) CAS: 757124-72-4													
327 > 307	63	2.281	2.283	0/0	81214	20	>100:1	Target = 1.33		934.00	980.11		
327 > 81	63	2.281	2.283		55025	20	>100:1	1.47 (0.66-2.00)					
D 49 13C5_PFHxA CAS: SESI-0113													
318 > 273		2.317	2.319	0	1679154	17	>100:1			2000.00	1991.35	99.3	
15 Perfluoro-n-hexanoic acid (PFHxA) CAS: 307-24-4													
313 > 269	49	2.317	2.319	0/0	811944	18	>100:1	Target = 16.74		1000.00	1032.83		
313 > 119	49	2.326	2.319		44216	15	>100:1	18.36 (8.37-25.11)					
D 66 13C3_GenX CAS: SESI-0121													
287 > 185		2.443	2.436	0	1180316	17	>100:1			10000	9936.26	94.7	
28 Hexafluoropropylene oxide dimer acid (GenX) CAS: 13252-13-6													
285 > 119	66	2.443	2.436	0/0	187221	17	>100:1	Target = 0.71		2000.00	2277.84		
285 > 185	66	2.443	2.436		260278	17	>100:1	0.71 (0.35-1.06)					
D 47 13C4_PFHpA CAS: SESI-0114													
367 > 322		2.736	2.717	1	1394685	17	>100:1			2000.00	1954.60	90.3	
13 Perfluoro-n-heptanoic acid (PFHpA) CAS: 375-85-9													
363 > 319	47	2.736	2.717	1/0	738381	16	>100:1	Target = 3.28		1000.00	1162.86		
363 > 169	47	2.736	2.717		189743	18	>100:1	3.89 (1.64-4.92)					
D 45 13C3_PFHxS CAS: SESI-0096													
402 > 80		2.746	2.727	1	394302	17	>100:1			2000.00	2006.89	98.9	
14 Perfluorohexanesulfonate (PFHxS) CAS: 355-46-4													
399 > 80	45	2.746	2.727	1/0	194962	29	>100:1	Target = 3.96	4.53	910.00	869.44		
399 > 99	45	2.746	2.727		59015	25	>100:1	3.30 (1.98-5.94)	8.35				

Signal	Quant Std	RT (min.)	Exp RT (min.)	□ RT (secs.)	Response	Peak Pts	S/N	Ion Ratio	Isomer Ratio	Cal Conc ng/L	OnCol Conc ng/L	%Drift/%Rec	Flags
29 4,8-dioxa-3H-perfluorononanoic acid (ADONA) CAS: 919005-14-4													
377 > 251	45	2.786	2.767	1/0	1113580	17	>100:1	Target = 2.26		942.00	994.98		
377 > 85	45	2.786	2.767		429308	18	>100:1	2.59 (1.13-3.39)					
12 Perfluoro-1-heptanesulfonic acid (PFHpS) CAS: 375-92-8													
449 > 80	45	3.189	3.162	2/1	216153	21	>100:1	Target = 3.87		952.00	963.48		
449 > 99	45	3.189	3.162		56594	27	>100:1	3.81 (1.93-5.81)					
D 64 13C2_6:2 FTS_2 CAS: SESI-0105													
429 > 81		3.149	3.114	2	315053	24	>100:1			10000	10717	72.9	
2 Fluorotelomer sulfonate 6:2 [1H,1H,2H,2H-perfluorooctane sulfonate] (6:2 FTS) CAS: 27619-97-2													
427 > 407	64	3.149	3.126	1/-1	57522	24	>100:1	Target = 1.29		948.00	1138.95		
427 > 81	64	3.149	3.126		41116	23	>100:1	1.39 (0.64-1.93)					
D 53 13C8_PFOA CAS: SESI-0097													
421 > 376		3.181	3.156	1	1329872	22	>100:1			2000.00	2085.70	96.4	
20 Perfluoro-n-octanoic acid (PFOA) CAS: 335-67-1													
413 > 369	53	3.181	3.150	2/1	592157	20	>100:1	Target = 2.65		1000.00	933.11		
413 > 169	53	3.181	3.150		229626	20	>100:1	2.57 (1.32-3.97)					
D 54 13C8_PFOS CAS: SESI-0098													
507 > 80		3.655	3.637	1	518570	23	>100:1			2000.00	2109.18	100.6	
18 Perfluorooctanesulfonate (PFOS) CAS: 1763-23-1													
499 > 80	54	3.661	3.637	1/0	268742	70	>100:1	Target = 4.46	3.72	928.00	893.57		M
499 > 99	54	3.667	3.637		56808	51	>100:1	4.73 (2.23-6.70)	7.37				M
30 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS) CAS: 756426-58-1													
531 > 351	54	3.936	3.923	1/0	486808	23	>100:1			932.00	894.20		
16 Perfluoro-1-nonanesulfonic acid (PFNS) CAS: 68259-12-1													
549 > 80	54	4.124	4.118	0/-1	237837	22	>100:1	Target = 4.17		960.00	954.05		
549 > 99	54	4.124	4.118		58653	21	>100:1	4.05 (2.08-6.26)					
9 Perfluoro-1-decanesulfonic acid (PFDS) CAS: 335-77-3													
599 > 80	54	4.561	4.563	0/-1	244321	17	>100:1	Target = 4.23		964.00	961.17		
599 > 99	54	4.561	4.563		63090	20	>100:1	3.87 (2.11-6.34)					
31 11-chloroicosafuoro-3-oxaundecane-1-sulfonic acid (11CI-PF3OUdS) CAS: 763051-92-9													
631 > 451	54	4.811	4.813	0/-1	440015	20	>100:1			942.00	898.04		
34 Perfluorododecanesulfonic acid (PFDOS) CAS: 79780-39-5													
699 > 80	54	5.328	5.347	-1/-2	194981	20	>100:1	Target = 3.53		968.00	881.37		
699 > 99	54	5.328	5.347		54767	22	>100:1	3.56 (1.76-5.30)					
D 56 13C9_PFNA CAS: SESI-0099													
472 > 427		3.661	3.644	1	1345756	24	>100:1			2000.00	2064.37	98	
17 Perfluoro-n-nonanoic acid (PFNA) CAS: 375-95-1													
463 > 419	56	3.661	3.644	1/0	648833	23	>100:1	Target = 5.02		1000.00	1063.86		
463 > 169	56	3.667	3.644		124793	24	>100:1	5.19 (2.51-7.53)					
D 55 13C8_PFOA CAS: SESI-0107													
506 > 78		3.992	3.985	0	857953	21	>100:1			2000.00	1997.50	97.4	
19 Perfluoro-1-octanesulfonamide (PFOSA) CAS: 754-91-6													
498 > 78	55	3.992	3.985	0/0	455746	26	>100:1	Target = 54.56		1000.00	988.96		
498>478	55	3.999	3.985		10802	34	84:1	42.19 (27.28-81.85)					
D 65 13C2_8:2 FTS_2 CAS: SESI-0106													
529 > 81		4.124	4.118	0	334587	22	>100:1			10000	10365	85.7	
3 Fluorotelomer sulfonate 8:2 [1H,1H,2H,2H-perfluorododecane sulfonate] (8:2 FTS) CAS: 39108-34-4													
527 > 507	65	4.124	4.111	1/1	45779	21	>100:1	Target = 1.21		958.00	1114.05		
527 > 81	65	4.124	4.111		43012	23	>100:1	1.06 (0.60-1.82)					
4 1H,1H,2H,2H-perfluorododecane sulfonate (10:2FTS) CAS: 120226-60-0													
627 > 607	65	5.005	5.009	0/0	45890	18	>100:1	Target = 2.03		964.00	992.59		
627 > 80	65	5.005	5.009		26232	22	>100:1	1.74 (1.01-3.05)					
D 51 13C6_PFDA CAS: SESI-0115													
519 > 474		4.131	4.132	0	941985	27	>100:1			2000.00	1739.63	74.1	
10 Perfluoro-n-decanoic acid (PFDA) CAS: 335-76-2													
513 > 469	51	4.131	4.125	0/0	538902	22	>100:1	Target = 10.03		1000.00	1136.86		
513 > 169	51	4.131	4.125		51066	22	>100:1	10.55 (5.01-15.04)					
D 58 d3-MeFOSAA CAS: SESI-0102													
573 > 419		4.351	4.353	0	1415244	21	>100:1			10000	9707.10	102.9	

Signal	Quant Std	RT (min.)	Exp RT (min.)	□ RT (secs.)	Response	Peak Pts	S/N	Ion Ratio	Isomer Ratio	Cal Conc ng/L	OnCol Conc ng/L	%Drift/%Rec	Flags
6 N-methylperfluoro-1-octanesulfonamidoacetic acid (N-MeFOSAA) CAS: 2355-31-9													
570 > 419	58	4.359	4.345	1/1	110447	58	>100:1	Target = 1.51	7.88	1000.00	926.76		M
570 > 483	58	4.359	4.345		83306	52	>100:1	1.32 (0.75-2.27)	4.04				M
D 61 d7-MeFOSE CAS: SESI-0129													
623 > 59		4.590	4.583	0	223207	15	>100:1			2000.00	1968.00	93.1	
32 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE) CAS: 24448-09-7													
616 > 59	61	4.601	4.604	0/0	123124	18	>100:1			1000.00	1052.83		
D 57 d3-MeFOSA CAS: SESI-0109													
515 > 169		4.611	4.614	0	86517	18	>100:1			2000.00	1695.49	68.8	
26 N-methylperfluoro-1-octanesulfonamide (MeFOSA) CAS: 31506-32-8													
512 > 169	57	4.621	4.624	0/0	56413	16	>100:1	Target = 1.12		1000.00	1230.17		
512 > 219	57	4.621	4.624		54208	17	>100:1	1.04 (0.56-1.68)					
D 52 13C7_PFUdA CAS: SESI-0117													
570 > 525		4.590	4.583	0	986058	19	>100:1			2000.00	2032.02	85.1	
25 Perfluoro-n-undecanoic acid (PFUdA) CAS: 2058-94-8													
563 > 519	52	4.590	4.583	0/0	452282	18	>100:1	Target = 8.93		1000.00	1004.00		
563 > 169	52	4.580	4.583		49230	18	>100:1	9.18 (4.46-13.40)					
D 60 d5-EtFOSAA CAS: SESI-0110													
589 > 419		4.580	4.583	0	1281056	18	>100:1			10000	10387	93.5	
5 N-ethylperfluoro-1-octanesulfonamidoacetic acid (N-EtFOSAA) CAS: 2991-50-6													
584 > 419	60	4.590	4.594	0/0	128199	59	>100:1	Target = 1.91	7.79	1000.00	979.43		M
584 > 526	60	4.590	4.594		62403	44	>100:1	2.05 (0.95-2.87)	3.97				
D 62 d9-EtFOSE CAS: SESI-0130													
639 > 59		4.832	4.834	0	217980	19	>100:1			2000.00	2021.75	93.8	
33 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE) CAS: 1691-99-2													
630 > 59	62	4.854	4.849	0/0	103072	20	>100:1			1000.00	1145.76		
D 59 d5-EtFOSA CAS: SESI-0108													
531 > 169		4.861	4.870	-1	94907	19	>100:1			2000.00	1932.40	88.3	
27 N-ethylperfluoro-1-octanesulfonamide (EtFOSA) CAS: 4151-50-2													
526 > 169	59	4.876	4.885	-1/0	54625	21	>100:1	Target = 1.02		1000.00	1023.52		
526 > 219	59	4.876	4.885		57130	19	>100:1	0.95 (0.51-1.54)					
D 38 13C2_PFDaA CAS: SESI-0118													
615 > 570		4.997	5.001	0	1003991	19	>100:1			2000.00	1936.72	97.7	
11 Perfluoro-n-dodecanoic acid (PFDaA) CAS: 307-55-1													
613 > 569	38	4.997	5.001	0/0	490800	18	>100:1	Target = 6.96		1000.00	1013.37		
613 > 169	38	4.997	5.001		74923	19	>100:1	6.55 (3.48-10.45)					
24 Perfluoro-n-tridecanoic acid (PFTrDA) CAS: 72629-94-8													
663 > 619	38	5.366	5.378	-1/-1	231605	19	>100:1	Target = 3.41		1000.00	867.89		
663 > 169	38	5.358	5.378		69182	20	>100:1	3.34 (1.70-5.11)					
D 42 13C2_PFTeDA CAS: SESI-0119													
715 > 670		5.691	5.711	-1	971565	36	>100:1			2000.00	1768.37	93.7	
23 Perfluoro-n-tetradecanoic acid (PFTeDA) CAS: 376-06-7													
713 > 669	42	5.691	5.711	-1/0	473656	40	>100:1	Target = 6.93		1000.00	1284.27		M
713 > 169	42	5.695	5.711		53326	27	>100:1	8.88 (3.46-10.39)					
D 40 13C2_PFHxDA CAS: SESI-0103													
815 > 770		6.281	6.298	-1	509619	29	>100:1			2000.00	1808.76	91.2	M
35 Perfluoro-n-hexadecanoic acid (PFHxDA) CAS: 67905-19-5													
813 > 769	40	6.276	6.307	-2/-1	396274	25	>100:1	Target = 9.01		1000.00	1287.93		
813 > 269	40	6.281	6.307		37693	24	>100:1	10.51 (4.50-13.52)					
36 Perfluoro-n-octadecanoic acid (PFODA) CAS: 16517-11-6													
913 > 869	40	6.803	6.850	-3/-2	215991	21	>100:1	Target = 10.58		1000.00	871.93		
913 > 319	40	6.803	6.850		20577	29	>100:1	10.49 (5.29-15.88)					
* 37 13C2_PFDA													
515 > 470		4.131	4.090	2	931	18	9.7:1			2000.00			
* 39 13C2_PFHxA CAS: SESI-0120													
315 > 270		2.317	2.319	0	1075	11	16:1			2000.00			
* 41 13C2_PFOA CAS: 864071-08-9													
415 > 370		3.172	3.120	3	780	14	8.7:1			2000.00			

Data File: \\Organics\LL\LCMSMS01.i\091222-nonDOD.b\091222015.d

Injection Date: 12-Sep-2022 16:29:37

Inst. ID: LCMSMS01.i

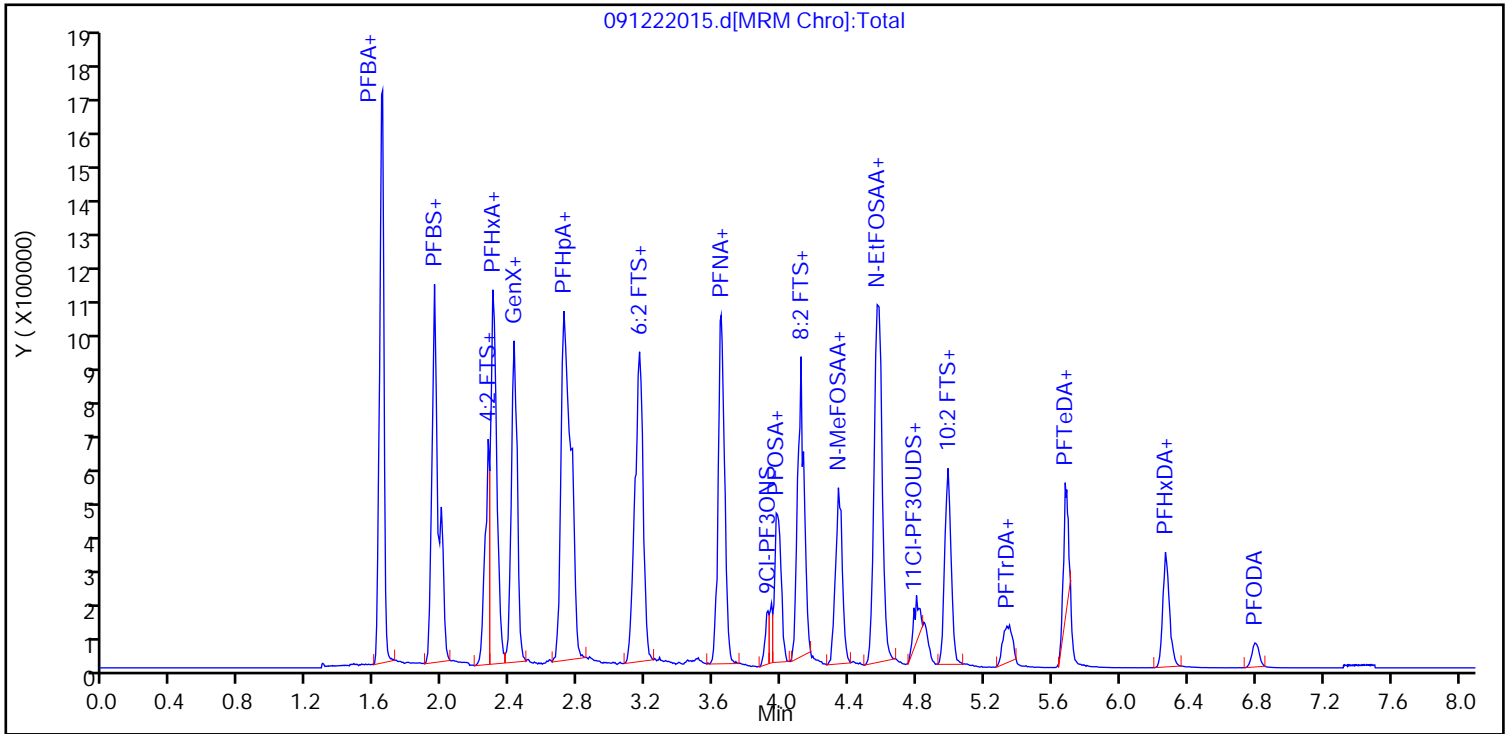
Client ID:

Lab ID: CCV 1000_SVLC_2200

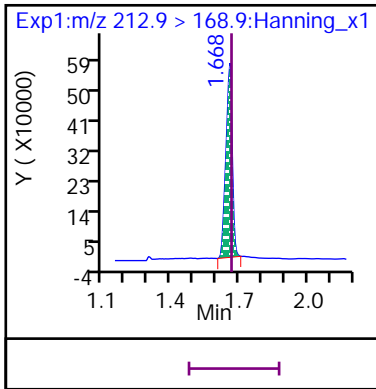
Sample Info: CCV 1000_SVLC_2200

Dil. Factor: 1

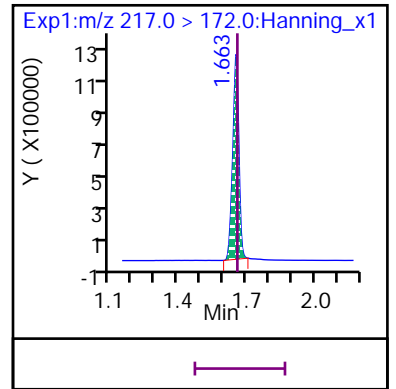
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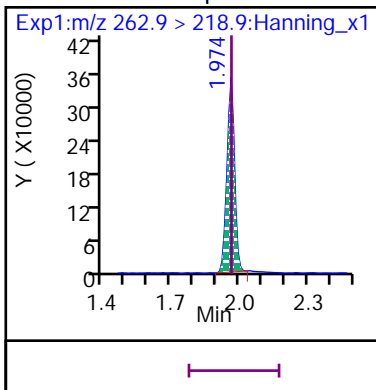
8 Perfluoro-n-butanoic acid (PFBA)



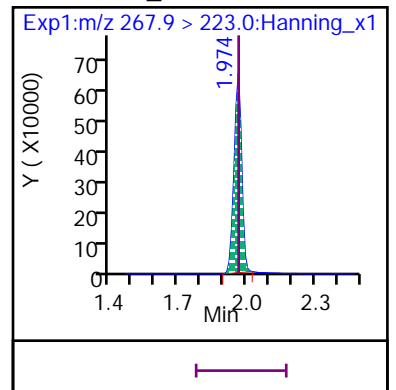
D 46 13C4_PFBA



21 Perfluoro-n-pentanoic acid (PFPeA)

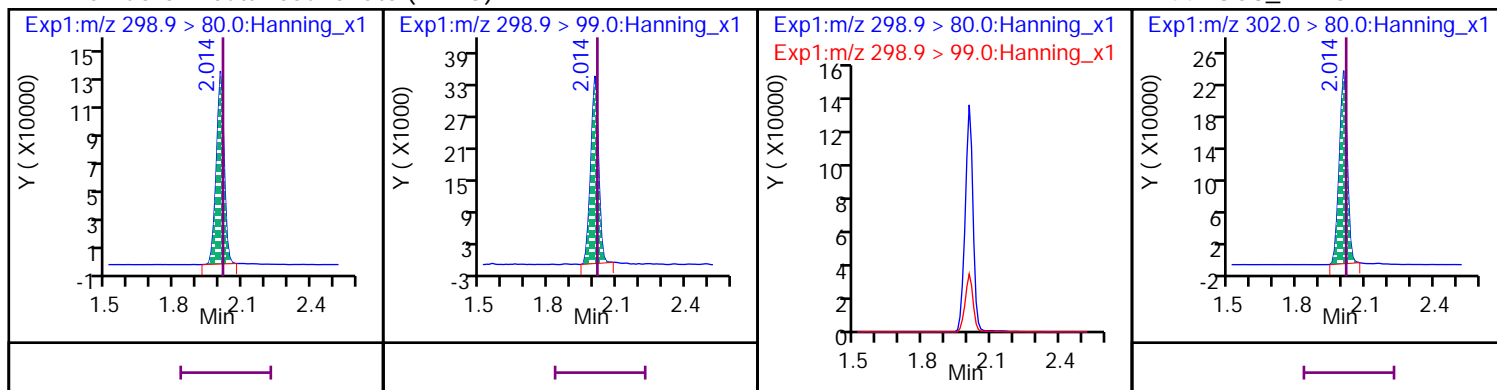


D 50 13C5_PFPeA



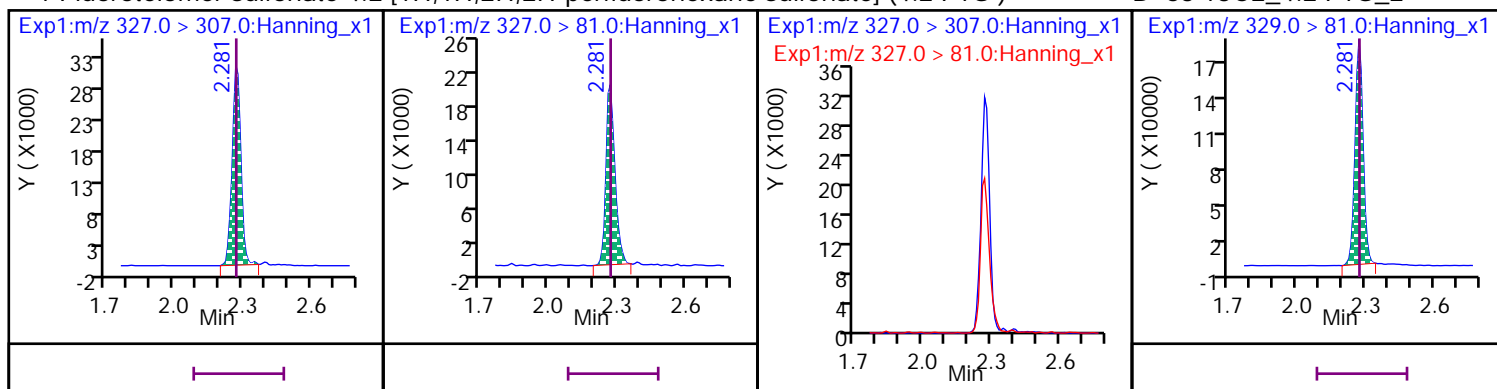
7 Perfluoro-1-butanesulfonate (PFBS)

D 44 13C3_PFBS



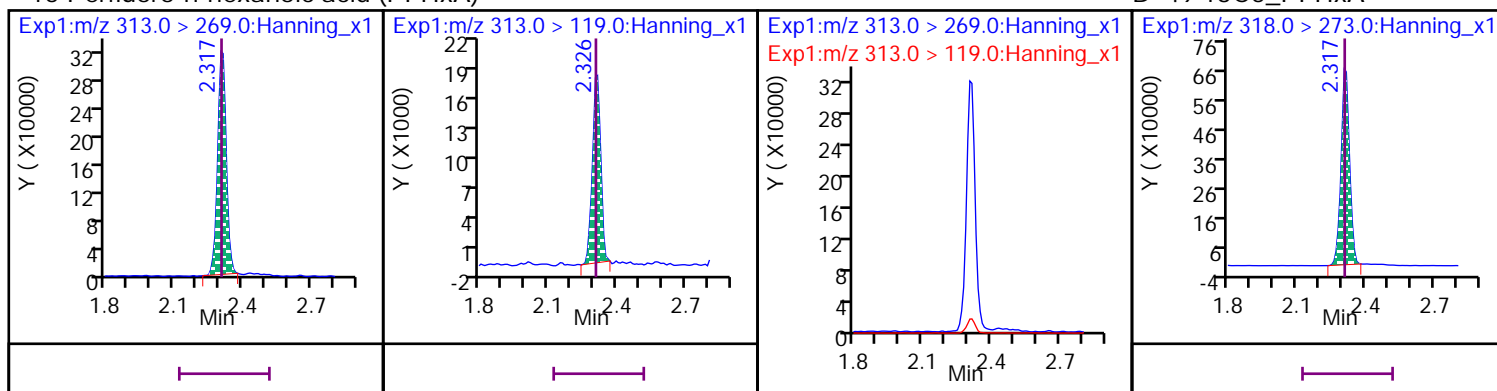
1 Fluorotelomer sulfonate 4:2 [1H,1H,2H,2H-perfluorohexane sulfonate] (4:2 FTS)

D 63 13C2_4:2 FTS_2



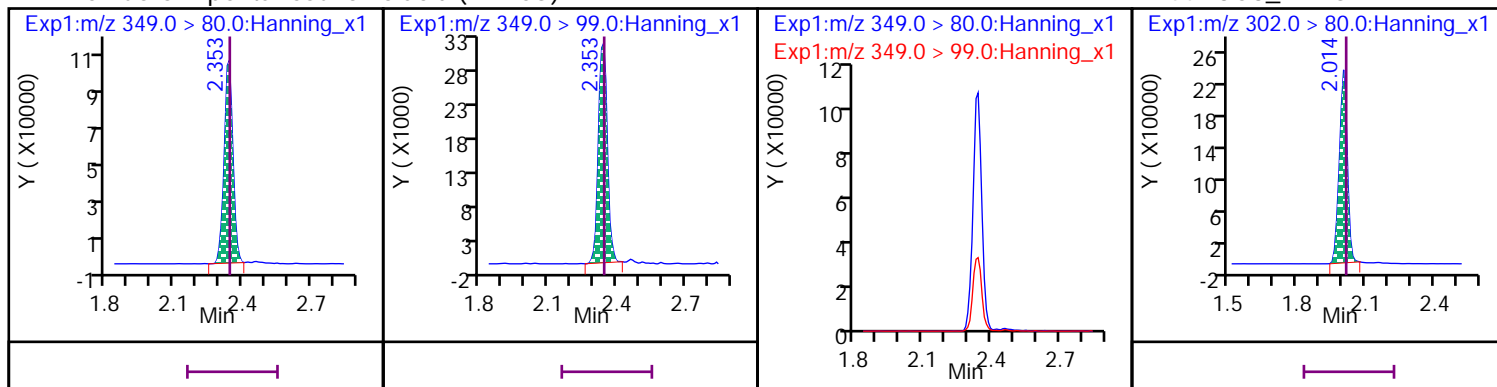
15 Perfluoro-n-hexanoic acid (PFHxA)

D 49 13C5_PFHxA



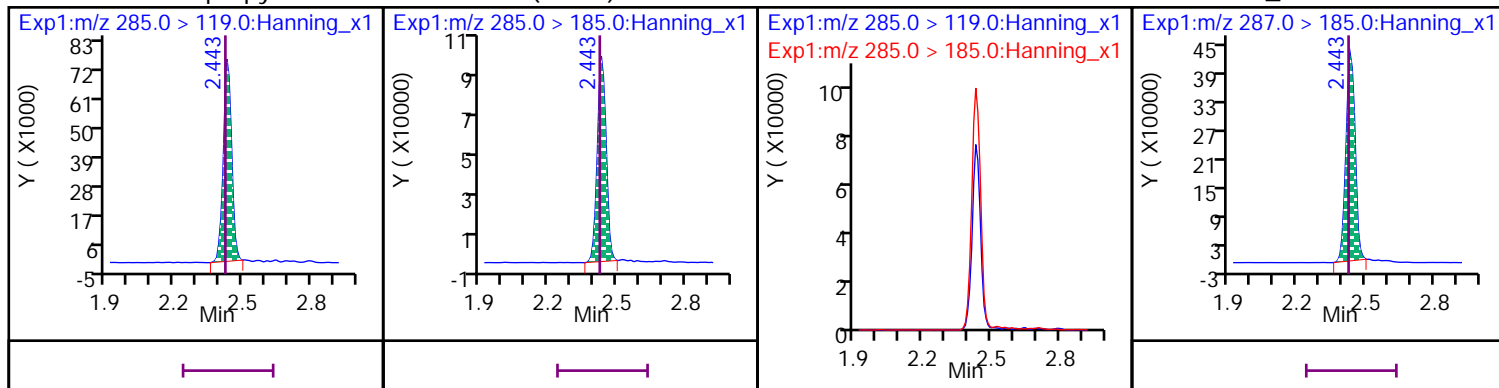
22 Perfluoro-1-pentanesulfonic acid (PFPeS)

D 44 13C3_PFBS



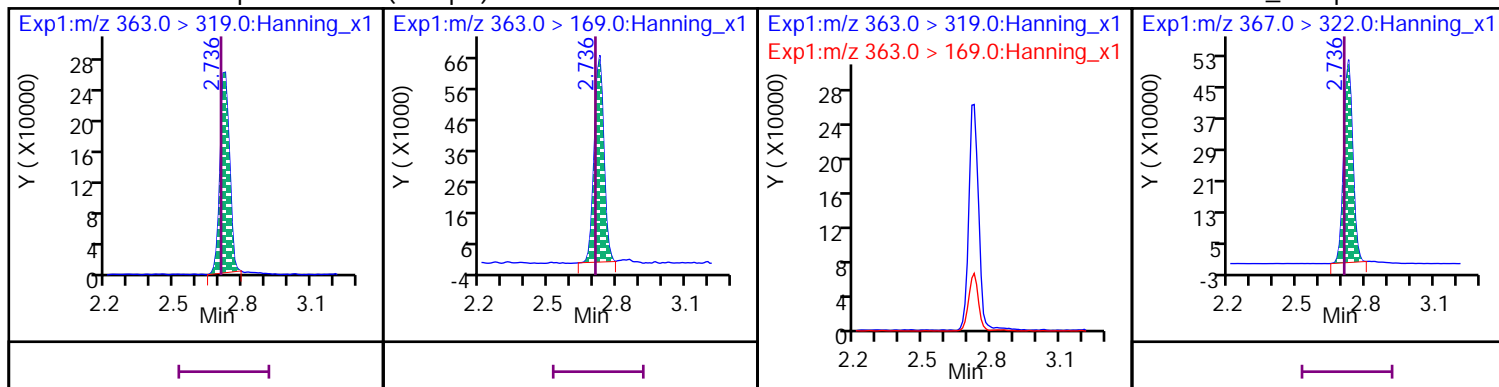
28 Hexafluoropropylene oxide dimer acid (GenX)

D 66 13C3_GenX



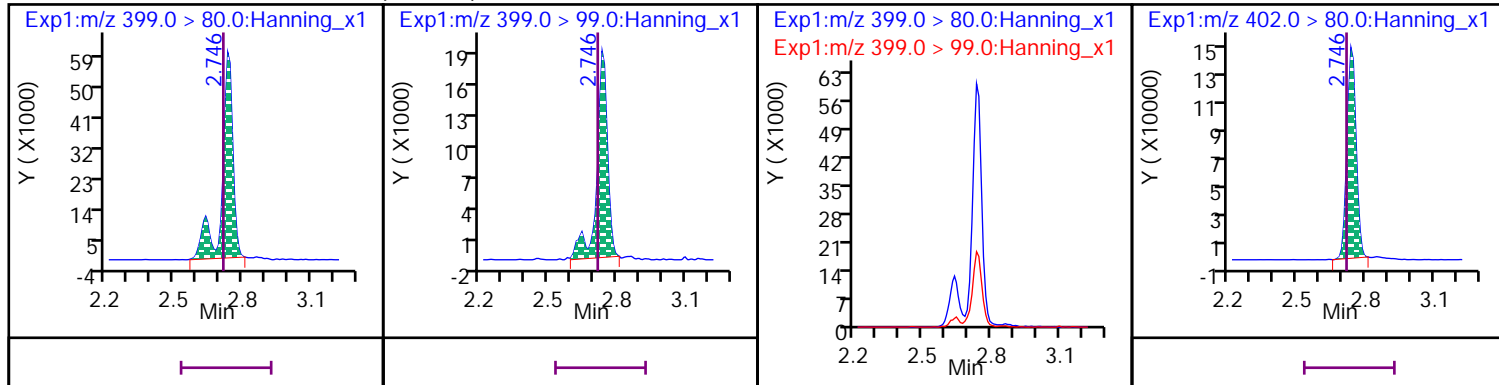
13 Perfluoro-n-heptanoic acid (PFHpA)

D 47 13C4_PFHpA



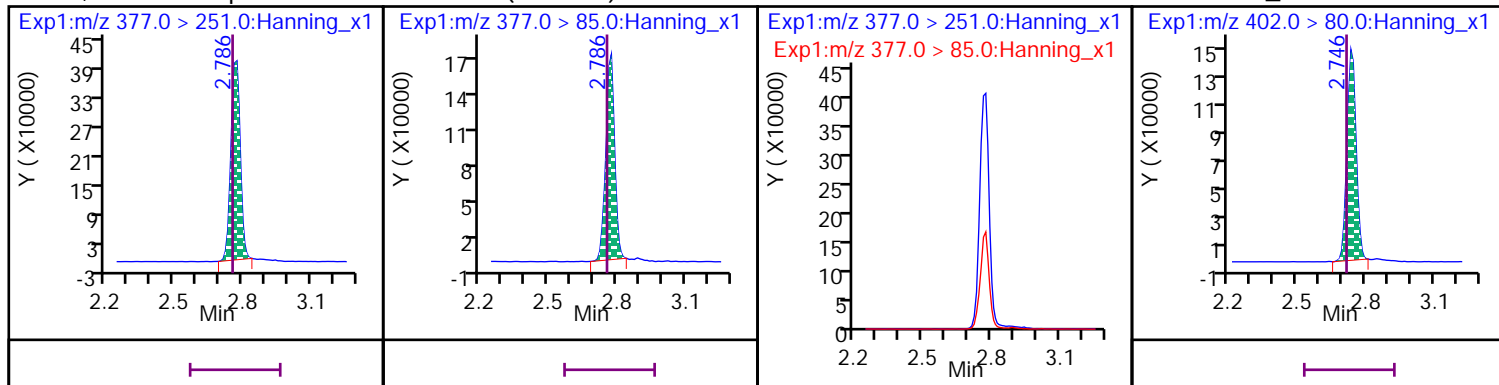
14 Perfluorohexanesulfonate (PFHxS)

D 45 13C3_PFHxS



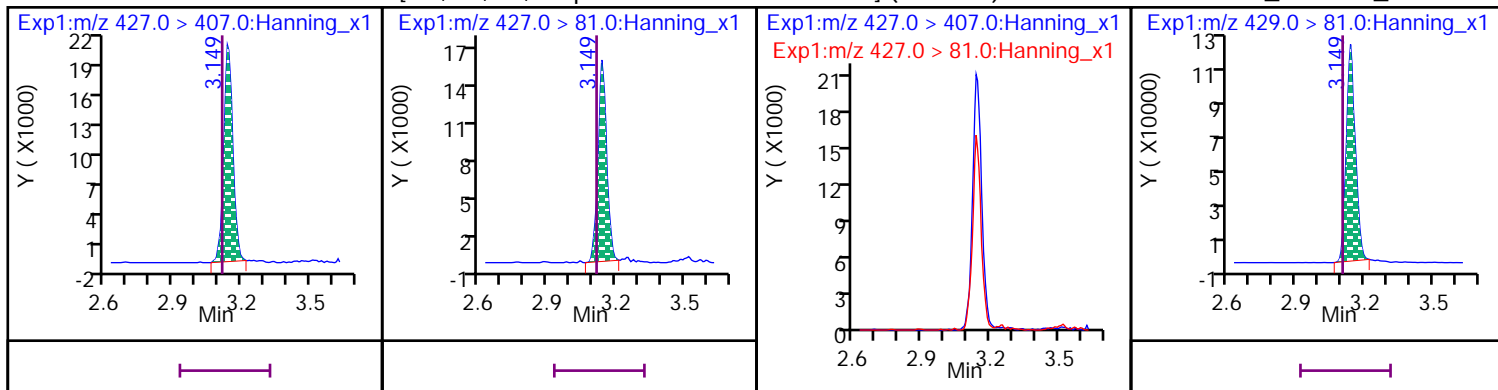
29 4,8-dioxa-3H-perfluorononanoic acid (ADONA)

D 45 13C3_PFHxS



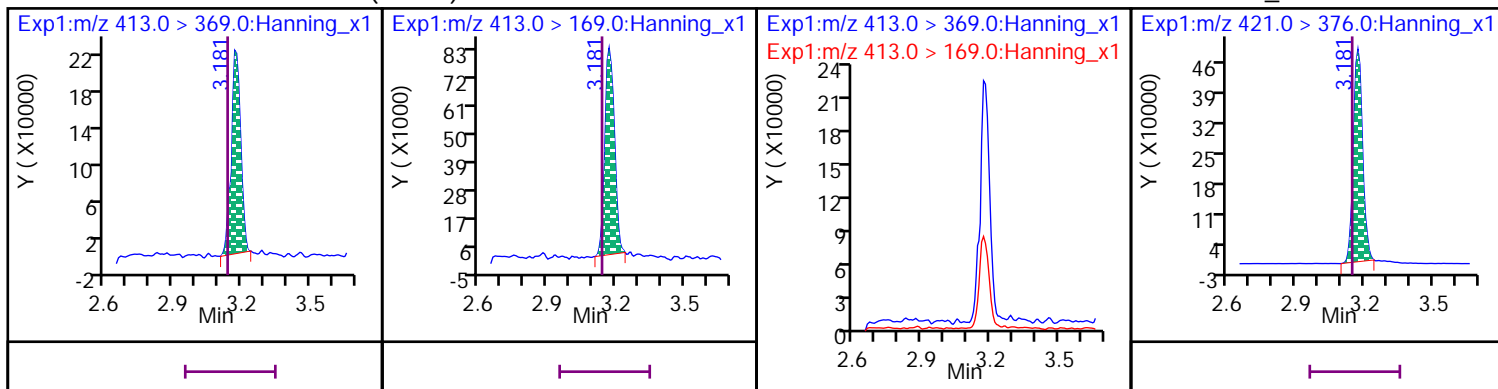
2 Fluorotelomer sulfonate 6:2 [1H,1H,2H,2H-perfluorooctane sulfonate] (6:2 FTS)

D 64 13C2_6:2 FTS_2



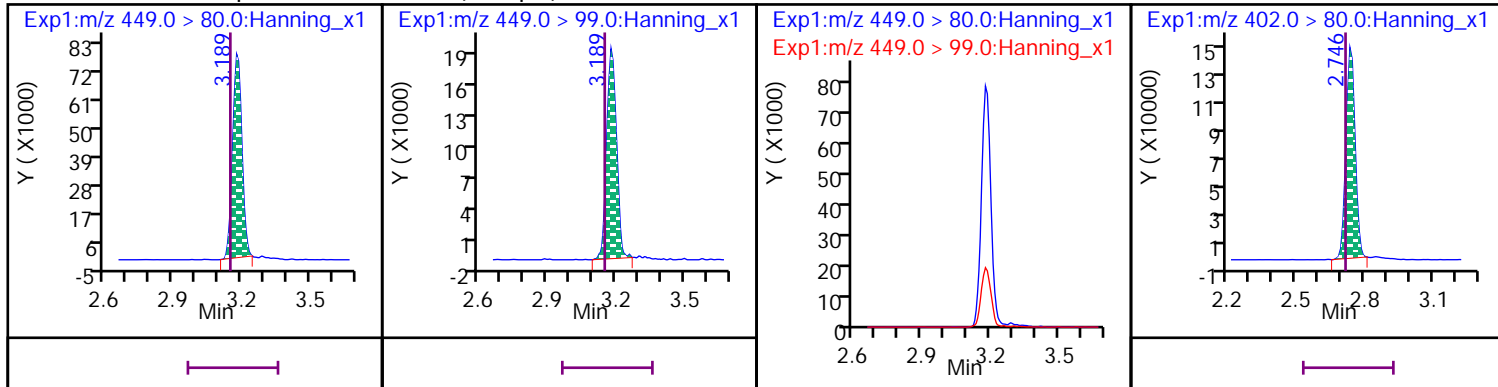
20 Perfluoro-n-octanoic acid (PFOA)

D 53 13C8_PFOA



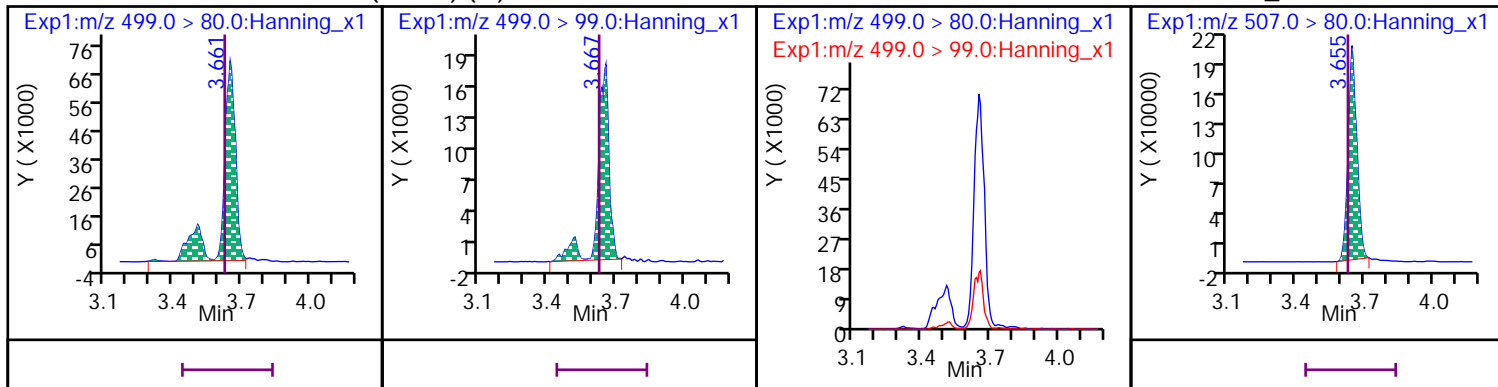
12 Perfluoro-1-heptanesulfonic acid (PFHpS)

D 45 13C3_PFHxS



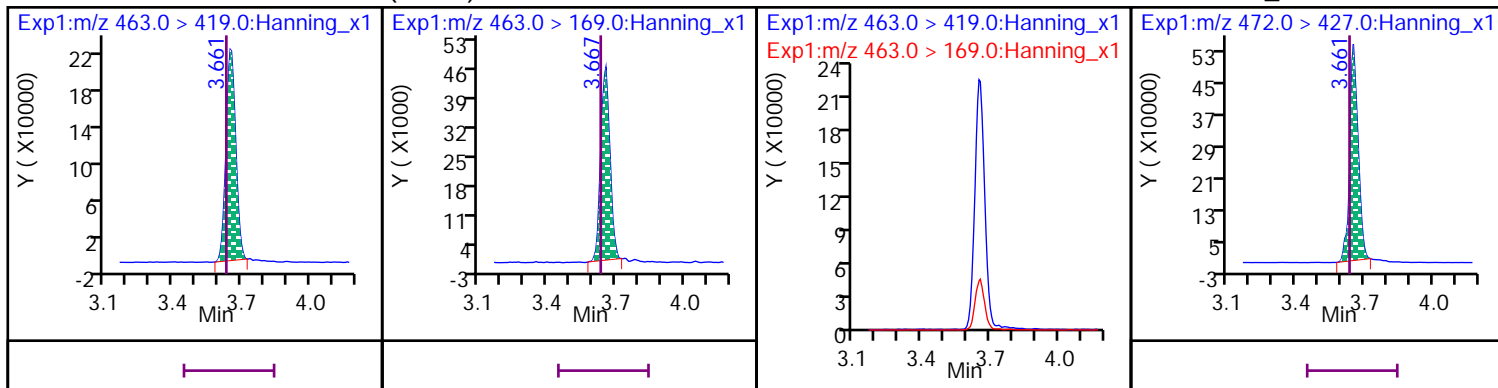
18 Perfluorooctanesulfonate (PFOS) (M)

D 54 13C8_PFOS



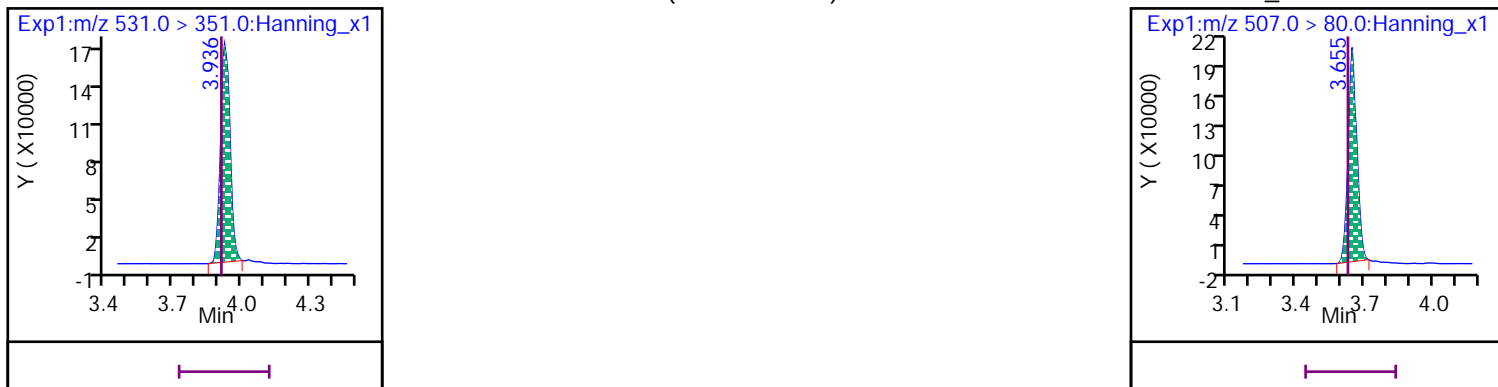
17 Perfluoro-n-nonanoic acid (PFNA)

D 56 13C9_PFNA



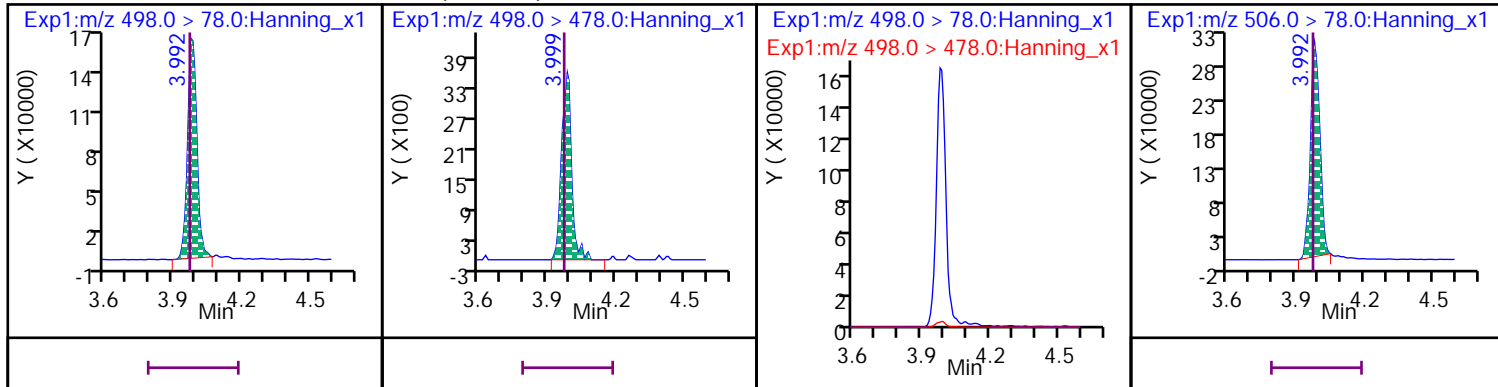
30 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)

D 54 13C8_PFOS



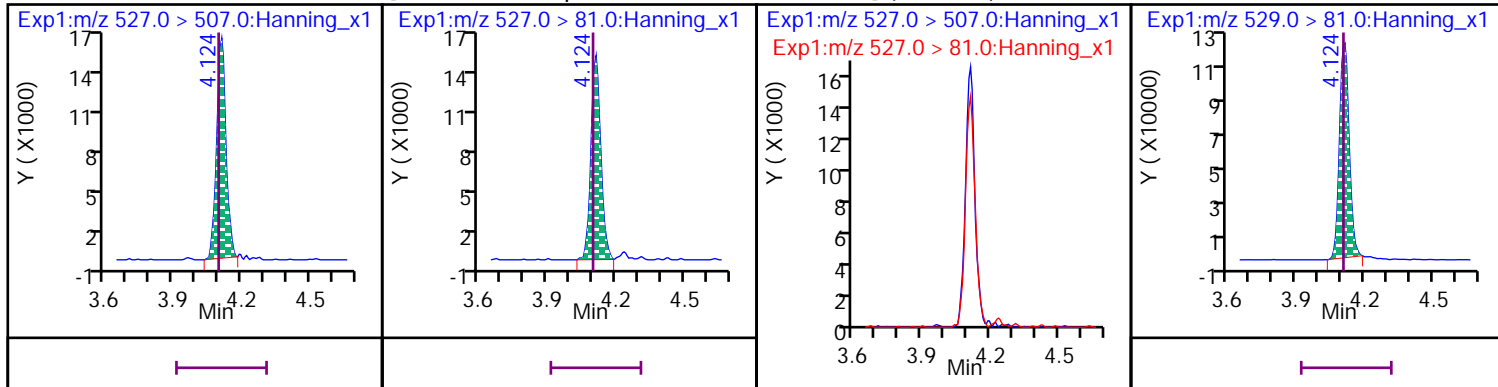
19 Perfluoro-1-octanesulfonamide (PFOSA)

D 55 13C8_PFOSA



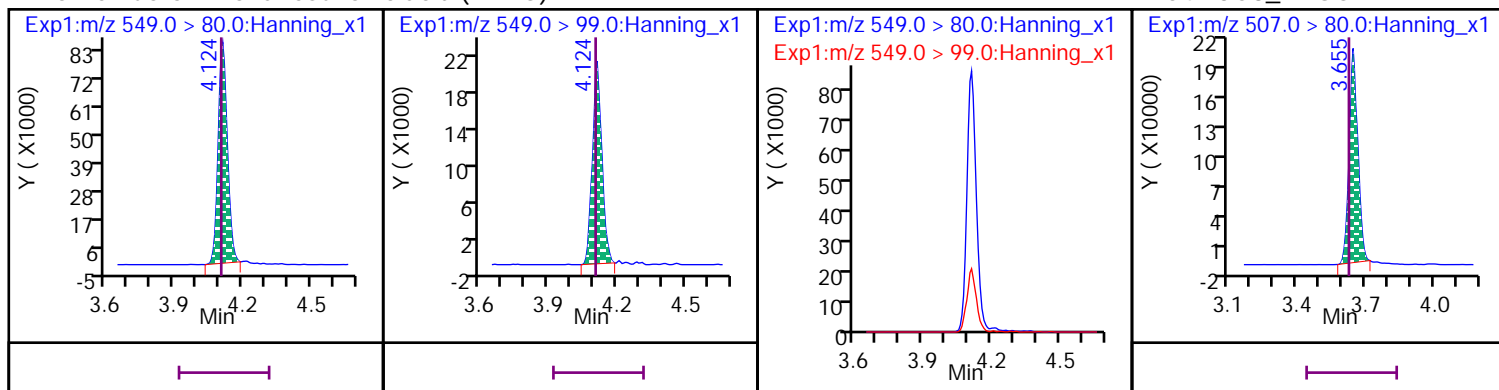
3 Fluorotelomer sulfonate 8:2 [1H,1H,2H,2H-perfluorodecane sulfonate] (8:2 FTS)

D 65 13C2_8:2 FTS_2



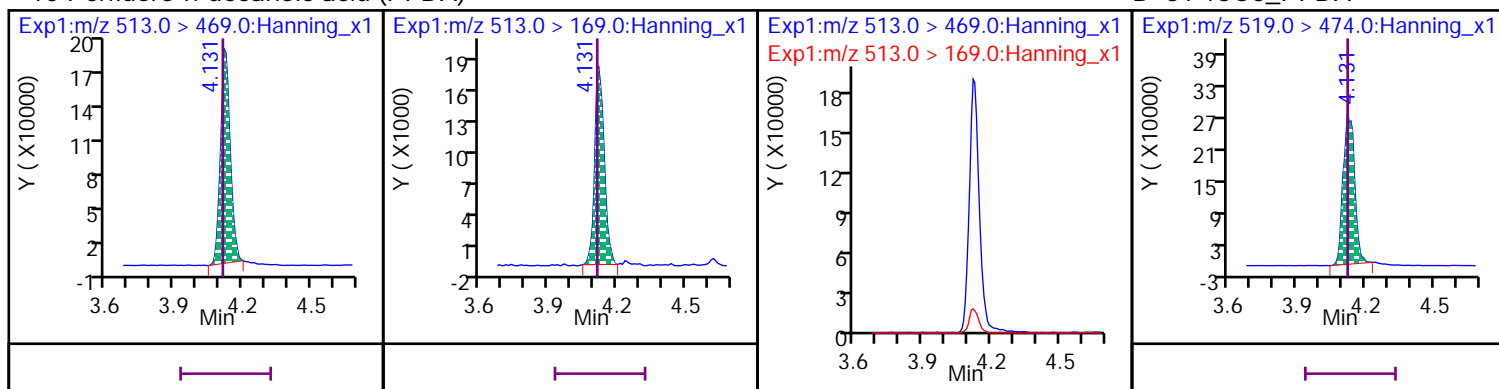
16 Perfluoro-1-nonanesulfonic acid (PFNS)

D 54 13C8_PFOS



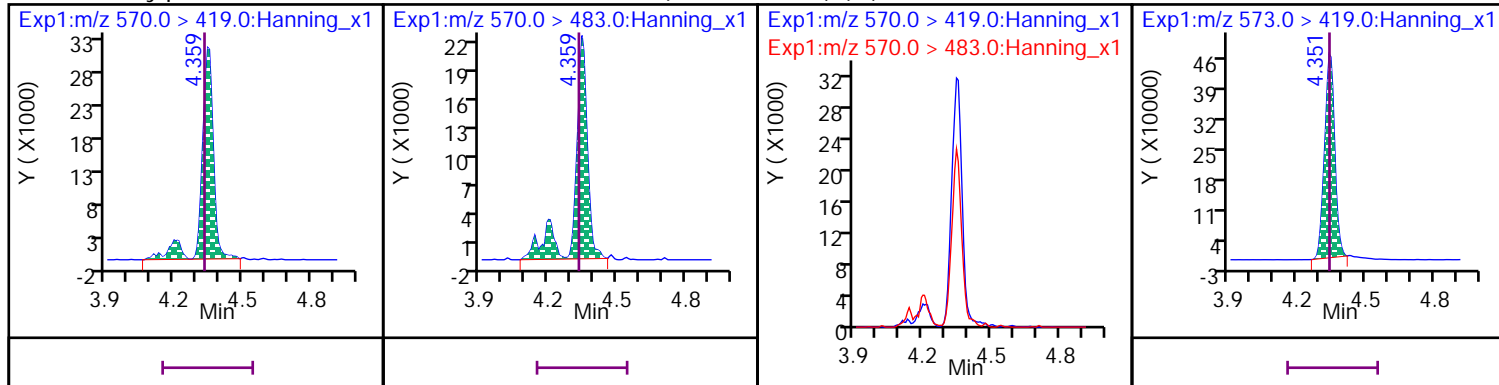
10 Perfluoro-n-decanoic acid (PFDA)

D 51 13C6_PFDA



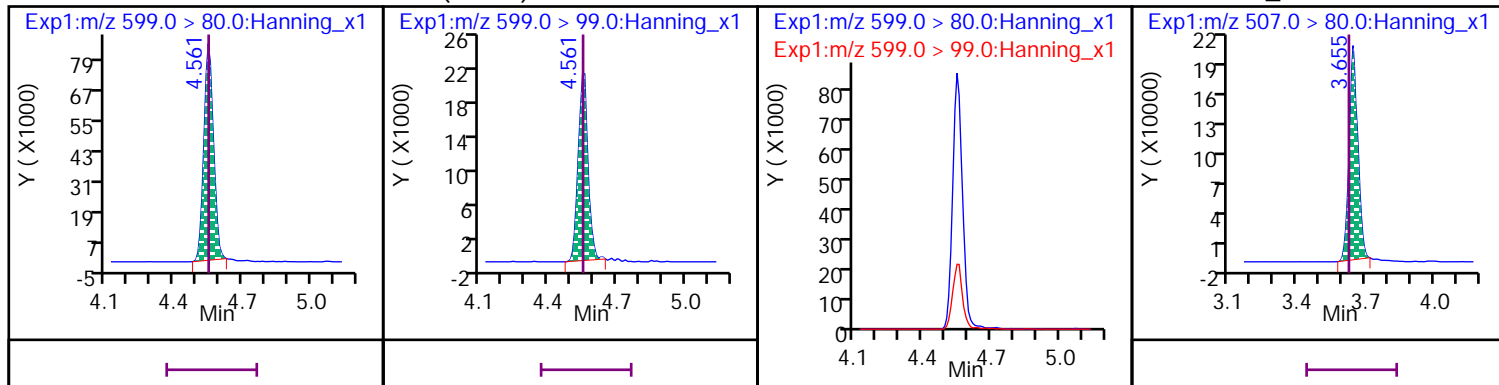
6 N-methylperfluoro-1-octanesulfonamidoacetic acid (N-MeFOSAA) (M)

D 58 d3-MeFOSAA

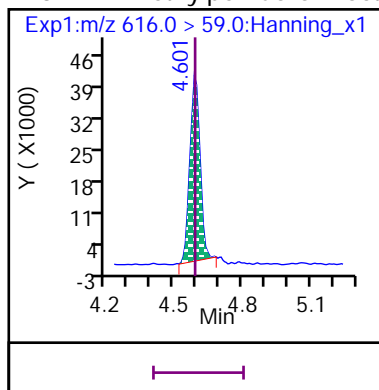


9 Perfluoro-1-decanesulfonic acid (PFDS)

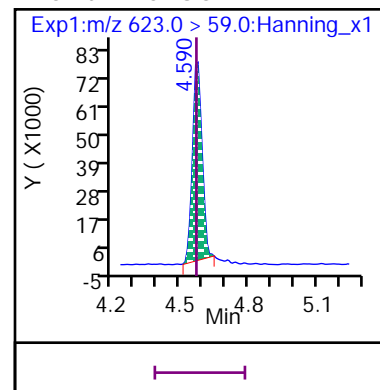
D 54 13C8_PFOS



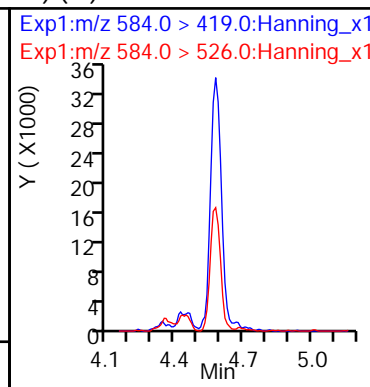
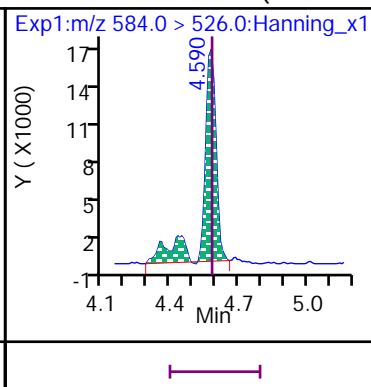
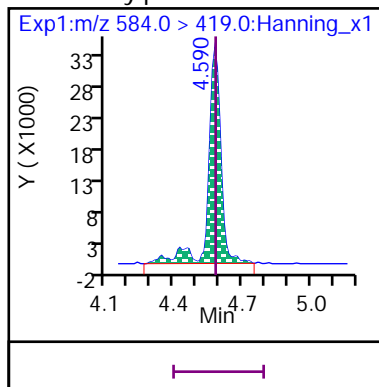
32 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)



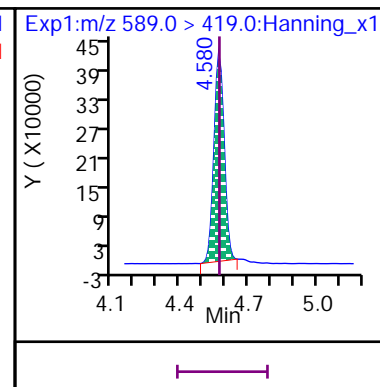
D 61 d7-MeFOSE



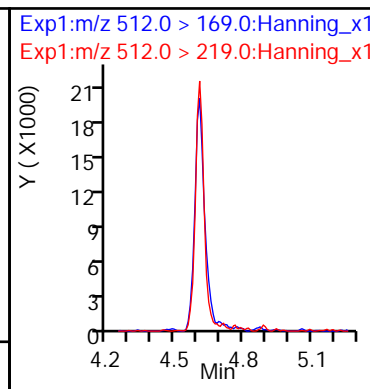
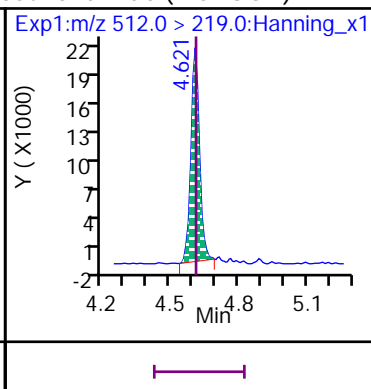
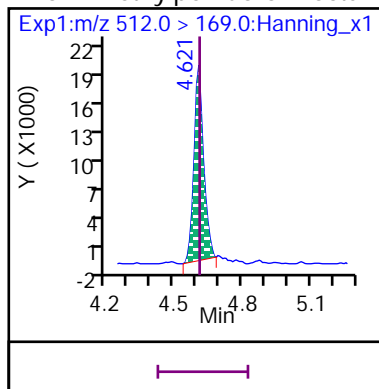
5 N-ethylperfluoro-1-octanesulfonamidoacetic acid (N-EtFOSAA) (M)



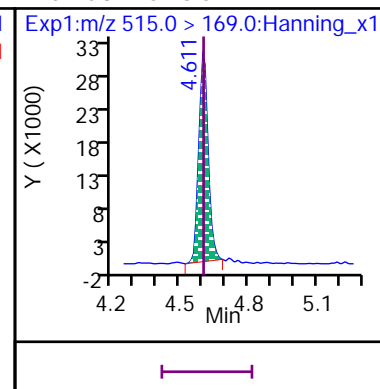
D 60 d5-EtFOSAA



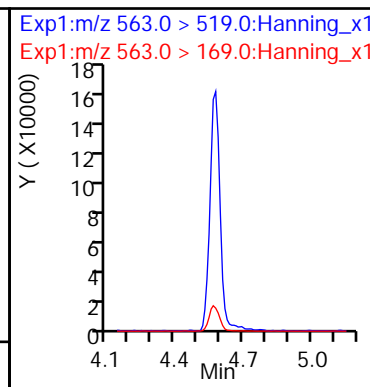
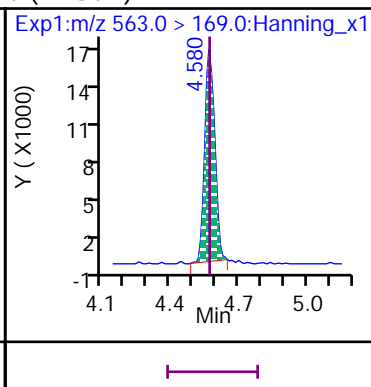
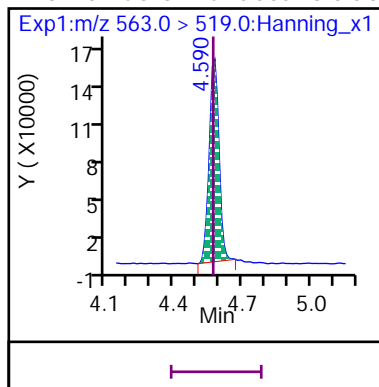
26 N-methylperfluoro-1-octanesulfonamide (MeFOSA)



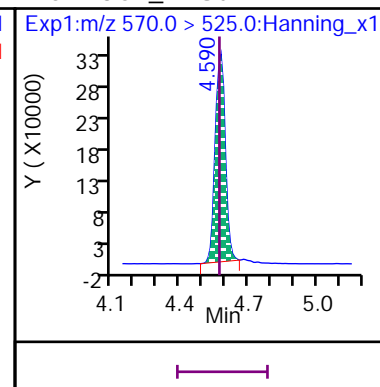
D 57 d3-MeFOSA



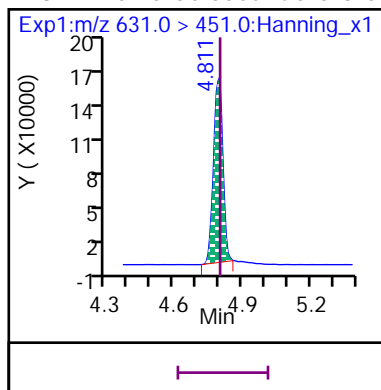
25 Perfluoro-n-undecanoic acid (PFUdA)



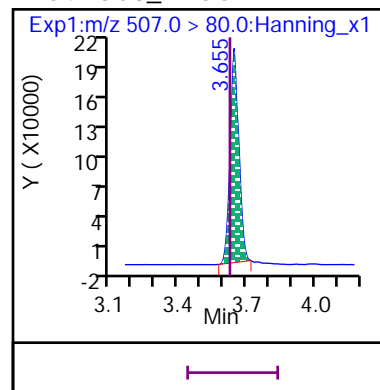
D 52 13C7_PFUdA



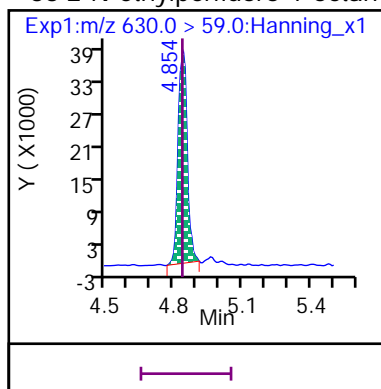
31 11-chloroeicosfluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)



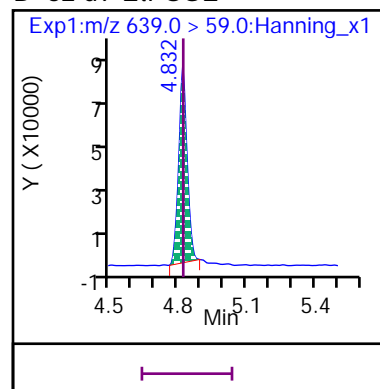
D 54 13C8_PFOS



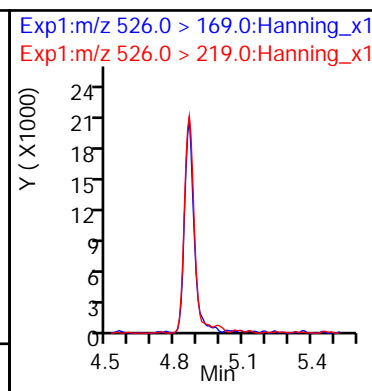
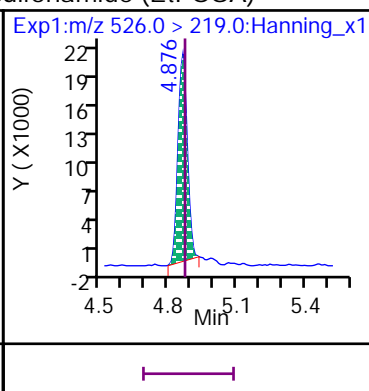
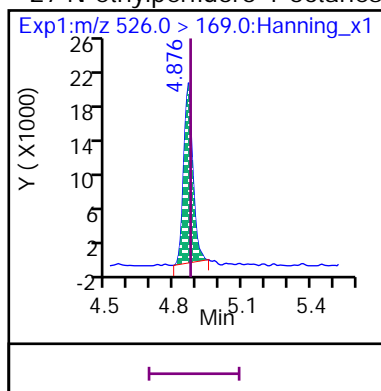
33 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)



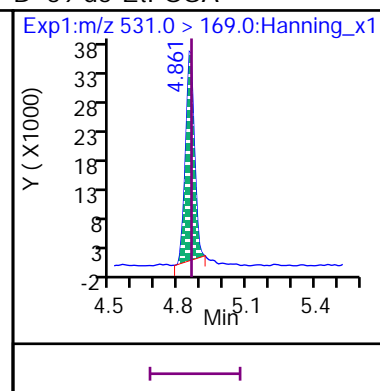
D 62 d9-EtFOSE



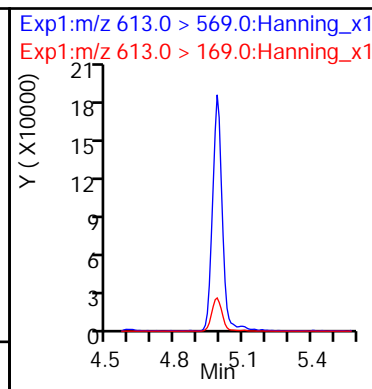
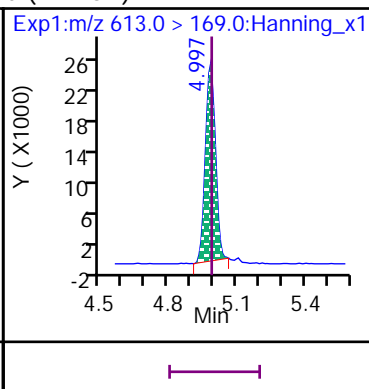
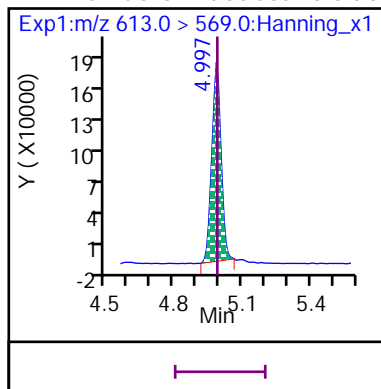
27 N-ethylperfluoro-1-octanesulfonamide (EtFOSA)



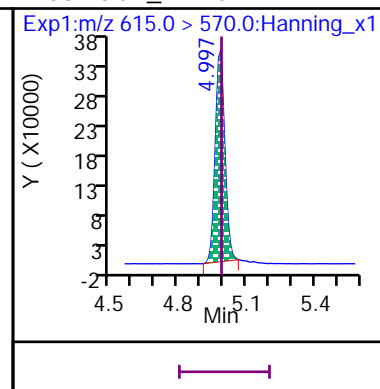
D 59 d5-EtFOSA



11 Perfluoro-n-dodecanoic acid (PFDoA)

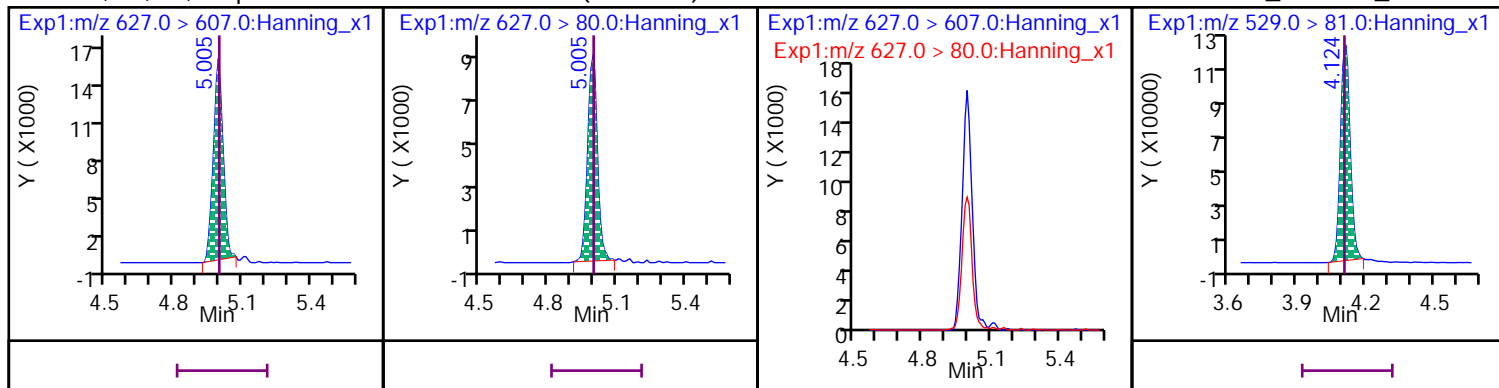


D 38 13C2_PFDoA



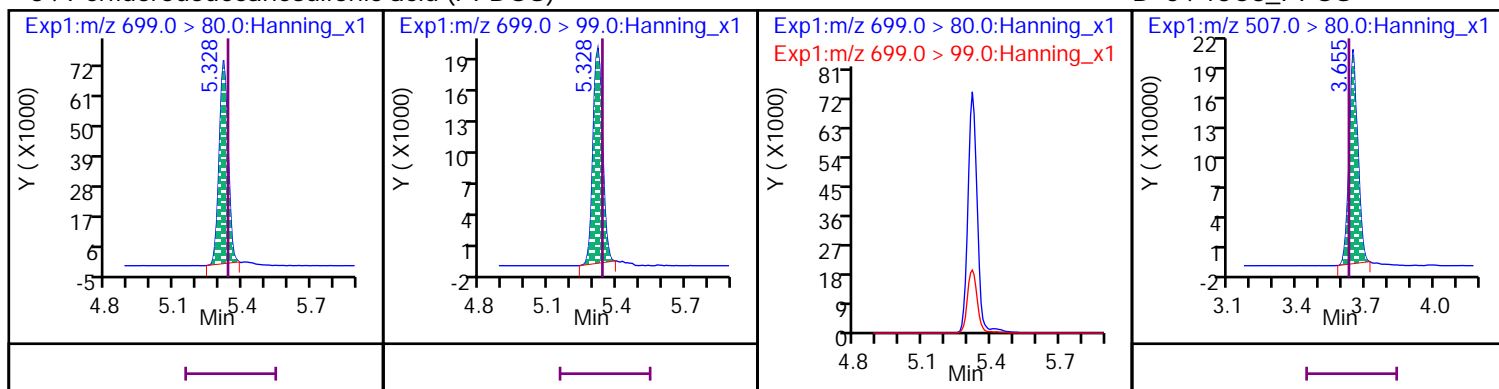
4 1H,1H,2H,2H-perfluorododecane sulfonate (10:2FTS)

D 65 13C2_8:2 FTS_2



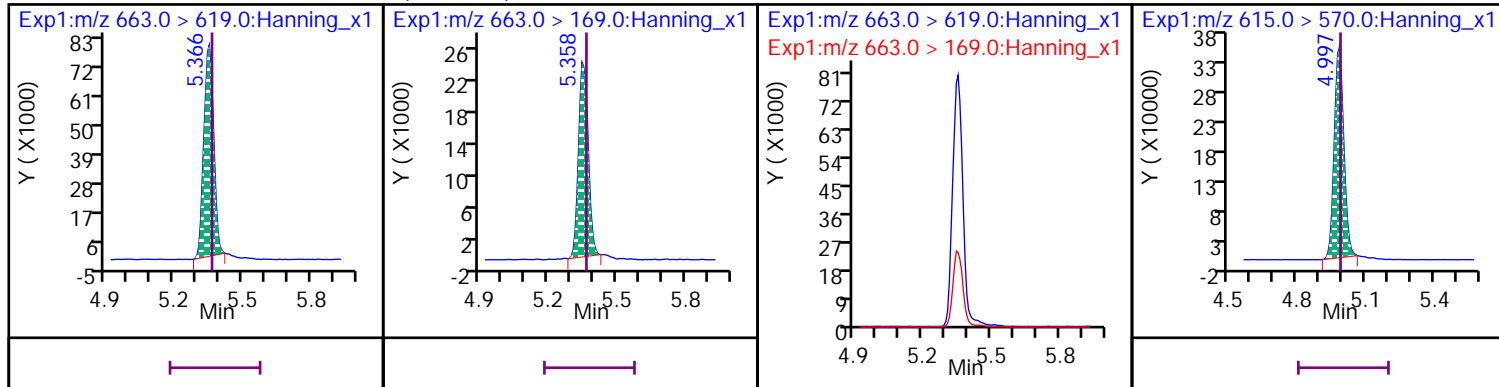
34 Perfluorododecanesulfonic acid (PFDOS)

D 54 13C8_PFOS



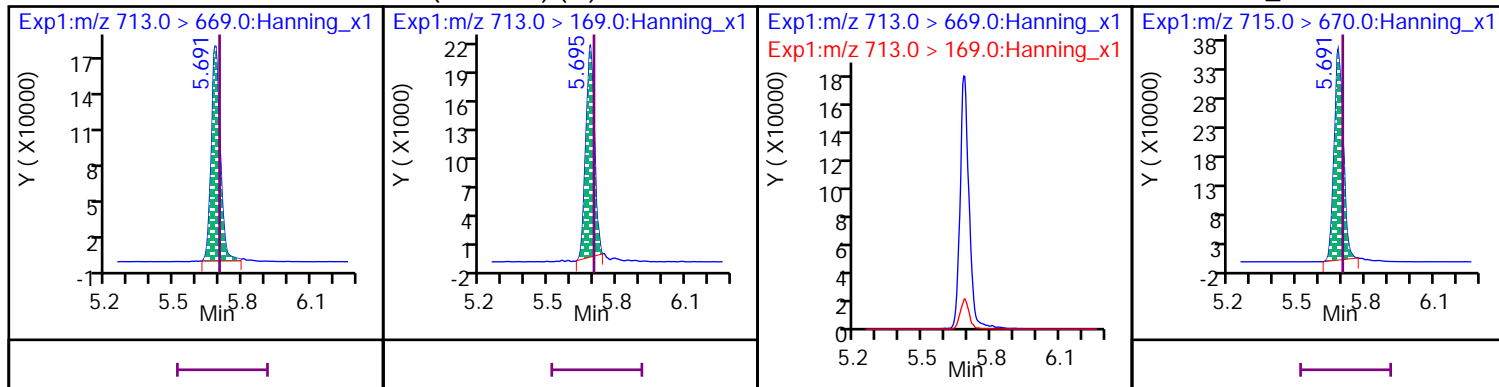
24 Perfluoro-n-tridecanoic acid (PFTrDA)

D 38 13C2_PFDaA



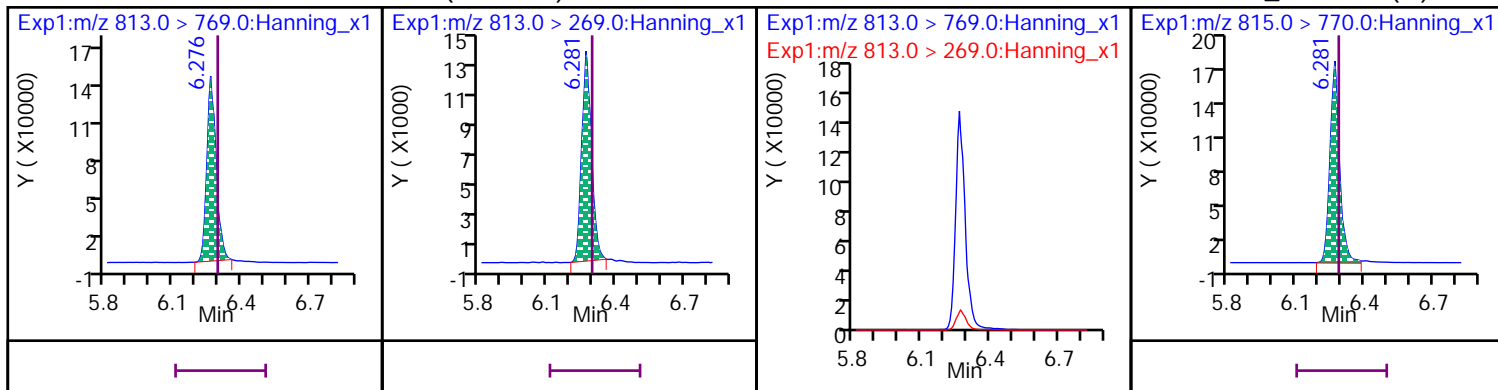
23 Perfluoro-n-tetradecanoic acid (PFTeDA) (M)

D 42 13C2_PFTeDA



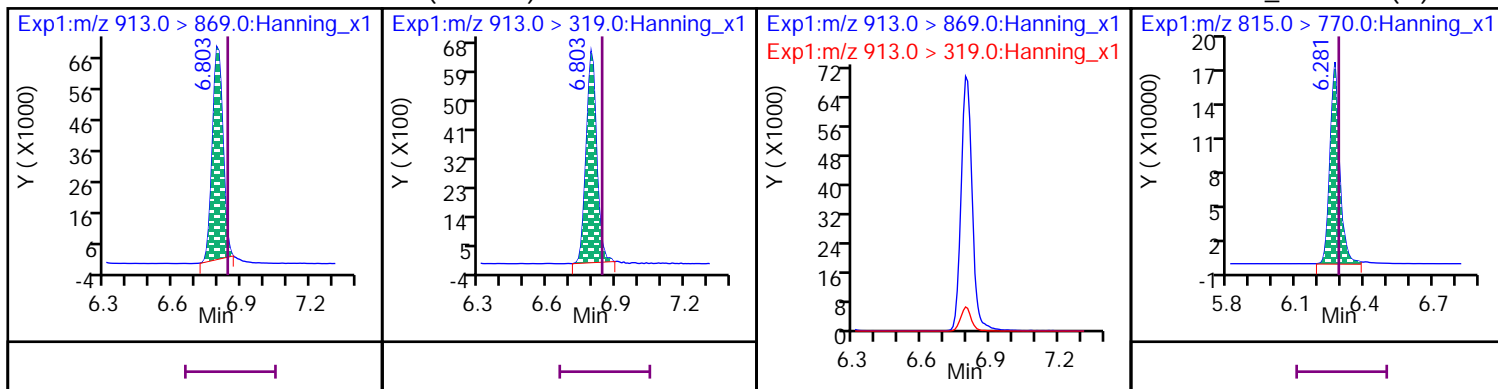
35 Perfluoro-n-hexadecanoic acid (PFHxDA)

D 40 13C2_PFHxDA (M)



36 Perfluoro-n-octadecanoic acid (PFODA)

D 40 13C2_PFHxDA (M)

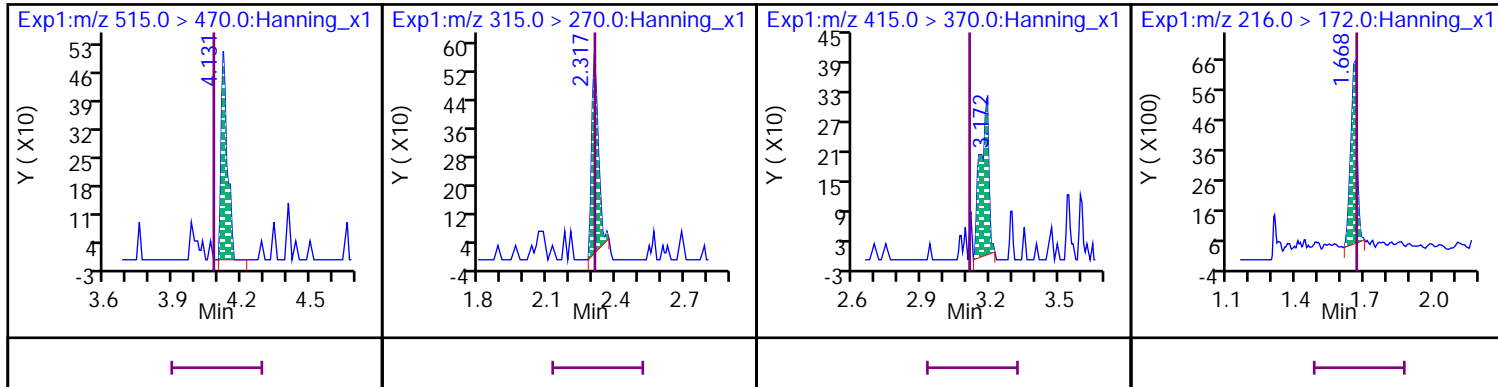


* 37 13C2_PFDA

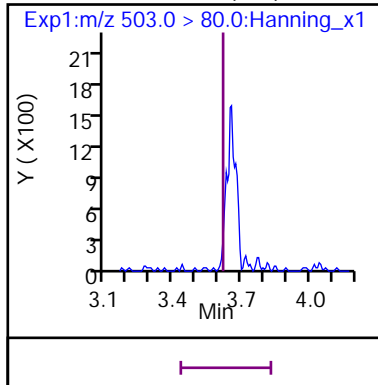
* 39 13C2_PFHxA

* 41 13C2_PFOA

* 43 13C3_PFBA



* 48 13C4_PFOS (ND)



Manual Integration Report

Data File: \\Organics\LL\LCMSMS01.i\091222-nonDOD.b\091222015.d

Injection Date: 12-Sep-2022 16:29:37

Inst. ID: LCMSMS01.i

Client ID:

Lab ID: CCV 1000_SVLC_2200

Sample Info: CCV 1000_SVLC_2200

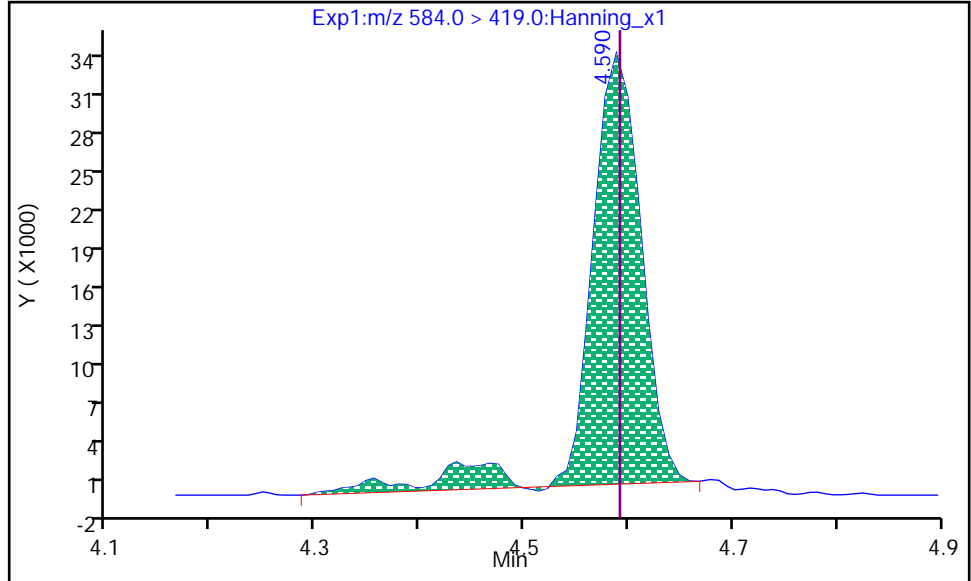
Dil. Factor: 1

Operator: eqi.svoa

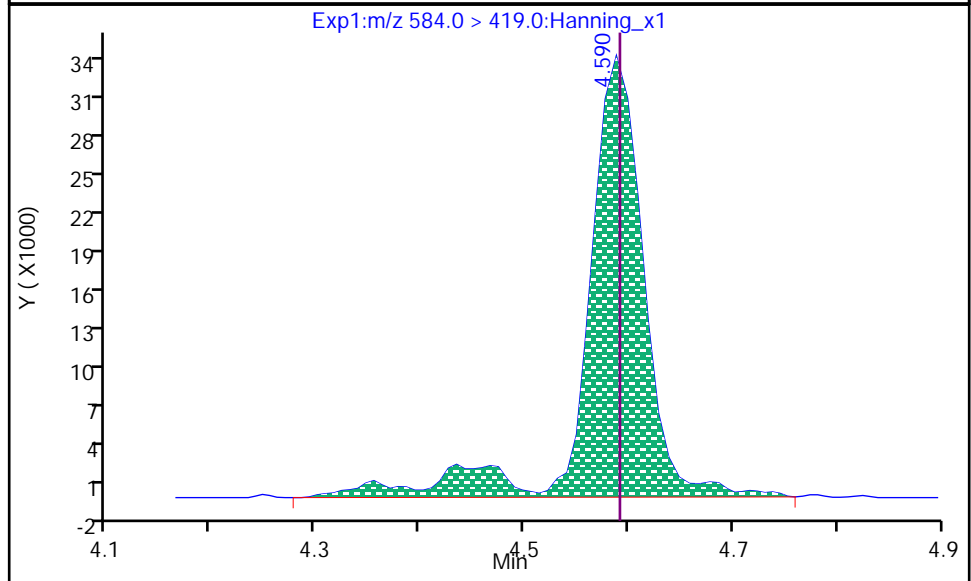
5 N-EtFOSAA, CAS: 2991-50-6

Processing Integration Results

RT: 4.590
Area: 113791
Amount: 869.35
Amount Units: ng/L



RT: 4.590
Area: 128199
Amount: 979.43
Amount Units: ng/L



Data Editor: xiang.zhu, 14-Sep-2022 12:25:48

Audit Action: Mint

Audit Reason: Invalid Integration

Manual Integration Report

Data File: \\Organics\LL\LCMSMS01.i\091222-nonDOD.b\091222015.d

Injection Date: 12-Sep-2022 16:29:37

Inst. ID: LCMSMS01.i

Client ID:

Lab ID: CCV 1000_SVLC_2200

Sample Info: CCV 1000_SVLC_2200

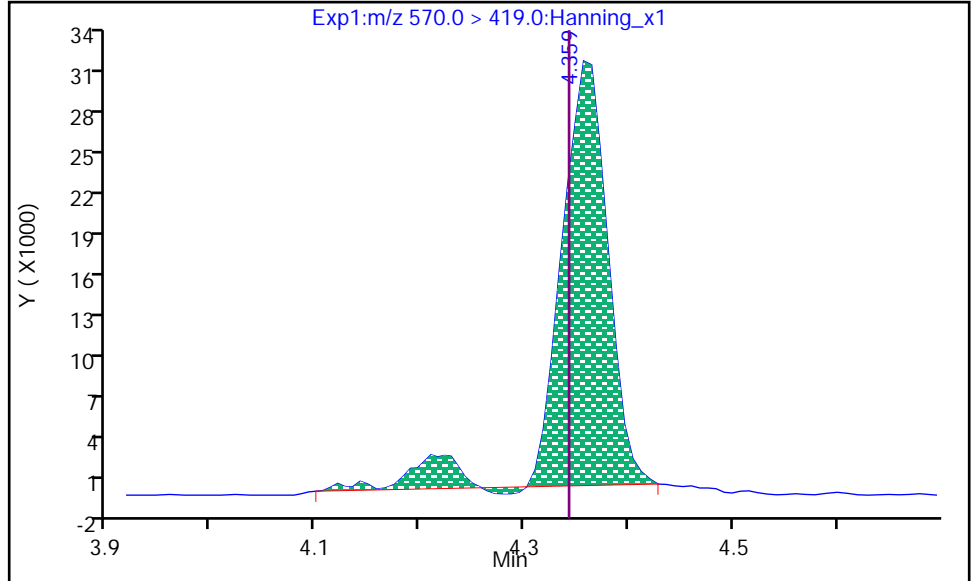
Dil. Factor: 1

Operator: eqi.svoa

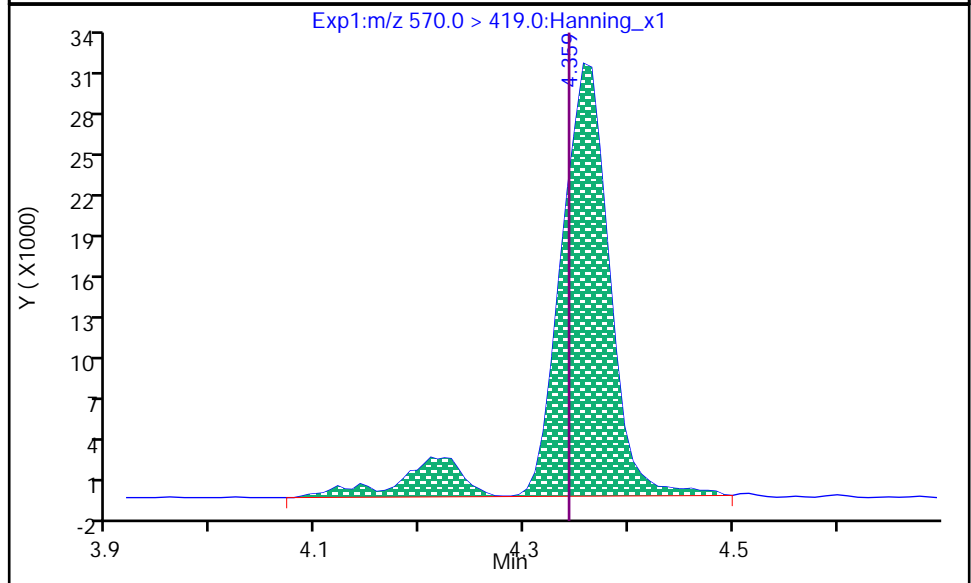
6 N-MeFOSAA, CAS: 2355-31-9

RT: 4.359
Area: 99352
Amount: 833.66
Amount Units: ng/L

Processing Integration Results



RT: 4.359
Area: 110447
Amount: 926.76
Amount Units: ng/L



Data Editor: xiang.zhu, 14-Sep-2022 12:25:17
Audit Action: Mint
Audit Reason: Invalid Integration

Manual Integration Report

Data File: \\Organics\LL\LCMSMS01.i\091222-nonDOD.b\091222015.d

Injection Date: 12-Sep-2022 16:29:37

Inst. ID: LCMSMS01.i

Client ID:

Lab ID: CCV 1000_SVLC_2200

Sample Info: CCV 1000_SVLC_2200

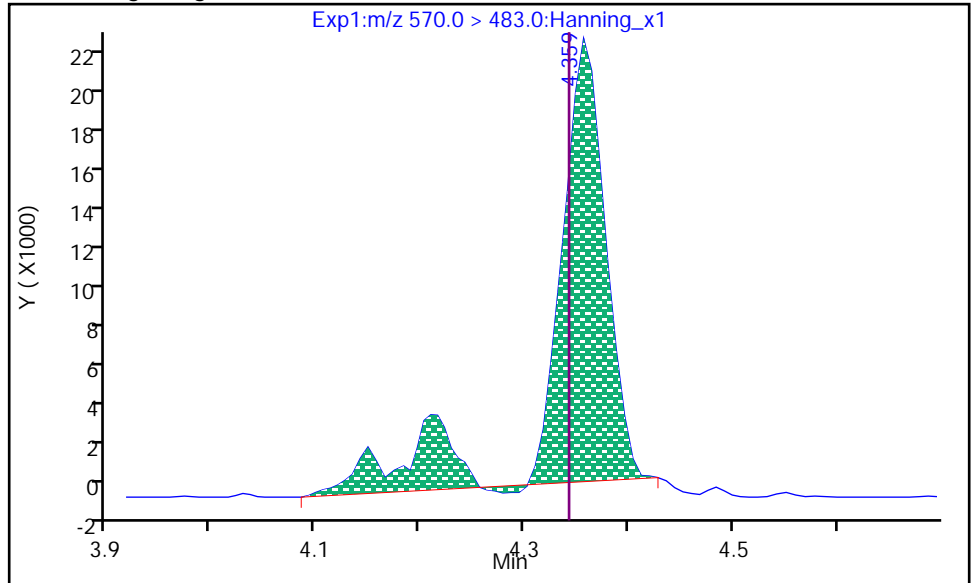
Dil. Factor: 1

Operator: eqi.svoa

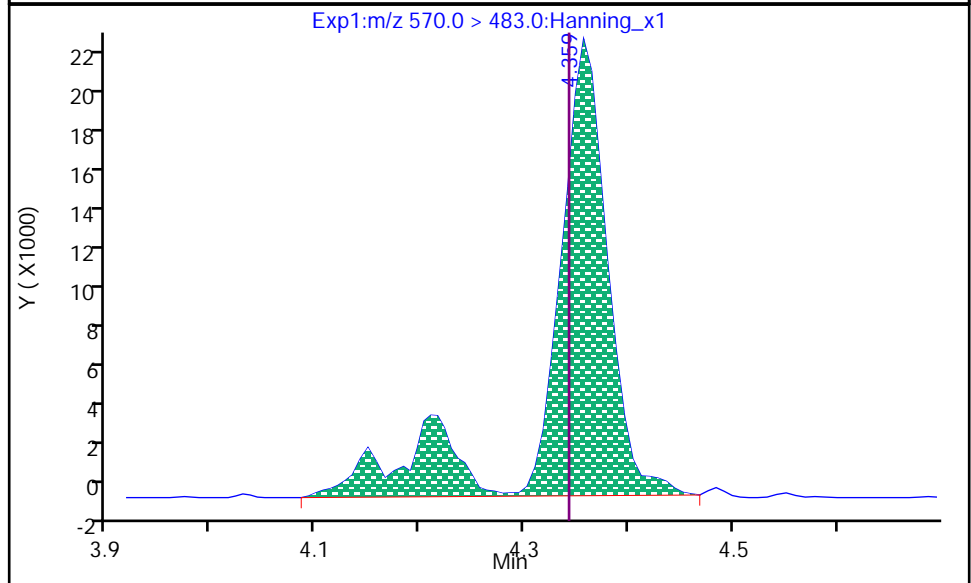
6 N-MeFOSAA, CAS: 2355-31-9

Processing Integration Results

RT: 4.359
Area: 74023
Amount: 926.76
Amount Units: ng/L



RT: 4.359
Area: 83306
Amount: 926.76
Amount Units: ng/L



Data Editor: xiang.zhu, 14-Sep-2022 12:25:25
Audit Action: Mint
Audit Reason: Invalid Integration

Manual Integration Report

Data File: \\Organics\LL\LCMSMS01.i\091222-nonDOD.b\091222015.d

Injection Date: 12-Sep-2022 16:29:37

Inst. ID: LCMSMS01.i

Client ID:

Lab ID: CCV 1000_SVLC_2200

Sample Info: CCV 1000_SVLC_2200

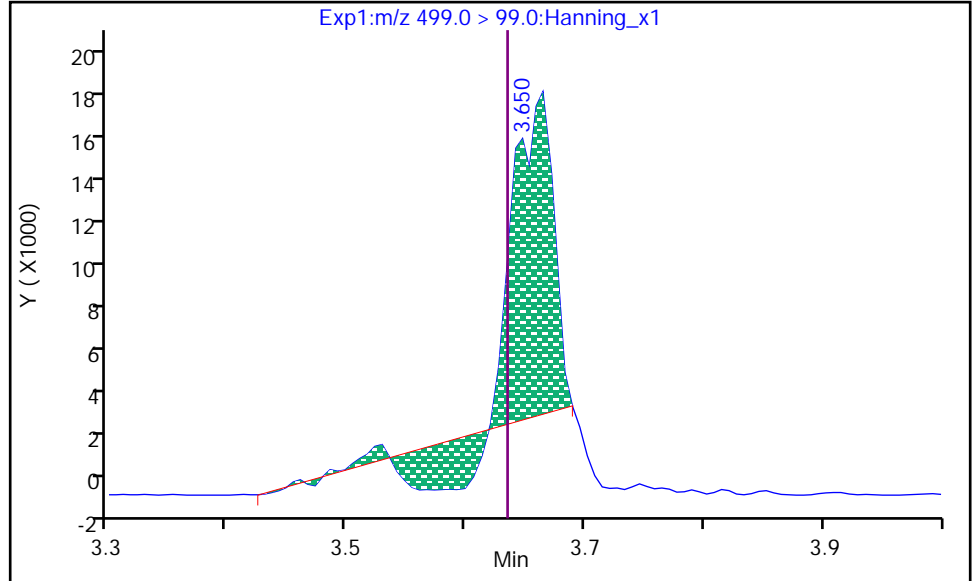
Dil. Factor: 1

Operator: eqi.svoa

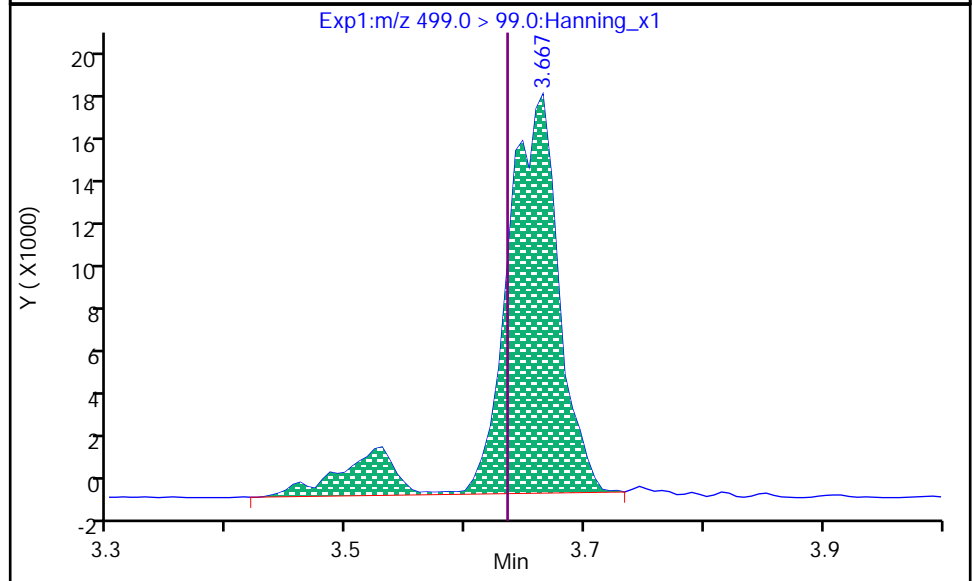
18 PFOS, CAS: 1763-23-1

RT: 3.650
Area: 25751
Amount: 893.57
Amount Units: ng/L

Processing Integration Results



RT: 3.667
Area: 56808
Amount: 893.57
Amount Units: ng/L



Data Editor: xiang.zhu, 14-Sep-2022 12:24:58

Audit Action: Mint

Audit Reason: Invalid Integration

Manual Integration Report

Data File: \\Organics\LL\LCMSMS01.i\091222-nonDOD.b\091222015.d

Injection Date: 12-Sep-2022 16:29:37

Inst. ID: LCMSMS01.i

Client ID:

Lab ID: CCV 1000_SVLC_2200

Sample Info: CCV 1000_SVLC_2200

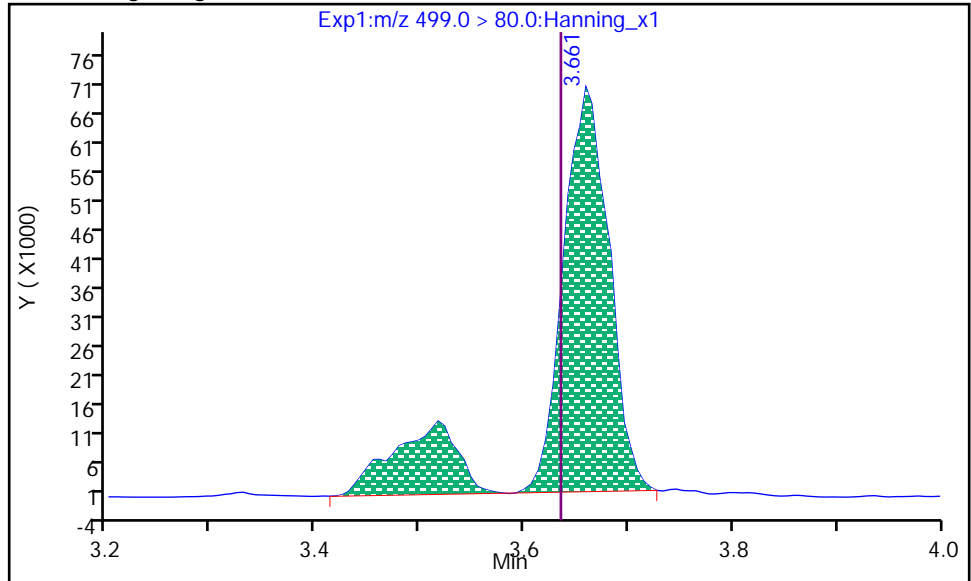
Dil. Factor: 1

Operator: eqi.svoa

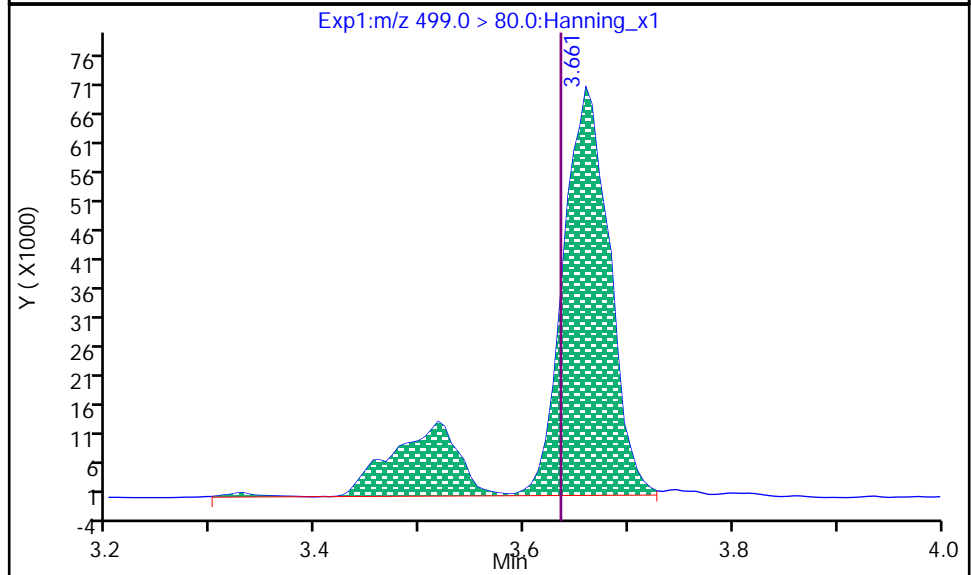
18 PFOS, CAS: 1763-23-1

Processing Integration Results

RT: 3.661
Area: 260907
Amount: 867.52
Amount Units: ng/L



RT: 3.661
Area: 268742
Amount: 893.57
Amount Units: ng/L



Data Editor: matthew.miller, 15-Sep-2022 16:08:13

Audit Action: Mint

Audit Reason: Invalid Integration

Manual Integration Report

Data File: \\Organics\LL\LCMSMS01.i\091222-nonDOD.b\091222015.d

Injection Date: 12-Sep-2022 16:29:37

Inst. ID: LCMSMS01.i

Client ID:

Lab ID: CCV 1000_SVLC_2200

Sample Info: CCV 1000_SVLC_2200

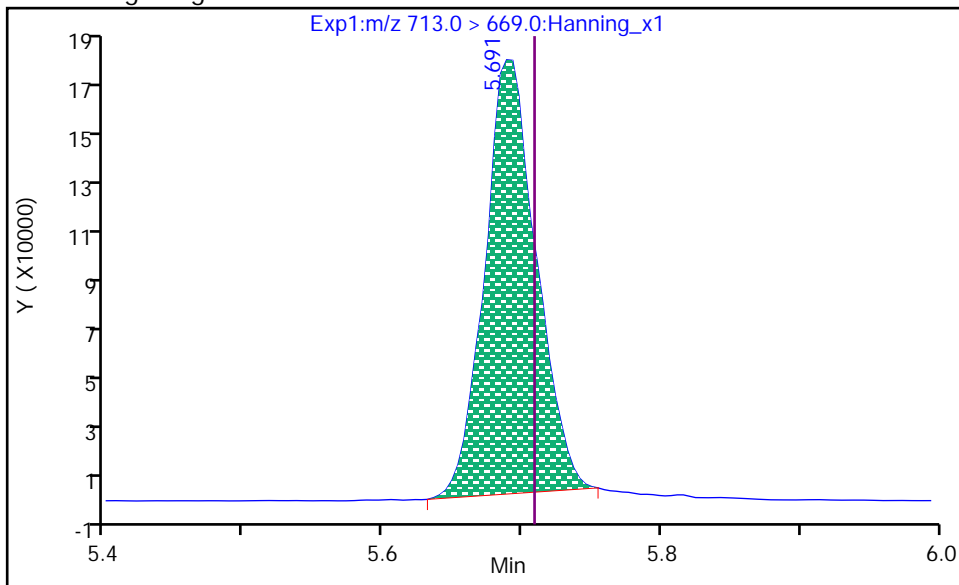
Dil. Factor: 1

Operator: eqi.svoa

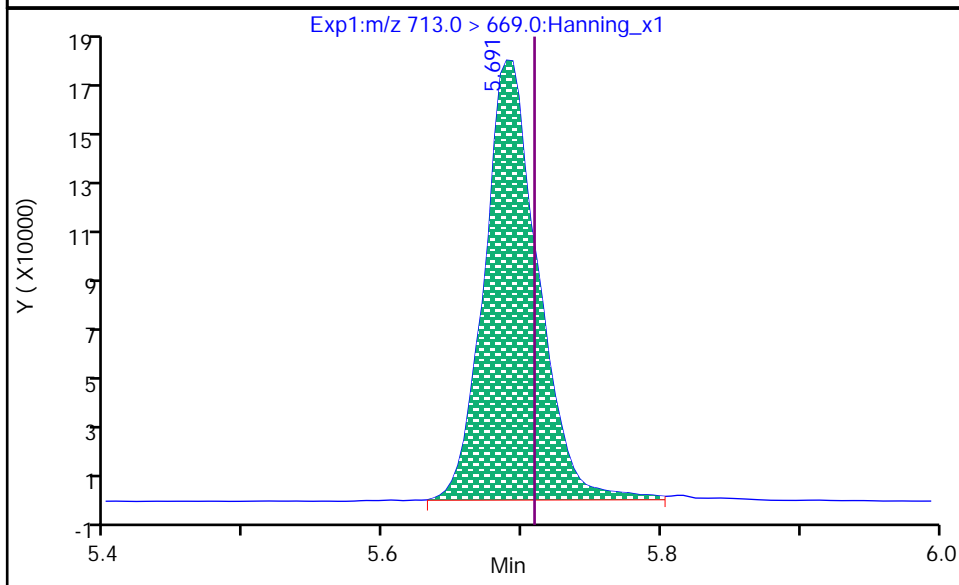
23 PFTeDA, CAS: 376-06-7

Processing Integration Results

RT: 5.691
Area: 448294
Amount: 1215.50
Amount Units: ng/L



RT: 5.691
Area: 473656
Amount: 1284.27
Amount Units: ng/L



Data Editor: LaShanda.Blair, 13-Sep-2022 15:16:20

Audit Action: Mint

Audit Reason: Invalid Integration

Manual Integration Report

Data File: \\Organics\LL\LCMSMS01.i\091222-nonDOD.b\091222015.d

Injection Date: 12-Sep-2022 16:29:37

Inst. ID: LCMSMS01.i

Client ID:

Lab ID: CCV 1000_SVLC_2200

Sample Info: CCV 1000_SVLC_2200

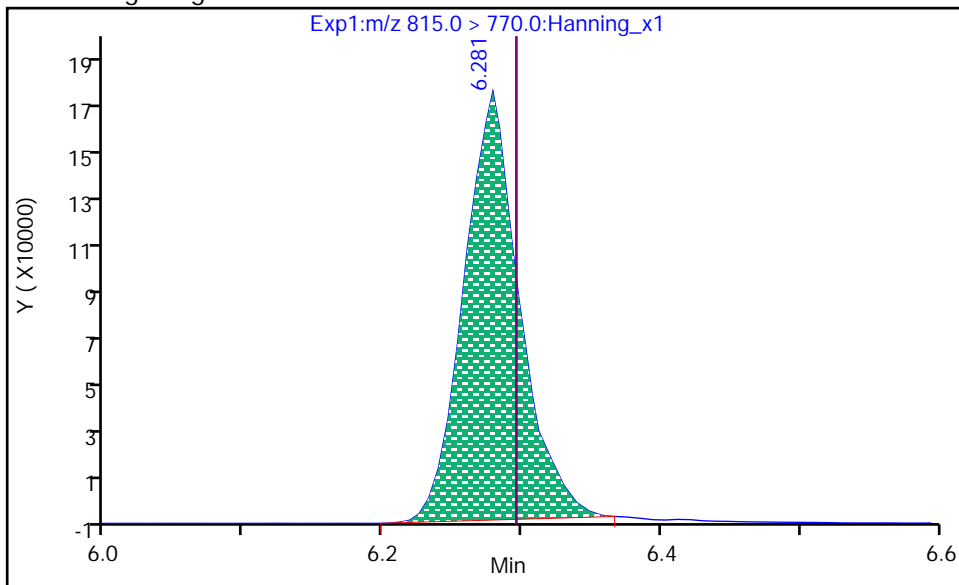
Dil. Factor: 1

Operator: eqi.svoa

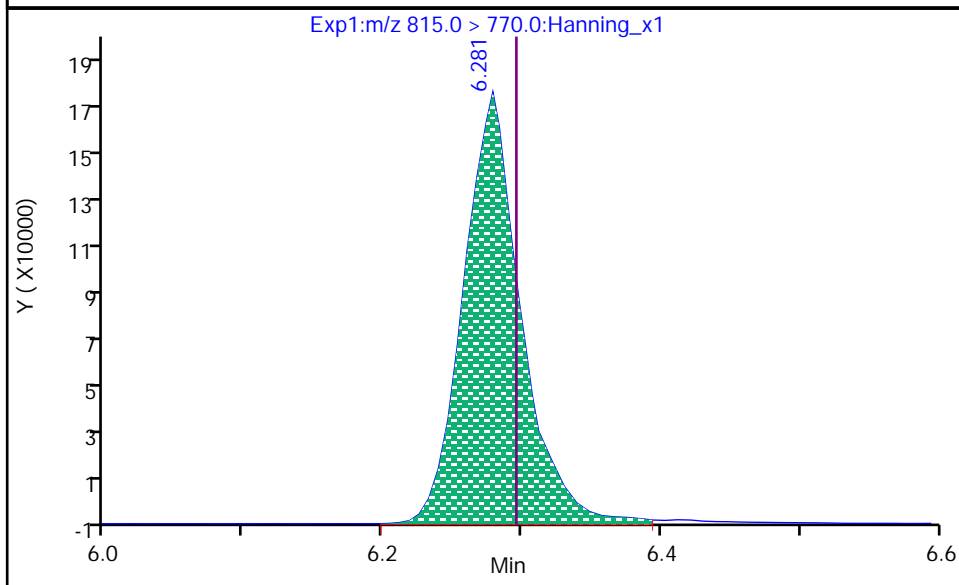
D 40 13C2_PFHxDA, CAS: SESI-0103

Processing Integration Results

RT: 6.281
Area: 487069
Amount: 1728.73
Amount Units: ng/L



RT: 6.281
Area: 509619
Amount: 1808.76
Amount Units: ng/L



Data Editor: LaShanda.Blair, 13-Sep-2022 15:16:29

Audit Action: Mint

Audit Reason: Invalid Integration

Pace Environmental Services, LLC
Continuing Calibration Verification Report

Data File: \\Organics\LL\LCMSMS01.i\091222-nonDOD.b\091222026.d
Injection Date: 12-Sep-2022 18:26:10 Injection Vol: 10.0 uL
Sample Type: CCV Auto Sampler: 19
Sample Info: CCV 1000_SVLC_2200 Misc. Info:
Inst. ID: LCMSMS01.i Operator: eqi.svoa
Method: LCMSMS01_PFAS-ID2 Version: V16 30-Jun-2022 10:54:24
Calib Method: PFAS-ID2 Lock State: Unlocked
Quant Method: IsoDil Integrator: picker

Reagent: Analytes Conc. Level: L-5 Vol. Added: 1.00 ml

Compound	Std Area	CCV Area	Exp. Conc ng/L	Conc ng/L	%Rec	%Rec Limits
D 46 13C4_PFBA	2392972	2281257			95.3	50 - 150
8 PFBA			1000.00	1113.98	111.4	70 - 130
21 PFPeA			1000.00	1206.08	120.6	70 - 130
D 50 13C5_PFPeA	1599974	1447082			90.4	50 - 150
D 44 13C3_PFBs	586478	613819			104.7	50 - 150
7 PFBs			884.00	843.04	95.4	70 - 130
D 63 13C2_4:2 FTS_2	506769	872772			172.2	50 - 150
1 4:2 FTS			934.00	872.87	93.5	70 - 130
D 49 13C5_PFHxA	1690154	1791744			106	50 - 150
15 PFHxA			1000.00	1007.92	100.8	70 - 130
22 PFPeS			938.00	966.76	103.1	70 - 130
28 GenX			2000.00	2406.03	120.3	70 - 130
D 66 13C3_GenX	1247009	1187928			95.3	50 - 150
13 PFHpA			1000.00	1068.34	106.8	70 - 130
D 47 13C4_PFHpA	1544635	1543644			99.9	50 - 150
D 45 13C3_PFHxS	398871	451618			113.2	50 - 150
14 PFHxS			910.00	881.21	96.8	70 - 130
29 ADONA			942.00	911.37	96.7	70 - 130
2 6:2 FTS			948.00	1163.22	122.7	70 - 130
D 64 13C2_6:2 FTS_2	432458	355400			82.2	50 - 150
D 53 13C8_PFOA	1379286	1340887			97.2	50 - 150
20 PFOA			1000.00	1065.48	106.5	70 - 130
12 PFHpS			952.00	889.62	93.4	70 - 130
18 PFOS			928.00	927.72	100	70 - 130
D 54 13C8_PFOS	515554	523667			101.6	50 - 150
17 PFNA			1000.00	998.93	99.9	70 - 130
D 56 13C9_PFNA	1373592	1469329			107	50 - 150
30 9Cl-PF3ONS			932.00	913.18	98	70 - 130
D 55 13C8_PFOSA	880888	885775			100.6	50 - 150
19 PFOSA			1000.00	949.35	94.9	70 - 130
D 65 13C2_8:2 FTS_2	390251	380333			97.5	50 - 150
16 PFNS			960.00	898.44	93.6	70 - 130
3 8:2 FTS			958.00	1060.94	110.7	70 - 130
D 51 13C6_PFDA	1270798	1127664			88.7	50 - 150
10 PFDA			1000.00	1014.78	101.5	70 - 130
D 58 d3-MeFOSAA	1375015	1456266			105.9	50 - 150

Compound	Std Area	CCV Area	Exp. Conc ng/L	Conc ng/L	%Rec	%Rec Limits
6 N-MeFOSAA			1000.00	1133.92	113.4	70 - 130
D 61 d7-MeFOSE	239634	249581			104.2	50 - 150
32 MeFOSE			1000.00	1057.70	105.8	70 - 130
9 PFDS			964.00	1009.15	104.7	70 - 130
5 N-EtFOSAA			1000.00	943.25	94.3	70 - 130
D 57 d3-MeFOSA	125682	99428			79.1	50 - 150
26 MeFOSA			1000.00	1146.82	114.7	70 - 130
D 60 d5-EtFOSAA	1370840	1409835			102.8	50 - 150
D 52 13C7_PFUdA	1158026	1065209			92	50 - 150
25 PFUdA			1000.00	1009.14	100.9	70 - 130
D 62 d9-EtFOSE	232388	244059			105	50 - 150
31 11Cl-PF3OUDS			942.00	923.19	98	70 - 130
33 EtFOSE			1000.00	1262.42	126.2	70 - 130
D 59 d5-EtFOSA	107506	102519			95.4	50 - 150
27 EtFOSA			1000.00	1148.61	114.9	70 - 130
D 38 13C2_PFDoA	1027902	1128359			109.8	50 - 150
11 PFDoA			1000.00	1080.16	108	70 - 130
4 10:2 FTS			964.00	1783.85	185	70 - 130
34 PFDOS			968.00	820.88	84.8	70 - 130
24 PFTrDA			1000.00	963.14	96.3	70 - 130
23 PFTeDA			1000.00	1245.93	124.6	70 - 130
D 42 13C2_PFTeDA	1037162	1249375			120.5	50 - 150
D 40 13C2_PFHxDA	559085	598207			107	50 - 150
35 PFHxDA			1000.00	1419.15	141.9	70 - 130
36 PFODA			1000.00	808.12	80.8	70 - 130

Pace Environmental Services, LLC
Analyte Quantitation Report

Data File: \\Organics\LL\LCMSMS01.i\091222-nonDOD.b\091222026.d
Injection Date: 12-Sep-2022 18:26:10 Injection Vol: 10.0 uL
Sample Type: CCV Auto Sampler: 19
Sample Info: CCV 1000_SVLC_2200 Misc. Info:
Inst. ID: LCMSMS01.i Operator: eqi.svoa
Method: LCMSMS01_PFAS-ID2 Version: V16 30-Jun-2022 10:54:24
Calib Method: PFAS-ID2 Lock State: Unlocked
Quant Method: IsoDil Integrator: picker

Reagent: Analytes Conc. Level: L-5 Vol. Added: 1.00 ml

Signal	Quant Std	RT (min.)	Exp RT (min.)	□ RT (secs.)	Response	Peak Pts	S/N	Ion Ratio	Isomer Ratio	Cal Conc ng/L	OnCol Conc ng/L	%Drift/%Rec	Flags
D 46 13C4_PFBFA CAS: SESI-0111													
217 > 172		1.669	1.670	0	2281257	19	>100:1			2000.00	2155.01	95.3	
8 Perfluoro-n-butanoic acid (PFBA) CAS: 375-22-4													
212.9 > 168.9	46	1.675	1.675	0/0	1235268	18	>100:1			1000.00	1113.98		
D 50 13C5_PFPeA CAS: SESI-0112													
267.9 > 223		1.975	1.975	0	1447082	16	>100:1			2000.00	2045.94	90.4	
21 Perfluoro-n-pentanoic acid (PFPeA) CAS: 2706-90-3													
262.9 > 218.9	50	1.975	1.975	0/0	935387	14	>100:1			1000.00	1206.08		
D 44 13C3_PFBFS CAS: SESI-0116													
302 > 80		2.015	2.025	0	613819	14	>100:1			2000.00	2176.46	104.7	
7 Perfluoro-1-butanefulfonate (PFBS) CAS: 375-73-5													
298.9 > 80	44	2.015	2.025	0/0	309652	15	>100:1	Target = 3.91		884.00	843.04		
298.9 > 99	44	2.015	2.025		83282	16	>100:1	3.71 (1.95-5.87)					
22 Perfluoro-1-pentanesulfonic acid (PFPeS) CAS: 2706-91-4													
349 > 80	44	2.327	2.355	-2/-2	294484	16	>100:1	Target = 3.48		938.00	966.76		
349 > 99	44	2.327	2.355		89662	16	>100:1	3.28 (1.74-5.22)					
D 63 13C2_4:2 FTS_2 CAS: SESI-0104													
329 > 81		2.265	2.283	-1	872772	16	>100:1			10000	22168	172.2*	
1 Fluorotelomer sulfonate 4:2 [1H,1H,2H,2H-perfluorohexane sulfonate] (4:2 FTS) CAS: 757124-72-4													
327 > 307	63	2.265	2.283	-1/0	140350	17	>100:1	Target = 1.33		934.00	872.87		
327 > 81	63	2.265	2.283		91386	18	>100:1	1.53 (0.66-2.00)					
D 49 13C5_PFHxA CAS: SESI-0113													
318 > 273		2.301	2.319	-1	1791744	17	>100:1			2000.00	2124.88	106	
15 Perfluoro-n-hexanoic acid (PFHxA) CAS: 307-24-4													
313 > 269	49	2.310	2.319	0/1	845496	17	>100:1	Target = 16.74		1000.00	1007.92		
313 > 119	49	2.301	2.319		52165	18	>100:1	16.20 (8.37-25.11)					
D 66 13C3_GenX CAS: SESI-0121													
287 > 185		2.408	2.436	-2	1187928	17	>100:1			10000	10000	95.3	
28 Hexafluoropropylene oxide dimer acid (GenX) CAS: 13252-13-6													
285 > 119	66	2.417	2.436	-2/0	199033	16	>100:1	Target = 0.71		2000.00	2406.03		
285 > 185	66	2.417	2.436		269016	17	>100:1	0.73 (0.35-1.06)					
D 47 13C4_PFHpA CAS: SESI-0114													
367 > 322		2.686	2.717	-3	1543644	17	>100:1			2000.00	2163.36	99.9	
13 Perfluoro-n-heptanoic acid (PFHpA) CAS: 375-85-9													
363 > 319	47	2.686	2.717	-3/0	750820	19	>100:1	Target = 3.28		1000.00	1068.34		
363 > 169	47	2.686	2.717		232658	16	>100:1	3.22 (1.64-4.92)					
D 45 13C3_PFHxS CAS: SESI-0096													
402 > 80		2.696	2.727	-3	451618	17	>100:1			2000.00	2298.61	113.2	
14 Perfluorohexanesulfonate (PFHxS) CAS: 355-46-4													
399 > 80	45	2.706	2.727	-2/1	226323	28	>100:1	Target = 3.96	5.75	910.00	881.21		
399 > 99	45	2.696	2.727		62292	29	>100:1	3.63 (1.98-5.94)	7.17				

Signal	Quant Std	RT (min.)	Exp RT (min.)	□ RT (secs.)	Response	Peak Pts	S/N	Ion Ratio	Isomer Ratio	Cal Conc ng/L	OnCol Conc ng/L	%Drift/%Rec	Flags
29 4,8-dioxo-3H-perfluorononanoic acid (ADONA) CAS: 919005-14-4													
377 > 251	45	2.726	2.767	-4/-1	1168271	18	>100:1	Target = 2.26		942.00	911.37		
377 > 85	45	2.726	2.767		469161	17	>100:1	2.49 (1.13-3.39)					
12 Perfluoro-1-heptanesulfonic acid (PFHpS) CAS: 375-92-8													
449 > 80	45	3.126	3.162	-4/-1	228594	25	>100:1	Target = 3.87		952.00	889.62		
449 > 99	45	3.126	3.162		62864	24	>100:1	3.63 (1.93-5.81)					
D 64 13C2_6:2 FTS_2 CAS: SESI-0105													
429 > 81		3.084	3.114	-4	355400	24	>100:1			10000	12089	82.2	
2 Fluorotelomer sulfonate 6:2 [1H,1H,2H,2H-perfluorooctane sulfonate] (6:2 FTS) CAS: 27619-97-2													
427 > 407	64	3.090	3.126	-4/0	66271	25	>100:1	Target = 1.29		948.00	1163.22		
427 > 81	64	3.084	3.126		49028	31	>100:1	1.35 (0.64-1.93)					
D 53 13C8_PFOA CAS: SESI-0097													
421 > 376		3.120	3.156	-4	1340887	24	>100:1			2000.00	2102.97	97.2	
20 Perfluoro-n-octanoic acid (PFOA) CAS: 335-67-1													
413 > 369	53	3.126	3.150	-3/1	681765	25	>100:1	Target = 2.65		1000.00	1065.48		
413 > 169	53	3.120	3.150		248752	24	>100:1	2.74 (1.32-3.97)					
D 54 13C8_PFOS CAS: SESI-0098													
507 > 80		3.602	3.637	-3	523667	23	>100:1			2000.00	2129.91	101.6	
18 Perfluorooctanesulfonate (PFOS) CAS: 1763-23-1													
499 > 80	54	3.609	3.637	-2/1	281752	77	>100:1	Target = 4.46	3.63	928.00	927.72		M
499 > 99	54	3.609	3.637		62622	53	>100:1	4.49 (2.23-6.70)	8.01				
30 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS) CAS: 756426-58-1													
531 > 351	54	3.891	3.923	-3/0	502027	23	>100:1			932.00	913.18		
16 Perfluoro-1-nonanesulfonic acid (PFNS) CAS: 68259-12-1													
549 > 80	54	4.083	4.118	-2/1	226175	22	>100:1	Target = 4.17		960.00	898.44		
549 > 99	54	4.090	4.118		66158	21	>100:1	3.41 (2.08-6.26)					
9 Perfluoro-1-decanesulfonic acid (PFDS) CAS: 335-77-3													
599 > 80	54	4.533	4.563	-2/1	259038	17	>100:1	Target = 4.23		964.00	1009.15		
599 > 99	54	4.524	4.563		62420	19	>100:1	4.14 (2.11-6.34)					
31 11-chloroeicosafuoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS) CAS: 763051-92-9													
631 > 451	54	4.775	4.813	-2/1	456783	23	>100:1			942.00	923.19		
34 Perfluorododecanesulfonic acid (PFDOS) CAS: 79780-39-5													
699 > 80	54	5.305	5.347	-1/2	183384	20	>100:1	Target = 3.53		968.00	820.88		
699 > 99	54	5.297	5.347		53940	22	>100:1	3.39 (1.76-5.30)					
D 56 13C9_PFNA CAS: SESI-0099													
472 > 427		3.609	3.644	-3	1469329	24	>100:1			2000.00	2253.93	107	
17 Perfluoro-n-nonanoic acid (PFNA) CAS: 375-95-1													
463 > 419	56	3.602	3.644	-4/-1	665175	23	>100:1	Target = 5.02		1000.00	998.93		
463 > 169	56	3.609	3.644		123818	23	>100:1	5.37 (2.51-7.53)					
D 55 13C8_PFOA CAS: SESI-0107													
506 > 78		3.972	3.985	-1	885775	22	>100:1			2000.00	2062.27	100.6	
19 Perfluoro-1-octanesulfonamide (PFOSA) CAS: 754-91-6													
498 > 78	55	3.965	3.985	-2/-1	451676	21	>100:1	Target = 54.56		1000.00	949.35		
498>478	55	3.965	3.985		10305	25	77:1	43.83 (27.28-81.85)					
D 65 13C2_8:2 FTS_2 CAS: SESI-0106													
529 > 81		4.069	4.118	-3	380333	24	>100:1			10000	11782	97.5	
3 Fluorotelomer sulfonate 8:2 [1H,1H,2H,2H-perfluorododecane sulfonate] (8:2 FTS) CAS: 39108-34-4													
527 > 507	65	4.076	4.111	-3/0	49557	21	>100:1	Target = 1.21		958.00	1060.94		
527 > 81	65	4.083	4.111		38147	21	>100:1	1.29 (0.60-1.82)					
4 1H,1H,2H,2H-perfluorododecane sulfonate (10:2FTS) CAS: 120226-60-0													
627 > 607	65	4.971	5.009	-2/1	93748	19	>100:1	Target = 2.03		964.00	1783.85		
627 > 80	65	4.979	5.009		50419	20	>100:1	1.85 (1.01-3.05)					
D 51 13C6_PFDA CAS: SESI-0115													
519 > 474		4.090	4.132	-2	1127664	22	>100:1			2000.00	2082.53	88.7	
10 Perfluoro-n-decanoic acid (PFDA) CAS: 335-76-2													
513 > 469	51	4.090	4.125	-2/0	575847	22	>100:1	Target = 10.03		1000.00	1014.78		
513 > 169	51	4.090	4.125		60234	21	>100:1	9.56 (5.01-15.04)					
D 58 d3-MeFOSAA CAS: SESI-0102													
573 > 419		4.320	4.353	-2	1456266	21	>100:1			10000	9988.47	105.9	

Signal	Quant Std	RT (min.)	Exp RT (min.)	□RT (secs.)	Response	Peak Pts	S/N	Ion Ratio	Isomer Ratio	Cal Conc ng/L	OnCol Conc ng/L	%Drift/%Rec	Flags
6 N-methylperfluoro-1-octanesulfonamidoacetic acid (N-MeFOSAA) CAS: 2355-31-9													
570 > 419	58	4.312	4.345	-2/0	139052	53	>100:1	Target = 1.51	8.05	1000.00	1133.92		M
570 > 483	58	4.320	4.345		91101	52	>100:1	1.52 (0.75-2.27)	3.46				M
D 61 d7-MeFOSE CAS: SESI-0129													
623 > 59		4.569	4.583	-1	249581	16	>100:1			2000.00	2200.53	104.2	
32 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE) CAS: 24448-09-7													
616 > 59	61	4.589	4.604	-1/0	138309	17	>100:1			1000.00	1057.70		
D 57 d3-MeFOSA CAS: SESI-0109													
515 > 169		4.610	4.614	0	99428	24	>100:1			2000.00	1948.51	79.1	
26 N-methylperfluoro-1-octanesulfonamide (MeFOSA) CAS: 31506-32-8													
512 > 169	57	4.610	4.624	-1/-1	60439	17	>100:1	Target = 1.12		1000.00	1146.82		
512 > 219	57	4.610	4.624		63098	17	>100:1	0.95 (0.56-1.68)					
D 52 13C7_PFUdA CAS: SESI-0117													
570 > 525		4.551	4.583	-2	1065209	26	>100:1			2000.00	2195.13	92	
25 Perfluoro-n-undecanoic acid (PFUdA) CAS: 2058-94-8													
563 > 519	52	4.551	4.583	-2/0	491090	18	>100:1	Target = 8.93		1000.00	1009.14		
563 > 169	52	4.551	4.583		54498	17	>100:1	9.01 (4.46-13.40)					
D 60 d5-EtFOSAA CAS: SESI-0110													
589 > 419		4.542	4.583	-2	1409835	20	>100:1			10000	11431	102.8	
5 N-ethylperfluoro-1-octanesulfonamidoacetic acid (N-EtFOSAA) CAS: 2991-50-6													
584 > 419	60	4.551	4.594	-2/0	135874	49	>100:1	Target = 1.91	7.85	1000.00	943.25		
584 > 526	60	4.560	4.594		83995	47	>100:1	1.61 (0.95-2.87)	5.34				
D 62 d9-EtFOSE CAS: SESI-0130													
639 > 59		4.818	4.834	-1	244059	20	>100:1			2000.00	2263.63	105	
33 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE) CAS: 1691-99-2													
630 > 59	62	4.847	4.849	0/1	127154	19	>100:1			1000.00	1262.42		
D 59 d5-EtFOSA CAS: SESI-0108													
531 > 169		4.861	4.870	0	102519	24	>100:1			2000.00	2087.39	95.4	
27 N-ethylperfluoro-1-octanesulfonamide (EtFOSA) CAS: 4151-50-2													
526 > 169	59	4.868	4.885	0/0	66218	20	>100:1	Target = 1.02		1000.00	1148.61		
526 > 219	59	4.868	4.885		56288	19	>100:1	1.17 (0.51-1.54)					
D 38 13C2_PFDaA CAS: SESI-0118													
615 > 570		4.962	5.001	-2	1128359	20	>100:1			2000.00	2176.63	109.8	
11 Perfluoro-n-dodecanoic acid (PFDaA) CAS: 307-55-1													
613 > 569	38	4.962	5.001	-2/0	587952	19	>100:1	Target = 6.96		1000.00	1080.16		
613 > 169	38	4.962	5.001		94037	21	>100:1	6.25 (3.48-10.45)					
24 Perfluoro-n-tridecanoic acid (PFTrDA) CAS: 72629-94-8													
663 > 619	38	5.335	5.378	-2/0	288862	20	>100:1	Target = 3.41		1000.00	963.14		
663 > 169	38	5.343	5.378		84044	20	>100:1	3.43 (1.70-5.11)					
D 42 13C2_PFTeDA CAS: SESI-0119													
715 > 670		5.669	5.711	-1	1249375	35	>100:1			2000.00	2274.02	120.5	
23 Perfluoro-n-tetradecanoic acid (PFTeDA) CAS: 376-06-7													
713 > 669	42	5.669	5.711	-1/0	590909	35	>100:1	Target = 6.93		1000.00	1245.93		
713 > 169	42	5.669	5.711		68539	33	>100:1	8.62 (3.46-10.39)					
D 40 13C2_PFHxDA CAS: SESI-0103													
815 > 770		6.249	6.298	-3	598207	27	>100:1			2000.00	2123.18	107	M
35 Perfluoro-n-hexadecanoic acid (PFHxDA) CAS: 67905-19-5													
813 > 769	40	6.255	6.307	-1/1	512550	23	>100:1	Target = 9.01		1000.00	1419.15		
813 > 269	40	6.255	6.307		41533	23	>100:1	12.34 (4.50-13.52)					
36 Perfluoro-n-octadecanoic acid (PFODA) CAS: 16517-11-6													
913 > 869	40	6.775	6.850	-2/0	234983	19	>100:1	Target = 10.58		1000.00	808.12		
913 > 319	40	6.775	6.850		22227	23	>100:1	10.57 (5.29-15.88)					
* 37 13C2_PFDA													
515 > 470		4.097	4.090	-2	726	19	8.4:1			2000.00			
* 39 13C2_PFHxA CAS: SESI-0120													
315 > 270		2.310	2.319	0	1384	19	18:1			2000.00			
* 41 13C2_PFOA CAS: 864071-08-9													
415 > 370		3.120	3.120	-3	1027	13	14:1			2000.00			

Signal	Quant Std	RT (min.)	Exp RT (min.)	□ RT (secs.)	Response	Peak Pts	S/N	Ion Ratio	Isomer Ratio	Cal Conc ng/L	OnCol Conc ng/L	%Drift/%Rec	Flags
* 43 13C3_PFB													
216 > 172		1.669	1.675	0	12240	22	42:1			2000.00			
* 48 13C4_PFOS CAS: 2795-39-3													
503 > 80		3.609	3.630	0	5531	20	66:1			2000.00			

Compound Type Legend

D - Isotopic Dilution Std.
 * - ISTD

QC Flag Legend

M - Compound Hit/Peak Manually Integrated

Data File: \\Organics\LL\LCMSMS01.i\091222-nonDOD.b\091222026.d

Injection Date: 12-Sep-2022 18:26:10

Inst. ID: LCMSMS01.i

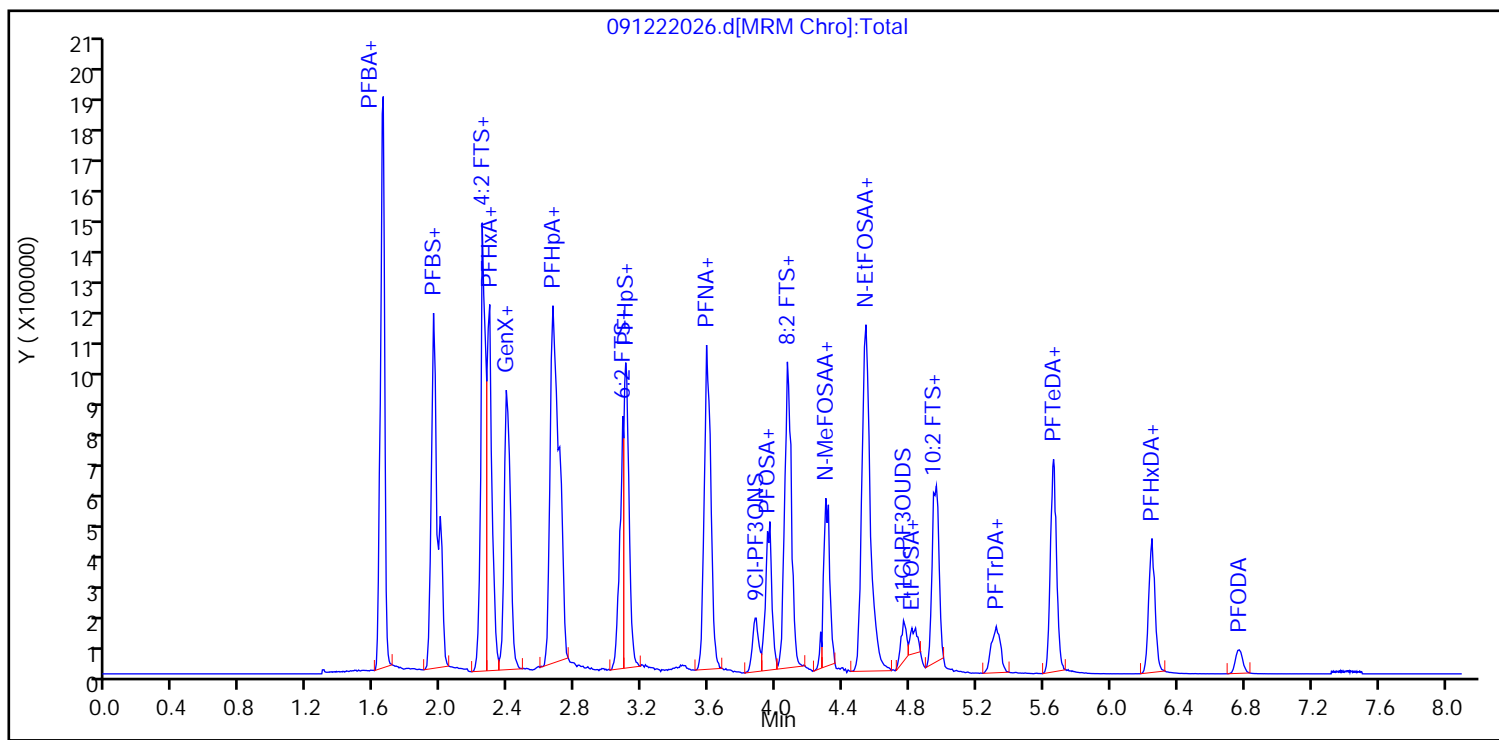
Client ID:

Lab ID: CCV 1000_SVLC_2200

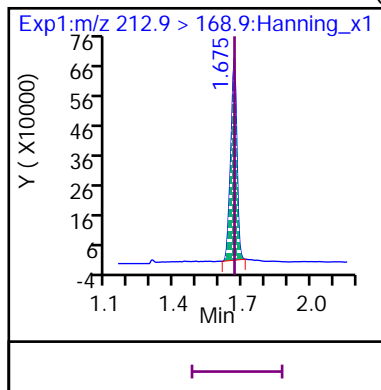
Sample Info: CCV 1000_SVLC_2200

Dil. Factor: 1

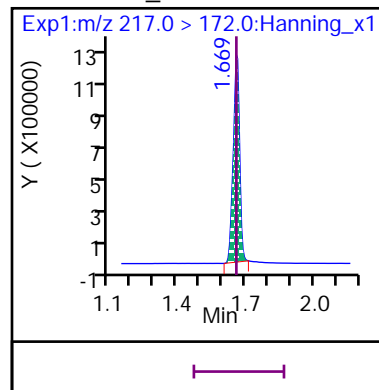
Operator: eqi.svoa



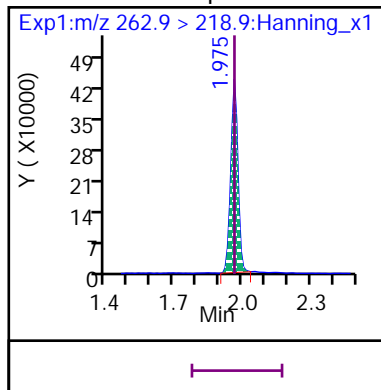
8 Perfluoro-n-butanoic acid (PFBA)



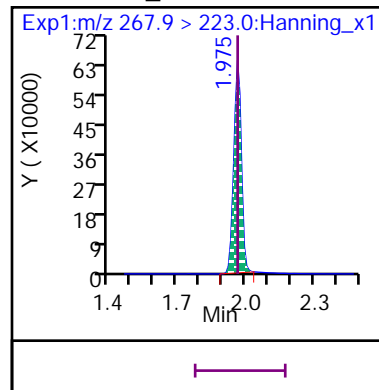
D 46 13C4_PFBA



21 Perfluoro-n-pentanoic acid (PFPeA)

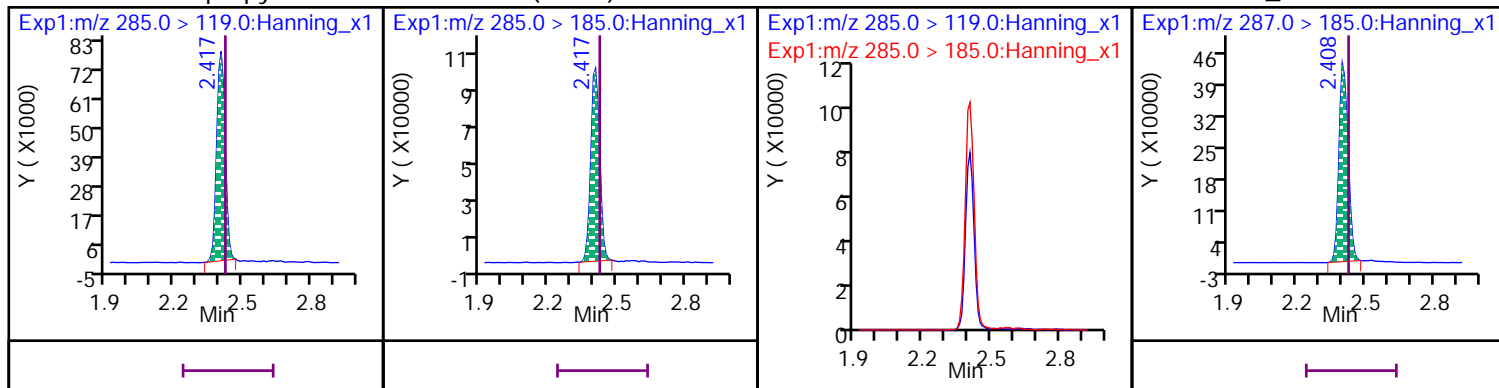


D 50 13C5_PFPeA



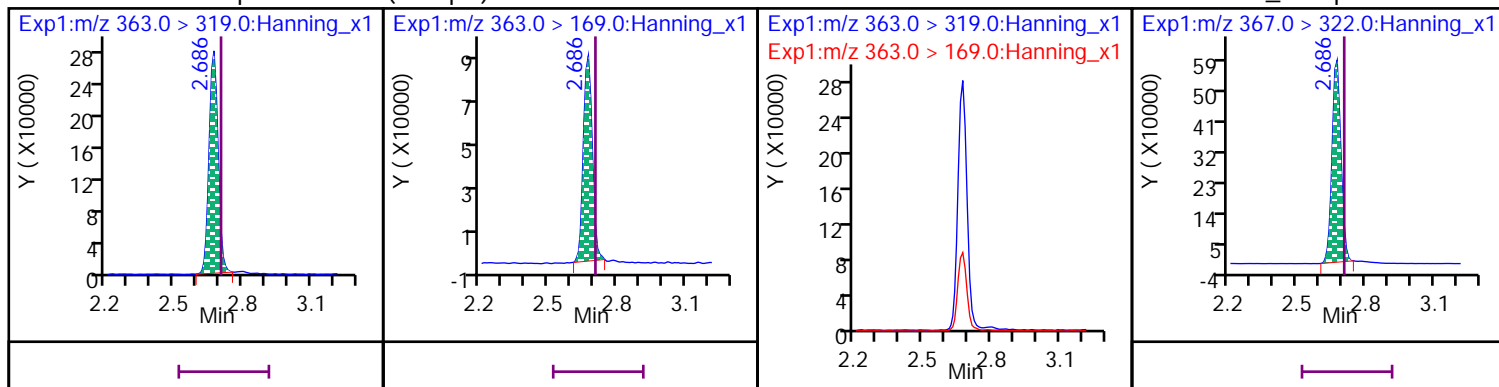
28 Hexafluoropropylene oxide dimer acid (GenX)

D 66 13C3_GenX



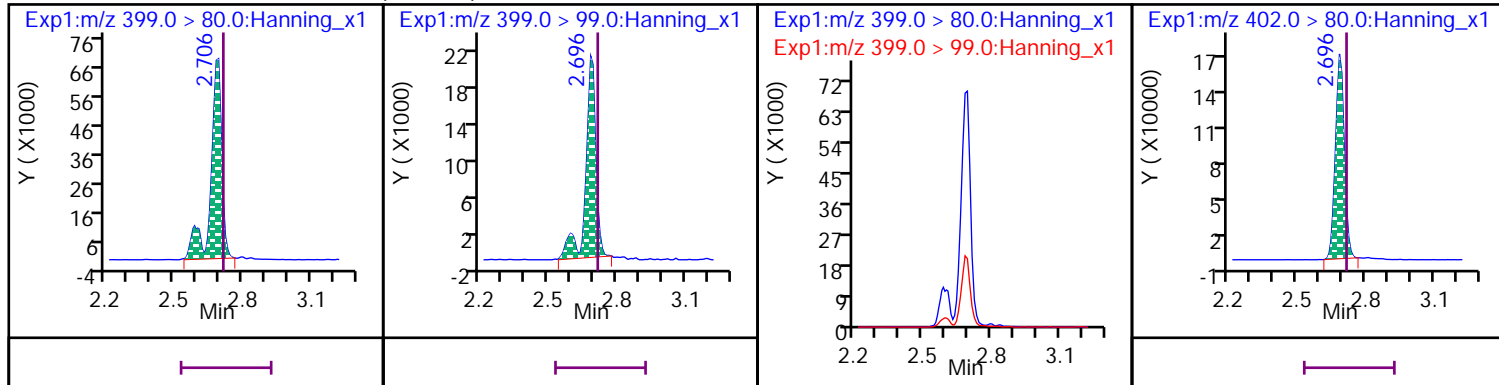
13 Perfluoro-n-heptanoic acid (PFHpA)

D 47 13C4_PFHpA



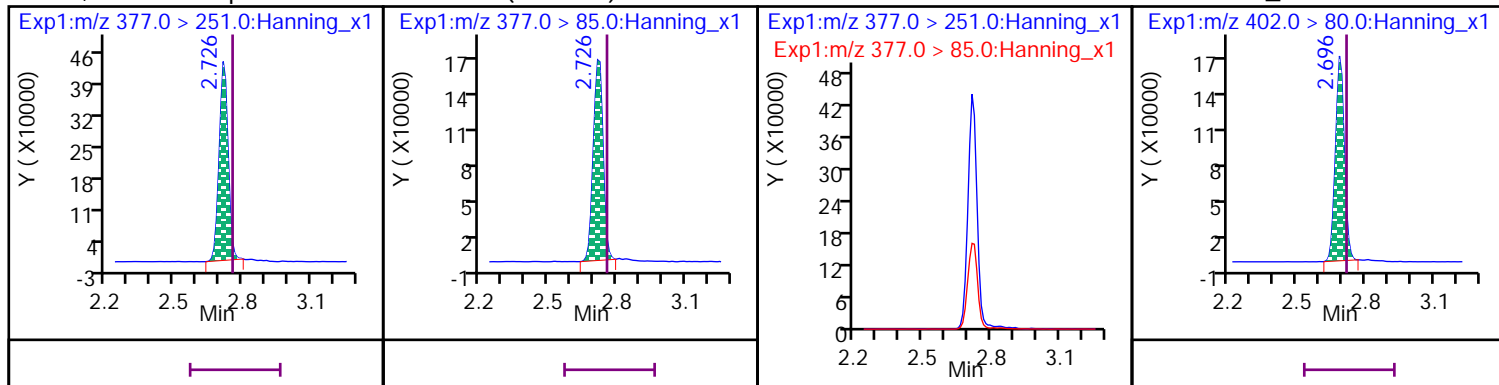
14 Perfluorohexanesulfonate (PFHxS)

D 45 13C3_PFHxS



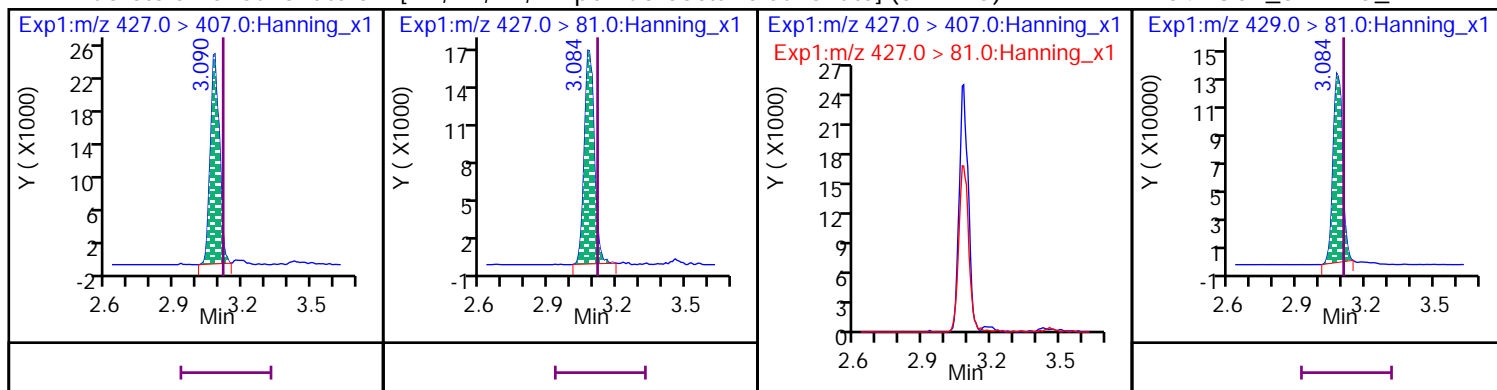
29 4,8-dioxa-3H-perfluorononanoic acid (ADONA)

D 45 13C3_PFHxS



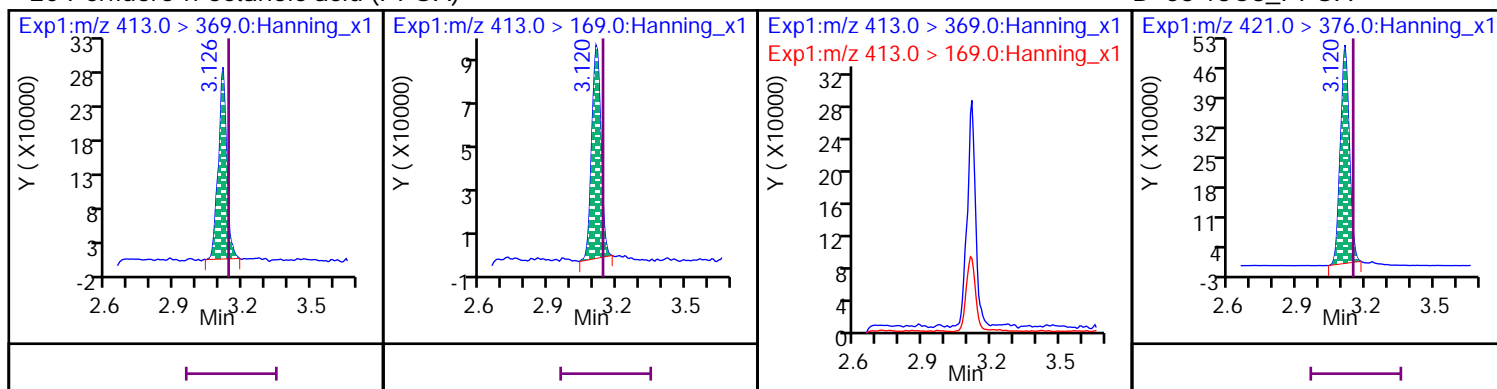
2 Fluorotelomer sulfonate 6:2 [1H,1H,2H,2H-perfluorooctane sulfonate] (6:2 FTS)

D 64 13C2_6:2 FTS_2



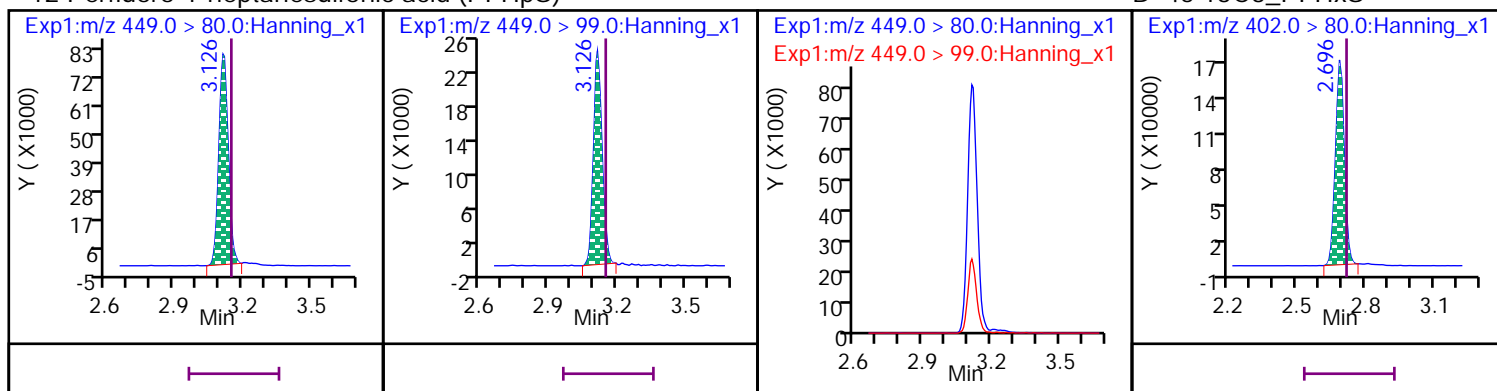
20 Perfluoro-n-octanoic acid (PFOA)

D 53 13C8_PFOA



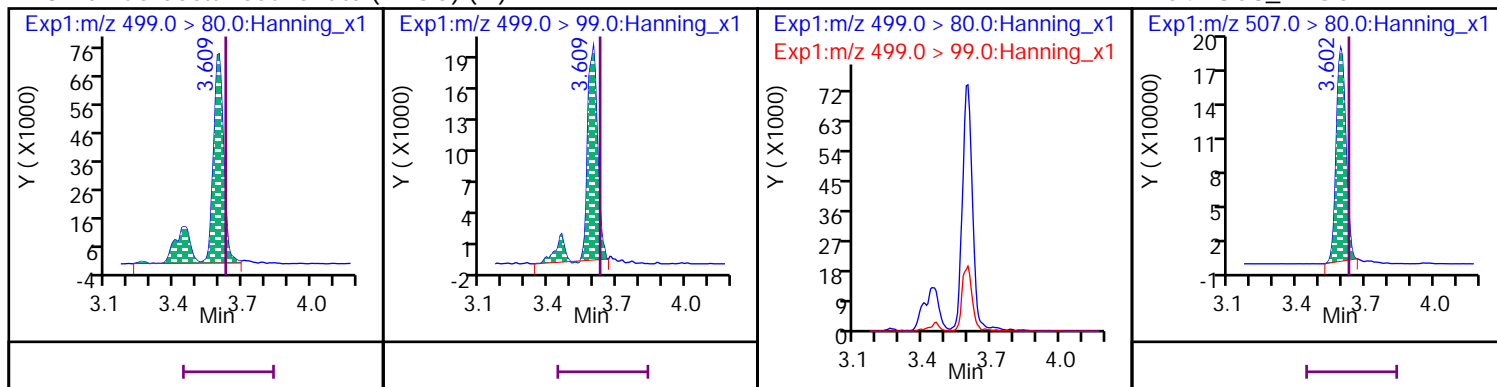
12 Perfluoro-1-heptanesulfonic acid (PFHpS)

D 45 13C3_PFHxS



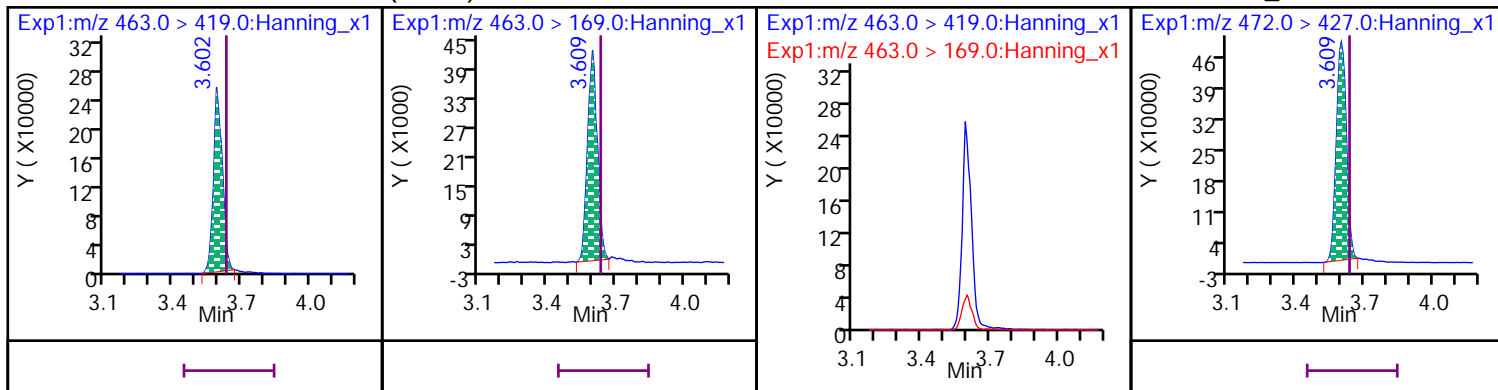
18 Perfluorooctanesulfonate (PFOS) (M)

D 54 13C8_PFOS



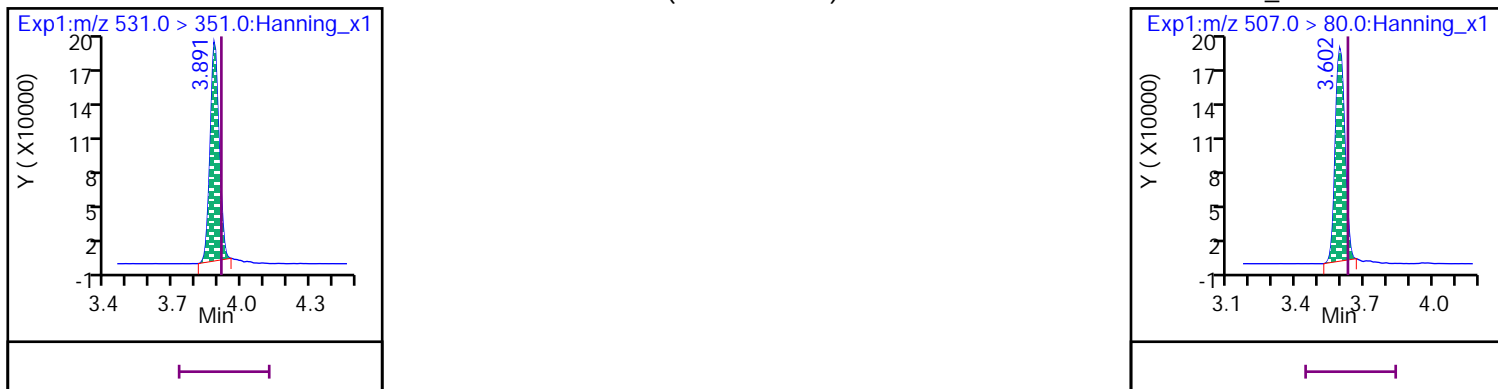
17 Perfluoro-n-nonanoic acid (PFNA)

D 56 13C9_PFNA



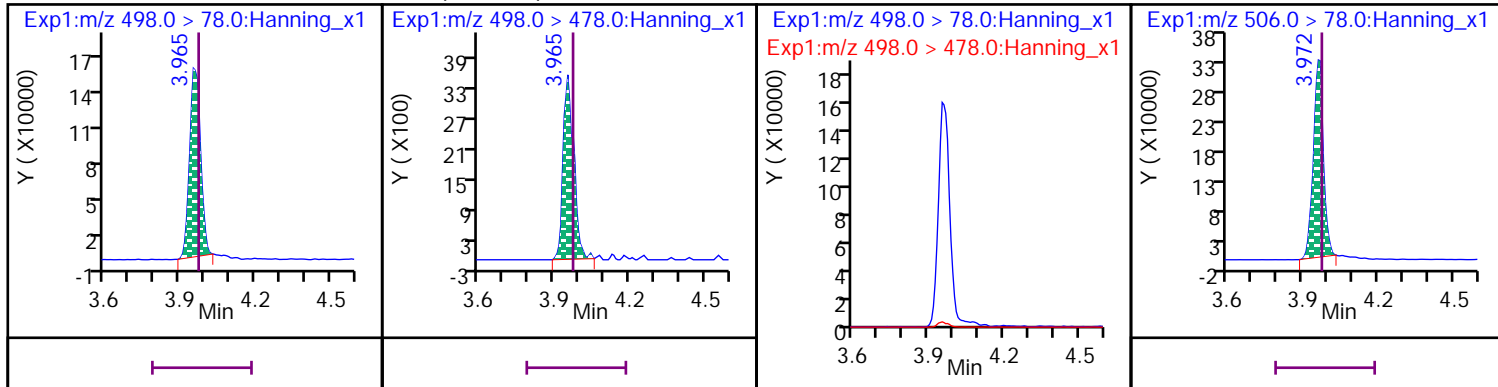
30 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)

D 54 13C8_PFOS



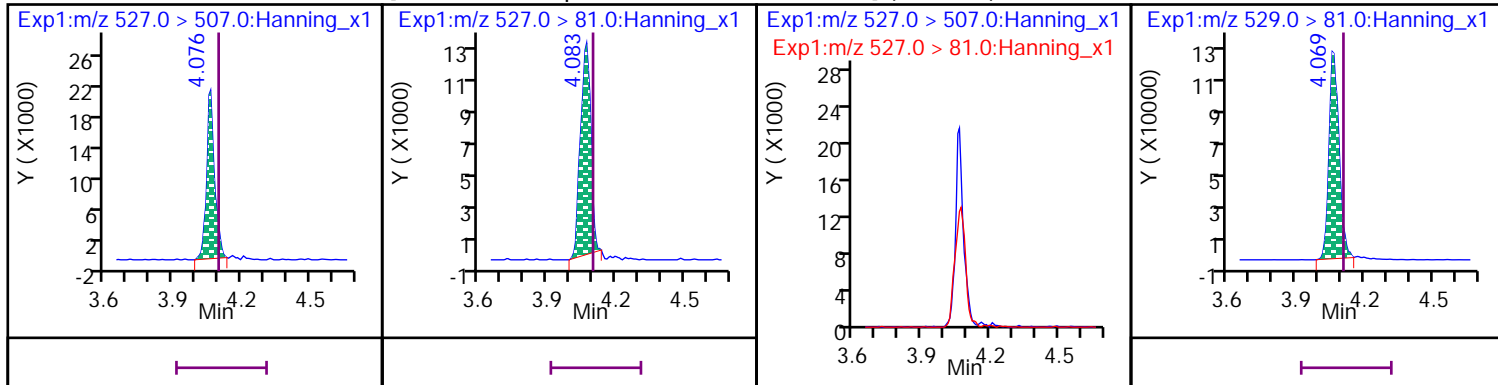
19 Perfluoro-1-octanesulfonamide (PFOSA)

D 55 13C8_PFOSA



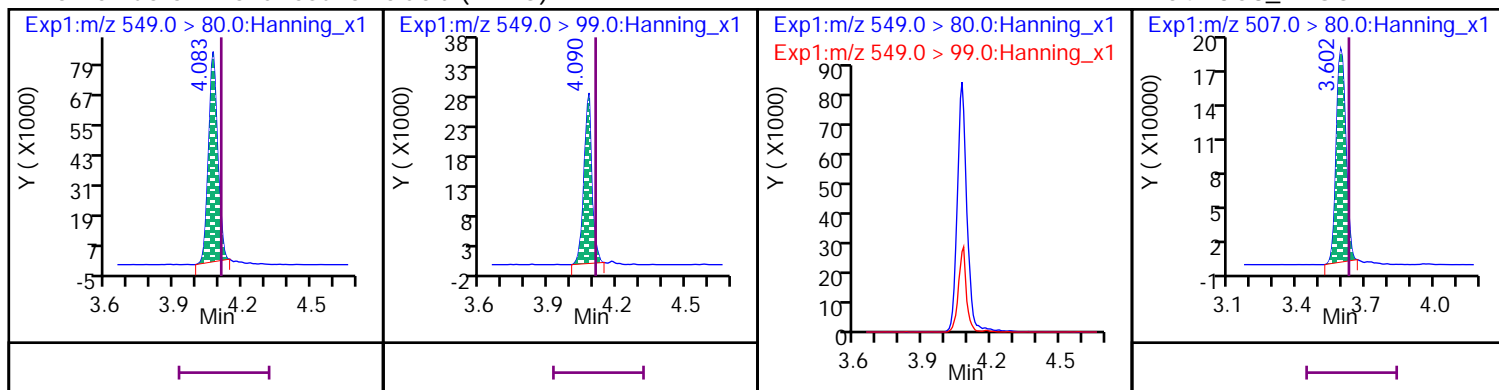
3 Fluorotelomer sulfonate 8:2 [1H,1H,2H,2H-perfluorodecane sulfonate] (8:2 FTS)

D 65 13C2_8:2 FTS_2



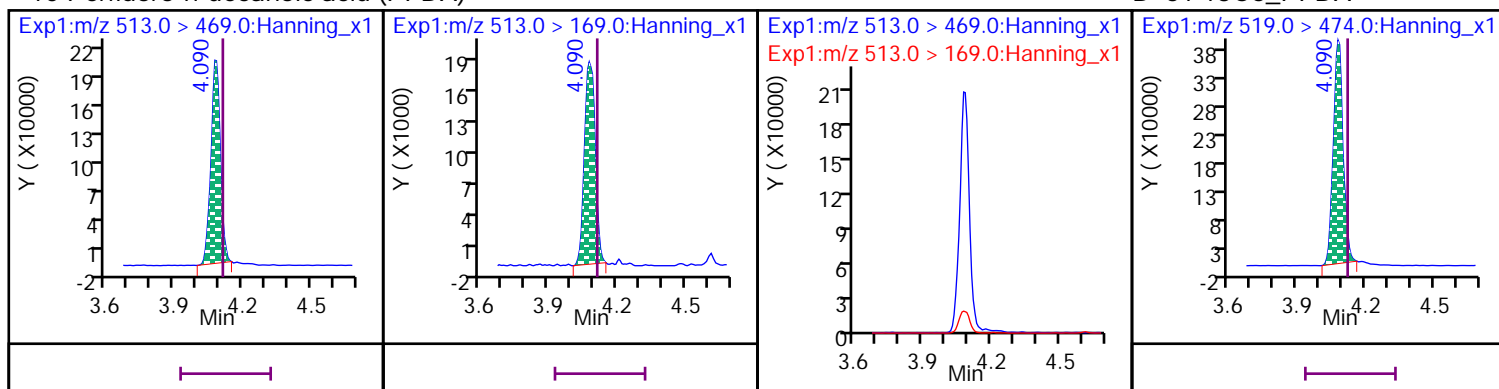
16 Perfluoro-1-nonanesulfonic acid (PFNS)

D 54 13C8_PFOS



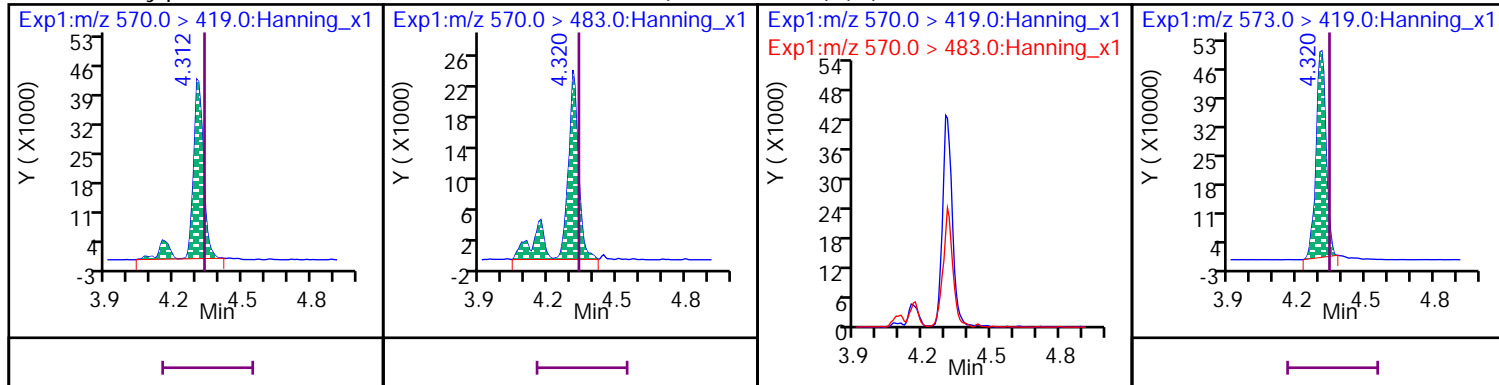
10 Perfluoro-n-decanoic acid (PFDA)

D 51 13C6_PFDA



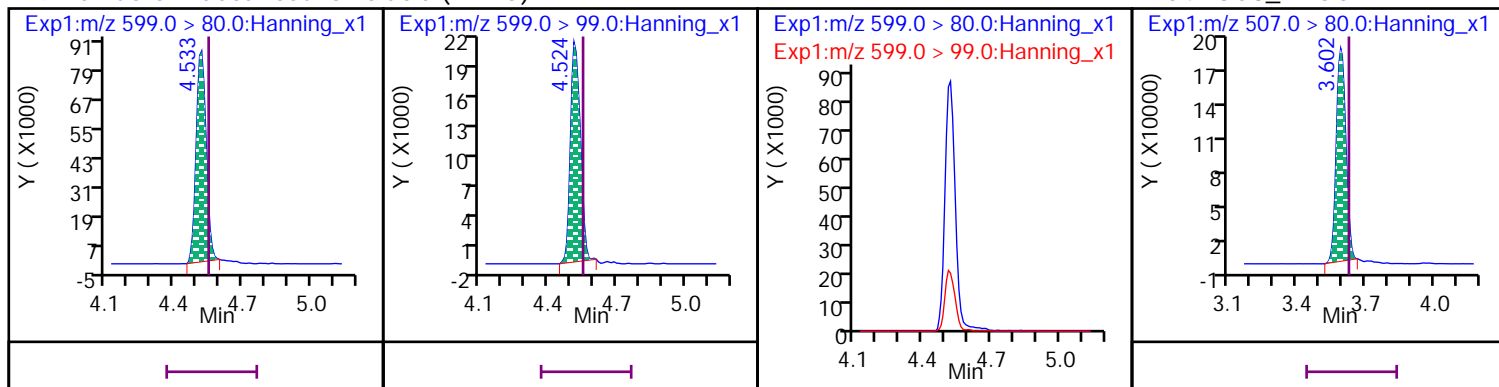
6 N-methylperfluoro-1-octanesulfonamidoacetic acid (N-MeFOSAA) (M)

D 58 d3-MeFOSAA

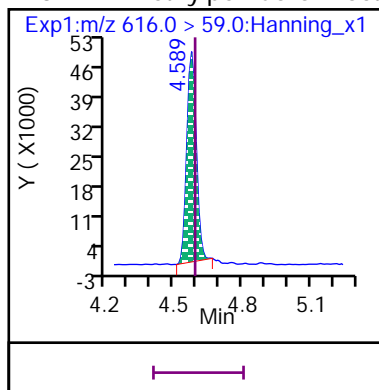


9 Perfluoro-1-decanesulfonic acid (PFDS)

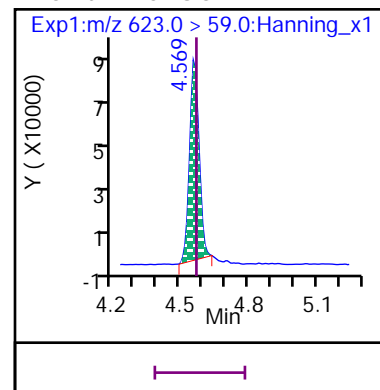
D 54 13C8_PFOS



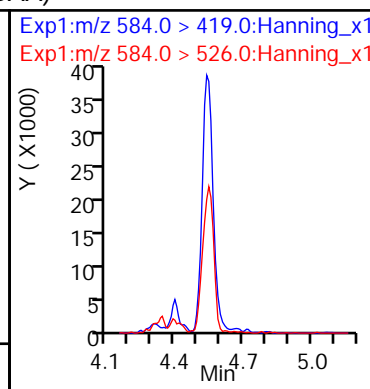
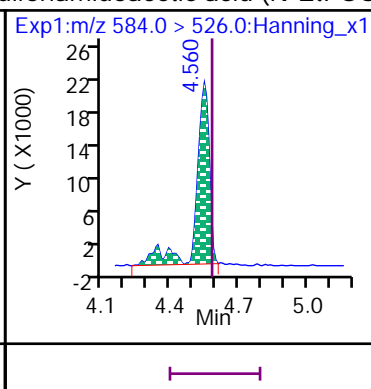
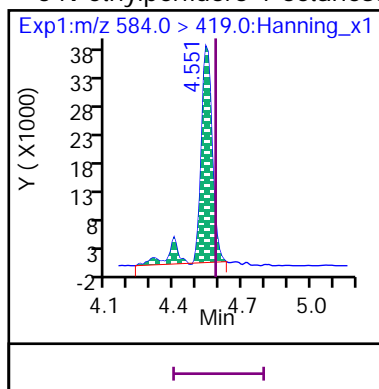
32 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)



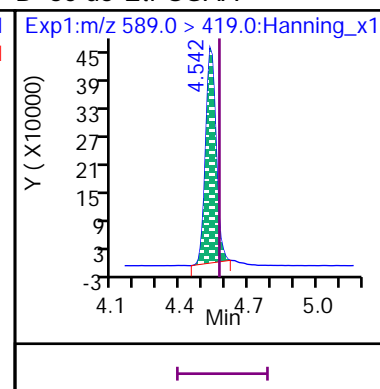
D 61 d7-MeFOSE



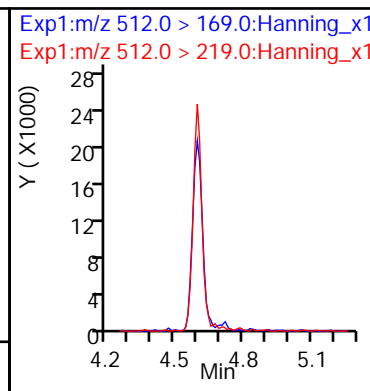
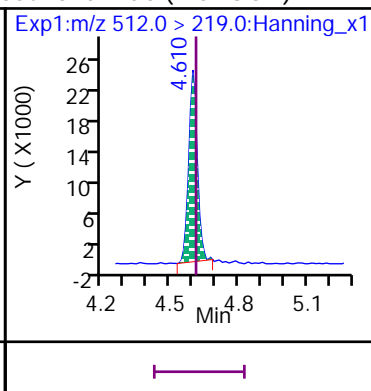
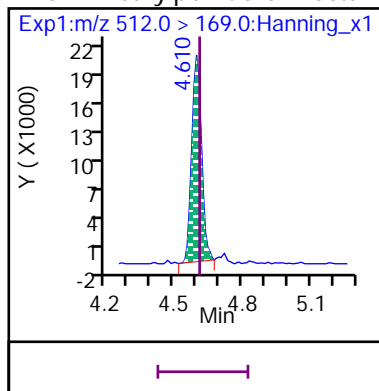
5 N-ethylperfluoro-1-octanesulfonamidoacetic acid (N-EtFOSAA)



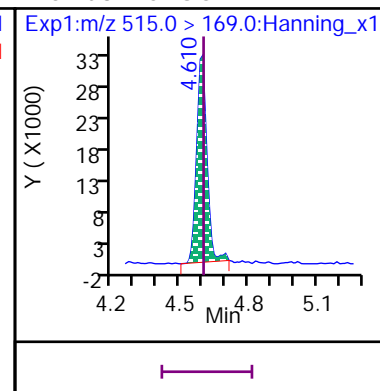
D 60 d5-EtFOSAA



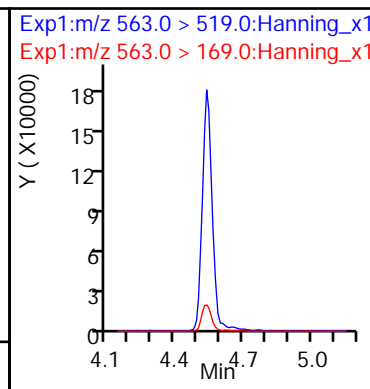
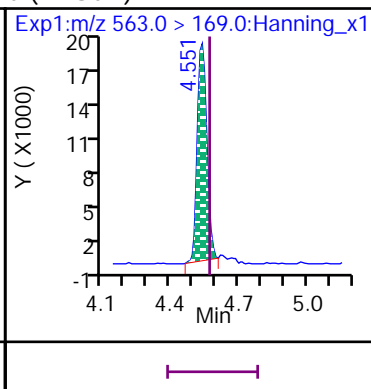
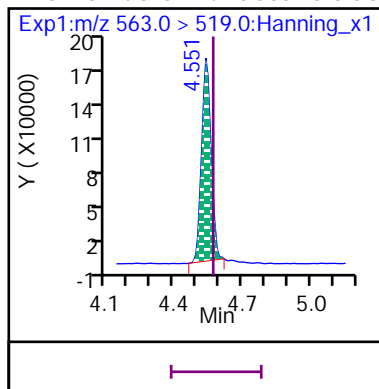
26 N-methylperfluoro-1-octanesulfonamide (MeFOSA)



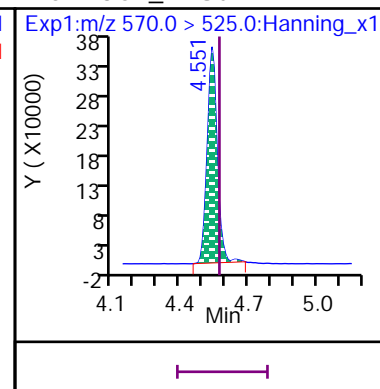
D 57 d3-MeFOSA



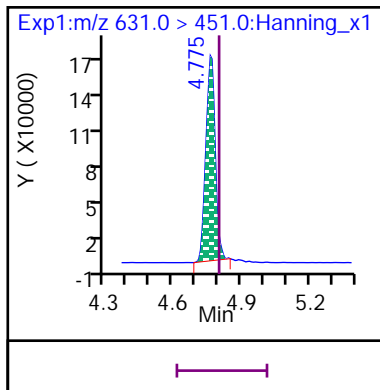
25 Perfluoro-n-undecanoic acid (PFUdA)



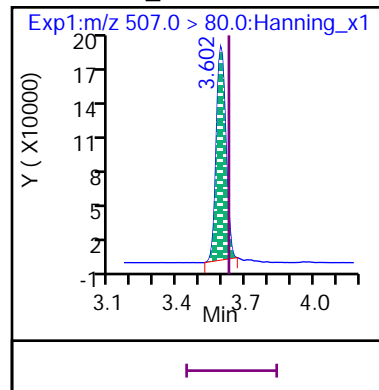
D 52 13C7_PFUdA



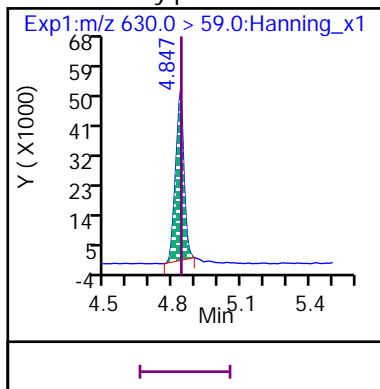
31 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)



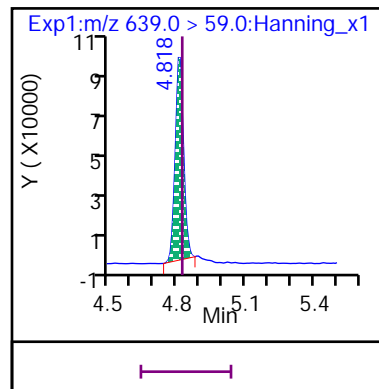
D 54 13C8_PFOS



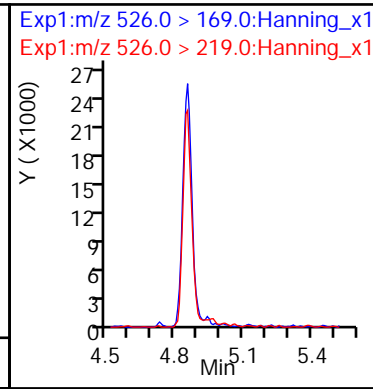
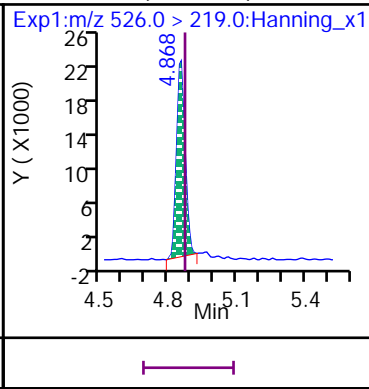
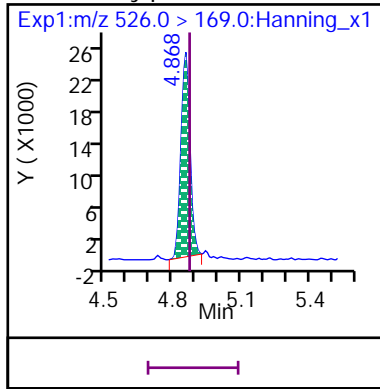
33 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)



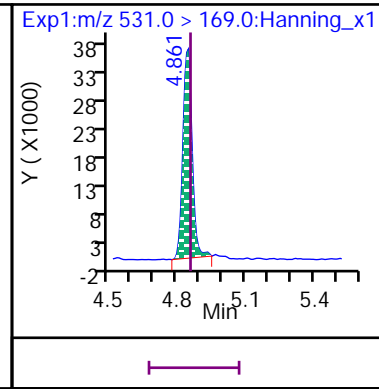
D 62 d9-EtFOSE



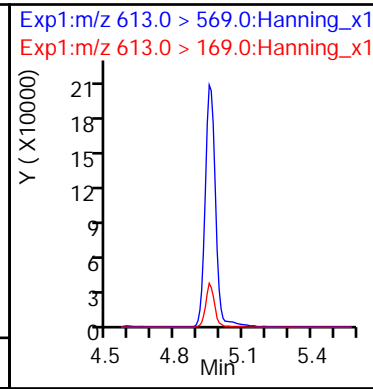
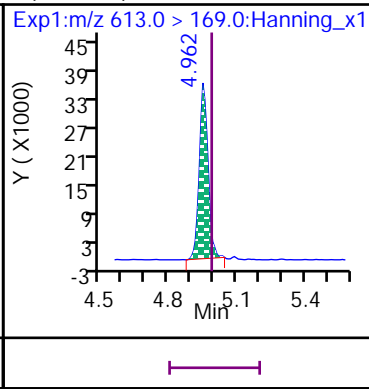
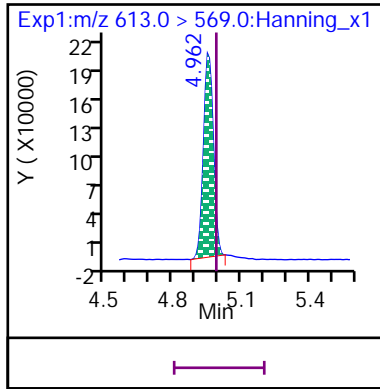
27 N-ethylperfluoro-1-octanesulfonamide (EtFOSA)



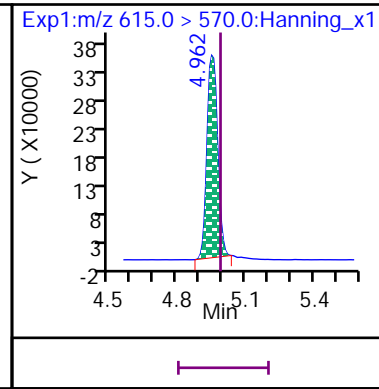
D 59 d5-EtFOSA



11 Perfluoro-n-dodecanoic acid (PFDoA)

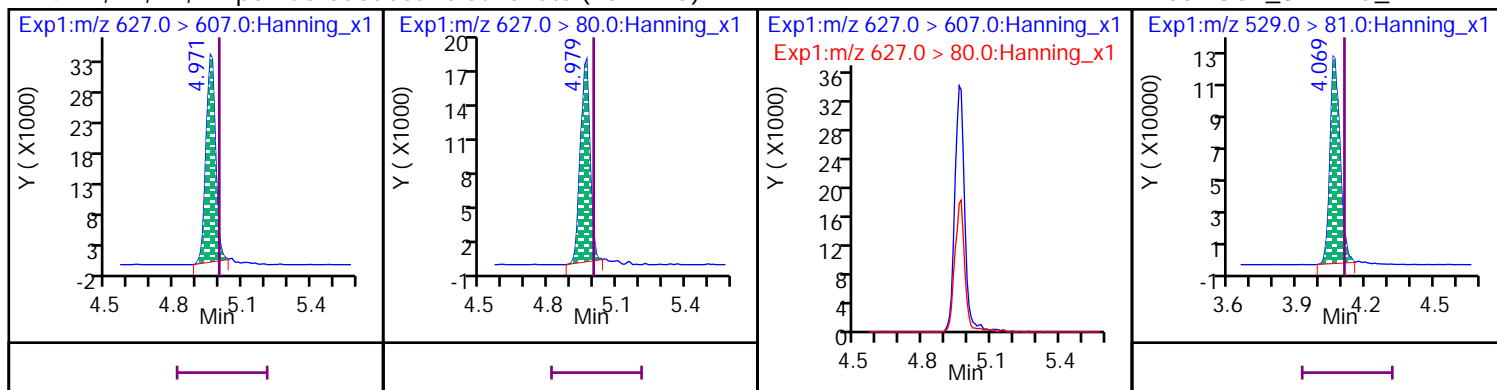


D 38 13C2_PFDoA



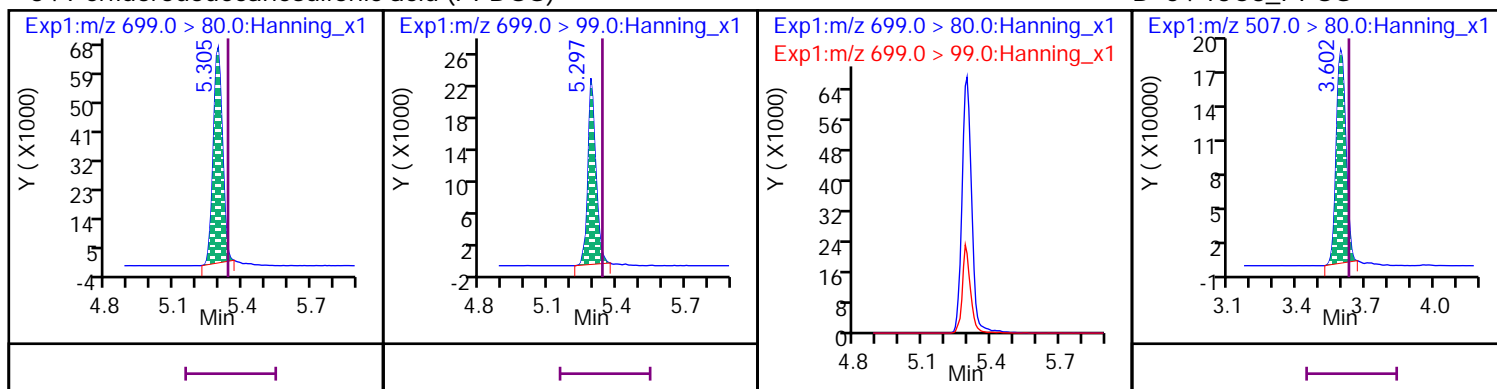
4 1H,1H,2H,2H-perfluorododecane sulfonate (10:2FTS)

D 65 13C2_8:2 FTS_2



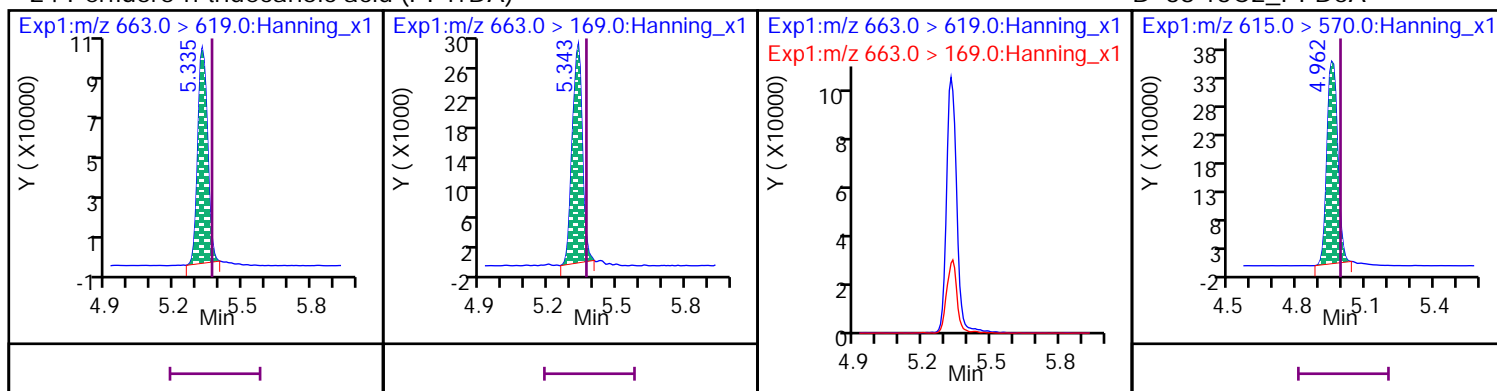
34 Perfluorododecanesulfonic acid (PFDOS)

D 54 13C8_PFOS



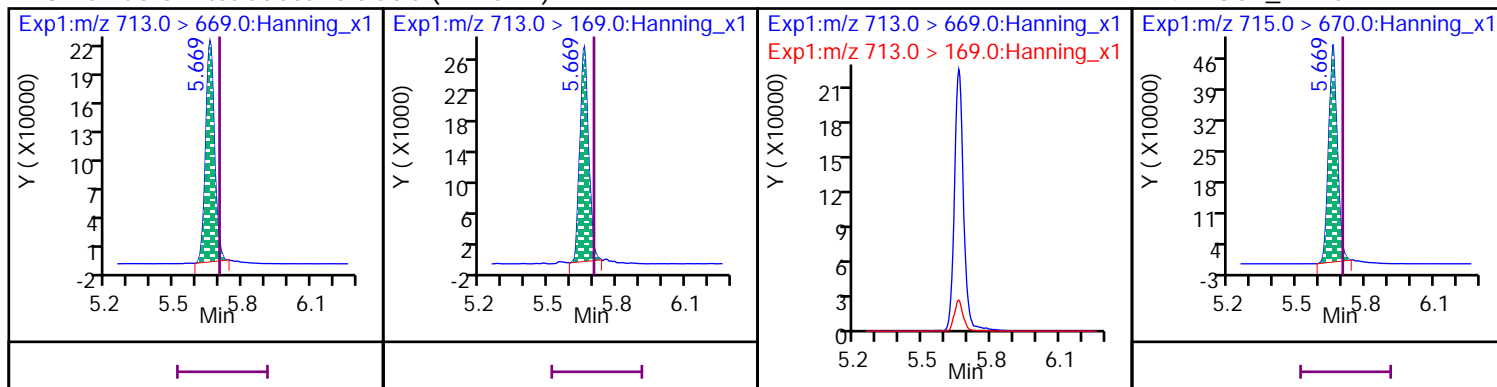
24 Perfluoro-n-tridecanoic acid (PFTTrDA)

D 38 13C2_PFDaA



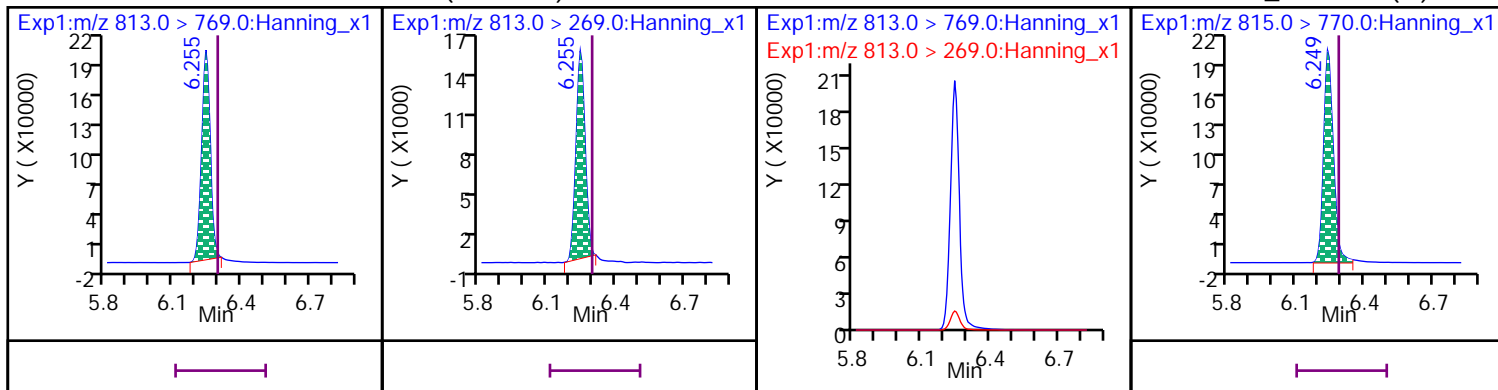
23 Perfluoro-n-tetradecanoic acid (PFTTeDA)

D 42 13C2_PFTeDA



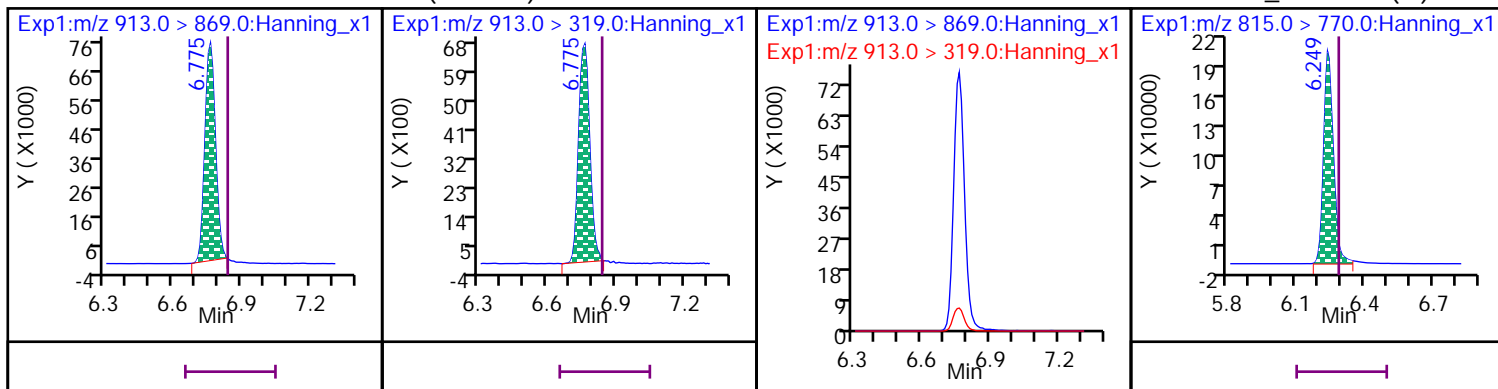
35 Perfluoro-n-hexadecanoic acid (PFHxDA)

D 40 13C2_PFHxDA (M)



36 Perfluoro-n-octadecanoic acid (PFODA)

D 40 13C2_PFHxDA (M)

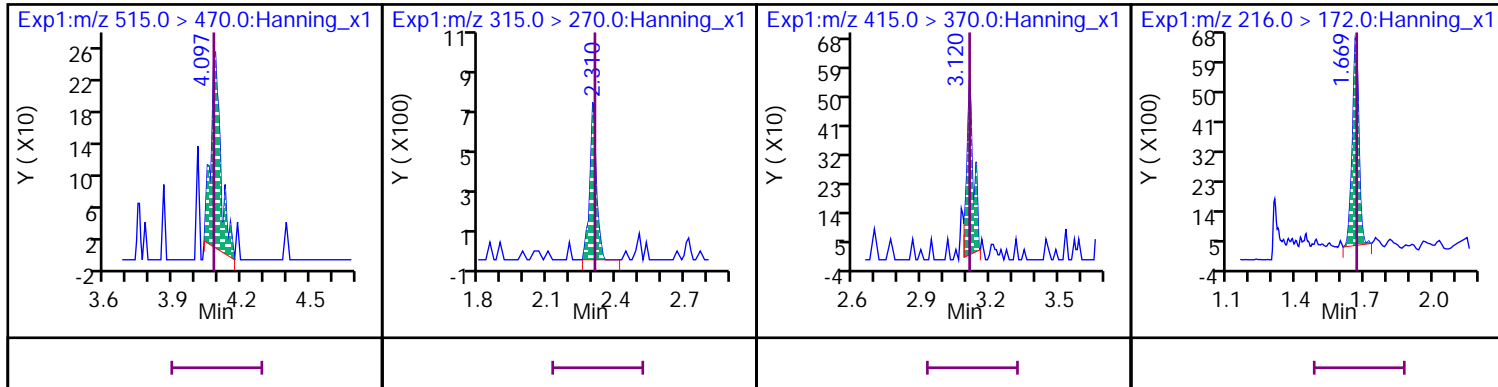


* 37 13C2_PFDA

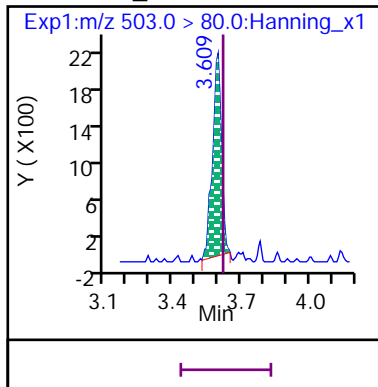
* 39 13C2_PFHxA

* 41 13C2_PFOA

* 43 13C3_PFBFA



* 48 13C4_PFOS



Manual Integration Report

Data File: \\Organics\LL\LCMSMS01.i\091222-nonDOD.b\091222026.d

Injection Date: 12-Sep-2022 18:26:10

Inst. ID: LCMSMS01.i

Client ID:

Lab ID: CCV 1000_SVLC_2200

Sample Info: CCV 1000_SVLC_2200

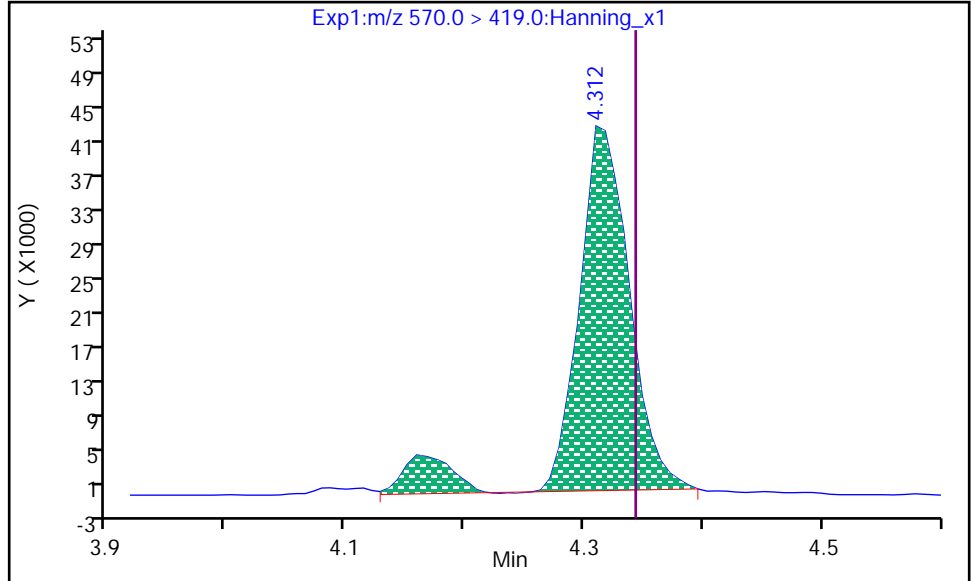
Dil. Factor: 1

Operator: eqi.svoa

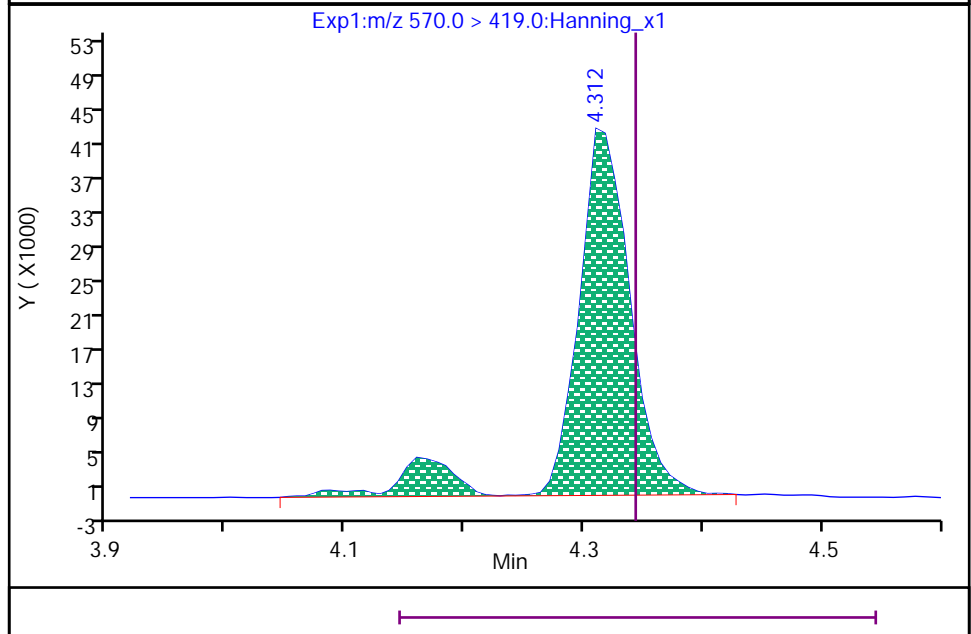
6 N-MeFOSAA, CAS: 2355-31-9

RT: 4.312
Area: 133561
Amount: 1089.14
Amount Units: ng/L

Processing Integration Results



RT: 4.312
Area: 139052
Amount: 1133.92
Amount Units: ng/L



Data Editor: xiang.zhu, 14-Sep-2022 13:43:24
Audit Action: Mint
Audit Reason: Invalid Integration

Manual Integration Report

Data File: \\Organics\LL\LCMSMS01.i\091222-nonDOD.b\091222026.d

Injection Date: 12-Sep-2022 18:26:10

Inst. ID: LCMSMS01.i

Client ID:

Lab ID: CCV 1000_SVLC_2200

Sample Info: CCV 1000_SVLC_2200

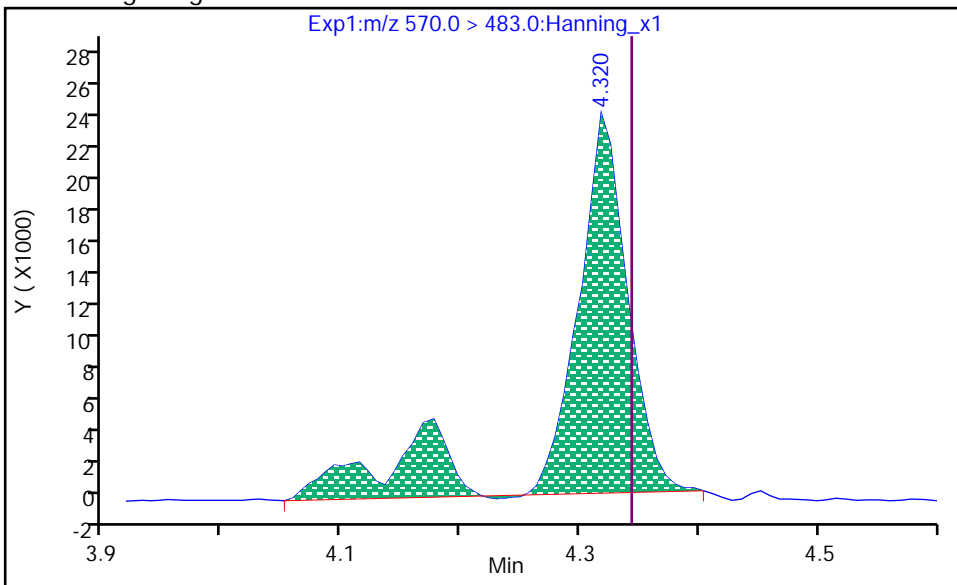
Dil. Factor: 1

Operator: eqi.svoa

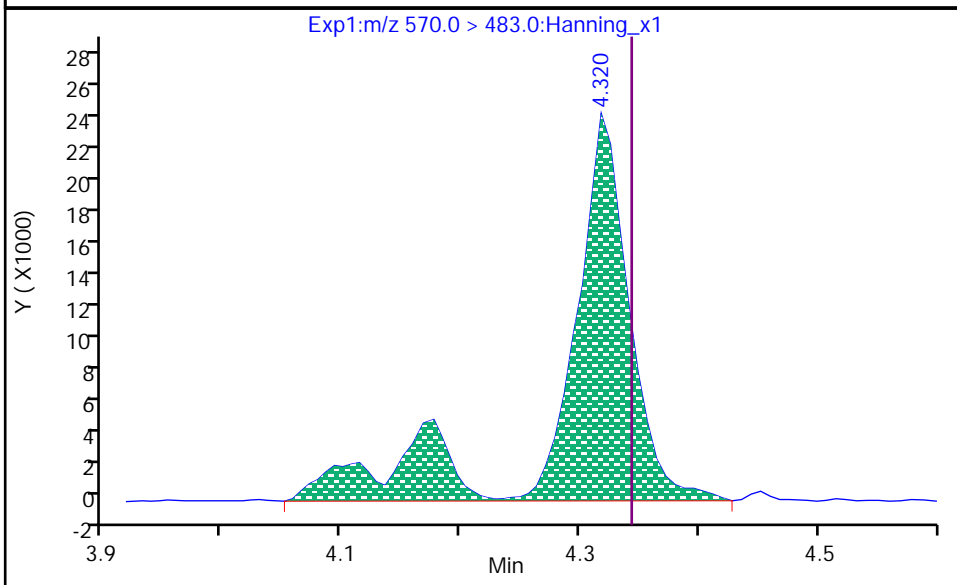
6 N-MeFOSAA, CAS: 2355-31-9

Processing Integration Results

RT: 4.320
Area: 84469
Amount: 1133.92
Amount Units: ng/L



RT: 4.320
Area: 91101
Amount: 1133.92
Amount Units: ng/L



Data Editor: xiang.zhu, 14-Sep-2022 13:43:33

Audit Action: Mint

Audit Reason: Invalid Integration

Manual Integration Report

Data File: \\Organics\LL\LCMSMS01.i\091222-nonDOD.b\091222026.d

Injection Date: 12-Sep-2022 18:26:10

Inst. ID: LCMSMS01.i

Client ID:

Lab ID: CCV 1000_SVLC_2200

Sample Info: CCV 1000_SVLC_2200

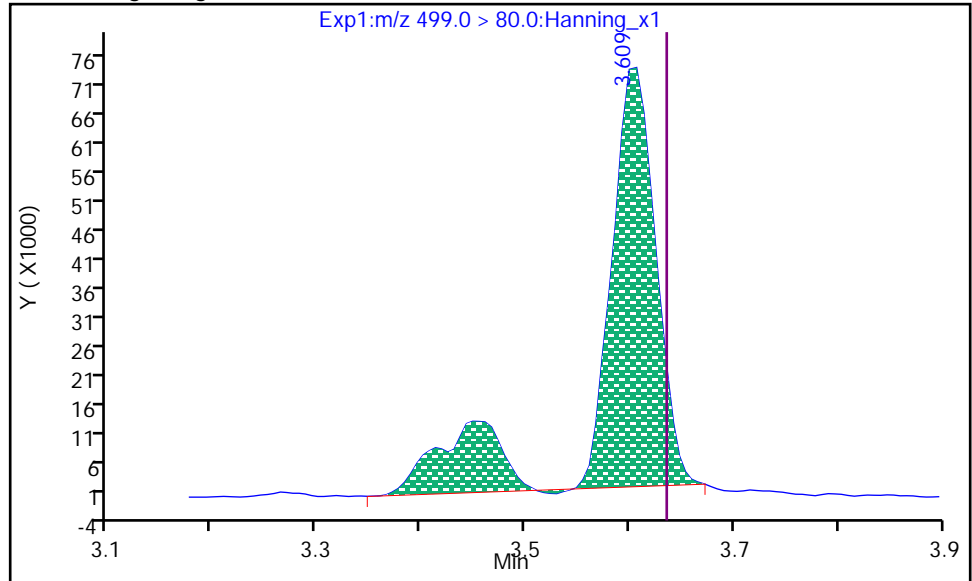
Dil. Factor: 1

Operator: eqi.svoa

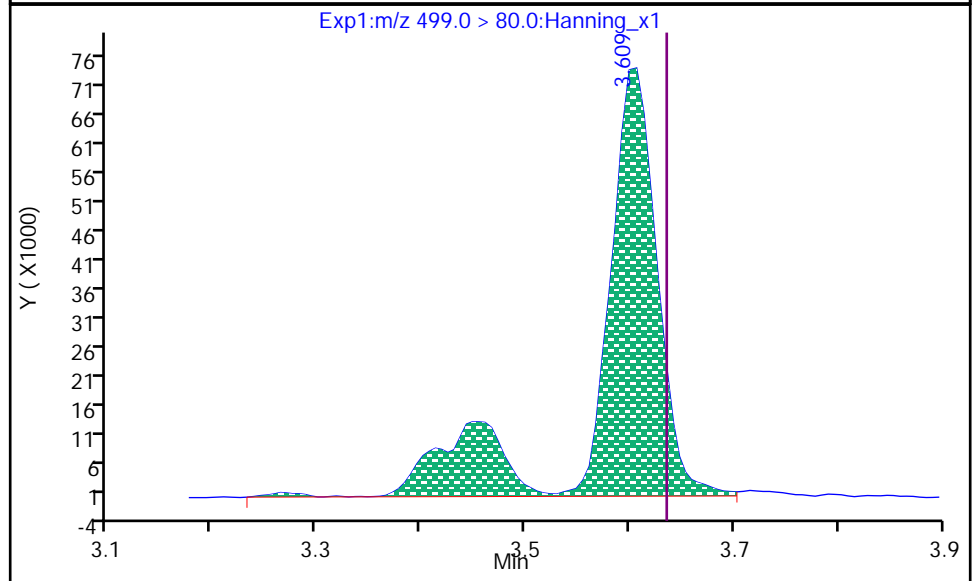
18 PFOS, CAS: 1763-23-1

Processing Integration Results

RT: 3.609
Area: 259314
Amount: 853.83
Amount Units: ng/L



RT: 3.609
Area: 281752
Amount: 927.72
Amount Units: ng/L



Data Editor: matthew.miller, 15-Sep-2022 16:08:27

Audit Action: Mint

Audit Reason: Invalid Integration

Manual Integration Report

Data File: \\Organics\LL\LCMSMS01.i\091222-nonDOD.b\091222026.d

Injection Date: 12-Sep-2022 18:26:10

Inst. ID: LCMSMS01.i

Client ID:

Lab ID: CCV 1000_SVLC_2200

Sample Info: CCV 1000_SVLC_2200

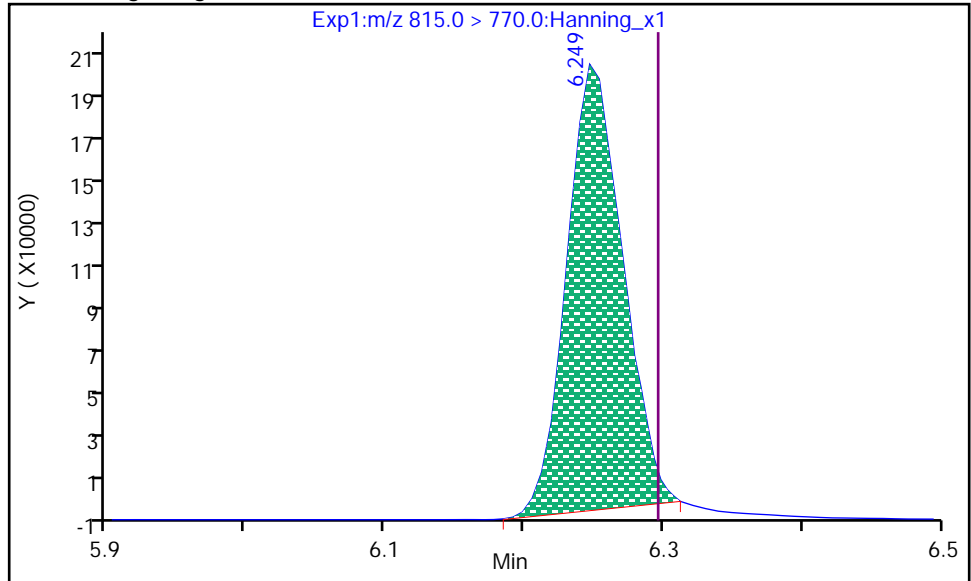
Dil. Factor: 1

Operator: eqi.svoa

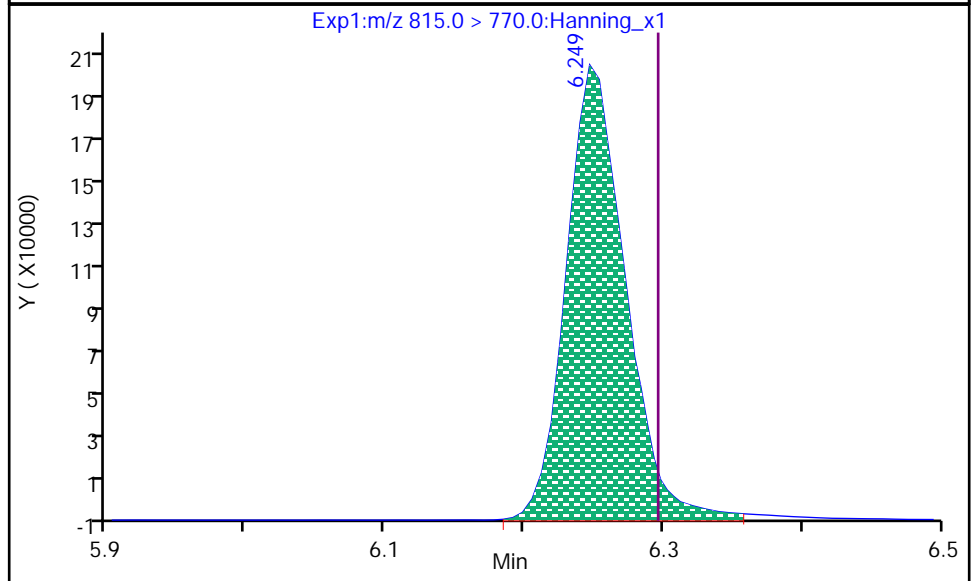
D 40 13C2_PFHxDA, CAS: SESI-0103

Processing Integration Results

RT: 6.249
Area: 550774
Amount: 1954.83
Amount Units: ng/L



RT: 6.249
Area: 598207
Amount: 2123.18
Amount Units: ng/L



Data Editor: LaShanda.Blair, 14-Sep-2022 09:41:43

Audit Action: Mint

Audit Reason: Invalid Integration

Pace Environmental Services, LLC
Continuing Calibration Verification Report

Data File: \\Organics\LL\LCMSMS01.i\091222-nonDOD.b\091222035.d
Injection Date: 12-Sep-2022 19:50:50 Injection Vol: 10.0 uL
Sample Type: CCV Auto Sampler: 28
Sample Info: CCV 1000_SVLC_2200 Misc. Info:
Inst. ID: LCMSMS01.i Operator: eqi.svoa
Method: LCMSMS01_PFAS-ID2 Version: V16 30-Jun-2022 10:54:24
Calib Method: PFAS-ID2 Lock State: Unlocked
Quant Method: IsoDil Integrator: picker

Reagent: Analytes Conc. Level: L-5 Vol. Added: 1.00 ml

Compound	Std Area	CCV Area	Exp. Conc ng/L	Conc ng/L	%Rec	%Rec Limits
D 46 13C4_PFBA	2392972	2243279			93.7	50 - 150
8 PFBA			1000.00	1096.40	109.6	70 - 130
21 PFPeA			1000.00	1056.90	105.7	70 - 130
D 50 13C5_PFPeA	1599974	1495102			93.4	50 - 150
D 44 13C3_PFBS	586478	568782			97	50 - 150
7 PFBS			884.00	924.67	104.6	70 - 130
D 63 13C2_4:2 FTS_2	506769	602387			118.9	50 - 150
1 4:2 FTS			934.00	848.25	90.8	70 - 130
D 49 13C5_PFHxA	1690154	1540867			91.2	50 - 150
15 PFHxA			1000.00	1121.31	112.1	70 - 130
22 PFPeS			938.00	957.98	102.1	70 - 130
28 GenX			2000.00	2133.40	106.7	70 - 130
D 66 13C3_GenX	1247009	1249746			100.2	50 - 150
13 PFHpA			1000.00	955.34	95.5	70 - 130
D 47 13C4_PFHpA	1544635	1673040			108.3	50 - 150
D 45 13C3_PFHxS	398871	416217			104.3	50 - 150
14 PFHxS			910.00	910.90	100.1	70 - 130
29 ADONA			942.00	955.63	101.4	70 - 130
2 6:2 FTS			948.00	1181.45	124.6	70 - 130
D 64 13C2_6:2 FTS_2	432458	320596			74.1	50 - 150
D 53 13C8_PFOA	1379286	1312979			95.2	50 - 150
20 PFOA			1000.00	1031.97	103.2	70 - 130
12 PFHpS			952.00	883.03	92.8	70 - 130
18 PFOS			928.00	997.92	107.5	70 - 130
D 54 13C8_PFOS	515554	462251			89.7	50 - 150
17 PFNA			1000.00	919.74	92	70 - 130
D 56 13C9_PFNA	1373592	1354685			98.6	50 - 150
30 9CI-PF3ONS			932.00	943.42	101.2	70 - 130
D 55 13C8_PFOA	880888	890720			101.1	50 - 150
19 PFOSA			1000.00	928.61	92.9	70 - 130
D 65 13C2_8:2 FTS_2	390251	384333			98.5	50 - 150
16 PFNS			960.00	1023.22	106.6	70 - 130
3 8:2 FTS			958.00	956.47	99.8	70 - 130
D 51 13C6_PFDA	1270798	1013796			79.8	50 - 150
10 PFDA			1000.00	1034.10	103.4	70 - 130
D 58 d3-MeFOSAA	1375015	1411556			102.7	50 - 150

Compound	Std Area	CCV Area	Exp. Conc ng/L	Conc ng/L	%Rec	%Rec Limits
6 N-MeFOSAA			1000.00	998.79	99.9	70 - 130
D 61 d7-MeFOSE	239634	260206			108.6	50 - 150
32 MeFOSE			1000.00	968.59	96.9	70 - 130
9 PFDS			964.00	798.37	82.8	70 - 130
5 N-EtFOSAA			1000.00	1034.33	103.4	70 - 130
D 57 d3-MeFOSA	125682	97072			77.2	50 - 150
26 MeFOSA			1000.00	1118.12	111.8	70 - 130
D 60 d5-EtFOSAA	1370840	1291461			94.2	50 - 150
D 52 13C7_PFUdA	1158026	1021747			88.2	50 - 150
25 PFUdA			1000.00	935.24	93.5	70 - 130
D 62 d9-EtFOSE	232388	209538			90.2	50 - 150
31 11Cl-PF3OUDS			942.00	1000.29	106.2	70 - 130
33 EtFOSE			1000.00	1287.03	128.7	70 - 130
D 59 d5-EtFOSA	107506	97738			90.9	50 - 150
27 EtFOSA			1000.00	1121.52	112.2	70 - 130
D 38 13C2_PFDoA	1027902	996613			97	50 - 150
11 PFDoA			1000.00	1006.28	100.6	70 - 130
4 10:2 FTS			964.00	894.13	92.8	70 - 130
34 PFDOS			968.00	1008.80	104.2	70 - 130
24 PFTrDA			1000.00	928.32	92.8	70 - 130
23 PFTeDA			1000.00	1263.17	126.3	70 - 130
D 42 13C2_PFTeDA	1037162	997594			96.2	50 - 150
D 40 13C2_PFHxDA	559085	600477			107.4	50 - 150
35 PFHxDA			1000.00	1286.70	128.7	70 - 130
36 PFODA			1000.00	832.94	83.3	70 - 130

Pace Environmental Services, LLC
 Analyte Quantitation Report

Data File: \\Organics\LL\LCMSMS01.i\091222-nonDOD.b\091222035.d
 Injection Date: 12-Sep-2022 19:50:50 Injection Vol: 10.0 uL
 Sample Type: CCV Auto Sampler: 28
 Sample Info: CCV 1000_SVLC_2200 Misc. Info:
 Inst. ID: LCMSMS01.i Operator: eqi.svoa
 Method: LCMSMS01_PFAS-ID2 Version: V16 30-Jun-2022 10:54:24
 Calib Method: PFAS-ID2 Lock State: Unlocked
 Quant Method: IsoDil Integrator: picker

Reagent: Analytes Conc. Level: L-5 Vol. Added: 1.00 ml

Signal	Quant Std	RT (min.)	Exp RT (min.)	□ RT (secs.)	Response	Peak Pts	S/N	Ion Ratio	Isomer Ratio	Cal Conc ng/L	OnCol Conc ng/L	%Drift/%Rec	Flags
D 46 13C4_PFBA CAS: SESI-0111													
217 > 172		1.675	1.670	0	2243279	19	>100:1			2000.00	2119.14	93.7	M
8 Perfluoro-n-butanoic acid (PFBA) CAS: 375-22-4													
212.9 > 168.9	46	1.675	1.675	0/0	1195541	17	>100:1			1000.00	1096.40		
D 50 13C5_PFPeA CAS: SESI-0112													
267.9 > 223		1.975	1.975	0	1495102	15	>100:1			2000.00	2113.84	93.4	
21 Perfluoro-n-pentanoic acid (PFPeA) CAS: 2706-90-3													
262.9 > 218.9	50	1.975	1.975	0/0	846889	14	>100:1			1000.00	1056.90		
D 44 13C3_PFBs CAS: SESI-0116													
302 > 80		2.015	2.025	-1	568782	14	>100:1			2000.00	2016.77	97	
7 Perfluoro-1-butanefulfonate (PFBs) CAS: 375-73-5													
298.9 > 80	44	2.015	2.025	-1/0	314712	14	>100:1	Target = 3.91		884.00	924.67		
298.9 > 99	44	2.015	2.025		82368	13	>100:1	3.82 (1.95-5.87)					
22 Perfluoro-1-pentanesulfonic acid (PFPeS) CAS: 2706-91-4													
349 > 80	44	2.328	2.355	-2/-1	270398	16	>100:1	Target = 3.48		938.00	957.98		
349 > 99	44	2.328	2.355		79932	16	>100:1	3.38 (1.74-5.22)					
D 63 13C2_4:2 FTS_2 CAS: SESI-0104													
329 > 81		2.256	2.283	-2	602387	17	>100:1			10000	15300	118.9	
1 Fluorotelomer sulfonate 4:2 [1H,1H,2H,2H-perfluorohexane sulfonate] (4:2 FTS) CAS: 757124-72-4													
327 > 307	63	2.265	2.283	-1/1	94185	18	>100:1	Target = 1.33		934.00	848.25		
327 > 81	63	2.265	2.283		63579	25	>100:1	1.48 (0.66-2.00)					
D 49 13C5_PFHxA CAS: SESI-0113													
318 > 273		2.301	2.319	-1	1540867	16	>100:1			2000.00	1827.35	91.2	
15 Perfluoro-n-hexanoic acid (PFHxA) CAS: 307-24-4													
313 > 269	49	2.301	2.319	-1/0	808906	18	>100:1	Target = 16.74		1000.00	1121.31		
313 > 119	49	2.301	2.319		47385	16	>100:1	17.07 (8.37-25.11)					
D 66 13C3_GenX CAS: SESI-0121													
287 > 185		2.409	2.436	-2	1249746	17	>100:1			10000	10521	100.2	
28 Hexafluoropropylene oxide dimer acid (GenX) CAS: 13252-13-6													
285 > 119	66	2.409	2.436	-2/0	185664	16	>100:1	Target = 0.71		2000.00	2133.40		
285 > 185	66	2.409	2.436		291976	17	>100:1	0.63 (0.35-1.06)					
D 47 13C4_PFHpA CAS: SESI-0114													
367 > 322		2.686	2.717	-2	1673040	18	>100:1			2000.00	2344.70	108.3	
13 Perfluoro-n-heptanoic acid (PFHpA) CAS: 375-85-9													
363 > 319	47	2.686	2.717	-2/0	727679	18	>100:1	Target = 3.28		1000.00	955.34		
363 > 169	47	2.676	2.717		219036	17	>100:1	3.32 (1.64-4.92)					
D 45 13C3_PFHxS CAS: SESI-0096													
402 > 80		2.696	2.727	-2	416217	19	>100:1			2000.00	2118.43	104.3	
14 Perfluorohexanesulfonate (PFHxS) CAS: 355-46-4													
399 > 80	45	2.696	2.727	-2/0	215611	29	>100:1	Target = 3.96	5.36	910.00	910.90		
399 > 99	45	2.696	2.727		62747	26	>100:1	3.43 (1.98-5.94)	6.72				

Signal	Quant Std	RT (min.)	Exp RT (min.)	□ RT (secs.)	Response	Peak Pts	S/N	Ion Ratio	Isomer Ratio	Cal Conc ng/L	OnCol Conc ng/L	%Drift/%Rec	Flags
29 4,8-dioxo-3H-perfluorononanoic acid (ADONA) CAS: 919005-14-4													
377 > 251	45	2.727	2.767	-2/0	1128981	18	>100:1	Target = 2.26		942.00	955.63		
377 > 85	45	2.727	2.767		477988	16	>100:1	2.36 (1.13-3.39)					
12 Perfluoro-1-heptanesulfonic acid (PFHpS) CAS: 375-92-8													
449 > 80	45	3.126	3.162	-2/0	209114	29	>100:1	Target = 3.87		952.00	883.03		
449 > 99	45	3.126	3.162		55001	22	>100:1	3.80 (1.93-5.81)					
D 64 13C2_6:2 FTS_2 CAS: SESI-0105													
429 > 81		3.090	3.114	-1	320596	24	>100:1			10000	10905	74.1	
2 Fluorotelomer sulfonate 6:2 [1H,1H,2H,2H-perfluorooctane sulfonate] (6:2 FTS) CAS: 27619-97-2													
427 > 407	64	3.090	3.126	-2/-1	60718	24	>100:1	Target = 1.29		948.00	1181.45		
427 > 81	64	3.090	3.126		44292	26	>100:1	1.37 (0.64-1.93)					
D 53 13C8_PFOA CAS: SESI-0097													
421 > 376		3.120	3.156	-2	1312979	24	>100:1			2000.00	2059.20	95.2	
20 Perfluoro-n-octanoic acid (PFOA) CAS: 335-67-1													
413 > 369	53	3.120	3.150	-2/0	646576	24	>100:1	Target = 2.65		1000.00	1031.97		
413 > 169	53	3.120	3.150		239612	24	>100:1	2.69 (1.32-3.97)					
D 54 13C8_PFOS CAS: SESI-0098													
507 > 80		3.609	3.637	-2	462251	22	>100:1			2000.00	1880.12	89.7	
18 Perfluorooctanesulfonate (PFOS) CAS: 1763-23-1													
499 > 80	54	3.609	3.637	-2/0	267529	79	>100:1	Target = 4.46	3.63	928.00	997.92		M
499 > 99	54	3.616	3.637		58994	43	>100:1	4.53 (2.23-6.70)	11.33				
30 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS) CAS: 756426-58-1													
531 > 351	54	3.897	3.923	-2/0	457826	24	>100:1			932.00	943.42		
16 Perfluoro-1-nonanesulfonic acid (PFNS) CAS: 68259-12-1													
549 > 80	54	4.090	4.118	-2/0	227377	23	>100:1	Target = 4.17		960.00	1023.22		
549 > 99	54	4.076	4.118		61277	27	>100:1	3.71 (2.08-6.26)					
9 Perfluoro-1-decanesulfonic acid (PFDS) CAS: 335-77-3													
599 > 80	54	4.534	4.563	-2/0	180898	14	>100:1	Target = 4.23		964.00	798.37		
599 > 99	54	4.534	4.563		52785	19	>100:1	3.42 (2.11-6.34)					
31 11-chloroeicosafuoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS) CAS: 763051-92-9													
631 > 451	54	4.775	4.813	-2/0	436887	20	>100:1			942.00	1000.29		
34 Perfluorododecanesulfonic acid (PFDOS) CAS: 79780-39-5													
699 > 80	54	5.305	5.347	-3/-1	198934	21	>100:1	Target = 3.53		968.00	1008.80		
699 > 99	54	5.297	5.347		52343	21	>100:1	3.80 (1.76-5.30)					
D 56 13C9_PFNA CAS: SESI-0099													
472 > 427		3.609	3.644	-2	1354685	24	>100:1			2000.00	2078.06	98.6	
17 Perfluoro-n-nonanoic acid (PFNA) CAS: 375-95-1													
463 > 419	56	3.616	3.644	-2/0	564655	24	>100:1	Target = 5.02		1000.00	919.74		
463 > 169	56	3.609	3.644		112645	25	>100:1	5.01 (2.51-7.53)					
D 55 13C8_PFOA CAS: SESI-0107													
506 > 78		3.964	3.985	-1	890720	22	>100:1			2000.00	2073.79	101.1	
19 Perfluoro-1-octanesulfonamide (PFOSA) CAS: 754-91-6													
498 > 78	55	3.978	3.985	0/1	444278	21	>100:1	Target = 54.56		1000.00	928.61		
498>478	55	3.978	3.985		7293	27	97:1	60.91 (27.28-81.85)					
D 65 13C2_8:2 FTS_2 CAS: SESI-0106													
529 > 81		4.083	4.118	-2	384333	23	>100:1			10000	11906	98.5	
3 Fluorotelomer sulfonate 8:2 [1H,1H,2H,2H-perfluorododecane sulfonate] (8:2 FTS) CAS: 39108-34-4													
527 > 507	65	4.083	4.111	-2/0	45147	22	>100:1	Target = 1.21		958.00	956.47		
527 > 81	65	4.076	4.111		43541	21	>100:1	1.03 (0.60-1.82)					
4 1H,1H,2H,2H-perfluorododecane sulfonate (10:2FTS) CAS: 120226-60-0													
627 > 607	65	4.980	5.009	-2/0	47484	19	>100:1	Target = 2.03		964.00	894.13		
627 > 80	65	4.971	5.009		25007	20	>100:1	1.89 (1.01-3.05)					
D 51 13C6_PFDA CAS: SESI-0115													
519 > 474		4.097	4.132	-2	1013796	24	>100:1			2000.00	1872.25	79.8	
10 Perfluoro-n-decanoic acid (PFDA) CAS: 335-76-2													
513 > 469	51	4.097	4.125	-2/0	527559	21	>100:1	Target = 10.03		1000.00	1034.10		
513 > 169	51	4.103	4.125		53397	20	>100:1	9.87 (5.01-15.04)					
D 58 d3-MeFOSAA CAS: SESI-0102													
573 > 419		4.320	4.353	-2	1411556	21	>100:1			10000	9681.81	102.7	

Signal	Quant Std	RT (min.)	Exp RT (min.)	□ RT (secs.)	Response	Peak Pts	S/N	Ion Ratio	Isomer Ratio	Cal Conc ng/L	OnCol Conc ng/L	%Drift/%Rec	Flags
6 N-methylperfluoro-1-octanesulfonamidoacetic acid (N-MeFOSAA) CAS: 2355-31-9													
570 > 419	58	4.320	4.345	-1/1	118721	51	>100:1	Target = 1.51	9.09	1000.00	998.79		M
570 > 483	58	4.328	4.345		85088	60	>100:1	1.39 (0.75-2.27)	3.65				M
D 61 d7-MeFOSE CAS: SESI-0129													
623 > 59		4.580	4.583	0	260206	18	>100:1			2000.00	2294.21	108.6	
32 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE) CAS: 24448-09-7													
616 > 59	61	4.590	4.604	-1/-1	132048	24	>100:1			1000.00	968.59		
D 57 d3-MeFOSA CAS: SESI-0109													
515 > 169		4.601	4.614	-1	97072	18	>100:1			2000.00	1902.34	77.2	
26 N-methylperfluoro-1-octanesulfonamide (MeFOSA) CAS: 31506-32-8													
512 > 169	57	4.611	4.624	-1/0	57530	16	>100:1	Target = 1.12		1000.00	1118.12		
512 > 219	57	4.611	4.624		54044	17	>100:1	1.06 (0.56-1.68)					
D 52 13C7_PFUdA CAS: SESI-0117													
570 > 525		4.552	4.583	-2	1021747	19	>100:1			2000.00	2105.56	88.2	
25 Perfluoro-n-undecanoic acid (PFUdA) CAS: 2058-94-8													
563 > 519	52	4.552	4.583	-2/0	436559	19	>100:1	Target = 8.93		1000.00	935.24		
563 > 169	52	4.552	4.583		48302	25	>100:1	9.03 (4.46-13.40)					
D 60 d5-EtFOSAA CAS: SESI-0110													
589 > 419		4.543	4.583	-2	1291461	19	>100:1			10000	10471	94.2	
5 N-ethylperfluoro-1-octanesulfonamidoacetic acid (N-EtFOSAA) CAS: 2991-50-6													
584 > 419	60	4.561	4.594	-2/0	136484	57	>100:1	Target = 1.91	8.13	1000.00	1034.33		M
584 > 526	60	4.561	4.594		73883	44	>100:1	1.84 (0.95-2.87)	4.35				
D 62 d9-EtFOSE CAS: SESI-0130													
639 > 59		4.832	4.834	0	209538	21	>100:1			2000.00	1943.45	90.2	
33 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE) CAS: 1691-99-2													
630 > 59	62	4.847	4.849	0/0	111297	23	>100:1			1000.00	1287.03		
D 59 d5-EtFOSA CAS: SESI-0108													
531 > 169		4.854	4.870	-1	97738	19	>100:1			2000.00	1990.04	90.9	
27 N-ethylperfluoro-1-octanesulfonamide (EtFOSA) CAS: 4151-50-2													
526 > 169	59	4.868	4.885	-1/0	61641	24	>100:1	Target = 1.02		1000.00	1121.52		
526 > 219	59	4.868	4.885		60296	25	>100:1	1.02 (0.51-1.54)					
D 38 13C2_PFDaA CAS: SESI-0118													
615 > 570		4.971	5.001	-2	996613	20	>100:1			2000.00	1922.49	97	
11 Perfluoro-n-dodecanoic acid (PFDaA) CAS: 307-55-1													
613 > 569	38	4.971	5.001	-2/0	483783	20	>100:1	Target = 6.96		1000.00	1006.28		
613 > 169	38	4.971	5.001		58043	19	>100:1	8.33 (3.48-10.45)					
24 Perfluoro-n-tridecanoic acid (PFTTrDA) CAS: 72629-94-8													
663 > 619	38	5.343	5.378	-2/0	245912	20	>100:1	Target = 3.41		1000.00	928.32		
663 > 169	38	5.335	5.378		75250	20	>100:1	3.26 (1.70-5.11)					
D 42 13C2_PFTeDA CAS: SESI-0119													
715 > 670		5.669	5.711	-3	997594	36	>100:1			2000.00	1815.75	96.2	
23 Perfluoro-n-tetradecanoic acid (PFTeDA) CAS: 376-06-7													
713 > 669	42	5.664	5.711	-3/0	478354	36	>100:1	Target = 6.93		1000.00	1263.17		
713 > 169	42	5.669	5.711		54800	36	>100:1	8.72 (3.46-10.39)					
D 40 13C2_PFHxDA CAS: SESI-0103													
815 > 770		6.248	6.298	-3	600477	27	>100:1			2000.00	2131.24	107.4	M
35 Perfluoro-n-hexadecanoic acid (PFHxDA) CAS: 67905-19-5													
813 > 769	40	6.248	6.307	-4/-1	466477	23	>100:1	Target = 9.01		1000.00	1286.70		
813 > 269	40	6.255	6.307		40545	22	>100:1	11.50 (4.50-13.52)					
36 Perfluoro-n-octadecanoic acid (PFODA) CAS: 16517-11-6													
913 > 869	40	6.766	6.850	-5/-2	243120	20	>100:1	Target = 10.58		1000.00	832.94		
913 > 319	40	6.766	6.850		22872	20	>100:1	10.62 (5.29-15.88)					
* 37 13C2_PFDA													
515 > 470		4.097	4.090	0	861	19	8.4:1			2000.00			
* 39 13C2_PFHxA CAS: SESI-0120													
315 > 270		2.292	2.319	-2	1172	22	11:1			2000.00			
* 41 13C2_PFOA CAS: 864071-08-9													
415 > 370		3.108	3.120	-1	782	16	13:1			2000.00			

Signal	Quant Std	RT (min.)	Exp RT (min.)	□ RT (secs.)	Response	Peak Pts	S/N	Ion Ratio	Isomer Ratio	Cal Conc ng/L	OnCol Conc ng/L	%Drift/%Rec	Flags
* 43 13C3_PFBA													
216 > 172		1.675	1.675	0	12675	17	52:1			2000.00			
* 48 13C4_PFOS CAS: 2795-39-3													
503 > 80		3.609	3.630	-1	4217	24	40:1			2000.00			

Compound Type Legend

D - Isotopic Dilution Std.
* - ISTD

QC Flag Legend

M - Compound Hit/Peak Manually Integrated

Data File: \\Organics\LL\LCMSMS01.i\091222-nonDOD.b\091222035.d

Injection Date: 12-Sep-2022 19:50:50

Inst. ID: LCMSMS01.i

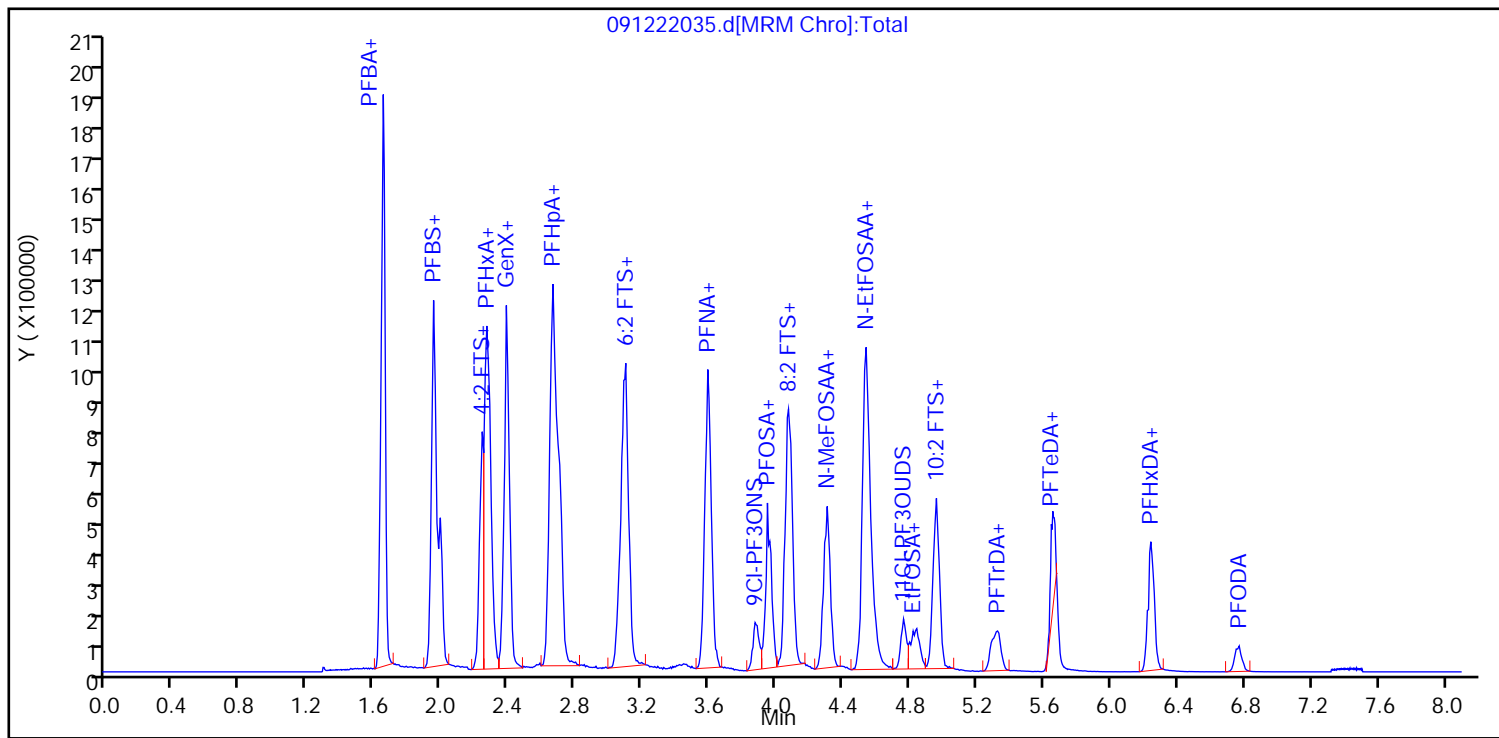
Client ID:

Lab ID: CCV 1000_SVLC_2200

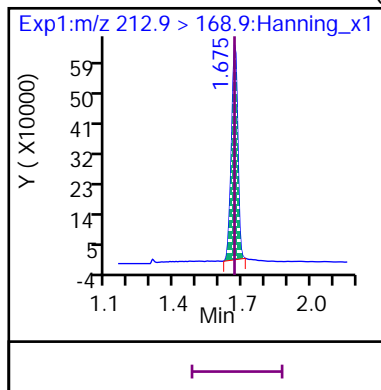
Sample Info: CCV 1000_SVLC_2200

Dil. Factor: 1

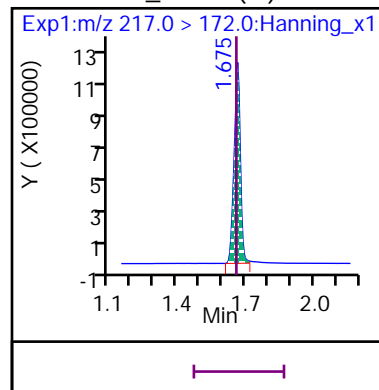
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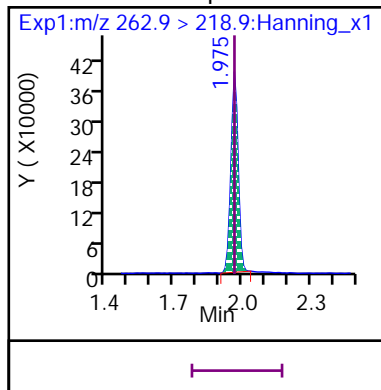
8 Perfluoro-n-butanoic acid (PFBA)



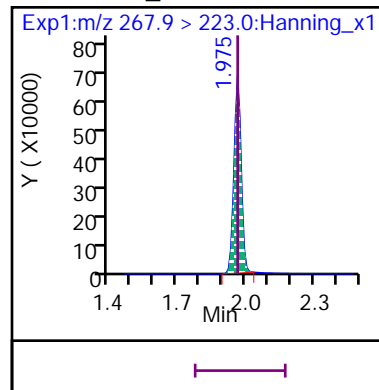
D 46 13C4_PFBA (M)



21 Perfluoro-n-pentanoic acid (PFPeA)

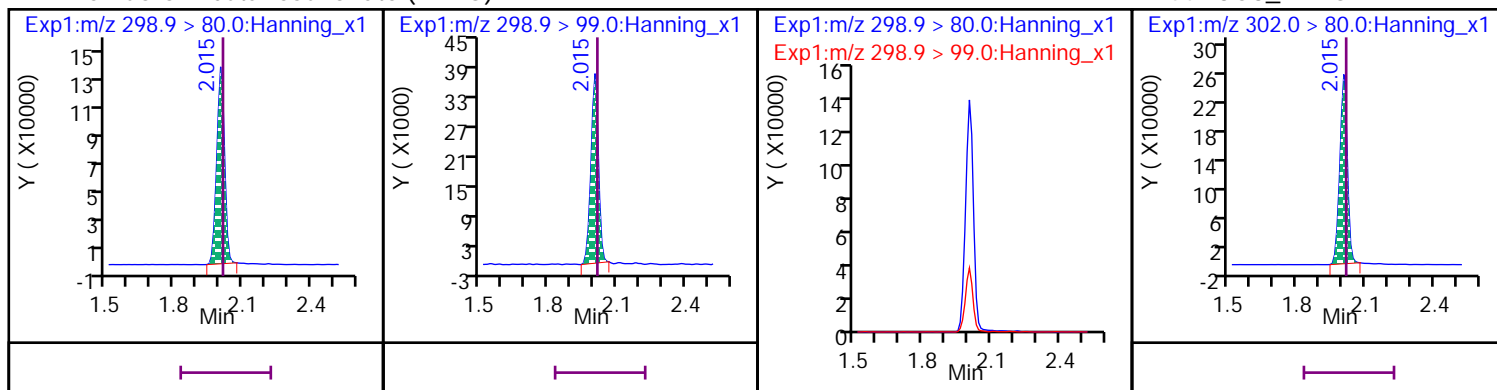


D 50 13C5_PFPeA



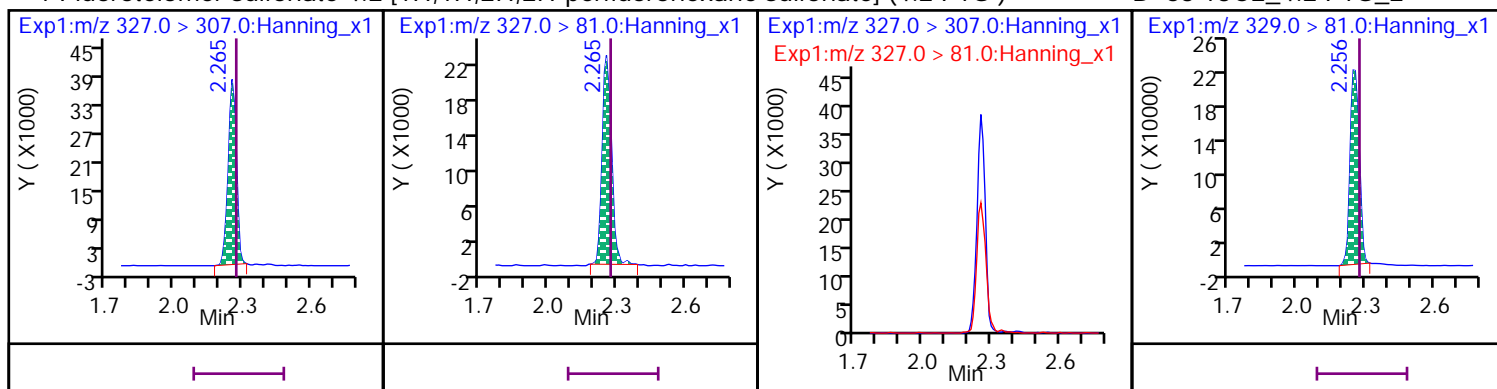
7 Perfluoro-1-butanesulfonate (PFBS)

D 44 13C3_PFBS



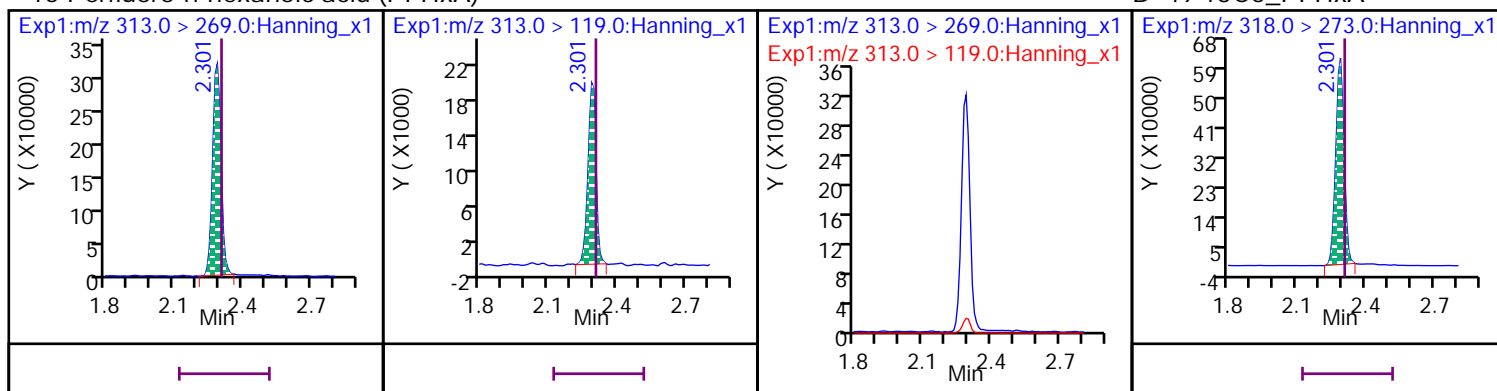
1 Fluorotelomer sulfonate 4:2 [1H,1H,2H,2H-perfluorohexane sulfonate] (4:2 FTS)

D 63 13C2_4:2 FTS_2



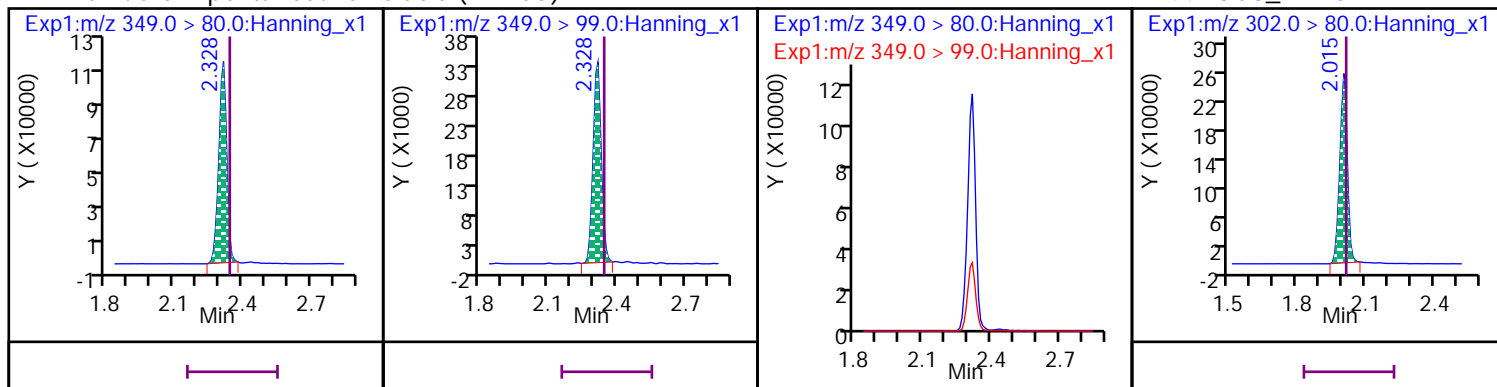
15 Perfluoro-n-hexanoic acid (PFHxA)

D 49 13C5_PFHxA



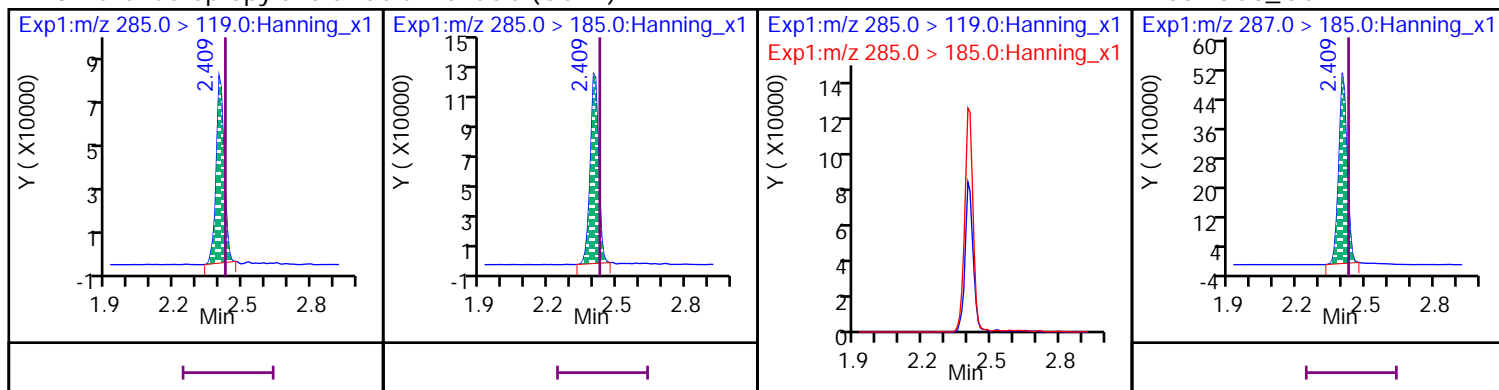
22 Perfluoro-1-pentanesulfonic acid (PFPeS)

D 44 13C3_PFBS



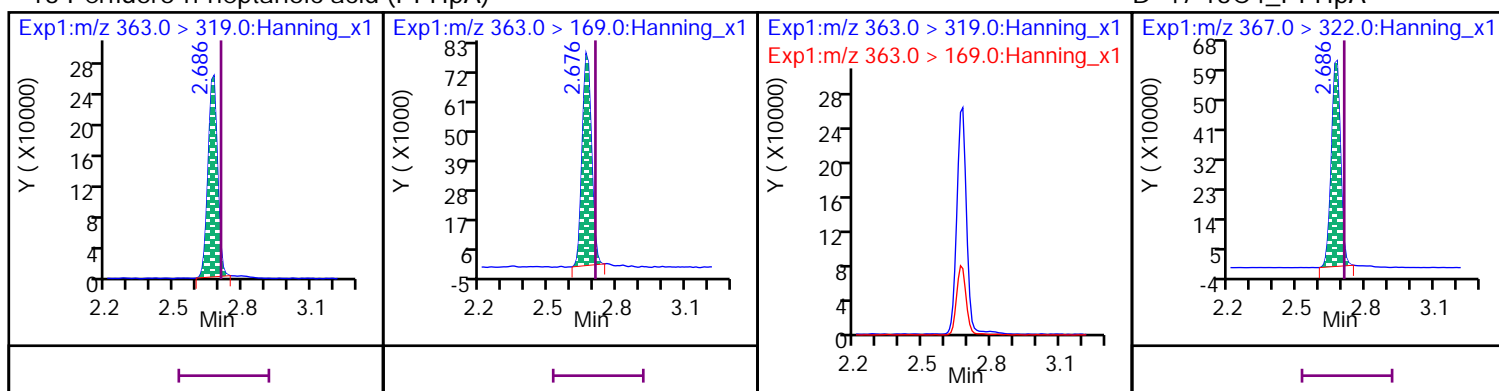
28 Hexafluoropropylene oxide dimer acid (GenX)

D 66 13C3_GenX



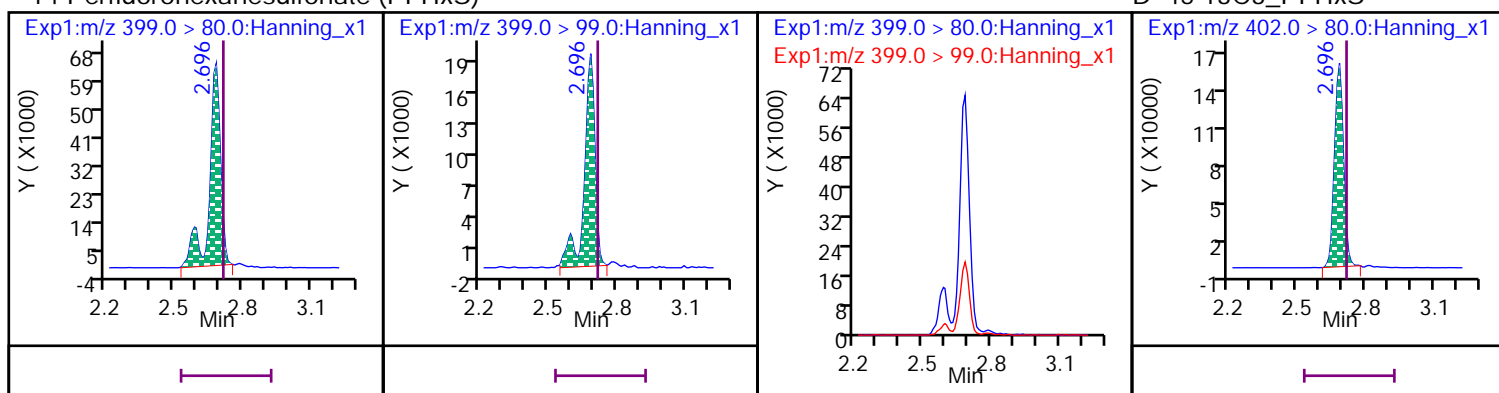
13 Perfluoro-n-heptanoic acid (PFHpA)

D 47 13C4_PFHpA



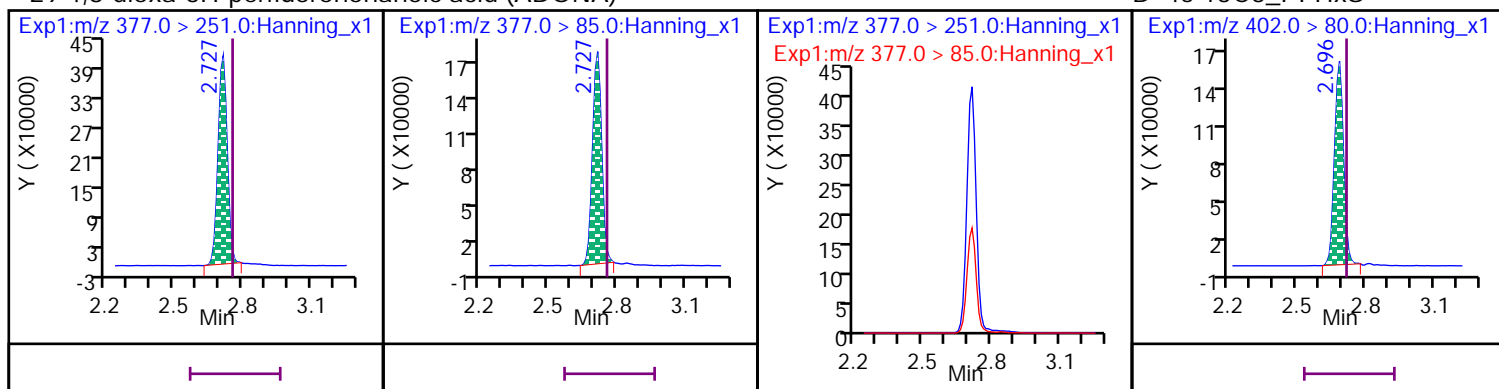
14 Perfluorohexanesulfonate (PFHxS)

D 45 13C3_PFHxS



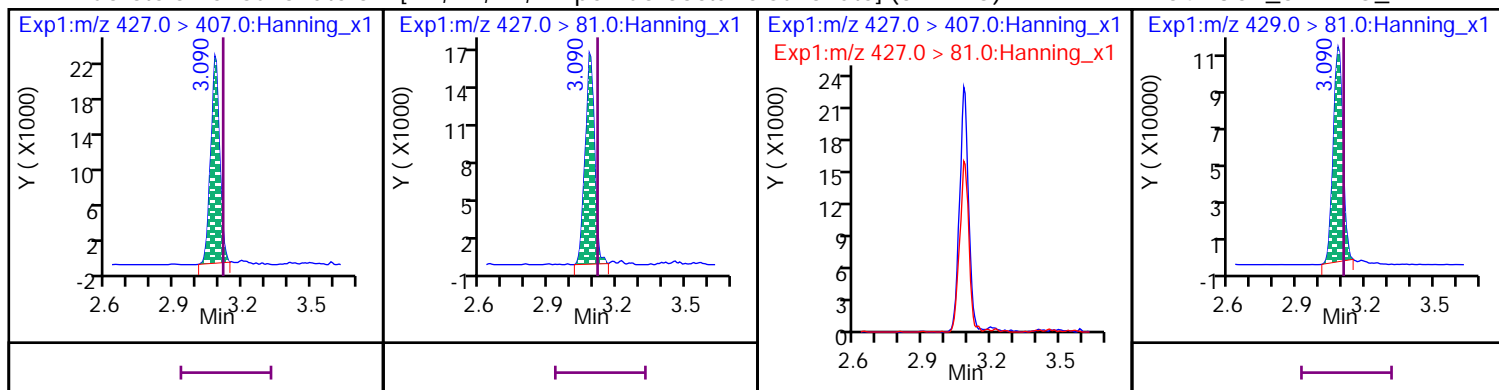
29 4,8-dioxa-3H-perfluorononanoic acid (ADONA)

D 45 13C3_PFHxS



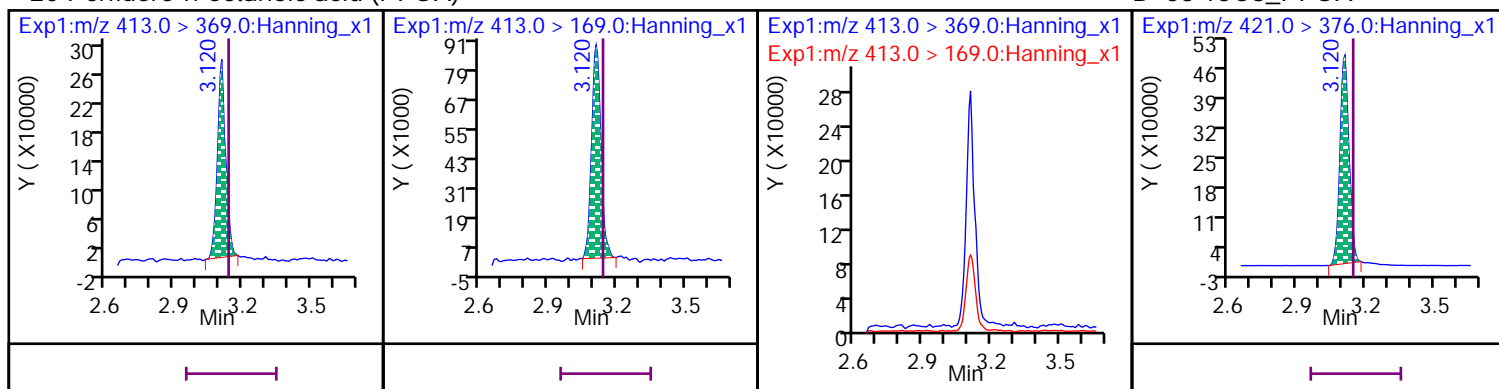
2 Fluorotelomer sulfonate 6:2 [1H,1H,2H,2H-perfluorooctane sulfonate] (6:2 FTS)

D 64 13C2_6:2 FTS_2



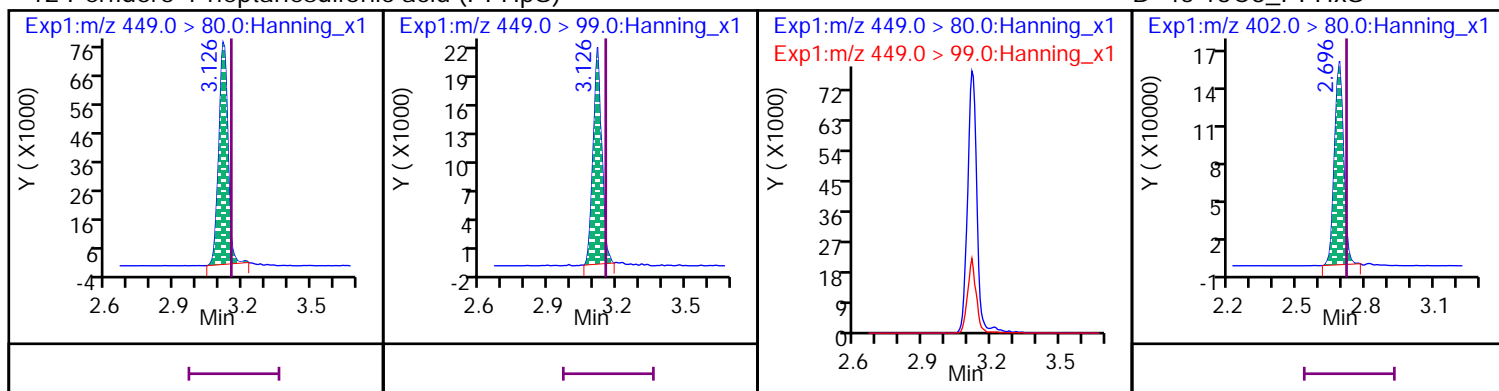
20 Perfluoro-n-octanoic acid (PFOA)

D 53 13C8_PFOA



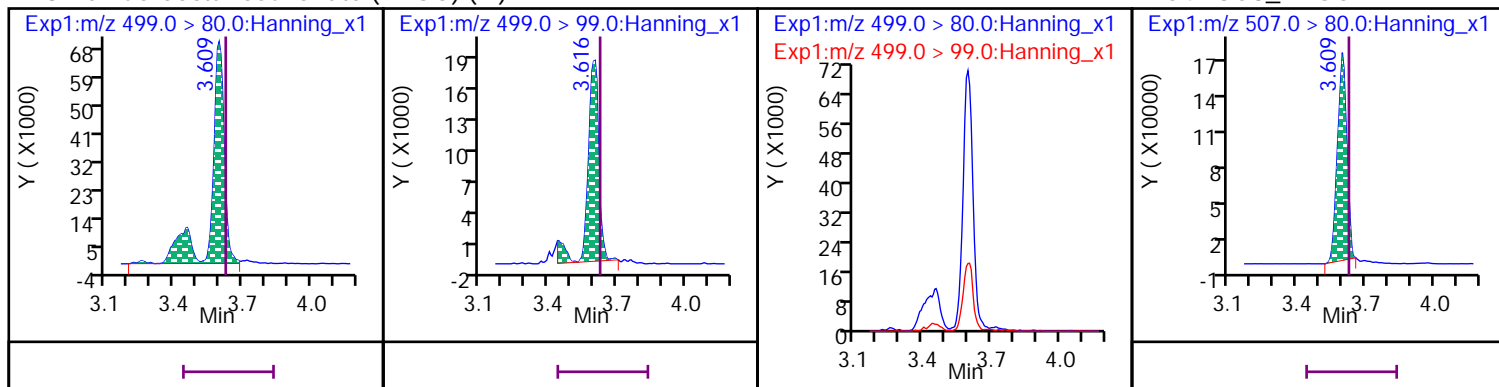
12 Perfluoro-1-heptanesulfonic acid (PFHpS)

D 45 13C3_PFHxS



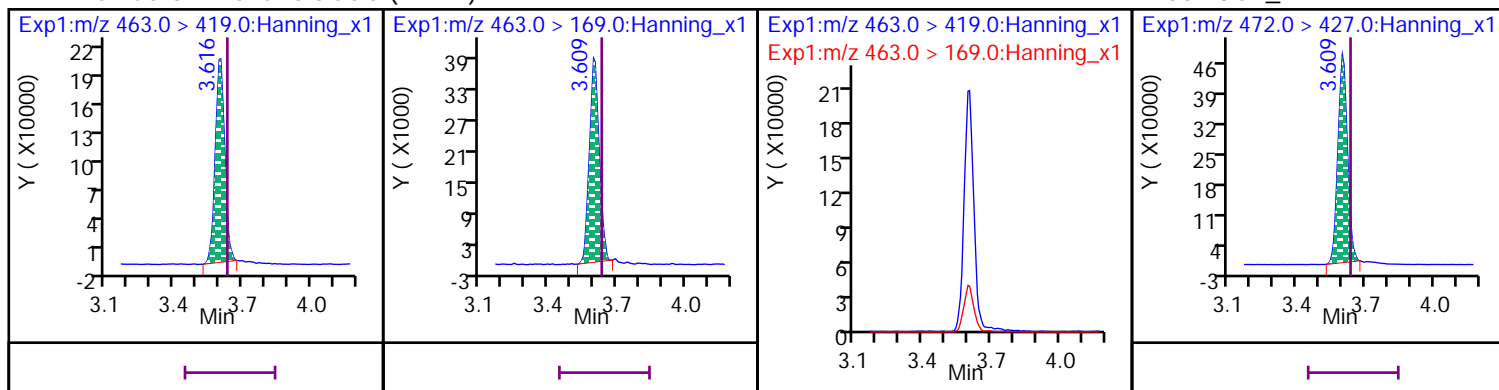
18 Perfluorooctanesulfonate (PFOS) (M)

D 54 13C8_PFOS



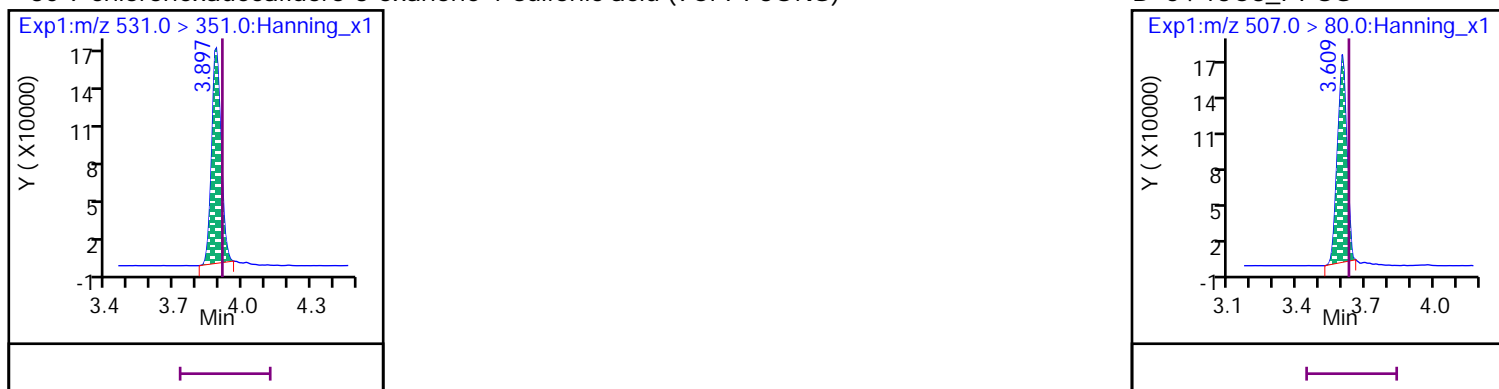
17 Perfluoro-n-nonanoic acid (PFNA)

D 56 13C9_PFNA



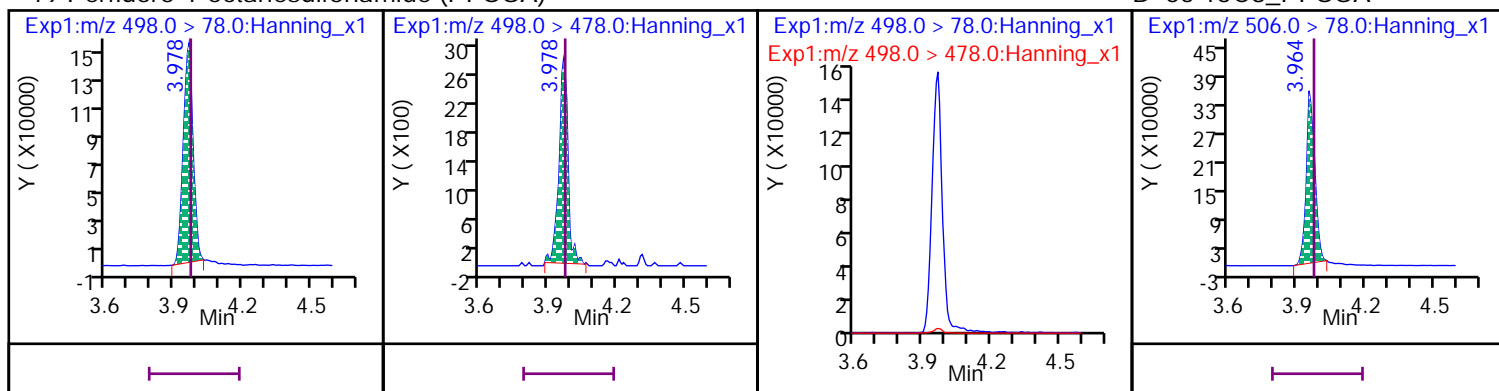
30 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)

D 54 13C8_PFOS



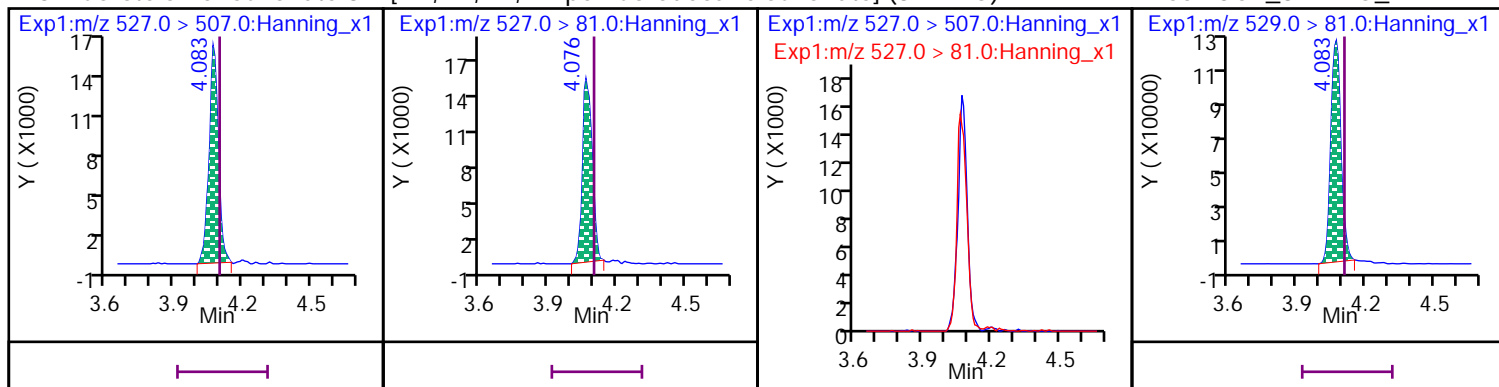
19 Perfluoro-1-octanesulfonamide (PFOSA)

D 55 13C8_PFOSA



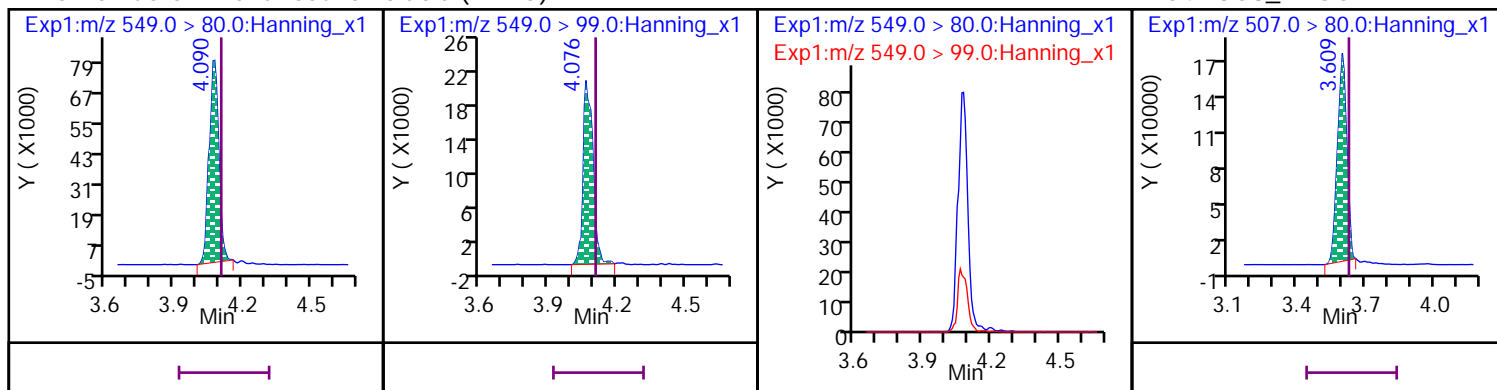
3 Fluorotelomer sulfonate 8:2 [1H,1H,2H,2H-perfluorodecane sulfonate] (8:2 FTS)

D 65 13C2_8:2 FTS_2



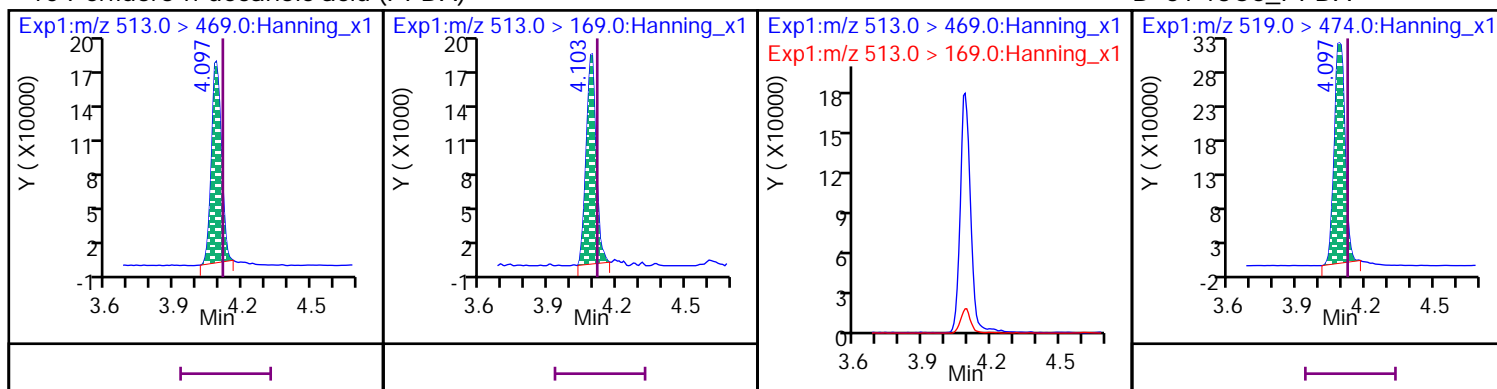
16 Perfluoro-1-nonanesulfonic acid (PFNS)

D 54 13C8_PFOS



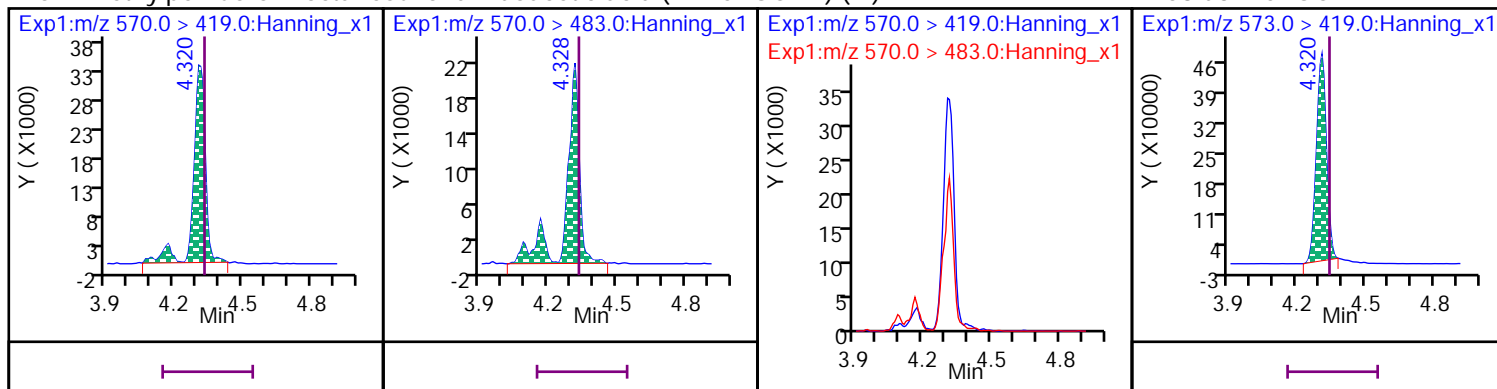
10 Perfluoro-n-decanoic acid (PFDA)

D 51 13C6_PFDA



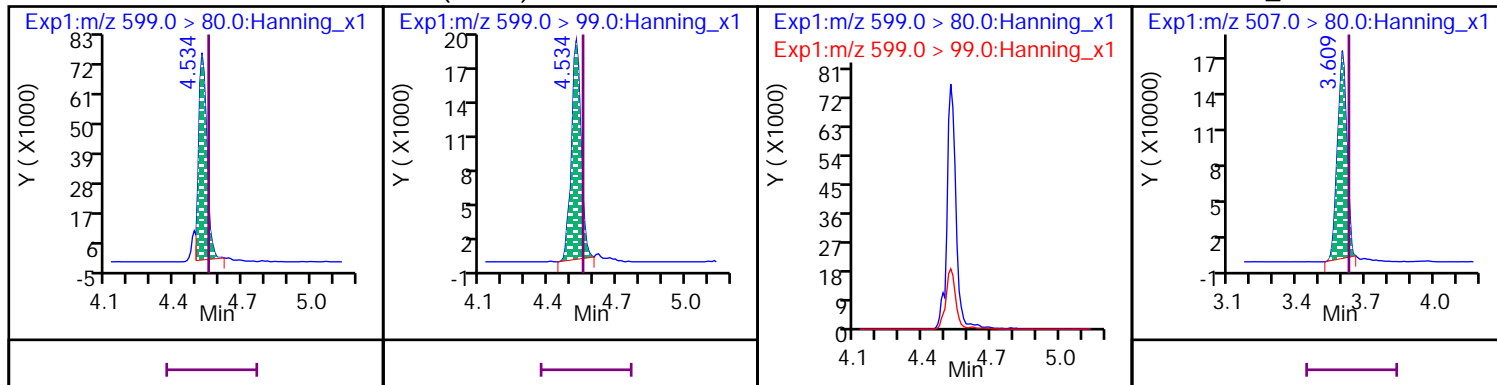
6 N-methylperfluoro-1-octanesulfonamidoacetic acid (N-MeFOSAA) (M)

D 58 d3-MeFOSAA

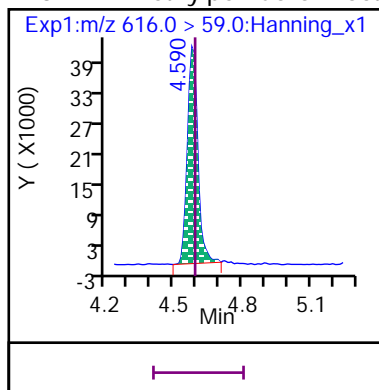


9 Perfluoro-1-decanesulfonic acid (PFDS)

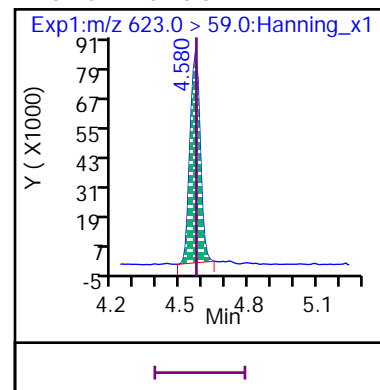
D 54 13C8_PFOS



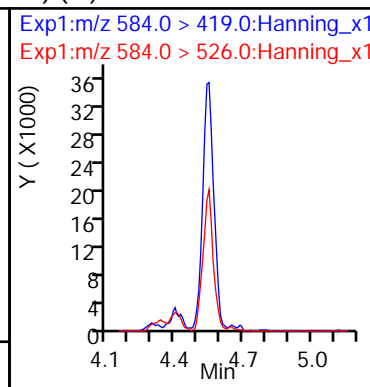
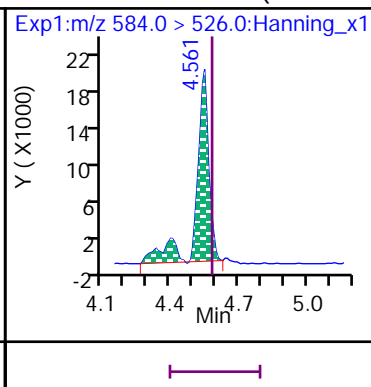
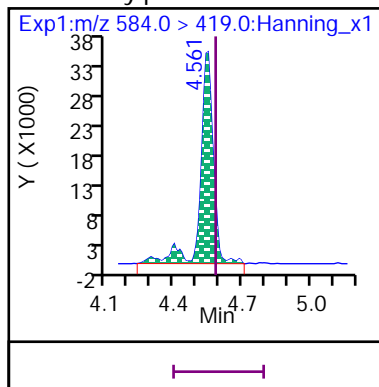
32 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)



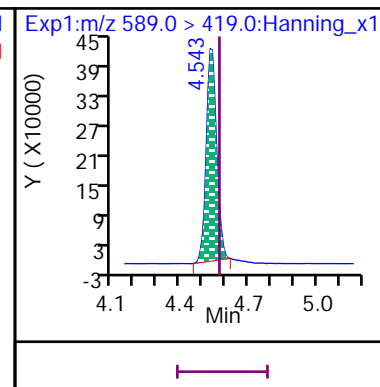
D 61 d7-MeFOSE



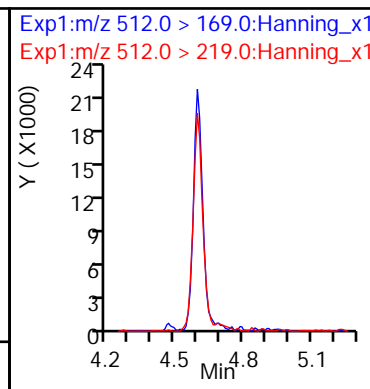
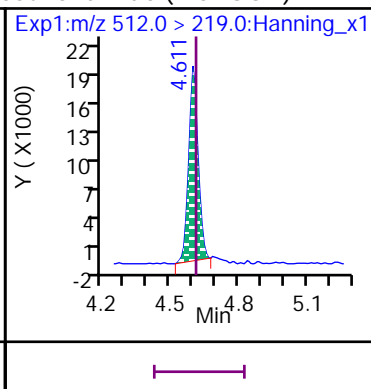
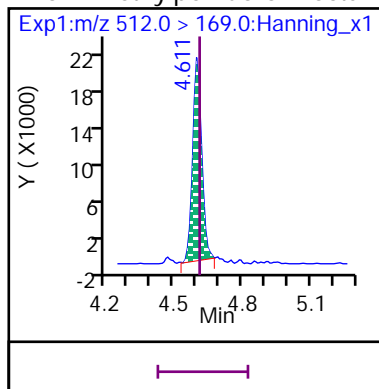
5 N-ethylperfluoro-1-octanesulfonamidoacetic acid (N-EtFOSAA) (M)



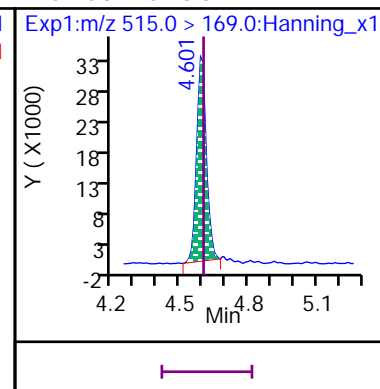
D 60 d5-EtFOSAA



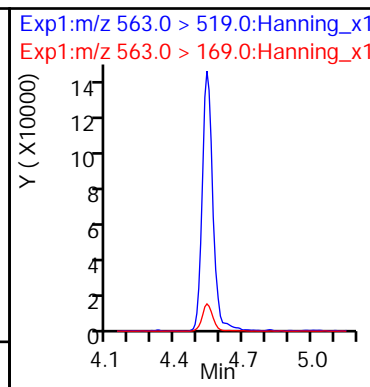
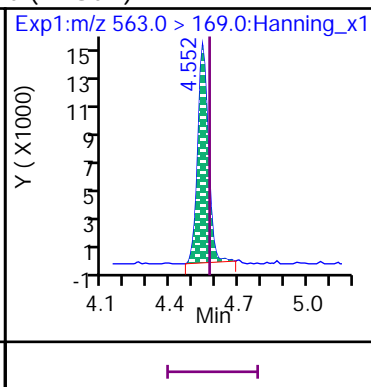
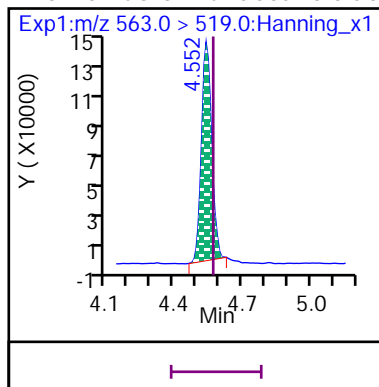
26 N-methylperfluoro-1-octanesulfonamide (MeFOSA)



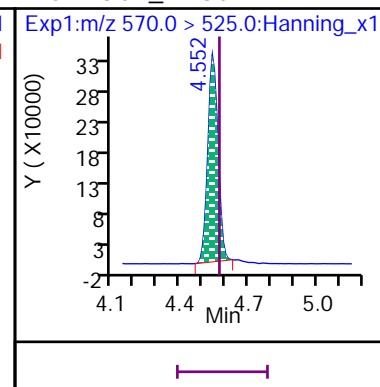
D 57 d3-MeFOSA



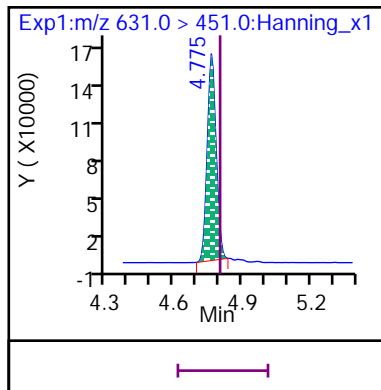
25 Perfluoro-n-undecanoic acid (PFUdA)



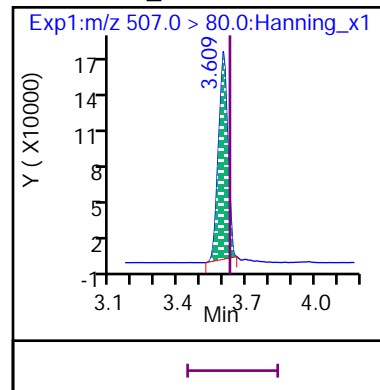
D 52 13C7_PFUdA



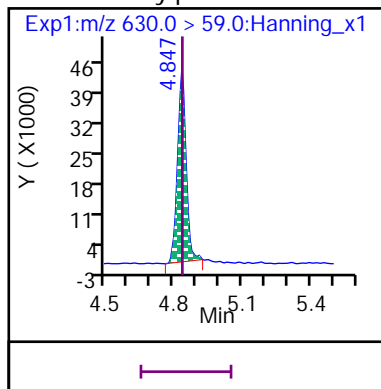
31 11-chloroeicosfluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)



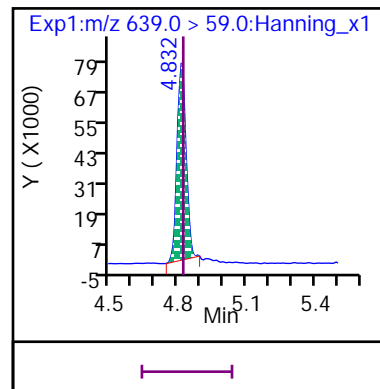
D 54 13C8_PFOS



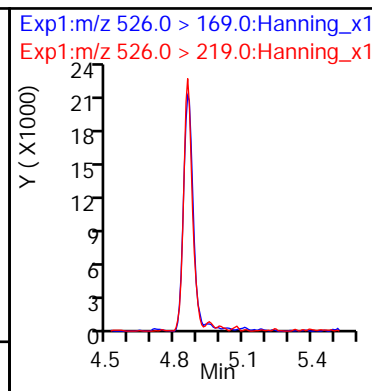
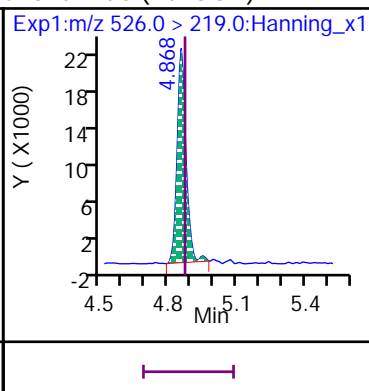
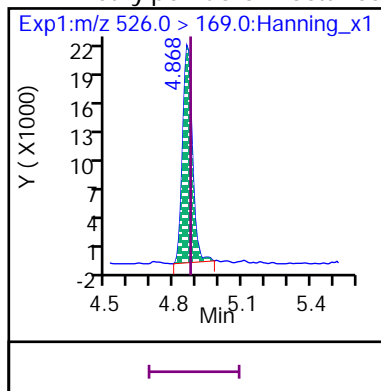
33 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)



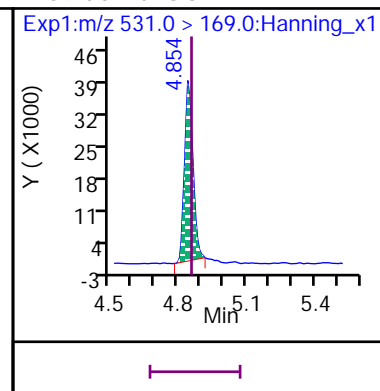
D 62 d9-EtFOSE



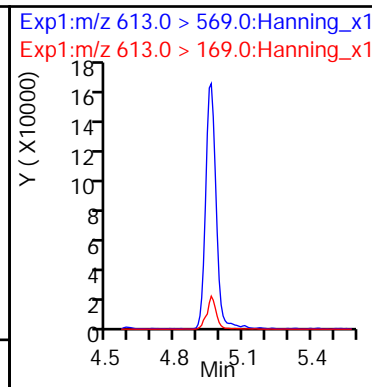
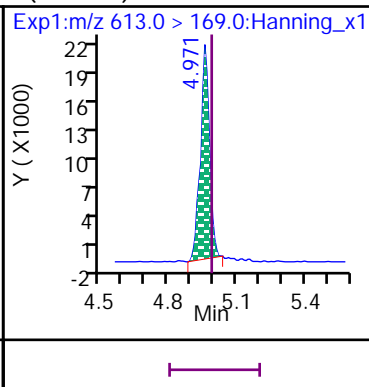
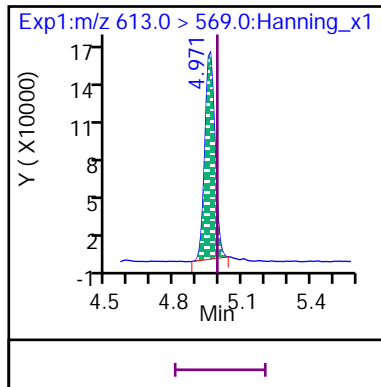
27 N-ethylperfluoro-1-octanesulfonamide (EtFOSA)



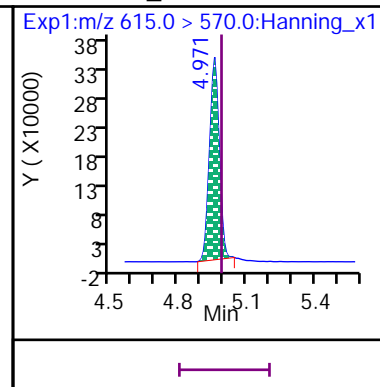
D 59 d5-EtFOSA



11 Perfluoro-n-dodecanoic acid (PFDoA)

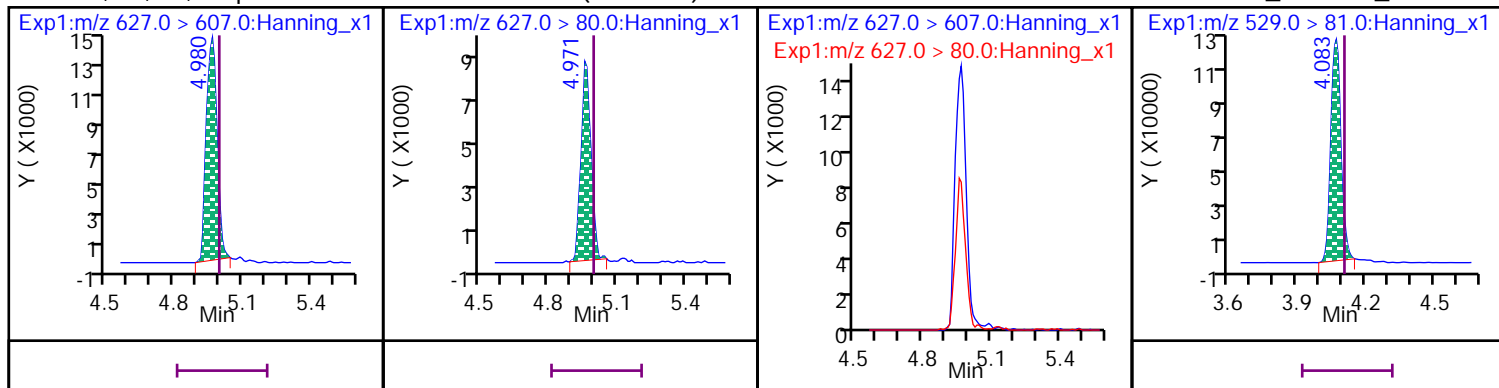


D 38 13C2_PFDoA



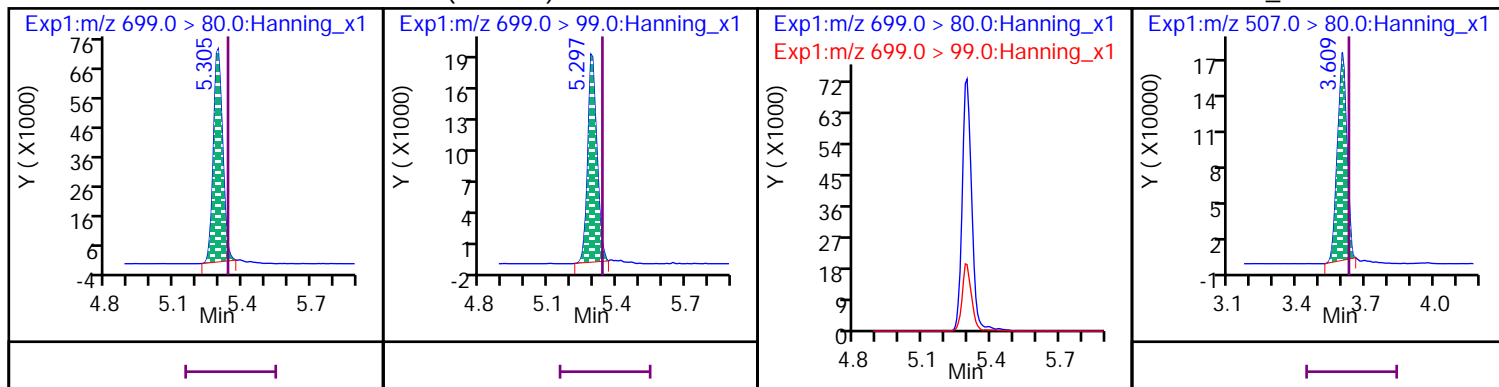
4 1H,1H,2H,2H-perfluorododecane sulfonate (10:2FTS)

D 65 13C2_8:2 FTS_2



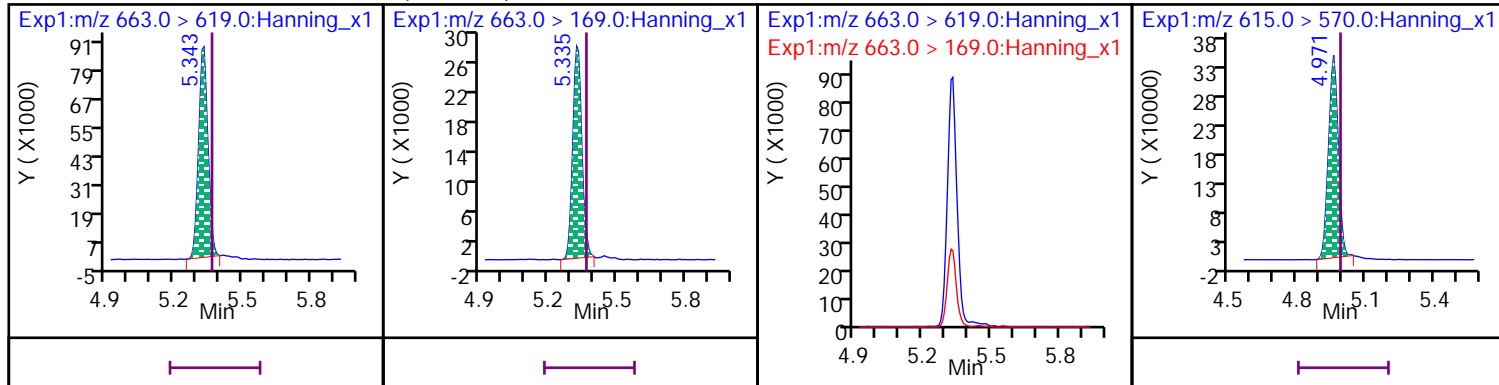
34 Perfluorododecanesulfonic acid (PFDOS)

D 54 13C8_PFOS



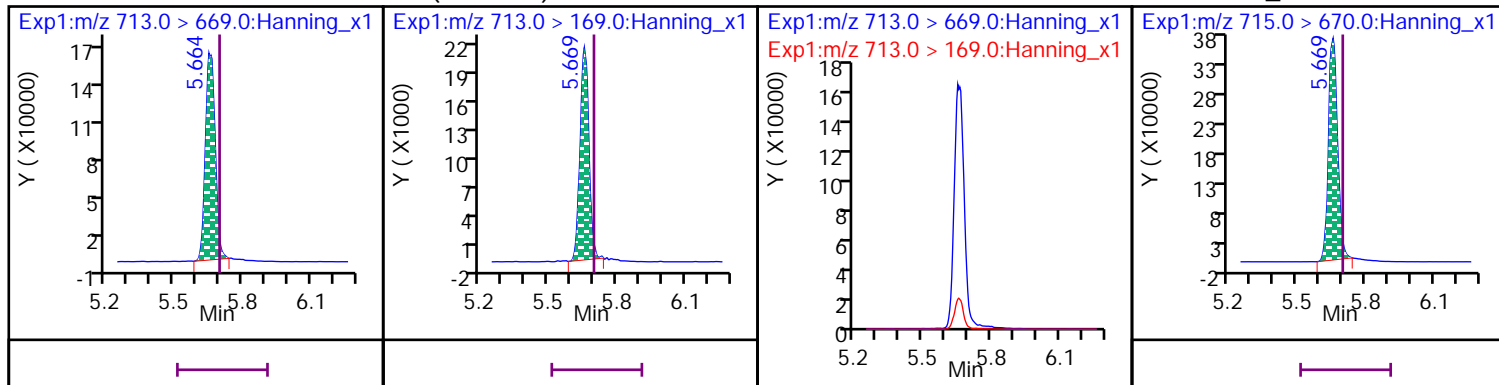
24 Perfluoro-n-tridecanoic acid (PFTTrDA)

D 38 13C2_PFDaA



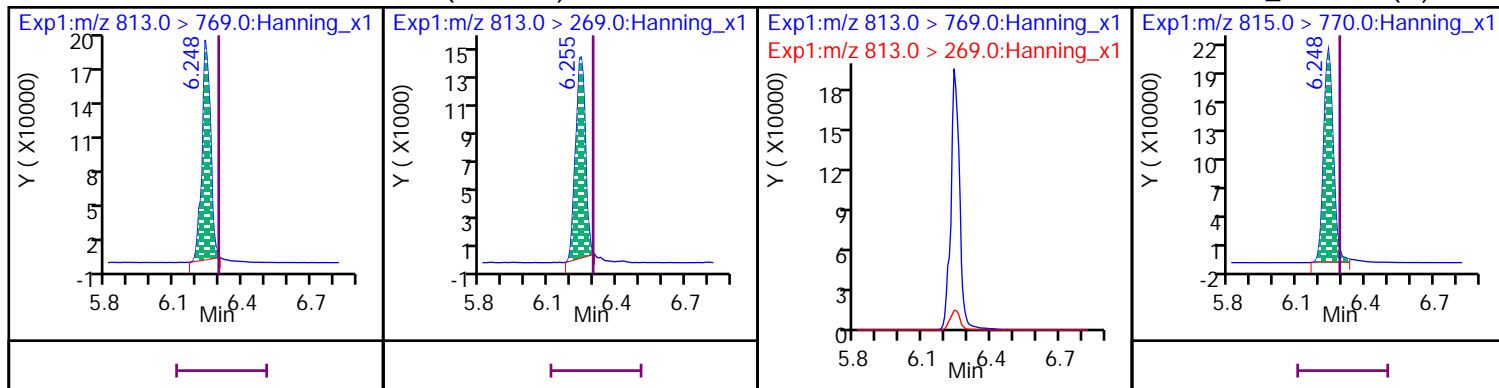
23 Perfluoro-n-tetradecanoic acid (PFTTeDA)

D 42 13C2_PFTeDA



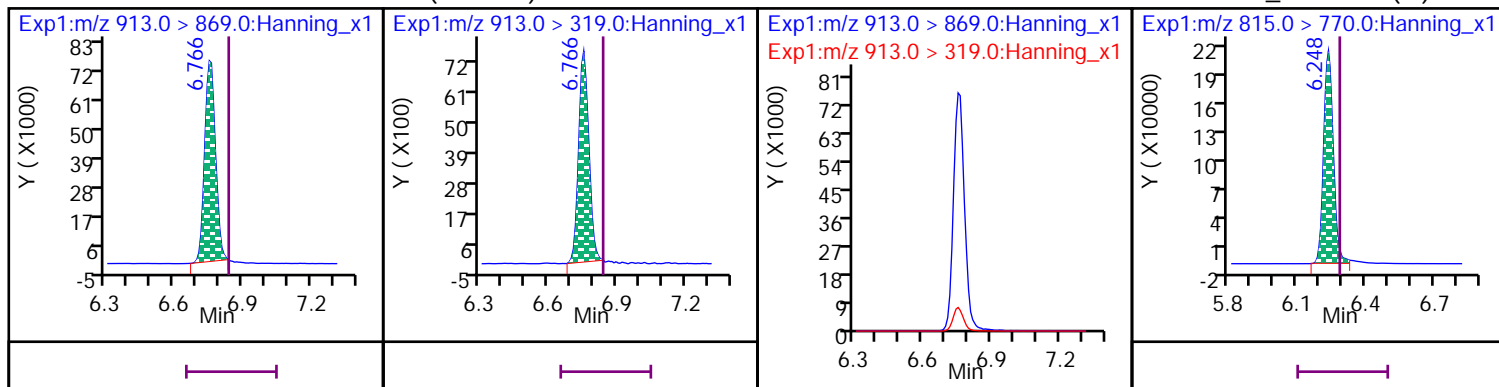
35 Perfluoro-n-hexadecanoic acid (PFHxDA)

D 40 13C2_PFHxDA (M)



36 Perfluoro-n-octadecanoic acid (PFODA)

D 40 13C2_PFHxDA (M)

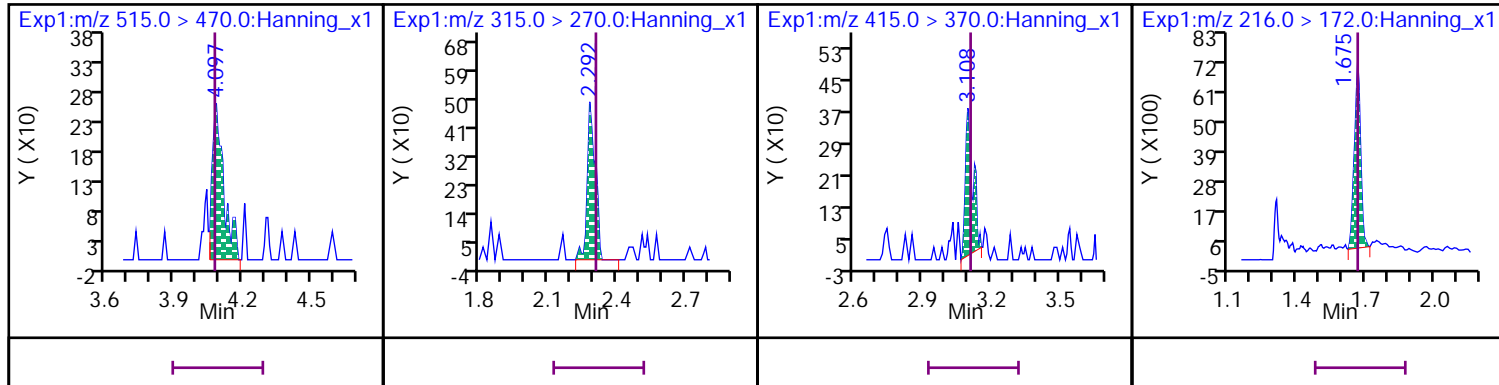


* 37 13C2_PFDA

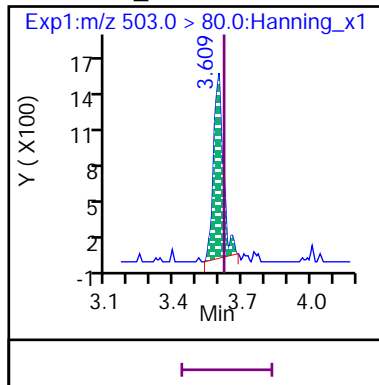
* 39 13C2_PFHxA

* 41 13C2_PFOA

* 43 13C3_PFBFA



* 48 13C4_PFOS



Manual Integration Report

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Injection Date: 12-Sep-2022 19:50:50

Inst. ID: LCMSMS01.i

Client ID:

Lab ID: CCV 1000_SVLC_2200

Sample Info: CCV 1000_SVLC_2200

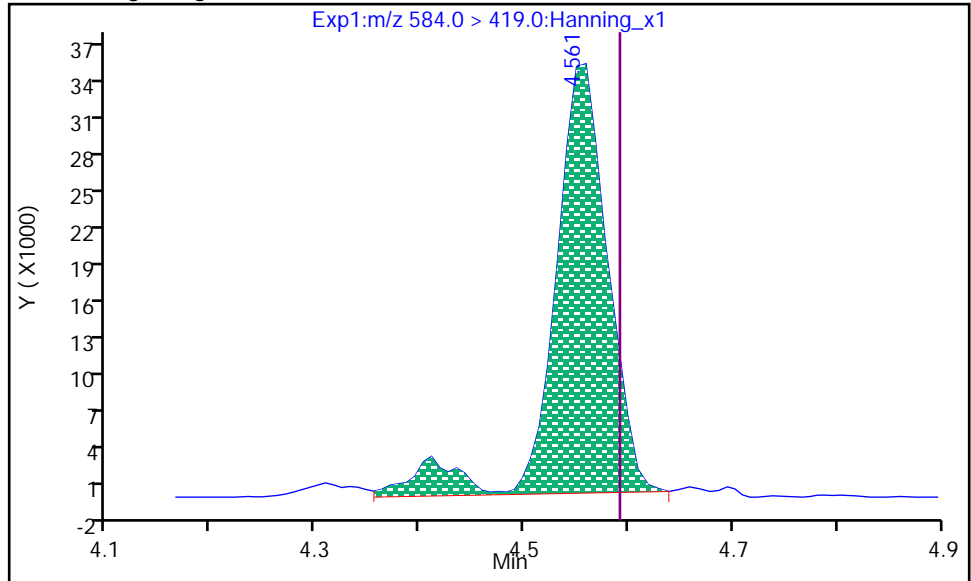
Dil. Factor: 1

Operator: eqi.svoa

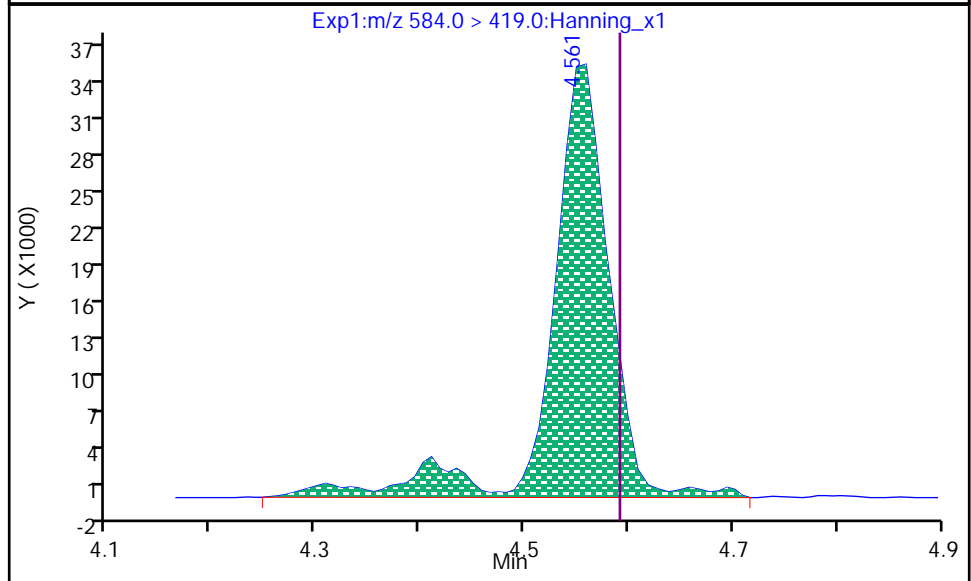
5 N-EtFOSAA, CAS: 2991-50-6

Processing Integration Results

RT: 4.561
Area: 126306
Amount: 957.19
Amount Units: ng/L



RT: 4.561
Area: 136484
Amount: 1034.33
Amount Units: ng/L



Data Editor: xiang.zhu, 14-Sep-2022 13:52:56

Audit Action: Mint

Audit Reason: Invalid Integration

Manual Integration Report

Data File: \\Organics\LL\LCMSMS01.i\091222-nonDOD.b\091222035.d

Injection Date: 12-Sep-2022 19:50:50

Inst. ID: LCMSMS01.i

Client ID:

Lab ID: CCV 1000_SVLC_2200

Sample Info: CCV 1000_SVLC_2200

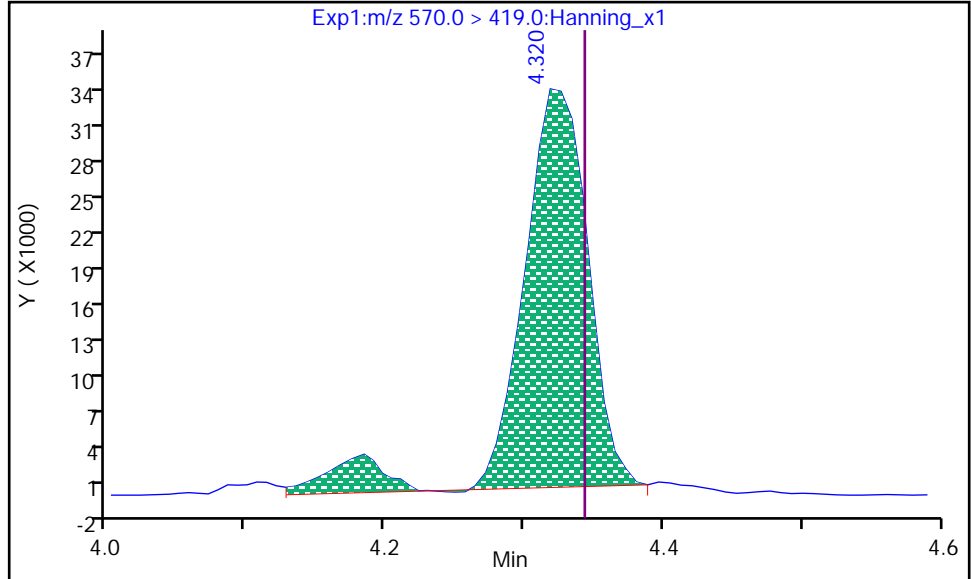
Dil. Factor: 1

Operator: eqi.svoa

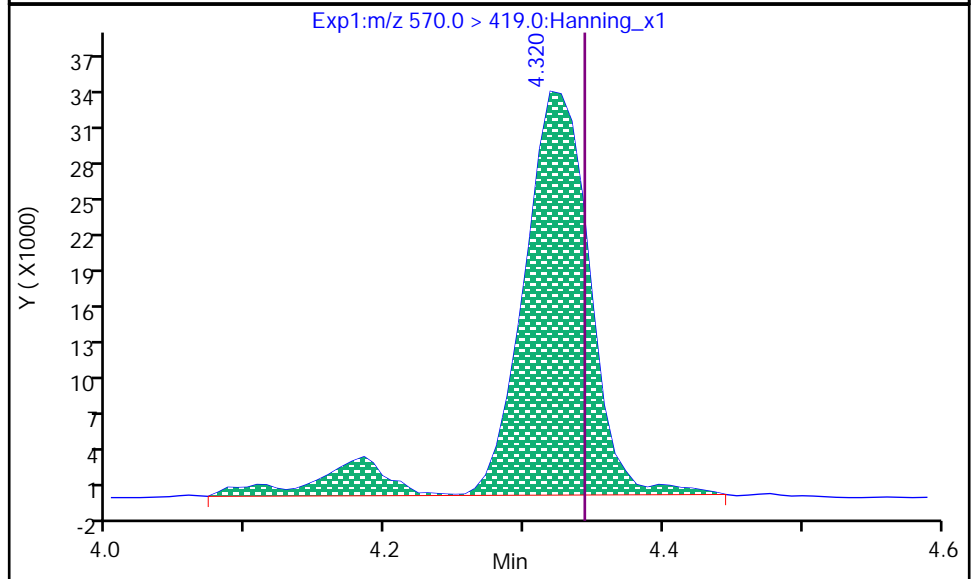
6 N-MeFOSAA, CAS: 2355-31-9

Processing Integration Results

RT: 4.320
Area: 110786
Amount: 932.03
Amount Units: ng/L



RT: 4.320
Area: 118721
Amount: 998.79
Amount Units: ng/L



Data Editor: xiang.zhu, 14-Sep-2022 13:52:31

Audit Action: Mint

Audit Reason: Invalid Integration

Manual Integration Report

Data File: \\Organics\LL\LCMSMS01.i\091222-nonDOD.b\091222035.d

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Client ID:

Lab ID: CCV 1000_SVLC_2200

Sample Info: CCV 1000_SVLC_2200

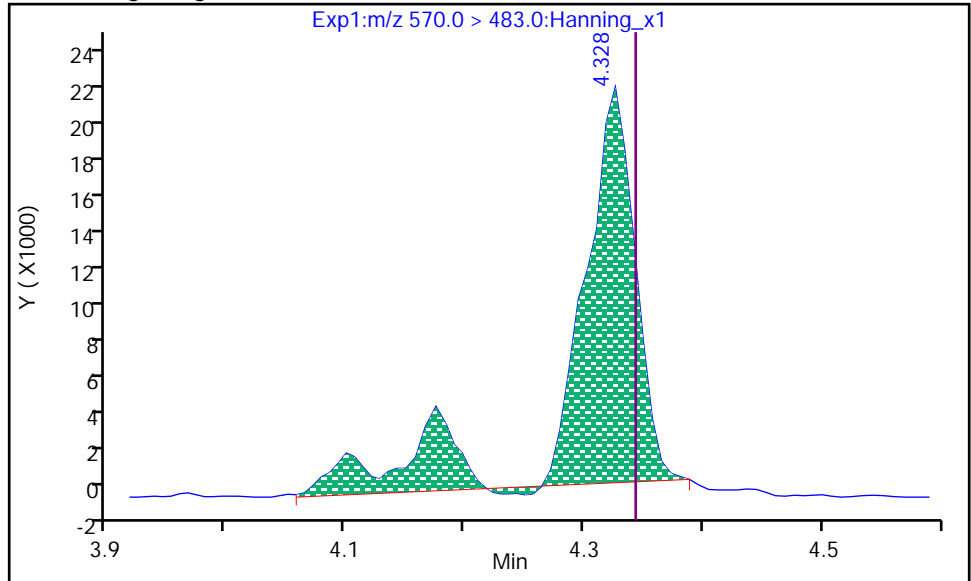
Dil. Factor: 1

Operator: eqi.svoa

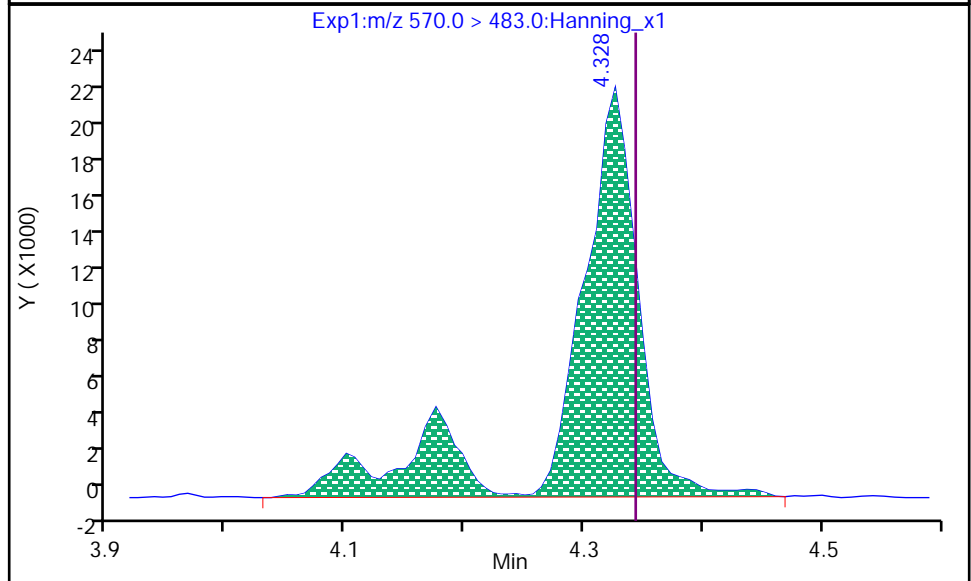
6 N-MeFOSAA, CAS: 2355-31-9

Processing Integration Results

RT: 4.328
Area: 74439
Amount: 998.79
Amount Units: ng/L



RT: 4.328
Area: 85088
Amount: 998.79
Amount Units: ng/L



Data Editor: xiang.zhu, 14-Sep-2022 13:52:37

Audit Action: Mint

Audit Reason: Invalid Integration

Manual Integration Report

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Inst. ID: LCMSMS01.i

Client ID:

Lab ID: CCV 1000_SVLC_2200

Sample Info: CCV 1000_SVLC_2200

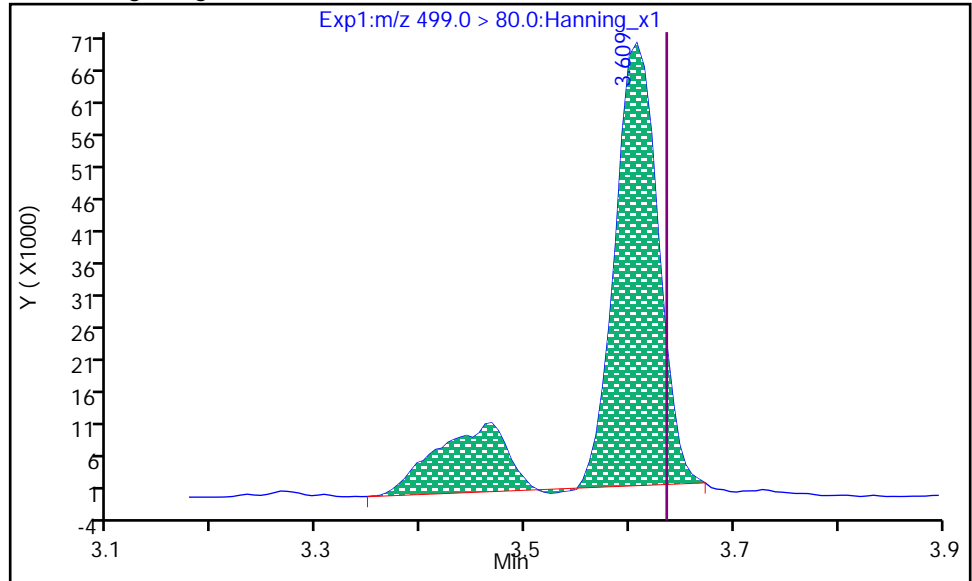
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Operator: eqi.svoa

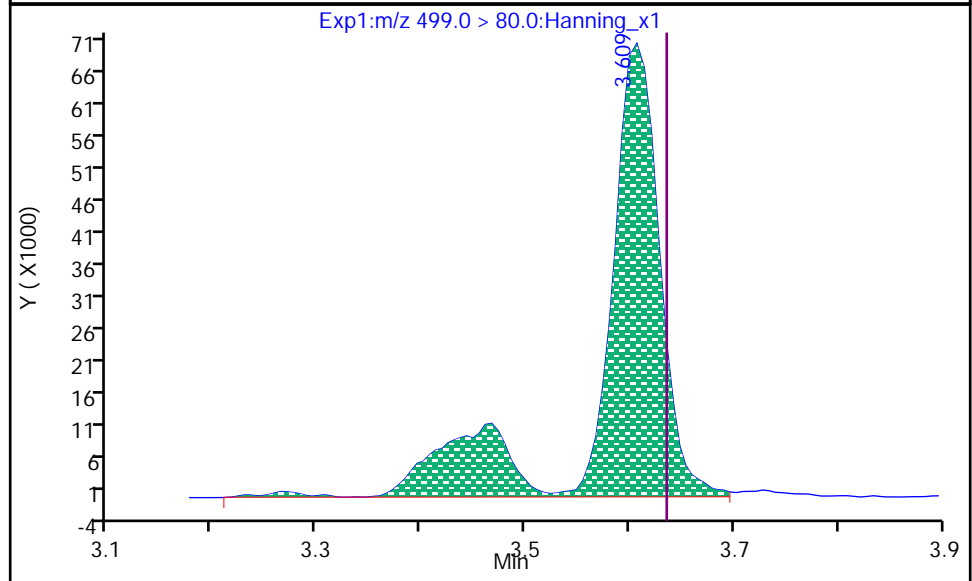
18 PFOS, CAS: 1763-23-1

Processing Integration Results

RT: 3.609
Area: 243575
Amount: 908.57
Amount Units: ng/L



RT: 3.609
Area: 267529
Amount: 997.92
Amount Units: ng/L



Data Editor: matthew.miller, 15-Sep-2022 16:08:56

Audit Action: Mint

Audit Reason: Invalid Integration

Manual Integration Report

Data File: \\Organics\LL\LCMSMS01.i\091222-nonDOD.b\091222035.d

Injection Date: 12-Sep-2022 19:50:50

Inst. ID: LCMSMS01.i

Client ID:

Lab ID: CCV 1000_SVLC_2200

Sample Info: CCV 1000_SVLC_2200

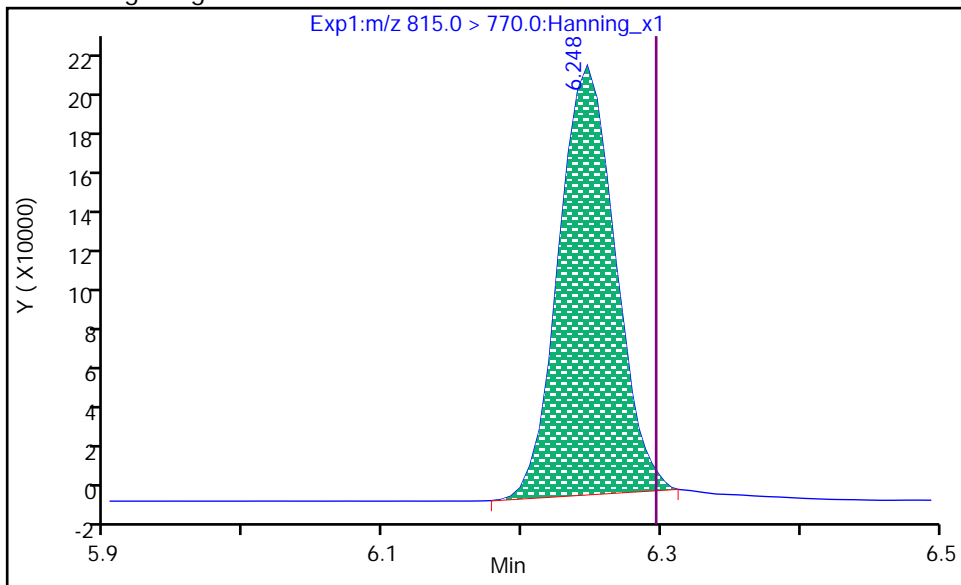
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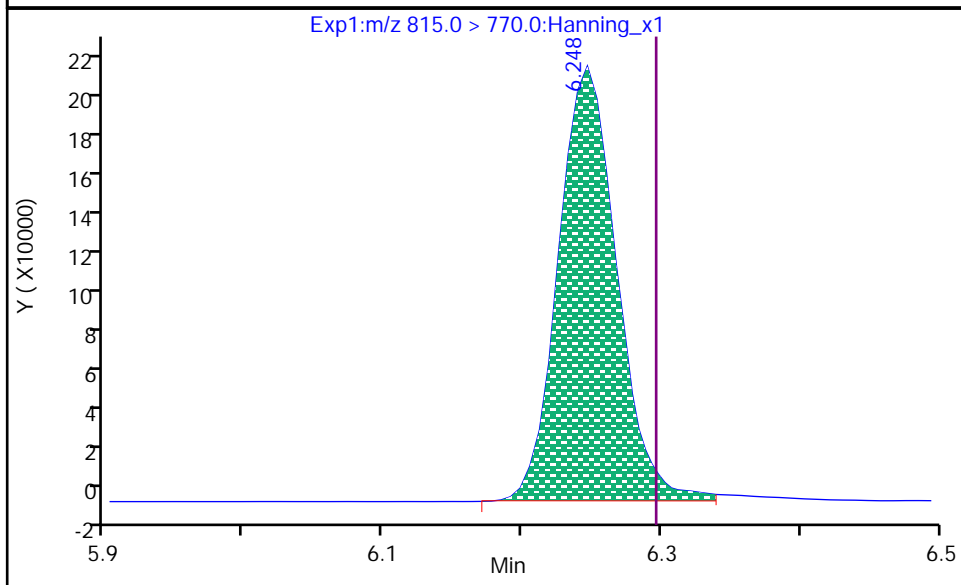
D 40 13C2_PFHxDA, CAS: SESI-0103

Processing Integration Results

RT: 6.248
Area: 573929
Amount: 2037.02
Amount Units: ng/L



RT: 6.248
Area: 600477
Amount: 2131.24
Amount Units: ng/L



Data Editor: LaShanda.Blair, 13-Sep-2022 15:18:11

Audit Action: Mint

Audit Reason: Invalid Integration

Manual Integration Report

Data File: \\Organics\LL\LCMSMS01.i\091222-nonDOD.b\091222035.d

Injection Date: 12-Sep-2022 19:50:50

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Client ID:

Lab ID: CCV 1000_SVLC_2200

Sample Info: CCV 1000_SVLC_2200

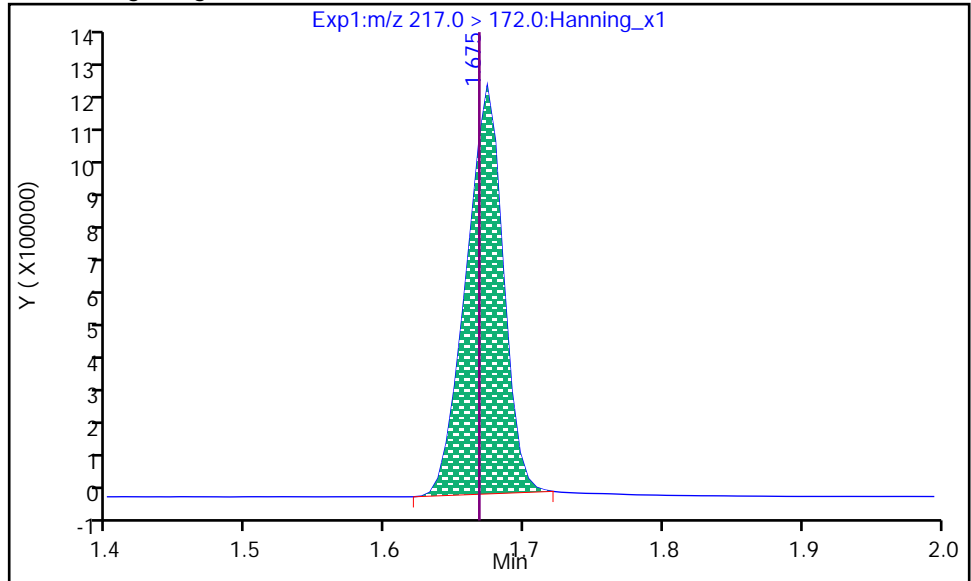
Dil. Factor: 1

Operator: eqi.svoa

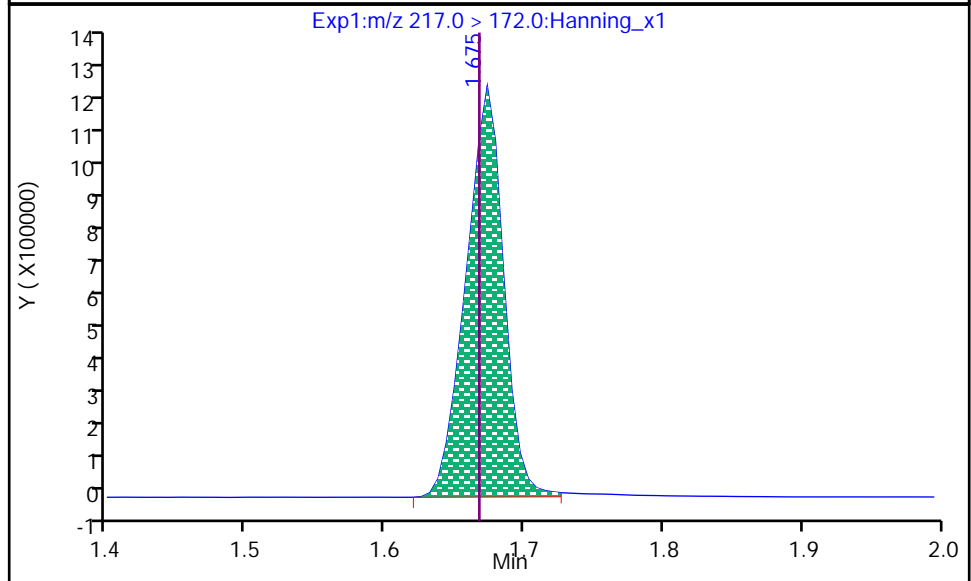
D 46 13C4_PFBA, CAS: SESI-0111

Processing Integration Results

RT: 1.675
Area: 2194578
Amount: 2073.13
Amount Units: ng/L



RT: 1.675
Area: 2243279
Amount: 2119.14
Amount Units: ng/L



Data Editor: LaShanda.Blair, 13-Sep-2022 15:17:25

Audit Action: Mint

Audit Reason: Invalid Integration

Pace Environmental Services, LLC
Continuing Calibration Verification Report

Data File: \\organics\LL\LCMSMS01.i\100422-nonDOD.b\100422005.d
Injection Date: 04-Oct-2022 11:11:14 Injection Vol: 10.0 uL
Sample Type: CCV Auto Sampler: 95
Sample Info: CCV 200_SVLC-2211 Misc. Info:
Inst. ID: LCMSMS01.i Operator: eqi.svoa
Method: LCMSMS01_PFAS-ID2 Version: V16 30-Jun-2022 10:54:24
Calib Method: PFAS-ID2 Lock State: Unlocked
Quant Method: IsoDil Integrator: picker

Reagent: Analytes Conc. Level: L-3 Vol. Added: 1.00 ml

Compound	Std Area	CCV Area	Exp. Conc ng/L	Conc ng/L	%Rec	%Rec Limits
D 46 13C4_PFBFA	2246374	2483701			110.6	50 - 150
8 PFBFA			200.00	196.52	98.3	70 - 130
D 50 13C5_PFPeA	1528777	1656545			108.4	50 - 150
21 PFPeA			200.00	174.17	87.1	70 - 130
7 PFBS			176.80	167.65	94.8	70 - 130
D 44 13C3_PFBS	571774	686890			120.1	50 - 150
D 63 13C2_4:2 FTS_2	405755	515347			127	50 - 150
1 4:2 FTS			186.80	175.92	94.2	70 - 130
D 49 13C5_PFHxA	1556954	1666188			107	50 - 150
15 PFHxA			200.00	210.80	105.4	70 - 130
22 PFPeS			187.60	162.80	86.8	70 - 130
D 66 13C3_GenX	1444270	1500035			103.9	50 - 150
28 GenX			400.00	409.32	102.3	70 - 130
D 47 13C4_PFHpA	1451142	1472295			101.5	50 - 150
13 PFHpA			200.00	217.02	108.5	70 - 130
D 45 13C3_PFHxS	415216	439670			105.9	50 - 150
14 PFHxS			182.00	182.89	100.5	70 - 130
29 ADONA			188.40	166.16	88.2	70 - 130
2 6:2 FTS			189.60	232.58	122.7	70 - 130
D 64 13C2_6:2 FTS_2	282911	377928			133.6	50 - 150
D 53 13C8_PFOA	1338207	1346804			100.6	50 - 150
20 PFOA			200.00	215.32	107.7	70 - 130
12 PFHpS			190.40	177.53	93.2	70 - 130
D 54 13C8_PFOS	485492	495461			102.1	50 - 150
D 56 13C9_PFNA	1383057	1574268			113.8	50 - 150
18 PFOS			185.60	177.60	95.7	70 - 130
17 PFNA			200.00	174.76	87.4	70 - 130
30 9CI-PF3ONS			186.40	191.08	102.5	70 - 130
D 55 13C8_PFOA	846371	913150			107.9	50 - 150
19 PFOA			200.00	199.19	99.6	70 - 130
3 8:2 FTS			191.60	246.15	128.5	70 - 130
D 65 13C2_8:2 FTS_2	302455	329349			108.9	50 - 150
16 PFNS			192.00	221.91	115.6	70 - 130
10 PFDA			200.00	226.08	113	70 - 130
D 51 13C6_PFDA	1095802	1121547			102.3	50 - 150
D 58 d3-MeFOSAA	1317363	1466681			111.3	50 - 150

Compound	Std Area	CCV Area	Exp. Conc ng/L	Conc ng/L	%Rec	%Rec Limits
6 N-MeFOSAA			200.00	251.47	125.7	70 - 130
9 PFDS			192.80	242.21	125.6	70 - 130
D 60 d5-EtFOSAA	1157483	1351849			116.8	50 - 150
D 52 13C7_PFUdA	1142312	1046560			91.6	50 - 150
25 PFUdA			200.00	174.89	87.4	70 - 130
5 N-EtFOSAA			200.00	237.55	118.8	70 - 130
D 61 d7-MeFOSE	261949	262067			100	50 - 150
32 MeFOSE			200.00	240.39	120.2	70 - 130
D 57 d3-MeFOSA	97157	93529			96.3	50 - 150
26 MeFOSA			200.00	225.63	112.8	70 - 130
31 11Cl-PF3OUDS			188.40	199.95	106.1	70 - 130
D 62 d9-EtFOSE	238957	236574			99	50 - 150
33 EtFOSE			200.00	220.30	110.1	70 - 130
D 59 d5-EtFOSA	97047	111662			115.1	50 - 150
27 EtFOSA			200.00	202.76	101.4	70 - 130
4 10:2 FTS			192.80	174.10	90.3	70 - 130
D 38 13C2_PFDoA	1029524	1032159			100.3	50 - 150
11 PFDoA			200.00	220.81	110.4	70 - 130
34 PFDOS			193.60	196.32	101.4	70 - 130
24 PFTrDA			200.00	200.69	100.3	70 - 130
23 PFTeDA			200.00	188.15	94.1	70 - 130
D 42 13C2_PFTeDA	1138119	1146962			100.8	50 - 150
D 40 13C2_PFHxDA	545372	539201			98.9	50 - 150
35 PFHxDA			200.00	223.92	112	70 - 130
36 PFODA			200.00	207.35	103.7	70 - 130

Pace Environmental Services, LLC
Analyte Quantitation Report

Data File: \\organics\LL\LCMSMS01.i\100422-nonDOD.b\100422005.d
 Injection Date: 04-Oct-2022 11:11:14 Injection Vol: 10.0 uL
 Sample Type: CCV Auto Sampler: 95
 Sample Info: CCV 200_SVLC-2211 Misc. Info:
 Inst. ID: LCMSMS01.i Operator: eqi.svoa
 Method: LCMSMS01_PFAS-ID2 Version: V16 30-Jun-2022 10:54:24
 Calib Method: PFAS-ID2 Lock State: Unlocked
 Quant Method: IsoDil Integrator: picker

Reagent: Analytes Conc. Level: L-3 Vol. Added: 1.00 ml

Signal	Quant Std	RT (Min)	Exp RT (Min)	□ RT (Min)	Response	Peak Pts	S/N	Ion Ratio	Isomer Ratio	Cal Conc ng/L	OnCol Conc ng/L	%Drift/%Rec	Flags
D 46 13C4_PFBFA CAS: SESI-0111													
217 > 172		1.674	1.674	0.000	2483701	21	>100:1			2000.00	2182.45	110.6	
8 Perfluoro-n-butanoic acid (PFBA) CAS: 375-22-4													
212.9 > 168.9	46	1.674	1.674	0.000	247991	22	>100:1			200.00	196.52		
D 50 13C5_PFPeA CAS: SESI-0112													
267.9 > 223		1.990	1.990	0.000	1656545	16	>100:1			2000.00	2181.44	108.4	
21 Perfluoro-n-pentanoic acid (PFPeA) CAS: 2706-90-3													
262.9 > 218.9	50	1.990	1.990	0.000	162365	17	>100:1			200.00	174.17		
D 44 13C3_PFBFS CAS: SESI-0116													
302 > 80		2.041	2.041	0.000	686890	16	>100:1			2000.00	2260.82	120.1	
7 Perfluoro-1-butanefulfonate (PFBS) CAS: 375-73-5													
298.9 > 80	44	2.041	2.041	0.000	68807	16	>100:1	Target = 3.98		176.80	167.65		
298.9 > 99	44	2.041	2.041		17061	17	>100:1	4.03 (1.99-5.97)					
22 Perfluoro-1-pentanesulfonic acid (PFPeS) CAS: 2706-91-4													
349 > 80	44	2.365	2.365	0.000	56384	18	>100:1	Target = 3.63		187.60	162.80		
349 > 99	44	2.365	2.365		14723	16	>100:1	3.82 (1.81-5.44)					
D 63 13C2_4:2 FTS_2 CAS: SESI-0104													
329 > 81		2.301	2.301	0.000	515347	19	>100:1			10000	11563	127	
1 Fluorotelomer sulfonate 4:2 [1H,1H,2H,2H-perfluorohexane sulfonate] (4:2 FTS) CAS: 757124-72-4													
327 > 307	63	2.301	2.301	0.000	16366	16	>100:1	Target = 1.34		186.80	175.92		
327 > 81	63	2.301	2.301		16284	20	>100:1	1.00 (0.67-2.01)					
D 49 13C5_PFHxA CAS: SESI-0113													
318 > 273		2.337	2.337	0.000	1666188	17	>100:1			2000.00	1986.97	107	
15 Perfluoro-n-hexanoic acid (PFHxA) CAS: 307-24-4													
313 > 269	49	2.337	2.337	0.000	166914	18	>100:1	Target = 17.13		200.00	210.80		
313 > 119	49	2.337	2.337		12440	17	51:1	13.41 (8.56-25.70)					
D 66 13C3_GenX CAS: SESI-0121													
287 > 185		2.456	2.456	0.000	1500035	18	>100:1			10000	10245	103.9	
28 Hexafluoropropylene oxide dimer acid (GenX) CAS: 13252-13-6													
285 > 119	66	2.456	2.456	0.000	39714	18	>100:1	Target = 0.62		400.00	409.32		
285 > 185	66	2.456	2.456		57866	20	>100:1	0.68 (0.31-0.94)					
D 47 13C4_PFHpA CAS: SESI-0114													
367 > 322		2.744	2.744	0.000	1472295	21	>100:1			2000.00	2023.25	101.5	
13 Perfluoro-n-heptanoic acid (PFHpA) CAS: 375-85-9													
363 > 319	47	2.744	2.744	0.000	154995	18	>100:1	Target = 3.31		200.00	217.02		
363 > 169	47	2.734	2.744		46066	18	>100:1	3.36 (1.65-4.97)					
D 45 13C3_PFHxS CAS: SESI-0096													
402 > 80		2.754	2.754	0.000	439670	19	>100:1			2000.00	2183.09	105.9	
14 Perfluorohexanesulfonate (PFHxS) CAS: 355-46-4													
399 > 80	45	2.754	2.754	0.000	46864	30	>100:1	Target = 3.67	6.01	182.00	182.89		M
399 > 99	45	2.764	2.754		15231	31	>100:1	3.07 (1.83-5.51)	7.25				

Signal	Quant Std	RT (Min)	Exp RT (Min)	□ RT (Min)	Response	Peak Pts	S/N	Ion Ratio	Isomer Ratio	Cal Conc ng/L	OnCol Conc ng/L	%Drift/%Rec	Flags
29 4,8-dioxa-3H-perfluorononanoic acid (ADONA) CAS: 919005-14-4													
377 > 251	45	2.784	2.784	0.000	214890	20	>100:1	Target = 2.35		188.40	166.16		
377 > 85	45	2.784	2.784		102035	20	>100:1	2.10 (1.17-3.53)					
12 Perfluoro-1-heptanesulfonic acid (PFHpS) CAS: 375-92-8													
449 > 80	45	3.212	3.212	0.000	47410	23	>100:1	Target = 3.65		190.40	177.53		
449 > 99	45	3.203	3.212		14818	25	>100:1	3.19 (1.82-5.48)					
D 64 13C2_6:2 FTS_2 CAS: SESI-0105													
429 > 81		3.168	3.168	0.000	377928	26	>100:1			10000	12348	133.6	
2 Fluorotelomer sulfonate 6:2 [1H,1H,2H,2H-perfluorooctane sulfonate] (6:2 FTS) CAS: 27619-97-2													
427 > 407	64	3.168	3.168	0.000	15727	24	86:1	Target = 1.43		189.60	232.58		M
427 > 81	64	3.156	3.168		9619	23	68:1	1.63 (0.71-2.15)					M
D 53 13C8_PFOA CAS: SESI-0097													
421 > 376		3.198	3.198	0.000	1346804	25	>100:1			2000.00	1958.98	100.6	
20 Perfluoro-n-octanoic acid (PFOA) CAS: 335-67-1													
413 > 369	53	3.198	3.198	0.000	142581	23	65:1	Target = 2.73		200.00	215.32		
413 > 169	53	3.212	3.198		49722	23	68:1	2.86 (1.36-4.10)					
D 56 13C9_PFNA CAS: SESI-0099													
472 > 427		3.704	3.704	0.000	1574268	27	>100:1			2000.00	2233.68	113.8	
17 Perfluoro-n-nonanoic acid (PFNA) CAS: 375-95-1													
463 > 419	56	3.704	3.704	0.000	125209	26	>100:1	Target = 5.23		200.00	174.76		
463 > 169	56	3.711	3.704		24794	25	>100:1	5.04 (2.61-7.85)					
D 54 13C8_PFOS CAS: SESI-0098													
507 > 80		3.697	3.697	0.000	495461	26	>100:1			2000.00	1950.63	102.1	
18 Perfluorooctanesulfonate (PFOS) CAS: 1763-23-1													
499 > 80	54	3.711	3.711	0.000	51972	54	>100:1	Target = 4.39	3.92	185.60	177.60		M
499 > 99	54	3.697	3.711		13497	55	96:1	3.85 (2.19-6.59)	5.40				M
30 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS) CAS: 756426-58-1													
531 > 351	54	3.993	3.993	0.000	99463	32	>100:1			186.40	191.08		
16 Perfluoro-1-nonanesulfonic acid (PFNS) CAS: 68259-12-1													
549 > 80	54	4.183	4.183	0.000	52812	20	>100:1	Target = 4.20		192.00	221.91		M
549 > 99	54	4.183	4.183		11242	19	>100:1	4.69 (2.10-6.31)					M
9 Perfluoro-1-decanesulfonic acid (PFDS) CAS: 335-77-3													
599 > 80	54	4.641	4.641	0.000	52357	21	>100:1	Target = 3.97		192.80	242.21		
599 > 99	54	4.641	4.641		11612	19	91:1	4.50 (1.98-5.96)					
31 11-chloroeicosafuoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS) CAS: 763051-92-9													
631 > 451	54	4.888	4.888	0.000	96774	32	>100:1			188.40	199.95		
34 Perfluorododecanesulfonic acid (PFDOS) CAS: 79780-39-5													
699 > 80	54	5.425	5.425	0.000	42989	21	>100:1	Target = 3.61		193.60	196.32		
699 > 99	54	5.425	5.425		12141	23	>100:1	3.54 (1.80-5.41)					
D 55 13C8_PFOA CAS: SESI-0107													
506 > 78		4.042	4.042	0.000	913150	24	>100:1			2000.00	2120.65	107.9	
19 Perfluoro-1-octanesulfonamide (PFOSA) CAS: 754-91-6													
498 > 78	55	4.042	4.042	0.000	98794	26	>100:1	Target = 49.36		200.00	199.19		M
498>478	55	4.028	4.042		2370	29	24:1	41.68 (24.68-74.04)					
D 65 13C2_8:2 FTS_2 CAS: SESI-0106													
529 > 81		4.183	4.183	0.000	329349	23	>100:1			10000	10066	108.9	
3 Fluorotelomer sulfonate 8:2 [1H,1H,2H,2H-perfluorodecane sulfonate] (8:2 FTS) CAS: 39108-34-4													
527 > 507	65	4.183	4.183	0.000	10626	23	38:1	Target = 1.14		191.60	246.15		M
527 > 81	65	4.191	4.183		10412	21	90:1	1.02 (0.57-1.71)					M
4 1H,1H,2H,2H-perfluorododecane sulfonate (10:2FTS) CAS: 120226-60-0													
627 > 607	65	5.094	5.094	0.000	7998	22	>100:1	Target = 2.20		192.80	174.10		
627 > 80	65	5.094	5.094		5822	21	51:1	1.37 (1.10-3.30)					
D 51 13C6_PFDA CAS: SESI-0115													
519 > 474		4.200	4.200	0.000	1121547	23	>100:1			2000.00	1997.75	102.3	
10 Perfluoro-n-decanoic acid (PFDA) CAS: 335-76-2													
513 > 469	51	4.200	4.200	0.000	120153	21	>100:1	Target = 9.82		200.00	226.08		
513 > 169	51	4.191	4.200		12929	21	95:1	9.29 (4.91-14.73)					M
D 58 d3-MeFOSAA CAS: SESI-0102													
573 > 419		4.421	4.421	0.000	1466681	23	>100:1			10000	10212	111.3	

Signal	Quant Std	RT (Min)	Exp RT (Min)	□ RT (Min)	Response	Peak Pts	S/N	Ion Ratio	Isomer Ratio	Cal Conc ng/L	OnCol Conc ng/L	%Drift/%Rec	Flags
6 N-methylperfluoro-1-octanesulfonamidoacetic acid (N-MeFOSAA) CAS: 2355-31-9													
570 > 419	58	4.429	4.429	0.000	30538	49	>100:1	Target = 1.41	7.06	200.00	251.47		M
570 > 483	58	4.429	4.429		21000	50	82:1	1.45 (0.70-2.12)	4.43				M
D 60 d5-EtFOSAA CAS: SESI-0110													
589 > 419		4.661	4.661	0.000	1351849	21	>100:1			10000	10926	116.8	M
5 N-ethylperfluoro-1-octanesulfonamidoacetic acid (N-EtFOSAA) CAS: 2991-50-6													
584 > 419	60	4.661	4.661	0.000	31590	47	>100:1	Target = 1.77	6.44	200.00	237.55		
584 > 526	60	4.670	4.661		18576	43	>100:1	1.70 (0.88-2.66)	4.27				
D 52 13C7_PFUdA CAS: SESI-0117													
570 > 525		4.661	4.661	0.000	1046560	20	>100:1			2000.00	2127.41	91.6	
25 Perfluoro-n-undecanoic acid (PFUdA) CAS: 2058-94-8													
563 > 519	52	4.661	4.661	0.000	84085	13	>100:1	Target = 9.80		200.00	174.89		M
563 > 169	52	4.670	4.661		9877	15	96:1	8.51 (4.90-14.71)					M
D 61 d7-MeFOSE CAS: SESI-0129													
623 > 59		4.651	4.651	0.000	262067	23	>100:1			2000.00	1891.64	100	M
32 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE) CAS: 24448-09-7													
616 > 59	61	4.670	4.670	0.000	33740	23	87:1			200.00	240.39		M
D 57 d3-MeFOSA CAS: SESI-0109													
515 > 169		4.680	4.680	0.000	93529	21	>100:1			2000.00	1635.32	96.3	
26 N-methylperfluoro-1-octanesulfonamide (MeFOSA) CAS: 31506-32-8													
512 > 169	57	4.690	4.690	0.000	11586	26	51:1	Target = 1.09		200.00	225.63		
512 > 219	57	4.690	4.690		11541	21	67:1	1.00 (0.54-1.64)					M
D 62 d9-EtFOSE CAS: SESI-0130													
639 > 59		4.902	4.902	0.000	236574	23	>100:1			2000.00	1793.93	99	
33 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE) CAS: 1691-99-2													
630 > 59	62	4.924	4.924	0.000	23878	22	>100:1			200.00	220.30		M
D 59 d5-EtFOSA CAS: SESI-0108													
531 > 169		4.938	4.938	0.000	111662	20	>100:1			2000.00	2146.02	115.1	M
27 N-ethylperfluoro-1-octanesulfonamide (EtFOSA) CAS: 4151-50-2													
526 > 169	59	4.946	4.946	0.000	12857	18	51:1	Target = 0.99		200.00	202.76		
526 > 219	59	4.946	4.946		10517	20	68:1	1.22 (0.49-1.48)					
D 38 13C2_PFDaA CAS: SESI-0118													
615 > 570		5.085	5.085	0.000	1032159	19	>100:1			2000.00	2030.14	100.3	
11 Perfluoro-n-dodecanoic acid (PFDaA) CAS: 307-55-1													
613 > 569	38	5.085	5.085	0.000	110822	20	>100:1	Target = 7.48		200.00	220.81		
613 > 169	38	5.085	5.085		13802	19	>100:1	8.02 (3.74-11.23)					
24 Perfluoro-n-tridecanoic acid (PFTrDA) CAS: 72629-94-8													
663 > 619	38	5.456	5.456	0.000	56946	28	>100:1	Target = 3.88		200.00	200.69		
663 > 169	38	5.456	5.456		15891	32	>100:1	3.58 (1.94-5.82)					
D 42 13C2_PFTeDA CAS: SESI-0119													
715 > 670		5.794	5.794	0.000	1146962	37	>100:1			2000.00	2008.37	100.8	M
23 Perfluoro-n-tetradecanoic acid (PFTeDA) CAS: 376-06-7													
713 > 669	42	5.794	5.794	0.000	100357	36	>100:1	Target = 8.56		200.00	188.15		
713 > 169	42	5.794	5.794		11545	28	>100:1	8.69 (4.28-12.84)					
D 40 13C2_PFHxDA CAS: SESI-0103													
815 > 770		6.395	6.395	0.000	539201	40	>100:1			2000.00	1861.58	98.9	
35 Perfluoro-n-hexadecanoic acid (PFHxDA) CAS: 67905-19-5													
813 > 769	40	6.400	6.400	0.000	76646	37	>100:1	Target = 9.44		200.00	223.92		
813 > 269	40	6.400	6.400		7984	29	>100:1	9.59 (4.72-14.16)					M
36 Perfluoro-n-octadecanoic acid (PFODA) CAS: 16517-11-6													
913 > 869	40	6.957	6.957	0.000	60050	38	>100:1	Target = 11.20		200.00	207.35		
913 > 319	40	6.952	6.957		5473	37	>100:1	10.97 (5.60-16.81)					
* 37 13C2_PFDA													
515 > 470		4.183	4.183	0.000	224	13	2.9:1			2000.00			
* 39 13C2_PFHxA CAS: SESI-0120													
315 > 270		2.337	2.337	0.000	545	16	13:1			2000.00			
* 41 13C2_PFOA CAS: 864071-08-9													
415 > 370		3.212	3.212	0.000	722	18	17:1			2000.00			

Signal	Quant Std	RT (Min)	Exp RT (Min)	□ RT (Min)	Response	Peak Pts	S/N	Ion Ratio	Isomer Ratio	Cal Conc ng/L	OnCol Conc ng/L	%Drift/%Rec	Flags
* 43 13C3_PFB													
216 > 172		1.674	1.674	0.000	13610	19	60:1			2000.00			
* 48 13C4_PFOS CAS: 2795-39-3													
503 > 80			3.677		ND								U

Compound Type Legend

D - Isotopic Dilution Std.
* - ISTD

QC Flag Legend

U - Result Less Than Method Detection Limit
M - Compound Hit/Peak Manually Integrated

Data File: \\organics\LL\LCMSMS01.i\100422-nonDOD.b\100422005.d

Injection Date: 04-Oct-2022 11:11:14

Inst. ID: LCMSMS01.i

Client ID:

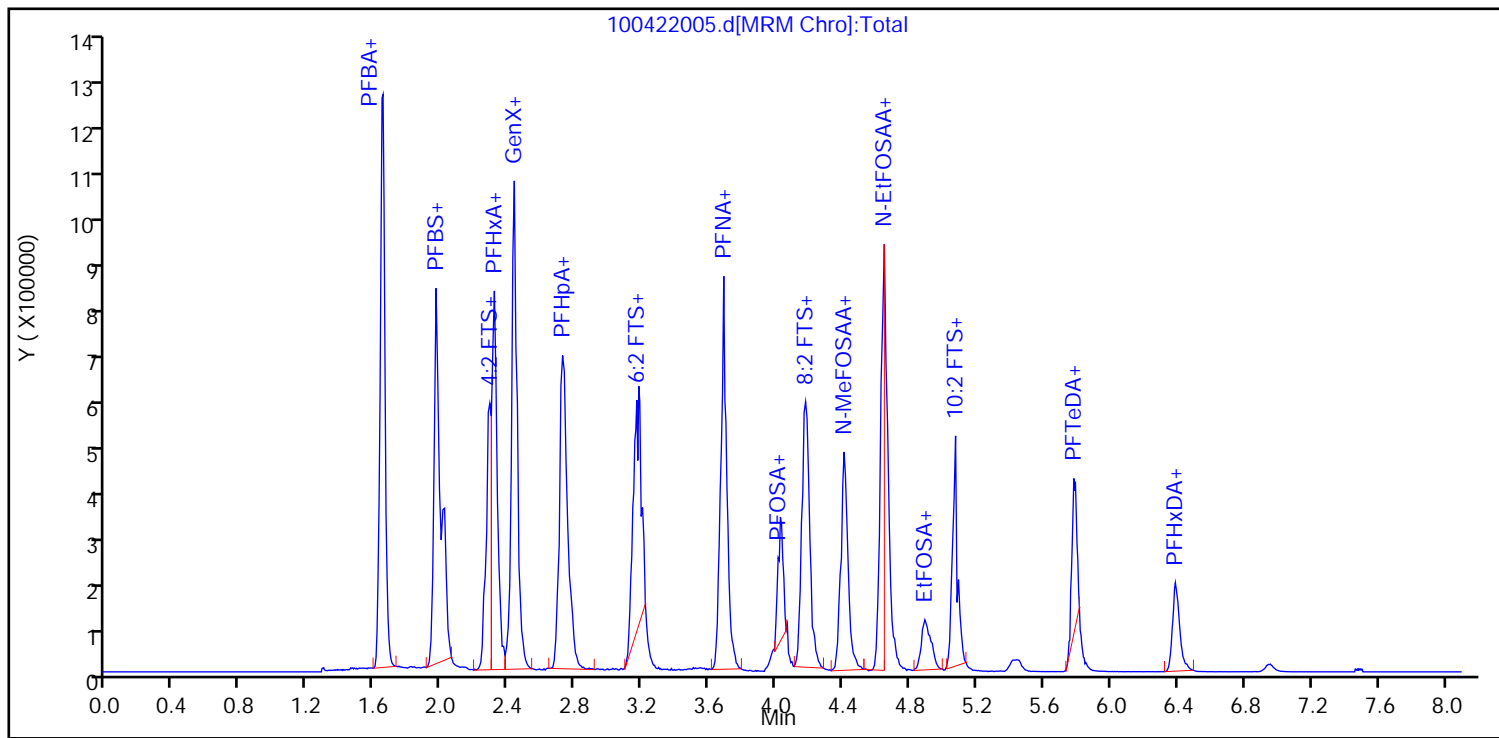
Lab ID:

CCV 200_SVLC-2211

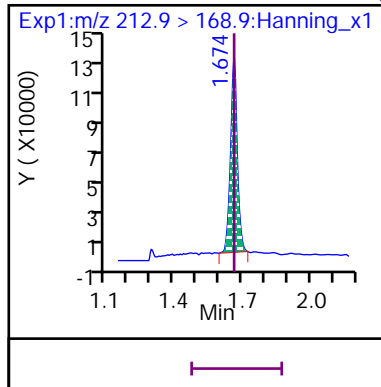
Sample Info: CCV 200_SVLC-2211

Dil. Factor: 1

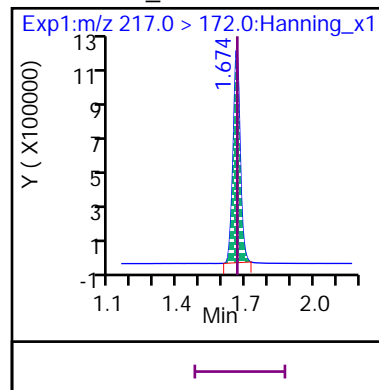
Operator: eqi.svoa



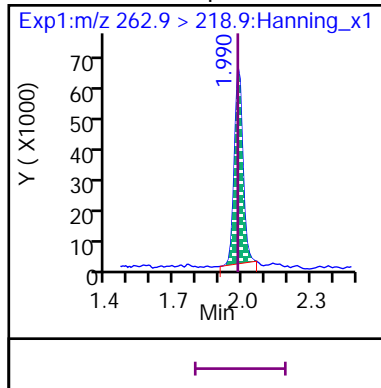
8 Perfluoro-n-butanoic acid (PFBA)



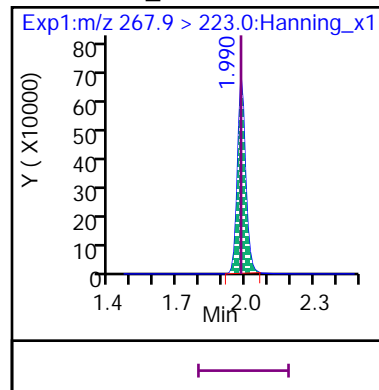
D 46 13C4_PFBA



21 Perfluoro-n-pentanoic acid (PFPeA)

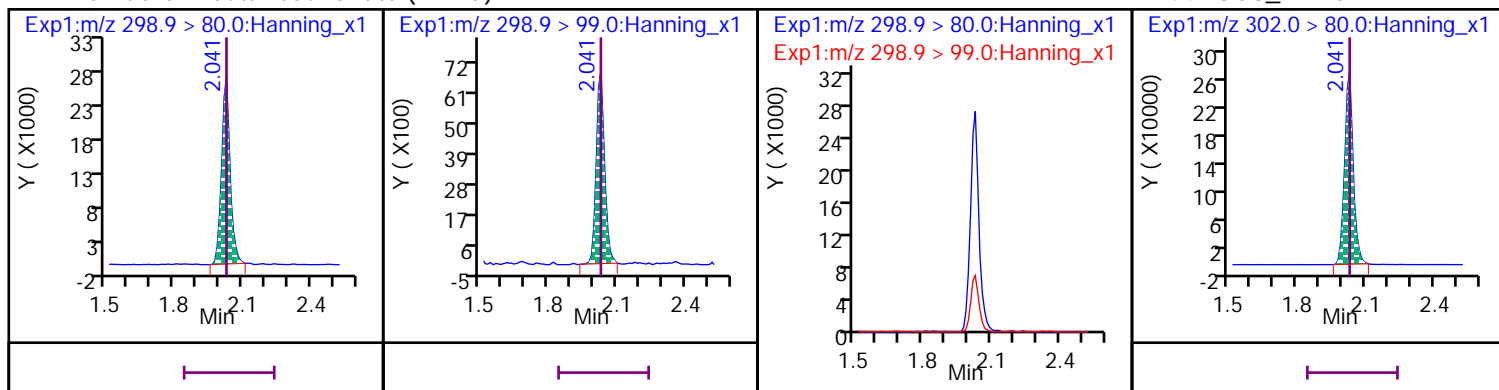


D 50 13C5_PFPeA



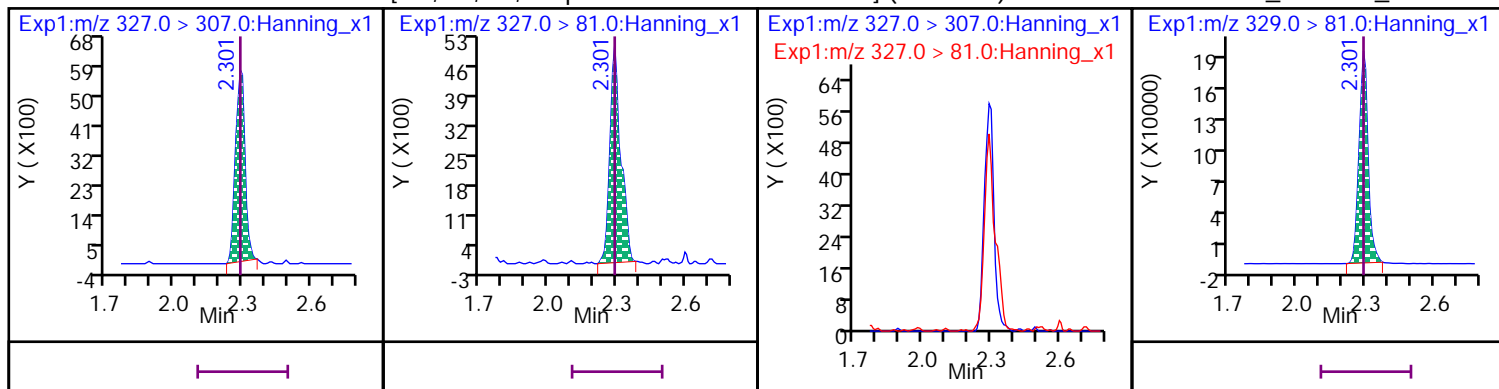
7 Perfluoro-1-butanesulfonate (PFBS)

D 44 13C3_PFBS



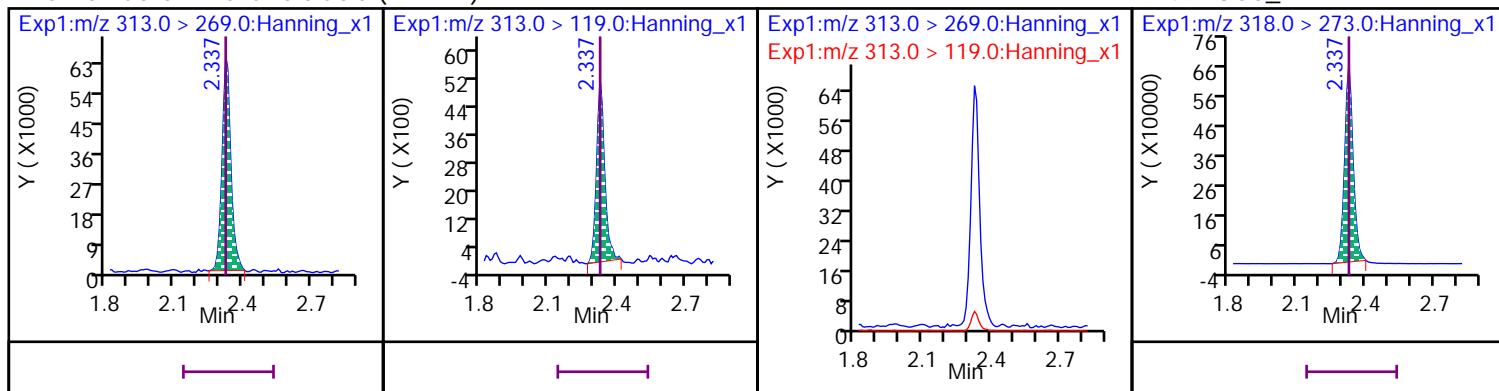
1 Fluorotelomer sulfonate 4:2 [1H,1H,2H,2H-perfluorohexane sulfonate] (4:2 FTS)

D 63 13C2_4:2 FTS_2



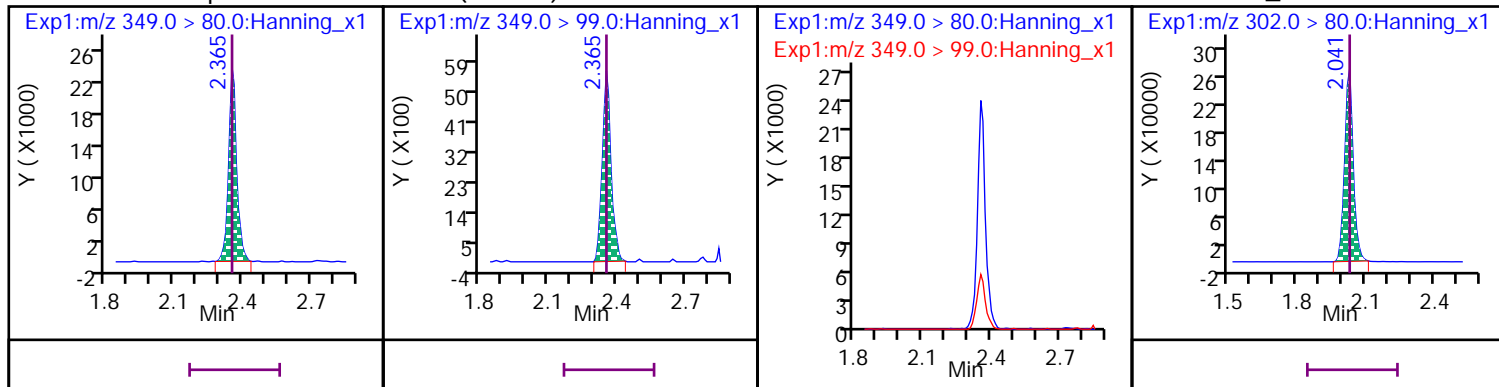
15 Perfluoro-n-hexanoic acid (PFHxA)

D 49 13C5_PFHxA



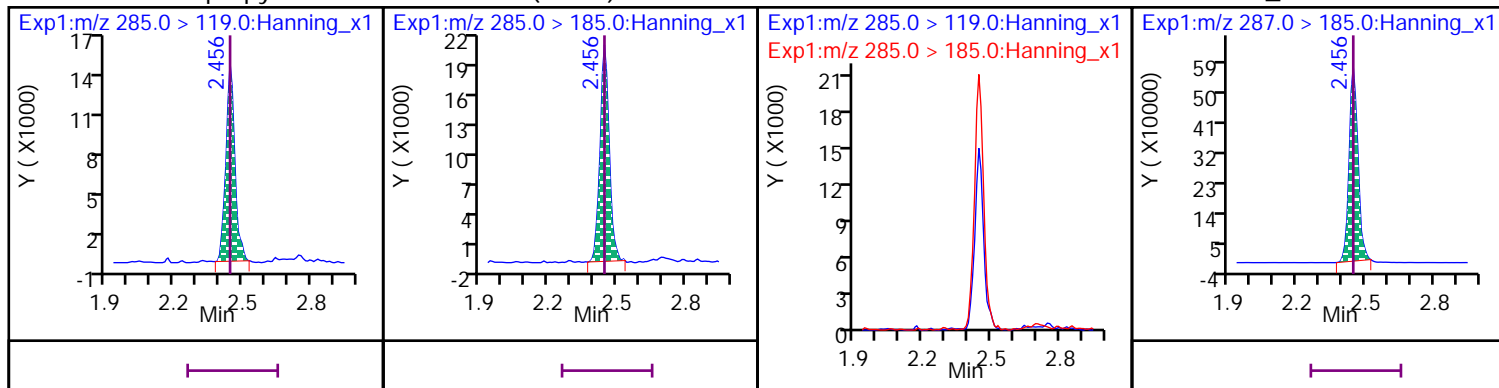
22 Perfluoro-1-pentanesulfonic acid (PFPeS)

D 44 13C3_PFBS



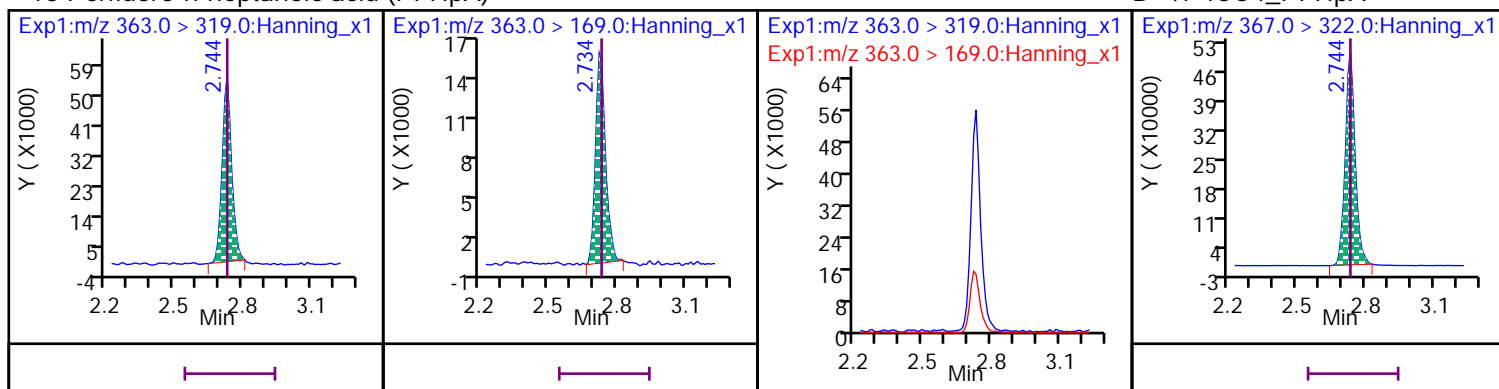
28 Hexafluoropropylene oxide dimer acid (GenX)

D 66 13C3_GenX



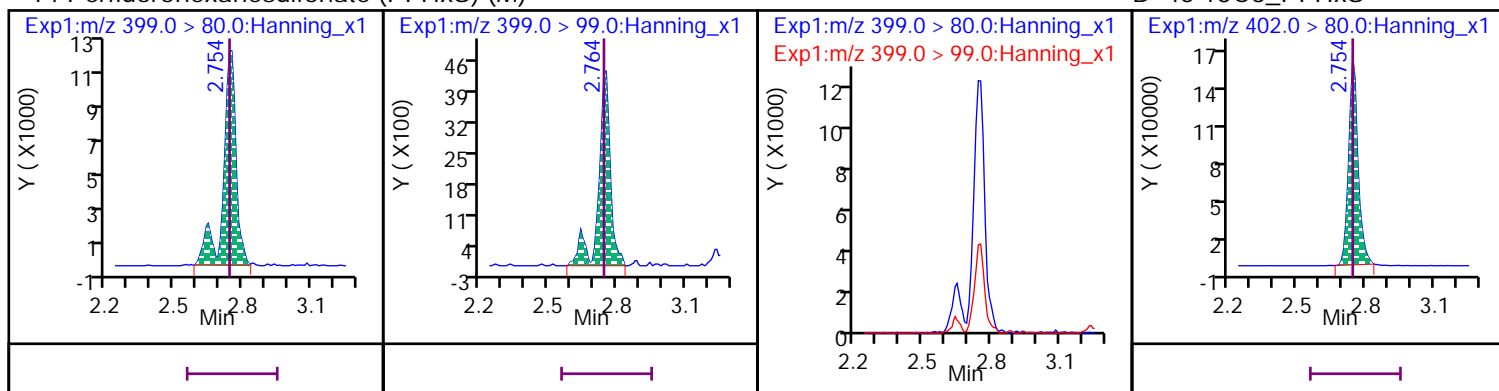
13 Perfluoro-n-heptanoic acid (PFHpa)

D 47 13C4_PFHpa



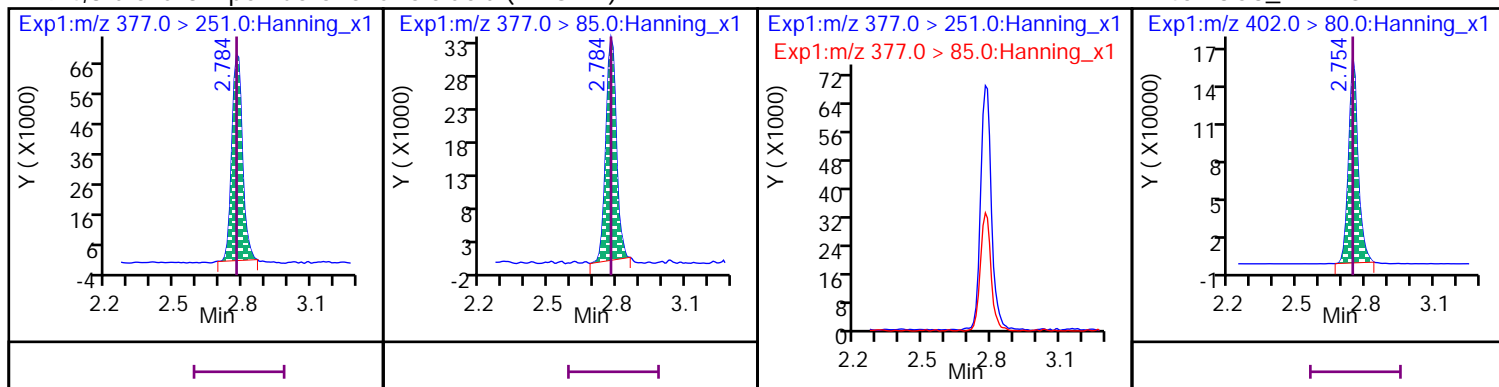
14 Perfluorohexanesulfonate (PFHxS) (M)

D 45 13C3_PFHxS



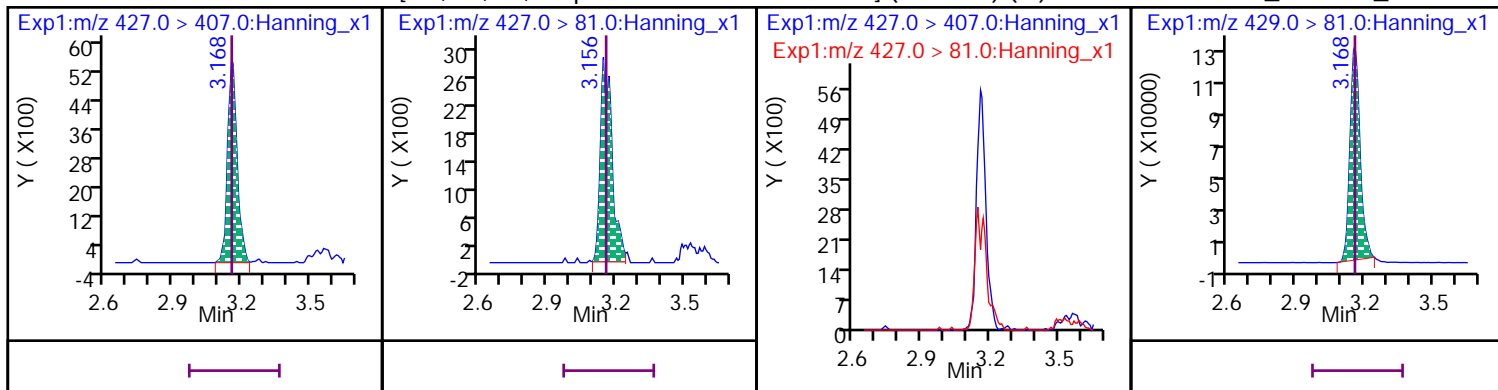
29 4,8-dioxa-3H-perfluorononanoic acid (ADONA)

D 45 13C3_PFHxS



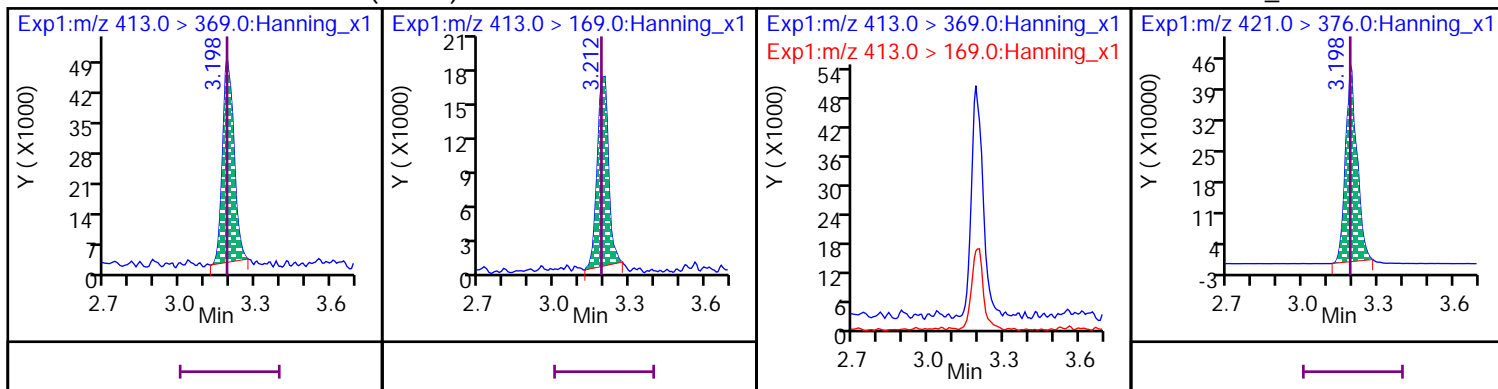
2 Fluorotelomer sulfonate 6:2 [1H,1H,2H,2H-perfluorooctane sulfonate] (6:2 FTS) (M)

D 64 13C2_6:2 FTS_2



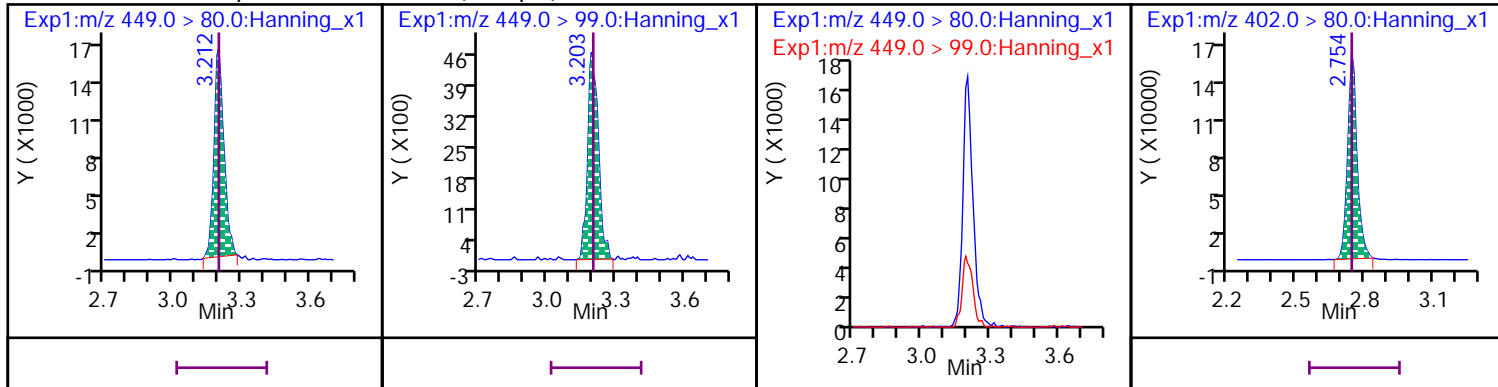
20 Perfluoro-n-octanoic acid (PFOA)

D 53 13C8_PFOA



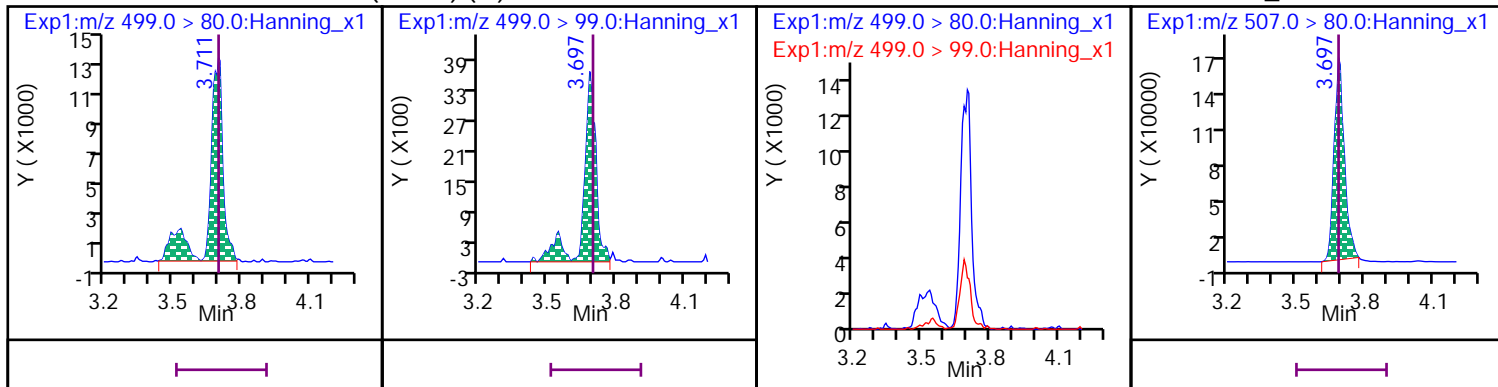
12 Perfluoro-1-heptanesulfonic acid (PFHpS)

D 45 13C3_PFHxS



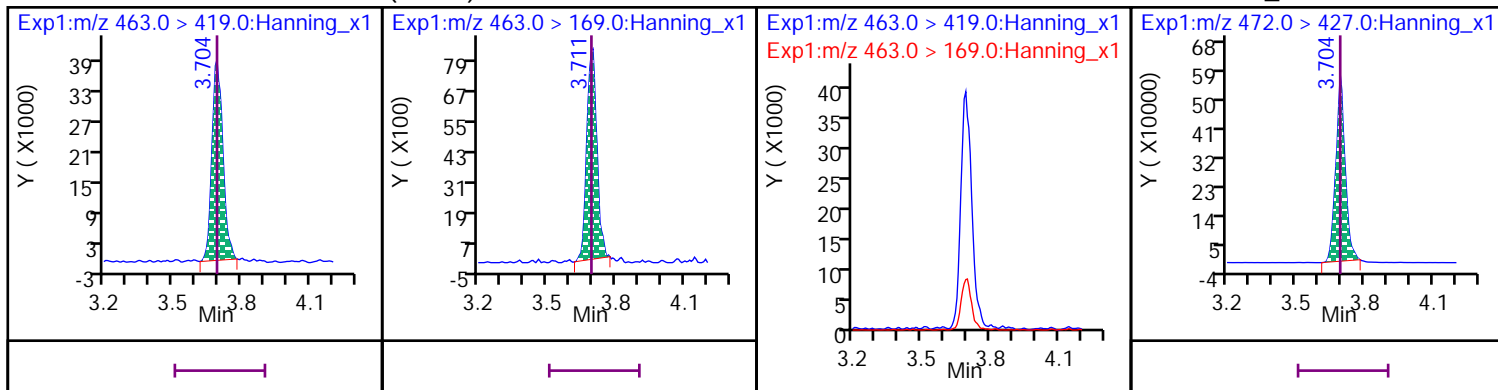
18 Perfluorooctanesulfonate (PFOS) (M)

D 54 13C8_PFOS



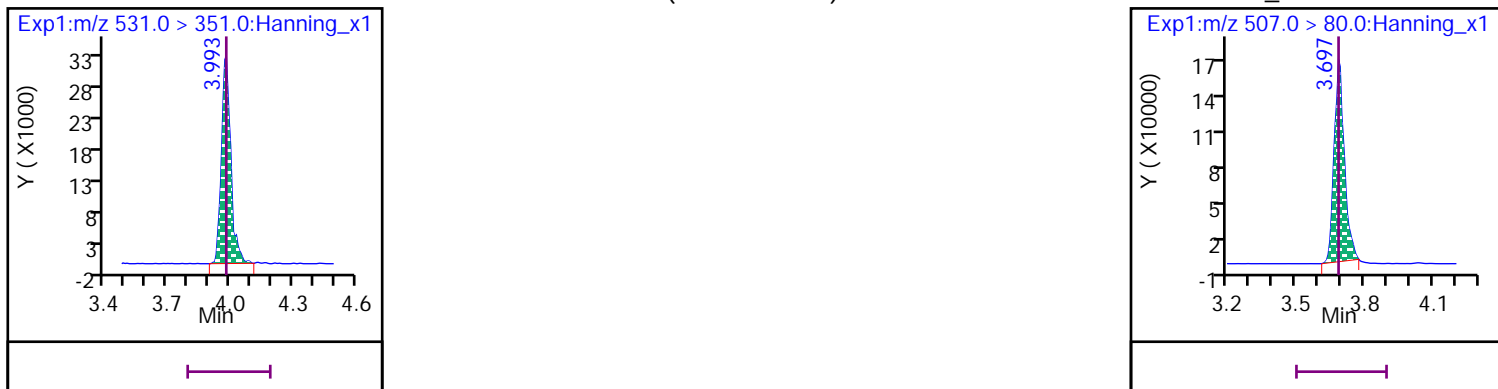
17 Perfluoro-n-nonanoic acid (PFNA)

D 56 13C9_PFNA



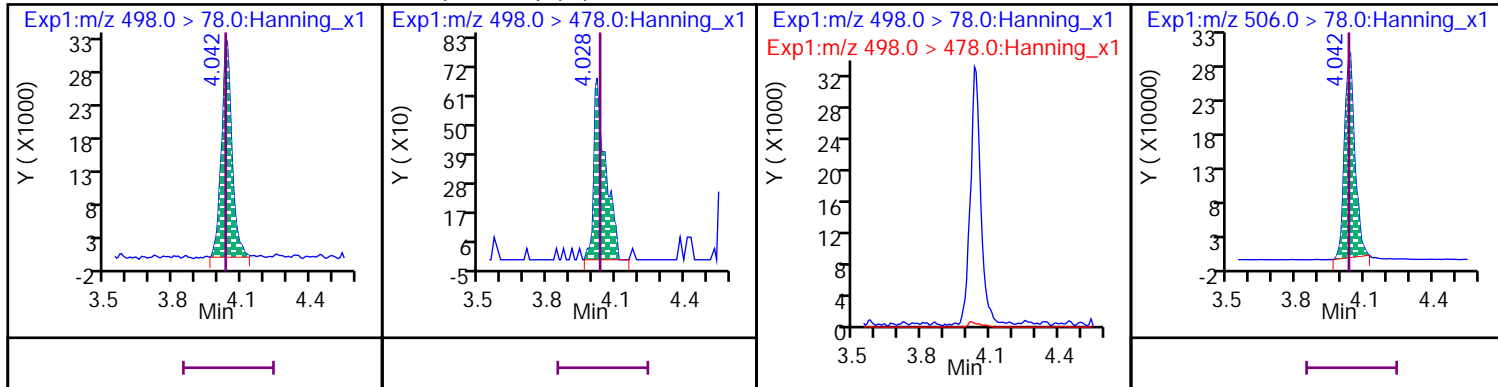
30 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)

D 54 13C8_PFOS



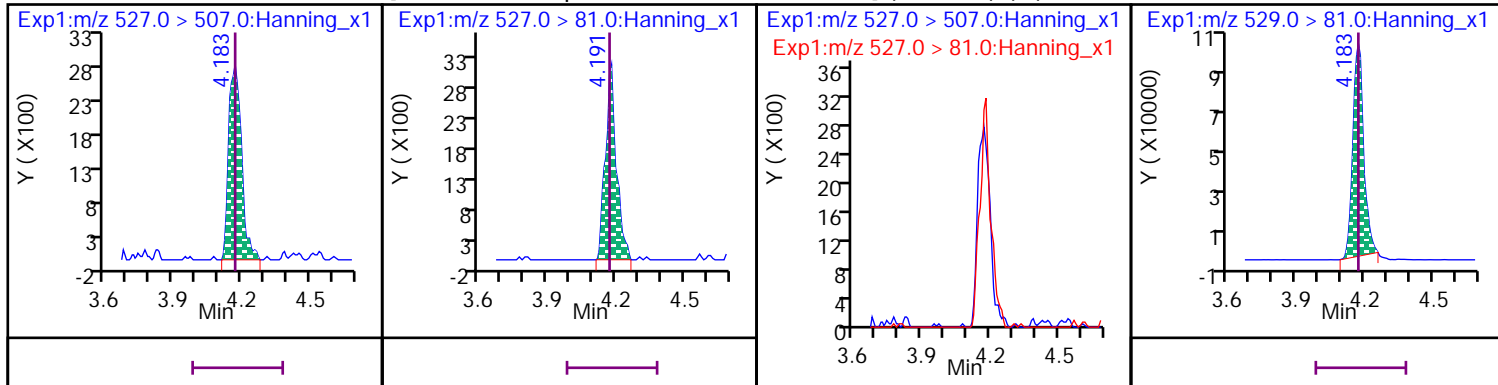
19 Perfluoro-1-octanesulfonamide (PFOSA) (M)

D 55 13C8_PFOSA



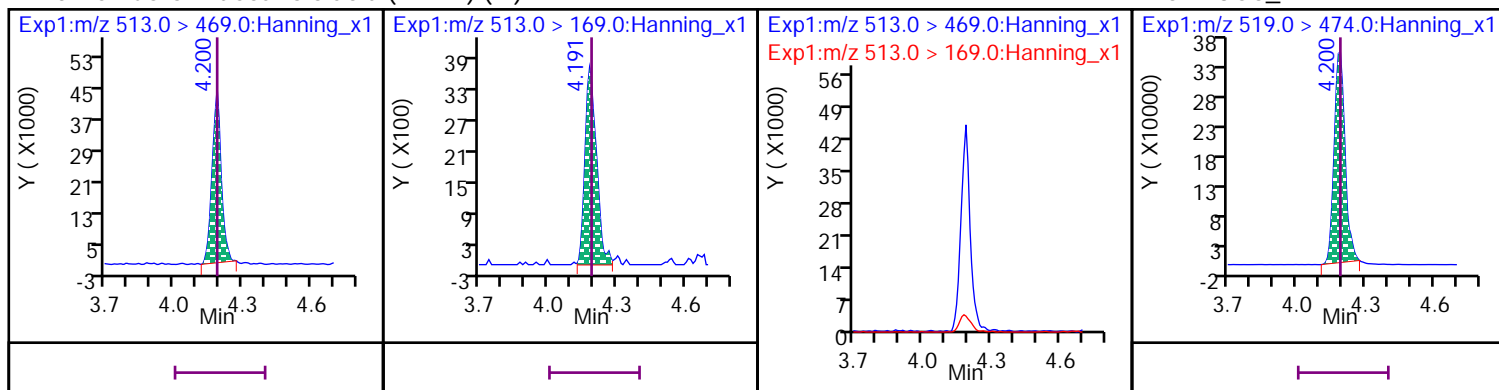
3 Fluorotelomer sulfonate 8:2 [1H,1H,2H,2H-perfluorodecane sulfonate] (8:2 FTS) (M)

D 65 13C2_8:2 FTS_2



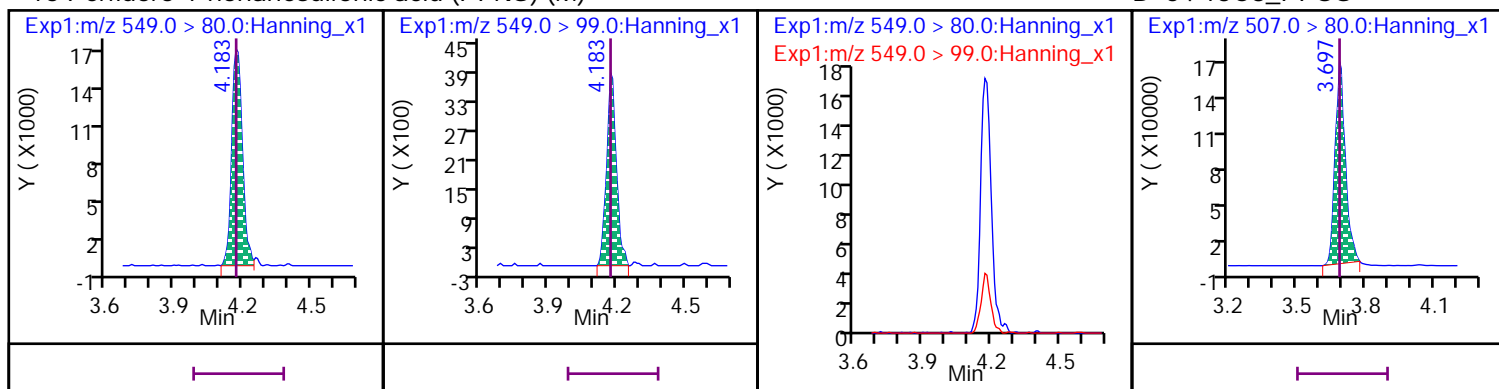
10 Perfluoro-n-decanoic acid (PFDA) (M)

D 51 13C6_PFDA



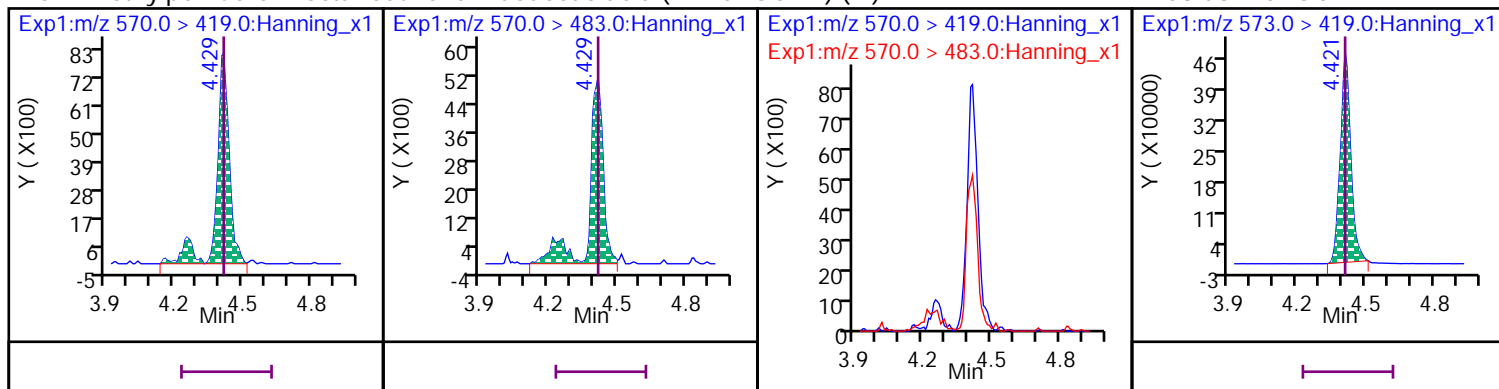
16 Perfluoro-1-nonanesulfonic acid (PFNS) (M)

D 54 13C8_PFOS



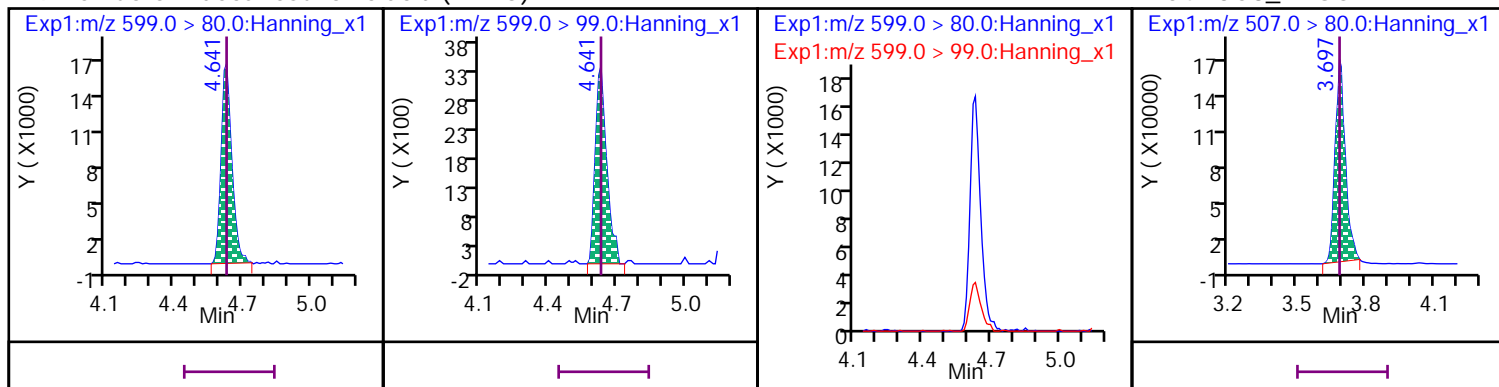
6 N-methylperfluoro-1-octanesulfonamidoacetic acid (N-MeFOSAA) (M)

D 58 d3-MeFOSAA



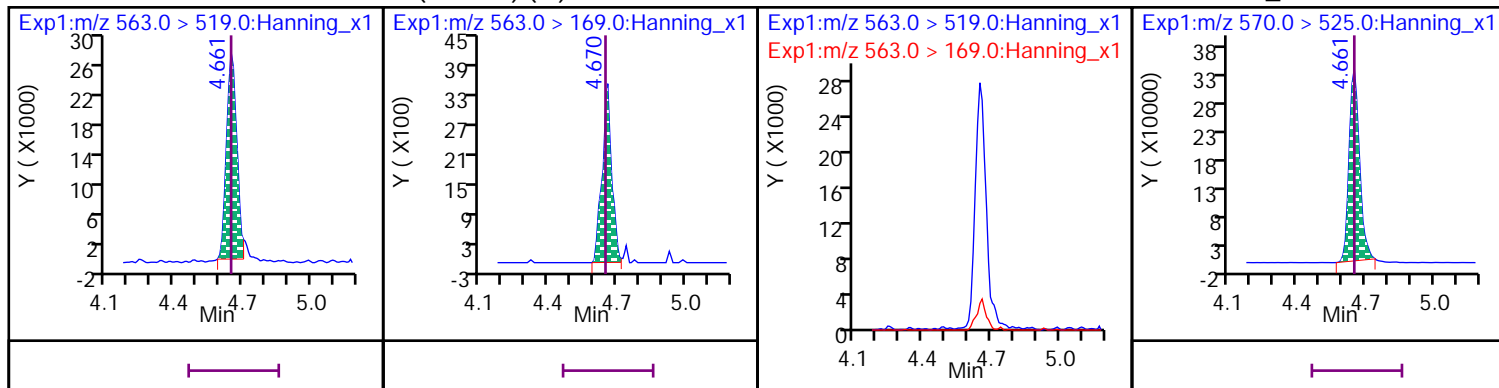
9 Perfluoro-1-decanesulfonic acid (PFDS)

D 54 13C8_PFOS



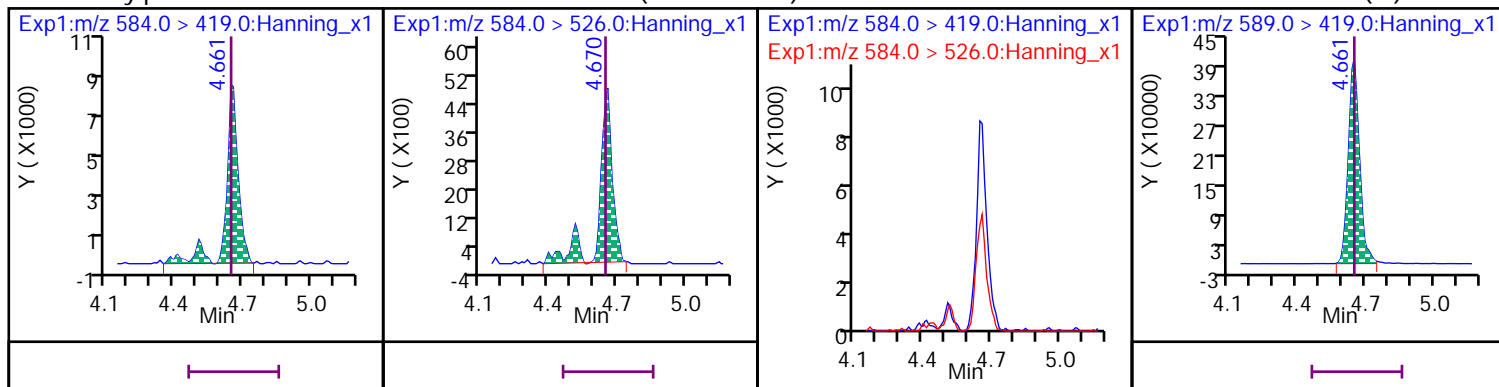
25 Perfluoro-n-undecanoic acid (PFUdA) (M)

D 52 13C7_PFUdA



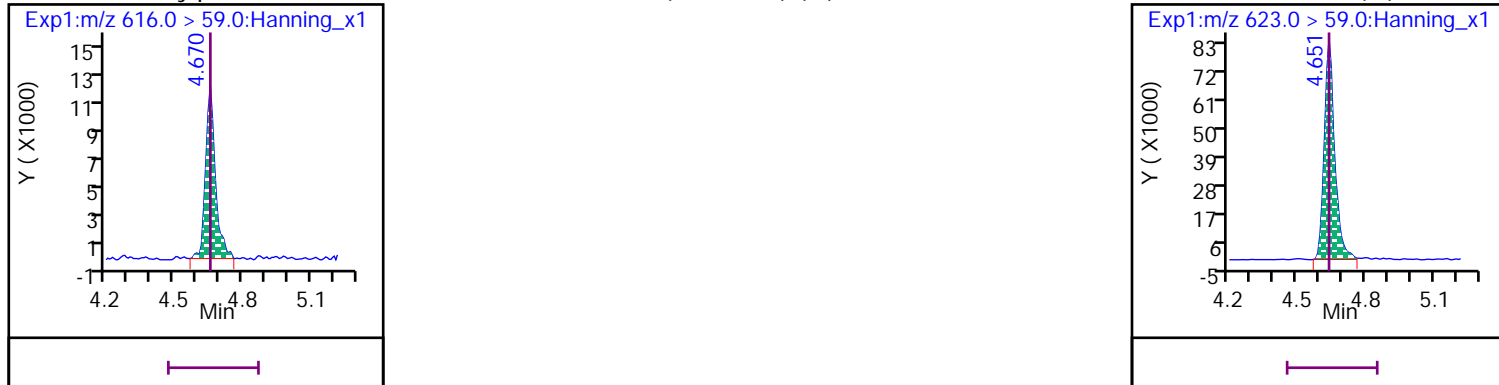
5 N-ethylperfluoro-1-octanesulfonamidoacetic acid (N-EtFOSAA)

D 60 d5-EtFOSAA (M)



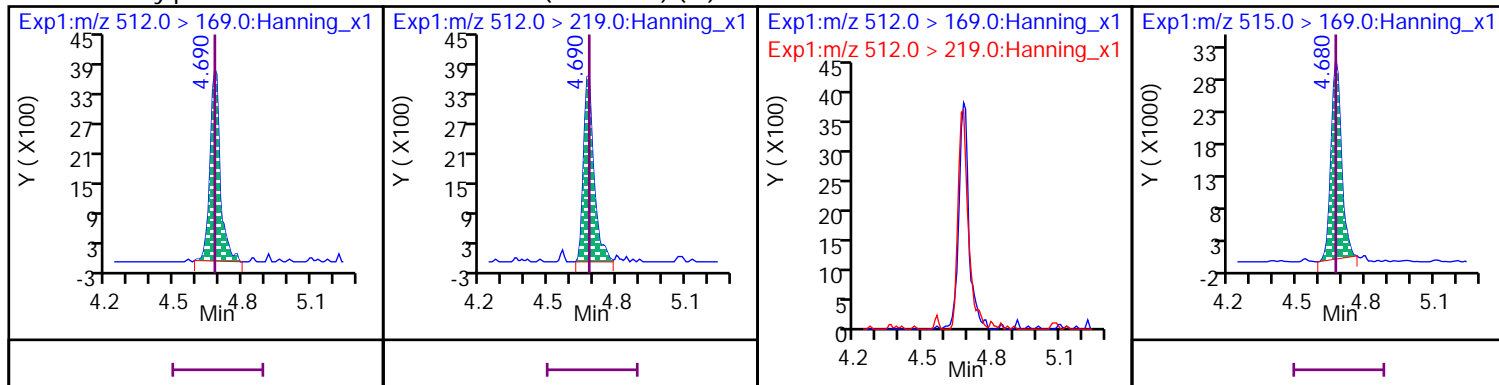
32 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE) (M)

D 61 d7-MeFOSE (M)

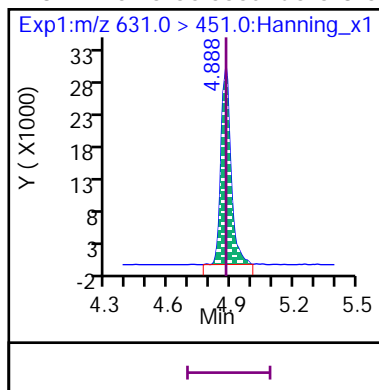


26 N-methylperfluoro-1-octanesulfonamide (MeFOSA) (M)

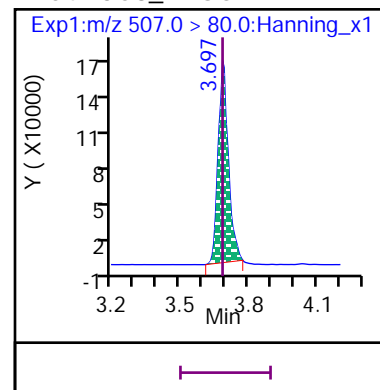
D 57 d3-MeFOSA



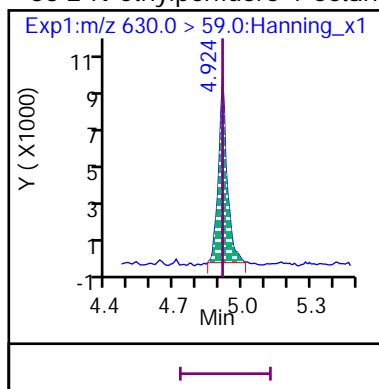
31 11-chloroeicosafuoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)



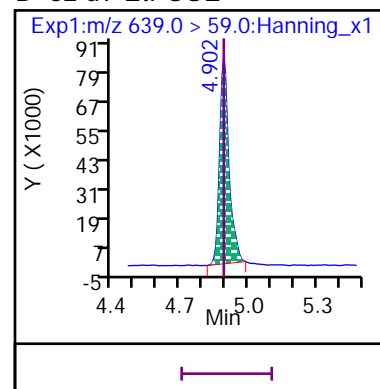
D 54 13C8_PFOS



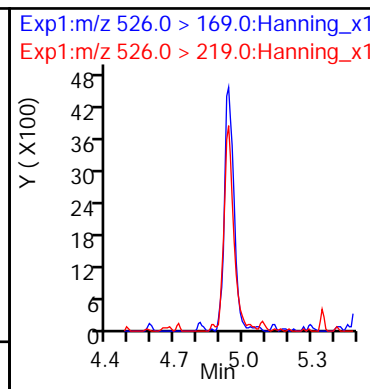
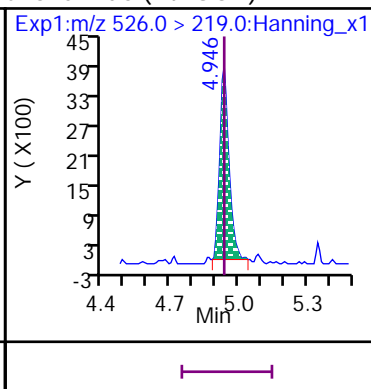
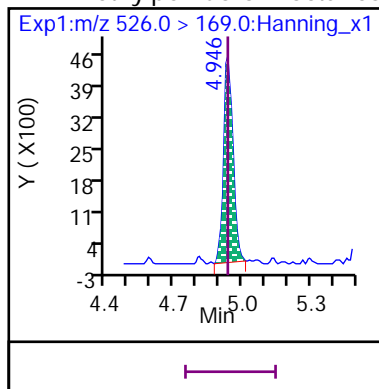
33 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE) (M)



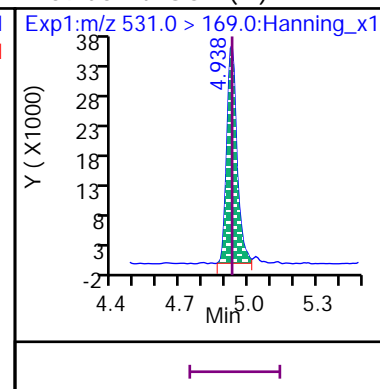
D 62 d9-EtFOSE



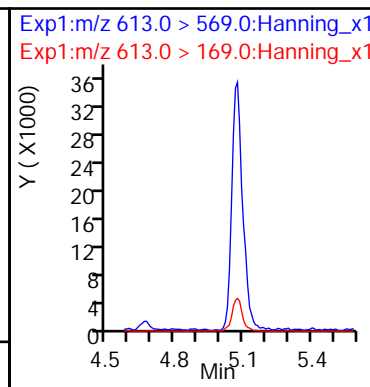
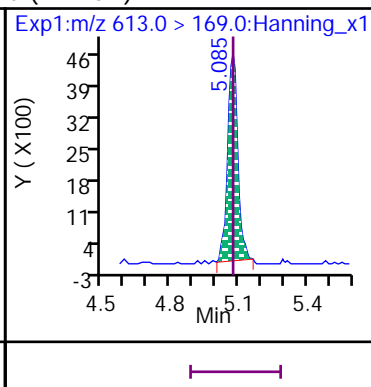
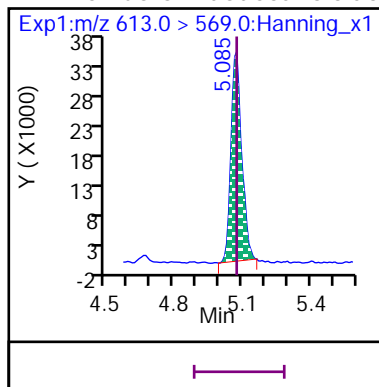
27 N-ethylperfluoro-1-octanesulfonamide (EtFOSA)



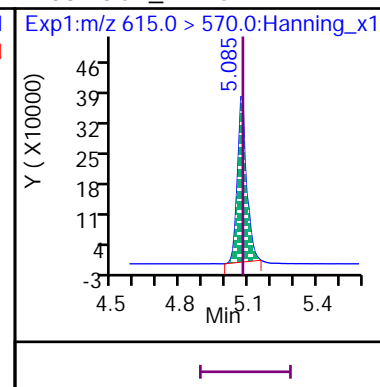
D 59 d5-EtFOSA (M)



11 Perfluoro-n-dodecanoic acid (PFDoA)

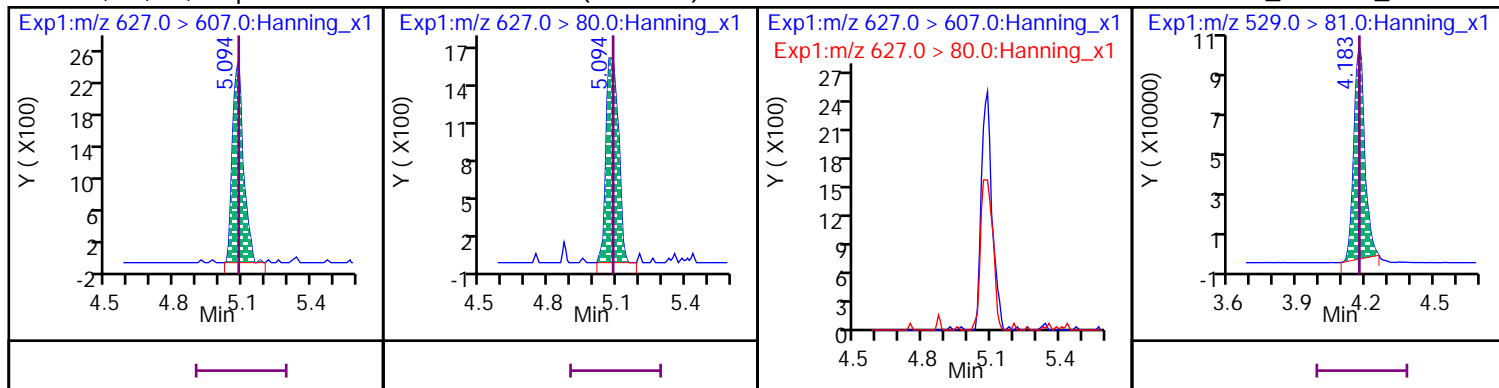


D 38 13C2_PFDoA



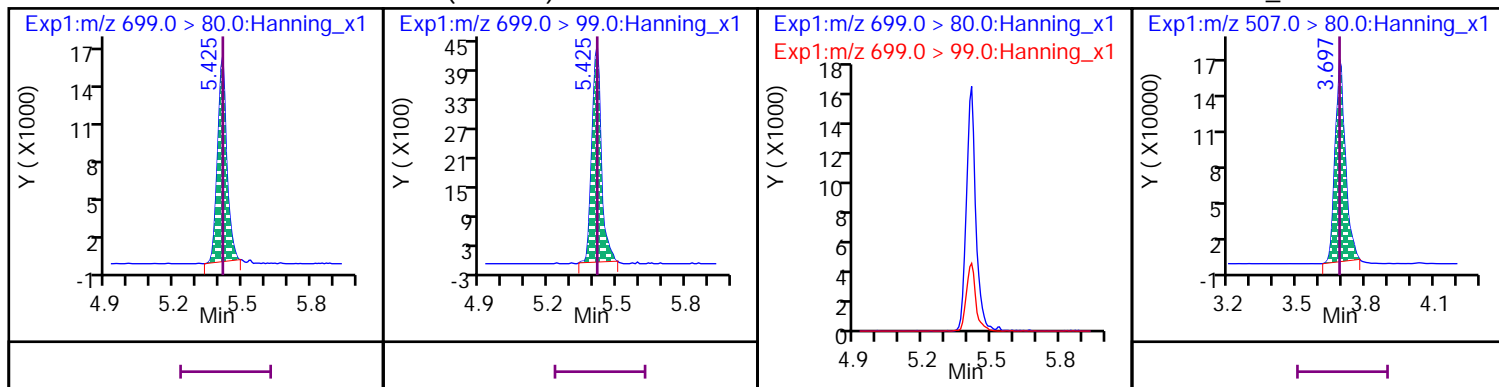
4 1H,1H,2H,2H-perfluorododecane sulfonate (10:2FTS)

D 65 13C2_8:2 FTS_2



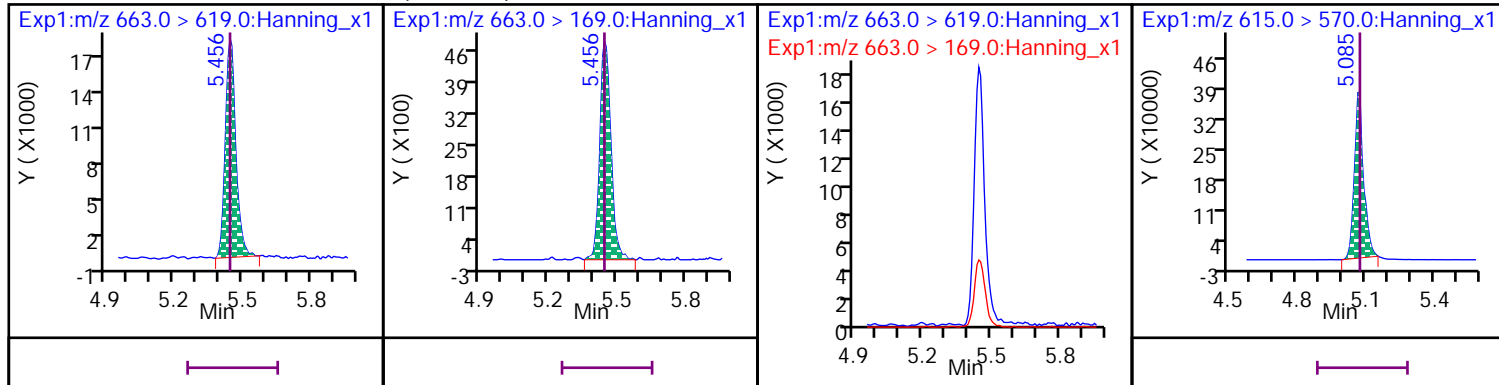
34 Perfluorododecanesulfonic acid (PFDOS)

D 54 13C8_PFOS



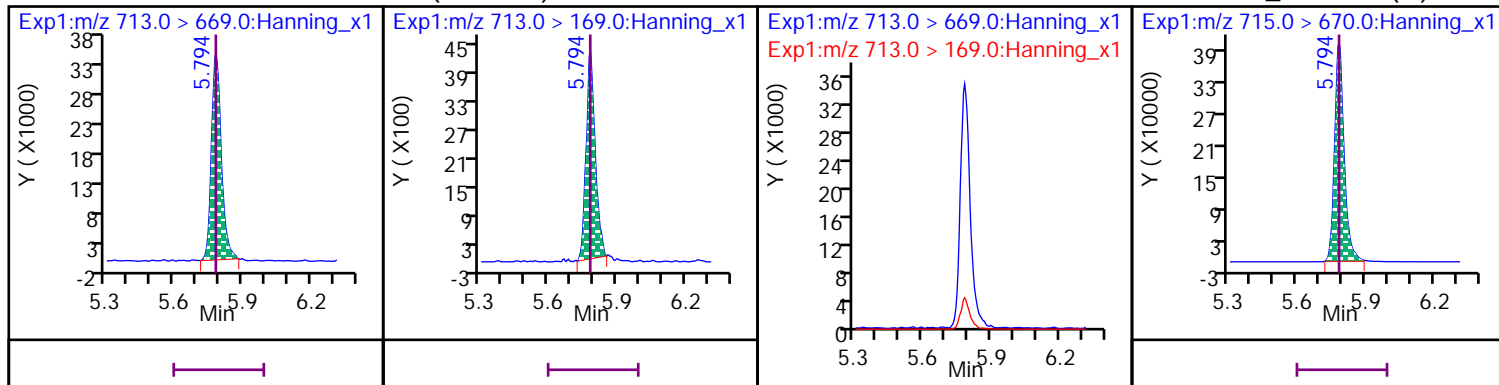
24 Perfluoro-n-tridecanoic acid (PFTrDA)

D 38 13C2_PFDaA



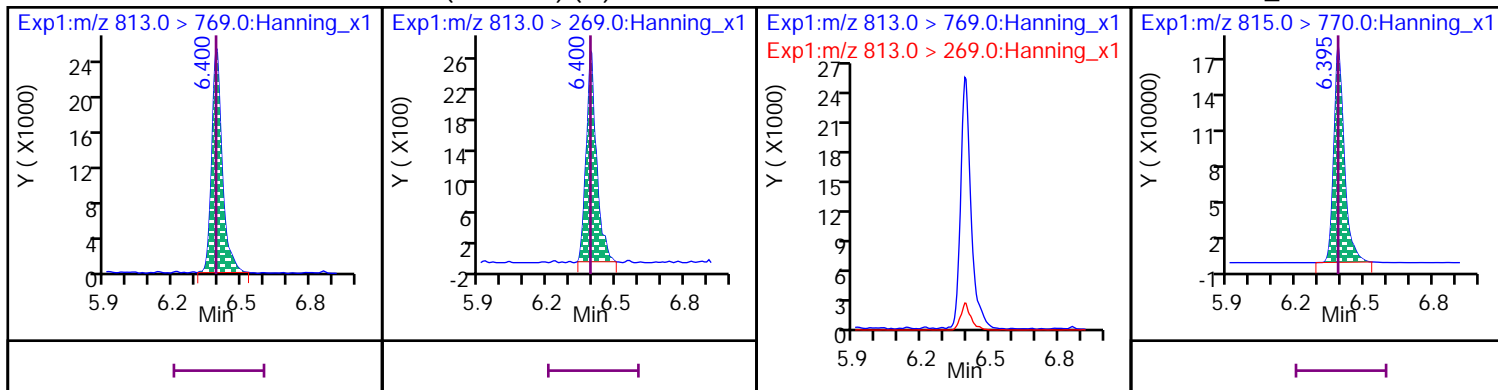
23 Perfluoro-n-tetradecanoic acid (PFTeDA)

D 42 13C2_PFTeDA (M)



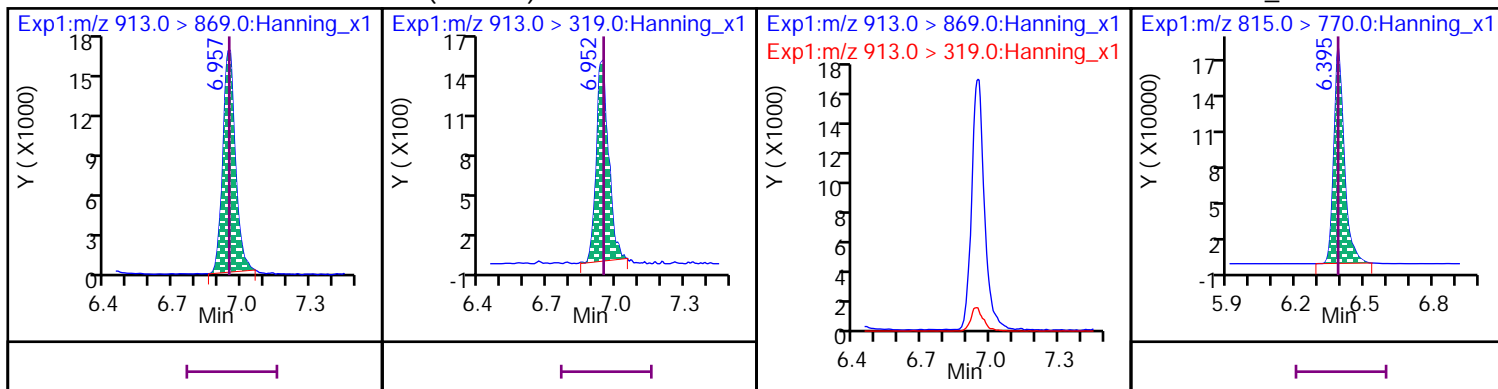
35 Perfluoro-n-hexadecanoic acid (PFHxDA) (M)

D 40 13C2_PFHxDA



36 Perfluoro-n-octadecanoic acid (PFODA)

D 40 13C2_PFHxDA

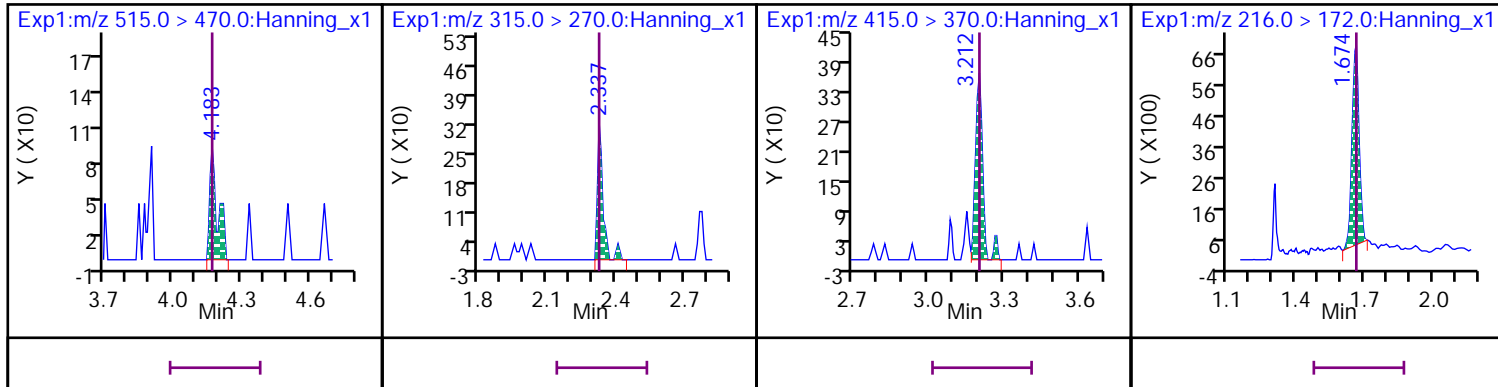


* 37 13C2_PFDA

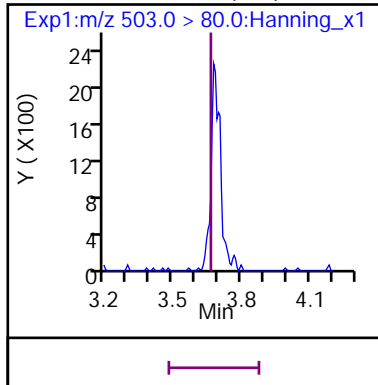
* 39 13C2_PFHxA

* 41 13C2_PFOA

* 43 13C3_PFBA



* 48 13C4_PFOS (ND)



Manual Integration Report

Data File: \\organics\LL\LCMSMS01.i\100422-nonDOD.b\100422005.d

Injection Date: 04-Oct-2022 11:11:14

Inst. ID: LCMSMS01.i

Client ID:

Lab ID: CCV 200_SVLC-2211

Sample Info: CCV 200_SVLC-2211

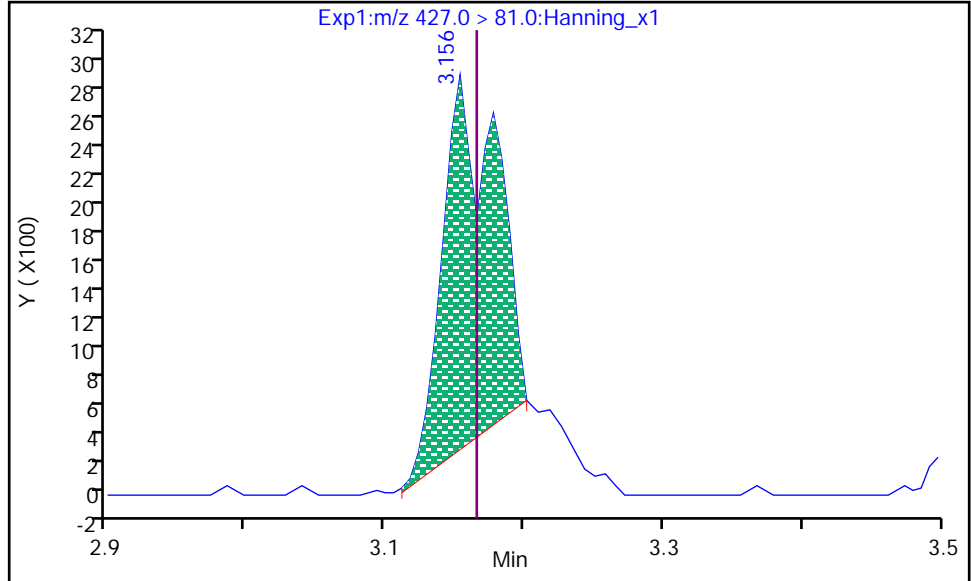
Dil. Factor: 1

Operator: eqi.svoa

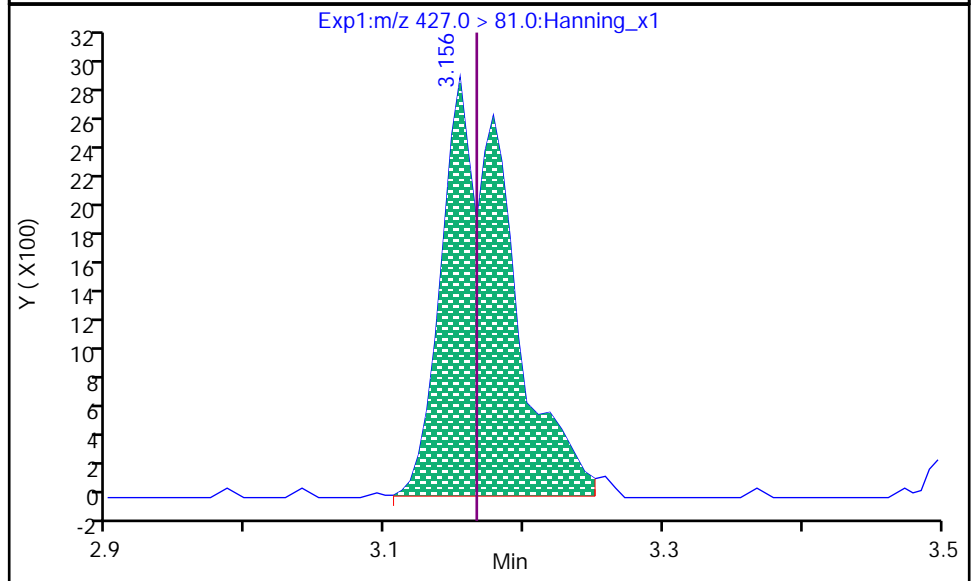
2 6:2 FTS, CAS: 27619-97-2

Processing Integration Results

RT: 3.156
Area: 6706
Amount: 232.58
Amount Units: ng/L



RT: 3.156
Area: 9619
Amount: 232.58
Amount Units: ng/L



Data Editor: andy.marshall, 04-Oct-2022 11:41:29

Audit Action: Mint

Audit Reason: M-03, Incorrect Auto Integration

Manual Integration Report

Data File: \\organics\LL\LCMSMS01.i\100422-nonDOD.b\100422005.d

Injection Date: 04-Oct-2022 11:11:14

Inst. ID: LCMSMS01.i

Client ID:

Lab ID: CCV 200_SVLC-2211

Sample Info: CCV 200_SVLC-2211

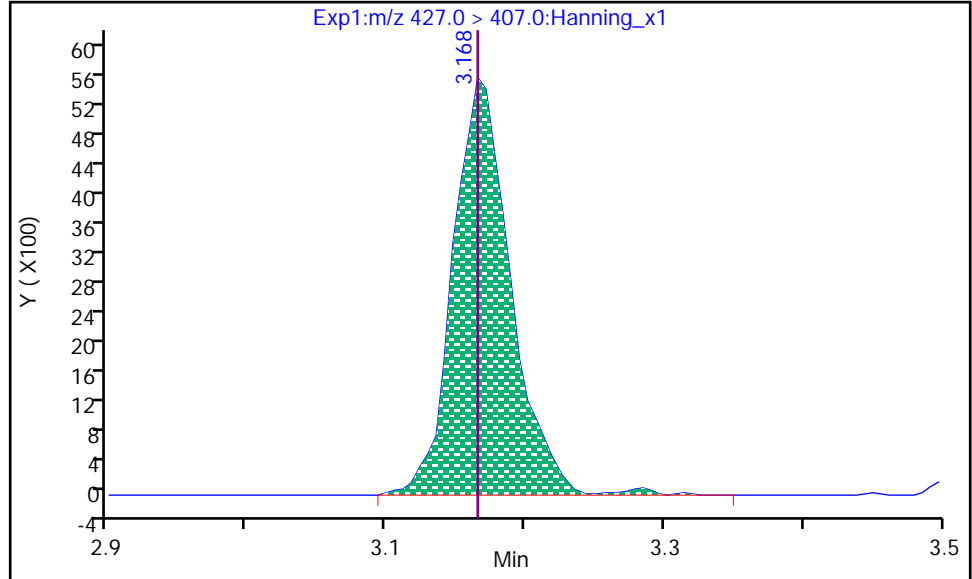
Dil. Factor: 1

Operator: eqi.svoa

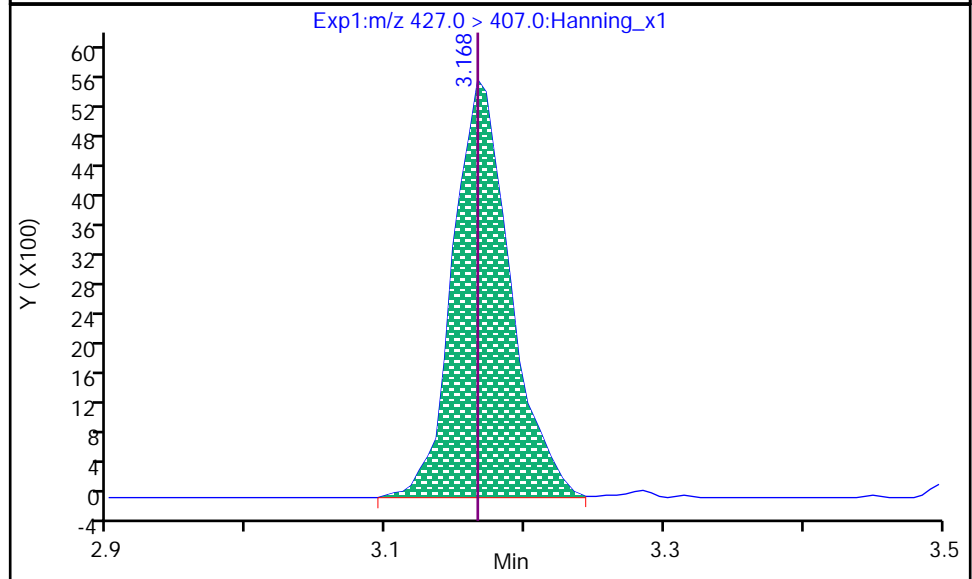
2 6:2 FTS, CAS: 27619-97-2

RT: 3.168
Area: 15889
Amount: 234.98
Amount Units: ng/L

Processing Integration Results



RT: 3.168
Area: 15727
Amount: 232.58
Amount Units: ng/L



Data Editor: andy.marshall, 04-Oct-2022 11:43:15

Audit Action: Mint

Audit Reason: M-03, Incorrect Auto Integration

Manual Integration Report

Data File: \\organics\LL\LCMSMS01.i\100422-nonDOD.b\100422005.d

Injection Date: 04-Oct-2022 11:11:14

Inst. ID: LCMSMS01.i

Client ID:

Lab ID: CCV 200_SVLC-2211

Sample Info: CCV 200_SVLC-2211

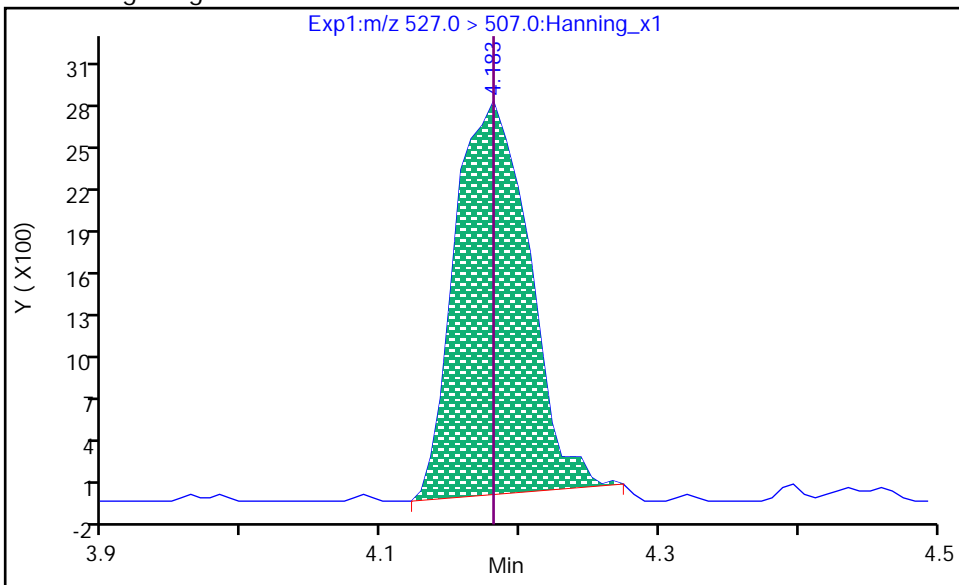
Dil. Factor: 1

Operator: eqi.svoa

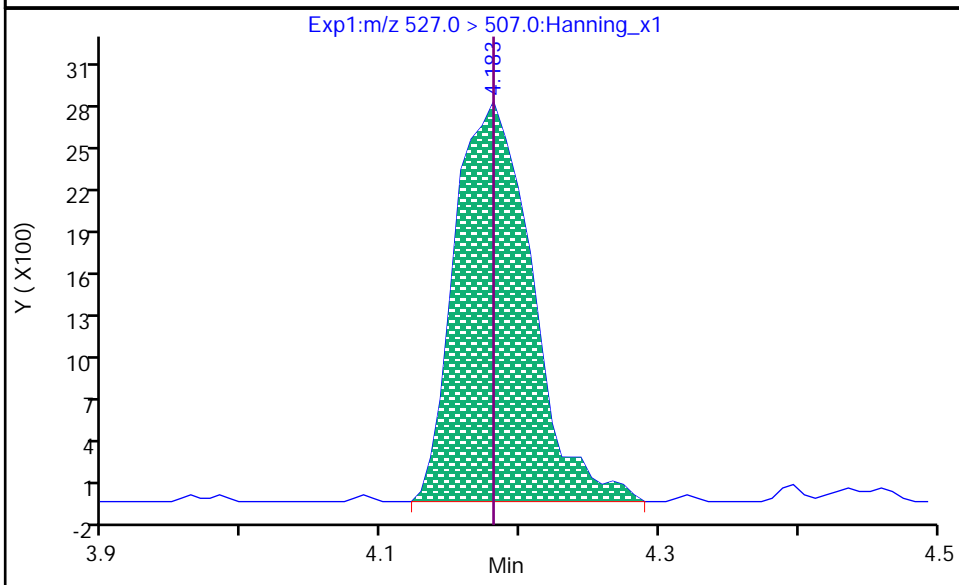
3 8:2 FTS, CAS: 39108-34-4

Processing Integration Results

RT: 4.183
Area: 10041
Amount: 232.60
Amount Units: ng/L



RT: 4.183
Area: 10626
Amount: 246.15
Amount Units: ng/L



Data Editor: andy.marshall, 04-Oct-2022 11:44:09

Audit Action: Mint

Audit Reason: M-03, Incorrect Auto Integration

Manual Integration Report

Data File: \\organics\LL\LCMSMS01.i\100422-nonDOD.b\100422005.d

Injection Date: 04-Oct-2022 11:11:14

Inst. ID: LCMSMS01.i

Client ID:

Lab ID: CCV 200_SVLC-2211

Sample Info: CCV 200_SVLC-2211

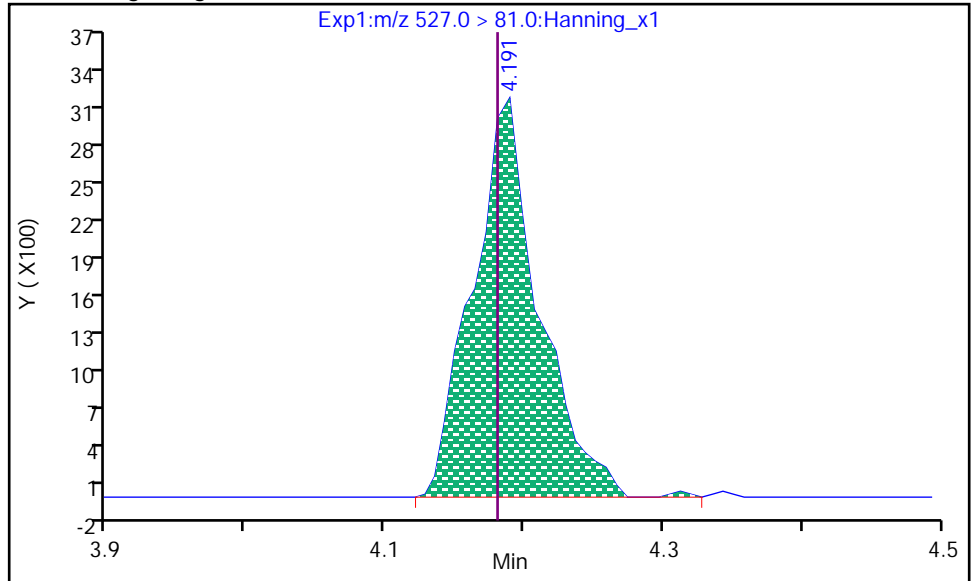
Dil. Factor: 1

Operator: eqi.svoa

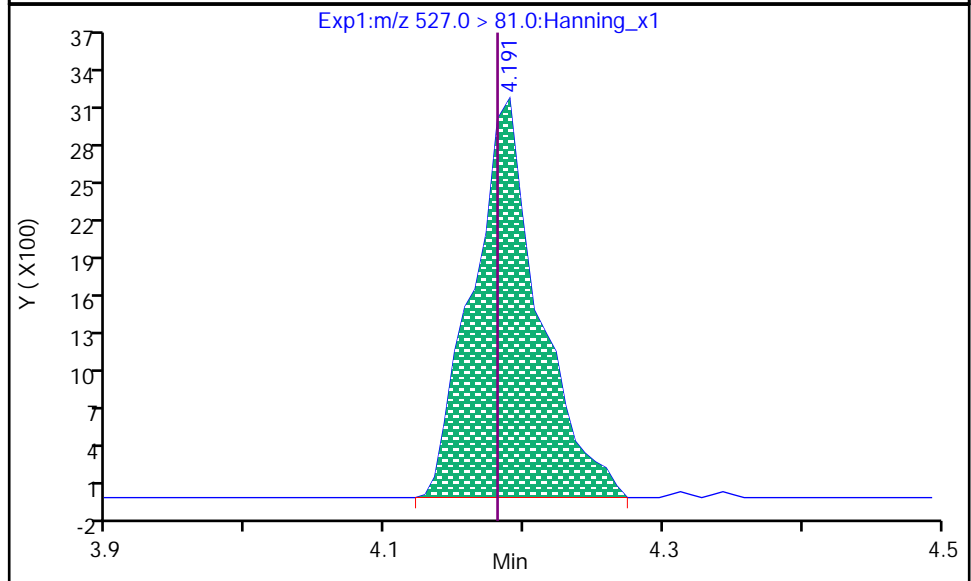
3 8:2 FTS, CAS: 39108-34-4

Processing Integration Results

RT: 4.191
Area: 10463
Amount: 246.15
Amount Units: ng/L



RT: 4.191
Area: 10412
Amount: 246.15
Amount Units: ng/L



Data Editor: andy.marshall, 04-Oct-2022 11:44:17

Audit Action: Mint

Audit Reason: M-03, Incorrect Auto Integration

Manual Integration Report

Data File: \\organics\LL\LCMSMS01.i\100422-nonDOD.b\100422005.d

Injection Date: 04-Oct-2022 11:11:14

Inst. ID: LCMSMS01.i

Client ID:

Lab ID: CCV 200_SVLC-2211

Sample Info: CCV 200_SVLC-2211

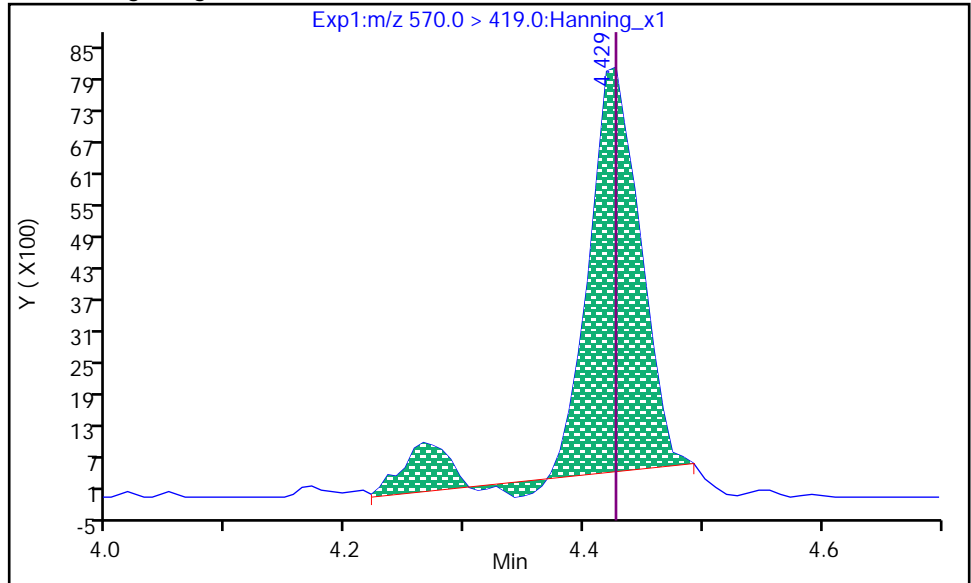
Dil. Factor: 1

Operator: eqi.svoa

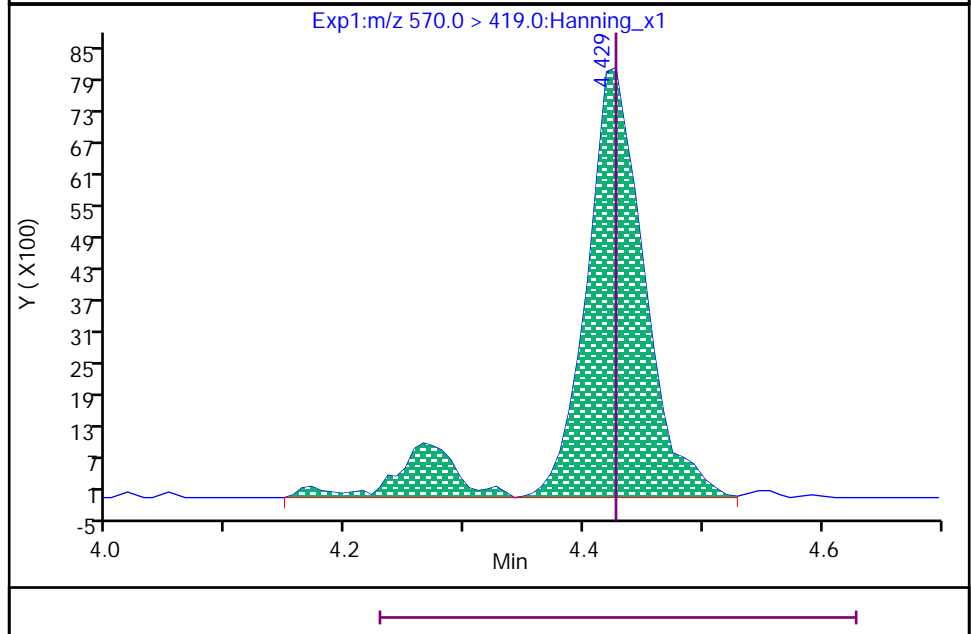
6 N-MeFOSAA, CAS: 2355-31-9

Processing Integration Results

RT: 4.429
Area: 24440
Amount: 201.25
Amount Units: ng/L



RT: 4.429
Area: 30538
Amount: 251.47
Amount Units: ng/L



Data Editor: andy.marshall, 04-Oct-2022 11:45:37

Audit Action: Mint

Audit Reason: M-03, Incorrect Auto Integration

Manual Integration Report

Data File: \\organics\LL\LCMSMS01.i\100422-nonDOD.b\100422005.d

Injection Date: 04-Oct-2022 11:11:14

Inst. ID: LCMSMS01.i

Client ID:

Lab ID: CCV 200_SVLC-2211

Sample Info: CCV 200_SVLC-2211

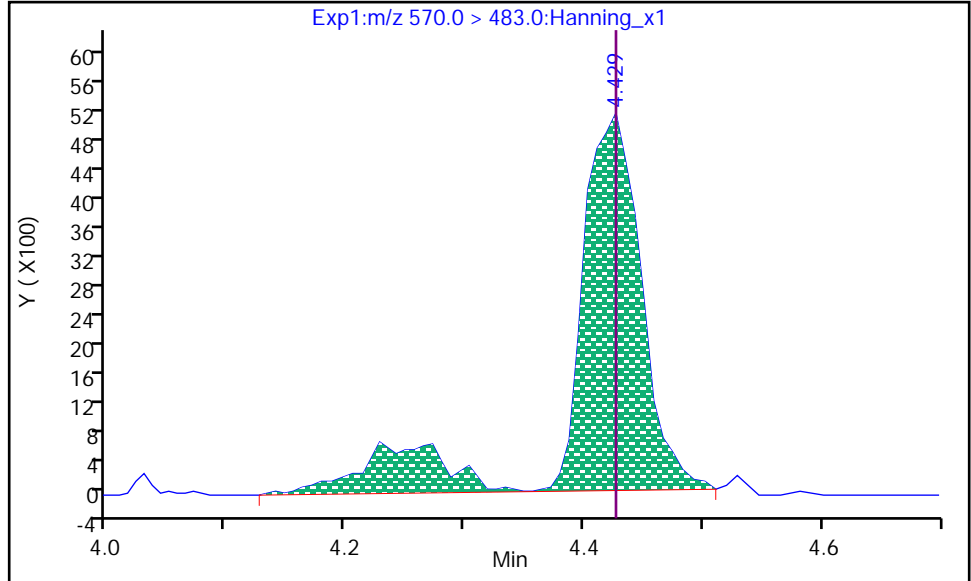
Dil. Factor: 1

Operator: eqi.svoa

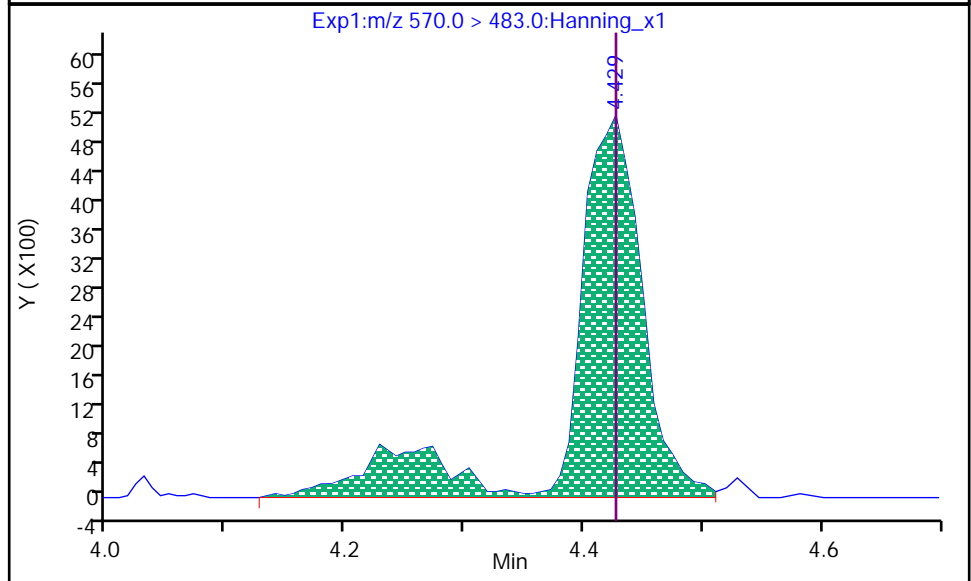
6 N-MeFOSAA, CAS: 2355-31-9

RT: 4.429
Area: 20120
Amount: 251.47
Amount Units: ng/L

Processing Integration Results



RT: 4.429
Area: 21000
Amount: 251.47
Amount Units: ng/L



Data Editor: andy.marshall, 04-Oct-2022 11:45:51

Audit Action: Mint

Audit Reason: M-03, Incorrect Auto Integration

Manual Integration Report

Data File: \\organics\LL\LCMSMS01.i\100422-nonDOD.b\100422005.d

Injection Date: 04-Oct-2022 11:11:14

Inst. ID: LCMSMS01.i

Client ID:

Lab ID: CCV 200_SVLC-2211

Sample Info: CCV 200_SVLC-2211

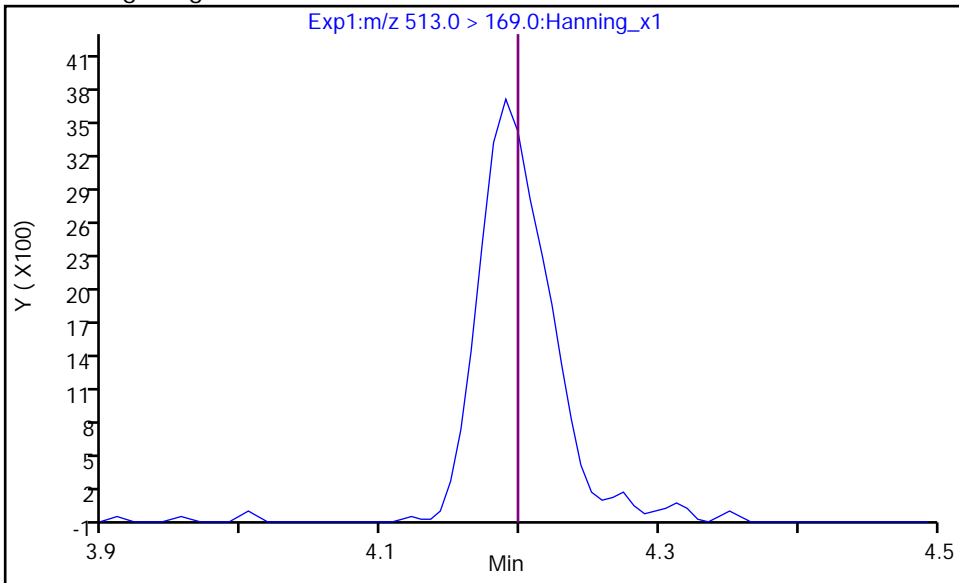
Dil. Factor: 1

Operator: eqi.svoa

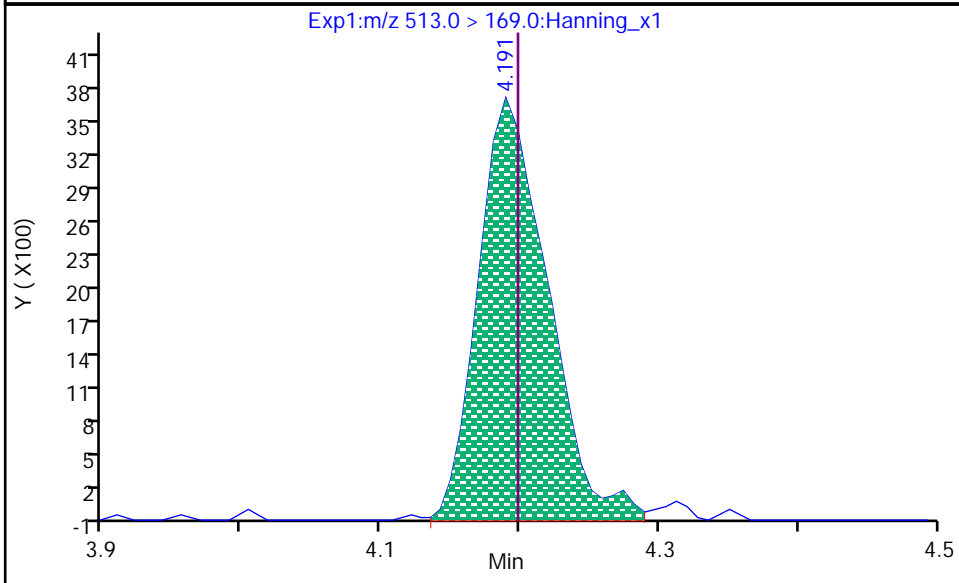
10 PFDA, CAS: 335-76-2

RT: 4.191
Area: 13257
Amount: 226.08
Amount Units: ng/L

Processing Integration Results



RT: 4.191
Area: 12929
Amount: 226.08
Amount Units: ng/L



Data Editor: andy.marshall, 04-Oct-2022 11:45:12

Audit Action: Mint

Audit Reason: M-03, Incorrect Auto Integration

Manual Integration Report

Data File: \\organics\LL\LCMSMS01.i\100422-nonDOD.b\100422005.d

Injection Date: 04-Oct-2022 11:11:14

Inst. ID: LCMSMS01.i

Client ID:

Lab ID: CCV 200_SVLC-2211

Sample Info: CCV 200_SVLC-2211

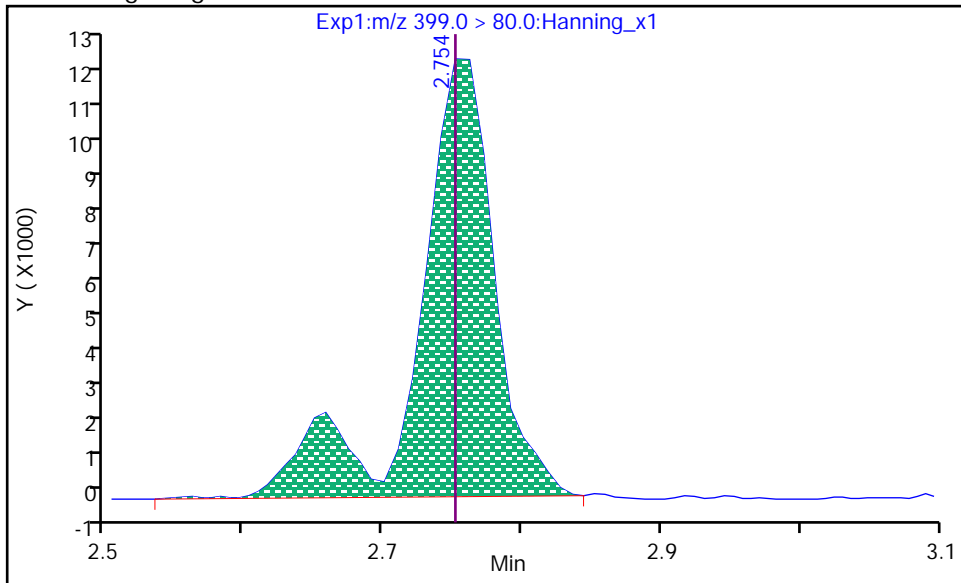
Dil. Factor: 1

Operator: eqi.svoa

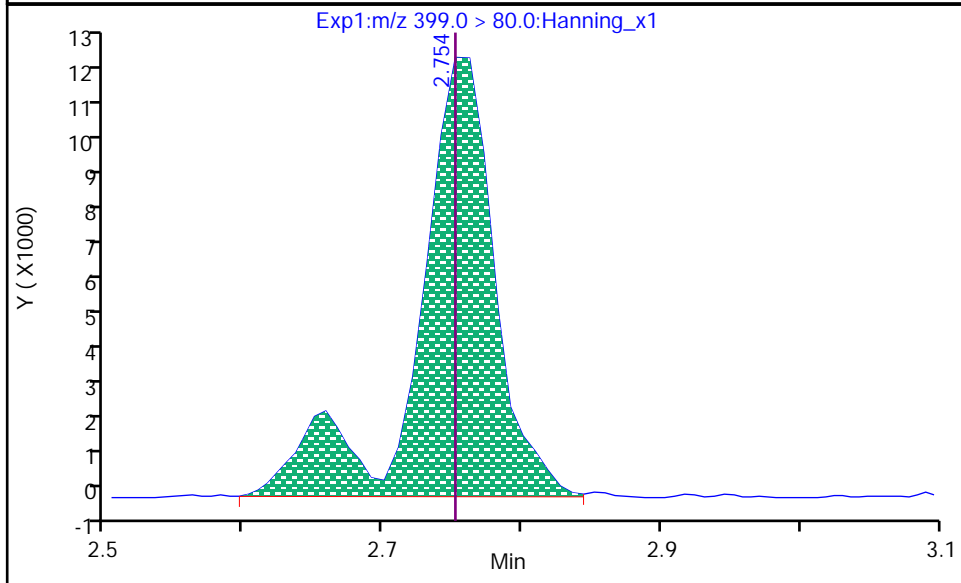
14 PFHxS, CAS: 355-46-4

RT: 2.754
Area: 46550
Amount: 181.66
Amount Units: ng/L

Processing Integration Results



RT: 2.754
Area: 46864
Amount: 182.89
Amount Units: ng/L



Data Editor: andy.marshall, 04-Oct-2022 11:43:02

Audit Action: Mint

Audit Reason: M-03, Incorrect Auto Integration

Manual Integration Report

Data File: \\organics\LL\LCMSMS01.i\100422-nonDOD.b\100422005.d

Injection Date: 04-Oct-2022 11:11:14

Inst. ID: LCMSMS01.i

Client ID:

Lab ID: CCV 200_SVLC-2211

Sample Info: CCV 200_SVLC-2211

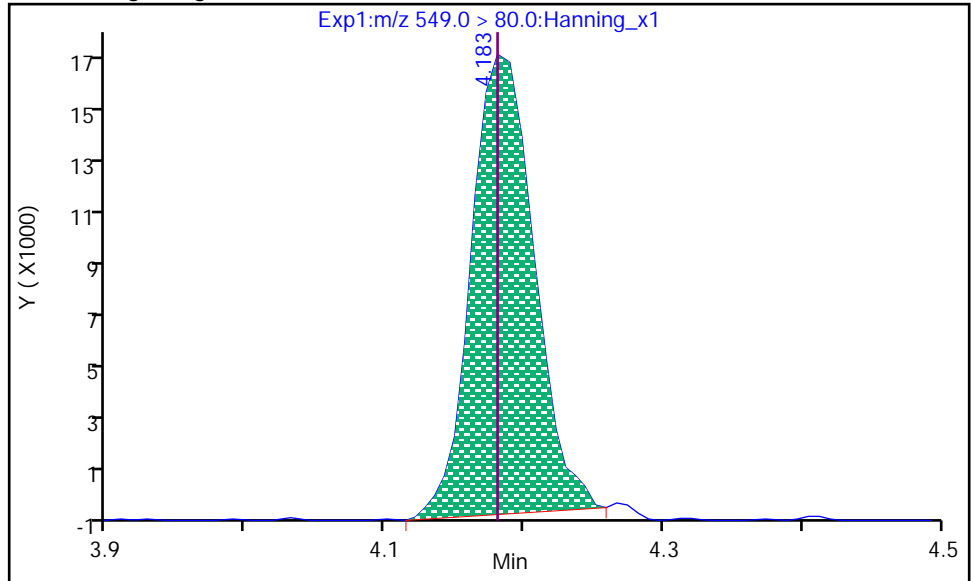
Dil. Factor: 1

Operator: eqi.svoa

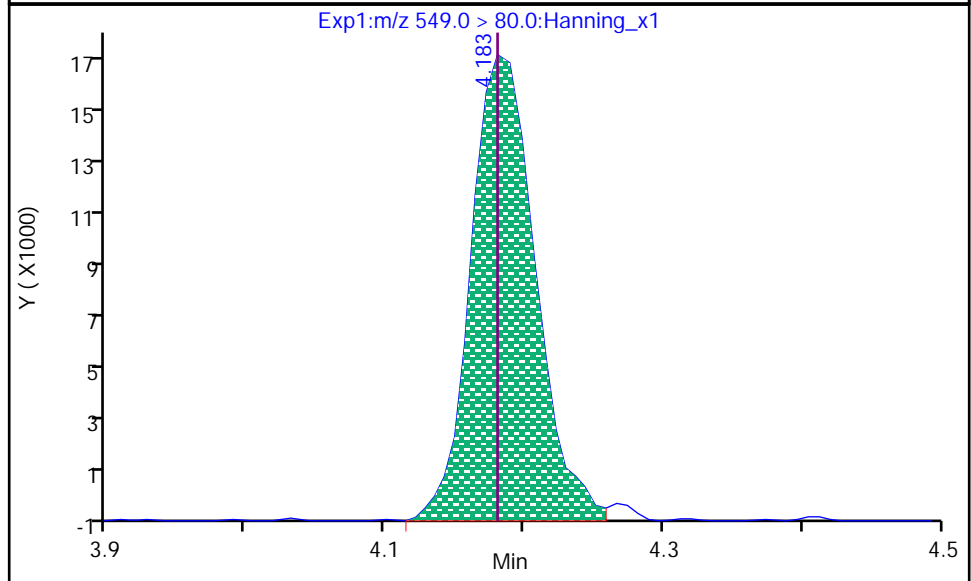
16 PFNS, CAS: 68259-12-1

Processing Integration Results

RT: 4.183
Area: 50870
Amount: 213.75
Amount Units: ng/L



RT: 4.183
Area: 52812
Amount: 221.91
Amount Units: ng/L



Data Editor: andy.marshall, 04-Oct-2022 11:44:34

Audit Action: Mint

Audit Reason: M-03, Incorrect Auto Integration

Manual Integration Report

Data File: \\organics\LL\LCMSMS01.i\100422-nonDOD.b\100422005.d

Injection Date: 04-Oct-2022 11:11:14

Inst. ID: LCMSMS01.i

Client ID:

Lab ID: CCV 200_SVLC-2211

Sample Info: CCV 200_SVLC-2211

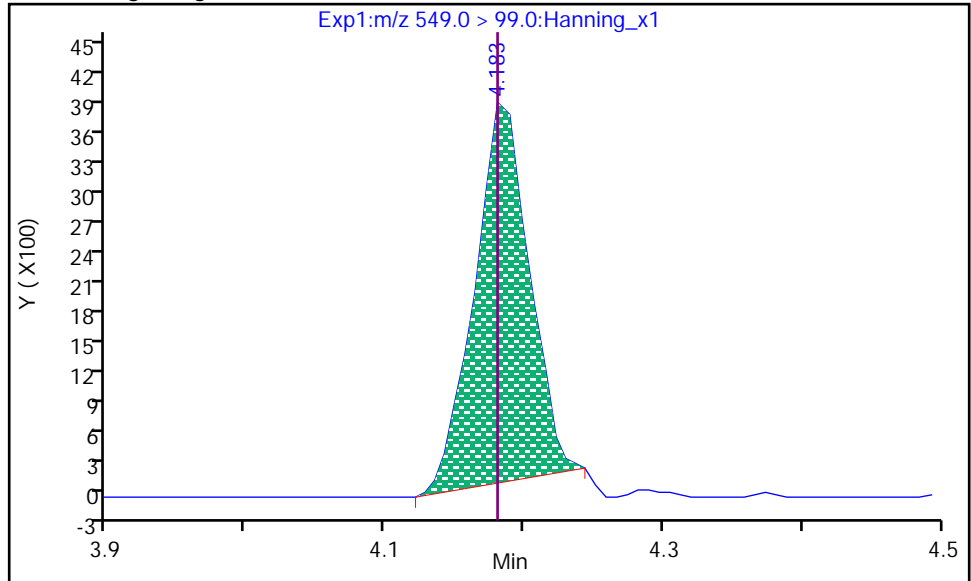
Dil. Factor: 1

Operator: eqi.svoa

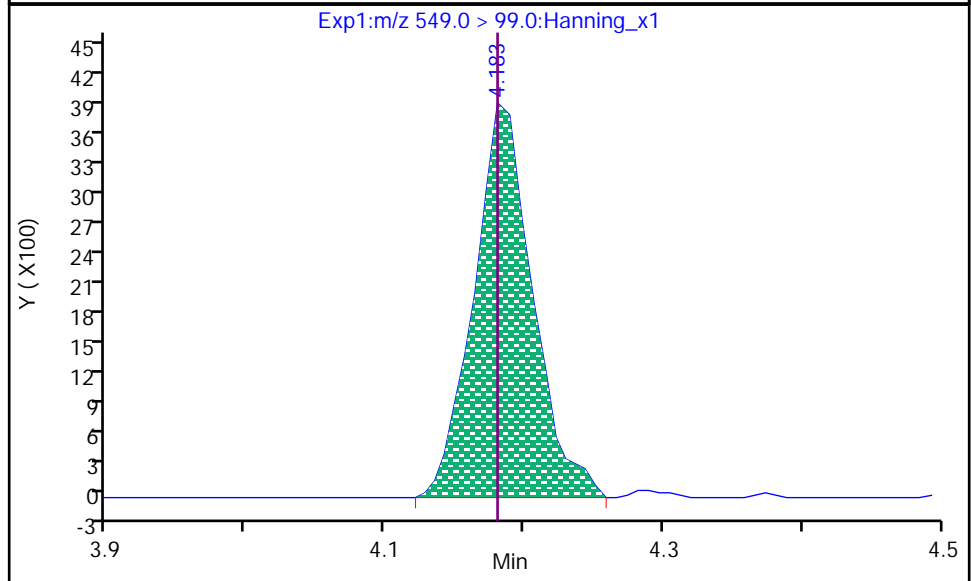
16 PFNS, CAS: 68259-12-1

Processing Integration Results

RT: 4.183
Area: 10095
Amount: 221.91
Amount Units: ng/L



RT: 4.183
Area: 11242
Amount: 221.91
Amount Units: ng/L



Data Editor: andy.marshall, 04-Oct-2022 11:44:48

Audit Action: Mint

Audit Reason: M-03, Incorrect Auto Integration

Manual Integration Report

Data File: \\organics\LL\LCMSMS01.i\100422-nonDOD.b\100422005.d

Injection Date: 04-Oct-2022 11:11:14

Inst. ID: LCMSMS01.i

Client ID:

Lab ID: CCV 200_SVLC-2211

Sample Info: CCV 200_SVLC-2211

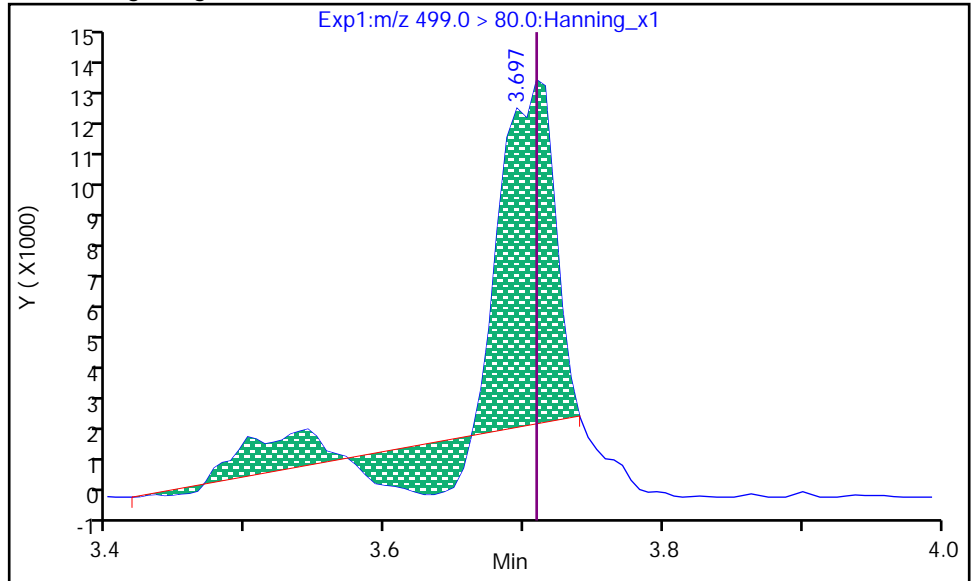
Dil. Factor: 1

Operator: eqi.svoa

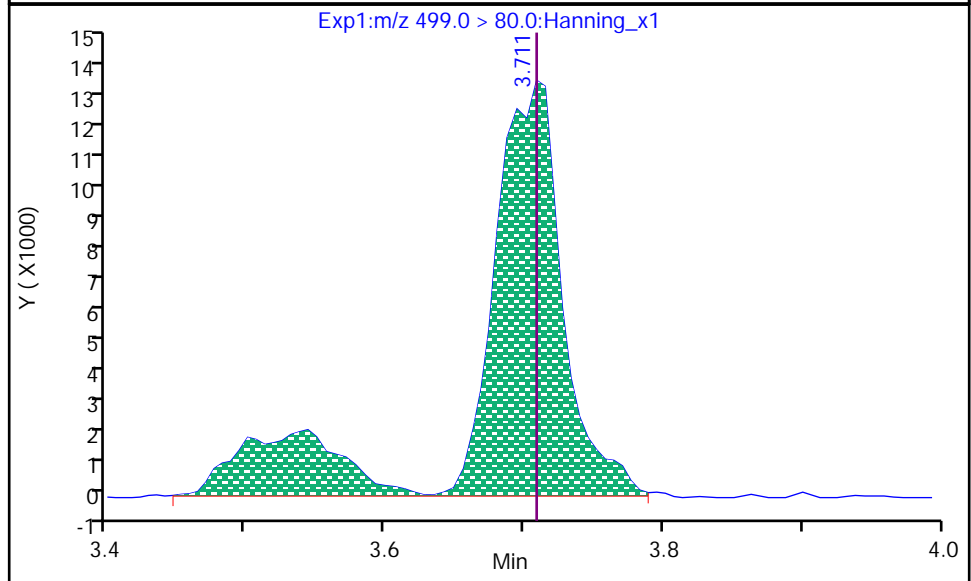
18 PFOS, CAS: 1763-23-1

Processing Integration Results

RT: 3.697
Area: 26278
Amount: 90.635
Amount Units: ng/L



RT: 3.711
Area: 51972
Amount: 177.60
Amount Units: ng/L



Data Editor: andy.marshall, 04-Oct-2022 11:40:59

Audit Action: Mint

Audit Reason: M-03, Incorrect Auto Integration

Manual Integration Report

Data File: \\organics\LL\LCMSMS01.i\100422-nonDOD.b\100422005.d

Injection Date: 04-Oct-2022 11:11:14

Inst. ID: LCMSMS01.i

Client ID:

Lab ID: CCV 200_SVLC-2211

Sample Info: CCV 200_SVLC-2211

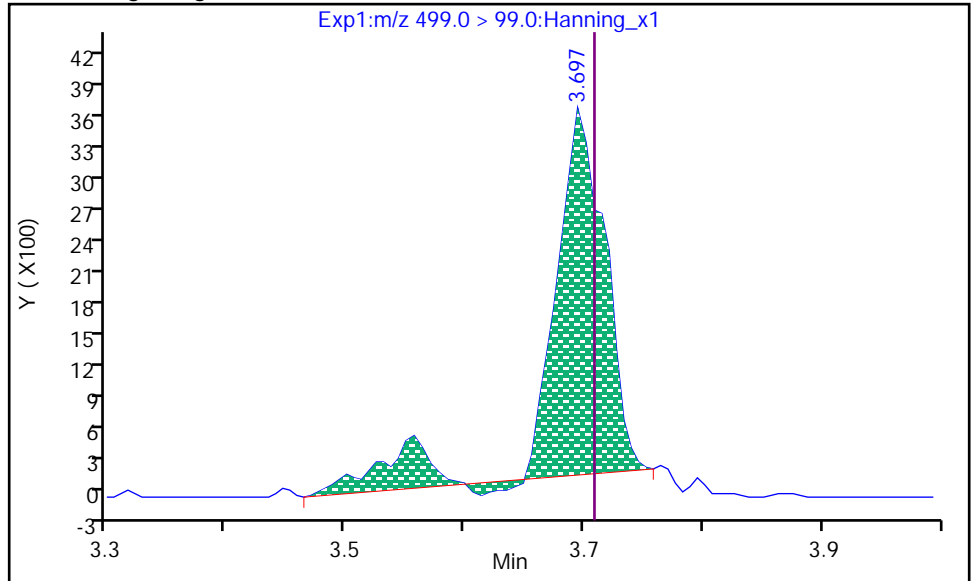
Dil. Factor: 1

Operator: eqi.svoa

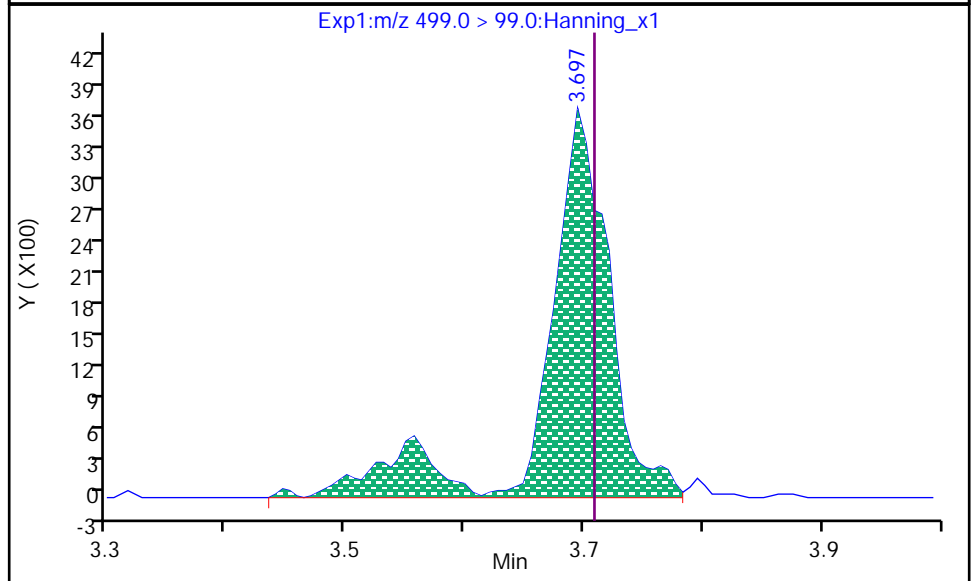
18 PFOS, CAS: 1763-23-1

Processing Integration Results

RT: 3.697
Area: 10774
Amount: 177.60
Amount Units: ng/L



RT: 3.697
Area: 13497
Amount: 177.60
Amount Units: ng/L



Data Editor: andy.marshall, 04-Oct-2022 11:41:20

Audit Action: Mint

Audit Reason: M-03, Incorrect Auto Integration

Manual Integration Report

Data File: \\organics\LL\LCMSMS01.i\100422-nonDOD.b\100422005.d

Injection Date: 04-Oct-2022 11:11:14

Inst. ID: LCMSMS01.i

Client ID:

Lab ID: CCV 200_SVLC-2211

Sample Info: CCV 200_SVLC-2211

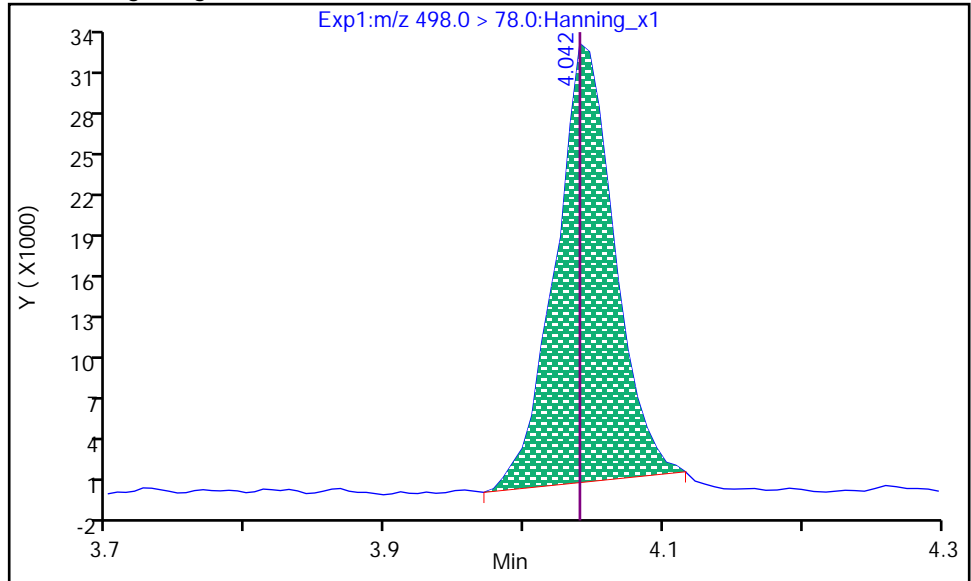
Dil. Factor: 1

Operator: eqi.svoa

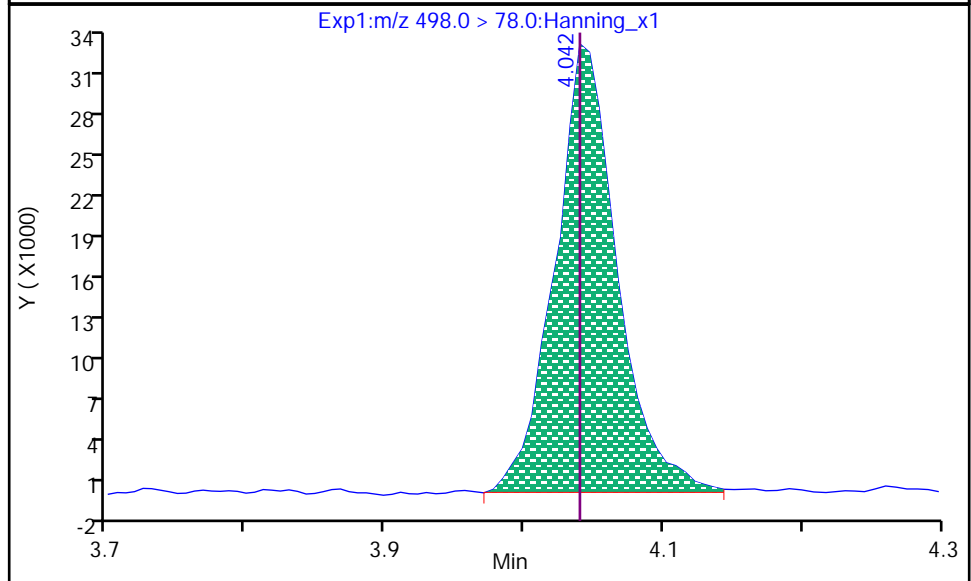
19 PFOSA, CAS: 754-91-6

Processing Integration Results

RT: 4.042
Area: 91718
Amount: 184.92
Amount Units: ng/L



RT: 4.042
Area: 98794
Amount: 199.19
Amount Units: ng/L



Data Editor: andy.marshall, 04-Oct-2022 11:43:54

Audit Action: Mint

Audit Reason: M-03, Incorrect Auto Integration

Manual Integration Report

Data File: \\organics\LL\LCMSMS01.i\100422-nonDOD.b\100422005.d

Injection Date: 04-Oct-2022 11:11:14

Inst. ID: LCMSMS01.i

Client ID:

Lab ID: CCV 200_SVLC-2211

Sample Info: CCV 200_SVLC-2211

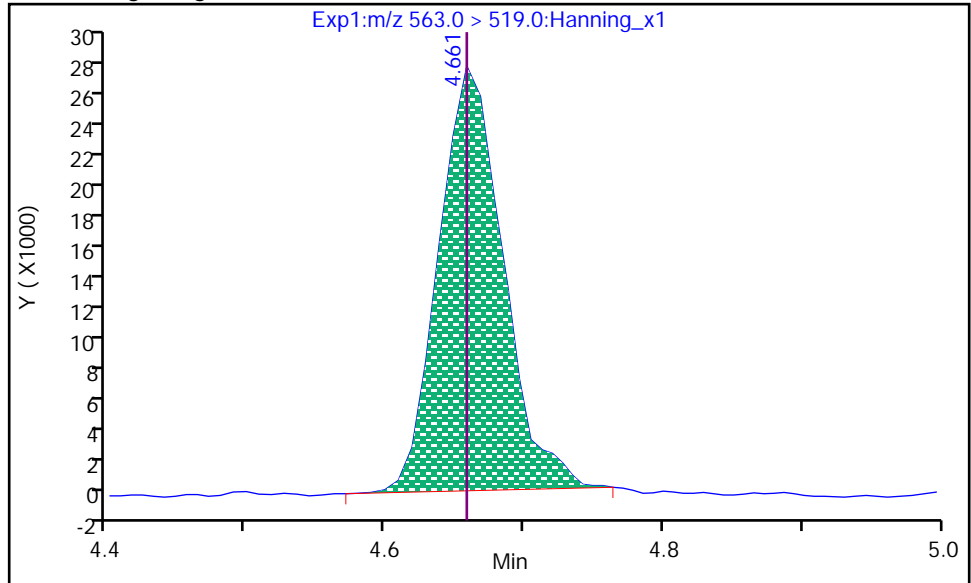
Dil. Factor: 1

Operator: eqi.svoa

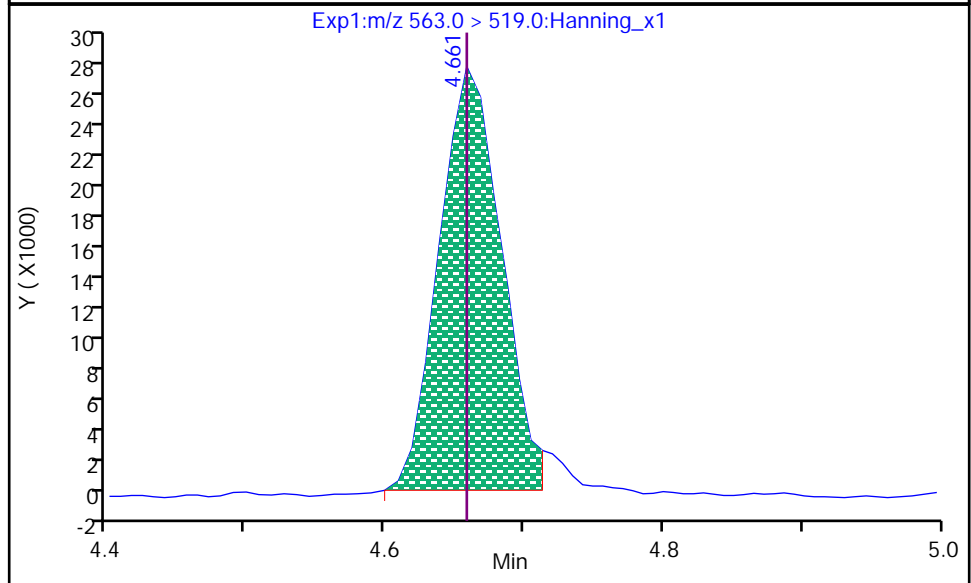
25 PFUdA, CAS: 2058-94-8

Processing Integration Results

RT: 4.661
Area: 87482
Amount: 181.96
Amount Units: ng/L



RT: 4.661
Area: 84085
Amount: 174.89
Amount Units: ng/L



Data Editor: andy.marshall, 04-Oct-2022 11:46:35

Audit Action: Mint

Audit Reason: M-03, Incorrect Auto Integration

Manual Integration Report

Data File: \\organics\LL\LCMSMS01.i\100422-nonDOD.b\100422005.d

Injection Date: 04-Oct-2022 11:11:14

Inst. ID: LCMSMS01.i

Client ID:

Lab ID: CCV 200_SVLC-2211

Sample Info: CCV 200_SVLC-2211

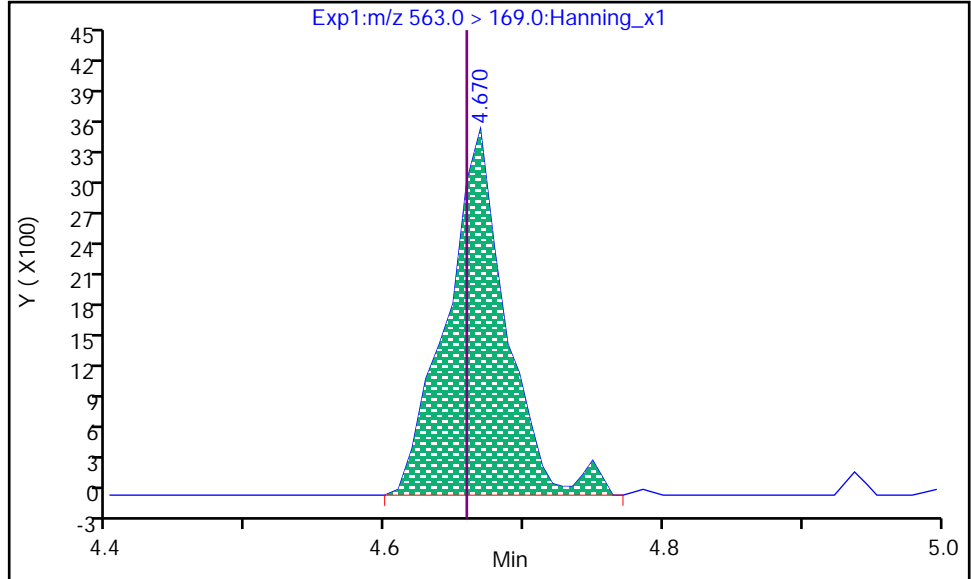
Dil. Factor: 1

Operator: eqi.svoa

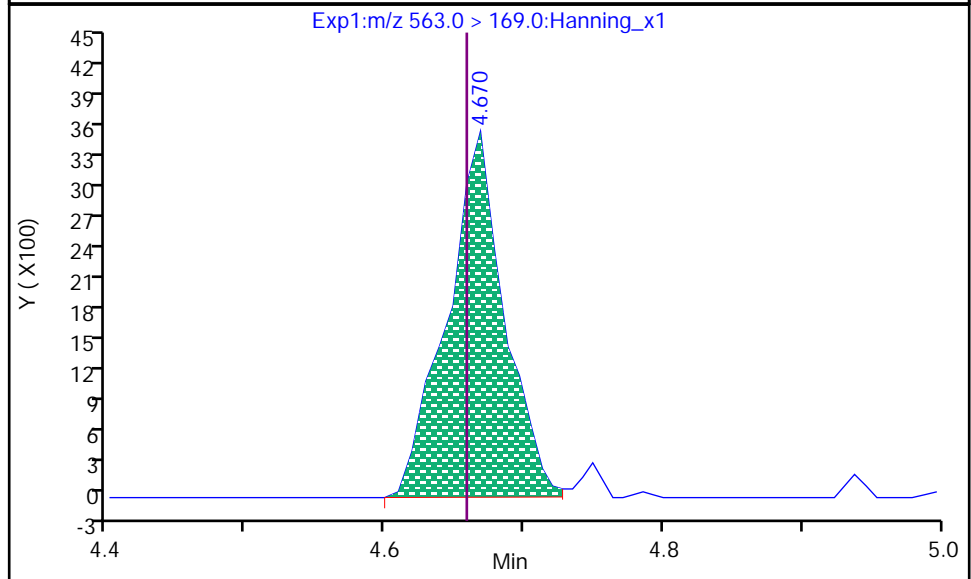
25 PFUdA, CAS: 2058-94-8

RT: 4.670
Area: 10254
Amount: 174.89
Amount Units: ng/L

Processing Integration Results



RT: 4.670
Area: 9877
Amount: 174.89
Amount Units: ng/L



Data Editor: andy.marshall, 04-Oct-2022 11:46:46

Audit Action: Mint

Audit Reason: M-03, Incorrect Auto Integration

Manual Integration Report

Data File: \\organics\LL\LCMSMS01.i\100422-nonDOD.b\100422005.d

Injection Date: 04-Oct-2022 11:11:14

Inst. ID: LCMSMS01.i

Client ID:

Lab ID: CCV 200_SVLC-2211

Sample Info: CCV 200_SVLC-2211

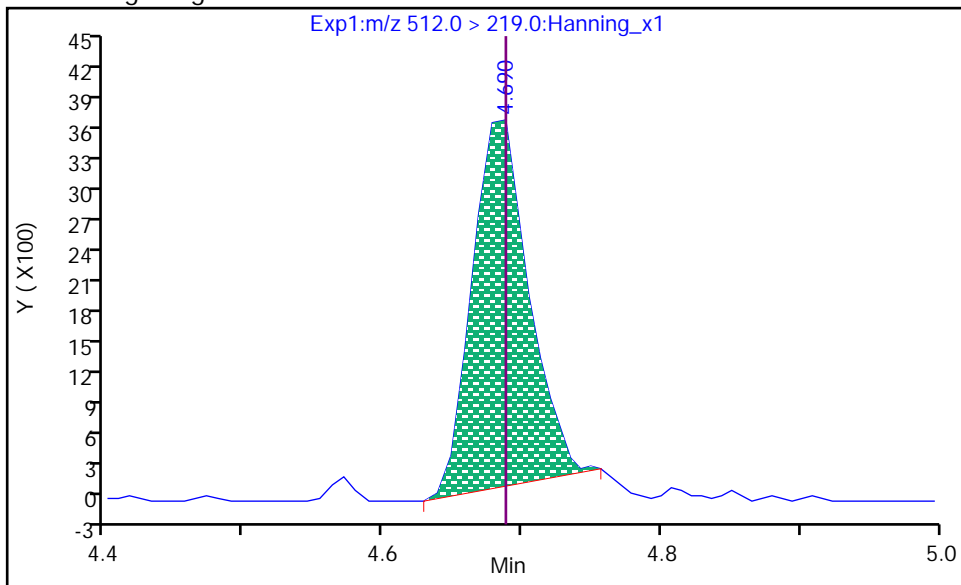
Dil. Factor: 1

Operator: eqi.svoa

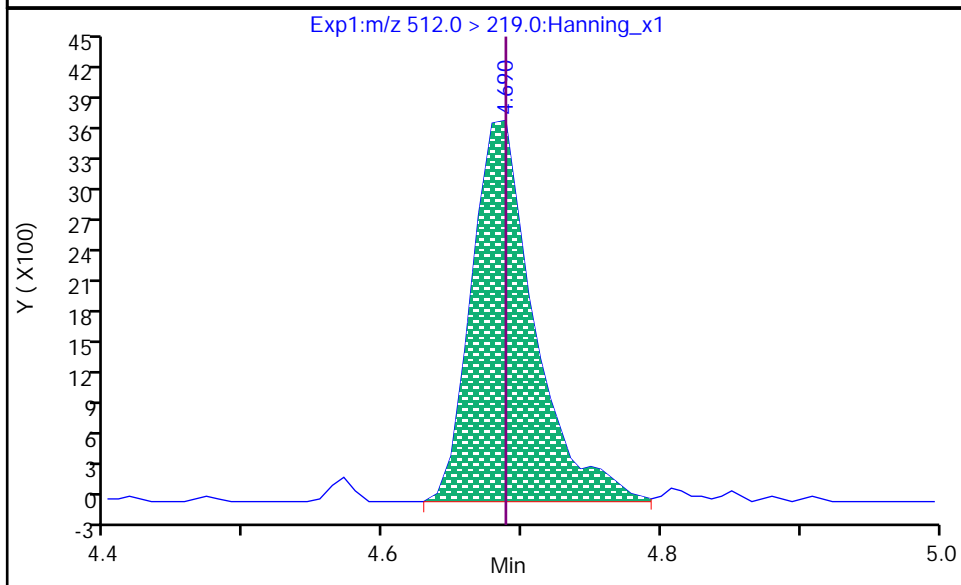
26 MeFOSA, CAS: 31506-32-8

Processing Integration Results

RT: 4.690
Area: 10044
Amount: 225.63
Amount Units: ng/L



RT: 4.690
Area: 11541
Amount: 225.63
Amount Units: ng/L



Data Editor: andy.marshall, 04-Oct-2022 11:47:22

Audit Action: Mint

Audit Reason: M-03, Incorrect Auto Integration

Manual Integration Report

Data File: \\organics\LL\LCMSMS01.i\100422-nonDOD.b\100422005.d

Injection Date: 04-Oct-2022 11:11:14

Inst. ID: LCMSMS01.i

Client ID:

Lab ID: CCV 200_SVLC-2211

Sample Info: CCV 200_SVLC-2211

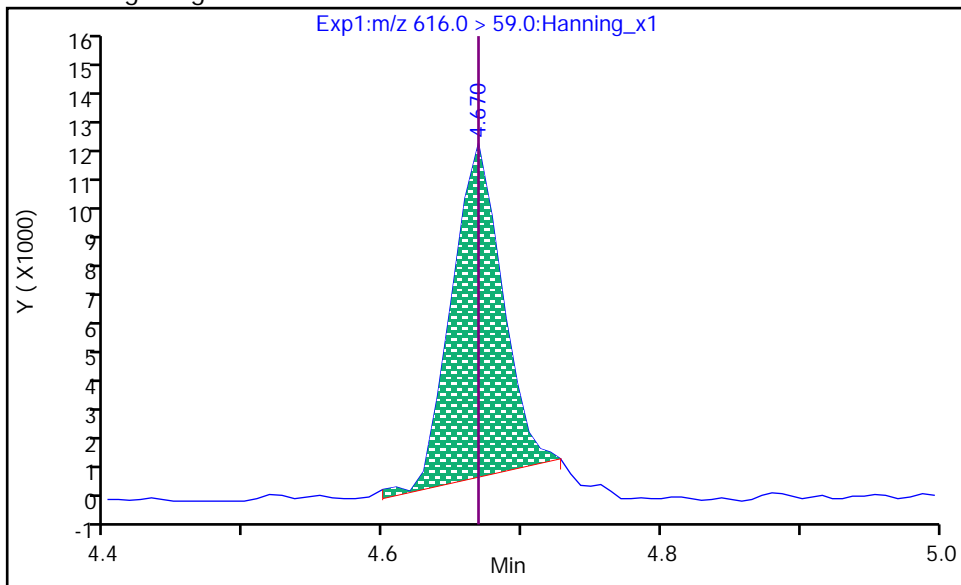
Dil. Factor: 1

Operator: eqi.svoa

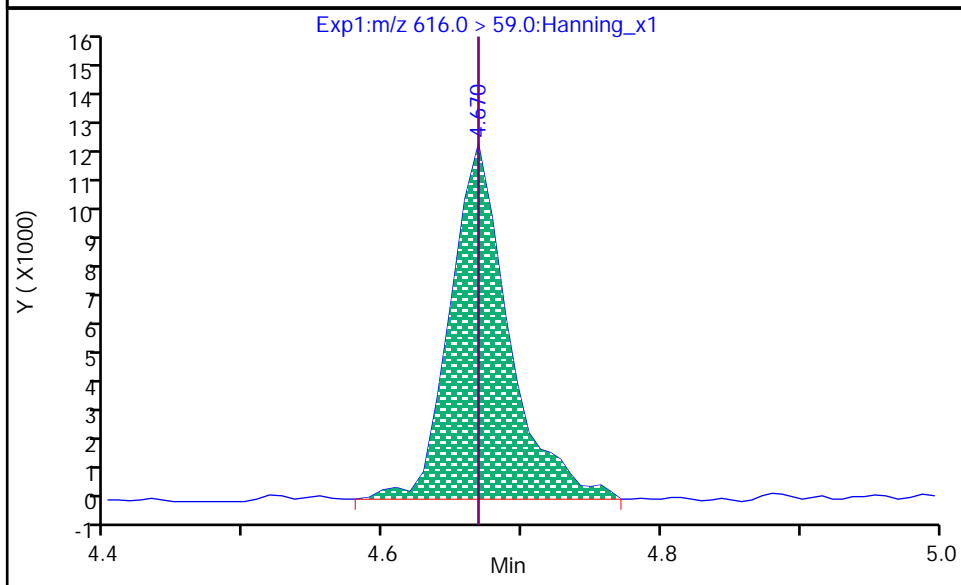
32 MeFOSE, CAS: 24448-09-7

Processing Integration Results

RT: 4.670
Area: 27374
Amount: 207.37
Amount Units: ng/L



RT: 4.670
Area: 33740
Amount: 240.39
Amount Units: ng/L



Data Editor: andy.marshall, 04-Oct-2022 11:47:09

Audit Action: Mint

Audit Reason: M-03, Incorrect Auto Integration

Manual Integration Report

Data File: \\organics\LL\LCMSMS01.i\100422-nonDOD.b\100422005.d

Injection Date: 04-Oct-2022 11:11:14

Inst. ID: LCMSMS01.i

Client ID:

Lab ID: CCV 200_SVLC-2211

Sample Info: CCV 200_SVLC-2211

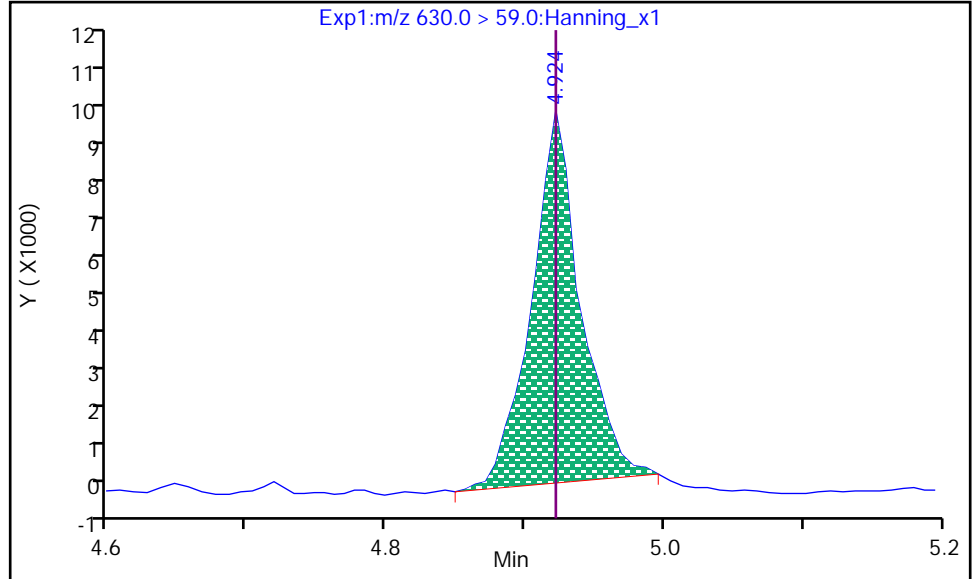
Dil. Factor: 1

Operator: eqi.svoa

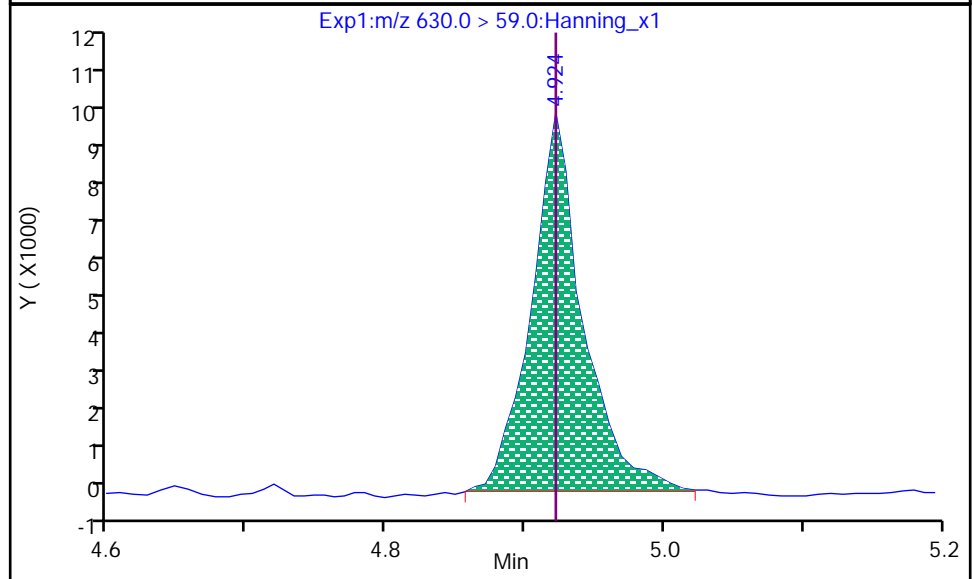
33 EtFOSE, CAS: 1691-99-2

RT: 4.924
Area: 22345
Amount: 206.15
Amount Units: ng/L

Processing Integration Results



RT: 4.924
Area: 23878
Amount: 220.30
Amount Units: ng/L



Data Editor: andy.marshall, 04-Oct-2022 11:47:35

Audit Action: Mint

Audit Reason: M-03, Incorrect Auto Integration

Manual Integration Report

Data File: \\organics\LL\LCMSMS01.i\100422-nonDOD.b\100422005.d

Injection Date: 04-Oct-2022 11:11:14

Inst. ID: LCMSMS01.i

Client ID:

Lab ID: CCV 200_SVLC-2211

Sample Info: CCV 200_SVLC-2211

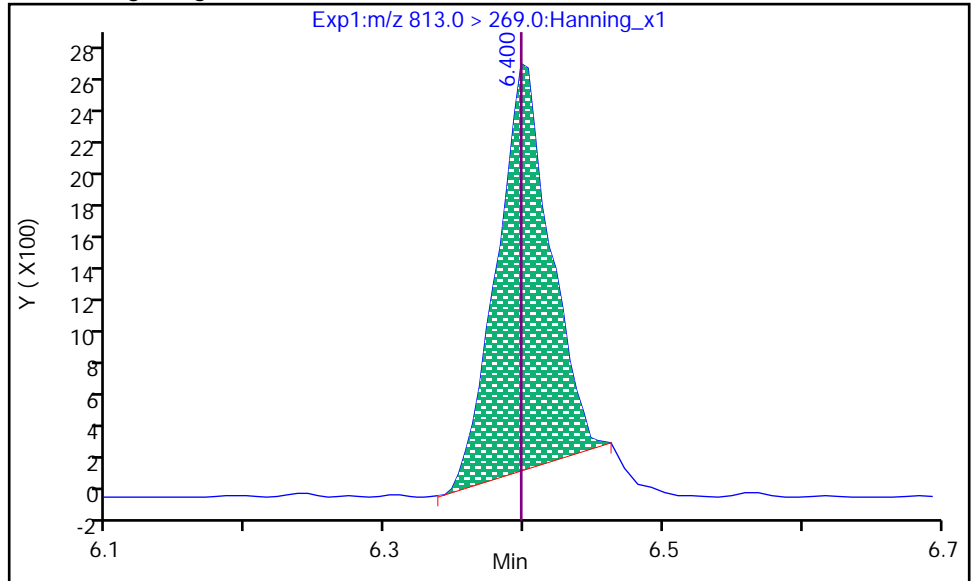
Dil. Factor: 1

Operator: eqi.svoa

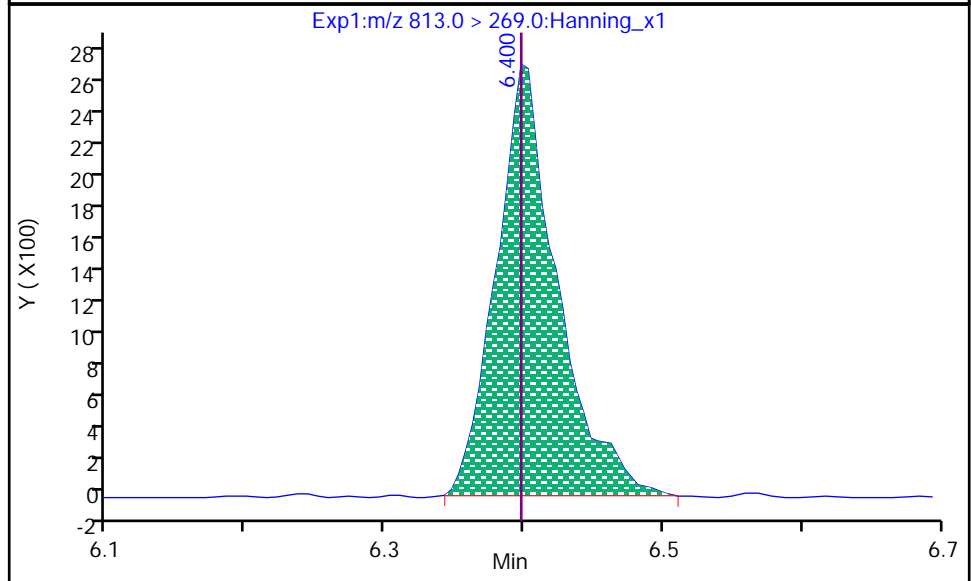
35 PFHxDA, CAS: 67905-19-5

Processing Integration Results

RT: 6.400
Area: 6576
Amount: 223.92
Amount Units: ng/L



RT: 6.400
Area: 7984
Amount: 223.92
Amount Units: ng/L



Data Editor: andy.marshall, 04-Oct-2022 11:48:03

Audit Action: Mint

Audit Reason: M-03, Incorrect Auto Integration

Manual Integration Report

Data File: \\organics\LL\LCMSMS01.i\100422-nonDOD.b\100422005.d

Injection Date: 04-Oct-2022 11:11:14

Inst. ID: LCMSMS01.i

Client ID:

Lab ID: CCV 200_SVLC-2211

Sample Info: CCV 200_SVLC-2211

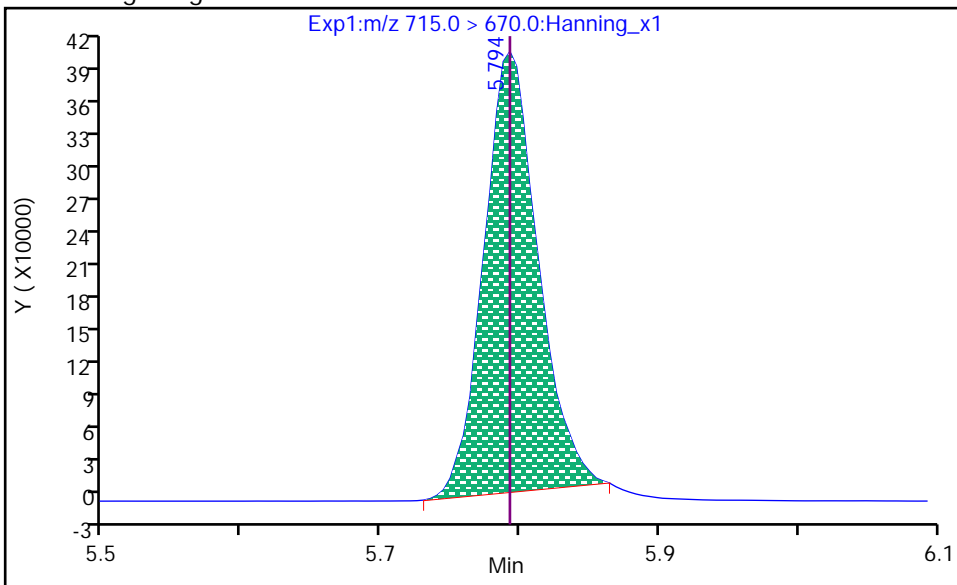
Dil. Factor: 1

Operator: eqi.svoa

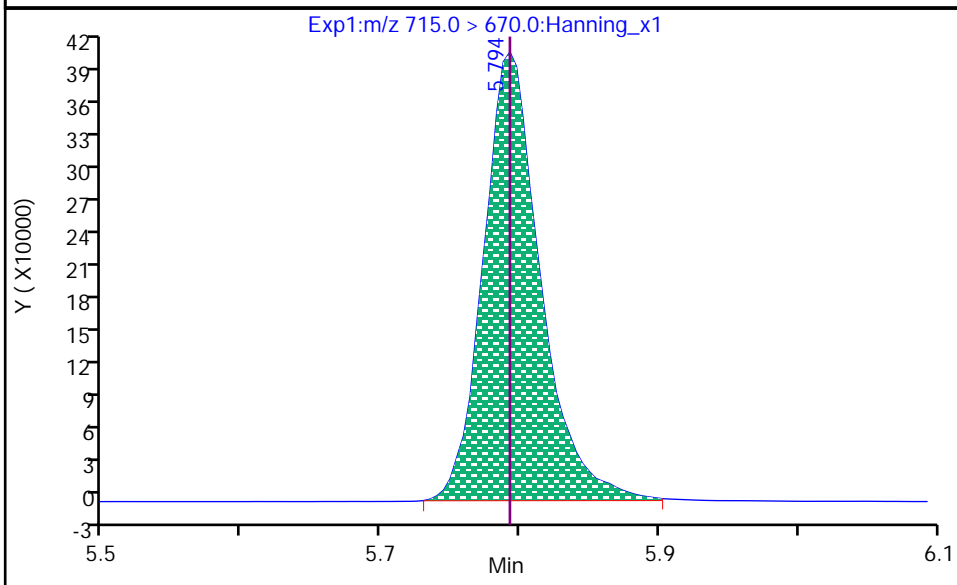
D 42 13C2_PFTeDA, CAS: SESI-0119

Processing Integration Results

RT: 5.794
Area: 1071783
Amount: 1876.72
Amount Units: ng/L



RT: 5.794
Area: 1146962
Amount: 2008.37
Amount Units: ng/L



Data Editor: andy.marshall, 04-Oct-2022 11:49:24

Audit Action: Mint

Audit Reason: M-03, Incorrect Auto Integration

Manual Integration Report

Data File: \\organics\LL\LCMSMS01.i\100422-nonDOD.b\100422005.d

Injection Date: 04-Oct-2022 11:11:14

Inst. ID: LCMSMS01.i

Client ID:

Lab ID: CCV 200_SVLC-2211

Sample Info: CCV 200_SVLC-2211

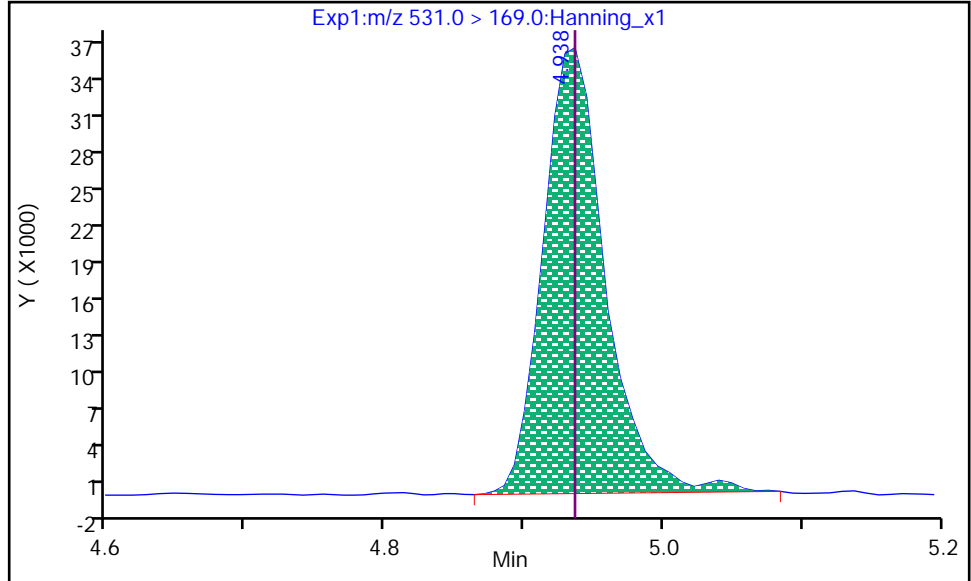
Dil. Factor: 1

Operator: eqi.svoa

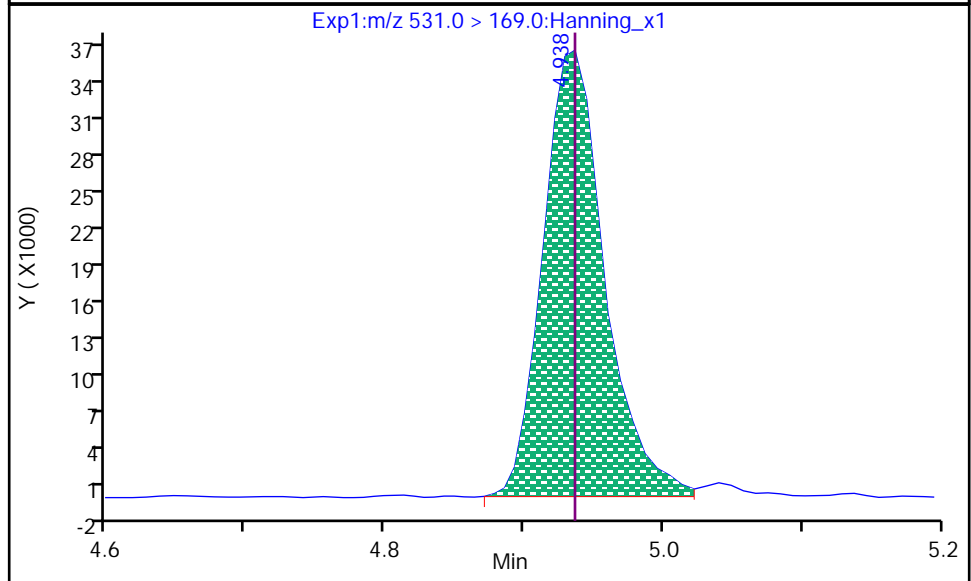
D 59 d5-EtFOSA, CAS: SESI-0108

RT: 4.938
Area: 112761
Amount: 2167.14
Amount Units: ng/L

Processing Integration Results



RT: 4.938
Area: 111662
Amount: 2146.02
Amount Units: ng/L



Data Editor: andy.marshall, 04-Oct-2022 11:49:07

Audit Action: Mint

Audit Reason: M-03, Incorrect Auto Integration

Manual Integration Report

Data File: \\organics\LL\LCMSMS01.i\100422-nonDOD.b\100422005.d

Injection Date: 04-Oct-2022 11:11:14

Inst. ID: LCMSMS01.i

Client ID:

Lab ID: CCV 200_SVLC-2211

Sample Info: CCV 200_SVLC-2211

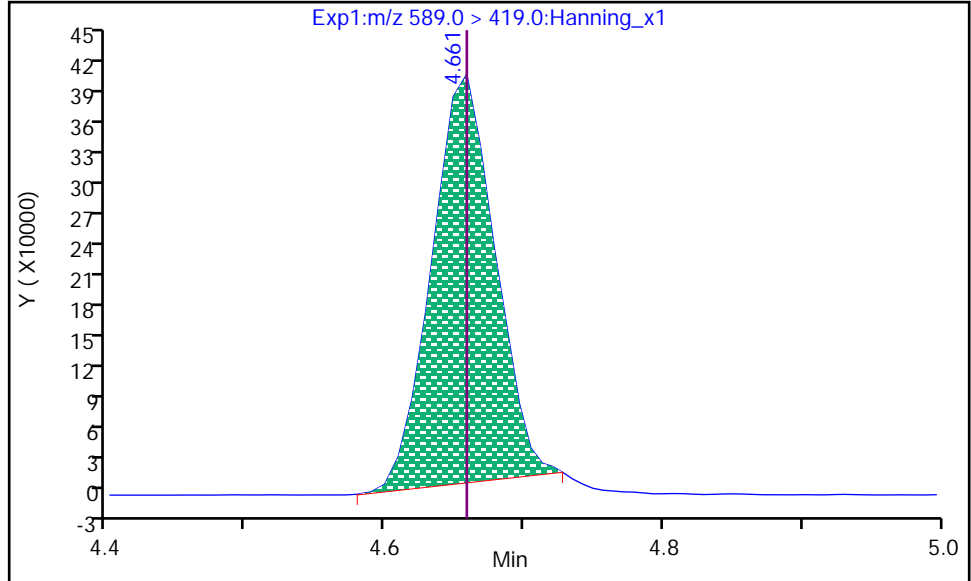
Dil. Factor: 1

Operator: eqi.svoa

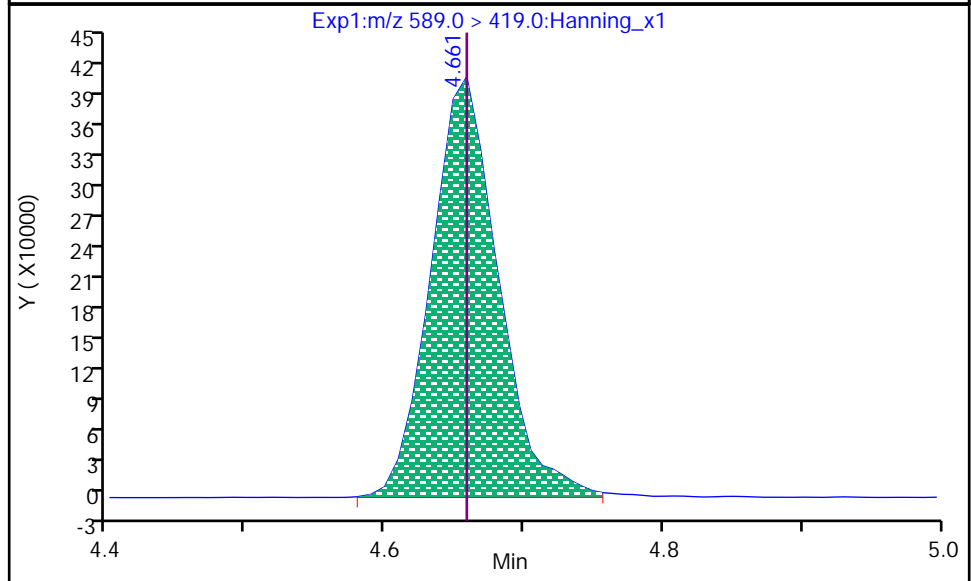
D 60 d5-EtFOSAA, CAS: SESI-0110

RT: 4.661
Area: 1236310
Amount: 9991.84
Amount Units: ng/L

Processing Integration Results



RT: 4.661
Area: 1351849
Amount: 10926
Amount Units: ng/L



Data Editor: andy.marshall, 04-Oct-2022 11:48:30

Audit Action: Mint

Audit Reason: M-03, Incorrect Auto Integration

Manual Integration Report

Data File: \\organics\LL\LCMSMS01.i\100422-nonDOD.b\100422005.d

Injection Date: 04-Oct-2022 11:11:14

Inst. ID: LCMSMS01.i

Client ID:

Lab ID: CCV 200_SVLC-2211

Sample Info: CCV 200_SVLC-2211

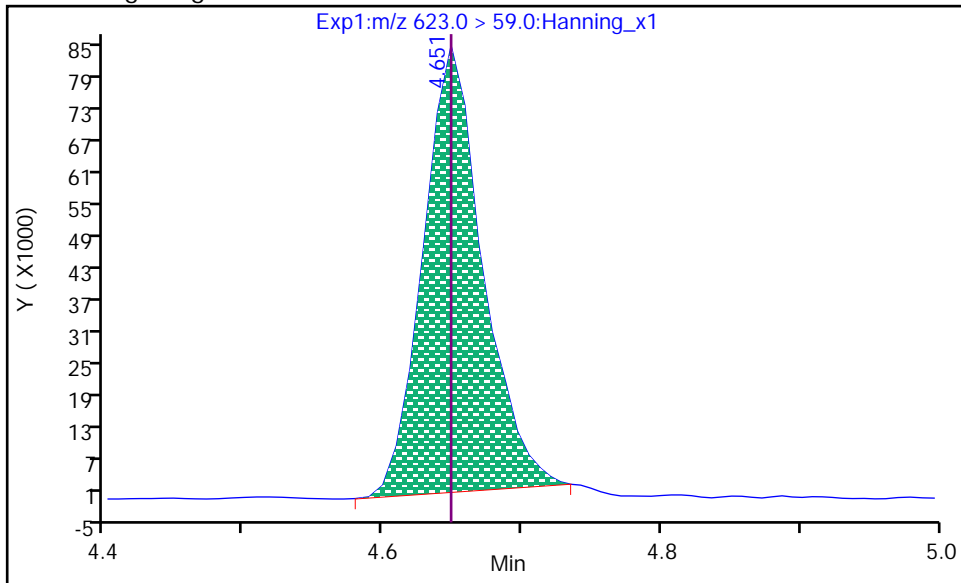
Dil. Factor: 1

Operator: eqi.svoa

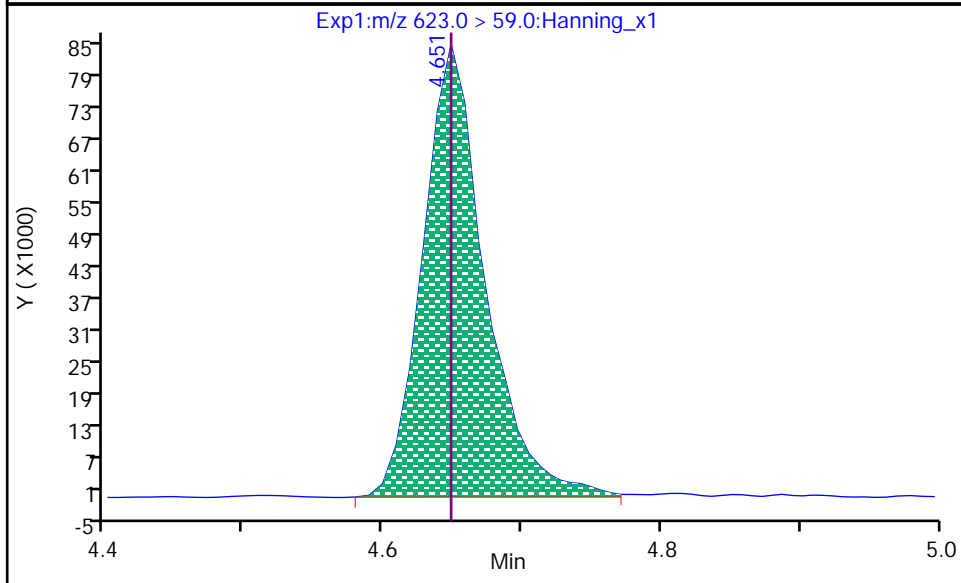
D 61 d7-MeFOSE, CAS: SESI-0129

RT: 4.651
Area: 246478
Amount: 1779.12
Amount Units: ng/L

Processing Integration Results



RT: 4.651
Area: 262067
Amount: 1891.64
Amount Units: ng/L



Data Editor: andy.marshall, 04-Oct-2022 11:48:54

Audit Action: Mint

Audit Reason: M-03, Incorrect Auto Integration

Pace Environmental Services, LLC
Continuing Calibration Verification Report

Data File: \\organics\LL\LCMSMS01.i\100422-nonDOD.b\100422048.d
Injection Date: 04-Oct-2022 18:47:02 Injection Vol: 10.0 uL
Sample Type: CCV Auto Sampler: 39
Sample Info: CCV 1000C_SVLC-2215 Misc. Info:
Inst. ID: LCMSMS01.i Operator: eqi.svoa
Method: LCMSMS01_PFAS-ID2 Version: V16 30-Jun-2022 10:54:24
Calib Method: PFAS-ID2 Lock State: Unlocked
Quant Method: IsoDil Integrator: picker

Reagent: Analytes Conc. Level: L-5 Vol. Added: 1.00 ml

Compound	Std Area	CCV Area	Exp. Conc ng/L	Conc ng/L	%Rec	%Rec Limits
D 46 13C4_PFBFA	2483701	2280144			91.8	50 - 150
8 PFBFA			1000.00	1028.09	102.8	70 - 130
D 50 13C5_PFPeA	1656545	1468633			88.7	50 - 150
21 PFPeA			1000.00	1068.61	106.9	70 - 130
7 PFBS			884.00	877.27	99.2	70 - 130
D 44 13C3_PFBS	686890	618303			90	50 - 150
D 63 13C2_4:2 FTS_2	515347	523730			101.6	50 - 150
1 4:2 FTS			934.00	926.22	99.2	70 - 130
D 49 13C5_PFHxA	1666188	1574251			94.5	50 - 150
15 PFHxA			1000.00	1105.43	110.5	70 - 130
22 PFPeS			938.00	901.82	96.1	70 - 130
D 66 13C3_GenX	1500035	1408932			93.9	50 - 150
28 GenX			2000.00	2430.64	121.5	70 - 130
D 47 13C4_PFHpA	1472295	1462117			99.3	50 - 150
13 PFHpA			1000.00	1115.51	111.6	70 - 130
D 45 13C3_PFHxS	439670	446013			101.4	50 - 150
14 PFHxS			910.00	884.41	97.2	70 - 130
29 ADONA			942.00	801.26	85.1	70 - 130
2 6:2 FTS			948.00	968.31	102.1	70 - 130
D 64 13C2_6:2 FTS_2	377928	389437			103	50 - 150
D 53 13C8_PFOA	1346804	1380310			102.5	50 - 150
20 PFOA			1000.00	1031.05	103.1	70 - 130
12 PFHpS			952.00	938.16	98.5	70 - 130
D 54 13C8_PFOS	495461	535918			108.2	50 - 150
D 56 13C9_PFNA	1574268	1417890			90.1	50 - 150
18 PFOS			928.00	889.01	95.8	70 - 130
17 PFNA			1000.00	1041.73	104.2	70 - 130
30 9CI-PF3ONS			932.00	879.79	94.4	70 - 130
D 55 13C8_PFOA	913150	839140			91.9	50 - 150
19 PFOSA			1000.00	1084.62	108.5	70 - 130
3 8:2 FTS			958.00	850.56	88.8	70 - 130
D 65 13C2_8:2 FTS_2	329349	387373			117.6	50 - 150
16 PFNS			960.00	835.92	87.1	70 - 130
10 PFDA			1000.00	1098.41	109.8	70 - 130
D 51 13C6_PFDA	1121547	1132612			101	50 - 150
D 58 d3-MeFOSAA	1466681	1574879			107.4	50 - 150

Compound	Std Area	CCV Area	Exp. Conc ng/L	Conc ng/L	%Rec	%Rec Limits
6 N-MeFOSAA			1000.00	1046.65	104.7	70 - 130
9 PFDS			964.00	854.41	88.6	70 - 130
D 60 d5-EtFOSAA	1351849	1481596			109.6	50 - 150
D 52 13C7_PFUdA	1046560	1130226			108	50 - 150
25 PFUdA			1000.00	906.26	90.6	70 - 130
5 N-EtFOSAA			1000.00	1100.22	110	70 - 130
D 61 d7-MeFOSE	262067	263854			100.7	50 - 150
32 MeFOSE			1000.00	932.43	93.2	70 - 130
D 57 d3-MeFOSA	93529	107663			115.1	50 - 150
26 MeFOSA			1000.00	1095.12	109.5	70 - 130
31 11Cl-PF3OUDS			942.00	910.94	96.7	70 - 130
D 62 d9-EtFOSE	236574	250464			105.9	50 - 150
33 EtFOSE			1000.00	1244.57	124.5	70 - 130
D 59 d5-EtFOSA	111662	112066			100.4	50 - 150
27 EtFOSA			1000.00	1098.53	109.9	70 - 130
4 10:2 FTS			964.00	1211.64	125.7	70 - 130
D 38 13C2_PFDoA	1032159	1099073			106.5	50 - 150
11 PFDoA			1000.00	965.87	96.6	70 - 130
34 PFDOS			968.00	981.28	101.4	70 - 130
24 PFTrDA			1000.00	979.46	97.9	70 - 130
23 PFTeDA			1000.00	955.34	95.5	70 - 130
D 42 13C2_PFTeDA	1146962	1192899			104	50 - 150
D 40 13C2_PFHxDA	539201	597028			110.7	50 - 150
35 PFHxDA			1000.00	1245.78	124.6	70 - 130
36 PFODA			1000.00	889.24	88.9	70 - 130

Pace Environmental Services, LLC
 Analyte Quantitation Report

Data File: \\organics\LL\LCMSMS01.i\100422-nonDOD.b\100422048.d
 Injection Date: 04-Oct-2022 18:47:02 Injection Vol: 10.0 uL
 Sample Type: CCV Auto Sampler: 39
 Sample Info: CCV 1000C_SVLC-2215 Misc. Info:
 Inst. ID: LCMSMS01.i Operator: eqi.svoa
 Method: LCMSMS01_PFAS-ID2 Version: V16 30-Jun-2022 10:54:24
 Calib Method: PFAS-ID2 Lock State: Unlocked
 Quant Method: IsoDil Integrator: picker

Reagent: Analytes Conc. Level: L-5 Vol. Added: 1.00 ml

Signal	Quant Std	RT (Min)	Exp RT (Min)	□ RT (Min)	Response	Peak Pts	S/N	Ion Ratio	Isomer Ratio	Cal Conc ng/L	OnCol Conc ng/L	%Drift/%Rec	Flags
D 46 13C4_PFBA CAS: SESI-0111													
217 > 172		1.662	1.674	0.000	2280144	20	>100:1			2000.00	2003.58	91.8	
8 Perfluoro-n-butanoic acid (PFBA) CAS: 375-22-4													
212.9 > 168.9	46	1.662	1.674	0.000	1191008	21	>100:1			1000.00	1028.09		
D 50 13C5_PFPeA CAS: SESI-0112													
267.9 > 223		1.979	1.990	0.000	1468633	17	>100:1			2000.00	1933.98	88.7	
21 Perfluoro-n-pentanoic acid (PFPeA) CAS: 2706-90-3													
262.9 > 218.9	50	1.979	1.990	0.000	883169	17	>100:1			1000.00	1068.61		
D 44 13C3_PFBs CAS: SESI-0116													
302 > 80		2.020	2.041	0.000	618303	16	>100:1			2000.00	2035.07	90	
7 Perfluoro-1-butanefulfonate (PFBs) CAS: 375-73-5													
298.9 > 80	44	2.020	2.041	0.000	324092	15	>100:1	Target = 3.98		884.00	877.27		
298.9 > 99	44	2.020	2.041		89671	16	>100:1	3.61 (1.99-5.97)					
22 Perfluoro-1-pentanesulfonic acid (PFPeS) CAS: 2706-91-4													
349 > 80	44	2.346	2.365	0.000	281157	18	>100:1	Target = 3.63		938.00	901.82		
349 > 99	44	2.346	2.365		90493	19	>100:1	3.10 (1.81-5.44)					
D 63 13C2_4:2 FTS_2 CAS: SESI-0104													
329 > 81		2.273	2.301	0.000	523730	18	>100:1			10000	11751	101.6	
1 Fluorotelomer sulfonate 4:2 [1H,1H,2H,2H-perfluorohexane sulfonate] (4:2 FTS) CAS: 757124-72-4													
327 > 307	63	2.282	2.301	0.000	87568	19	>100:1	Target = 1.34		934.00	926.22		
327 > 81	63	2.291	2.301		56830	19	>100:1	1.54 (0.67-2.01)					
D 49 13C5_PFHxA CAS: SESI-0113													
318 > 273		2.319	2.337	0.000	1574251	19	>100:1			2000.00	1877.33	94.5	
15 Perfluoro-n-hexanoic acid (PFHxA) CAS: 307-24-4													
313 > 269	49	2.319	2.337	0.000	826981	19	>100:1	Target = 17.13		1000.00	1105.43		
313 > 119	49	2.319	2.337		47396	16	>100:1	17.44 (8.56-25.70)					
D 66 13C3_GenX CAS: SESI-0121													
287 > 185		2.429	2.456	0.000	1408932	17	>100:1			10000	9623.22	93.9	
28 Hexafluoropropylene oxide dimer acid (GenX) CAS: 13252-13-6													
285 > 119	66	2.438	2.456	0.000	221507	18	>100:1	Target = 0.62		2000.00	2430.64		
285 > 185	66	2.438	2.456		336737	18	>100:1	0.65 (0.31-0.94)					
D 47 13C4_PFHpA CAS: SESI-0114													
367 > 322		2.723	2.744	0.000	1462117	20	>100:1			2000.00	2009.26	99.3	
13 Perfluoro-n-heptanoic acid (PFHpA) CAS: 375-85-9													
363 > 319	47	2.723	2.744	0.000	791202	19	>100:1	Target = 3.31		1000.00	1115.51		
363 > 169	47	2.713	2.744		203810	18	>100:1	3.88 (1.65-4.97)					
D 45 13C3_PFHxS CAS: SESI-0096													
402 > 80		2.733	2.754	0.000	446013	20	>100:1			2000.00	2214.59	101.4	
14 Perfluorohexanesulfonate (PFHxS) CAS: 355-46-4													
399 > 80	45	2.733	2.754	0.000	229896	33	>100:1	Target = 3.67	5.34	910.00	884.41		M
399 > 99	45	2.733	2.754		58517	35	>100:1	3.92 (1.83-5.51)	8.16				

Signal	Quant Std	RT (Min)	Exp RT (Min)	□ RT (Min)	Response	Peak Pts	S/N	Ion Ratio	Isomer Ratio	Cal Conc ng/L	OnCol Conc ng/L	%Drift/%Rec	Flags
29 4,8-dioxa-3H-perfluorononanoic acid (ADONA) CAS: 919005-14-4													
377 > 251	45	2.764	2.784	0.000	1051211	18	>100:1	Target = 2.35		942.00	801.26		
377 > 85	45	2.764	2.784		468334	21	>100:1	2.24 (1.17-3.53)					
12 Perfluoro-1-heptanesulfonic acid (PFHpS) CAS: 375-92-8													
449 > 80	45	3.197	3.212	0.000	254151	26	>100:1	Target = 3.65		952.00	938.16		
449 > 99	45	3.191	3.212		63298	20	>100:1	4.01 (1.82-5.48)					M
D 64 13C2_6:2 FTS_2 CAS: SESI-0105													
429 > 81		3.144	3.168	0.000	389437	35	>100:1			10000	12724	103	
2 Fluorotelomer sulfonate 6:2 [1H,1H,2H,2H-perfluorooctane sulfonate] (6:2 FTS) CAS: 27619-97-2													
427 > 407	64	3.156	3.168	0.000	67471	31	>100:1	Target = 1.43		948.00	968.31		M
427 > 81	64	3.156	3.168		48107	30	>100:1	1.40 (0.71-2.15)					
D 53 13C8_PFOA CAS: SESI-0097													
421 > 376		3.179	3.198	0.000	1380310	26	>100:1			2000.00	2007.71	102.5	
20 Perfluoro-n-octanoic acid (PFOA) CAS: 335-67-1													
413 > 369	53	3.179	3.198	0.000	699721	26	>100:1	Target = 2.73		1000.00	1031.05		M
413 > 169	53	3.185	3.198		250062	31	>100:1	2.79 (1.36-4.10)					M
D 56 13C9_PFNA CAS: SESI-0099													
472 > 427		3.683	3.704	0.000	1417890	31	>100:1			2000.00	2011.80	90.1	
17 Perfluoro-n-nonanoic acid (PFNA) CAS: 375-95-1													
463 > 419	56	3.677	3.704	0.000	672211	31	>100:1	Target = 5.23		1000.00	1041.73		M
463 > 169	56	3.677	3.704		124087	27	>100:1	5.41 (2.61-7.85)					
D 54 13C8_PFOS CAS: SESI-0098													
507 > 80		3.671	3.697	0.000	535918	26	>100:1			2000.00	2109.91	108.2	
18 Perfluorooctanesulfonate (PFOS) CAS: 1763-23-1													
499 > 80	54	3.677	3.711	0.000	281401	88	>100:1	Target = 4.39	3.69	928.00	889.01		M
499 > 99	54	3.677	3.711		64535	84	>100:1	4.36 (2.19-6.59)	6.16				M
30 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS) CAS: 756426-58-1													
531 > 351	54	3.973	3.993	0.000	495359	26	>100:1			932.00	879.79		
16 Perfluoro-1-nonanesulfonic acid (PFNS) CAS: 68259-12-1													
549 > 80	54	4.160	4.183	0.000	215188	24	>100:1	Target = 4.20		960.00	835.92		
549 > 99	54	4.152	4.183		60622	23	>100:1	3.54 (2.10-6.31)					
9 Perfluoro-1-decanesulfonic acid (PFDS) CAS: 335-77-3													
599 > 80	54	4.602	4.641	0.000	215606	20	>100:1	Target = 3.97		964.00	854.41		
599 > 99	54	4.602	4.641		59366	20	>100:1	3.63 (1.98-5.96)					
31 11-chloroeicosafuoro-3-oxaundecane-1-sulfonic acid (11CI-PF3OUdS) CAS: 763051-92-9													
631 > 451	54	4.852	4.888	0.000	476884	23	>100:1			942.00	910.94		
34 Perfluorododecanesulfonic acid (PFDOS) CAS: 79780-39-5													
699 > 80	54	5.386	5.425	0.000	232424	24	>100:1	Target = 3.61		968.00	981.28		
699 > 99	54	5.386	5.425		60301	23	>100:1	3.85 (1.80-5.41)					
D 55 13C8_PFOA CAS: SESI-0107													
506 > 78		4.049	4.042	0.000	839140	26	>100:1			2000.00	1948.77	91.9	
19 Perfluoro-1-octanesulfonamide (PFOSA) CAS: 754-91-6													
498 > 78	55	4.049	4.042	0.000	494353	25	>100:1	Target = 49.36		1000.00	1084.62		
498>478	55	4.049	4.042		8866	27	95:1	55.75 (24.68-74.04)					
D 65 13C2_8:2 FTS_2 CAS: SESI-0106													
529 > 81		4.152	4.183	0.000	387373	32	>100:1			10000	11840	117.6	M
3 Fluorotelomer sulfonate 8:2 [1H,1H,2H,2H-perfluorododecane sulfonate] (8:2 FTS) CAS: 39108-34-4													
527 > 507	65	4.167	4.183	0.000	43187	29	>100:1	Target = 1.14		958.00	850.56		M
527 > 81	65	4.160	4.183		39600	33	>100:1	1.09 (0.57-1.71)					
4 1H,1H,2H,2H-perfluorododecane sulfonate (10:2FTS) CAS: 120226-60-0													
627 > 607	65	5.059	5.094	0.000	65469	22	>100:1	Target = 2.20		964.00	1211.64		
627 > 80	65	5.050	5.094		26605	23	>100:1	2.46 (1.10-3.30)					
D 51 13C6_PFDA CAS: SESI-0115													
519 > 474		4.167	4.200	0.000	1132612	24	>100:1			2000.00	2017.46	101	
10 Perfluoro-n-decanoic acid (PFDA) CAS: 335-76-2													
513 > 469	51	4.175	4.200	0.000	589522	24	>100:1	Target = 9.82		1000.00	1098.41		
513 > 169	51	4.175	4.200		55005	26	>100:1	10.71 (4.91-14.73)					
D 58 d3-MeFOSAA CAS: SESI-0102													
573 > 419		4.398	4.421	0.000	1574879	24	>100:1			10000	10965	107.4	

Signal	Quant Std	RT (Min)	Exp RT (Min)	□ RT (Min)	Response	Peak Pts	S/N	Ion Ratio	Isomer Ratio	Cal Conc ng/L	OnCol Conc ng/L	%Drift/%Rec	Flags
6 N-methylperfluoro-1-octanesulfonamidoacetic acid (N-MeFOSAA) CAS: 2355-31-9													
570 > 419	58	4.390	4.429	0.000	136480	56	>100:1	Target = 1.41	6.07	1000.00	1046.65		M
570 > 483	58	4.398	4.429		94804	55	>100:1	1.43 (0.70-2.12)	4.27				M
D 60 d5-EtFOSAA CAS: SESI-0110													
589 > 419		4.632	4.661	0.000	1481596	23	>100:1			10000	11974	109.6	
5 N-ethylperfluoro-1-octanesulfonamidoacetic acid (N-EtFOSAA) CAS: 2991-50-6													
584 > 419	60	4.632	4.661	0.000	160353	49	>100:1	Target = 1.77	6.98	1000.00	1100.22		M
584 > 526	60	4.642	4.661		82752	50	>100:1	1.93 (0.88-2.66)	3.94				M
D 52 13C7_PFUdA CAS: SESI-0117													
570 > 525		4.632	4.661	0.000	1130226	20	>100:1			2000.00	2297.49	108	
25 Perfluoro-n-undecanoic acid (PFUdA) CAS: 2058-94-8													
563 > 519	52	4.632	4.661	0.000	470543	21	>100:1	Target = 9.80		1000.00	906.26		
563 > 169	52	4.632	4.661		46103	19	>100:1	10.20 (4.90-14.71)					
D 61 d7-MeFOSE CAS: SESI-0129													
623 > 59		4.661	4.651	0.000	263854	23	>100:1			2000.00	1904.54	100.7	M
32 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE) CAS: 24448-09-7													
616 > 59	61	4.681	4.670	0.000	131765	20	>100:1			1000.00	932.43		
D 57 d3-MeFOSA CAS: SESI-0109													
515 > 169		4.691	4.680	0.000	107663	23	>100:1			2000.00	1882.45	115.1	M
26 N-methylperfluoro-1-octanesulfonamide (MeFOSA) CAS: 31506-32-8													
512 > 169	57	4.691	4.690	0.000	64733	22	>100:1	Target = 1.09		1000.00	1095.12		
512 > 219	57	4.691	4.690		63821	20	>100:1	1.01 (0.54-1.64)					
D 62 d9-EtFOSE CAS: SESI-0130													
639 > 59		4.910	4.902	0.000	250464	23	>100:1			2000.00	1899.26	105.9	
33 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE) CAS: 1691-99-2													
630 > 59	62	4.931	4.924	0.000	142820	25	>100:1			1000.00	1244.57		
D 59 d5-EtFOSA CAS: SESI-0108													
531 > 169		4.947	4.938	0.000	112066	22	>100:1			2000.00	2153.79	100.4	M
27 N-ethylperfluoro-1-octanesulfonamide (EtFOSA) CAS: 4151-50-2													
526 > 169	59	4.955	4.946	0.000	69909	20	>100:1	Target = 0.99		1000.00	1098.53		
526 > 219	59	4.955	4.946		66079	21	>100:1	1.05 (0.49-1.48)					
D 38 13C2_PFDaA CAS: SESI-0118													
615 > 570		5.042	5.085	0.000	1099073	22	>100:1			2000.00	2161.75	106.5	
11 Perfluoro-n-dodecanoic acid (PFDaA) CAS: 307-55-1													
613 > 569	38	5.050	5.085	0.000	516183	20	>100:1	Target = 7.48		1000.00	965.87		
613 > 169	38	5.050	5.085		73613	29	>100:1	7.01 (3.74-11.23)					
24 Perfluoro-n-tridecanoic acid (PFTTrDA) CAS: 72629-94-8													
663 > 619	38	5.417	5.456	0.000	295935	24	>100:1	Target = 3.88		1000.00	979.46		
663 > 169	38	5.425	5.456		77460	22	>100:1	3.82 (1.94-5.82)					
D 42 13C2_PFTeDA CAS: SESI-0119													
715 > 670		5.752	5.794	0.000	1192899	40	>100:1			2000.00	2088.80	104	
23 Perfluoro-n-tetradecanoic acid (PFTeDA) CAS: 376-06-7													
713 > 669	42	5.757	5.794	0.000	529981	40	>100:1	Target = 8.56		1000.00	955.34		
713 > 169	42	5.762	5.794		63762	42	>100:1	8.31 (4.28-12.84)					
D 40 13C2_PFHxDA CAS: SESI-0103													
815 > 770		6.351	6.395	0.000	597028	35	>100:1			2000.00	2061.22	110.7	
35 Perfluoro-n-hexadecanoic acid (PFHxDA) CAS: 67905-19-5													
813 > 769	40	6.346	6.400	0.000	472154	38	>100:1	Target = 9.44		1000.00	1245.78		M
813 > 269	40	6.356	6.400		46373	34	>100:1	10.18 (4.72-14.16)					
36 Perfluoro-n-octadecanoic acid (PFODA) CAS: 16517-11-6													
913 > 869	40	6.886	6.957	0.000	285156	34	>100:1	Target = 11.20		1000.00	889.24		
913 > 319	40	6.886	6.957		26356	32	>100:1	10.81 (5.60-16.81)					M
* 37 13C2_PFDA													
515 > 470		4.183	4.183	0.000	507	12	9.2:1			2000.00			
* 39 13C2_PFHxA CAS: SESI-0120													
315 > 270		2.310	2.337	0.000	1192	19	22:1			2000.00			
* 41 13C2_PFOA CAS: 864071-08-9													
415 > 370			3.212		ND								U

Signal	Quant Std	RT (Min)	Exp RT (Min)	□ RT (Min)	Response	Peak Pts	S/N	Ion Ratio	Isomer Ratio	Cal Conc ng/L	OnCol Conc ng/L	%Drift/%Rec	Flags
* 43 13C3_PFBA													
216 > 172		1.662	1.674	0.000	12154	19	>100:1			2000.00			
* 48 13C4_PFOS CAS: 2795-39-3													
503 > 80		3.677	3.677	0.000	4755	20	50:1			2000.00			

Compound Type Legend

D - Isotopic Dilution Std.
 * - ISTD

QC Flag Legend

U - Result Less Than Method Detection Limit
 M - Compound Hit/Peak Manually Integrated

Data File: \\organics\LL\LCMSMS01.i\100422-nonDOD.b\100422048.d

Injection Date: 04-Oct-2022 18:47:02

Inst. ID: LCMSMS01.i

Client ID:

Lab ID:

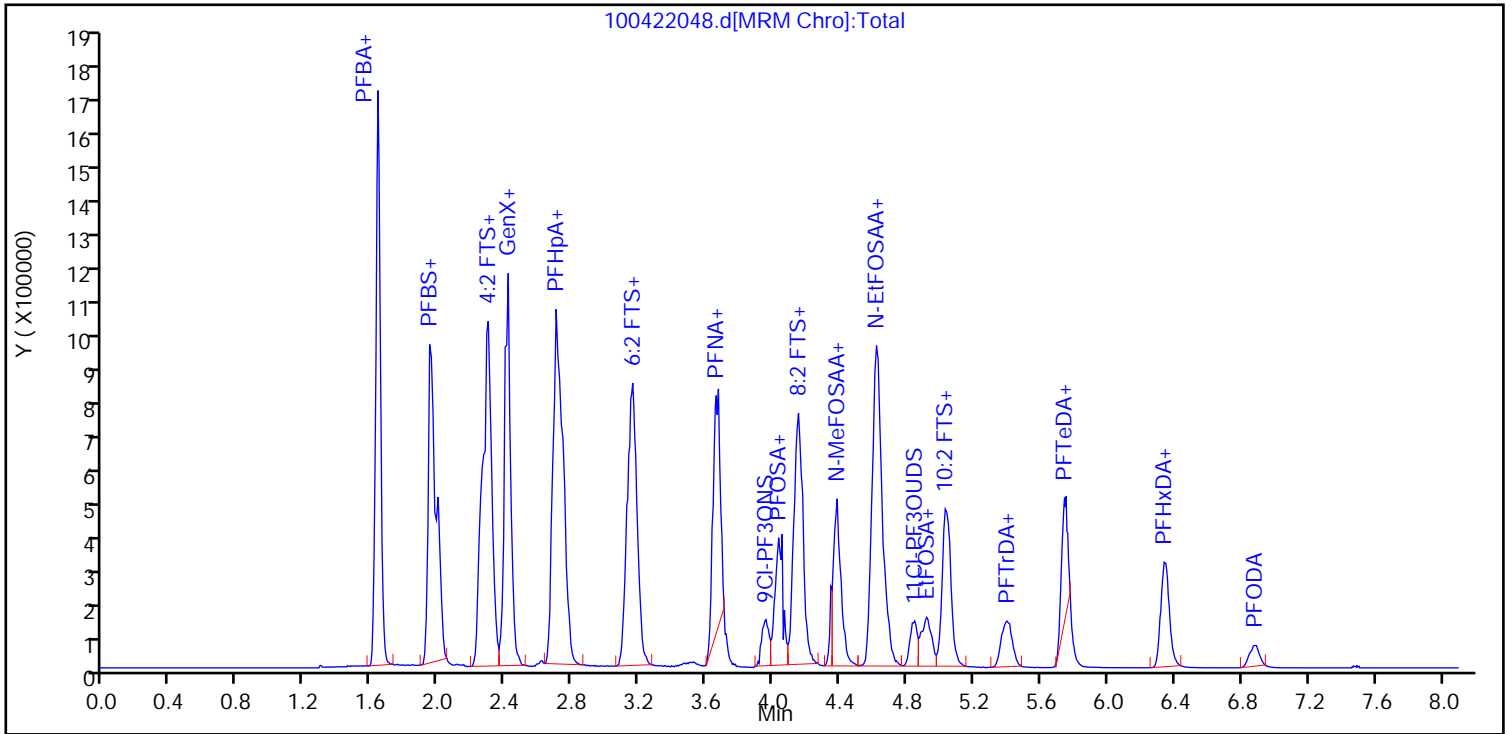
CCV 1000C_SVLC-2215

Sample Info: CCV 1000C_SVLC-2215

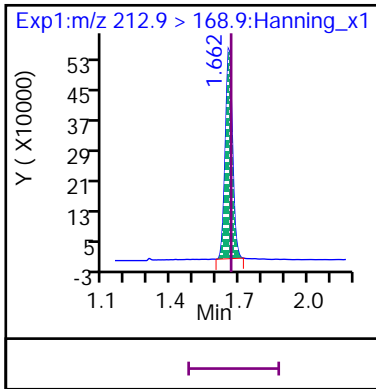
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Operator:

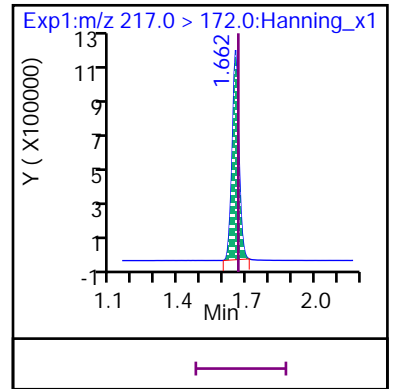
eqi.svoa



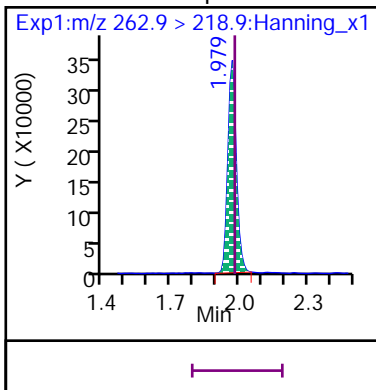
8 Perfluoro-n-butanoic acid (PFBA)



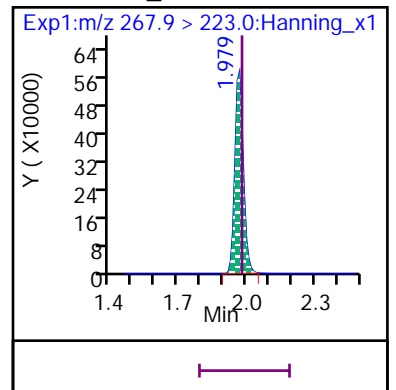
D 46 13C4_PFBA



21 Perfluoro-n-pentanoic acid (PFPeA)

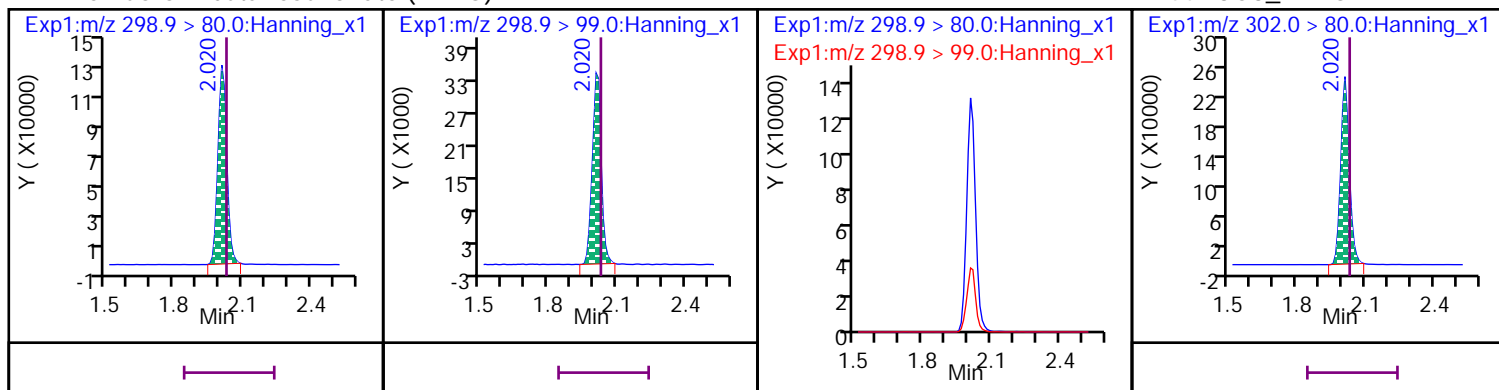


D 50 13C5_PFPeA



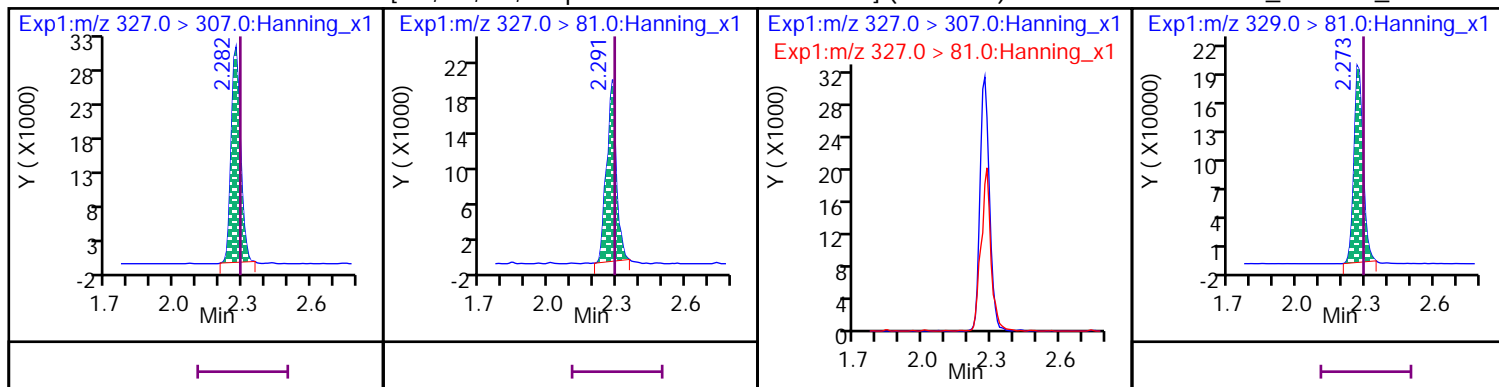
7 Perfluoro-1-butanesulfonate (PFBS)

D 44 13C3_PFBS



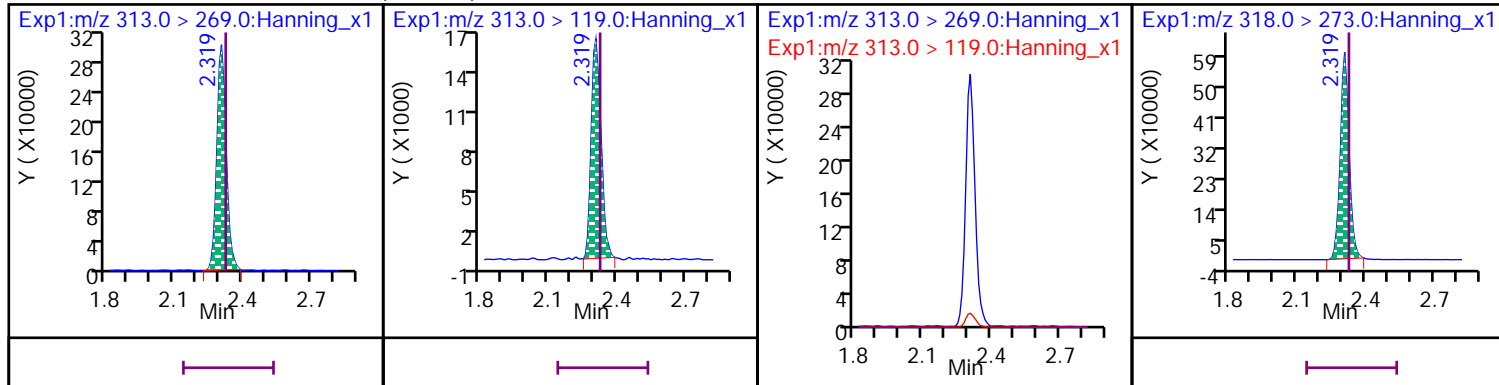
1 Fluorotelomer sulfonate 4:2 [1H,1H,2H,2H-perfluorohexane sulfonate] (4:2 FTS)

D 63 13C2_4:2 FTS_2



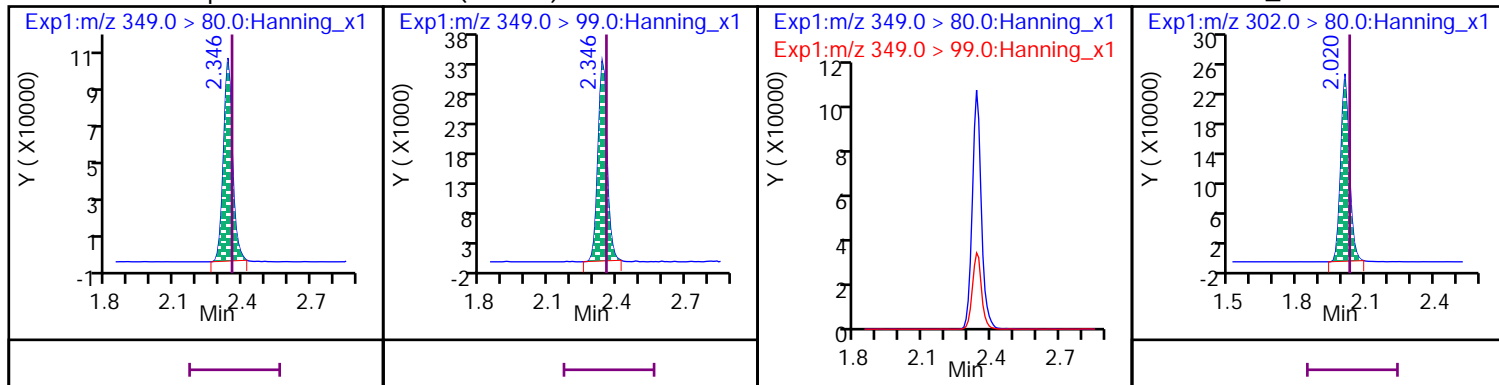
15 Perfluoro-n-hexanoic acid (PFHxA)

D 49 13C5_PFHxA



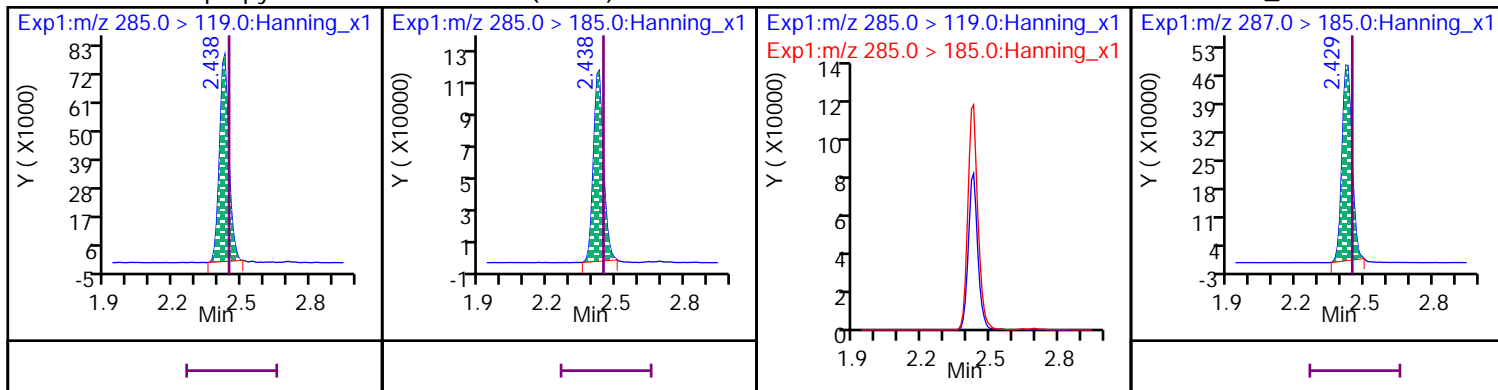
22 Perfluoro-1-pentanesulfonic acid (PFPeS)

D 44 13C3_PFBS



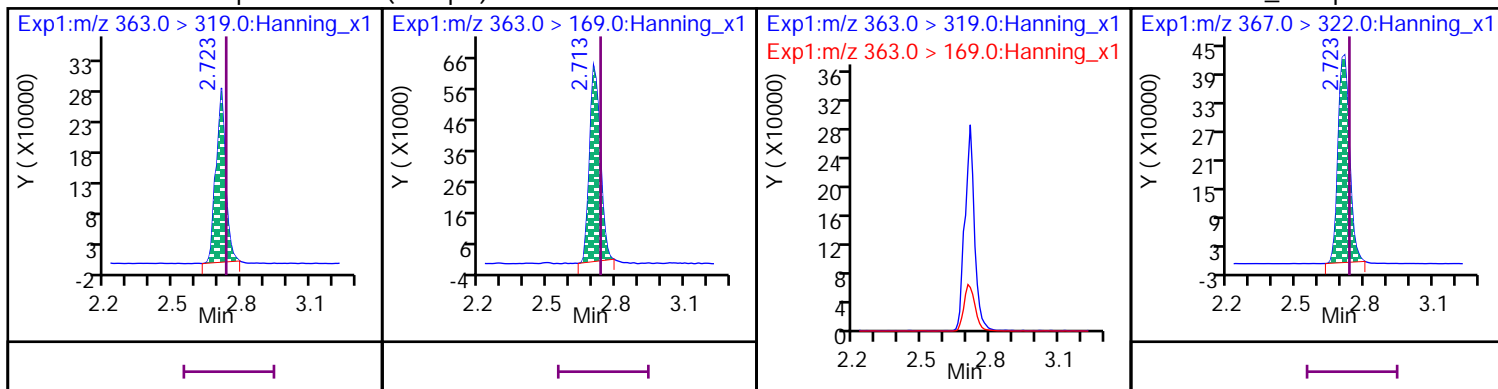
28 Hexafluoropropylene oxide dimer acid (GenX)

D 66 13C3_GenX



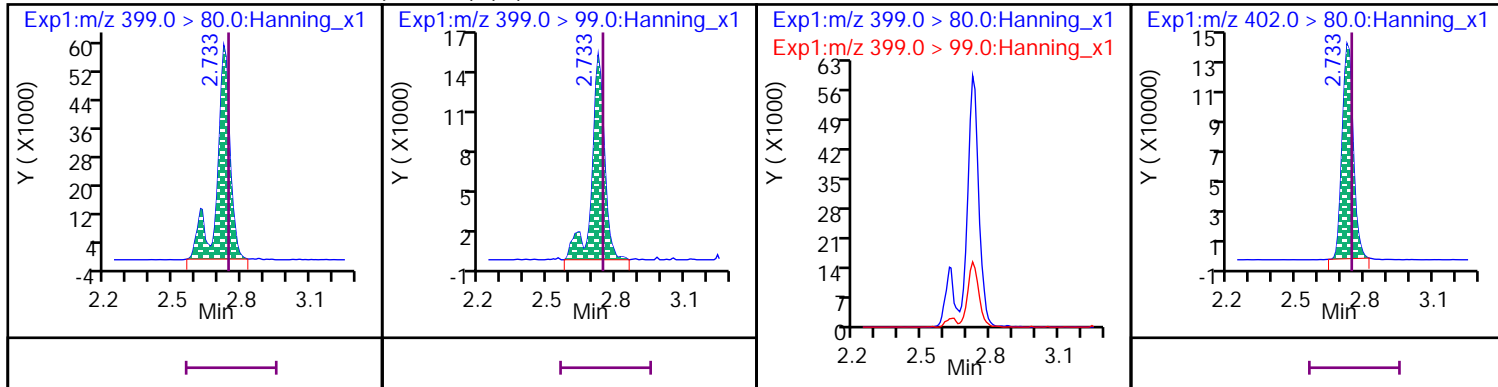
13 Perfluoro-n-heptanoic acid (PFHpA)

D 47 13C4_PFHpA



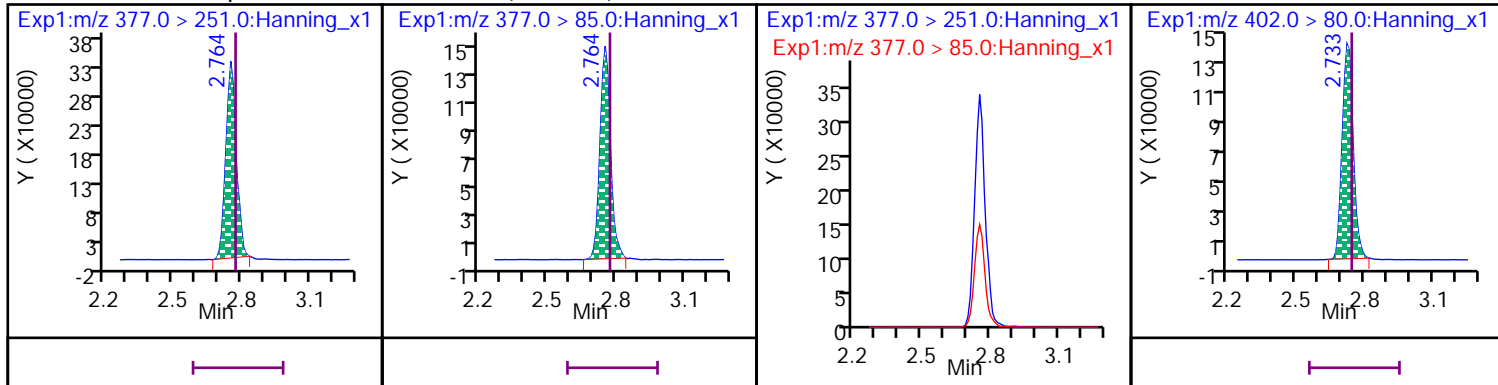
14 Perfluorohexanesulfonate (PFHxS) (M)

D 45 13C3_PFHxS



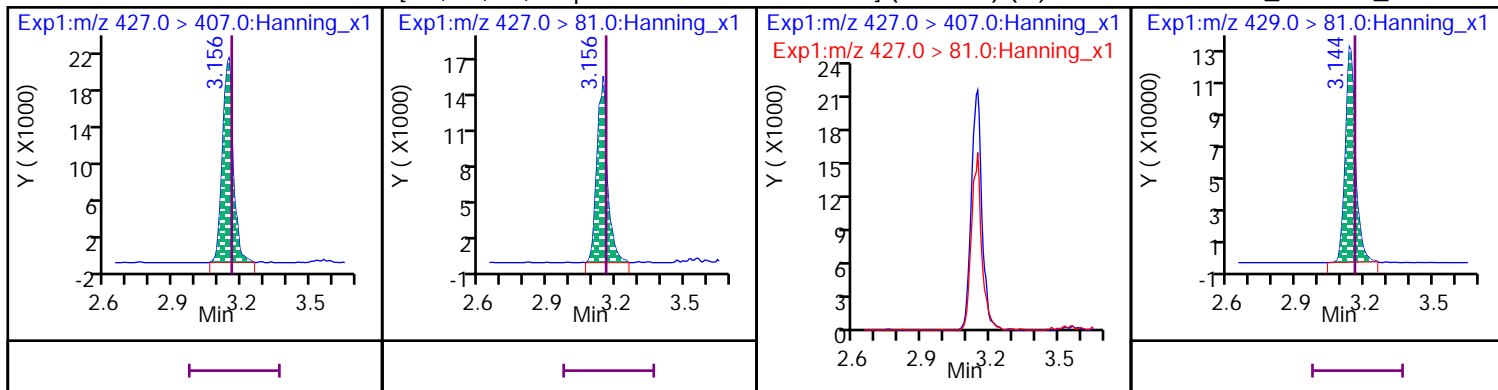
29 4,8-dioxa-3H-perfluorononanoic acid (ADONA)

D 45 13C3_PFHxS



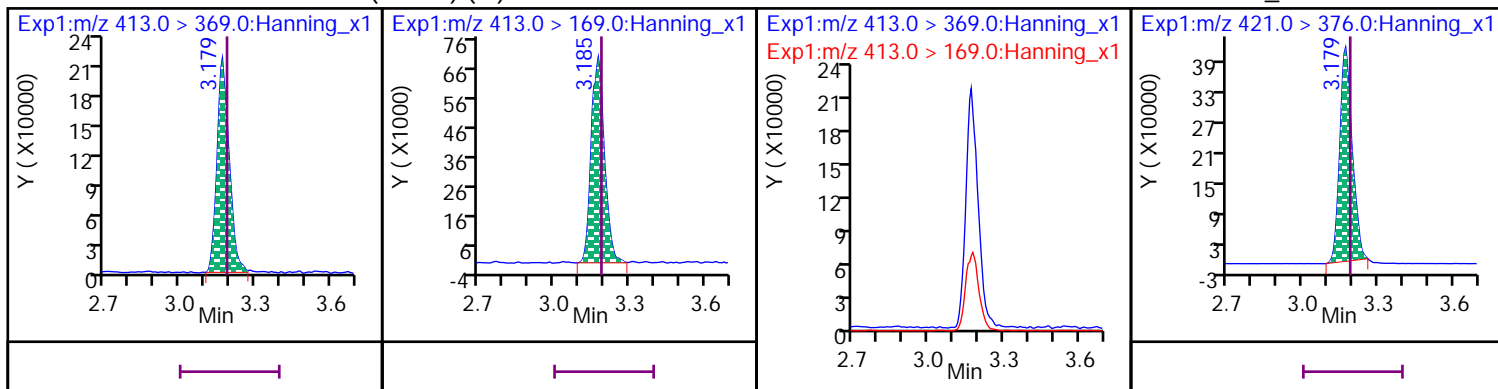
2 Fluorotelomer sulfonate 6:2 [1H,1H,2H,2H-perfluorooctane sulfonate] (6:2 FTS) (M)

D 64 13C2_6:2 FTS_2



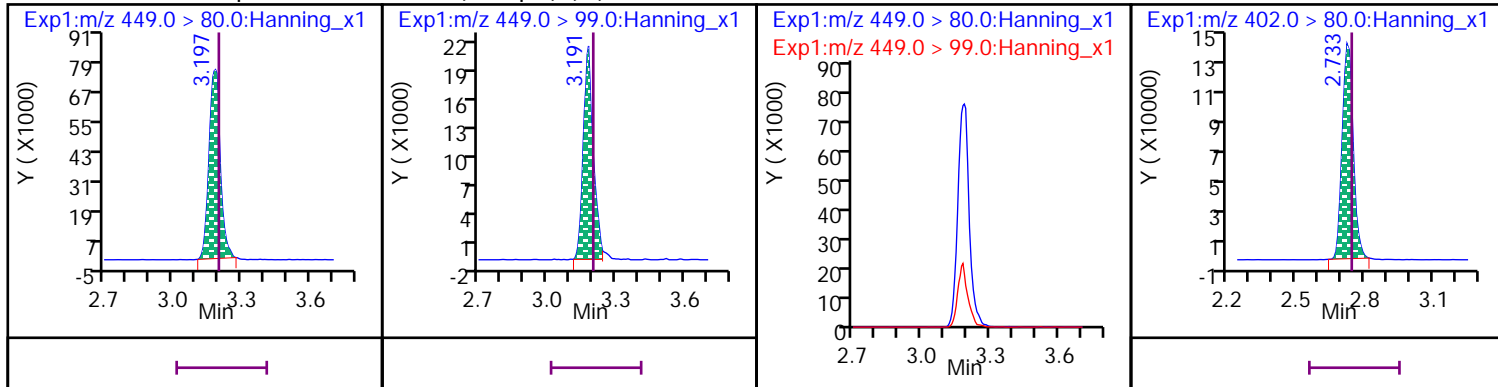
20 Perfluoro-n-octanoic acid (PFOA) (M)

D 53 13C8_PFOA



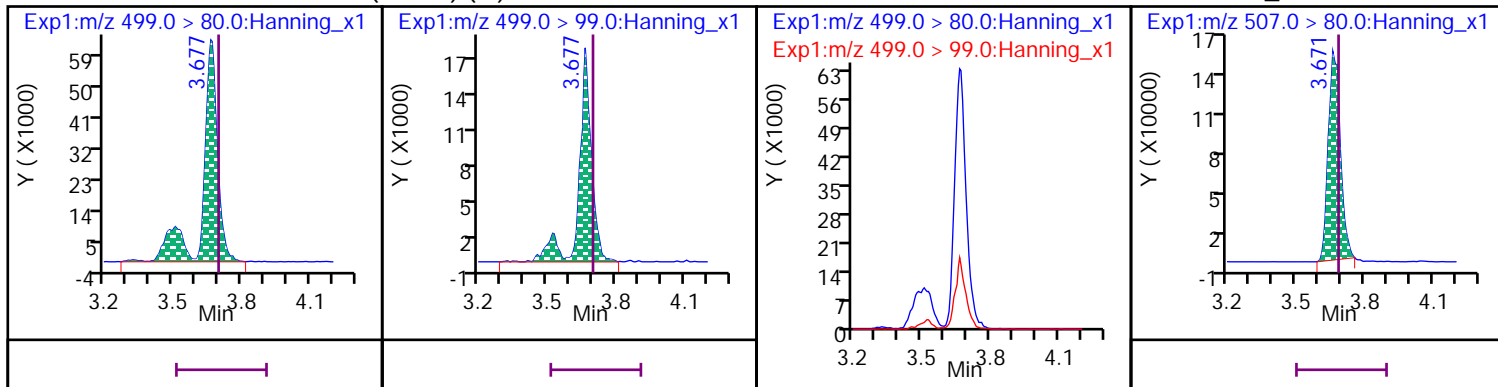
12 Perfluoro-1-heptanesulfonic acid (PFHpS) (M)

D 45 13C3_PFHxS



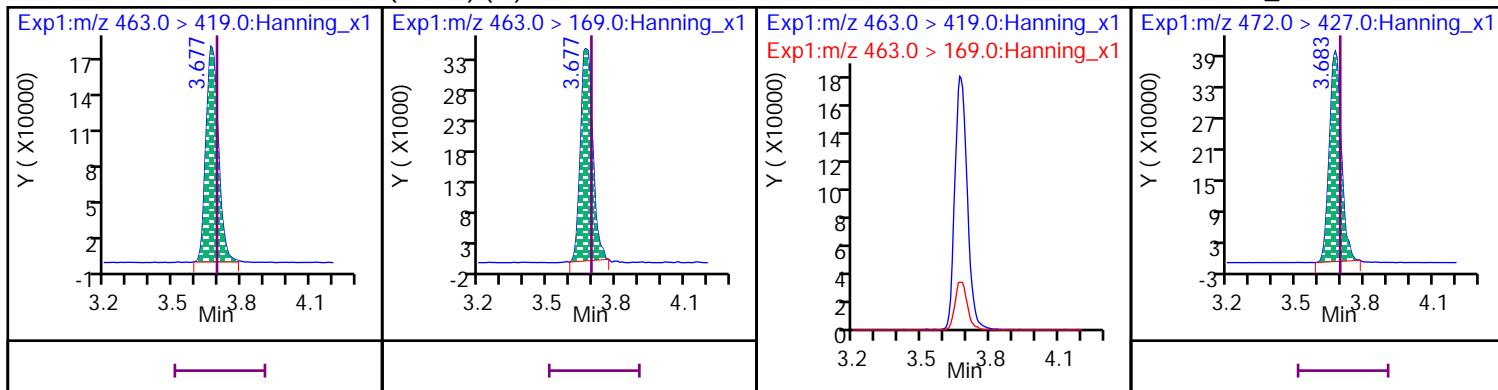
18 Perfluorooctanesulfonate (PFOS) (M)

D 54 13C8_PFOS



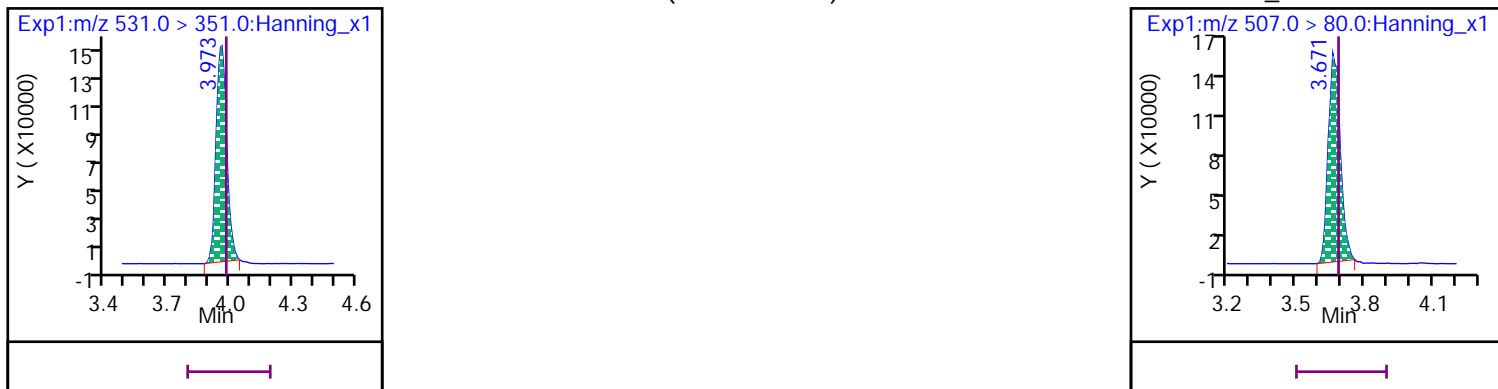
17 Perfluoro-n-nonanoic acid (PFNA) (M)

D 56 13C9_PFNA



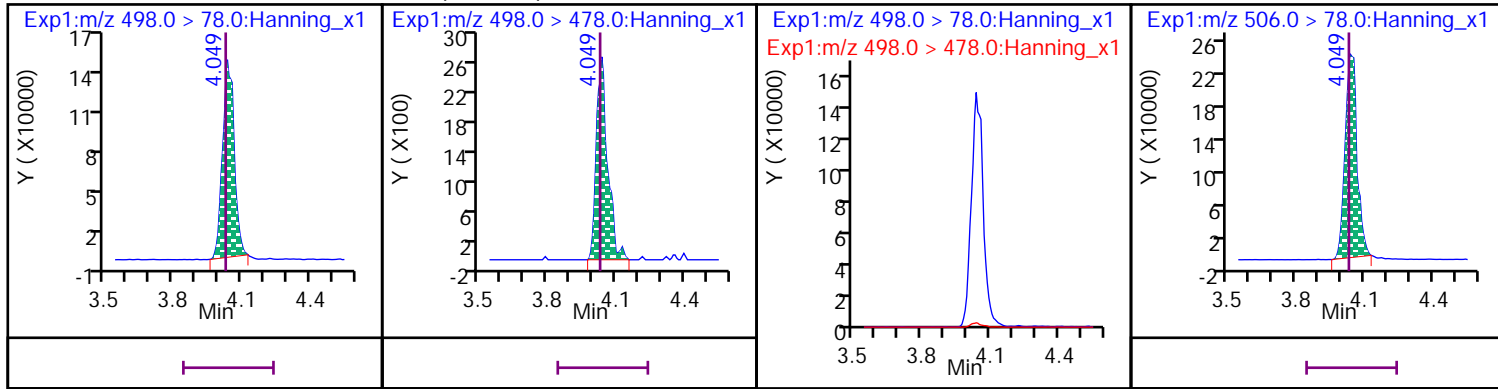
30 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)

D 54 13C8_PFOS



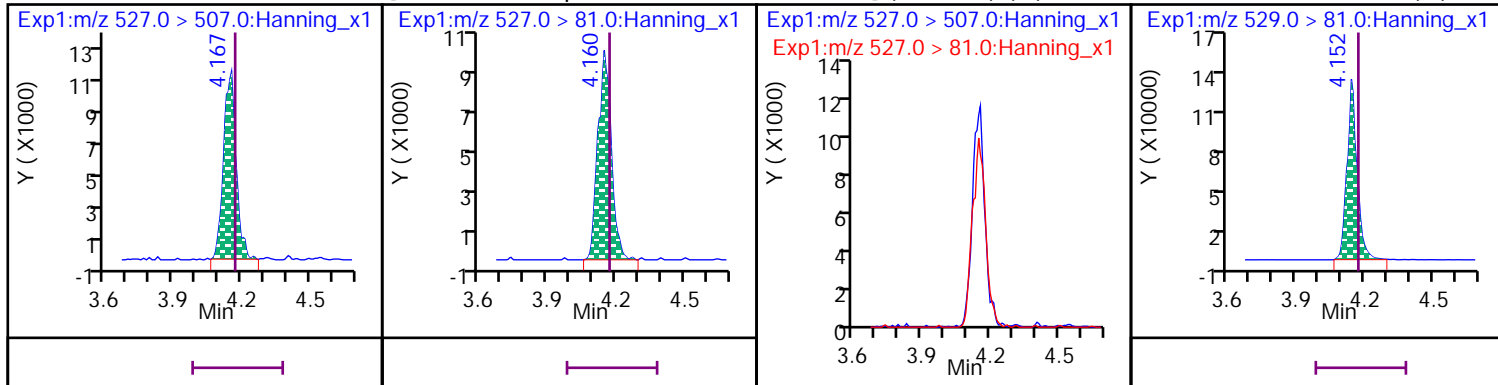
19 Perfluoro-1-octanesulfonamide (PFOSA)

D 55 13C8_PFOSA



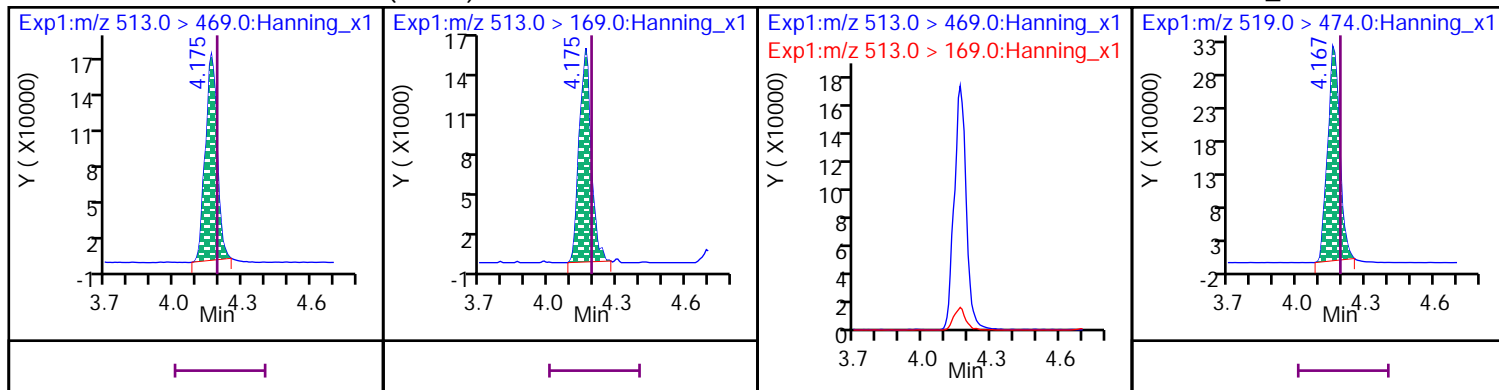
3 Fluorotelomer sulfonate 8:2 [1H,1H,2H,2H-perfluorodecane sulfonate] (8:2 FTS) (M)

D 65 13C2_8:2 FTS_2 (M)



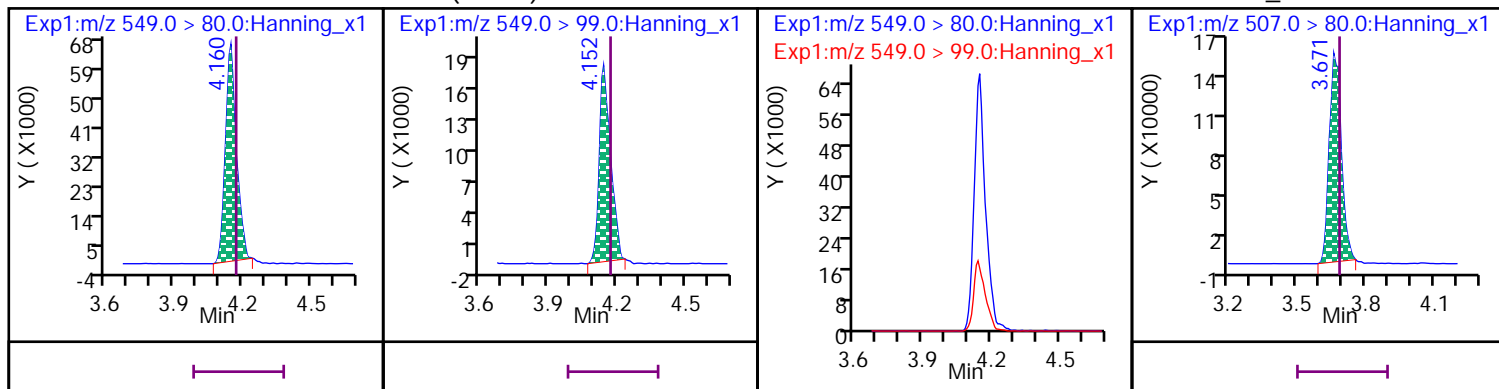
10 Perfluoro-n-decanoic acid (PFDA)

D 51 13C6_PFDA



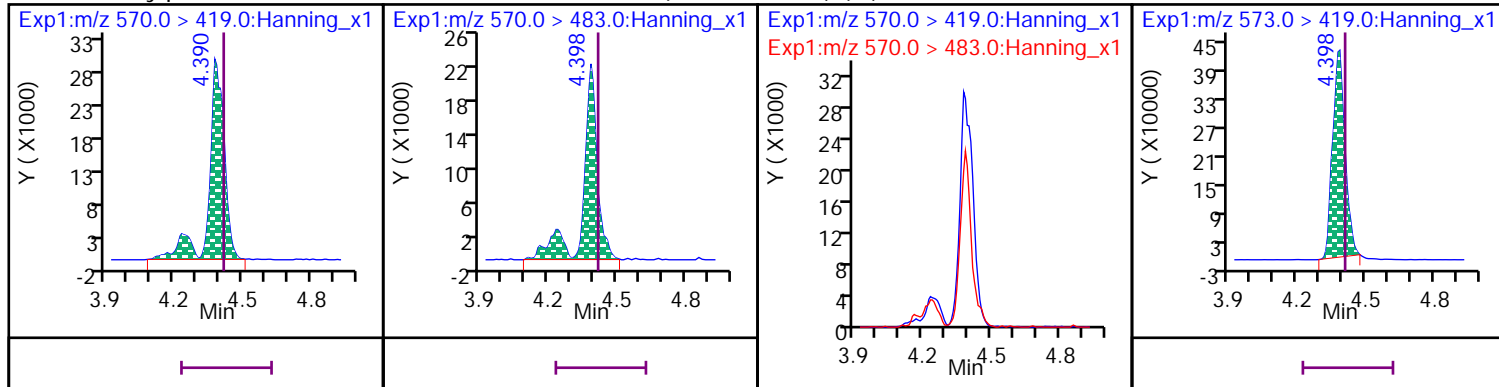
16 Perfluoro-1-nonanesulfonic acid (PFNS)

D 54 13C8_PFOS



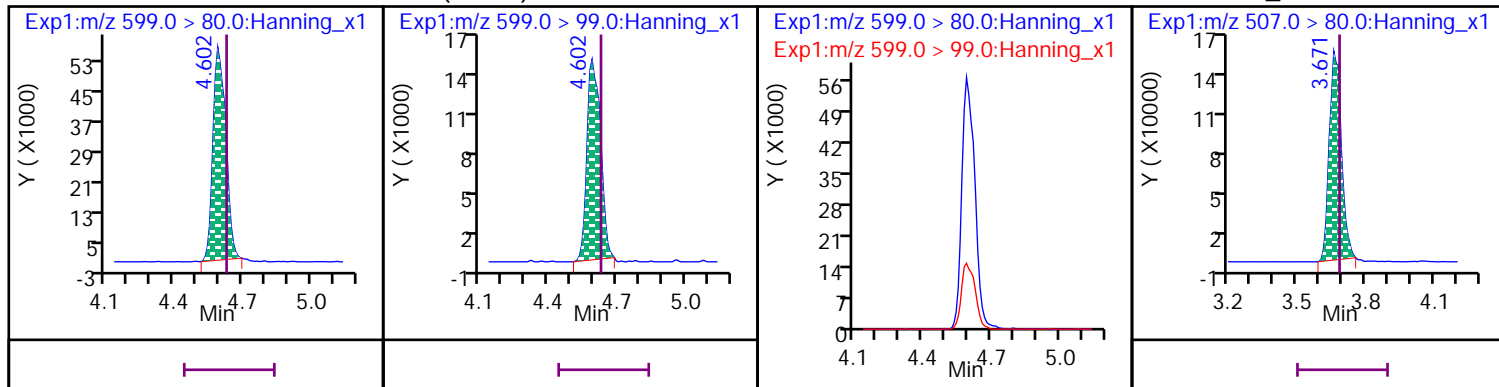
6 N-methylperfluoro-1-octanesulfonamidoacetic acid (N-MeFOSAA) (M)

D 58 d3-MeFOSAA



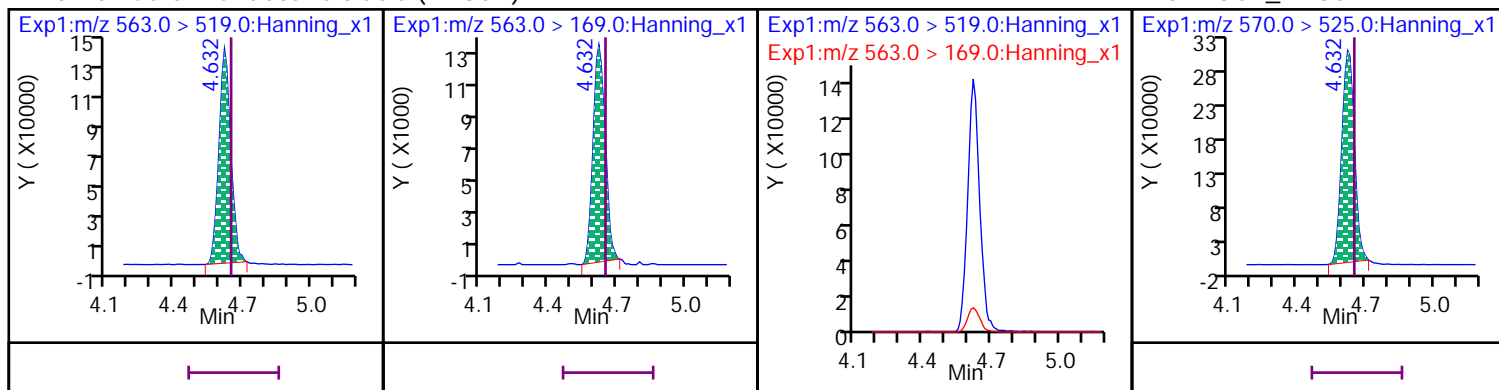
9 Perfluoro-1-decanesulfonic acid (PFDS)

D 54 13C8_PFOS



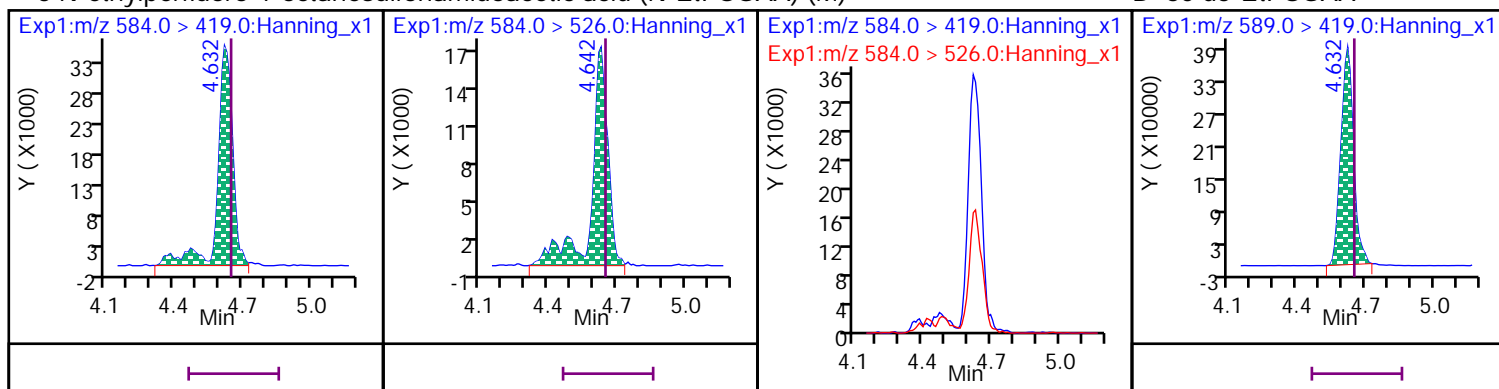
25 Perfluoro-n-undecanoic acid (PFUdA)

D 52 13C7_PFUdA



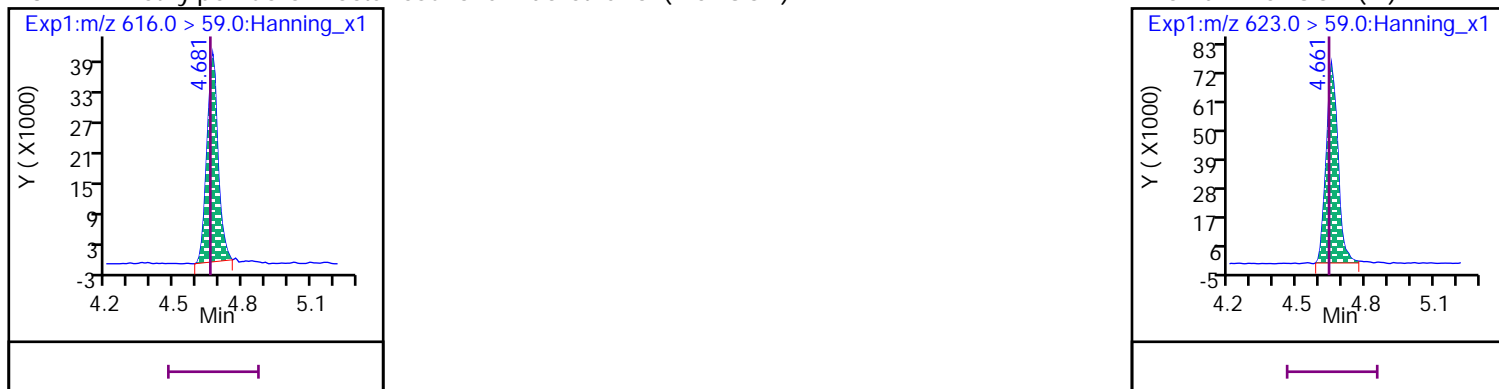
5 N-ethylperfluoro-1-octanesulfonamidoacetic acid (N-EtFOSAA) (M)

D 60 d5-EtFOSAA



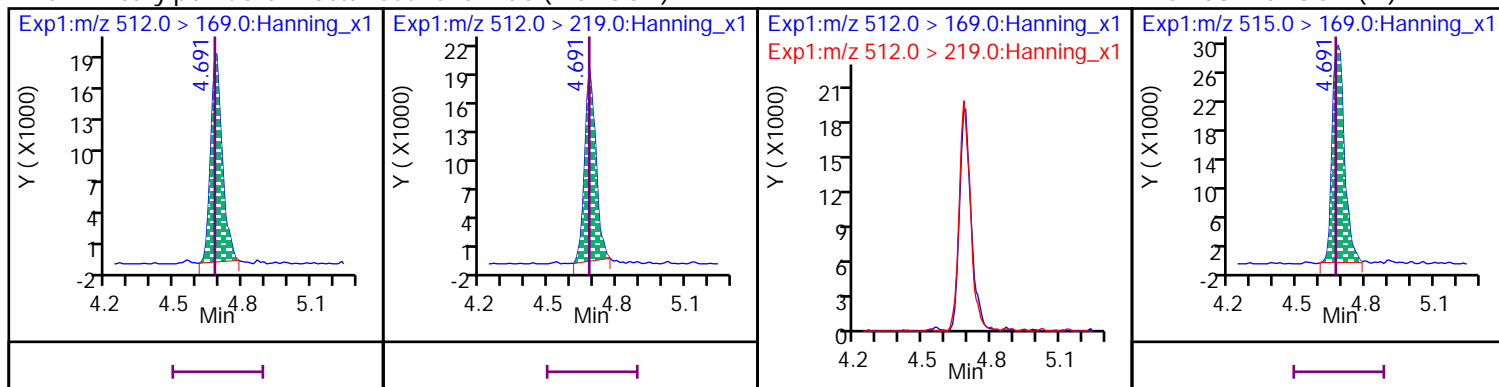
32 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)

D 61 d7-MeFOSE (M)

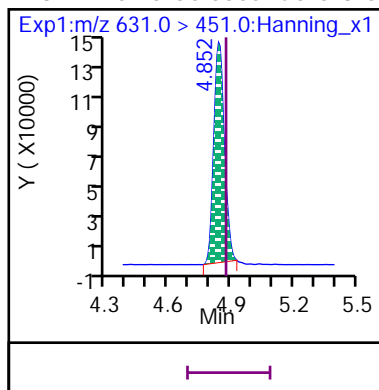


26 N-methylperfluoro-1-octanesulfonamide (MeFOSA)

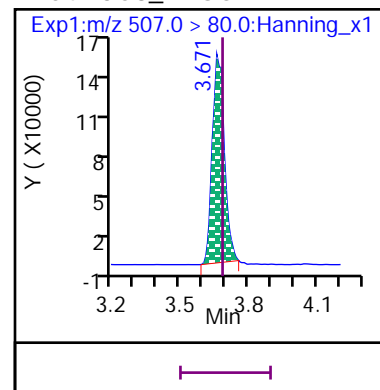
D 57 d3-MeFOSA (M)



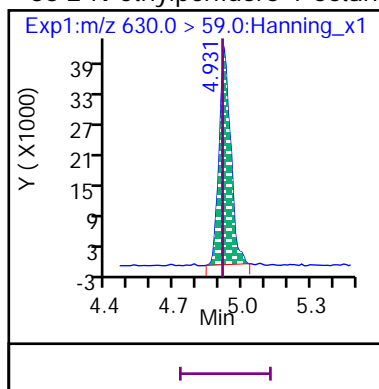
31 11-chloroeicosafuoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)



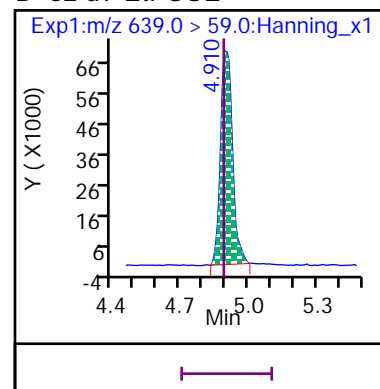
D 54 13C8_PFOS



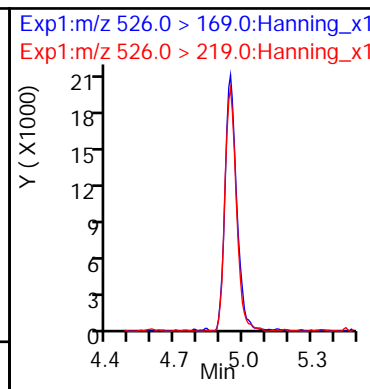
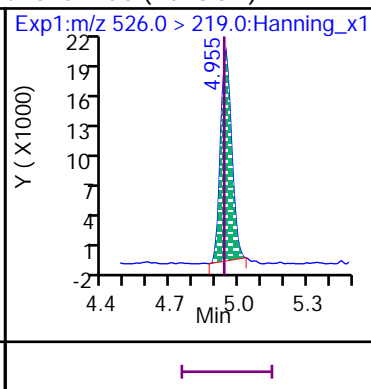
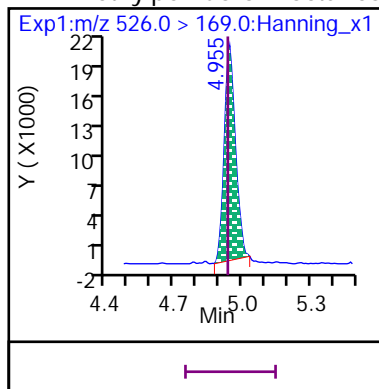
33 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)



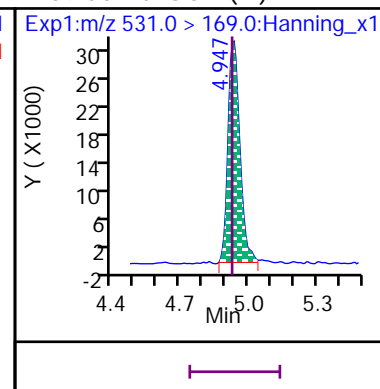
D 62 d9-EtFOSE



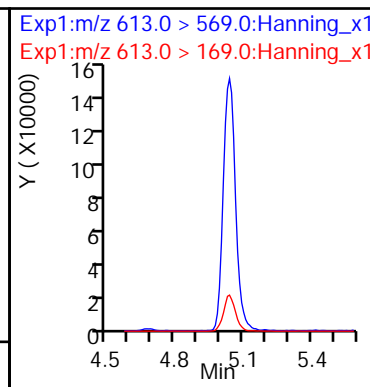
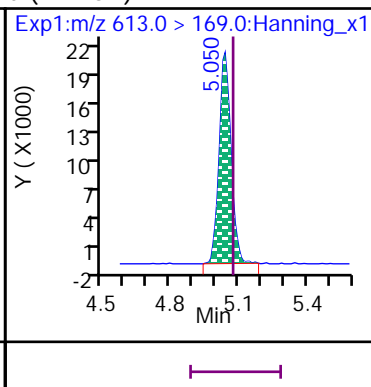
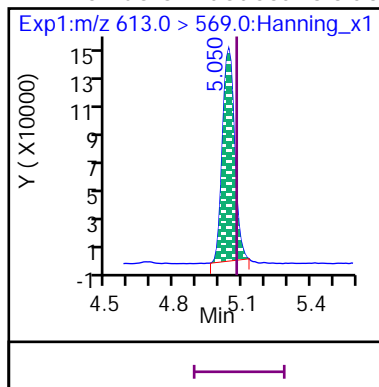
27 N-ethylperfluoro-1-octanesulfonamide (EtFOSA)



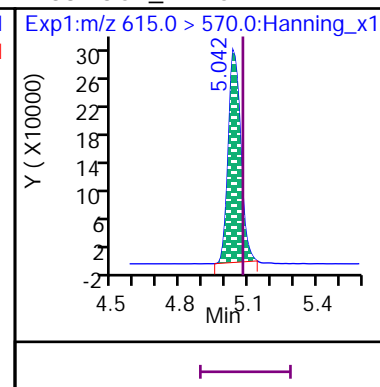
D 59 d5-EtFOSA (M)



11 Perfluoro-n-dodecanoic acid (PFDoA)

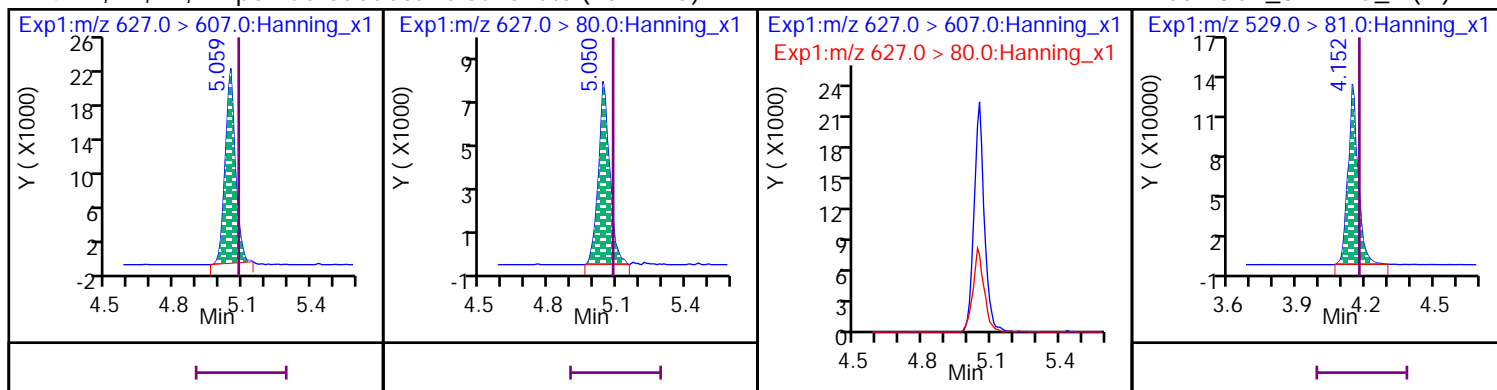


D 38 13C2_PFDoA



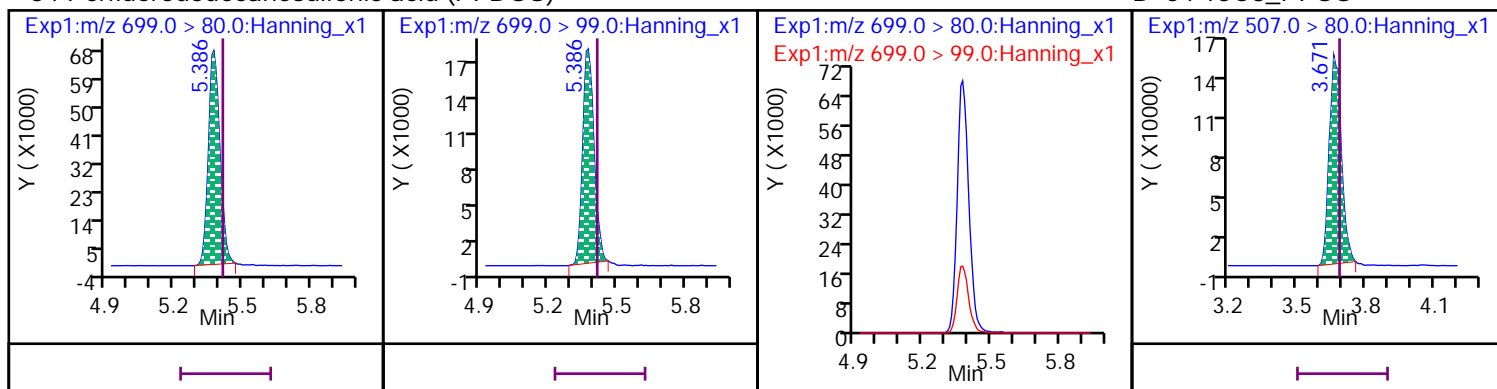
4 1H,1H,2H,2H-perfluorododecane sulfonate (10:2FTS)

D 65 13C2_8:2 FTS_2 (M)



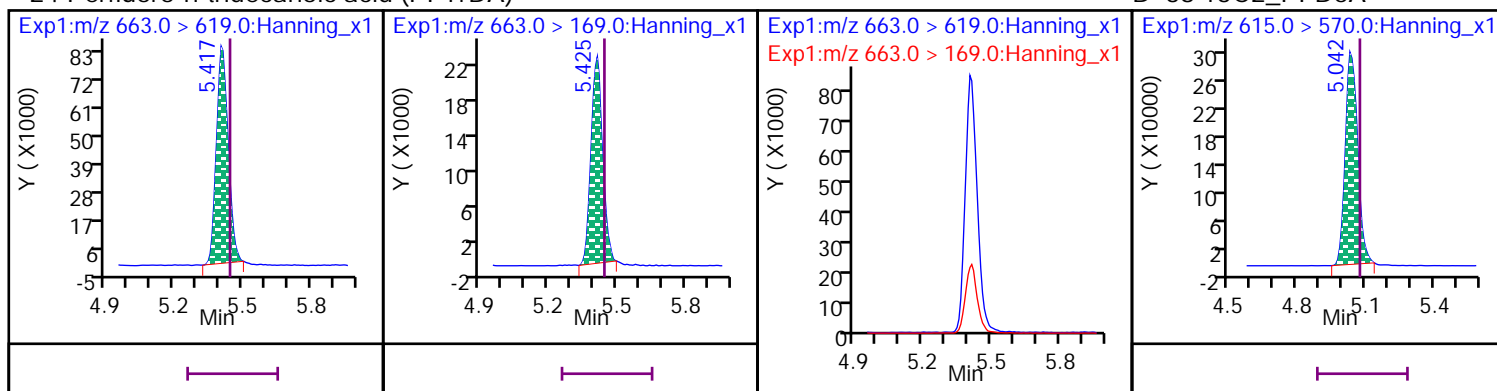
34 Perfluorododecanesulfonic acid (PFDOS)

D 54 13C8_PFOS



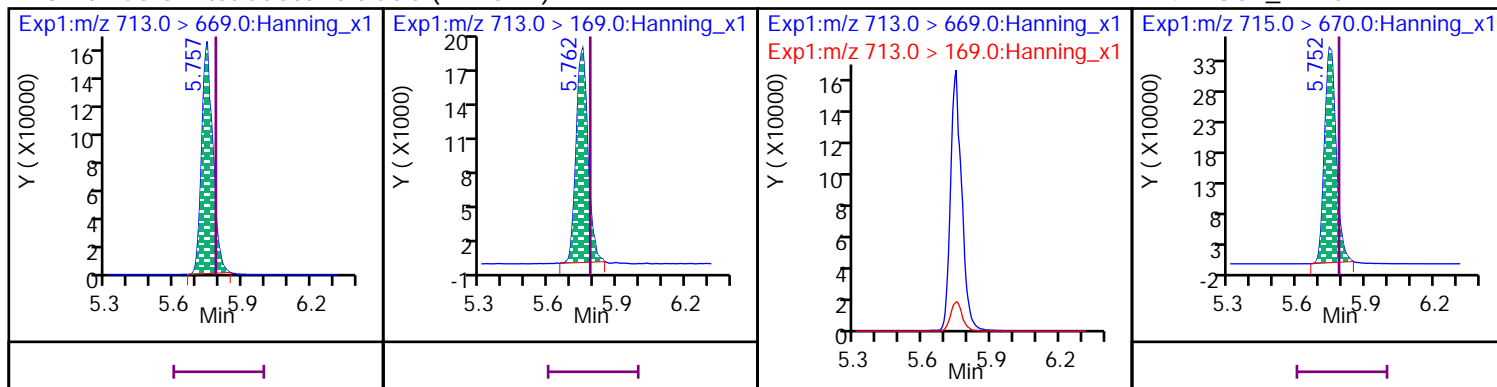
24 Perfluoro-n-tridecanoic acid (PFTTrDA)

D 38 13C2_PFDaA



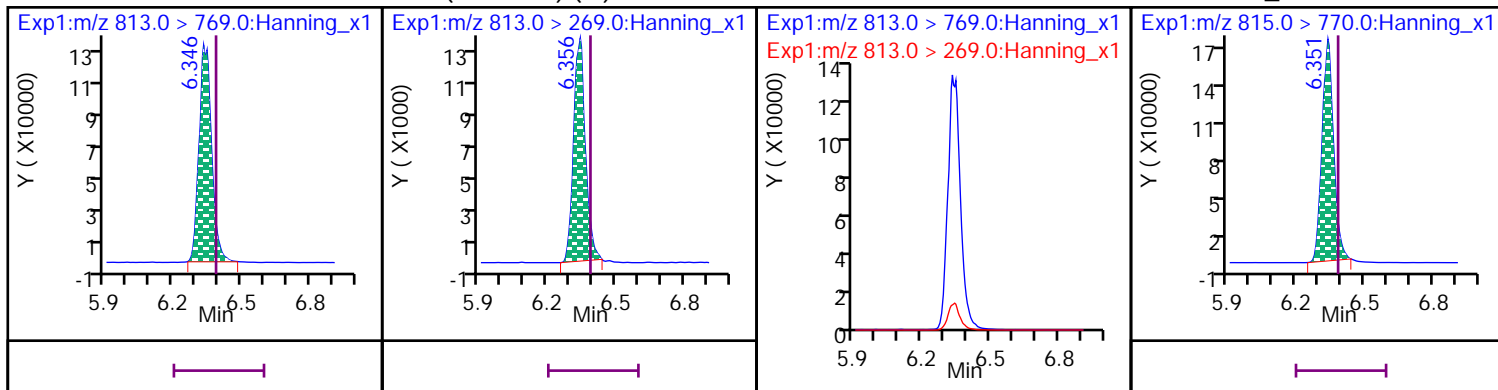
23 Perfluoro-n-tetradecanoic acid (PFTeDA)

D 42 13C2_PFTeDA



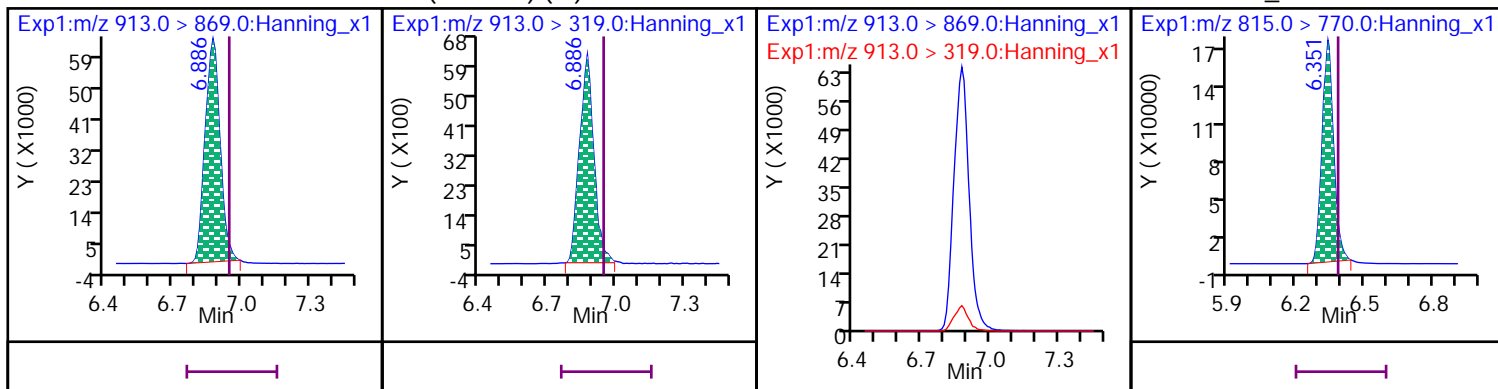
35 Perfluoro-n-hexadecanoic acid (PFHxDA) (M)

D 40 13C2_PFHxDA



36 Perfluoro-n-octadecanoic acid (PFODA) (M)

D 40 13C2_PFHxDA

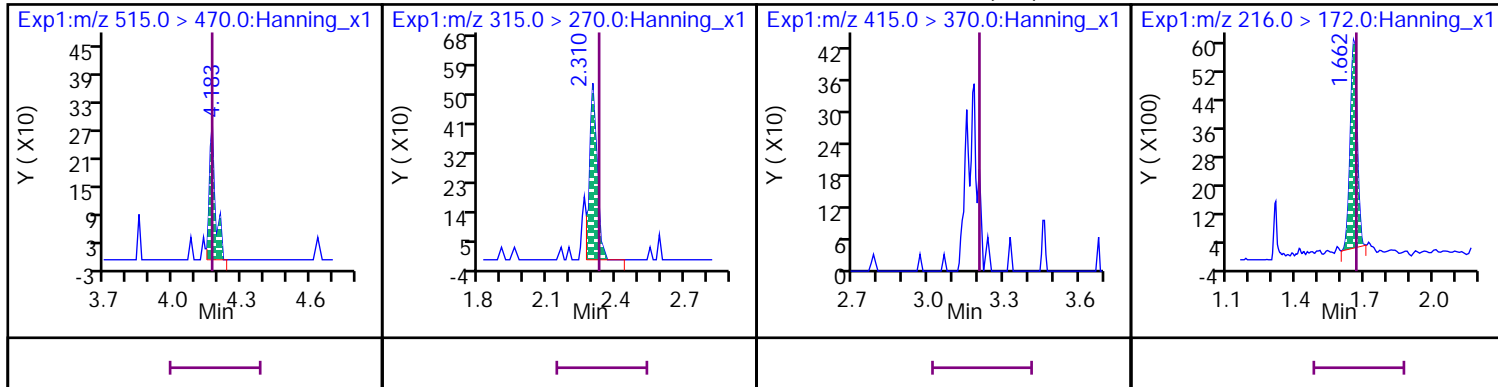


* 37 13C2_PFDA

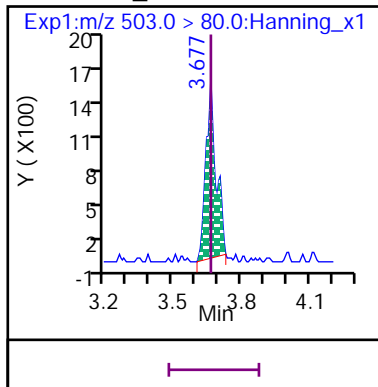
* 39 13C2_PFHxA

* 41 13C2_PFOA (ND)

* 43 13C3_PFBA



* 48 13C4_PFOS



Manual Integration Report

Data File: \\organics\LL\LCMSMS01.i\100422-nonDOD.b\100422048.d

Injection Date: 04-Oct-2022 18:47:02

Inst. ID: LCMSMS01.i

Client ID:

Lab ID:

CCV 1000C_SVLC-2215

Sample Info: CCV 1000C_SVLC-2215

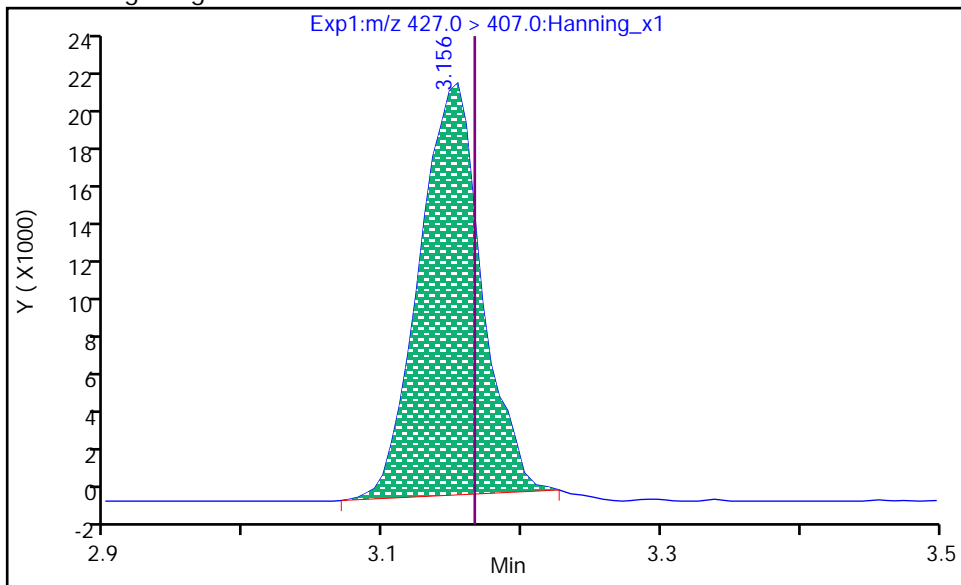
Dil. Factor: 1

Operator: eqi.svoa

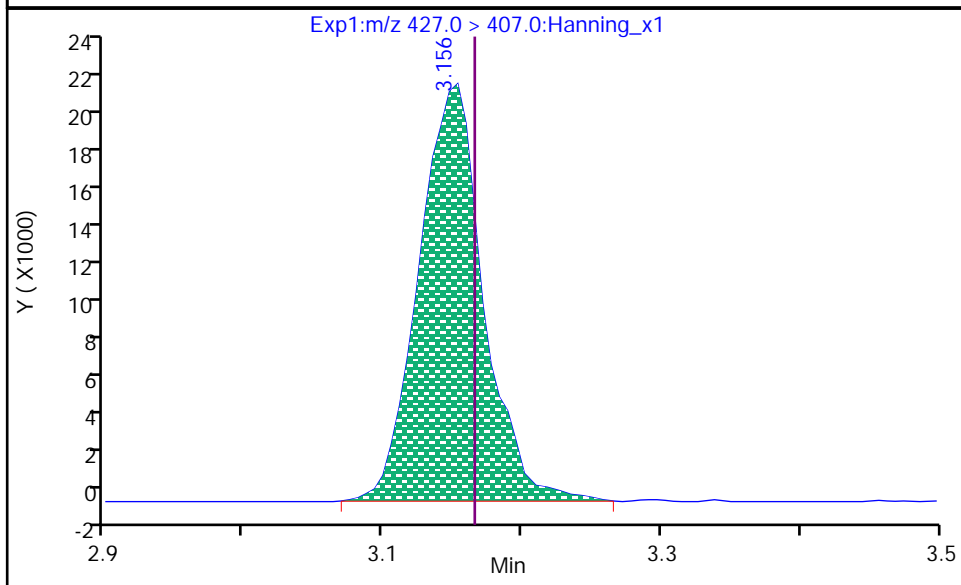
2 6:2 FTS, CAS: 27619-97-2

Processing Integration Results

RT: 3.156
Area: 64335
Amount: 923.31
Amount Units: ng/L



RT: 3.156
Area: 67471
Amount: 968.31
Amount Units: ng/L



Data Editor: andy.marshall, 05-Oct-2022 15:50:46

Audit Action: Mint

Audit Reason: M-03, Incorrect Auto Integration

Manual Integration Report

Data File: \\organics\LL\LCMSMS01.i\100422-nonDOD.b\100422048.d

Injection Date: 04-Oct-2022 18:47:02

Inst. ID: LCMSMS01.i

Client ID:

Lab ID: CCV 1000C_SVLC-2215

Sample Info: CCV 1000C_SVLC-2215

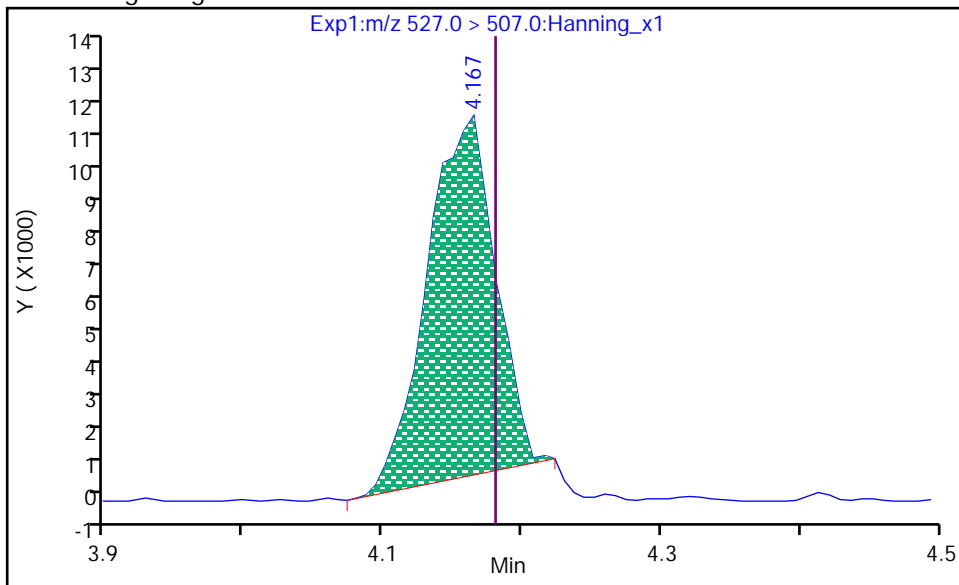
Dil. Factor: 1

Operator: eqi.svoa

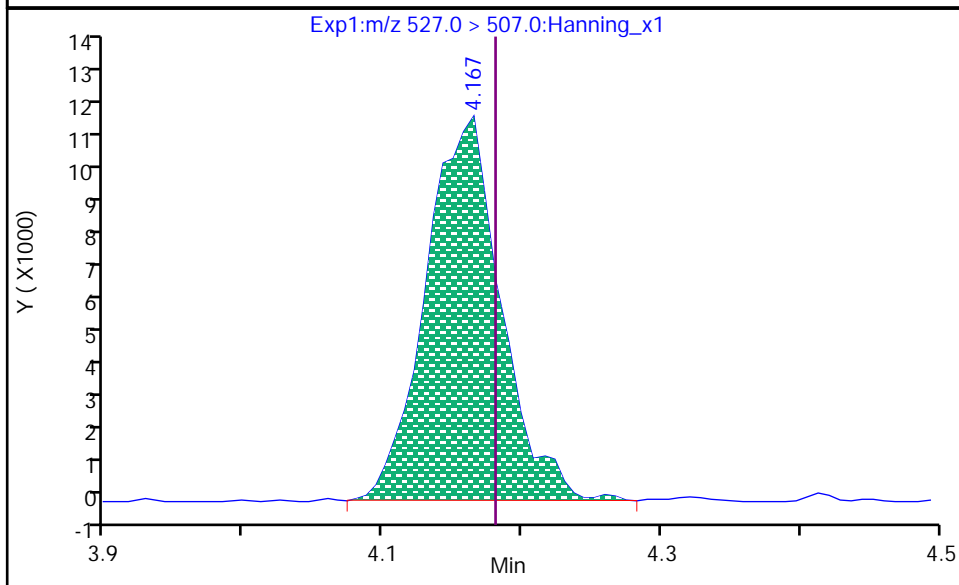
3 8:2 FTS, CAS: 39108-34-4

Processing Integration Results

RT: 4.167
Area: 36954
Amount: 727.81
Amount Units: ng/L



RT: 4.167
Area: 43187
Amount: 850.56
Amount Units: ng/L



Data Editor: andy.marshall, 05-Oct-2022 17:16:58

Audit Action: Mint

Audit Reason: M-03, Incorrect Auto Integration

Manual Integration Report

Data File: \\organics\LL\LCMSMS01.i\100422-nonDOD.b\100422048.d

Injection Date: 04-Oct-2022 18:47:02

Inst. ID: LCMSMS01.i

Client ID:

Lab ID: CCV 1000C_SVLC-2215

Sample Info: CCV 1000C_SVLC-2215

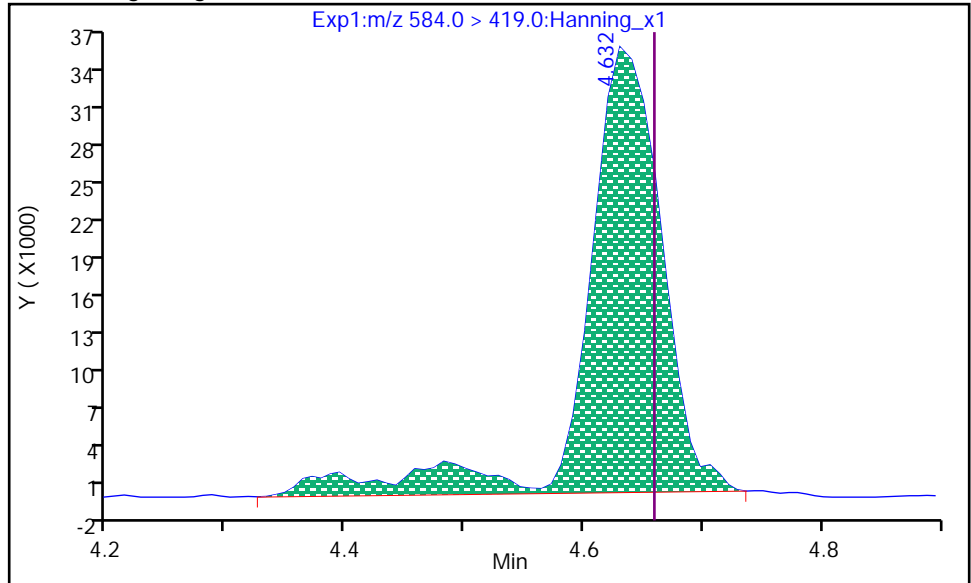
Dil. Factor: 1

Operator: eqi.svoa

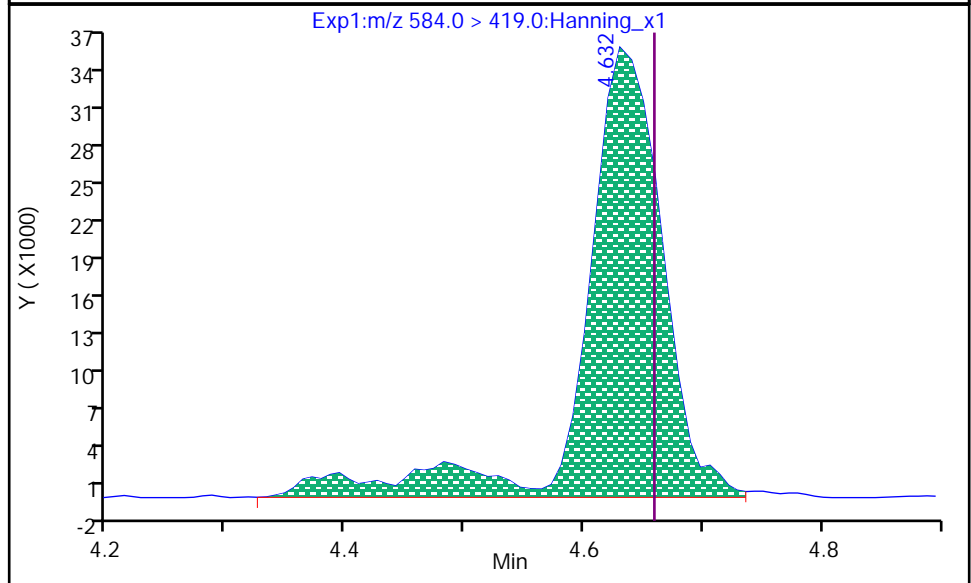
5 N-EtFOSAA, CAS: 2991-50-6

Processing Integration Results

RT: 4.632
Area: 155070
Amount: 1063.97
Amount Units: ng/L



RT: 4.632
Area: 160353
Amount: 1100.22
Amount Units: ng/L



Data Editor: andy.marshall, 05-Oct-2022 17:17:43

Audit Action: Mint

Audit Reason: M-03, Incorrect Auto Integration

Manual Integration Report

Data File: \\organics\LL\LCMSMS01.i\100422-nonDOD.b\100422048.d

Injection Date: 04-Oct-2022 18:47:02

Inst. ID: LCMSMS01.i

Client ID:

Lab ID: CCV 1000C_SVLC-2215

Sample Info: CCV 1000C_SVLC-2215

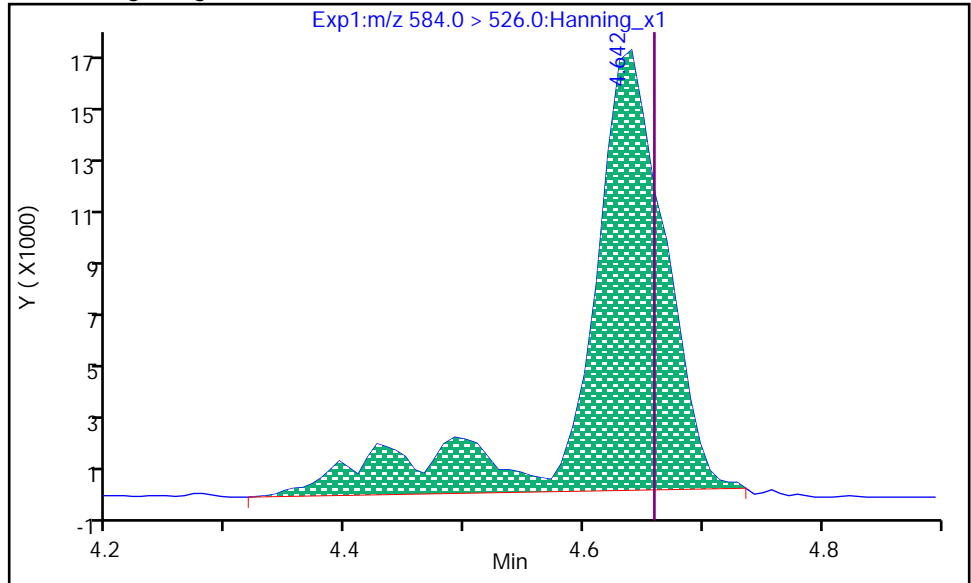
Dil. Factor: 1

Operator: eqi.svoa

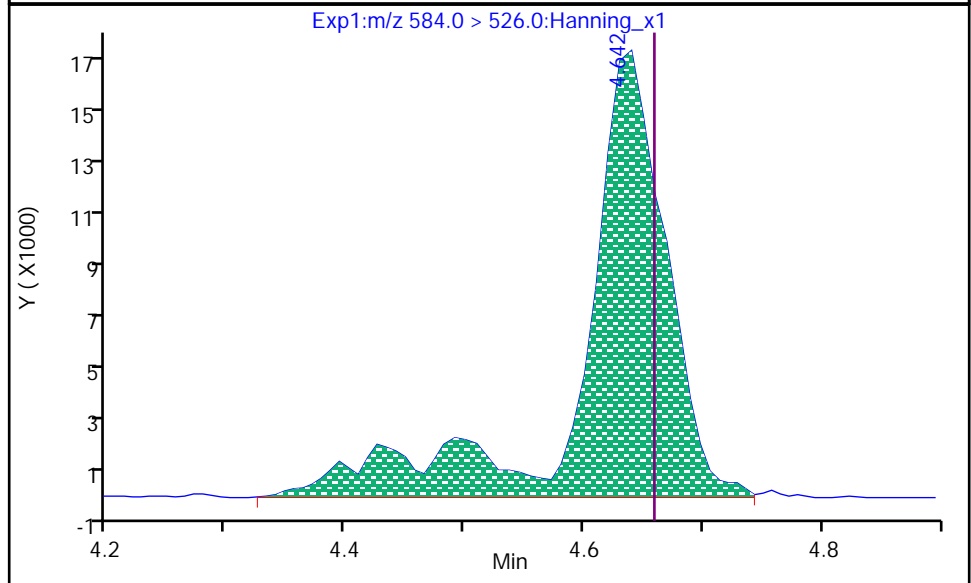
5 N-EtFOSAA, CAS: 2991-50-6

Processing Integration Results

RT: 4.642
Area: 78588
Amount: 1100.22
Amount Units: ng/L



RT: 4.642
Area: 82752
Amount: 1100.22
Amount Units: ng/L



Data Editor: andy.marshall, 05-Oct-2022 17:17:51
Audit Action: Mint
Audit Reason: M-03, Incorrect Auto Integration

Manual Integration Report

Data File: \\organics\LL\LCMSMS01.i\100422-nonDOD.b\100422048.d

Injection Date: 04-Oct-2022 18:47:02

Inst. ID: LCMSMS01.i

Client ID:

Lab ID: CCV 1000C_SVLC-2215

Sample Info: CCV 1000C_SVLC-2215

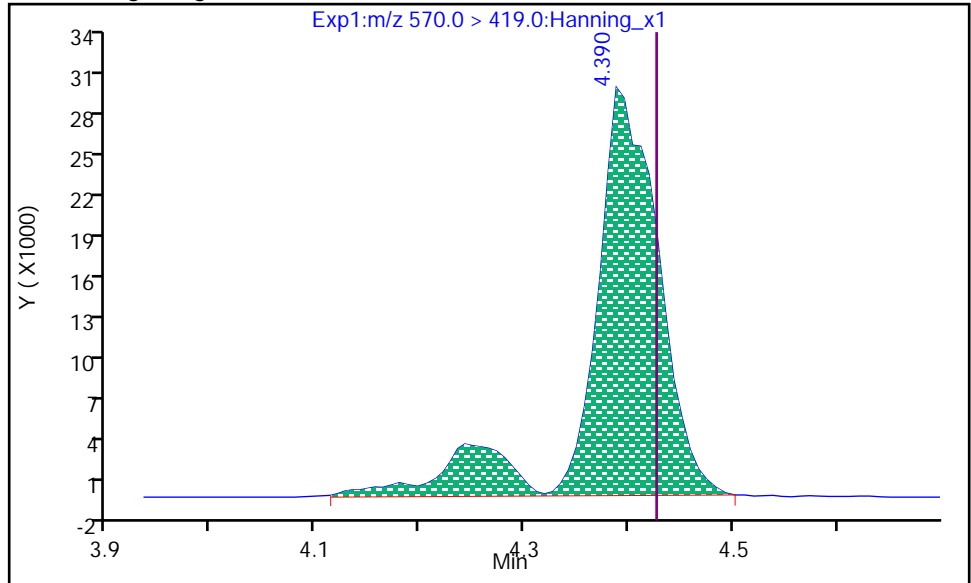
Dil. Factor: 1

Operator: eqi.svoa

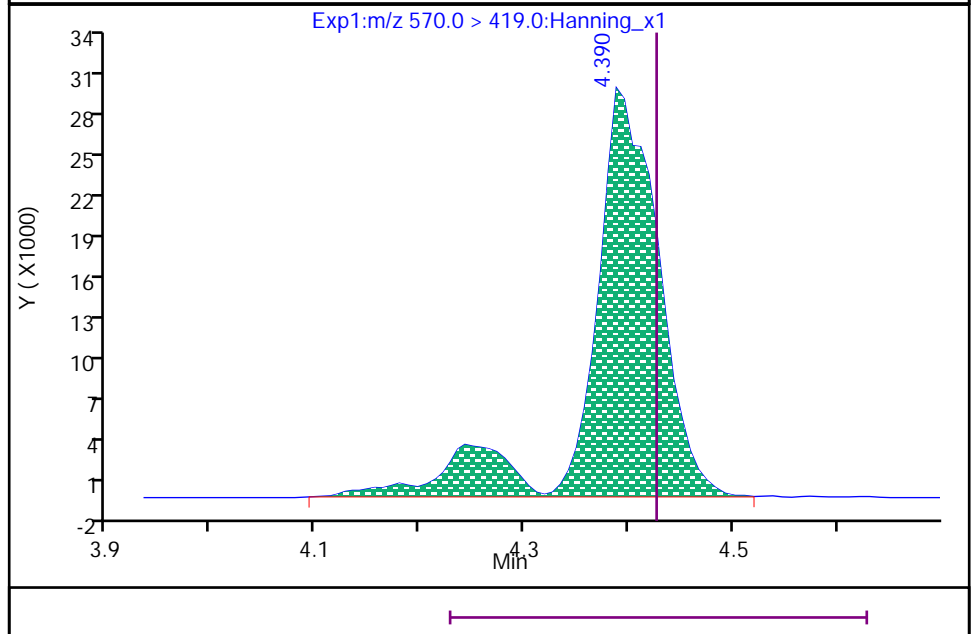
6 N-MeFOSAA, CAS: 2355-31-9

Processing Integration Results

RT: 4.390
Area: 135661
Amount: 1040.36
Amount Units: ng/L



RT: 4.390
Area: 136480
Amount: 1046.65
Amount Units: ng/L



Data Editor: andy.marshall, 05-Oct-2022 17:17:26

Audit Action: Mint

Audit Reason: M-03, Incorrect Auto Integration

Manual Integration Report

Data File: \\organics\LL\LCMSMS01.i\100422-nonDOD.b\100422048.d

Injection Date: 04-Oct-2022 18:47:02

Inst. ID: LCMSMS01.i

Client ID:

Lab ID: CCV 1000C_SVLC-2215

Sample Info: CCV 1000C_SVLC-2215

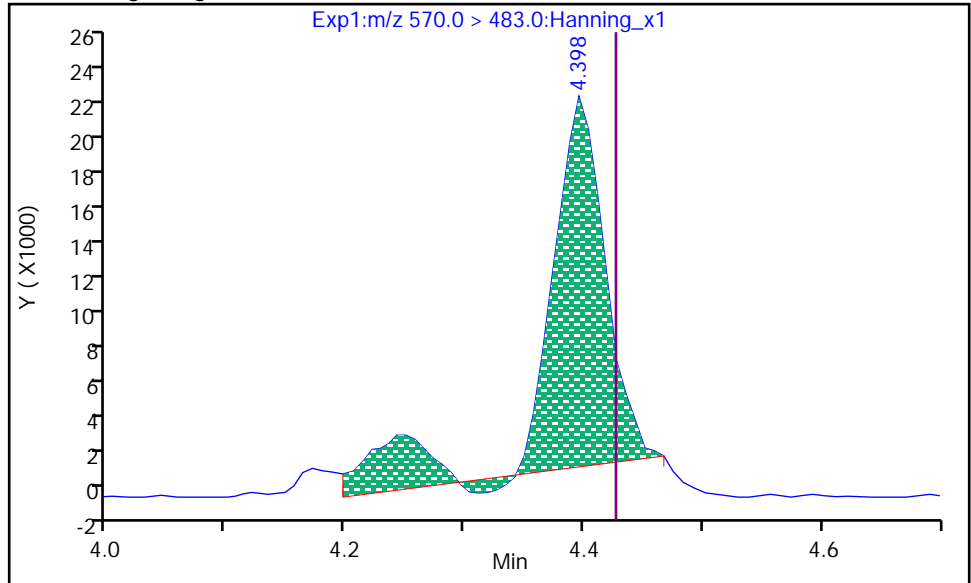
Dil. Factor: 1

Operator: eqi.svoa

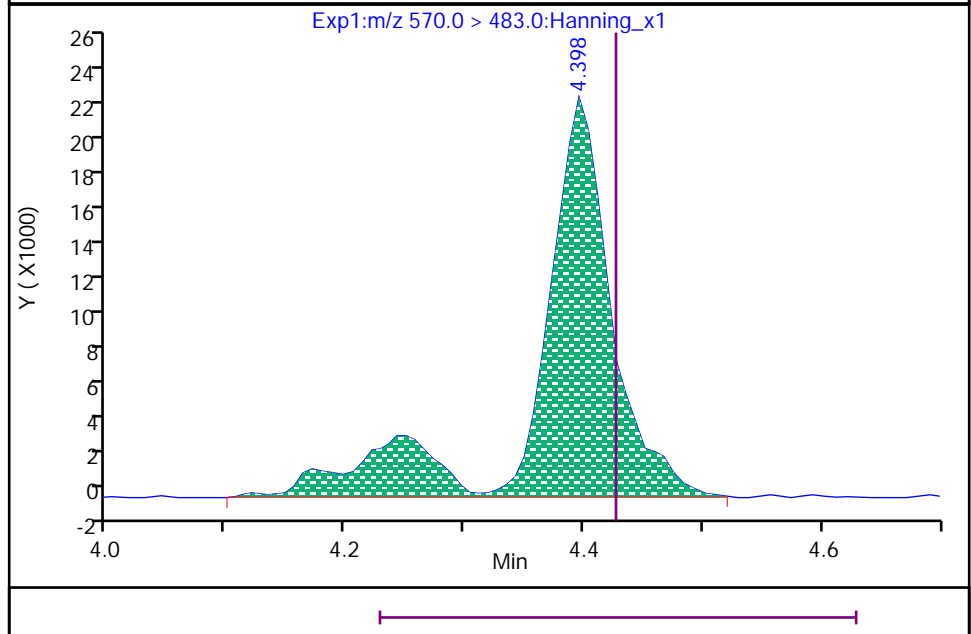
6 N-MeFOSAA, CAS: 2355-31-9

Processing Integration Results

RT: 4.398
Area: 70723
Amount: 1046.65
Amount Units: ng/L



RT: 4.398
Area: 94804
Amount: 1046.65
Amount Units: ng/L



Data Editor: andy.marshall, 05-Oct-2022 17:17:33

Audit Action: Mint

Audit Reason: M-03, Incorrect Auto Integration

Manual Integration Report

Data File: \\organics\LL\LCMSMS01.i\100422-nonDOD.b\100422048.d

Injection Date: 04-Oct-2022 18:47:02

Inst. ID: LCMSMS01.i

Client ID:

Lab ID: CCV 1000C_SVLC-2215

Sample Info: CCV 1000C_SVLC-2215

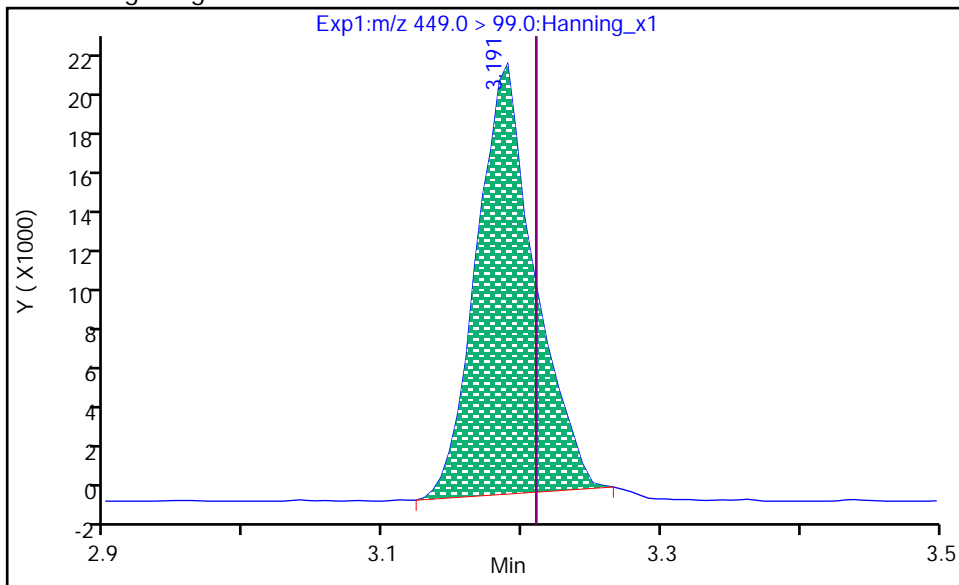
Dil. Factor: 1

Operator: eqi.svoa

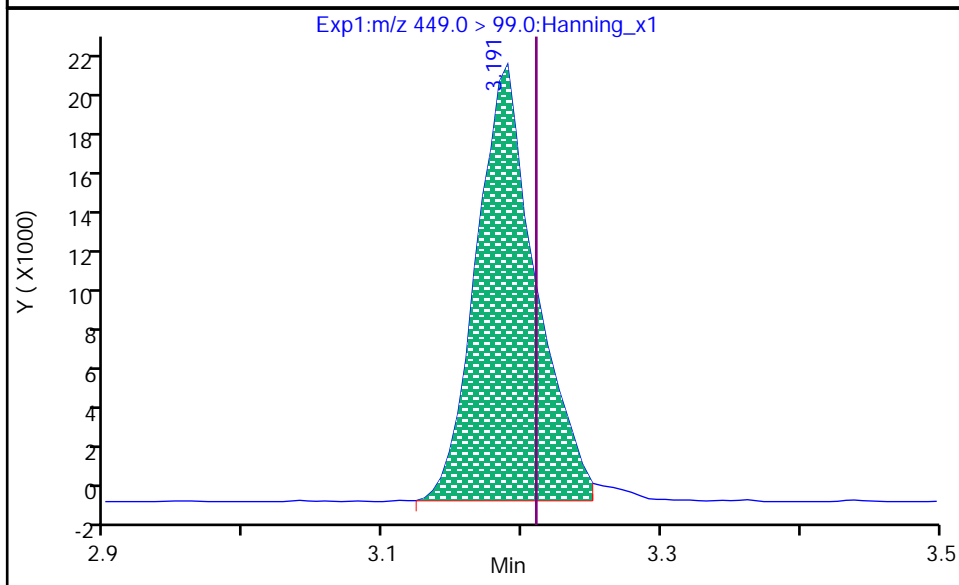
12 PFHpS, CAS: 375-92-8

Processing Integration Results

RT: 3.191
Area: 61138
Amount: 938.16
Amount Units: ng/L



RT: 3.191
Area: 63298
Amount: 938.16
Amount Units: ng/L



Data Editor: andy.marshall, 05-Oct-2022 15:51:28

Audit Action: Mint

Audit Reason: M-03, Incorrect Auto Integration

Manual Integration Report

Data File: \\organics\LL\LCMSMS01.i\100422-nonDOD.b\100422048.d

Injection Date: 04-Oct-2022 18:47:02

Inst. ID: LCMSMS01.i

Client ID:

Lab ID: CCV 1000C_SVLC-2215

Sample Info: CCV 1000C_SVLC-2215

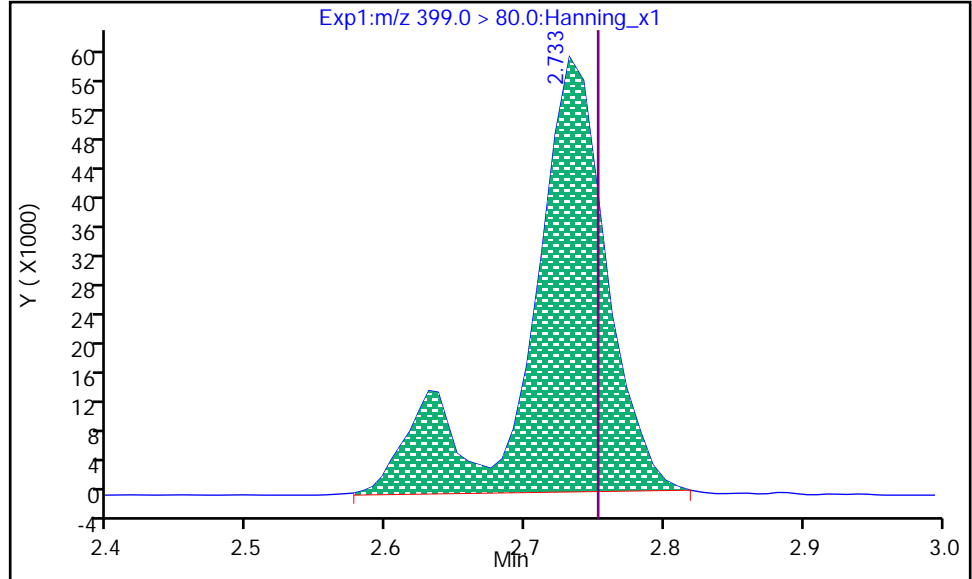
Dil. Factor: 1

Operator: eqi.svoa

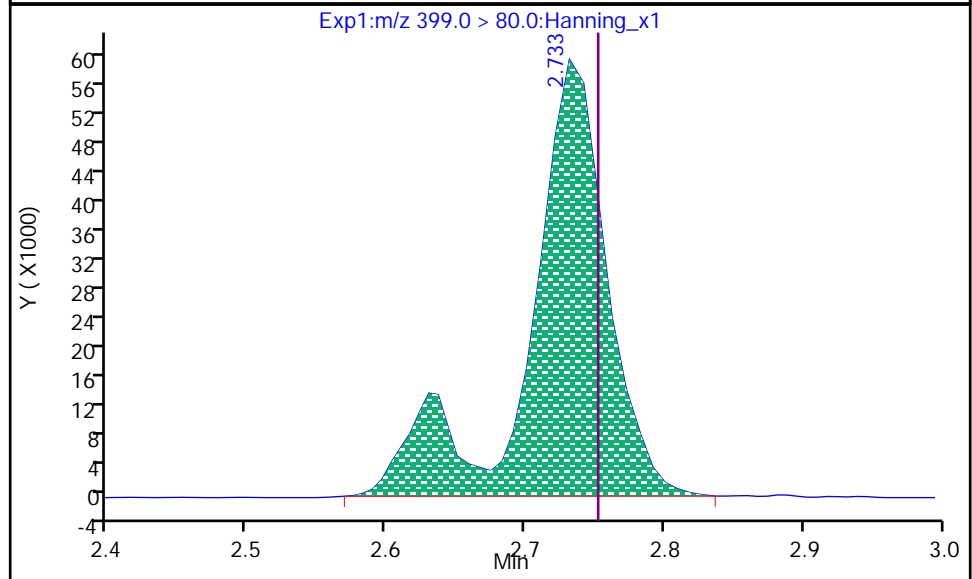
14 PFHxS, CAS: 355-46-4

RT: 2.733
Area: 227434
Amount: 874.94
Amount Units: ng/L

Processing Integration Results



RT: 2.733
Area: 229896
Amount: 884.41
Amount Units: ng/L



Data Editor: andy.marshall, 05-Oct-2022 15:50:20
Audit Action: Mint
Audit Reason: M-03, Incorrect Auto Integration

Manual Integration Report

Data File: \\organics\LL\LCMSMS01.i\100422-nonDOD.b\100422048.d

Injection Date: 04-Oct-2022 18:47:02

Inst. ID: LCMSMS01.i

Client ID:

Lab ID: CCV 1000C_SVLC-2215

Sample Info: CCV 1000C_SVLC-2215

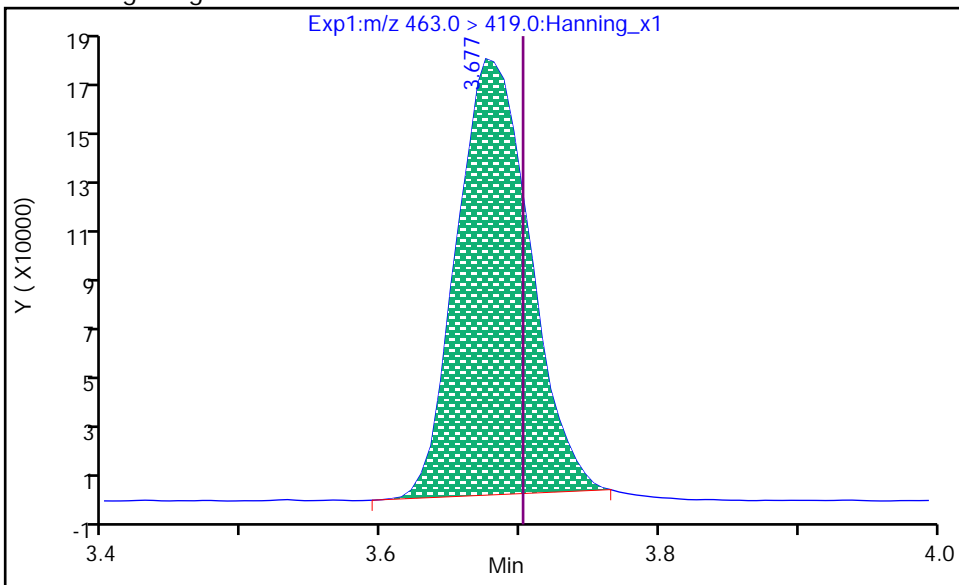
Dil. Factor: 1

Operator: eqi.svoa

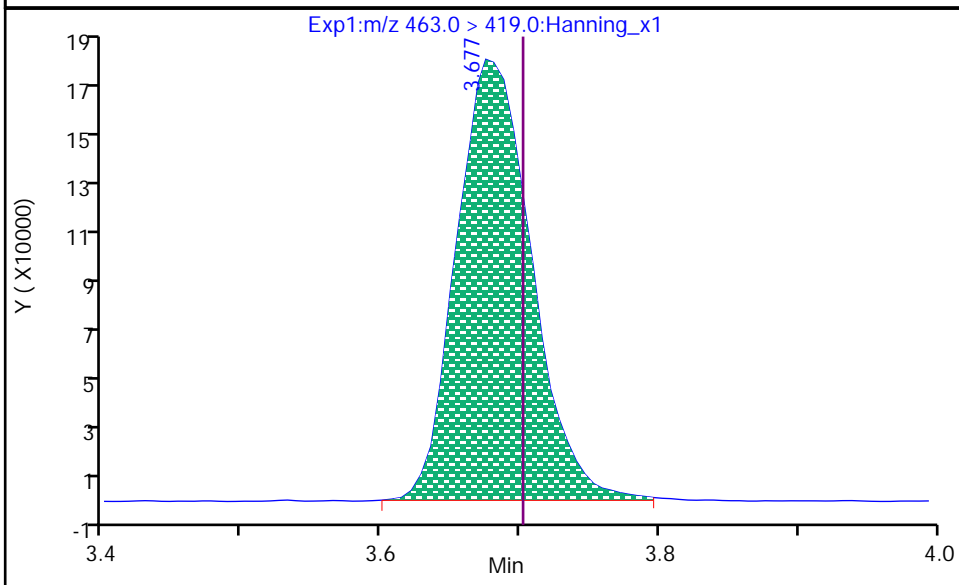
17 PFNA, CAS: 375-95-1

Processing Integration Results

RT: 3.677
Area: 647088
Amount: 1002.80
Amount Units: ng/L



RT: 3.677
Area: 672211
Amount: 1041.73
Amount Units: ng/L



Data Editor: andy.marshall, 05-Oct-2022 15:51:40

Audit Action: Mint

Audit Reason: M-03, Incorrect Auto Integration

Manual Integration Report

Data File: \\organics\LL\LCMSMS01.i\100422-nonDOD.b\100422048.d

Injection Date: 04-Oct-2022 18:47:02

Inst. ID: LCMSMS01.i

Client ID:

Lab ID: CCV 1000C_SVLC-2215

Sample Info: CCV 1000C_SVLC-2215

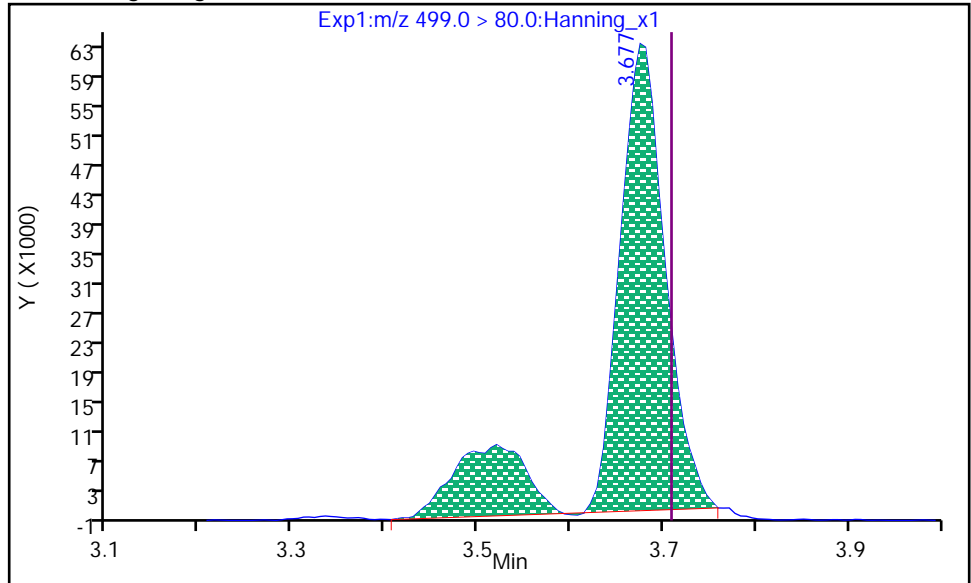
Dil. Factor: 1

Operator: eqi.svoa

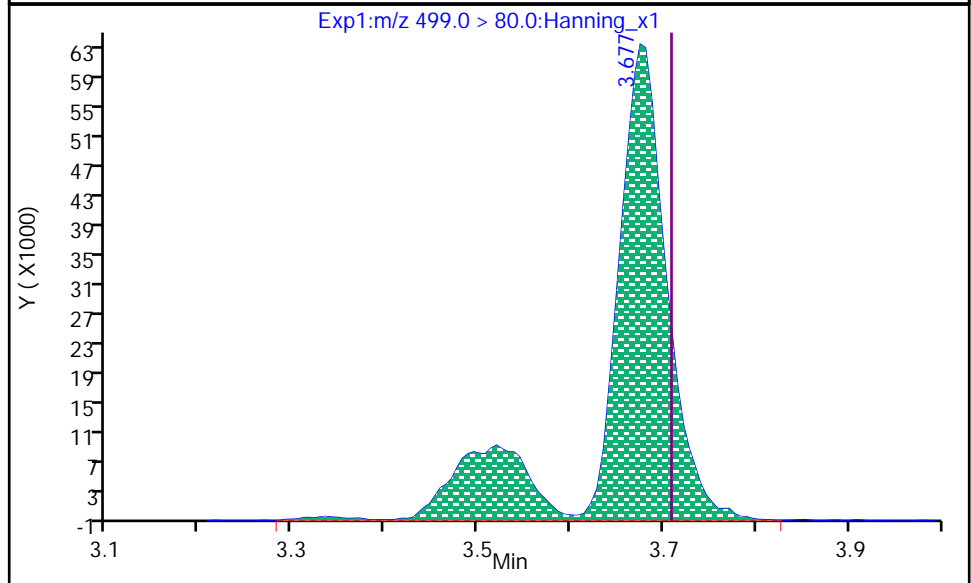
18 PFOS, CAS: 1763-23-1

Processing Integration Results

RT: 3.677
Area: 258179
Amount: 815.64
Amount Units: ng/L



RT: 3.677
Area: 281401
Amount: 889.01
Amount Units: ng/L



Data Editor: andy.marshall, 05-Oct-2022 15:52:27

Audit Action: Mint

Audit Reason: M-03, Incorrect Auto Integration

Manual Integration Report

Data File: \\organics\LL\LCMSMS01.i\100422-nonDOD.b\100422048.d

Injection Date: 04-Oct-2022 18:47:02

Inst. ID: LCMSMS01.i

Client ID:

Lab ID: CCV 1000C_SVLC-2215

Sample Info: CCV 1000C_SVLC-2215

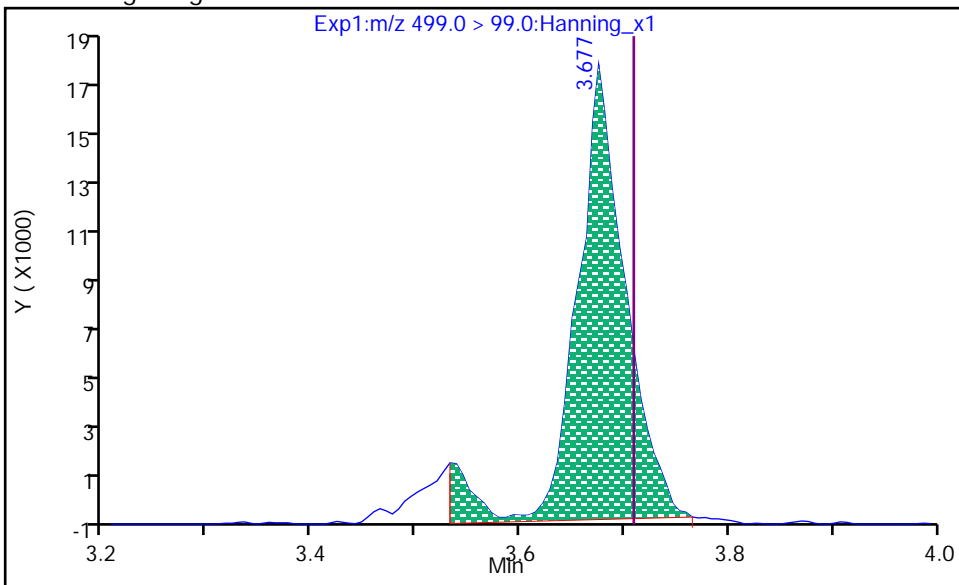
Dil. Factor: 1

Operator: eqi.svoa

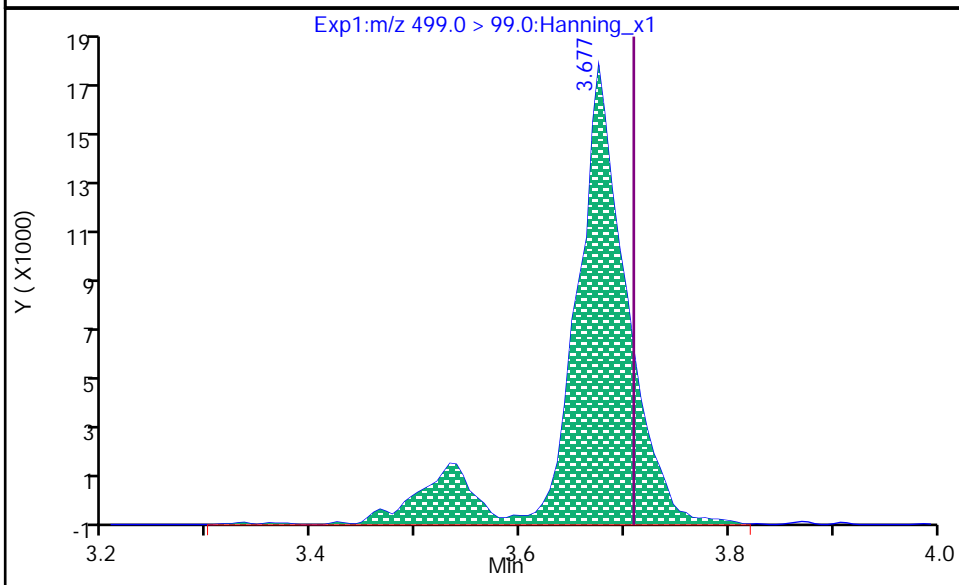
18 PFOS, CAS: 1763-23-1

Processing Integration Results

RT: 3.677
Area: 56403
Amount: 889.01
Amount Units: ng/L



RT: 3.677
Area: 64535
Amount: 889.01
Amount Units: ng/L



Data Editor: andy.marshall, 05-Oct-2022 15:52:36

Audit Action: Mint

Audit Reason: M-03, Incorrect Auto Integration

Manual Integration Report

Data File: \\organics\LL\LCMSMS01.i\100422-nonDOD.b\100422048.d

Injection Date: 04-Oct-2022 18:47:02

Inst. ID: LCMSMS01.i

Client ID:

Lab ID: CCV 1000C_SVLC-2215

Sample Info: CCV 1000C_SVLC-2215

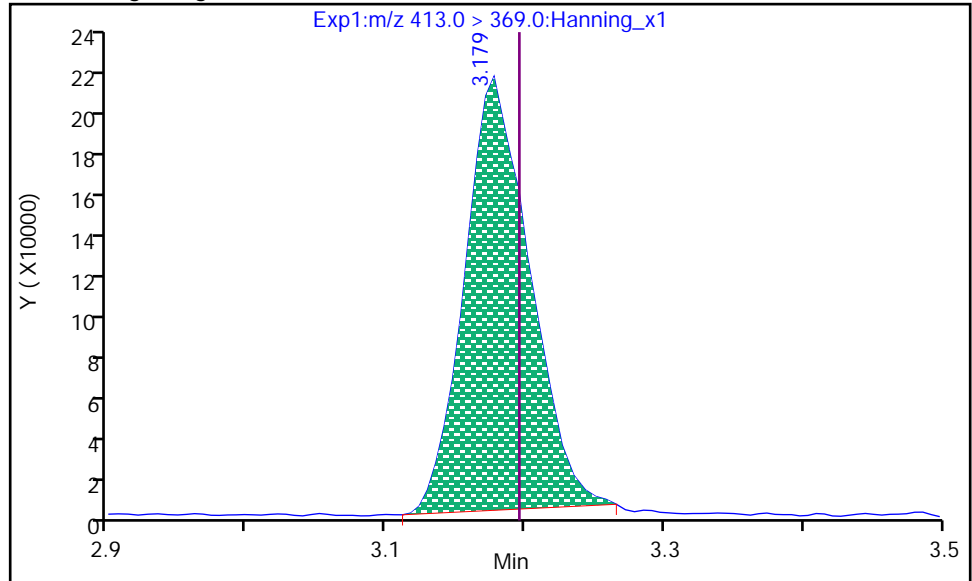
Dil. Factor: 1

Operator: eqi.svoa

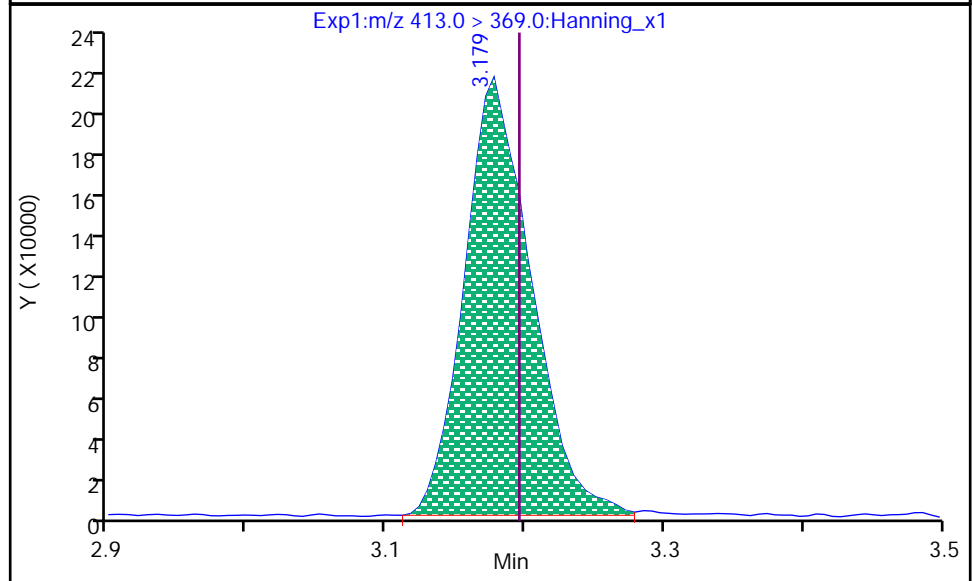
20 PFOA, CAS: 335-67-1

RT: 3.179
Area: 674389
Amount: 993.73
Amount Units: ng/L

Processing Integration Results



RT: 3.179
Area: 699721
Amount: 1031.05
Amount Units: ng/L



Data Editor: andy.marshall, 05-Oct-2022 15:51:01

Audit Action: Mint

Audit Reason: M-03, Incorrect Auto Integration

Manual Integration Report

Data File: \\organics\LL\LCMSMS01.i\100422-nonDOD.b\100422048.d

Injection Date: 04-Oct-2022 18:47:02

Inst. ID: LCMSMS01.i

Client ID:

Lab ID: CCV 1000C_SVLC-2215

Sample Info: CCV 1000C_SVLC-2215

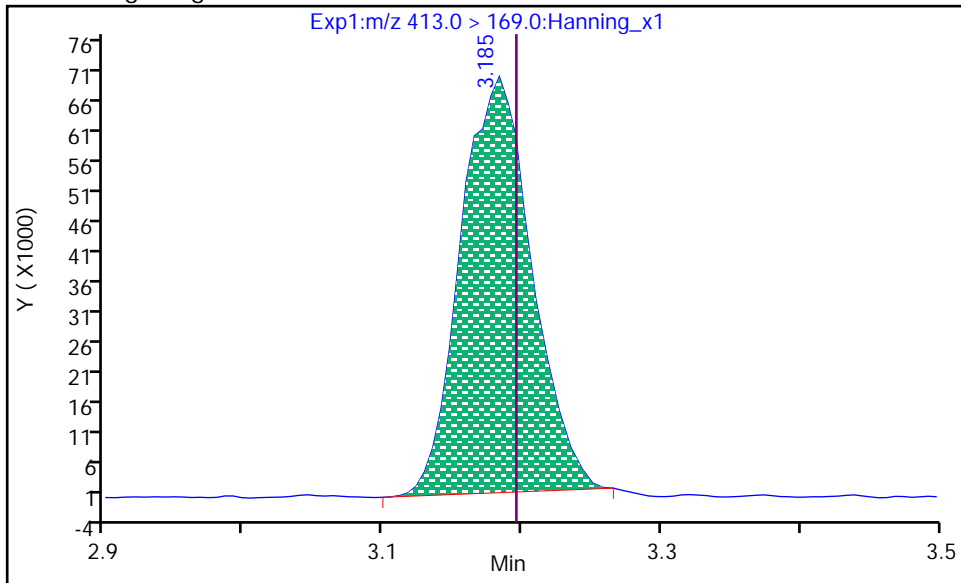
Dil. Factor: 1

Operator: eqi.svoa

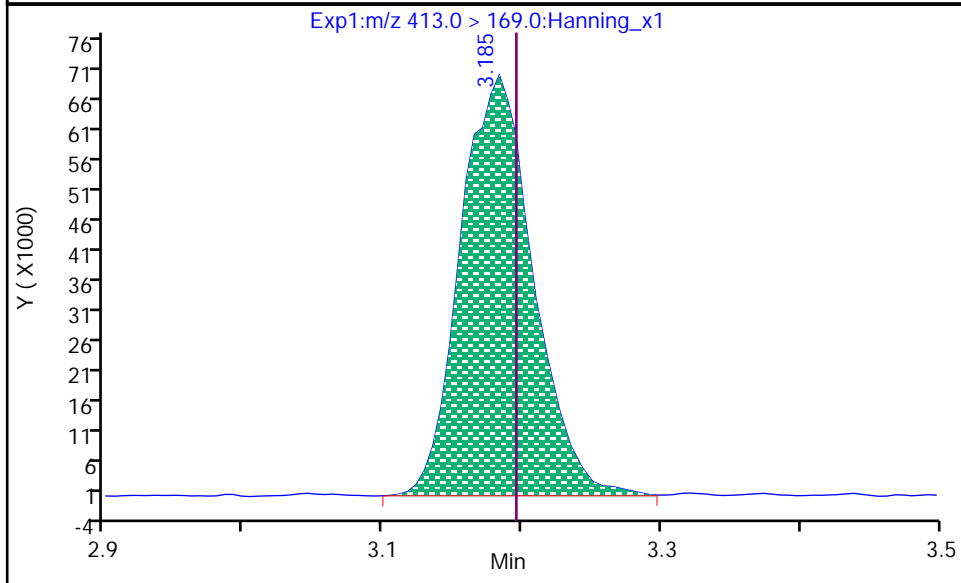
20 PFOA, CAS: 335-67-1

RT: 3.185
Area: 241196
Amount: 1031.05
Amount Units: ng/L

Processing Integration Results



RT: 3.185
Area: 250062
Amount: 1031.05
Amount Units: ng/L



Data Editor: andy.marshall, 05-Oct-2022 15:51:08

Audit Action: Mint

Audit Reason: M-03, Incorrect Auto Integration

Manual Integration Report

Data File: \\organics\LL\LCMSMS01.i\100422-nonDOD.b\100422048.d

Injection Date: 04-Oct-2022 18:47:02

Inst. ID: LCMSMS01.i

Client ID:

Lab ID:

CCV 1000C_SVLC-2215

Sample Info: CCV 1000C_SVLC-2215

Dil. Factor: 1

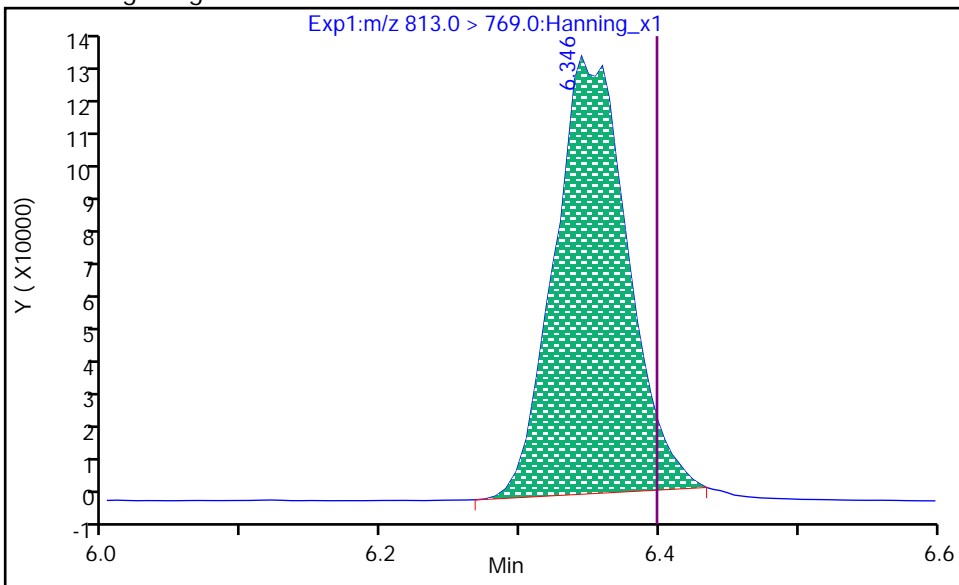
Operator:

eqi.svoa

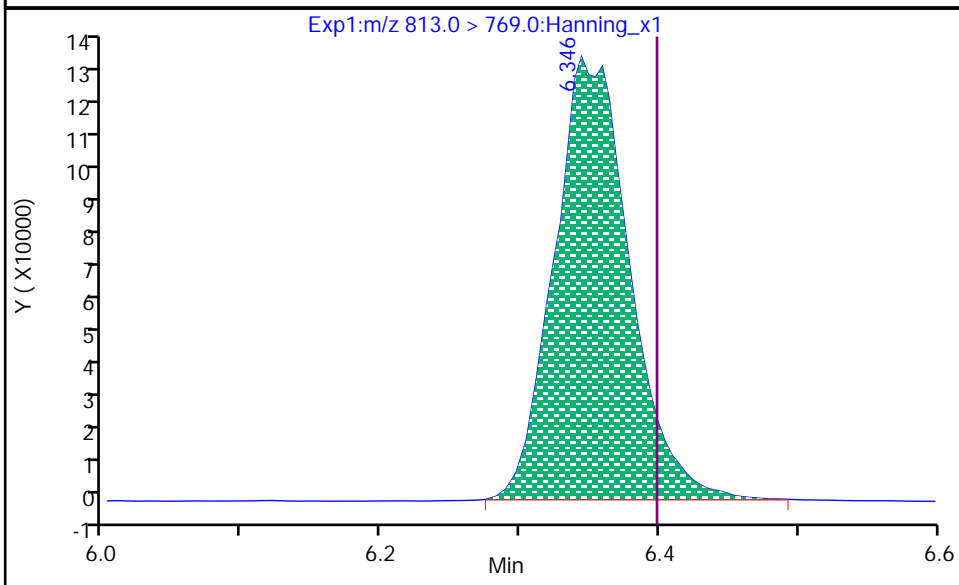
35 PFHxDA, CAS: 67905-19-5

Processing Integration Results

RT: 6.346
Area: 452067
Amount: 1192.78
Amount Units: ng/L



RT: 6.346
Area: 472154
Amount: 1245.78
Amount Units: ng/L



Data Editor: andy.marshall, 05-Oct-2022 08:52:48

Audit Action: Mint

Audit Reason: M-03, Incorrect Auto Integration

Manual Integration Report

Data File: \\organics\LL\LCMSMS01.i\100422-nonDOD.b\100422048.d

Injection Date: 04-Oct-2022 18:47:02

Inst. ID: LCMSMS01.i

Client ID:

Lab ID: CCV 1000C_SVLC-2215

Sample Info: CCV 1000C_SVLC-2215

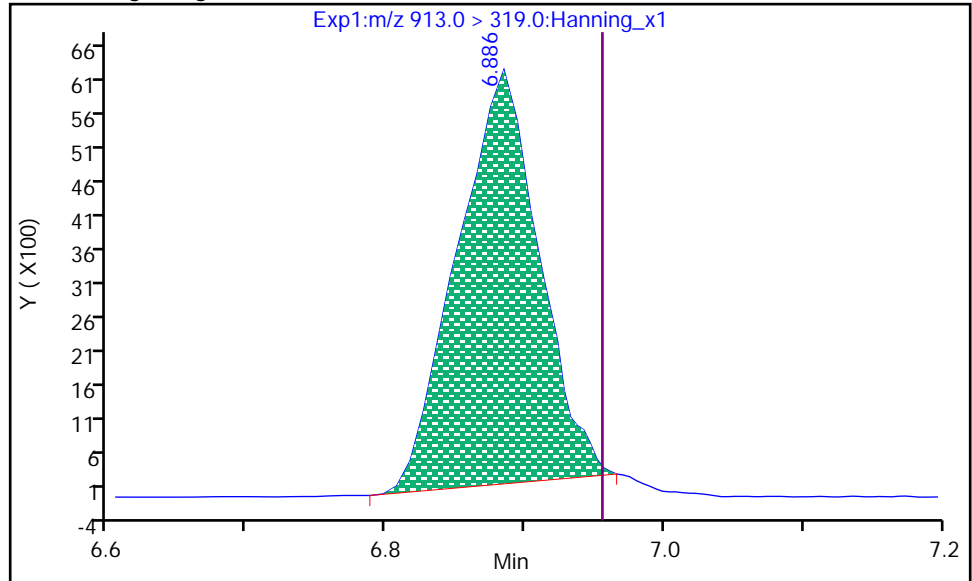
Dil. Factor: 1

Operator: eqi.svoa

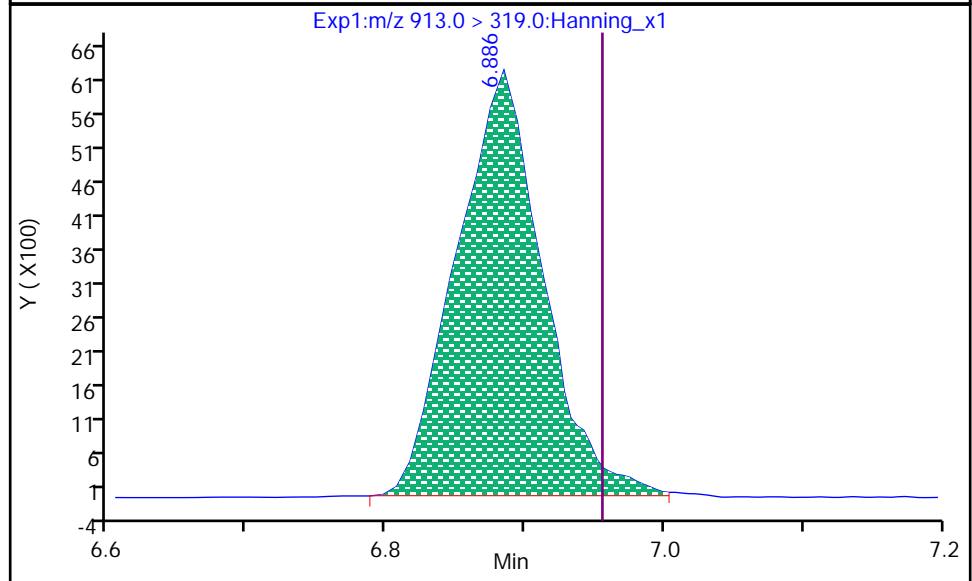
36 PFODA, CAS: 16517-11-6

Processing Integration Results

RT: 6.886
Area: 24357
Amount: 889.24
Amount Units: ng/L



RT: 6.886
Area: 26356
Amount: 889.24
Amount Units: ng/L



Data Editor: andy.marshall, 05-Oct-2022 17:18:19

Audit Action: Mint

Audit Reason: M-03, Incorrect Auto Integration

Manual Integration Report

Data File: \\organics\LL\LCMSMS01.i\100422-nonDOD.b\100422048.d

Injection Date: 04-Oct-2022 18:47:02

Inst. ID: LCMSMS01.i

Client ID:

Lab ID: CCV 1000C_SVLC-2215

Sample Info: CCV 1000C_SVLC-2215

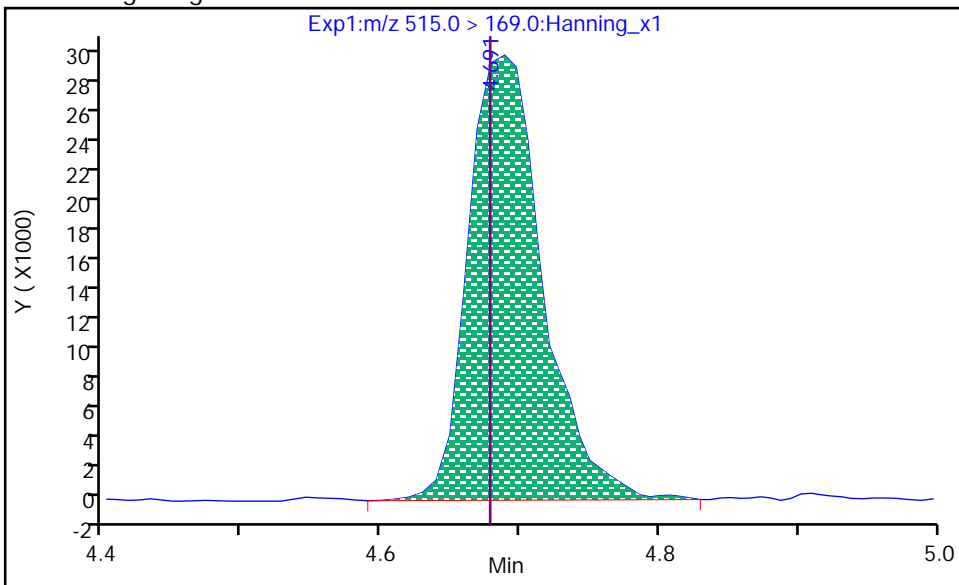
Dil. Factor: 1

Operator: eqi.svoa

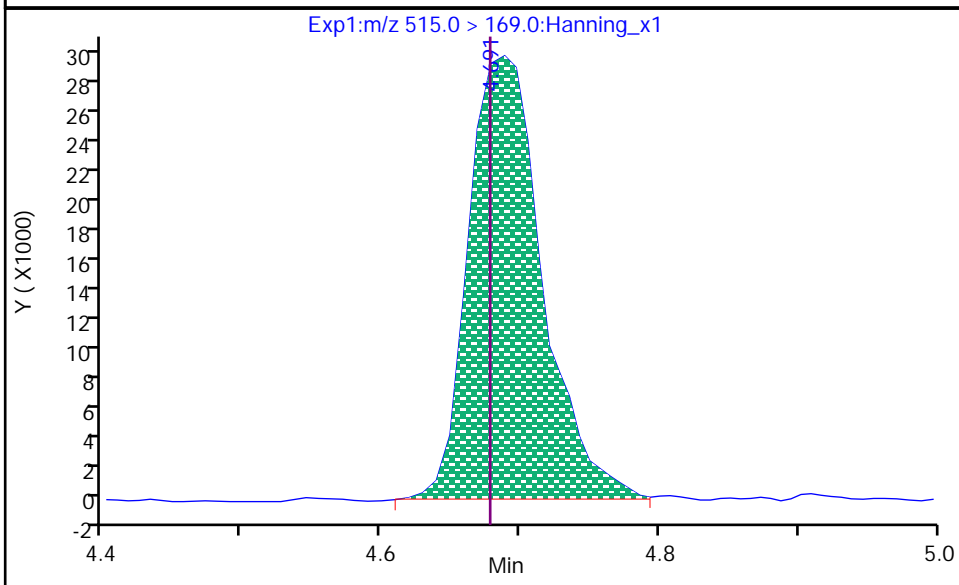
D 57 d3-MeFOSA, CAS: SESI-0109

Processing Integration Results

RT: 4.691
Area: 109276
Amount: 1910.65
Amount Units: ng/L



RT: 4.691
Area: 107663
Amount: 1882.45
Amount Units: ng/L



Data Editor: andy.marshall, 05-Oct-2022 17:18:47

Audit Action: Mint

Audit Reason: M-03, Incorrect Auto Integration

Manual Integration Report

Data File: \\organics\LL\LCMSMS01.i\100422-nonDOD.b\100422048.d

Injection Date: 04-Oct-2022 18:47:02

Inst. ID: LCMSMS01.i

Client ID:

Lab ID: CCV 1000C_SVLC-2215

Sample Info: CCV 1000C_SVLC-2215

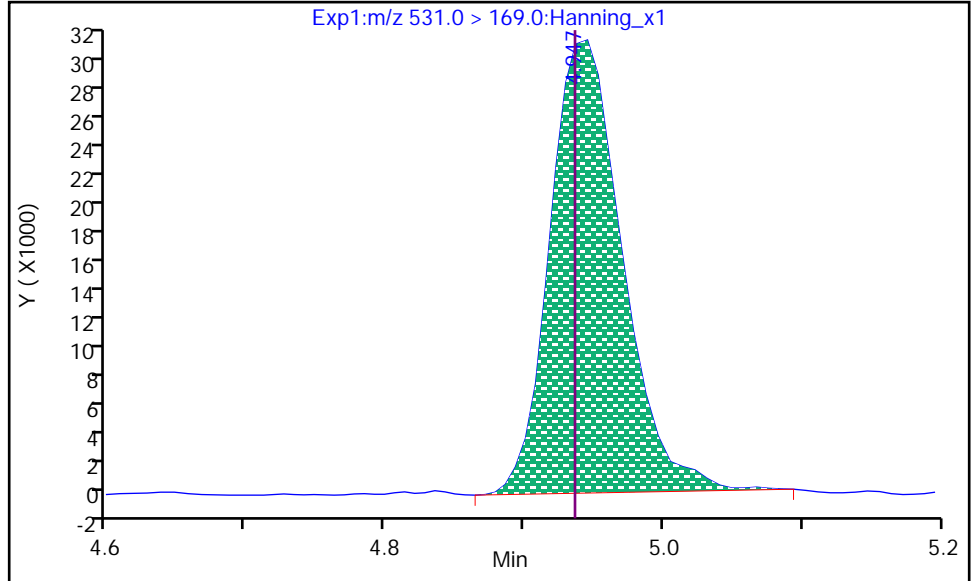
Dil. Factor: 1

Operator: eqi.svoa

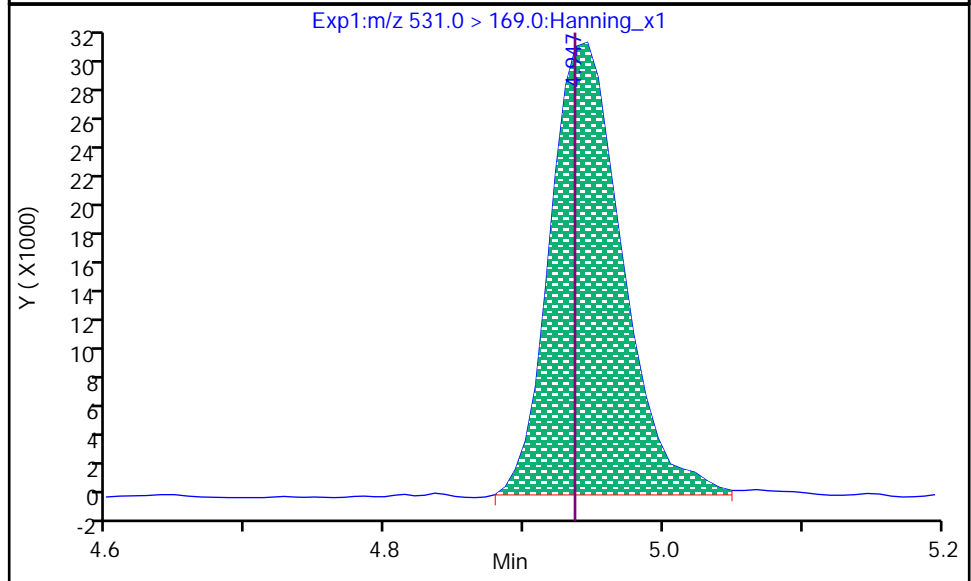
D 59 d5-EtFOSA, CAS: SESI-0108

RT: 4.947
Area: 112466
Amount: 2161.48
Amount Units: ng/L

Processing Integration Results



RT: 4.947
Area: 112066
Amount: 2153.79
Amount Units: ng/L



Data Editor: andy.marshall, 05-Oct-2022 17:18:55

Audit Action: Mint

Audit Reason: M-03, Incorrect Auto Integration

Manual Integration Report

Data File: \\organics\LL\LCMSMS01.i\100422-nonDOD.b\100422048.d

Injection Date: 04-Oct-2022 18:47:02

Inst. ID: LCMSMS01.i

Client ID:

Lab ID: CCV 1000C_SVLC-2215

Sample Info: CCV 1000C_SVLC-2215

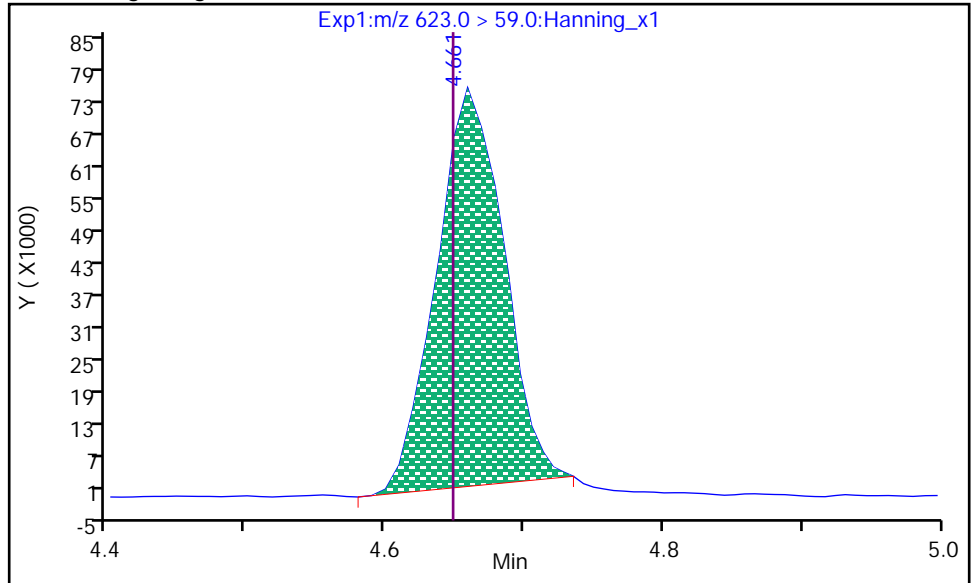
Dil. Factor: 1

Operator: eqi.svoa

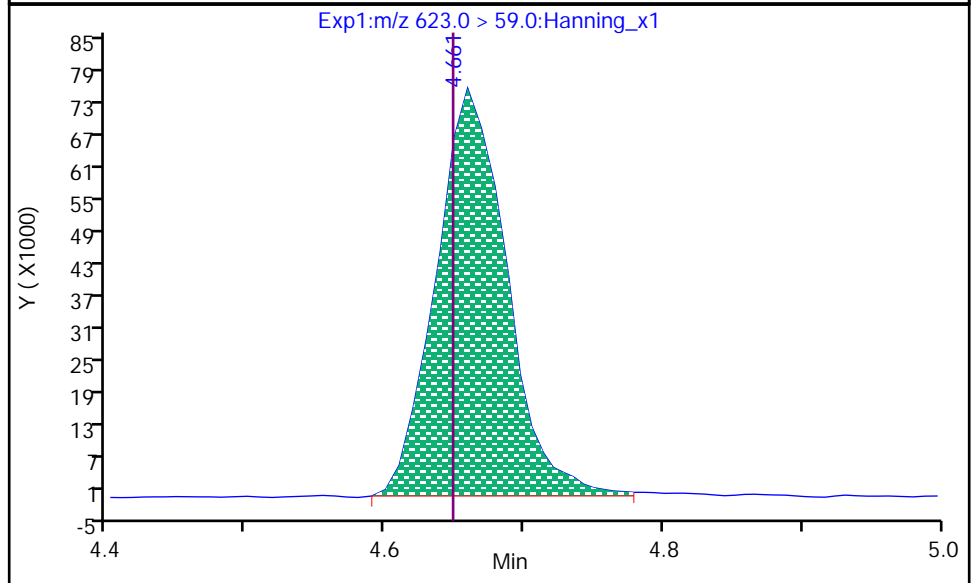
D 61 d7-MeFOSE, CAS: SESI-0129

Processing Integration Results

RT: 4.661
Area: 244913
Amount: 1767.82
Amount Units: ng/L



RT: 4.661
Area: 263854
Amount: 1904.54
Amount Units: ng/L



Data Editor: andy.marshall, 05-Oct-2022 17:18:34

Audit Action: Mint

Audit Reason: M-03, Incorrect Auto Integration

Manual Integration Report

Data File: \\organics\LL\LCMSMS01.i\100422-nonDOD.b\100422048.d

Injection Date: 04-Oct-2022 18:47:02

Inst. ID: LCMSMS01.i

Client ID:

Lab ID: CCV 1000C_SVLC-2215

Sample Info: CCV 1000C_SVLC-2215

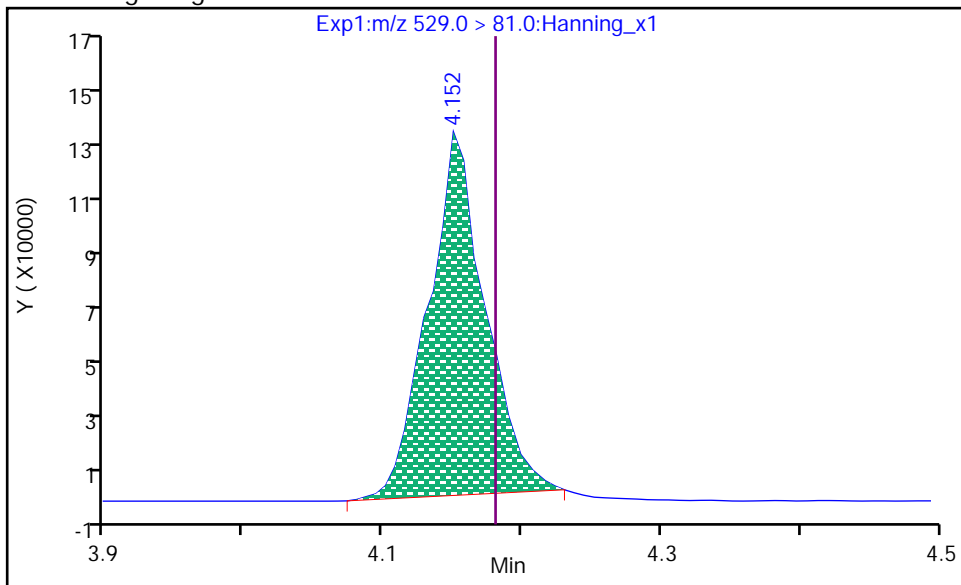
Dil. Factor: 1

Operator: eqi.svoa

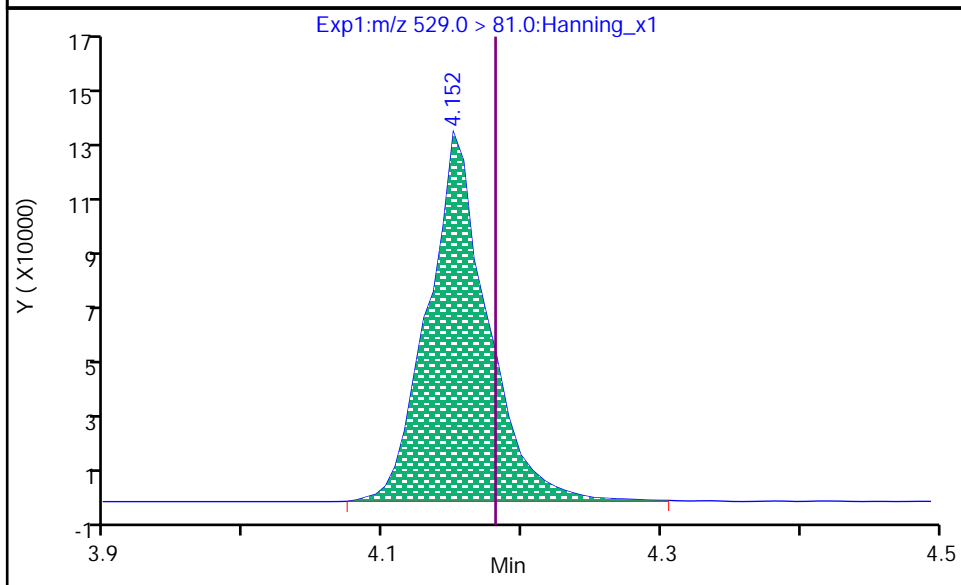
D 65 13C2_8:2 FTS_2, CAS: SESI-0106

Processing Integration Results

RT: 4.152
Area: 363803
Amount: 11119
Amount Units: ng/L



RT: 4.152
Area: 387373
Amount: 11840
Amount Units: ng/L



Data Editor: andy.marshall, 05-Oct-2022 17:16:53

Audit Action: Mint

Audit Reason: M-03, Incorrect Auto Integration

Pace Environmental Services, LLC
Continuing Calibration Verification Report

Data File: \\organics\LL\LCMSMS01.i\100422-nonDOD.b\100422058.d
Injection Date: 04-Oct-2022 20:33:15 Injection Vol: 10.0 uL
Sample Type: CCV Auto Sampler: 48
Sample Info: CCV 1000D_SVLC-2215 Misc. Info:
Inst. ID: LCMSMS01.i Operator: eqi.svoa
Method: LCMSMS01_PFAS-ID2 Version: V16 30-Jun-2022 10:54:24
Calib Method: PFAS-ID2 Lock State: Unlocked
Quant Method: IsoDil Integrator: picker

Reagent: Analytes Conc. Level: L-5 Vol. Added: 1.00 ml

Compound	Std Area	CCV Area	Exp. Conc ng/L	Conc ng/L	%Rec	%Rec Limits
D 46 13C4_PFBFA	2483701	2366801			95.3	50 - 150
8 PFBFA			1000.00	989.08	98.9	70 - 130
D 50 13C5_PFPeA	1656545	1642882			99.2	50 - 150
21 PFPeA			1000.00	933.38	93.3	70 - 130
7 PFBS			884.00	835.83	94.6	70 - 130
D 44 13C3_PFBS	686890	672781			97.9	50 - 150
D 63 13C2_4:2 FTS_2	515347	577395			112	50 - 150
1 4:2 FTS			934.00	973.89	104.3	70 - 130
D 49 13C5_PFHxA	1666188	1644870			98.7	50 - 150
15 PFHxA			1000.00	1048.62	104.9	70 - 130
22 PFPeS			938.00	836.34	89.2	70 - 130
D 66 13C3_GenX	1500035	1454971			97	50 - 150
28 GenX			2000.00	2507.25	125.4	70 - 130
D 47 13C4_PFHpA	1472295	1558590			105.9	50 - 150
13 PFHpA			1000.00	948.84	94.9	70 - 130
D 45 13C3_PFHxS	439670	501993			114.2	50 - 150
14 PFHxS			910.00	785.83	86.4	70 - 130
29 ADONA			942.00	745.08	79.1	70 - 130
2 6:2 FTS			948.00	947.06	99.9	70 - 130
D 64 13C2_6:2 FTS_2	377928	361556			95.7	50 - 150
D 53 13C8_PFOA	1346804	1488185			110.5	50 - 150
20 PFOA			1000.00	885.80	88.6	70 - 130
12 PFHpS			952.00	786.51	82.6	70 - 130
D 54 13C8_PFOS	495461	509539			102.8	50 - 150
D 56 13C9_PFNA	1574268	1448421			92	50 - 150
18 PFOS			928.00	911.04	98.2	70 - 130
17 PFNA			1000.00	1020.05	102	70 - 130
30 9CI-PF3ONS			932.00	971.68	104.3	70 - 130
D 55 13C8_PFOA	913150	881518			96.5	50 - 150
19 PFOSA			1000.00	1002.39	100.2	70 - 130
3 8:2 FTS			958.00	1132.92	118.3	70 - 130
D 65 13C2_8:2 FTS_2	329349	352770			107.1	50 - 150
16 PFNS			960.00	1057.97	110.2	70 - 130
10 PFDA			1000.00	966.80	96.7	70 - 130
D 51 13C6_PFDA	1121547	1383123			123.3	50 - 150
D 58 d3-MeFOSAA	1466681	1741027			118.7	50 - 150

Compound	Std Area	CCV Area	Exp. Conc ng/L	Conc ng/L	%Rec	%Rec Limits
6 N-MeFOSAA			1000.00	1034.45	103.4	70 - 130
9 PFDS			964.00	1162.44	120.6	70 - 130
D 60 d5-EtFOSAA	1351849	1629156			120.5	50 - 150
D 52 13C7_PFUdA	1046560	1160833			110.9	50 - 150
25 PFUdA			1000.00	914.63	91.5	70 - 130
5 N-EtFOSAA			1000.00	1012.41	101.2	70 - 130
D 61 d7-MeFOSE	262067	252831			96.5	50 - 150
32 MeFOSE			1000.00	1208.75	120.9	70 - 130
D 57 d3-MeFOSA	93529	102082			109.1	50 - 150
26 MeFOSA			1000.00	1096.28	109.6	70 - 130
31 11Cl-PF3OUDS			942.00	986.63	104.7	70 - 130
D 62 d9-EtFOSE	236574	251301			106.2	50 - 150
33 EtFOSE			1000.00	1151.80	115.2	70 - 130
D 59 d5-EtFOSA	111662	104887			93.9	50 - 150
27 EtFOSA			1000.00	1179.90	118	70 - 130
4 10:2 FTS			964.00	2062.73	214	70 - 130
D 38 13C2_PFDoA	1032159	1226901			118.9	50 - 150
11 PFDoA			1000.00	1093.84	109.4	70 - 130
34 PFDOS			968.00	918.54	94.9	70 - 130
24 PFTrDA			1000.00	1059.68	106	70 - 130
23 PFTeDA			1000.00	968.26	96.8	70 - 130
D 42 13C2_PFTeDA	1146962	1421830			124	50 - 150
D 40 13C2_PFHxDA	539201	640806			118.8	50 - 150
35 PFHxDA			1000.00	1169.29	116.9	70 - 130
36 PFODA			1000.00	799.69	80	70 - 130

Pace Environmental Services, LLC
 Analyte Quantitation Report

Data File: \\organics\LL\LCMSMS01.i\100422-nonDOD.b\100422058.d
 Injection Date: 04-Oct-2022 20:33:15 Injection Vol: 10.0 uL
 Sample Type: CCV Auto Sampler: 48
 Sample Info: CCV 1000D_SVLC-2215 Misc. Info:
 Inst. ID: LCMSMS01.i Operator: eqi.svoa
 Method: LCMSMS01_PFAS-ID2 Version: V16 30-Jun-2022 10:54:24
 Calib Method: PFAS-ID2 Lock State: Unlocked
 Quant Method: IsoDil Integrator: picker

Reagent: Analytes Conc. Level: L-5 Vol. Added: 1.00 ml

Signal	Quant Std	RT (Min)	Exp RT (Min)	□ RT (Min)	Response	Peak Pts	S/N	Ion Ratio	Isomer Ratio	Cal Conc ng/L	OnCol Conc ng/L	%Drift/%Rec	Flags
D 46 13C4_PFBA CAS: SESI-0111													
217 > 172		1.659	1.674	0.000	2366801	20	>100:1			2000.00	2079.73	95.3	
8 Perfluoro-n-butanoic acid (PFBA) CAS: 375-22-4													
212.9 > 168.9	46	1.665	1.674	0.000	1189356	20	>100:1			1000.00	989.08		
D 50 13C5_PFPeA CAS: SESI-0112													
267.9 > 223		1.976	1.990	0.000	1642882	17	>100:1			2000.00	2163.44	99.2	
21 Perfluoro-n-pentanoic acid (PFPeA) CAS: 2706-90-3													
262.9 > 218.9	50	1.976	1.990	0.000	862933	17	>100:1			1000.00	933.38		
D 44 13C3_PFBS CAS: SESI-0116													
302 > 80		2.017	2.041	0.000	672781	15	>100:1			2000.00	2214.38	97.9	
7 Perfluoro-1-butanefulfonate (PFBS) CAS: 375-73-5													
298.9 > 80	44	2.017	2.041	0.000	335987	17	>100:1	Target = 3.98		884.00	835.83		
298.9 > 99	44	2.017	2.041		87960	15	>100:1	3.81 (1.99-5.97)					
22 Perfluoro-1-pentanesulfonic acid (PFPeS) CAS: 2706-91-4													
349 > 80	44	2.347	2.365	0.000	283715	18	>100:1	Target = 3.63		938.00	836.34		
349 > 99	44	2.347	2.365		87075	19	>100:1	3.25 (1.81-5.44)					
D 63 13C2_4:2 FTS_2 CAS: SESI-0104													
329 > 81		2.283	2.301	0.000	577395	20	>100:1			10000	12956	112	
1 Fluorotelomer sulfonate 4:2 [1H,1H,2H,2H-perfluorohexane sulfonate] (4:2 FTS) CAS: 757124-72-4													
327 > 307	63	2.273	2.301	0.000	101510	18	>100:1	Target = 1.34		934.00	973.89		
327 > 81	63	2.283	2.301		71847	19	>100:1	1.41 (0.67-2.01)					
D 49 13C5_PFHxA CAS: SESI-0113													
318 > 273		2.319	2.337	0.000	1644870	18	>100:1			2000.00	1961.55	98.7	
15 Perfluoro-n-hexanoic acid (PFHxA) CAS: 307-24-4													
313 > 269	49	2.319	2.337	0.000	819674	19	>100:1	Target = 17.13		1000.00	1048.62		
313 > 119	49	2.319	2.337		44443	20	>100:1	18.44 (8.56-25.70)					
D 66 13C3_GenX CAS: SESI-0121													
287 > 185		2.438	2.456	0.000	1454971	19	>100:1			10000	9937.68	97	
28 Hexafluoropropylene oxide dimer acid (GenX) CAS: 13252-13-6													
285 > 119	66	2.429	2.456	0.000	235955	18	>100:1	Target = 0.62		2000.00	2507.25		
285 > 185	66	2.429	2.456		351357	20	>100:1	0.67 (0.31-0.94)					
D 47 13C4_PFHpA CAS: SESI-0114													
367 > 322		2.724	2.744	0.000	1558590	20	>100:1			2000.00	2141.84	105.9	
13 Perfluoro-n-heptanoic acid (PFHpA) CAS: 375-85-9													
363 > 319	47	2.713	2.744	0.000	717390	21	>100:1	Target = 3.31		1000.00	948.84		
363 > 169	47	2.724	2.744		203673	19	>100:1	3.52 (1.65-4.97)					
D 45 13C3_PFHxS CAS: SESI-0096													
402 > 80		2.744	2.754	0.000	501993	19	>100:1			2000.00	2492.54	114.2	
14 Perfluorohexanesulfonate (PFHxS) CAS: 355-46-4													
399 > 80	45	2.734	2.754	0.000	229909	36	>100:1	Target = 3.67	5.78	910.00	785.83		M
399 > 99	45	2.734	2.754		64202	33	>100:1	3.58 (1.83-5.51)	8.44				M

Signal	Quant Std	RT (Min)	Exp RT (Min)	□ RT (Min)	Response	Peak Pts	S/N	Ion Ratio	Isomer Ratio	Cal Conc ng/L	OnCol Conc ng/L	%Drift/%Rec	Flags
29 4,8-dioxo-3H-perfluorononanoic acid (ADONA) CAS: 919005-14-4													
377 > 251	45	2.764	2.784	0.000	1100195	22	>100:1	Target = 2.35		942.00	745.08		M
377 > 85	45	2.764	2.784		540346	19	>100:1	2.03 (1.17-3.53)					
12 Perfluoro-1-heptanesulfonic acid (PFHpS) CAS: 375-92-8													
449 > 80	45	3.198	3.212	0.000	239812	27	>100:1	Target = 3.65		952.00	786.51		
449 > 99	45	3.192	3.212		66961	26	>100:1	3.58 (1.82-5.48)					
D 64 13C2_6:2 FTS_2 CAS: SESI-0105													
429 > 81		3.156	3.168	0.000	361556	30	>100:1			10000	11813	95.7	M
2 Fluorotelomer sulfonate 6:2 [1H,1H,2H,2H-perfluorooctane sulfonate] (6:2 FTS) CAS: 27619-97-2													
427 > 407	64	3.162	3.168	0.000	61266	28	>100:1	Target = 1.43		948.00	947.06		
427 > 81	64	3.144	3.168		49177	35	>100:1	1.24 (0.71-2.15)					
D 53 13C8_PFOA CAS: SESI-0097													
421 > 376		3.180	3.198	0.000	1488185	27	>100:1			2000.00	2164.62	110.5	
20 Perfluoro-n-octanoic acid (PFOA) CAS: 335-67-1													
413 > 369	53	3.186	3.198	0.000	648123	27	>100:1	Target = 2.73		1000.00	885.80		
413 > 169	53	3.186	3.198		242035	27	>100:1	2.67 (1.36-4.10)					
D 56 13C9_PFNA CAS: SESI-0099													
472 > 427		3.682	3.704	0.000	1448421	26	>100:1			2000.00	2055.12	92	
17 Perfluoro-n-nonanoic acid (PFNA) CAS: 375-95-1													
463 > 419	56	3.677	3.704	0.000	672393	36	>100:1	Target = 5.23		1000.00	1020.05		
463 > 169	56	3.682	3.704		131369	36	>100:1	5.11 (2.61-7.85)					
D 54 13C8_PFOS CAS: SESI-0098													
507 > 80		3.671	3.697	0.000	509539	27	>100:1			2000.00	2006.06	102.8	
18 Perfluorooctanesulfonate (PFOS) CAS: 1763-23-1													
499 > 80	54	3.677	3.711	0.000	274181	89	>100:1	Target = 4.39	3.58	928.00	911.04		M
499 > 99	54	3.697	3.711		71216	78	>100:1	3.84 (2.19-6.59)	8.06				M
30 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS) CAS: 756426-58-1													
531 > 351	54	3.973	3.993	0.000	520164	36	>100:1			932.00	971.68		M
16 Perfluoro-1-nonanesulfonic acid (PFNS) CAS: 68259-12-1													
549 > 80	54	4.159	4.183	0.000	258944	27	>100:1	Target = 4.20		960.00	1057.97		
549 > 99	54	4.175	4.183		68762	23	>100:1	3.76 (2.10-6.31)					
9 Perfluoro-1-decanesulfonic acid (PFDS) CAS: 335-77-3													
599 > 80	54	4.612	4.641	0.000	281044	21	>100:1	Target = 3.97		964.00	1162.44		
599 > 99	54	4.622	4.641		64780	23	>100:1	4.33 (1.98-5.96)					M
31 11-chloroeicosafuoro-3-oxaundecane-1-sulfonic acid (11CI-PF3OUdS) CAS: 763051-92-9													
631 > 451	54	4.852	4.888	0.000	491084	25	>100:1			942.00	986.63		
34 Perfluorododecanesulfonic acid (PFDOS) CAS: 79780-39-5													
699 > 80	54	5.385	5.425	0.000	206855	22	>100:1	Target = 3.61		968.00	918.54		
699 > 99	54	5.385	5.425		61791	26	>100:1	3.34 (1.80-5.41)					
D 55 13C8_PFOA CAS: SESI-0107													
506 > 78		4.062	4.042	0.000	881518	33	>100:1			2000.00	2047.19	96.5	
19 Perfluoro-1-octanesulfonamide (PFOSA) CAS: 754-91-6													
498 > 78	55	4.062	4.042	0.000	479948	28	>100:1	Target = 49.36		1000.00	1002.39		
498>478	55	4.076	4.042		10280	23	98:1	46.68 (24.68-74.04)					
D 65 13C2_8:2 FTS_2 CAS: SESI-0106													
529 > 81		4.159	4.183	0.000	352770	34	>100:1			10000	10782	107.1	M
3 Fluorotelomer sulfonate 8:2 [1H,1H,2H,2H-perfluorododecane sulfonate] (8:2 FTS) CAS: 39108-34-4													
527 > 507	65	4.145	4.183	0.000	52385	26	>100:1	Target = 1.14		958.00	1132.92		
527 > 81	65	4.175	4.183		46748	28	>100:1	1.12 (0.57-1.71)					
4 1H,1H,2H,2H-perfluorododecane sulfonate (10:2FTS) CAS: 120226-60-0													
627 > 607	65	5.059	5.094	0.000	101500	31	>100:1	Target = 2.20		964.00	2062.73		M
627 > 80	65	5.059	5.094		49943	22	>100:1	2.03 (1.10-3.30)					M
D 51 13C6_PFDA CAS: SESI-0115													
519 > 474		4.175	4.200	0.000	1383123	29	>100:1			2000.00	2463.68	123.3	M
10 Perfluoro-n-decanoic acid (PFDA) CAS: 335-76-2													
513 > 469	51	4.167	4.200	0.000	633655	25	>100:1	Target = 9.82		1000.00	966.80		
513 > 169	51	4.167	4.200		59029	27	>100:1	10.73 (4.91-14.73)					
D 58 d3-MeFOSAA CAS: SESI-0102													
573 > 419		4.390	4.421	0.000	1741027	35	>100:1			10000	12122	118.7	M

Signal	Quant Std	RT (Min)	Exp RT (Min)	□ RT (Min)	Response	Peak Pts	S/N	Ion Ratio	Isomer Ratio	Cal Conc ng/L	OnCol Conc ng/L	%Drift/%Rec	Flags
6 N-methylperfluoro-1-octanesulfonamidoacetic acid (N-MeFOSAA) CAS: 2355-31-9													
570 > 419	58	4.397	4.429	0.000	149120	54	>100:1	Target = 1.41	7.56	1000.00	1034.45		M
570 > 483	58	4.397	4.429		98683	58	>100:1	1.51 (0.70-2.12)	4.51				M
D 60 d5-EtFOSAA CAS: SESI-0110													
589 > 419		4.631	4.661	0.000	1629156	23	>100:1			10000	13167	120.5	
5 N-ethylperfluoro-1-octanesulfonamidoacetic acid (N-EtFOSAA) CAS: 2991-50-6													
584 > 419	60	4.631	4.661	0.000	162251	49	>100:1	Target = 1.77	7.67	1000.00	1012.41		M
584 > 526	60	4.631	4.661		97174	49	>100:1	1.66 (0.88-2.66)	5.38				M
D 52 13C7_PFUdA CAS: SESI-0117													
570 > 525		4.631	4.661	0.000	1160833	21	>100:1			2000.00	2359.70	110.9	
25 Perfluoro-n-undecanoic acid (PFUdA) CAS: 2058-94-8													
563 > 519	52	4.631	4.661	0.000	487751	19	>100:1	Target = 9.80		1000.00	914.63		
563 > 169	52	4.641	4.661		51190	19	>100:1	9.52 (4.90-14.71)					
D 61 d7-MeFOSE CAS: SESI-0129													
623 > 59		4.680	4.651	0.000	252831	24	>100:1			2000.00	1824.97	96.5	M
32 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE) CAS: 24448-09-7													
616 > 59	61	4.671	4.670	0.000	163676	28	>100:1			1000.00	1208.75		M
D 57 d3-MeFOSA CAS: SESI-0109													
515 > 169		4.698	4.680	0.000	102082	22	>100:1			2000.00	1784.87	109.1	M
26 N-methylperfluoro-1-octanesulfonamide (MeFOSA) CAS: 31506-32-8													
512 > 169	57	4.707	4.690	0.000	61442	20	>100:1	Target = 1.09		1000.00	1096.28		
512 > 219	57	4.715	4.690		63140	24	>100:1	0.97 (0.54-1.64)					
D 62 d9-EtFOSE CAS: SESI-0130													
639 > 59		4.917	4.902	0.000	251301	24	>100:1			2000.00	1905.61	106.2	
33 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE) CAS: 1691-99-2													
630 > 59	62	4.938	4.924	0.000	132616	31	>100:1			1000.00	1151.80		
D 59 d5-EtFOSA CAS: SESI-0108													
531 > 169		4.954	4.938	0.000	104887	24	>100:1			2000.00	2015.82	93.9	
27 N-ethylperfluoro-1-octanesulfonamide (EtFOSA) CAS: 4151-50-2													
526 > 169	59	4.971	4.946	0.000	70277	24	>100:1	Target = 0.99		1000.00	1179.90		
526 > 219	59	4.962	4.946		72300	22	>100:1	0.97 (0.49-1.48)					
D 38 13C2_PFDaA CAS: SESI-0118													
615 > 570		5.059	5.085	0.000	1226901	22	>100:1			2000.00	2413.17	118.9	
11 Perfluoro-n-dodecanoic acid (PFDaA) CAS: 307-55-1													
613 > 569	38	5.050	5.085	0.000	652556	21	>100:1	Target = 7.48		1000.00	1093.84		
613 > 169	38	5.041	5.085		87939	24	>100:1	7.42 (3.74-11.23)					
24 Perfluoro-n-tridecanoic acid (PFTrDA) CAS: 72629-94-8													
663 > 619	38	5.425	5.456	0.000	357410	24	>100:1	Target = 3.88		1000.00	1059.68		
663 > 169	38	5.425	5.456		91687	29	>100:1	3.89 (1.94-5.82)					
D 42 13C2_PFTeDA CAS: SESI-0119													
715 > 670		5.757	5.794	0.000	1421830	40	>100:1			2000.00	2489.67	124	
23 Perfluoro-n-tetradecanoic acid (PFTeDA) CAS: 376-06-7													
713 > 669	42	5.757	5.794	0.000	640235	40	>100:1	Target = 8.56		1000.00	968.26		
713 > 169	42	5.757	5.794		70210	42	>100:1	9.11 (4.28-12.84)					
D 40 13C2_PFHxDA CAS: SESI-0103													
815 > 770		6.355	6.395	0.000	640806	37	>100:1			2000.00	2212.37	118.8	
35 Perfluoro-n-hexadecanoic acid (PFHxDA) CAS: 67905-19-5													
813 > 769	40	6.355	6.400	0.000	475659	42	>100:1	Target = 9.44		1000.00	1169.29		
813 > 269	40	6.360	6.400		51613	37	>100:1	9.21 (4.72-14.16)					
36 Perfluoro-n-octadecanoic acid (PFODA) CAS: 16517-11-6													
913 > 869	40	6.886	6.957	0.000	275245	39	>100:1	Target = 11.20		1000.00	799.69		
913 > 319	40	6.886	6.957		25426	33	>100:1	10.82 (5.60-16.81)					
* 37 13C2_PFDA													
515 > 470		4.152	4.183	0.000	746	11	6.9:1			2000.00			
* 39 13C2_PFHxA CAS: SESI-0120													
315 > 270		2.319	2.337	0.000	1302	20	17:1			2000.00			
* 41 13C2_PFOA CAS: 864071-08-9													
415 > 370		3.220	3.212	0.000	284	13	6.1:1			2000.00			

Signal	Quant Std	RT (Min)	Exp RT (Min)	□ RT (Min)	Response	Peak Pts	S/N	Ion Ratio	Isomer Ratio	Cal Conc ng/L	OnCol Conc ng/L	%Drift/%Rec	Flags
* 43 13C3_PFBA													
216 > 172		1.659	1.674	0.000	14192	22	83:1			2000.00			
* 48 13C4_PFOS CAS: 2795-39-3													
503 > 80		3.682	3.677	0.000	5512	25	34:1			2000.00			

Compound Type Legend

D - Isotopic Dilution Std.
* - ISTD

QC Flag Legend

M - Compound Hit/Peak Manually Integrated

Data File: \\organics\LL\LCMSMS01.i\100422-nonDOD.b\100422058.d

Injection Date: 04-Oct-2022 20:33:15

Inst. ID: LCMSMS01.i

Client ID:

Lab ID:

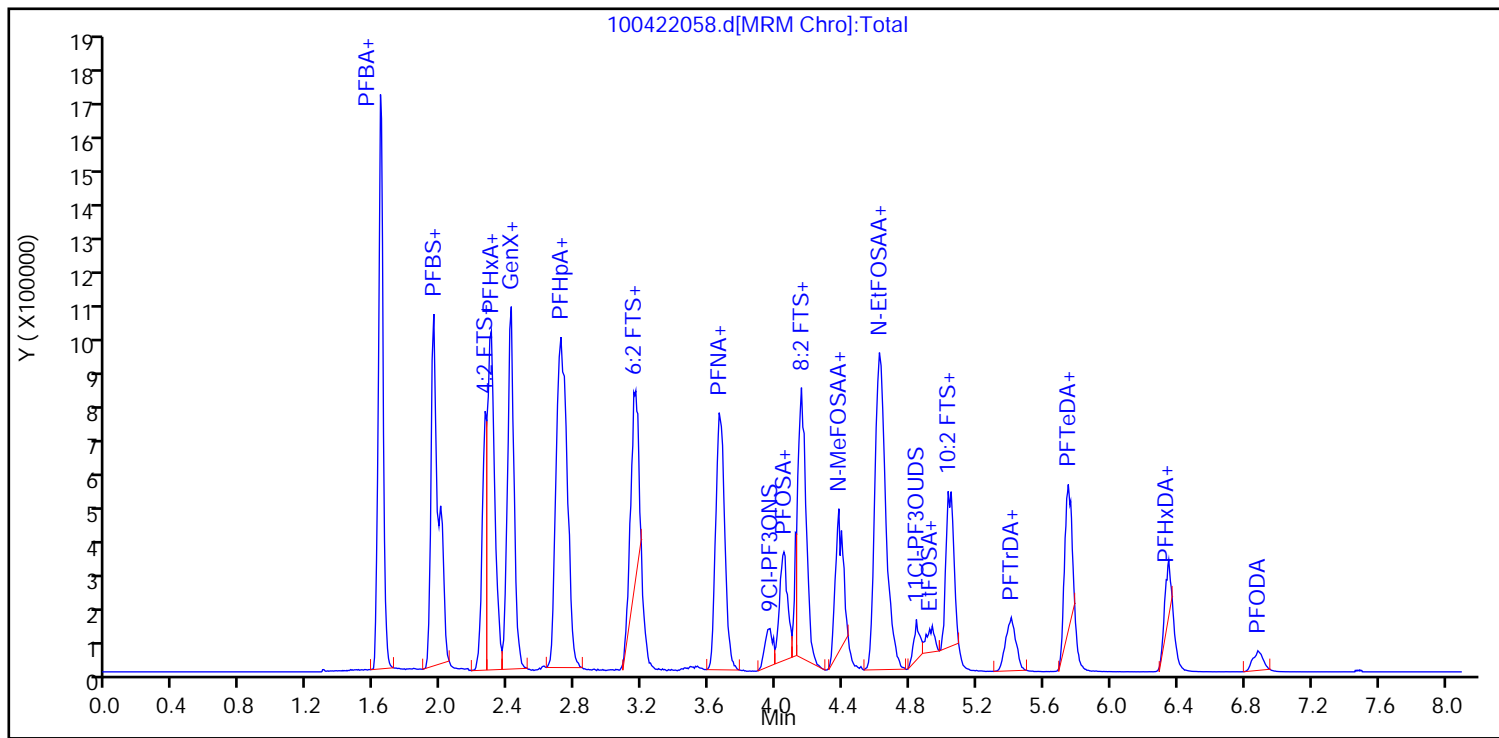
CCV 1000D_SVLC-2215

Sample Info: CCV 1000D_SVLC-2215

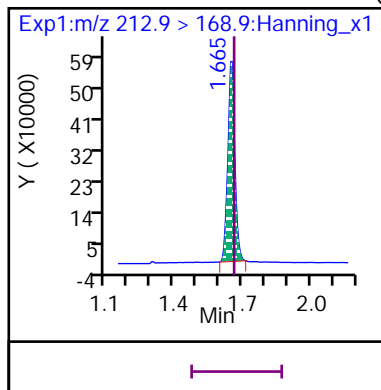
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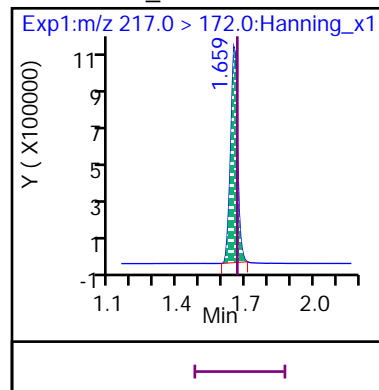
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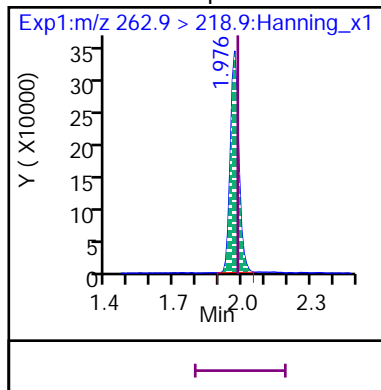
8 Perfluoro-n-butanoic acid (PFBA)



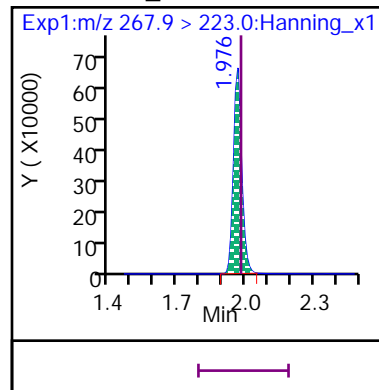
D 46 13C4_PFBA



21 Perfluoro-n-pentanoic acid (PFPeA)

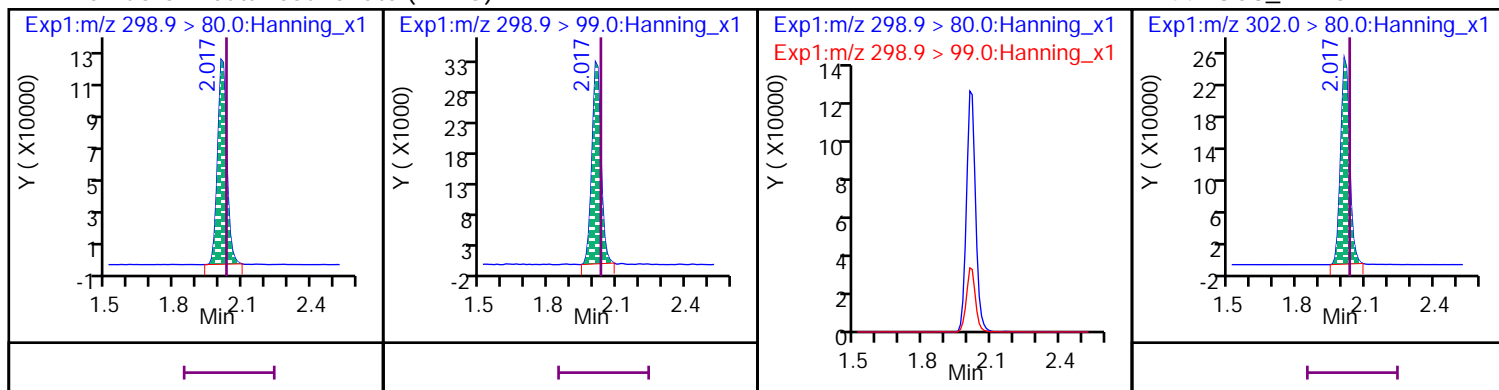


D 50 13C5_PFPeA



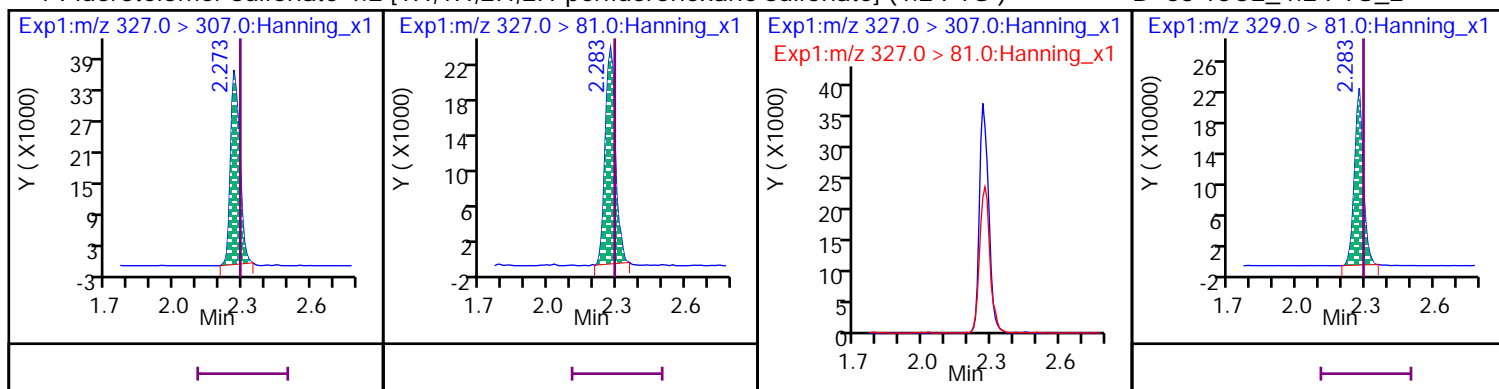
7 Perfluoro-1-butanesulfonate (PFBS)

D 44 13C3_PFBS



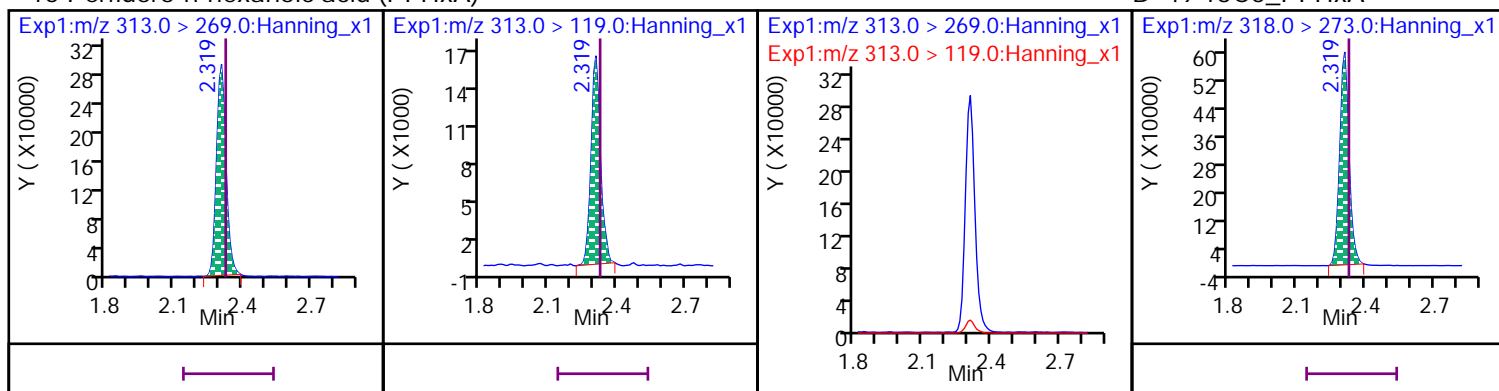
1 Fluorotelomer sulfonate 4:2 [1H,1H,2H,2H-perfluorohexane sulfonate] (4:2 FTS)

D 63 13C2_4:2 FTS_2



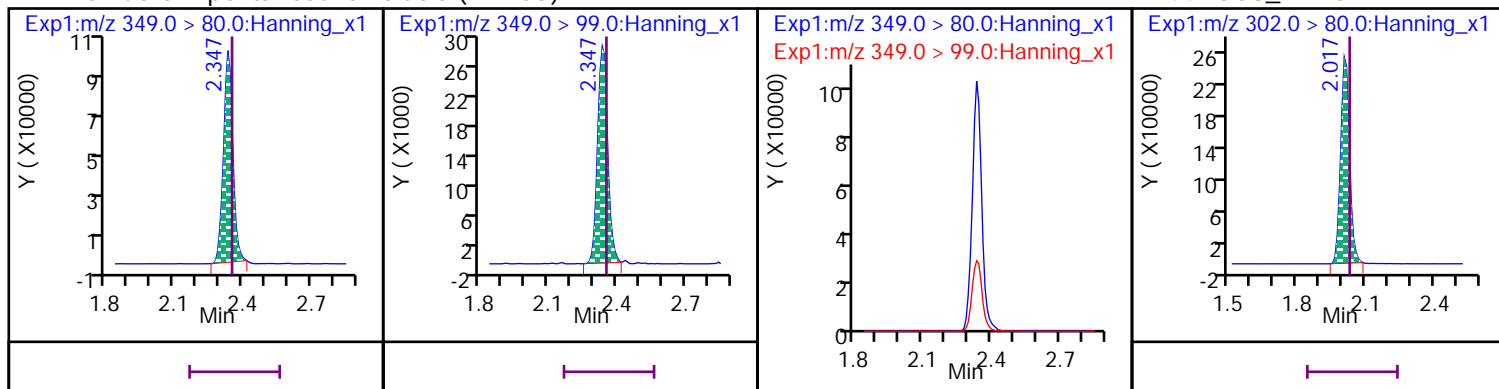
15 Perfluoro-n-hexanoic acid (PFHxA)

D 49 13C5_PFHxA



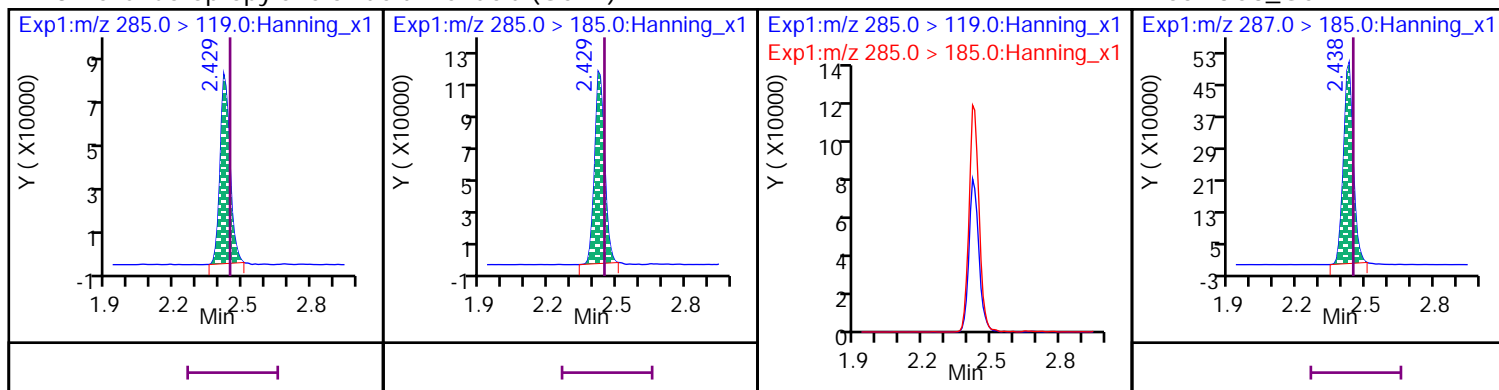
22 Perfluoro-1-pentanesulfonic acid (PFPeS)

D 44 13C3_PFBS



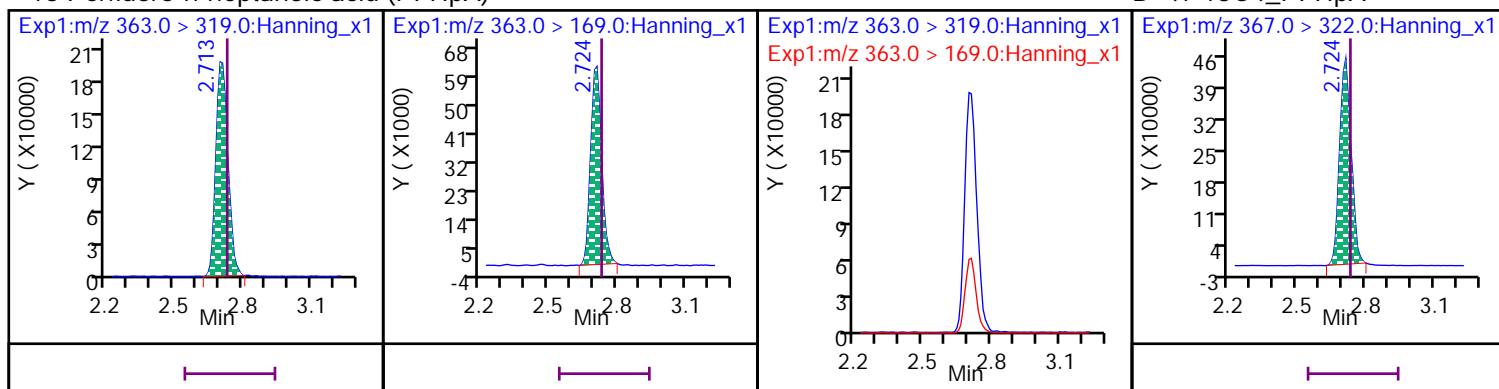
28 Hexafluoropropylene oxide dimer acid (GenX)

D 66 13C3_GenX



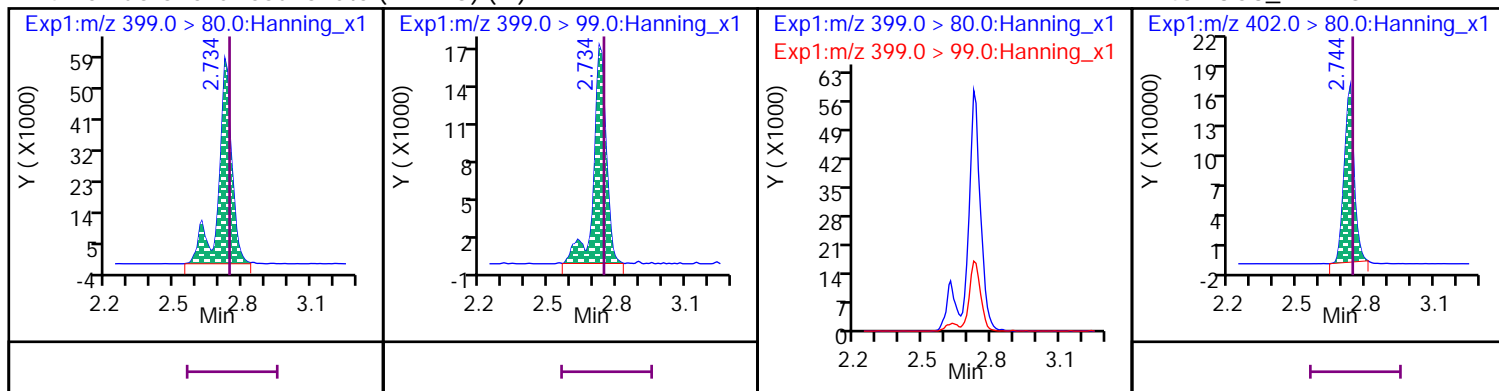
13 Perfluoro-n-heptanoic acid (PFHpa)

D 47 13C4_PFHpa



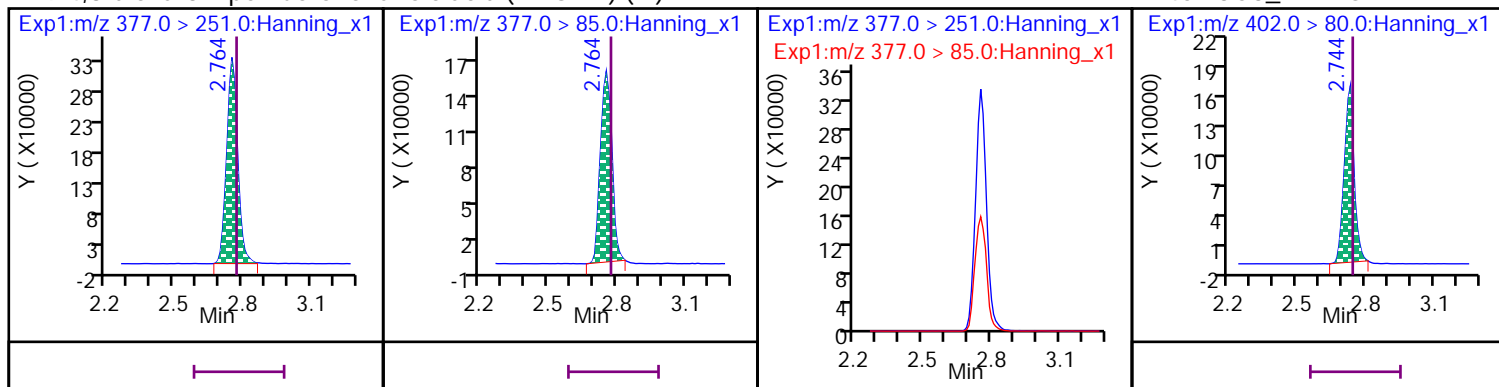
14 Perfluorohexanesulfonate (PFHxS) (M)

D 45 13C3_PFHxS



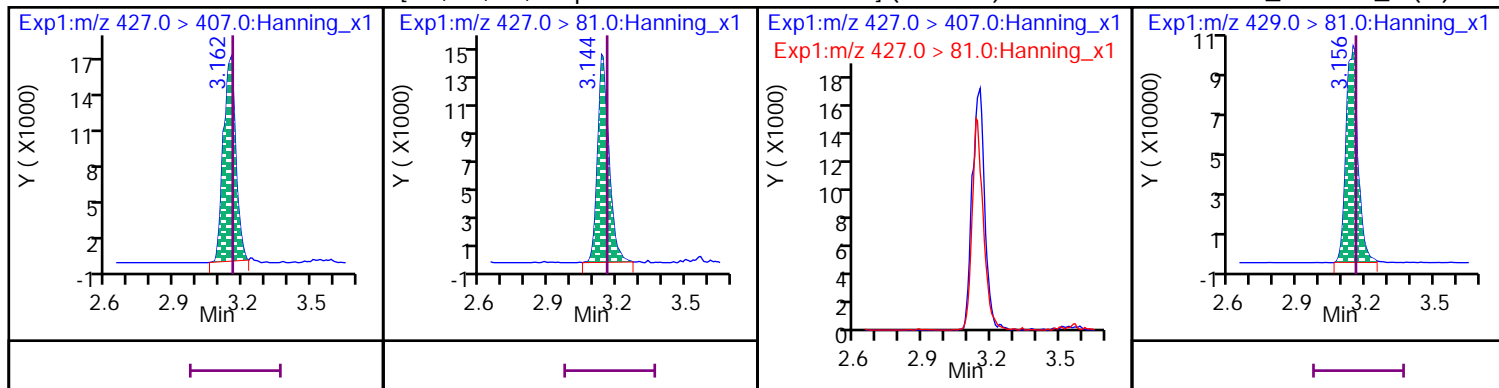
29 4,8-dioxa-3H-perfluorononanoic acid (ADONA) (M)

D 45 13C3_PFHxS



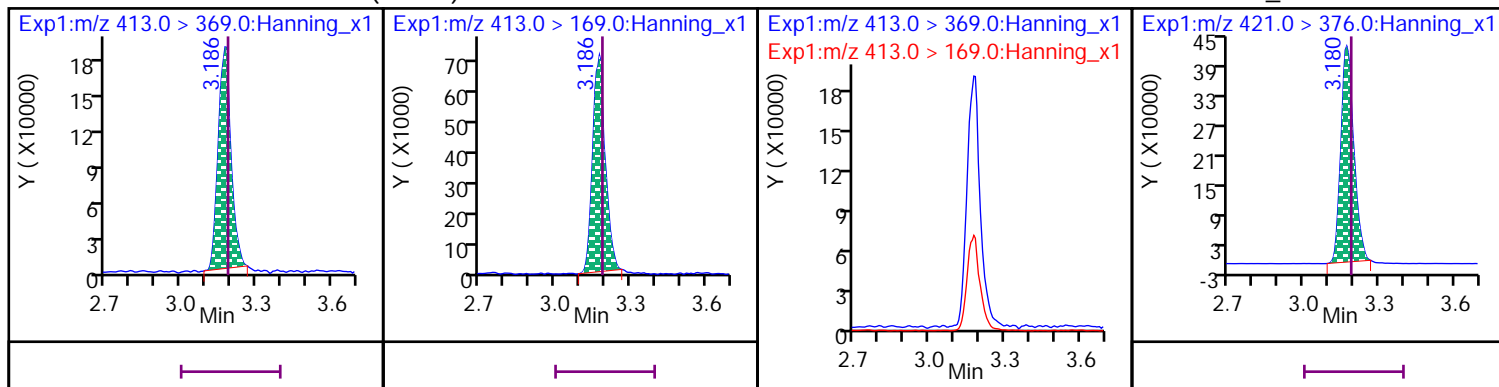
2 Fluorotelomer sulfonate 6:2 [1H,1H,2H,2H-perfluorooctane sulfonate] (6:2 FTS)

D 64 13C2_6:2 FTS_2 (M)



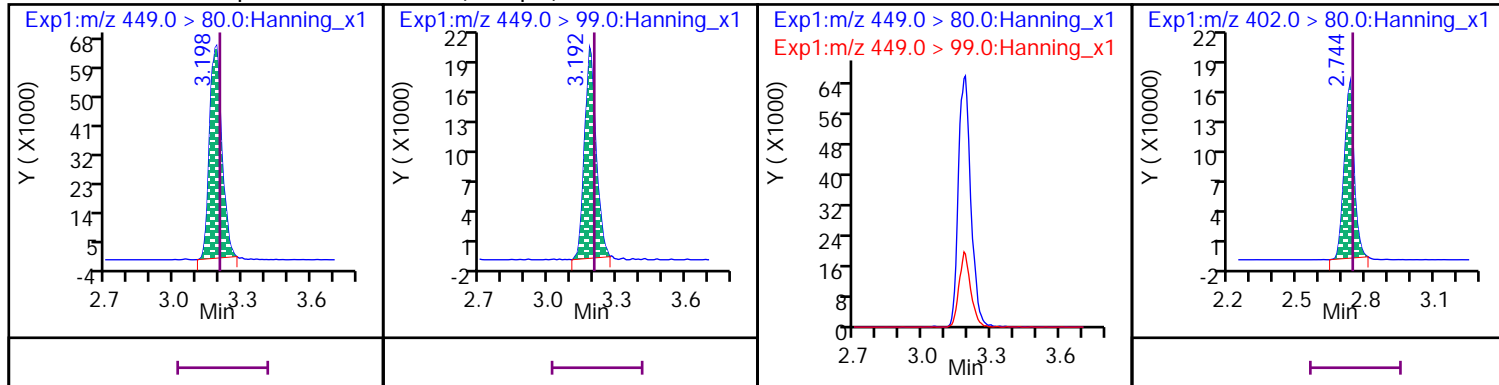
20 Perfluoro-n-octanoic acid (PFOA)

D 53 13C8_PFOA



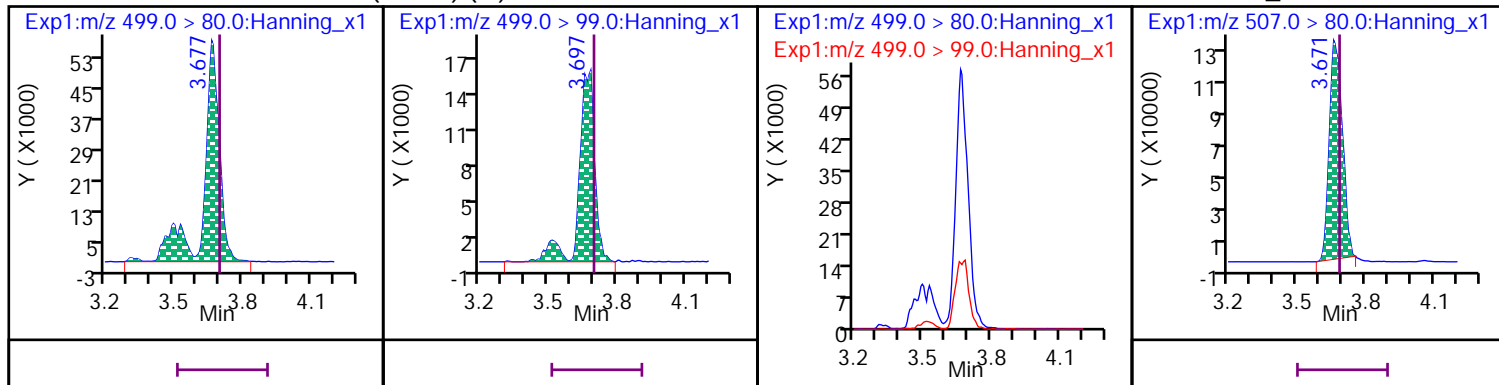
12 Perfluoro-1-heptanesulfonic acid (PFHpS)

D 45 13C3_PFHxS



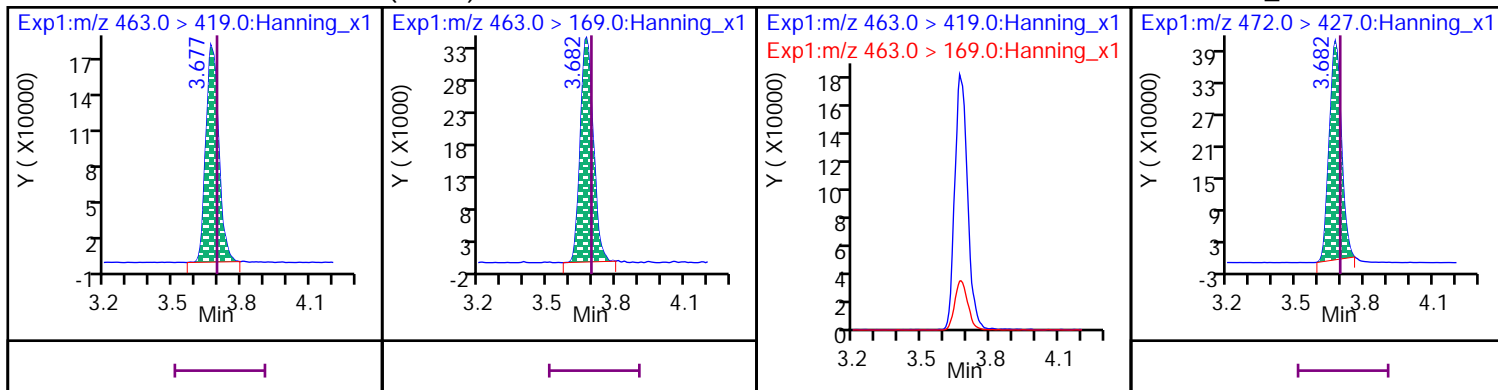
18 Perfluorooctanesulfonate (PFOS) (M)

D 54 13C8_PFOS



17 Perfluoro-n-nonanoic acid (PFNA)

D 56 13C9_PFNA



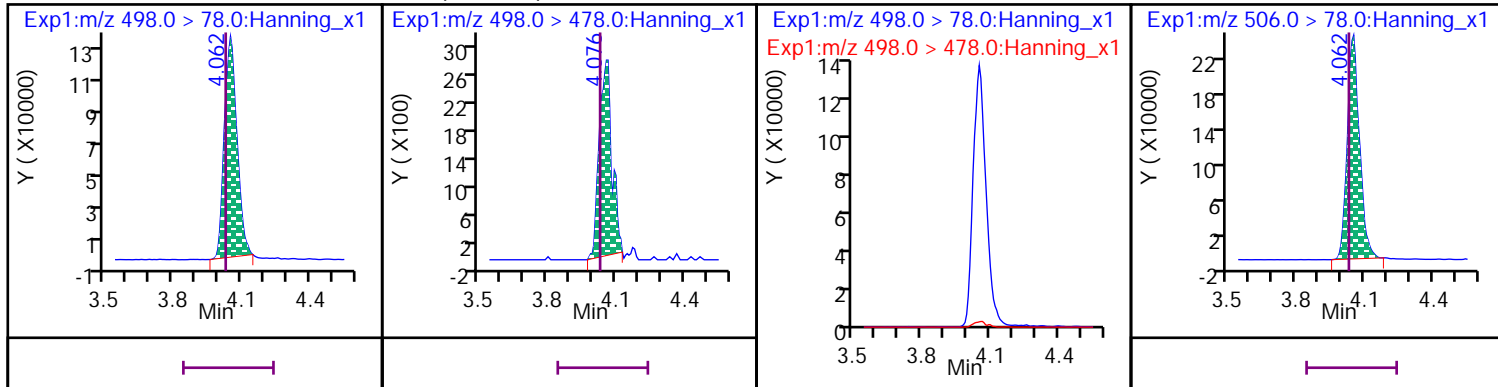
30 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS) (M)

D 54 13C8_PFOS



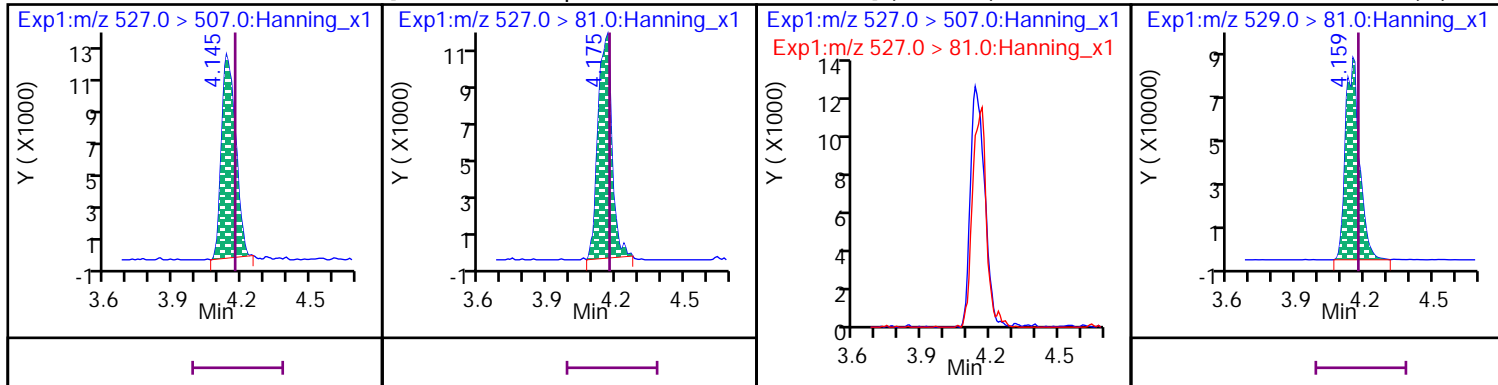
19 Perfluoro-1-octanesulfonamide (PFOSA)

D 55 13C8_PFOSA



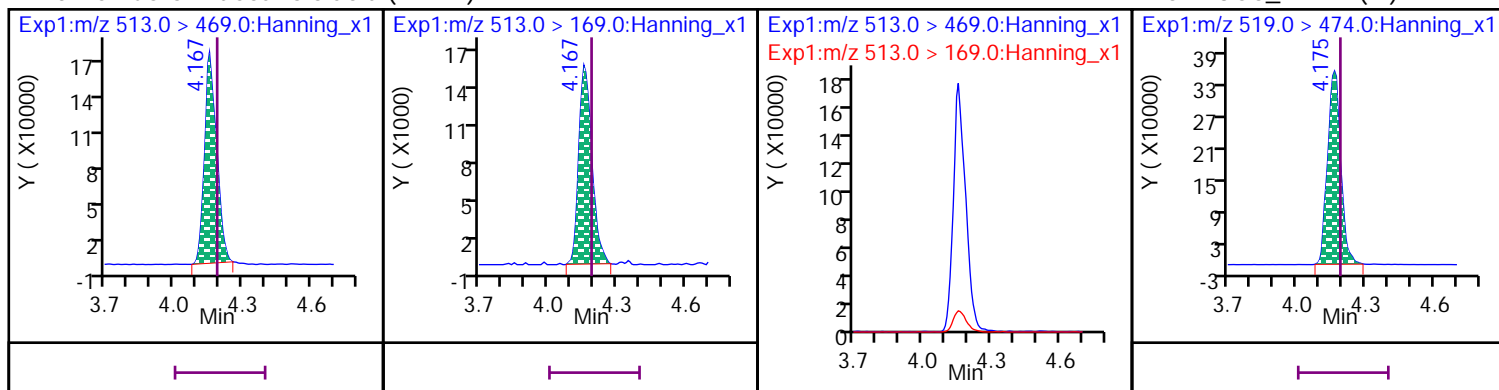
3 Fluorotelomer sulfonate 8:2 [1H,1H,2H,2H-perfluorodecane sulfonate] (8:2 FTS)

D 65 13C2_8:2 FTS_2 (M)



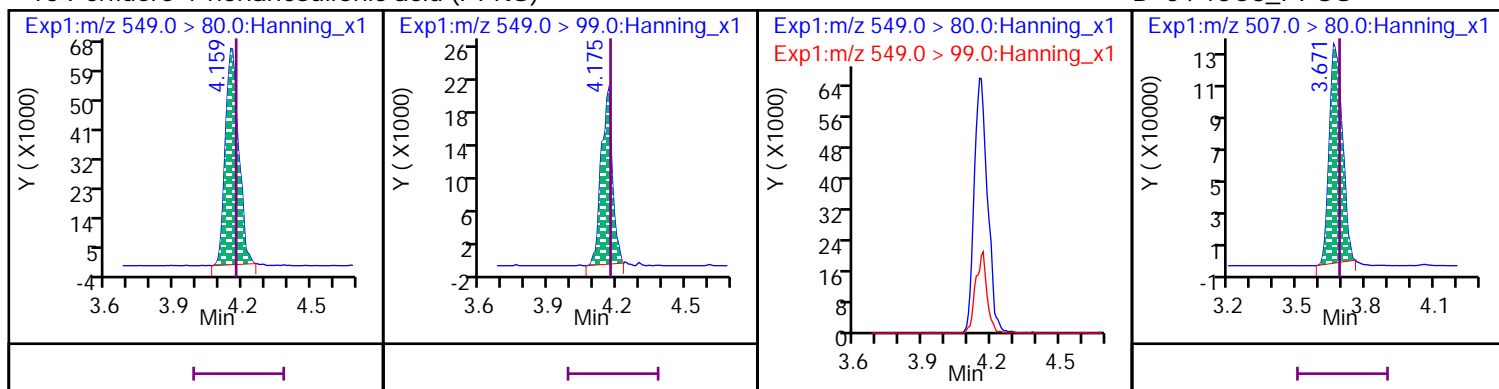
10 Perfluoro-n-decanoic acid (PFDA)

D 51 13C6_PFDA (M)



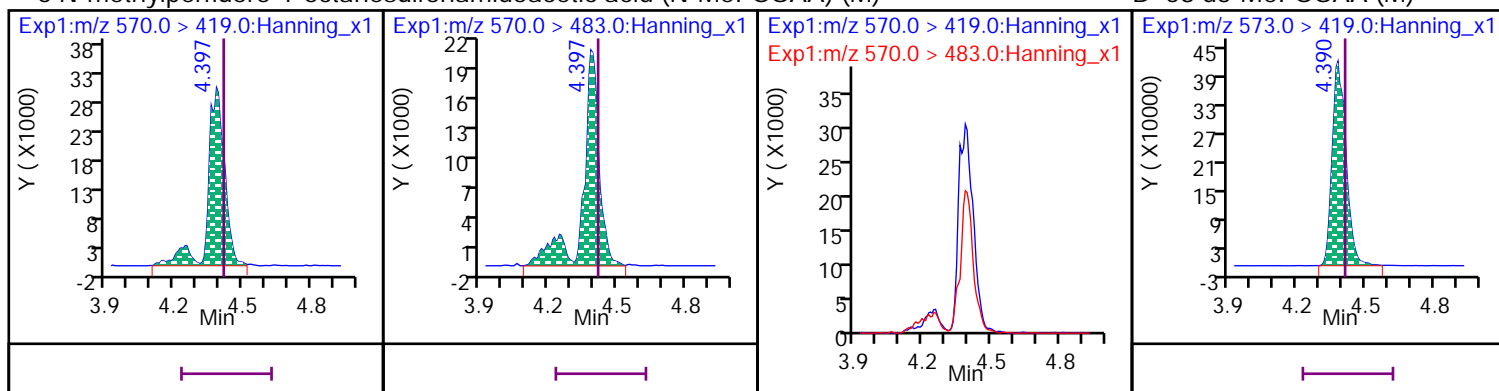
16 Perfluoro-1-nonanesulfonic acid (PFNS)

D 54 13C8_PFOS



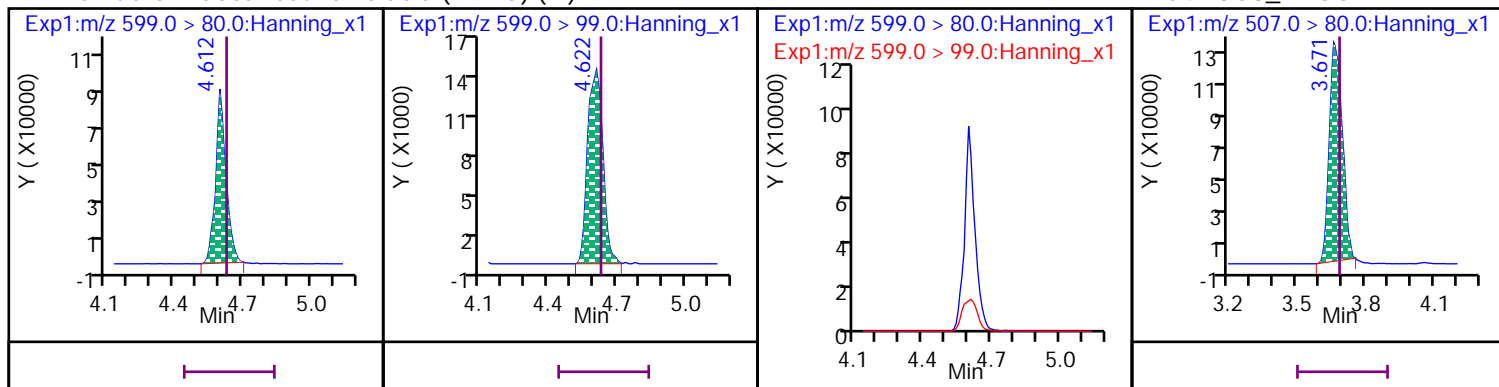
6 N-methylperfluoro-1-octanesulfonamidoacetic acid (N-MeFOSAA) (M)

D 58 d3-MeFOSAA (M)



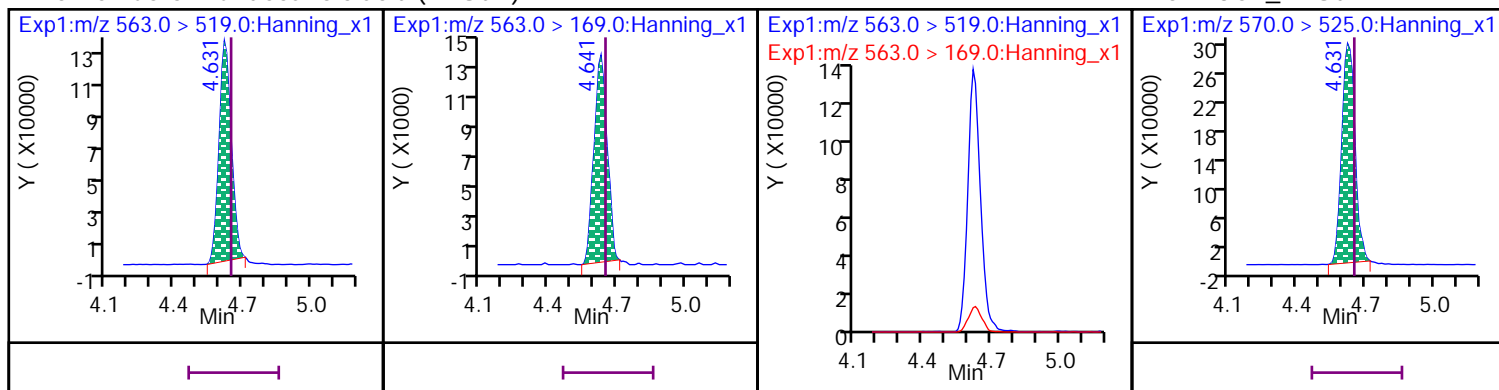
9 Perfluoro-1-decanesulfonic acid (PFDS) (M)

D 54 13C8_PFOS



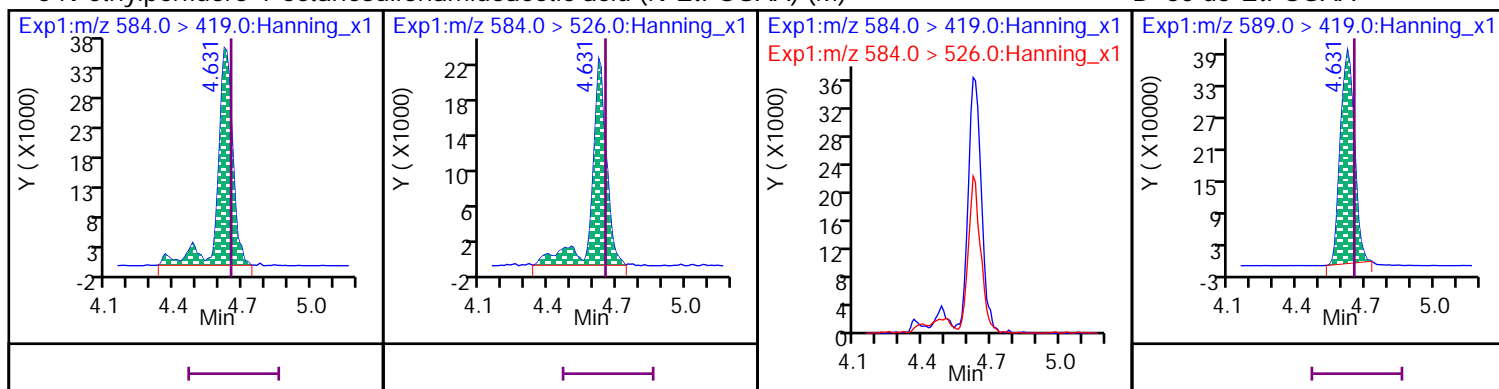
25 Perfluoro-n-undecanoic acid (PFUdA)

D 52 13C7_PFUdA



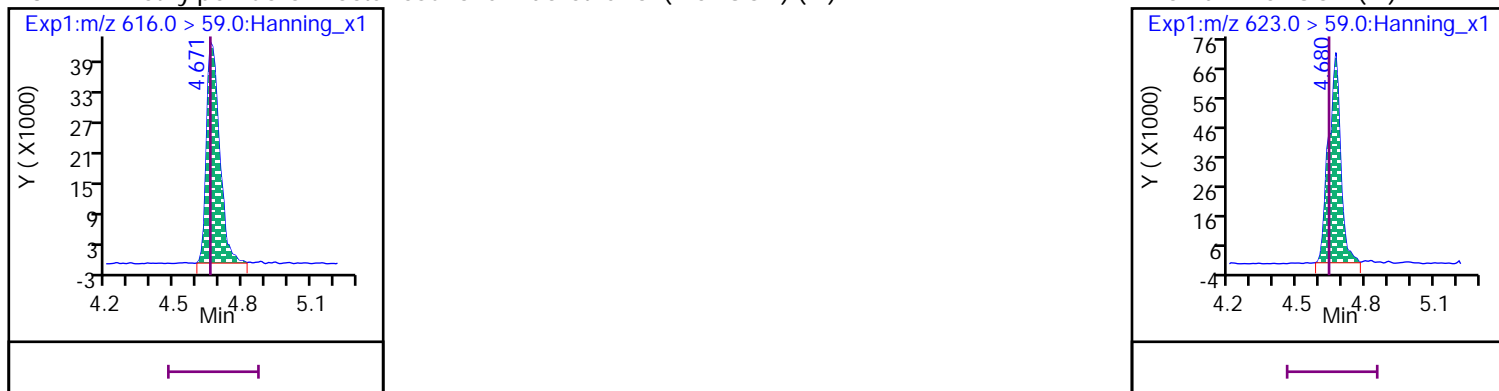
5 N-ethylperfluoro-1-octanesulfonamidoacetic acid (N-EtFOSAA) (M)

D 60 d5-EtFOSAA



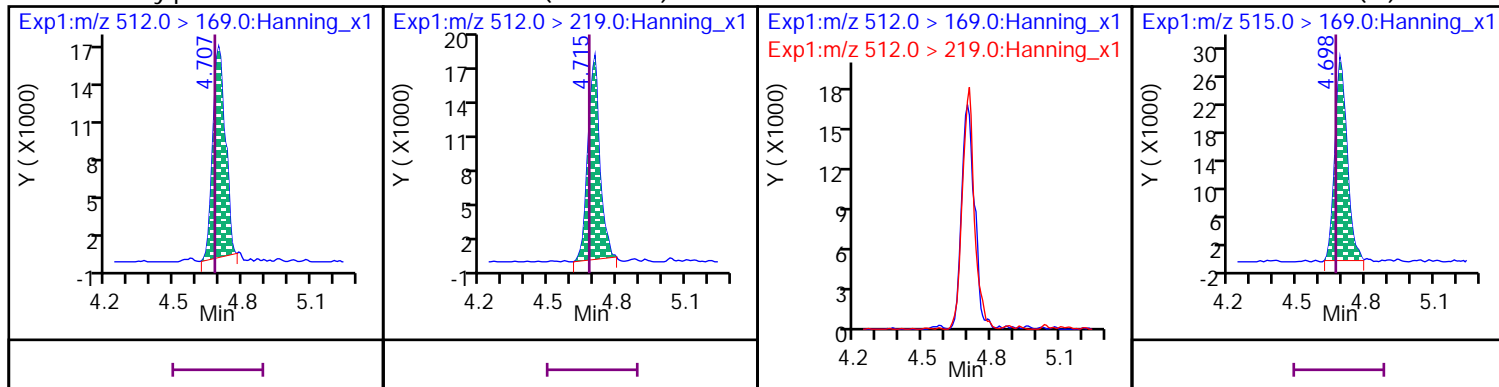
32 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE) (M)

D 61 d7-MeFOSE (M)

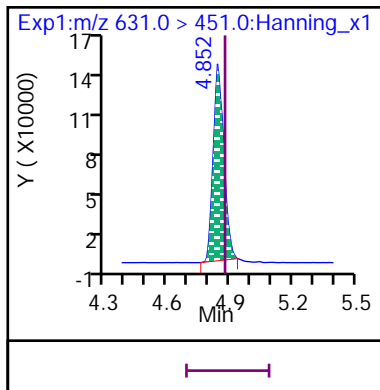


26 N-methylperfluoro-1-octanesulfonamide (MeFOSA)

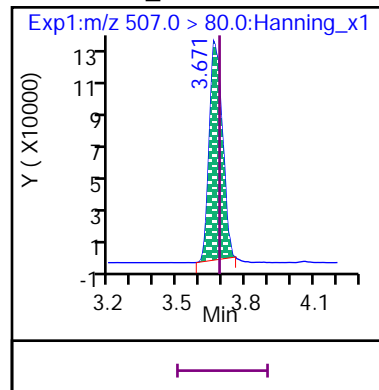
D 57 d3-MeFOSA (M)



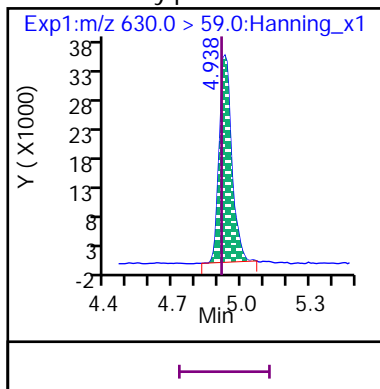
31 11-chloroeicosafuoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)



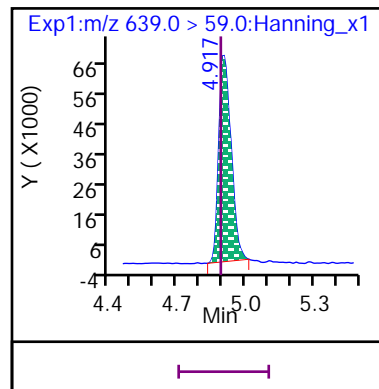
D 54 13C8_PFOS



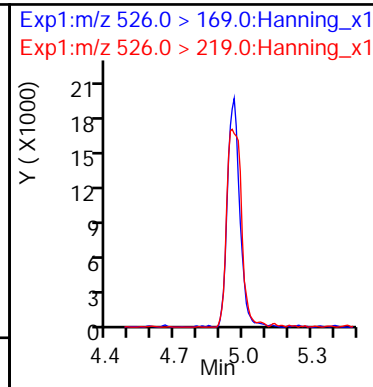
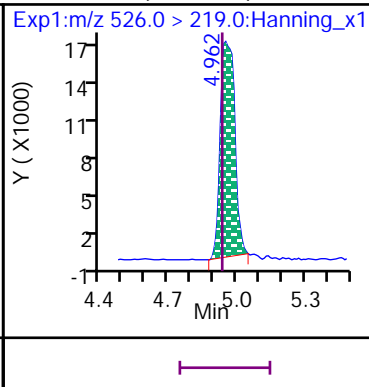
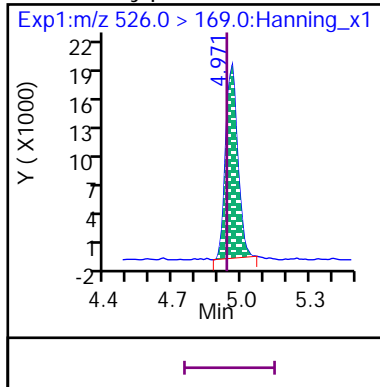
33 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)



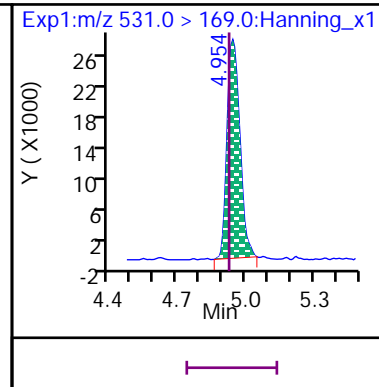
D 62 d9-EtFOSE



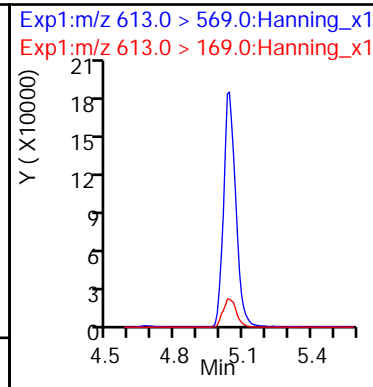
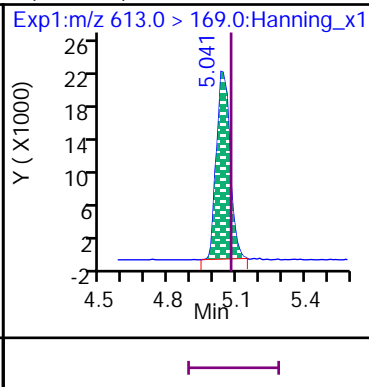
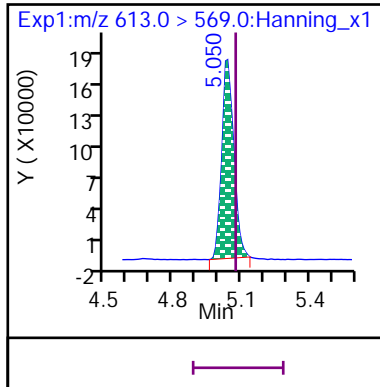
27 N-ethylperfluoro-1-octanesulfonamide (EtFOSA)



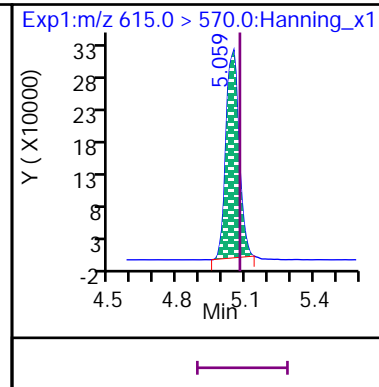
D 59 d5-EtFOSA



11 Perfluoro-n-dodecanoic acid (PFDoA)

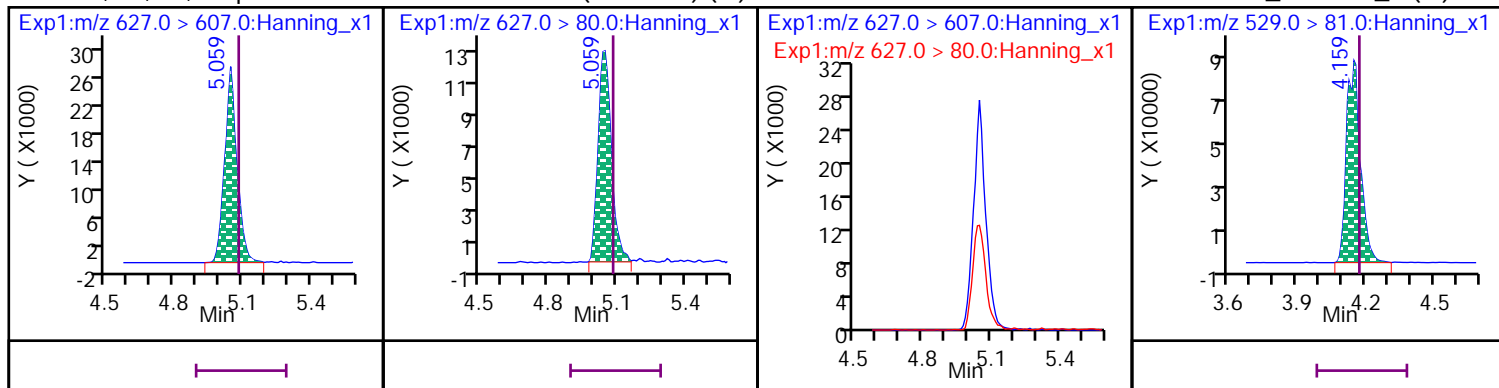


D 38 13C2_PFDoA



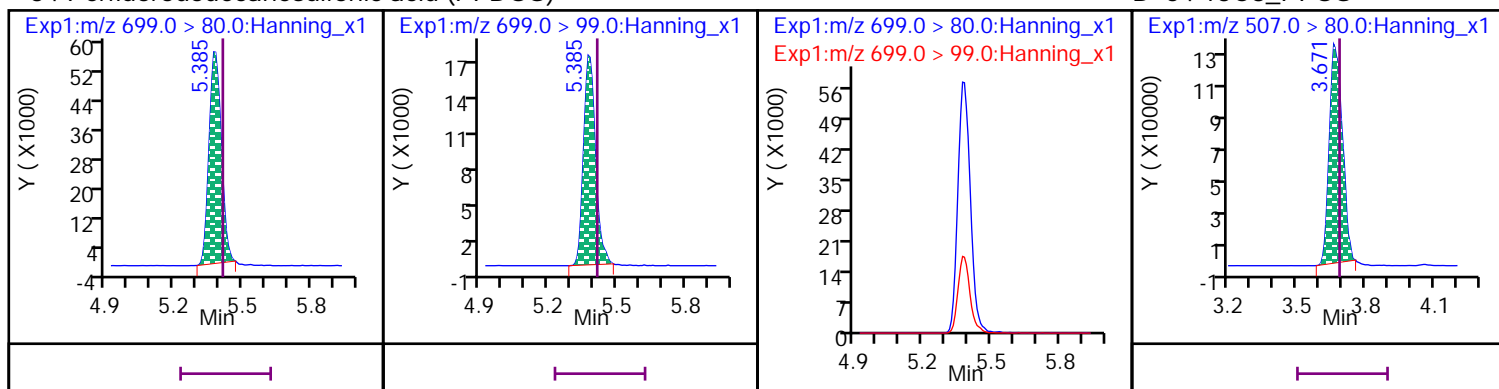
4 1H,1H,2H,2H-perfluorododecane sulfonate (10:2FTS) (M)

D 65 13C2_8:2 FTS_2 (M)



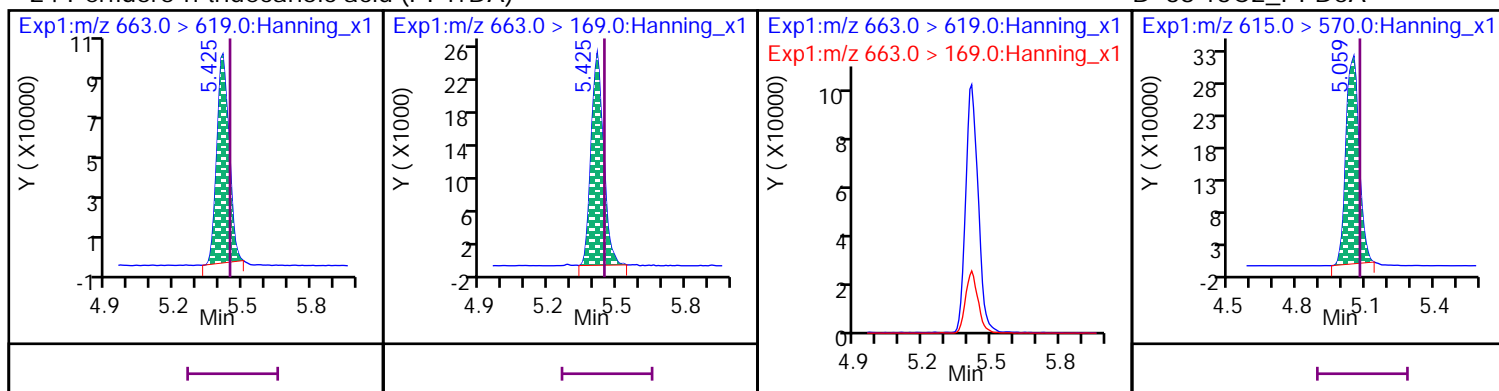
34 Perfluorododecanesulfonic acid (PFDOS)

D 54 13C8_PFOS



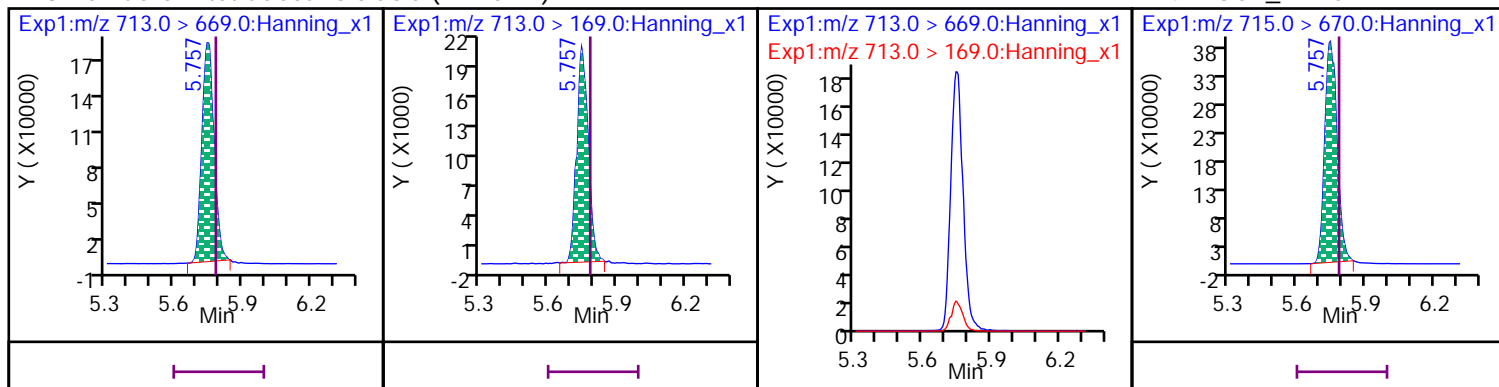
24 Perfluoro-n-tridecanoic acid (PFTTrDA)

D 38 13C2_PFDaA



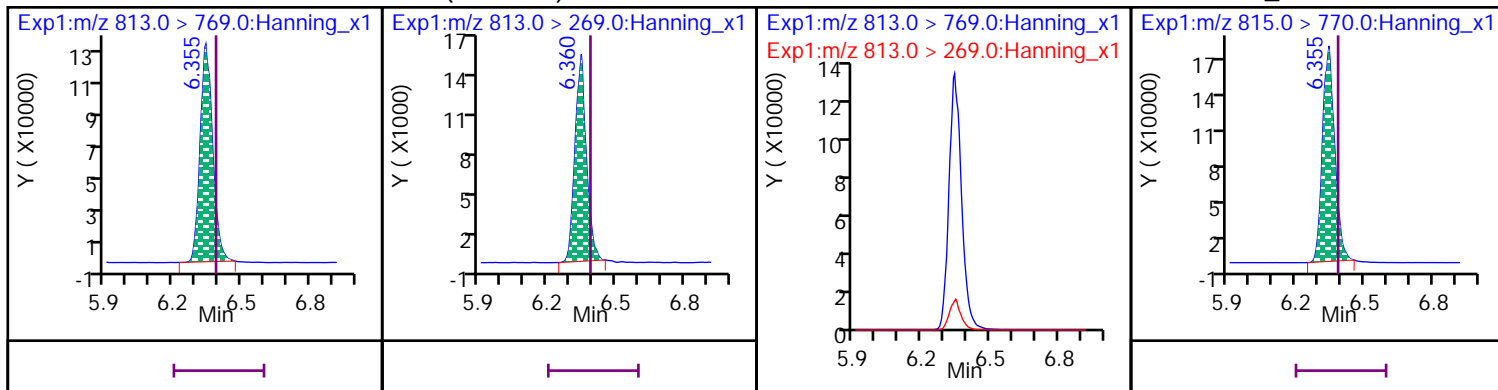
23 Perfluoro-n-tetradecanoic acid (PFTTeDA)

D 42 13C2_PFTeDA



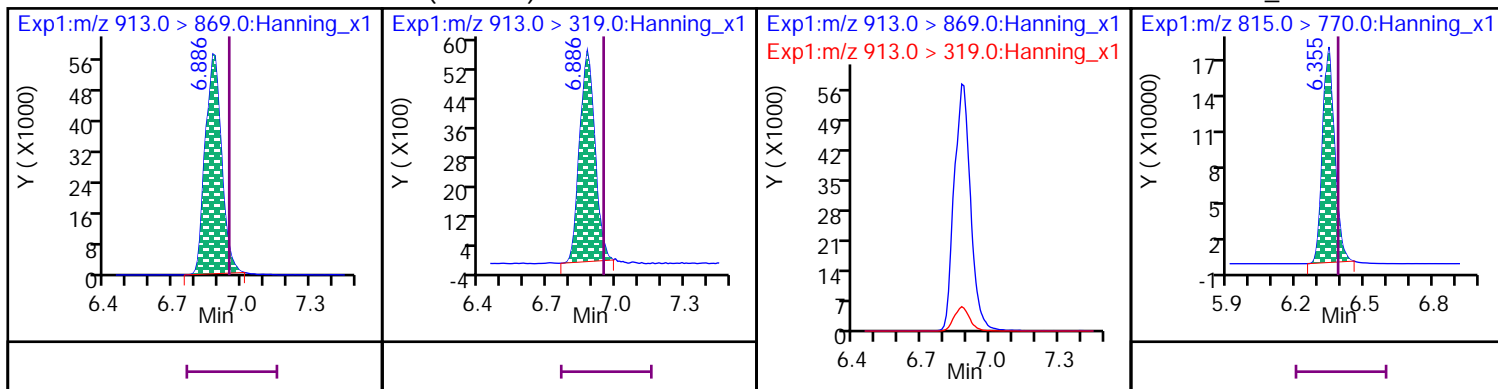
35 Perfluoro-n-hexadecanoic acid (PFHxDA)

D 40 13C2_PFHxDA



36 Perfluoro-n-octadecanoic acid (PFODA)

D 40 13C2_PFHxDA

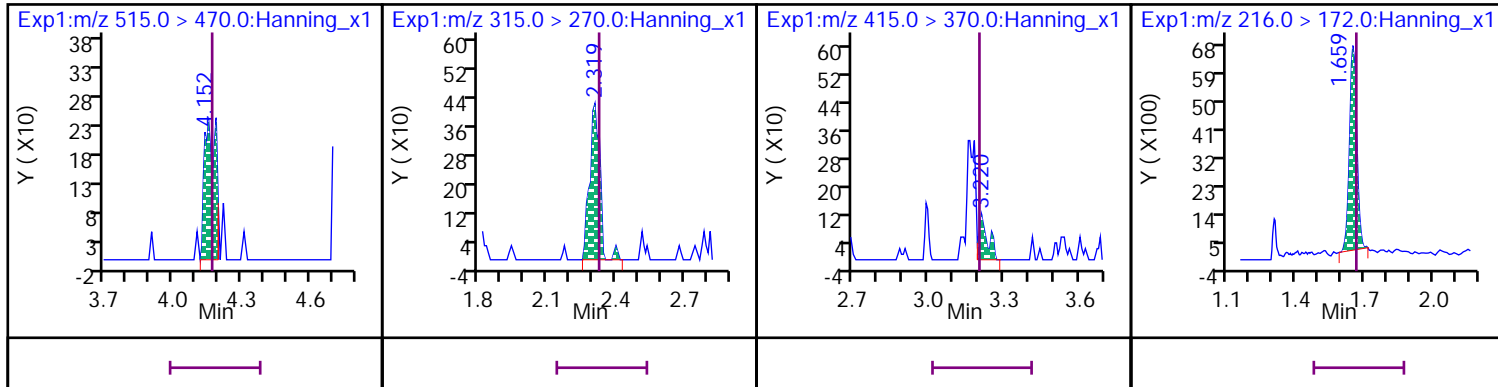


* 37 13C2_PFDA

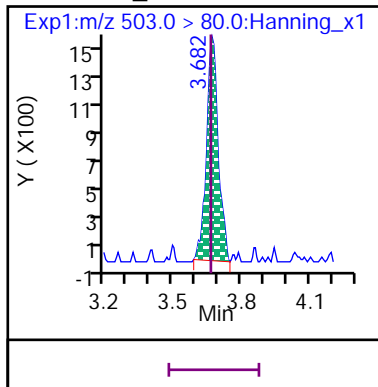
* 39 13C2_PFHxA

* 41 13C2_PFOA

* 43 13C3_PFBA



* 48 13C4_PFOS



Manual Integration Report

Data File: \\organics\LL\LCMSMS01.i\100422-nonDOD.b\100422058.d

Injection Date: 04-Oct-2022 20:33:15

Inst. ID: LCMSMS01.i

Client ID:

Lab ID: CCV 1000D_SVLC-2215

Sample Info: CCV 1000D_SVLC-2215

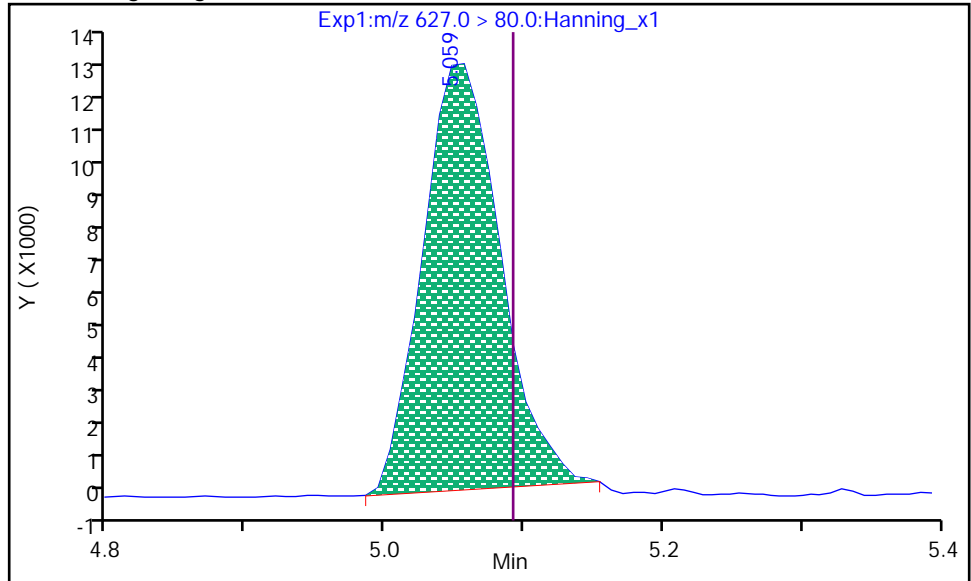
Dil. Factor: 1

Operator: eqi.svoa

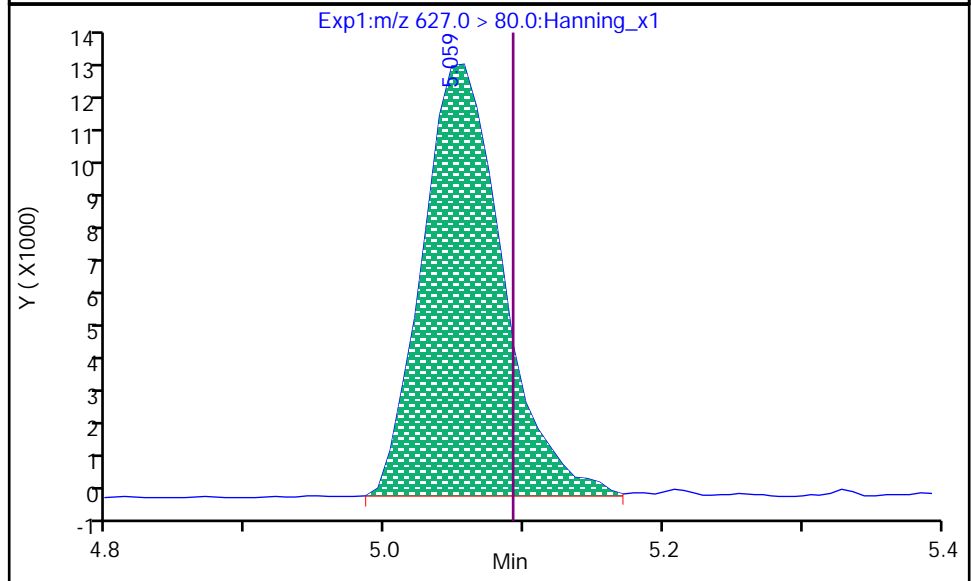
4 10:2 FTS, CAS: 120226-60-0

Processing Integration Results

RT: 5.059
Area: 47762
Amount: 2062.73
Amount Units: ng/L



RT: 5.059
Area: 49943
Amount: 2062.73
Amount Units: ng/L



Data Editor: andy.marshall, 05-Oct-2022 09:06:46

Audit Action: Mint

Audit Reason: M-03, Incorrect Auto Integration

Manual Integration Report

Data File: \\organics\LL\LCMSMS01.i\100422-nonDOD.b\100422058.d

Injection Date: 04-Oct-2022 20:33:15

Inst. ID: LCMSMS01.i

Client ID:

Lab ID: CCV 1000D_SVLC-2215

Sample Info: CCV 1000D_SVLC-2215

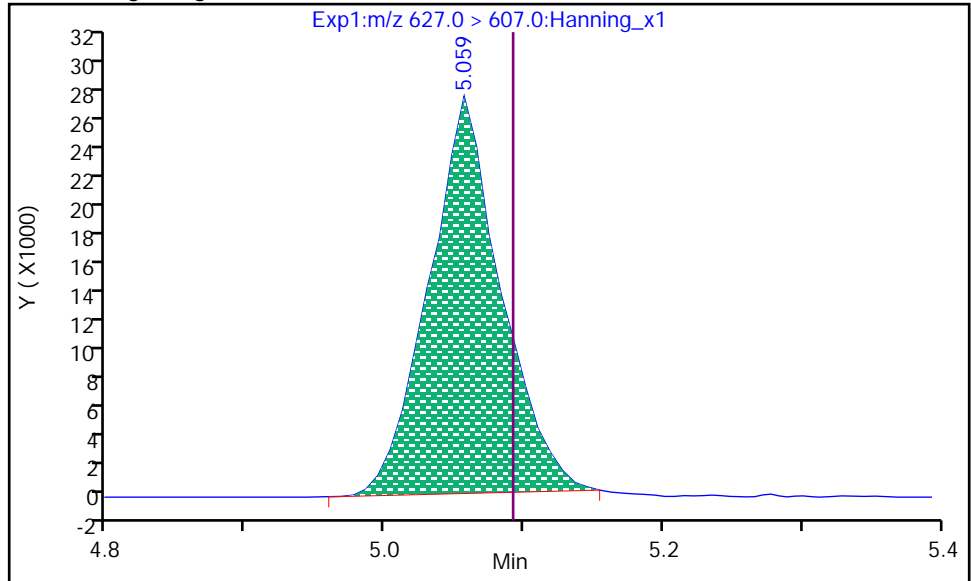
Dil. Factor: 1

Operator: eqi.svoa

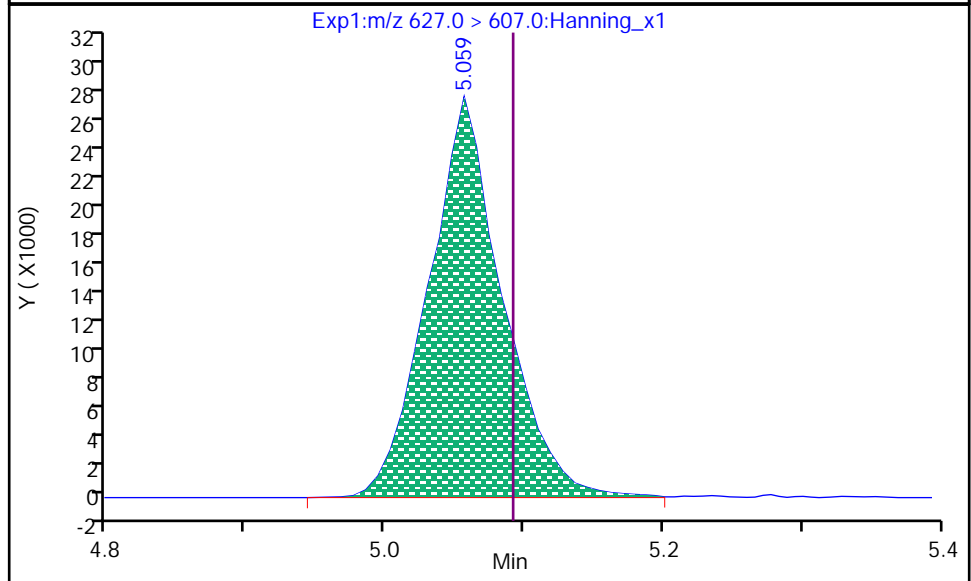
4 10:2 FTS, CAS: 120226-60-0

Processing Integration Results

RT: 5.059
Area: 97913
Amount: 1995.74
Amount Units: ng/L



RT: 5.059
Area: 101500
Amount: 2062.73
Amount Units: ng/L



Data Editor: andy.marshall, 05-Oct-2022 09:07:41

Audit Action: Mint

Audit Reason: M-03, Incorrect Auto Integration

Manual Integration Report

Data File: \\organics\LL\LCMSMS01.i\100422-nonDOD.b\100422058.d

Injection Date: 04-Oct-2022 20:33:15

Inst. ID: LCMSMS01.i

Client ID:

Lab ID: CCV 1000D_SVLC-2215

Sample Info: CCV 1000D_SVLC-2215

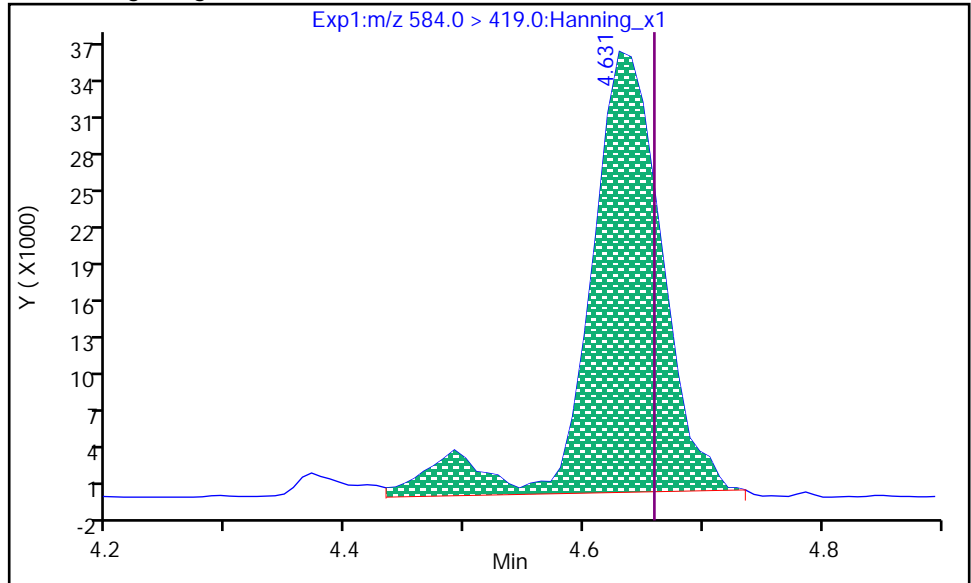
Dil. Factor: 1

Operator: eqi.svoa

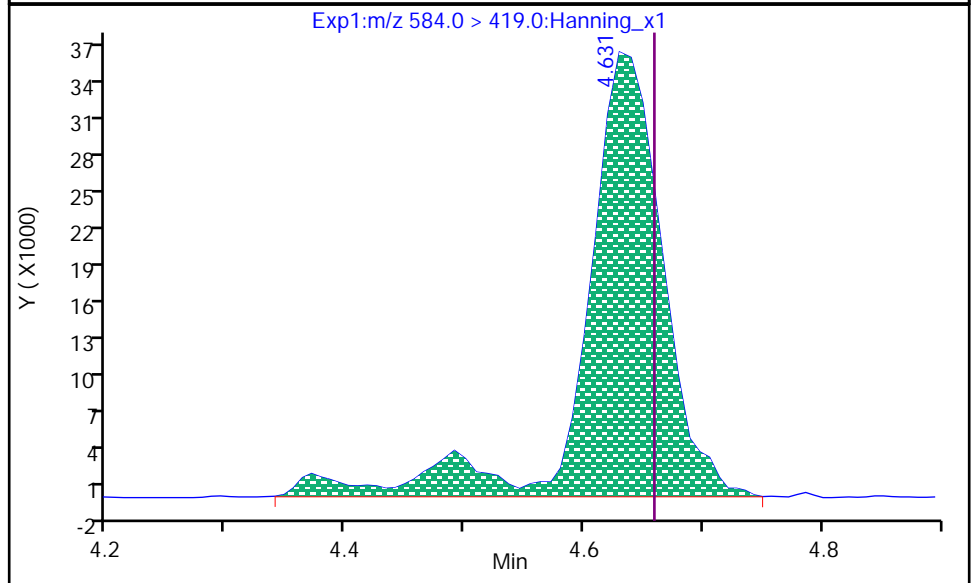
5 N-EtFOSAA, CAS: 2991-50-6

Processing Integration Results

RT: 4.631
Area: 152240
Amount: 949.94
Amount Units: ng/L



RT: 4.631
Area: 162251
Amount: 1012.41
Amount Units: ng/L



Data Editor: andy.marshall, 05-Oct-2022 16:02:14

Audit Action: Mint

Audit Reason: M-03, Incorrect Auto Integration

Manual Integration Report

Data File: \\organics\LL\LCMSMS01.i\100422-nonDOD.b\100422058.d

Injection Date: 04-Oct-2022 20:33:15

Inst. ID: LCMSMS01.i

Client ID:

Lab ID: CCV 1000D_SVLC-2215

Sample Info: CCV 1000D_SVLC-2215

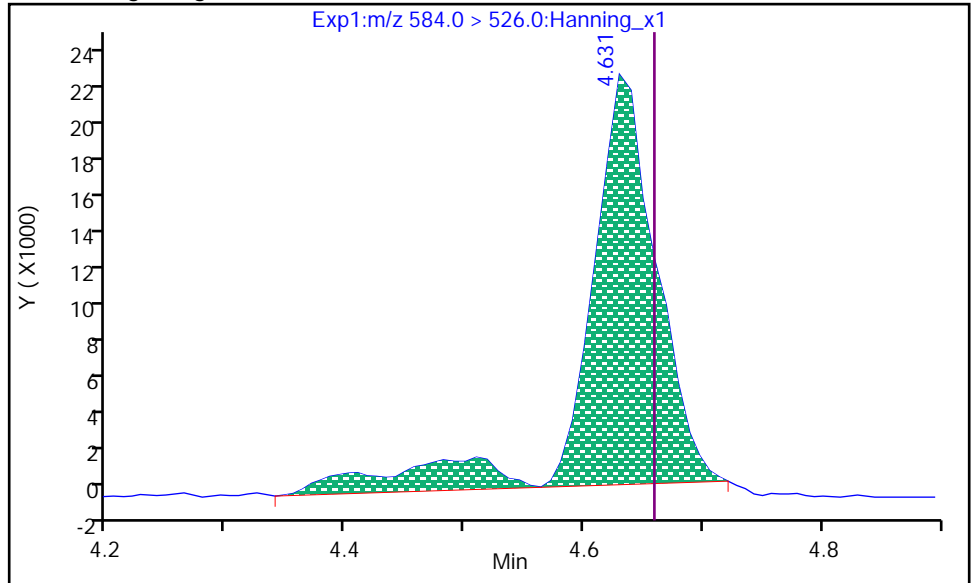
Dil. Factor: 1

Operator: eqi.svoa

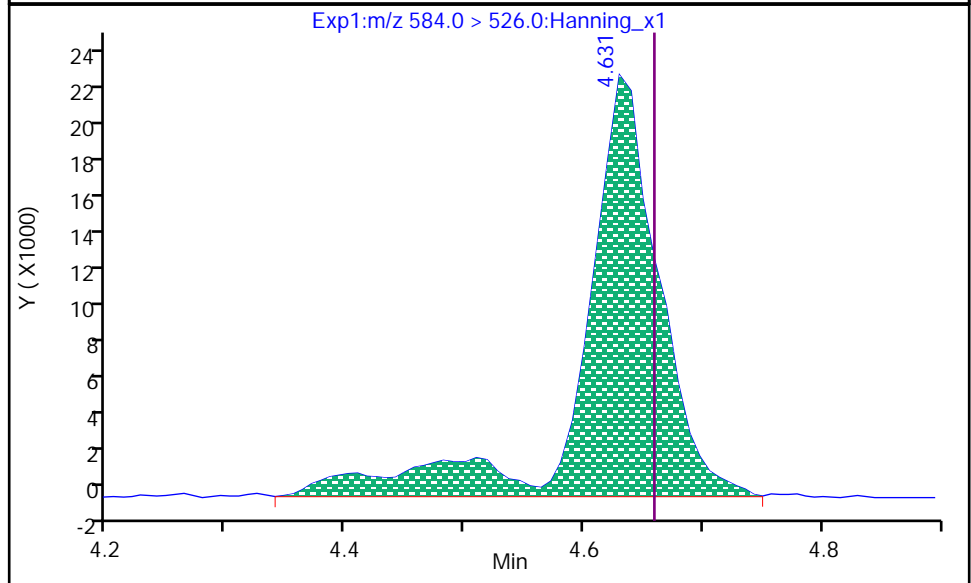
5 N-EtFOSAA, CAS: 2991-50-6

Processing Integration Results

RT: 4.631
Area: 87549
Amount: 1012.41
Amount Units: ng/L



RT: 4.631
Area: 97174
Amount: 1012.41
Amount Units: ng/L



Data Editor: andy.marshall, 05-Oct-2022 16:02:29

Audit Action: Mint

Audit Reason: M-03, Incorrect Auto Integration

Manual Integration Report

Data File: \\organics\LL\LCMSMS01.i\100422-nonDOD.b\100422058.d

Injection Date: 04-Oct-2022 20:33:15

Inst. ID: LCMSMS01.i

Client ID:

Lab ID: CCV 1000D_SVLC-2215

Sample Info: CCV 1000D_SVLC-2215

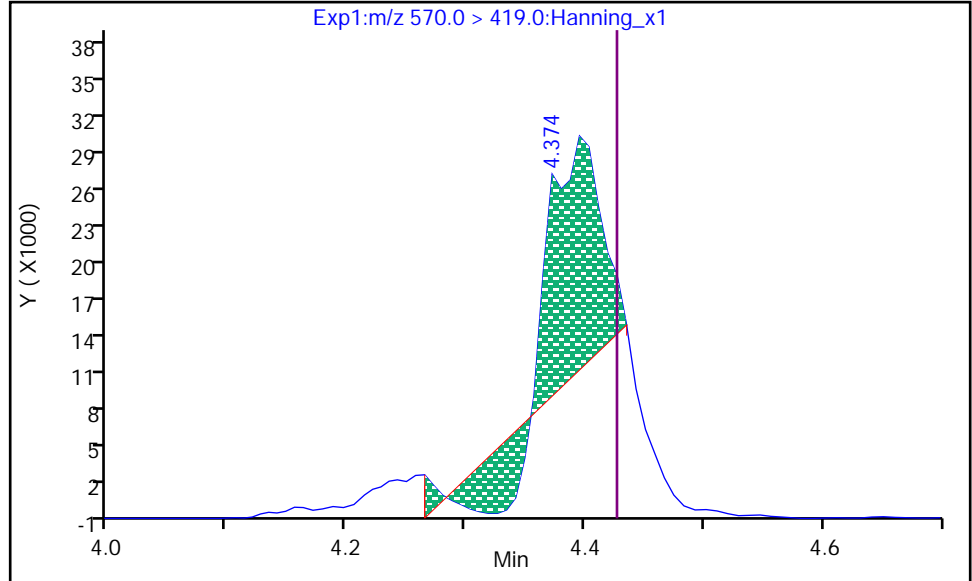
Dil. Factor: 1

Operator: eqi.svoa

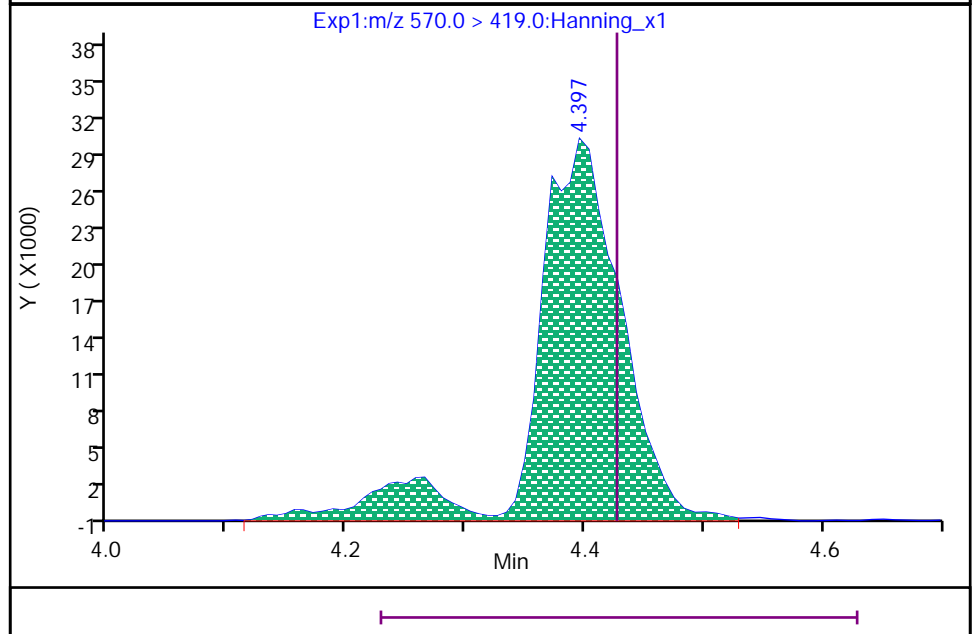
6 N-MeFOSAA, CAS: 2355-31-9

RT: 4.374
Area: 41963
Amount: 291.10
Amount Units: ng/L

Processing Integration Results



RT: 4.397
Area: 149120
Amount: 1034.45
Amount Units: ng/L



Data Editor: andy.marshall, 05-Oct-2022 09:05:57

Audit Action: Mint

Audit Reason: M-03, Incorrect Auto Integration

Manual Integration Report

Data File: \\organics\LL\LCMSMS01.i\100422-nonDOD.b\100422058.d

Injection Date: 04-Oct-2022 20:33:15

Inst. ID: LCMSMS01.i

Client ID:

Lab ID: CCV 1000D_SVLC-2215

Sample Info: CCV 1000D_SVLC-2215

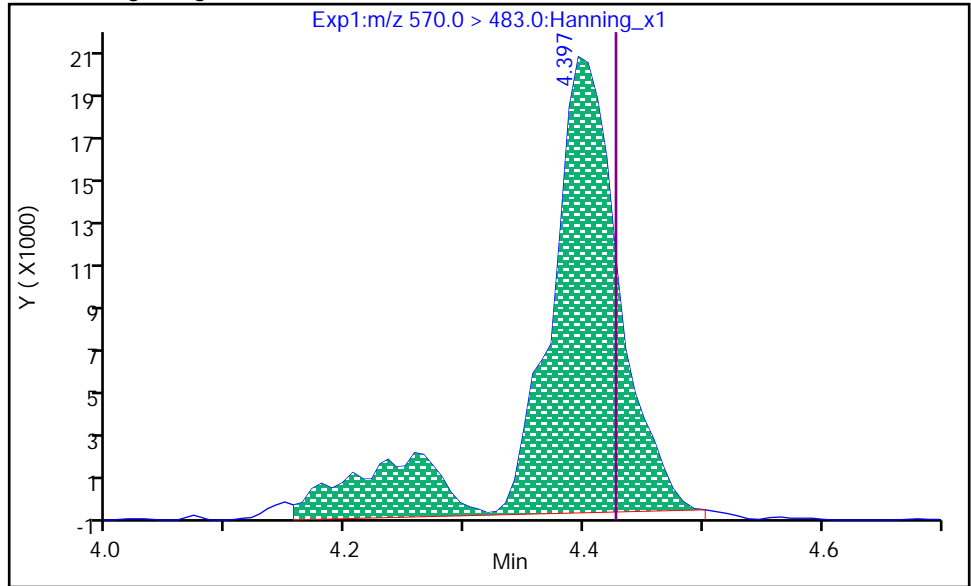
Dil. Factor: 1

Operator: eqi.svoa

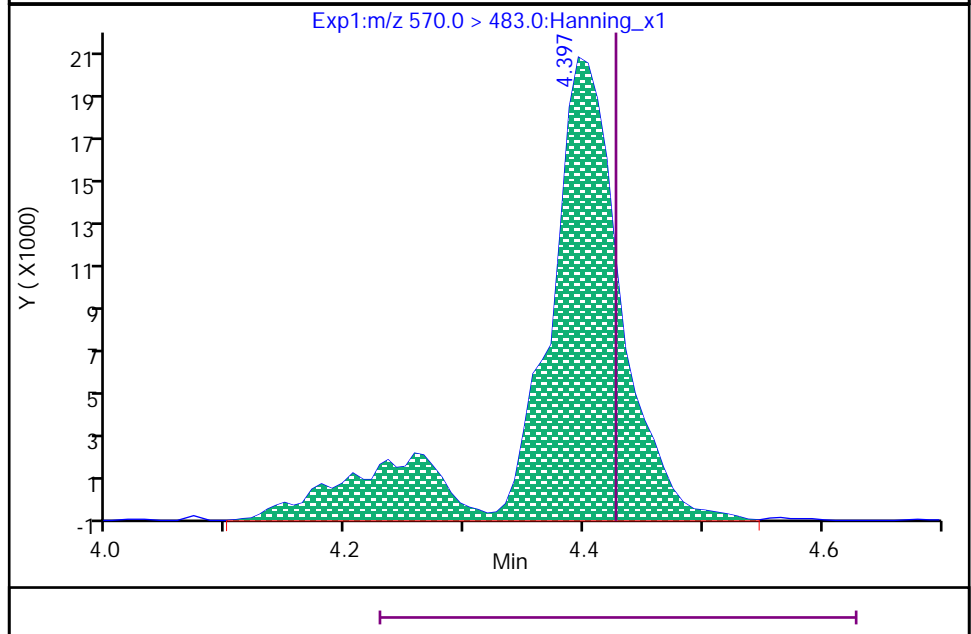
6 N-MeFOSAA, CAS: 2355-31-9

Processing Integration Results

RT: 4.397
Area: 91753
Amount: 1034.45
Amount Units: ng/L



RT: 4.397
Area: 98683
Amount: 1034.45
Amount Units: ng/L



Data Editor: andy.marshall, 05-Oct-2022 09:06:04

Audit Action: Mint

Audit Reason: M-03, Incorrect Auto Integration

Manual Integration Report

Data File: \\organics\LL\LCMSMS01.i\100422-nonDOD.b\100422058.d

Injection Date: 04-Oct-2022 20:33:15

Inst. ID: LCMSMS01.i

Client ID:

Lab ID: CCV 1000D_SVLC-2215

Sample Info: CCV 1000D_SVLC-2215

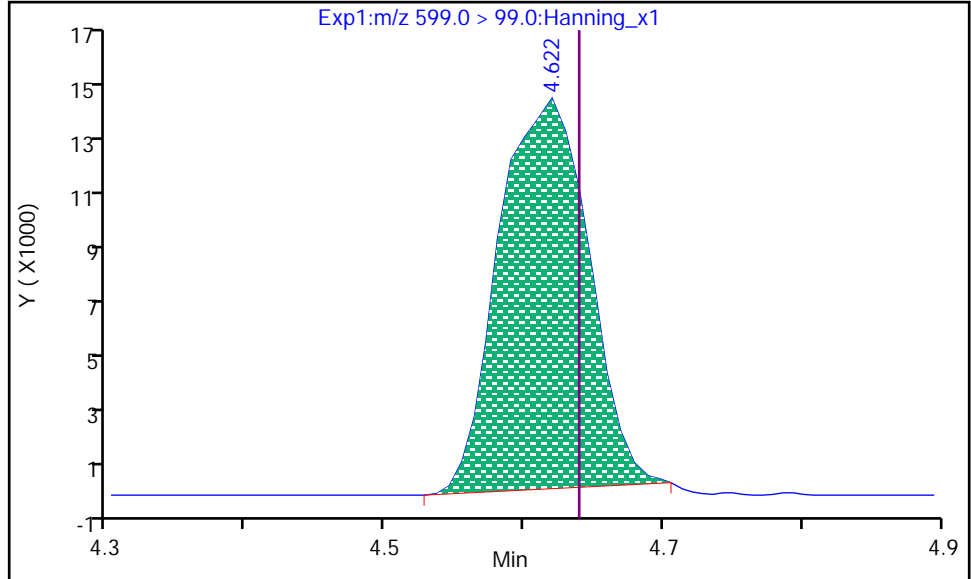
Dil. Factor: 1

Operator: eqi.svoa

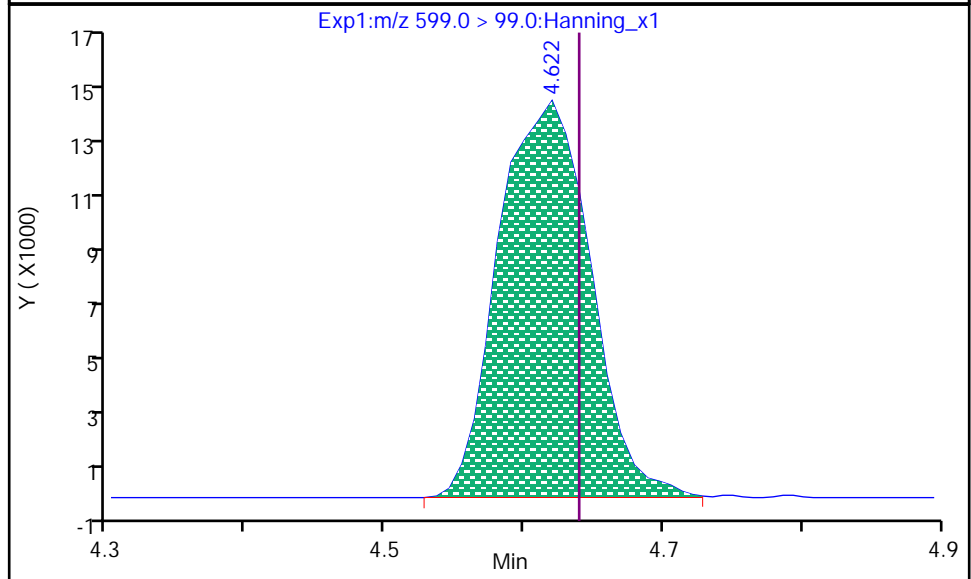
9 PFDS, CAS: 335-77-3

RT: 4.622
Area: 62202
Amount: 1162.44
Amount Units: ng/L

Processing Integration Results



RT: 4.622
Area: 64780
Amount: 1162.44
Amount Units: ng/L



Data Editor: andy.marshall, 05-Oct-2022 16:02:01

Audit Action: Mint

Audit Reason: M-03, Incorrect Auto Integration

Manual Integration Report

Data File: \\organics\LL\LCMSMS01.i\100422-nonDOD.b\100422058.d

Injection Date: 04-Oct-2022 20:33:15

Inst. ID: LCMSMS01.i

Client ID:

Lab ID: CCV 1000D_SVLC-2215

Sample Info: CCV 1000D_SVLC-2215

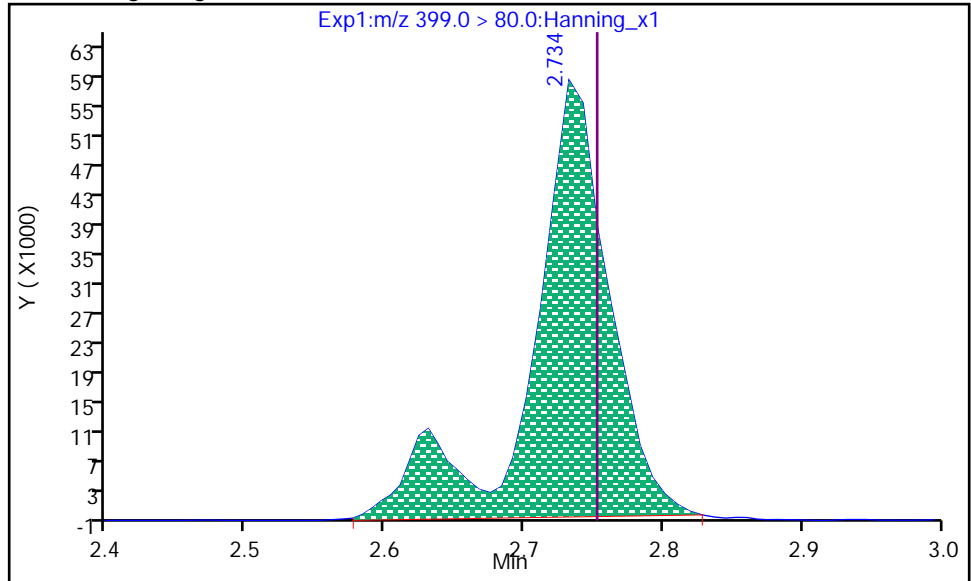
Dil. Factor: 1

Operator: eqi.svoa

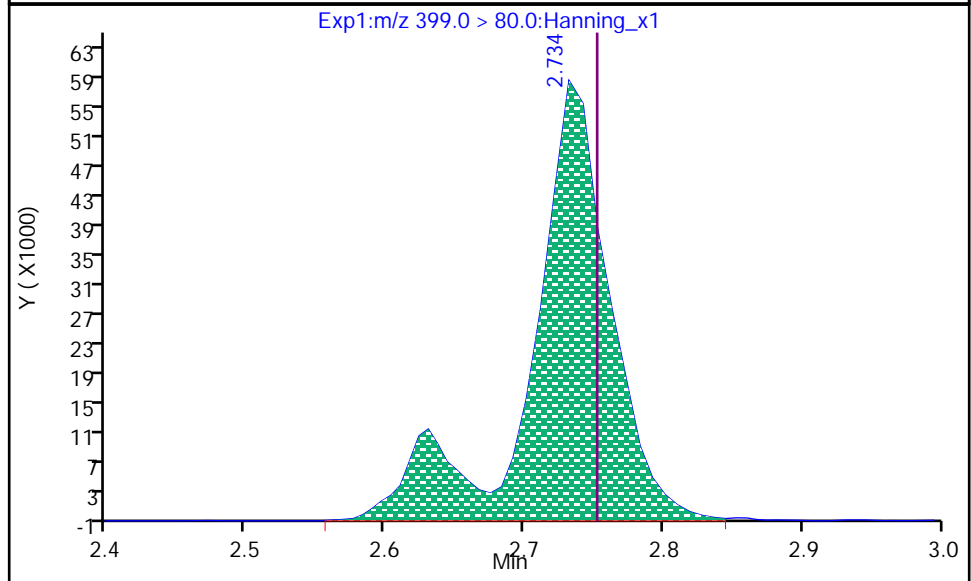
14 PFHxS, CAS: 355-46-4

Processing Integration Results

RT: 2.734
Area: 223752
Amount: 764.78
Amount Units: ng/L



RT: 2.734
Area: 229909
Amount: 785.83
Amount Units: ng/L



Data Editor: andy.marshall, 05-Oct-2022 16:01:02
Audit Action: Mint
Audit Reason: M-03, Incorrect Auto Integration

Manual Integration Report

Data File: \\organics\LL\LCMSMS01.i\100422-nonDOD.b\100422058.d

Injection Date: 04-Oct-2022 20:33:15

Inst. ID: LCMSMS01.i

Client ID:

Lab ID: CCV 1000D_SVLC-2215

Sample Info: CCV 1000D_SVLC-2215

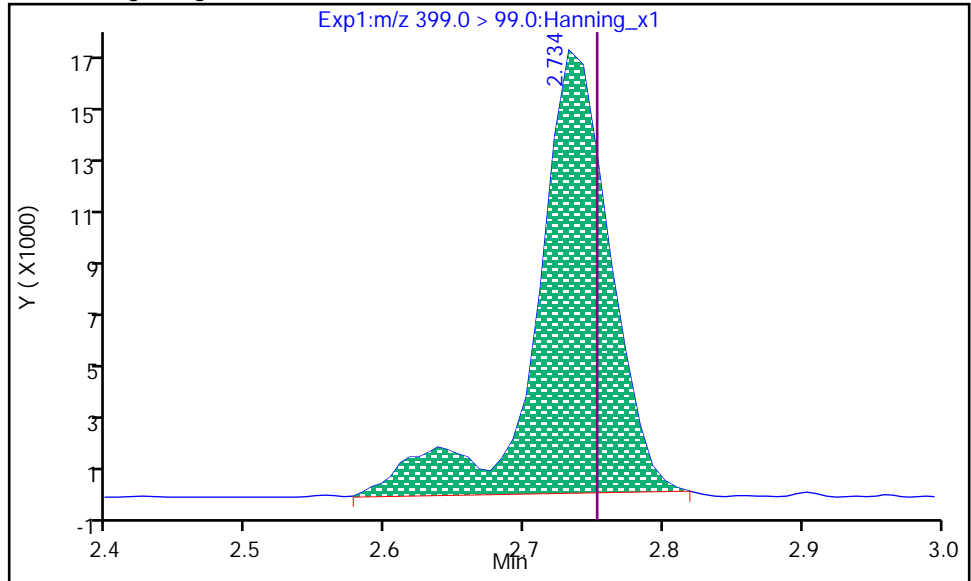
Dil. Factor: 1

Operator: eqi.svoa

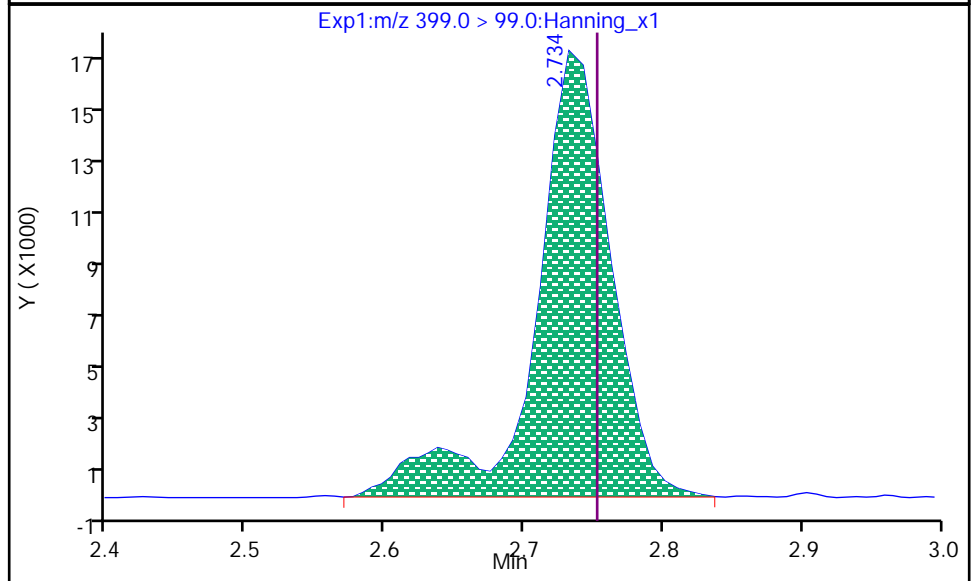
14 PFHxS, CAS: 355-46-4

Processing Integration Results

RT: 2.734
Area: 62762
Amount: 785.83
Amount Units: ng/L



RT: 2.734
Area: 64202
Amount: 785.83
Amount Units: ng/L



Data Editor: andy.marshall, 05-Oct-2022 16:01:07

Audit Action: Mint

Audit Reason: M-03, Incorrect Auto Integration

Manual Integration Report

Data File: \\organics\LL\LCMSMS01.i\100422-nonDOD.b\100422058.d

Injection Date: 04-Oct-2022 20:33:15

Inst. ID: LCMSMS01.i

Client ID:

Lab ID: CCV 1000D_SVLC-2215

Sample Info: CCV 1000D_SVLC-2215

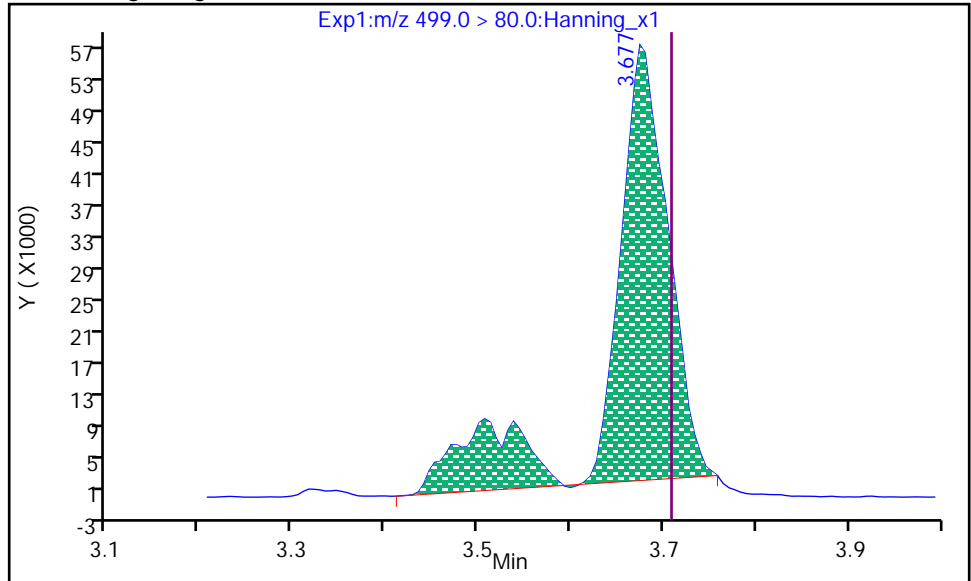
Dil. Factor: 1

Operator: eqi.svoa

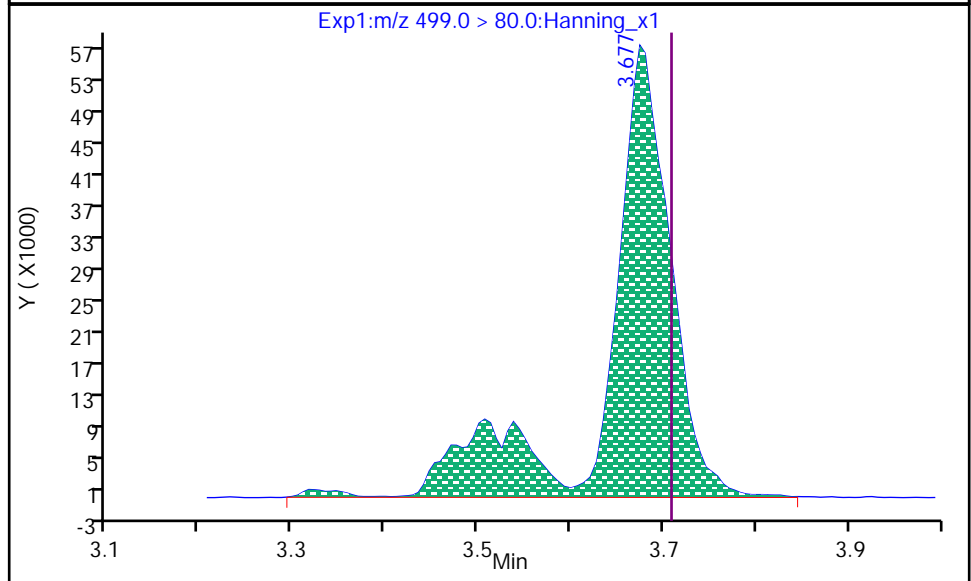
18 PFOS, CAS: 1763-23-1

Processing Integration Results

RT: 3.677
Area: 239135
Amount: 794.59
Amount Units: ng/L



RT: 3.677
Area: 274181
Amount: 911.04
Amount Units: ng/L



Data Editor: andy.marshall, 05-Oct-2022 09:03:30

Audit Action: Mint

Audit Reason: M-03, Incorrect Auto Integration

Manual Integration Report

Data File: \\organics\LL\LCMSMS01.i\100422-nonDOD.b\100422058.d

Injection Date: 04-Oct-2022 20:33:15

Inst. ID: LCMSMS01.i

Client ID:

Lab ID: CCV 1000D_SVLC-2215

Sample Info: CCV 1000D_SVLC-2215

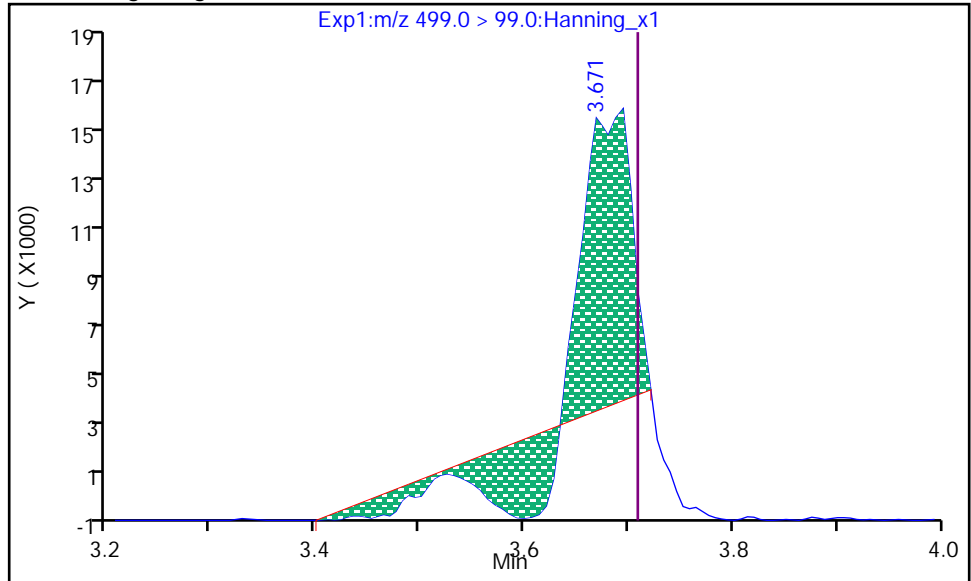
Dil. Factor: 1

Operator: eqi.svoa

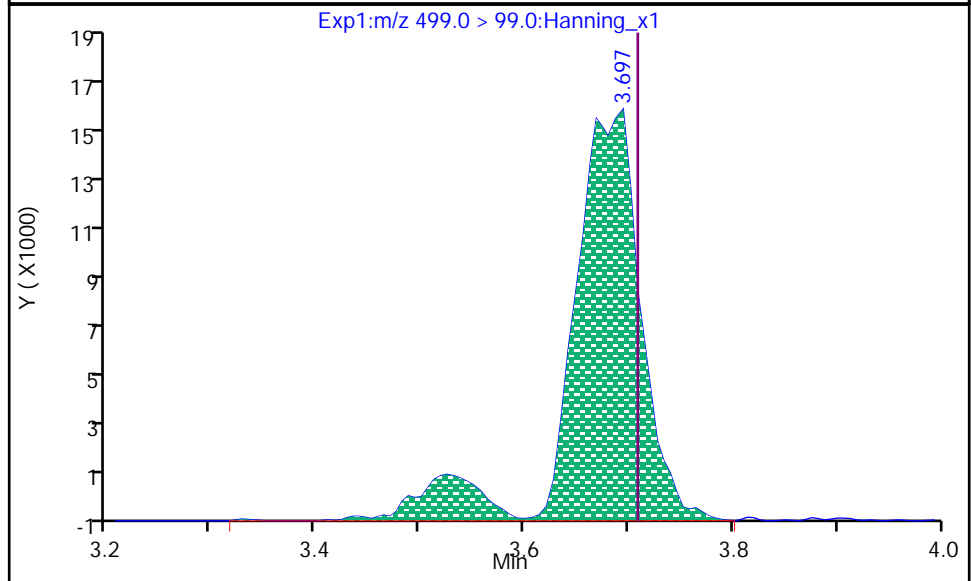
18 PFOS, CAS: 1763-23-1

Processing Integration Results

RT: 3.671
Area: 20125
Amount: 911.04
Amount Units: ng/L



RT: 3.697
Area: 71216
Amount: 911.04
Amount Units: ng/L



Data Editor: andy.marshall, 05-Oct-2022 09:03:46

Audit Action: Mint

Audit Reason: M-03, Incorrect Auto Integration

Manual Integration Report

Data File: \\organics\LL\LCMSMS01.i\100422-nonDOD.b\100422058.d

Injection Date: 04-Oct-2022 20:33:15

Inst. ID: LCMSMS01.i

Client ID:

Lab ID: CCV 1000D_SVLC-2215

Sample Info: CCV 1000D_SVLC-2215

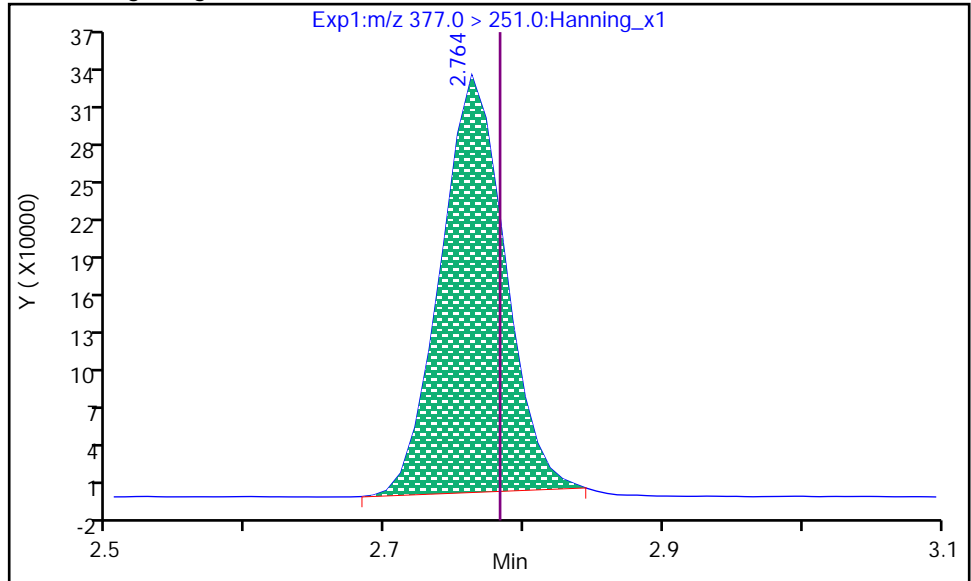
Dil. Factor: 1

Operator: eqi.svoa

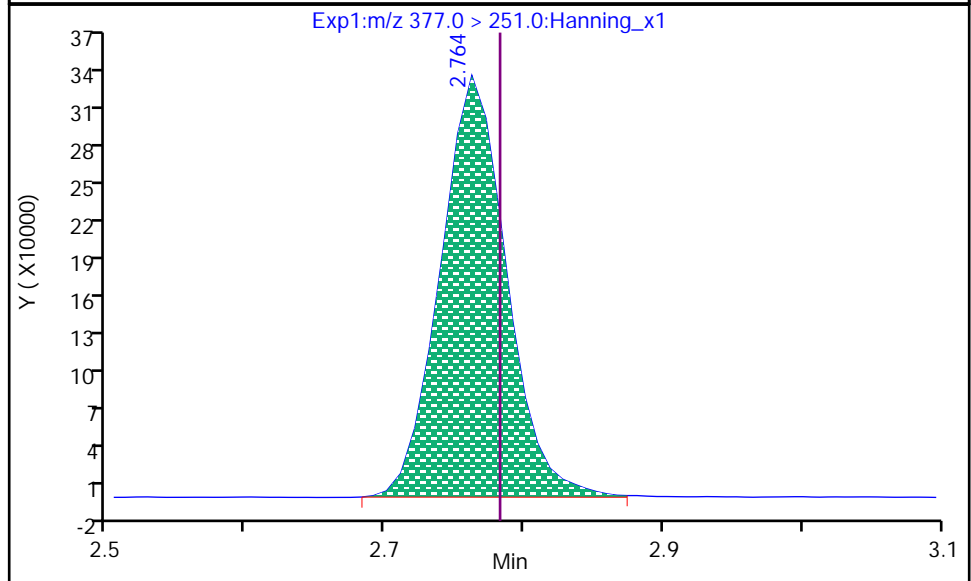
29 ADONA, CAS: 919005-14-4

Processing Integration Results

RT: 2.764
Area: 1062171
Amount: 719.33
Amount Units: ng/L



RT: 2.764
Area: 1100195
Amount: 745.08
Amount Units: ng/L



Data Editor: andy.marshall, 05-Oct-2022 16:01:21

Audit Action: Mint

Audit Reason: M-03, Incorrect Auto Integration

Manual Integration Report

Data File: \\organics\LL\LCMSMS01.i\100422-nonDOD.b\100422058.d

Injection Date: 04-Oct-2022 20:33:15

Inst. ID: LCMSMS01.i

Client ID:

Lab ID: CCV 1000D_SVLC-2215

Sample Info: CCV 1000D_SVLC-2215

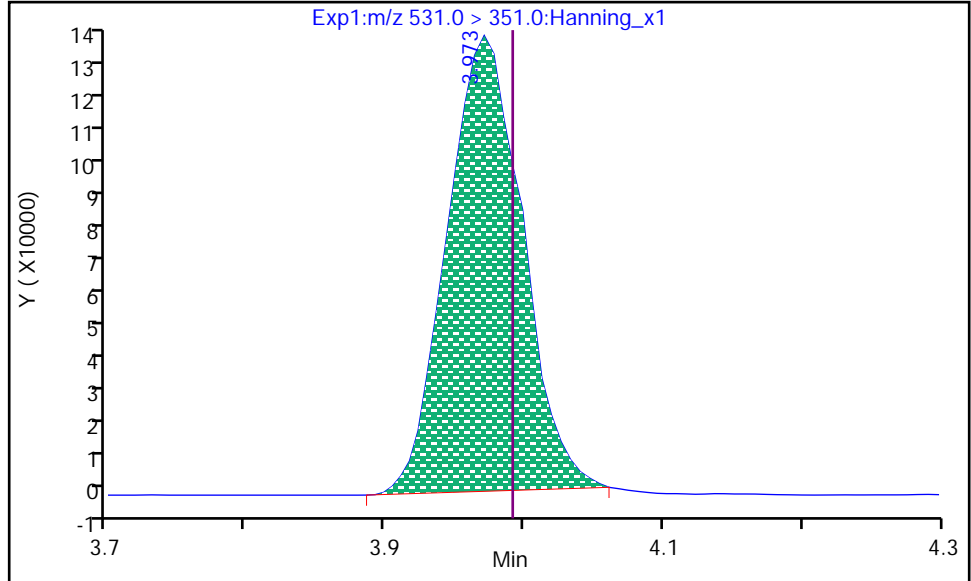
Dil. Factor: 1

Operator: eqi.svoa

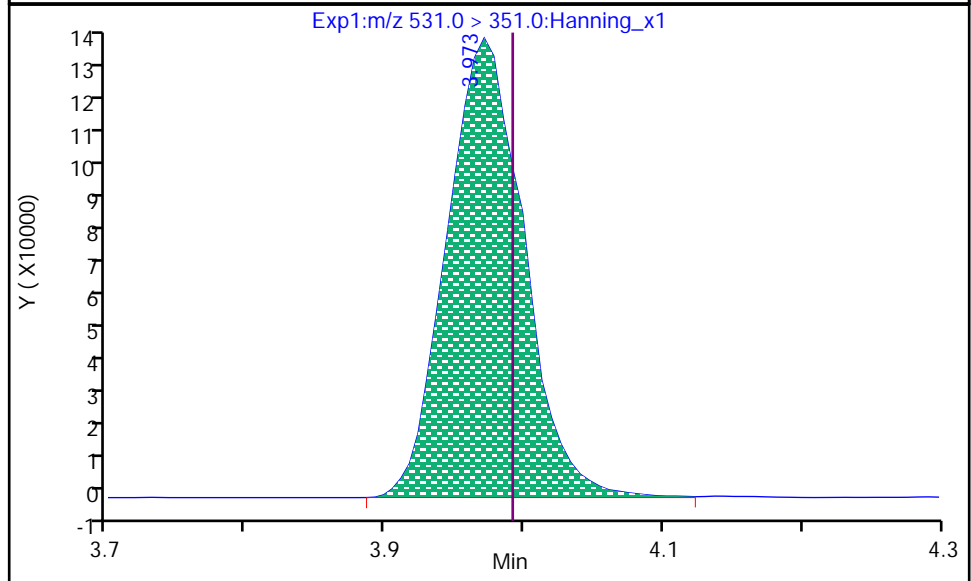
30 9CI-PF3ONS, CAS: 756426-58-1

RT: 3.973
Area: 504794
Amount: 942.96
Amount Units: ng/L

Processing Integration Results



RT: 3.973
Area: 520164
Amount: 971.68
Amount Units: ng/L



Data Editor: andy.marshall, 05-Oct-2022 16:01:37

Audit Action: Mint

Audit Reason: M-03, Incorrect Auto Integration

Manual Integration Report

Data File: \\organics\LL\LCMSMS01.i\100422-nonDOD.b\100422058.d

Injection Date: 04-Oct-2022 20:33:15

Inst. ID: LCMSMS01.i

Client ID:

Lab ID: CCV 1000D_SVLC-2215

Sample Info: CCV 1000D_SVLC-2215

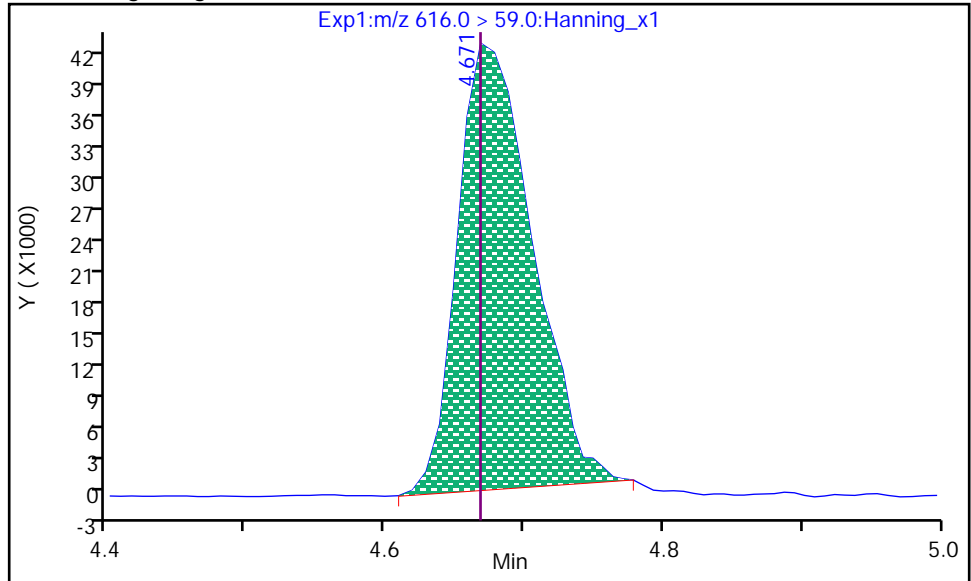
Dil. Factor: 1

Operator: eqi.svoa

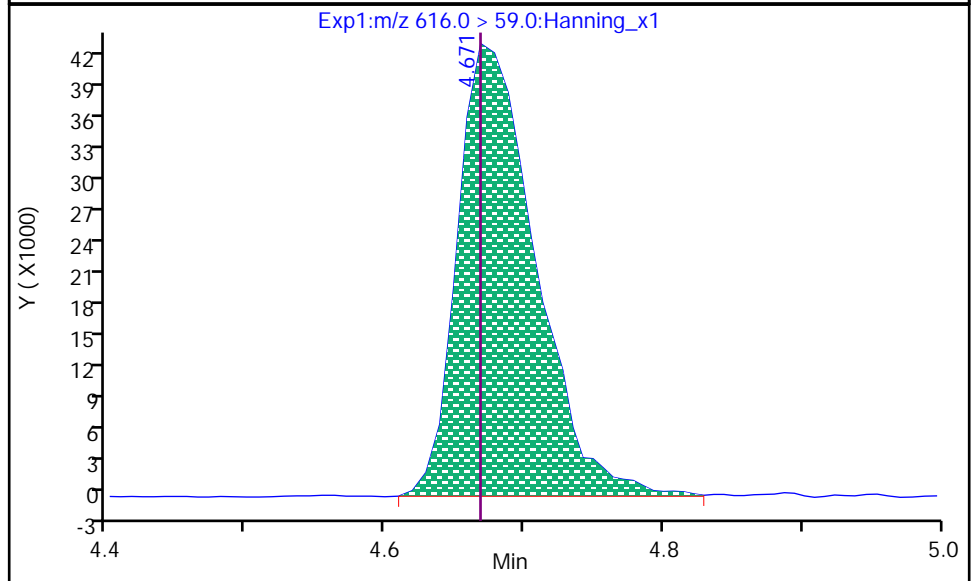
32 MeFOSE, CAS: 24448-09-7

Processing Integration Results

RT: 4.671
Area: 154871
Amount: 1143.73
Amount Units: ng/L



RT: 4.671
Area: 163676
Amount: 1208.75
Amount Units: ng/L



Data Editor: andy.marshall, 05-Oct-2022 09:06:26

Audit Action: Mint

Audit Reason: M-03, Incorrect Auto Integration

Manual Integration Report

Data File: \\organics\LL\LCMSMS01.i\100422-nonDOD.b\100422058.d

Injection Date: 04-Oct-2022 20:33:15

Inst. ID: LCMSMS01.i

Client ID:

Lab ID: CCV 1000D_SVLC-2215

Sample Info: CCV 1000D_SVLC-2215

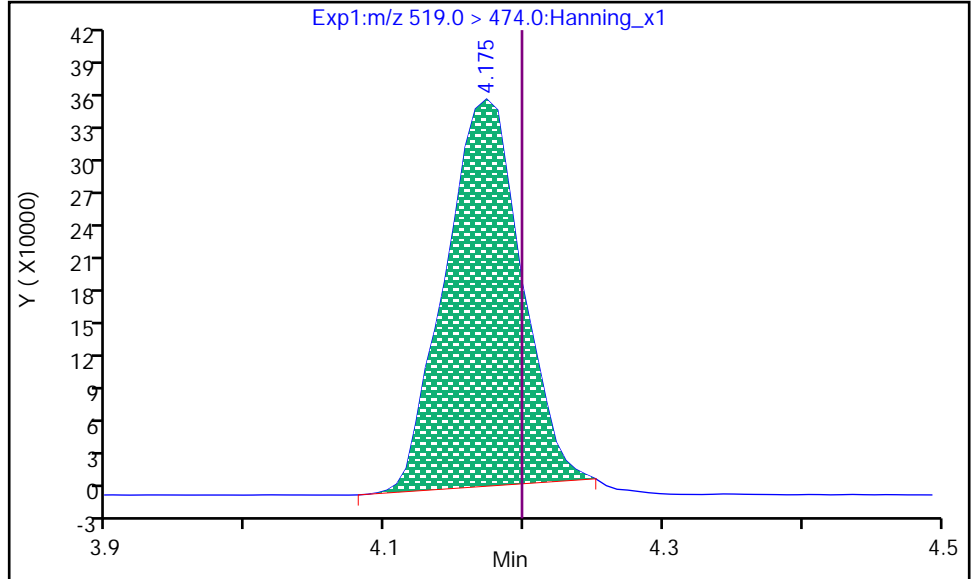
Dil. Factor: 1

Operator: eqi.svoa

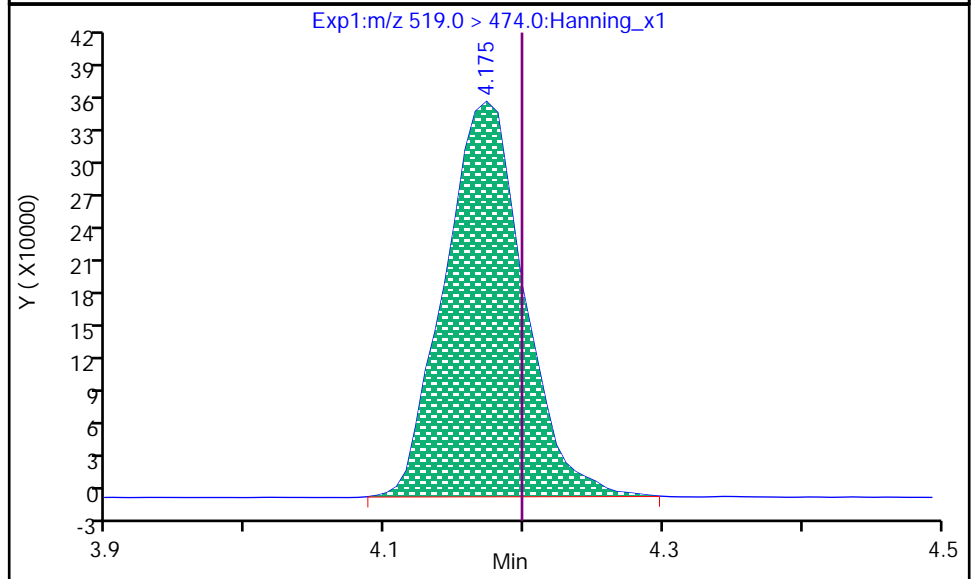
D 51 13C6_PFDA, CAS: SESI-0115

RT: 4.175
Area: 1303047
Amount: 2321.05
Amount Units: ng/L

Processing Integration Results



RT: 4.175
Area: 1383123
Amount: 2463.68
Amount Units: ng/L



Data Editor: andy.marshall, 05-Oct-2022 16:03:02

Audit Action: Mint

Audit Reason: M-03, Incorrect Auto Integration

Manual Integration Report

Data File: \\organics\LL\LCMSMS01.i\100422-nonDOD.b\100422058.d

Injection Date: 04-Oct-2022 20:33:15

Inst. ID: LCMSMS01.i

Client ID:

Lab ID: CCV 1000D_SVLC-2215

Sample Info: CCV 1000D_SVLC-2215

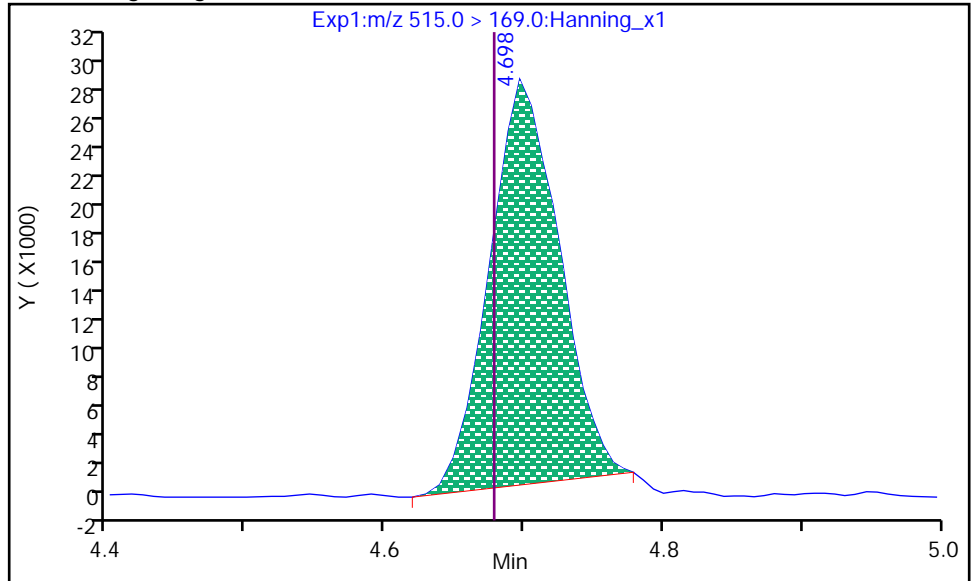
Dil. Factor: 1

Operator: eqi.svoa

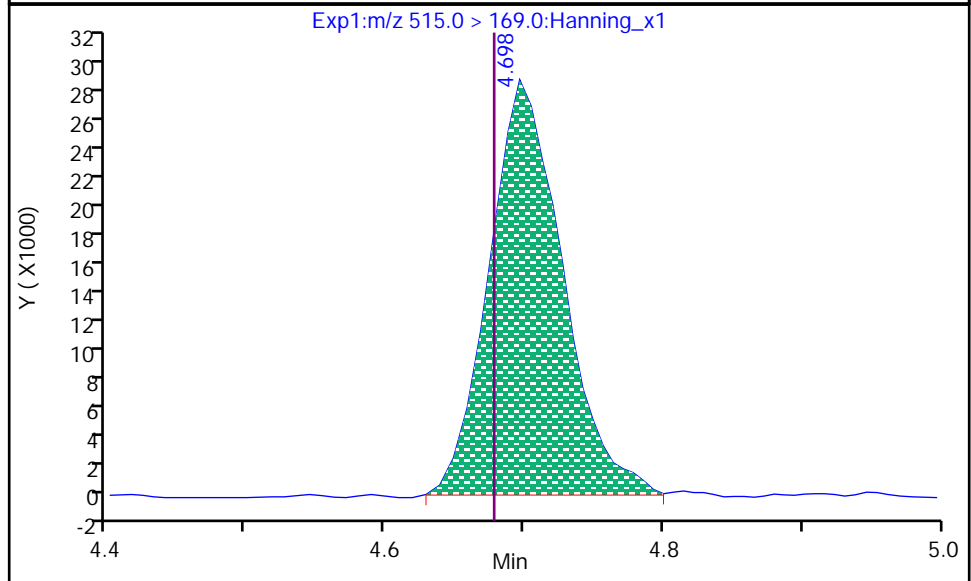
D 57 d3-MeFOSA, CAS: SESI-0109

Processing Integration Results

RT: 4.698
Area: 94806
Amount: 1657.65
Amount Units: ng/L



RT: 4.698
Area: 102082
Amount: 1784.87
Amount Units: ng/L



Data Editor: andy.marshall, 05-Oct-2022 16:03:15

Audit Action: Mint

Audit Reason: M-03, Incorrect Auto Integration

Manual Integration Report

Data File: \\organics\LL\LCMSMS01.i\100422-nonDOD.b\100422058.d

Injection Date: 04-Oct-2022 20:33:15

Inst. ID: LCMSMS01.i

Client ID:

Lab ID:

CCV 1000D_SVLC-2215

Sample Info: CCV 1000D_SVLC-2215

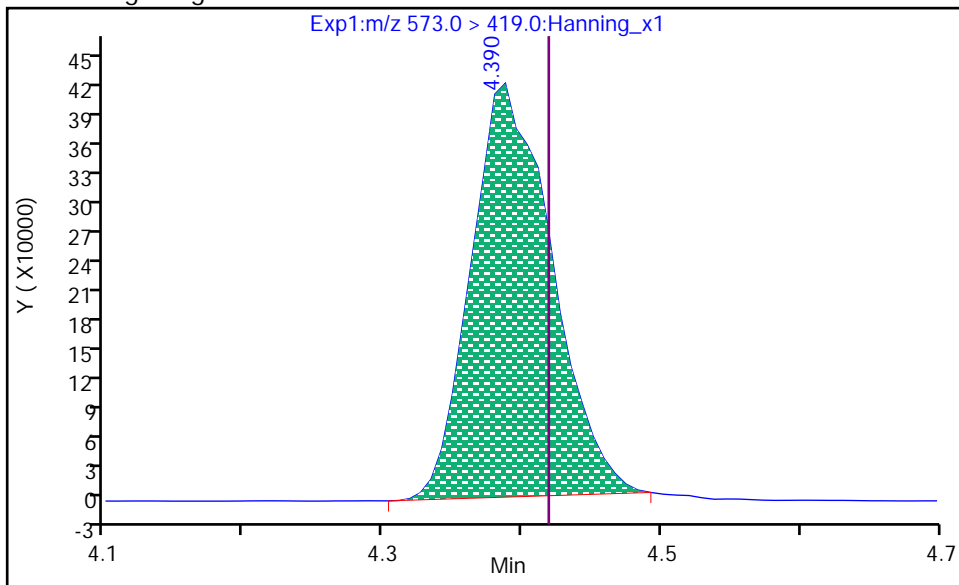
Dil. Factor: 1

Operator: eqi.svoa

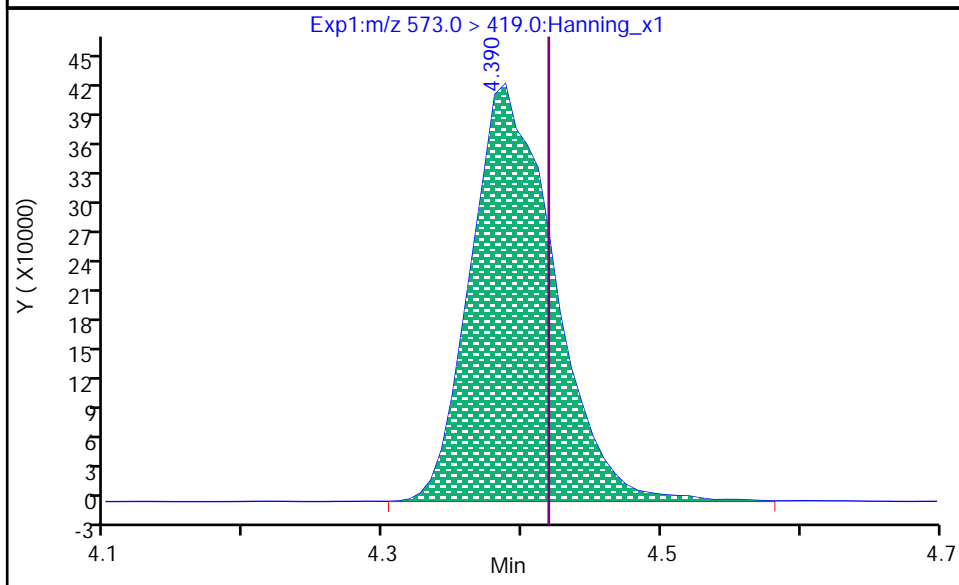
D 58 d3-MeFOSAA, CAS: SESI-0102

RT: 4.390
Area: 1672062
Amount: 11642
Amount Units: ng/L

Processing Integration Results



RT: 4.390
Area: 1741027
Amount: 12122
Amount Units: ng/L



Data Editor: andy.marshall, 05-Oct-2022 09:05:44

Audit Action: Mint

Audit Reason: M-03, Incorrect Auto Integration

Manual Integration Report

Data File: \\organics\LL\LCMSMS01.i\100422-nonDOD.b\100422058.d

Injection Date: 04-Oct-2022 20:33:15

Inst. ID: LCMSMS01.i

Client ID:

Lab ID: CCV 1000D_SVLC-2215

Sample Info: CCV 1000D_SVLC-2215

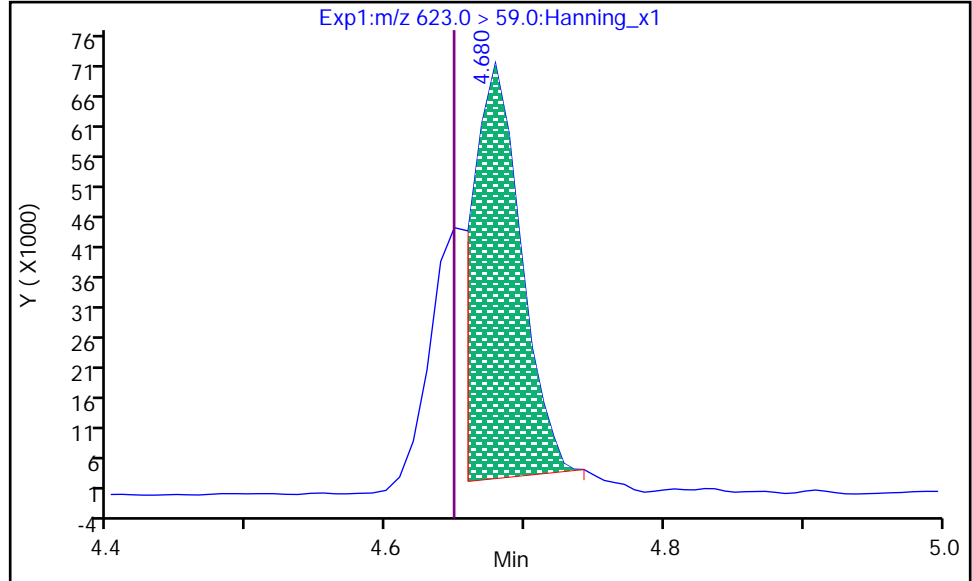
Dil. Factor: 1

Operator: eqi.svoa

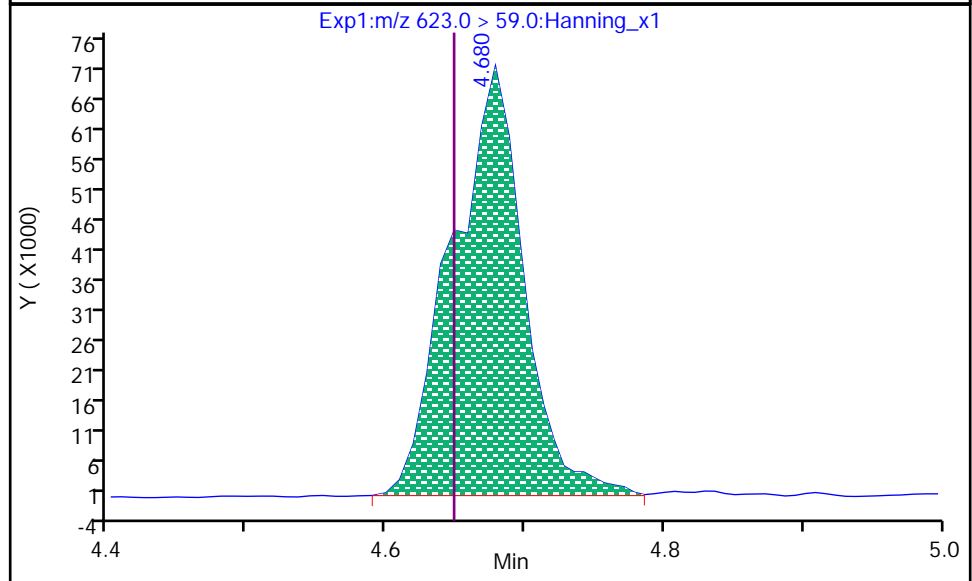
D 61 d7-MeFOSE, CAS: SESI-0129

RT: 4.680
Area: 154560
Amount: 1115.64
Amount Units: ng/L

Processing Integration Results



RT: 4.680
Area: 252831
Amount: 1824.97
Amount Units: ng/L



Data Editor: andy.marshall, 05-Oct-2022 09:06:18

Audit Action: Mint

Audit Reason: M-03, Incorrect Auto Integration

Manual Integration Report

Data File: \\organics\LL\LCMSMS01.i\100422-nonDOD.b\100422058.d

Injection Date: 04-Oct-2022 20:33:15

Inst. ID: LCMSMS01.i

Client ID:

Lab ID: CCV 1000D_SVLC-2215

Sample Info: CCV 1000D_SVLC-2215

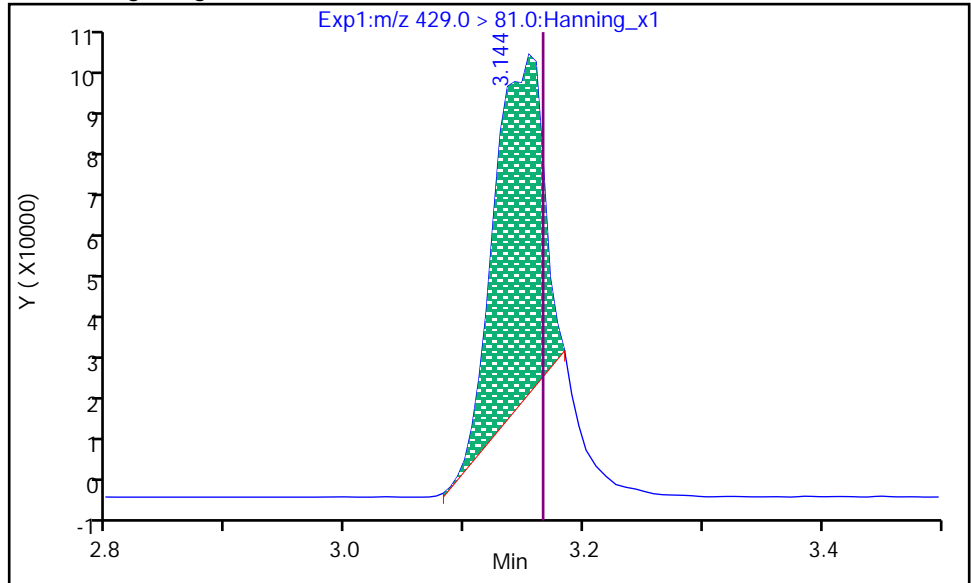
Dil. Factor: 1

Operator: eqi.svoa

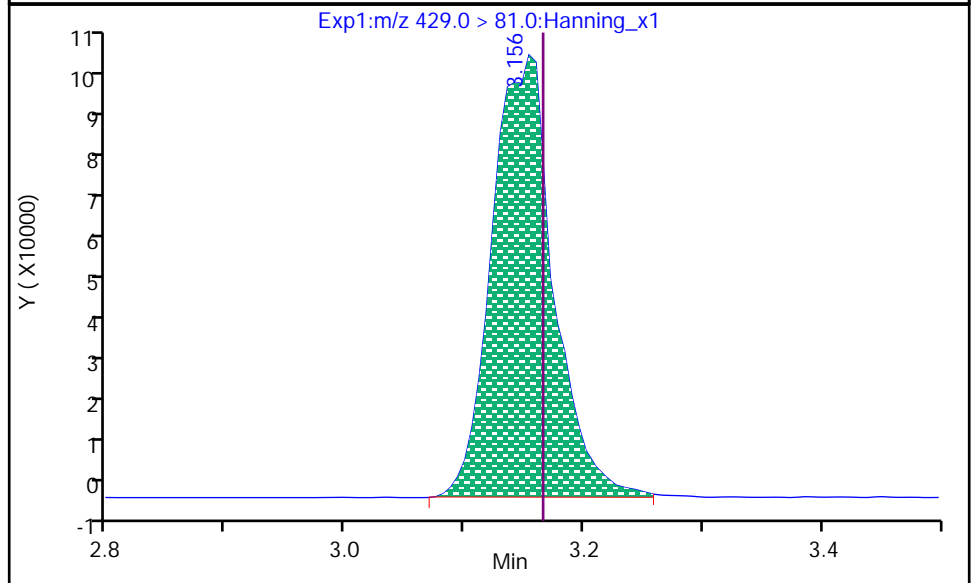
D 64 13C2_6:2 FTS_2, CAS: SESI-0105

Processing Integration Results

RT: 3.144
Area: 225908
Amount: 7380.87
Amount Units: ng/L



RT: 3.156
Area: 361556
Amount: 11813
Amount Units: ng/L



Data Editor: andy.marshall, 05-Oct-2022 09:03:17

Audit Action: Mint

Audit Reason: M-03, Incorrect Auto Integration

Manual Integration Report

Data File: \\organics\LL\LCMSMS01.i\100422-nonDOD.b\100422058.d

Injection Date: 04-Oct-2022 20:33:15

Inst. ID: LCMSMS01.i

Client ID:

Lab ID: CCV 1000D_SVLC-2215

Sample Info: CCV 1000D_SVLC-2215

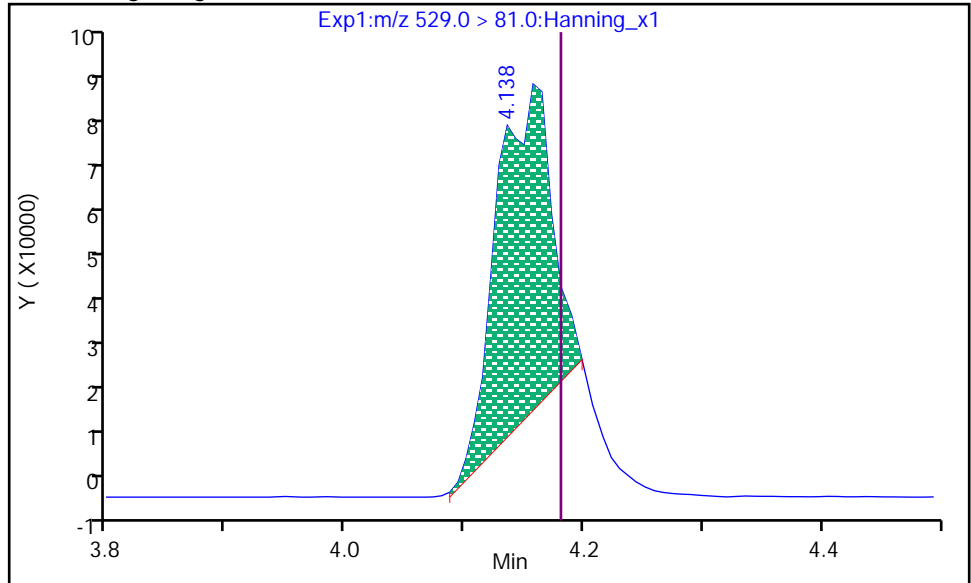
Dil. Factor: 1

Operator: eqi.svoa

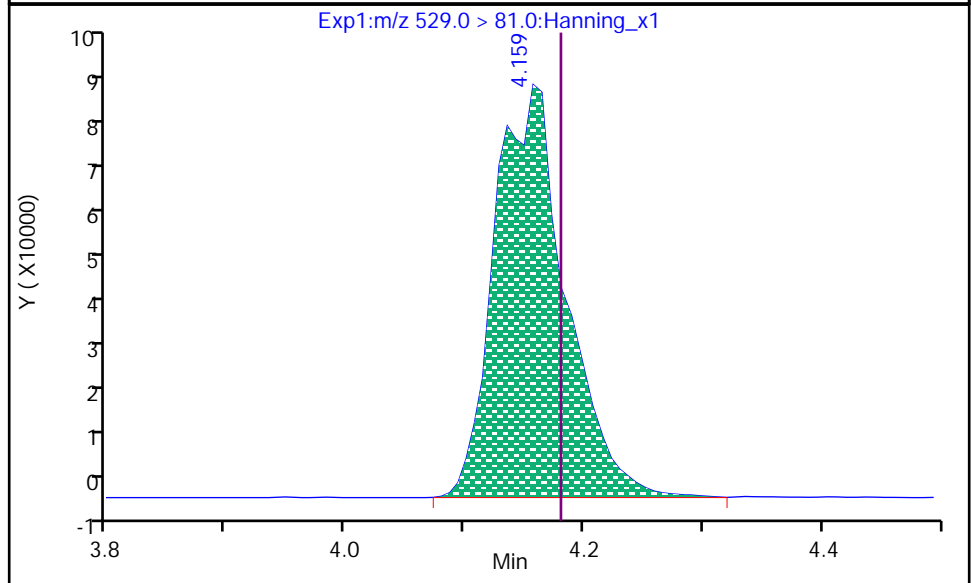
D 65 13C2_8:2 FTS_2, CAS: SESI-0106

Processing Integration Results

RT: 4.138
Area: 222793
Amount: 6809.41
Amount Units: ng/L



RT: 4.159
Area: 352770
Amount: 10782
Amount Units: ng/L



Data Editor: andy.marshall, 05-Oct-2022 09:07:18

Audit Action: Mint

Audit Reason: M-03, Incorrect Auto Integration

RAW QC DATA

SCIEX Triple Quad 4500/4500MD Systems

Planned Maintenance Procedure



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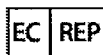
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(GEN-IDV-09-10816-D)

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Introduction

1

Note: For regulatory and safety information for the mass spectrometer, refer to the document: *System User Guide*.

The planned maintenance (PM) procedure is designed to help maintain overall system performance.

Planned maintenance is not intended to take the place of an Operational Qualification (OQ) nor is it intended to verify the instrument specifications. Separate Installation Qualification (IQ) and OQ services are available. Contact a SCIEX representative.

The procedure must be performed by a trained SCIEX Field Service Employee (FSE).

The procedure has been developed for the SCIEX Triple Quad 4500/4500MD System with the Turbo V Ion Source. It does not apply to any other products or processes.

The procedure does not address any customer-specific analytical protocol (performance qualification) or method validation.

Note: If an issue is identified and the system requires repair, then the customer is responsible for the cost of the repair, except to the extent that the system and required repairs are covered by a SCIEX warranty or service contract. Open a separate service call for the repair. Do not charge repair service call hours to planned maintenance procedures.

Planned Maintenance Tasks

2

Note: Perform all procedures using the Turbo V Ion Source, unless otherwise specified.

Pre-Planned Maintenance

Note: Guideline values are for reference only. The pre-PM test results are not required to meet or exceed these values.

Pre-PM Tasks

Task	Complete	N/A
Ask the customer about system performance since the last visit and record comments.	✓	—
If the customer maintains a log for the system, then review it.	○	●
Review the work to be performed with the customer.	✓	—

PC Health Check

Task	Complete	N/A
Inspect the status of the RAID 1 hard drives.	✓	—

Vacuum System Tests

Task			Complete
Record the turbo pump operational values.			✓
Parameter	Results		
Temperature (°C)	43		
Current (A)	3.9		
Voltage (V)	23		
Power (W)	85		
Driving frequency (Hz)	800		
Inspect the vacuum gauge filament using the appropriate service tool (Analyst Service Diagnostics (ASD) for Analyst software or Tuning Tools for SCIEX OS) and identify the filament position. If the mass spectrometer is using filament 2, then order a replacement vacuum gauge as a separate service call.	1	●	✓
	2	○	

Planned Maintenance Tasks

Pre-PM Pressure Test

Pre-PM Pressure Test is Complete		✓
Test	Guideline	Result
Vacuum chamber pressure with CAD gas off	$0.4 \times 10^{-5} \text{ torr} < P_{\text{CAD } 0} < 1.1 \times 10^{-5} \text{ torr}$	0.5e-5
Pressure difference (CAD ₁₂ minus CAD ₀)	$1.8 \times 10^{-5} \text{ torr} < (P_{\text{CAD } 12} - P_{\text{CAD } 0}) < 2.8 \times 10^{-5} \text{ torr}$	2.1e-5

Inspect for Contamination

Task	Complete	N/A
Inspect for front-end contamination. Refer to Inspect for Contamination.	✓	—

Record Probe Position

Task	Result
Record the vertical and horizontal probe positions.	0.5, 5.0

Pre-PM System Tests

Q1 Positive MS Test is Complete: Intensity and Peak Width				✓	
<ul style="list-style-type: none"> • Test solution: POS PPG, 2e-6 M • Flow rate: 5 µL/min • Scan rate: 10 Da/s • Cycles: 10 • MCA (Analyst software): On 					
<p>Note: SCIEX OS uses Sum Of 10 cycles instead of MCA.</p>					
<ul style="list-style-type: none"> • Data required: Spectra for masses 59.050, 175.133, 500.380, 616.464, 906.673, 1,254.925, 1,545.134, 1,952.427, with peak intensities, peak width, and mass shift results, complete with method file information. Printouts can be provided if required. 					
<p>Note: After calibration, the mass shift result must be within 0.1 Da for all assigned masses.</p>					
Mass (Da)	Intensity (cps)		Peak Width (Da)		
	Guideline	Result	Guideline	Result	
175.133	$\geq 8.0 \times 10^6$	2.9e7	0.6 to 0.8	1.08	
500.380	$> 8.0 \times 10^6$	3.2e7	0.6 to 0.8	1.10	
906.673	$> 2.0 \times 10^7$	5.4e7	0.6 to 0.8	1.19	
1,952.427	$> 8.8 \times 10^5$	1.1e7	0.6 to 0.8	n/a	

Planned Maintenance Tasks

Q3 Positive MS Test is Complete: Intensity and Peak Width			✓	
<ul style="list-style-type: none"> • Test solution: POS PPG, 2e-6 M • Flow rate: 5 µL/min • Scan rate: 10 Da/s • Cycles: 10 • MCA (Analyst software): On 				
<p>Note: SCIEX OS uses Sum Of 10 cycles instead of MCA.</p>				
<ul style="list-style-type: none"> • Data required: Spectra for masses 59.050, 175.133, 500.380, 616.464, 906.673, 1,254.925, 1,545.134, 1,952.427, with peak intensities, peak width, and mass shift results, complete with method file information. Printouts can be provided if required. 				
<p>Note: After calibration, the mass shift result must be within 0.1 Da for all assigned masses.</p>				
Mass (Da)	Intensity (cps)		Peak Width (Da)	
	Guideline	Result	Guideline	Result
175.133	$\geq 8.0 \times 10^6$	3.2e7	0.6 to 0.8	0.68
500.380	$\geq 8.0 \times 10^6$	2.5e7	0.6 to 0.8	0.69
906.673	$\geq 2.0 \times 10^7$	5.0e7	0.6 to 0.8	0.65
1,952.427	$\geq 8.8 \times 10^5$	1.1e7	0.6 to 0.8	0.70

Planned Maintenance Tasks

Q1 Negative MS Test is Complete: Intensity and Peak Width				✓
<ul style="list-style-type: none"> • Test solution: NEG PPG, 3e-4 M • Flow rate: 10 µL/min • Scan rate: 10 Da/s • Cycles: 10 • MCA (Analyst software): On 				
<p>Note: SCIEX OS uses Sum Of 10 cycles instead of MCA.</p>				
<ul style="list-style-type: none"> • Data required: Spectra for masses 44.998, 411.259, 585.385, 933.636, 1,223.845, 1,572.097, 1,863.306, 1,979.389, with peak intensities, peak width, and mass shift results, complete with method file information. Printouts can be provided if required. 				
<p>Note: After calibration, the mass shift result must be within 0.1 Da for all assigned masses.</p>				
Mass (Da)	Intensity (cps)		Peak Width (Da)	
	Guideline	Result	Guideline	Result
933.636	$\geq 1.8 \times 10^7$	2.6e7	0.6 to 0.8	0.81
1,863.306	$\geq 1.4 \times 10^6$	4.5e6	0.6 to 0.8	0.79

Planned Maintenance Tasks

Q3 Negative MS Test is Complete				✓
<ul style="list-style-type: none"> • Test solution: NEG PPG, 3e-4 M • Flow rate: 10 µL/min • Scan rate: 10 Da/s • Cycles: 10 • MCA (Analyst software): On 				
<p>Note: SCIEX OS uses Sum Of 10 cycles instead of MCA.</p>				
<ul style="list-style-type: none"> • Data required: Spectra for masses 44.998, 411.259, 585.385, 933.636, 1,223.845, 1,572.097, 1,863.306, 1,979.389, with peak intensities, peak width, and mass shift results, complete with method file information. Printouts can be provided if required. 				
<p>Note: After calibration, the mass shift result must be within 0.1 Da for all assigned masses.</p>				
Mass (Da)	Intensity (cps)		Peak Width (Da)	
	Guideline	Result	Guideline	Result
933.636	$\geq 1.8 \times 10^7$	3.6e7	0.6 to 0.8	0.85
1,863.306	$\geq 2.0 \times 10^6$	5.5e6	0.6 to 0.8	1.10

Planned Maintenance Tasks

Reserpine MS/MS Transmission Test is Complete	✓
<ul style="list-style-type: none"> • Test solution: Reserpine solution 0.167 pmol/μL • Flow rate: 5 μL/min • Scan rate: 10 Da/s (both MS and MS/MS) • Scan mode: Product Ion (MS2) • Product Of: 609.3 (or as calibrated) • Product Ion: 195.1 • Cycles: 10 • MCA (Analyst software): On <hr/> <p>Note: SCIEX OS uses Sum Of 10 cycles instead of MCA.</p> <hr/> <ul style="list-style-type: none"> • Data required: Spectra for masses 609.3 and 195.1, with peak intensities, peak width, and mass shift results, complete with method file information. Printouts can be provided if required. 	
Guideline	Result
<p>Transmission efficiency $\frac{\text{Intensity for ion at } m/z \text{ 195.1}}{\text{Intensity for ion at } m/z \text{ 609.3 (or as calibrated)}} \times 100 \geq 10\%$</p>	10.4%

Planned Maintenance Tasks

Planned Maintenance

Mass Spectrometer Maintenance

Task	Complete	N/A
Shut down the system and then disconnect the mains supply power cable.	✓	—
If required, replace the roughing pump oil. The recommended interval is every 3 years.	✓	—
Note: If an oil change is not required, then inspect the oil level and top up the oil, if required.		
CAUTION: Potential System Damage. Do not mix different types of oil. Mixing mineral oil with synthetic oil can cause pump failure.		
If required, replace the roughing pump oil exhaust filter. The recommended interval is every 3 years.	○	●
Confirm that there is no excessive roughing pump oil leakage. Clean up any oil.	✓	—
Make sure that the roughing pump exhaust is properly routed to the ventilation system.	✓	—

Planned Maintenance Tasks

Task	Complete	N/A
Inspect the exhaust system: <ul style="list-style-type: none"> • Make sure that all of the gas fittings at the rear bulkhead are tight. • Make sure that all of the exhaust hoses are free of kinks. • Make sure that all of the hoses at the waste bottle are secure, and that there are no signs of leaks. • Make sure that the waste bottle is upright. • Make sure that the exhaust hose is securely connected to the lab ventilation system. • Make sure that no liquid is trapped in the exhaust lines. 	✓	—
Clean or replace the four air filters in the base of the mass spectrometer chassis.	✓	—
(If applicable) Clean the turbo pump filter screen.	○	●
(If applicable) Verify the operation of the SCIEX-supplied bench cooling fans.	●	○
Clean the curtain plate.	✓	—
Clean the orifice plate.	✓	—
Clean the QJet Ion Guide and IQ0 lens.	✓	—
(If contamination is detected) Clean the Q0 region and the IQ1 lens.	●	○
Inspect the cable connections: <ul style="list-style-type: none"> • Make sure that the power cables for the mass spectrometer, LC system, roughing pump, syringe pump, gas generator, and UPS are securely connected. • Make sure that the communications cables for the GPIB/Ethernet ports, LC connections, and roughing pump are securely connected. 	✓	—

Planned Maintenance Tasks

Task	Complete	N/A
Verify system support functions — gas: <ul style="list-style-type: none"> • Make sure that the input gas pressures at the regulators are within specifications. • Make sure that there is no liquid present in the gas lines. 	✓	—
Examine the expiry date on the battery system for the UPS (sold by SCIEX), and then recommend replacement of the battery tray, if required.	○	●
Start up the system.	✓	—

Turbo V Ion Source Maintenance

Task	Complete	N/A
If necessary, replace the electrode in the TurbolonSpray and APCI probes.	●	○
With the TurbolonSpray probe installed, make sure that the temperature reaches the recommended set point of 500 °C.	✓	—
(If applicable) With the APCI probe installed, make sure that the temperature reaches the recommended set point of 400 °C.	○	●
Examine the ion source and, if visible signs of contamination are present, clean the inner surfaces using lint-free wipes and a 50:50 methanol:water solution.	●	○
Note: Remove the corona discharge needle before cleaning.		

Software Maintenance

Note: This task is not applicable to MD systems.

Task	Complete	N/A
(Obtain customer approval first) Install any applicable HotFixes for the control software. Note: Make sure that the compatible instrument firmware is installed.	<input type="radio"/>	<input checked="" type="radio"/>
(Analyst software) (Obtain customer approval first) Install the Analyst Diagnostic Tool if it is not already installed.	<input type="radio"/>	<input checked="" type="radio"/>

Planned Maintenance Tasks

Post-Planned Maintenance

Voltage Tests

Task	Complete		
Inspect the RF tuning voltages at the QPS amplifier module and then, if required, tune the coil boxes.	✓		
Inspect the detector voltage. Optimize, if required.	✓		
<table border="1"><tr><td data-bbox="245 909 743 955">Detector voltage</td><td data-bbox="743 909 1242 955">+1900/-1900</td></tr></table>	Detector voltage	+1900/-1900	
Detector voltage	+1900/-1900		

Post-PM Pressure Test

Post-PM Pressure Test is Complete		✓
Test	Specification	Result
Vacuum chamber pressure with CAD gas off	$0.4 \times 10^{-5} \text{ torr} \leq P_{\text{CAD } 0} \leq 1.1 \times 10^{-5} \text{ torr}$	0.5e-5
Pressure difference (CAD ₁₂ minus CAD ₀)	$1.8 \times 10^{-5} \text{ torr} \leq (P_{\text{CAD } 12} - P_{\text{CAD } 0}) \leq 2.8 \times 10^{-5} \text{ torr}$	2.5e-5

Planned Maintenance Tasks

Inspect for Contamination

Task	Complete	N/A
Inspect for front-end contamination. Refer to Inspect for Contamination.	✓	—

Post-PM System Tests

Q1 Positive MS Test is Complete: Intensity and Peak Width				✓
<ul style="list-style-type: none"> • Test solution: POS PPG, 2e-6 M • Flow rate: 5 µL/min • Scan rate: 10 Da/s • Cycles: 10 • MCA (Analyst software): On 				
<p>Note: SCIEX OS uses Sum Of 10 cycles instead of MCA.</p>				
<ul style="list-style-type: none"> • Data required: Spectra for masses 59.050, 175.133, 500.380, 616.464, 906.673, 1,254.925, 1,545.134, 1,952.427, with peak intensities, peak width, and mass shift results, complete with method file information. Printouts can be provided if required. 				
<p>Note: After calibration, the mass shift result must be within 0.1 Da for all assigned masses.</p>				
Mass (Da)	Intensity (cps)		Peak Width (Da)	
	Specification	Result	Specification	Result
175.133	$\geq 8.0 \times 10^6$	2.4e7	0.6 to 0.8	0.70
500.380	$> 8.0 \times 10^6$	2.9e7	0.6 to 0.8	0.72
906.673	$> 2.0 \times 10^7$	3.8e7	0.6 to 0.8	0.68
1,952.427	$> 8.8 \times 10^5$	4.9e6	0.6 to 0.8	0.73

Planned Maintenance Tasks

Q1 Positive MS Test is Complete: Peak Width for Identified Masses				✓
<ul style="list-style-type: none"> • Test solution: POS PPG, 2e-6 M • Flow rate: 5 µL/min • MCA (Analyst software): On 				
<p>Note: SCIEX OS uses Sum Of 10 cycles instead of MCA.</p>				
<ul style="list-style-type: none"> • Data required: Spectra for masses 59.050, 175.133, 500.380, 616.464, 906.673, 1,254.925, 1,545.134, 1,952.427, with peak intensities, peak width, and mass shift results, complete with method file information. Printouts can be provided if required. 				
<p>Note: After calibration, the mass shift result must be within 0.1 Da for all assigned masses.</p>				
Mass (Da)	Scan Rate (Da/s)	Cycles	Specification (Da)	Result (Passed)
59.050, 175.133, 500.380, 616.464, 906.673, 1,254.925, 1,545.134, 1,952.427	10	10	0.6 to 0.8	✓
	200	50	0.6 to 0.8	
	1,000	50	0.6 to 0.8	
	2,000	100	0.6 to 0.8	

Planned Maintenance Tasks

Q3 Positive MS Test is Complete: Intensity and Peak Width				✓	
<ul style="list-style-type: none"> • Test solution: POS PPG, 2e-6 M • Flow rate: 5 µL/min • Scan rate: 10 Da/s • Cycles: 10 • MCA (Analyst software): On 					
<p>Note: SCIEX OS uses Sum Of 10 cycles instead of MCA.</p>					
<ul style="list-style-type: none"> • Data required: Spectra for masses 59.050, 175.133, 500.380, 616.464, 906.673, 1,254.925, 1,545.134, 1,952.427, with peak intensities, peak width, and mass shift results, complete with method file information. Printouts can be provided if required. 					
<p>Note: After calibration, the mass shift result must be within 0.1 Da for all assigned masses.</p>					
Mass (Da)	Intensity (cps)		Peak Width (Da)		
	Specification	Result	Specification	Result	
175.133	$\geq 8.0 \times 10^6$	3.5e7	0.6 to 0.8	0.66	
500.380	$\geq 8.0 \times 10^6$	3.1e7	0.6 to 0.8	0.72	
906.673	$\geq 2.0 \times 10^7$	5.4e7	0.6 to 0.8	0.72	
1,952.427	$> 8.8 \times 10^5$	1.0e7	0.6 to 0.8	0.72	

Planned Maintenance Tasks

Q3 Positive MS Test is Complete: Peak Width for Identified Masses				✓
<ul style="list-style-type: none"> • Test solution: POS PPG, 2e-6 M • Flow rate: 5 µL/min • MCA (Analyst software): On <p>Note: SCIEX OS uses Sum Of 10 cycles instead of MCA.</p> <ul style="list-style-type: none"> • Data required: Spectra for masses 59.050, 175.133, 500.380, 616.464, 906.673, 1,254.925, 1,545.134, 1,952.427, with peak intensities, peak width, and mass shift results, complete with method file information. Printouts can be provided if required. <p>Note: After calibration, the mass shift result must be within 0.1 Da for all assigned masses.</p>				
Mass (Da)	Scan Rate (Da/s)	Cycles	Specification (Da)	Result (Passed)
59.050, 175.133, 500.380, 616.464, 906.673, 1,254.925, 1,545.134, 1,952.427	10	10	0.6 to 0.8	✓
	200	50	0.6 to 0.8	
	1,000	50	0.6 to 0.8	
	2,000	100	0.6 to 0.8	

Planned Maintenance Tasks

Q1 Negative MS Test is Complete: Intensity and Peak Width				✓
<ul style="list-style-type: none"> • Test solution: NEG PPG, 3e-4 M • Flow rate: 10 µL/min • Scan rate: 10 Da/s • Cycles: 10 • MCA (Analyst software): On 				
<p>Note: SCIEX OS uses Sum Of 10 cycles instead of MCA.</p>				
<ul style="list-style-type: none"> • Data required: Spectra for masses 44.998, 411.259, 585.385, 933.636, 1,223.845, 1,572.097, 1,863.306, 1,979.389, with peak intensities, peak width, and mass shift results, complete with method file information. Printouts can be provided if required. 				
<p>Note: After calibration, the mass shift result must be within 0.1 Da for all assigned masses.</p>				
Mass (Da)	Intensity (cps)		Peak Width (Da)	
	Specification	Result	Specification	Result
933.636	$\geq 1.8 \times 10^7$	2.7e7	0.6 to 0.8	0.73
1,863.306	$\geq 1.4 \times 10^6$	4.6e6	0.6 to 0.8	0.71

Planned Maintenance Tasks

Q1 Negative MS Test is Complete: Peak Width for Identified Masses				✓
<ul style="list-style-type: none"> • Test solution: NEG PPG, 3e-4 M • Flow rate: 10 µL/min • MCA (Analyst software): On <p>Note: SCIEX OS uses Sum Of 10 cycles instead of MCA.</p> <ul style="list-style-type: none"> • Data required: Spectra for masses 44.998, 411.259, 585.385, 933.636, 1,223.845, 1,572.097, 1,863.306, 1,979.389, with peak intensities, peak width, and mass shift results, complete with method file information. Printouts can be provided if required. <p>Note: After calibration, the mass shift result must be within 0.1 Da for all assigned masses.</p>				
Mass (Da)	Scan Rate (Da/s)	Cycles	Specification (Da)	Result (Passed)
44.998, 411.259, 585.385, 933.636, 1,223.845, 1,572.097, 1,863.306, 1,979.389	10	10	0.6 to 0.8	✓
	200	50	0.6 to 0.8	
	1,000	50	0.6 to 0.8	
	2,000	100	0.6 to 0.8	

Planned Maintenance Tasks

Q3 Negative MS Test is Complete: Intensity and Peak Width				✓	
<ul style="list-style-type: none"> • Test solution: NEG PPG, 3e-4 M • Flow rate: 10 µL/min • Scan rate: 10 Da/s • Cycles: 10 • MCA (Analyst software): On 					
<p>Note: SCIEX OS uses Sum Of 10 cycles instead of MCA.</p>					
<ul style="list-style-type: none"> • Data required: Spectra for masses 44.998, 411.259, 585.385, 933.636, 1,223.845, 1,572.097, 1,863.306, 1,979.389, with peak intensities, peak width, and mass shift results, complete with method file information. Printouts can be provided if required. 					
<p>Note: After calibration, the mass shift result must be within 0.1 Da for all assigned masses.</p>					
Mass (Da)	Intensity (cps)		Peak Width (Da)		
	Specification	Result	Specification	Result	
933.636	$\geq 1.8 \times 10^7$	2.0e7	0.6 to 0.8	0.68	
1,863.306	$\geq 2.0 \times 10^6$	2.4e6	0.6 to 0.8	0.65	

Planned Maintenance Tasks

Q3 Negative MS Test is Complete: Peak Width for Identified Masses				✓
<ul style="list-style-type: none"> • Test solution: NEG PPG, 3e-4 M • Flow rate: 10 µL/min • MCA (Analyst software): On 				
<p>Note: SCIEX OS uses Sum Of 10 cycles instead of MCA.</p>				
<ul style="list-style-type: none"> • Data required: Spectra for masses 44.998, 411.259, 585.385, 933.636, 1,223.845, 1,572.097, 1,863.306, 1,979.389, with peak intensities, peak width, and mass shift results, complete with method file information. Printouts can be provided if required. 				
<p>Note: After calibration, the mass shift result must be within 0.1 Da for all assigned masses.</p>				
Mass (Da)	Scan Rate (Da/s)	Cycles	Specification (Da)	Result (Passed)
44.998, 411.259, 585.385, 933.636, 1,223.845, 1,572.097, 1,863.306, 1,979.389	10	10	0.6 to 0.8	✓
	200	50	0.6 to 0.8	
	1,000	50	0.6 to 0.8	
	2,000	100	0.6 to 0.8	

Planned Maintenance Tasks

Reserpine MS/MS Transmission Test is Complete		✓
<ul style="list-style-type: none"> • Test solution: Reserpine solution 0.167 pmol/μL • Flow rate: 5 μL/min • Scan rate: 10 Da/s (both MS and MS/MS) • Scan mode: Product Ion (MS2) • Product Of: 609.3 (or as calibrated) • Product Ion: 195.1 • Cycles: 10 • MCA (Analyst software): On <p>Note: SCIEX OS uses Sum Of 10 cycles instead of MCA.</p> <ul style="list-style-type: none"> • Data required: Spectra for masses 609.3 and 195.1, with peak intensities, peak width, and mass shift results, complete with method file information. Printouts can be provided if required. 		
Specification		Result
Transmission efficiency	$\frac{\text{Intensity for ion at } m/z \text{ 195.1}}{\text{Intensity for ion at } m/z \text{ 609.3 (or as calibrated)}} \times 100 \geq 10\%$	10%

Planned Maintenance Tasks

Post-PM Tasks

Task	Complete	N/A
Delete any unnecessary files.	✓	—
Back up the Data folder for the control software.	✓	—
(If applicable) Defragment the hard drive.	○	●
(Not applicable for MD instrument families) If the customer has a Software Support Plan, then perform the Software Health Check: • (Obtain customer approval first) Install any compatible HotFixes and updates for SCIEX add-on software.	○	●

Restore Probe Position

Task	Complete	N/A
Restore vertical and horizontal probe positions to those recorded during Record Probe Position	✓	—

StatusScope Remote Monitoring Service Tasks

The StatusScope remote monitoring service is not applicable for MD systems.

Planned Maintenance Tasks

Task	Complete	N/A
<p>Note: Installation of the StatusScope remote monitoring service is available only to warranty and eligible contract customers. Refer to sciex.com/instrument-service-and-support/statusscope-remote-monitoring for a list of eligible contracts.</p> <p>If the StatusScope remote monitoring service is not installed, then perform these tasks:</p> <ul style="list-style-type: none"> • If the customer does not want the StatusScope remote monitoring service installed, then skip the remaining steps in this section. • If the customer wants the StatusScope remote monitoring service installed, then complete the steps in this section. 		—
<p>Verify the connection to the server for the StatusScope remote monitoring service.</p> <p>Note: Use the StatusScopePortCheck.exe. The utility is included with the StatusScope installer.</p>	<input type="radio"/>	<input checked="" type="radio"/>
<p>Install the agent for the StatusScope remote monitoring service.</p>	<input type="radio"/>	<input checked="" type="radio"/>
<p>Ask the customer to log on to SCIEX Now to verify that the instrument is connected to the server for the StatusScope remote monitoring service.</p> <p>Note: The instrument is shown under the account of the Primary Contact.</p>	<input type="radio"/>	<input checked="" type="radio"/>

Planned Maintenance Tasks

Wrap-up

Task	Complete	N/A
Review the work performed with the customer.	✓	—
Record the test results in this document and then attach all of the test data.	✓	—
Review the routine maintenance schedule and the procedures with the customer.	✓	—
Complete this document: <ul style="list-style-type: none">• Review the test results with the customer.• (SCIEX OS) Create the folder D:/SCIEX OS Data/PM. Save reports and data in this folder.• Provide the customer with the completed document.	✓	—

Service Request Number

3

Service request number		5471360	
Organization		Pace South Carolina	
Mass spectrometer serial number		BJ29321608	
FSE name	Lynne Russell	Date (yyyy-mm-dd)	2022-05-20

Service Request Number

Comments and Exceptions

Inspect for Contamination

A

Perform a Q1 and Q3 charging test to determine whether front end contamination is present.

1. Run the **Pos PPG** method for 10 minutes, monitoring the Total Ion Count (TIC) for degradation of the signal or a decrease in sensitivity.
2. Change the polarity to **Negative**, and then scan for one minute.
3. Change the polarity to **Positive**, and then make sure that the **IS** parameter returns to the original value.
4. Run the method.

If the signal sensitivity is restored temporarily but the Total Ion Count (TIC) again degrades by more than 5% over a 10 minute run, then a possible front-end contamination is indicated.

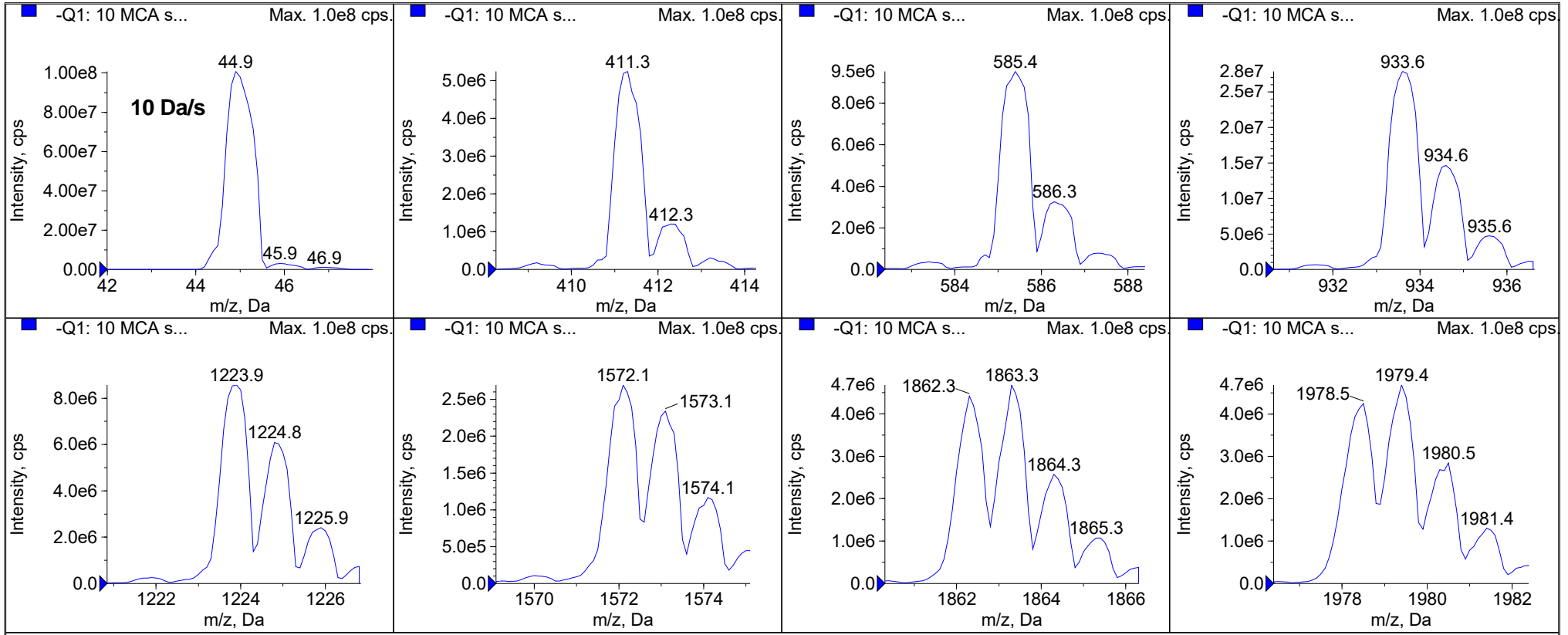
5. Repeat the test in **Negative** polarity using the **Q1 Neg PPG** method.

Guidelines for Cleaning the Front End

If charging tests indicate that cleaning is necessary, then clean the front-end components, including the QJet Ion Guide, IQ0 lens, Q0 quadrupole, and IQ1 lens.

Removing the ion optics is considered a repair activity. FSEs must open a separate service repair call.

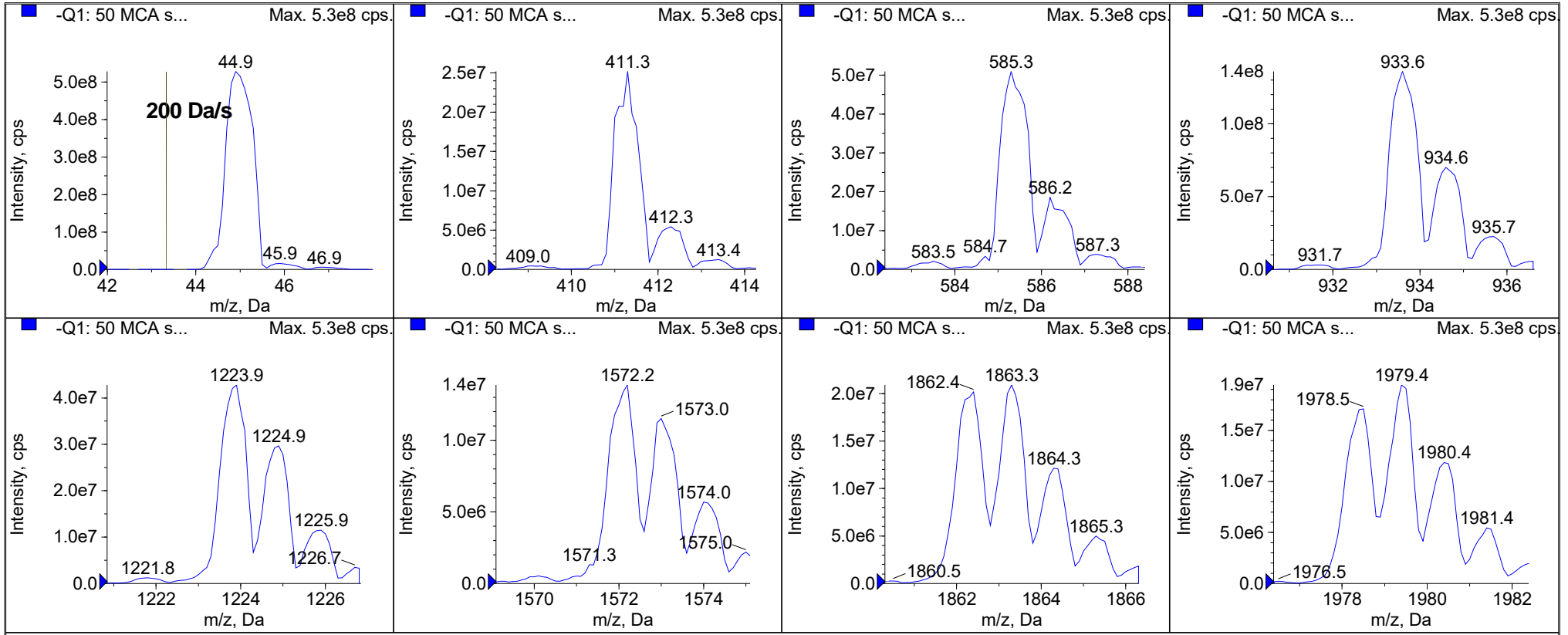
Note: This procedure does not provide troubleshooting for all technical root causes of signal degradation or charging effect. Signal degradation might also result from a contaminated TurbolonSpray probe or electrode, method parameters that are not optimized, or other factors.



Peak List for "-Q1: 10 MCA scans from Sample 1 (TuneSampleID) of MT20220520141427.wiff (Turbo Spray)"

	Target Mass (Da)	Found At (Da)	Intensity (cps)	Width (Da)	Mass Shift (Da)
1	44.9980	44.9892	1.0077e8	0.7417	8.8183e-3
2	411.2590	411.2971	5.2404e6	0.7043	-0.0381
3	585.3850	585.3996	9.5295e6	0.7434	-0.0146
4	933.6360	933.6206	2.7872e7	0.7329	0.0154
5	1223.8450	1223.8611	8.5706e6	0.7157	-0.0161
6	1572.0970	1572.0994	2.6946e6	0.7511	-2.3748e-3
7	1863.3060	1863.3255	4.6797e6	0.7168	-0.0195
8	1979.3890	1979.3803	4.6838e6	0.7593	8.7009e-3

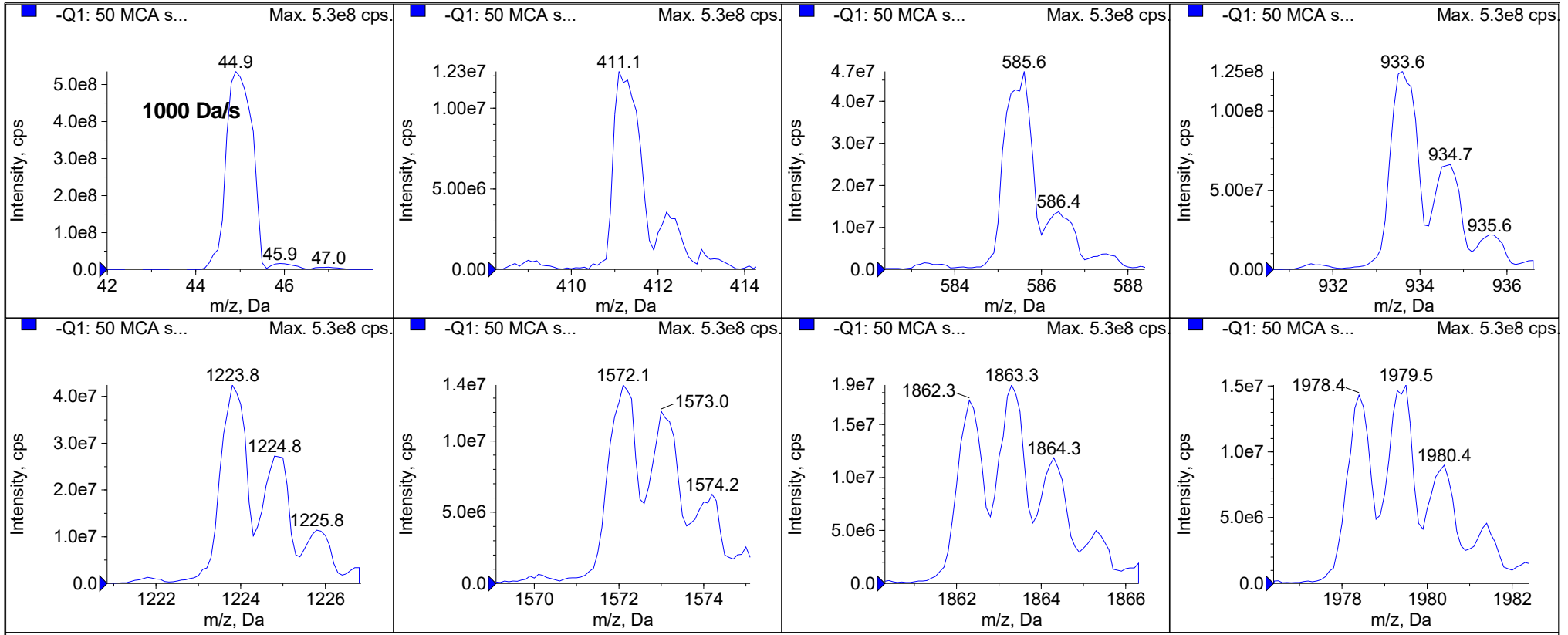
* FSAS Lynne Russell
 *Post-PM Results



Peak List for "-Q1: 50 MCA scans from Sample 1 (TuneSampleID) of MT20220520142440.wiff (Turbo Spray)"

	Target Mass (Da)	Found At (Da)	Intensity (cps)	Width (Da)	Mass Shift (Da)
1	44.9980	44.9880	5.2812e8	0.7207	9.9592e-3
2	411.2590	411.2464	2.5174e7	0.6654	0.0126
3	585.3850	585.3796	5.0940e7	0.7482	5.3751e-3
4	933.6360	933.6143	1.3591e8	0.7347	0.0217
5	1223.8450	1223.8398	4.2788e7	0.7006	5.1726e-3
6	1572.0970	1572.0835	1.3858e7	0.7286	0.0135
7	1863.3060	1863.3160	2.0900e7	0.6826	-9.9867e-3
8	1979.3890	1979.3961	1.9442e7	0.6677	-7.1427e-3

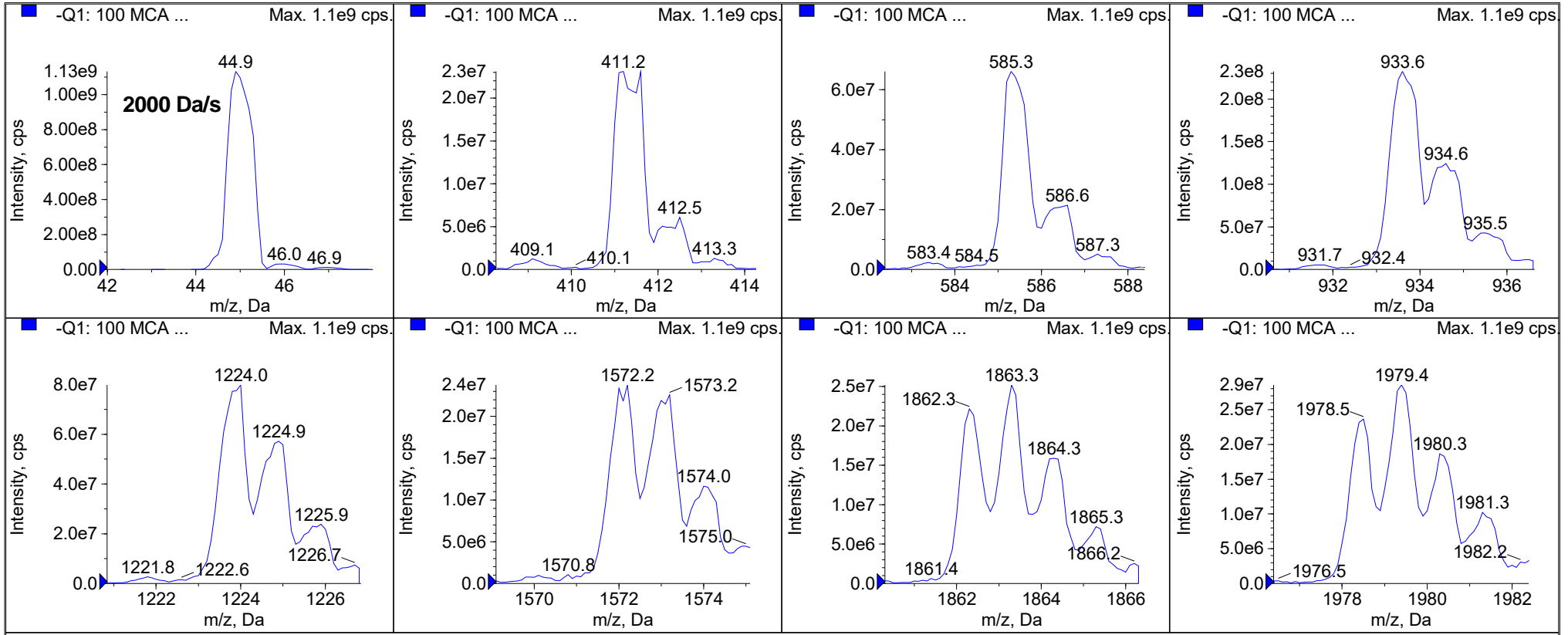
* FSAS Lynne Russell
 *Post-PM Results



Peak List for "-Q1: 50 MCA scans from Sample 1 (TuneSampleID) of MT20220520143022.wiff (Turbo Spray)"

	Target Mass (Da)	Found At (Da)	Intensity (cps)	Width (Da)	Mass Shift (Da)
1	44.9980	44.9886	5.3495e8	0.6975	9.4227e-3
2	411.2590	411.2595	1.2280e7	0.6975	-5.3065e-4
3	585.3850	585.4544	4.7060e7	0.7491	-0.0694
4	933.6360	933.6335	1.2512e8	0.6993	2.5387e-3
5	1223.8450	1223.8451	4.2440e7	0.6895	-1.4923e-4
6	1572.0970	1572.0983	1.3920e7	0.7690	-1.2548e-3
7	1863.3060	1863.3086	1.8720e7	0.7185	-2.6022e-3
8	1979.3890	1979.3808	1.5070e7	0.6711	8.1700e-3

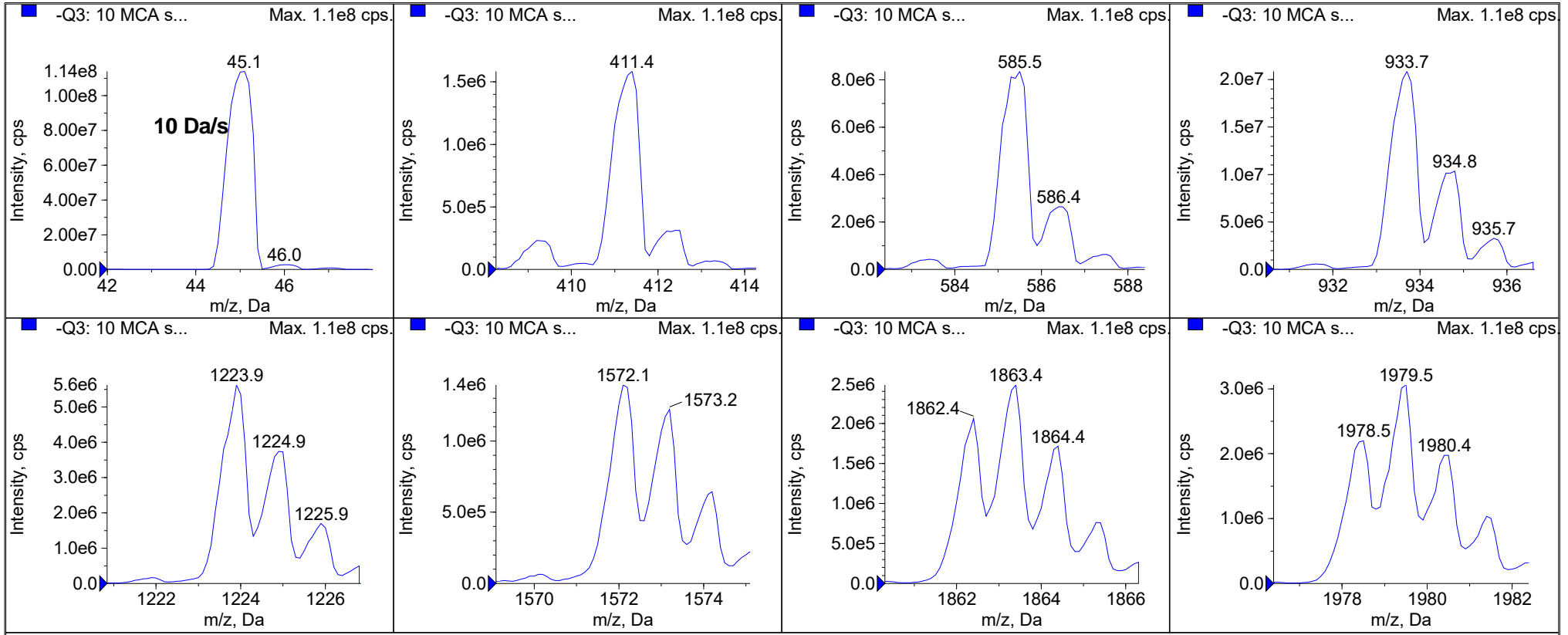
* FSAS Lynne Russell
 *Post-PM Results



Peak List for "-Q1: 100 MCA scans from Sample 1 (TuneSampleID) of MT20220520144050.wiff (Turbo Spray)"

	Target Mass (Da)	Found At (Da)	Intensity (cps)	Width (Da)	Mass Shift (Da)
1	44.9980	45.0017	1.1323e9	0.6623	-3.6674e-3
2	411.2590	411.3158	2.3100e7	0.7549	-0.0568
3	585.3850	585.3887	6.6100e7	0.6609	-3.7356e-3
4	933.6360	933.6452	2.3230e8	0.7515	-9.2344e-3
5	1223.8450	1223.8802	7.9800e7	0.7077	-0.0352
6	1572.0970	1572.1108	2.3760e7	0.7059	-0.0138
7	1863.3060	1863.2873	2.5180e7	0.6226	0.0187
8	1979.3890	1979.3945	2.8540e7	0.7141	-5.5171e-3

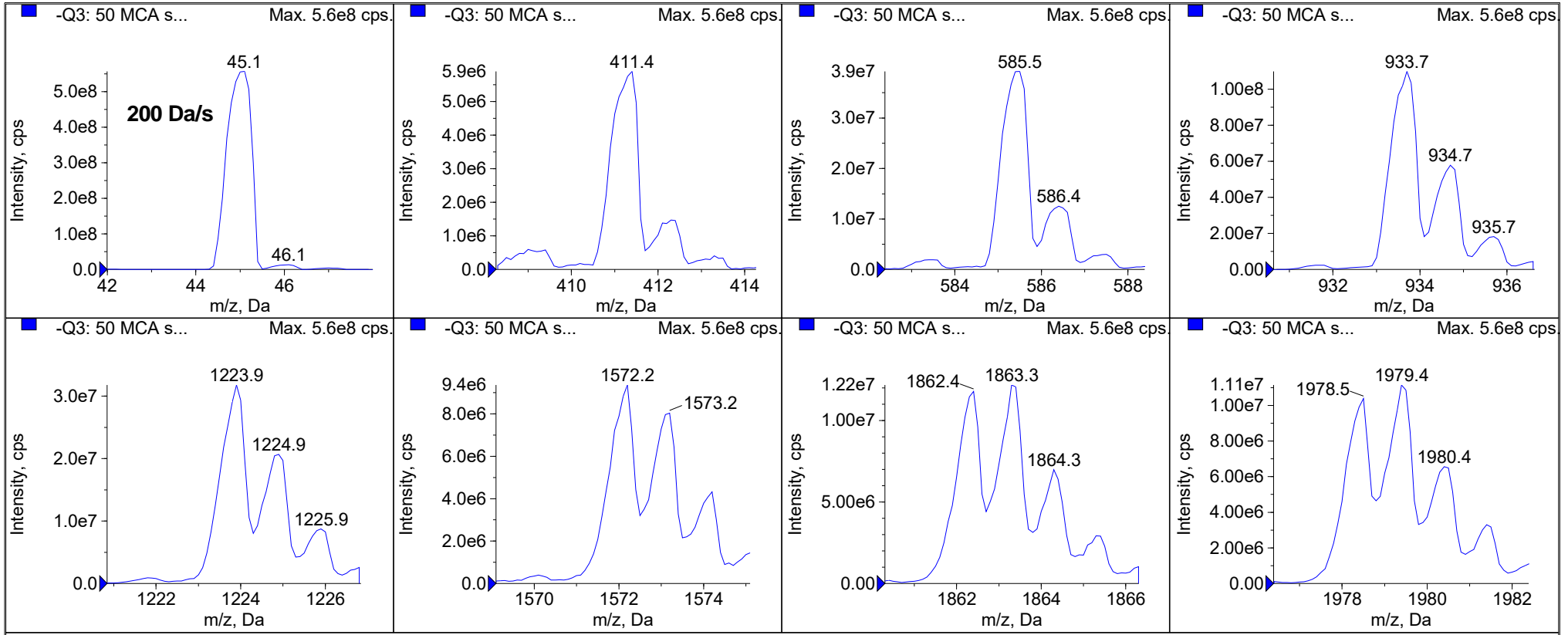
* FSAS Lynne Russell
 *Post-PM Results



Peak List for "-Q3: 10 MCA scans from Sample 1 (TuneSampleID) of MT20220520144438.wiff (Turbo Spray)"

	Target Mass (Da)	Found At (Da)	Intensity (cps)	Width (Da)	Mass Shift (Da)
1	44.9980	45.0187	1.1395e8	0.6789	-0.0207
2	411.2590	411.2769	1.5828e6	0.7074	-0.0179
3	585.3850	585.3885	8.3536e6	0.7024	-3.4891e-3
4	933.6360	933.6455	2.0852e7	0.6817	-9.4746e-3
5	1223.8450	1223.8717	5.6242e6	0.6626	-0.0267
6	1572.0970	1572.0983	1.3929e6	0.6510	-1.2976e-3
7	1863.3060	1863.3009	2.4801e6	0.6583	5.0660e-3
8	1979.3890	1979.4028	3.0590e6	0.6935	-0.0138

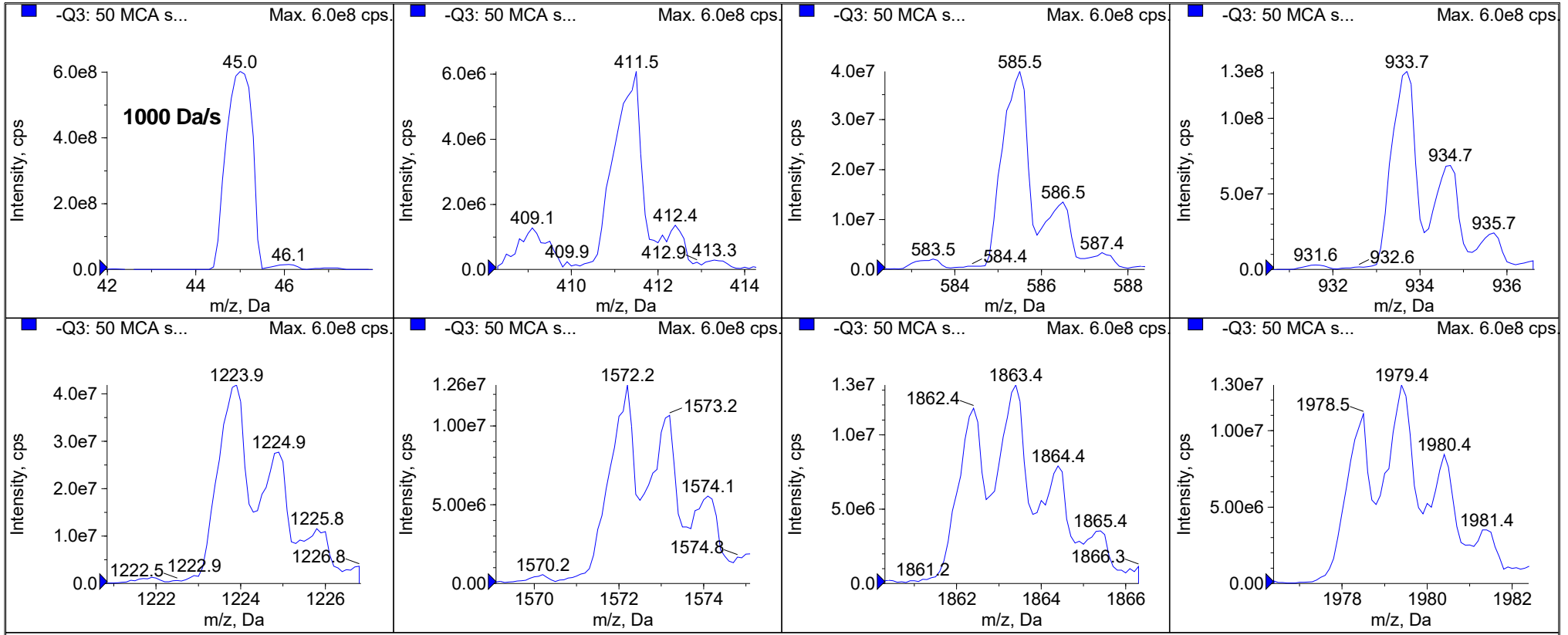
* FSAS Lynne Russell
 *Post-PM Results



Peak List for "-Q3: 50 MCA scans from Sample 1 (TuneSampleID) of MT20220520144922.wiff (Turbo Spray)"

	Target Mass (Da)	Found At (Da)	Intensity (cps)	Width (Da)	Mass Shift (Da)
1	44.9980	44.9919	5.5649e8	0.6617	6.0640e-3
2	411.2590	411.2477	5.8980e6	0.7066	0.0113
3	585.3850	585.3921	3.9206e7	0.6880	-7.1462e-3
4	933.6360	933.6425	1.0977e8	0.6744	-6.5118e-3
5	1223.8450	1223.8460	3.1774e7	0.6657	-9.8152e-4
6	1572.0970	1572.1097	9.3640e6	0.6637	-0.0127
7	1863.3060	1863.2963	1.2180e7	0.6654	9.7398e-3
8	1979.3890	1979.3750	1.1146e7	0.7237	0.0140

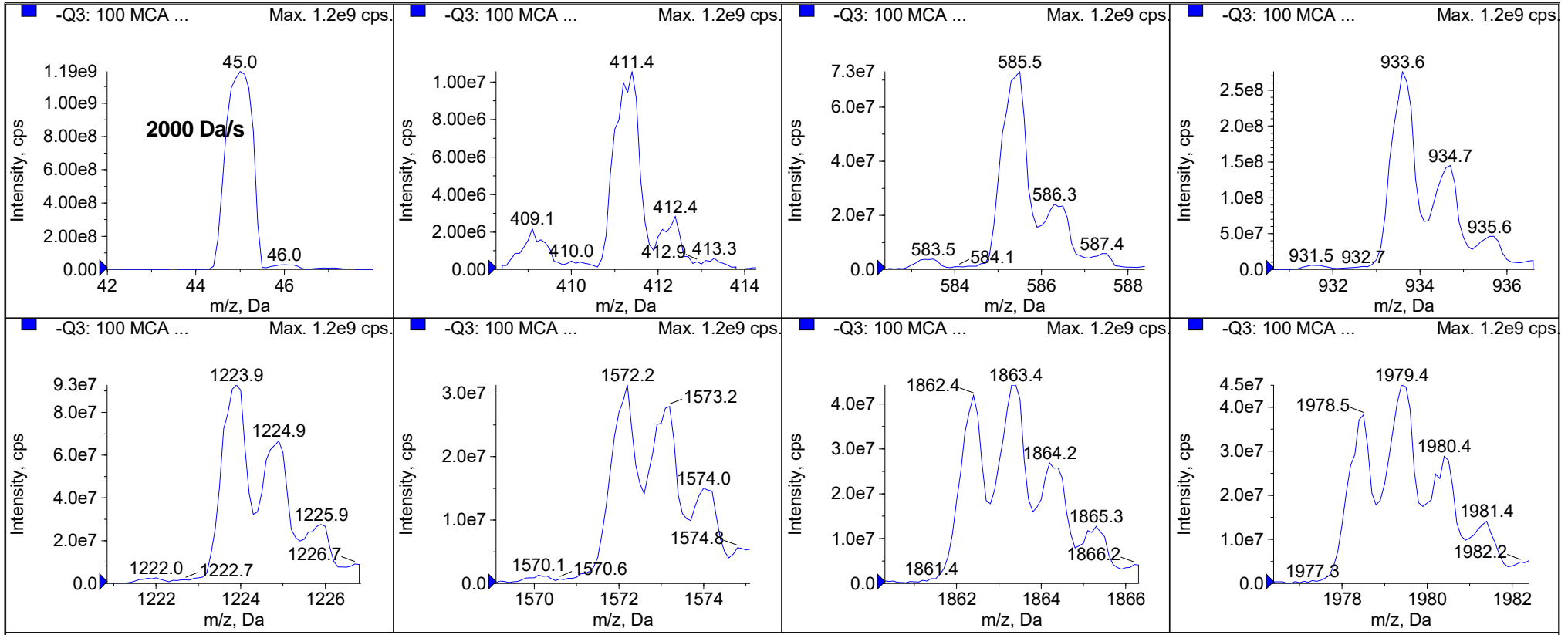
* FSAS Lynne Russell
 *Post-PM Results



Peak List for "-Q3: 50 MCA scans from Sample 1 (TuneSampleID) of MT20220520145813.wiff (Turbo Spray)"

	Target Mass (Da)	Found At (Da)	Intensity (cps)	Width (Da)	Mass Shift (Da)
1	44.9980	45.0022	6.0178e8	0.7116	-4.1705e-3
2	411.2590	411.3229	6.0800e6	0.7337	-0.0639
3	585.3850	585.4031	3.9630e7	0.6857	-0.0181
4	933.6360	933.6313	1.3090e8	0.6270	4.6876e-3
5	1223.8450	1223.8101	4.1890e7	0.7496	0.0349
6	1572.0970	1572.1218	1.2590e7	0.6639	-0.0248
7	1863.3060	1863.3255	1.3350e7	0.7303	-0.0195
8	1979.3890	1979.3791	1.2990e7	0.7457	9.8534e-3

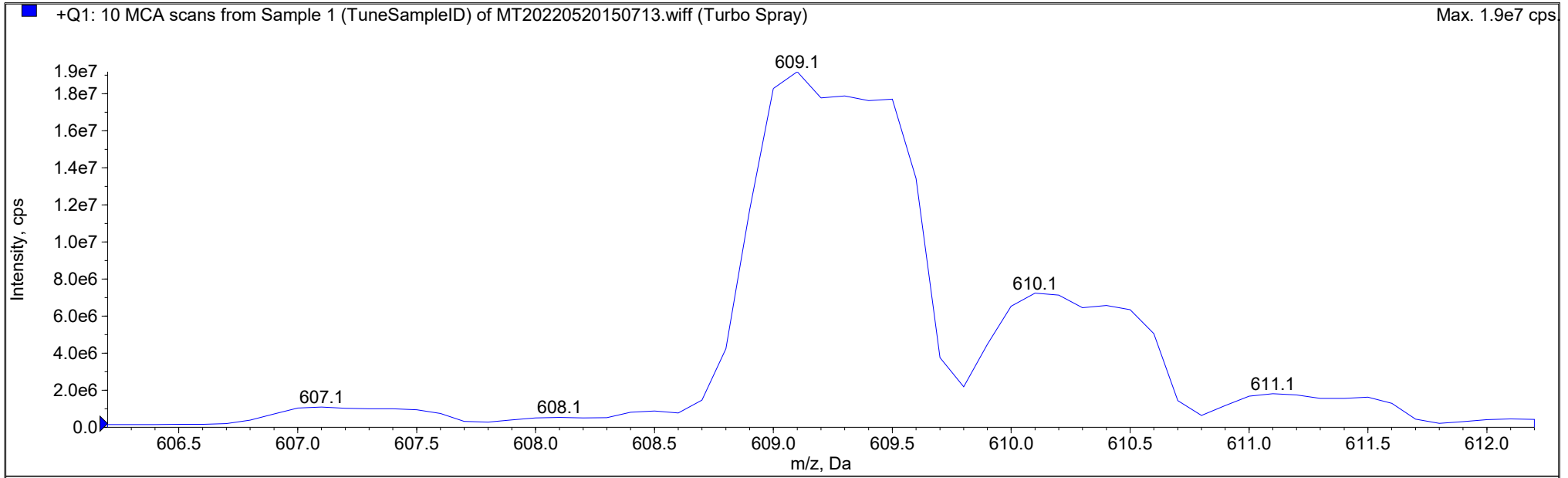
* FSAS Lynne Russell
 *Post-PM Results



Peak List for "-Q3: 100 MCA scans from Sample 1 (TuneSampleID) of MT20220520145952.wiff (Turbo Spray)"

	Target Mass (Da)	Found At (Da)	Intensity (cps)	Width (Da)	Mass Shift (Da)
1	44.9980	44.9959	1.1910e9	0.7226	2.1000e-3
2	411.2590	411.2839	1.0560e7	0.6810	-0.0249
3	585.3850	585.3729	7.3180e7	0.6533	0.0121
4	933.6360	933.6074	2.7618e8	0.6043	0.0286
5	1223.8450	1223.8483	9.2780e7	0.6749	-3.2741e-3
6	1572.0970	1572.1159	3.1280e7	0.7453	-0.0189
7	1863.3060	1863.3249	4.4240e7	0.7407	-0.0189
8	1979.3890	1979.4024	4.5020e7	0.7454	-0.0134

* FSAS Lynne Russell
 *Post-PM Results



Peak List for "+Q1: 10 MCA scans from Sample 1 (TuneSampleID) of MT20220520150713.wiff (Turbo Spray)"

	Target Mass (Da)	Found At (Da)	Intensity (cps)	Width (Da)	Mass Shift (Da)
1	174.1000	n/a	n/a	n/a	n/a
2	195.1000	n/a	n/a	n/a	n/a
3	397.2000	n/a	n/a	n/a	n/a
4	448.1000	n/a	n/a	n/a	n/a
5	609.2810	609.2540	1.9189e7	0.7680	0.0270

* FSAS Lynne Russell
 *Post-PM Results

State Parameter Editor

Mass Spectrometer Method Properties

Ion Source: Turbo Spray
Ion Source Temperature Reached
Curtain Gas (CUR): 20.0
IonSpray Voltage (IS): 3800.0
Temperature (TEM): 0.0
Ion Source Gas 1 (GS1): 18.0
Ion Source Gas 2 (GS2): 0.0

Declustering Potential (DP): 130.0
Entrance Potential (EP): 10.0

Q1 Resolution: Unit
Ion Energy 1 (IE1): 0.5

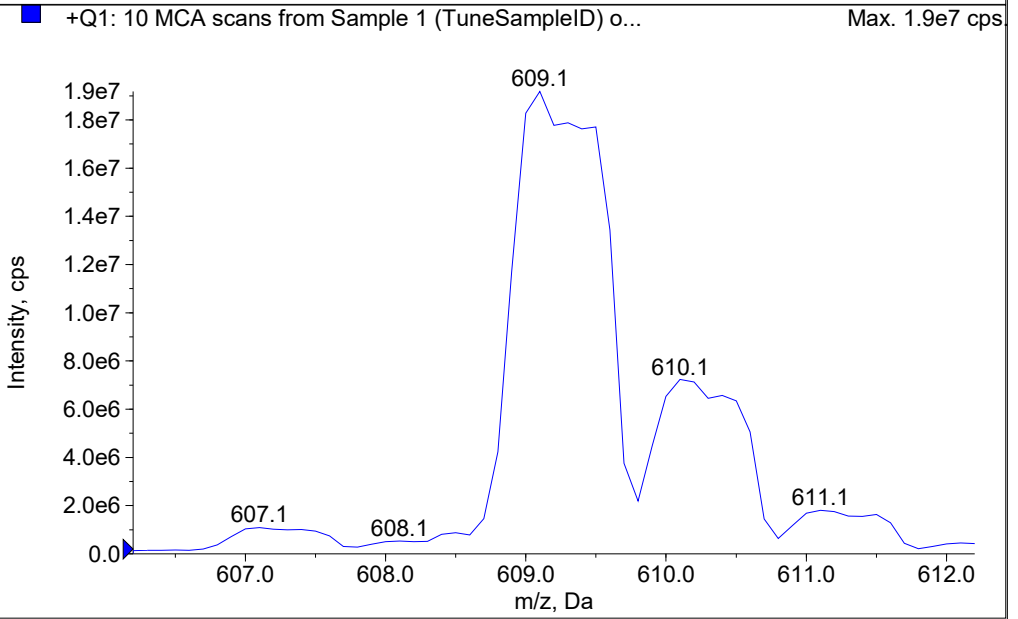
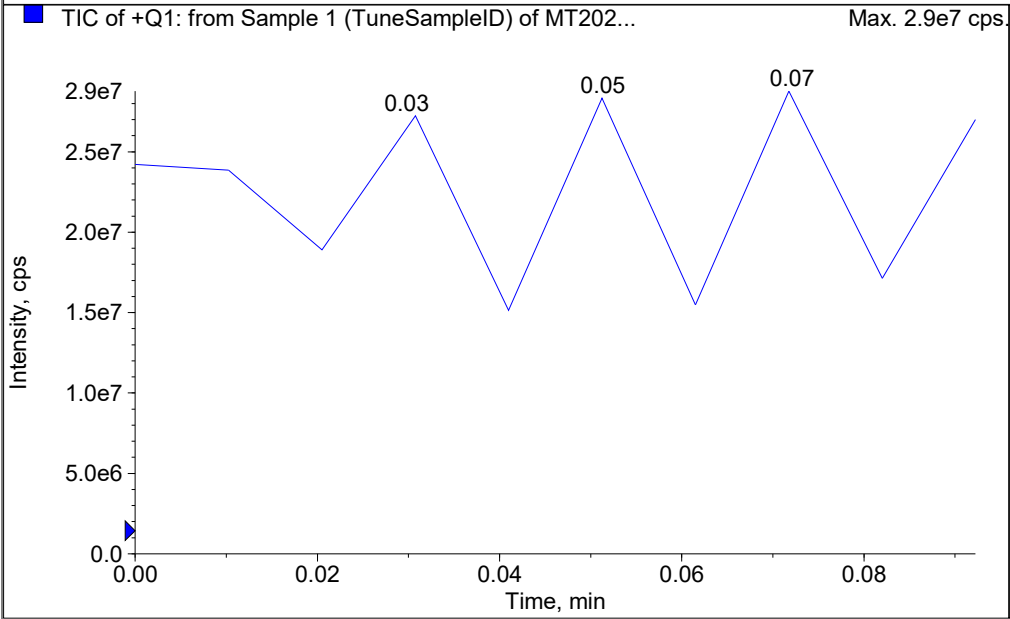
CEM (CEM): 1900.0

Period 1:

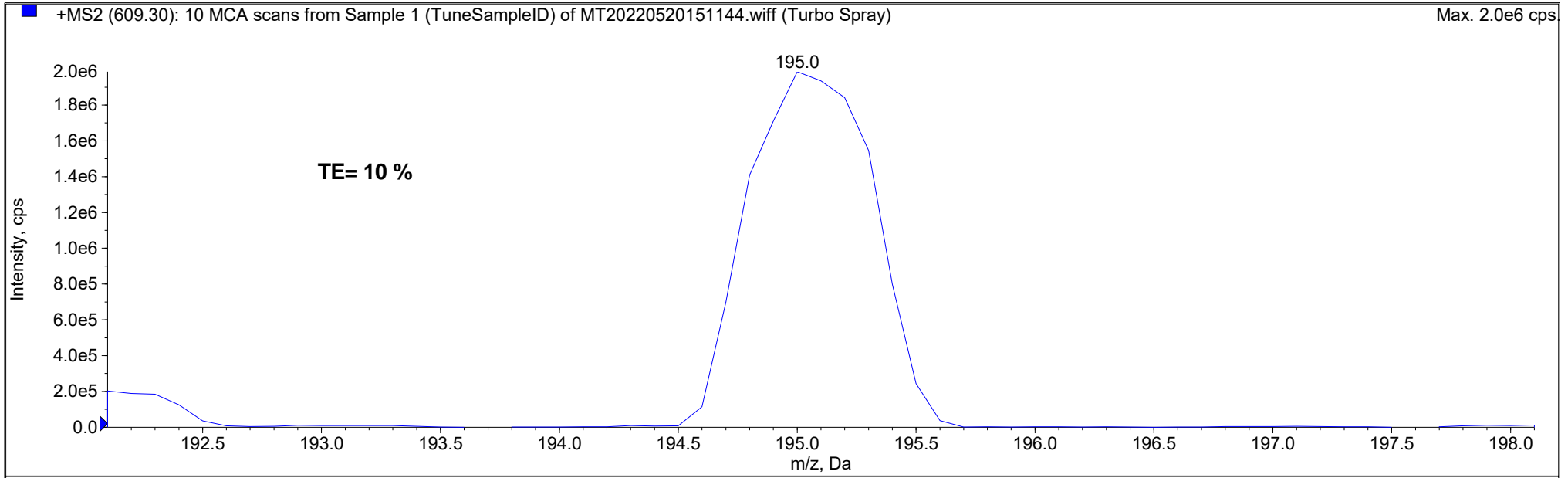
Scans in Period: 10
Relative Start Time: 0.00 msec
Experiments in Period: 1

Period 1 Experiment 1:

Scan Type: Q1 MS (Q1)
Polarity: Positive
Scan Mode: Profile
Ion Source: Turbo Spray
Scans to Sum: 1
Resolution Q1: Unit



* FSAS Lynne Russell
*Post-PM Results



Peak List for "+MS2 (609.30): 10 MCA scans from Sample 1 (TuneSampleID) of MT20220520151144.wiff (Turbo Spray)"

	Target Mass (Da)	Found At (Da)	Intensity (cps)	Width (Da)	Mass Shift (Da)
1	174.1000	n/a	n/a	n/a	n/a
2	195.1000	195.0615	1.9867e6	0.6325	0.0385
3	397.2000	n/a	n/a	n/a	n/a
4	448.1000	n/a	n/a	n/a	n/a
5	609.2810	n/a	n/a	n/a	n/a

* FSAS Lynne Russell
 *Post-PM Results

State Parameter Editor

Mass Spectrometer Method Properties

Ion Source: Turbo Spray
Ion Source Temperature Reached
Curtain Gas (CUR): 20.0
Collision Gas (CAD): 8
IonSpray Voltage (IS): 3800.0
Temperature (TEM): 0.0
Ion Source Gas 1 (GS1): 18.0
Ion Source Gas 2 (GS2): 0.0

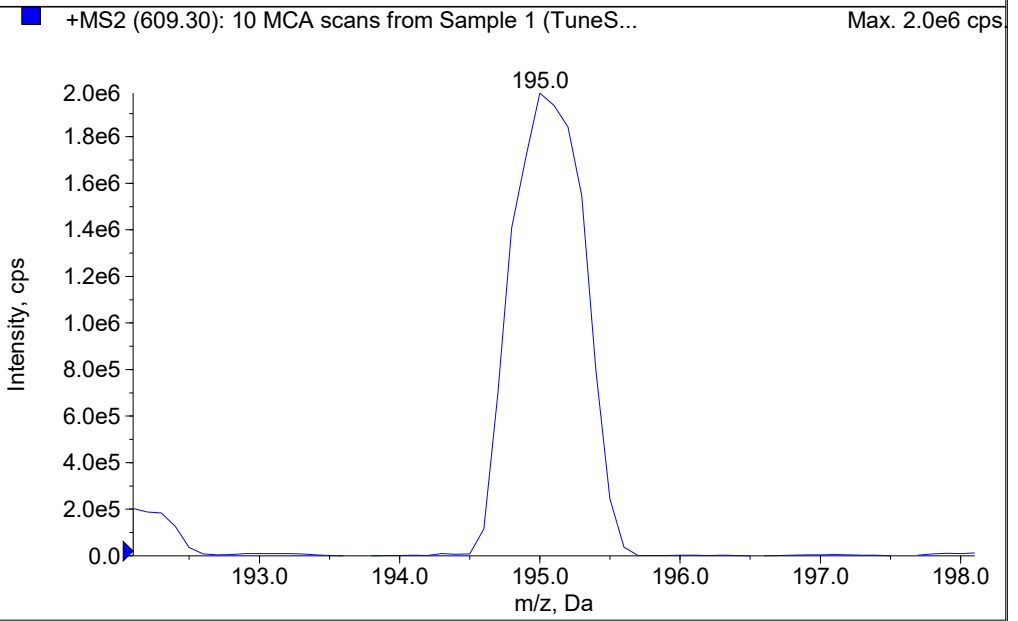
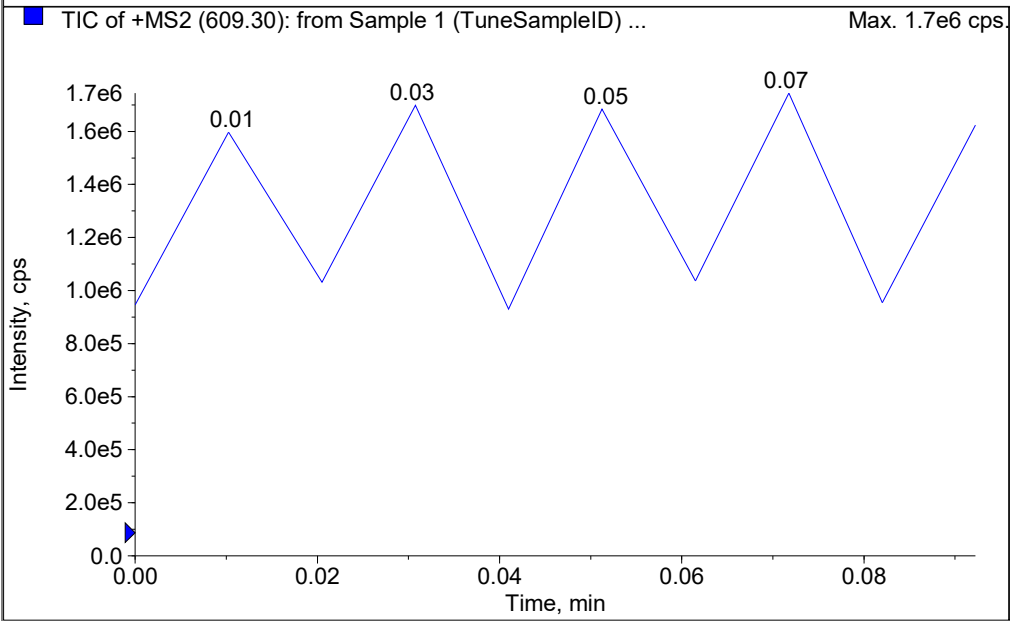
Declustering Potential (DP): 130.0
Entrance Potential (EP): 10.0
Focusing Lens 1 (IQL): -10.5
Collision Energy (CE): 46.0
Collision Cell Exit Potential (CEP): 6.0

Period 1:

Scans in Period: 10
Relative Start Time: 0.00 msec
Experiments in Period: 1

Period 1 Experiment 1:

Scan Type: Product Ion (MS2)
Polarity: Positive
Scan Mode: Profile
Ion Source: Turbo Spray
Scans to Sum: 1
Product Of: 609.30 Da



* FSAS Lynne Russell
* Post-PM Results

Pace Environmental Services, LLC
Analyte Quantitation Report

Data File: \\Organics\LL\LCMSMS01.i\091122-nonDOD.b\091122007.d
Injection Date: 11-Sep-2022 14:34:55 Injection Vol: 10.0 uL
Sample Type: InstBlk Auto Sampler: 96
Lab Sample ID: ID2 BLK A Lab Prep. Batch:
Sample Info: ID2 BLK A Misc. Info:
Inst. ID: LCMSMS01.i Operator: eqi.svoa
Method: LCMSMS01_PFAS-ID2 Version: V16 30-Jun-2022 10:54:24
Calib Method: PFAS-ID2 Lock State: Unlocked
Quant Method: IsoDil Integrator: picker

Reagent: Surrogates Conc. Level: Smp Vol. Added: 0.1000 ml

Signal	Quant Std	RT (min.)	Exp RT (min.)	□ RT (secs.)	Response	Peak Pts	S/N	Ion Ratio	Isomer Ratio	Cal Conc ng/L	OnCol Conc ng/L	%Rec	Flags
D 46 13C4_PFBA CAS: SESI-0111													
217 > 172		1.673	1.670	0	2619032	19	>100:1			2000.00	2474.10	117.1	
8 Perfluoro-n-butanoic acid (PFBA) CAS: 375-22-4													
212.9 > 168.9	46		1.670		ND								U
D 50 13C5_PFPeA CAS: SESI-0112													
267.9 > 223		1.980	1.975	0	1739301	15	>100:1			2000.00	2459.09	114.8	
21 Perfluoro-n-pentanoic acid (PFPeA) CAS: 2706-90-3													
262.9 > 218.9	50		1.975		ND								U
D 44 13C3_PFBS CAS: SESI-0116													
302 > 80		2.020	2.015	0	678504	15	>100:1			2000.00	2405.81	120.4	
7 Perfluoro-1-butanefulfonate (PFBS) CAS: 375-73-5													
298.9 > 80	44		2.025		ND								U
22 Perfluoro-1-pentanesulfonic acid (PFPeS) CAS: 2706-91-4													
349 > 80	44		2.346		ND								U
D 63 13C2_4:2 FTS_2 CAS: SESI-0104													
329 > 81		2.280	2.283	0	584708	17	>100:1			10000	14851	110.8	
1 Fluorotelomer sulfonate 4:2 [1H,1H,2H,2H-perfluorohexane sulfonate] (4:2 FTS) CAS: 757124-72-4													
327 > 307	63		2.283		ND								U
D 49 13C5_PFHxA CAS: SESI-0113													
318 > 273		2.316	2.319	0	1863154	16	>100:1			2000.00	2209.56	116.1	
15 Perfluoro-n-hexanoic acid (PFHxA) CAS: 307-24-4													
313 > 269	49		2.319		ND								U
D 66 13C3_GenX CAS: SESI-0121													
287 > 185		2.433	2.445	-1	1533760	18	>100:1			10000	12912	128.2	
28 Hexafluoropropylene oxide dimer acid (GenX) CAS: 13252-13-6													
285 > 119	66		2.445		ND								U
D 47 13C4_PFHpA CAS: SESI-0114													
367 > 322		2.705	2.737	-2	1377108	18	>100:1			2000.00	1929.97	101	
13 Perfluoro-n-heptanoic acid (PFHpA) CAS: 375-85-9													
363 > 319	47		2.737		ND								U
D 45 13C3_PFHxS CAS: SESI-0096													
402 > 80		2.725	2.747	-1	478510	17	>100:1			2000.00	2435.48	120.2	
14 Perfluorohexanesulfonate (PFHxS) CAS: 355-46-4													
399 > 80	45		2.747		ND								U
29 4,8-dioxa-3H-perfluorononanoic acid (ADONA) CAS: 919005-14-4													
377 > 251	45		2.787		ND								U
12 Perfluoro-1-heptanesulfonic acid (PFHpS) CAS: 375-92-8													
449 > 80	45		3.207		ND								U
D 64 13C2_6:2 FTS_2 CAS: SESI-0105													
429 > 81		3.136	3.174	-2	389188	25	>100:1			10000	13238	98.4	

Signal	Quant Std	RT (min.)	Exp RT (min.)	□ RT (secs.)	Response	Peak Pts	S/N	Ion Ratio	Isomer Ratio	Cal Conc ng/L	OnCol Conc ng/L	%Rec	Flags
2 Fluorotelomer sulfonate 6:2 [1H,1H,2H,2H-perfluorooctane sulfonate] (6:2 FTS) CAS: 27619-97-2													U
427 > 407	64		3.156		ND								
D 53 13C8_PFOA CAS: SESI-0097													
421 > 376		3.160	3.199	-2	1440439	24	>100:1			2000.00	2259.10	98.5	
20 Perfluoro-n-octanoic acid (PFOA) CAS: 335-67-1													U
413 > 369	53		3.199		ND								
D 54 13C8_PFOS CAS: SESI-0098													
507 > 80		3.653	3.692	-2	590742	25	>100:1			2000.00	2402.73	111.8	
18 Perfluorooctanesulfonate (PFOS) CAS: 1763-23-1													U
499 > 80	54		3.692		ND								
30 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS) CAS: 756426-58-1													U
531 > 351	54		3.978		ND								
16 Perfluoro-1-nonanesulfonic acid (PFNS) CAS: 68259-12-1													U
549 > 80	54		4.162		ND								
9 Perfluoro-1-decanesulfonic acid (PFDS) CAS: 335-77-3													U
599 > 80	54		4.604		ND								
31 11-chloroeicosfluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS) CAS: 763051-92-9													U
631 > 451	54		4.856		ND								
34 Perfluorododecanesulfonic acid (PFDOS) CAS: 79780-39-5													U
699 > 80	54		5.393		ND								
D 56 13C9_PFNA CAS: SESI-0099													
472 > 427		3.659	3.692	-2	1466618	22	>100:1			2000.00	2249.77	107.2	
17 Perfluoro-n-nonanoic acid (PFNA) CAS: 375-95-1													U
463 > 419	56		3.698		ND								
D 55 13C8_PFOA CAS: SESI-0107													
506 > 78		3.956	3.992	-2	1047437	22	>100:1			2000.00	2438.66	120.1	
19 Perfluoro-1-octanesulfonamide (PFOSA) CAS: 754-91-6													U
498 > 78	55		3.992		ND								
D 65 13C2_8:2 FTS_2 CAS: SESI-0106													
529 > 81		4.137	4.162	-2	415097	21	>100:1			10000	12859	112.8	
3 Fluorotelomer sulfonate 8:2 [1H,1H,2H,2H-perfluorodecane sulfonate] (8:2 FTS) CAS: 39108-34-4													U
527 > 507	65		4.171		ND								
4 1H,1H,2H,2H-perfluorododecane sulfonate (10:2FTS) CAS: 120226-60-0													U
627 > 607	65		5.060		ND								
D 51 13C6_PFDA CAS: SESI-0115													
519 > 474		4.144	4.180	-2	1246534	21	>100:1			2000.00	2302.06	111.5	
10 Perfluoro-n-decanoic acid (PFDA) CAS: 335-76-2													U
513 > 469	51		4.180		ND								
D 58 d3-MeFOSAA CAS: SESI-0102													
573 > 419		4.365	4.399	-2	1453544	22	>100:1			10000	9969.80	96.3	
6 N-methylperfluoro-1-octanesulfonamidoacetic acid (N-MeFOSAA) CAS: 2355-31-9													U
570 > 419	58		4.399		ND								
D 61 d7-MeFOSE CAS: SESI-0129													
623 > 59		4.559	4.572	-1	315580	19	>100:1			2000.00	2782.44	120.2	
32 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE) CAS: 24448-09-7													U
616 > 59	61		4.593		ND								
D 57 d3-MeFOSA CAS: SESI-0109													
515 > 169		4.588	4.604	-1	106977	15	>100:1			2000.00	2096.45	101.9	
26 N-methylperfluoro-1-octanesulfonamide (MeFOSA) CAS: 31506-32-8													U
512 > 169	57		4.614		ND								
D 52 13C7_PFuDA CAS: SESI-0117													
570 > 525		4.610	4.634	-1	1133562	18	>100:1			2000.00	2335.98	114.8	
25 Perfluoro-n-undecanoic acid (PFuDA) CAS: 2058-94-8													U
563 > 519	52		4.634		ND								
D 60 d5-EtFOSAA CAS: SESI-0110													
589 > 419		4.599	4.624	-1	1360028	17	>100:1			10000	11027	105.1	
5 N-ethylperfluoro-1-octanesulfonamidoacetic acid (N-EtFOSAA) CAS: 2991-50-6													U
584 > 419	60		4.634		ND								

Signal	Quant Std	RT (min.)	Exp RT (min.)	□ RT (secs.)	Response	Peak Pts	S/N	Ion Ratio	Isomer Ratio	Cal Conc ng/L	OnCol Conc ng/L	%Rec	Flags
D 62 d9-EtFOSE CAS: SESI-0130													
639 > 59		4.810	4.813	0	279055	20	>100:1			2000.00	2588.21	122.4	
33 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE) CAS: 1691-99-2													
630 > 59	62		4.827		ND								U
D 59 d5-EtFOSA CAS: SESI-0108													
531 > 169		4.853	4.856	0	116444	28	>100:1			2000.00	2370.91	125.8	
27 N-ethylperfluoro-1-octanesulfonamide (EtFOSA) CAS: 4151-50-2													
526 > 169	59		4.863		ND								U
D 38 13C2_PFDaA CAS: SESI-0118													
615 > 570		5.030	5.052	-1	1136488	20	>100:1			2000.00	2192.31	116.4	
11 Perfluoro-n-dodecanoic acid (PFDaA) CAS: 307-55-1													
613 > 569	38		5.052		ND								U
24 Perfluoro-n-tridecanoic acid (PFTrDA) CAS: 72629-94-8													
663 > 619	38		5.415		ND								U
D 42 13C2_PFTeDA CAS: SESI-0119													
715 > 670		5.755	5.754	0	1224566	36	>100:1			2000.00	2228.86	113.7	
23 Perfluoro-n-tetradecanoic acid (PFTeDA) CAS: 376-06-7													
713 > 669	42		5.758		ND								U
D 40 13C2_PFHxDA CAS: SESI-0103													
815 > 770		6.358	6.361	0	623694	21	>100:1			2000.00	2213.64	110.1	
35 Perfluoro-n-hexadecanoic acid (PFHxDA) CAS: 67905-19-5													
813 > 769	40	6.367	6.370	0/0	8336	17	52:1	Target = 9.01		22.138	22.138		
813 > 269	40	6.367	6.370		977	17	31:1	8.53 (4.50-13.52)					
36 Perfluoro-n-octadecanoic acid (PFODA) CAS: 16517-11-6													
913 > 869	40		6.930		ND								U
* 37 13C2_PFDA													
515 > 470		4.152	4.147	0	299	11	7.7:1			0			
* 39 13C2_PFHxA CAS: SESI-0120													
315 > 270		2.334	2.310	1	1091	23	8.0:1			0			
* 41 13C2_PFOA CAS: 864071-08-9													
415 > 370			3.215		ND								U
* 43 13C3_PFBA													
216 > 172		1.679	1.670	1	13341	16	94:1			0			
* 48 13C4_PFOS CAS: 2795-39-3													
503 > 80		3.647	3.674	-2	5911	27	>100:1			0			

Compound Type Legend

D - Isotopic Dilution Std.

* - ISTD

QC Flag Legend

U - Result Less Than Method Detection Limit

Data File: \\Organics\LL\LCMSMS01.i\091122-nonDOD.b\091122007.d

Injection Date: 11-Sep-2022 14:34:55

Inst. ID: LCMSMS01.i

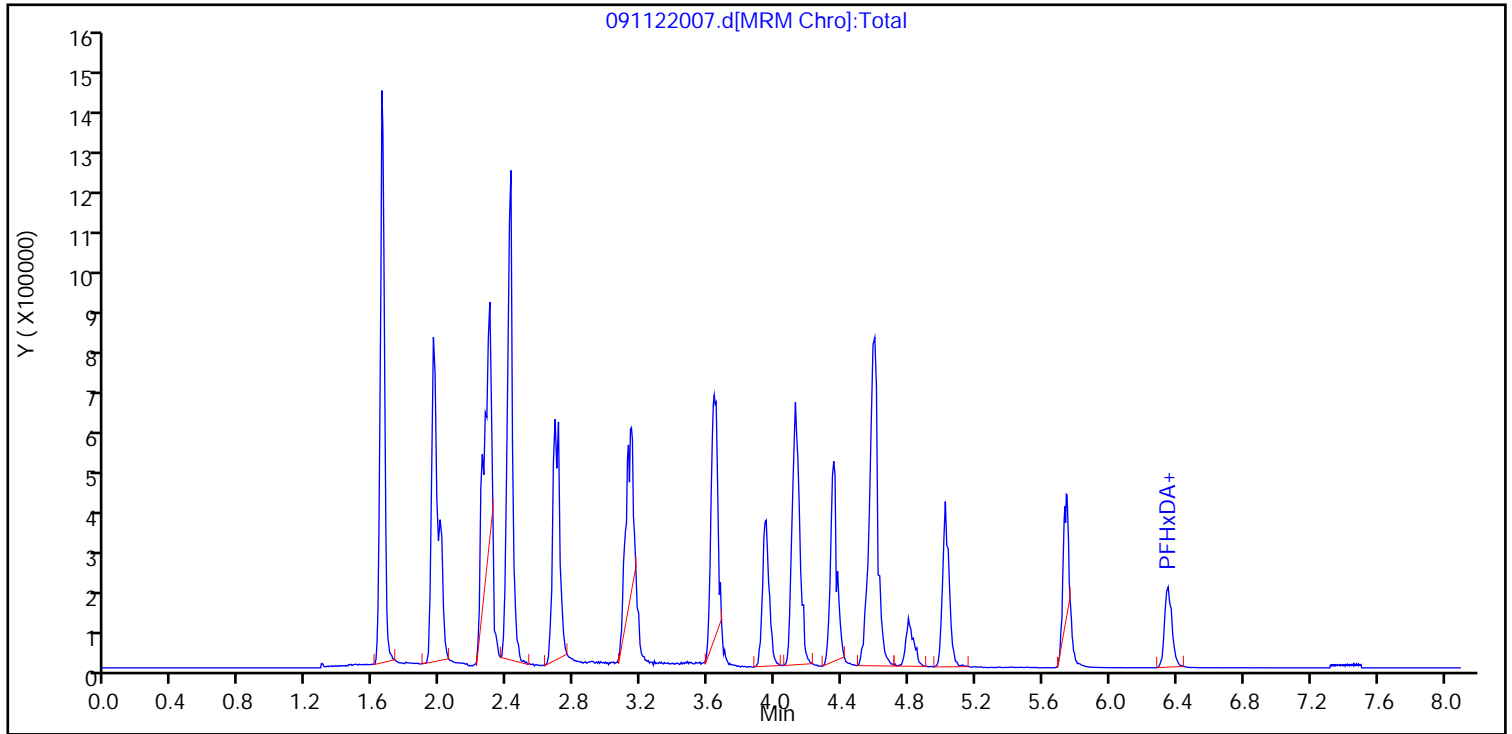
Client ID:

Lab ID: ID2 BLK A

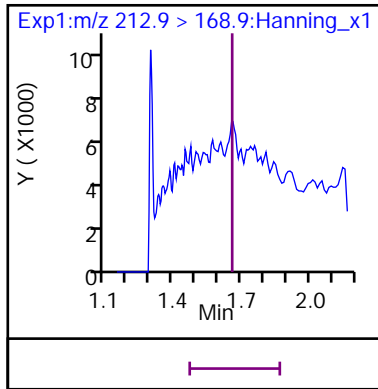
Sample Info: ID2 BLK A

Dil. Factor: 1

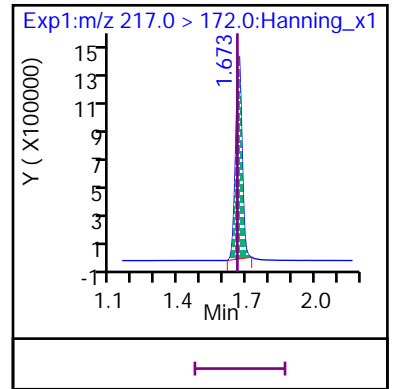
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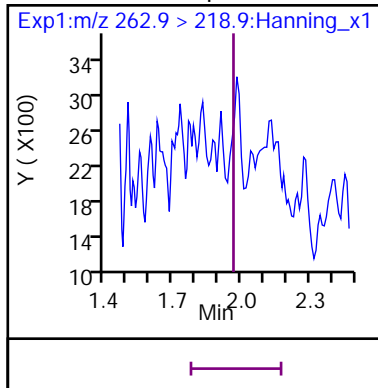
8 Perfluoro-n-butanoic acid (PFBA) (ND)



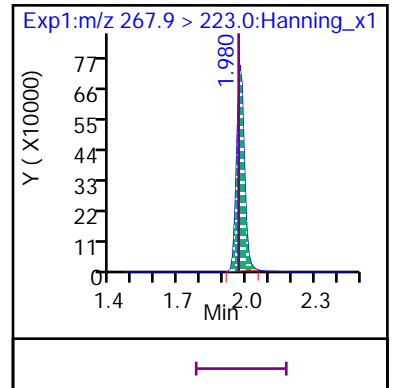
D 46 13C4_PFBA



21 Perfluoro-n-pentanoic acid (PFPeA) (ND)

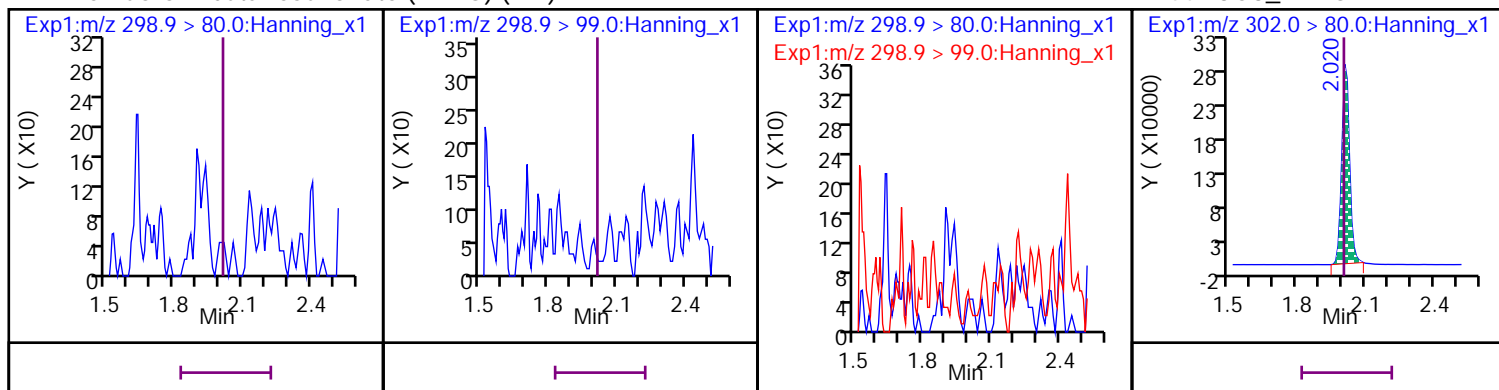


D 50 13C5_PFPeA



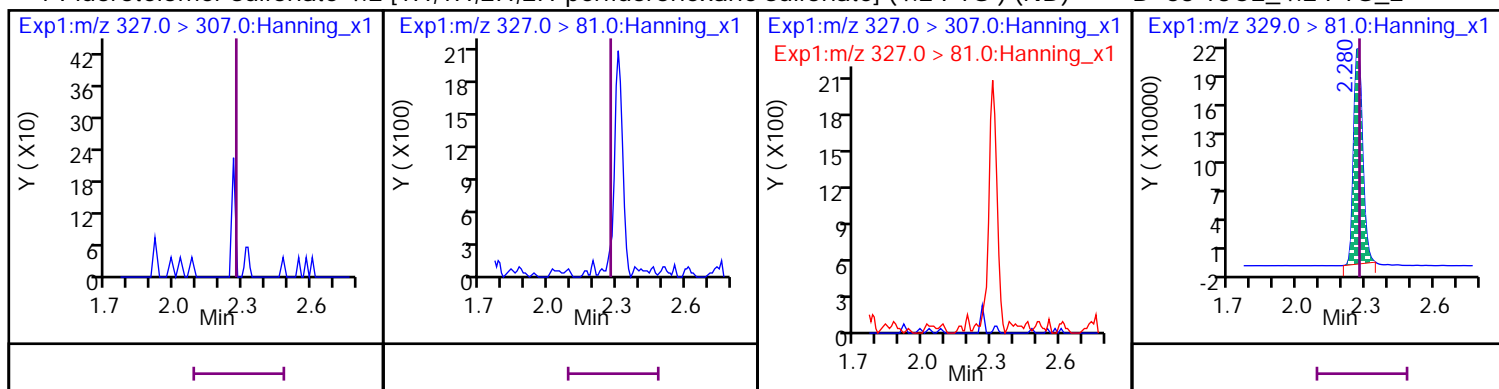
7 Perfluoro-1-butanesulfonate (PFBS) (ND)

D 44 13C3_PFBS



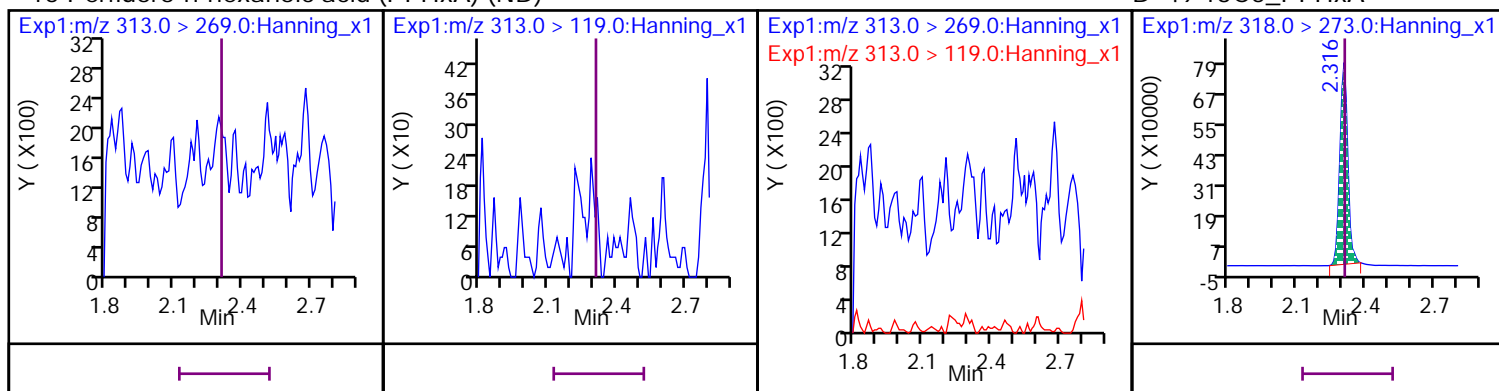
1 Fluorotelomer sulfonate 4:2 [1H,1H,2H,2H-perfluorohexane sulfonate] (4:2 FTS) (ND)

D 63 13C2_4:2 FTS_2



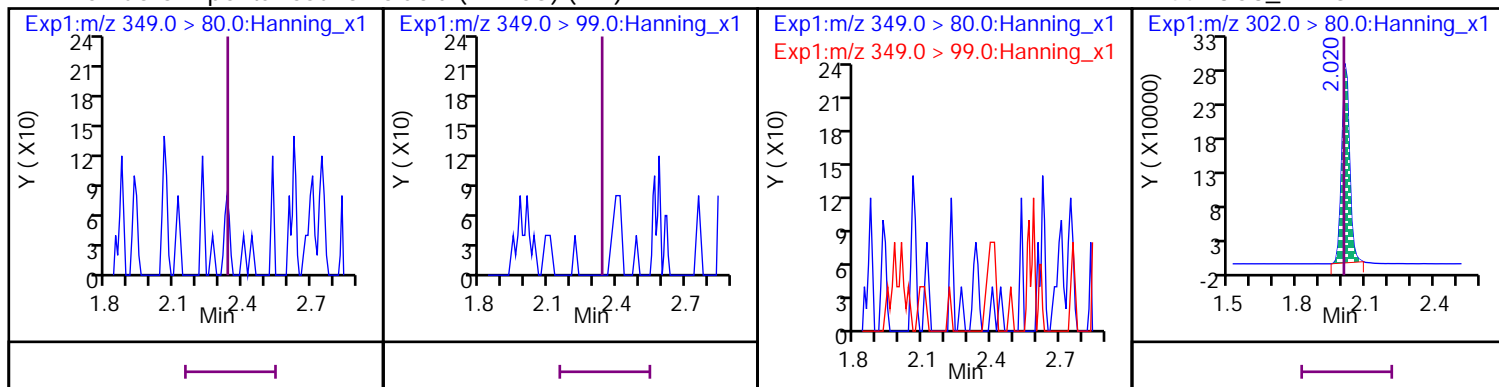
15 Perfluoro-n-hexanoic acid (PFHxA) (ND)

D 49 13C5_PFHxA



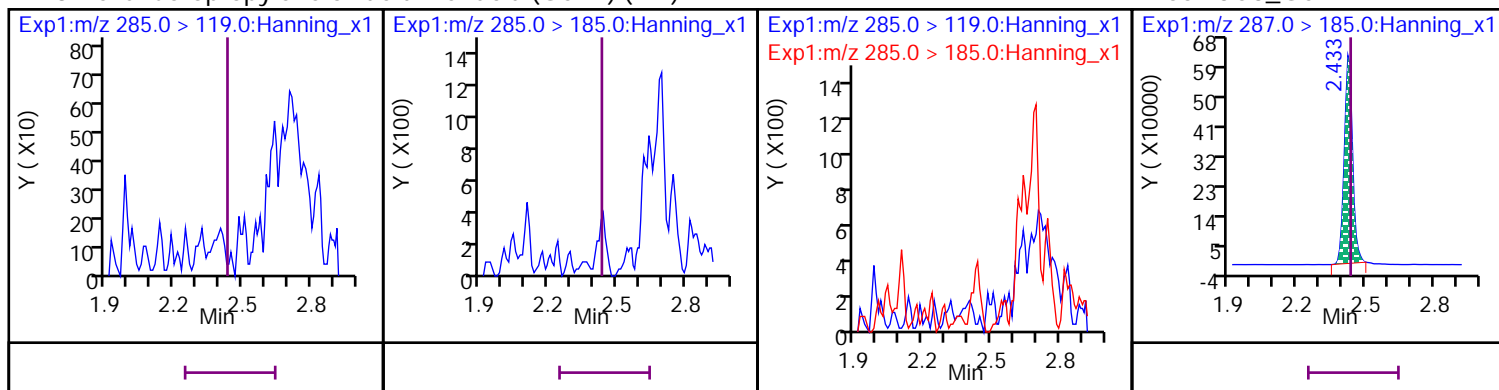
22 Perfluoro-1-pentanesulfonic acid (PFPeS) (ND)

D 44 13C3_PFBS



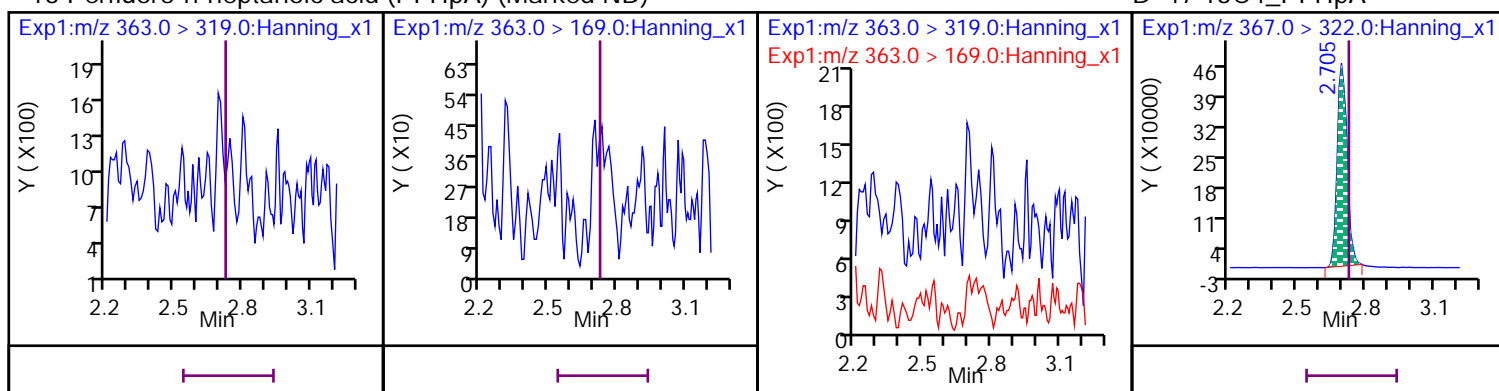
28 Hexafluoropropylene oxide dimer acid (GenX) (ND)

D 66 13C3_GenX



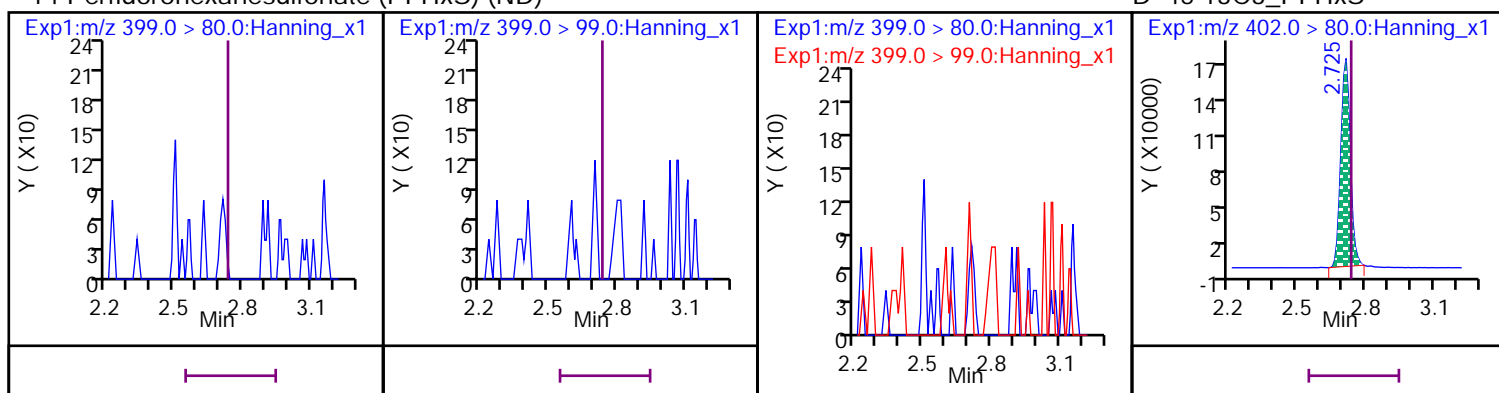
13 Perfluoro-n-heptanoic acid (PFHpA) (Marked ND)

D 47 13C4_PFHpA



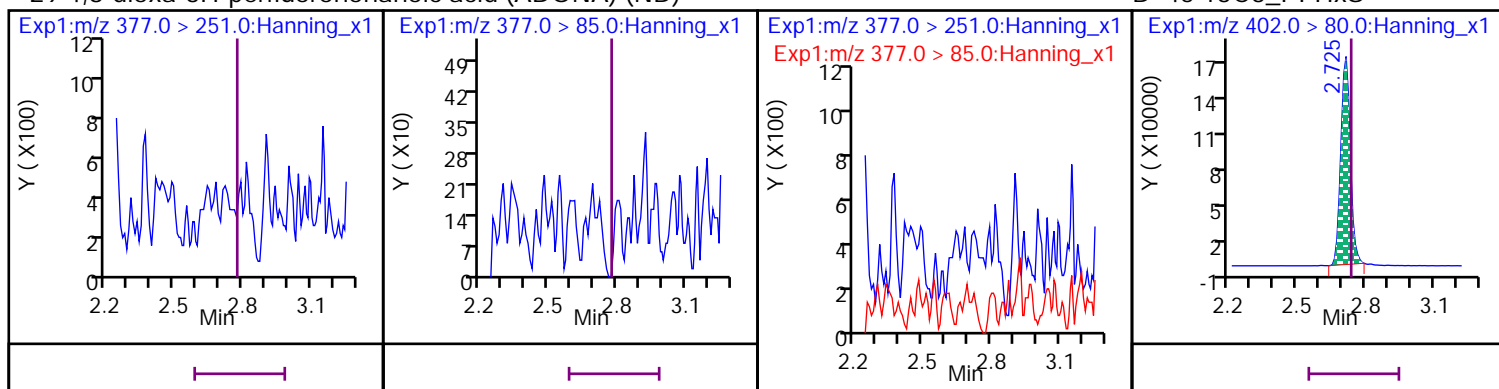
14 Perfluorohexanesulfonate (PFHxS) (ND)

D 45 13C3_PFHxS



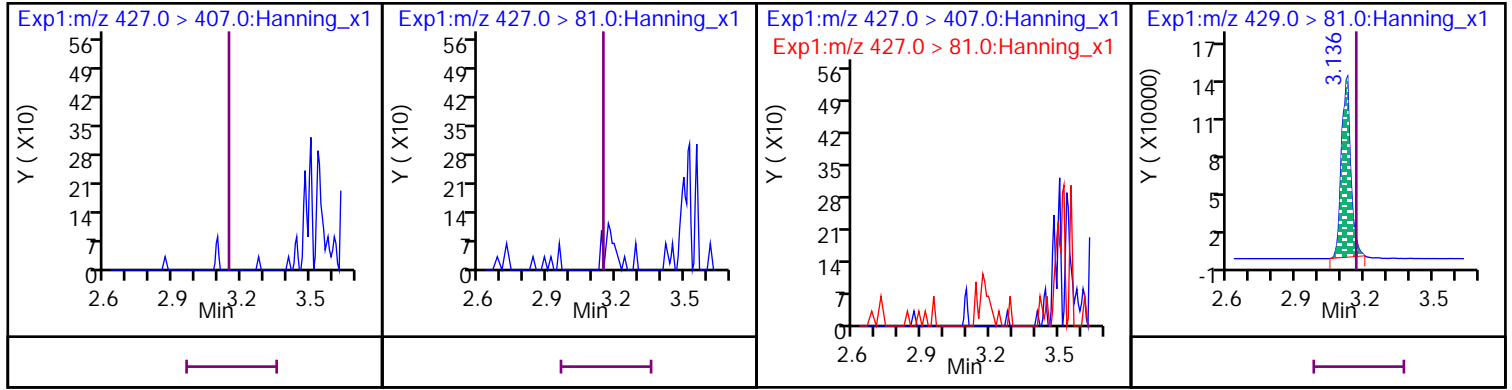
29 4,8-dioxa-3H-perfluorononanoic acid (ADONA) (ND)

D 45 13C3_PFHxS



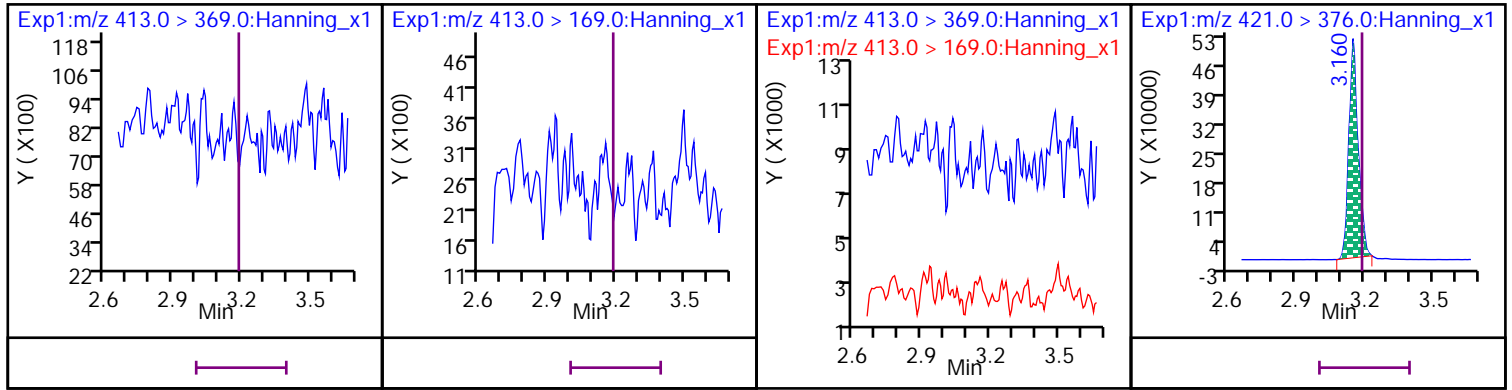
2 Fluorotelomer sulfonate 6:2 [1H,1H,2H,2H-perfluorooctane sulfonate] (6:2 FTS) (ND)

D 64 13C2_6:2 FTS_2



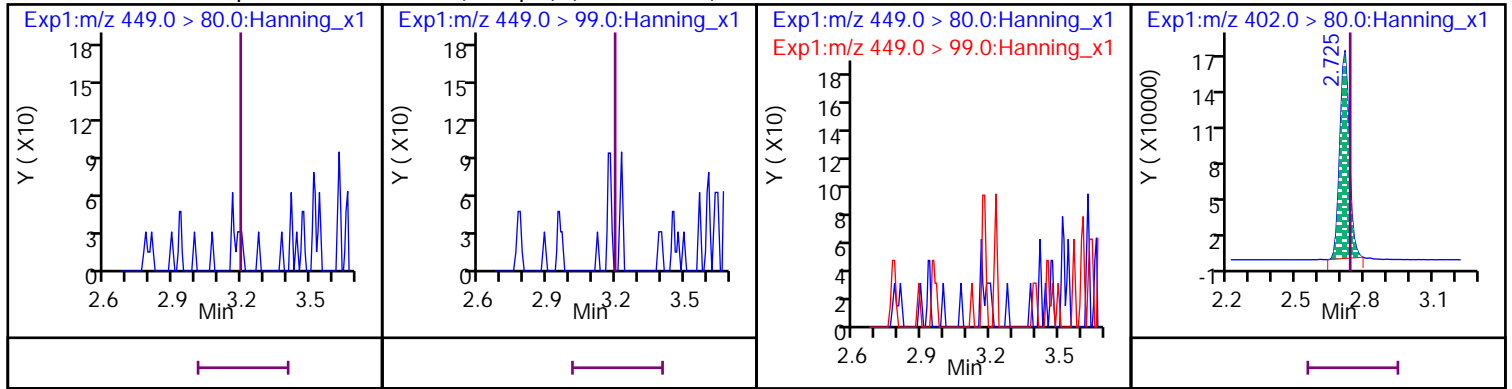
20 Perfluoro-n-octanoic acid (PFOA) (ND)

D 53 13C8_PFOA



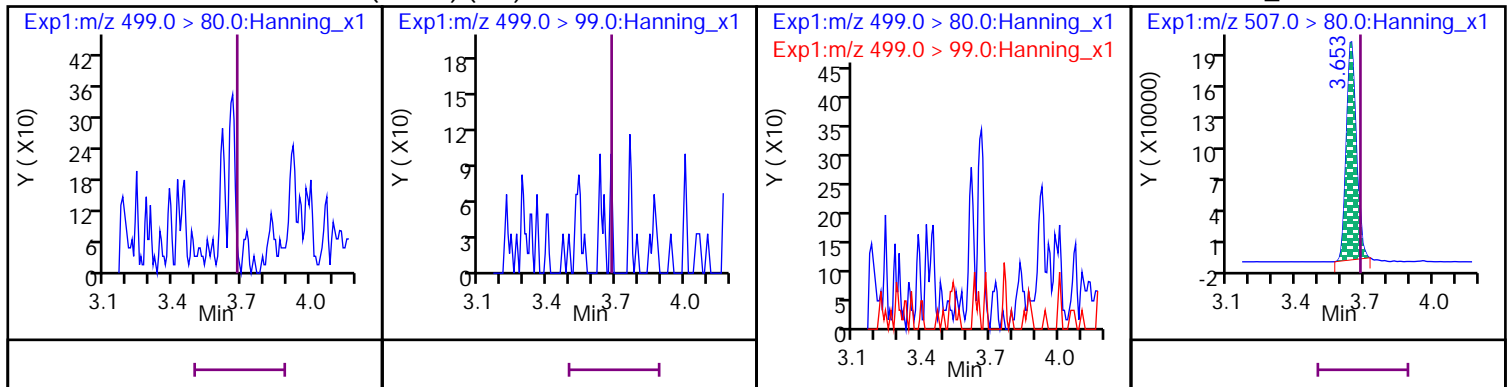
12 Perfluoro-1-heptanesulfonic acid (PFHpS) (Marked ND)

D 45 13C3_PFHxS



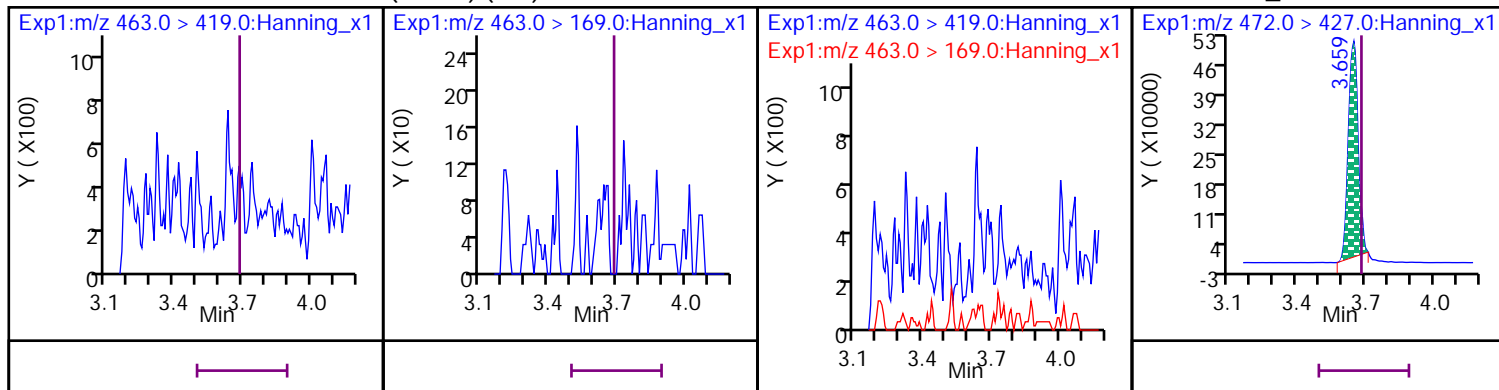
18 Perfluorooctanesulfonate (PFOS) (ND)

D 54 13C8_PFOS



17 Perfluoro-n-nonanoic acid (PFNA) (ND)

D 56 13C9_PFNA



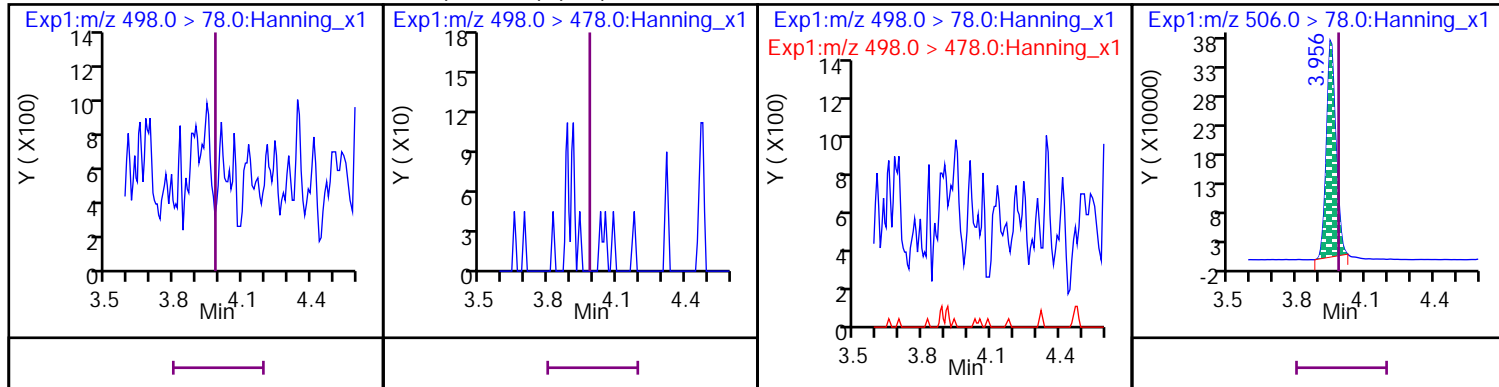
30 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS) (ND)

D 54 13C8_PFOS



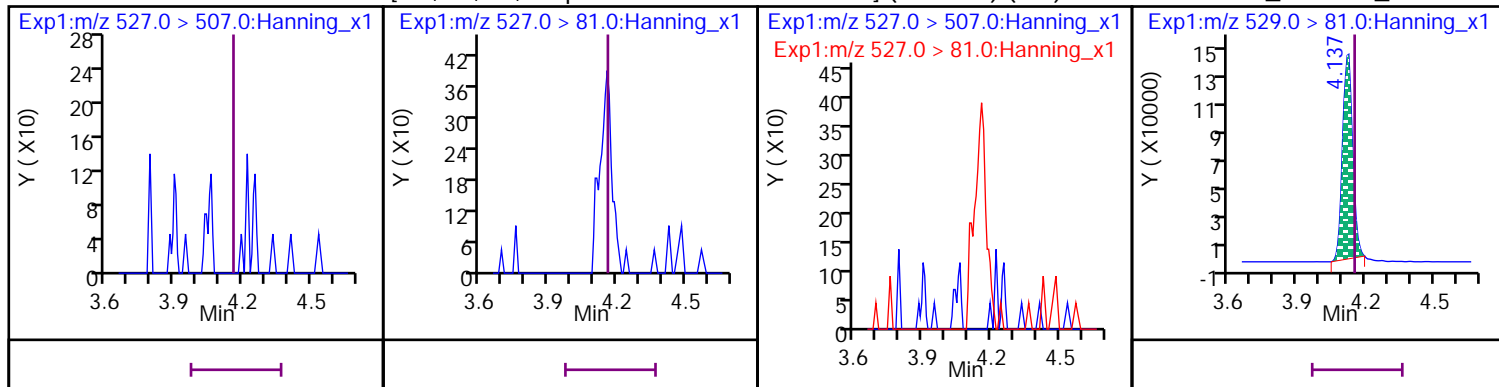
19 Perfluoro-1-octanesulfonamide (PFOSA) (ND)

D 55 13C8_PFOSA



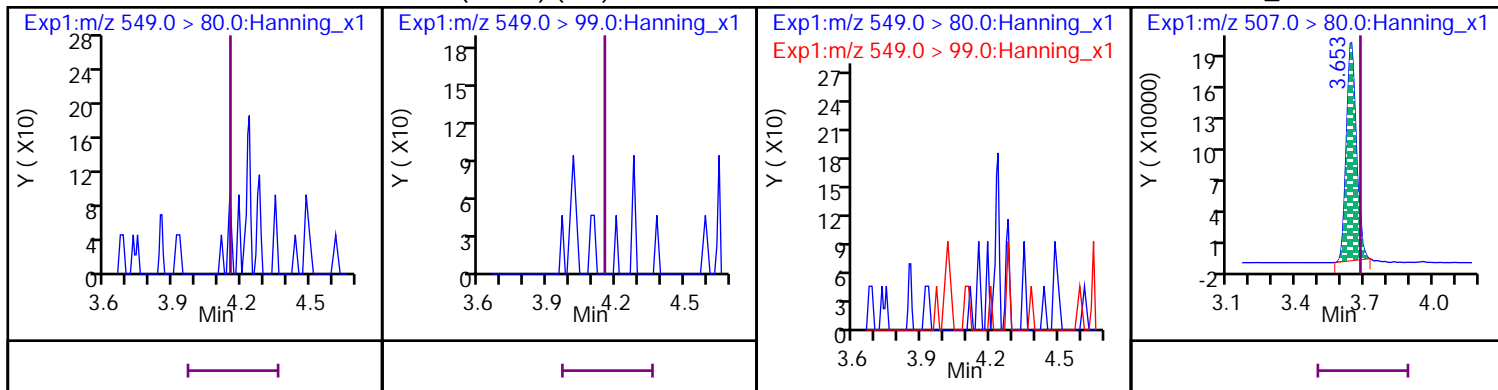
3 Fluorotelomer sulfonate 8:2 [1H,1H,2H,2H-perfluorodecane sulfonate] (8:2 FTS) (ND)

D 65 13C2_8:2 FTS_2



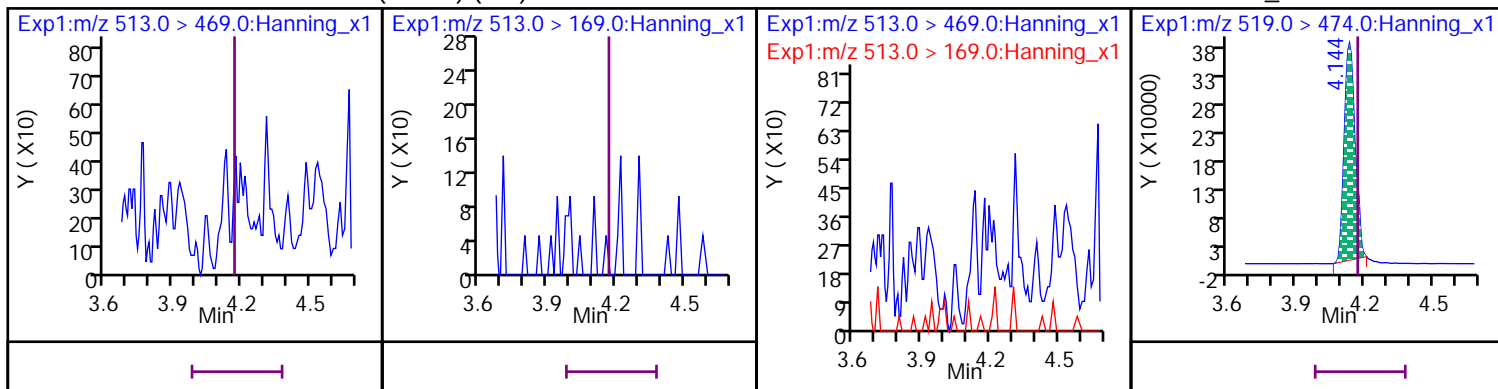
16 Perfluoro-1-nonanesulfonic acid (PFNS) (ND)

D 54 13C8_PFOS



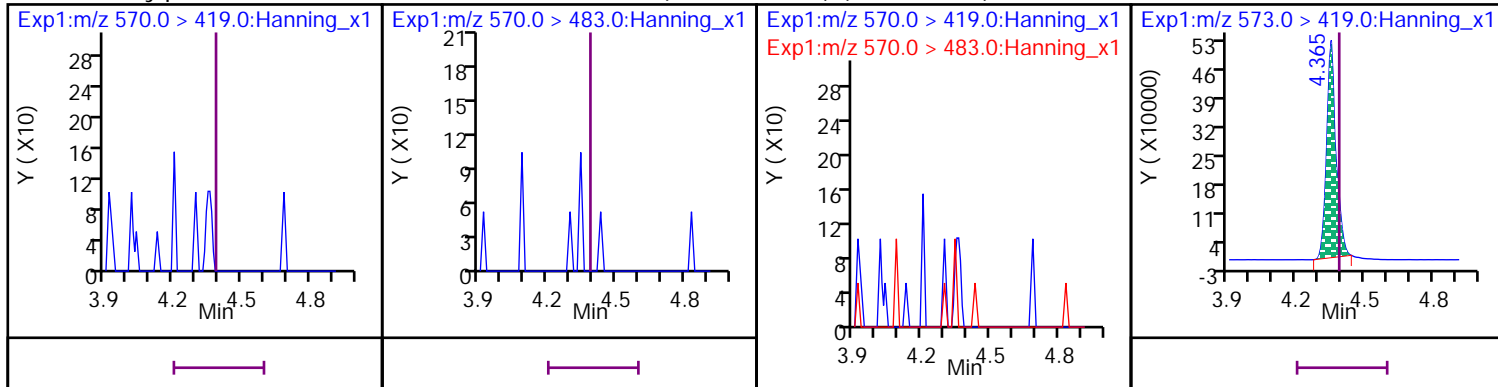
10 Perfluoro-n-decanoic acid (PFDA) (ND)

D 51 13C6_PFDA



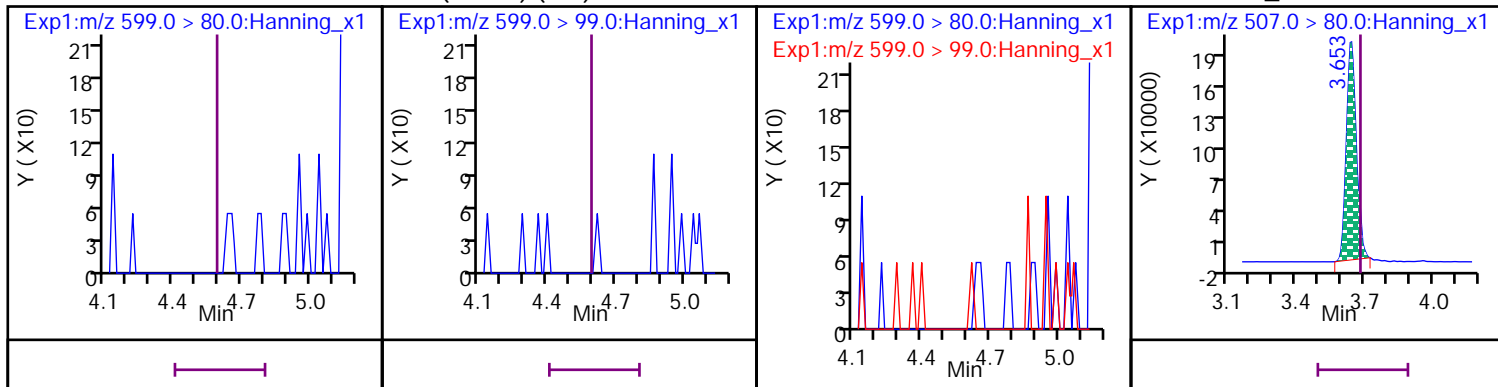
6 N-methylperfluoro-1-octanesulfonamidoacetic acid (N-MeFOSAA) (Marked ND)

D 58 d3-MeFOSAA

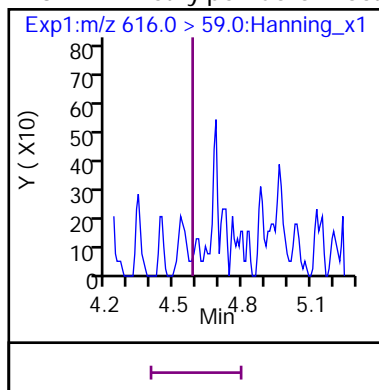


9 Perfluoro-1-decanesulfonic acid (PFDS) (ND)

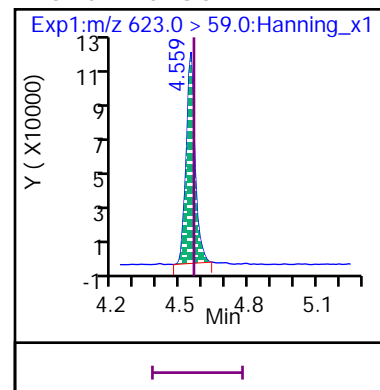
D 54 13C8_PFOS



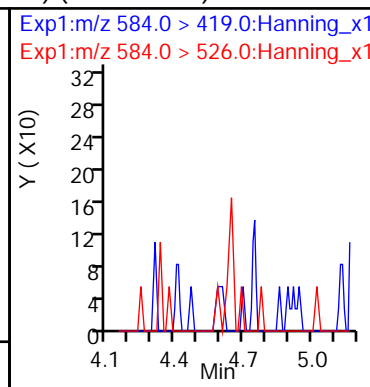
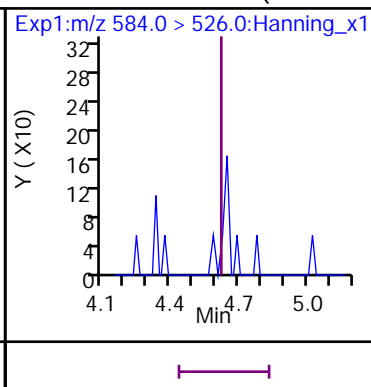
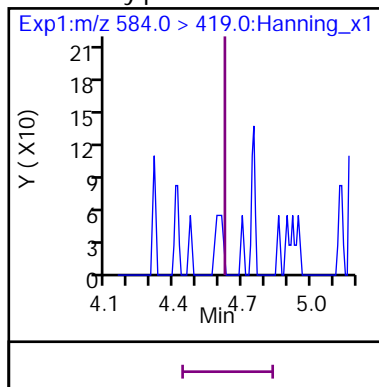
32 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE) (Marked ND)



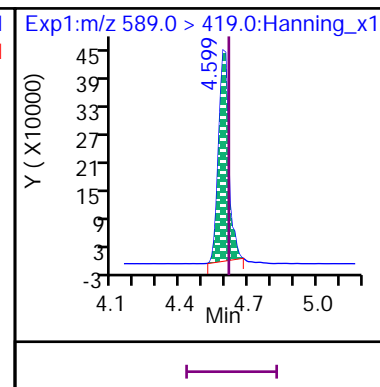
D 61 d7-MeFOSE



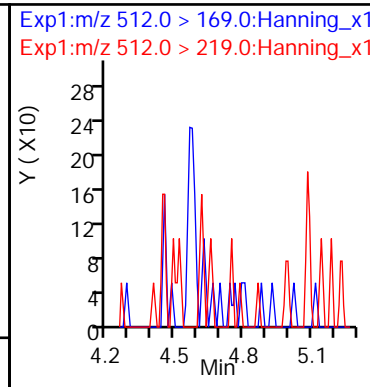
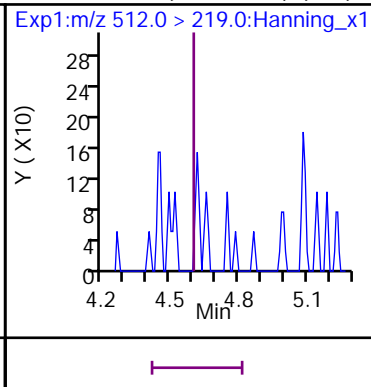
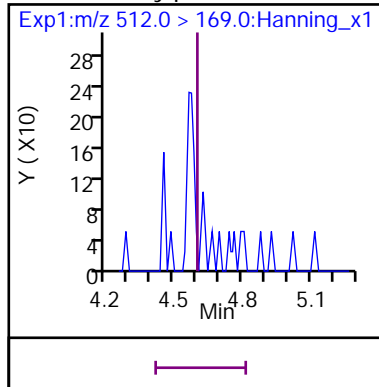
5 N-ethylperfluoro-1-octanesulfonamidoacetic acid (N-EtFOSAA) (Marked ND)



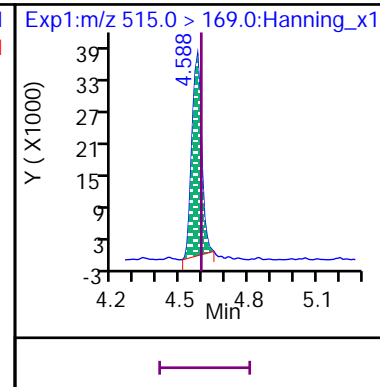
D 60 d5-EtFOSAA



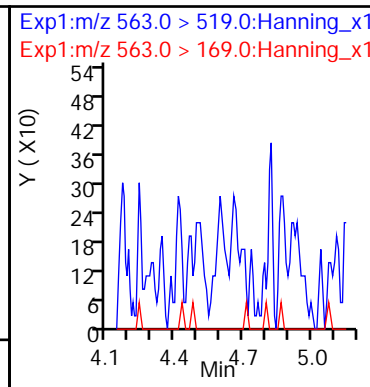
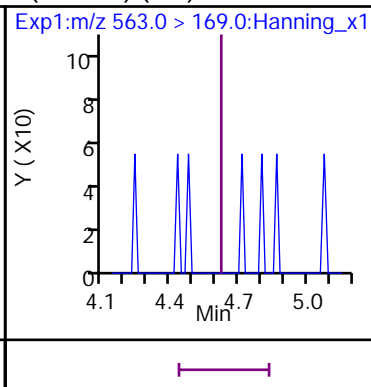
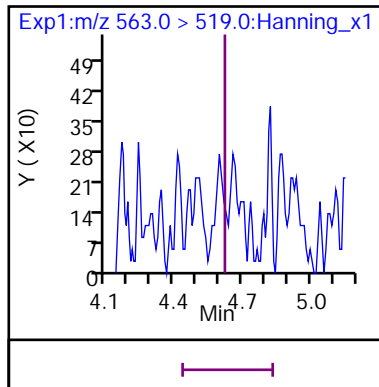
26 N-methylperfluoro-1-octanesulfonamide (MeFOSA) (ND)



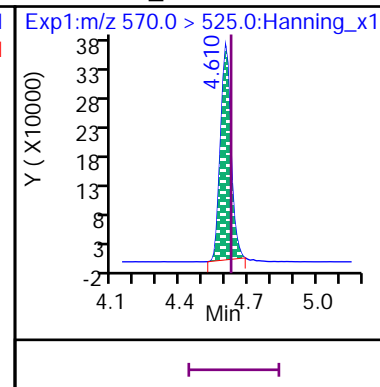
D 57 d3-MeFOSA



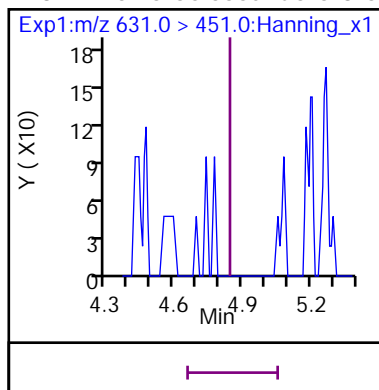
25 Perfluoro-n-undecanoic acid (PFUdA) (ND)



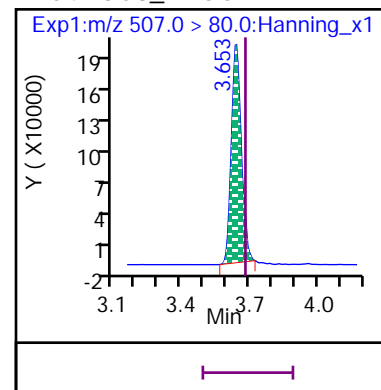
D 52 13C7_PFUdA



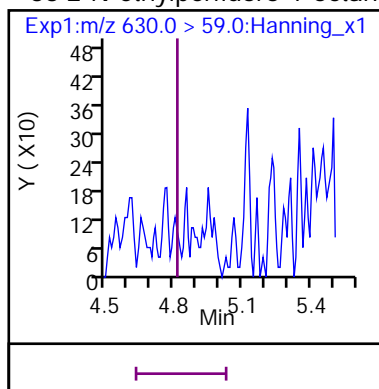
31 11-chloroeicosafuoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS) (Marked ND)



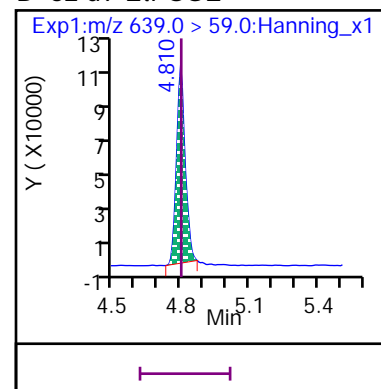
D 54 13C8_PFOS



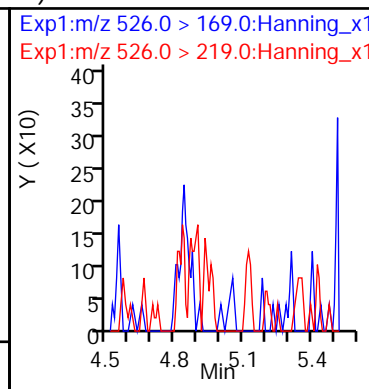
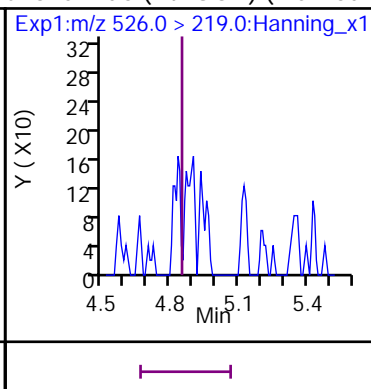
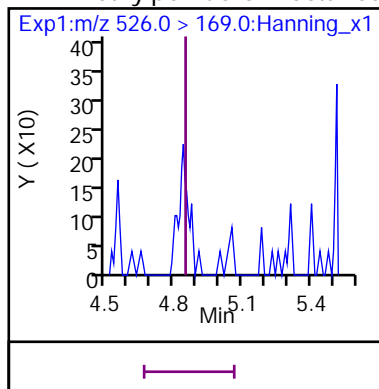
33 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE) (ND)



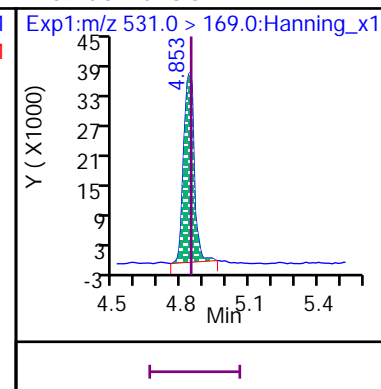
D 62 d9-EtFOSE



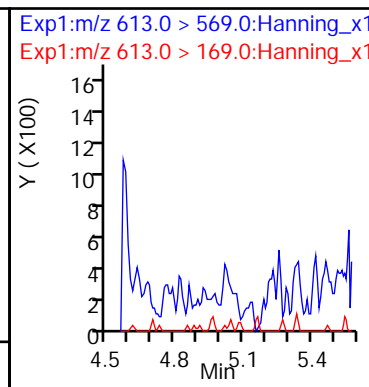
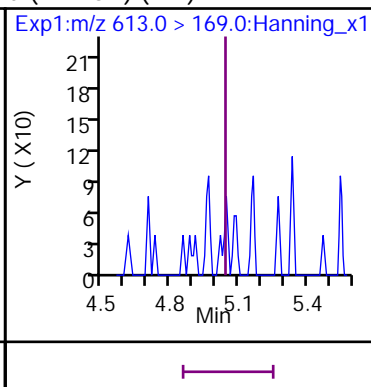
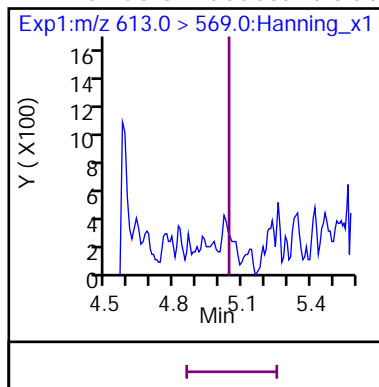
27 N-ethylperfluoro-1-octanesulfonamide (EtFOSA) (Marked ND)



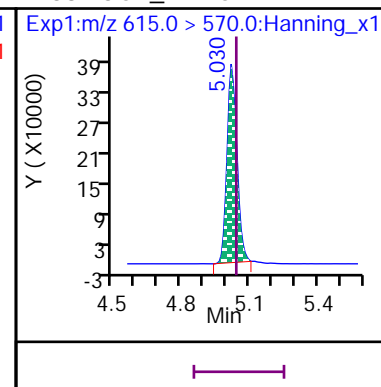
D 59 d5-EtFOSA



11 Perfluoro-n-dodecanoic acid (PFDoA) (ND)

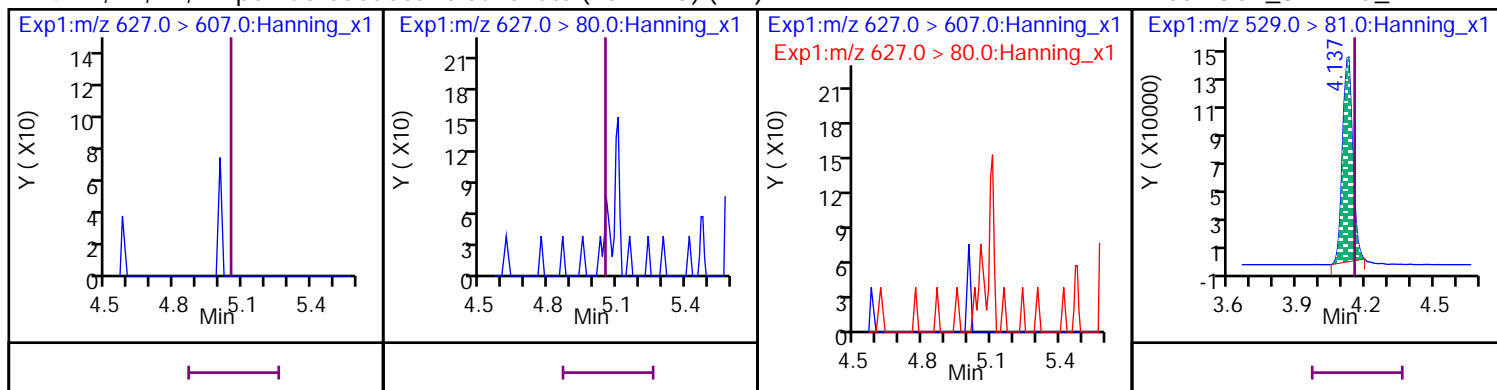


D 38 13C2_PFDoA



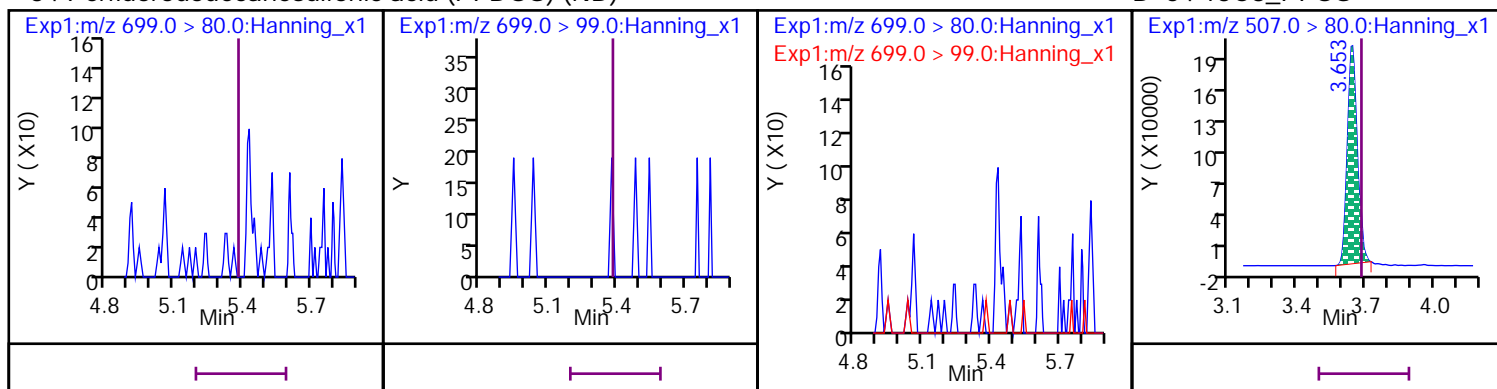
4 1H,1H,2H,2H-perfluorododecane sulfonate (10:2FTS) (ND)

D 65 13C2_8:2 FTS_2



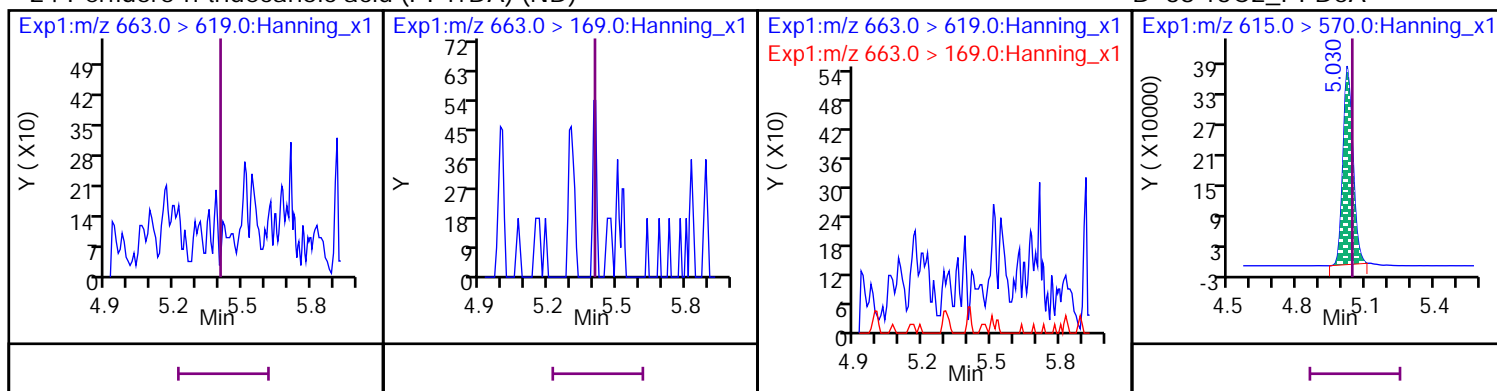
34 Perfluorododecanesulfonic acid (PFDOS) (ND)

D 54 13C8_PFOS



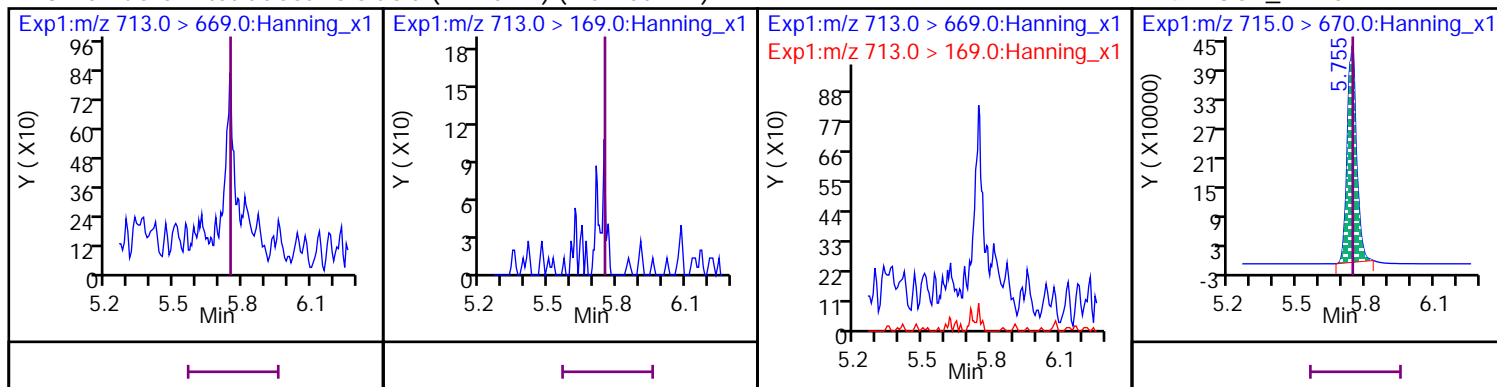
24 Perfluoro-n-tridecanoic acid (PFTrDA) (ND)

D 38 13C2_PFDaA



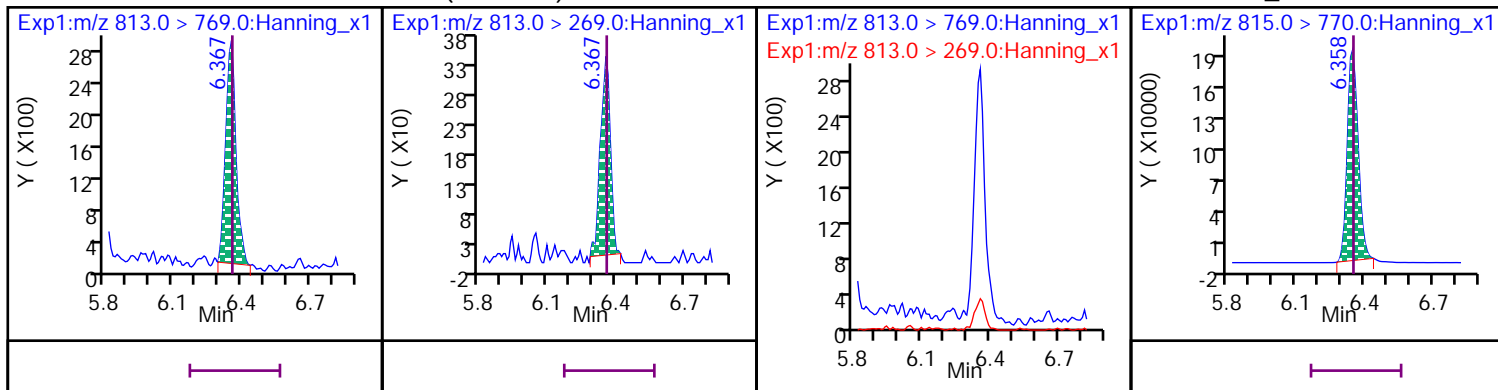
23 Perfluoro-n-tetradecanoic acid (PFTeDA) (Marked ND)

D 42 13C2_PFTeDA



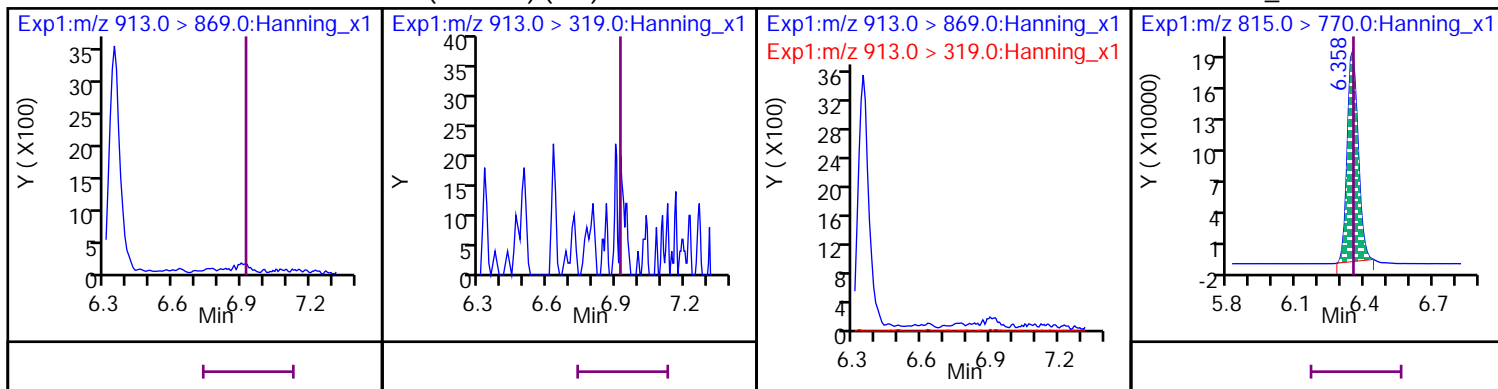
35 Perfluoro-n-hexadecanoic acid (PFHxDA)

D 40 13C2_PFHxDA



36 Perfluoro-n-octadecanoic acid (PFODA) (ND)

D 40 13C2_PFHxDA

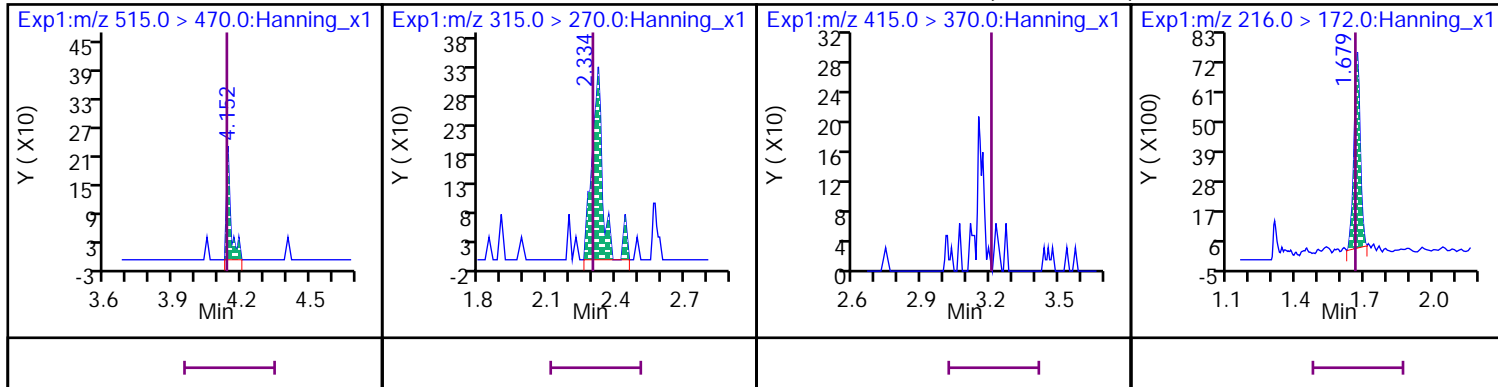


* 37 13C2_PFDA

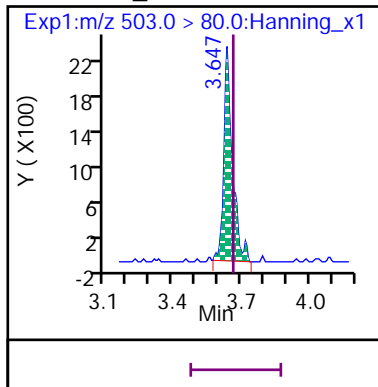
* 39 13C2_PFHxA

* 41 13C2_PFOA (Marked ND)

* 43 13C3_PFBA



* 48 13C4_PFOS



Pace Environmental Services, LLC
Analyte Quantitation Report

Data File: \\Organics\LL\LCMSMS01.i\091222-nonDOD.b\091222007.d
Injection Date: 12-Sep-2022 14:43:44 Injection Vol: 10.0 uL
Sample Type: InstBlk Auto Sampler: 96
Lab Sample ID: ID2 BLK A Lab Prep. Batch:
Sample Info: ID2 BLK A Misc. Info:
Inst. ID: LCMSMS01.i Operator: eqi.svoa
Method: LCMSMS01_PFAS-ID2 Version: V16 30-Jun-2022 10:54:24
Calib Method: PFAS-ID2 Lock State: Unlocked
Quant Method: IsoDil Integrator: picker

Reagent: Surrogates Conc. Level: Smp Vol. Added: 0.1000 ml

Signal	Quant Std	RT (min.)	Exp RT (min.)	□ RT (secs.)	Response	Peak Pts	S/N	Ion Ratio	Isomer Ratio	Cal Conc ng/L	OnCol Conc ng/L	%Rec	Flags
D 46 13C4_PFBFA CAS: SESI-0111													
217 > 172		1.669	1.670	0	2777591	18	>100:1			2000.00	2623.88	116.1	
8 Perfluoro-n-butanoic acid (PFBA) CAS: 375-22-4													
212.9 > 168.9	46		1.675		ND								U
D 50 13C5_PFPeA CAS: SESI-0112													
267.9 > 223		1.995	1.975	1	1920587	14	>100:1			2000.00	2715.40	120	
21 Perfluoro-n-pentanoic acid (PFPeA) CAS: 2706-90-3													
262.9 > 218.9	50		1.975		ND								U
D 44 13C3_PFBFS CAS: SESI-0116													
302 > 80		2.035	2.025	1	698967	15	>100:1			2000.00	2478.37	119.2	
7 Perfluoro-1-butanefulfonate (PFBS) CAS: 375-73-5													
298.9 > 80	44		2.025		ND								U
22 Perfluoro-1-pentanesulfonic acid (PFPeS) CAS: 2706-91-4													
349 > 80	44		2.355		ND								U
D 63 13C2_4:2 FTS_2 CAS: SESI-0104													
329 > 81		2.301	2.283	1	616284	18	>100:1			10000	15653	121.6	
1 Fluorotelomer sulfonate 4:2 [1H,1H,2H,2H-perfluorohexane sulfonate] (4:2 FTS) CAS: 757124-72-4													
327 > 307	63		2.283		ND								U
D 49 13C5_PFHxA CAS: SESI-0113													
318 > 273		2.337	2.319	1	2123215	16	>100:1			2000.00	2517.98	125.6	
15 Perfluoro-n-hexanoic acid (PFHxA) CAS: 307-24-4													
313 > 269	49		2.319		ND								U
D 66 13C3_GenX CAS: SESI-0121													
287 > 185		2.454	2.436	1	1437510	18	>100:1			10000	12101	115.3	
28 Hexafluoropropylene oxide dimer acid (GenX) CAS: 13252-13-6													
285 > 119	66		2.436		ND								U
D 47 13C4_PFHpA CAS: SESI-0114													
367 > 322		2.727	2.717	1	1719184	17	>100:1			2000.00	2409.37	111.3	
13 Perfluoro-n-heptanoic acid (PFHpA) CAS: 375-85-9													
363 > 319	47		2.717		ND								U
D 45 13C3_PFHxS CAS: SESI-0096													
402 > 80		2.737	2.727	1	516489	16	>100:1			2000.00	2628.79	129.5	
14 Perfluorohexanesulfonate (PFHxS) CAS: 355-46-4													
399 > 80	45		2.727		ND								U
29 4,8-dioxa-3H-perfluorononanoic acid (ADONA) CAS: 919005-14-4													
377 > 251	45		2.767		ND								U
12 Perfluoro-1-heptanesulfonic acid (PFHpS) CAS: 375-92-8													
449 > 80	45		3.162		ND								U
D 64 13C2_6:2 FTS_2 CAS: SESI-0105													
429 > 81		3.126	3.114	1	376065	25	>100:1			10000	12792	87	

Signal	Quant Std	RT (min.)	Exp RT (min.)	□ RT (secs.)	Response	Peak Pts	S/N	Ion Ratio	Isomer Ratio	Cal Conc ng/L	OnCol Conc ng/L	%Rec	Flags
2 Fluorotelomer sulfonate 6:2 [1H,1H,2H,2H-perfluorooctane sulfonate] (6:2 FTS) CAS: 27619-97-2													U
427 > 407	64		3.126		ND								
D 53 13C8_PFOA CAS: SESI-0097													
421 > 376		3.156	3.156	0	1756354	22	>100:1			2000.00	2754.57	127.3	
20 Perfluoro-n-octanoic acid (PFOA) CAS: 335-67-1													U
413 > 369	53		3.150		ND								
D 54 13C8_PFOS CAS: SESI-0098													
507 > 80		3.644	3.637	0	611936	25	>100:1			2000.00	2488.93	118.7	
18 Perfluorooctanesulfonate (PFOS) CAS: 1763-23-1													U
499 > 80	54		3.637		ND								
30 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS) CAS: 756426-58-1													U
531 > 351	54		3.923		ND								
16 Perfluoro-1-nonanesulfonic acid (PFNS) CAS: 68259-12-1													U
549 > 80	54		4.118		ND								
9 Perfluoro-1-decanesulfonic acid (PFDS) CAS: 335-77-3													U
599 > 80	54		4.563		ND								
31 11-chloroeicosfluoro-3-oxaundecane-1-sulfonic acid (11CI-PF3OUDS) CAS: 763051-92-9													U
631 > 451	54		4.813		ND								
34 Perfluorododecanesulfonic acid (PFDOS) CAS: 79780-39-5													
699 > 80	54	5.275	5.347	-4/-4	192	12	3.5:1	Target = 3.53		0.73548	0.73548		
699 > 99	54	5.266	5.347		49	11	3.1:1	3.91 (1.76-5.30)					
D 56 13C9_PFNA CAS: SESI-0099													
472 > 427		3.644	3.644	0	1635086	24	>100:1			2000.00	2508.19	119	
17 Perfluoro-n-nonanoic acid (PFNA) CAS: 375-95-1													U
463 > 419	56		3.644		ND								
D 55 13C8_PFOA CAS: SESI-0107													
506 > 78		3.985	3.985	0	1043225	22	>100:1			2000.00	2428.85	118.4	
19 Perfluoro-1-octanesulfonamide (PFOSA) CAS: 754-91-6													U
498 > 78	55		3.985		ND								
D 65 13C2_8:2 FTS_2 CAS: SESI-0106													
529 > 81		4.111	4.118	0	467926	23	>100:1			10000	14496	119.9	
3 Fluorotelomer sulfonate 8:2 [1H,1H,2H,2H-perfluorodecane sulfonate] (8:2 FTS) CAS: 39108-34-4													U
527 > 507	65		4.111		ND								
4 1H,1H,2H,2H-perfluorododecane sulfonate (10:2FTS) CAS: 120226-60-0													U
627 > 607	65		5.009		ND								
D 51 13C6_PFDA CAS: SESI-0115													
519 > 474		4.131	4.132	0	1321193	20	>100:1			2000.00	2439.94	104	
10 Perfluoro-n-decanoic acid (PFDA) CAS: 335-76-2													U
513 > 469	51		4.125		ND								
D 58 d3-MeFOSAA CAS: SESI-0102													
573 > 419		4.351	4.353	0	1769096	22	>100:1			10000	12134	128.7	
6 N-methylperfluoro-1-octanesulfonamidoacetic acid (N-MeFOSAA) CAS: 2355-31-9													U
570 > 419	58		4.345		ND								
D 61 d7-MeFOSE CAS: SESI-0129													
623 > 59		4.580	4.583	0	321036	17	>100:1			2000.00	2830.55	134	
32 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE) CAS: 24448-09-7													U
616 > 59	61		4.604		ND								
D 57 d3-MeFOSA CAS: SESI-0109													
515 > 169		4.621	4.614	0	150405	15	>100:1			2000.00	2947.52	119.7	
26 N-methylperfluoro-1-octanesulfonamide (MeFOSA) CAS: 31506-32-8													U
512 > 169	57		4.624		ND								
D 52 13C7_PFuDA CAS: SESI-0117													
570 > 525		4.590	4.583	0	1341345	17	>100:1			2000.00	2764.17	115.8	
25 Perfluoro-n-undecanoic acid (PFuDA) CAS: 2058-94-8													U
563 > 519	52		4.583		ND								
D 60 d5-EtFOSAA CAS: SESI-0110													
589 > 419		4.580	4.583	0	1705435	19	>100:1			10000	13828	124.4	

Signal	Quant Std	RT (min.)	Exp RT (min.)	□ RT (secs.)	Response	Peak Pts	S/N	Ion Ratio	Isomer Ratio	Cal Conc ng/L	OnCol Conc ng/L	%Rec	Flags
5 N-ethylperfluoro-1-octanesulfonamidoacetic acid (N-EtFOSAA) CAS: 2991-50-6													U
584 > 419	60		4.594		ND								
D 62 d9-EtFOSE CAS: SESI-0130													
639 > 59		4.833	4.834	0	274927	20	>100:1			2000.00	2549.93	118.3	
33 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE) CAS: 1691-99-2													U
630 > 59	62		4.849		ND								
D 59 d5-EtFOSA CAS: SESI-0108													
531 > 169		4.868	4.870	0	121175	21	>100:1			2000.00	2467.24	112.7	
27 N-ethylperfluoro-1-octanesulfonamide (EtFOSA) CAS: 4151-50-2													U
526 > 169	59		4.885		ND								
D 38 13C2_PFDoA CAS: SESI-0118													
615 > 570		5.005	5.001	0	1243103	19	>100:1			2000.00	2397.98	120.9	
11 Perfluoro-n-dodecanoic acid (PFDoA) CAS: 307-55-1													U
613 > 569	38		5.001		ND								
24 Perfluoro-n-tridecanoic acid (PFTrDA) CAS: 72629-94-8													U
663 > 619	38		5.378		ND								
D 42 13C2_PFTeDA CAS: SESI-0119													
715 > 670		5.704	5.711	0	1257515	36	>100:1			2000.00	2288.83	121.2	
23 Perfluoro-n-tetradecanoic acid (PFTeDA) CAS: 376-06-7													U
713 > 669	42		5.711		ND								
D 40 13C2_PFHxDA CAS: SESI-0103													
815 > 770		6.295	6.298	0	662202	26	>100:1			2000.00	2350.32	118.4	
35 Perfluoro-n-hexadecanoic acid (PFHxDA) CAS: 67905-19-5													
813 > 769	40	6.295	6.307	-1/-1	7930	24	48:1	Target = 9.01		19.835	19.835		
813 > 269	40	6.295	6.307		788	24	31:1	10.06 (4.50-13.52)					
36 Perfluoro-n-octadecanoic acid (PFODA) CAS: 16517-11-6													U
913 > 869	40		6.850		ND								
* 37 13C2_PFDA													
515 > 470		3.999	4.090	-5	115	12	3.3:1			0			
* 39 13C2_PFHxA CAS: SESI-0120													
315 > 270		2.346	2.319	2	1006	18	8.9:1			0			
* 41 13C2_PFOA CAS: 864071-08-9													
415 > 370		3.156	3.120	2	326	12	4.1:1			0			
* 43 13C3_PFBA													
216 > 172		1.669	1.675	0	15415	19	50:1			0			
* 48 13C4_PFOS CAS: 2795-39-3													
503 > 80		3.630	3.630	0	6014	23	84:1			0			

Compound Type Legend

D - Isotopic Dilution Std.
* - ISTD

QC Flag Legend

U - Result Less Than Method Detection Limit

Data File: \\Organics\LL\LCMSMS01.i\091222-nonDOD.b\091222007.d

Injection Date: 12-Sep-2022 14:43:44

Inst. ID: LCMSMS01.i

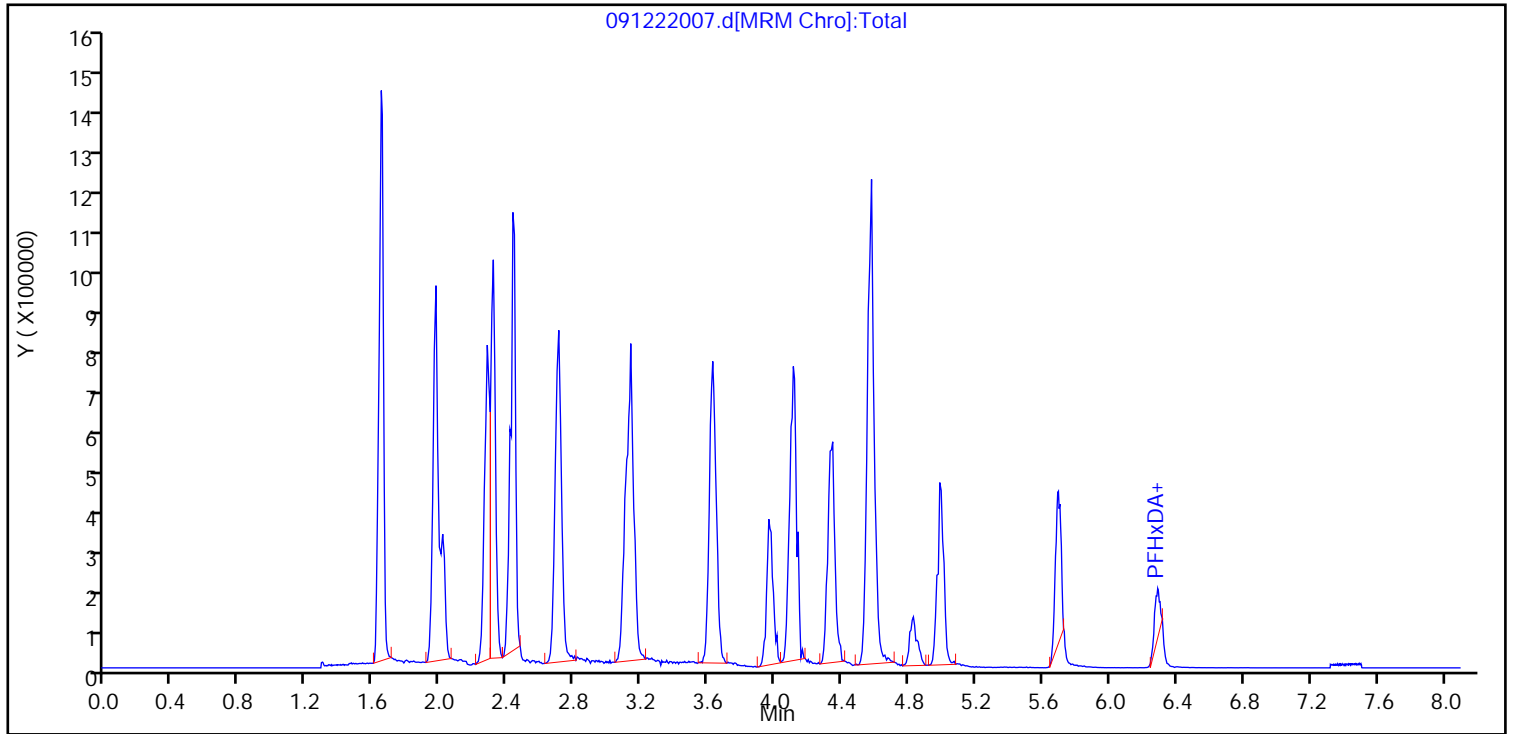
Client ID:

Lab ID: ID2 BLK A

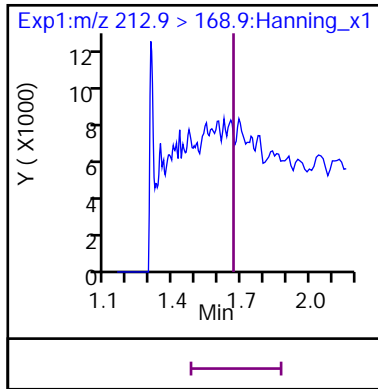
Sample Info: ID2 BLK A

Dil. Factor: 1

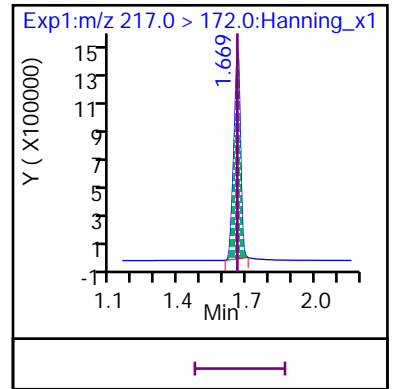
Operator: eqi.svoa



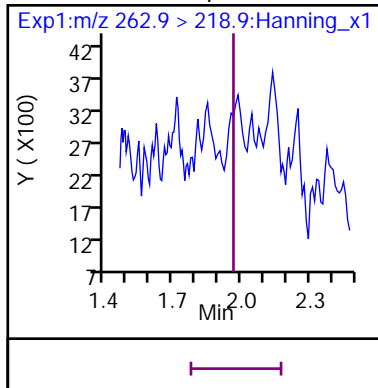
8 Perfluoro-n-butanoic acid (PFBA) (ND)



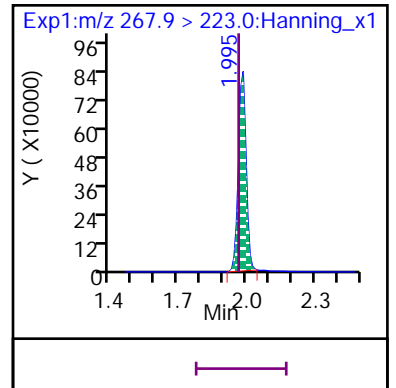
D 46 13C4_PFBA



21 Perfluoro-n-pentanoic acid (PFPeA) (ND)

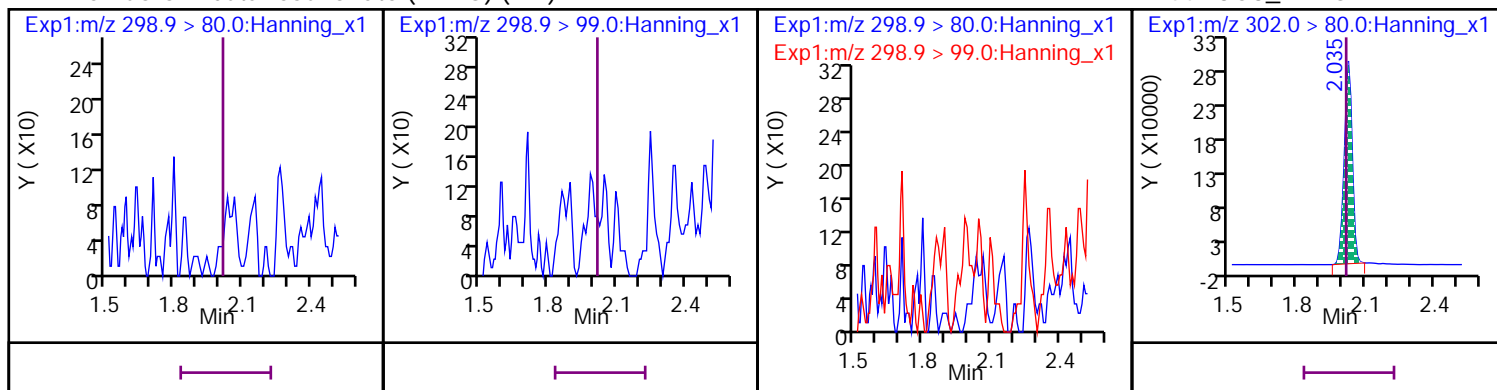


D 50 13C5_PFPeA

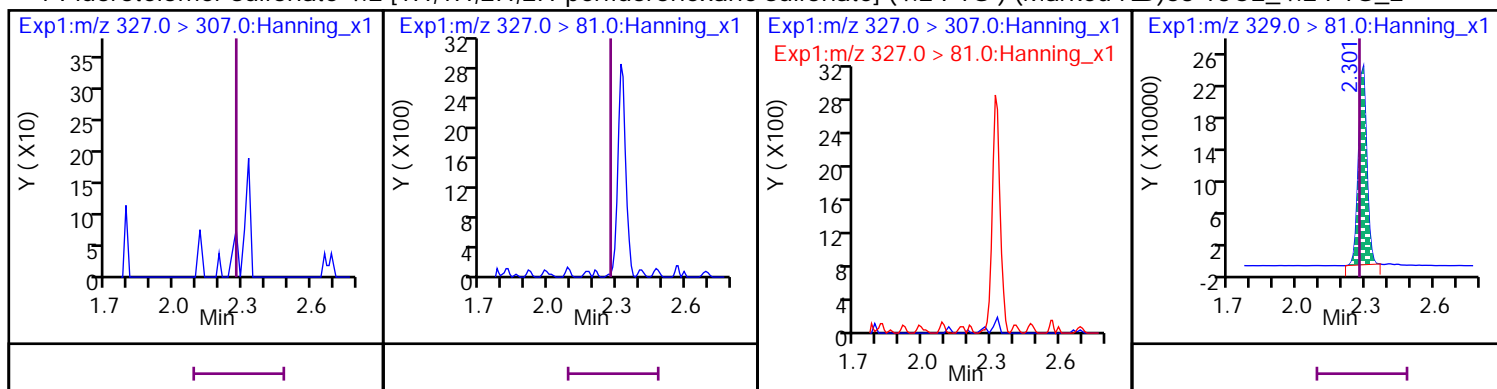


7 Perfluoro-1-butanesulfonate (PFBS) (ND)

D 44 13C3_PFBS

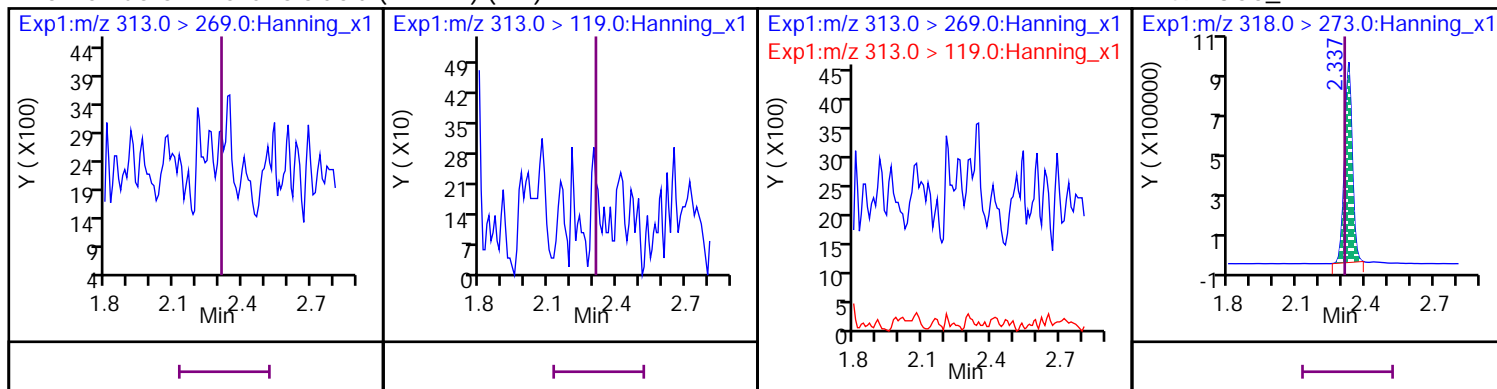


1 Fluorotelomer sulfonate 4:2 [1H,1H,2H,2H-perfluorohexane sulfonate] (4:2 FTS) (Marked ND)63 13C2_4:2 FTS_2



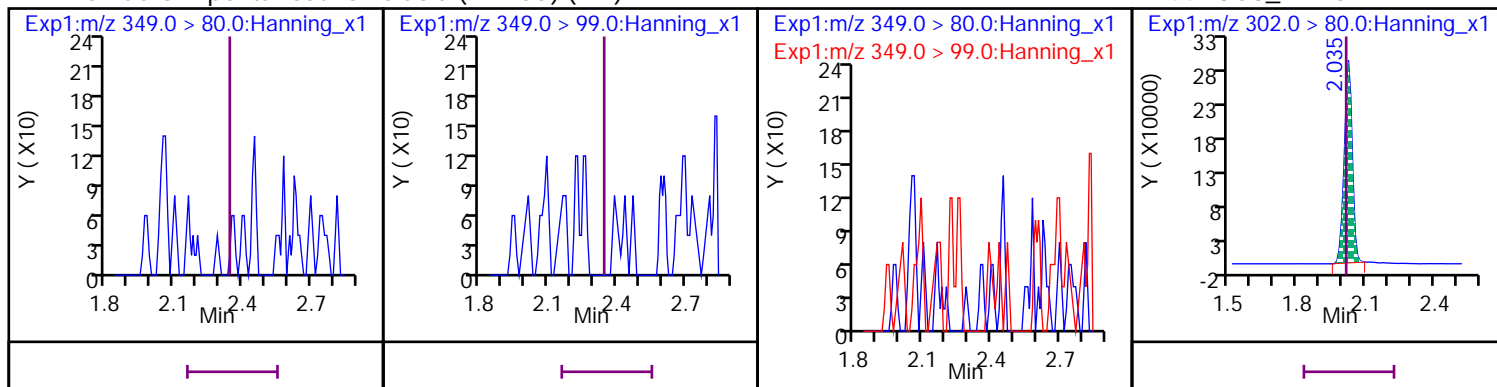
15 Perfluoro-n-hexanoic acid (PFHxA) (ND)

D 49 13C5_PFHxA



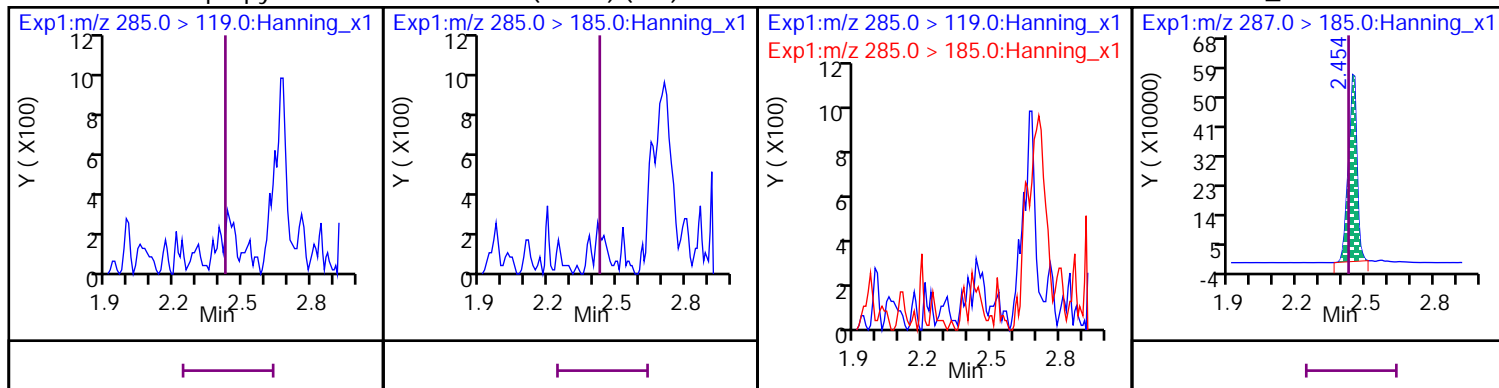
22 Perfluoro-1-pentanesulfonic acid (PFPeS) (ND)

D 44 13C3_PFBS



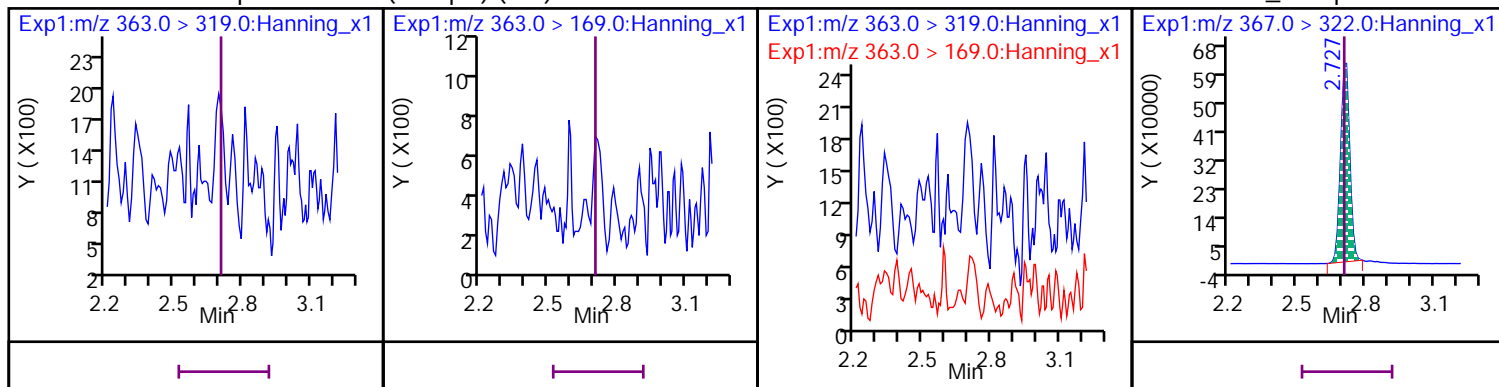
28 Hexafluoropropylene oxide dimer acid (GenX) (ND)

D 66 13C3_GenX



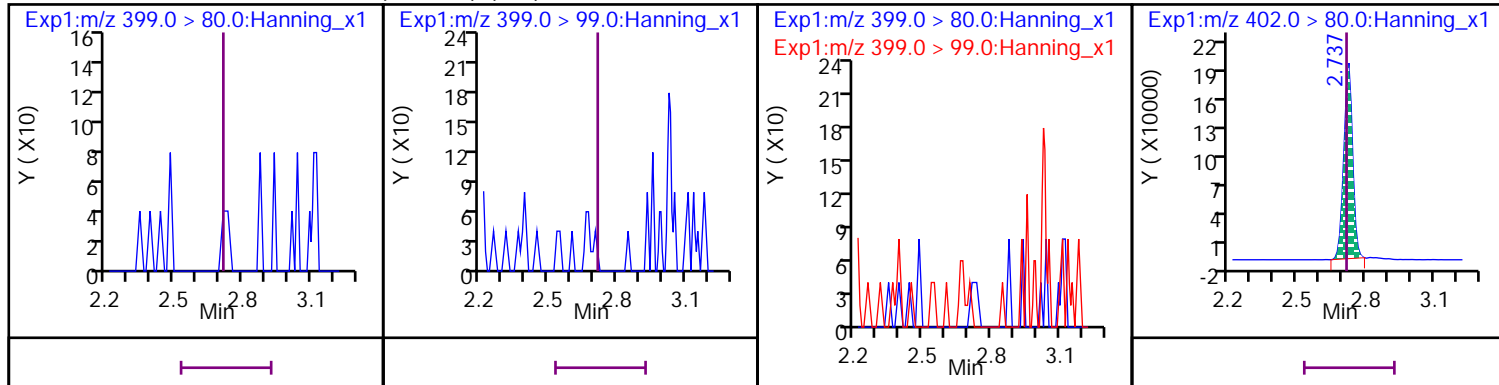
13 Perfluoro-n-heptanoic acid (PFHpA) (ND)

D 47 13C4_PFHpA



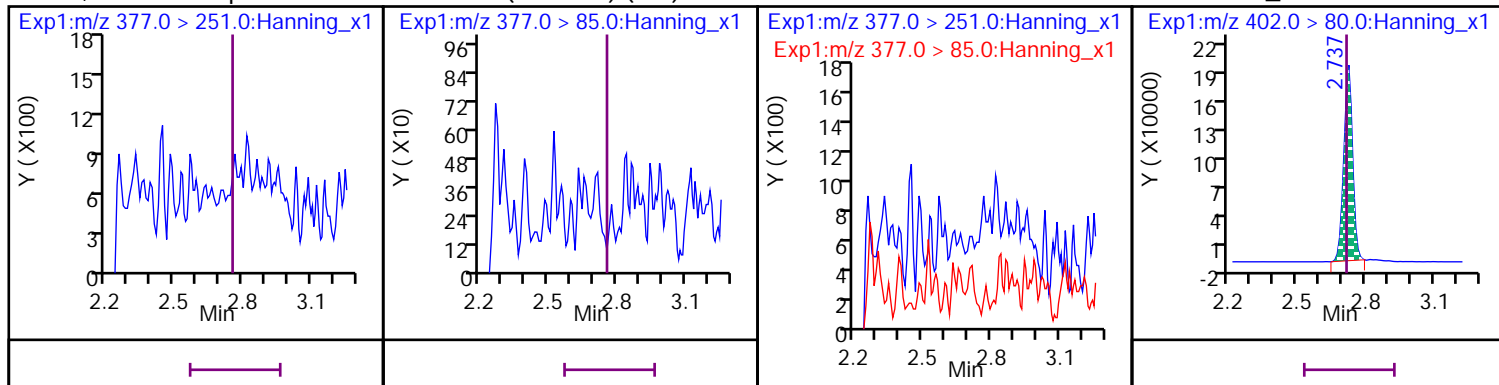
14 Perfluorohexanesulfonate (PFHxS) (ND)

D 45 13C3_PFHxS



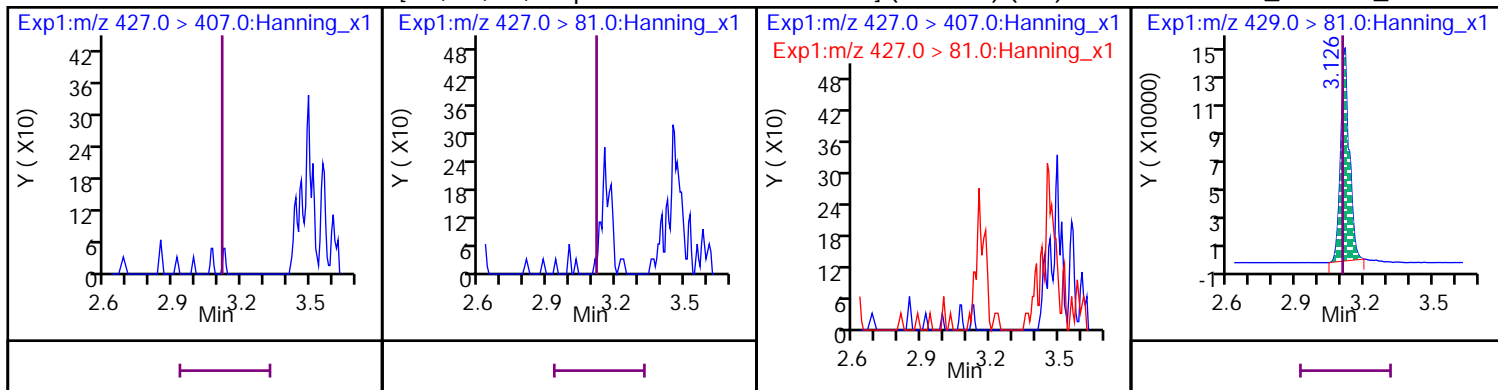
29 4,8-dioxa-3H-perfluorononanoic acid (ADONA) (ND)

D 45 13C3_PFHxS



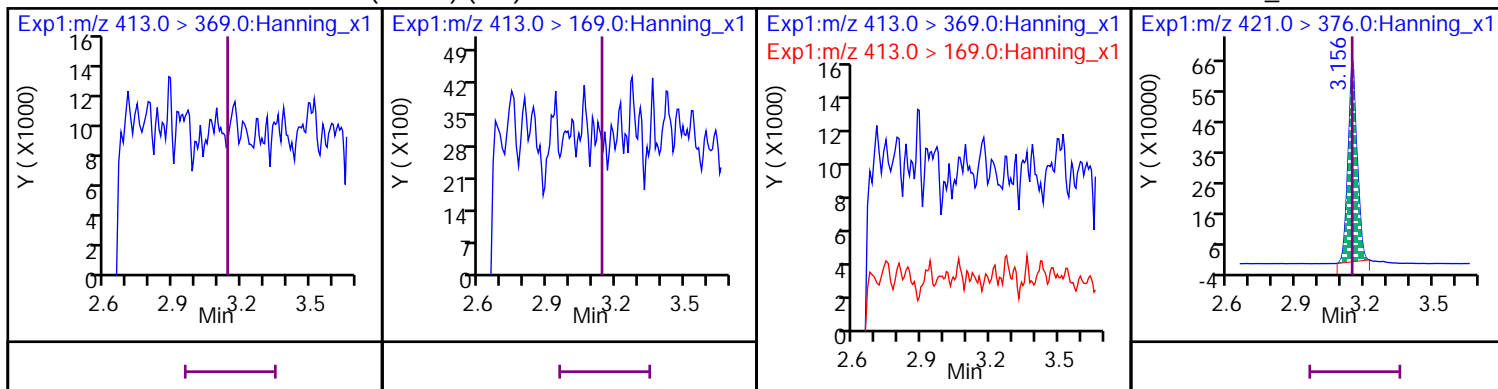
2 Fluorotelomer sulfonate 6:2 [1H,1H,2H,2H-perfluorooctane sulfonate] (6:2 FTS) (ND)

D 64 13C2_6:2 FTS_2



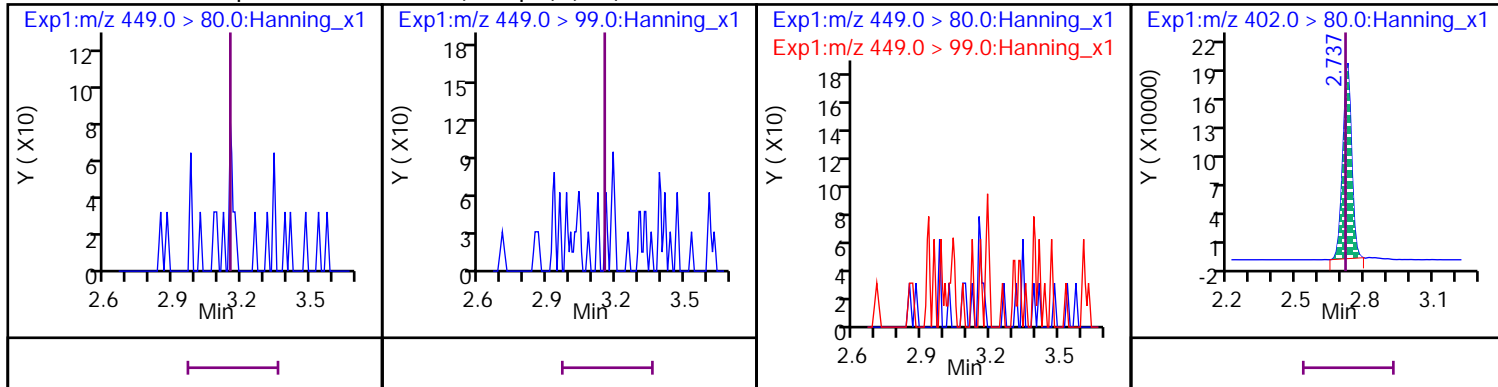
20 Perfluoro-n-octanoic acid (PFOA) (ND)

D 53 13C8_PFOA



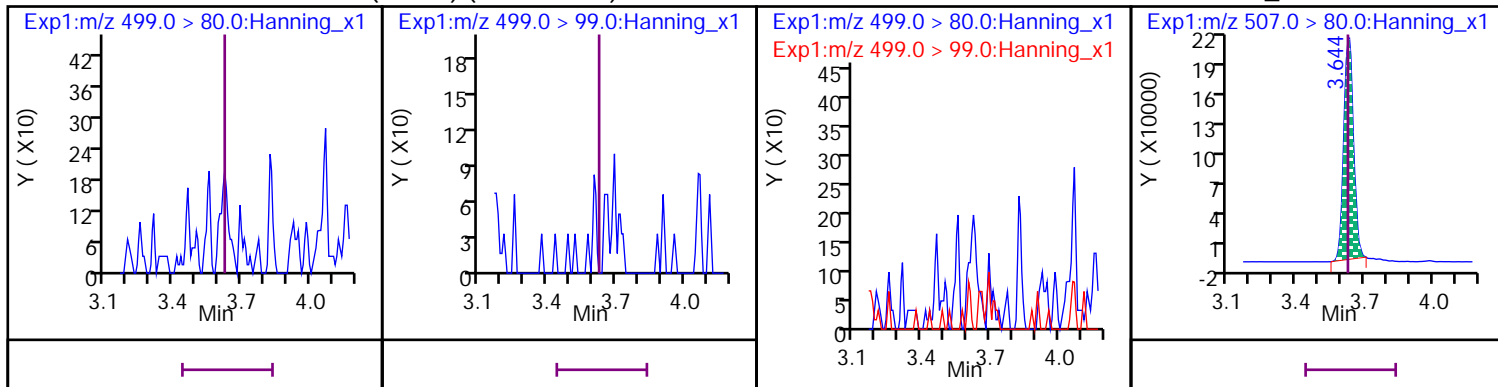
12 Perfluoro-1-heptanesulfonic acid (PFHpS) (ND)

D 45 13C3_PFHxS



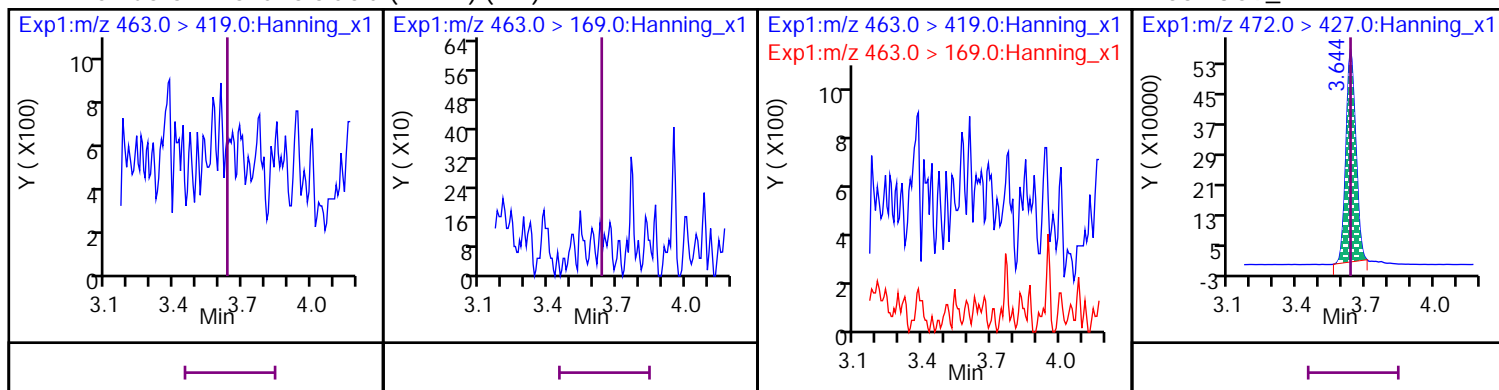
18 Perfluorooctanesulfonate (PFOS) (Marked ND)

D 54 13C8_PFOS



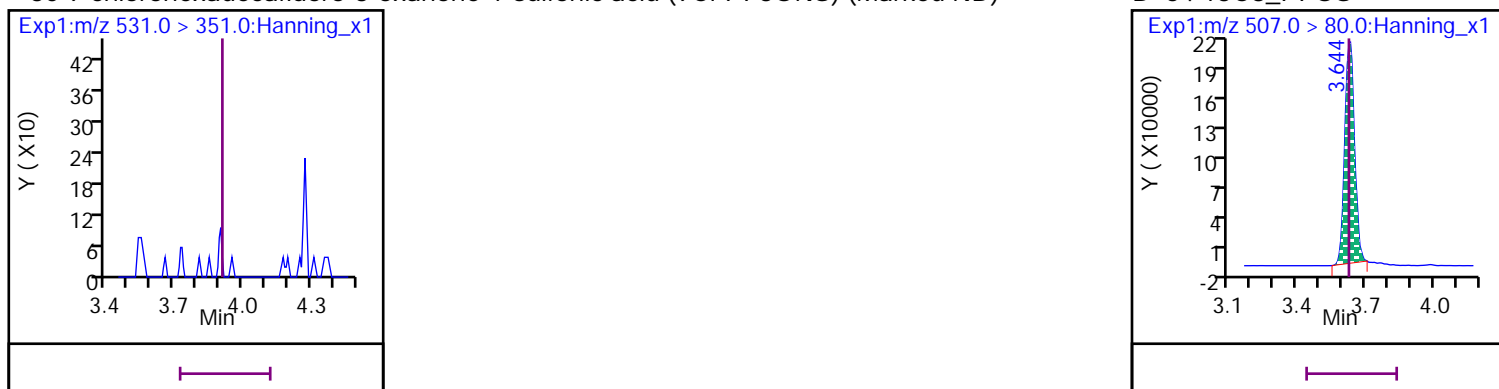
17 Perfluoro-n-nonanoic acid (PFNA) (ND)

D 56 13C9_PFNA



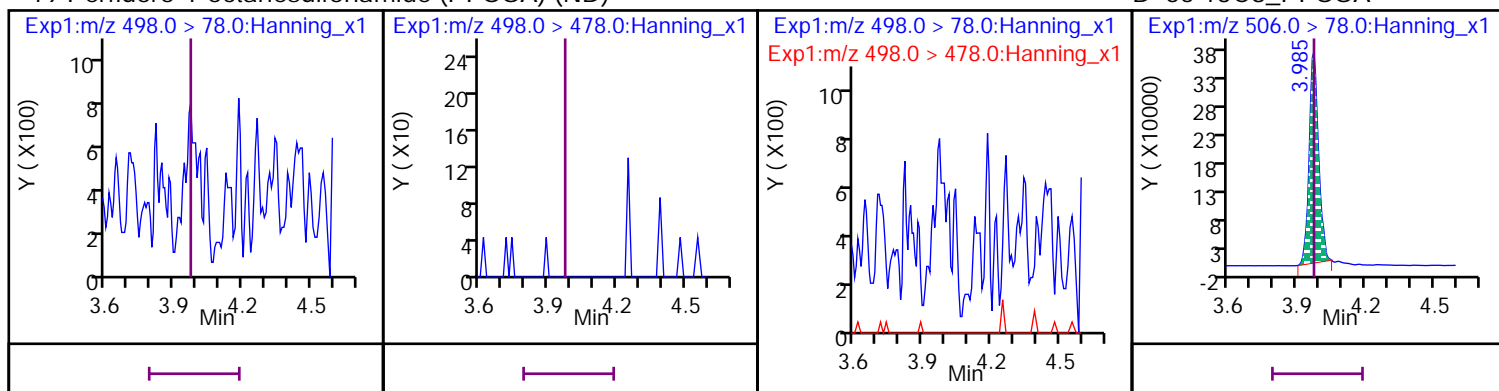
30 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS) (Marked ND)

D 54 13C8_PFOS



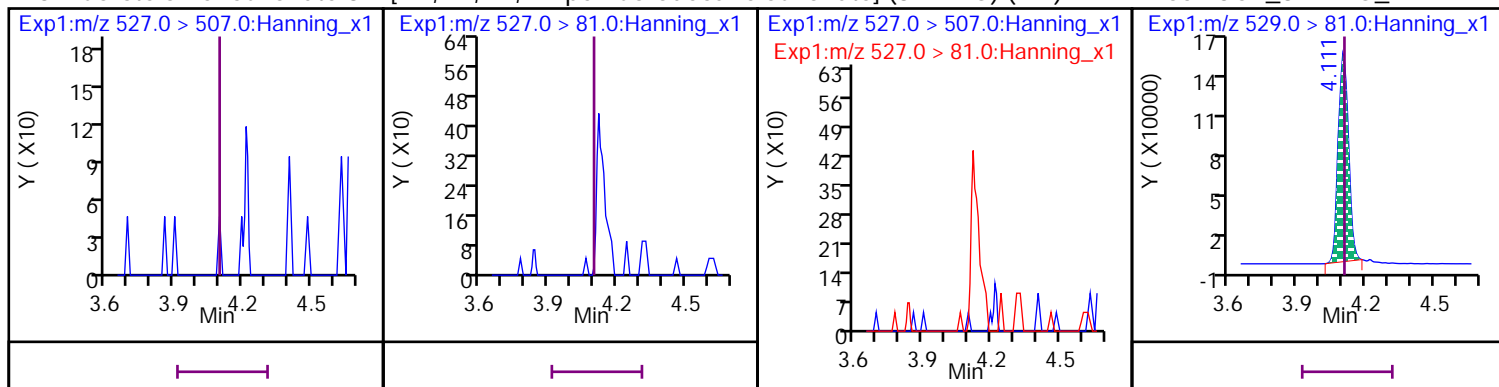
19 Perfluoro-1-octanesulfonamide (PFOSA) (ND)

D 55 13C8_PFOSA



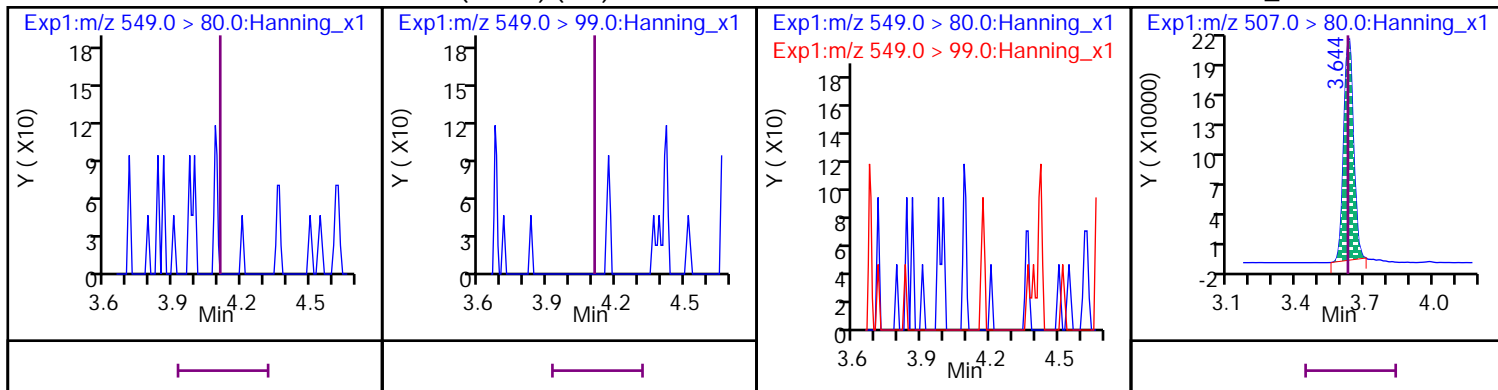
3 Fluorotelomer sulfonate 8:2 [1H,1H,2H,2H-perfluorodecane sulfonate] (8:2 FTS) (ND)

D 65 13C2_8:2 FTS_2



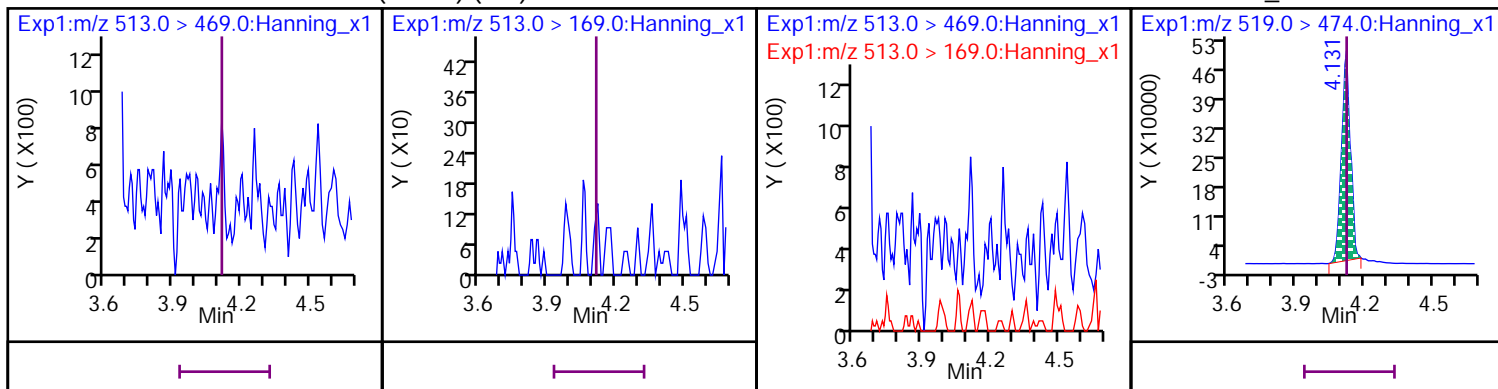
16 Perfluoro-1-nonanesulfonic acid (PFNS) (ND)

D 54 13C8_PFOS



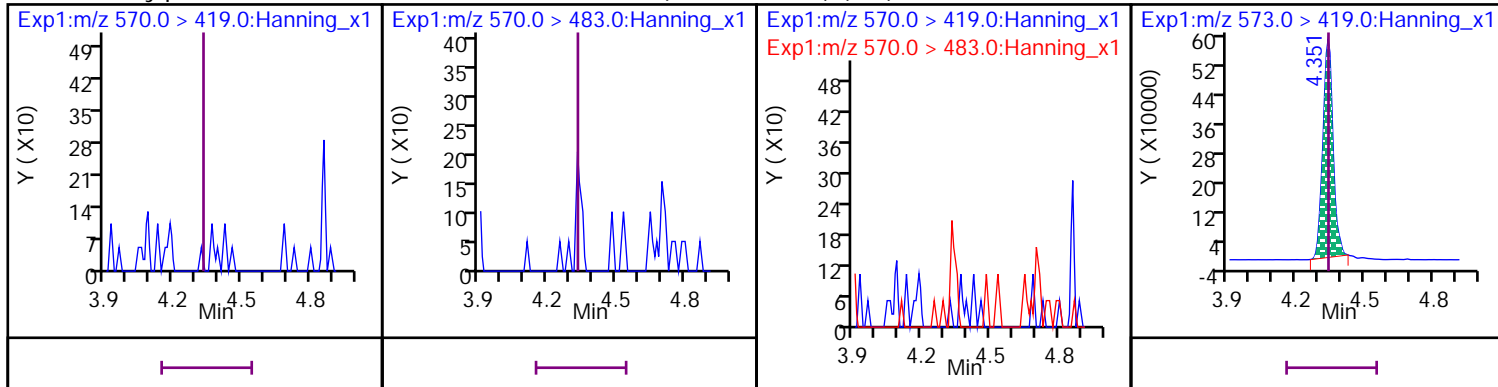
10 Perfluoro-n-decanoic acid (PFDA) (ND)

D 51 13C6_PFDA



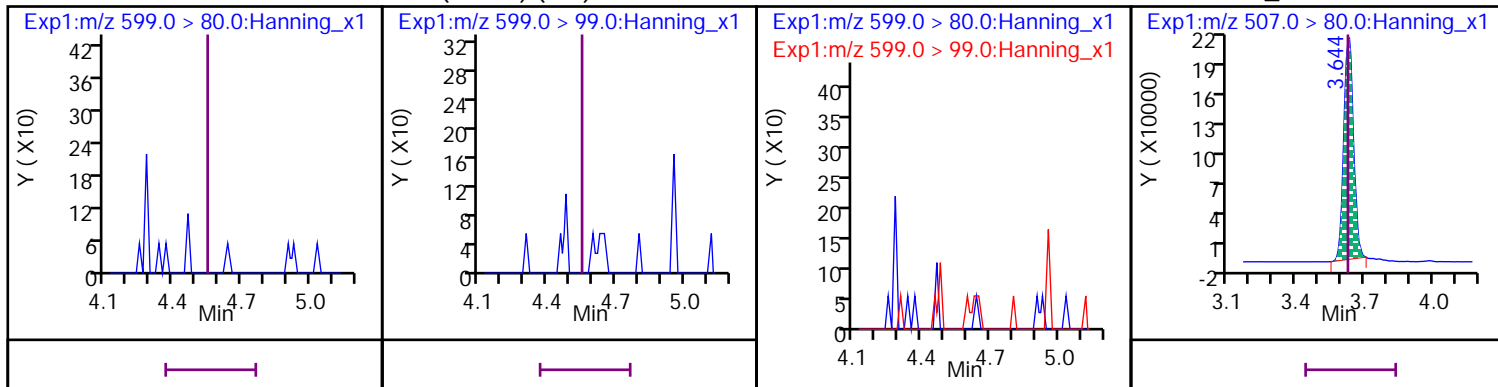
6 N-methylperfluoro-1-octanesulfonamidoacetic acid (N-MeFOSAA) (ND)

D 58 d3-MeFOSAA

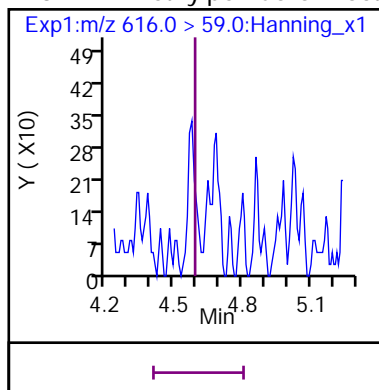


9 Perfluoro-1-decanesulfonic acid (PFDS) (ND)

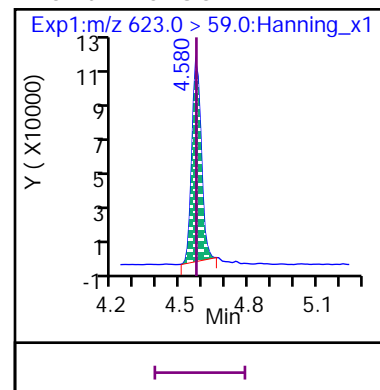
D 54 13C8_PFOS



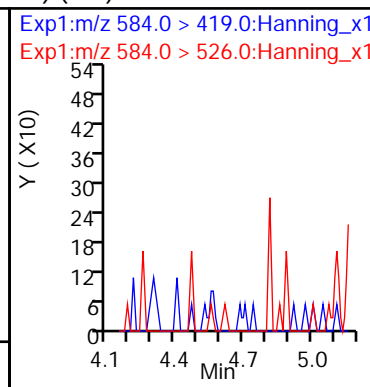
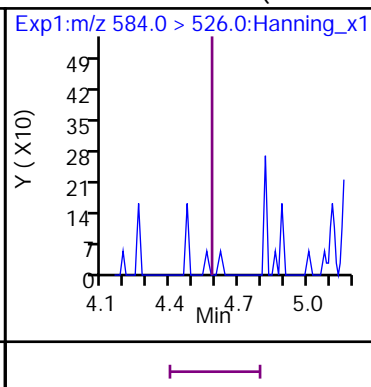
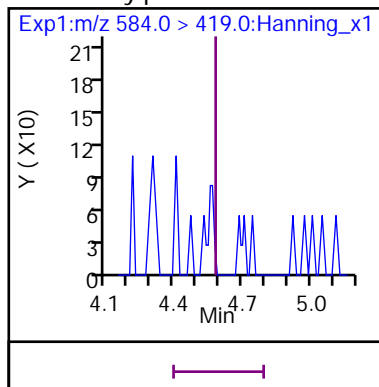
32 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE) (Marked ND)



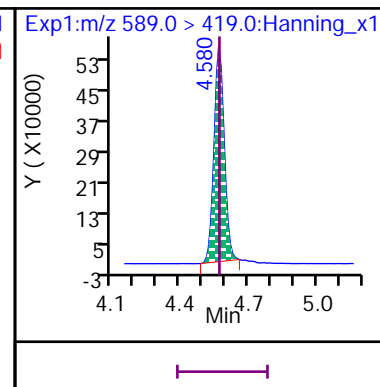
D 61 d7-MeFOSE



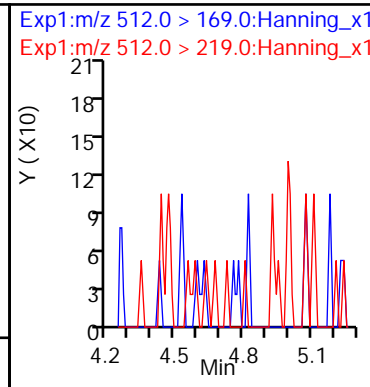
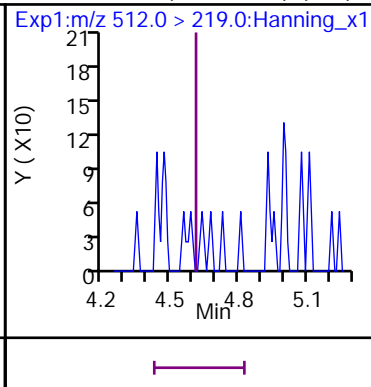
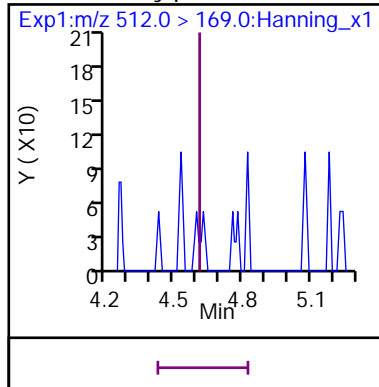
5 N-ethylperfluoro-1-octanesulfonamidoacetic acid (N-EtFOSAA) (ND)



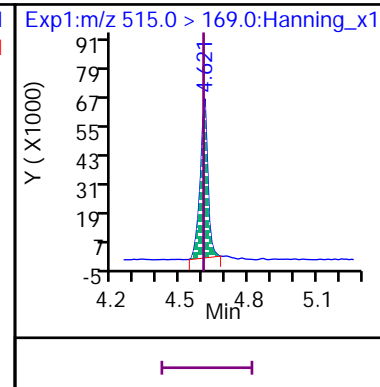
D 60 d5-EtFOSAA



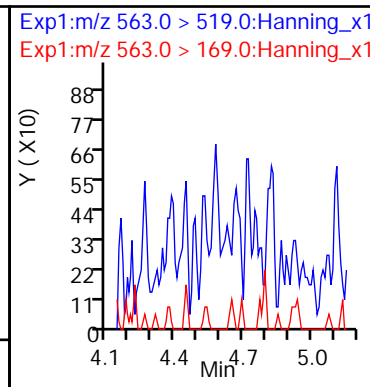
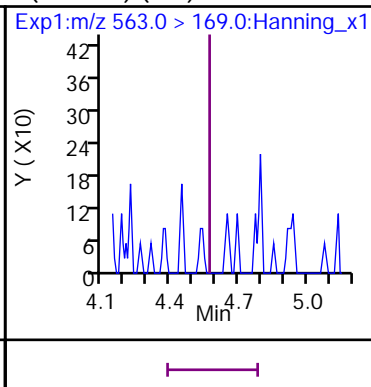
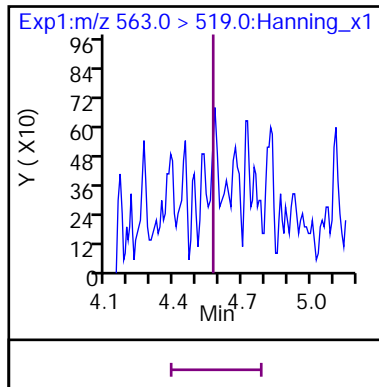
26 N-methylperfluoro-1-octanesulfonamide (MeFOSA) (ND)



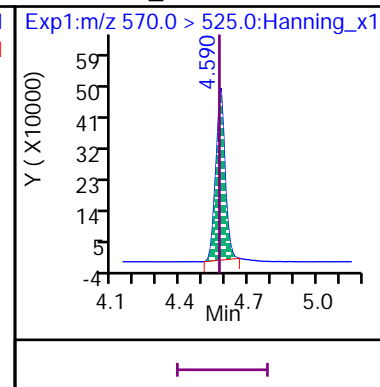
D 57 d3-MeFOSA



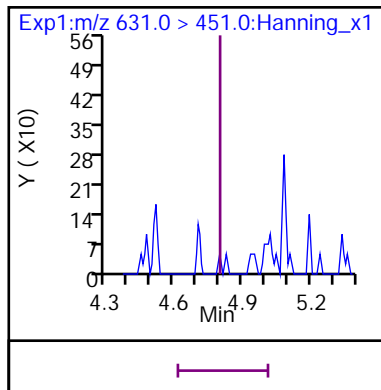
25 Perfluoro-n-undecanoic acid (PFUdA) (ND)



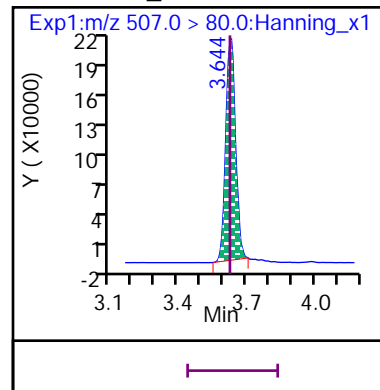
D 52 13C7_PFUdA



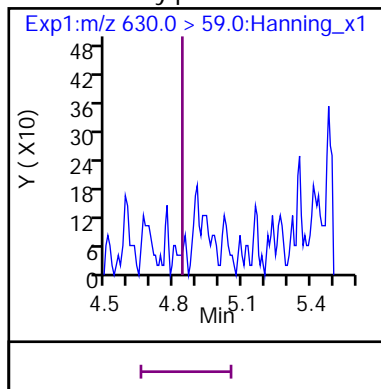
31 11-chloroeicosafuoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS) (ND)



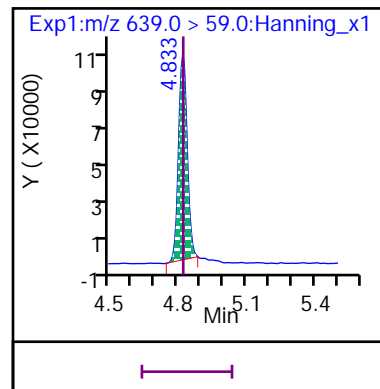
D 54 13C8_PFOS



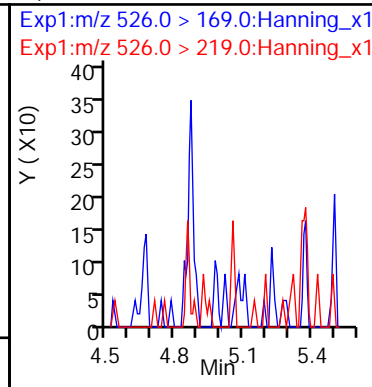
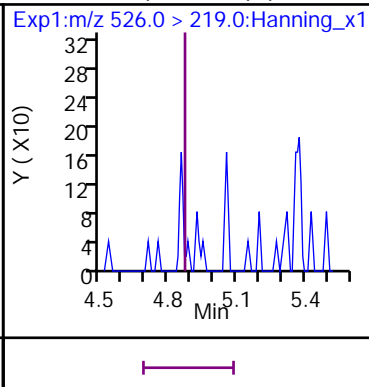
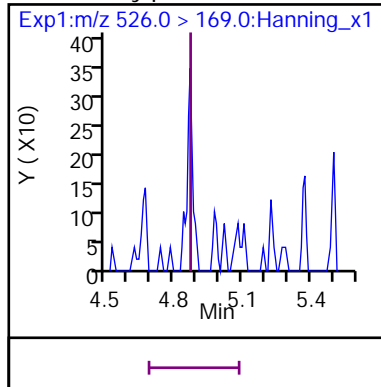
33 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE) (ND)



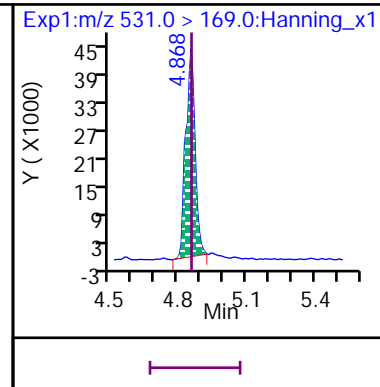
D 62 d9-EtFOSE



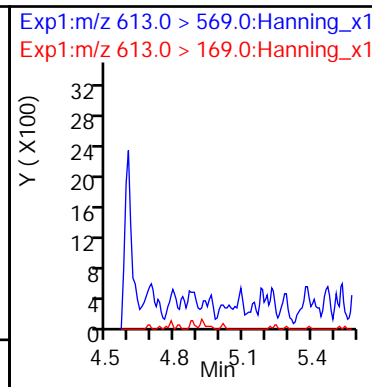
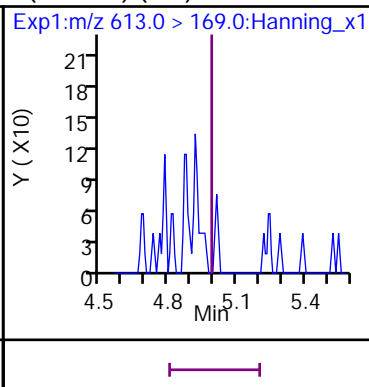
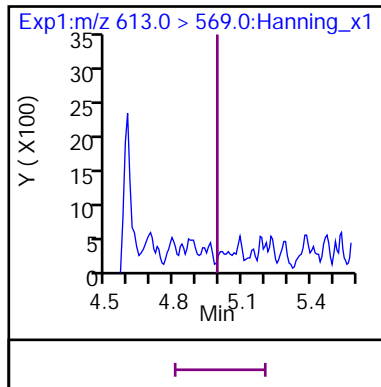
27 N-ethylperfluoro-1-octanesulfonamide (EtFOSA) (Marked ND)



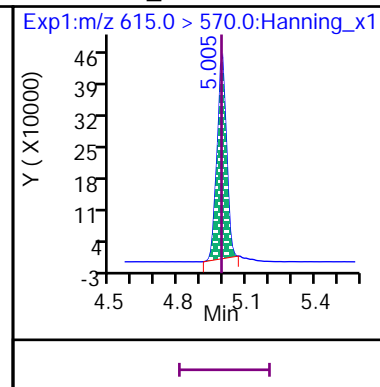
D 59 d5-EtFOSA



11 Perfluoro-n-dodecanoic acid (PFDoA) (ND)

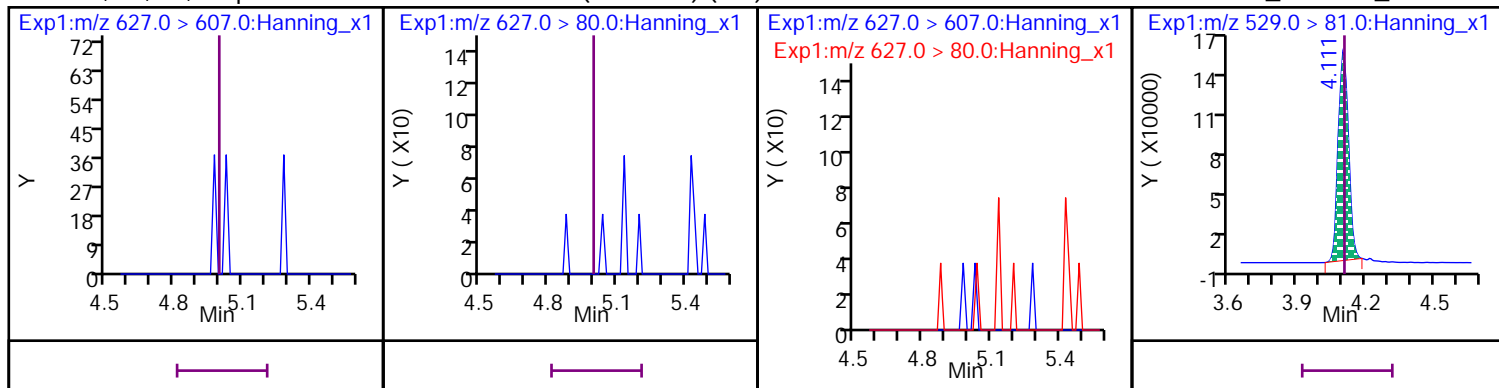


D 38 13C2_PFDoA



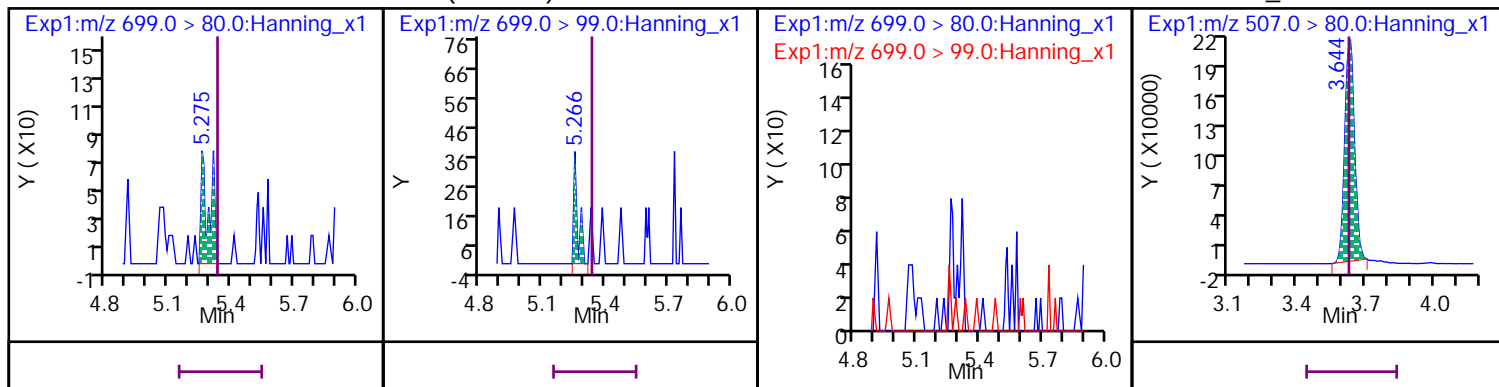
4 1H,1H,2H,2H-perfluorododecane sulfonate (10:2FTS) (ND)

D 65 13C2_8:2 FTS_2



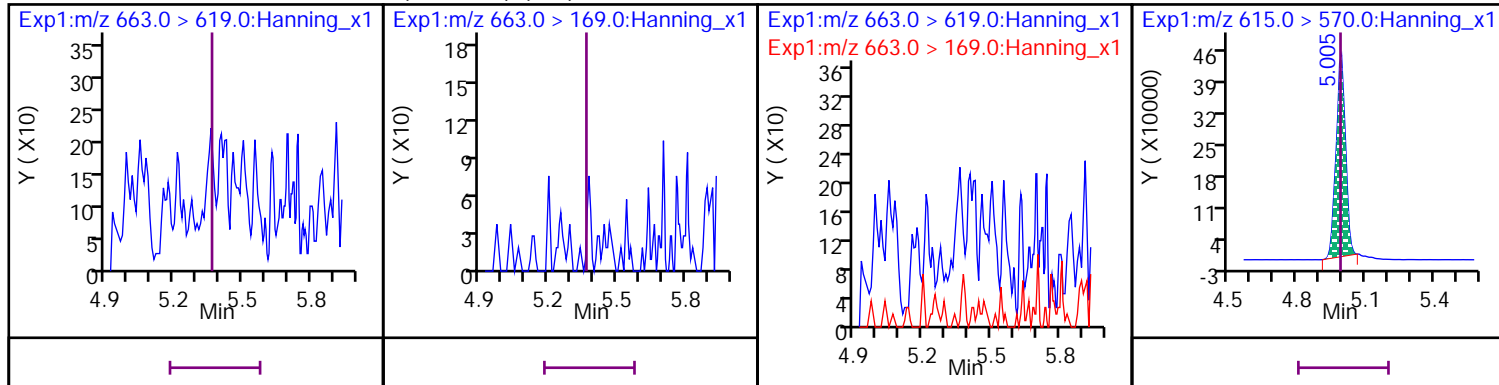
34 Perfluorododecanesulfonic acid (PFDOS)

D 54 13C8_PFOS



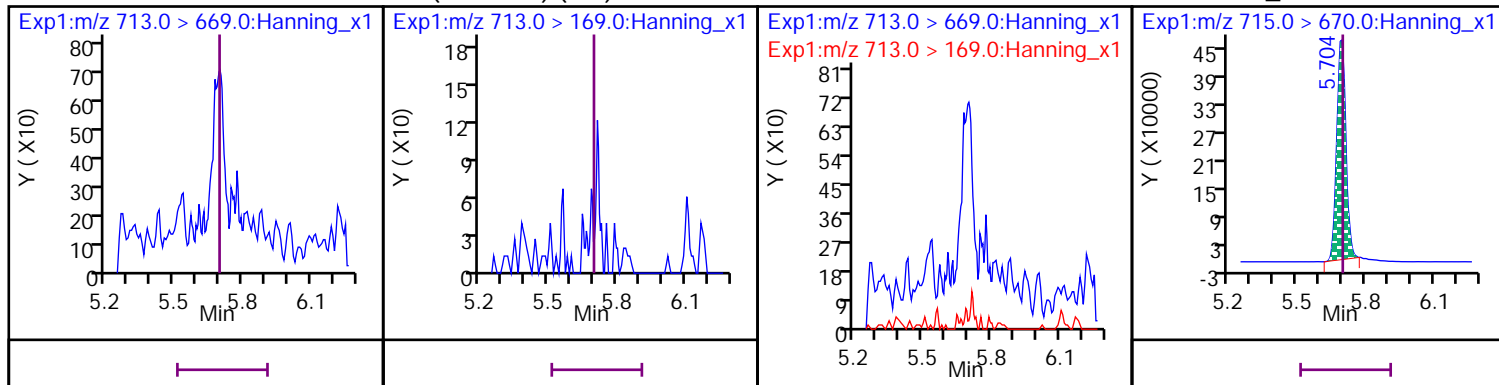
24 Perfluoro-n-tridecanoic acid (PFTTrDA) (ND)

D 38 13C2_PFDaA



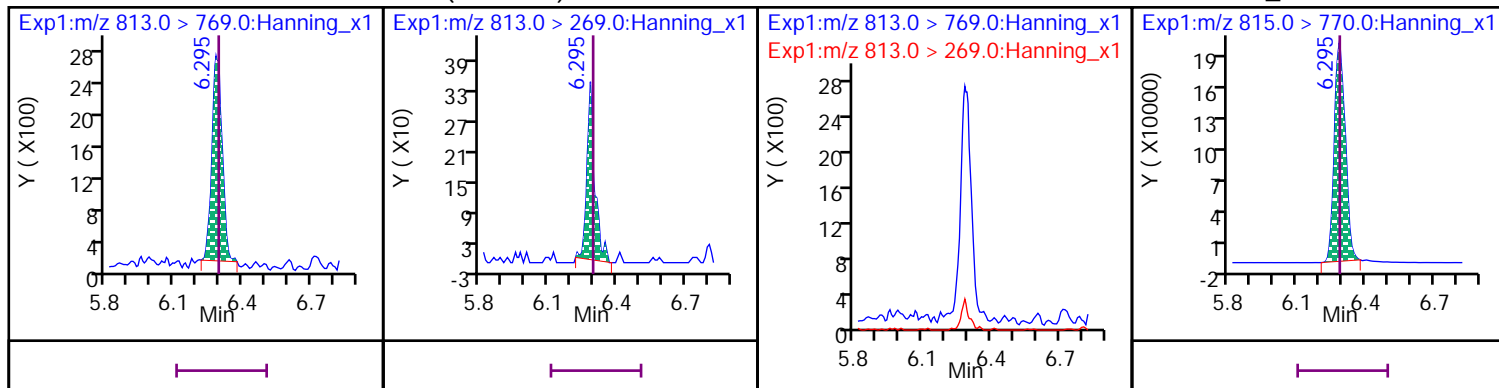
23 Perfluoro-n-tetradecanoic acid (PFTeDA) (ND)

D 42 13C2_PFTeDA



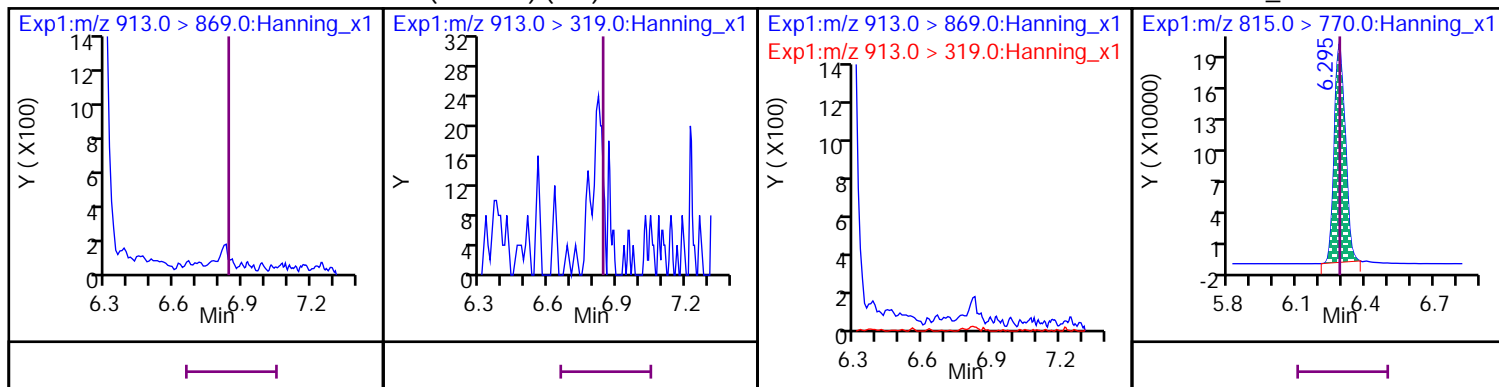
35 Perfluoro-n-hexadecanoic acid (PFHxDA)

D 40 13C2_PFHxDA



36 Perfluoro-n-octadecanoic acid (PFODA) (ND)

D 40 13C2_PFHxDA

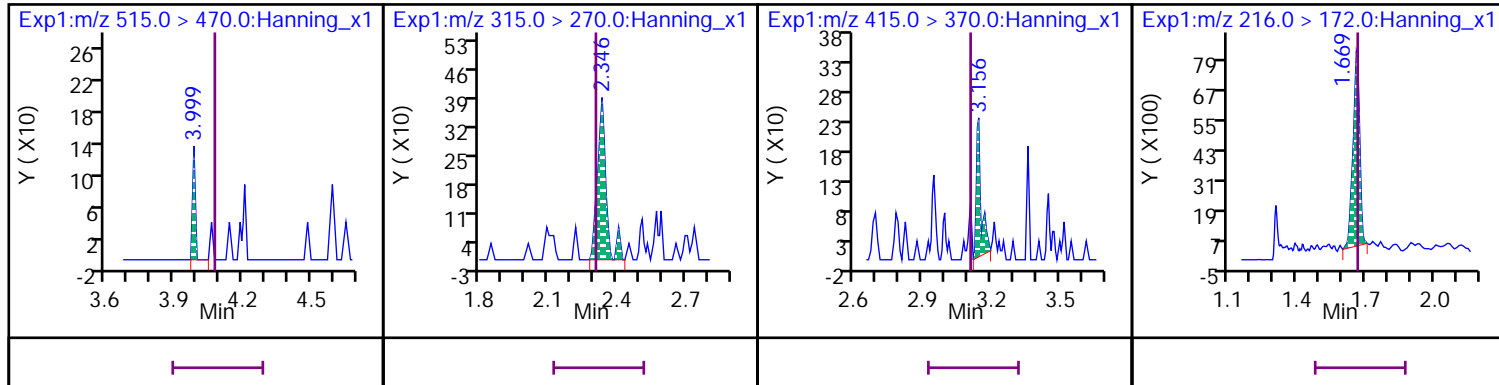


* 37 13C2_PFDA

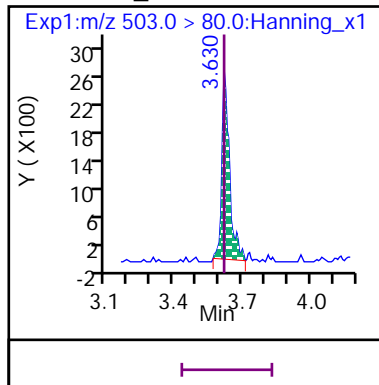
* 39 13C2_PFHxA

* 41 13C2_PFOA

* 43 13C3_PFBA



* 48 13C4_PFOS



Pace Environmental Services, LLC
Analyte Quantitation Report

Data File: \\organics\LL\LCMSMS01.i\100422-nonDOD.b\100422006.d
 Injection Date: 04-Oct-2022 11:21:46 Injection Vol: 10.0 uL
 Sample Type: INSTBLK Auto Sampler: 96
 Lab Sample ID: ID IBLK A Lab Prep. Batch:
 Sample Info: ID IBLK A Misc. Info:
 Inst. ID: LCMSMS01.i Operator: eqi.svoa
 Method: LCMSMS01_PFAS-ID2 Version: V16 30-Jun-2022 10:54:24
 Calib Method: PFAS-ID2 Lock State: Unlocked
 Quant Method: IsoDil Integrator: picker

Matrix: Aqueous
 Final Conc.: Amt * DF * CF
 Concentration Formula: $CF = (VF/1000) * 1/VI = 0.0040000$

Name	Value	Units	Description
DF	1		Dilution Factor
VF	1000	ul	Final Volume
VI	250	ml	Initial Sample Volume

IsoDil Stds %Recovery = ((Area * DF)/Opening CCV Area) * 100

Reagent: Surrogates Conc. Level: Smp Vol. Added: 0.1000 ml

Signal	Quant Std	RT (Min)	Exp RT (Min)	□ RT (Min)	Response	Peak Pts	S/N	Ion Ratio	Isomer Ratio	OnCol Conc ng/L	Final Conc ng/L	%Rec	Flags
D 46 13C4_PFBFA													
217 > 172		1.668	1.674	0.000	2859702	20	>100:1			10000	2512.84	115.1	
8 Perfluoro-n-butanoic acid (PFBA)													U
212.9 > 168.9	46		1.674		ND								
D 50 13C5_PFPeA													
267.9 > 223		1.990	1.990	0.000	1828173	16	>100:1			10000	2407.45	110.4	
21 Perfluoro-n-pentanoic acid (PFPeA)													U
262.9 > 218.9	50		1.990		ND								
D 44 13C3_PFBFS													
302 > 80		2.040	2.041	0.000	777164	16	>100:1			10000	2557.94	113.1	
7 Perfluoro-1-butanesulfonate (PFBS)													U
298.9 > 80	44		2.041		ND								
22 Perfluoro-1-pentanesulfonic acid (PFPeS)													U
349 > 80	44		2.365		ND								
D 63 13C2_4:2 FTS_2													
329 > 81		2.300	2.301	0.000	672559	19	>100:1			50000	15091	130.5	
1 Fluorotelomer sulfonate 4:2 [1H,1H,2H,2H-perfluorohexane sulfonate] (4:2 FTS)													U
327 > 307	63		2.301		ND								
D 49 13C5_PFHxA													
318 > 273		2.337	2.337	0.000	1969659	18	>100:1			10000	2348.87	118.2	
15 Perfluoro-n-hexanoic acid (PFHxA)													U
313 > 269	49		2.337		ND								
D 66 13C3_GenX													
287 > 185		2.465	2.456	0.000	1582115	19	>100:1			50000	10806	105.5	M
28 Hexafluoropropylene oxide dimer acid (GenX)													U
285 > 119	66		2.456		ND								
D 47 13C4_PFHpA													
367 > 322		2.744	2.744	0.000	1685496	18	>100:1			10000	2316.24	114.5	
13 Perfluoro-n-heptanoic acid (PFHpA)													U
363 > 319	47		2.744		ND								
D 45 13C3_PFHxS													
402 > 80		2.754	2.754	0.000	556934	17	>100:1			10000	2765.34	126.7	

Signal	Quant Std	RT (Min)	Exp RT (Min)	□ RT (Min)	Response	Peak Pts	S/N	Ion Ratio	Isomer Ratio	OnCol Conc ng/L	Final Conc ng/L	%Rec	Flags
14 Perfluorohexanesulfonate (PFHxS) CAS: 355-46-4													U
399 > 80	45		2.754		ND								
29 4,8-dioxa-3H-perfluorononanoic acid (ADONA) CAS: 919005-14-4													U
377 > 251	45		2.784		ND								
12 Perfluoro-1-heptanesulfonic acid (PFHpS) CAS: 375-92-8													U
449 > 80	45		3.212		ND								
D 64 13C2_6:2 FTS_2 CAS: SESI-0105													
429 > 81		3.167	3.168	0.000	466450	26	>100:1			50000	15240	123.4	
2 Fluorotelomer sulfonate 6:2 [1H,1H,2H,2H-perfluorooctane sulfonate] (6:2 FTS) CAS: 27619-97-2													U
427 > 407	64		3.168		ND								
D 53 13C8_PFOA CAS: SESI-0097													
421 > 376		3.203	3.198	0.000	1588908	24	>100:1			10000	2311.13	118	
20 Perfluoro-n-octanoic acid (PFOA) CAS: 335-67-1													U
413 > 369	53		3.198		ND								
D 56 13C9_PFNA CAS: SESI-0099													
472 > 427		3.704	3.704	0.000	1776924	26	>100:1			10000	2521.23	112.9	
17 Perfluoro-n-nonanoic acid (PFNA) CAS: 375-95-1													U
463 > 419	56		3.704		ND								
D 54 13C8_PFOS CAS: SESI-0098													
507 > 80		3.704	3.697	0.000	659202	23	>100:1			10000	2595.28	133	
18 Perfluorooctanesulfonate (PFOS) CAS: 1763-23-1													U
499 > 80	54		3.711		ND								
30 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS) CAS: 756426-58-1													U
531 > 351	54		3.993		ND								
16 Perfluoro-1-nonanesulfonic acid (PFNS) CAS: 68259-12-1													U
549 > 80	54		4.183		ND								
9 Perfluoro-1-decanesulfonic acid (PFDS) CAS: 335-77-3													U
599 > 80	54		4.641		ND								
31 11-chloroeicosafuoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS) CAS: 763051-92-9													U
631 > 451	54		4.888		ND								
34 Perfluorododecanesulfonic acid (PFDOS) CAS: 79780-39-5													U
699 > 80	54		5.425		ND								
D 55 13C8_PFOSA CAS: SESI-0107													
506 > 78		4.042	4.042	0.000	1157002	29	>100:1			10000	2686.96	126.7	M
19 Perfluoro-1-octanesulfonamide (PFOSA) CAS: 754-91-6													U
498 > 78	55		4.042		ND								
D 65 13C2_8:2 FTS_2 CAS: SESI-0106													
529 > 81		4.183	4.183	0.000	427399	25	>100:1			50000	13063	129.8	
3 Fluorotelomer sulfonate 8:2 [1H,1H,2H,2H-perfluorodecane sulfonate] (8:2 FTS) CAS: 39108-34-4													U
527 > 507	65		4.183		ND								
4 1H,1H,2H,2H-perfluorododecane sulfonate (10:2FTS) CAS: 120226-60-0													U
627 > 607	65		5.094		ND								
D 51 13C6_PFDA CAS: SESI-0115													
519 > 474		4.201	4.200	0.000	1343632	25	>100:1			10000	2393.34	119.8	
10 Perfluoro-n-decanoic acid (PFDA) CAS: 335-76-2													U
513 > 469	51		4.200		ND								
D 58 d3-MeFOSAA CAS: SESI-0102													
573 > 419		4.422	4.421	0.000	1968077	24	>100:1			50000	13703	134.2	
6 N-methylperfluoro-1-octanesulfonamidoacetic acid (N-MeFOSAA) CAS: 2355-31-9													U
570 > 419	58		4.429		ND								
D 60 d5-EtFOSAA CAS: SESI-0110													
589 > 419		4.661	4.661	0.000	1789323	19	>100:1			50000	14461	132.4	
5 N-ethylperfluoro-1-octanesulfonamidoacetic acid (N-EtFOSAA) CAS: 2991-50-6													U
584 > 419	60		4.661		ND								
D 52 13C7_PFUdA CAS: SESI-0117													
570 > 525		4.671	4.661	0.000	1234737	19	>100:1			10000	2509.93	118	
25 Perfluoro-n-undecanoic acid (PFUdA) CAS: 2058-94-8													U
563 > 519	52		4.661		ND								

Signal	Quant Std	RT (Min)	Exp RT (Min)	□ RT (Min)	Response	Peak Pts	S/N	Ion Ratio	Isomer Ratio	OnCol Conc ng/L	Final Conc ng/L	%Rec	Flags
D 61 d7-MeFOSE CAS: SESI-0129													
623 > 59		4.661	4.651	0.000	323026	18	>100:1			10000	2331.65	123.3	
32 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE) CAS: 24448-09-7													
616 > 59	61		4.670		ND								U
D 57 d3-MeFOSA CAS: SESI-0109													
515 > 169		4.691	4.680	0.000	139004	19	>100:1			10000	2430.43	148.6	
26 N-methylperfluoro-1-octanesulfonamide (MeFOSA) CAS: 31506-32-8													
512 > 169	57		4.690		ND								U
D 62 d9-EtFOSE CAS: SESI-0130													
639 > 59		4.917	4.902	0.000	316009	24	>100:1			10000	2396.29	133.6	
33 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE) CAS: 1691-99-2													
630 > 59	62		4.924		ND								U
D 59 d5-EtFOFA CAS: SESI-0108													
531 > 169		4.948	4.938	0.000	155986	20	>100:1			10000	2997.88	139.7	
27 N-ethylperfluoro-1-octanesulfonamide (EtFOFA) CAS: 4151-50-2													
526 > 169	59		4.946		ND								U
D 38 13C2_PFDaA CAS: SESI-0118													
615 > 570		5.086	5.085	0.000	1254332	19	>100:1			10000	2467.13	121.5	
11 Perfluoro-n-dodecanoic acid (PFDaA) CAS: 307-55-1													
613 > 569	38		5.085		ND								U
24 Perfluoro-n-tridecanoic acid (PFTrDA) CAS: 72629-94-8													
663 > 619	38		5.456		ND								U
D 42 13C2_PFTeDA CAS: SESI-0119													
715 > 670		5.800	5.794	0.000	1351249	38	>100:1			10000	2366.08	117.8	
23 Perfluoro-n-tetradecanoic acid (PFTeDA) CAS: 376-06-7													
713 > 669	42		5.794		ND								U
D 40 13C2_PFHxDA CAS: SESI-0103													
815 > 770		6.405	6.395	0.000	707475	39	>100:1			10000	2442.54	131.2	
35 Perfluoro-n-hexadecanoic acid (PFHxDA) CAS: 67905-19-5													
813 > 769	40	6.420	6.400	0.000	8687	25	36:1	Target = 9.44		96.712	0.38685		M
813 > 269	40	6.410	6.400		946	44	64:1	9.18 (4.72-14.16)					
36 Perfluoro-n-octadecanoic acid (PFODA) CAS: 16517-11-6													
913 > 869	40		6.957		ND								U
* 37 13C2_PFDA													
515 > 470		4.201	4.183	0.000	91	13	0.586:1			0			
* 39 13C2_PFHxA CAS: SESI-0120													
315 > 270		2.355	2.337	0.000	880	23	11:1			0			
* 41 13C2_PFOA CAS: 864071-08-9													
415 > 370		3.220	3.212	0.000	387	11	5.5:1			0			
* 43 13C3_PFBA													
216 > 172		1.668	1.674	0.000	14987	17	69:1			0			
* 48 13C4_PFOS CAS: 2795-39-3													
503 > 80		3.704	3.677	0.000	6611	27	64:1			0			

Compound Type Legend

D - Isotopic Dilution Std.

* - ISTD

QC Flag Legend

U - Result Less Than Method Detection Limit

M - Compound Hit/Peak Manually Integrated

Data File: \\organics\LL\LCMSMS01.i\100422-nonDOD.b\100422006.d

Injection Date: 04-Oct-2022 11:21:46

Inst. ID: LCMSMS01.i

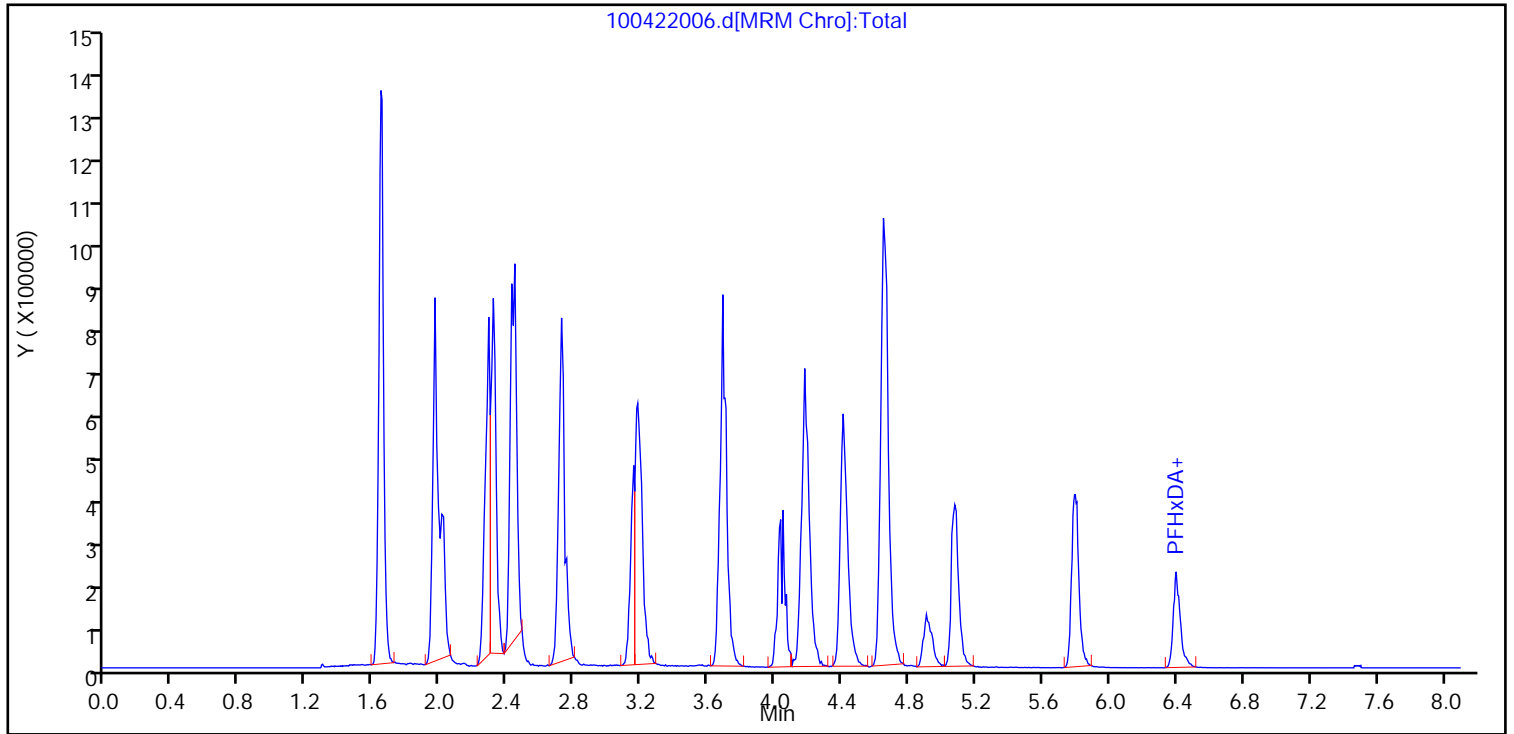
Client ID:

Lab ID: ID IBLK A

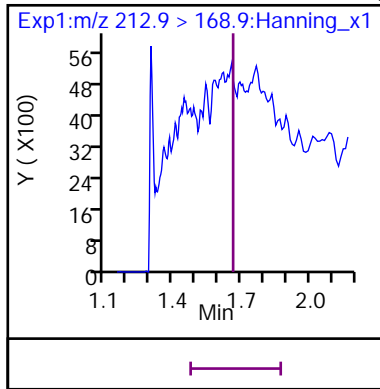
Sample Info: ID IBLK A

Dil. Factor: 1

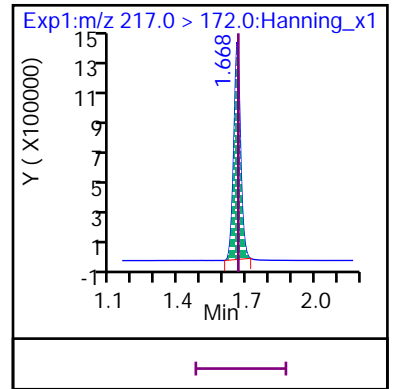
Operator: eqi.svoa



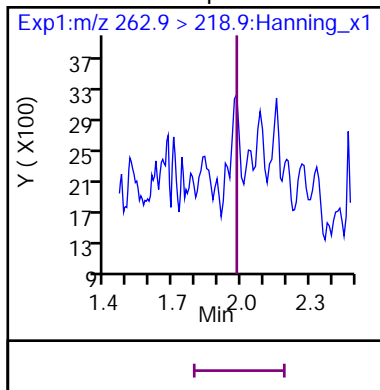
8 Perfluoro-n-butanoic acid (PFBA) (ND)



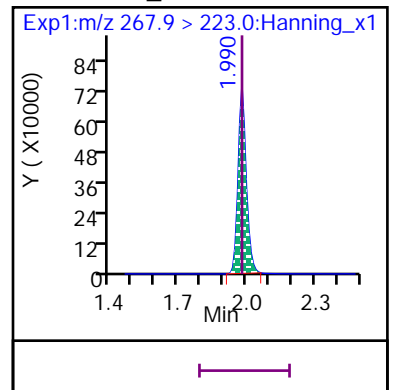
D 46 13C4_PFBA



21 Perfluoro-n-pentanoic acid (PFPeA) (Marked ND)

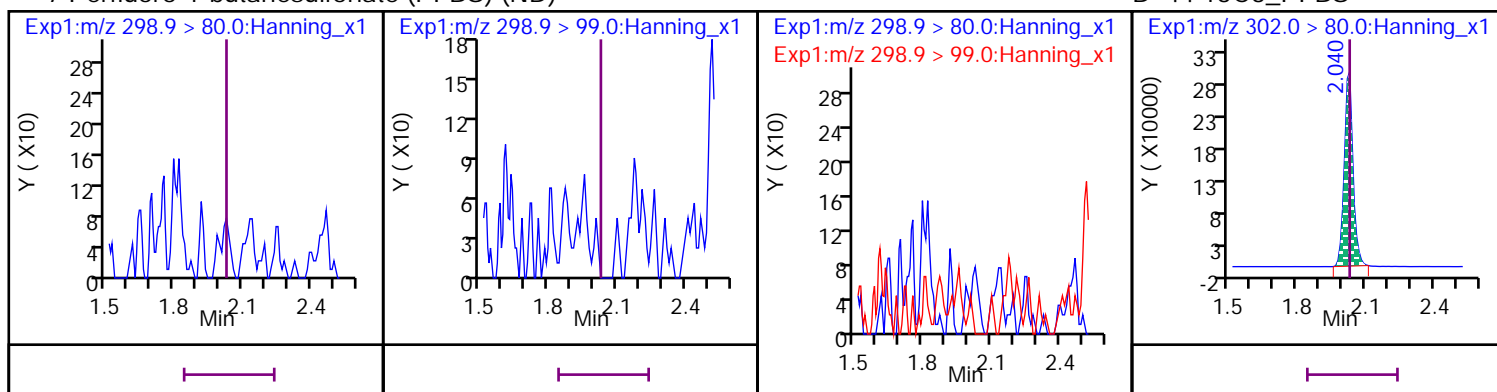


D 50 13C5_PFPeA

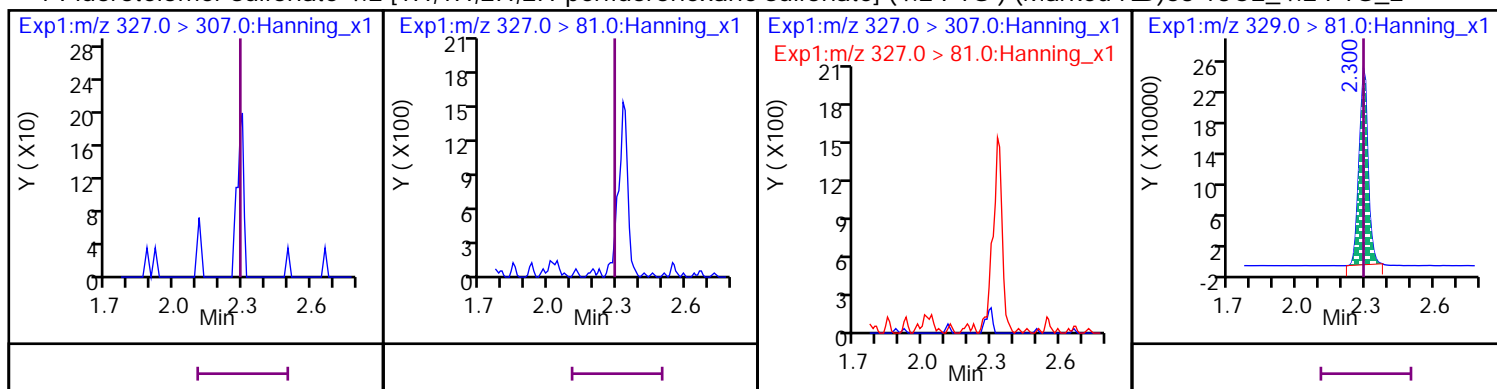


7 Perfluoro-1-butanesulfonate (PFBS) (ND)

D 44 13C3_PFBS

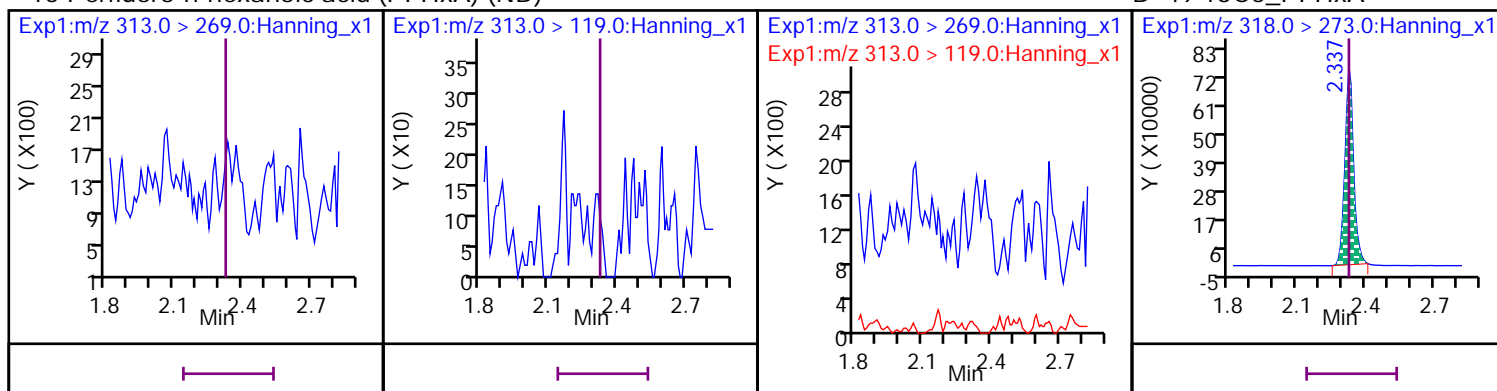
1 Fluorotelomer sulfonate 4:2 [1H,1H,2H,2H-perfluorohexane sulfonate] (4:2 FTS) (Marked **ND**)

63 13C2_4:2 FTS_2



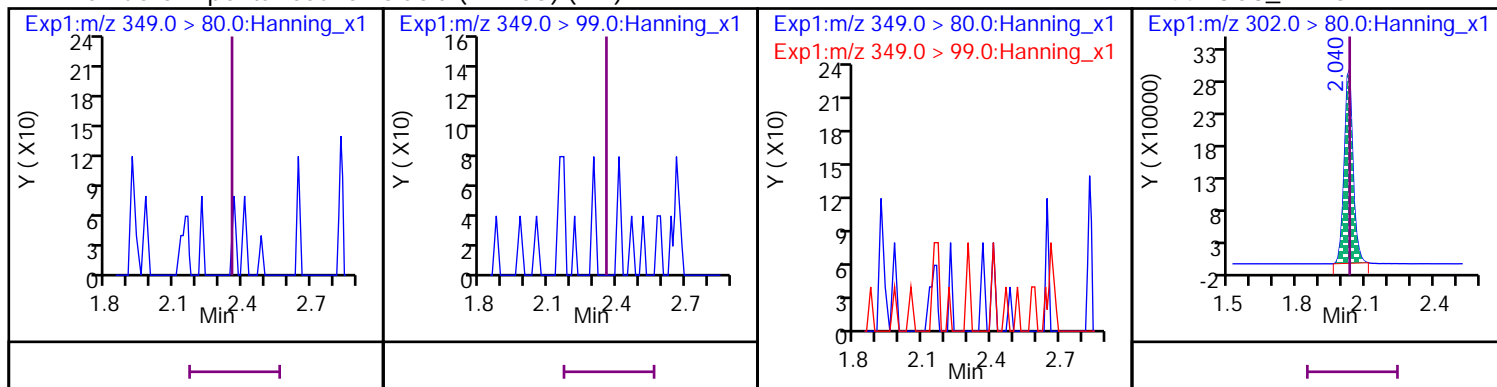
15 Perfluoro-n-hexanoic acid (PFHxA) (ND)

D 49 13C5_PFHxA



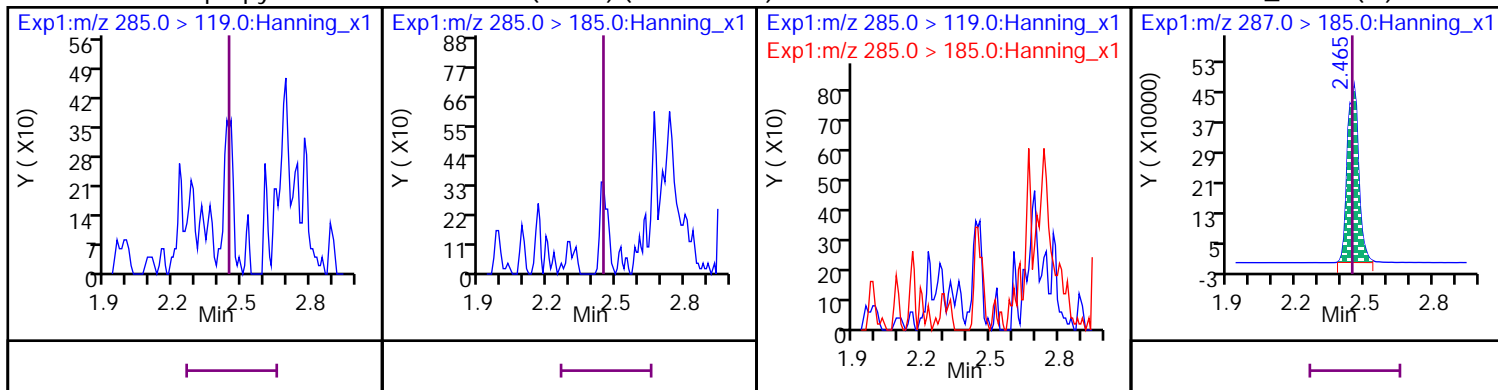
22 Perfluoro-1-pentanesulfonic acid (PFPeS) (ND)

D 44 13C3_PFBS



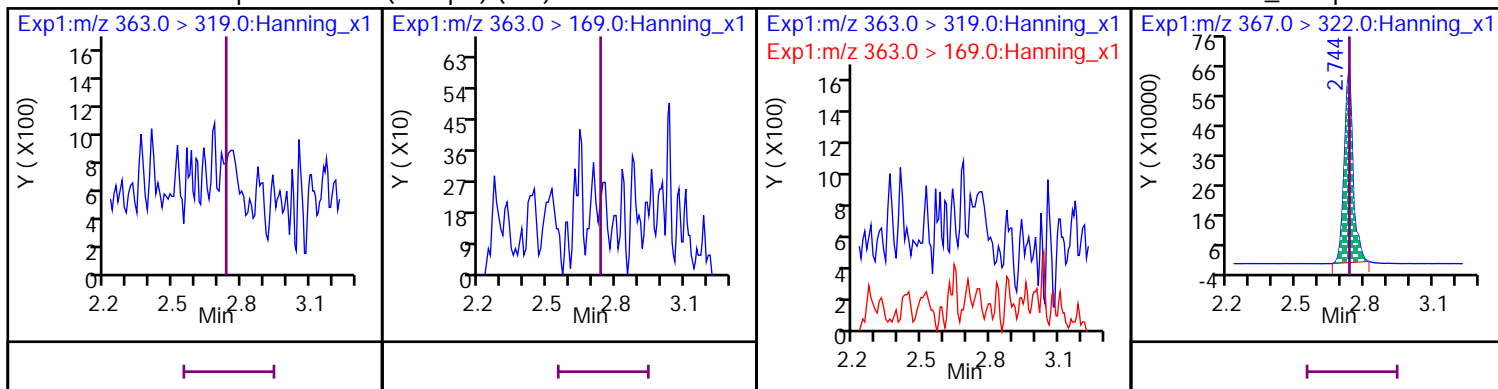
28 Hexafluoropropylene oxide dimer acid (GenX) (Marked ND)

D 66 13C3_GenX (M)



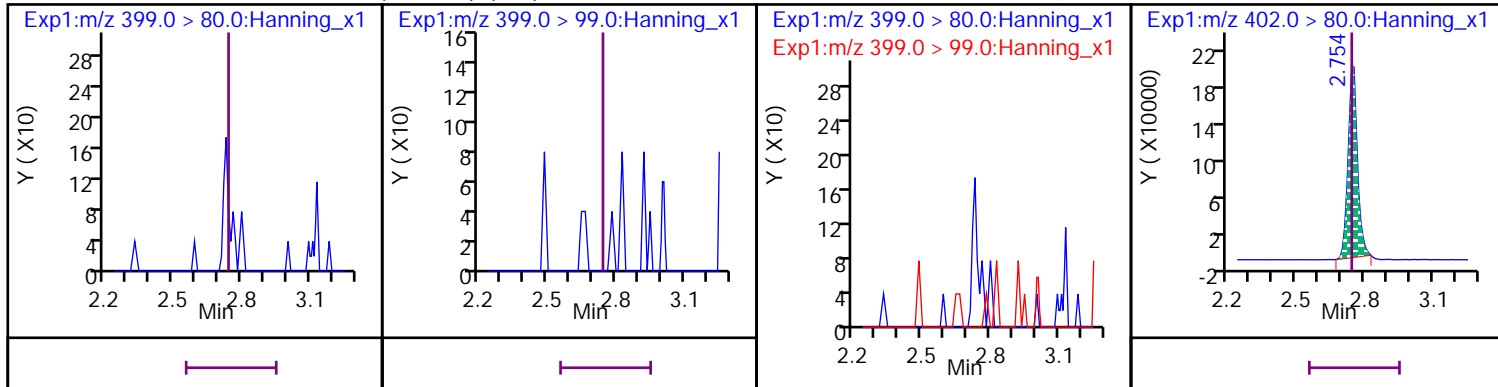
13 Perfluoro-n-heptanoic acid (PFHpA) (ND)

D 47 13C4_PFHpA



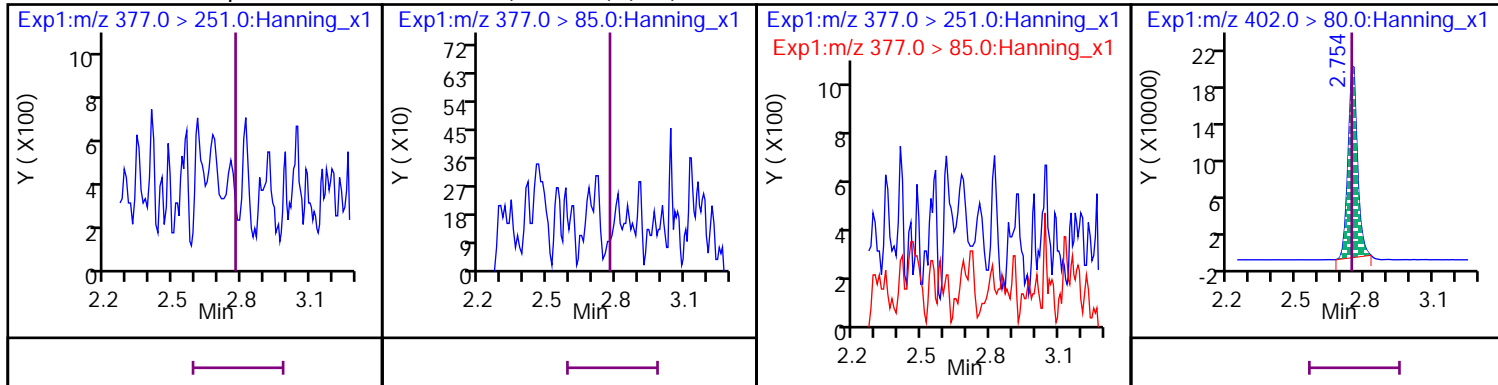
14 Perfluorohexanesulfonate (PFHxS) (ND)

D 45 13C3_PFHxS

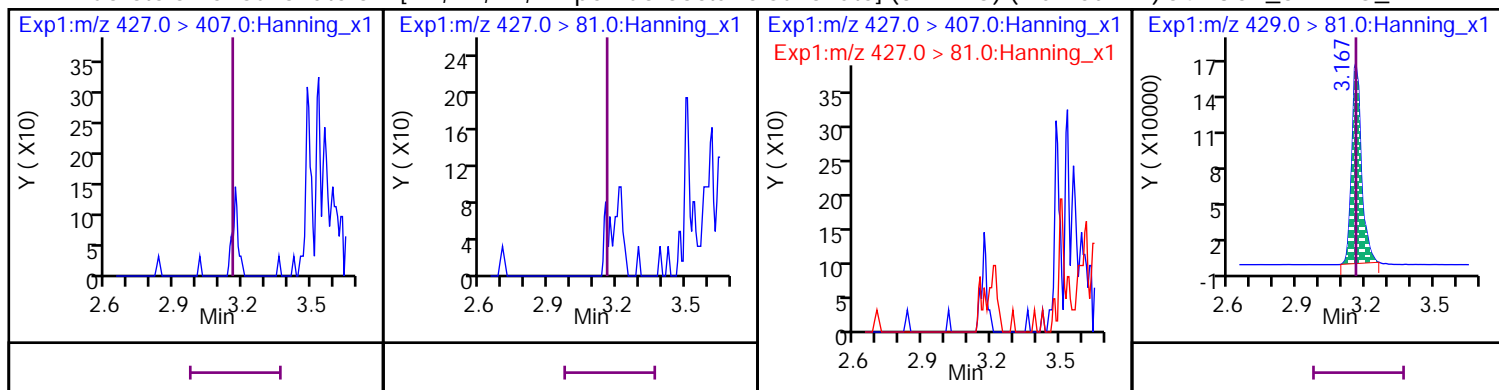


29 4,8-dioxa-3H-perfluorononanoic acid (ADONA) (ND)

D 45 13C3_PFHxS

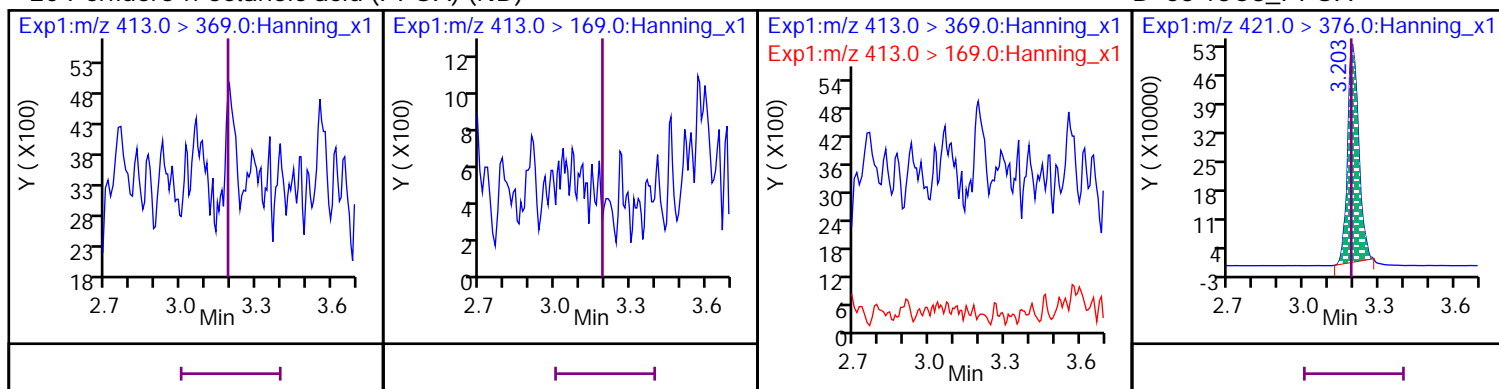


2 Fluorotelomer sulfonate 6:2 [1H,1H,2H,2H-perfluorooctane sulfonate] (6:2 FTS) (Marked ND) 64 13C2_6:2 FTS_2



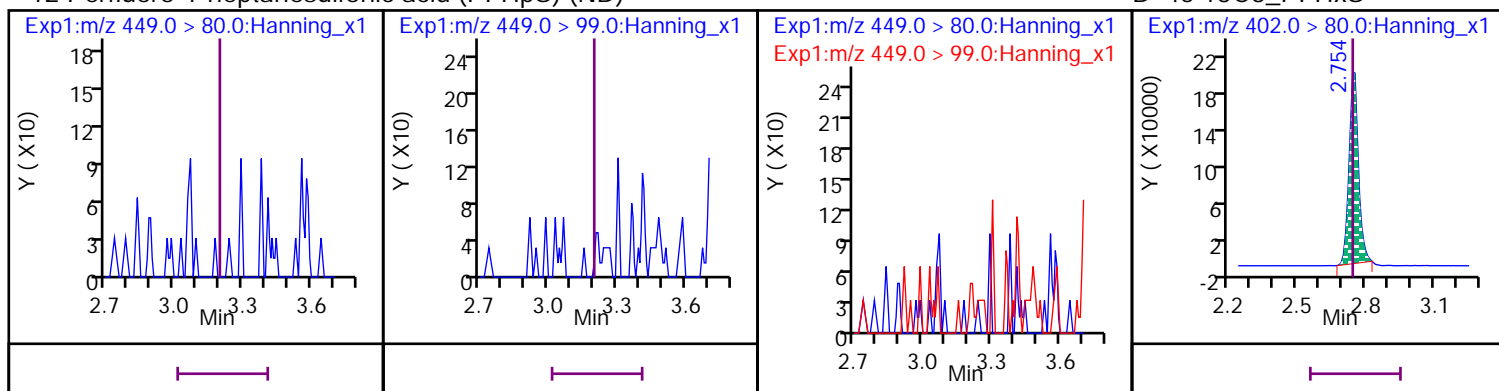
20 Perfluoro-n-octanoic acid (PFOA) (ND)

D 53 13C8_PFOA



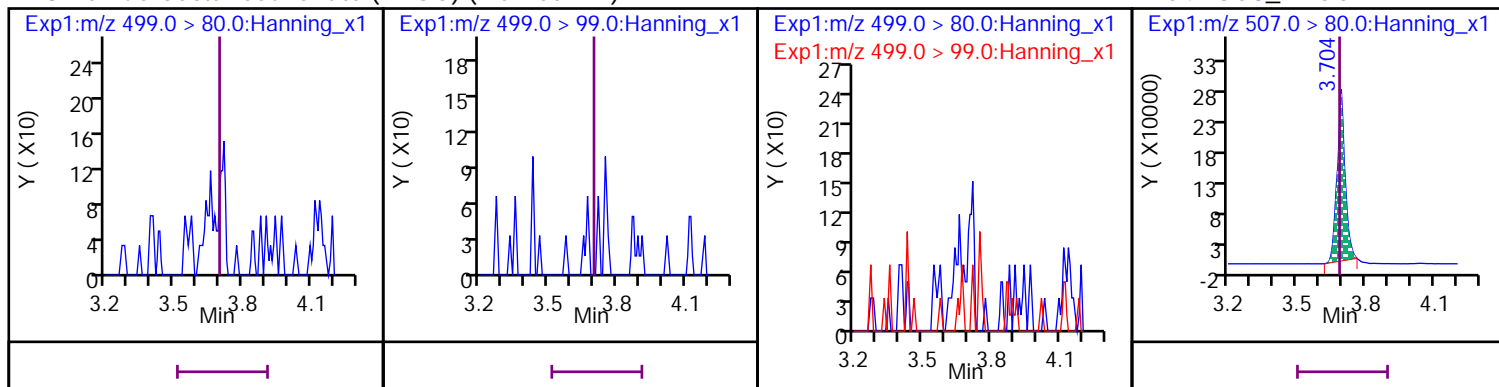
12 Perfluoro-1-heptanesulfonic acid (PFHpS) (ND)

D 45 13C3_PFHxS



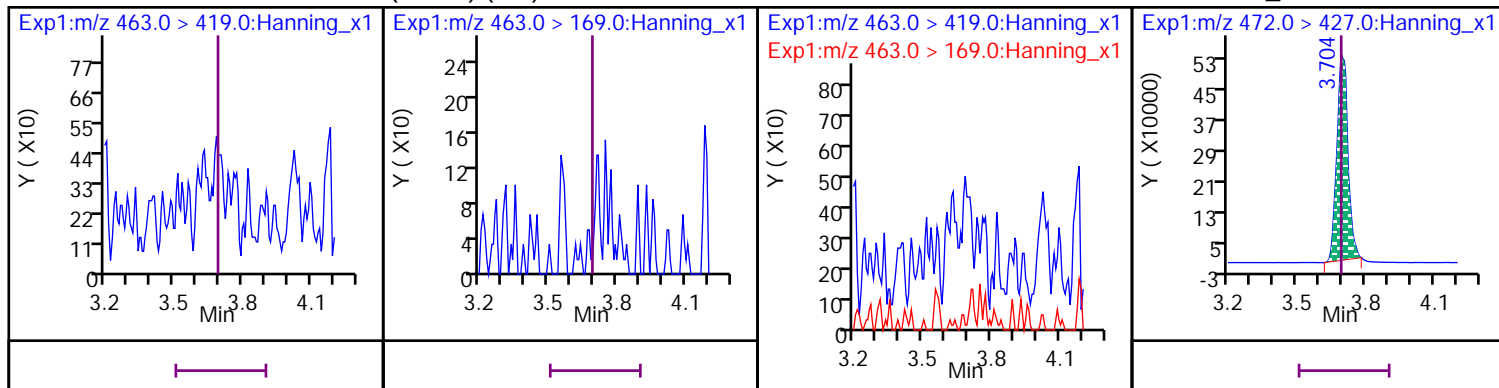
18 Perfluorooctanesulfonate (PFOS) (Marked ND)

D 54 13C8_PFOS



17 Perfluoro-n-nonanoic acid (PFNA) (ND)

D 56 13C9_PFNA



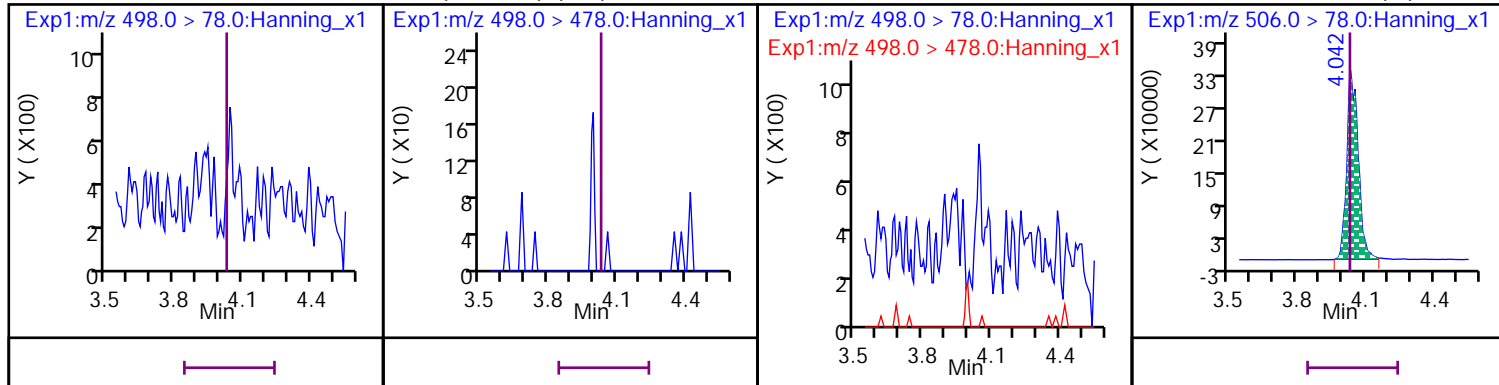
30 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS) (ND)

D 54 13C8_PFOS



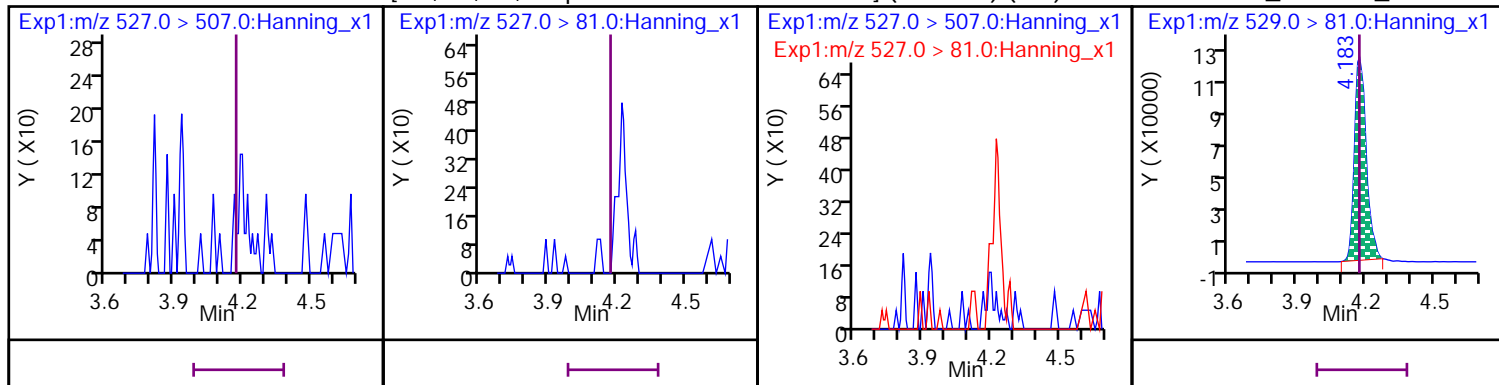
19 Perfluoro-1-octanesulfonamide (PFOSA) (ND)

D 55 13C8_PFOSA (M)



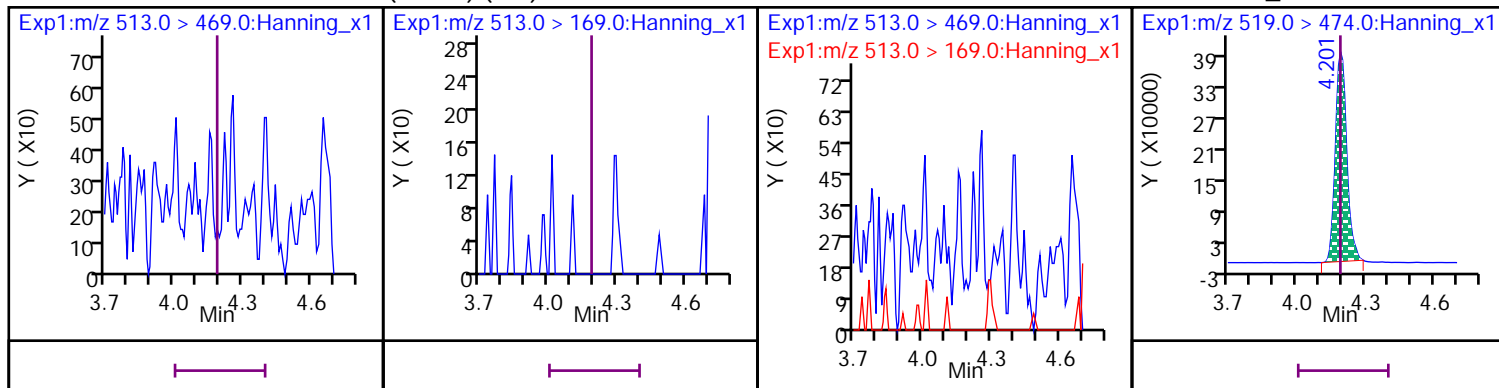
3 Fluorotelomer sulfonate 8:2 [1H,1H,2H,2H-perfluorodecane sulfonate] (8:2 FTS) (ND)

D 65 13C2_8:2 FTS_2



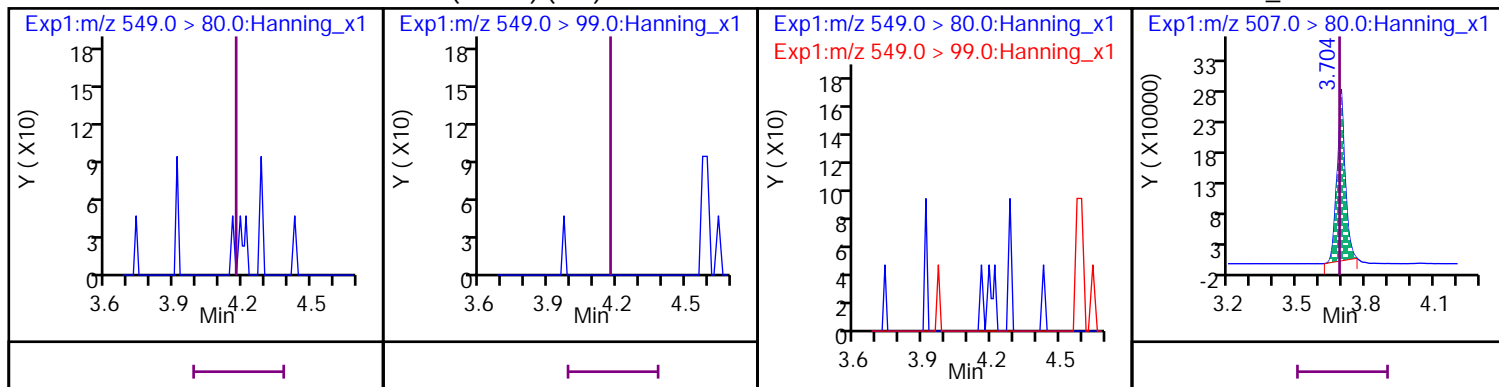
10 Perfluoro-n-decanoic acid (PFDA) (ND)

D 51 13C6_PFDA



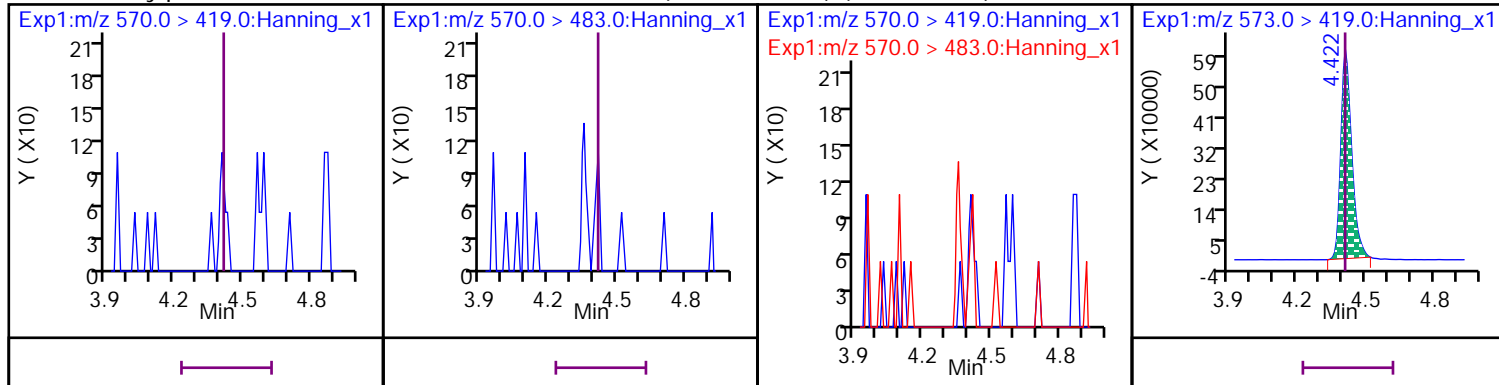
16 Perfluoro-1-nonanesulfonic acid (PFNS) (ND)

D 54 13C8_PFOS



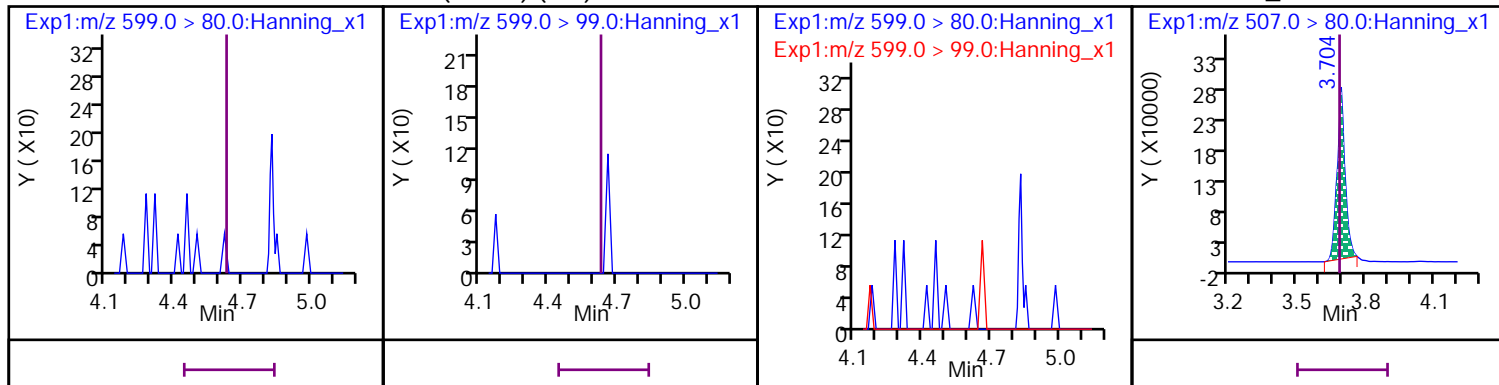
6 N-methylperfluoro-1-octanesulfonamidoacetic acid (N-MeFOSAA) (Marked ND)

D 58 d3-MeFOSAA



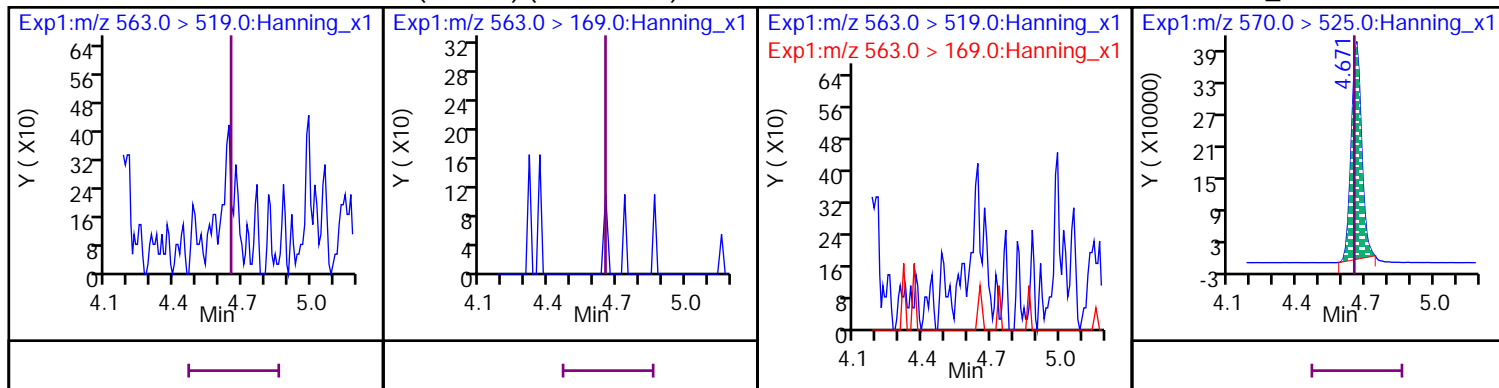
9 Perfluoro-1-decanesulfonic acid (PFDS) (ND)

D 54 13C8_PFOS



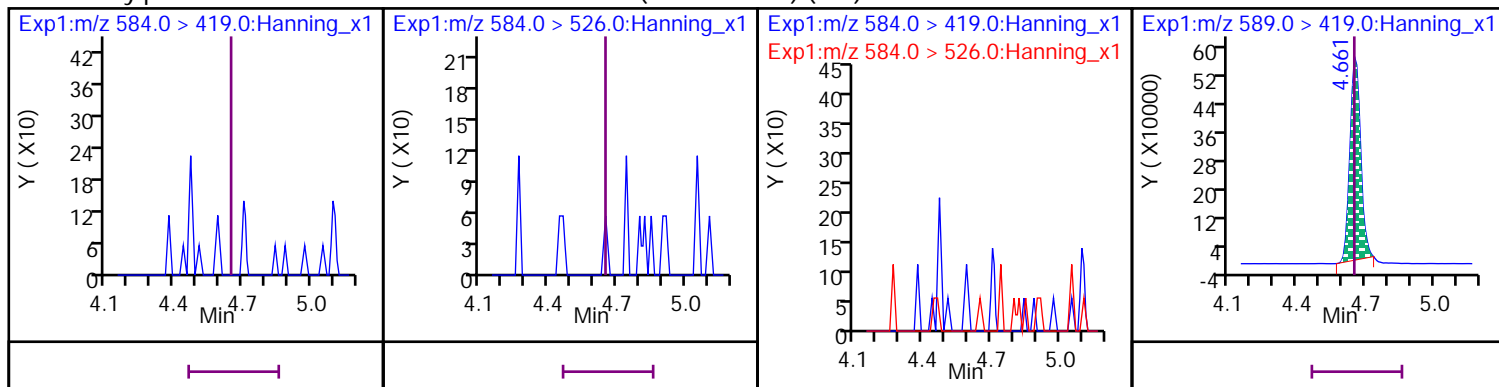
25 Perfluoro-n-undecanoic acid (PFUdA) (Marked ND)

D 52 13C7_PFUdA



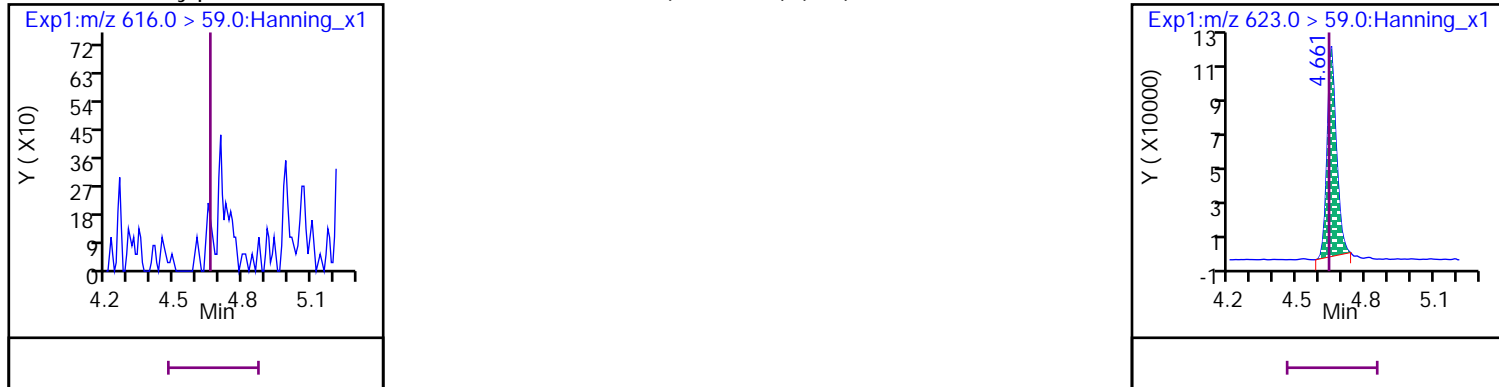
5 N-ethylperfluoro-1-octanesulfonamidoacetic acid (N-EtFOSAA) (ND)

D 60 d5-EtFOSAA



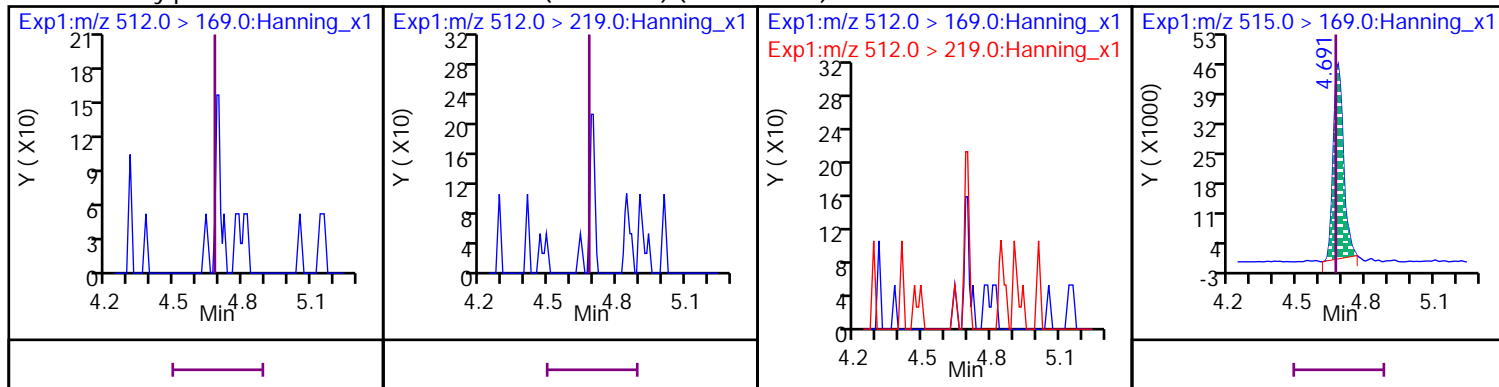
32 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE) (ND)

D 61 d7-MeFOSE

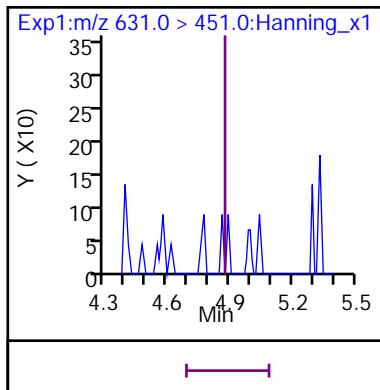


26 N-methylperfluoro-1-octanesulfonamide (MeFOSA) (Marked ND)

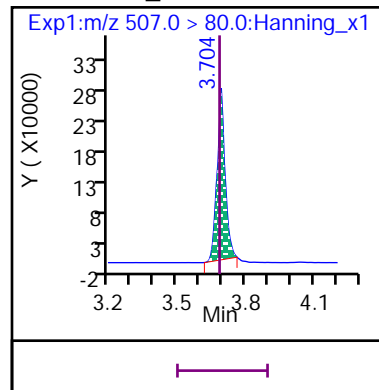
D 57 d3-MeFOSA



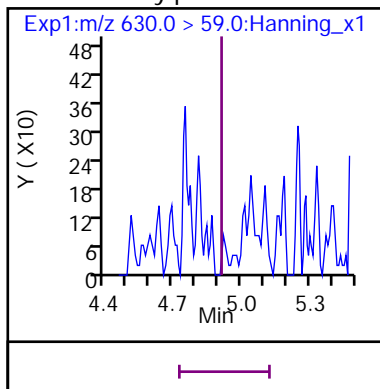
31 11-chloroeicosafuoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS) (ND)



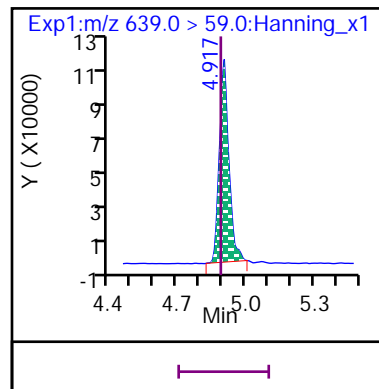
D 54 13C8_PFOS



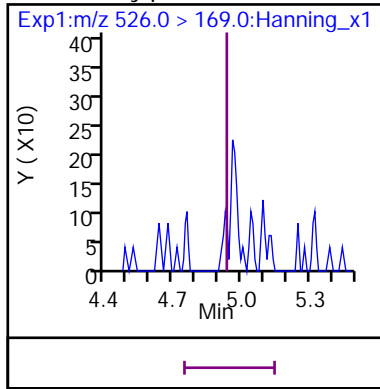
33 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE) (Marked ND)



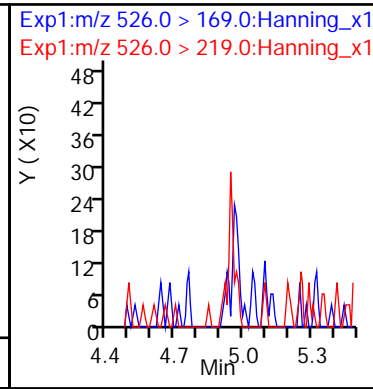
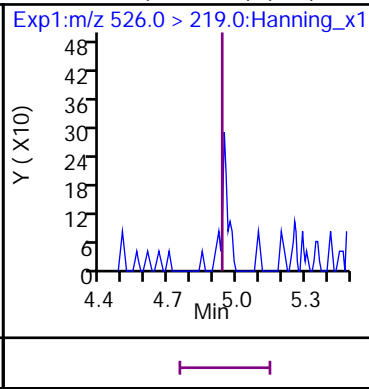
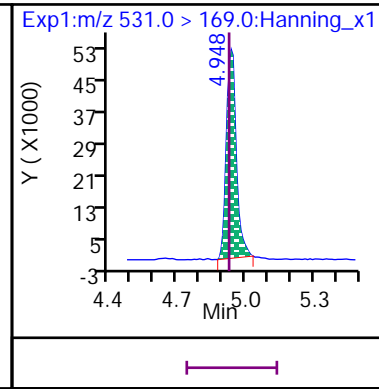
D 62 d9-EtFOSE



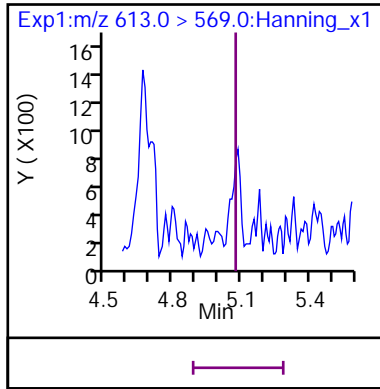
27 N-ethylperfluoro-1-octanesulfonamide (EtFOSA) (ND)



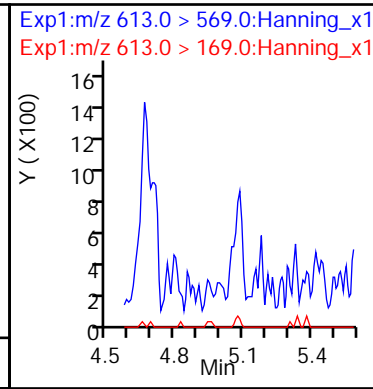
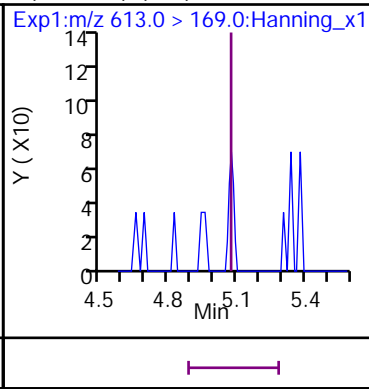
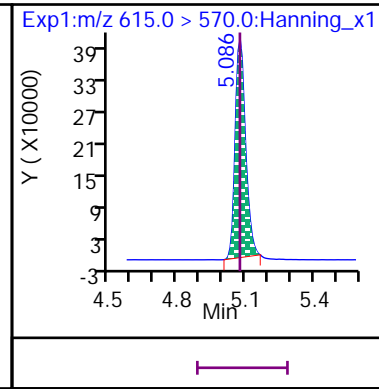
D 59 d5-EtFOSA



11 Perfluoro-n-dodecanoic acid (PFDoA) (ND)

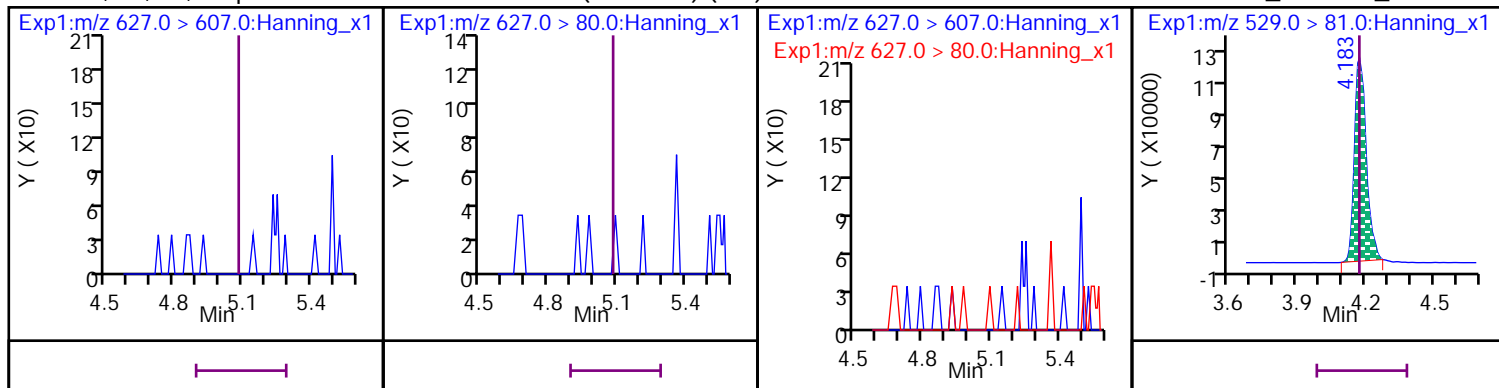


D 38 13C2_PFDoA



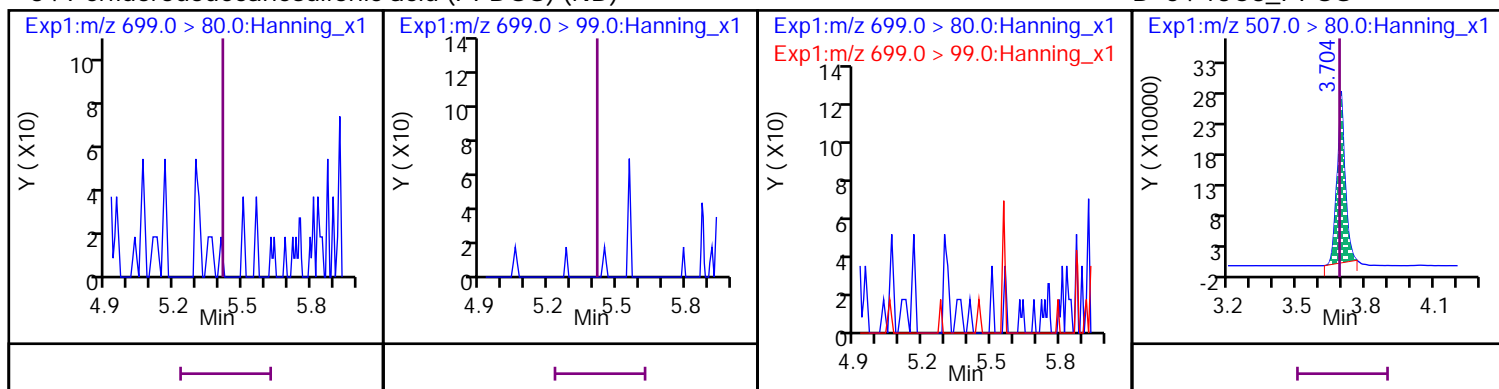
4 1H,1H,2H,2H-perfluorododecane sulfonate (10:2FTS) (ND)

D 65 13C2_8:2 FTS_2



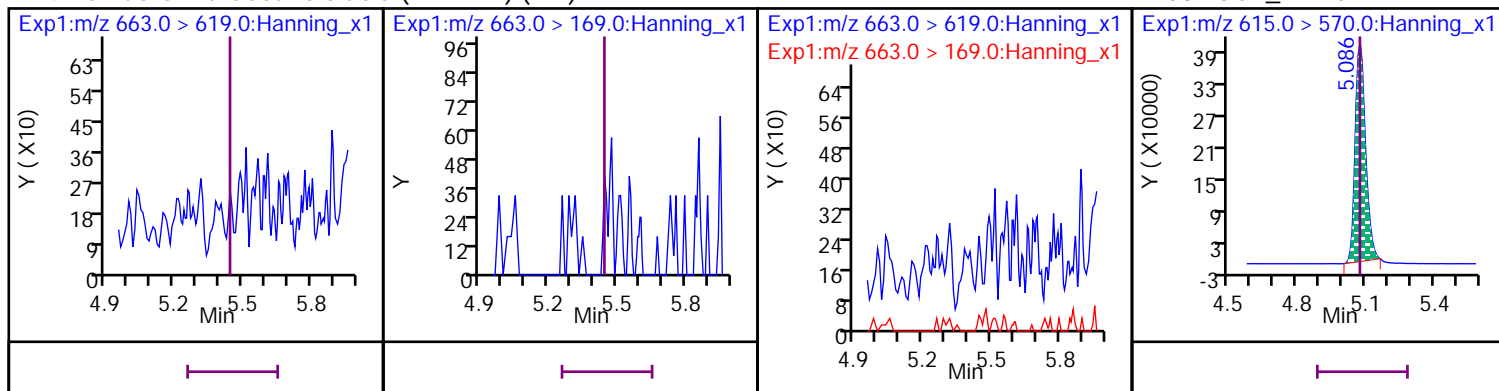
34 Perfluorododecanesulfonic acid (PFDOS) (ND)

D 54 13C8_PFOS



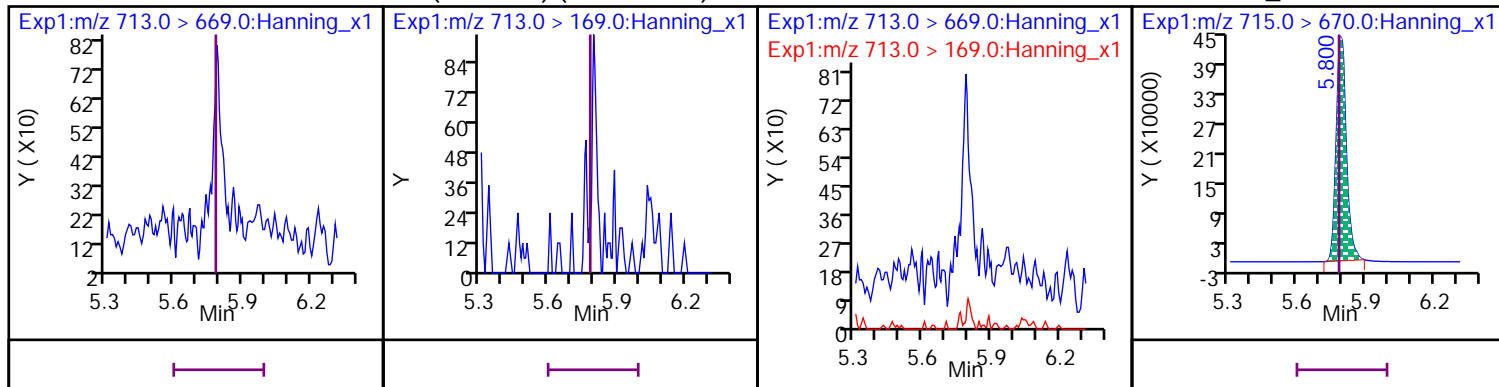
24 Perfluoro-n-tridecanoic acid (PFTTrDA) (ND)

D 38 13C2_PFDaA



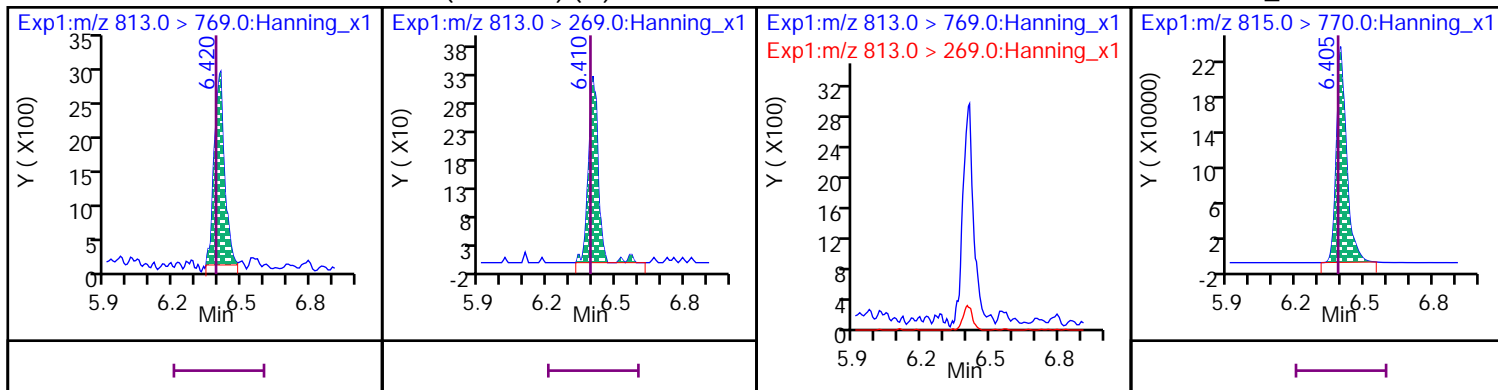
23 Perfluoro-n-tetradecanoic acid (PFTTeDA) (Marked ND)

D 42 13C2_PFTeDA



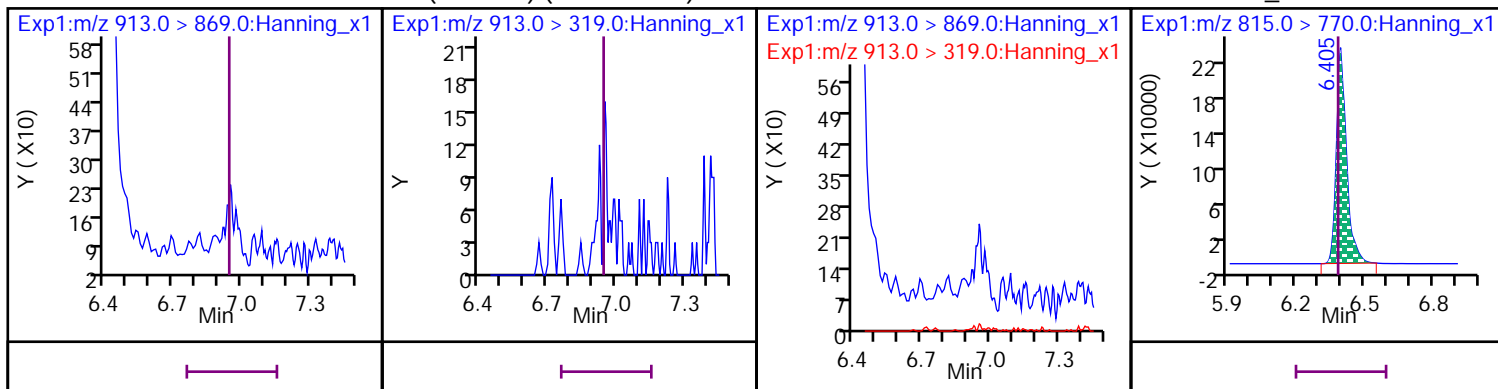
35 Perfluoro-n-hexadecanoic acid (PFHxDA) (M)

D 40 13C2_PFHxDA



36 Perfluoro-n-octadecanoic acid (PFODA) (Marked ND)

D 40 13C2_PFHxDA

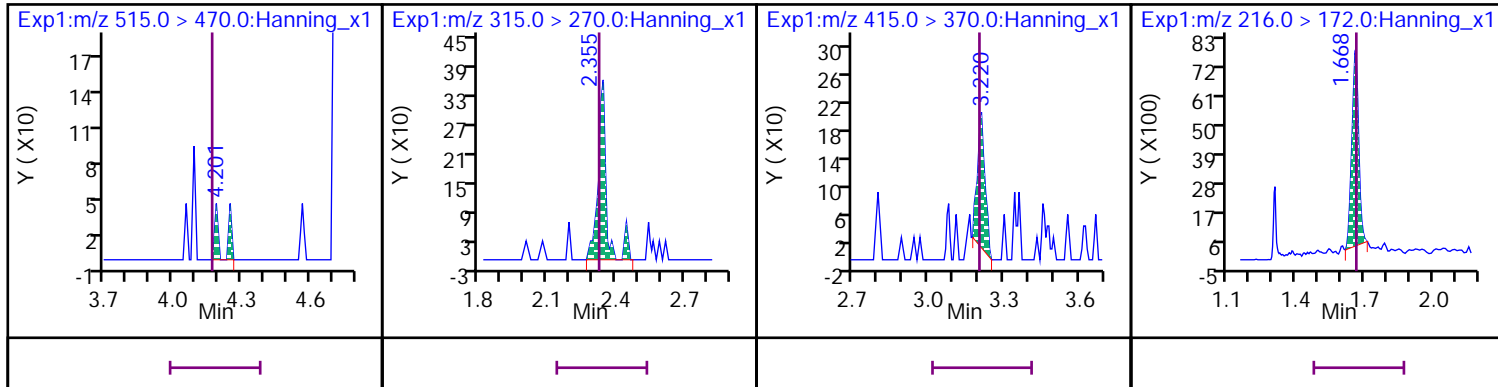


* 37 13C2_PFDA

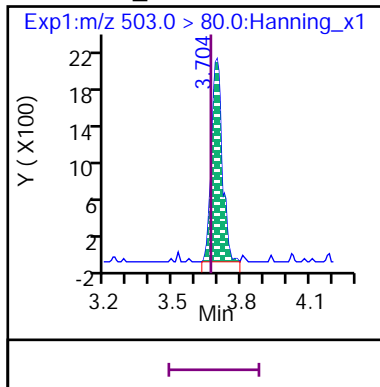
* 39 13C2_PFHxA

* 41 13C2_PFOA

* 43 13C3_PFBA



* 48 13C4_PFOS



Manual Integration Report

Data File: \\organics\LL\LCMSMS01.i\100422-nonDOD.b\100422006.d

Injection Date: 04-Oct-2022 11:21:46

Inst. ID: LCMSMS01.i

Client ID:

Lab ID: ID IBLK A

Sample Info: ID IBLK A

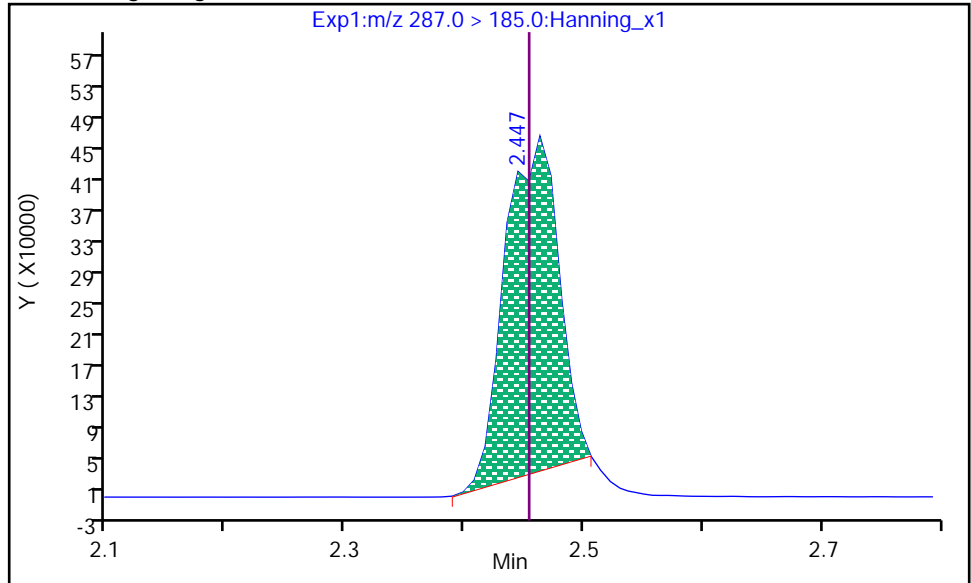
Dil. Factor: 1

Operator: eqi.svoa

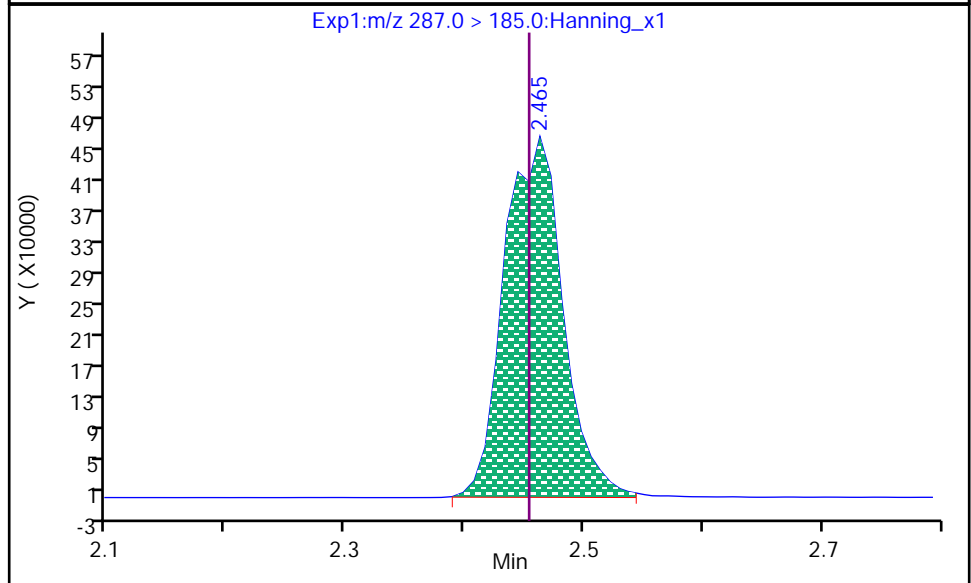
D 66 13C3_GenX, CAS: SESI-0121

Processing Integration Results

RT: 2.447
Area: 1352408
Conc: 9237.15
Conc Units: ng/L



RT: 2.465
Area: 1582115
Conc: 10806
Conc Units: ng/L



Data Editor: andy.marshall, 04-Oct-2022 11:51:15

Audit Action: Mint

Audit Reason: M-03, Incorrect Auto Integration

Manual Integration Report

Data File: \\organics\LL\LCMSMS01.i\100422-nonDOD.b\100422006.d

Injection Date: 04-Oct-2022 11:21:46

Inst. ID: LCMSMS01.i

Client ID:

Lab ID: ID IBLK A

Sample Info: ID IBLK A

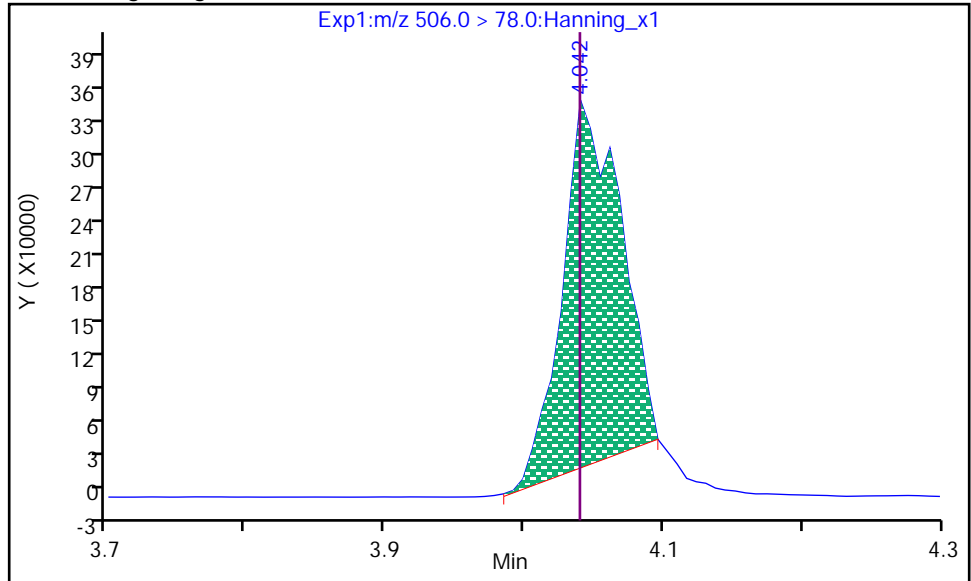
Dil. Factor: 1

Operator: eqi.svoa

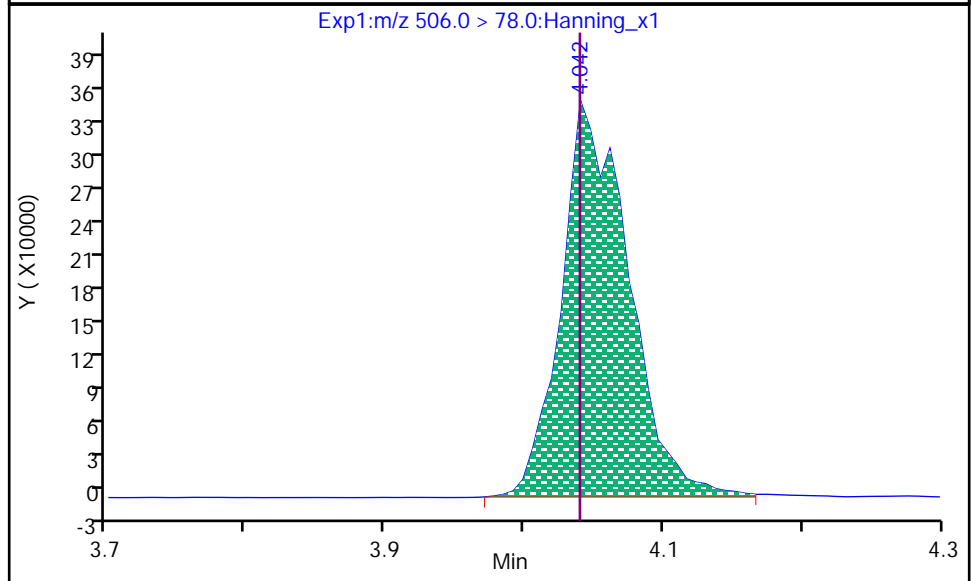
D 55 13C8_PFOSA, CAS: SESI-0107

Processing Integration Results

RT: 4.042
Area: 926817
Conc: 2152.39
Conc Units: ng/L



RT: 4.042
Area: 1157002
Conc: 2686.96
Conc Units: ng/L



Data Editor: andy.marshall, 04-Oct-2022 11:51:30

Audit Action: Mint

Audit Reason: M-03, Incorrect Auto Integration

Manual Integration Report

Data File: \\organics\LL\LCMSMS01.i\100422-nonDOD.b\100422006.d

Injection Date: 04-Oct-2022 11:21:46

Inst. ID: LCMSMS01.i

Client ID:

Lab ID: ID IBLK A

Sample Info: ID IBLK A

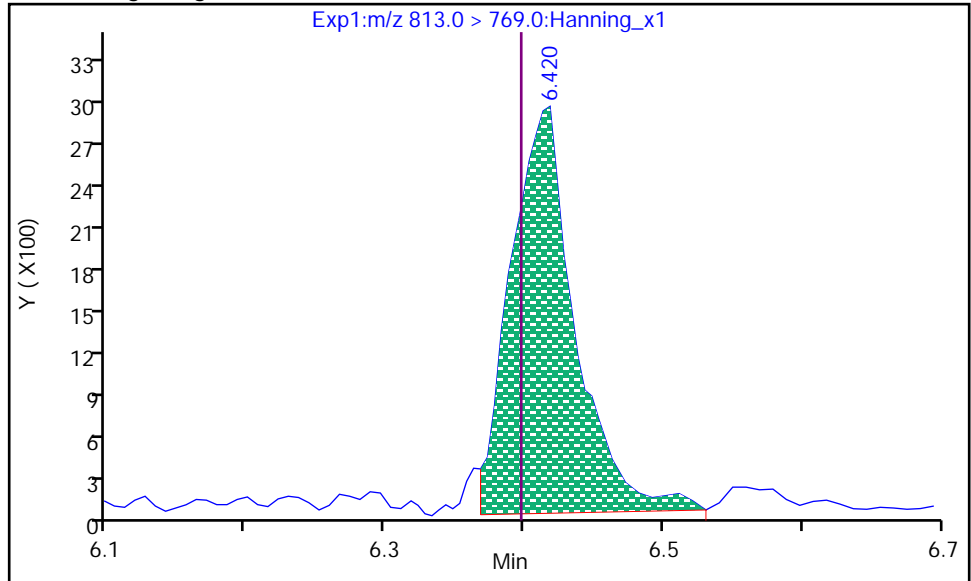
Dil. Factor: 1

Operator: eqi.svoa

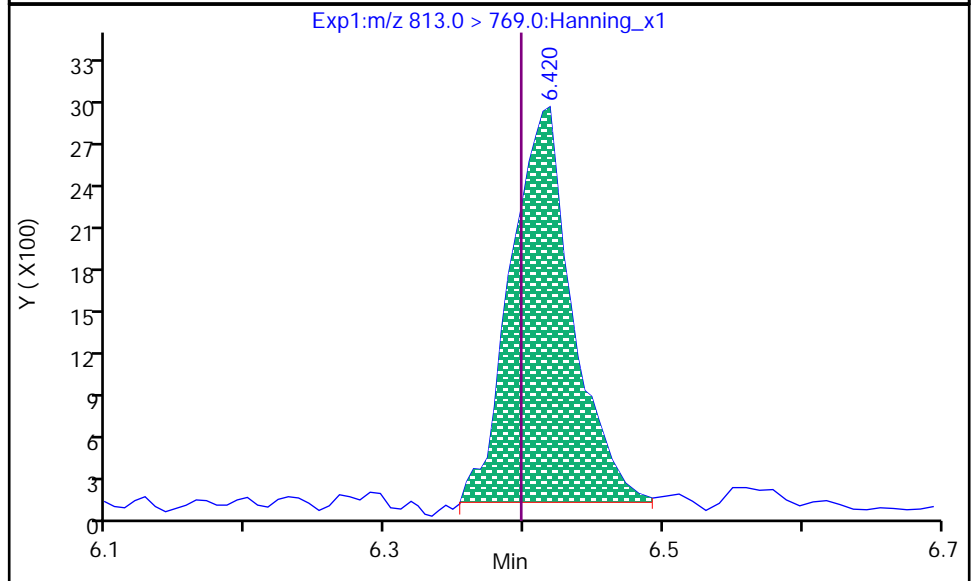
35 PFHxDA, CAS: 67905-19-5

Processing Integration Results

RT: 6.420
Area: 9320
Conc: 0.41504
Conc Units: ng/L



RT: 6.420
Area: 8687
Conc: 0.38685
Conc Units: ng/L



Data Editor: andy.marshall, 05-Oct-2022 15:49:44

Audit Action: Mint

Audit Reason: M-03, Incorrect Auto Integration

PFAS by LC/MS/MS - MB

Sample ID: XQ52413-001

Matrix: Solid

Batch: 52413

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 08/26/2022 2122

Parameter	Result	Q	Dil	LOQ	MDL	Units	Analysis Date
PFBA	ND		1	1.0	0.42	ug/kg	09/11/2022 1645
PFDA	ND		1	1.0	0.16	ug/kg	09/11/2022 1645
PFDoA	ND		1	1.0	0.18	ug/kg	09/11/2022 1645
PFHpA	ND		1	1.0	0.14	ug/kg	09/11/2022 1645
PFHxDA	ND		1	2.0	0.22	ug/kg	09/11/2022 1645
PFHxA	ND		1	1.0	0.18	ug/kg	09/11/2022 1645
PFNA	ND		1	1.0	0.15	ug/kg	09/11/2022 1645
PFODA	ND		1	1.0	0.35	ug/kg	09/11/2022 1645
PFOA	ND		1	1.0	0.21	ug/kg	09/11/2022 1645
PFPeA	ND		1	1.0	0.16	ug/kg	09/11/2022 1645
PFTeDA	ND		1	1.0	0.19	ug/kg	09/11/2022 1645
PFTrDA	ND		1	1.0	0.17	ug/kg	09/11/2022 1645
PFUdA	ND		1	1.0	0.18	ug/kg	09/11/2022 1645
Surrogate	Q	% Rec	Acceptance Limit				
13C2_PFDoA		112	25-150				
13C2_PFHxDA		85	25-150				
13C2_PFTeDA		94	25-150				
13C4_PFBA		112	25-150				
13C4_PFHpA		124	25-150				
13C5_PFHxA		106	25-150				
13C5_PFPeA		104	25-150				
13C6_PFDA		98	25-150				
13C7_PFUdA		111	25-150				
13C8_PFOA		98	25-150				
13C9_PFNA		103	25-150				

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

* = RSD is out of criteria

+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Pace Environmental Services, LLC
Analyte Quantitation Report

Data File: \\Organics\LL\LCMSMS01.i\091122-nonDOD.b\091122019.d
Injection Date: 11-Sep-2022 16:45:06 Injection Vol: 10.0 uL
Sample Type: MBik Auto Sampler: 12
Lab Sample ID: XQ52413-001 Lab Prep. Batch: 52413
Sample Info: XQ52413-001 Misc. Info:
Inst. ID: LCMSMS01.i Operator: eqi.svoa
Method: LCMSMS01_PFAS-ID2 Version: V16 30-Jun-2022 10:54:24
Calib Method: PFAS-ID2 Lock State: Unlocked
Quant Method: IsoDil Integrator: picker

Matrix: Soil
Final Conc.: Amt * DF * CF
Concentration Formula: $CF = (VF/WI) * 1/1000 * 1/1000 = 0.0050000$

Name	Value	Units	Description
DF	1		Dilution Factor
VF	5000	ul	Final Volume
WI	1	g	Initial Sample Weight

Reagent: Surrogates Conc. Level: Smp Vol. Added: 0.1000 ml

Signal	Quant Std	RT (min.)	Exp RT (min.)	□ RT (secs.)	Response	Peak Pts	S/N	Ion Ratio	Isomer Ratio	OnCol Conc ng/L	Final Conc ug/Kg	%Rec	Flags
D 46 13C4_PFBFA	CAS: SESI-0111												
217 > 172		1.669	1.670	0	2507200	19	>100:1			2000.00	2368.45	112.1	
8 Perfluoro-n-butanoic acid (PFBA)	CAS: 375-22-4												U
212.9 > 168.9	46		1.670		ND								
D 50 13C5_PFPeA	CAS: SESI-0112												
267.9 > 223		1.984	1.975	1	1574796	14	>100:1			2000.00	2226.51	103.9	
21 Perfluoro-n-pentanoic acid (PFPeA)	CAS: 2706-90-3												U
262.9 > 218.9	50		1.975		ND								
D 44 13C3_PFBFS	CAS: SESI-0116												
302 > 80		2.024	2.015	1	609179	15	>100:1			2000.00	2160.00	108.1	
D 63 13C2_4:2 FTS_2	CAS: SESI-0104												
329 > 81		2.282	2.283	1	493145	17	>100:1			10000	12526	93.4	
D 49 13C5_PFHxA	CAS: SESI-0113												
318 > 273		2.327	2.319	1	1706285	16	>100:1			2000.00	2023.53	106.3	
15 Perfluoro-n-hexanoic acid (PFHxA)	CAS: 307-24-4												U
313 > 269	49		2.319		ND								
D 66 13C3_GenX	CAS: SESI-0121												
287 > 185		2.444	2.445	1	1448370	17	>100:1			10000	12193	121	
D 47 13C4_PFHpA	CAS: SESI-0114												
367 > 322		2.707	2.737	-1	1693082	15	>100:1			2000.00	2372.79	124.1	
13 Perfluoro-n-heptanoic acid (PFHpA)	CAS: 375-85-9												U
363 > 319	47		2.737		ND								
D 45 13C3_PFHxS	CAS: SESI-0096												
402 > 80		2.727	2.747	0	428326	16	>100:1			2000.00	2180.06	107.6	
D 64 13C2_6:2 FTS_2	CAS: SESI-0105												
429 > 81		3.108	3.174	-2	1095674	22	>100:1			10000	37270	277.1*	
D 53 13C8_PFOA	CAS: SESI-0097												
421 > 376		3.150	3.199	-1	1436981	23	>100:1			2000.00	2253.68	98.3	
20 Perfluoro-n-octanoic acid (PFOA)	CAS: 335-67-1												U
413 > 369	53		3.199		ND								
D 54 13C8_PFOS	CAS: SESI-0098												
507 > 80		3.630	3.692	-2	535976	24	>100:1			2000.00	2179.98	101.5	

Signal	Quant Std	RT (min.)	Exp RT (min.)	RT (secs.)	Response	Peak Pts	S/N	Ion Ratio	Isomer Ratio	OnCol Conc ng/L	Final Conc ug/Kg	%Rec	Flags
D 56 13C9_PFNA	CAS: SESI-0099												
472 > 427		3.637	3.692	-2	1408617	23	>100:1			2000.00	2160.79	103	
17 Perfluoro-n-nonanoic acid (PFNA)	CAS: 375-95-1												U
463 > 419	56		3.698		ND								
D 55 13C8_PFOSA	CAS: SESI-0107												
506 > 78		3.958	3.992	-2	911119	22	>100:1			2000.00	2121.28	104.5	
D 65 13C2_8:2 FTS_2	CAS: SESI-0106												
529 > 81		4.111	4.162	-2	415882	29	>100:1			10000	12883	113	
D 51 13C6_PFDA	CAS: SESI-0115												
519 > 474		4.118	4.180	-3	1090310	21	>100:1			2000.00	2013.55	97.5	
10 Perfluoro-n-decanoic acid (PFDA)	CAS: 335-76-2												U
513 > 469	51		4.180		ND								
D 58 d3-MeFOSAA	CAS: SESI-0102												
573 > 419		4.345	4.399	-2	1484939	21	>100:1			10000	10185	98.4	
D 61 d7-MeFOSE	CAS: SESI-0129												
623 > 59		4.554	4.572	-2	237406	19	>100:1			2000.00	2093.19	90.4	
D 57 d3-MeFOSA	CAS: SESI-0109												
515 > 169		4.583	4.604	-1	118444	18	>100:1			2000.00	2321.17	112.8	
D 52 13C7_PFuDA	CAS: SESI-0117												
570 > 525		4.583	4.634	-2	1094182	18	>100:1			2000.00	2254.83	110.8	
25 Perfluoro-n-undecanoic acid (PFuDA)	CAS: 2058-94-8												U
563 > 519	52		4.634		ND								
D 60 d5-EtFOSAA	CAS: SESI-0110												
589 > 419		4.572	4.624	-2	1292714	19	>100:1			10000	10482	99.9	
D 62 d9-EtFOSE	CAS: SESI-0130												
639 > 59		4.805	4.813	-1	230712	22	>100:1			2000.00	2139.84	101.2	
D 59 d5-EtFOSA	CAS: SESI-0108												
531 > 169		4.841	4.856	-1	101548	21	>100:1			2000.00	2067.62	109.7	
D 38 13C2_PFDaA	CAS: SESI-0118												
615 > 570		5.000	5.052	-1	1095856	18	>100:1			2000.00	2113.93	112.2	
11 Perfluoro-n-dodecanoic acid (PFDaA)	CAS: 307-55-1												U
613 > 569	38		5.052		ND								
24 Perfluoro-n-tridecanoic acid (PFTTrDA)	CAS: 72629-94-8												U
663 > 619	38		5.415		ND								
D 42 13C2_PFTeDA	CAS: SESI-0119												
715 > 670		5.702	5.754	-1	1008679	42	>100:1			2000.00	1835.92	93.6	
23 Perfluoro-n-tetradecanoic acid (PFTeDA)	CAS: 376-06-7												U
713 > 669	42		5.758		ND								
D 40 13C2_PFHxDA	CAS: SESI-0103												
815 > 770		6.297	6.361	-1	481555	25	>100:1			2000.00	1709.16	85	
35 Perfluoro-n-hexadecanoic acid (PFHxDA)	CAS: 67905-19-5												U
813 > 769	40		6.370		ND								
36 Perfluoro-n-octadecanoic acid (PFODA)	CAS: 16517-11-6												U
913 > 869	40		6.930		ND								

Compound Type Legend

D - Isotopic Dilution Std.

QC Flag Legend

U - Result Less Than Method Detection Limit

Data File: \\Organics\LL\LCMSMS01.i\091122-nonDOD.b\091122019.d

Injection Date: 11-Sep-2022 16:45:06

Inst. ID: LCMSMS01.i

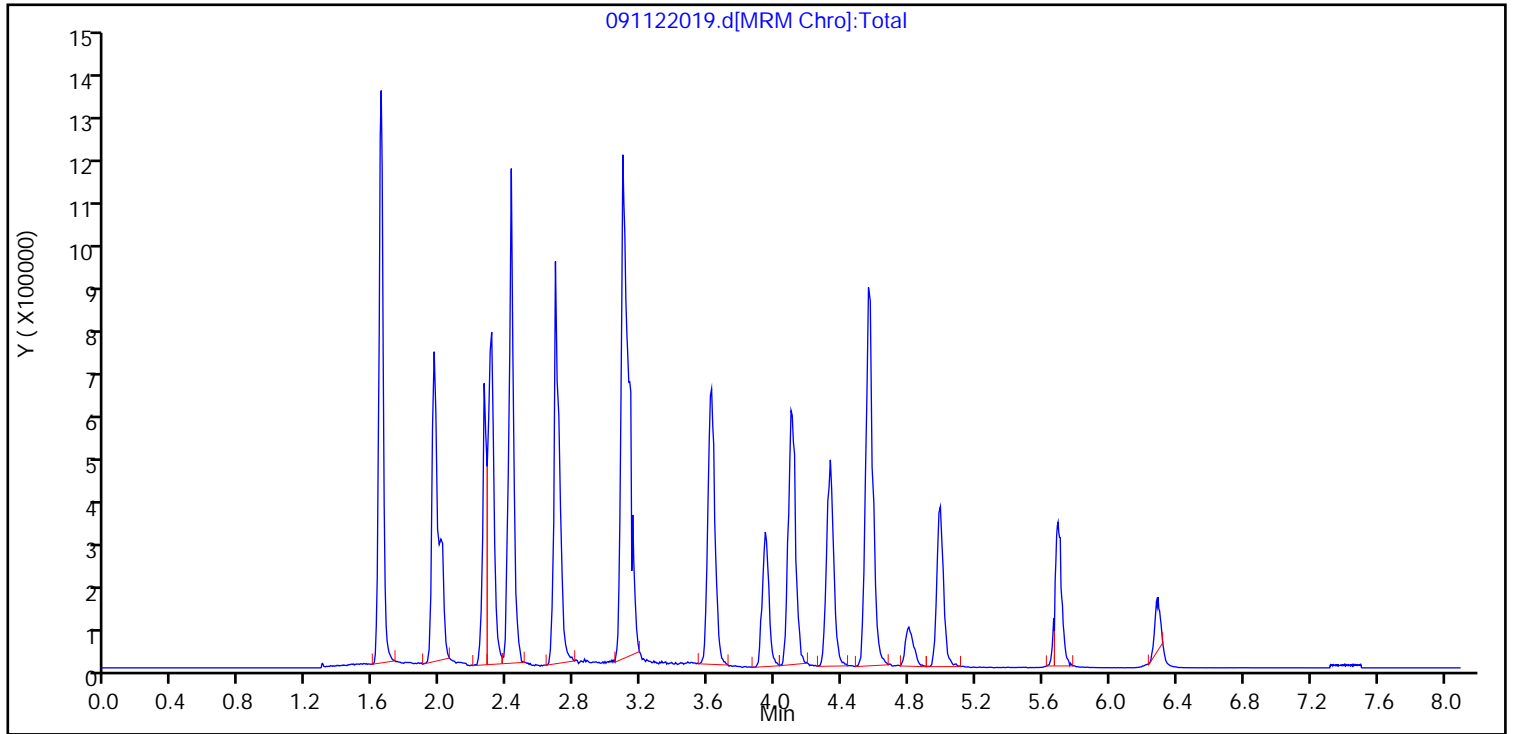
Client ID:

Lab ID: XQ52413-001

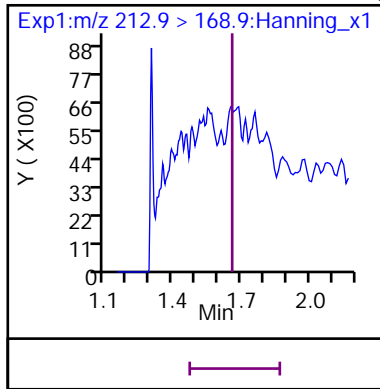
Sample Info: XQ52413-001

Dil. Factor: 1

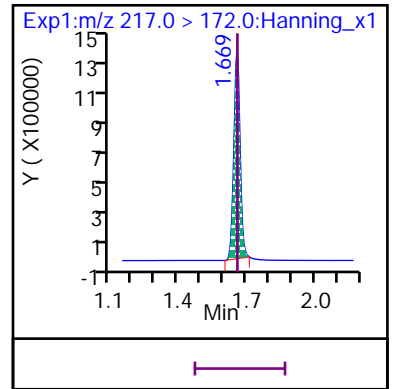
Operator: eqi.svoa



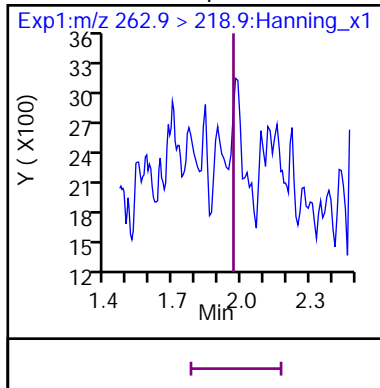
8 Perfluoro-n-butanoic acid (PFBA) (Marked ND)



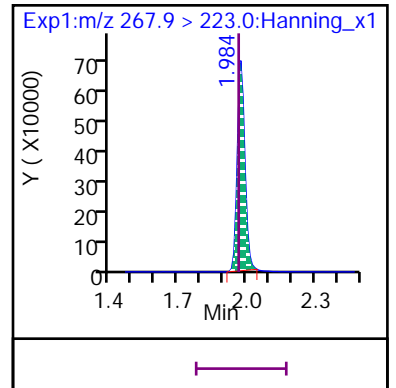
D 46 13C4_PFBA



21 Perfluoro-n-pentanoic acid (PFPeA) (ND)

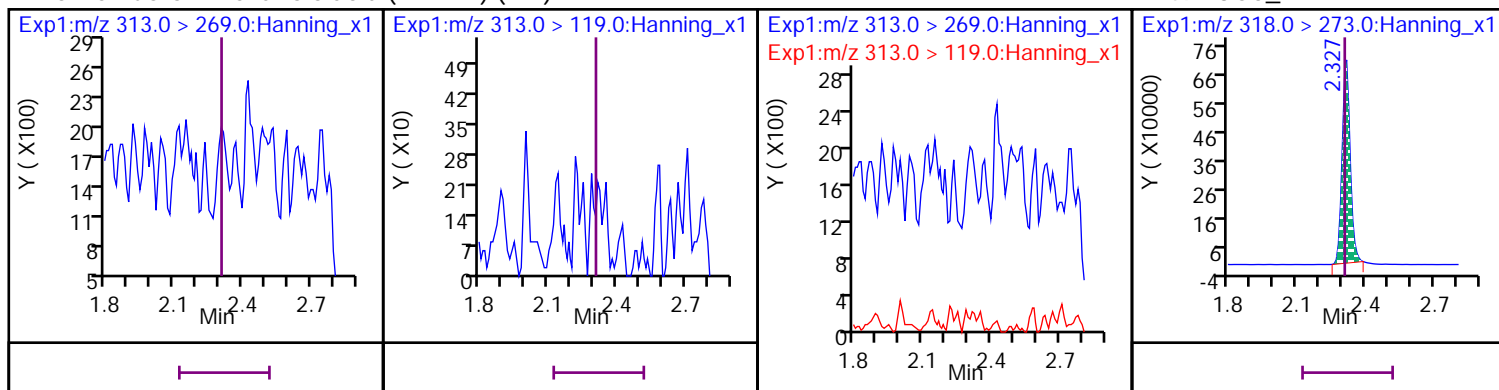


D 50 13C5_PFPeA



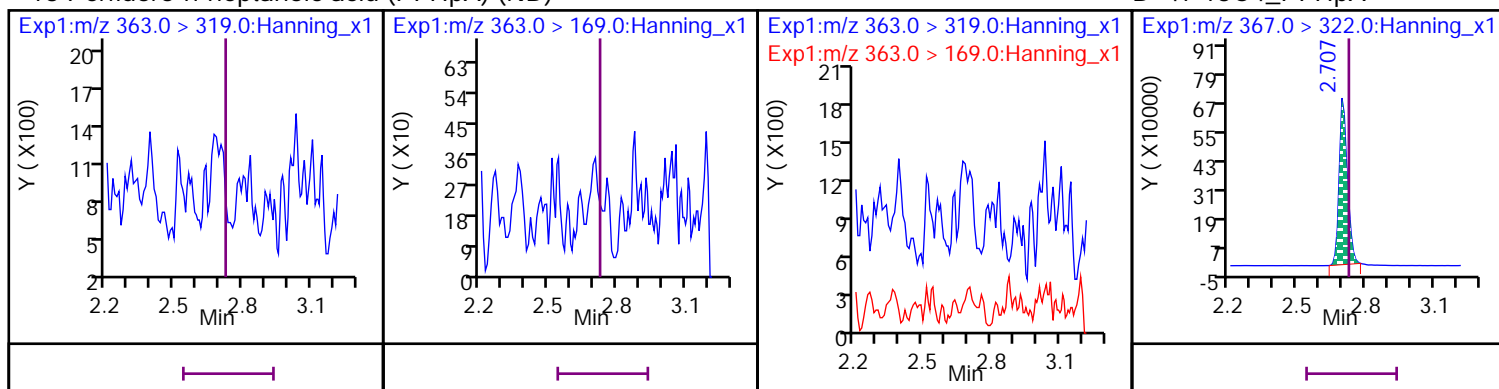
15 Perfluoro-n-hexanoic acid (PFHxA) (ND)

D 49 13C5_PFHxA



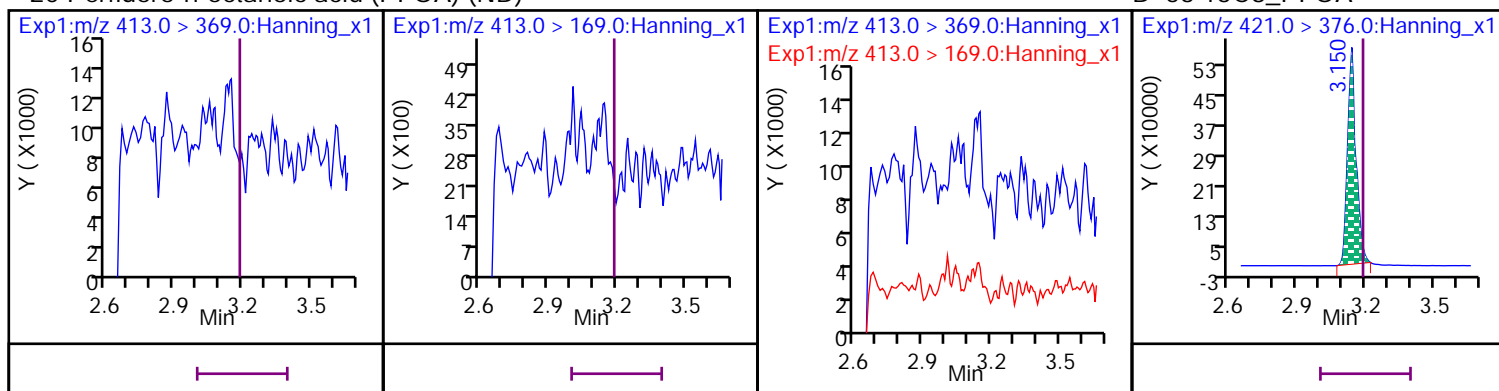
13 Perfluoro-n-heptanoic acid (PFHpA) (ND)

D 47 13C4_PFHpA



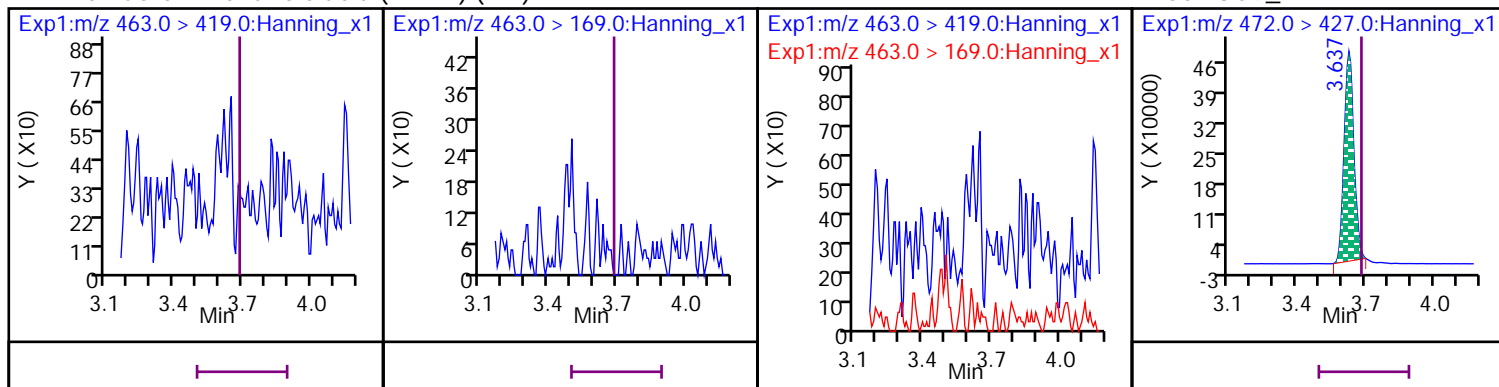
20 Perfluoro-n-octanoic acid (PFOA) (ND)

D 53 13C8_PFOA



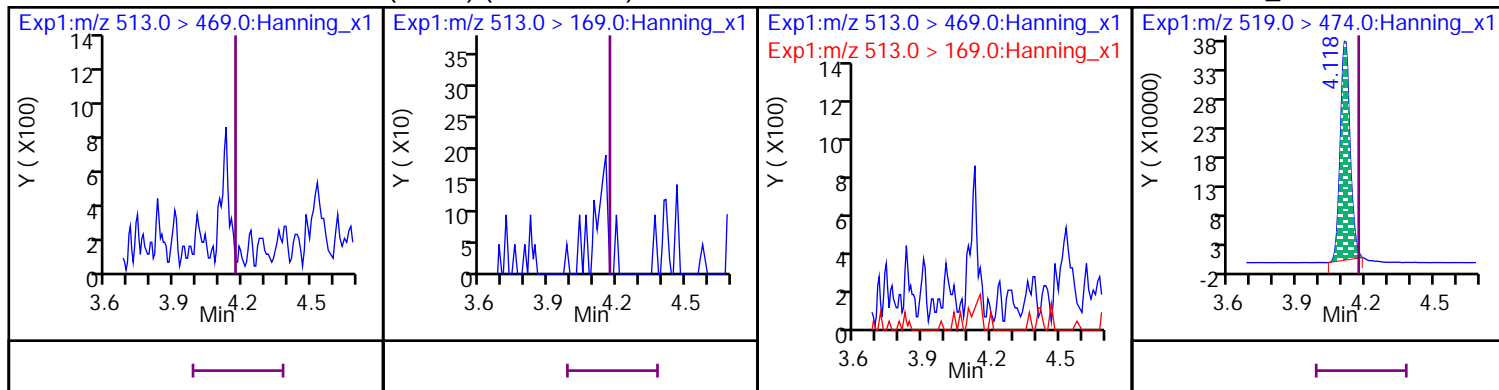
17 Perfluoro-n-nonanoic acid (PFNA) (ND)

D 56 13C9_PFNA



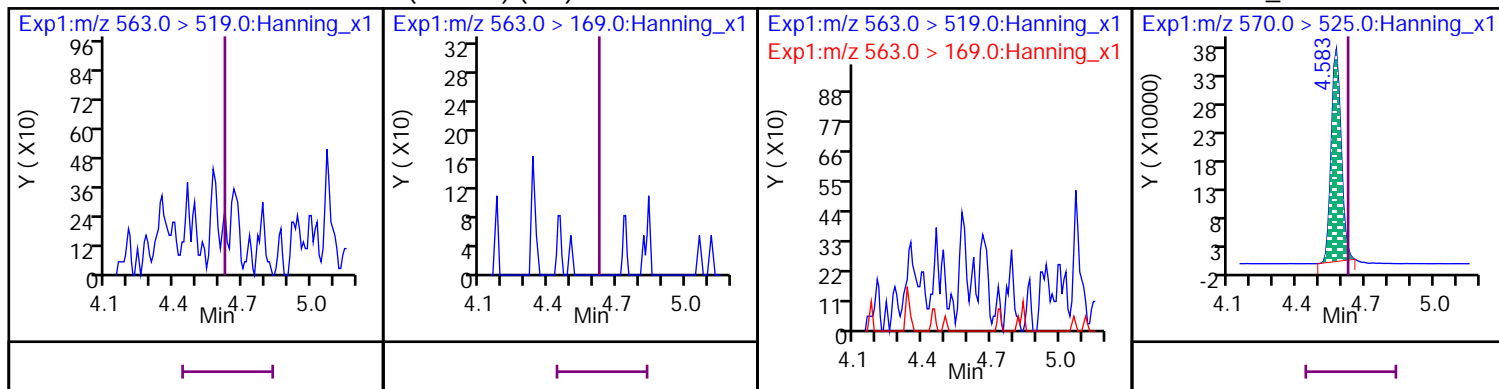
10 Perfluoro-n-decanoic acid (PFDA) (Marked ND)

D 51 13C6_PFDA



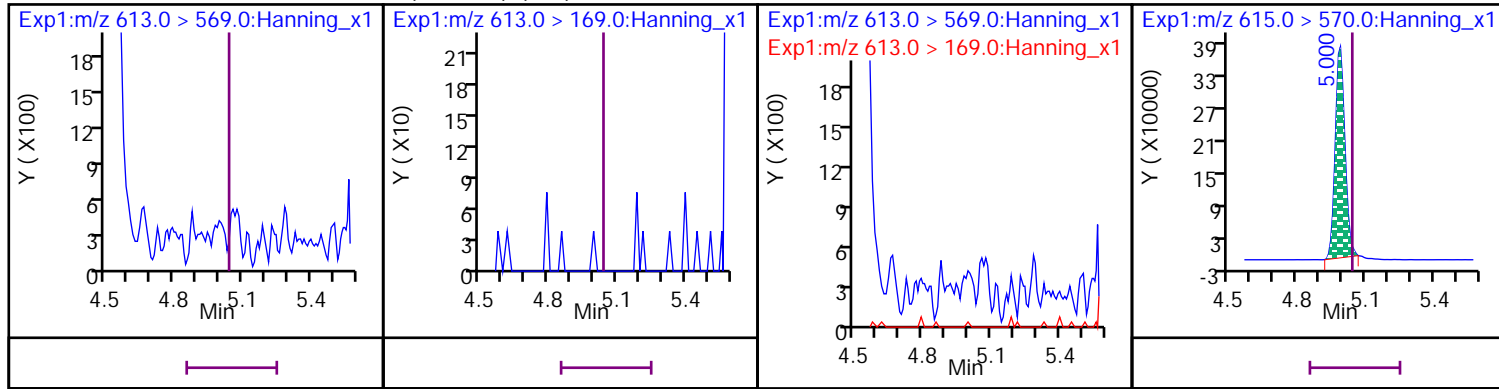
25 Perfluoro-n-undecanoic acid (PFUdA) (ND)

D 52 13C7_PFUdA



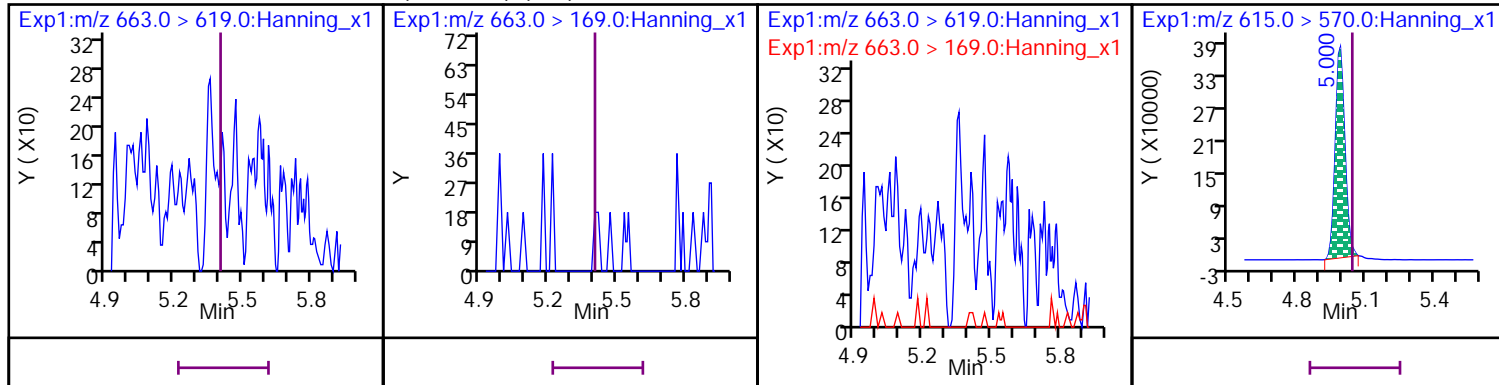
11 Perfluoro-n-dodecanoic acid (PFDaA) (ND)

D 38 13C2_PFDaA



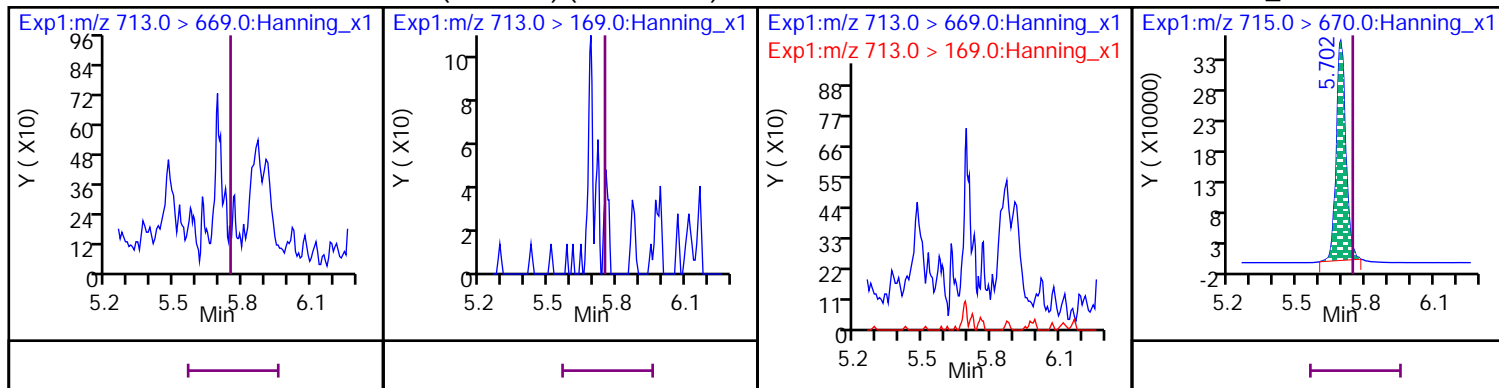
24 Perfluoro-n-tridecanoic acid (PFTrDA) (ND)

D 38 13C2_PFDaA



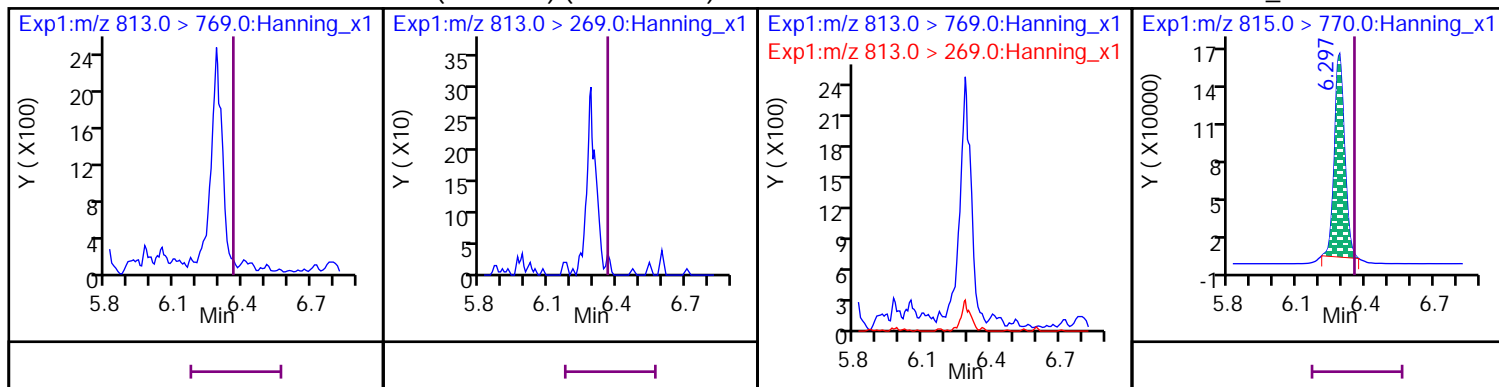
23 Perfluoro-n-tetradecanoic acid (PFTeDA) (Marked ND)

D 42 13C2_PFTeDA



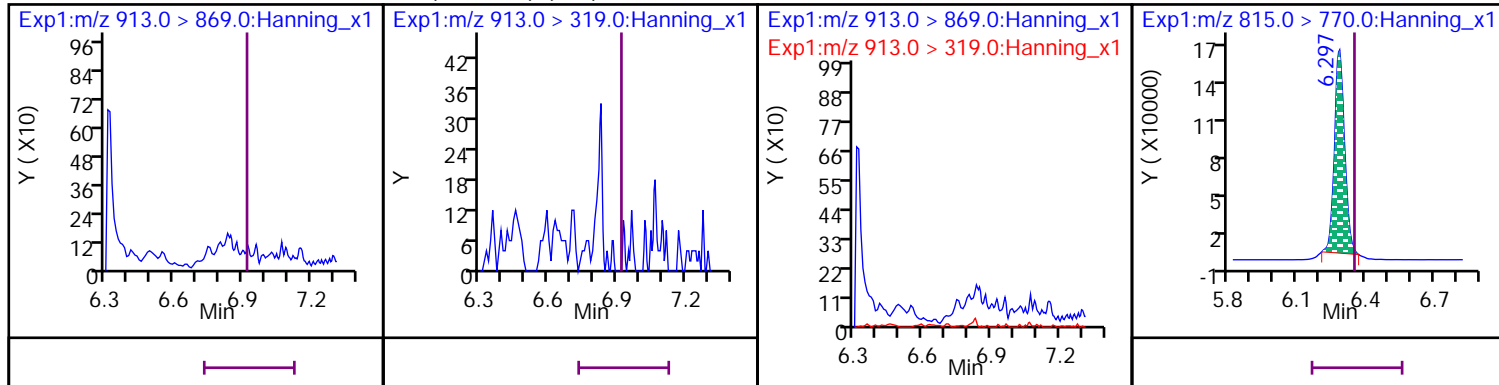
35 Perfluoro-n-hexadecanoic acid (PFHxDA) (Marked ND)

D 40 13C2_PFHxDA



36 Perfluoro-n-octadecanoic acid (PFODA) (ND)

D 40 13C2_PFHxDA



PFAS by LC/MS/MS - LCS

Sample ID: XQ52413-002

Matrix: Solid

Batch: 52413

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 08/26/2022 2122

Parameter	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	%Rec Limit	Analysis Date
PFBA	2.0	2.2		1	112	50-150	09/11/2022 1655
PFDA	2.0	2.0		1	102	50-150	09/11/2022 1655
PFDaA	2.0	2.0		1	98	50-150	09/11/2022 1655
PFHpA	2.0	2.0		1	100	50-150	09/11/2022 1655
PFHxDA	2.0	2.1		1	104	50-150	09/11/2022 1655
PFHxA	2.0	2.3		1	115	50-150	09/11/2022 1655
PFNA	2.0	2.0		1	101	50-150	09/11/2022 1655
PFODA	2.0	2.2		1	109	50-150	09/11/2022 1655
PFOA	2.0	2.0		1	99	50-150	09/11/2022 1655
PFPeA	2.0	2.1		1	103	50-150	09/11/2022 1655
PFTeDA	2.0	2.4		1	119	50-150	09/11/2022 1655
PFTrDA	2.0	1.9		1	95	50-150	09/11/2022 1655
PFUdA	2.0	2.0		1	99	50-150	09/11/2022 1655
Surrogate	Q	% Rec	Acceptance Limit				
13C2_PFDaA		113	25-150				
13C2_PFHxDA		100	25-150				
13C2_PFTeDA		100	25-150				
13C4_PFBA		109	25-150				
13C4_PFHpA		114	25-150				
13C5_PFHxA		103	25-150				
13C5_PFPeA		114	25-150				
13C6_PFDA		103	25-150				
13C7_PFUdA		108	25-150				
13C8_PFOA		115	25-150				
13C9_PFNA		121	25-150				

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

* = RSD is out of criteria

+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Pace Environmental Services, LLC
Analyte Quantitation Report

Data File: \\Organics\LL\LCMSMS01.i\091122-nonDOD.b\091122020.d
 Injection Date: 11-Sep-2022 16:55:39 Injection Vol: 10.0 uL
 Sample Type: LCS Auto Sampler: 13
 Lab Sample ID: XQ52413-002 Lab Prep. Batch: 52413
 Sample Info: XQ52413-002 Misc. Info:
 Inst. ID: LCMSMS01.i Operator: eqi.svoa
 Method: LCMSMS01_PFAS-ID2 Version: V16 30-Jun-2022 10:54:24
 Calib Method: PFAS-ID2 Lock State: Unlocked
 Quant Method: IsoDil Integrator: picker

Matrix: Soil
 Final Conc.: Amt * DF * CF
 Concentration Formula: $CF = (VF/WI) * 1/1000 * 1/1000 = 0.0050000$

Name	Value	Units	Description
DF	1		Dilution Factor
VF	5000	ul	Final Volume
WI	1	g	Initial Sample Weight

Reagent: Surrogates Conc. Level: Smp Vol. Added: 0.1000 ml
 Reagent: Analytes Conc. Level: 100x PDS Vol. Added: 0.1000 ml

Signal	Quant Std	RT (min.)	Exp RT (min.)	RT (secs.)	Response	Peak Pts	S/N	Ion Ratio	Isomer Ratio	OnCol Conc ng/L	Final Conc ug/Kg	%Drift/%Rec	Flags
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D 46 13C4_PFBFA CAS: SESI-0111

217 > 172 1.664 1.670 0 2445643 19 >100:1 2000.00 2310.30 109.4

8 Perfluoro-n-butanoic acid (PFBA) CAS: 375-22-4

212.9 > 168.9 46 1.669 1.670 0/0 532113 18 >100:1 447.61 2.2380

D 50 13C5_PFPeA CAS: SESI-0112

267.9 > 223 1.965 1.975 0 1723786 15 >100:1 2000.00 2437.16 113.8

21 Perfluoro-n-pentanoic acid (PFPeA) CAS: 2706-90-3

262.9 > 218.9 50 1.975 1.975 0/0 379181 15 >100:1 410.43 2.0522

D 44 13C3_PFBFS CAS: SESI-0116

302 > 80 2.015 2.015 0 686870 15 >100:1 2000.00 2435.48 121.9

7 Perfluoro-1-butanesulfonate (PFBS) CAS: 375-73-5

298.9 > 80 44 2.015 2.025 0/0 151818 17 >100:1 Target = 3.91 369.37 1.8469

298.9 > 99 44 2.015 2.025 34956 17 >100:1 4.34 (1.95-5.87)

22 Perfluoro-1-pentanesulfonic acid (PFPeS) CAS: 2706-91-4

349 > 80 44 2.337 2.346 0/0 127657 18 >100:1 Target = 3.48 374.51 1.8726

349 > 99 44 2.337 2.346 35525 16 >100:1 3.59 (1.74-5.22)

D 63 13C2_4:2 FTS_2 CAS: SESI-0104

329 > 81 2.274 2.283 1 578989 17 >100:1 10000 14706 109.7

1 Fluorotelomer sulfonate 4:2 [1H,1H,2H,2H-perfluorohexane sulfonate] (4:2 FTS) CAS: 757124-72-4

327 > 307 63 2.274 2.283 0/-1 38660 14 >100:1 Target = 1.33 353.41 1.7671

327 > 81 63 2.274 2.283 27361 19 >100:1 1.41 (0.66-2.00)

D 49 13C5_PFHxA CAS: SESI-0113

318 > 273 2.310 2.319 0 1651369 16 >100:1 2000.00 1958.40 102.9

15 Perfluoro-n-hexanoic acid (PFHxA) CAS: 307-24-4

313 > 269 49 2.310 2.319 0/0 355036 16 >100:1 Target = 16.74 459.22 2.2961

313 > 119 49 2.310 2.319 19129 16 72:1 18.56 (8.37-25.11)

D 66 13C3_GenX CAS: SESI-0121

287 > 185 2.436 2.445 0 1449486 16 >100:1 10000 12202 121.1

28 Hexafluoropropylene oxide dimer acid (GenX) CAS: 13252-13-6

285 > 119 66 2.436 2.445 0/0 80586 16 >100:1 Target = 0.71 798.38 3.9919

285 > 185 66 2.436 2.445 116192 15 >100:1 0.69 (0.35-1.06)

D 47 13C4_PFHpA CAS: SESI-0114

367 > 322 2.717 2.737 0 1549279 17 >100:1 2000.00 2171.26 113.6

Signal	Quant Std	RT (min.)	Exp RT (min.)	RT (secs.)	Response	Peak Pts	S/N	Ion Ratio	Isomer Ratio	OnCol Conc ng/L	Final Conc ug/Kg	%Drift/%Rec	Flags
13 Perfluoro-n-heptanoic acid (PFHpA) CAS: 375-85-9													
363 > 319	47	2.717	2.737	0/0	281925	15	>100:1	Target = 3.28		399.69	1.9985		
363 > 169	47	2.717	2.737		89707	17	>100:1	3.14 (1.64-4.92)					
D 45 13C3_PFHxS CAS: SESI-0096													
402 > 80		2.727	2.747	0	408190	17	>100:1			2000.00	2077.57	102.5	
14 Perfluorohexanesulfonate (PFHxS) CAS: 355-46-4													
399 > 80	45	2.727	2.747	-1/-1	87101	27	>100:1	Target = 3.96	4.53	375.22	1.8761		
399 > 99	45	2.737	2.747		28348	30	>100:1	3.07 (1.98-5.94)	6.10				
29 4,8-dioxa-3H-perfluorononanoic acid (ADONA) CAS: 919005-14-4													
377 > 251	45	2.767	2.787	0/0	466066	20	>100:1	Target = 2.26		402.26	2.0113		
377 > 85	45	2.767	2.787		196344	17	>100:1	2.37 (1.13-3.39)					
12 Perfluoro-1-heptanesulfonic acid (PFHpS) CAS: 375-92-8													
449 > 80	45	3.173	3.207	0/0	110891	23	>100:1	Target = 3.87		477.47	2.3873		
449 > 99	45	3.173	3.207		28824	34	>100:1	3.84 (1.93-5.81)					
D 64 13C2_6:2 FTS_2 CAS: SESI-0105													
429 > 81		3.132	3.174	-3	1624625	22	>100:1			10000	55262	410.9*	
2 Fluorotelomer sulfonate 6:2 [1H,1H,2H,2H-perfluorooctane sulfonate] (6:2 FTS) CAS: 27619-97-2													
427 > 407	64	3.132	3.156	-1/-1	114168	21	>100:1	Target = 1.29		438.37	2.1919		
427 > 81	64	3.132	3.156		83361	32	>100:1	1.36 (0.64-1.93)					
D 53 13C8_PFOA CAS: SESI-0097													
421 > 376		3.167	3.199	0	1686304	22	>100:1			2000.00	2644.70	115.3	
20 Perfluoro-n-octanoic acid (PFOA) CAS: 335-67-1													
413 > 369	53	3.173	3.199	0/0	317967	20	82:1	Target = 2.65		395.14	1.9757		
413 > 169	53	3.167	3.199		115947	22	64:1	2.74 (1.32-3.97)					
D 54 13C8_PFOS CAS: SESI-0098													
507 > 80		3.650	3.692	-1	524507	24	>100:1			2000.00	2133.33	99.3	
18 Perfluorooctanesulfonate (PFOS) CAS: 1763-23-1													
499 > 80	54	3.655	3.692	-2/-1	117154	82	>100:1	Target = 4.46	3.06	385.13	1.9257		M
499 > 99	54	3.650	3.692		27944	60	>100:1	4.19 (2.23-6.70)	7.31				M
30 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS) CAS: 756426-58-1													
531 > 351	54	3.929	3.978	-2/-1	210598	23	>100:1			382.46	1.9123		
16 Perfluoro-1-nonanesulfonic acid (PFNS) CAS: 68259-12-1													
549 > 80	54	4.117	4.162	-2/-1	94697	26	>100:1	Target = 4.17		375.57	1.8778		
549 > 99	54	4.117	4.162		23529	29	>100:1	4.02 (2.08-6.26)					
9 Perfluoro-1-decanesulfonic acid (PFDS) CAS: 335-77-3													
599 > 80	54	4.561	4.604	-2/-1	105472	18	>100:1	Target = 4.23		410.23	2.0512		
599 > 99	54	4.561	4.604		27406	19	>100:1	3.84 (2.11-6.34)					
31 11-chloroeicosafuoro-3-oxaundecane-1-sulfonic acid (11CI-PF3OUdS) CAS: 763051-92-9													
631 > 451	54	4.804	4.856	-1/0	173985	21	>100:1			351.07	1.7554		
34 Perfluorododecanesulfonic acid (PFDOS) CAS: 79780-39-5													
699 > 80	54	5.358	5.393	0/1	95367	22	>100:1	Target = 3.53		426.21	2.1310		
699 > 99	54	5.358	5.393		26123	23	>100:1	3.65 (1.76-5.30)					
D 56 13C9_PFNA CAS: SESI-0099													
472 > 427		3.650	3.692	-1	1653017	24	>100:1			2000.00	2535.70	120.9	
17 Perfluoro-n-nonanoic acid (PFNA) CAS: 375-95-1													
463 > 419	56	3.655	3.698	-1/0	301414	23	>100:1	Target = 5.02		402.35	2.0118		
463 > 169	56	3.655	3.698		61177	25	>100:1	4.92 (2.51-7.53)					
D 55 13C8_PFOSA CAS: SESI-0107													
506 > 78		3.978	3.992	-1	883813	26	>100:1			2000.00	2057.70	101.4	M
19 Perfluoro-1-octanesulfonamide (PFOSA) CAS: 754-91-6													
498 > 78	55	3.971	3.992	-1/0	201804	22	>100:1	Target = 54.56		425.10	2.1255		
498>478	55	3.971	3.992		4548	20	66:1	44.37 (27.28-81.85)					
D 65 13C2_8:2 FTS_2 CAS: SESI-0106													
529 > 81		4.117	4.162	-1	392071	22	>100:1			10000	12146	106.5	
3 Fluorotelomer sulfonate 8:2 [1H,1H,2H,2H-perfluorodecane sulfonate] (8:2 FTS) CAS: 39108-34-4													
527 > 507	65	4.124	4.171	-1/0	23630	45	>100:1	Target = 1.21		490.74	2.4537		
527 > 81	65	4.117	4.171		16383	26	>100:1	1.44 (0.60-1.82)					

Signal	Quant Std	RT (min.)	Exp RT (min.)	□ RT (secs.)	Response	Peak Pts	S/N	Ion Ratio	Isomer Ratio	OnCol Conc ng/L	Final Conc ug/Kg	%Drift/%Rec	Flags
4 1H,1H,2H,2H-perfluorododecane sulfonate (10:2FTS) CAS: 120226-60-0													
627 > 607	65	5.014	5.060	-1/0	21666	22	>100:1	Target = 2.03		399.92	1.9996		
627 > 80	65	5.005	5.060		11081	21	72:1	1.95 (1.01-3.05)					
D 51 13C6_PFDA CAS: SESI-0115													
519 > 474		4.124	4.180	-2	1146189	21	>100:1			2000.00	2116.75	102.5	
10 Perfluoro-n-decanoic acid (PFDA) CAS: 335-76-2													
513 > 469	51	4.131	4.180	-2/0	234413	22	>100:1	Target = 10.03		406.41	2.0321		
513 > 169	51	4.131	4.180		24525	23	>100:1	9.55 (5.01-15.04)					
D 58 d3-MeFOSAA CAS: SESI-0102													
573 > 419		4.344	4.399	-2	1539800	21	>100:1			10000	10561	102	
6 N-methylperfluoro-1-octanesulfonamidoacetic acid (N-MeFOSAA) CAS: 2355-31-9													
570 > 419	58	4.359	4.399	-2/0	52305	53	>100:1	Target = 1.51	7.51	403.39	2.0169		M
570 > 483	58	4.351	4.399		38840	57		1.34 (0.75-2.27)	5.08				M
D 61 d7-MeFOSE CAS: SESI-0129													
623 > 59		4.561	4.572	-1	263876	20	>100:1			2000.00	2326.57	100.5	
32 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE) CAS: 24448-09-7													
616 > 59	61	4.570	4.593	-1/0	74033	23	>100:1			535.49	2.6774		
D 57 d3-MeFOSA CAS: SESI-0109													
515 > 169		4.590	4.604	-1	105840	20	>100:1			2000.00	2074.17	100.8	
26 N-methylperfluoro-1-octanesulfonamide (MeFOSA) CAS: 31506-32-8													
512 > 169	57	4.590	4.614	-1/0	22039	17	87:1	Target = 1.12		392.85	1.9643		
512 > 219	57	4.590	4.614		26138	19	>100:1	0.84 (0.56-1.68)					
D 52 13C7_PFuDA CAS: SESI-0117													
570 > 525		4.580	4.634	-2	1066801	17	>100:1			2000.00	2198.41	108.1	
25 Perfluoro-n-undecanoic acid (PFUDA) CAS: 2058-94-8													
563 > 519	52	4.580	4.634	-2/0	192810	19	>100:1	Target = 8.93		395.61	1.9781		
563 > 169	52	4.590	4.634		22477	24	>100:1	8.57 (4.46-13.40)					
D 60 d5-EtFOSAA CAS: SESI-0110													
589 > 419		4.580	4.624	-2	1443161	19	>100:1			10000	11701	111.5	
5 N-ethylperfluoro-1-octanesulfonamidoacetic acid (N-EtFOSAA) CAS: 2991-50-6													
584 > 419	60	4.580	4.634	-2/0	56368	46	>100:1	Target = 1.91	8.49	382.27	1.9114		
584 > 526	60	4.580	4.634		31124	50	>100:1	1.81 (0.95-2.87)	4.38				
D 62 d9-EtFOSE CAS: SESI-0130													
639 > 59		4.804	4.813	-1	239387	23	>100:1			2000.00	2220.30	105	
33 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE) CAS: 1691-99-2													
630 > 59	62	4.825	4.827	-1/0	42502	21	>100:1			430.21	2.1510		
D 59 d5-EtFOSA CAS: SESI-0108													
531 > 169		4.840	4.856	-1	102786	26	>100:1			2000.00	2092.82	111	
27 N-ethylperfluoro-1-octanesulfonamide (EtFOSA) CAS: 4151-50-2													
526 > 169	59	4.847	4.863	-1/0	25051	22	>100:1	Target = 1.02		433.40	2.1670		
526 > 219	59	4.847	4.863		21993	21	>100:1	1.13 (0.51-1.54)					
D 38 13C2_PFDaA CAS: SESI-0118													
615 > 570		4.988	5.052	-2	1105150	20	>100:1			2000.00	2131.86	113.2	
11 Perfluoro-n-dodecanoic acid (PFDaA) CAS: 307-55-1													
613 > 569	38	5.005	5.052	-1/1	209738	20	>100:1	Target = 6.96		393.41	1.9671		
613 > 169	38	4.997	5.052		36714	21	>100:1	5.71 (3.48-10.45)					
24 Perfluoro-n-tridecanoic acid (PFTrDA) CAS: 72629-94-8													
663 > 619	38	5.389	5.415	0/2	111554	21	>100:1	Target = 3.41		379.76	1.8988		
663 > 169	38	5.389	5.415		34451	22	>100:1	3.23 (1.70-5.11)					
D 42 13C2_PFTeDA CAS: SESI-0119													
715 > 670		5.747	5.754	2	1073827	44	>100:1			2000.00	1954.50	99.7	
23 Perfluoro-n-tetradecanoic acid (PFTeDA) CAS: 376-06-7													
713 > 669	42	5.743	5.758	1/-1	194753	40	>100:1	Target = 6.93		477.77	2.3888		
713 > 169	42	5.747	5.758		25204	44	>100:1	7.72 (3.46-10.39)					
D 40 13C2_PFHxDA CAS: SESI-0103													
815 > 770		6.377	6.361	1	566781	39	>100:1			2000.00	2011.65	100.1	M

Signal	Quant Std	RT (min.)	Exp RT (min.)	□ RT (secs.)	Response	Peak Pts	S/N	Ion Ratio	Isomer Ratio	OnCol Conc ng/L	Final Conc ug/Kg	%Drift/%Rec	Flags
35 Perfluoro-n-hexadecanoic acid (PFHxDA) CAS: 67905-19-5													
813 > 769	40	6.377	6.370	0/-1	141794	38	>100:1	Target = 9.01		414.37	2.0718		M
813 > 269	40	6.377	6.370		15100	31	>100:1	9.39 (4.50-13.52)					M
36 Perfluoro-n-octadecanoic acid (PFODA) CAS: 16517-11-6													
913 > 869	40	6.941	6.930	1/0	120056	76	>100:1	Target = 10.58		435.77	2.1789		M
913 > 319	40	6.932	6.930		10901	56	>100:1	11.01 (5.29-15.88)					M

Compound Type Legend

D - Isotopic Dilution Std.

QC Flag Legend

M - Compound Hit/Peak Manually Integrated

Data File: \\Organics\LL\LCMSMS01.i\091122-nonDOD.b\091122020.d

Injection Date: 11-Sep-2022 16:55:39

Inst. ID: LCMSMS01.i

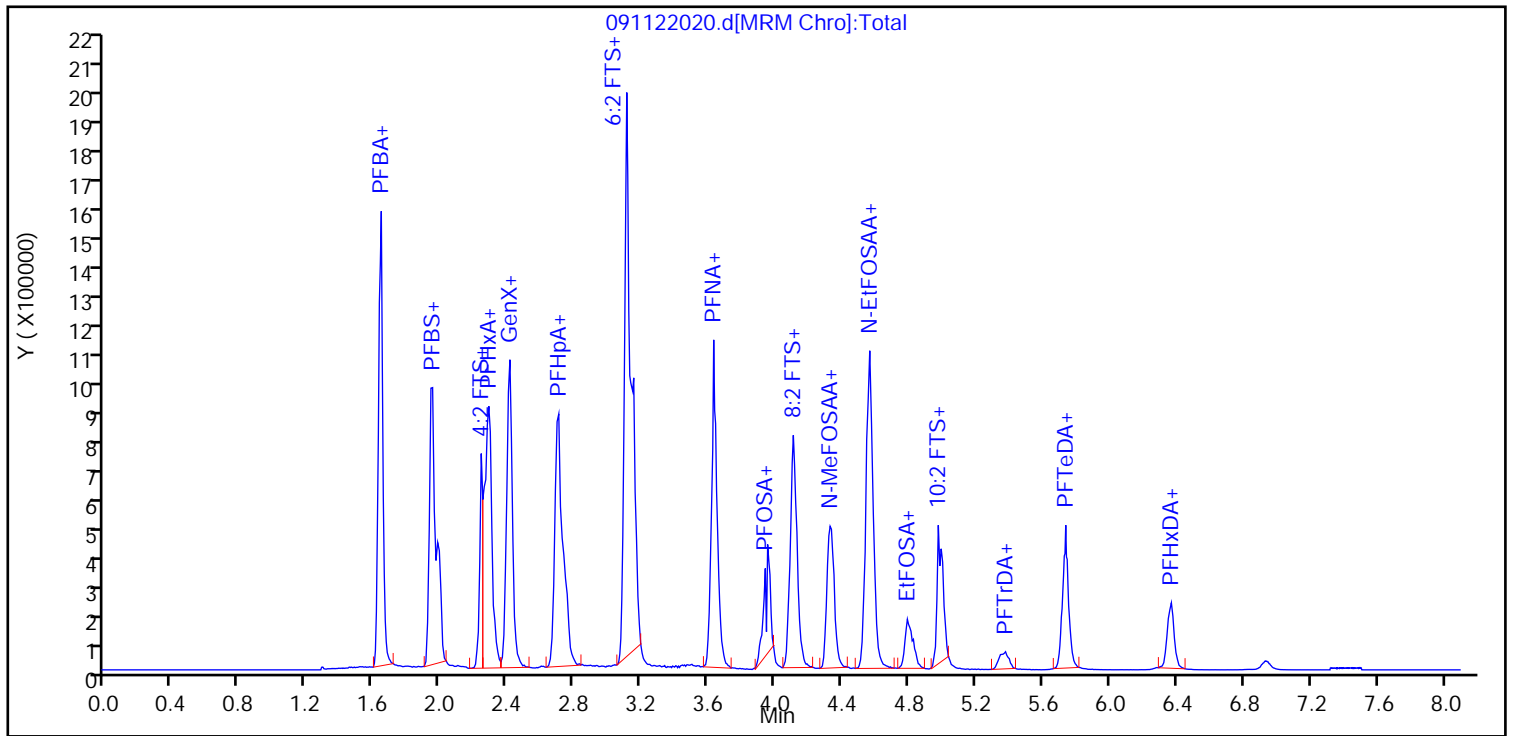
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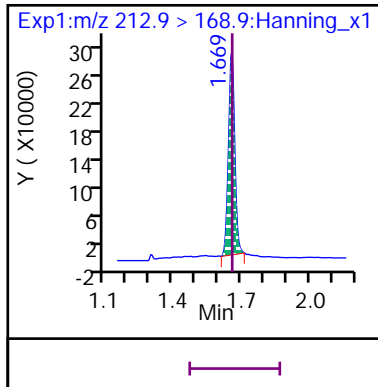
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Dil. Factor: 1

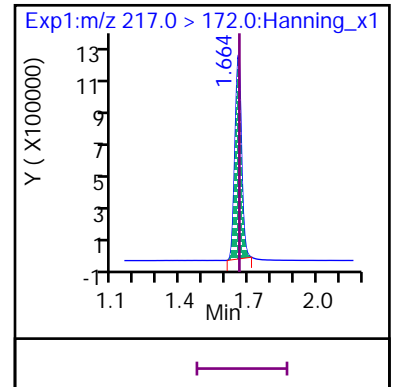
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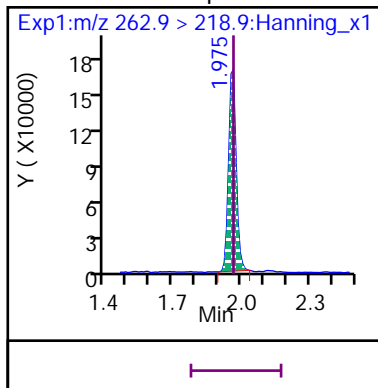
8 Perfluoro-n-butanoic acid (PFBA)



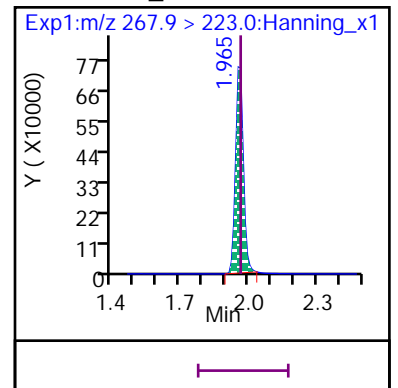
D 46 13C4_PFBA



21 Perfluoro-n-pentanoic acid (PFPeA)

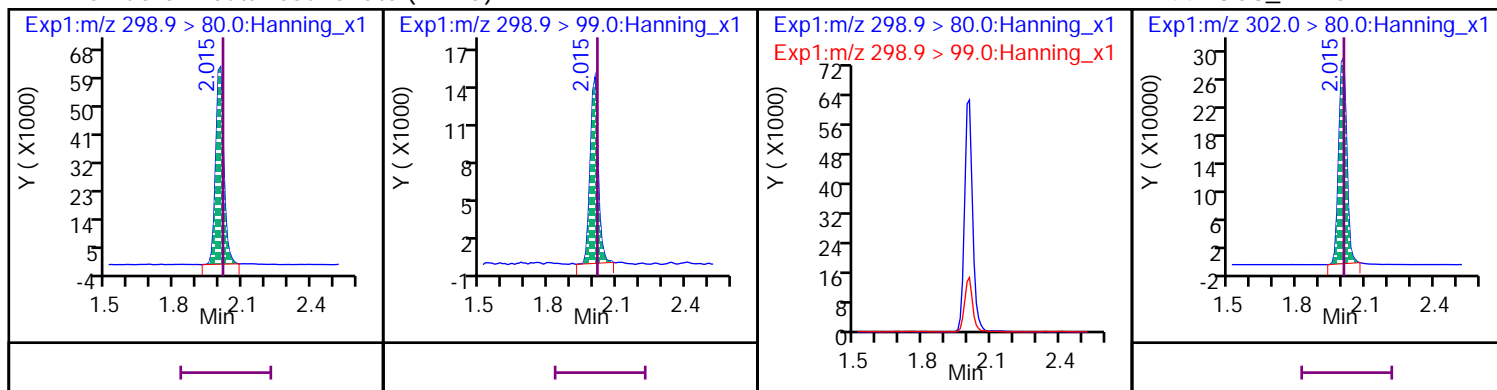


D 50 13C5_PFPeA



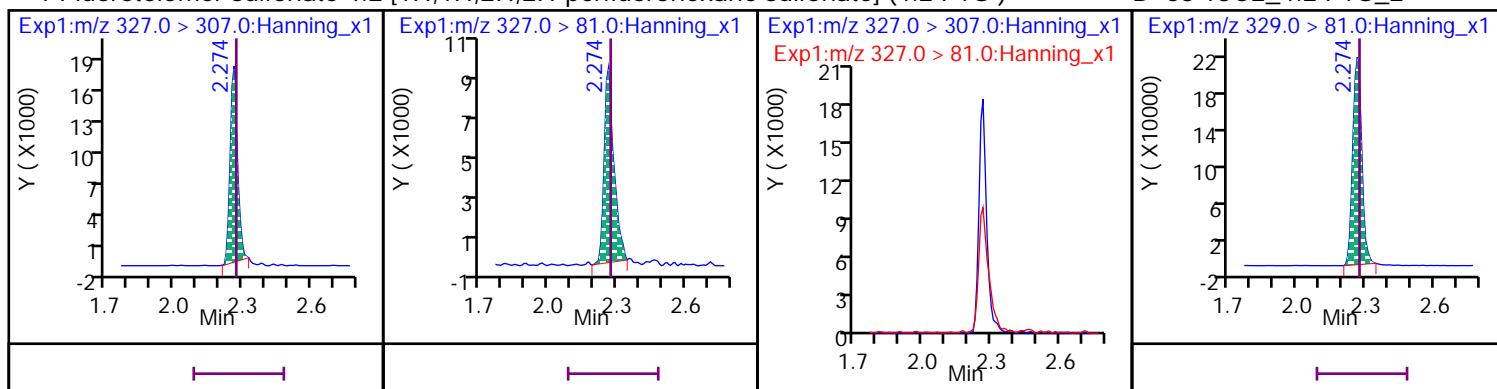
7 Perfluoro-1-butan-1-ylsulfonate (PFBS)

D 44 13C3_PFBS



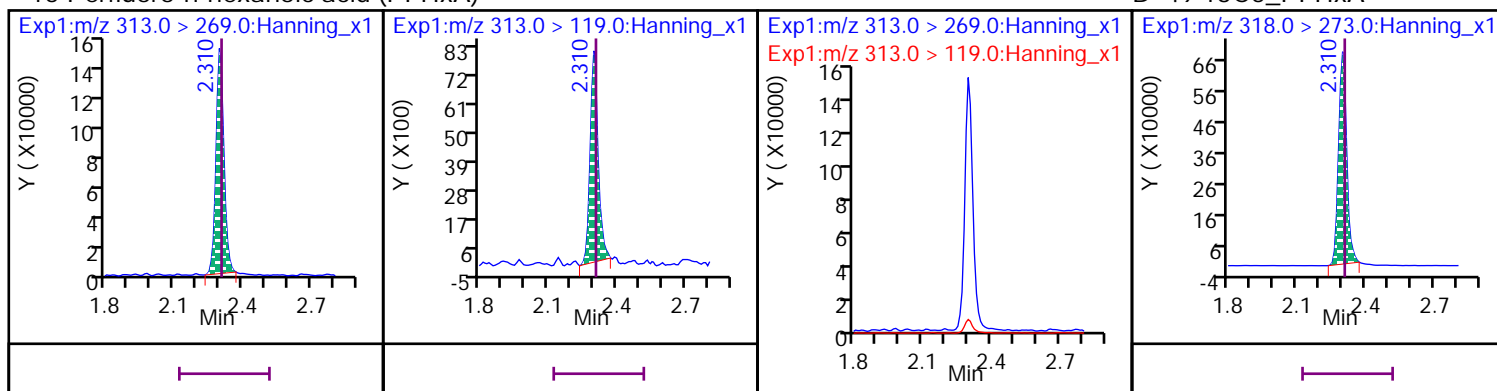
1 Fluorotelomer sulfonate 4:2 [1H,1H,2H,2H-perfluorohexane sulfonate] (4:2 FTS)

D 63 13C2_4:2 FTS_2



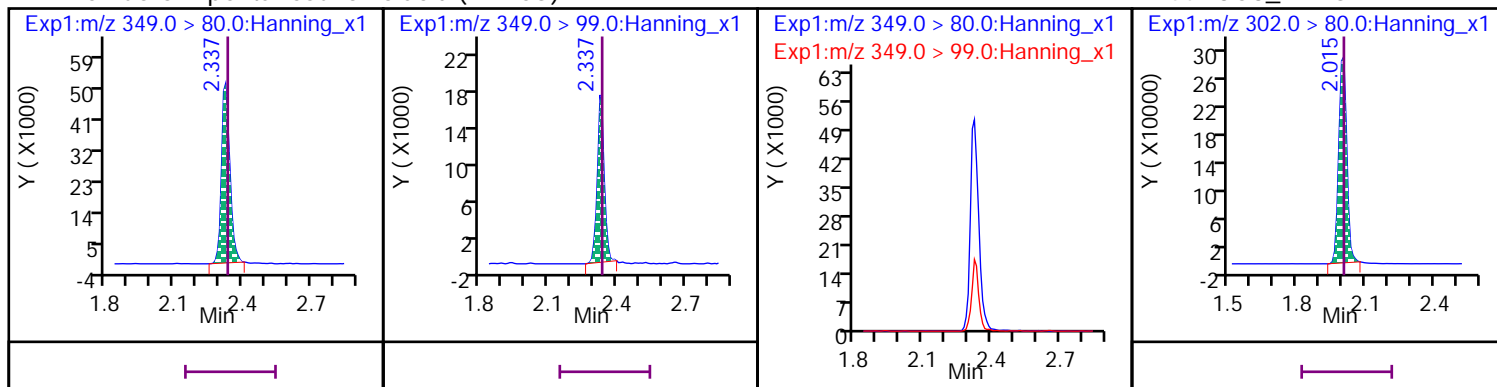
15 Perfluoro-n-hexanoic acid (PFHxA)

D 49 13C5_PFHxA



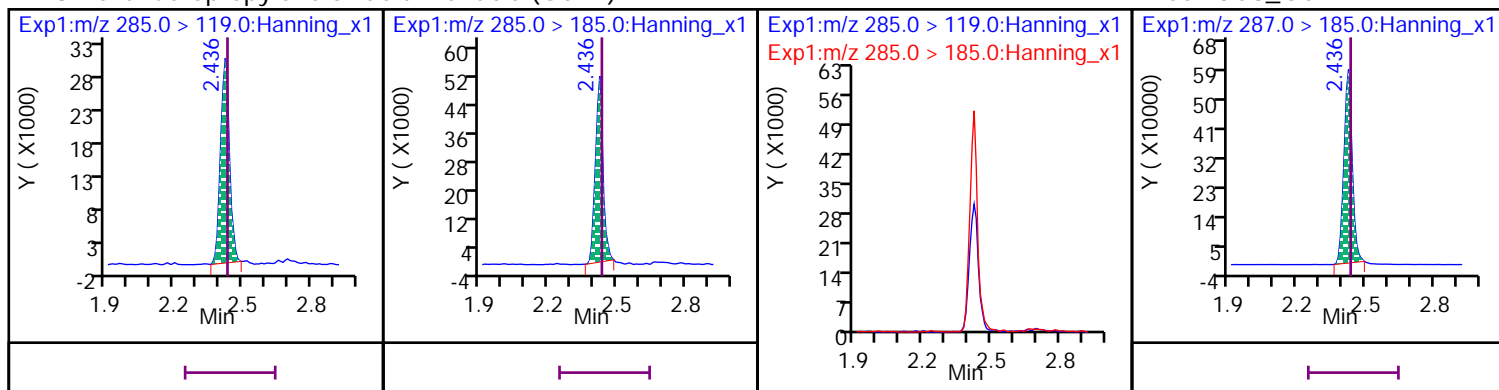
22 Perfluoro-1-pentanesulfonic acid (PFPeS)

D 44 13C3_PFBS



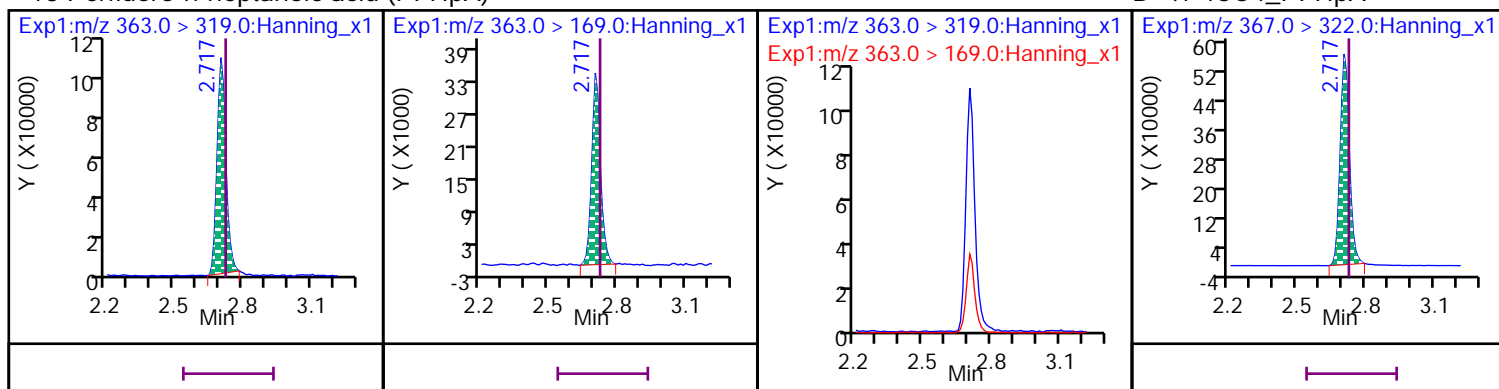
28 Hexafluoropropylene oxide dimer acid (GenX)

D 66 13C3_GenX



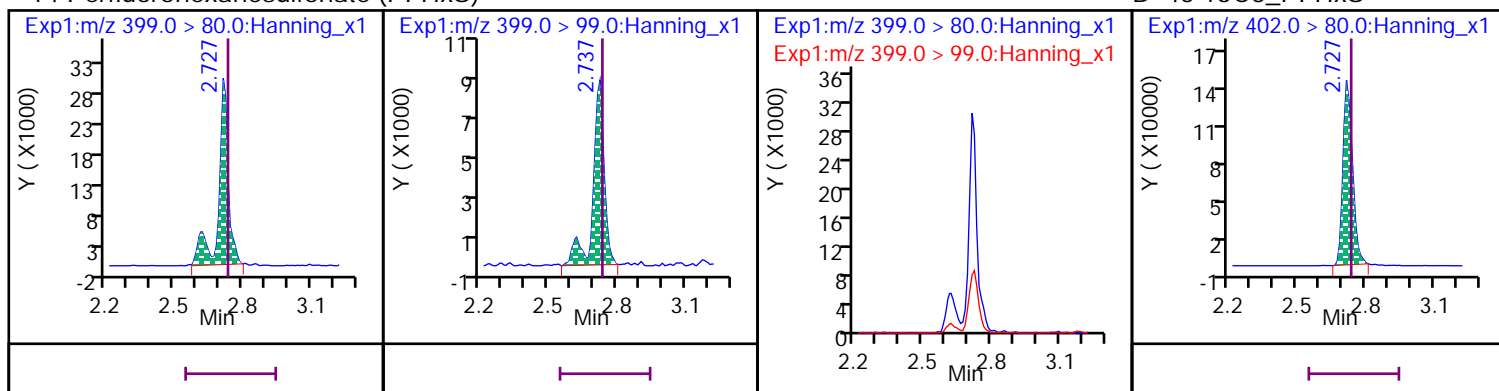
13 Perfluoro-n-heptanoic acid (PFHpA)

D 47 13C4_PFHpA



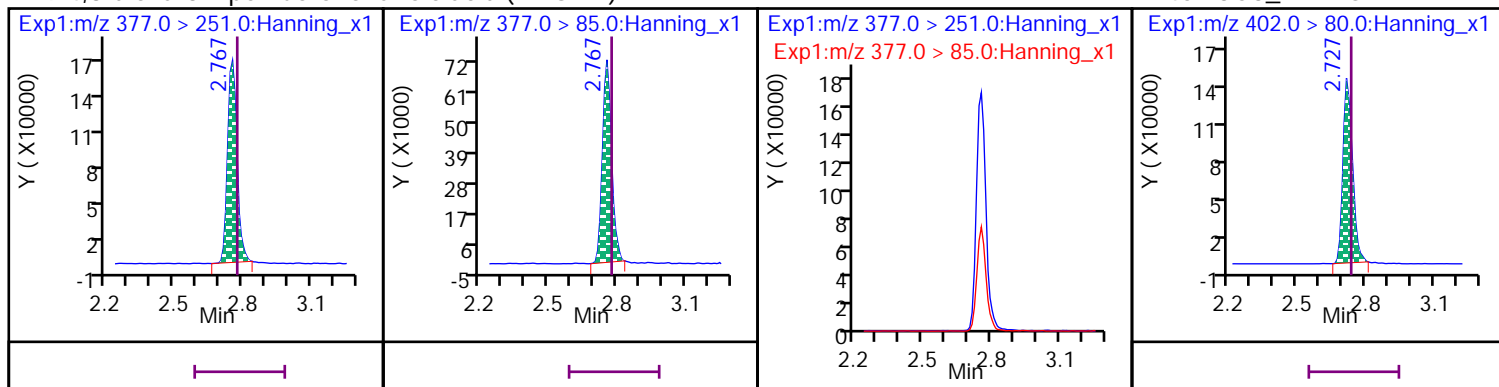
14 Perfluorohexanesulfonate (PFHxS)

D 45 13C3_PFHxS



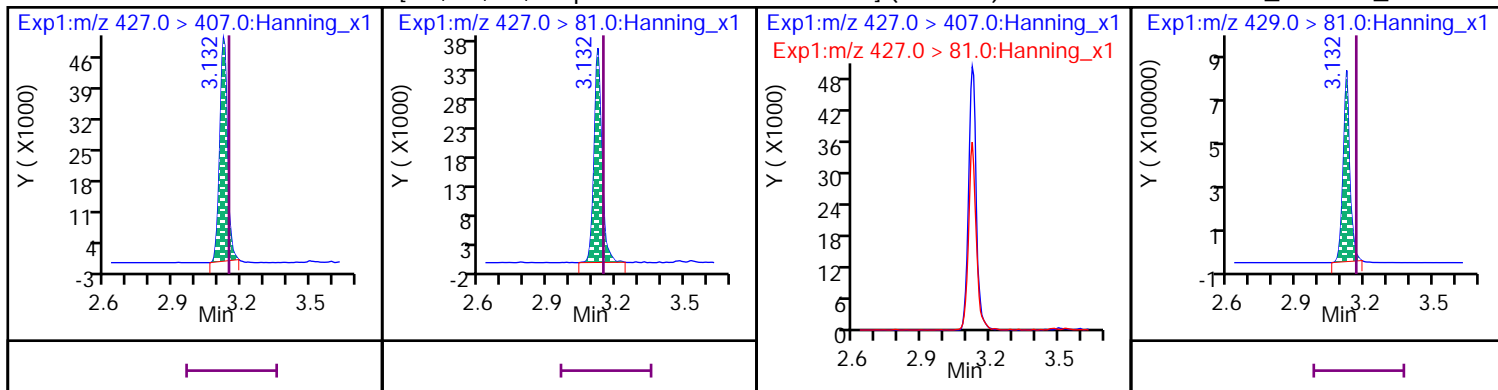
29 4,8-dioxa-3H-perfluorononanoic acid (ADONA)

D 45 13C3_PFHxS



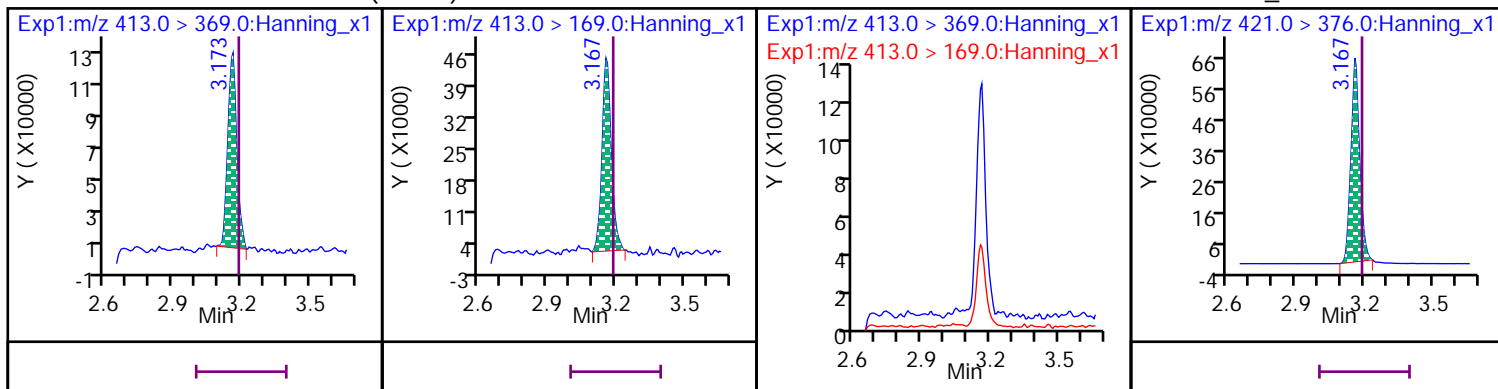
2 Fluorotelomer sulfonate 6:2 [1H,1H,2H,2H-perfluorooctane sulfonate] (6:2 FTS)

D 64 13C2_6:2 FTS_2



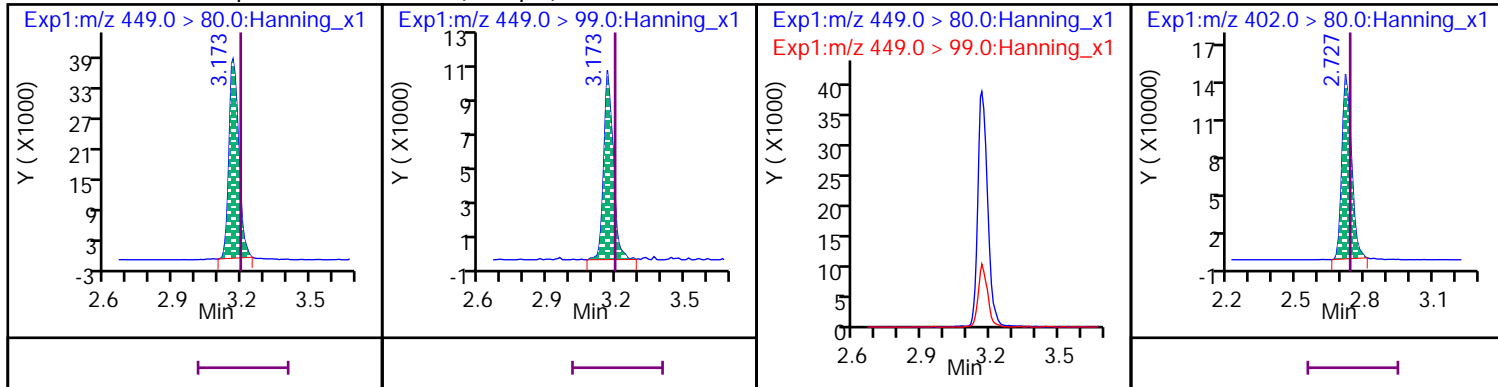
20 Perfluoro-n-octanoic acid (PFOA)

D 53 13C8_PFOA



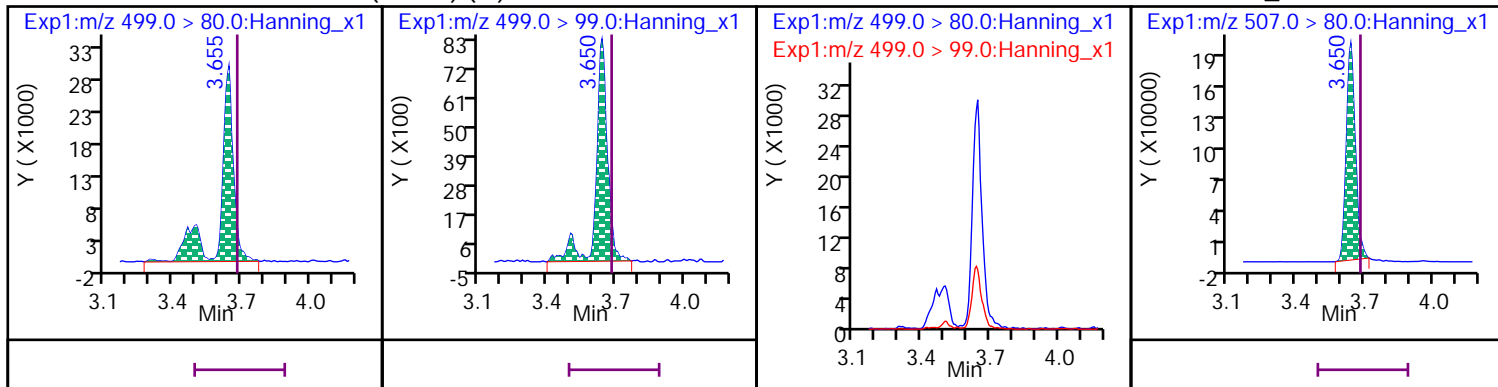
12 Perfluoro-1-heptanesulfonic acid (PFHpS)

D 45 13C3_PFHxS



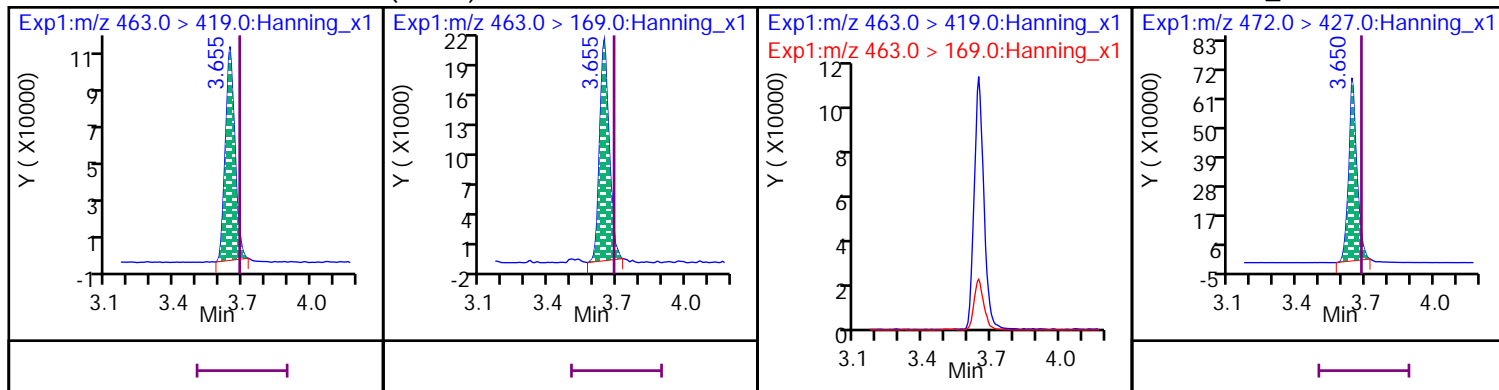
18 Perfluorooctanesulfonate (PFOS) (M)

D 54 13C8_PFOS



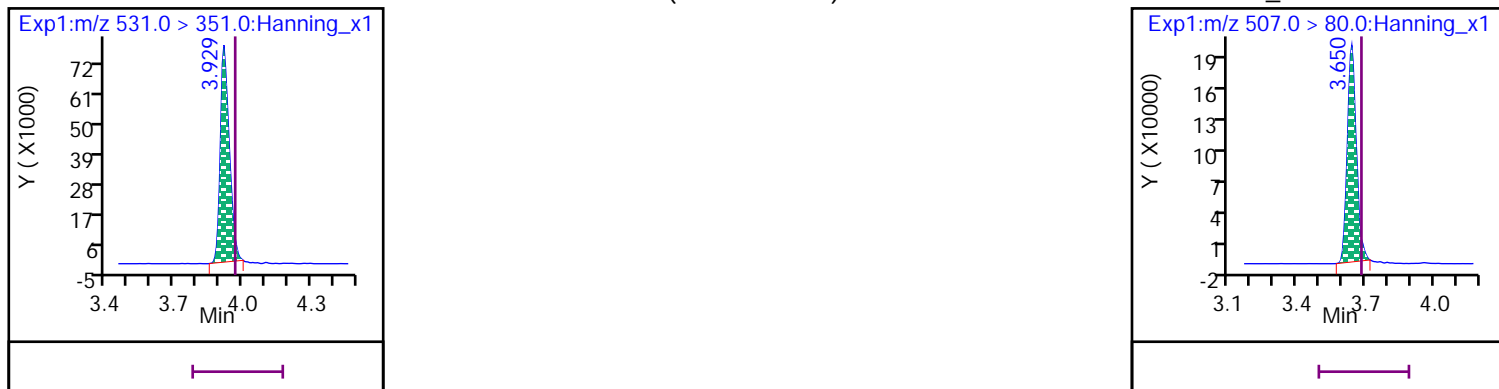
17 Perfluoro-n-nonanoic acid (PFNA)

D 56 13C9_PFNA



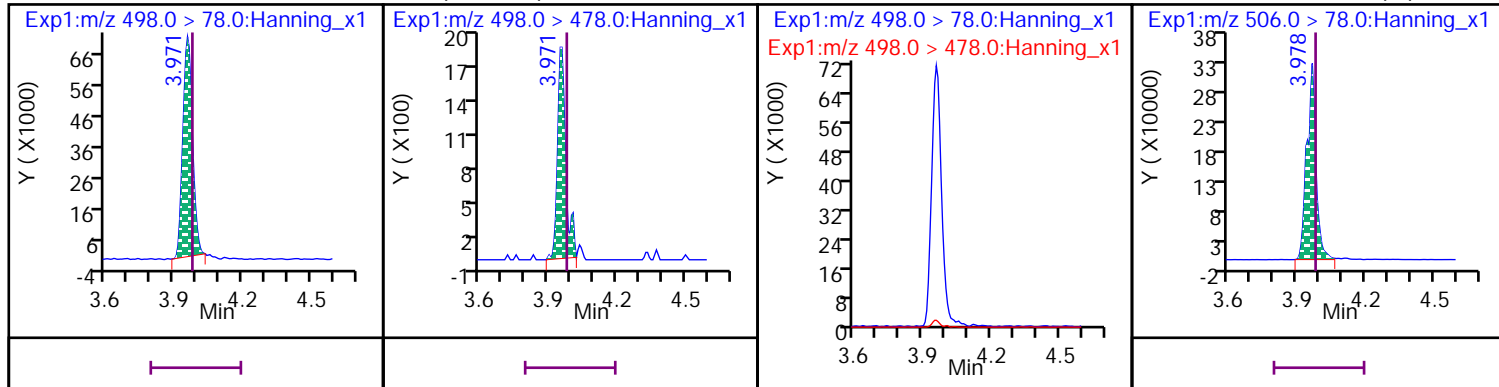
30 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)

D 54 13C8_PFOS



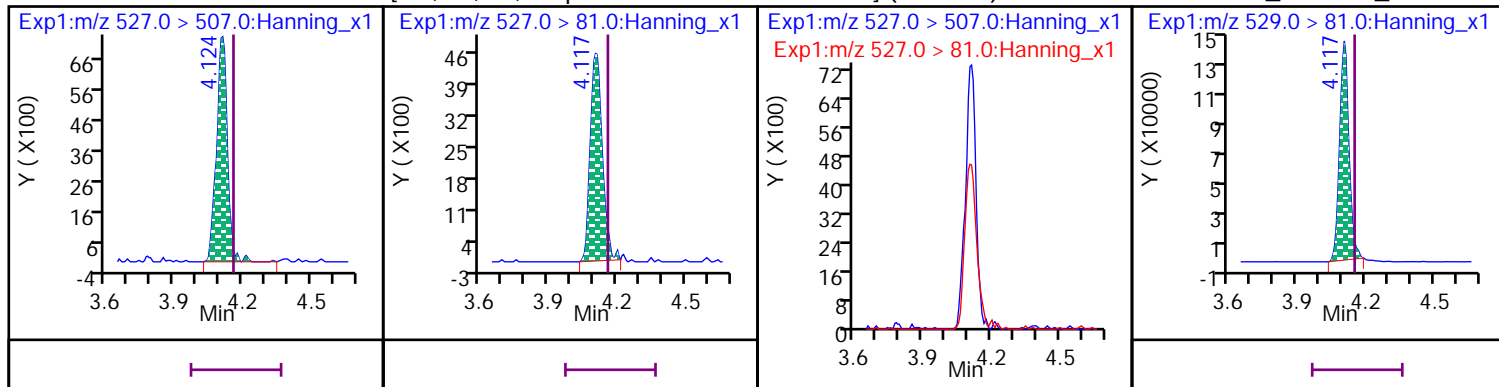
19 Perfluoro-1-octanesulfonamide (PFOSA)

D 55 13C8_PFOSA (M)



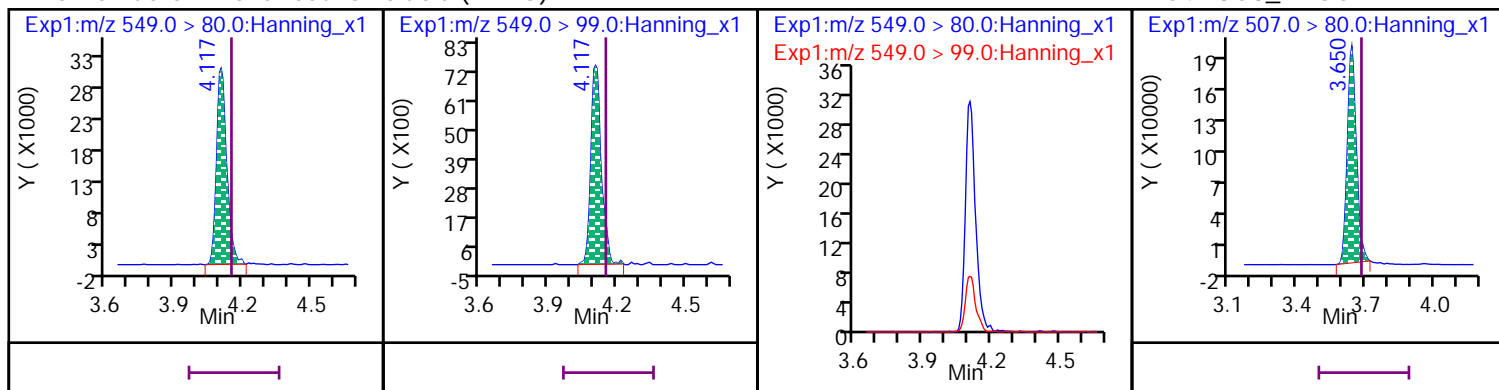
3 Fluorotelomer sulfonate 8:2 [1H,1H,2H,2H-perfluorodecane sulfonate] (8:2 FTS)

D 65 13C2_8:2 FTS_2



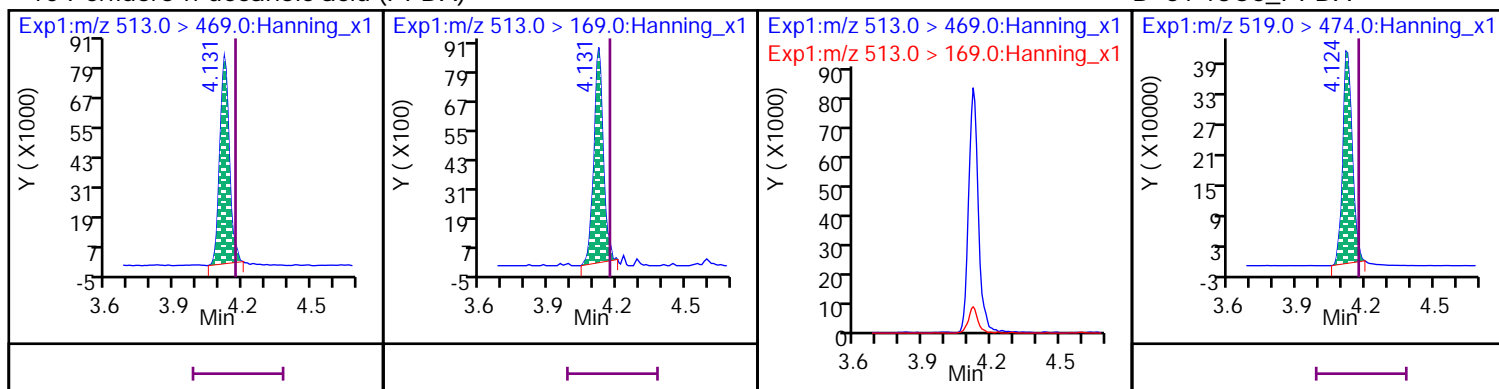
16 Perfluoro-1-nonanesulfonic acid (PFNS)

D 54 13C8_PFOS



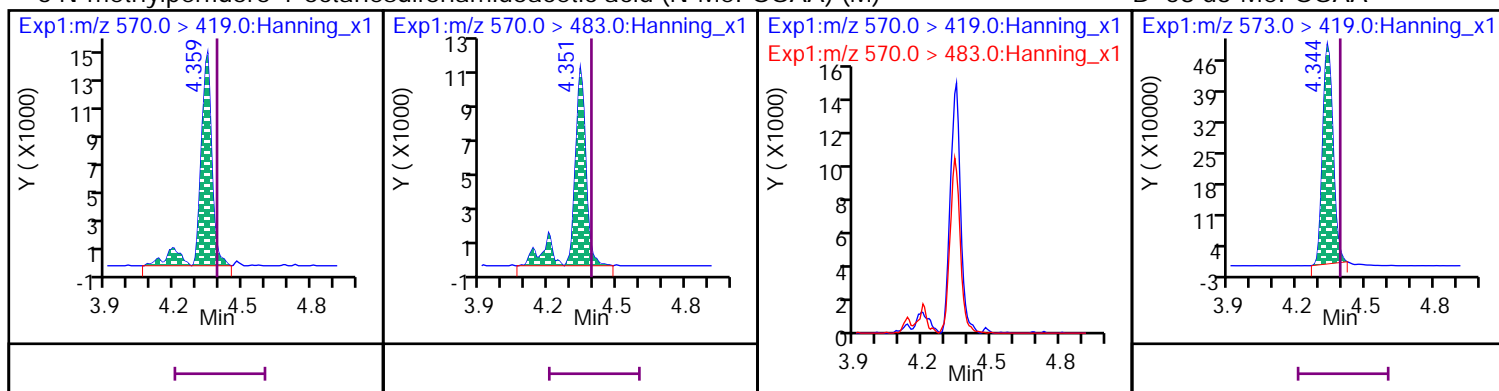
10 Perfluoro-n-decanoic acid (PFDA)

D 51 13C6_PFDA



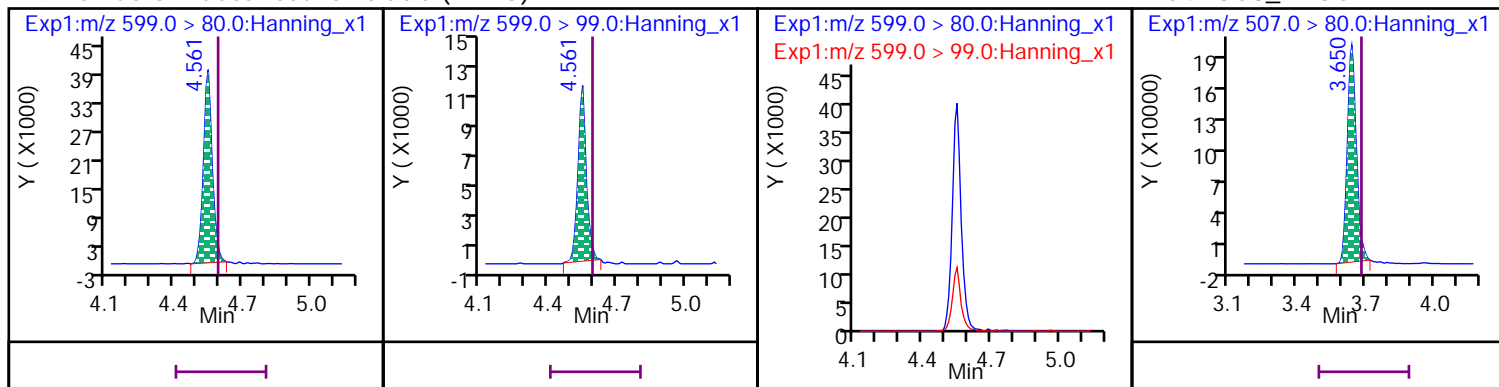
6 N-methylperfluoro-1-octanesulfonamidoacetic acid (N-MeFOSAA) (M)

D 58 d3-MeFOSAA

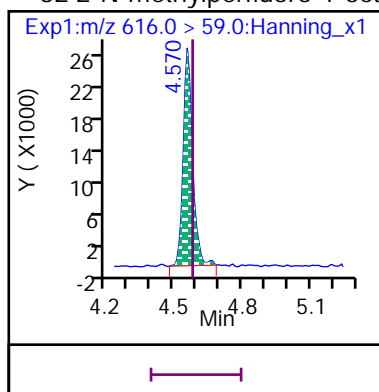


9 Perfluoro-1-decanesulfonic acid (PFDS)

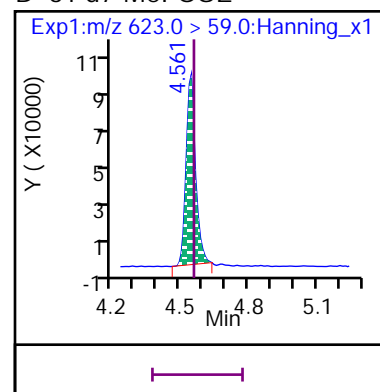
D 54 13C8_PFOS



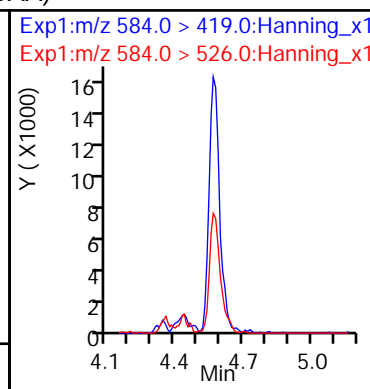
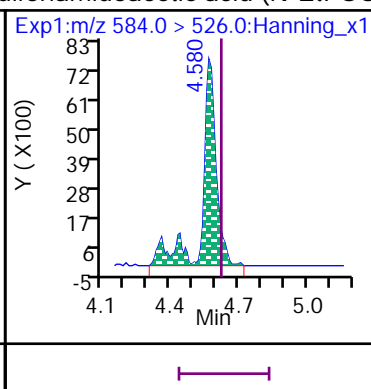
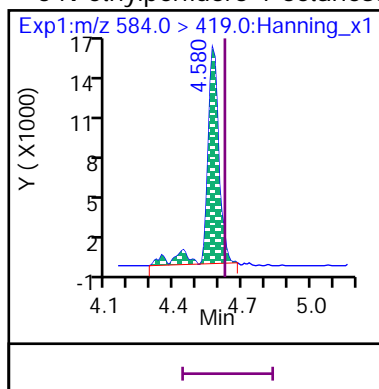
32 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)



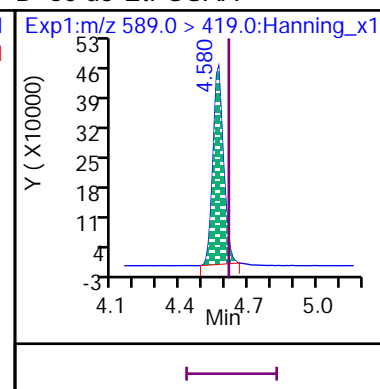
D 61 d7-MeFOSE



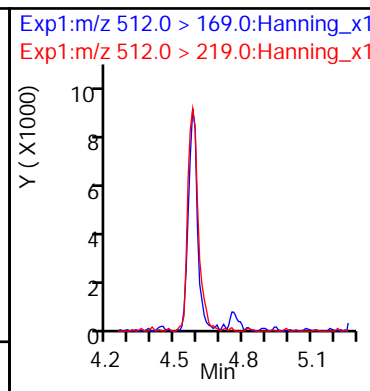
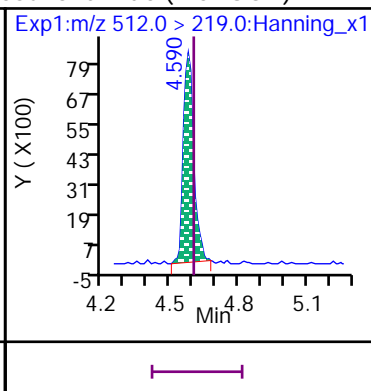
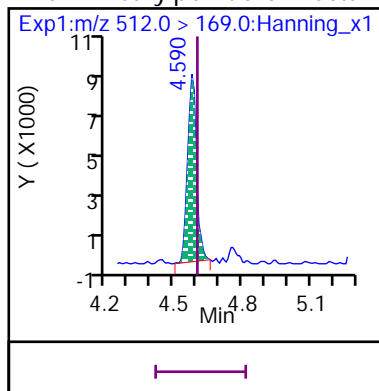
5 N-ethylperfluoro-1-octanesulfonamidoacetic acid (N-EtFOSAA)



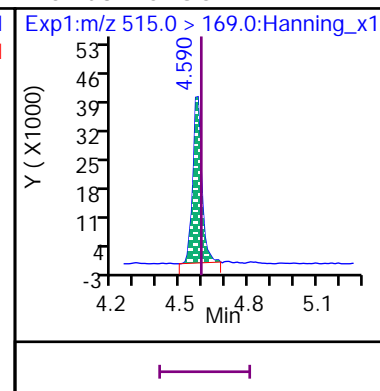
D 60 d5-EtFOSAA



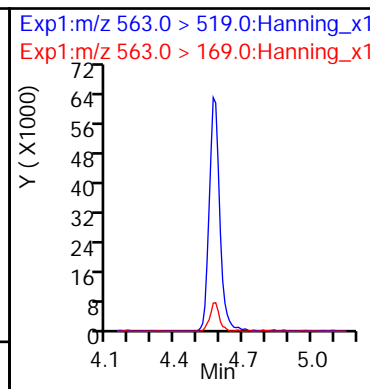
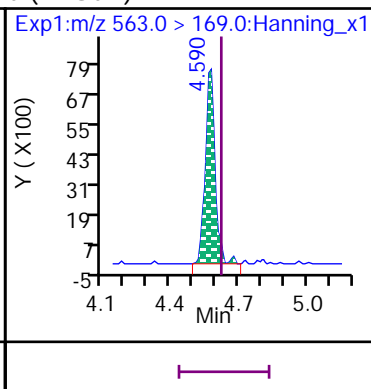
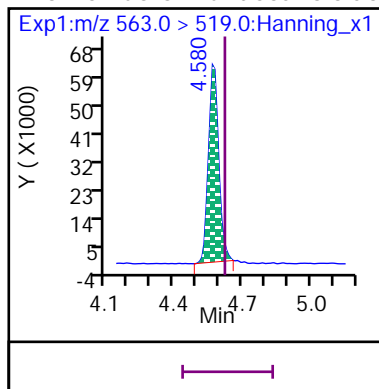
26 N-methylperfluoro-1-octanesulfonamide (MeFOSA)



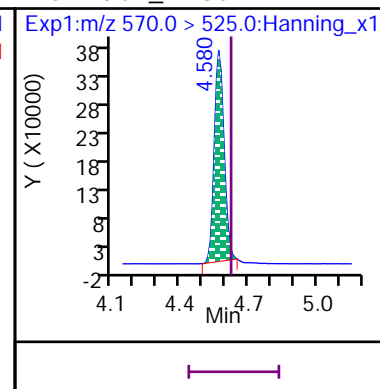
D 57 d3-MeFOSA



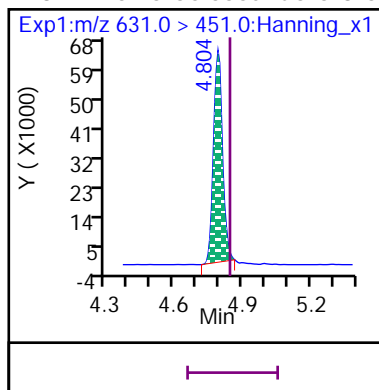
25 Perfluoro-n-undecanoic acid (PFUdA)



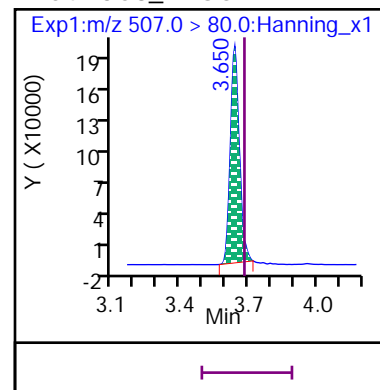
D 52 13C7_PFUdA



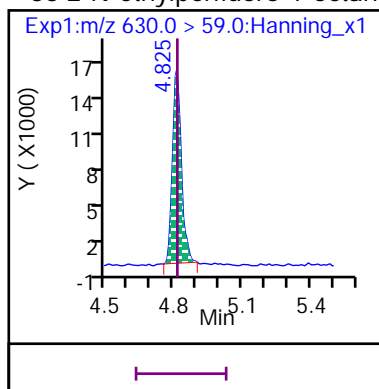
31 11-chloroeicosafuoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)



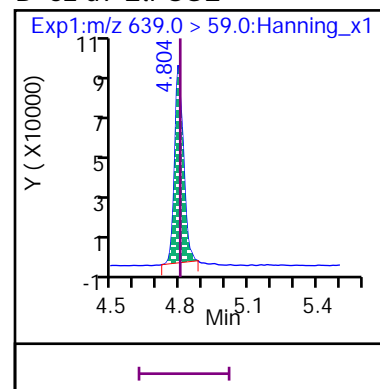
D 54 13C8_PFOS



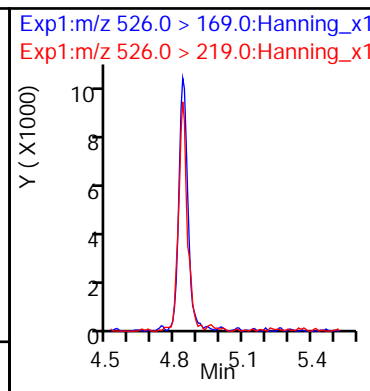
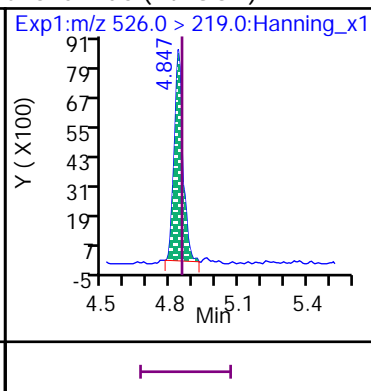
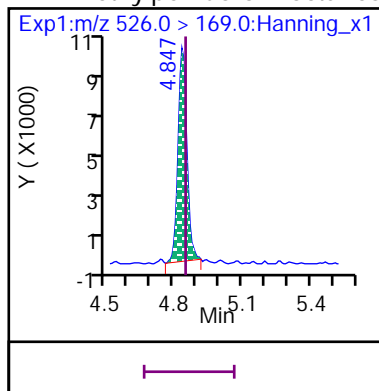
33 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)



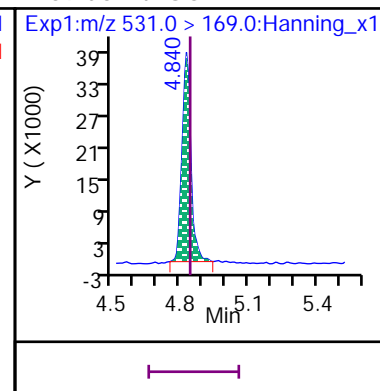
D 62 d9-EtFOSE



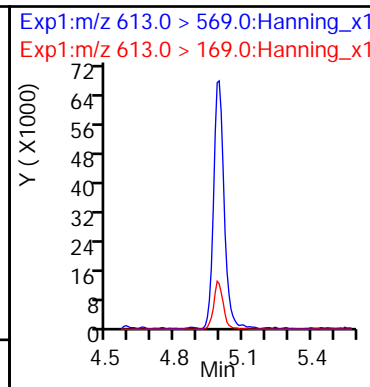
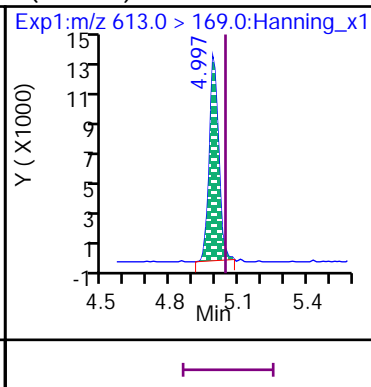
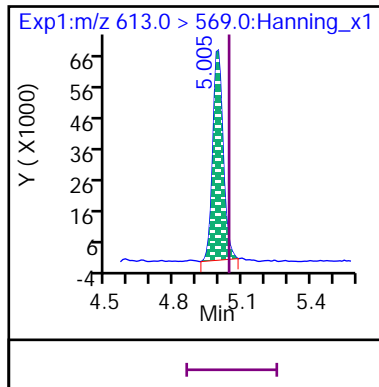
27 N-ethylperfluoro-1-octanesulfonamide (EtFOSA)



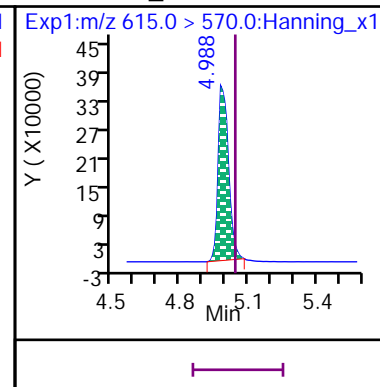
D 59 d5-EtFOSA



11 Perfluoro-n-dodecanoic acid (PFDoA)

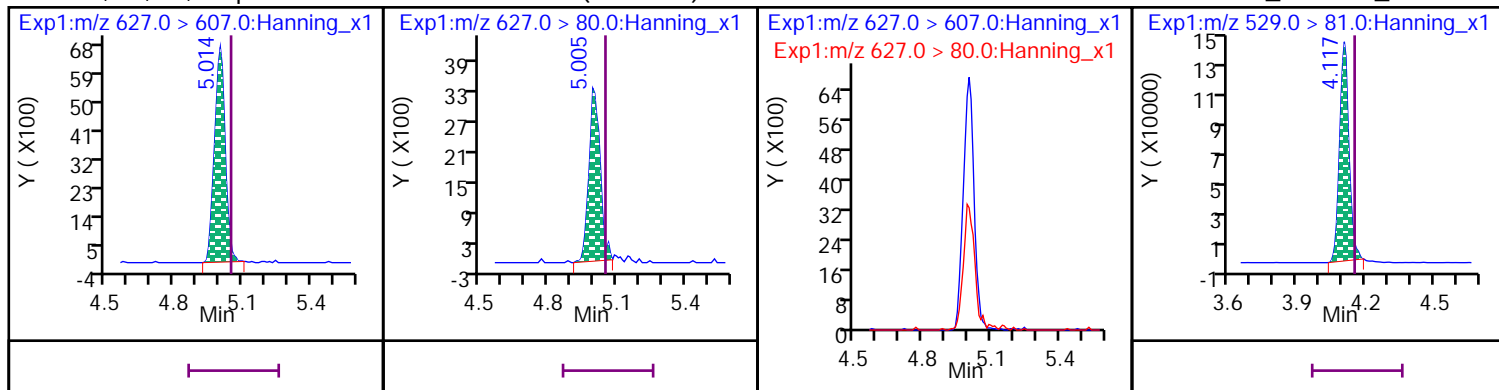


D 38 13C2_PFDoA



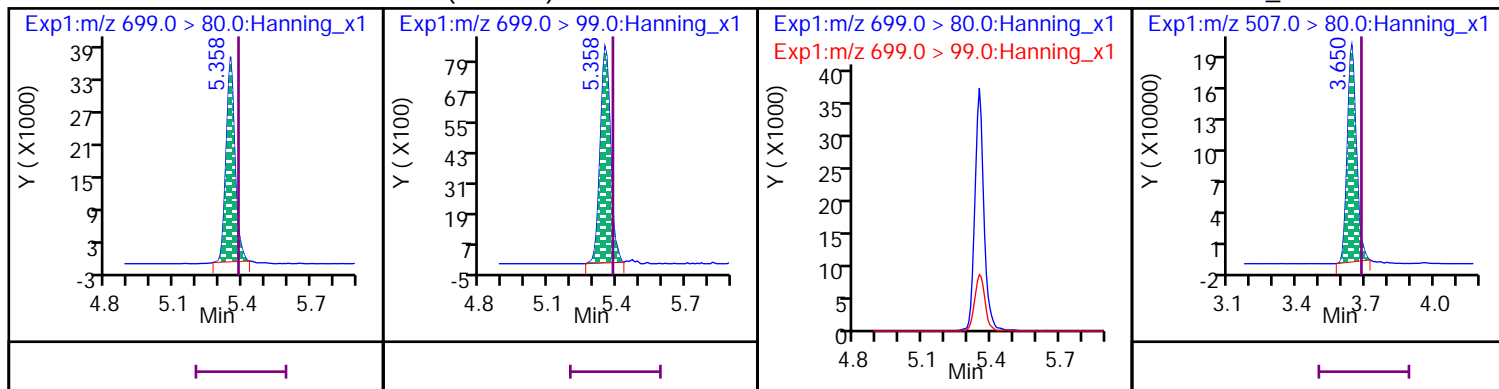
4 1H,1H,2H,2H-perfluorododecane sulfonate (10:2FTS)

D 65 13C2_8:2 FTS_2



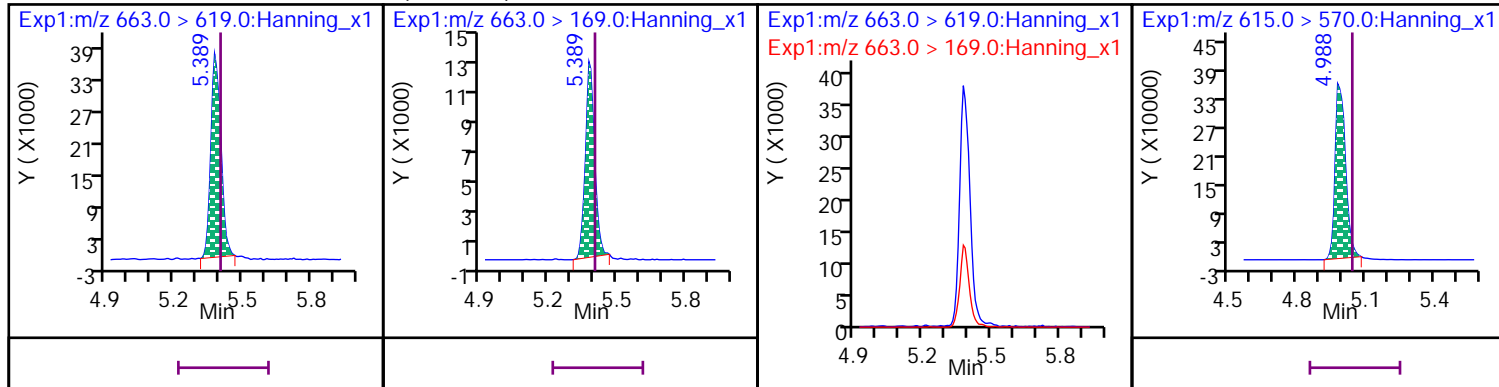
34 Perfluorododecanesulfonic acid (PFDOS)

D 54 13C8_PFOS



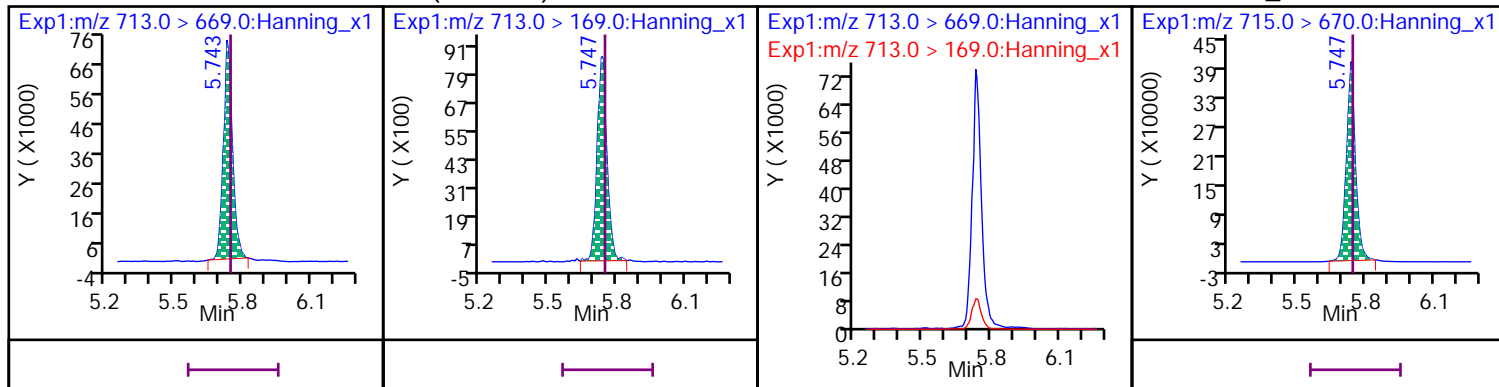
24 Perfluoro-n-tridecanoic acid (PFTTrDA)

D 38 13C2_PFDaA



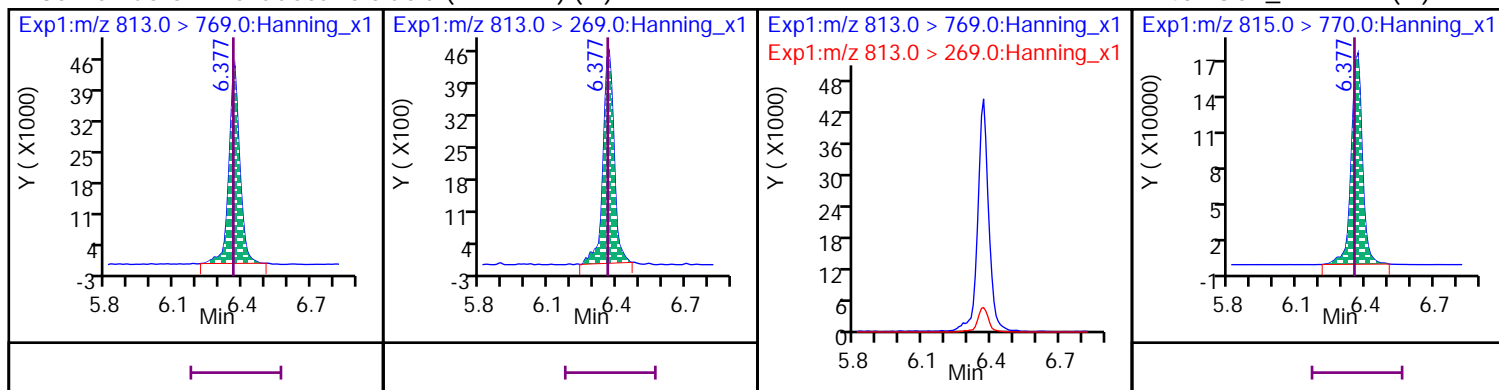
23 Perfluoro-n-tetradecanoic acid (PFTeDA)

D 42 13C2_PFTeDA



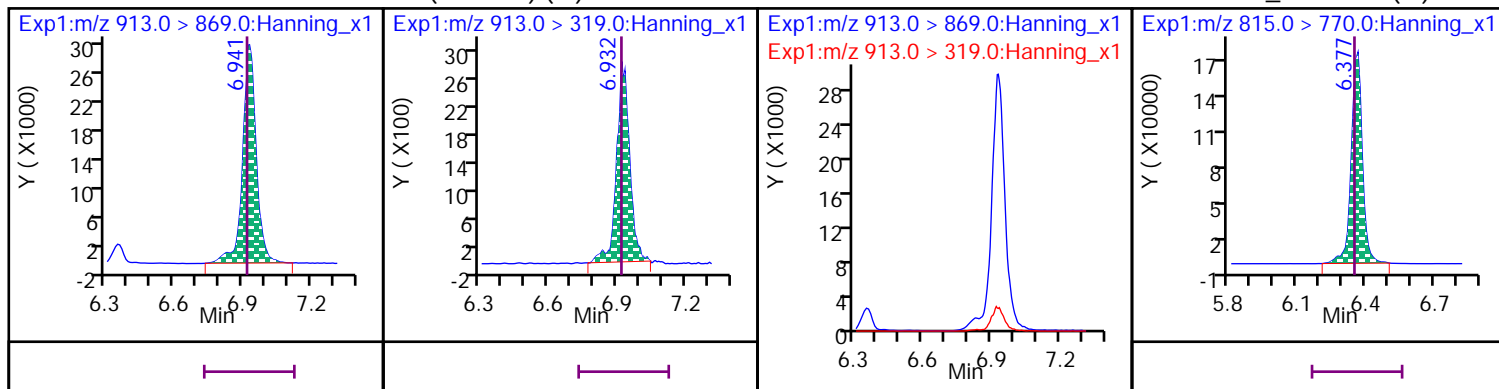
35 Perfluoro-n-hexadecanoic acid (PFHxDA) (M)

D 40 13C2_PFHxDA (M)



36 Perfluoro-n-octadecanoic acid (PFODA) (M)

D 40 13C2_PFHxDA (M)



Manual Integration Report

Data File: \\Organics\LL\LCMSMS01.i\091122-nonDOD.b\091122020.d

Injection Date: 11-Sep-2022 16:55:39

Inst. ID: LCMSMS01.i

Client ID:

Lab ID: XQ52413-002

Sample Info: XQ52413-002

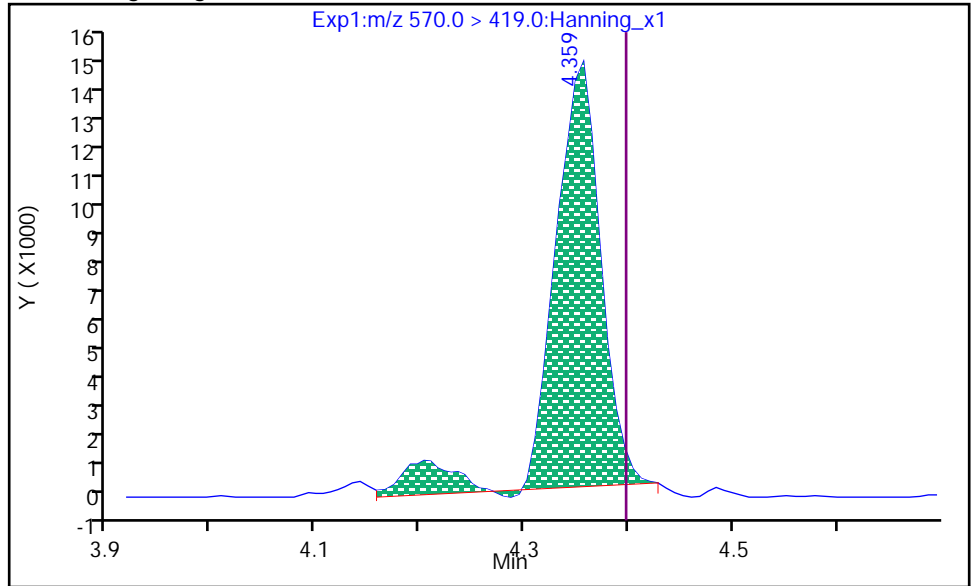
Dil. Factor: 1

Operator: eqi.svoa

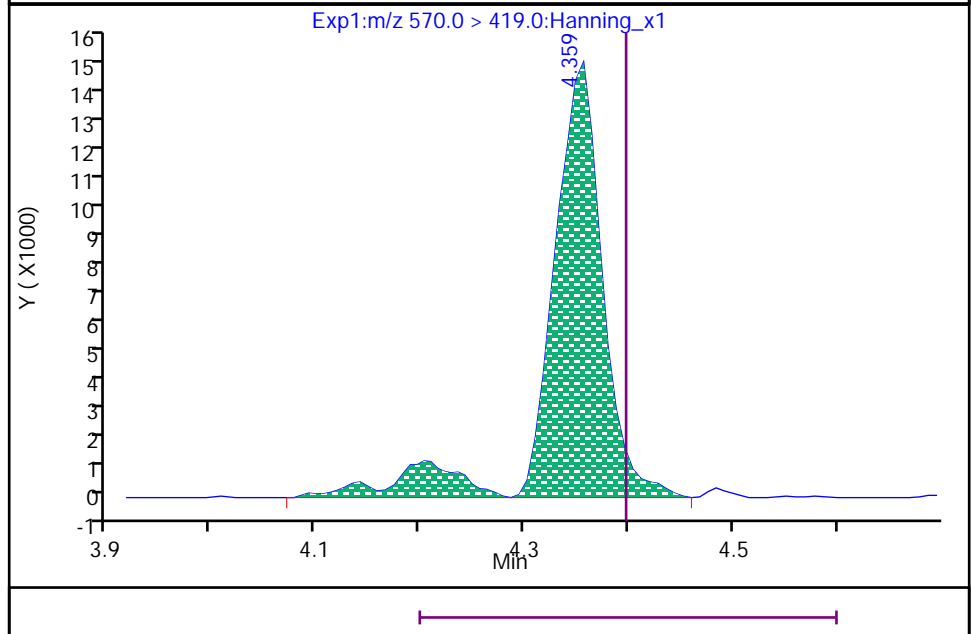
6 N-MeFOSAA, CAS: 2355-31-9

Processing Integration Results

RT: 4.359
Area: 46799
Conc: 1.8046
Conc Units: ug/Kg



RT: 4.359
Area: 52305
Conc: 2.0169
Conc Units: ug/Kg



Data Editor: xiang.zhu, 12-Sep-2022 15:45:03

Audit Action: Mint

Audit Reason: Invalid Integration

Manual Integration Report

Data File: \\Organics\LL\LCMSMS01.i\091122-nonDOD.b\091122020.d

Injection Date: 11-Sep-2022 16:55:39

Inst. ID: LCMSMS01.i

Client ID:

Lab ID: XQ52413-002

Sample Info: XQ52413-002

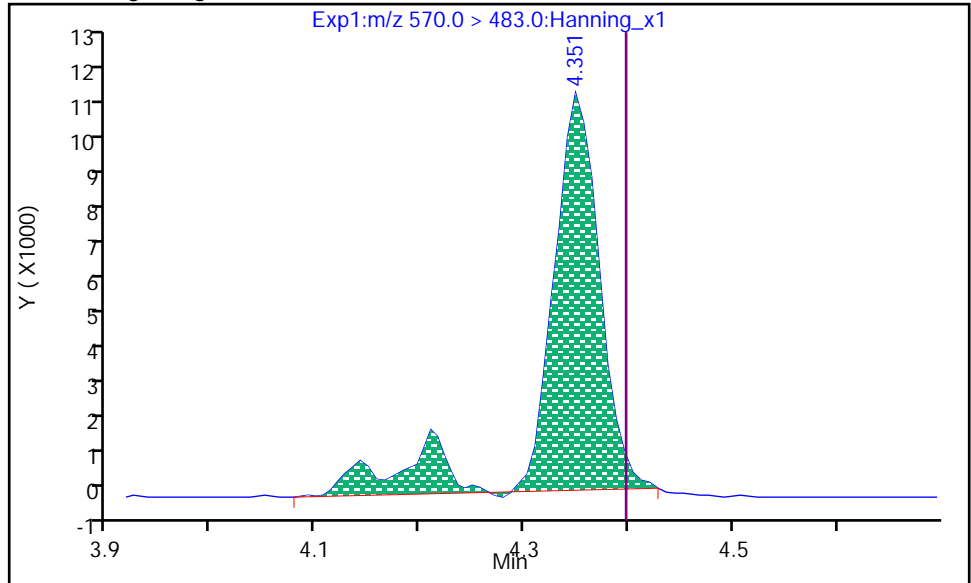
Dil. Factor: 1

Operator: eqi.svoa

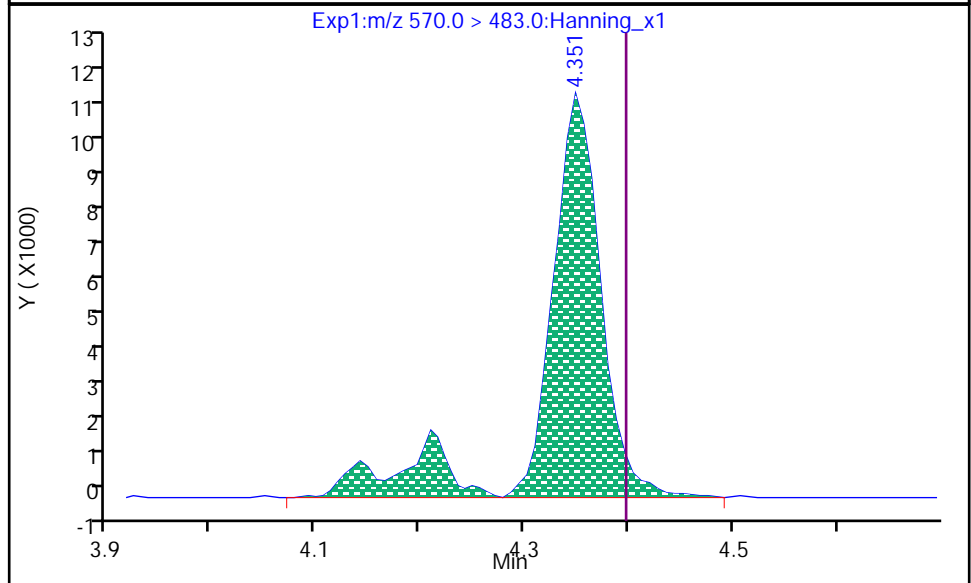
6 N-MeFOSAA, CAS: 2355-31-9

Processing Integration Results

RT: 4.351
Area: 36133
Conc: 2.0169
Conc Units: ug/Kg



RT: 4.351
Area: 38840
Conc: 2.0169
Conc Units: ug/Kg



Data Editor: xiang.zhu, 12-Sep-2022 15:45:08

Audit Action: Mint

Audit Reason: Invalid Integration

Manual Integration Report

Data File: \\Organics\LL\LCMSMS01.i\091122-nonDOD.b\0911222020.d

Injection Date: 11-Sep-2022 16:55:39

Inst. ID: LCMSMS01.i

Client ID:

Lab ID: XQ52413-002

Sample Info: XQ52413-002

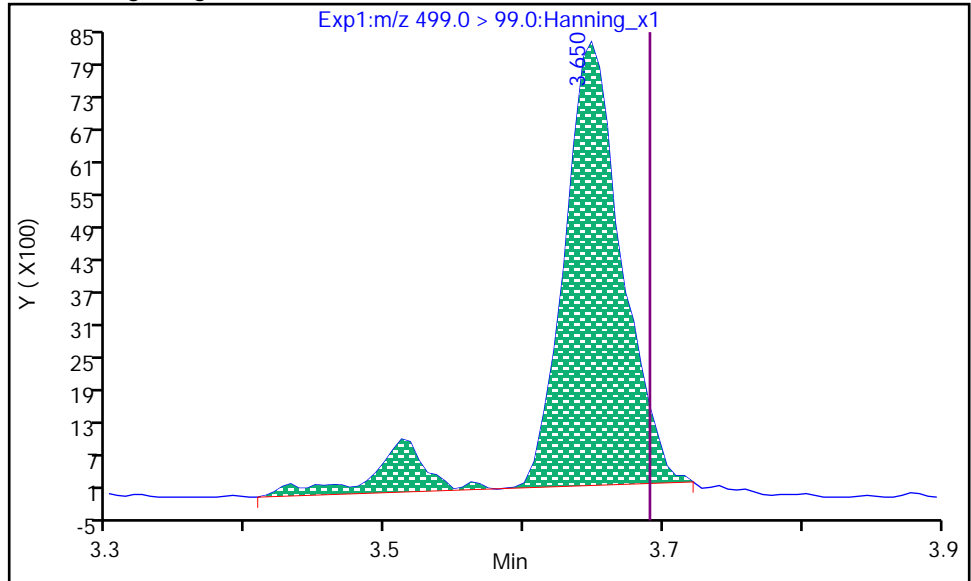
Dil. Factor: 1

Operator: eqi.svoa

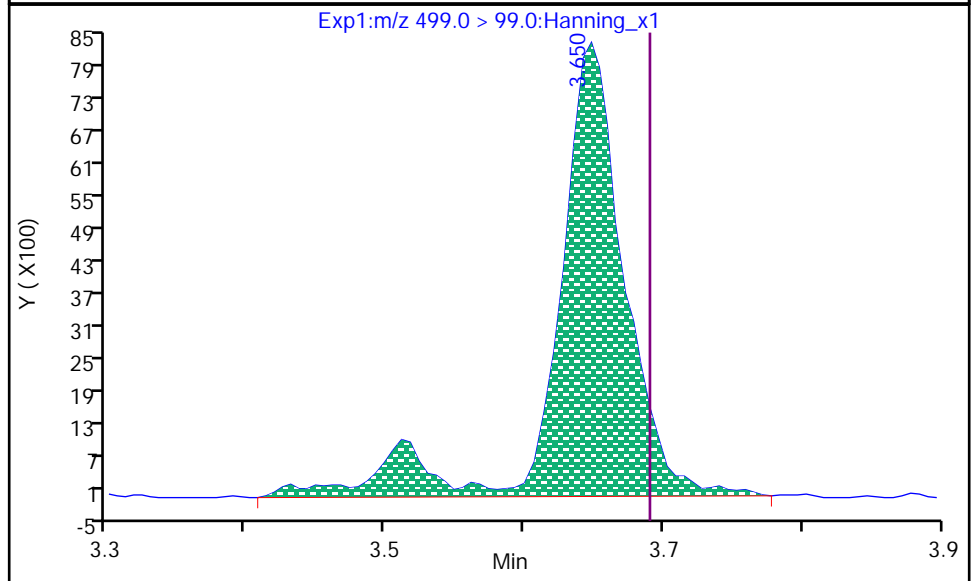
18 PFOS, CAS: 1763-23-1

Processing Integration Results

RT: 3.650
Area: 25255
Conc: 1.9257
Conc Units: ug/Kg



RT: 3.650
Area: 27944
Conc: 1.9257
Conc Units: ug/Kg



Data Editor: xiang.zhu, 12-Sep-2022 15:44:43
Audit Action: Mint
Audit Reason: Invalid Integration

Manual Integration Report

Data File: \\Organics\LL\LCMSMS01.i\091122-nonDOD.b\091122020.d

Injection Date: 11-Sep-2022 16:55:39

Inst. ID: LCMSMS01.i

Client ID:

Lab ID: XQ52413-002

Sample Info: XQ52413-002

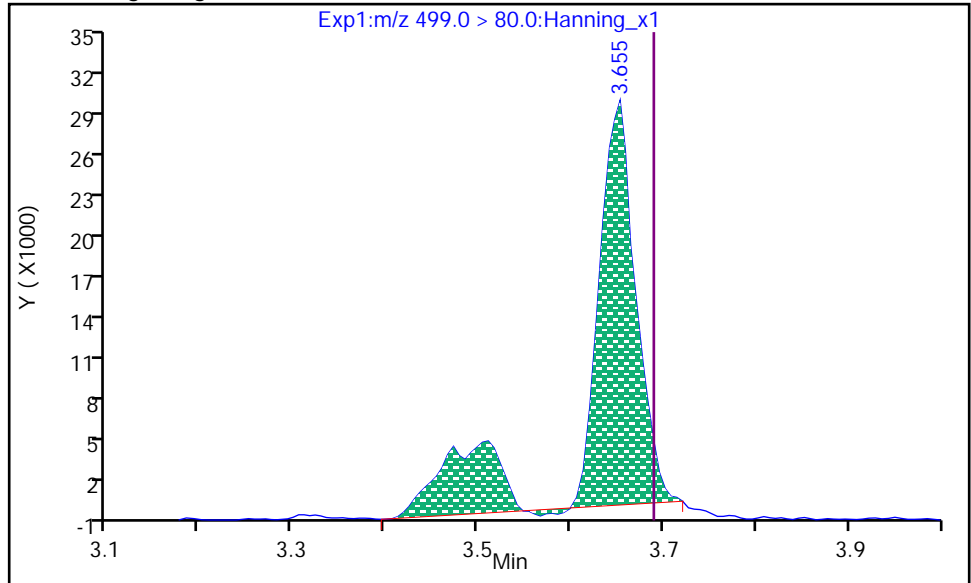
Dil. Factor: 1

Operator: eqi.svoa

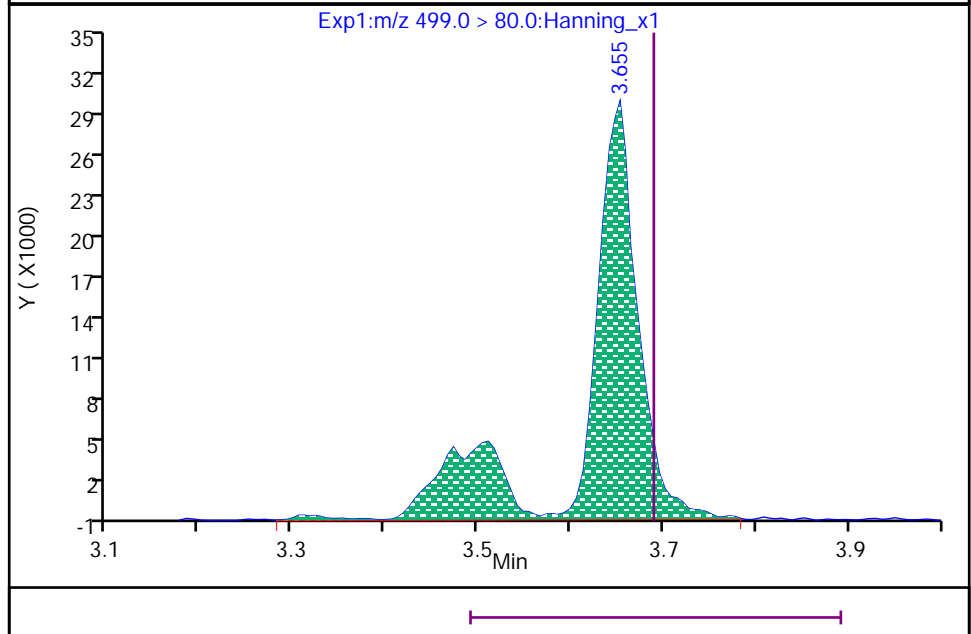
18 PFOS, CAS: 1763-23-1

Processing Integration Results

RT: 3.655
Area: 101111
Conc: 1.6620
Conc Units: ug/Kg



RT: 3.655
Area: 117154
Conc: 1.9257
Conc Units: ug/Kg



Data Editor: matthew.miller, 15-Sep-2022 15:09:37

Audit Action: Mint

Audit Reason: Invalid Integration

Manual Integration Report

Data File: \\Organics\LL\LCMSMS01.i\091122-nonDOD.b\091122020.d

Injection Date: 11-Sep-2022 16:55:39

Inst. ID: LCMSMS01.i

Client ID:

Lab ID: XQ52413-002

Sample Info: XQ52413-002

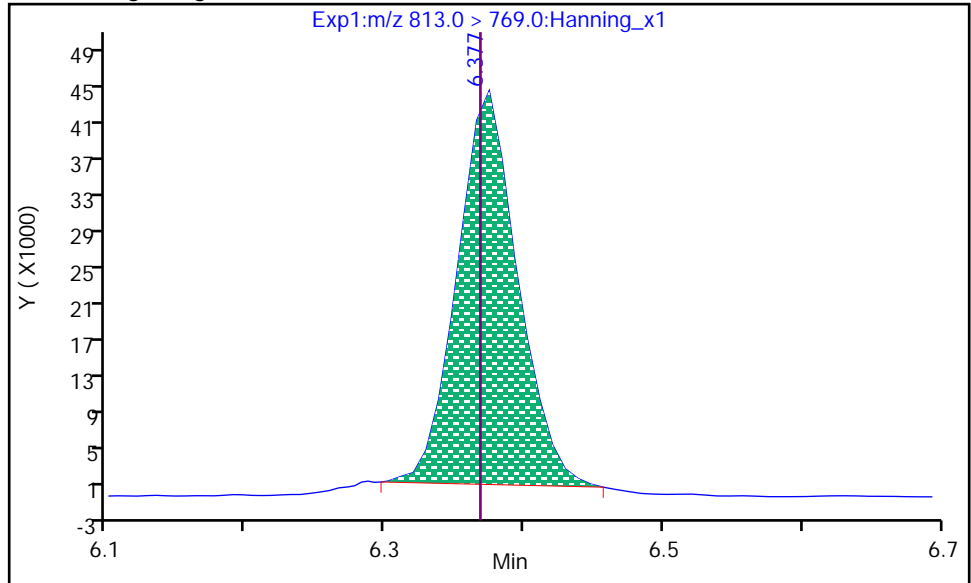
Dil. Factor: 1

Operator: eqi.svoa

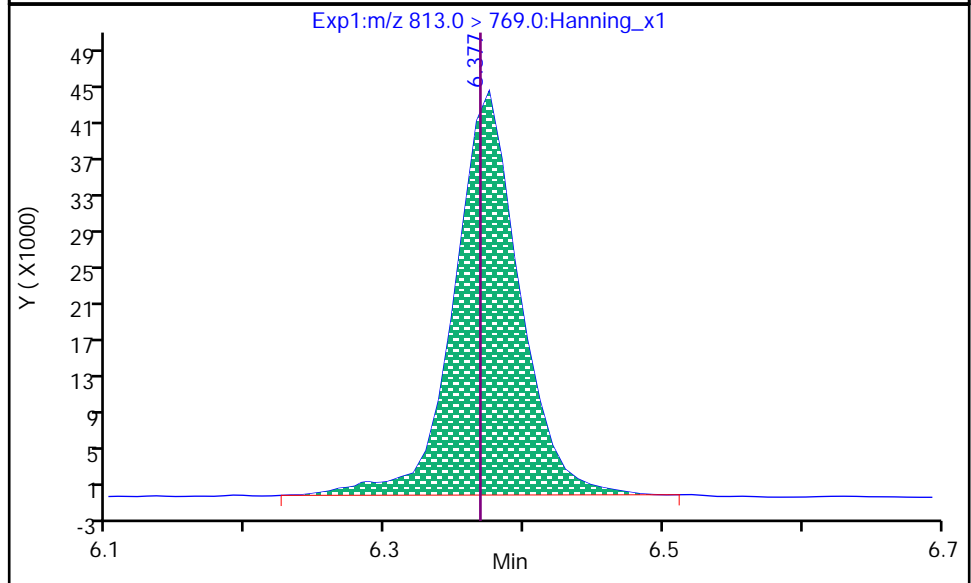
35 PFHxDA, CAS: 67905-19-5

Processing Integration Results

RT: 6.377
Area: 128143
Conc: 2.0844
Conc Units: ug/Kg



RT: 6.377
Area: 141794
Conc: 2.0718
Conc Units: ug/Kg



Data Editor: xiang.zhu, 12-Sep-2022 15:45:40

Audit Action: Mint

Audit Reason: Invalid Integration

Manual Integration Report

Data File: \\Organics\LL\LCMSMS01.i\091122-nonDOD.b\091122020.d

Injection Date: 11-Sep-2022 16:55:39

Inst. ID: LCMSMS01.i

Client ID:

Lab ID: XQ52413-002

Sample Info: XQ52413-002

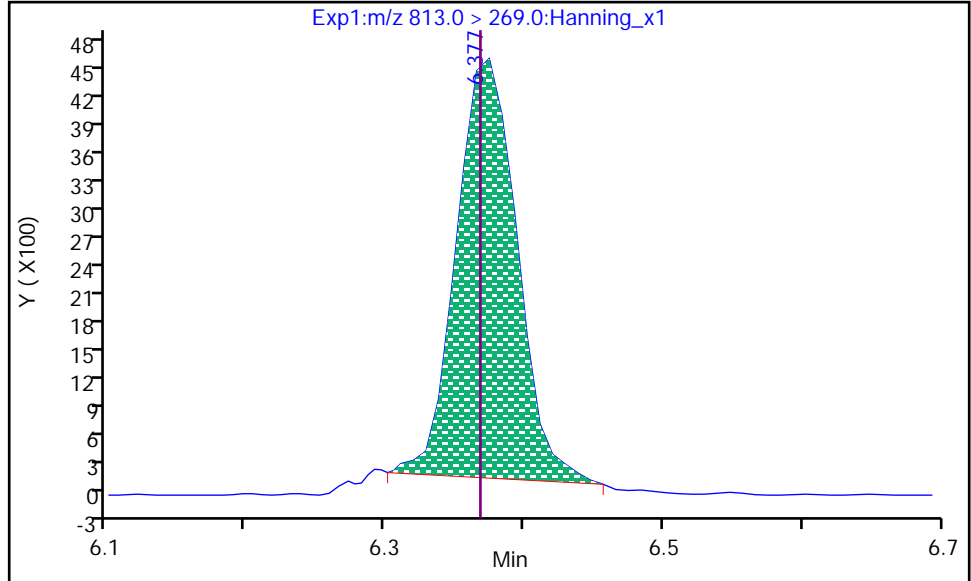
Dil. Factor: 1

Operator: eqi.svoa

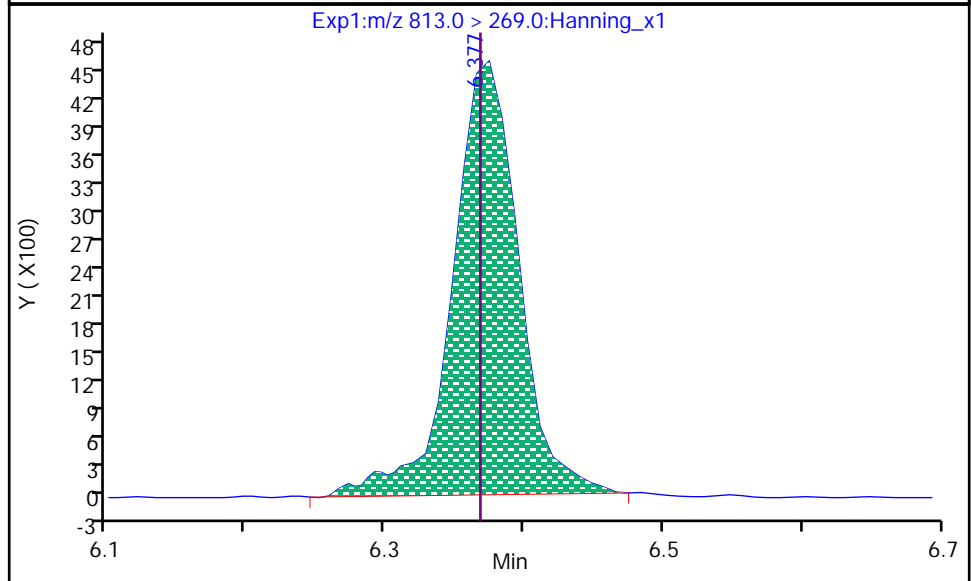
35 PFHxDA, CAS: 67905-19-5

Processing Integration Results

RT: 6.377
Area: 13356
Conc: 2.0718
Conc Units: ug/Kg



RT: 6.377
Area: 15100
Conc: 2.0718
Conc Units: ug/Kg



Data Editor: xiang.zhu, 12-Sep-2022 15:45:49

Audit Action: Mint

Audit Reason: Invalid Integration

Manual Integration Report

Data File: \\Organics\LL\LCMSMS01.i\091122-nonDOD.b\091122020.d

Injection Date: 11-Sep-2022 16:55:39

Inst. ID: LCMSMS01.i

Client ID:

Lab ID: XQ52413-002

Sample Info: XQ52413-002

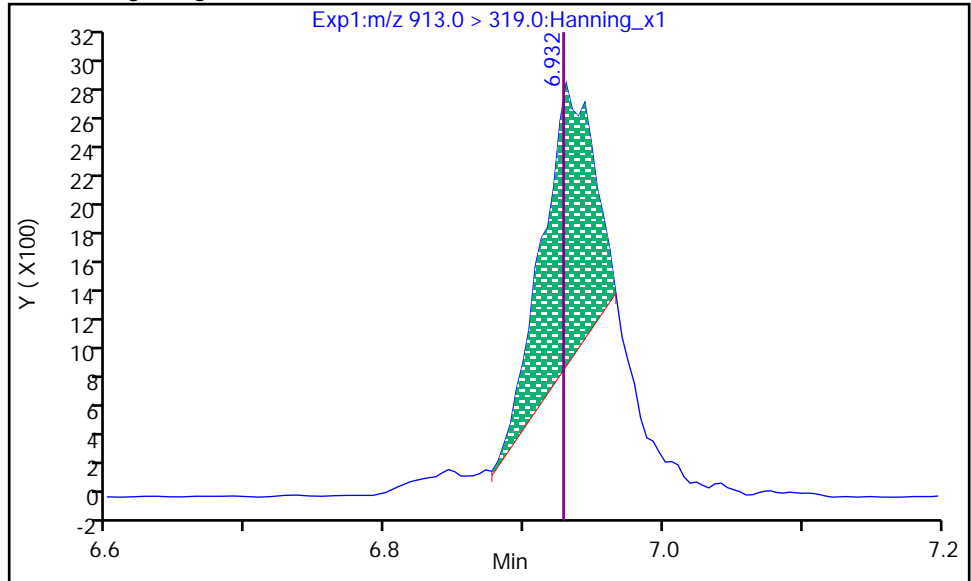
Dil. Factor: 1

Operator: eqi.svoa

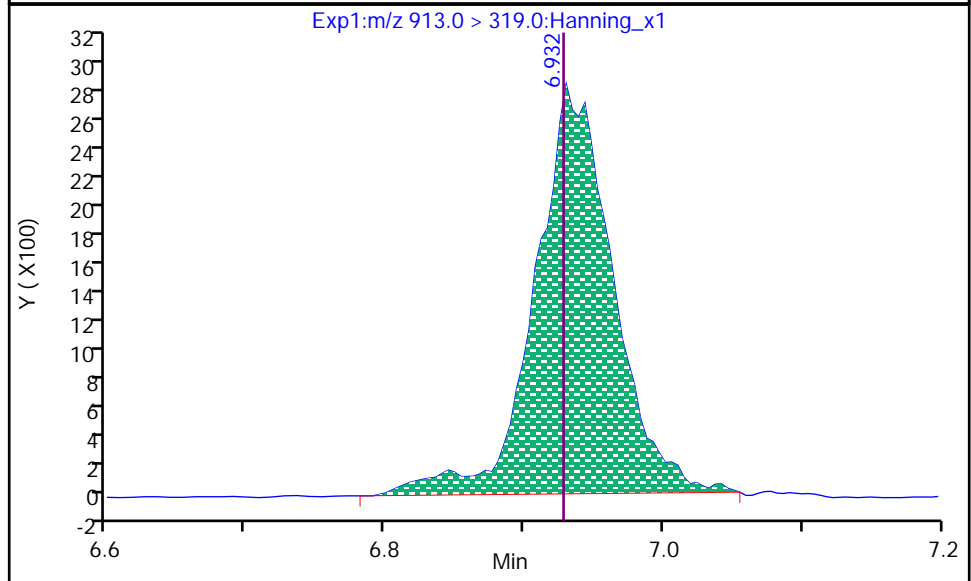
36 PFODA, CAS: 16517-11-6

Processing Integration Results

RT: 6.932
Area: 4827
Conc: 2.1789
Conc Units: ug/Kg



RT: 6.932
Area: 10901
Conc: 2.1789
Conc Units: ug/Kg



Data Editor: xiang.zhu, 12-Sep-2022 15:46:00

Audit Action: Mint

Audit Reason: Invalid Integration

Manual Integration Report

Data File: \\Organics\LL\LCMSMS01.i\091122-nonDOD.b\091122020.d

Injection Date: 11-Sep-2022 16:55:39

Inst. ID: LCMSMS01.i

Client ID:

Lab ID: XQ52413-002

Sample Info: XQ52413-002

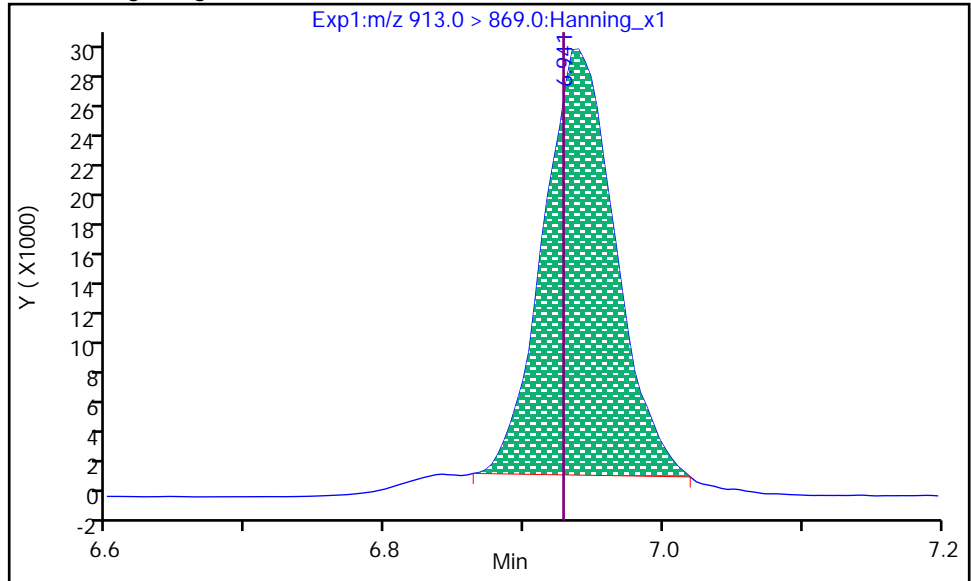
Dil. Factor: 1

Operator: eqi.svoa

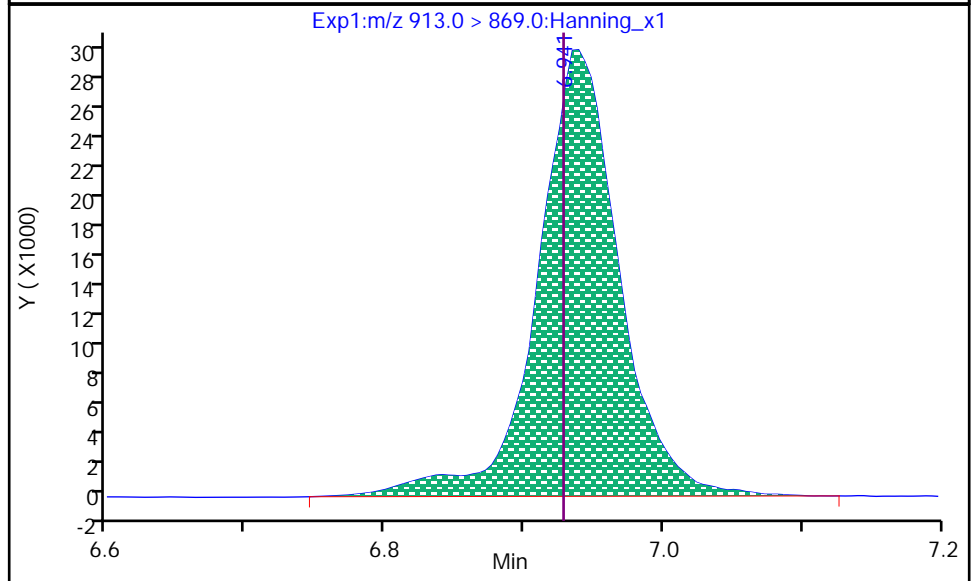
36 PFODA, CAS: 16517-11-6

Processing Integration Results

RT: 6.941
Area: 100783
Conc: 1.8291
Conc Units: ug/Kg



RT: 6.941
Area: 120056
Conc: 2.1789
Conc Units: ug/Kg



Data Editor: xiang.zhu, 12-Sep-2022 15:46:07

Audit Action: Mint

Audit Reason: Invalid Integration

Manual Integration Report

Data File: \\Organics\LL\LCMSMS01.i\091122-nonDOD.b\0911222020.d

Injection Date: 11-Sep-2022 16:55:39

Inst. ID: LCMSMS01.i

Client ID:

Lab ID: XQ52413-002

Sample Info: XQ52413-002

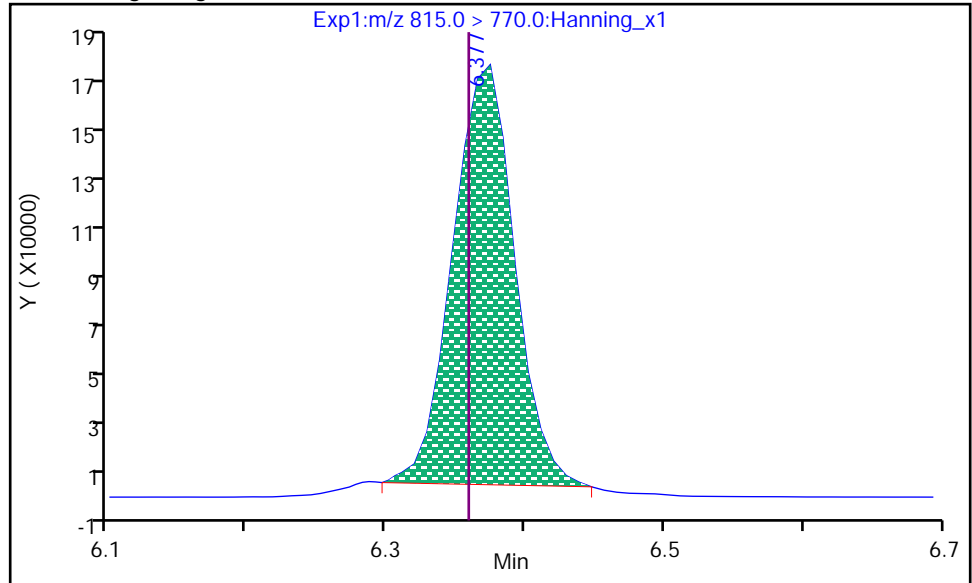
Dil. Factor: 1

Operator: eqi.svoa

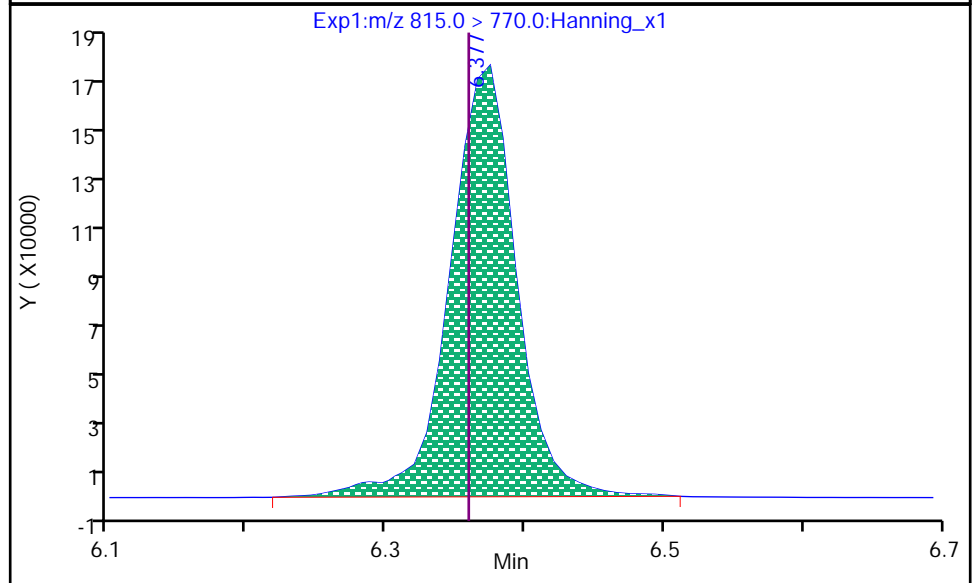
D 40 13C2_PFHxDA, CAS: SESI-0103

Processing Integration Results

RT: 6.377
Area: 509122
Conc: 1807.00
Conc Units: ug/Kg



RT: 6.377
Area: 566781
Conc: 2011.65
Conc Units: ug/Kg



Data Editor: xiang.zhu, 12-Sep-2022 15:45:46

Audit Action: Mint

Audit Reason: Invalid Integration

Manual Integration Report

Data File: \\Organics\LL\LCMSMS01.i\091122-nonDOD.b\091122020.d

Injection Date: 11-Sep-2022 16:55:39

Inst. ID: LCMSMS01.i

Client ID:

Lab ID: XQ52413-002

Sample Info: XQ52413-002

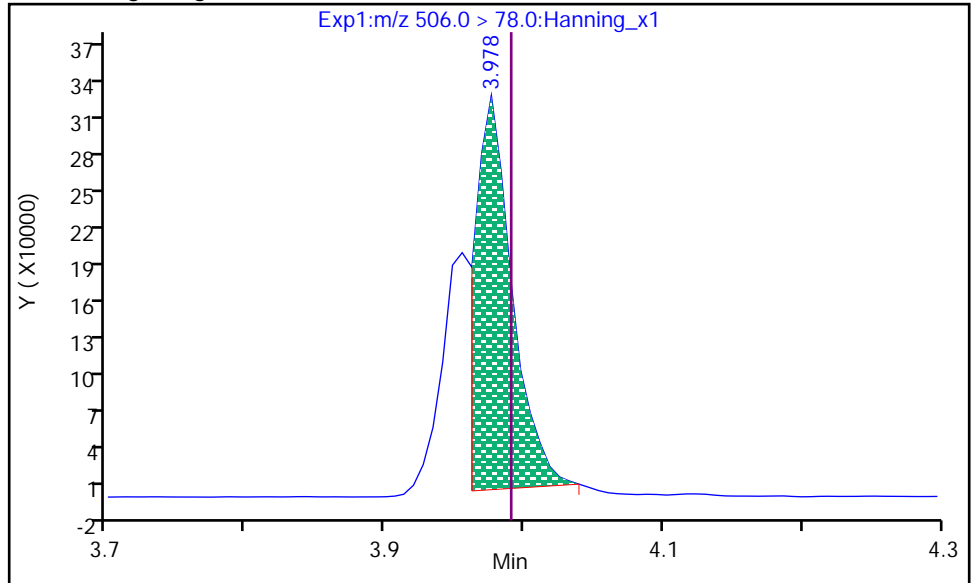
Dil. Factor: 1

Operator: eqi.svoa

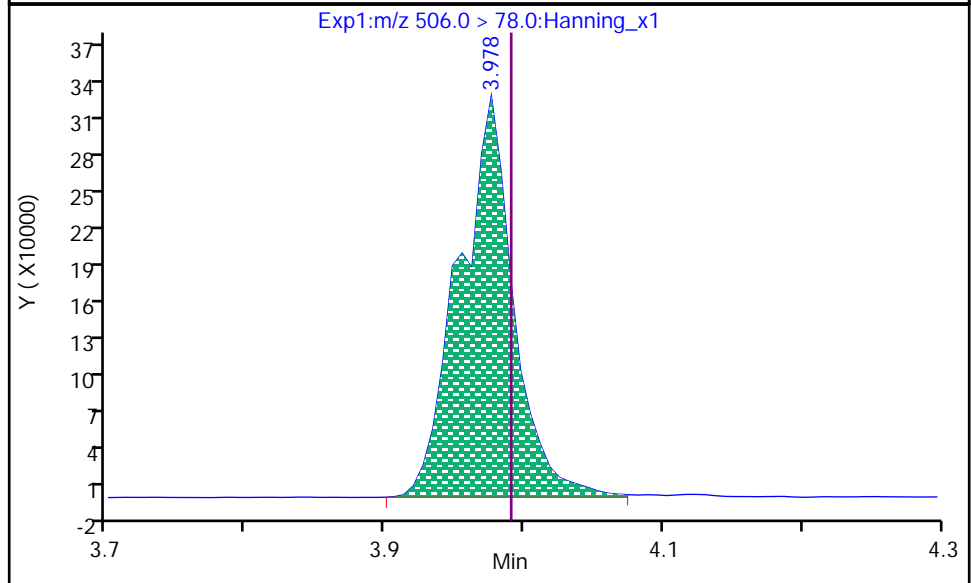
D 55 13C8_PFOSA, CAS: SESI-0107

Processing Integration Results

RT: 3.978
Area: 554310
Conc: 1290.55
Conc Units: ug/Kg



RT: 3.978
Area: 883813
Conc: 2057.70
Conc Units: ug/Kg



Data Editor: LaShanda.Blair, 12-Sep-2022 13:21:32

Audit Action: Mint

Audit Reason: Invalid Integration

PFAS by LC/MS/MS - LCSD

Sample ID: XQ52413-003

Matrix: Solid

Batch: 52413

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 08/26/2022 2122

Parameter	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	% RPD	%Rec Limit	% RPD Limit	Analysis Date
PFBA	2.0	2.3	1	1	114	1.4	50-150	30	09/11/2022 1706
PFDA	2.0	2.0	1	1	101	0.31	50-150	30	09/11/2022 1706
PFDaA	2.0	2.2	1	1	111	12	50-150	30	09/11/2022 1706
PFHpA	2.0	2.1	1	1	105	4.9	50-150	30	09/11/2022 1706
PFHxDA	2.0	2.2	1	1	109	5.1	50-150	30	09/11/2022 1706
PFHxA	2.0	2.1	1	1	107	6.9	50-150	30	09/11/2022 1706
PFNA	2.0	2.1	1	1	103	2.4	50-150	30	09/11/2022 1706
PFODA	2.0	1.8	1	1	92	16	50-150	30	09/11/2022 1706
PFOA	2.0	2.3	1	1	116	16	50-150	30	09/11/2022 1706
PFPeA	2.0	2.1	1	1	103	0.57	50-150	30	09/11/2022 1706
PFTeDA	2.0	2.5	1	1	125	4.9	50-150	30	09/11/2022 1706
PFTrDA	2.0	2.2	1	1	111	15	50-150	30	09/11/2022 1706
PFUdA	2.0	2.0	1	1	101	2.1	50-150	30	09/11/2022 1706
Surrogate	Q	% Rec	Acceptance Limit						
13C2_PFDaA		103	25-150						
13C2_PFHxDA		103	25-150						
13C2_PFTeDA		97	25-150						
13C4_PFBA		105	25-150						
13C4_PFHpA		110	25-150						
13C5_PFHxA		105	25-150						
13C5_PFPeA		112	25-150						
13C6_PFDA		100	25-150						
13C7_PFUdA		106	25-150						
13C8_PFOA		108	25-150						
13C9_PFNA		109	25-150						

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

* = RSD is out of criteria

+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Pace Environmental Services, LLC
Analyte Quantitation Report

Data File: \\Organics\LL\LCMSMS01.i\091122-nonDOD.b\091122021.d
 Injection Date: 11-Sep-2022 17:06:16 Injection Vol: 10.0 uL
 Sample Type: LCSD Auto Sampler: 14
 Lab Sample ID: XQ52413-003 Lab Prep. Batch: 52413
 Sample Info: XQ52413-003 Misc. Info:
 Inst. ID: LCMSMS01.i Operator: eqi.svoa
 Method: LCMSMS01_PFAS-ID2 Version: V16 30-Jun-2022 10:54:24
 Calib Method: PFAS-ID2 Lock State: Unlocked
 Quant Method: IsoDil Integrator: picker

Matrix: Soil
 Final Conc.: Amt * DF * CF
 Concentration Formula: $CF = (VF/WI) * 1/1000 * 1/1000 = 0.0050000$

Name	Value	Units	Description
DF	1		Dilution Factor
VF	5000	ul	Final Volume
WI	1	g	Initial Sample Weight

Reagent: Surrogates Conc. Level: Smp Vol. Added: 0.1000 ml
 Reagent: Analytes Conc. Level: 100x PDS Vol. Added: 0.1000 ml

Signal	Quant Std	RT (min.)	Exp RT (min.)	□ RT (secs.)	Response	Peak Pts	S/N	Ion Ratio	Isomer Ratio	OnCol Conc ng/L	Final Conc ug/Kg	%Drift/%Rec	Flags
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D 46 13C4_PFBFA CAS: SESI-0111

217 > 172 1.667 1.670 0 2356632 18 >100:1 2000.00 2226.22 105.4

8 Perfluoro-n-butanoic acid (PFBA) CAS: 375-22-4

212.9 > 168.9 46 1.667 1.670 0/0 520157 19 >100:1 454.08 2.2704

D 50 13C5_PFPeA CAS: SESI-0112

267.9 > 223 1.980 1.975 1 1702726 15 >100:1 2000.00 2407.38 112.4

21 Perfluoro-n-pentanoic acid (PFPeA) CAS: 2706-90-3

262.9 > 218.9 50 1.990 1.975 1/0 376696 15 >100:1 412.78 2.0639

D 44 13C3_PFBFS CAS: SESI-0116

302 > 80 2.030 2.015 1 639240 14 >100:1 2000.00 2266.59 113.4

7 Perfluoro-1-butanefulfonate (PFBFS) CAS: 375-73-5

298.9 > 80 44 2.030 2.025 1/0 129223 14 >100:1 Target = 3.91 337.83 1.6891

298.9 > 99 44 2.030 2.025 36180 14 >100:1 3.57 (1.95-5.87)

22 Perfluoro-1-pentanesulfonic acid (PFPeS) CAS: 2706-91-4

349 > 80 44 2.356 2.346 1/0 122143 16 >100:1 Target = 3.48 385.04 1.9252

349 > 99 44 2.356 2.346 34975 16 >100:1 3.49 (1.74-5.22)

D 63 13C2_4:2 FTS_2 CAS: SESI-0104

329 > 81 2.284 2.283 1 479130 17 >100:1 10000 12170 90.8

1 Fluorotelomer sulfonate 4:2 [1H,1H,2H,2H-perfluorohexane sulfonate] (4:2 FTS) CAS: 757124-72-4

327 > 307 63 2.284 2.283 1/0 38106 16 >100:1 Target = 1.33 423.90 2.1195

327 > 81 63 2.284 2.283 33532 21 >100:1 1.13 (0.66-2.00)

D 49 13C5_PFHxA CAS: SESI-0113

318 > 273 2.329 2.319 1 1679709 16 >100:1 2000.00 1992.01 104.7

15 Perfluoro-n-hexanoic acid (PFHxA) CAS: 307-24-4

313 > 269 49 2.329 2.319 1/0 337176 18 >100:1 Target = 16.74 428.76 2.1438

313 > 119 49 2.329 2.319 22311 16 >100:1 15.11 (8.37-25.11)

D 66 13C3_GenX CAS: SESI-0121

287 > 185 2.446 2.445 1 1180099 17 >100:1 10000 9934.43 98.6

28 Hexafluoropropylene oxide dimer acid (GenX) CAS: 13252-13-6

285 > 119 66 2.446 2.445 1/0 77459 16 >100:1 Target = 0.71 942.58 4.7129

285 > 185 66 2.446 2.445 98786 16 >100:1 0.78 (0.35-1.06)

D 47 13C4_PFHpA CAS: SESI-0114

367 > 322 2.718 2.737 0 1501234 15 >100:1 2000.00 2103.92 110.1

Signal	Quant Std	RT (min.)	Exp RT (min.)	□ RT (secs.)	Response	Peak Pts	S/N	Ion Ratio	Isomer Ratio	OnCol Conc ng/L	Final Conc ug/Kg	%Drift/%Rec	Flags
13 Perfluoro-n-heptanoic acid (PFHpA) CAS: 375-85-9													
363 > 319	47	2.718	2.737	0/0	286799	17	>100:1	Target = 3.28		419.62	2.0981		
363 > 169	47	2.718	2.737		95171	17	>100:1	3.01 (1.64-4.92)					
D 45 13C3_PFHxS CAS: SESI-0096													
402 > 80		2.738	2.747	1	418581	16	>100:1			2000.00	2130.46	105.1	
14 Perfluorohexanesulfonate (PFHxS) CAS: 355-46-4													
399 > 80	45	2.738	2.747	0/-1	96355	28	>100:1	Target = 3.96	5.14	404.78	2.0239		
399 > 99	45	2.738	2.747		26107	25	>100:1	3.69 (1.98-5.94)	6.97				
29 4,8-dioxa-3H-perfluorononanoic acid (ADONA) CAS: 919005-14-4													
377 > 251	45	2.768	2.787	0/-1	486793	19	>100:1	Target = 2.26		409.72	2.0486		
377 > 85	45	2.768	2.787		204275	16	>100:1	2.38 (1.13-3.39)					
12 Perfluoro-1-heptanesulfonic acid (PFHpS) CAS: 375-92-8													
449 > 80	45	3.162	3.207	-1/-2	104269	23	>100:1	Target = 3.87		437.81	2.1891		
449 > 99	45	3.168	3.207		25997	22	>100:1	4.01 (1.93-5.81)					
D 64 13C2_6:2 FTS_2 CAS: SESI-0105													
429 > 81		3.120	3.174	-1	1255270	22	>100:1			10000	42698	317.5*	
2 Fluorotelomer sulfonate 6:2 [1H,1H,2H,2H-perfluorooctane sulfonate] (6:2 FTS) CAS: 27619-97-2													
427 > 407	64	3.120	3.156	-1/0	87379	24	>100:1	Target = 1.29		434.23	2.1712		
427 > 81	64	3.120	3.156		64718	22	>100:1	1.35 (0.64-1.93)					
D 53 13C8_PFOA CAS: SESI-0097													
421 > 376		3.156	3.199	-1	1577721	23	>100:1			2000.00	2474.41	107.9	
20 Perfluoro-n-octanoic acid (PFOA) CAS: 335-67-1													
413 > 369	53	3.162	3.199	-2/-1	350822	35	68:1	Target = 2.65	31.03	465.97	2.3299		M
413 > 169	53	3.162	3.199		124202	41	85:1	2.82 (1.32-3.97)	23.12				
D 54 13C8_PFOS CAS: SESI-0098													
507 > 80		3.630	3.692	-2	537382	25	>100:1			2000.00	2185.70	101.7	
18 Perfluorooctanesulfonate (PFOS) CAS: 1763-23-1													
499 > 80	54	3.637	3.692	-3/-1	120974	84	>100:1	Target = 4.46	3.80	388.16	1.9408		M
499 > 99	54	3.637	3.692		27878	47	>100:1	4.33 (2.23-6.70)	6.36				
30 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS) CAS: 756426-58-1													
531 > 351	54	3.930	3.978	-2/0	219056	24	>100:1			388.29	1.9414		
16 Perfluoro-1-nonanesulfonic acid (PFNS) CAS: 68259-12-1													
549 > 80	54	4.132	4.162	-1/1	102865	22	>100:1	Target = 4.17		398.19	1.9909		
549 > 99	54	4.125	4.162		28441	21	>100:1	3.61 (2.08-6.26)					
9 Perfluoro-1-decanesulfonic acid (PFDS) CAS: 335-77-3													
599 > 80	54	4.593	4.604	0/2	107081	24	>100:1	Target = 4.23		406.51	2.0326		
599 > 99	54	4.583	4.604		24624	23	>100:1	4.34 (2.11-6.34)					
31 11-chloroeicosafuoro-3-oxaundecane-1-sulfonic acid (11CI-PF3OUdS) CAS: 763051-92-9													
631 > 451	54	4.827	4.856	0/2	184366	21	>100:1			363.11	1.8155		
34 Perfluorododecanesulfonic acid (PFDOS) CAS: 79780-39-5													
699 > 80	54	5.347	5.393	-1/1	93526	21	>100:1	Target = 3.53		407.96	2.0398		
699 > 99	54	5.347	5.393		25686	22	>100:1	3.64 (1.76-5.30)					
D 56 13C9_PFNA CAS: SESI-0099													
472 > 427		3.637	3.692	-2	1490576	24	>100:1			2000.00	2286.52	109	
17 Perfluoro-n-nonanoic acid (PFNA) CAS: 375-95-1													
463 > 419	56	3.644	3.698	-2/0	278263	23	>100:1	Target = 5.02		411.93	2.0596		
463 > 169	56	3.637	3.698		58610	23	>100:1	4.74 (2.51-7.53)					
D 55 13C8_PFOSA CAS: SESI-0107													
506 > 78		3.971	3.992	-1	964150	21	>100:1			2000.00	2244.75	110.6	
19 Perfluoro-1-octanesulfonamide (PFOSA) CAS: 754-91-6													
498 > 78	55	3.971	3.992	-1/0	209688	27	>100:1	Target = 54.56		404.90	2.0245		M
498>478	55	3.971	3.992		4019	24	16:1	52.17 (27.28-81.85)					
D 65 13C2_8:2 FTS_2 CAS: SESI-0106													
529 > 81		4.132	4.162	0	400182	23	>100:1			10000	12397	108.7	
3 Fluorotelomer sulfonate 8:2 [1H,1H,2H,2H-perfluorodecane sulfonate] (8:2 FTS) CAS: 39108-34-4													
527 > 507	65	4.118	4.171	-1/-1	18375	23	>100:1	Target = 1.21		373.87	1.8693		
527 > 81	65	4.118	4.171		16145	20	>100:1	1.13 (0.60-1.82)					

Signal	Quant Std	RT (min.)	Exp RT (min.)	□ RT (secs.)	Response	Peak Pts	S/N	Ion Ratio	Isomer Ratio	OnCol Conc ng/L	Final Conc ug/Kg	%Drift/%Rec	Flags
4 1H,1H,2H,2H-perfluorododecane sulfonate (10:2FTS) CAS: 120226-60-0													
627 > 607	65	5.026	5.060	0/0	28256	18	>100:1	Target = 2.03		510.99	2.5550		
627 > 80	65	5.035	5.060		14413	20	>100:1	1.96 (1.01-3.05)					
D 51 13C6_PFDA CAS: SESI-0115													
519 > 474		4.139	4.180	-1	1112478	20	>100:1			2000.00	2054.49	99.5	
10 Perfluoro-n-decanoic acid (PFDA) CAS: 335-76-2													
513 > 469	51	4.132	4.180	-2/-1	226806	22	>100:1	Target = 10.03		405.14	2.0257		
513 > 169	51	4.132	4.180		24613	19	>100:1	9.21 (5.01-15.04)					
D 58 d3-MeFOSAA CAS: SESI-0102													
573 > 419		4.360	4.399	-1	1508650	22	>100:1			10000	10348	100	
6 N-methylperfluoro-1-octanesulfonamidoacetic acid (N-MeFOSAA) CAS: 2355-31-9													
570 > 419	58	4.376	4.399	-1/0	49731	58	>100:1	Target = 1.51	6.15	391.46	1.9573		M
570 > 483	58	4.376	4.399		37484	59	>100:1	1.32 (0.75-2.27)	3.67				M
D 61 d7-MeFOSE CAS: SESI-0129													
623 > 59		4.583	4.572	0	255444	18	>100:1			2000.00	2252.23	97.3	
32 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE) CAS: 24448-09-7													
616 > 59	61	4.604	4.593	1/1	62027	16	>100:1			463.46	2.3173		
D 57 d3-MeFOSA CAS: SESI-0109													
515 > 169		4.614	4.604	1	103606	23	>100:1			2000.00	2030.39	98.7	
26 N-methylperfluoro-1-octanesulfonamide (MeFOSA) CAS: 31506-32-8													
512 > 169	57	4.624	4.614	1/0	24051	18	>100:1	Target = 1.12		437.96	2.1898		
512 > 219	57	4.624	4.614		23432	17	>100:1	1.02 (0.56-1.68)					
D 52 13C7_PFUdA CAS: SESI-0117													
570 > 525		4.604	4.634	0	1047759	17	>100:1			2000.00	2159.17	106.1	
25 Perfluoro-n-undecanoic acid (PFUdA) CAS: 2058-94-8													
563 > 519	52	4.604	4.634	0/0	193334	38	>100:1	Target = 8.93		403.90	2.0195		
563 > 169	52	4.604	4.634		24705	24	>100:1	7.82 (4.46-13.40)					
D 60 d5-EtFOSAA CAS: SESI-0110													
589 > 419		4.593	4.624	-1	1367612	18	>100:1			10000	11089	105.6	
5 N-ethylperfluoro-1-octanesulfonamidoacetic acid (N-EtFOSAA) CAS: 2991-50-6													
584 > 419	60	4.614	4.634	-1/0	55884	57	>100:1	Target = 1.91	8.70	399.93	1.9996		M
584 > 526	60	4.614	4.634		30939	51	98:1	1.80 (0.95-2.87)	3.77				M
D 62 d9-EtFOSE CAS: SESI-0130													
639 > 59		4.827	4.813	0	234559	20	>100:1			2000.00	2175.52	102.9	
33 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE) CAS: 1691-99-2													
630 > 59	62	4.848	4.827	1/1	41332	22	>100:1			426.98	2.1349		
D 59 d5-EtFOSA CAS: SESI-0108													
531 > 169		4.863	4.856	1	99971	22	>100:1			2000.00	2035.51	108	
27 N-ethylperfluoro-1-octanesulfonamide (EtFOSA) CAS: 4151-50-2													
526 > 169	59	4.870	4.863	1/0	28467	24	>100:1	Target = 1.02		506.37	2.5319		
526 > 219	59	4.870	4.863		23121	19	>100:1	1.23 (0.51-1.54)					
D 38 13C2_PFDoA CAS: SESI-0118													
615 > 570		5.018	5.052	0	1001182	18	>100:1			2000.00	1931.30	102.5	
11 Perfluoro-n-dodecanoic acid (PFDoA) CAS: 307-55-1													
613 > 569	38	5.018	5.052	0/0	214963	18	>100:1	Target = 6.96		445.09	2.2254		
613 > 169	38	5.009	5.052		33296	25	>100:1	6.45 (3.48-10.45)					
24 Perfluoro-n-tridecanoic acid (PFTrDA) CAS: 72629-94-8													
663 > 619	38	5.377	5.415	-1/-1	117884	20	>100:1	Target = 3.41		442.98	2.2149		
663 > 169	38	5.377	5.415		31542	21	>100:1	3.73 (1.70-5.11)					
D 42 13C2_PFTeDA CAS: SESI-0119													
715 > 670		5.706	5.754	-1	1047683	40	>100:1			2000.00	1906.91	97.2	
23 Perfluoro-n-tetradecanoic acid (PFTeDA) CAS: 376-06-7													
713 > 669	42	5.710	5.758	-1/0	199493	42	>100:1	Target = 6.93		501.61	2.5080		
713 > 169	42	5.715	5.758		24216	37	>100:1	8.23 (3.46-10.39)					
D 40 13C2_PFHxDA CAS: SESI-0103													
815 > 770		6.292	6.361	-4	581111	45	>100:1			2000.00	2062.51	102.6	M

Signal	Quant Std	RT (min.)	Exp RT (min.)	□ RT (secs.)	Response	Peak Pts	S/N	Ion Ratio	Isomer Ratio	OnCol Conc ng/L	Final Conc ug/Kg	%Drift/%Rec	Flags
35 Perfluoro-n-hexadecanoic acid (PFHxDA) CAS: 67905-19-5													
813 > 769	40	6.302	6.370	-1/0	152959	38	>100:1	Target = 9.01		435.97	2.1799		
813 > 269	40	6.297	6.370		14832	25	>100:1	10.31 (4.50-13.52)					
36 Perfluoro-n-octadecanoic acid (PFODA) CAS: 16517-11-6													
913 > 869	40	6.837	6.930	-3/-2	104494	42	>100:1	Target = 10.58		369.93	1.8497		
913 > 319	40	6.841	6.930		9805	40	>100:1	10.65 (5.29-15.88)					

Compound Type Legend

D - Isotopic Dilution Std.

QC Flag Legend

M - Compound Hit/Peak Manually Integrated

Data File: \\Organics\LL\LCMSMS01.i\091122-nonDOD.b\091122021.d

Injection Date: 11-Sep-2022 17:06:16

Inst. ID: LCMSMS01.i

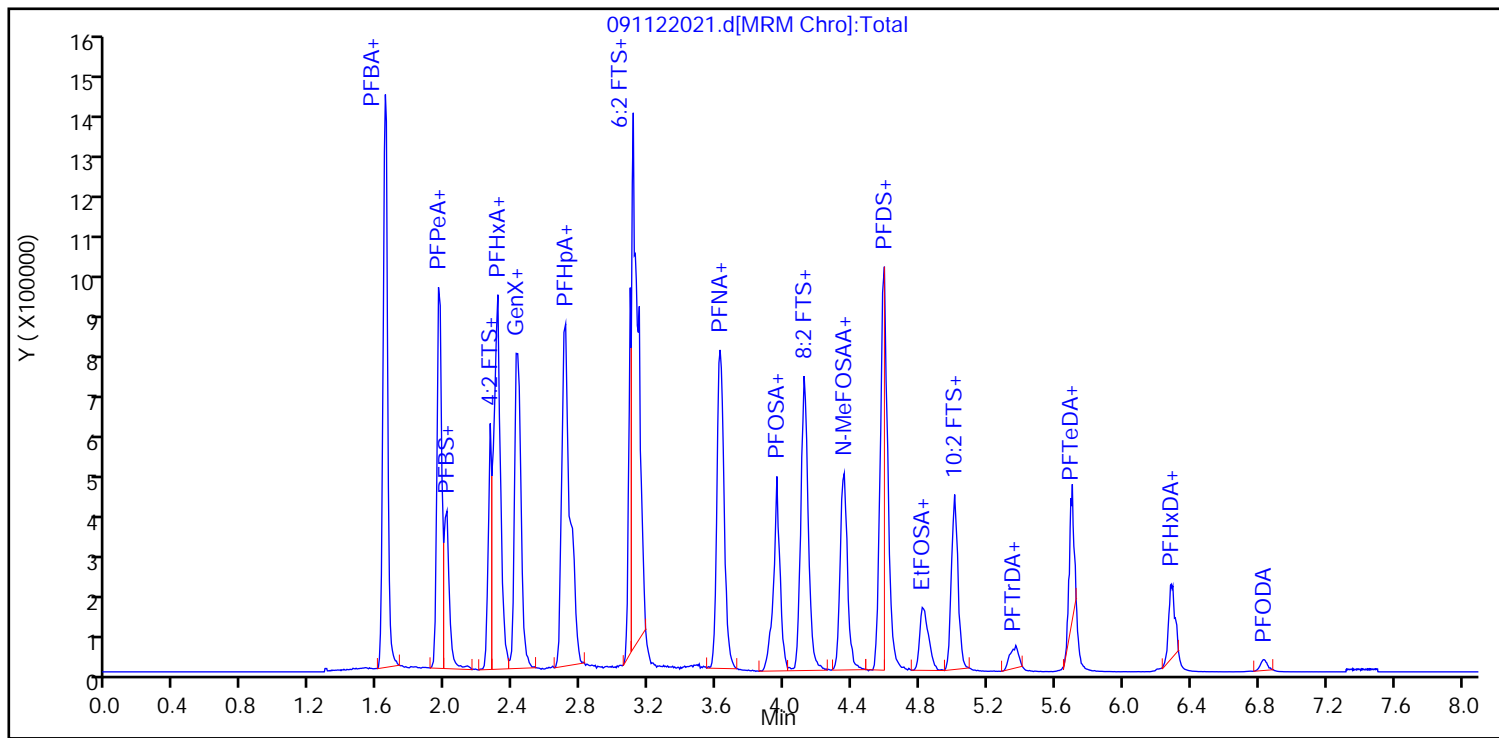
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Lab ID: XQ52413-003

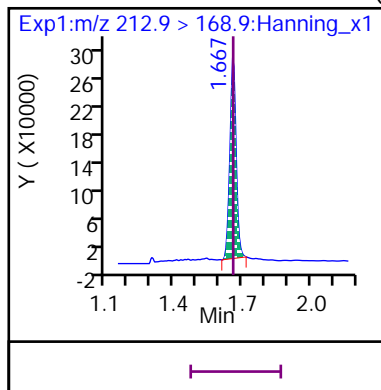
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Dil. Factor: 1

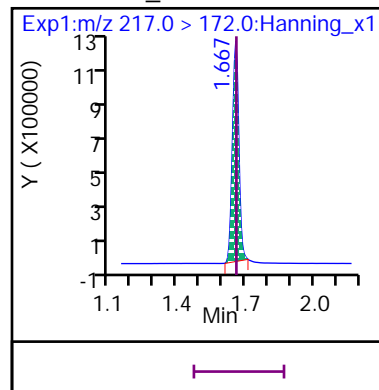
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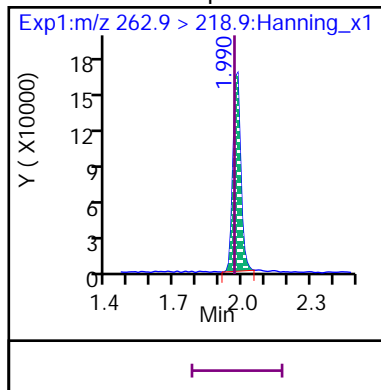
8 Perfluoro-n-butanoic acid (PFBA)



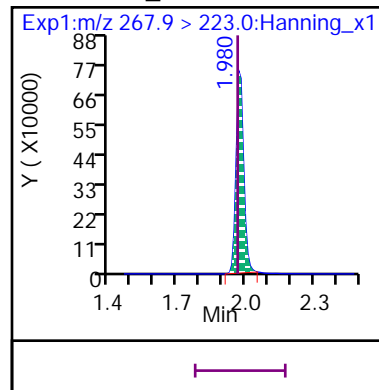
D 46 13C4_PFBA



21 Perfluoro-n-pentanoic acid (PFPeA)

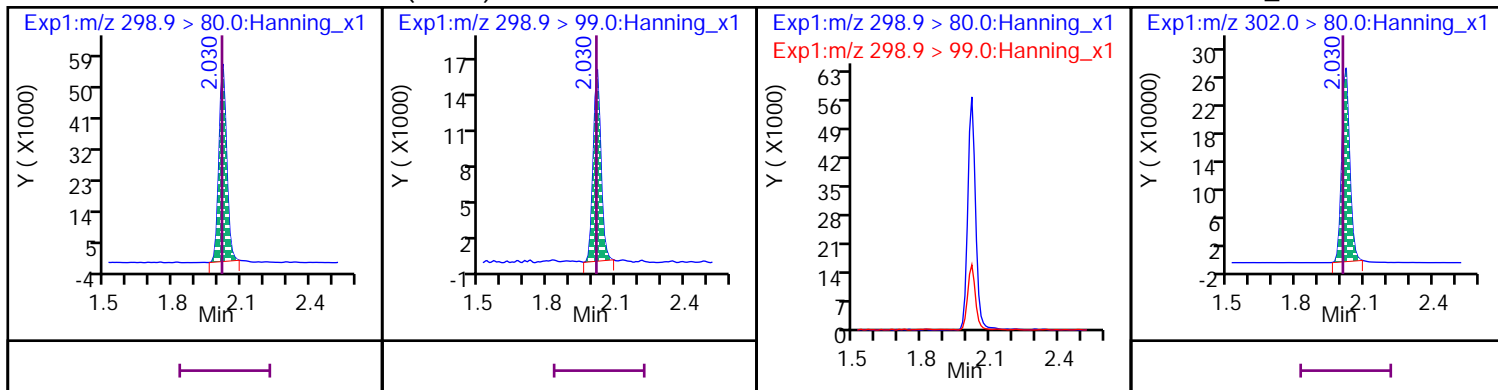


D 50 13C5_PFPeA



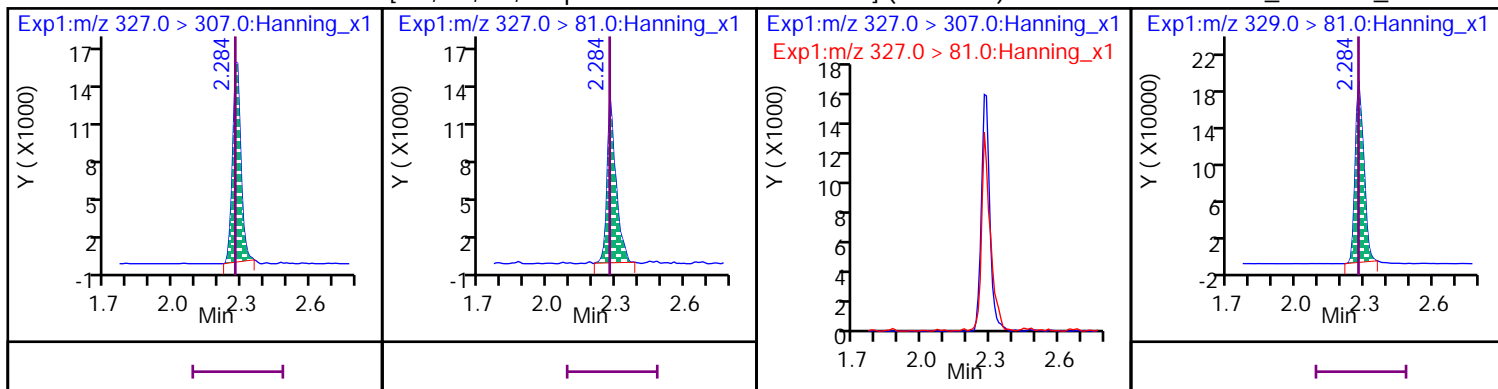
7 Perfluoro-1-butanesulfonate (PFBS)

D 44 13C3_PFBS



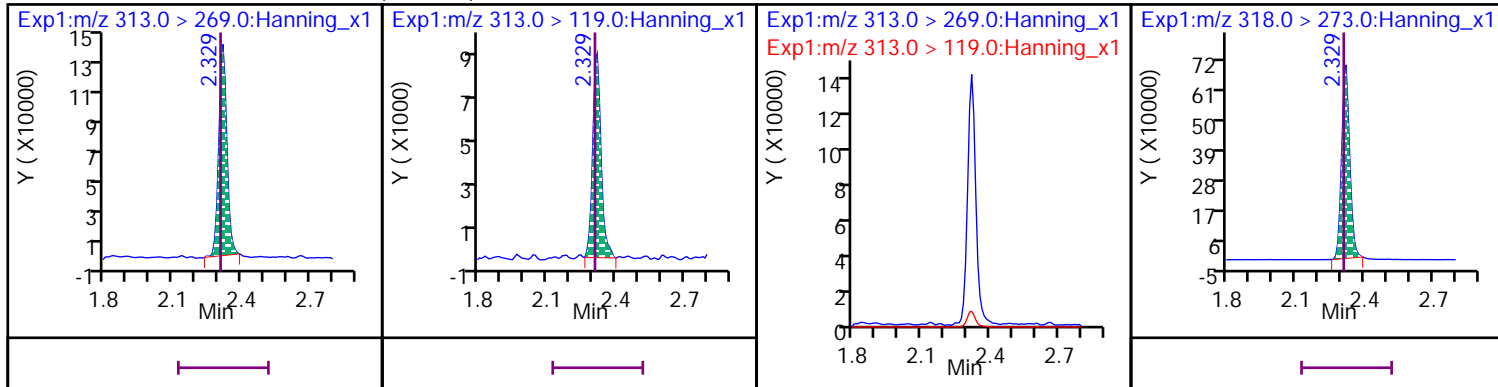
1 Fluorotelomer sulfonate 4:2 [1H,1H,2H,2H-perfluorohexane sulfonate] (4:2 FTS)

D 63 13C2_4:2 FTS_2



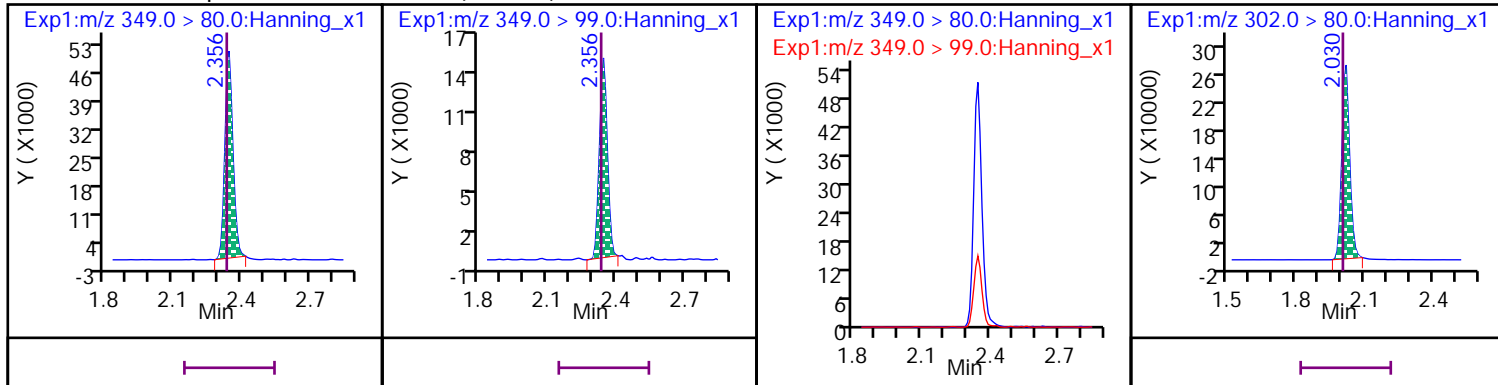
15 Perfluoro-n-hexanoic acid (PFHxA)

D 49 13C5_PFHxA



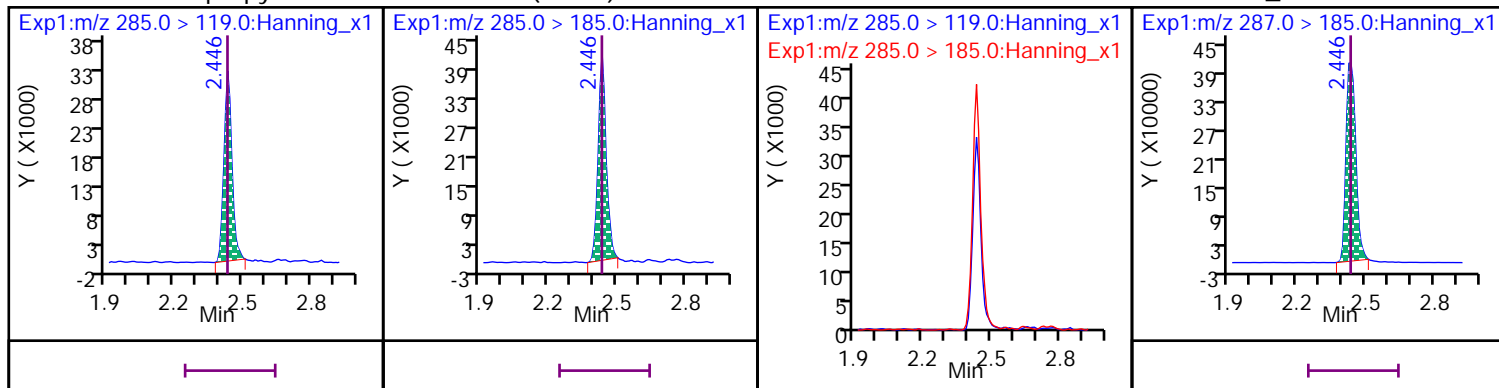
22 Perfluoro-1-pentanesulfonic acid (PFPeS)

D 44 13C3_PFBS



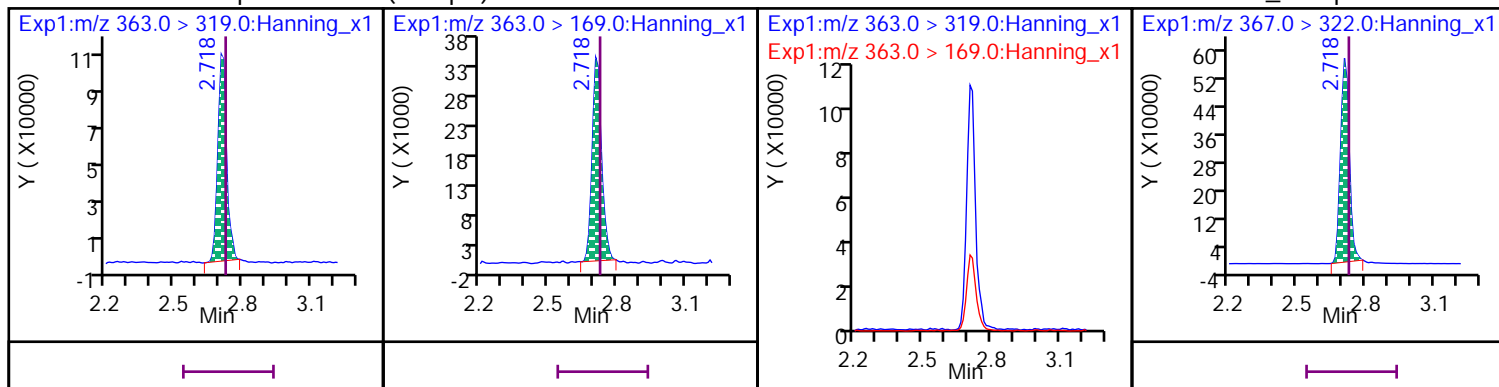
28 Hexafluoropropylene oxide dimer acid (GenX)

D 66 13C3_GenX



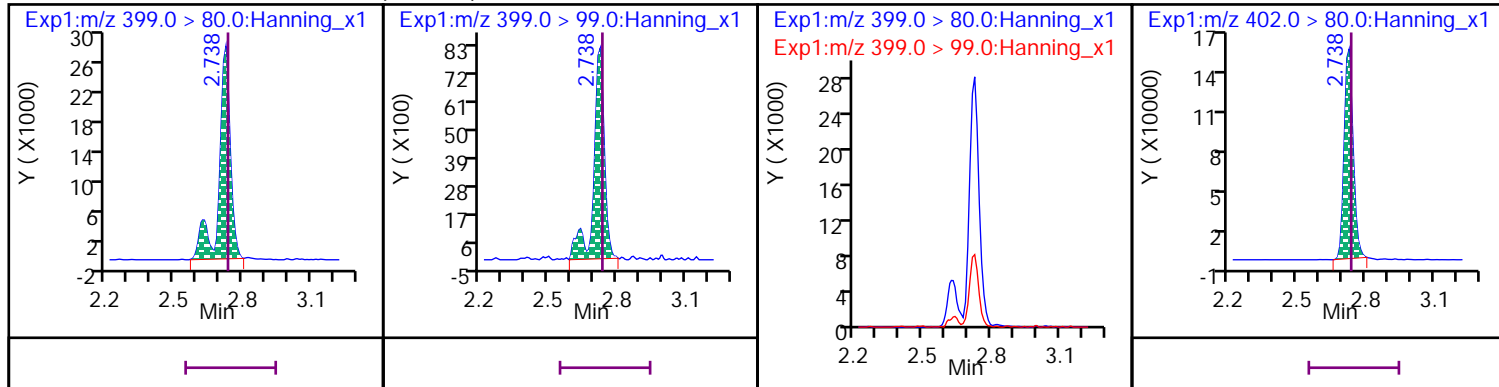
13 Perfluoro-n-heptanoic acid (PFHpa)

D 47 13C4_PFHpa



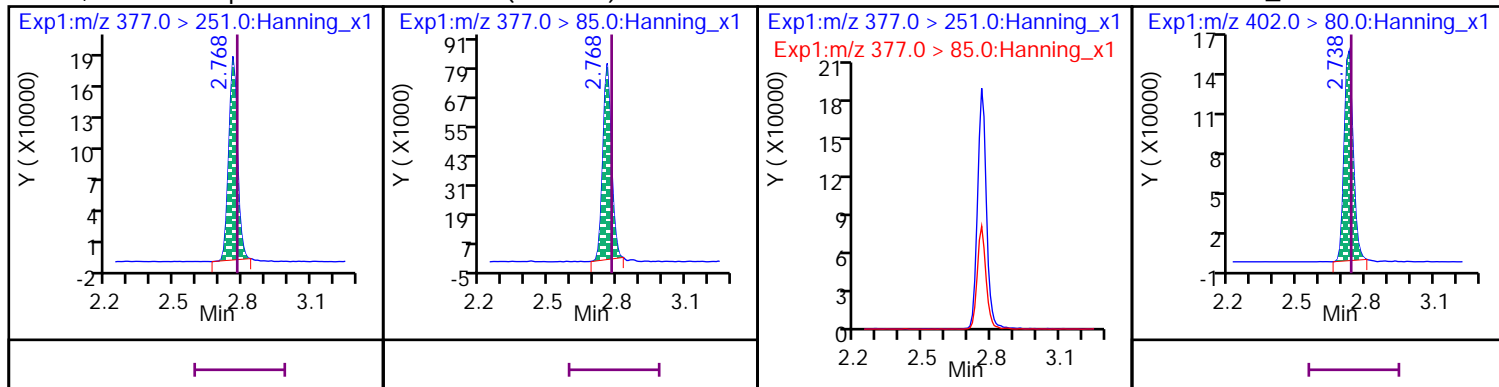
14 Perfluorohexanesulfonate (PFHxS)

D 45 13C3_PFHxS



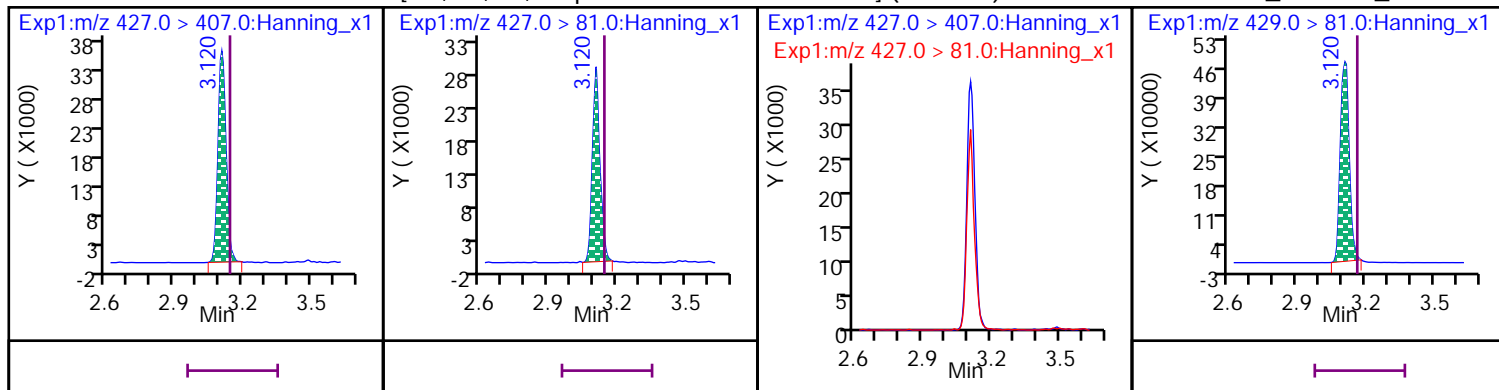
29 4,8-dioxa-3H-perfluorononanoic acid (ADONA)

D 45 13C3_PFHxS



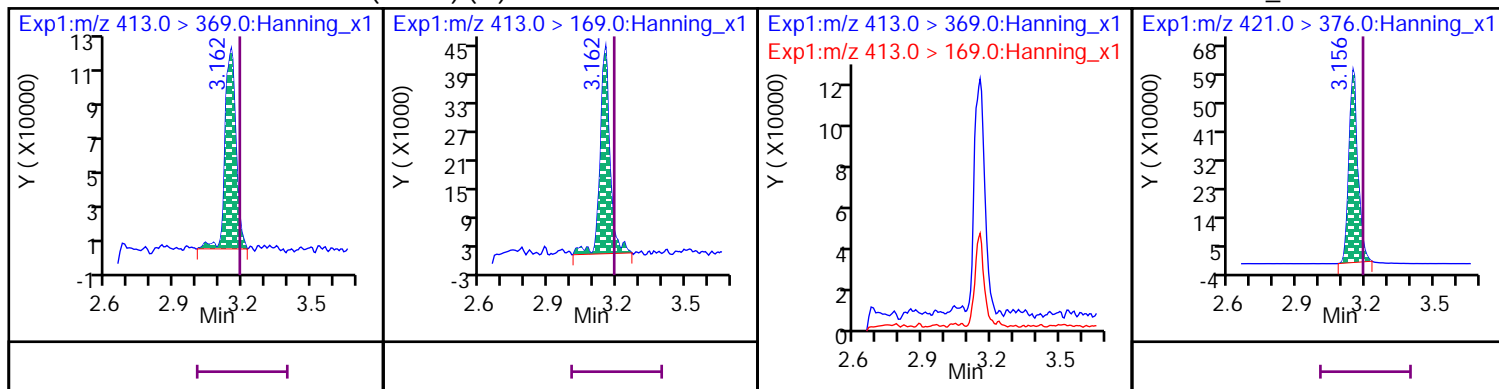
2 Fluorotelomer sulfonate 6:2 [1H,1H,2H,2H-perfluorooctane sulfonate] (6:2 FTS)

D 64 13C2_6:2 FTS_2



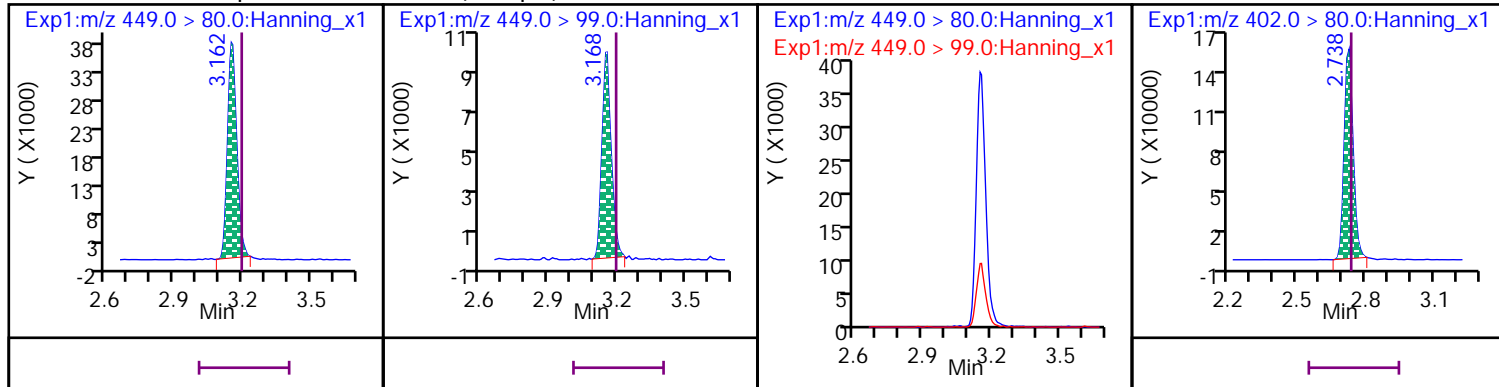
20 Perfluoro-n-octanoic acid (PFOA) (M)

D 53 13C8_PFOA



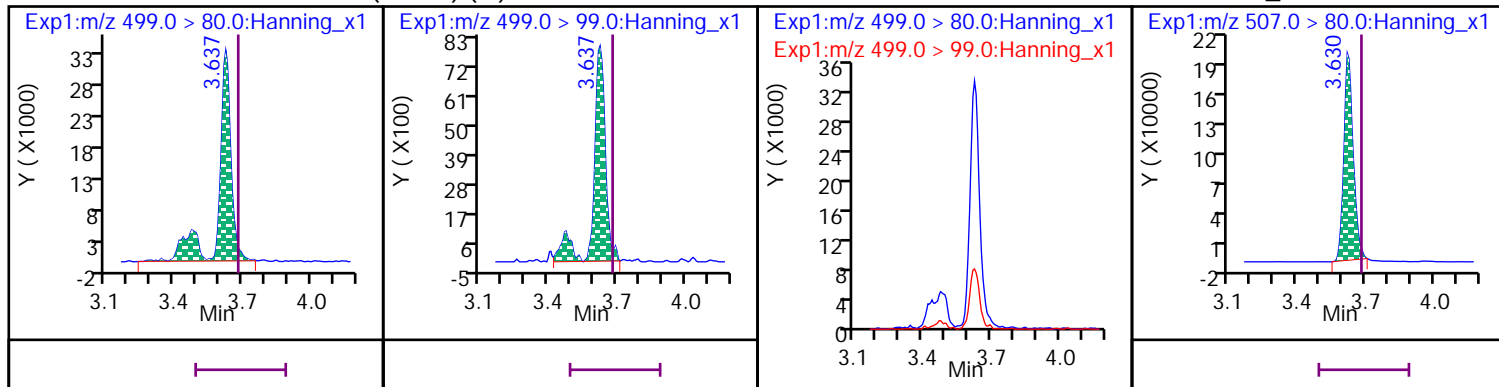
12 Perfluoro-1-heptanesulfonic acid (PFHpS)

D 45 13C3_PFHxS



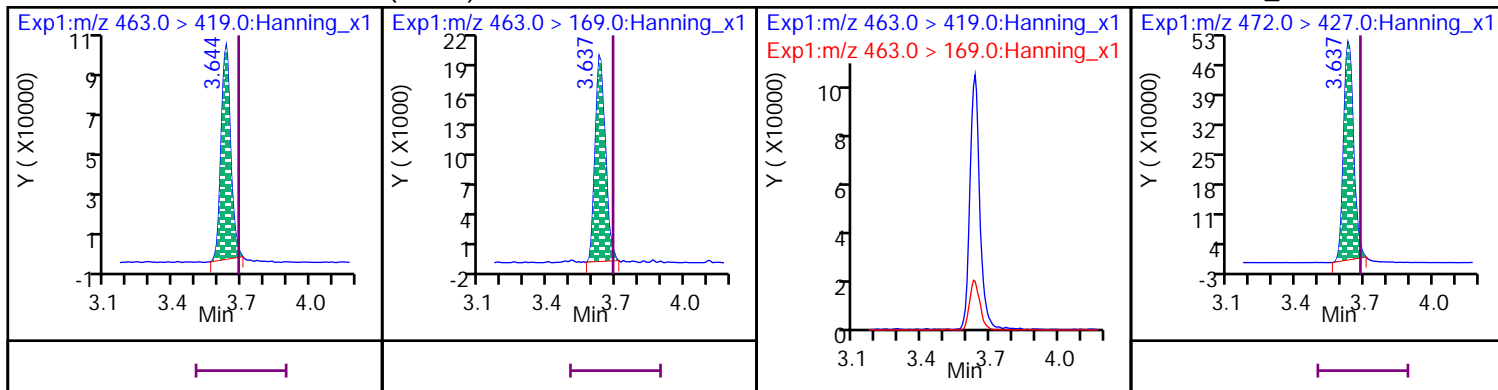
18 Perfluorooctanesulfonate (PFOS) (M)

D 54 13C8_PFOS



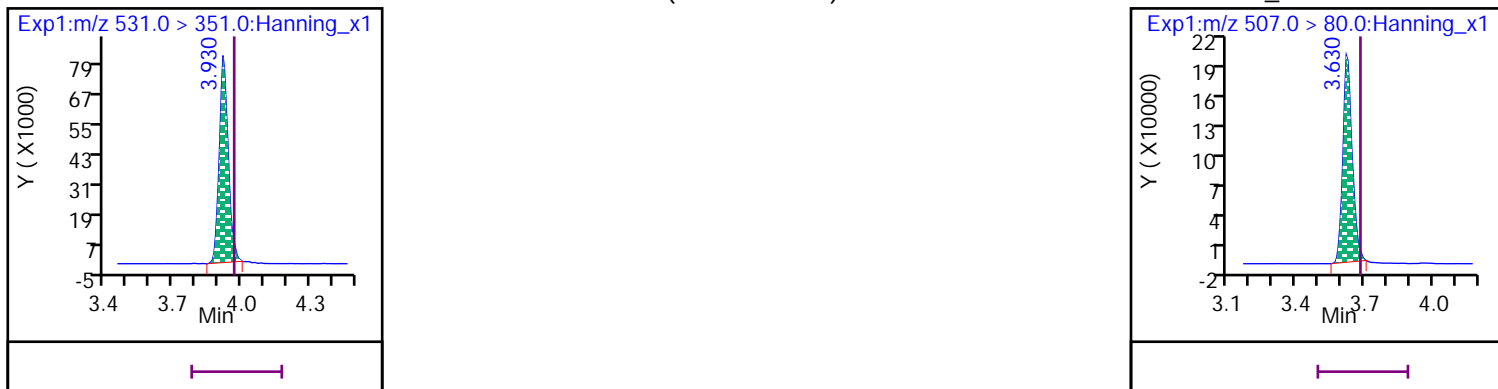
17 Perfluoro-n-nonanoic acid (PFNA)

D 56 13C9_PFNA



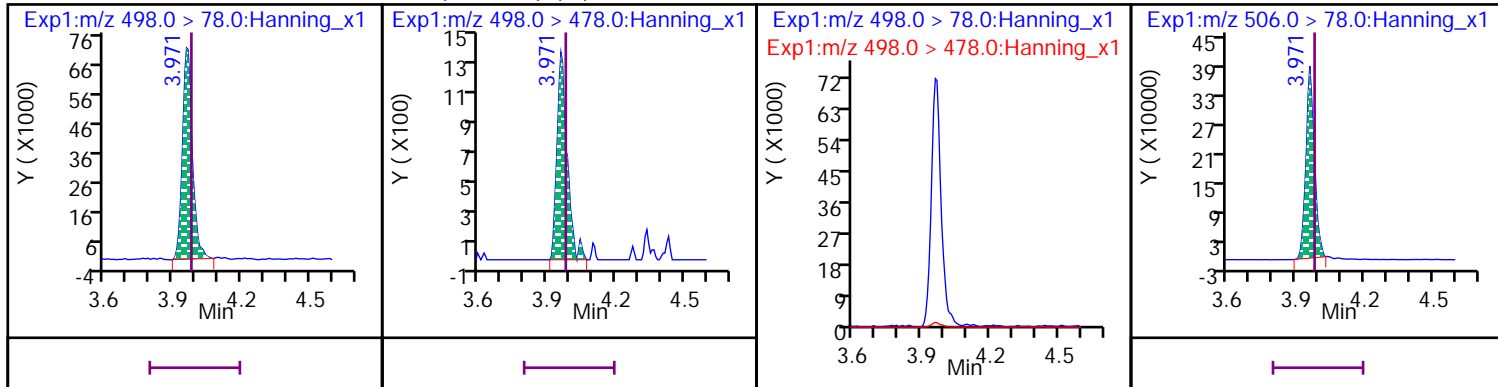
30 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)

D 54 13C8_PFOS



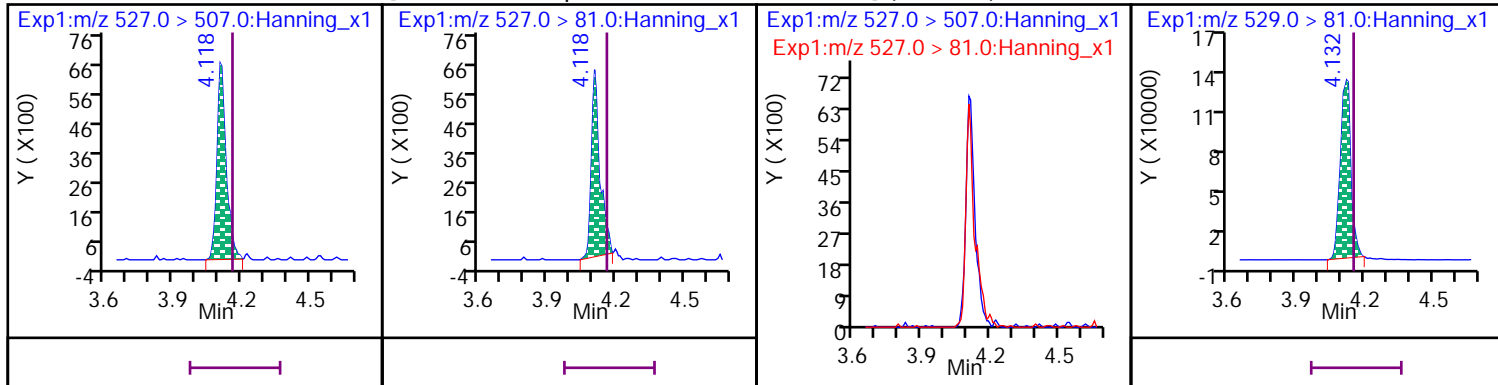
19 Perfluoro-1-octanesulfonamide (PFOSA) (M)

D 55 13C8_PFOSA



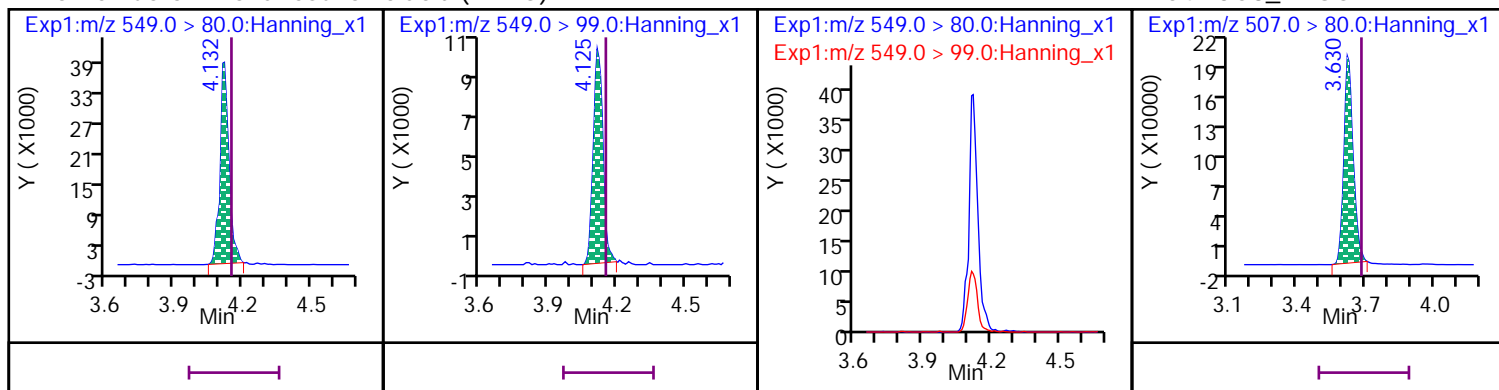
3 Fluorotelomer sulfonate 8:2 [1H,1H,2H,2H-perfluorodecane sulfonate] (8:2 FTS)

D 65 13C2_8:2 FTS_2



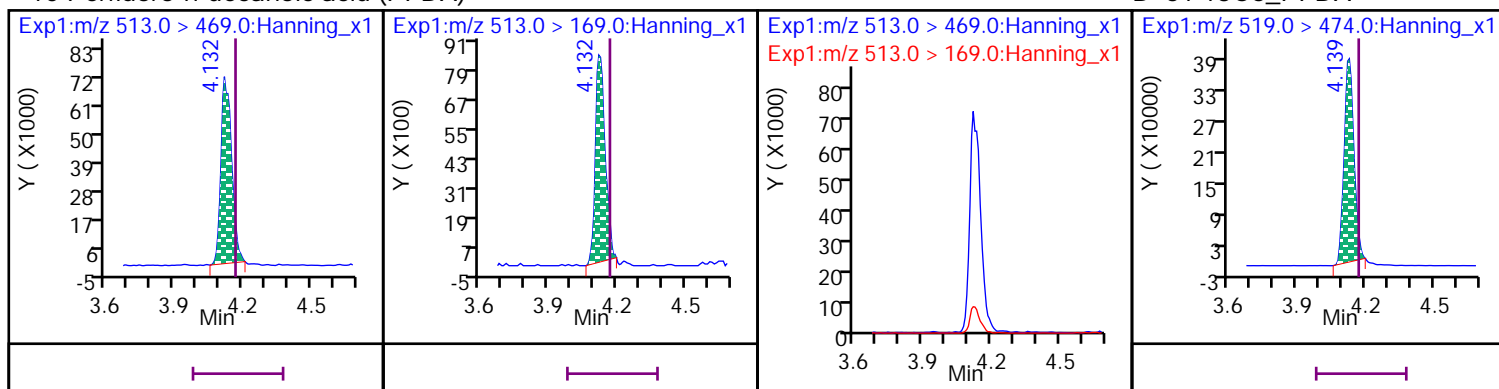
16 Perfluoro-1-nonanesulfonic acid (PFNS)

D 54 13C8_PFOS



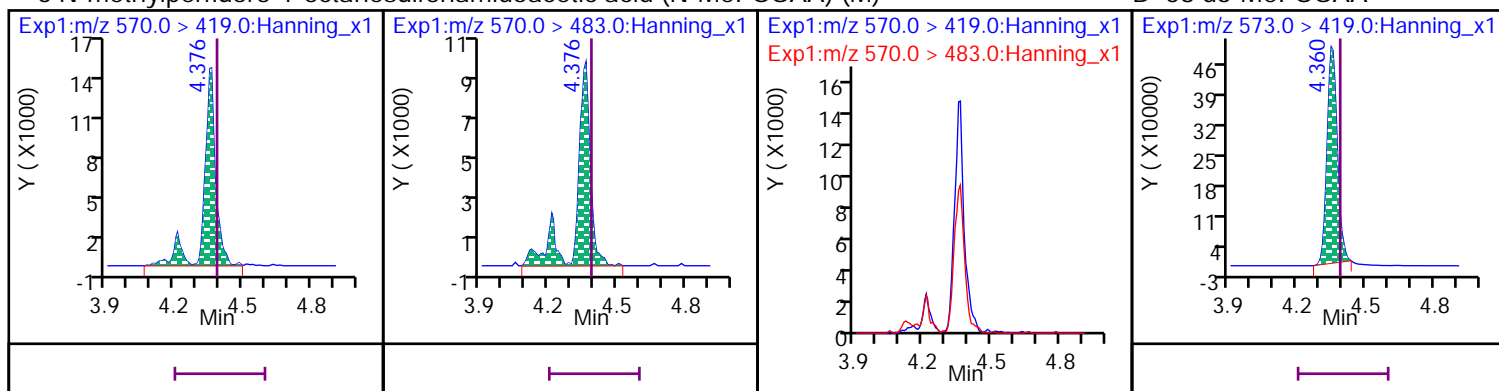
10 Perfluoro-n-decanoic acid (PFDA)

D 51 13C6_PFDA



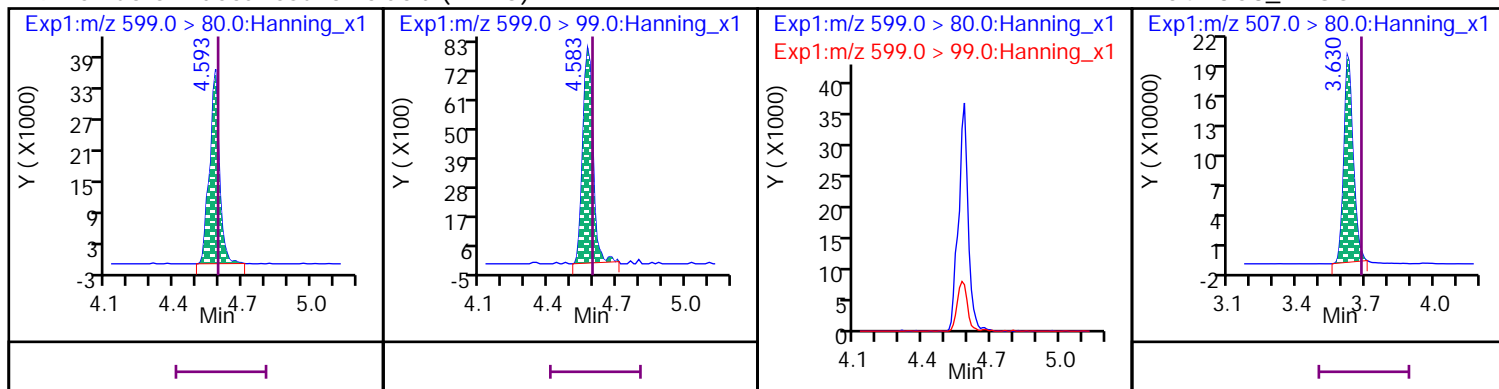
6 N-methylperfluoro-1-octanesulfonamidoacetic acid (N-MeFOSAA) (M)

D 58 d3-MeFOSAA

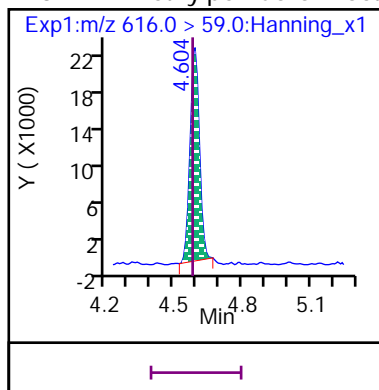


9 Perfluoro-1-decanesulfonic acid (PFDS)

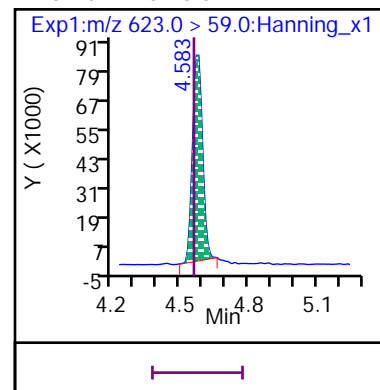
D 54 13C8_PFOS



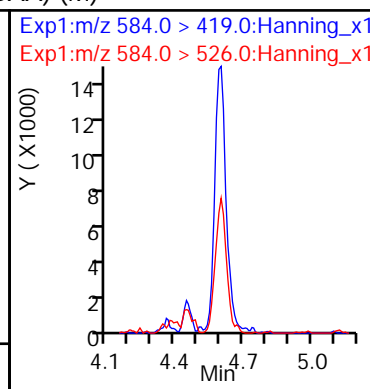
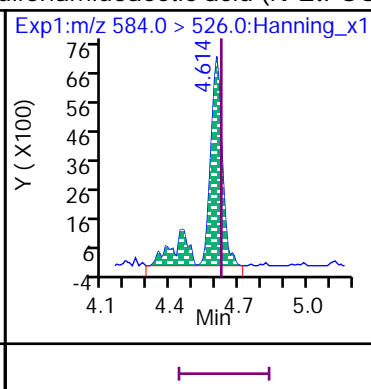
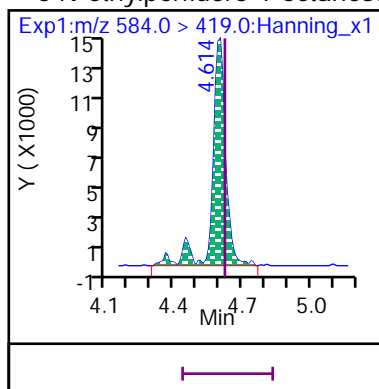
32 2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)



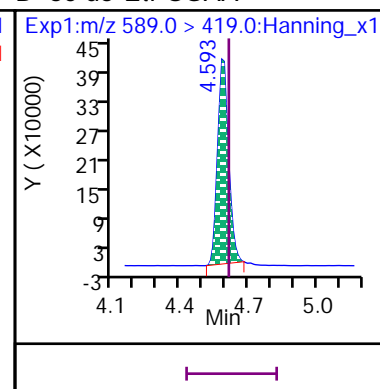
D 61 d7-MeFOSE



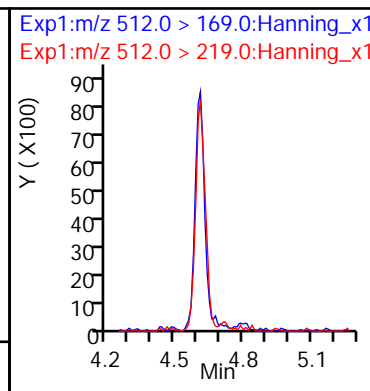
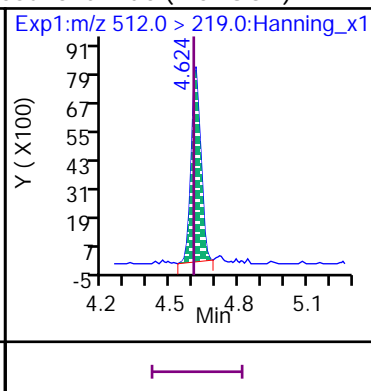
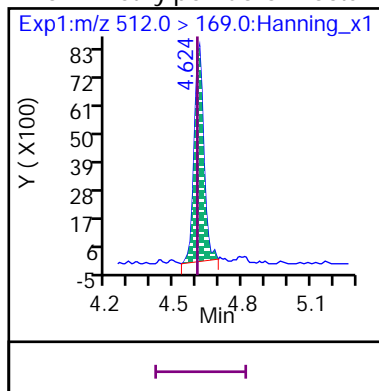
5 N-ethylperfluoro-1-octanesulfonamidoacetic acid (N-EtFOSAA) (M)



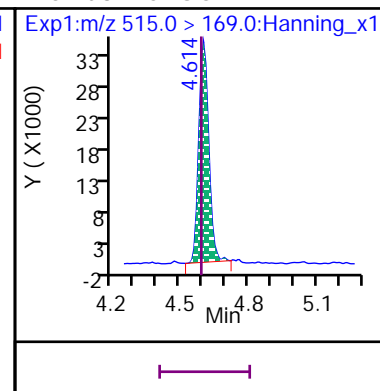
D 60 d5-EtFOSAA



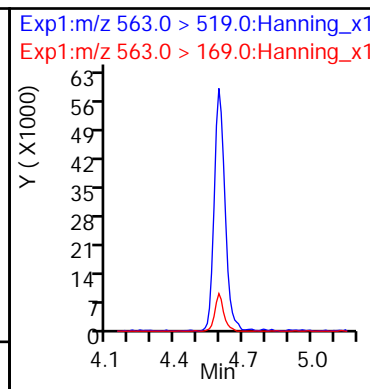
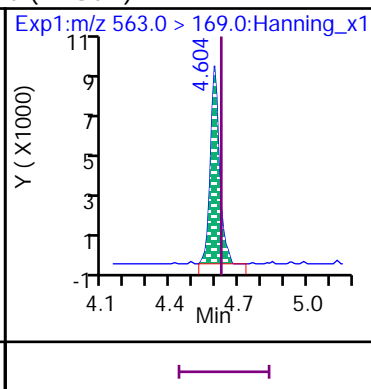
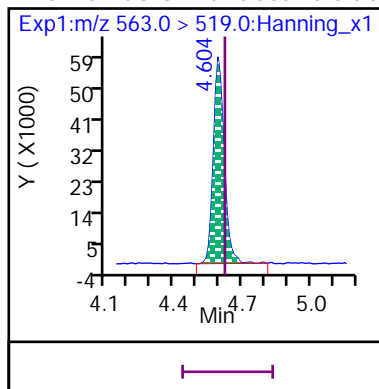
26 N-methylperfluoro-1-octanesulfonamide (MeFOSA)



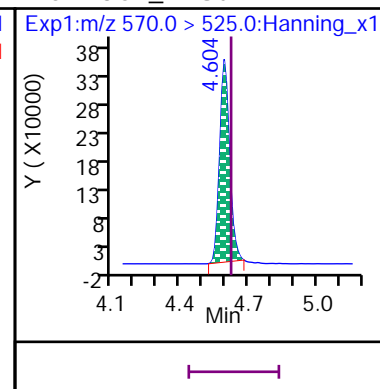
D 57 d3-MeFOSA



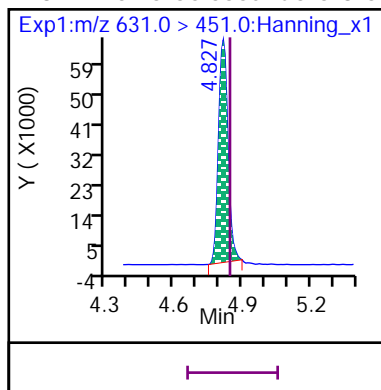
25 Perfluoro-n-undecanoic acid (PFUdA)



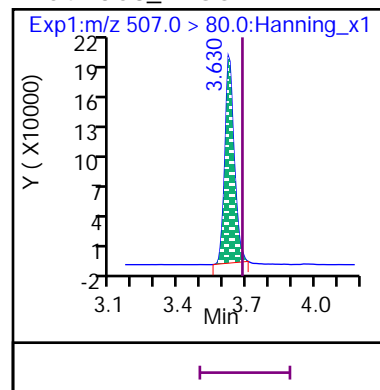
D 52 13C7_PFUdA



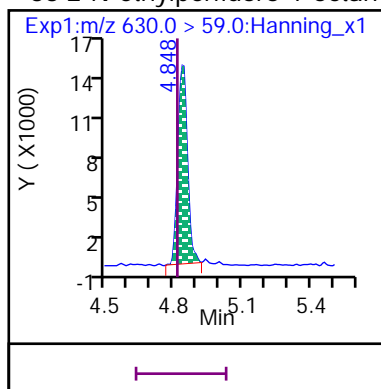
31 11-chloroeicosafuoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)



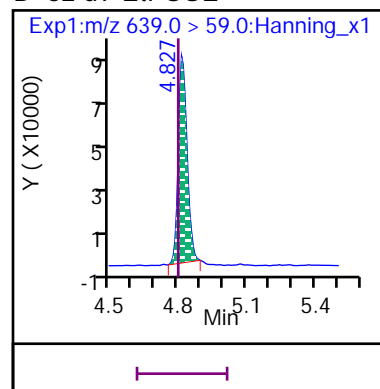
D 54 13C8_PFOS



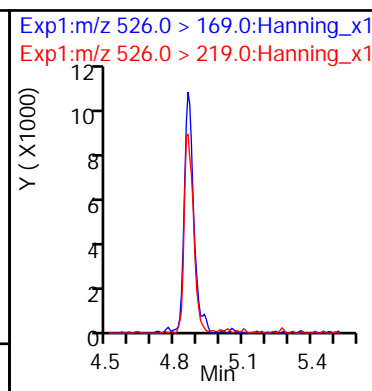
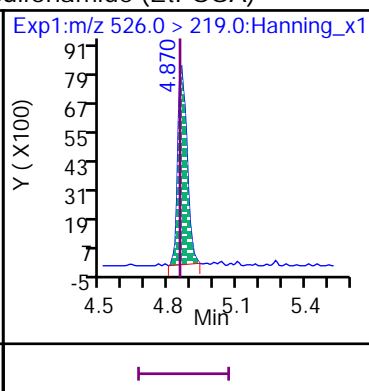
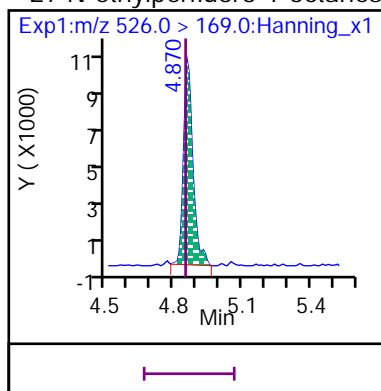
33 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)



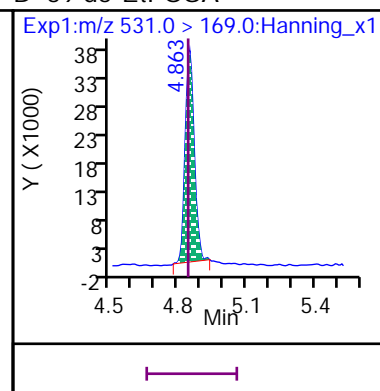
D 62 d9-EtFOSE



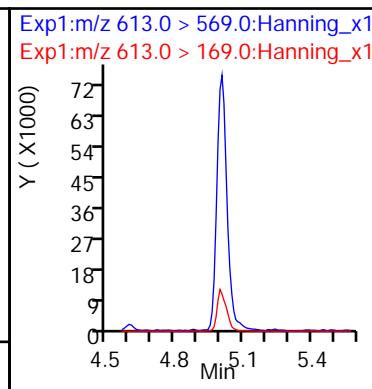
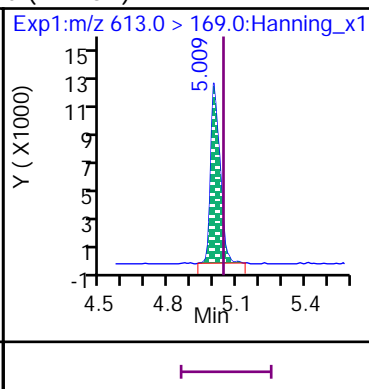
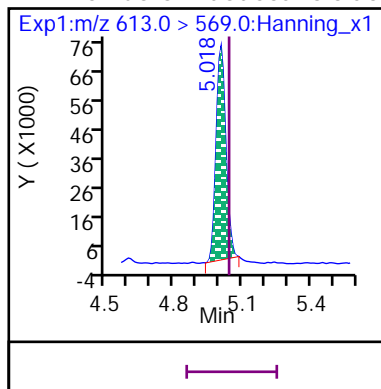
27 N-ethylperfluoro-1-octanesulfonamide (EtFOSA)



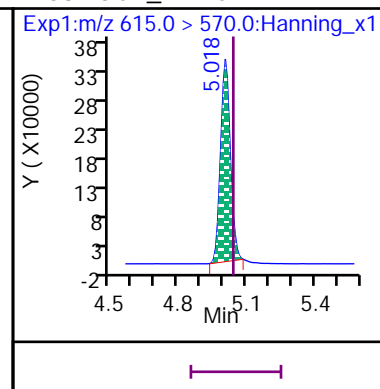
D 59 d5-EtFOSA



11 Perfluoro-n-dodecanoic acid (PFDoA)

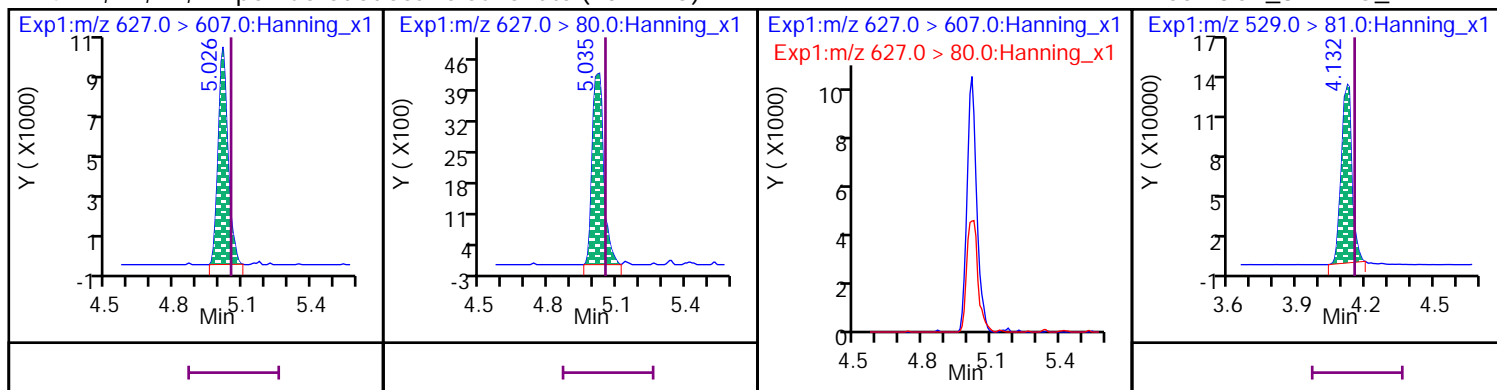


D 38 13C2_PFDoA



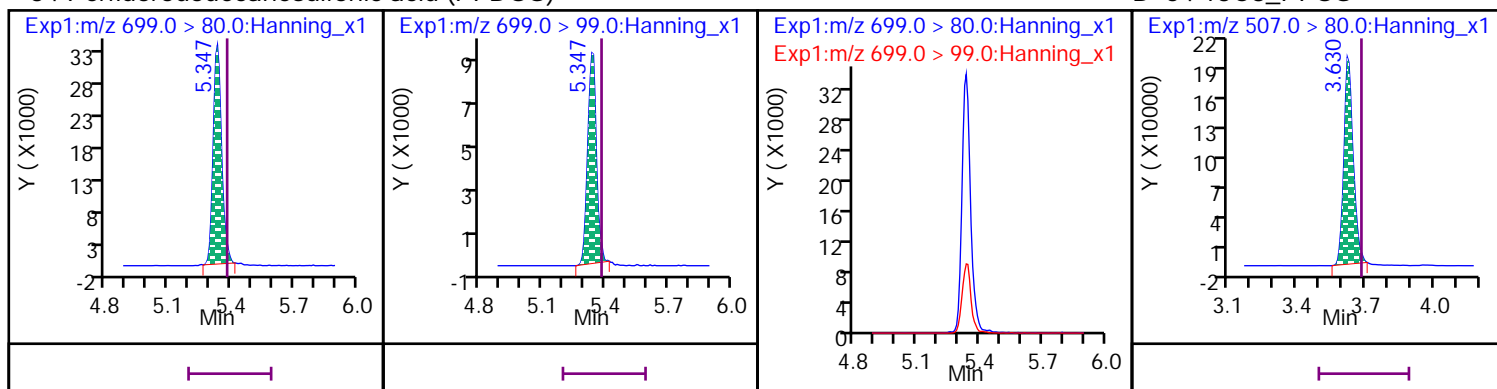
4 1H,1H,2H,2H-perfluorododecane sulfonate (10:2FTS)

D 65 13C2_8:2 FTS_2



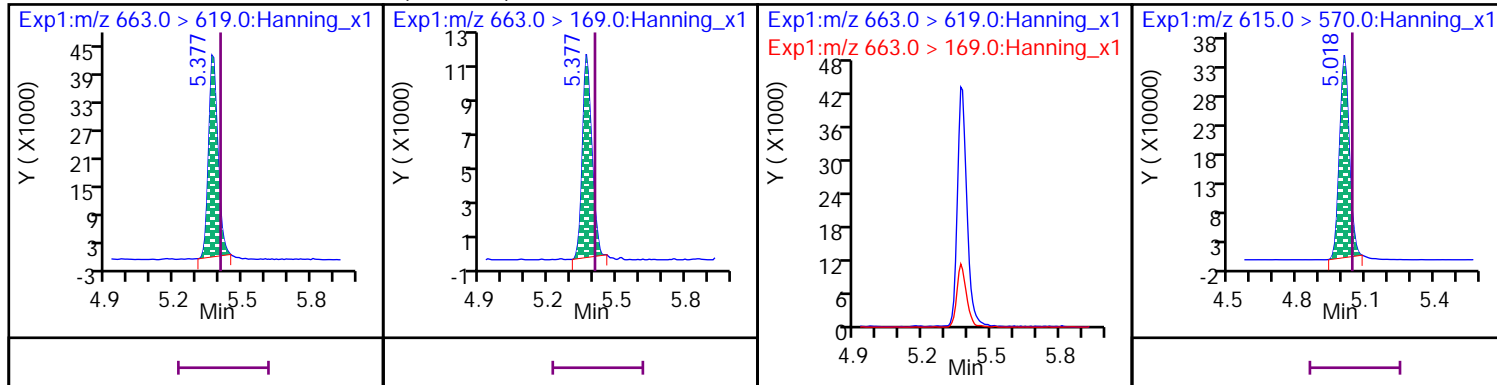
34 Perfluorododecanesulfonic acid (PFDOS)

D 54 13C8_PFOS



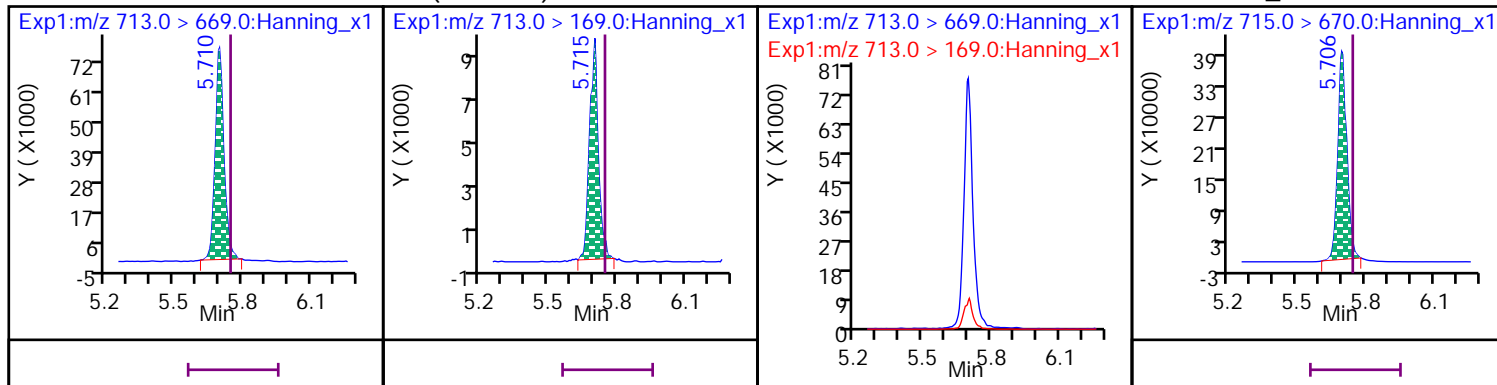
24 Perfluoro-n-tridecanoic acid (PFTTrDA)

D 38 13C2_PFDaA



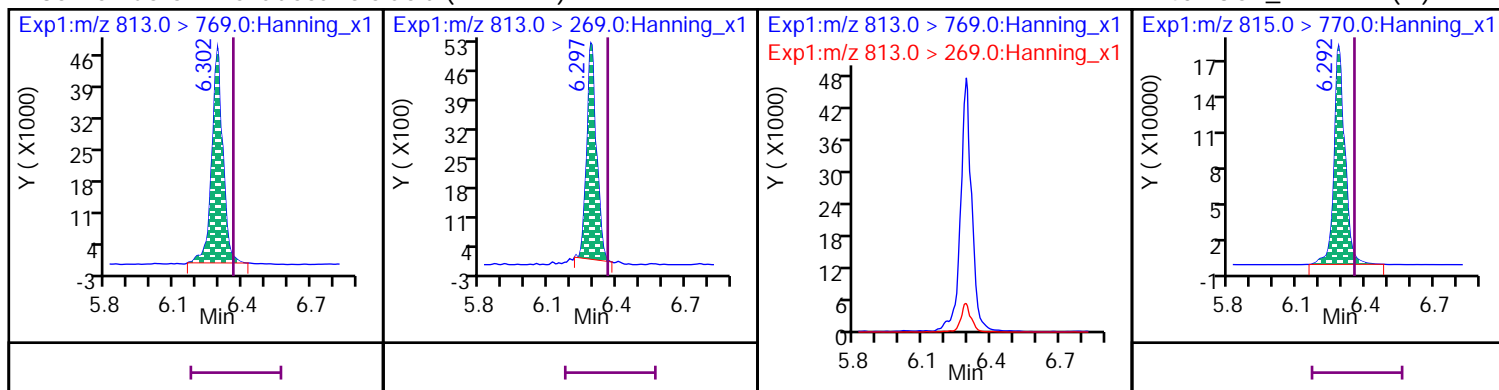
23 Perfluoro-n-tetradecanoic acid (PFTeDA)

D 42 13C2_PFTeDA



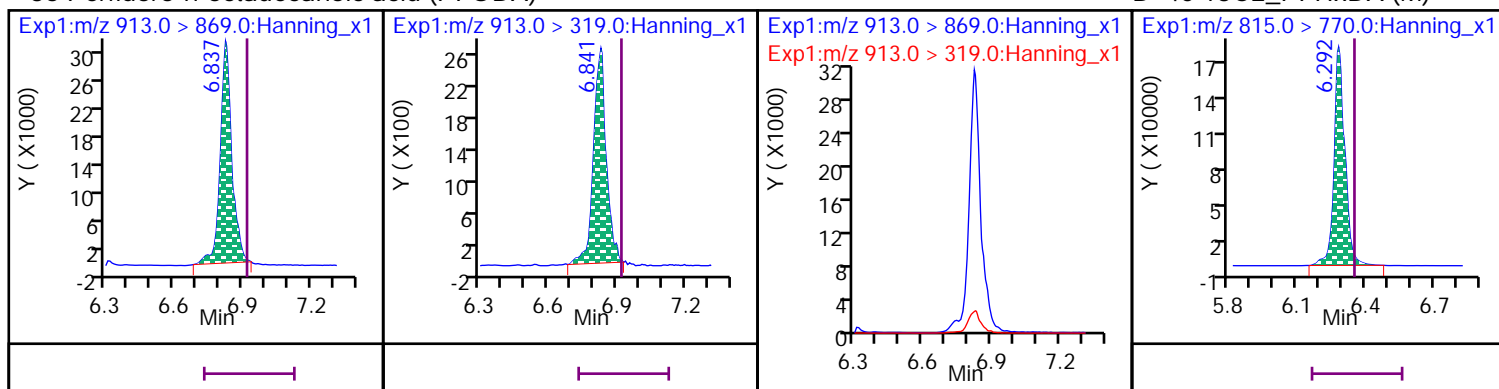
35 Perfluoro-n-hexadecanoic acid (PFHxDA)

D 40 13C2_PFHxDA (M)



36 Perfluoro-n-octadecanoic acid (PFODA)

D 40 13C2_PFHxDA (M)



Manual Integration Report

Data File: \\Organics\LL\LCMSMS01.i\091122-nonDOD.b\091122021.d

Injection Date: 11-Sep-2022 17:06:16

Inst. ID: LCMSMS01.i

Client ID:

Lab ID: XQ52413-003

Sample Info: XQ52413-003

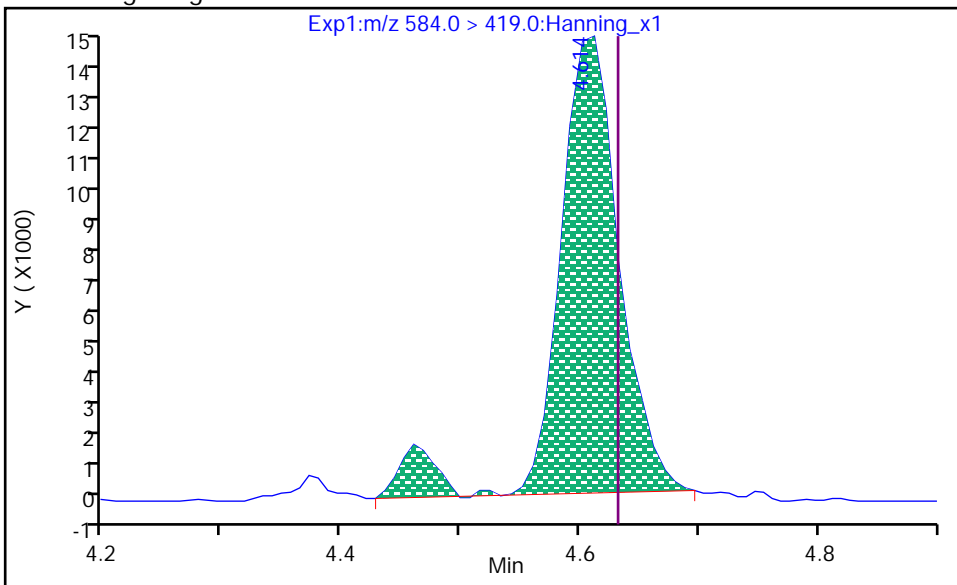
Dil. Factor: 1

Operator: eqi.svoa

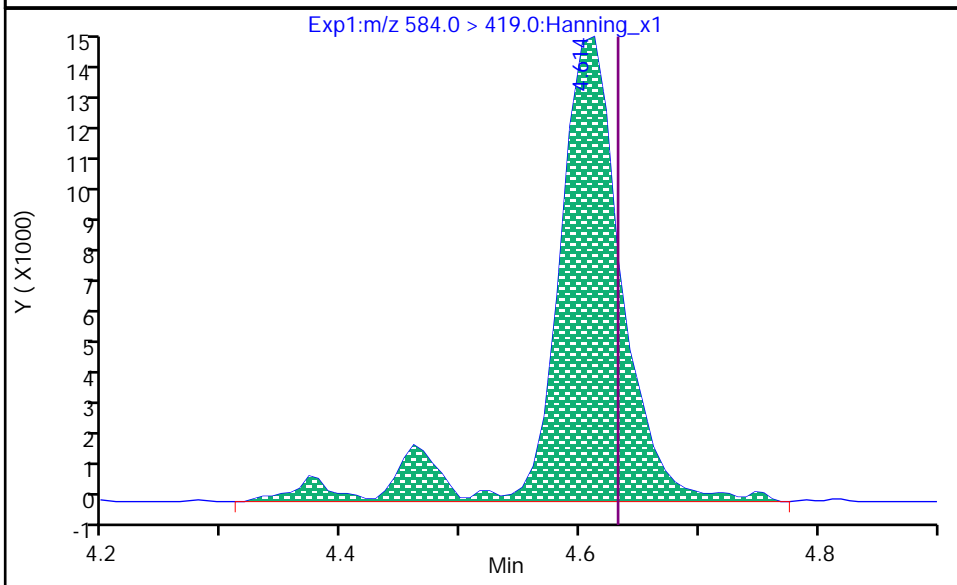
5 N-EtFOSAA, CAS: 2991-50-6

Processing Integration Results

RT: 4.614
Area: 49913
Conc: 1.7860
Conc Units: ug/Kg



RT: 4.614
Area: 55884
Conc: 1.9996
Conc Units: ug/Kg



Data Editor: xiang.zhu, 12-Sep-2022 15:47:33

Audit Action: Mint

Audit Reason: Invalid Integration

Manual Integration Report

Data File: \\Organics\LL\LCMSMS01.i\091122-nonDOD.b\091122021.d

Injection Date: 11-Sep-2022 17:06:16

Inst. ID: LCMSMS01.i

Client ID:

Lab ID: XQ52413-003

Sample Info: XQ52413-003

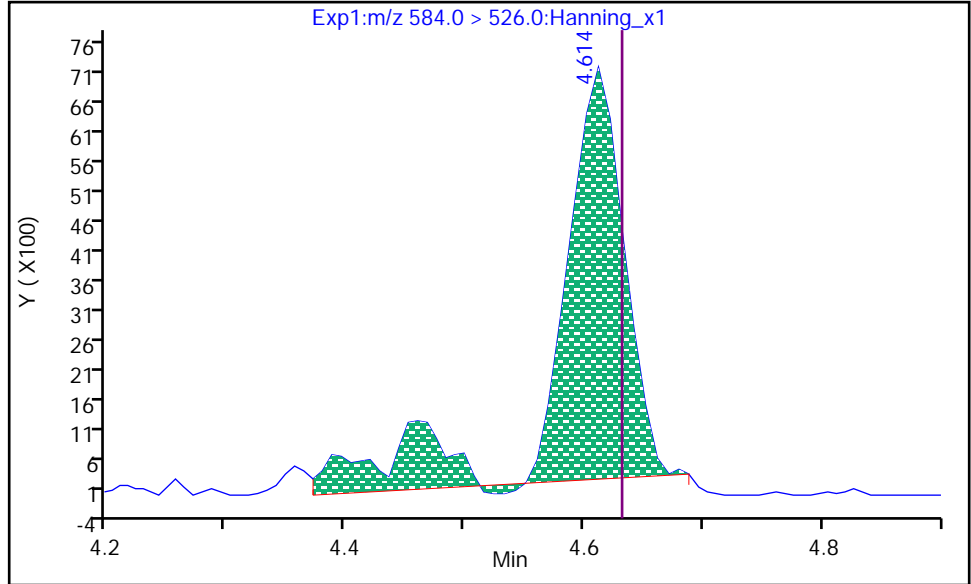
Dil. Factor: 1

Operator: eqi.svoa

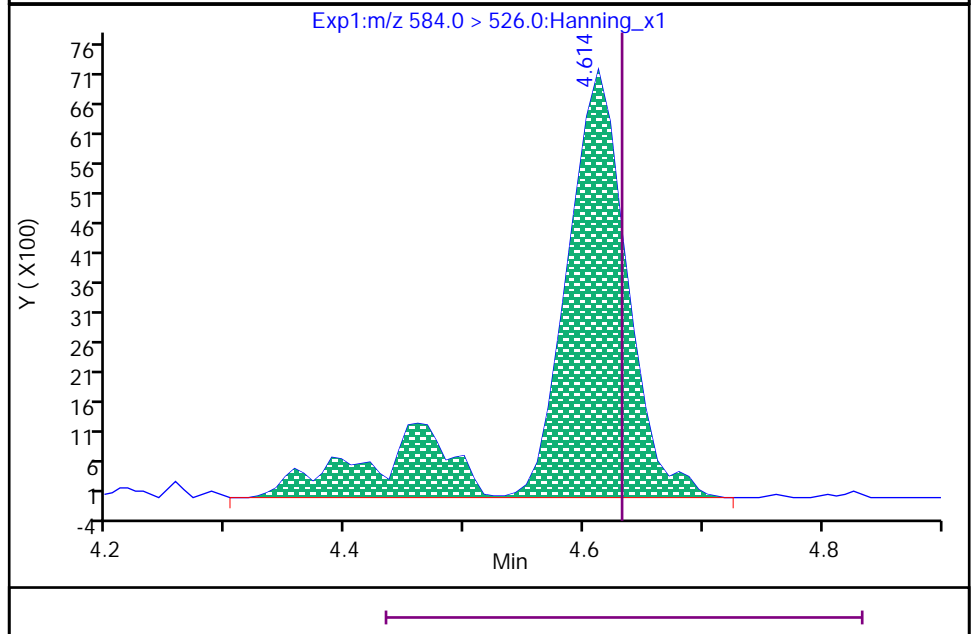
5 N-EtFOSAA, CAS: 2991-50-6

Processing Integration Results

RT: 4.614
Area: 26691
Conc: 1.9996
Conc Units: ug/Kg



RT: 4.614
Area: 30939
Conc: 1.9996
Conc Units: ug/Kg



Data Editor: xiang.zhu, 12-Sep-2022 15:47:39
Audit Action: Mint
Audit Reason: Invalid Integration

Manual Integration Report

Data File: \\Organics\LL\LCMSMS01.i\091122-nonDOD.b\091122021.d

Injection Date: 11-Sep-2022 17:06:16

Inst. ID: LCMSMS01.i

Client ID:

Lab ID: XQ52413-003

Sample Info: XQ52413-003

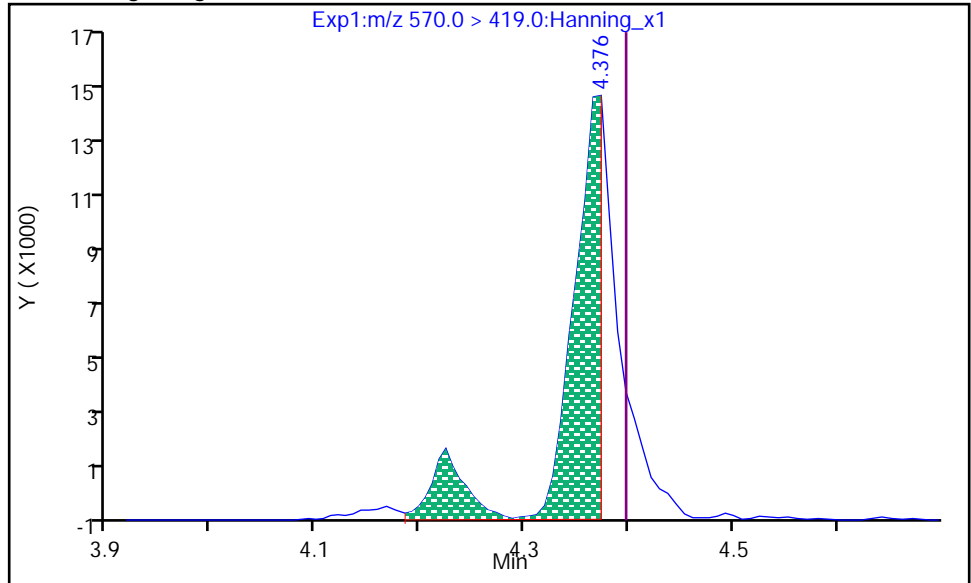
Dil. Factor: 1

Operator: eqi.svoa

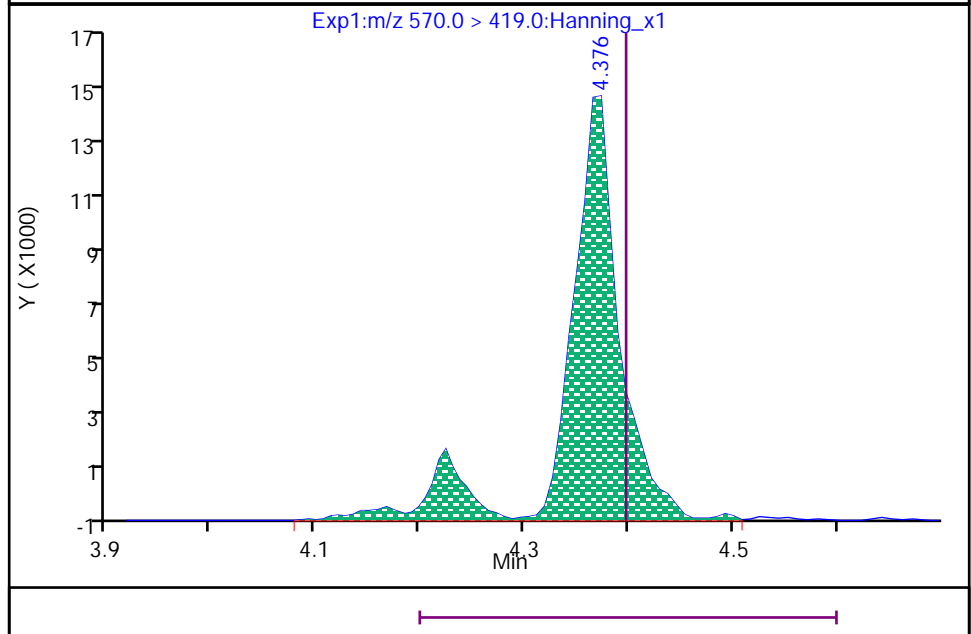
6 N-MeFOSAA, CAS: 2355-31-9

Processing Integration Results

RT: 4.376
Area: 29547
Conc: 1.1629
Conc Units: ug/Kg



RT: 4.376
Area: 49731
Conc: 1.9573
Conc Units: ug/Kg



Data Editor: LaShanda.Blair, 12-Sep-2022 13:22:30

Audit Action: Mint

Audit Reason: Invalid Integration

Manual Integration Report

Data File: \\Organics\LL\LCMSMS01.i\091122-nonDOD.b\091122021.d

Injection Date: 11-Sep-2022 17:06:16

Inst. ID: LCMSMS01.i

Client ID:

Lab ID: XQ52413-003

Sample Info: XQ52413-003

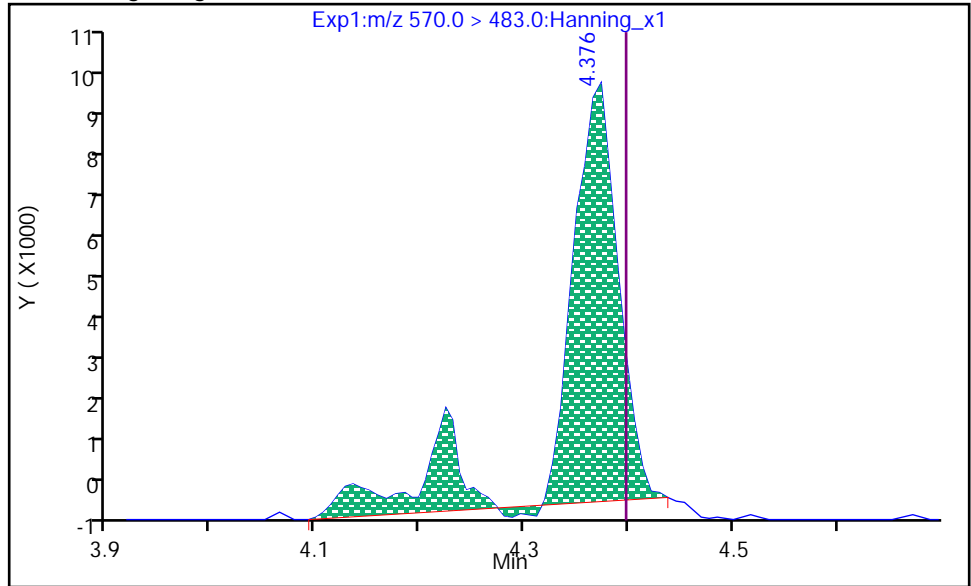
Dil. Factor: 1

Operator: eqi.svoa

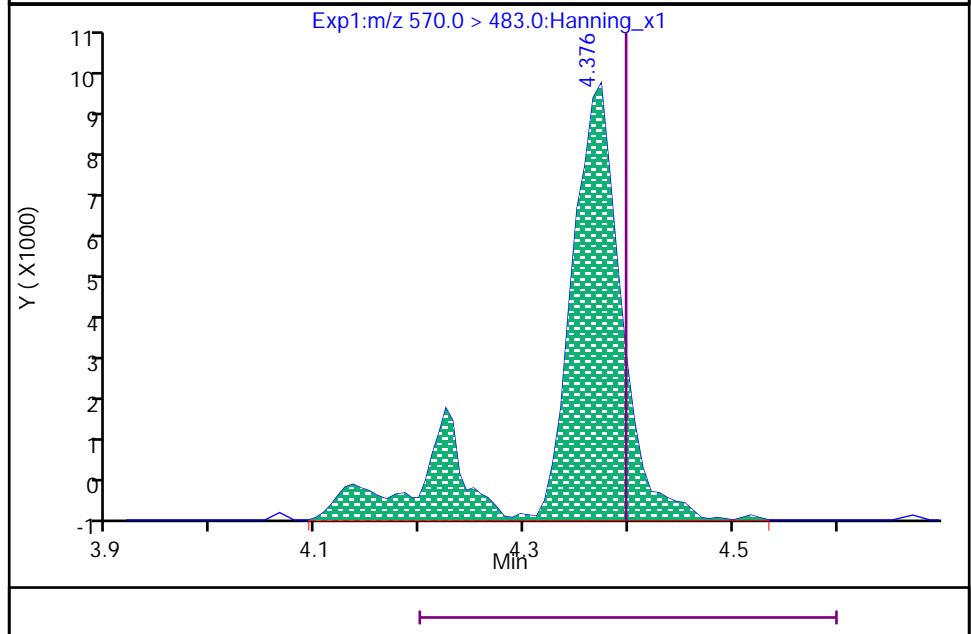
6 N-MeFOSAA, CAS: 2355-31-9

Processing Integration Results

RT: 4.376
Area: 31656
Conc: 1.9573
Conc Units: ug/Kg



RT: 4.376
Area: 37484
Conc: 1.9573
Conc Units: ug/Kg



Data Editor: LaShanda.Blair, 12-Sep-2022 13:22:39

Audit Action: Mint

Audit Reason: Invalid Integration

Manual Integration Report

Data File: \\Organics\LL\LCMSMS01.i\091122-nonDOD.b\091122021.d

Injection Date: 11-Sep-2022 17:06:16

Inst. ID: LCMSMS01.i

Client ID:

Lab ID: XQ52413-003

Sample Info: XQ52413-003

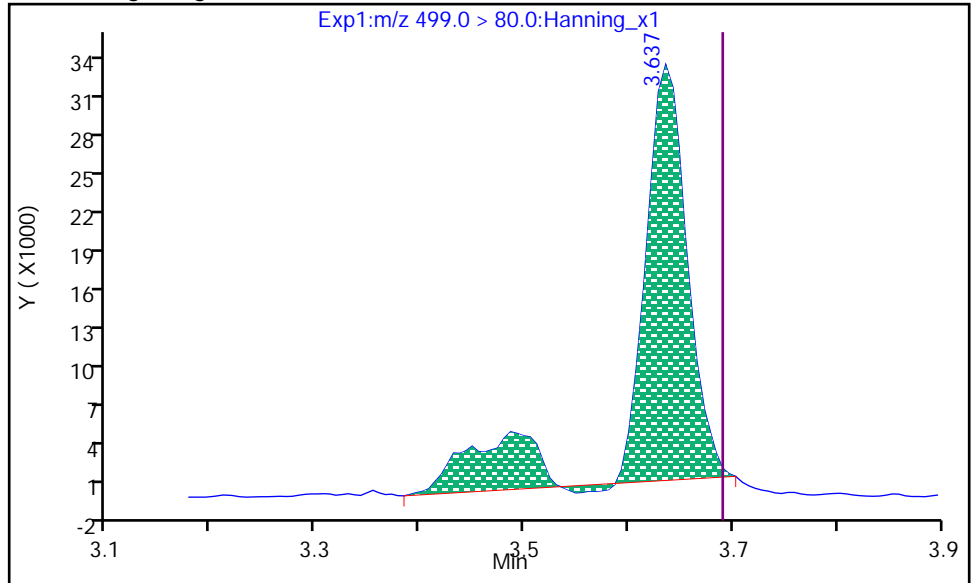
Dil. Factor: 1

Operator: eqi.svoa

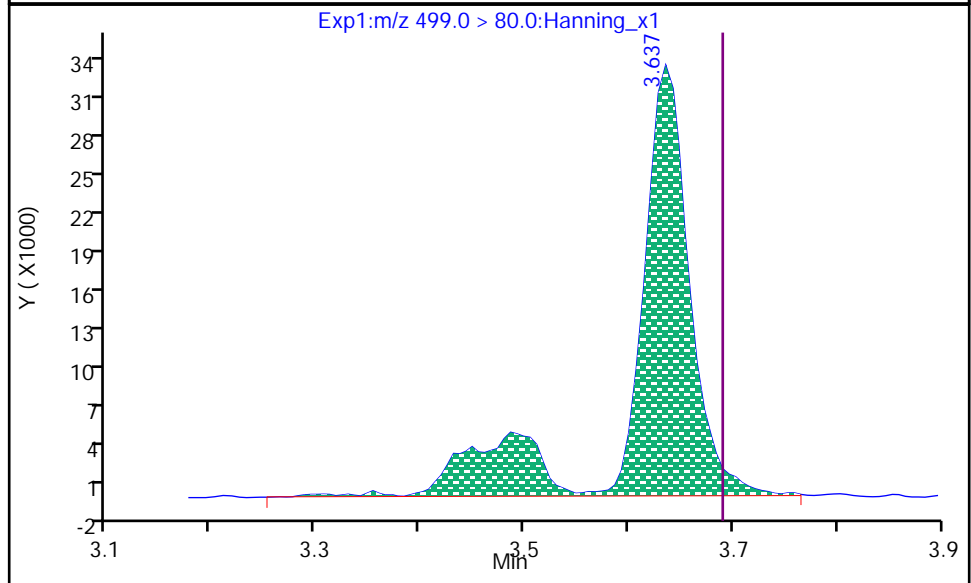
18 PFOS, CAS: 1763-23-1

Processing Integration Results

RT: 3.637
Area: 104722
Conc: 1.6801
Conc Units: ug/Kg



RT: 3.637
Area: 120974
Conc: 1.9408
Conc Units: ug/Kg



Data Editor: matthew.miller, 15-Sep-2022 15:09:42

Audit Action: Mint

Audit Reason: Invalid Integration

Manual Integration Report

Data File: \\Organics\LL\LCMSMS01.i\091122-nonDOD.b\091122021.d

Injection Date: 11-Sep-2022 17:06:16

Inst. ID: LCMSMS01.i

Client ID:

Lab ID: XQ52413-003

Sample Info: XQ52413-003

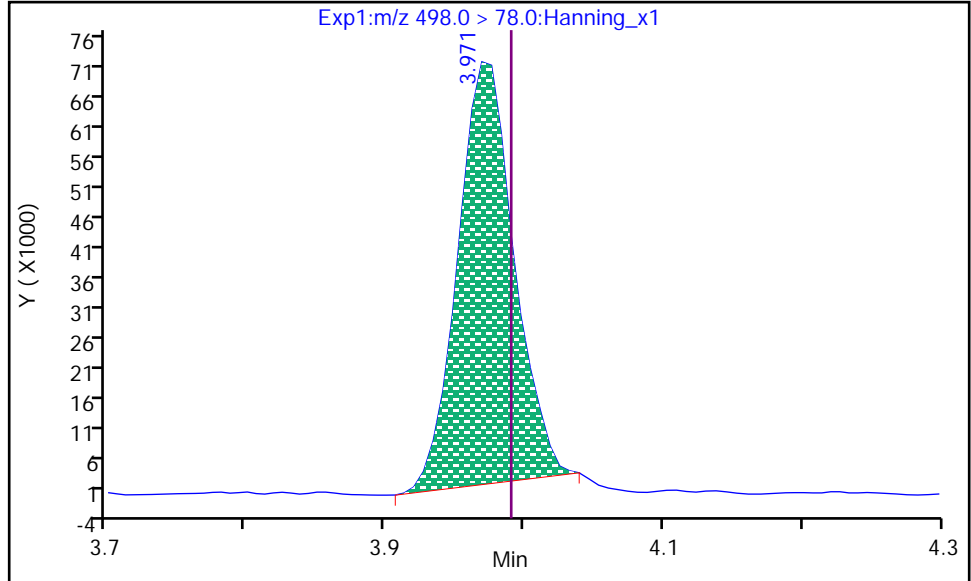
Dil. Factor: 1

Operator: eqi.svoa

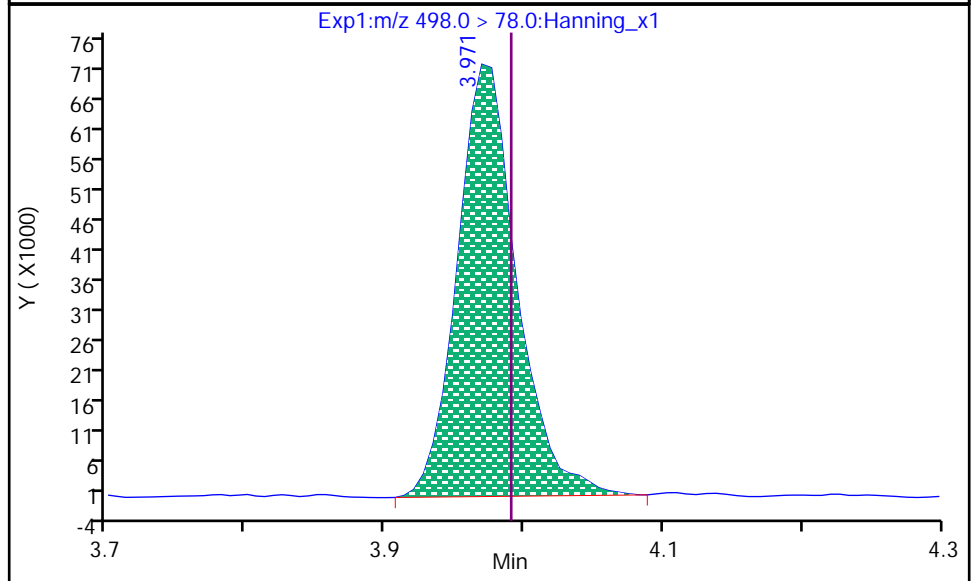
19 PFOSA, CAS: 754-91-6

RT: 3.971
Area: 193848
Conc: 1.8716
Conc Units: ug/Kg

Processing Integration Results



RT: 3.971
Area: 209688
Conc: 2.0245
Conc Units: ug/Kg



Data Editor: xiang.zhu, 12-Sep-2022 15:47:00

Audit Action: Mint

Audit Reason: Invalid Integration

Manual Integration Report

Data File: \\Organics\LL\LCMSMS01.i\091122-nonDOD.b\091122021.d

Injection Date: 11-Sep-2022 17:06:16

Inst. ID: LCMSMS01.i

Client ID:

Lab ID: XQ52413-003

Sample Info: XQ52413-003

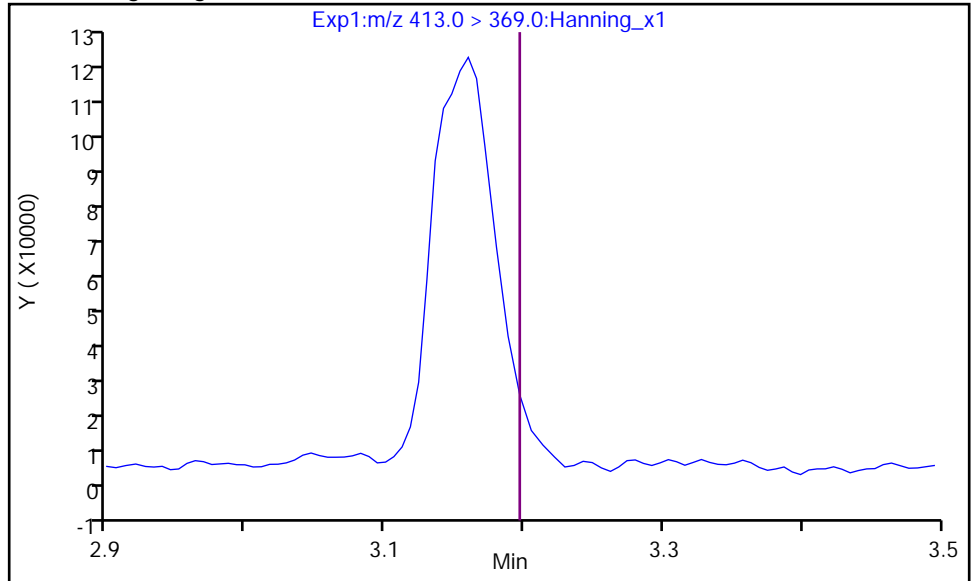
Dil. Factor: 1

Operator: eqi.svoa

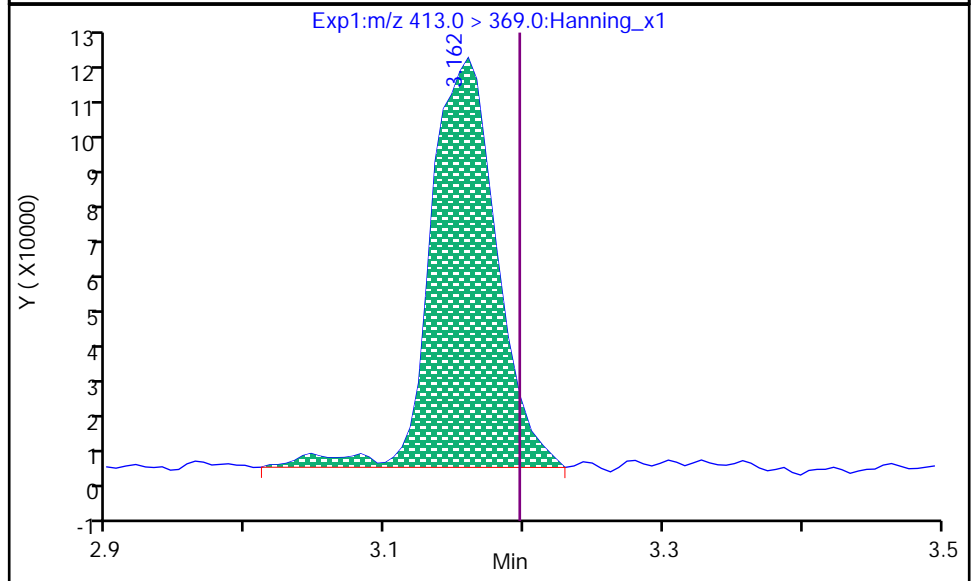
20 PFOA, CAS: 335-67-1

RT: 3.162
Area: 389391
Conc: 2.5860
Conc Units: ug/Kg

Processing Integration Results



RT: 3.162
Area: 350822
Conc: 2.3299
Conc Units: ug/Kg



Data Editor: xiang.zhu, 12-Sep-2022 15:46:37

Audit Action: Mint

Audit Reason: Invalid Integration

Manual Integration Report

Data File: \\Organics\LL\LCMSMS01.i\091122-nonDOD.b\091122021.d

Injection Date: 11-Sep-2022 17:06:16

Inst. ID: LCMSMS01.i

Client ID:

Lab ID: XQ52413-003

Sample Info: XQ52413-003

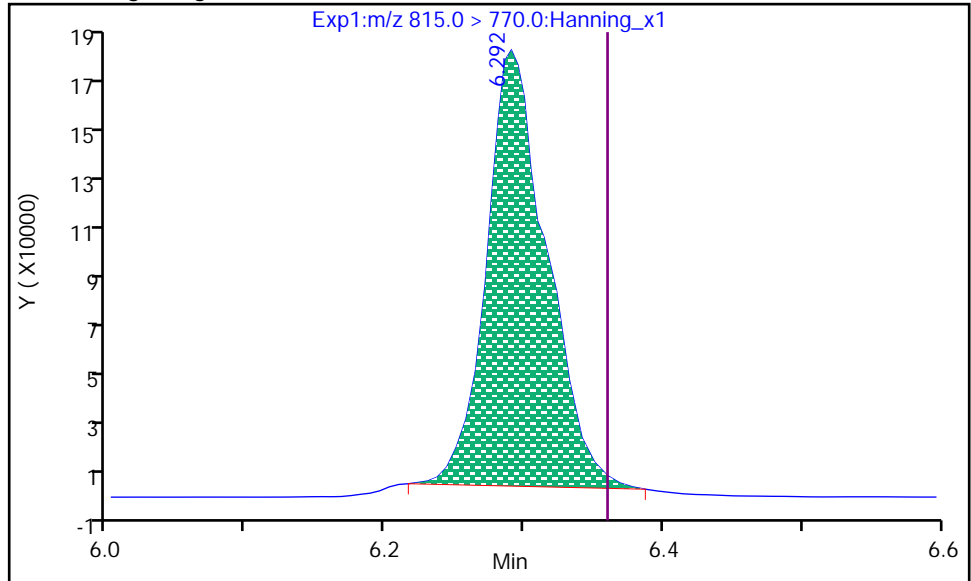
Dil. Factor: 1

Operator: eqi.svoa

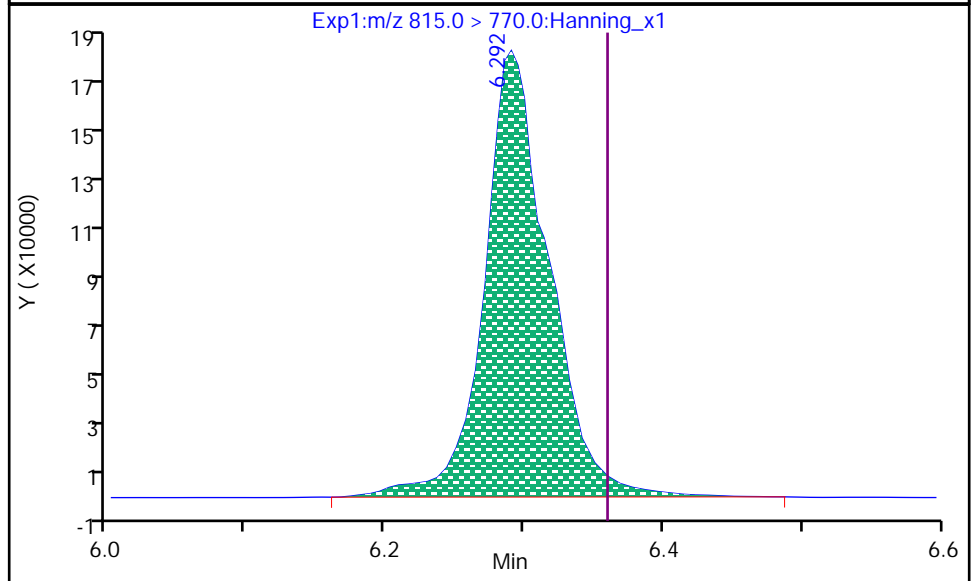
D 40 13C2_PFHxDA, CAS: SESI-0103

Processing Integration Results

RT: 6.292
Area: 528059
Conc: 1874.21
Conc Units: ug/Kg



RT: 6.292
Area: 581111
Conc: 2062.51
Conc Units: ug/Kg



Data Editor: xiang.zhu, 12-Sep-2022 15:48:00

Audit Action: Mint

Audit Reason: Invalid Integration

MISC. DATA



Extract Dilution Preparations

DILUTION	1X	5X	10X	20X	50X	100X	200X
537.1 DILUTION PREP							
EXTRACT (µL)	ALIQUOT	200	100	50	20	10	5
IS (µL)	0	40	45	47.5	49	49.5	49.75
96% MeOH (µL)	0	760	855	902.5	931	940.5	945.25
TOTAL (µL)	75	1000	1000	1000	1000	1000	1000
REFORTIFIED ID-AQ/ID-SOLID DILUTION PREP							
EXTRACT (µL)	ALIQUOT	200	100	50	20	10	5
ES-100ppb (µL)	0	16	18	19	19.6	19.8	19.9
MeOH (µL)	0	753	847	894	922	931	936
WATER (µL)	0	31	35	37	38.4	38.8	39
TOTAL (µL)	75	1000	1000	1000	1000	999.6	999.9
UNFORTIFIED ID-AQ/ID-SOLID DILUTION PREP							
EXTRACT (µL)	ALIQUOT	200	100	50	20	10	5
ES-100ppb (µL)	0	0	0	0	0	0	0
MeOH (µL)	0	768	864	912	941	950	955
WATER (µL)	0	32	36	38	39	40	40
TOTAL (µL)	75	1000	1000	1000	1000	1000	1000
In-vial 50X ID Screen							
In-vial 50X ID Screen		240µL 96%MeOH	+	5µL SUR 100ppb	+	5µL sample extract	
DAI DILUTION PREP							
SAMPLE (µL)	500	100	50	25	10	5	
ES (µL)	25	25	25	25	25	25	
MeOH (µL)	475	475	475	475	475	475	
Water (µL)	0	400	450	475	490	495	
TOTAL (µL)	1000	1000	1000	1000	1000	1000	
533 DILUTION PREP							
EXTRACT (µL)	950	200	100	50	20	10	5
IS (µL)	50	40	45	47.5	49	49.5	49.75
ES (µL)	0	40	45	47.5	49	49.5	49.75
80% MeOH (µL)	0	720	810	855	882	891	895.5
TOTAL (µL)	1000	1000	1000	1000	1000	1000	1000

NOTE: Serial dilution will be performed for dilutions higher than 200X.

Pace Environmental Services, LLC
Batch Run Log Report

Batch: \\Organics\LL\LCMSMS01.i\082822-nonDOD+ICAL.b
Method: LCMSMS01_PFAS-ID2.M Version: V16 30-Jun-2022 10:54:24
Instrument: LCMSMS01.i Integrator: picker
Cal Start Date: 28-Aug-2022 12:25:57 Cal End Date: 28-Aug-2022 13:50:15
Method Lock: Unknown Lock Date:
Calib Method: PFAS-ID2 No.Compounds: 66

ALS Vial	LIMS Sample ID	Injection Date/Time	Data File	Sample Type	Client Sample ID	Matrix/Level	Dil Fact	Prep Batch	Primary Reagent	Conc Level	Vol. Added	Inst QC	Comments
1	ID2 ICAL 100_SVLC_2105	28-Aug-2022 12:25:57	082822007.d	ICal					Analytes	L-2	1.00		
2	ID2 ICAL 200_SVLC_2163	28-Aug-2022 12:36:12	082822008.d	ICal					Analytes	L-3	1.00		
3	ID2 ICAL 500_SVLC_2107	28-Aug-2022 12:46:45	082822009.d	ICal					Analytes	L-4	1.00		
4	ID2 ICAL 1000_SVLC_2165	28-Aug-2022 12:57:19	082822010.d	ICal					Analytes	L-5	1.00		
5	ID2 ICAL 2000_SVLC_2108	28-Aug-2022 13:07:52	082822011.d	ICal					Analytes	L-6	1.00		
6	ID2 ICAL 5000_SVLC_2109	28-Aug-2022 13:18:26	082822012.d	ICal					Analytes	L-7	1.00		
7	ID2 ICAL 10000_SVLC_2120	28-Aug-2022 13:29:01	082822013.d	ICal					Analytes	L-8	1.00		
8	ID2 ICAL 15000_SVLC_2111	28-Aug-2022 13:39:38	082822014.d	ICal					Analytes	L-9	1.00		
9	ID2 ICAL 20000_SVLC_2197	28-Aug-2022 13:50:15	082822015.d	ICal					Analytes	L-10	1.00		
10	ID2 BLK A	28-Aug-2022 14:01:00	082822016.d	InstBlk					Surrogates	Smp	0.1000		
11	ICV_SVLC_2195	28-Aug-2022 14:11:39	082822017.d	ICV					Analytes	ICV	1.00		
12	ISOMERS_SVLC_2102	28-Aug-2022 14:22:12	082822018.d	CheckStd					Surrogates	Smp	1.00		
13	CCB 1	28-Aug-2022 14:32:46	082822019.d	InstBlk					Surrogates	Smp	0.1000		

Pace Environmental Services, LLC
Batch Run Log Report

Batch: \\Organics\LL\LCMSMS01.i\091122-nonDOD.b
 Method: LCMSMS01_PFAS-ID2.M Version: V16 30-Jun-2022 10:54:24
 Instrument: LCMSMS01.i Integrator: picker
 Cal Start Date: 28-Aug-2022 12:25:57 Cal End Date: 28-Aug-2022 13:50:15
 Method Lock: Unknown Lock Date:
 Calib Method: PFAS-ID2 No.Compounds: 66

ALS Vial	LIMS Sample ID	Injection Date/Time	Data File	Sample Type	Client Sample ID	Matrix/Level	Dil Fact	Prep Batch	Primary Reagent	Conc Level	Vol. Added	Inst QC	Comments
95	CCV 200_SVLC_2163	11-Sep-2022 14:24:23	091122006.d	CCV					Analytes	L-3	1.00		
96	ID2 BLK A	11-Sep-2022 14:34:55	091122007.d	InstBlk					Surrogates	Smp	0.1000		
2	CCV 1000_SVLC_2200	11-Sep-2022 14:59:15	091122009.d	CCV					Analytes	L-5	1.00		
3	CCB 1	11-Sep-2022 15:09:47	091122010.d	InstBlk					Surrogates	Smp	0.1000		
4	XH02009-001	11-Sep-2022 15:20:21	091122011.d	Client	SITE 24 EXV	Aqueous	1	51676	Surrogates	Smp	0.1000		Hi Sur-NCM/ND(4:2,6:2)
5	XH03105-002	11-Sep-2022 15:30:55	091122012.d	Client	GSWA SB1	Aqueous	1	51676	Surrogates	Smp	0.1000		Hi Sur-NCM/ND(4:2,6:2)
6	XH03105-003	11-Sep-2022 15:41:29	091122013.d	Client	GSWA GB5	Aqueous	1	51676	Surrogates	Smp	0.1000		Hi Sur-NCM/ND(4:2)
7	XH03105-004	11-Sep-2022 15:52:04	091122014.d	Client	GSWA LB5	Aqueous	1	51676	Surrogates	Smp	0.1000		Hi Sur-NCM/ND(4:2,6:2)
8	XH03105-006	11-Sep-2022 16:02:40	091122015.d	Client	GSWA BB1a	Aqueous	1	51676	Surrogates	Smp	0.1000		Hi Sur-NCM/ND(4:2)
9	XH03105-007	11-Sep-2022 16:13:16	091122016.d	Client	GSWA LB1.5	Aqueous	1	51676	Surrogates	Smp	0.1000		Hi Sur-NCM/ND(4:2,6:2)
10	CCV 1000_SVLC_2200	11-Sep-2022 16:23:53	091122017.d	CCV					Analytes	L-5	1.00		
11	CCB 2	11-Sep-2022 16:34:33	091122018.d	InstBlk					Surrogates	Smp	0.1000		
12	XQ52413-001	11-Sep-2022 16:45:06	091122019.d	MBlk		Soil	1	52413	Surrogates	Smp	0.1000		6:2 SUR HI-NT
13	XQ52413-002	11-Sep-2022 16:55:39	091122020.d	LCS		Soil	1	52413	Analytes	100x PDS	0.1000		6:2 SUR HI-NT
14	XQ52413-003	11-Sep-2022 17:06:16	091122021.d	LCSD		Soil	1	52413	Analytes	100x PDS	0.1000		6:2 SUR HI-NT
15	XH12003-001	11-Sep-2022 17:16:51	091122022.d	Client	ITWC-001g	Soil	1	52413	Surrogates	Smp	0.1000		RR-5x(PFBA)
16	XH12003-002	11-Sep-2022 17:27:28	091122023.d	Client	ITWC-002g	Soil	1	52413	Surrogates	Smp	0.1000		RR-5x(PFBA)Lo Sur-DoA-rr to confirm
17	XH12003-003	11-Sep-2022 17:38:03	091122024.d	Client	ITWC-003g	Soil	1	52413	Surrogates	Smp	0.1000		RR-5x(PFBA)
18	XH12003-004	11-Sep-2022 17:48:40	091122025.d	Client	ITWC-005g	Soil	1	52413	Surrogates	Smp	0.1000		RR-5x(PFBA),Lo Sur-DoA(Rx)
19	XH12003-005	11-Sep-2022 17:59:17	091122026.d	Client	ITWC-006g	Soil	1	52413	Surrogates	Smp	0.1000		RR-5x(PFBA,PeA,HxA,PFOA,TrDA,TeDA,HxDA,ODA)Rx DOA,
20	XH12003-006	11-Sep-2022 18:09:55	091122027.d	Client	ITWC-007g	Soil	1	52413	Surrogates	Smp	0.1000		RR-5x, Lo Sur-DoA(Rx)
21	XH12003-007	11-Sep-2022 18:20:36	091122028.d	Client	ITWC-008g	Soil	1	52413	Surrogates	Smp	0.1000		
22	XH12003-008	11-Sep-2022 18:31:08	091122029.d	Client	ITWC-009gFB	Soil	1	52413	Surrogates	Smp	0.1000		Lo Sur-DoA Rx
23	CCV 1000_SVLC_2200	11-Sep-2022 18:41:41	091122030.d	CCV					Analytes	L-5	1.00		Hi Sur-10 FTS,ND in Samples
24	CCB 3	11-Sep-2022 18:52:14	091122031.d	InstBlk					Surrogates	Smp	0.1000		Hi Sur-NCM/ND(4:2,HpA,6:2)
25	XQ52004-001	11-Sep-2022 19:02:50	091122032.d	MBlk		Soil	1	52004	Surrogates	Smp	0.1000		Hi Sur-NCM/ND(4:2,6:2)
26	XQ52004-002	11-Sep-2022 19:13:25	091122033.d	LCS		Soil	1	52004	Analytes	100x PDS	0.1000		NCM for Matrix
27	XQ52004-003	11-Sep-2022 19:24:02	091122034.d	LCSD		Soil	1	52004	Analytes	100x PDS	0.1000		NCM for Matrix
28	XH12001-003	11-Sep-2022 19:34:40	091122035.d	Client	ITSL-005gFB	Soil	1	52004	Surrogates	Smp	0.1000		Multi Lo Sur-NCM-INSUF, HXDA CCV-NCM/ND
29	XH12001-004	11-Sep-2022 19:45:17	091122036.d	Client	ITSL-006gFB	Soil	1	52004	Surrogates	Smp	0.1000		
30	XH12002-001	11-Sep-2022 19:55:52	091122037.d	Client	ITMP-001g	Soil	1	52004	Surrogates	Smp	0.1000		
31	XH12002-002	11-Sep-2022 20:06:31	091122038.d	Client	ITMP-002g	Soil	1	52004	Surrogates	Smp	0.1000		RR-5x(PFBA,PeA)
32	XH12002-003	11-Sep-2022 20:17:05	091122039.d	Client	ITMP-003g	Soil	1	52004	Surrogates	Smp	0.1000		RR-5x(PFBA,PeA,HxA)
33	XH12002-004	11-Sep-2022 20:27:38	091122040.d	Client	ITMP-004g	Soil	1	52004	Surrogates	Smp	0.1000		RR-5x(PFBA,PeA)
34	XH12002-005	11-Sep-2022 20:38:17	091122041.d	Client	ITMP-005gFB	Soil	1	52004	Surrogates	Smp	0.1000		
35	XH12002-006	11-Sep-2022 20:48:54	091122042.d	Client	ITMP-006gFB	Soil	1	52004	Surrogates	Smp	0.1000		Lo Sur-PFBA,Rx
36	CCV 1000_SVLC_2200	11-Sep-2022 20:59:32	091122043.d	CCV					Analytes	L-5	1.00		Hi Analyte-MeFOSA,EtFOSe,10:2,HxDA, Hi Sur-4:2,8:2
37	CCB 4	11-Sep-2022 21:10:09	091122044.d	InstBlk					Surrogates	Smp	0.1000		Hi Sur-(4:2,8:2),ok/ND

Pace Environmental Services, LLC
Batch Run Log Report

Batch: \\Organics\LL\LCMSMS01.i\091222-nonDOD.b
Method: LCMSMS01_PFAS-ID2.M Version: V16 30-Jun-2022 10:54:24
Instrument: LCMSMS01.i Integrator: picker
Cal Start Date: 28-Aug-2022 12:25:57 Cal End Date: 28-Aug-2022 13:50:15
Method Lock: Unknown Lock Date:
Calib Method: PFAS-ID2 No.Compounds: 66

ALS Vial	LIMS Sample ID	Injection Date/Time	Data File	Sample Type	Client Sample ID	Matrix/Level	Dil Fact	Prep Batch	Primary Reagent	Conc Level	Vol. Added	Inst QC	Comments
95	CCV 200_SVLC_2163	12-Sep-2022 14:33:10	091222006.d	CCV					Analytes	L-3	1.00		
96	ID2 BLK A	12-Sep-2022 14:43:44	091222007.d	InstBlk					Surrogates	Smp	0.1000		
8	CCV 1000_SVLC_2200	12-Sep-2022 16:29:37	091222015.d	CCV					Analytes	L-5	1.00		
9	CCB 1	12-Sep-2022 16:40:13	091222016.d	InstBlk	ITWC-001g			52413	Surrogates	Smp	0.1000		
10	XH12003-001	12-Sep-2022 16:50:51	091222017.d	Client	ITWC-001g	Soil	5U	52413	Surrogates	Smp	0.1000		
11	XH12003-002	12-Sep-2022 17:01:31	091222018.d	Client	ITWC-002g	Soil	5U	52413	Surrogates	Smp	0.1000		
12	XH12003-003	12-Sep-2022 17:12:04	091222019.d	Client	ITWC-003g	Soil	5U	52413	Surrogates	Smp	0.1000		
13	XH12003-004	12-Sep-2022 17:22:37	091222020.d	Client	ITWC-005g	Soil	5U	52413	Surrogates	Smp	0.1000		
14	XH12003-005	12-Sep-2022 17:33:13	091222021.d	Client	ITWC-006g	Soil	5U	52413	Surrogates	Smp	0.1000		
15	XH12003-006	12-Sep-2022 17:43:46	091222022.d	Client	ITWC-007g	Soil	5U	52413	Surrogates	Smp	0.1000		
16	XH12002-002	12-Sep-2022 17:54:22	091222023.d	Client	ITMP-002g	Soil	5U	52004	Surrogates	Smp	0.1000		
17	XH12002-003	12-Sep-2022 18:04:59	091222024.d	Client	ITMP-003g	Soil	5U	52004	Surrogates	Smp	0.1000		RR-10x(PFBA)
18	XH12002-004	12-Sep-2022 18:15:35	091222025.d	Client	ITMP-004g	Soil	5U	52004	Surrogates	Smp	0.1000		
19	CCV 1000_SVLC_2200	12-Sep-2022 18:26:10	091222026.d	CCV					Analytes	L-5	1.00		Hi Analyt-10:2, HxDA-NT,Hi Sur(4:2)NCM-Target pas
21	XQ53061-001	12-Sep-2022 18:36:48	091222028.d	MBlk		Aqueous	1	53061	Surrogates	Smp	0.1000		Hi Sur-NCM/ND (6:2)
22	XQ53061-101	12-Sep-2022 18:47:21	091222029.d	MBlk		Aqueous	1	53061	Surrogates	Smp	0.1000		Hi Sur-NCM/ND
23	XQ53061-002	12-Sep-2022 18:57:54	091222030.d	LCS		Aqueous	1	53061	Analytes	100x PDS	0.2000		
24	XQ53061-003	12-Sep-2022 19:08:28	091222031.d	LCSD		Aqueous	1	53061	Analytes	100x PDS	0.2000		
25	XH12006-001	12-Sep-2022 19:19:01	091222032.d	Client	LAG-E-BTTM-BP-03_0805202	Aqueous	1	53061	Surrogates	Smp	0.1000		
26	XH12006-002	12-Sep-2022 19:29:37	091222033.d	Client	LAG-E-BTTM-AP-03_0805202	Aqueous	1	53061	Surrogates	Smp	0.1000		
27	XH12006-003	12-Sep-2022 19:40:13	091222034.d	Client	LAG-W-BTTM-AE-03_0810202	Aqueous	1	53061	Surrogates	Smp	0.1000		
28	CCV 1000_SVLC_2200	12-Sep-2022 19:50:50	091222035.d	CCV					Analytes	L-5	1.00		
29	CCB 3	12-Sep-2022 20:01:27	091222036.d	InstBlk					Surrogates	Smp	0.1000		

Pace Environmental Services, LLC
Batch Run Log Report

Batch: \\Organics\LL\LCMSMS01.i\100222-nonDOD+ICAL.b
 Method: LCMSMS01_PFAS-ID2.M Version: V16 30-Jun-2022 10:54:24
 Instrument: LCMSMS01.i Integrator: picker
 Cal Start Date: 02-Oct-2022 14:34:29 Cal End Date: 02-Oct-2022 15:59:03
 Method Lock: Unknown Lock Date:
 Calib Method: PFAS-ID2 No.Compounds: 66

ALS Vial	LIMS Sample ID	Injection Date/Time	Data File	Sample Type	Client Sample ID	Matrix/Level	Dil Fact	Prep Batch	Primary Reagent	Conc Level	Vol. Added	Inst QC	Comments
1	ID2 ICAL 100_SVLC_2105	02-Oct-2022 14:34:29	1002223004.d	ICal					Analytes	L-2	1.00		
2	ID2 ICAL 200_SVLC_2211	02-Oct-2022 14:45:01	1002223005.d	ICal					Analytes	L-3	1.00		
3	ID2 ICAL 500_SVLC_2107	02-Oct-2022 14:55:35	1002223006.d	ICal					Analytes	L-4	1.00		
4	ID2 ICAL 1000_SVLC_2215	02-Oct-2022 15:06:08	1002223007.d	ICal					Analytes	L-5	1.00		
5	ID2 ICAL 2000_SVLC_2108	02-Oct-2022 15:16:42	1002223008.d	ICal					Analytes	L-6	1.00		
6	ID2 ICAL 5000_SVLC_2109	02-Oct-2022 15:27:16	1002223009.d	ICal					Analytes	L-7	1.00		
7	ID2 ICAL 10000_SVLC_2120	02-Oct-2022 15:37:49	1002223010.d	ICal					Analytes	L-8	1.00		
8	ID2 ICAL 15000_SVLC_2111	02-Oct-2022 15:48:26	1002223011.d	ICal					Analytes	L-9	1.00		
9	ID2 ICAL 20000_SVLC_2197	02-Oct-2022 15:59:03	1002223012.d	ICal					Analytes	L-10	1.00		
10	ID2 BLK A	02-Oct-2022 16:09:40	1002223013.d	InstBlk					Surrogates	Smp	0.1000		
11	ICV_SVLC_2193	02-Oct-2022 16:20:18	1002223014.d	ICV					Analytes	ICV-43	1.00		
12	ISOMERS_SVLC_2202	02-Oct-2022 16:30:50	1002223015.d	CheckStd					Surrogates	Smp	1.00	Yes	
13	CCB 1	02-Oct-2022 16:41:23	1002223016.d	InstBlk					Surrogates	Smp	0.1000		

Pace Environmental Services, LLC
Batch Run Log Report

Batch: \\organics\LL\LCMSMS01.i\100422-nonDOD.b
 Method: LCMSMS01_PFAS-ID2.M Version: V16 30-Jun-2022 10:54:24
 Instrument: LCMSMS01.i Integrator: picker
 Cal Start Date: 02-Oct-2022 14:34:29 Cal End Date: 02-Oct-2022 15:59:03
 Method Lock: Unknown Lock Date:
 Calib Method: PFAS-ID2 No.Compounds: 66

ALS Vial	LIMS Sample ID	Injection Date/Time	Data File	Sample Type	Client Sample ID	Matrix/Level	Dil Fact	Prep Batch	Primary Reagent	Conc Level	Vol. Added	Inst QC	Comments
95	CCV 200_SVLC-2211	04-Oct-2022 11:11:14	100422005.d	CCV					Analytes	L-3	1.00		
96	ID IBLK A	04-Oct-2022 11:21:46	100422006.d	InstBlk		Aqueous	1		Surrogates	Smp	0.1000		
39	CCV 1000C_SVLC-2215	04-Oct-2022 18:47:02	100422048.d	CCV					Analytes	L-5	1.00		
100	CCB C4	04-Oct-2022 18:57:39	100422049.d	InstBlk		Aqueous	1		Surrogates	Smp	0.0200		
40	XQ55630-001	04-Oct-2022 19:08:21	100422050.d	MBlk		Aqueous	1	55630	Surrogates	Smp	0.1000		
41	XQ55630-002	04-Oct-2022 19:19:02	100422051.d	LCS		Aqueous	1	55630	Analytes	100x PDS	0.2000		SURR HI-NCM/TARGET PASSED
42	XI20002-001	04-Oct-2022 19:29:35	100422052.d	MBlk	MilliQ water test , PFAS	Aqueous	1	55630	Surrogates	Smp	0.1000		
43	XI20002-002	04-Oct-2022 19:40:10	100422053.d	LCS	MilliQ water test , PFAS	Aqueous	1	55630	Analytes	100x PDS	0.2000		PASS-GenX HI
44	XI15055-001	04-Oct-2022 19:50:47	100422054.d	Client	SB-OS-SS444_8-13	Aqueous	1	55630	Surrogates	Smp	0.1000		SURR HI-NCM/ND
45	XH12002-001	04-Oct-2022 20:01:22	100422055.d	Client	ITMP-001g	Soil	1	52004	Surrogates	Smp	0.1000		
46	XH12003-005	04-Oct-2022 20:12:01	100422056.d	Client	ITWC-006g	Soil	5U	52413	Surrogates	Smp	0.1000		
47	XH12003-006	04-Oct-2022 20:22:38	100422057.d	Client	ITWC-007g	Soil	5U	52413	Surrogates	Smp	0.1000		
48	CCV 1000D_SVLC-2215	04-Oct-2022 20:33:15	100422058.d	CCV					Analytes	L-5	1.00		10:2 FTS HI
100	CCB C5	04-Oct-2022 20:43:52	100422059.d	InstBlk		Aqueous	1		Surrogates	Smp	0.0200		SURR HI-NCM/ND

Analyst: NRD

Level 2 Analyst: JRG2

Printed: 09/19/22 1137

Status: Level 2 review released

Prep Batch: 52413

Matrix: Solid

PFAS Prep by ID - PFAS Solid Preparation

Start Date: 08/26/2022 2122

Conc Analyst: NRD

End Date: 08/27/2022 0241

Conc Start Date: 08/27/2022 0146

Conc End Date: 08/27/2022 0205

Surrogate: SMLC2196

Surrogate Vol. (mL): 0.100

Ext Solvent: MECH+96%(MECH4%)+H2O

Reagents Vol. (mL): 10

Chem ID: 22-1608-22-1608/PFAS-22-017

Balance ID: Balance # 20-1123

Sample ID	QC Code	Client Sample ID	Run	Analysis Method	Initial Wt. (g)	Spike ID	Spike Vol. (mL)	Final Vol. (mL)	Holding Time Expires	Analytical Due Date	Comments
XG52413-001	MB		1	PFAS by ID SOP	1.00		0.000	5.0			1.11 g
XG52413-002	LCS		1	PFAS by ID SOP	1.00	SMLC2168	0.100	5.0			1.11 g
XG52413-003	LCSD		1	PFAS by ID SOP	1.00	SMLC2168	0.100	5.0			1.20 g
XH12003-001	Sample	ITVG-001g	1	PFAS by ID SOP	1.04		0.000	5.0	08/29/2022 2359	09/02/2022	
XH12003-002	Sample	ITVG-002g	1	PFAS by ID SOP	1.03		0.000	5.0	08/29/2022 2359	09/02/2022	Amn+MeCH LCMS-22-048(4mL); Pipettes:21-1707,21-1600; Falcon Tubes:22-1707; Turbo Vap LV#1, 66°C; Witness:CLS
XH12003-003	Sample	ITVG-003g	1	PFAS by ID SOP	1.14		0.000	5.0	08/29/2022 2359	09/02/2022	QC Sand:19-1493; Filters: 22-885; Reservoir: 22-1560; Bottletop:329; Centrifuge #7; MeCHExt:4mL, Fil:2mL
XH12003-004	Sample	ITVG-005g	1	PFAS by ID SOP	1.05		0.000	5.0	08/29/2022 2359	09/02/2022	
XH12003-005	Sample	ITVG-006g	1	PFAS by ID SOP	1.04		0.000	5.0	08/29/2022 2359	09/02/2022	NDM 84116
XH12003-006	Sample	ITVG-007g	1	PFAS by ID SOP	1.08		0.000	5.0	08/29/2022 2359	09/02/2022	
XH12003-007	Sample	ITVG-008g	1	PFAS by ID SOP	1.04		0.000	5.0	08/29/2022 2359	09/02/2022	
XH12003-008	Sample	ITVG-009gFB	1	PFAS by ID SOP	1.13		0.000	5.0	08/29/2022 2359	09/02/2022	

(end of report)

Total Samples: 8

Working Standards Prep Log - LC/MS/MS Semi-volatiles

Initials: LAB
 Prep. Date: 6/8/2022
 Exp. Date: 12/7/2022
 Pipet ID: 20-2536, 21-1681

Mix ID #: SVLC- 2102
 Mix Name: ISOMER CHECK STD
 Solvent ID #: 96% Methanol
 Solvent Name: SV22-171

Level 2 Reviewed by: AMB
 Date: 6/13/2022

Component	Stock Std. # or Shealy ID #	Conc. of Stock Std.	Aliquoted Volume	Dilution Volume mL	Final Conc. ng/mL	Foot Notes (if applicable)	MFG. Exp Date	Ampoule	
		ng/mL	uL					Date Opened	Date Expired
Isomer Check 50X Mix	SVLC-2025	1,000	20	2	10	1	-	4/24/2022	7/26/2023
ID SUR 100ppb	SVLC-2101	100	40		2	1	-	6/7/2022	12/7/2022
96% Methanol	SV22-171	pure	1,780		#VALUE!	1	-	5/2/2022	5/2/2023

Refer to COA for specific compound concentrations for mixed standards.
 Footnotes:

1. Final solvent composition of this standard is 96:4% (v/v) methanol:water

Working Standards Prep Log - LC/MS/MS Semi-volatiles

Initials: <u>MMM</u>	Mix ID #: <u>SVLC- 2105</u>	Level 2 Reviewed by: <u>AMB</u>
Prep. Date: <u>6/16/2022</u>	Mix Name: <u>100 ppt PFAS FL ICAL (L2)</u>	Date: <u>6/27/2022</u>
Exp. Date: <u>12/7/2022</u>	Solvent ID #: <u>SV22-221</u>	
Pipet ID: <u>20-2533/20-1360</u>	Solvent Name: <u>96% Methanol</u>	

Component	Stock Std. # or Shealy ID #	Conc. of Stock Std.	Aliquoted Volume	Dilution Volume ml	Final Conc. pg/ml	Foot Notes (if applicable)	MFG. Exp Date	Ampoule		
		pg/ml	ul					Date Opened	Date Expired	
Full List 1000X PDS	SVLC-2091	2,000	500	10	100	1,2	-	6/13/2022	12/22/2022	
ID SUR 100ppb	SVLC-2104	100,000	200		2000	1	-	6/14/2022	12/7/2022	
96% Methanol	SV22-221	pure	9,300		#VALUE!	1	-	6/13/2022	6/13/2023	

Refer to COA for specific compound concentrations for mixed standards.

Footnotes:

1. Final solvent composition of this standard is 96:4% (v/v) methanol:water 2. GenX is present at twice (2x) the concentration listed

Working Standards Prep Log - LC/MS/MS Semi-volatiles

Initials: <u>MMM</u>	Mix ID #: <u>SVLC- 2106</u>	Level 2 Reviewed by: <u>AMB</u>
Prep. Date: <u>6/16/2022</u>	Mix Name: <u>200 ppt PFAS FL ICAL (L3)</u>	Date: <u>6/27/2022</u>
Exp. Date: <u>12/7/2022</u>	Solvent ID #: <u>SV22-221</u>	
Pipet ID: <u>20-2533/20-1360</u>	Solvent Name: <u>96% Methanol</u>	

Component	Stock Std. # or Shealy ID #	Conc. of Stock Std. pg/ml	Aliquoted Volume ul	Dilution Volume ml	Final Conc. pg/ml	Foot Notes (if applicable)	MFG. Exp Date	Ampoule		
								Date Opened	Date Expired	
Full List 1000X PDS	SVLC-2091	2,000	1,000	10	200	1,2	-	6/13/2022	12/22/2022	
ID SUR 100ppb	SVLC-2104	100,000	200		2000	1	-	6/14/2022	12/7/2022	
96% Methanol	SV22-221	pure	8,800		#VALUE!	1	-	6/13/2022	6/13/2023	

Refer to COA for specific compound concentrations for mixed standards.

Footnotes:

1. Final solvent composition of this standard is 96:4% (v/v) methanol:water 2. GenX is present at twice (2x) the concentration listed

Working Standards Prep Log - LC/MS/MS Semi-volatiles

Initials: MMM	Mix ID #: SVLC- 2107	Level 2 Reviewed by: AMB
Prep. Date: 6/16/2022	Mix Name: 500 ppt PFAS FL ICAL (L4)	Date: 6/27/2022
Exp. Date: 12/7/2022	Solvent ID #: SV22-221	
Pipet ID: 20-2533/20-1360/393	Solvent Name: 96% Methanol	

Component	Stock Std. # or Shealy ID #	Conc. of Stock Std.	Aliquoted Volume	Dilution Volume	Final Conc.	Foot Notes (if applicable)	MFG. Exp Date	Ampoule		
								pg/ml	ul	ml
Full List 100X PDS	SVLC-2065	20,000	125	5	500	1,2	-	6/13/2022	12/22/2022	
ID SUR 100ppb	SVLC-2104	100,000	100		2000	1	-	6/14/2022	12/7/2022	
96% Methanol	SV22-221	pure	4,775		#VALUE!	1	-	6/13/2022	6/13/2023	

Refer to COA for specific compound concentrations for mixed standards.

Footnotes:

1. Final solvent composition of this standard is 96:4% (v/v) methanol:water 2. GenX is present at twice (2x) the concentration listed

Working Standards Prep Log - LC/MS/MS Semi-volatiles

Initials: <u>MMM</u>	Mix ID #: <u>SVLC- 2108</u>	Level 2 Reviewed by: <u>AMB</u>
Prep. Date: <u>6/16/2022</u>	Mix Name: <u>2000 ppt PFAS FL ICAL (L6)</u>	Date: <u>6/27/2022</u>
Exp. Date: <u>12/7/2022</u>	Solvent ID #: <u>SV22-221</u>	
Pipet ID: <u>20-2533/20-1360/393</u>	Solvent Name: <u>96% Methanol</u>	

Component	Stock Std. # or Shealy ID #	Conc. of Stock Std. pg/ml	Aliquoted Volume ul	Dilution Volume ml	Final Conc. pg/ml	Foot Notes (if applicable)	MFG. Exp Date	Ampoule		
								Date Opened	Date Expired	
Full List 100X PDS	SVLC-2065	20,000	500	5	2000	1,2	-	6/13/2022	12/22/2022	
ID SUR 100ppb	SVLC-2104	100,000	100		2000	1	-	6/14/2022	12/7/2022	
96% Methanol	SV22-221	pure	4,400		#VALUE!	1	-	6/13/2022	6/13/2023	

Refer to COA for specific compound concentrations for mixed standards.
 Footnotes:

1. Final solvent composition of this standard is 96:4% (v/v) methanol:water 2. GenX is present at twice (2x) the concentration listed

Working Standards Prep Log - LC/MS/MS Semi-volatiles

Initials: <u>MMM</u>	Mix ID #: <u>SVLC- 2109</u>	Level 2 Reviewed by: <u>AMB</u>
Prep. Date: <u>6/16/2022</u>	Mix Name: <u>5000 ppt PFAS FL ICAL (L7)</u>	Date: <u>6/27/2022</u>
Exp. Date: <u>12/7/2022</u>	Solvent ID #: <u>SV22-221</u>	
Pipet ID: <u>20-2533/20-1360/393</u>	Solvent Name: <u>96% Methanol</u>	

Component	Stock Std. # or Shealy ID #	Conc. of Stock Std.	Aliquoted Volume	Dilution Volume ml	Final Conc. pg/ml	Foot Notes (if applicable)	MFG. Exp Date	Ampoule		
		pg/ml	ul					Date Opened	Date Expired	
Full List 10X PDS	SVLC-2051	200,000	125	5	5000	1,2	-	6/13/2022	12/22/2022	
ID SUR 100ppb	SVLC-2104	100,000	100		2000	1	-	6/14/2022	12/7/2022	
96% Methanol	SV22-221	pure	4,775		#VALUE!	1	-	6/13/2022	6/13/2023	

Refer to COA for specific compound concentrations for mixed standards.
 Footnotes:

1. Final solvent composition of this standard is 96:4% (v/v) methanol:water 2. GenX is present at twice (2x) the concentration listed

Working Standards Prep Log - LC/MS/MS Semi-volatiles

Initials: <u>MMM</u>	Mix ID #: <u>SVLC- 2110</u>	Level 2 Reviewed by: <u>AMB</u>
Prep. Date: <u>6/16/2022</u>	Mix Name: <u>10000 ppt PFAS FL ICAL (L8)</u>	Date: <u>6/27/2022</u>
Exp. Date: <u>12/7/2022</u>	Solvent ID #: <u>SV22-221</u>	
Pipet ID: <u>20-2533/20-1360</u>	Solvent Name: <u>96% Methanol</u>	

Component	Stock Std. # or Shealy ID #	Conc. of Stock Std.	Aliquoted Volume	Dilution Volume ml	Final Conc. pg/ml	Foot Notes (if applicable)	MFG. Exp Date	Ampoule		
		pg/ml	ul					Date Opened	Date Expired	
Full List 10X PDS	SVLC-2051	200,000	500	10	10000	1,2	-	6/13/2022	12/22/2022	
ID SUR 100ppb	SVLC-2104	100,000	200		2000	1	-	6/14/2022	12/7/2022	
96% Methanol	SV22-221	pure	9,300		#VALUE!	1	-	6/13/2022	6/13/2023	

Refer to COA for specific compound concentrations for mixed standards.
 Footnotes:

1. Final solvent composition of this standard is 96:4% (v/v) methanol:water 2. GenX is present at twice (2x) the concentration listed

Working Standards Prep Log - LC/MS/MS Semi-volatiles

Initials: MMM	Mix ID #: SVLC- 2111	Level 2 Reviewed by: AMB	
Prep. Date: 6/16/2022	Mix Name: 15000 ppt PFAS FL ICAL (L9)	Date: 6/27/2022	
Exp. Date: 12/7/2022	Solvent ID #: SV22-221		
Pipet ID: 20-2533/20-1360	Solvent Name: 96% Methanol		

Component	Stock Std. # or Shealy ID #	Conc. of Stock Std.	Aliquoted Volume	Dilution Volume	Final Conc.	Foot Notes (if applicable)	MFG. Exp Date	Ampoule		
								Date Opened	Date Expired	
		pg/ml	ul	ml	pg/ml					
Full List 10X PDS	SVLC-2051	200,000	750	10	15000	1,2	-	6/13/2022	12/22/2022	
ID SUR 100ppb	SVLC-2104	100,000	200		2000	1	-	6/14/2022	12/7/2022	
96% Methanol	SV22-221	pure	9,050		#VALUE!	1	-	6/13/2022	6/13/2023	

Refer to COA for specific compound concentrations for mixed standards.
 Footnotes:

1. Final solvent composition of this standard is 96:4% (v/v) methanol:water 2. GenX is present at twice (2x) the concentration listed

Working Standards Prep Log - LC/MS/MS Semi-volatiles

Initials: MMM	Mix ID #: SVLC- 2112	Level 2 Reviewed by: AMB
Prep. Date: 6/16/2022	Mix Name: 20000 ppt PFAS FL ICAL (L10)	Date: 6/27/2022
Exp. Date: 12/7/2022	Solvent ID #: SV22-221	
Pipet ID: 20-2533/20- 1360	Solvent Name: 96% Methanol	

Component	Stock Std. # or Shealy ID #	Conc. of Stock Std.	Aliquoted Volume	Dilution Volume ml	Final Conc. pg/ml	Foot Notes (if applicable)	MFG. Exp Date	Ampoule		
		pg/ml	ul					Date Opened	Date Expired	
Full List 10X PDS	SVLC-2051	200,000	1,500	15	20000	1,2	-	6/13/2022	12/22/2022	
ID SUR 100ppb	SVLC-2104	100,000	300		2000	1	-	6/14/2022	12/7/2022	
96% Methanol	SV22-221	pure	13,200		#VALUE!	1	-	6/13/2022	6/13/2023	

Refer to COA for specific compound concentrations for mixed standards.

Footnotes:

1. Final solvent composition of this standard is 96:4% (v/v) methanol:water 2. GenX is present at twice (2x) the concentration listed

Working Standards Prep Log - LC/MS/MS Semi-volatiles

Initials: <u>LAB</u>	Mix ID #: <u>SVLC- 2120</u>	Level 2 Reviewed by: <u>AMB</u>
Prep. Date: <u>6/22/2022</u>	Mix Name: <u>10000 ppt PFAS FL ICAL (L8)</u>	Date: <u>6/27/2022</u>
Exp. Date: <u>12/7/2022</u>	Solvent ID #: <u>SV22-221</u>	
Pipet ID: <u>20-2533/20-1360</u>	Solvent Name: <u>96% Methanol</u>	

Component	Stock Std. # or Shealy ID #	Conc. of Stock Std.	Aliquoted Volume	Dilution Volume ml	Final Conc. pg/ml	Foot Notes (if applicable)	MFG. Exp Date	Ampoule		
		pg/ml	ul					Date Opened	Date Expired	
Full List 10X PDS	SVLC-2051	200,000	500	10	10000	1,2	-	6/13/2022	12/22/2022	
ID SUR 100ppb	SVLC-2119	100,000	200		2000	1	-	6/14/2022	12/7/2022	
96% Methanol	SV22-221	pure	9,300		#VALUE!	1	-	6/13/2022	6/13/2023	

Refer to COA for specific compound concentrations for mixed standards.

Footnotes:

1. Final solvent composition of this standard is 96:4% (v/v) methanol:water 2. GenX is present at twice (2x) the concentration listed

Working Standards Prep Log - LC/MS/MS Semi-volatiles

Initials: <u>JTF</u>	Mix ID #: <u>SVLC- 2163</u>	Level 2 Reviewed by: <u>AMB</u>
Prep. Date: <u>7/26/2022</u>	Mix Name: <u>200 ppt PFAS FL ICAL (L3)</u>	Date: <u>7/26/2022</u>
Exp. Date: <u>12/7/2022</u>	Solvent ID #: <u>22-995</u>	
Pipet ID: <u>20-1360/21-1680</u>	Solvent Name: <u>96% Methanol</u>	

Component	Stock Std. # or Shealy ID #	Conc. of Stock Std. pg/ml	Aliquoted Volume ul	Dilution Volume ml	Final Conc. pg/ml	Foot Notes (if applicable)	MFG. Exp Date	Ampoule		
								Date Opened	Date Expired	
Full List 1000X PDS	SVLC# 2091	2,000	1,000	10	200	1,2	-	6/6/2022	12/22/2022	
ID SUR 100ppb	SVLC#2161	100,000	200		2000	1	-	7/21/2022	12/7/2022	
96% Methanol	22-995	pure	8,800		#VALUE!	1	-	7/26/2022	2/28/2027	

Refer to COA for specific compound concentrations for mixed standards.

Footnotes:
 1. Final solvent composition of this standard is 96:4% (v/v) methanol:water 2. GenX is present at twice (2x) the concentration listed

Working Standards Prep Log - LC/MS/MS Semi-volatiles

Initials: JTF	Mix ID #: SVLC- 2165	Level 2 Reviewed by: AMB
Prep. Date: 8/1/2022	Mix Name: ID2 ICAL 1000ppt	Date: 8/3/2022
Exp. Date: 10/20/2022	Solvent ID #: 22-1143	
Pipet ID: 21-996/21-1773	Solvent Name: 96% Methanol	

Component	Stock Std. # or Shealy ID #	Conc. of Stock Std.		Aliquoted Volume	Dilution Volume	Final Conc.	Foot Notes (if applicable)	Ampoule	
								pg/ml	ul
Full List 100X PDS	SVLC-2162	20,000	750	15	1000	1,2	-	7/21/2022	10/20/2022
ID SUR 100ppb	SVLC-2161	100,000	300		2000	1	-	7/21/2022	12/7/2022
96% Methanol	22-1143	pure	13,950		#VALUE!	1	1/31/2027	8/1/2022	1/31/2027

Refer to COA for specific compound concentrations for mixed standards.

Footnotes:

1. Final solvent composition of this standard is 96:4% (v/v) methanol:water 2. GenX is present at twice (2x) the concentration listed

Working Standards Prep Log - LC/MS/MS Semi-volatiles

Initials: RDB
 Prep. Date: 08/02/22
 Exp. Date: 10/20/22
 Pipet ID: 21-1773

Mix ID #: SVLC- 2168
 Mix Name: PFAS Full List 100x
 Solvent ID #: 22-256
 Solvent Name: 96% Methanol

Level 2 Reviewed by: AMB
 Date: 8/8/2022

Component	Stock Std. # or Shealy ID #	Conc. of Stock Std.	Aliquoted Volume	Dilution Volume mL	Final Conc. ng/mL	Foot Notes (if applicable)	MFG. Exp Date	Ampoule	
		ng/mL	uL					Date Opened	Date Expired
Full List Stock PDS (10X)	SVLC-2117	200.0	1,500	15	20	1,2	-	6/20/2022	10/20/2022
96% Methanol	22-256	pure	13,500		#VALUE!	1	-	7/11/2022	7/11/2023

Refer to COA for specific compound concentrations for mixed standards.

Footnotes:

1. Final solvent composition of this standard is 96:4% (v/v) methanol:water. 2. GenX is present at twice (2x) the concentration listed - 40ng/mL

Working Standards Prep Log - LC/MS/MS Semi-volatiles

Initials: MMM
 Prep. Date: 08/10/22
 Exp. Date: 12/07/22
 Pipet ID: 20-2533,393

Mix ID #: SVLC- 2193
 Mix Name: ID ICV PDS
 Solvent ID #: 22-1143/22-1511
 Solvent Name: Methanol/Water

Level 2 Reviewed by: AMB
 Date: 9/29/2022

Component	Stock Std. # or Shealy ID #	Conc. of Stock Std.	Aliquoted Volume	Dilution Volume mL	Final Conc. ng/mL	Foot Notes (if applicable)	MFG. Exp Date	Ampoule		
		ng/mL	uL					Date Opened	Date Expired	
ID ICV PDS	SVLC-2192	100	20	2	1	1		8/10/2022	8/10/2023	
100ppb SUR	SVLC-2191	100	20		1	1		8/10/2022	12/7/2022	
Water	22-1511	pure	40		#VALUE!	1	3/31/2027	7/20/2022	7/31/2027	
Methanol	22-1143	pure	930		#VALUE!	1	1/31/2027	8/3/2022	1/31/2027	

Refer to COA for specific compound concentrations for mixed standards.

Footnotes:

1. Final solvent composition of this standard is 96:4% (v/v) methanol:water.

Working Standards Prep Log - LC/MS/MS Semi-volatiles

Initials: ALM
 Prep. Date: 08/15/22
 Exp. Date: 09/20/22
 Pipet ID: 20-2533, 21-1680

Mix ID #: SVLC- 2195
 Mix Name: PFAS Full List ICV,
 Solvent ID #: 22-1143/22-1511
 Solvent Name: Methanol/Water

Level 2 Reviewed by: AMB
 Date: 8/16/2022

Component	Stock Std. # or Shealy ID #	Conc. of Stock Std. ng/mL	Aliquoted Volume uL	Dilution Volume mL	Final Conc. ng/mL	Foot Notes (if applicable)	MFG. Exp Date	Ampoule		
								Date Opened	Date Expired	
PFAS ICV 100X Mix	SVLC-1025	20,000	50	2	500	1,2		6/8/2020	9/20/2022	
ID SUR 100ppb	SVLC-2191	100,000	40		2000	1		8/10/2022	12/7/2022	
Methanol	22-1143	pure	1,834		#VALUE!	1	1/31/2027	8/3/2022	1/31/2027	
Water	22-1511	pure	76		#VALUE!	1	3/31/2027	7/26/2022	7/31/2027	

Refer to COA for specific compound concentrations for mixed standards.
 Footnotes:

1. Final solvent composition of this standard is 96:4% (v/v) methanol:water 2. GenX is present at a final concentration of 2500 pg/mL

Working Standards Prep Log - LC/MS/MS Semi-volatiles

Initials: <u>JRG2</u>	Mix ID #: <u>SVLC- 2196</u>	Level 2 Reviewed by: <u>AMB</u>
Prep. Date: <u>08/17/22</u>	Mix Name: <u>PFAS ID SUR 100ppb</u>	Date: <u>8/29/2022</u>
Exp. Date: <u>12/07/22</u>	Solvent ID #: <u>22-1608/22-1511</u>	
Pipet ID: <u>20-1360/20-2533</u>	Solvent Name: <u>Methanol/Water</u>	

Component	Stock Std. # or Shealy ID #	Conc. of Stock Std.		Aliquoted Volume uL	Dilution Volume mL	Final Conc. ng/mL	Foot Notes (if applicable)	Ampoule	
		ng/mL	uL					Date Opened	Date Expired
MPFAC-C-ES	22-1544	2,000	2,200	44.0	100	1	5/12/2027	8/10/2022	8/10/2023
ID 50X SUR Mix	SVLC-2166	1,000	4,400		100	1,2	-	8/1/2022	12/7/2022
Methanol	22-1608	pure	35,816		#VALUE!	1	8/3/2027	8/17/2022	8/3/2027
Water	22-1511	pure	1,584		#VALUE!	1	7/31/2027	7/28/2022	7/31/2027

Refer to COA for specific compound concentrations for mixed standards.

Footnotes:

1. Final solvent composition of this standard is 96:4% (v/v) methanol:water 2. 13C3-GenX, 13C2-4:2FTS, 13C2-6:2FTS, 13C2-8:2FTS, d5-EtFOSAA, and d3-MeFOSAA are present at 500ppb = 500ng/mL (5x normal concentration)

Working Standards Prep Log - LC/MS/MS Semi-volatiles

Initials: <u>MMM</u>	Mix ID #: <u>SVLC- 2197</u>	Level 2 Reviewed by: <u>AMB</u>
Prep. Date: <u>8/22/2022</u>	Mix Name: <u>20000 ppt PFAS FL ICAL (L10)</u>	Date: <u>9/7/2022</u>
Exp. Date: <u>12/7/2022</u>	Solvent ID #: <u>SV22-256</u>	
Pipet ID: <u>20-2534,20-318,21-1773</u>	Solvent Name: <u>96% Methanol</u>	

Component	Stock Std. # or Shealy ID #	Conc. of Stock Std. pg/ml	Aliquoted Volume ul	Dilution Volume ml	Final Conc. pg/ml	Foot Notes (if applicable)	MFG. Exp Date	Ampoule	
								Date Opened	Date Expired
Full List 10X PDS	SVLC-2170	200,000	1,500	15	20000	1,2	-	8/3/2022	12/22/2022
ID SUR 100ppb	SVLC-2196	100,000	300		2000	1	-	8/17/2022	12/7/2022
96% Methanol	SV22-256	pure	13,200		#VALUE!	1	-	7/11/2022	7/11/2023

Refer to COA for specific compound concentrations for mixed standards.

Footnotes:

1. Final solvent composition of this standard is 96:4% (v/v) methanol:water 2. GenX is present at twice (2x) the concentration listed

Working Standards Prep Log - LC/MS/MS Semi-volatiles

Initials: <u>mmm</u>	Mix ID #: <u>SVLC- 2200</u>	Level 2 Reviewed by: <u>AMB</u>
Prep. Date: <u>8/30/2022</u>	Mix Name: <u>ID2 ICAL 1000ppt</u>	Date: <u>9/1/2022</u>
Exp. Date: <u>12/7/2022</u>	Solvent ID #: <u>LCMS 22-256</u>	
Pipet ID: <u>21-1773/20-2534</u>	Solvent Name: <u>96% Methanol</u>	

Component	Stock Std. # or Shealy ID #	Conc. of Stock Std.	Aliquoted Volume	Dilution Volume	Final Conc.	Foot Notes (if applicable)	MFG. Exp Date	Ampoule	
		pg/ml	ul	ml	pg/ml			Date Opened	Date Expired
Full List 100X PDS	SVLC-2198	20,000	750	15	1000	1,2	-	8/25/2022	12/22/2022
ID SUR 100ppb	SVLC-2199	100,000	300		2000	1	-	8/29/2022	12/7/2022
96% Methanol	LCMS 22-256	pure	13,950		#VALUE!	1	1/31/2027	8/1/2022	1/31/2027

Refer to COA for specific compound concentrations for mixed standards.

Footnotes:

1. Final solvent composition of this standard is 96:4% (v/v) methanol:water 2. GenX is present at twice (2x) the concentration listed

Working Standards Prep Log - LC/MS/MS Semi-volatiles

Initials: ALM
 Prep. Date: 09/02/22
 Exp. Date: 12/07/22
 Pipet ID: 20-318/21-1773

Mix ID #: SVLC- 2202
 Mix Name: ISOMER CHECK STD
 Solvent ID #: SV22-256
 Solvent Name: 96% Methanol

Level 2 Reviewed by: AMB
 Date: 9/7/2022

Component	Stock Std. # or Shealy ID #	Conc. of Stock Std.	Aliquoted Volume	Dilution Volume	Final Conc.	Foot Notes (if applicable)	MFG. Exp Date	Ampoule	
		ng/mL	uL					mL	ng/mL
Isomer Check 50X Mix	SVLC-2025	1,000	20	2	10	1	-	4/24/2022	7/26/2023
ID SUR 100ppb	SVLC-2199	100	40		2	1	-	8/29/2022	12/7/2022
96% Methanol	SV22-256	pure	1,780		#VALUE!	1	-	7/11/2022	7/11/2023

Refer to COA for specific compound concentrations for mixed standards.
 Footnotes:

1. Final solvent composition of this standard is 96:4% (v/v) methanol:water

Working Standards Prep Log - LC/MS/MS Semi-volatiles

Initials: <u>mmm</u>	Mix ID #: <u>SVLC- 2211</u>	Level 2 Reviewed by: <u>AMB</u>
Prep. Date: <u>9/16/2022</u>	Mix Name: <u>200 ppt PFAS FL ICAL (L3)</u>	Date: <u>9/18/2022</u>
Exp. Date: <u>12/7/2022</u>	Solvent ID #: <u>LCMS22-072</u>	
Pipet ID: <u>20-2534/21-1773</u>	Solvent Name: <u>96% Methanol</u>	

Component	Stock Std. # or Shealy ID #	Conc. of Stock Std. pg/ml	Aliquoted Volume ul	Dilution Volume ml	Final Conc. pg/ml	Foot Notes (if applicable)	MFG. Exp Date	Ampoule	
								Date Opened	Date Expired
Full List 1000X PDS	SVLC- 2091	2,000	1,000	10	200	1,2	-	6/6/2022	12/22/2022
ID SUR 100ppb	SVLC-2208	100,000	200		2000	1	-	9/13/2022	12/7/2022
96% Methanol	LCMS22-072	pure	8,800		#VALUE!	1	-	7/26/2022	2/28/2027

Refer to COA for specific compound concentrations for mixed standards.

Footnotes:

1. Final solvent composition of this standard is 96:4% (v/v) methanol:water 2. GenX is present at twice (2x) the concentration listed

Working Standards Prep Log - LC/MS/MS Semi-volatiles

Initials: <u>ALM</u>	Mix ID #: <u>SVLC- 2215</u>	Level 2 Reviewed by: <u>AMB</u>
Prep. Date: <u>9/23/2022</u>	Mix Name: <u>ID2 ICAL 1000ppt</u>	Date: <u>9/27/2022</u>
Exp. Date: <u>12/7/2022</u>	Solvent ID #: <u>LCMS22-072</u>	
Pipet ID: <u>20-1360/22-2533</u>	Solvent Name: <u>96% Methanol</u>	

Component	Stock Std. # or Shealy ID #	Conc. of Stock Std. pg/ml	Aliquoted Volume ul	Dilution Volume ml	Final Conc. pg/ml	Foot Notes (if applicable)	MFG. Exp Date	Ampoule	
								Date Opened	Date Expired
Full List 100X PDS	SVLC-2214	20,000	750	15	1000	1,2	-	9/19/2022	12/22/2022
ID SUR 100ppb	SVLC-2208	100,000	300		2000	1	-	9/13/2022	12/7/2022
96% Methanol	LCMS22-072	pure	13,950		#VALUE!	1	-	9/16/2022	9/16/2023

Refer to COA for specific compound concentrations for mixed standards.
 Footnotes: