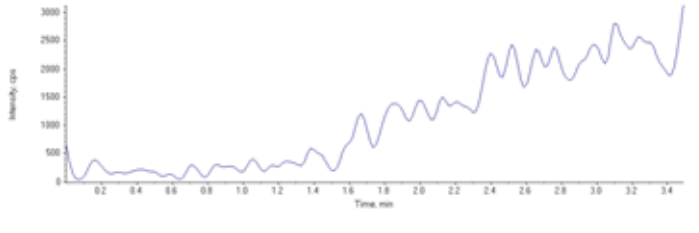
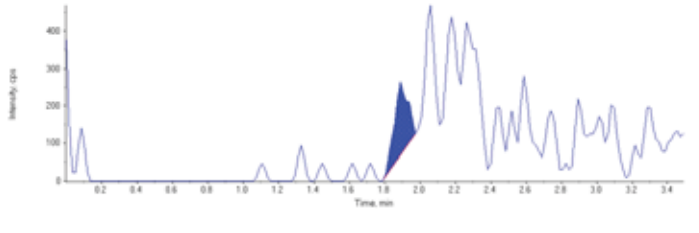
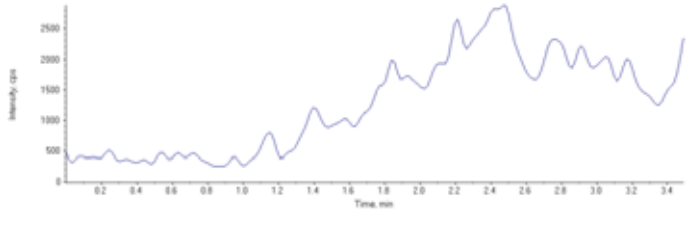
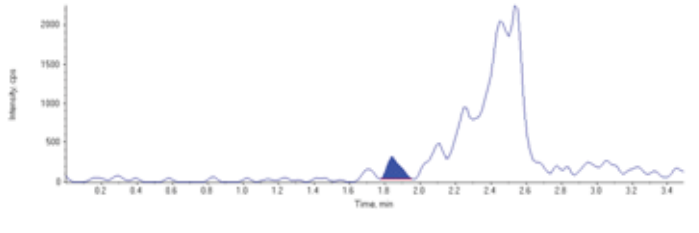
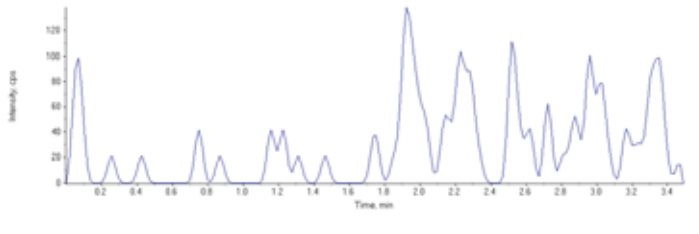
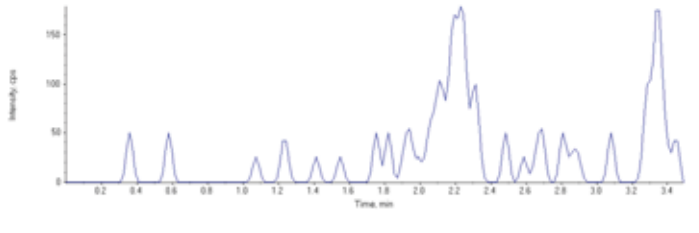
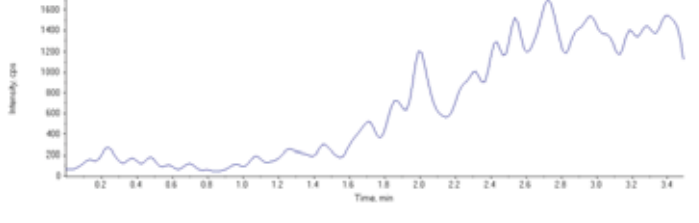
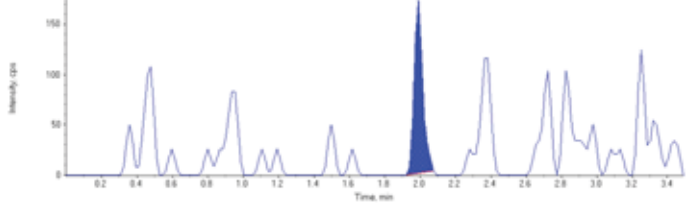
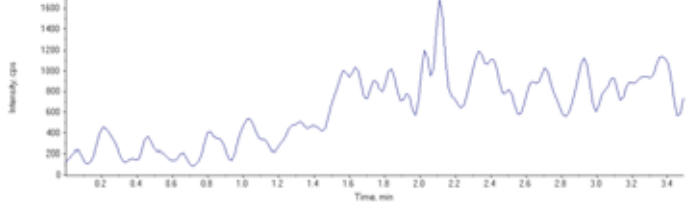
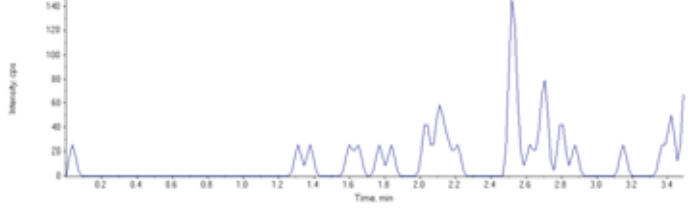
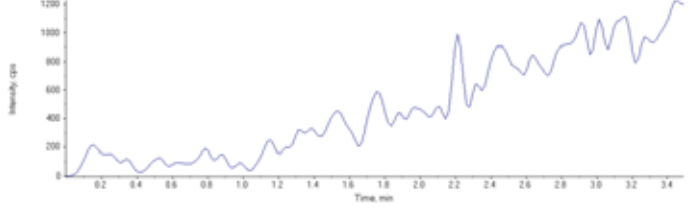
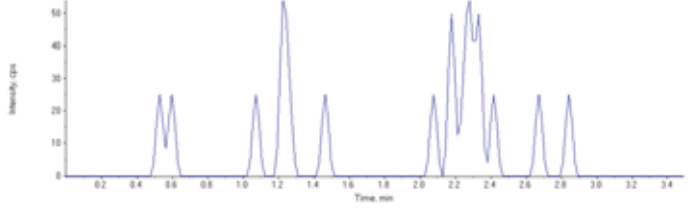
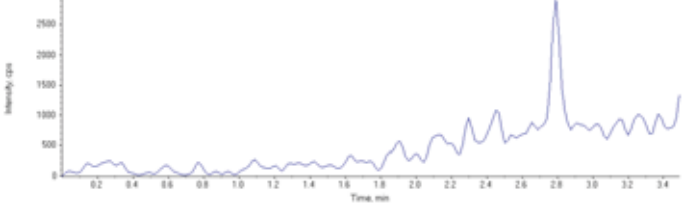
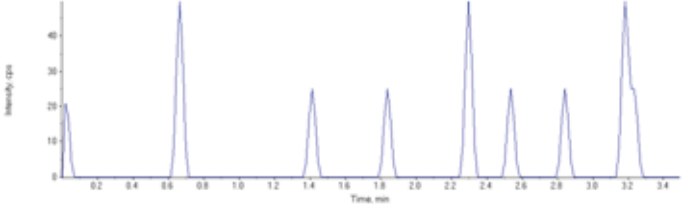
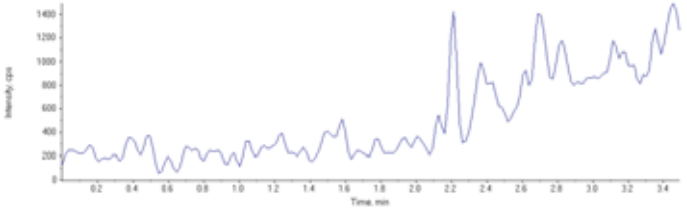
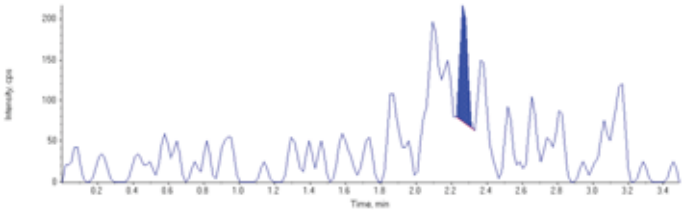
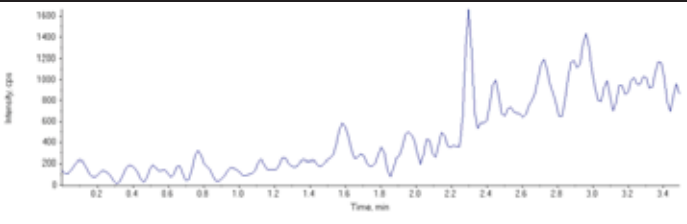
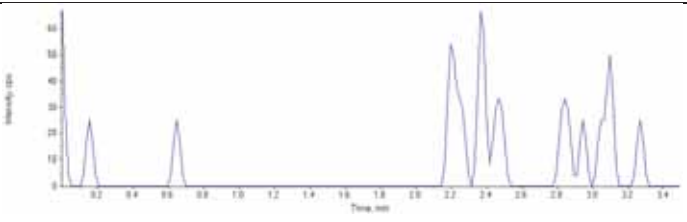
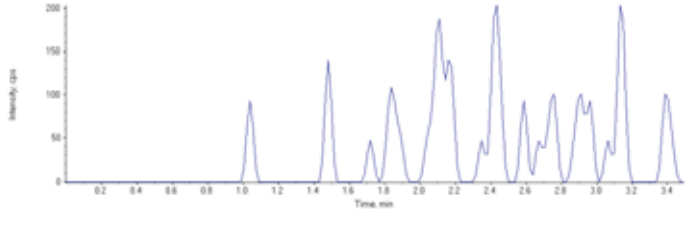
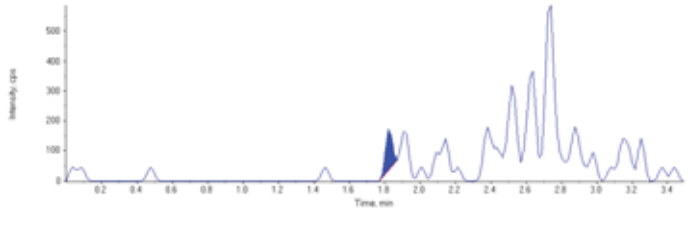
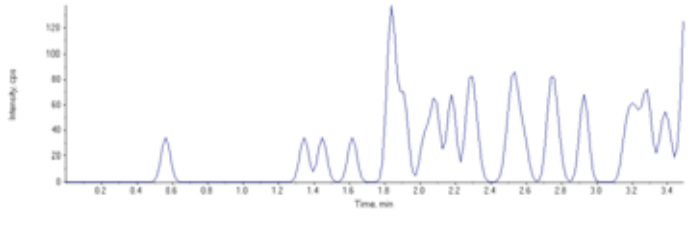
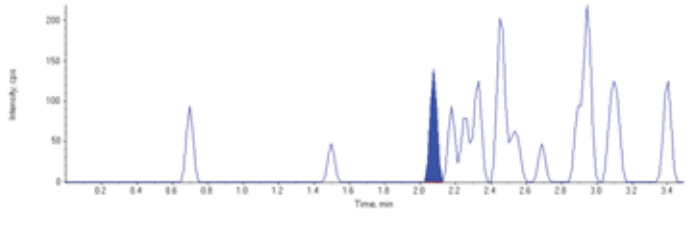
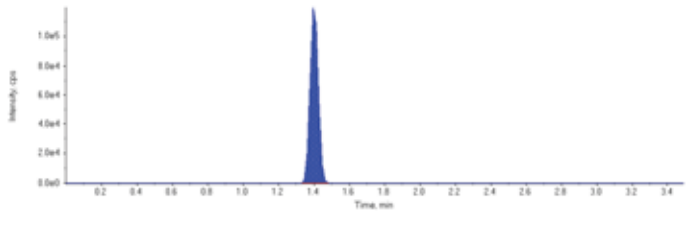
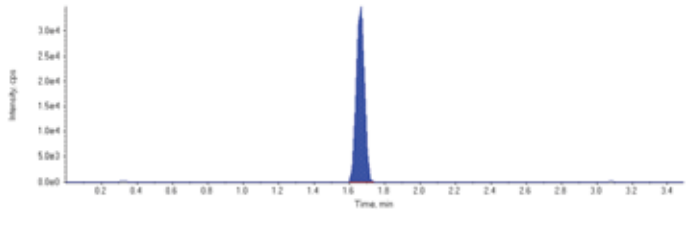
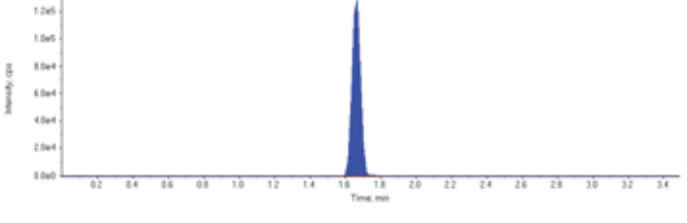
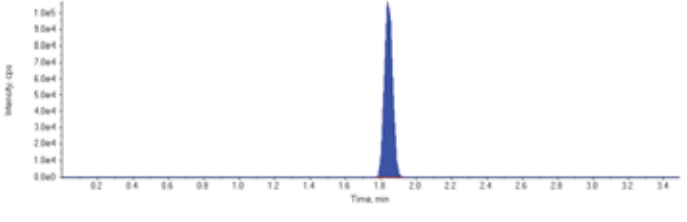
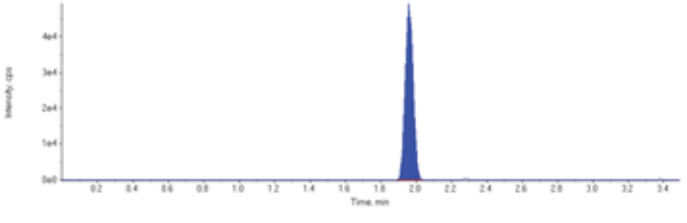
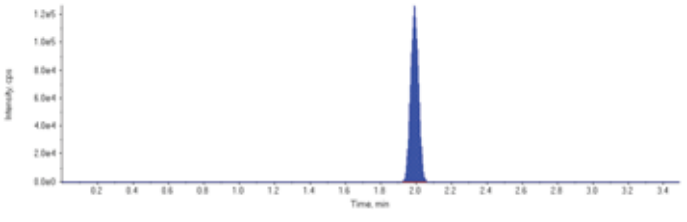
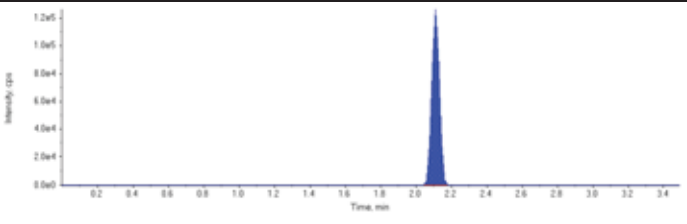
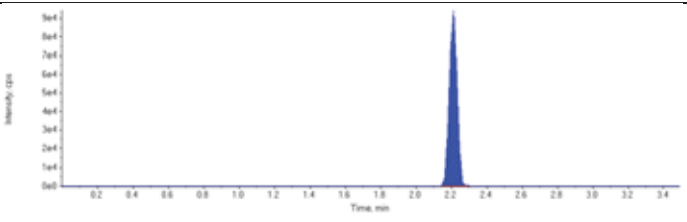


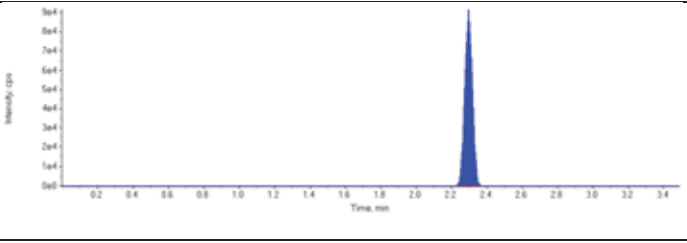
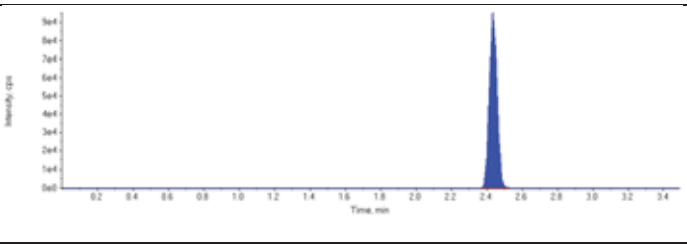
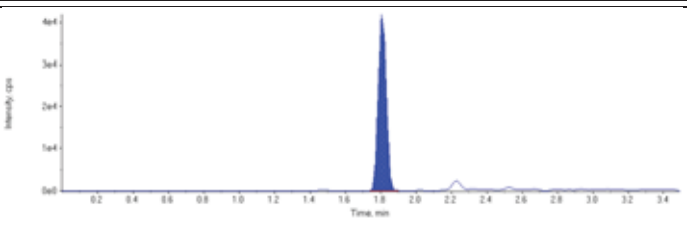
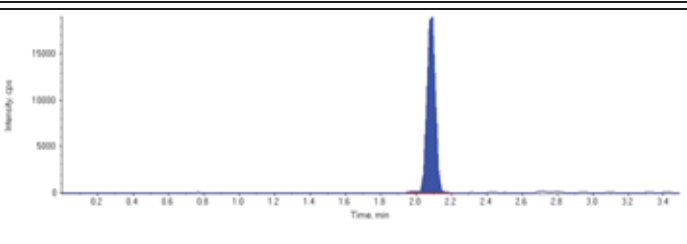
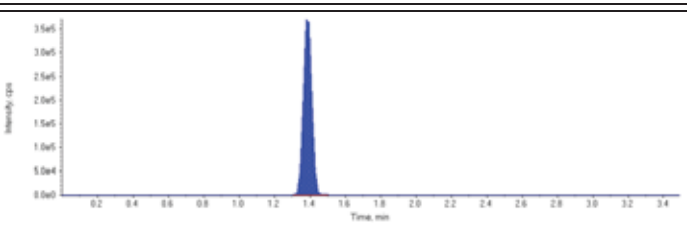
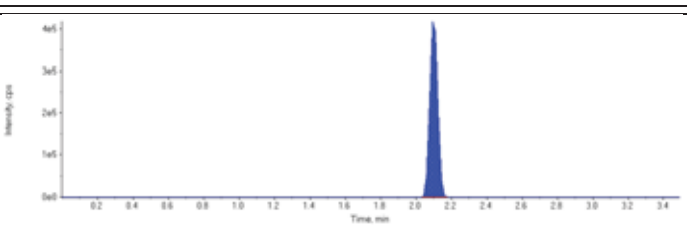
<p>PFHpA 1 (363.000/319.000 Da)</p> <p>RT (Exp. RT): 0.00 (1.67) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFHpA 2 (363.000/169.200 Da)</p> <p>RT (Exp. RT): 1.89 (1.67) min</p> <p>Calculated Conc: 0.00368 µg/L</p> <p>Area Ratio: 0.00242</p> <p>Sample Type: (Unknown)</p>	
<p>PFOA 1 (413.100/369.000 Da)</p> <p>RT (Exp. RT): 0.00 (1.85) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFOA 2 (413.100/169.000 Da)</p> <p>RT (Exp. RT): 1.84 (1.84) min</p> <p>Calculated Conc: 0.00599 µg/L</p> <p>Area Ratio: 0.00436</p> <p>Sample Type: (Unknown)</p>	
<p>PFOS 1 (498.900/79.900 Da)</p> <p>RT (Exp. RT): 0.00 (1.96) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFOS 2 (498.900/98.900 Da)</p> <p>RT (Exp. RT): 0.00 (1.96) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	

<p>PFNA 1 (462.900/419.000 Da)</p> <p>RT (Exp. RT): 0.00 (1.99) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFNA 2 (462.900/219.100 Da)</p> <p>RT (Exp. RT): 1.99 (1.99) min</p> <p>Calculated Conc: 0.00191 µg/L</p> <p>Area Ratio: 0.00155</p> <p>Sample Type: (Unknown)</p>	
<p>PFDA 1 (513.000/469.100 Da)</p> <p>RT (Exp. RT): 0.00 (2.18) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFDA 2 (513.000/218.900 Da)</p> <p>RT (Exp. RT): 0.00 (2.11) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFUnA 1 (562.900/519.000 Da)</p> <p>RT (Exp. RT): 0.00 (2.21) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFUnA 2 (562.900/269.200 Da)</p> <p>RT (Exp. RT): 0.00 (2.27) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	

<p>PFD_oA 1 (612.900/569.000 Da)</p> <p>RT (Exp. RT): 0.00 (2.36) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFD_oA 2 (612.900/319.000 Da)</p> <p>RT (Exp. RT): 0.00 (2.35) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFT_rDA 1 (663.000/619.000 Da)</p> <p>RT (Exp. RT): 0.00 (2.42) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFT_rDA 2 (663.000/318.900 Da)</p> <p>RT (Exp. RT): 2.27 (2.37) min</p> <p>Calculated Conc: 0.00132 µg/L</p> <p>Area Ratio: 0.00143</p> <p>Sample Type: (Unknown)</p>	
<p>PFT_eDA 1 (713.000/669.000 Da)</p> <p>RT (Exp. RT): 0.00 (2.49) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFT_eDA 2 (713.000/319.200 Da)</p> <p>RT (Exp. RT): 0.00 (2.49) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	

<p>6:2-FTS 1 (427.000/407.000 Da)</p> <p>RT (Exp. RT): 0.00 (1.90) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>6:2-FTS 2 (427.000/80.900 Da)</p> <p>RT (Exp. RT): 1.83 (1.80) min</p> <p>Calculated Conc: 0.00319 µg/L</p> <p>Area Ratio: 0.00273</p> <p>Sample Type: (Unknown)</p>	
<p>8:2-FTS 1 (526.900/507.000 Da)</p> <p>RT (Exp. RT): 0.00 (2.16) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>8:2-FTS 2 (526.900/80.900 Da)</p> <p>RT (Exp. RT): 2.08 (2.09) min</p> <p>Calculated Conc: 0.00567 µg/L</p> <p>Area Ratio: 0.00594</p> <p>Sample Type: (Unknown)</p>	
<p>13C2-PFHxA (314.900/270.000 Da)</p> <p>RT (Exp. RT): 1.40 (1.40) min</p> <p>Calculated Conc: 96.0 µg/L</p> <p>Area Ratio: 0.309</p> <p>Sample Type: (Unknown)</p>	
<p>18O2-PFHxS (402.900/84.000 Da)</p> <p>RT (Exp. RT): 1.66 (1.77) min</p> <p>Calculated Conc: 102. µg/L</p> <p>Area Ratio: 0.0879</p> <p>Sample Type: (Unknown)</p>	

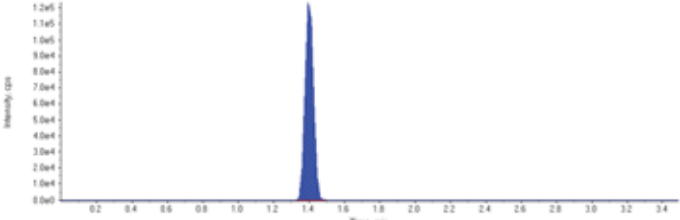
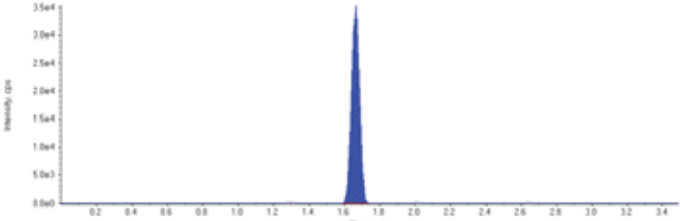
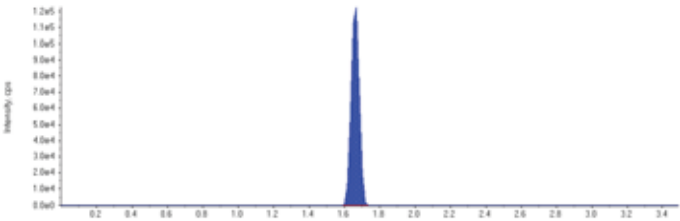
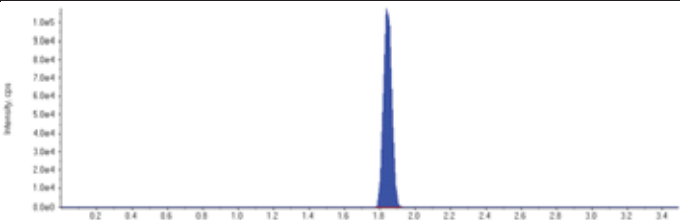
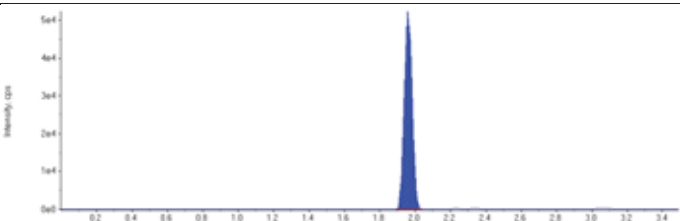
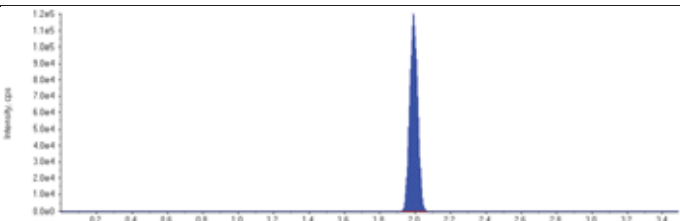
<p>13C4-PFHpa (366.900/322.000 Da)</p> <p>RT (Exp. RT): 1.66 (1.67) min</p> <p>Calculated Conc: 101. µg/L</p> <p>Area Ratio: 0.334</p> <p>Sample Type: (Unknown)</p>	
<p>13C4-PFOA (416.900/372.000 Da)</p> <p>RT (Exp. RT): 1.84 (1.84) min</p> <p>Calculated Conc: 97.9 µg/L</p> <p>Area Ratio: 0.269</p> <p>Sample Type: (Unknown)</p>	
<p>13C4-PFOS (502.900/79.900 Da)</p> <p>RT (Exp. RT): 1.96 (2.05) min</p> <p>Calculated Conc: 94.3 µg/L</p> <p>Area Ratio: 0.120</p> <p>Sample Type: (Unknown)</p>	
<p>13C5-PFNA (467.900/423.000 Da)</p> <p>RT (Exp. RT): 1.99 (1.99) min</p> <p>Calculated Conc: 102. µg/L</p> <p>Area Ratio: 0.298</p> <p>Sample Type: (Unknown)</p>	
<p>13C2-PFDA (514.900/470.000 Da)</p> <p>RT (Exp. RT): 2.11 (2.11) min</p> <p>Calculated Conc: 89.5 µg/L</p> <p>Area Ratio: 0.277</p> <p>Sample Type: (Unknown)</p>	
<p>13C2-PFUnA (564.900/520.000 Da)</p> <p>RT (Exp. RT): 2.21 (2.27) min</p> <p>Calculated Conc: 92.2 µg/L</p> <p>Area Ratio: 0.212</p> <p>Sample Type: (Unknown)</p>	

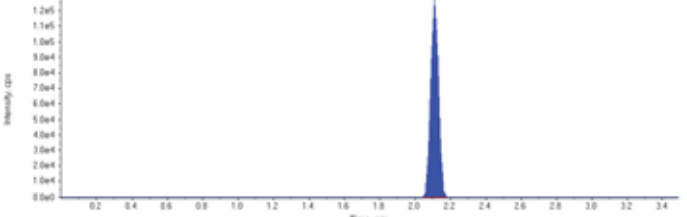
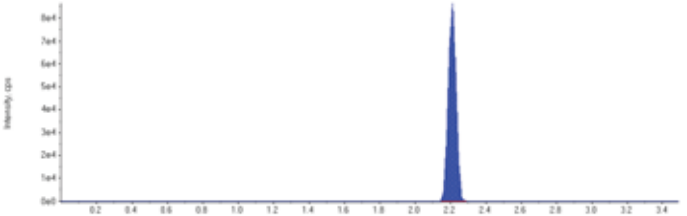
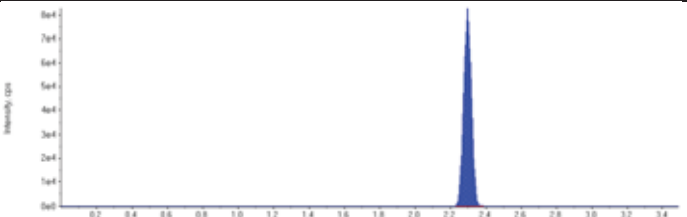
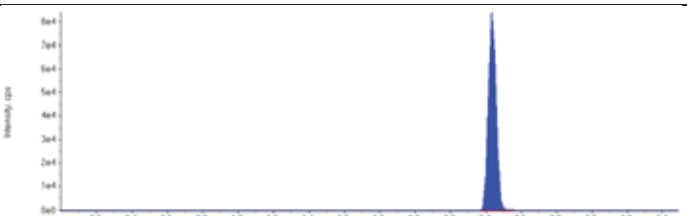
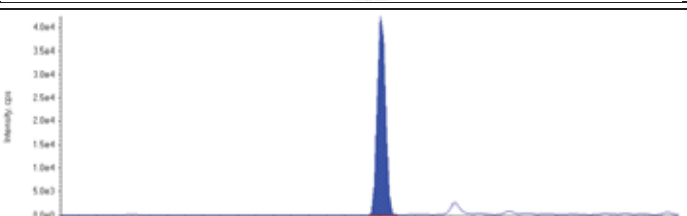
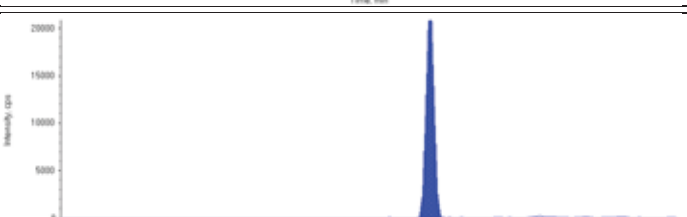
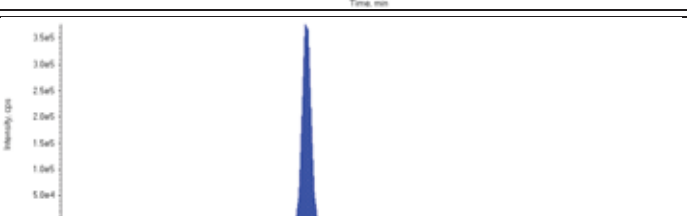
<p>13C2-PFDoA (614.900/570.000 Da)</p> <p>RT (Exp. RT): 2.30 (2.35) min</p> <p>Calculated Conc: 90.7 µg/L</p> <p>Area Ratio: 0.202</p> <p>Sample Type: (Unknown)</p>	
<p>13C2-PFTeDA (714.900/669.900 Da)</p> <p>RT (Exp. RT): 2.44 (2.49) min</p> <p>Calculated Conc: 86.9 µg/L</p> <p>Area Ratio: 0.212</p> <p>Sample Type: (Unknown)</p>	
<p>13C2-6:2-FTS (429.000/80.900 Da)</p> <p>RT (Exp. RT): 1.81 (1.80) min</p> <p>Calculated Conc: 86.7 µg/L</p> <p>Area Ratio: 0.103</p> <p>Sample Type: (Unknown)</p>	
<p>13C2-8:2 FTS (528.900/80.900 Da)</p> <p>RT (Exp. RT): 2.09 (2.08) min</p> <p>Calculated Conc: 75.5 µg/L</p> <p>Area Ratio: 0.0502</p> <p>Sample Type: (Unknown)</p>	
<p>13C6-PFHxA (318.900/274.000 Da)</p> <p>RT (Exp. RT): 1.39 (1.40) min</p> <p>Calculated Conc: 2.41 µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>13C9-PFDA (521.900/477.100 Da)</p> <p>RT (Exp. RT): 2.10 (2.09) min</p> <p>Calculated Conc: 2.73 µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	

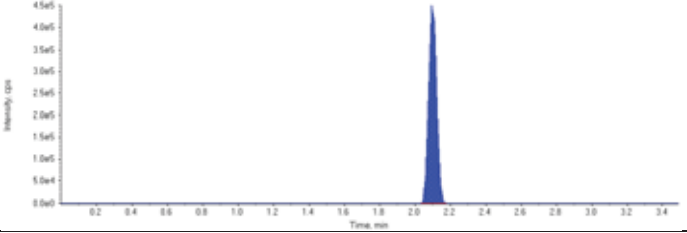
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Sample Type	Unknown	Injection Vial	8
Acquisition Date	2017/05/23 3:40:51 PM	Dilution Factor	0.0240
Acquisition Method	PFC_Water_Low.dam	Instrument Name	LCMS03
Project	Enviro\PFOS	Algorithm Used	Analyst Classic
Data File	PFC_170523\WS#4988945.wiff		
Result Table	PFC_Water_170523_4988945_CTLabs.rdb		
Samples Annotation	-		

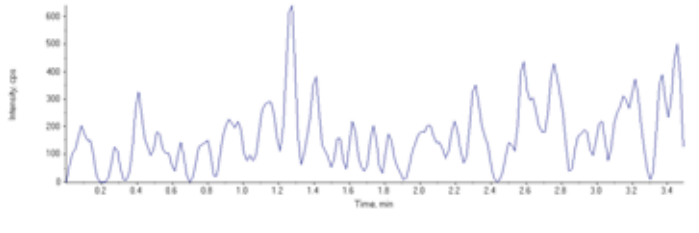
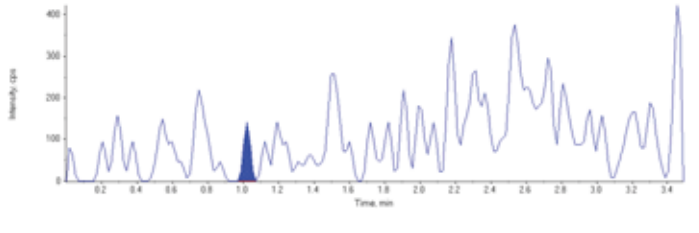
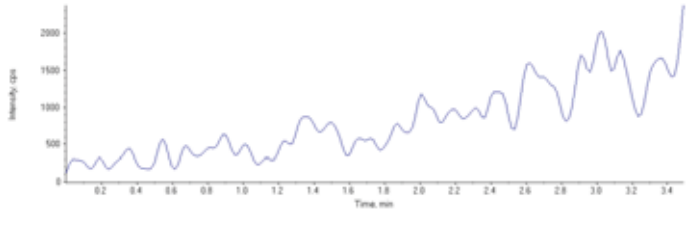
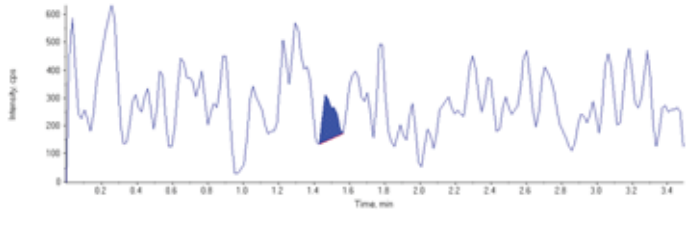
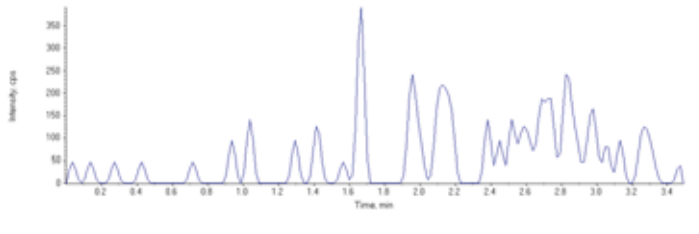
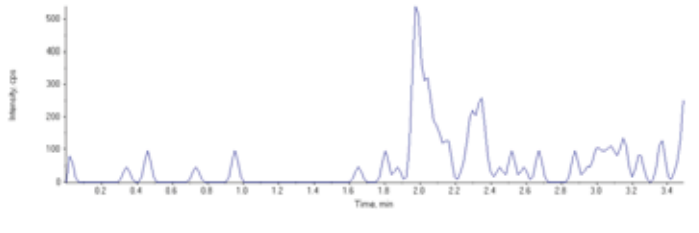
Internal Standard	Area (cps)	RT (min)	Target Conc. (ug/L)	Calc. Conc. (ug/L)
MPFHxA	412000.	1.40	1.00	-
MPFHxS	113000.	1.66	1.00	-
MPFHpA	402000.	1.66	1.00	-
MPFOA	352000.	1.84	1.00	-
MPFOS	162000.	1.96	1.00	-
MPFNA	366000.	1.99	1.00	-
MPFDA	383000.	2.11	1.00	-
MPFUnA	265000.	2.21	1.00	-
MPFDoA	252000.	2.30	1.00	-
MPFTeDA	255000.	2.44	1.00	-
M2 6:2 FTS	136000.	1.81	1.00	-
M2 8:2 FTS	69800.	2.08	1.00	-
13C6-PFHxA IS	1290000.	1.39	41.7	-
13C9-PFDA IS	1450000.	2.10	41.7	-
N/A	N/A	N/A	N/A	-
N/A	N/A	N/A	N/A	-

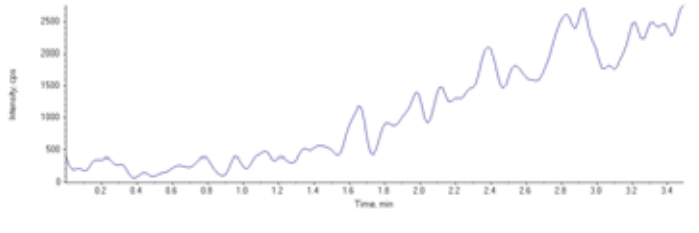
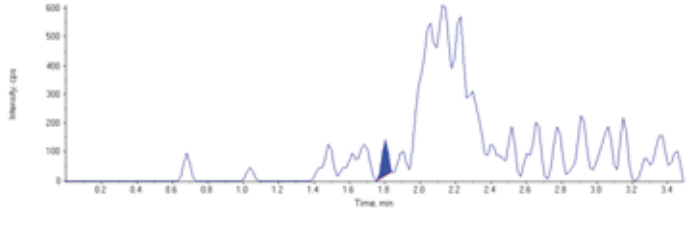
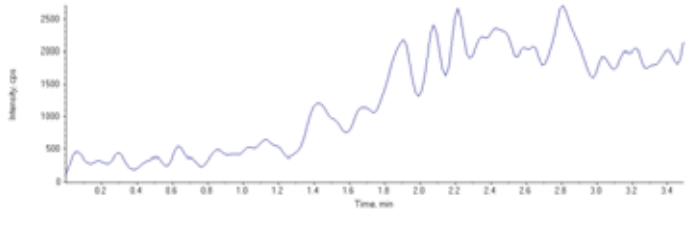
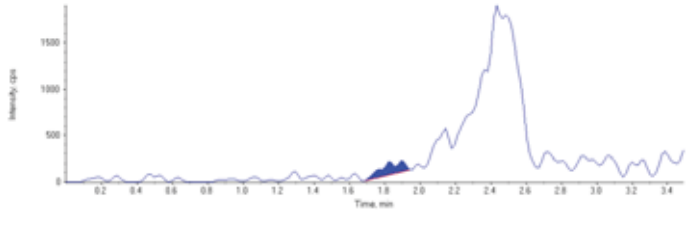
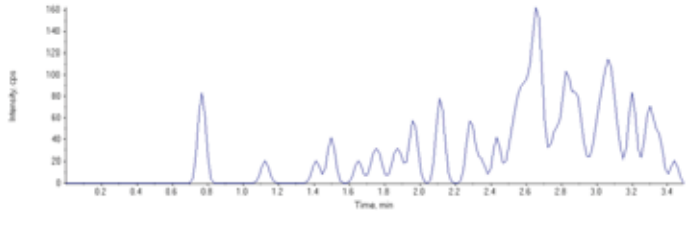
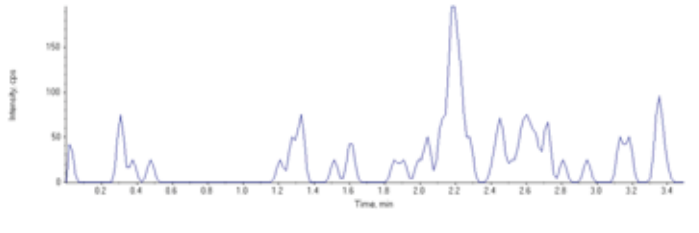
Target Analyte	Area (cps)	RT (min)	Target Conc. (ug/L)	Calc. Conc. (ug/L)	Accuracy (%)
PFBS 1	0	0.00	N/A	N/A	N/A
PFBS 2	383	1.02	N/A	0.00412	N/A
PFHxA 1	0	0.00	N/A	N/A	N/A
PFHxA 2	746	1.47	N/A	0.00370	N/A
PFHxS 1	0	0.00	N/A	N/A	N/A
PFHxS 2	0	0.00	N/A	N/A	N/A
PFHpA 1	0	0.00	N/A	N/A	N/A
PFHpA 2	295	1.80	N/A	N/A	N/A
PFOA 1	0	0.00	N/A	N/A	N/A
PFOA 2	1220	1.90	N/A	0.00587	N/A
PFOS 1	0	0.00	N/A	N/A	N/A
PFOS 2	0	0.00	N/A	N/A	N/A
PFNA 1	0	0.00	N/A	N/A	N/A
PFNA 2	0	0.00	N/A	N/A	N/A
PFDA 1	0	0.00	N/A	N/A	N/A
PFDA 2	886	2.11	N/A	0.00292	N/A
PFUnA 1	0	0.00	N/A	N/A	N/A
PFUnA 2	0	0.00	N/A	N/A	N/A
PFDaA 1	0	0.00	N/A	N/A	N/A
PFDaA 2	0	0.00	N/A	N/A	N/A
PFTTrDA 1	0	0.00	N/A	N/A	N/A
PFTTrDA 2	290	2.16	N/A	0.00116	N/A
PFTeDA 1	0	0.00	N/A	N/A	N/A
PFTeDA 2	0	0.00	N/A	N/A	N/A
6:2-FTS 1	0	0.00	N/A	N/A	N/A
6:2-FTS 2	1080	1.88	N/A	0.00389	N/A
8:2-FTS 1	0	0.00	N/A	N/A	N/A
8:2-FTS 2	894	2.01	N/A	0.00657	N/A
13C2-PFHxA	412000	1.40	N/A	99.5	N/A
18O2-PFHxS	113000	1.66	N/A	102.	N/A
13C4-PFHpA	402000	1.66	N/A	94.6	N/A
13C4-PFOA	352000	1.84	N/A	99.4	N/A
13C4-PFOS	162000	1.96	N/A	99.3	N/A
13C5-PFNA	366000	1.99	N/A	97.1	N/A
13C2-PFDA	383000	2.11	N/A	85.3	N/A
13C2-PFUnA	265000	2.21	N/A	79.6	N/A
13C2-PFDaA	252000	2.30	N/A	78.2	N/A
13C2-PFTeDA	255000	2.44	N/A	72.2	N/A
13C2-6:2-FTS	136000	1.81	N/A	88.3	N/A
13C2-8:2 FTS	69800	2.08	N/A	81.5	N/A
13C6-PFHxA	1290000	1.39	N/A	2.41	N/A
13C9-PFDA	1450000	2.10	N/A	2.90	N/A

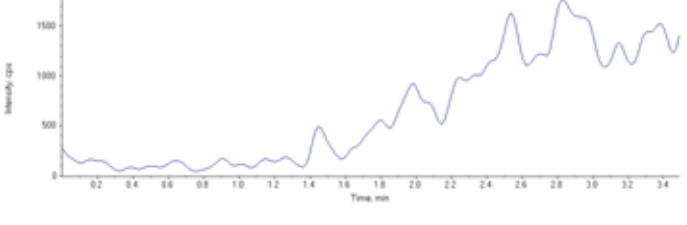
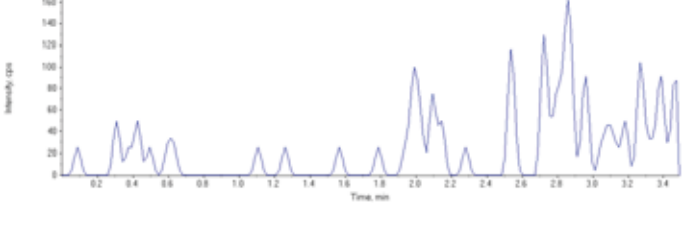
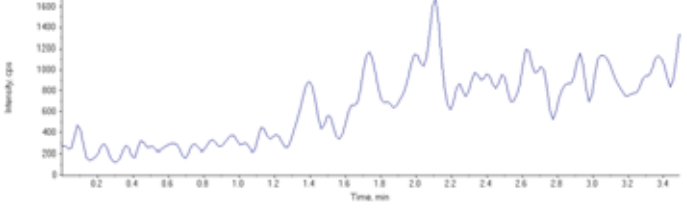
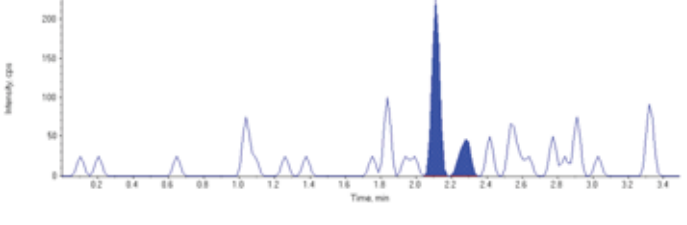
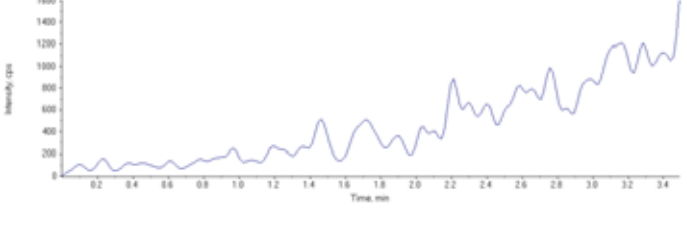
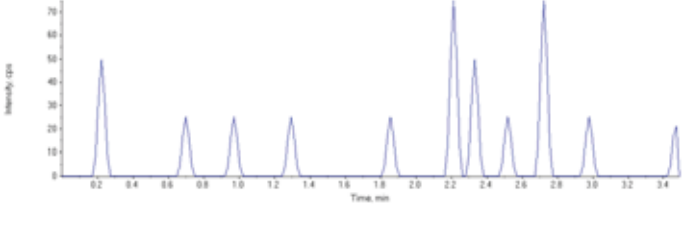
<p>MPFHxA (Internal Standard)</p> <p>RT (Exp. RT): 1.40(1.40) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Unknown)</p>	
<p>MPFHxS (Internal Standard)</p> <p>RT (Exp. RT): 1.66(1.77) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Unknown)</p>	
<p>MPFHpA (Internal Standard)</p> <p>RT (Exp. RT): 1.66(1.67) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Unknown)</p>	
<p>MPFOA (Internal Standard)</p> <p>RT (Exp. RT): 1.84(1.84) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Unknown)</p>	
<p>MPFOS (Internal Standard)</p> <p>RT (Exp. RT): 1.96(2.05) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Unknown)</p>	
<p>MPFNA (Internal Standard)</p> <p>RT (Exp. RT): 1.99(1.99) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Unknown)</p>	

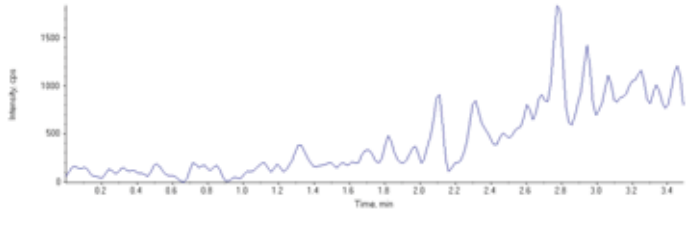
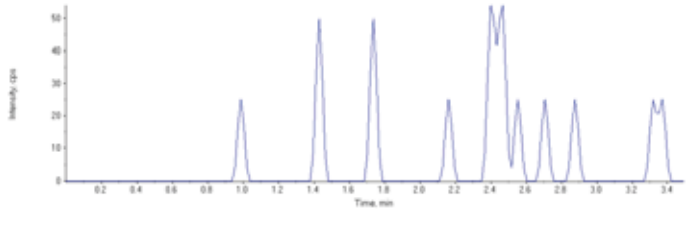
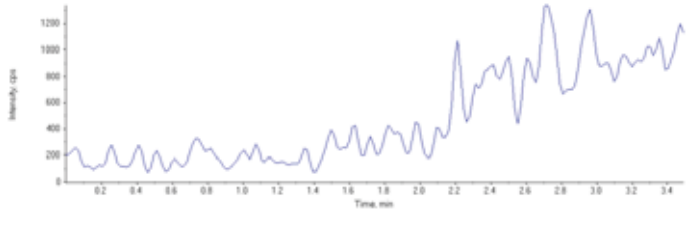
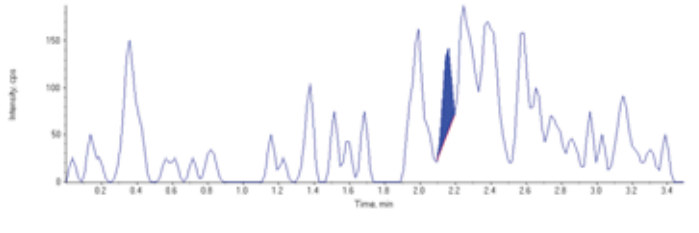
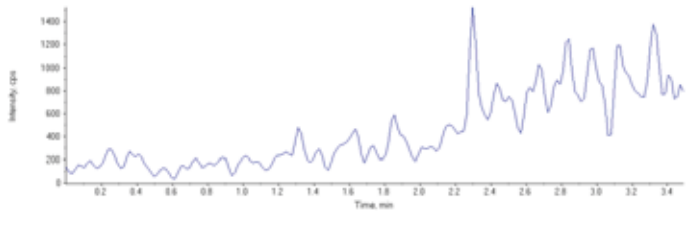
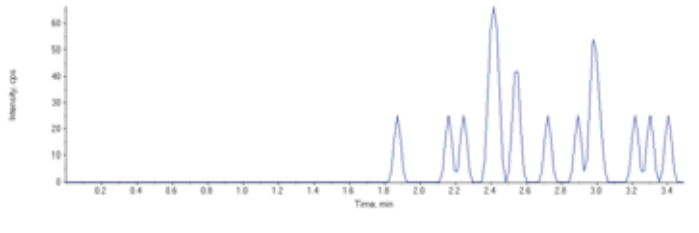
<p>MPFDA (Internal Standard)</p> <p>RT (Exp. RT): 2.11(2.18) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Unknown)</p>	
<p>MPFUnA (Internal Standard)</p> <p>RT (Exp. RT): 2.21(2.27) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Unknown)</p>	
<p>MPFDoA (Internal Standard)</p> <p>RT (Exp. RT): 2.30(2.35) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Unknown)</p>	
<p>MPFTeDA (Internal Standard)</p> <p>RT (Exp. RT): 2.44(2.49) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Unknown)</p>	
<p>M2 6:2 FTS (Internal Standard)</p> <p>RT (Exp. RT): 1.81(1.80) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Unknown)</p>	
<p>M2 8:2 FTS (Internal Standard)</p> <p>RT (Exp. RT): 2.08(2.08) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Unknown)</p>	
<p>13C6-PFHxA IS (Internal Standard)</p> <p>RT (Exp. RT): 1.39(1.40) min</p> <p>Concentration: 41.7 ug/L</p> <p>Sample Type: (Unknown)</p>	

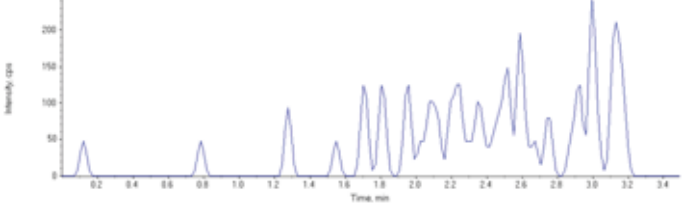
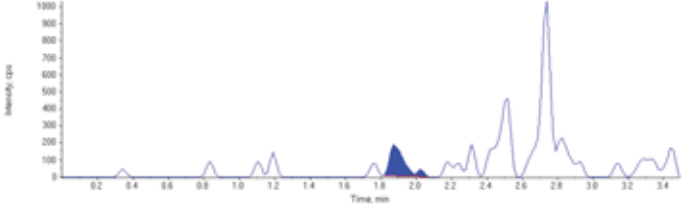
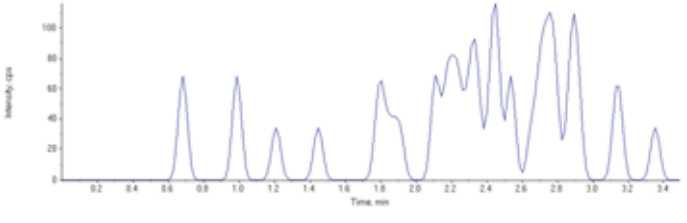
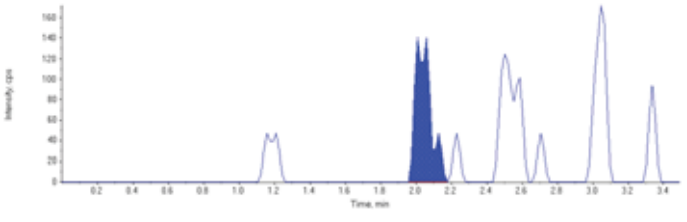
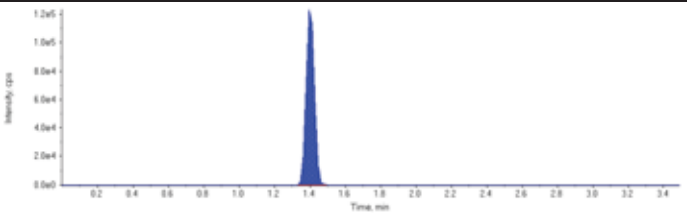
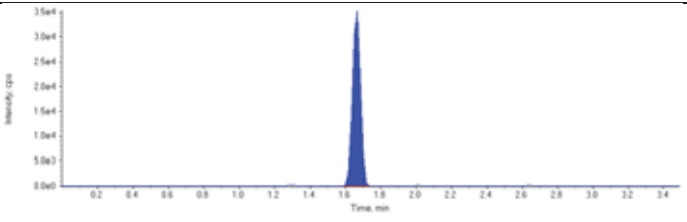
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<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min</p> <p>Concentration: N/A N/A</p> <p>Sample Type: (Unknown)</p>	<p>This image is not available</p>
<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min</p> <p>Concentration: N/A N/A</p> <p>Sample Type: (Unknown)</p>	<p>This image is not available</p>

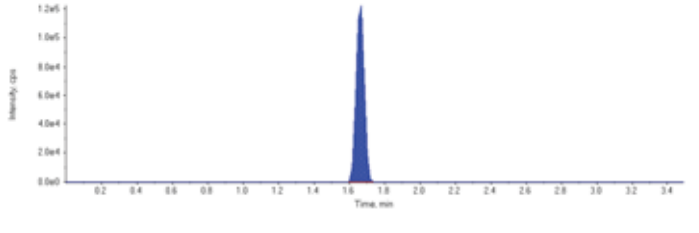
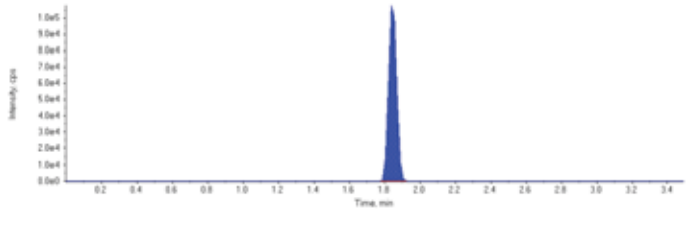
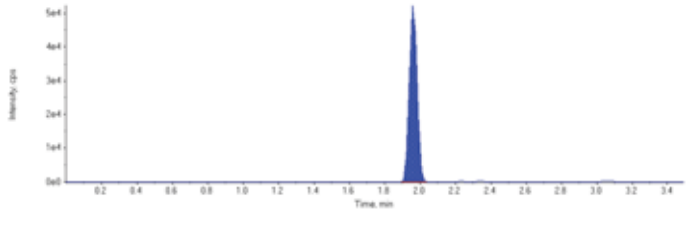
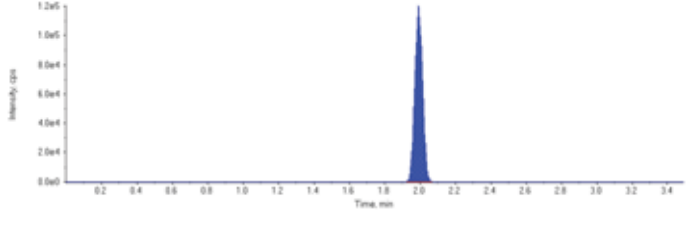
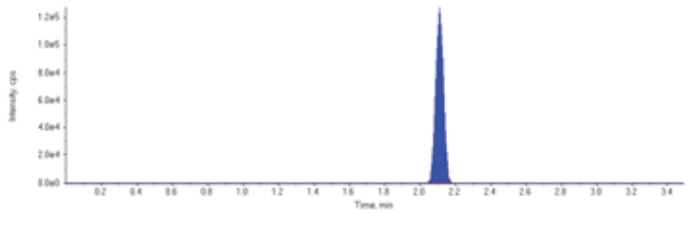
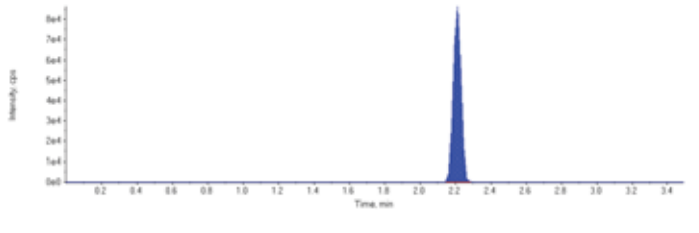
<p>PFBS 1 (298.900/79.900 Da)</p> <p>RT (Exp. RT): 0.00 (1.09) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFBS 2 (298.900/98.900 Da)</p> <p>RT (Exp. RT): 1.02 (1.09) min</p> <p>Calculated Conc: 0.00412 µg/L</p> <p>Area Ratio: 0.00339</p> <p>Sample Type: (Unknown)</p>	
<p>PFHxA 1 (313.000/269.000 Da)</p> <p>RT (Exp. RT): 0.00 (1.40) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFHxA 2 (313.000/119.000 Da)</p> <p>RT (Exp. RT): 1.47 (1.41) min</p> <p>Calculated Conc: 0.00370 µg/L</p> <p>Area Ratio: 0.00181</p> <p>Sample Type: (Unknown)</p>	
<p>PFHxS 1 (398.900/79.900 Da)</p> <p>RT (Exp. RT): 0.00 (1.67) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFHxS 2 (398.900/98.900 Da)</p> <p>RT (Exp. RT): 0.00 (1.67) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	

<p>PFHpA 1 (363.000/319.000 Da)</p> <p>RT (Exp. RT): 0.00 (1.67) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFHpA 2 (363.000/169.200 Da)</p> <p>RT (Exp. RT): 1.80 (1.67) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.000734</p> <p>Sample Type: (Unknown)</p>	
<p>PFOA 1 (413.100/369.000 Da)</p> <p>RT (Exp. RT): 0.00 (1.85) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFOA 2 (413.100/169.000 Da)</p> <p>RT (Exp. RT): 1.90 (1.84) min</p> <p>Calculated Conc: 0.00587 µg/L</p> <p>Area Ratio: 0.00347</p> <p>Sample Type: (Unknown)</p>	
<p>PFOS 1 (498.900/79.900 Da)</p> <p>RT (Exp. RT): 0.00 (1.96) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFOS 2 (498.900/98.900 Da)</p> <p>RT (Exp. RT): 0.00 (1.96) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	

<p>PFNA 1 (462.900/419.000 Da)</p> <p>RT (Exp. RT): 0.00 (1.99) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFNA 2 (462.900/219.100 Da)</p> <p>RT (Exp. RT): 0.00 (1.99) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFDA 1 (513.000/469.100 Da)</p> <p>RT (Exp. RT): 0.00 (2.18) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFDA 2 (513.000/218.900 Da)</p> <p>RT (Exp. RT): 2.11 (2.11) min</p> <p>Calculated Conc: 0.00292 µg/L</p> <p>Area Ratio: 0.00231</p> <p>Sample Type: (Unknown)</p>	
<p>PFUnA 1 (562.900/519.000 Da)</p> <p>RT (Exp. RT): 0.00 (2.21) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFUnA 2 (562.900/269.200 Da)</p> <p>RT (Exp. RT): 0.00 (2.27) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	

<p>PFD_oA 1 (612.900/569.000 Da)</p> <p>RT (Exp. RT): 0.00 (2.36) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFD_oA 2 (612.900/319.000 Da)</p> <p>RT (Exp. RT): 0.00 (2.35) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFT_rDA 1 (663.000/619.000 Da)</p> <p>RT (Exp. RT): 0.00 (2.42) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFT_rDA 2 (663.000/318.900 Da)</p> <p>RT (Exp. RT): 2.16 (2.37) min</p> <p>Calculated Conc: 0.00116 µg/L</p> <p>Area Ratio: 0.00114</p> <p>Sample Type: (Unknown)</p>	
<p>PFT_eDA 1 (713.000/669.000 Da)</p> <p>RT (Exp. RT): 0.00 (2.49) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFT_eDA 2 (713.000/319.200 Da)</p> <p>RT (Exp. RT): 0.00 (2.49) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	

<p>6:2-FTS 1 (427.000/407.000 Da)</p> <p>RT (Exp. RT): 0.00 (1.90) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>6:2-FTS 2 (427.000/80.900 Da)</p> <p>RT (Exp. RT): 1.88 (1.80) min</p> <p>Calculated Conc: 0.00389 µg/L</p> <p>Area Ratio: 0.00800</p> <p>Sample Type: (Unknown)</p>	
<p>8:2-FTS 1 (526.900/507.000 Da)</p> <p>RT (Exp. RT): 0.00 (2.16) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>8:2-FTS 2 (526.900/80.900 Da)</p> <p>RT (Exp. RT): 2.01 (2.09) min</p> <p>Calculated Conc: 0.00657 µg/L</p> <p>Area Ratio: 0.0128</p> <p>Sample Type: (Unknown)</p>	
<p>13C2-PFHxA (314.900/270.000 Da)</p> <p>RT (Exp. RT): 1.40 (1.40) min</p> <p>Calculated Conc: 99.5 µg/L</p> <p>Area Ratio: 0.320</p> <p>Sample Type: (Unknown)</p>	
<p>18O2-PFHxS (402.900/84.000 Da)</p> <p>RT (Exp. RT): 1.66 (1.77) min</p> <p>Calculated Conc: 102. µg/L</p> <p>Area Ratio: 0.0877</p> <p>Sample Type: (Unknown)</p>	

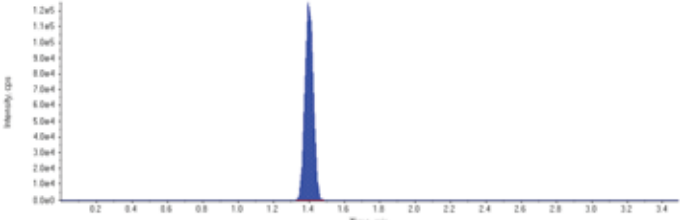
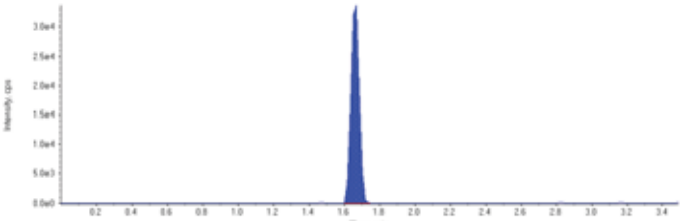
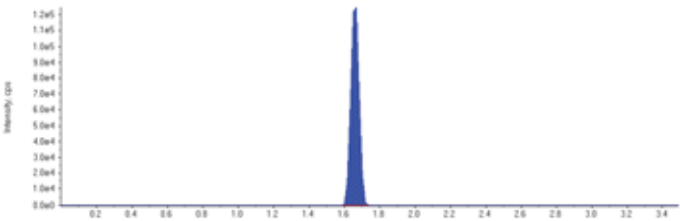
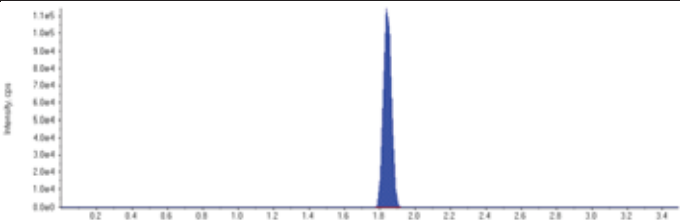
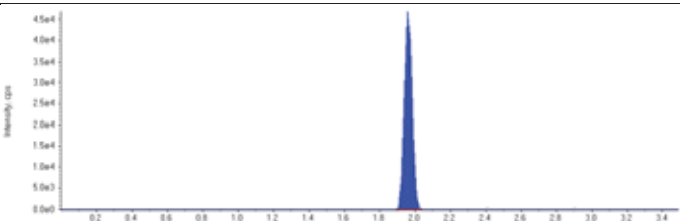
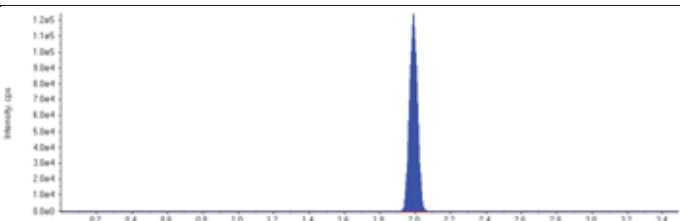
<p>13C4-PFHpa (366.900/322.000 Da)</p> <p>RT (Exp. RT): 1.66 (1.67) min</p> <p>Calculated Conc: 94.6 µg/L</p> <p>Area Ratio: 0.313</p> <p>Sample Type: (Unknown)</p>	
<p>13C4-PFOA (416.900/372.000 Da)</p> <p>RT (Exp. RT): 1.84 (1.84) min</p> <p>Calculated Conc: 99.4 µg/L</p> <p>Area Ratio: 0.273</p> <p>Sample Type: (Unknown)</p>	
<p>13C4-PFOS (502.900/79.900 Da)</p> <p>RT (Exp. RT): 1.96 (2.05) min</p> <p>Calculated Conc: 99.3 µg/L</p> <p>Area Ratio: 0.126</p> <p>Sample Type: (Unknown)</p>	
<p>13C5-PFNA (467.900/423.000 Da)</p> <p>RT (Exp. RT): 1.99 (1.99) min</p> <p>Calculated Conc: 97.1 µg/L</p> <p>Area Ratio: 0.284</p> <p>Sample Type: (Unknown)</p>	
<p>13C2-PFDA (514.900/470.000 Da)</p> <p>RT (Exp. RT): 2.11 (2.11) min</p> <p>Calculated Conc: 85.3 µg/L</p> <p>Area Ratio: 0.264</p> <p>Sample Type: (Unknown)</p>	
<p>13C2-PFUnA (564.900/520.000 Da)</p> <p>RT (Exp. RT): 2.21 (2.27) min</p> <p>Calculated Conc: 79.6 µg/L</p> <p>Area Ratio: 0.183</p> <p>Sample Type: (Unknown)</p>	

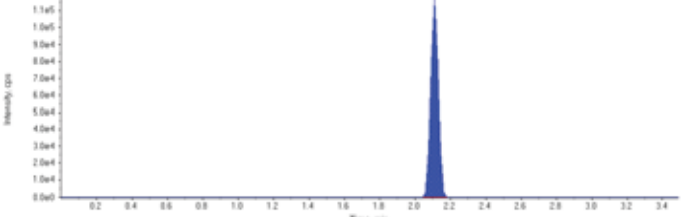
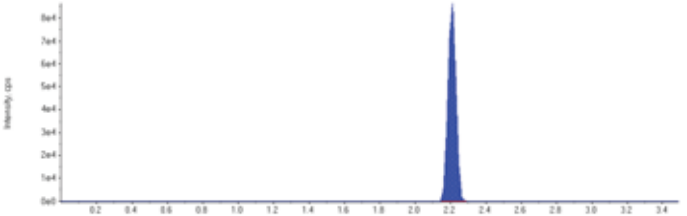
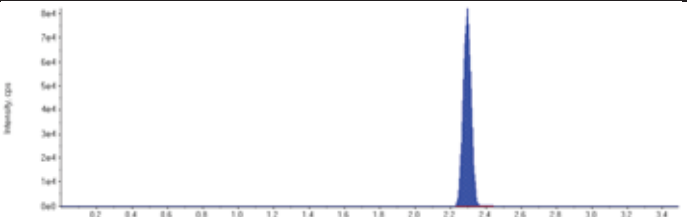
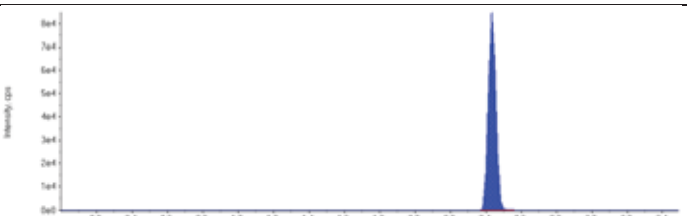
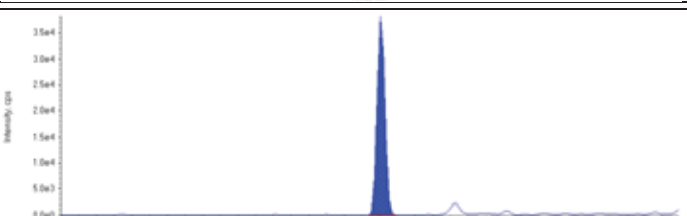
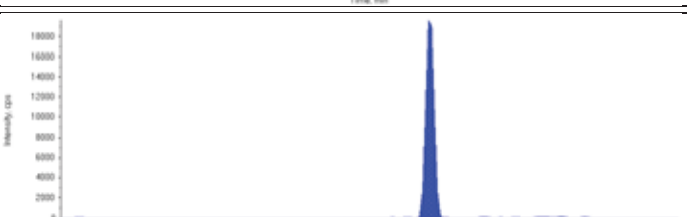
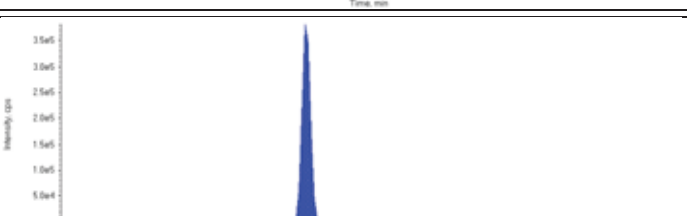
<p>13C2-PFDoA (614.900/570.000 Da)</p> <p>RT (Exp. RT): 2.30 (2.35) min</p> <p>Calculated Conc: 78.2 µg/L</p> <p>Area Ratio: 0.174</p> <p>Sample Type: (Unknown)</p>	
<p>13C2-PFTeDA (714.900/669.900 Da)</p> <p>RT (Exp. RT): 2.44 (2.49) min</p> <p>Calculated Conc: 72.2 µg/L</p> <p>Area Ratio: 0.176</p> <p>Sample Type: (Unknown)</p>	
<p>13C2-6:2-FTS (429.000/80.900 Da)</p> <p>RT (Exp. RT): 1.81 (1.80) min</p> <p>Calculated Conc: 88.3 µg/L</p> <p>Area Ratio: 0.105</p> <p>Sample Type: (Unknown)</p>	
<p>13C2-8:2 FTS (528.900/80.900 Da)</p> <p>RT (Exp. RT): 2.08 (2.08) min</p> <p>Calculated Conc: 81.5 µg/L</p> <p>Area Ratio: 0.0543</p> <p>Sample Type: (Unknown)</p>	
<p>13C6-PFHxA (318.900/274.000 Da)</p> <p>RT (Exp. RT): 1.39 (1.40) min</p> <p>Calculated Conc: 2.41 µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>13C9-PFDA (521.900/477.100 Da)</p> <p>RT (Exp. RT): 2.10 (2.09) min</p> <p>Calculated Conc: 2.90 µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	

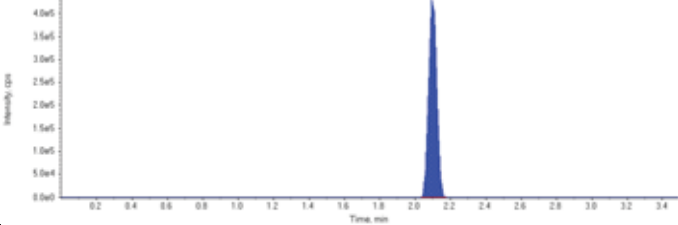
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Sample Type	Unknown	Injection Vial	8
Acquisition Date	2017/05/23 4:06:12 PM	Dilution Factor	0.0240
Acquisition Method	PFC_Water_Low.dam	Instrument Name	LCMS03
Project	Enviro\PFOS	Algorithm Used	Analyst Classic
Data File	PFC_170523\WS#4988945.wiff		
Result Table	PFC_Water_170523_4988945_CTLabs.rdb		
Samples Annotation	-		

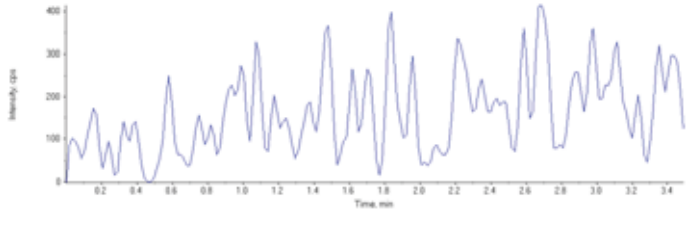
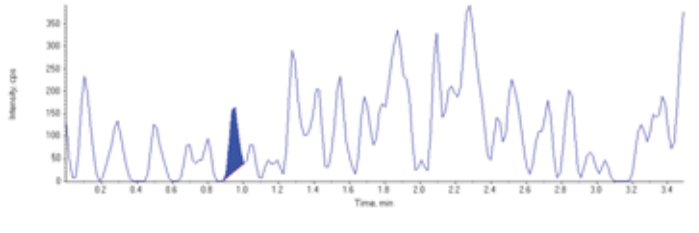
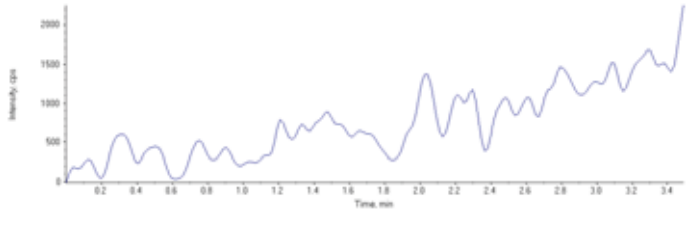
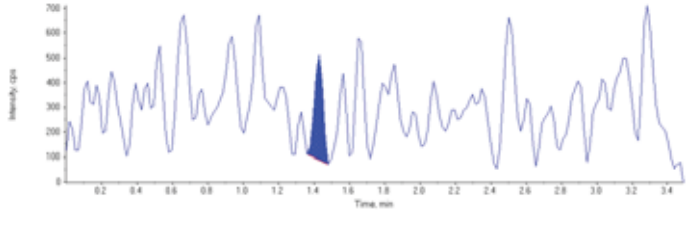
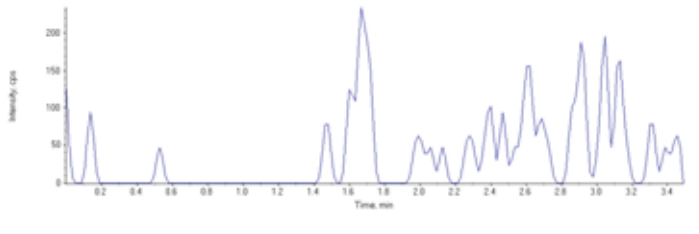
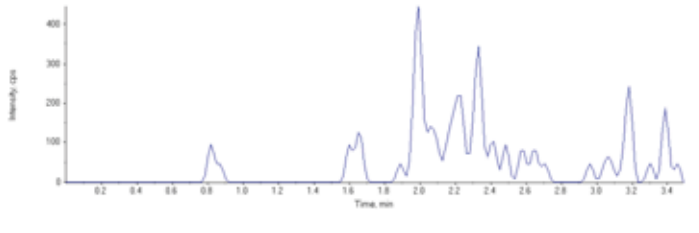
Internal Standard	Area (cps)	RT (min)	Target Conc. (ug/L)	Calc. Conc. (ug/L)
MPFHxA	411000.	1.40	1.00	-
MPFHxS	112000.	1.66	1.00	-
MPFHpA	424000.	1.66	1.00	-
MPFOA	365000.	1.84	1.00	-
MPFOS	145000.	1.96	1.00	-
MPFNA	377000.	1.99	1.00	-
MPFDA	350000.	2.11	1.00	-
MPFUnA	272000.	2.21	1.00	-
MPFDoA	257000.	2.30	1.00	-
MPFTeDA	255000.	2.44	1.00	-
M2 6:2 FTS	120000.	1.81	1.00	-
M2 8:2 FTS	66000.	2.08	1.00	-
13C6-PFHxA IS	1280000.	1.38	41.7	-
13C9-PFDA IS	1390000.	2.10	41.7	-
N/A	N/A	N/A	N/A	-
N/A	N/A	N/A	N/A	-

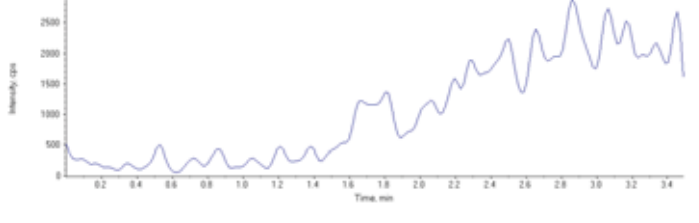
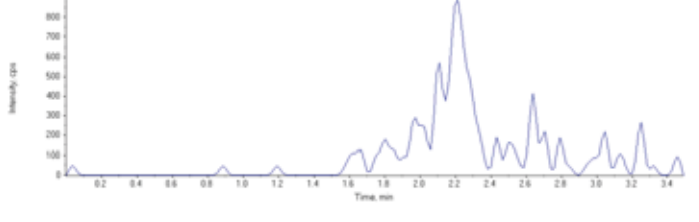
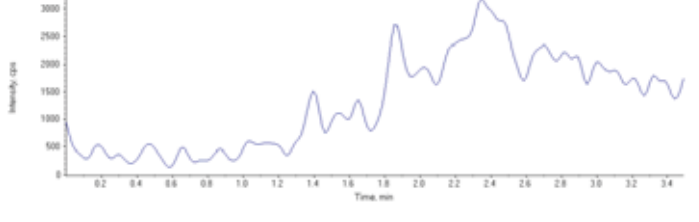
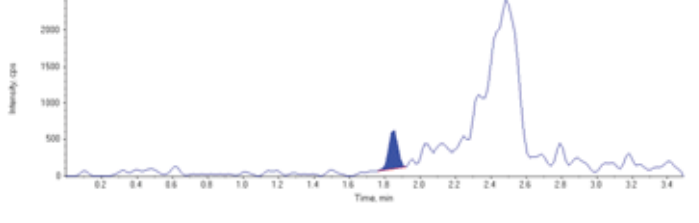
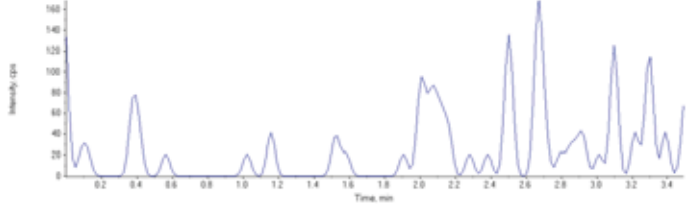
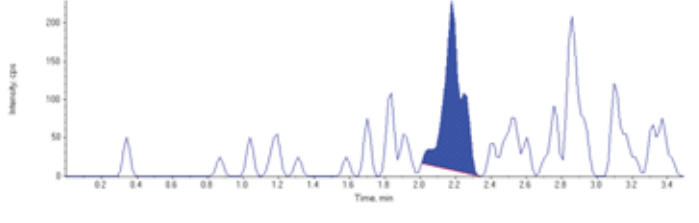
Target Analyte	Area (cps)	RT (min)	Target Conc. (ug/L)	Calc. Conc. (ug/L)	Accuracy (%)
PFBS 1	0	0.00	N/A	N/A	N/A
PFBS 2	479	0.947	N/A	0.00416	N/A
PFHxA 1	0	0.00	N/A	N/A	N/A
PFHxA 2	1420	1.43	N/A	0.00525	N/A
PFHxS 1	0	0.00	N/A	N/A	N/A
PFHxS 2	0	0.00	N/A	N/A	N/A
PFHpA 1	0	0.00	N/A	N/A	N/A
PFHpA 2	0	0.00	N/A	N/A	N/A
PFOA 1	0	0.00	N/A	N/A	N/A
PFOA 2	1890	1.85	N/A	0.00609	N/A
PFOS 1	0	0.00	N/A	N/A	N/A
PFOS 2	1460	2.18	N/A	0.00506	N/A
PFNA 1	0	0.00	N/A	N/A	N/A
PFNA 2	498	1.99	N/A	0.00185	N/A
PFDA 1	0	0.00	N/A	N/A	N/A
PFDA 2	527	2.11	N/A	0.00267	N/A
PFUnA 1	0	0.00	N/A	N/A	N/A
PFUnA 2	0	0.00	N/A	N/A	N/A
PFDaA 1	0	0.00	N/A	N/A	N/A
PFDaA 2	0	0.00	N/A	N/A	N/A
PFTTrDA 1	0	0.00	N/A	N/A	N/A
PFTTrDA 2	0	0.00	N/A	N/A	N/A
PFTeDA 1	0	0.00	N/A	N/A	N/A
PFTeDA 2	0	0.00	N/A	N/A	N/A
6:2-FTS 1	0	0.00	N/A	N/A	N/A
6:2-FTS 2	550	1.86	N/A	0.00344	N/A
8:2-FTS 1	0	0.00	N/A	N/A	N/A
8:2-FTS 2	854	2.08	N/A	0.00659	N/A
13C2-PFHxA	411000	1.40	N/A	100.	N/A
18O2-PFHxS	112000	1.66	N/A	102.	N/A
13C4-PFHpA	424000	1.66	N/A	100.	N/A
13C4-PFOA	365000	1.84	N/A	104.	N/A
13C4-PFOS	145000	1.96	N/A	89.8	N/A
13C5-PFNA	377000	1.99	N/A	101.	N/A
13C2-PFDA	350000	2.11	N/A	81.0	N/A
13C2-PFUnA	272000	2.21	N/A	84.8	N/A
13C2-PFDaA	257000	2.30	N/A	82.9	N/A
13C2-PFTeDA	255000	2.44	N/A	75.1	N/A
13C2-6:2-FTS	120000	1.81	N/A	78.7	N/A
13C2-8:2 FTS	66000	2.08	N/A	77.7	N/A
13C6-PFHxA	1280000	1.38	N/A	2.40	N/A
13C9-PFDA	1390000	2.10	N/A	2.80	N/A

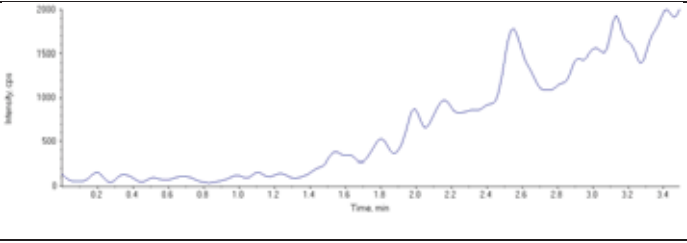
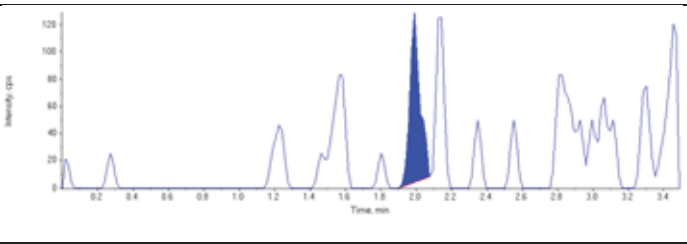
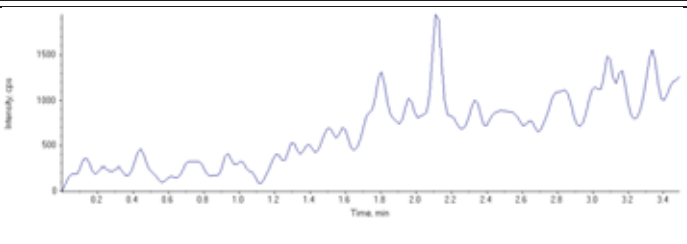
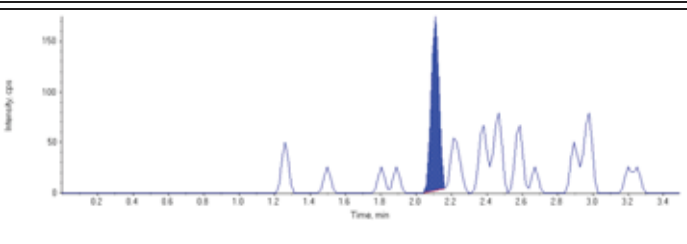
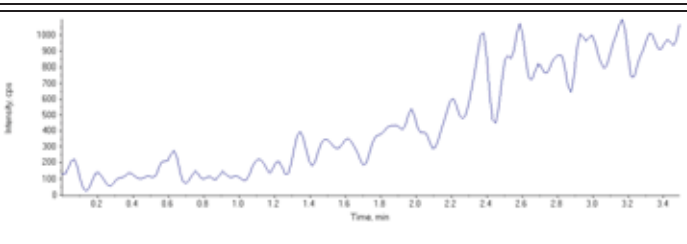
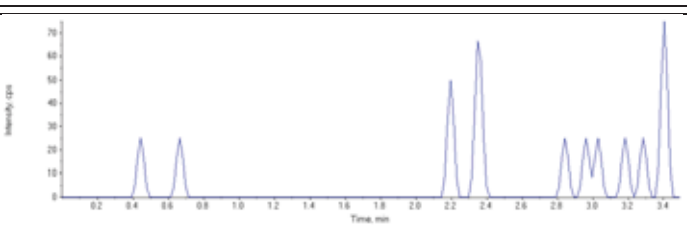
<p>MPFHxA (Internal Standard)</p> <p>RT (Exp. RT): 1.40(1.40) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Unknown)</p>	
<p>MPFHxS (Internal Standard)</p> <p>RT (Exp. RT): 1.66(1.77) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Unknown)</p>	
<p>MPFHpA (Internal Standard)</p> <p>RT (Exp. RT): 1.66(1.67) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Unknown)</p>	
<p>MPFOA (Internal Standard)</p> <p>RT (Exp. RT): 1.84(1.84) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Unknown)</p>	
<p>MPFOS (Internal Standard)</p> <p>RT (Exp. RT): 1.96(2.05) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Unknown)</p>	
<p>MPFNA (Internal Standard)</p> <p>RT (Exp. RT): 1.99(1.99) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Unknown)</p>	

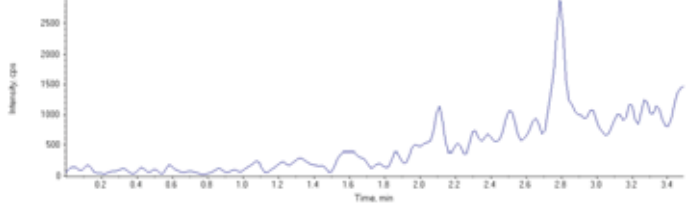
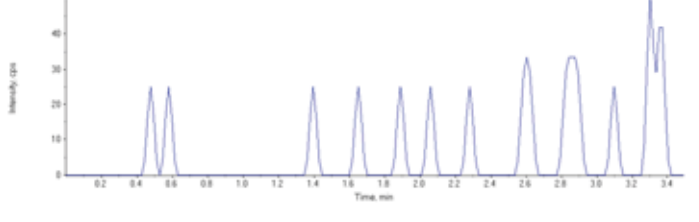
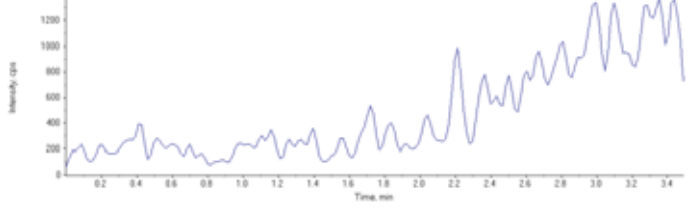
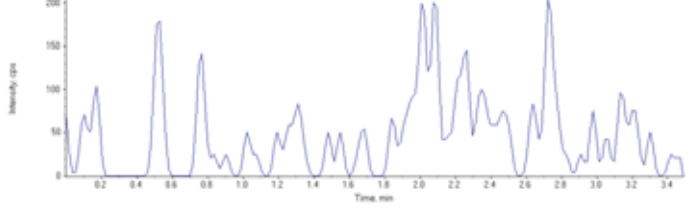
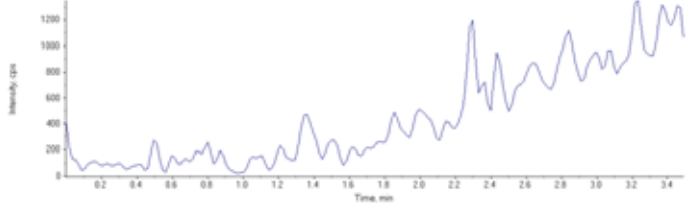
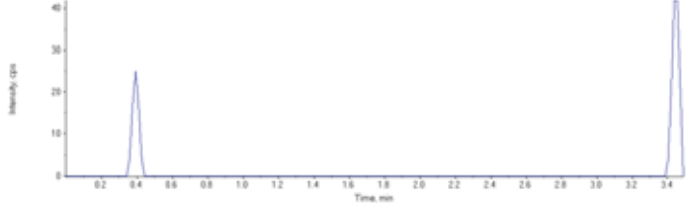
<p>MPFDA (Internal Standard)</p> <p>RT (Exp. RT): 2.11(2.18) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Unknown)</p>	
<p>MPFUnA (Internal Standard)</p> <p>RT (Exp. RT): 2.21(2.27) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Unknown)</p>	
<p>MPFDoA (Internal Standard)</p> <p>RT (Exp. RT): 2.30(2.35) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Unknown)</p>	
<p>MPFTeDA (Internal Standard)</p> <p>RT (Exp. RT): 2.44(2.49) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Unknown)</p>	
<p>M2 6:2 FTS (Internal Standard)</p> <p>RT (Exp. RT): 1.81(1.80) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Unknown)</p>	
<p>M2 8:2 FTS (Internal Standard)</p> <p>RT (Exp. RT): 2.08(2.08) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Unknown)</p>	
<p>13C6-PFHxA IS (Internal Standard)</p> <p>RT (Exp. RT): 1.38(1.40) min</p> <p>Concentration: 41.7 ug/L</p> <p>Sample Type: (Unknown)</p>	

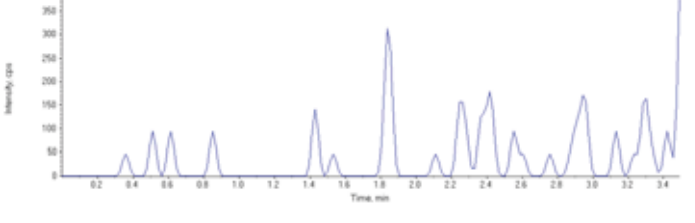
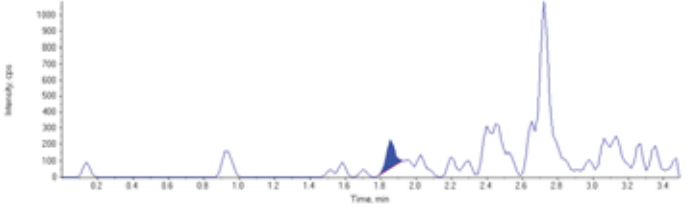
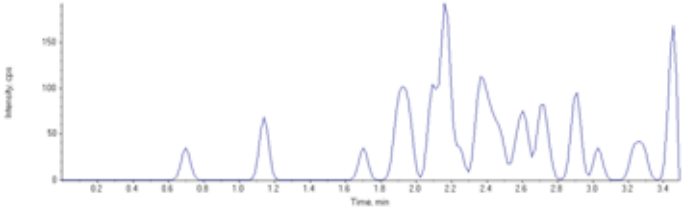
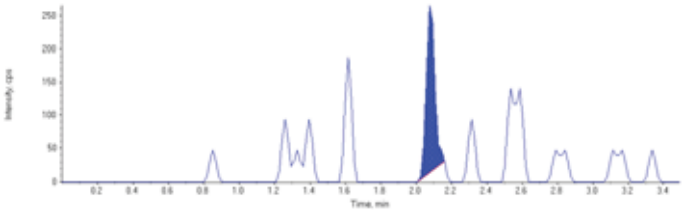
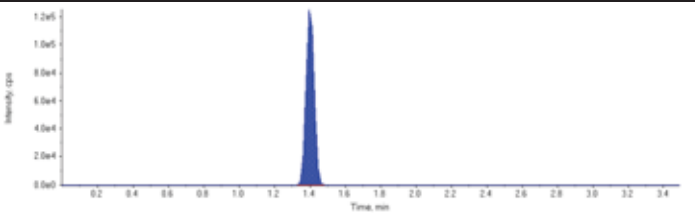
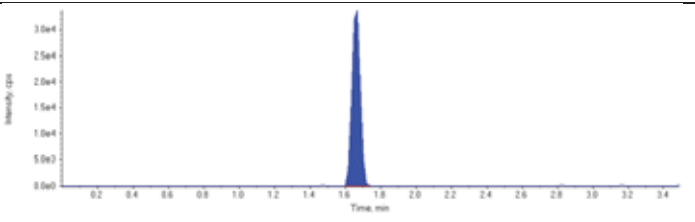
<p>13C9-PFDA IS (Internal Standard)</p> <p>RT (Exp. RT): 2.10(2.09) min</p> <p>Concentration: 41.7 ug/L</p> <p>Sample Type: (Unknown)</p>	
<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min</p> <p>Concentration: N/A N/A</p> <p>Sample Type: (Unknown)</p>	<p>This image is not available</p>
<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min</p> <p>Concentration: N/A N/A</p> <p>Sample Type: (Unknown)</p>	<p>This image is not available</p>

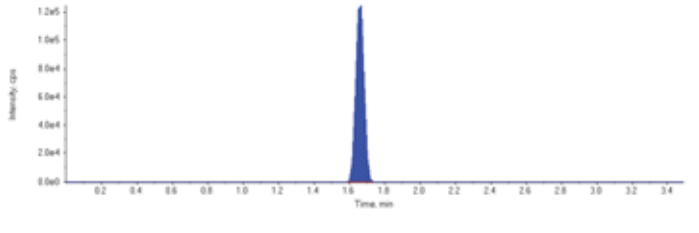
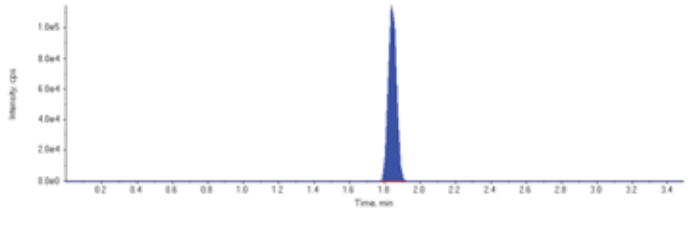
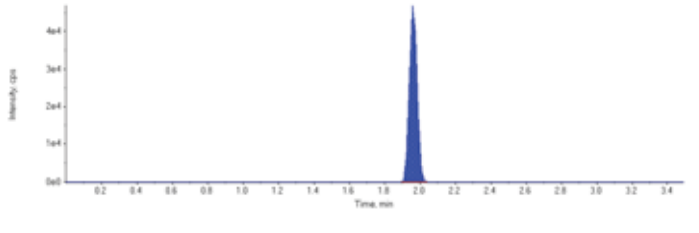
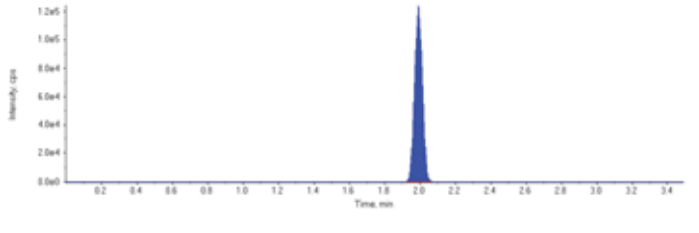
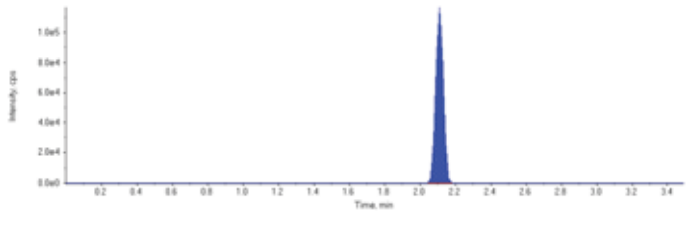
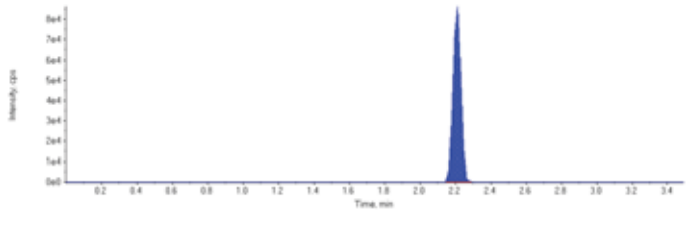
<p>PFBS 1 (298.900/79.900 Da)</p> <p>RT (Exp. RT): 0.00 (1.09) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFBS 2 (298.900/98.900 Da)</p> <p>RT (Exp. RT): 0.947 (1.09) min</p> <p>Calculated Conc: 0.00416 µg/L</p> <p>Area Ratio: 0.00426</p> <p>Sample Type: (Unknown)</p>	
<p>PFHxA 1 (313.000/269.000 Da)</p> <p>RT (Exp. RT): 0.00 (1.40) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFHxA 2 (313.000/119.000 Da)</p> <p>RT (Exp. RT): 1.43 (1.41) min</p> <p>Calculated Conc: 0.00525 µg/L</p> <p>Area Ratio: 0.00345</p> <p>Sample Type: (Unknown)</p>	
<p>PFHxS 1 (398.900/79.900 Da)</p> <p>RT (Exp. RT): 0.00 (1.67) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFHxS 2 (398.900/98.900 Da)</p> <p>RT (Exp. RT): 0.00 (1.67) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	

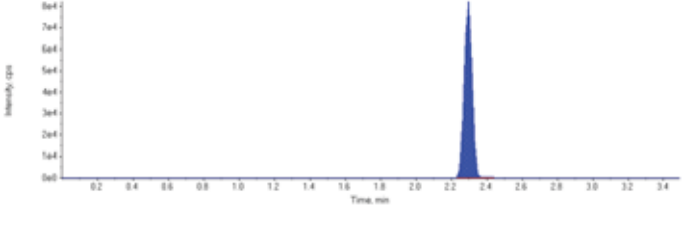
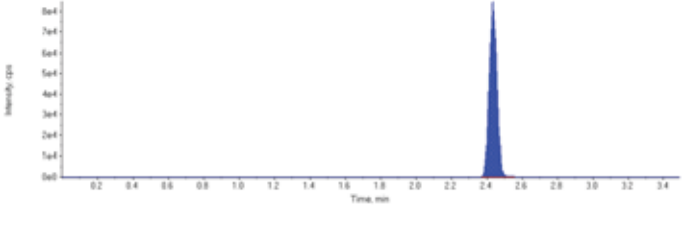
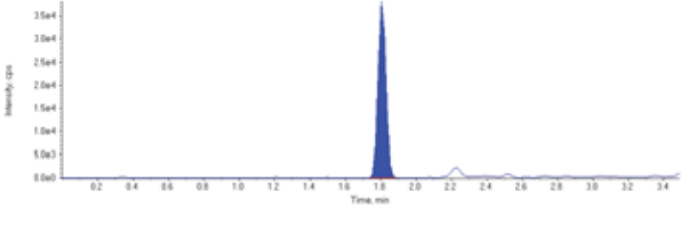
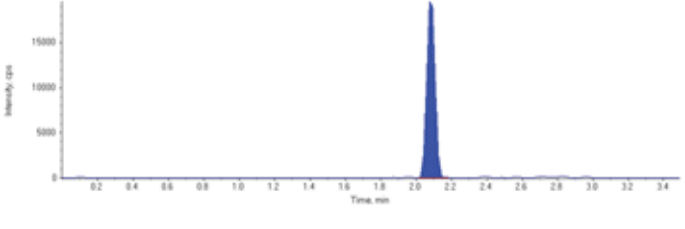
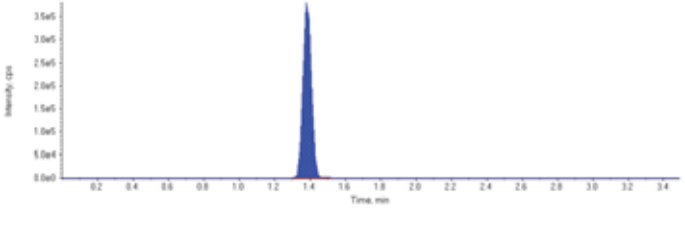
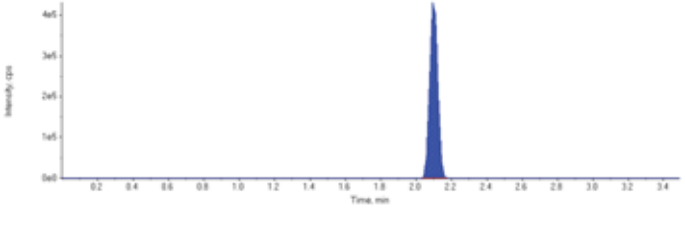
<p>PFHpA 1 (363.000/319.000 Da)</p> <p>RT (Exp. RT): 0.00 (1.67) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFHpA 2 (363.000/169.200 Da)</p> <p>RT (Exp. RT): 0.00 (1.67) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFOA 1 (413.100/369.000 Da)</p> <p>RT (Exp. RT): 0.00 (1.85) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFOA 2 (413.100/169.000 Da)</p> <p>RT (Exp. RT): 1.85 (1.84) min</p> <p>Calculated Conc: 0.00609 µg/L</p> <p>Area Ratio: 0.00518</p> <p>Sample Type: (Unknown)</p>	
<p>PFOS 1 (498.900/79.900 Da)</p> <p>RT (Exp. RT): 0.00 (1.96) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFOS 2 (498.900/98.900 Da)</p> <p>RT (Exp. RT): 2.18 (1.96) min</p> <p>Calculated Conc: 0.00506 µg/L</p> <p>Area Ratio: 0.0100</p> <p>Sample Type: (Unknown)</p>	

<p>PFNA 1 (462.900/419.000 Da)</p> <p>RT (Exp. RT): 0.00 (1.99) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFNA 2 (462.900/219.100 Da)</p> <p>RT (Exp. RT): 1.99 (1.99) min</p> <p>Calculated Conc: 0.00185 µg/L</p> <p>Area Ratio: 0.00132</p> <p>Sample Type: (Unknown)</p>	
<p>PFDA 1 (513.000/469.100 Da)</p> <p>RT (Exp. RT): 0.00 (2.18) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFDA 2 (513.000/218.900 Da)</p> <p>RT (Exp. RT): 2.11 (2.11) min</p> <p>Calculated Conc: 0.00267 µg/L</p> <p>Area Ratio: 0.00151</p> <p>Sample Type: (Unknown)</p>	
<p>PFUnA 1 (562.900/519.000 Da)</p> <p>RT (Exp. RT): 0.00 (2.21) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFUnA 2 (562.900/269.200 Da)</p> <p>RT (Exp. RT): 0.00 (2.27) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	

<p>PFD_oA 1 (612.900/569.000 Da)</p> <p>RT (Exp. RT): 0.00 (2.36) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFD_oA 2 (612.900/319.000 Da)</p> <p>RT (Exp. RT): 0.00 (2.35) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFT_rDA 1 (663.000/619.000 Da)</p> <p>RT (Exp. RT): 0.00 (2.42) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFT_rDA 2 (663.000/318.900 Da)</p> <p>RT (Exp. RT): 0.00 (2.37) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFT_eDA 1 (713.000/669.000 Da)</p> <p>RT (Exp. RT): 0.00 (2.49) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFT_eDA 2 (713.000/319.200 Da)</p> <p>RT (Exp. RT): 0.00 (2.49) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	

<p>6:2-FTS 1 (427.000/407.000 Da)</p> <p>RT (Exp. RT): 0.00 (1.90) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>6:2-FTS 2 (427.000/80.900 Da)</p> <p>RT (Exp. RT): 1.86 (1.80) min</p> <p>Calculated Conc: 0.00344 µg/L</p> <p>Area Ratio: 0.00459</p> <p>Sample Type: (Unknown)</p>	
<p>8:2-FTS 1 (526.900/507.000 Da)</p> <p>RT (Exp. RT): 0.00 (2.16) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>8:2-FTS 2 (526.900/80.900 Da)</p> <p>RT (Exp. RT): 2.08 (2.09) min</p> <p>Calculated Conc: 0.00659 µg/L</p> <p>Area Ratio: 0.0129</p> <p>Sample Type: (Unknown)</p>	
<p>13C2-PFHxA (314.900/270.000 Da)</p> <p>RT (Exp. RT): 1.40 (1.40) min</p> <p>Calculated Conc: 100. µg/L</p> <p>Area Ratio: 0.322</p> <p>Sample Type: (Unknown)</p>	
<p>18O2-PFHxS (402.900/84.000 Da)</p> <p>RT (Exp. RT): 1.66 (1.77) min</p> <p>Calculated Conc: 102. µg/L</p> <p>Area Ratio: 0.0880</p> <p>Sample Type: (Unknown)</p>	

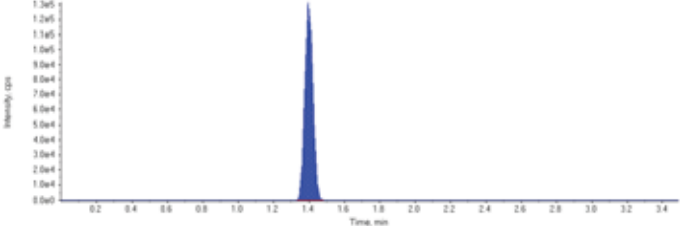
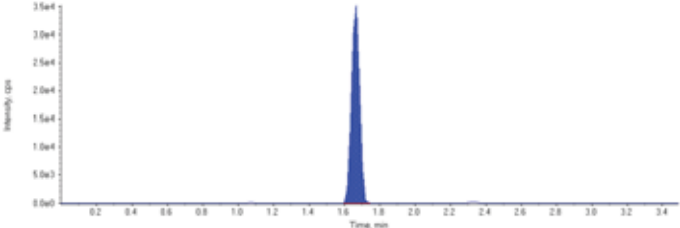
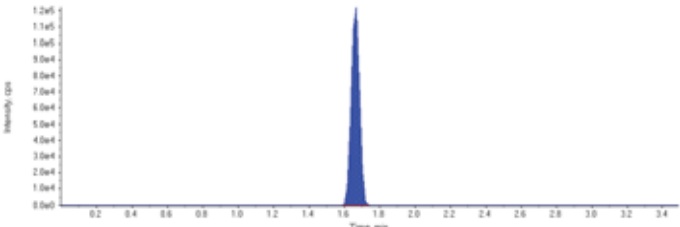
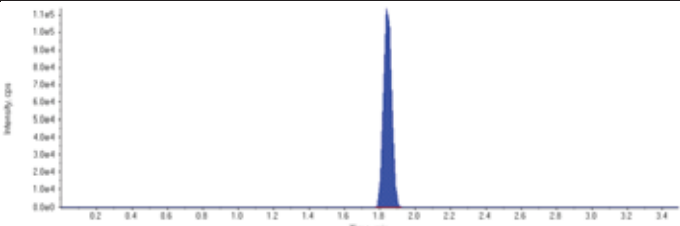
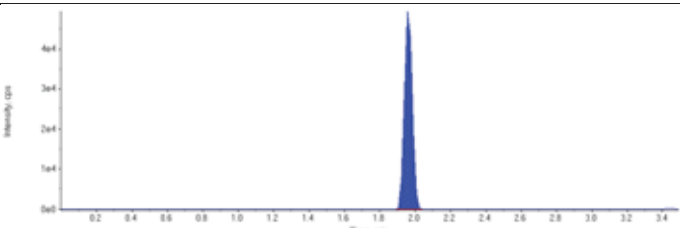
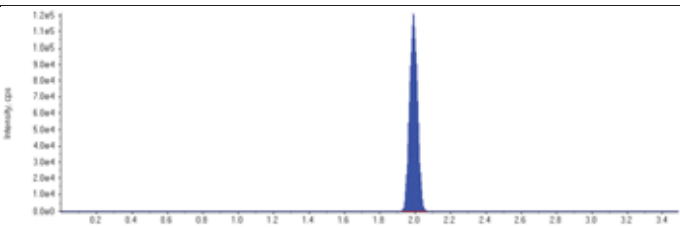
<p>13C4-PFHpa (366.900/322.000 Da)</p> <p>RT (Exp. RT): 1.66 (1.67) min</p> <p>Calculated Conc: 100. µg/L</p> <p>Area Ratio: 0.332</p> <p>Sample Type: (Unknown)</p>	
<p>13C4-PFOA (416.900/372.000 Da)</p> <p>RT (Exp. RT): 1.84 (1.84) min</p> <p>Calculated Conc: 104. µg/L</p> <p>Area Ratio: 0.286</p> <p>Sample Type: (Unknown)</p>	
<p>13C4-PFOS (502.900/79.900 Da)</p> <p>RT (Exp. RT): 1.96 (2.05) min</p> <p>Calculated Conc: 89.8 µg/L</p> <p>Area Ratio: 0.114</p> <p>Sample Type: (Unknown)</p>	
<p>13C5-PFNA (467.900/423.000 Da)</p> <p>RT (Exp. RT): 1.99 (1.99) min</p> <p>Calculated Conc: 101. µg/L</p> <p>Area Ratio: 0.295</p> <p>Sample Type: (Unknown)</p>	
<p>13C2-PFDA (514.900/470.000 Da)</p> <p>RT (Exp. RT): 2.11 (2.11) min</p> <p>Calculated Conc: 81.0 µg/L</p> <p>Area Ratio: 0.251</p> <p>Sample Type: (Unknown)</p>	
<p>13C2-PFUnA (564.900/520.000 Da)</p> <p>RT (Exp. RT): 2.21 (2.27) min</p> <p>Calculated Conc: 84.8 µg/L</p> <p>Area Ratio: 0.195</p> <p>Sample Type: (Unknown)</p>	

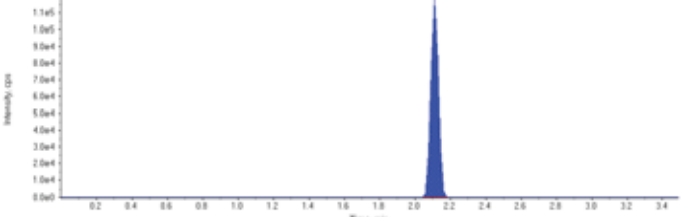
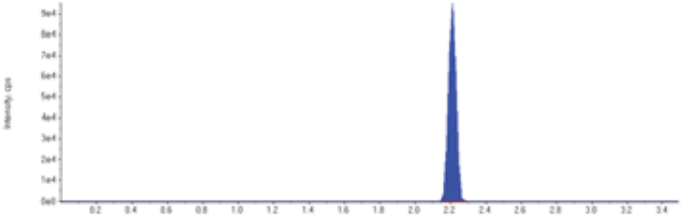
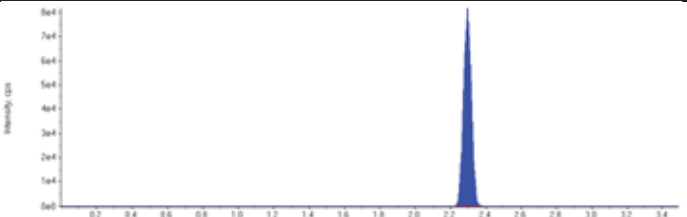
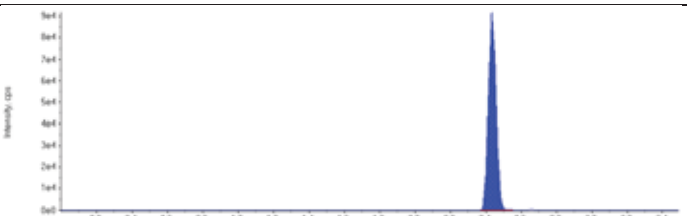
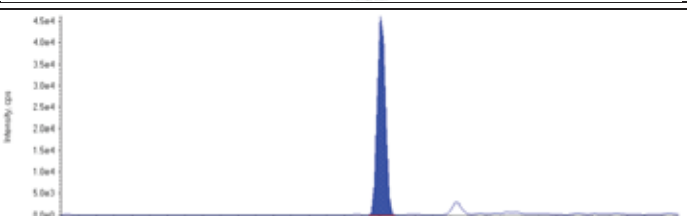
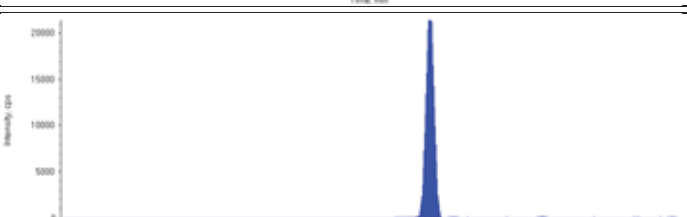
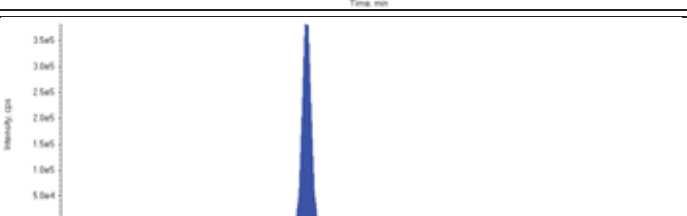
<p>13C2-PFDoA (614.900/570.000 Da)</p> <p>RT (Exp. RT): 2.30 (2.35) min</p> <p>Calculated Conc: 82.9 µg/L</p> <p>Area Ratio: 0.185</p> <p>Sample Type: (Unknown)</p>	
<p>13C2-PFTeDA (714.900/669.900 Da)</p> <p>RT (Exp. RT): 2.44 (2.49) min</p> <p>Calculated Conc: 75.1 µg/L</p> <p>Area Ratio: 0.183</p> <p>Sample Type: (Unknown)</p>	
<p>13C2-6:2-FTS (429.000/80.900 Da)</p> <p>RT (Exp. RT): 1.81 (1.80) min</p> <p>Calculated Conc: 78.7 µg/L</p> <p>Area Ratio: 0.0939</p> <p>Sample Type: (Unknown)</p>	
<p>13C2-8:2 FTS (528.900/80.900 Da)</p> <p>RT (Exp. RT): 2.08 (2.08) min</p> <p>Calculated Conc: 77.7 µg/L</p> <p>Area Ratio: 0.0517</p> <p>Sample Type: (Unknown)</p>	
<p>13C6-PFHxA (318.900/274.000 Da)</p> <p>RT (Exp. RT): 1.38 (1.40) min</p> <p>Calculated Conc: 2.40 µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>13C9-PFDA (521.900/477.100 Da)</p> <p>RT (Exp. RT): 2.10 (2.09) min</p> <p>Calculated Conc: 2.80 µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	

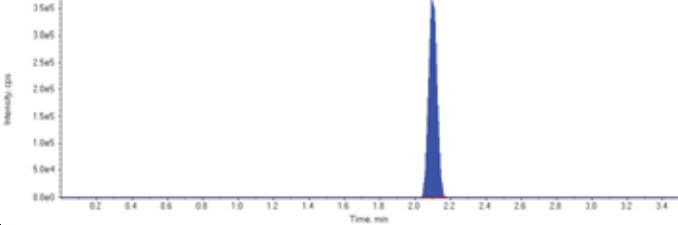
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Sample Type	Unknown	Injection Vial	8
Acquisition Date	2017/05/23 4:21:26 PM	Dilution Factor	0.0240
Acquisition Method	PFC_Water_Low.dam	Instrument Name	LCMS03
Project	Enviro\PFOS	Algorithm Used	Analyst Classic
Data File	PFC_170523\WS#4988945.wiff		
Result Table	PFC_Water_170523_4988945_CTLabs.rdb		
Samples Annotation	-		

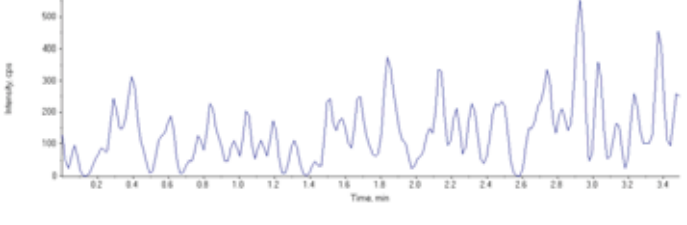
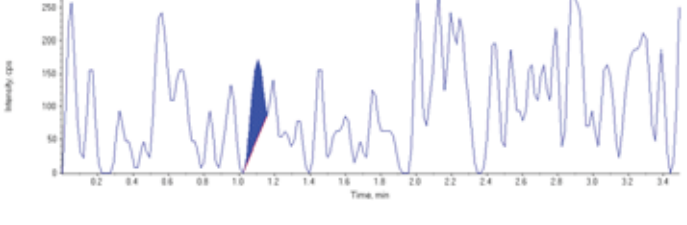
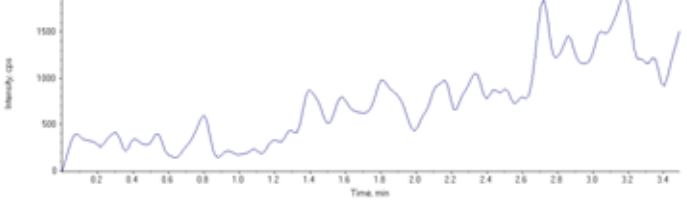
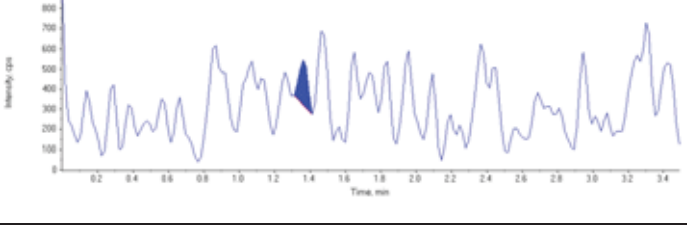
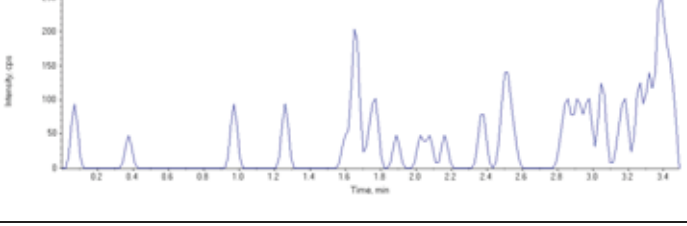
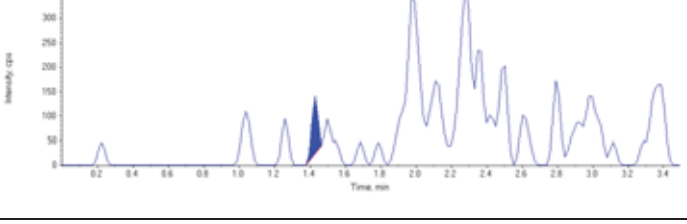
Internal Standard	Area (cps)	RT (min)	Target Conc. (ug/L)	Calc. Conc. (ug/L)
MPFHxA	418000.	1.40	1.00	-
MPFHxS	112000.	1.66	1.00	-
MPFHpA	401000.	1.66	1.00	-
MPFOA	370000.	1.84	1.00	-
MPFOS	155000.	1.96	1.00	-
MPFNA	365000.	1.99	1.00	-
MPFDA	354000.	2.11	1.00	-
MPFUnA	286000.	2.21	1.00	-
MPFDoA	250000.	2.30	1.00	-
MPFTeDA	280000.	2.44	1.00	-
M2 6:2 FTS	146000.	1.81	1.00	-
M2 8:2 FTS	71900.	2.08	1.00	-
13C6-PFHxA IS	1320000.	1.39	41.7	-
13C9-PFDA IS	1200000.	2.10	41.7	-
N/A	N/A	N/A	N/A	-
N/A	N/A	N/A	N/A	-

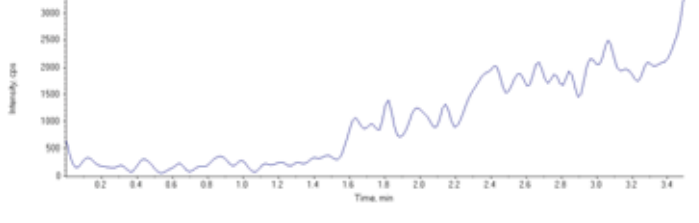
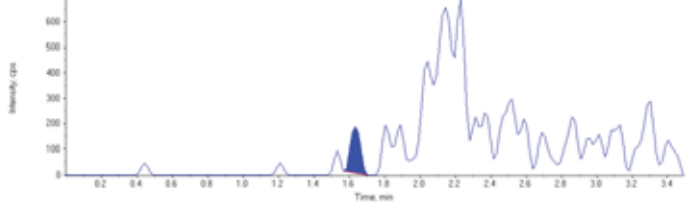
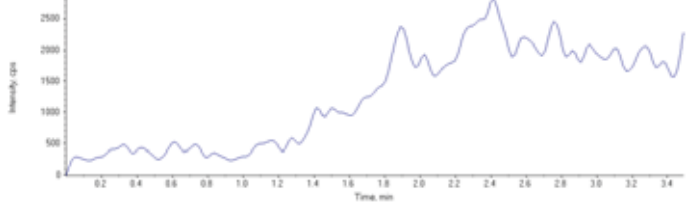
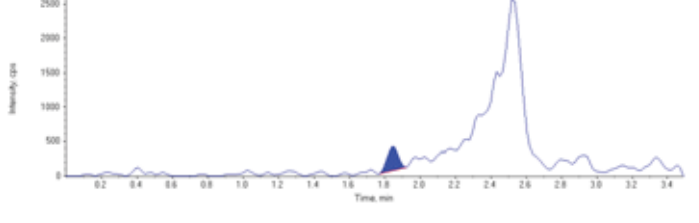
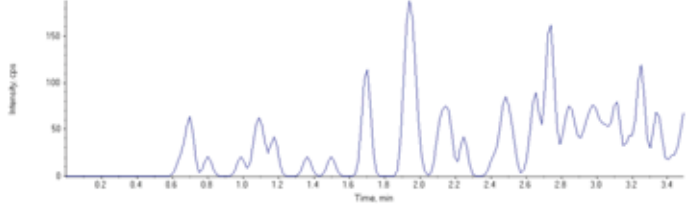
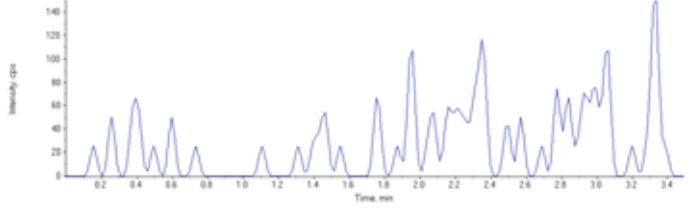
Target Analyte	Area (cps)	RT (min)	Target Conc. (ug/L)	Calc. Conc. (ug/L)	Accuracy (%)
PFBS 1	0	0.00	N/A	N/A	N/A
PFBS 2	507	1.11	N/A	0.00417	N/A
PFHxA 1	0	0.00	N/A	N/A	N/A
PFHxA 2	790	1.36	N/A	0.00378	N/A
PFHxS 1	0	0.00	N/A	N/A	N/A
PFHxS 2	279	1.43	N/A	0.00355	N/A
PFHpA 1	0	0.00	N/A	N/A	N/A
PFHpA 2	710	1.63	N/A	0.00147	N/A
PFOA 1	0	0.00	N/A	N/A	N/A
PFOA 2	1530	1.85	N/A	0.00596	N/A
PFOS 1	0	0.00	N/A	N/A	N/A
PFOS 2	0	0.00	N/A	N/A	N/A
PFNA 1	0	0.00	N/A	N/A	N/A
PFNA 2	0	0.00	N/A	N/A	N/A
PFDA 1	0	0.00	N/A	N/A	N/A
PFDA 2	340	2.11	N/A	0.00251	N/A
PFUnA 1	0	0.00	N/A	N/A	N/A
PFUnA 2	0	0.00	N/A	N/A	N/A
PFDaA 1	0	0.00	N/A	N/A	N/A
PFDaA 2	0	0.00	N/A	N/A	N/A
PFTTrDA 1	0	0.00	N/A	N/A	N/A
PFTTrDA 2	775	2.25	N/A	0.00203	N/A
PFTeDA 1	0	0.00	N/A	N/A	N/A
PFTeDA 2	0	0.00	N/A	N/A	N/A
6:2-FTS 1	0	0.00	N/A	N/A	N/A
6:2-FTS 2	0	0.00	N/A	N/A	N/A
8:2-FTS 1	0	0.00	N/A	N/A	N/A
8:2-FTS 2	0	0.00	N/A	N/A	N/A
13C2-PFHxA	418000	1.40	N/A	98.6	N/A
18O2-PFHxS	112000	1.66	N/A	98.8	N/A
13C4-PFHpA	401000	1.66	N/A	91.9	N/A
13C4-PFOA	370000	1.84	N/A	102.	N/A
13C4-PFOS	155000	1.96	N/A	92.4	N/A
13C5-PFNA	365000	1.99	N/A	94.4	N/A
13C2-PFDA	354000	2.11	N/A	94.9	N/A
13C2-PFUnA	286000	2.21	N/A	103.	N/A
13C2-PFDaA	250000	2.30	N/A	93.3	N/A
13C2-PFTeDA	280000	2.44	N/A	95.3	N/A
13C2-6:2-FTS	146000	1.81	N/A	92.9	N/A
13C2-8:2 FTS	71900	2.08	N/A	81.8	N/A
13C6-PFHxA	1320000	1.39	N/A	2.48	N/A
13C9-PFDA	1200000	2.10	N/A	2.41	N/A

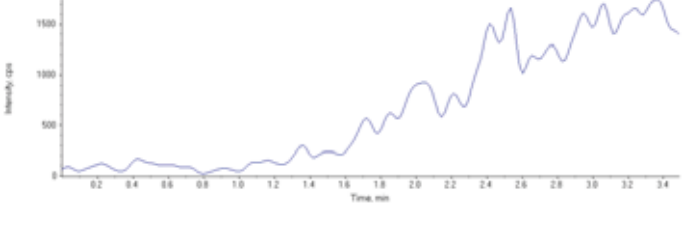
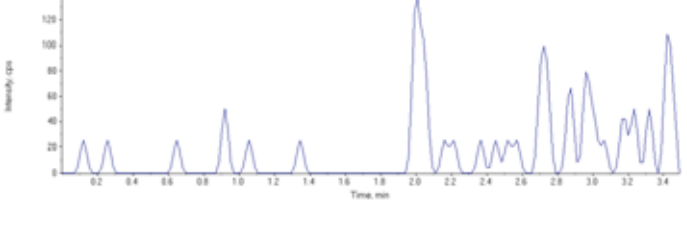
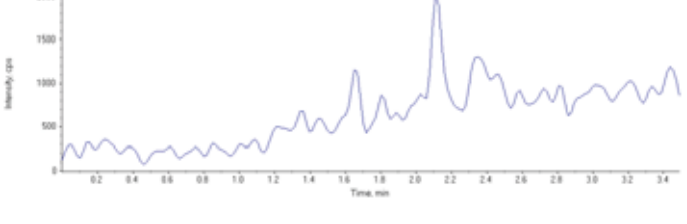
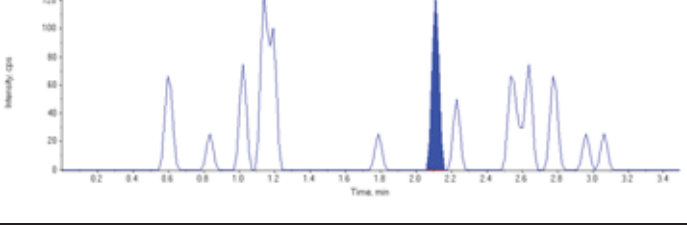
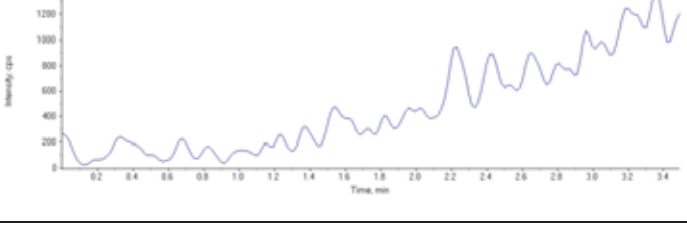
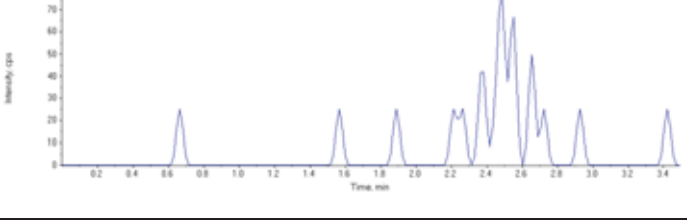
<p>MPFHxA (Internal Standard)</p> <p>RT (Exp. RT): 1.40(1.40) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Unknown)</p>	
<p>MPFHxS (Internal Standard)</p> <p>RT (Exp. RT): 1.66(1.77) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Unknown)</p>	
<p>MPFHpA (Internal Standard)</p> <p>RT (Exp. RT): 1.66(1.67) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Unknown)</p>	
<p>MPFOA (Internal Standard)</p> <p>RT (Exp. RT): 1.84(1.84) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Unknown)</p>	
<p>MPFOS (Internal Standard)</p> <p>RT (Exp. RT): 1.96(2.05) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Unknown)</p>	
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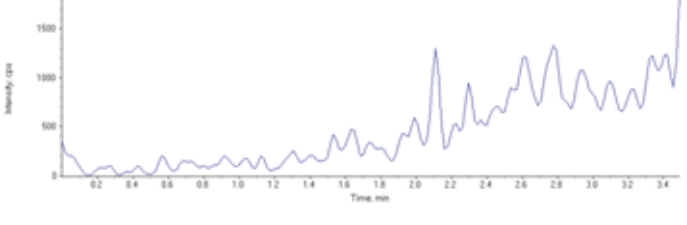
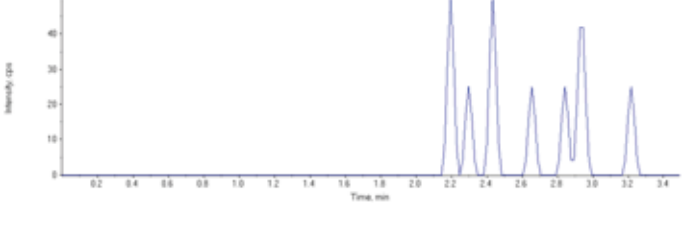
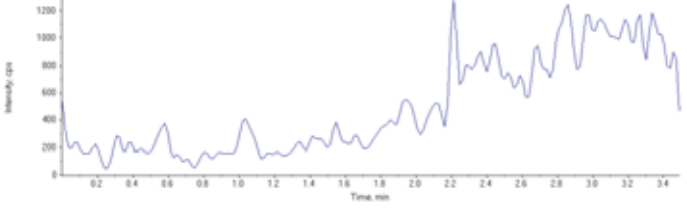
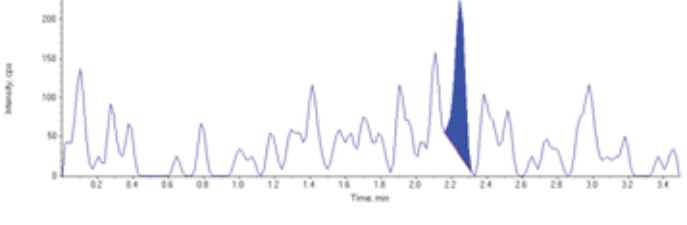
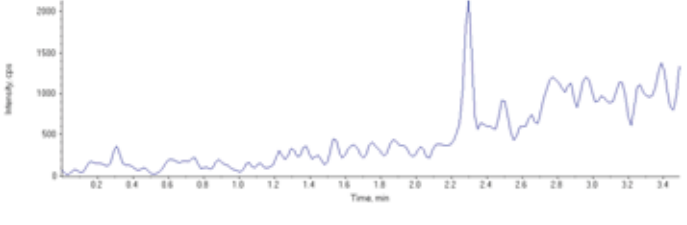
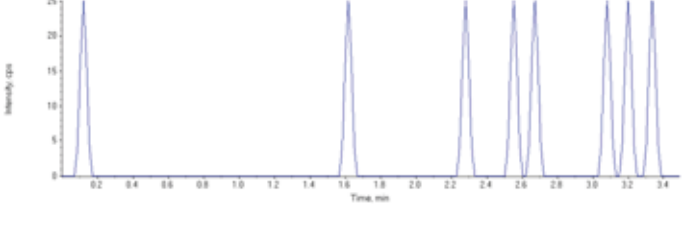
<p>MPFDA (Internal Standard)</p> <p>RT (Exp. RT): 2.11(2.18) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Unknown)</p>	
<p>MPFUnA (Internal Standard)</p> <p>RT (Exp. RT): 2.21(2.27) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Unknown)</p>	
<p>MPFDoA (Internal Standard)</p> <p>RT (Exp. RT): 2.30(2.35) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Unknown)</p>	
<p>MPFTeDA (Internal Standard)</p> <p>RT (Exp. RT): 2.44(2.49) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Unknown)</p>	
<p>M2 6:2 FTS (Internal Standard)</p> <p>RT (Exp. RT): 1.81(1.80) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Unknown)</p>	
<p>M2 8:2 FTS (Internal Standard)</p> <p>RT (Exp. RT): 2.08(2.08) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Unknown)</p>	
<p>13C6-PFHxA IS (Internal Standard)</p> <p>RT (Exp. RT): 1.39(1.40) min</p> <p>Concentration: 41.7 ug/L</p> <p>Sample Type: (Unknown)</p>	

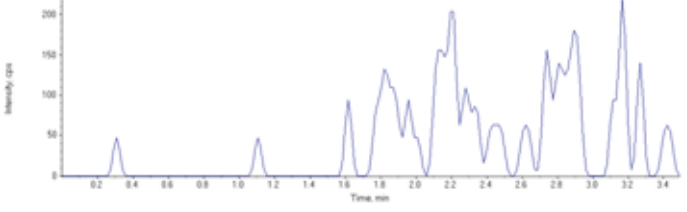
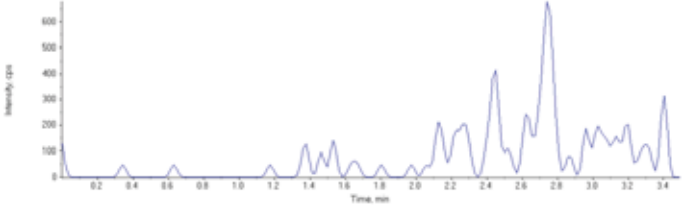
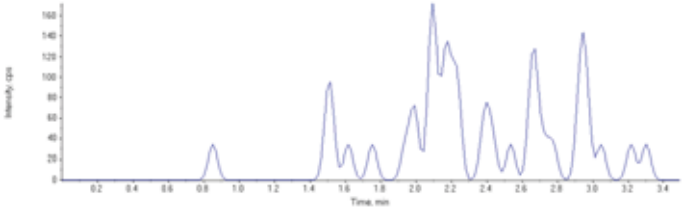
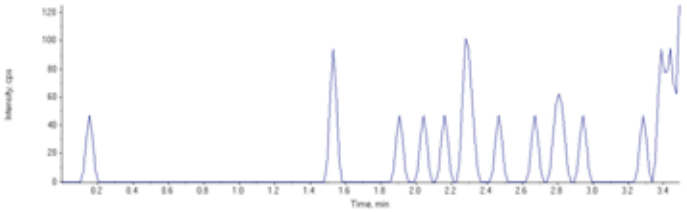
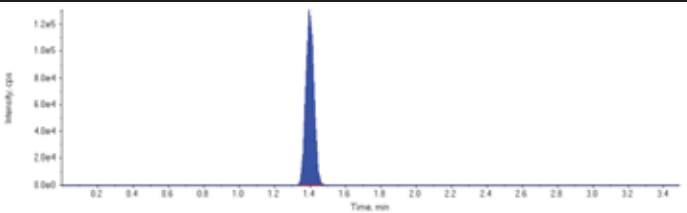
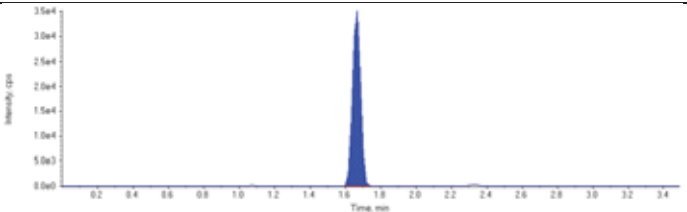
<p>13C9-PFDA IS (Internal Standard)</p> <p>RT (Exp. RT): 2.10(2.09) min</p> <p>Concentration: 41.7 ug/L</p> <p>Sample Type: (Unknown)</p>	
<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min</p> <p>Concentration: N/A N/A</p> <p>Sample Type: (Unknown)</p>	<p>This image is not available</p>
<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min</p> <p>Concentration: N/A N/A</p> <p>Sample Type: (Unknown)</p>	<p>This image is not available</p>

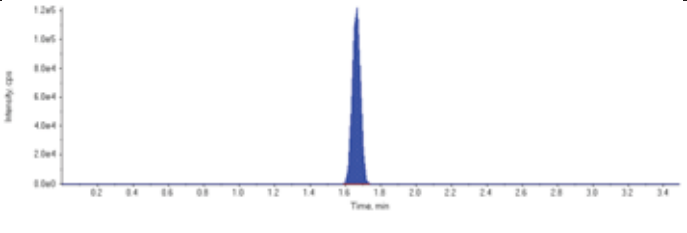
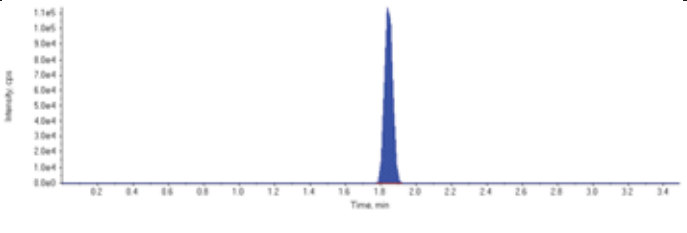
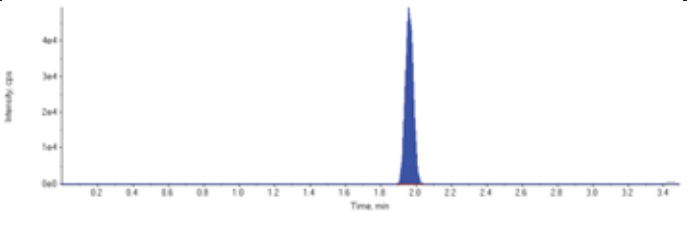
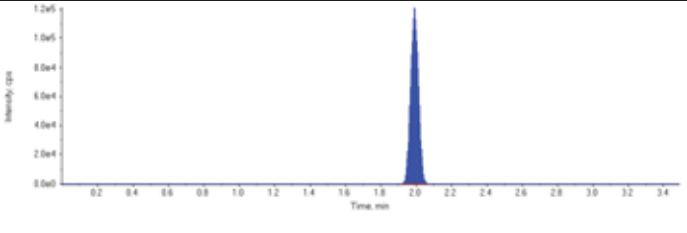
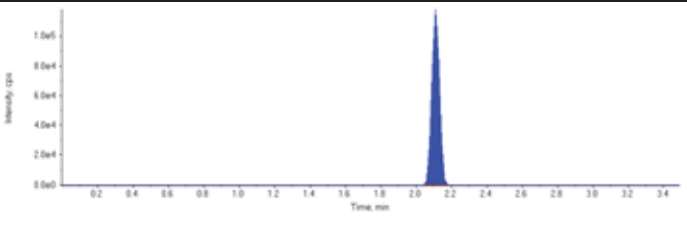
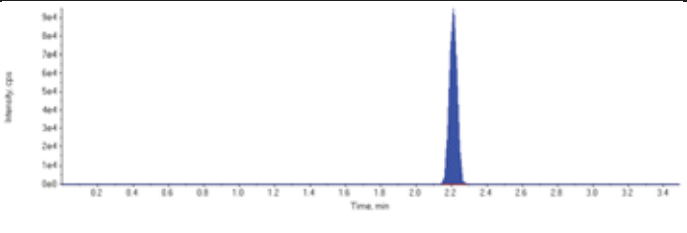
<p>PFBS 1 (298.900/79.900 Da)</p> <p>RT (Exp. RT): 0.00 (1.09) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFBS 2 (298.900/98.900 Da)</p> <p>RT (Exp. RT): 1.11 (1.09) min</p> <p>Calculated Conc: 0.00417 µg/L</p> <p>Area Ratio: 0.00450</p> <p>Sample Type: (Unknown)</p>	
<p>PFHxA 1 (313.000/269.000 Da)</p> <p>RT (Exp. RT): 0.00 (1.40) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFHxA 2 (313.000/119.000 Da)</p> <p>RT (Exp. RT): 1.36 (1.41) min</p> <p>Calculated Conc: 0.00378 µg/L</p> <p>Area Ratio: 0.00189</p> <p>Sample Type: (Unknown)</p>	
<p>PFHxS 1 (398.900/79.900 Da)</p> <p>RT (Exp. RT): 0.00 (1.67) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFHxS 2 (398.900/98.900 Da)</p> <p>RT (Exp. RT): 1.43 (1.67) min</p> <p>Calculated Conc: 0.00355 µg/L</p> <p>Area Ratio: 0.00248</p> <p>Sample Type: (Unknown)</p>	

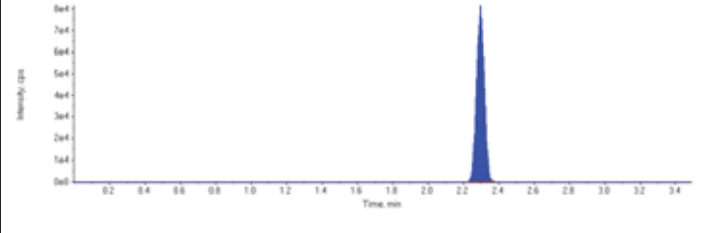
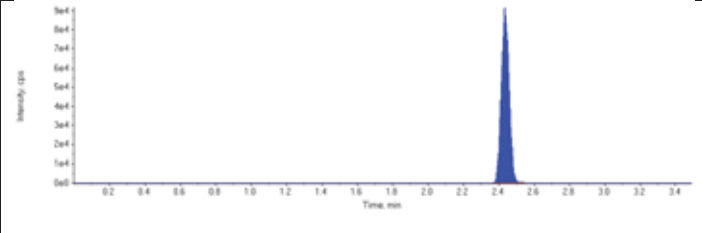
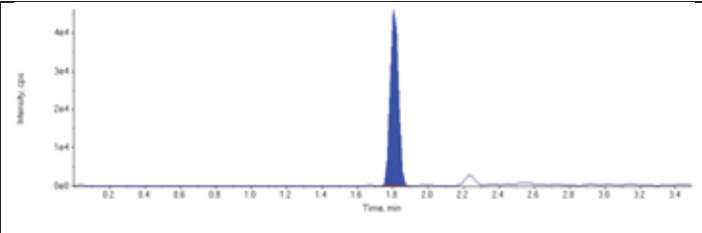
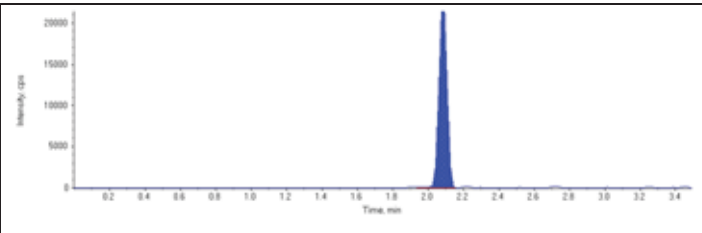
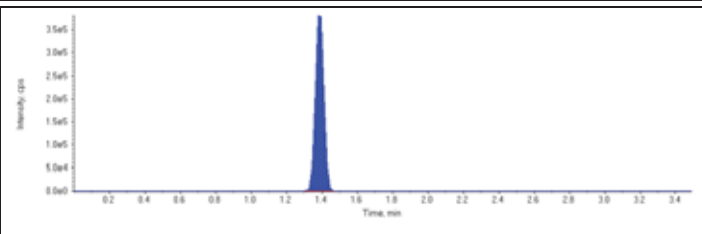
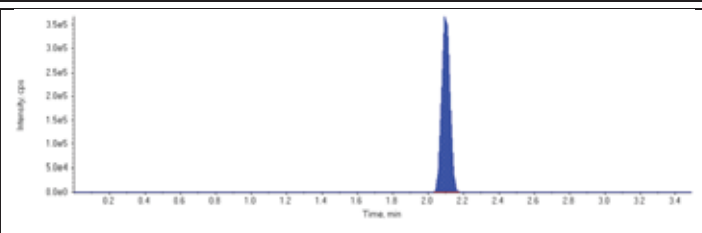
<p>PFHpA 1 (363.000/319.000 Da)</p> <p>RT (Exp. RT): 0.00 (1.67) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFHpA 2 (363.000/169.200 Da)</p> <p>RT (Exp. RT): 1.63 (1.67) min</p> <p>Calculated Conc: 0.00147 µg/L</p> <p>Area Ratio: 0.00177</p> <p>Sample Type: (Unknown)</p>	
<p>PFOA 1 (413.100/369.000 Da)</p> <p>RT (Exp. RT): 0.00 (1.85) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFOA 2 (413.100/169.000 Da)</p> <p>RT (Exp. RT): 1.85 (1.84) min</p> <p>Calculated Conc: 0.00596 µg/L</p> <p>Area Ratio: 0.00413</p> <p>Sample Type: (Unknown)</p>	
<p>PFOS 1 (498.900/79.900 Da)</p> <p>RT (Exp. RT): 0.00 (1.96) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFOS 2 (498.900/98.900 Da)</p> <p>RT (Exp. RT): 0.00 (1.96) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	

<p>PFNA 1 (462.900/419.000 Da)</p> <p>RT (Exp. RT): 0.00 (1.99) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFNA 2 (462.900/219.100 Da)</p> <p>RT (Exp. RT): 0.00 (1.99) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFDA 1 (513.000/469.100 Da)</p> <p>RT (Exp. RT): 0.00 (2.18) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFDA 2 (513.000/218.900 Da)</p> <p>RT (Exp. RT): 2.11 (2.11) min</p> <p>Calculated Conc: 0.00251 µg/L</p> <p>Area Ratio: 0.000961</p> <p>Sample Type: (Unknown)</p>	
<p>PFUnA 1 (562.900/519.000 Da)</p> <p>RT (Exp. RT): 0.00 (2.21) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFUnA 2 (562.900/269.200 Da)</p> <p>RT (Exp. RT): 0.00 (2.27) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	

<p>PFD_oA 1 (612.900/569.000 Da)</p> <p>RT (Exp. RT): 0.00 (2.36) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFD_oA 2 (612.900/319.000 Da)</p> <p>RT (Exp. RT): 0.00 (2.35) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFT_rDA 1 (663.000/619.000 Da)</p> <p>RT (Exp. RT): 0.00 (2.42) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFT_rDA 2 (663.000/318.900 Da)</p> <p>RT (Exp. RT): 2.25 (2.37) min</p> <p>Calculated Conc: 0.00203 µg/L</p> <p>Area Ratio: 0.00277</p> <p>Sample Type: (Unknown)</p>	
<p>PFT_eDA 1 (713.000/669.000 Da)</p> <p>RT (Exp. RT): 0.00 (2.49) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFT_eDA 2 (713.000/319.200 Da)</p> <p>RT (Exp. RT): 0.00 (2.49) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	

<p>6:2-FTS 1 (427.000/407.000 Da)</p> <p>RT (Exp. RT): 0.00 (1.90) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>6:2-FTS 2 (427.000/80.900 Da)</p> <p>RT (Exp. RT): 0.00 (1.80) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>8:2-FTS 1 (526.900/507.000 Da)</p> <p>RT (Exp. RT): 0.00 (2.16) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>8:2-FTS 2 (526.900/80.900 Da)</p> <p>RT (Exp. RT): 0.00 (2.09) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>13C2-PFHxA (314.900/270.000 Da)</p> <p>RT (Exp. RT): 1.40 (1.40) min</p> <p>Calculated Conc: 98.6 µg/L</p> <p>Area Ratio: 0.317</p> <p>Sample Type: (Unknown)</p>	
<p>18O2-PFHxS (402.900/84.000 Da)</p> <p>RT (Exp. RT): 1.66 (1.77) min</p> <p>Calculated Conc: 98.8 µg/L</p> <p>Area Ratio: 0.0852</p> <p>Sample Type: (Unknown)</p>	

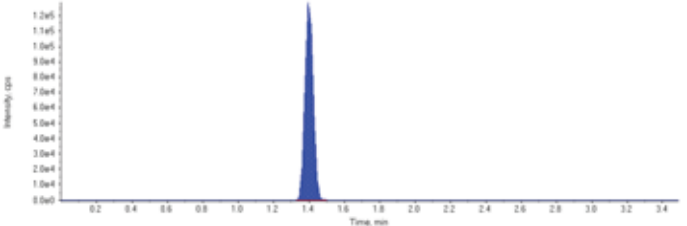
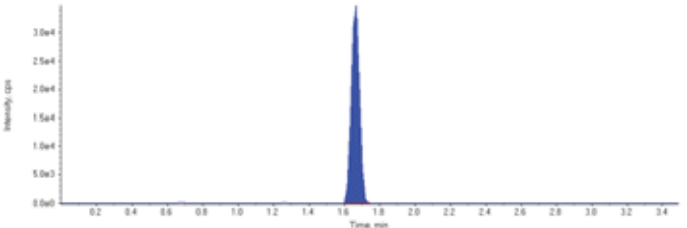
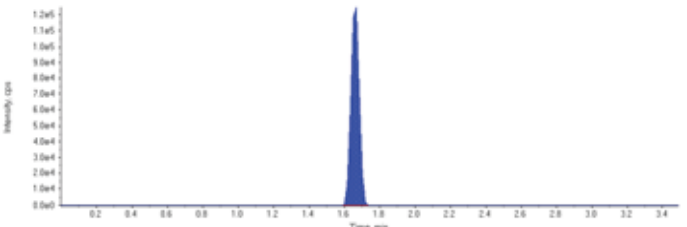
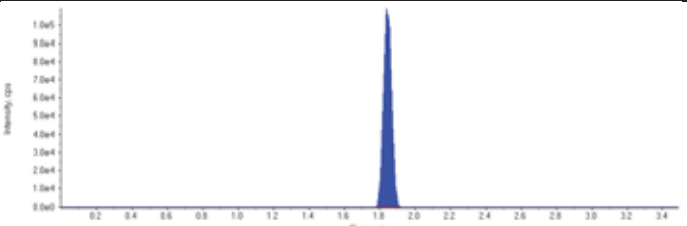
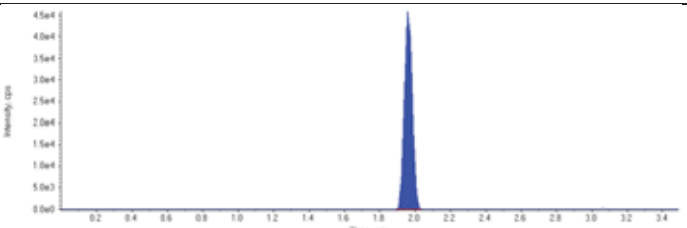
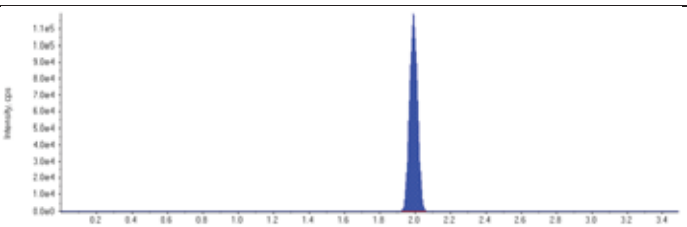
<p>13C4-PFHpa (366.900/322.000 Da)</p> <p>RT (Exp. RT): 1.66 (1.67) min</p> <p>Calculated Conc: 91.9 µg/L</p> <p>Area Ratio: 0.304</p> <p>Sample Type: (Unknown)</p>	
<p>13C4-PFOA (416.900/372.000 Da)</p> <p>RT (Exp. RT): 1.84 (1.84) min</p> <p>Calculated Conc: 102. µg/L</p> <p>Area Ratio: 0.280</p> <p>Sample Type: (Unknown)</p>	
<p>13C4-PFOS (502.900/79.900 Da)</p> <p>RT (Exp. RT): 1.96 (2.05) min</p> <p>Calculated Conc: 92.4 µg/L</p> <p>Area Ratio: 0.117</p> <p>Sample Type: (Unknown)</p>	
<p>13C5-PFNA (467.900/423.000 Da)</p> <p>RT (Exp. RT): 1.99 (1.99) min</p> <p>Calculated Conc: 94.4 µg/L</p> <p>Area Ratio: 0.277</p> <p>Sample Type: (Unknown)</p>	
<p>13C2-PFDA (514.900/470.000 Da)</p> <p>RT (Exp. RT): 2.11 (2.11) min</p> <p>Calculated Conc: 94.9 µg/L</p> <p>Area Ratio: 0.294</p> <p>Sample Type: (Unknown)</p>	
<p>13C2-PFUnA (564.900/520.000 Da)</p> <p>RT (Exp. RT): 2.21 (2.27) min</p> <p>Calculated Conc: 103. µg/L</p> <p>Area Ratio: 0.238</p> <p>Sample Type: (Unknown)</p>	

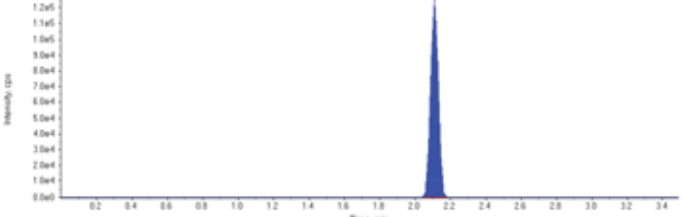
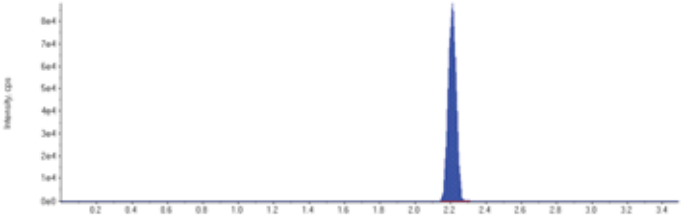
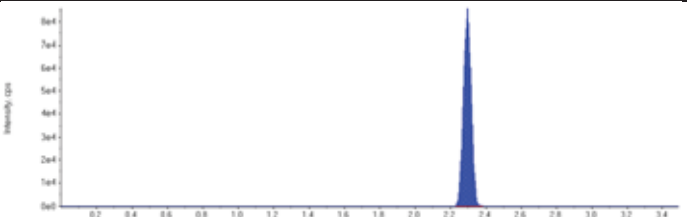
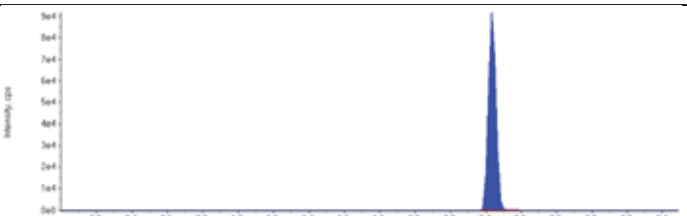
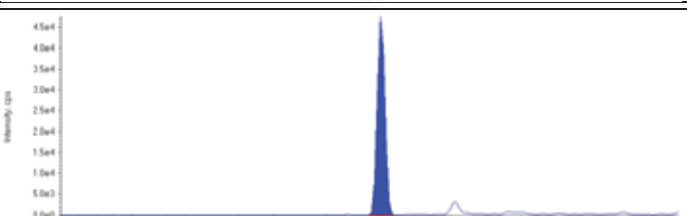
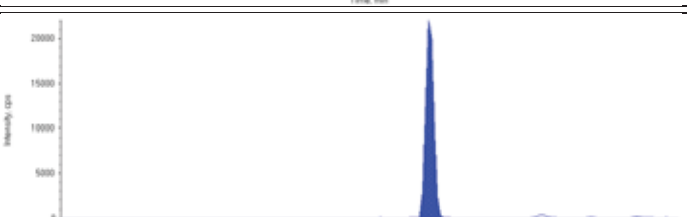
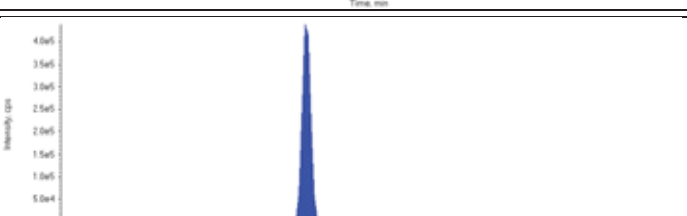
13C2-PFDoA (614.900/570.000 Da) RT (Exp. RT): 2.30 (2.35) min Calculated Conc: 93.3 µg/L Area Ratio: 0.208 Sample Type: (Unknown)	
13C2-PFTeDA (714.900/669.900 Da) RT (Exp. RT): 2.44 (2.49) min Calculated Conc: 95.3 µg/L Area Ratio: 0.232 Sample Type: (Unknown)	
13C2-6:2-FTS (429.000/80.900 Da) RT (Exp. RT): 1.81 (1.80) min Calculated Conc: 92.9 µg/L Area Ratio: 0.111 Sample Type: (Unknown)	
13C2-8:2 FTS (528.900/80.900 Da) RT (Exp. RT): 2.08 (2.08) min Calculated Conc: 81.8 µg/L Area Ratio: 0.0545 Sample Type: (Unknown)	
13C6-PFHxA (318.900/274.000 Da) RT (Exp. RT): 1.39 (1.40) min Calculated Conc: 2.48 µg/L Area Ratio: 0.00 Sample Type: (Unknown)	
13C9-PFDA (521.900/477.100 Da) RT (Exp. RT): 2.10 (2.09) min Calculated Conc: 2.41 µg/L Area Ratio: 0.00 Sample Type: (Unknown)	

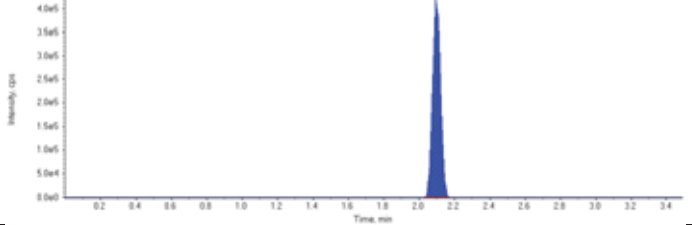
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Sample Type	Unknown	Injection Vial	8
Acquisition Date	2017/05/23 4:56:56 PM	Dilution Factor	0.0240
Acquisition Method	PFC_Water_Low.dam	Instrument Name	LCMS03
Project	Enviro\PFOS	Algorithm Used	Analyst Classic
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Result Table	PFC_Water_170523_4988945_CTLabs.rdb		
Samples Annotation	-		

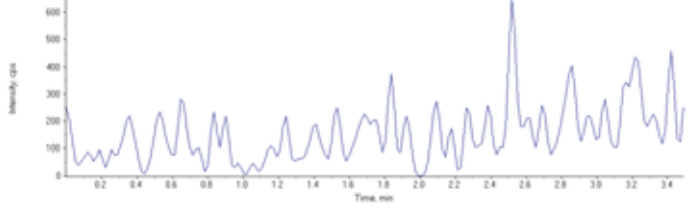
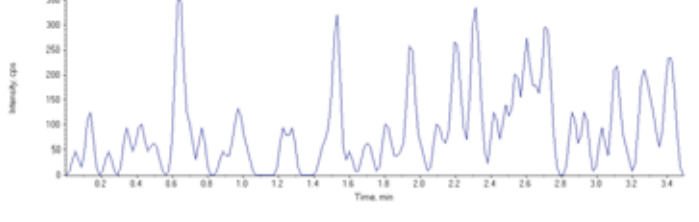
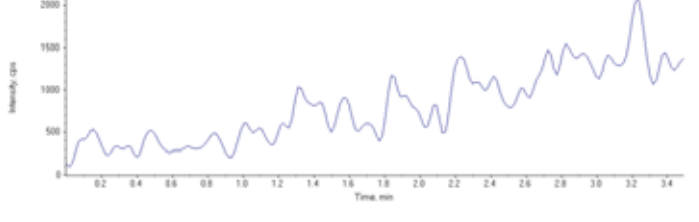
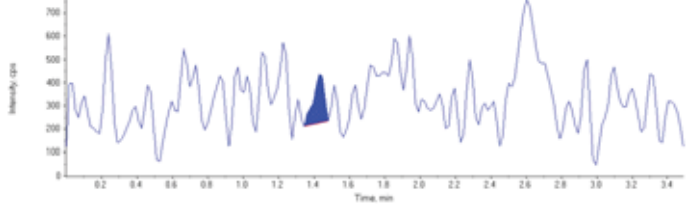
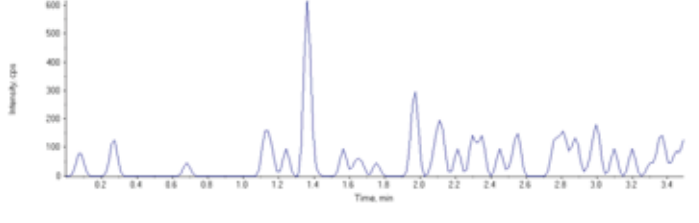
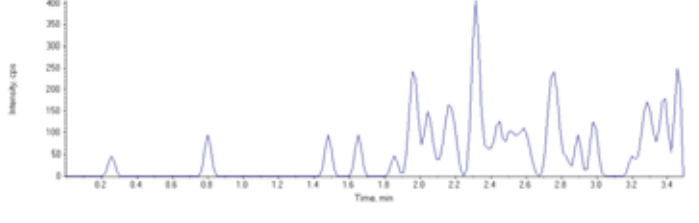
Internal Standard	Area (cps)	RT (min)	Target Conc. (ug/L)	Calc. Conc. (ug/L)
MPFHxA	420000.	1.40	1.00	-
MPFHxS	113000.	1.66	1.00	-
MPFHpA	417000.	1.66	1.00	-
MPFOA	356000.	1.84	1.00	-
MPFOS	145000.	1.96	1.00	-
MPFNA	364000.	1.99	1.00	-
MPFDA	375000.	2.11	1.00	-
MPFUnA	270000.	2.21	1.00	-
MPFDoA	262000.	2.30	1.00	-
MPFTeDA	277000.	2.44	1.00	-
M2 6:2 FTS	147000.	1.81	1.00	-
M2 8:2 FTS	71600.	2.08	1.00	-
13C6-PFHxA IS	1480000.	1.39	41.7	-
13C9-PFDA IS	1340000.	2.10	41.7	-
N/A	N/A	N/A	N/A	-
N/A	N/A	N/A	N/A	-

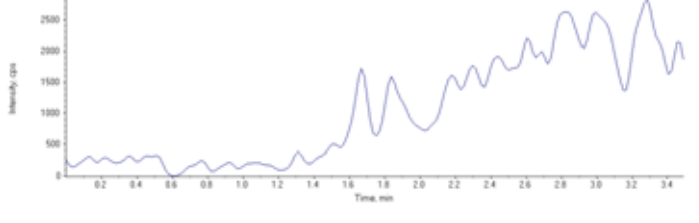
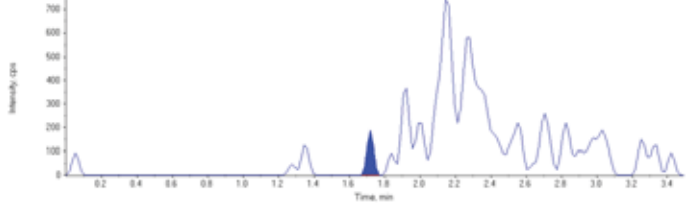
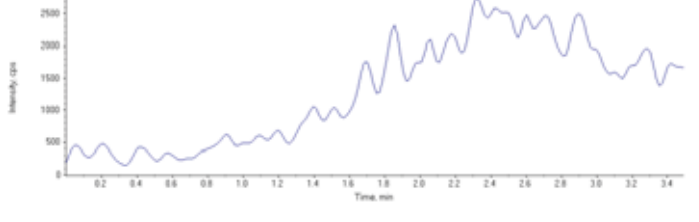
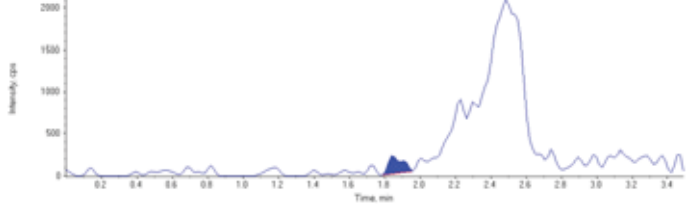
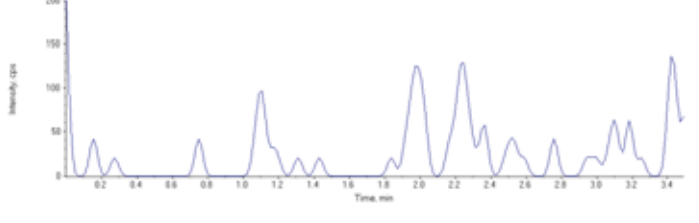
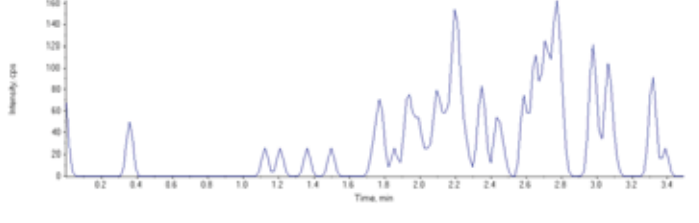
Target Analyte	Area (cps)	RT (min)	Target Conc. (ug/L)	Calc. Conc. (ug/L)	Accuracy (%)
PFBS 1	0	0.00	N/A	N/A	N/A
PFBS 2	0	0.00	N/A	N/A	N/A
PFHxA 1	0	0.00	N/A	N/A	N/A
PFHxA 2	905	1.44	N/A	0.00403	N/A
PFHxS 1	0	0.00	N/A	N/A	N/A
PFHxS 2	0	0.00	N/A	N/A	N/A
PFHpA 1	0	0.00	N/A	N/A	N/A
PFHpA 2	510	1.72	N/A	N/A	N/A
PFOA 1	0	0.00	N/A	N/A	N/A
PFOA 2	1230	1.84	N/A	0.00587	N/A
PFOS 1	0	0.00	N/A	N/A	N/A
PFOS 2	0	0.00	N/A	N/A	N/A
PFNA 1	0	0.00	N/A	N/A	N/A
PFNA 2	477	2.00	N/A	0.00185	N/A
PFDA 1	0	0.00	N/A	N/A	N/A
PFDA 2	1090	2.10	N/A	0.00309	N/A
PFUnA 1	0	0.00	N/A	N/A	N/A
PFUnA 2	0	0.00	N/A	N/A	N/A
PFDaA 1	0	0.00	N/A	N/A	N/A
PFDaA 2	0	0.00	N/A	N/A	N/A
PFTTrDA 1	0	0.00	N/A	N/A	N/A
PFTTrDA 2	379	2.37	N/A	0.00129	N/A
PFTeDA 1	0	0.00	N/A	N/A	N/A
PFTeDA 2	0	0.00	N/A	N/A	N/A
6:2-FTS 1	0	0.00	N/A	N/A	N/A
6:2-FTS 2	0	0.00	N/A	N/A	N/A
8:2-FTS 1	0	0.00	N/A	N/A	N/A
8:2-FTS 2	0	0.00	N/A	N/A	N/A
13C2-PFHxA	420000	1.40	N/A	88.5	N/A
18O2-PFHxS	113000	1.66	N/A	88.8	N/A
13C4-PFHpA	417000	1.66	N/A	85.5	N/A
13C4-PFOA	356000	1.84	N/A	87.6	N/A
13C4-PFOS	145000	1.96	N/A	77.3	N/A
13C5-PFNA	364000	1.99	N/A	84.2	N/A
13C2-PFDA	375000	2.11	N/A	90.4	N/A
13C2-PFUnA	270000	2.21	N/A	87.5	N/A
13C2-PFDaA	262000	2.30	N/A	88.0	N/A
13C2-PFTeDA	277000	2.44	N/A	84.9	N/A
13C2-6:2-FTS	147000	1.81	N/A	83.6	N/A
13C2-8:2 FTS	71600	2.08	N/A	72.9	N/A
13C6-PFHxA	1480000	1.39	N/A	2.77	N/A
13C9-PFDA	1340000	2.10	N/A	2.68	N/A

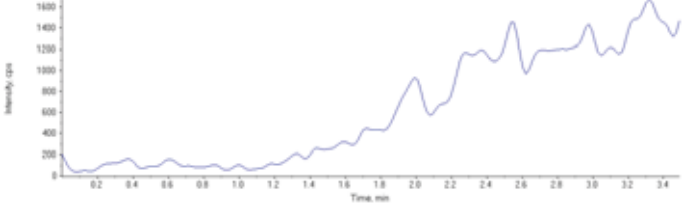
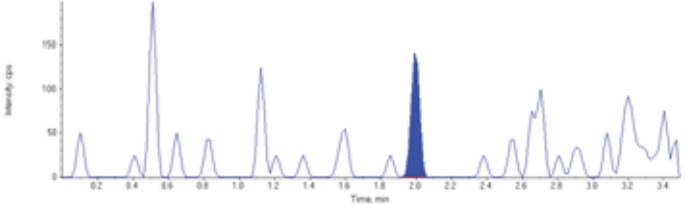
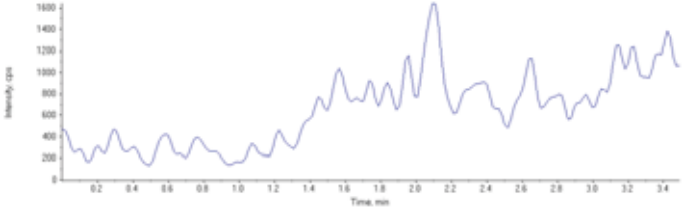
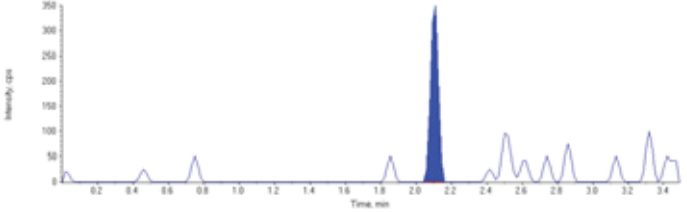
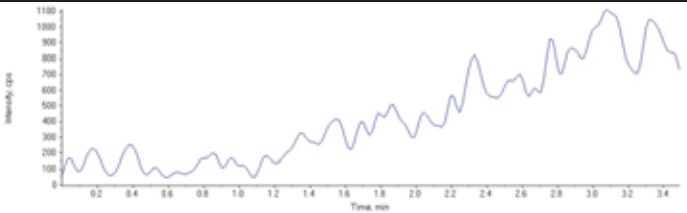
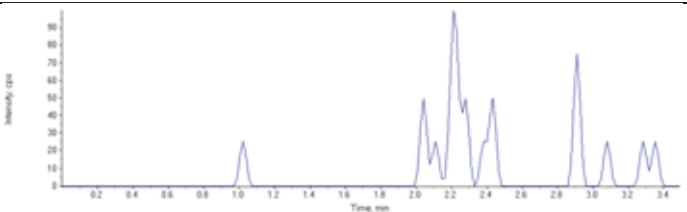
<p>MPFHxA (Internal Standard)</p> <p>RT (Exp. RT): 1.40(1.40) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Unknown)</p>	
<p>MPFHxS (Internal Standard)</p> <p>RT (Exp. RT): 1.66(1.77) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Unknown)</p>	
<p>MPFHpA (Internal Standard)</p> <p>RT (Exp. RT): 1.66(1.67) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Unknown)</p>	
<p>MPFOA (Internal Standard)</p> <p>RT (Exp. RT): 1.84(1.84) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Unknown)</p>	
<p>MPFOS (Internal Standard)</p> <p>RT (Exp. RT): 1.96(2.05) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Unknown)</p>	
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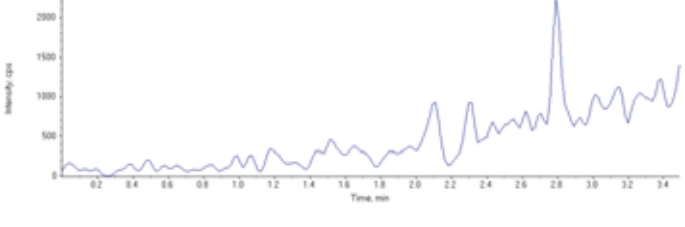
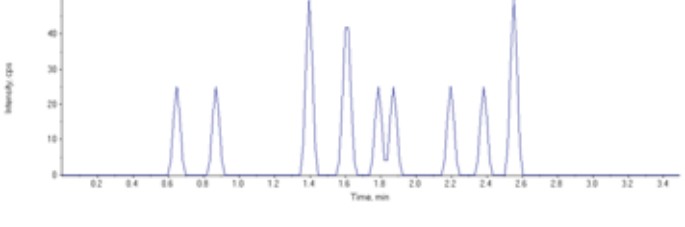
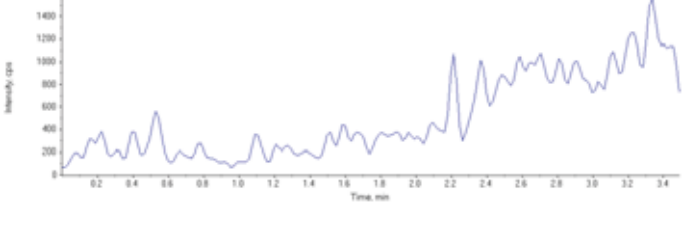
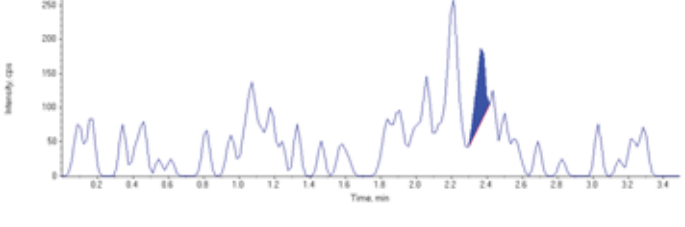
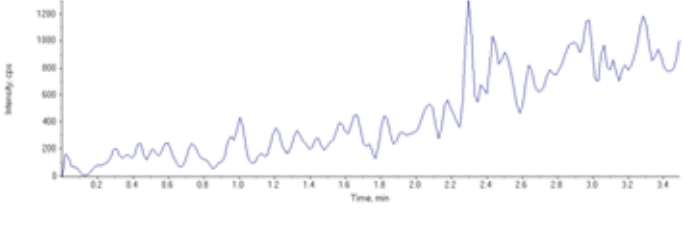
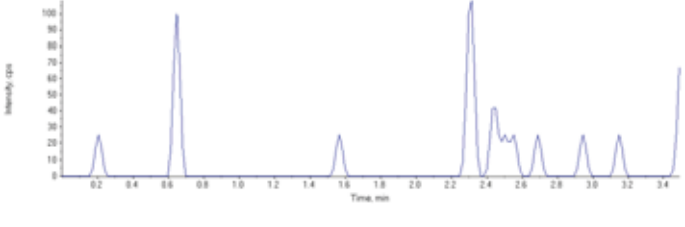
<p>MPFDA (Internal Standard)</p> <p>RT (Exp. RT): 2.11(2.18) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Unknown)</p>	
<p>MPFUnA (Internal Standard)</p> <p>RT (Exp. RT): 2.21(2.27) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Unknown)</p>	
<p>MPFDoA (Internal Standard)</p> <p>RT (Exp. RT): 2.30(2.35) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Unknown)</p>	
<p>MPFTeDA (Internal Standard)</p> <p>RT (Exp. RT): 2.44(2.49) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Unknown)</p>	
<p>M2 6:2 FTS (Internal Standard)</p> <p>RT (Exp. RT): 1.81(1.80) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Unknown)</p>	
<p>M2 8:2 FTS (Internal Standard)</p> <p>RT (Exp. RT): 2.08(2.08) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Unknown)</p>	
<p>13C6-PFHxA IS (Internal Standard)</p> <p>RT (Exp. RT): 1.39(1.40) min</p> <p>Concentration: 41.7 ug/L</p> <p>Sample Type: (Unknown)</p>	

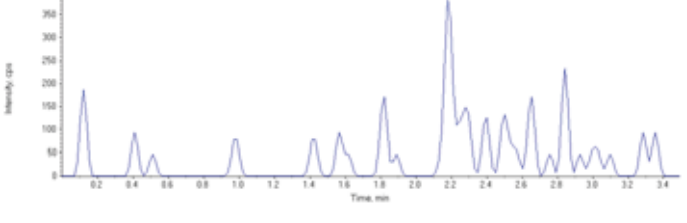
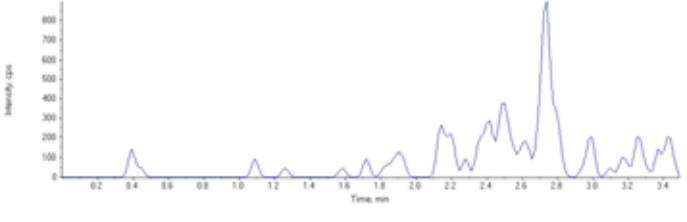
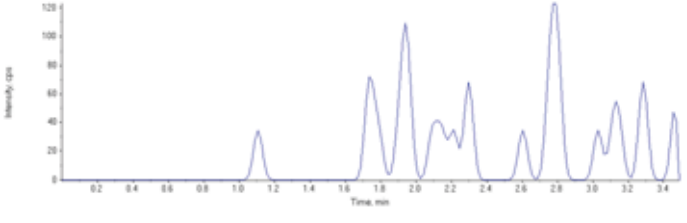
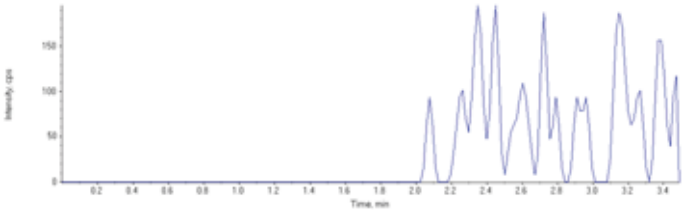
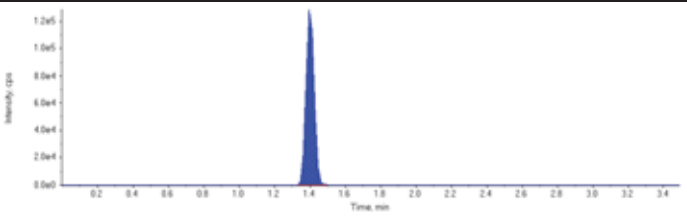
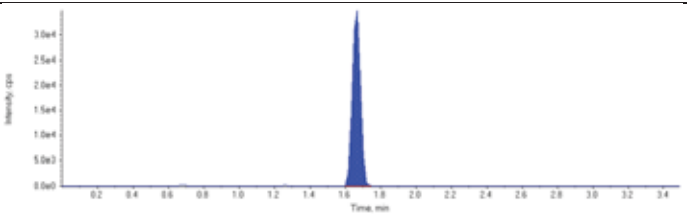
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<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min</p> <p>Concentration: N/A N/A</p> <p>Sample Type: (Unknown)</p>	<p>This image is not available</p>
<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min</p> <p>Concentration: N/A N/A</p> <p>Sample Type: (Unknown)</p>	<p>This image is not available</p>

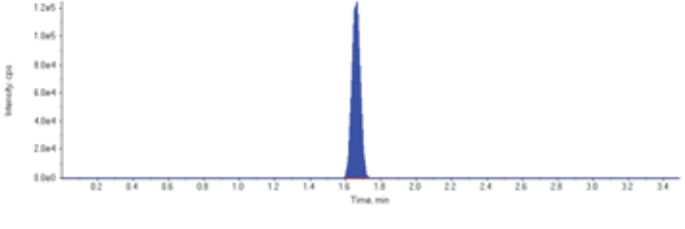
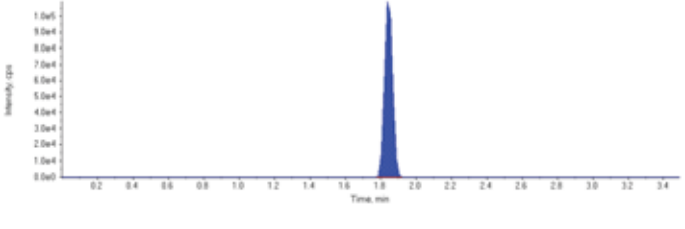
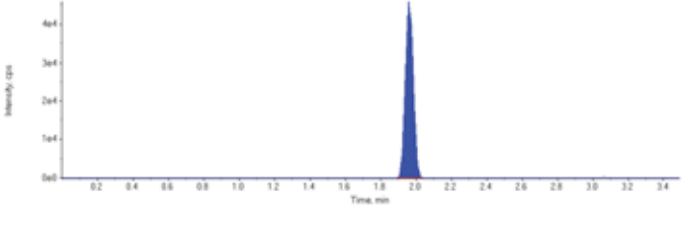
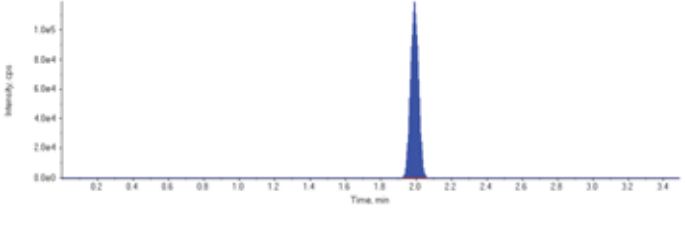
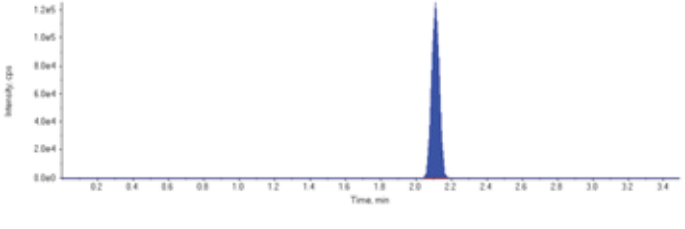
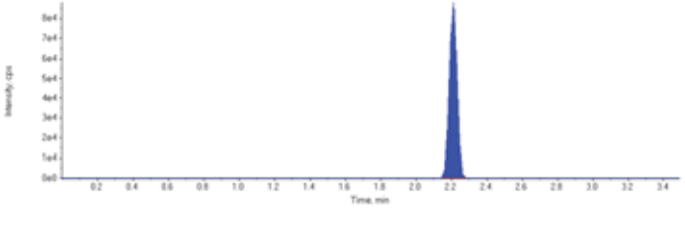
<p>PFBS 1 (298.900/79.900 Da)</p> <p>RT (Exp. RT): 0.00 (1.09) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFBS 2 (298.900/98.900 Da)</p> <p>RT (Exp. RT): 0.00 (1.09) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFHxA 1 (313.000/269.000 Da)</p> <p>RT (Exp. RT): 0.00 (1.40) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFHxA 2 (313.000/119.000 Da)</p> <p>RT (Exp. RT): 1.44 (1.41) min</p> <p>Calculated Conc: 0.00403 µg/L</p> <p>Area Ratio: 0.00216</p> <p>Sample Type: (Unknown)</p>	
<p>PFHxS 1 (398.900/79.900 Da)</p> <p>RT (Exp. RT): 0.00 (1.67) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFHxS 2 (398.900/98.900 Da)</p> <p>RT (Exp. RT): 0.00 (1.67) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	

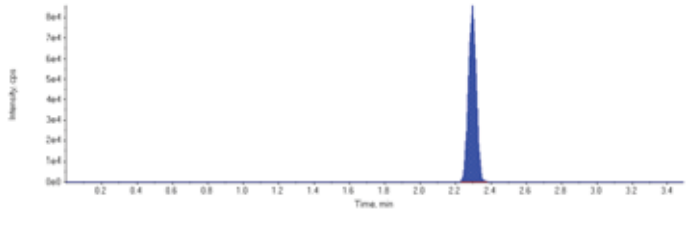
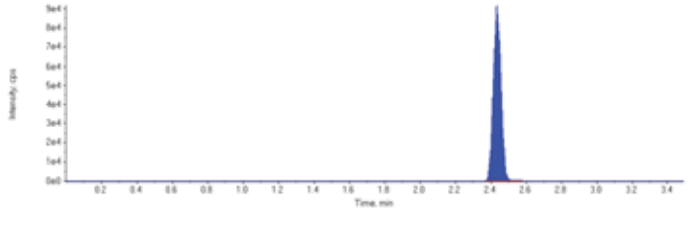
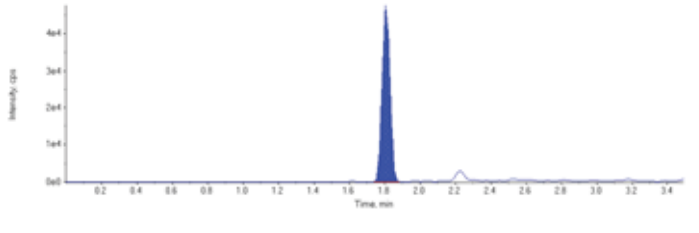
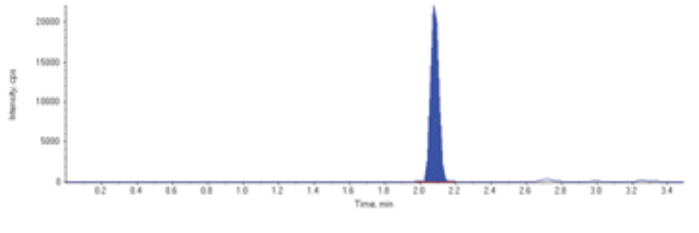
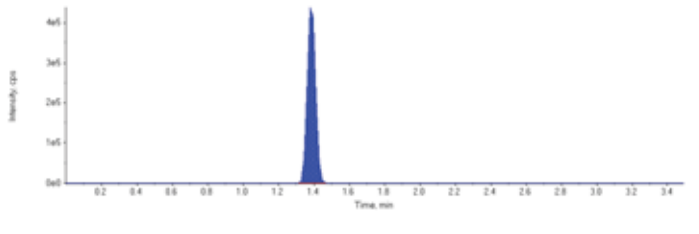
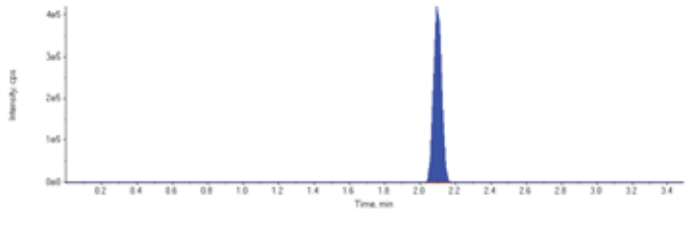
<p>PFHpA 1 (363.000/319.000 Da)</p> <p>RT (Exp. RT): 0.00 (1.67) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFHpA 2 (363.000/169.200 Da)</p> <p>RT (Exp. RT): 1.72 (1.67) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00122</p> <p>Sample Type: (Unknown)</p>	
<p>PFOA 1 (413.100/369.000 Da)</p> <p>RT (Exp. RT): 0.00 (1.85) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFOA 2 (413.100/169.000 Da)</p> <p>RT (Exp. RT): 1.84 (1.84) min</p> <p>Calculated Conc: 0.00587 µg/L</p> <p>Area Ratio: 0.00346</p> <p>Sample Type: (Unknown)</p>	
<p>PFOS 1 (498.900/79.900 Da)</p> <p>RT (Exp. RT): 0.00 (1.96) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFOS 2 (498.900/98.900 Da)</p> <p>RT (Exp. RT): 0.00 (1.96) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	

<p>PFNA 1 (462.900/419.000 Da)</p> <p>RT (Exp. RT): 0.00 (1.99) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFNA 2 (462.900/219.100 Da)</p> <p>RT (Exp. RT): 2.00 (1.99) min</p> <p>Calculated Conc: 0.00185 µg/L</p> <p>Area Ratio: 0.00131</p> <p>Sample Type: (Unknown)</p>	
<p>PFDA 1 (513.000/469.100 Da)</p> <p>RT (Exp. RT): 0.00 (2.18) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFDA 2 (513.000/218.900 Da)</p> <p>RT (Exp. RT): 2.10 (2.11) min</p> <p>Calculated Conc: 0.00309 µg/L</p> <p>Area Ratio: 0.00291</p> <p>Sample Type: (Unknown)</p>	
<p>PFUnA 1 (562.900/519.000 Da)</p> <p>RT (Exp. RT): 0.00 (2.21) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFUnA 2 (562.900/269.200 Da)</p> <p>RT (Exp. RT): 0.00 (2.27) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	

<p>PFD_oA 1 (612.900/569.000 Da)</p> <p>RT (Exp. RT): 0.00 (2.36) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFD_oA 2 (612.900/319.000 Da)</p> <p>RT (Exp. RT): 0.00 (2.35) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFT_rDA 1 (663.000/619.000 Da)</p> <p>RT (Exp. RT): 0.00 (2.42) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFT_rDA 2 (663.000/318.900 Da)</p> <p>RT (Exp. RT): 2.37 (2.37) min</p> <p>Calculated Conc: 0.00129 µg/L</p> <p>Area Ratio: 0.00137</p> <p>Sample Type: (Unknown)</p>	
<p>PFT_eDA 1 (713.000/669.000 Da)</p> <p>RT (Exp. RT): 0.00 (2.49) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFT_eDA 2 (713.000/319.200 Da)</p> <p>RT (Exp. RT): 0.00 (2.49) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	

<p>6:2-FTS 1 (427.000/407.000 Da)</p> <p>RT (Exp. RT): 0.00 (1.90) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>6:2-FTS 2 (427.000/80.900 Da)</p> <p>RT (Exp. RT): 0.00 (1.80) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>8:2-FTS 1 (526.900/507.000 Da)</p> <p>RT (Exp. RT): 0.00 (2.16) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>8:2-FTS 2 (526.900/80.900 Da)</p> <p>RT (Exp. RT): 0.00 (2.09) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>13C2-PFHxA (314.900/270.000 Da)</p> <p>RT (Exp. RT): 1.40 (1.40) min</p> <p>Calculated Conc: 88.5 µg/L</p> <p>Area Ratio: 0.285</p> <p>Sample Type: (Unknown)</p>	
<p>18O2-PFHxS (402.900/84.000 Da)</p> <p>RT (Exp. RT): 1.66 (1.77) min</p> <p>Calculated Conc: 88.8 µg/L</p> <p>Area Ratio: 0.0765</p> <p>Sample Type: (Unknown)</p>	

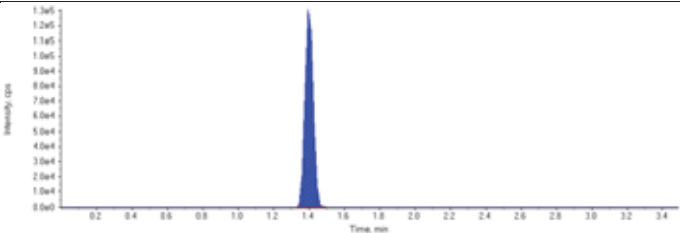
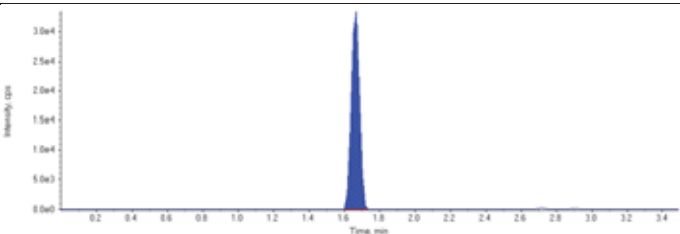
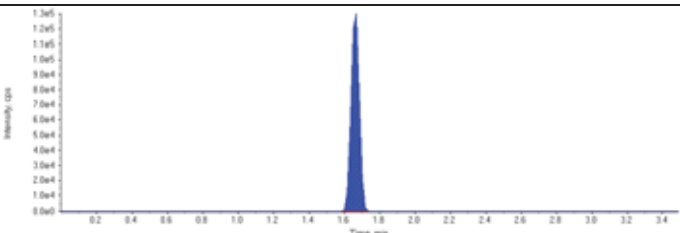
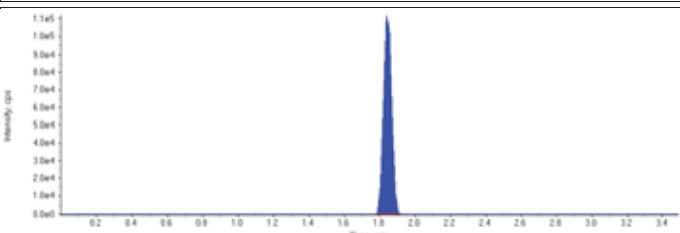
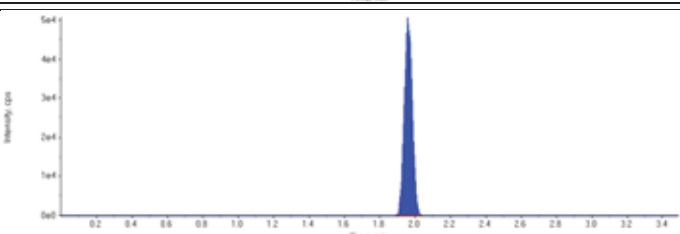
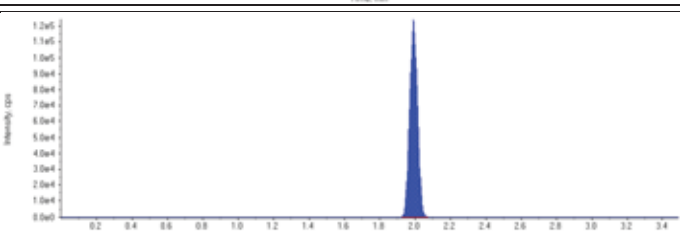
<p>13C4-PFHpa (366.900/322.000 Da)</p> <p>RT (Exp. RT): 1.66 (1.67) min</p> <p>Calculated Conc: 85.5 µg/L</p> <p>Area Ratio: 0.283</p> <p>Sample Type: (Unknown)</p>	
<p>13C4-PFOA (416.900/372.000 Da)</p> <p>RT (Exp. RT): 1.84 (1.84) min</p> <p>Calculated Conc: 87.6 µg/L</p> <p>Area Ratio: 0.241</p> <p>Sample Type: (Unknown)</p>	
<p>13C4-PFOS (502.900/79.900 Da)</p> <p>RT (Exp. RT): 1.96 (2.05) min</p> <p>Calculated Conc: 77.3 µg/L</p> <p>Area Ratio: 0.0980</p> <p>Sample Type: (Unknown)</p>	
<p>13C5-PFNA (467.900/423.000 Da)</p> <p>RT (Exp. RT): 1.99 (1.99) min</p> <p>Calculated Conc: 84.2 µg/L</p> <p>Area Ratio: 0.247</p> <p>Sample Type: (Unknown)</p>	
<p>13C2-PFDA (514.900/470.000 Da)</p> <p>RT (Exp. RT): 2.11 (2.11) min</p> <p>Calculated Conc: 90.4 µg/L</p> <p>Area Ratio: 0.280</p> <p>Sample Type: (Unknown)</p>	
<p>13C2-PFUnA (564.900/520.000 Da)</p> <p>RT (Exp. RT): 2.21 (2.27) min</p> <p>Calculated Conc: 87.5 µg/L</p> <p>Area Ratio: 0.201</p> <p>Sample Type: (Unknown)</p>	

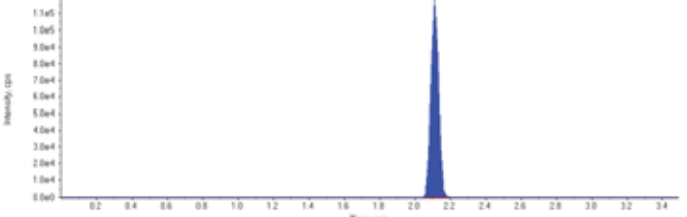
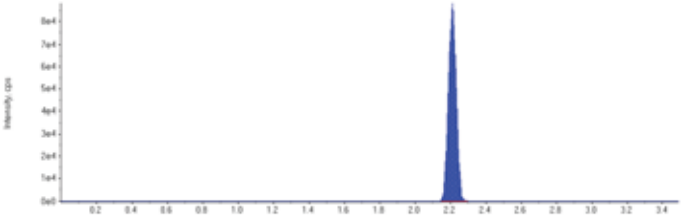
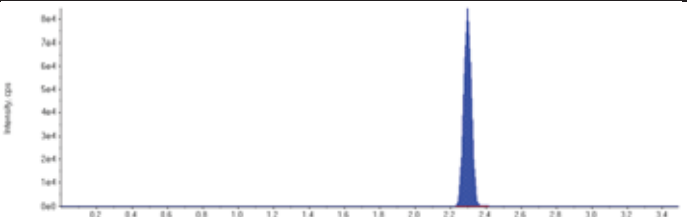
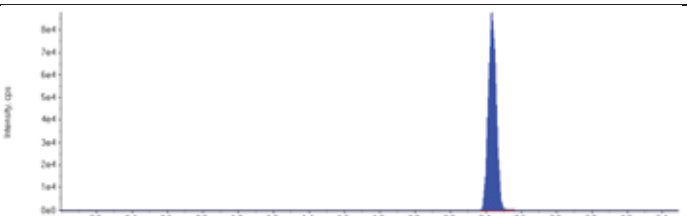
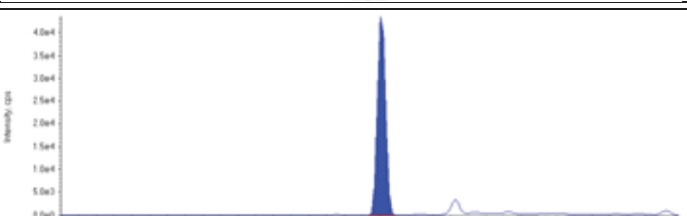
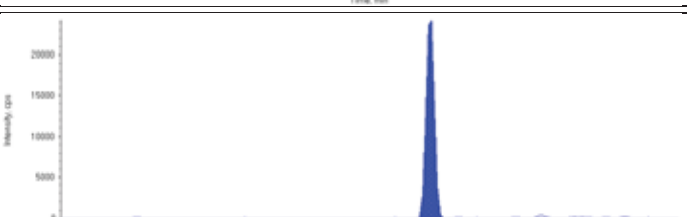
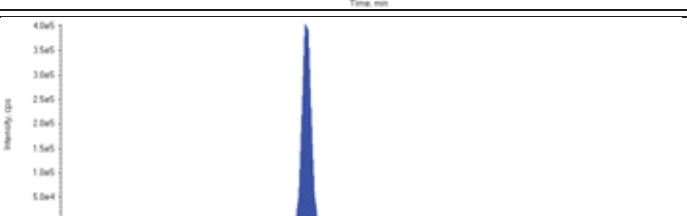
<p>13C2-PFDoA (614.900/570.000 Da)</p> <p>RT (Exp. RT): 2.30 (2.35) min</p> <p>Calculated Conc: 88.0 µg/L</p> <p>Area Ratio: 0.196</p> <p>Sample Type: (Unknown)</p>	
<p>13C2-PFTeDA (714.900/669.900 Da)</p> <p>RT (Exp. RT): 2.44 (2.49) min</p> <p>Calculated Conc: 84.9 µg/L</p> <p>Area Ratio: 0.207</p> <p>Sample Type: (Unknown)</p>	
<p>13C2-6:2-FTS (429.000/80.900 Da)</p> <p>RT (Exp. RT): 1.81 (1.80) min</p> <p>Calculated Conc: 83.6 µg/L</p> <p>Area Ratio: 0.0998</p> <p>Sample Type: (Unknown)</p>	
<p>13C2-8:2 FTS (528.900/80.900 Da)</p> <p>RT (Exp. RT): 2.08 (2.08) min</p> <p>Calculated Conc: 72.9 µg/L</p> <p>Area Ratio: 0.0485</p> <p>Sample Type: (Unknown)</p>	
<p>13C6-PFHxA (318.900/274.000 Da)</p> <p>RT (Exp. RT): 1.39 (1.40) min</p> <p>Calculated Conc: 2.77 µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>13C9-PFDA (521.900/477.100 Da)</p> <p>RT (Exp. RT): 2.10 (2.09) min</p> <p>Calculated Conc: 2.68 µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	

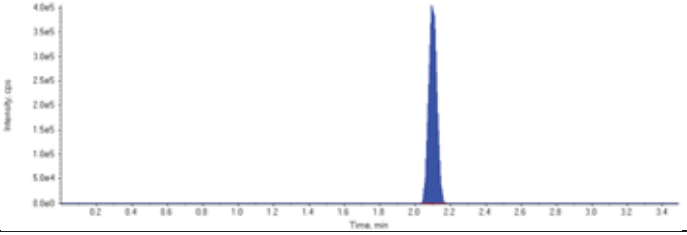
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Sample Type	Unknown	Injection Vial	8
Acquisition Date	2017/05/23 5:17:13 PM	Dilution Factor	0.0240
Acquisition Method	PFC_Water_Low.dam	Instrument Name	LCMS03
Project	Enviro\PFOS	Algorithm Used	Analyst Classic
Data File	PFC_170523\WS#4988945.wiff		
Result Table	PFC_Water_170523_4988945_CTLabs.rdb		
Samples Annotation	-		

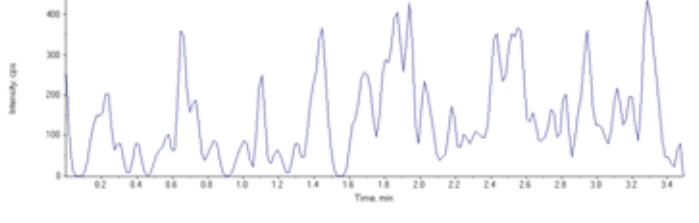
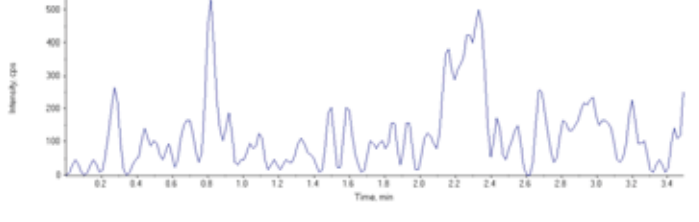
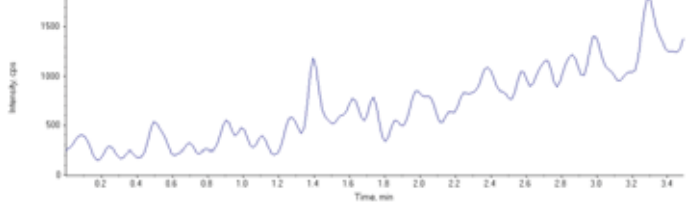
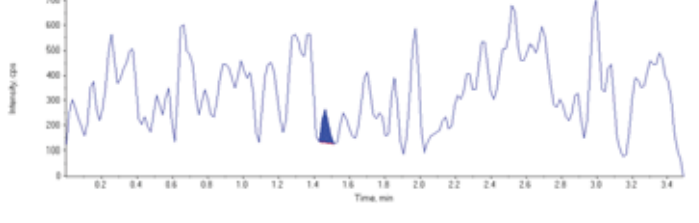
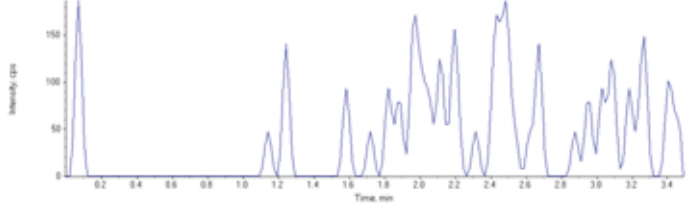
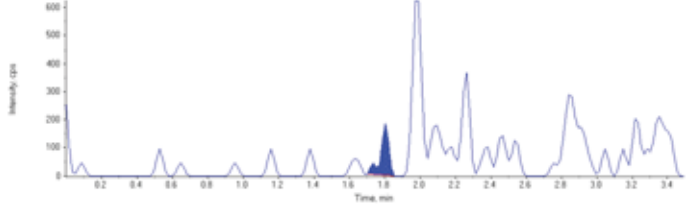
Internal Standard	Area (cps)	RT (min)	Target Conc. (ug/L)	Calc. Conc. (ug/L)
MPFHxA	426000.	1.40	1.00	-
MPFHxS	108000.	1.66	1.00	-
MPFHpA	432000.	1.66	1.00	-
MPFOA	365000.	1.84	1.00	-
MPFOS	160000.	1.96	1.00	-
MPFNA	376000.	1.99	1.00	-
MPFDA	357000.	2.11	1.00	-
MPFUnA	269000.	2.21	1.00	-
MPFDoA	257000.	2.30	1.00	-
MPFTeDA	268000.	2.44	1.00	-
M2 6:2 FTS	142000.	1.81	1.00	-
M2 8:2 FTS	81900.	2.09	1.00	-
13C6-PFHxA IS	1380000.	1.39	41.7	-
13C9-PFDA IS	1310000.	2.10	41.7	-
N/A	N/A	N/A	N/A	-
N/A	N/A	N/A	N/A	-

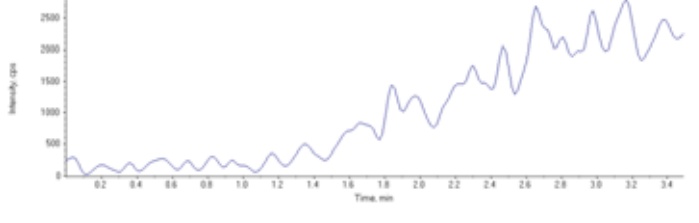
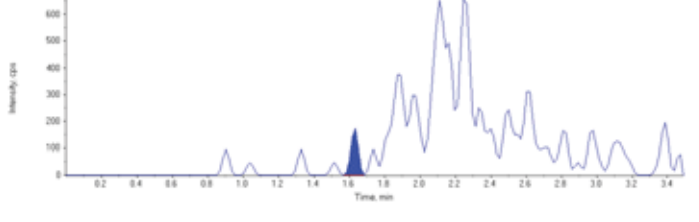
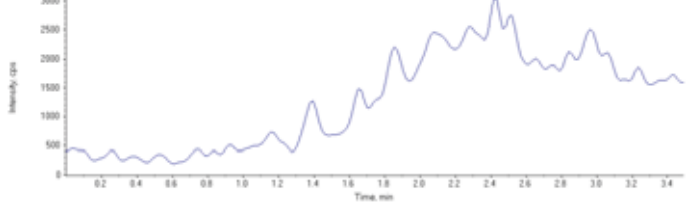
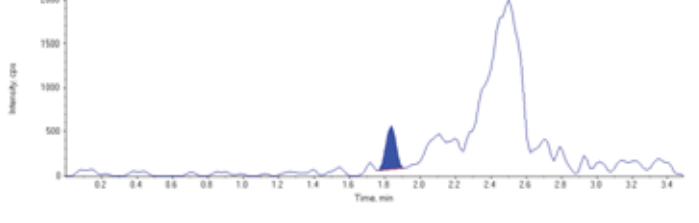
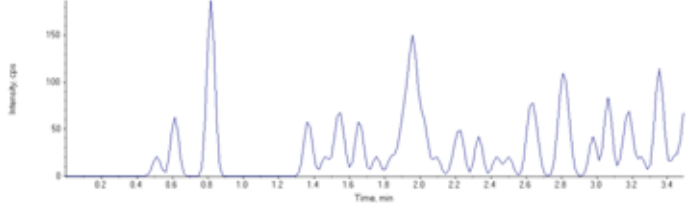
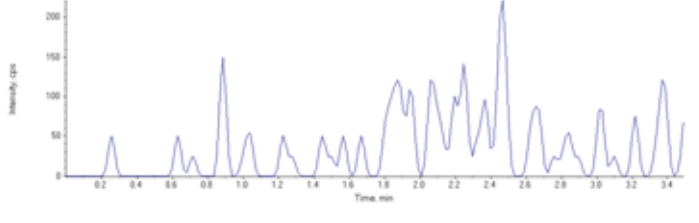
Target Analyte	Area (cps)	RT (min)	Target Conc. (ug/L)	Calc. Conc. (ug/L)	Accuracy (%)
PFBS 1	0	0.00	N/A	N/A	N/A
PFBS 2	0	0.00	N/A	N/A	N/A
PFHxA 1	0	0.00	N/A	N/A	N/A
PFHxA 2	351	1.46	N/A	0.00277	N/A
PFHxS 1	0	0.00	N/A	N/A	N/A
PFHxS 2	598	1.80	N/A	0.00384	N/A
PFHpA 1	0	0.00	N/A	N/A	N/A
PFHpA 2	511	1.63	N/A	N/A	N/A
PFOA 1	0	0.00	N/A	N/A	N/A
PFOA 2	1930	1.84	N/A	0.00611	N/A
PFOS 1	0	0.00	N/A	N/A	N/A
PFOS 2	0	0.00	N/A	N/A	N/A
PFNA 1	0	0.00	N/A	N/A	N/A
PFNA 2	0	0.00	N/A	N/A	N/A
PFDA 1	0	0.00	N/A	N/A	N/A
PFDA 2	740	2.11	N/A	0.00284	N/A
PFUnA 1	0	0.00	N/A	N/A	N/A
PFUnA 2	0	0.00	N/A	N/A	N/A
PFDaA 1	0	0.00	N/A	N/A	N/A
PFDaA 2	0	0.00	N/A	N/A	N/A
PFTTrDA 1	0	0.00	N/A	N/A	N/A
PFTTrDA 2	1020	2.41	N/A	0.00257	N/A
PFTeDA 1	0	0.00	N/A	N/A	N/A
PFTeDA 2	0	0.00	N/A	N/A	N/A
6:2-FTS 1	0	0.00	N/A	N/A	N/A
6:2-FTS 2	0	0.00	N/A	N/A	N/A
8:2-FTS 1	0	0.00	N/A	N/A	N/A
8:2-FTS 2	439	1.95	N/A	0.00560	N/A
13C2-PFHxA	426000	1.40	N/A	96.0	N/A
18O2-PFHxS	108000	1.66	N/A	91.0	N/A
13C4-PFHpA	432000	1.66	N/A	94.7	N/A
13C4-PFOA	365000	1.84	N/A	96.1	N/A
13C4-PFOS	160000	1.96	N/A	91.1	N/A
13C5-PFNA	376000	1.99	N/A	92.8	N/A
13C2-PFDA	357000	2.11	N/A	87.5	N/A
13C2-PFUnA	269000	2.21	N/A	89.1	N/A
13C2-PFDaA	257000	2.30	N/A	87.8	N/A
13C2-PFTeDA	268000	2.44	N/A	83.5	N/A
13C2-6:2-FTS	142000	1.81	N/A	85.9	N/A
13C2-8:2 FTS	81900	2.09	N/A	89.1	N/A
13C6-PFHxA	1380000	1.39	N/A	2.59	N/A
13C9-PFDA	1310000	2.10	N/A	2.64	N/A

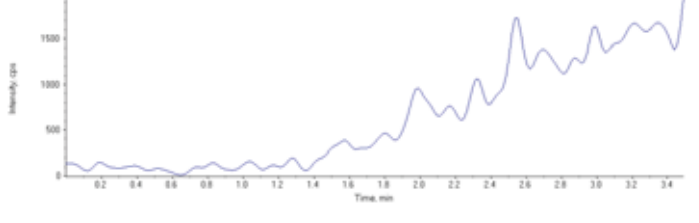
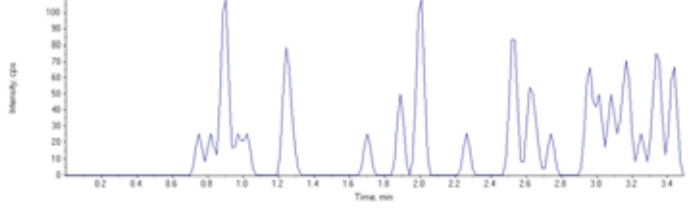
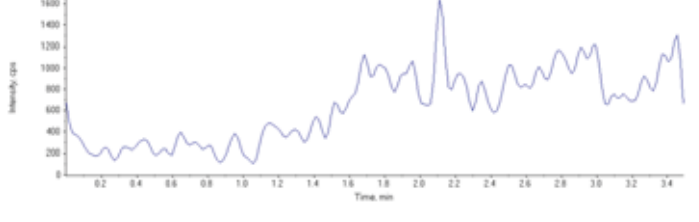
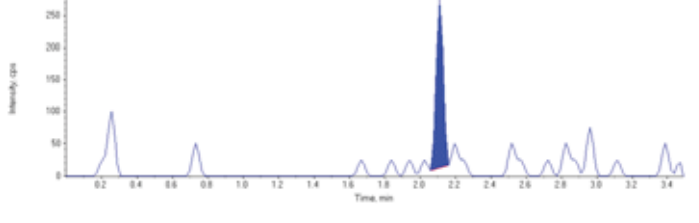
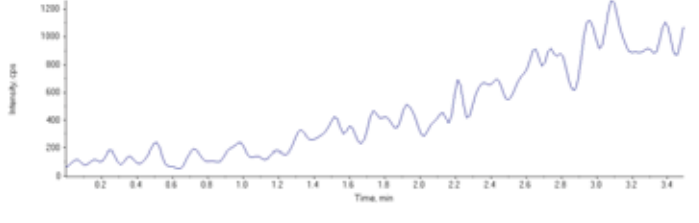
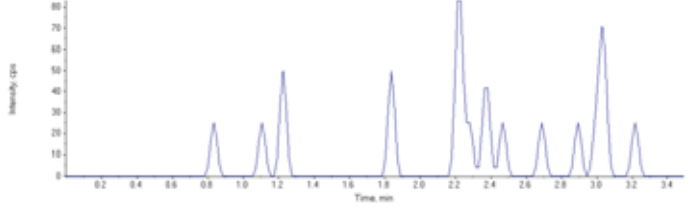
<p>MPFHxA (Internal Standard)</p> <p>RT (Exp. RT): 1.40(1.40) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Unknown)</p>	
<p>MPFHxS (Internal Standard)</p> <p>RT (Exp. RT): 1.66(1.77) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Unknown)</p>	
<p>MPFHpA (Internal Standard)</p> <p>RT (Exp. RT): 1.66(1.67) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Unknown)</p>	
<p>MPFOA (Internal Standard)</p> <p>RT (Exp. RT): 1.84(1.84) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Unknown)</p>	
<p>MPFOS (Internal Standard)</p> <p>RT (Exp. RT): 1.96(2.05) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Unknown)</p>	
<p>MPFNA (Internal Standard)</p> <p>RT (Exp. RT): 1.99(1.99) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Unknown)</p>	

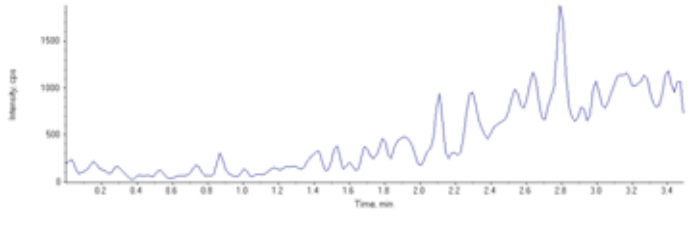
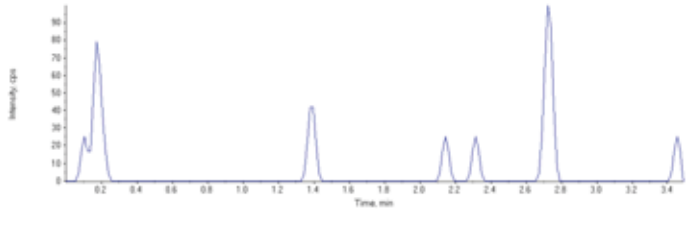
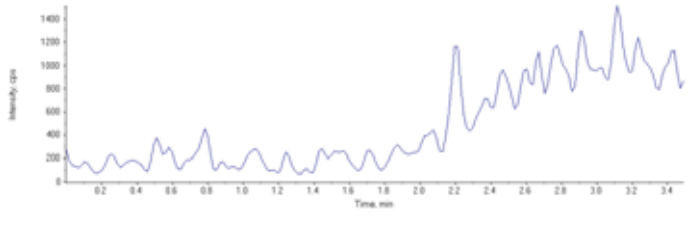
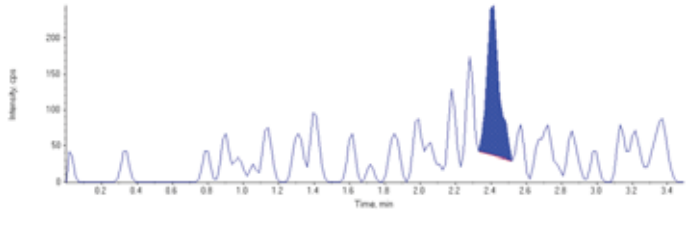
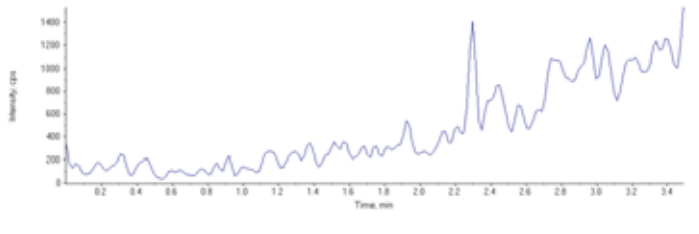
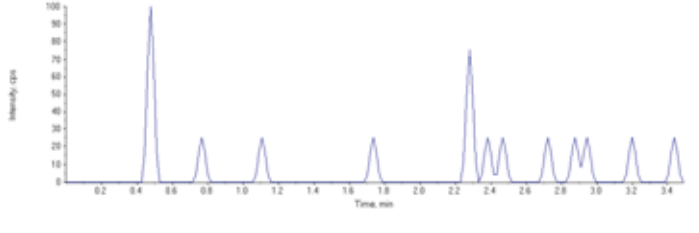
<p>MPFDA (Internal Standard)</p> <p>RT (Exp. RT): 2.11(2.18) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Unknown)</p>	
<p>MPFUnA (Internal Standard)</p> <p>RT (Exp. RT): 2.21(2.27) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Unknown)</p>	
<p>MPFDoA (Internal Standard)</p> <p>RT (Exp. RT): 2.30(2.35) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Unknown)</p>	
<p>MPFTeDA (Internal Standard)</p> <p>RT (Exp. RT): 2.44(2.49) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Unknown)</p>	
<p>M2 6:2 FTS (Internal Standard)</p> <p>RT (Exp. RT): 1.81(1.80) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Unknown)</p>	
<p>M2 8:2 FTS (Internal Standard)</p> <p>RT (Exp. RT): 2.09(2.08) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Unknown)</p>	
<p>13C6-PFHxA IS (Internal Standard)</p> <p>RT (Exp. RT): 1.39(1.40) min</p> <p>Concentration: 41.7 ug/L</p> <p>Sample Type: (Unknown)</p>	

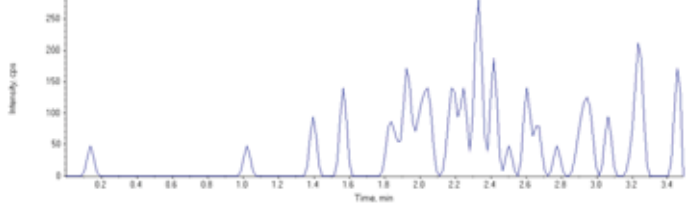
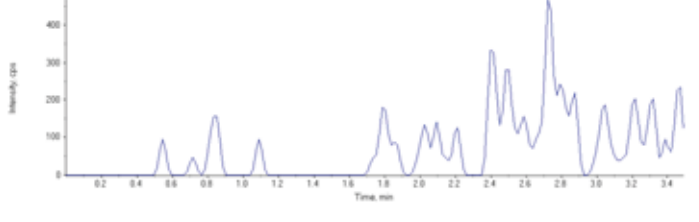
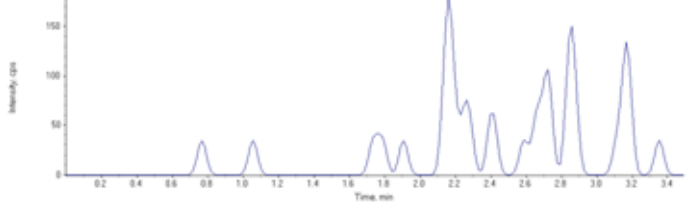
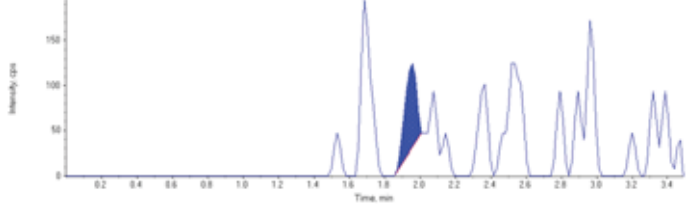
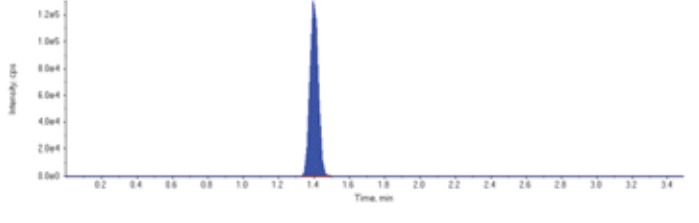
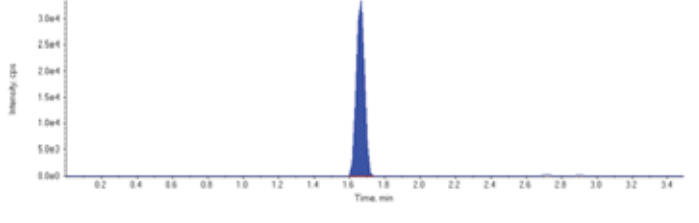
<p>13C9-PFDA IS (Internal Standard)</p> <p>RT (Exp. RT): 2.10(2.09) min</p> <p>Concentration: 41.7 ug/L</p> <p>Sample Type: (Unknown)</p>	
<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min</p> <p>Concentration: N/A N/A</p> <p>Sample Type: (Unknown)</p>	<p>This image is not available</p>
<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min</p> <p>Concentration: N/A N/A</p> <p>Sample Type: (Unknown)</p>	<p>This image is not available</p>

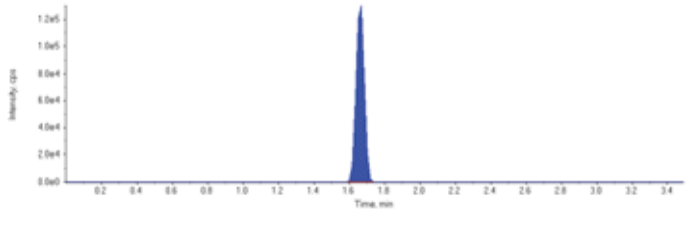
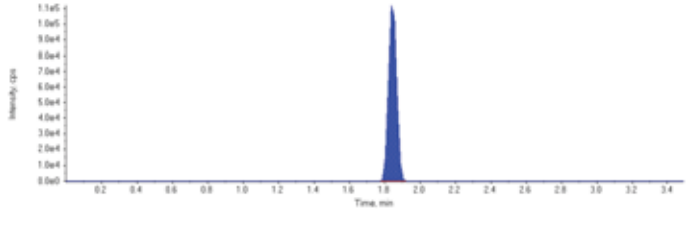
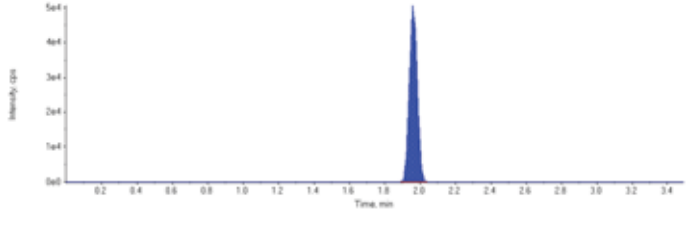
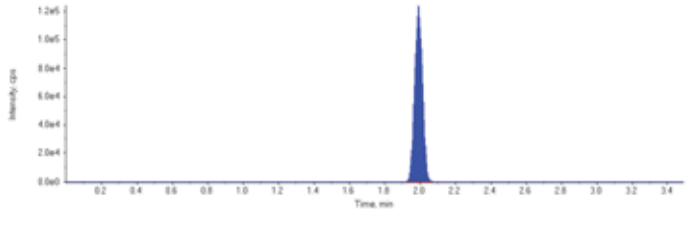
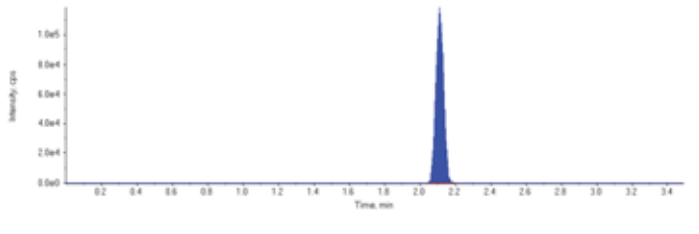
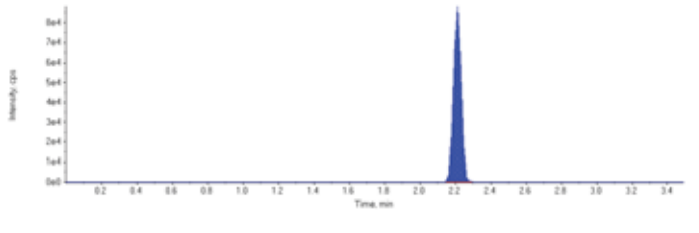
<p>PFBS 1 (298.900/79.900 Da)</p> <p>RT (Exp. RT): 0.00 (1.09) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFBS 2 (298.900/98.900 Da)</p> <p>RT (Exp. RT): 0.00 (1.09) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFHxA 1 (313.000/269.000 Da)</p> <p>RT (Exp. RT): 0.00 (1.40) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFHxA 2 (313.000/119.000 Da)</p> <p>RT (Exp. RT): 1.46 (1.41) min</p> <p>Calculated Conc: 0.00277 µg/L</p> <p>Area Ratio: 0.000823</p> <p>Sample Type: (Unknown)</p>	
<p>PFHxS 1 (398.900/79.900 Da)</p> <p>RT (Exp. RT): 0.00 (1.67) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFHxS 2 (398.900/98.900 Da)</p> <p>RT (Exp. RT): 1.80 (1.67) min</p> <p>Calculated Conc: 0.00384 µg/L</p> <p>Area Ratio: 0.00552</p> <p>Sample Type: (Unknown)</p>	

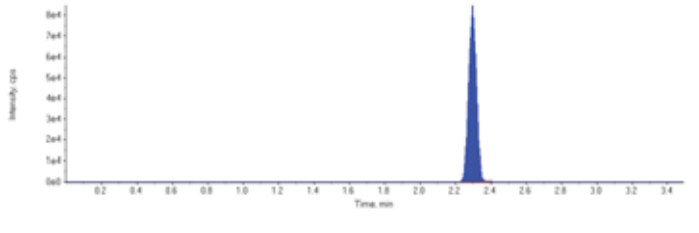
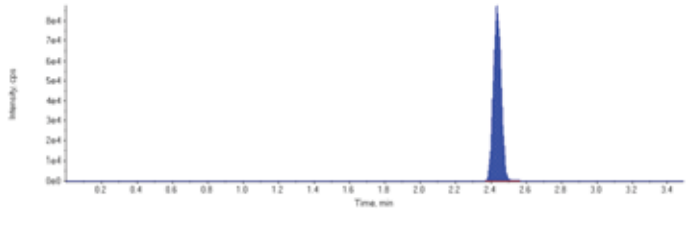
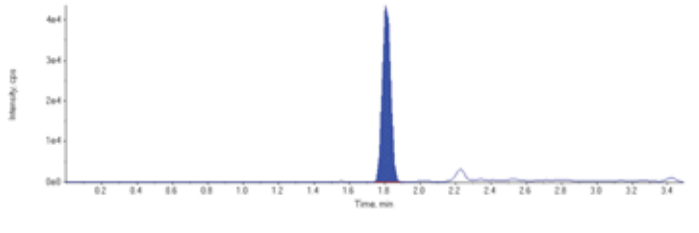
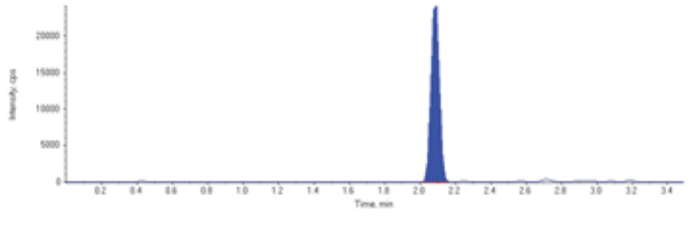
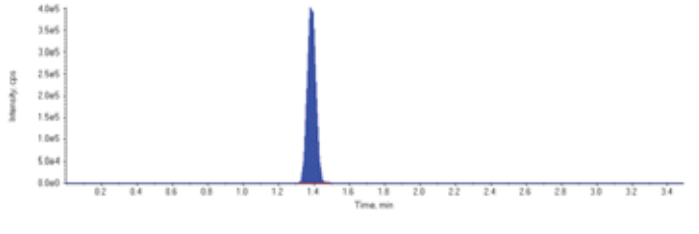
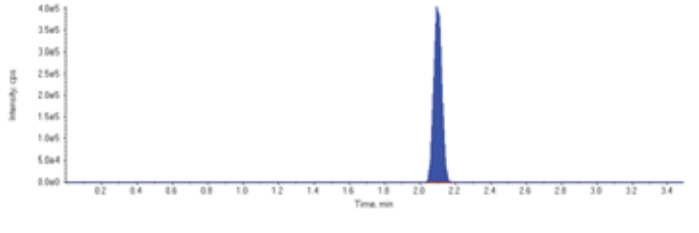
<p>PFHpA 1 (363.000/319.000 Da)</p> <p>RT (Exp. RT): 0.00 (1.67) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFHpA 2 (363.000/169.200 Da)</p> <p>RT (Exp. RT): 1.63 (1.67) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00118</p> <p>Sample Type: (Unknown)</p>	
<p>PFOA 1 (413.100/369.000 Da)</p> <p>RT (Exp. RT): 0.00 (1.85) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFOA 2 (413.100/169.000 Da)</p> <p>RT (Exp. RT): 1.84 (1.84) min</p> <p>Calculated Conc: 0.00611 µg/L</p> <p>Area Ratio: 0.00528</p> <p>Sample Type: (Unknown)</p>	
<p>PFOS 1 (498.900/79.900 Da)</p> <p>RT (Exp. RT): 0.00 (1.96) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFOS 2 (498.900/98.900 Da)</p> <p>RT (Exp. RT): 0.00 (1.96) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	

<p>PFNA 1 (462.900/419.000 Da)</p> <p>RT (Exp. RT): 0.00 (1.99) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFNA 2 (462.900/219.100 Da)</p> <p>RT (Exp. RT): 0.00 (1.99) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFDA 1 (513.000/469.100 Da)</p> <p>RT (Exp. RT): 0.00 (2.18) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFDA 2 (513.000/218.900 Da)</p> <p>RT (Exp. RT): 2.11 (2.11) min</p> <p>Calculated Conc: 0.00284 µg/L</p> <p>Area Ratio: 0.00208</p> <p>Sample Type: (Unknown)</p>	
<p>PFUnA 1 (562.900/519.000 Da)</p> <p>RT (Exp. RT): 0.00 (2.21) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFUnA 2 (562.900/269.200 Da)</p> <p>RT (Exp. RT): 0.00 (2.27) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	

<p>PFD_oA 1 (612.900/569.000 Da)</p> <p>RT (Exp. RT): 0.00 (2.36) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFD_oA 2 (612.900/319.000 Da)</p> <p>RT (Exp. RT): 0.00 (2.35) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFT_rDA 1 (663.000/619.000 Da)</p> <p>RT (Exp. RT): 0.00 (2.42) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFT_rDA 2 (663.000/318.900 Da)</p> <p>RT (Exp. RT): 2.41 (2.37) min</p> <p>Calculated Conc: 0.00257 µg/L</p> <p>Area Ratio: 0.00379</p> <p>Sample Type: (Unknown)</p>	
<p>PFT_eDA 1 (713.000/669.000 Da)</p> <p>RT (Exp. RT): 0.00 (2.49) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFT_eDA 2 (713.000/319.200 Da)</p> <p>RT (Exp. RT): 0.00 (2.49) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	

<p>6:2-FTS 1 (427.000/407.000 Da)</p> <p>RT (Exp. RT): 0.00 (1.90) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>6:2-FTS 2 (427.000/80.900 Da)</p> <p>RT (Exp. RT): 0.00 (1.80) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>8:2-FTS 1 (526.900/507.000 Da)</p> <p>RT (Exp. RT): 0.00 (2.16) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>8:2-FTS 2 (526.900/80.900 Da)</p> <p>RT (Exp. RT): 1.95 (2.09) min</p> <p>Calculated Conc: 0.00560 µg/L</p> <p>Area Ratio: 0.00535</p> <p>Sample Type: (Unknown)</p>	
<p>13C2-PFHxA (314.900/270.000 Da)</p> <p>RT (Exp. RT): 1.40 (1.40) min</p> <p>Calculated Conc: 96.0 µg/L</p> <p>Area Ratio: 0.309</p> <p>Sample Type: (Unknown)</p>	
<p>18O2-PFHxS (402.900/84.000 Da)</p> <p>RT (Exp. RT): 1.66 (1.77) min</p> <p>Calculated Conc: 91.0 µg/L</p> <p>Area Ratio: 0.0784</p> <p>Sample Type: (Unknown)</p>	

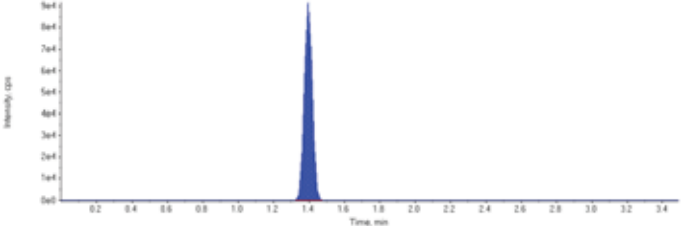
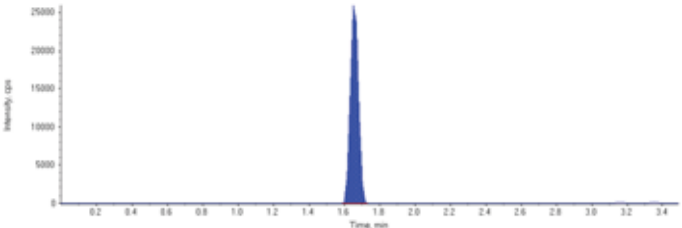
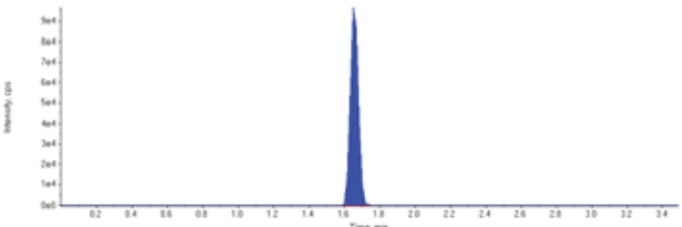
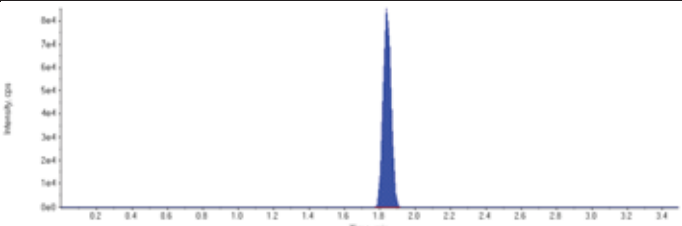
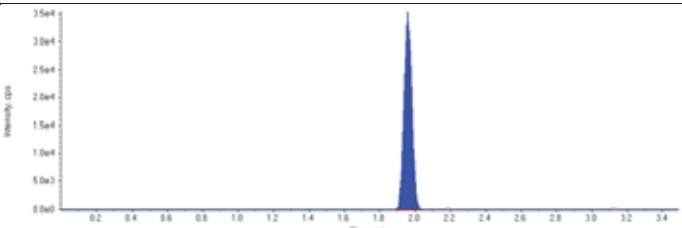
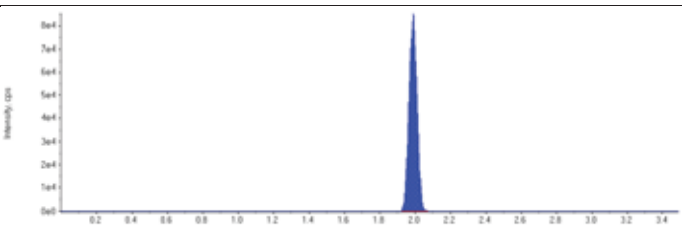
<p>13C4-PFHpa (366.900/322.000 Da)</p> <p>RT (Exp. RT): 1.66 (1.67) min</p> <p>Calculated Conc: 94.7 µg/L</p> <p>Area Ratio: 0.313</p> <p>Sample Type: (Unknown)</p>	
<p>13C4-PFOA (416.900/372.000 Da)</p> <p>RT (Exp. RT): 1.84 (1.84) min</p> <p>Calculated Conc: 96.1 µg/L</p> <p>Area Ratio: 0.264</p> <p>Sample Type: (Unknown)</p>	
<p>13C4-PFOS (502.900/79.900 Da)</p> <p>RT (Exp. RT): 1.96 (2.05) min</p> <p>Calculated Conc: 91.1 µg/L</p> <p>Area Ratio: 0.116</p> <p>Sample Type: (Unknown)</p>	
<p>13C5-PFNA (467.900/423.000 Da)</p> <p>RT (Exp. RT): 1.99 (1.99) min</p> <p>Calculated Conc: 92.8 µg/L</p> <p>Area Ratio: 0.272</p> <p>Sample Type: (Unknown)</p>	
<p>13C2-PFDA (514.900/470.000 Da)</p> <p>RT (Exp. RT): 2.11 (2.11) min</p> <p>Calculated Conc: 87.5 µg/L</p> <p>Area Ratio: 0.271</p> <p>Sample Type: (Unknown)</p>	
<p>13C2-PFUnA (564.900/520.000 Da)</p> <p>RT (Exp. RT): 2.21 (2.27) min</p> <p>Calculated Conc: 89.1 µg/L</p> <p>Area Ratio: 0.205</p> <p>Sample Type: (Unknown)</p>	

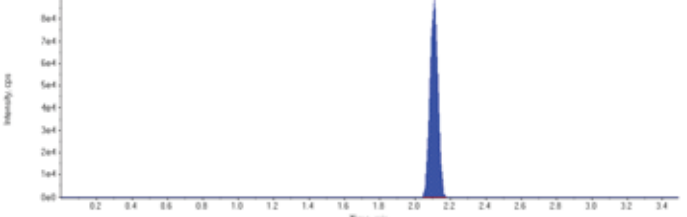
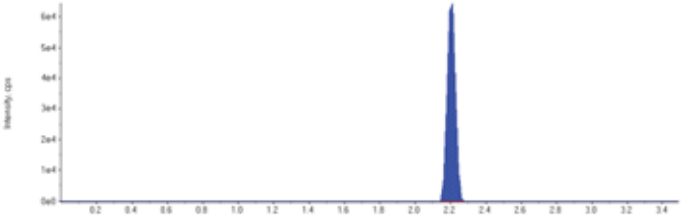
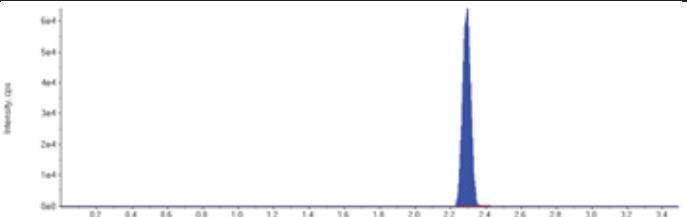
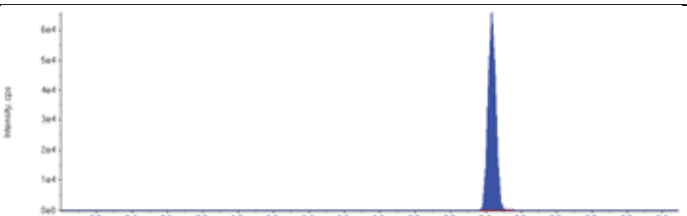
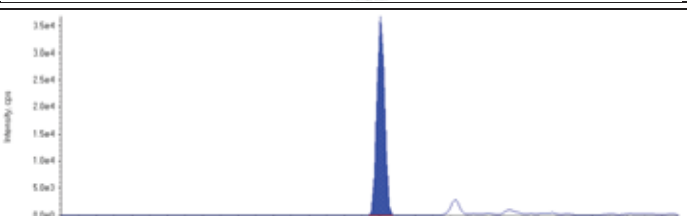
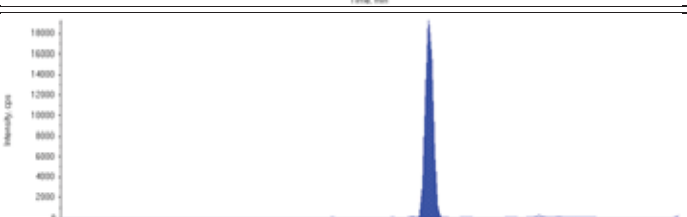
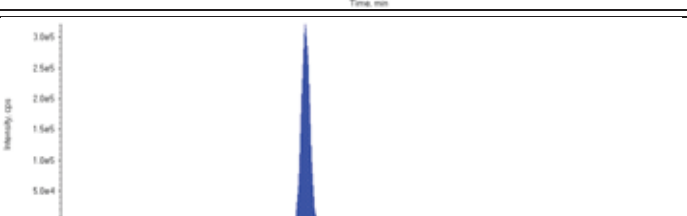
<p>13C2-PFDoA (614.900/570.000 Da)</p> <p>RT (Exp. RT): 2.30 (2.35) min</p> <p>Calculated Conc: 87.8 µg/L</p> <p>Area Ratio: 0.195</p> <p>Sample Type: (Unknown)</p>	
<p>13C2-PFTeDA (714.900/669.900 Da)</p> <p>RT (Exp. RT): 2.44 (2.49) min</p> <p>Calculated Conc: 83.5 µg/L</p> <p>Area Ratio: 0.204</p> <p>Sample Type: (Unknown)</p>	
<p>13C2-6:2-FTS (429.000/80.900 Da)</p> <p>RT (Exp. RT): 1.81 (1.80) min</p> <p>Calculated Conc: 85.9 µg/L</p> <p>Area Ratio: 0.102</p> <p>Sample Type: (Unknown)</p>	
<p>13C2-8:2 FTS (528.900/80.900 Da)</p> <p>RT (Exp. RT): 2.09 (2.08) min</p> <p>Calculated Conc: 89.1 µg/L</p> <p>Area Ratio: 0.0593</p> <p>Sample Type: (Unknown)</p>	
<p>13C6-PFHxA (318.900/274.000 Da)</p> <p>RT (Exp. RT): 1.39 (1.40) min</p> <p>Calculated Conc: 2.59 µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>13C9-PFDA (521.900/477.100 Da)</p> <p>RT (Exp. RT): 2.10 (2.09) min</p> <p>Calculated Conc: 2.64 µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	

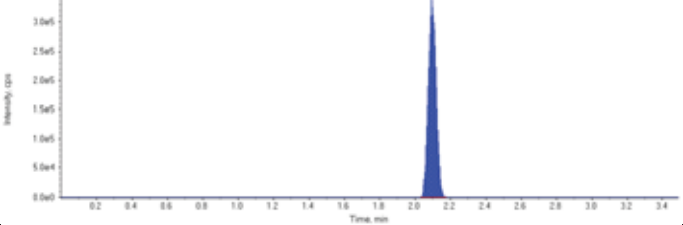
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Sample Type	Unknown	Injection Vial	8
Acquisition Date	2017/05/24 8:20:26 AM	Dilution Factor	0.0240
Acquisition Method	PFC_Water_Low.dam	Instrument Name	LCMS03
Project	Enviro\PFOS	Algorithm Used	Analyst Classic
Data File	PFC_170523\WS#4988945.wiff		
Result Table	PFC_Water_170523_4988945_CTLabs.rdb		
Samples Annotation	-		

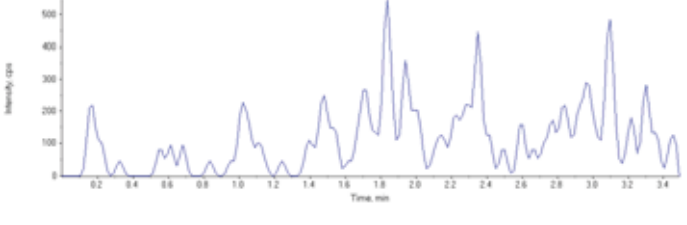
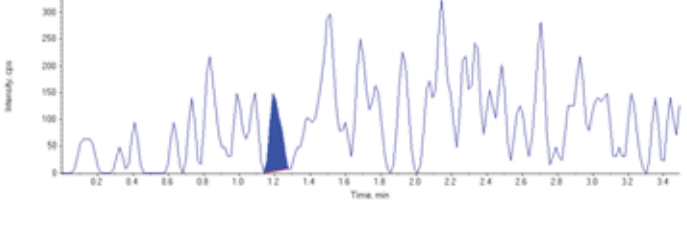
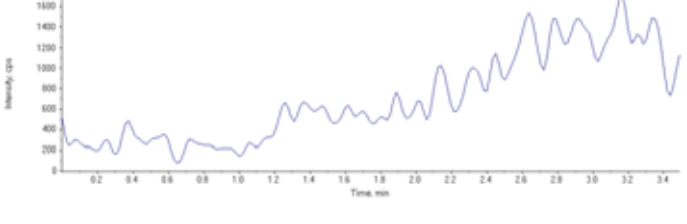
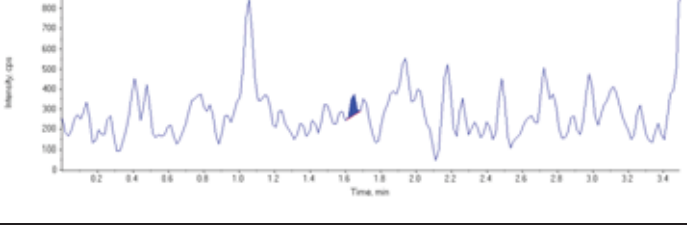
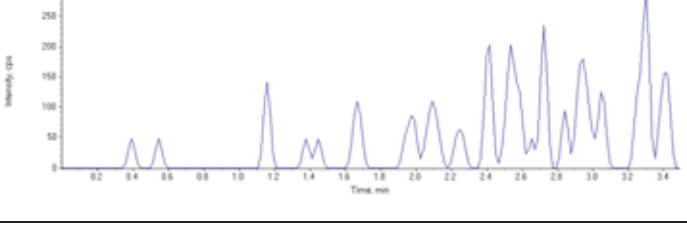
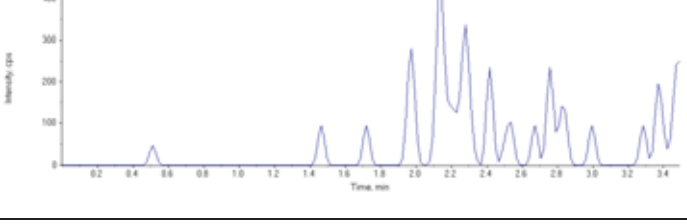
Internal Standard	Area (cps)	RT (min)	Target Conc. (ug/L)	Calc. Conc. (ug/L)
MPFHxA	289000.	1.40	1.00	-
MPFHxS	83300.	1.66	1.00	-
MPFHpA	312000.	1.66	1.00	-
MPFOA	265000.	1.84	1.00	-
MPFOS	108000.	1.96	1.00	-
MPFNA	268000.	1.99	1.00	-
MPFDA	274000.	2.11	1.00	-
MPFUnA	214000.	2.21	1.00	-
MPFDoA	207000.	2.29	1.00	-
MPFTeDA	200000.	2.43	1.00	-
M2 6:2 FTS	111000.	1.81	1.00	-
M2 8:2 FTS	59400.	2.08	1.00	-
13C6-PFHxA IS	1010000.	1.38	1.00	-
13C9-PFDA IS	1040000.	2.10	1.00	-
N/A	N/A	N/A	N/A	-
N/A	N/A	N/A	N/A	-

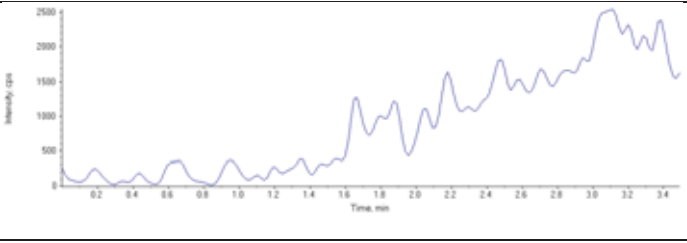
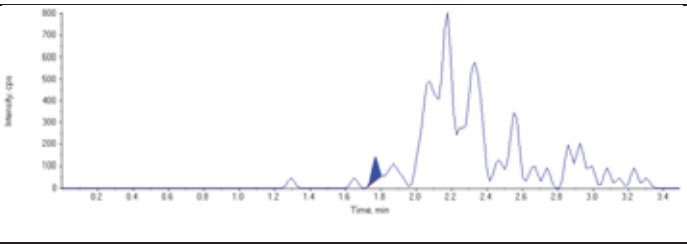
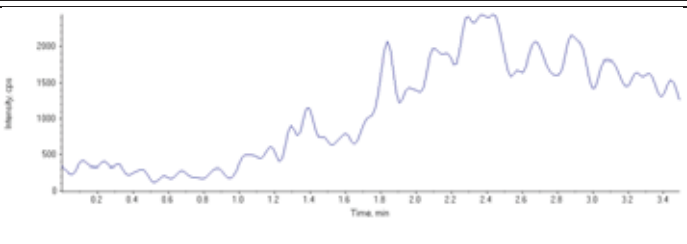
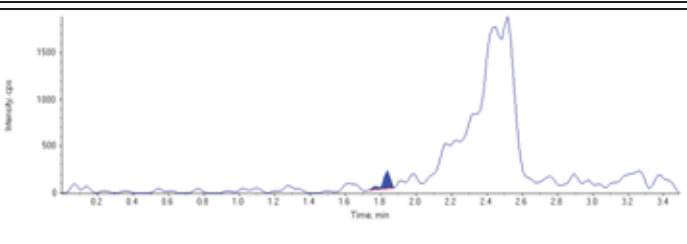
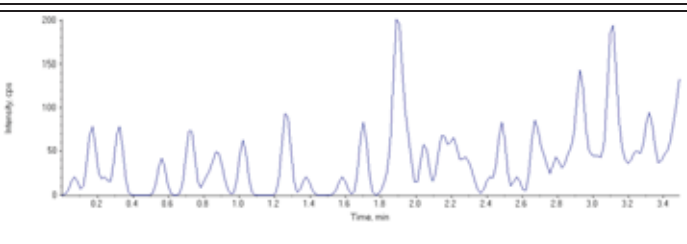
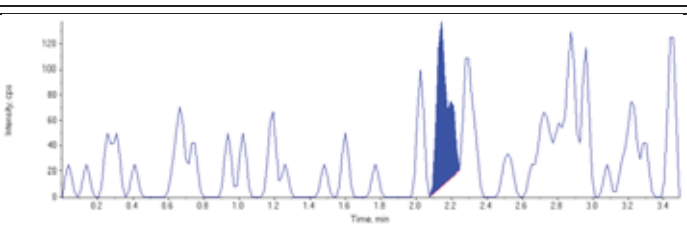
Target Analyte	Area (cps)	RT (min)	Target Conc. (ug/L)	Calc. Conc. (ug/L)	Accuracy (%)
PFBS 1	0	0.00	N/A	N/A	N/A
PFBS 2	602	1.20	N/A	0.00428	N/A
PFHxA 1	0	0.00	N/A	N/A	N/A
PFHxA 2	223	1.65	N/A	0.00272	N/A
PFHxS 1	0	0.00	N/A	N/A	N/A
PFHxS 2	0	0.00	N/A	N/A	N/A
PFHpA 1	0	0.00	N/A	N/A	N/A
PFHpA 2	255	1.77	N/A	N/A	N/A
PFOA 1	0	0.00	N/A	N/A	N/A
PFOA 2	544	1.84	N/A	0.00569	N/A
PFOS 1	0	0.00	N/A	N/A	N/A
PFOS 2	577	2.14	N/A	0.00428	N/A
PFNA 1	0	0.00	N/A	N/A	N/A
PFNA 2	0	0.00	N/A	N/A	N/A
PFDA 1	0	0.00	N/A	N/A	N/A
PFDA 2	0	0.00	N/A	N/A	N/A
PFUnA 1	0	0.00	N/A	N/A	N/A
PFUnA 2	0	0.00	N/A	N/A	N/A
PFDaA 1	0	0.00	N/A	N/A	N/A
PFDaA 2	0	0.00	N/A	N/A	N/A
PFTTrDA 1	0	0.00	N/A	N/A	N/A
PFTTrDA 2	1300	2.26	N/A	0.00401	N/A
PFTeDA 1	0	0.00	N/A	N/A	N/A
PFTeDA 2	0	0.00	N/A	N/A	N/A
6:2-FTS 1	0	0.00	N/A	N/A	N/A
6:2-FTS 2	0	0.00	N/A	N/A	N/A
8:2-FTS 1	0	0.00	N/A	N/A	N/A
8:2-FTS 2	638	2.05	N/A	0.00630	N/A
13C2-PFHxA	289000	1.40	N/A	2.13	N/A
18O2-PFHxS	83300	1.66	N/A	2.30	N/A
13C4-PFHpA	312000	1.66	N/A	2.24	N/A
13C4-PFOA	265000	1.84	N/A	2.29	N/A
13C4-PFOS	108000	1.96	N/A	2.03	N/A
13C5-PFNA	268000	1.99	N/A	2.17	N/A
13C2-PFDA	274000	2.11	N/A	2.04	N/A
13C2-PFUnA	214000	2.21	N/A	2.14	N/A
13C2-PFDaA	207000	2.29	N/A	2.14	N/A
13C2-PFTeDA	200000	2.43	N/A	1.88	N/A
13C2-6:2-FTS	111000	1.81	N/A	2.22	N/A
13C2-8:2 FTS	59400	2.08	N/A	2.12	N/A
13C6-PFHxA	1010000	1.38	N/A	1.89	N/A
13C9-PFDA	1040000	2.10	N/A	2.09	N/A

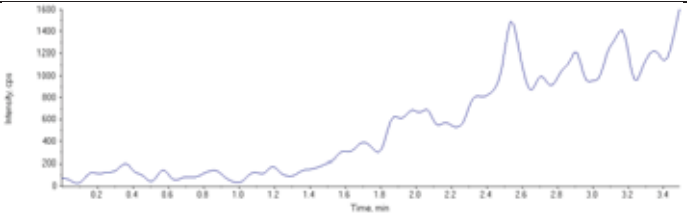
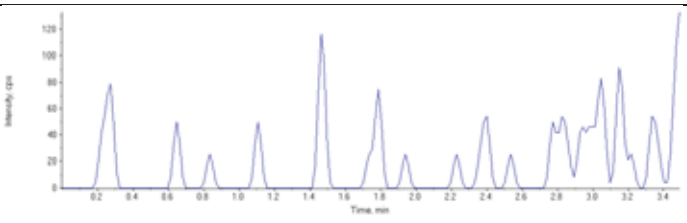
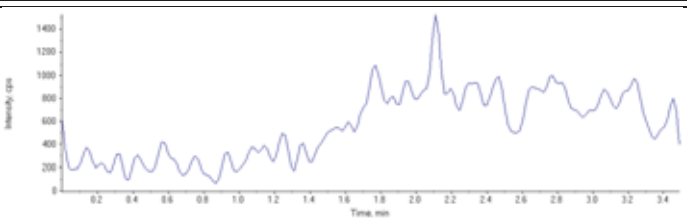
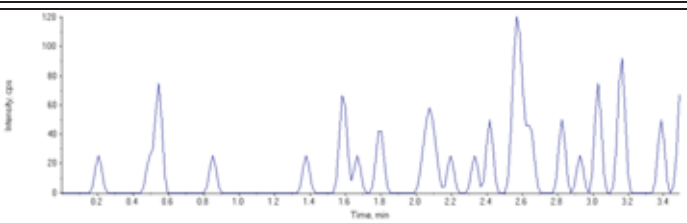
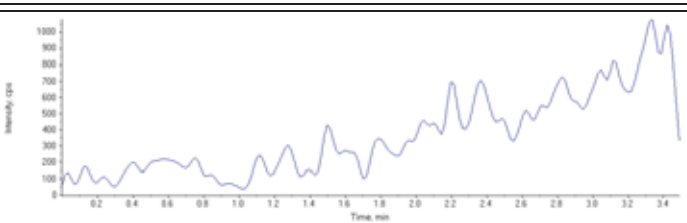
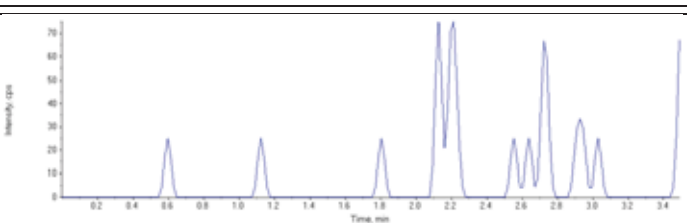
<p>MPFHxA (Internal Standard)</p> <p>RT (Exp. RT): 1.40(1.40) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Unknown)</p>	
<p>MPFHxS (Internal Standard)</p> <p>RT (Exp. RT): 1.66(1.77) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Unknown)</p>	
<p>MPFHpA (Internal Standard)</p> <p>RT (Exp. RT): 1.66(1.67) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Unknown)</p>	
<p>MPFOA (Internal Standard)</p> <p>RT (Exp. RT): 1.84(1.84) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Unknown)</p>	
<p>MPFOS (Internal Standard)</p> <p>RT (Exp. RT): 1.96(2.05) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Unknown)</p>	
<p>MPFNA (Internal Standard)</p> <p>RT (Exp. RT): 1.99(1.99) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Unknown)</p>	

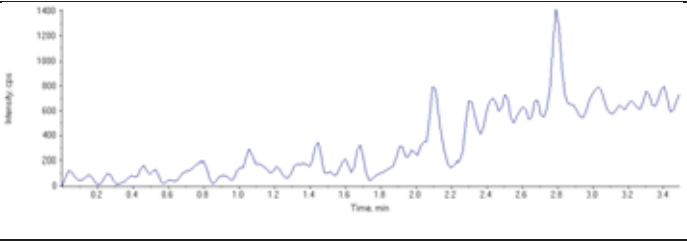
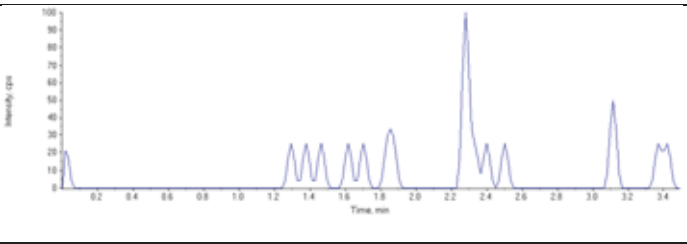
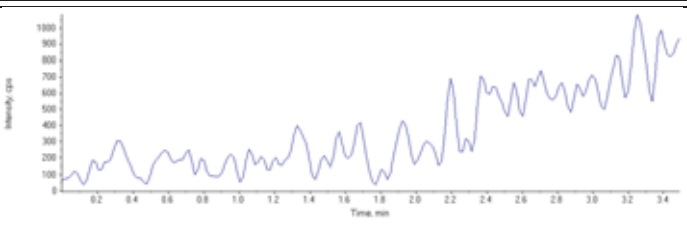
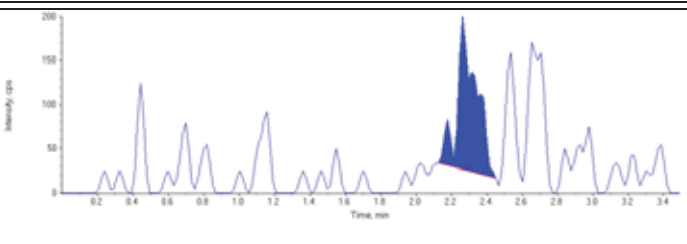
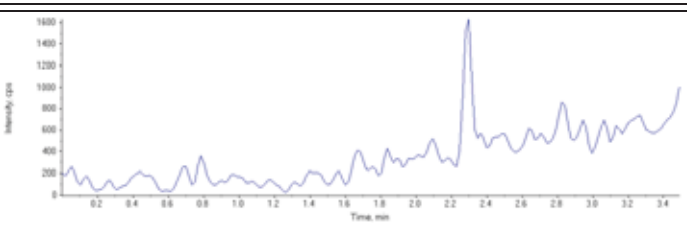
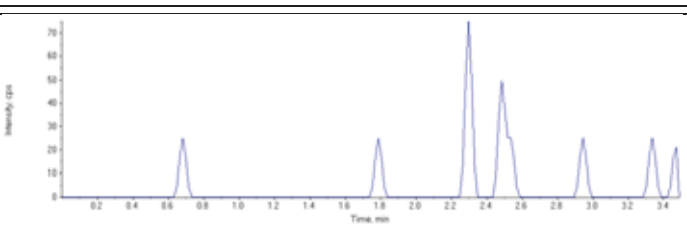
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<p>MPFUnA (Internal Standard)</p> <p>RT (Exp. RT): 2.21(2.27) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Unknown)</p>	
<p>MPFDoA (Internal Standard)</p> <p>RT (Exp. RT): 2.29(2.35) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Unknown)</p>	
<p>MPFTeDA (Internal Standard)</p> <p>RT (Exp. RT): 2.43(2.49) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Unknown)</p>	
<p>M2 6:2 FTS (Internal Standard)</p> <p>RT (Exp. RT): 1.81(1.80) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Unknown)</p>	
<p>M2 8:2 FTS (Internal Standard)</p> <p>RT (Exp. RT): 2.08(2.08) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Unknown)</p>	
<p>13C6-PFHxA IS (Internal Standard)</p> <p>RT (Exp. RT): 1.38(1.40) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Unknown)</p>	

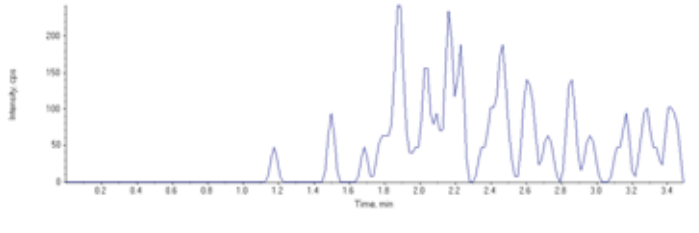
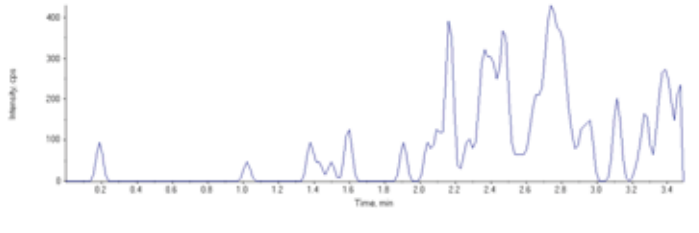
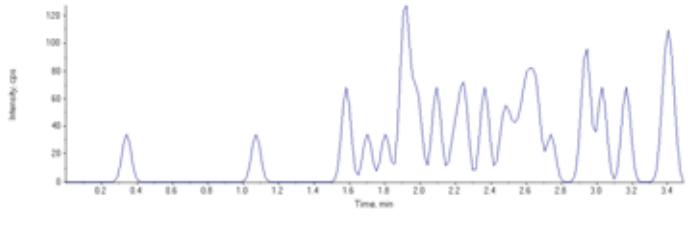
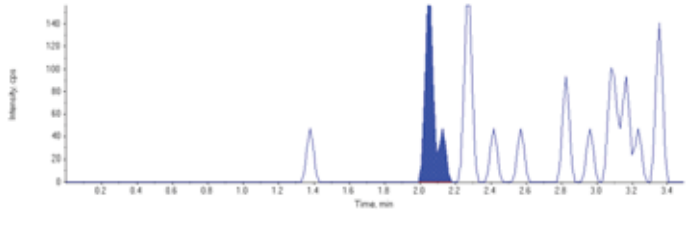
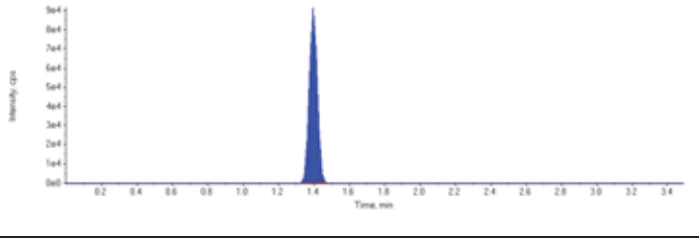
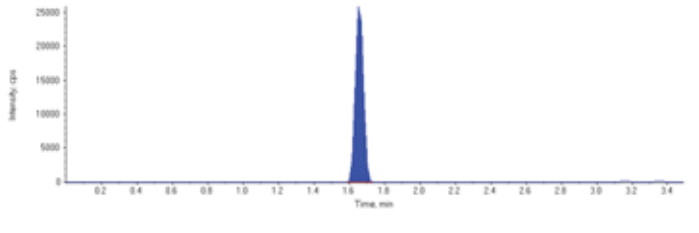
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<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min</p> <p>Concentration: N/A N/A</p> <p>Sample Type: (Unknown)</p>	<p>This image is not available</p>
<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min</p> <p>Concentration: N/A N/A</p> <p>Sample Type: (Unknown)</p>	<p>This image is not available</p>

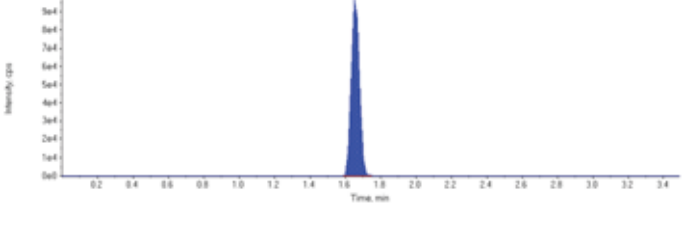
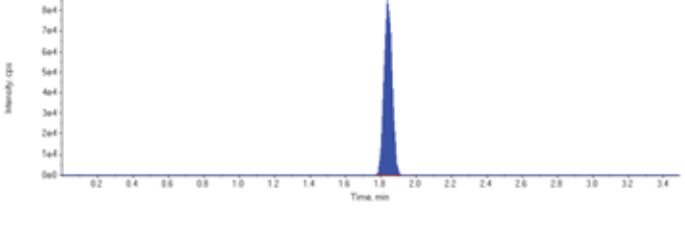
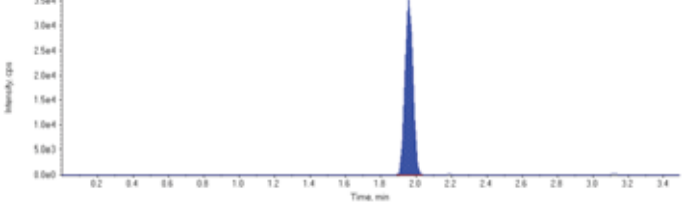
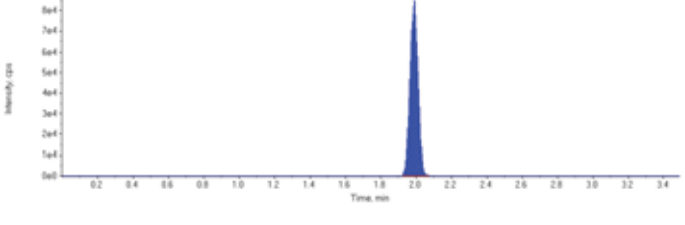
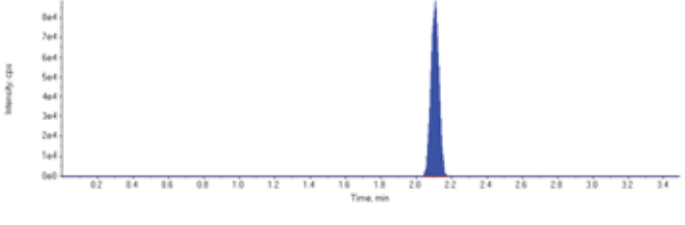
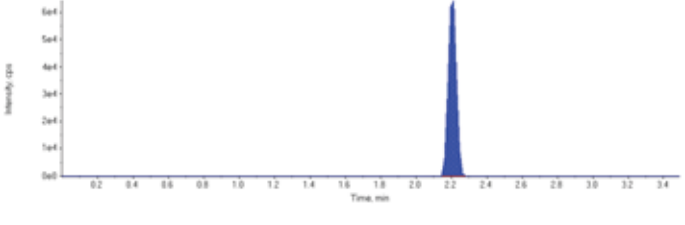
<p>PFBS 1 (298.900/79.900 Da)</p> <p>RT (Exp. RT): 0.00 (1.09) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFBS 2 (298.900/98.900 Da)</p> <p>RT (Exp. RT): 1.20 (1.09) min</p> <p>Calculated Conc: 0.00428 µg/L</p> <p>Area Ratio: 0.00723</p> <p>Sample Type: (Unknown)</p>	
<p>PFHxA 1 (313.000/269.000 Da)</p> <p>RT (Exp. RT): 0.00 (1.40) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFHxA 2 (313.000/119.000 Da)</p> <p>RT (Exp. RT): 1.65 (1.41) min</p> <p>Calculated Conc: 0.00272 µg/L</p> <p>Area Ratio: 0.000774</p> <p>Sample Type: (Unknown)</p>	
<p>PFHxS 1 (398.900/79.900 Da)</p> <p>RT (Exp. RT): 0.00 (1.67) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFHxS 2 (398.900/98.900 Da)</p> <p>RT (Exp. RT): 0.00 (1.67) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	

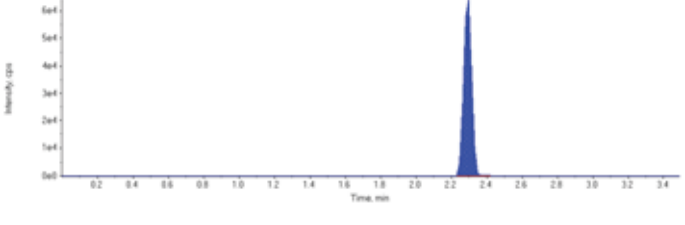
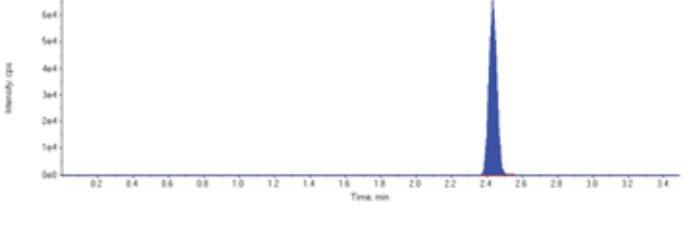
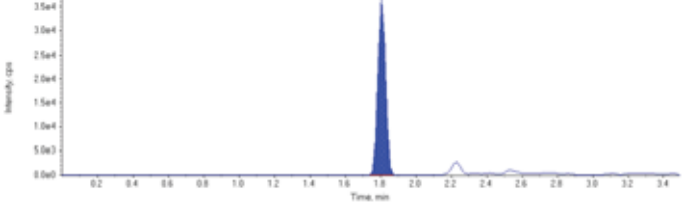
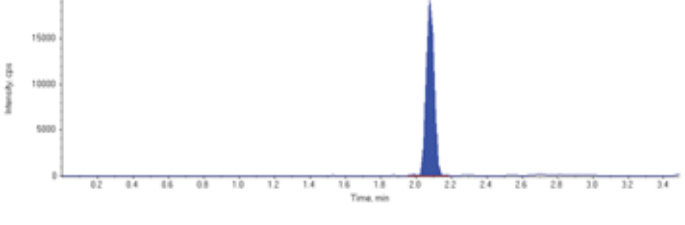
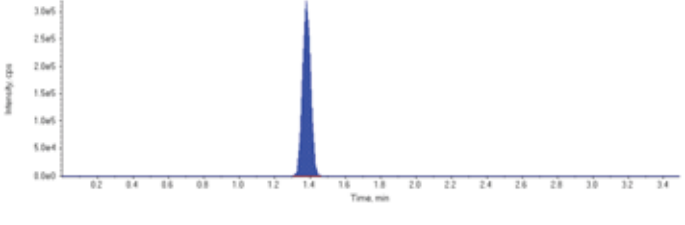
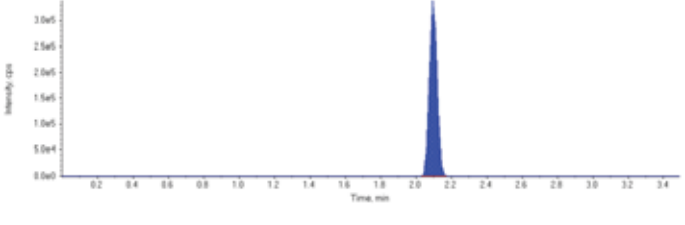
<p>PFHpA 1 (363.000/319.000 Da)</p> <p>RT (Exp. RT): 0.00 (1.67) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFHpA 2 (363.000/169.200 Da)</p> <p>RT (Exp. RT): 1.77 (1.67) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.000819</p> <p>Sample Type: (Unknown)</p>	
<p>PFOA 1 (413.100/369.000 Da)</p> <p>RT (Exp. RT): 0.00 (1.85) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFOA 2 (413.100/169.000 Da)</p> <p>RT (Exp. RT): 1.84 (1.84) min</p> <p>Calculated Conc: 0.00569 µg/L</p> <p>Area Ratio: 0.00205</p> <p>Sample Type: (Unknown)</p>	
<p>PFOS 1 (498.900/79.900 Da)</p> <p>RT (Exp. RT): 0.00 (1.96) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFOS 2 (498.900/98.900 Da)</p> <p>RT (Exp. RT): 2.14 (1.96) min</p> <p>Calculated Conc: 0.00428 µg/L</p> <p>Area Ratio: 0.00533</p> <p>Sample Type: (Unknown)</p>	

<p>PFNA 1 (462.900/419.000 Da)</p> <p>RT (Exp. RT): 0.00 (1.99) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFNA 2 (462.900/219.100 Da)</p> <p>RT (Exp. RT): 0.00 (1.99) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFDA 1 (513.000/469.100 Da)</p> <p>RT (Exp. RT): 0.00 (2.18) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFDA 2 (513.000/218.900 Da)</p> <p>RT (Exp. RT): 0.00 (2.11) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFUnA 1 (562.900/519.000 Da)</p> <p>RT (Exp. RT): 0.00 (2.21) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFUnA 2 (562.900/269.200 Da)</p> <p>RT (Exp. RT): 0.00 (2.27) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	

<p>PFD_oA 1 (612.900/569.000 Da)</p> <p>RT (Exp. RT): 0.00 (2.36) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFD_oA 2 (612.900/319.000 Da)</p> <p>RT (Exp. RT): 0.00 (2.35) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFT_rDA 1 (663.000/619.000 Da)</p> <p>RT (Exp. RT): 0.00 (2.42) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFT_rDA 2 (663.000/318.900 Da)</p> <p>RT (Exp. RT): 2.26 (2.37) min</p> <p>Calculated Conc: 0.00401 µg/L</p> <p>Area Ratio: 0.00654</p> <p>Sample Type: (Unknown)</p>	
<p>PFT_eDA 1 (713.000/669.000 Da)</p> <p>RT (Exp. RT): 0.00 (2.49) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFT_eDA 2 (713.000/319.200 Da)</p> <p>RT (Exp. RT): 0.00 (2.49) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	

<p>6:2-FTS 1 (427.000/407.000 Da)</p> <p>RT (Exp. RT): 0.00 (1.90) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>6:2-FTS 2 (427.000/80.900 Da)</p> <p>RT (Exp. RT): 0.00 (1.80) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>8:2-FTS 1 (526.900/507.000 Da)</p> <p>RT (Exp. RT): 0.00 (2.16) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>8:2-FTS 2 (526.900/80.900 Da)</p> <p>RT (Exp. RT): 2.05 (2.09) min</p> <p>Calculated Conc: 0.00630 µg/L</p> <p>Area Ratio: 0.0108</p> <p>Sample Type: (Unknown)</p>	
<p>13C2-PFHxA (314.900/270.000 Da)</p> <p>RT (Exp. RT): 1.40 (1.40) min</p> <p>Calculated Conc: 2.13 µg/L</p> <p>Area Ratio: 0.286</p> <p>Sample Type: (Unknown)</p>	
<p>18O2-PFHxS (402.900/84.000 Da)</p> <p>RT (Exp. RT): 1.66 (1.77) min</p> <p>Calculated Conc: 2.30 µg/L</p> <p>Area Ratio: 0.0825</p> <p>Sample Type: (Unknown)</p>	

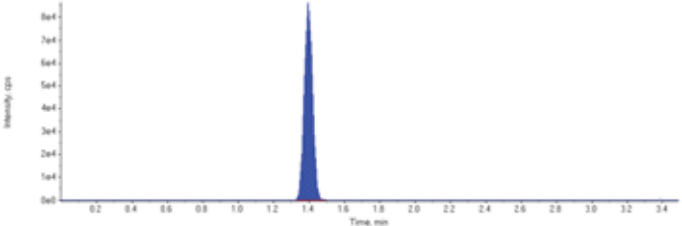
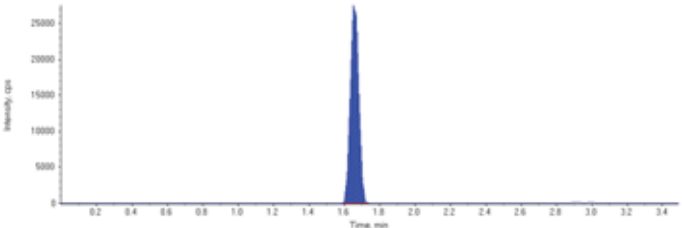
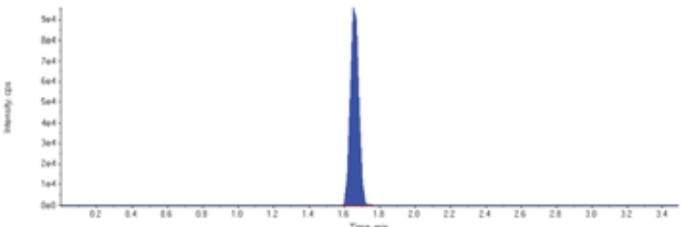
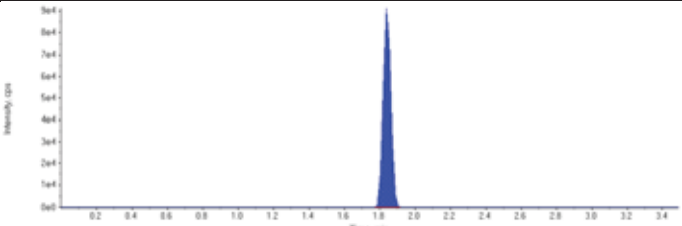
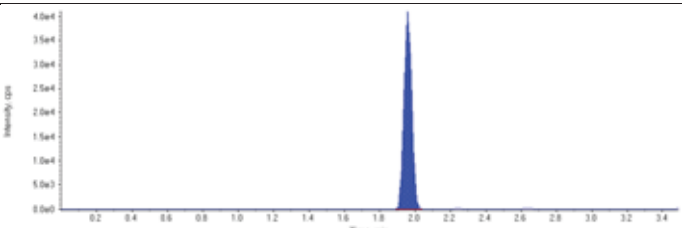
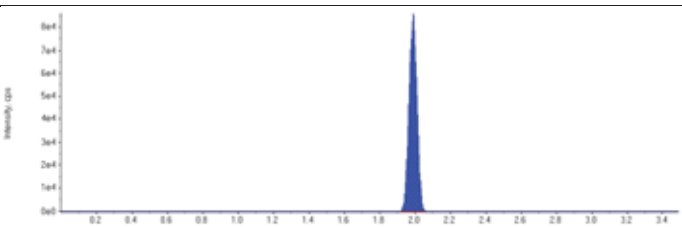
<p>13C4-PFH_pA (366.900/322.000 Da)</p> <p>RT (Exp. RT): 1.66 (1.67) min</p> <p>Calculated Conc: 2.24 µg/L</p> <p>Area Ratio: 0.309</p> <p>Sample Type: (Unknown)</p>	
<p>13C4-PFOA (416.900/372.000 Da)</p> <p>RT (Exp. RT): 1.84 (1.84) min</p> <p>Calculated Conc: 2.29 µg/L</p> <p>Area Ratio: 0.263</p> <p>Sample Type: (Unknown)</p>	
<p>13C4-PFOS (502.900/79.900 Da)</p> <p>RT (Exp. RT): 1.96 (2.05) min</p> <p>Calculated Conc: 2.03 µg/L</p> <p>Area Ratio: 0.107</p> <p>Sample Type: (Unknown)</p>	
<p>13C5-PFNA (467.900/423.000 Da)</p> <p>RT (Exp. RT): 1.99 (1.99) min</p> <p>Calculated Conc: 2.17 µg/L</p> <p>Area Ratio: 0.265</p> <p>Sample Type: (Unknown)</p>	
<p>13C2-PFDA (514.900/470.000 Da)</p> <p>RT (Exp. RT): 2.11 (2.11) min</p> <p>Calculated Conc: 2.04 µg/L</p> <p>Area Ratio: 0.263</p> <p>Sample Type: (Unknown)</p>	
<p>13C2-PFUnA (564.900/520.000 Da)</p> <p>RT (Exp. RT): 2.21 (2.27) min</p> <p>Calculated Conc: 2.14 µg/L</p> <p>Area Ratio: 0.205</p> <p>Sample Type: (Unknown)</p>	

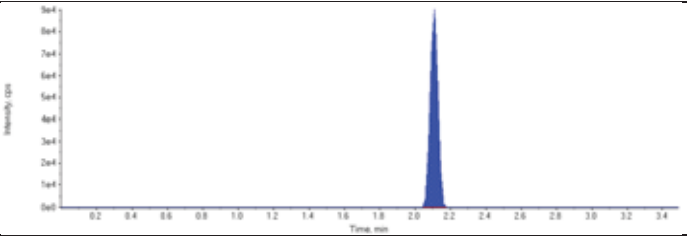
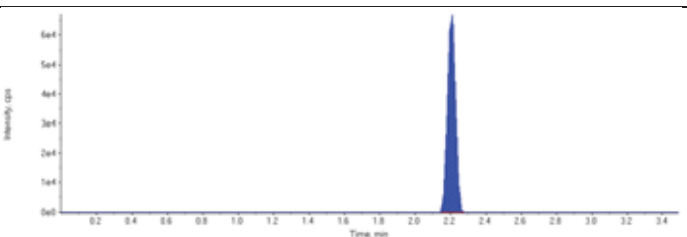
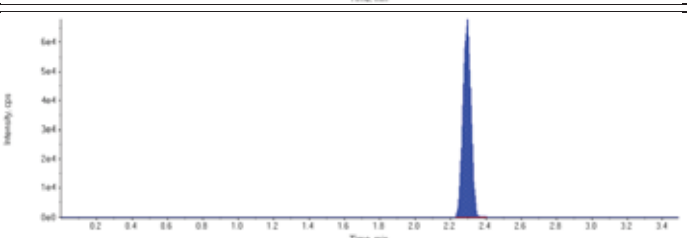
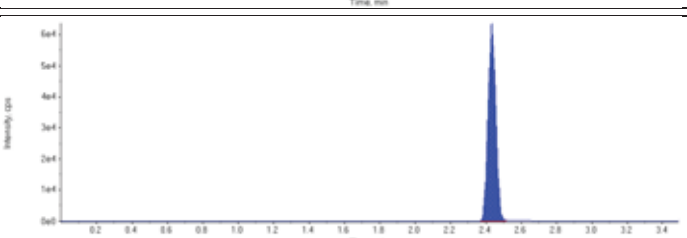
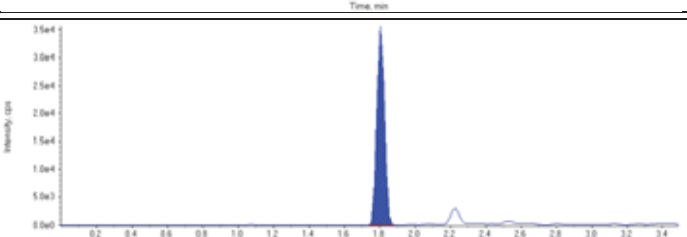
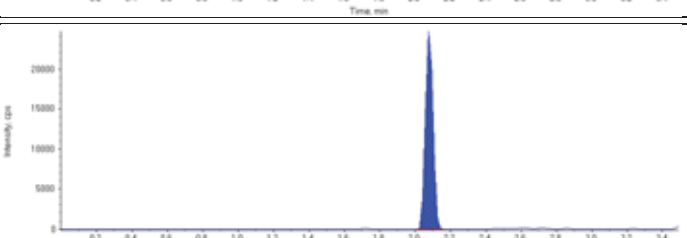
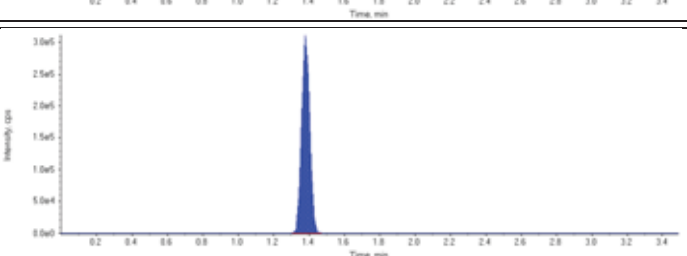
<p>13C2-PFDoA (614.900/570.000 Da)</p> <p>RT (Exp. RT): 2.29 (2.35) min</p> <p>Calculated Conc: 2.14 µg/L</p> <p>Area Ratio: 0.198</p> <p>Sample Type: (Unknown)</p>	
<p>13C2-PFTeDA (714.900/669.900 Da)</p> <p>RT (Exp. RT): 2.43 (2.49) min</p> <p>Calculated Conc: 1.88 µg/L</p> <p>Area Ratio: 0.191</p> <p>Sample Type: (Unknown)</p>	
<p>13C2-6:2-FTS (429.000/80.900 Da)</p> <p>RT (Exp. RT): 1.81 (1.80) min</p> <p>Calculated Conc: 2.22 µg/L</p> <p>Area Ratio: 0.110</p> <p>Sample Type: (Unknown)</p>	
<p>13C2-8:2 FTS (528.900/80.900 Da)</p> <p>RT (Exp. RT): 2.08 (2.08) min</p> <p>Calculated Conc: 2.12 µg/L</p> <p>Area Ratio: 0.0588</p> <p>Sample Type: (Unknown)</p>	
<p>13C6-PFHxA (318.900/274.000 Da)</p> <p>RT (Exp. RT): 1.38 (1.40) min</p> <p>Calculated Conc: 1.89 µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>13C9-PFDA (521.900/477.100 Da)</p> <p>RT (Exp. RT): 2.10 (2.09) min</p> <p>Calculated Conc: 2.09 µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	

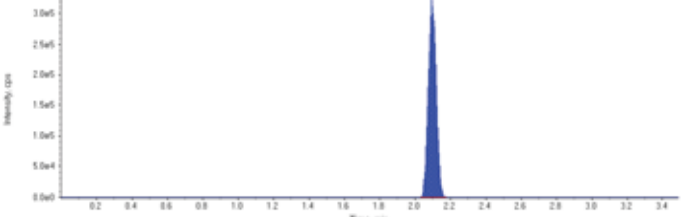
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Sample Type	Unknown	Injection Vial	8
Acquisition Date	2017/05/24 8:40:43 AM	Dilution Factor	0.0240
Acquisition Method	PFC_Water_Low.dam	Instrument Name	LCMS03
Project	Enviro\PFOS	Algorithm Used	Analyst Classic
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Result Table	PFC_Water_170523_4988945_CTLabs.rdb		
Samples Annotation	-		

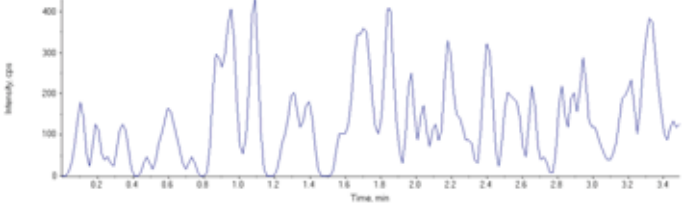
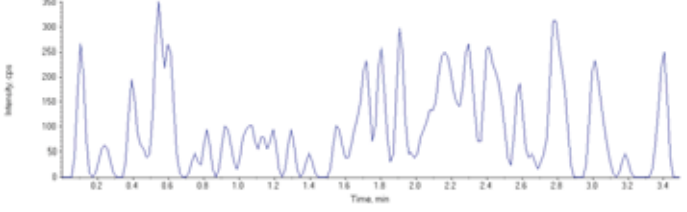
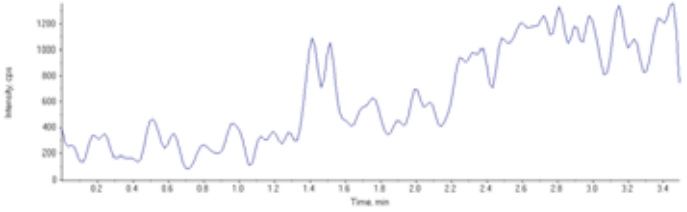
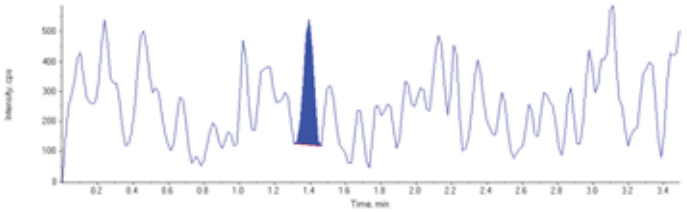
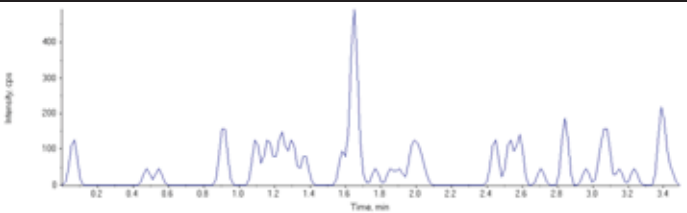
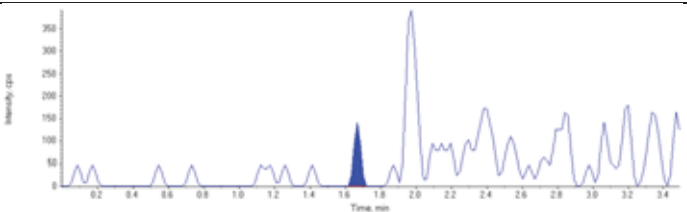
Internal Standard	Area (cps)	RT (min)	Target Conc. (ug/L)	Calc. Conc. (ug/L)
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MPFHxS	90900.	1.66	1.00	-
MPFHpA	317000.	1.66	1.00	-
MPFOA	280000.	1.84	1.00	-
MPFOS	124000.	1.96	1.00	-
MPFNA	266000.	1.99	1.00	-
MPFDA	276000.	2.11	1.00	-
MPFUnA	216000.	2.21	1.00	-
MPFDoA	212000.	2.29	1.00	-
MPFTeDA	191000.	2.43	1.00	-
M2 6:2 FTS	108000.	1.81	1.00	-
M2 8:2 FTS	74900.	2.08	1.00	-
13C6-PFHxA IS	985000.	1.38	41.7	-
13C9-PFDA IS	1000000.	2.10	41.7	-
N/A	N/A	N/A	N/A	-
N/A	N/A	N/A	N/A	-

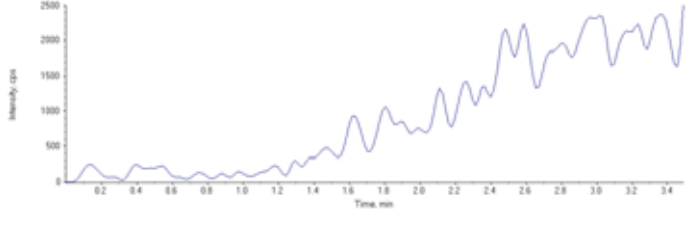
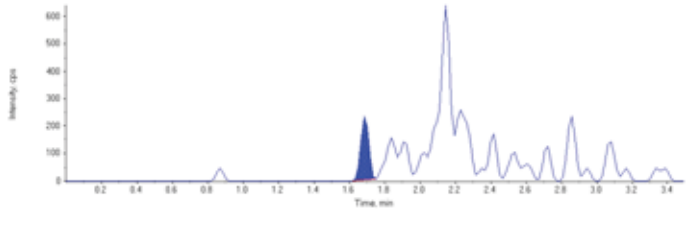
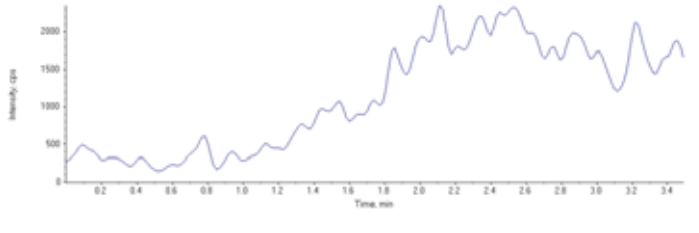
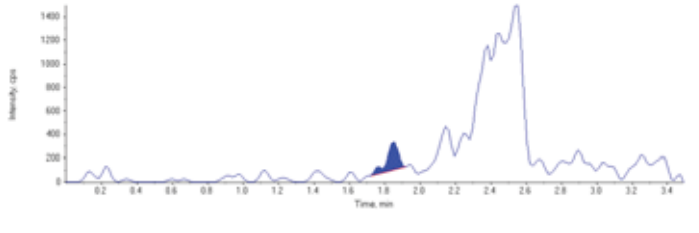
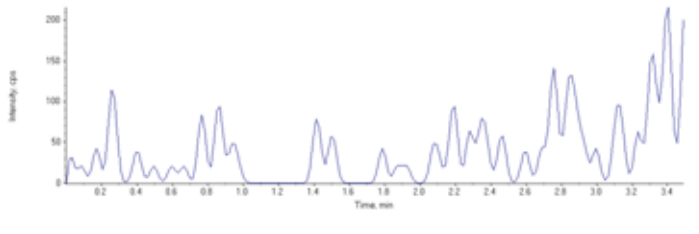
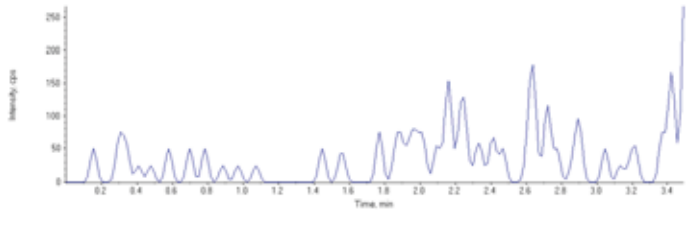
Target Analyte	Area (cps)	RT (min)	Target Conc. (ug/L)	Calc. Conc. (ug/L)	Accuracy (%)
PFBS 1	0	0.00	N/A	N/A	N/A
PFBS 2	0	0.00	N/A	N/A	N/A
PFHxA 1	0	0.00	N/A	N/A	N/A
PFHxA 2	1580	1.39	N/A	0.00735	N/A
PFHxS 1	0	0.00	N/A	N/A	N/A
PFHxS 2	383	1.67	N/A	0.00371	N/A
PFHpA 1	0	0.00	N/A	N/A	N/A
PFHpA 2	738	1.69	N/A	0.00335	N/A
PFOA 1	0	0.00	N/A	N/A	N/A
PFOA 2	1110	1.85	N/A	0.00594	N/A
PFOS 1	0	0.00	N/A	N/A	N/A
PFOS 2	0	0.00	N/A	N/A	N/A
PFNA 1	0	0.00	N/A	N/A	N/A
PFNA 2	0	0.00	N/A	N/A	N/A
PFDA 1	0	0.00	N/A	N/A	N/A
PFDA 2	816	2.11	N/A	0.00311	N/A
PFUnA 1	0	0.00	N/A	N/A	N/A
PFUnA 2	0	0.00	N/A	N/A	N/A
PFDaA 1	0	0.00	N/A	N/A	N/A
PFDaA 2	0	0.00	N/A	N/A	N/A
PFTTrDA 1	0	0.00	N/A	N/A	N/A
PFTTrDA 2	0	0.00	N/A	N/A	N/A
PFTeDA 1	0	0.00	N/A	N/A	N/A
PFTeDA 2	0	0.00	N/A	N/A	N/A
6:2-FTS 1	0	0.00	N/A	N/A	N/A
6:2-FTS 2	866	1.82	N/A	0.00390	N/A
8:2-FTS 1	0	0.00	N/A	N/A	N/A
8:2-FTS 2	0	0.00	N/A	N/A	N/A
13C2-PFHxA	278000	1.40	N/A	87.9	N/A
18O2-PFHxS	90900	1.66	N/A	107.	N/A
13C4-PFHpA	317000	1.66	N/A	97.4	N/A
13C4-PFOA	280000	1.84	N/A	103.	N/A
13C4-PFOS	124000	1.96	N/A	99.4	N/A
13C5-PFNA	266000	1.99	N/A	92.2	N/A
13C2-PFDA	276000	2.11	N/A	89.0	N/A
13C2-PFUnA	216000	2.21	N/A	93.7	N/A
13C2-PFDaA	212000	2.29	N/A	95.1	N/A
13C2-PFTeDA	191000	2.43	N/A	78.0	N/A
13C2-6:2-FTS	108000	1.81	N/A	91.6	N/A
13C2-8:2 FTS	74900	2.08	N/A	114.	N/A
13C6-PFHxA	985000	1.38	N/A	1.85	N/A
13C9-PFDA	1000000	2.10	N/A	2.01	N/A

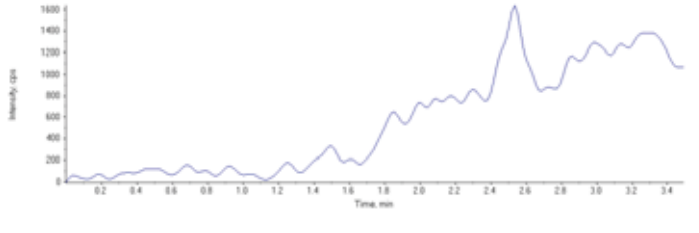
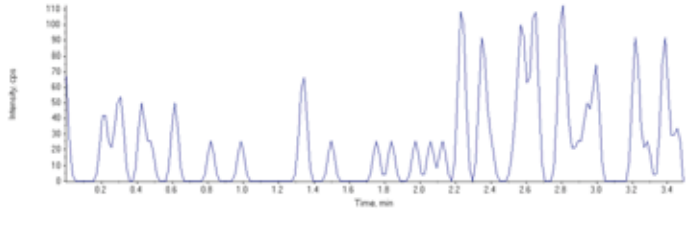
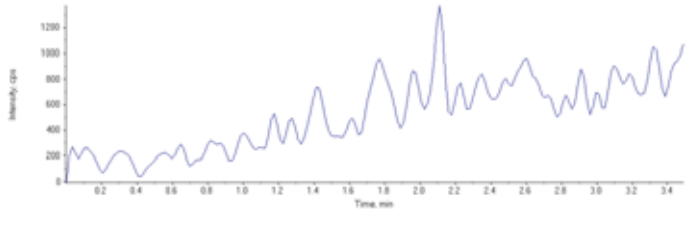
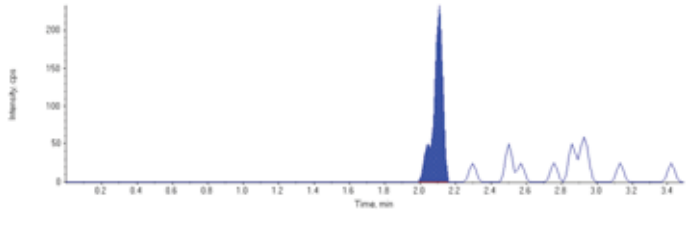
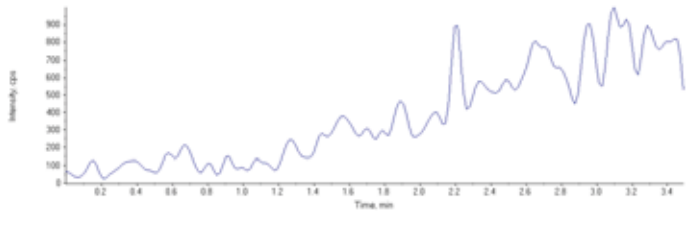
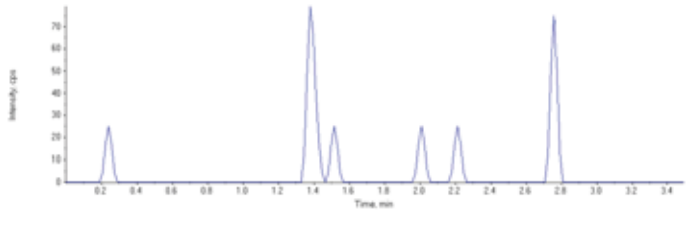
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<p>MPFHxS (Internal Standard)</p> <p>RT (Exp. RT): 1.66(1.77) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Unknown)</p>	
<p>MPFHpA (Internal Standard)</p> <p>RT (Exp. RT): 1.66(1.67) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Unknown)</p>	
<p>MPFOA (Internal Standard)</p> <p>RT (Exp. RT): 1.84(1.84) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Unknown)</p>	
<p>MPFOS (Internal Standard)</p> <p>RT (Exp. RT): 1.96(2.05) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Unknown)</p>	
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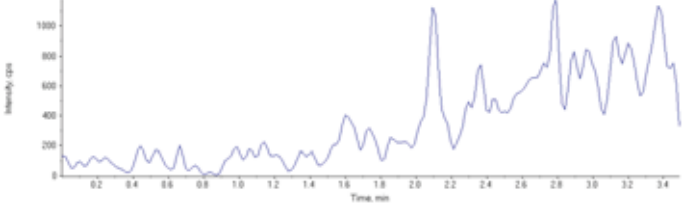
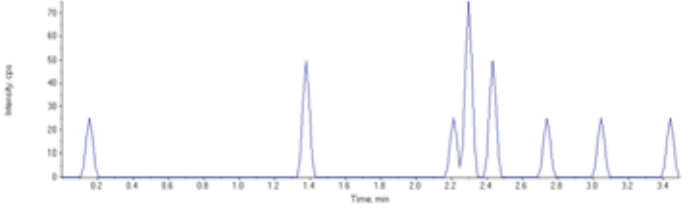
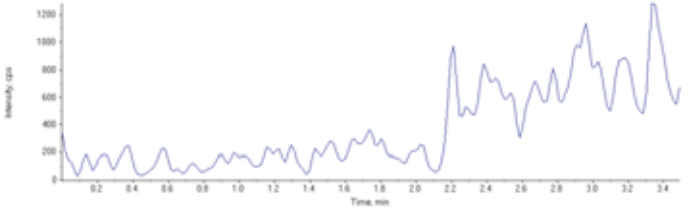
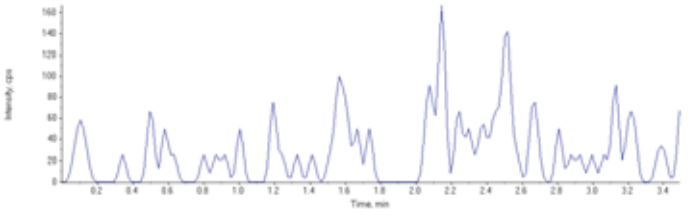
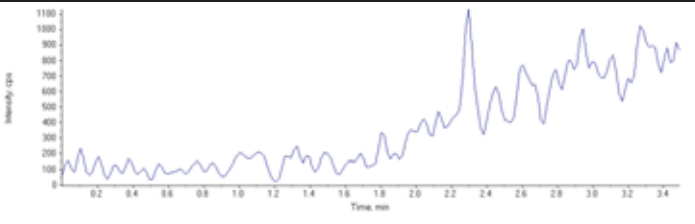
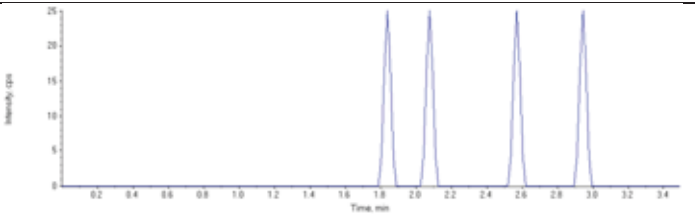
<p>MPFDA (Internal Standard)</p> <p>RT (Exp. RT): 2.11(2.18) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Unknown)</p>	
<p>MPFUnA (Internal Standard)</p> <p>RT (Exp. RT): 2.21(2.27) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Unknown)</p>	
<p>MPFDoA (Internal Standard)</p> <p>RT (Exp. RT): 2.29(2.35) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Unknown)</p>	
<p>MPFTeDA (Internal Standard)</p> <p>RT (Exp. RT): 2.43(2.49) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Unknown)</p>	
<p>M2 6:2 FTS (Internal Standard)</p> <p>RT (Exp. RT): 1.81(1.80) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Unknown)</p>	
<p>M2 8:2 FTS (Internal Standard)</p> <p>RT (Exp. RT): 2.08(2.08) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Unknown)</p>	
<p>13C6-PFHxA IS (Internal Standard)</p> <p>RT (Exp. RT): 1.38(1.40) min</p> <p>Concentration: 41.7 ug/L</p> <p>Sample Type: (Unknown)</p>	

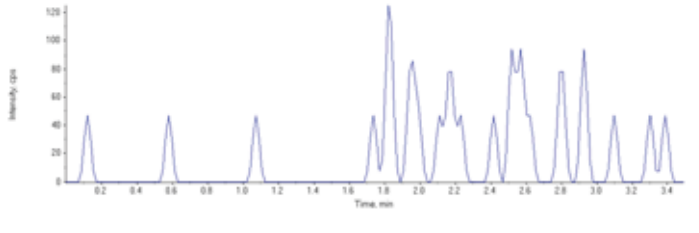
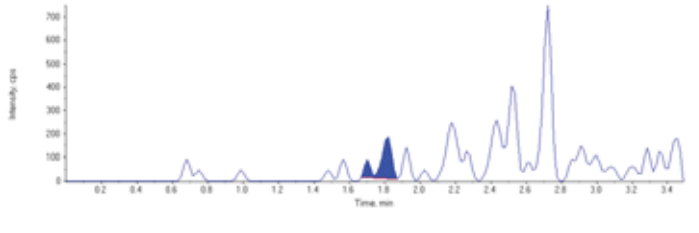
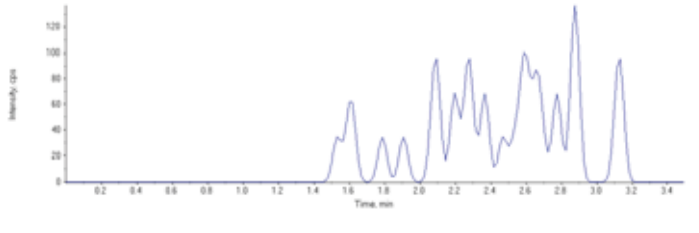
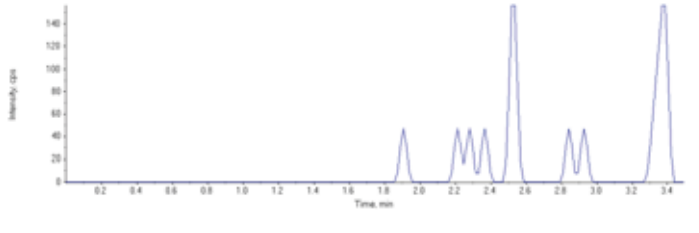
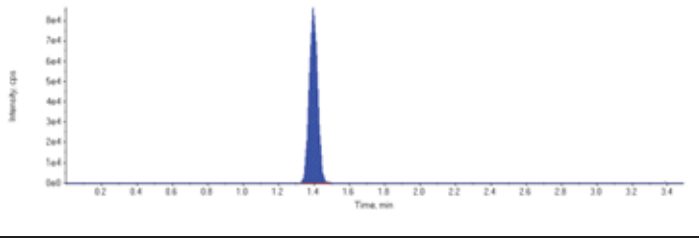
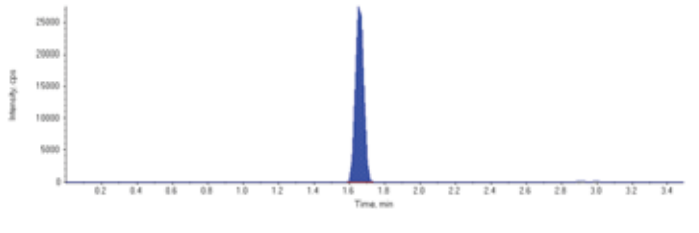
<p>13C9-PFDA IS (Internal Standard)</p> <p>RT (Exp. RT): 2.10(2.09) min</p> <p>Concentration: 41.7 ug/L</p> <p>Sample Type: (Unknown)</p>	
<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min</p> <p>Concentration: N/A N/A</p> <p>Sample Type: (Unknown)</p>	<p>This image is not available</p>
<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min</p> <p>Concentration: N/A N/A</p> <p>Sample Type: (Unknown)</p>	<p>This image is not available</p>

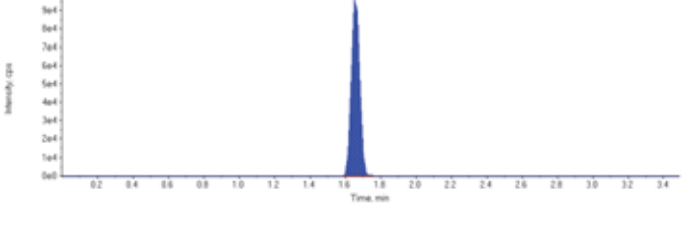
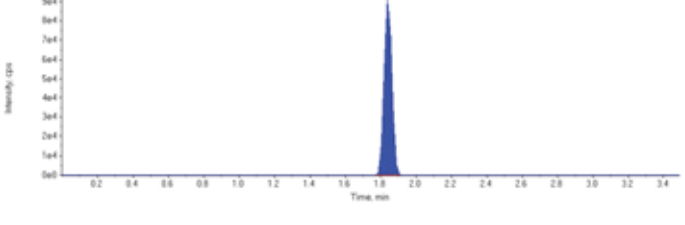
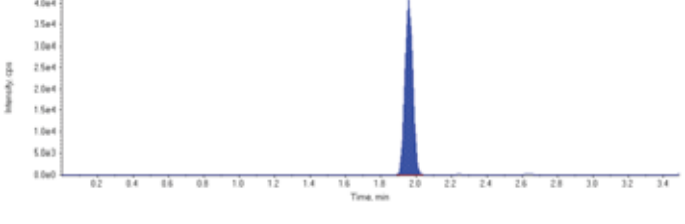
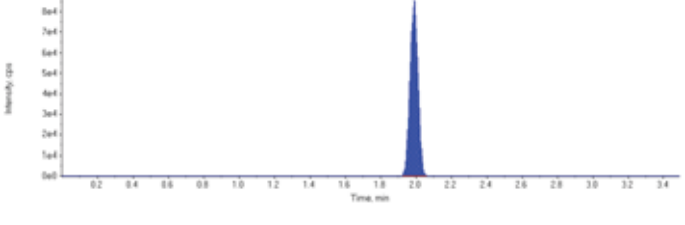
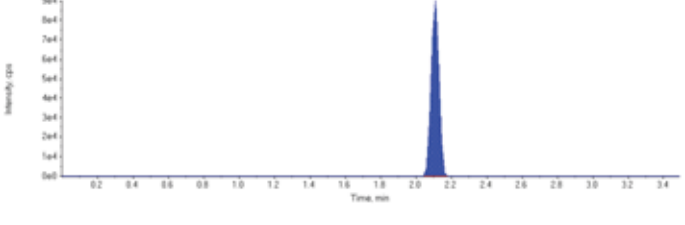
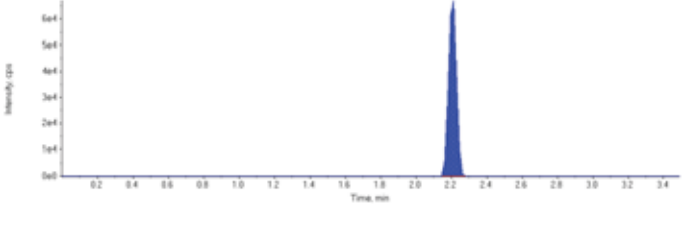
<p>PFBS 1 (298.900/79.900 Da)</p> <p>RT (Exp. RT): 0.00 (1.09) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFBS 2 (298.900/98.900 Da)</p> <p>RT (Exp. RT): 0.00 (1.09) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFHxA 1 (313.000/269.000 Da)</p> <p>RT (Exp. RT): 0.00 (1.40) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFHxA 2 (313.000/119.000 Da)</p> <p>RT (Exp. RT): 1.39 (1.41) min</p> <p>Calculated Conc: 0.00735 µg/L</p> <p>Area Ratio: 0.00567</p> <p>Sample Type: (Unknown)</p>	
<p>PFHxS 1 (398.900/79.900 Da)</p> <p>RT (Exp. RT): 0.00 (1.67) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFHxS 2 (398.900/98.900 Da)</p> <p>RT (Exp. RT): 1.67 (1.67) min</p> <p>Calculated Conc: 0.00371 µg/L</p> <p>Area Ratio: 0.00421</p> <p>Sample Type: (Unknown)</p>	

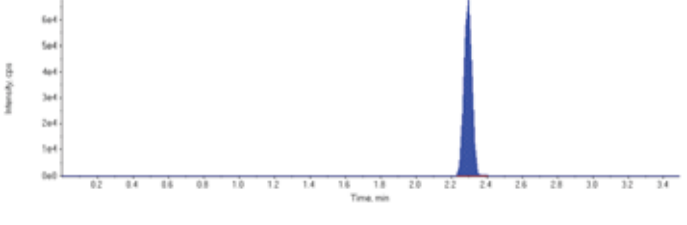
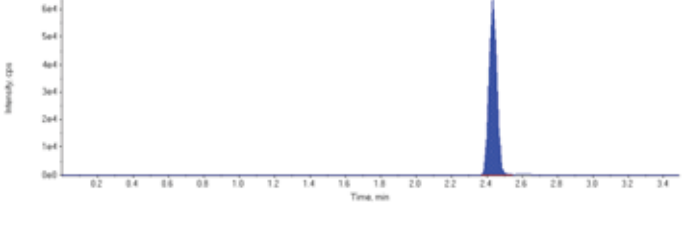
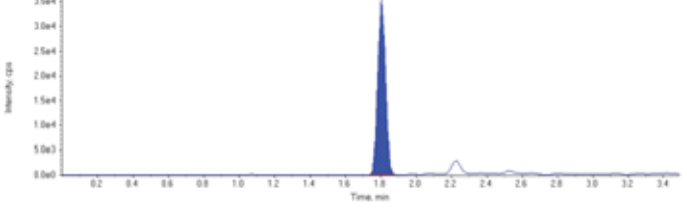
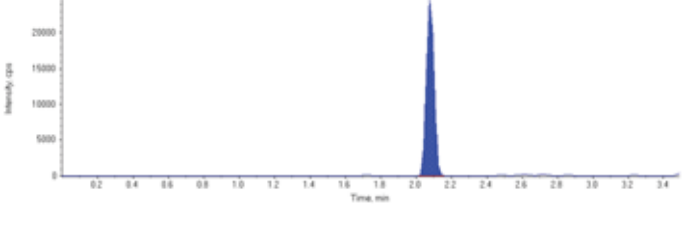
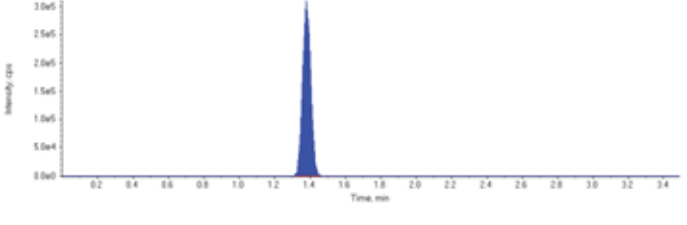
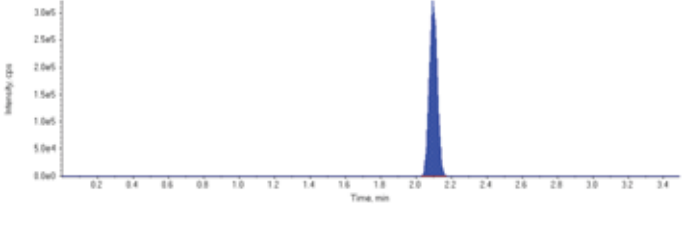
<p>PFHpA 1 (363.000/319.000 Da)</p> <p>RT (Exp. RT): 0.00 (1.67) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFHpA 2 (363.000/169.200 Da)</p> <p>RT (Exp. RT): 1.69 (1.67) min</p> <p>Calculated Conc: 0.00335 µg/L</p> <p>Area Ratio: 0.00233</p> <p>Sample Type: (Unknown)</p>	
<p>PFOA 1 (413.100/369.000 Da)</p> <p>RT (Exp. RT): 0.00 (1.85) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFOA 2 (413.100/169.000 Da)</p> <p>RT (Exp. RT): 1.85 (1.84) min</p> <p>Calculated Conc: 0.00594 µg/L</p> <p>Area Ratio: 0.00398</p> <p>Sample Type: (Unknown)</p>	
<p>PFOS 1 (498.900/79.900 Da)</p> <p>RT (Exp. RT): 0.00 (1.96) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFOS 2 (498.900/98.900 Da)</p> <p>RT (Exp. RT): 0.00 (1.96) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	

<p>PFNA 1 (462.900/419.000 Da)</p> <p>RT (Exp. RT): 0.00 (1.99) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFNA 2 (462.900/219.100 Da)</p> <p>RT (Exp. RT): 0.00 (1.99) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFDA 1 (513.000/469.100 Da)</p> <p>RT (Exp. RT): 0.00 (2.18) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFDA 2 (513.000/218.900 Da)</p> <p>RT (Exp. RT): 2.11 (2.11) min</p> <p>Calculated Conc: 0.00311 µg/L</p> <p>Area Ratio: 0.00295</p> <p>Sample Type: (Unknown)</p>	
<p>PFUnA 1 (562.900/519.000 Da)</p> <p>RT (Exp. RT): 0.00 (2.21) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFUnA 2 (562.900/269.200 Da)</p> <p>RT (Exp. RT): 0.00 (2.27) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	

<p>PFD_oA 1 (612.900/569.000 Da)</p> <p>RT (Exp. RT): 0.00 (2.36) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFD_oA 2 (612.900/319.000 Da)</p> <p>RT (Exp. RT): 0.00 (2.35) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFT_rDA 1 (663.000/619.000 Da)</p> <p>RT (Exp. RT): 0.00 (2.42) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFT_rDA 2 (663.000/318.900 Da)</p> <p>RT (Exp. RT): 0.00 (2.37) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFT_eDA 1 (713.000/669.000 Da)</p> <p>RT (Exp. RT): 0.00 (2.49) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>PFT_eDA 2 (713.000/319.200 Da)</p> <p>RT (Exp. RT): 0.00 (2.49) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	

<p>6:2-FTS 1 (427.000/407.000 Da)</p> <p>RT (Exp. RT): 0.00 (1.90) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>6:2-FTS 2 (427.000/80.900 Da)</p> <p>RT (Exp. RT): 1.82 (1.80) min</p> <p>Calculated Conc: 0.00390 µg/L</p> <p>Area Ratio: 0.00803</p> <p>Sample Type: (Unknown)</p>	
<p>8:2-FTS 1 (526.900/507.000 Da)</p> <p>RT (Exp. RT): 0.00 (2.16) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>8:2-FTS 2 (526.900/80.900 Da)</p> <p>RT (Exp. RT): 0.00 (2.09) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>13C2-PFHxA (314.900/270.000 Da)</p> <p>RT (Exp. RT): 1.40 (1.40) min</p> <p>Calculated Conc: 87.9 µg/L</p> <p>Area Ratio: 0.283</p> <p>Sample Type: (Unknown)</p>	
<p>18O2-PFHxS (402.900/84.000 Da)</p> <p>RT (Exp. RT): 1.66 (1.77) min</p> <p>Calculated Conc: 107. µg/L</p> <p>Area Ratio: 0.0922</p> <p>Sample Type: (Unknown)</p>	

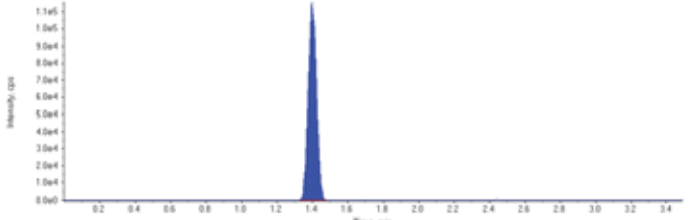
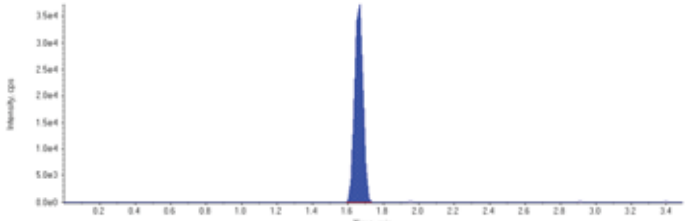
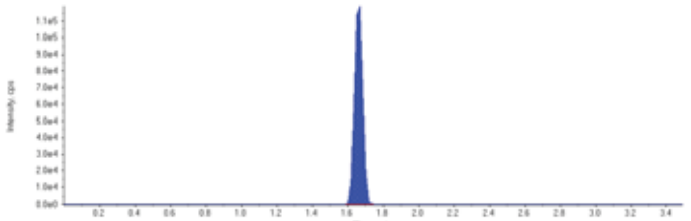
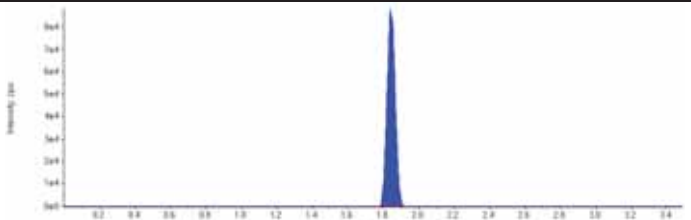
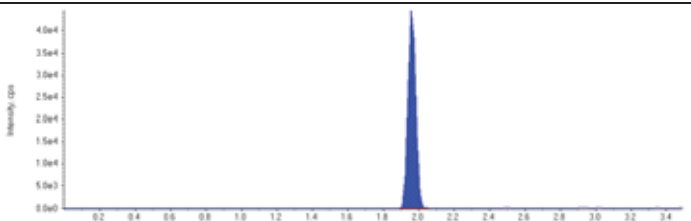
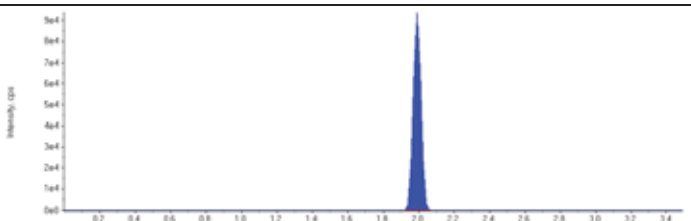
<p>13C4-PFHpa (366.900/322.000 Da)</p> <p>RT (Exp. RT): 1.66 (1.67) min</p> <p>Calculated Conc: 97.4 µg/L</p> <p>Area Ratio: 0.322</p> <p>Sample Type: (Unknown)</p>	
<p>13C4-PFOA (416.900/372.000 Da)</p> <p>RT (Exp. RT): 1.84 (1.84) min</p> <p>Calculated Conc: 103. µg/L</p> <p>Area Ratio: 0.284</p> <p>Sample Type: (Unknown)</p>	
<p>13C4-PFOS (502.900/79.900 Da)</p> <p>RT (Exp. RT): 1.96 (2.05) min</p> <p>Calculated Conc: 99.4 µg/L</p> <p>Area Ratio: 0.126</p> <p>Sample Type: (Unknown)</p>	
<p>13C5-PFNA (467.900/423.000 Da)</p> <p>RT (Exp. RT): 1.99 (1.99) min</p> <p>Calculated Conc: 92.2 µg/L</p> <p>Area Ratio: 0.270</p> <p>Sample Type: (Unknown)</p>	
<p>13C2-PFDA (514.900/470.000 Da)</p> <p>RT (Exp. RT): 2.11 (2.11) min</p> <p>Calculated Conc: 89.0 µg/L</p> <p>Area Ratio: 0.276</p> <p>Sample Type: (Unknown)</p>	
<p>13C2-PFUnA (564.900/520.000 Da)</p> <p>RT (Exp. RT): 2.21 (2.27) min</p> <p>Calculated Conc: 93.7 µg/L</p> <p>Area Ratio: 0.215</p> <p>Sample Type: (Unknown)</p>	

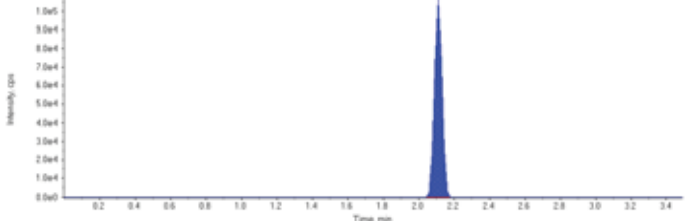
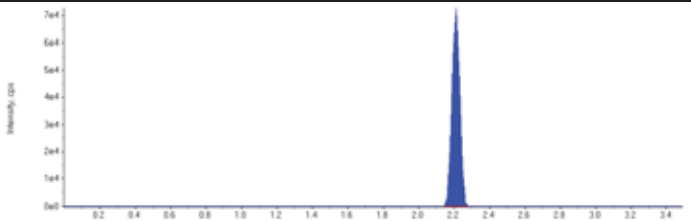
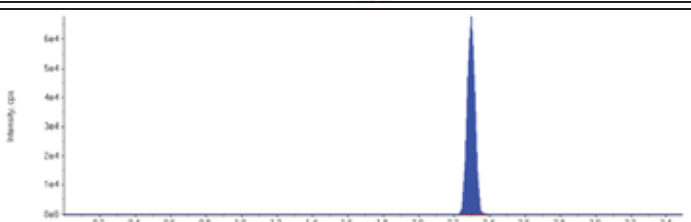
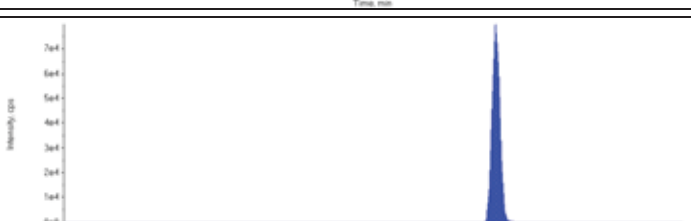
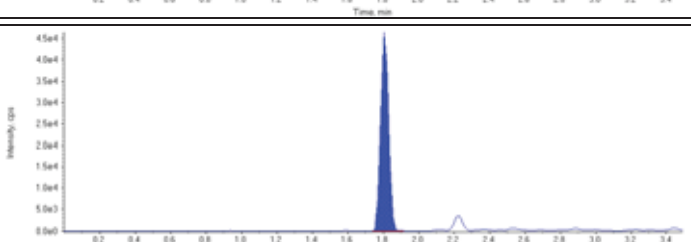
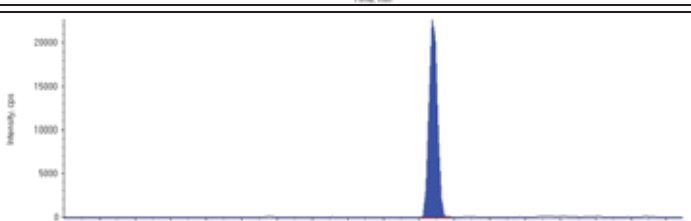
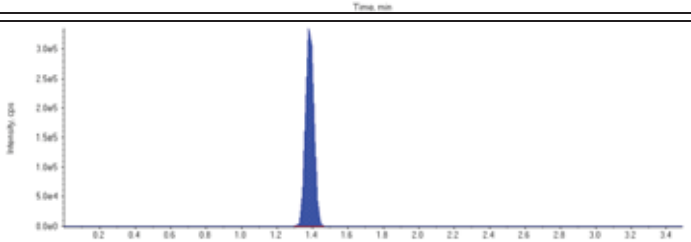
<p>13C2-PFDoA (614.900/570.000 Da)</p> <p>RT (Exp. RT): 2.29 (2.35) min</p> <p>Calculated Conc: 95.1 µg/L</p> <p>Area Ratio: 0.212</p> <p>Sample Type: (Unknown)</p>	
<p>13C2-PFTeDA (714.900/669.900 Da)</p> <p>RT (Exp. RT): 2.43 (2.49) min</p> <p>Calculated Conc: 78.0 µg/L</p> <p>Area Ratio: 0.190</p> <p>Sample Type: (Unknown)</p>	
<p>13C2-6:2-FTS (429.000/80.900 Da)</p> <p>RT (Exp. RT): 1.81 (1.80) min</p> <p>Calculated Conc: 91.6 µg/L</p> <p>Area Ratio: 0.109</p> <p>Sample Type: (Unknown)</p>	
<p>13C2-8:2 FTS (528.900/80.900 Da)</p> <p>RT (Exp. RT): 2.08 (2.08) min</p> <p>Calculated Conc: 114. µg/L</p> <p>Area Ratio: 0.0760</p> <p>Sample Type: (Unknown)</p>	
<p>13C6-PFHxA (318.900/274.000 Da)</p> <p>RT (Exp. RT): 1.38 (1.40) min</p> <p>Calculated Conc: 1.85 µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>13C9-PFDA (521.900/477.100 Da)</p> <p>RT (Exp. RT): 2.10 (2.09) min</p> <p>Calculated Conc: 2.01 µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	

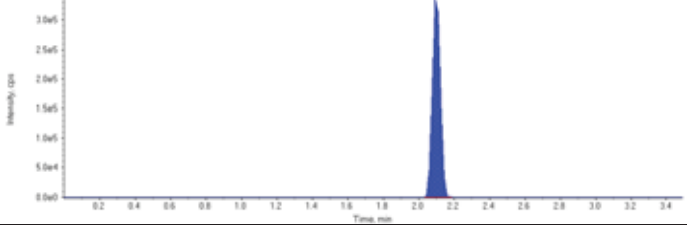
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Sample Type	Quality Control	Injection Vial	10
Acquisition Date	2017/05/23 1:54:21 PM	Dilution Factor	0.0240
Acquisition Method	PFC_Water_Low.dam	Instrument Name	LCMS03
Project	Enviro\PFOS	Algorithm Used	Analyst Classic
Data File	PFC_170523\WS#4988945.wiff		
Result Table	PFC_Water_170523_4988945_CTLabs.rdb		
Samples Annotation	-		

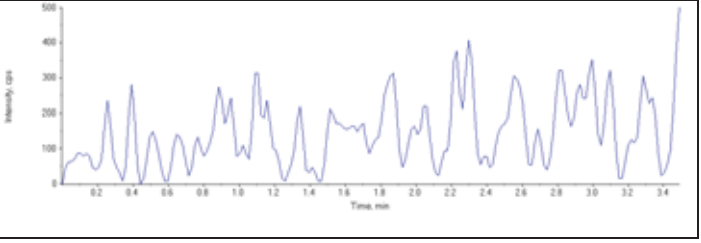
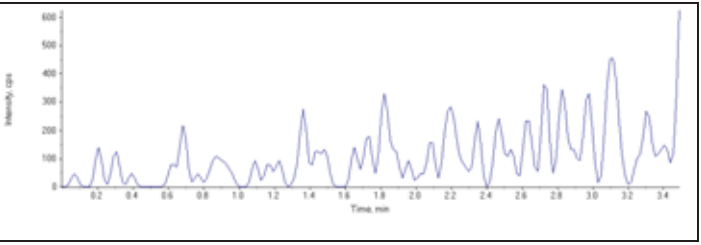
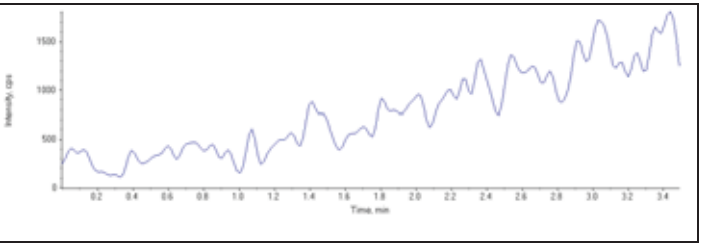
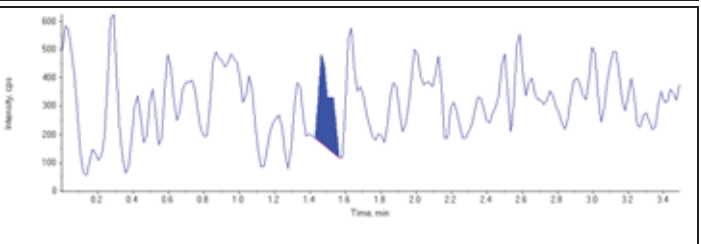
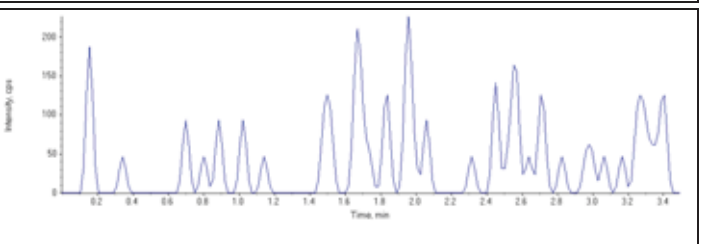
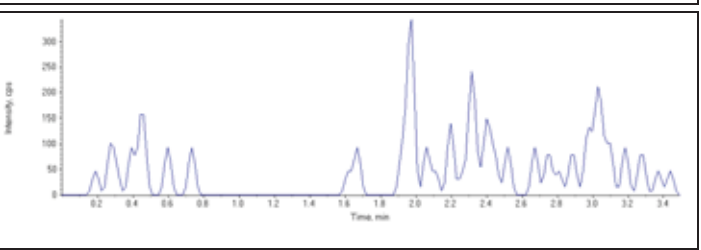
Internal Standard	Area (cps)	RT (min)	Target Conc. (ug/L)	Calc. Conc. (ug/L)
MPFHxA	375000.	1.40	1.00	-
MPFHxS	123000.	1.66	1.00	-
MPFHpA	398000.	1.66	1.00	-
MPFOA	287000.	1.84	1.00	-
MPFOS	139000.	1.96	1.00	-
MPFNA	289000.	1.99	1.00	-
MPFDA	321000.	2.11	1.00	-
MPFUnA	223000.	2.21	1.00	-
MPFDoA	205000.	2.30	1.00	-
MPFTeDA	242000.	2.44	1.00	-
M2 6:2 FTS	144000.	1.81	1.00	-
M2 8:2 FTS	72700.	2.08	1.00	-
13C6-PFHxA IS	1120000.	1.38	41.7	-
13C9-PFDA IS	1090000.	2.10	41.7	-
N/A	N/A	N/A	N/A	-
N/A	N/A	N/A	N/A	-

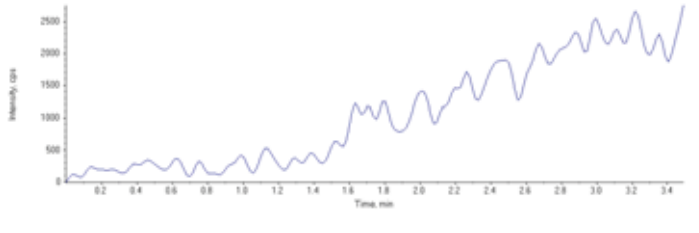
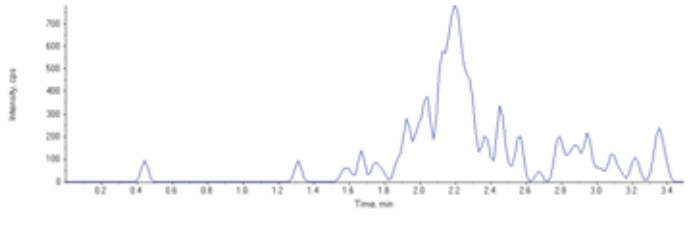
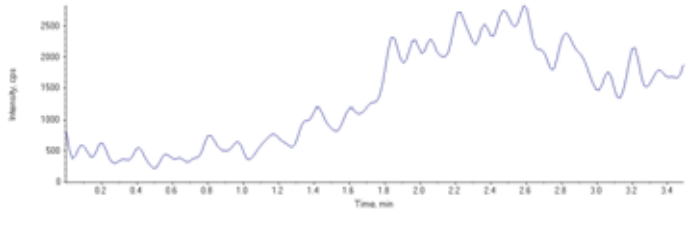
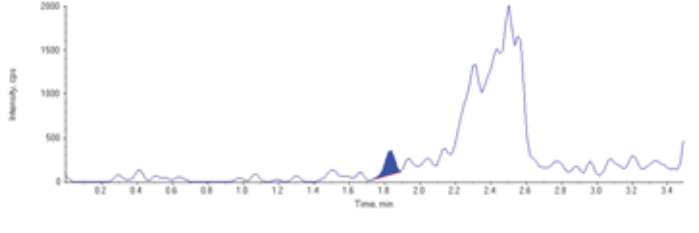
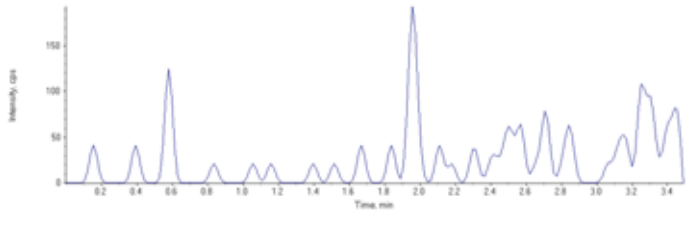
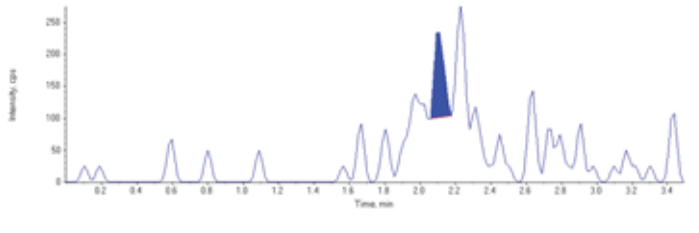
Target Analyte	Area (cps)	RT (min)	Target Conc. (ug/L)	Calc. Conc. (ug/L)	Accuracy (%)
PFBS 1	0	0.00	0.00	N/A	0.0
PFBS 2	0	0.00	0.00	N/A	0.0
PFHxA 1	0	0.00	0.00	N/A	0.0
PFHxA 2	1420	1.47	0.00	0.00558	0.0
PFHxS 1	0	0.00	0.00	N/A	0.0
PFHxS 2	0	0.00	0.00	N/A	0.0
PFHpA 1	0	0.00	0.00	N/A	0.0
PFHpA 2	0	0.00	0.00	N/A	0.0
PFOA 1	0	0.00	0.00	N/A	0.0
PFOA 2	1100	1.83	0.00	0.00592	0.0
PFOS 1	0	0.00	0.00	N/A	0.0
PFOS 2	514	2.10	0.00	0.00401	0.0
PFNA 1	0	0.00	0.00	N/A	0.0
PFNA 2	0	0.00	0.00	N/A	0.0
PFDA 1	0	0.00	0.00	N/A	0.0
PFDA 2	0	0.00	0.00	N/A	0.0
PFUnA 1	0	0.00	0.00	N/A	0.0
PFUnA 2	0	0.00	0.00	N/A	0.0
PFDaA 1	0	0.00	0.00	N/A	0.0
PFDaA 2	0	0.00	0.00	N/A	0.0
PFTTrDA 1	0	0.00	0.00	N/A	0.0
PFTTrDA 2	0	0.00	0.00	N/A	0.0
PFTeDA 1	0	0.00	0.00	N/A	0.0
PFTeDA 2	0	0.00	0.00	N/A	0.0
6:2-FTS 1	3130	1.81	0.00	0.00752	0.0
6:2-FTS 2	1020	1.83	0.00	0.00377	0.0
8:2-FTS 1	0	0.00	0.00	N/A	0.0
8:2-FTS 2	0	0.00	0.00	N/A	0.0
13C2-PFHxA	375000	1.40	0.00	104.	0.0
18O2-PFHxS	123000	1.66	0.00	127.	0.0
13C4-PFHpA	398000	1.66	0.00	108.	0.0
13C4-PFOA	287000	1.84	0.00	93.2	0.0
13C4-PFOS	139000	1.96	0.00	97.7	0.0
13C5-PFNA	289000	1.99	0.00	88.1	0.0
13C2-PFDA	321000	2.11	0.00	95.2	0.0
13C2-PFUnA	223000	2.21	0.00	89.0	0.0
13C2-PFDaA	205000	2.30	0.00	84.6	0.0
13C2-PFTeDA	242000	2.44	0.00	91.2	0.0
13C2-6:2-FTS	144000	1.81	0.00	108.	0.0
13C2-8:2 FTS	72700	2.08	0.00	97.6	0.0
13C6-PFHxA	1120000	1.38	0.00	2.10	0.0
13C9-PFDA	1090000	2.10	0.00	2.18	0.0

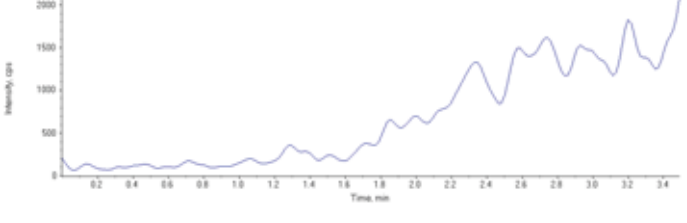
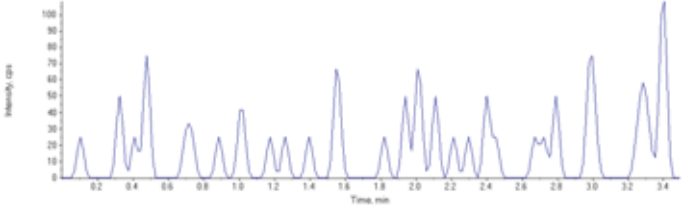
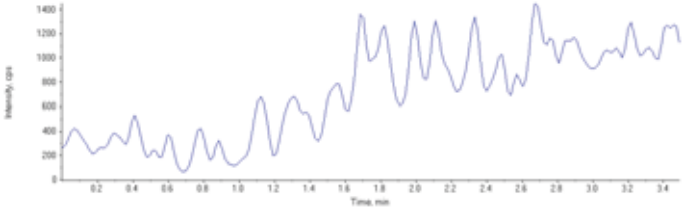
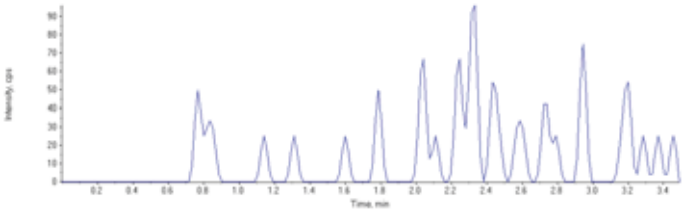
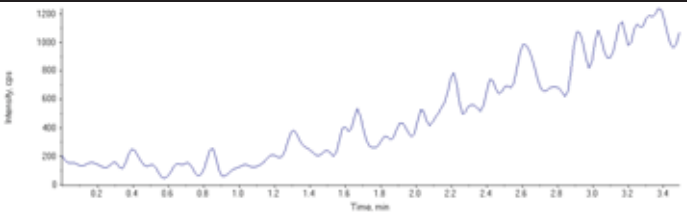
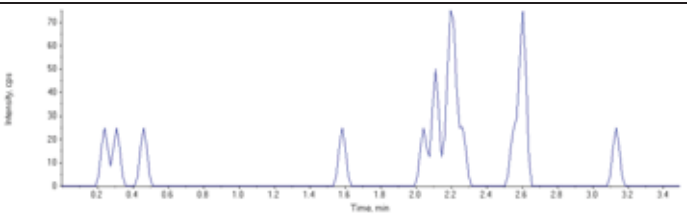
<p>MPFHxA (Internal Standard)</p> <p>RT (Exp. RT): 1.40(1.40) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>MPFHxS (Internal Standard)</p> <p>RT (Exp. RT): 1.66(1.77) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>MPFHpA (Internal Standard)</p> <p>RT (Exp. RT): 1.66(1.67) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>MPFOA (Internal Standard)</p> <p>RT (Exp. RT): 1.84(1.84) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>MPFOS (Internal Standard)</p> <p>RT (Exp. RT): 1.96(2.05) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>MPFNA (Internal Standard)</p> <p>RT (Exp. RT): 1.99(1.99) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	

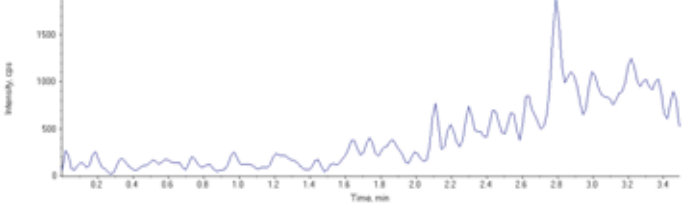
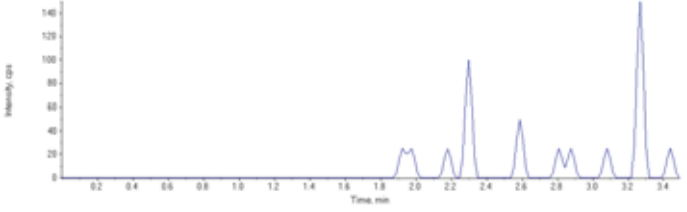
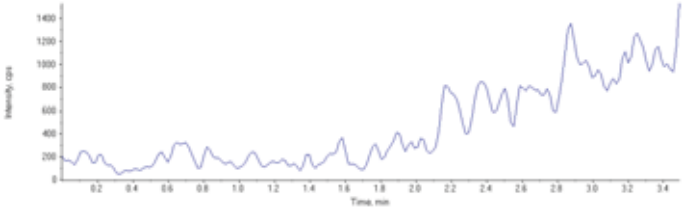
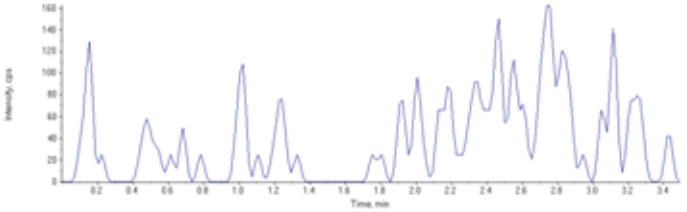
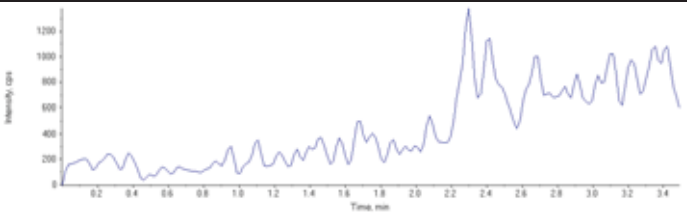
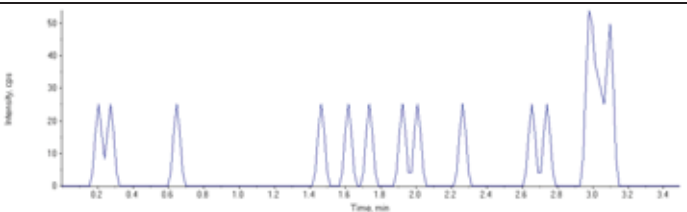
<p>MPFDA (Internal Standard)</p> <p>RT (Exp. RT): 2.11(2.18) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>MPFUnA (Internal Standard)</p> <p>RT (Exp. RT): 2.21(2.27) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>MPFDoA (Internal Standard)</p> <p>RT (Exp. RT): 2.30(2.35) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>MPFTeDA (Internal Standard)</p> <p>RT (Exp. RT): 2.44(2.49) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>M2 6:2 FTS (Internal Standard)</p> <p>RT (Exp. RT): 1.81(1.80) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>M2 8:2 FTS (Internal Standard)</p> <p>RT (Exp. RT): 2.08(2.08) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>13C6-PFHxA IS (Internal Standard)</p> <p>RT (Exp. RT): 1.38(1.40) min</p> <p>Concentration: 41.7 ug/L</p> <p>Sample Type: (Quality Control)</p>	

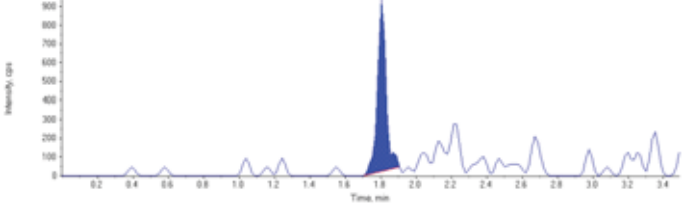
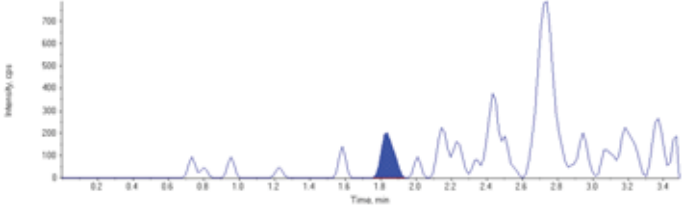
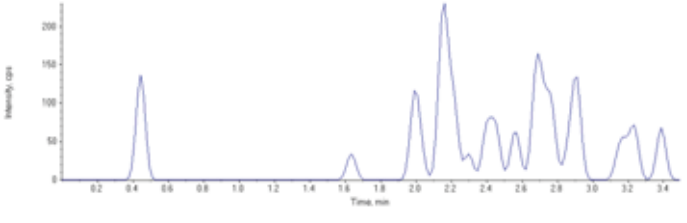
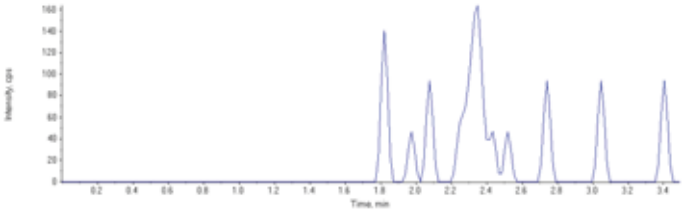
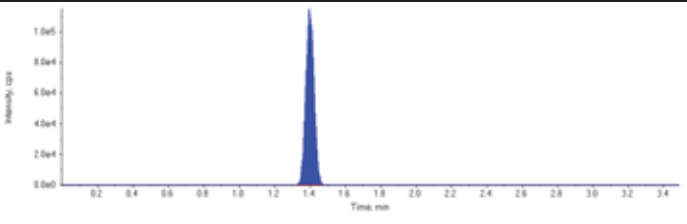
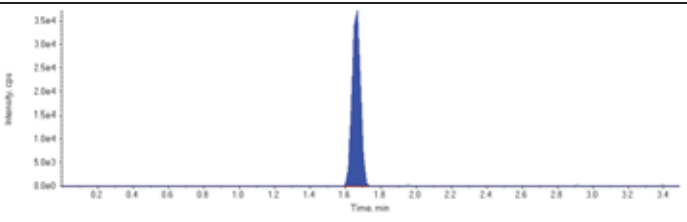
<p>13C9-PFDA IS (Internal Standard)</p> <p>RT (Exp. RT): 2.10(2.09) min</p> <p>Concentration: 41.7 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min</p> <p>Concentration: N/A N/A</p> <p>Sample Type: (Quality Control)</p>	<p>This image is not available</p>
<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min</p> <p>Concentration: N/A N/A</p> <p>Sample Type: (Quality Control)</p>	<p>This image is not available</p>

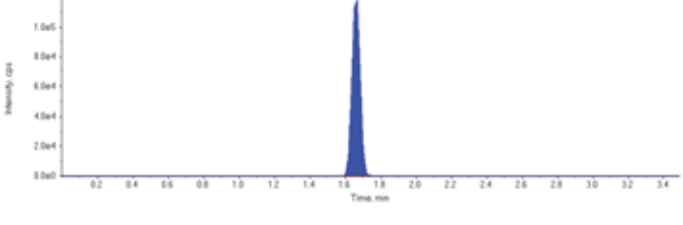
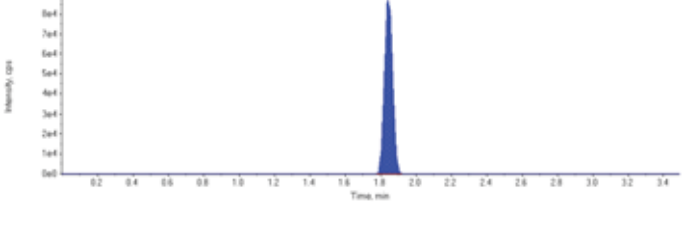
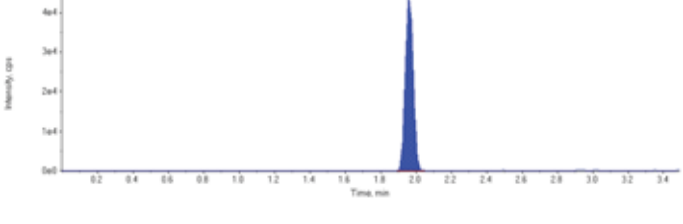
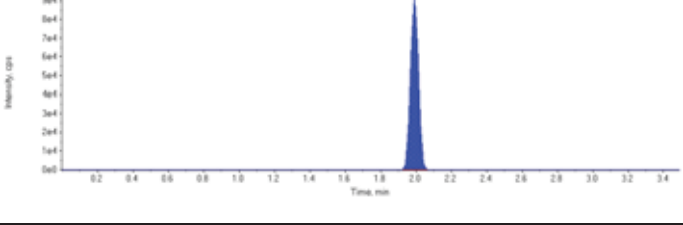
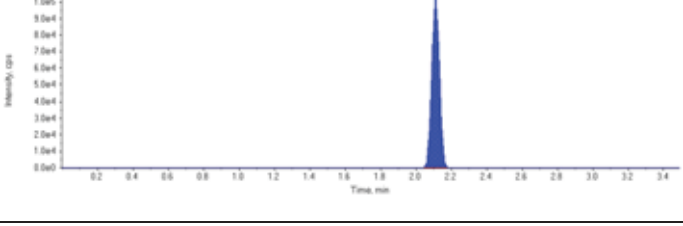
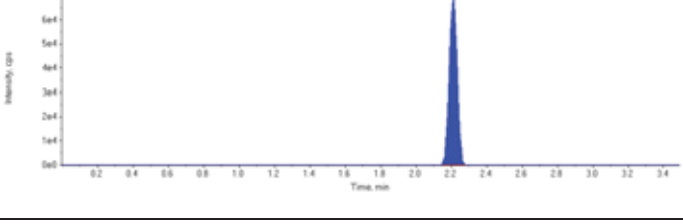
<p>PFBS 1 (298.900/79.900 Da)</p> <p>RT (Exp. RT): 0.00 (1.09) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Quality Control)</p>	
<p>PFBS 2 (298.900/98.900 Da)</p> <p>RT (Exp. RT): 0.00 (1.09) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Quality Control)</p>	
<p>PFHxA 1 (313.000/269.000 Da)</p> <p>RT (Exp. RT): 0.00 (1.40) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Quality Control)</p>	
<p>PFHxA 2 (313.000/119.000 Da)</p> <p>RT (Exp. RT): 1.47 (1.41) min</p> <p>Calculated Conc: 0.00558 µg/L</p> <p>Area Ratio: 0.00380</p> <p>Sample Type: (Quality Control)</p>	
<p>PFHxS 1 (398.900/79.900 Da)</p> <p>RT (Exp. RT): 0.00 (1.67) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Quality Control)</p>	
<p>PFHxS 2 (398.900/98.900 Da)</p> <p>RT (Exp. RT): 0.00 (1.67) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Quality Control)</p>	

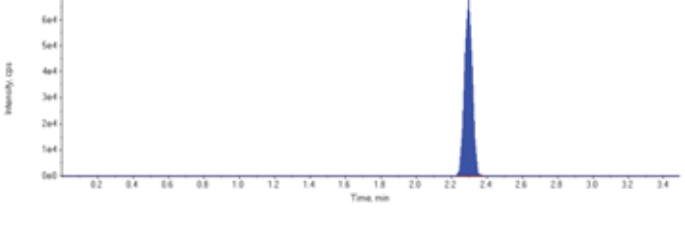
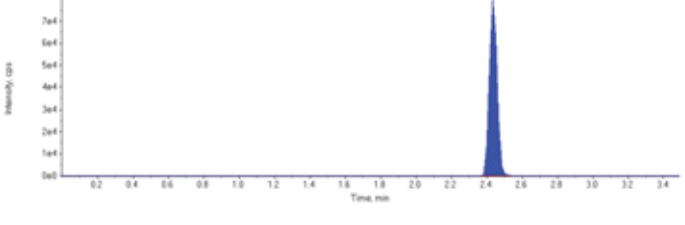
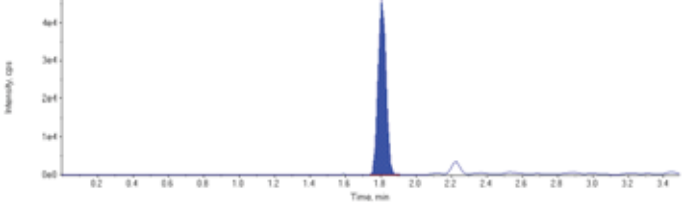
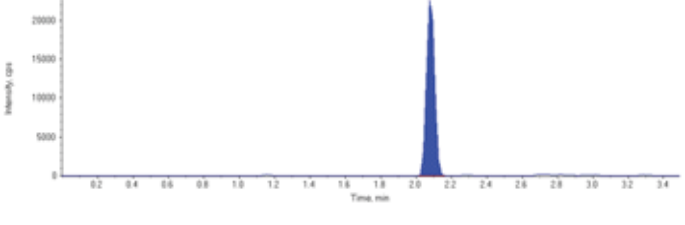
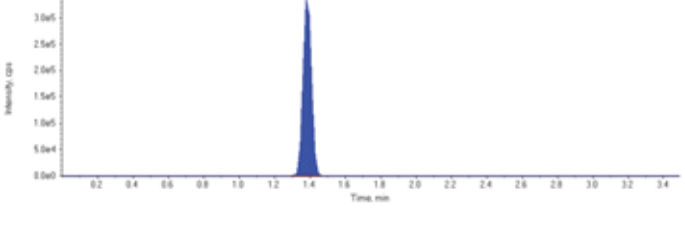
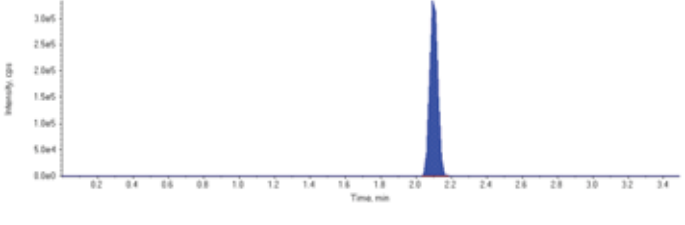
<p>PFHpA 1 (363.000/319.000 Da)</p> <p>RT (Exp. RT): 0.00 (1.67) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Quality Control)</p>	
<p>PFHpA 2 (363.000/169.200 Da)</p> <p>RT (Exp. RT): 0.00 (1.67) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Quality Control)</p>	
<p>PFOA 1 (413.100/369.000 Da)</p> <p>RT (Exp. RT): 0.00 (1.85) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Quality Control)</p>	
<p>PFOA 2 (413.100/169.000 Da)</p> <p>RT (Exp. RT): 1.83 (1.84) min</p> <p>Calculated Conc: 0.00592 µg/L</p> <p>Area Ratio: 0.00384</p> <p>Sample Type: (Quality Control)</p>	
<p>PFOS 1 (498.900/79.900 Da)</p> <p>RT (Exp. RT): 0.00 (1.96) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Quality Control)</p>	
<p>PFOS 2 (498.900/98.900 Da)</p> <p>RT (Exp. RT): 2.10 (1.96) min</p> <p>Calculated Conc: 0.00401 µg/L</p> <p>Area Ratio: 0.00371</p> <p>Sample Type: (Quality Control)</p>	

<p>PFNA 1 (462.900/419.000 Da)</p> <p>RT (Exp. RT): 0.00 (1.99) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Quality Control)</p>	
<p>PFNA 2 (462.900/219.100 Da)</p> <p>RT (Exp. RT): 0.00 (1.99) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Quality Control)</p>	
<p>PFDA 1 (513.000/469.100 Da)</p> <p>RT (Exp. RT): 0.00 (2.18) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Quality Control)</p>	
<p>PFDA 2 (513.000/218.900 Da)</p> <p>RT (Exp. RT): 0.00 (2.11) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Quality Control)</p>	
<p>PFUnA 1 (562.900/519.000 Da)</p> <p>RT (Exp. RT): 0.00 (2.21) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Quality Control)</p>	
<p>PFUnA 2 (562.900/269.200 Da)</p> <p>RT (Exp. RT): 0.00 (2.27) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Quality Control)</p>	

<p>PFD_oA 1 (612.900/569.000 Da)</p> <p>RT (Exp. RT): 0.00 (2.36) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Quality Control)</p>	
<p>PFD_oA 2 (612.900/319.000 Da)</p> <p>RT (Exp. RT): 0.00 (2.35) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Quality Control)</p>	
<p>PFT_rDA 1 (663.000/619.000 Da)</p> <p>RT (Exp. RT): 0.00 (2.42) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Quality Control)</p>	
<p>PFT_rDA 2 (663.000/318.900 Da)</p> <p>RT (Exp. RT): 0.00 (2.37) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Quality Control)</p>	
<p>PFT_eDA 1 (713.000/669.000 Da)</p> <p>RT (Exp. RT): 0.00 (2.49) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Quality Control)</p>	
<p>PFT_eDA 2 (713.000/319.200 Da)</p> <p>RT (Exp. RT): 0.00 (2.49) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Quality Control)</p>	

<p>6:2-FTS 1 (427.000/407.000 Da)</p> <p>RT (Exp. RT): 1.81 (1.90) min</p> <p>Calculated Conc: 0.00752 µg/L</p> <p>Area Ratio: 0.0217</p> <p>Sample Type: (Quality Control)</p>	
<p>6:2-FTS 2 (427.000/80.900 Da)</p> <p>RT (Exp. RT): 1.83 (1.80) min</p> <p>Calculated Conc: 0.00377 µg/L</p> <p>Area Ratio: 0.00710</p> <p>Sample Type: (Quality Control)</p>	
<p>8:2-FTS 1 (526.900/507.000 Da)</p> <p>RT (Exp. RT): 0.00 (2.16) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Quality Control)</p>	
<p>8:2-FTS 2 (526.900/80.900 Da)</p> <p>RT (Exp. RT): 0.00 (2.09) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Quality Control)</p>	
<p>13C2-PFHxA (314.900/270.000 Da)</p> <p>RT (Exp. RT): 1.40 (1.40) min</p> <p>Calculated Conc: 104. µg/L</p> <p>Area Ratio: 0.335</p> <p>Sample Type: (Quality Control)</p>	
<p>18O2-PFHxS (402.900/84.000 Da)</p> <p>RT (Exp. RT): 1.66 (1.77) min</p> <p>Calculated Conc: 127. µg/L</p> <p>Area Ratio: 0.110</p> <p>Sample Type: (Quality Control)</p>	

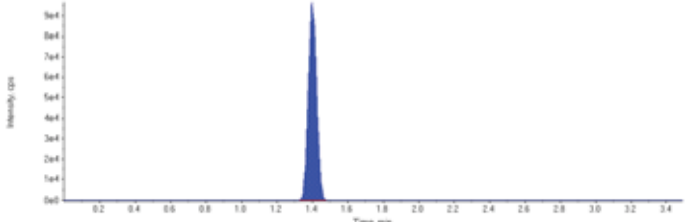
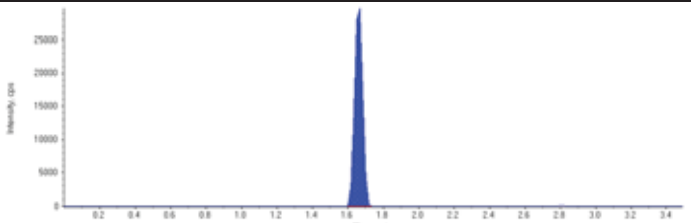
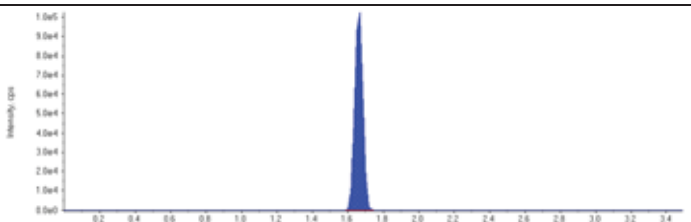
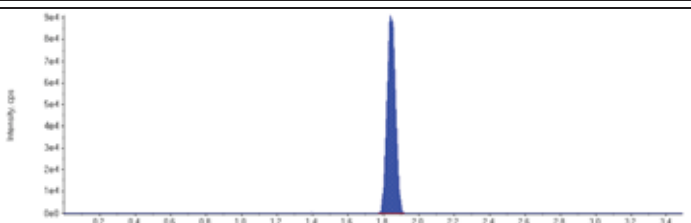
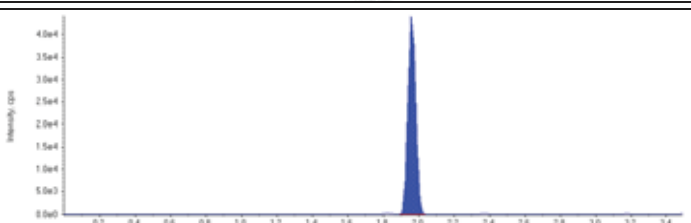
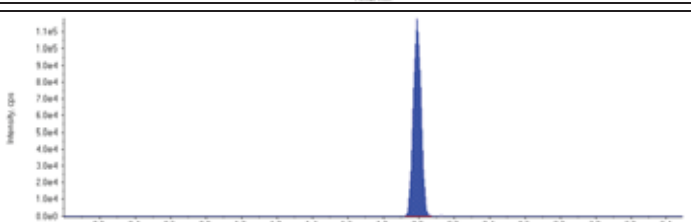
<p>13C4-PFHpa (366.900/322.000 Da)</p> <p>RT (Exp. RT): 1.66 (1.67) min</p> <p>Calculated Conc: 108. µg/L</p> <p>Area Ratio: 0.355</p> <p>Sample Type: (Quality Control)</p>	
<p>13C4-PFOA (416.900/372.000 Da)</p> <p>RT (Exp. RT): 1.84 (1.84) min</p> <p>Calculated Conc: 93.2 µg/L</p> <p>Area Ratio: 0.256</p> <p>Sample Type: (Quality Control)</p>	
<p>13C4-PFOS (502.900/79.900 Da)</p> <p>RT (Exp. RT): 1.96 (2.05) min</p> <p>Calculated Conc: 97.7 µg/L</p> <p>Area Ratio: 0.124</p> <p>Sample Type: (Quality Control)</p>	
<p>13C5-PFNA (467.900/423.000 Da)</p> <p>RT (Exp. RT): 1.99 (1.99) min</p> <p>Calculated Conc: 88.1 µg/L</p> <p>Area Ratio: 0.258</p> <p>Sample Type: (Quality Control)</p>	
<p>13C2-PFDA (514.900/470.000 Da)</p> <p>RT (Exp. RT): 2.11 (2.11) min</p> <p>Calculated Conc: 95.2 µg/L</p> <p>Area Ratio: 0.295</p> <p>Sample Type: (Quality Control)</p>	
<p>13C2-PFUnA (564.900/520.000 Da)</p> <p>RT (Exp. RT): 2.21 (2.27) min</p> <p>Calculated Conc: 89.0 µg/L</p> <p>Area Ratio: 0.205</p> <p>Sample Type: (Quality Control)</p>	

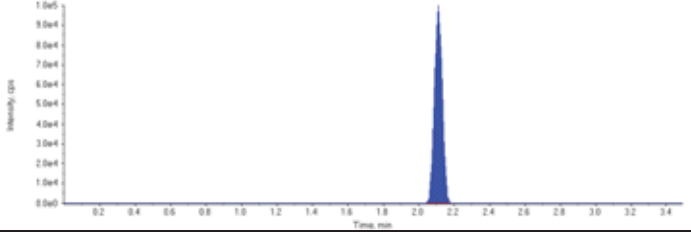
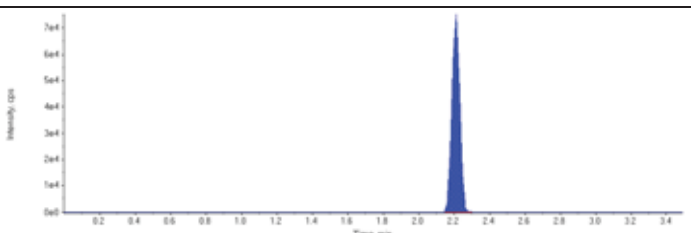
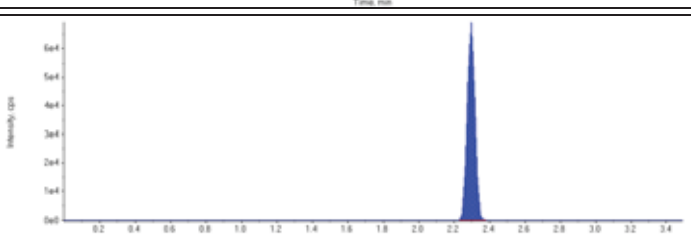
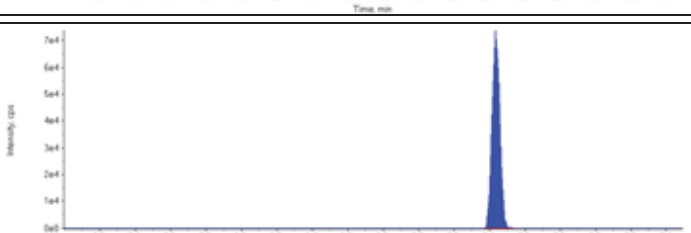
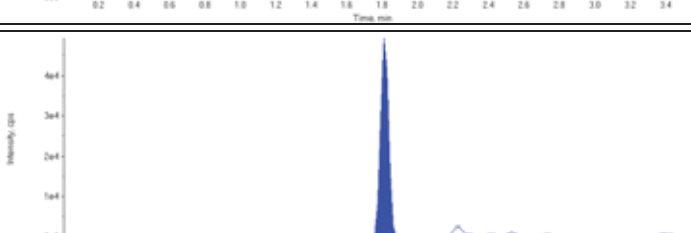
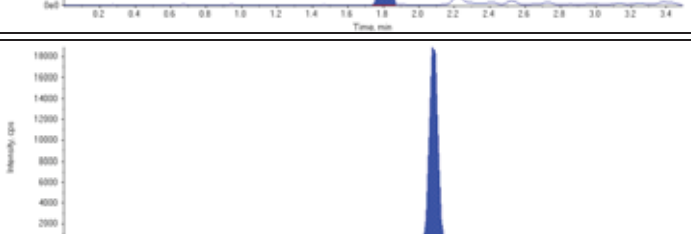
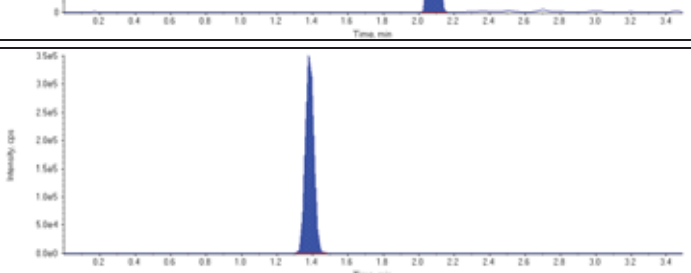
<p>13C2-PFDoA (614.900/570.000 Da)</p> <p>RT (Exp. RT): 2.30 (2.35) min</p> <p>Calculated Conc: 84.6 µg/L</p> <p>Area Ratio: 0.188</p> <p>Sample Type: (Quality Control)</p>	
<p>13C2-PFTeDA (714.900/669.900 Da)</p> <p>RT (Exp. RT): 2.44 (2.49) min</p> <p>Calculated Conc: 91.2 µg/L</p> <p>Area Ratio: 0.222</p> <p>Sample Type: (Quality Control)</p>	
<p>13C2-6:2-FTS (429.000/80.900 Da)</p> <p>RT (Exp. RT): 1.81 (1.80) min</p> <p>Calculated Conc: 108. µg/L</p> <p>Area Ratio: 0.128</p> <p>Sample Type: (Quality Control)</p>	
<p>13C2-8:2 FTS (528.900/80.900 Da)</p> <p>RT (Exp. RT): 2.08 (2.08) min</p> <p>Calculated Conc: 97.6 µg/L</p> <p>Area Ratio: 0.0649</p> <p>Sample Type: (Quality Control)</p>	
<p>13C6-PFHxA (318.900/274.000 Da)</p> <p>RT (Exp. RT): 1.38 (1.40) min</p> <p>Calculated Conc: 2.10 µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Quality Control)</p>	
<p>13C9-PFDA (521.900/477.100 Da)</p> <p>RT (Exp. RT): 2.10 (2.09) min</p> <p>Calculated Conc: 2.18 µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Quality Control)</p>	

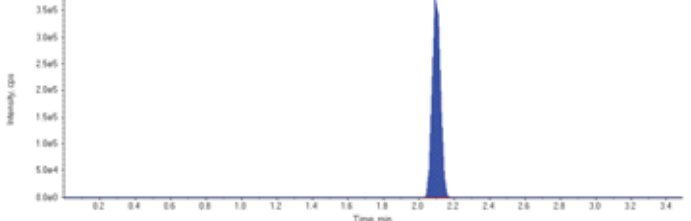
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Sample Type	Quality Control	Injection Vial	11
Acquisition Date	2017/05/23 1:59:26 PM	Dilution Factor	0.0240
Acquisition Method	PFC_Water_Low.dam	Instrument Name	LCMS03
Project	Enviro\PFOS	Algorithm Used	Analyst Classic
Data File	PFC_170523\WS#4988945.wiff		
Result Table	PFC_Water_170523_4988945_CTLabs.rdb		
Samples Annotation	-		

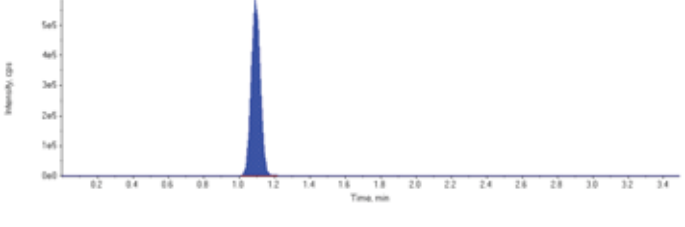
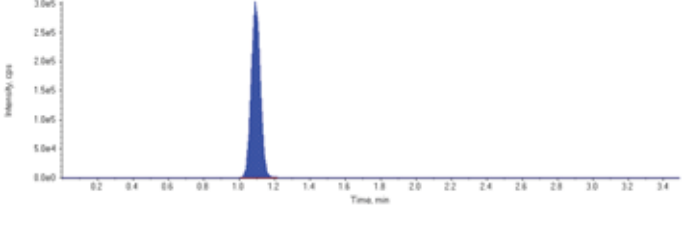
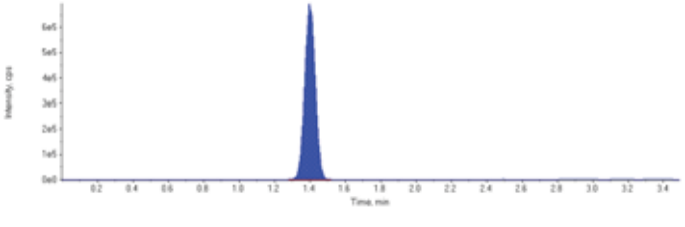
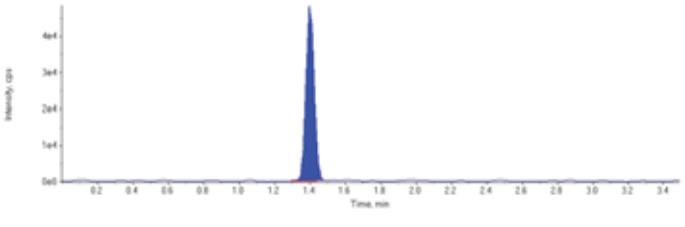
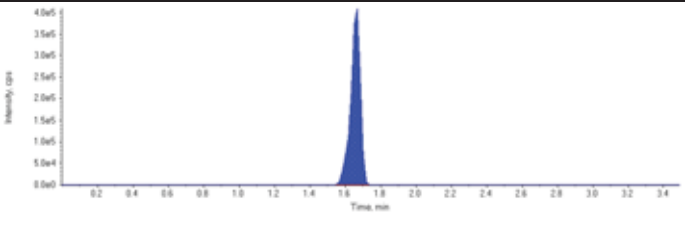
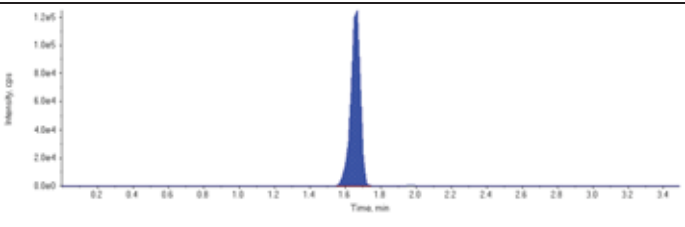
Internal Standard	Area (cps)	RT (min)	Target Conc. (ug/L)	Calc. Conc. (ug/L)
MPFHxA	315000.	1.40	1.00	-
MPFHxS	97900.	1.66	1.00	-
MPFHpA	336000.	1.66	1.00	-
MPFOA	304000.	1.85	1.00	-
MPFOS	136000.	1.96	1.00	-
MPFNA	352000.	1.99	1.00	-
MPFDA	303000.	2.11	1.00	-
MPFUnA	231000.	2.21	1.00	-
MPFDoA	210000.	2.30	1.00	-
MPFTeDA	223000.	2.44	1.00	-
M2 6:2 FTS	152000.	1.81	1.00	-
M2 8:2 FTS	63700.	2.08	1.00	-
13C6-PFHxA IS	1160000.	1.38	41.7	-
13C9-PFDA IS	1190000.	2.10	41.7	-
N/A	N/A	N/A	N/A	-
N/A	N/A	N/A	N/A	-

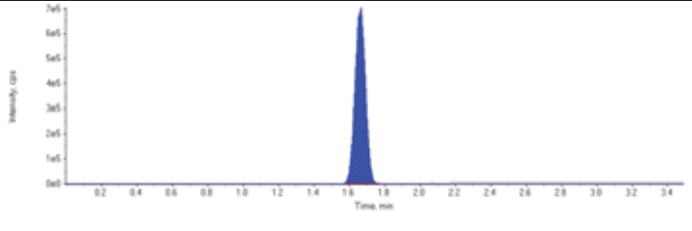
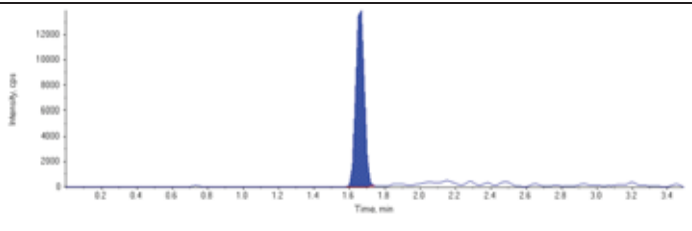
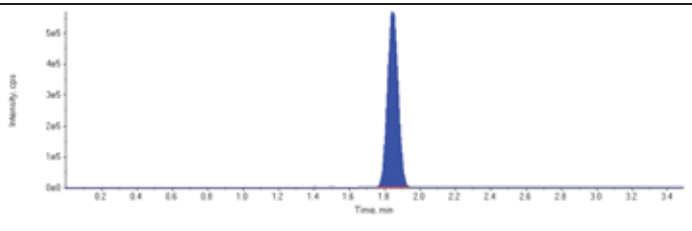
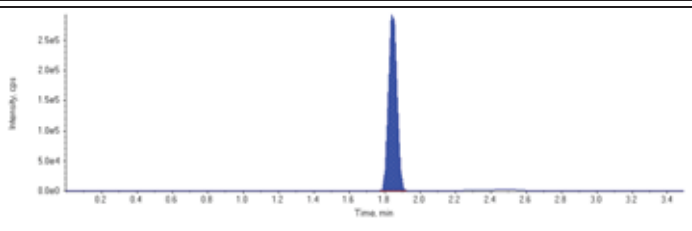
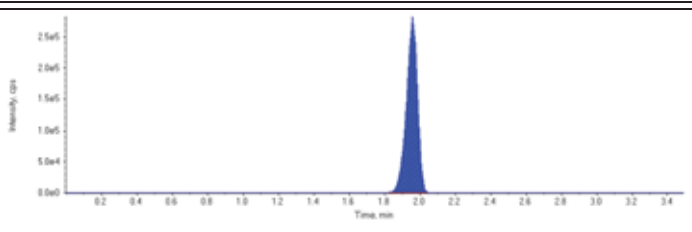
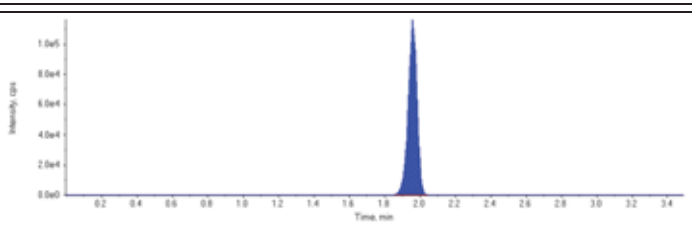
Target Analyte	Area (cps)	RT (min)	Target Conc. (ug/L)	Calc. Conc. (ug/L)	Accuracy (%)
PFBS 1	2080000	1.09	0.500	0.438	87.6
PFBS 2	1080000	1.09	0.500	0.461	92.2
PFHxA 1	2910000	1.40	0.500	0.510	102.0
PFHxA 2	161000	1.40	0.500	0.483	96.7
PFHxS 1	1580000	1.66	0.500	0.447	89.3
PFHxS 2	468000	1.66	0.500	0.447	89.5
PFHpA 1	2940000	1.66	0.500	0.537	107.0
PFHpA 2	47300	1.66	0.500	0.473	94.5
PFOA 1	2410000	1.85	0.500	0.422	84.3
PFOA 2	981000	1.85	0.500	0.423	84.6
PFOS 1	1230000	1.96	0.500	0.467	93.4
PFOS 2	401000	1.96	0.500	0.488	97.7
PFNA 1	2430000	1.99	0.500	0.462	92.5
PFNA 2	602000	1.99	0.500	0.434	86.8
PFDA 1	2560000	2.11	0.500	0.493	98.6
PFDA 2	487000	2.11	0.500	0.485	97.0
PFUnA 1	1970000	2.21	0.500	0.485	97.0
PFUnA 2	238000	2.21	0.500	0.532	106.0
PFDaA 1	1650000	2.30	0.500	0.452	90.5
PFDaA 2	175000	2.30	0.500	0.471	94.2
PFTTrDA 1	1990000	2.37	0.500	0.520	104.0
PFTTrDA 2	241000	2.37	0.500	0.572	114.0
PFTeDA 1	1780000	2.44	0.500	0.512	102.0
PFTeDA 2	132000	2.44	0.500	0.528	106.0
6:2-FTS 1	682000	1.81	0.500	0.409	81.8
6:2-FTS 2	446000	1.81	0.500	0.394	78.7
8:2-FTS 1	610000	2.09	0.500	0.459	91.9
8:2-FTS 2	288000	2.09	0.500	0.594	119.0
13C2-PFHxA	315000	1.40	100.	84.4	84.4
18O2-PFHxS	97900	1.66	100.	97.7	97.7
13C4-PFHpA	336000	1.66	100.	87.5	87.5
13C4-PFOA	304000	1.85	100.	95.2	95.2
13C4-PFOS	136000	1.96	100.	92.5	92.5
13C5-PFNA	352000	1.99	100.	103.	103.0
13C2-PFDA	303000	2.11	100.	82.0	82.0
13C2-PFUnA	231000	2.21	100.	84.4	84.4
13C2-PFDaA	210000	2.30	100.	79.3	79.3
13C2-PFTeDA	223000	2.44	100.	76.7	76.7
13C2-6:2-FTS	152000	1.81	100.	109.	109.0
13C2-8:2 FTS	63700	2.08	100.	82.3	82.3
13C6-PFHxA	1160000	1.38	100.	2.18	2.2
13C9-PFDA	1190000	2.10	100.	2.39	2.4

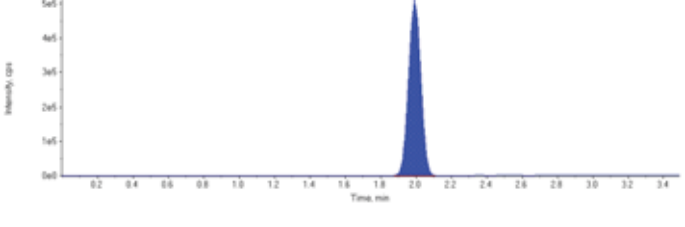
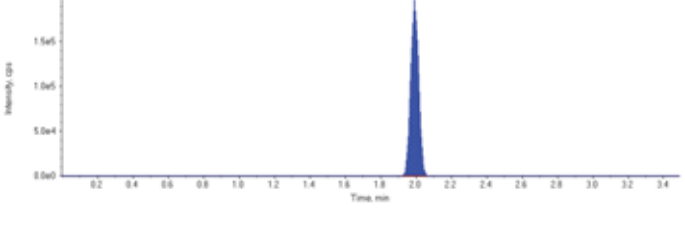
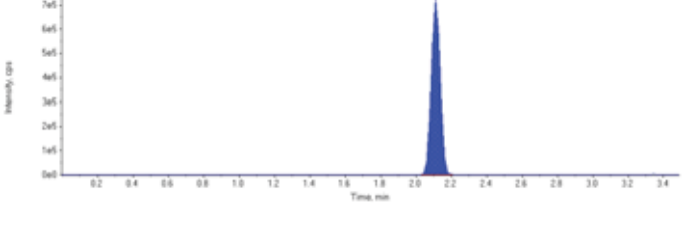
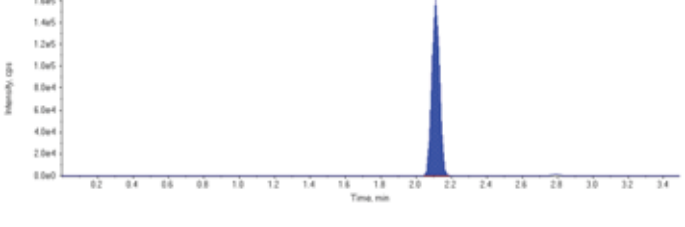
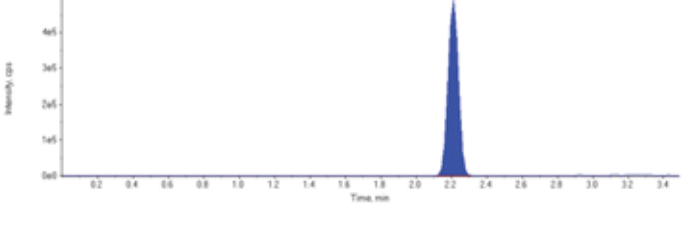
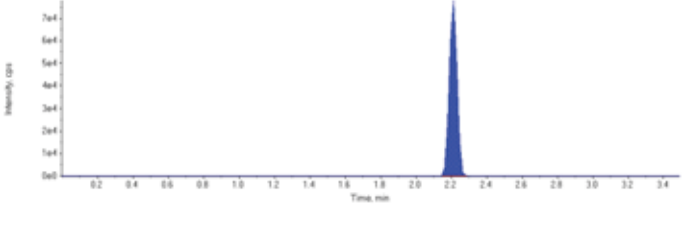
<p>MPFHxA (Internal Standard)</p> <p>RT (Exp. RT): 1.40(1.40) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>MPFHxS (Internal Standard)</p> <p>RT (Exp. RT): 1.66(1.77) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>MPFHpA (Internal Standard)</p> <p>RT (Exp. RT): 1.66(1.67) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>MPFOA (Internal Standard)</p> <p>RT (Exp. RT): 1.85(1.84) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>MPFOS (Internal Standard)</p> <p>RT (Exp. RT): 1.96(2.05) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>MPFNA (Internal Standard)</p> <p>RT (Exp. RT): 1.99(1.99) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	

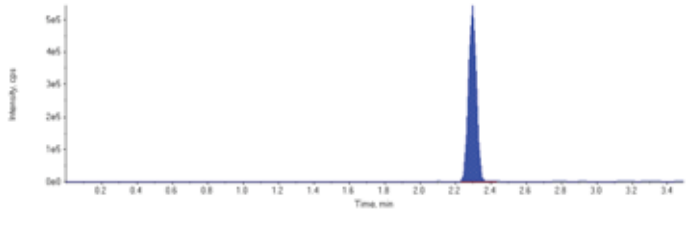
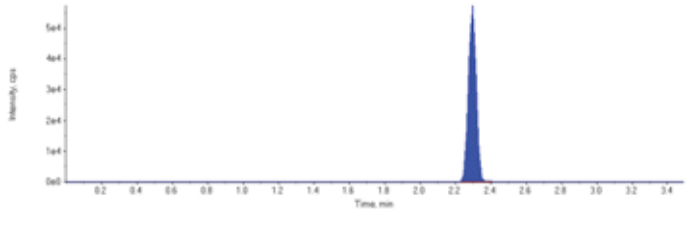
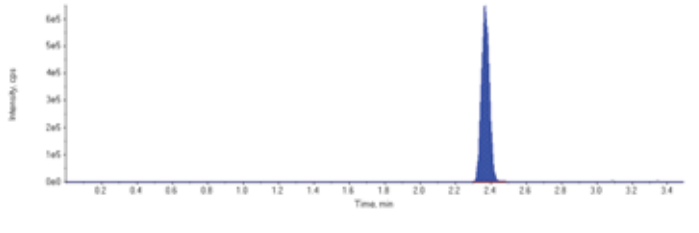
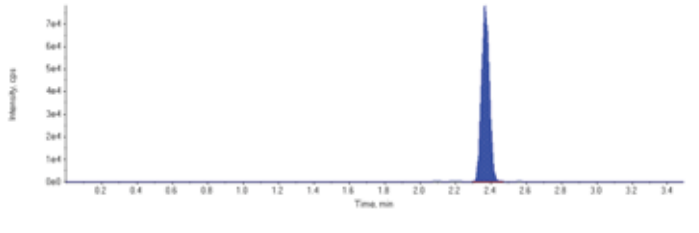
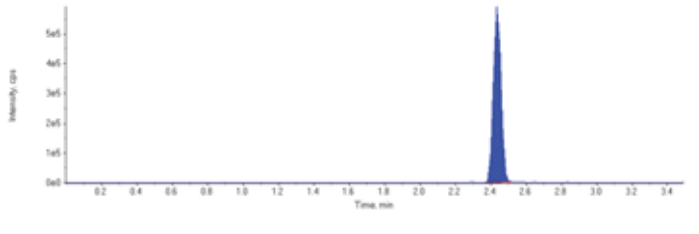
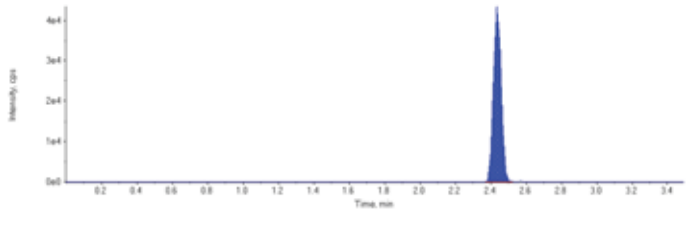
<p>MPFDA (Internal Standard)</p> <p>RT (Exp. RT): 2.11(2.18) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>MPFUnA (Internal Standard)</p> <p>RT (Exp. RT): 2.21(2.27) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>MPFDoA (Internal Standard)</p> <p>RT (Exp. RT): 2.30(2.35) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>MPFTeDA (Internal Standard)</p> <p>RT (Exp. RT): 2.44(2.49) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>M2 6:2 FTS (Internal Standard)</p> <p>RT (Exp. RT): 1.81(1.80) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>M2 8:2 FTS (Internal Standard)</p> <p>RT (Exp. RT): 2.08(2.08) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>13C6-PFHxA IS (Internal Standard)</p> <p>RT (Exp. RT): 1.38(1.40) min</p> <p>Concentration: 41.7 ug/L</p> <p>Sample Type: (Quality Control)</p>	

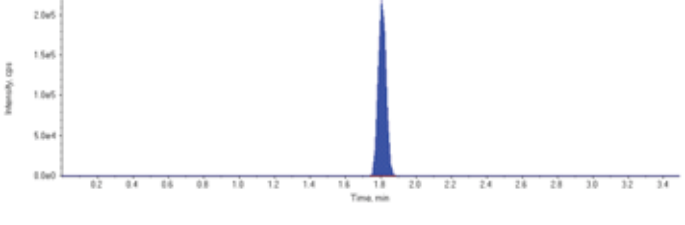
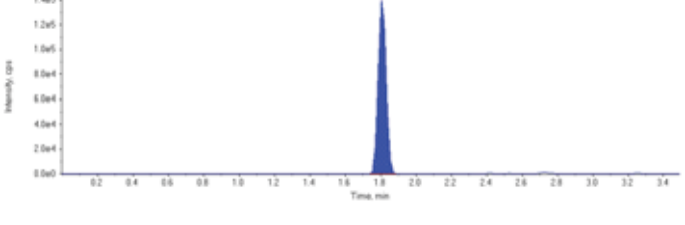
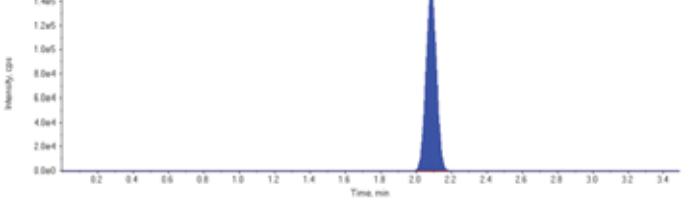
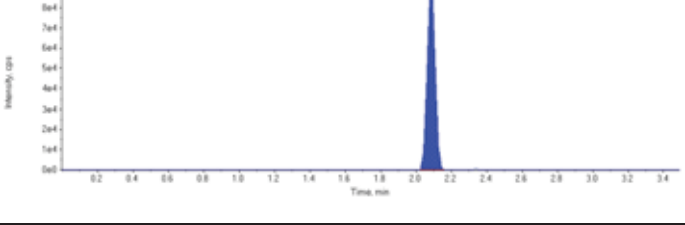
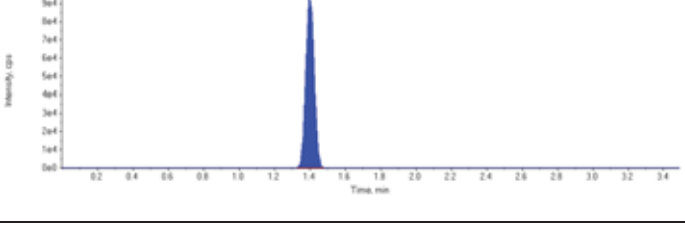
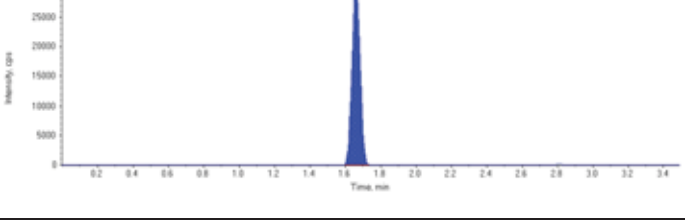
<p>13C9-PFDA IS (Internal Standard)</p> <p>RT (Exp. RT): 2.10(2.09) min</p> <p>Concentration: 41.7 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min</p> <p>Concentration: N/A N/A</p> <p>Sample Type: (Quality Control)</p>	<p>This image is not available</p>
<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min</p> <p>Concentration: N/A N/A</p> <p>Sample Type: (Quality Control)</p>	<p>This image is not available</p>

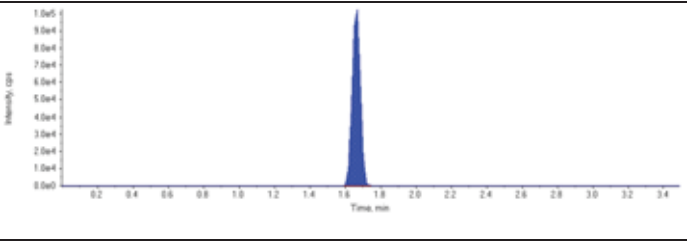
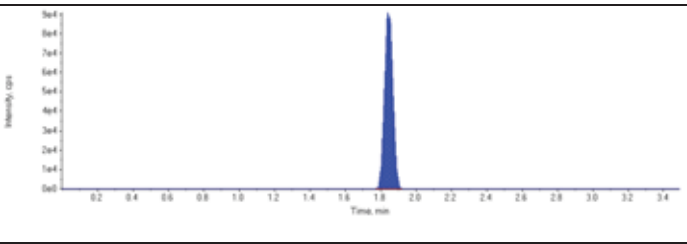
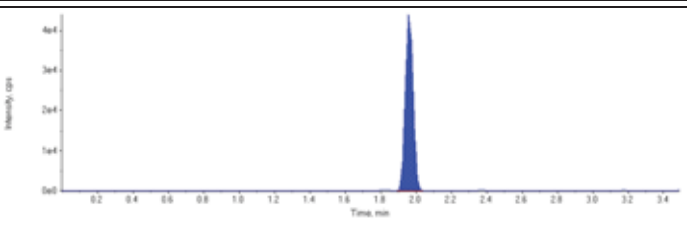
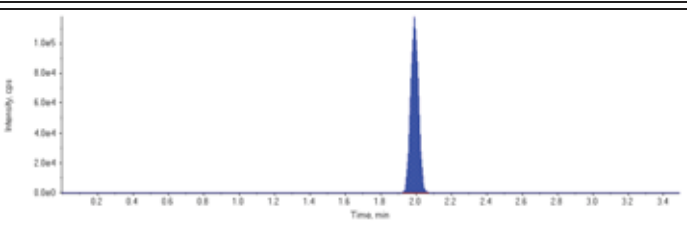
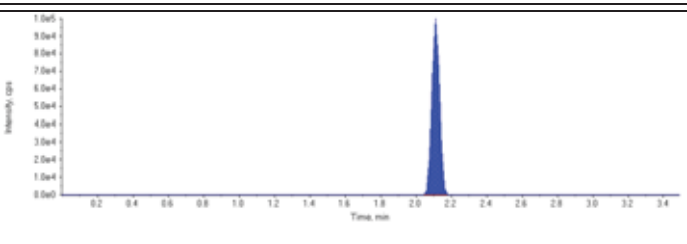
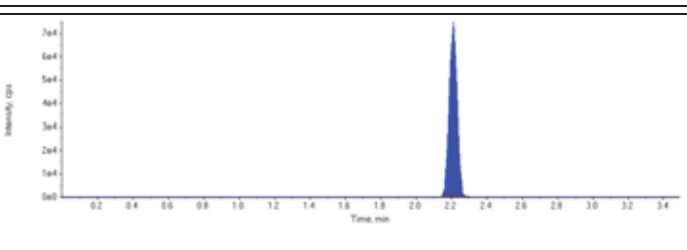
<p>PFBS 1 (298.900/79.900 Da)</p> <p>RT (Exp. RT): 1.09 (1.09) min</p> <p>Calculated Conc: 0.438 µg/L</p> <p>Area Ratio: 21.2</p> <p>Sample Type: (Quality Control)</p>	
<p>PFBS 2 (298.900/98.900 Da)</p> <p>RT (Exp. RT): 1.09 (1.09) min</p> <p>Calculated Conc: 0.461 µg/L</p> <p>Area Ratio: 11.0</p> <p>Sample Type: (Quality Control)</p>	
<p>PFHxA 1 (313.000/269.000 Da)</p> <p>RT (Exp. RT): 1.40 (1.40) min</p> <p>Calculated Conc: 0.510 µg/L</p> <p>Area Ratio: 9.23</p> <p>Sample Type: (Quality Control)</p>	
<p>PFHxA 2 (313.000/119.000 Da)</p> <p>RT (Exp. RT): 1.40 (1.41) min</p> <p>Calculated Conc: 0.483 µg/L</p> <p>Area Ratio: 0.509</p> <p>Sample Type: (Quality Control)</p>	
<p>PFHxS 1 (398.900/79.900 Da)</p> <p>RT (Exp. RT): 1.66 (1.67) min</p> <p>Calculated Conc: 0.447 µg/L</p> <p>Area Ratio: 16.1</p> <p>Sample Type: (Quality Control)</p>	
<p>PFHxS 2 (398.900/98.900 Da)</p> <p>RT (Exp. RT): 1.66 (1.67) min</p> <p>Calculated Conc: 0.447 µg/L</p> <p>Area Ratio: 4.78</p> <p>Sample Type: (Quality Control)</p>	

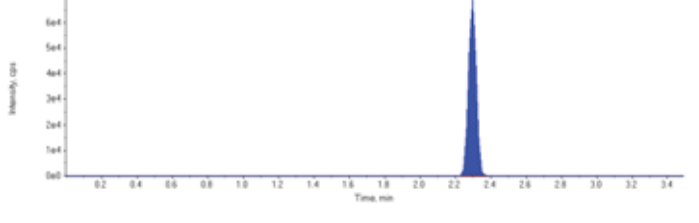
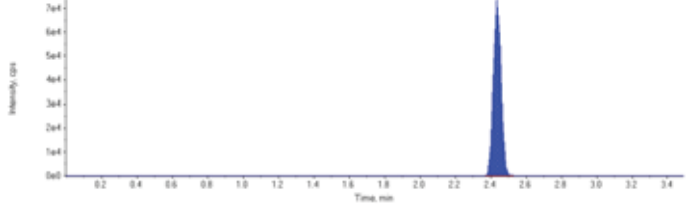
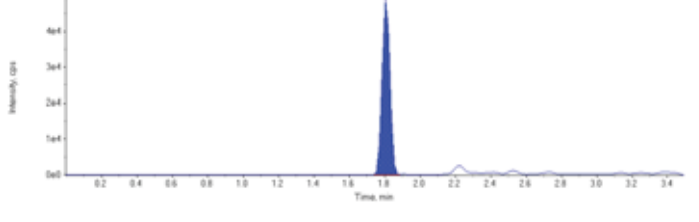
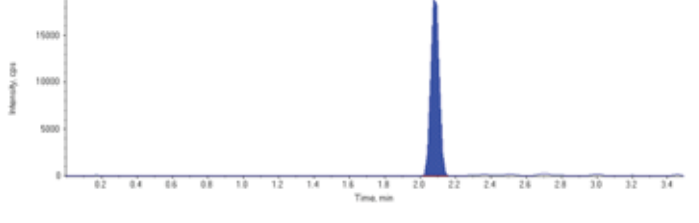
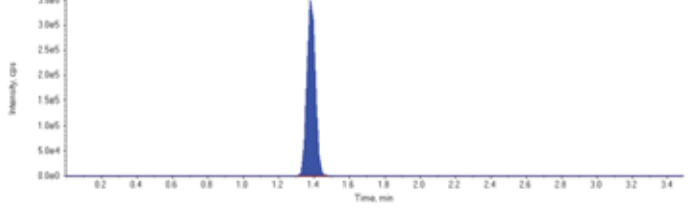
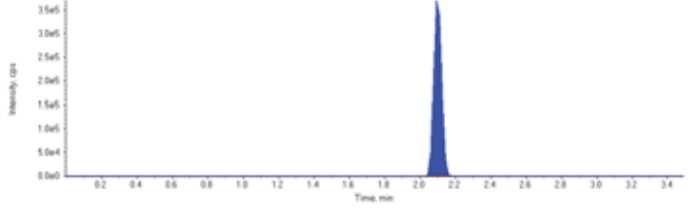
<p>PFHpA 1 (363.000/319.000 Da)</p> <p>RT (Exp. RT): 1.66 (1.67) min</p> <p>Calculated Conc: 0.537 µg/L</p> <p>Area Ratio: 8.75</p> <p>Sample Type: (Quality Control)</p>	
<p>PFHpA 2 (363.000/169.200 Da)</p> <p>RT (Exp. RT): 1.66 (1.67) min</p> <p>Calculated Conc: 0.473 µg/L</p> <p>Area Ratio: 0.141</p> <p>Sample Type: (Quality Control)</p>	
<p>PFOA 1 (413.100/369.000 Da)</p> <p>RT (Exp. RT): 1.85 (1.85) min</p> <p>Calculated Conc: 0.422 µg/L</p> <p>Area Ratio: 7.92</p> <p>Sample Type: (Quality Control)</p>	
<p>PFOA 2 (413.100/169.000 Da)</p> <p>RT (Exp. RT): 1.85 (1.84) min</p> <p>Calculated Conc: 0.423 µg/L</p> <p>Area Ratio: 3.22</p> <p>Sample Type: (Quality Control)</p>	
<p>PFOS 1 (498.900/79.900 Da)</p> <p>RT (Exp. RT): 1.96 (1.96) min</p> <p>Calculated Conc: 0.467 µg/L</p> <p>Area Ratio: 9.05</p> <p>Sample Type: (Quality Control)</p>	
<p>PFOS 2 (498.900/98.900 Da)</p> <p>RT (Exp. RT): 1.96 (1.96) min</p> <p>Calculated Conc: 0.488 µg/L</p> <p>Area Ratio: 2.94</p> <p>Sample Type: (Quality Control)</p>	

<p>PFNA 1 (462.900/419.000 Da)</p> <p>RT (Exp. RT): 1.99 (1.99) min</p> <p>Calculated Conc: 0.462 µg/L</p> <p>Area Ratio: 6.92</p> <p>Sample Type: (Quality Control)</p>	
<p>PFNA 2 (462.900/219.100 Da)</p> <p>RT (Exp. RT): 1.99 (1.99) min</p> <p>Calculated Conc: 0.434 µg/L</p> <p>Area Ratio: 1.71</p> <p>Sample Type: (Quality Control)</p>	
<p>PFDA 1 (513.000/469.100 Da)</p> <p>RT (Exp. RT): 2.11 (2.18) min</p> <p>Calculated Conc: 0.493 µg/L</p> <p>Area Ratio: 8.44</p> <p>Sample Type: (Quality Control)</p>	
<p>PFDA 2 (513.000/218.900 Da)</p> <p>RT (Exp. RT): 2.11 (2.11) min</p> <p>Calculated Conc: 0.485 µg/L</p> <p>Area Ratio: 1.61</p> <p>Sample Type: (Quality Control)</p>	
<p>PFUnA 1 (562.900/519.000 Da)</p> <p>RT (Exp. RT): 2.21 (2.21) min</p> <p>Calculated Conc: 0.485 µg/L</p> <p>Area Ratio: 8.53</p> <p>Sample Type: (Quality Control)</p>	
<p>PFUnA 2 (562.900/269.200 Da)</p> <p>RT (Exp. RT): 2.21 (2.27) min</p> <p>Calculated Conc: 0.532 µg/L</p> <p>Area Ratio: 1.03</p> <p>Sample Type: (Quality Control)</p>	

<p>PFD_oA 1 (612.900/569.000 Da)</p> <p>RT (Exp. RT): 2.30 (2.36) min</p> <p>Calculated Conc: 0.452 µg/L</p> <p>Area Ratio: 7.85</p> <p>Sample Type: (Quality Control)</p>	
<p>PFD_oA 2 (612.900/319.000 Da)</p> <p>RT (Exp. RT): 2.30 (2.35) min</p> <p>Calculated Conc: 0.471 µg/L</p> <p>Area Ratio: 0.833</p> <p>Sample Type: (Quality Control)</p>	
<p>PFT_rDA 1 (663.000/619.000 Da)</p> <p>RT (Exp. RT): 2.37 (2.42) min</p> <p>Calculated Conc: 0.520 µg/L</p> <p>Area Ratio: 8.94</p> <p>Sample Type: (Quality Control)</p>	
<p>PFT_rDA 2 (663.000/318.900 Da)</p> <p>RT (Exp. RT): 2.37 (2.37) min</p> <p>Calculated Conc: 0.572 µg/L</p> <p>Area Ratio: 1.08</p> <p>Sample Type: (Quality Control)</p>	
<p>PFT_eDA 1 (713.000/669.000 Da)</p> <p>RT (Exp. RT): 2.44 (2.49) min</p> <p>Calculated Conc: 0.512 µg/L</p> <p>Area Ratio: 7.99</p> <p>Sample Type: (Quality Control)</p>	
<p>PFT_eDA 2 (713.000/319.200 Da)</p> <p>RT (Exp. RT): 2.44 (2.49) min</p> <p>Calculated Conc: 0.528 µg/L</p> <p>Area Ratio: 0.593</p> <p>Sample Type: (Quality Control)</p>	

<p>6:2-FTS 1 (427.000/407.000 Da)</p> <p>RT (Exp. RT): 1.81 (1.90) min</p> <p>Calculated Conc: 0.409 µg/L</p> <p>Area Ratio: 4.49</p> <p>Sample Type: (Quality Control)</p>	
<p>6:2-FTS 2 (427.000/80.900 Da)</p> <p>RT (Exp. RT): 1.81 (1.80) min</p> <p>Calculated Conc: 0.394 µg/L</p> <p>Area Ratio: 2.94</p> <p>Sample Type: (Quality Control)</p>	
<p>8:2-FTS 1 (526.900/507.000 Da)</p> <p>RT (Exp. RT): 2.09 (2.16) min</p> <p>Calculated Conc: 0.459 µg/L</p> <p>Area Ratio: 9.57</p> <p>Sample Type: (Quality Control)</p>	
<p>8:2-FTS 2 (526.900/80.900 Da)</p> <p>RT (Exp. RT): 2.09 (2.09) min</p> <p>Calculated Conc: 0.594 µg/L</p> <p>Area Ratio: 4.52</p> <p>Sample Type: (Quality Control)</p>	
<p>13C2-PFHxA (314.900/270.000 Da)</p> <p>RT (Exp. RT): 1.40 (1.40) min</p> <p>Calculated Conc: 84.4 µg/L</p> <p>Area Ratio: 0.271</p> <p>Sample Type: (Quality Control)</p>	
<p>18O2-PFHxS (402.900/84.000 Da)</p> <p>RT (Exp. RT): 1.66 (1.77) min</p> <p>Calculated Conc: 97.7 µg/L</p> <p>Area Ratio: 0.0842</p> <p>Sample Type: (Quality Control)</p>	

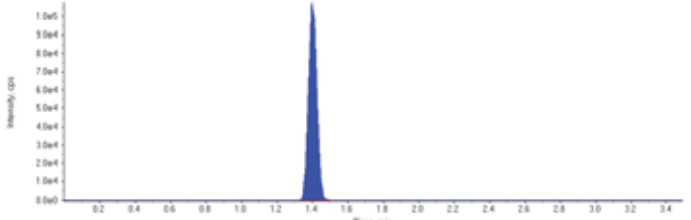
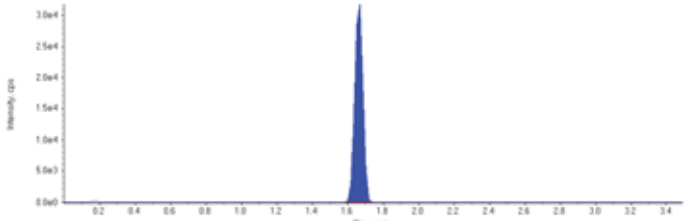
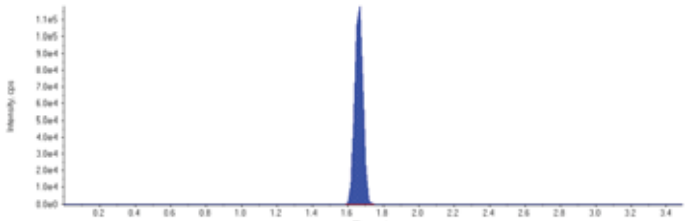
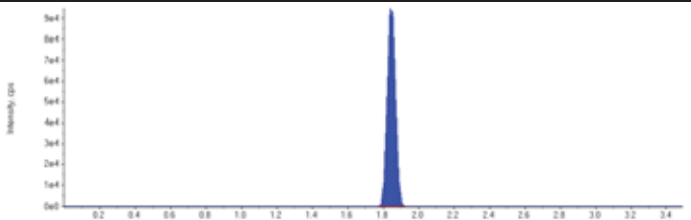
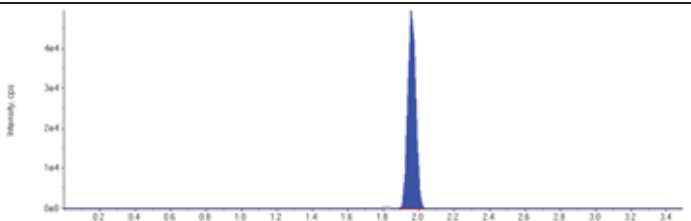
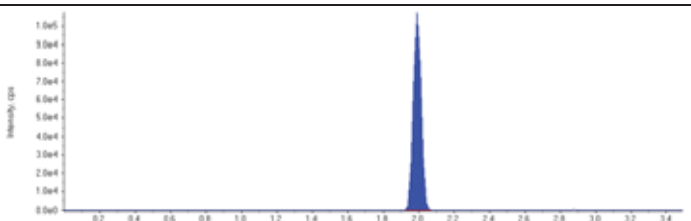
<p>13C4-PFHpa (366.900/322.000 Da)</p> <p>RT (Exp. RT): 1.66 (1.67) min</p> <p>Calculated Conc: 87.5 µg/L</p> <p>Area Ratio: 0.289</p> <p>Sample Type: (Quality Control)</p>	
<p>13C4-PFOA (416.900/372.000 Da)</p> <p>RT (Exp. RT): 1.85 (1.84) min</p> <p>Calculated Conc: 95.2 µg/L</p> <p>Area Ratio: 0.262</p> <p>Sample Type: (Quality Control)</p>	
<p>13C4-PFOS (502.900/79.900 Da)</p> <p>RT (Exp. RT): 1.96 (2.05) min</p> <p>Calculated Conc: 92.5 µg/L</p> <p>Area Ratio: 0.117</p> <p>Sample Type: (Quality Control)</p>	
<p>13C5-PFNA (467.900/423.000 Da)</p> <p>RT (Exp. RT): 1.99 (1.99) min</p> <p>Calculated Conc: 103. µg/L</p> <p>Area Ratio: 0.303</p> <p>Sample Type: (Quality Control)</p>	
<p>13C2-PFDA (514.900/470.000 Da)</p> <p>RT (Exp. RT): 2.11 (2.11) min</p> <p>Calculated Conc: 82.0 µg/L</p> <p>Area Ratio: 0.254</p> <p>Sample Type: (Quality Control)</p>	
<p>13C2-PFUnA (564.900/520.000 Da)</p> <p>RT (Exp. RT): 2.21 (2.27) min</p> <p>Calculated Conc: 84.4 µg/L</p> <p>Area Ratio: 0.194</p> <p>Sample Type: (Quality Control)</p>	

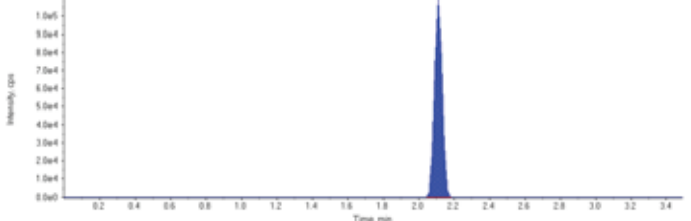
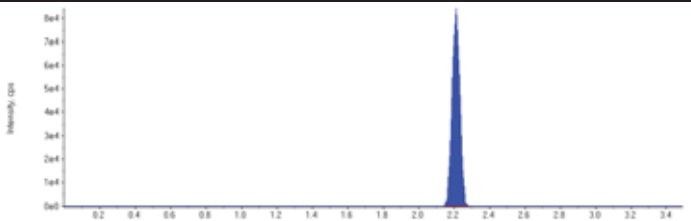
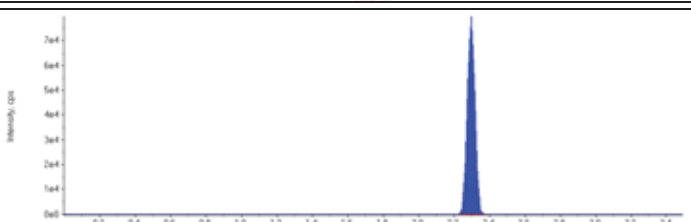
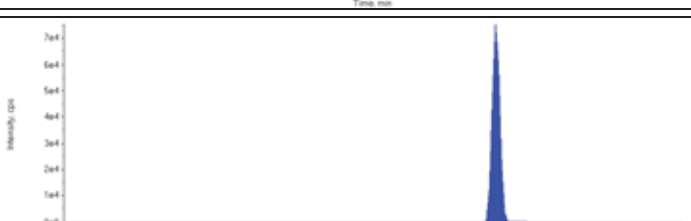
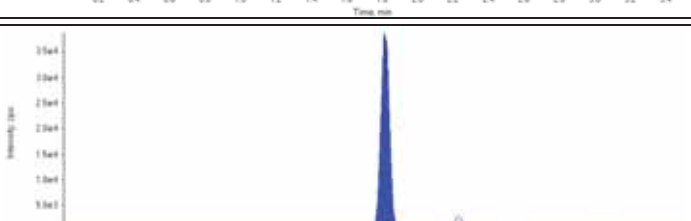
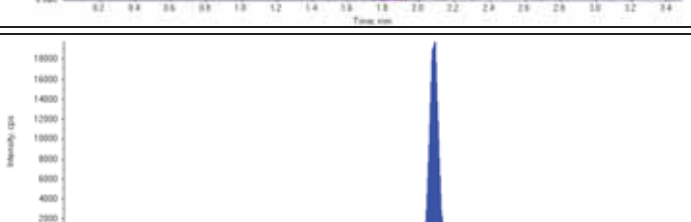
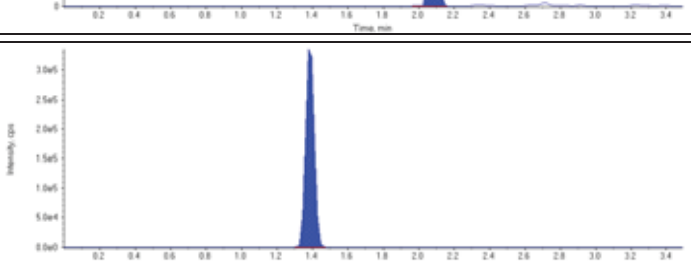
<p>13C2-PFDoA (614.900/570.000 Da)</p> <p>RT (Exp. RT): 2.30 (2.35) min</p> <p>Calculated Conc: 79.3 µg/L</p> <p>Area Ratio: 0.177</p> <p>Sample Type: (Quality Control)</p>	
<p>13C2-PFTeDA (714.900/669.900 Da)</p> <p>RT (Exp. RT): 2.44 (2.49) min</p> <p>Calculated Conc: 76.7 µg/L</p> <p>Area Ratio: 0.187</p> <p>Sample Type: (Quality Control)</p>	
<p>13C2-6:2-FTS (429.000/80.900 Da)</p> <p>RT (Exp. RT): 1.81 (1.80) min</p> <p>Calculated Conc: 109. µg/L</p> <p>Area Ratio: 0.131</p> <p>Sample Type: (Quality Control)</p>	
<p>13C2-8:2 FTS (528.900/80.900 Da)</p> <p>RT (Exp. RT): 2.08 (2.08) min</p> <p>Calculated Conc: 82.3 µg/L</p> <p>Area Ratio: 0.0548</p> <p>Sample Type: (Quality Control)</p>	
<p>13C6-PFHxA (318.900/274.000 Da)</p> <p>RT (Exp. RT): 1.38 (1.40) min</p> <p>Calculated Conc: 2.18 µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Quality Control)</p>	
<p>13C9-PFDA (521.900/477.100 Da)</p> <p>RT (Exp. RT): 2.10 (2.09) min</p> <p>Calculated Conc: 2.39 µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Quality Control)</p>	

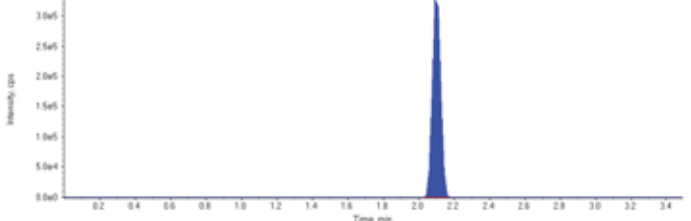
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Acquisition Date	2017/05/23 2:04:30 PM	Dilution Factor	0.0240
Acquisition Method	PFC_Water_Low.dam	Instrument Name	LCMS03
Project	Enviro\PFOS	Algorithm Used	Analyst Classic
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Result Table	PFC_Water_170523_4988945_CTLabs.rdb		
Samples Annotation	-		

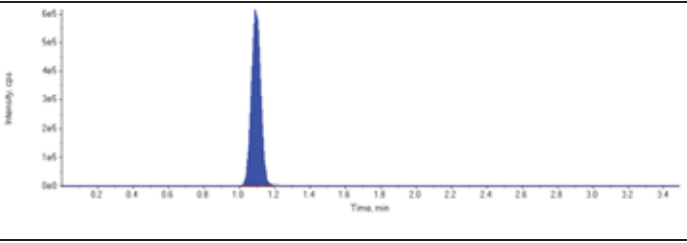
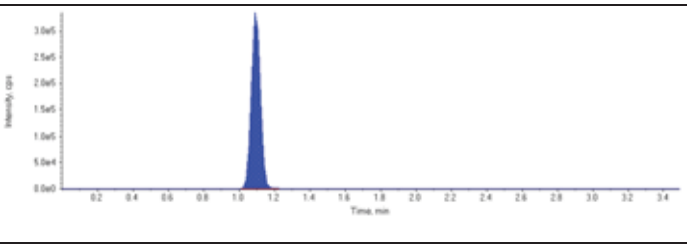
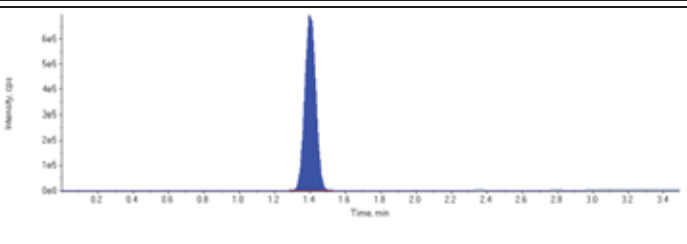
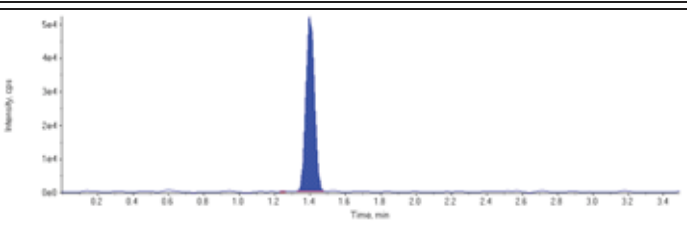
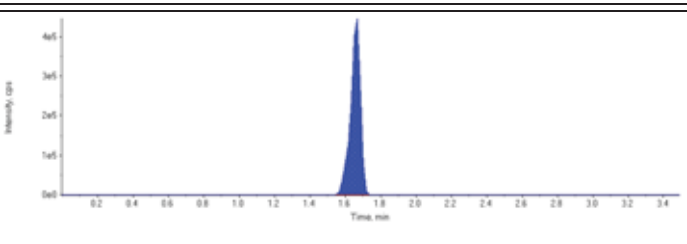
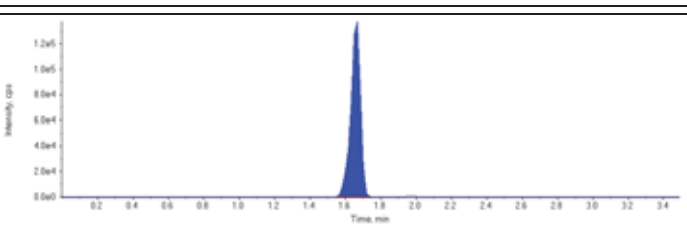
Internal Standard	Area (cps)	RT (min)	Target Conc. (ug/L)	Calc. Conc. (ug/L)
MPFHxA	359000.	1.40	1.00	-
MPFHxS	103000.	1.66	1.00	-
MPFHpA	389000.	1.66	1.00	-
MPFOA	319000.	1.85	1.00	-
MPFOS	153000.	1.96	1.00	-
MPFNA	329000.	1.99	1.00	-
MPFDA	333000.	2.11	1.00	-
MPFUnA	255000.	2.21	1.00	-
MPFDoA	241000.	2.30	1.00	-
MPFTeDA	230000.	2.44	1.00	-
M2 6:2 FTS	130000.	1.81	1.00	-
M2 8:2 FTS	65600.	2.09	1.00	-
13C6-PFHxA IS	1160000.	1.39	41.7	-
13C9-PFDA IS	1090000.	2.10	41.7	-
N/A	N/A	N/A	N/A	-
N/A	N/A	N/A	N/A	-

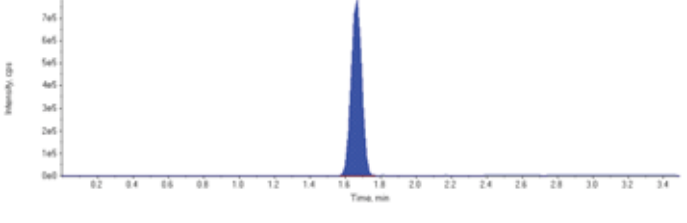
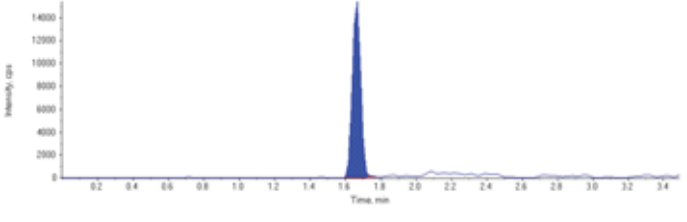
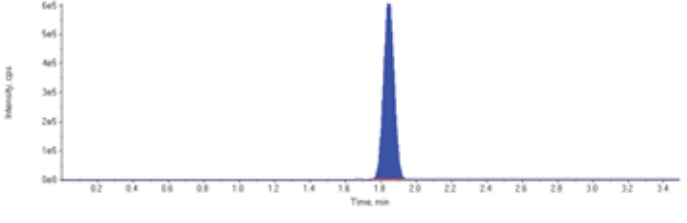
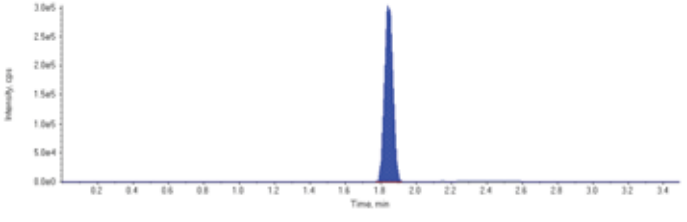
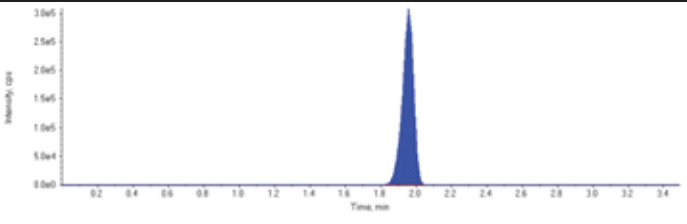
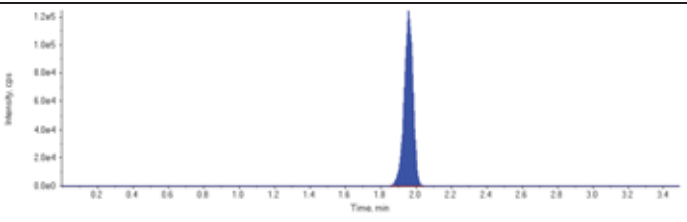
Target Analyte	Area (cps)	RT (min)	Target Conc. (ug/L)	Calc. Conc. (ug/L)	Accuracy (%)
PFBS 1	2240000	1.09	0.500	0.449	89.9
PFBS 2	1200000	1.09	0.500	0.486	97.3
PFHxA 1	2980000	1.40	0.500	0.458	91.6
PFHxA 2	174000	1.40	0.500	0.460	92.0
PFHxS 1	1750000	1.66	0.500	0.470	94.0
PFHxS 2	528000	1.66	0.500	0.480	96.0
PFHpA 1	3230000	1.66	0.500	0.510	102.0
PFHpA 2	51000	1.66	0.500	0.440	88.1
PFOA 1	2580000	1.85	0.500	0.431	86.1
PFOA 2	1020000	1.85	0.500	0.418	83.6
PFOS 1	1350000	1.96	0.500	0.456	91.3
PFOS 2	424000	1.96	0.500	0.460	92.1
PFNA 1	2620000	1.99	0.500	0.533	107.0
PFNA 2	652000	1.99	0.500	0.503	101.0
PFDA 1	2920000	2.11	0.500	0.512	102.0
PFDA 2	523000	2.11	0.500	0.474	94.8
PFUnA 1	2120000	2.21	0.500	0.473	94.7
PFUnA 2	250000	2.21	0.500	0.506	101.0
PFDaA 1	1860000	2.30	0.500	0.446	89.2
PFDaA 2	201000	2.30	0.500	0.472	94.3
PFTTrDA 1	2000000	2.37	0.500	0.506	101.0
PFTTrDA 2	223000	2.37	0.500	0.513	103.0
PFTeDA 1	1770000	2.44	0.500	0.495	99.0
PFTeDA 2	133000	2.44	0.500	0.516	103.0
6:2-FTS 1	676000	1.81	0.500	0.473	94.6
6:2-FTS 2	434000	1.81	0.500	0.448	89.5
8:2-FTS 1	757000	2.08	0.500	0.553	111.0
8:2-FTS 2	298000	2.08	0.500	0.598	120.0
13C2-PFHxA	359000	1.40	100.	96.8	96.8
18O2-PFHxS	103000	1.66	100.	103.	103.0
13C4-PFHpA	389000	1.66	100.	102.	102.0
13C4-PFOA	319000	1.85	100.	100.	100.0
13C4-PFOS	153000	1.96	100.	104.	104.0
13C5-PFNA	329000	1.99	100.	97.1	97.1
13C2-PFDA	333000	2.11	100.	98.8	98.8
13C2-PFUnA	255000	2.21	100.	102.	102.0
13C2-PFDaA	241000	2.30	100.	99.5	99.5
13C2-PFTeDA	230000	2.44	100.	86.6	86.6
13C2-6:2-FTS	130000	1.81	100.	94.2	94.2
13C2-8:2 FTS	65600	2.09	100.	85.3	85.3
13C6-PFHxA	1160000	1.39	100.	2.17	2.2
13C9-PFDA	1090000	2.10	100.	2.18	2.2

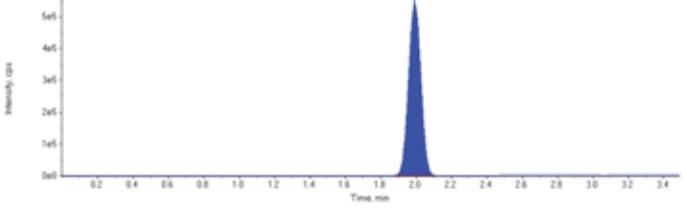
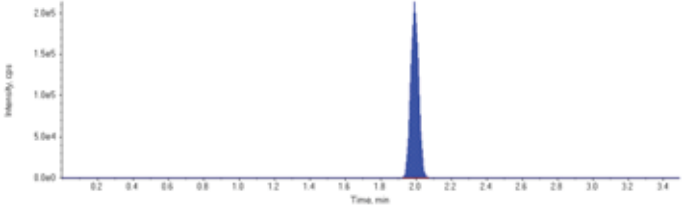
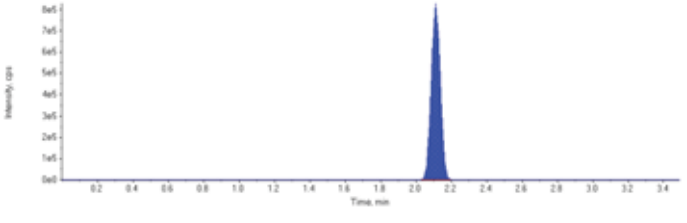
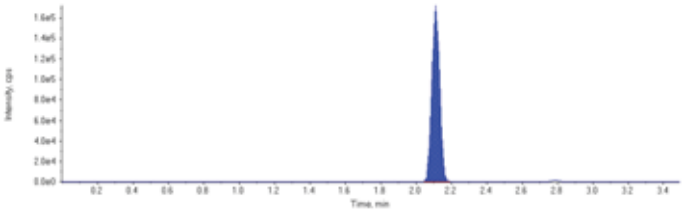
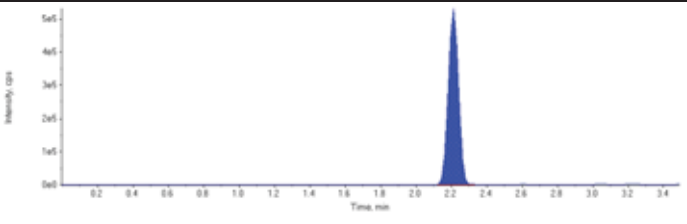
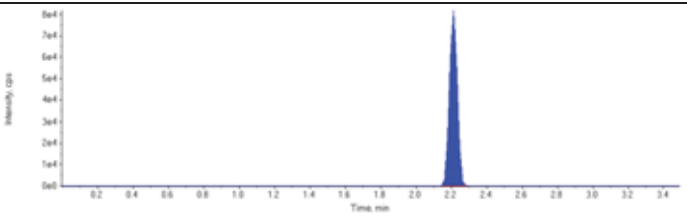
<p>MPFHxA (Internal Standard)</p> <p>RT (Exp. RT): 1.40(1.40) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>MPFHxS (Internal Standard)</p> <p>RT (Exp. RT): 1.66(1.77) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>MPFHpA (Internal Standard)</p> <p>RT (Exp. RT): 1.66(1.67) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>MPFOA (Internal Standard)</p> <p>RT (Exp. RT): 1.85(1.84) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>MPFOS (Internal Standard)</p> <p>RT (Exp. RT): 1.96(2.05) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>MPFNA (Internal Standard)</p> <p>RT (Exp. RT): 1.99(1.99) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	

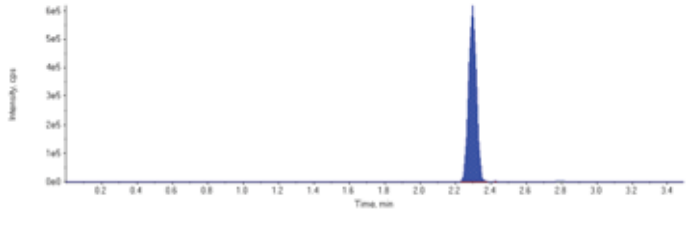
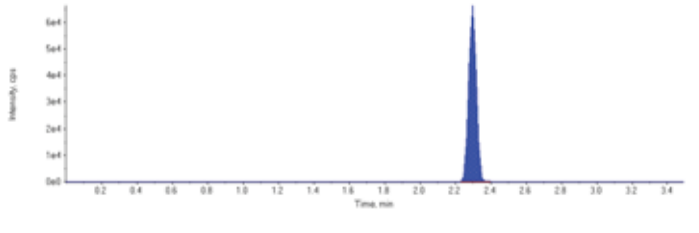
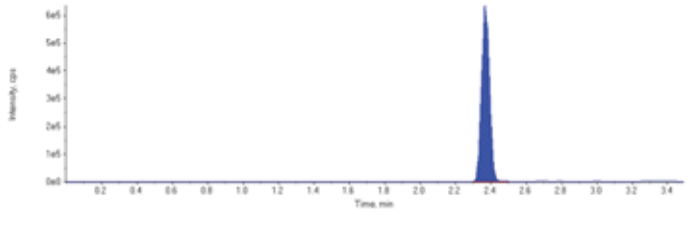
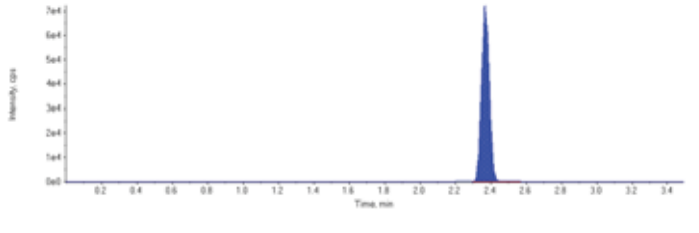
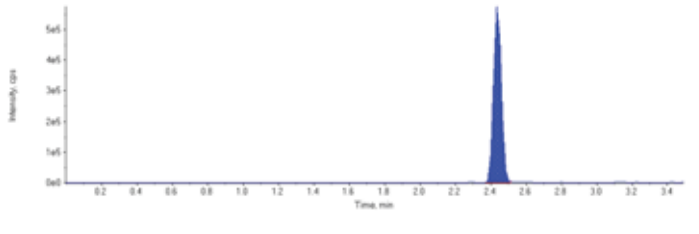
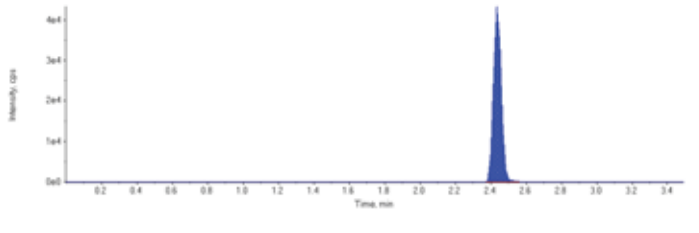
<p>MPFDA (Internal Standard)</p> <p>RT (Exp. RT): 2.11(2.18) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>MPFUnA (Internal Standard)</p> <p>RT (Exp. RT): 2.21(2.27) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>MPFDoA (Internal Standard)</p> <p>RT (Exp. RT): 2.30(2.35) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>MPFTeDA (Internal Standard)</p> <p>RT (Exp. RT): 2.44(2.49) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>M2 6:2 FTS (Internal Standard)</p> <p>RT (Exp. RT): 1.81(1.80) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>M2 8:2 FTS (Internal Standard)</p> <p>RT (Exp. RT): 2.09(2.08) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>13C6-PFHxA IS (Internal Standard)</p> <p>RT (Exp. RT): 1.39(1.40) min</p> <p>Concentration: 41.7 ug/L</p> <p>Sample Type: (Quality Control)</p>	

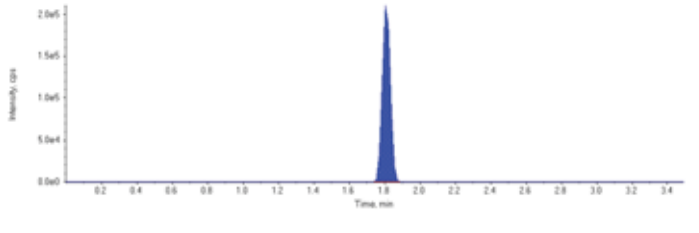
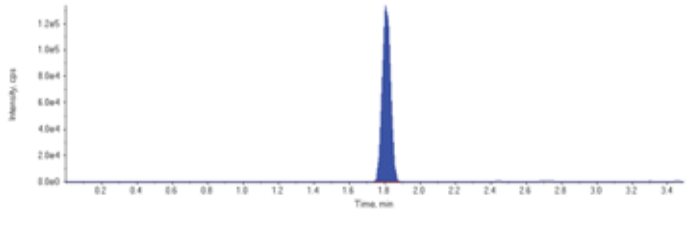
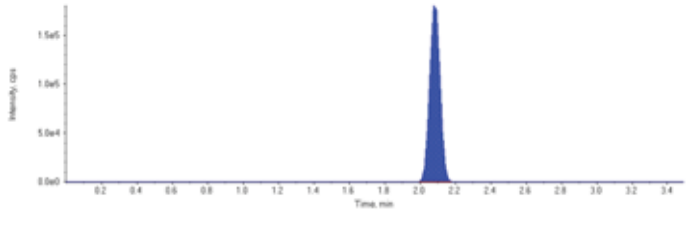
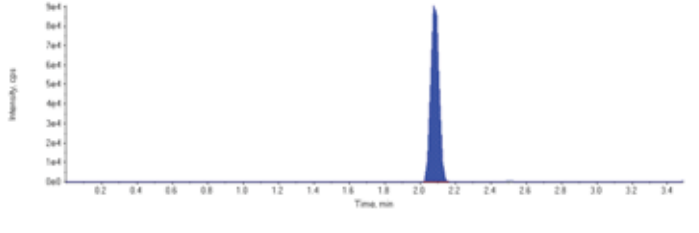
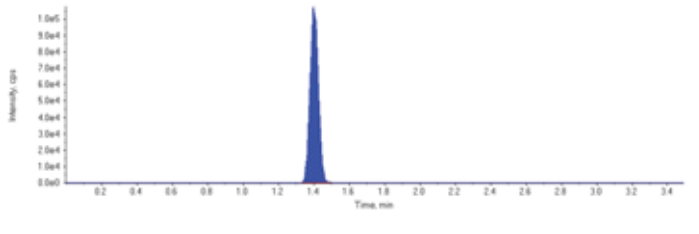
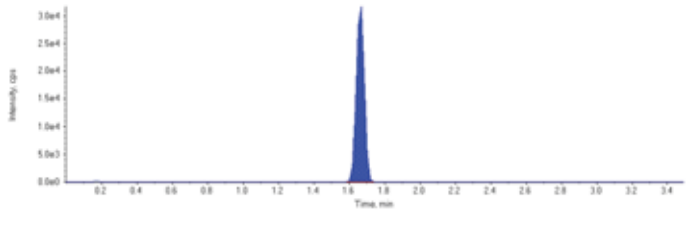
<p>13C9-PFDA IS (Internal Standard)</p> <p>RT (Exp. RT): 2.10(2.09) min</p> <p>Concentration: 41.7 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min</p> <p>Concentration: N/A N/A</p> <p>Sample Type: (Quality Control)</p>	<p>This image is not available</p>
<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min</p> <p>Concentration: N/A N/A</p> <p>Sample Type: (Quality Control)</p>	<p>This image is not available</p>

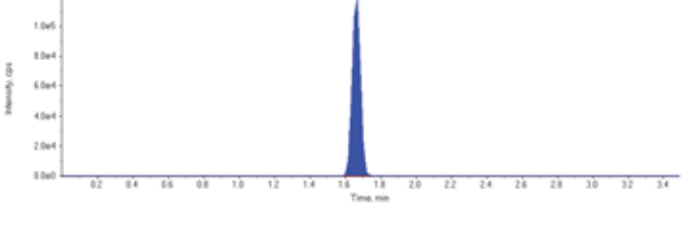
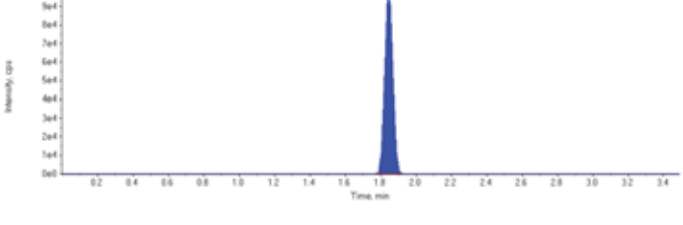
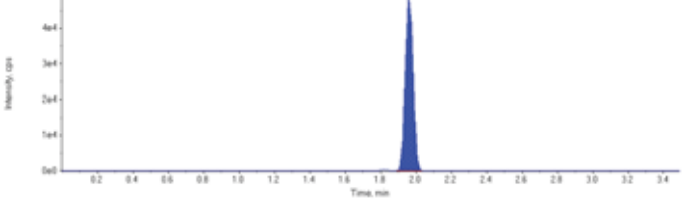
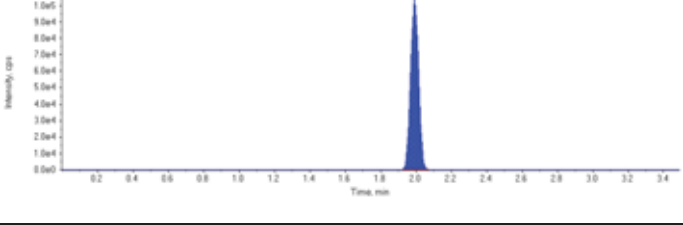
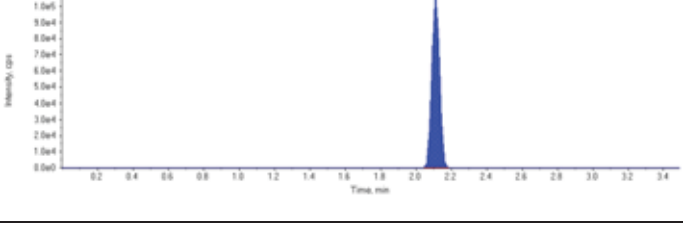
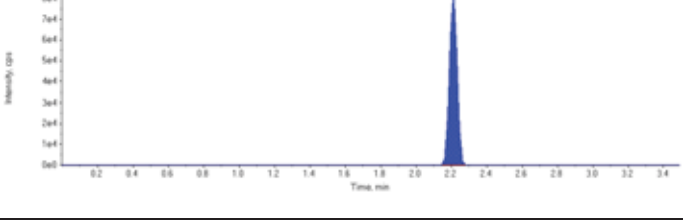
<p>PFBS 1 (298.900/79.900 Da)</p> <p>RT (Exp. RT): 1.09 (1.09) min</p> <p>Calculated Conc: 0.449 µg/L</p> <p>Area Ratio: 21.8</p> <p>Sample Type: (Quality Control)</p>	
<p>PFBS 2 (298.900/98.900 Da)</p> <p>RT (Exp. RT): 1.09 (1.09) min</p> <p>Calculated Conc: 0.486 µg/L</p> <p>Area Ratio: 11.7</p> <p>Sample Type: (Quality Control)</p>	
<p>PFHxA 1 (313.000/269.000 Da)</p> <p>RT (Exp. RT): 1.40 (1.40) min</p> <p>Calculated Conc: 0.458 µg/L</p> <p>Area Ratio: 8.28</p> <p>Sample Type: (Quality Control)</p>	
<p>PFHxA 2 (313.000/119.000 Da)</p> <p>RT (Exp. RT): 1.40 (1.41) min</p> <p>Calculated Conc: 0.460 µg/L</p> <p>Area Ratio: 0.485</p> <p>Sample Type: (Quality Control)</p>	
<p>PFHxS 1 (398.900/79.900 Da)</p> <p>RT (Exp. RT): 1.66 (1.67) min</p> <p>Calculated Conc: 0.470 µg/L</p> <p>Area Ratio: 17.0</p> <p>Sample Type: (Quality Control)</p>	
<p>PFHxS 2 (398.900/98.900 Da)</p> <p>RT (Exp. RT): 1.66 (1.67) min</p> <p>Calculated Conc: 0.480 µg/L</p> <p>Area Ratio: 5.13</p> <p>Sample Type: (Quality Control)</p>	

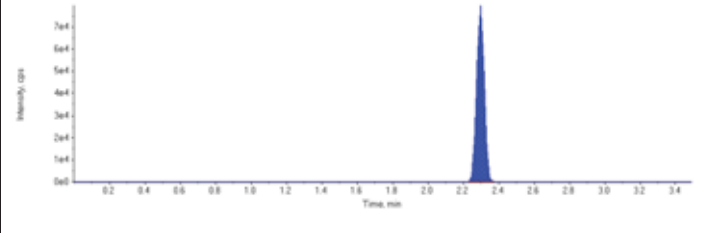
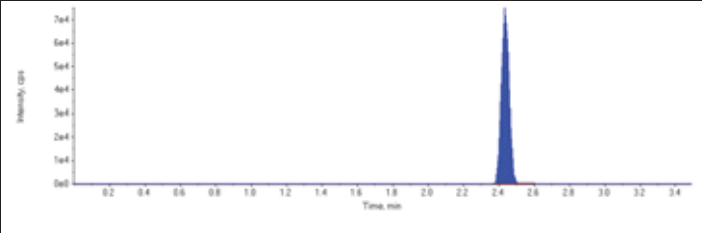
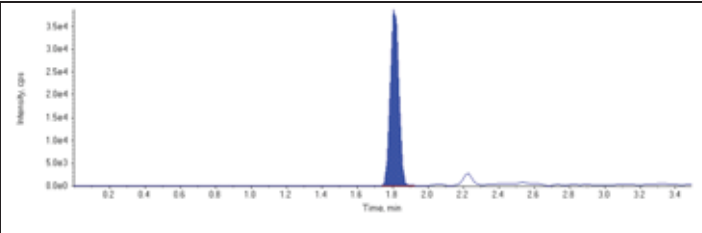
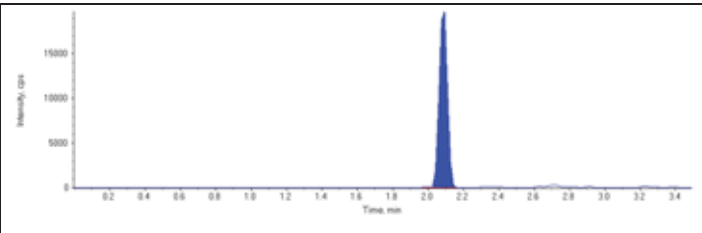
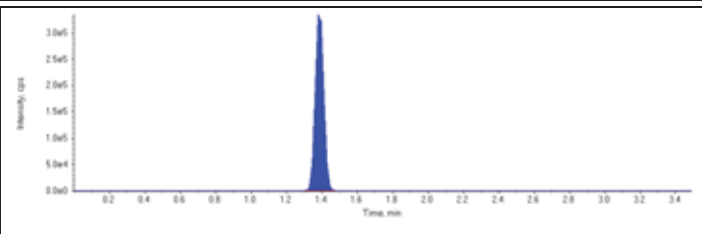
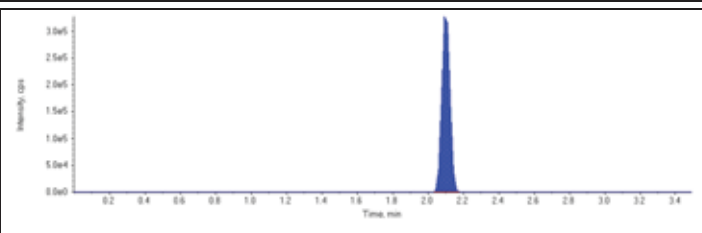
<p>PFHpA 1 (363.000/319.000 Da)</p> <p>RT (Exp. RT): 1.66 (1.67) min</p> <p>Calculated Conc: 0.510 µg/L</p> <p>Area Ratio: 8.30</p> <p>Sample Type: (Quality Control)</p>	
<p>PFHpA 2 (363.000/169.200 Da)</p> <p>RT (Exp. RT): 1.66 (1.67) min</p> <p>Calculated Conc: 0.440 µg/L</p> <p>Area Ratio: 0.131</p> <p>Sample Type: (Quality Control)</p>	
<p>PFOA 1 (413.100/369.000 Da)</p> <p>RT (Exp. RT): 1.85 (1.85) min</p> <p>Calculated Conc: 0.431 µg/L</p> <p>Area Ratio: 8.09</p> <p>Sample Type: (Quality Control)</p>	
<p>PFOA 2 (413.100/169.000 Da)</p> <p>RT (Exp. RT): 1.85 (1.84) min</p> <p>Calculated Conc: 0.418 µg/L</p> <p>Area Ratio: 3.18</p> <p>Sample Type: (Quality Control)</p>	
<p>PFOS 1 (498.900/79.900 Da)</p> <p>RT (Exp. RT): 1.96 (1.96) min</p> <p>Calculated Conc: 0.456 µg/L</p> <p>Area Ratio: 8.84</p> <p>Sample Type: (Quality Control)</p>	
<p>PFOS 2 (498.900/98.900 Da)</p> <p>RT (Exp. RT): 1.96 (1.96) min</p> <p>Calculated Conc: 0.460 µg/L</p> <p>Area Ratio: 2.77</p> <p>Sample Type: (Quality Control)</p>	

<p>PFNA 1 (462.900/419.000 Da)</p> <p>RT (Exp. RT): 1.99 (1.99) min</p> <p>Calculated Conc: 0.533 µg/L</p> <p>Area Ratio: 7.98</p> <p>Sample Type: (Quality Control)</p>	
<p>PFNA 2 (462.900/219.100 Da)</p> <p>RT (Exp. RT): 1.99 (1.99) min</p> <p>Calculated Conc: 0.503 µg/L</p> <p>Area Ratio: 1.98</p> <p>Sample Type: (Quality Control)</p>	
<p>PFDA 1 (513.000/469.100 Da)</p> <p>RT (Exp. RT): 2.11 (2.18) min</p> <p>Calculated Conc: 0.512 µg/L</p> <p>Area Ratio: 8.76</p> <p>Sample Type: (Quality Control)</p>	
<p>PFDA 2 (513.000/218.900 Da)</p> <p>RT (Exp. RT): 2.11 (2.11) min</p> <p>Calculated Conc: 0.474 µg/L</p> <p>Area Ratio: 1.57</p> <p>Sample Type: (Quality Control)</p>	
<p>PFUnA 1 (562.900/519.000 Da)</p> <p>RT (Exp. RT): 2.21 (2.21) min</p> <p>Calculated Conc: 0.473 µg/L</p> <p>Area Ratio: 8.32</p> <p>Sample Type: (Quality Control)</p>	
<p>PFUnA 2 (562.900/269.200 Da)</p> <p>RT (Exp. RT): 2.21 (2.27) min</p> <p>Calculated Conc: 0.506 µg/L</p> <p>Area Ratio: 0.981</p> <p>Sample Type: (Quality Control)</p>	

<p>PFD_oA 1 (612.900/569.000 Da)</p> <p>RT (Exp. RT): 2.30 (2.36) min</p> <p>Calculated Conc: 0.446 µg/L</p> <p>Area Ratio: 7.74</p> <p>Sample Type: (Quality Control)</p>	
<p>PFD_oA 2 (612.900/319.000 Da)</p> <p>RT (Exp. RT): 2.30 (2.35) min</p> <p>Calculated Conc: 0.472 µg/L</p> <p>Area Ratio: 0.834</p> <p>Sample Type: (Quality Control)</p>	
<p>PFT_rDA 1 (663.000/619.000 Da)</p> <p>RT (Exp. RT): 2.37 (2.42) min</p> <p>Calculated Conc: 0.506 µg/L</p> <p>Area Ratio: 8.69</p> <p>Sample Type: (Quality Control)</p>	
<p>PFT_rDA 2 (663.000/318.900 Da)</p> <p>RT (Exp. RT): 2.37 (2.37) min</p> <p>Calculated Conc: 0.513 µg/L</p> <p>Area Ratio: 0.971</p> <p>Sample Type: (Quality Control)</p>	
<p>PFT_eDA 1 (713.000/669.000 Da)</p> <p>RT (Exp. RT): 2.44 (2.49) min</p> <p>Calculated Conc: 0.495 µg/L</p> <p>Area Ratio: 7.73</p> <p>Sample Type: (Quality Control)</p>	
<p>PFT_eDA 2 (713.000/319.200 Da)</p> <p>RT (Exp. RT): 2.44 (2.49) min</p> <p>Calculated Conc: 0.516 µg/L</p> <p>Area Ratio: 0.579</p> <p>Sample Type: (Quality Control)</p>	

<p>6:2-FTS 1 (427.000/407.000 Da)</p> <p>RT (Exp. RT): 1.81 (1.90) min</p> <p>Calculated Conc: 0.473 µg/L</p> <p>Area Ratio: 5.20</p> <p>Sample Type: (Quality Control)</p>	
<p>6:2-FTS 2 (427.000/80.900 Da)</p> <p>RT (Exp. RT): 1.81 (1.80) min</p> <p>Calculated Conc: 0.448 µg/L</p> <p>Area Ratio: 3.34</p> <p>Sample Type: (Quality Control)</p>	
<p>8:2-FTS 1 (526.900/507.000 Da)</p> <p>RT (Exp. RT): 2.08 (2.16) min</p> <p>Calculated Conc: 0.553 µg/L</p> <p>Area Ratio: 11.5</p> <p>Sample Type: (Quality Control)</p>	
<p>8:2-FTS 2 (526.900/80.900 Da)</p> <p>RT (Exp. RT): 2.08 (2.09) min</p> <p>Calculated Conc: 0.598 µg/L</p> <p>Area Ratio: 4.55</p> <p>Sample Type: (Quality Control)</p>	
<p>13C2-PFHxA (314.900/270.000 Da)</p> <p>RT (Exp. RT): 1.40 (1.40) min</p> <p>Calculated Conc: 96.8 µg/L</p> <p>Area Ratio: 0.311</p> <p>Sample Type: (Quality Control)</p>	
<p>18O2-PFHxS (402.900/84.000 Da)</p> <p>RT (Exp. RT): 1.66 (1.77) min</p> <p>Calculated Conc: 103. µg/L</p> <p>Area Ratio: 0.0890</p> <p>Sample Type: (Quality Control)</p>	

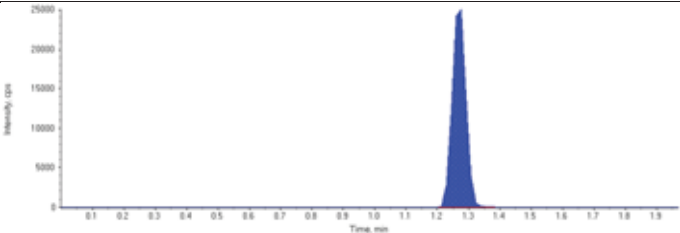
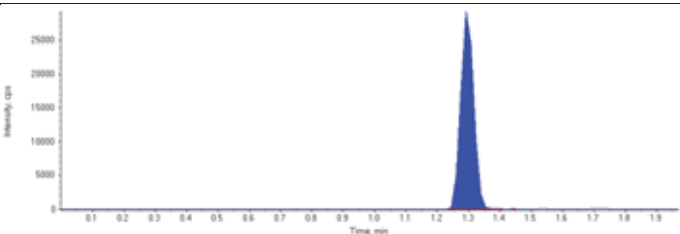
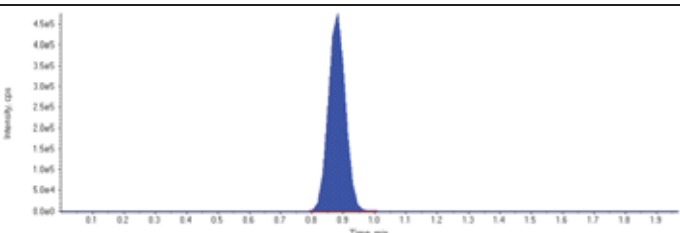
<p>13C4-PFHpa (366.900/322.000 Da)</p> <p>RT (Exp. RT): 1.66 (1.67) min</p> <p>Calculated Conc: 102. µg/L</p> <p>Area Ratio: 0.336</p> <p>Sample Type: (Quality Control)</p>	
<p>13C4-PFOA (416.900/372.000 Da)</p> <p>RT (Exp. RT): 1.85 (1.84) min</p> <p>Calculated Conc: 100. µg/L</p> <p>Area Ratio: 0.276</p> <p>Sample Type: (Quality Control)</p>	
<p>13C4-PFOS (502.900/79.900 Da)</p> <p>RT (Exp. RT): 1.96 (2.05) min</p> <p>Calculated Conc: 104. µg/L</p> <p>Area Ratio: 0.132</p> <p>Sample Type: (Quality Control)</p>	
<p>13C5-PFNA (467.900/423.000 Da)</p> <p>RT (Exp. RT): 1.99 (1.99) min</p> <p>Calculated Conc: 97.1 µg/L</p> <p>Area Ratio: 0.284</p> <p>Sample Type: (Quality Control)</p>	
<p>13C2-PFDA (514.900/470.000 Da)</p> <p>RT (Exp. RT): 2.11 (2.11) min</p> <p>Calculated Conc: 98.8 µg/L</p> <p>Area Ratio: 0.306</p> <p>Sample Type: (Quality Control)</p>	
<p>13C2-PFUnA (564.900/520.000 Da)</p> <p>RT (Exp. RT): 2.21 (2.27) min</p> <p>Calculated Conc: 102. µg/L</p> <p>Area Ratio: 0.235</p> <p>Sample Type: (Quality Control)</p>	

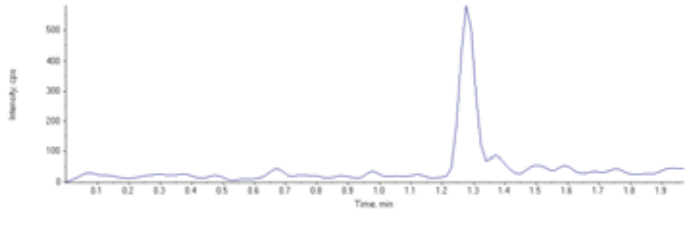
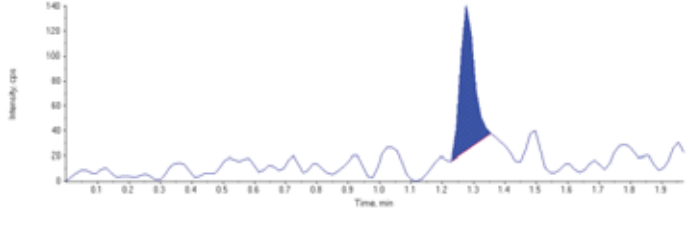
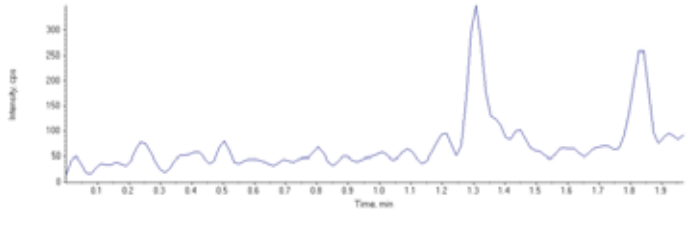
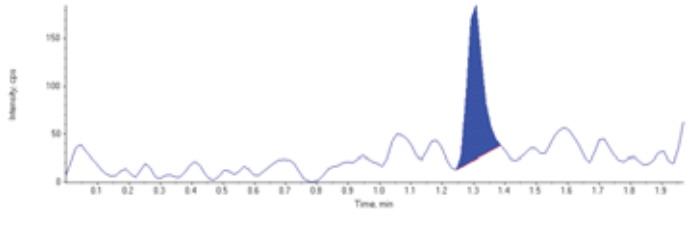
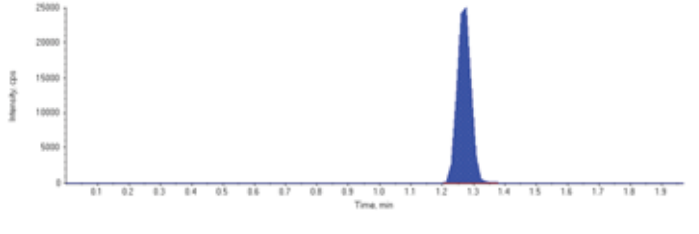
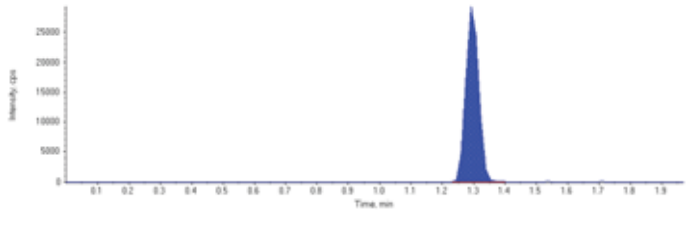
<p>13C2-PFDoA (614.900/570.000 Da)</p> <p>RT (Exp. RT): 2.30 (2.35) min</p> <p>Calculated Conc: 99.5 µg/L</p> <p>Area Ratio: 0.221</p> <p>Sample Type: (Quality Control)</p>	
<p>13C2-PFTeDA (714.900/669.900 Da)</p> <p>RT (Exp. RT): 2.44 (2.49) min</p> <p>Calculated Conc: 86.6 µg/L</p> <p>Area Ratio: 0.211</p> <p>Sample Type: (Quality Control)</p>	
<p>13C2-6:2-FTS (429.000/80.900 Da)</p> <p>RT (Exp. RT): 1.81 (1.80) min</p> <p>Calculated Conc: 94.2 µg/L</p> <p>Area Ratio: 0.112</p> <p>Sample Type: (Quality Control)</p>	
<p>13C2-8:2 FTS (528.900/80.900 Da)</p> <p>RT (Exp. RT): 2.09 (2.08) min</p> <p>Calculated Conc: 85.3 µg/L</p> <p>Area Ratio: 0.0568</p> <p>Sample Type: (Quality Control)</p>	
<p>13C6-PFHxA (318.900/274.000 Da)</p> <p>RT (Exp. RT): 1.39 (1.40) min</p> <p>Calculated Conc: 2.17 µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Quality Control)</p>	
<p>13C9-PFDA (521.900/477.100 Da)</p> <p>RT (Exp. RT): 2.10 (2.09) min</p> <p>Calculated Conc: 2.18 µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Quality Control)</p>	

Sample ID	IB	Injection Volume (µL)	2
Sample Type	Unknown	Injection Vial	8
Acquisition Date	2017/05/23 11:15:09 PM	Dilution Factor	0.0240
Acquisition Method	PFC_Water_Low_FOSAA.dam	Instrument Name	LCMS03
Project	Enviro\PFOS	Algorithm Used	Analyst Classic
Data File	PFC_170523\WS#4991421_FOSAA.wiff		
Result Table	PFC_Water_170523_4988945_FOSAA.rdb		
Samples Annotation	-		

Internal Standard	Area (cps)	RT (min)	Target Conc. (ug/L)	Calc. Conc. (ug/L)
D3-MeFOSAA IS	78300.	1.27	1.00	-
D5-EtFOSAA IS	85000.	1.29	1.00	-
13C9-PFDA IS	1790000.	0.879	1.00	-
N/A	N/A	N/A	N/A	-

Target Analyte	Area (cps)	RT (min)	Target Conc. (ug/L)	Calc. Conc. (ug/L)	Accuracy (%)
MeFOSAA 1	0	0.00	N/A	N/A	N/A
MeFOSAA 2	358	1.28	N/A	0.000545	N/A
EtFOSAA 1	0	0.00	N/A	N/A	N/A
EtFOSAA 2	555	1.30	N/A	0.00288	N/A
D3-MeFOSAA	78300	1.27	N/A	2.40	N/A
D5-EtFOSAA	85000	1.29	N/A	2.43	N/A
13C9-PFDA	1790000	0.879	N/A	2.56	N/A

<p>D3-MeFOSAA IS (Internal Standard)</p> <p>RT (Exp. RT): 1.27(1.26) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Unknown)</p>	
<p>D5-EtFOSAA IS (Internal Standard)</p> <p>RT (Exp. RT): 1.29(1.28) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Unknown)</p>	
<p>13C9-PFDA IS (Internal Standard)</p> <p>RT (Exp. RT): 0.879(0.912) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Unknown)</p>	
<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min</p> <p>Concentration: N/A N/A</p> <p>Sample Type: (Unknown)</p>	<p>This image is not available</p>

<p>MeFOSAA 1 (570.100/419.100 Da)</p> <p>RT (Exp. RT): 0.00 (1.28) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>MeFOSAA 2 (570.100/483.000 Da)</p> <p>RT (Exp. RT): 1.28 (1.27) min</p> <p>Calculated Conc: 0.000545 µg/L</p> <p>Area Ratio: 0.00457</p> <p>Sample Type: (Unknown)</p>	
<p>EtFOSAA 1 (584.100/419.100 Da)</p> <p>RT (Exp. RT): 0.00 (1.30) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>EtFOSAA 2 (584.100/483.000 Da)</p> <p>RT (Exp. RT): 1.30 (1.30) min</p> <p>Calculated Conc: 0.00288 µg/L</p> <p>Area Ratio: 0.00653</p> <p>Sample Type: (Unknown)</p>	
<p>D3-MeFOSAA (573.100/419.100 Da)</p> <p>RT (Exp. RT): 1.27 (1.26) min</p> <p>Calculated Conc: 2.40 µg/L</p> <p>Area Ratio: 0.0437</p> <p>Sample Type: (Unknown)</p>	
<p>D5-EtFOSAA (589.200/419.000 Da)</p> <p>RT (Exp. RT): 1.29 (1.28) min</p> <p>Calculated Conc: 2.43 µg/L</p> <p>Area Ratio: 0.0474</p> <p>Sample Type: (Unknown)</p>	

13C9-PFDA (521.900/477.100 Da)

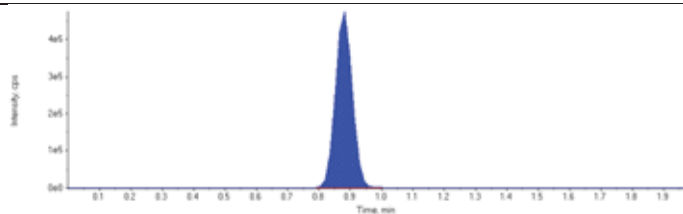
RT (Exp. RT): 0.879 (0.912) min

Calculated 2.56 µg/L

Conc:

Area Ratio: 0.00

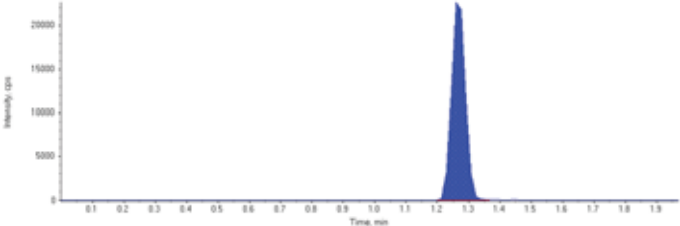
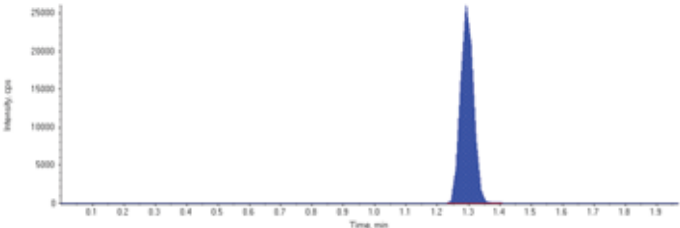
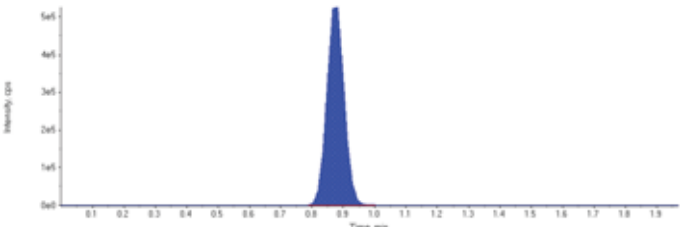
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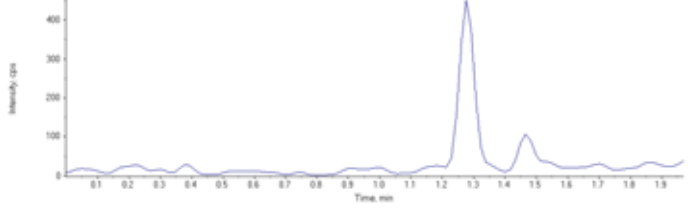
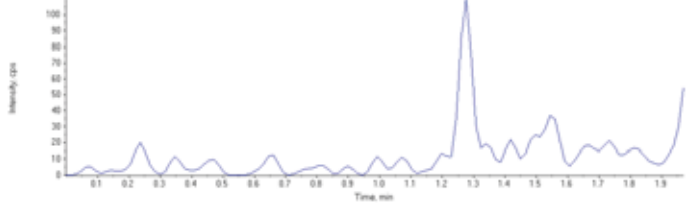
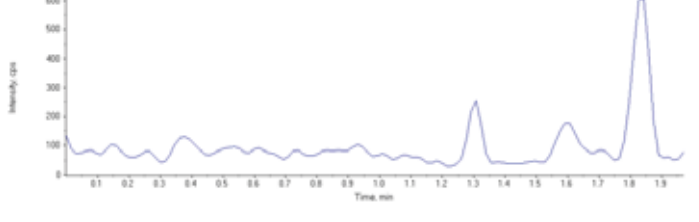
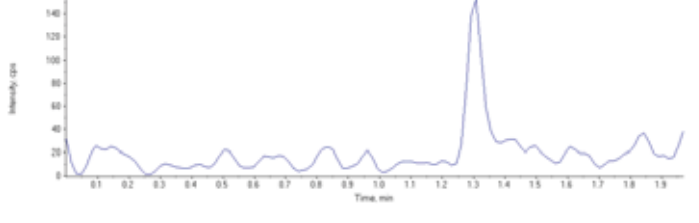
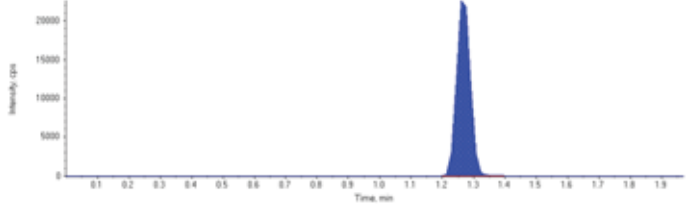
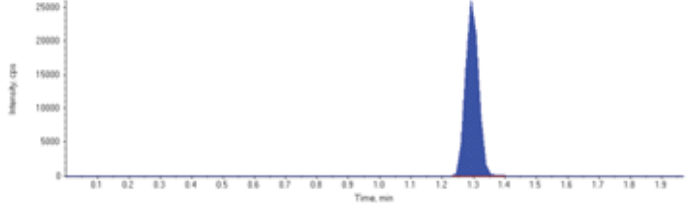


Sample ID	IB	Injection Volume (µL)	2
Sample Type	Unknown	Injection Vial	8
Acquisition Date	2017/05/24 2:02:46 AM	Dilution Factor	0.0240
Acquisition Method	PFC_Water_Low_FOSAA.dam	Instrument Name	LCMS03
Project	Enviro\PFOS	Algorithm Used	Analyst Classic
Data File	PFC_170523\WS#4988945_FOSAA.wiff		
Result Table	PFC_Water_170523_4988945_FOSAA.rdb		
Samples Annotation	-		

Internal Standard	Area (cps)	RT (min)	Target Conc. (ug/L)	Calc. Conc. (ug/L)
D3-MeFOSAA IS	70800.	1.27	1.00	-
D5-EtFOSAA IS	74500.	1.29	1.00	-
13C9-PFDA IS	2060000.	0.874	1.00	-
N/A	N/A	N/A	N/A	-

Target Analyte	Area (cps)	RT (min)	Target Conc. (ug/L)	Calc. Conc. (ug/L)	Accuracy (%)
MeFOSAA 1	0	0.00	N/A	N/A	N/A
MeFOSAA 2	0	0.00	N/A	N/A	N/A
EtFOSAA 1	0	0.00	N/A	N/A	N/A
EtFOSAA 2	0	0.00	N/A	N/A	N/A
D3-MeFOSAA	70800	1.27	N/A	1.89	N/A
D5-EtFOSAA	74500	1.29	N/A	1.85	N/A
13C9-PFDA	2060000	0.874	N/A	2.94	N/A

<p>D3-MeFOSAA IS (Internal Standard)</p> <p>RT (Exp. RT): 1.27(1.26) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Unknown)</p>	
<p>D5-EtFOSAA IS (Internal Standard)</p> <p>RT (Exp. RT): 1.29(1.28) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Unknown)</p>	
<p>13C9-PFDA IS (Internal Standard)</p> <p>RT (Exp. RT): 0.874(0.912) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Unknown)</p>	
<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min</p> <p>Concentration: N/A N/A</p> <p>Sample Type: (Unknown)</p>	<p>This image is not available</p>

<p>MeFOSAA 1 (570.100/419.100 Da)</p> <p>RT (Exp. RT): 0.00 (1.28) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	 <p>Intensity cps vs Time min. The x-axis ranges from 0.1 to 1.9 minutes. The y-axis ranges from 0 to 400 cps. A sharp peak is visible at approximately 1.28 minutes.</p>
<p>MeFOSAA 2 (570.100/483.000 Da)</p> <p>RT (Exp. RT): 0.00 (1.27) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	 <p>Intensity cps vs Time min. The x-axis ranges from 0.1 to 1.9 minutes. The y-axis ranges from 0 to 100 cps. A sharp peak is visible at approximately 1.27 minutes.</p>
<p>EtFOSAA 1 (584.100/419.100 Da)</p> <p>RT (Exp. RT): 0.00 (1.30) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	 <p>Intensity cps vs Time min. The x-axis ranges from 0.1 to 1.9 minutes. The y-axis ranges from 0 to 600 cps. A sharp peak is visible at approximately 1.30 minutes.</p>
<p>EtFOSAA 2 (584.100/483.000 Da)</p> <p>RT (Exp. RT): 0.00 (1.30) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	 <p>Intensity cps vs Time min. The x-axis ranges from 0.1 to 1.9 minutes. The y-axis ranges from 0 to 140 cps. A sharp peak is visible at approximately 1.30 minutes.</p>
<p>D3-MeFOSAA (573.100/419.100 Da)</p> <p>RT (Exp. RT): 1.27 (1.26) min</p> <p>Calculated Conc: 1.89 µg/L</p> <p>Area Ratio: 0.0344</p> <p>Sample Type: (Unknown)</p>	 <p>Intensity cps vs Time min. The x-axis ranges from 0.1 to 1.9 minutes. The y-axis ranges from 0 to 20000 cps. A sharp peak is visible at approximately 1.26 minutes.</p>
<p>D5-EtFOSAA (589.200/419.000 Da)</p> <p>RT (Exp. RT): 1.29 (1.28) min</p> <p>Calculated Conc: 1.85 µg/L</p> <p>Area Ratio: 0.0362</p> <p>Sample Type: (Unknown)</p>	 <p>Intensity cps vs Time min. The x-axis ranges from 0.1 to 1.9 minutes. The y-axis ranges from 0 to 25000 cps. A sharp peak is visible at approximately 1.28 minutes.</p>

13C9-PFDA (521.900/477.100 Da)

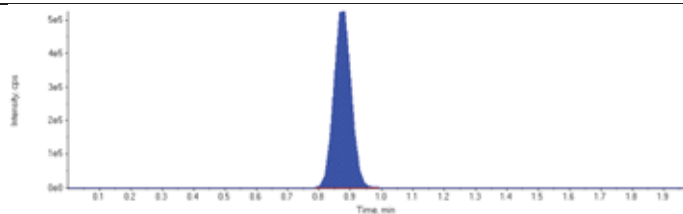
RT (Exp. RT): 0.874 (0.912) min

Calculated 2.94 µg/L

Conc:

Area Ratio: 0.00

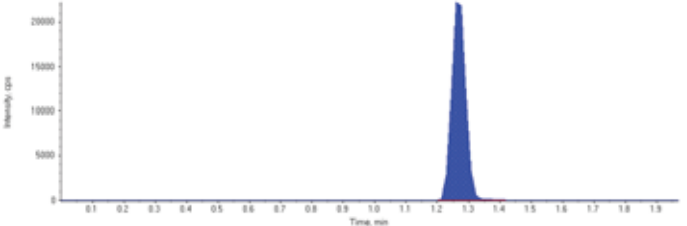
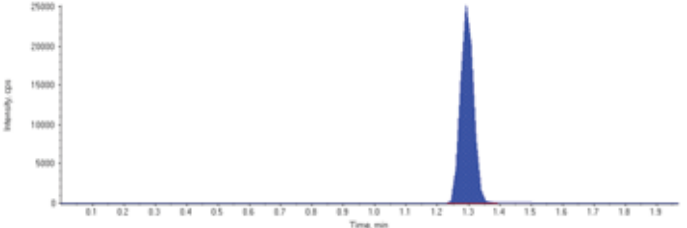
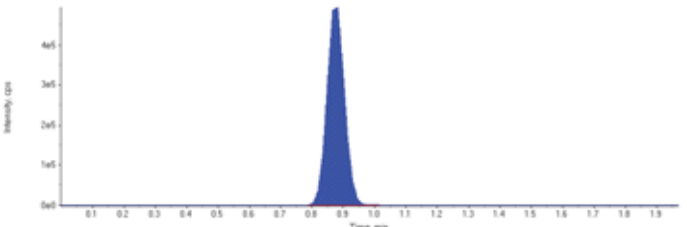
Sample Type: (Unknown)

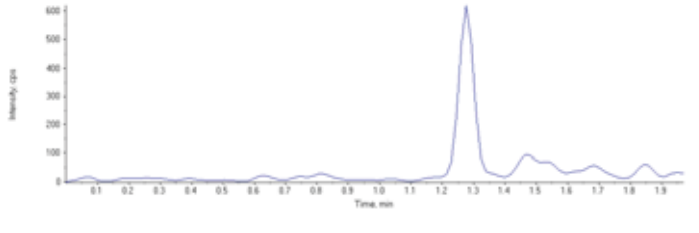
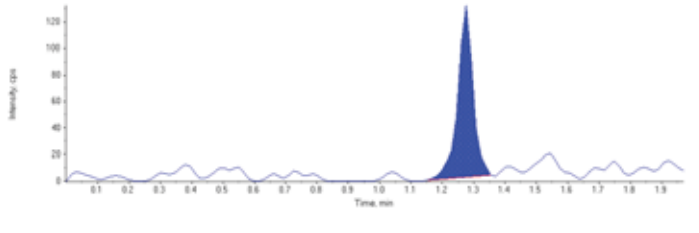
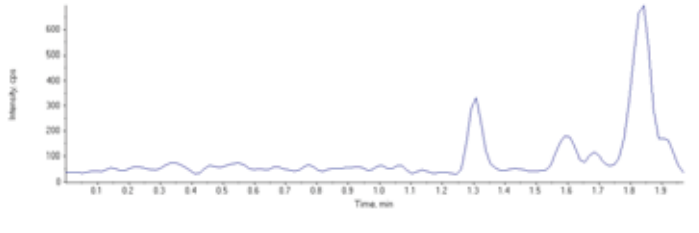
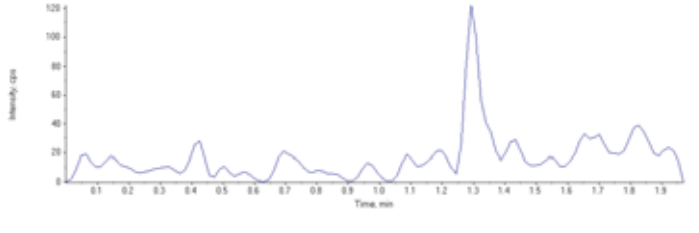
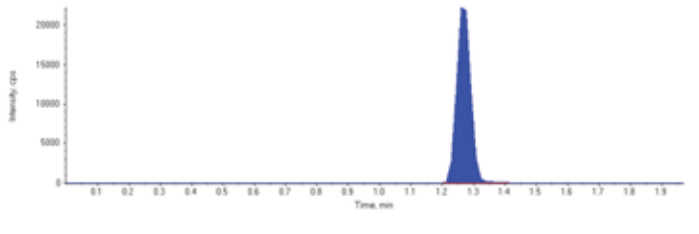
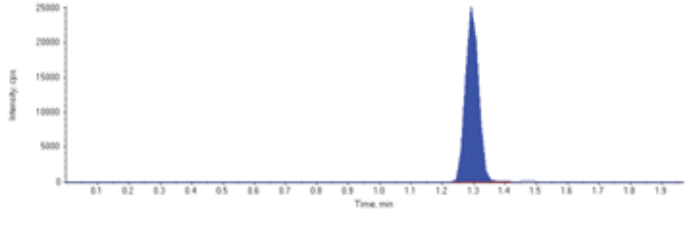


Sample ID	IB	Injection Volume (µL)	2
Sample Type	Unknown	Injection Vial	8
Acquisition Date	2017/05/24 2:10:31 AM	Dilution Factor	0.0240
Acquisition Method	PFC_Water_Low_FOSAA.dam	Instrument Name	LCMS03
Project	Enviro\PFOS	Algorithm Used	Analyst Classic
Data File	PFC_170523\WS#4988945_FOSAA.wiff		
Result Table	PFC_Water_170523_4988945_FOSAA.rdb		
Samples Annotation	-		

Internal Standard	Area (cps)	RT (min)	Target Conc. (ug/L)	Calc. Conc. (ug/L)
D3-MeFOSAA IS	70700.	1.27	1.00	-
D5-EtFOSAA IS	72100.	1.29	1.00	-
13C9-PFDA IS	1950000.	0.875	1.00	-
N/A	N/A	N/A	N/A	-

Target Analyte	Area (cps)	RT (min)	Target Conc. (ug/L)	Calc. Conc. (ug/L)	Accuracy (%)
MeFOSAA 1	0	0.00	N/A	N/A	N/A
MeFOSAA 2	441	1.27	N/A	0.000625	N/A
EtFOSAA 1	0	0.00	N/A	N/A	N/A
EtFOSAA 2	0	0.00	N/A	N/A	N/A
D3-MeFOSAA	70700	1.27	N/A	1.99	N/A
D5-EtFOSAA	72100	1.29	N/A	1.89	N/A
13C9-PFDA	1950000	0.875	N/A	2.79	N/A

<p>D3-MeFOSAA IS (Internal Standard)</p> <p>RT (Exp. RT): 1.27(1.26) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Unknown)</p>	
<p>D5-EtFOSAA IS (Internal Standard)</p> <p>RT (Exp. RT): 1.29(1.28) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Unknown)</p>	
<p>13C9-PFDA IS (Internal Standard)</p> <p>RT (Exp. RT): 0.875(0.912) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Unknown)</p>	
<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min</p> <p>Concentration: N/A N/A</p> <p>Sample Type: (Unknown)</p>	<p>This image is not available</p>

<p>MeFOSAA 1 (570.100/419.100 Da)</p> <p>RT (Exp. RT): 0.00 (1.28) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>MeFOSAA 2 (570.100/483.000 Da)</p> <p>RT (Exp. RT): 1.27 (1.27) min</p> <p>Calculated Conc: 0.000625 µg/L</p> <p>Area Ratio: 0.00624</p> <p>Sample Type: (Unknown)</p>	
<p>EtFOSAA 1 (584.100/419.100 Da)</p> <p>RT (Exp. RT): 0.00 (1.30) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>EtFOSAA 2 (584.100/483.000 Da)</p> <p>RT (Exp. RT): 0.00 (1.30) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>D3-MeFOSAA (573.100/419.100 Da)</p> <p>RT (Exp. RT): 1.27 (1.26) min</p> <p>Calculated Conc: 1.99 µg/L</p> <p>Area Ratio: 0.0362</p> <p>Sample Type: (Unknown)</p>	
<p>D5-EtFOSAA (589.200/419.000 Da)</p> <p>RT (Exp. RT): 1.29 (1.28) min</p> <p>Calculated Conc: 1.89 µg/L</p> <p>Area Ratio: 0.0369</p> <p>Sample Type: (Unknown)</p>	

13C9-PFDA (521.900/477.100 Da)

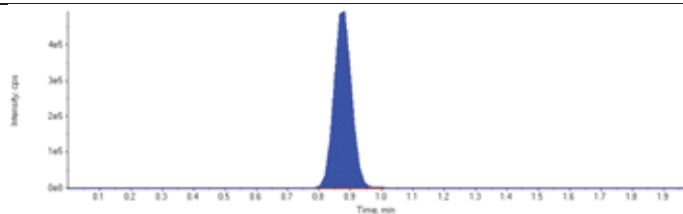
RT (Exp. RT): 0.875 (0.912) min

Calculated 2.79 µg/L

Conc:

Area Ratio: 0.00

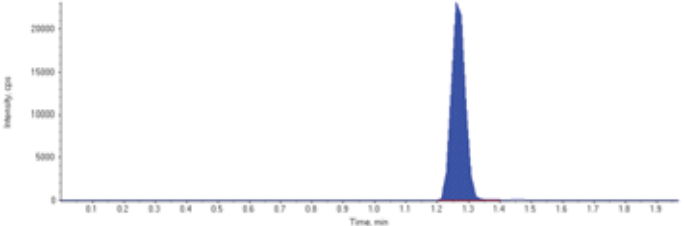
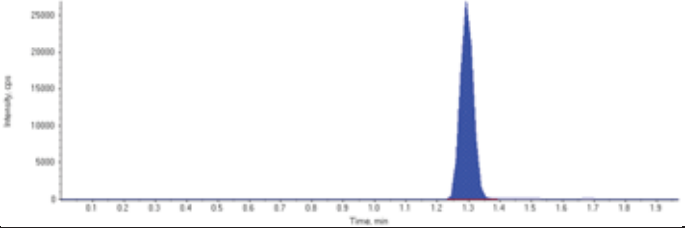
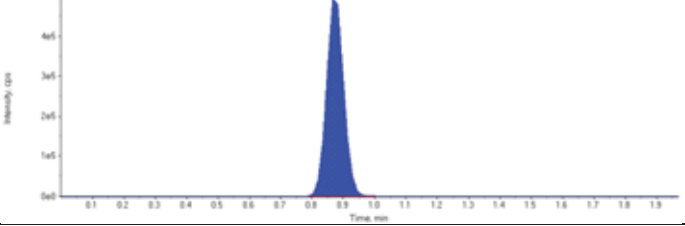
Sample Type: (Unknown)

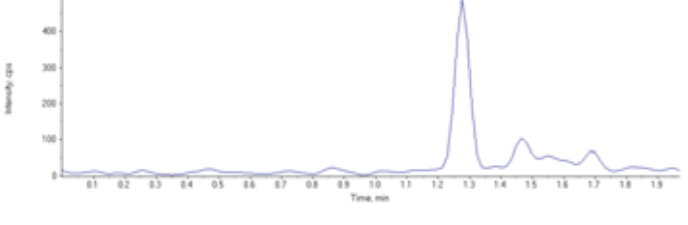
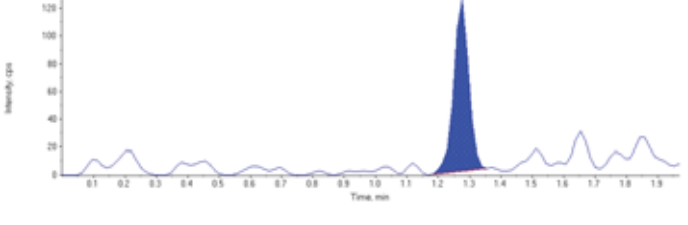
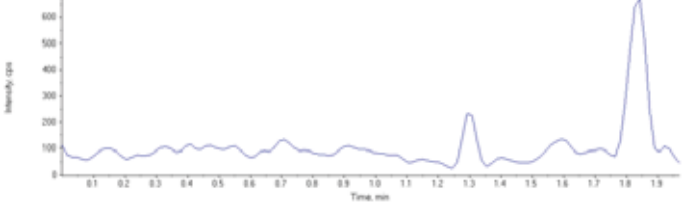
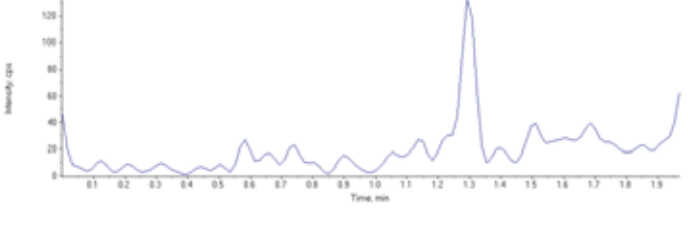
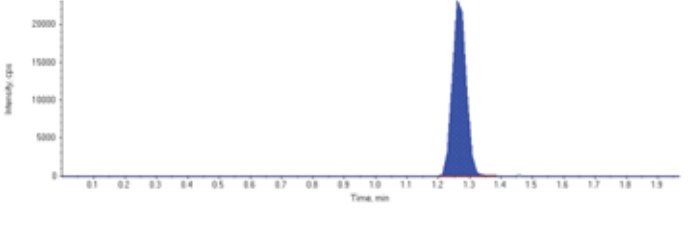
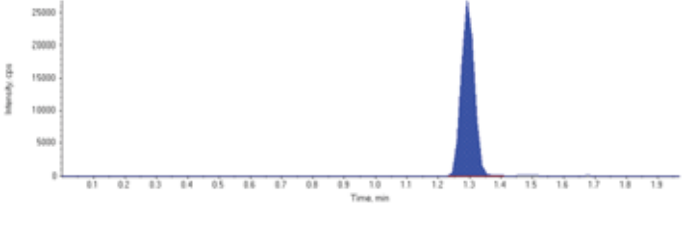


Sample ID	IB	Injection Volume (µL)	2
Sample Type	Unknown	Injection Vial	8
Acquisition Date	2017/05/24 2:26:01 AM	Dilution Factor	0.0240
Acquisition Method	PFC_Water_Low_FOSAA.dam	Instrument Name	LCMS03
Project	Enviro\PFOS	Algorithm Used	Analyst Classic
Data File	PFC_170523\WS#4988945_FOSAA.wiff		
Result Table	PFC_Water_170523_4988945_FOSAA.rdb		
Samples Annotation	-		

Internal Standard	Area (cps)	RT (min)	Target Conc. (ug/L)	Calc. Conc. (ug/L)
D3-MeFOSAA IS	71100.	1.27	1.00	-
D5-EtFOSAA IS	77000.	1.29	1.00	-
13C9-PFDA IS	1910000.	0.873	1.00	-
N/A	N/A	N/A	N/A	-

Target Analyte	Area (cps)	RT (min)	Target Conc. (ug/L)	Calc. Conc. (ug/L)	Accuracy (%)
MeFOSAA 1	0	0.00	N/A	N/A	N/A
MeFOSAA 2	411	1.27	N/A	0.000603	N/A
EtFOSAA 1	0	0.00	N/A	N/A	N/A
EtFOSAA 2	0	0.00	N/A	N/A	N/A
D3-MeFOSAA	71100	1.27	N/A	2.04	N/A
D5-EtFOSAA	77000	1.29	N/A	2.06	N/A
13C9-PFDA	1910000	0.873	N/A	2.74	N/A

<p>D3-MeFOSAA IS (Internal Standard)</p> <p>RT (Exp. RT): 1.27(1.26) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Unknown)</p>	
<p>D5-EtFOSAA IS (Internal Standard)</p> <p>RT (Exp. RT): 1.29(1.28) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Unknown)</p>	
<p>13C9-PFDA IS (Internal Standard)</p> <p>RT (Exp. RT): 0.873(0.912) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Unknown)</p>	
<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min</p> <p>Concentration: N/A N/A</p> <p>Sample Type: (Unknown)</p>	<p>This image is not available</p>

<p>MeFOSAA 1 (570.100/419.100 Da)</p> <p>RT (Exp. RT): 0.00 (1.28) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>MeFOSAA 2 (570.100/483.000 Da)</p> <p>RT (Exp. RT): 1.27 (1.27) min</p> <p>Calculated Conc: 0.000603 µg/L</p> <p>Area Ratio: 0.00578</p> <p>Sample Type: (Unknown)</p>	
<p>EtFOSAA 1 (584.100/419.100 Da)</p> <p>RT (Exp. RT): 0.00 (1.30) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>EtFOSAA 2 (584.100/483.000 Da)</p> <p>RT (Exp. RT): 0.00 (1.30) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>D3-MeFOSAA (573.100/419.100 Da)</p> <p>RT (Exp. RT): 1.27 (1.26) min</p> <p>Calculated Conc: 2.04 µg/L</p> <p>Area Ratio: 0.0372</p> <p>Sample Type: (Unknown)</p>	
<p>D5-EtFOSAA (589.200/419.000 Da)</p> <p>RT (Exp. RT): 1.29 (1.28) min</p> <p>Calculated Conc: 2.06 µg/L</p> <p>Area Ratio: 0.0402</p> <p>Sample Type: (Unknown)</p>	

13C9-PFDA (521.900/477.100 Da)

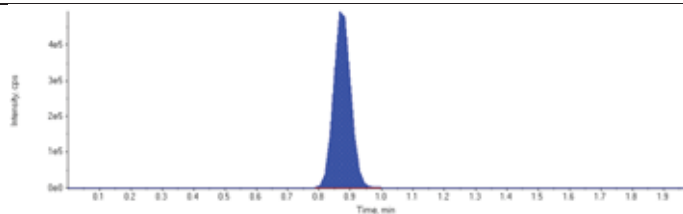
RT (Exp. RT): 0.873 (0.912) min

Calculated 2.74 µg/L

Conc:

Area Ratio: 0.00

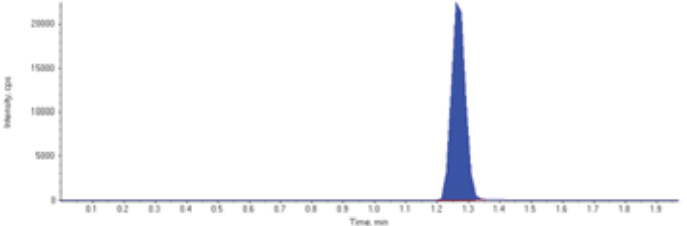
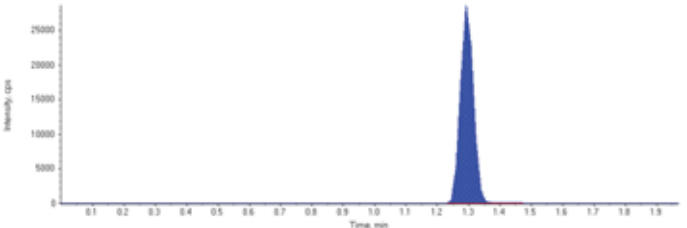
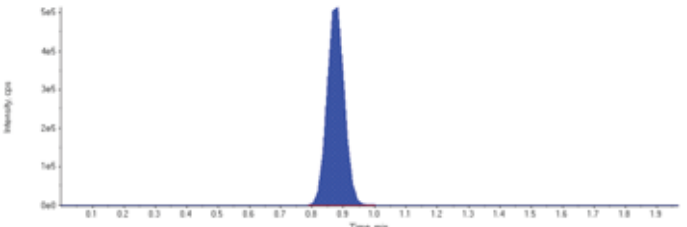
Sample Type: (Unknown)

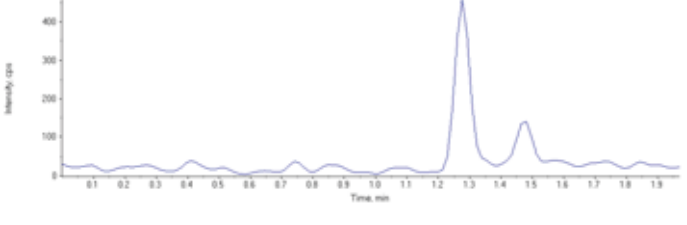
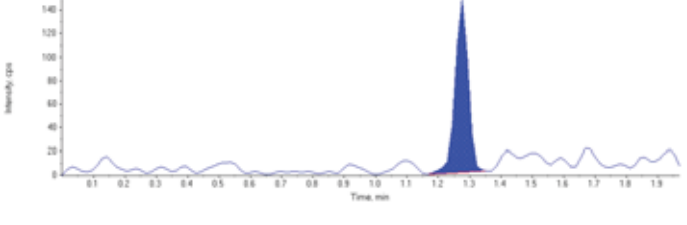
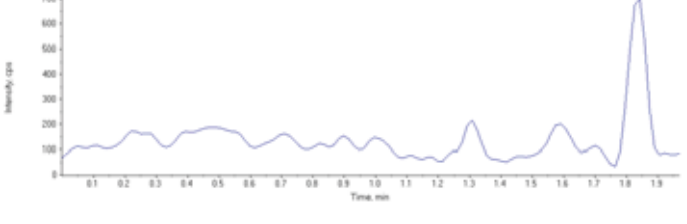
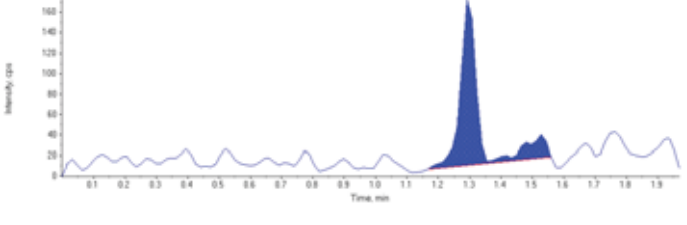
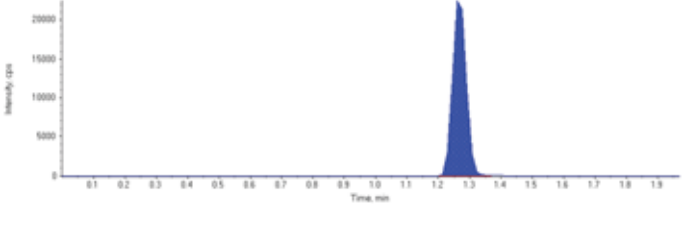
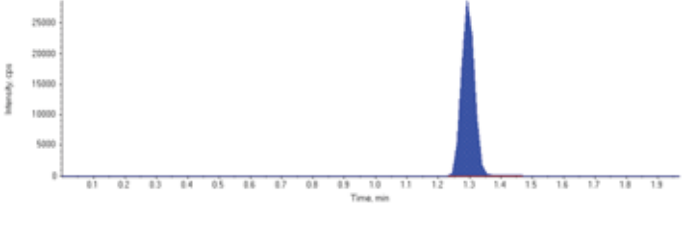


Sample ID	IB	Injection Volume (µL)	2
Sample Type	Unknown	Injection Vial	8
Acquisition Date	2017/05/24 2:41:31 AM	Dilution Factor	0.0240
Acquisition Method	PFC_Water_Low_FOSAA.dam	Instrument Name	LCMS03
Project	Enviro\PFOS	Algorithm Used	Analyst Classic
Data File	PFC_170523\WS#4988945_FOSAA.wiff		
Result Table	PFC_Water_170523_4988945_FOSAA.rdb		
Samples Annotation	-		

Internal Standard	Area (cps)	RT (min)	Target Conc. (ug/L)	Calc. Conc. (ug/L)
D3-MeFOSAA IS	69800.	1.27	1.00	-
D5-EtFOSAA IS	82600.	1.29	1.00	-
13C9-PFDA IS	2000000.	0.875	1.00	-
N/A	N/A	N/A	N/A	-

Target Analyte	Area (cps)	RT (min)	Target Conc. (ug/L)	Calc. Conc. (ug/L)	Accuracy (%)
MeFOSAA 1	0	0.00	N/A	N/A	N/A
MeFOSAA 2	425	1.28	N/A	0.000618	N/A
EtFOSAA 1	0	0.00	N/A	N/A	N/A
EtFOSAA 2	664	1.30	N/A	0.00295	N/A
D3-MeFOSAA	69800	1.27	N/A	1.91	N/A
D5-EtFOSAA	82600	1.29	N/A	2.11	N/A
13C9-PFDA	2000000	0.875	N/A	2.87	N/A

<p>D3-MeFOSAA IS (Internal Standard)</p> <p>RT (Exp. RT): 1.27(1.26) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Unknown)</p>	
<p>D5-EtFOSAA IS (Internal Standard)</p> <p>RT (Exp. RT): 1.29(1.28) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Unknown)</p>	
<p>13C9-PFDA IS (Internal Standard)</p> <p>RT (Exp. RT): 0.875(0.912) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Unknown)</p>	
<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min</p> <p>Concentration: N/A N/A</p> <p>Sample Type: (Unknown)</p>	<p>This image is not available</p>

<p>MeFOSAA 1 (570.100/419.100 Da)</p> <p>RT (Exp. RT): 0.00 (1.28) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>MeFOSAA 2 (570.100/483.000 Da)</p> <p>RT (Exp. RT): 1.28 (1.27) min</p> <p>Calculated Conc: 0.000618 µg/L</p> <p>Area Ratio: 0.00609</p> <p>Sample Type: (Unknown)</p>	
<p>EtFOSAA 1 (584.100/419.100 Da)</p> <p>RT (Exp. RT): 0.00 (1.30) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>EtFOSAA 2 (584.100/483.000 Da)</p> <p>RT (Exp. RT): 1.30 (1.30) min</p> <p>Calculated Conc: 0.00295 µg/L</p> <p>Area Ratio: 0.00804</p> <p>Sample Type: (Unknown)</p>	
<p>D3-MeFOSAA (573.100/419.100 Da)</p> <p>RT (Exp. RT): 1.27 (1.26) min</p> <p>Calculated Conc: 1.91 µg/L</p> <p>Area Ratio: 0.0348</p> <p>Sample Type: (Unknown)</p>	
<p>D5-EtFOSAA (589.200/419.000 Da)</p> <p>RT (Exp. RT): 1.29 (1.28) min</p> <p>Calculated Conc: 2.11 µg/L</p> <p>Area Ratio: 0.0412</p> <p>Sample Type: (Unknown)</p>	

13C9-PFDA (521.900/477.100 Da)

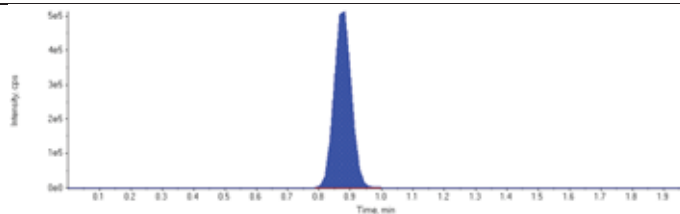
RT (Exp. RT): 0.875 (0.912) min

Calculated 2.87 µg/L

Conc:

Area Ratio: 0.00

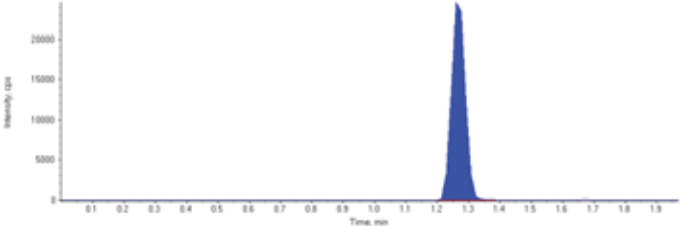
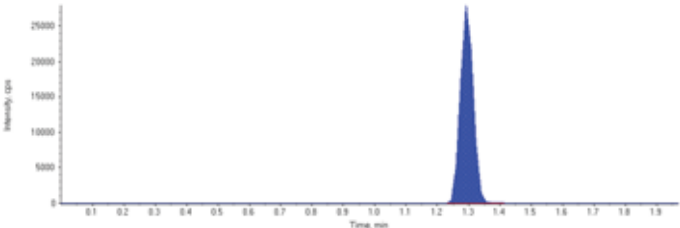
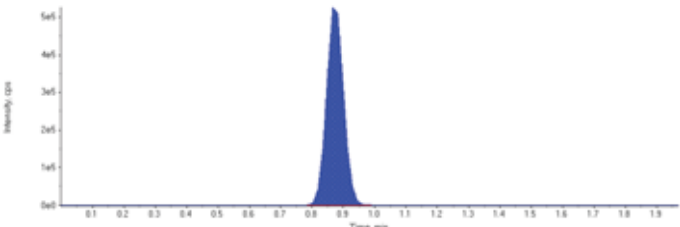
Sample Type: (Unknown)

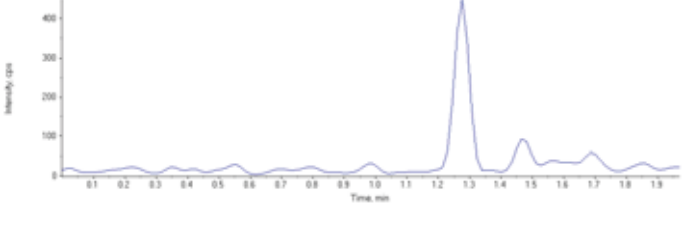
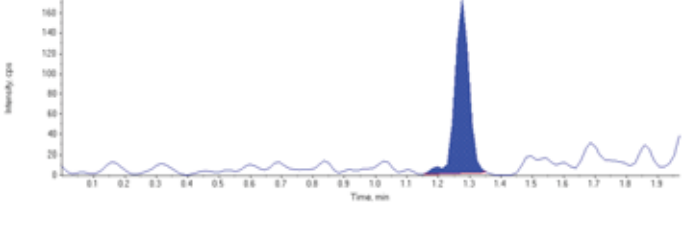
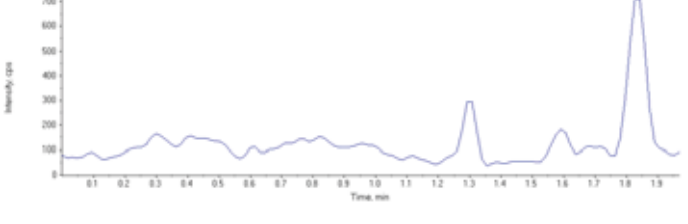
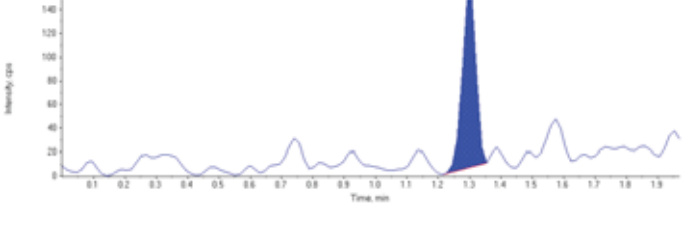
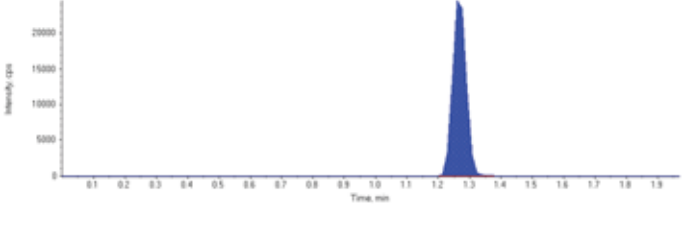
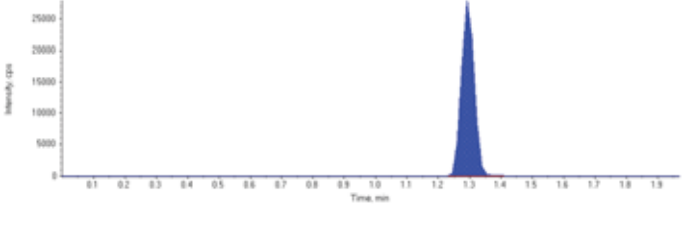


Sample ID	IB	Injection Volume (µL)	2
Sample Type	Unknown	Injection Vial	8
Acquisition Date	2017/05/24 2:54:26 AM	Dilution Factor	0.0240
Acquisition Method	PFC_Water_Low_FOSAA.dam	Instrument Name	LCMS03
Project	Enviro\PFOS	Algorithm Used	Analyst Classic
Data File	PFC_170523\WS#4988945_FOSAA.wiff		
Result Table	PFC_Water_170523_4988945_FOSAA.rdb		
Samples Annotation	-		

Internal Standard	Area (cps)	RT (min)	Target Conc. (ug/L)	Calc. Conc. (ug/L)
D3-MeFOSAA IS	76200.	1.27	1.00	-
D5-EtFOSAA IS	79400.	1.29	1.00	-
13C9-PFDA IS	2030000.	0.873	1.00	-
N/A	N/A	N/A	N/A	-

Target Analyte	Area (cps)	RT (min)	Target Conc. (ug/L)	Calc. Conc. (ug/L)	Accuracy (%)
MeFOSAA 1	0	0.00	N/A	N/A	N/A
MeFOSAA 2	534	1.28	N/A	0.000661	N/A
EtFOSAA 1	0	0.00	N/A	N/A	N/A
EtFOSAA 2	456	1.30	N/A	0.00285	N/A
D3-MeFOSAA	76200	1.27	N/A	2.06	N/A
D5-EtFOSAA	79400	1.29	N/A	2.01	N/A
13C9-PFDA	2030000	0.873	N/A	2.90	N/A

<p>D3-MeFOSAA IS (Internal Standard)</p> <p>RT (Exp. RT): 1.27(1.26) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Unknown)</p>	
<p>D5-EtFOSAA IS (Internal Standard)</p> <p>RT (Exp. RT): 1.29(1.28) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Unknown)</p>	
<p>13C9-PFDA IS (Internal Standard)</p> <p>RT (Exp. RT): 0.873(0.912) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Unknown)</p>	
<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min</p> <p>Concentration: N/A N/A</p> <p>Sample Type: (Unknown)</p>	<p>This image is not available</p>

<p>MeFOSAA 1 (570.100/419.100 Da)</p> <p>RT (Exp. RT): 0.00 (1.28) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>MeFOSAA 2 (570.100/483.000 Da)</p> <p>RT (Exp. RT): 1.28 (1.27) min</p> <p>Calculated Conc: 0.000661 µg/L</p> <p>Area Ratio: 0.00700</p> <p>Sample Type: (Unknown)</p>	
<p>EtFOSAA 1 (584.100/419.100 Da)</p> <p>RT (Exp. RT): 0.00 (1.30) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>EtFOSAA 2 (584.100/483.000 Da)</p> <p>RT (Exp. RT): 1.30 (1.30) min</p> <p>Calculated Conc: 0.00285 µg/L</p> <p>Area Ratio: 0.00575</p> <p>Sample Type: (Unknown)</p>	
<p>D3-MeFOSAA (573.100/419.100 Da)</p> <p>RT (Exp. RT): 1.27 (1.26) min</p> <p>Calculated Conc: 2.06 µg/L</p> <p>Area Ratio: 0.0376</p> <p>Sample Type: (Unknown)</p>	
<p>D5-EtFOSAA (589.200/419.000 Da)</p> <p>RT (Exp. RT): 1.29 (1.28) min</p> <p>Calculated Conc: 2.01 µg/L</p> <p>Area Ratio: 0.0392</p> <p>Sample Type: (Unknown)</p>	

13C9-PFDA (521.900/477.100 Da)

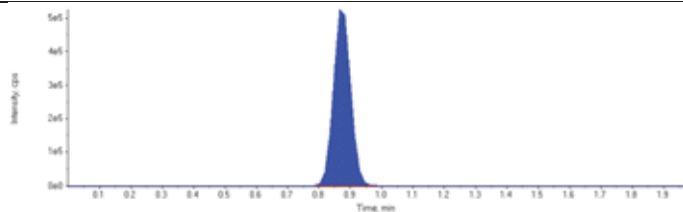
RT (Exp. RT): 0.873 (0.912) min

Calculated 2.90 µg/L

Conc:

Area Ratio: 0.00

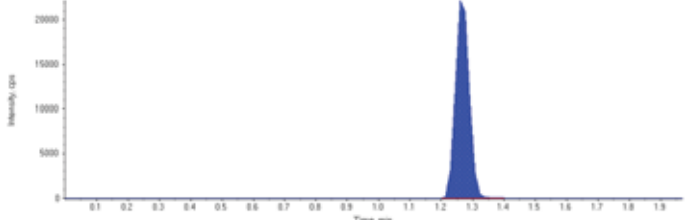
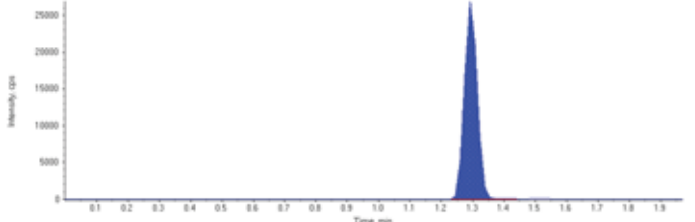
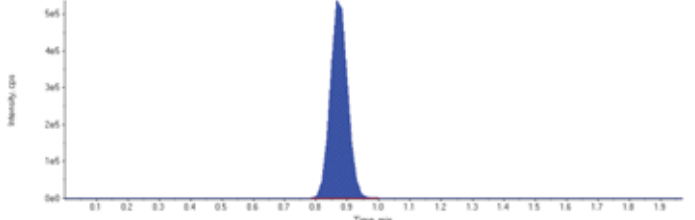
Sample Type: (Unknown)

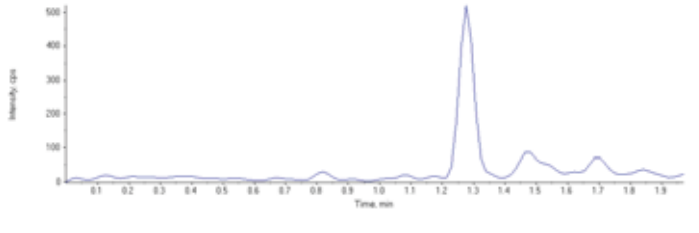
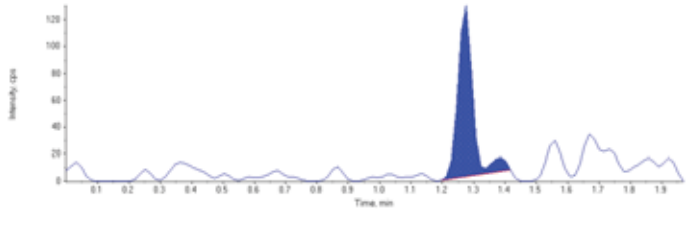
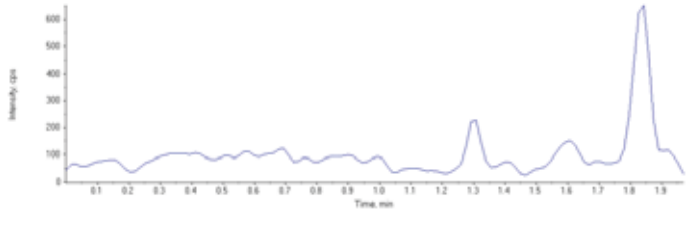
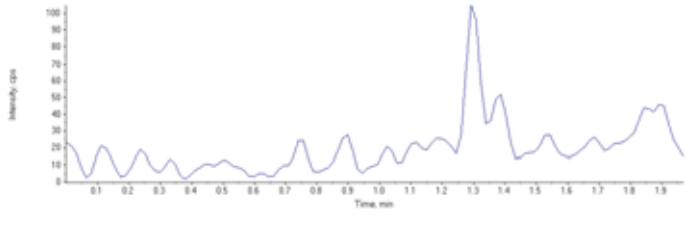
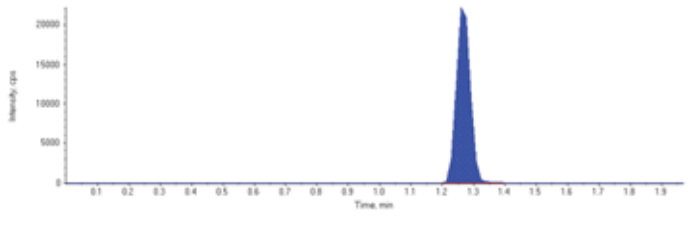
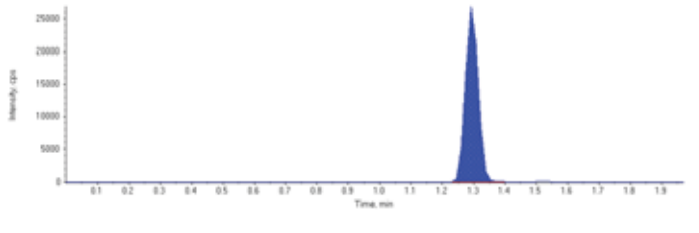


Sample ID	IB	Injection Volume (µL)	2
Sample Type	Unknown	Injection Vial	8
Acquisition Date	2017/05/24 3:02:11 AM	Dilution Factor	0.0240
Acquisition Method	PFC_Water_Low_FOSAA.dam	Instrument Name	LCMS03
Project	Enviro\PFOS	Algorithm Used	Analyst Classic
Data File	PFC_170523\WS#4988945_FOSAA.wiff		
Result Table	PFC_Water_170523_4988945_FOSAA.rdb		
Samples Annotation	-		

Internal Standard	Area (cps)	RT (min)	Target Conc. (ug/L)	Calc. Conc. (ug/L)
D3-MeFOSAA IS	68800.	1.27	1.00	-
D5-EtFOSAA IS	77000.	1.29	1.00	-
13C9-PFDA IS	2060000.	0.872	1.00	-
N/A	N/A	N/A	N/A	-

Target Analyte	Area (cps)	RT (min)	Target Conc. (ug/L)	Calc. Conc. (ug/L)	Accuracy (%)
MeFOSAA 1	0	0.00	N/A	N/A	N/A
MeFOSAA 2	430	1.27	N/A	0.000626	N/A
EtFOSAA 1	0	0.00	N/A	N/A	N/A
EtFOSAA 2	0	0.00	N/A	N/A	N/A
D3-MeFOSAA	68800	1.27	N/A	1.83	N/A
D5-EtFOSAA	77000	1.29	N/A	1.91	N/A
13C9-PFDA	2060000	0.872	N/A	2.95	N/A

<p>D3-MeFOSAA IS (Internal Standard)</p> <p>RT (Exp. RT): 1.27(1.26) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Unknown)</p>	
<p>D5-EtFOSAA IS (Internal Standard)</p> <p>RT (Exp. RT): 1.29(1.28) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Unknown)</p>	
<p>13C9-PFDA IS (Internal Standard)</p> <p>RT (Exp. RT): 0.872(0.912) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Unknown)</p>	
<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min</p> <p>Concentration: N/A N/A</p> <p>Sample Type: (Unknown)</p>	<p>This image is not available</p>

<p>MeFOSAA 1 (570.100/419.100 Da)</p> <p>RT (Exp. RT): 0.00 (1.28) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>MeFOSAA 2 (570.100/483.000 Da)</p> <p>RT (Exp. RT): 1.27 (1.27) min</p> <p>Calculated Conc: 0.000626 µg/L</p> <p>Area Ratio: 0.00626</p> <p>Sample Type: (Unknown)</p>	
<p>EtFOSAA 1 (584.100/419.100 Da)</p> <p>RT (Exp. RT): 0.00 (1.30) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>EtFOSAA 2 (584.100/483.000 Da)</p> <p>RT (Exp. RT): 0.00 (1.30) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>D3-MeFOSAA (573.100/419.100 Da)</p> <p>RT (Exp. RT): 1.27 (1.26) min</p> <p>Calculated Conc: 1.83 µg/L</p> <p>Area Ratio: 0.0333</p> <p>Sample Type: (Unknown)</p>	
<p>D5-EtFOSAA (589.200/419.000 Da)</p> <p>RT (Exp. RT): 1.29 (1.28) min</p> <p>Calculated Conc: 1.91 µg/L</p> <p>Area Ratio: 0.0373</p> <p>Sample Type: (Unknown)</p>	

13C9-PFDA (521.900/477.100 Da)

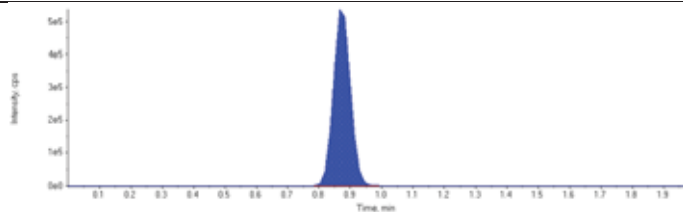
RT (Exp. RT): 0.872 (0.912) min

Calculated 2.95 µg/L

Conc:

Area Ratio: 0.00

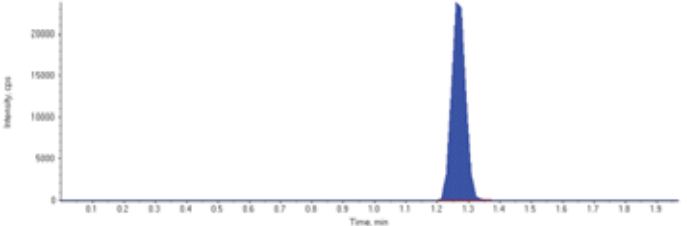
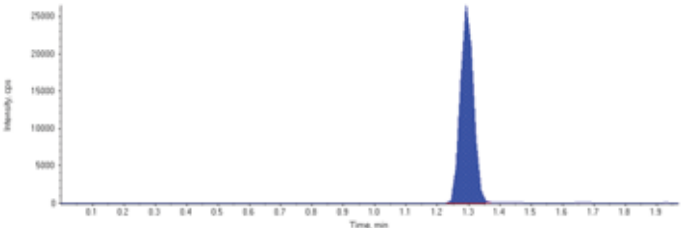
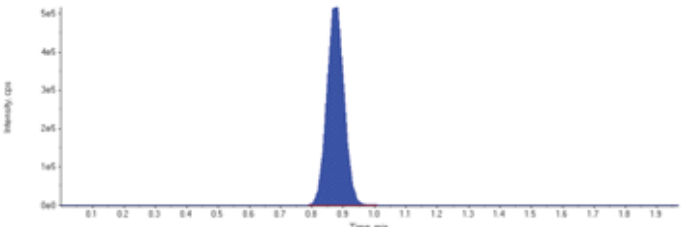
Sample Type: (Unknown)

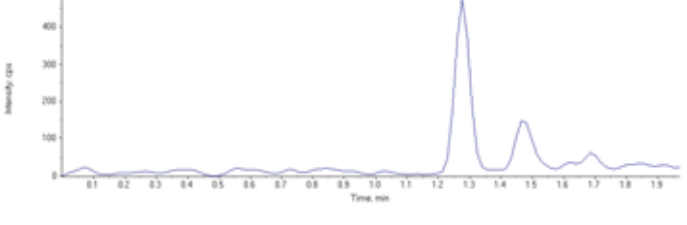
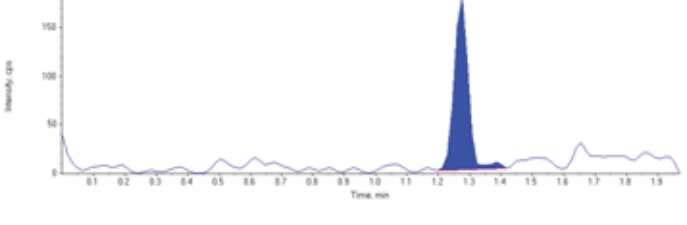
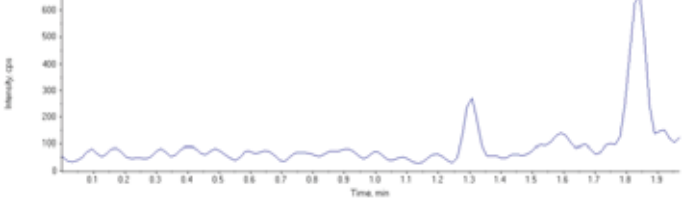
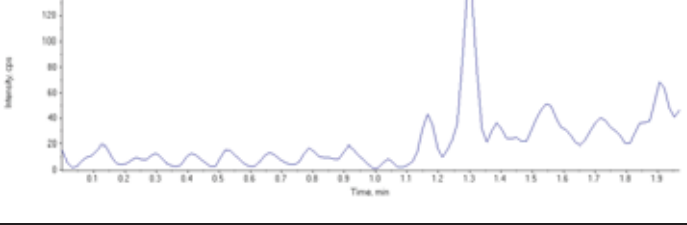
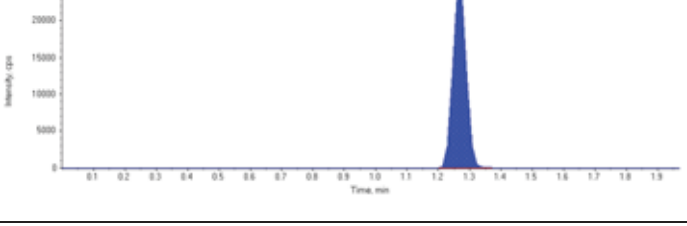
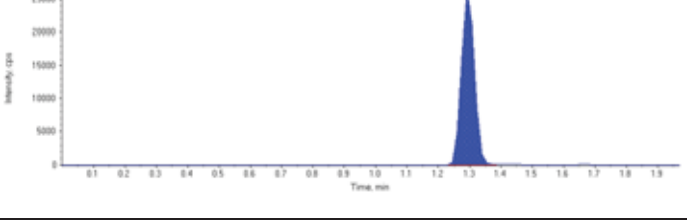


Sample ID	IB	Injection Volume (µL)	2
Sample Type	Unknown	Injection Vial	8
Acquisition Date	2017/05/24 3:20:16 AM	Dilution Factor	0.0240
Acquisition Method	PFC_Water_Low_FOSAA.dam	Instrument Name	LCMS03
Project	Enviro\PFOS	Algorithm Used	Analyst Classic
Data File	PFC_170523\WS#4988945_FOSAA.wiff		
Result Table	PFC_Water_170523_4988945_FOSAA.rdb		
Samples Annotation	-		

Internal Standard	Area (cps)	RT (min)	Target Conc. (ug/L)	Calc. Conc. (ug/L)
D3-MeFOSAA IS	74600.	1.27	1.00	-
D5-EtFOSAA IS	75800.	1.29	1.00	-
13C9-PFDA IS	2010000.	0.875	1.00	-
N/A	N/A	N/A	N/A	-

Target Analyte	Area (cps)	RT (min)	Target Conc. (ug/L)	Calc. Conc. (ug/L)	Accuracy (%)
MeFOSAA 1	0	0.00	N/A	N/A	N/A
MeFOSAA 2	554	1.27	N/A	0.000682	N/A
EtFOSAA 1	0	0.00	N/A	N/A	N/A
EtFOSAA 2	0	0.00	N/A	N/A	N/A
D3-MeFOSAA	74600	1.27	N/A	2.04	N/A
D5-EtFOSAA	75800	1.29	N/A	1.93	N/A
13C9-PFDA	2010000	0.875	N/A	2.87	N/A

<p>D3-MeFOSAA IS (Internal Standard)</p> <p>RT (Exp. RT): 1.27(1.26) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Unknown)</p>	
<p>D5-EtFOSAA IS (Internal Standard)</p> <p>RT (Exp. RT): 1.29(1.28) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Unknown)</p>	
<p>13C9-PFDA IS (Internal Standard)</p> <p>RT (Exp. RT): 0.875(0.912) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Unknown)</p>	
<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min</p> <p>Concentration: N/A N/A</p> <p>Sample Type: (Unknown)</p>	<p>This image is not available</p>

<p>MeFOSAA 1 (570.100/419.100 Da)</p> <p>RT (Exp. RT): 0.00 (1.28) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>MeFOSAA 2 (570.100/483.000 Da)</p> <p>RT (Exp. RT): 1.27 (1.27) min</p> <p>Calculated Conc: 0.000682 µg/L</p> <p>Area Ratio: 0.00743</p> <p>Sample Type: (Unknown)</p>	
<p>EtFOSAA 1 (584.100/419.100 Da)</p> <p>RT (Exp. RT): 0.00 (1.30) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>EtFOSAA 2 (584.100/483.000 Da)</p> <p>RT (Exp. RT): 0.00 (1.30) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>D3-MeFOSAA (573.100/419.100 Da)</p> <p>RT (Exp. RT): 1.27 (1.26) min</p> <p>Calculated Conc: 2.04 µg/L</p> <p>Area Ratio: 0.0371</p> <p>Sample Type: (Unknown)</p>	
<p>D5-EtFOSAA (589.200/419.000 Da)</p> <p>RT (Exp. RT): 1.29 (1.28) min</p> <p>Calculated Conc: 1.93 µg/L</p> <p>Area Ratio: 0.0377</p> <p>Sample Type: (Unknown)</p>	

13C9-PFDA (521.900/477.100 Da)

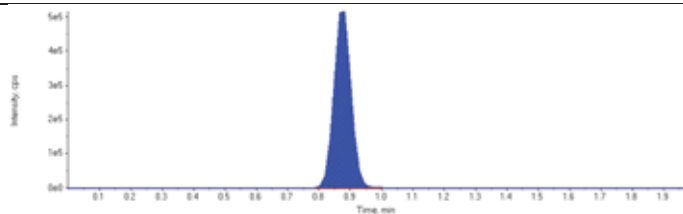
RT (Exp. RT): 0.875 (0.912) min

Calculated 2.87 µg/L

Conc:

Area Ratio: 0.00

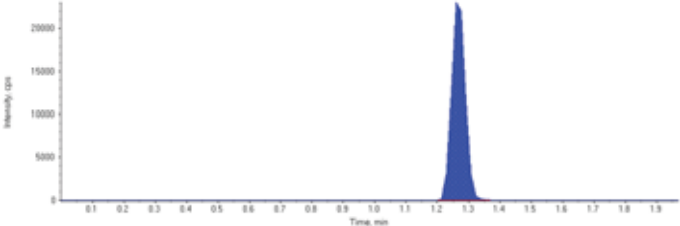
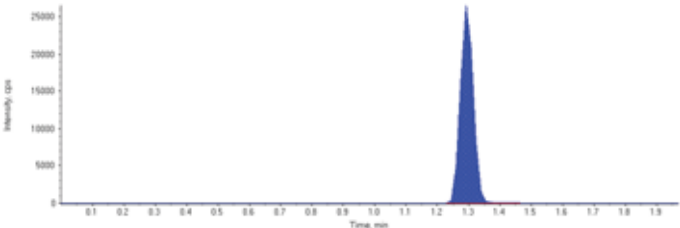
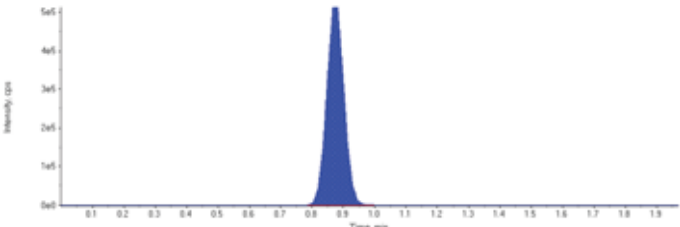
Sample Type: (Unknown)

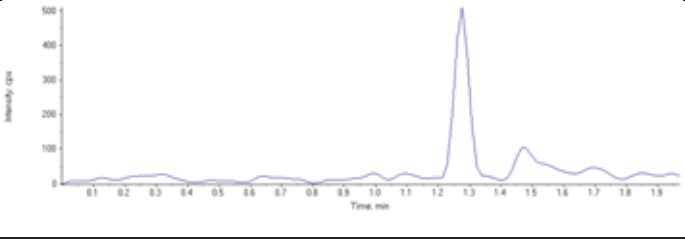
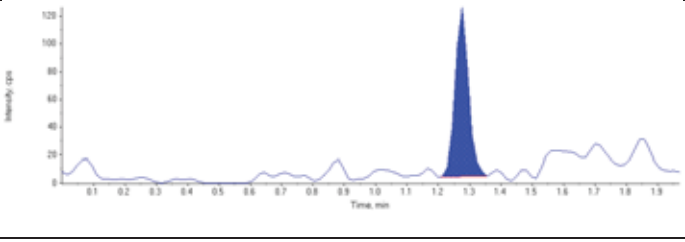
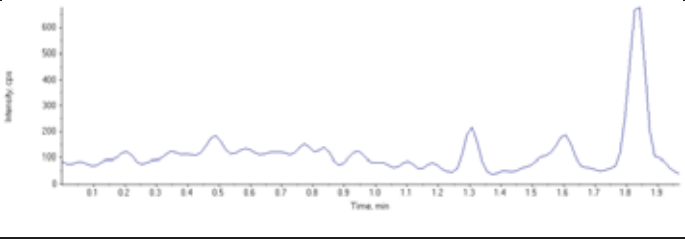
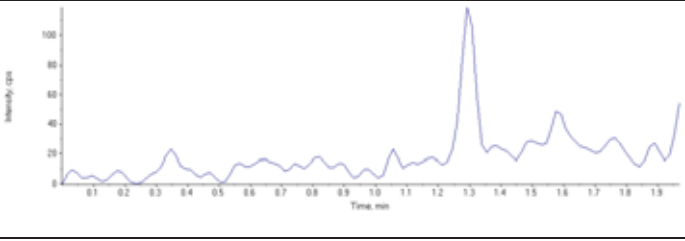
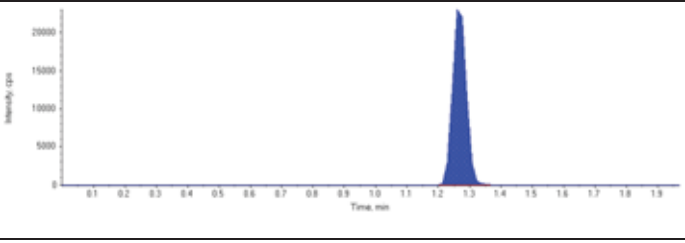
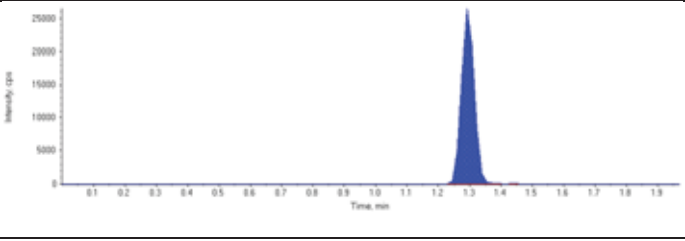


Sample ID	IB	Injection Volume (µL)	2
Sample Type	Unknown	Injection Vial	8
Acquisition Date	2017/05/24 3:30:37 AM	Dilution Factor	0.0240
Acquisition Method	PFC_Water_Low_FOSAA.dam	Instrument Name	LCMS03
Project	Enviro\PFOS	Algorithm Used	Analyst Classic
Data File	PFC_170523\WS#4988945_FOSAA.wiff		
Result Table	PFC_Water_170523_4988945_FOSAA.rdb		
Samples Annotation	-		

Internal Standard	Area (cps)	RT (min)	Target Conc. (ug/L)	Calc. Conc. (ug/L)
D3-MeFOSAA IS	71700.	1.27	1.00	-
D5-EtFOSAA IS	76100.	1.29	1.00	-
13C9-PFDA IS	2020000.	0.874	1.00	-
N/A	N/A	N/A	N/A	-

Target Analyte	Area (cps)	RT (min)	Target Conc. (ug/L)	Calc. Conc. (ug/L)	Accuracy (%)
MeFOSAA 1	0	0.00	N/A	N/A	N/A
MeFOSAA 2	360	1.27	N/A	0.000566	N/A
EtFOSAA 1	0	0.00	N/A	N/A	N/A
EtFOSAA 2	0	0.00	N/A	N/A	N/A
D3-MeFOSAA	71700	1.27	N/A	1.95	N/A
D5-EtFOSAA	76100	1.29	N/A	1.93	N/A
13C9-PFDA	2020000	0.874	N/A	2.88	N/A

<p>D3-MeFOSAA IS (Internal Standard)</p> <p>RT (Exp. RT): 1.27(1.26) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Unknown)</p>	
<p>D5-EtFOSAA IS (Internal Standard)</p> <p>RT (Exp. RT): 1.29(1.28) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Unknown)</p>	
<p>13C9-PFDA IS (Internal Standard)</p> <p>RT (Exp. RT): 0.874(0.912) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Unknown)</p>	
<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min</p> <p>Concentration: N/A N/A</p> <p>Sample Type: (Unknown)</p>	<p>This image is not available</p>

<p>MeFOSAA 1 (570.100/419.100 Da)</p> <p>RT (Exp. RT): 0.00 (1.28) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>MeFOSAA 2 (570.100/483.000 Da)</p> <p>RT (Exp. RT): 1.27 (1.27) min</p> <p>Calculated Conc: 0.000566 µg/L</p> <p>Area Ratio: 0.00501</p> <p>Sample Type: (Unknown)</p>	
<p>EtFOSAA 1 (584.100/419.100 Da)</p> <p>RT (Exp. RT): 0.00 (1.30) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>EtFOSAA 2 (584.100/483.000 Da)</p> <p>RT (Exp. RT): 0.00 (1.30) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Unknown)</p>	
<p>D3-MeFOSAA (573.100/419.100 Da)</p> <p>RT (Exp. RT): 1.27 (1.26) min</p> <p>Calculated Conc: 1.95 µg/L</p> <p>Area Ratio: 0.0356</p> <p>Sample Type: (Unknown)</p>	
<p>D5-EtFOSAA (589.200/419.000 Da)</p> <p>RT (Exp. RT): 1.29 (1.28) min</p> <p>Calculated Conc: 1.93 µg/L</p> <p>Area Ratio: 0.0377</p> <p>Sample Type: (Unknown)</p>	

13C9-PFDA (521.900/477.100 Da)

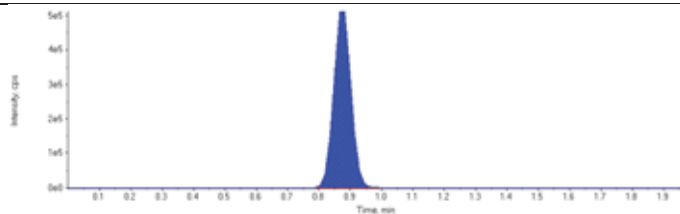
RT (Exp. RT): 0.874 (0.912) min

Calculated 2.88 µg/L

Conc:

Area Ratio: 0.00

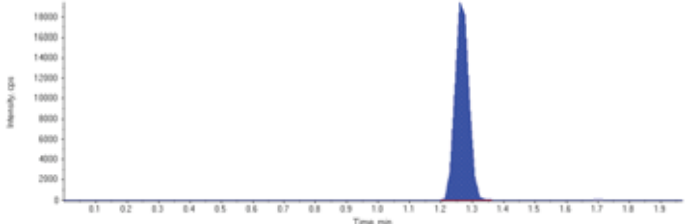
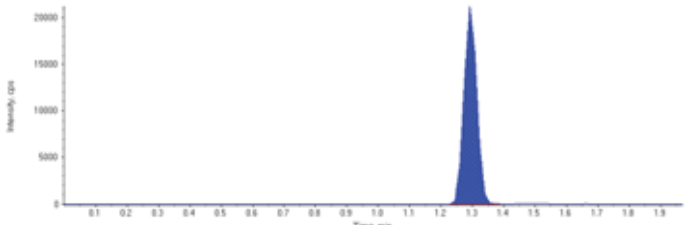
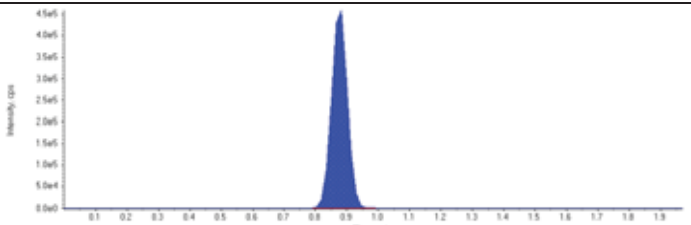
Sample Type: (Unknown)

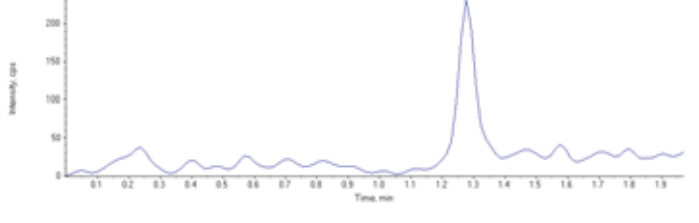
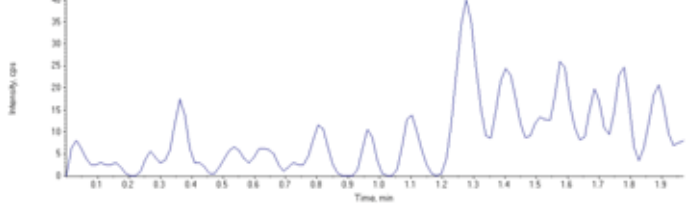
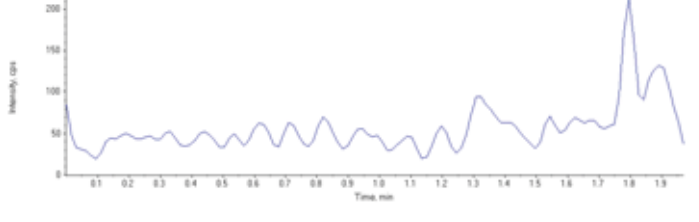
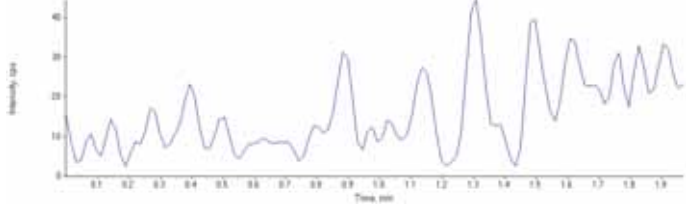
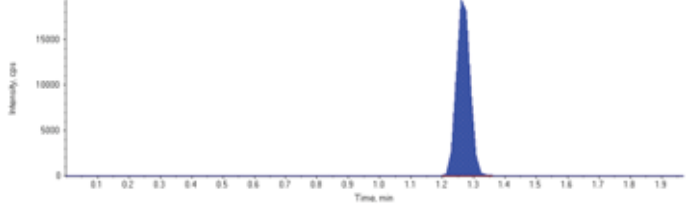
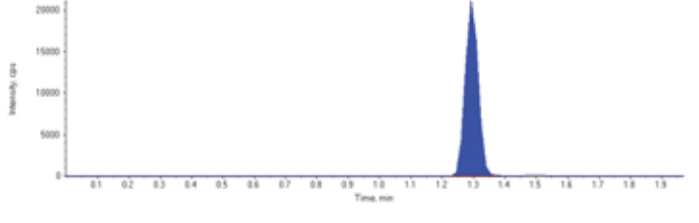


Sample ID	4988945~BLANK	Injection Volume (µL)	2
Sample Type	Quality Control	Injection Vial	10
Acquisition Date	2017/05/24 1:47:17 AM	Dilution Factor	0.0240
Acquisition Method	PFC_Water_Low_FOSAA.dam	Instrument Name	LCMS03
Project	Enviro\PFOS	Algorithm Used	Analyst Classic
Data File	PFC_170523\WS#4988945_FOSAA.wiff		
Result Table	PFC_Water_170523_4988945_FOSAA.rdb		
Samples Annotation	-		

Internal Standard	Area (cps)	RT (min)	Target Conc. (ug/L)	Calc. Conc. (ug/L)
D3-MeFOSAA IS	59600.	1.27	1.00	-
D5-EtFOSAA IS	60400.	1.29	1.00	-
13C9-PFDA IS	1640000.	0.877	1.00	-
N/A	N/A	N/A	N/A	-

Target Analyte	Area (cps)	RT (min)	Target Conc. (ug/L)	Calc. Conc. (ug/L)	Accuracy (%)
MeFOSAA 1	0	0.00	0.00	N/A	0.0
MeFOSAA 2	0	0.00	0.00	N/A	0.0
EtFOSAA 1	0	0.00	0.00	N/A	0.0
EtFOSAA 2	0	0.00	0.00	N/A	0.0
D3-MeFOSAA	59600	1.27	0.00	2.00	0.0
D5-EtFOSAA	60400	1.29	0.00	1.89	0.0
13C9-PFDA	1640000	0.877	0.00	2.34	0.0

<p>D3-MeFOSAA IS (Internal Standard)</p> <p>RT (Exp. RT): 1.27(1.26) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>D5-EtFOSAA IS (Internal Standard)</p> <p>RT (Exp. RT): 1.29(1.28) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>13C9-PFDA IS (Internal Standard)</p> <p>RT (Exp. RT): 0.877(0.912) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min</p> <p>Concentration: N/A N/A</p> <p>Sample Type: (Quality Control)</p>	<p>This image is not available</p>

<p>MeFOSAA 1 (570.100/419.100 Da)</p> <p>RT (Exp. RT): 0.00 (1.28) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Quality Control)</p>	
<p>MeFOSAA 2 (570.100/483.000 Da)</p> <p>RT (Exp. RT): 0.00 (1.27) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Quality Control)</p>	
<p>EtFOSAA 1 (584.100/419.100 Da)</p> <p>RT (Exp. RT): 0.00 (1.30) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Quality Control)</p>	
<p>EtFOSAA 2 (584.100/483.000 Da)</p> <p>RT (Exp. RT): 0.00 (1.30) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Quality Control)</p>	
<p>D3-MeFOSAA (573.100/419.100 Da)</p> <p>RT (Exp. RT): 1.27 (1.26) min</p> <p>Calculated Conc: 2.00 µg/L</p> <p>Area Ratio: 0.0364</p> <p>Sample Type: (Quality Control)</p>	
<p>D5-EtFOSAA (589.200/419.000 Da)</p> <p>RT (Exp. RT): 1.29 (1.28) min</p> <p>Calculated Conc: 1.89 µg/L</p> <p>Area Ratio: 0.0369</p> <p>Sample Type: (Quality Control)</p>	

13C9-PFDA (521.900/477.100 Da)

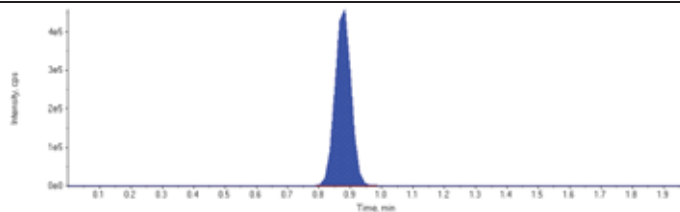
RT (Exp. RT): 0.877 (0.912) min

Calculated 2.34 µg/L

Conc:

Area Ratio: 0.00

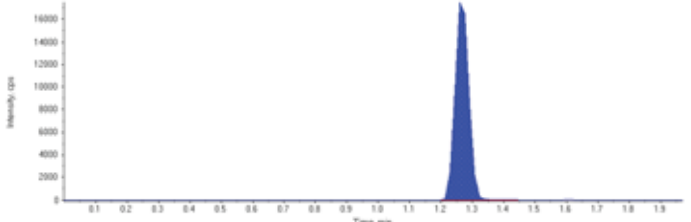
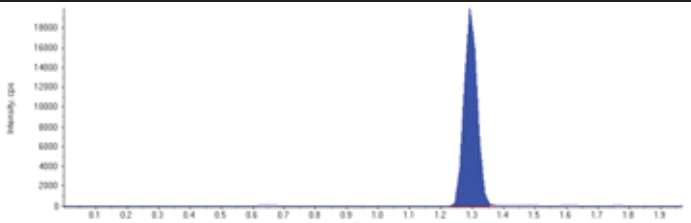
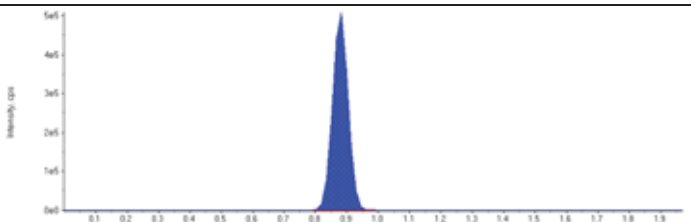
Sample Type: (Quality Control)

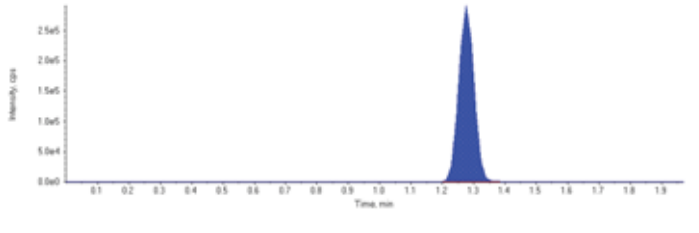
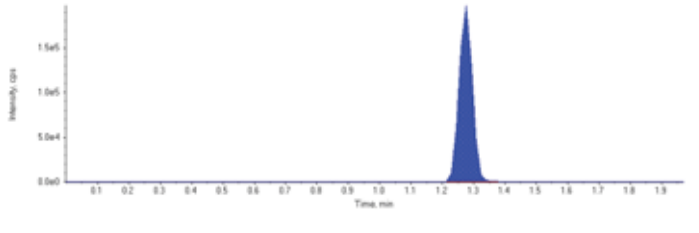
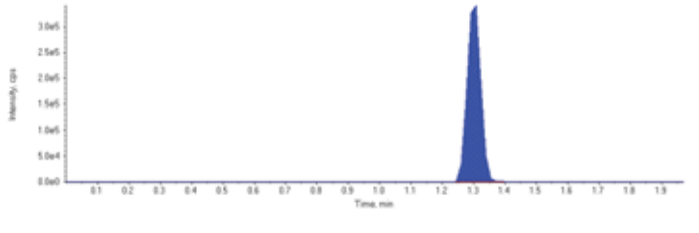
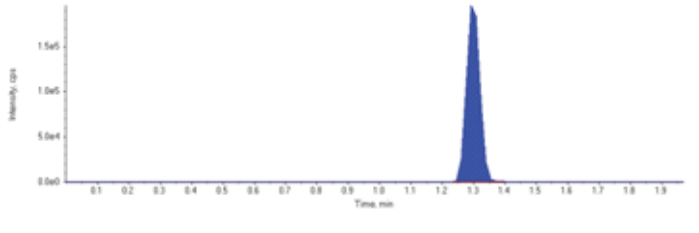
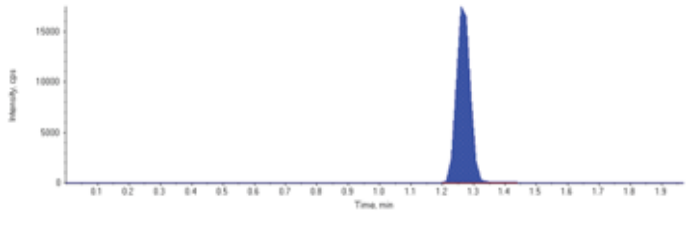
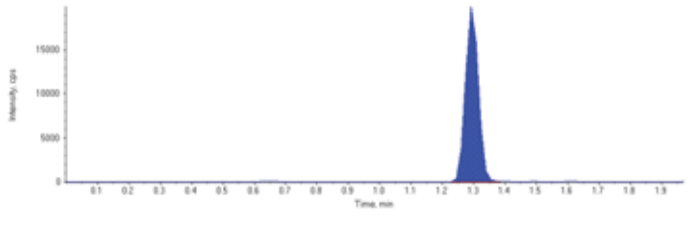


Sample ID	4988945~SPIKE	Injection Volume (µL)	2
Sample Type	Quality Control	Injection Vial	11
Acquisition Date	2017/05/24 1:49:52 AM	Dilution Factor	0.0240
Acquisition Method	PFC_Water_Low_FOSAA.dam	Instrument Name	LCMS03
Project	Enviro\PFOS	Algorithm Used	Analyst Classic
Data File	PFC_170523\WS#4988945_FOSAA.wiff		
Result Table	PFC_Water_170523_4988945_FOSAA.rdb		
Samples Annotation	-		

Internal Standard	Area (cps)	RT (min)	Target Conc. (ug/L)	Calc. Conc. (ug/L)
D3-MeFOSAA IS	54000.	1.27	1.00	-
D5-EtFOSAA IS	57400.	1.29	1.00	-
13C9-PFDA IS	1780000.	0.880	1.00	-
N/A	N/A	N/A	N/A	-

Target Analyte	Area (cps)	RT (min)	Target Conc. (ug/L)	Calc. Conc. (ug/L)	Accuracy (%)
MeFOSAA 1	984000	1.28	20.8	0.512	2.5
MeFOSAA 2	582000	1.27	20.8	0.518	2.5
EtFOSAA 1	1050000	1.30	20.8	0.489	2.4
EtFOSAA 2	596000	1.30	20.8	0.490	2.4
D3-MeFOSAA	54000	1.27	100.	1.67	1.7
D5-EtFOSAA	57400	1.29	100.	1.65	1.7
13C9-PFDA	1780000	0.880	100.	2.54	2.5

<p>D3-MeFOSAA IS (Internal Standard)</p> <p>RT (Exp. RT): 1.27(1.26) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>D5-EtFOSAA IS (Internal Standard)</p> <p>RT (Exp. RT): 1.29(1.28) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>13C9-PFDA IS (Internal Standard)</p> <p>RT (Exp. RT): 0.880(0.912) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min</p> <p>Concentration: N/A N/A</p> <p>Sample Type: (Quality Control)</p>	<p>This image is not available</p>

<p>MeFOSAA 1 (570.100/419.100 Da)</p> <p>RT (Exp. RT): 1.28 (1.28) min</p> <p>Calculated Conc: 0.512 µg/L</p> <p>Area Ratio: 18.2</p> <p>Sample Type: (Quality Control)</p>	
<p>MeFOSAA 2 (570.100/483.000 Da)</p> <p>RT (Exp. RT): 1.27 (1.27) min</p> <p>Calculated Conc: 0.518 µg/L</p> <p>Area Ratio: 10.8</p> <p>Sample Type: (Quality Control)</p>	
<p>EtFOSAA 1 (584.100/419.100 Da)</p> <p>RT (Exp. RT): 1.30 (1.30) min</p> <p>Calculated Conc: 0.489 µg/L</p> <p>Area Ratio: 18.3</p> <p>Sample Type: (Quality Control)</p>	
<p>EtFOSAA 2 (584.100/483.000 Da)</p> <p>RT (Exp. RT): 1.30 (1.30) min</p> <p>Calculated Conc: 0.490 µg/L</p> <p>Area Ratio: 10.4</p> <p>Sample Type: (Quality Control)</p>	
<p>D3-MeFOSAA (573.100/419.100 Da)</p> <p>RT (Exp. RT): 1.27 (1.26) min</p> <p>Calculated Conc: 1.67 µg/L</p> <p>Area Ratio: 0.0304</p> <p>Sample Type: (Quality Control)</p>	
<p>D5-EtFOSAA (589.200/419.000 Da)</p> <p>RT (Exp. RT): 1.29 (1.28) min</p> <p>Calculated Conc: 1.65 µg/L</p> <p>Area Ratio: 0.0323</p> <p>Sample Type: (Quality Control)</p>	

13C9-PFDA (521.900/477.100 Da)

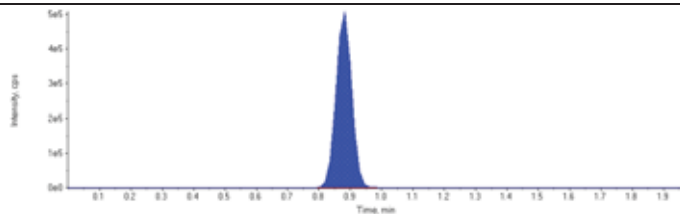
RT (Exp. RT): 0.880 (0.912) min

Calculated 2.54 µg/L

Conc:

Area Ratio: 0.00

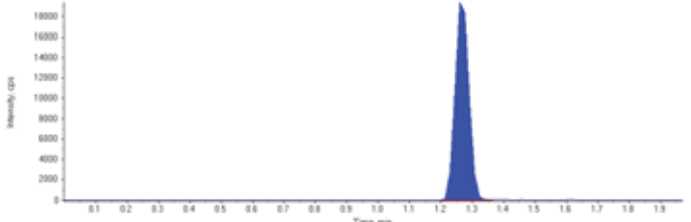
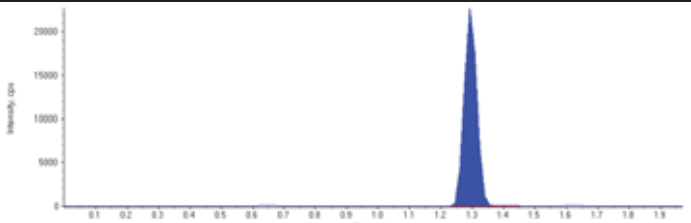
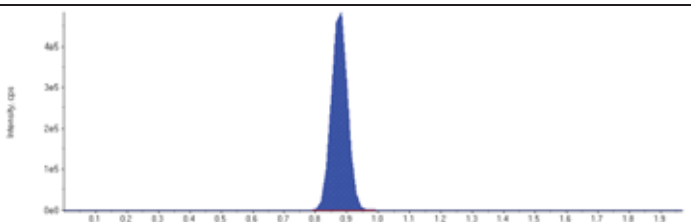
Sample Type: (Quality Control)

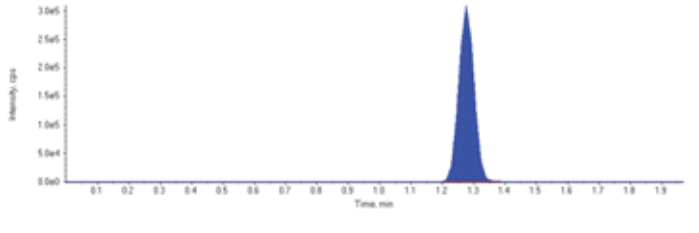
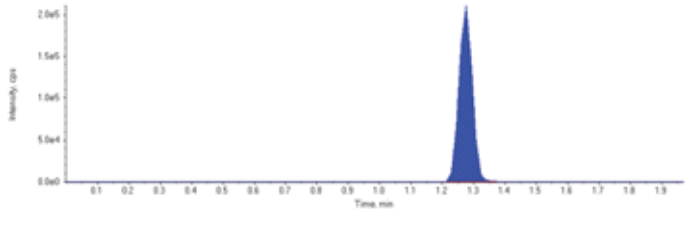
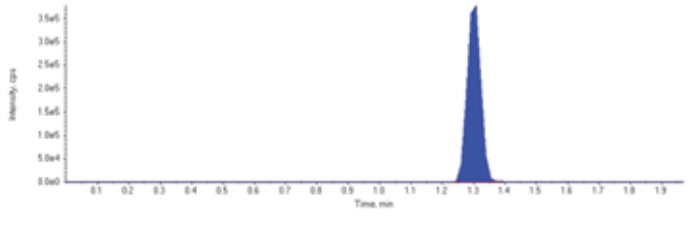
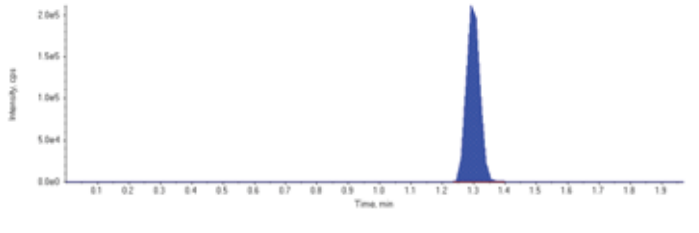
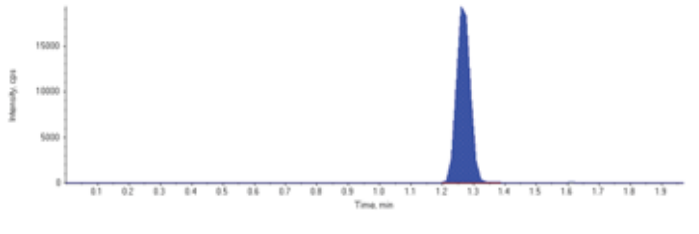
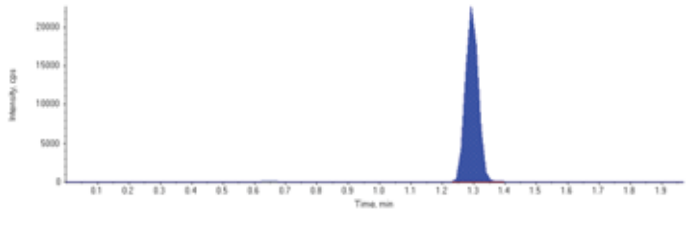


Sample ID	4988945~SPIKE:D1	Injection Volume (µL)	2
Sample Type	Quality Control	Injection Vial	12
Acquisition Date	2017/05/24 1:52:27 AM	Dilution Factor	0.0240
Acquisition Method	PFC_Water_Low_FOSAA.dam	Instrument Name	LCMS03
Project	Enviro\PFOS	Algorithm Used	Analyst Classic
Data File	PFC_170523\WS#4988945_FOSAA.wiff		
Result Table	PFC_Water_170523_4988945_FOSAA.rdb		
Samples Annotation	-		

Internal Standard	Area (cps)	RT (min)	Target Conc. (ug/L)	Calc. Conc. (ug/L)
D3-MeFOSAA IS	60100.	1.27	1.00	-
D5-EtFOSAA IS	64200.	1.29	1.00	-
13C9-PFDA IS	1760000.	0.876	1.00	-
N/A	N/A	N/A	N/A	-

Target Analyte	Area (cps)	RT (min)	Target Conc. (ug/L)	Calc. Conc. (ug/L)	Accuracy (%)
MeFOSAA 1	1040000	1.28	20.8	0.489	2.4
MeFOSAA 2	622000	1.27	20.8	0.499	2.4
EtFOSAA 1	1160000	1.30	20.8	0.484	2.3
EtFOSAA 2	640000	1.30	20.8	0.471	2.3
D3-MeFOSAA	60100	1.27	100.	1.87	1.9
D5-EtFOSAA	64200	1.29	100.	1.87	1.9
13C9-PFDA	1760000	0.876	100.	2.52	2.5

<p>D3-MeFOSAA IS (Internal Standard)</p> <p>RT (Exp. RT): 1.27(1.26) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>D5-EtFOSAA IS (Internal Standard)</p> <p>RT (Exp. RT): 1.29(1.28) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>13C9-PFDA IS (Internal Standard)</p> <p>RT (Exp. RT): 0.876(0.912) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min</p> <p>Concentration: N/A N/A</p> <p>Sample Type: (Quality Control)</p>	<p>This image is not available</p>

<p>MeFOSAA 1 (570.100/419.100 Da)</p> <p>RT (Exp. RT): 1.28 (1.28) min</p> <p>Calculated Conc: 0.489 µg/L</p> <p>Area Ratio: 17.4</p> <p>Sample Type: (Quality Control)</p>	
<p>MeFOSAA 2 (570.100/483.000 Da)</p> <p>RT (Exp. RT): 1.27 (1.27) min</p> <p>Calculated Conc: 0.499 µg/L</p> <p>Area Ratio: 10.4</p> <p>Sample Type: (Quality Control)</p>	
<p>EtFOSAA 1 (584.100/419.100 Da)</p> <p>RT (Exp. RT): 1.30 (1.30) min</p> <p>Calculated Conc: 0.484 µg/L</p> <p>Area Ratio: 18.1</p> <p>Sample Type: (Quality Control)</p>	
<p>EtFOSAA 2 (584.100/483.000 Da)</p> <p>RT (Exp. RT): 1.30 (1.30) min</p> <p>Calculated Conc: 0.471 µg/L</p> <p>Area Ratio: 9.97</p> <p>Sample Type: (Quality Control)</p>	
<p>D3-MeFOSAA (573.100/419.100 Da)</p> <p>RT (Exp. RT): 1.27 (1.26) min</p> <p>Calculated Conc: 1.87 µg/L</p> <p>Area Ratio: 0.0341</p> <p>Sample Type: (Quality Control)</p>	
<p>D5-EtFOSAA (589.200/419.000 Da)</p> <p>RT (Exp. RT): 1.29 (1.28) min</p> <p>Calculated Conc: 1.87 µg/L</p> <p>Area Ratio: 0.0365</p> <p>Sample Type: (Quality Control)</p>	

13C9-PFDA (521.900/477.100 Da)

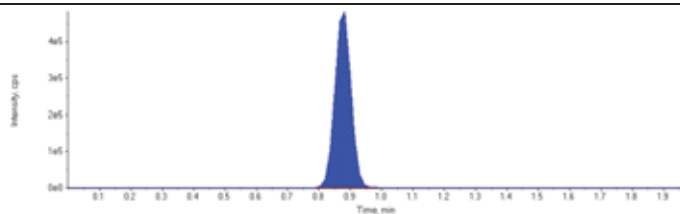
RT (Exp. RT): 0.876 (0.912) min

Calculated 2.52 µg/L

Conc:

Area Ratio: 0.00

Sample Type: (Quality Control)



DoD Projects - Internal Data Validation Checklist				
Run date: 2017/05/04				
Worksheet # (s): 4990811				
Analysis: PFDSALCM-S				
				1st 100% review
				*2nd 100% review
Primary review by the analyst - 1st 100 % analysis review				
		yes	no	n/a
1	Sample analyses meet hold time criteria	✓		✓
2	Analysis set-up meets method criteria	✓		✓
3	Tuning and correct calibration used - criteria meets method criteria	✓		✓
4	SQC/Control Charts updated, analysis in statistical/method control	✓		✓
5	Internal area counts checked (if applicable)	✓		✓
6	LCS, SRM are within acceptance criteria	✓		✓
7	Surrogate Recovery(s) is within acceptance criteria		✓	✓
8	Method Blank meets acceptance criteria	✓		✓
9	Matrix Spike recovery(s) meets acceptance criteria	✓		✓
10	Duplicate precision meets acceptance criteria	✓		✓
11	QC is documented on the run logs	✓		✓
12	Runs checked for carryover	✓		✓
13	Prep log / worksheet(s) are present, signed / dated by a prep / instrument analysts	✓		✓
14	Initial weights, splits, imprinter volumes (where applicable) are documented	✓		✓
15	Standards and reagents traceable to Certificates of Analysis	✓		✓
16	Samples above calibration range diluted and reanalyzed	✓		✓
17	Dilution factors (where justified) have been checked for correctness and entered	✓		✓
18	Analytical observations/anomalies documented in LIMS	✓		✓
19	Random calculation checked and in correct units	✓		✓
20	If corrective actions were applied they are documented, initialed & dated			✓
21	Manual integration – before & after data with a reason included, initialed & dated			✓
22	Transferred data is validated in LIMS for correctness	✓		✓
23	Data package assembled (where required)	✓		✓
Reviewed by: [Signature] Date: 2017/05/31				
Comments:				
Secondary Supervisor/Qualified Data Review Staff - 2nd 100% verification review				
		yes	no	n/a
1	Repeats documented and referenced			✓
2	Method and sample deviations noted, anomalies described (if applicable)			✓
3	Data and QC validated in LIMS	✓		
4	Random calculation checked	✓		
5	Benchsheet (s) signed and dated	✓		
6	Data Package (if required) checked for completeness	✓		
Reviewed by: [Signature] Date: 2017/05/31				
Comments:				

***Note: 2nd 100% verification review documented by secondary qualified data review**
Primary and Secondary Internal Data Review Check must be performed by a different person

Worksheet Data Validation Checklist - Extractable Organics				
Worksheet # <u>4990811</u>		Testcode: <u>PROSALCM-5</u>		
Sample Preparation		yes	no	n/a
1	Samples extracted within hold time	✓		
2	Client sample ID verified against Lab ID (waters & oils)	✓		
3	Parameter list and Client comments reviewed, (Spiking solutions matched to parameter list)	✓		
4	Height of sediment or if sample was decanted, recorded on worksheet	✓		
5	Method required QC processed with samples, maximum batch size = 20 client samples.	✓		
6	Sample, duplicate, matrix spike appear similar, initial sample as well as final extract	✓		
7	Sample weight or initial volume and extract final volume, aliquot factor clearly recorded.	✓		
8	If performed any additional dilution clearly recorded			✓
9	Matrix spike / Duplicate performed on IOL samples if present			✓
10	Spiking solutions valid (haven't expired), ID and volume used clearly identified on worksheet	✓		
11	Spiking process witnessed and signed off	✓		
12	Extraction type recorded (N3A2B = neutral, 3 x acidic, 2 x basic)			✓
13	Sample prep deviations documented within CompliantPro as a Policy Deviation			✓
14	Job Remarks reviewed on 2nd page of worksheet.	✓		
15	Worksheet and reagent tracking record completed and authorized.	✓		
Reviewed by: <u>DW3</u>		Date: <u>2017/05/19</u>		
Comments:				
Worksheet Approval		yes	no	n/a
1	Verified the position of the vials in autosampler against sequence list; signed off sequence list			
2	Calibration and CCV standards valid (haven't expired)			
3	Initial calibration curve and DFTPP tune (if applicable) acceptable			
4	Continuing and Final CCV and DFTPP tune (if applicable) acceptable			
5	System performance check acceptable (if applicable)			
6	Internal standard responses acceptable			
7	Method blank meets acceptance criteria			
8	Lab Control Samples recoveries meets acceptance criteria			
9	Duplicate RPD meets acceptance criteria			
10	Matrix spike recoveries meets acceptance criteria			
11	Surrogate recoveries meets acceptance criteria			
12	Appropriate control charts updated			
13	Samples above calibration range diluted and reanalyzed			
14	Dilutions clearly documented on tracking record, inst file and verified during data upload			
15	Samples following high level samples checked for carryover.			
16	Mass spectra ion ratios acceptable for positive results, hardcopy in file.			
17	Analytical observations / anomalies documented			
18	DQW comments entered in LIMS, hardcopy in file			
19	Sample Prep section (above) reviewed and verified.			
20	WS Approval performed in LIMS			
Reviewed by:		Date: <u>2017/05/19</u>		
Comments:				
Worksheet Validation		yes	no	n/a
1	Calibration, QC and sample results reviewed and determined acceptable			
2	Manual integrations verified			
3	Random calculation checked			
4	Data and QC validated in LIMS			
5	Comments reviewed for appropriateness			
6	Reworks / relogs documented in file			
7	Worksheet signed and dated,			
8	Worksheet approved and validated within LIMS			
Reviewed by:		Date:		
Comments:				



Report Name : Worksheet - (Liquids and Solids)

Assignment Date : Friday, May 19, 2017

Assigned to : Daniella McLean

Test Code : PFOSALCM-S

Instrument Id:

Test Description : Perfluorinated Compounds in Soil by LC-MS/MS

Job Number	Sample Number	D	Sample ID	F	% Moisture	Wt or Vol	Final Vol (mL)	DF or AF	# Cont	Expiry Date	Test DeadLine	Criteria	Extract Date
16	MTRX SPK	0	PF25 EJI429-01			3.61	2	1X					2017/05/19
15	MTRX SPK	1	PF25 EJI429-01			3.72	2	1X					2017/05/19
13	SPIKE		PF25			3.37	2	1X					2017/05/19
11	BLANK					3.34	2	1X					2017/05/19
18	*EJI396-01R		FRCHD03-SO-005			N/A	2	1X	1	2017/06/05	2017/05/29 18:00	DOD	2017/05/19
10	*EJI398-01R		FRCHD04-SO-003			N/A	2	1X	1	2017/06/05	2017/05/29 18:00	DOD	2017/05/19
14	*EJI399-01R		FRCHD04-SO-005			N/A	2	1X	1	2017/06/05	2017/05/29 18:00	DOD	2017/05/19
16	*EJI401-01R		FRCHD05-SO-001			N/A	2	1X	1	2017/06/05	2017/05/29 18:00	DOD	2017/05/19
18	*EJI402-01R		FRCHD05-SO-003			N/A	2	1X	1	2017/06/05	2017/05/29 18:00	DOD	2017/05/19
20	*EJI404-01R		FRCHD-FD-SO-01			N/A	2	1X	1	2017/06/08	2017/05/29 18:00	DOD	2017/05/19
22	*EJI405-01R		FRCHD02-SO-001			N/A	2	1X	1	2017/06/06	2017/05/29 18:00	DOD	2017/05/19
24	*EJI407-01R		FRCHD02-SO-004			N/A	2	1X	1	2017/06/07	2017/05/29 18:00	DOD	2017/05/19
21	*EJI413-01R		FRCHD-FD-SO-02			N/A	2	1X	1	2017/06/06	2017/05/29 18:00	DOD	2017/05/19
23	*EJI416-01R		FRCHD01-SO-001			N/A	2	1X	1	2017/06/07	2017/05/29 18:00	DOD	2017/05/19
25	*EJI417-01R		FRCHD01-SO-002			N/A	2	1X	1	2017/06/07	2017/05/29 18:00	DOD	2017/05/19
27	*EJI418-01R		FRCHD01-SO-003			N/A	2	1X	1	2017/06/07	2017/05/29 18:00	DOD	2017/05/19
29	*EJI421-01R		FRCHD02-SO-002			N/A	2	1X	1	2017/06/07	2017/05/29 18:00	DOD	2017/05/19
31	*EJI423-01R		FRCHD05-SO-002			N/A	2	1X	1	2017/06/08	2017/05/29 18:00	DOD	2017/05/19
34	*EJI424-01R		FRCHD03-SO-004			N/A	2	1X	1	2017/06/08	2017/05/29 18:00	DOD	2017/05/19
36	*EJI425-01R		FRCHD-FD-SO-03			N/A	2	1X	1	2017/06/08	2017/05/29 18:00	DOD	2017/05/19
38	*EJI428-01R		FRCHD04-SO-004			N/A	2	1X	1	2017/06/08	2017/05/29 18:00	DOD	2017/05/19
40	*EJI429-01R		FRCHD04-SO-002			N/A	2	1X	3	2017/06/08	2017/05/29 18:00	DOD	2017/05/19
42	*EJI431-01R		FRCHD03-SO-006			N/A	2	1X	1	2017/06/08	2017/05/29 18:00	DOD	2017/05/19
44	*EJI433-01R		FRCHD03-SO-001			N/A	2	1X	1	2017/06/08	2017/05/29 18:00	DOD	2017/05/19
2017/05/19													

Remarks:

Samples extracted by:

Daniella McLean

DMB

2017/05/19

Instrumentation performed by:

AD

Date:

2017/05/24

Calculations performed by:

UR

Date:

2017/05/31

Validated by:

CM

Date:

2016/06/08

Maxxam Analytics

1305 of 2393

Job No.	Rep	Client Name	Contact	Client Tier	National
GB797259		MDG CT Laboratories LLC	Fairchild AFB reportin		
nreg, Please include note that Level IV Package and ERPIMS EDDrequired. MS/MSD REQUIRED FOR SAMPLES EJI400-01 AND EJI429-01 Project #: 775303101					

Surrogates/Spikes	Method Spike	Spikes	Samples

Sample	Preparation Remarks		
	MCOT(μL)	Vol. spiked(μL)	IS (μL)
IB	1900	—	100
S1	1885	15	↓ SK-6786 I-4990 I-5015
S2	1870	30	
S3	1810	90	
S4	1878	22.5	
S5	1855	45	
S6	1825	75	
ICV	1863	37.5	

Sample	Instrumentation Remarks

Report Name : Worksheet - (Liquids and Solids)

Assignment Date : Friday, May 19, 2017

Assigned to : Daniella McLean

Test Code : PFOSALCM-S

Instrument ID:

Test Description : Perfluorinated Compounds in Soil by LC-MS/MS

Job Number	Sample Number	D	Sample ID	F	% Moisture	Wt or Vol	Final Vol	DF or AF	# Cont	Expiry Date	Test DeadLine	Criteria	Extract Date
	MTRX SPK	0	PF25 EJI429-01										2017/05/19
	MTRX SPK	1	PF25 EJI429-01										2017/05/19
	SPIKE		PF25										2017/05/19
	BLANK												2017/05/19
B797259	*EJI396-01R		FRCHD03-SO-005		11.3	3.362			1	2017/06/05	2017/05/29 18:00	DOD	2017/05/19
B797259	*EJI398-01R		FRCHD04-SO-003		26.2	2.893			1	2017/06/05	2017/05/29 18:00	DOD	2017/05/19
B797259	*EJI399-01R		FRCHD04-SO-005		17.7	2.897			1	2017/06/05	2017/05/29 18:00	DOD	2017/05/19
B797259	*EJI401-01R		FRCHD05-SO-001		26.9	2.544			1	2017/06/05	2017/05/29 18:00	DOD	2017/05/19
B797259	*EJI402-01R		FRCHD05-SO-003		18.9	3.049			1	2017/06/05	2017/05/29 18:00	DOD	2017/05/19
B797259	*EJI404-01R		FRCHD-FD-SO-01		26.6	2.503			1	2017/06/08	2017/05/29 18:00	DOD	2017/05/19
B797259	*EJI405-01R		FRCHD02-SO-001		8.6	3.144			1	2017/06/06	2017/05/29 18:00	DOD	2017/05/19
B797259	*EJI407-01R		FRCHD02-SO-004		8.2	2.883			1	2017/06/07	2017/05/29 18:00	DOD	2017/05/19
B797259	*EJI413-01R		FRCHD-FD-SO-02		7.2	3.684			1	2017/06/06	2017/05/29 18:00	DOD	2017/05/19
B797259	*EJI416-01R		FRCHD01-SO-001		17.8	3.148			1	2017/06/07	2017/05/29 18:00	DOD	2017/05/19
B797259	*EJI417-01R		FRCHD01-SO-002		26.6	2.686			1	2017/06/07	2017/05/29 18:00	DOD	2017/05/19
B797259	*EJI418-01R		FRCHD01-SO-003		2.6	3.867			1	2017/06/07	2017/05/29 18:00	DOD	2017/05/19
B797259	*EJI421-01R		FRCHD02-SO-002		12.0	3.133			1	2017/06/07	2017/05/29 18:00	DOD	2017/05/19
B797259	*EJI423-01R		FRCHD05-SO-002		20.2	2.809			1	2017/06/08	2017/05/29 18:00	DOD	2017/05/19
B797259	*EJI424-01R		FRCHD03-SO-004		21.8	2.674			1	2017/06/08	2017/05/29 18:00	DOD	2017/05/19
B797259	*EJI425-01R		FRCHD-FD-SO-03		19.0	2.884			1	2017/06/08	2017/05/29 18:00	DOD	2017/05/19
B797259	*EJI428-01R		FRCHD04-SO-004		12.5	3.028			1	2017/06/08	2017/05/29 18:00	DOD	2017/05/19
B797259	*EJI429-01R		FRCHD04-SO-002		14.9	3.081			3	2017/06/08	2017/05/29 18:00	DOD	2017/05/19
B797259	*EJI431-01R		FRCHD03-SO-006		10.5	3.517			1	2017/06/08	2017/05/29 18:00	DOD	2017/05/19
B797259	*EJI433-01R		FRCHD03-SO-001		8.2	3.608			1	2017/06/08	2017/05/29 18:00	DOD	2017/05/19

Remarks:

Used for moisture content only
 on
 2/16/2017

Samples extracted by: Daniella McLean

Instrumentation performed by: Anjan Desai

Date: _____

Calculations performed by: Marian Godax

Date: 2017/05/31

Validated by:
Maxxam Analytics

Date: _____

Worksheet Reagent Tracking Record

Worksheet # 4990811

Surrogate/Spike solutions	✓	Solution ID #	Conc.	Blk-Spk		Volume (µL)		Samples	
				Solid	Liquid	Solid	Liquid	Solid	Liquid
DGT Spike			100 ug/mL	60	30	60	30	NA	NA
Diquat Dibromide			50 ug/mL	NA	350	NA	350	NA	NA
Explosives Spiking solution A			20 ug/mL	250	100	250	100	NA	NA
Explosives Spiking solution B			20/80 ug/mL	250	100	250	100	NA	NA
Formaldehyde Spike			100 ug/mL	25	25	25	25	NA	NA
Glyphosate Spike			25 ug/mL	500	20	500	20	NA	NA
Nonylphenol Ethoxylate Spike			100 ug/mL	100	100	100	100	NA	NA
Nonylphenol Spike			10 ug/mL	100	100	100	100	NA	NA
Paraquat Cl Tetrahydrate			20 ug/mL	NA	125	NA	125	NA	NA
Perchlorate Standard Spike			10 ng/mL	NA	100	NA	100	NA	NA
Perchlorate Standard Spike			500 ng/mL	40	NA	40	NA	NA	NA
Perchlorate O-18 Internal Standard			0.10 ng/uL	20	20	20	20	20	20
Morpholine Second Source Working Std			2500 ug/L	NA	80	NA	80	NA	NA
Morpholine-D8 Internal Standard			10 ug/mL	NA	50	NA	50	NA	50
Steril Second Source Spiking Solution			NA	20	NA	20	NA	NA	NA
Sterilants Comp. IS Working Solution			3 ug/mL	50	NA	50	NA	50	NA
Comp. PFC Working Solution A	✓	I-50K (1/5)	1ug/mL	75	21	62.5	75	21	62.5
PFC Internal Standard Solution	✓	SI-6439 (1/4)	50/125 ng/mL	200	100	150	200	100	150
PFC Injection IS	✓	SI-6423 (1/4)	400 ng/mL	20	20	20	20	20	20
ICV	✓	I-5015 (1/5)		37.5					
Solvent/Reagent	✓	Lot No.	Date Opened	Solvent/Reagent	✓	Lot No.	Date Opened/ Prepared	*Spiked by:	
DCM				50% NaOH				D43	
Ottawa Sand	✓	170485	2017/03/30	9-Phosphoric Acid				Spike Date	
Methanol	✓	SLPG	2017/05/17	Borax				2017/05/19	
2-Propanol (IPA)		9002V		Calcium Chloride				Spike Syringe/Pipette ID#	
Acetonitrile				EDTA				H32273F	
Sodium Sulfate				Phosphate Buffer				Int. Std Syringe/Pipette ID#	
70:30 Methanol: Water	✓	PRLRE	104-100	Sodium Thiosulphate				K19865F	
60:40 Water: Methanol	✓	PRLRE	104-73	DNPH				*Spiking Witnessed by:	
DCM:Ethyl Ether (75:25)				FMOC				SD	
Hexane:IPA (98:2)				5M Acetate Buffer				Final pH	
2% Formic Acid	✓	PRLRE	104-85	0.2% NH ₄ OH	✓	PRLRE	104-61	X	
0.2% Formic Acid				Leachate Fluid					
0.05M KOH				Reagent Water	✓	SL26	2017/05/19		
0.05M HCl									
Equipment & ID	✓	Equipment	ID#	✓	Equipment	Lot #	Bottle Tracking		
Pipettor	✓	SPE Cartridge	003137023 A	✓	QC Balance ID		Bottle#		
	✓	Filter			Thermometer ID &Temp		Cap#		
Dispenser		Centrifuge	407407M	✓			Systems plus Lot#		
		Sonicator	Brans on 8510	✓					

Comments:

Dilution and Column Cleaning Worksheet

Worksheet: 4990811

Job Number	Sample ID	Sample: Initial Final Volume	Dilution Required	Sample added mL	Solvent Added mL	Int Stan Added uL	New Effective Final Volume	INITIAL DATE	Column Clean Up
B797259	EJ1401	1mL	2X	1mL	—	25uL	1mL	2017/05/23	
		2X	10X	200uL	800uL	—	1mL		
		10X	100X	100uL	900uL	—	1mL		
		100X	1000X	100uL	900uL	—	1mL		
repeat dilution procedure for the following samples:									
	EJ1402, EJ1404, EJ1407, EJ1416, EJ1417, EJ1431.								

pipettes
 1mL K05948F
 100uL 357599Z
 200uL K19865F
 MeOH
 lot # SHBG9002V
 SI- 6439-3
 SI- 6423-2
 2017/05/23 MG

PFOS and PFOA in soil by SPE/LCMS - Soil
ug/kg

Parameter Name	Units	MTRX SPK	MTRX SPK Dup1	SPIKE	BLANK	DL	B797259 EJ1396
6:2 Fluorotelomer sulfonate	ug/kg	91.84185	91.42644	87.51315	0	1	0
8:2 Fluorotelomer sulfonate	ug/kg	98.81197	89.65887	97.41499	0	1	0
N-ethylperfluorooctane sulfonamide	ug/kg	N/A *****	N/A *****	N/A *****	N/A *****		N/A *****
EtFOSAA	ug/kg	92.29609	93.78638	95.31166	0	1	0
N-ethylperfluorooctane sulfonamides	ug/kg	N/A *****	N/A *****	N/A *****	N/A *****		N/A *****
N-methylperfluorooctane sulfonamide	ug/kg	N/A *****	N/A *****	N/A *****	N/A *****		N/A *****
MeFOSAA	ug/kg	93.13904	92.07886	92.27238	0	1	0
N-methylperfluorooctanesulfonamidol	ug/kg	N/A *****	N/A *****	N/A *****	N/A *****		N/A *****
Perfluorobutanoic acid	ug/kg	96.00971	94.03564	97.56829	0	1	N/A *****
Perfluorobutane Sulfonate (PFBS)	ug/kg	82.34904	86.50025	92.86603	0	1	0
Perfluorodecanoic Acid (PFDA)	ug/kg	94.22585	98.34409	97.17786	0	1	0.35533251
Perfluorododecanoic Acid (PFDoA)	ug/kg	90.97786	87.77424	94.91389	0	1	0
Perfluorodecane Sulfonate	ug/kg	80.03530	88.47300	89.02969	0	1	N/A *****
Perfluoroheptane sulfonate	ug/kg	87.24501	89.60922	95.89902	0	1	N/A *****
Perfluorononanoic Acid (PFNA)	ug/kg	97.66523	92.82331	92.89947	0	1	1.70820821
Perfluorooctane Sulfonamide (PFOSA)	ug/kg	89.21448	91.56159	87.83996	0	1	N/A *****
Perfluorotetradecanoic Acid	ug/kg	93.85499	91.72105	96.33197	0	1	0
Perfluorotridecanoic Acid	ug/kg	103.15170	95.30327	94.52467	0	1	0.18038583
Perfluoroundecanoic Acid (PFUnA)	ug/kg	86.71996	89.13790	87.60045	0	1	0.33115604
Perfluoroheptanoic Acid (PFHpA)	ug/kg	89.45245	96.74204	93.16509	0	1	0
Perfluorohexanoic Acid (PFHxA)	ug/kg	99.75779	96.78884	91.42640	0	1	0
Perfluorohexane Sulfonate (PFHxS)	ug/kg	75.12432	83.94347	91.95448	0	1	0.39815552
Perfluoro-n-Octanoic Acid (PFOA)	ug/kg	95.05275	89.27162	96.46158	0.10532468	1	0.38144728
Perfluorooctane Sulfonate (PFOS)	ug/kg	112.90779	100.32496	85.63830	0	1	19.6634249
Perfluoropentanoic Acid (PFPeA)	ug/kg	100.36757	102.58325	104.07226	0	1	N/A *****
13C2-6:2 Fluorotelomer sulfonate	ug/kg	104.538006	95.4088765	93.4527249	95.7068412		77.1703672
13C2-8:2 Fluorotelomer sulfonate	ug/kg	96.7712972	98.4447207	82.7815763	103.626712		80.3359248
13C2-Perfluorodecanoic acid	ug/kg	102.367750	93.3360014	83.2407293	90.4445115		87.9519755
13C2-Perfluorododecanoic acid	ug/kg	86.6039529	83.7371404	76.0491290	74.7720127		79.9160119
13C2-Perfluorohexanoic acid	ug/kg	101.812590	100.517667	93.8426234	98.6118760		89.8792644
13C2-perfluorotetradecanoic acid	ug/kg	76.2528449	78.4880979	72.5631288	77.3559089		72.1252886
13C2-Perfluoroundecanoic acid	ug/kg	97.7503006	90.1699369	83.7447652	81.8699498		82.7656097
13C4-Perfluorobutanoic acid	ug/kg	102.593104	101.193351	88.1147628	97.5707518		82.6587834
13C4-Perfluoroheptanoic acid	ug/kg	107.797426	95.6073432	86.7987832	104.002734		87.6068773
13C5-Perfluorononanoic acid	ug/kg	101.520501	99.0150261	88.9066782	99.3677585		84.5793013
13C4-Perfluorooctanoic acid	ug/kg	104.608429	106.001648	86.1787211	101.232212		90.7650983
13C4-Perfluorooctanesulfonate	ug/kg	96.2519190	103.802435	95.0553064	85.4760541		91.2242183
13C5-Perfluoropentanoic acid	ug/kg	105.379837	98.6461580	87.1848241	93.6191333		90.2141994
13C8-Perfluorooctane Sulfonamide	ug/kg	88.1790378	87.5597731	78.9537452	84.0670102		75.4355839
18O2-Perfluorohexanesulfonate	ug/kg	116.295009	110.255035	89.5285195	97.5907695		85.1562203
D3-MeFOSAA	ug/kg	86.2063545	86.3831083	78.9187122	78.7365710		82.2000846
D5-EtFOSAA	ug/kg	84.6505825	79.9033194	73.4078699	75.6627832		82.8745397
N-methyl-d3-perfluorooctane sulfona	ug/kg	N/A *****	N/A *****	N/A *****	N/A *****		N/A *****
N-ethyl-d5-perfluorooctane sulfonam	ug/kg	N/A *****	N/A *****	N/A *****	N/A *****		N/A *****

PFOS and PFOA in soil by SPE/LCMS - Soil
ug/kg

Parameter Name	DL	B797259 EJI398	B797259 EJI399	DL	B797259 EJI401	DL	B797259 EJI402
6:2 Fluorotelomer sulfonate	0.89	0	0	1.0	469.645926	12	167.579864
8:2 Fluorotelomer sulfonate	0.89	0	0	1.0	943.970289	1200	346.565989
N-ethylperfluorooctane sulfonamide	0.89	N/A *****	N/A *****	1.0	N/A *****	12	N/A *****
EtFOSAA	0.89	0	0	1.0	1.95298878	12	0
N-ethylperfluorooctane sulfonamido	0.89	N/A *****	N/A *****	1.0	N/A *****	12	N/A *****
N-methylperfluorooctane sulfonamide	0.89	N/A *****	N/A *****	1.0	N/A *****	12	N/A *****
MeFOSAA	0.89	0	0	1.0	2.63932511	12	0
N-methylperfluorooctanesulfonamidol	0.89	N/A *****	N/A *****	1.0	N/A *****	12	N/A *****
Perfluorobutanoic acid	0.89	N/A *****	N/A *****	1.0	N/A *****	12	N/A *****
Perfluorobutane Sulfonate (PFBS)	0.89	0	0.35192548	1.0	4.18096085	12	0
Perfluorodecanoic Acid (PFDA)	0.89	0	0	1.0	47.2540144	12	13.3394459
Perfluorododecanoic Acid (PFDoA)	0.89	0	0	1.0	113.834222	12	4.89978098
Perfluorodecane Sulfonate	0.89	N/A *****	N/A *****	1.0	N/A *****	12	N/A *****
Perfluoroheptane sulfonate	0.89	N/A *****	N/A *****	1.0	N/A *****	12	N/A *****
Perfluorononanoic Acid (PFNA)	0.89	0.45293437	0.22369945	1.0	5.99662665	12	4.40449827
Perfluorooctane Sulfonamide (PFOSA)	0.89	N/A *****	N/A *****	1.0	N/A *****	12	N/A *****
Perfluorotetradecanoic Acid	0.89	0	0	1.0	37.5627808	12	2.11233857
Perfluorotridecanoic Acid	0.89	0	0	1.0	37.4035699	12	1.71009018
Perfluoroundecanoic Acid (PFUnA)	0.89	0	0	1.0	43.5819202	12	6.16731973
Perfluoroheptanoic Acid (PFHpA)	0.89	0	0	1.0	5.40504729	12	3.61934278
Perfluorohexanoic Acid (PFHxA)	0.89	0	0	1.0	23.8366759	12	25.6068808
Perfluorohexane Sulfonate (PFHxS)	0.89	0.80094434	0.79718936	1.0	62.0490820	12	25.2748046
Perfluoro-n-Octanoic Acid (PFOA)	0.89	0.67134350	0.15048565	1.0	10.5208560	12	5.22714948
Perfluorooctane Sulfonate (PFOS)	0.89	18.5774371	5.57594437	1.0	8206.8763	1200	3186.1486
Perfluoropentanoic Acid (PFPeA)	0.89	N/A *****	N/A *****	1.0	N/A *****	12	N/A *****
13C2-6:2 Fluorotelomer sulfonate		77.8706855	100.079039		99.2071459		109.556630
13C2-8:2 Fluorotelomer sulfonate		78.5445052	95.7176306		115.775401		112.219798
13C2-Perfluorodecanoic acid		72.0584952	98.5176584		94.7762377		107.729226
13C2-Perfluorododecanoic acid		66.2274315	86.4279141		94.1985034		114.665607
13C2-Perfluorohexanoic acid		68.0502760	96.3145343		102.843072		119.857138
13C2-perfluorotetradecanoic acid		57.5005793	81.7423967		99.8301334		106.891355
13C2-Perfluoroundecanoic acid		73.6209005	97.5641252		96.0156384		110.388842
13C4-Perfluorobutanoic acid		N/A *****	92.8441880		85.9588264		118.522404
13C4-Perfluoroheptanoic acid		78.7047470	103.415915		98.8724438		119.182224
13C5-Perfluorononanoic acid		71.2550891	94.7270582		97.1043977		115.825878
13C4-Perfluorooctanoic acid		77.3344109	101.392386		111.069141		120.342185
13C4-Perfluorooctanesulfonate		68.1407868	107.423917		N/A *****		N/A *****
13C5-Perfluoropentanoic acid		N/A *****	92.7656900		98.0973079		113.525534
13C8-Perfluorooctane Sulfonamide		N/A *****	80.3041533		89.8880472		110.130880
18O2-Perfluorohexanesulfonate		62.1690460	102.028425		98.0367687		117.772292
D3-MeFOSAA		72.7563272	89.3796634		122.529776		121.947279
D5-EtFOSAA		70.4224883	88.7121033		119.419559		117.844925
N-methyl-d3-perfluorooctane sulfona		N/A *****	N/A *****		N/A *****		N/A *****
N-ethyl-d5-perfluorooctane sulfonam		N/A *****	N/A *****		N/A *****		N/A *****

PFOS and PFOA in soil by SPE/LCMS - Soil
ug/kg

Parameter Name	DL	B797259 EJI404	DL	B797259 EJI405	DL	B797259 EJI407	DL
6:2 Fluorotelomer sulfonate	10	515.906950	12	0.34693543	0.95	5.37904824	1
8:2 Fluorotelomer sulfonate	10	1190.7242	1200	0.29184581	0.95	2.01079216	1
N-ethylperfluorooctane sulfonamide	10	N/A*****	12	N/A*****	0.95	N/A*****	1
EtFOSAA	10	2.91021947	12	0	0.95	0	1
N-ethylperfluorooctane sulfonamido	10	N/A*****	12	N/A*****	0.95	N/A*****	1
N-methylperfluorooctane sulfonamide	10	N/A*****	12	N/A*****	0.95	N/A*****	1
MeFOSAA	10	3.10423455	12	0	0.95	0	1
N-methylperfluorooctanesulfonamidol	10	N/A*****	12	N/A*****	0.95	N/A*****	1
Perfluorobutanoic acid	10	N/A*****	12	N/A*****	0.95	N/A*****	1
Perfluorobutane Sulfonate (PFBS)	10	0	12	0	0.95	0	1
Perfluorodecanoic Acid (PFDA)	10	49.8568684	12	0.27573565	0.95	0.20944798	1
Perfluorododecanoic Acid (PFDoA)	10	115.407924	12	0	0.95	0	1
Perfluorodecane Sulfonate	10	N/A*****	12	N/A*****	0.95	N/A*****	1
Perfluoroheptane sulfonate	10	N/A*****	12	N/A*****	0.95	N/A*****	1
Perfluorononanoic Acid (PFNA)	10	5.81889456	12	0.55354587	0.95	0.15260767	1
Perfluorooctane Sulfonamide (PFOSA)	10	N/A*****	12	N/A*****	0.95	N/A*****	1
Perfluorotetradecanoic Acid	10	34.3679583	12	0	0.95	0	1
Perfluorotridecanoic Acid	10	36.5206585	12	0	0.95	0	1
Perfluoroundecanoic Acid (PFUnA)	10	44.6440819	12	0	0.95	0	1
Perfluoroheptanoic Acid (PFHpA)	10	5.20565663	12	0	0.95	0	1
Perfluorohexanoic Acid (PFHxA)	10	26.0784167	12	0.25125568	0.95	0.29988146	1
Perfluorohexane Sulfonate (PFHxS)	10	58.2115132	12	0.88573306	0.95	1.46273193	1
Perfluoro-n-Octanoic Acid (PFOA)	10	11.3474692	12	0.26354569	0.95	0.30364495	1
Perfluorooctane Sulfonate (PFOS)	1000	6895.6043	1200	28.1716277	0.95	50.9875754	10
Perfluoropentanoic Acid (PFPeA)	10	N/A*****	12	N/A*****	0.95	N/A*****	1
13C2-6:2 Fluorotelomer sulfonate		106.415719		105.118863		122.202499	
13C2-8:2 Fluorotelomer sulfonate		104.9719		105.953069		112.199254	
13C2-Perfluorodecanoic acid		123.694805		107.374553		117.818855	
13C2-Perfluorododecanoic acid		113.399553		95.0071616		102.041995	
13C2-Perfluorohexanoic acid		118.569810		107.202245		129.091341	
13C2-perfluorotetradecanoic acid		119.487019		89.6218183		96.2061265	
13C2-Perfluoroundecanoic acid		118.749331		97.3613358		109.554479	
13C4-Perfluorobutanoic acid		100.589072		108.041642		124.037866	
13C4-Perfluoroheptanoic acid		127.310505		109.261939		126.293161	
13C5-Perfluorononanoic acid		118.858917		102.808734		123.005573	
13C4-Perfluorooctanoic acid		129.775342		111.926706		129.087155	
13C4-Perfluorooctanesulfonate		N/A*****		111.663650		101.742322	
13C5-Perfluoropentanoic acid		121.874820		113.502966		120.219342	
13C8-Perfluorooctane Sulfonamide		107.255748		89.9056429		103.799516	
18O2-Perfluorohexanesulfonate		115.567112		101.979148		127.491549	
D3-MeFOSAA		140.542040		100.295677		103.635523	
D5-EtFOSAA		144.734209		102.642319		92.6018812	
N-methyl-d3-perfluorooctane sulfona		N/A*****		N/A*****		N/A*****	
N-ethyl-d5-perfluorooctane sulfonam		N/A*****		N/A*****		N/A*****	

PFOS and PFOA in soil by SPE/LCMS - Soil
ug/kg

Parameter Name	B797259 EJI413	DL	B797259 EJI416	DL	B797259 EJI417	DL	B797259 EJI418
6:2 Fluorotelomer sulfonate	0.13210234	0.81	1911.86429	95	1100.57420	111	0.78953344
8:2 Fluorotelomer sulfonate	0.26939194	0.81	4.53394892	9.5	5.32869661	11	7.17496752
N-ethylperfluorooctane sulfonamide	N/A *****	0.81	N/A *****	9.5	N/A *****	11	N/A *****
EtFOSAA	0	0.81	0	9.5	0	11	0.18049740
N-ethylperfluorooctane sulfonamido	N/A *****	0.81	N/A *****	9.5	N/A *****	11	N/A *****
N-methylperfluorooctane sulfonamide	N/A *****	0.81	N/A *****	9.5	N/A *****	11	N/A *****
MeFOSAA	0	0.81	0	9.5	0.95463224	11	0.00409745
N-methylperfluorooctanesulfonamidol	N/A *****	0.81	N/A *****	9.5	N/A *****	11	N/A *****
Perfluorobutanoic acid	N/A *****	0.81	N/A *****	9.5	N/A *****	11	N/A *****
Perfluorobutane Sulfonate (PFBS)	0	0.81	35.9517706	9.5	24.5955891	11	0
Perfluorodecanoic Acid (PFDA)	0.21576230	0.81	0	9.5	0	11	0.44358828
Perfluorododecanoic Acid (PFDoA)	0	0.81	0	9.5	0	11	2.75300175
Perfluorodecane Sulfonate	N/A *****	0.81	N/A *****	9.5	N/A *****	11	N/A *****
Perfluoroheptane sulfonate	N/A *****	0.81	N/A *****	9.5	N/A *****	11	N/A *****
Perfluorononanoic Acid (PFNA)	0.49840724	0.81	5.80327725	9.5	2.49095881	11	0.13298889
Perfluorooctane Sulfonamide (PFOSA)	N/A *****	0.81	N/A *****	9.5	N/A *****	11	N/A *****
Perfluorotetradecanoic Acid	0	0.81	0	9.5	0	11	0.26024604
Perfluorotridecanoic Acid	0	0.81	1.51309053	9.5	0	11	1.33548406
Perfluoroundecanoic Acid (PFUnA)	0.30395061	0.81	0	9.5	0	11	6.50896305
Perfluoroheptanoic Acid (PFHpA)	0	0.81	39.6613414	9.5	33.0798931	11	0.32797872
Perfluorohexanoic Acid (PFHxA)	0.18712141	0.81	190.853672	9.5	217.021481	11	0.39500655
Perfluorohexane Sulfonate (PFHxS)	0.76910667	0.81	562.264909	95	282.632738	11	0.80224941
Perfluoro-n-Octanoic Acid (PFOA)	0.21316573	0.81	110.315943	9.5	69.3726632	11	0.46465061
Perfluorooctane Sulfonate (PFOS)	25.0424115	0.81	1837.79872	95	506.912021	11	8.80101772
Perfluoropentanoic Acid (PFPeA)	N/A *****	0.81	N/A *****	9.5	N/A *****	11	N/A *****
13C2-6:2 Fluorotelomer sulfonate	146.077410		110.344673		119.124461		127.162665
13C2-8:2 Fluorotelomer sulfonate	!! 155.594		122.666017		107.295740		119.202219
13C2-Perfluorodecanoic acid	!! 162.778		126.192768		110.921128		119.306299
13C2-Perfluorododecanoic acid	139.359204		122.831779		104.992142		103.140422
13C2-Perfluorohexanoic acid	147.962390		124.358254		108.287183		124.195465
13C2-perfluorotetradecanoic acid	125.467437		123.262276		111.729948		99.1774798
13C2-Perfluoroundecanoic acid	145.099435		127.664810		106.640866		115.506002
13C4-Perfluorobutanoic acid	125.922660		116.433035		99.5065585		130.842698
13C4-Perfluoroheptanoic acid	!! 160.115		119.332243		108.374934		130.893420
13C5-Perfluorononanoic acid	!! 164.933		122.847097		108.045979		130.194959
13C4-Perfluorooctanoic acid	!! 161.208		123.747510		107.470980		132.092029
13C4-Perfluorooctanesulfonate	!! 154.104		115.879245		107.245816		117.914429
13C5-Perfluoropentanoic acid	135.046797		117.172306		106.188631		121.110150
13C8-Perfluorooctane Sulfonamide	127.973679		125.508250		107.029066		97.2310392
18O2-Perfluorohexanesulfonate	123.058094		109.956929		107.454825		121.668455
D3-MeFOSAA	126.318487		124.792572		113.168773		114.090118
D5-EtFOSAA	125.514278		122.935026		112.468968		114.122458
N-methyl-d3-perfluorooctane sulfona	N/A *****		N/A *****		N/A *****		N/A *****
N-ethyl-d5-perfluorooctane sulfonam	N/A *****		N/A *****		N/A *****		N/A *****

PFOS and PFOA in soil by SPE/LCMS - Soil
ug/kg

Parameter Name	DL	B797259 EJI421	DL	B797259 EJI423	DL	B797259 EJI424	DL
6:2 Fluorotelomer sulfonate	0.78	3.88164656	0.96	10.7554641	1.1	0	1.1
8:2 Fluorotelomer sulfonate	0.78	0	0.96	5.20719923	1.1	0	1.1
N-ethylperfluorooctane sulfonamide	0.78	N/A *****	0.96	N/A *****	1.1	N/A *****	1.1
EtFOSAA	0.78	0	0.96	0	1.1	0	1.1
N-ethylperfluorooctane sulfonamido	0.78	N/A *****	0.96	N/A *****	1.1	N/A *****	1.1
N-methylperfluorooctane sulfonamide	0.78	N/A *****	0.96	N/A *****	1.1	N/A *****	1.1
MeFOSAA	0.78	0	0.96	0	1.1	0	1.1
N-methylperfluorooctanesulfonamidol	0.78	N/A *****	0.96	N/A *****	1.1	N/A *****	1.1
Perfluorobutanoic acid	0.78	N/A *****	0.96	N/A *****	1.1	N/A *****	1.1
Perfluorobutane Sulfonate (PFBS)	0.78	0.60071705	0.96	0.87760651	1.1	0	1.1
Perfluorodecanoic Acid (PFDA)	0.78	0	0.96	0.20992043	1.1	0	1.1
Perfluorododecanoic Acid (PFDoA)	0.78	0	0.96	0.52951410	1.1	0	1.1
Perfluorodecane Sulfonate	0.78	N/A *****	0.96	N/A *****	1.1	N/A *****	1.1
Perfluoroheptane sulfonate	0.78	N/A *****	0.96	N/A *****	1.1	N/A *****	1.1
Perfluorononanoic Acid (PFNA)	0.78	0	0.96	0	1.1	0	1.1
Perfluorooctane Sulfonamide (PFOSA)	0.78	N/A *****	0.96	N/A *****	1.1	N/A *****	1.1
Perfluorotetradecanoic Acid	0.78	0	0.96	0.30835006	1.1	0	1.1
Perfluorotridecanoic Acid	0.78	0	0.96	0.31759706	1.1	0	1.1
Perfluoroundecanoic Acid (PFUnA)	0.78	0	0.96	0.32598658	1.1	0	1.1
Perfluoroheptanoic Acid (PFHpA)	0.78	0.73054095	0.96	0.50355897	1.1	0.86284073	1.1
Perfluorohexanoic Acid (PFHxA)	0.78	1.3789000	0.96	2.48312336	1.1	0.42913539	1.1
Perfluorohexane Sulfonate (PFHxS)	0.78	17.1820504	0.96	7.16865342	1.1	0.87251344	1.1
Perfluoro-n-Octanoic Acid (PFOA)	0.78	0.47696187	0.96	0.93592124	1.1	1.86468382	1.1
Perfluorooctane Sulfonate (PFOS)	0.78	0.75539911	0.96	70.3929721	1.1	25.1031735	1.1
Perfluoropentanoic Acid (PFPeA)	0.78	N/A *****	0.96	N/A *****	1.1	N/A *****	1.1
13C2-6:2 Fluorotelomer sulfonate		124.021002		123.224255		106.375308	
13C2-8:2 Fluorotelomer sulfonate		121.302395		117.576987		105.718875	
13C2-Perfluorodecanoic acid		114.132825		122.744340		89.8861501	
13C2-Perfluorododecanoic acid		105.209841		108.535239		86.6794427	
13C2-Perfluorohexanoic acid		118.216194		123.558899		106.509638	
13C2-perfluorotetradecanoic acid		95.5449636		119.869416		87.5926736	
13C2-Perfluoroundecanoic acid		103.402662		118.111225		93.9939273	
13C4-Perfluorobutanoic acid		N/A *****		121.694570		N/A *****	
13C4-Perfluoroheptanoic acid		113.756845		127.055762		110.649319	
13C5-Perfluorononanoic acid		111.446974		119.781481		110.340702	
13C4-Perfluorooctanoic acid		117.808157		132.087194		108.474100	
13C4-Perfluorooctanesulfonate		107.287383		54.5050438		104.395150	
13C5-Perfluoropentanoic acid		N/A *****		126.922822		N/A *****	
13C8-Perfluorooctane Sulfonamide		N/A *****		115.694715		N/A *****	
18O2-Perfluorohexanesulfonate		120.348966		127.038029		100.649585	
D3-MeFOSAA		100.178527		112.381024		95.1811705	
D5-EtFOSAA		100.131224		114.935949		91.2589116	
N-methyl-d3-perfluorooctane sulfona		N/A *****		N/A *****		N/A *****	
N-ethyl-d5-perfluorooctane sulfonam		N/A *****		N/A *****		N/A *****	

PFOS and PFOA in soil by SPE/LCMS - Soil
ug/kg

Parameter Name	B797259 EJI425	DL	B797259 EJI428	DL	B797259 EJI429	DL	B797259 EJI431
6:2 Fluorotelomer sulfonate	18.4787727	1	0.81285854	0.99	0.46829925	0.97	1.45297297
8:2 Fluorotelomer sulfonate	10.5796683	1	0	0.99	0	0.97	1.58697022
N-ethylperfluorooctane sulfonamide	N/A*****	1	N/A*****	0.99	N/A*****	0.97	N/A*****
EtFOSAA	0	1	0	0.99	0	0.97	0
N-ethylperfluorooctane sulfonamido	N/A*****	1	N/A*****	0.99	N/A*****	0.97	N/A*****
N-methylperfluorooctane sulfonamide	N/A*****	1	N/A*****	0.99	N/A*****	0.97	N/A*****
MeFOSAA	0	1	0	0.99	0	0.97	0
N-methylperfluorooctanesulfonamidol	N/A*****	1	N/A*****	0.99	N/A*****	0.97	N/A*****
Perfluorobutanoic acid	N/A*****	1	N/A*****	0.99	N/A*****	0.97	N/A*****
Perfluorobutane Sulfonate (PFBS)	0.76332969	1	2.43421852	0.99	0.36746073	0.97	0
Perfluorodecanoic Acid (PFDA)	0.44059174	1	0	0.99	0	0.97	0
Perfluorododecanoic Acid (PFDoA)	0.30234291	1	0	0.99	0	0.97	0
Perfluorodecane Sulfonate	N/A*****	1	N/A*****	0.99	N/A*****	0.97	N/A*****
Perfluoroheptane sulfonate	N/A*****	1	N/A*****	0.99	N/A*****	0.97	N/A*****
Perfluorononanoic Acid (PFNA)	0.19876279	1	0	0.99	0.19560414	0.97	0.33167184
Perfluorooctane Sulfonamide (PFOSA)	N/A*****	1	N/A*****	0.99	N/A*****	0.97	N/A*****
Perfluorotetradecanoic Acid	0.17890192	1	0	0.99	0	0.97	0
Perfluorotridecanoic Acid	0.23180051	1	0	0.99	0	0.97	0
Perfluoroundecanoic Acid (PFUnA)	0.42828355	1	0	0.99	0	0.97	0
Perfluoroheptanoic Acid (PFHpA)	0.45437088	1	1.15745413	0.99	0.56338130	0.97	0.40653793
Perfluorohexanoic Acid (PFHxA)	2.33413286	1	3.81359226	0.99	0.68660705	0.97	0
Perfluorohexane Sulfonate (PFHxS)	6.79018191	1	29.2477397	0.99	6.39847971	0.97	2.74748302
Perfluoro-n-Octanoic Acid (PFOA)	0.99216017	1	1.52210095	0.99	0.65269660	0.97	2.29950456
Perfluorooctane Sulfonate (PFOS)	149.504427	10	1.77524928	0.99	10.8382679	0.97	89.1603060
Perfluoropentanoic Acid (PFPeA)	N/A*****	1	N/A*****	0.99	N/A*****	0.97	N/A*****
13C2-6:2 Fluorotelomer sulfonate	98.3179750		149.319350		121.037071		128.009153
13C2-8:2 Fluorotelomer sulfonate	91.6857379		127.690469		109.160589		110.704083
13C2-Perfluorodecanoic acid	106.573660		137.061344		118.697247		107.369441
13C2-Perfluorododecanoic acid	89.1075015		105.891423		103.718881		94.1095113
13C2-Perfluorohexanoic acid	110.706562		137.566811		120.647380		119.813556
13C2-perfluorotetradecanoic acid	89.9957026		106.104825		95.9339123		104.488500
13C2-Perfluoroundecanoic acid	93.5373601		121.410163		113.040667		103.120031
13C4-Perfluorobutanoic acid	104.414030		N/A*****		118.698101		111.744027
13C4-Perfluoroheptanoic acid	116.357140		147.416235		125.077278		126.954868
13C5-Perfluorononanoic acid	108.695097		132.094556		119.241777		123.117180
13C4-Perfluorooctanoic acid	112.278876		1151.469		132.014735		125.072045
13C4-Perfluorooctanesulfonate	54.2092987		139.460853		122.506630		102.398194
13C5-Perfluoropentanoic acid	102.555092		N/A*****		125.274811		118.371686
13C8-Perfluorooctane Sulfonamide	91.3477726		N/A*****		107.815067		109.898186
18O2-Perfluorohexanesulfonate	107.143227		136.124462		104.566106		98.7091222
D3-MeFOSAA	90.6589451		116.440564		103.803543		100.863234
D5-EtFOSAA	88.3522523		112.824232		99.9558560		99.5701232
N-methyl-d3-perfluorooctane sulfona	N/A*****		N/A*****		N/A*****		N/A*****
N-ethyl-d5-perfluorooctane sulfonam	N/A*****		N/A*****		N/A*****		N/A*****

PFOS and PFOA in soil by SPE/LCMS - Soil
ug/kg

Parameter Name	DL	B797259 EJI433	DL	RDL	MDL	IDL	
6:2 Fluorotelomer sulfonate	0.85	0	0.83	1	0.23	0	
8:2 Fluorotelomer sulfonate	0.85	0	0.83	1	0.32	0	
N-ethylperfluorooctane sulfonamide	0.85	N/A *****	0.83	1	0.38	0	
EtFOSAA	0.85	0	0.83	1	0.16	0	
N-ethylperfluorooctane sulfonamido	0.85	N/A *****	0.83	1	0.28	0	
N-methylperfluorooctane sulfonamide	0.85	N/A *****	0.83	1	0.38	0	
MeFOSAA	0.85	0	0.83	1	0.16	0	
N-methylperfluorooctanesulfonamidol	0.85	N/A *****	0.83	1	0.35	0	
Perfluorobutanoic acid	0.85	N/A *****	0.83	1	0.23	0	
Perfluorobutane Sulfonate (PFBS)	0.85	0	0.83	1	0.17	0	
Perfluorodecanoic Acid (PFDA)	0.85	0.18857139	0.83	1	0.13	0	
Perfluorododecanoic Acid (PFDoA)	0.85	0	0.83	1	0.22	0	
Perfluorodecane Sulfonate	0.85	N/A *****	0.83	1	0.23	0	
Perfluorohexane sulfonate	0.85	N/A *****	0.83	1	0.35	0	
Perfluorononanoic Acid (PFNA)	0.85	0.75464963	0.83	1	0.17	0	
Perfluorooctane Sulfonamide (PFOSA)	0.85	N/A *****	0.83	1	0.26	0	
Perfluorotetradecanoic Acid	8.5	0	0.83	1	0.11	0	
Perfluorotridecanoic Acid	8.5	0.17556096	0.83	1	0.12	0	
Perfluoroundecanoic Acid (PFUnA)	0.85	0.29723203	0.83	1	0.18	0	
Perfluorohexanoic Acid (PFHpA)	0.85	0	0.83	1	0.17	0	
Perfluorohexanoic Acid (PFHxA)	0.85	0	0.83	1	0.19	0	
Perfluorohexane Sulfonate (PFHxS)	0.85	0	0.83	1	0.23	0	
Perfluoro-n-Octanoic Acid (PFOA)	0.85	0.15378267	0.83	1	0.26	0	
Perfluorooctane Sulfonate (PFOS)	8.5	13.2071642	0.83	1	0.21	0	
Perfluoropentanoic Acid (PFPeA)	0.85	N/A *****	0.83	1	0.18	0	
13C2-6:2 Fluorotelomer sulfonate		115.311710					
13C2-8:2 Fluorotelomer sulfonate		107.253725					
13C2-Perfluorodecanoic acid		112.076352					
13C2-Perfluorododecanoic acid		97.1891991					
13C2-Perfluorohexanoic acid		107.569435					
13C2-perfluorotetradecanoic acid		97.0086237					
13C2-Perfluoroundecanoic acid		106.491693					
13C4-Perfluorobutanoic acid		110.008093					
13C4-Perfluorohexanoic acid		108.143776					
13C5-Perfluorononanoic acid		107.388053					
13C4-Perfluorooctanoic acid		110.965382					
13C4-Perfluorooctanesulfonate		99.3512953					
13C5-Perfluoropentanoic acid		102.960426					
13C8-Perfluorooctane Sulfonamide		94.2332407					
18O2-Perfluorohexanesulfonate		113.827166					
D3-MeFOSAA		101.003225					
D5-EtFOSAA		100.864642					
N-methyl-d3-perfluorooctane sulfona		N/A *****					
N-ethyl-d5-perfluorooctane sulfonam		N/A *****					

PFOS 1 - 6 Levels, 6 Levels Used, 6 Points, 6 Points Used, 4 QCs

$y = 0.392499 * x + 0.001587$

$R^2 = 0.99$

Type: Linear, Origin: Ignore, Weight: 1/x

Avg. RF RSD = 5.874876

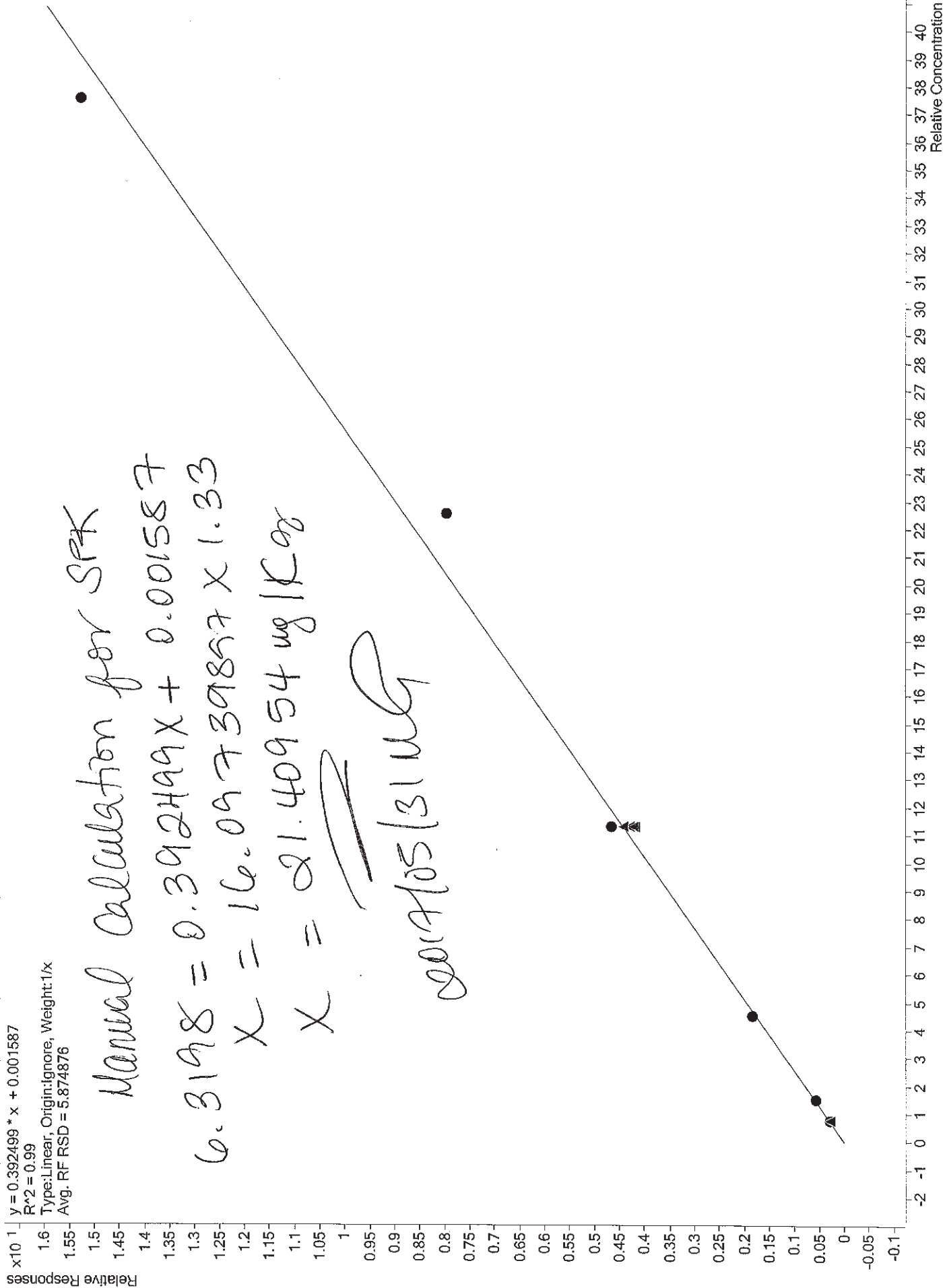
Manual Calculation for SPK

$$6.3198 = 0.392499X + 0.001587$$

$$X = 16.09739897 \times 1.33$$

$$X = 21.40954 \text{ ug/Kg}$$

201705131 ug



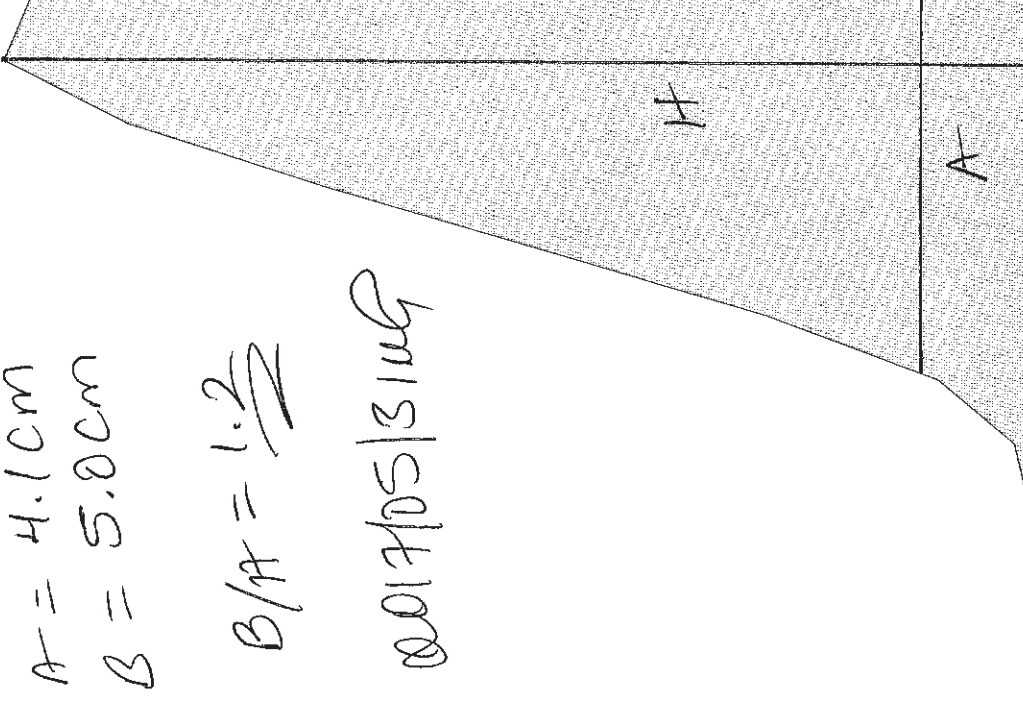
Counts
x10³

$t = 13.6 \text{ cm}$
 $A = 4.1 \text{ cm}$
 $B = 5.0 \text{ cm}$

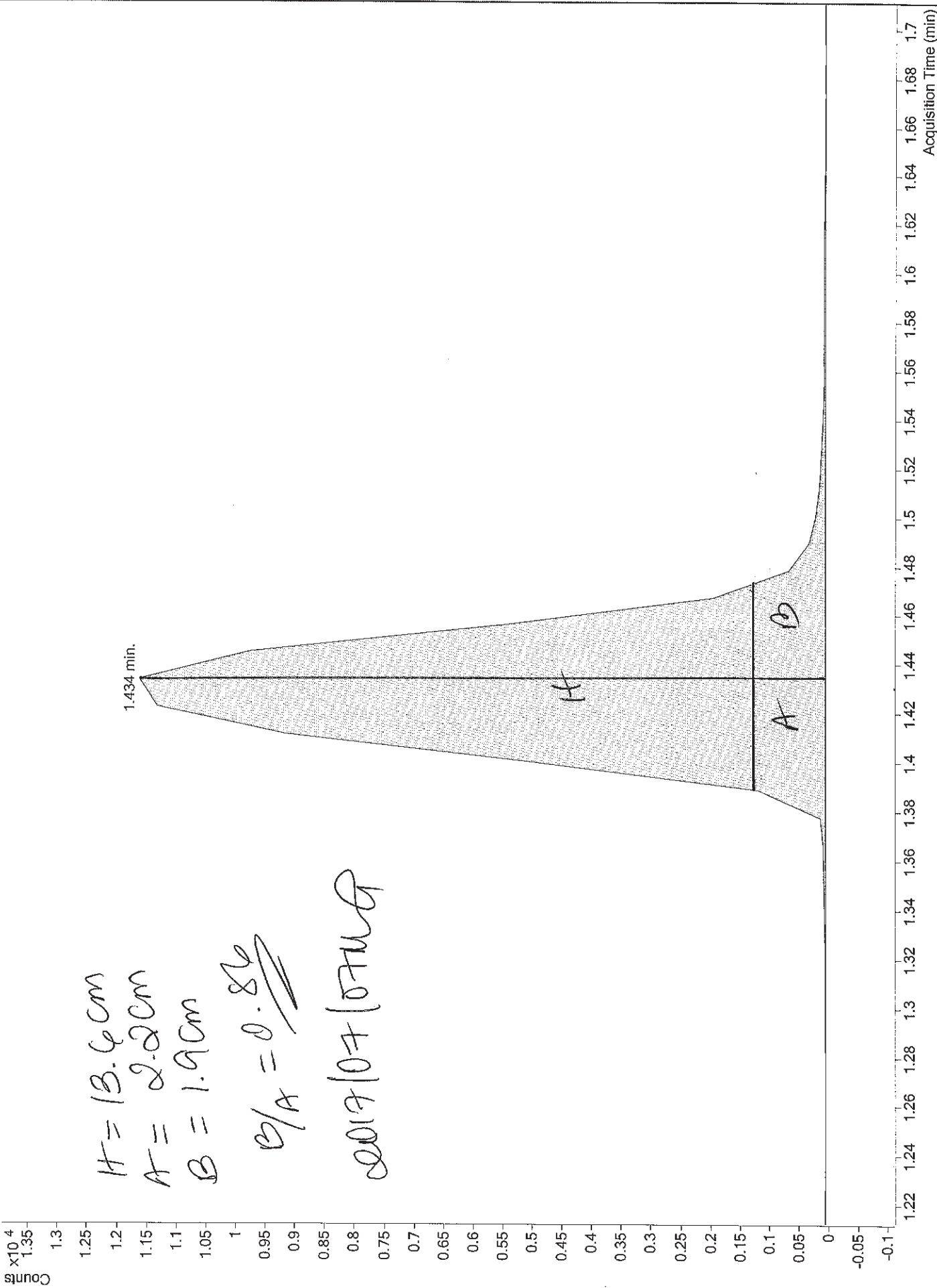
$$B/A = 1.2$$

0017105131ug

0.549 min.



Acquisition Time (min)
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0.47
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0.49
0.5
0.51
0.52
0.53
0.54
0.55
0.56
0.57
0.58
0.59
0.6
0.61
0.62
0.63
0.64
0.65
0.66
0.67
0.68
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0.72
0.73
0.74
0.75



Report Name: Worksheet - Parameter Lists

Report Date: 2017/05/19

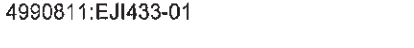
Test Code: PFOSALCM-S

Worksheet Number: 4990811

<u>Sample Number</u>	<u>Parameter</u>	
EJI396-01	6:2 Fluorotelomer sulfonate	*
EJI398-01	8:2 Fluorotelomer sulfonate	*
EJI399-01	EtFOSAA	*
EJI401-01	MeFOSAA	*
EJI402-01	Perfluorobutane Sulfonate (PFBS)	
EJI404-01	Perfluorodecanoic Acid (PFDA)	
EJI405-01	Perfluorododecanoic Acid (PFDoA)	
EJI407-01	Perfluoroheptanoic Acid (PFHpA)	
EJI413-01	Perfluorohexanoic Acid (PFHxA)	
EJI416-01	Perfluorohexane Sulfonate (PFHxS)	
EJI417-01	Perfluorononanoic Acid (PFNA)	
EJI418-01	Perfluoro-n-Octanoic Acid (PFOA)	
EJI421-01	Perfluorotetradecanoic Acid	
EJI423-01	Perfluorotridecanoic Acid	
EJI424-01	Perfluoroundecanoic Acid (PFUnA)	
EJI425-01		
EJI428-01		
EJI429-01		
EJI431-01		
EJI433-01		

* - This parameter is usually off, but will be reported for this group of samples!

WorkSheet 4990811 Instrument Sequences

1.	 4990811:MTRX SPK	MTRX SPK
2.	 4990811:MTRX SPK:D1	MTRX SPK :D1
3.	 4990811:SPIKE	SPIKE
4.	 4990811:BLANK	BLANK
5.	 4990811:EJI396-01	FRCHD03-SO-005
6.	 4990811:EJI398-01	FRCHD04-SO-003
7.	 4990811:EJI399-01	FRCHD04-SO-005
8.	 4990811:EJI401-01	FRCHD05-SO-001
9.	 4990811:EJI402-01	FRCHD05-SO-003
10.	 4990811:EJI404-01	FRCHD-FD-SO-01
11.	 4990811:EJI405-01	FRCHD02-SO-001
12.	 4990811:EJI407-01	FRCHD02-SO-004
13.	 4990811:EJI413-01	FRCHD-FD-SO-02
14.	 4990811:EJI416-01	FRCHD01-SO-001
15.	 4990811:EJI417-01	FRCHD01-SO-002
16.	 4990811:EJI418-01	FRCHD01-SO-003
17.	 4990811:EJI421-01	FRCHD02-SO-002
18.	 4990811:EJI423-01	FRCHD05-SO-002
19.	 4990811:EJI424-01	FRCHD03-SO-004
20.	 4990811:EJI425-01	FRCHD-FD-SO-03
21.	 4990811:EJI428-01	FRCHD04-SO-004
22.	 4990811:EJI429-01	FRCHD04-SO-002
23.	 4990811:EJI431-01	FRCHD03-SO-006
24.	 4990811:EJI433-01	FRCHD03-SO-001

Worklist Report

Instrument Name: LCMS04 Worklist Path: D:\MassHunter\Worklists\PFCs\PFC_170524_Soil.wkl

Operator Name: AD
 Run Type: Standard Start
 Part of Method to Run: Acquisition Only
 Execution of Acquisition-DA: Synchronous
 Acquisition Method Path: D:\MassHunter\Acquisition Method
 DA Method Path: D:\MassHunter\methods
 Data File Path: D:\MassHunter\data\PFC\20170524\WS#4990811
 Pre-Worklist Script: ---
 Post-Worklist Script: SCP_InstrumentStandby()\{MH_Acq_Scripts.exe}
 Acquisition Clean Up Script: ---
 Overlapped Injection: Yes
 Clear Sample Selection After Run: Yes
 Wait Time for Ready(Min): 10
 Threshold Disk Value(GB): 10
 Comment: Column#171 ✓
 MP A1: Solution# 92 (FSRE18) ✓
 MP B1: Methanol Lot#SHBG9002V, Sigma ✓

AD
 2017/05/24

20170518 HUE

Plate	Barcode
P2	

Worklist Table

Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
1 Solvent	P2-A1	PFC_Soil.m	WS#4990811_01.d	Sample		As Method	-
2 Solvent	P2-A1	PFC_Soil.m	WS#4990811_02.d	Sample		As Method	-
3 Solvent	P2-A1	PFC_Soil.m	WS#4990811_03.d	Sample		As Method	-
4 Solvent	P2-A1	PFC_Soil.m	WS#4990811_04.d	Sample		As Method	-
5 Solvent	P2-A1	PFC_Soil.m	WS#4990811_05.d	Sample		As Method	-
6 STD 1	P2-A2	PFC_Soil.m	WS#4990811_06.d	Calibration	STD 1	As Method	-
7 STD 2	P2-A3	PFC_Soil.m	WS#4990811_07.d	Calibration	STD 2	As Method	-
8 STD 3	P2-A4	PFC_Soil.m	WS#4990811_08.d	Calibration	STD 3	As Method	-
9 STD 4	P2-A5	PFC_Soil.m	WS#4990811_09.d	Calibration	STD 4	As Method	-
10 STD 5	P2-A6	PFC_Soil.m	WS#4990811_10.d	Calibration	STD 5	As Method	-
11 STD 6	P2-A7	PFC_Soil.m	WS#4990811_11.d	Calibration	STD 6	As Method	-
12 IB1	P2-A8	PFC_Soil.m	WS#4990811_12.d	Sample		As Method	-
13 ICV	P2-A9	PFC_Soil.m	WS#4990811_13.d	QC	ICV	As Method	-

D:\MassHunter\Worklists\PFCs\PFC_170524_Soil.wkl



Worklist Report

Agilent Technologies

	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
14	ISC	P2-A2	PFC_Soil.m	WS#4990811_14.d	ConCal	STD 1	As Method	-
15	4990811:BLANK	P2-B1	PFC_Soil.m	WS#4990811_15.d	Blank		As Method	-
16	4990811:MTRX SPK	P2-B2	PFC_Soil.m	WS#4990811_16.d	QC	ICV	As Method	-
17	4990811:MTRX SPK-D1	P2-B3	PFC_Soil.m	WS#4990811_17.d	QC	ICV	As Method	-
18	4990811:SPIKE	P2-B4	PFC_Soil.m	WS#4990811_18.d	QC	ICV	As Method	-
19	4990811:EJ1396-01	P2-B5	PFC_Soil.m	WS#4990811_19.d	Sample		As Method	-
20	4990811:EJ1398-01	P2-B6	PFC_Soil.m	WS#4990811_20.d	Sample		As Method	-
21	4990811:EJ1399-01	P2-B7	PFC_Soil.m	WS#4990811_21.d	Sample		As Method	-
22	4990811:EJ1401-01:1000x	P2-B8	PFC_Soil.m	WS#4990811_22.d	Sample		As Method	-
23	4990811:EJ1402-01:1000x	P2-C1	PFC_Soil.m	WS#4990811_23.d	Sample		As Method	-
24	4990811:EJ1404-01:1000x	P2-C3	PFC_Soil.m	WS#4990811_24.d	Sample		As Method	-
25	4990811:EJ1405-01	P2-C5	PFC_Soil.m	WS#4990811_25.d	Sample		As Method	-
26	4990811:EJ1407-01:10x	P2-C6	PFC_Soil.m	WS#4990811_26.d	Sample		As Method	-
27	4990811:EJ1407-01	P2-C7	PFC_Soil.m	WS#4990811_27.d	Sample		As Method	-
28	IB1	P2-A8	PFC_Soil.m	WS#4990811_28.d	Sample		As Method	-
29	4990811:EJ1413-01	P2-C8	PFC_Soil.m	WS#4990811_29.d	Sample		As Method	-
30	CCV	P2-A5	PFC_Soil.m	WS#4990811_30.d	ConCal	STD 4	As Method	-
31	4990811:EJ1416-01:100x	P2-C9	PFC_Soil.m	WS#4990811_31.d	Sample		As Method	-
32	4990811:EJ1416-01:10x	P2-D1	PFC_Soil.m	WS#4990811_32.d	Sample		As Method	-
33	Solvent	P2-A1	PFC_Soil.m	WS#4990811_33.d	Sample		As Method	-
34	IB1	P2-A8	PFC_Soil.m	WS#4990811_34.d	Sample		As Method	-
35	4990811:EJ1417-01:100x	P2-D2	PFC_Soil.m	WS#4990811_35.d	Sample		As Method	-
36	4990811:EJ1417-01:10x	P2-D3	PFC_Soil.m	WS#4990811_36.d	Sample		As Method	-
37	Solvent	P2-A1	PFC_Soil.m	WS#4990811_37.d	Sample		As Method	-
38	IB1	P2-A8	PFC_Soil.m	WS#4990811_38.d	Sample		As Method	-
39	4990811:EJ1418-01	P2-D4	PFC_Soil.m	WS#4990811_39.d	Sample		As Method	-
40	4990811:EJ1421-01	P2-D5	PFC_Soil.m	WS#4990811_40.d	Sample		As Method	-
41	4990811:EJ1423-01	P2-D6	PFC_Soil.m	WS#4990811_41.d	Sample		As Method	-
42	4990811:EJ1424-01	P2-D7	PFC_Soil.m	WS#4990811_42.d	Sample		As Method	-
43	4990811:EJ1425-01	P2-D8	PFC_Soil.m	WS#4990811_43.d	Sample		As Method	-
44	4990811:EJ1428-01	P2-D9	PFC_Soil.m	WS#4990811_44.d	Sample		As Method	-
45	CCV	P2-A5	PFC_Soil.m	WS#4990811_45.d	ConCal	STD 4	As Method	-
46	4990811:EJ1429-01	P2-E1	PFC_Soil.m	WS#4990811_46.d	Sample		As Method	-
47	4990811:EJ1431-01:10x	P2-E2	PFC_Soil.m	WS#4990811_47.d	Sample		As Method	-
48	4990811:EJ1431-01	P2-E3	PFC_Soil.m	WS#4990811_48.d	Sample		As Method	-

Maxxam Analytics

D:\MassHunter\Worklists\PFCs\PFC_170524_Soil.wkl

Report generation date: 24-May-2017 02:08:18 PM

Worklist Report

	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
49	IB1	P2-A8	PFC_Soil.m	WS#4990811_49.d	Sample		As Method	-
50	4990811:EJ433-01	P2-E4	PFC_Soil.m	WS#4990811_50.d	Sample		As Method	-
51	4990811:EJ401-01:10x	P2-B9	PFC_Soil.m	WS#4990811_51.d	Sample		As Method	-
52	Solvent	P2-A1	PFC_Soil.m	WS#4990811_52.d	Sample		As Method	-
53	IB1	P2-A8	PFC_Soil.m	WS#4990811_53.d	Sample		As Method	-
54	4990811:EJ402-01:10x	P2-C2	PFC_Soil.m	WS#4990811_54.d	Sample		As Method	-
55	Solvent	P2-A1	PFC_Soil.m	WS#4990811_55.d	Sample		As Method	-
56	IB1	P2-A8	PFC_Soil.m	WS#4990811_56.d	Sample		As Method	-
57	4990811:EJ404-01:10x	P2-C4	PFC_Soil.m	WS#4990811_57.d	Sample		As Method	-
58	Solvent	P2-A1	PFC_Soil.m	WS#4990811_58.d	Sample		As Method	-
59	IB1	P2-A8	PFC_Soil.m	WS#4990811_59.d	Sample		As Method	-
60	CCV	P2-A5	PFC_Soil.m	WS#4990811_60.d	ConCal	STD 4	As Method	-



Worklist Report

Instrument Name: LCMS04

Worklist Path: D:\MassHunter\Worklists\PFCS\PFCS_170524_Soil_FOSAA.wkl

Operator Name:

AD

Run Type:

Standard Start

Part of Method to Run:

Acquisition Only

Execution of Acquisition-DA:

Synchronous

Acquisition Method Path:

D:\MassHunter\Acquisition Method

DA Method Path:

D:\MassHunter\Methods

Data File Path:

D:\MassHunter\data\PFCS\20170524\WS#4990811

Pre-Worklist Script:

Post-Worklist Script:

SCP_InstrumentStandby()\{MH_Acq_Scripts.exe}

Acquisition Clean Up Script:

Overlapped Injection:

Yes

Clear Sample Selection After Run:

Yes

Wait Time for Ready(Min):

10

Threshold Disk Value(GB):

10

Comment:

Column#171

MP A1: Solution# 92 (FSRE18)

MP B1: Solution# 83 (FSRE18)

Plate Barcode:

Plate

P2

Barcode

201705/31 WGS

Worklist Table

Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
1 Solvent	P2-A1	PFCS_Soil_FOSAA.m	D:\MassHunter\data\PFCS\20170524\WS#4990811_FOSAA_01.d	Sample		As Method	-
2 Solvent	P2-A1	PFCS_Soil_FOSAA.m	D:\MassHunter\data\PFCS\20170524\WS#4990811_FOSAA_02.d	Sample		As Method	-
3 Solvent	P2-A1	PFCS_Soil_FOSAA.m	D:\MassHunter\data\PFCS\20170524\WS#4990811_FOSAA_03.d	Sample		As Method	-



Worklist Report

Agilent Technologies

Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
4 Solvent	P2-A1	PFC_Soil_FOSAA.m	D:\MassHunter\data\IP FC\20170524 WS#4990811_FOSA AIWS#4990811_FOS AA_04.d	Sample		As Method	-
5 Solvent	P2-A1	PFC_Soil_FOSAA.m	D:\MassHunter\data\IP FC\20170524 WS#4990811_FOSA AIWS#4990811_FOS AA_05.d	Sample		As Method	-
6 Solvent	P2-A1	PFC_Soil_FOSAA.m	D:\MassHunter\data\IP FC\20170524 WS#4990811_FOSA AIWS#4990811_FOS AA_06.d	Sample		As Method	-
7 Solvent	P2-A1	PFC_Soil_FOSAA.m	D:\MassHunter\data\IP FC\20170524 WS#4990811_FOSA AIWS#4990811_FOS AA_07.d	Sample		As Method	-
8 Solvent	P2-A1	PFC_Soil_FOSAA.m	D:\MassHunter\data\IP FC\20170524 WS#4990811_FOSA AIWS#4990811_FOS AA_08.d	Sample		As Method	-
9 Solvent	P2-A1	PFC_Soil_FOSAA.m	D:\MassHunter\data\IP FC\20170524 WS#4990811_FOSA AIWS#4990811_FOS AA_09.d	Sample		As Method	-
10 STD 1	P2-A2	PFC_Soil_FOSAA.m	D:\MassHunter\data\IP FC\20170524 WS#4990811_FOSA AIWS#4990811_FOS AA_10.d	Calibration	STD 1	As Method	-
11 STD 2	P2-A3	PFC_Soil_FOSAA.m	D:\MassHunter\data\IP FC\20170524 WS#4990811_FOSA AIWS#4990811_FOS AA_11.d	Calibration	STD 2	As Method	-
12 STD 3	P2-A4	PFC_Soil_FOSAA.m	D:\MassHunter\data\IP FC\20170524 WS#4990811_FOSA AIWS#4990811_FOS AA_12.d	Calibration	STD 3	As Method	-
13 STD 4	P2-A5	PFC_Soil_FOSAA.m	D:\MassHunter\data\IP FC\20170524 WS#4990811_FOSA AIWS#4990811_FOS AA_13.d	Calibration	STD 4	As Method	-
14 STD 5	P2-A6	PFC_Soil_FOSAA.m	D:\MassHunter\data\IP FC\20170524 WS#4990811_FOSA AIWS#4990811_FOS AA_14.d	Calibration	STD 5	As Method	-



Worklist Report

Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
15 STD 6	P2-A7	PFC_Soil_FOSAA.m	D:\MassHunter\data\IP FC\20170524 IWS#4990811_FOSA AIWS#4990811_FOS AA_15.d	Calibration	STD 6	As Method	-
16 IB1	P2-A8	PFC_Soil_FOSAA.m	D:\MassHunter\data\IP FC\20170524 IWS#4990811_FOSA AIWS#4990811_FOS AA_16.d	Sample		As Method	-
17 ICV	P2-A9	PFC_Soil_FOSAA.m	D:\MassHunter\data\IP FC\20170524 IWS#4990811_FOSA AIWS#4990811_FOS AA_17.d	QC	ICV	As Method	-
18 ISC	P2-A2	PFC_Soil_FOSAA.m	D:\MassHunter\data\IP FC\20170524 IWS#4990811_FOSA AIWS#4990811_FOS AA_18.d	ConCal	STD 1	As Method	-
19 4990811:BLANK	P2-B1	PFC_Soil_FOSAA.m	D:\MassHunter\data\IP FC\20170524 IWS#4990811_FOSA AIWS#4990811_FOS AA_19.d	Blank		As Method	-
20 4990811:MTRX SPK	P2-B2	PFC_Soil_FOSAA.m	D:\MassHunter\data\IP FC\20170524 IWS#4990811_FOSA AIWS#4990811_FOS AA_20.d	QC	ICV	As Method	-
21 4990811:MTRX SPK D1	P2-B3	PFC_Soil_FOSAA.m	D:\MassHunter\data\IP FC\20170524 IWS#4990811_FOSA AIWS#4990811_FOS AA_21.d	QC	ICV	As Method	-
22 4990811:SPIKE	P2-B4	PFC_Soil_FOSAA.m	D:\MassHunter\data\IP FC\20170524 IWS#4990811_FOSA AIWS#4990811_FOS AA_22.d	QC	ICV	As Method	-
23 4990811:EJ1396-01	P2-B5	PFC_Soil_FOSAA.m	D:\MassHunter\data\IP FC\20170524 IWS#4990811_FOSA AIWS#4990811_FOS AA_23.d	Sample		As Method	-
24 4990811:EJ1398-01	P2-B6	PFC_Soil_FOSAA.m	D:\MassHunter\data\IP FC\20170524 IWS#4990811_FOSA AIWS#4990811_FOS AA_24.d	Sample		As Method	-
25 4990811:EJ1399-01	P2-B7	PFC_Soil_FOSAA.m	D:\MassHunter\data\IP FC\20170524 IWS#4990811_FOSA AIWS#4990811_FOS AA_25.d	Sample		As Method	-

Worklist Report

Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
4990811:EJ401-01:1000x	P2-B8	PFC_Soil_FOSAA.m	D:\MassHunter\data\IP FC\20170524 WS#4990811_FOSA AWS#4990811_FOS AA_26.d	Sample		As Method	-
4990811:EJ402-01:1000x	P2-C1	PFC_Soil_FOSAA.m	D:\MassHunter\data\IP FC\20170524 WS#4990811_FOSA AWS#4990811_FOS AA_27.d	Sample		As Method	-
4990811:EJ404-01:1000x	P2-C3	PFC_Soil_FOSAA.m	D:\MassHunter\data\IP FC\20170524 WS#4990811_FOSA AWS#4990811_FOS AA_28.d	Sample		As Method	-
4990811:EJ405-01	P2-C5	PFC_Soil_FOSAA.m	D:\MassHunter\data\IP FC\20170524 WS#4990811_FOSA AWS#4990811_FOS AA_29.d	Sample		As Method	-
4990811:EJ407-01:10x	P2-C6	PFC_Soil_FOSAA.m	D:\MassHunter\data\IP FC\20170524 WS#4990811_FOSA AWS#4990811_FOS AA_30.d	Sample		As Method	-
4990811:EJ407-01	P2-C7	PFC_Soil_FOSAA.m	D:\MassHunter\data\IP FC\20170524 WS#4990811_FOSA AWS#4990811_FOS AA_31.d	Sample		As Method	-
IB1	P2-A8	PFC_Soil_FOSAA.m	D:\MassHunter\data\IP FC\20170524 WS#4990811_FOSA AWS#4990811_FOS AA_32.d	Sample		As Method	-
4990811:EJ413-01	P2-C8	PFC_Soil_FOSAA.m	D:\MassHunter\data\IP FC\20170524 WS#4990811_FOSA AWS#4990811_FOS AA_33.d	Sample		As Method	-
CCV	P2-A5	PFC_Soil_FOSAA.m	D:\MassHunter\data\IP FC\20170524 WS#4990811_FOSA AWS#4990811_FOS AA_34.d	ConCal	STD 4	As Method	-
4990811:EJ416-01:1000x	P2-C9	PFC_Soil_FOSAA.m	D:\MassHunter\data\IP FC\20170524 WS#4990811_FOSA AWS#4990811_FOS AA_35.d	Sample		As Method	-
4990811:EJ416-01:10x	P2-D1	PFC_Soil_FOSAA.m	D:\MassHunter\data\IP FC\20170524 WS#4990811_FOSA AWS#4990811_FOS AA_36.d	Sample		As Method	-



Worklist Report

Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
37 Solvent	P2-A1	PFC_Soil_FOSAA.m	D:\MassHunter\data\IP FC\20170524 IWS#4990811_FOSA AIWS#4990811_FOS AA_37.d	Sample		As Method	-
38 IB1	P2-A8	PFC_Soil_FOSAA.m	D:\MassHunter\data\IP FC\20170524 IWS#4990811_FOSA AIWS#4990811_FOS AA_38.d	Sample		As Method	-
39 4990811:EJ1417- 01:100x	P2-D2	PFC_Soil_FOSAA.m	D:\MassHunter\data\IP FC\20170524 IWS#4990811_FOSA AIWS#4990811_FOS AA_39.d	Sample		As Method	-
40 4990811:EJ1417- 01:100x	P2-D3	PFC_Soil_FOSAA.m	D:\MassHunter\data\IP FC\20170524 IWS#4990811_FOSA AIWS#4990811_FOS AA_40.d	Sample		As Method	-
41 Solvent	P2-A1	PFC_Soil_FOSAA.m	D:\MassHunter\data\IP FC\20170524 IWS#4990811_FOSA AIWS#4990811_FOS AA_41.d	Sample		As Method	-
42 IB1	P2-A8	PFC_Soil_FOSAA.m	D:\MassHunter\data\IP FC\20170524 IWS#4990811_FOSA AIWS#4990811_FOS AA_42.d	Sample		As Method	-
43 4990811:EJ1418-01	P2-D4	PFC_Soil_FOSAA.m	D:\MassHunter\data\IP FC\20170524 IWS#4990811_FOSA AIWS#4990811_FOS AA_43.d	Sample		As Method	-
44 4990811:EJ1421-01	P2-D5	PFC_Soil_FOSAA.m	D:\MassHunter\data\IP FC\20170524 IWS#4990811_FOSA AIWS#4990811_FOS AA_44.d	Sample		As Method	-
45 4990811:EJ1423-01	P2-D6	PFC_Soil_FOSAA.m	D:\MassHunter\data\IP FC\20170524 IWS#4990811_FOSA AIWS#4990811_FOS AA_45.d	Sample		As Method	-
46 4990811:EJ1424-01	P2-D7	PFC_Soil_FOSAA.m	D:\MassHunter\data\IP FC\20170524 IWS#4990811_FOSA AIWS#4990811_FOS AA_46.d	Sample		As Method	-
47 4990811:EJ1425-01	P2-D8	PFC_Soil_FOSAA.m	D:\MassHunter\data\IP FC\20170524 IWS#4990811_FOSA AIWS#4990811_FOS AA_47.d	Sample		As Method	-

Worklist Report

Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
48 4990811:EJ428-01	P2-D9	PFC_Soil_FOSAA.m	D:\MassHunter\data\IP FC\20170524 WS#4990811_FOSA AIWS#4990811_FOS AA_48.d	Sample		As Method	-
49 CCV	P2-A5	PFC_Soil_FOSAA.m	D:\MassHunter\data\IP FC\20170524 WS#4990811_FOSA AIWS#4990811_FOS AA_49.d	ConCal	STD 4	As Method	-
50 4990811:EJ429-01	P2-E1	PFC_Soil_FOSAA.m	D:\MassHunter\data\IP FC\20170524 WS#4990811_FOSA AIWS#4990811_FOS AA_50.d	Sample		As Method	-
51 4990811:EJ431-01:10x	P2-E2	PFC_Soil_FOSAA.m	D:\MassHunter\data\IP FC\20170524 WS#4990811_FOSA AIWS#4990811_FOS AA_51.d	Sample		As Method	-
52 4990811:EJ431-01	P2-E3	PFC_Soil_FOSAA.m	D:\MassHunter\data\IP FC\20170524 WS#4990811_FOSA AIWS#4990811_FOS AA_52.d	Sample		As Method	-
53 IB1	P2-A8	PFC_Soil_FOSAA.m	D:\MassHunter\data\IP FC\20170524 WS#4990811_FOSA AIWS#4990811_FOS AA_53.d	Sample		As Method	-
54 4990811:EJ433-01	P2-E4	PFC_Soil_FOSAA.m	D:\MassHunter\data\IP FC\20170524 WS#4990811_FOSA AIWS#4990811_FOS AA_54.d	Sample		As Method	-
55 4990811:EJ401-01:10x	P2-B9	PFC_Soil_FOSAA.m	D:\MassHunter\data\IP FC\20170524 WS#4990811_FOSA AIWS#4990811_FOS AA_55.d	Sample		As Method	-
56 Solvent	P2-A1	PFC_Soil_FOSAA.m	D:\MassHunter\data\IP FC\20170524 WS#4990811_FOSA AIWS#4990811_FOS AA_56.d	Sample		As Method	-
57 IB1	P2-A8	PFC_Soil_FOSAA.m	D:\MassHunter\data\IP FC\20170524 WS#4990811_FOSA AIWS#4990811_FOS AA_57.d	Sample		As Method	-
58 4990811:EJ402-01:10x	P2-C2	PFC_Soil_FOSAA.m	D:\MassHunter\data\IP FC\20170524 WS#4990811_FOSA AIWS#4990811_FOS AA_58.d	Sample		As Method	-



Worklist Report

	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
59	Solvent	P2-A1	PFC_Soil_FOSAA.m	D:\MassHunter\data\IP FC\20170524 AWS#4990811_FOSA AA_59.d	Sample		As Method	-
60	IB1	P2-A8	PFC_Soil_FOSAA.m	D:\MassHunter\data\IP FC\20170524 AWS#4990811_FOSA AA_60.d	Sample		As Method	-
61	4990811:EJ1404- 01:10x	P2-C4	PFC_Soil_FOSAA.m	D:\MassHunter\data\IP FC\20170524 AWS#4990811_FOSA AA_61.d	Sample		As Method	-
62	Solvent	P2-A1	PFC_Soil_FOSAA.m	D:\MassHunter\data\IP FC\20170524 AWS#4990811_FOSA AA_62.d	Sample		As Method	-
63	IB1	P2-A8	PFC_Soil_FOSAA.m	D:\MassHunter\data\IP FC\20170524 AWS#4990811_FOSA AA_63.d	Sample		As Method	-
64	CCV	P2-A5	PFC_Soil_FOSAA.m	D:\MassHunter\data\IP FC\20170524 AWS#4990811_FOSA AA_64.d	ConCal	STD 4	As Method	-

FINAL INJECTION SEQUENCE

Sample					
Name	Comment	Acq. Date-Time	Acq. Method File	Data File	Pos.
STD 1	-	2017/05/24 8:42 PM	PFC_Soil.m	WS#4990811_06.d	P2-A2
STD 2	-	2017/05/24 8:47 PM	PFC_Soil.m	WS#4990811_07.d	P2-A3
STD 3	-	2017/05/24 8:52 PM	PFC_Soil.m	WS#4990811_08.d	P2-A4
STD 4	-	2017/05/24 8:57 PM	PFC_Soil.m	WS#4990811_09.d	P2-A5
STD 5	-	2017/05/24 9:01 PM	PFC_Soil.m	WS#4990811_10.d	P2-A6
STD 6	-	2017/05/24 9:06 PM	PFC_Soil.m	WS#4990811_11.d	P2-A7
IB1	-	2017/05/24 9:11 PM	PFC_Soil.m	WS#4990811_12.d	P2-A8
ICV	-	2017/05/24 9:16 PM	PFC_Soil.m	WS#4990811_13.d	P2-A9
ISC	-	2017/05/24 9:21 PM	PFC_Soil.m	WS#4990811_14.d	P2-A2
4990811:BLANK	-	2017/05/24 9:26 PM	PFC_Soil.m	WS#4990811_15.d	P2-B1
4990811:MTRX SPK	EJ429	2017/05/24 9:31 PM	PFC_Soil.m	WS#4990811_16.d	P2-B2
4990811:MTRX SPK:D1	EJ429	2017/05/24 9:36 PM	PFC_Soil.m	WS#4990811_17.d	P2-B3
4990811:SPIKE	-	2017/05/24 9:41 PM	PFC_Soil.m	WS#4990811_18.d	P2-B4
4990811:EJ396-01	-	2017/05/24 9:46 PM	PFC_Soil.m	WS#4990811_19.d	P2-B5
4990811:EJ398-01	-	2017/05/24 9:50 PM	PFC_Soil.m	WS#4990811_20.d	P2-B6
4990811:EJ399-01	-	2017/05/24 9:55 PM	PFC_Soil.m	WS#4990811_21.d	P2-B7
4990811:EJ401-01:1000x	Reported for 8:2FTS, PFOS only.	2017/05/24 10:00 PM	PFC_Soil.m	WS#4990811_22.d	P2-B8
4990811:EJ402-01:1000x	Reported for PFOS only.	2017/05/24 10:05 PM	PFC_Soil.m	WS#4990811_23.d	P2-C1
4990811:EJ404-01:1000x	Reported for 8:2FTS, PFOS only.	2017/05/24 10:10 PM	PFC_Soil.m	WS#4990811_24.d	P2-C3
4990811:EJ405-01	-	2017/05/24 10:15 PM	PFC_Soil.m	WS#4990811_25.d	P2-C5
4990811:EJ407-01:10x	Reported for PFOS only.	2017/05/24 10:20 PM	PFC_Soil.m	WS#4990811_26.d	P2-C6
4990811:EJ407-01	Reported for all except PFOS.	2017/05/24 10:25 PM	PFC_Soil.m	WS#4990811_27.d	P2-C7
IB1	-	2017/05/24 10:30 PM	PFC_Soil.m	WS#4990811_28.d	P2-A8
4990811:EJ413-01	-	2017/05/24 10:35 PM	PFC_Soil.m	WS#4990811_29.d	P2-C8
CCV	-	2017/05/24 10:39 PM	PFC_Soil.m	WS#4990811_30.d	P2-A5
4990811:EJ416-01:100x	Reported for 6:2FTS, PFOS, PFHxS only.	2017/05/24 10:44 PM	PFC_Soil.m	WS#4990811_31.d	P2-C9
4990811:EJ416-01:10x	Reported for all except 6:2FTS, PFOS, PFHxS.	2017/05/24 10:49 PM	PFC_Soil.m	WS#4990811_32.d	P2-D1
Solvent	-	2017/05/24 10:54 PM	PFC_Soil.m	WS#4990811_33.d	P2-A1
IB1	-	2017/05/24 10:59 PM	PFC_Soil.m	WS#4990811_34.d	P2-A8
4990811:EJ417-01:100x	Reported for 6:2FTS only.	2017/05/24 11:04 PM	PFC_Soil.m	WS#4990811_35.d	P2-D2
4990811:EJ417-01:10x	Reported for all except 6:2FTS.	2017/05/24 11:09 PM	PFC_Soil.m	WS#4990811_36.d	P2-D3
Solvent	-	2017/05/24 11:14 PM	PFC_Soil.m	WS#4990811_37.d	P2-A1
IB1	-	2017/05/24 11:19 PM	PFC_Soil.m	WS#4990811_38.d	P2-A8

FINAL INJECTION SEQUENCE

Sample					
Name	Comment	Acq. Date-Time	Acq. Method File	Data File	Pos.
4990811:EJ418-01	-	2017/05/24 11:24 PM	PFC_Soil.m	WS#4990811_39.d	P2-D4
4990811:EJ421-01	-	2017/05/24 11:28 PM	PFC_Soil.m	WS#4990811_40.d	P2-D5
4990811:EJ423-01	Reinjected to confirm result	2017/05/24 11:33 PM	PFC_Soil.m	WS#4990811_41.d	P2-D6
4990811:EJ424-01	Reinjected for carry-over check	2017/05/24 11:38 PM	PFC_Soil.m	WS#4990811_42.d	P2-D7
4990811:EJ425-01	Reinjected to confirm result.	2017/05/24 11:43 PM	PFC_Soil.m	WS#4990811_43.d	P2-D8
4990811:EJ428-01	Reinjected for carry-over check	2017/05/24 11:48 PM	PFC_Soil.m	WS#4990811_44.d	P2-D9
CCV	-	2017/05/24 11:53 PM	PFC_Soil.m	WS#4990811_45.d	P2-A5
4990811:EJ429-01	Reinjected for carry-over check	2017/05/24 11:58 PM	PFC_Soil.m	WS#4990811_46.d	P2-E1
4990811:EJ431-01:10x	Reinjected for carry-over check	2017/05/25 12:03 AM	PFC_Soil.m	WS#4990811_47.d	P2-E2
4990811:EJ431-01	Reinjected for carry-over check	2017/05/25 12:08 AM	PFC_Soil.m	WS#4990811_48.d	P2-E3
IB1	-	2017/05/25 12:13 AM	PFC_Soil.m	WS#4990811_49.d	P2-A8
4990811:EJ433-01	-	2017/05/25 12:17 AM	PFC_Soil.m	WS#4990811_50.d	P2-E4
4990811:EJ401-01:10x	Reported for all except 8:2FTS, PFOS.	2017/05/25 12:22 AM	PFC_Soil.m	WS#4990811_51.d	P2-B9
Solvent	-	2017/05/25 12:27 AM	PFC_Soil.m	WS#4990811_52.d	P2-A1
IB1	-	2017/05/25 12:32 AM	PFC_Soil.m	WS#4990811_53.d	P2-A8
4990811:EJ402-01:10x	Reported for all except PFOS.	2017/05/25 12:37 AM	PFC_Soil.m	WS#4990811_54.d	P2-C2
Solvent	-	2017/05/25 12:42 AM	PFC_Soil.m	WS#4990811_55.d	P2-A1
IB1	-	2017/05/25 12:47 AM	PFC_Soil.m	WS#4990811_56.d	P2-A8
4990811:EJ404-01:10x	Reported for all except 8:2FTS, PFOS.	2017/05/25 12:52 AM	PFC_Soil.m	WS#4990811_57.d	P2-C4
Solvent	-	2017/05/25 12:57 AM	PFC_Soil.m	WS#4990811_58.d	P2-A1
IB1	-	2017/05/25 1:02 AM	PFC_Soil.m	WS#4990811_59.d	P2-A8
CCV	-	2017/05/25 1:06 AM	PFC_Soil.m	WS#4990811_60.d	P2-A5
ISC	-	2017/05/25 2:41 PM	PFC_Soil.m	WS#4990811_61.d	P2-A2
4990811:EJ423-01:10x	Reported for PFOS only.	2017/05/25 2:46 PM	PFC_Soil.m	WS#4990811_62.d	P2-E5
4990811:EJ423-01	Reinjection Reported for all except PFOS.	2017/05/25 2:51 PM	PFC_Soil.m	WS#4990811_63.d	P2-D6
IB1	-	2017/05/25 2:55 PM	PFC_Soil.m	WS#4990811_64.d	P2-A8
4990811:EJ425-01:10x	Reported for PFOS only.	2017/05/25 3:00 PM	PFC_Soil.m	WS#4990811_65.d	P2-E6
4990811:EJ425-01	Reinjection Reported for all except PFOS.	2017/05/25 3:05 PM	PFC_Soil.m	WS#4990811_66.d	P2-D8
IB1	-	2017/05/25 3:10 PM	PFC_Soil.m	WS#4990811_67.d	P2-A8
4990811:EJ424-01	Reinjection reported.	2017/05/25 3:15 PM	PFC_Soil.m	WS#4990811_68.d	P2-D7
4990811:EJ428-01	Reinjection reported.	2017/05/25 3:20 PM	PFC_Soil.m	WS#4990811_69.d	P2-D9
4990811:EJ429-01	Reinjection reported.	2017/05/25 3:25 PM	PFC_Soil.m	WS#4990811_70.d	P2-E1
4990811:EJ431-01:10x	Reported for PFOS only.	2017/05/25 3:30 PM	PFC_Soil.m	WS#4990811_71.d	P2-E2

FINAL INJECTION SEQUENCE

Sample						
Name	Comment	Acq. Date-Time	Acq. Method File	Data File	Pos.	
4990811:EJ431-01	Reported for all except PFOS.	2017/05/25 3:35 PM	PFC_Soil.m	WS#4990811_72.d	P2-E3	
IB1	-	2017/05/25 3:40 PM	PFC_Soil.m	WS#4990811_73.d	P2-A8	
CCV	-	2017/05/25 3:44 PM	PFC_Soil.m	WS#4990811_74.d	P2-A5	

FINAL INJECTION SEQUENCE

Sample					
Name	Comment	Acq. Date-Time	Acq. Method File	Data File	Pos.
STD 1	-	2017/05/25 1:33 AM	PFC_Soil_FOSAA.m	WS#4990811_FOSAA_10.d	P2-A2
STD 2	-	2017/05/25 1:35 AM	PFC_Soil_FOSAA.m	WS#4990811_FOSAA_11.d	P2-A3
STD 3	-	2017/05/25 1:38 AM	PFC_Soil_FOSAA.m	WS#4990811_FOSAA_12.d	P2-A4
STD 4	-	2017/05/25 1:40 AM	PFC_Soil_FOSAA.m	WS#4990811_FOSAA_13.d	P2-A5
STD 5	-	2017/05/25 1:42 AM	PFC_Soil_FOSAA.m	WS#4990811_FOSAA_14.d	P2-A6
STD 6	-	2017/05/25 1:45 AM	PFC_Soil_FOSAA.m	WS#4990811_FOSAA_15.d	P2-A7
IB1	-	2017/05/25 1:47 AM	PFC_Soil_FOSAA.m	WS#4990811_FOSAA_16.d	P2-A8
ICV	-	2017/05/25 1:49 AM	PFC_Soil_FOSAA.m	WS#4990811_FOSAA_17.d	P2-A9
ISC	-	2017/05/25 1:52 AM	PFC_Soil_FOSAA.m	WS#4990811_FOSAA_18.d	P2-A2
4990811:BLANK	-	2017/05/25 1:54 AM	PFC_Soil_FOSAA.m	WS#4990811_FOSAA_19.d	P2-B1
4990811:MTRX SPK	EJ429	2017/05/25 1:57 AM	PFC_Soil_FOSAA.m	WS#4990811_FOSAA_20.d	P2-B2
4990811:MTRX SPK:D1	EJ429	2017/05/25 1:59 AM	PFC_Soil_FOSAA.m	WS#4990811_FOSAA_21.d	P2-B3
4990811:SPIKE	-	2017/05/25 2:01 AM	PFC_Soil_FOSAA.m	WS#4990811_FOSAA_22.d	P2-B4
4990811:EJ4396-01	-	2017/05/25 2:04 AM	PFC_Soil_FOSAA.m	WS#4990811_FOSAA_23.d	P2-B5
4990811:EJ4398-01	-	2017/05/25 2:06 AM	PFC_Soil_FOSAA.m	WS#4990811_FOSAA_24.d	P2-B6
4990811:EJ4399-01	-	2017/05/25 2:09 AM	PFC_Soil_FOSAA.m	WS#4990811_FOSAA_25.d	P2-B7
4990811:EJ4401-01:1000x	Not used	2017/05/25 2:11 AM	PFC_Soil_FOSAA.m	WS#4990811_FOSAA_26.d	P2-B8
4990811:EJ4402-01:1000x	Not used	2017/05/25 2:13 AM	PFC_Soil_FOSAA.m	WS#4990811_FOSAA_27.d	P2-C1
4990811:EJ4404-01:1000x	Not used	2017/05/25 2:16 AM	PFC_Soil_FOSAA.m	WS#4990811_FOSAA_28.d	P2-C3
4990811:EJ4405-01	-	2017/05/25 2:18 AM	PFC_Soil_FOSAA.m	WS#4990811_FOSAA_29.d	P2-C5
4990811:EJ4407-01:10x	Not used	2017/05/25 2:20 AM	PFC_Soil_FOSAA.m	WS#4990811_FOSAA_30.d	P2-C6
4990811:EJ4407-01	-	2017/05/25 2:23 AM	PFC_Soil_FOSAA.m	WS#4990811_FOSAA_31.d	P2-C7
IB1	-	2017/05/25 2:25 AM	PFC_Soil_FOSAA.m	WS#4990811_FOSAA_32.d	P2-A8
4990811:EJ4413-01	-	2017/05/25 2:28 AM	PFC_Soil_FOSAA.m	WS#4990811_FOSAA_33.d	P2-C8
CCV	-	2017/05/25 2:30 AM	PFC_Soil_FOSAA.m	WS#4990811_FOSAA_34.d	P2-A5
4990811:EJ4416-01:100x	Not used	2017/05/25 2:32 AM	PFC_Soil_FOSAA.m	WS#4990811_FOSAA_35.d	P2-C9
4990811:EJ4416-01:10x	-	2017/05/25 2:35 AM	PFC_Soil_FOSAA.m	WS#4990811_FOSAA_36.d	P2-D1
Solvent	-	2017/05/25 2:37 AM	PFC_Soil_FOSAA.m	WS#4990811_FOSAA_37.d	P2-A1
IB1	-	2017/05/25 2:40 AM	PFC_Soil_FOSAA.m	WS#4990811_FOSAA_38.d	P2-A8
4990811:EJ4417-01:100x	Not used	2017/05/25 2:42 AM	PFC_Soil_FOSAA.m	WS#4990811_FOSAA_39.d	P2-D2
4990811:EJ4417-01:10x	-	2017/05/25 2:44 AM	PFC_Soil_FOSAA.m	WS#4990811_FOSAA_40.d	P2-D3
Solvent	-	2017/05/25 2:47 AM	PFC_Soil_FOSAA.m	WS#4990811_FOSAA_41.d	P2-A1
IB1	-	2017/05/25 2:49 AM	PFC_Soil_FOSAA.m	WS#4990811_FOSAA_42.d	P2-A8

LCMS04

FINAL INJECTION SEQUENCE

Sample					
Name	Comment	Acq. Date-Time	Acq. Method File	Data File	Pos.
4990811:EJ418-01	-	2017/05/25 2:51 AM	PFC_Soil_FOSAA.m	WS#4990811_FOSAA_43.d	P2-D4
4990811:EJ421-01	-	2017/05/25 2:54 AM	PFC_Soil_FOSAA.m	WS#4990811_FOSAA_44.d	P2-D5
4990811:EJ423-01	-	2017/05/25 2:56 AM	PFC_Soil_FOSAA.m	WS#4990811_FOSAA_45.d	P2-D6
4990811:EJ424-01	-	2017/05/25 2:59 AM	PFC_Soil_FOSAA.m	WS#4990811_FOSAA_46.d	P2-D7
4990811:EJ425-01	-	2017/05/25 3:01 AM	PFC_Soil_FOSAA.m	WS#4990811_FOSAA_47.d	P2-D8
4990811:EJ428-01	-	2017/05/25 3:03 AM	PFC_Soil_FOSAA.m	WS#4990811_FOSAA_48.d	P2-D9
CCV	-	2017/05/25 3:06 AM	PFC_Soil_FOSAA.m	WS#4990811_FOSAA_49.d	P2-A5
4990811:EJ429-01	-	2017/05/25 3:08 AM	PFC_Soil_FOSAA.m	WS#4990811_FOSAA_50.d	P2-E1
4990811:EJ431-01:10x	Not used	2017/05/25 3:11 AM	PFC_Soil_FOSAA.m	WS#4990811_FOSAA_51.d	P2-E2
4990811:EJ431-01	-	2017/05/25 3:13 AM	PFC_Soil_FOSAA.m	WS#4990811_FOSAA_52.d	P2-E3
IB1	-	2017/05/25 3:15 AM	PFC_Soil_FOSAA.m	WS#4990811_FOSAA_53.d	P2-A8
4990811:EJ433-01	-	2017/05/25 3:18 AM	PFC_Soil_FOSAA.m	WS#4990811_FOSAA_54.d	P2-E4
4990811:EJ401-01:10x	-	2017/05/25 3:20 AM	PFC_Soil_FOSAA.m	WS#4990811_FOSAA_55.d	P2-B9
Solvent	-	2017/05/25 3:23 AM	PFC_Soil_FOSAA.m	WS#4990811_FOSAA_56.d	P2-A1
IB1	-	2017/05/25 3:25 AM	PFC_Soil_FOSAA.m	WS#4990811_FOSAA_57.d	P2-A8
4990811:EJ402-01:10x	-	2017/05/25 3:27 AM	PFC_Soil_FOSAA.m	WS#4990811_FOSAA_58.d	P2-C2
Solvent	-	2017/05/25 3:30 AM	PFC_Soil_FOSAA.m	WS#4990811_FOSAA_59.d	P2-A1
IB1	-	2017/05/25 3:32 AM	PFC_Soil_FOSAA.m	WS#4990811_FOSAA_60.d	P2-A8
4990811:EJ404-01:10x	-	2017/05/25 3:34 AM	PFC_Soil_FOSAA.m	WS#4990811_FOSAA_61.d	P2-C4
Solvent	-	2017/05/25 3:37 AM	PFC_Soil_FOSAA.m	WS#4990811_FOSAA_62.d	P2-A1
IB1	-	2017/05/25 3:39 AM	PFC_Soil_FOSAA.m	WS#4990811_FOSAA_63.d	P2-A8
CCV	-	2017/05/25 3:42 AM	PFC_Soil_FOSAA.m	WS#4990811_FOSAA_64.d	P2-A5

DoD Projects - Internal Data Validation Checklist				
Run date: 2017/05/26				
Worksheet # (s): 4994375				
Analysis: PFOSALCM-S				
Primary review by the analyst - 1st 100 % analysis review				2nd 100% review
	yes	no	n/a	review
1	Sample analyses meet hold time criteria	✓		✓
2	Analysis set-up meets method criteria	✓		✓
3	Tuning and correct calibration used - criteria meets method criteria	✓		✓
4	SQC/Control Charts updated, analysis in statistical/method control	✓		✓
5	Internal area counts checked (if applicable)	✓		✓
6	LCS, SRM are within acceptance criteria	✓		✓
7	Surrogate Recovery(s) is within acceptance criteria		✓	✓
8	Method Blank meets acceptance criteria	✓		✓
9	Matrix Spike recovery(s) meets acceptance criteria		✓	✓
10	Duplicate precision meets acceptance criteria		✓	✓
11	QC is documented on the run logs	✓		✓
12	Runs checked for carryover	✓		✓
13	Prep log / worksheet(s) are present, signed / dated by a prep / instrument analysts	✓		✓
14	Initial weights, splits, imprinter volumes (where applicable) are documented	✓		✓
15	Standards and reagents traceable to Certificates of Analysis	✓		✓
16	Samples above calibration range diluted and reanalyzed	✓		✓
17	Dilution factors (where justified) have been checked for correctness and entered	✓		✓
18	Analytical observations/anomalies documented in LIMS		✓	✓
19	Random calculation checked and in correct units	✓		✓
20	If corrective actions were applied they are documented, initialed & dated	✓		✓
21	Manual integration - before & after data with a reason included, initialed & dated		✓	✓
22	Transferred data is validated in LIMS for correctness	✓		✓
23	Data package assembled (where required)	✓		✓
Reviewed by: AD Date: 2017/06/07				
Comments: [REDACTED]				
Secondary Supervisor/Qualified Data Review Staff - 2nd 100% verification review				
	yes	no	n/a	
1	Repeats documented and referenced	✓		
2	Method and sample deviations noted, anomalies described (if applicable)		✓	
3	Data and QC validated in LIMS	✓		
4	Random calculation checked	✓		
5	Benchsheet (s) signed and dated	✓		
6	Data Package (if required) checked for completeness	✓		
Reviewed by: CW Date: 2017/06/08				
Comments: [REDACTED]				

*Note: 2nd 100% verification review documented by secondary qualified data review
Primary and Secondary Internal Data Review Check must be performed by a different person

Worksheet Data Validation Checklist - Extractable Organics

Worksheet #

499437

Testcode:

PFAS/CM-1

Sample Preparation

	yes	no	n/a
1 Samples extracted within hold time	✓		
2 Client sample ID verified against Lab ID (waters & oils)			✓
3 Parameter list and Client comments reviewed, (Spiking solutions matched to parameter list)	✓		
4 Height of sediment or if sample was decanted, recorded on worksheet			✓
5 Method required QC processed with samples, maximum batch size = 20 client samples.	✓		
6 Sample, duplicate, matrix spike appear similar, initial sample as well as final extract	✓		
7 Sample weight or initial volume and extract final volume, aliquot factor clearly recorded.	✓		
8 If performed any additional dilution clearly recorded			✓
9 Matrix spike / Duplicate performed on IOL samples if present			✓
10 Spiking solutions valid (haven't expired), ID and volume used clearly identified on worksheet	✓		
11 Spiking process witnessed and signed off	✓		
12 Extraction type recorded (N3A2B = neutral, 3 x acidic, 2 x basic)			✓
13 Sample prep deviations documented within CompliantPro as a Policy Deviation			✓
14 Job Remarks reviewed on 2nd page of worksheet.	✓		
15 Worksheet and reagent tracking record completed and authorized.	✓		

Reviewed by:

[Signature]

Date:

2017/01/23

Comments:

Worksheet Approval

	yes	no	n/a
1 Verified the position of the vials in autosampler against sequence list; signed off sequence list			
2 Calibration and CCV standards valid (haven't expired)			
3 Initial calibration curve and DFTPP tune (if applicable) acceptable			
4 Continuing and Final CCV and DFTPP tune (if applicable) acceptable			
5 System performance check acceptable (if applicable)			
6 Internal standard responses acceptable			
7 Method blank meets acceptance criteria			
8 Lab Control Samples recoveries meets acceptance criteria			
9 Duplicate RPD meets acceptance criteria			
10 Matrix spike recoveries meets acceptance criteria			
11 Surrogate recoveries meets acceptance criteria			
12 Appropriate control charts updated			
13 Samples above calibration range diluted and reanalyzed			
14 Dilutions clearly documented on tracking record, inst file and verified during data upload			
15 Samples following high level samples checked for carryover.			
16 Mass spectra ion ratios acceptable for positive results, hardcopy in file.			
17 Analytical observations / anomalies documented			
18 DQW comments entered in LIMS, hardcopy in file			
19 Sample Prep section (above) reviewed and verified.			
20 WS Approval performed in LIMS			

Reviewed by:

Date:

2017/06/07

Comments:

Worksheet Validation

	yes	no	n/a
1 Calibration, QC and sample results reviewed and determined acceptable			
2 Manual Integrations verified			
3 Random calculation checked			
4 Data and QC validated in LIMS			
5 Comments reviewed for appropriateness			
6 Reworks / relogs documented in file			
7 Worksheet signed and dated,			
8 Worksheet approved and validated within LIMS			

Reviewed by:

Date:

Comments:



Report Name : Worksheet - (Liquids and Solids)

Assignment Date : Tuesday, May 23, 2017

Assigned to : Melinda Molina

Test Code : PFOSALCM-S

Instrument Id:

Test Description : Perfluorinated Compounds in Soil by LC-MS/MS

Job Number	Sample Number	D	Sample ID	F	% Moisture	Wt or Vol	Final Vol	DF or AF	# Cont	Expiry Date	Test DeadLine	Criteria	Extract Date
	MTRX SPK	0	PF25 EKF538-01			3.13	2	1X					2017/05/23
	MTRX SPK	1	PF25 EKF538-01			3.11	2	1X					2017/05/23
	SPIKE		PF25			3.52	2	1X					2017/05/23
	BLANK					3.52	2	1X					2017/05/23
B797259	*EJI395-01R		FRCHD03-SO-003			N/A	2	1X	1	2017/06/05	2017/05/29 18:00	DOD	2017/05/23
B797259	*EJI397-01R		FRCHD04-SO-001			N/A	2	1X	3	2017/06/05	2017/05/29 18:00	DOD	2017/05/23
B797259	*EJI406-01R		FRCHD02-SO-003			N/A	2	1X	1	2017/06/06	2017/05/29 18:00	DOD	2017/05/23
B797259	*EJI414-01R		FRCHD03-SO-002			N/A	2	1X	1	2017/06/08	2017/05/29 18:00	DOD	2017/05/23
B797259	*EJI415-01R		FRCHD05-SO-004			N/A	2	1X	1	2017/06/08	2017/05/29 18:00	DOD	2017/05/23
B797259	*EJI419-01R		FRCHD01-SO-004			N/A	2	1X	1	2017/06/07	2017/05/29 18:00	DOD	2017/05/23
B7A2207	*EKF511-01R					N/A	2	1X	1	2017/06/10	2017/06/02 18:00	DOD	2017/05/23
B7A2207	*EKF512-01R					N/A	2	1X	1	2017/06/10	2017/06/02 18:00	DOD	2017/05/23
B7A2207	*EKF513-01R					N/A	2	1X	1	2017/06/10	2017/06/02 18:00	DOD	2017/05/23
B7A2207	*EKF514-01R					N/A	2	1X	1	2017/06/10	2017/06/02 18:00	DOD	2017/05/23
B7A2207	*EKF515-01R					N/A	2	1X	1	2017/06/10	2017/06/02 18:00	DOD	2017/05/23
B7A2207	*EKF516-01R					N/A	2	1X	1	2017/06/10	2017/06/02 18:00	DOD	2017/05/23
B7A2207	*EKF517-01R					N/A	2	1X	1	2017/06/10	2017/06/02 18:00	DOD	2017/05/23
B7A2207	*EKF518-01R					N/A	2	1X	1	2017/06/11	2017/06/02 18:00	DOD	2017/05/23
B7A2207	*EKF519-01R					N/A	2	1X	1	2017/06/11	2017/06/02 18:00	DOD	2017/05/23
B7A2207	*EKF520-01R					N/A	2	1X	1	2017/06/11	2017/06/02 18:00	DOD	2017/05/23
B7A2207	*EKF524-01R					N/A	2	1X	1	2017/06/10	2017/06/02 18:00	DOD	2017/05/23
B7A2207	*EKF525-01R					N/A	2	1X	1	2017/06/10	2017/06/02 18:00	DOD	2017/05/23
B7A2209	*EKF538-01R				1.2	3.092	2	1X	3	2017/06/13	2017/06/02 18:00	DOD	2017/05/23

Remarks:

Samples extracted by:

Melinda Molina

Instrumentation performed by:

Calculations performed by:

Validated by:
Maxxam Analytics

Date:

Date:

Date:

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Job No.	Rep	Client Name	Contact	Client Tier	National
	Remarks				
GB797259	MDG CT Laboratories LLC		Fairchild AFB reportin		
	nreg, Please include note that Level IV Package and ERPIMS EDDrequired. MS/MSD REQUIRED FOR SAMPLES EJI400-01 AND EJI429-01 Project #: 775303101				
GB7A2207	[REDACTED]				
GB7A2209	[REDACTED]				

[illegible][illegible][illegible]

Report Name : Worksheet - (Liquids and Solids)

Assignment Date : Tuesday, May 23, 2017

Assigned to : Melinda Molina

Test Code : PFOSALCM-S

Instrument Id:

Test Description : Perfluorinated Compounds in Soil by LC-MS/MS

Job Number	Sample Number	D	Sample ID	F	% Moisture	Wt or Vol	Final Vol	DF or AF	# Cont	Expiry Date	Test DeadLine	Criteria	Extract Date
	MTRX SPK	0	PF25 EKF538-01										2017/05/23
	MTRX SPK	1	PF25 EKF538-01										2017/05/23
	SPIKE		PF25										2017/05/23
	BLANK												2017/05/23
B797259	*EJ1395-01R		FRCHD03-SO-003		6.8				1	2017/06/05	2017/05/29 18:00	DOD	2017/05/23
B797259	*EJ1397-01R		FRCHD04-SO-001		25.8				3	2017/06/05	2017/05/29 18:00	DOD	2017/05/23
B797259	*EJ1406-01R		FRCHD02-SO-003		12.0				1	2017/06/06	2017/05/29 18:00	DOD	2017/05/23
B797259	*EJ1414-01R		FRCHD03-SO-002		8.9				1	2017/06/08	2017/05/29 18:00	DOD	2017/05/23
B797259	*EJ1415-01R		FRCHD05-SO-004		20.2				1	2017/06/08	2017/05/29 18:00	DOD	2017/05/23
B797259	*EJ1419-01R		FRCHD01-SO-004		14.8				1	2017/06/07	2017/05/29 18:00	DOD	2017/05/23
B7A2207	*EKF511-01R				1.8	3.241			1	2017/06/10	2017/06/02 18:00	DOD	2017/05/23
B7A2207	*EKF512-01R				1.5	3.329			1	2017/06/10	2017/06/02 18:00	DOD	2017/05/23
B7A2207	*EKF513-01R				15.2	2.578			1	2017/06/10	2017/06/02 18:00	DOD	2017/05/23
B7A2207	*EKF514-01R				2.7	3.328			1	2017/06/10	2017/06/02 18:00	DOD	2017/05/23
B7A2207	*EKF515-01R				2.7	3.114			1	2017/06/10	2017/06/02 18:00	DOD	2017/05/23
B7A2207	*EKF516-01R				4.3	2.890			1	2017/06/10	2017/06/02 18:00	DOD	2017/05/23
B7A2207	*EKF517-01R				5.0	3.031			1	2017/06/10	2017/06/02 18:00	DOD	2017/05/23
B7A2207	*EKF518-01R				1.7	3.224			1	2017/06/11	2017/06/02 18:00	DOD	2017/05/23
B7A2207	*EKF519-01R				8.9	3.507			1	2017/06/11	2017/06/02 18:00	DOD	2017/05/23
B7A2207	*EKF520-01R				15.0	2.610			1	2017/06/11	2017/06/02 18:00	DOD	2017/05/23
B7A2207	*EKF524-01R				0.6	3.777			1	2017/06/10	2017/06/02 18:00	DOD	2017/05/23
B7A2207	*EKF525-01R				0.7	3.098			1	2017/06/10	2017/06/02 18:00	DOD	2017/05/23
B7A2209	*EKF538-01R				1.2	3.092			3	2017/06/13	2017/06/02 18:00	DOD	2017/05/23

Remarks:

Used for Moisture content only
on 2014/6/1

Samples extracted by:

Melinda Molina

Instrumentation performed by:

Marian Godax

Date:

Calculations performed by:

Anjan Desai

Date: 2017/06/07

Validated by:

Maxxam Analytics

Colm McNamara

Date: 2017/06/08

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Worksheet Reagent Tracking Record

Worksheet #

499 4375

Surrogate/Spike solutions	✓	Solution ID #	Conc.	Blk-Spk		Volume (µL)				Samples	
				Solid	Liquid	Solid	Liquid	Solid	Liquid		
DGT Spike			100 ug/mL	60	30	60	30	NA	NA		
Diquat Dibromide			50 ug/mL	NA	350	NA	350	NA	NA		
Explosives Spiking solution A			20 ug/mL	250	100	250	100	NA	NA		
Explosives Spiking solution B			20/80 ug/mL	250	100	250	100	NA	NA		
Formaldehyde Spike			100 ug/mL	25	25	25	25	NA	NA		
Glyphosate Spike			25 ug/mL	500	20	500	20	NA	NA		
Nonylphenol Ethoxylate Spike			100 ug/mL	100	100	100	100	NA	NA		
Nonylphenol Spike			10 ug/mL	100	100	100	100	NA	NA		
Paraquat Cl Tetrahydrate			20 ug/mL	NA	125	NA	125	NA	NA		
Perchlorate Standard Spike			10 ng/mL	NA	100	NA	100	NA	NA		
Perchlorate Standard Spike			500 ng/mL	40	NA	40	NA	NA	NA		
Perchlorate O-18 Internal Standard			0.10 ng/µL	20	20	20	20	20	20		
Morpholine Second Source Working Std			2500 ug/L	NA	80	NA	80	NA	NA		
Morpholine-D8 Internal Standard			10 ug/mL	NA	50	NA	50	NA	50		
Steril Second Source Spiking Solution			NA	20	NA	20	NA	NA	NA		
Sterilants Comp. IS Working Solution			3 ug/mL	50	NA	50	NA	50	NA		
Comp. PFC Working Solution A	✓	2-5015 (1/5)	1ug/mL	75	21	62.5	75	21	62.5	NA	NA
PFC Internal Standard Solution	✓	SE - 6439 (1/4)	50/125 ng/mL	200	100	150	200	100	150	200	100/150
PFC Injection IS	✓	SE - 6423 (1/2)	400 ng/mL	20	20	20	20	20	20	20	20
ICV	✓	2-4015 (1/5)									
Solvent/Reagent	✓	Lot No.	Date Opened	Solvent/Reagent	✓	Lot No.	Date Opened/Prepared	*Spiked by:			
DCM				50% NaOH				mmw			
Ottawa Sand	✓	152018	2017/05/02	o-Phosphoric Acid				Spike Date			
Methanol	✓	SHD10382	2017/01/19	Borax				2017/05/23			
2-Propanol (IPA)				Calcium Chloride				Spike Syringe/Pipette ID#			
Acetonitrile				EDTA				036588D			
Sodium Sulfate				Phosphate Buffer				Int. Std Syringe/Pipette ID#			
70:30 Methanol: Water	✓	PNLKE 104-104		Sodium Thiosulphate				M17485E			
60:40 Water: Methanol	✓	PNLKE 104-102		DNPH				*Spiking Witnessed by:			
DCM:Ethyl Ether (75:25)				FMOC				RP7			
Hexane:IPA (98:2)				5M Acetate Buffer				Final pH			
2% Formic Acid	✓	PNLKE 104-103		0.2% NH ₄ OH	✓	PNLKE 104-105		X			
0.2% Formic Acid	✓	PNLKE 104-104		Leachate Fluid							
0.05M KOH				Reagent Water	✓	56218	2017/05/18				
0.05M HCl											
Equipment & ID	✓	Equipment	ID#	✓	Equipment	Lot #	Bottle Tracking				
Pipettor	✓	5mL - K39870F		✓	QC Balance ID	FC-1	Bottle#				
	✓	10mL - K19320D		✓	Thermometer ID & Temp		Cap#				
	✓	20mL - M17485E		✓			Systems plus Lot#				
Dispenser		Centrifuge	40740724	✓							
		Sonicator	Bransom 8170	✓							

Comments:

2017/05/26 UTC

PFOS and PFOA in soil by SPE/LCMS - Soil
ug/kg

Parameter Name	Units	MTRX SPK	MTRX SPK Dup1	DL	SPIKE	BLANK	DL
6:2 Fluorotelomer sulfonate	ug/kg	112.71	110.53		123.73995	0	1
8:2 Fluorotelomer sulfonate	ug/kg	109.34	122.57		121.29995	0	1
N-ethylperfluorooctane sulfonamide	ug/kg	N/A *****	N/A *****		N/A *****	N/A *****	
EtFOSAA	ug/kg	115.5	111.9		83.68283	0	1
N-ethylperfluorooctane sulfonamido	ug/kg	N/A *****	N/A *****		N/A *****	N/A *****	
N-methylperfluorooctane sulfonamide	ug/kg	N/A *****	N/A *****		N/A *****	N/A *****	
MeFOSAA	ug/kg	111.6	110.8		87.51097	0	1
N-methylperfluorooctanesulfonamidol	ug/kg	N/A *****	N/A *****		N/A *****	N/A *****	
Perfluorobutanoic acid	ug/kg	105.8	111.3		112.58981	0	1
Perfluorobutane Sulfonate (PFBS)	ug/kg	111.0	110.9		113.36663	0	1
Perfluorodecanoic Acid (PFDA)	ug/kg	123.2	119.6		123.22203	0	1
Perfluorododecanoic Acid (PFDoA)	ug/kg	105.3	117.0		117.33749	0	1
Perfluorodecane Sulfonate	ug/kg	123.6	119.9		113.44926	0	1
Perfluoroheptane sulfonate	ug/kg	110.6	115.6		118.92671	0	1
Perfluorononanoic Acid (PFNA)	ug/kg	109.0	104.8		111.29842	0	1
Perfluorooctane Sulfonamide (PFOSA)	ug/kg	111.49	113.96		115.91167	0	1
Perfluorotetradecanoic Acid	ug/kg	113.5	116.6		121.60717	0	1
Perfluorotridecanoic Acid	ug/kg	107.9	115.6		115.46645	0	1
Perfluoroundecanoic Acid (PFUnA)	ug/kg	121.7	125.2		116.05622	0	1
Perfluoroheptanoic Acid (PFHpA)	ug/kg	107.2	107.4		117.92168	0	1
Perfluorohexanoic Acid (PFHxA)	ug/kg	123.1	118.7		109.66113	0	1
Perfluorohexane Sulfonate (PFHxS)	ug/kg	122.9	127.9		114.81718	0	1
Perfluoro-n-Octanoic Acid (PFOA)	ug/kg	107.4	112.3		111.95808	0	1
Perfluorooctane Sulfonate (PFOS)	ug/kg	103.03	146.29		119.36474	0	1
Perfluoropentanoic Acid (PFPeA)	ug/kg	111.6	113.9		111.35020	0	1
13C2-6:2 Fluorotelomer sulfonate	ug/kg	78.0392534	86.6432940		93.1441782	91.7395729	
13C2-8:2 Fluorotelomer sulfonate	ug/kg	86.1566963	88.2036332		93.1394534	90.8467845	
13C2-Perfluorodecanoic acid	ug/kg	78.4766321	88.0149604		91.0646050	83.0437137	
13C2-Perfluorododecanoic acid	ug/kg	74.6889245	73.3125365		83.6653498	83.5362471	
13C2-Perfluorohexanoic acid	ug/kg	84.5440650	97.5743365		100.293918	91.4481513	
13C2-perfluorotetradecanoic acid	ug/kg	69.4066756	68.6356296		83.1872988	84.9464495	
13C2-Perfluoroundecanoic acid	ug/kg	68.4090332	73.8772587		88.6212097	83.3402194	
13C4-Perfluorobutanoic acid	ug/kg	89.0143223	100.708863		100.057498	94.2349341	
13C4-Perfluoroheptanoic acid	ug/kg	89.2497956	101.178398		97.0420429	95.7996719	
13C5-Perfluorononanoic acid	ug/kg	89.3053555	101.054742		100.434042	94.3772861	
13C4-Perfluorooctanoic acid	ug/kg	90.7103187	100.986642		100.082705	96.7223927	
13C4-Perfluorooctanesulfonate	ug/kg	89.6126470	99.1815866		94.0143604	83.7199671	
13C5-Perfluoropentanoic acid	ug/kg	85.2521947	93.8233770		98.0692025	89.7171425	
13C8-Perfluorooctane Sulfonamide	ug/kg	73.8208817	75.0977506		87.1255129	81.3475760	
18O2-Perfluorohexanesulfonate	ug/kg	89.2821740	102.418831		99.6870251	89.8312892	
D3-MeFOSAA	ug/kg	67.5902316	71.5009949		78.9649193	81.2122063	
D5-EtFOSAA	ug/kg	68.1318057	72.9212117		78.8203122	77.9743506	
N-methyl-d3-perfluorooctane sulfona	ug/kg	N/A *****	N/A *****		N/A *****	N/A *****	
N-ethyl-d5-perfluorooctane sulfonam	ug/kg	N/A *****	N/A *****		N/A *****	N/A *****	

PFOS and PFOA in soil by SPE/LCMS - Soil
ug/kg

Parameter Name	B797259 EJI395	DL	B797259 EJI397	DL	B797259 EJI406	DL	B797259 EJI414
6:2 Fluorotelomer sulfonate	0	0.91	0	1.0	8.21504596	1.0	1.30532721
8:2 Fluorotelomer sulfonate	0	0.91	0	1.0	46.9454531	1.0	0.44869194
N-ethylperfluorooctane sulfonamide	N/A *****	0.91	N/A *****	1.0	N/A *****	1.0	N/A *****
EtFOSAA	0	0.91	0	1.0	0	1.0	0
N-ethylperfluorooctane sulfonamido	N/A *****	0.91	N/A *****	1.0	N/A *****	1.0	N/A *****
N-methylperfluorooctane sulfonamide	N/A *****	0.91	N/A *****	1.0	N/A *****	1.0	N/A *****
MeFOSAA	0	0.91	0	1.0	0	1.0	0
N-methylperfluorooctanesulfonamidol	N/A *****	0.91	N/A *****	1.0	N/A *****	1.0	N/A *****
Perfluorobutanoic acid	0	0.91	0.00000	1.0	0.73745839	1.0	0
Perfluorobutane Sulfonate (PFBS)	0	0.91	0	1.0	0.14435614	1.0	0
Perfluorodecanoic Acid (PFDA)	0.43171818	0.91	0	1.0	7.10154733	1.0	0
Perfluorododecanoic Acid (PFDoA)	0	0.91	0	1.0	3.85685981	1.0	0
Perfluorodecane Sulfonate	0	0.91	0.49108477	1.0	7.34221204	1.0	0
Perfluoroheptane sulfonate	0	0.91	0.84852437	1.0	0.55431806	1.0	0
Perfluorononanoic Acid (PFNA)	0.99189480	0.91	0.37741412	1.0	1.19089418	1.0	0
Perfluorooctane Sulfonamide (PFOSA)	0	0.91	0.00000	1.0	7.81173080	1.0	0
Perfluorotetradecanoic Acid	0	0.91	0	1.0	0.96206559	1.0	0
Perfluorotridecanoic Acid	0	0.91	0	1.0	0.98000516	1.0	0
Perfluoroundecanoic Acid (PFUnA)	0	0.91	0	1.0	2.55380901	1.0	0
Perfluoroheptanoic Acid (PFHpA)	0	0.91	0	1.0	0.32734534	1.0	0
Perfluorohexanoic Acid (PFHxA)	0	0.91	0	1.0	1.51357889	1.0	0
Perfluorohexane Sulfonate (PFHxS)	0	0.91	3.14379841	1.0	6.16260628	1.0	0.38185800
Perfluoro-n-Octanoic Acid (PFOA)	0.40942881	0.91	0.49131442	1.0	1.63091518	1.0	0.27151725
Perfluorooctane Sulfonate (PFOS)	5.80630200	0.91	258.029233	10.0	785.373005	100	9.65370714
Perfluoropentanoic Acid (PFPeA)	0	0.91	0.00000	1.0	1.79353368	1.0	0
13C2-6:2 Fluorotelomer sulfonate	94.4221108		88.0899018		91.6500272		95.1288728
13C2-8:2 Fluorotelomer sulfonate	102.835959		101.143598		97.4491532		87.3655851
13C2-Perfluorodecanoic acid	95.6793464		85.6805505		85.0705255		84.1243047
13C2-Perfluorododecanoic acid	80.7354969		68.9244975		63.5532991		77.7639243
13C2-Perfluorohexanoic acid	92.0985535		83.2559569		89.4289367		88.0055444
13C2-perfluorotetradecanoic acid	69.7309662		61.9522788		51.6231992		77.7458969
13C2-Perfluoroundecanoic acid	92.3219227		76.3377579		75.2428876		81.1735813
13C4-Perfluorobutanoic acid	100.146940		83.2293869		89.1199448		87.9963400
13C4-Perfluoroheptanoic acid	95.5345438		83.6546773		90.6170135		84.5868390
13C5-Perfluorononanoic acid	97.9273386		85.9333618		88.0622994		86.5575480
13C4-Perfluorooctanoic acid	99.0307511		83.6019066		91.8281827		86.2315042
13C4-Perfluorooctanesulfonate	98.3653668		90.9914756		100.121298		86.3276091
13C5-Perfluoropentanoic acid	94.0422103		82.0177074		93.6796220		84.6259811
13C8-Perfluorooctane Sulfonamide	80.0676269		68.1775305		72.1817021		76.8426319
18O2-Perfluorohexanesulfonate	100.532703		84.9476454		88.8383023		91.7726703
D3-MeFOSAA	74.8717233		73.1378380		74.0753762		74.4736989
D5-EtFOSAA	78.8700303		77.6366929		76.9918952		76.4231957
N-methyl-d3-perfluorooctane sulfona	N/A *****		N/A *****		N/A *****		N/A *****
N-ethyl-d5-perfluorooctane sulfonam	N/A *****		N/A *****		N/A *****		N/A *****

PFOS and PFOA in soil by SPE/LCMS - Soil
ug/kg

Parameter Name	DL	B797259 EJI415	DL	B797259 EJI419	DL	B7A2207 EKF511	DL
6:2 Fluorotelomer sulfonate	0.84	38.7012811	1.0	36.1279274	1.1	0	0.93
8:2 Fluorotelomer sulfonate	0.84	82.2626715	10.0	1048.27164	110	0	0.93
N-ethylperfluorooctane sulfonamide	0.84	N/A *****	1.0	N/A *****	1.1	N/A *****	0.93
EtFOSAA	0.84	0	1.0	0.32538181	1.1	N/A *****	0.93
N-ethylperfluorooctane sulfonamido	0.84	N/A *****	1.0	N/A *****	1.1	N/A *****	0.93
N-methylperfluorooctane sulfonamide	0.84	N/A *****	1.0	N/A *****	1.1	N/A *****	0.93
MeFOSAA	0.84	0	1.0	0.48751274	1.1	N/A *****	0.93
N-methylperfluorooctanesulfonamidol	0.84	N/A *****	1.0	N/A *****	1.1	N/A *****	0.93
Perfluorobutanoic acid	0.84	1.61956657	1.0	3.37662886	1.1	0	0.93
Perfluorobutane Sulfonate (PFBS)	0.84	4.33555851	1.0	2.17293699	1.1	0	0.93
Perfluorodecanoic Acid (PFDA)	0.84	0	1.0	0.87977476	1.1	0	0.93
Perfluorododecanoic Acid (PFDoA)	0.84	0.21418744	1.0	0	1.1	0	0.93
Perfluorodecane Sulfonate	0.84	1.67193525	1.0	7.98605602	1.1	0	0.93
Perfluoroheptane sulfonate	0.84	4.02918924	1.0	5.64242706	1.1	0	0.93
Perfluorononanoic Acid (PFNA)	0.84	0.53612493	1.0	3.73571842	1.1	0	0.93
Perfluorooctane Sulfonamide (PFOSA)	0.84	3.86396533	1.0	31.8136824	1.1	0	0.93
Perfluorotetradecanoic Acid	0.84	0	1.0	0	1.1	0	0.93
Perfluorotridecanoic Acid	0.84	0	1.0	0	1.1	0	0.93
Perfluoroundecanoic Acid (PFUnA)	0.84	0	1.0	0	1.1	0	0.93
Perfluoroheptanoic Acid (PFHpA)	0.84	2.05243690	1.0	5.87082354	1.1	0	0.93
Perfluorohexanoic Acid (PFHxA)	0.84	7.91591983	1.0	17.3814469	1.1	0	0.93
Perfluorohexane Sulfonate (PFHxS)	0.84	105.236341	10.0	130.876385	11.0	0	0.93
Perfluoro-n-Octanoic Acid (PFOA)	0.84	6.49351386	1.0	25.9433419	1.1	0	0.93
Perfluorooctane Sulfonate (PFOS)	0.84	612.228141	100	979.398823	110	0	0.93
Perfluoropentanoic Acid (PFPeA)	0.84	3.69465867	1.0	14.6227667	1.1	0	0.93
13C2-6:2 Fluorotelomer sulfonate		82.7377258		84.4511972		100.399168	
13C2-8:2 Fluorotelomer sulfonate		73.8327038		96.3716703		105.710638	
13C2-Perfluorodecanoic acid		81.9644639		83.6727033		95.7630261	
13C2-Perfluorododecanoic acid		71.0931216		77.0405580		90.6981061	
13C2-Perfluorohexanoic acid		89.4024463		85.5497486		100.490330	
13C2-perfluorotetradecanoic acid		71.9388995		67.8814901		88.2156825	
13C2-Perfluoroundecanoic acid		74.8784643		78.1482391		96.6638582	
13C4-Perfluorobutanoic acid		84.2593737		90.1125140		96.8490727	
13C4-Perfluoroheptanoic acid		82.5484411		95.0434905		105.657856	
13C5-Perfluorononanoic acid		85.5049066		79.7289439		105.444302	
13C4-Perfluorooctanoic acid		86.3844996		95.0447699		108.283150	
13C4-Perfluorooctanesulfonate		88.2358101		89.1407757		111.458491	
13C5-Perfluoropentanoic acid		87.0016146		88.4108152		97.4668397	
13C8-Perfluorooctane Sulfonamide		74.0766664		80.6012753		92.4512847	
18O2-Perfluorohexanesulfonate		71.3755044		77.7827133		110.244097	
D3-MeFOSAA		64.3545325		73.2390763		*NOT FOUND	
D5-EtFOSAA		63.4880407		70.4257710		*NOT FOUND	
N-methyl-d3-perfluorooctane sulfona		N/A *****		N/A *****		N/A *****	
N-ethyl-d5-perfluorooctane sulfonam		N/A *****		N/A *****		N/A *****	

PFOS and PFOA in soil by SPE/LCMS - Soil
ug/kg

Parameter Name	B7A2207 EKF512	DL	B7A2207 EKF513	DL	B7A2207 EKF514	DL	B7A2207 EKF515
6:2 Fluorotelomer sulfonate	0	0.90	0	1.2	0	0.90	0
8:2 Fluorotelomer sulfonate	0	0.90	0	1.2	0	0.90	0
N-ethylperfluorooctane sulfonamide	N/A *****	0.90	N/A *****	1.2	N/A *****	0.90	N/A *****
EtFOSAA	N/A *****	0.90	N/A *****	1.2	N/A *****	0.90	N/A *****
N-ethylperfluorooctane sulfonamido	N/A *****	0.90	N/A *****	1.2	N/A *****	0.90	N/A *****
N-methylperfluorooctane sulfonamide	N/A *****	0.90	N/A *****	1.2	N/A *****	0.90	N/A *****
MeFOSAA	N/A *****	0.90	N/A *****	1.2	N/A *****	0.90	N/A *****
N-methylperfluorooctanesulfonamidol	N/A *****	0.90	N/A *****	1.2	N/A *****	0.90	N/A *****
Perfluorobutanoic acid	0	0.90	0	1.2	0	0.90	0
Perfluorobutane Sulfonate (PFBS)	0	0.90	0	1.2	0	0.90	0
Perfluorodecanoic Acid (PFDA)	0	0.90	0	1.2	0	0.90	0
Perfluorododecanoic Acid (PFDoA)	0	0.90	0	1.2	0	0.90	0
Perfluorodecane Sulfonate	0	0.90	0	1.2	0	0.90	0
Perfluoroheptane sulfonate	0	0.90	0.00000	1.2	0	0.90	0
Perfluorononanoic Acid (PFNA)	0	0.90	0	1.2	0	0.90	0
Perfluorooctane Sulfonamide (PFOSA)	0	0.90	0	1.2	0	0.90	0
Perfluorotetradecanoic Acid	0	0.90	0.00000	1.2	0	0.90	0
Perfluorotridecanoic Acid	0	0.90	0.00000	1.2	0	0.90	0
Perfluoroundecanoic Acid (PFUnA)	0	0.90	0	1.2	0	0.90	0
Perfluoroheptanoic Acid (PFHpA)	0	0.90	0	1.2	0	0.90	0
Perfluorohexanoic Acid (PFHxA)	0	0.90	0	1.2	0	0.90	0
Perfluorohexane Sulfonate (PFHxS)	0	0.90	0	1.2	0	0.90	0
Perfluoro-n-Octanoic Acid (PFOA)	0	0.90	0	1.2	0	0.90	0
Perfluorooctane Sulfonate (PFOS)	0	0.90	0	1.2	0.91830934	0.90	0.48325527
Perfluoropentanoic Acid (PFPeA)	0	0.90	0	1.2	0	0.90	0
13C2-6:2 Fluorotelomer sulfonate	94.2599425		63.6503773		91.1102798		88.6635731
13C2-8:2 Fluorotelomer sulfonate	78.6820563		51.9833807		88.2215232		95.3303569
13C2-Perfluorodecanoic acid	79.4626062		57.4548638		89.4746013		83.4099366
13C2-Perfluorododecanoic acid	73.2050248		53.8611550		71.3423041		80.3644024
13C2-Perfluorohexanoic acid	92.1540006		68.6037759		93.5390332		90.6957728
13C2-perfluorotetradecanoic acid	70.6492696		!! 46.4894		78.9644503		76.9972838
13C2-Perfluoroundecanoic acid	72.1643434		50.0668718		80.5644069		82.3476350
13C4-Perfluorobutanoic acid	88.6037374		66.0538861		96.6424863		90.8773778
13C4-Perfluoroheptanoic acid	96.9549398		66.8417464		95.8149776		96.2171673
13C5-Perfluorononanoic acid	91.8185926		70.3141926		88.4141194		94.0715065
13C4-Perfluorooctanoic acid	96.3527792		67.1002194		99.4629833		89.2859945
13C4-Perfluorooctanesulfonate	93.0094678		62.3630755		101.915454		89.7409035
13C5-Perfluoropentanoic acid	90.0298825		66.5525044		88.5194583		97.3134790
13C8-Perfluorooctane Sulfonamide	69.0355216		52.1693057		76.8937990		87.1181511
18O2-Perfluorohexanesulfonate	93.0918200		64.8653437		110.691438		93.0650655
D3-MeFOSAA	*NOT FOUN		*NOT FOUN		*NOT FOUN		*NOT FOUN
D5-EtFOSAA	*NOT FOUN		*NOT FOUN		*NOT FOUN		*NOT FOUN
N-methyl-d3-perfluorooctane sulfona	N/A *****		N/A *****		N/A *****		N/A *****
N-ethyl-d5-perfluorooctane sulfonam	N/A *****		N/A *****		N/A *****		N/A *****

PFOS and PFOA in soil by SPE/LCMS - Soil
ug/kg

Parameter Name	DL	B7A2207 EKF516	DL	B7A2207 EKF517	DL	B7A2207 EKF518	DL
6:2 Fluorotelomer sulfonate	0.96	0	1.0	0	0.99	0	0.93
8:2 Fluorotelomer sulfonate	0.96	0	1.0	0	0.99	0	0.93
N-ethylperfluorooctane sulfonamide	0.96	N/A *****	1.0	N/A *****	0.99	N/A *****	0.93
EtFOSAA	0.96	N/A *****	1.0	N/A *****	0.99	N/A *****	0.93
N-ethylperfluorooctane sulfonamido	0.96	N/A *****	1.0	N/A *****	0.99	N/A *****	0.93
N-methylperfluorooctane sulfonamide	0.96	N/A *****	1.0	N/A *****	0.99	N/A *****	0.93
MeFOSAA	0.96	N/A *****	1.0	N/A *****	0.99	N/A *****	0.93
N-methylperfluorooctanesulfonamidol	0.96	N/A *****	1.0	N/A *****	0.99	N/A *****	0.93
Perfluorobutanoic acid	0.96	0	1.0	0	0.99	0	0.93
Perfluorobutane Sulfonate (PFBS)	0.96	0	1.0	0	0.99	0	0.93
Perfluorodecanoic Acid (PFDA)	0.96	0	1.0	0	0.99	0	0.93
Perfluorododecanoic Acid (PFDoA)	0.96	0	1.0	0	0.99	0	0.93
Perfluorodecane Sulfonate	0.96	0	1.0	0	0.99	0	0.93
Perfluoroheptane sulfonate	0.96	0	1.0	0	0.99	0	0.93
Perfluorononanoic Acid (PFNA)	0.96	0	1.0	0	0.99	0	0.93
Perfluorooctane Sulfonamide (PFOSA)	0.96	0	1.0	0	0.99	0	0.93
Perfluorotetradecanoic Acid	0.96	0	1.0	0	0.99	0	0.93
Perfluorotridecanoic Acid	0.96	0	1.0	0	0.99	0	0.93
Perfluoroundecanoic Acid (PFUnA)	0.96	0	1.0	0	0.99	0	0.93
Perfluoroheptanoic Acid (PFHpA)	0.96	0	1.0	0	0.99	0	0.93
Perfluorohexanoic Acid (PFHxA)	0.96	0	1.0	0	0.99	0	0.93
Perfluorohexane Sulfonate (PFHxS)	0.96	0	1.0	0	0.99	0	0.93
Perfluoro-n-Octanoic Acid (PFOA)	0.96	0	1.0	0	0.99	0	0.93
Perfluorooctane Sulfonate (PFOS)	0.96	0	1.0	0	0.99	3.00495530	0.93
Perfluoropentanoic Acid (PFPeA)	0.96	0	1.0	0	0.99	0	0.93
13C2-6:2 Fluorotelomer sulfonate		97.8080412		98.7177891		99.8645047	
13C2-8:2 Fluorotelomer sulfonate		86.6825500		77.9943315		113.094412	
13C2-Perfluorodecanoic acid		85.6710229		70.2893619		93.8742940	
13C2-Perfluorododecanoic acid		84.3361026		75.5397601		91.7511124	
13C2-Perfluorohexanoic acid		91.2359212		89.5239632		107.778468	
13C2-perfluorotetradecanoic acid		81.3744198		68.6632443		80.5269603	
13C2-Perfluoroundecanoic acid		85.3721623		76.0058775		88.4029185	
13C4-Perfluorobutanoic acid		88.1456885		94.0443506		105.456450	
13C4-Perfluoroheptanoic acid		95.5572497		90.8963420		107.832817	
13C5-Perfluorononanoic acid		92.6420644		78.2041499		103.720359	
13C4-Perfluorooctanoic acid		100.482688		88.8309254		108.734226	
13C4-Perfluorooctanesulfonate		91.7306104		85.9819966		109.475132	
13C5-Perfluoropentanoic acid		92.8873310		86.3084116		104.662140	
13C8-Perfluorooctane Sulfonamide		84.2917996		71.7273919		80.9391976	
18O2-Perfluorohexanesulfonate		105.251657		90.3334030		109.310863	
D3-MeFOSAA		*NOT FOUND		*NOT FOUND		*NOT FOUND	
D5-EtFOSAA		*NOT FOUND		*NOT FOUND		*NOT FOUND	
N-methyl-d3-perfluorooctane sulfona		N/A *****		N/A *****		N/A *****	
N-ethyl-d5-perfluorooctane sulfonam		N/A *****		N/A *****		N/A *****	

PFOS and PFOA in soil by SPE/LCMS - Soil
ug/kg

Parameter Name	B7A2207 EKF519	DL	B7A2207 EKF520	DL	B7A2207 EKF524	DL	B7A2207 EKF525
6:2 Fluorotelomer sulfonate	0	0.86	0	1.1	0	0.79	0
8:2 Fluorotelomer sulfonate	0	0.86	0	1.1	0	0.79	0
N-ethylperfluorooctane sulfonamide	N/A*****	0.86	N/A*****	1.1	N/A*****	0.79	N/A*****
EtFOSAA	N/A*****	0.86	N/A*****	1.1	N/A*****	0.79	N/A*****
N-ethylperfluorooctane sulfonamido	N/A*****	0.86	N/A*****	1.1	N/A*****	0.79	N/A*****
N-methylperfluorooctane sulfonamide	N/A*****	0.86	N/A*****	1.1	N/A*****	0.79	N/A*****
MeFOSAA	N/A*****	0.86	N/A*****	1.1	N/A*****	0.79	N/A*****
N-methylperfluorooctanesulfonamidol	N/A*****	0.86	N/A*****	1.1	N/A*****	0.79	N/A*****
Perfluorobutanoic acid	0	0.86	0	1.1	0	0.79	0
Perfluorobutane Sulfonate (PFBS)	0	0.86	0	1.1	0	0.79	0
Perfluorodecanoic Acid (PFDA)	0	0.86	0	1.1	0	0.79	0
Perfluorododecanoic Acid (PFDoA)	0	0.86	0	1.1	0	0.79	0
Perfluorodecane Sulfonate	0	0.86	0	1.1	0	0.79	0
Perfluoroheptane sulfonate	0	0.86	0	1.1	0	0.79	0
Perfluorononanoic Acid (PFNA)	0	0.86	0	1.1	0	0.79	0
Perfluorooctane Sulfonamide (PFOSA)	0	0.86	0	1.1	0	0.79	0
Perfluorotetradecanoic Acid	0	0.86	0	1.1	0	0.79	0
Perfluorotridecanoic Acid	0	0.86	0	1.1	0	0.79	0
Perfluoroundecanoic Acid (PFUnA)	0	0.86	0	1.1	0	0.79	0
Perfluoroheptanoic Acid (PFHpA)	0	0.86	0	1.1	0	0.79	0
Perfluorohexanoic Acid (PFHxA)	0	0.86	0	1.1	0	0.79	0
Perfluorohexane Sulfonate (PFHxS)	0	0.86	0	1.1	0	0.79	0
Perfluoro-n-Octanoic Acid (PFOA)	0	0.86	0	1.1	0	0.79	0
Perfluorooctane Sulfonate (PFOS)	0	0.86	0	1.1	4.11993688	0.79	3.62206112
Perfluoropentanoic Acid (PFPeA)	0	0.86	0	1.1	0	0.79	0
13C2-6:2 Fluorotelomer sulfonate	84.1590959		94.7514385		94.2691986		98.9526780
13C2-8:2 Fluorotelomer sulfonate	80.3885197		89.7072115		89.2134952		101.671987
13C2-Perfluorodecanoic acid	88.2875795		75.5178422		79.8896212		90.6558638
13C2-Perfluorododecanoic acid	78.5384878		76.8226635		75.4651019		85.7963005
13C2-Perfluorohexanoic acid	84.1206287		91.4267291		92.9700117		90.8894853
13C2-perfluorotetradecanoic acid	74.8191381		76.0109059		71.6702105		78.2616565
13C2-Perfluoroundecanoic acid	82.5415636		70.8736806		79.4619637		88.7430555
13C4-Perfluorobutanoic acid	86.4205506		86.3865569		93.5033715		97.2691304
13C4-Perfluoroheptanoic acid	86.0758687		97.4937515		98.1912723		102.312657
13C5-Perfluorononanoic acid	83.3860288		86.7462799		91.4851795		92.5564072
13C4-Perfluorooctanoic acid	81.8651168		96.9636196		98.6992485		97.5316742
13C4-Perfluorooctanesulfonate	83.9646434		89.8183583		80.3172900		93.5823093
13C5-Perfluoropentanoic acid	83.4449696		97.7500176		93.7781210		95.9502954
13C8-Perfluorooctane Sulfonamide	79.8560908		74.1411526		72.1538157		87.3645798
18O2-Perfluorohexanesulfonate	93.9689382		102.136268		96.0846925		94.2064548
D3-MeFOSAA	*NOT FOUND		*NOT FOUND		*NOT FOUND		*NOT FOUND
D5-EtFOSAA	*NOT FOUND		*NOT FOUND		*NOT FOUND		*NOT FOUND
N-methyl-d3-perfluorooctane sulfona	N/A*****		N/A*****		N/A*****		N/A*****
N-ethyl-d5-perfluorooctane sulfonam	N/A*****		N/A*****		N/A*****		N/A*****

PFOS and PFOA in soil by SPE/LCMS - Soil
ug/kg

Parameter Name	B7A2209 EKF538	DL	RDL	MDL	IDL		
6:2 Fluorotelomer sulfonate	12.5065734	0.97	1	0.23	0		
8:2 Fluorotelomer sulfonate	3.32054344	0.97	1	0.32	0		
N-ethylperfluorooctane sulfonamide	N/A*****	0.97	1	0.38	0		
EtFOSAA	1.62716786	0.97	1	0.16	0		
N-ethylperfluorooctane sulfonamido	N/A*****	0.97	1	0.28	0		
N-methylperfluorooctane sulfonamide	N/A*****	0.97	1	0.38	0		
MeFOSAA	0.63727306	0.97	1	0.16	0		
N-methylperfluorooctanesulfonamidol	N/A*****	0.97	1	0.35	0		
Perfluorobutanoic acid	0	0.97	1	0.23	0		
Perfluorobutane Sulfonate (PFBS)	0.21146632	0.97	1	0.17	0		
Perfluorodecanoic Acid (PFDA)	0	0.97	1	0.13	0		
Perfluorododecanoic Acid (PFDoA)	1.31036699	0.97	1	0.22	0		
Perfluorodecane Sulfonate	5.32398769	0.97	1	0.23	0		
Perfluoroheptane sulfonate	0.00000	0.97	1	0.35	0		
Perfluorononanoic Acid (PFNA)	0	0.97	1	0.17	0		
Perfluorooctane Sulfonamide (PFOSA)	6.30684575	0.97	1	0.26	0		
Perfluorotetradecanoic Acid	0.12440851	0.97	1	0.11	0		
Perfluorotridecanoic Acid	0.39572782	0.97	1	0.12	0		
Perfluoroundecanoic Acid (PFUnA)	0.66320708	0.97	1	0.18	0		
Perfluoroheptanoic Acid (PFHpA)	0	0.97	1	0.17	0		
Perfluorohexanoic Acid (PFHxA)	2.69903905	0.97	1	0.19	0		
Perfluorohexane Sulfonate (PFHxS)	3.37037226	0.97	1	0.23	0		
Perfluoro-n-Octanoic Acid (PFOA)	0.81877409	0.97	1	0.26	0		
Perfluorooctane Sulfonate (PFOS)	84.8700000	0.97	1	0.21	0		
Perfluoropentanoic Acid (PFPeA)	0.76829867	0.97	1	0.18	0		
13C2-6:2 Fluorotelomer sulfonate	54.0386611						
13C2-8:2 Fluorotelomer sulfonate	56.8623191						
13C2-Perfluorodecanoic acid	54.1573060						
13C2-Perfluorododecanoic acid	!! 45.8589						
13C2-Perfluorohexanoic acid	58.3994002						
13C2-perfluorotetradecanoic acid	!! 44.0296						
13C2-Perfluoroundecanoic acid	51.8422454						
13C4-Perfluorobutanoic acid	59.7417315						
13C4-Perfluoroheptanoic acid	59.7385425						
13C5-Perfluorononanoic acid	64.2292297						
13C4-Perfluorooctanoic acid	60.2866339						
13C4-Perfluorooctanesulfonate	64.2005000						
13C5-Perfluoropentanoic acid	60.7205161						
13C8-Perfluorooctane Sulfonamide	!! 44.1636						
18O2-Perfluorohexanesulfonate	56.2117786						
D3-MeFOSAA	*NOT FOUND						
D5-EtFOSAA	*NOT FOUND						
N-methyl-d3-perfluorooctane sulfona	N/A*****						
N-ethyl-d5-perfluorooctane sulfonam	N/A*****						

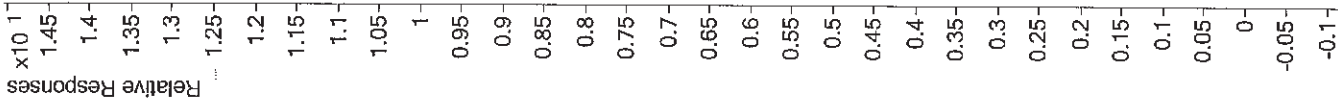
PFOS 1 - 6 Levels, 6 Levels Used, 6 Points, 6 Points Used, 4 QCs

$y = 0.366293 * x - 0.015645$

$R^2 = 1.00$

Type: Linear, Origin: Ignore, Weight: 1/x

Avg. RF RSD = 7.6



SP1KE

$$y = 0.366293 X - 0.015645$$

$$8.2029 = 0.366293 X - 0.015645$$

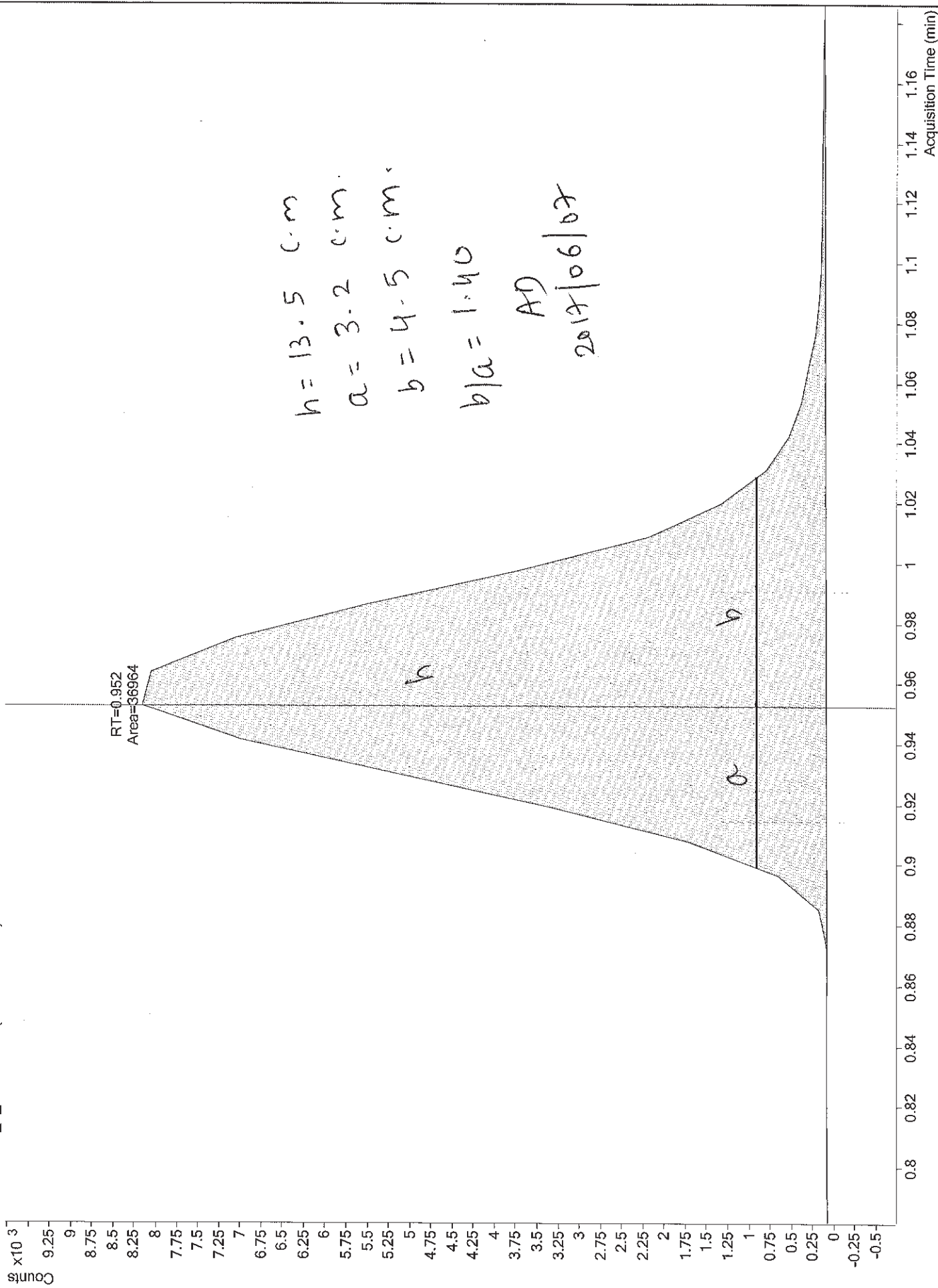
$$X = \frac{8.2029 + 0.015645}{0.366293}$$

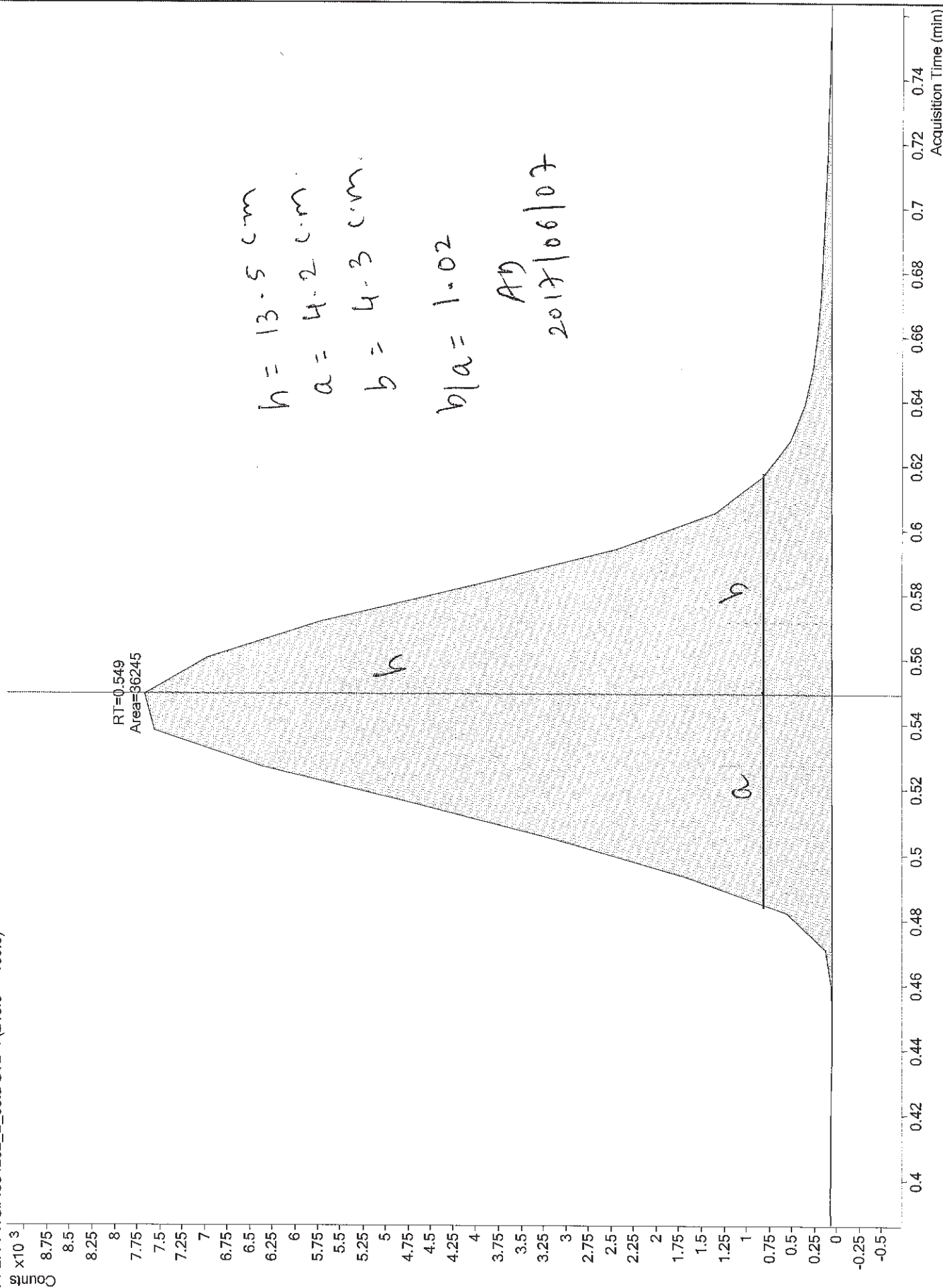
$$X = 22.43707 \times 1.33$$

$$X = 29.8413$$

AD 2017/06/07

CF
0.366293





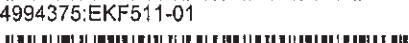
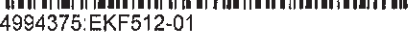
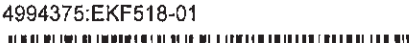
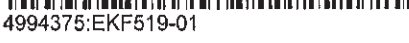
Test Code: PFOSALCM-S

Worksheet Number: 4994375

<u>Sample Number</u>	<u>Parameter</u>	
EJI395-01	6:2 Fluorotelomer sulfonate	*
EJI397-01	8:2 Fluorotelomer sulfonate	*
EJI406-01	EtFOSAA	*
EJI414-01	MeFOSAA	*
EJI415-01	Perfluorobutane Sulfonate (PFBS)	
EJI419-01	Perfluorodecanoic Acid (PFDA)	
	Perfluorododecanoic Acid (PFDoA)	
	Perfluoroheptanoic Acid (PFHpA)	
	Perfluorohexanoic Acid (PFHxA)	
	Perfluorohexane Sulfonate (PFHxS)	
	Perfluorononanoic Acid (PFNA)	
	Perfluoro-n-Octanoic Acid (PFOA)	
	Perfluorotetradecanoic Acid	
	Perfluorotridecanoic Acid	
	Perfluoroundecanoic Acid (PFUnA)	
EKF511-01	6:2 Fluorotelomer sulfonate	*
EKF512-01	8:2 Fluorotelomer sulfonate	*
EKF513-01	Perfluorobutanoic acid	
EKF514-01	Perfluorobutane Sulfonate (PFBS)	
EKF515-01	Perfluorodecanoic Acid (PFDA)	
EKF516-01	Perfluorododecanoic Acid (PFDoA)	
EKF517-01	Perfluorodecane Sulfonate	
EKF518-01	Perfluoroheptanoic Acid (PFHpA)	
EKF519-01	Perfluorohexanoic Acid (PFHxA)	
EKF520-01	Perfluorohexane Sulfonate (PFHxS)	
EKF524-01	Perfluorononanoic Acid (PFNA)	
EKF525-01	Perfluoro-n-Octanoic Acid (PFOA)	
EKF538-01	Perfluorooctane Sulfonate (PFOS)	
	Perfluorooctane Sulfonamide (PFOSA)	
	Perfluoropentanoic Acid (PFPeA)	
	Perfluorotetradecanoic Acid	
	Perfluorotridecanoic Acid	
	Perfluoroundecanoic Acid (PFUnA)	

* - This parameter is usually off, but will be reported for this group of samples!

WorkSheet 4994375 Instrument Sequences

1.	 4994375:MTRX SPK	MTRX SPK
2.	 4994375:MTRX SPK:D1	MTRX SPK :D1
3.	 4994375:SPIKE	SPIKE
4.	 4994375:BLANK	BLANK
5.	 4994375:EJI395-01	FRCHD03-SO-003
6.	 4994375:EJI397-01	FRCHD04-SO-001
7.	 4994375:EJI406-01	FRCHD02-SO-003
8.	 4994375:EJI414-01	FRCHD03-SO-002
9.	 4994375:EJI415-01	FRCHD05-SO-004
10.	 4994375:EJI419-01	FRCHD01-SO-004
11.	 4994375:EKF511-01	
12.	 4994375:EKF512-01	
13.	 4994375:EKF513-01	
14.	 4994375:EKF514-01	
15.	 4994375:EKF515-01	
16.	 4994375:EKF516-01	
17.	 4994375:EKF517-01	
18.	 4994375:EKF518-01	
19.	 4994375:EKF519-01	
20.	 4994375:EKF520-01	
21.	 4994375:EKF524-01	
22.	 4994375:EKF525-01	
23.	 4994375:EKF538-01	

Worklist Report

Instrument Name: LCMS04 Worklist Path: D:\MassHunter\Worklists\PFCs\PFC_170526_Soil.wkl

Operator Name: M_G
 Run Type: Standard Start
 Part of Method to Run: Acquisition Only
 Execution of Acquisition-DA: Synchronous
 Acquisition Method Path: D:\MassHunter\Acquisition Method
 DA Method Path: D:\MassHunter\methods
 Data File Path: D:\MassHunter\data\PFC\20170526\WS#4994232
 Pre-Worklist Script: --
 Post-Worklist Script: SCP_InstrumentStandby()\{MH_Acq_Scripts.exe}
 Acquisition Clean Up Script: --
 Overlapped Injection: Yes
 Clear Sample Selection After Run: Yes
 Wait Time for Ready(Min): 10
 Threshold Disk Value(GB): 10
 Comment: Column#171
 MP A1: Solution# 107 (FSRE18)
 MP B1: Methanol Lot#SHBG9002V, Sigma

2017/05/26

Plate	Barcode
P1	

Worklist Table

Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (ul)	Comment
1 Solvent	P1-A1	PFC_Soil.m	WS#4994232_01.d	Sample		As Method	-
2 STD 1	P1-A2	PFC_Soil.m	WS#4994232_02.d	Calibration	STD 1	As Method	-
3 STD 2	P1-A3	PFC_Soil.m	WS#4994232_03.d	Calibration	STD 2	As Method	-
4 STD 3	P1-A4	PFC_Soil.m	WS#4994232_04.d	Calibration	STD 3	As Method	-
5 STD 4	P1-A5	PFC_Soil.m	WS#4994232_05.d	Calibration	STD 4	As Method	-
6 STD 5	P1-A6	PFC_Soil.m	WS#4994232_06.d	Calibration	STD 5	As Method	-
7 STD 6	P1-A7	PFC_Soil.m	WS#4994232_07.d	Calibration	STD 6	As Method	-
8 IB	P1-A8	PFC_Soil.m	WS#4994232_08.d	Sample		As Method	-
9 ICV	P1-A9	PFC_Soil.m	WS#4994232_09.d	QC	ICV	As Method	-
10 ISC	P1-A2	PFC_Soil.m	WS#4994232_10.d	ConCal	STD 1	As Method	-
11 4994232:BLANK	P1-B1	PFC_Soil.m	WS#4994232_11.d	Blank		As Method	-
12 4994232:MTX SPK	P1-B2	PFC_Soil.m	WS#4994232_12.d	QC	ICV	As Method	-
13 4994232:MTX SPK:D1	P1-B3	PFC_Soil.m	WS#4994232_13.d	QC	ICV	As Method	-

D:\MassHunter\Worklists\PFCs\PFC_170526_Soil.wkl



Worklist Report

Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
14 4994232:SPIKE	P1-B4	PFC_Soil.m	WS#4994232_14.d	QC	ICV	As Method	-
15 4994232:EGG594-01	P1-B5	PFC_Soil.m	WS#4994232_15.d	Sample		As Method	-
16 4994232:EJ262-01:10x	P1-B6	PFC_Soil.m	WS#4994232_16.d	Sample		As Method	-
17 4994232:EJ262-01	P1-B7	PFC_Soil.m	WS#4994232_17.d	Sample		As Method	-
18 IB	P1-A8	PFC_Soil.m	WS#4994232_18.d	Sample		As Method	-
19 4994232:EJU178-01	P1-B8	PFC_Soil.m	WS#4994232_19.d	Sample		As Method	-
20 4994232:EJW389-01	P1-B9	PFC_Soil.m	WS#4994232_20.d	Sample		As Method	-
21 4994232:EJW390-01	P1-C1	PFC_Soil.m	WS#4994232_21.d	Sample		As Method	-
22 CCV	P1-A5	PFC_Soil.m	WS#4994232_22.d	ConCal	STD 4	As Method	-
23 4994375:BLANK	P1-C2	PFC_Soil.m	WS#4994375_23.d	Blank		As Method	-
24 4994375:SPIKE	P1-C5	PFC_Soil.m	WS#4994375_24.d	QC	ICV	As Method	-
25 4994375:EJ1395-01	P1-C6	PFC_Soil.m	WS#4994375_25.d	Sample		As Method	-
26 4994375:EJ1397-01:10x	P1-C7	PFC_Soil.m	WS#4994375_26.d	Sample		As Method	-
27 4994375:EJ1397-01	P1-C8	PFC_Soil.m	WS#4994375_27.d	Sample		As Method	-
28 IB	P1-A8	PFC_Soil.m	WS#4994375_28.d	Sample		As Method	-
29 4994375:EJ1406-01:100x	P1-C9	PFC_Soil.m	WS#4994375_29.d	Sample		As Method	-
30 4994375:EJ1406-01:10x	P1-D1	PFC_Soil.m	WS#4994375_30.d	Sample		As Method	-
31 4994375:EJ1406-01	P1-D2	PFC_Soil.m	WS#4994375_31.d	Sample		As Method	-
32 Solvent	P1-A1	PFC_Soil.m	WS#4994232_01.d	Sample		As Method	-
33 IB	P1-A8	PFC_Soil.m	WS#4994375_32.d	Sample		As Method	-
34 4994375:EJ1414-01	P1-D3	PFC_Soil.m	WS#4994375_33.d	Sample		As Method	-
35 4994375:EJ1415-01:100x	P1-D4	PFC_Soil.m	WS#4994375_34.d	Sample		As Method	-
36 4994375:EJ1415-01:10x	P1-D5	PFC_Soil.m	WS#4994375_35.d	Sample		As Method	-
37 4994375:EJ1415-01	P1-D6	PFC_Soil.m	WS#4994375_36.d	Sample		As Method	-
38 Solvent	P1-A1	PFC_Soil.m	WS#4994232_01.d	Sample		As Method	-
39 IB	P1-A8	PFC_Soil.m	WS#4994375_41.d	Sample		As Method	-
40 CCV	P1-A5	PFC_Soil.m	WS#4994375_37.d	ConCal	STD 4	As Method	-
41 4994375:EJ1419-01:100x	P1-D7	PFC_Soil.m	WS#4994375_38.d	Sample		As Method	-
42 4994375:EJ1419-01:10x	P1-D8	PFC_Soil.m	WS#4994375_39.d	Sample		As Method	-
43 4994375:EJ1419-01	P1-D9	PFC_Soil.m	WS#4994375_40.d	Sample		As Method	-
44 Solvent	P1-A1	PFC_Soil.m	WS#4994232_01.d	Sample		As Method	-
45 IB	P1-A8	PFC_Soil.m	WS#4994375_41.d	Sample		As Method	-
46 4994375:EKF511-01	P1-E1	PFC_Soil.m	WS#4994375_42.d	Sample		As Method	-
47 4994375:EKF512-01	P1-E2	PFC_Soil.m	WS#4994375_43.d	Sample		As Method	-
48 4994375:EKF513-01	P1-E3	PFC_Soil.m	WS#4994375_44.d	Sample		As Method	-
49 4994375:EKF514-01	P1-E4	PFC_Soil.m	WS#4994375_45.d	Sample		As Method	-
50 4994375:EKF515-01	P1-E5	PFC_Soil.m	WS#4994375_46.d	Sample		As Method	-

Worklist Report

	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
51	4994375:EKF516-01	P1-E6	PFC_Soil.m	WS#4994375_47.d	Sample		As Method	-
52	4994375:EKF517-01	P1-E7	PFC_Soil.m	WS#4994375_48.d	Sample		As Method	-
53	CCV	P1-A5	PFC_Soil.m	WS#4994375_49.d	ConCal	STD 4	As Method	-
54	4994375:EKF518-01	P1-E8	PFC_Soil.m	WS#4994375_50.d	Sample		As Method	-
55	4994375:EKF519-01	P1-E9	PFC_Soil.m	WS#4994375_51.d	Sample		As Method	-
56	4994375:EKF520-01	P1-F1	PFC_Soil.m	WS#4994375_52.d	Sample		As Method	-
57	4994375:EKF524-01	P1-F2	PFC_Soil.m	WS#4994375_53.d	Sample		As Method	-
58	4994375:EKF525-01	P1-F3	PFC_Soil.m	WS#4994375_54.d	Sample		As Method	-
59	4994375:EKF538-01:10x	P1-F4	PFC_Soil.m	WS#4994375_55.d	Sample		As Method	-
60	4994375:EKF538-01	P1-F5	PFC_Soil.m	WS#4994375_56.d	Sample		As Method	-
61	4994375:MTRX SPK	P1-C3	PFC_Soil.m	WS#4994375_57.d	QC	ICV	As Method	-
62	4994375:MTRX SPK:D1	P1-C4	PFC_Soil.m	WS#4994375_58.d	QC	ICV	As Method	-
63	CCV	P1-A5	PFC_Soil.m	WS#4994375_59.d	ConCal	STD 4	As Method	-

Worklist Report



Instrument Name: LCMS04

Worklist Path: D:\MassHunter\Worklists\PFCs\PFC_170526_Soil_FOSAA.wkl

Operator Name: M_G

Run Type: Standard Start

Part of Method to Run: Acquisition Only

Execution of Acquisition-DA: Synchronous

Acquisition Method Path: D:\MassHunter\Acquisition Method

DA Method Path: D:\MassHunter\methods

Data File Path: D:\MassHunter\data\PFC\20170526\WS#4994375_FOSAA

Pre-Worklist Script: --

Post-Worklist Script: SCP_InstrumentStandby()\{MH_Acq_Scripts.exe}

Acquisition Clean Up Script: --

Overlapped Injection: Yes

Clear Sample Selection After Run: Yes

Wait Time for Ready(Min): 10

Threshold Disk Value(GB): 10

Comment:

Column#171

MP A1: Solution# 107 (FSRE18) ✓

MP B2: Solution# 83 (FSRE18) ✓

Agilent 1260

Plate Barcode:

Plate	Barcode
P1	

Worklist Table

Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (ul)	Comment
1 Solvent	P1-A1	PFC_Soil_FOSAA.m	WS#4994375_FOSA A_01.d	Sample		As Method	-
2 Solvent	P1-A1	PFC_Soil_FOSAA.m	WS#4994375_FOSA A_02.d	Sample		As Method	-
3 Solvent	P1-A1	PFC_Soil_FOSAA.m	WS#4994375_FOSA A_03.d	Sample		As Method	-
4 Solvent	P1-A1	PFC_Soil_FOSAA.m	WS#4994375_FOSA A_04.d	Sample		As Method	-
5 Solvent	P1-A1	PFC_Soil_FOSAA.m	WS#4994375_FOSA A_05.d	Sample		As Method	-
6 Solvent	P1-A1	PFC_Soil_FOSAA.m	WS#4994375_FOSA A_06.d	Sample		As Method	-
7 Solvent	P1-A1	PFC_Soil_FOSAA.m	WS#4994375_FOSA A_07.d	Sample		As Method	-
8 Solvent	P1-A1	PFC_Soil_FOSAA.m	WS#4994375_FOSA A_08.d	Sample		As Method	-



Worklist Report

Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
9 Solvent	P1-A1	PFC_Soil_FOSAA.m	WS#4994375_FOSA A_09.d	Sample		As Method	-
10 Solvent	P1-A1	PFC_Soil_FOSAA.m	WS#4994375_FOSA A_10.d	Sample		As Method	-
11 STD 1	P1-A2	PFC_Soil_FOSAA.m	WS#4994375_FOSA A_11.d	Calibration	STD 1	As Method	-
12 STD 2	P1-A3	PFC_Soil_FOSAA.m	WS#4994375_FOSA A_12.d	Calibration	STD 2	As Method	-
13 STD 3	P1-A4	PFC_Soil_FOSAA.m	WS#4994375_FOSA A_13.d	Calibration	STD 3	As Method	-
14 STD 4	P1-A5	PFC_Soil_FOSAA.m	WS#4994375_FOSA A_14.d	Calibration	STD 4	As Method	-
15 STD 5	P1-A6	PFC_Soil_FOSAA.m	WS#4994375_FOSA A_15.d	Calibration	STD 5	As Method	-
16 STD 6	P1-A7	PFC_Soil_FOSAA.m	WS#4994375_FOSA A_16.d	Calibration	STD 6	As Method	-
17 IB	P1-A8	PFC_Soil_FOSAA.m	WS#4994375_FOSA A_17.d	Sample		As Method	-
18 ICV	P1-A9	PFC_Soil_FOSAA.m	WS#4994375_FOSA A_18.d	QC	ICV	As Method	-
19 ISC	P1-A2	PFC_Soil_FOSAA.m	WS#4994375_FOSA A_19.d	ConCal	STD 1	As Method	-
20 4994375:BLANK	P1-C2 ✓	PFC_Soil_FOSAA.m	WS#4994375_FOSA A_20.d	Blank		As Method	-
21 4994375:SPIKE	P1-C5 ✓	PFC_Soil_FOSAA.m	WS#4994375_FOSA A_21.d	QC	ICV	As Method	-
22 4994375:EJ1395-01	P1-C6 ✓	PFC_Soil_FOSAA.m	WS#4994375_FOSA A_22.d	Sample		As Method	-
23 4994375:EJ1397-01	P1-C8 ✓	PFC_Soil_FOSAA.m	WS#4994375_FOSA A_23.d	Sample		As Method	-
24 4994375:EJ406-01	P1-D2 ✓	PFC_Soil_FOSAA.m	WS#4994375_FOSA A_24.d	Sample		As Method	-
25 4994375:EJ414-01	P1-D3 ✓	PFC_Soil_FOSAA.m	WS#4994375_FOSA A_25.d	Sample		As Method	-
26 4994375:EJ415-01	P1-D6 ✓	PFC_Soil_FOSAA.m	WS#4994375_FOSA A_26.d	Sample		As Method	-
27 4994375:EJ419-01	P1-D9 ✓	PFC_Soil_FOSAA.m	WS#4994375_FOSA A_27.d	Sample		As Method	-
28 4994375:EKF538-01	P1-F5 ✓	PFC_Soil_FOSAA.m	WS#4994375_FOSA A_28.d	Sample		As Method	-
29 4994375:IMTRX SPK	P1-C3 ✓	PFC_Soil_FOSAA.m	WS#4994375_FOSA A_29.d	QC	ICV	As Method	-
30 4994375:MTRX SPK:D1	P1-C4 ✓	PFC_Soil_FOSAA.m	WS#4994375_FOSA A_30.d	QC	ICV	As Method	-
31 CCV	P1-A5	PFC_Soil_FOSAA.m	WS#4994375_FOSA A_31.d	ConCal	STD 4	As Method	-

FINAL INJECTION SEQUENCE

Sample					
Name	Comment	Acq. Date-Time	Acq. Method File	Data File	Pos.
STD 1	-	2017/05/30 9:29 AM	PFC_Soil.m	WS#4994232_B_02.d	P1-A2
STD 2	-	2017/05/30 9:34 AM	PFC_Soil.m	WS#4994232_B_03.d	P1-A3
STD 3	-	2017/05/30 9:39 AM	PFC_Soil.m	WS#4994232_B_04.d	P1-A4
STD 4	-	2017/05/30 9:44 AM	PFC_Soil.m	WS#4994232_B_05.d	P1-A5
STD 5	-	2017/05/30 9:49 AM	PFC_Soil.m	WS#4994232_B_06.d	P1-A6
STD 6	-	2017/05/30 9:54 AM	PFC_Soil.m	WS#4994232_B_07.d	P1-A7
IB	-	2017/05/30 9:58 AM	PFC_Soil.m	WS#4994232_B_08.d	P1-A8
ICV	-	2017/05/30 10:03 AM	PFC_Soil.m	WS#4994232_B_09.d	P1-A9
ISC	-	2017/05/30 10:08 AM	PFC_Soil.m	WS#4994232_B_10.d	P1-A2
CCV	-	2017/05/30 10:13 AM	PFC_Soil.m	WS#4994232_B_22.d	P1-A5
4994375:BLANK	-	2017/05/30 10:18 AM	PFC_Soil.m	WS#4994375_B_01.d	P1-C2
4994375:SPIKE	-	2017/05/30 10:23 AM	PFC_Soil.m	WS#4994375_B_02.d	P1-C5
4994375:EJ1395-01	-	2017/05/30 10:28 AM	PFC_Soil.m	WS#4994375_B_03.d	P1-C6
4994375:EJ1397-01:10x	Reported for PFOS	2017/05/30 10:33 AM	PFC_Soil.m	WS#4994375_B_04.d	P1-C7
4994375:EJ1397-01	Reported for all except PFOS	2017/05/30 10:38 AM	PFC_Soil.m	WS#4994375_B_05.d	P1-C8
IB	-	2017/05/30 10:43 AM	PFC_Soil.m	WS#4994375_B_06.d	P1-A8
4994375:EJ1406-01:100x	Reported for PFOS	2017/05/30 10:47 AM	PFC_Soil.m	WS#4994375_B_07.d	P1-C9
4994375:EJ1406-01:10x	Not Used	2017/05/30 10:52 AM	PFC_Soil.m	WS#4994375_B_08.d	P1-D1
4994375:EJ1406-01	Reported for all except PFOS	2017/05/30 10:57 AM	PFC_Soil.m	WS#4994375_B_09.d	P1-D2
Solvent	-	2017/05/30 11:02 AM	PFC_Soil.m	WS#4994375_B_10.d	P1-A1
IB	-	2017/05/30 11:07 AM	PFC_Soil.m	WS#4994375_B_11.d	P1-A8
4994375:EJ1414-01	-	2017/05/30 11:12 AM	PFC_Soil.m	WS#4994375_B_12.d	P1-D3
4994375:EJ1415-01:100x	Reported for PFOS	2017/05/30 11:17 AM	PFC_Soil.m	WS#4994375_B_13.d	P1-D4
4994375:EJ1415-01:10x	Reported for PFHxS, 8:2-FTS	2017/05/30 11:22 AM	PFC_Soil.m	WS#4994375_B_14.d	P1-D5
4994375:EJ1415-01	Reported for all except PFOS, PFHxS, 8:2-FTS	2017/05/30 11:27 AM	PFC_Soil.m	WS#4994375_B_15.d	P1-D6
Solvent	-	2017/05/30 11:32 AM	PFC_Soil.m	WS#4994375_B_16.d	P1-A1
IB	-	2017/05/30 11:36 AM	PFC_Soil.m	WS#4994375_B_17.d	P1-A8
CCV	-	2017/05/30 11:41 AM	PFC_Soil.m	WS#4994375_B_18.d	P1-A5
4994375:EJ1419-01:100x	Reported for PFOS, 8:2-FTS	2017/05/30 11:46 AM	PFC_Soil.m	WS#4994375_B_19.d	P1-D7
4994375:EJ1419-01:10x	Reported for PFHxS	2017/05/30 11:51 AM	PFC_Soil.m	WS#4994375_B_20.d	P1-D8
4994375:EJ1419-01	Reported for all except PFOS, PFHxS, 8:2-FTS	2017/05/30 11:56 AM	PFC_Soil.m	WS#4994375_B_21.d	P1-D9
Solvent	-	2017/05/30 12:01 PM	PFC_Soil.m	WS#4994375_B_22.d	P1-A1
IB	-	2017/05/30 12:06 PM	PFC_Soil.m	WS#4994375_B_23.d	P1-A8

FINAL INJECTION SEQUENCE

Sample					
Name	Comment	Acq. Date-Time	Acq. Method File	Data File	Pos.
4994375:EKF511-01	-	2017/05/30 12:11 PM	PFC_Soil.m	WS#4994375_B_24.d	P1-E1
4994375:EKF512-01	-	2017/05/30 12:16 PM	PFC_Soil.m	WS#4994375_B_25.d	P1-E2
4994375:EKF513-01	Re-vialled due to low injection IS-not used	2017/05/30 12:21 PM	PFC_Soil.m	WS#4994375_B_26.d	P1-E3
4994375:EKF514-01	-	2017/05/30 12:25 PM	PFC_Soil.m	WS#4994375_B_27.d	P1-E4
4994375:EKF515-01	-	2017/05/30 12:30 PM	PFC_Soil.m	WS#4994375_B_28.d	P1-E5
4994375:EKF516-01	-	2017/05/30 12:35 PM	PFC_Soil.m	WS#4994375_B_29.d	P1-E6
4994375:EKF517-01	-	2017/05/30 12:40 PM	PFC_Soil.m	WS#4994375_B_30.d	P1-E7
CCV	-	2017/05/30 12:50 PM	PFC_Soil.m	WS#4994375_B_31.d	P1-A5
4994375:EKF518-01	-	2017/05/30 12:55 PM	PFC_Soil.m	WS#4994375_B_32.d	P1-E8
4994375:EKF519-01	-	2017/05/30 1:00 PM	PFC_Soil.m	WS#4994375_B_33.d	P1-E9
4994375:EKF520-01	-	2017/05/30 1:05 PM	PFC_Soil.m	WS#4994375_B_34.d	P1-F1
4994375:EKF524-01	-	2017/05/30 1:10 PM	PFC_Soil.m	WS#4994375_B_35.d	P1-F2
4994375:EKF525-01	-	2017/05/30 1:14 PM	PFC_Soil.m	WS#4994375_B_36.d	P1-F3
4994375:EKF538-01:10x	Reported for PFOS	2017/05/30 1:19 PM	PFC_Soil.m	WS#4994375_B_37.d	P1-F4
4994375:EKF538-01	Re-vialled due to low injection IS-not used	2017/05/30 1:24 PM	PFC_Soil.m	WS#4994375_B_38.d	P1-F5
4994375:MTRX SPK	EKF538	2017/05/30 1:29 PM	PFC_Soil.m	WS#4994375_B_39.d	P1-C3
4994375:MTRX SPK:D1	EKF538	2017/05/30 1:34 PM	PFC_Soil.m	WS#4994375_B_40.d	P1-C4
CCV	-	2017/05/30 1:39 PM	PFC_Soil.m	WS#4994375_B_41.d	P1-A5
ISC	-	2017/06/05 8:42 AM	PFC_Soil.m	WS#499919_54.d	P3-A2
4994375:EKF513-01	Reported for all	2017/06/05 2:51 PM	PFC_Soil.m	WS#4994375_B_45.d	P3-F1
4994375:EKF538-01	Reported for all except PFOS	2017/06/05 2:56 PM	PFC_Soil.m	WS#4994375_B_46.d	P3-F2
CCV	-	2017/06/05 3:01 PM	PFC_Soil.m	WS#4994375_B_47.d	P3-A5

FINAL INJECTION SEQUENCE

Sample					
Name	Comment	Acq. Date-Time	Acq. Method File	Data File	Pos.
STD 1	-	2017/05/26 4:25 PM	PFC_Soil_FOSAA.m	WS#4994375_FOSAA_11.d	P1-A2
STD 2	-	2017/05/26 4:28 PM	PFC_Soil_FOSAA.m	WS#4994375_FOSAA_12.d	P1-A3
STD 3	-	2017/05/26 4:30 PM	PFC_Soil_FOSAA.m	WS#4994375_FOSAA_13.d	P1-A4
STD 4	-	2017/05/26 4:32 PM	PFC_Soil_FOSAA.m	WS#4994375_FOSAA_14.d	P1-A5
STD 5	-	2017/05/26 4:35 PM	PFC_Soil_FOSAA.m	WS#4994375_FOSAA_15.d	P1-A6
STD 6	-	2017/05/26 4:37 PM	PFC_Soil_FOSAA.m	WS#4994375_FOSAA_16.d	P1-A7
IB	-	2017/05/26 4:39 PM	PFC_Soil_FOSAA.m	WS#4994375_FOSAA_17.d	P1-A8
ICV	-	2017/05/26 4:42 PM	PFC_Soil_FOSAA.m	WS#4994375_FOSAA_18.d	P1-A9
ISC	-	2017/05/26 4:44 PM	PFC_Soil_FOSAA.m	WS#4994375_FOSAA_19.d	P1-A2
4994375:BLANK	-	2017/05/26 4:47 PM	PFC_Soil_FOSAA.m	WS#4994375_FOSAA_20.d	P1-C2
4994375:SPIKE	-	2017/05/26 4:49 PM	PFC_Soil_FOSAA.m	WS#4994375_FOSAA_21.d	P1-C5
4994375:EJ395-01	-	2017/05/26 4:51 PM	PFC_Soil_FOSAA.m	WS#4994375_FOSAA_22.d	P1-C6
4994375:EJ397-01	-	2017/05/26 4:54 PM	PFC_Soil_FOSAA.m	WS#4994375_FOSAA_23.d	P1-C8
4994375:EJ406-01	-	2017/05/26 4:56 PM	PFC_Soil_FOSAA.m	WS#4994375_FOSAA_24.d	P1-D2
4994375:EJ414-01	-	2017/05/26 4:59 PM	PFC_Soil_FOSAA.m	WS#4994375_FOSAA_25.d	P1-D3
4994375:EJ415-01	-	2017/05/26 5:01 PM	PFC_Soil_FOSAA.m	WS#4994375_FOSAA_26.d	P1-D6
4994375:EJ419-01	-	2017/05/26 5:03 PM	PFC_Soil_FOSAA.m	WS#4994375_FOSAA_27.d	P1-D9
4994375:EKF538-01	-	2017/05/26 5:06 PM	PFC_Soil_FOSAA.m	WS#4994375_FOSAA_28.d	P1-F5
4994375:MTRX SPK	EKF538	2017/05/26 5:08 PM	PFC_Soil_FOSAA.m	WS#4994375_FOSAA_29.d	P1-C3
4994375:MTRX SPK:D1	EKF538	2017/05/26 5:10 PM	PFC_Soil_FOSAA.m	WS#4994375_FOSAA_30.d	P1-C4
CCV	-	2017/05/26 5:13 PM	PFC_Soil_FOSAA.m	WS#4994375_FOSAA_31.d	P1-A5

DoD Projects - Internal Data Validation Checklist				
Run date: 2017106113				
Worksheet # (s): 5023570				
Analysis: PFO3ALEM-5				
Primary review by the analyst - 1st 100 % analysis review				2nd 100% review
		yes	no	n/a
1	Sample analyses meet hold time criteria	✓	✓	✓
2	Analysis set-up meets method criteria	✓		✓
3	Tuning and correct calibration used - criteria meets method criteria	✓		✓
4	SQC/Control Charts updated, analysis in statistical/method control	✓		✓
5	Internal area counts checked (if applicable)	✓		✓
6	LCS, SRM are within acceptance criteria	✓		✓
7	Surrogate Recovery(s) is within acceptance criteria	✓		✓
8	Method Blank meets acceptance criteria	✓		✓
9	Matrix Spike recovery(s) meets acceptance criteria		✓	✓
10	Duplicate precision meets acceptance criteria	✓		✓
11	QC is documented on the run logs	✓		✓
12	Runs checked for carryover			✓
13	Prep log / worksheet(s) are present, signed / dated by a prep / instrument analysts	✓		✓
14	Initial weights, splits, imprinter volumes (where applicable) are documented	✓		✓
15	Standards and reagents traceable to Certificates of Analysis	✓		✓
16	Samples above calibration range diluted and reanalyzed	✓		✓
17	Dilution factors (where justified) have been checked for correctness and entered	✓		✓
18	Analytical observations/anomalies documented in LIMS			✓
19	Random calculation checked and in correct units	✓		✓
20	If corrective actions were applied they are documented, initialed & dated			✓
21	Manual integration - before & after data with a reason included, initialed & dated			✓
22	Transferred data is validated in LIMS for correctness			✓
23	Data package assembled (where required)	✓		✓
Reviewed by: [Signature] Date: 2017106115				
Comments:				
Secondary Supervisor/Qualified Data Review Staff - 2nd 100% verification review				
		yes	no	n/a
1	Repeats documented and referenced			✓
2	Method and sample deviations noted, anomalies described (if applicable)			✓
3	Data and QC validated in LIMS	✓		
4	Random calculation checked	✓		
5	Benchsheet (s) signed and dated	✓		
6	Data Package (if required) checked for completeness	✓		
Reviewed by: CM Date: 20171016				
Comments:				

*Note: 2nd 100% verification review documented by secondary qualified data review
Primary and Secondary Internal Data Review Check must be performed by a different person

Worksheet Data Validation Checklist - Extractable Organics			
Worksheet #	50 23770	Testcode:	PFD54LCM-5
Sample Preparation		yes	no n/a
1	Samples extracted within hold time	✓	
2	Client sample ID verified against Lab ID (waters & oils)		✓
3	Parameter list and Client comments reviewed, (Spiking solutions matched to parameter list)	✓	
4	Height of sediment or if sample was decanted, recorded on worksheet		✓
5	Method required QC processed with samples, maximum batch size = 20 client samples.	✓	
6	Sample, duplicate, matrix spike appear similar, initial sample as well as final extract	✓	
7	Sample weight or initial volume and extract final volume, aliquot factor clearly recorded.	✓	
8	If performed any additional dilution clearly recorded	✓	
9	Matrix spike / Duplicate performed on IOL samples if present		✓
10	Spiking solutions valid (haven't expired), ID and volume used clearly identified on worksheet	✓	
11	Spiking process witnessed and signed off	✓	
12	Extraction type recorded (N3A2B = neutral, 3 x acidic, 2 x basic)		✓
13	Sample prep deviations documented within CompliantPro as a Policy Deviation		✓
14	Job Remarks reviewed on 2nd page of worksheet.	✓	
15	Worksheet and reagent tracking record completed and authorized.	✓	
Reviewed by:	<i>[Signature]</i>	Date:	2017/06/12
Comments: * B79725(CALL) : Samples are reworked			
Worksheet Approval		yes	no n/a
1	Verified the position of the vials in autosampler against sequence list; signed off sequence list		
2	Calibration and CCV standards valid (haven't expired)		
3	Initial calibration curve and DFTPP tune (if applicable) acceptable		
4	Continuing and Final CCV and DFTPP tune (if applicable) acceptable		
5	System performance check acceptable (if applicable)		
6	Internal standard responses acceptable		
7	Method blank meets acceptance criteria		
8	Lab Control Samples recoveries meets acceptance criteria		
9	Duplicate RPD meets acceptance criteria		
10	Matrix spike recoveries meets acceptance criteria		
11	Surrogate recoveries meets acceptance criteria		
12	Appropriate control charts updated		
13	Samples above calibration range diluted and reanalyzed		
14	Dilutions clearly documented on tracking record, inst file and verified during data upload		
15	Samples following high level samples checked for carryover.		
16	Mass spectra ion ratios acceptable for positive results, hardcopy in file.		
17	Analytical observations / anomalies documented		
18	DQW comments entered in LIMS, hardcopy in file		
19	Sample Prep section (above) reviewed and verified.		
20	WS Approval performed in LIMS		
Reviewed by:		Date:	
Comments:			
Worksheet Validation		yes	no n/a
1	Calibration, QC and sample results reviewed and determined acceptable		
2	Manual integrations verified		
3	Random calculation checked		
4	Data and QC validated in LIMS		
5	Comments reviewed for appropriateness		
6	Reworks / relogs documented in file		
7	Worksheet signed and dated		
8	Worksheet approved and validated within LIMS		
Reviewed by:		Date:	
Comments:			

See BPL red - 00002/9
2017/06/15



Test Description : Perfluorinated Compounds in Soil by LC-MS/MS

~~Melindaphysalis~~ 207/06/12

Date:

Job No.	Rep	Client Name	Contact	Client Tier	National
	Remarks				
GB797259	MDG CT Laboratories LLC		Fairchild AFB reportin		
	nreg, Please include note that Level IV Package and ERPIMS EDDrequired. MS/MSD REQUIRED FOR SAMPLES EJ1400-01 AND EJ1429-01 *PM release- MS/MSD missed for sample EJ1397, client confirmed OK to report without it. COmment to be added ****PM check comment Project #: 775303101				
GB7A3120	[REDACTED]				
GB7B4233	[REDACTED]				
GB7B4250	[REDACTED]				

[illegible]

Sample	Preparation	Remarks		
	val (ml)	Ant. diluted (ml)	Conc.	Antib. test
1B	1900			
S1	1885	15	100 mg/ml	- 1K 6852
S2	1870	30		
S3	1810	90		
S4	1878	22.5	1 mg/ml	- ISO 16 (3/5)
S5	1855	45		
S6	1825	75	1 mg/ml	- ISO 15 (3/5)
10V	1863	27.5		

[illegible]

Worksheet Reagent Tracking Record

Worksheet #

5023570

Surrogate/Spike solutions	✓	Solution ID #	Conc.	Blk-Spk		Volume (µL)		Samples	
				Solid	Liquid	Solid	Liquid	Solid	Liquid
DGT Spike			100 ug/mL	60	30	60	30	NA	NA
Diquat Dibromide			50 ug/mL	NA	350	NA	350	NA	NA
Explosives Spiking solution A			20 ug/mL	250	100	250	100	NA	NA
Explosives Spiking solution B			20/80 ug/mL	250	100	250	100	NA	NA
Formaldehyde Spike			100 ug/mL	25	25	25	25	NA	NA
Glyphosate Spike			25 ug/mL	500	20	500	20	NA	NA
Nonylphenol Ethoxylate Spike			100 ug/mL	100	100	100	100	NA	NA
Nonylphenol Spike			10 ug/mL	100	100	100	100	NA	NA
Paraquat Cl Tetrahydrate			20 ug/mL	NA	125	NA	125	NA	NA
Perchlorate Standard Spike			10 ng/mL	NA	100	NA	100	NA	NA
Perchlorate Standard Spike			500 ng/mL	40	NA	40	NA	NA	NA
Perchlorate O-18 Internal Standard			0.10 ng/µL	20	20	20	20	20	20
Morpholine Second Source Working Std			2500 ug/L	NA	80	NA	80	NA	NA
Morpholine-DB Internal Standard			10 ug/mL	NA	50	NA	50	NA	50
Steril Second Source Spiking Solution			NA	20	NA	20	NA	NA	NA
Sterilants Comp. IS Working Solution			3 ug/mL	50	NA	50	NA	50	NA
Comp. PFC Working Solution A	✓	ISD15 (3/5)	1ug/mL	75	21	62.5	75	21	62.5
PFC Internal Standard Solution	✓	SI 6441 (3/4)	50/125 ng/mL	200	100	150	200	100	150
PFC Injection IS	✓	SI 6420 (1/4)	400 ng/mL	20	20	20	20	20	20
ICV	✓	7.5015 (3/5)	1 ng/mL	37.5					
Solvent/Reagent	✓	Lot No.	Date Opened	Solvent/Reagent	✓	Lot No.	Date Opened/Prepared	*Spiked by:	
DCM				50% NaOH				[Signature]	
Ottawa Sand	✓	152058	2017/05/02	o-Phosphoric Acid				Spike Date	
Methanol	✓	168335	2017/06/12	Borax				2017/06/12	
2-Propanol (IPA)				Calcium Chloride				Spike Syringe/Pipette ID#	
Acetonitrile				EDTA				1432 773F	
Sodium Sulfate				Phosphate Buffer				Int. Std Syringe/Pipette ID#	
70:30 Methanol: Water	✓	PALKE 104-127	2017/06/12	Sodium Thiosulphate				HK 1986AT	
60:40 Water: Methanol	✓	PALKE 104-127	2017/06/12	DNPH				*Spiking Witnessed by:	
DCM:Ethyl Ether (75:25)				FMOC				G52	
Hexane:IPA (98:2)				5M Acetate Buffer				Final pH	
2% Formic Acid	✓	PALKE 104-137		0.2% NH ₄ OH	✓	PALKE 104-139		X	
0.2% Formic Acid	✓	PALKE 104-14		Leachate Fluid					
0.05M KOH				Reagent Water	✓	50218	2017/06/09		
0.05M HCl									
Equipment & ID	✓	Equipment	ID#	✓	Equipment	Lot #	Bottle Tracking		
Pipettor	✓	SPE Cartridge	003237052A	✓	QC Balance ID	FL-1	Bottle#		
	✓	Filter			Thermometer ID & Temp		Cap#		
Dispenser		Centrifuge	40740724	✓			Systems plus Lot#		
		Sonicator	Brandon 8510	✓					

Comments:

PFOS and PFOA in soil by SPE/LCMS - Soil
ug/kg

Parameter Name	Units	MTRX SPK	MTRX SPK Dup1	SPIKE	BLANK	DL	B797259 EJ1413 ReWork
6:2 Fluorotelomer sulfonate	ug/kg	130.40000	128.80000	123.60000	0	1	N/A *****
8:2 Fluorotelomer sulfonate	ug/kg	110.40000	98.80000	118.80000	0	1	0.47500
N-ethylperfluorooctane sulfonamide	ug/kg	102.33600	115.93600	107.20000	0.20600	1	N/A *****
EtFOSAA	ug/kg	N/A *****	N/A *****	N/A *****	N/A *****	1	N/A *****
N-ethylperfluorooctane sulfonamido	ug/kg	103.29760	104.09760	103.20000	0.07660	1	N/A *****
N-methylperfluorooctane sulfonamide	ug/kg	104.50400	99.30400	99.20000	0.40800	1	N/A *****
MeFOSAA	ug/kg	N/A *****	N/A *****	N/A *****	N/A *****	1	N/A *****
N-methylperfluorooctanesulfonamidol	ug/kg	113.00000	102.60000	115.20000	0.27300	1	N/A *****
Perfluorobutanoic acid	ug/kg	102.04400	104.04400	112.80000	0	1	N/A *****
Perfluorobutane Sulfonate (PFBS)	ug/kg	112.40000	113.800	130.00000	0	1	N/A *****
Perfluorodecanoic Acid (PFDA)	ug/kg	105.60000	101.60000	103.20000	0	1	0.32900
Perfluorododecanoic Acid (PFDoA)	ug/kg	117.20000	106.80000	114.40000	0	1	N/A *****
Perfluorodecane Sulfonate	ug/kg	94.00000	96.80000	102.40000	0	1	N/A *****
Perfluoroheptane sulfonate	ug/kg	92.00000	98.80000	102.40000	0	1	N/A *****
Perfluorononanoic Acid (PFNA)	ug/kg	116.40000	105.60000	108.80000	0	1	0.45700
Perfluorooctane Sulfonamide (PFOSA)	ug/kg	103.97600	102.77600	114.00000	0	1	N/A *****
Perfluorotetradecanoic Acid	ug/kg	109.20000	90.80000	98.00000	0	1	N/A *****
Perfluorotridecanoic Acid	ug/kg	97.60000	92.40000	85.60000	0	1	N/A *****
Perfluoroundecanoic Acid (PFUnA)	ug/kg	112.80000	102.80000	113.20000	0	1	N/A *****
Perfluoroheptanoic Acid (PFHpA)	ug/kg	108.40000	110.00000	113.60000	0	1	0
Perfluorohexanoic Acid (PFHxA)	ug/kg	110.61200	108.21200	117.20000	0	1	N/A *****
Perfluorohexane Sulfonate (PFHxS)	ug/kg	93.36400	113.76400	112.40000	0	1	N/A *****
Perfluoro-n-Octanoic Acid (PFOA)	ug/kg	103.20000	103.20000	106.00000	0	1	0.26200
Perfluorooctane Sulfonate (PFOS)	ug/kg	111.54000	107.94000	112.80000	0	1	20.70000
Perfluoropentanoic Acid (PFPeA)	ug/kg	110.80000	101.60000	102.40000	0	1	N/A *****
13C2-6:2 Fluorotelomer sulfonate	ug/kg	94.4	70.8	113.	89.7		N/A *****
13C2-8:2 Fluorotelomer sulfonate	ug/kg	83.9	70.3	97.7	72.4		68.4
13C2-Perfluorodecanoic acid	ug/kg	90.1	90.2	91.4	80.7		78.7
13C2-Perfluorododecanoic acid	ug/kg	75.2	77.7	84.4	70.3		N/A *****
13C2-Perfluorohexanoic acid	ug/kg	85.8	74.7	97.7	89.8		N/A *****
13C2-perfluorotetradecanoic acid	ug/kg	108.	118.	122.	105.		N/A *****
13C2-Perfluoroundecanoic acid	ug/kg	87.2	79.1	82.4	84.7		N/A *****
13C4-Perfluorobutanoic acid	ug/kg	81.4	82.9	94.0	94.2		N/A *****
13C4-Perfluoroheptanoic acid	ug/kg	93.1	81.7	105.	95.8		73.1
13C5-Perfluorononanoic acid	ug/kg	85.7	82.0	104.	91.7		81.3
13C4-Perfluorooctanoic acid	ug/kg	92.6	80.5	112.	92.4		86.4
13C4-Perfluorooctanesulfonate	ug/kg	84.8	79.1	105.	93.5		81.6
13C5-Perfluoropentanoic acid	ug/kg	88.3	83.2	113.	105.		N/A *****
13C8-Perfluorooctane Sulfonamide	ug/kg	79.8	76.0	73.8	60.8		N/A *****
18O2-Perfluorohexanesulfonate	ug/kg	92.4	69.7	98.4	92.5		N/A *****
D3-MeFOSAA	ug/kg	N/A *****	N/A *****	N/A *****	N/A *****		N/A *****
D5-EtFOSAA	ug/kg	N/A *****	N/A *****	N/A *****	N/A *****		N/A *****
N-methyl-d3-perfluorooctane sulfona	ug/kg	62.4	64.4	65.7	60.2		N/A *****
N-ethyl-d5-perfluorooctane sulfonam	ug/kg	65.0	63.2	67.8	50.6		N/A *****

PFOS and PFOA in soil by SPE/LCMS - Soil
ug/kg

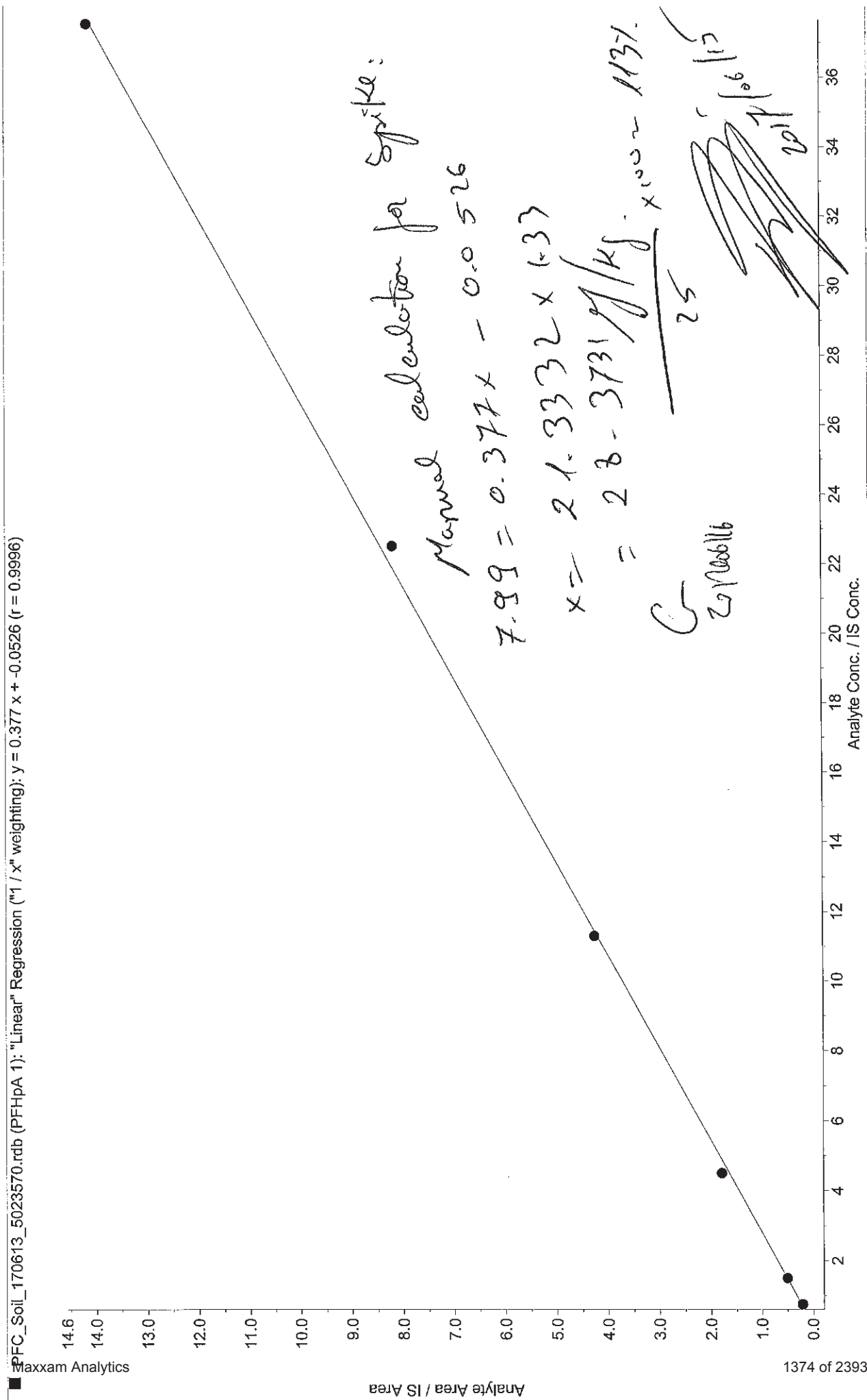
Parameter Name	DL	B797259 EJ1428 ReWork	DL	B7A3120 EKK074 ReWork	DL	B7A3120 EKK075 ReWork	DL
6:2 Fluorotelomer sulfonate	0.95	N/A *****	0.87	N/A *****	9.1	N/A *****	9.0
8:2 Fluorotelomer sulfonate	0.95	N/A *****	0.87	N/A *****	9.1	N/A *****	9.0
N-ethylperfluorooctane sulfonamide	0.95	N/A *****	0.87	N/A *****	9.1	N/A *****	9.0
EtFOSAA	0.95	N/A *****	0.87	N/A *****	9.1	N/A *****	9.0
N-ethylperfluorooctane sulfonamide	0.95	N/A *****	0.87	N/A *****	9.1	N/A *****	9.0
N-methylperfluorooctane sulfonamide	0.95	N/A *****	0.87	N/A *****	9.1	N/A *****	9.0
MeFOSAA	0.95	N/A *****	0.87	N/A *****	9.1	N/A *****	9.0
N-methylperfluorooctanesulfonamidol	0.95	N/A *****	0.87	N/A *****	9.1	N/A *****	9.0
Perfluorobutanoic acid	0.95	N/A *****	0.87	N/A *****	9.1	N/A *****	9.0
Perfluorobutane Sulfonate (PFBS)	0.95	N/A *****	0.87	N/A *****	9.1	N/A *****	9.0
Perfluorodecanoic Acid (PFDA)	0.95	N/A *****	0.87	N/A *****	9.1	N/A *****	9.0
Perfluorododecanoic Acid (PFDoA)	0.95	N/A *****	0.87	N/A *****	9.1	N/A *****	9.0
Perfluorodecane Sulfonate	0.95	N/A *****	0.87	N/A *****	9.1	N/A *****	9.0
Perfluoroheptane sulfonate	0.95	N/A *****	0.87	N/A *****	9.1	N/A *****	9.0
Perfluorononanoic Acid (PFNA)	0.95	N/A *****	0.87	N/A *****	9.1	N/A *****	9.0
Perfluorooctane Sulfonamide (PFOSA)	0.95	N/A *****	0.87	N/A *****	9.1	N/A *****	9.0
Perfluorotetradecanoic Acid	0.95	N/A *****	0.87	0	9.1	0	9.0
Perfluorotridecanoic Acid	0.95	N/A *****	0.87	0	9.1	0	9.0
Perfluoroundecanoic Acid (PFUnA)	0.95	N/A *****	0.87	N/A *****	9.1	N/A *****	9.0
Perfluoroheptanoic Acid (PFHpA)	0.95	N/A *****	0.87	N/A *****	9.1	N/A *****	9.0
Perfluorohexanoic Acid (PFHxA)	0.95	N/A *****	0.87	N/A *****	9.1	N/A *****	9.0
Perfluorohexane Sulfonate (PFHxS)	0.95	N/A *****	0.87	N/A *****	9.1	N/A *****	9.0
Perfluoro-n-Octanoic Acid (PFOA)	0.95	1.77000	0.87	N/A *****	9.1	N/A *****	9.0
Perfluorooctane Sulfonate (PFOS)	0.95	N/A *****	0.87	N/A *****	9.1	N/A *****	9.0
Perfluoropentanoic Acid (PFPeA)	0.95	N/A *****	0.87	N/A *****	9.1	N/A *****	9.0
13C2-6:2 Fluorotelomer sulfonate		N/A *****		N/A *****		N/A *****	
13C2-8:2 Fluorotelomer sulfonate		N/A *****		N/A *****		N/A *****	
13C2-Perfluorodecanoic acid		N/A *****		N/A *****		N/A *****	
13C2-Perfluorododecanoic acid		N/A *****		N/A *****		N/A *****	
13C2-Perfluorohexanoic acid		N/A *****		N/A *****		N/A *****	
13C2-perfluorotetradecanoic acid		N/A *****		101.		92.6	
13C2-Perfluoroundecanoic acid		N/A *****		N/A *****		N/A *****	
13C4-Perfluorobutanoic acid		N/A *****		N/A *****		N/A *****	
13C4-Perfluoroheptanoic acid		N/A *****		N/A *****		N/A *****	
13C5-Perfluorononanoic acid		N/A *****		N/A *****		N/A *****	
13C4-Perfluorooctanoic acid		71.1		N/A *****		N/A *****	
13C4-Perfluorooctanesulfonate		N/A *****		N/A *****		N/A *****	
13C5-Perfluoropentanoic acid		N/A *****		N/A *****		N/A *****	
13C8-Perfluorooctane Sulfonamide		N/A *****		N/A *****		N/A *****	
18O2-Perfluorohexanesulfonate		N/A *****		N/A *****		N/A *****	
D3-MeFOSAA		N/A *****		N/A *****		N/A *****	
D5-EtFOSAA		N/A *****		N/A *****		N/A *****	
N-methyl-d3-perfluorooctane sulfona		N/A *****		N/A *****		N/A *****	
N-ethyl-d5-perfluorooctane sulfonam		N/A *****		N/A *****		N/A *****	

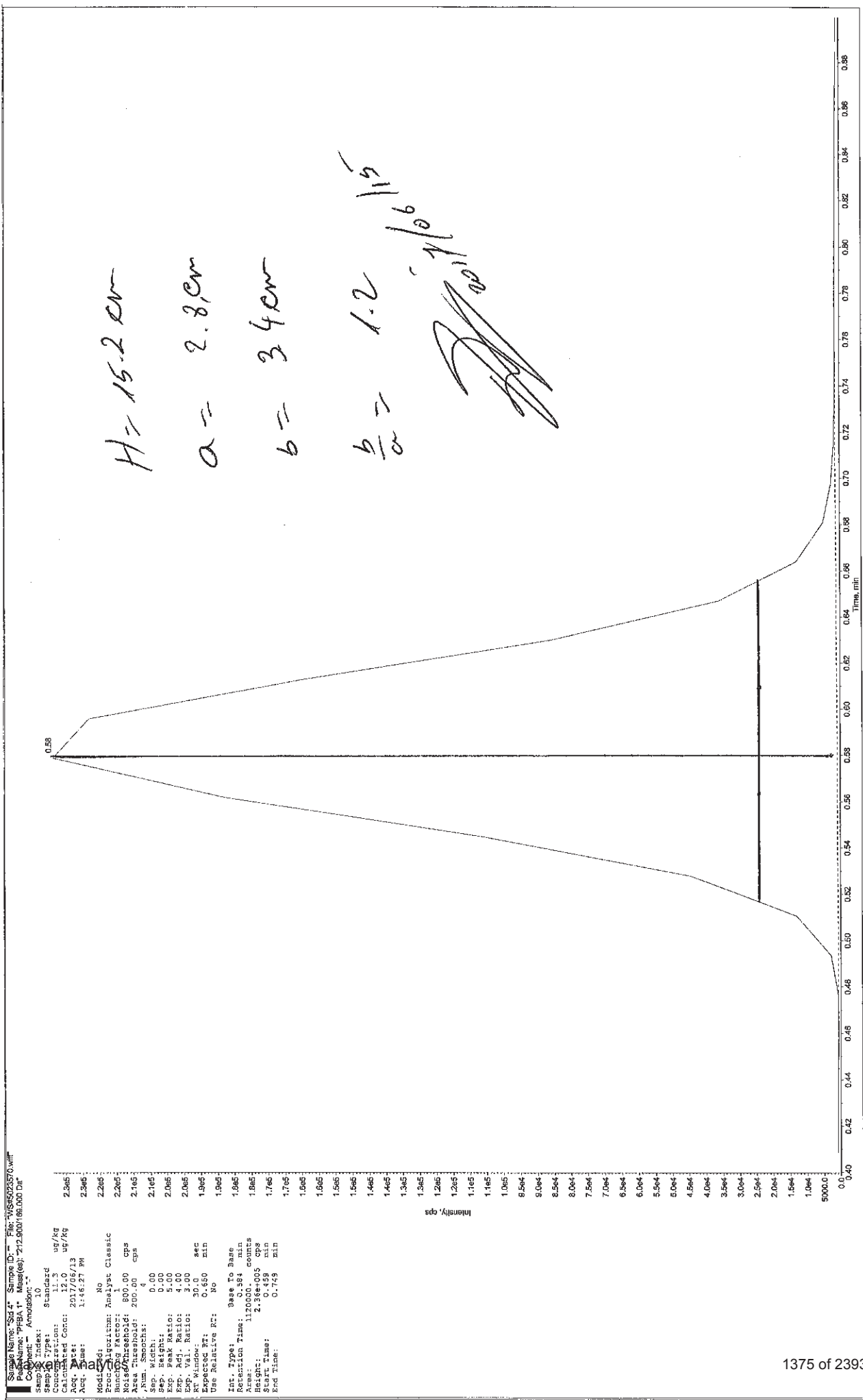
PFOS and PFOA in soil by SPE/LCMS - Soil
ug/kg

Parameter Name	B7B4233 EMM516	DL	B7B4233 EMM519	DL	B7B4250 EMM563	DL	B7B4250 EMM564
6:2 Fluorotelomer sulfonate	0	0.86	12.80000	0.83	0	1.0	0
8:2 Fluorotelomer sulfonate	0	0.86	1.32000	0.83	0	1.0	0
N-ethylperfluorooctane sulfonamide	N/A *****	0.86	N/A *****	0.83	N/A *****	1.0	N/A *****
EtFOSAA	N/A *****	0.86	N/A *****	0.83	N/A *****	1.0	N/A *****
N-ethylperfluorooctane sulfonamido	N/A *****	0.86	N/A *****	0.83	N/A *****	1.0	N/A *****
N-methylperfluorooctane sulfonamide	N/A *****	0.86	N/A *****	0.83	N/A *****	1.0	N/A *****
MeFOSAA	N/A *****	0.86	N/A *****	0.83	N/A *****	1.0	N/A *****
N-methylperfluorooctanesulfonamidol	N/A *****	0.86	N/A *****	0.83	N/A *****	1.0	N/A *****
Perfluorobutanoic acid	0.41900	0.86	0.48400	0.83	0	1.0	0
Perfluorobutane Sulfonate (PFBS)	0	0.86	0.04910	0.83	0	1.0	0
Perfluorodecanoic Acid (PFDA)	0	0.86	0.10300	0.83	0.09330	1.0	0
Perfluorododecanoic Acid (PFDoA)	0	0.86	0	0.83	0	1.0	0
Perfluorodecane Sulfonate	0	0.86	0.65100	0.83	0	1.0	0
Perfluoroheptane sulfonate	N/A *****	0.86	N/A *****	0.83	N/A *****	1.0	N/A *****
Perfluorononanoic Acid (PFNA)	0	0.86	0.08420	0.83	0	1.0	0
Perfluorooctane Sulfonamide (PFOSA)	0.17700	0.86	0.84500	0.83	0	1.0	0
Perfluorotetradecanoic Acid	0	0.86	0	0.83	0	1.0	0
Perfluorotridecanoic Acid	0	0.86	0	0.83	0	1.0	0
Perfluoroundecanoic Acid (PFUnA)	0	0.86	0	0.83	0	1.0	0
Perfluoroheptanoic Acid (PFHpA)	0	0.86	0.22900	0.83	0	1.0	0
Perfluorohexanoic Acid (PFHxA)	0.21100	0.86	1.45000	0.83	0	1.0	0
Perfluorohexane Sulfonate (PFHxS)	0.39300	0.86	1.19000	0.83	0	1.0	0
Perfluoro-n-Octanoic Acid (PFOA)	0	0.86	0.56000	0.83	0	1.0	0
Perfluorooctane Sulfonate (PFOS)	0.61200	0.86	15.80000	0.83	0.28000	1.0	0
Perfluoropentanoic Acid (PFPeA)	0	0.86	0.70500	0.83	0	1.0	0
13C2-6:2 Fluorotelomer sulfonate	89.3		99.2		69.7		57.0
13C2-8:2 Fluorotelomer sulfonate	74.1		95.2		74.3		67.3
13C2-Perfluorodecanoic acid	86.3		92.5		92.1		83.3
13C2-Perfluorododecanoic acid	78.8		83.9		80.5		70.6
13C2-Perfluorohexanoic acid	85.0		93.8		85.4		76.6
13C2-perfluorotetradecanoic acid	86.7		93.0		91.1		76.2
13C2-Perfluoroundecanoic acid	76.0		93.1		85.5		84.7
13C4-Perfluorobutanoic acid	87.1		93.1		90.5		77.9
13C4-Perfluoroheptanoic acid	89.4		100.		90.2		84.4
13C5-Perfluorononanoic acid	80.7		96.6		80.5		75.9
13C4-Perfluorooctanoic acid	84.1		98.2		83.3		74.6
13C4-Perfluorooctanesulfonate	78.0		93.2		82.7		80.5
13C5-Perfluoropentanoic acid	87.6		101.		98.0		86.1
13C8-Perfluorooctane Sulfonamide	76.6		83.2		80.8		73.6
18O2-Perfluorohexanesulfonate	81.0		89.0		75.3		71.0
D3-MeFOSAA	N/A *****		N/A *****		N/A *****		N/A *****
D5-EtFOSAA	N/A *****		N/A *****		N/A *****		N/A *****
N-methyl-d3-perfluorooctane sulfona	65.4		69.0		69.3		64.8
N-ethyl-d5-perfluorooctane sulfonam	64.2		75.2		65.4		57.9

PFOS and PFOA in soil by SPE/LCMS - Soil
ug/kg

Parameter Name	DL	B7B4250 EMM565	DL	RDL	MDL	IDL
6:2 Fluorotelomer sulfonate	1.1	0	0.97	1	0.23	0
8:2 Fluorotelomer sulfonate	1.1	0	0.97	1	0.32	0
N-ethylperfluorooctane sulfonamide	1.1	N/A *****	0.97	1	0.38	0
EtFOSAA	1.1	N/A *****	0.97	1	0.16	0
N-ethylperfluorooctane sulfonamido	1.1	N/A *****	0.97	1	0.28	0
N-methylperfluorooctane sulfonamide	1.1	N/A *****	0.97	1	0.35	0
MeFOSAA	1.1	N/A *****	0.97	1	0.16	0
N-methylperfluorooctanesulfonamidol	1.1	N/A *****	0.97	1	0.38	0
Perfluorobutanoic acid	1.1	0	0.97	1	0.23	0
Perfluorobutane Sulfonate (PFBS)	1.1	0	0.97	1	0.17	0
Perfluorodecanoic Acid (PFDA)	1.1	0	0.97	1	0.13	0
Perfluorododecanoic Acid (PFDoA)	1.1	0	0.97	1	0.22	0
Perfluorodecane Sulfonate	1.1	0.15000	0.97	1	0.23	0
Perfluoroheptane sulfonate	1.1	N/A *****	0.97	1	0.35	0
Perfluorononanoic Acid (PFNA)	1.1	0	0.97	1	0.17	0
Perfluorooctane Sulfonamide (PFOSA)	1.1	0	0.97	1	0.26	0
Perfluorotetradecanoic Acid	1.1	0	0.97	1	0.11	0
Perfluorotridecanoic Acid	1.1	0	0.97	1	0.12	0
Perfluoroundecanoic Acid (PFUnA)	1.1	0	0.97	1	0.18	0
Perfluoroheptanoic Acid (PFHpA)	1.1	0	0.97	1	0.17	0
Perfluorohexanoic Acid (PFHxA)	1.1	0	0.97	1	0.19	0
Perfluorohexane Sulfonate (PFHxS)	1.1	0	0.97	1	0.23	0
Perfluoro-n-Octanoic Acid (PFOA)	1.1	0	0.97	1	0.26	0
Perfluorooctane Sulfonate (PFOS)	1.1	0.18100	0.97	1	0.21	0
Perfluoropentanoic Acid (PFPeA)	1.1	0	0.97	1	0.18	0
13C2-6:2 Fluorotelomer sulfonate		64.5				
13C2-8:2 Fluorotelomer sulfonate		70.8				
13C2-Perfluorodecanoic acid		91.4				
13C2-Perfluorododecanoic acid		72.5				
13C2-Perfluorohexanoic acid		81.5				
13C2-perfluorotetradecanoic acid		78.9				
13C2-Perfluoroundecanoic acid		79.4				
13C4-Perfluorobutanoic acid		87.0				
13C4-Perfluoroheptanoic acid		88.7				
13C5-Perfluorononanoic acid		81.6				
13C4-Perfluorooctanoic acid		76.1				
13C4-Perfluorooctanesulfonate		85.2				
13C5-Perfluoropentanoic acid		90.6				
13C8-Perfluorooctane Sulfonamide		79.5				
18O2-Perfluorohexanesulfonate		91.6				
D3-MeFOSAA		N/A *****				
D5-EtFOSAA		N/A *****				
N-methyl-d3-perfluorooctane sulfona		67.7				
N-ethyl-d5-perfluorooctane sulfonam		64.5				

PFC_Soil_170613_5023570.rdb (PFHpA 1): "Linear" Regression ("1 / x" weighting): $y = 0.377x + -0.0526$ ($r = 0.9996$)



Results Path: T:\lcms3\Analyst Data\Projects\Enviro\PFOS\Results\PFOS_Soil_170613_5023570.rdb

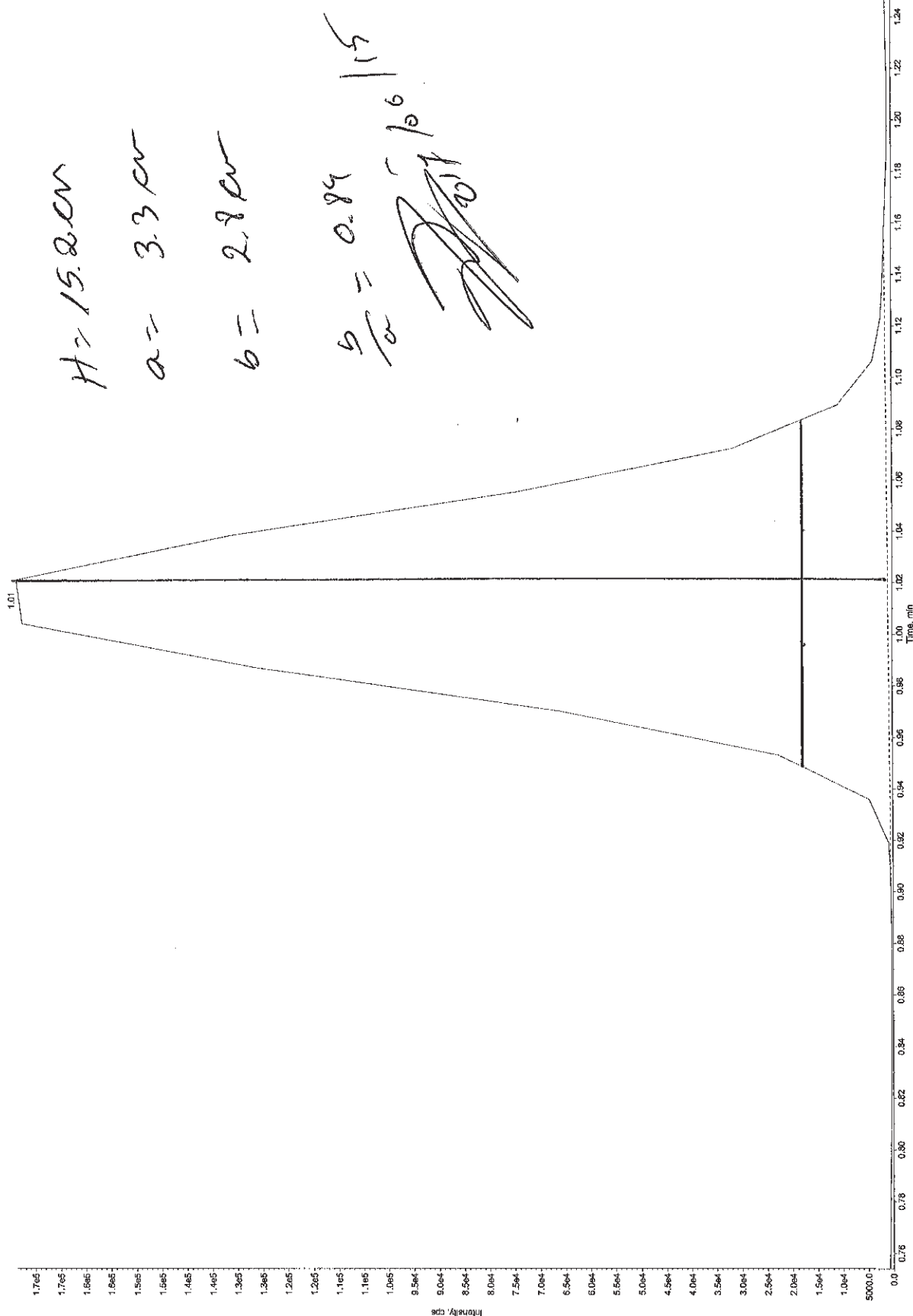
Printing Date: Thursday, June 15, 2017

Sample Name: PFC_Soil_170613_5023570.rdb
Peak Name: PFPeA
Mass(es): 262.000/218.00 Da

Concentration: 1.16 ug/kg
Sample Index: 10
Standard: 1.16 ug/kg
Calculated: 1.16 ug/kg
Acq. Date: 2017/06/13
Acq. Time: 14:46:27 PM

Method: No
Processing: Analyst Classic
Bunching Factor: 1
Noise Threshold: 200.00 cps
Area Threshold: 200.00 cps
Sum. Absolutes: 3.00
Exp. Peak Ratio: 0.01
Exp. Adj. Ratio: 5.00
Exp. Ratio: 4.00
Exp. Ratio: 3.00
Expected RT: 1.00 min
Use Relative RT: No

Int. Type: Base To Base
Integration Time: 0.01
Area: 827000.01 counts
Height: 1.78e+003 cps
Start Time: 0.902 min
End Time: 1.16 min



1376 of 2393

Test Code: PFOSALCM-S

Worksheet Number: 5023570

<u>Sample Number</u>	<u>Parameter</u>	
EJI413-01	8:2 Fluorotelomer sulfonate	*
	Perfluorodecanoic Acid (PFDA)	
	Perfluoroheptanoic Acid (PFHpA)	
	Perfluorononanoic Acid (PFNA)	
	Perfluoro-n-Octanoic Acid (PFOA)	
	Perfluorooctane Sulfonate (PFOS)	
EJI428-01	Perfluoro-n-Octanoic Acid (PFOA)	
EKK074-01	Perfluorotetradecanoic Acid	
EKK075-01	Perfluorotridecanoic Acid	
EMM516-01	6:2 Fluorotelomer sulfonate	*
EMM519-01	8:2 Fluorotelomer sulfonate	*
EMM563-01	Perfluorobutanoic acid	
EMM564-01	Perfluorobutane Sulfonate (PFBS)	
EMM565-01	Perfluorodecanoic Acid (PFDA)	
	Perfluorododecanoic Acid (PFDoA)	
	Perfluorodecane Sulfonate	
	Perfluoroheptanoic Acid (PFHpA)	
	Perfluorohexanoic Acid (PFHxA)	
	Perfluorohexane Sulfonate (PFHxS)	
	Perfluorononanoic Acid (PFNA)	
	Perfluoro-n-Octanoic Acid (PFOA)	
	Perfluorooctane Sulfonate (PFOS)	
	Perfluorooctane Sulfonamide (PFOSA)	
	Perfluoropentanoic Acid (PFPeA)	
	Perfluorotetradecanoic Acid	
	Perfluorotridecanoic Acid	
	Perfluoroundecanoic Acid (PFUnA)	

* - This parameter is usually off, but will be reported for this group of samples!

WorkSheet 5023570 Instrument Sequences

1.	 5023570:MTRX SPK	MTRX SPK
2.	 5023570:MTRX SPK:D1	MTRX SPK :D1
3.	 5023570:SPIKE	SPIKE
4.	 5023570:BLANK	BLANK
5.	 5023570:EJ1413-01	FRCHD-FD-SO-02
6.	 5023570:EJ1428-01	FRCHD04-SO-004
7.	 5023570:EKK074-01	
8.	 5023570:EKK075-01	
9.	 5023570:EMM516-01	
10.	 5023570:EMM519-01	
11.	 5023570:EMM563-01	
12.	 5023570:EMM564-01	
13.	 5023570:EMM565-01	

Batch Name: D:\Analyst Data\Projects\Enviro\PFOS\Batch\PFC_170613.dab

Printing Date: Tuesday, June 13, 2017

Project: D:\Analyst Data\Projects\Enviro\PFOS Batch:PFC_170613 Tab:Sample Set:SET1 AcqMethod:PFOS_Soil.dam

Sample	Sample Name	Rack Code	Rack Position	Plate Code	Plate Position	Vial Position	Data File	Inj. Volume (µl)
1	Rinse	2 Well Plate	1	*54VialPlate	2	1	PFC_170613\WS#5023570	1.000
2	Std 1	2 Well Plate	1	*54VialPlate	2	2	PFC_170613\WS#5023570	1.000
3	Std 2	2 Well Plate	1	*54VialPlate	2	3	PFC_170613\WS#5023570	1.000
4	Std 3	2 Well Plate	1	*54VialPlate	2	4	PFC_170613\WS#5023570	1.000
5	Std 4	2 Well Plate	1	*54VialPlate	2	5	PFC_170613\WS#5023570	1.000
6	Std 5	2 Well Plate	1	*54VialPlate	2	6	PFC_170613\WS#5023570	1.000
7	Std 6	2 Well Plate	1	*54VialPlate	2	7	PFC_170613\WS#5023570	1.000
8	IB	2 Well Plate	1	*54VialPlate	2	8	PFC_170613\WS#5023570	1.000
9	ICV	2 Well Plate	1	*54VialPlate	2	9	PFC_170613\WS#5023570	1.000
10	ISC	2 Well Plate	1	*54VialPlate	2	2	PFC_170613\WS#5023570	1.000
11	5023570-BLANK	2 Well Plate	1	*54VialPlate	2	10	PFC_170613\WS#5023570	1.000
12	5023570-MITRX SPK	2 Well Plate	1	*54VialPlate	2	11	PFC_170613\WS#5023570	1.000
13	5023570-MITRX SPK-D1	2 Well Plate	1	*54VialPlate	2	12	PFC_170613\WS#5023570	1.000
14	5023570-SPKKE	2 Well Plate	1	*54VialPlate	2	13	PFC_170613\WS#5023570	1.000
15	5023570-EJM13-01:10x	2 Well Plate	1	*54VialPlate	2	14	PFC_170613\WS#5023570	1.000
16	5023570-EJM13-01	2 Well Plate	1	*54VialPlate	2	15	PFC_170613\WS#5023570	1.000
17	IB	2 Well Plate	1	*54VialPlate	2	8	PFC_170613\WS#5023570	1.000
18	5023570-EJM28-01:10x	2 Well Plate	1	*54VialPlate	2	16	PFC_170613\WS#5023570	1.000
19	5023570-EJM28-01	2 Well Plate	1	*54VialPlate	2	17	PFC_170613\WS#5023570	1.000
20	IB	2 Well Plate	1	*54VialPlate	2	8	PFC_170613\WS#5023570	1.000
21	5023570-BKK074-01:10x	2 Well Plate	1	*54VialPlate	2	18	PFC_170613\WS#5023570	1.000
22	5023570-BKK074-01	2 Well Plate	1	*54VialPlate	2	19	PFC_170613\WS#5023570	1.000
23	IB	2 Well Plate	1	*54VialPlate	2	8	PFC_170613\WS#5023570	1.000
24	5023570-BKK075-01:10x	2 Well Plate	1	*54VialPlate	2	20	PFC_170613\WS#5023570	1.000
25	5023570-BKK075-01	2 Well Plate	1	*54VialPlate	2	21	PFC_170613\WS#5023570	1.000
26	IB	2 Well Plate	1	*54VialPlate	2	8	PFC_170613\WS#5023570	1.000
27	5023570-BMK516-01	2 Well Plate	1	*54VialPlate	2	22	PFC_170613\WS#5023570	1.000
28	5023570-BMK516-01	2 Well Plate	1	*54VialPlate	2	23	PFC_170613\WS#5023570	1.000
29	CCV	2 Well Plate	1	*54VialPlate	2	5	PFC_170613\WS#5023570	1.000
30	5023570-BMK563-01	2 Well Plate	1	*54VialPlate	2	24	PFC_170613\WS#5023570	1.000
31	5023570-BMK564-01	2 Well Plate	1	*54VialPlate	2	25	PFC_170613\WS#5023570	1.000
32	5023570-BMK565-01	2 Well Plate	1	*54VialPlate	2	26	PFC_170613\WS#5023570	1.000
33	CCV	2 Well Plate	1	*54VialPlate	2	5	PFC_170613\WS#5023570	1.000

Column H174
 MPA: Soft H174/32E#11
 MPB: MWH, Sign -
 Col H SH 0382
 2017/6/13

verified by
 AD
 2017/06/13

	Sample ID	Sample Annotation	Acquisition Date	Acquisition Method	File Name	Rack Type	Rack Position	Vial Position	Plate Type	Plate Position
Maxwell 1 + PlexAmp + YAC	1	-	2017/08/13 1:31:14 PM	PFC Soil dam	PFC_170613WS#5023570.wiff	2 Well Plates	1	2	*5VialPlate*	2
	2	-	2017/06/13 1:36:18 PM	PFC Soil dam	PFC_170613WS#5023570.wiff	2 Well Plates	1	3	*5VialPlate*	2
	3	-	2017/08/13 1:41:23 PM	PFC Soil dam	PFC_170613WS#5023570.wiff	2 Well Plates	1	4	*5VialPlate*	2
	4	-	2017/06/13 1:46:27 PM	PFC Soil dam	PFC_170613WS#5023570.wiff	2 Well Plates	1	5	*5VialPlate*	2
	5	-	2017/08/13 1:51:31 PM	PFC Soil dam	PFC_170613WS#5023570.wiff	2 Well Plates	1	6	*5VialPlate*	2
	6	-	2017/06/13 1:56:35 PM	PFC Soil dam	PFC_170613WS#5023570.wiff	2 Well Plates	1	7	*5VialPlate*	2
	7	-	2017/08/13 2:01:39 PM	PFC Soil dam	PFC_170613WS#5023570.wiff	2 Well Plates	1	8	*5VialPlate*	2
	8	-	2017/06/13 2:02:04 PM	PFC Soil dam	PFC_170613WS#5023570.wiff	2 Well Plates	1	6	*5VialPlate*	2
	9	-	2017/08/13 2:47:17 PM	PFC Soil dam	PFC_170613WS#5023570.wiff	2 Well Plates	1	9	*5VialPlate*	2
	10	-	2017/06/13 3:02:30 PM	PFC Soil dam	PFC_170613WS#5023570.wiff	2 Well Plates	1	2	*5VialPlate*	2
	11	-	2017/08/13 3:12:38 PM	PFC Soil dam	PFC_170613WS#5023570.wiff	2 Well Plates	1	10	*5VialPlate*	2
	12	-	2017/06/13 3:17:42 PM	PFC Soil dam	PFC_170613WS#5023570.wiff	2 Well Plates	1	11	*5VialPlate*	2
	13	-	2017/08/13 3:22:46 PM	PFC Soil dam	PFC_170613WS#5023570.wiff	2 Well Plates	1	12	*5VialPlate*	2
	14	-	2017/05/13 3:27:50 PM	PFC Soil dam	PFC_170613WS#5023570.wiff	2 Well Plates	1	13	*5VialPlate*	2
	15	-	2017/08/13 3:32:55 PM	PFC Soil dam	PFC_170613WS#5023570.wiff	2 Well Plates	1	14	*5VialPlate*	2
	16	-	2017/06/13 3:37:58 PM	PFC Soil dam	PFC_170613WS#5023570.wiff	2 Well Plates	1	15	*5VialPlate*	2
	17	-	2017/08/13 3:43:03 PM	PFC Soil dam	PFC_170613WS#5023570.wiff	2 Well Plates	1	8	*5VialPlate*	2
	18	-	2017/06/13 3:48:07 PM	PFC Soil dam	PFC_170613WS#5023570.wiff	2 Well Plates	1	16	*5VialPlate*	2
	19	-	2017/08/13 3:53:11 PM	PFC Soil dam	PFC_170613WS#5023570.wiff	2 Well Plates	1	17	*5VialPlate*	2
	20	-	2017/06/13 3:58:19 PM	PFC Soil dam	PFC_170613WS#5023570.wiff	2 Well Plates	1	8	*5VialPlate*	2
	21	-	2017/08/13 4:03:23 PM	PFC Soil dam	PFC_170613WS#5023570.wiff	2 Well Plates	1	18	*5VialPlate*	2
	22	-	2017/06/13 4:08:27 PM	PFC Soil dam	PFC_170613WS#5023570.wiff	2 Well Plates	1	19	*5VialPlate*	2
	23	-	2017/08/13 4:13:31 PM	PFC Soil dam	PFC_170613WS#5023570.wiff	2 Well Plates	1	8	*5VialPlate*	2
	24	-	2017/06/13 4:18:36 PM	PFC Soil dam	PFC_170613WS#5023570.wiff	2 Well Plates	1	20	*5VialPlate*	2
	25	-	2017/08/13 4:23:40 PM	PFC Soil dam	PFC_170613WS#5023570.wiff	2 Well Plates	1	21	*5VialPlate*	2
	26	-	2017/06/13 4:28:44 PM	PFC Soil dam	PFC_170613WS#5023570.wiff	2 Well Plates	1	8	*5VialPlate*	2
	27	-	2017/08/13 4:33:48 PM	PFC Soil dam	PFC_170613WS#5023570.wiff	2 Well Plates	1	22	*5VialPlate*	2
	28	-	2017/06/13 4:38:53 PM	PFC Soil dam	PFC_170613WS#5023570.wiff	2 Well Plates	1	23	*5VialPlate*	2
	29	-	2017/08/13 4:43:57 PM	PFC Soil dam	PFC_170613WS#5023570.wiff	2 Well Plates	1	5	*5VialPlate*	2
	30	-	2017/06/13 5:04:13 PM	PFC Soil dam	PFC_170613WS#5023570.wiff	2 Well Plates	1	24	*5VialPlate*	2
	31	-	2017/08/13 5:09:17 PM	PFC Soil dam	PFC_170613WS#5023570.wiff	2 Well Plates	1	25	*5VialPlate*	2
	32	-	2017/06/13 5:14:21 PM	PFC Soil dam	PFC_170613WS#5023570.wiff	2 Well Plates	1	26	*5VialPlate*	2
	33	-	2017/08/13 5:19:25 PM	PFC Soil dam	PFC_170613WS#5023570.wiff	2 Well Plates	1	5	*5VialPlate*	2
	34	-	2017/06/14 7:18:27 AM	PFC Soil dam	PFC_170613WS#5023570.wiff	2 Well Plates	1	2	*5VialPlate*	2
	35	-	2017/08/14 7:28:36 AM	PFC Soil dam	PFC_170613WS#5023570.wiff	2 Well Plates	1	13	*5VialPlate*	2
	36	-	2017/06/14 7:33:40 AM	PFC Soil dam	PFC_170613WS#5023570.wiff	2 Well Plates	1	5	*5VialPlate*	2

DoD Projects - Internal Data Validation Checklist				
Run date: 2017/05/25				
Worksheet # (s): 4988945				
Analysis: PF0SALEM-W				
Primary review by the analyst - 1st 100 % analysis review				1st 100% review
		yes	no	n/a
1	Sample analyses meet hold time criteria	✓		
2	Analysis set-up meets method criteria	✓		
3	Tuning and correct calibration used - criteria meets method criteria	✓		
4	SQC/Control Charts updated, analysis in statistical/method control	✓		
5	Internal area counts checked (if applicable)	✓		
6	LCS, SRM are within acceptance criteria	✓		
7	Surrogate Recovery(s) is within acceptance criteria	✓		
8	Method Blank meets acceptance criteria	✓		
9	Matrix Spike recovery(s) meets acceptance criteria	✓		
10	Duplicate precision meets acceptance criteria		✓	
11	QC is documented on the run logs	✓		
12	Runs checked for carryover	✓		
13	Prep log / worksheet(s) are present, signed / dated by a prep / instrument analysts	✓		
14	Initial weights, splits, imprinter volumes (where applicable) are documented	✓		
15	Standards and reagents traceable to Certificates of Analysis	✓		
16	Samples above calibration range diluted and reanalyzed	✓		
17	Dilution factors (where justified) have been checked for correctness and entered	✓		
18	Analytical observations/anomalies documented in LIMS			✓
19	Random calculation checked and in correct units	✓		
20	If corrective actions were applied they are documented, initialed & dated			✓
21	Manual integration – before & after data with a reason included, initialed & dated			✓
22	Transferred data is validated in LIMS for correctness			✓
23	Data package assembled (where required)	✓		
Reviewed by: DE Date: 2017/05/25				
Comments:				
Secondary Supervisor/Qualified Data Review Staff - 2nd 100% verification review				
		yes	no	n/a
1	Repeats documented and referenced			✓
2	Method and sample deviations noted, anomalies described (if applicable)			✓
3	Data and QC validated in LIMS	✓		
4	Random calculation checked	✓		
5	Benchsheet (s) signed and dated	✓		
6	Data Package (if required) checked for completeness	✓		
Reviewed by: AM Date: 2017/05/29				
Comments:				

*Note: 2nd 100% verification review documented by secondary qualified data review
Primary and Secondary Internal Data Review Check must be performed by a different person

Worksheet Data Validation Checklist - Extractable Organics

Worksheet #

4988945

Testcode:

PROSALCM - W

Sample Preparation

	yes	no	n/a
1 Samples extracted within hold time	☒		
2 Client sample ID verified against Lab ID (waters & oils)	☒		
3 Parameter list and Client comments reviewed, (Spiking solutions matched to parameter list)	☒		
4 Height of sediment or if sample was decanted, recorded on worksheet	☒		
5 Method required QC processed with samples, maximum batch size = 20 client samples.	☒		
6 Sample, duplicate, matrix spike appear similar, initial sample as well as final extract	☒		
7 Sample weight or initial volume and extract final volume, aliquot factor clearly recorded.	☒		
8 If performed any additional dilution clearly recorded	☒		
9 Matrix spike / Duplicate performed on IOL samples if present			☒
10 Spiking solutions valid (haven't expired), ID and volume used clearly identified on worksheet	☒		
11 Spiking process witnessed and signed off	☒		
12 Extraction type recorded (N3A2B = neutral, 3 x acidic, 2 x basic)			☒
13 Sample prep deviations documented within CompliantPro as a Policy Deviation			☒
14 Job Remarks reviewed on 2nd page of worksheet.	☒		
15 Worksheet and reagent tracking record completed and authorized.	☒		

Reviewed by:

[Signature]

Date:

2017/05/18

Comments:

Worksheet Approval

	yes	no	n/a
1 Verified the position of the vials in autosampler against sequence list; signed off sequence list			
2 Calibration and CCV standards valid (haven't expired)			
3 Initial calibration curve and DFTPP tune (if applicable) acceptable			
4 Continuing and Final CCV and DFTPP tune (if applicable) acceptable			
5 System performance check acceptable (if applicable)			
6 Internal standard responses acceptable			
7 Method blank meets acceptance criteria			
8 Lab Control Samples recoveries meets acceptance criteria			
9 Duplicate RPD meets acceptance criteria			
10 Matrix spike recoveries meets acceptance criteria			
11 Surrogate recoveries meets acceptance criteria			
12 Appropriate control charts updated			
13 Samples above calibration range diluted and reanalyzed			
14 Dilutions clearly documented on tracking record, inst file and verified during data upload			
15 Samples following high level samples checked for carryover.			
16 Mass spectra ion ratios acceptable for positive results, hardcopy in file.			
17 Analytical observations / anomalies documented			
18 DQW comments entered in LIMS, hardcopy in file			
19 Sample Prep section (above) reviewed and verified.			
20 WS Approval performed in LIMS			

Reviewed by:

Date:

Comments:

*See BPL Feb-000018
2017/05/25*

Worksheet Validation

	yes	no	n/a
1 Calibration, QC and sample results reviewed and determined acceptable			
2 Manual integrations verified			
3 Random calculation checked			
4 Data and QC validated in LIMS			
5 Comments reviewed for appropriateness			
6 Reworks / relogs documented in file			
7 Worksheet signed and dated,			
8 Worksheet approved and validated within LIMS			

Reviewed by:

Date:

Comments:

Job No. CP305200	Rep	Client Name	Contact	Client Tier	National
	Remarks				

GB797259

MDG CT Laboratories LLC

Fairchild AFB reportin

neg, Please include note that Level IV Package and ERPIMS EDDrequired. MS/MSD REQUIRED FOR SAMPLES EJ1400-01 AND EJ1429-01 Project #: 775303101

Surrogates/Spikes	Method Spike	Spikes	Samples
$S_1 = 25$			
$S_2 = 50$			
$S_3 = 150$			
$S_4 = 37.5$			
$S_5 = 75$			
$S_6 = 125$			
$ICV = 62.5 \rightarrow I-5015$			
$IB = 2850 \mu\text{g}/\text{meq/L} + 150 \mu\text{g/L}$			

[illegible][illegible]

Worksheet Reagent Tracking Record

Worksheet # 4988945

Surrogate/Spike solutions	✓	Solution ID #		Conc.	Blk-Spk		Volume (µL)		Samples	
					Solid	Liquid	Solid	Liquid	Solid	Liquid
DGT Spike				100 ug/mL	60	30	60	30	NA	NA
Diquat Dibromide				50 ug/mL	NA	350	NA	350	NA	NA
Explosives Spiking solution A				20 ug/mL	250	100	250	100	NA	NA
Explosives Spiking solution B				20/80 ug/mL	250	100	250	100	NA	NA
Formaldehyde Spike				100 ug/mL	25	25	25	25	NA	NA
Glyphosate Spike				25 ug/mL	500	20	500	20	NA	NA
Nonylphenol Ethoxylate Spike				100 ug/mL	100	100	100	100	NA	NA
Nonylphenol Spike				10 ug/mL	100	100	100	100	NA	NA
Paraquat Cl Tetrahydrate				20 ug/mL	NA	125	NA	125	NA	NA
Perchlorate Standard Spike				10 ng/mL	NA	100	NA	100	NA	NA
Perchlorate Standard Spike				500 ng/mL	40	NA	40	NA	NA	NA
Perchlorate O-18 Internal Standard				0.10 ng/uL	20	20	20	20	20	20
Morpholine Second Source Working Std				2500 ug/L	NA	80	NA	80	NA	NA
Morpholine-D8 Internal Standard				10 ug/mL	NA	50	NA	50	NA	50
Steril Second Source Spiking Solution				NA	20	NA	20	NA	NA	NA
Sterilants Comp. IS Working Solution				3 ug/mL	50	NA	50	NA	50	NA
Comp. PFC Working Solution A	✓	I-5015 (1/5)		1ug/mL	75	21	62.5	75	21	62.5
PFC Internal Standard Solution	✓	SI-6489 (3/4)		50/125 ng/mL	200	100	150	200	100	150
PFC Injection IS	✓	SI-6423 (2/2)		400 ng/mL	20	20	20	20	20	20
ICV	✓	I-5015 (1/5)		1 ug/mL		62.5				
Solvent/Reagent	✓	Lot No.	Date Opened	Solvent/Reagent	✓	Lot No.	Date Opened/ Prepared	*Spiked by: Spike Date 2017/05/18 Spike Syringe/Pipette ID# 3575992 Int. Std Syringe/Pipette ID# K19609D *Spiking Witnessed by: RP7 Final pH		
DCM				50% NaOH						
Ottawa Sand				o-Phosphoric Acid						
Methanol	✓	SH8G9002V	2017/05/18	Borax						
2-Propanol (IPA)				Calcium Chloride						
Acetonitrile				EDTA						
Sodium Sulfate				Phosphate Buffer						
70:30 Methanol: Water				Sodium Thiosulphate						
60:40 Water: Methanol	✓	PRLRE-104-63		DNPH						
DCM:Ethyl Ether (75:25)				FMOC						
Hexane:IPA (98:2)				5M Acetate Buffer						
2% Formic Acid	✓	PRLRE-104-85		0.2% NH ₄ OH	✓	PRLRE-104-99				
0.2% Formic Acid				Leachate Fluid						
0.05M KOH				Reagent Water	✓	SG218	2017/05/17			
0.05M HCl										
Equipment & ID	✓	Equipment	ID#	✓	Equipment	Lot #	Bottle Tracking			
Pipettor N19320D, K39732F 3575992 K19609D	✓	SPE Cartridge	003137023A	✓	QC Balance ID		Bottle# 17359			
		Filter			Thermometer ID &Temp		Cap# 17376			
Dispenser		Centrifuge					Systems plus Lot#			
		Sonicator					17-04-25			

Comments:

125 ml reference bottle

4988945

Dilution and Column Cleaning Worksheet

Worksheet:

Job Number	Sample ID	Sample: Initial Final Volume	Dilution Required	Sample added mL	Solvent Added mL	Int Stan Added μ L	New Effective Final Volume	INITIAL DATE	Column Clean Up
B797259	EJI 394-01	—	10X	12.5	112.5	150	125	2017/05/18	—
B797259	EJI 394-01	—	50X	2.5	122.5	150	125	2017/05/18	—
B797259	EJI 400-01	—	100X	1.25	123.75	150	125	2017/05/18	—
B797259	EJI 400-01	100X	1000X	18 μ L	162 μ L (100X)	200 μ L 9m I-5	125	2017/05/18	—
B797259	EJI 400-01	—	100X	1.25	123.75	150	125	2017/05/18	—
B797259	EJI 400-01	100X	1000X	18 μ L	162 μ L (100X)	200 μ L 9m I-5	125	2017/05/18	—
B797259	EJI 408-01	—	10X	12.5	112.5	150	125	2017/05/18	—
B797259	EJI 409-01	—	50X	2.5	122.5	150	125	2017/05/18	—
B797259	EJI 412-01	—	10X	12.5	112.5	150	125	2017/05/18	—
B797259	EJI 412-01	—	10X	12.5	112.5	150	125	2017/05/18	—
B797259	EJI 412-01	—	50X	2.5	122.5	150	125	2017/05/18	—

Dilution and Column Cleaning Worksheet

Worksheet:

#49.88945

Job Number	Sample ID	Sample: Initial Final Volume	Dilution Required	Sample added mL	Solvent Added mL	Int Stan Added uL	New Effective Final Volume	INITIAL DATE	Column Clean Up
B797259	EJI 420-01	—	10X	12.5	112.5	150	125	2017/05/18	—
B797259	EJI 420-01	—	50X	2.5	122.5	150	125	2017/05/18	—
B797259	EJI 426-01	—	100X	1.25	123.75	150	125	2017/05/18	—
B797259	EJI 426-01	100X	1000X	18 uL	162 uL (18)	2 uL 9 uL 5.5	125	2017/05/18	—
B797259	EJI 430-01	—	10X	12.5	112.5	150	125	2017/05/18	—
B797259	EJI 430-01	—	50X	2.5	122.5	150	125	2017/05/18	—
								2017/05/18	

PFOS and PFOA in water by SPE/LCMS - Water
ug/L

Parameter Name	Units	SPIKE	DL	SPIKE Dup1	DL	BLANK	DL
6:2 Fluorotelomer sulfonate	ug/L	81.80000	0.02	94.60000	0.02	0.00752	0.02
8:2 Fluorotelomer sulfonate	ug/L	91.80000	0.02	110.60000	0.02	0	0.02
N-ethylperfluorooctane sulfonamide	ug/L	N/A*****	0.02	N/A*****	0.02	N/A*****	0.02
EtFOSAA	ug/L	97.80000	0.02	96.80000	0.02	0	0.02
N-ethylperfluorooctane sulfonamido	ug/L	N/A*****	0.02	N/A*****	0.02	N/A*****	0.02
N-methylperfluorooctane sulfonamide	ug/L	N/A*****	0.02	N/A*****	0.02	N/A*****	0.02
MeFOSAA	ug/L	102.40000	0.02	97.80000	0.02	0	0.02
N-methylperfluorooctanesulfonamidol	ug/L	90.60000	0.02	100.20000	0.02	N/A*****	0.02
Perfluorobutanoic acid	ug/L	106.40000	0.02	100.60000	0.02	0	0.02
Perfluorobutane Sulfonate (PFBS)	ug/L	87.60000	0.02	89.80000	0.02	0	0.02
Perfluorodecane Sulfonate	ug/L	98.80000	0.02	93.20000	0.02	0	0.02
Perfluoroheptanoic Acid (PFHpA)	ug/L	107.40000	0.02	102.00000	0.02	0	0.02
Perfluoroheptane sulfonate	ug/L	108.80000	0.02	99.00000	0.02	0	0.02
Perfluorohexanoic Acid (PFHxA)	ug/L	102.00000	0.02	91.60000	0.02	0	0.02
Perfluorohexane Sulfonate (PFHxS)	ug/L	89.40000	0.02	94.00000	0.02	0	0.02
Perfluorononanoic Acid (PFNA)	ug/L	92.40000	0.02	106.60000	0.02	0	0.02
Perfluorooctane Sulfonamide (PFOSA)	ug/L	96.80000	0.02	96.80000	0.02	0	0.02
Perfluoropentanoic Acid (PFPeA)	ug/L	118.40000	0.02	94.00000	0.02	0	0.02
Perfluorotetradecanoic Acid	ug/L	102.40000	0.02	99.00000	0.02	0	0.02
Perfluorotridecanoic Acid	ug/L	104.00000	0.02	101.20000	0.02	0	0.02
Perfluoroundecanoic Acid (PFUnA)	ug/L	97.00000	0.02	94.60000	0.02	0	0.02
Perfluorodecanoic Acid (PFDA)	ug/L	98.60000	0.02	102.40000	0.02	0	0.02
Perfluorododecanoic Acid (PFDoA)	ug/L	90.40000	0.02	89.20000	0.02	0	0.02
Perfluoro-n-Octanoic Acid (PFOA)	ug/L	84.40000	0.02	86.20000	0.02	0	0.02
Perfluorooctane Sulfonate (PFOS)	ug/L	93.40000	0.02	91.20000	0.02	0	0.02
13C2-6:2 Fluorotelomer sulfonate	ug/L	109.		94.2		108.	
13C2-8:2 Fluorotelomer sulfonate	ug/L	82.3		85.3		97.6	
13C2-perfluorotetradecanoic acid	ug/L	76.7		86.6		91.2	
13C4-Perfluorobutanoic acid	ug/L	86.7		102.		102.	
D3-MeFOSAA	ug/L	83.2		69.5		77.9	
D5-EtFOSAA	ug/L	78.7		68.9		77.8	
N-methyl-d3-perfluorooctane sulfona	ug/L	77.8		94.4		80.9	
N-ethyl-d5-perfluorooctane sulfonam	ug/L	74.1		94.0		87.7	
13C2-Perfluorodecanoic acid	ug/L	82.0		98.8		95.2	
13C2-Perfluorododecanoic acid	ug/L	79.3		99.5		84.6	
13C2-Perfluorohexanoic acid	ug/L	84.4		96.8		104.	
13C2-Perfluoroundecanoic acid	ug/L	84.4		102.		89.0	
13C4-Perfluoroheptanoic acid	ug/L	87.5		102.		108.	
13C5-Perfluorononanoic acid	ug/L	103.		97.1		88.1	
13C4-Perfluorooctanoic acid	ug/L	95.2		100.		93.2	
13C4-Perfluorooctanesulfonate	ug/L	92.5		104.		97.7	
13C5-Perfluoropentanoic acid	ug/L	81.2		106.		84.5	
13C8-Perfluorooctane Sulfonamide	ug/L	80.6		99.0		88.2	
18O2-Perfluorohexanesulfonate	ug/L	97.7		103.		127.	

2017/06/13

PFOS and PFOA in water by SPE/LCMS - Water
ug/L

Parameter Name	B795260 EIY913	DL	B797259 EJI394	DL	B797259 EJI400	DL	B797259 EJI400 Dup1
6:2 Fluorotelomer sulfonate	0	0.02	1.92000	0.2	13.90000	2.0	11 19.4000
8:2 Fluorotelomer sulfonate	0	0.02	0.31200	0.2	3.59000	2.0	4.06000
N-ethylperfluorooctane sulfonamide	N/A *****	0.02	N/A *****	0.2	N/A *****	2.0	N/A *****
EtFOSAA	0	0.02	0.05910	0.2	0	2.0	0
N-ethylperfluorooctane sulfonamides	N/A *****	0.02	N/A *****	0.2	N/A *****	2.0	N/A *****
N-methylperfluorooctane sulfonamide	N/A *****	0.02	N/A *****	0.2	N/A *****	2.0	N/A *****
MeFOSAA	0	0.02	0	0.2	0	2.0	0
N-methylperfluorooctanesulfonamidol	N/A *****	0.02	N/A *****	0.2	N/A *****	2.0	N/A *****
Perfluorobutanoic acid	N/A *****	0.02	N/A *****	0.2	N/A *****	2.0	N/A *****
Perfluorobutane Sulfonate (PFBS)	0	0.02	0.27700	0.2	3.77000	2.0	3.95000
Perfluorodecane Sulfonate	N/A *****	0.02	N/A *****	0.2	N/A *****	2.0	N/A *****
Perfluoroheptanoic Acid (PFHpA)	0	0.02	1.42000	0.2	2.05000	2.0	2.64000
Perfluoroheptane sulfonate	N/A *****	0.02	N/A *****	0.2	N/A *****	2.0	N/A *****
Perfluorohexanoic Acid (PFHxA)	0	0.02	1.37000	0.2	7.82000	2.0	7.81000
Perfluorohexane Sulfonate (PFHxS)	0	0.02	2.42000	0.2	29.00000	2.0	27.50000
Perfluorononanoic Acid (PFNA)	0	0.02	0.07740	0.2	0.46000	2.0	0.47900
Perfluorooctane Sulfonamide (PFOSA)	N/A *****	0.02	N/A *****	0.2	N/A *****	2.0	N/A *****
Perfluoropentanoic Acid (PFPeA)	N/A *****	0.02	N/A *****	0.2	N/A *****	2.0	N/A *****
Perfluorotetradecanoic Acid	0	0.02	0	0.2	0	2.0	0
Perfluorotridecanoic Acid	0	0.02	0	0.2	0	2.0	0
Perfluoroundecanoic Acid (PFUnA)	0	0.02	0	0.2	0	2.0	0
Perfluorodecanoic Acid (PFDA)	0	0.02	0	0.2	0	2.0	0
Perfluorododecanoic Acid (PFDoA)	0	0.02	0	0.2	0	2.0	0
Perfluoro-n-Octanoic Acid (PFOA)	0	0.02	0.62300	0.2	5.95000	2.0	6.06000
Perfluorooctane Sulfonate (PFOS)	0	0.02	17.30000	1.0	98.30000	20.0	100.00000
13C2-6:2 Fluorotelomer sulfonate	65.0		92.7		92.0		77.2
13C2-8:2 Fluorotelomer sulfonate	82.0		92.8		81.1		81.6
13C2-perfluorotetradecanoic acid	67.5		76.8		62.0		79.5
13C4-Perfluorobutanoic acid	78.2		85.8		87.1		84.8
D3-MeFOSAA	63.5		74.3		60.2		65.3
D5-EtFOSAA	62.1		75.1		63.1		64.2
N-methyl-d3-perfluorooctane sulfona	71.0		75.7		69.2		77.8
N-ethyl-d5-perfluorooctane sulfonam	86.2		87.4		73.9		71.6
13C2-Perfluorodecanoic acid	76.9		83.1		72.3		91.3
13C2-Perfluorododecanoic acid	87.2		96.4		76.1		84.2
13C2-Perfluorohexanoic acid	83.4		85.0		81.9		87.9
13C2-Perfluoroundecanoic acid	82.4		88.7		73.5		91.3
13C4-Perfluoroheptanoic acid	81.9		85.9		91.9		83.9
13C5-Perfluorononanoic acid	76.6		86.8		81.6		93.0
13C4-Perfluorooctanoic acid	82.0		93.2		83.7		95.7
13C4-Perfluorooctanesulfonate	78.6		76.1		87.7		93.9
13C5-Perfluoropentanoic acid	74.5		95.9		86.3		76.8
13C8-Perfluorooctane Sulfonamide	89.4		85.0		71.7		81.5
18O2-Perfluorohexanesulfonate	79.9		89.6		76.8		82.8

PFOS and PFOA in water by SPE/LCMS - Water
ug/L

Parameter Name	DL	B797259 EJ1403	DL	B797259 EJ1408	DL	B797259 EJ1409	DL
6:2 Fluorotelomer sulfonate	2.0	0.00770	0.02	9.24000	2.0	0	0.02
8:2 Fluorotelomer sulfonate	2.0	0	0.02	0.18600	0.2	0	0.02
N-ethylperfluorooctane sulfonamide	2.0	N/A *****	0.02	N/A *****	0.2	N/A *****	0.02
EtFOSAA	2.0	0	0.02	0	0.2	0	0.02
N-ethylperfluorooctane sulfonamidoe	2.0	N/A *****	0.02	N/A *****	0.2	N/A *****	0.02
N-methylperfluorooctane sulfonamide	2.0	N/A *****	0.02	N/A *****	0.2	N/A *****	0.02
MeFOSAA	2.0	0	0.02	0	0.2	0	0.02
N-methylperfluorooctanesulfonamidol	2.0	N/A *****	0.02	N/A *****	0.2	N/A *****	0.02
Perfluorobutanoic acid	2.0	N/A *****	0.02	N/A *****	0.2	N/A *****	0.02
Perfluorobutane Sulfonate (PFBS)	2.0	0	0.02	0.77000	0.2	0	0.02
Perfluorodecane Sulfonate	2.0	N/A *****	0.02	N/A *****	0.2	N/A *****	0.02
Perfluoroheptanoic Acid (PFHpA)	2.0	0	0.02	0.52400	0.2	0.88100	0.02
Perfluoroheptane sulfonate	2.0	N/A *****	0.02	N/A *****	0.2	N/A *****	0.02
Perfluorohexanoic Acid (PFHxA)	2.0	0	0.02	2.18000	0.2	0.40600	0.02
Perfluorohexane Sulfonate (PFHxS)	2.0	0.00421	0.02	7.34000	0.2	0.01060	0.02
Perfluorononanoic Acid (PFNA)	2.0	0	0.02	0.04160	0.2	0.34700	0.02
Perfluorooctane Sulfonamide (PFOSA)	2.0	N/A *****	0.02	N/A *****	0.2	N/A *****	0.02
Perfluoropentanoic Acid (PFPeA)	2.0	N/A *****	0.02	N/A *****	0.2	N/A *****	0.02
Perfluorotetradecanoic Acid	2.0	0	0.02	0	0.2	0	0.02
Perfluorotridecanoic Acid	2.0	0	0.02	0	0.2	0	0.02
Perfluoroundecanoic Acid (PFUnA)	2.0	0	0.02	0	0.2	0	0.02
Perfluorodecanoic Acid (PFDA)	2.0	0	0.02	0	0.2	0.12400	0.02
Perfluorododecanoic Acid (PFDoA)	2.0	0	0.02	0	0.2	0	0.02
Perfluoro-n-Octanoic Acid (PFOA)	2.0	0	0.02	0.82500	0.2	1.47000	0.2
Perfluorooctane Sulfonate (PFOS)	20	0.00651	0.02	8.36000	0.2	0.02590	0.02
13C2-6:2 Fluorotelomer sulfonate		97.9		95.9		91.2	
13C2-8:2 Fluorotelomer sulfonate		111.		91.9		99.7	
13C2-perfluorotetradecanoic acid		73.6		60.5		73.7	
13C4-Perfluorobutanoic acid		91.9		92.6		92.3	
D3-MeFOSAA		76.2		68.0		77.5	
D5-EtFOSAA		73		67.2		75.4	
N-methyl-d3-perfluorooctane sulfona		94.9		77.1		78.6	
N-ethyl-d5-perfluorooctane sulfonam		74.1		83.4		84.5	
13C2-Perfluorodecanoic acid		80.2		84.2		87.9	
13C2-Perfluorododecanoic acid		80.3		73.6		81.6	
13C2-Perfluorohexanoic acid		91.9		94.2		94.6	
13C2-Perfluoroundecanoic acid		89.7		77.9		95.6	
13C4-Perfluoroheptanoic acid		101.		95.6		95.3	
13C5-Perfluorononanoic acid		98.7		106.		96.5	
13C4-Perfluorooctanoic acid		100.		108.		97.1	
13C4-Perfluorooctanesulfonate		91.9		95.6		90.9	
13C5-Perfluoropentanoic acid		93.5		88.4		91.0	
13C8-Perfluorooctane Sulfonamide		82.9		87.8		92.9	
18O2-Perfluorohexanesulfonate		103.		102.		83.7	

PFOS and PFOA in water by SPE/LCMS - Water
ug/L

Parameter Name	B797259 EJI410	DL	B797259 EJI411	DL	B797259 EJI412	DL	B797259 EJI420
6:2 Fluorotelomer sulfonate	0.09730	0.02	0	0.02	1.83000	0.2	14.90000
8:2 Fluorotelomer sulfonate	0	0.02	0	0.02	0.33000	0.2	0.70200
N-ethylperfluorooctane sulfonamide	N/A *****	0.02	N/A *****	0.02	N/A *****	0.2	N/A *****
EtFOSAA	0	0.02	0	0.02	0	0.2	0
N-ethylperfluorooctane sulfonamidoe	N/A *****	0.02	N/A *****	0.02	N/A *****	0.2	N/A *****
N-methylperfluorooctane sulfonamide	N/A *****	0.02	N/A *****	0.02	N/A *****	0.2	N/A *****
MeFOSAA	0	0.02	0	0.02	0	0.2	0
N-methylperfluorooctanesulfonamidol	N/A *****	0.02	N/A *****	0.02	N/A *****	0.2	N/A *****
Perfluorobutanoic acid	N/A *****	0.02	N/A *****	0.02	N/A *****	0.2	N/A *****
Perfluorobutane Sulfonate (PFBS)	0.01200	0.02	0	0.02	0.25900	0.2	1.17000
Perfluorodecane Sulfonate	N/A *****	0.02	N/A *****	0.02	N/A *****	0.2	N/A *****
Perfluoroheptanoic Acid (PFHpA)	0.01620	0.02	0	0.02	1.44000	0.2	0.58500
Perfluoroheptane sulfonate	N/A *****	0.02	N/A *****	0.02	N/A *****	0.2	N/A *****
Perfluorohexanoic Acid (PFHxA)	0.04400	0.02	0	0.02	1.32000	0.2	3.20000
Perfluorohexane Sulfonate (PFHxS)	0.07680	0.02	0	0.02	2.25000	0.2	8.37000
Perfluorononanoic Acid (PFNA)	0.00419	0.02	0	0.02	0.08380	0.2	0.10100
Perfluorooctane Sulfonamide (PFOSA)	N/A *****	0.02	N/A *****	0.02	N/A *****	0.2	N/A *****
Perfluoropentanoic Acid (PFPeA)	0.04940	0.02	N/A *****	0.02	N/A *****	0.2	N/A *****
Perfluorotetradecanoic Acid	0	0.02	0	0.02	0	0.2	0
Perfluorotridecanoic Acid	0	0.02	0	0.02	0	0.2	0
Perfluoroundecanoic Acid (PFUnA)	0	0.02	0	0.02	0	0.2	0
Perfluorodecanoic Acid (PFDA)	0.00610	0.02	0	0.02	0	0.2	0.14100
Perfluorododecanoic Acid (PFDoA)	0.00369	0.02	0	0.02	0	0.2	0
Perfluoro-n-Octanoic Acid (PFOA)	0.02170	0.02	0	0.02	0.58400	0.2	0.69300
Perfluorooctane Sulfonate (PFOS)	0.23800	0.02	0	0.02	16.80000	1.0	21.40000
13C2-6:2 Fluorotelomer sulfonate	79.3		91.2		91.0		87.7
13C2-8:2 Fluorotelomer sulfonate	78.0		91.1		79.9		78.2
13C2-perfluorotetradecanoic acid	78.2		80.2		81.4		63.6
13C4-Perfluorobutanoic acid	84.3		87.9		91.8		84.0
D3-MeFOSAA	67.9		78.2		83.3		67.6
D5-EtFOSAA	65.9		75.9		80.4		65.1
N-methyl-d3-perfluorooctane sulfona	76.5		84.6		101.		70.5
N-ethyl-d5-perfluorooctane sulfonam	69.9		79.3		110.		72.7
13C2-Perfluorodecanoic acid	91.2		95.5		103.		75.1
13C2-Perfluorododecanoic acid	80.2		86.4		96.2		72.1
13C2-Perfluorohexanoic acid	87.3		93.3		92.9		82.4
13C2-Perfluoroundecanoic acid	94.8		89.0		102.		77.7
13C4-Perfluoroheptanoic acid	83.4		105.		95.7		79.7
13C5-Perfluorononanoic acid	81.4		101.		107.		73.5
13C4-Perfluorooctanoic acid	81.9		93.3		98.1		84.0
13C4-Perfluorooctanesulfonate	68.9		95.0		62.3		91.9
13C5-Perfluoropentanoic acid	79.7		90.1		89.3		82.1
13C8-Perfluorooctane Sulfonamide	76.6		88.5		102.		76.1
18O2-Perfluorohexanesulfonate	82.6		90.6		97.0		85.8

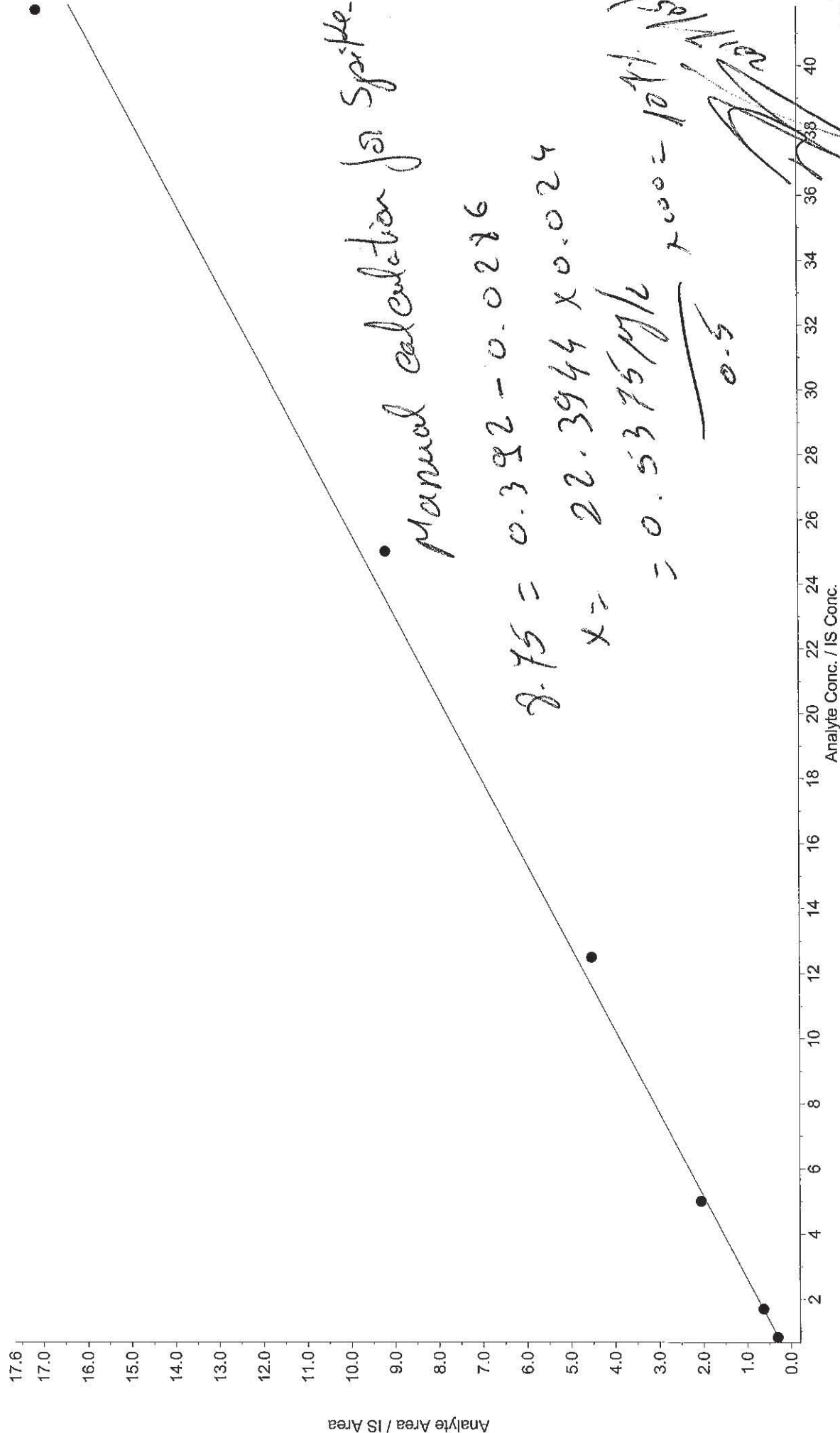
PFOS and PFOA in water by SPE/LCMS - Water
ug/L

Parameter Name	DL	B797259 EJI422	DL	B797259 EJI426	DL	B797259 EJI427	DL
6:2 Fluorotelomer sulfonate	0.2	0.00793	0.02	91.40000	2.0	0	0.02
8:2 Fluorotelomer sulfonate	0.2	0	0.02	2.51000	2.0	0	0.02
N-ethylperfluorooctane sulfonamide	0.2	N/A *****	0.02	N/A *****	2.0	N/A *****	0.02
EtFOSAA	0.2	0	0.02	0	2.0	0	0.02
N-ethylperfluorooctane sulfonamido	0.2	N/A *****	0.02	N/A *****	2.0	N/A *****	0.02
N-methylperfluorooctane sulfonamide	0.2	N/A *****	0.02	N/A *****	2.0	N/A *****	0.02
MeFOSAA	0.2	0	0.02	0	2.0	0	0.02
N-methylperfluorooctanesulfonamidol	0.2	N/A *****	0.02	N/A *****	2.0	N/A *****	0.02
Perfluorobutanoic acid	0.2	N/A *****	0.02	N/A *****	2.0	N/A *****	0.02
Perfluorobutane Sulfonate (PFBS)	0.2	0	0.02	9.22000	2.0	0	0.02
Perfluorodecane Sulfonate	0.2	N/A *****	0.02	N/A *****	2.0	N/A *****	0.02
Perfluoroheptanoic Acid (PFHpA)	0.2	0.00484	0.02	4.31000	2.0	0	0.02
Perfluoroheptane sulfonate	0.2	N/A *****	0.02	N/A *****	2.0	N/A *****	0.02
Perfluorohexanoic Acid (PFHxA)	0.2	0.01450	0.02	26.30000	2.0	0	0.02
Perfluorohexane Sulfonate (PFHxS)	0.2	0.02040	0.02	90.50000	20.0	0	0.02
Perfluorononanoic Acid (PFNA)	0.2	0	0.02	0.40800	2.0	0	0.02
Perfluorooctane Sulfonamide (PFOSA)	0.2	N/A *****	0.02	N/A *****	2.0	N/A *****	0.02
Perfluoropentanoic Acid (PFPeA)	0.2	N/A *****	0.02	N/A *****	2.0	N/A *****	0.02
Perfluorotetradecanoic Acid	0.2	0	0.02	0	2.0	0	0.02
Perfluorotridecanoic Acid	0.2	0	0.02	0	2.0	0	0.02
Perfluoroundecanoic Acid (PFUnA)	0.2	0	0.02	0	2.0	0	0.02
Perfluorodecanoic Acid (PFDA)	0.2	0	0.02	0.34700	2.0	0	0.02
Perfluorododecanoic Acid (PFDoA)	0.2	0	0.02	0	2.0	0	0.02
Perfluoro-n-Octanoic Acid (PFOA)	0.2	0.00916	0.02	17.10000	2.0	0	0.02
Perfluorooctane Sulfonate (PFOS)	1.0	0.02630	0.02	148.00000	20.0	0	0.02
13C2-6:2 Fluorotelomer sulfonate		87.5		86.0		85.0	
13C2-8:2 Fluorotelomer sulfonate		95.5		90.1		77.6	
13C2-perfluorotetradecanoic acid		74.7		71.8		72.7	
13C4-Perfluorobutanoic acid		104.		88.1		96.6	
D3-MeFOSAA		87.9		117.2		74.2	
D5-EtFOSAA		77.9		116.6		73.4	
N-methyl-d3-perfluorooctane sulfona		86.2		88.0		77.7	
N-ethyl-d5-perfluorooctane sulfonam		74.9		83.1		72.6	
13C2-Perfluorodecanoic acid		91.7		94.1		90.7	
13C2-Perfluorododecanoic acid		88.8		80.6		81.6	
13C2-Perfluorohexanoic acid		100.		91.0		97.8	
13C2-Perfluoroundecanoic acid		92.3		83.7		85.3	
13C4-Perfluoroheptanoic acid		113.		90.4		84.4	
13C5-Perfluorononanoic acid		107.		84.9		91.0	
13C4-Perfluorooctanoic acid		108.		87.2		99.2	
13C4-Perfluorooctanesulfonate		108.		105.		86.4	
13C5-Perfluoropentanoic acid		96.0		92.2		91.4	
13C8-Perfluorooctane Sulfonamide		92.2		86.5		84.3	
18O2-Perfluorohexanesulfonate		107.		107.		99.9	

PFOS and PFOA in water by SPE/LCMS - Water
ug/L

Parameter Name	B797259 EJ1430	DL	B797259 EJ1432	DL	RDL	MDL	IDL
6:2 Fluorotelomer sulfonate	1.45000	0.2	0	0.02	0.02	0.0032	0
8:2 Fluorotelomer sulfonate	0.08930	0.2	0	0.02	0.02	0.0036	0
N-ethylperfluorooctane sulfonamide	N/A *****	0.2	N/A *****	0.02	0.02	0.0058	0
EtFOSAA	0	0.2	0.00636	0.02	0.02	0.0036	0
N-ethylperfluorooctane sulfonamido	N/A *****	0.2	N/A *****	0.02	0.02	0.0063	0
N-methylperfluorooctane sulfonamide	N/A *****	0.2	N/A *****	0.02	0.02	0.0041	0
MeFOSAA	0	0.2	0	0.02	0.02	0.0026	0
N-methylperfluorooctanesulfonamidol	N/A *****	0.2	N/A *****	0.02	0.02	0.0043	0
Perfluorobutanoic acid	N/A *****	0.2	N/A *****	0.02	0.02	0.0066	0
Perfluorobutane Sulfonate (PFBS)	0.58100	0.2	0	0.02	0.02	0.0048	0
Perfluorodecane Sulfonate	N/A *****	0.2	N/A *****	0.02	0.02	0.0046	0
Perfluoroheptanoic Acid (PFHpA)	1.68000	0.2	0	0.02	0.02	0.0033	0
Perfluoroheptane sulfonate	N/A *****	0.2	N/A *****	0.02	0.02	0.0048	0
Perfluorohexanoic Acid (PFHxA)	2.49000	0.2	0	0.02	0.02	0.0029	0
Perfluorohexane Sulfonate (PFHxS)	14.00000	0.2	0	0.02	0.02	0.0034	0
Perfluorononanoic Acid (PFNA)	0.33700	0.2	0	0.02	0.02	0.0046	0
Perfluorooctane Sulfonamide (PFOSA)	N/A *****	0.2	N/A *****	0.02	0.02	0.0036	0
Perfluoropentanoic Acid (PFPeA)	N/A *****	0.2	N/A *****	0.02	0.02	0.0027	0
Perfluorotetradecanoic Acid	0	0.2	0	0.02	0.02	0.0038	0
Perfluorotridecanoic Acid	0	0.2	0	0.02	0.02	0.0033	0
Perfluoroundecanoic Acid (PFUnA)	0	0.2	0	0.02	0.02	0.0043	0
Perfluorodecanoic Acid (PFDA)	0	0.2	0	0.02	0.02	0.004	0
Perfluorododecanoic Acid (PFDoA)	0	0.2	0	0.02	0.02	0.0028	0
Perfluoro-n-Octanoic Acid (PFOA)	2.53000	0.2	0	0.02	0.02	0.0046	0
Perfluorooctane Sulfonate (PFOS)	22.40000	1.0	0	0.02	0.02	0.0026	0
13C2-6:2 Fluorotelomer sulfonate	89.5		99.1				
13C2-8:2 Fluorotelomer sulfonate	74.7		110.				
13C2-perfluorotetradecanoic acid	70.6		65.0				
13C4-Perfluorobutanoic acid	99.4		105.				
D3-MeFOSAA	73.2		67.3				
D5-EtFOSAA	69.1		63.6				
N-methyl-d3-perfluorooctane sulfona	78.3		74.6				
N-ethyl-d5-perfluorooctane sulfonam	74.0		67.9				
13C2-Perfluorodecanoic acid	80.0		78.7				
13C2-Perfluorododecanoic acid	82.4		72.2				
13C2-Perfluorohexanoic acid	91.6		93.2				
13C2-Perfluoroundecanoic acid	80.9		74.0				
13C4-Perfluoroheptanoic acid	90.9		96.5				
13C5-Perfluorononanoic acid	97.8		108.				
13C4-Perfluorooctanoic acid	91.0		96.3				
13C4-Perfluorooctanesulfonate	88.5		91.6				
13C5-Perfluoropentanoic acid	83.0		95.2				
13C8-Perfluorooctane Sulfonamide	83.1		77.4				
18O2-Perfluorohexanesulfonate	93.0		103.				

■ PFC_Water_170523_4988945.rdb (PFHpA 1): "Linear" Regression ("1 / x" weighting): $y = 0.392 x + -0.0286$ ($r = 0.9981$)



• Manual calculation for Spalte.

$$8.75 = 0.392 - 0.0286$$
$$x = 22.3944 \times 0.024$$
$$= 0.5375 \text{ mg/l}$$
$$\frac{2.000 - 10.11}{0.5} \times 10^5$$

Sample Name: "Std 4" Sample ID: File: "MS4988945.wif"

Peak Name: "PFBA 1" Mass(es): 212.900/169.000 Da

Comment: "Amidation"

Sample Name: "Std 4"

Sample Type: Standard

Concentration: 12.5 ug/L

Calculated Conc: 11.8 ug/L

Acq. Date: 2017/05/23

Acq. Time: 11:15:47 AM

Modified: No

Proc. Algorithm: Analyst Classic

Smoothing: 5

Search Factor: 500.00 cps

Area Threshold: 200.00 cps

Num. Smoother: 4

Sep. Width: 0.00

Sep. Height: 0.00

Exp. Ratio: 4.00

Exp. Val. Ratio: 3.00

RT Window: 30.0 sec

Expected RT: 0.650 min

Use Relative RT: No

Int. Type: Base To Base

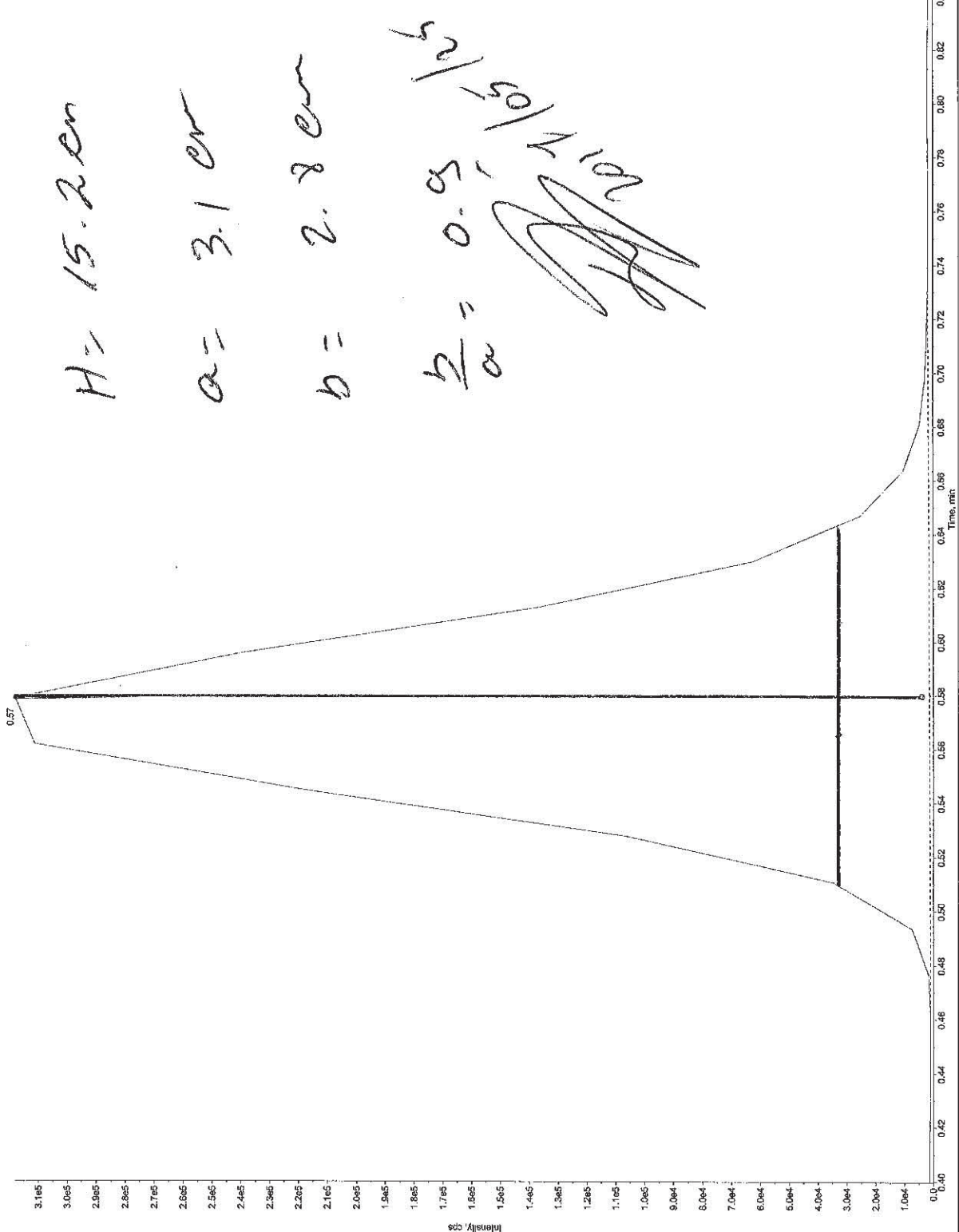
Retention Time: 0.571 min

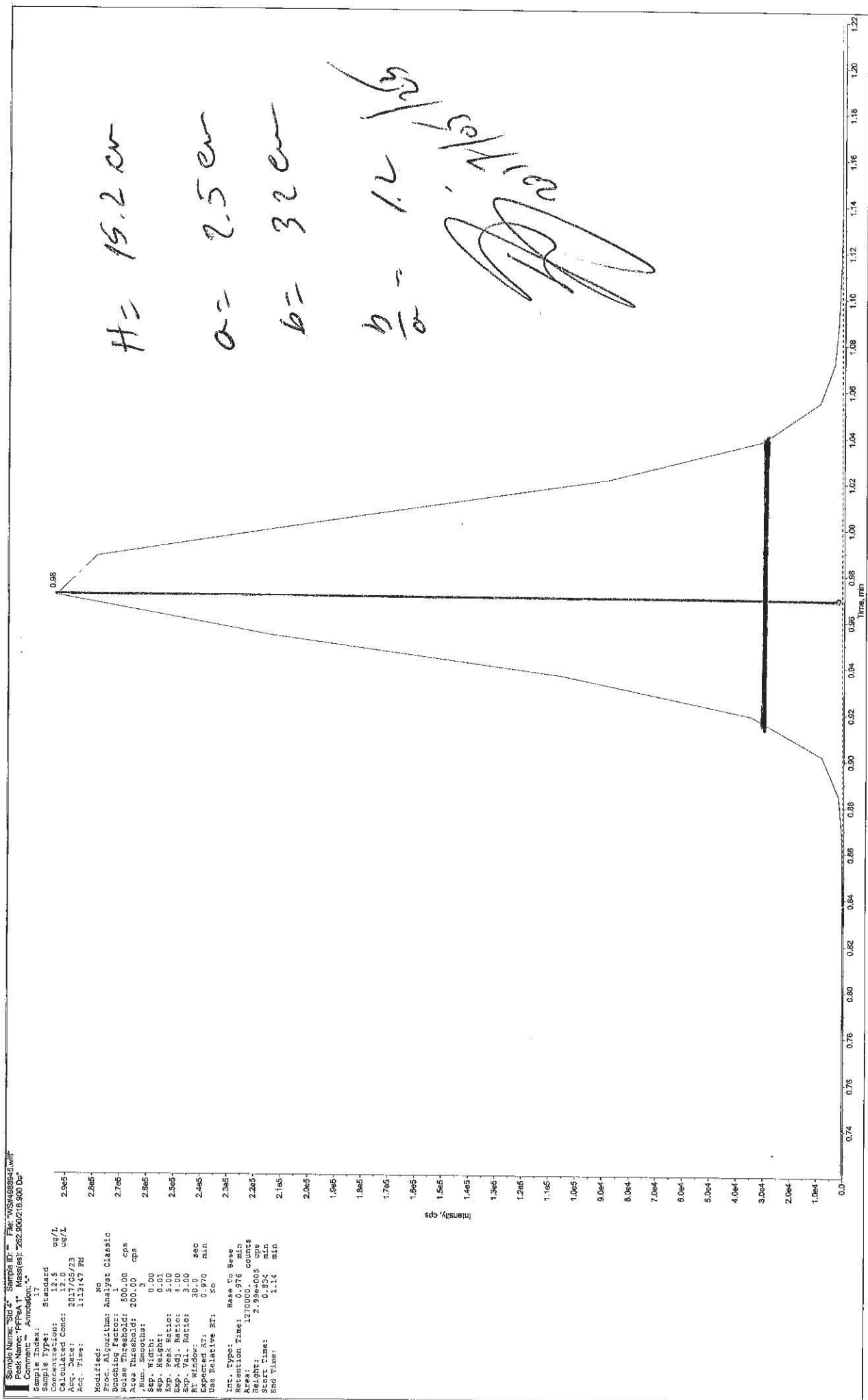
Area: 149000.000 counts

Height: 3.1e5 cps

Start Time: 0.459 min

End Time: 0.749 min





<u>Sample Number</u>	<u>Parameter</u>	
EIY913-01	6:2 Fluorotelomer sulfonate	*
EJI394-01	8:2 Fluorotelomer sulfonate	*
EJI400-01	EtFOSAA	*
EJI403-01	MeFOSAA	*
EJI408-01	Perfluorobutane Sulfonate (PFBS)	
EJI409-01	Perfluorodecanoic Acid (PFDA)	
EJI410-01	Perfluorododecanoic Acid (PFDoA)	
EJI411-01	Perfluoroheptanoic Acid (PFHpA)	
EJI412-01	Perfluorohexanoic Acid (PFHxA)	
EJI420-01	Perfluorohexane Sulfonate (PFHxS)	
EJI422-01	Perfluorononanoic Acid (PFNA)	
EJI426-01	Perfluoro-n-Octanoic Acid (PFOA)	
EJI427-01	Perfluorooctane Sulfonate (PFOS)	
EJI430-01	Perfluorotetradecanoic Acid	
EJI432-01	Perfluorotridecanoic Acid	
	Perfluoroundecanoic Acid (PFUnA)	

* - This parameter is usually off, but will be reported for this group of samples!

WorkSheet 4988945 Instrument Sequences

1.		SPIKE
	4988945:SPIKE	
2.		SPIKE :D1
	4988945:SPIKE:D1	
3.		BLANK
	4988945:BLANK	
4.		
	4988945:EJY913-01	
5.		FRCHD03-GW-001
	4988945:EJI394-01	
6.		FRCHD05-GW-002
	4988945:EJI400-01	
7.		FRCHD05-GW-002 :D1
	4988945:EJI400-01:D1	
8.		FRCHD-EB01
	4988945:EJI403-01	
9.		FRCHD03-GW-002
	4988945:EJI408-01	
10.		FRCHD03-GW-003
	4988945:EJI409-01	
11.		FRCHD03-GW-004
	4988945:EJI410-01	
12.		FRCHD-FB03
	4988945:EJI411-01	
13.		FRCHD-FD-GW-01
	4988945:EJI412-01	
14.		FRCHD02-GW-001
	4988945:EJI420-01	
15.		FRCHD04-GW-003
	4988945:EJI422-01	
16.		FRCHD05-GW-001
	4988945:EJI426-01	
17.		FRCHD-FB-02
	4988945:EJI427-01	
18.		FRCHD04-GW-001
	4988945:EJI430-01	
19.		FRCHD-EB-02
	4988945:EJI432-01	

Batch Name: D:\Analyst Data\Projects\Enviro\PFOS\Batch\PFC_170523A.dab

Printing Date: Tuesday, May 23, 2017

Project: D:\Analyst Data\Projects\Enviro\PFOS\Batch\PFC_170523A Tab: Sample Set: SET1 AcqMethod: PFC_Water_Low.dam

Sample	Sample Name	Rack Code	Rack Position	Plate Code	Plate Position	Vial Position	Data File	Inj. Volume (µl)
1	Rinse	2 Well Plate	1	*54VialPlate	2	1	PFC_170523\WS#4988945	1.000
2	Std 1	2 Well Plate	1	*54VialPlate	2	2	PFC_170523\WS#4988945	1.000
3	Std 2	2 Well Plate	1	*54VialPlate	2	3	PFC_170523\WS#4988945	1.000
4	Std 3	2 Well Plate	1	*54VialPlate	2	4	PFC_170523\WS#4988945	1.000
5	Std 4	2 Well Plate	1	*54VialPlate	2	5	PFC_170523\WS#4988945	1.000
6	Std 5	2 Well Plate	1	*54VialPlate	2	6	PFC_170523\WS#4988945	1.000
7	Std 6	2 Well Plate	1	*54VialPlate	2	7	PFC_170523\WS#4988945	1.000
8	IB	2 Well Plate	1	*54VialPlate	2	8	PFC_170523\WS#4988945	1.000
9	ICV	2 Well Plate	1	*54VialPlate	2	9	PFC_170523\WS#4988945	1.000
10	ISC	2 Well Plate	1	*54VialPlate	2	2	PFC_170523\WS#4988945	1.000
11	4988945-BLANK	2 Well Plate	1	*54VialPlate	2	10	PFC_170523\WS#4988945	1.000
12	4988945-SPKE	2 Well Plate	1	*54VialPlate	2	11	PFC_170523\WS#4988945	1.000
13	4988945-SPKED1	2 Well Plate	1	*54VialPlate	2	12	PFC_170523\WS#4988945	1.000
14	4988945-EY013-01	2 Well Plate	1	*54VialPlate	2	13	PFC_170523\WS#4988945	1.000
15	4988945-EJ0394-01:50x	2 Well Plate	1	*54VialPlate	2	14	PFC_170523\WS#4988945	1.000
16	4988945-EJ0394-01:10x	2 Well Plate	1	*54VialPlate	2	15	PFC_170523\WS#4988945	1.000
17	IB	2 Well Plate	1	*54VialPlate	2	8	PFC_170523\WS#4988945	1.000
18	4988945-EJ400-01:1000x	2 Well Plate	1	*54VialPlate	2	16	PFC_170523\WS#4988945	1.000
19	4988945-EJ400-01:100x	2 Well Plate	1	*54VialPlate	2	17	PFC_170523\WS#4988945	1.000
20	IB	2 Well Plate	1	*54VialPlate	2	8	PFC_170523\WS#4988945	1.000
21	4988945-EJ400-01:1000x	2 Well Plate	1	*54VialPlate	2	18	PFC_170523\WS#4988945	1.000
22	4988945-EJ400-01:100x	2 Well Plate	1	*54VialPlate	2	19	PFC_170523\WS#4988945	1.000
23	IB4988945-EJ403-01	2 Well Plate	1	*54VialPlate	2	20	PFC_170523\WS#4988945	1.000
24	4988945-EJ408-01:50x	2 Well Plate	1	*54VialPlate	2	21	PFC_170523\WS#4988945	1.000
25	4988945-EJ408-01:10x	2 Well Plate	1	*54VialPlate	2	22	PFC_170523\WS#4988945	1.000
26	IB	2 Well Plate	1	*54VialPlate	2	8	PFC_170523\WS#4988945	1.000
27	CCV	2 Well Plate	1	*54VialPlate	2	5	PFC_170523\WS#4988945	1.000
28	4988945-EJ409-01:10x	2 Well Plate	1	*54VialPlate	2	23	PFC_170523\WS#4988945	1.000
29	4988945-EJ409-01	2 Well Plate	1	*54VialPlate	2	24	PFC_170523\WS#4988945	1.000
30	IB	2 Well Plate	1	*54VialPlate	2	8	PFC_170523\WS#4988945	1.000
31	4988945-EJ410-01	2 Well Plate	1	*54VialPlate	2	25	PFC_170523\WS#4988945	1.000
32	4988945-EJ411-01	2 Well Plate	1	*54VialPlate	2	26	PFC_170523\WS#4988945	1.000
33	4988945-EJ412-01:50x	2 Well Plate	1	*54VialPlate	2	27	PFC_170523\WS#4988945	1.000
34	4988945-EJ412-01:10x	2 Well Plate	1	*54VialPlate	2	28	PFC_170523\WS#4988945	1.000
35	IB	2 Well Plate	1	*54VialPlate	2	8	PFC_170523\WS#4988945	1.000
36	4988945-EJ420-01:50x	2 Well Plate	1	*54VialPlate	2	29	PFC_170523\WS#4988945	1.000
37	4988945-EJ420-01:10x	2 Well Plate	1	*54VialPlate	2	30	PFC_170523\WS#4988945	1.000
38	IB	2 Well Plate	1	*54VialPlate	2	8	PFC_170523\WS#4988945	1.000
39	4988945-EJ422-01	2 Well Plate	1	*54VialPlate	2	31	PFC_170523\WS#4988945	1.000
40	4988945-EJ426-01:1000x	2 Well Plate	1	*54VialPlate	2	32	PFC_170523\WS#4988945	1.000
41	CCV	2 Well Plate	1	*54VialPlate	2	5	PFC_170523\WS#4988945	1.000
42	4988945-EJ426-01:100x	2 Well Plate	1	*54VialPlate	2	33	PFC_170523\WS#4988945	1.000
43	IB	2 Well Plate	1	*54VialPlate	2	8	PFC_170523\WS#4988945	1.000
44	4988945-EJ427-01	2 Well Plate	1	*54VialPlate	2	34	PFC_170523\WS#4988945	1.000
45	4988945-EJ430-01:50x	2 Well Plate	1	*54VialPlate	2	35	PFC_170523\WS#4988945	1.000
46	4988945-EJ430-01:10x	2 Well Plate	1	*54VialPlate	2	36	PFC_170523\WS#4988945	1.000
47	IB	2 Well Plate	1	*54VialPlate	2	8	PFC_170523\WS#4988945	1.000
48	4988945-EJ432-01	2 Well Plate	1	*54VialPlate	2	37	PFC_170523\WS#4988945	1.000
49	CCV	2 Well Plate	1	*54VialPlate	2	5	PFC_170523\WS#4988945	1.000

Column #113

MPA: Sd#133, 7500112

MPB: M60H, Sd#
Lot# SHB6/6000

2017/05/23

SHB6 90020

2017/05/23

Unfiled
2017/05/23

Batch Name: D:\Analyst Data\Projects\Enviro\PFOS\Batch\PFC_170523A_FOSAA.dab

Printing Date: Tuesday, May 23, 2017

Project: D:\Analyst Data\Projects\Enviro\PFOS\Batch\PFC_170523A_FOSAA Tab: Sample Set: SET1 AcqMethod: PFC_Water_Low_FOSAA.dam

Sample	Sample Name	Rack Code	Rack Position	Plate Code	Plate Position	Vial Position	Data File	Inj. Volume (µl)
1	Rinse	2 Well Plate	1	*54VialPlate	2	1	PFC_170523\WS#4988945_FOSAA	2.000
2	Std 1	2 Well Plate	1	*54VialPlate	2	2	PFC_170523\WS#4988945_FOSAA	2.000
3	Std 2	2 Well Plate	1	*54VialPlate	2	3	PFC_170523\WS#4988945_FOSAA	2.000
4	Std 3	2 Well Plate	1	*54VialPlate	2	4	PFC_170523\WS#4988945_FOSAA	2.000
5	Std 4	2 Well Plate	1	*54VialPlate	2	5	PFC_170523\WS#4988945_FOSAA	2.000
6	Std 5	2 Well Plate	1	*54VialPlate	2	6	PFC_170523\WS#4988945_FOSAA	2.000
7	Std 6	2 Well Plate	1	*54VialPlate	2	7	PFC_170523\WS#4988945_FOSAA	2.000
8	IB	2 Well Plate	1	*54VialPlate	2	8	PFC_170523\WS#4988945_FOSAA	2.000
9	ICV	2 Well Plate	1	*54VialPlate	2	9	PFC_170523\WS#4988945_FOSAA	2.000
10	ISC	2 Well Plate	1	*54VialPlate	2	2	PFC_170523\WS#4988945_FOSAA	2.000
11	4988945-BLANK	2 Well Plate	1	*54VialPlate	2	10	PFC_170523\WS#4988945_FOSAA	2.000
12	4988945-SPKE	2 Well Plate	1	*54VialPlate	2	11	PFC_170523\WS#4988945_FOSAA	2.000
13	4988945-SPKED1	2 Well Plate	1	*54VialPlate	2	12	PFC_170523\WS#4988945_FOSAA	2.000
14	4988945-BY913-01	2 Well Plate	1	*54VialPlate	2	13	PFC_170523\WS#4988945_FOSAA	2.000
15	4988945-EJ394-01:50x	2 Well Plate	1	*54VialPlate	2	14	PFC_170523\WS#4988945_FOSAA	2.000
16	4988945-EJ394-01:10x	2 Well Plate	1	*54VialPlate	2	15	PFC_170523\WS#4988945_FOSAA	2.000
17	B	2 Well Plate	1	*54VialPlate	2	8	PFC_170523\WS#4988945_FOSAA	2.000
18	4988945-EJ400-01:1000x	2 Well Plate	1	*54VialPlate	2	16	PFC_170523\WS#4988945_FOSAA	2.000
19	4988945-EJ400-01:100x	2 Well Plate	1	*54VialPlate	2	17	PFC_170523\WS#4988945_FOSAA	2.000
20	B	2 Well Plate	1	*54VialPlate	2	8	PFC_170523\WS#4988945_FOSAA	2.000
21	4988945-EJ400-01:D1:1000x	2 Well Plate	1	*54VialPlate	2	18	PFC_170523\WS#4988945_FOSAA	2.000
22	4988945-EJ400-01:D1:100x	2 Well Plate	1	*54VialPlate	2	19	PFC_170523\WS#4988945_FOSAA	2.000
23	B4988945-EJ403-01	2 Well Plate	1	*54VialPlate	2	20	PFC_170523\WS#4988945_FOSAA	2.000
24	4988945-EJ408-01:50x	2 Well Plate	1	*54VialPlate	2	21	PFC_170523\WS#4988945_FOSAA	2.000
25	4988945-EJ408-01:10x	2 Well Plate	1	*54VialPlate	2	22	PFC_170523\WS#4988945_FOSAA	2.000
26	B	2 Well Plate	1	*54VialPlate	2	8	PFC_170523\WS#4988945_FOSAA	2.000
27	CCV	2 Well Plate	1	*54VialPlate	2	5	PFC_170523\WS#4988945_FOSAA	2.000
28	4988945-EJ409-01:10x	2 Well Plate	1	*54VialPlate	2	23	PFC_170523\WS#4988945_FOSAA	2.000
29	4988945-EJ409-01	2 Well Plate	1	*54VialPlate	2	24	PFC_170523\WS#4988945_FOSAA	2.000
30	B	2 Well Plate	1	*54VialPlate	2	8	PFC_170523\WS#4988945_FOSAA	2.000
31	4988945-EJ410-01	2 Well Plate	1	*54VialPlate	2	25	PFC_170523\WS#4988945_FOSAA	2.000
32	4988945-EJ411-01	2 Well Plate	1	*54VialPlate	2	26	PFC_170523\WS#4988945_FOSAA	2.000
33	4988945-EJ412-01:50x	2 Well Plate	1	*54VialPlate	2	27	PFC_170523\WS#4988945_FOSAA	2.000
34	4988945-EJ412-01:10x	2 Well Plate	1	*54VialPlate	2	28	PFC_170523\WS#4988945_FOSAA	2.000
35	B	2 Well Plate	1	*54VialPlate	2	8	PFC_170523\WS#4988945_FOSAA	2.000
36	4988945-EJ420-01:50x	2 Well Plate	1	*54VialPlate	2	29	PFC_170523\WS#4988945_FOSAA	2.000
37	4988945-EJ420-01:10x	2 Well Plate	1	*54VialPlate	2	30	PFC_170523\WS#4988945_FOSAA	2.000
38	IB	2 Well Plate	1	*54VialPlate	2	8	PFC_170523\WS#4988945_FOSAA	2.000
39	4988945-EJ422-01	2 Well Plate	1	*54VialPlate	2	31	PFC_170523\WS#4988945_FOSAA	2.000
40	4988945-EJ428-01:1000x	2 Well Plate	1	*54VialPlate	2	32	PFC_170523\WS#4988945_FOSAA	2.000
41	CCV	2 Well Plate	1	*54VialPlate	2	5	PFC_170523\WS#4988945_FOSAA	2.000
42	4988945-EJ426-01:100x	2 Well Plate	1	*54VialPlate	2	33	PFC_170523\WS#4988945_FOSAA	2.000
43	IB	2 Well Plate	1	*54VialPlate	2	8	PFC_170523\WS#4988945_FOSAA	2.000
44	4988945-EJ427-01	2 Well Plate	1	*54VialPlate	2	34	PFC_170523\WS#4988945_FOSAA	2.000
45	4988945-EJ430-01:50x	2 Well Plate	1	*54VialPlate	2	35	PFC_170523\WS#4988945_FOSAA	2.000
46	4988945-EJ430-01:10x	2 Well Plate	1	*54VialPlate	2	36	PFC_170523\WS#4988945_FOSAA	2.000
47	B	2 Well Plate	1	*54VialPlate	2	8	PFC_170523\WS#4988945_FOSAA	2.000
48	4988945-EJ432-01	2 Well Plate	1	*54VialPlate	2	37	PFC_170523\WS#4988945_FOSAA	2.000
49	CCV	2 Well Plate	1	*54VialPlate	2	5	PFC_170523\WS#4988945_FOSAA	2.000

Column #173
 MPA: S#93, TSP-4H6
 MPD: S#101, TSP-4H6

2017/05/23

Unified
 2017/05/23

Results path: T:\lcm53\Analyst Data\Projects\Enviro\PFOS\Results\PF Water_170523_4988945_CTLabs.rdb

Printing Date: Tuesday, July 04, 2017

Sample ID	Sample Annotation	Acquisition Date	File Name	Acquisition Method	Rack Type	Rack Position	Vial Position	Plate Type	Plate Position
1 Std 1	-	2017/05/23 12:58:34 PM	PF_170523W\S44988945.wiff	PF Water Low dam	2 Well Plates	1	2	*54VialPlate*	2
2 Std 2	-	2017/05/23 1:03:39 PM	PF_170523W\S44988945.wiff	PF Water Low dam	2 Well Plates	1	3	*54VialPlate*	2
3 Std 3	-	2017/05/23 1:08:43 PM	PF_170523W\S44988945.wiff	PF Water Low dam	2 Well Plates	1	4	*54VialPlate*	2
4 Std 4	-	2017/05/23 1:13:47 PM	PF_170523W\S44988945.wiff	PF Water Low dam	2 Well Plates	1	5	*54VialPlate*	2
5 Std 5	-	2017/05/23 1:18:51 PM	PF_170523W\S44988945.wiff	PF Water Low dam	2 Well Plates	1	6	*54VialPlate*	2
6 Std 6	-	2017/05/23 1:23:55 PM	PF_170523W\S44988945.wiff	PF Water Low dam	2 Well Plates	1	7	*54VialPlate*	2
7 IB	-	2017/05/23 1:29:00 PM	PF_170523W\S44988945.wiff	PF Water Low dam	2 Well Plates	1	8	*54VialPlate*	2
8 ICV	-	2017/05/23 1:34:04 PM	PF_170523W\S44988945.wiff	PF Water Low dam	2 Well Plates	1	9	*54VialPlate*	2
9 ISC	-	2017/05/23 1:39:08 PM	PF_170523W\S44988945.wiff	PF Water Low dam	2 Well Plates	1	2	*54VialPlate*	2
10 4988945-BLANK	-	2017/05/23 1:54:21 PM	PF_170523W\S44988945.wiff	PF Water Low dam	2 Well Plates	1	10	*54VialPlate*	2
11 4988945-SPKE	-	2017/05/23 1:59:26 PM	PF_170523W\S44988945.wiff	PF Water Low dam	2 Well Plates	1	11	*54VialPlate*	2
12 4988945-SPKE.D1	-	2017/05/23 2:04:30 PM	PF_170523W\S44988945.wiff	PF Water Low dam	2 Well Plates	1	12	*54VialPlate*	2
13 4988945-EY131-01	-	2017/05/23 2:09:35 PM	PF_170523W\S44988945.wiff	PF Water Low dam	2 Well Plates	1	13	*54VialPlate*	2
14 4988945-EJ134-01:50x	Reported for PFOS only	2017/05/23 2:14:39 PM	PF_170523W\S44988945.wiff	PF Water Low dam	2 Well Plates	1	14	*54VialPlate*	2
15 4988945-EJ135-01:10x	Reported for all, except PFOS	2017/05/23 2:19:43 PM	PF_170523W\S44988945.wiff	PF Water Low dam	2 Well Plates	1	15	*54VialPlate*	2
16 IB	Reported for PFOS only	2017/05/23 2:24:47 PM	PF_170523W\S44988945.wiff	PF Water Low dam	2 Well Plates	1	8	*54VialPlate*	2
17 4988945-EJ400-01:1000x	Reported for all, except PFOS	2017/05/23 2:29:52 PM	PF_170523W\S44988945.wiff	PF Water Low dam	2 Well Plates	1	16	*54VialPlate*	2
18 4988945-EJ400-01:100x	-	2017/05/23 2:34:56 PM	PF_170523W\S44988945.wiff	PF Water Low dam	2 Well Plates	1	17	*54VialPlate*	2
19 IB	Reported for PFOS only	2017/05/23 2:40:00 PM	PF_170523W\S44988945.wiff	PF Water Low dam	2 Well Plates	1	8	*54VialPlate*	2
20 4988945-EJ400-01:01:1000x	Reported for all, except PFOS	2017/05/23 2:45:05 PM	PF_170523W\S44988945.wiff	PF Water Low dam	2 Well Plates	1	18	*54VialPlate*	2
21 4988945-EJ400-01:01:100x	Reinjected to check for carryover	2017/05/23 2:50:09 PM	PF_170523W\S44988945.wiff	PF Water Low dam	2 Well Plates	1	19	*54VialPlate*	2
22 4988945-EJ403-01	Reinjected to check for carryover	2017/05/23 2:55:13 PM	PF_170523W\S44988945.wiff	PF Water Low dam	2 Well Plates	1	20	*54VialPlate*	2
23 4988945-EJ408-01:50x	Reinjected to check for carryover	2017/05/23 3:00:17 PM	PF_170523W\S44988945.wiff	PF Water Low dam	2 Well Plates	1	21	*54VialPlate*	2
24 4988945-EJ408-01:10x	-	2017/05/23 3:05:22 PM	PF_170523W\S44988945.wiff	PF Water Low dam	2 Well Plates	1	22	*54VialPlate*	2
25 IB	-	2017/05/23 3:10:26 PM	PF_170523W\S44988945.wiff	PF Water Low dam	2 Well Plates	1	8	*54VialPlate*	2
26 CCV	-	2017/05/23 3:16:30 PM	PF_170523W\S44988945.wiff	PF Water Low dam	2 Well Plates	1	5	*54VialPlate*	2
27 4988945-EJ409-01:10x	Reported for PFOA only	2017/05/23 3:20:42 PM	PF_170523W\S44988945.wiff	PF Water Low dam	2 Well Plates	1	23	*54VialPlate*	2
28 4988945-EJ406-01	Reported for all, except PFOA	2017/05/23 3:30:46 PM	PF_170523W\S44988945.wiff	PF Water Low dam	2 Well Plates	1	24	*54VialPlate*	2
29 IB	-	2017/05/23 3:40:51 PM	PF_170523W\S44988945.wiff	PF Water Low dam	2 Well Plates	1	8	*54VialPlate*	2
30 4988945-EJ410-01	-	2017/05/23 3:45:55 PM	PF_170523W\S44988945.wiff	PF Water Low dam	2 Well Plates	1	25	*54VialPlate*	2
31 4988945-EJ411-01	Reported for PFOS only	2017/05/23 3:50:59 PM	PF_170523W\S44988945.wiff	PF Water Low dam	2 Well Plates	1	26	*54VialPlate*	2
32 4988945-EJ412-01:50x	Reported for all, except PFOS	2017/05/23 3:56:04 PM	PF_170523W\S44988945.wiff	PF Water Low dam	2 Well Plates	1	27	*54VialPlate*	2
33 4988945-EJ412-01:10x	-	2017/05/23 4:01:08 PM	PF_170523W\S44988945.wiff	PF Water Low dam	2 Well Plates	1	28	*54VialPlate*	2
34 IB	Reported for PHOS and 6:2-FTS only	2017/05/23 4:06:12 PM	PF_170523W\S44988945.wiff	PF Water Low dam	2 Well Plates	1	8	*54VialPlate*	2
35 4988945-EJ420-01:50x	Reported for all, except PFOS and 6:2-FTS	2017/05/23 4:11:16 PM	PF_170523W\S44988945.wiff	PF Water Low dam	2 Well Plates	1	23	*54VialPlate*	2
36 4988945-EJ420-01:10x	-	2017/05/23 4:16:21 PM	PF_170523W\S44988945.wiff	PF Water Low dam	2 Well Plates	1	30	*54VialPlate*	2
37 IB	-	2017/05/23 4:21:26 PM	PF_170523W\S44988945.wiff	PF Water Low dam	2 Well Plates	1	8	*54VialPlate*	2
38 4988945-EJ422-01	Reported for PFHxS and PFOS only	2017/05/23 4:26:30 PM	PF_170523W\S44988945.wiff	PF Water Low dam	2 Well Plates	1	31	*54VialPlate*	2
39 4988945-EJ426-01:1000x	-	2017/05/23 4:31:35 PM	PF_170523W\S44988945.wiff	PF Water Low dam	2 Well Plates	1	32	*54VialPlate*	2
40 CCV	-	2017/05/23 4:36:39 PM	PF_170523W\S44988945.wiff	PF Water Low dam	2 Well Plates	1	5	*54VialPlate*	2
41 4988945-EJ426-01:100x	Reported for all, except PFHxS and PFOS	2017/05/23 4:41:51 PM	PF_170523W\S44988945.wiff	PF Water Low dam	2 Well Plates	1	33	*54VialPlate*	2
42 IB	-	2017/05/23 4:46:56 PM	PF_170523W\S44988945.wiff	PF Water Low dam	2 Well Plates	1	8	*54VialPlate*	2
43 4988945-EJ427-01	Reported for PFHxS and PFOS only	2017/05/23 5:02:00 PM	PF_170523W\S44988945.wiff	PF Water Low dam	2 Well Plates	1	34	*54VialPlate*	2
44 4988945-EJ430-01:50x	Reported for all, except PFHxS and PFOS	2017/05/23 5:07:05 PM	PF_170523W\S44988945.wiff	PF Water Low dam	2 Well Plates	1	35	*54VialPlate*	2
45 4988945-EJ430-01:10x	-	2017/05/23 5:12:09 PM	PF_170523W\S44988945.wiff	PF Water Low dam	2 Well Plates	1	36	*54VialPlate*	2
46 IB	-	2017/05/23 5:17:13 PM	PF_170523W\S44988945.wiff	PF Water Low dam	2 Well Plates	1	8	*54VialPlate*	2
47 4988945-EJ432-01	Sequence error	2017/05/23 5:22:18 PM	PF_170523W\S44988945.wiff	PF Water Low dam	2 Well Plates	1	37	*54VialPlate*	2
48 CCV	-	2017/05/23 5:27:21 PM	PF_170523W\S44988945.wiff	PF Water Low dam	2 Well Plates	1	8	*54VialPlate*	2
49 CCV	-	2017/05/23 5:29:36 PM	PF_170523W\S44988945.wiff	PF Water Low dam	2 Well Plates	1	5	*54VialPlate*	1
50 CCV	-	2017/05/23 5:34:39 PM	PF_170523W\S44988945.wiff	PF Water Low dam	2 Well Plates	1	5	*54VialPlate*	1
51 ISC	-	2017/05/23 5:39:41 AM	PF_170523W\S44988945.wiff	PF Water Low dam	2 Well Plates	1	2	*54VialPlate*	2
52 IB	-	2017/05/23 5:44:44 AM	PF_170523W\S44988945.wiff	PF Water Low dam	2 Well Plates	1	8	*54VialPlate*	2
53 4988945-EJ403-01	Reinjection	2017/05/24 8:25:31 AM	PF_170523W\S44988945.wiff	PF Water Low dam	2 Well Plates	1	20	*54VialPlate*	2
54 4988945-EJ408-01:50x	Reinjection, reported for 6:2-FTS only	2017/05/24 8:30:35 AM	PF_170523W\S44988945.wiff	PF Water Low dam	2 Well Plates	1	21	*54VialPlate*	2
55 4988945-EJ408-01:10x	Reinjection, reported for all, except 6:2-FTS	2017/05/24 8:35:39 AM	PF_170523W\S44988945.wiff	PF Water Low dam	2 Well Plates	1	22	*54VialPlate*	2
56 IB	-	2017/05/24 8:40:43 AM	PF_170523W\S44988945.wiff	PF Water Low dam	2 Well Plates	1	8	*54VialPlate*	2
57 CCV	-	2017/05/24 8:45:48 AM	PF_170523W\S44988945.wiff	PF Water Low dam	2 Well Plates	1	5	*54VialPlate*	2

Results Path: T:\lms3\Analyst Data\Projects\Enviro\PFOS\Results\FOSAA.rdb

Sample ID	Sample Annotation	Acquisition Date	File Name	Acquisition Method	Rack Type	Rack Position	Vial Position	Plate Type	Plate Position
1 Std 1	-	2017/05/23 10:59:42 PM	PFC_170523WS#4991421_FOSAA.wiff	PFC_Water_Low_FOSAA.dam	2 Well Plates	1	2	*54VialPlate*	1
2 Std 2	-	2017/05/23 11:02:17 PM	PFC_170523WS#4991421_FOSAA.wiff	PFC_Water_Low_FOSAA.dam	2 Well Plates	1	3	*54VialPlate*	1
3 Std 3	-	2017/05/23 11:04:51 PM	PFC_170523WS#4991421_FOSAA.wiff	PFC_Water_Low_FOSAA.dam	2 Well Plates	1	4	*54VialPlate*	1
4 Std 4	-	2017/05/23 11:07:26 PM	PFC_170523WS#4991421_FOSAA.wiff	PFC_Water_Low_FOSAA.dam	2 Well Plates	1	5	*54VialPlate*	1
5 Std 5	-	2017/05/23 11:10:00 PM	PFC_170523WS#4991421_FOSAA.wiff	PFC_Water_Low_FOSAA.dam	2 Well Plates	1	6	*54VialPlate*	1
6 Std 6	-	2017/05/23 11:12:34 PM	PFC_170523WS#4991421_FOSAA.wiff	PFC_Water_Low_FOSAA.dam	2 Well Plates	1	7	*54VialPlate*	1
7 IB	-	2017/05/23 11:15:09 PM	PFC_170523WS#4991421_FOSAA.wiff	PFC_Water_Low_FOSAA.dam	2 Well Plates	1	8	*54VialPlate*	1
8 ICV	-	2017/05/23 11:17:44 PM	PFC_170523WS#4991421_FOSAA.wiff	PFC_Water_Low_FOSAA.dam	2 Well Plates	1	9	*54VialPlate*	1
9 ISC	-	2017/05/23 11:20:19 PM	PFC_170523WS#4991421_FOSAA.wiff	PFC_Water_Low_FOSAA.dam	2 Well Plates	1	2	*54VialPlate*	1
10 CCV	-	2017/05/24 12:47:57 AM	PFC_170523WS#4991421_FOSAA.wiff	PFC_Water_Low_FOSAA.dam	2 Well Plates	1	5	*54VialPlate*	1
11 4988945-BLANK	-	2017/05/24 1:47:17 AM	PFC_170523WS#4988945_FOSAA.wiff	PFC_Water_Low_FOSAA.dam	2 Well Plates	1	10	*54VialPlate*	2
12 4988945-SPIKE-D1	-	2017/05/24 1:59:52 AM	PFC_170523WS#4988945_FOSAA.wiff	PFC_Water_Low_FOSAA.dam	2 Well Plates	1	11	*54VialPlate*	2
13 4988945-SPIKE-D1	-	2017/05/24 1:52:27 AM	PFC_170523WS#4988945_FOSAA.wiff	PFC_Water_Low_FOSAA.dam	2 Well Plates	1	12	*54VialPlate*	2
14 4988945-EJ913-01	-	2017/05/24 1:55:01 AM	PFC_170523WS#4988945_FOSAA.wiff	PFC_Water_Low_FOSAA.dam	2 Well Plates	1	13	*54VialPlate*	2
15 4988945-EJ394-01:50x	Not used	2017/05/24 1:57:36 AM	PFC_170523WS#4988945_FOSAA.wiff	PFC_Water_Low_FOSAA.dam	2 Well Plates	1	14	*54VialPlate*	2
16 4988945-EJ394-01:10x	-	2017/05/24 2:00:11 AM	PFC_170523WS#4988945_FOSAA.wiff	PFC_Water_Low_FOSAA.dam	2 Well Plates	1	15	*54VialPlate*	2
17 IB	-	2017/05/24 2:02:46 AM	PFC_170523WS#4988945_FOSAA.wiff	PFC_Water_Low_FOSAA.dam	2 Well Plates	1	8	*54VialPlate*	2
18 4988945-EJ400-01:1000x	Not used	2017/05/24 2:05:21 AM	PFC_170523WS#4988945_FOSAA.wiff	PFC_Water_Low_FOSAA.dam	2 Well Plates	1	16	*54VialPlate*	2
19 4988945-EJ400-01:100x	-	2017/05/24 2:07:56 AM	PFC_170523WS#4988945_FOSAA.wiff	PFC_Water_Low_FOSAA.dam	2 Well Plates	1	17	*54VialPlate*	2
20 IB	-	2017/05/24 2:10:31 AM	PFC_170523WS#4988945_FOSAA.wiff	PFC_Water_Low_FOSAA.dam	2 Well Plates	1	8	*54VialPlate*	2
21 4988945-EJ400-01:D1:1000x	Not used	2017/05/24 2:13:06 AM	PFC_170523WS#4988945_FOSAA.wiff	PFC_Water_Low_FOSAA.dam	2 Well Plates	1	18	*54VialPlate*	2
22 4988945-EJ400-01:D1:100x	-	2017/05/24 2:15:41 AM	PFC_170523WS#4988945_FOSAA.wiff	PFC_Water_Low_FOSAA.dam	2 Well Plates	1	19	*54VialPlate*	2
23 4988945-EJ403-01	-	2017/05/24 2:18:16 AM	PFC_170523WS#4988945_FOSAA.wiff	PFC_Water_Low_FOSAA.dam	2 Well Plates	1	20	*54VialPlate*	2
24 4988945-EJ408-01:50x	Not used	2017/05/24 2:20:51 AM	PFC_170523WS#4988945_FOSAA.wiff	PFC_Water_Low_FOSAA.dam	2 Well Plates	1	21	*54VialPlate*	2
25 4988945-EJ408-01:10x	-	2017/05/24 2:23:27 AM	PFC_170523WS#4988945_FOSAA.wiff	PFC_Water_Low_FOSAA.dam	2 Well Plates	1	22	*54VialPlate*	2
26 IB	-	2017/05/24 2:26:01 AM	PFC_170523WS#4988945_FOSAA.wiff	PFC_Water_Low_FOSAA.dam	2 Well Plates	1	8	*54VialPlate*	2
27 CCV	-	2017/05/24 2:28:37 AM	PFC_170523WS#4988945_FOSAA.wiff	PFC_Water_Low_FOSAA.dam	2 Well Plates	1	5	*54VialPlate*	2
28 4988945-EJ409-01:10x	Not used	2017/05/24 2:36:21 AM	PFC_170523WS#4988945_FOSAA.wiff	PFC_Water_Low_FOSAA.dam	2 Well Plates	1	23	*54VialPlate*	2
29 4988945-EJ409-01	-	2017/05/24 2:38:56 AM	PFC_170523WS#4988945_FOSAA.wiff	PFC_Water_Low_FOSAA.dam	2 Well Plates	1	24	*54VialPlate*	2
30 IB	-	2017/05/24 2:41:31 AM	PFC_170523WS#4988945_FOSAA.wiff	PFC_Water_Low_FOSAA.dam	2 Well Plates	1	8	*54VialPlate*	2
31 4988945-EJ410-01	-	2017/05/24 2:44:06 AM	PFC_170523WS#4988945_FOSAA.wiff	PFC_Water_Low_FOSAA.dam	2 Well Plates	1	25	*54VialPlate*	2
32 4988945-EJ411-01	-	2017/05/24 2:46:41 AM	PFC_170523WS#4988945_FOSAA.wiff	PFC_Water_Low_FOSAA.dam	2 Well Plates	1	26	*54VialPlate*	2
33 4988945-EJ412-01:50x	Not used	2017/05/24 2:49:16 AM	PFC_170523WS#4988945_FOSAA.wiff	PFC_Water_Low_FOSAA.dam	2 Well Plates	1	27	*54VialPlate*	2
34 4988945-EJ412-01:10x	-	2017/05/24 2:51:51 AM	PFC_170523WS#4988945_FOSAA.wiff	PFC_Water_Low_FOSAA.dam	2 Well Plates	1	28	*54VialPlate*	2
35 IB	-	2017/05/24 2:54:26 AM	PFC_170523WS#4988945_FOSAA.wiff	PFC_Water_Low_FOSAA.dam	2 Well Plates	1	8	*54VialPlate*	2
36 4988945-EJ420-01:50x	Not used	2017/05/24 2:57:01 AM	PFC_170523WS#4988945_FOSAA.wiff	PFC_Water_Low_FOSAA.dam	2 Well Plates	1	29	*54VialPlate*	2
37 4988945-EJ420-01:10x	-	2017/05/24 2:59:36 AM	PFC_170523WS#4988945_FOSAA.wiff	PFC_Water_Low_FOSAA.dam	2 Well Plates	1	30	*54VialPlate*	2
38 IB	-	2017/05/24 3:02:11 AM	PFC_170523WS#4988945_FOSAA.wiff	PFC_Water_Low_FOSAA.dam	2 Well Plates	1	8	*54VialPlate*	2
39 4988945-EJ422-01	-	2017/05/24 3:04:46 AM	PFC_170523WS#4988945_FOSAA.wiff	PFC_Water_Low_FOSAA.dam	2 Well Plates	1	31	*54VialPlate*	2
40 4988945-EJ426-01:1000x	Not used	2017/05/24 3:07:21 AM	PFC_170523WS#4988945_FOSAA.wiff	PFC_Water_Low_FOSAA.dam	2 Well Plates	1	32	*54VialPlate*	2
41 CCV	-	2017/05/24 3:09:56 AM	PFC_170523WS#4988945_FOSAA.wiff	PFC_Water_Low_FOSAA.dam	2 Well Plates	1	5	*54VialPlate*	2
42 4988945-EJ426-01:100x	-	2017/05/24 3:17:41 AM	PFC_170523WS#4988945_FOSAA.wiff	PFC_Water_Low_FOSAA.dam	2 Well Plates	1	33	*54VialPlate*	2
43 IB	-	2017/05/24 3:20:16 AM	PFC_170523WS#4988945_FOSAA.wiff	PFC_Water_Low_FOSAA.dam	2 Well Plates	1	8	*54VialPlate*	2
44 4988945-EJ427-01	-	2017/05/24 3:22:52 AM	PFC_170523WS#4988945_FOSAA.wiff	PFC_Water_Low_FOSAA.dam	2 Well Plates	1	34	*54VialPlate*	2
45 4988945-EJ430-01:50x	Not used	2017/05/24 3:25:27 AM	PFC_170523WS#4988945_FOSAA.wiff	PFC_Water_Low_FOSAA.dam	2 Well Plates	1	35	*54VialPlate*	2
46 4988945-EJ430-01:10x	-	2017/05/24 3:28:02 AM	PFC_170523WS#4988945_FOSAA.wiff	PFC_Water_Low_FOSAA.dam	2 Well Plates	1	36	*54VialPlate*	2
47 IB	-	2017/05/24 3:30:37 AM	PFC_170523WS#4988945_FOSAA.wiff	PFC_Water_Low_FOSAA.dam	2 Well Plates	1	8	*54VialPlate*	2
48 4988945-EJ432-01	-	2017/05/24 3:33:12 AM	PFC_170523WS#4988945_FOSAA.wiff	PFC_Water_Low_FOSAA.dam	2 Well Plates	1	37	*54VialPlate*	2
49 CCV	-	2017/05/24 3:35:46 AM	PFC_170523WS#4988945_FOSAA.wiff	PFC_Water_Low_FOSAA.dam	2 Well Plates	1	8	*54VialPlate*	2
50 CCV	Sequence error	2017/05/24 7:17:51 AM	PFC_170523WS#4988945_FOSAA.wiff	PFC_Water_Low_FOSAA.dam	2 Well Plates	1	5	*54VialPlate*	2
51 CCV	-	2017/05/24 7:20:26 AM	PFC_170523WS#4988945_FOSAA.wiff	PFC_Water_Low_FOSAA.dam	2 Well Plates	1	5	*54VialPlate*	2

INJECTION INTERNAL STANDARD PEAK AREAS

Sample Name	Analyte	13C6-PFHxA	13C6-PFHxA	13C9-PFDA	13C9-PFDA
	Mass labeled IS	STD 4	ISC/CCV	STD 4	ISC/CCV
	IS Area	43427	40121	39243	37678
		IS Peak Area	IS Peak Area	IS Peak Area	IS Peak Area
STD 1		39552		36034	
STD 2		38416		34131	
STD 3		42253		38512	
STD 4		43427		39243	
STD 5		38948		36531	
STD 6		39450		34205	
IB1		42753		38628	
ICV		39387		35985	
ISC		40084		37543	
4990811:BLANK		45649		43761	
4990811:MTRX SPK		37247		34489	
4990811:MTRX SPK:D1		42464		38358	
4990811:SPIKE		44909		41196	
4990811:EJ4396-01		46820		41974	
4990811:EJ4398-01		43716		40873	
4990811:EJ4399-01		42263		38144	
4990811:EJ401-01:1000x		40310		36733	
4990811:EJ402-01:1000x		40487		37168	
4990811:EJ404-01:1000x		38329		35527	
4990811:EJ405-01		43822		41383	
4990811:EJ407-01:10x		42831		36873	
4990811:EJ407-01		43294		40400	
IB1		41307		38167	
4990811:EJ413-01		42668		38298	
CCV		42532		39357	
4990811:EJ416-01:100x		36642		34238	
4990811:EJ416-01:10x		35601		31897	
Solvent					
IB1		42034		36985	
4990811:EJ417-01:100x		38068		35388	
4990811:EJ417-01:10x		39868		37140	
Solvent					
IB1		42296		37354	
4990811:EJ418-01		41267		38018	
4990811:EJ421-01		37622		34080	
4990811:EJ423-01		41769		36870	
4990811:EJ424-01		41286		36917	
4990811:EJ425-01		45653		40723	
4990811:EJ428-01		40937		36044	
CCV		43238		38507	
4990811:EJ429-01		42864		38448	
4990811:EJ431-01:10x		40050		38036	
4990811:EJ431-01		41441		36885	
IB1		41782		38104	
4990811:EJ433-01		41476		37457	
4990811:EJ401-01:10x		41726		38552	
Solvent					
IB1		41954		38267	
4990811:EJ402-01:10x		36756		34823	
Solvent					
IB1		40593		39127	
4990811:EJ404-01:10x		34742		32718	
Solvent					
IB1		41541		38766	
CCV		43339		38873	
ISC			40121		37678
4990811:EJ423-01:10x			40979		37557
4990811:EJ423-01			40824		37340
IB1			40882		37634
4990811:EJ425-01:10x			41623		38710
4990811:EJ425-01			43645		40157
IB1			39936		37169
4990811:EJ424-01			40782		38643
4990811:EJ428-01			40219		37457
4990811:EJ429-01			41934		40128
4990811:EJ431-01:10x			39908		37383
4990811:EJ431-01			38802		37161
IB1			41131		36602
CCV			41853		37814

INJECTION INTERNAL STANDARD PEAK AREAS

Sample Name	Analyte	13C9-PFDA	13C9-PFDA
	Mass labeled IS	STD 4	ISC/CCV
	IS Area	32472	0
		IS Peak Area	IS Peak Area
STD 1		31112	
STD 2		28734	
STD 3		31659	
STD 4		32472	
STD 5		30571	
STD 6		29552	
IB1		31394	
ICV		29587	
ISC		31301	
4990811:BLANK		36077	
4990811:MTRX SPK		28601	
4990811:MTRX SPK:D1		31929	
4990811:SPIKE		33799	
4990811:EJ1396-01		35753	
4990811:EJ1398-01		32869	
4990811:EJ1399-01		32217	
4990811:EJ1401-01:1000x		29820	
4990811:EJ1402-01:1000x		30819	
4990811:EJ1404-01:1000x		28877	
4990811:EJ1405-01		33461	
4990811:EJ1407-01:10x		31454	
4990811:EJ1407-01		33184	
IB1		31370	
4990811:EJ1413-01		32300	
CCV		33253	
4990811:EJ1416-01:100x		28342	
4990811:EJ1416-01:10x		27856	
Solvent			
IB1		32019	
4990811:EJ1417-01:100x		29070	
4990811:EJ1417-01:10x		30193	
Solvent			
IB1		31994	
4990811:EJ1418-01		35143	
4990811:EJ1421-01		29656	
4990811:EJ1423-01		31487	
4990811:EJ1424-01		30785	
4990811:EJ1425-01		34118	
4990811:EJ1428-01		30878	
CCV		32673	
4990811:EJ1429-01		32395	
4990811:EJ1431-01:10x		30882	
4990811:EJ1431-01		29716	
IB1		31378	
4990811:EJ1433-01		31082	
4990811:EJ1401-01:10x		31745	
Solvent			
IB1		31370	
4990811:EJ1402-01:10x		28804	
Solvent			
IB1		31901	
4990811:EJ1404-01:10x		26908	
Solvent			
IB1		31503	
CCV		32573	

INJECTION INTERNAL STANDARD PEAK AREAS

Sample Name	Analyte	13C6-PFHxA	13C6-PFHxA	13C9-PFDA	13C9-PFDA
	Mass labeled IS	STD 4	ISC/CCV	STD 4	ISC/CCV
	IS Area	50656	40485	42454	38256
		IS Peak Area	IS Peak Area	IS Peak Area	IS Peak Area
STD 1		65354		54765	
STD 2		44478		38780	
STD 3		45895		38606	
STD 4		50656		42454	
STD 5		44331		36956	
STD 6		49013		41911	
IB		42757		37805	
ICV		41754		36697	
ISC		66454		56984	
CCV		51055		42257	
4994375:BLANK		54145		48040	
4994375:SPIKE		57148		48666	
4994375:EJ1395-01		53177		43489	
4994375:EJ1397-01:10x		50532		43519	
4994375:EJ1397-01		53463		45053	
IB		41938		37182	
4994375:EJ1406-01:100x		44314		38646	
4994375:EJ1406-01:10x		44757		38886	
4994375:EJ1406-01		48071		41787	
Solvent					
IB		41210		36280	
4994375:EJ1414-01		56077		47842	
4994375:EJ1415-01:100x		46002		40741	
4994375:EJ1415-01:10x		59952		51004	
4994375:EJ1415-01		51134		42813	
Solvent					
IB		41002		36621	
CCV		47469		41517	
4994375:EJ1419-01:100x		45481		41123	
4994375:EJ1419-01:10x		59488		53458	
4994375:EJ1419-01		45770		38965	
Solvent					
IB		42215		35812	
4994375:EKF511-01		44016		37695	
4994375:EKF512-01		52126		47686	
4994375:EKF513-01		61081			
4994375:EKF514-01		47807		42253	
4994375:EKF515-01		49842		42134	
4994375:EKF516-01		47974		41342	
4994375:EKF517-01		46928		41534	
CCV		46243		40418	
4994375:EKF518-01		45253		39902	
4994375:EKF519-01		51093		44189	
4994375:EKF520-01		47147		43065	
4994375:EKF524-01		46613		43322	
4994375:EKF525-01		51267		44259	
4994375:EKF538-01:10x		48372		43292	
4994375:EKF538-01		4483		1873	
4994375:MTRX SPK		55149		49116	
4994375:MTRX SPK:D1		46432		42958	
CCV		46411		39401	
ISC			40485		38256
4994375:EKF513-01			57525		51398
4994375:EKF538-01			61458		58353
CCV			46804		44000

INJECTION INTERNAL STANDARD PEAK AREAS

Sample Name	Analyte	13C9-PFDA	13C9-PFDA
	Mass labeled IS	STD 4	ISC/CCV
	IS Area	27561	0
		IS Peak Area	IS Peak Area
STD 1		25657	
STD 2		28660	
STD 3		27582	
STD 4		27561	
STD 5		28250	
STD 6		29000	
IB		27239	
ICV		26635	
ISC		25190	
4994375:BLANK		31025	
4994375:SPIKE		30401	
4994375:EJI395-01		29260	
4994375:EJI397-01		30550	
4994375:EJI406-01		29425	
4994375:EJI414-01		30985	
4994375:EJI415-01		29438	
4994375:EJI419-01		28373	
4994375:EKF538-01		28517	
4994375:MTRX SPK		32073	
4994375:MTRX SPK:D1		30022	
CCV		27568	

INJECTION INTERNAL STANDARD PEAK AREAS

Instrument # LCMS03					
Sample Name	Analyte	13C6-PFHxA	13C6-PFHxA	13C9-PFDA	13C9-PFDA
	Mass labeled IS	STD 4	ISC/CCV	STD 4	ISC/CCV
	IS Area	1000000	947000	1060000	1030000
		IS Peak Area	IS Peak Area	IS Peak Area	IS Peak Area
Std 1		1030000		1160000	
Std 2		1000000		1110000	
Std 3		989000		1160000	
Std 4		1000000		1060000	
Std 5		1020000		1080000	
Std 6		1010000		1030000	
IB		905000		984000	
Std 5		1180000		1080000	
ICV		1200000		1110000	
ISC		1110000		1220000	
5023570~BLANK		1060000		1230000	
5023570~MTRX SPK		1070000		1140000	
5023570~MTRX SPK:D1		1180000		1180000	
5023570~SPIKE		1180000		1130000	
5023570~EJI413-01:10x		1070000		1150000	
5023570~EJI413-01		1160000		1260000	
IB		936000		1050000	
5023570~EJI428-01:10x		1100000		1130000	
5023570~EJI428-01		1160000		1160000	
IB		999000		997000	
5023570~EKK074-01:10x		1140000		1020000	
5023570~EKK074-01		1100000		1190000	
IB		999000		1090000	
5023570~EKK075-01:10x		1070000		1200000	
5023570~EKK075-01		1140000		1110000	
IB		1040000		970000	
5023570~EMM516-01		1180000		1150000	
5023570~EMM519-01		1070000		1150000	
CCV		1140000		1010000	
5023570~EMM563-01		1080000		1040000	
5023570~EMM564-01		1170000		1180000	
5023570~EMM565-01		1230000		1200000	
CCV		1110000		1060000	
ISC			947000		1030000
5023570~SPIKE			787000		1070000
CCV			917000		1050000

INJECTION INTERNAL STANDARD PEAK AREAS

Sample Name	Analyte	13C6-PFHxA	13C6-PFHxA	13C9-PFDA	13C9-PFDA
	Mass labeled IS	STD 4	ISC/CCV	STD 4	ISC/CCV
	IS Area	1180000	981000	1180000	1110000
		IS Peak Area	IS Peak Area	IS Peak Area	IS Peak Area
Std 1		1300000		1100000	
Std 2		1350000		1370000	
Std 3		1200000		1170000	
Std 4		1180000		1180000	
Std 5		1370000		1280000	
Std 6		1270000		1080000	
IB		1330000		1280000	
ICV		1250000		1160000	
ISC		1260000		1220000	
4988945-BLANK		1120000		1090000	
4988945-SPIKE		1160000		1190000	
4988945-SPIKE:D1		1160000		1090000	
4988945-EIY913-01		1430000		1220000	
4988945-EJI394-01:50x		1260000		1270000	
4988945-EJI394-01:10x		1240000		1140000	
IB		1250000		1190000	
4988945-EJI400-01:1000x		1370000		1290000	
4988945-EJI400-01:100x		1310000		1410000	
IB		1330000		1240000	
4988945-EJI400-01:D1:1000x		1330000		1280000	
4988945-EJI400-01:D1:100x		1320000		1160000	
4988945-EJI403-01		1150000		1260000	
4988945-EJI408-01:50x		1150000		1190000	
4988945-EJI408-01:10x		1250000		1250000	
IB		1280000		1360000	
CCV		1300000		1180000	
4988945-EJI409-01:10x		1370000		1370000	
4988945-EJI409-01		1290000		1140000	
IB		1290000		1450000	
4988945-EJI410-01		1460000		1260000	
4988945-EJI411-01		1250000		1210000	
4988945-EJI412-01:50x		1200000		1310000	
4988945-EJI412-01:10x		1270000		1030000	
IB		1280000		1390000	
4988945-EJI420-01:50x		1220000		1130000	
4988945-EJI420-01:10x		1360000		1290000	
IB		1320000		1200000	
4988945-EJI422-01		1090000		1140000	
4988945-EJI426-01:1000x		1210000		1210000	
CCV		1210000		1260000	
4988945-EJI426-01:100x		1230000		1120000	
IB		1480000		1340000	
4988945-EJI427-01		1240000		1150000	
4988945-EJI430-01:50x		1500000		1570000	
4988945-EJI430-01:10x		1230000		1210000	
IB		1380000		1310000	
4988945-EJI432-01		1190000		1310000	
CCV		1410000		1250000	
CCV		969000		1000000	
CCV		979000		966000	
ISC			981000		1110000
IB			1010000		1040000
4988945-EJI403-01			924000		945000
4988945-EJI408-01:50x			878000		931000
4988945-EJI408-01:10x			891000		986000
IB			985000		1000000
CCV			897000		901000

INJECTION INTERNAL STANDARD PEAK AREAS

Sample Name	Analyte	13C9-PFDA	13C9-PFDA
	Mass labeled IS	STD 4	ISC/CCV
	IS Area	1540000	0
		IS Peak Area	IS Peak Area
Std 1		1910000	
Std 2		1700000	
Std 3		1720000	
Std 4		1540000	
Std 5		1610000	
Std 6		1590000	
IB		1790000	
ICV		1780000	
ISC		1940000	
CCV		1480000	
4988945-BLANK		1640000	
4988945-SPIKE		1780000	
4988945-SPIKE:D1		1760000	
4988945-EIY913-01		2040000	
4988945-EJI394-01:50x		1960000	
4988945-EJI394-01:10x		1750000	
IB		2060000	
4988945-EJI400-01:1000x		2020000	
4988945-EJI400-01:100x		2040000	
IB		1950000	
4988945-EJI400-01:D1:1000x		1910000	
4988945-EJI400-01:D1:100x		2040000	
4988945-EJI403-01		1780000	
4988945-EJI408-01:50x		1690000	
4988945-EJI408-01:10x		1860000	
IB		1910000	
CCV		1820000	
4988945-EJI409-01:10x		1970000	
4988945-EJI409-01		1830000	
IB		2000000	
4988945-EJI410-01		2090000	
4988945-EJI411-01		1770000	
4988945-EJI412-01:50x		1830000	
4988945-EJI412-01:10x		1740000	
IB		2030000	
4988945-EJI420-01:50x		1680000	
4988945-EJI420-01:10x		1870000	
IB		2060000	
4988945-EJI422-01		1670000	
4988945-EJI426-01:1000x		1820000	
CCV		1820000	
4988945-EJI426-01:100x		1800000	
IB		2010000	
4988945-EJI427-01		1690000	
4988945-EJI430-01:50x		2300000	
4988945-EJI430-01:10x		1810000	
IB		2020000	
4988945-EJI432-01		1970000	
CCV		1950000	
CCV		1170000	
CCV		1200000	

Date received: 2017/05/08
4x4L 5.3

3050 Spruce Street, Saint Louis, MO 63103, USA

Website: www.sigmaaldrich.com

Email USA: techserv@sial.com

Outside USA: eurtechserv@sial.com

Certificate of Analysis

Product Name:

Methanol - for HPLC, ≥99.9%



Product Number: 34860
Batch Number: SHBG9002V
Brand: SIGALD
CAS Number: 67-56-1
MDL Number: MFCD00004595
Formula: CH₄O
Formula Weight: 32.04 g/mol
Quality Release Date: 02 FEB 2016
Expiration Date: JAN 2021

Test	Specification	Result
Appearance (Color)	Colorless	Colorless
Appearance (Form)	Liquid	Liquid
UV Absorbance 400nm	≤ 0.01	< 0.01
UV Absorbance 280nm	≤ 0.01	< 0.01
UV Absorbance 260nm	≤ 0.04	< 0.01
UV Absorbance 240nm	≤ 0.10	0.03
UV Absorbance 235nm	≤ 0.10	0.05
UV Absorbance 230nm	≤ 0.20	0.09
UV Absorbance 220nm	≤ 0.30	0.19
UV Absorbance 210nm	≤ 0.60	0.39
UV Absorbance 205nm	≤ 1.00	0.66
Fluorescence 254nm	≤ 1.0 ppb	< 0.1 ppb
Fluorescence 365nm	≤ 1.0 ppb	< 0.1 ppb
Purity (GC)	≥ 99.90 %	99.93 %
Color Test	≤ 10 APHA	< 10 APHA
Water (by Karl Fischer)	≤ 0.03 %	< 0.01 %
Residue on Evaporation	≤ 0.0005 %	0.0001 %
Expiration Date Period 1800 Days	-----	-----

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.

3050 Spruce Street, Saint Louis, MO 63103, USA

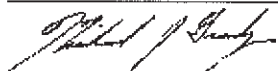
Website: www.sigmaaldrich.com

Email USA: techserv@sial.com

Outside USA: eurtechserv@sial.com

Certificate of Analysis

Product Number: 34860
Batch Number: SHBG9002V



Michael Grady, Manager
Quality Control
Sheboygan Falls, WI US

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3050 Spruce Street, Saint Louis, MO 63103, USA

Web site: www.sigmaaldrich.com

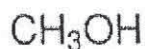
Email USA: techserv@sigma.com

Outside USA: eurtechserv@sigma.com

Certificate of Analysis

Product Name:

Methanol - for HPLC, ≥99.9%



Product Number:

34860

Batch Number:

SHBJ0382

Brand:

SIGALD

CAS Number:

67-58-1

MDL Number:

MFCD00004595

Formula:

CH4O

Formula Weight:

32.04 g/mol

Quality Release Date:

22 MAR 2017

Expiration Date:

FEB 2022

Test	Specification	Result
Appearance (Color)	Colorless	Colorless
Appearance (Form)	Liquid	Liquid
UV Absorbance 400nm	< 0.01	< 0.01
UV Absorbance 280nm	< 0.01	< 0.01
UV Absorbance 260nm	< 0.04	0.01
UV Absorbance 240nm	< 0.10	0.03
UV Absorbance 235nm	< 0.10	0.05
UV Absorbance 230nm	< 0.20	0.08
UV Absorbance 220nm	< 0.30	0.18
UV Absorbance 210nm	< 0.60	0.37
UV Absorbance 205nm	< 1.00	0.89
Fluorescence 254nm	< 1.0 ppb	< 0.1 ppb
Fluorescence 365nm	< 1.0 ppb	< 0.1 ppb
Purity (GC)	≥ 99.90 %	100.00 %
Color Test	< 10 APHA	< 5 APHA
Water (by Karl Fischer)	< 0.03 %	< 0.01 %
Residue on Evaporation	< 0.0025 %	< 0.0001 %
Expiration Date Period		
1800 Days		

Received
4 x 4L
2017/05/12

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.

Version Number: 2

Page 1 of 2

Received 4 x 4L 2017/05/24 -HPLC

REAGENT PREPARATION FORM

SOLUTION # 99 REPLACED SOLUTION # 97 REPLACED BY: 101 ANALYST RP7
 REAGENT NAME: 0.2% NH₄OH TEST/ANALYSIS: PFOS DATE PREPARED: 2017/05/18
 EXPIRY DATE Daily SOLVENT USED: MeOH FINAL VOLUME 1L SUPPLIER Aldrich OVEN NO. & TEMP -
 FINAL CONC.: 0.2% 99.8 v/v DATE SOLVENT OPENED: See below STORAGE: - BALANCE ID: N 31477 F PIPET/SYRINGE ID: -

CHEMICAL NAME	VOLUME/WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
NH ₄ OH	1 ml	2016/12/16	2017/04/03	Fisher	158310	2021/04/30
MeOH	499 ml	2017/05/12	2017/05/17	Aldrich	SHB6 9002V	2021/01/31
RP7 2017/05/18						

NOTES: 2 x 500 ml class A cylinder (3096)

SOLUTION # 100 REPLACED SOLUTION # 74 REPLACED BY: 107 ANALYSTS DM3
 REAGENT NAME: 10:30 MeOH/H₂O TEST/ANALYSIS: PFOS DATE PREPARED: 2017/05/18
 EXPIRY DATE 2017/07/18 SOLVENT USED: MeOH FINAL VOLUME: 500 ml SUPPLIER Aldrich OVEN NO. & TEMP -
 FINAL CONC.: 10:30 v/v DATE SOLVENT OPENED: See below STORAGE: shelf BALANCE ID: - PIPET/SYRINGE ID: -

CHEMICAL NAME	VOLUME/WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
MeOH	350 ml	2017/05/12	2017/05/12	Aldrich	SHB6 9002V	2021/01/30
H ₂ O	150 ml	2017/05/12	2017/05/12	Omnisolv	56218	2017/08/31
2017/05/18 DM3						

NOTES: 500 ml class A cylinder



Certificate of Analysis

Date of Release: 8/4/2016
 Name: Water
 OmniSolv®, For LC/MS
 Item No: WX0001 all size ccoos
 Lot / Batch No: 56218
 Country of Origin: USA

Characteristic	Requirement		Results	Units
	Min.	Max.		
Expiration date			31-AUG-2017	
Evaporation residue		1	<0.1	ppm
Filtered through 0.2 µm filter			Passes test	
Fluorescence as quinine at 254 nm		1	< 1	ppb
Fluorescence as quinine at 365 nm		1	< 1	ppb
Gradient at 210 nm		2	0.10	mAU
Gradient at 254 nm		0.5	0.07	mAU
LC/MS Purity (n-octadecanol)		50	<50	ppb
LC/MS Purity (reserpine)		50	<50	ppb
Metals, suitable for LC/MS			Conforms	
UV Abs. at 200 nm		0.01	< 0.001	AU
UV Abs. at 210 nm		0.01	< 0.001	AU
UV Abs. at 220 nm		0.01	< 0.001	AU
UV Abs. at 230 nm		0.01	< 0.001	AU
UV Abs. at 240 nm		0.01	< 0.001	AU
UV Abs. at 260 nm		0.005	< 0.001	AU
UV Abs. at 270 nm		0.005	< 0.001	AU
UV Abs. at 400-280 nm		0.005	< 0.001	AU
UV Cut-off		190	<190	nm

Gunn Desotale

Quality Control Manager

This document has been produced electronically and is valid without a signature

EMD Millipore is a division of Merck KGaA, Darmstadt, Germany
 EMD Millipore Corporation
 290 Concord Road
 Billerica, MA 01821
 U.S.A.

Received: 652

2017/01/19

4x4L

2017/02/08

3x4L mm

Date Received: 2016.12.01 - 4 bottles - P12
 Date Received: 2017/01/19 - 4 bottles - JDA
 Date Received: 2017.03.24 - 4 bottles - Main Lab-MG
 Date Received: 2017.05.10 - 4 bottles - HPLC
 Date Received: 2017.05.16 - 4 bottles - HPLC
 Date Received: 2017.05.17 - 4 bottles - HPLC
 Date Received: 2017.05.24 - 4 bottles - HPLC
 Received 2017/05/25 8 bottles-HPLC
 Date Received: 2017/05/29-JDA-1x4L
 Date Received: 2017/05/31-JDA-4x4L
 Date Received: 2017.06.06 - 8 bottles -HPLC

3050 Spruce Street, Saint Louis, MO 63103, USA

Website: www.sigmaaldrich.com

Email USA: techserv@slal.com

Outside USA: eurtechserv@slal.com

Certificate of Analysis

Product Name:

Methanol - for HPLC, ≥99.9%

Product Number:

34860

Batch Number:

SHBG9002V

Brand:

SIGALD

CAS Number:

67-58-1

MDL Number:

MFCD00004595

Formula:

CH₄O

Formula Weight:

32.04 g/mol

Quality Release Date:

02 FEB 2016

Expiration Date:

JAN 2021

CH₃OH

HPLC

4 x 4 L

EXM 2016/08/25

Test	Specification	Result
Appearance (Color)	Colorless	Colorless
Appearance (Form)	Liquid	Liquid
UV Absorbance 400nm	≤ 0.01	< 0.01
UV Absorbance 280nm	≤ 0.01	< 0.01
UV Absorbance 260nm	≤ 0.04	< 0.01
UV Absorbance 240nm	≤ 0.10	0.03
UV Absorbance 235nm	≤ 0.10	0.05
UV Absorbance 230nm	≤ 0.20	0.09
UV Absorbance 220nm	≤ 0.30	0.19
UV Absorbance 210nm	≤ 0.60	0.39
UV Absorbance 205nm	≤ 1.00	0.66
Fluorescence 254nm	≤ 1.0 ppb	< 0.1 ppb
Fluorescence 365nm	≤ 1.0 ppb	< 0.1 ppb
Purity (GC)	≥ 99.90 %	99.93 %
Color Test	≤ 10 APHA	< 10 APHA
Water (by Karl Fischer)	≤ 0.03 %	< 0.01 %
Residue on Evaporation	≤ 0.0005 %	0.0001 %
Expiration Date Period	-----	-----
1800 Days		

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.

Version Number: 1

Page 1 of 2

Date Received: 2016.08.25 - 4 x 4L - HPLC
Date Received: 2017.05.03 - 4 x 4L - HPLC
Date Received: 2017.05.08 - 4 x 4L - HPLC
Date Received: 2017.05.12 - 4 x 4L - HPLC

REAGENT PREPARATION FORM

SOLUTION # 101 REPLACED SOLUTION # 99 REPLACED BY: 105 ANALYST DM3
REAGENT NAME: 6.2% NH₄OH TEST/ANALYSIS: PFOS DATE PREPARED: 2017/05/19
EXPIRY DATE daily SOLVENT USED: MeOH FINAL VOLUME 1L SUPPLIER Aldrich OVEN NO. & TEMP N 714777
FINAL CONC: 0.2998 DATE SOLVENT OPENED: see below STORAGE: - BALANCE ID: PIPET SYRINGE ID: -

CHEMICAL NAME	VOLUME/WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
NH ₄ OH	1ml	2016/12/16	2017/01/03	Fisher	158310	2021/01/30
MeOH	400ml	2017/05/12	2017/05/12	Aldrich	5186 9002V	2021/01/31

2017/05/19 DM3

NOTES:

2 x 500ml class A cylinder (3026)

SOLUTION # 107 REPLACED SOLUTION # 13 REPLACED BY: 108 ANALYSTS DM3
REAGENT NAME: 60.40 H₂O TEST/ANALYSIS: PFOS DATE PREPARED: 2017/05/19
EXPIRY DATE 10/2/07 SOLVENT USED: H₂O FINAL VOLUME: 1L SUPPLIER - OVEN NO. & TEMP -
FINAL CONC: 6.4 DATE SOLVENT OPENED: see below STORAGE: shelf BALANCE ID: - PIPET/SYRINGE ID: -

CHEMICAL NAME	VOLUME/WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
H ₂ O	300ml	2017/05/10	2017/05/10	Quanta Solv	56215	2017/05/31
MeOH	200ml	2017/05/12	2017/05/12	Aldrich	5186 9002V	2021/01/31

2017/05/19 DM3

NOTES:

2 x 500ml class A cylinder (3026)



1 Rongant Lane
Fair Lawn, NJ 07410
201.798.7100 tel
201.798.1329 fax

Certificate of Analysis

Fisher Scientific's Quality System has been tested to ISO 9001:2015 Quality Management System.
Registered ISO 9001:2015 0005500 by BSI Global Certificate Number CERT - 0006616

This is to certify that units of the lot number below were tested and found to comply with the specifications of the certificate listed. Certain data have been supplied by third parties. Fisher Scientific is not responsible for the accuracy, completeness or integrity of the data. The data are intended for informational purposes only and should not be used for regulatory or legal purposes. Fisher does not claim regulatory coverage under 21 CFR nor maintain GMPs with the FDA. The following are the actual analytical results obtained.

Catalog Number	A669	Quality Test / Release Date	4/9/2016
Lot Number	158310		
Description	AMMONIUM HYDROXIDE, CERTIFIED A.C.S. PLUS		
Country of Origin	United States	* Suggested Repeat Date	Apr-2021
Chemical Origin	Inorganic-non animal		
BSE/TSE Comment	This product does not contain and is not manufactured with raw material ingredients derived from any animal products, including countries where Bovine Spongiform Encephalopathy (BSE) is known to exist.		
Chemical Comment	This product is free from genetically modified substances and is gluten free.		

*Inv. Recd: 2016/12/28
bottles - BB*

Result name	Units	Specifications	Test Value
APPEARANCE		REPORT	COLORLESS AND FREE FROM SUSPENDED MATTER
ALUMINUM	ppm	≤ 0.3	0.001
ARSENIC AND ANTIMONY	ppm	≤ 0.03	≤ 0.050
ASSAY	wt %	Inclusive Between 28.0 - 32.0	28.0
BORON (B)	ppm	≤ 0.1	0.001
CALCIUM (Ca)	ppm	≤ 0.3	0.002
CARBON DIOXIDE	%	≤ 0.002	≤ 0.0020
CHLORIDE	ppm	≤ 0.3	≤ 0.60
CHROMIUM (Cr)	ppm	≤ 0.2	0.001
COPPER (Cu)	ppm	≤ 0.1	0.001
GOLD (Au)	ppm	≤ 0.3	0.001
HEAVY METALS (as Pb)	ppm	≤ 0.5	≤ 0.5
IDENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST
IRON (Fe)	ppm	≤ 0.1	0.001
LEAD (Pb)	ppm	≤ 0.2	0.001
MAGNESIUM (Mg)	ppm	≤ 0.3	0.001
MANGANESE (Mn)	ppm	≤ 0.2	0.001
NICKEL (Ni)	ppm	≤ 0.1	0.001
NITRATE (NO ₃)	ppm	≤ 2	≤ 2.0
PHOSPHATE (PO ₄)	ppm	≤ 0.4	≤ 0.40
POTASSIUM (K)	ppm	≤ 0.3	0.001
RESIDUE AFTER IGNITION	ppm	≤ 3	≤ 3.00
SODIUM (Na)	ppm	= Report	0.003
SUBSTANCES REDUCING KMNO ₄	PASS/FAIL	= PASS TEST	PASS TEST
SULFATE (SO ₄)	ppm	≤ 2	≤ 2.0
TIN (Sn)	ppm	≤ 0.3	0.001
TITANIUM (Ti)	ppm	≤ 0.3	0.001
ZINC (Zn)	ppm	≤ 0.3	0.001



Jane Alton
Quality Control Manager BPF

Note: The date listed is valid for all packages sizes of this lot of this product, expressed as a percentage of this catalog number listed above. If there are any questions with this certificate, please call Chemical Services at (800) 227-8779.
*Based on suggested storage conditions.

Received: 2016/12/16 1x500mL MMN

3050 Spruce Street, Saint Louis, MO 63103, USA

Website: www.sigmaaldrich.com

Email USA: techserv@sigmaaldrich.com

Outside USA: eurtechserv@sigmaaldrich.com

Certificate of Analysis

Product Name:

Methanol - for HPLC, ≥99.9%

Product Number:

34860

Batch Number:

SHBG9002V

Brand:

SIGALD

CAS Number:

67-68-1

MDL Number:

MFCD00004595

Formula:

CH₄O

Formula Weight:

32.04 g/mol

Quality Release Date:

02 FEB 2016

Expiration Date:

JAN 2021

CH₃OH

HPLC

4 x 4 L

EM 2016/08/25

Test	Specification	Result
Appearance (Color)	Colorless	Colorless
Appearance (Form)	Liquid	Liquid
UV Absorbance 400nm	≤ 0.01	< 0.01
UV Absorbance 280nm	≤ 0.01	< 0.01
UV Absorbance 260nm	≤ 0.04	< 0.01
UV Absorbance 240nm	≤ 0.10	0.03
UV Absorbance 235nm	≤ 0.10	0.05
UV Absorbance 230nm	≤ 0.20	0.09
UV Absorbance 220nm	≤ 0.30	0.19
UV Absorbance 210nm	≤ 0.60	0.39
UV Absorbance 205nm	≤ 1.00	0.66
Fluorescence 264nm	≤ 1.0 ppb	< 0.1 ppb
Fluorescence 365nm	≤ 1.0 ppb	< 0.1 ppb
Purity (GC)	≥ 99.90 %	99.93 %
Color Test	≤ 10 APHA	< 10 APHA
Water (by Karl Fischer)	≤ 0.03 %	< 0.01 %
Residue on Evaporation	≤ 0.0005 %	0.0001 %
Expiration Date Period		
1800 Days		

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.

Version Number: 1

Page 1 of 2

Date Received: 2016.08.25 - 4 x 4L - HPLC

Date Received: 2017.05.03 - 4 x 4L - HPLC

Date Received: 2017.05.12 - 4 x 4L - HPLC

REAGENT PREPARATION FORM

SOLUTION # 101 REPLACED SOLUTION # 99 REPLACED BY: 105 ANALYST DM3
REAGENT NAME: 0.2% NH₄OH TEST/ANALYSIS: PFOS DATE PREPARED: 2017/05/19
EXPIRY DATE daily SOLVENT USED: MeOH FINAL VOLUME 1L SUPPLIER Aldrich OVEN NO. & TEMP —
FINAL CONC: 0.2% v/v DATE SOLVENT OPENED: see below STORAGE: — BALANCE ID: — PIPET/SYRINGE ID: W 71477F

CHEMICAL NAME	VOLUME/WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
NH ₄ OH	1ml	2016/2/16	2017/01/03	Fisher	158310	2021/04/20
MeOH	400ml	2017/05/12	2017/05/12	Aldrich	5186 9002V	2021/01/31

2017/05/19 DM3

NOTES:

2 x 500ml class A cylinder (3026)

SOLUTION # 107 REPLACED SOLUTION # 13 REPLACED BY: 108 ANALYSTS DM3
REAGENT NAME: 0.40 H₂O:MeOH TEST/ANALYSIS: PFOS DATE PREPARED: 2017/05/19
EXPIRY DATE 2017/05/19 SOLVENT USED: MeOH FINAL VOLUME: 1L SUPPLIER — OVEN NO. & TEMP —
FINAL CONC: 0.4 v/v DATE SOLVENT OPENED: see below STORAGE: bulk BALANCE ID: — PIPET/SYRINGE ID: —

CHEMICAL NAME	VOLUME/WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
H ₂ O	300ml	2017/05/12	2017/05/12	0.2% Solv	56218	2021/02/31
MeOH	200ml	2017/05/12	2017/05/12	Aldrich	5186 9002V	2021/01/31

2017/05/19 DM3

NOTES:

2 x 500ml class A cylinder (3026)

DO NOT WRITE BENEATH ANY INSERTS OR PLACE ANY INSERTS ON TOP OF ANY RAW DATA ENTERED ON THIS PAGE. INITIAL AND DATE ALL ENTRIES, CORRECTIONS AND INSERTS. INCLUDE ALL RELEVANT TRACEABLE REFERENCES ON ALL INSERTS. ONLY CLASS A GLASSWARE IS USED FOR THE PREPARATION OF REAGENTS WHEN APPLICABLE.

Certificate of Analysis



Date of Release: 8/4/2016
 Name: Water
 OmniSolv®, For LC/MS
 Item No: WX0001 all size codes
 Lot / Batch No: 56218
 Country of Origin: USA

Characteristic	Requirement		Results	Units
	Min.	Max.		
#Expiration date			31-AUG-2017	
Evaporation residue		1	<0.1	ppm
Filtered through 0.2 µm filter			Passes test	
Fluorescence as quinine at 254 nm		1	< 1	ppb
Fluorescence as quinine at 365 nm		1	< 1	ppb
Gradient at 210 nm		2	0.10	mAU
Gradient at 254 nm		0.5	0.07	mAU
LC/MS Purity (p-nitrophenol)		50	<50	ppb
LC/MS Purity (reserpine)		50	<50	ppb
Metals, suitable for LC/MS			Conforms	
UV Abs. at 200 nm		0.01	< 0.001	AU
UV Abs. at 210 nm		0.01	< 0.001	AU
UV Abs. at 220 nm		0.01	< 0.001	AU
UV Abs. at 230 nm		0.01	< 0.001	AU
UV Abs. at 240 nm		0.01	< 0.001	AU
UV Abs. at 250 nm		0.005	< 0.001	AU
UV Abs. at 270 nm		0.005	< 0.001	AU
UV Abs. at 400-280 nm		0.005	< 0.001	AU
UV Cut-off		190	<190	nm

Gene Drosophila

Quality Control Manager

This document has been produced electronically and is valid without a signature.

EMD Millipore is a division of Merck KGaA, Darmstadt, Germany
 EMD Millipore Corporation
 290 Concord Road
 Billerica, MA 01821
 U.S.A

Received: 65Z

2017/01/19

4x4L

2017/02/08

3x4L mm

1/1

Date Received: 2016.12.01 - 4 bottles - P12
 Date Received: 2017/01/19 - 4 bottles - JDA
 Date Received: 2017.03.24 - 4 bottles - Main Lab-MG
 Date Received: 2017.05.10 - 4 bottles - HPLC

Date Received: 2017.05.16 - 4 bottles - HPLC
 Date Received: 2017.05.24 - 4 bottles - HPLC
 Received 2017/05/25 8 bottles-HPLC
 Date Received: 2017/05/29-JDA-1x4L
 Date Received: 2017.06.06 - 8 bottles -HPLC

3050 Spruce Street, Saint Louis, MO 63103, USA

Website: www.sigmaaldrich.com

Email USA: techserv@sigmaaldrich.com

Outside USA: eurtechserv@sigmaaldrich.com

Certificate of Analysis

Product Name:

Methanol - for HPLC, ≥99.9%

Product Number:

34860

Batch Number:

SHBG9902V

Brand:

SIGALD

CAS Number:

67-56-1

MDL Number:

MFCD00004595

Formula:

CH₄O

Formula Weight:

32.04 g/mol

Quality Release Date:

02 FEB 2016

Expiration Date:

JAN 2021

CH₃OH

HPLC

4 x 4 L

ETA 2016/08/25

Test	Specification	Result
Appearance (Color)	Colorless	Colorless
Appearance (Form)	Liquid	Liquid
UV Absorbance 400nm	≤ 0.01	< 0.01
UV Absorbance 280nm	≤ 0.01	< 0.01
UV Absorbance 260nm	≤ 0.04	< 0.01
UV Absorbance 240nm	≤ 0.10	0.03
UV Absorbance 235nm	≤ 0.10	0.05
UV Absorbance 230nm	≤ 0.20	0.09
UV Absorbance 220nm	≤ 0.30	0.19
UV Absorbance 210nm	≤ 0.60	0.39
UV Absorbance 205nm	≤ 1.00	0.66
Fluorescence 254nm	≤ 1.0 ppb	< 0.1 ppb
Fluorescence 365nm	≤ 1.0 ppb	< 0.1 ppb
Purity (GC)	≥ 99.90 %	99.93 %
Color Test	≤ 10 APHA	< 10 APHA
Water (by Karl Fischer)	≤ 0.03 %	< 0.01 %
Residue on Evaporation	≤ 0.0005 %	0.0001 %
Expiration Date Period		
1800 Days		

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.

Version Number: 1

Page 1 of 2

Date Received: 2016.08.25 - 4 x 4L - HPLC

Date Received: 2017.05.03 - 4 x 4L - HPLC

Date Received: 2017.05.12 - 4 x 4L - HPLC

REAGENT PREPARATION FORM

SOLUTION # 103 REPLACED SOLUTION # 55 REPLACED BY: 128 ANALYST DAB
 REAGENT NAME: 21 Formic Acid TEST/ANALYSIS: PFOS DATE PREPARED: 2017/05/19
 EXPIRY DATE 2018/03/15 SOLVENT USED: Reagent H₂O FINAL VOLUME 1L SUPPLIER see below OVEN NO. & TEMP N/A
 FINAL CONC.: 0.2.995 DATE SOLVENT OPENED: see below STORAGE: shelf BALANCE ID: - PIPET/SYRINGE ID: N192300

CHEMICAL NAME	VOLUME/WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
Formic Acid	10ml	2016/12/12	2017/05/17	Aldrich	SHBH 4976V	2017/07/30
H ₂ O	490ml	2017/05/16	2017/05/17	Omni-Sun	56218	2017/08/21

NOTES: 2 x 500ml class A cylinder (3026)

SOLUTION # 104 REPLACED SOLUTION # 87 REPLACED BY: - ANALYSTS RP7
 REAGENT NAME: DNPH solⁿ TEST/ANALYSIS: FORMLOW..W/FORMALD-L DATE PREPARED: 2017/05/19
 EXPIRY DATE 2017 SOLVENT USED: ACN FINAL VOLUME: 10ml SUPPLIER Fisher OVEN NO. & TEMP -
 FINAL CONC: - DATE SOLVENT OPENED: - STORAGE: - BALANCE ID: PC-1 PIPET/SYRINGE ID: -

CHEMICAL NAME	VOLUME/WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
DNPH	0.0503 gm	2016/07/15	2016/07/15	Spectrum	2EK 0212	2020/08/31
ACN	10ml	2017/04/05	2017/04/05	Fisher	165746	2021/11/30

NOTES:

Certificate of Analysis

Product Name:

Formic acid - reagent grade, ≥95%

Product Number:

F0507

Batch Number:

SHDH4976V

Brand:

SIGALD

CAS Number:

84-10-8

MOL Number:

MFCD00003297

Formula:

CH₂O₂

Formula Weight:

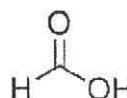
46.03 g/mol

Quality Release Date:

09 SEP 2016

Expiration Date:

SEP 2017



Rec'd: 2
2016/11/22
1 X 500 mL
LC Group

Test	Specification	Result
Appearance (Turbidity)	Clear	Clear
Appearance (Color)	Colorless to Very Faint Yellow	Colorless
Appearance (Form)	Liquid	Liquid
Proton NMR Spectrum	Conforms to Structure	Conforms
Solvent Content	≤ 1.0 %	≤ 0.1 %
Acetic Acid by NMR		
Water (by Karl Fischer)	2.0 - 2.5 %	2.1 %
Titration with NaOH	≥ 95.0 %	97.2 %
Expiration Date Period		
1 Year		

Michael Grady, Manager
Quality Control
Sheboygan Falls, WI US

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.

Received 2016/12/12 3 x 500mL -HPLC

Date Received: 2016/12/21-SSB-P2A

Certificate of Analysis



Date of Release: 8/4/2016
 Name: Water
 OmniSolv®, For LC/MS
 Item No: WX0001 all size codes
 Lot / Batch No: 56218
 Country of Origin: USA

Characteristic	Requirement		Results	Units
	Min.	Max.		
Expiration date			31-AUG-2017	
Evaporation residue		1	<0.1	ppm
Filtered through 0.2 µm filter			Passes test	
Fluorescence as quinine at 254 nm		1	< 1	ppb
Fluorescence as quinine at 365 nm		1	< 1	ppb
Gradient at 210 nm		2	0.10	mAU
Gradient at 254 nm		0.5	0.07	mAU
LC/MS Purity (p-nitrophenol)		50	<50	ppb
LC/MS Purity (reserpine)		50	<50	ppb
Metals, suitable for LC/MS			Conforms	
UV Abs. at 200 nm		0.01	< 0.001	AU
UV Abs. at 210 nm		0.01	< 0.001	AU
UV Abs. at 220 nm		0.01	< 0.001	AU
UV Abs. at 230 nm		0.01	< 0.001	AU
UV Abs. at 240 nm		0.01	< 0.001	AU
UV Abs. at 250 nm		0.005	< 0.001	AU
UV Abs. at 270 nm		0.005	< 0.001	AU
UV Abs. at 400-280 nm		0.005	< 0.001	AU
UV Cut-off		190	<190	nm

Geno Desotelle

Quality Control Manager

This document has been produced electronically and is valid without a signature.

EMD Millipore is a division of Merck KGaA, Darmstadt, Germany
 EMD Millipore Corporation
 230 Concord Road
 Billerica, MA 01821
 U.S.A

Received: 652

2017/01/19

4x4L

2017/02/08

3x4L mm

1/1

Date Received: 2016.12.01 - 4 bottles - P12
 Date Received: 2017/01/19 - 4 bottles - JDA
 Date Received: 2017.03.24 - 4 bottles - Main Lab-MG
 Date Received: 2017.05.10 - 4 bottles - HPLC

Date Received: 2017.05.16 - 4 bottles - HPLC
 Date Received: 2017.05.24 - 4 bottles - HPLC
 Received 2017/05/25 8 bottles-HPLC
 Date Received: 2017/05/29-JDA-1x4L
 Date Received: 2017.06.06 - 8 bottles -HPLC

REAGENT PREPARATION FORM

SOLUTION # 105 REPLACED SOLUTION # 101 REPLACED BY: 106 ANALYST lv
REAGENT NAME: 0.2% NH₄OH TEST/ANALYSIS: PFS DATE PREPARED: 2017/05/23
EXPIRY DATE daily SOLVENT USED: MeOH FINAL VOLUME 1L SUPPLIER Aldrich OVEN NO. & TEMP —
FINAL CONC.: 0.2:99.8 DATE SOLVENT OPENED: See Below STORAGE: — BALANCE ID: — PIPET/SYRINGE ID: N31477F

CHEMICAL NAME	VOLUME/WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
NH ₄ OH	1 ml	2016/12/16	2017/04/03	Fisher	158310	2021/04/30
MeOH	499ml	2017/05/12	2017/05/19	Aldrich	SNB3 0382	2022/02/29
2017/05/23 lv						

NOTES:

2 x 500 ml Class A cylinder (3026)

SOLUTION # 106 REPLACED SOLUTION # 105 REPLACED BY: 108 ANALYSTS DMB
REAGENT NAME: 0.2% NH₄OH TEST/ANALYSIS: PFS DATE PREPARED: 2017/05/24
EXPIRY DATE daily SOLVENT USED: MeOH FINAL VOLUME: 1L SUPPLIER Aldrich OVEN NO. & TEMP —
FINAL CONC.: 0.2:99.8 DATE SOLVENT OPENED: see below STORAGE: — BALANCE ID: — PIPET/SYRINGE ID: N31477F

CHEMICAL NAME	VOLUME/WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
NH ₄ OH	1ml	2016/12/16	2017/04/03	Fisher	158310	2021/04/30
MeOH	499ml	2017/05/12	2017/05/19	Aldrich	SNB3 0382	2022/02/29
2017/05/24 DMB						

NOTES:

2 x 500ml Class A cylinder (3026)



1 Rongant Lane
Fair Lawn, NJ 07410
201.798.7100 tel
201.798.1323 fax

Certificate of Analysis

Fisher Scientific Quality System has been found to conform to Quality Management System
Standard ISO 9001:2008 version by BSI Global Certificate Number CERT - 006616

This is to certify that units of the lot number below were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Certain products (DPP/PCNT/Intrepid) are sold for use in food, drug, or medical device manufacturing. Fisher does not claim regulatory compliance under 21 CFR nor maintain claims with the FDA. The following are the actual analytical results obtained.

Catalog Number	A669	Quality Test / Release Date	4/9/2016
Lot Number	154310		
Description	AMMONIUM HYDROXIDE, CERTIFIED A.C.S. PLUS		
Country of Origin	United States	* Suggested Reuse Date	Apr-2021
Chemical Origin	Inorganic-non animal		
BSE/TSE Comment	This product does not contain and is not manufactured with raw material ingredients derived from any animal products, including countries where Bovine Spongiform Encephalopathy (BSE) is known to exist.		
Chemical Comment	This product is free from genetically modified substances and is gluten free.		

*In Arch: 2016/12/28
11 bottles - BB*

Result name	Units	Specifications	Test Value
APPEARANCE		REPORT	COLORLESS AND FREE FROM SUSPENDED MATTER
ALUMINUM	ppm	≤ 0.5	0.001
ARSENIC AND ANTIMONY	ppm	≤ 0.05	<0.050
ASSAY	wt %	Inductive Between 28.0 - 30.0	29.0
BORON (B)	ppm	≤ 0.1	0.001
CALCIUM (Ca)	ppm	≤ 0.5	0.002
CARBON DIOXIDE	%	≤ 0.002	<0.000
CHLORIDE	ppm	≤ 0.5	<0.60
CHROMIUM (Cr)	ppm	≤ 0.2	0.001
COPPER (Cu)	ppm	≤ 0.1	0.001
GOLD (Au)	ppm	≤ 0.5	0.001
HEAVY METALS (as Pb)	ppm	≤ 0.5	<0.5
IDENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST
IRON (Fe)	ppm	≤ 0.1	0.001
LEAD (Pb)	ppm	≤ 0.2	0.001
MAGNESIUM (Mg)	ppm	≤ 0.5	0.001
MANGANESE (Mn)	ppm	≤ 0.2	0.001
NICKEL (Ni)	ppm	≤ 0.1	0.001
NITRATE (NO3)	ppm	≤ 2	<2.0
PHOSPHATE (PC4)	ppm	≤ 0.4	<0.40
POTASSIUM (K)	ppm	≤ 0.5	0.001
RESIDUE AFTER IGNITION	ppm	≤ 3	<3.00
SODIUM (Na)	ppm	= Report	0.003
SUBSTANCES REDUCING KMNO4	PASS/FAIL	= PASS TEST	PASS TEST
SULFATE (SO4)	ppm	≤ 2	<2.0
TIN (Sn)	ppm	≤ 0.5	0.001
TITANIUM (Ti)	ppm	≤ 0.5	0.001
ZINC (Zn)	ppm	≤ 0.5	0.001



James J. Khan
Quality Control Manager BPF

Note: This data sheet is valid for all package sizes of this lot of this product, expressed as a percentage of this naming number listed above. Please use any customers with this certificate, please call Customer Services at (800) 227-2701.
Based on suggested storage conditions.

Received: 2016/12/16 1x500mL MMN

3050 Spruce Street, Saint Louis, MO 63103, USA

Website: www.sigmaaldrich.comEmail USA: techserv@sigmaaldrich.comOutside USA: eurtechserv@sigmaaldrich.com

Certificate of Analysis

Product Name:

Methanol - for HPLC, ≥99.9%

CH₃OH

Product Number:

34860

Batch Number:

SHBJ0382

Brand:

SIGALD

CAS Number:

67-58-1

MDL Number:

MFCD00004595

Formula:

CH₄O

Formula Weight:

32.04 g/mol

Quality Release Date:

22 MAR 2017

Expiration Date:

FEB 2022

Test	Specification	Result
Appearance (Color)	Colorless	Colorless
Appearance (Form)	Liquid	Liquid
UV Absorbance 400nm	≤ 0.01	< 0.01
UV Absorbance 360nm	≤ 0.01	< 0.01
UV Absorbance 280nm	≤ 0.04	0.01
UV Absorbance 240nm	≤ 0.10	0.03
UV Absorbance 235nm	≤ 0.10	0.05
UV Absorbance 230nm	≤ 0.20	0.08
UV Absorbance 220nm	≤ 0.30	0.16
UV Absorbance 210nm	≤ 0.60	0.37
UV Absorbance 205nm	≤ 1.00	0.69
Fluorescence 254nm	≤ 1.0 ppb	< 0.1 ppb
Fluorescence 365nm	≤ 1.0 ppb	< 0.1 ppb
Purity (GC)	≥ 99.90 %	100.00 %
Color Test	≤ 10 APHA	< 5 APHA
Water (by Karl Fischer)	≤ 0.03 %	< 0.01 %
Residue on Evaporation	≤ 0.0035 %	< 0.0001 %
Expiration Date Period		
1800 Days		

Received
4 x 4L
2017/05/12

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.

Version Number 2

Page 1 of 2

Received 4 x 4L 2017/05/24 -HPLC

REAGENT PREPARATION FORM

SOLUTION # 109 REPLACED SOLUTION # 102 REPLACED BY: 127 ANALYST DM3
 REAGENT NAME: 60:40 H₂O:MeOH TEST/ANALYSIS: PFOs DATE PREPARED: 2017/05/25
 EXPIRY DATE 2017/05/31 SOLVENT USED: H₂O:MeOH FINAL VOLUME 1L SUPPLIER see below OVEN NO. & TEMP -
 FINAL CONC: 60:40 DATE SOLVENT OPENED: see below STORAGE: see below BALANCE ID: - PIPET/SYRINGE ID: -

CHEMICAL NAME	VOLUME/ WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
H ₂ O	300ml	2017/04/24	2017/04/24	Omnisolv	56218	2017/04/31
MeOH	200ml	2017/05/12	2017/04/24	Aldrich	SHBG 9002V	2021/04/31

NOTES:

2 x 500 ml class A cylinder (3026)

SOLUTION # 110 REPLACED SOLUTION # 93 REPLACED BY: mmw ANALYSTS mmw
 REAGENT NAME: 0.3% PH₂OH in MeOH TEST/ANALYSIS: PFOs DATE PREPARED: 2017/05/25
 EXPIRY DATE DAILY SOLVENT USED: MeOH FINAL VOLUME: 300ml SUPPLIER Aldrich OVEN NO. & TEMP -
 FINAL CONC: 0.3:99.7 DATE SOLVENT OPENED: see below STORAGE: - BALANCE ID: P297/60 PIPET/SYRINGE ID: -

CHEMICAL NAME	VOLUME/ WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
PH ₂ OH	0.9ml	2016/12/16	2017/10/13	Fisher	158310	2021/09/30
MeOH	299.1ml	2017/05/12	2017/05/24	Aldrich	SHBG 9002V	2021/01/31

NOTES:



1 Roanoke Lane
Fair Lawn, NJ 07410
201.798.7100 tel
201.798.1328 fax

Certificate of Analysis

Fisher Scientific Quality System has been tested to comply with Management System
Standard ISO 9001:2008 certified by BSI Global Certificate Number CERT-0000016

This is to certify that units of the lot number below were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Certain products (e.g., PVP-DOX-12/12/12) are sold for use in food, drug, or medical device manufacturing. Fisher does not claim regulatory coverage under 21 CFR for certain chemicals. The following are the actual analytical results obtained.

Catalog Number	A669	Quality Test / Release Date	4/9/2016
Lot Number	158319		
Description	AMMONIUM HYDROXIDE, CERTIFIED A.C.S. PLUS		
Country of Origin	United States	* Suggested Retest Date	Apr-2021
Chemical Origin	Inorganic-non animal		
BSE/TSE Comment	This product does not contain and is not manufactured with raw material ingredients derived from any animal products, including countries where Bovine Spongiform Encephalopathy (BSE) is known to exist.		
Chemical Comment	This product is free from genetically modified substances and is gluten free.		

*In lot: 2016/12/28
11 bottles - B2B*

Result name	Units	Specifications	Test Value
APPEARANCE		REPORT	COLORLESS AND FREE FROM SUSPENDED MATTER
ALUMINIUM	ppm	≤ 0.5	0.001
ARSENIC AND ANTIMONY	ppm	≤ 0.03	< 0.050
ASSAY	w/w %	Inclusive Between 28.0 - 30.0	29.8
BORON (B)	ppm	≤ 0.1	0.001
CALCIUM (Ca)	ppm	≤ 0.5	0.002
CARBON DIOXIDE	%	≤ 0.002	< 0.000
CHLORIDE	ppm	≤ 0.5	< 0.60
CHROMIUM (Cr)	ppm	≤ 0.2	0.001
COPPER (Cu)	ppm	≤ 0.1	0.001
GOLD (Au)	ppm	≤ 0.3	0.001
HEAVY METALS (as Pb)	ppm	≤ 0.5	< 0.5
IDENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST
IRON (Fe)	ppm	≤ 0.1	0.001
LEAD (Pb)	ppm	≤ 0.2	0.001
MAGNESIUM (Mg)	ppm	≤ 0.3	0.001
MANGANESE (Mn)	ppm	≤ 0.2	0.001
NICKEL (Ni)	ppm	≤ 0.1	0.001
NITRATE (NO ₃)	ppm	≤ 2	< 2.0
PHOSPHATE (PO ₄)	ppm	≤ 0.4	< 0.40
POTASSIUM (K)	ppm	≤ 0.5	0.001
RESIDUE AFTER IGNITION	ppm	≤ 3	< 3.00
SODIUM (Na)	ppm	= Report	0.003
SUBSTANCES REDUCING KMNO ₄	PASS/FAIL	= PASS TEST	PASS TEST
SULFATE (SO ₄)	ppm	≤ 2	< 2.0
TIN (Sn)	ppm	≤ 0.3	0.001
TITANIUM (Ti)	ppm	≤ 0.3	0.001
ZINC (Zn)	ppm	≤ 0.3	0.001



Jane Allen
Quality Control Manager BPF

Note: The data listed is valid for all package sizes of this lot of the product, expressed as a percentage of the coming material listed above. If data are any deviations with this certificate, please call Chemical Services at (800) 227-2701.
*Based on suggested storage conditions.

Received: 2016/12/16 1x500mL MMN

3050 Spruce Street, Saint Louis, MO 63103, USA

Website: www.sigmaaldrich.com

Email USA: techserv@sigmaaldrich.com

Outside USA: eurotechserv@sigmaaldrich.com

Certificate of Analysis

Product Name:

Methanol - for HPLC, ≥99.9%

Product Number:

34860

Batch Number:

SHBG9002V

Brand:

SIGALD

CAS Number:

67-56-1

MDL Number:

MFCD00004605

Formula:

CH₄O

Formula Weight:

32.04 g/mol

Quality Release Date:

02 FEB 2016

Expiration Date:

JAN 2021

CH₃OH

HPLC

4 x 4 L

ETA 2016/08/25

Test	Specification	Result
Appearance (Color)	Colorless	Colorless
Appearance (Form)	Liquid	Liquid
UV Absorbance 400nm	≤ 0.01	< 0.01
UV Absorbance 280nm	≤ 0.01	< 0.01
UV Absorbance 260nm	≤ 0.04	< 0.01
UV Absorbance 240nm	≤ 0.10	0.03
UV Absorbance 235nm	≤ 0.10	0.05
UV Absorbance 230nm	≤ 0.20	0.09
UV Absorbance 220nm	≤ 0.30	0.19
UV Absorbance 210nm	≤ 0.60	0.39
UV Absorbance 205nm	≤ 1.00	0.66
Fluorescence 254nm	≤ 1.0 ppb	< 0.1 ppb
Fluorescence 365nm	≤ 1.0 ppb	< 0.1 ppb
Purity (GC)	≥ 99.90 %	99.93 %
Color Test	≤ 10 APHA	< 10 APHA
Water (by Karl Fischer)	≤ 0.03 %	< 0.01 %
Residue on Evaporation	≤ 0.0005 %	0.0001 %
Expiration Date Period	1800 Days	

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.

Version Number: 1

Page 1 of 2

Date Received: 2016.08.25 - 4 x 4L - HPLC
Date Received: 2017.05.03 - 4 x 4L - HPLC
Date Received: 2017.05.08 - 4 x 4L - HPLC
Date Received: 2017.05.12 - 4 x 4L - HPLC

REAGENT PREPARATION FORM

SOLUTION # 127 REPLACED SOLUTION # 109 REPLACED BY: 153 ANALYST mmw
 REAGENT NAME: 60:40 (H₂O/MeOH) TEST/ANALYSIS: PFOs DATE PREPARED: 2017/06/05
 EXPIRY DATE 2017/08/05 SOLVENT USED: See below FINAL VOLUME 50 SUPPLIER See below OVEN NO. & TEMP —
 FINAL CONC: 60:40 DATE SOLVENT OPENED: See below STORAGE: Shelf BALANCE ID: — PIPET/SYRINGE ID: —

CHEMICAL NAME	VOLUME/WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
H ₂ O	600ml	2017/05/24	2017/06/05	Comm Solv	56218	2017/08/31
MeOH	400ml	2017/05/24	2017/06/05	Si em	SHB1 0302	2022/02/26

NOTES:

500 ml class A vol. cylinder (3026)

SOLUTION # 127 REPLACED SOLUTION # 125 REPLACED BY: 131 ANALYSTS Dixie Patel
 REAGENT NAME: 0.2% NaOH TEST/ANALYSIS: PFOs DATE PREPARED: 2017/06/06
 EXPIRY DATE Daily SOLVENT USED: MeOH FINAL VOLUME: 1L SUPPLIER Aldrich OVEN NO. & TEMP —
 FINAL CONC: 0.2% DATE SOLVENT OPENED: See below STORAGE: — BALANCE ID: — PIPET/SYRINGE ID: —

CHEMICAL NAME	VOLUME/WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
MeOH	499ml	2017/05/24	2017/06/06	Aldrich	SHB1 0302	2022/02/26
NH ₄ OH	2017/06/06 2ml/1ml	2015/01/01	2016/03/03	Fisher	146991	2020/02/16

NOTES:

Maxxam Analytics Cylinders Class A (3026) 2 x 500ml

Certificate of Analysis



Date of Release: 8/4/2016
 Name: Water
 OmniSolv®, For LC/MS
 Item No: WX0001 all size codes
 Lot / Batch No: 56218
 Country of Origin: USA

Characteristic	Requirement		Results	Units
	Min.	Max.		
Expiration date			31-AUG-2017	
Evaporation residue		1	<0.1	ppm
Filtered through 0.2 µm filter			Passes test	
Fluorescence as quinine at 254 nm		1	< 1	ppb
Fluorescence as quinine at 365 nm		1	< 1	ppb
Gradient at 210 nm		2	0.10	mAU
Gradient at 254 nm		0.5	0.07	mAU
LC/MS Purity (p-nitrophenol)		50	<50	ppb
LC/MS Purity (reserpine)		50	<50	ppb
Metals, suitable for LC/MS			Conforms	
UV Abs. at 200 nm		0.01	< 0.001	AU
UV Abs. at 210 nm		0.01	< 0.001	AU
UV Abs. at 220 nm		0.01	< 0.001	AU
UV Abs. at 230 nm		0.01	< 0.001	AU
UV Abs. at 240 nm		0.01	< 0.001	AU
UV Abs. at 250 nm		0.005	< 0.001	AU
UV Abs. at 270 nm		0.005	< 0.001	AU
UV Abs. at 400-280 nm		0.005	< 0.001	AU
UV Cut-off		190	<190	nm

Gene Dosotoffo

Quality Control Manager

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EMD Millipore is a division of Merck KGaA, Darmstadt, Germany
 EMD Millipore Corporation
 290 Concord Road
 Billerica, MA 01821
 U.S.A

Received: 6SZ

2017/01/19

4x4L

2017/02/08

3x4L mm

1/1

Date Received: 2016.12.01 - 4 bottles - P12
 Date Received: 2017/01/19 - 4 bottles - JDA
 Date Received: 2017.03.24 - 4 bottles - Main Lab-MG
 Date Received: 2017.05.10 - 4 bottles - HPLC

Date Received: 2017.05.16 - 4 bottles - HPLC
 Date Received: 2017.05.24 - 4 bottles - HPLC
 Received 2017/05/25 8 bottles-HPLC
 Date Received: 2017/05/29-JDA-1x4L
 Date Received: 2017.06.06 - 8 bottles -HPLC

3050 Spruce Street, Saint Louis, MO 63103, USA

Website: www.sigmaaldrich.comEmail USA: techserv@sigmaaldrich.comOutside USA: eurtechserv@sigmaaldrich.com

Certificate of Analysis

Product Name:

Methanol - for HPLC, ≥99.9%



Product Number: 34860
 Batch Number: SHBJ0382
 Brand: SIGALD
 CAS Number: 67-58-1
 MDL Number: MFCD00004595
 Formula: CH₄O
 Formula Weight: 32.04 g/mol
 Quality Release Date: 22 MAR 2017
 Expiration Date: FEB 2022

Test	Specification	Result
Appearance (Color)	Colorless	Colorless
Appearance (Form)	Liquid	Liquid
UV Absorbance 400nm	≤ 0.01	< 0.01
UV Absorbance 280nm	≤ 0.01	< 0.01
UV Absorbance 260nm	≤ 0.04	0.01
UV Absorbance 240nm	≤ 0.10	0.03
UV Absorbance 235nm	≤ 0.10	0.05
UV Absorbance 230nm	≤ 0.20	0.08
UV Absorbance 220nm	≤ 0.30	0.16
UV Absorbance 210nm	≤ 0.60	0.37
UV Absorbance 205nm	≤ 1.00	0.69
Fluorescence 254nm	≤ 1.0 ppb	< 0.1 ppb
Fluorescence 365nm	≤ 1.0 ppb	< 0.1 ppb
Purity (GC)	≥ 99.90 %	100.00 %
Color Test	≤ 10 APHA	< 5 APHA
Water (by Karl Fischer)	≤ 0.03 %	< 0.01 %
Residue on Evaporation	≤ 0.0005 %	< 0.0001 %
Expiration Date Period		
1800 Days		

Received
 4 x 4L
 2017/05/12

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.

Version Number: 2

Page 1 of 2

Received 4 x 4L 2017/05/24 -HPLC

REAGENT PREPARATION FORM

SOLUTION # 137 REPLACED SOLUTION # 129 REPLACED BY: 146 ANALYST DPB
 REAGENT NAME: 2% Formic Acid TEST/ANALYSIS: PFOs DATE PREPARED: 2017/06/09
 EXPIRY DATE 2017/08/06 SOLVENT USED: Reagent H₂O FINAL VOLUME 1L SUPPLIER See below OVEN NO. & TEMP —
 FINAL CONC: 2.98% v/v DATE SOLVENT OPENED: See below STORAGE: shelf BALANCE ID: — PIPET/SYRINGE ID: N193200

CHEMICAL NAME	VOLUME/WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
Formic Acid	10ml	2016/12/12	2017/05/19	Aldrich	SHBM49760	2017/05/19
H ₂ O	490ml	2017/06/06	2017/06/06	OmniSolu	56218	2017/08/31
2017/06/09 DPB						

NOTES: Volumetric Cylinder Class A (3026) 2x500ml

SOLUTION # 138 REPLACED SOLUTION # — REPLACED BY: 164 ANALYSTS mm
 REAGENT NAME: 0.3% NH₄OH in MeOH TEST/ANALYSIS: PFOs DATE PREPARED: 2017/06/09
 EXPIRY DATE Daily SOLVENT USED: MeOH FINAL VOLUME: 500ml SUPPLIER Aldrich OVEN NO. & TEMP —
 FINAL CONC: 0.3% v/v DATE SOLVENT OPENED: See below STORAGE: — BALANCE ID: — PIPET/SYRINGE ID: K259447

CHEMICAL NAME	VOLUME/WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
NH ₄ OH	1.5ml	2015/01/17	2016/03/03	Fisher	116481	2020/03/03
MeOH	498.5ml	2017/05/17	2017/06/09	OmniSolu	56218	2017/08/31
mm 2017/06/09						

NOTES: 500 ml Class A (3040)

Certificate of Analysis



Date of Release: 8/4/2016
 Name: Water
 OmniSolv®, For LC/MS
 Item No: WX0001 all size codes
 Lot / Batch No: 56218
 Country of Origin: USA

Characteristic	Requirement		Results	Units
	Min.	Max.		
Expiration date			31-AUG-2017	
Evaporation residue		1	<0.1	ppm
Filtered through 0.2 µm filter			Passes test	
Fluorescence as quinine at 254 nm		1	< 1	ppb
Fluorescence as quinine at 365 nm		1	< 1	ppb
Gradient at 210 nm		2	0.10	mAU
Gradient at 254 nm		0.5	0.07	mAU
LC/MS Purity (p-nitrophenol)		50	<50	ppb
LC/MS Purity (reserpine)		50	<50	ppb
Metals, suitable for LC/MS			Conforms	
UV Abs. at 200 nm		0.01	< 0.001	AU
UV Abs. at 210 nm		0.01	< 0.001	AU
UV Abs. at 220 nm		0.01	< 0.001	AU
UV Abs. at 230 nm		0.01	< 0.001	AU
UV Abs. at 240 nm		0.01	< 0.001	AU
UV Abs. at 250 nm		0.005	< 0.001	AU
UV Abs. at 270 nm		0.005	< 0.001	AU
UV Abs. at 400-280 nm		0.005	< 0.001	AU
UV Cut-off		190	<190	nm

Geno Dotsolite

Quality Control Manager

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EMD Millipore is a division of Merck KGaA, Darmstadt, Germany
 EMD Millipore Corporation
 230 Concord Road
 Billerica, MA 01821
 U.S.A.

Received: 65Z

2017/01/19

4x4L

2017/02/08

3x4L mm

1/1

Date Received: 2016.12.01 - 4 bottles - P12
 Date Received: 2017/01/19 - 4 bottles - JDA
 Date Received: 2017.03.24 - 4 bottles - Main Lab-MG
 Date Received: 2017.05.10 - 4 bottles - HPLC
 Date Received: 2017.05.16 - 4 bottles - HPLC
 Date Received: 2017.05.24 - 4 bottles - HPLC
 Received 2017/05/25 8 bottles-HPLC
 Date Received: 2017/05/29-JDA-1x4L
 Date Received: 2017.06.06 - 8 bottles -HPLC

SIGMA-ALDRICH

sigmaaldrich.com

3050 Spruce Street, Saint Louis, MO 63103, USA

Website: www.sigmaaldrich.com

Email USA: techserv@sigmaaldrich.com

Outside USA: eurotechserv@sigmaaldrich.com

Certificate of Analysis

Product Name:

Formic acid - reagent grade, ≥95%

Product Number:

F0507

Batch Number:

SHBH4976V

Brand:

SIGALD

CAS Number:

84-10-6

MOL. Number:

MFCD00003297

Formula:

CH₂O₂

Formula Weight:

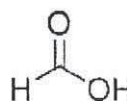
46.03 g/mol

Quality Release Date:

09 SEP 2016

Expiration Date:

SEP 2017



Rec'd: 2
2016/11/22
1 x 500 mL
LC Group

Test	Specification	Result
Appearance (Turbidity)	Clear	Clear
Appearance (Color)	Colorless to Very Faint Yellow	Colorless
Appearance (Form)	Liquid	Liquid
Proton NMR Spectrum	Conforms to Structure	Conforms
Solvent Content	≤ 1.0 %	≤ 0.1 %
Acetic Acid by NMR		
Water (by Karl Fischer)	2.0 - 2.5 %	2.1 %
Titration with NaOH	≥ 95.0 %	97.2 %
Expiration Date Period		
1 Year		

Michael Grady, Manager
Quality Control
Sheboygan Falls, WI US

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at SigmaAldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.

Version Number: 1

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Received 2016/12/12 3 x 500mL -HPLC

Date Received: 2016/12/21-SSB-P2A

Maxxam Analytics

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REAGENT PREPARATION FORM

SOLUTION # 139 REPLACED SOLUTION # 135 REPLACED BY: 143 ANALYST DPS
 REAGENT NAME: 0.2% NH₄OH TEST/ANALYSIS: PFCs DATE PREPARED: 2017/06/12
 EXPIRY DATE Daily SOLVENT USED: MeOH FINAL VOLUME 1L SUPPLIER See below OVEN NO. & TEMP —
 FINAL CONC.: 0.219981 v/v DATE SOLVENT OPENED: See below STORAGE: Shelf BALANCE ID: — PIPET/SYRINGE ID: K25948F

CHEMICAL NAME	VOLUME/ WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
MeOH	1999ml	2017/06/09	2017/06/12	Fisher	168335	2021/12/31
NH ₄ OH	1ml	2016/12/16	2017/06/11 PM 2021/04/30	Fisher	158310	2021/04/30
			2017/04/05			

2017/06/12 DPS
2017/06/12 DPS 2017/06/12 DPS

NOTES: 2x500ml Volumetric Cylinder, Class A (3026)

SOLUTION # 140 REPLACED SOLUTION # 136 REPLACED BY: — ANALYSTS RP7
 REAGENT NAME: FMOC solⁿ TEST/ANALYSIS: GLYPHO-LIQ DATE PREPARED: 2017/06/12
 EXPIRY DATE Daily SOLVENT USED: ACN FINAL VOLUME: 50 ml SUPPLIER Fisher OVEN NO. & TEMP —
 FINAL CONC: — DATE SOLVENT OPENED: — STORAGE: — BALANCE ID: fc-1 PIPET/SYRINGE ID: —

CHEMICAL NAME	VOLUME/ WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
FMOC	0.0753 gm	2017/01/18	2017/01/18	Aldrich	W1BC 1635V	2022/01/13
ACN	50 ml	2017/04/05	2017/05/30	Fisher	165746	2021/11/30

RP7
2017/06/12

NOTES:



1 Reagent Lane
Park Lane, NJ 07410
201 766 7100 ext
201 766 1329 fax

Certificate of Analysis

Fisher Scientific Quality Systems has been found to conform to Quality Management System
Standard ISO 9001:2008 certified by SAI Global Certificate Number CERT-0690919

This is to certify that units of the Chemical Reagent were tested and found to comply with the specifications of the product. Certain data have been supplied by the supplier. Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranty of merchantability and fitness for a particular purpose. Certain product, (USE ONLY FOR RESEARCH PURPOSES), is a reagent for use in food, drug, or medical device manufacturing. Fisher does not claim regulatory coverage under 21 CFR for chemical DMFs with the FDA. The following are the actual analytical results obtained:

Catalog Number	A454	Quality Test / Release Date	12/12/2016
Lot Number	168235		
Description	METHANOL, OPTIMA, A.C.S.		
Country of Origin	Canada	* Suggested Retest Date	Dec-2021
Chemical Origin	Organic - synthetic		
BSE/TSE Comment:	No animal products are used as starting raw material ingredients, or used in processing, including lubricants, processing aids, or any other material that might migrate to the finished product.		

HPLC - M/L

4L x 4

Rec'd: 2017/06/24

Result name	Units	Specifications	Test Value
APPEARANCE		REPORT	CLEAR COLORLESS LIQUID
ASSAY	%	>= 99.9	99.9
CARBONYL COMPOUNDS	%	<= 0.001	0.0003
COLOR	APHA	<= 5	5
EVAPORATION RESIDUE	ppm	<= 1	0.7
FLUORESCENCE BACKGROUND	ppm	<= 1	<1
IDENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST
LC GRADIENT SUITABILITY	PASS/FAIL	= PASS TEST	PASS TEST
OPTICAL ABS AT 205 NM	ABSORBANCE UNITS	<= 1.00	0.89
OPTICAL ABS AT 220 NM	ABSORBANCE UNITS	<= 0.25	0.23
OPTICAL ABS AT 230 NM	ABSORBANCE UNITS	<= 0.11	0.10
OPTICAL ABS AT 254 NM	ABSORBANCE UNITS	<= 0.01	0.001
REFRACTIVE INDEX @ 20 DEG C		Inclusive Between 1.3260 - 1.3300	1.3254
SOLUBILITY IN WATER	PASS/FAIL	= PASS TEST	PASS TEST
SUBSTANCES DARKENED BY H2SO4	PASS/FAIL	= PASS TEST	PASS TEST
SUBSTANCES REDUCING KMNO4	PASS/FAIL	= PASS TEST	PASS TEST
TITRATABLE ACID	meq/g	<= 0.0003	0.00020
TITRATABLE BASE	meq/g	<= 0.0002	0.00002
WATER (H2O)	%	<= 0.07	0.01



Jessica Bailey-Wigder

Quality Assurance Specialist - Certificate of Analysis BPF

NOTE: The actual lot number is a function of the process control of the product and is not a function of the catalog number. The actual lot number is a function of the process control of the product and is not a function of the catalog number. The actual lot number is a function of the process control of the product and is not a function of the catalog number.

Raad Kanbour B7 -received 4*4L- 2017/06/06

Date Received: 2017.06.09 - 4 x 4L - HPLC

Kelly Huckabone

Kelly Huckabone
Regulatory Affairs

REAGENT PREPARATION FORM

SOLUTION # 13 REPLACED SOLUTION # 10 REPLACED BY: 16 ANALYST la
 REAGENT NAME: 0.2% NH₄OH TEST/ANALYSIS: PFS DATE PREPARED: 2017/04/12
 EXPIRY DATE Daily SOLVENT USED: MeOH FINAL VOLUME 500ml SUPPLIER Aldrich OVEN NO. & TEMP -
 FINAL CONC: 0.2:99.8 DATE SOLVENT OPENED: See Below STORAGE: - BALANCE ID: - PIPET/SYRINGE ID: N31477F

CHEMICAL NAME	VOLUME/WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
NH ₄ OH	1 ml	2015/07/17	2016/03/03	Pistun	146981	2021/03/31
MeOH	499ml	2017/04/05	2017/04/05	Aldrich	SN6H 9776	2021/02/28

NOTES:

1L Class A cylinder (3062)

SOLUTION # 14 REPLACED SOLUTION # 378 REPLACED BY: - ANALYSTS GSZ
 REAGENT NAME: 0.2% FERMIC ACID TEST/ANALYSIS: PFS DATE PREPARED: 2017/04/12
 EXPIRY DATE 2017/06/12 SOLVENT USED: Reagent H₂O FINAL VOLUME: 1L SUPPLIER Aldrich OVEN NO. & TEMP -
 FINAL CONC: 0.2:99.8 DATE SOLVENT OPENED: See Below STORAGE: Stief BALANCE ID: - PIPET/SYRINGE ID: K33876F

CHEMICAL NAME	VOLUME/WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
Reagent H ₂ O	998 ml	2017/03/09	2017/04/10	Aldrich	56190	2017/07/31
FERMIC ACID	2ml	2016/12/12	2017/01/09	Aldrich	SHRHA976V	2017/09/30

NOTES:

1L Class A vol. cylinder (3062)

Certificate of Analysis



Date of Release: 7/8/2016
 Name: Water
 OmniSolv®, For LC/MS
 Item No: WX0001 all size codes
 Lot / Batch No: 58190
 Country of Origin: USA

Characteristic	Requirement		Results	Units
	Min.	Max.		
#Expiration date			31-JUL-2017	
Filtered through 0.2 µm filter			Passes test	
Fluorescence as quinine at 254 nm		1	< 1	poB
Fluorescence as quinine at 365 nm		1	< 1	poB
Gradient at 210 nm		2	0.25	mAU
Gradient at 254 nm		0.5	0.06	mAU
LC/MS Purity (p-nitrophenol)		50	<50	poB
LC/MS Purity (reserpine)		50	<50	poB
Metals, suitable for LC/MS			Conforms	
Residue after evaporation		1	0.5	ppm
UV Abs. at 200 nm		0.01	< 0.001	AU
UV Abs. at 210 nm		0.01	< 0.001	AU
UV Abs. at 220 nm		0.01	< 0.001	AU
UV Abs. at 230 nm		0.01	< 0.001	AU
UV Abs. at 240 nm		0.01	< 0.001	AU
UV Abs. at 250 nm		0.005	< 0.001	AU
UV Abs. at 270 nm		0.005	< 0.001	AU
UV Abs. at 400-280 nm		0.005	< 0.001	AU
UV Cut-off		190	185.0	nm

Gene Desotelle

Quality Control Manager

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EMD Millipore is a division of Merck KGaA, Darmstadt, Germany
 EMD Millipore Corporation
 290 Concord Road
 Billerica, MA 01821
 U.S.A

1/1

Date received 2016/08/10 8x4L HPLC
 Date Received: 2016.09.12 1 x 4L - P4
 Date Received: 2017.01.10 - 2 bottles - HPLC
 Date Received: 2017/01/17-EH1-4x4L-HPLC

Date Received 2017/02/13 -NTS 4 x 4L HPLC
 Date Received 2017/02/15 -NTS 8 x 4L HPLC
 Date Received: 2017.02.09 - 4 bottles - HPLC
 Date Received: 2017.02.21 - 4 bottles - HPLC
 Date Received: 2017.02.27 - 4 bottles - HPLC
 Date Received: 2017.03.09 - 4 bottles - HPLC
 Date Received: 2017.03.16 - 2 bottles - HPLC
 Date Received: 2017.04.22 - 4 bottles - HPLC
 Date Received: 2017.04.25 - 4 bottles - HPLC
 Date Received: 2017.05.02 - 8 bottles - HPLC

Maxxim Analytics

1442 of 2393

SIGMA-ALDRICH

sigma-aldrich.com

3050 Spruce Street, Saint Louis, MO 63103, USA

Website: www.sigmaaldrich.com

Email USA: techserv@sigmaaldrich.com

Outside USA: eurotechserv@sigmaaldrich.com

Certificate of Analysis

Product Name:

Formic acid - reagent grade, ≥95%

Product Number:

F0507

Batch Number:

SHEH4976V

Brand:

SIGALD

CAS Number:

84-10-6

M.P. Number:

MFCD00003297

Formula:

CH₂O₂

Formula Weight:

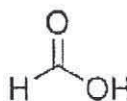
46.03 g/mol

Quality Release Date:

09 SEP 2016

Expiration Date:

SEP 2017



Rec'd: 2
2016/11/22
1 x 500 mL
L. C. Group

Test	Specification	Result
Appearance (Turbidity)	Clear	Clear
Appearance (Color)	Colorless to Very Faint Yellow	Colorless
Appearance (Form)	Liquid	Liquid
Proton NMR Spectrum	Conforms to Structure	Conforms
Solvent Content	≤ 1.0 %	< 0.1 %
Acetic Acid by NMR		
Water (by Karl Fischer)	2.0 - 2.5 %	2.1 %
Titration with NaOH	≥ 95.0 %	97.2 %
Expiration Date Period		
1 Year		

Michael Grady, Manager
Quality Control
Sheboygan Falls, WI US

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at SigmaAldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.

Version Number: 1

Page 1 of 1

Received 2016/12/12 3 x 500mL -HPLC

Date Received: 2016/12/21-SSB-P2A

Maxxam Analytics

1443 of 2393

REAGENT PREPARATION FORM

SOLUTION # 141 REPLACED SOLUTION # 14 REPLACED BY: JD3 2017/06/12 ANALYST JD3
 REAGENT NAME: 0.2% Formic acid TEST/ANALYSIS: PFOs DATE PREPARED: 2017/06/12
 EXPIRY DATE 2017/08/12 SOLVENT USED: R. H₂O FINAL VOLUME 1 L SUPPLIER Millipore OVEN NO. & TEMP -
 FINAL CONC.: 0.2% DATE SOLVENT OPENED: - STORAGE: - BALANCE ID: - PIPET/SYRINGE ID: K39732

CHEMICAL NAME	VOLUME/WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
Formic Acid	2ml	2016/12/12	2017/05/19	SIGMA ALDRICH	SHBH 4976V	2017/09/30
Reagent Water	998ml	2017/06/06	2017/06/12	Millipore	56218	2017/08/31
JD3 2017/06/12						

NOTES: 1L Volumetric cylinder class A (2968)

SOLUTION # 142 REPLACED SOLUTION # 126 REPLACED BY: - ANALYSTS JD3
 REAGENT NAME: 70:30 (MeOH/H₂O) TEST/ANALYSIS: PFOs DATE PREPARED: 2017/06/12
 EXPIRY DATE 2017/08/12 SOLVENT USED: MeOH & H₂O FINAL VOLUME: 1 L SUPPLIER Millipore OVEN NO. & TEMP -
 FINAL CONC.: 70:30 DATE SOLVENT OPENED: - STORAGE: - BALANCE ID: - PIPET/SYRINGE ID: -

CHEMICAL NAME	VOLUME/WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
MeOH	700ml	2017/06/09	2017/06/12	Fisher	168335	2021/12/31
H ₂ O	300ml	2017/06/06	2017/06/12	Millipore	56218	2017/08/31
JD3 2017/06/12						

NOTES:



1 Reagent Lane
Park Lane, NJ 07410
201 796 7100 tel
201 796 1329 fax

Certificate of Analysis

Fisher Scientific's Quality System has been found to conform to Quality Management System
Standard ISO 9001:2008 standard by SAI Global Certificate Number CERT-0092918

This is to certify that units of this chemical have been tested and found to comply with the specifications of the grade given. Certain data have been supplied by this supplier. Fisher Scientific expresses no warranty, expressed or implied, including the implied warranty of merchantability and fitness for a particular purpose. Certain products (BHT, PCOBA, HTMS) may require to be added for use in food, drug, or pharmaceuticals manufacturing. Fisher does not claim regulatory coverage under 21 CFR for materials DMFs with the FDA. The following are the actual analytical results obtained.

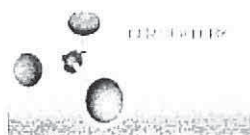
Catalog Number	A454	Quality Test / Release Date	12/12/2016
Lot Number	168235		
Description	METHANOL, OPTIMA, A.C.S.		
Country of Origin	Canada	* Suggested Retest Date	Dec-2021
Chemical Origin	Organic - synthetic		
BSE/TSE Comment:	No animal products are used as starting raw material ingredients, or used in processing, including lubricants, processing aids, or any other material that might migrate to the finished product.		

HPLC - MIL

4L x 4

Rec'd: 2017/06/24

Result name	Units	Specifications	Test Value
APPEARANCE		REPORT	CLEAR COLORLESS LIQUID
ASSAY	%	>= 99.9	99.9
CARBONYL COMPOUNDS	%	<= 0.001	0.0003
COLOR	APHA	<= 5	5
EVAPORATION RESIDUE	ppm	<= 1	0.7
FLUORESCENCE BACKGROUND	ppm	<= 1	<1
IDENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST
LC GRADIENT ELUTABILITY	PASS/FAIL	= PASS TEST	PASS TEST
OPTICAL ABS AT 205 NM	ABSORBANCE UNITS	<= 1.00	0.89
OPTICAL ABS AT 220 NM	ABSORBANCE UNITS	<= 0.25	0.23
OPTICAL ABS AT 230 NM	ABSORBANCE UNITS	<= 0.11	0.10
OPTICAL ABS AT 254 NM	ABSORBANCE UNITS	<= 0.01	0.001
REFRACTIVE INDEX @ 25 DEG C		Inclusive Between 1.3260 - 1.3300	1.3264
SOLUBILITY IN WATER	PASS/FAIL	= PASS TEST	PASS TEST
SUBSTANCES DARKENED BY H2SO4	PASS/FAIL	= PASS TEST	PASS TEST
SUBSTANCES REDUCING KMNO4	PASS/FAIL	= PASS TEST	PASS TEST
TITRATABLE ACID	meq/g	<= 0.0003	0.00020
TITRATABLE BASE	meq/g	<= 0.0002	0.00002
WATER (H2O)	%	<= 0.07	0.01



Serena Bailey-Wright

Quality Assurance Specialist - Certificate of Analysis BPP

NOTE: The data listed is a summary of process control at the end of the production covered by a unit of this catalog number listed above. It does not constitute a test of the product prior to its release for use. (See also 227-001)

Raad Kanbour B7 -received 4*4L- 2017/06/06

Date Received: 2017.06.09 - 4 x 4L - HPLC

Kelly Huckabone

Kelly Huckabone
Regulatory Affairs

Certificate of Analysis



Date of Release: 8/4/2016
 Name: Water
 Omni-Solv8, For LC/MS
 Item No: WY0001 all size cco96
 Lot / Batch No: 5621B
 Country of Origin: USA

Characteristic	Requirement		Results	Units
	Min.	Max.		
Expiration date			31-AUG-2017	
Evaporation residue		1	<0.1	ppm
Filtered through 0.2 µm filter			Passes test	
Fluorescence as quinine at 254 nm		1	< 1	ppb
Fluorescence as quinine at 365 nm		1	< 1	ppb
Gradient at 210 nm		2	0.10	mAU
Gradient at 254 nm		0.5	0.07	mAU
LC/MS Purity (p-nitrophenol)		50	<50	ppb
LC/MS Purity (rosenone)		50	<50	ppb
Metals, suitable for LC/MS			Conforms	
UV Abs. at 200 nm		0.01	< 0.001	AU
UV Abs. at 210 nm		0.01	< 0.001	AU
UV Abs. at 220 nm		0.01	< 0.001	AU
UV Abs. at 230 nm		0.01	< 0.001	AU
UV Abs. at 240 nm		0.01	< 0.001	AU
UV Abs. at 250 nm		0.005	< 0.001	AU
UV Abs. at 270 nm		0.005	< 0.001	AU
UV Abs. at 400-280 nm		0.005	< 0.001	AU
UV Cut-off		190	<190	nm

Gene Desulfide

Quality Control Manager

This document has been produced electronically and is valid without a signature

EMD Millipore is a division of Merck KGaA, Darmstadt, Germany
 EMD Millipore Corporation
 290 Concord Road
 Billerica, MA 01821
 U.S.A.

Received: 652

2017/01/19

4x4L

2017/02/08

3x4L mmw

Date Received: 2016.12.01 - 4 bottles - P12
 Date Received: 2017/01/19 - 4 bottles - JDA
 Date Received: 2017.03.24 - 4 bottles - Main Lab-MG
 Date Received: 2017.05.10 - 4 bottles - HPLC
 Date Received: 2017.05.16 - 4 bottles - HPLC
 Date Received: 2017.05.24 - 4 bottles - HPLC
 Received 2017/05/25 8 bottles-HPLC
 Date Received: 2017/05/29-JDA-1x4L
 Date Received: 2017/05/31-JDA-4x4L
 Date Received: 2017.06.06 - 8 bottles -HPLC

Maxxam Analytics



1 Reagent Lane
Fair Lawn, NJ 07410
201.795.7100 tel
201.795.1320 fax

Certificate of Analysis

Fisher Scientific's Quality System has been found to conform to Quality Management System
Standard ISO 9001:2008 awarded by SAS Global Certificate Number CERT - 0004970

This is to certify that units of the lot number below were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Certain products (USP/CD/USP/USP/USP) are sold for use in food, drug, or medical device manufacturing. Fisher does not claim regulatory coverage under 21 CFR nor maintain GMP's with the FDA. The following are the actual analytical results obtained.

Catalog Number	A688	Quality Test / Release Date	3/5/2015
Lot Number	146881		
Description	AMMONIUM HYDROXIDE, CERTIFIED A.C.S., PLUS		
Country of Origin	United States	* Suggested Retest Date	Mar-2020
Chemical Origin	Inorganic-non animal		
BSE/TSE Comment	This product does not contain and is not manufactured with raw material ingredients derived from any animal products, including countries where Bovine Spongiform Encephalopathy (BSE) is known to exist.		
Chemical Comment	This product is free from genetically modified substances and is gluten free.		

Result name	Units	Specifications	Test Value
APPEARANCE		REPORT	CLEAR, COLORLESS LIQUID
ALUMINIUM	ppm	<= 0.3	0.001
ARSENIC AND ANTIMONY	ppm	<= 0.05	<0.050
ASSAY	wt %	Inclusive Between 28.0 - 30.0	28.8
BORON (B)	ppm	<= 0.1	0.001
CALCIUM (Ca)	ppm	<= 0.3	0.001
CARBON DIOXIDE	%	<= 0.002	<0.0020
CHLORIDE	ppm	<= 0.5	<0.50
CHROMIUM (Cr)	ppm	<= 0.2	0.001
COPPER (Cu)	ppm	<= 0.1	0.001
GOLD (Au)	ppm	<= 0.3	0.001
HEAVY METALS (as Pb)	ppm	<= 0.5	<0.5
IDENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST
IRON (Fe)	ppm	<= 0.1	0.001
LEAD (Pb)	ppm	<= 0.2	0.001
MAGNESIUM (Mg)	ppm	<= 0.3	0.001
MANGANESE (Mn)	ppm	<= 0.2	0.001
NICKEL (Ni)	ppm	<= 0.1	0.001
NITRATE (NO3)	ppm	<= 2	<2.0
PHOSPHATE (PO4)	ppm	<= 0.4	<0.40
POTASSIUM (K)	ppm	<= 0.3	0.005
RESIDUE AFTER IGNITION	ppm	<= 3	<3.00
SODIUM (Na)	ppm	= Report	0.004
SUBSTANCES REDUCING KMNO4	PASS/FAIL	= PASS TEST	PASS TEST
SULFATE (SO4)	ppm	<= 2	<2.0
TIN (Sn)	ppm	<= 0.3	0.001
TITANIUM (Ti)	ppm	<= 0.3	0.001
ZINC (Zn)	ppm	<= 0.3	0.001

HP26 (P4)
Received 2/15/17
expiry 2020/03/31



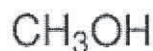
Edgar E. House
Lab Manager BPF

Note: The data listed is valid for all package sizes of this lot of this product, expressed as a extension of the catalog number listed above. If there are any questions with this certificate, please call Chemical Services at (800) 327-8751.
*Based on suggested storage conditions.

Certificate of Analysis

Product Name:

Methanol - for HPLC, ≥99.9%



Product Number:

34860

Batch Number:

SH6H9776

Brand:

SIGALD

CAS Number:

67-56-1

MDL Number:

MFCD00004595

Formula:

CH₄O

Formula Weight:

32.04 g/mol

Quality Release Date:

28 FEB 2017

Expiration Date:

FEB 2022

Received *mmw*
2017/02/15
8 x 4L - HPLC

Test	Specification	Result
Appearance (Color)	Colorless	Colorless
Appearance (Form)	Liquid	Liquid
UV Absorbance 400nm	≤ 0.01	< 0.01
UV Absorbance 290nm	≤ 0.01	< 0.01
UV Absorbance 260nm	≤ 0.04	0.01
UV Absorbance 240nm	≤ 0.10	0.03
UV Absorbance 236nm	≤ 0.10	0.05
UV Absorbance 230nm	≤ 0.20	0.08
UV Absorbance 220nm	≤ 0.30	0.16
UV Absorbance 210nm	≤ 0.60	0.35
UV Absorbance 205nm	≤ 1.00	0.64
Fluorescence 254nm	≤ 1.0 ppb	< 0.1 ppb
Fluorescence 365nm	≤ 1.0 ppb	< 0.1 ppb
Purity (GC)	≥ 99.90 %	100.00 %
Color Test	≤ 10 APHA	< 5 APHA
Water (by Karl Fischer)	≤ 0.03 %	< 0.01 %
Residue on Evaporation	≤ 0.0005 %	< 0.0001 %
Expiration Date Period		
1800 Days		

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.

Version Number: 1

Page 1 of 2

Date Received: 2017.04.05 - 4 x 4L - HPLC
 Date Received: 2017.04.22 - 4 x 4L - HPLC
 Date Received: 2017.04.27 - 8 x 4L - HPLC
 Date Received: 2017.05.30 - 4 x 4L - HPLC Main Lab
 Date Received: 2017.06.02 - 4 x 4L - HPLC Main Lab

REAGENT PREPARATION FORM

SOLUTION # 63 REPLACED SOLUTION # 32 REPLACED BY: 73 ANALYST LOV
 REAGENT NAME: 60:40 (H₂O:MeOH) TEST/ANALYSIS: STERILE \$ PFS DATE PREPARED: 2017/05/04
 EXPIRY DATE 2017/07/04 SOLVENT USED: H₂O/MeOH FINAL VOLUME 1L SUPPLIER See Below OVEN NO. & TEMP -
 FINAL CONC.: 60:40 DATE SOLVENT OPENED: See Below STORAGE: Shelf BALANCE ID: - PIPET/SYRINGE ID: -
V/V

CHEMICAL NAME	VOLUME/WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
Reagent H ₂ O	600ml	2017/05/02	2017/05/04	Omnix	56190	2017/07/31
MeOH	400ml	2017/05/03	2017/05/04	Aldrich	SHBH7061	2021/10/31

NOTES: 1L Class A cylinder (3062)

SOLUTION # 64 REPLACED SOLUTION # 60 REPLACED BY: 82 ANALYSTS GSZ
 REAGENT NAME: 0.3% NH₄OH in MeOH TEST/ANALYSIS: PFS DATE PREPARED: 2017/05/04
 EXPIRY DATE Partial SOLVENT USED: MeOH FINAL VOLUME: 500ml SUPPLIER Aldrich OVEN NO. & TEMP -
 FINAL CONC.: 0.3: 99-7 DATE SOLVENT OPENED: See Below STORAGE: - BALANCE ID: - PIPET/SYRINGE ID: K39876F
V/V

CHEMICAL NAME	VOLUME/WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
NH ₄ OH	1.5ml	2015/07/17	2016/03/03	Fluka	146981	2020/03/31
MeOH	498.5ml	2017/05/03	2017/05/04	Aldrich	SHBH7061	2021/10/31

NOTES: 500ml class A vol cylinder (3026)

Certificate of Analysis



Date of Release: 7/6/2016
 Name: Water
 OmniSolv®, For LC/MS
 Item No: WX0001 all size codes
 Lot / Batch No: 56190
 Country of Origin: USA

Characteristic	Requirement		Results	Units
	Min.	Max.		
#Expiration date			31-JUL-2017	
Filtered through 0.2 µm filter			Passes test	
Fluorescence as quinine at 254 nm		1	< 1	ppb
Fluorescence as quinine at 365 nm		1	< 1	ppb
Gradient at 210 nm		2	0.25	mAU
Gradient at 254 nm		0.5	0.06	mAU
LC/MS Purity (p-nitrophenol)		50	<50	ppb
LC/MS Purity (reserpine)		50	<50	ppb
Metals, suitable for LC/MS			Conforms	
Residue after evaporation		1	0.5	ppm
UV Abs. at 200 nm		0.01	< 0.001	AU
UV Abs. at 210 nm		0.01	< 0.001	AU
UV Abs. at 220 nm		0.01	< 0.001	AU
UV Abs. at 230 nm		0.01	< 0.001	AU
UV Abs. at 240 nm		0.01	< 0.001	AU
UV Abs. at 250 nm		0.005	< 0.001	AU
UV Abs. at 270 nm		0.005	< 0.001	AU
UV Abs. at 400-280 nm		0.005	< 0.001	AU
UV Cut-off		190	185.0	nm

Gene Desotelle

Quality Control Manager

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EMD Millipore is a division of Merck KGaA, Darmstadt, Germany
 EMD Millipore Corporation
 290 Concord Road
 Billerica, MA 01821
 U.S.A

1/1

Date received 2016/08/10 8x4L HPLC
 Date Received: 2016.09.12 1 x 4L - P4
 Date Received: 2017.01.10 - 2 bottles - HPLC
 Date Received: 2017/01/17-EH1-4x4L-HPLC
 Date Received 2017/02/13 -NTS 4 x 4L HPLC
 Date Received 2017/02/15 -NTS 8 x 4L HPLC
 Date Received: 2017.02.09 - 4 bottles - HPLC
 Date Received: 2017.02.21 - 4 bottles - HPLC
 Date Received: 2017.02.27 - 4 bottles - HPLC
 Date Received: 2017.03.09 - 4 bottles - HPLC
 Date Received: 2017.03.16 - 2 bottles - HPLC
 Date Received: 2017.04.22 - 4 bottles - HPLC
 Date Received: 2017.04.25 - 4 bottles - HPLC
 Date Received: 2017.05.02 - 8 bottles - HPLC

Maxxim Analytics

1451 of 2393

3050 Spruce Street, Saint Louis, MO 63103, USA

Website: www.sigmaaldrich.comEmail USA: techserv@slal.comOutside USA: eurotechserv@slal.com

Certificate of Analysis

Product Name:

Methanol - for HPLC, ≥99.9%

CH₃OH

Product Number:

34860

Batch Number:

SHBH7061

Brand:

SIGALD

CAS Number:

67-56-1

MDL Number:

MFCD00004595

Formula:

CH₄O

Formula Weight:

32.04 g/mol

Quality Release Date:

15 NOV 2016

Expiration Date:

OCT 2021

Received
2016-12-15
8x4L
P4 (HPLC)
shelf

Test	Specification	Result
Appearance (Color)	Colorless	Colorless
Appearance (Form)	Liquid	Liquid
UV Absorbance 400nm	≤ 0.01	< 0.01
UV Absorbance 280nm	≤ 0.01	< 0.01
UV Absorbance 260nm	≤ 0.04	< 0.01
UV Absorbance 240nm	≤ 0.10	0.03
UV Absorbance 235nm	≤ 0.10	0.05
UV Absorbance 230nm	≤ 0.20	0.07
UV Absorbance 220nm	≤ 0.30	0.15
UV Absorbance 210nm	≤ 0.80	0.35
UV Absorbance 205nm	≤ 1.00	0.70
Fluorescence 254nm	≤ 1.0 ppb	< 0.1 ppb
Fluorescence 365nm	≤ 1.0 ppb	< 0.1 ppb
Purity (GC)	≥ 99.90 %	100.00 %
Color Test	≤ 10 APHA	< 5 APHA
Water (by Karl Fischer)	≤ 0.03 %	< 0.01 %
Residue on Evaporation	≤ 0.0005 %	< 0.0001 %
Expiration Date Period		
1800 Days		

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.

Version Number: 1

Page 1 of 2

Date received: 2017/02/15 NTS - 8x4L (HPLC)

Date Received: 2017/01/05-EH1-4x4L-HPLC

Date Received 2017/01/19 -NTS 4 x 4L HPLC, JDA 8X4L-LC group

Date Received: 2017.02.01 - 4 x 4L - HPLC Main Lab

Date Received: 2017.03.09 - 8 x 4L - HPLC

Date Received: 2017.03.15 - 4 x 4L - HPLC

Date Received: 2017.04.05 - 4 x 4L - HPLC

Date Received: 2017.04.07 - 4 x 4L - JDA

Date Received: 2017.05.03 - 4 x 4L -HPLC

Date Received: 2017.05.24 - 4 x 4L -HPLC

1452 of 2393

REAGENT PREPARATION FORM

SOLUTION # 63 REPLACED SOLUTION # 32 REPLACED BY: 73 ANALYST LCV
 REAGENT NAME: 60:40 H₂O MeOH TEST/ANALYSIS: STERILE DATE PREPARED: 2017/05/04
 EXPIRY DATE 2017/01/04 SOLVENT USED: H₂O, MeOH FINAL VOLUME 1L SUPPLIER: See Below OVEN NO. & TEMP. -
 FINAL CONC.: 60:40 v/v DATE SOLVENT OPENED: See Below STORAGE: Shelf BALANCE ID: - PIPET/SYRINGE ID: -

CHEMICAL NAME	VOLUME/WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
Reagent H ₂ O	600ml	2017/05/02	2017/05/04	Omaly	56190	2017/07/13
MeOH	400ml	2017/05/03	2017/05/04	Aldrich	SHBH7061	2021/10/31

NOTES:

1L Class A cylinder (3062)

SOLUTION # 64 REPLACED SOLUTION # 60 REPLACED BY: 82 ANALYSTS GSZ
 REAGENT NAME: 0.3% NH₄OH in MeOH TEST/ANALYSIS: PFOS DATE PREPARED: 2017/05/04
 EXPIRY DATE Daily SOLVENT USED: MeOH FINAL VOLUME: 500ml SUPPLIER Aldrich OVEN NO. & TEMP. -
 FINAL CONC.: 0.3:99.7 v/v DATE SOLVENT OPENED: See Below STORAGE: - BALANCE ID: - PIPET/SYRINGE ID: K39876F

CHEMICAL NAME	VOLUME/WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
NH ₄ OH	1.5ml	2015/07/17	2016/03/03	Fisher	146981	2020/03/31
MeOH	498.5ml	2017/05/03	2017/05/04	aldrich	SHBH7061	2021/10/31

NOTES:

500ml class A vol. cylinder (3026)



1 Reagent Lane
Fair Lawn, NJ 07410
201.795.7100 tel
201.795.1329 fax

Certificate of Analysis

Fisher Scientific's Quality System has been found to conform to Quality Management System
Standard ISO 9001:2008 standard by SAI Global Certificate Number CERT - 0004970

This is to certify that units of the lot number below were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Certain products (USP/CPH/REPAIR/UP grades) are sold for use in food, drug, or medical device manufacturing. Fisher does not claim regulatory coverage under 21 CFR nor maintain GMP's with the FDA. The following are the actual analytical results obtained.

Catalog Number	A688	Quality Test / Release Date	3/5/2015
Lot Number	146881		
Description	AMMONIUM HYDROXIDE, CERTIFIED A.C.S. PLUS		
Country of Origin	United States	* Suggested Retest Date	Mar-2020
Chemical Origin	Inorganic-non animal		
BSE/TSE Comment	This product does not contain and is not manufactured with raw material ingredients derived from any animal products, including countries where Bovine Spongiform Encephalopathy (BSE) is known to exist.		
Chemical Comment	This product is free from genetically modified substances and is gluten free.		

Result name	Units	Specifications	Test Value
APPEARANCE		REPORT	CLEAR, COLORLESS LIQUID
ALUMINUM	ppm	≤ 0.3	0.001
ARSENIC AND ANTIMONY	ppm	≤ 0.05	<0.050
ASSAY	wt/wt %	Inclusive between 28.0 - 30.0	28.8
BORON (B)	ppm	≤ 0.1	0.001
CALCIUM (Ca)	ppm	≤ 0.3	0.001
CARBON DIOXIDE	%	≤ 0.002	<0.0020
CHLORIDE	ppm	≤ 0.5	<0.50
CHROMIUM (Cr)	ppm	≤ 0.2	0.001
COPPER (Cu)	ppm	≤ 0.1	0.001
GOLD (Au)	ppm	≤ 0.3	0.001
HEAVY METALS (as Pb)	ppm	≤ 0.5	<0.5
IDENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST
IRON (Fe)	ppm	≤ 0.1	0.001
LEAD (Pb)	ppm	≤ 0.2	0.001
MAGNESIUM (Mg)	ppm	≤ 0.3	0.001
MANGANESE (Mn)	ppm	≤ 0.2	0.001
NICKEL (Ni)	ppm	≤ 0.1	0.001
NITRATE (NO ₃)	ppm	≤ 2	<2.0
PHOSPHATE (PO ₄)	ppm	≤ 0.4	<0.40
POTASSIUM (K)	ppm	≤ 0.3	0.003
RESIDUE AFTER IONITION	ppm	≤ 3	<3.00
SODIUM (Na)	ppm	= Report	0.004
SUBSTANCES REDUCING KMNO ₄	PASS/FAIL	= PASS TEST	PASS TEST
SULFATE (SO ₄)	ppm	≤ 2	<2.0
TIN (Sn)	ppm	≤ 0.3	0.001
TITANIUM (Ti)	ppm	≤ 0.3	0.001
ZINC (Zn)	ppm	≤ 0.3	0.001

HPV (CP4)
Received 2015/07/17
expiry 2020/03/31



CERTIFIED BY

Lab Manager BPF

Note: The data listed is valid for all package sizes of this lot of this product, expressed as a extension of this catalog number listed above. If there are any questions with this certificate, please call Chemical Services at (800) 327-5751.
*Based on suggested storage condition.

3050 Spruce Street, Saint Louis, MO 63103, USA

Website: www.sigmaaldrich.com

Email USA: techserv@slal.com

Outside USA: eurtechserv@slal.com

Certificate of Analysis

Product Name:

Methanol - for HPLC, ≥99.9%

CH₃OH

Product Number:

34860

Batch Number:

SHBH7061

Brand:

SIGALD

CAS Number:

67-56-1

MDL Number:

MFCD00004695

Formula:

CH₄O

Formula Weight:

32.04 g/mol

Quality Release Date:

15 NOV 2016

Expiration Date:

OCT 2021

Received
2016-12-15
8x4L
P4 (HPLC)
shelf

Test	Specification	Result
Appearance (Color)	Colorless	Colorless
Appearance (Form)	Liquid	Liquid
UV Absorbance 400nm	≤ 0.01	< 0.01
UV Absorbance 280nm	≤ 0.01	< 0.01
UV Absorbance 260nm	≤ 0.04	< 0.01
UV Absorbance 240nm	≤ 0.10	0.03
UV Absorbance 235nm	≤ 0.10	0.05
UV Absorbance 230nm	≤ 0.20	0.07
UV Absorbance 220nm	≤ 0.30	0.15
UV Absorbance 210nm	≤ 0.60	0.35
UV Absorbance 205nm	≤ 1.00	0.70
Fluorescence 254nm	≤ 1.0 ppb	< 0.1 ppb
Fluorescence 365nm	≤ 1.0 ppb	< 0.1 ppb
Purity (GC)	≥ 99.90 %	100.00 %
Color Test	≤ 10 APHA	< 5 APHA
Water (by Karl Fischer)	≤ 0.03 %	< 0.01 %
Residue on Evaporation	≤ 0.0005 %	< 0.0001 %
Expiration Date Period		
1800 Days		

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.

Version Number: 1

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Date received: 2017/02/15 NTS - 8x4L (HPLC)

Date Received: 2017/01/05-EH1-4x4L-HPLC

Date Received 2017/01/19 -NTS 4 x 4L HPLC, JDA 8X41-LC group

Date Received: 2017.02.01 - 4 x 4L - HPLC Main Lab

Date Received: 2017.03.09 - 8 x 4L - HPLC

Date Received: 2017.03.15 - 4 x 4L - HPLC

Date Received: 2017.04.05 - 4 x 4L - HPLC

Date Received: 2017.04.07 - 4 x 4L - JDA

Date Received: 2017.05.03 - 4 x 4L -HPLC

Date Received: 2017.05.24 - 4 x 4L -HPLC

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REAGENT PREPARATION FORM

SOLUTION # 73 REPLACED SOLUTION # 63 REPLACED BY: 102 ANALYST LEV
 REAGENT NAME: 60:40 H₂O: MeOH TEST/ANALYSIS: PFCs DATE PREPARED: 2017/05/09
 EXPIRY DATE 2017/07/09 SOLVENT USED: H₂O, MeOH FINAL VOLUME 1L SUPPLIER See Below OVEN NO. & TEMP -
 FINAL CONC.: 60:40 DATE SOLVENT OPENED: See Below STORAGE: Shelf BALANCE ID: - PIPET/SYRINGE ID: -

CHEMICAL NAME	VOLUME/WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
Reagent H ₂ O	600 ml	2017/05/02	2017/05/09	Omni	56190	2017/07/31
MeOH	400 ml	2017/04/27	2017/05/09	Aldrich	SHBH 9776	2022/02/28

NOTES:

1L Class A cylinder (3062)

SOLUTION # 74 REPLACED SOLUTION # 62 REPLACED BY: 100 ANALYSTS LEV
 REAGENT NAME: 70:30 MeOH:H₂O TEST/ANALYSIS: PFCs DATE PREPARED: 2017/05/09
 EXPIRY DATE 2017/07/09 SOLVENT USED: MeOH, H₂O FINAL VOLUME: 1L SUPPLIER See Below OVEN NO. & TEMP -
 FINAL CONC.: 70:30 DATE SOLVENT OPENED: See Below STORAGE: Shelf BALANCE ID: - PIPET/SYRINGE ID: -

CHEMICAL NAME	VOLUME/WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
MeOH	700 ml	2017/04/27	2017/05/09	Aldrich	SHBH 9776	2022/02/28
H ₂ O (Reagent)	300 ml	2017/05/02	2017/05/09	Omni	56190	2017/07/31

NOTES:

1L Class A cylinder (3062)

Certificate of Analysis



Date of Release: 7/8/2016
 Name: Water
 OmniSolv®, For LC/MS
 Item No: WX0001 all size codes
 Lot / Batch No: 56190
 Country of Origin: USA

Characteristic	Requirement		Results	Units
	Min.	Max.		
#Expiration date			31-JUL-2017	
Filtered through 0.2 µm filter			Passes test	
Fluorescence as quinine at 254 nm		1	< 1	pob
Fluorescence as quinine at 365 nm		1	< 1	pob
Gradient at 210 nm		2	0.25	mAU
Gradient at 254 nm		0.5	0.06	mAU
LC/MS Purity (p-nitrophenol)		50	<50	pob
LC/MS Purity (reserpine)		50	<50	pob
Metals, suitable for LC/MS			Conforms	
Residue after evaporation		1	0.5	ppm
UV Abs. at 200 nm		0.01	< 0.001	AU
UV Abs. at 210 nm		0.01	< 0.001	AU
UV Abs. at 220 nm		0.01	< 0.001	AU
UV Abs. at 230 nm		0.01	< 0.001	AU
UV Abs. at 240 nm		0.01	< 0.001	AU
UV Abs. at 250 nm		0.005	< 0.001	AU
UV Abs. at 270 nm		0.005	< 0.001	AU
UV Abs. at 400-280 nm		0.005	< 0.001	AU
UV Cut-off		190	185.0	nm

Gene Desotelle

Quality Control Manager

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 EMD Millipore Corporation
 290 Concord Road
 Billerica, MA 01821
 U.S.A

1/1

Date received 2016/08/10 8x4L HPLC
 Date Received: 2016.09.12 1 x 4L - P4
 Date Received: 2017.01.10 - 2 bottles - HPLC
 Date Received: 2017/01/17-EH1-4x4L-HPLC
 Date Received 2017/02/13 -NTS 4 x 4L HPLC
 Date Received 2017/02/15 -NTS 8 x 4L HPLC
 Date Received: 2017.02.09 - 4 bottles - HPLC
 Date Received: 2017.02.21 - 4 bottles - HPLC
 Date Received: 2017.02.27 - 4 bottles - HPLC
 Date Received: 2017.03.09 - 4 bottles - HPLC
 Date Received: 2017.03.16 - 2 bottles - HPLC
 Date Received: 2017.04.22 - 4 bottles - HPLC
 Date Received: 2017.04.25 - 4 bottles - HPLC
 Date Received: 2017.05.02 - 8 bottles - HPLC

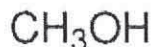
Maxxam Analytics

1457 of 2393

Certificate of Analysis

Product Name:

Methanol - for HPLC, ≥99.9%



Product Number:

34860

Batch Number:

SHBH9776

Brand:

SIGALD

CAS Number:

67-56-1

MDL Number:

MFCD00004595

Formula:

CH₄O

Formula Weight:

32.04 g/mol

Quality Release Date:

25 FEB 2017

Expiration Date:

FEB 2022

Received from
2017/02/17
8 x 4L - HPLC

Test	Specification	Result
Appearance (Color)	Colorless	Colorless
Appearance (Form)	Liquid	Liquid
UV Absorbance 400nm	≤ 0.01	< 0.01
UV Absorbance 290nm	≤ 0.01	< 0.01
UV Absorbance 260nm	≤ 0.04	0.01
UV Absorbance 240nm	≤ 0.10	0.03
UV Absorbance 235nm	≤ 0.10	0.05
UV Absorbance 230nm	≤ 0.20	0.08
UV Absorbance 220nm	≤ 0.30	0.16
UV Absorbance 210nm	≤ 0.60	0.35
UV Absorbance 205nm	≤ 1.00	0.64
Fluorescence 254nm	≤ 1.0 ppb	< 0.1 ppb
Fluorescence 365nm	≤ 1.0 ppb	< 0.1 ppb
Purity (GC)	≥ 99.90 %	100.00 %
Color Test	≤ 10 APHA	< 5 APHA
Water (by Karl Fischer)	≤ 0.03 %	< 0.01 %
Residue on Evaporation	≤ 0.0005 %	< 0.0001 %
Expiration Date Period		
1800 Days		

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.

Version Number: 1

Page 1 of 2

Date Received: 2017.04.05 - 4 x 4L - HPLC
 Date Received: 2017.04.22 - 4 x 4L - HPLC
 Date Received: 2017.04.27 - 8 x 4L - HPLC
 Date Received: 2017.05.30 - 4 x 4L - HPLC Main Lab
 Date Received: 2017.06.02 - 4 x 4L - HPLC Main Lab

REAGENT PREPARATION FORM

SOLUTION # 73 REPLACED SOLUTION # 63 REPLACED BY: 102 ANALYST LOV
 REAGENT NAME: 60:40 H₂O: MeOH TEST/ANALYSIS: PFO₅ DATE PREPARED: 2017/05/09
 EXPIRY DATE 2017/07/09 SOLVENT USED: H₂O, MeOH FINAL VOLUME 1L SUPPLIER See Below OVEN NO. & TEMP —
 FINAL CONC.: 60:40 DATE SOLVENT OPENED: See Below STORAGE: Shelf BALANCE ID: — PIPET/SYRINGE ID: —

CHEMICAL NAME	VOLUME/ WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
Reagent- H ₂ O	600 ml	2017/05/02	2017/05/09	Omni	56190	2017/07/31
MeOH	400 ml	2017/04/27	2017/05/09	Aldrich	SHBH 9776	2022/02/28
1g 2017/05/09						

NOTES:

1L Class A Cylinder (3062)

SOLUTION # 74 REPLACED SOLUTION # 62 REPLACED BY: 100 ANALYSTS LOV
 REAGENT NAME: 70:30 MeOH: H₂O TEST/ANALYSIS: PFO₅ DATE PREPARED: 2017/05/09
 EXPIRY DATE 2017/07/09 SOLVENT USED: MeOH, H₂O FINAL VOLUME: 1L SUPPLIER See Below OVEN NO. & TEMP —
 FINAL CONC.: 70:30 DATE SOLVENT OPENED: See Below STORAGE: Shelf BALANCE ID: — PIPET/SYRINGE ID: —

CHEMICAL NAME	VOLUME/ WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
MeOH	700 ml	2017/04/27	2017/05/09	Aldrich	SHBH 9776	2022/02/28
H ₂ O (Reagent)	300 ml	2017/05/02	2017/05/09	Omni	56190	2017/07/31
1g 2017/05/09						

NOTES:

1L Class A Cylinder (3062)

Certificate of Analysis

Product Name:

Methanol - for HPLC, ≥99.9%



Product Number:

34860

Batch Number:

SHBH9776

Brand:

SIGALD

CAS Number:

67-66-1

MDL Number:

MFCD00004595

Formula:

CH₄O

Formula Weight:

32.04 g/mol

Quality Release Date:

28 FEB 2017

Expiration Date:

FEB 2022

Received from
2017-12-17
8 x 4L - HPLC

Test	Specification	Result
Appearance (Color)	Colorless	Colorless
Appearance (Form)	Liquid	Liquid
UV Absorbance 400nm	≤ 0.01	< 0.01
UV Absorbance 280nm	≤ 0.01	< 0.01
UV Absorbance 260nm	≤ 0.04	0.01
UV Absorbance 240nm	≤ 0.10	0.03
UV Absorbance 235nm	≤ 0.10	0.05
UV Absorbance 230nm	≤ 0.20	0.08
UV Absorbance 220nm	≤ 0.30	0.16
UV Absorbance 210nm	≤ 0.60	0.35
UV Absorbance 205nm	≤ 1.00	0.64
Fluorescence 254nm	≤ 1.0 ppb	< 0.1 ppb
Fluorescence 365nm	≤ 1.0 ppb	< 0.1 ppb
Purity (GC)	≥ 99.90 %	100.00 %
Color Test	≤ 10 APHA	< 5 APHA
Water (by Karl Fischer)	≤ 0.03 %	< 0.01 %
Residue on Evaporation	≤ 0.0005 %	< 0.0001 %
Expiration Date Period		
1800 Days		

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.

Version Number: 1

Page 1 of 2

Date Received: 2017.04.05 - 4 x 4L - HPLC
 Date Received: 2017.04.22 - 4 x 4L - HPLC
 Date Received: 2017.04.27 - 8 x 4L - HPLC
 Date Received: 2017.05.30 - 4 x 4L - HPLC Main Lab
 Date Received: 2017.06.02 - 4 x 4L - HPLC Main Lab

Certificate of Analysis



Date of Release: 7/6/2016
 Name: Water
 OmniSol[®], For LC/MS
 Item No: WX0001 all size codes
 Lot / Batch No: 55190
 Country of Origin: USA

Characteristic	Requirement		Results	Units
	Min.	Max.		
Expiration date			31-JUL-2017	
Filtered through 0.2 µm filter			Passes test	
Fluorescence as quinine at 254 nm		1	< 1	ppb
Fluorescence as quinine at 365 nm		1	< 1	ppb
Gradient at 210 nm		2	0.25	mAU
Gradient at 254 nm		0.5	0.06	mAU
LC/MS Purity (p-nitrophenol)		50	<50	ppb
LC/MS Purity (reserpine)		50	<50	ppb
Metals, suitable for LC/MS			Conforms	
Residue after evaporation		1	0.5	ppm
UV Abs. at 230 nm		0.01	< 0.001	AU
UV Abs. at 210 nm		0.01	< 0.001	AU
UV Abs. at 220 nm		0.01	< 0.001	AU
UV Abs. at 230 nm		0.01	< 0.001	AU
UV Abs. at 240 nm		0.01	< 0.001	AU
UV Abs. at 250 nm		0.005	< 0.001	AU
UV Abs. at 270 nm		0.005	< 0.001	AU
UV Abs. at 400-280 nm		0.005	< 0.001	AU
UV Cut-off		190	185.0	nm

Gene Details

Quality Control Manager

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 EMD Millipore Corporation
 230 Concord Road
 Billerica, MA 01821
 U.S.A

1/1

Date received 2016/08/10 8x4L HPLC
 Date Received: 2016.09.12 1 x 4L - P4
 Date Received: 2017.01.10 - 2 bottles - HPLC
 Date Received: 2017/01/17-EH1-4x4L-HPLC
 Date Received 2017/02/13 -NTS 4 x 4L HPLC
 Date Received 2017/02/15 -NTS 8 x 4L HPLC
 Date Received: 2017.02.09 - 4 bottles - HPLC
 Date Received: 2017.02.21 - 4 bottles - HPLC
 Date Received: 2017.02.27 - 4 bottles - HPLC
 Date Received: 2017.03.09 - 4 bottles - HPLC
 Date Received: 2017.03.16 - 2 bottles - HPLC
 Date Received: 2017.04.22 - 4 bottles - HPLC
 Date Received: 2017.04.25 - 4 bottles - HPLC
 Date Received: 2017.05.02 - 8 bottles - HPLC
 Maxam Analytics

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REAGENT PREPARATION FORM

SOLUTION # 81 REPLACED SOLUTION # 71 REPLACED BY: 86 ANALYST RP7
 REAGENT NAME: DNPH solution TEST/ANALYSIS: FORMALD-L DATE PREPARED: 2017/05/11
 EXPIRY DATE Daily SOLVENT USED: ACN FINAL VOLUME 10ml SUPPLIER fisher OVEN NO. & TEMP -
 FINAL CONC.: See below DATE SOLVENT OPENED: See below STORAGE: - BALANCE ID: fc-1 PIPET/SYRINGE ID: N19320D

CHEMICAL NAME	VOLUME/ WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
DNPH	0.0503 gm	2016/07/15	2016/07/15	spectrum	2EK 0212	2020/08/31
ACN	10ml	2017/04/05	2017/04/05	fisher	165746	2021/11/30
<u>RP7 2017/05/11</u>						

NOTES:

SOLUTION # 82 REPLACED SOLUTION # 64 REPLACED BY: 90 ANALYSTS rmj
 REAGENT NAME: 0.3% NH4OH in MeOH TEST/ANALYSIS: PFC DATE PREPARED: 2017/05/11
 EXPIRY DATE Daily SOLVENT USED: MeOH FINAL VOLUME: 1000 ml SUPPLIER Aldrich OVEN NO. & TEMP -
 FINAL CONC.: 0.3-99.7 DATE SOLVENT OPENED: See below STORAGE: - BALANCE ID: - PIPET/SYRINGE ID: K39732F

CHEMICAL NAME	VOLUME/ WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
NH4OH	3.0 ml	2016/12/16	2017/04/13	Fisher	158310	2021/04/30
MeOH	997.0 ml	2017/05/08	2017/05/11	Aldrich	SHB69022V	2021/01/31
<u>652 2017/05/11</u>						

NOTES:

1000
500 ml vol. cylinder (#3026)
652 2017/05/11

DO NOT WRITE BENEATH ANY INSERTS OR PLACE ANY INSERTS ON TOP OF ANY RAW DATA ENTERED ON THIS PAGE. INITIAL AND DATE ALL ENTRIES, CORRECTIONS AND INSERTS. INCLUDE ALL RELEVANT TRACEABLE REFERENCES ON ALL INSERTS. ONLY CLASS A GLASSWARE IS USED FOR THE PREPARATION OF REAGENTS WHEN APPLICABLE.



1 Rongoni Lane
Fair Lawn, NJ 07410
201.798.7100 tel
201.798.1328 fax

Certificate of Analysis

Fisher Scientific Quality System has been found to conform to QMS by Management System
Standard ISO 9001:2008 certified by BSI Global Certificate Number: CERT-000016

This is to certify that units of the lot number below were tested and found to comply with the specifications of the product listed. Certain data have been excluded by this protocol. Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Certain products (OHP/OCN/HCL/SPH) contain and sold for use in food, drug, or medical device manufacturing. Fisher does not claim regulatory coverage under 21 CFR nor maintain GMP's with the FDA. The following are the actual analytical results obtained.

Catalog Number	A669	Quality Test / Release Date	4/9/2016
Lot Number	158310		
Description	AMMONIUM HYDROXIDE, CERTIFIED A.C.S. PLUS		
Country of Origin	United States	* Suggested Retest Date	Apr-2021
Chemical Origin	Inorganic-non animal		
BSE/TSE Comment	This product does not contain and is not manufactured with raw material ingredients derived from any animal products, including countries where Bovine Spongiform Encephalopathy (BSE) is known to exist.		
Chemical Comment	This product is free from genetically modified substances and is gluten free.		

*In Recd: 2016/12/28
11 bottles - BSB*

Result name	Units	Specifications	Test Value
APPEARANCE		REPORT	COLORLESS AND FREE FROM SUSPENDED MATTER
ALUMINUM	ppm	≤ 0.5	0.001
ARSENIC AND ANTIMONY	ppm	≤ 0.03	<0.050
ASSAY	wt %	Inclusive Between 28.0 - 30.0	29.8
BORON (B)	ppm	≤ 0.1	0.001
CALCIUM (Ca)	ppm	≤ 0.3	0.002
CARBON DIOXIDE	%	≤ 0.002	<0.0020
CHLORIDE	ppm	≤ 0.5	<0.60
CHROMIUM (Cr)	ppm	≤ 0.2	0.001
COPPER (Cu)	ppm	≤ 0.1	0.001
GOLD (Au)	ppm	≤ 0.3	0.001
HEAVY METALS (as Pb)	ppm	≤ 0.5	<0.5
IDENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST
IRON (Fe)	ppm	≤ 0.1	0.001
LEAD (Pb)	ppm	≤ 0.2	0.001
MAGNESIUM (Mg)	ppm	≤ 0.3	0.001
MANGANESE (Mn)	ppm	≤ 0.2	0.001
NICKEL (Ni)	ppm	≤ 0.1	0.001
NITRATE (NO ₃)	ppm	≤ 2	<2.0
PHOSPHATE (PO ₄)	ppm	≤ 0.4	<0.40
POTASSIUM (K)	ppm	≤ 0.3	0.001
RESIDUE AFTER IGNITION	ppm	≤ 3	<3.00
SODIUM (Na)	ppm	= Report	0.003
SUBSTANCES REDUCING KMNO ₄	PASS/FAIL	= PASS TEST	PASS TEST
SULFATE (SO ₄)	ppm	≤ 2	<2.0
TIN (Sn)	ppm	≤ 0.3	0.001
TITANIUM (Ti)	ppm	≤ 0.3	0.001
ZINC (Zn)	ppm	≤ 0.3	0.001



James Allan
Quality Control Manager BPP

Note: This data sheet is valid for all package sizes of this lot of this product, expressed as a percentage of this catalog number listed above. If you are any customer with this certificate, please call Customer Service at (800) 227-2701.
*Based on suggested storage conditions.

Received: 2016/12/16 1x500mL MMN

3050 Spruce Street, Saint Louis, MO 63103, USA

Website: www.sigmaaldrich.com

Email USA: techserv@sigmaaldrich.com

Outside USA: eurtechserv@sigmaaldrich.com

Certificate of Analysis

Product Name:

Methanol - for HPLC, ≥99.9%

Product Number:

34860

Batch Number:

SHBG9002V

Brand:

SIGALD

CAS Number:

67-58-1

MDL Number:

MFCD00004695

Formula:

CH₄O

Formula Weight:

32.04 g/mol

Quality Release Date:

02 FEB 2016

Expiration Date:

JAN 2021

CH₃OH

HPLC

4 x 4 L

ERM 2016/08/25

Test	Specification	Result
Appearance (Color)	Colorless	Colorless
Appearance (Form)	Liquid	Liquid
UV Absorbance 400nm	< 0.01	< 0.01
UV Absorbance 280nm	< 0.01	< 0.01
UV Absorbance 260nm	< 0.04	< 0.01
UV Absorbance 240nm	< 0.10	0.03
UV Absorbance 235nm	< 0.10	0.05
UV Absorbance 230nm	< 0.20	0.09
UV Absorbance 220nm	< 0.30	0.19
UV Absorbance 210nm	< 0.60	0.39
UV Absorbance 205nm	< 1.00	0.66
Fluorescence 254nm	< 1.0 ppb	< 0.1 ppb
Fluorescence 365nm	< 1.0 ppb	< 0.1 ppb
Purity (GC)	≥ 99.90 %	99.93 %
Color Test	< 10 APHA	< 10 APHA
Water (by Karl Fischer)	< 0.03 %	< 0.01 %
Residue on Evaporation	< 0.0005 %	0.0001 %
Expiration Date Period		
1800 Days		

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.

Version Number: 1

Page 1 of 2

Date Received: 2016.08.25 - 4 x 4L - HPLC
Date Received: 2017.05.03 - 4 x 4L - HPLC
Date Received: 2017.05.08 - 4 x 4L - HPLC
Date Received: 2017.05.12 - 4 x 4L - HPLC

REAGENT PREPARATION FORM

SOLUTION # 85 REPLACED SOLUTION # 42 REPLACED BY: 103 ANALYST RP7
 REAGENT NAME: 21 formic acid TEST/ANALYSIS: PFO5 DATE PREPARED: 2017/05/12
 EXPIRY DATE 2017/07/12 SOLVENT USED: Reagent H₂O FINAL VOLUME 1L SUPPLIER Omnisciv OVEN NO. & TEMP -
 FINAL CONC.: 2.98 v/v DATE SOLVENT OPENED: See below STORAGE: Shelf BALANCE ID: N19320D
 (PIPET/SYRINGE ID: _____)

CHEMICAL NAME	VOLUME/WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
Reagent H ₂ O	980 ml	2017/05/10	2017/05/12	Omnisciv	56218	2017/08/31
Formic acid	20 ml	2016/12/12	2017/01/09	Aktech	SHBH 4476V	2017/09/30
RP7 2017/05/12						

NOTES:

1 L class A cylinder (3062)

Certificate of Analysis



Date of Release: 8/4/2016
 Name: Water
 OmniSol[®], For LC/MS
 Item No: WX0001 all size codes
 Lot / Batch No: 56218
 Country of Origin: USA

Characteristic	Requirement		Results	Units
	Min.	Max.		
Expiration date			31-AUG-2017	
Evaporation residue		1	<0.1	ppm
Filtered through: 0.2 µm filter			Passes test	
Fluorescence as quinine at 254 nm		1	< 1	ppb
Fluorescence as quinine at 365 nm		1	< 1	ppb
Gradient at 210 nm		2	0.10	mAU
Gradient at 254 nm		0.5	0.07	mAU
LC/MS Purity (p-nitrophenol)		50	<50	ppb
LC/MS Purity (reserpine)		50	<50	ppb
Metals, suitable for LC/MS			Conforms	
UV Abs. at 200 nm		0.01	< 0.001	AU
UV Abs. at 210 nm		0.01	< 0.001	AU
UV Abs. at 220 nm		0.01	< 0.001	AU
UV Abs. at 230 nm		0.01	< 0.001	AU
UV Abs. at 240 nm		0.01	< 0.001	AU
UV Abs. at 250 nm		0.005	< 0.001	AU
UV Abs. at 270 nm		0.005	< 0.001	AU
UV Abs. at 400-280 nm		0.005	< 0.001	AU
UV Cut-off		190	<190	nm

Good Disposal

Quality Control Manager

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EMD Millipore is a division of Merck KGaA, Darmstadt, Germany
 EMD Millipore Corporation
 290 Concord Road
 Billerica, MA 01821
 U.S.A

Received: 65Z

2017/01/19

4x4L

2017/02/08

3x4L mm

1/1

Date Received: 2016.12.01 - 4 bottles - P12
 Date Received: 2017/01/19 - 4 bottles - JDA
 Date Received: 2017.03.24 - 4 bottles - Main Lab-MG
 Date Received: 2017.05.10 - 4 bottles - HPLC

Received 2017/05/25 8 bottles-HPLC
 Date Received: 2017/05/29-JDA-1x4L
 Date Received: 2017.06.06 - 8 bottles -HPLC

1466 of 2393

Certificate of Analysis

Product Name:

Formic acid - reagent grade, ≥95%

Product Number:

F0507

Batch Number:

SHBH4976V

Brand:

SIGALD

CAS Number:

64-18-6

MDL Number:

MFCD00003297

Formula:

CH₂O₂

Formula Weight:

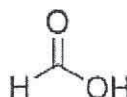
46.03 g/mol

Quality Release Date:

09 SEP 2016

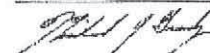
Expiration Date:

SEP 2017



Rec'd: 2
2016/11/22
1 X 500 mL
LC Group

Test	Specification	Result
Appearance (Turbidity)	Clear	Clear
Appearance (Color)	Colorless to Very Faint Yellow	Colorless
Appearance (Form)	Liquid	Liquid
Proton NMR Spectrum	Conforms to Structure	Conforms
Solvent Content	≤ 1.0 %	< 0.1 %
Acetic Acid by NMR		
Water (by Karl Fischer)	2.0 - 2.5 %	2.1 %
Titration with NaOH	≥ 95.0 %	97.2 %
Expiration Date Period		
1 Year		


Michael Grady, Manager
Quality Control
Sheboygan Falls, WI US

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.

REAGENT PREPARATION FORM

SOLUTION # 89 REPLACED SOLUTION # 332 REPLACED BY: PRURE 92 ANALYST JOB
REAGENT NAME: solu² A TEST/ANALYSIS: DP DATE PREPARED: 2017/05/13
EXPIRY DATE 2018/05/13 SOLVENT USED: 17 H₂O FINAL VOLUME 1000ml SUPPLIER Fisher OVEN NO. & TEMP -
FINAL CONC.: - DATE SOLVENT OPENED: - STORAGE: - BALANCE ID: - PIPET/SYRINGE ID: -

CHEMICAL NAME	VOLUME/WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
6N HCl	160 ml	-	-	-	PRURE 104-58	2018/05/03
Di H ₂ O	800 ml	-	-	-	-	-
JOB 2017/05/13						

NOTES: 500ml Class A cylinder (1276)

SOLUTION # 90 REPLACED SOLUTION # 82 REPLACED BY: 93 ANALYSTS mm
REAGENT NAME: 0.3% NH₄OH TEST/ANALYSIS: PFC DATE PREPARED: 2017/05/13
EXPIRY DATE 2017 SOLVENT USED: meOH FINAL VOLUME: 500ml SUPPLIER ALDRICH OVEN NO. & TEMP -
FINAL CONC.: 0.3:997 DATE SOLVENT OPENED: 2017/05/13 STORAGE: - BALANCE ID: - PIPET/SYRINGE ID: -

CHEMICAL NAME	VOLUME/WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
NH ₄ OH	145 ml	2016/12/16	2017/02/13	FLUKE	158710	2021/10/13
meOH	498.5 ml	2017/05/12	2017/05/13	ALDRICH	3H201 0382	2022/07/13
mm 2017/05/13						

NOTES: 500 ml class A cylinder (3226)

DO NOT WRITE BENEATH ANY INSERTS OR PLACE ANY INSERTS ON TOP OF ANY RAW DATA ENTERED ON THIS PAGE. INITIAL AND DATE ALL ENTRIES, CORRECTIONS AND INSERTS. INCLUDE ALL RELEVANT TRACEABLE REFERENCES ON ALL INSERTS. ONLY CLASS A GLASSWARE IS USED FOR THE PREPARATION OF REAGENTS WHEN APPLICABLE.



1 Rangoni Lane
Fair Lawn, NJ 07410
201.798.7100 fax
201.798.1329 fax

Certificate of Analysis

Fisher Scientific Quality System has been tested to conform to Quality Management System
Standard ISO 9001:2008 standard by BPA Global Certificate Number 00117 - 000016

This is to certify that units of the lot number below were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Certain products (BPF-001) containing animal products are sold for use in food, drug, or medical device manufacturing. Fisher does not claim regulatory compliance under 21 CFR for materials compliant with the FDA. The following are the analytical results obtained.

Catalog Number	A669	Quality Test / Release Date	4/9/2016
Lot Number	158319		
Description	AMMONIUM HYDROXIDE, CERTIFIED A.C.S. PLUS		
Country of Origin	United States	* Suggested Reuse Date	Apr-2021
Chemical Origin	Inorganic-non animal		
BSE/TSE Comment	This product does not contain and is not manufactured with raw material ingredients derived from any animal products, including countries where Bovine Spongiform Encephalopathy (BSE) is known to exist.		
Chemical Comment	This product is free from genetically modified substances and is gluten free.		

*See lot: 2016/12/28
11 bottles - B2B*

Result name	Units	Specifications	Test Value
APPEARANCE		REPORT	COLORLESS AND FREE FROM SUSPENDED MATTER
ALUMINUM	ppm	≤ 0.5	0.001
ARSENIC AND ANTIMONY	ppm	≤ 0.03	<0.050
ASSAY	w/w %	Inclusive Between 28.0 - 30.0	29.8
BORON (B)	ppm	≤ 0.1	0.001
CALCIUM (Ca)	ppm	≤ 0.3	0.002
CARBON DIOXIDE	%	≤ 0.002	<0.000
CHLORIDE	ppm	≤ 0.5	<0.60
CHROMIUM (Cr)	ppm	≤ 0.2	0.001
COPPER (Cu)	ppm	≤ 0.1	0.001
GOLD (Au)	ppm	≤ 0.3	0.001
HEAVY METALS (as Pb)	ppm	≤ 0.5	<0.5
IDENTIFICATION	PASS/FAIL	≠ PASS TEST	PASS TEST
IRON (Fe)	ppm	≤ 0.1	0.001
LEAD (Pb)	ppm	≤ 0.2	0.001
MAGNESIUM (Mg)	ppm	≤ 0.3	0.001
MANGANESE (Mn)	ppm	≤ 0.2	0.001
NICKEL (Ni)	ppm	≤ 0.1	0.001
NITRATE (NO3)	ppm	≤ 2	<2.0
PHOSPHATE (PO4)	ppm	≤ 0.4	<0.40
POTASSIUM (K)	ppm	≤ 0.3	0.001
RESIDUE AFTER IGNITION	ppm	≤ 3	<3.00
SODIUM (Na)	ppm	≠ Report	0.003
SUBSTANCES REDUCING KMNO4	PASS/FAIL	≠ PASS TEST	PASS TEST
SULFATE (SO4)	ppm	≤ 2	<2.0
TIN (Sn)	ppm	≤ 0.3	0.001
TITANIUM (Ti)	ppm	≤ 0.3	0.001
ZINC (Zn)	ppm	≤ 0.3	0.001



James J. Alton
Quality Control Manager BPF

Note: This data sheet is valid for all package sizes of this lot of this product, expressed as a (w/w %) of this coming (unopened) lot. If used in any quantity with this certificate, please call Chemical Services at (800) 227-2701.

Received: 2016/12/16 1x500mL MMN

3050 Spruce Street, Saint Louis, MO 63103, USA

Website: www.sigmaaldrich.comEmail USA: techserv@sial.comOutside USA: eurtechserv@sial.com

Certificate of Analysis

Product Name:

Methanol - for HPLC, ≥99.9%

Product Number: 34860
Batch Number: SHBJ0382
Brand: SIGALD
CAS Number: 67-56-1
MDL Number: MFCD00004595
Formula: CH₄O
Formula Weight: 32.04 g/mol
Quality Release Date: 22 MAR 2017
Expiration Date: FEB 2022

CH₃OH

Test	Specification	Result
Appearance (Color)	Colorless	Colorless
Appearance (Form)	Liquid	Liquid
UV Absorbance 400nm	≤ 0.01	< 0.01
UV Absorbance 280nm	≤ 0.01	< 0.01
UV Absorbance 260nm	≤ 0.04	0.01
UV Absorbance 240nm	≤ 0.10	0.03
UV Absorbance 235nm	≤ 0.10	0.05
UV Absorbance 230nm	≤ 0.20	0.08
UV Absorbance 220nm	≤ 0.30	0.16
UV Absorbance 210nm	≤ 0.60	0.37
UV Absorbance 205nm	≤ 1.00	0.69
Fluorescence 254nm	≤ 1.0 ppb	< 0.1 ppb
Fluorescence 365nm	≤ 1.0 ppb	< 0.1 ppb
Purity (GC)	≥ 99.90 %	100.00 %
Color Test	≤ 10 APHA	< 5 APHA
Water (by Karl Fischer)	≤ 0.03 %	< 0.01 %
Residue on Evaporation	≤ 0.0005 %	< 0.0001 %
Expiration Date Period		
1800 Days		

Received
4x42
2017/05/12

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.

REAGENT PREPARATION FORM

SOLUTION # 99 REPLACED SOLUTION # 97 REPLACED BY: 101 ANALYST RP7
 REAGENT NAME: 0.2% NH₄OH TEST/ANALYSIS: PFO5 DATE PREPARED: 2017/05/18
 EXPIRY DATE Daily SOLVENT USED: MeOH FINAL VOLUME 1L SUPPLIER Aldrich OVEN NO. & TEMP -
 FINAL CONC.: 0.2% 99.8 v/v DATE SOLVENT OPENED: See below STORAGE: - BALANCE ID: N 31477 F PIPET/SYRINGE ID: -

CHEMICAL NAME	VOLUME/WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
NH ₄ OH	1 ml	2016/12/16	2017/04/03	Fisher	15 8310	2021/04/30
MeOH	499 ml	2017/05/12	2017/05/17	Aldrich	SHBC 9002 V	2021/01/31
RP7 2017/05/18						

NOTES: 2 x 500 ml class A cylinder (3036)

SOLUTION # 100 REPLACED SOLUTION # 74 REPLACED BY: 107 ANALYSTS DM3
 REAGENT NAME: 10% MeOH/H₂O TEST/ANALYSIS: PFO5 DATE PREPARED: 2017/05/18
 EXPIRY DATE 2017/07/18 SOLVENT USED: MeOH FINAL VOLUME: 500 ml SUPPLIER Aldrich OVEN NO. & TEMP -
 FINAL CONC: 10% 30 v/v DATE SOLVENT OPENED: See below STORAGE: shelf BALANCE ID: - PIPET/SYRINGE ID: -

CHEMICAL NAME	VOLUME/WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
MeOH	350 ml	2017/05/12	2017/05/17	Aldrich	SHBC 9002 V	2021/01/30
H ₂ O	150 ml	2017/05/12	2017/05/17	Omni Solv	56219	10
2017/05/18 DM3						

NOTES: same class A cylinder



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Certificate of Analysis

Fisher Scientific's Quality System has been found to conform to Quality Management System
Standard ISO 9001:2008 as issued by BSI Global Certificate Number CERT-000616

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Fisher does not take regulatory coverage under 21 CFR for materials shipped with the FDA. The following are the additional/qual results obtained:

Catalog Number	A689	Quality Test / Release Date	4/9/2016
Lot Number	158310		
Description	AMMONIUM HYDROXIDE, CERTIFIED A.C.S. PLUS		
Country of Origin	United States	* Suggested Reuse Date	Apr-2021
Chemical Origin	Inorganic-non animal		
BSE/TSE Comment	This product does not contain and is not manufactured with raw material ingredients derived from any animal products, including countries where Bovine Spongiform Encephalopathy (BSE) is known to exist.		
Chemical Comment	This product is free from genetically modified substances and is gluten free.		

*In Arc: 2016/12/28
11 bottles - B2B*

Result name	Units	Specifications	Test Value
APPEARANCE		REPORT	COLORLESS AND FREE FROM SUSPENDED MATTER
ALUMINIUM	ppm	≤ 0.5	0.001
ARSENIC AND ANTIMONY	ppm	≤ 0.05	<0.050
ASSAY	wt %	Inductive Between 28.0 - 30.0	29.8
BORON (B)	ppm	≤ 0.1	0.001
CALCIUM (Ca)	ppm	≤ 0.5	0.002
CARBON DIOXIDE	%	≤ 0.002	<0.0020
CHLORIDE	ppm	≤ 0.5	<0.60
CHROMIUM (Cr)	ppm	≤ 0.2	0.001
COPPER (Cu)	ppm	≤ 0.1	0.001
GOLD (Au)	ppm	≤ 0.3	0.001
HEAVY METALS (at Pb)	ppm	≤ 0.5	<0.5
IDENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST
IRON (Fe)	ppm	≤ 0.1	0.001
LEAD (Pb)	ppm	≤ 0.2	0.001
MAGNESIUM (Mg)	ppm	≤ 0.3	0.001
MANGANESE (Mn)	ppm	≤ 0.2	0.001
NICKEL (Ni)	ppm	≤ 0.1	0.001
NITRATE (NO3)	ppm	≤ 2	<2.0
PHOSPHATE (PO4)	ppm	≤ 0.4	<0.40
POTASSIUM (K)	ppm	≤ 0.5	0.001
RESIDUE AFTER IGNITION	ppm	≤ 3	<3.00
SODIUM (Na)	ppm	= Report	0.003
SUBSTANCES REDUCING KMNO4	PASS/FAIL	= PASS TEST	PASS TEST
SULFATE (SO4)	ppm	≤ 2	<2.0
TIN (Sn)	ppm	≤ 0.3	0.001
TITANIUM (Ti)	ppm	≤ 0.3	0.001
ZINC (Zn)	ppm	≤ 0.3	0.001



James Alton
Quality Control Manager BPF

Note: This data listed is valid for all package sizes of this lot of this product, expressed as a percentage of this naming (name) listed
above. Please use any questions with this certificate, please call Customer Service at (800) 227-2701.
Based on unopened storage container.

Received: 2016/12/16 1x500mL MMN

3050 Spruce Street, Saint Louis, MO 63103, USA

Website: www.sigmaaldrich.com

Email USA: techserv@sigmaaldrich.com

Outside USA: eurtechserv@sigmaaldrich.com

Certificate of Analysis

Product Name:

Methanol - for HPLC, ≥99.9%

Product Number:

34860

Batch Number:

SHBG9002V

Brand:

SIGALD

CAS Number:

67-58-1

MDL Number:

MFCD00004695

Formula:

CH₄O

Formula Weight:

32.04 g/mol

Quality Release Date:

02 FEB 2016

Expiration Date:

JAN 2021

CH₃OH

HPLC

4 x 4 L

ETM 2016/08/25

Test	Specification	Result
Appearance (Color)	Colorless	Colorless
Appearance (Form)	Liquid	Liquid
UV Absorbance 400nm	< 0.01	< 0.01
UV Absorbance 280nm	< 0.01	< 0.01
UV Absorbance 260nm	< 0.04	< 0.01
UV Absorbance 240nm	< 0.10	0.03
UV Absorbance 235nm	< 0.10	0.05
UV Absorbance 230nm	< 0.20	0.09
UV Absorbance 220nm	< 0.30	0.19
UV Absorbance 210nm	< 0.60	0.39
UV Absorbance 205nm	< 1.00	0.66
Fluorescence 254nm	< 1.0 ppb	< 0.1 ppb
Fluorescence 365nm	< 1.0 ppb	< 0.1 ppb
Purity (GC)	≥ 99.90 %	99.93 %
Color Test	< 10 APHA	< 10 APHA
Water (by Karl Fischer)	< 0.03 %	< 0.01 %
Residue on Evaporation	< 0.0005 %	0.0001 %
Expiration Date Period		
1800 Days		

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.

Version Number: 1

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Date Received: 2016.08.25 - 4 x 4L - HPLC
Date Received: 2017.05.03 - 4 x 4L - HPLC
Date Received: 2017.05.08 - 4 x 4L - HPLC
Date Received: 2017.05.12 - 4 x 4L - HPLC

REAGENT PREPARATION FORM

SOLUTION # 467 REPLACED SOLUTION # 429 REPLACED BY: 468 ANALYST CSZ 102
 REAGENT NAME: 0.3% NH₄OH in MeOH TEST/ANALYSIS: Pfcs DATE PREPARED: 2017/04/03
 EXPIRY DATE Daily SOLVENT USED: MeOH FINAL VOLUME 700 ml SUPPLIER Audrich OVEN NO. & TEMP -
 FINAL CONC.: 0.3.99.7 DATE SOLVENT OPENED: Below STORAGE: - BALANCE ID: - PIPET/SYRINGE ID: M15344

CHEMICAL NAME	VOLUME/WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
NH ₄ OH	1.5 ml	2015/03/17	2016/03/03	Fisher	146981	2020/03/31
MeOH	498.5 ml	2017/03/15	2017/03/27	Audrich	543149776	2022/02/28
	CSZ	2017/04/03				

NOTES: 500 ml class A vol. cylinder (3026)

SOLUTION # 468 REPLACED SOLUTION # 467 REPLACED BY: 50 ANALYSTS mmw
 REAGENT NAME: 0.3% NH₄OH in MeOH TEST/ANALYSIS: Pfcs DATE PREPARED: 2017/04/04
 EXPIRY DATE Daily SOLVENT USED: MeOH FINAL VOLUME: 500 ml SUPPLIER Audrich OVEN NO. & TEMP -
 FINAL CONC.: 0.3.99.7 DATE SOLVENT OPENED: Below STORAGE: - BALANCE ID: - PIPET/SYRINGE ID: K39732 F

CHEMICAL NAME	VOLUME/WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
NH ₄ OH	1.5 ml	2015/03/17	2016/03/03	Fisher	146981	2020/03/31
MeOH	498.5 ml	2017/03/15	2017/02/08	Audrich	543149776	2022/02/28

NOTES: 500 ml class A vol. cylinder (3026)



1 Reagent Lane
Fair Lawn, NJ 07410
201.795.7100 tel
201.795.1320 fax

Certificate of Analysis

Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO 9001:2008 standard by SAI Global Certificate Number CERT - 0054970

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Catalog Number	A589	Quality Test / Release Date	3/5/2015
Lot Number	148881		
Description	AMMONIUM HYDROXIDE, CERTIFIED A.C.S. PLUS		
Country of Origin	United States	* Suggested Retest Date	Mar-2020
Chemical Origin	Inorganic-non animal		
BSE/TSE Comment	This product does not contain and is not manufactured with raw material ingredients derived from any animal products, including countries where Bovine Spongiform Encephalopathy (BSE) is known to exist.		
Chemical Comment	This product is free from genetically modified substances and is gluten free.		

Result name	Units	Specifications	Test Value
APPEARANCE		REPORT	CLEAR, COLORLESS LIQUID
ALUMINUM	ppm	≤ 0.3	0.001
ARSENIC AND ANTIMONY	ppm	≤ 0.05	<0.050
ASSAY	wt %	Inclusive Between 28.0 - 30.0	28.8
BORON (B)	ppm	≤ 0.1	0.001
CALCIUM (Ca)	ppm	≤ 0.3	0.001
CARBON DIOXIDE	%	≤ 0.002	<0.0020
CHLORIDE	ppm	≤ 0.5	<0.50
CHROMIUM (Cr)	ppm	≤ 0.2	0.001
COPPER (Cu)	ppm	≤ 0.1	0.001
GOLD (Au)	ppm	≤ 0.3	0.001
HEAVY METALS (as Pb)	ppm	≤ 0.5	<0.5
IDENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST
IRON (Fe)	ppm	≤ 0.1	0.001
LEAD (Pb)	ppm	≤ 0.2	0.001
MAGNESIUM (Mg)	ppm	≤ 0.3	0.001
MANGANESE (Mn)	ppm	≤ 0.2	0.001
NICKEL (Ni)	ppm	≤ 0.1	0.001
NITRATE (NO ₃)	ppm	≤ 2	<2.0
PHOSPHATE (PO ₄)	ppm	≤ 0.4	<0.40
POTASSIUM (K)	ppm	≤ 0.3	0.003
RESIDUE AFTER IONITION	ppm	≤ 3	<3.00
SODIUM (Na)	ppm	= Report	0.004
SUBSTANCES REDUCING KMNO ₄	PASS/FAIL	= PASS TEST	PASS TEST
SULFATE (SO ₄)	ppm	≤ 2	<2.0
TIN (Sn)	ppm	≤ 0.3	0.001
TITANIUM (Ti)	ppm	≤ 0.3	0.001
ZINC (Zn)	ppm	≤ 0.3	0.001

HPV (CP4)
Received 2015/07/17
expiry 2020/03/31



Edgar E. Hase
Lab Manager BPF

Note: The data listed is valid for all package sizes of this lot of this product, expressed as a percentage of the catalog number listed above. If there are any questions with this certificate, please call Chemical Services at (800) 327-5751.
*Based on suggested storage conditions.

Certificate of Analysis

Product Name:

Methanol - for HPLC, ≥99.9%

CH₃OH

Product Number: 34860
Batch Number: SHBH9776
Brand: SIGALD
CAS Number: 67-56-1
MDL Number: MFCD00004595
Formula: CH₄O
Formula Weight: 32.04 g/mol
Quality Release Date: 28 FEB 2017
Expiration Date: FEB 2022

received from
2017/03/15
8 x 4L - HPLC

Test	Specification	Result
Appearance (Color)	Colorless	Colorless
Appearance (Form)	Liquid	Liquid
UV Absorbance 400nm	≤ 0.01	< 0.01
UV Absorbance 280nm	≤ 0.01	< 0.01
UV Absorbance 260nm	≤ 0.04	0.01
UV Absorbance 240nm	≤ 0.10	0.03
UV Absorbance 235nm	≤ 0.10	0.05
UV Absorbance 230nm	≤ 0.20	0.08
UV Absorbance 220nm	≤ 0.30	0.16
UV Absorbance 210nm	≤ 0.60	0.35
UV Absorbance 205nm	≤ 1.00	0.64
Fluorescence 254nm	≤ 1.0 ppb	< 0.1 ppb
Fluorescence 365nm	≤ 1.0 ppb	< 0.1 ppb
Purity (GC)	≥ 99.90 %	100.00 %
Color Test	≤ 10 APHA	< 5 APHA
Water (by Karl Fischer)	≤ 0.03 %	< 0.01 %
Residue on Evaporation	≤ 0.0005 %	< 0.0001 %
Expiration Date Period		
1800 Days		

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.

Version Number: 1

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Date Received: 2017.04.05 - 4 x 4L - HPLC
Date Received: 2017.04.22 - 4 x 4L - HPLC
Date Received: 2017.04.27 - 8 x 4L - HPLC
Date Received: 2017.05.30 - 4 x 4L - HPLC Main Lab
Date Received: 2017.06.02 - 4 x 4L - HPLC Main Lab

REAGENT PREPARATION FORM

SOLUTION # 467 REPLACED SOLUTION # 429 REPLACED BY: 468 ANALYST CSZ 102
REAGENT NAME: 0.3% NH₄OH in MeOH TEST/ANALYSIS: PFCs DATE PREPARED: 2017/04/03 ^{RE}
EXPIRY DATE Daily SOLVENT USED: MeOH FINAL VOLUME 500 ml SUPPLIER Audrich OVEN NO. & TEMP -
FINAL CONC.: 0.3.99.7 DATE SOLVENT OPENED: See STORAGE: - BALANCE ID: - PIPET/SYRINGE ID: M15344

CHEMICAL NAME	VOLUME/WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
NH ₄ OH	1.5 ml	2015/07/17	2016/03/03	Fisher	146981	2020/03/31
MeOH	498.5 ml	2017/03/15	2017/03/27	Audrich	543149776	2022/02/28
		CSZ, 2017/04/03				

NOTES:

500 ml Class A vol. cylinder (3026)

SOLUTION # 468 REPLACED SOLUTION # 467 REPLACED BY: 50 ANALYSTS mmw
REAGENT NAME: 0.3% NH₄OH in MeOH TEST/ANALYSIS: PFCs DATE PREPARED: 2017/04/04
EXPIRY DATE Daily SOLVENT USED: MeOH FINAL VOLUME: 500 ml SUPPLIER Audrich OVEN NO. & TEMP -
FINAL CONC.: 0.3.99.7 DATE SOLVENT OPENED: See STORAGE: - BALANCE ID: - PIPET/SYRINGE ID: K39732 F

CHEMICAL NAME	VOLUME/WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
NH ₄ OH	1.5 ml	2015/07/17	2016/03/03	Fisher	146981	2020/03/31
MeOH	498.5 ml	2017/03/15	2017/02/03	Audrich	543149776	2022/02/28

NOTES:

500 ml class A vol. cylinder (3026)



1 Reagent Lane
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Certificate of Analysis

Fisher Scientific's Quality System has been found to conform to Quality Management System
Standard ISO 9001:2008 standard by SAI Global Certificate Number CERT - 0004970

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Catalog Number	A589	Quality Test / Release Date	3/5/2015
Lot Number	146881		
Description	AMMONIUM HYDROXIDE, CERTIFIED A.C.S. PLUS		
Country of Origin	United States	* Suggested Retest Date	Mar-2020
Chemical Origin	Inorganic-non animal		
BSE/TSE Comment	This product does not contain and is not manufactured with raw material ingredients derived from any animal products, including countries where Bovine Spongiform Encephalopathy (BSE) is known to exist.		
Chemical Comment	This product is free from genetically modified substances and is gluten free.		

Result name	Units	Specifications	Test Value
APPEARANCE		REPORT	CLEAR, COLORLESS LIQUID
ALUMINUM	ppm	≤ 0.3	0.001
ARSENIC AND ANTIMONY	ppm	≤ 0.05	<0.050
ASSAY	wt/wt %	Inclusive between 28.0 - 30.0	28.8
BORON (B)	ppm	≤ 0.1	0.001
CALCIUM (Ca)	ppm	≤ 0.3	0.001
CARBON DIOXIDE	%	≤ 0.002	<0.0020
CHLORIDE	ppm	≤ 0.6	<0.50
CHROMIUM (Cr)	ppm	≤ 0.2	0.001
COPPER (Cu)	ppm	≤ 0.1	0.001
GOLD (Au)	ppm	≤ 0.3	0.001
HEAVY METALS (as Pb)	ppm	≤ 0.5	<0.5
IDENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST
IRON (Fe)	ppm	≤ 0.1	0.001
LEAD (Pb)	ppm	≤ 0.2	0.001
MAGNESIUM (Mg)	ppm	≤ 0.3	0.001
MANGANESE (Mn)	ppm	≤ 0.2	0.001
NICKEL (Ni)	ppm	≤ 0.1	0.001
NITRATE (NO3)	ppm	≤ 2	<2.0
PHOSPHATE (PO4)	ppm	≤ 0.4	<0.40
POTASSIUM (K)	ppm	≤ 0.3	0.003
RESIDUE AFTER IGNITION	ppm	≤ 3	<3.00
SODIUM (Na)	ppm	= Report	0.004
SUBSTANCES REDUCING KMNO4	PASS/FAIL	= PASS TEST	PASS TEST
SULFATE (SO4)	ppm	≤ 2	<2.0
TIN (Sn)	ppm	≤ 0.3	0.001
TITANIUM (Ti)	ppm	≤ 0.3	0.001
ZINC (Zn)	ppm	≤ 0.3	0.001

HPV (CP4)
Received 2015/07/17
expiry 2020/03/31



Edgar E. Hane
Lab Manager BPF

Note: The data listed is valid for all package sizes of this lot of this product, expressed as a extension of this catalog number listed above. If there are any questions with this certificate, please call Chemical Services at (800) 327-5791.
*Based on suggested storage condition.

3050 Spruce Street, Saint Louis, MO 63103, USA

Website: www.sigmaaldrich.comEmail USA: techserv@sial.comOutside USA: eurotechserv@sial.com

Certificate of Analysis

Product Name:

Methanol - for HPLC, ≥99.9%

CH₃OH

Product Number:

34860

Batch Number:

SHBH7061

Brand:

SIGALD

CAS Number:

67-56-1

MDL Number:

MFCD00004595

Formula:

CH₄O

Formula Weight:

32.04 g/mol

Quality Release Date:

15 NOV 2016

Expiration Date:

OCT 2021

Received
2016-12-15
8x4L
P4 (HPLC)
shelf

Test	Specification	Result
Appearance (Color)	Colorless	Colorless
Appearance (Form)	Liquid	Liquid
UV Absorbance 400nm	≤ 0.01	< 0.01
UV Absorbance 280nm	≤ 0.01	< 0.01
UV Absorbance 260nm	≤ 0.04	< 0.01
UV Absorbance 240nm	≤ 0.10	0.03
UV Absorbance 235nm	≤ 0.10	0.05
UV Absorbance 230nm	≤ 0.20	0.07
UV Absorbance 220nm	≤ 0.30	0.15
UV Absorbance 210nm	≤ 0.80	0.35
UV Absorbance 205nm	≤ 1.00	0.70
Fluorescence 254nm	≤ 1.0 ppb	< 0.1 ppb
Fluorescence 365nm	≤ 1.0 ppb	< 0.1 ppb
Purity (GC)	≥ 99.90 %	100.00 %
Color Test	≤ 10 APHA	< 5 APHA
Water (by Karl Fischer)	≤ 0.03 %	< 0.01 %
Residue on Evaporation	≤ 0.0005 %	< 0.0001 %
Expiration Date Period		
1800 Days		

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.

Version Number: 1

Page 1 of 2

Date received: 2017/02/15 NTS - 8x4L (HPLC)

Date Received: 2017/01/05-EH1-4x4L-HPLC

Date Received 2017/01/19 -NTS 4 x 4L HPLC, JDA 8X41-LC group

Date Received: 2017.02.01 - 4 x 4L - HPLC Main Lab

Date Received: 2017.03.09 - 8 x 4L - HPLC

Date Received: 2017.03.15 - 4 x 4L - HPLC

Date Received: 2017.04.05 - 4 x 4L - HPLC

Date Received: 2017.04.07 - 4 x 4L - JDA

Date Received: 2017.05.03 - 4 x 4L -HPLC

Date Received: 2017.05.24 - 4 x 4L -HPLC

1479 of 2393

REAGENT PREPARATION FORM

SOLUTION # 101 REAGENT NAME: 50:50 MeOH:ACN
ANALYST: LZ DATE PREPARED: 2017/05/23 EXPIRY DATE: 2017/07/23
STORAGE: RT BALANCE ID: — PIPET/SYRINGE ID: —

CHEMICAL NAME	VOLUME/ WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
Methanol	510 mL	2017/05/22	2017/05/23	Sig-	51141476	2022/02/22
ACN	510 mL	2017/05/22	2017/05/23	Fluka	57167900	2018/05/11

NOTES:

SOLUTION # 102 REAGENT NAME: 0.5% Phosphoric Acid
ANALYST: LKH DATE PREPARED: 2017/05/23 EXPIRY DATE: 2017/08/23
STORAGE: shelf BALANCE ID: — PIPET/SYRINGE ID: #36

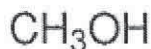
CHEMICAL NAME	VOLUME/ WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
o-Phosphoric Acid	5 mL	2015/08/04	2015/08/04	Fisher	714280	2020/08/04

NOTES:

Certificate of Analysis

Product Name:

Methanol - for HPLC, ≥99.9%



Product Number:

34860

Batch Number:

SHBH9776

Brand:

SIGALD

CAS Number:

67-56-1

MDL Number:

MFCD00004595

Formula:

CH₄O

Formula Weight:

32.04 g/mol

Quality Release Date:

28 FEB 2017

Expiration Date:

FEB 2022

received/mm
2017/02/15
8 x 4L - HPLC

Test	Specification	Result
Appearance (Color)	Colorless	Colorless
Appearance (Form)	Liquid	Liquid
UV Absorbance 400nm	≤ 0.01	< 0.01
UV Absorbance 280nm	≤ 0.01	< 0.01
UV Absorbance 260nm	≤ 0.04	0.01
UV Absorbance 240nm	≤ 0.10	0.03
UV Absorbance 235nm	≤ 0.10	0.05
UV Absorbance 230nm	≤ 0.20	0.08
UV Absorbance 220nm	≤ 0.30	0.16
UV Absorbance 210nm	≤ 0.60	0.35
UV Absorbance 205nm	≤ 1.00	0.64
Fluorescence 254nm	≤ 1.0 ppb	< 0.1 ppb
Fluorescence 365nm	≤ 1.0 ppb	< 0.1 ppb
Purity (GC)	≥ 99.90 %	100.00 %
Color Test	≤ 10 APHA	< 5 APHA
Water (by Karl Fischer)	≤ 0.03 %	< 0.01 %
Residue on Evaporation	≤ 0.0005 %	< 0.0001 %
Expiration Date Period	-----	-----
1800 Days		

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.

Version Number: 1

Page 1 of 2

Date Received: 2017.04.05 - 4 x 4L - HPLC
Date Received: 2017.04.22 - 4 x 4L - HPLC
Date Received: 2017.04.27 - 8 x 4L - HPLC
Date Received: 2017.05.30 - 4 x 4L - HPLC Main Lab
Date Received: 2017.06.02 - 4 x 4L - HPLC Main Lab

Honeywell

CERTIFICATE OF ANALYSIS

Honeywell Specialty Chemicals Seelze GmbH

Wunstorferstrasse 40

Seelze, 30926

Telefon: +49 5137 8238-0

www.lab-honeywell.com**Brand:**

Honeywell Riedel-de Haën™

Product:

34967

Lot No:

SZBG142CV

Production date:

21.May.2016

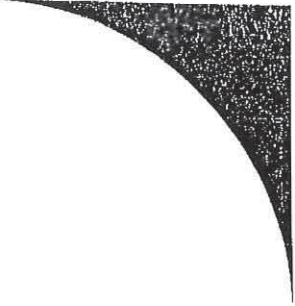
Best before:

11.May.2018

Acetonitrile LC-MS CHROMASOLV

*Received
on 10/04/26*

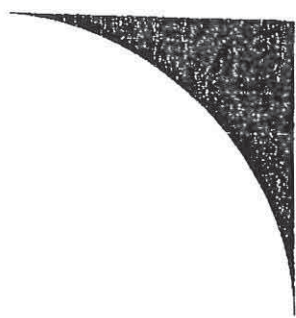
Parameter	Specification	Units	Result	Units
assay (GC)	min. 99.9	%	99.99	%
propionitrile (GC)	max. 0.2	%	<0.2	%
non-volatile matter	max. 0.0002	%	<0.0002	%
water (Karl Fischer)	max. 0.01	%	0.001	%
free acid (as CH ₃ COOH)	max. 0.001	%	0.0008	%
free alkali (as NH ₃)	max. 0.0001	%	<0.0001	%
silver (Ag)	max. 0.1	ppm	<0.1	ppm
aluminium (Al)	max. 0.5	ppm	<0.5	ppm
barium (Ba)	max. 0.1	ppm	<0.1	ppm
bismuth (Bi)	max. 0.1	ppm	<0.1	ppm
calcium (Ca)	max. 0.05	ppm	<0.05	ppm
cadmium (Cd)	max. 0.05	ppm	<0.05	ppm
cobalt (Co)	max. 0.02	ppm	<0.02	ppm
chromium (Cr)	max. 0.02	ppm	<0.02	ppm
copper (Cu)	max. 0.02	ppm	<0.02	ppm
iron (Fe)	max. 0.02	ppm	<0.02	ppm
potassium (K)	max. 0.05	ppm	<0.05	ppm
lithium (Li)	max. 0.1	ppm	<0.1	ppm
magnesium (Mg)	max. 0.1	ppm	<0.1	ppm
manganese (Mn)	max. 0.02	ppm	<0.02	ppm
molybdenum (Mo)	max. 0.1	ppm	<0.1	ppm
sodium (Na)	max. 0.05	ppm	<0.05	ppm
nickel (Ni)	max. 0.02	ppm	<0.02	ppm
lead (Pb)	max. 0.02	ppm	<0.02	ppm
tin (Sn)	max. 0.1	ppm	<0.1	ppm
strontium (Sr)	max. 0.1	ppm	<0.1	ppm



Honeywell

Acetonitrile LC-MS CHROMASOLV

Parameter	Specification	Units	Result	Units
zinc (Zn)	max. 0.1	ppm	<0.1	ppm
HPLC-gradient at 210 nm	max. 1	mAU	<1	mAU
HPLC-gradient at 254 nm	max. 0.2	mAU	<0.2	mAU
baseline drift at 210 nm	max. 12	mAU	<12	mAU
suitability for the LC-MS	complying		complying	
fluorescence (chinin) at 254 nm	max. 0.5	ppb	<0.5	ppb
fluorescence (chinin) at 365 nm	max. 0.5	ppb	<0.5	ppb
absorbance at 195 nm	max. 0.097		<0.097	
absorbance at 200 nm	max. 0.022		<0.022	
absorbance at 230 nm	max. 0.004		<0.004	



Honeywell

QC Release Date: 01.Jun.2016

The minimum shelf life is based on the current knowledge and holds only for proper storage conditions in the originally closed flasks/ packages.

We herewith confirm that the delivery is effected according to the technical delivery conditions agreed.

Particular properties of the products or the suitability for a particular area of application are not assured.

We guarantee a proper quality within our General Conditions of Sales.

Honeywell
Quality Management

This document was produced electronically and is valid without a signature

REAGENT PREPARATION FORM

SOLUTION # 106 REAGENT NAME: 20mM Ammonium Acetate
ANALYST: J DATE PREPARED: 2017/05/26 EXPIRY DATE: 2017/07/26
STORAGE: RT BALANCE ID: AB-02 PIPET/SYRINGE ID: -

CHEMICAL NAME	VOLUME/ WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
Ammonium Acetate	1.5404 g	2017/03/02	2017/03/03	Sigma	SLBP1688V	2017/09/30
Respi. H ₂ O	1L	-	-	in-house	-	-

NOTES:

SOLUTION # 107 REAGENT NAME: 20mM Ammonium Acetate
ANALYST: AD DATE PREPARED: 2017/05/26 EXPIRY DATE: 2017/07/26
STORAGE: RT BALANCE ID: AB-02 PIPET/SYRINGE ID: -

CHEMICAL NAME	VOLUME/ WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
Ammonium Acetate	6.1571 g	2017/03/02	2017/03/03	Sigma	SLBP1688V	2017/09/30
Water	4 L	2017/05/25	2017/05/26	Omniscience	56218	2017/05/31

NOTES:

3050 Spruce Street, Saint Louis, MO 63103, USA

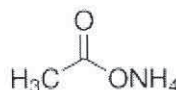
Website: www.sigmaaldrich.comEmail USA: techserv@sial.comOutside USA: eurtechserv@sial.com

Certificate of Analysis

Product Name:

Ammonium acetate - reagent grade, ≥98%

Product Number: A7262
Batch Number: SLBP1688V
Brand: SIAL
CAS Number: 631-61-8
MDL Number: MFCD00013066
Formula: C₂H₇NO₂
Formula Weight: 77.08 g/mol
Storage Temperature: Store at 2 - 8 °C
Quality Release Date: 03 SEP 2015
Recommended Retest Date: SEP 2017



Rec'd:
2/2017/03/02
1x 500g
Le group
Storage: FD

Test	Specification	Result
Appearance (Color)	White	White
Appearance (Form)	Powder	Powder
Solubility (Color)	Colorless	Colorless
Solubility (Turbidity)	Clear	Clear
1 g/ml, H ₂ O		
Titration with NaOH	≥ 98 %	99 %



Rodney Burbach, Manager
Analytical Services
St. Louis, Missouri US

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.

Certificate of Analysis



Date of Release: 8/4/2016
 Name: Water
 OmniSolv®, For LC/MS
 Item No: WX0001 all size codes
 Lot / Batch No: 5621B
 Country of Origin: USA

Characteristic	Requirement		Results	Units
	Min.	Max.		
Expiration date			31-AUG-2017	
Evaporation residue		1	<0.1	ppm
Filtered through 0.2 µm filter			Passes test	
Fluorescence as quinine at 254 nm		1	< 1	ppb
Fluorescence as quinine at 365 nm		1	< 1	ppb
Gradient at 210 nm		2	0.10	mAU
Gradient at 254 nm		0.5	0.07	mAU
LC/MS Purity (p-nitrophenol)		50	<50	ppb
LC/MS Purity (reserpine)		50	<50	ppb
Metals, suitable for LC/MS			Conforms	
UV Abs. at 200 nm		0.01	< 0.001	AU
UV Abs. at 210 nm		0.01	< 0.001	AU
UV Abs. at 220 nm		0.01	< 0.001	AU
UV Abs. at 230 nm		0.01	< 0.001	AU
UV Abs. at 240 nm		0.01	< 0.001	AU
UV Abs. at 250 nm		0.005	< 0.001	AU
UV Abs. at 270 nm		0.005	< 0.001	AU
UV Abs. at 400-280 nm		0.005	< 0.001	AU
UV Cut-off		190	<190	nm

Gene Dosotoffo

Quality Control Manager

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EMD Millipore is a division of Merck KGaA, Darmstadt, Germany
 EMD Millipore Corporation
 290 Concord Road
 Billerica, MA 01821
 U.S.A

Received: GSZ

2017/01/19

4x4L

2017/02/08

3x4L mm

1/1

Date Received: 2016.12.01 - 4 bottles - P12
 Date Received: 2017/01/19 - 4 bottles - JDA
 Date Received: 2017.03.24 - 4 bottles - Main Lab-MG
 Date Received: 2017.05.10 - 4 bottles - HPLC

Date Received: 2017.05.16 - 4 bottles - HPLC
 Date Received: 2017.05.24 - 4 bottles - HPLC
 Received 2017/05/25 8 bottles-HPLC
 Date Received: 2017/05/29-JDA-1x4L
 Date Received: 2017.06.06 - 8 bottles -HPLC

REAGENT PREPARATION FORM

SOLUTION # 112 REAGENT NAME: 20 mM Ammonium Acetate
ANALYST: 12 DATE PREPARED: 2017/06/07 EXPIRY DATE: 2017/08/07
STORAGE: RT BALANCE ID: SN: B510684202 PIPET/SYRINGE ID: -

CHEMICAL NAME	VOLUME/ WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
Ammonium Acetate	6.18g	2017/05/19	2017/06/07	Omniscience	56218	2017/08/31
LC-MS grade water	4L	2017/03/02	2017/03/02	Sigma	SLBP107V	2017/03/30

NOTES:

SOLUTION # 113 REAGENT NAME: 0.3% Ammonium hydroxide in Methanol
ANALYST: DM2 DATE PREPARED: 2017/06/08 EXPIRY DATE: 2018/06/08
STORAGE: RT BALANCE ID: - PIPET/SYRINGE ID: FEP-70

CHEMICAL NAME	VOLUME/ WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
Ammonium hydroxide	300 mL/ 0.3 mL	2015/01/21	2015/10/16	Fischer	143130	2019/09/30
methanol	99.7 mL	2017/05/19	2017/06/08	Fischer	168335	2021/12/31

NOTES:

Certificate of Analysis

Product Name

Ammonium acetate - reagent grade, 99.9%

Product Number

A7282

Batch Number

SLBP1688V

Brand

SIAL

CAS Number

631-91-8

MOL Number

MFCD000013086

Formula

C2H7NO2

Formula Weight

77.06 g/mol

Storage Temperature

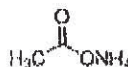
Stable at 2 - 8 °C

Quality Release Date

03 SEP 2015

Recommended Retest Date

SEP 2017



Reid:
7/20/13/02
1x 500g
La Grange
Storage - F10

Test	Specification	Result
Appearance (Color)	White	White
Appearance (Form)	Powder	Powder
Solubility (Color)	Colorless	Colorless
Solubility (Turbidity)	Clear	Clear
1 g/mL, H ₂ O		
Titration with NaOH	> 98 %	99 %



Rodney Burman, Manager
Analytical Services
St. Louis, Missouri, US

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest data this product conformed to the information contained in this publication. The current Specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of this product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.

Version Number 1

Page 1 of 1

Certificate of Analysis



Date of Release: 8/4/2016
 Name: Water
 OmniSolv®, For LC/MS
 Item No: WX0001 all size casks
 Lot / Batch No: 5621B
 Country of Origin: USA

Characteristic	Requirement		Results	Units
	Min.	Max.		
Expiration date			31-AUG-2017	
Evaporation residue		1	<0.1	ppm
Filtered through 0.2 µm filter			Passes test	
Fluorescence as quinine at 254 nm		1	< 1	ppb
Fluorescence as quinine at 365 nm		1	< 1	ppb
Gradient at 210 nm		2	0.10	mAU
Gradient at 254 nm		0.5	0.07	mAU
LC/MS Purity (p-nitrophenol)		50	<50	ppb
LC/MS Purity (rosenmund)		50	<50	ppb
Metals, suitable for LC/MS			Conforms	
UV Abs. at 200 nm		0.01	< 0.001	AU
UV Abs. at 210 nm		0.01	< 0.001	AU
UV Abs. at 220 nm		0.01	< 0.001	AU
UV Abs. at 230 nm		0.01	< 0.001	AU
UV Abs. at 240 nm		0.01	< 0.001	AU
UV Abs. at 250 nm		0.005	< 0.001	AU
UV Abs. at 270 nm		0.005	< 0.001	AU
UV Abs. at 400-280 nm		0.005	< 0.001	AU
UV Cut-off		190	<190	nm

Gene Discoloration

Quality Control Manager

This document has been produced electronically and is valid without a signature.

EMD Millipore is a division of Merck KGaA, Darmstadt, Germany
 EMD Millipore Corporation
 280 Concord Road
 Billerica, MA 01821
 U.S.A.

Received: 652

2017/01/19

4x4L

2017/02/08

3x4L mmp

Date Received: 2016.12.01 - 4 bottles - P12
 Date Received: 2017/01/19 - 4 bottles - JDA
 Date Received: 2017.03.24 - 4 bottles - Main Lab-MG
 Date Received: 2017.05.10 - 4 bottles - HPLC
 Date Received: 2017.05.16 - 4 bottles - HPLC
 Date Received: 2017.05.24 - 4 bottles - HPLC
 Received 2017/05/25 8 bottles-HPLC
 Date Received: 2017/05/29-JDA-1x4L
 Date Received: 2017/05/31-JDA-4x4L
 Date Received: 2017.06.06 - 8 bottles -HPLC

REAGENT PREPARATION FORM

SOLUTION # 83 REAGENT NAME: (50:50) MeOH/ACN
ANALYST: AD DATE PREPARED: 2017/04/26 EXPIRY DATE: 2017/06/26
STORAGE: RT BALANCE ID: — PIPET/SYRINGE ID: —

CHEMICAL NAME	VOLUME/ WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
Methanol	500 ml	2017/04/07	2017/04/26	Sigma	SHBH7061	2017/10/31
Acetonitrile	500 ml	2017/04/26	2017/04/26	Fluka	SZB6142CV	2018/05/11
AD 2017/06/26						

NOTES:

SOLUTION # 84 REAGENT NAME: 0.2% Formic Acid
ANALYST: j DATE PREPARED: 2017/05/01 EXPIRY DATE: 2017/07/01
STORAGE: RT BALANCE ID: — PIPET/SYRINGE ID: FE-P-68

CHEMICAL NAME	VOLUME/ WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
ROD: H ₂ O	998 ml	—	—	in-house	—	—
Formic Acid	2 ml	2016/11/22	2016/12/19	Sigma	SHBH4976U	2017/09/30
j 2017/05/01						

NOTES:

Certificate of Analysis

Product Name:

Methanol - for HPLC, ≥99.9%

CH₃OH

Product Number:

34860

Batch Number:

SHB17061

Brand:

SIGALD

CAS Number:

67-58-1

MDL Number:

MFCD00004695

Formula:

CH₄O

Formula Weight:

32.04 g/mol

Quality Release Date:

15 NOV 2016

Expiration Date:

OCT 2021

Received
2016-12-15
8x4L
P4 (HPLC)
shelf

Test	Specification	Result
Appearance (Color)	Colorless	Colorless
Appearance (Form)	Liquid	Liquid
UV Absorbance 400nm	< 0.01	< 0.01
UV Absorbance 380nm	< 0.01	< 0.01
UV Absorbance 360nm	< 0.04	< 0.01
UV Absorbance 340nm	< 0.10	0.03
UV Absorbance 325nm	< 0.10	0.05
UV Absorbance 300nm	< 0.20	0.07
UV Absorbance 280nm	< 0.30	0.16
UV Absorbance 260nm	< 0.60	0.35
UV Absorbance 255nm	< 1.00	0.70
Fluorescence 284nm	< 1.0 ppb	< 0.1 ppb
Fluorescence 365nm	< 1.0 ppb	< 0.1 ppb
Purity (GC)	≥ 99.90 %	100.00 %
Color Test	< 10 APHA	< 6 APHA
Water (by Karl Fischer)	< 0.03 %	< 0.01 %
Residue on Evaporation	< 0.0005 %	< 0.0001 %
Expiration Date Period		
1800 Days		

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.

Version Number: 1

Page 1 of 2

Date received: 2017/02/15 NTS - 8x4L (HPLC)

Date Received: 2017/01/05-EH1-4x4L-HPLC

Date Received 2017/01/19 -NTS 4 x 4L HPLC, JDA 8X4L-LC group

Date Received: 2017.02.01 - 4 x 4L - HPLC Main Lab

Date Received: 2017.03.09 - 8 x 4L - HPLC

Date Received: 2017.04.05 - 4 x 4L - HPLC

Date Received: 2017.04.07 - 4 x 4L - JDA

Date Received: 2017.05.03 - 4 x 4L -HPLC

Honeywell

CERTIFICATE OF ANALYSIS

Honeywell Specialty Chemicals Seelze GmbH

Wunstorferstrasse 40
Seelze, 30926
Telefon: +49 5137 8238-0
www.lab-honeywell.com

Brand: Honeywell Riedel-de Haën™
Product: 34967
Lot No: SZBG142CV
Production date: 21.May.2016
Best before: 11.May.2018

Acetonitrile LC-MS CHROMASOLV

*Received
on 10/10/26*

Parameter	Specification	Units	Result	Units
assay (GC)	min. 99.9	%	99.99	%
propionitrile (GC)	max. 0.2	%	<0.2	%
non-volatile matter	max. 0.0002	%	<0.0002	%
water (Karl Fischer)	max. 0.01	%	0.001	%
free acid (as CH ₃ COOH)	max. 0.001	%	0.0008	%
free alkali (as NH ₃)	max. 0.0001	%	<0.0001	%
silver (Ag)	max. 0.1	ppm	<0.1	ppm
aluminium (Al)	max. 0.5	ppm	<0.5	ppm
barium (Ba)	max. 0.1	ppm	<0.1	ppm
bismuth (Bi)	max. 0.1	ppm	<0.1	ppm
calcium (Ca)	max. 0.05	ppm	<0.05	ppm
cadmium (Cd)	max. 0.05	ppm	<0.05	ppm
cobalt (Co)	max. 0.02	ppm	<0.02	ppm
chromium (Cr)	max. 0.02	ppm	<0.02	ppm
copper (Cu)	max. 0.02	ppm	<0.02	ppm
iron (Fe)	max. 0.02	ppm	<0.02	ppm
potassium (K)	max. 0.05	ppm	<0.05	ppm
lithium (Li)	max. 0.1	ppm	<0.1	ppm
magnesium (Mg)	max. 0.1	ppm	<0.1	ppm
manganese (Mn)	max. 0.02	ppm	<0.02	ppm
molybdenum (Mo)	max. 0.1	ppm	<0.1	ppm
sodium (Na)	max. 0.05	ppm	<0.05	ppm
nickel (Ni)	max. 0.02	ppm	<0.02	ppm
lead (Pb)	max. 0.02	ppm	<0.02	ppm
tin (Sn)	max. 0.1	ppm	<0.1	ppm
strontium (Sr)	max. 0.1	ppm	<0.1	ppm

The Honeywell logo is displayed in a bold, sans-serif font. In the top right corner of the page, there is a dark, curved, textured shape that partially obscures the background.

Acetonitrile LC-MS CHROMASOLV

Parameter	Specification	Units	Result	Units
zinc (Zn)	max. 0.1	ppm	<0.1	ppm
HPLC-gradient at 210 nm	max. 1	mAU	<1	mAU
HPLC-gradient at 254 nm	max. 0.2	mAU	<0.2	mAU
baseline drift at 210 nm	max. 12	mAU	<12	mAU
suitability for the LC-MS	complying		complying	
fluorescence (chinin) at 254 nm	max. 0.5	ppb	<0.5	ppb
fluorescence (chinin) at 365 nm	max. 0.5	ppb	<0.5	ppb
absorbance at 195 nm	max. 0.097		<0.097	
absorbance at 200 nm	max. 0.022		<0.022	
absorbance at 230 nm	max. 0.004		<0.004	

Honeywell

QC Release Date: 01.Jun.2016

The minimum shelf life is based on the current knowledge and holds only for proper storage conditions in the originally closed flasks/ packages.

We herewith confirm that the delivery is effected according to the technical delivery conditions agreed.

Particular properties of the products or the suitability for a particular area of application are not assured.

We guarantee a proper quality within our General Conditions of Sales.

Honeywell

Quality Management

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REAGENT PREPARATION FORM

SOLUTION # 93 REAGENT NAME: 20 mM Ammonium Acetate
 ANALYST: 82 DATE PREPARED: 2017/05/17 EXPIRY DATE: 2017/07/17
 STORAGE: RT BALANCE ID: M 52025 SNB510 684206 PIPET/SYRINGE ID: —

CHEMICAL NAME	VOLUME/ WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
Ammonium Acetate	3.02g	2017/03/02	2017/03/03	Sigma	SLBP1688	2017/03/30
LC-MS grade Water	2L	2017/03/24	2017/04/08	Omniscience	56218	2017/08/31

NOTES:

SOLUTION # 94 REAGENT NAME: (80/20) MeOH / 1% Acetic Acid
 ANALYST: 7 DATE PREPARED: 2017/05/18 EXPIRY DATE: 2017/07/18
 STORAGE: RT BALANCE ID: — PIPET/SYRINGE ID: FE P-68

CHEMICAL NAME	VOLUME/ WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
Methanol	1.6L	2017/04/20	2017/05/18	Fisher	166802	2017/09/30
Acetic Acid glacial	4ml	2013/03/14	2013/07/24	Fisher	512334	2018/01/02
Propylpro	396ml	—	—	in-house	—	—

NOTES:

Certificate of Analysis



Date of Release: 8/4/2016
 Name: Water
 OmniSolv®, For LC/MS
 Item No: WX0001 all size codes
 Lot / Batch No: 56218
 Country of Origin: USA

Characteristic	Requirement		Results	Units
	Min.	Max.		
#Expiration date			31-AUG-2017	
Evaporation residue		1	<0.1	ppm
Filtered through 0.2 µm filter			Passes test	
Fluorescence as quinine at 254 nm		1	< 1	ppb
Fluorescence as quinine at 365 nm		1	< 1	ppb
Gradient at 210 nm		2	0.10	mAU
Gradient at 254 nm		0.5	0.07	mAU
LC/MS Purity (p-nitrophenol)		50	<50	ppb
LC/MS Purity (reserpine)		50	<50	ppb
Metals, suitable for LC/MS			Conforms	
UV Abs. at 200 nm		0.01	< 0.001	AU
UV Abs. at 210 nm		0.01	< 0.001	AU
UV Abs. at 220 nm		0.01	< 0.001	AU
UV Abs. at 230 nm		0.01	< 0.001	AU
UV Abs. at 240 nm		0.01	< 0.001	AU
UV Abs. at 250 nm		0.005	< 0.001	AU
UV Abs. at 270 nm		0.005	< 0.001	AU
UV Abs. at 400-280 nm		0.005	< 0.001	AU
UV Cut-off		190	<190	nm

Gene Dosette

Quality Control Manager

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EMD Millipore is a division of Merck KGaA, Darmstadt, Germany
 EMD Millipore Corporation
 290 Concord Road
 Billerica, MA 01821
 U.S.A

Received: 65Z

2017/01/19

4x4L

2017/02/08

3x4L mm

1/1

Date Received: 2016.12.01 - 4 bottles - P12
 Date Received: 2017/01/19 - 4 bottles - JDA
 Date Received: 2017.03.24 - 4 bottles - Main Lab-MG
 Date Received: 2017.05.10 - 4 bottles - HPLC
 Date Received: 2017.05.16 - 4 bottles - HPLC
 Date Received: 2017.05.24 - 4 bottles - HPLC
 Received 2017/05/25 8 bottles-HPLC
 Date Received: 2017/05/29-JDA-1x4L
 Date Received: 2017.06.06 - 8 bottles -HPLC

3050 Spruce Street, Saint Louis, MO 63103, USA

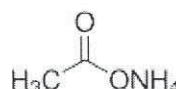
Website: www.sigmaaldrich.comEmail USA: techserv@sial.comOutside USA: eurtechserv@sial.com

Certificate of Analysis

Product Name:

Ammonium acetate - reagent grade, ≥98%

Product Number: A7262
Batch Number: SLBP1688V
Brand: SIAL
CAS Number: 631-61-8
MDL Number: MFCD00013066
Formula: C₂H₇NO₂
Formula Weight: 77.08 g/mol
Storage Temperature: Store at 2 - 8 °C
Quality Release Date: 03 SEP 2015
Recommended Retest Date: SEP 2017



Rid:
22017/03/02
1x 500g
Le group
Storage: FD

Test	Specification	Result
Appearance (Color)	White	White
Appearance (Form)	Powder	Powder
Solubility (Color)	Colorless	Colorless
Solubility (Turbidity)	Clear	Clear
1 g/ml, H ₂ O		
Titration with NaOH	≥ 98 %	99 %



Rodney Burbach, Manager
Analytical Services
St. Louis, Missouri US

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.

Certificate of Analysis



Date of Release: 8/4/2016
 Name: Water
 OmniSolv®, For LC/MS
 Item No: WX0001 all size codes
 Lot / Batch No: 56218
 Country of Origin: USA

Characteristic	Requirement		Results	Units
	Min.	Max.		
#Expiration date			31-AUG-2017	
Evaporation residue		1	<0.1	ppm
Filtered through 0.2 µm filter			Passes test	
Fluorescence as quinine at 254 nm		1	< 1	ppb
Fluorescence as quinine at 365 nm		1	< 1	ppb
Gradient at 210 nm		2	0.10	mAU
Gradient at 254 nm		0.5	0.07	mAU
LC/MS Purity (p-nitrophenol)		50	<50	ppb
LC/MS Purity (reserpine)		50	<50	ppb
Metals, suitable for LC/MS			Conforms	
UV Abs. at 200 nm		0.01	< 0.001	AU
UV Abs. at 210 nm		0.01	< 0.001	AU
UV Abs. at 220 nm		0.01	< 0.001	AU
UV Abs. at 230 nm		0.01	< 0.001	AU
UV Abs. at 240 nm		0.01	< 0.001	AU
UV Abs. at 250 nm		0.005	< 0.001	AU
UV Abs. at 270 nm		0.005	< 0.001	AU
UV Abs. at 400-280 nm		0.005	< 0.001	AU
UV Cut-off		190	<190	nm

Geno Dosolite

Quality Control Manager

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EMD Millipore is a division of Merck KGaA, Darmstadt, Germany
 EMD Millipore Corporation
 290 Concord Road
 Billerica, MA 01821
 U.S.A

Received: 652

2017/01/19

4x4L

2017/02/08

3x4L mmr

1/1

Date Received: 2016.12.01 - 4 bottles - P12
 Date Received: 2017/01/19 - 4 bottles - JDA
 Date Received: 2017.03.24 - 4 bottles - Main Lab-MG
 Date Received: 2017.05.10 - 4 bottles - HPLC
 Date Received: 2017.05.16 - 4 bottles - HPLC
 Date Received: 2017.05.24 - 4 bottles - HPLC
 Received 2017/05/25 8 bottles-HPLC
 Date Received: 2017/05/29-JDA-1x4L
 Date Received: 2017.06.06 - 8 bottles -HPLC

PREPARATION OF STANDARDS OF INTERMEDIARY CONCENTRATION

PRLST 126 PG. 232

Solution No.: I 4990 Date: 2017/02/04 Expiry Date: 2018/02/04 Discard Date: _____
Replaces Solution No.: I 4972 Replaced by Solution: _____ Chemist: mmw
Compound(s)/Solution Name: Comp. PFC working solution A
Number of Parent Solution(s): see attached sheet
Concentration of Parent Solution(s): see attached sheet (mg. ug)/mL
Aliquot of Parent Solution(s): see attached sheet mL / uL
Pipette/Syringe ID: P31477F
Dilution Solvent: 0.3% pH/10H in methanol Dilution Volume: 25 mL
Final Concentration(s): 1 (mg. ug)/mL
Solution derivatized (as methyl ester): _____ As Other (specify): _____
Solution Contains Surrogate Compounds: _____ For mix refer to table on page: _____
Solution used for: PFC Volumetric Flask: 25 mL class. At 5040
(Identify by serial number or other unique ID)
Solvent Supplier: ADRICH Lot No.: no PFC-92-968
Date Opened: 5-2 PFC-92-968
Storage Location: P2-11 One time Use, Not Stored: _____
Ampule Supplier: Wellington Date Opened: see below
Mix Name: _____
Catalogue No.: _____ Ampule expiry Date: see attached sheet
Lot No.: see attached sheet
Date Received: see attached sheet

I 4990 (PRLST 126 p. 232)

Compound Name	ID#	Conc. (ug/mL)	Vol., of Stock standard (uL)	Final Conc. (ug/mL)	Exp. date
PFBA	S4095-1	50	500	1	2021/05/27
L-PFBS	S4068-1	44.2	565	1	2021/03/15
PFPeA	S4095-2	50	500	1	2021/05/31
PFHxA	S4068-2	50	500	1	2020/12/22
br-PFHxSk	S4068-3	45.5	528	1	2020/07/03
PFHpA	S4068-4	50	500	1	2021/12/02
L-PFHpS	S4095-3	47.6	525	1	2021/10/18
PFOA	S4068-5	50	500	1	2021/08/02
brPFOSK	S4068-6	46.4	540	1	2020/10/14
PFNA	S4068-7	50	500	1	2020/09/30
PFDA	S4068-8	50	500	1	2021/05/31
L-PFDS	S4095-4	48.2	518	1	2021/05/24
PFuDA	S4068-9	50	500	1	2021/10/18
PFDoA	S4068-10	50	500	1	2021/05/31
PFTTrDA	S4068-11	50	500	1	2021/02/12
PFTeDA	S4068-12	50	500	1	2021/09/30
PFOSA (FOSA-I)	S4126	50	500	1	2021/09/30
N-MeFOSA-M	S4095-5	50	500	1	2021/05/24
N-EtFOSA-M	S4095-6	50	500	1	2021/05/24
N-MeFOSE-M	S4095-7	50	500	1	2020/11/10
N-EtFOSE-M	S4095-8	50	500	1	2020/11/10
N-MeFOSAA	S4068-13	50	500	1	2021/10/12
N-EtFOSAA	S4068-14	50	500	1	2021/09/30
6:2FTS	S4095-9	47.4	528	1	2021/06/25
8:2FTS	S4095-10	47.9	522	1	2021/08/22

Maxxam Analytics on bottom page.

2017 10/10/1500 of 2393

PRLST 133 PG 48

PREPARATION OF CONCENTRATED STOCK STANDARDS

Solution No.: 54095 Date: 2017/03/07 Expiry Date: _____ Discard Date: _____
Replaces Solution: _____ Replaced by Solution: _____ Chemist: mmw

1225 133 P 48 (54095)

Solution ID#	Compound Name	Lot#	Received date	Exp. date	Replaces Solution	Replaced by Solution	Conc. (ug/mL)	Solvent	Storage
S4095-1	PFBA	PFBA0516	2016/12/23	2021/05/27	S4048-1		50	MeOH	FZ-11
S4095-2	PFPeA	PFPeA0516	2016/12/23	2021/05/31	S4048-3		50	MeOH	FZ-11
S4095-3	L-PFHpS	LPFHpS1016	2016/12/23	2021/10/18	S4048-6		47.6	MeOH	FZ-11
S4095-4	L-PFDS	LPFDS0516	2016/12/23	2021/05/24	S4048-10		48.2	MeOH	FZ-11
S4095-5	N-MeFOSA-M	NMeFOSA0516M	2016/12/23	2021/05/24	S4048-16		50	MeOH	FZ-11
S4095-6	N-EtFOSA-M	NEtFOSA0516M	2016/12/23	2021/05/24	S4048-17		50	MeOH	FZ-11
S4095-7	N-MeFOSE-M	NMeFOSE1115M	2016/12/23	2020/11/10	S4048-18		50	MeOH	FZ-11
S4095-8	N-EtFOSE-M	NEtFOSE1115M	2016/12/23	2020/11/10	S4048-19		50	MeOH	FZ-11
S4095-9	6:2FTS	62FTS0616	2016/12/23	2021/06/25	S4048-22		47.4	MeOH	FD-59
S4095-10	8:2FTS	82FTS0816	2016/12/23	2021/08/22	S4048-23		47.9	MeOH	FD-59
Date opened (All compounds): 2017/03/07			Supplier (All compounds) : Wellington			Chemist: mmw			
Note: All compounds were received as a solution in ampoule.									

no writing on bottom page

mmw 2017/03/07

Solution No.: 54096 Date: 2017/03/08 Expiry Date: 2021/09/30 Discard Date: _____
Replaces Solution: 54048-15 Replaced by Solution: 54126 Chemist: mmw

Compound: FOXA -I Purity: _____

Date Received: 2016/12/23 Expiry Date: 2021/09/30 Lot No.: FOXA 0916 I

Supplier: Wellington

Date Opened: 2017/03/08

Final Gross Weight: _____ g/mg Dilution Volume: _____ mL

Tare Weight*: _____ g/mg Volumetric Flask: _____

Net Weight: _____ g/mg Concentration: 50 ug/mL

Adjusted Net Weight**: _____ mg Solvent(s): IPA

Balance Used: _____

(specify model and serial no.)

Solvent Used: _____

Solvent Supplier: _____ Lot No(s): _____

Date Opened: _____

Storage Location / Conditions: FD-59

Notes/Comments

Maxxam Analytics

received as a solution in ampoule.

mmw 2017/03/08 1501 of 2393

PRLST PG 64

PREPARATION OF CONCENTRATED STOCK STANDARDS

Solution No.: 54127 Date: 2017/04/04 Expiry Date: 2021/12/02 Discard Date: _____
Replaces Solution: 94008-1 Replaced by Solution: _____ Chemist: mw
Compound: L-PFBS Purity: _____
Date Received: 2017/03/10 Expiry Date: 2021/12/02 Lot No.: L-PFBS1116
Supplier: Wellington
Date Opened: 2017/04/04
Final Gross Weight: _____ g/mg Dilution Volume: _____ mL
Tare Weight*: _____ g/mg Volumetric Flask: _____
Net Weight: _____ g/mg Concentration: 44.2 (ug/mL) mg/mL
Adjusted Net Weight**: _____ mg Solvent(s): MeOH
Balance Used: _____
(specify model and serial no.)

Solvent Used: _____
Solvent Supplier: _____ Lot No(s): _____
Date Opened: _____
Storage Location / Conditions: F2-11

Notes/Comments

Received as a solution in ampule.

Solution No.: 54128 Date: 2017/04/06 Expiry Date: 2021/12/12 Discard Date: _____
Replaces Solution: _____ Replaced by Solution: _____ Chemist: N
Compound: MPFCS Purity: _____
Date Received: 2017/04/07 Expiry Date: 2021/12/12 Lot No.: MPFCS1216
Supplier: Wellington
Date Opened: 2017/04/06
Final Gross Weight: _____ g/mg Dilution Volume: _____ mL
Tare Weight*: _____ g/mg Volumetric Flask: _____
Net Weight: _____ g/mg Concentration: 50 ug/mL
Adjusted Net Weight**: _____ mg Solvent(s): MeOH
Balance Used: _____
(specify model and serial no.)

Solvent Used: _____
Solvent Supplier: _____ Lot No(s): _____
Date Opened: _____
Storage Location / Conditions: F2-11

Notes/Comments

Maxxam Analytics

Received as a solution in ampule

N 2017/04/06

PREPARATION OF CONCENTRATED STOCK STANDARDS

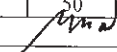
Solution No.: S4068 Date: 2017/01/18 Expiry Date: _____ Discard Date: _____
 Replaces Solution: - Replaced by Solution: _____ Chemist: mmw

S4068 (MLST 133 p.34)

Solution ID#	Compound Name	Lot#	Received date	Exp. date	Replaces Solution	Replaced by Solution	Conc. (ug/mL)	Solvent	Storage
S4068-1	L-PFBS	LPFBS0316	2016/12/16	2021/03/15	-		44.2	MeOH	FZ-11
S4068-2	PFHxA	PFHxA1215	2016/12/16	2020/12/22	-		50	MeOH	FZ-11
S4068-3	br-PFHxSk	brPFHxSK0615	2016/12/16	2020/07/03	-		45.5	MeOH	FZ-11
S4068-4	PFHpA	PFHpA1216	2016/12/16	2021/12/02	-		50	MeOH	FZ-11
S4068-5	PFOA	PFOA0716	2016/12/16	2021/08/02	-		50	MeOH	FZ-11
S4068-6	brPFOSK	brPFOSK1015	2016/12/16	2020/10/14	-		46.4	MeOH	FZ-11
S4068-7	PFNA	PFNA0916	2016/12/16	2021/09/30	-		50	MeOH	FZ-11
S4068-8	PFDA	PFDA0516	2016/12/16	2021/05/31	-		50	MeOH	FZ-11
S4068-9	PFuDA	PFuDA1016	2016/12/16	2021/10/18	-		50	MeOH	FZ-11
S4068-10	PFDaA	PFDaA0516	2016/12/16	2021/05/31	-		50	MeOH	FZ-11
S4068-11	PFTrDA	PFTrDA0216	2016/12/16	2021/02/12	-		50	MeOH	FZ-11
S4068-12	PFTeDA	PFTeDA0916	2016/12/16	2021/09/30	-		50	MeOH	FZ-11
S4068-13	N-MeFOSAA	NMeFOSAA0916	2016/12/16	2021/10/12	-		50	MeOH	FD-59
S4068-14	N-EtFOSAA	NEtFOSAA0916	2016/12/16	2021/09/30	-		50	MeOH	FD-59
Date opened (All compounds): 2017/01/18			Supplier (All compounds) : Wellington			Chemist: [Signature]			
* All compounds were received as a solution in ampule									

No writing on bottom page.

Solution No.: S4069 Date: 2017/01/18 Expiry Date: _____ Discard Date: _____
 Replaces Solution: - Replaced by Solution: _____ Chemist: mmw

Solution ID#	Compound Name	Lot#	Received date	Exp. date	Replaces Solution	Replaced by Solution	Conc (ug/mL)	Solvent	Storage
S4069-1	MPFHxA	MPFHxA0416	2016/12/12	2021/04/08			50	MeOH	FZ-11
S4069-2	MPFOA	MPFOA1016	2016/12/12	2021/10/18			50	MeOH	FZ-11
S4069-3	MPFOS	MPFOS0816	2016/12/12	2021/08/03			50	MeOH	FZ-11
S4069-4	MPFDA	MPFDA0916	2016/12/12	2021/09/30			50	MeOH	FZ-11
S4069-5	D3-N-MeFOSAA	d3nMeFOSAA0516	2016/12/12	2021/05/31			50	MeOH	FD-59
S4069-6	D5-N-EtFOSAA	d5NEtFOSAA1116	2016/12/16	2021/11/22			50	MeOH	FD-59
Date opened (All compounds):			2017/01/18			Supplier (All compounds) : Wellington		Chemist: 	
* All compounds were received as a solution in ampule									

No writing on bottom page.

Storage Location / Conditions: _____

Notes/Comments

PRLST 133 PG 63

PREPARATION OF CONCENTRATED STOCK STANDARDS

Solution No.: S-4125 Date: 2017/04/03 Expiry Date: 2021/09/30 Discard Date: _____
Replaces Solution: S-3959 Replaced by Solution: _____ Chemist: CSZ
Compound: PFOSA (FOSA-1) Purity: _____
Date Received: 2016/12/19 Expiry Date: 2021/09/30 Lot No.: FOSA 09161
Supplier: Willington
Date Opened: 2017/04/03
Final Gross Weight: _____ g/mg Dilution Volume: _____ mL
Tare Weight*: _____ g/mg Volumetric Flask: _____
Net Weight: _____ g/mg Concentration: 50 ug/mL, mg/mL
Adjusted Net Weight**: _____ mg Solvent(s): IPA
Balance Used: _____
(specify model and serial no.) _____

Solvent Used: _____
Solvent Supplier: _____ Lot No(s): _____
Date Opened: _____
Storage Location / Conditions: FD 59

Notes/Comments

Received as solution in ampule.

Solution No.: S4126 Date: 2017/04/04 Expiry Date: 2021/09/30 Discard Date: _____
Replaces Solution: S 4096 Replaced by Solution: _____ Chemist: MW
Compound: mp 2017/04/04 FOSA-I Purity: _____
Date Received: 2017/04/02 Expiry Date: 2021/09/30 Lot No.: FOSA 09162
Supplier: 02122 Willington
Date Opened: 2017/04/04
Final Gross Weight: _____ g/mg Dilution Volume: _____ mL
Tare Weight*: _____ g/mg Volumetric Flask: _____
Net Weight: _____ g/mg Concentration: 50 ug/mL
Adjusted Net Weight**: _____ mg Solvent(s): IPA
Balance Used: _____
(specify model and serial no.) _____

Solvent Used: _____
Solvent Supplier: _____ Lot No(s): _____
Date Opened: _____
Storage Location / Conditions: FD 59

Notes/Comments

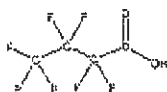
Received as a solution in ampule.



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: PFBA
COMPOUND: Perfluoro-n-butyric acid
LQI NUMBER: PFBA0616
STRUCTURE:
GAS #: 575-22-4



MOLECULAR FORMULA: $C_4H_5F_9O_2$
CONCENTRATION: $50 \pm 2.5 \mu\text{g/ml}$
MOLECULAR WEIGHT: 214.04
SOLVENT(S): Methanol
Water (<1%)
CHEMICAL PURITY: >99%
LAST TESTED: (internal) 05/27/2016
EXPIRY DATE: (internal) 05/27/2021
RECOMMENDED STORAGE: Store ampoules in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

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

ADDITIONAL INFORMATION:

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

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:
B.G. Chittim

Date: 05/31/2016
(internal)

*Received from
customer
12/2/2016
FZ-35*

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M8 CANADA
519-822-2436 • Fax: 519-822-2848 • info@well-labs.com

Form 52, Rev 01/11-16
Rev 03/13, Revised 09/16-09/20

15 (4-01) (1 of 2)
15/08

Date Received: 2016.09.12 - HPLC -1 ampule
Received 2016/11/25 1 x 1.2mL MMN FZ-35
Received 2016/12/01 1 x 1.2mL MMN FZ-35
Received 2016/12/19 1 x 1.2mL MMN FZ-11
Received 2016/12/23 1 x 1.2mL MMN FZ-11
Received 2016/12/29 1 x 1.2mL MMN FZ-11
Date Received: 2017/03/10- 1 AMPULES - SSV
Date Received: 2017.04.06 - 2 ampoules - HPLC



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

L-PFBS

LOT NUMBER:

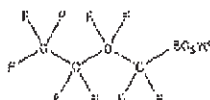
LPFBS0316

COMPOUND:

Potassium perfluoro-1-butanenesulfonate

STRUCTURE:**GAS #:**

29420-49-3

**MOLECULAR FORMULA:**C₄F₉SO₃K**MOLECULAR WEIGHT:**

338.19

CONCENTRATION:

50.0 ± 2.5 µg/ml (K salt)

SOLVENT(S):

Methanol

CHEMICAL PURITY:

>98%

LAST TESTED:

03/15/2016

EXPIRY DATE:

05/15/2021

RECOMMENDED STORAGE:

Store ampoule in a cool, dark place

① ampule
2.16 ± 0.17
SSU (HPLC)

DOCUMENTATION/ DATA ATTACHED:

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

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

ADDITIONAL INFORMATION:

- See page 2 for further details.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chittim

Date: 03/21/2016

Permethin

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

Form 07, Revised 05/04-11/12
Revised 07/12, Revised 07/12

LPFBS0316 (1 of 1)
10/0

Date Received: 2016.07.19 - 1 ampule - HPLC
Date Received: 2016.09.12 - 2 ampules - HPLC
Received 2016/10/05 1 x 1.2mL MMN FZ-35
Received 2016/11/25 1 x 1.2mL MMN FZ-35
Date Received: 2016.12.01 - 1 x 1.2ml - HPLC
Received 2016/12/16 2 x 1.2mL MMN FZ-11
Date Received: 2016.12.19 - 1 AMPULES - HPLC



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

PFPeA

LOT NUMBER:

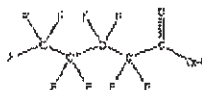
PFPeA0516

COMPOUND:

Perfluoro-n-pentanoic acid

STRUCTURE:**CAS #:**

2706-90-8

**MOLECULAR FORMULA:**C₅H₂F₁₀O₂**MOLECULAR WEIGHT:**

264.05

CONCENTRATION:

60 ± 2.5 µg/ml

SOLVENT(S):

Methanol

Water (<1%)

CHEMICAL PURITY:

>98%

LAST TESTED: (YYYYMMDD)

05/01/2016

EXPIRY DATE: (YYYYMMDD)

05/31/2021

RECOMMENDED STORAGE:

Store ampoule in a cool, dark place

DOCUMENTATION DATA ATTACHED:

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

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

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to its methyl ester.
- Contains ~ 0.3% of Perfluoro-n-heptanoic acid (PFHpA) and ~ 0.2% of C₄F₉O₂ (hydride - derivative) as measured by ¹⁹F NMR.

FOR LABORATORY USE ONLY; NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. ChiltonDate: 06/02/2016
(signature)Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M8 CANADA
519-822-2436 • Fax: 519-822-2848 • Info@well-labs.comFor entry, insert into the
ampoule. Do not heat.PFPeA0516 (1 of 2)
1000

Date Received: 2016.09.12 - 1 ampule - HPLC

Received 2016/10/05 1 x 1.2mL MMN FZ-35

Received 2016/11/25 1 x 1.2mL MMN FZ-11

Received 2016/12/01 1 x 1.2mL MMN FZ-35

Received 2016/12/19 1 x 1.2mL MMN FZ-11

Received 2016/12/23 1 x 1.2mL MMN FZ-11

Received 2016/12/29 1 x 1.2mL MMN FZ-11

Date Received: 2017/03/10 - 2 AMPULES - SSV



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

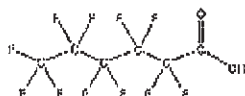
PRODUCT CODE:
COMPOUND:

PFHxA
Perfluoro-n-hexanoic acid

LOT NUMBER: PFHxA1215

STRUCTURE:

CAS #: 307-24-4



MOLECULAR FORMULA:
CONCENTRATION:

$C_6HF_{11}O_2$
 $80 \pm 2.5 \mu\text{g/ml}$

MOLECULAR WEIGHT: 314.05
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY:

>98%

LAST TESTED:

12/22/2015

EXPIRY DATE:

12/22/2020

RECOMMENDED STORAGE:

Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

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

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

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains a molar eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains ~ 0.2% of Perfluoro-n-pentanoic acid (PFPeA).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Orlini

Date: 12/23/2015

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Perfluoro-n-hexanoic acid 1215-16
Perfluoro-n-hexanoic acid 1215-16

Perfluoro-n-hexanoic acid 1215-16
1215-16

*received from
20.10.15
17.12.15
FZ-35*

Date Received: 2016.09.12 - 1 ampule- HPLC
Received 2016/10/05 1 x 1.2mL MMN FZ-35
Received 2016/11/25 1 x 1.2mL MMN FZ-35
Received 2016/12/12 2 x 1.2mL MMN FZ-11
Received 2016/12/16 2 x 1.2mL MMN FZ-11
Received 2016/12/23 1 x 1.2mL MMN FZ-11
Received 2016/12/29 1 x 1.2mL MMN FZ-11



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

br-PFHxSK

Potassium Perfluorohexanesulfonate
Solution/Mixture of Linear and
Branched Isomers

PRODUCT CODE: br-PFHxSK
LOT NUMBER: brPFHxSK0615
CONCENTRATION: 50.0 ± 2.5 µg/ml (total potassium salt);
45.5 ± 2.3 µg/ml (total PFHxS anion)
SOLVENT(S): Methanol
DATE PREPARED: 08/28/2015
LAST TESTED: 07/03/2015
EXPIRY DATE: 07/03/2020
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DESCRIPTION:

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

DOCUMENTATION DATA ATTACHED:

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

2 ampoule (PF)
SCU
216/10/27
HPLC/MS

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains ~ 0.5% of perfluoro-1-pentanesulfonate and ~ 0.2% of perfluoro-1-octanesulfonate.
- CAS#: 3671-99-6 (for linear isomer; potassium salt).

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519-822-2435 • Fax: 519-822-2648 • Info@well-labs.com

Form 15, revised 2/14/11-15
Replaces: Form 15-03-21

br-PFHxSK (11 N 6)
1/15

Received 2016/10/27 2 x 1.2mL MMN FZ-35
Received 2016/11/25 1 x 1.2mL MMN FZ-35
Received: 2016.12.01- 1 x 1.2ml - HPLC
Received 2016/12/16 2 x 1.2mL MMN FZ-11
Received 2016/12/19 1 x 1.2mL MMN FZ-11
Received 2016/12/23 1 x 1.2mL MMN FZ-11
Received 2016/12/29 1 x 1.2mL MMN FZ-11



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

PFHpA

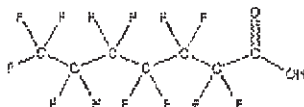
LOT NUMBER:

PFHpA1216

COMPOUND:

Perfluoro-n-heptanoic acid

STRUCTURE:



CAS #:

375-85-3

*Received
2016-12-16
2 x 1.2 mL
FZ-11*

MOLECULAR FORMULA:

C₇HFO₇

MOLECULAR WEIGHT:

364.06

CONCENTRATION:

50 ± 2.5 µg/mL

SOLVENT(S):

Methanol

Water (<1%)

CHEMICAL PURITY:

>98%

LAST TESTED:

12/02/2016

EXPIRY DATE:

12/02/2021

RECOMMENDED STORAGE:

Store ampoules in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

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

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

ADDITIONAL INFORMATION:

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

FOR LABORATORY USE ONLY; NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chellin

Date: 12/12/2016

(initials)

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PFHpA 2%, 12/02/2016
Revised: 12/02/2016

PFHpA 2%, 12/02/2016
Revised: 12/02/2016

Received 2016/12/23 1 x 1.2mL MMN FZ-11

Received 2016/12/29 1 x 1.2mL MMN FZ-11



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

L-PFH9S

LOT NUMBER:

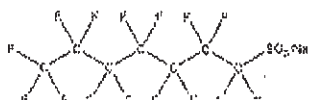
LPPH9S1018

COMPOUND:

Sodium perfluoro-1-heptanesulfonate

STRUCTURE:**CAS #:**

Not available

**MOLECULAR FORMULA:** $C_7F_{15}SO_3Na$ **MOLECULAR WEIGHT:**

472.10

CONCENTRATION:

50.0 ± 2.6 µg/ml (Na salt)

SOLVENT(S):

Methanol

CHEMICAL PURITY:

>99%

LAST TESTED:

10/18/2016

EXPIRY DATE:

10/18/2021

RECOMMENDED STORAGE:

Store ampoule in a cool, dark place

DOCUMENTATION DATA ATTACHED:

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

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

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains ~ 0.2% of L-PFH9S ($C_7F_{15}SO_3Na$) and ~ 0.1% of L-PFOS ($C_8F_{17}SO_3Na$).

FOR LABORATORY USE ONLY; NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chittim

Date:

10/20/2016
10/20/2016

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519-822-2439 • Fax: 519-822-2849 • Info@well-labs.com

Form 001, Rev 001 2004-01-15
Revised 01, November 2016-03-05

L-PFH9S1018 (1 of 1)
ref

Received: 2016.11.25 - 1 x 1.2ml - HPLC
Received: 2016.12.01 - 1 x 1.2ml - HPLC
Received: 2016/12/19 1 x 1.2mL MMN FZ-11
Received: 2016/12/23 1 x 1.2mL MMN FZ-11
Date Received: 2017/03/10 - 2 AMPULES - SSV



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

PFOA

LOT NUMBER:

PFOA0716

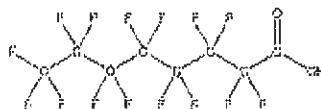
COMPOUND:

Perfluoro-n-octanoic acid

STRUCTURE:

CAS#:

335-87-1



MOLECULAR FORMULA:

$C_8H_7F_{17}O_2$

MOLECULAR WEIGHT:

414.07

CONCENTRATION:

$50 \pm 2.5 \mu\text{g/ml}$

SOLVENT(S):

Methanol

Water (<1%)

CHEMICAL PURITY:

>98%

LAST TESTED:

08/02/2016

EXPIRY DATE:

08/02/2021

RECOMMENDED STORAGE:

Store ampoule in a cool, dark place

*Received mm
2016/12/16
2x1.2mL
FZ-11*

DOCUMENTATION/ DATA ATTACHED:

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

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

ADDITIONAL INFORMATION:

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

FOR LABORATORY USE ONLY; NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chittim

Date:

08/05/2016

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M6 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

Form 37, issued 26/04/15 v3
Controlled, expires 2016-03-24

PFOA0716 (1 of 4)
1/1/16

Received 2016/09/28 2 x 1.2mL MMN FZ-35
Received 2016/11/25 2 x 1.2mL MMN FZ-35
Received 2016/12/19 1 x 1.2mL MMN FZ-11
Received 2016/12/23 1 x 1.2mL MMN FZ-11
Received 2016/12/29 1 x 1.2mL MMN FZ-11



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

br-PFOSK

Potassium Perfluorooctanesulfonate
Solution/Mixture of Linear and
Branched Isomers

PRODUCT CODE: br-PFOSK
LOT NUMBER: brPFOSK1D15
CONCENTRATION: 50 ± 2.5 µg/ml (total potassium salt)
 46.4 ± 2.3 µg/ml (total PFOS anion)
SOLVENT(S): Methanol
DATE PREPARED: 10/13/2015
LAST TESTED: 10/14/2015
EXPIRY DATE: 10/14/2020
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DESCRIPTION:

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

DOCUMENTATION/ DATA ATTACHED:

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

ADDITIONAL INFORMATION:

- See page 2 for further details.
- A 5-point calibration curve was generated using linear PFOS (potassium salt) and mass-labelled PFOS as an internal standard to enable quantitation of br-PFOSK using isotopic dilution.
- CAS# 2785-39-3 (for linear isomer; potassium salt).

*Received from
Vero Labs Inc.
2x1.2 mL*

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2435 • Fax: 519-822-2840 • info@well-labs.com

Form: F3, Rev: 01/2014
Revision 3, Version 2.0/5-10-21

br-PFOSK1015 15 of 15
10/2

Date Received: 2016.07.19 - 2 ampules - HPLC
Date Received: 2016.09.12 - 1 ampules - HPLC
Received 2016/09/28 1 x 1.2mL MMN FZ-35
Received 2016/11/25 1 x 1.2mL MMN FZ-35
Received 2016/12/16 2 x 1.2mL MMN FZ-11
Received 2016/12/19 1 x 1.2mL MMN FZ-11
Received 2016/12/23 1 x 1.2mL MMN FZ-11
Received 2016/12/29 1 x 1.2mL MMN FZ-11



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

PFNA

LOT NUMBER:

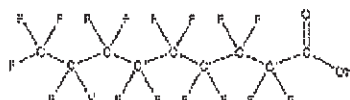
PFNA0016

COMPOUND:

Perfluoro-n-nonanoic acid

STRUCTURE:**CAS #:**

375-95-1

**MOLECULAR FORMULA:** $C_9H_5F_{19}O_2$ **MOLECULAR WEIGHT:**

464.08

CONCENTRATION:

50 ± 2.5 µg/ml

SOLVENT(S):

Methanol

Water (<1%)

CHEMICAL PURITY:

>95%

LAST TESTED:

09/30/2016

EXPIRY DATE:

09/30/2021

RECOMMENDED STORAGE:

Store ampoule in a cool, dark place

*Received 2016-12-16
2x1.2 mL MMN
FZ-11*

DOCUMENTATION/ DATA ATTACHED:

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

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

ADDITIONAL INFORMATION:

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

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chittim

Date: 10/11/2016

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2840 • info@well-labs.com

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

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

Received 2016/11/25 1 x 1.2mL MMN FZ-35
Received 2016/12/12 2 x 1.2mL MMN FZ-11
Received 2016/12/23 1 x 1.2mL MMN FZ-11
Received 2016/12/29 1 x 1.2mL MMN FZ-11
Received date: 2017/02/22 1x1.2 mL MZH



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

PFDA

LOT NUMBER:

PFDA0516

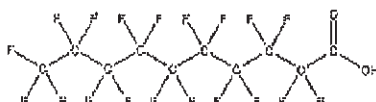
COMPOUND:

Perfluoro-n-decanoic acid

STRUCTURE:

CAS#:

336-76-2



MOLECULAR FORMULA:

$C_{10}H_2F_{20}O_2$

MOLECULAR WEIGHT:

514.08

CONCENTRATION:

50 ± 2.5 µg/ml

SOLVENT(S):

Methanol
Water (<1%)

CHEMICAL PURITY:

>99%

LAST TESTED: (analytical)

05/31/2018

EXPIRY DATE: (analytical)

05/31/2021

RECOMMENDED STORAGE:

Store ampoule in a cool, dark place

DOCUMENTATION DATA ATTACHED:

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

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

2 x 1.2 mL

Received 2016-09-12

MS (HPLC)

ADDITIONAL INFORMATION:

Storage: Freezer 35

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

FOR LABORATORY USE ONLY; NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chittam

Date:

06/15/2018

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2438 • Fax: 519-822-2849 • info@well-labs.com

Perfluoro-n-decanoic acid 2016-11-19
Perfluoro-n-decanoic acid 2016-09-24

PFDA0516 11 of 15
10/18

Received 2016/09/12 2 x 1.2mL MMN FZ-35
Received 2016/12/01 2 x 1.2mL MMN FZ-35
Received 2016/12/16 2 x 1.2mL MMN FZ-11
Received 2016/12/19 1 x 1.2mL MMN FZ-11
Received 2016/12/23 1 x 1.2mL MMN FZ-11
Received 2016/12/29 1 x 1.2mL MMN FZ-11



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

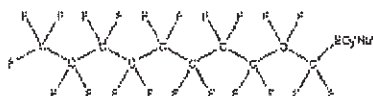
PRODUCT CODE:
COMPOUND:

L-PFDS
Sodium perfluoro-1-dodecanesulfonate

LOT NUMBER: LFFDS0516

STRUCTURE:

CAS #: 2806-19-7



MOLECULAR FORMULA:

$C_{12}F_{23}SO_3Na$

MOLECULAR WEIGHT:

622.13

CONCENTRATION:

$50.0 \pm 2.5 \mu\text{g/ml}$ (Na salt)
 $48.2 \pm 2.4 \mu\text{g/ml}$ (PFDS anion)

SOLVENT(S):

Methanol

CHEMICAL PURITY:

>99%

LAST TESTED:

05/24/2016

EXPIRY DATE:

05/24/2021

RECOMMENDED STORAGE:

Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

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

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

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains ~ 0.0% of sodium perfluoro-1-dodecanesulfonate (L-PFDS).

FOR LABORATORY USE ONLY; NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chellam

Date: 05/26/2016

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2846 • info@well-labs.com

Product 21, Version 2/04 11.10
Product 21, Version 2/15 04.10

LFFDS0516-11 of 3
1000

Received 2016/09/12 1 x 1.2mL MMN FZ-35
Date Received: 2016.10.05 - HPLC - 1 x 1.2mL
Received 2016/11/25 1 x 1.2mL MMN FZ-35
Received 2016/12/01 1 x 1.2mL MMN FZ-35
Date Received: 2016.12.19- 1 AMPULES - HPLC
Date Received 2016/12/23- -1 ampule HPLC
Date Received: 2016.12.29- 1 AMPULES - HPLC
Date Received: 2017/03/10- 1 AMPULES - SSV



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

PFUdA

LOT NUMBER:

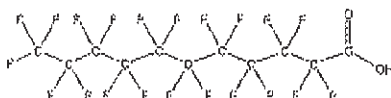
PFUdA1016

COMPOUND:

Perfluoro-n-undecanoic acid

STRUCTURE:**GAS #:**

205B-94-8

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

504.09

CONCENTRATION:

50 ± 2.5 µg/ml

SOLVENT(S):Methanol
Water (<1%)**CHEMICAL PURITY:**

>98%

LAST TESTED: (mm/dd/yyyy)

10/18/2016

EXPIRY DATE: (mm/dd/yyyy)

10/18/2021

RECOMMENDED STORAGE:

Store ampoule in a cool, dark place

*Received
2016-12-19
1 x 1.2 mL
FZ-35M
mm
12/19/19*

DOCUMENTATION/ DATA ATTACHED:

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

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

ADDITIONAL INFORMATION:

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

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chittim

Date: 10/19/2016

10/19/2016

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Form 017, Revised 2/04-11-19
Revised 1/20, Revised 2/15-03-21

PFUdA-1016 (1 of 1)
10-1

Received 2016/11/25 1 x 1.2mL MMN FZ-35
Received 2016/12/01 1 x 1.2mL MMN FZ-35M
Received 2016/12/16 2 x 1.2mL -HPLC FZ-11
Received 2016/12/19 1 x 1.2mL MMN FZ-11
Received 2016/12/29 1 x 1.2mL MMN FZ-11



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

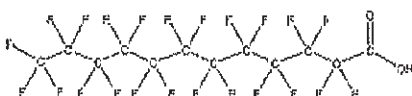
PFD0A

LGT NUMBER: PFD0A0516**COMPOUND:**

Perfluoro-n-dodecanoic acid

STRUCTURE:**CAS #:**

307-56-1

**MOLECULAR FORMULA:** $C_{12}F_{23}O_2$ **MOLECULAR WEIGHT:**

614.10

CONCENTRATION:

60 ± 2.6 µg/ml

SOLVENT(S):Methanol
Water (<1%)**CHEMICAL PURITY:**

>98%

LAST TESTED:

06/31/2016

EXPIRY DATE:

06/31/2021

RECOMMENDED STORAGE:

Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

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

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

1 x 1.2 ml
Received 201609-12
MS (HPLC)
Storage: Freezer 35

ADDITIONAL INFORMATION:

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

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Griffin

Date:

06/02/2018

Wellington Laboratories Inc., 346 Southgate Dr, Guelph ON N1G 3M5 CANADA
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Form 27, Revised 2004-11-10
Rev 2/2013, Dated 2015-20-21

PF DoMS 62 (1 of 4)
09/0

Received 2016/09/28 2 x 1.2mL MMN FZ-35
Received 2016/11/25 1 x 1.2mL MMN FZ-35
Received 2016/12/01 1 x 1.2mL MMN FZ-35
Received 2016/12/16 2 x 1.2mL MMN FZ-11
Received 2016/12/19 1 x 1.2mL MMN FZ-11
Received 2016/12/23 1 x 1.2mL MMN FZ-11
Received 2016/12/29 1 x 1.2mL MMN FZ-11



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

PFYrDA

LOT NUMBER:

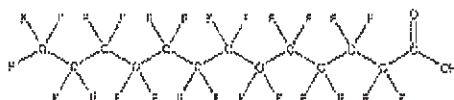
PFYrDA0215

COMPOUND:

Perfluoro-n-tridecanoic acid

STRUCTURE:**CAS #:**

72829-04-8

**MOLECULAR FORMULA:** $C_{13}HF_{27}O_2$ **MOLECULAR WEIGHT:**

384.11

CONCENTRATION: $50 \pm 2.5 \mu\text{g/ml}$ **SOLVENT(S):**Methanol
Water (<1%)**CHEMICAL PURITY:**

>98%

LAST TESTED:

02/12/2015

EXPIRY DATE:

02/12/2021

RECOMMENDED STORAGE:

Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

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

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

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mEq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains ~ 0.1% of PFUDA ($C_{10}HF_{21}O_2$), ~ 0.4% of PFDDA ($C_{10}HF_{21}O_2$), and ~ 0.1% of PFTDA ($C_{14}HF_{29}O_2$).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chisholm

Date: 02/18/2018

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1B 3M5 CANADA
519-822-2435 • Fax: 519-822-2849 • info@well-labs.comProduct 22, revised 10/11/15
Revised 02/18/2018PFYrDA (2018) 1 of 1
rev2

Date Received: 2016.10.05 - HPLC - 1 x 1.2ml
Date Received: 2016.09.12 - HPLC - 1 x 1.2ml
Date Received: 2016.11.25 - HPLC - 1 x 1.2ml, 2ml
Received 2016/12/01 1 x 1.2mL MMN FZ-35
Received 2016/12/16 2 x 1.2mL MMN FZ-11
Received 2016/12/19 1 x 1.2mL MMN FZ-11
Received 2016/12/23 1 x 1.2mL MMN FZ-11
Received 2016/12/29 1 x 1.2mL MMN FZ-11



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

PFTeDA

LOT NUMBER:

PFTeDA0818

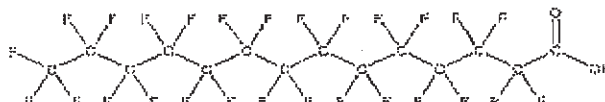
COMPOUND:

Perfluoro-n-tetradecanoic acid

STRUCTURE:

CAS #:

376-06-7



MOLECULAR FORMULA:

$C_{14}HF_{29}O_2$

MOLECULAR WEIGHT:

714.11

CONCENTRATION:

50 ± 2.6 µg/ml

SOLVENT(S):

Methanol

Water (<1%)

CHEMICAL PURITY:

>98%

LAST TESTED:

09/30/2016

EXPIRY DATE:

09/30/2021

RECOMMENDED STORAGE:

Store ampoules in a cool, dark place

*Received MMN
2016-12-16
2x1.2ml
FZ-11*

DOCUMENTATION/ DATA ATTACHED:

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

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

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains ~ 0.2% of PFDoA ($C_{18}HF_{35}O_2$) and ~ 0.2% of PFPeDA ($C_{12}HF_{25}O_2$).

FOR LABORATORY USE ONLY; NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Orlum

Date:

10/05/2018

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2840 • info@well-labs.com

Product: PFTeDA, Lot: PFTeDA0818, Rev: 01/15/2016, Revision: 01/15/2016

PFTeDA0818 11 of 41
rev0

Received: 2016.11.25 - 1 x 1.2mL- HPLC
Received: 2016.12.01 - 1 x 1.2mL - HPLC
Received 2016/12/19 1 x 1.2mL MMN FZ-11
Received 2016/12/23 1 x 1.2mL MMN FZ-11
Received 2016/12/29 1 x 1.2mL MMN FZ-11



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

FOSA-I

LOT NUMBER:

FOSA00101

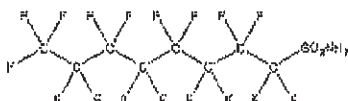
COMPOUND:

Perfluoro-1-octanesulfonamide

STRUCTURE:

CAS #:

764-01-6



MOLECULAR FORMULA:

$C_8H_5F_{17}NO_2S$

MOLECULAR WEIGHT:

490.14

CONCENTRATION:

$50 \pm 2.5 \mu\text{g/ml}$

SOLVENT(S):

Isopropanol

CHEMICAL PURITY:

>98%

LAST TESTED:

09/30/2016

EXPIRY DATE:

09/30/2021

RECOMMENDED STORAGE:

Refrigerate ampoule

DOCUMENTATION/DATA ATTACHED:

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

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

ADDITIONAL INFORMATION:

See page 2 for further details.

*Received from
2016/12/29
1x 1.2 mL
FD-59*

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Clifton
B.G. Clifton

Date:

10/07/2016
10/07/2016

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

Form 17, Rev 02/2014-11-15
Revised 3, 02/2014 11-15-2014

FOSA00101 1 of 4
1/1/2

Received: 2016.11.25 - 1x 1.2mL - HPLC
Received: 2016.12.01 - 1x 1.2mL - HPLC
Received: 2016/12/19 1 x 1.2mL MMN FD-59
Received: 2016/12/23 1 x 1.2mL MMN FD-59
Received date: 2017/02/22 1x1.2 mL MZH
Date Received: 2017.04.06 - 2 x 1.2mL - HPLC



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

N-MeFOSA-M

LOT NUMBER:

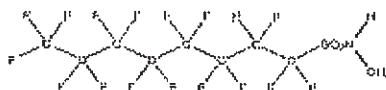
NMeFOSA0316M

COMPOUND:

N-methylperfluoro-1-octanesulfonamide

STRUCTURE:**CAS #:**

31506-32-8

**MOLECULAR FORMULA:**C₉H₅F₁₇NO₃S**MOLECULAR WEIGHT:**

515.17

CONCENTRATION:

50 ± 2.5 µg/ml

SOLVENT(S):

Methanol

CHEMICAL PURITY:

>95%

LAST TESTED:

05/24/2016

EXPIRY DATE:

05/24/2021

RECOMMENDED STORAGE:

Store ampoule in a cool, dark place

DOCUMENTATION DATA ATTACHED:

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

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

ADDITIONAL INFORMATION:

See page 2 for further details.

1 ampoule
2/16/17 IS
SSV
HPLC

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chmura

Date: 05/26/2016

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.comForm 27, Issues 25/11/17
Revised, Revised 7/15/18ANALYST'S SIGNATURE (1 of 1)
1992

Received 2016/08/15 2 x 1.2mL MMN FZ-35
Date Received: 2016.11.25 - 1 x 1.2mL - HPLC
Received 2016/12/01 1 x 1.2mL MMN FZ-35
Date Received: 2016.12.19 - 1 AMPULES - HPLC
Received 2016/12/23 1 x 1.2mL MMN FZ-11
Received 2016/12/29 1 x 1.2mL MMN FZ-11
Date Received: 2017/03/10 - 2 AMPULES - SSV



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

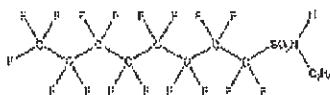
PRODUCT CODE:
COMPOUND:

N-EIFOSA-M
N-ethylperfluoro-1-octanesulfonamide

LOT NUMBER: NEIFOSA0516M

STRUCTURE:

CAS #: 4151-50-2



MOLECULAR FORMULA:

C₁₀H₁₁F₁₇NO₂S

MOLECULAR WEIGHT:

527.20

CONCENTRATION:

50 ± 2.5 µg/ml

SOLVENT(S):

Methanol

CHEMICAL PURITY:

>99%

LAST TESTED: (pre-shipment)

05/24/2016

EXPIRY DATE: (pre-shipment)

05/24/2021

RECOMMENDED STORAGE:

Store ampoules in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

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

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

ADDITIONAL INFORMATION:

See page 2 for further details.

*1 ampoule
2016/07/15
SSV
HPLC*

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

[Signature]
B. G. Chilton

Date: 05/27/2016

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Temp 07, rev 01 3/24 11-10
Rev 01/15, Rev 01 11/15/14

WEL-000001-01-01
REV

Date Received: 2016/07/19 1 ampule x 1.2 mL (HPLC)

Date Received: 2016.08.15- 2 ampules- HPLC

Date Received: 2016.11.25 - 1 x 1.2ml - HPLC

Received 2016/12/01 1 x 1.2mL MMN FZ-11

Received 2016/12/19- -1 ampule HPLC

Received 2016/12/23- -1 ampule HPLC

Received 2016/12/29 1 x 1.2mL MMN FZ-11

Received date: 2017/02/22 1x1.2 mL MZH

Date Received: 2017/03/10- 1 AMPULES - SSV

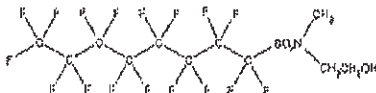


WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: N-MeFOSE-M **LOT NUMBER:** NMeFOSE1115M
COMPOUND: 2-(N-methylperfluoro-1-octanesulfonamido)ethanol

STRUCTURE: **CAS #:** 24448-09-7



MOLECULAR FORMULA: $C_{10}H_{19}F_{17}NO_4S$ **MOLECULAR WEIGHT:** 557.22
CONCENTRATION: $50 \pm 2.5 \mu\text{g/ml}$ **SOLVENT(S):** Methanol
CHEMICAL PURITY: >99%
LAST TESTED: 11/10/2015 (HPLC/LCMS) 11/08/2015 (LCMS)
EXPIRY DATE: 11/10/2020
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION DATA ATTACHED:

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

ADDITIONAL INFORMATION:

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

*Received mmx
2016/08/15
1 x 1.2mL*

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:
B.G. Griffin

Date: 11/16/2015
R0010070

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Form 37, Weight 2100-17-16
Revised 08/2016

NMeFOSE1115M 11 of 11
rev0

Received 2016/08/15 2 x 1.2mL MMN FZ-11
Date Received: 2016.07.19 - 2 ampoules - HPLC
Date Received: 2016.11.25 - 1 x 1.2mL -HPLC
Received 2016/12/01 1 x 1.2mL MMN FZ-11
Received 2016/12/19 1 x 1.2mL MMN FZ-11
Received 2016/12/23 1 x 1.2mL MMN FZ-11
Date Received: 2016.12.29 - 1 x 1.2mL- HPLC
Date Received: 2017/03/10- 2 AMPULES - SSV

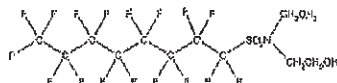


WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: NEI-FOSE-M **LOT NUMBER:** NEI-FOSE1115M
COMPOUND: 2-(N-ethylperfluoro-1-octenesulfonamido)-ethanol

STRUCTURE: **CAS #:** 1691-99-2



MOLECULAR FORMULA: $C_{14}H_{19}F_{19}NO_3S$ **MOLECULAR WEIGHT:** 571.25
CONCENTRATION: $50 \pm 2.5 \mu\text{g/ml}$ **SOLVENT(S):** Methanol
CHEMICAL PURITY: >98%
LAST TESTED: 11/10/2015 (HRGC/LRMS)
11/09/2015 (LC/MS)
EXPIRY DATE: 11/10/2020
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION DATA ATTACHED:

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

*Received from
N. G. Smith
1 x 1.2 mL*

ADDITIONAL INFORMATION:

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

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: *[Signature]*
B.G. Smith

Date: 11/11/2015
analyzed

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
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Form 001, Rev 004 2004-11-10
Revised 2015-09-24

NEI-FOSE1115M (1 of 2)
Page 1

Received 2016/08/15 2 x 1.2mL MMN FZ-11
Date Received: 2016.07.19- 2 AMPULES - HPLC
Date Received: 2016.11.25 - 1 x 1.2ML - HPLC
Received 2016/12/01 1 x 1.2mL MMN FZ-11
Date Received: 2016/12/19- 1 AMPULE - MMN HPLC
Received 2016/12/23 1 x 1.2mL MMN FZ-11
Received 2016/12/29 1 x 1.2mL MMN FZ-11
Date Received: 2017/03/10- 2 AMPULES - SSV



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

N-MeFOSAA

LOT NUMBER:

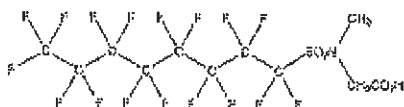
NM9FOSAA0916

COMPOUND:

N-methylperfluoro-1-octanesulfonamidoacetic acid

STRUCTURE:**CAS #:**

2355-31-9

**MOLECULAR FORMULA:** $C_{11}H_5F_{17}NO_3S$ **MOLECULAR WEIGHT:**

571.21

CONCENTRATION: $50 \pm 2.5 \mu\text{g/ml}$ **SOLVENT(S):**

Methanol

Water (<1%)

CHEMICAL PURITY:

>98%

LAST TESTED:

10/12/2016

EXPIRY DATE:

10/12/2021

RECOMMENDED STORAGE:

Refrigerate ampoules

DOCUMENTATION DATA ATTACHED:

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

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

ADDITIONAL INFORMATION:

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

FOR LABORATORY USE ONLY; NOT FOR HUMAN OR DRUG USE

Certified By:

E. G. Chilton

Date: 10/26/2016

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M8 CANADA
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Form 027, Rev 01 2014-11-19
Personnel, Revised 2015-03-24

0916/CSA/0916 11 of 11
(rev)

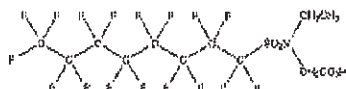
Received: 2016.11.25 - 1 x 1.2ml - HPLC
Received: 2016.12.01 - 1 x 1.2ml - HPLC
Received 2016/12/19 1 x 1.2mL MMN FD-59
Received 2016/12/23 1 x 1.2mL MMN FD-59
Received 2016/12/29 1 x 1.2mL MMN FD-59



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: NEFOSAA
COMPOUND: N-ethylperfluoro-1-octanesulfonamide/decetic acid
LOT NUMBER: NEFOSAA0916
STRUCTURE:
CAS #: 2991-50-6



MOLECULAR FORMULA: C₁₈H₁₇F₁₇NO₄S
CONCENTRATION: 50 ± 2.5 µg/ml
MOLECULAR WEIGHT: 665.23
SOLVENT(S): Methanol
Water (<1%)
CHEMICAL PURITY: >98%
LAST TESTED: 09/30/2016
EXPIRY DATE: 09/30/2021
RECOMMENDED STORAGE: Refrigerate ampoule

2016/10/27 2 ampule
p4 (NPL)
SSV

DOCUMENTATION/ DATA ATTACHED:

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

ADDITIONAL INFORMATION:

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

FOR LABORATORY USE ONLY; NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chittum

Date: 10/07/2016
09/05/2016

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Form 22, April 2004/1-16
Revised, Revised 10/2014

NEFOSAA0916 (1 of 4)
100

Received: 2016.11.25 - 1 x 1.2ml- HPLC
Received 2016/12/01 1 x 1.2mL MMN FD-59
Received 2016/12/16 2 x 1.2mL MMN FD-59
Received 2016/12/19 1 x 1.2mL MMN FD-59
Received 2016/12/23 1 x 1.2mL MMN FD-59
Received 2016/12/29 1 x 1.2mL MMN FD-59



WELLINGTON LABORATORIES

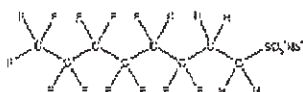
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: 02FTS
COMPOUND: Sodium 1H,1H,2H,2H-perfluorooctane sulfonate

LOT NUMBER: 02FTS0810

STRUCTURE:

CAS #: Not available



MOLECULAR FORMULA: C₈H₉F₁₇SO₃Na
CONCENTRATION: 50.0 ± 2.5 µg/ml (Na salt)
47.4 ± 2.4 µg/ml (0:2FTS anion)
CHEMICAL PURITY: >98%
LAST TESTED: 08/25/2018
EXPIRY DATE: 08/25/2021
RECOMMENDED STORAGE: Refrigerate ampoule

MOLECULAR WEIGHT: 450.16
SOLVENT(S): Methanol

DOCUMENTATION/ DATA ATTACHED:

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

ADDITIONAL INFORMATION:

See page 2 for further details.

*2 ampoules
8/16/17/19
SSV
MMC (py)*

FOR LABORATORY USE ONLY; NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittam
B.G. Chittam

Date: 08/29/2015
P. H. H.

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2949 • info@well-labs.com

Form 027, Issue 02/11-13
Revision 2, Revised 2016-03-24

02FTS0010:1 of 4
mqs

Received 2016/09/28 2 x 1.2mL MMN FD-59
Received 2016/10/05 1 x 1.2mL MMN FD-59
Received:2016.11.25- 1 x 1.2ml - HPLC
Received 2016/12/01 1 x 1.2mL MMN FD-59
Received 2016/12/19 1 x 1.2mL MMN FD-59<
e Received 2016/12/23- -1 ampule HPLC
Received 2016/12/29 1 x 1.2mL MMN FD-59
Date Received:2017/03/10- 2 AMPULES - SSV



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

82FTS

LOT NUMBER:

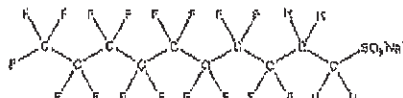
82FTS0816

COMPOUND:

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

STRUCTURE:**CAS #:**

Not available

**MOLECULAR FORMULA:** $C_{10}H_{17}F_{17}SO_3Na$ **MOLECULAR WEIGHT:**

580.16

CONCENTRATION:50.0 $\pm$ 2.5 μ g/ml (Na salt)
47.9 $\pm$ 2.4 μ g/ml (82FTS anion)**SOLVENT(S):**

Methanol

CHEMICAL PURITY:

>98%

LAST TESTED:

Wellington

08/22/2021

EXPIRY DATE:

Wellington

08/22/2021

RECOMMENDED STORAGE:

Refrigerate ampoule

DOCUMENTATION DATA ATTACHED:

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

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

ADDITIONAL INFORMATION:

See page 2 for further details.

1 x 1.2 ml
Received 2016-09-12
NTS (HPLC)
Storage: Fridge 59

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chittim

Date: 08/25/2018

(08/25/2018)

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

Form 527, Issued 2016-11-10
Revision 6.2, Revision 2016-03-30

527YSD018 11 06 11
10/0

Received: 2016.11.25 - 1 x 1.2ml - HPLC
Received 2016/12/01 1 x 1.2mL MMN FD-59
Received 2016/12/19 1 x 1.2mL MMN FD-59
Received 2016/12/23 1 x 1.2mL MMN FD-59
Received 2016/12/29 1 x 1.2mL MMN FD-59
Received 2016/09/28 2 x 1.2mL MMN FD-59

PREPARATION OF STANDARDS OF INTERMEDIARY CONCENTRATION

PRLST PG. 13

Solution No.: I-5015 Date: 2017/05/11 Expiry Date: 2018/05/11 Discard Date: _____
Replaces Solution No.: I-4989 Replaced by Solution: _____ Chemist: GSZ
Compound(s)/Solution Name: PFC SECOND SOURCE SPIKING SOLUTION A
Number of Parent Solution(s): See attached sheet
Concentration of Parent Solution(s): See attached sheet (mg, ug)/mL
Aliquot of Parent Solution(s): See attached sheet mL / uL
Pipette/Syringe ID: P29746D, K19609D
Dilution Solvent: 0.3% NH₄OH in MeOH Dilution Volume: 50 mL
Final Concentration(s): 1 (mg, ug)/mL
Solution derivatized (as methyl ester): - As Other (specify): -
Solution Contains Surrogate Compounds: - For mix refer to table on page: -
Solution used for: PFC Volumetric Flask: 50ml class A (5640)
(Identify by serial number or other unique ID)
Solvent Supplier: See PRLRE 104-82 Lot No.: See PRLRE 104-82
Date Opened: See PRLRE 104-82
Storage Location: FZ 11 One time Use, Not Stored: -
Ampule Supplier: Wellington Date Opened: See attached sheet
Mix Name: -
Catalogue No.: - Ampule expiry Date: See attached sheet
Lot No.: See attached sheet
Date Received: See attached sheet

Notes/Comments:

I-5015 (PRLST 142 p.13)

Compound Name	ID#	Conc. (ug/mL)	Vol.. of Stock standard (uL)	Final Conc. (ug/mL)	Exp. date
PFBA	S4140-1	50	1000	1	2021/05/27
L-PFBS	S4140-2	44.2	1130	1	2021/12/02
PFPeA	S4140-3	50	1000	1	2021/05/31
PFHxA	S4140-4	50	1000	1	2020/12/22
br-PFHxSk	S4140-5	45.5	1056	1	2020/07/03
PFHpA	S4140-6	50	1000	1	2021/01/22
L-PFHpS	S4140-7	47.6	1050	1	2020/11/06
PFOA	S4140-8	50	1000	1	2021/08/02
brPFOSK	S4140-9	46.4	1080	1	2020/10/14
PFNA	S4140-10	50	1000	1	2020/10/23
PFDA	S4140-11	50	1000	1	2021/05/31
L-PFDS	S4140-12	48.2	1036	1	2022/02/17
PFuDA	S4140-13	50	1000	1	2020/08/19
PFDoA	S4140-14	50	1000	1	2021/05/31
PFTTrDA	S4140-15	50	1000	1	2021/02/12
PFTeDA	S4140-16	50	1000	1	2020/12/09
PFOSA (FOSA-I)	S4140-17	50	1000	1	2021/09/30
N-MeFOSA-M	S4140-18	50	1000	1	2021/05/24
N-EtFOSA-M	S4140-19	50	1000	1	2021/05/24
N-MeFOSE-M	S4140-20	50	1000	1	2020/11/10
N-EtFOSE-M	S4140-21	50	1000	1	2020/11/10
N-MeFOSAA	S4140-22	50	1000	1	2020/01/20
N-EtFOSAA	S4140-23	50	1000	1	2020/01/20
6:2FTS	S4140-24	47.4	1056	1	2021/06/25
8:2FTS	S4140-25	47.9	1044	1	2021/12/21

No writing on bottom page.

Maxxam Analytics

GSZ, 2017/05/11
GSZ 1530 of 2393

PRLST 133 PG 72

CSZ 2017/05/11

PREPARATION OF CONCENTRATED STOCK STANDARDS

Solution No.: SI-4140 Date: 2017/06/11 Expiry Date: See below Discard Date: _____Replaces Solution: _____ Replaced by Solution: _____ Chemist: CSZ

SI-4140 (PRLST 133 p. 72)

Solution ID#	Compound Name	Lot#	Received date	Exp. date	Replaces Solution	Replaced by Solution	Conc. (ug/mL)	Solvent	Storage
S4140-1	PFBA	PFBA0516	2017/03/10	2021/05/27	S4092-1		50	MeOH	FZ-35
S4140-2	L-PFBS	LPFBS1116	2016/12/23	2021/12/02	S4070-1		44.2	MeOH	FZ-35
S4140-3	PFPeA	PFPeA0516	2017/03/10	2021/05/31	S4092-2		50	MeOH	FZ-35
S4140-4	PFHxA	PFHxA1215	2016/12/29	2020/12/22	S4070-2		50	MeOH	FZ-35
S4140-5	br-PFHxSk	brPFHxSK0615	2016/12/19	2020/07/03	S4070-3		45.5	MeOH	FZ-35
S4140-6	PFHpA	PFHpA0116	2016/12/23	2021/01/22	S4070-4		50	MeOH	FZ-35
S4140-7	L-PFHpS	LPFHpS1115	2017/03/10	2020/11/06	S4092-3		47.6	MeOH	FZ-35
S4140-8	PFOA	PFOA0716	2016/12/19	2021/08/02	S4070-5		50	MeOH	FZ-35
S4140-9	brPFOSK	brPFOSK1015	2016/12/19	2020/10/14	S4070-6		46.4	MeOH	FZ-35
S4140-10	PFNA	PFNA1015	2016/12/29	2020/10/23	S4070-7		50	MeOH	FZ-35
S4140-11	PFDA	PFDA0516	2016/12/23	2021/05/31	S4070-8		50	MeOH	FZ-35
S4140-12	L-PFDS	LPFDS0217	2017/03/10	2022/02/17	S4092-4		48.2	MeOH	FZ-35
S4140-13	PFuDA	PFuDA0815	2016/12/23	2020/08/19	S4070-9		50	MeOH	FZ-35
S4140-14	PFDoA	PFDoA0516	2016/12/23	2021/05/31	S4070-10		50	MeOH	FZ-35
S4140-15	PFTTrDA	PFTTrDA0216	2016/12/23	2021/02/12	S4070-11		50	MeOH	FZ-35
S4140-16	PFTeDA	PFTeDA1215	2016/12/23	2020/12/09	S4070-12		50	MeOH	FZ-35
S4140-17	PFOSA (FOSA-I)	FOSA0815I	2017/04/06	2017/09/02	S4125		50	IPA	FD-59
S4140-18	N-MeFOSA-M	NMeFOSA0516M	2017/03/10	2021/05/24	S4092-5		50	MeOH	FZ-35
S4140-19	N-EtFOSA-M	NEtFOSA0516M	2017/03/10	2021/05/24	S4092-6		50	MeOH	FZ-35
S4140-20	N-MeFOSE-M	NMeFOSE1115M	2017/03/10	2020/11/10	S4092-7		50	MeOH	FZ-35
S4140-21	N-EtFOSE-M	NEtFOSE1115M	2017/03/10	2020/11/10	S4092-8		50	MeOH	FZ-35
S4140-22	N-MeFOSAA	NMeFOSAA0116	2016/12/23 ²⁰¹⁷	2020/01/20 ²⁰¹⁷	S4070-13		50	MeOH	FD-59
S4140-23	N-EtFOSAA	NEtFOSAA0116	2016/1125 ²⁰¹⁷	2020/01/20 ²⁰¹⁷	S4070-14		50	MeOH	FD-59
S4140-24	6:2FTS	62FTS0616	2017/03/10	2021/06/25	S4092-9		47.4	MeOH	FD-59
S4140-25	8:2FTS	82FTS1216	2017/03/10	2021/12/21 ²⁰¹⁷	S4092-10		47.9	MeOH	FD-59
Date opened (All compounds):			Supplier (All compounds) : Wellington			Chemist: <u>CSZ</u>			

No writing on bottom page.

CSZ 2017/06/19

2017/05/11

Balance Used: _____
(specify model and serial no.)

Solvent Used: _____

Solvent Supplier: _____ Lot No(s): _____

Date Opened: _____

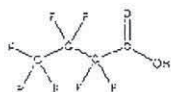
Storage Location / Conditions: _____



WELLINGTON
LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: PFBA
COMPOUND: Perfluoro-n-butyric acid
LOT NUMBER: PFBA0516
STRUCTURE:
CAS #: 375-22-4



MOLECULAR FORMULA: $C_4H_5F_7O_2$
CONCENTRATION: $50 \pm 2.5 \mu\text{g/ml}$
CHEMICAL PURITY: >98%
LAST TESTED: 05/27/2016
EXPIRY DATE: 05/27/2021
RECOMMENDED STORAGE: Store ampoules in a cool, dark place
MOLECULAR WEIGHT: 214.04
SOLVENT(S): Methanol
Water (<1%)

DOCUMENTATION DATA ATTACHED:

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

ADDITIONAL INFORMATION:

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

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:
B.G. Chillum
Date: 05/31/2016
17:43:00

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
319-822-2436 • Fax: 319-822-2848 • info@well-labs.com

Form 017, Revised 05/04/11-16
Perfluoro-n-butyric acid

17 N-0119 (1 of 4)
2011

Date Received: 2016.09.12 - HPLC -1 ampule
Received 2016/11/25 1 x 1.2mL MMN FZ-35
Received 2016/12/01 1 x 1.2mL MMN FZ-35
Received 2016/12/19 1 x 1.2mL MMN FZ-11
Received 2016/12/23 1 x 1.2mL MMN FZ-11
Received 2016/12/29 1 x 1.2mL MMN FZ-11
Date Received: 2017/03/10- 1 AMPULES - SSV
Date Received: 2017.04.06 - 2 ampules - HPLC



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

L-PFBS

LOT NUMBER:

LPFBS1116

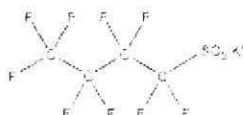
COMPOUND:

Potassium perfluorooctanesulfonate

STRUCTURE:

CAS #:

29420-49-3



MOLECULAR FORMULA:

C₈F₁₇SO₃K

MOLECULAR WEIGHT:

338.19

CONCENTRATION:

50.0 ± 2.5 µg/ml (K salt)

SOLVENT(S):

Methanol

44.2 ± 2.2 µg/ml (PFBS anion)

CHEMICAL PURITY:

>99%

LAST TESTED: (mm/dd/yyyy)

12/02/2016

EXPIRY DATE: (mm/dd/yyyy)

12/02/2021

RECOMMENDED STORAGE:

Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

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

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

ADDITIONAL INFORMATION:

See page 2 for further details.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chiklun

Date:

12/05/2016

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Form 21, revised 2006-11-10
Revision 2, revised 2015-03-24

LPFBS1116 (1 of 4)
rev0



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

PFPeA

LOT NUMBER:

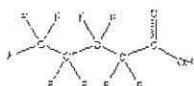
PFPeA0516

COMPOUND:

Perfluoro-n-pentanoic acid

STRUCTURE:**CAS #:**

2706-90-3

**MOLECULAR FORMULA:** $C_5F_{11}O_2$ **MOLECULAR WEIGHT:**

264.05

CONCENTRATION:

50 ± 2.5 µg/ml

SOLVENT(S):Methanol
Water (<1%)**CHEMICAL PURITY:**

>98%

LAST TESTED:

05/31/2016

EXPIRY DATE:

05/31/2021

RECOMMENDED STORAGE:

Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

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

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

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains ~0.3% of Perfluoro-n-heptanoic acid (PFHpA) and ~0.2% of $C_5F_{11}F_3O_2$ (hydride - derivative) as measured by ^{19}F NMR.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chillum

Date: 06/02/2016

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2848 • Info@well-labs.comForm 07, revised 10/01/16
For CPEA, P02667 10/01/16PFPeA0516 (1 of 2)
rws

Date Received: 2016.09.12 - 1 ampule - HPLC

Received 2016/10/05 1 x 1.2mL MMN FZ-35

Received 2016/11/25 1 x 1.2mL MMN FZ-11

Received 2016/12/01 1 x 1.2mL MMN FZ-35

Received 2016/12/19 1 x 1.2mL MMN FZ-11

Received 2016/12/23 1 x 1.2mL MMN FZ-11

Received 2016/12/29 1 x 1.2mL MMN FZ-11

Date Received: 2017/03/10 - 2 AMPULES - SSV

Received 2017/05/25 2 x 1.2mL MMN FZ-11

Received 2017/05/29 2 x 1.2mL MMN FZ-11



WELLINGTON LABORATORIES

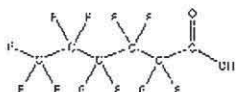
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

PFHxA

LOT NUMBER: PFHxA1215**COMPOUND:**

Perfluoro-n-hexanoic acid

STRUCTURE:**CAS#:** 307-24-4**MOLECULAR FORMULA:** $C_6F_{13}O_2$ **MOLECULAR WEIGHT:** 314.06**CONCENTRATION:** $80 \pm 2.5 \mu\text{g/ml}$ **SOLVENT(S):**Methanol
Water (<1%)**CHEMICAL PURITY:**

>98%

LAST TESTED:

12/22/2015

EXPIRY DATE:

12/22/2020

RECOMMENDED STORAGE:

Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

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

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

ADDITIONAL INFORMATION:

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

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chittim

Date: 12/23/2015

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 5M5 CANADA
519-822-2436 • Fax: 519-822-2948 • info@well-labs.comFORM 127, Revision 1506-21-16
Perfluoro-n-hexanoic acidFORM 127, Revision 1506-21-16
12/23

Date Received: 2016.09.12 - 1 ampule- HPLC

Received 2016/10/05 1 x 1.2mL MMN FZ-35

Received 2016/11/25 1 x 1.2mL MMN FZ-35

Received 2016/12/12 2 x 1.2mL MMN FZ-11

Received 2016/12/16 2 x 1.2mL MMN FZ-11

Received 2016/12/23 1 x 1.2mL MMN FZ-11

Received 2016/12/29 1 x 1.2mL MMN FZ-11



WELLINGTON
LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

br-PFHxSK

Potassium Perfluorohexanesulfonate
Solution/Mixture of Linear and
Branched Isomers

PRODUCT CODE: br-PFHxSK
LOT NUMBER: brPFHxSK0615
CONCENTRATION: 50.0 ± 2.5 µg/ml (total potassium salt)
45.5 ± 2.3 µg/ml (total PFHxS anion)
SOLVENT(S): Methanol
DATE PREPARED: (YYYYMMDD) 06/29/2015
LAST TESTED: (YYYYMMDD) 07/03/2015
EXPIRY DATE: (YYYYMMDD) 07/03/2020
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DESCRIPTION:

The chemical purity has been determined to be ≥95% perfluorohexanesulfonate linear and branched isomers. The full name, structure and percent composition for each of the identified isomeric components are given in Table A.

DOCUMENTATION DATA ATTACHED:

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

2 ampoule (CF₂)
SSU
216/10/27
HPLC/PP4

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains ~ 0.5% of perfluoro-1-pentanesulfonate and ~ 0.2% of perfluoro-1-octanesulfonate.
- CAS#: 3571-99-8 (for linear isomer; potassium salt).

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Form 15, Issued 2004-11-10
Revised 3, Revised 2016-03-24

brPFHxSK0615 (1 of 5)
N=1

Received 2016/10/27 2 x 1.2mL MMN FZ-35
Received 2016/11/25 1 x 1.2mL MMN FZ-35
Received: 2016.12.01- 1 x 1.2ml - HPLC
Received 2016/12/16 2 x 1.2mL MMN FZ-11
Received 2016/12/19 1 x 1.2mL MMN FZ-11



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

PFHpA

LOT NUMBER:

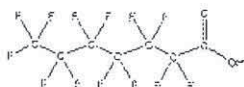
PFHpA0116

COMPOUND:

Perfluoro-n-heptanoic acid

STRUCTURE:**CAS #:**

375-85-6

**MOLECULAR FORMULA:** $C_7H_5F_{13}O_2$ **MOLECULAR WEIGHT:**

364.06

CONCENTRATION: $50 \pm 2.5 \mu\text{g/ml}$ **SOLVENT(S):**Methanol
Water (<1%)**CHEMICAL PURITY:**

>98%

LAST TESTED:

01/22/2016

EXPIRY DATE:

01/22/2021

RECOMMENDED STORAGE:

Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

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

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

ADDITIONAL INFORMATION:

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

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chittim

Date: 02/02/2016

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2438 • Fax: 519-822-2849 • info@well-labs.comForm 177, May 2014
Revised 03, November 2015 03/20

Revised 03/16 11/15/16

Received 2016/09/12 1 x 1.2mL MMN FZ-35
Received 2016/10/05 1 x 1.2mL MMN FZ-35
Received 2016/11/25 1 x 1.2mL MMN FZ-35
Received: 2016.12.01 - 1 x 1.2ml - HPLC
Received: 2016/12/23 1x1.2 ml- HPLC



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

L-PFHpS

LOT NUMBER:

LPFHpS1115

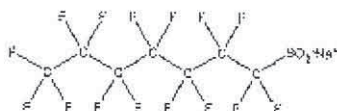
COMPOUND:

Sodium perfluoro-1-heptanesulfonate

STRUCTURE:

CAS #:

Not available



MOLECULAR FORMULA:

$C_7F_{15}SO_3Na$

MOLECULAR WEIGHT:

472.10

CONCENTRATION:

50.0 ± 2.5 µg/ml (Na salt)

SOLVENT(S):

Methanol

47.6 ± 2.4 µg/ml (PFHpS anion)

CHEMICAL PURITY:

>98%

LAST TESTED: *in-house*

11/06/2015

EXPIRY DATE: *in-house*

11/06/2020

RECOMMENDED STORAGE:

Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

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

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

ADDITIONAL INFORMATION:

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

2 x 1.2 mL

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chinn

Date: 11/09/2015

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2438 • Fax: 519-822-2849 • info@well-labs.com

Form 001-1000 Rev 01/15

Date Received: 2016.07.19 - 1 Ampule - HPLC

Date Received: 2016.09.12 - 1 Ampule - HPLC

Received 2016/10/05 1 x 1.2mL MMN FZ-35

Received: 2017/03/10 2x1.2 mL - HPLC



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

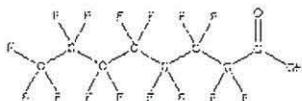
PFOA

LOT NUMBER: PFOA0716**COMPOUND:**

Perfluoro-n-octanoic acid

STRUCTURE:**CAS #:**

335-67-1

**MOLECULAR FORMULA:** $C_8H_7F_{17}O_2$ **MOLECULAR WEIGHT:** 414.07**CONCENTRATION:** $50 \pm 2.5 \mu\text{g/ml}$ **SOLVENT(S):**

Methanol

Water (<5%)

CHEMICAL PURITY:

>98%

LAST TESTED:

08/02/2016

EXPIRY DATE:

08/02/2021

RECOMMENDED STORAGE:

Store ampoule in a cool, dark place

Received
2016/12/16
2 x 1.2 mL
FZ-11

DOCUMENTATION/ DATA ATTACHED:

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

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

ADDITIONAL INFORMATION:

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

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chittim

Date:

08/05/2019
Initials

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2438 • Fax: 519-822-2849 • info@well-labs.com

Form 27, issued 2004-11-10
Amended 2015-03-24

FFC00218 11 of 43
1873

Received 2016/09/28 2 x 1.2mL MMN FZ-35
Received 2016/11/25 2 x 1.2mL MMN FZ-35
Received 2016/12/19 1 x 1.2mL MMN FZ-11
Received 2016/12/23 1 x 1.2mL MMN FZ-11
Received 2016/12/29 1 x 1.2mL MMN FZ-11
Received 2016/12/23 1 x 1.2mL MMN FZ-11
Received 2016/12/29 1 x 1.2mL MMN FZ-11



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

br-PFOSK

Potassium Perfluorooctanesulfonate
Solution/Mixture of Linear and
Branched Isomers

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

DESCRIPTION:

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

DOCUMENTATION/DATA ATTACHED:

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

ADDITIONAL INFORMATION:

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

*Received per
mm 10/29
2 x 1.2 mL*

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Form# 10, Issued 2014-11-16
Revision# 3, Revised 2015-03-24

br-PFOSK1015 (1 of 5)
rev3

Date Received: 2016.07.19 - 2 ampules - HPLC
Date Received: 2016.09.12 - 1 ampule - HPLC
Received 2016/09/28 1 x 1.2mL MMN FZ-35
Received 2016/11/25 1 x 1.2mL MMN FZ-35
Received 2016/12/16 2 x 1.2mL MMN FZ-11
Received 2016/12/19 1 x 1.2mL MMN FZ-11
Received 2016/12/23 1 x 1.2mL MMN FZ-11
Received 2016/12/29 1 x 1.2mL MMN FZ-11



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CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

PFNA

LOT NUMBER:

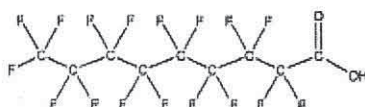
PFNA1015

COMPOUND:

Perfluoro-n-nonanoic acid

STRUCTURE:**CAS #:**

375-95-1

**MOLECULAR FORMULA:** $C_9H_5F_{17}O_2$ **MOLECULAR WEIGHT:**

464.08

CONCENTRATION: $50 \pm 2.5 \mu\text{g/ml}$ **SOLVENT(S):**Methanol
Water (<1%)**CHEMICAL PURITY:**

>98%

LAST TESTED: (mm/dd/yyyy)

10/23/2015

EXPIRY DATE: (mm/dd/yyyy)

10/23/2020

RECOMMENDED STORAGE:

Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

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

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

2 x 1.2 mL

ADDITIONAL INFORMATION:

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

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Certified By:

B.G. Chittim

Date:

10/30/2015
(mm/dd/yyyy)Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • Info@well-labs.comForm# 27, Issued 2004-11-10
Revision# 3, Revised 2015-03-24PFNA1015 (1 of 4)
rev0

Date Received: -2016/07/19 HPLC SSV 2 ampules
Date Received: 2016.09.12 - HPLC - 1 ampule
Received 2016/09/28 2 x 1.2mL MMN FZ-35
Received 2016/12/29 2x1.2 mL mmn



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CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

PFDA

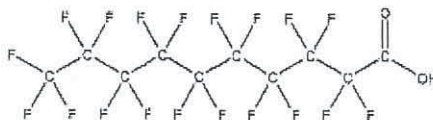
LOT NUMBER: PFDA0516

COMPOUND:

Perfluoro-n-decanoic acid

STRUCTURE:

CAS #: 335-76-2



MOLECULAR FORMULA:

$C_{10}H_8F_{18}O_2$

MOLECULAR WEIGHT: 514.08

CONCENTRATION:

50 ± 2.5 µg/ml

SOLVENT(S):

Methanol

Water (<1%)

CHEMICAL PURITY:

>99%

LAST TESTED: (mm/dd/yyyy)

05/31/2016

EXPIRY DATE: (mm/dd/yyyy)

05/31/2021

RECOMMENDED STORAGE:

Store ampoule in a cool, dark place

DOCUMENTATION DATA ATTACHED:

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

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

2 x 1.2 ml
Received 2016-09-12
MS (HPLC)

ADDITIONAL INFORMATION:

Storage: Freezer 35

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

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chittim

Date: 06/13/2016

(mm/dd/yyyy)

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Form 27, Issued 2004-11-10
Revision 3, Revised 2016-03-24

PFDA0516 1 of 4
rev3

Received 2016/09/12 2 x 1.2mL MMN FZ-35
Received 2016/12/01 2 x 1.2mL MMN FZ-35
Received 2016/12/16 2 x 1.2mL MMN FZ-11
Received 2016/12/19 1 x 1.2mL MMN FZ-11
Received 2016/12/23 1 x 1.2mL MMN FZ-11
Received 2016/12/29 1 x 1.2mL MMN FZ-11



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CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

L-PFDS

LOT NUMBER:

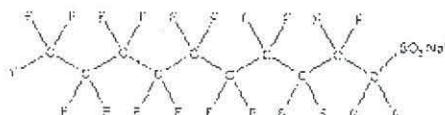
LPFDS0217

COMPOUND:

Sodium perfluoro-1-dodecanesulfonate

STRUCTURE:**CAS #:**

2806-15-7

**MOLECULAR FORMULA:** $C_{12}F_{27}SO_2Na$ **MOLECULAR WEIGHT:**

622.13

CONCENTRATION:

50.0 ± 2.5 µg/ml (Na salt)

SOLVENT(S):

Methanol

CHEMICAL PURITY:

>98%

LAST TESTED:

02/17/2017

EXPIRY DATE:

02/17/2022

RECOMMENDED STORAGE:

Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

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

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

ADDITIONAL INFORMATION:

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

Date received
26/12/03/10
2 Ampoules
HPLC
SSV

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Certified By:

B.G. Chittim

Date: 02/22/2017

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Form 021, Issued 06/04/11
Revised 03, Revised 2015-03-24

CP00021711 011
02/22

Received 2017/05/25 2 x 1.2mL MMN FZ-11

Received 2017/05/29 2 x 1.2mL MMN FZ-11

[illegible]

(FZ) Rev'd: 300

1x1.2ml

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

(continued)

date recieved-2015/10/30-mmn-1x1.2ml
Received 2016/10/05 1 x 1.2mL MMN FZ-11
date recieved-2016/07/19 HPLC SSV-2x1.2ml
Received:2016/12/23 1x1.2 ml- HPLC



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CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

PFD0A

LOT NUMBER:

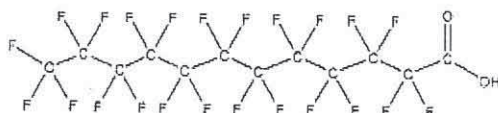
PFD0A0516

COMPOUND:

Perfluoro-n-dodecanoic acid

STRUCTURE:**CAS #:**

307-55-1

**MOLECULAR FORMULA:** $C_{12}H_2F_{22}O_2$ **MOLECULAR WEIGHT:**

614.10

CONCENTRATION: $50 \pm 2.5 \mu\text{g/ml}$ **SOLVENT(S):**

Methanol

Water (<1%)

CHEMICAL PURITY:

>98%

LAST TESTED:

05/31/2016

EXPIRY DATE:

05/31/2021

RECOMMENDED STORAGE:

Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

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

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

1 x 1.2 mL
Received 2016-09-12
MS (HPLC)
Storage: Freezer 35

ADDITIONAL INFORMATION:

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

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Certified By:

B.G. Chittim

Date: 06/02/2016

(signature)

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Form# 27, Issued 2004-11-10
Revision# 3, Revised 2015-03-24

PFD0A0516 (1 of 4)
rev3

Received 2016/09/28 2 x 1.2mL MMN FZ-35

Received 2016/11/25 1 x 1.2mL MMN FZ-35

Received 2016/12/01 1 x 1.2mL MMN FZ-35

Received 2016/12/16 2 x 1.2mL MMN FZ-11

Received 2016/12/19 1 x 1.2mL MMN FZ-11

Received 2016/12/23 1 x 1.2mL MMN FZ-11

Received 2016/12/29 1 x 1.2mL MMN FZ-11



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

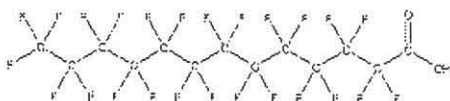
PFTDA

LOT NUMBER: PFTDA0216**COMPOUND:**

Perfluoro-n-tridecanoic acid

STRUCTURE:**CAS #:**

72629-04-8

**MOLECULAR FORMULA:** $C_{13}H_5F_{27}O_2$ **MOLECULAR WEIGHT:**

584.11

CONCENTRATION: $50 \pm 2.5 \mu\text{g/ml}$ **SOLVENT(S):**

Methanol

Water (<1%)

CHEMICAL PURITY:

>98%

LAST TESTED:

02/12/2018

EXPIRY DATE:

02/12/2021

RECOMMENDED STORAGE:

Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

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

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

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mEq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains ~0.1% of PFTDA ($C_{14}H_7F_{29}O_2$), ~0.4% of PFDCA ($C_{12}H_5F_{25}O_2$) and ~0.1% of PFTDA ($C_{14}H_7F_{29}O_2$).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chilton

Date:

02/16/2018

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
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Form W-22, Revised 10/11/15
[Rev 02/18] (Revised 2018-03-21)

WELL-001 (1 of 4)
10/15

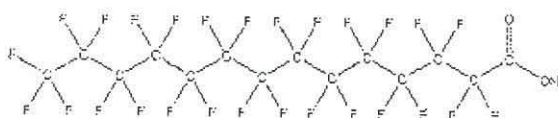
Date Received: 2016.10.05 - HPLC - 1 x 1.2ml
Date Received: 2016.09.12 - HPLC - 1 x 1.2ml
Date Received: 2016.11.25 - HPLC - 1 x 1.2ml.2ml
Received 2016/12/01 1 x 1.2mL MMN FZ-35
Received 2016/12/16 2 x 1.2mL MMN FZ-11
Received 2016/12/19 1 x 1.2mL MMN FZ-11
Received 2016/12/23 1 x 1.2mL MMN FZ-11
Received 2016/12/29 1 x 1.2mL MMN FZ-11



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: PFTeDA **LOT NUMBER:** PFTeDA1215
COMPOUND: Perfluoro-n-tetradecanoic acid
STRUCTURE: **CAS #:** 376-06-7



MOLECULAR FORMULA: $C_{14}F_{28}O_2$ **MOLECULAR WEIGHT:** 714.11
CONCENTRATION: $50 \pm 2.5 \mu\text{g/ml}$ **SOLVENT(S):** Methanol
Water (<1%)
CHEMICAL PURITY: >98%
LAST TESTED: (in-house) 12/09/2015
EXPIRY DATE: (in-house) 12/09/2020
RECOMMENDED STORAGE: Store ampoules in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

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

*rec. received 12/09/2015
2x1.2 ml.*

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains ~ 0.2% of PFDa ($C_{14}F_{28}O_2$) and ~ 0.2% of PFPaDA ($C_{14}H_{26}O_2$).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chittim

Date: 12/09/2015
(in-house)

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Form 9.01, Issued 2014-11-10
Revision 02, Revised 2016-03-24

PFTeDA1215 15 of 11
Rev2

Date Received : -2016/07/19 HPLC SSV 2 ampules
Date Received: 2016.09.12 - 1 ampule - HPLC
Recieved: 2016/12/23 2x1.2 ml- HPLC



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

FOSA-I

LOT NUMBER:

FOSA0815I

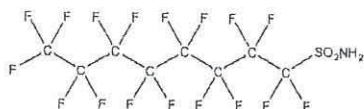
COMPOUND:

Perfluoro-1-octanesulfonamide

STRUCTURE:

CAS #:

754-91-6



MOLECULAR FORMULA:

C₈H₂F₁₇NO₂S

MOLECULAR WEIGHT:

499.14

CONCENTRATION:

50 ± 2.5 µg/ml

SOLVENT(S):

Isopropanol

CHEMICAL PURITY:

>98%

LAST TESTED: (mm/dd/yyyy)

09/02/2015

EXPIRY DATE: (mm/dd/yyyy)

09/02/2017

RECOMMENDED STORAGE:

Refrigerate ampoule

DOCUMENTATION/ DATA ATTACHED:

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

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

ADDITIONAL INFORMATION:

- See page 2 for further details.

*Received mmn
2015/10/30
2 x 1.2 ml
FPIV*

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chittim

Date: 09/11/2015

(mm/dd/yyyy)

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Received: 2015/11/30 mmn 2x1.2ml
date recieved: 2015/10/30-mm-1x1.2ml
Received: 2016/06/07 SSV- (2x1.2mL)
Date Received: 2016.07.19 - 1 ampule - HPLC
Date Received: 2016.10.05 - 2 x 1.2ml - HPLC
Date Received: 2016.09.12 - 1 x 1.2ml - HPLC
Recieved: 2017/04/06 2x1.2 ml - HPLC

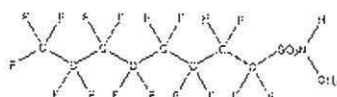
Date



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: N-MeFOSA-M
COMPOUND: N-methylperfluoro-1-octanesulfonamide
LOT NUMBER: NMeFOSA0516M
STRUCTURE:
CAS #: 31508-32-8



MOLECULAR FORMULA: C₉H₅F₁₇NO₂S
CONCENTRATION: 50 ± 2.5 µg/ml
CHEMICAL PURITY: >96%
LAST TESTED: 05/24/2016
EXPIRY DATE: 05/24/2021
RECOMMENDED STORAGE: Store ampoule in a cool, dark place
MOLECULAR WEIGHT: 513.17
SOLVENT(S): Methanol

DOCUMENTATION/ DATA ATTACHED:

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

ADDITIONAL INFORMATION:

See page 2 for further details.

1 ampule
2016/07/15
SSV
mm

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Certified By:
B.G. Chittim
Date: 05/26/2016

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Form 27, Issue 2014-11-19
Supersedes: Rev 02 2013-03-20

ANALOGOUS MATERIALS
1942

Received 2016/08/15 2 x 1.2mL MMN FZ-35
Date Received: 2016.11.25 - 1 x 1.2mL - HPLC
Received 2016/12/01 1 x 1.2mL MMN FZ-35
Date Received: 2016.12.19- 1 AMPULES - HPLC
Received 2016/12/23 1 x 1.2mL MMN FZ-11
Received 2016/12/29 1 x 1.2mL MMN FZ-11
Date Received: 2017/03/10- 2 AMPULES - SSV



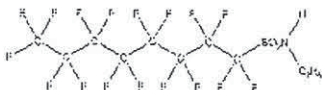
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: N-EIFOSA-M
COMPOUND: N-ethylperfluoro-1-octanesulfonamide

LOT NUMBER: NEIFCSA0516M

STRUCTURE: **CAS #:** 4151-50-2



MOLECULAR FORMULA: $C_{10}H_{11}F_{17}NO_2S$
CONCENTRATION: $50 \pm 2.5 \mu\text{g/ml}$
CHEMICAL PURITY: $>98\%$
LAST TESTED: 05/24/2016
EXPIRY DATE: 05/24/2021
RECOMMENDED STORAGE: Store ampoules in a cool, dark place

MOLECULAR WEIGHT: 527.20
SOLVENT(S): Methanol

DOCUMENTATION/ DATA ATTACHED:

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

ADDITIONAL INFORMATION:

• See page 2 for further details.

1 ampule
2016/07/19
SSV
HPLC

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Certified By:
B. G. Chirkin Date: 05/27/2016

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Perfluoro-1-octanesulfonamide
Perfluoro-1-octanesulfonamide

RECEIVED 11 01 15
HAC

Date Received: 2016/07/19 1 ampule x 1.2 mL (HPLC)
Date Received: 2016.08.15- 2 ampules- HPLC
Date Received: 2016.11.25 - 1 x 1.2ml - HPLC
Received 2016/12/01 1 x 1.2mL MMN FZ-11
Received 2016/12/19- -1 ampule HPLC
Received 2016/12/23- -1 ampule HPLC
Received 2016/12/29 1 x 1.2mL MMN FZ-11
Received date: 2017/02/22 1x1.2 mL MZH
Date Received:2017/03/10- 1 AMPULES - SSV

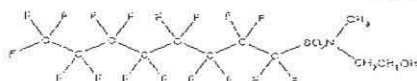


WELLINGTON
LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: N-MeFOSE-M LOT NUMBER: NMeFOSE1115M
COMPOUND: 2-(N-methylperfluoro-1-octanesulfonamido)-ethanol

STRUCTURE: CAS #: 24448-09-7



MOLECULAR FORMULA: $C_{10}H_{11}F_{17}NO_4S$ MOLECULAR WEIGHT: 557.22
CONCENTRATION: 50 ± 2.5 µg/ml SOLVENT(S): Methanol
CHEMICAL PURITY: >99%
LAST TESTED: 11/10/2015 (HRGC/LRMS)
11/09/2015 (LC/MS)
EXPIRY DATE: 11/10/2020
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

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

ADDITIONAL INFORMATION:

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

*Received from
2016/03/29
1 x 1.2mL*

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chilton Date: 11/16/2015

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
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Form 027, updated 10/01/15
Revised 02/15, 05/15, 09/15

NMeFOSE1115M 11 of 21
revD

Received 2016/08/15 2 x 1.2mL MMN FZ-11
Date Recieved: 2016.07.19 - 2 ampules - HPLC
Date Received: 2016.11.25 - 1 x 1.2mL -HPLC
Received 2016/12/01 1 x 1.2mL MMN FZ-11
Received 2016/12/19 1 x 1.2mL MMN FZ-11
Received 2016/12/23 1 x 1.2mL MMN FZ-11
Date Received: 2016.12.29 - 1 x 1.2ml- HPLC
Date Received: 2017/03/10- 2 AMPULES - SSV

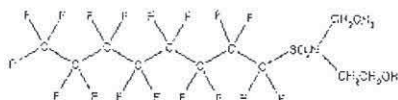


WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: N-EIFOSE-M **LOT NUMBER:** NEIFOSE1115M
COMPOUND: 2-(N-ethylperfluoro-1-octanesulfonamido)-ethanol

STRUCTURE: **CAS #:** 1691-99-2



MOLECULAR FORMULA: $C_{10}H_{19}F_{17}NO_4S$ **MOLECULAR WEIGHT:** 571.25
CONCENTRATION: $50 \pm 2.5 \mu\text{g/ml}$ **SOLVENT(S):** Methanol
CHEMICAL PURITY: >98%
LAST TESTED: 11/10/2015 (HRGC/LRMS)
11/09/2015 (LC/MS)
EXPIRY DATE: 11/10/2020
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

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

*Received from
2016/07/29
1 x 1.2 mL*

ADDITIONAL INFORMATION:

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

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim Date: 11/11/2015

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
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Form 27, Revised 2004-11-09
Revised 2013, Revised 2015-09-26

NEIFOSE1115M (1 of 6)
-000

Received 2016/08/15 2 x 1.2mL MMN FZ-11
Date Received: 2016.07.19- 2 AMPULES - HPLC
Date Received: 2016.11.25 - 1 x 1.2ML - HPLC
Received 2016/12/01 1 x 1.2mL MMN FZ-11
Date Received: 2016/12/19- 1 AMPULE - MMN HPLC
Received 2016/12/23 1 x 1.2mL MMN FZ-11
Received 2016/12/29 1 x 1.2mL MMN FZ-11
Date Received: 2017/03/10- 2 AMPULES - SSV



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

N-MeFOSAA

LOT NUMBER:

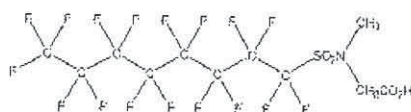
NMeFOSAA0116

COMPOUND:

N-methylperfluoro-1-octanesulfonamidoacetic acid

STRUCTURE:**CAS #:**

2355-31-9

**MOLECULAR FORMULA:** $C_{11}H_0F_{17}NO_4S$ **MOLECULAR WEIGHT:**

571.21

CONCENTRATION: $50 \pm 2.5 \mu\text{g/ml}$ **SOLVENT(S):**

Methanol

Water (<1%)

CHEMICAL PURITY:

>98%

LAST TESTED: (mm/dd/yyyy)

01/20/2016

EXPIRY DATE: (mm/dd/yyyy)

01/20/2021

RECOMMENDED STORAGE:

Refrigerate ampoule

DOCUMENTATION/ DATA ATTACHED:

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

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

ADDITIONAL INFORMATION:

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

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chittim

Date: 01/21/2016

(mm/dd/yyyy)

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Form 01-27, Rev 01/25/04-11-16
Revision 4-9, Revised 2015-03-24

NMeFOSAA0116 (1 of 6)
REV

Date received: -2016/07/19 SSV HPLC 2 ampoules
Date Received: 2016.10.05 - HPLC - 1 x 1.2ml
Date Received: 2016.09.12 -HPLC - 1 x 1.2ml
Recieved: 2016.12.23 1x1.2 ml - HPLC

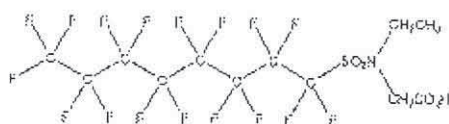


WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: NEIFOSAA **LOT NUMBER:** NEIFOSAA0116
COMPOUND: N-ethylperfluoro-1-octanesulfonamidoacetic acid

STRUCTURE: **CAS #:** 2891-50-8



MOLECULAR FORMULA: $C_{10}H_6F_{16}NO_4S$ **MOLECULAR WEIGHT:** 585.23
CONCENTRATION: $50 \pm 2.5 \mu\text{g/ml}$ **SOLVENT(S):** Methanol
Water (<1%)
CHEMICAL PURITY: >98%
LAST TESTED: 01/20/2016
EXPIRY DATE: 01/20/2021
RECOMMENDED STORAGE: Refrigerate ampoule

DOCUMENTATION/ DATA ATTACHED:

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

*Received from
2016/3/29
1 x 1.2 ml*

ADDITIONAL INFORMATION:

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

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:
B.G. Chittim

Date: 01/21/2016
(signature)

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FORM 27, 36500 2006-11-10
REVISED: 2015-03-24

NEIFOSAA0116 (p. 1 of 1)
REV

Date received: -2016/07/19 HPLC 2 Ampules SSV
Recieved: 2016/11/25 1x1.2ml - HPLC

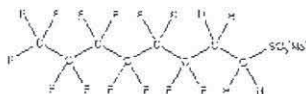


WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: 62FTS **LOT NUMBER:** 62FT92816
COMPOUND: Sodium 1H,1H,2H,2H-perfluorooctane sulfonate

STRUCTURE: **CAS #:** Not available



MOLECULAR FORMULA: $C_8H_9F_{17}SO_3Na$ **MOLECULAR WEIGHT:** 450.16
CONCENTRATION: 50.0 ± 2.5 µg/ml (Na salt)
47.4 ± 2.4 µg/ml (6:2FTS anion) **SOLVENT(S):** Methanol
CHEMICAL PURITY: >98%
LAST TESTED: 05/25/2018
EXPIRY DATE: 03/25/2021
RECOMMENDED STORAGE: Refrigerate ampoule

DOCUMENTATION/ DATA ATTACHED:

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

ADDITIONAL INFORMATION:

See page 2 for further details.

*2 ampoules
8/16/17/19
SSV
HPLC (py)*

FOR LABORATORY USE ONLY; NOT FOR HUMAN OR DRUG USE

Certified By:
B.G. Chilton

Date: 06/23/2015
1741206

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Form 027, Issues 2/04-11-11
Revised 12/12/12

07/15/2015: 11:32:43
m/c

Received 2016/09/28 2 x 1.2mL MMN FD-59
Received 2016/10/05 1 x 1.2mL MMN FD-59
Received: 2016.11.25- 1 x 1.2ml - HPLC
Received 2016/12/01 1 x 1.2mL MMN FD-59
Received 2016/12/19 1 x 1.2mL MMN FD-59<
e Received 2016/12/23- -1 ampule HPLC
Received 2016/12/29 1 x 1.2mL MMN FD-59
Date Received: 2017/03/10- 2 AMPULES - SSV



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

8.2FTS

LOT NUMBER:

82FTS1216

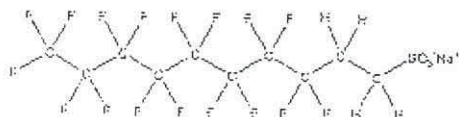
COMPOUND:

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

STRUCTURE:

CAS #:

Not available



MOLECULAR FORMULA:

C₁₀H₄F₁₇SO₃Na

MOLECULAR WEIGHT:

550.18

CONCENTRATION:

50.0 ± 2.6 µg/ml (Na salt)

SOLVENT(S):

Methanol

47.9 ± 2.4 µg/ml (8.2FTS anion)

CHEMICAL PURITY:

>98%

LAST TESTED:

12/12/2016

EXPIRY DATE:

12/12/2021

RECOMMENDED STORAGE:

Refrigerate ampoule

DOCUMENTATION/ DATA ATTACHED:

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

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

ADDITIONAL INFORMATION:

See page 2 for further details.

Date received
2017/03/10
2 Ampoules
HPLC
SSV

FOR LABORATORY USE ONLY; NOT FOR HUMAN OR DRUG USE

Certified By:

B. G. Chellam

Date: 12/21/2016

12/21/2016

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File: 82FTS1216 (1 of 4)
Institution: Wellington Laboratories

82FTS1216 (1 of 4)
12/21/2016

Received 2017/05/25 2 x 1.2mL MMN FD-59

Received 2017/05/29 2 x 1.2mL MMN FD-59

PREPARATION OF STANDARDS OF INTERMEDIARY CONCENTRATION

PRLST PG. 14

Solution No.: 15016 Date: 7/17/05/13 Expiry Date: 2018/05/13 Discard Date: _____
Replaces Solution No.: 14640 Replaced by Solution: _____ Chemist: mmw
Compound(s)/Solution Name: Comp. PFC working solution A
Number of Parent Solution(s): See attached sheet
Concentration of Parent Solution(s): See attached sheet (mg, ug)/mL
Aliquot of Parent Solution(s): See attached sheet mL / uL
Pipette/Syringe ID: Pip 29740D / M17485 E
Dilution Solvent: 0.3% NH₄OH in MeOH Dilution Volume: 50 mL
Final Concentration(s): _____ (mg, ug)/mL
Solution derivatized (as methyl ester): _____ As Other (specify): _____
Solution Contains Surrogate Compounds: _____ For mix refer to table on page: _____
Solution used for: PFC Volumetric Flask: 50 mL Class A (5040)
(Identify by serial number or other unique ID)
Solvent Supplier: Andrich Lot No.: See Parent 104-90
Date Opened: See Parent 104-90
Storage Location: F2-11 One time Use, Not Stored: _____
Ampule Supplier: Wellington Date Opened: see below
Mix Name: _____
Catalogue No.: _____ Ampule expiry Date: See attached sheet
Lot No.: See attached sheet
Date Received: See attached sheet

Notes/Comments:

Compound Name	ID#	Conc. (ug/mL)	Vol. of Stock standard (uL)	Final Conc. (ug/mL)	Exp. date
PFBA	S4141-1	50	1000	1	2021/05/27
L-PFBS	S4141-2	44.2	1130	1	2021/12/02
PFPeA	S4141-3	50	1000	1	2021/05/31
PFHxA	S4141-4	50	1000	1	2021/12/02
br-PFHxSk	S4141-5	45.5	1056	1	2020/07/03
PFHpA	S4141-6	50	1000	1	2021/01/22
L-PFHpS	S4141-7	47.6	1050	1	2020/11/06
PFOA	S4141-8	50	1000	1	2021/08/02
brPFOSK	S4141-9	46.4	1080	1	2020/10/14
PFNA	S4141-10	50	1000	1	2020/10/23
PFDA	S4141-11	50	1000	1	2021/05/31
L-PFDS	S4141-12	48.2	1036	1	2022/02/17
PFuDA	S4141-13	50	1000	1	2020/08/19
PFDaA	S4141-14	50	1000	1	2021/05/31
PFTTrDA	S4141-15	50	1000	1	2021/02/12
PFTeDA	S4141-16	50	1000	1	2020/12/09
PFOSA (FOSA-I)	S4141-17	50	1000	1	2021/09/30
N-MeFOSA-M	S4141-18	50	1000	1	2021/05/24
N-EtFOSA-M	S4141-19	50	1000	1	2021/05/24
N-MeFOSE-M	S4141-20	50	1000	1	2020/11/10
N-EtFOSE-M	S4141-21	50	1000	1	2020/11/10
N-MeFOSAA	S4141-22	50	1000	1	2020/01/20
N-EtFOSAA	S4141-23	50	1000	1	2020/01/20
6:2FTS	S4141-24	47.4	1056	1	2021/06/25
8:2FTS	S4141-25	47.9	1044	1	2021/12/21

PRLST 133 PG 73

PREPARATION OF CONCENTRATED STOCK STANDARDS

Solution No.: 54141 Date: 2017/05/13 Expiry Date: see attached sheet Discard Date: _____
 Replaces Solution: see attached sheet Replaced by Solution: _____ Chemist: mm

Solution ID#	Compound Name	Lot#	Received date	Exp. date	Replaces Solution	Replaced by Solution	Conc. (ug/mL)	Solvent	Storage
S4141-1	PFBA	PFBA0516	2017/04/06	2021/05/27	S4095-1		50	MeOH	FZ-35
S4141-2	L-PFBS	LPFBS1116	2016/12/19	2021/12/02	S4127		44.2	MeOH	FZ-35
S4141-3	PFPeA	PFPeA0516	2017/03/10	2021/05/31	S4095-2		50	MeOH	FZ-35
S4141-4	PFHxA	PFHxA1216	2017/02/22	2021/12/02	S4068-2		50	MeOH	FZ-35
S4141-5	br-PFHxSk	brPFHxSK0615	2016/12/23	2020/07/03	S4068-3		45.5	MeOH	FZ-35
S4141-6	PFHpA	PFHpA0116	2016/12/19	2021/01/22	S4068-4		50	MeOH	FZ-35
S4141-7	L-PFHpS	LPFHpS1115	2017/03/10	2020/11/06	S4095-3		47.6	MeOH	FZ-35
S4141-8	PFOA	PFOA0716	2016/12/23	2021/08/02	S4068-5		50	MeOH	FZ-35
S4141-9	brPFOSK	brPFOSK1015	2016/12/23	2020/10/14	S4068-6		46.4	MeOH	FZ-35
S4141-10	PFNA	PFNA1015	2017/02/22	2020/10/23	S4068-7		50	MeOH	FZ-35
S4141-11	PFDA	PFDA0516	2016/12/19	2021/05/31	S4068-8		50	MeOH	FZ-35
S4141-12	L-PFDS	LPFDS0217	2017/03/10	2022/02/17	S4095-4		48.2	MeOH	FZ-35
S4141-13	PFuDA	PFuDA0815	2016/12/19	2020/08/19	S4068-9		50	MeOH	FZ-35
S4141-14	PFDoA	PFDoA0516	2016/12/19	2021/05/31	S4068-10		50	MeOH	FZ-35
S4141-15	PFTTrDA	PFTTrDA0216	2016/12/19	2021/02/12	S4068-11		50	MeOH	FZ-35
S4141-16	PFTeDA	PFTeDA1215	2016/12/19	2020/12/09	S4068-12		50	MeOH	FZ-35
S4141-17	PFOSA (FOSA-I)	FOSA09161	2017/04/06	2021/09/30	S4126		50	IPA	FD-59
S4141-18	N-MeFOSA-M	NMeFOSA0516M	2017/03/10	2021/05/24	S4095-5		50	MeOH	FZ-35
S4141-19	N-EtFOSA-M	NEtFOSA0516M	2017/02/22	2021/05/24	S4095-6		50	MeOH	FZ-35
S4141-20	N-MeFOSE-M	NMeFOSE1115M	2017/03/10	2020/11/10	S4095-7		50	MeOH	FZ-35
S4141-21	N-EtFOSE-M	NEtFOSE1115M	2017/03/10	2020/11/10	S4095-8		50	MeOH	FZ-35
S4141-22	N-MeFOSAA	NMeFOSAA0116	2016/12/19	2020/01/20	S4068-13		50	MeOH	FD-59
S4141-23	N-EtFOSAA	NEtFOSAA0116	2016/12/23	2020/01/20	S4068-14		50	MeOH	FD-59
S4141-24	6:2FTS	62FTS0616	2017/03/10	2021/06/25	S4095-9		47.4	MeOH	FD-59
S4141-25	8:2FTS	82FTS1216	2017/03/10	2021/12/21	S4095-10		47.9	MeOH	FD-59
Date opened (All compounds): <u>2017/05/13</u>			Supplier (All compounds): <u>Wellington</u>			Chemist: <u>mm</u>			

Tare Weight*: _____ g/mg Volumetric Flask: _____
 Net Weight: _____ g/mg Concentration: _____ ug/mL
 Adjusted Net Weight**: _____ mg Solvent(s): _____

Balance Used: _____
 (specify model and serial no.) _____

Solvent Used: _____

Solvent Supplier: _____ Lot No(s): _____

Date Opened: _____

Storage Location / Conditions: _____

Notes/Comments _____



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

PFBA

LOT NUMBER:

PFBA0516

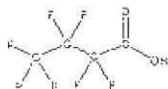
COMPOUND:

Perfluoro-n-butyric acid

STRUCTURE:

CAS #:

375-22-4



MOLECULAR FORMULA:

C₄HF₉O₂

MOLECULAR WEIGHT:

214.04

CONCENTRATION:

50 ± 2.5 µg/ml

SOLVENT(S):

Methanol

Water (<1%)

CHEMICAL PURITY:

>98%

LAST TESTED:

05/27/2016

EXPIRY DATE:

05/27/2021

RECOMMENDED STORAGE:

Store ampoules in a cool, dark place

DOCUMENTATION DATA ATTACHED:

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

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

ADDITIONAL INFORMATION:

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

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chittim

Date: 05/31/2016

11420387

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05/27/2016, 05/27/2016
05/27/2016, 05/27/2016

05/27/2016, 05/27/2016
05/27/2016, 05/27/2016

Date Received: 2016.09.12 - HPLC -1 ampule

Received 2016/11/25 1 x 1.2mL MMN FZ-35

Received 2016/12/01 1 x 1.2mL MMN FZ-35

Received 2016/12/19 1 x 1.2mL MMN FZ-11

Received 2016/12/23 1 x 1.2mL MMN FZ-11

Received 2016/12/29 1 x 1.2mL MMN FZ-11

Date Received: 2017/03/10- 1 AMPULES - SSV

Date Received: 2017.04.06 - 2 ampules - HPLC

Received 2017/05/25 2 x 1.2mL MMN FZ-11

Received 2017/05/29 2 x 1.2mL MMN FZ-11



WELLINGTON LABORATORIES

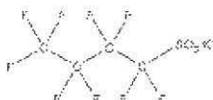
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: L-PFBS
COMPOUND: Potassium perfluoro-1-butanesulfonate

LOT NUMBER: LPFBS1116

STRUCTURE:

CAS #: 29420-49-3



MOLECULAR FORMULA: $C_4F_9SO_3K$
CONCENTRATION: $50.0 \pm 2.5 \mu g/ml$ (K salt)
 $44.2 \pm 2.2 \mu g/ml$ (PFBS anion)
CHEMICAL PURITY: >98%
LAST TESTED: (in-house) 12/02/2016
EXPIRY DATE: (in-house) 12/02/2021
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

MOLECULAR WEIGHT: 338.19
SOLVENT(S): Methanol

DOCUMENTATION/ DATA ATTACHED:

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

ADDITIONAL INFORMATION:

See page 2 for further details.

*Received from
2016/12/23
1x1.2mL
FZ-11*

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chittim

Date:

12/05/2016
newberg

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Revision 27, Issued 10/14/16
Newark, NJ, Revised 2015-03-24

LPFBS1116 (1 of 2)
mmf

Received 2016/12/23 1 x 1.2mL MMN FZ-11
RECEIVED 2017/03/10 1X1 MMN
Received 2017/05/25 2 x 1.2mL MMN FZ-11
Received 2017/05/29 2 x 1.2mL MMN FZ-11
Received 2016/12/19 2x1.2mL HPLC



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

PFPaA

LOT NUMBER:

PFPaA0516

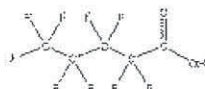
COMPOUND:

Perfluoro-n-heptanoic acid

STRUCTURE:

CASE #:

2706-90-3



MOLECULAR FORMULA:

C₇H₁₃O₂

MOLECULAR WEIGHT:

284.05

CONCENTRATION:

50 ± 2.5 µg/ml

SOLVENT(S):

Methanol

Water (<1%)

CHEMICAL PURITY:

>98%

LAST TESTED: (DATE)

05/31/2016

EXPIRY DATE: (DATE)

05/31/2021

RECOMMENDED STORAGE:

Store ampoule in a cool, dark place

DOCUMENTATION DATA ATTACHED:

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

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

ADDITIONAL INFORMATION:

- * See page 2 for further details.
- * Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- * Contains ~ 0.3% of Perfluoro-n-heptanoic acid (PFPaA) and ~ 0.2% of C₇H₁₃F₁₃O₂ (hydride - derivative) as measured by ¹⁹F NMR.

FOR LABORATORY USE ONLY; NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Drilling

Date:

05/02/2016

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
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Form P07, Version 10/16-17-18
Manufactured: 2016-03-24

PFPaA0516 11 of 11
Page 2

Date Received: 2016.09.12 - 1 ampule - HPLC

Received 2016/10/05 1 x 1.2mL MMN FZ-35

Received 2016/11/25 1 x 1.2mL MMN FZ-11

Received 2016/12/01 1 x 1.2mL MMN FZ-35

Received 2016/12/19 1 x 1.2mL MMN FZ-11

Received 2016/12/23 1 x 1.2mL MMN FZ-11

Received 2016/12/29 1 x 1.2mL MMN FZ-11

Date Received: 2017/03/10 - 2 AMPULES - SSV

Received 2017/05/25 2 x 1.2mL MMN FZ-11

Received 2017/05/29 2 x 1.2mL MMN FZ-11



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

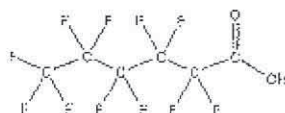
PRODUCT CODE:
COMPOUND:

PFHxA
Perfluoro-n-hexanoic acid

LOT NUMBER: PFHxA1216

STRUCTURE:

CAS #: 307-24-4



MOLECULAR FORMULA:

$C_6HF_{11}O_2$

MOLECULAR WEIGHT:

314.05

CONCENTRATION:

$50 \pm 2.5 \mu\text{g/ml}$

SOLVENT(S):

Methanol
Water (<1%)

CHEMICAL PURITY:

>98%

LAST TESTED: (12/02/2021)

12/02/2018

EXPIRY DATE: (12/04/2021)

12/02/2021

RECOMMENDED STORAGE:

Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

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

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

ADDITIONAL INFORMATION:

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

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chittim

Date: 12/07/2016

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
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Form 027, issued 2004-11-10
Revision 8.5, Revised 2015-03-24

PFHxA1216 (1 of 4)
1049

Received 2017/05/25 2 x 1.2mL MMN FZ-11

Received 2017/05/29 2 x 1.2mL MMN FZ-11



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

br-PFHxSK

Potassium Perfluorohexanesulfonate
Solution/Mixture of Linear and
Branched Isomers

PRODUCT CODE: br-PFHxSK
LOT NUMBER: brPFHxSK0615
CONCENTRATION: 50.0 ± 2.5 µg/ml (total potassium salt);
45.5 ± 2.3 µg/ml (total PFHxS anion)
SOLVENT(S): Methanol
DATE PREPARED: 03/28/2015
LAST TESTED: 07/03/2015
EXPIRY DATE: 07/03/2020
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DESCRIPTION:

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

DOCUMENTATION/ DATA ATTACHED:

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

*2 ampoule (CF2)
SSU
2/6/10/27
HPLC (CF2)*

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains ~ 0.5% of perfluoro-1-pentanesulfonate and ~ 0.2% of perfluoro-1-octanesulfonate.
- CAS#: 3871-99-8 (for linear isomer; potassium salt).

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Form 15, revised 2/14/11-20
Rev 06/12, Rev 06/15-07/20

brPFHxSK0615 (1 of 1)
rev1

Received 2016/10/27 2 x 1.2mL MMN FZ-35
Received 2016/11/25 1 x 1.2mL MMN FZ-35
Received: 2016.12.01- 1 x 1.2ml - HPLC
Received 2016/12/16 2 x 1.2mL MMN FZ-11
Received 2016/12/19 1 x 1.2mL MMN FZ-11
Received 2016/12/23 1 x 1.2mL MMN FZ-11
Received 2016/12/29 1 x 1.2mL MMN FZ-11
Received 2017/05/25 2 x 1.2mL MMN FZ-11



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

PFHpA

LOT NUMBER:

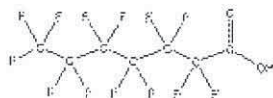
PFHpA0116

COMPOUND:

Perfluoro-n-heptanoic acid

STRUCTURE:**CAS #:**

375-85-6

**MOLECULAR FORMULA:** $C_7F_{13}O_2$ **MOLECULAR WEIGHT:**

364.06

CONCENTRATION:

50 ± 2.5 µg/ml

SOLVENT(S):Methanol
Water (<1%)**CHEMICAL PURITY:**

>98%

LAST TESTED:

01/22/2016

EXPIRY DATE:

01/22/2021

RECOMMENDED STORAGE:

Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

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

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

ADDITIONAL INFORMATION:

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

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chittim

Date:

02/02/2016
(initials)

*Received from
2016/10/05
1 x 1.2ml
FZ-35*

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Form V 27, Version 2016-11-10
Printed on 03-Nov-2016 03:20

Printed on 03-Nov-2016 03:20
155

Received 2016/09/12 1 x 1.2mL MMN FZ-35
Received 2016/10/05 1 x 1.2mL MMN FZ-35
Received 2016/11/25 1 x 1.2mL MMN FZ-35
Received: 2016.12.01 - 1 x 1.2ml - HPLC
Received: 2016/12/23 1x1.2 ml- HPLC
Received: 2016/12/19 1x1.2ml HPLC



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CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

L-PFHpS

LOT NUMBER:

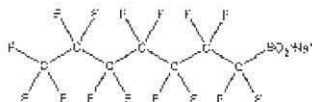
LPFHpS1115

COMPOUND:

Sodium perfluoro-1-heptanesulfonate

STRUCTURE:**CAS #:**

Not available

**MOLECULAR FORMULA:** $C_7F_{15}SO_3Na$ **MOLECULAR WEIGHT:**

472.10

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

Methanol

CHEMICAL PURITY:

>98%

LAST TESTED:

11/06/2015

EXPIRY DATE:

11/06/2020

RECOMMENDED STORAGE:

Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

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

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

ADDITIONAL INFORMATION:

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

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Certified By:

B.G. Chisholm

Date: 11/09/2015

(initials)

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Date Received: 2016.07.19 - 1 Ampule - HPLC
Date Received: 2016.09.12 - 1 Ampule - HPLC
Received 2016/10/05 1 x 1.2mL MMN FZ-35
Received: 2017/03/10 2x1.2 ml - HPLC



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

PFOA

LOT NUMBER:

PFOA0716

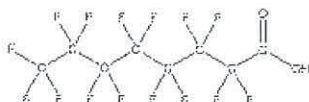
COMPOUND:

Perfluoro-n-octanoic acid

STRUCTURE:

CAS #:

335-07-1



MOLECULAR FORMULA:

$C_8H_7F_{17}O_2$

MOLECULAR WEIGHT:

414.07

CONCENTRATION:

$50 \pm 2.5 \mu\text{g/mL}$

SOLVENT(S):

Methanol

Water (<1%)

CHEMICAL PURITY:

>98%

LAST TESTED:

08/02/2016

EXPIRY DATE:

08/02/2021

RECOMMENDED STORAGE:

Store ampoule in a cool, dark place

*Received mm
2016/12/16
2 x 1.2 mL
FZ-11*

DOCUMENTATION/ DATA ATTACHED:

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

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

ADDITIONAL INFORMATION:

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

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chittim
B.G. Chittim

Date:

08/05/2016

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
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PFOA0716, Assay 5/16/16
PFOA0716, Revised 2016-03-24

PFOA0716 (1 of 2)
8/9/16

Received 2016/09/28 2 x 1.2mL MMN FZ-35
Received 2016/11/25 2 x 1.2mL MMN FZ-35
Received 2016/12/19 1 x 1.2mL MMN FZ-11
Received 2016/12/23 1 x 1.2mL MMN FZ-11
Received 2016/12/29 1 x 1.2mL MMN FZ-11



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

br-PFOSK

Potassium Perfluorooctanesulfonate
Solution/Mixture of Linear and
Branched Isomers

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

DESCRIPTION:

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

DOCUMENTATION/ DATA ATTACHED:

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

ADDITIONAL INFORMATION:

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

*Received from
Nov 10/19
2 x 1.2 mL*

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Form: P13, Rev: 01/2016
Revised: 3, Revised: 2015-10-24

br-PFOSK1015 1 of 1
10/13

Date Received: 2016.07.19 - 2 ampules - HPLC
Date Received: 2016.09.12 - 1 amples - HPLC
Received 2016/09/28 1 x 1.2mL MMN FZ-35
Received 2016/11/25 1 x 1.2mL MMN FZ-35
Received 2016/12/16 2 x 1.2mL MMN FZ-11
Received 2016/12/19 1 x 1.2mL MMN FZ-11
Received 2016/12/23 1 x 1.2mL MMN FZ-11
Received 2016/12/29 1 x 1.2mL MMN FZ-11



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

PFNA

LOT NUMBER:

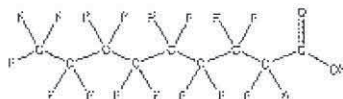
PFNA1015

COMPOUND:

Perfluoro-n-nonanoic acid

STRUCTURE:**CAS #:**

375-95-1

**MOLECULAR FORMULA:** $C_9H_5F_{17}O_2$ **MOLECULAR WEIGHT:**

464.08

CONCENTRATION: $50 \pm 2.5 \mu\text{g/ml}$ **SOLVENT(S):**Methanol
Water (<1%)**CHEMICAL PURITY:**

>98%

LAST TESTED: (mm/dd/yyyy)

10/23/2015

EXPIRY DATE: (mm/dd/yyyy)

10/23/2020

RECOMMENDED STORAGE:

Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

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

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

2 x 1.2 mL

ADDITIONAL INFORMATION:

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

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chittim

Date: 10/30/2015

(mm/dd/yyyy)

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519-822-2436 • Fax: 519-822-2849 • info@well-labs.comForm 107, Issued 2014-11-10
Revision 3, Revised 2018-03-24PFNA1015 (1 of 4)
PNA

Date Received: -2016/07/19 HPLC SSV 2 ampules

Date Received: 2016.09.12 - HPLC - 1 ampule

Received 2016/09/28 2 x 1.2mL MMN FZ-35

Received 2016/12/29 2x1.2 ml mmn

Date Received: 2017/02/22 2x1.2 ml HPLC



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CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

PFDA

LOT NUMBER:

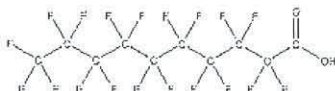
PFDA0516

COMPOUND:

Perfluoro-n-decanoic acid

STRUCTURE:**CAS #:**

335-76-2

**MOLECULAR FORMULA:** $C_{10}H_2F_{18}O_2$ **MOLECULAR WEIGHT:**

514.08

CONCENTRATION:

50 ± 2.5 µg/ml

SOLVENT(S):

Methanol

Water (<1%)

CHEMICAL PURITY:

>98%

LAST TESTED:

05/31/2018

EXPIRY DATE:

05/31/2021

RECOMMENDED STORAGE:

Store ampoule in a cool, dark place

DOCUMENTATION DATA ATTACHED:

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

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

ADDITIONAL INFORMATION:

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

2 x 1.2 ml

Received 2016-09-12

MS (HPLC)

Storage: Freezer 35

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chaitim

Date: 06/13/2018

(initials)

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519-822-2438 • Fax: 519-822-2849 • info@well-labs.comForm 007, Issued 2014-12-10
Revision 3, Revised 2016-03-24PFDA0516 15 of 15
10/01

Received 2016/09/12 2 x 1.2mL MMN FZ-35
Received 2016/12/01 2 x 1.2mL MMN FZ-35
Received 2016/12/16 2 x 1.2mL MMN FZ-11
Received 2016/12/19 1 x 1.2mL MMN FZ-11
Received 2016/12/23 1 x 1.2mL MMN FZ-11
Received 2016/12/29 1 x 1.2mL MMN FZ-11
Received 2017/05/25 2 x 1.2mL MMN FZ-11
Received 2017/05/29 2 x 1.2mL MMN FZ-11



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

L-PFDS

LOT NUMBER:

LPFDS0217

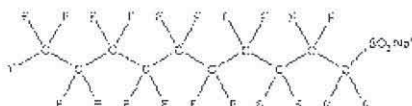
COMPOUND:

Sodium perfluoro-1-dodecanesulfonate

STRUCTURE:

CAS #:

2806-15-7



MOLECULAR FORMULA:

$C_{12}F_{27}SO_3Na$

MOLECULAR WEIGHT:

622.13

CONCENTRATION:

50.0 ± 2.5 µg/ml (Na salt)

SOLVENT(S):

Methanol

48.2 ± 2.4 µg/ml (PFDS anion)

CHEMICAL PURITY:

>98%

LAST TESTED:

02/17/2017

EXPIRY DATE:

02/17/2022

RECOMMENDED STORAGE:

Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

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

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

ADDITIONAL INFORMATION:

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

*Date received
2017/03/10
#2 Ampules
HPLC
SSV*

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chittim

Date:

02/22/2017
02/22/2017

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Form 02, Revised 03/11 (1-1)
Revised 2015-03-24

LPFDS0217 (1 of 1)
rev 5

Received 2017/05/25 2 x 1.2mL MMN FZ-11

Received 2017/05/29 2 x 1.2mL MMN FZ-11



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

PFUdA

LOT NUMBER:

PFUdA0815

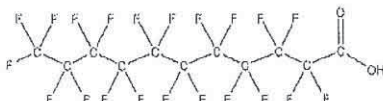
COMPOUND:

Perfluoro-n-undecanoic acid

STRUCTURE:

CAS #:

2058-94-8



MOLECULAR FORMULA:

$C_{11}H_2F_{21}O_2$

MOLECULAR WEIGHT:

564.09

CONCENTRATION:

$50 \pm 2.5 \mu\text{g/ml}$

SOLVENT(S):

Methanol

Water (<1%)

CHEMICAL PURITY:

>98%

LAST TESTED: (mm/dd/yyyy)

08/19/2015

EXPIRY DATE: (mm/dd/yyyy)

08/19/2020

RECOMMENDED STORAGE:

Store ampoule in a cool, dark place

(FZ) Rec'd: jn
2015/08/27
1x1.2mL

DOCUMENTATION/ DATA ATTACHED:

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

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

ADDITIONAL INFORMATION:

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

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chittim

Date: 08/21/2015

(mm/dd/yyyy)

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date recieved-2015/10/30-mmnn-1x1.2ml
Received 2016/10/05 1 x 1.2mL MMN FZ-11
date recieved-2016/07/19 HPLC SSV-2x1.2ml
Received:2016/12/23 1x1.2 ml- HPLC
Date Recieved: 2016/12/19 1x1.2 ml HPLC



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

PFD0A

LOT NUMBER:

PFD0A0516

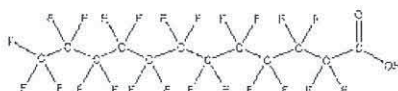
COMPOUND:

Perfluoro-n-dodecanoic acid

STRUCTURE:

CAS #:

307-55-1



MOLECULAR FORMULA:

$C_{12}F_{25}O_2$

MOLECULAR WEIGHT:

614.10

CONCENTRATION:

50 ± 2.5 µg/ml

SOLVENT(S):

Methanol

Water (<1%)

CHEMICAL PURITY:

>98%

LAST TESTED:

05/31/2016

EXPIRY DATE:

05/31/2021

RECOMMENDED STORAGE:

Store ampoules in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

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

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

1 x 1.2 mL
Received 2016-09-12
MS (HPLC)
Storage: freezer 35

ADDITIONAL INFORMATION:

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

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chittim

Date: 06/02/2016

(signature)

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Form 07, Rev 01/04-11-15
Revised, Revised 2015-03-24

PFD0A0516 (1 of 1)
05/16

Received 2016/09/28 2 x 1.2mL MMN FZ-35
Received 2016/11/25 1 x 1.2mL MMN FZ-35
Received 2016/12/01 1 x 1.2mL MMN FZ-35
Received 2016/12/16 2 x 1.2mL MMN FZ-11
Received 2016/12/19 1 x 1.2mL MMN FZ-11
Received 2016/12/23 1 x 1.2mL MMN FZ-11
Received 2016/12/29 1 x 1.2mL MMN FZ-11
Received 2017/05/25 2 x 1.2mL MMN FZ-11
Received 2017/05/29 2 x 1.2mL MMN FZ-11



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

PFTODA

LOT NUMBER:

PFTODA0216

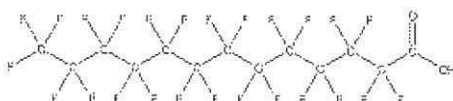
COMPOUND:

Perfluoro-n-tridecanoic acid

STRUCTURE:

CAS #:

72829-04-8



MOLECULAR FORMULA:

$C_{13}HF_{27}O_2$

MOLECULAR WEIGHT:

384.31

CONCENTRATION:

50 ± 2.5 µg/ml

SOLVENT(S):

Methanol

Water (<1%)

CHEMICAL PURITY:

>98%

LAST TESTED:

02/12/2018

EXPIRY DATE:

02/12/2021

RECOMMENDED STORAGE:

Store ampoule in a cool, dark place

DOCUMENTATION DATA ATTACHED:

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

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

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mmoles eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains ~ 0.1% of PFTODA ($C_{13}HF_{27}O_2$), ~ 0.4% of PFDOA ($C_{11}HF_{23}O_2$), and ~ 0.1% of PFTDA ($C_{15}HF_{31}O_2$).

*2/16/18
mcl (94) ssu
2 ampoules*

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

[Signature]
S.G. Chalmers

Date:

02/18/2018
[Signature]

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
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Product 22, Revised 10/17/15-16
Revised 10/17/15-16

PF5040216.1 of 4
10/17

Date Received: 2016.10.05 - HPLC - 1 x 1.2ml
Date Received: 2016.09.12 - HPLC - 1 x 1.2ml
Date REceived: 2016.11.25 - HPLC - 1 x 1.2ml.2ml
Received 2016/12/01 1 x 1.2mL MMN FZ-35
Received 2016/12/16 2 x 1.2mL MMN FZ-11
Received 2016/12/19 1 x 1.2mL MMN FZ-11
Received 2016/12/23 1 x 1.2mL MMN FZ-11
Received 2016/12/29 1 x 1.2mL MMN FZ-11

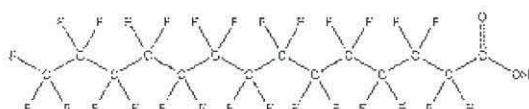


WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: PF1eDA **LOT NUMBER:** PPTeDA1218
COMPOUND: Perfluoro-n-tetradecanoic acid

STRUCTURE: **CAS #:** 376-06-7



MOLECULAR FORMULA: $C_{14}H_9F_{27}O_2$ **MOLECULAR WEIGHT:** 714.11
CONCENTRATION: $50 \pm 2.5 \mu\text{g/ml}$ **SOLVENT(S):** Methanol
Water (<1%)
CHEMICAL PURITY: >98%
LAST TESTED: 12/09/2015
EXPIRY DATE: 12/09/2020
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION DATA ATTACHED:

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

*received from 2016/03/29
2x1.2ml*

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains - 0.2% of PFDoA ($C_{14}H_9F_{27}O_2$) and - 0.2% of PFPeDA ($C_{15}H_9F_{29}O_2$).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chittim

Date: 12/09/2015
(signature)

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

Form 9121, Issued 2004-11-19
Revised 2015-03-24

PF1eDA1218 12 of 11
10/5

Date Received :-2016/07/19 HPLC SSV 2 ampules
Date Received: 2016.09.12 - 1 ampule - HPLC
Recieved: 2016/12/23 2x1.2 ml- HPLC
Date Recieved: 2016/12/19 2x1.2ml HPLC



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

FOSA-I

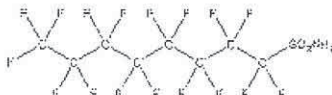
LOT NUMBER: FOSA0916I

COMPOUND:

Perfluoro-1-octanesulfonamide

STRUCTURE:

CAS #: 754-01-6



MOLECULAR FORMULA:

C₈H₂F₁₇NO₂S

MOLECULAR WEIGHT: 499.14

CONCENTRATION:

50 ± 2.5 µg/ml

SOLVENT(S): Isopropanol

CHEMICAL PURITY:

>98%

LAST TESTED: 09/30/2016

09/30/2016

EXPIRY DATE: 09/30/2021

09/30/2021

RECOMMENDED STORAGE:

Refrigerate ampoule

DOCUMENTATION/ DATA ATTACHED:

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

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

ADDITIONAL INFORMATION:

See page 2 for further details.

*Received mm
2016/12/29
1x1.2ml
FD-59*

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chittim

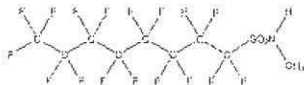
Date: 10/07/2016

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

Percept 17, Revised 2004-11-18
Percept 17, Revised 2015-02-04

FOSA0916I (1 of 4)
(169)

Received:2016.11.25 - 1x 1.2ml - HPLC
Received:2016.12.01 - 1x 1.2ml - HPLC
Received 2016/12/19 1 x 1.2mL MMN FD-59
Received 2016/12/23 1 x 1.2mL MMN FD-59
Received date: 2017/02/22 1x1.2 mL MZH
Date Received: 2017.04.06 - 2 x 1.2ml - HPLC
Received 2017/05/25 2 x 1.2mL MMN FD-59
Received 2017/05/29 2 x 1.2mL MMN FD-59



ANNUAL REPORT OF THE
1967



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

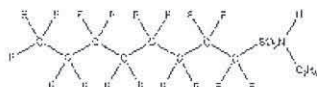
PRODUCT CODE:
COMPOUND:

N-EIFOSA-M
N-ethylperfluoro-1-octanesulfonamide

LOT NUMBER: NEIFOSA0516M

STRUCTURE:

CAS #: 4151-50-2



MOLECULAR FORMULA:

C₁₀H₁₁F₁₇NO₂S

MOLECULAR WEIGHT: 527.20

CONCENTRATION:

50 ± 2.5 µg/ml

SOLVENT(S):

Methanol

CHEMICAL PURITY:

>99%

LAST TESTED: (see label)

05/24/2016

EXPIRY DATE: (see label)

05/24/2021

RECOMMENDED STORAGE:

Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

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

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

*1 ampule
2016/07/15
SSV
HPLC*

ADDITIONAL INFORMATION:

• See page 2 for further details.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chilton

Date: 05/27/2016
15350700

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M3 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

Form 002, rev 01 2014 11-10
08/05/2015, Revision 02/15-01-24

08/05/2015, Revision 02/15-01-24
08/05

Date Received: 2016/07/19 1 ampule x 1.2 mL (HPLC)
Date Received: 2016.08.15- 2 ampules- HPLC
Date Received: 2016.11.25 - 1 x 1.2ml - HPLC
Received 2016/12/01 1 x 1.2mL MMN FZ-11
Received 2016/12/19- -1 ampule HPLC
Received 2016/12/23- -1 ampule HPLC
Received 2016/12/29 1 x 1.2mL MMN FZ-11
Received date: 2017/02/22 1x1.2 mL MZH
Date Received: 2017/03/10- 1 AMPULES - SSV
Received 2017/05/25 2 x 1.2mL MMN FZ-11
Received 2017/05/29 2 x 1.2mL MMN FZ-11

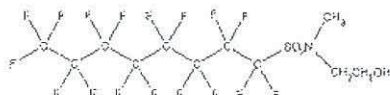


WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: N-MeFOSE-M LOT NUMBER: NMeFOSE1115M
COMPOUND: 2-(N-methylperfluoro-1-octanesulfonamido)-ethanol

STRUCTURE: CAS #: 24448-09-7



MOLECULAR FORMULA: $C_{10}H_{13}F_{17}NO_3S$ MOLECULAR WEIGHT: 557.22
CONCENTRATION: $50 \pm 2.5 \mu\text{g/ml}$ SOLVENT(S): Methanol
CHEMICAL PURITY: >98%
LAST TESTED: 11/10/2015 (HRGC/LRMS)
11/09/2015 (LC/MS)
EXPIRY DATE: 11/10/2020
RECOMMENDED STORAGE: Store ampule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

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

ADDITIONAL INFORMATION:

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

*Received mmn
2016/03/29
1 x 1.2 mL*

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Challen
B.G. Challen

Date: 11/15/2015

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519-822-2430 • Fax: 519-822-2849 • Info@well-labs.com

Form 27, 03/2012 (09/17-16)
Revised 03/2016 (03/2016-20)

NMeFOSE1115M 1 of 5
rev0

Received 2016/08/15 2 x 1.2mL MMN FZ-11
Date Received: 2016.07.19 - 2 ampules - HPLC
Date Received: 2016.11.25 - 1 x 1.2mL -HPLC
Received 2016/12/01 1 x 1.2mL MMN FZ-11
Received 2016/12/19 1 x 1.2mL MMN FZ-11
Received 2016/12/23 1 x 1.2mL MMN FZ-11
Date Received: 2016.12.29 - 1 x 1.2mL- HPLC
Date Received: 2017/03/10- 2 AMPULES - SSV

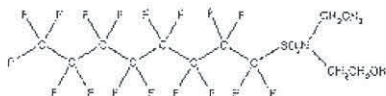


WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: N-EIPOSE-M **LOT NUMBER:** NEIPOSE1115M
COMPOUND: 2-(N-ethylperfluoro-1-octanesulfonamido)-ethanol

STRUCTURE: **CAS #:** 1691-99-2



MOLECULAR FORMULA: $C_{10}H_{19}F_{17}NO_2S$ **MOLECULAR WEIGHT:** 571.25
CONCENTRATION: $50 \pm 2.5 \mu\text{g/ml}$ **SOLVENT(S):** Methanol
CHEMICAL PURITY: >98%
LAST TESTED: 11/10/2015 (HRGC/LRMS)
11/09/2015 (LC/MS)
EXPIRY DATE: 11/10/2020
RECOMMENDED STORAGE: Store ampoules in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

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

*Received from
Nightingale
1 x 1.2 mL*

ADDITIONAL INFORMATION:

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

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:
B.G. Chittum

Date: 11/11/2015
(mm/dd/yyyy)

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

Form 427, Revised 2004-11-19
Revised 2015-02-24

NEIPOSE1115M (1 of 2)
rwh

Received 2016/08/15 2 x 1.2mL MMN FZ-11
Date Received: 2016.07.19- 2 AMPULES - HPLC
Date Received: 2016.11.25 - 1 x 1.2ML - HPLC
Received 2016/12/01 1 x 1.2mL MMN FZ-11
Date Received: 2016/12/19- 1 AMPULE - MMN HPLC
Received 2016/12/23 1 x 1.2mL MMN FZ-11
Received 2016/12/29 1 x 1.2mL MMN FZ-11
Date Received: 2017/03/10- 2 AMPULES - SSV



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

N-MeFOSAA

LOT NUMBER:

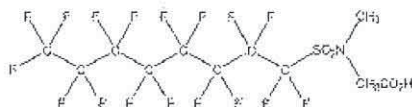
NMeFOSAA0116

COMPOUND:

N-methylperfluoro-1-octanesulfonamidoacetic acid

STRUCTURE:**CAS #:**

2358-31-9

**MOLECULAR FORMULA:** $C_{10}H_7F_{17}NO_4S$ **MOLECULAR WEIGHT:**

571.21

CONCENTRATION: $50 \pm 2.5 \mu\text{g/ml}$ **SOLVENT(S):**Methanol
Water (<1%)**CHEMICAL PURITY:**

>98%

LAST TESTED:

01/20/2016

EXPIRY DATE:

01/20/2021

RECOMMENDED STORAGE:

Refrigerate ampoule

DOCUMENTATION/ DATA ATTACHED:

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

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

ADDITIONAL INFORMATION:

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

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chittim

Date:

01/21/2016

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.comForm 01/17, Rev 01/17-14-16
Printed on 01/21/2016, Revision 2016-03-24NMeFOSAA0116 (1 of 1)
REV0

Date received: -2016/07/19 SSV HPLC 2ampoules

Date Received: 2016.10.05 - HPLC - 1 x 1.2ml

Date Received: 2016.09.12 -HPLC - 1 x 1.2ml

Recieved: 2016.12.23 1x1.2 ml - HPLC

Date Recieved: 2016/12/19 1x1.2ml HPLC



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

N-EIFOSAA

LOT NUMBER:

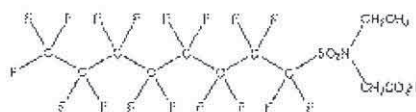
NEIFOSAA0116

COMPOUND:

N-ethylperfluoro-1-octanesulfonamidopropionic acid

STRUCTURE:**CAS #:**

2891-50-6

**MOLECULAR FORMULA:** $C_{12}H_{15}F_{17}NO_5S$ **MOLECULAR WEIGHT:**

585.23

CONCENTRATION:

50 ± 2.5 µg/ml

SOLVENT(S):Methanol
Water (<1%)**CHEMICAL PURITY:**

>98%

LAST TESTED:

01/20/2016

EXPIRY DATE:

01/20/2021

RECOMMENDED STORAGE:

Refrigerate ampoule

DOCUMENTATION/ DATA ATTACHED:

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

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

*Received from
2016/03/29
1 x 1.2 ml*

ADDITIONAL INFORMATION:

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

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chittim

Date: 01/21/2016

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
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Form 27, Issued 2006-11-10
Rev 03/2012, Revised 2015-03-26

NEIFOSAA0116 19 of 43
0000

Date received: -2016/07/19 HPLC 2 Ampules SSV

Received: 2016/11/25 1x1.2ml - HPLC

Date Received: 2016/12/23 1x1.2ml HPLC



WELLINGTON LABORATORIES

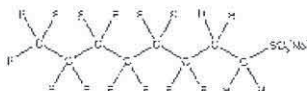
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: 62FTS
COMPOUND: Sodium 1H,1H,2H,2H-perfluorooctane sulfonate

LOT NUMBER: 62FTS0616

STRUCTURE:

CAS #: Not available



MOLECULAR FORMULA: $C_8H_2F_{17}SO_3Na$
CONCENTRATION: $50.0 \pm 2.5 \mu g/ml$ (Na salt)
 $47.4 \pm 2.4 \mu g/ml$ (6:2PFS anion)
CHEMICAL PURITY: >98%
LAST TESTED: 05/25/2018
EXPIRY DATE: 03/25/2021
RECOMMENDED STORAGE: Refrigerate ampoule

MOLECULAR WEIGHT: 450.15
SOLVENT(S): Methanol

DOCUMENTATION/ DATA ATTACHED:

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

ADDITIONAL INFORMATION:

See page 2 for further details.

2 ampoules
8/16/17/19
SSV
HPLC (14)

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Certified By:

B.G. Chilton

Date: 06/29/2018

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

Form 077, Issue 2014-11-01
Revised 2, Newer 2014-01-24

07726050:1 341
m/c

Received 2016/09/28 2 x 1.2mL MMN FD-59
Received 2016/10/05 1 x 1.2mL MMN FD-59
Received:2016.11.25- 1 x 1.2ml - HPLC
Received 2016/12/01 1 x 1.2mL MMN FD-59
Received 2016/12/19 1 x 1.2mL MMN FD-59<
e Received 2016/12/23- -1 ampule HPLC
Received 2016/12/29 1 x 1.2mL MMN FD-59
Date Received:2017/03/10- 2 AMPULES - SSV



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

6.2FTS

LOT NUMBER:

62FTS1218

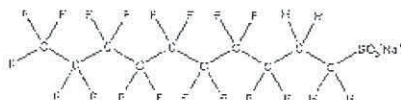
COMPOUND:

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

STRUCTURE:

CAS #:

Not available



MOLECULAR FORMULA:

$C_{10}H_{19}F_{11}SO_3Na$

MOLECULAR WEIGHT:

550.19

CONCENTRATION:

50.0 ± 2.5 µg/ml (Na salt)
 47.9 ± 2.4 µg/ml (8.2FTS anion)

SOLVENT(S):

Methanol

CHEMICAL PURITY:

>98%

LAST TESTED:

12/12/2016

EXPIRY DATE:

12/12/2021

RECOMMENDED STORAGE:

Refrigerate ampoules

DOCUMENTATION DATA ATTACHED:

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

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

ADDITIONAL INFORMATION:

See page 2 for further details.

Date received
2017/03/10
2 Ampoules
HPLC
SSV

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chélim

Date:

12/21/2016

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
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Form 27, revision 1004-11-15
Innovation & Science, Incorporated 2005-05-01

824751218 (1 of 1)
1010

Received 2017/05/25 2 x 1.2mL MMN FD-59

Received 2017/05/29 2 x 1.2mL MMN FD-59

PREPARATION OF SURROGATE / INTERNAL STANDARD SPIKING SOLUTION

Solution No.: SI-6423 Prep'n Date: 2017/05/03 Expiry Date: 2018/05/03 Discard Date: _____
 Replaces Solution No.: SI-6345 Replaced by Solution: SI-6460 Chemist: GSZ
 Sol'n. Name: IND. I.S.
 Solution Used As: Internal Std: ☒ Surrogate Spike: _____
 Spike Volume: 20 (uL) or mL (for I.S. uL per mL) For Instrument/Analysis: LC-MS-MS
 Solvent(s): 0.3% NH₄OH in MeOH Supplier(s): Su PRURE 104-60 Lot No(s): Su PRURE 104-60
 Date Solvent Opened: Su PRURE 104-60
 Volumetric Flask Used: 100 mL Class A (5640) Syringe ID: Pipette K19865F
 Storage Location and Conditions: FZ-11
 Ampule supplier; Mix Name; Catalogue No.; Lot No.; Date Rec'd.; Date Opened, Ampule Expiry Date:

Compound	Parent Solution No.	Parent Solution Conc'n. (ug/mL)	Aliquot Volume (mL) (uL)	Dilution Volume (mL)	Final Conc'n. ng/mL (ug/mL)	Absolute Amount Spiked (ug / ng)
¹³ C ₉ PFDA	S-4041	50	200	100	100	~
¹³ C ₉ PFHxA	S-4042	50	200	100	100	~
GSZ, 2017/05/03						

Notes:

Solution No.: SI-6424 Prep'n Date: 2017/05/04 Expiry Date: 2018/05/11 Discard Date: _____
 Replaces Solution No.: SI-6420 Replaced by Solution: SI-6425 Chemist: 1204
 Sol'n. Name: Acetone - o - taurphenyl
 Solution Used As: Internal Std: N/A Surrogate Spike: yes
 Spike Volume: 10.0 uL or mL (for I.S. uL per mL) For Instrument/Analysis: GC-FID-
 Solvent(s): Acetone Supplier(s): Fisher Lot No(s): 168362
 Date Solvent Opened: 2017/05/04
 Volumetric Flask Used: Class A Syringe ID: 2016/10106
 Storage Location and Conditions: FD-65
 Ampule supplier; Mix Name; Catalogue No.; Lot No.; Date Rec'd.; Date Opened, Ampule Expiry Date:

Compound	Parent Solution No.	Parent Solution Conc'n. (ug/mL)	Aliquot Volume (mL) (uL)	Dilution Volume (mL)	Final Conc'n. (ug/mL)	Absolute Amount Spiked (ug / ng)
<u>o-taurphenyl</u>	<u>PHI-135</u>	<u>100</u>	<u>16</u>	<u>4000</u>	<u>400</u>	<u>N/A</u>
RDY 2017/05/04						

Notes:

PRLST 133 PG 18

PREPARATION OF CONCENTRATED STOCK STANDARDS

Solution No.: S4041 Date: 2016/11/23 Expiry Date: 2018/06/20 Discard Date: _____
Replaces Solution: S4041 Replaced by Solution: S4142 Chemist: mw
Compound: 13C9 - PFDA Purity: 99%
Date Received: 2016/11/22 Expiry Date: 2018/06/20 Lot No.: PC10-014
Supplier: CTL
Date Opened: 2016/11/23
Final Gross Weight: _____ g/mg
Tare Weight*: _____ g/mg
Net Weight: _____ g/mg
Adjusted Net Weight**: _____ mg
Balance Used: _____
(specify model and serial no.) _____

Dilution Volume: _____ mL
Volumetric Flask: _____
Concentration: 50 (ug/mL) mg/mL
Solvent(s): MeOH

Solvent Used: _____
Solvent Supplier: _____ Lot No(s): _____
Date Opened: _____
Storage Location / Conditions: F2-35

Notes/Comments

Received as a solution in ampule.

Solution No.: S4042 Date: 2016/11/23 Expiry Date: 2020/09/30 Discard Date: _____
Replaces Solution: S4009 Replaced by Solution: S4143 Chemist: mw
Compound: 13C9 - PFHxA Purity: 99%
Date Received: 2016/11/22 Expiry Date: 2020/09/30 Lot No.: SD1A-004
Supplier: CTL
Date Opened: 2016/11/23
Final Gross Weight: _____ g/mg
Tare Weight*: _____ g/mg
Net Weight: _____ g/mg
Adjusted Net Weight**: _____ mg
Balance Used: _____
(specify model and serial no.) _____

Dilution Volume: _____ mL
Volumetric Flask: _____
Concentration: 50 ug/mL
Solvent(s): MeOH

Solvent Used: _____
Solvent Supplier: _____ Lot No(s): _____
Date Opened: _____
Storage Location / Conditions: F2-35

Notes/Comments

Received as a solution in ampule.



Cambridge Isotope Laboratories, Inc.

Certificate of Analysis

Quality Standards:
ISO Guide 34 • ISO/IEC 17025 • ISO 13485 • cGMP

Product Name: PERFLUORODECANOIC ACID
(Isotopic Label & Enrichment Specification) (13C9, 99%) 50 UG/ML IN METHANOL

Lot Number: SCID-014

Catalog Number: CLM-8172-S

Product Information

Chemical Purity Specification: $\geq 98\%$
Labeled CAS Number: NA
Unlabeled CAS Number: 335-76-2
MW*: 523.02
Chemical Formula: $\text{CF}_3(\text{CF}_2)_8\text{CO}_2\text{H}$
Storage: Store at room temperature away from light and moisture.
Stability: See storage and expiration date.

Certification

Cambridge Isotope Laboratories, Inc. guarantees that this material meets or exceeds the specifications stated. Absolute identity as well as chemical and isotopic purity are assured by the use of unambiguous synthetic routes and multiple chemical analyses whenever possible. Results are representative of QC testing at time of release from Quality Control unless otherwise stated.

Volumetric measurements were made with Class A glassware. Gravimetry is traceable to the NIST through calibrated balances and certified, calibrated, standard weights. The calibrations are traceable to the NIST under Test No. 822770236-04. The calibrations also meet specifications outlined in ISO 9001, ISO/IEC 17025, ANSI/NCSL Z540-1:1994, NCR Document 30CFR30 Appendix B, and applicable subdocuments.

This COA references the bulk catalog number before packaging. The COA also applies to the CIL finished good storage number. Some possible packaging sizes and their corresponding suffixes are -1.2, -1, -0.5, -10, or -0.1.

* For isotopically labeled compounds, MW listed is for the fully enriched product.

Approved by: T. J. Ebersley

Timothy J. Ebersley, Ph.D., Quality Review

Quality Control Tests and Results

QC Release Date	06/20/2018
Expiration Date	06/20/2018
Concentration Based on Gravimetry	50.0 $\mu\text{g/mL}$
Chemical Purity of Next Material(s)	$\geq 98\%$
LC/MS for Concentration	46.2 $\pm$ 6.4 $\mu\text{g/mL}$ (1 σ)

Received from
25ml 01/15
1 x 1.2ml
RT

50 Frontage Road, Andover, MA 01810-5413 USA • 1 800 322-1174 (North America) • 1 978 749-8000 (International) • isotope.com

Date Received: 2016.8.17 - 1 x 1.2mL - HPLC
Date Received: 2016.09.14 - HPLC - 1 x 1.2ml
Date Received: 2016/11/22 1x 1.2ml MMN HPLC
Date Received: 2017.02.15 - 1 x 1mL - HPLC (MMN)



Cambridge Isotope Laboratories, Inc.

Certificate of Analysis

Quality Standards:
ISO Guide 34 • ISO/IEC 17025 • ISO 13485 • cGMP

Product Name: PERFLUOROHXANOIC ACID, SODIUM SALT
(Isotopic Label & Enrichment Specifications) (13C6, 99%) 50 UG/ML IN METHANOL

Lot Number: SDAA-004

Catalog Number: CLM-8340-S

Product Information

Chemical Purity Specification: $\geq 98\%$

MW*: 320.00

*For high purity isotopes, MW is based on the fully enriched species.

Labeled CAS Number: NA

Unlabeled CAS Number: 307-24-4

Chemical Formula: $*CF_3(*CF_2)_4*COOH$

Storage: Store at room temperature away from light and moisture.

Stability: See storage and expiration date.

*Received from
2016/05/20
1x 1.2ml
RT*

Certification

Cambridge Isotope Laboratories, Inc. guarantees that this material meets or exceeds the specifications stated. Absolute identity as well as chemical and isotopic purities are assured by the use of unambiguous synthetic routes and multiple chemical analyses whenever possible. Results are representative of QC testing at time of release from Quality Control unless otherwise stated.

Volumetric measurements were made with Class A glassware. Gravimetry is traceable to the NIST through calibrated balances and certified, calibrated, standard weights. The calibrations are traceable to the NIST under Test No. 823/270236-04. The calibrations also meet specifications outlined in ISO 9001, ISO/IEC 17025, ANSI/NCSL Z540-1-1994, NCR Document 10CFR50 Appendix B, and applicable subdocuments.

This COA references the bulk catalog number before packaging. The COA also applies to the CIL finished good catalog number. Some possible packaging sizes and their corresponding suffixes are -1, 2, -1, -0.5, -10, or -0.1.

Approved by: T. J. Eckersley

Timothy J. Eckersley, Ph.D., Quality Review

Quality Control Tests and Results

QC Release Date	9/30/2010
Expiration Date	9/30/2020
Concentration Based on Gravimetry	50.4 µg/mL
Chemical Purity of New Material(s)	99.2%
LC/MS for Concentration	47.1 ± 2.6 µg/mL (1σ)

50 Front Street East, Andover, MA 01810-5613, USA • 1-800-322-1176 (toll-free) • 978-240-6070 (local) • info@ci-labs.com

Date Received: 2016/08/17 1x 1.2mL MMN HPLC
Date Received: 2016/09/14 1x 1.2mL MMN HPLC
Date Received: 2016/11/22 1x 1.2mL MMN HPLC
Date Received: 2017.02.15 - 1 x 1mL - HPLC (MMN)

131 PG 147

PREPARATION OF SURROGATE / INTERNAL STANDARD SPIKING SOLUTION

Solution No.: SI 6439 Prep'n Date: 2017/05/11 Expiry Date: 2017/12/22 Discard Date: _____
 Replaces Solution No.: SI 6427 Replaced by Solution: SI 6427 Chemist: mmw
 Sol'n. Name: PFC Internal Std. Spiking Soln 2017/05/11
 Solution Used As: Internal Std: ✓ Surrogate Spike: _____
 Spike Volume: _____ uL or mL (for I.S. uL per mL) For Instrument/Analysis: LCMS - MS
 Solvent(s): 0.3% MTH/OH in meth Supplier(s): see PALKE 104-82 Lot No(s): see PALKE 104-82
 Date Solvent Opened: see PALKE 104-82
 Volumetric Flask Used: 200 mL class A (SI 48) Syringe ID: pipette W3.477F / MTH/KSE
 Storage Location and Conditions: F2-11
 Ampule supplier; Mix Name; Catalogue No.; Lot No.; Date Rec'd.; Date Opened, Ampule Expiry Date: see attached sheet

SI 6439 (PKLST 131 P.147)

Compound Name	ID#	Conc. (ug/mL)	Vol. of Stock standard (uL)	Dilution volume (mL)	Final Conc. (ng/mL)	Exp. date
MPFBA	S4137-1	50	200	200	50	2021/05/24
M5PFPeA	S4137-2	50	200	200	50	2021/11/22
MPFHxA	S4131-1	50	200	200	50	2021/11/22
MPFHxS	S4137-3	50	200	200	50	2020/10/23
M4PFHpA	S4137-4	50	200	200	50	2021/05/27
MPFOA	S4137-5	50	200	200	50	2021/10/18
MPFOS	S4137-6	50	200	200	50	2021/12/12
MPFNA	S4137-7	50	200	200	50	2021/09/30
MPFDA	S4137-8	50	200	200	50	2021/09/30
MPFUDA	S4131-2	50	200	200	50	2021/11/22
MPFDoA	S4137-9	50	200	200	50	2021/04/08
M2PFTeDA	S4137-10	50	200	200	50	2020/12/07
MPFOSA	S4137-11	50	200	200	50	2017/12/22
D3-N-MeFOSAA	S4137-12	50	200	200	50	2021/11/22
D5-N-EtFOSAA	S4137-13	50	200	200	50	2021/11/22
D3-MeFOSA	S4131-3	50	500	200	125	2021/06/10
D5-EtFOSA	S4131-4	50	500	200	125	2021/06/10
D7-MeFOSE	S4131-5	50	500	200	125	2020/03/19
D9-EtFOSE	S4131-6	50	500	200	125	2022/03/23
M2-6:2FTS	S4131-7	50	500	200	125	2022/02/17
M2-8:2FTS	S4131-8	50	500	200	125	2021/08/22

No writing on bottom page.

mmw
2017/05/11

Notes:

PRLST 133 PG 70

PREPARATION OF CONCENTRATED STOCK STANDARDS

Solution No.: S 4137 Date: 2017/05/11 Expiry Date: See attached sheet Discard Date: _____
Replaces Solution: _____ Replaced by Solution: _____ Chemist: mm

SE 4137 - (PRLST 133 p. 70)

Solution ID#	Compound Name	Lot#	Received date	Exp. date	Replaces Solution	Replaced by Solution	Conc (ug/mL)	Solvent	Storage
S4137-1	MPFBA	MPFBA0516	2017/02/22	2021/05/24	S4089-1		50	MeOH	FZ-11
S4137-2	M5PFPeA	M5PFPeA1116	2017/02/22	2021/11/22	S4089-2		50	MeOH	FZ-11
S4137-3	MPFHxS	MPFHxS1015	2017/02/22	2020/10/23	S4089-4		50	MeOH	FZ-11
S4137-4	M4PFHpA	M4PFHpA0516	2017/02/22	2021/05/27	S4089-5		50	MeOH	FZ-11
S4137-5	MPFOA	MPFOA1016	2017/02/22	2021/10/18	S4089-6		50	MeOH	FZ-11
S4137-6	MPFOS	MPFOS1216	2017/02/22	2021/12/12	S4069-3		50	MeOH	FZ-11
S4137-7	MPFNA	MPFNA0916	2017/02/22	2021/09/30	S4089-7		50	MeOH	FZ-11
S4137-8	MPFDA	MPFDA0916	2017/02/22	2021/09/30	S4089-8		50	MeOH	FZ-11
S4137-9	MPFDoA	MPFDoA0416	2017/02/22	2021/04/08	S4089-10		50	MeOH	FZ-11
S4137-10	M2PFTeDA	M2PFTeDA1115	2017/02/22	2020/12/07	S4089-11		50	MeOH	FZ-11
S4137-11	MPFOA	M8FOA12151	2017/02/22	2017/12/22	S4089-12		50	IPA	FD-59
S4137-12	D3-N-MeFOSAA	d3nMeFOSAA1116	2017/02/22	2021/11/22	S4089-13	<u>S 4145-9</u>	50	MeOH	FD-59
S4137-13	D5-N-EtFOSAA	d5NEtFOSAA1116	2017/02/22	2021/11/22	S4089-14	<u>(4145-10)</u>	50	MeOH	FD-59

Date opened (All compounds): 2017/05/11

Chemist: mm

No writing on bottom page.

Notes/Comments

Solution No.: S 4138 Date: 2017/05/11 Expiry Date: See attached sheet Discard Date: _____
Replaces Solution: _____ Replaced by Solution: _____ Chemist: mm

S 4138 (PRLST 133 p. 70)

Solution ID#	Compound Name	Lot#	Received date	Exp. date	Replaces Solution	Replaced by Solution	Conc. (ug/mL)	Solvent	Storage
S4138-1	D3MeFOSA	dNMeFOSA0616M	2017/02/22	2021/06/10	S4131-3	<u>S 4145-1</u>	50	MeOH	FZ-11
S4138-2	D5-EtFOSA	dNEtFOSA0616M	2017/05/02	2021/06/10	S4131-4	<u>(4145-2)</u>	50	MeOH	FZ-11
S4138-3	D7-MeFOSE	d7NMeFOSE0217M	2017/05/02	2022/03/23	S4131-5	<u>S 4145-3</u>	50	MeOH	FZ-11
S4138-4	D9-EtFOSE	d9NEtFOSE0315M	2017/02/02	2020/03/19	S4131-6	<u>S 4145-4</u>	50	MeOH	FZ-11
S4138-5	M2-6:2FTS	M262FTS0217	2017/05/02	2022/02/17	S4131-7	<u>S 4145-5</u>	50	MeOH	FD-59
S4138-6	M2-8:2FTS	M282FTS0816	2017/05/02	2021/08/22	S4131-8	<u>S 4145-6</u>	50	MeOH	FD-59

Date opened (All compounds): 2017/05/11

Chemist: mm

Note: All compounds were received as a solution in ampule.

No writing on bottom page.

Storage Location / Conditions: _____

PRLST 133 PG 66

PREPARATION OF CONCENTRATED STOCK STANDARDS

Solution No.: 4130 Date: 2017/04/26 Expiry Date: 2018/04/30 Discard Date: —
Replaces Solution: — Replaced by Solution: — Chemist: clay
Compound: Formaldehyde, 2,4, DNPIf Purity: 99%
Date Received: 2017/04/26 Expiry Date: 2018/04/30 Lot No.: BcBR7763V
Supplier: Sigma
Date Opened: 2017/04/26
Final Gross Weight: — g/mg Dilution Volume: 10 mL
Tare Weight*: — g/mg Volumetric Flask: Class A
Net Weight: 0.046 @mg Concentration: 650.5714 (ug/mL) mg/mL
Adjusted Net Weight**: 45.54 mg Solvent(s): ACN
Balance Used: OHAUS H1360
(specify model and serial no.)

Solvent Used: ACN
Solvent Supplier: Fisher Lot No(s): 165746
Date Opened: 2017/04/10
Storage Location / Conditions: FR-59

Notes/Comments: 4554 ug/ml x $\frac{30}{210}$ = 650.5714 ug/ml
clay
2017/04/26

Solution No.: S-4131 Date: 2017/05/04 Expiry Date: — Discard Date: —
Replaces Solution: — Replaced by Solution: — Chemist: GSZ

S-4131 (PRLST 133, p. 66)

Solution ID#	Compound Name	Lot#	Received date	Exp. date	Replaces Solution	Replaced by Solution	Conc. (ug/mL)	Solvent	Storage
S4131-1	MPFHxA	MPFHxA1116	2017/02/02	2021/11/22	S4089-3	S 4145-8	50	MeOH	FZ-11
S4131-2	MPFUDA	MPFUDa1116	2017/02/22	2021/11/22	S4089-9	S 4145-7	50	MeOH	FZ-11
S4131-3	D3MeFOSA	dNMeFOSA0616M	2017/05/02	2021/06/10	S4097-1	S 4138-1	50	MeOH	FZ-11
S4131-4	D5-EtFOSA	dNEtFOSA0616M	2017/02/02	2021/06/10	S4097-2	S 4138-2	50	MeOH	FZ-11
S4131-5	D7-MeFOSE	d7NMeFOSE0315M	2017/02/02	2020/03/19	S4097-3	S 4138-3	50	MeOH	FZ-11
S4131-6	D9-EtFOSE	d9NEtFOSE0317M	2017/05/02	2022/03/23	S4097-4	S 4138-4	50	MeOH	FZ-11
S4131-7	M2-6:2FTS	M262FTS0217	2017/05/02	2022/02/17	S4097-5	S 4138-5	50	MeOH	FD-59
S4131-8	M2-8:2FTS	M282FTS0816	2017/05/02	2021/08/22	S4097-6	S 4138-6	50	MeOH	FD-59
Date opened (All compounds): 2017/05/04			Chemist: GSZ						
Note: All compounds were received as a solution in ampule.									

No writing on bottom page.

GSZ 2017/05/04



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CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

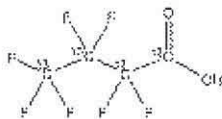
MPFBA

LOT NUMBER:

MPFBA0516

COMPOUND:Perfluoro-n-[1,2,3,4-¹³C₄]butanoic acid**STRUCTURE:****CAS #:**

Not available

**MOLECULAR FORMULA:**¹³C₄HF₁₁O₂**MOLECULAR WEIGHT:**

218.01

CONCENTRATION:

50 ± 2.5 µg/ml

SOLVENT(S):

Methanol

CHEMICAL PURITY:

≥98%

ISOTOPIC PURITY:≥99% ¹³C**LAST TESTED:** (mm/yyyy)

05/24/2016

(1,2,3,4-¹³C₄)**EXPIRY DATE:** (mm/yyyy)

05/24/2021

RECOMMENDED STORAGE:

Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

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

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

ADDITIONAL INFORMATION:

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

*received from
2016/12/15
1 x 1.2 mL
FZ-35*

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Date Received: 2016.10.24 -HPLC - 1 x1.2ml

Received 2016/12/12 1 x 1.2mL MMN FZ-11

Received date: 2017/02/22 2x1.2 mL MZH



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

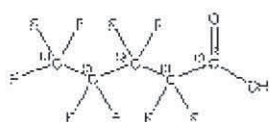
M5PFPaA

LOT NUMBER:

M5PFPaA1116

COMPOUND:Perfluoro-n-[¹³C₄]pentanoic acid**STRUCTURE:****CAS #:**

Not available

**MOLECULAR FORMULA:**¹³C₄HF₈O₂**MOLECULAR WEIGHT:**

269.01

CONCENTRATION:

50 ± 2.5 µg/ml

SOLVENT(S):Methanol
Water (<1%)**CHEMICAL PURITY:**

>98%

ISOTOPIC PURITY:≥99% ¹³C
(¹³C₄)**LAST TESTED:**

11/22/2016

EXPIRY DATE:

11/22/2021

RECOMMENDED STORAGE:

Store ampoules in a cool, dark place

Reserved
2x1.2 ml
with 2/2/22

DOCUMENTATION/ DATA ATTACHED:

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

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

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mols eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains < 0.1% of perfluoro-n-pentanoic acid.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chittim

Date:

12/09/2016
(mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2649 • info@well-labs.com

Form 27, Issued 2004-11-12
Revision 3, Revised 2016-03-26

M5PFPaA1116 (1 of 1)
revC

date recieved 2017/05/31 2x1.2



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

MPFHxA

LOT NUMBER: MPFHxA1115

COMPOUND:

Perfluoro-n-[1,2-¹³C]hexanoic acid

STRUCTURE:

CAS #: Not available



MOLECULAR FORMULA:

¹²C₂¹³C₄HF₁₁O₂

MOLECULAR WEIGHT: 316.04

CONCENTRATION:

50 ± 2.5 µg/mL

SOLVENT(S): Methanol

Water (<1%)

CHEMICAL PURITY:

>99%

ISOTOPIC PURITY: ≥99% ¹³C

(1,2-¹³C₂)

LAST TESTED: 11/22/2016

EXPIRY DATE: 11/22/2021

RECOMMENDED STORAGE:

Store ampoule in a cool, dark place (Freezer)

HPLC (1)
2017/02/02
SSV

DOCUMENTATION/ DATA ATTACHED:

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

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

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains < 0.1% of perfluoro-n-hexanoic acid and ~ 0.3% of perfluoro-n-octanoic acid.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chittim

Date: 12/13/2016

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Revised: 02/15/16
Revised: 02/15/16

MPFHxA: 116 (1 of 2)
10/16

Received date: 2017/02/14 1x1.2 mL MMN

Received date: 2017/02/02 2x1.2 mL MZH

Received date: 2017/05/31 2x1.2 mL ssv



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

MPFHxS

LOT NUMBER:

MPFHxS1015

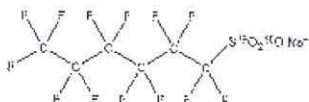
COMPOUND:

Sodium perfluoro-1-hexand[$^{18}\text{O}_2$]sulfonate

STRUCTURE:

CAS #:

Not available



2016/04/01
SSO
1x1.2mL

MOLECULAR FORMULA:

$\text{C}_6\text{F}_{13}\text{S}^{18}\text{O}_2\text{Na}$

MOLECULAR WEIGHT:

426.10

CONCENTRATION:

$50.0 \pm 2.5 \text{ } \mu\text{g/ml}$ (Na salt)

SOLVENT(S):

Methanol

$47.3 \pm 2.4 \text{ } \mu\text{g/ml}$ (MPFHxS anion)

CHEMICAL PURITY:

>98%

ISOTOPIC PURITY:

>94% ($^{18}\text{O}_2$)

LAST TESTED: (in-house)

10/23/2015

EXPIRY DATE: (in-house)

10/23/2020

RECOMMENDED STORAGE:

Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

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

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

ADDITIONAL INFORMATION:

- See page 2 for further details.
- The response factor for MPFHxS ($\text{C}_6\text{F}_{13}\text{S}^{18}\text{O}_2^{18}\text{O}$) has been observed to be up to 10% lower than for PFHxS ($\text{C}_6\text{F}_{13}\text{S}^{18}\text{O}_2$) when both compounds are injected together. This difference may vary between instruments.
- Due to the isotopic purity of the starting material ($^{18}\text{O}_2$ >94%), MPFHxS contains ~ 0.3% of PFHxS. This value agrees with the theoretical percent relative abundance that is expected based on the stated isotopic purity.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chittim

Date:

10/28/2015
6/28/2015

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M9 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

Form 5.27, Issues 2/04-11-15
Revision 03, Revised 10/15-02-24

7/15/151015 (1 of 4)
16-0

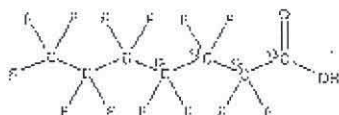
Date Received: 2016.10.24-HPLC- 1x1.2mL
Date Received: 2016.12.12-HPLC- 1x1.2mL
Received date: 2017/02/22 2x1.2 mL MZH



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: M4FFHpA
COMPOUND: Perfluoro-n-[1,2,3,4-¹³C]heptanoic acid
LOT NUMBER: M4PFHpA0516
STRUCTURE:
CAS #: Not available



MOLECULAR FORMULA: ¹³C₄¹²C₃HF₁₃O₂
CONCENTRATION: 50 ± 2.5 µg/ml
MOLECULAR WEIGHT: 368.03
SOLVENT(S): Methanol
Water (<1%)
CHEMICAL PURITY: >98%
ISOTOPIC PURITY: ≥99% ¹³C
(1,2,3,4-¹³C)
LAST TESTED: 05/27/2016
EXPIRY DATE: 05/27/2021
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

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

ADDITIONAL INFORMATION:

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

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Date Received: 2016.10.24 - HPLC - 1 x1.2mL
Received 2016/12/12 1 x 1.2mL MMN FZ-11
Received date: 2017/02/22 2x1.2 mL MZH

*received mmn
2016/12/12
1 x 1.2 mL
FZ-11*



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

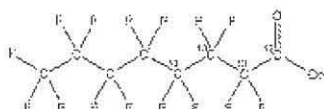
MPFOA

LOT NUMBER:

MPFOA1016

COMPOUND:Perfluoro-n-(1,2,3,4-¹³C)₈octanoic acid**STRUCTURE:****CAS #:**

Not available

**MOLECULAR FORMULA:** $C_8H_9F_{17}O_2$ **MOLECULAR WEIGHT:**

418.04

CONCENTRATION:

50 ± 2.5 µg/ml

SOLVENT(S):

Methanol

CHEMICAL PURITY:

>98%

ISOTOPIC PURITY:≥99% ¹³C
(1,2,3,4-¹³C)**LAST TESTED:** (mm/yyyy)

10/18/2016

EXPIRY DATE: (mm/yyyy)

10/18/2021

RECOMMENDED STORAGE:

Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

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

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

ADDITIONAL INFORMATION:

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

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chisim

Date: 10/19/2016

Wellington Laboratories Inc., 345 Southgate Dr, Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2649 • Info@well-labs.comForm 37, January 2014-15-16
Revised 2015-2016MPFOA1016 (1 of 1)
m/c

Date Received: 2017.02.02 - 1 x 1.2ml - HPLC

Received date: 2017/02/14 1x1.2 mL MMN

Received date: 2017/02/22 2x1.2 mL MZH



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

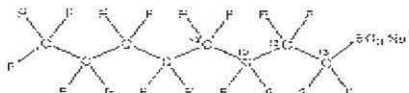
MPFOS

LOT NUMBER:

MPFOS1218

COMPOUND:Sodium perfluoro-1-[1,2,3,4-¹³C₄]octanesulfonate**STRUCTURE:****CAS #:**

Not available

**MOLECULAR FORMULA:**¹³C₄¹²C₄F₁₅SO₃Na**MOLECULAR WEIGHT:**

526.08

CONCENTRATION:

50.0 ± 2.5 µg/ml (Na salt)

SOLVENT(S):

Methanol

CHEMICAL PURITY:

>98%

ISOTOPIC PURITY:>99% ¹³C
(1,2,3,4-¹³C₄)**LAST TESTED:**

12/12/2016

EXPIRY DATE:

12/12/2021

RECOMMENDED STORAGE:

Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

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

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

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains ~ 0.8% Sodium perfluoro-1-[1,2,3-¹³C₃]heptanesulfonate.

Received
2x1.2ml
M71 m70222

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chittim

Date:

12/14/2016

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2949 • info@well-labs.com

Revised 02, Issued 2004-11-10
Revised 03, Revised 2015-03-24

MPFOS1218 (1 of 4)
10/0

date received 2017/05/31 2x1.2



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

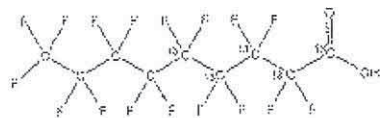
PRODUCT CODE:
COMPOUND:

MPFNA
Perfluoro-n-[1,2,3,4,5-¹³C₅]nonanoic acid

LOT NUMBER: MPFNA0016

STRUCTURE:

CAS #: Not available



MOLECULAR FORMULA:
CONCENTRATION:

¹³C₆¹²C₃HF₁₇O₂
50 ± 2.5 µg/ml

MOLECULAR WEIGHT: 469.04

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

CHEMICAL PURITY:

>98%

ISOTOPIC PURITY: ≥99% ¹³C

LAST TESTED: (method)

09/30/2016

(1,2,3,4,5-¹³C₅)

EXPIRY DATE: (method)

09/30/2021

RECOMMENDED STORAGE:

Store ampoules in a cool, dark place.

DOCUMENTATION/ DATA ATTACHED:

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

ADDITIONAL INFORMATION:

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

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chilton

Date: 10/11/2016
(method)

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Form 077, Rev 01 2014, 11-19
Revised 07/13, Revised 2015-03-24

MPFNA0016 15 of 41
rev 0

Received date: 2017/02/22 2x1.2 mL MZ
Received date: 2017/05/31 2x1.2 mL ssv



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

MPFDA

LOT NUMBER:

MPFDA0016

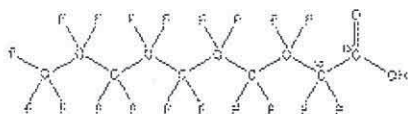
COMPOUND:

Perfluoro-n-[1,2-¹³C]₁₀decanoic acid

STRUCTURE:

CAS #:

Not available



MOLECULAR FORMULA:

¹³C₁₀¹⁸F₂₀HF₂O₂

MOLECULAR WEIGHT:

518.07

CONCENTRATION:

50 ± 2.5 µg/ml

SOLVENT(S):

Methanol

Water (<1%)

CHEMICAL PURITY:

>98%

ISOTOPIC PURITY:

≥99% ¹³C

(1,2-¹³C)

LAST TESTED:

03/30/2016

EXPIRY DATE:

03/30/2021

RECOMMENDED STORAGE:

Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

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

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

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains < 0.1% of ¹³C-PFNA.

FOR LABORATORY USE ONLY; NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chittim

Date:

10/07/2016
(date stamp)

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Form 02, Revised 2004-11-19
Revision 3, Revised 2015-03-04

4/11/2008 10:01 AM
REV

Date Received: 2017.02.02 - 1 x 1.2ml - HPLC

Received date: 2017/02/14 1x1.2 mL MMN

Date Received: 2017.02.22 - 2 x 1.2ml - HPLC,

Date Received: 2017.05.31 - 2 x 1.2ml - HPLC



WELLINGTON LABORATORIES

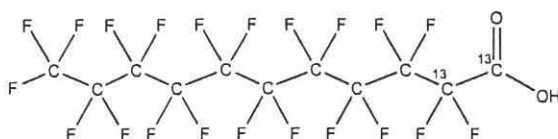
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: MPFUdA
COMPOUND: Perfluoro-n-[1,2-¹³C₂]undecanoic acid

LOT NUMBER: MPFUdA1116

STRUCTURE:

CAS #: Not available



MOLECULAR FORMULA: ¹³C₂¹²C₉HF₂₁O₂
CONCENTRATION: 50 ± 2.5 µg/ml

MOLECULAR WEIGHT: 566.08
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%

ISOTOPIC PURITY: ≥99% ¹³C
(1,2-¹³C₂)

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

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

RECOMMENDED STORAGE: Store ampoule in a cool, dark place

*Received mmw
2017/02/22
2 x 1.2 ml (F2-11)*

DOCUMENTATION/ DATA ATTACHED:

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

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

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Presence of 1-¹³C₁-PFUdA (~1%; see Figure 2), 2-¹³C₁-PFUdA (~1%), and PFUdA (~0.2%; see Figure 2) are due to the isotopic purity of the ¹³C-precursor.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chittim

Date: 12/07/2016
(mm/dd/yyyy)

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Maxxam Analytics

Form#: 27, Issued 2004-11-10
Revision#: 3, Revised 2015-03-24

1600 of 2393

MPFUdA1116 (1 of 4)
rev0



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

MPFD0A

LOT NUMBER: MPFD0A0416

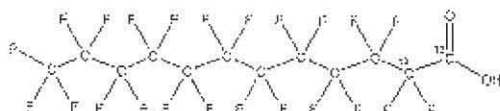
COMPOUND:

Perfluoro-n-{1,2-¹³C₂}dodecanoic acid

STRUCTURE:

CAS #:

Not available



MOLECULAR FORMULA:

¹³C₂¹²C₁₀HF₂₂O₂

MOLECULAR WEIGHT:

516.08

CONCENTRATION:

50 ± 2.5 µg/ml

SOLVENT(S):

Methanol

Water (<1%)

CHEMICAL PURITY:

>98%

ISOTOPIC PURITY:

≥99% ¹³C

(1,2-¹³C₂)

LAST TESTED:

04/08/2016

EXPIRY DATE:

04/08/2021

RECOMMENDED STORAGE:

Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

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

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

*Received from
1204010115
1 x 1.2 mL
FZ35*

ADDITIONAL INFORMATION:

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

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chittim

Date: 04/15/2016

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Date Received: 2016.10.24 -HPLC - 1 x1.2ml

Received 2016/12/12 1 x 1.2mL MMN FZ-11

Received date: 2017/02/22 2x1.2 mL MZ

HReceived date: 2017/05/31 2x1.2 mL ssv



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

M2PFTeDA

LOT NUMBER:

M2PFTeDA1115

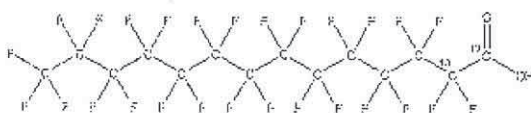
COMPOUND:

Perfluoro-n-[1,2-¹³C₂]tetradecanoic acid

STRUCTURE:

CAS #:

Not available



2016/4/6/1
SSV
1x1.2 mL

MOLECULAR FORMULA:

¹³C₂¹⁸O₂HF₂O₂

MOLECULAR WEIGHT:

716.16

CONCENTRATION:

50 ± 2.5 µg/mL

SOLVENT(S):

Methanol

CHEMICAL PURITY:

>98%

ISOTOPIC PURITY:

≥99% ¹³C
(1,2-¹³C₂)

LAST TESTED: (mm/dd/yyyy)

12/07/2015

EXPIRY DATE: (mm/dd/yyyy)

12/07/2020

RECOMMENDED STORAGE:

Store ampoules in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

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

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

ADDITIONAL INFORMATION:

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

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chittim

Date:

12/08/2015
2015mm

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Form 027, Issued 2015-11-16

M2PFTeDA1115 (1 of 4)

Date Received: 2016.11.29 - 2 x 1.2mL - HPLC

Date received: -2016/08/15 HPLC MMN

Received date: 2017/02/22 2x1.2 mL MZH



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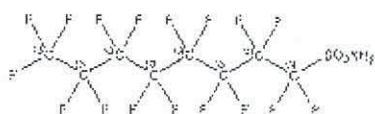
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

MBFOSA-I

LOT NUMBER: MBFOSA1215i**COMPOUND:**Perfluoro-1-¹³C₈octanesulfonamide**STRUCTURE:****CAS #:**

Not available

**MOLECULAR FORMULA:**¹³C₈H₁₇F₁₇NO₂S**MOLECULAR WEIGHT:** 507.09**CONCENTRATION:**

50 ± 2.5 µg/ml

SOLVENT(S):

Isopropanol

CHEMICAL PURITY:

>99%

ISOTOPIC PURITY:≥99% ¹³C**LAST TESTED:** 12/22/2015

12/22/2015

(¹³C₈)**EXPIRY DATE:** 12/22/2017

12/22/2017

RECOMMENDED STORAGE:

Refrigerate ampoule

DOCUMENTATION/ DATA ATTACHED:

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

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

ADDITIONAL INFORMATION:

• See page 2 for further details.

received from
2016/12/23
2x1.2 mL
FD-59

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chittim

Date: 01/14/2016

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Form 27, Issues 3&4, m. 11/11
Printed 10/13, Revised 2015-03-24

MBFOSA1215i (1 of 1)
2015

Received 2016/12/12 1 x 1.2mL MMN FD-59
Received date: 2017/02/22 2x1.2 mL MZH

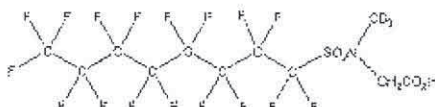


WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: d3-N-MeFOSAA
COMPOUND: N-methyl-d3-perfluoro-1-octanesulfonamidoacetic acid
LOT NUMBER: d3NMeFOSAA1110

STRUCTURE:
CAS #: Not available



MOLECULAR FORMULA: C₁₀D₁₇H₂F₁₇NO₃S
CONCENTRATION: 50 ± 2.5 µg/ml
MOLECULAR WEIGHT: 574.23
SOLVENT(S): Methanol
Water (<1%)
CHEMICAL PURITY: >98%
ISOTOPIC PURITY: ≥98% ¹H₁
LAST TESTED: 11/22/2016
EXPIRY DATE: 11/22/2021
RECOMMENDED STORAGE: Refrigerated ampoule

DOCUMENTATION/ DATA ATTACHED:

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

ADDITIONAL INFORMATION:

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

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

S.G. Griffin

Date: 12/07/2016

Received
2x1.2ml
2017-12-22
mtr

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Form 27, Issue 2004-11-12
Revised 2015-02-24

d3NMeFOSAA1110 (1 of 1)
10/15

date recieved 2017/05/31 2x1~.2



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CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

d5-N-EtFOSAA

LOT NUMBER:

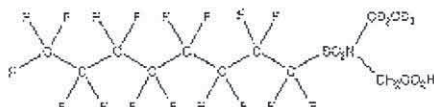
d5NEIFOSAA1118

COMPOUND:

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

STRUCTURE:**CAS #:**

Not available

**MOLECULAR FORMULA:** $C_{10}D_{15}H_{11}NO_4S$ **MOLECULAR WEIGHT:**

590.26

CONCENTRATION: $50 \pm 2.5 \mu\text{g/ml}$ **SOLVENT(S):**Methanol
Water (<1%)**CHEMICAL PURITY:**

>98%

ISOTOPIC PURITY: $\geq 98\% \text{ } ^2\text{H}_1$ **LAST TESTED:** in-house

11/22/2016

EXPIRY DATE: in-house

11/22/2021

RECOMMENDED STORAGE:

Refrigerate ampoule

received new
2017/12/16
17 1.2 mL
FD-59

DOCUMENTATION/ DATA ATTACHED:

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

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

ADDITIONAL INFORMATION:

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

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chittim

Date: 12/01/2016

(print name)

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Form WEL, issued 2014-11-10
Revised 2, Revised 2016-03-14

d5NEIFOSAA:1118 (1 of 1)
rev2

Received date: 2017/02/22 2x1.2 mL MZH

Received date: 2017/05/31 2x1.2 mL ssv

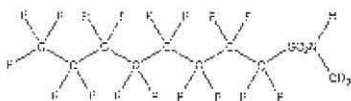


WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: d-N-MeFOSA-M **LOT NUMBER:** dNMeFOSA0816M
COMPOUND: N-methyl-d₈-perfluoro-1-octanesulfonamide

STRUCTURE: **CAS #:** Not available



MOLECULAR FORMULA:	C ₉ D ₈ HF ₁₇ NO ₂ S	MOLECULAR WEIGHT:	516.19
CONCENTRATION:	50 ± 2.5 µg/ml	SOLVENT(S):	Methanol
CHEMICAL PURITY:	>98%	ISOTOPIC PURITY:	≥98% ² H ₁
LAST TESTED:	06/10/2015		
EXPIRY DATE:	06/10/2021		
RECOMMENDED STORAGE:	Store ampoules in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

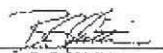
Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

• See page 2 for further details.

*received mm
2016/12/23
2 x 1.2ml
FZ-35*

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Certified By:  Date: 06/10/2015
B.G. Chikim

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Printed: 27, Sep 2014 11:50
Revised: 03, Dec 2015 01:50

USP41-05403152 (1 of 1)
2016

Date Received: 2016.10.24 - HPLC - 1x 1.2ml
Received 2016/12/12 1 x 1.2mL MMN FZ-11
Date Received: 2016.09.12 -HPLC - 1 x 1.2ml
Received 2016/11/29 1 x 1.2mL MMN FZ-11
Date Received: 2017.02.02 - 1 x 1.2ml - HPLC
Received date: 2017/02/22 2x1.2 mL MZH
Date Received: 2017.03.10 - 2 x 1.2ml - HPLC
Received: 2017.05.02- 1x1.2 ml- HPLC



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

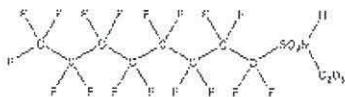
d-N-GIFOSA-M

LOT NUMBER:

dNEIFOSA0616M

COMPOUND:N-ethyl-d₈-perfluoro-1-octanesulfonamide**STRUCTURE:****CAS #:**

Not available

**MOLECULAR FORMULA:**C₉H₁₁F₈NO₂S**MOLECULAR WEIGHT:**

532.23

CONCENTRATION:

50 ± 2.5 µg/ml

SOLVENT(S):

Methanol

CHEMICAL PURITY:

>98%

ISOTOPIC PURITY:>98% ¹⁹F**LAST TESTED:**

06/10/2016

EXPIRY DATE:

06/10/2021

RECOMMENDED STORAGE:

Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

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

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

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains ~0.5% of N-methyl-d₈-perfluoro-1-octanesulfonamide (d-N-MeFOSA).

*Received mm
2016 10/12/16
2 x 1.2ml
FZ-11*

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Certified By:

B.G. Chittim

Date: 07/14/2016

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Printed: 01/24/2016 11:10
Revised: 03/20/2016 00:00

MSD/CHEM/11M/1 of 4
10/11

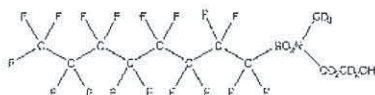
Date Received: 2016.10.24 -HPLC - 1 x 1.2ml
Received 2016/12/12 1 x 1.2mL MMN FZ-11
Date Received: 2016.09.12 -HPLC - 1 x 1.2ml
Received 2016/11/29 1 x 1.2mL MMN FZ-11
Date Received: 2017.02.02 - 1 x 1.2ml - HPLC
Received date: 2017/02/22 2x1.2 mL MZH



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CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: d7-N-MeFOSE-M **LOT NUMBER:** d7NMMeFOSE0315M
COMPOUND: 2-(N-methyl-d3-perfluoro-1-octanesulfonamido)ethan-d4-ol
STRUCTURE: **CAS #:** Not available



MOLECULAR FORMULA: C₁₁D₇HF₁₇NO₂S
CONCENTRATION: 50 ± 2.5 µg/ml
CHEMICAL PURITY: >98%
LAST TESTED: 03/19/2015
EXPIRY DATE: 03/19/2020
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

MOLECULAR WEIGHT: 564.27
SOLVENT(S): Methanol
ISOTOPIC PURITY: ≥98% ¹H

DOCUMENTATION/ DATA ATTACHED:

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

ADDITIONAL INFORMATION:

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

received mmn
2016/01/08
2 x 1.2 ml
FZ-35

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chittem

Date: 03/24/2015

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
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Form 27, (Rev'd 8/04-15-16)
Replaces: 27, January 2015-02-24

97NMMeFOSE0315M (1 of 4)
rev'd

Received : 2016/06/07 SSV- (2x1.2mL)
Received: 2016.09.23 -HPLC- (2x1.2mL)
Received: 2016.10.24 - HPLC - (1 x 1.2ml)
Received 2016/11/29 1 x 1.2mL MMN FZ-11
Received 2016/12/12 1 x 1.2mL MMN FZ-11
Date Received: 2016.09.12 -HPLC - 1 x 1.2ml
Received: 2017.02.02 1x1.2ml-HPLC
Date Received: 2017/02/22 HPLC 2X1.2ML

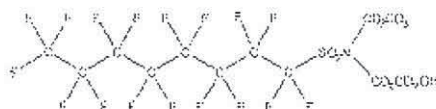


WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: d9-N-EtFOSE-M **LOT NUMBER:** d9NEtFOSE0317M
COMPOUND: 2-(N-ethyl-d5-perfluoro-1-octanesulfonamido)ethan-2-ol

STRUCTURE: **CAS #:** Not available



MOLECULAR FORMULA: C₁₀D₅HF₁₇NO₂S **MOLECULAR WEIGHT:** 580.31
CONCENTRATION: 50 ± 2.5 µg/ml **SOLVENT(S):** Methanol
CHEMICAL PURITY: >98% **ISOTOPIC PURITY:** ≥98%
LAST TESTED: 03/23/2017 (HRGC/LRMS)
03/02/2017 (LC/MS)
EXPIRY DATE: 03/23/2022
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

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

ADDITIONAL INFORMATION:

- See page 2 for further details.
- In order to see the molecular ion (adduct free), the LC mobile phase should be free of ammonium acetate buffer.
- Contains ~ 0.55% of N-ethyl-d5-perfluoro-1-octanesulfonamido.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: 
B.G. Chidley, General Manager

Date: 04/06/2017
1111111111

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
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Form 22, Issued 2014-11-15
Rev 000001, Revised 2017-05-02

d9NEtFOSE0317M (6 of 6)
rev 0

Date Recieved: 2017/05/02 2x1.2ml HPLC



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

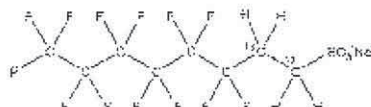
M2-6:2F7S

LOT NUMBER:

M262F7S0217

COMPOUND:Sodium 1H,1H,2H,2H-perfluoro-[1,2-¹³C]₆octane sulfonate**STRUCTURE:****CAS #:**

Not available

**MOLECULAR FORMULA:**¹³C₆¹³C₆H₂F₁₀SO₃Na**MOLECULAR WEIGHT:**

452.13

CONCENTRATION:

50.0 ± 2.5 µg/ml (Na salt)

SOLVENT(S):

Methanol

47.5 ± 2.4 µg/ml (M2-6:2F7S anion)

CHEMICAL PURITY:

>98%

ISOTOPIC PURITY:≥99% ¹³C**LAST TESTED:**

02/17/2017

(1,2-¹³C₆)**EXPIRY DATE:**

02/17/2022

RECOMMENDED STORAGE:

Refrigerate ampoule

DOCUMENTATION/ DATA ATTACHED:

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

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

HPLC
2017/05/31
2x1.2ml

ADDITIONAL INFORMATION:

- See page 2 for further details.
- The native 6:2F7S contains 4.22% of ¹³S (due to natural isotopic abundance) therefore both native 6:2F7S and M2-6:2F7S will produce signals in the m/z 429 to m/z 409 channel during SRM analysis. We recommend using the m/z 429 to m/z 81 transition to monitor for M2-6:2F7S during quantitative analysis as it will be free of any native contribution (see Figure 2).

FOR LABORATORY USE ONLY; NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Griffin

Date:

02/24/2017

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

Printed: 02/24/2017 11:10
Reported: 02/24/2017 11:10

M262F7S0217 (1 of 4)
15/0

Date Recieved: 2017/05/02 2x1.2ml HPLC



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

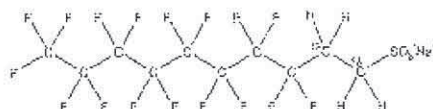
M2-8-2FTS

LOT NUMBER:

M282FTS0616

COMPOUND:Sodium 1H,1H,2H,2H-perfluoro-[1,2-¹³C₈]decane sulfonate**STRUCTURE:****CAS #:**

Not available

**MOLECULAR FORMULA:**¹³C₈H₁₈F₁₇SO₃Na**MOLECULAR WEIGHT:**

552.15

CONCENTRATION:

50.0 ± 2.5 µg/ml (Na salt)

SOLVENT(S):

Methanol

CHEMICAL PURITY:

>98%

ISOTOPIC PURITY:≥99% ¹³C**LAST TESTED:**

08/22/2016

EXPIRY DATE:

08/22/2021

RECOMMENDED STORAGE:

Refrigerate ampoule

DOCUMENTATION DATA ATTACHED:

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

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

ADDITIONAL INFORMATION:

- See page 2 for further details.
- The native 8-2FTS contains 4.22% of ¹³S (due to natural isotopic abundance) therefore both native 8-2FTS and M2-8-2FTS will produce signals in the m/z 529 to m/z 509 channel during SRM analysis. We recommend using the m/z 529 to m/z 81 transition to monitor for M2-8-2FTS during quantitative analysis as it will be free of any native contribution (see Figure 2).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chittim

Date: 09/02/2016

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

Method 01, Revised 2004-11-10
Revision 03, Revised 2015-10-21

M2SFT00816 15 of 15
12/02

received 2016/09/28 1x1.2 mL mmn FD-59

Received 2016/11/29 - 1 x 1.2mL - MMN FD-59

Date Received: 2017.02.02 - 1 x 1.2ml - HPLC

Received date: 2017/02/22 2x1.2 mL MZH

Recieved:2017.05.02 1x1.2 ml-HPLC Recieved:2017.05.31 2x1.2 ml-HPLC

131 PG 149

PREPARATION OF SURROGATE / INTERNAL STANDARD SPIKING SOLUTION

Solution No.: SI 6441 Prep'n Date: 2017/05/11 Expiry Date: 2017/12/22 Discard Date: _____
 Replaces Solution No.: SI 6440 Replaced by Solution: _____ Chemist: mm
 Sol'n. Name: PFC Internal Std Spiking Solution
 Solution Used As: Internal Std: ✓ Surrogate Spike: _____
 Spike Volume: _____ uL or mL (for I.S. uL per mL) For Instrument/Analysis: CCMS-MS
 Solvent(s): 0.5% methanol in water Supplier(s): See INLINE 104-82 Lot No(s): See INLINE 104-82
 Date Solvent Opened: See INLINE 104-82
 Volumetric Flask Used: 200 mL class A Syringe ID: p.p.f.c. 31477F / M1748IE
 Storage Location and Conditions: FZ-11
 Ampule supplier; Mix Name; Catalogue No.; Lot No.; Date Rec'd.; Date Opened, Ampule Expiry Date: See attached sheet

PRELST 131 p. 149

SI 6441

Compound Name	ID#	Conc. (ug/mL)	Vol.. of Stock standard (uL)	Dilution volume (mL)	Final Conc. (ng/mL)	Exp. date
MPFBA	S4137-1	50	200	200	50	2021/05/24
M5PFPeA	S4137-2	50	200	200	50	2021/11/22
MPFHxA	S4131-1	50	200	200	50	2021/11/22
MPFHxS	S4137-3	50	200	200	50	2020/10/23
M4PFHpA	S4137-4	50	200	200	50	2021/05/27
MPFOA	S4137-5	50	200	200	50	2021/10/18
MPFOS	S4137-6	50	200	200	50	2021/12/12
MPFNA	S4137-7	50	200	200	50	2021/09/30
MPFDA	S4137-8	50	200	200	50	2021/09/30
MPFUDA	S4131-2	50	200	200	50	2021/11/22
MPFDoA	S4137-9	50	200	200	50	2021/04/08
M2PFTeDA	S4137-10	50	200	200	50	2020/12/07
MPFOSA	S4137-11	50	200	200	50	2017/12/22
D3-N-MeFOSAA	S4137-12	50	200	200	50	2021/11/22
D5-N-EtFOSAA	S4137-13	50	200	200	50	2021/11/22
✓ D3-MeFOSA	S4138-1	50	500	200	125	2021/06/10
✓ D5-EtFOSA	S4138-2	50	500	200	125	2021/06/10
✓ D7-MeFOSE	S4138-3	50	500	200	125	2022/03/23
✓ D9-EtFOSE	S4138-4	50	500	200	125	2020/03/19
- M2-6:2FTS	S4138-5	50	500	200	125	2022/02/17
- M2-8:2FTS	S4138-6	50	500	200	125	2021/08/22

no nothing on bottom page.

mm 2017/05/11

Notes:

PRLST 133 PG 70

PREPARATION OF CONCENTRATED STOCK STANDARDS

Solution No.: S 4137 Date: 2017/05/11 Expiry Date: See attached sheet Discard Date: _____
Replaces Solution: _____ Replaced by Solution: _____ Chemist: mmw

SE 4137 - (PRLST 133 p. 70)

Solution ID#	Compound Name	Lot#	Received date	Exp. date	Replaces Solution	Replaced by Solution	Conc (ug/mL)	Solvent	Storage
S4137-1	MPFBA	MPFBA0516	2017/02/22	2021/05/24	S4089-1		50	MeOH	FZ-11
S4137-2	M5PFPeA	M5PFPeA1116	2017/02/22	2021/11/22	S4089-2		50	MeOH	FZ-11
S4137-3	MPFHxS	MPFHxS1015	2017/02/22	2020/10/23	S4089-4		50	MeOH	FZ-11
S4137-4	M4PFHpA	M4PFHpA0516	2017/02/22	2021/05/27	S4089-5		50	MeOH	FZ-11
S4137-5	MPFOA	MPFOA1016	2017/02/22	2021/10/18	S4089-6		50	MeOH	FZ-11
S4137-6	MPFOS	MPFOS1216	2017/02/22	2021/12/12	S4069-3		50	MeOH	FZ-11
S4137-7	MPFNA	MPFNA0916	2017/02/22	2021/09/30	S4089-7		50	MeOH	FZ-11
S4137-8	MPFDA	MPFDA0916	2017/02/22	2021/09/30	S4089-8		50	MeOH	FZ-11
S4137-9	MPFDoA	MPFDoA0416	2017/02/22	2021/04/08	S4089-10		50	MeOH	FZ-11
S4137-10	M2PFTeDA	M2PFTeDA1115	2017/02/22	2020/12/07	S4089-11		50	MeOH	FZ-11
S4137-11	MPFOSA	M8FOSA1215I	2017/02/22	2017/12/22	S4089-12		50	IPA	FD-59
S4137-12	D3-N-MeFOSAA	d3nMeFOSAA1116	2017/02/22	2021/11/22	S4089-13	S 4145-9	50	MeOH	FD-59
S4137-13	D5-N-EtFOSAA	d5NEtFOSAA1116	2017/02/22	2021/11/22	S4089-14	S 4145-10	50	MeOH	FD-59
Date opened (All compounds): <u>2017/05/11</u>			Chemist: <u>mmw</u>						

No writing on bottom page.

Notes/Comments

Solution No.: S 4138 Date: 2017/05/11 Expiry Date: See attached sheet Discard Date: _____
Replaces Solution: _____ Replaced by Solution: _____ Chemist: mmw

S 4138 (PRLST 133 p. 70)

Solution ID#	Compound Name	Lot#	Received date	Exp. date	Replaces Solution	Replaced by Solution	Conc. (ug/mL)	Solvent	Storage
S4138-1	D3MeFOSA	dNMeFOSA0616M	2017/02/22	2021/06/10	S4131-3	S4145-1	50	MeOH	FZ-11
S4138-2	D5-EtFOSA	dNEtFOSA0616M	2017/05/02	2021/06/10	S4131-4	S4145-2	50	MeOH	FZ-11
S4138-3	D7-MeFOSE	d7NMeFOSE0217M	2017/05/02	2022/03/23	S4131-5	S4145-3	50	MeOH	FZ-11
S4138-4	D9-EtFOSE	d9NEtFOSE0315M	2017/02/02	2020/03/19	S4131-6	S4145-4	50	MeOH	FZ-11
S4138-5	M2-6-2FTS	M262FTS0217	2017/05/02	2022/02/17	S4131-7	S4145-5	50	MeOH	FD-59
S4138-6	M2-8-2FTS	M282FTS0816	2017/05/02	2021/08/22	S4131-8	S4145-6	50	MeOH	FD-59
Date opened (All compounds): 2017/05/11			Chemist: mmw						
Note: All compounds were received as a solution in ampule.									

No writing on bottom page.

Storage Location / Conditions: _____

Notes/Comments

PRLST 133 PG 66

PREPARATION OF CONCENTRATED STOCK STANDARDS

Solution No.: 4130 Date: 2017/04/26 Expiry Date: 2018/04/30 Discard Date: —
Replaces Solution: — Replaced by Solution: — Chemist: clm
Compound: Formaldehyde, 2,4, DNP1f Purity: 99%
Date Received: 2017/04/26 Expiry Date: 2018/04/30 Lot No.: BcBR-7763V
Supplier: Sigma
Date Opened: 2017/04/26
Final Gross Weight: — g/mg Dilution Volume: 10 mL
Tare Weight*: — g/mg Volumetric Flask: Class A
Net Weight: 0.046 g/mg Concentration: 650.574 (ug/mL) mg/mL
Adjusted Net Weight**: 45.54 mg Solvent(s): ACN
Balance Used: OHAUS H1360
(specify model and serial no.)

Solvent Used: ACN
Solvent Supplier: Fisher Lot No(s): 165746
Date Opened: 2017/04/26
Storage Location / Conditions: FG-59

Notes/Comments: 45.54 ug/mL x $\frac{30}{210}$ = 650.574 ug/mL
clm
2017/04/26

Solution No.: S-4131 Date: 2017/05/04 Expiry Date: — Discard Date: —
Replaces Solution: — Replaced by Solution: — Chemist: GSZ

S-4131 (PRLST 133, p. 66)

Solution ID#	Compound Name	Lot#	Received date	Exp. date	Replaces Solution	Replaced by Solution	Conc. (ug/mL)	Solvent	Storage
S4131-1	MPFHxA	MPFHxA1116	2017/02/02	2021/11/22	S4089-3	S 4145-8	50	MeOH	FZ-11
S4131-2	MPFUDA	MPFUDA1116	2017/02/22	2021/11/22	S4089-9	S 4145-7	50	MeOH	FZ-11
S4131-3	D3MeFOSA	dNMeFOSA0616M	2017/05/02	2021/06/10	S4097-1	S 4138-1	50	MeOH	FZ-11
S4131-4	D5-EtFOSE	dNEtFOSE0315M	2017/02/02	2021/06/10	S4097-2	S 4138-2	50	MeOH	FZ-11
S4131-5	D7-MeFOSE	d7NMeFOSE0315M	2017/02/02	2020/03/19	S4097-3	S 4138-3	50	MeOH	FZ-11
S4131-6	D9-EtFOSE	d9NEtFOSE0317M	2017/05/02	2022/03/23	S4097-4	S 4138-4	50	MeOH	FZ-11
S4131-7	M2-6:2FTS	M262FTS0217	2017/05/02	2022/02/17	S4097-5	S 4138-5	50	MeOH	FD-59
S4131-8	M2-8:2FTS	M282FTS0816	2017/05/02	2021/08/22	S4097-6	S 4138-6	50	MeOH	FD-59

Date opened (All compounds): 2017/05/04

Chemist: GSZ

Note: All compounds were received as a solution in ampule.

No writing on bottom page.

GSZ 2017/05/04



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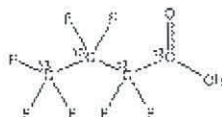
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

MPFBA

LOT NUMBER:

MPFBA0516

COMPOUND:Perfluoro-n-[1,2,3,4-¹³C₄]butanoic acid**STRUCTURE:****CAS #:**

Not available

MOLECULAR FORMULA:¹³C₄HF₉O₂**MOLECULAR WEIGHT:**

218.04

CONCENTRATION:

50 ± 2.5 µg/ml

SOLVENT(S):

Methanol

CHEMICAL PURITY:

>98%

ISOTOPIC PURITY:>99% ¹³C**LAST TESTED:** (mm/yyyy)

05/24/2018

(1,2,3,4-¹³C₄)**EXPIRY DATE:** (mm/yyyy)

05/24/2021

RECOMMENDED STORAGE:

Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

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

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

ADDITIONAL INFORMATION:

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

*received from
2016/12/15
1 x 1.2 mL
FZ-11*

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Date Received: 2016.10.24 -HPLC - 1 x1.2ml

Received 2016/12/12 1 x 1.2mL MMN FZ-11

Received date: 2017/02/22 2x1.2 mL MZH



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

M5PFPaA

LOT NUMBER:

M5PFPaA1116

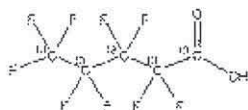
COMPOUND:

Perfluoro-n-[¹³C]₅pentanoic acid

STRUCTURE:

CAS #:

Not available



MOLECULAR FORMULA:

¹³C₅HF₉O₂

MOLECULAR WEIGHT:

269.01

CONCENTRATION:

50 ± 2.5 µg/ml

SOLVENT(S):

Methanol

Water (<1%)

CHEMICAL PURITY:

>98%

ISOTOPIC PURITY:

≥99% ¹³C

(¹³C_p)

LAST TESTED:

11/22/2016

EXPIRY DATE:

11/22/2021

RECOMMENDED STORAGE:

Store ampoules in a cool, dark place

Reserved
2x1.2 ml
mtl mtl-22

DOCUMENTATION/ DATA ATTACHED:

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

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

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains < 0.1% of perfluoro-n-pentanoic acid.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chittim

Date:

12/09/2016
mvl/mvl

Wellington Laboratories Inc., 345 Southgate Dr, Guelph ON N1G 3M5 CANADA
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Form 527, Issued 2004-11-10
Revision 03, Revised 2015-03-26

M5PFPaA1116 (1 of 4)
rev0

date recieved 2017/05/31 2x1.2



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

MPFHxA

LOT NUMBER:

MPFHxA1113

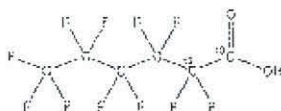
COMPOUND:

Perfluoro-n-[1,2-¹³C]hexanoic acid

STRUCTURE:

CAS #:

Not available



MOLECULAR FORMULA:

¹²C₂¹³C₄HF₁₁O₂

MOLECULAR WEIGHT:

316.04

CONCENTRATION:

50 ± 2.5 µg/mL

SOLVENT(S):

Methanol

CHEMICAL PURITY:

>99%

ISOTOPIC PURITY:

≥99% ¹³C

LAST TESTED: perfluoro

11/22/2016

(1,2-¹³C₂)

EXPIRY DATE: perfluoro

11/22/2021

RECOMMENDED STORAGE:

Store ampoule in a cool, dark place (Freezer)

HPLC (1)
2017/02/02
SSV

DOCUMENTATION/ DATA ATTACHED:

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

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

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains < 0.1% of perfluoro-n-hexanoic acid and ~ 0.3% of perfluoro-n-octanoic acid.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chikara

Date: 12/13/2016

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

Perfluoro-1,2-¹³C₂ Hexanoic Acid (1 of 2)
Perfluoro-1,2-¹³C₂ Hexanoic Acid (1 of 2)

MPFHxA: 1113 (1 of 2)
1113

Received date: 2017/02/14 1x1.2 mL MMN

Received date: 2017/02/02 2x1.2 mL MZH

Received date: 2017/05/31 2x1.2 mL SSV

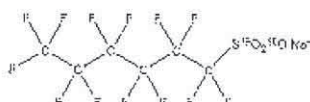


WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: MPFHxS
COMPOUND: Sodium perfluoro-1-hexano[¹⁸O₂]sulfonate
LOT NUMBER: MPFHxS1015

STRUCTURE:



CAS #: Not available

MOLECULAR FORMULA: C₆F₁₃S¹⁸O₂Na
CONCENTRATION: 50.0 ± 2.5 µg/ml (Na salt)
47.3 ± 2.1 µg/ml (MPFHxS anion)
CHEMICAL PURITY: >98%
LAST TESTED: 10/23/2015
EXPIRY DATE: 10/23/2020
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

MOLECULAR WEIGHT: 426.10
SOLVENT(S): Methanol
ISOTOPIC PURITY: >94% (¹⁸O₂)

DOCUMENTATION/ DATA ATTACHED:

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

ADDITIONAL INFORMATION:

- See page 2 for further details.
- The response factor for MPFHxS (C₆F₁₃S¹⁸O₂) has been observed to be up to 10% lower than for PFHxS (C₆F₁₃S¹⁶O₂) when both compounds are injected together. This difference may vary between instruments.
- Due to the isotopic purity of the starting material (¹⁸O₂ >94%), MPFHxS contains ~ 5.3% of PFHxS. This value agrees with the theoretical percent relative abundance that is expected based on the stated isotopic purity.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:
B.G. Chittim

Date: 10/28/2015

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2949 • info@well-labs.com

Form 05.17, 10 pages 2/06-11-10
Revision 2, Revised 2015-02-24

MPFHxS1015 (1 of 6)
-8-9

Date Received: 2016.10.24-HPLC- 1x1.2ml
Date Received: 2016.12.12-HPLC- 1x1.2ml
Received date: 2017/02/22 2x1.2 mL MZH



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

M4FFHpA

LOT NUMBER:

M4FFHpA0516

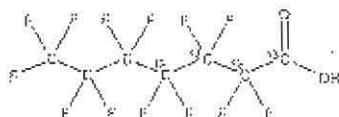
COMPOUND:

Perfluoro-n-[1,2,3,4-¹³C]heptanoic acid

STRUCTURE:

CAS #:

Not available



MOLECULAR FORMULA:

¹³C₄¹²C₃HF₁₆O₂

MOLECULAR WEIGHT:

368.53

CONCENTRATION:

50 ± 2.5 µg/ml

SOLVENT(S):

Methanol

Water (<1%)

CHEMICAL PURITY:

>98%

ISOTOPIC PURITY:

≥99% ¹³C

LAST TESTED: 01/27/2021

05/27/2016

(1,2,3,4-¹³C)

EXPIRY DATE: 05/27/2021

05/27/2021

RECOMMENDED STORAGE:

Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

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

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

*received per
2x1.2mL
1x1.2mL
FL-35*

ADDITIONAL INFORMATION:

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

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Date Received: 2016.10.24 - HPLC - 1 x1.2mL

Received 2016/12/12 1 x 1.2mL MMN FZ-11

Received date: 2017/02/22 2x1.2 mL MZH



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

MPFOA

LOT NUMBER: MPFOA1016

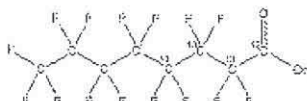
COMPOUND:

Perfluoro-n-[1,2,3,4-¹³C]₈octanoic acid

STRUCTURE:

CAS #:

Not available



MOLECULAR FORMULA:

¹³C₄¹²C₄HF₁₅O₂

MOLECULAR WEIGHT:

416.04

CONCENTRATION:

50 ± 2.5 µg/ml

SOLVENT(S):

Methanol

CHEMICAL PURITY:

>98%

ISOTOPIC PURITY:

≥99% ¹³C

LAST TESTED: (accuracy)

10/18/2016

EXPIRY DATE: (accuracy)

10/18/2021

(1,2,3,4-¹³C)

RECOMMENDED STORAGE:

Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

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

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

ADDITIONAL INFORMATION:

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

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chalm

Date: 10/19/2016

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2549 • Info@well-labs.com

Issued: 27, January 2016 15:16
Revised: 27, January 2016 15:16

MPFOA1016 (1 of 1)
100%

Date Received: 2017.02.02 - 1 x 1.2ml - HPLC

Received date: 2017/02/14 1x1.2 mL MMN

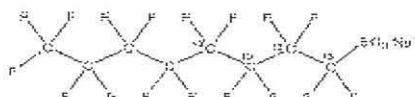
Received date: 2017/02/22 2x1.2 mL MZH



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: MPFOS **LOT NUMBER:** MPFOS1216
COMPOUND: Sodium perfluoro-1-[1,2,3,4-¹³C₄]octanesulfonate
STRUCTURE: **GAS #:** Not available



MOLECULAR FORMULA: ¹³C₄¹²C₄F₁₉SO₃Na **MOLECULAR WEIGHT:** 526.08
CONCENTRATION: 50.0 ± 2.5 µg/ml (Na salt)
47.8 ± 2.4 µg/ml (MPFOS anion) **SOLVENT(S):** Methanol
CHEMICAL PURITY: >98% **ISOTOPIC PURITY:** ≥99% ¹³C
LAST TESTED: (12/12/2016) 12/12/2016 (1,2,3,4-¹³C₄)
EXPIRY DATE: (12/12/2021) 12/12/2021
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

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

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains ~ 0.8% Sodium perfluoro-1-[1,2,3-¹³C₃]heptanesulfonate.

Received
2x1.2mL
M31 m702-22

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: 
B.G. Chittim

Date: 12/14/2016
Signed/Printed

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Product 22, Issued 2006-11-10
Revised 03, Revised 2016-02-24

MPFOS1216 (1 of 1)
10/0

date recieved 2017/05/31 2x1.2



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

MPFNA

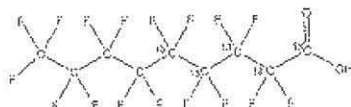
LOT NUMBER: MPFNA0016

COMPOUND:

Perfluoro-n-[1,2,3,4,5-¹³C₅]nonanoic acid

STRUCTURE:

CAS #: Not available



MOLECULAR FORMULA:

¹³C₆¹²C₃HF₁₇O₂

MOLECULAR WEIGHT: 469.04

CONCENTRATION:

50 ± 2.5 µg/ml

SOLVENT(S):

Methanol

Water (<1%)

CHEMICAL PURITY:

>99%

ISOTOPIC PURITY:

≥99% ¹³C

LAST TESTED: *method: GC/MS*

09/30/2016

(1,2,3,4,5-¹³C₅)

EXPIRY DATE: *method: GC/MS*

09/30/2021

RECOMMENDED STORAGE:

Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

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

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

ADDITIONAL INFORMATION:

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

FOR LABORATORY USE ONLY; NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chilton

Date: 10/11/2016

(initials)

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Form 27, Rev 01 2014, 11-10
Rev 02 03, Revised 2015-03-24

MPFNA016 11 of 41
rev 0

Received date: 2017/02/22 2x1.2 mL MZ

Received date: 2017/05/31 2x1.2 mL ssv



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

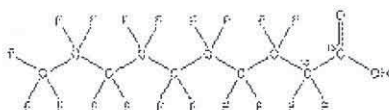
MPFDA

LOT NUMBER:

MPFDA0016

COMPOUND:Perfluoro-n-[1,2-¹³C₂]decanoic acid**STRUCTURE:****CAS #:**

Not available

**MOLECULAR FORMULA:**¹⁸O₂¹³C₂HF₉O₂**MOLECULAR WEIGHT:**

516.07

CONCENTRATION:

50 ± 2.5 µg/ml

SOLVENT(S):Methanol
Water (<1%)**CHEMICAL PURITY:**

>98%

ISOTOPIC PURITY:≥99% ¹³C
(1,2-¹³C₂)**LAST TESTED:** *in-house*

09/30/2016

EXPIRY DATE: *in-house*

09/30/2021

RECOMMENDED STORAGE:

Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

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

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

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mola eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains < 0.1% of ¹³C₂-PFNA.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chittim

Date: 10/07/2016

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2049 • info@well-labs.comForm 22, Issued 2004-11-10
Revised 2, Revised 2015-03-044411-12-12-12
44F

Date Received: 2017.02.02 - 1 x 1.2ml - HPLC

Received date: 2017/02/14 1x1.2 mL MMN

Date Received: 2017.02.22 - 2 x 1.2ml - HPLC,

Date Received: 2017.05.31 - 2 x 1.2ml - HPLC



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

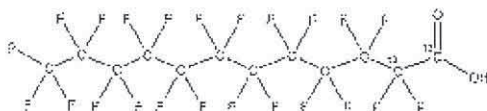
MPFD0A

LOI NUMBER:

MPFD0A0416

COMPOUND:Perfluoro-1,1,2,2-¹³C₂ dodecanoic acid**STRUCTURE:****CAS #:**

Not available

**MOLECULAR FORMULA:**¹⁶C₁₀¹³C₂HF₂₃O₂**MOLECULAR WEIGHT:**

516.08

CONCENTRATION:

50 ± 2.5 µg/ml

SOLVENT(S):

Methanol

Water (<1%)

CHEMICAL PURITY:

>99%

ISOTOPIC PURITY:≥99% ¹³C**LAST TESTED:** (initials)

04/08/2016

(1,2-¹³C₂)**EXPIRY DATE:** (initials)

04/08/2021

RECOMMENDED STORAGE:

Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

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

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

Received MMN
2016/12/15
1 x 1.2 mL
FZ-11

ADDITIONAL INFORMATION:

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

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chittim

Date: 04/15/2016

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Date Received: 2016.10.24 -HPLC - 1 x1.2ml

Received 2016/12/12 1 x 1.2mL MMN FZ-11

Received date: 2017/02/22 2x1.2 mL MZ

HReceived date: 2017/05/31 2x1.2 mL ssv



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CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

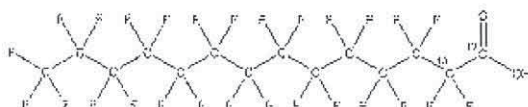
M2PFTeDA

LOT NUMBER:

M2PFTeDA1115

COMPOUND:Perfluoro-n-[1,2-¹³C]₁₄tetradecanoic acid**STRUCTURE:****CAS #:**

Not available



2016/4/6/ 550
1x1.2mL

MOLECULAR FORMULA: $C_{14}H_{18}F_{28}O_2$ **MOLECULAR WEIGHT:**

716.16

CONCENTRATION:

50 ± 2.5 µg/ml

SOLVENT(S):Methanol
Water (<1%)**CHEMICAL PURITY:**

>98%

ISOTOPIC PURITY:≥99% ¹³C
(1,2-¹³C₁₄)**LAST TESTED:** (mmddyy)

12/07/2015

EXPIRY DATE: (mmddyy)

12/07/2020

RECOMMENDED STORAGE:

Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

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

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

ADDITIONAL INFORMATION:

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

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chittim

Date: 12/08/2015

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Form 0127, Issued 2009-11-16

M2PFTeDA1115 11 of 41

Date Received: 2016.11.29 - 2 x 1.2mL - HPLC

Date received; -2016/08/15 HPLC MMN

Received date: 2017/02/22 2x1.2 mL MZH



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

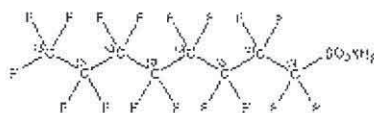
MBFOSA-I

LOT NUMBER:

MBFOSA1215i

COMPOUND:Perfluorooctyl-1-¹³C₈octanesulfonamide**STRUCTURE:****CAS #:**

Not available

**MOLECULAR FORMULA:**C₈H₁₇F₁₇NO₂S**MOLECULAR WEIGHT:**

507.09

CONCENTRATION:

50 ± 2.5 µg/ml

SOLVENT(S):

Isopropanol

CHEMICAL PURITY:

>98%

ISOTOPIC PURITY:≥99% ¹³C**LAST TESTED:**

12/22/2015

(¹³C₈)**EXPIRY DATE:**

12/22/2017

RECOMMENDED STORAGE:

Refrigerate airtight

DOCUMENTATION/ DATA ATTACHED:

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

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

ADDITIONAL INFORMATION:

- See page 2 for further details.

*received mmn
2016/12/23
2x1.2 mL
FD-59*

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chinnim

Date: 01/14/2016

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Form 001, Rev 01/11/10
Printed on 01/14/2016 10:20

222FOSA1215i (1 of 1)
2016

Received 2016/12/12 1 x 1.2mL MMN FD-59

Received date: 2017/02/22 2x1.2 mL MZH

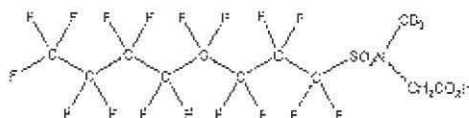


WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: d3-N-MeFOSAA **LOT NUMBER:** d3NMMeFOSAA1116
COMPOUND: N-methyl-d3-perfluoro-1-octanesulfonylphosphonic acid

STRUCTURE: **CAS #:** Not available



MOLECULAR FORMULA: C₉D₃H₂F₁₇NO₅S **MOLECULAR WEIGHT:** 574.23
CONCENTRATION: 50 ± 2.5 µg/ml **SOLVENT(S):** Methanol
Water (<1%)
CHEMICAL PURITY: >98% **ISOTOPIC PURITY:** ≥98% ³H₁
LAST TESTED: 11/22/2016
EXPIRY DATE: 11/22/2021
RECOMMENDED STORAGE: Refrigerate ampoule

DOCUMENTATION/ DATA ATTACHED:

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

ADDITIONAL INFORMATION:

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

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chittim

Date: 12/07/2016

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Form 01-27, Issues 2004-11-15
Revision 2, Revised 2015-03-24

d3NMMeFOSAA1116 (1 of 4)
10/5/1

received 2017/05/31 2x1~.2

date



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

d5-N-EFOSAA

LOT NUMBER:

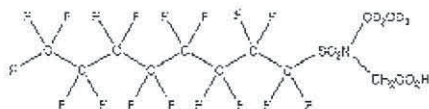
d5NEIFOSAA1116

COMPOUND:

N-ethyl-d5-perfluoro-1-octenesulfonamidoacetic acid

STRUCTURE:**CAS #:**

Not available

**MOLECULAR FORMULA:** $C_{10}D_5H_{11}NO_4S$ **MOLECULAR WEIGHT:**

590.26

CONCENTRATION: $50 \pm 2.5 \mu\text{g/ml}$ **SOLVENT(S):**Methanol
Water (<1%)**CHEMICAL PURITY:**

>98%

ISOTOPIC PURITY: $\geq 98\% \text{ } ^2\text{H}_5$ **LAST TESTED:** (month/year)

11/22/2016

EXPIRY DATE: (month/year)

11/22/2021

RECOMMENDED STORAGE:

Refrigerate ampoule

DOCUMENTATION/ DATA ATTACHED:

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

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

ADDITIONAL INFORMATION:

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

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chittim

Date:

12/01/2016
(month/year)

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FormL2X, Issued 2014-07-10
Revised 0, Revised 2016-03-14

d5NEIFOSAA1116 (1 of 4)
rev2

Received date: 2017/02/22 2x1.2 mL MZH

Received date: 2017/05/31 2x1.2 mL ssv



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

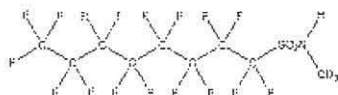
d-N-MeFOSA-M

LOT NUMBER:

dNMMeFOSA0616M

COMPOUND:N-methyl-d₈-perfluoro-1-octanosulfonamide**STRUCTURE:****CAS #:**

Not available

**MOLECULAR FORMULA:**C₉D₈HF₁₇NO₂S**MOLECULAR WEIGHT:**

516.19

CONCENTRATION:

50 ± 2.5 µg/ml

SOLVENT(S):

Methanol

CHEMICAL PURITY:

>98%

ISOTOPIC PURITY:≥98% ¹H,**LAST TESTED:**

05/10/2015

EXPIRY DATE:

06/10/2021

RECOMMENDED STORAGE:

Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

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

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

ADDITIONAL INFORMATION:

• See page 2 for further details.

Received MMN
2016/09/23
2 x 1.2ml
FZ-35

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chikim

Date:

06/10/2016

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Printed: 27, 10/2016 11:50
Revised: 17, 10/2016 11:50

UNW-0540310211-01-01
10/16

Date Received: 2016.10.24 - HPLC - 1x 1.2ml
Received 2016/12/12 1 x 1.2mL MMN FZ-11
Date Received: 2016.09.12 -HPLC - 1 x 1.2ml
Received 2016/11/29 1 x 1.2mL MMN FZ-11
Date Received: 2017.02.02 - 1 x 1.2ml - HPLC
Received date: 2017/02/22 2x1.2 mL MZH
Date Received: 2017.03.10 - 2 x 1.2ml - HPLC
Recieved: 2017.05.02- 1x1.2 ml- HPLC



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

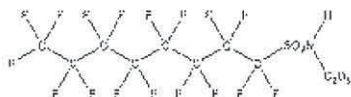
d-N-GFOSA-M

LOT NUMBER:

dNEIFOSA0616M

COMPOUND:N-ethyl-D₉-perfluoro-1-octanesulfonamide**STRUCTURE:****CAS #:**

Not available

**MOLECULAR FORMULA:**C₁₀D₉HF₁₇NO₂S**MOLECULAR WEIGHT:**

532.23

CONCENTRATION:

50 ± 2.5 µg/ml

SOLVENT(S):

Methanol

CHEMICAL PURITY:

>99%

ISOTOPIC PURITY:≥98% ¹⁹F**LAST TESTED:** (see assay)

06/10/2016

EXPIRY DATE: (see assay)

05/10/2021

RECOMMENDED STORAGE:

Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

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

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

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains ~ 0.5% of N-methyl-D₉-perfluoro-1-octanesulfonamide (d-N-MeFOSA).

Received MMN
2016 10/23
2 x 1.2ml
FZ-11

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B. G. Chittim

Date: 07/14/2016

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1E 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

Printed: 07/12/2016 09:56:11 AM
Revised: 07/12/2016 09:56:11 AM

PROFARMATION 1 of 4
10/16

Date Received: 2016.10.24 -HPLC - 1 x 1.2ml
Received 2016/12/12 1 x 1.2mL MMN FZ-11
Date Received: 2016.09.12 -HPLC - 1 x 1.2ml
Received 2016/11/29 1 x 1.2mL MMN FZ-11
Date Received: 2017.02.02 - 1 x 1.2ml - HPLC
Received date: 2017/02/22 2x1.2 mL MZH
Date Received: 2017/05/02 2x1.2ml HPLC



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

d7-N-MeFOSE-M

LOT NUMBER:

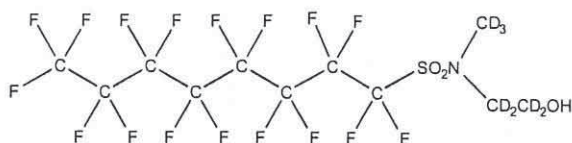
d7NMeFOSE0217M

COMPOUND:

2-(N-methyl-d3-perfluoro-1-octanesulfonamido)ethan-d4-ol

STRUCTURE:**CAS #:**

Not available

**MOLECULAR FORMULA:** $C_{11}D_7HF_{17}NO_3S$ **MOLECULAR WEIGHT:**

564.27

CONCENTRATION: $50 \pm 2.5 \mu\text{g/ml}$ **SOLVENT(S):**

Methanol

CHEMICAL PURITY:

>98%

ISOTOPIC PURITY: $\geq 98\% \text{ } ^2\text{H}_7$ **LAST TESTED:** (mm/dd/yyyy)

03/23/2017 (HRGC/LRMS)

03/02/2017 (LC/MS)

EXPIRY DATE: (mm/dd/yyyy)

03/23/2022

RECOMMENDED STORAGE:

Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

Figure 1: HRGC/LRMS Data (TIC and Mass Spectrum)

Figure 2: LC/MS Data (TIC and Mass Spectrum)

Figure 3: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

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

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chittim, General Manager

Date: 04/05/2017

(mm/dd/yyyy)

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

F2
2 ampoules
HPLC
2017/05/02
HJ3

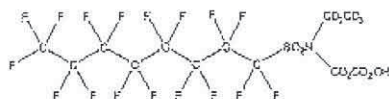


WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: d9-NEtFOSE-M **LOT NUMBER:** d9NEtFOSE0315M
COMPOUND: 2-(N-ethyl-d5-perfluoro-1-octanesulfonamido)ethan-d4-d1

STRUCTURE: **CAS #:** Not available



MOLECULAR FORMULA:	C ₁₀ D ₁₄ F ₁₁ NO ₃ S	MOLECULAR WEIGHT:	580.31
CONCENTRATION:	50 ± 2.5 µg/ml	SOLVENT(S):	Methanol
CHEMICAL PURITY:	>98%	ISOTOPIC PURITY:	≥98% ² H ₀
LAST TESTED:	03/19/2015		
EXPIRY DATE:	03/19/2020		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/DATA ATTACHED:

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

*Received from
Methanol
1 x 1.2 mL
FZ-11*

ADDITIONAL INFORMATION:

- See page 2 for further details.
- In order to see the molecular ion (adduct free), the LC mobile phase should be free of ammonium acetate buffer.
- Contains ~ 0.1% of N-ethyl-d5-perfluoro-1-octanesulfonamide.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:
B.G. Chittim

Date: 03/24/2015

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

Form 077, Version 2016-11-10
Revised 2015-03-26

d9NEtFOSE0315M (1 of 1)
rev

Received : 2016/01/08 MMN- (2x1.2mL)
Received : 2016/06/07 SSV- (2x1.2mL)
Received: 2016.09.23- HPLC- (2x 1.2ml)
Received 2016/11/29 - 1 x 1.2mL MMN FZ-11
Received 2016/12/12 1 x 1.2mL MMN FZ-11
Date Received: 2016.09.12 -HPLC - 1 x 1.2ml
Date Received: 2017.02.02 - 1 x 1.2ml - HPLC
Received date: 2017/02/22 2x1.2 mL MZH
Date Received:2017/03/10- 1 AMPULES - SSV



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

M2-6:2FTS

LOT NUMBER:

M262FTS0217

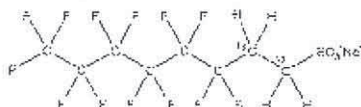
COMPOUND:

Sodium 1H,1H,2H,2H-perfluoro-(1,2-¹³C)₆octane sulfonate

STRUCTURE:

CAS #:

Not available



MOLECULAR FORMULA:

¹³C₆¹³C₆H₂F₁₀SO₃Na

MOLECULAR WEIGHT:

452.13

CONCENTRATION:

50.0 ± 2.5 µg/ml (Na salt)
47.5 ± 2.4 µg/ml (M2-6:2FTS anion)

SOLVENT(S):

Methanol

CHEMICAL PURITY:

>98%

ISOTOPIC PURITY:

≥99% ¹³C
(1,2-¹³C₆)

LAST TESTED: (untested)

02/17/2017

EXPIRY DATE: (untested)

02/17/2022

RECOMMENDED STORAGE:

Refrigerate ampoule

DOCUMENTATION/ DATA ATTACHED:

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

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

HPLC
2017/05/31
2x1.2 ml

ADDITIONAL INFORMATION:

- See page 2 for further details.
- The native 6:2FTS contains 4.22% of ¹⁴S (due to natural isotopic abundance) therefore both native 6:2FTS and M2-6:2FTS will produce signals in the m/z 429 to m/z 409 channel during SRM analysis. We recommend using the m/z 429 to m/z 81 transition to monitor for M2-6:2FTS during quantitative analysis as it will be free of any native contribution (see Figure 2).

FOR LABORATORY USE ONLY; NOT FOR HUMAN OR DRUG USE

Certified By:

S.G. Griffin

Date: 02/24/2017

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

Product Code: M2-6:2FTS
Revision: 1.0 (2015-03-24)

MS-262FTS0217 (1 of 4)
150

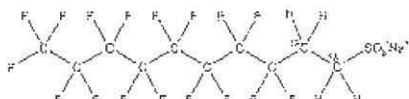
Date Received: 2017/05/02 2x1.2ml HPLC



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: M2-8:2FTS **LOT NUMBER:** M202FTS0016
COMPOUND: Sodium 1H,1H,2H,2H-perfluoro-[1,2-¹³C]₈decane sulfonate
STRUCTURE: **CAS #:** Not available



MOLECULAR FORMULA: ¹³C₂¹²C₆H₂F₁₆SO₃Na **MOLECULAR WEIGHT:** 552.15
CONCENTRATION: 50.0 ± 2.5 µg/ml (Na salt) **SOLVENT(S):** Methanol
47.0 ± 2.4 µg/ml (M2-8:2FTS anion)
CHEMICAL PURITY: >98% **ISOTOPIC PURITY:** ≥99% ¹³C
LAST TESTED: 08/22/2016 (1,2-¹³C)
EXPIRY DATE: 08/22/2021
RECOMMENDED STORAGE: Refrigerate ampoule

DOCUMENTATION DATA ATTACHED:

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

ADDITIONAL INFORMATION:

- See page 2 for further details.
- The native 8:2FTS contains 4.22% of ³⁵S (due to natural isotopic abundance) therefore both native 8:2FTS and M2-8:2FTS will produce signals in the m/z 529 to m/z 509 channel during SRM analysis. We recommend using the m/z 529 to m/z 81 transition to monitor for M2-8:2FTS during quantitative analysis as it will be free of any native contribution (see Figure 2).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chittum

Date: 09/02/2016
3/10/2016

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

Revised 07, Issued 2014-11-19
Revised 03, Revised 2016-03-24

M2-8:2FTS0016 (S, M, L)
12/16

received 2016/09/28 1x1.2 mL mmn FD-59
Received 2016/11/29 - 1 x 1.2mL - MMN FD-59
Date Received: 2017.02.02 - 1 x 1.2ml - HPLC
Received date: 2017/02/22 2x1.2 mL MZH
Recieved:2017.05.02 1x1.2 ml-HPLC Recieved:2017.05.31 2x1.2 ml-HPLC

131 PG 159

PREPARATION OF SURROGATE / INTERNAL STANDARD SPIKING SOLUTION

Solution No.: SI-6459 Prep'n Date: 2017/05/24 Expiry Date: 2018/08/23 Discard Date: _____
 Replaces Solution No.: SI-6324 Replaced by Solution: - Chemist: RP7
 Sol'n. Name: morpholine d8 Int'l std.
 Solution Used As: Internal Std: - Surrogate Spike: _____
 Spike Volume: 50 uL or mL (for I.S. uL per mL) For Instrument/Analysis: LCMS-MS
 Solvent(s): DI H₂O Supplier(s): - Lot No(s): -
 Date Solvent Opened: -
 Volumetric Flask Used: 10ml class A (28014) Syringe ID: pipette :- H32773F
 Storage Location and Conditions: FD-59
 Ampule supplier; Mix Name; Catalogue No.; Lot No.; Date Rec'd.; Date Opened, Ampule Expiry Date:

Compound	Parent Solution No.	Parent Solution Conc'n. (ug/mL)	Aliquot Volume (mL) (uL)	Dilution Volume (mL)	Final Conc'n. (ug/mL)	Absolute Amount Spiked (ug / ng)
<u>morpholine 2, 2, 3, 3, 5, 5, 6, 6, 8, 8</u>	<u>53969</u>	<u>1453.8</u>	<u>68.8</u>	<u>10</u>	<u>10</u>	<u>-</u>
<u>RP7 2017/05/24</u>						

Notes:

Solution No.: SI-6460 Prep'n Date: 2017/05/25 Expiry Date: 2018/05/25 Discard Date: _____
 Replaces Solution No.: SI-6423 Replaced by Solution: _____ Chemist: mm
 Sol'n. Name: inj. I.S.
 Solution Used As: Internal Std: - Surrogate Spike: _____
 Spike Volume: 20 uL or mL (for I.S. uL per mL) For Instrument/Analysis: LCMS MS
 Solvent(s): 0.3% 2H₂10H in meth Supplier(s): See PALRE 104/110 Lot No(s): See PALRE 104-110
 Date Solvent Opened: See PALRE 104-110
 Volumetric Flask Used: 200 ml class A (5680) Syringe ID: pipette
 Storage Location and Conditions: F2-11
 Ampule supplier; Mix Name; Catalogue No.; Lot No.; Date Rec'd.; Date Opened, Ampule Expiry Date:

Compound	Parent Solution No.	Parent Solution Conc'n. (ug/mL)	Aliquot Volume (mL) (uL)	Dilution Volume (mL)	Final Conc'n. (ug/mL)	Absolute Amount Spiked (ug / ng)
<u>¹³C₉ - PFDA</u>	<u>S 4142</u>	<u>50</u>	<u>400</u>	<u>200</u>	<u>100</u>	<u>-</u>
<u>¹³C₆ - PFHxA</u>	<u>S 4143</u>	<u>50</u>	<u>400</u>	<u>200</u>	<u>100</u>	<u>-</u>
<u>mm 2017/05/25</u>						

Notes:

PRLST 133 PG 74

PREPARATION OF CONCENTRATED STOCK STANDARDS

Solution No.: 54142 Date: 2017/05/25 Expiry Date: 2018/06/20 Discard Date: _____
Replaces Solution: 54041 Replaced by Solution: _____ Chemist: mmw
Compound: 13C9 - PFDA Purity: _____
Date Received: 2017/02/15 Expiry Date: 2018/06/20 Lot No.: SC10-014
Supplier: CIL
Date Opened: 2017/05/25
Final Gross Weight: _____ g/mg Dilution Volume: _____ mL
Tare Weight*: _____ g/mg Volumetric Flask: _____
Net Weight: _____ g/mg Concentration: 50 ug/mL mg/mL
Adjusted Net Weight**: _____ mg Solvent(s): MeOH
Balance Used: _____
(specify model and serial no.)

Solvent Used: _____
Solvent Supplier: _____ Lot No(s): _____
Date Opened: _____
Storage Location / Conditions: F2-11

Notes/Comments

Received as a solution in ampule.

mmw
2017/05/25

Solution No.: 54143 Date: 2017/05/25 Expiry Date: 2020/09/30 Discard Date: _____
Replaces Solution: 54042 Replaced by Solution: _____ Chemist: mmw
Compound: 13C6-PFHxA Purity: _____
Date Received: 2017/02/15 Expiry Date: 2020/09/30 Lot No.: SDAA-004
Supplier: CIL
Date Opened: 2017/05/25
Final Gross Weight: _____ g/mg Dilution Volume: _____ mL
Tare Weight*: _____ g/mg Volumetric Flask: _____
Net Weight: _____ g/mg Concentration: 50 ug/mL
Adjusted Net Weight**: _____ mg Solvent(s): MeOH
Balance Used: _____
(specify model and serial no.)

Solvent Used: _____
Solvent Supplier: _____ Lot No(s): _____
Date Opened: _____
Storage Location / Conditions: F2-11

Notes/Comments

Received as a solution in ampule.

mmw
2017/05/25



Cambridge Isotope Laboratories, Inc.

Certificate of Analysis

Quality Standards:
ISO Guide 34 • ISO/IEC 17025 • ISO 13485 • cGMP

Product Name: PERFLUORODECANOIC ACID
(Isotopic Label & Enrichment Specification) (13C9, 99%) 50 UG/ML IN METHANOL

Lot Number: SCHD-014

Catalog Number: CLM-8172-S

Product Information

Chemical Purity Specification: $\geq 98\%$
Labeled CAS Number: NA
Unlabeled CAS Number: 335-76-2
MW*: 523.02
Chemical Formula: $\text{CF}_3(\text{CF}_2)_8\text{CO}_2\text{H}$
Storage: Store at room temperature away from light and moisture.
Stability: See storage and expiration date.

Certification

Cambridge Isotope Laboratories, Inc. guarantees that this material meets or exceeds the specifications stated. Absolute identity as well as chemical and isotopic purities are assured by the use of unambiguous synthetic routes and multiple chemical analyses whenever possible. Results are representative of QC testing at time of release from Quality Control unless otherwise stated.

Volumetric measurements were made with Class A glassware. Gravimetry is traceable to the NIST through calibrated balances and certified, calibrated, standard weights. The calibrations are traceable to the NIST under Test No. 822/270236-04. The calibrations also meet specifications outlined in ISO 9001, ISO/IEC 17025, ANSI/NCSL Z540-1:1994, NCR Document 10CFR50 Appendix B, and applicable subdocuments.

This COA references the bulk catalog number before packaging. The COA also applies to the CIL finished good catalog number. Some possible packaging sizes and their corresponding suffix are -1.2, -1, -0.5, -10, or -0.1.

* For isotopically labeled compounds, MW listed is for the fully enriched product.

Approved by: T. J. Eckenley

Timothy J. Eckenley, Ph.D., Quality Review

Quality Control Tests and Results

QC Release Date	06/20/2008
Expiration Date	06/20/2018
Concentration Based on Gravimetry	50.0 $\mu\text{g/mL}$
Chemical Purity of Next Material(s)	$>98\%$
LC/MS for Concentration	$46.2 \pm 6.4 \mu\text{g/mL (k=2)}$

*Received from
25 Jul 2015
1 x 1.2 mL
RT*

50 Frontage Road, Andover, MA 01810-5413 USA • 1 800 322.1174 (North America) • 1 978 749.8000 (International) • isotope.cil.com

Date Received: 2016.8.17 - 1 x 1.2mL - HPLC
Date Received: 2016.09.14 - HPLC - 1 x 1.2ml
Date Received: 2016/11/22 1x 1.2ml MMN HPLC
Date Received: 2017.02.15 - 1 x 1mL - HPLC (MMN)



Cambridge Isotope Laboratories, Inc.

Certificate of Analysis

Quality Standards:
ISO Guide 34 • ISO/IEC 17025 • ISO 13485 • cGMP

Product Name: PERFLUOROHEXANOIC ACID, SODIUM SALT
(Isotopic Label & Enrichment Specification) (13C6, 99%) 50 UG/ML IN METHANOL

Lot Number: SDAA-004

Catalog Number: CLM-8340-S

Product Information

Chemical Purity Specification: $\geq 98\%$

MW*: 320.00
*For isotopically labeled compounds, MW listed is for the fully enriched product.

Labeled CAS Number: NA

Unlabeled CAS Number: 307-24-4

Chemical Formula: $*CF_3(*CF_2)_4COOH$

Storage: Store at room temperature away from light and moisture.
Stability: See storage and expiration date.

Certification

Cambridge Isotope Laboratories, Inc. guarantees that this material meets or exceeds the specifications stated. Absolute identity as well as chemical and isotopic purities are assured by the use of unambiguous synthetic routes and multiple chemical analyses whenever possible. Results are representative of QC testing at time of release from Quality Control unless otherwise stated.

Volumetric measurements were made with Class A glassware. Gravimetry is traceable to the NIST through calibrated balances and certified, calibrated, standard weights. The calibrations are traceable to the NIST under Test No. 822/270236-04. The calibrations also meet specifications outlined in ISO 9001, ISO/IEC 17025, ANSI/NSCL Z540-1-1994, NCR Document 10CFR50 Appendix B, and applicable subdocuments.

This COA references the bulk catalog number before packaging. The COA also applies to the CIL finished good catalog number. Some possible packaging sizes and their corresponding suffix are -1.2, -1, -0.5, -10, or -0.1.

Approved by: T. J. Eckersley

Timothy J. Eckersley, Ph.D., Quality Review

Quality Control Tests and Results

QC Release Date	9/30/2010
Expiration Date	9/30/2020
Concentration Based on Gravimetry	50.4 $\mu\text{g/mL}$
Chemical Purity of Neat Material(s)	99.2%
LC/MS for Concentration	47.1 $\pm$ 2.6 $\mu\text{g/mL}$ (k=2)

50 Frontage Road, Andover, MA 01810-5413, USA • 1-800-327-1174 (North America) • 1-978-749-8000 (International) • isotope.com

Date Received: 2016/08/17 1x 1.2mL MMN HPLC
Date Received: 2016/09/14 1x 1.2mL MMN HPLC
Date Received: 2016/11/22 1x 1.2mL MMN HPLC
Date Received: 2017.02.15 - 1 x 1mL - HPLC (MMN)

PREPARATION OF SPIKING STANDARD SOLUTION

Solution No.: SK-6785 Prep'n Date: 2017/04/03 Expiry Date: 2018/04/03 Discard Date: _____
 Replaces Solution No.: SK-6736 Replaced by Solution: _____ Chemist: GSZ
 Solution Name: PFC ^{SECOND} SPIKING SOLUTION E Solvent(s): 0.3% NH₄OH in MeOH
 Solvent Supplier(s): aldrich Solvent Lot No(s): PRLRE 92-467
 Date Opened: 2017/04/03
 Volumetric Flask Used: 5ml Class A (11216064) Volume: 5 mL Spike Volume: — uL / mL *
 Syringe ID: Pipette N31477F
 Storage Location and Conditions: F2-11
 For extended mix of compounds, refer to table on: —

Compound	Parent Solution No.	Parent Solution Conc'n. (ug/mL)	Aliquot Volume (uL (mL) *)	Final Conc'n. (ug/mL)	Absolute Amount Spiked (ug ng) *
PFC SECOND SOURCE SPIKING SOLUTION C	SK-6784	100ug/mL	0.5	10ng/mL	—
<i>GSZ, 2017/04/03</i>					

Notes:

Solution No.: SK 6786 Prep'n Date: 2017/04/04 Expiry Date: 2018/04/04 Discard Date: _____
 Replaces Solution No.: SK 6746 Replaced by Solution: _____ Chemist: mm
 Solution Name: Comp. PFC Working Solution C Solvent(s): 0.3% NH₄OH in MeOH
 Solvent Supplier(s): aldrich Solvent Lot No(s): see PRLRE 92-468
 Date Opened: see PRLRE 92-468
 Volumetric Flask Used: 25ml class A (15640) Volume: 25 mL Spike Volume: — uL / mL *
 Syringe ID: pipette K 397 32 F
 Storage Location and Conditions: F2-11
 For extended mix of compounds, refer to table on: —

Compound	Parent Solution No.	Parent Solution Conc'n. (ug/mL)	Aliquot Volume (uL (mL) *)	Final Conc'n. (ug/mL)	Absolute Amount Spiked (ug ng) *
Comp. PFC Working Solution A	L 4990	1	2.5	100 ng/mL	—
<i>mm 2017/04/04</i>					

Notes:
Maxxam Analytics

1639 of 2393

PREPARATION OF SPIKING STANDARD SOLUTION

Solution No.: SK-685P Prep'n Date: 2017-05-
Replaces Solution No.: SK-6706 Replaced by Solut
Solution Name: Spike For HAA
Solvent Supplier(s): Fisher
Date Opened: 2017/01/20
Volumetric Flask Used: CLASS-A Volume: 10
Syringe ID: 550096-4 (100uL)
Storage Location and Conditions: FD-135
For extended mix of compounds, refer to table on:

Compound	P	Sc
<u>Halacetic Acid Mixture</u>	<u>A</u>	

Notes:

Analyte

Analyte	CAS#	Analyte Lot	True Value
chloroacetic acid	000079-11-8	RM04582	502.1 ± 3.0 µg/mL
chlorodichloroacetic acid	000278-95-5	RM04588	1001 ± 5 µg/mL
dichloroacetic acid	000079-43-6	RM04583	602.4 ± 3.0 µg/mL
monochloroacetic acid	000076-03-9	RM04580	200.4 ± 1.0 µg/mL
bromoacetic acid	000075-08-3	RM04589	401.1 ± 2.0 µg/mL
monobromochloroacetic acid	005589-98-8	RM04591	401.3 ± 2.0 µg/mL
dibromochloroacetic acid	071133-14-7	RM05061	400.2 ± 2.0 µg/mL
trichloroacetic acid	000631-64-1	RM01449	200.3 ± 1.0 µg/mL
trifluoroacetic acid	000075-99-7	RM04578	2007 ± 10 µg/mL
diogen	000075-99-0	RM00202	401.1 ± 2.0 µg/mL

Matrix: methyl tert-butyl ether (MTBE)
Storage: Store at Room Temperature (15° to 30° C)

This ISO Guide 34 Reference Material (RM) was manufactured and verified in accordance with ULTRA's ISO 9001 registered quality system, and the assay concentrations were verified by our ISO 17025 accredited laboratory. The true value and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Product Number: PHM-5524A
Lot Number: CP-3297
Lot Issue Date: 12-Jul-2016
Page: 1 of 1
Expiration Date: 31-Aug-2018

Halacetic Acid Mixture



Certificate of Analysis



Solution No.: SK 6852 Prep'n Date: 2017/05/13 Expiry Date: 2018/05/13 Discard Date:
Replaces Solution No.: SK 6786 Replaced by Solution: Chemist:
Solution Name: Comp. PFC working solution C Solvent(s): 0.3% methanol in water
Solvent Supplier(s): Aldrich Solvent Lot No(s): 8-B SEE PALME 104-90
Date Opened: See PALME 104-90
Volumetric Flask Used: 50 mL class (5040) Volume: 50 mL Spike Volume: µL / mL *
Syringe ID: pipette R39732 F
Storage Location and Conditions: FZ-11
For extended mix of compounds, refer to table on:

Compound	Parent Solution No.	Parent Solution Conc'n. (ug/mL)	Aliquot Volume (uL) (mL)*	Final Conc'n. (ug/mL)	Absolute Amount Spiked (ug ng) *
<u>Comp. PFC working sol'n A</u>	<u>11016</u>	<u>1</u>	<u>5</u>	<u>100 ng/mL</u>	<u> </u>

Notes:

Instrument Information

Project Name 20160717_62FTS
Instrument Name LCMS04
Instrument Model G6470A

Compound Name	Formula	Mass	Sample Position
62FTS	C8H5F13SO3	427.98	4
Method Name			
D:\MassHunter\Methods\OPTMS2.m			
Polarity	Negative	Ion Source	AJS ESI
Precursor Ion		Fragmentor	
426.97		166	
Product Ion	Collision Energy	Abundance	
406.9	24	7116	
81	32	1280	
259.4	28	57	

Instrument Information

Project Name 20160717_82FTS
Instrument Name LCMS04
Instrument Model G6470A

Compound Name	Formula	Mass	Sample Position
82FTS	C10H5F17SO3	527.97	4

Method Name
D:\MassHunter\Methods\OPTMS2.m

Polarity Negative Ion Source AJS ESI

Precursor Ion	Fragmentor
526.96	99

Product Ion	Collision Energy	Abundance
506.8	28	3730
312.9	8	3719
268.9	20	3303
80.6	40	766
262.9	8	3602

Instrument Information

Project Name 20160717_EtFOSA
Instrument Name LCMS04
Instrument Model G6470A

Compound Name	Formula	Mass	Sample Position
EtFOSA	C10H6F17NO2S	526.98	4
Method Name			
D:\MassHunter\Methods\OPTMS2.m			
Polarity	Negative	Ion Source	AJS ESI
Precursor Ion		Fragmentor	
525.97		161	
Product Ion	Collision Energy	Abundance	
168.9	28	3632	
218.9	28	3300	
330.1	16	70	

Instrument Information

Project Name 20160717_EtFOSAA
Instrument Name LCMS04
Instrument Model G6470A

Compound Name	Formula	Mass	Sample Position
EtFOSAA	C12H8F17NO4S	584.99	4

Method Name
D:\MassHunter\Methods\OPTMS2.m

Polarity Negative Ion Source AJS ESI

Precursor Ion	Fragmentor
583.98	129

Product Ion	Collision Energy	Abundance
525.9	20	3128
418.9	20	3851
482.9	16	2273
333.2	16	65

Instrument Information

Project Name PFC
Instrument Name LCMS04
Instrument Model G6470A

Compound Name	Formula	Mass	Sample Position
MeFOSE	C11H8F17NO3S	557	4
Method Name			
D:\MassHunter\Methods\Training\TRAINING_OPTIMIZERMETHOD.m			
Polarity	Negative	Ion Source	AJS ESI
Precursor Ion		Fragmentor	
616.01		105	
Product Ion	Collision Energy		Abundance

Compound Name	Formula	Mass	Sample Position
EtFOSE	C12H10F17NO3S	571.01	4
Method Name			
D:\MassHunter\Methods\Training\TRAINING_OPTIMIZERMETHOD.m			
Polarity	Negative	Ion Source	AJS ESI
Precursor Ion		Fragmentor	
630.02		110	
Product Ion	Collision Energy		Abundance
59.1	12		1830

Instrument Information

Project Name 20160717_MeFOSA
Instrument Name LCMS04
Instrument Model G6470A

Compound Name	Formula	Mass	Sample Position
MeFOSA	C9H4F17NO2S	512.97	4

Method Name
D:\MassHunter\Methods\OPTMS2.m

Polarity Negative Ion Source AJS ESI

Precursor Ion	Fragmentor
511.96	161

Product Ion	Collision Energy	Abundance
168.9	28	4055
218.9	28	3101
320.1	36	59
323.7	28	60

Instrument Information

Project Name 20160717_MeFOSAA
Instrument Name LCMS04
Instrument Model G6470A

Compound Name	Formula	Mass	Sample Position
MeFOSAA	C11H6F17NO4S	570.97	4

Method Name
D:\MassHunter\Methods\OPTMS2.m

Polarity Negative Ion Source AJS ESI

Precursor Ion	Fragmentor
569.96	146

Product Ion	Collision Energy	Abundance
418.9	20	4256
219	28	1643
511.9	20	2047
324.5	16	60
482.9	16	2100

Instrument Information

Project Name PFC
Instrument Name LCMS04
Instrument Model G6470A

Compound Name	Formula	Mass	Sample Position
MeFOSE	C11H8F17NO3S	557	4

Method Name
D:\MassHunter\Methods\Training\TRAINING_OPTIMIZERMETHOD.m

Polarity Negative Ion Source AJS ESI

Precursor Ion	Fragmentor
616	105

Product Ion	Collision Energy	Abundance
59	16	3078

Instrument Information

Project Name 20160714_PFBA_2
Instrument Name LCMS04
Instrument Model G6470A

Compound Name	Formula	Mass	Sample Position
PFBA	C4HF7O2	213.99	5

Method Name
D:\MassHunter\Methods\OPTMS2.m

Polarity Negative Ion Source AJS ESI

Precursor Ion	Fragmentor
212.98	65

Product Ion	Collision Energy	Abundance
169	8	70944

Instrument Information

Project Name 20160717_PFB
Instrument Name LCMS04
Instrument Model G6470A

Compound Name	Formula	Mass	Sample Position
PFBS	C4HF9SO3	299.95	4
Method Name			
D:\MassHunter\Methods\OPTMS2.m			
Polarity	Negative	Ion Source	AJS ESI
Precursor Ion		Fragmentor	
298.94		141	
Product Ion	Collision Energy	Abundance	
79.9	40	32590	
98.9	36	13823	
229.9	40	75	
283	20	1678	

Instrument Information

Project Name 20160715_PFDA
Instrument Name LCMS04
Instrument Model G6470A

Compound Name	Formula	Mass	Sample Position
PFDA	C10HF19O2	513.97	4

Method Name
D:\MassHunter\Methods\OPTMS2.m

Polarity Negative Ion Source AJS ESI

Precursor Ion	Fragmentor
512.96	92

Product Ion	Collision Energy	Abundance
468.9	8	35209
218.9	16	6600
268.9	20	6243
168.9	24	3104
310	28	61

Instrument Information

Project Name 20160715_PFD0A
Instrument Name LCMS04
Instrument Model G6470A

Compound Name	Formula	Mass	Sample Position
PFD0A	C12HF23O2	613.96	4
Method Name			
D:\MassHunter\Methods\OPTMS2.m			
Polarity	Negative	Ion Source	AJS ESI
Precursor Ion		Fragmentor	
612.95		102	
Product Ion	Collision Energy	Abundance	
568.9	8	32939	
168.9	28	3518	
268.9	20	3527	
318.9	20	4039	
219	24	2635	

Instrument Information

Project Name 20160717_PFDS
Instrument Name LCMS04
Instrument Model G6470A

Compound Name	Formula	Mass	Sample Position
PFDS	C10HF21SO3	599.93	4

Method Name
D:\MassHunter\Methods\OPTMS2.m

Polarity Negative Ion Source AJS ESI

Precursor Ion	Fragmentor
598.92	225

Product Ion	Collision Energy	Abundance
80	50	4590
98.9	50	3531

Instrument Information

Project Name 20160715_PFHpA
Instrument Name LCMS04
Instrument Model G6470A

Compound Name	Formula	Mass	Sample Position
PFHpA	C7HF13O2	363.98	4

Method Name
D:\MassHunter\Methods\OPTMS2.m

Polarity Negative Ion Source AJS ESI

Precursor Ion	Fragmentor
362.97	80

Product Ion	Collision Energy	Abundance
318.9	8	72791
169	16	15498
119	20	3782

Instrument Information

Project Name 20160714_PFHpS_2
Instrument Name LCMS04
Instrument Model G6470A

Compound Name	Formula	Mass	Sample Position
PFHpS	C7HF15O3S	449.94	5

Method Name
D:\MassHunter\Methods\OPTMS2.m

Polarity Negative Ion Source AJS ESI

Precursor Ion	Fragmentor
448.93	173

Product Ion	Collision Energy	Abundance
79.9	50	13175
98.9	40	6884
306.9	16	66

Instrument Information

Project Name 20160715_PFHxA
Instrument Name LCMS04
Instrument Model G6470A

Compound Name	Formula	Mass	Sample Position
PFHxA	C6HF11O2	313.98	5

Method Name
D:\MassHunter\Methods\OPTMS2.m

Polarity Negative Ion Source AJS ESI

Precursor Ion	Fragmentor
312.97	77

Product Ion	Collision Energy	Abundance
91	12	44111
75	50	29361
268.9	4	78533
297	4	16687
118.9	20	3423

Instrument Information

Project Name 20160717_PFHxS
Instrument Name LCMS04
Instrument Model G6470A

Compound Name	Formula	Mass	Sample Position
PFHxS	C6HF13SO3	399.94	4

Method Name
D:\MassHunter\Methods\OPTMS2.m

Polarity Negative Ion Source AJS ESI

Precursor Ion	Fragmentor
398.93	166

Product Ion	Collision Energy	Abundance
79.9	48	17395
98.9	44	8734
294.6	32	65

Instrument Information

Project Name 20160715_PFNA
Instrument Name LCMS04
Instrument Model G6470A

Compound Name	Formula	Mass	Sample Position
PFNA	C9HF17O2	463.97	4
Method Name			
D:\MassHunter\Methods\OPTMS2.m			
Polarity	Negative	Ion Source	AJS ESI
Precursor Ion		Fragmentor	
462.96		87	
Product Ion	Collision Energy	Abundance	
418.9	8	40277	
218.9	16	9116	
169	20	6490	
268.9	16	2351	

Instrument Information

Project Name 20160714_PFOA_2
Instrument Name LCMS04
Instrument Model G6470A

Compound Name	Formula	Mass	Sample Position
PFOA	C8HF15O2	413.97	5

Method Name
D:\MassHunter\Methods\OPTMS2.m

Polarity Negative Ion Source AJS ESI

Precursor Ion	Fragmentor
412.96	77

Product Ion	Collision Energy	Abundance
368.9	8	58745
169	16	15403
219	16	6039
259.4	28	70

Instrument Information

Project Name 20160714_PFOS_2
Instrument Name LCMS04
Instrument Model G6470A

Compound Name	Formula	Mass	Sample Position
PFOS	C8F17SO3H	499.94	5

Method Name
D:\MassHunter\Methods\OPTMS2.m

Polarity Negative Ion Source AJS ESI

Precursor Ion	Fragmentor
498.93	193

Product Ion	Collision Energy	Abundance
79.9	50	10659
98.9	50	5106
330.9	24	71
129.9	48	1468
168.9	40	1576

Instrument Information

Project Name 20160717_PFOSA
Instrument Name LCMS04
Instrument Model G6470A

Compound Name	Formula	Mass	Sample Position
PFOSA	C8H2F17NO2S	498.95	4
Method Name			
D:\MassHunter\Methods\OPTMS2.m			
Polarity	Negative	Ion Source	AJS ESI
Precursor Ion		Fragmentor	
497.94		166	
Product Ion	Collision Energy	Abundance	
77.9	36	20008	

Instrument Information

Project Name 20160715_PFPeA
Instrument Name LCMS04
Instrument Model G6470A

Compound Name	Formula	Mass	Sample Position
PFPeA	C5HF9O2	263.98	5

Method Name
D:\MassHunter\Methods\OPTMS2.m

Polarity Negative Ion Source AJS ESI

Precursor Ion	Fragmentor
262.97	70

Product Ion	Collision Energy	Abundance
219	4	62683

Instrument Information

Project Name 20160715_PFDTeDA
Instrument Name LCMS04
Instrument Model G6470A

Compound Name	Formula	Mass	Sample Position
PFTeDA	C14HF27O2	713.95	4

Method Name
D:\MassHunter\Methods\OPTMS2.m

Polarity Negative Ion Source AJS ESI

Precursor Ion	Fragmentor
712.94	109

Product Ion	Collision Energy	Abundance
668.9	12	31891
168.9	28	2814
218.9	24	1815
318.9	24	1931
269	24	1919

Instrument Information

Project Name 20160715_PFDTrDA
Instrument Name LCMS04
Instrument Model G6470A

Compound Name	Formula	Mass	Sample Position
PFDTrDA	C13HF25O2	663.96	4

Method Name
D:\MassHunter\Methods\OPTMS2.m

Polarity Negative Ion Source AJS ESI

Precursor Ion	Fragmentor
662.95	107

Product Ion	Collision Energy	Abundance
618.9	12	32499
168.9	28	3220
318.9	20	3010
218.9	24	2362
268.9	20	2405

Instrument Information

Project Name 20160715_PFUdA
Instrument Name LCMS04
Instrument Model G6470A

Compound Name	Formula	Mass	Sample Position
PFUdA	C11HF21O2	563.96	4

Method Name
D:\MassHunter\Methods\OPTMS2.m

Polarity Negative **Ion Source** AJS ESI

Precursor Ion	Fragmentor
562.95	97

Product Ion	Collision Energy	Abundance
518.9	8	33236
268.9	20	5518
318.9	20	3629
169	28	2971
218.9	20	3484

Instrument Information

Project Name PFC
Instrument Name LCMS04
Instrument Model G6470A

Compound Name	Formula	Mass	Sample Position
D7-MeFOSE	C11[2H]7HF17NO3S	564.04	5

Method Name

D:\MassHunter\Methods\Training\TRAINING_OPTIMIZERMETHOD.m

Polarity Negative **Ion Source** AJS ESI

Precursor Ion	Fragmentor
623.05	110

Product Ion	Collision Energy	Abundance
59	12	4186

Compound Name	Formula	Mass	Sample Position
D9-EtFOSE	C12[2H]H3F17NO3S	565.97	5

Method Name

D:\MassHunter\Methods\Training\TRAINING_OPTIMIZERMETHOD.m

Polarity Negative **Ion Source** AJS ESI

Precursor Ion	Fragmentor
564.96	100

Product Ion	Collision Energy	Abundance
519.9	8	25550
325.1	36	77

Instrument Information

Project Name PFC
Instrument Name LCMS04
Instrument Model G6470A

Compound Name	Formula	Mass	Sample Position
D9-EtFOSE	C12[2H]9HF17NO3S	580.07	5

Method Name
D:\MassHunter\Methods\Training\TRAINING_OPTIMIZERMETHOD.m

Polarity Negative **Ion Source** AJS ESI

Precursor Ion	Fragmentor
639.08	105

Product Ion	Collision Energy	Abundance
59.1	12	3498

Instrument Information

Project Name 20160717_MPFBA
Instrument Name LCMS04
Instrument Model G6470A

Compound Name	Formula	Mass	Sample Position
MPFBA		218	5
Method Name			
D:\MassHunter\Methods\OPTMS2.m			
Polarity	Negative	Ion Source	AJS ESI
Precursor Ion	Fragmentor		
216.99	65		
Product Ion	Collision Energy	Abundance	
172	8	113906	

Instrument Information

Project Name 20160717_MPFHpA
Instrument Name LCMS04
Instrument Model G6470A

Compound Name	Formula	Mass	Sample Position
MPFHpA		368	5
Method Name			
D:\MassHunter\Methods\OPTMS2.m			
Polarity	Negative	Ion Source	AJS ESI
Precursor Ion	Fragmentor		
366.99	72		
Product Ion	Collision Energy	Abundance	
321.9	8	81515	
168.9	16	8787	
172	16	8726	
120.9	24	1952	
119	24	2160	

Instrument Information

Project Name 20160717_MPFHxA
Instrument Name LCMS04
Instrument Model G6470A

Compound Name	Formula	Mass	Sample Position
MPFHxA		316	5
Method Name			
D:\MassHunter\Methods\OPTMS2.m			
Polarity	Negative	Ion Source	AJS ESI
Precursor Ion		Fragmentor	
314.99		75	
Product Ion	Collision Energy	Abundance	
269.9	4	108012	
119	20	2381	
120	20	2279	
181.4	32	59	

Instrument Information

Project Name 20160717_MPFHxS
Instrument Name LCMS04
Instrument Model G6470A

Compound Name	Formula	Mass	Sample Position
MPFHxS		404	5
Method Name			
D:\MassHunter\Methods\OPTMS2.m			
Polarity	Negative	Ion Source	AJS ESI
Precursor Ion		Fragmentor	
402.99		161	
Product Ion	Collision Energy	Abundance	
83.9	50	14262	
102.9	44	6640	
264	8	58	

Instrument Information

Project Name PFC
Instrument Name LCMS04
Instrument Model G6470A

Compound Name	Formula	Mass	Sample Position
MPFOA	[13C]4C4HF15O2	417.99	5

Method Name
D:\MassHunter\Methods\Training\TRAINING_OPTIMIZERMETHOD.m

Polarity Negative Ion Source AJS ESI

Precursor Ion	Fragmentor
416.98	80

Product Ion	Collision Energy	Abundance
371.9	8	32831
59.1	20	1849
214.7	52	59
172	20	5208



Instrument Information

Project Name PFC
Instrument Name LCMS04
Instrument Model G6470A

Compound Name	Formula	Mass	Sample Position
MPFOA	[13C]2C6HF15O2	415.98	5

Method Name

D:\MassHunter\Methods\Training\TRAINING_OPTIMIZERMETHOD.m

Polarity Negative Ion Source AJS ESI

Precursor Ion	Fragmentor
414.97	80

Product Ion	Collision Energy	Abundance
238.3	52	71

Compound Name	Formula	Mass	Sample Position
MPFOS	[13C]4C4HF17SO3	503.95	5

Method Name

D:\MassHunter\Methods\Training\TRAINING_OPTIMIZERMETHOD.m

Polarity Negative Ion Source AJS ESI

Precursor Ion	Fragmentor
502.94	180

Product Ion	Collision Energy	Abundance
79.9	52	11376
98.9	48	5944

Compound Name	Formula	Mass	Sample Position
MPFNA	[13C]5C4HF17O2	468.99	5

Method Name

D:\MassHunter\Methods\Training\TRAINING_OPTIMIZERMETHOD.m

Polarity Negative Ion Source AJS ESI

Precursor Ion	Fragmentor
467.98	85

Product Ion	Collision Energy	Abundance
422.9	8	31873
223	16	4309
172	20	3015
218.9	16	4034

Compound Name	Formula	Mass	Sample Position
MPFDA	[13C]2C8HF19O2	515.97	5

Method Name

D:\MassHunter\Methods\Training\TRAINING_OPTIMIZERMETHOD.m

Polarity Negative **Ion Source** AJS ESI

Precursor Ion	Fragmentor
514.96	105

Product Ion	Collision Energy	Abundance
469.9	8	25947
218.9	24	2642
168.9	32	3937
311.4	36	79

Instrument Information

Project Name 20160717_MPFPeA
Instrument Name LCMS04
Instrument Model G6470A

Compound Name	Formula	Mass	Sample Position
MPFPeA		269	5
Method Name			
D:\MassHunter\Methods\OPTMS2.m			
Polarity	Negative	Ion Source	AJS ESI
Precursor Ion		Fragmentor	
267.99		70	
Product Ion	Collision Energy		Abundance
223	4		78853



Instrument Information

Project Name PFC
Instrument Name LCMS04
Instrument Model G6470A

Compound Name	Formula	Mass	Sample Position
MPFUnA	[13C]2C9HF21O2	565.97	5

Method Name

D:\MassHunter\Methods\Training\TRAINING_OPTIMIZERMETHOD.m

Polarity Negative Ion Source AJS ESI

Precursor Ion	Fragmentor
564.96	95

Product Ion	Collision Energy	Abundance
519.9	8	25635
326.5	20	67
320	20	1575

Compound Name	Formula	Mass	Sample Position
MPFDoA	[13C]2C10HF23O2	615.97	5

Method Name

D:\MassHunter\Methods\Training\TRAINING_OPTIMIZERMETHOD.m

Polarity Negative Ion Source AJS ESI

Precursor Ion	Fragmentor
614.96	100

Product Ion	Collision Energy	Abundance
569.9	8	31775
356	60	64

Compound Name	Formula	Mass	Sample Position
MPFTeDA	[13C]2C12HF27O2	715.96	5

Method Name

D:\MassHunter\Methods\Training\TRAINING_OPTIMIZERMETHOD.m

Polarity Negative Ion Source AJS ESI

Precursor Ion	Fragmentor
714.95	105

Product Ion	Collision Energy	Abundance
669.9	12	25198
401.3	28	65

Compound Name	Formula	Mass	Sample Position
MPFOSA	[13C]8H2F17NO2S	506.98	5
Method Name			
D:\MassHunter\Methods\Training\TRAINING_OPTIMIZERMETHOD.m			
Polarity	Negative	Ion Source	AJS ESI
Precursor Ion		Fragmentor	
505.97		165	
Product Ion	Collision Energy		Abundance
77.9	36		17600

Compound Name	Formula	Mass	Sample Position
D3-MeFOSA	C9[2H]3HF17NO2S	515.99	5
Method Name			
D:\MassHunter\Methods\Training\TRAINING_OPTIMIZERMETHOD.m			
Polarity	Negative	Ion Source	AJS ESI
Precursor Ion		Fragmentor	
514.98		100	
Product Ion	Collision Energy		Abundance
469.9	8		23716
219	24		4049
168.9	28		3842
311.2	24		84

Compound Name	Formula	Mass	Sample Position
D5-EtFOSA	C10[2H]5HF17NO2S	532.02	5
Method Name			
D:\MassHunter\Methods\Training\TRAINING_OPTIMIZERMETHOD.m			
Polarity	Negative	Ion Source	AJS ESI
Precursor Ion		Fragmentor	
531.01		145	
Product Ion	Collision Energy		Abundance
169	32		3785
322.8	44		84

Compound Name	Formula	Mass	Sample Position
D3-MeFOSAA	C11[2H]3H3F17NO4S	573.99	5
Method Name			
D:\MassHunter\Methods\Training\TRAINING_OPTIMIZERMETHOD.m			
Polarity	Negative	Ion Source	AJS ESI
Precursor Ion		Fragmentor	
572.98		125	
Product Ion	Collision Energy	Abundance	
418.9	20	3483	
325.2	64	68	

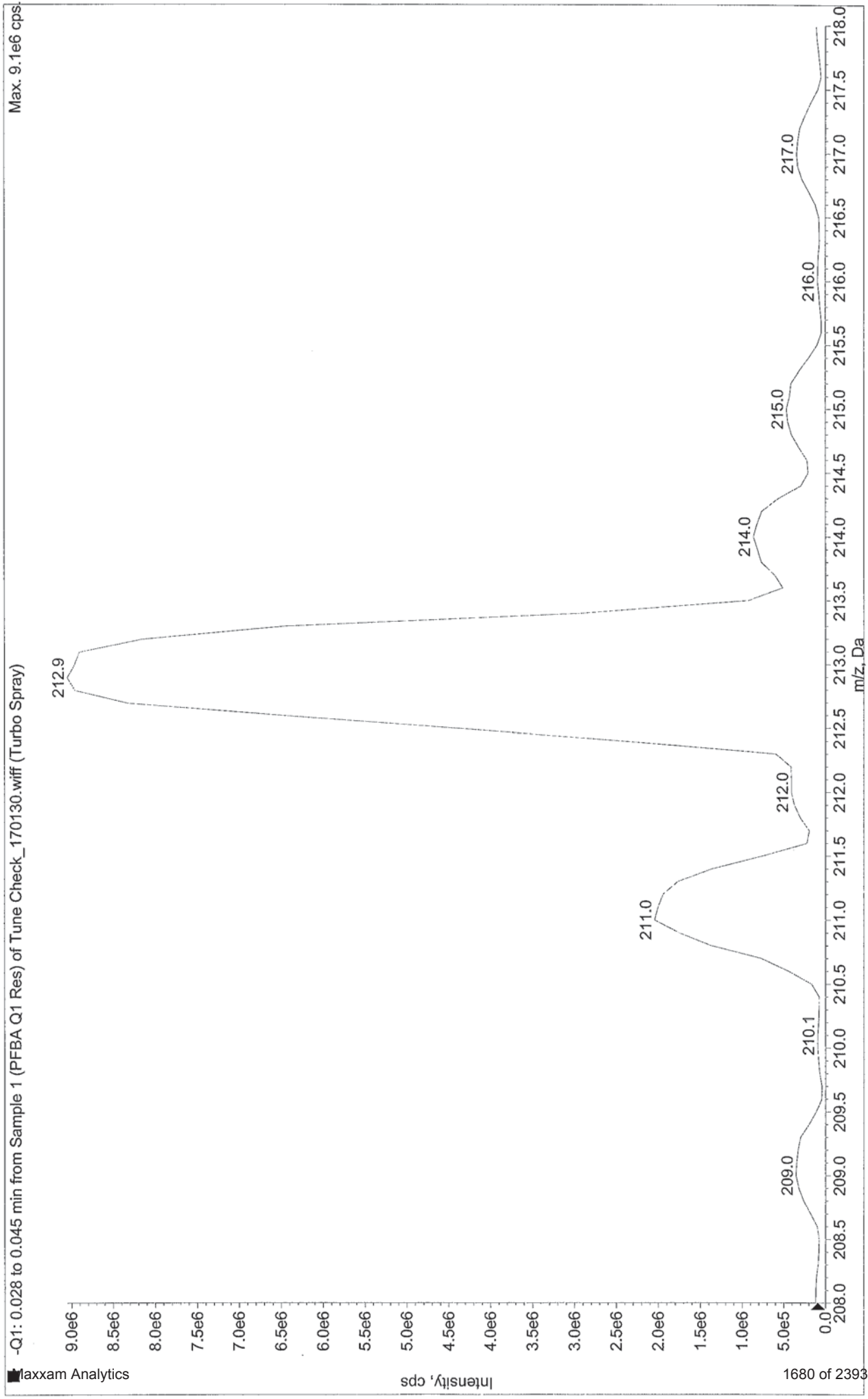
Compound Name	Formula	Mass	Sample Position
D5-EtFOSAA	C12[2H]5H3F17NO4S	590.02	5
Method Name			
D:\MassHunter\Methods\Training\TRAINING_OPTIMIZERMETHOD.m			
Polarity	Negative	Ion Source	AJS ESI
Precursor Ion		Fragmentor	
589.01		135	
Product Ion	Collision Energy	Abundance	
418.9	20	3246	
531	20	2445	
334.3	36	62	

Compound Name	Formula	Mass	Sample Position
M2-6-2FTS	[13C]2C6H5F13SO3	429.98	5
Method Name			
D:\MassHunter\Methods\Training\TRAINING_OPTIMIZERMETHOD.m			
Polarity	Negative	Ion Source	AJS ESI
Precursor Ion		Fragmentor	
428.97		155	
Product Ion	Collision Energy	Abundance	
80.5	40	520	
248.6	20	67	

Compound Name	Formula	Mass	Sample Position
M2-8-2FTS	[13C]2C8H5F17SO3	529.98	5
Method Name			
D:\MassHunter\Methods\Training\TRAINING_OPTIMIZERMETHOD.m			
Polarity	Negative	Ion Source	AJS ESI
Precursor Ion		Fragmentor	
528.97		190	
Product Ion	Collision Energy	Abundance	
80.9	40	551	
508.9	32	2346	

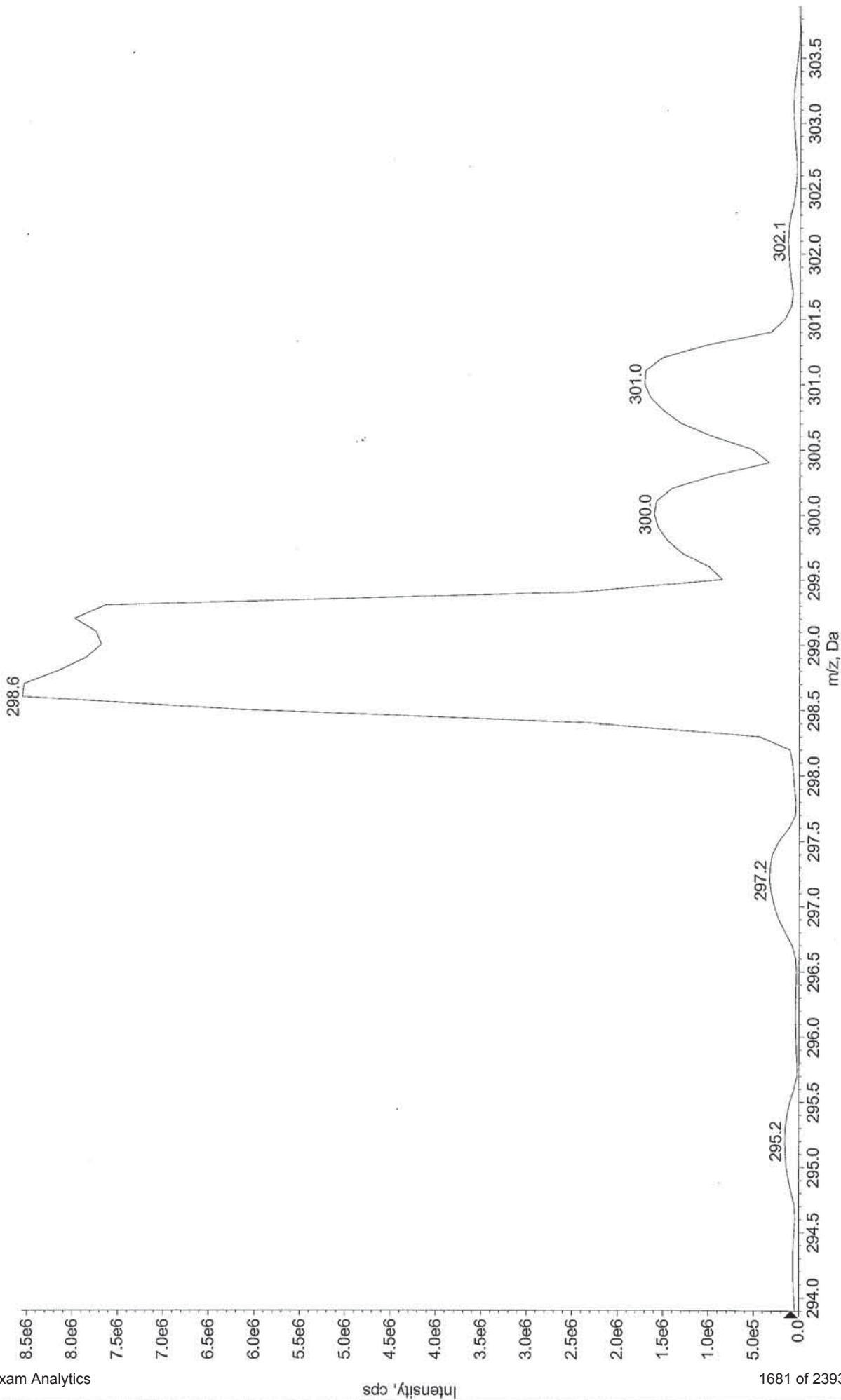
Compound Name	Formula	Mass	Sample Position
13C6-PFHxA	[13C]6HF11O2	320	5
Method Name			
D:\MassHunter\Methods\Training\TRAINING_OPTIMIZERMETHOD.m			
Polarity	Negative	Ion Source	AJS ESI
Precursor Ion		Fragmentor	
318.99		75	
Product Ion	Collision Energy		Abundance
273.9	4		70123
121	24		2803

Compound Name	Formula	Mass	Sample Position
13C9-PFDA	[13C]9CHF19O2	523	5
Method Name			
D:\MassHunter\Methods\Training\TRAINING_OPTIMIZERMETHOD.m			
Polarity	Negative	Ion Source	AJS ESI
Precursor Ion		Fragmentor	
521.99		90	
Product Ion	Collision Energy		Abundance
476.9	8		20910
223	16		2036
273.4	16		885
221.9	16		2316



Maxxam Analytics -Q1: 2.802 to 3.469 min from Sample 116 (PFBS Q1 Res) of Tune Check_170130.wiff (Turbo Spray)

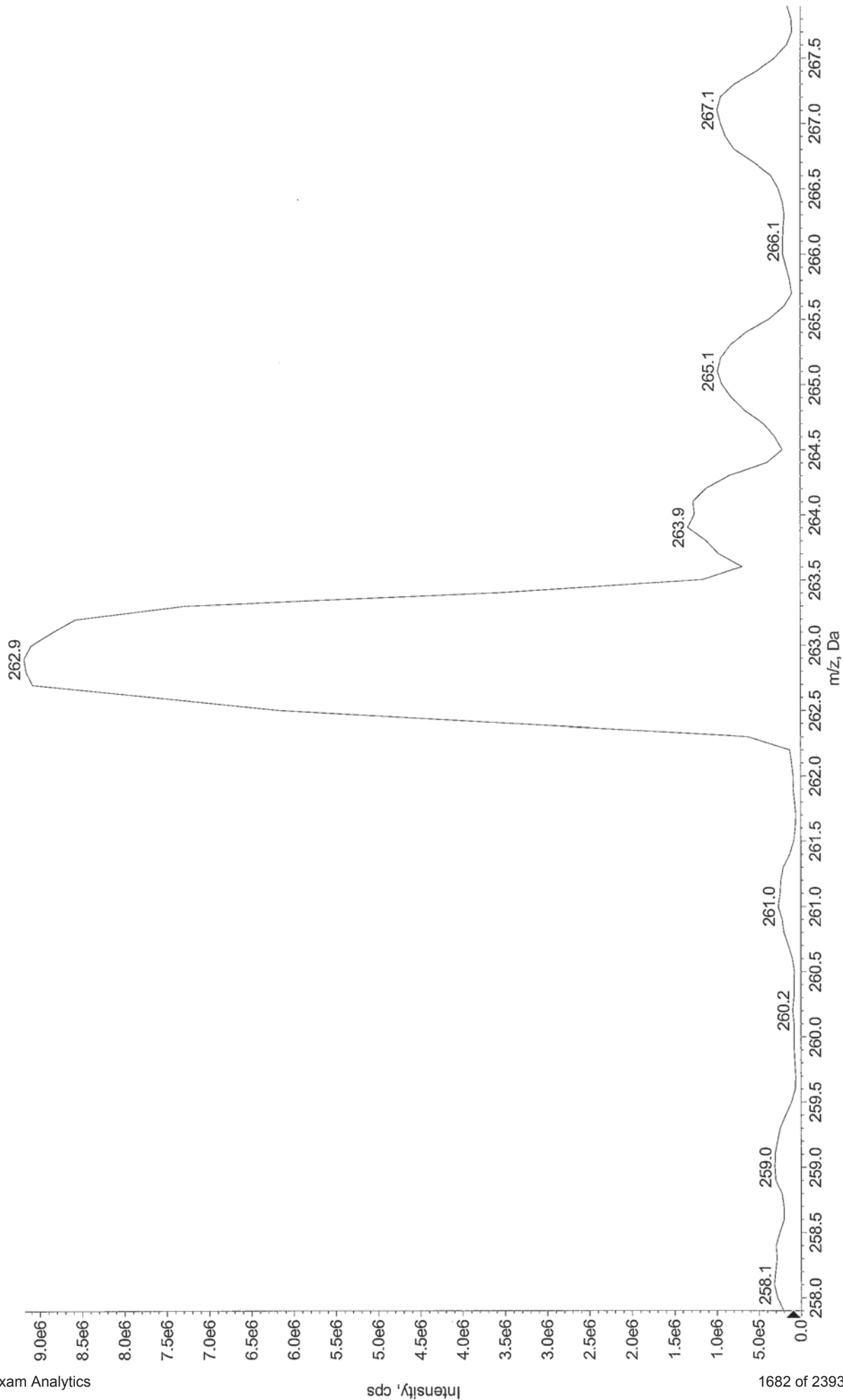
Max. 8.6e6 cps.



Max. 9.2e6 cps.

-Q1: 0.048 to 0.054 min from Sample 3 (PFPeA Q1 Res) of Tune Check_170130.wiff (Turbo Spray)

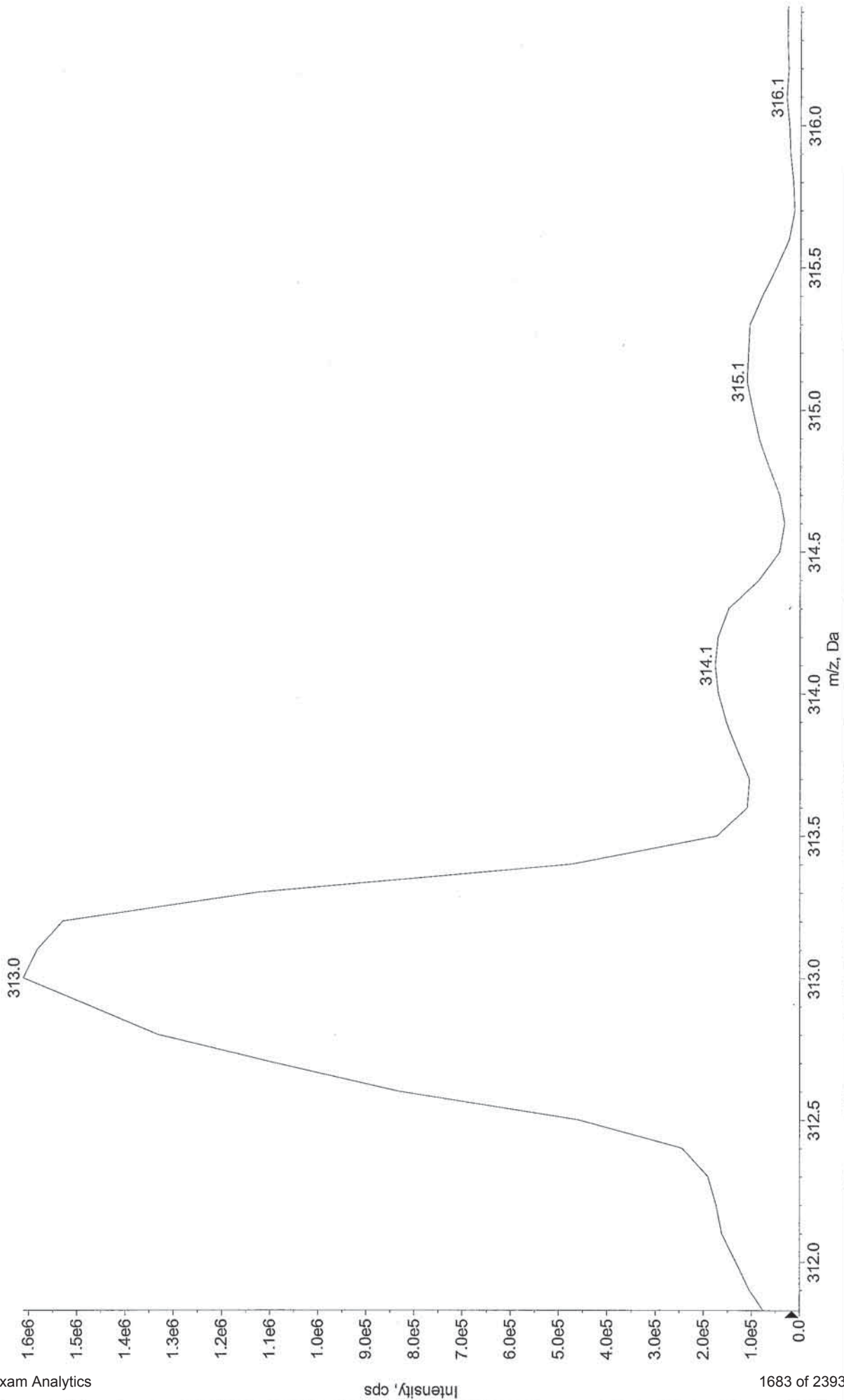
Maxxam Analytics



1682 of 2393

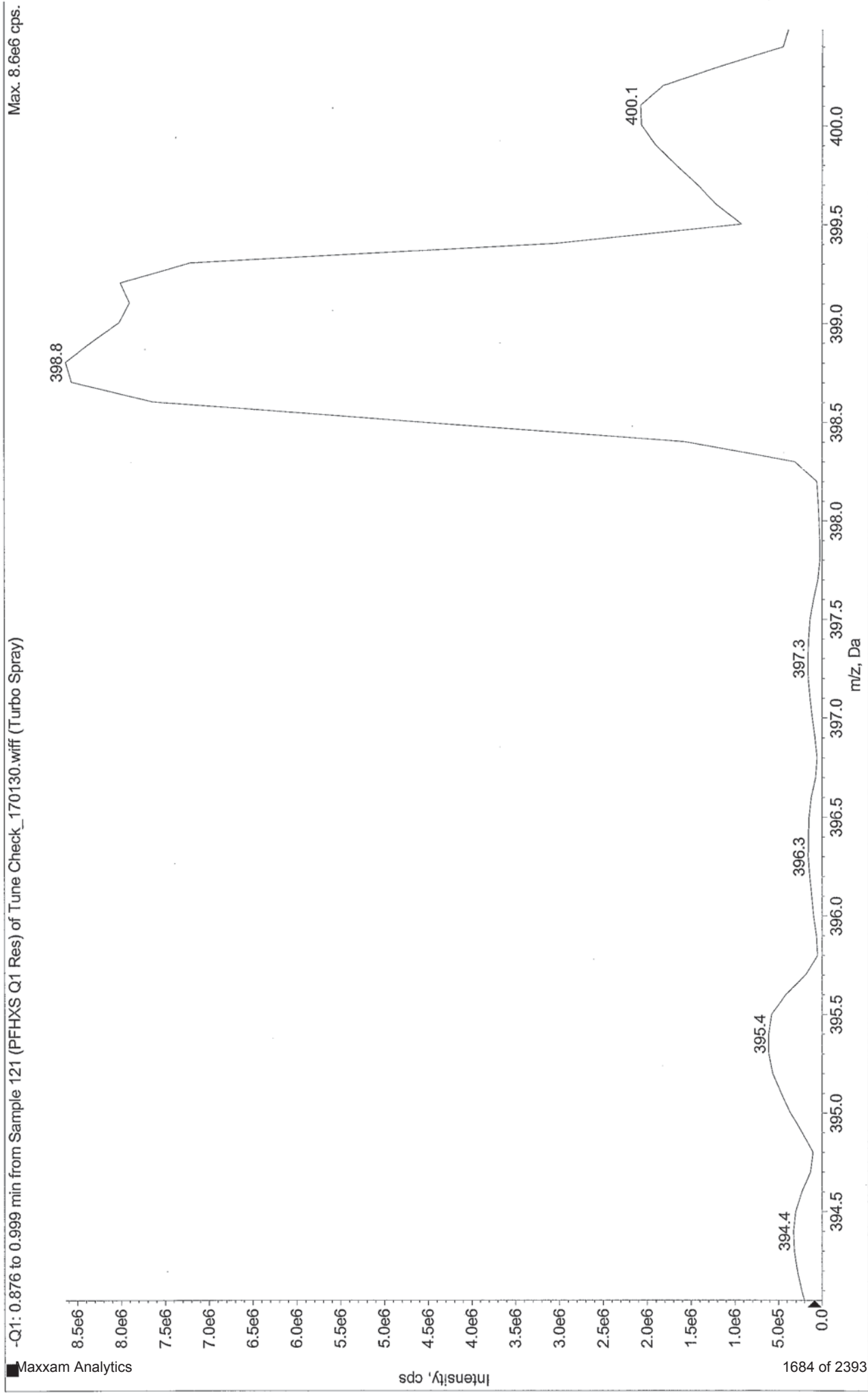
Maxxam Analytics

Max. 1.6e6 cps.



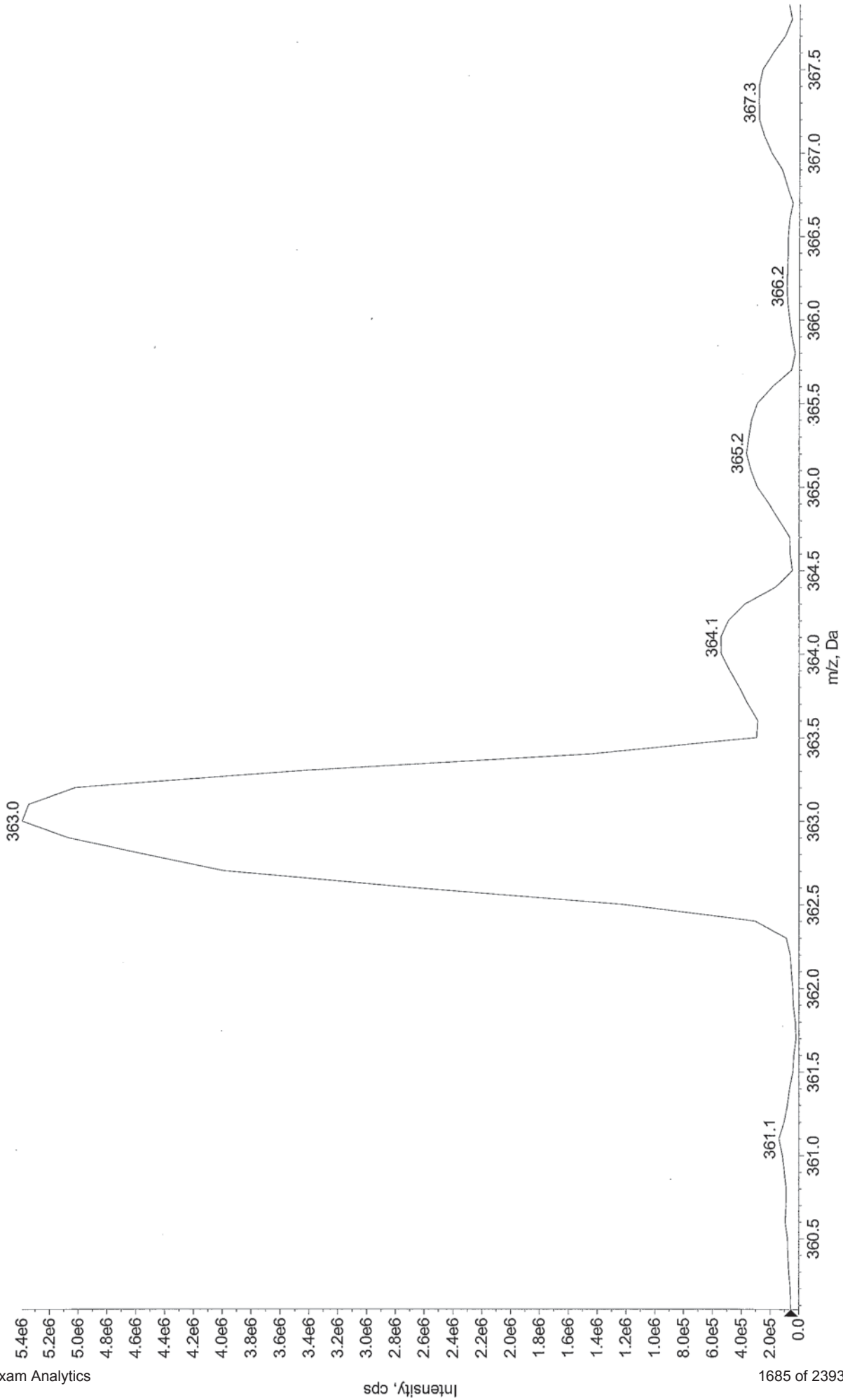
-Q1: 0.876 to 0.999 min from Sample 121 (PFHXS Q1 Res) of Tune Check_170130.wiff (Turbo Spray)

Max. 8.6e6 cps.



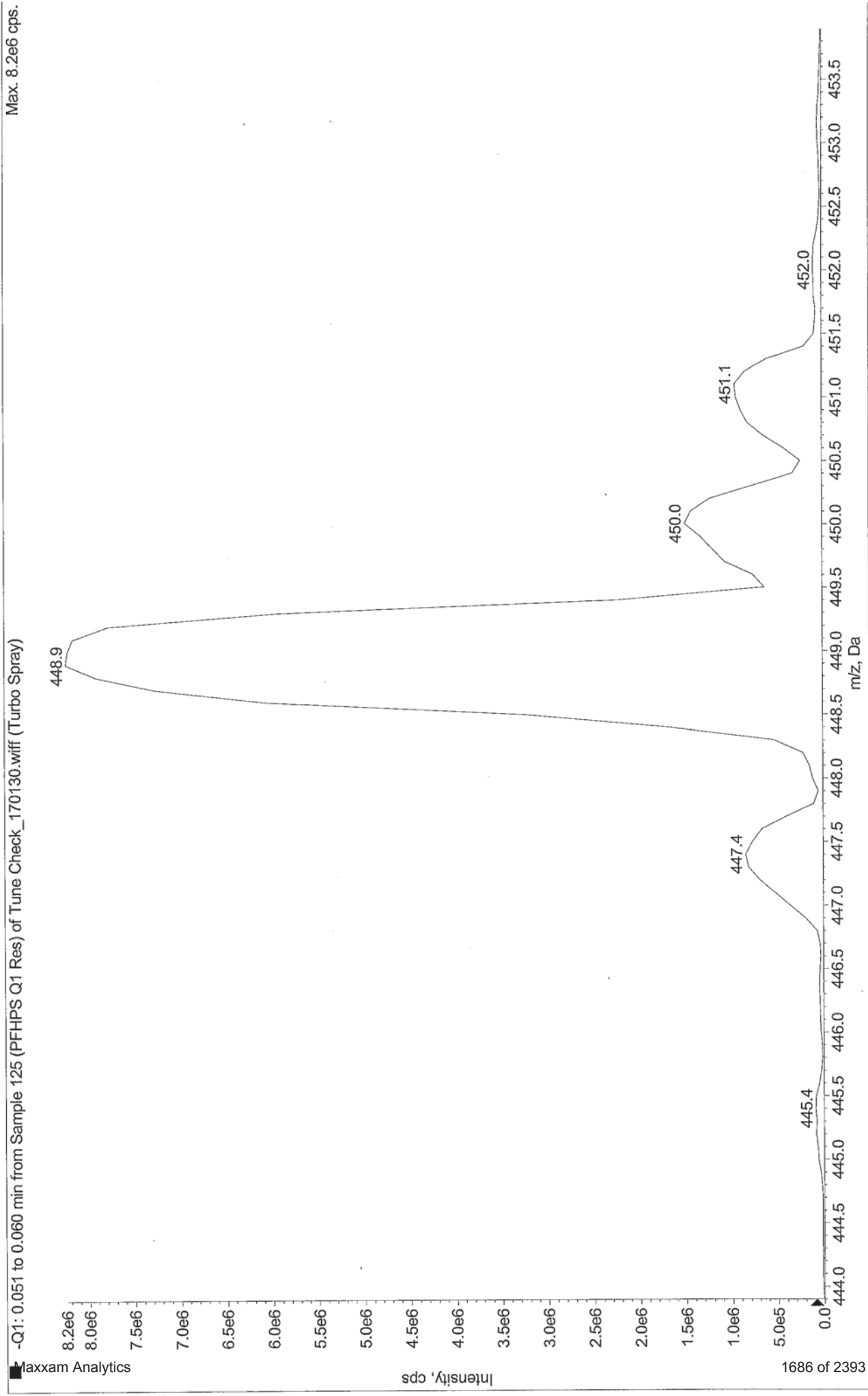
Maxxam Analytics
-Q1: 0.066 to 0.075 min from Sample 123 (PFHPA Q1 Res) of Tune Check_170130.wiff (Turbo Spray)

Max. 5.4e6 cps.

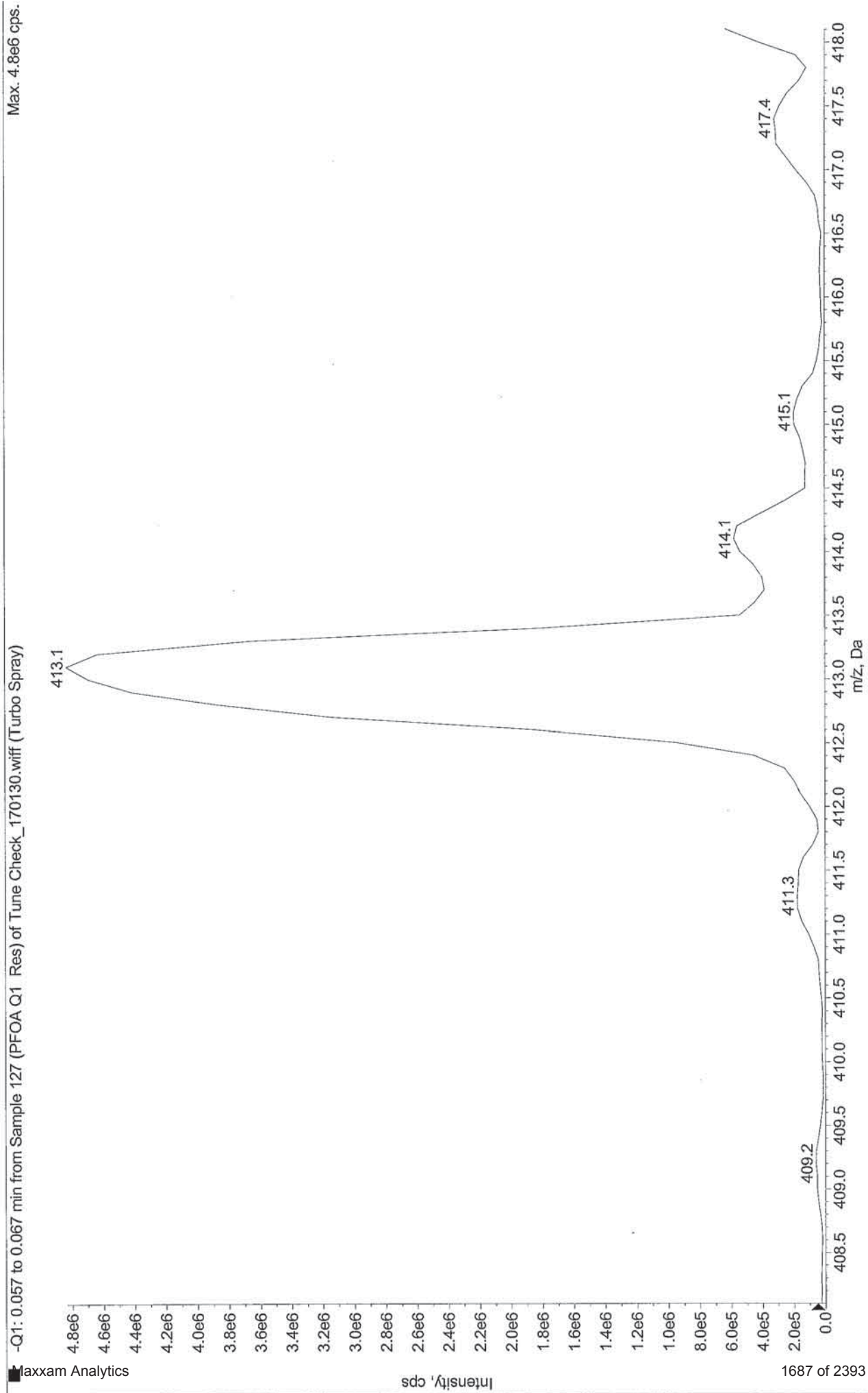


Max. 8.2e6 cps.

-Q1: 0.051 to 0.060 min from Sample 125 (PFHPS Q1 Res) of Tune Check_170130.wiff (Turbo Spray)

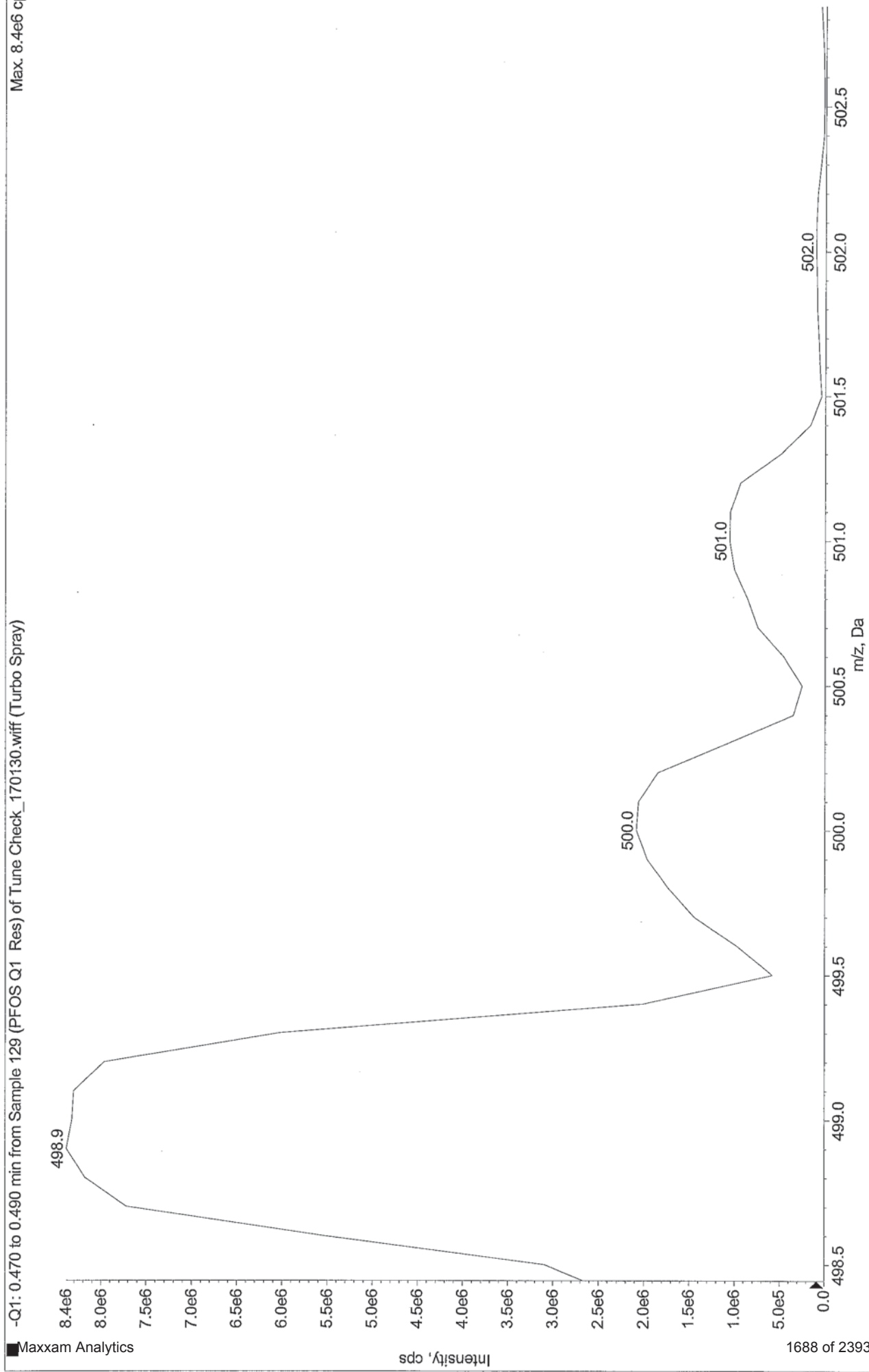


-Q1: 0.057 to 0.067 min from Sample 127 (PFOA Q1 Res) of Tune Check_170130.wiff (Turbo Spray)



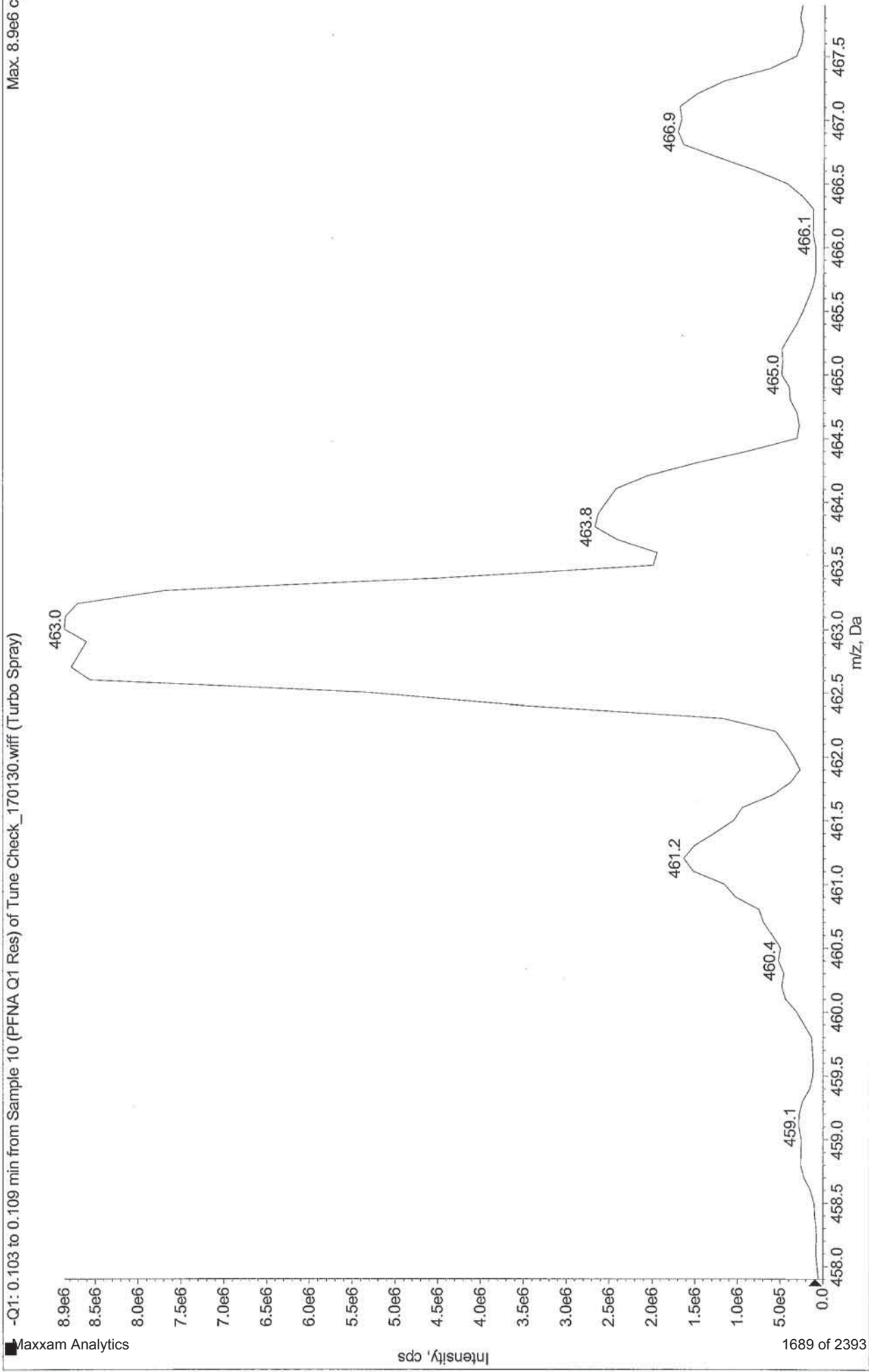
-Q1: 0.470 to 0.490 min from Sample 129 (PFOS Q1 Res) of Tune Check_170130.wiff (Turbo Spray)

Max. 8.4e6 cps.



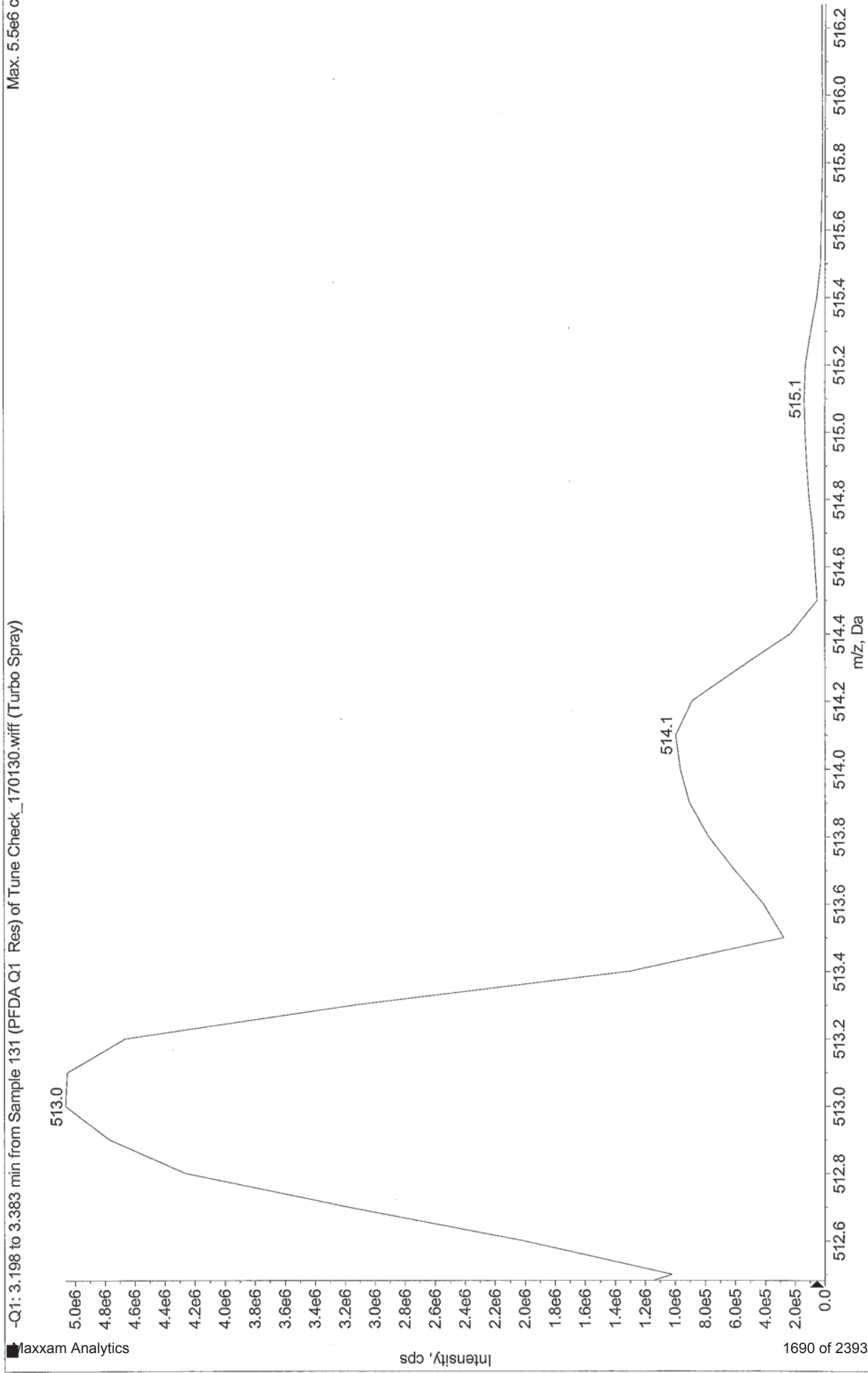
-Q1: 0.103 to 0.109 min from Sample 10 (PFNA Q1 Res) of Tune Check_170130.wiff (Turbo Spray)

Max. 8.9e6 cps.



-Q1: 3.198 to 3.383 min from Sample 131 (PFDA Q1 Res) of Tune Check_170130.wiff (Turbo Spray)

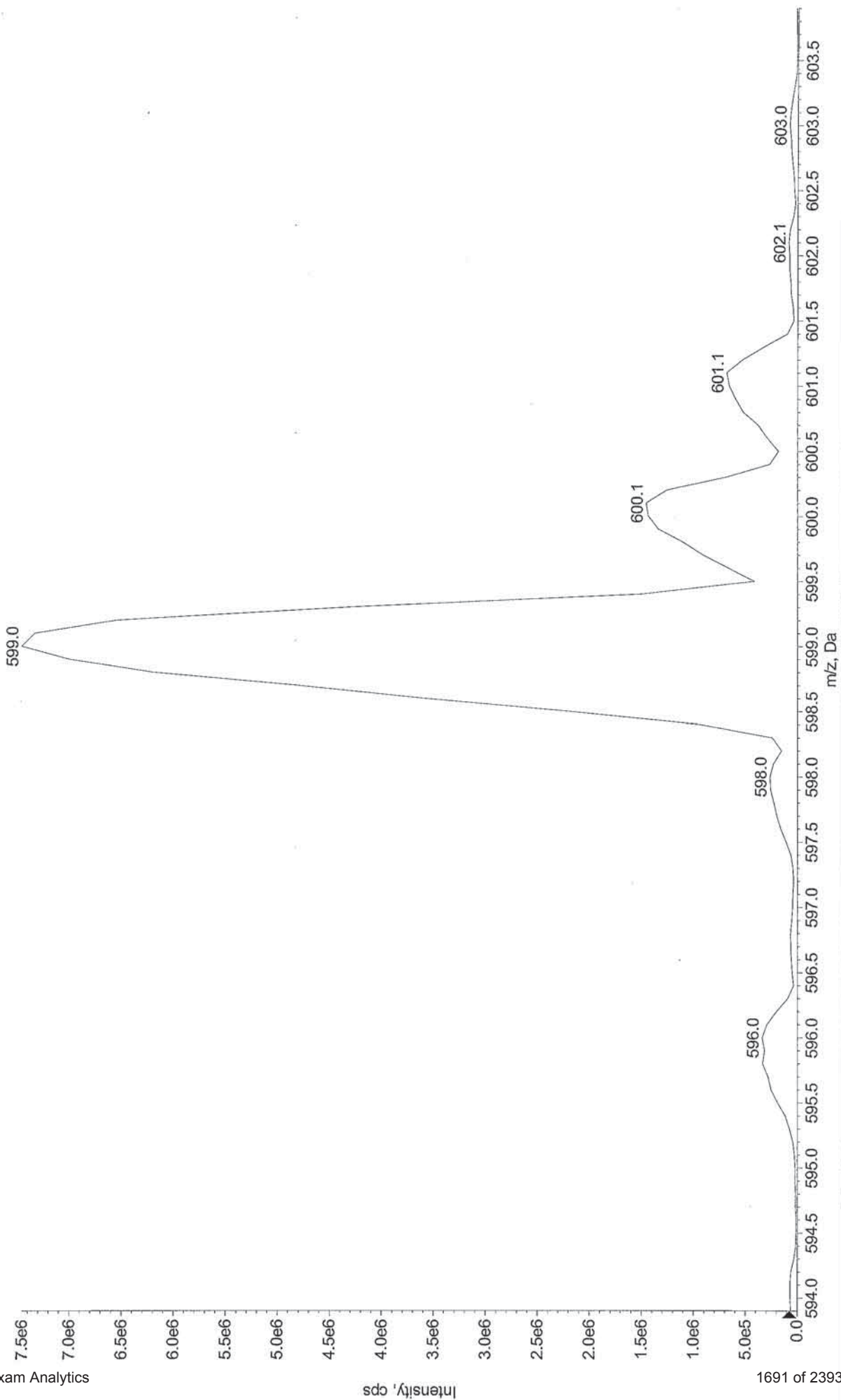
Max. 5.5e6 cps.



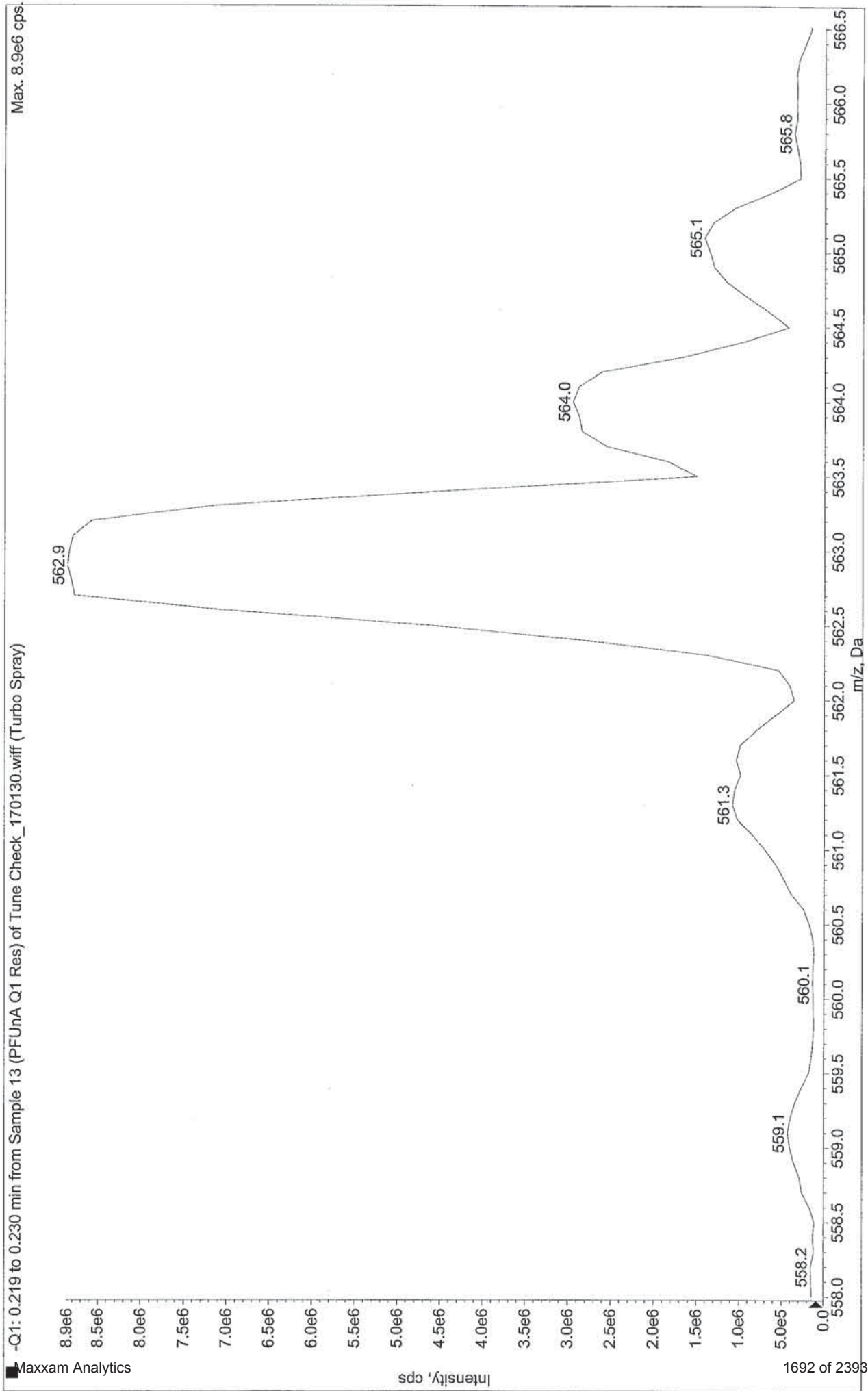
Maxxam Analytics

-Q1: 0.200 to 0.216 min from Sample 133 (PFDS Q1 Res) of Tune Check_170130.wiff (Turbo Spray)

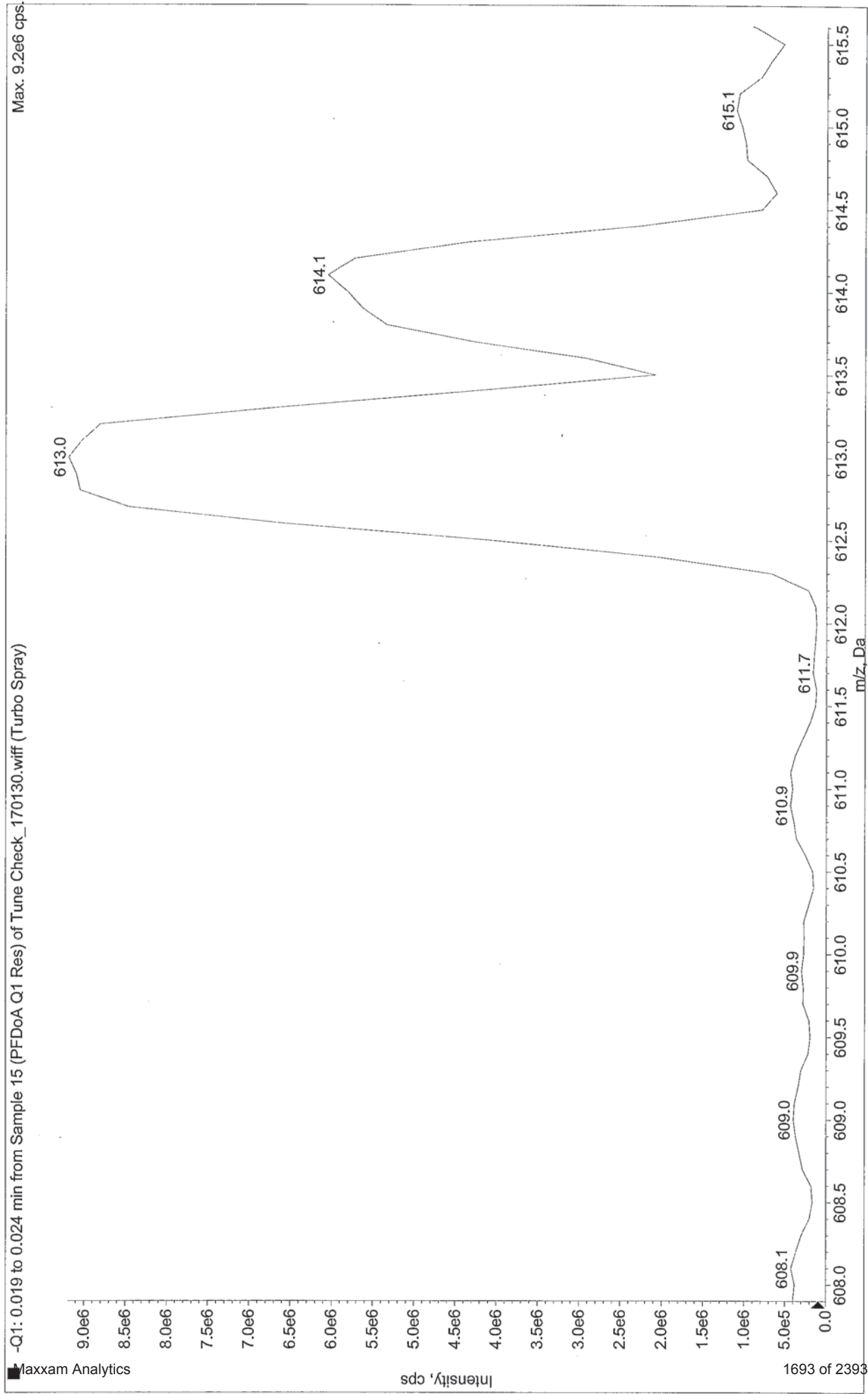
Max. 7.5e6 cps.



-Q1: 0.219 to 0.230 min from Sample 13 (PFUnA Q1 Res) of Tune Check_170130.wiff (Turbo Spray) Max. 8.9e6 cps.

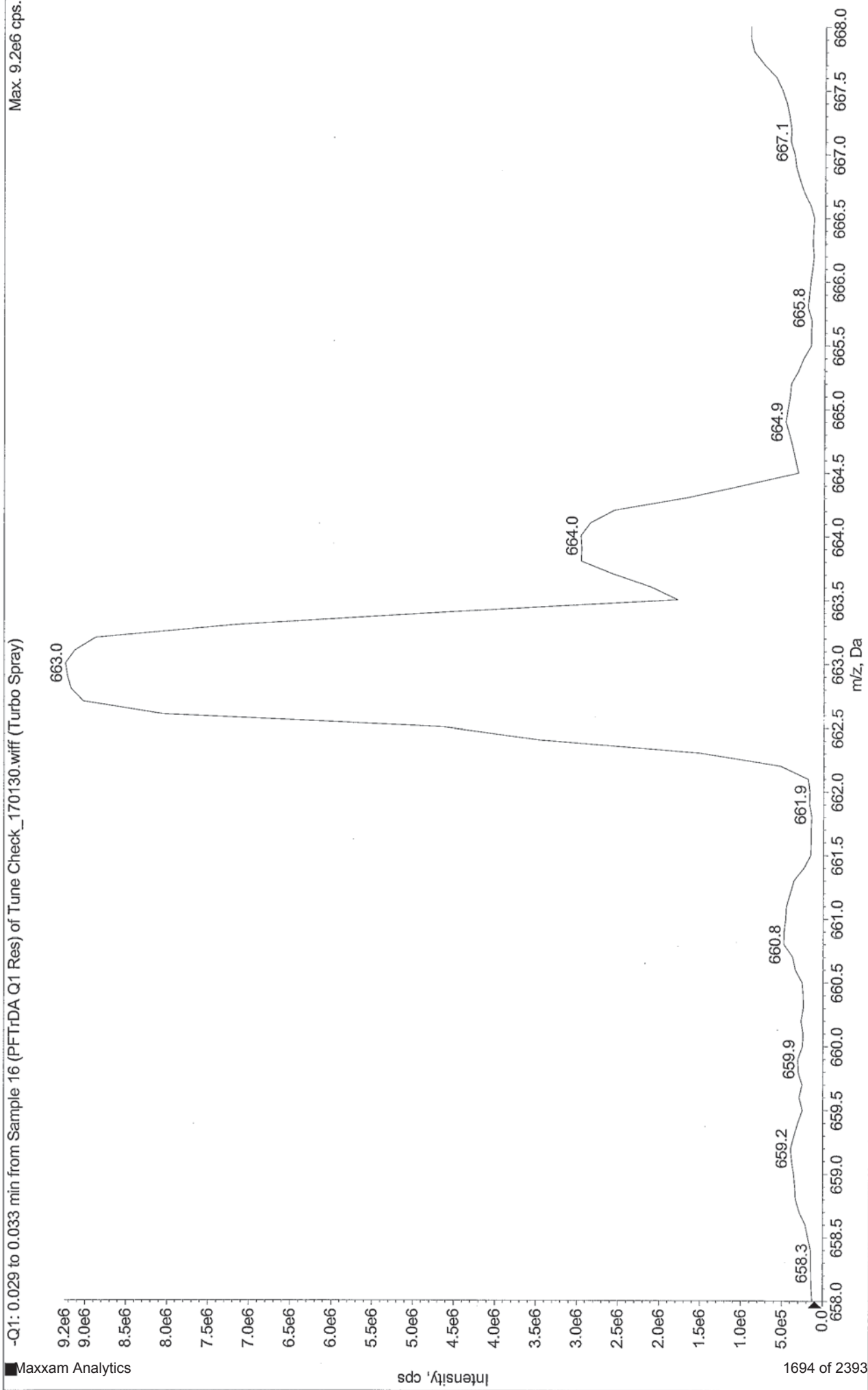


-Q1: 0.019 to 0.024 min from Sample 15 (PFDa Q1 Res) of Tune Check_170130.wiff (Turbo Spray) Max. 9.2e6 cps.



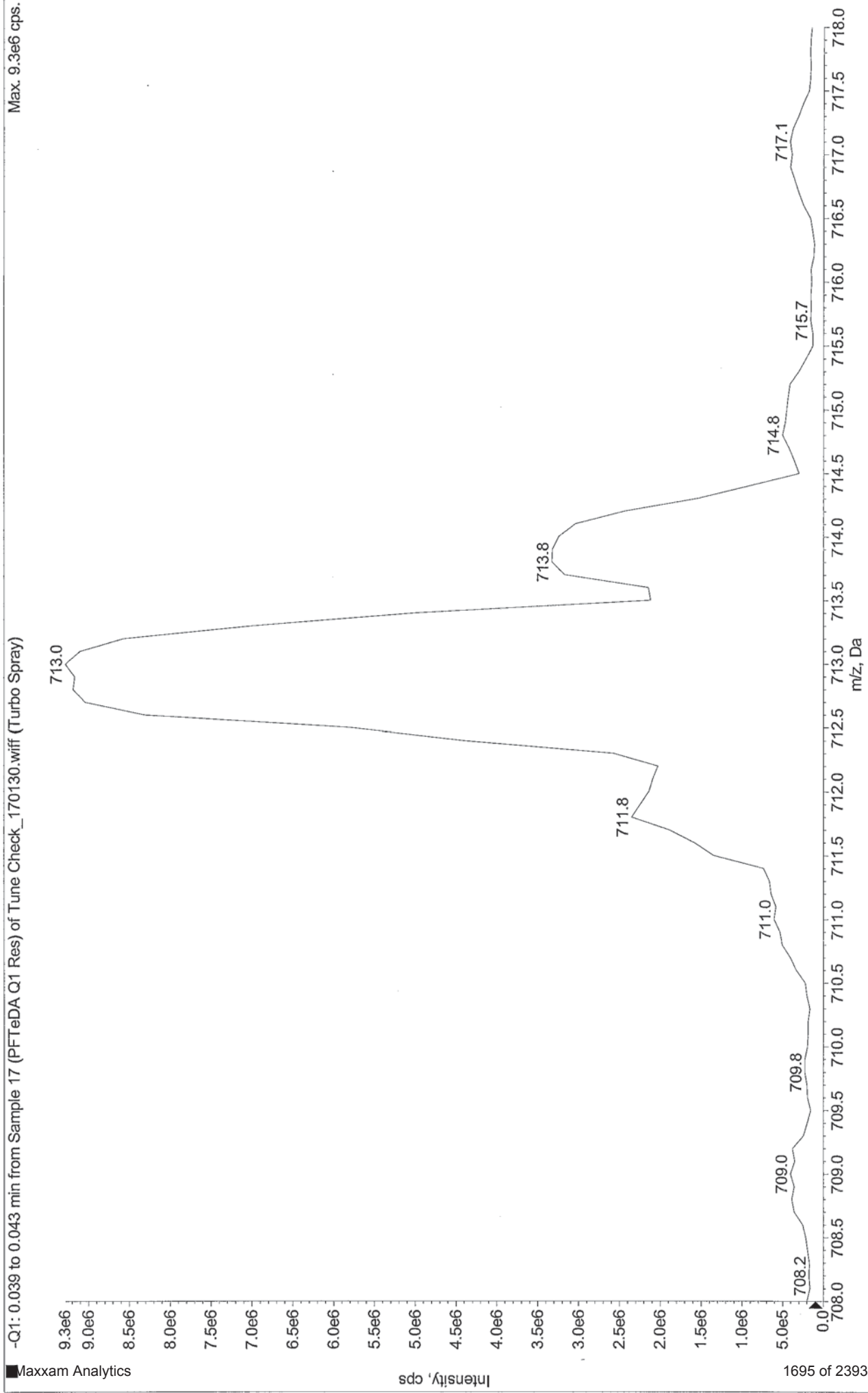
-Q1: 0.029 to 0.033 min from Sample 16 (PFT-DA Q1 Res) of Tune Check_170130.wiff (Turbo Spray)

Max. 9.2e6 cps.



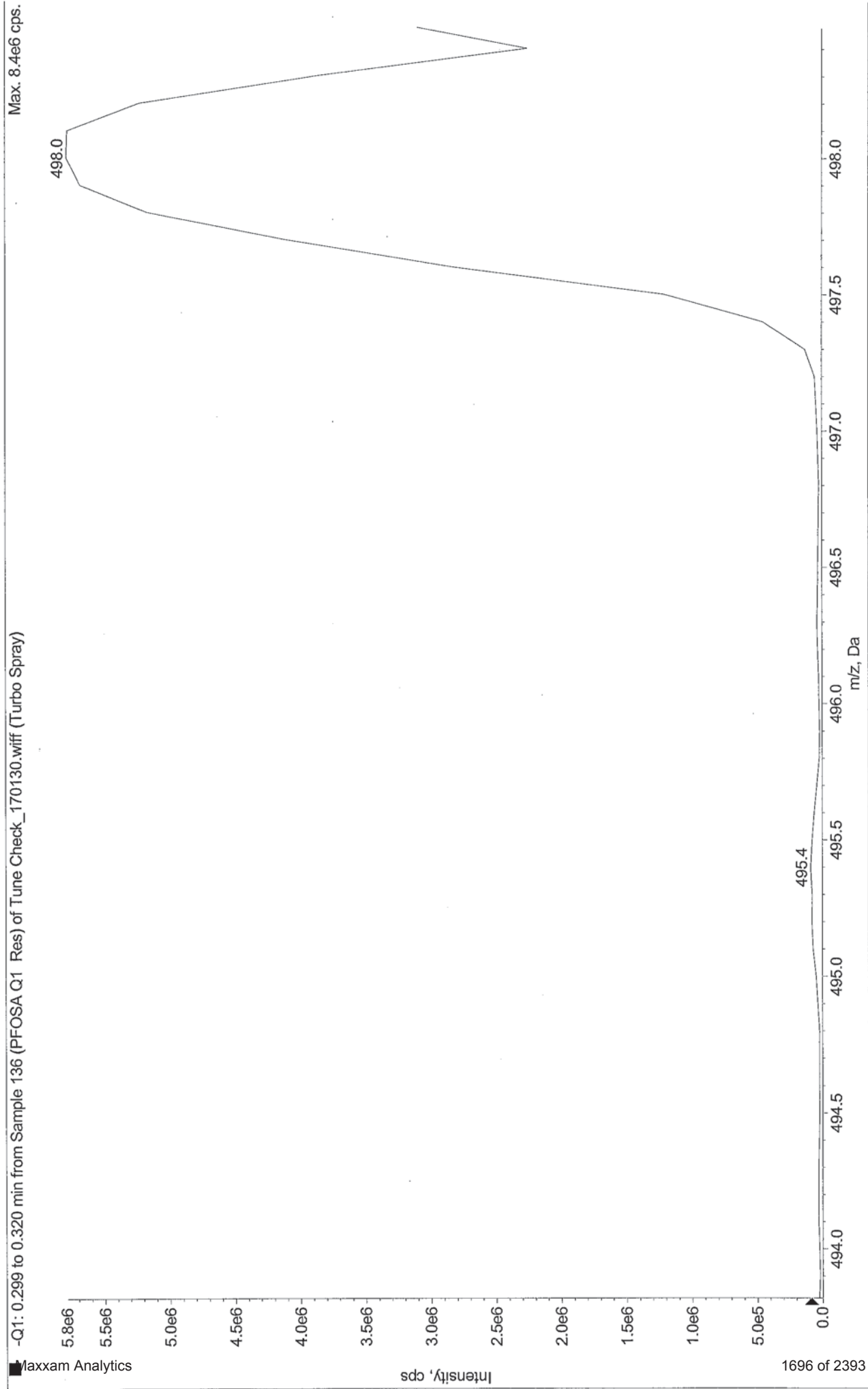
-Q1: 0.039 to 0.043 min from Sample 17 (PFTeDA Q1 Res) of Tune Check_170130.wiff (Turbo Spray)

Max. 9.3e6 cps.

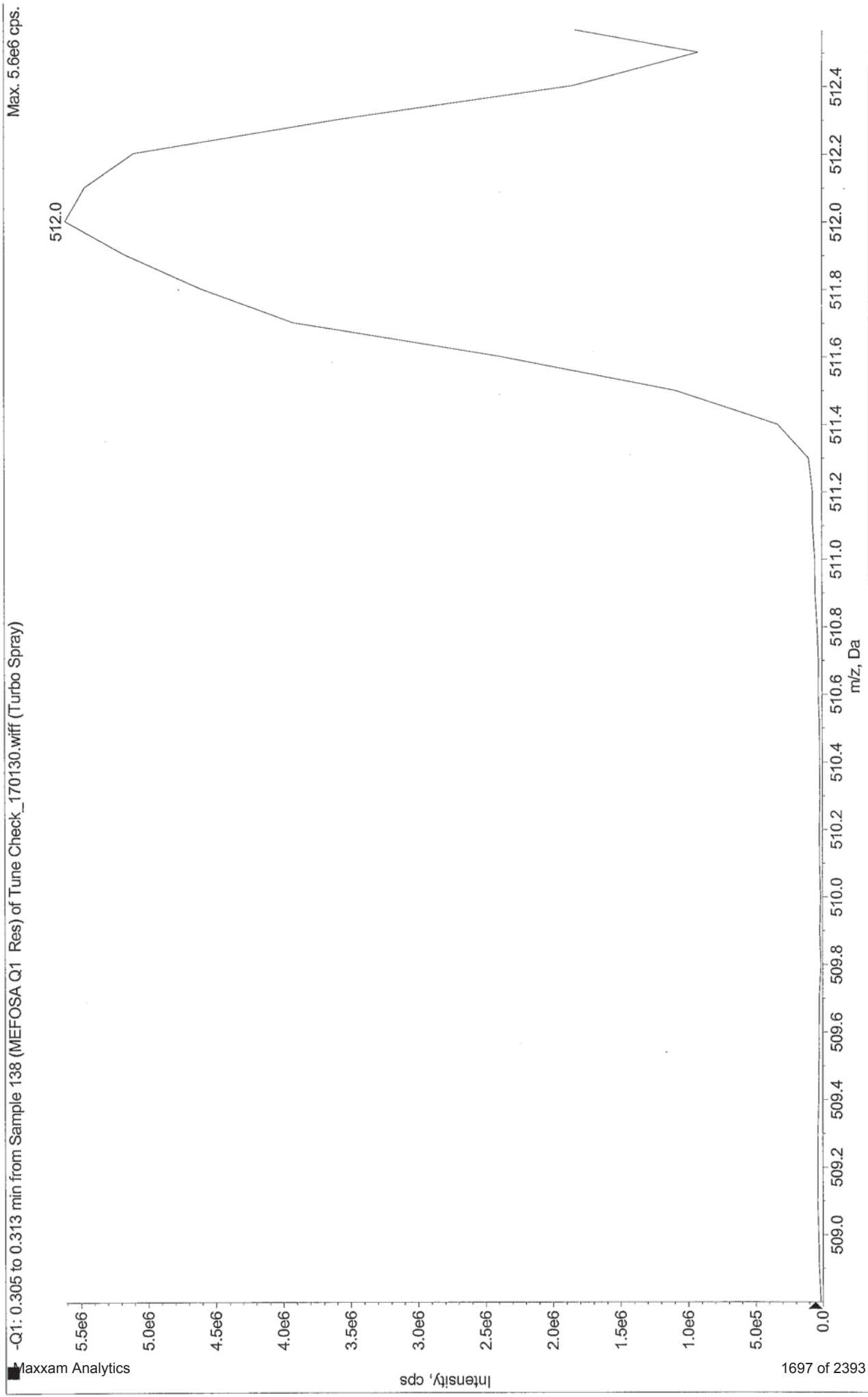


-Q1: 0.299 to 0.320 min from Sample 136 (PFOSA Q1 Res) of Tune Check_170130.wiff (Turbo Spray)

Max. 8.4e6 cps.

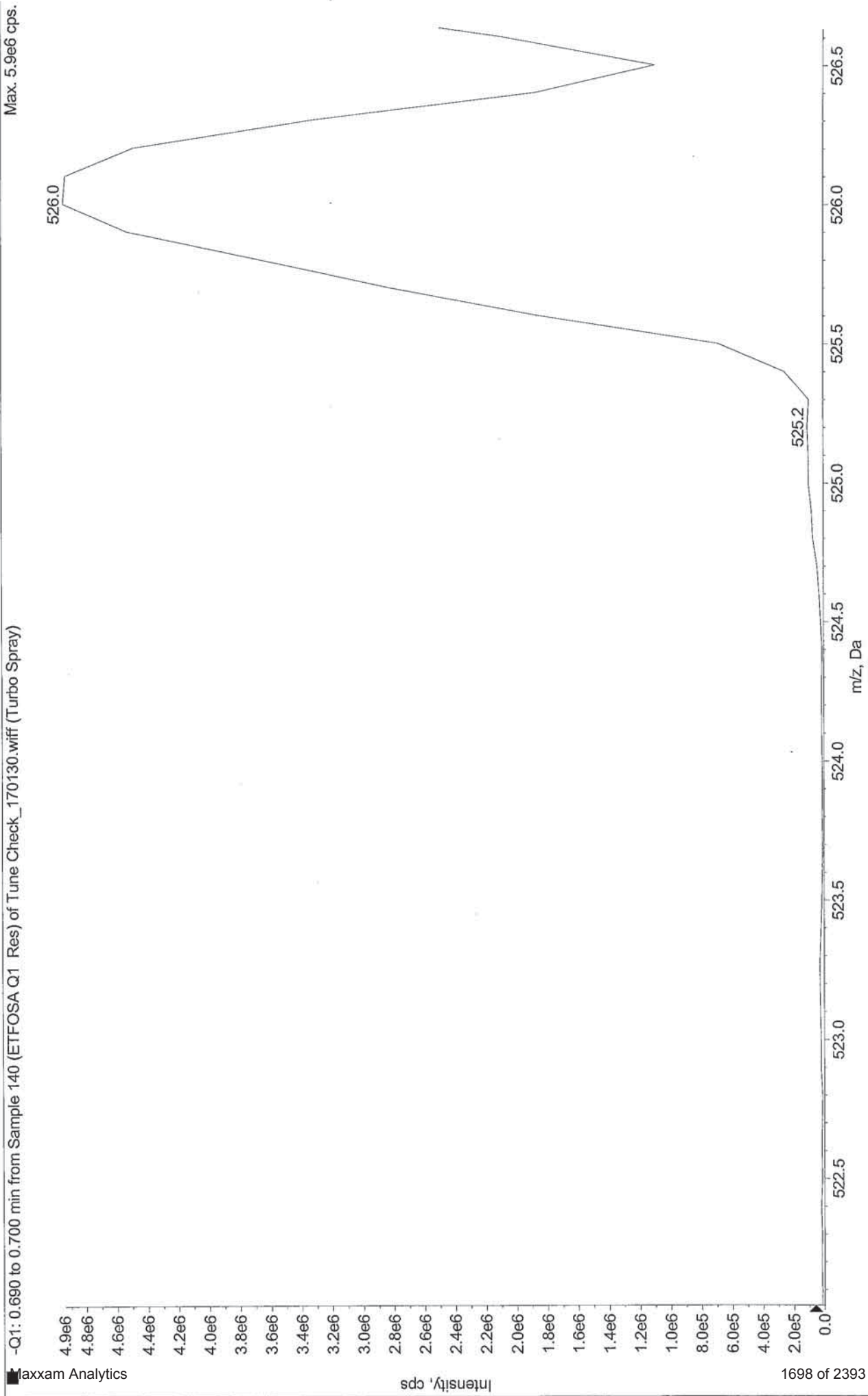


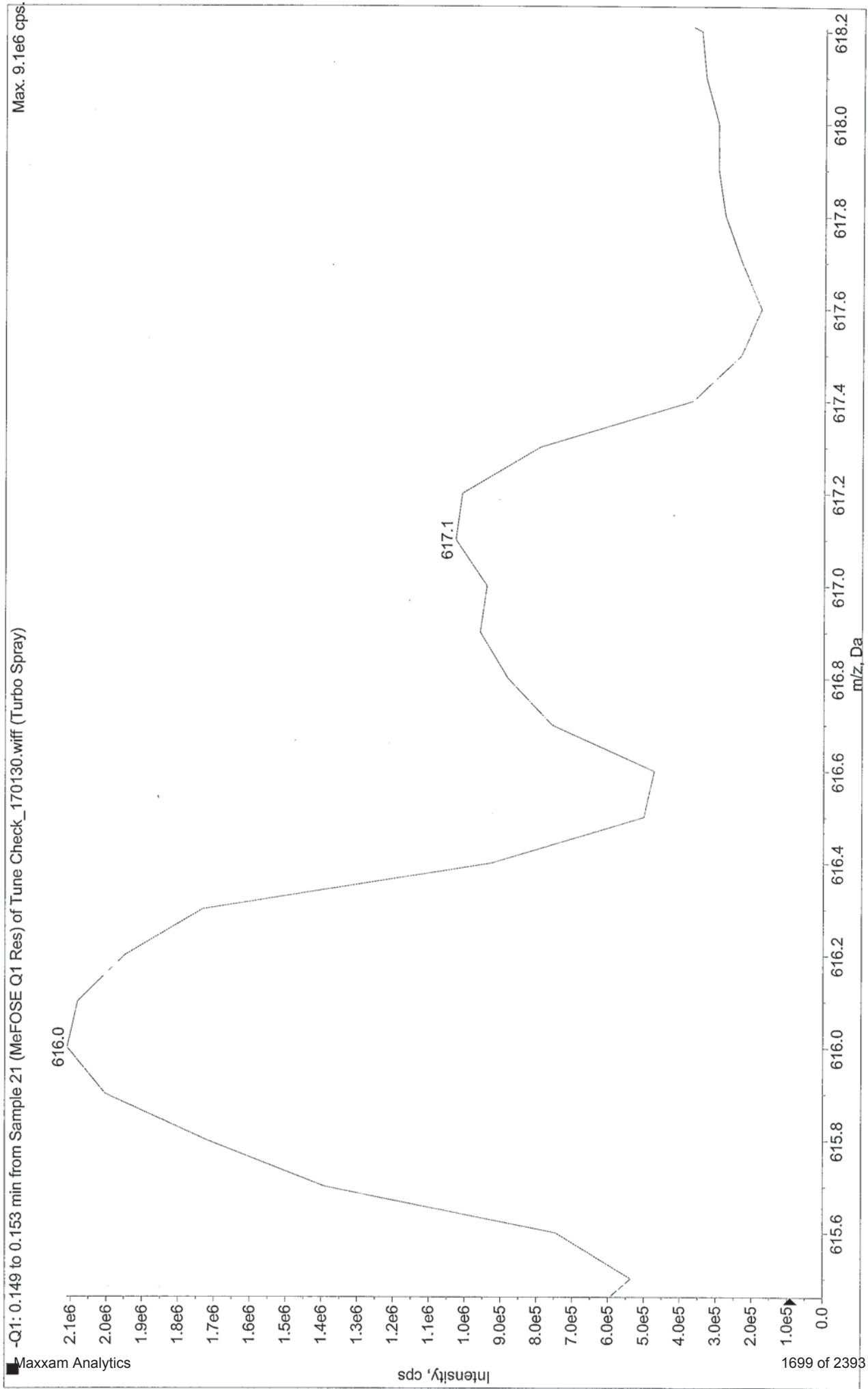
-Q1: 0.305 to 0.313 min from Sample 138 (MEFOSA Q1 Res) of Tune Check_170130.wiff (Turbo Spray) Max. 5.6e6 cps.

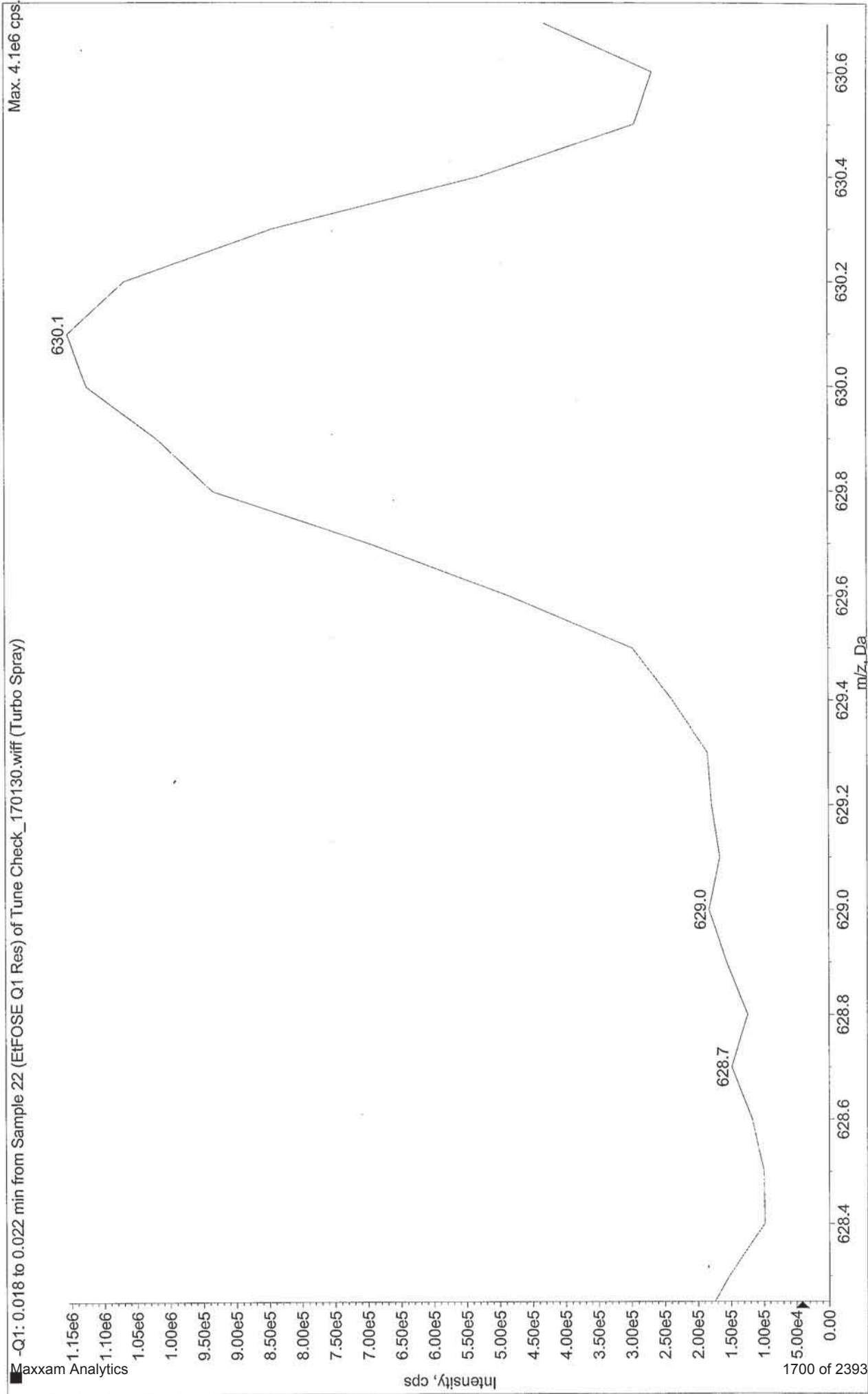


-Q1: 0.690 to 0.700 min from Sample 140 (ETFOA Q1 Res) of Tune Check_170130.wiff (Turbo Spray)

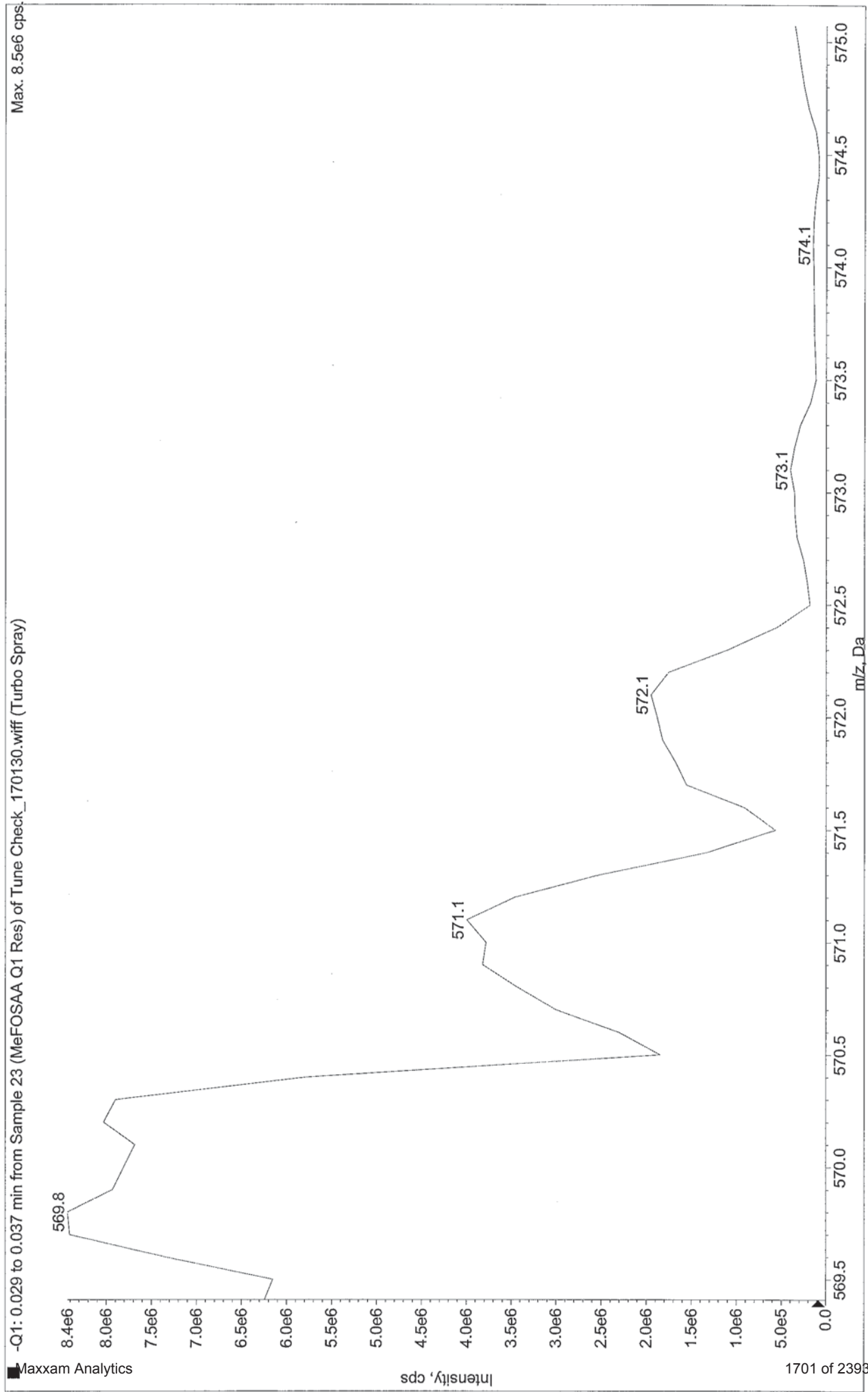
Max. 5.9e6 cps.





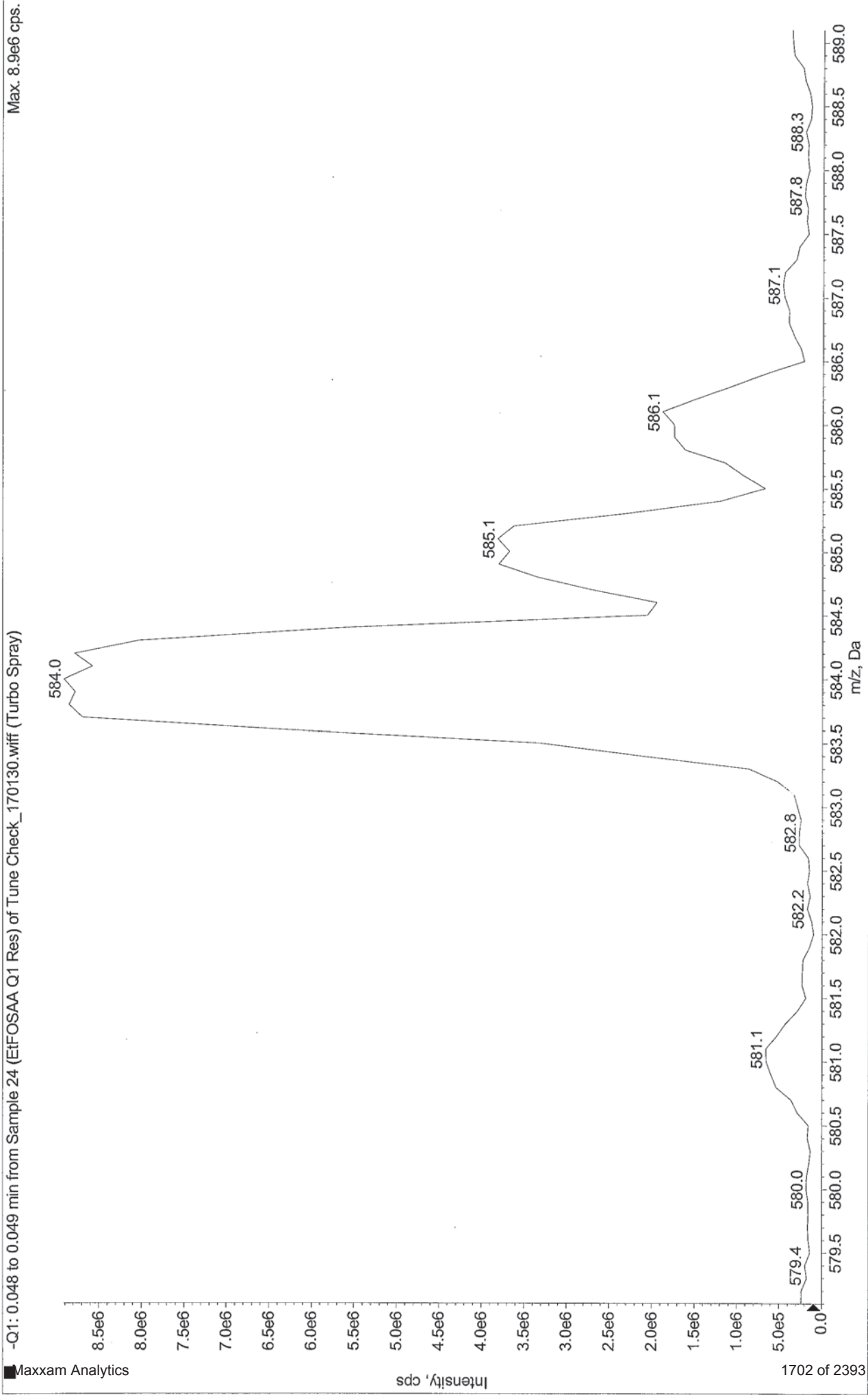


-Q1: 0.029 to 0.037 min from Sample 23 (MeFOSAA Q1 Res) of Tune Check_170130.wiff (Turbo Spray) Max. 8.5e6 cps.



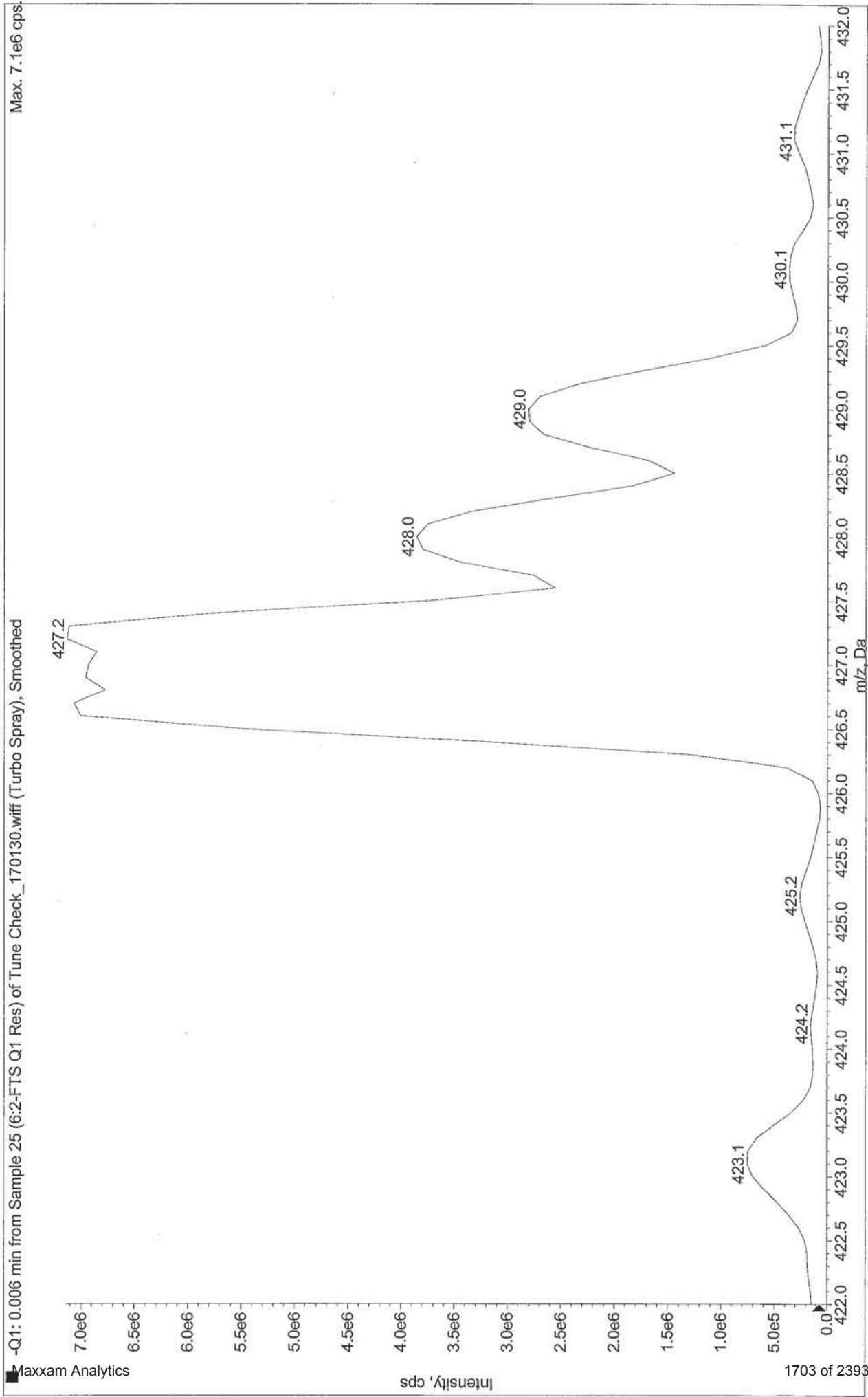
-Q1: 0.048 to 0.049 min from Sample 24 (EtFOSAA Q1 Res) of Tune Check_170130.wiff (Turbo Spray)

Max. 8.9e6 cps.



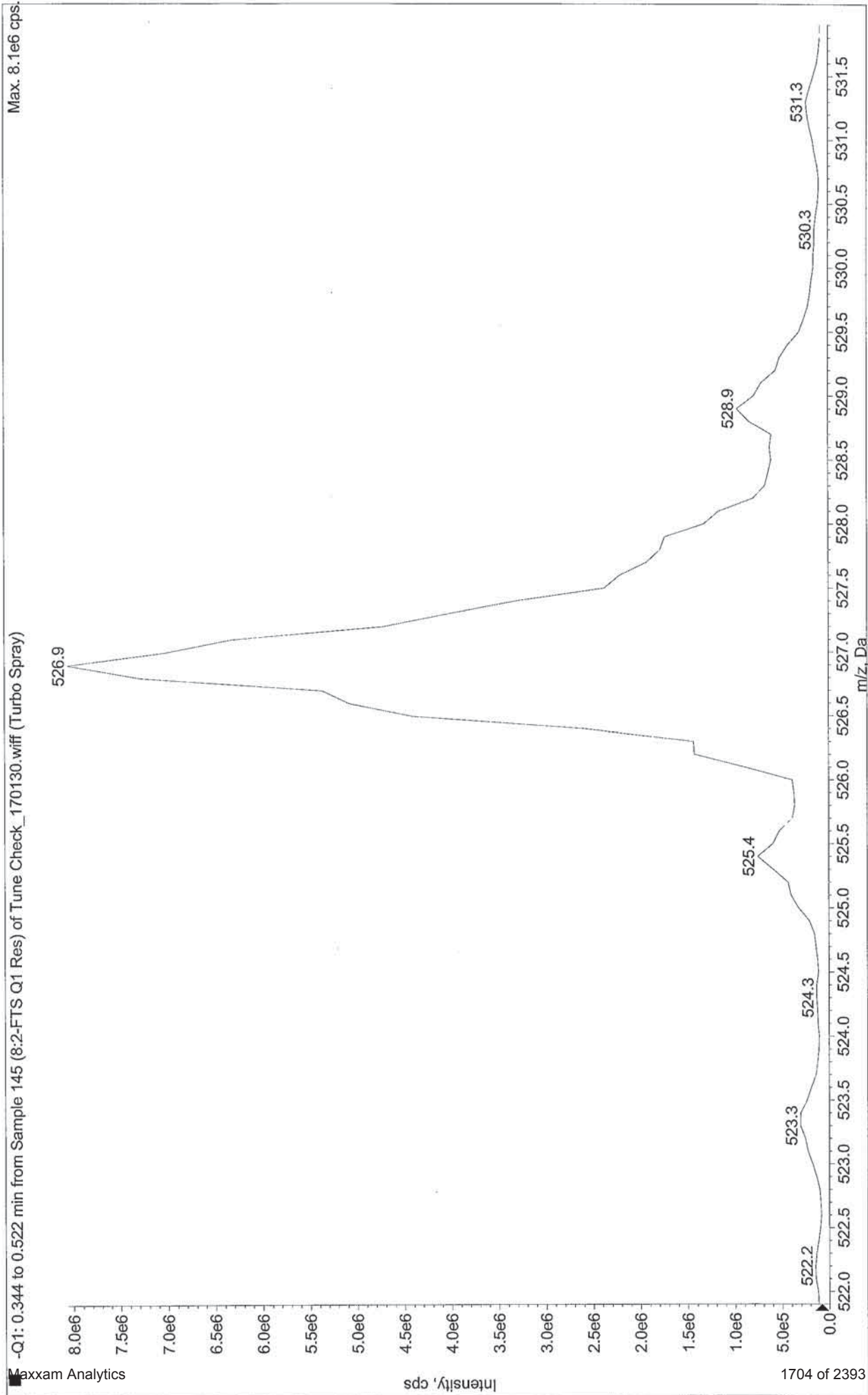
-Q1: 0.006 min from Sample 25 (6.2-FTS Q1 Res) of Tune Check_170130.wiff (Turbo Spray). Smoothed

Maxxam Analytics



Max. 8.1e6 cps.

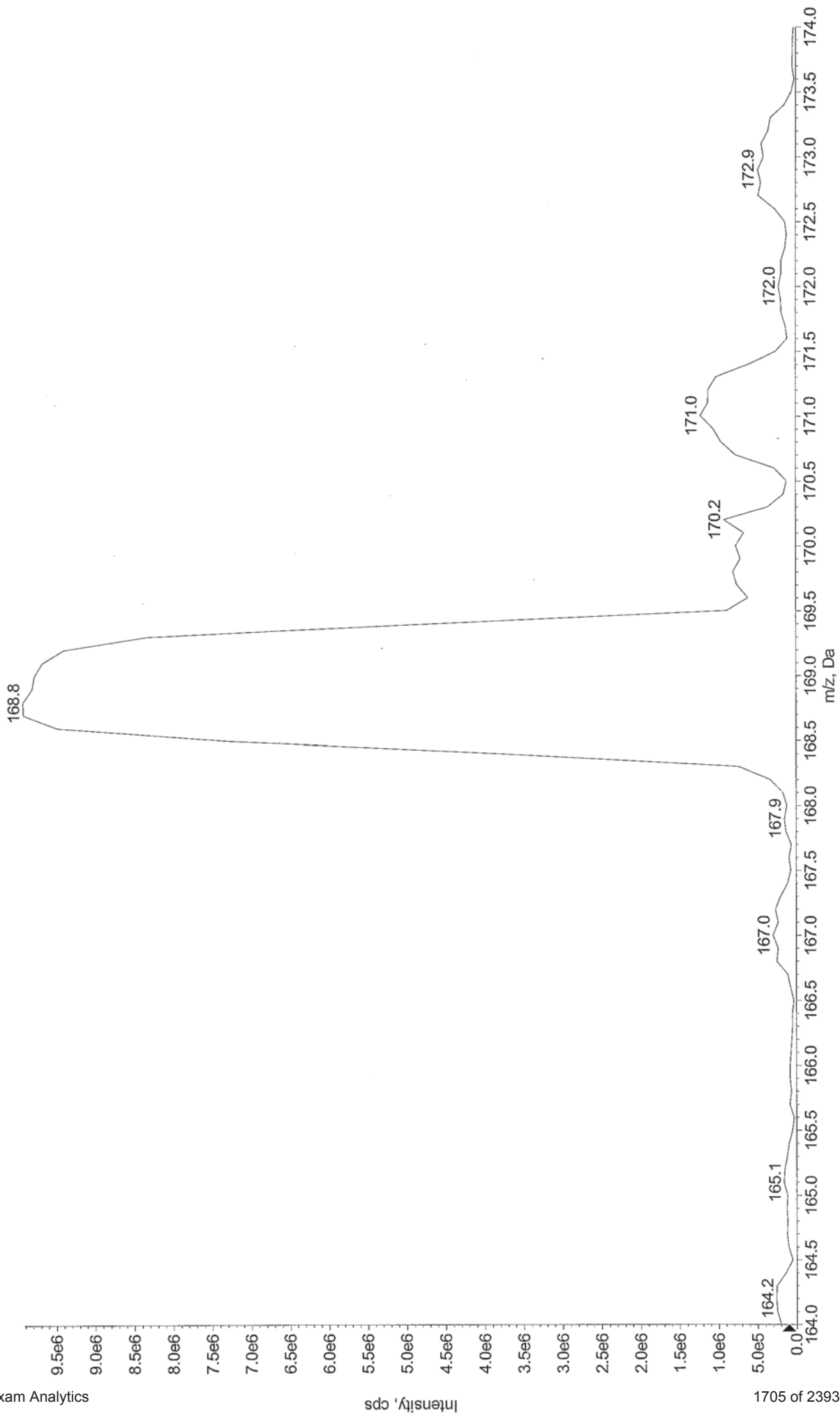
-Q1: 0.344 to 0.522 min from Sample 145 (8:2-FTS Q1 Res) of Tune Check_170130.wiff (Turbo Spray)



Max. 9.9e6 cps.

-Q3: 0.066 min from Sample 27 (PFBA Q3 Res) of Tune Check_170130.wiff (Turbo Spray)

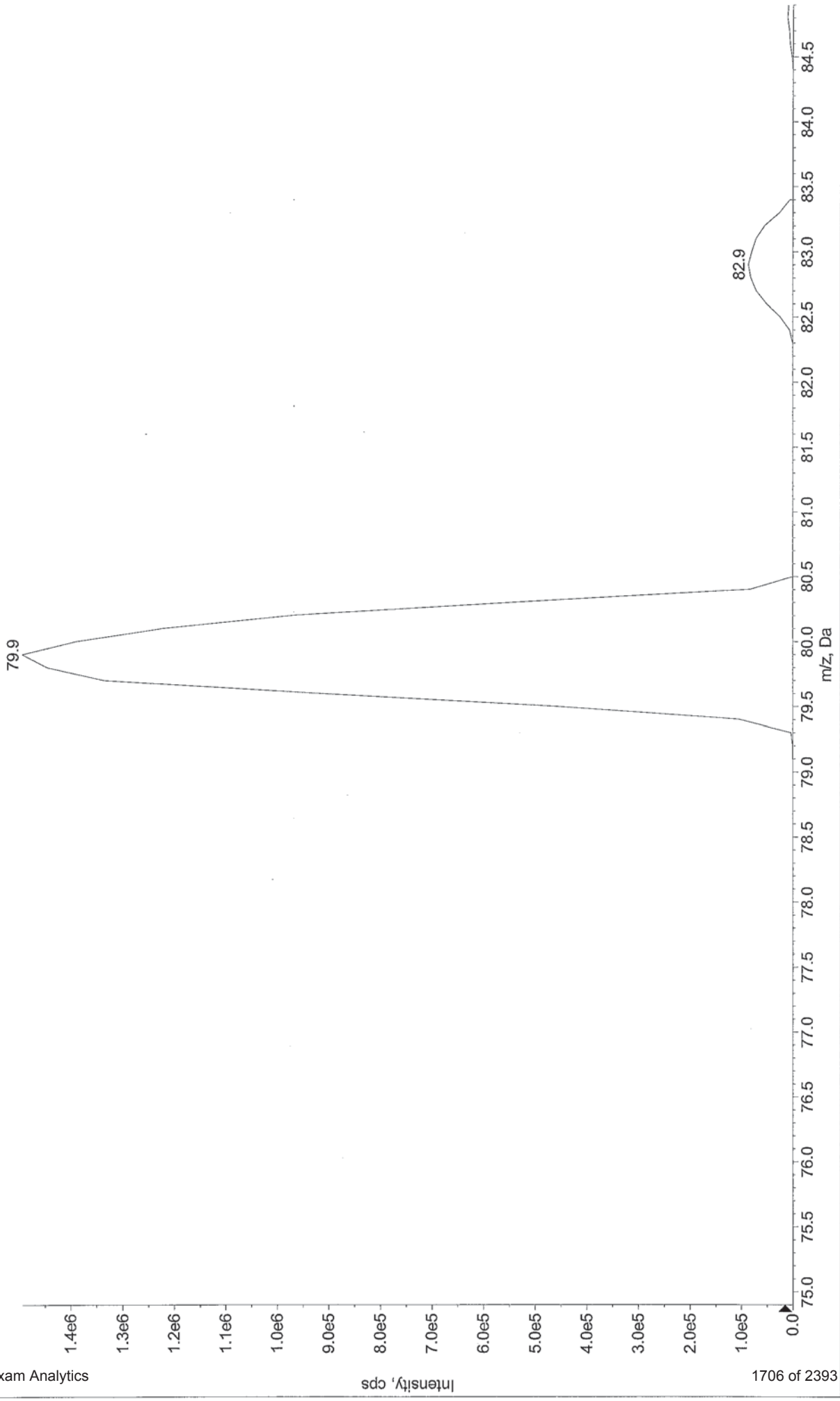
laxxam Analytics



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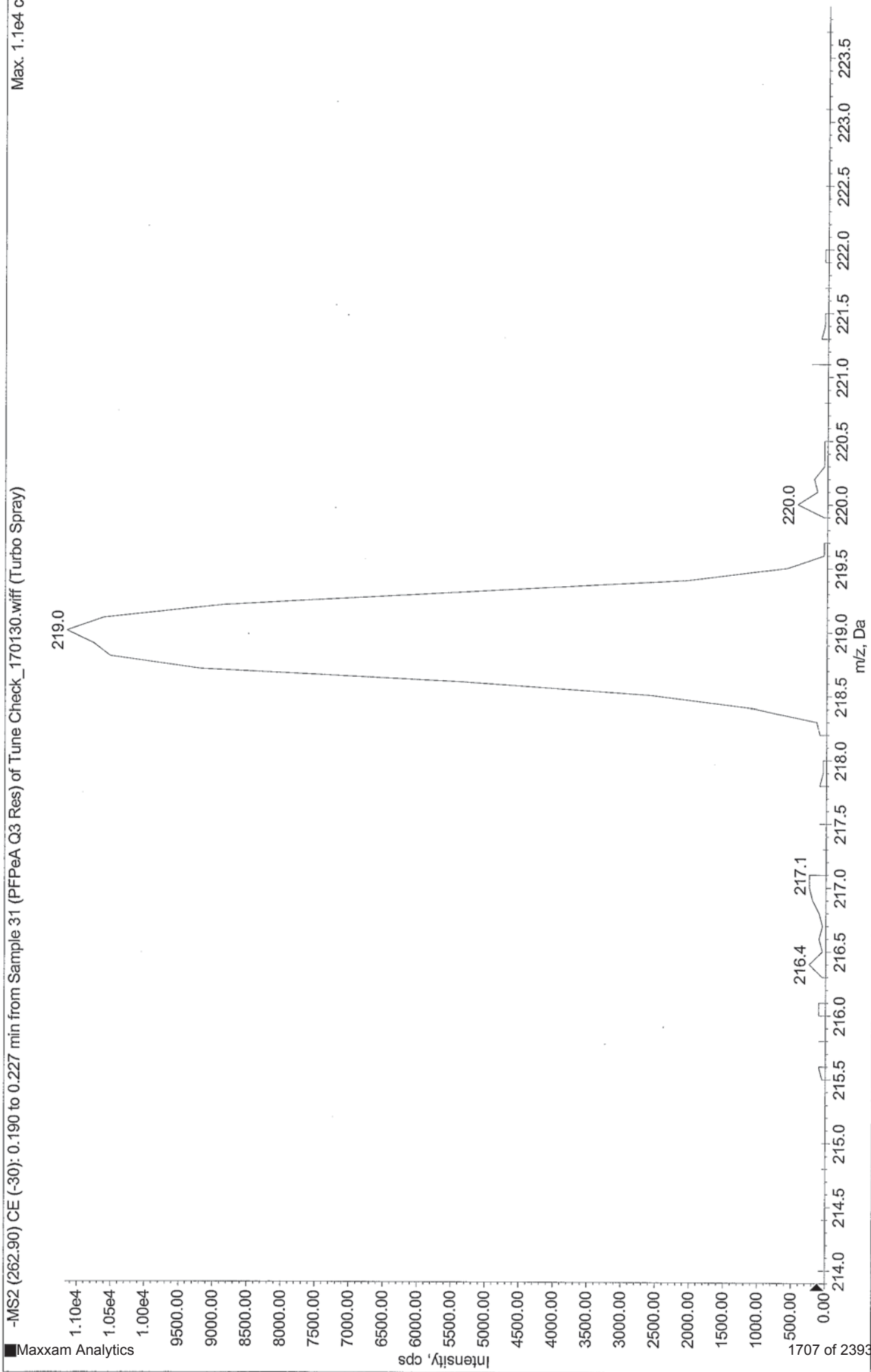
Maxxam Analytics
-MS2 (298.90) CE (-37): 0.136 to 0.160 min from Sample 118 (PFBS Q3 Res) of Tune Check_170130.wiff (Turbo Spray)

Max. 1.5e6 cps.



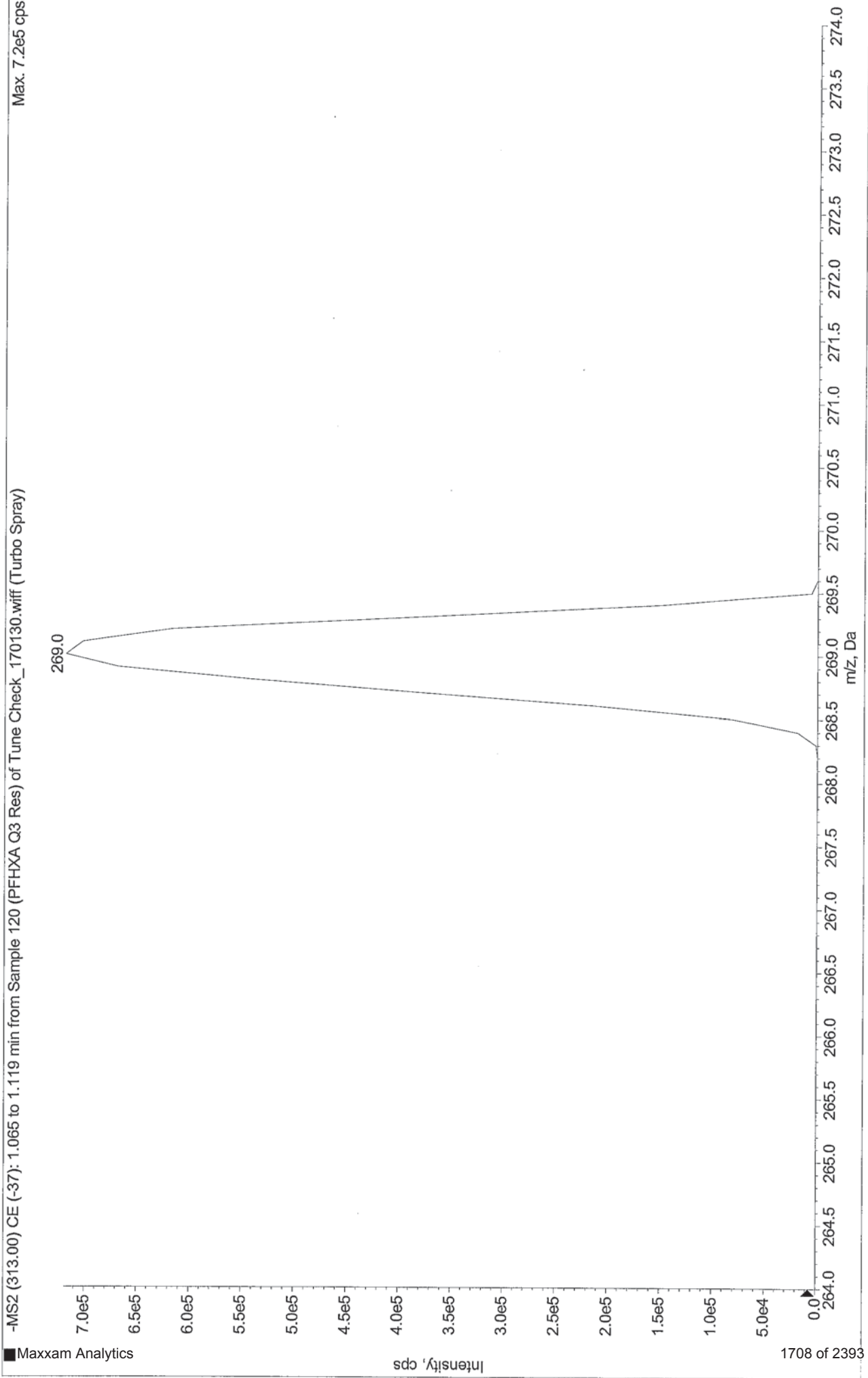
-MS2 (262.90) CE (-30): 0.190 to 0.227 min from Sample 31 (PFPeA Q3 Res) of Tune Check_170130.wiff (Turbo Spray)

Max. 1.1e4 cps.



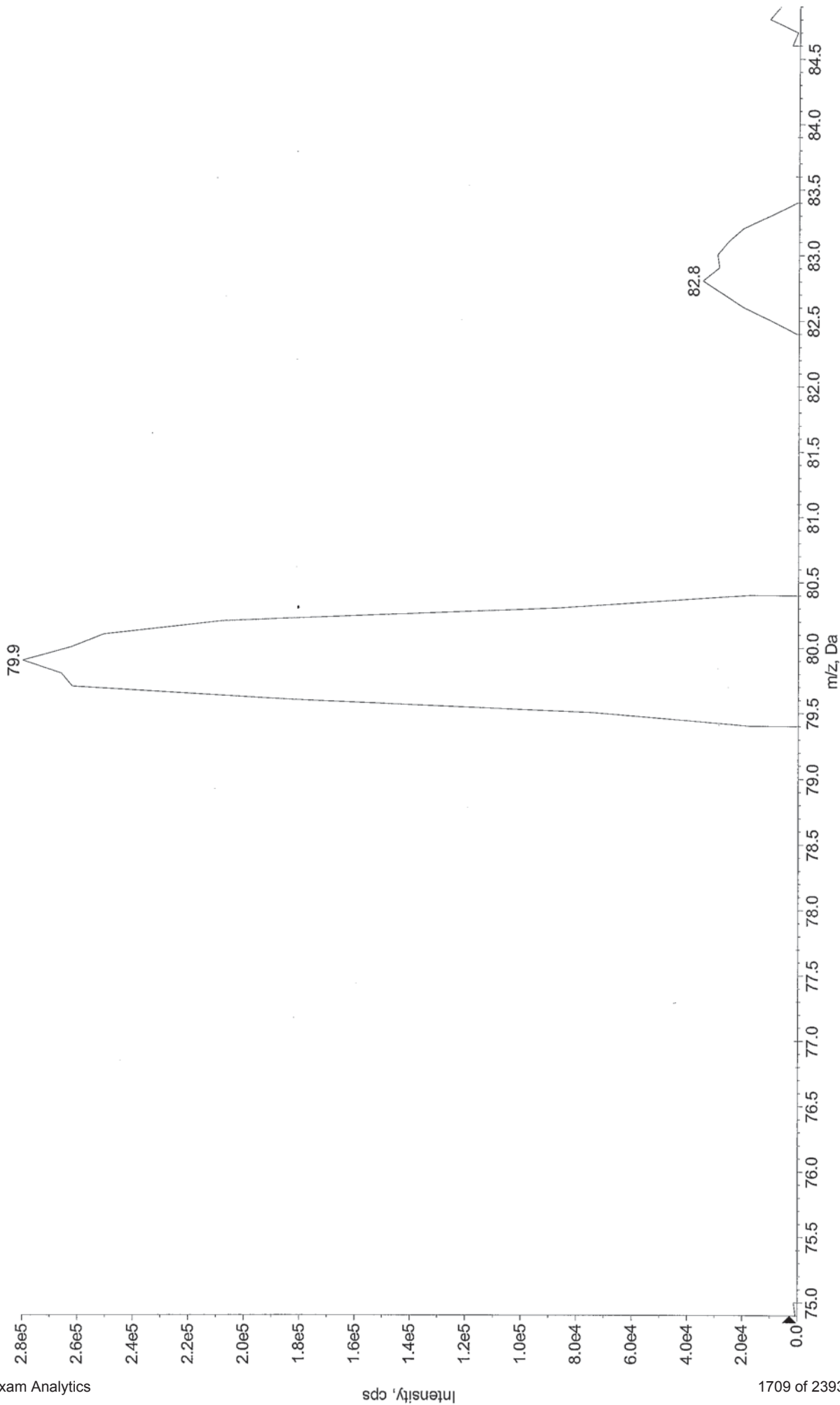
-MS2 (313.00) CE (-37): 1.065 to 1.119 min from Sample 120 (PFHXA Q3 Res) of Tune Check_170130.wiff (Turbo Spray)

Max. 7.2e5 cps.



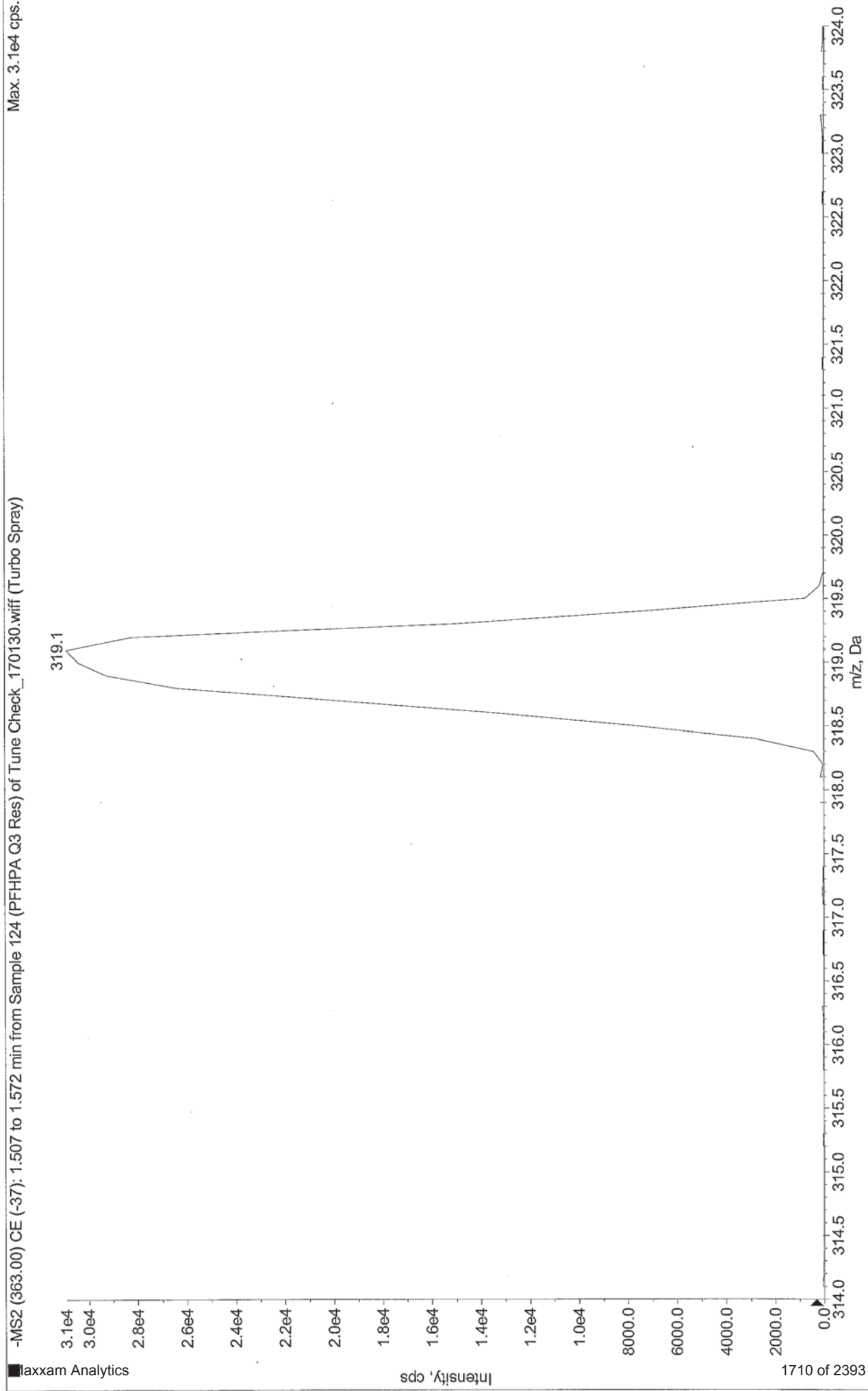
Maxxam Analytics
-MS2 (398.90) CE (-37): 0.045 to 0.047 min from Sample 122 (PFHXS Q3 Res) of Tune Check_170130.wiff (Turbo Spray)

Max. 2.8e5 cps.



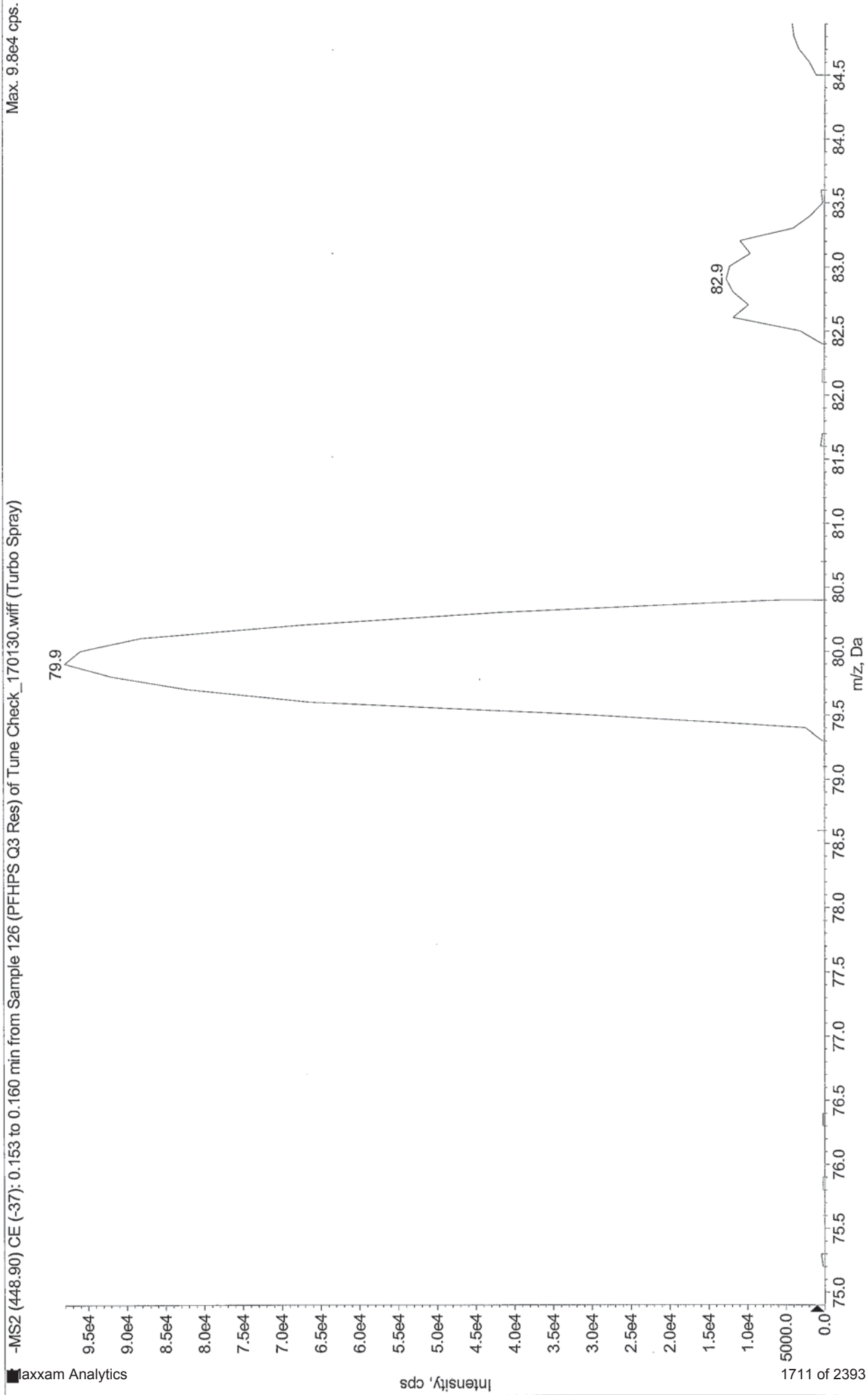
-MS2 (363.00) CE (-37): 1.507 to 1.572 min from Sample 124 (PFHPA Q3 Res) of Tune Check_170130.wiff (Turbo Spray)

Max. 3.1e4 cps.



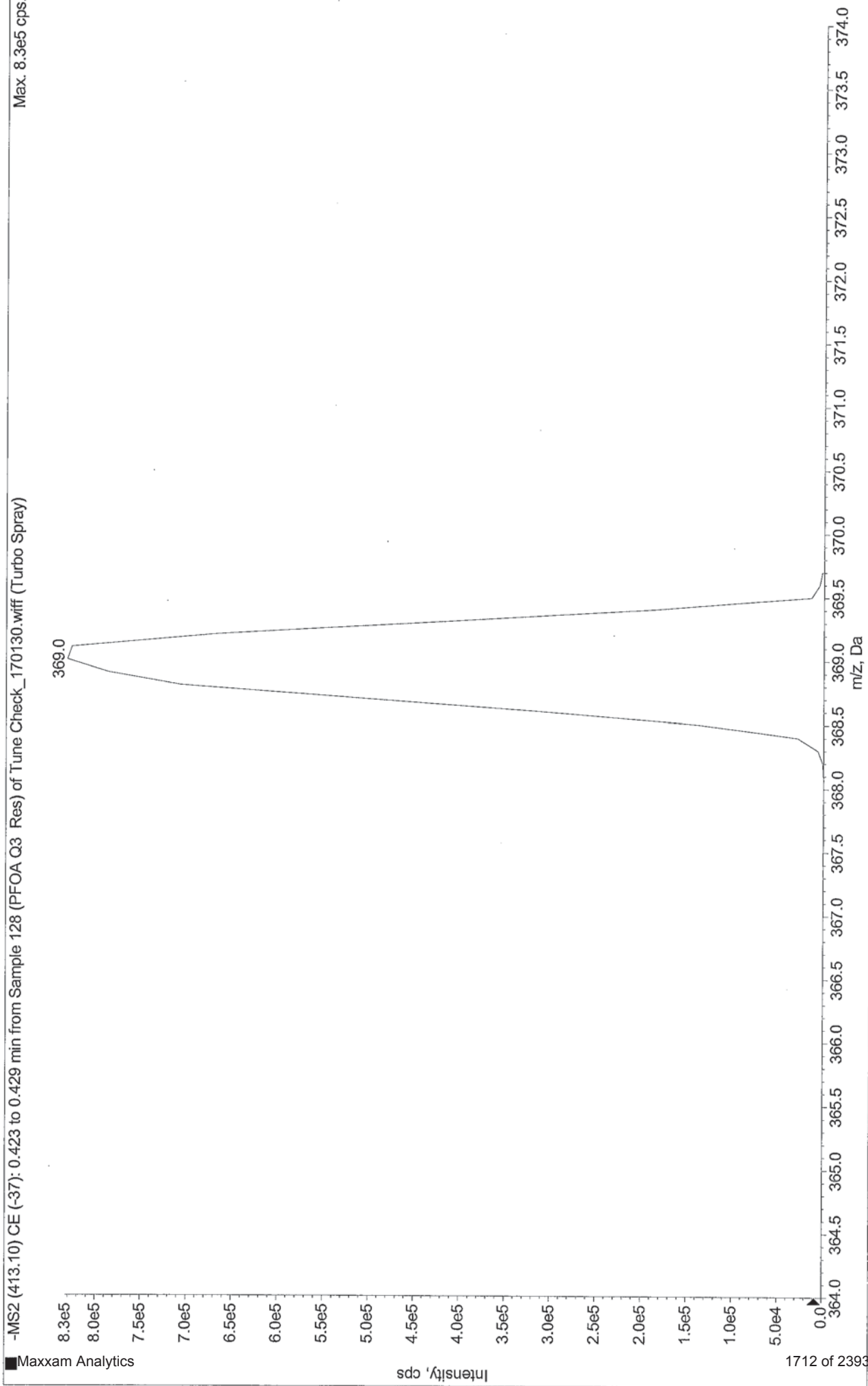
-MS2 (448.90) CE (-37): 0.153 to 0.160 min from Sample 126 (PFHPS Q3 Res) of Tune Check_170130.wiff (Turbo Spray)

Max. 9.8e4 cps.



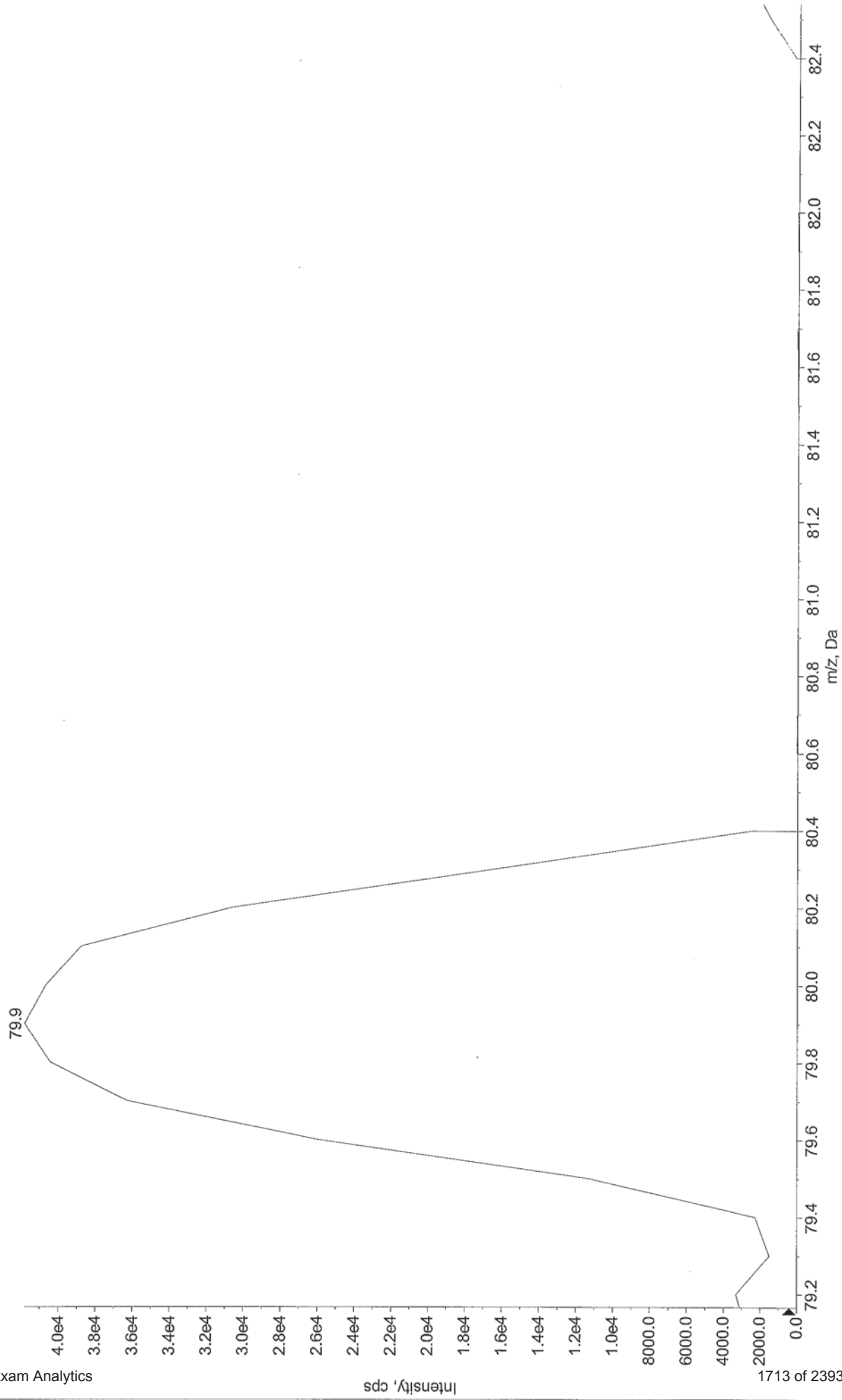
-MS2 (413.10) CE (-37): 0.423 to 0.429 min from Sample 128 (PFOA Q3 Res) of Tune Check_170130.wiff (Turbo Spray)

Max. 8.3e5 cps.



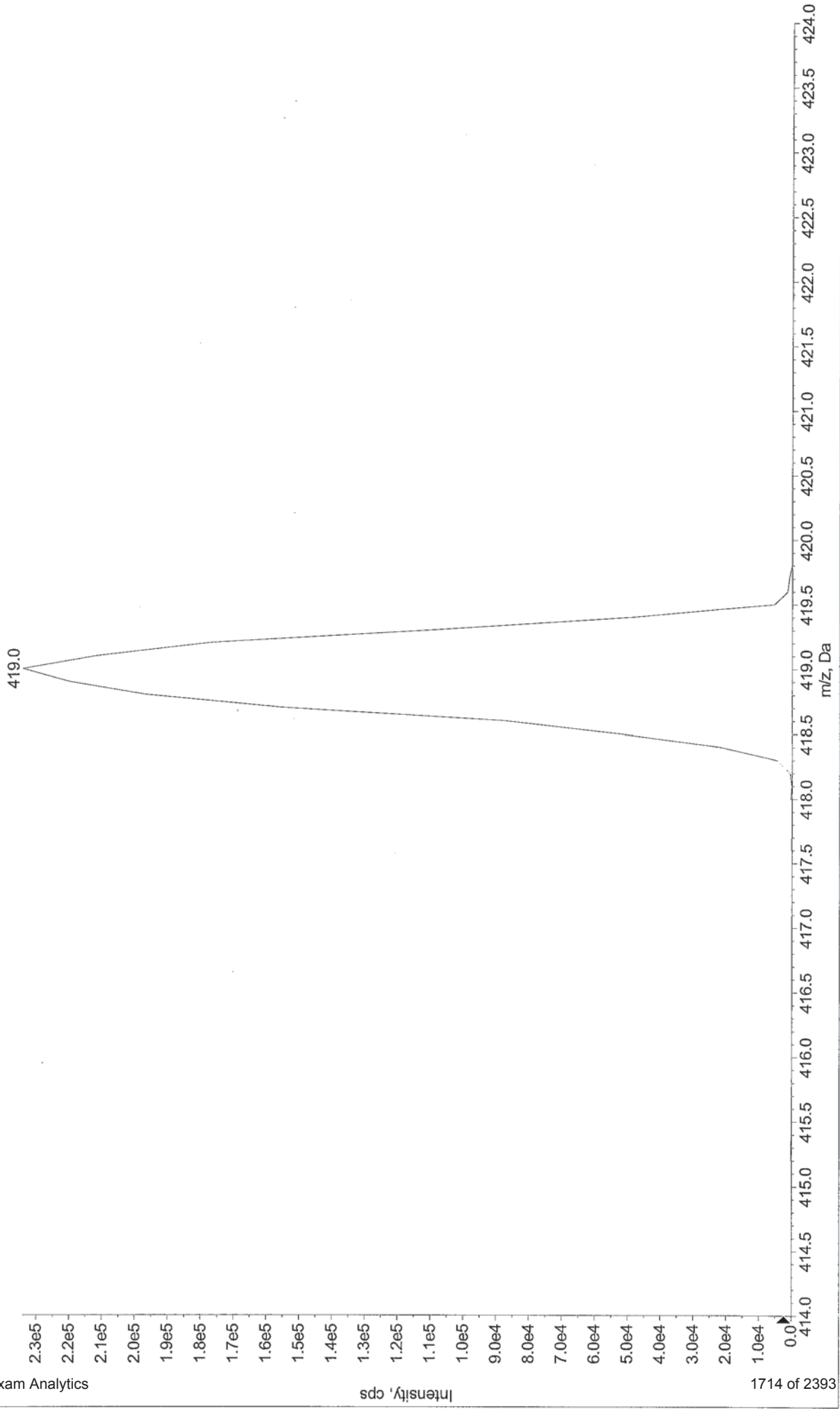
Maxxam Analytics -MS2 (498.80) CE (-37): 0.207 to 0.277 min from Sample 130 (PFOS Q3 Res) of Tune Check_170130.wiff (Turbo Spray)

Max. 4.2e4 cps.



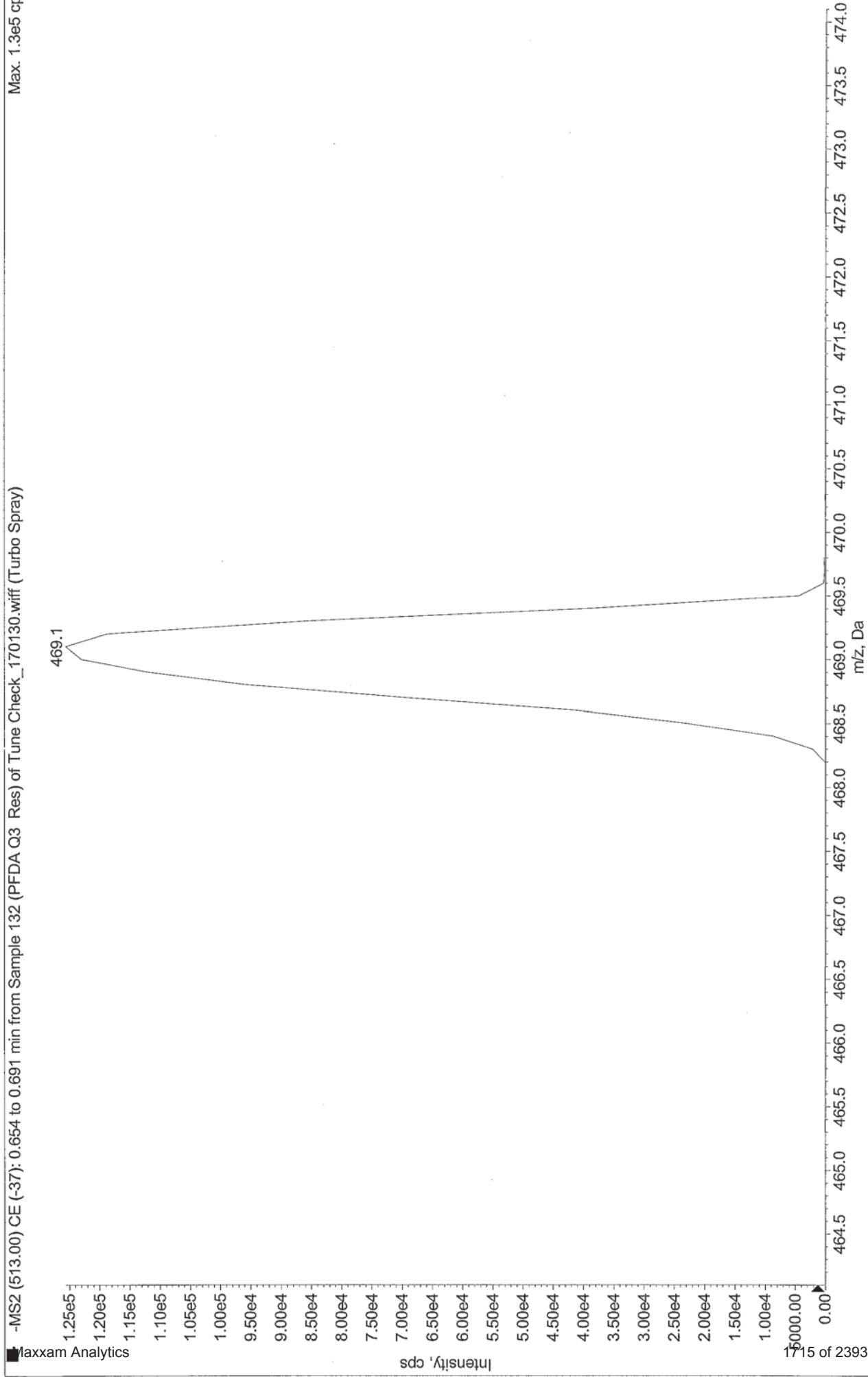
Maxxam Analytics
-MS2 (462.90) CE (-30): 0.028 to 0.045 min from Sample 38 (PFNA Q3 Res) of Tune Check_170130.wiff (Turbo Spray)

Max. 2.3e5 cps.



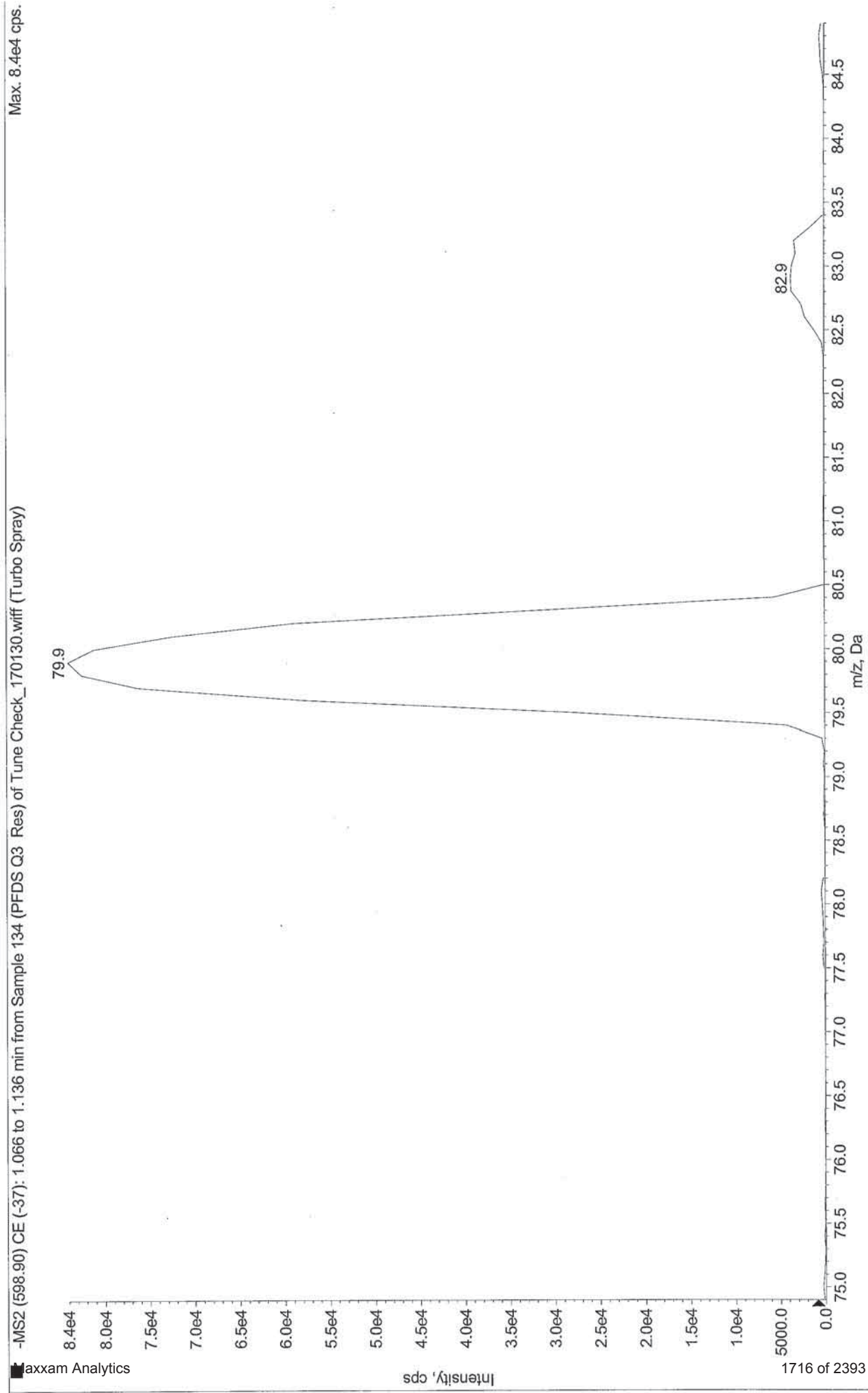
-MS2 (513.00) CE (-37): 0.654 to 0.691 min from Sample 132 (PFDA Q3 Res) of Tune Check_170130.wiff (Turbo Spray)

Max. 1.3e5 cps.



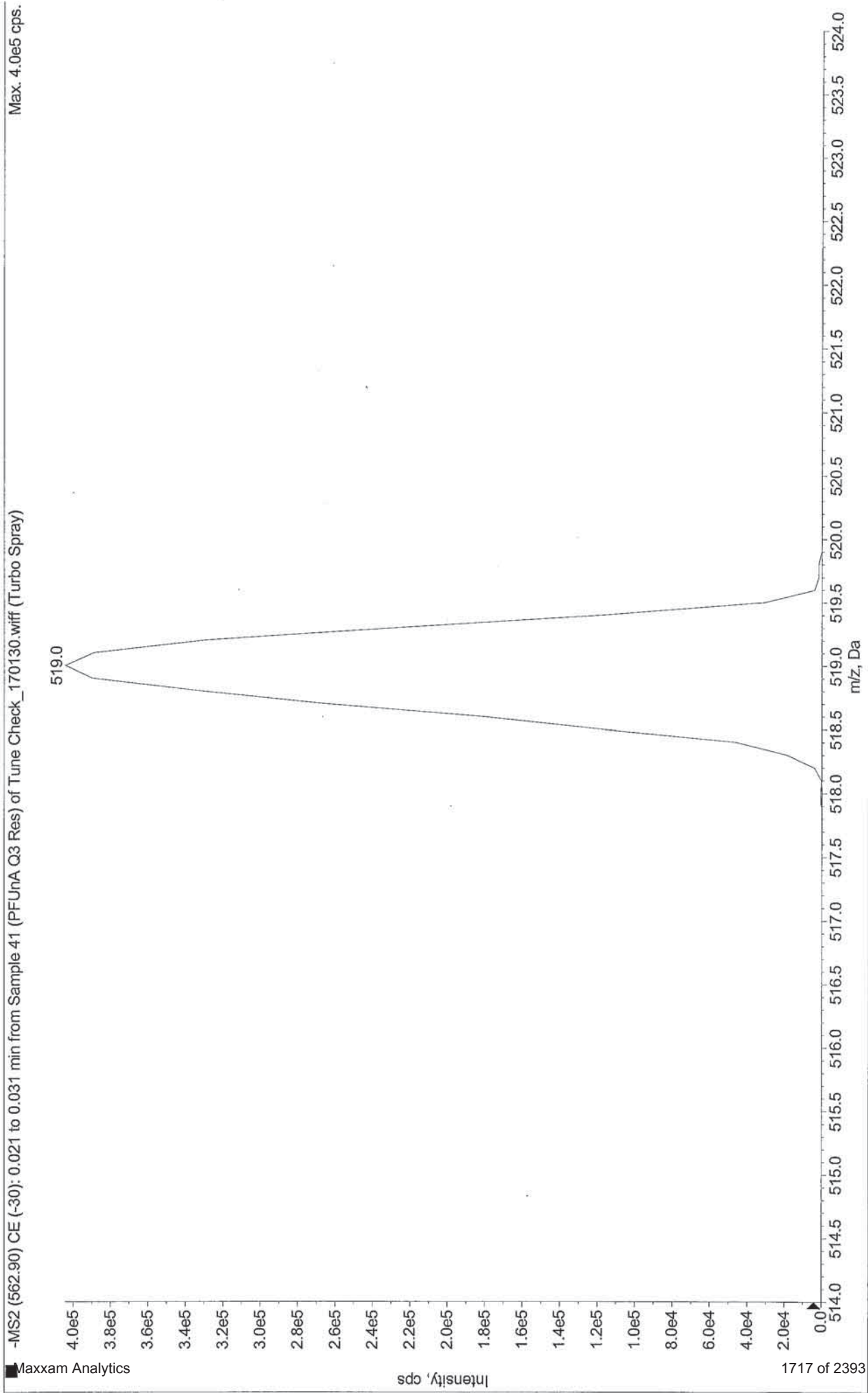
-MS2 (598.90) CE (-37): 1.066 to 1.136 min from Sample 134 (PFDS Q3 Res) of Tune Check_170130.wiff (Turbo Spray)

Max. 8.4e4 cps.



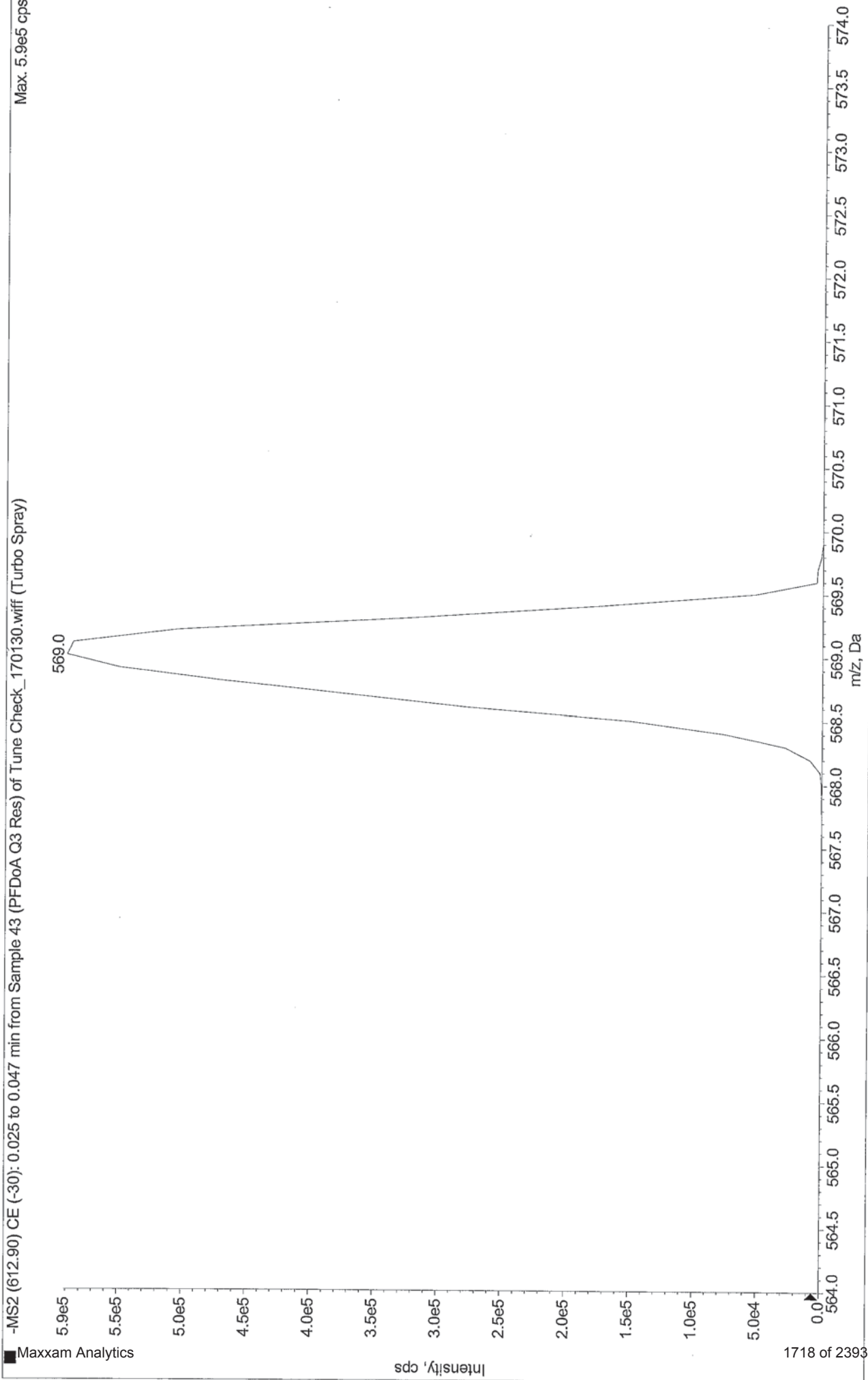
-MS2 (562.90) CE (-30): 0.021 to 0.031 min from Sample 41 (PFUnA Q3 Res) of Tune Check_170130.wiff (Turbo Spray)

Max. 4.0e5 cps.



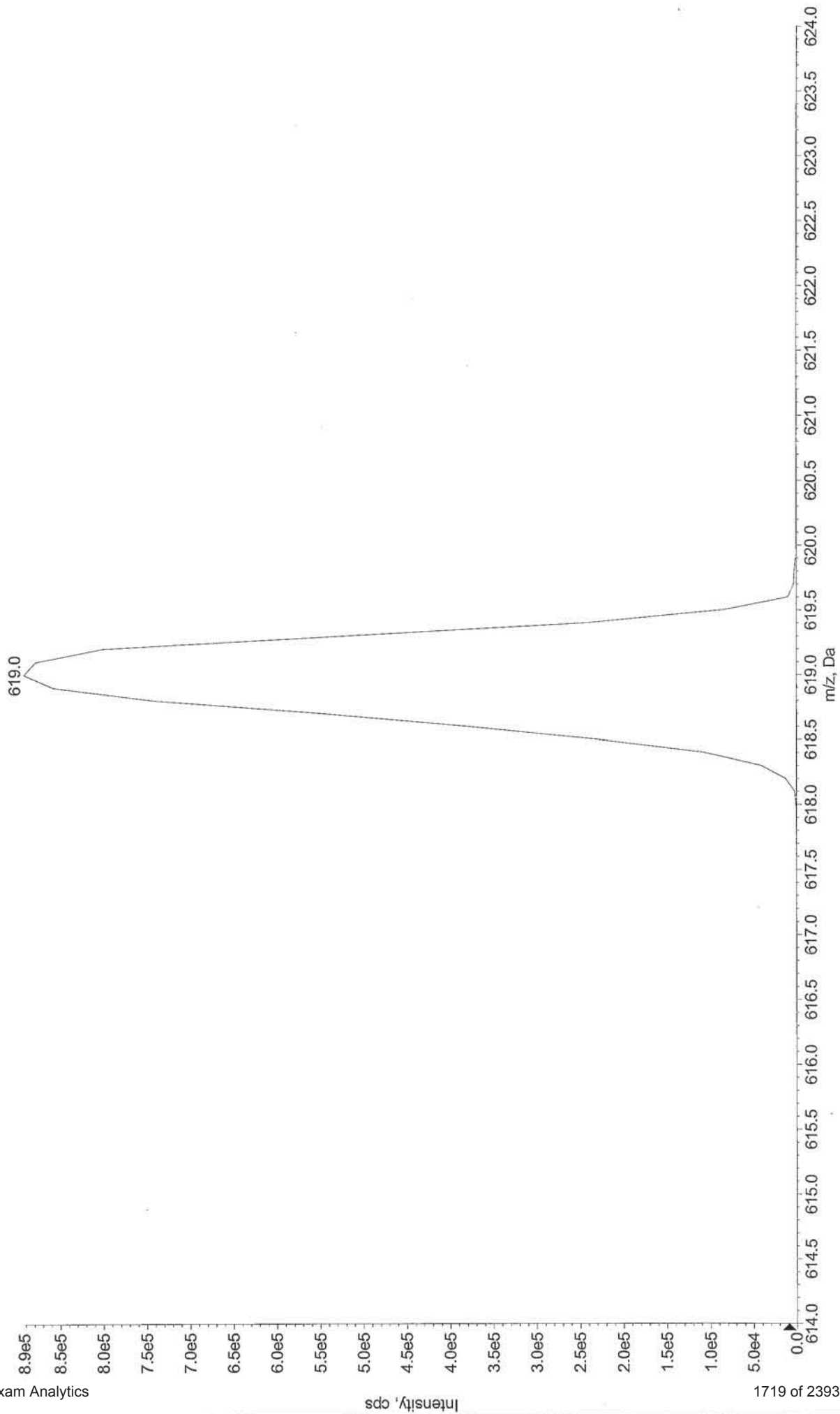
-MS2 (612.90) CE (-30): 0.025 to 0.047 min from Sample 43 (PFDa Q3 Res) of Tune Check_170130.wiff (Turbo Spray)

Max. 5.9e5 cps.

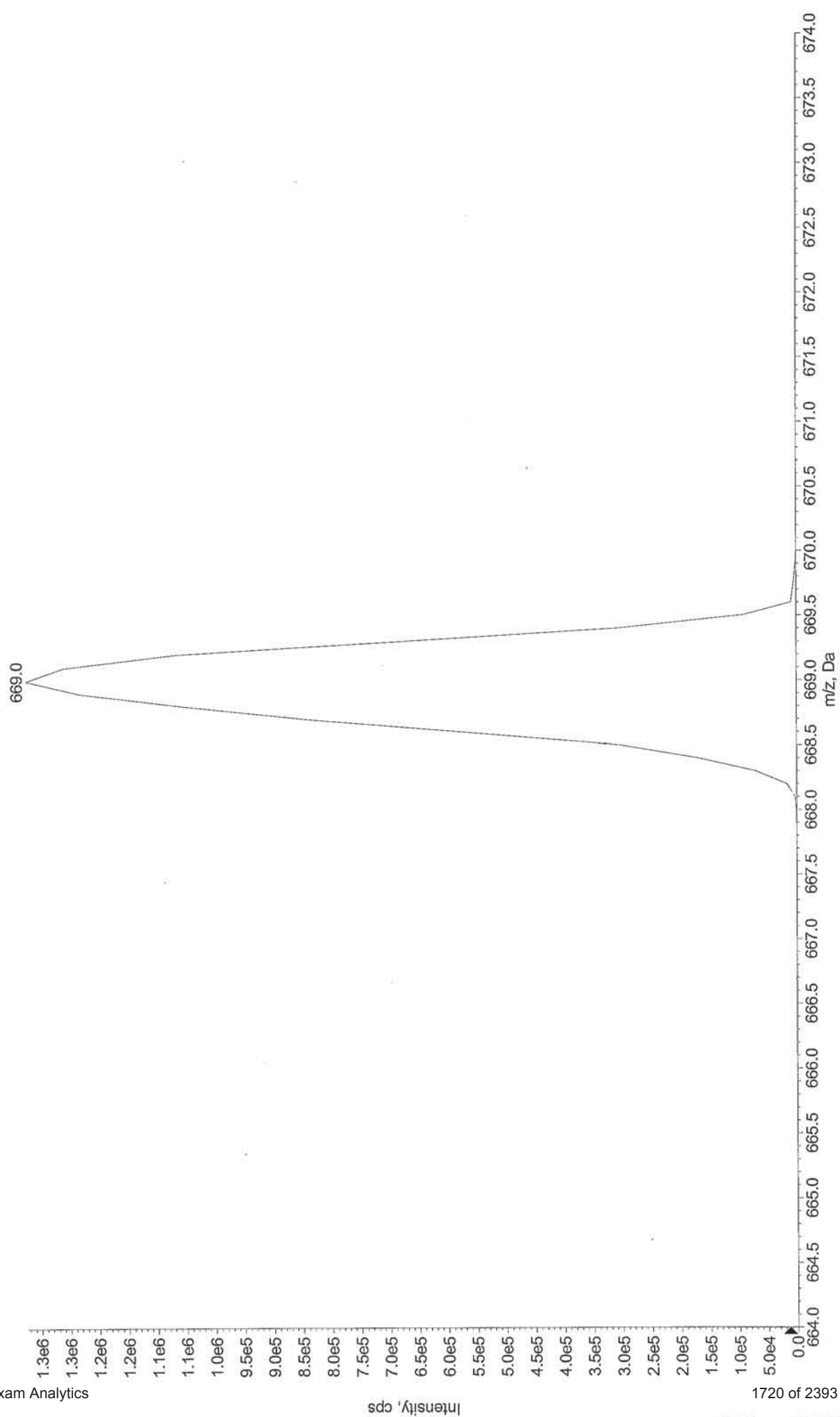


Maxxam Analytics
-MS2 (663.00) CE (-30): 0.008 to 0.030 min from Sample 44 (PFTTrDA Q3 Res) of Tune Check_170130.wiff (Turbo Spray)

Max. 8.9e5 cps.

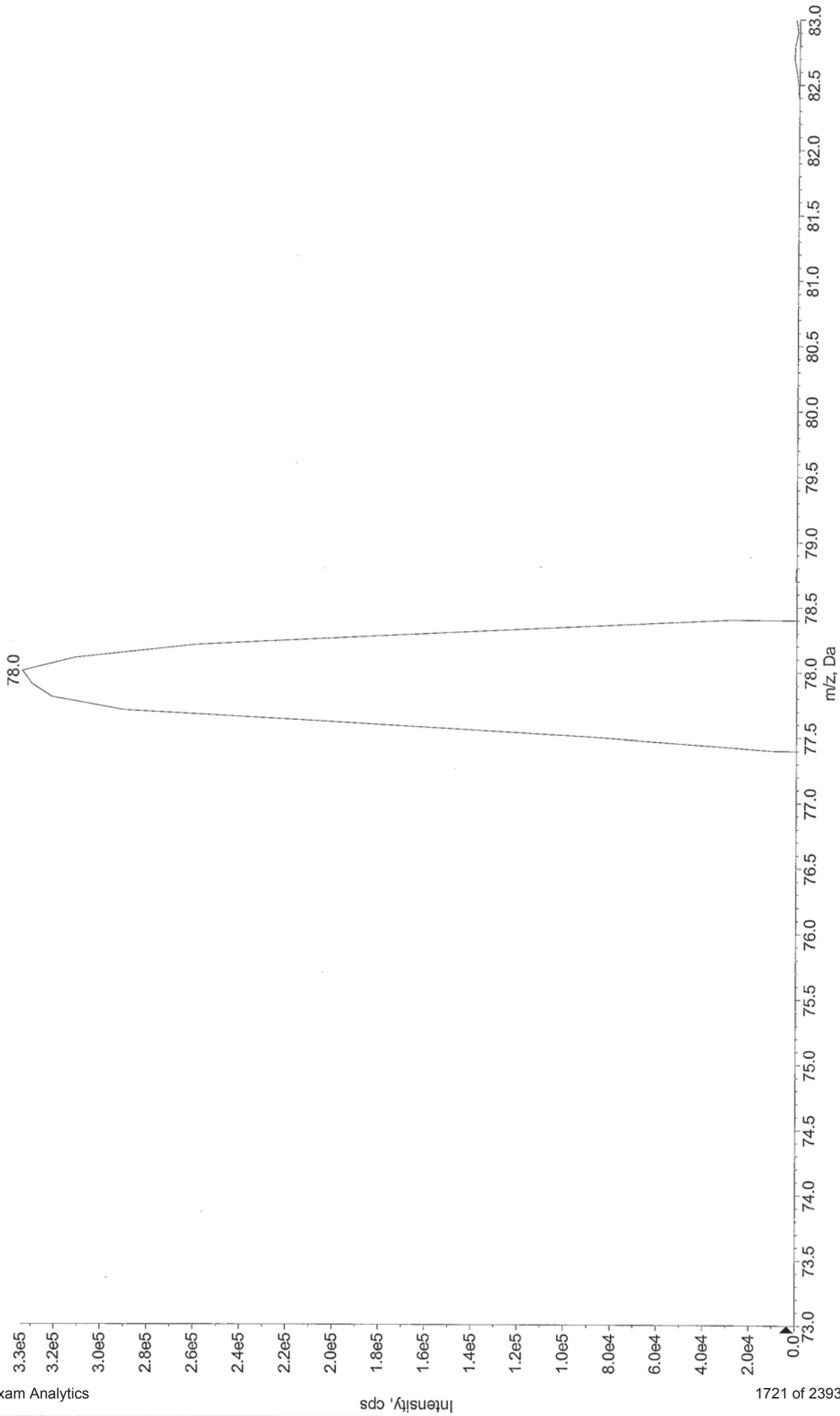


Maxxam Analytics
-MS2 (713.00) CE (-30): 0.025 to 0.034 min from Sample 45 (PFTeDA Q3 Res) of Tune Check_170130.wiff (Turbo Spray)



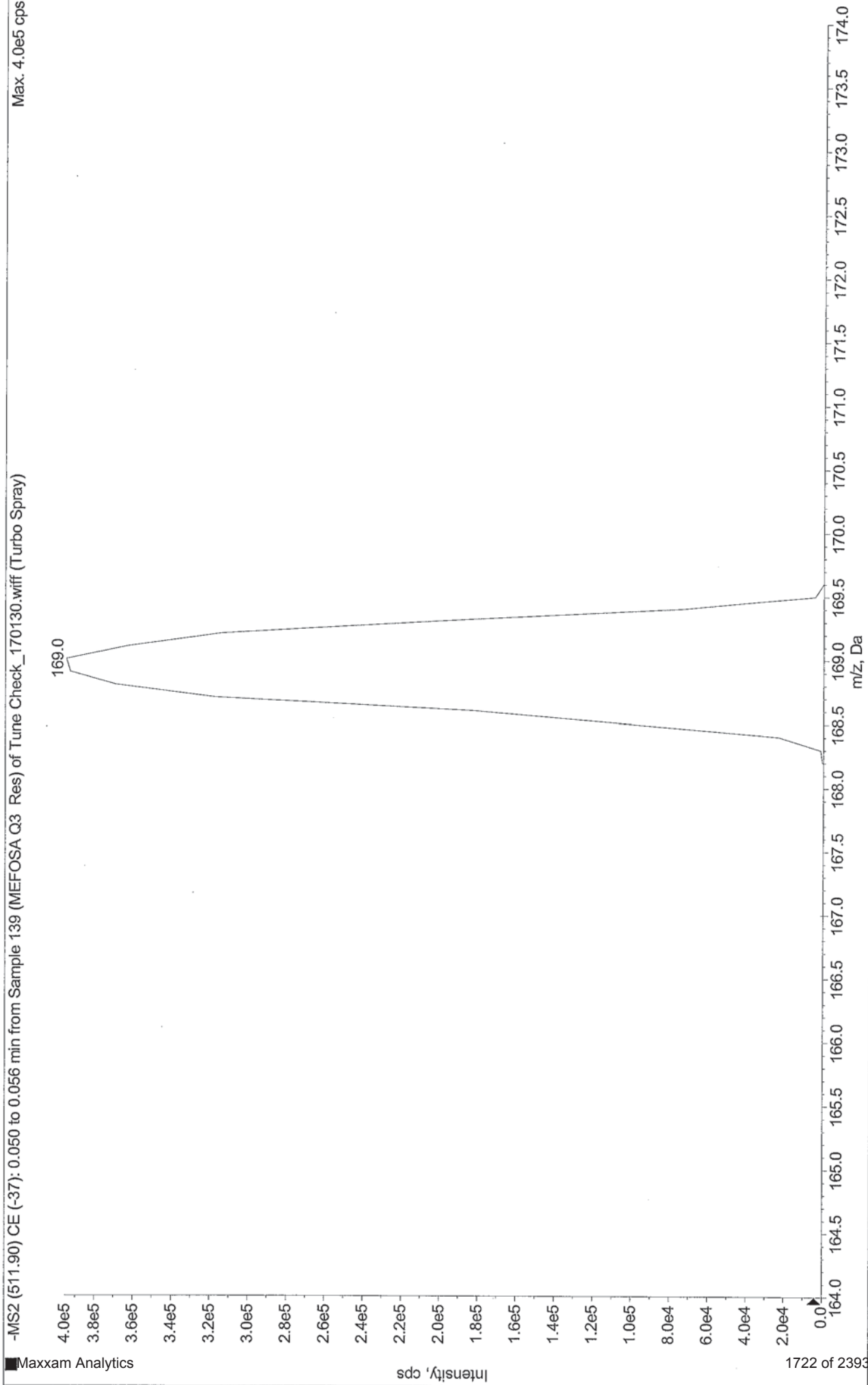
Maxxam Analytics
-MS2 (497.90) CE (-37): 0.150 to 0.156 min from Sample 137 (PFOSA QQ3 Res) of Tune Check_170130.wiff (Turbo Spray)

Max. 3.3e5 cps.



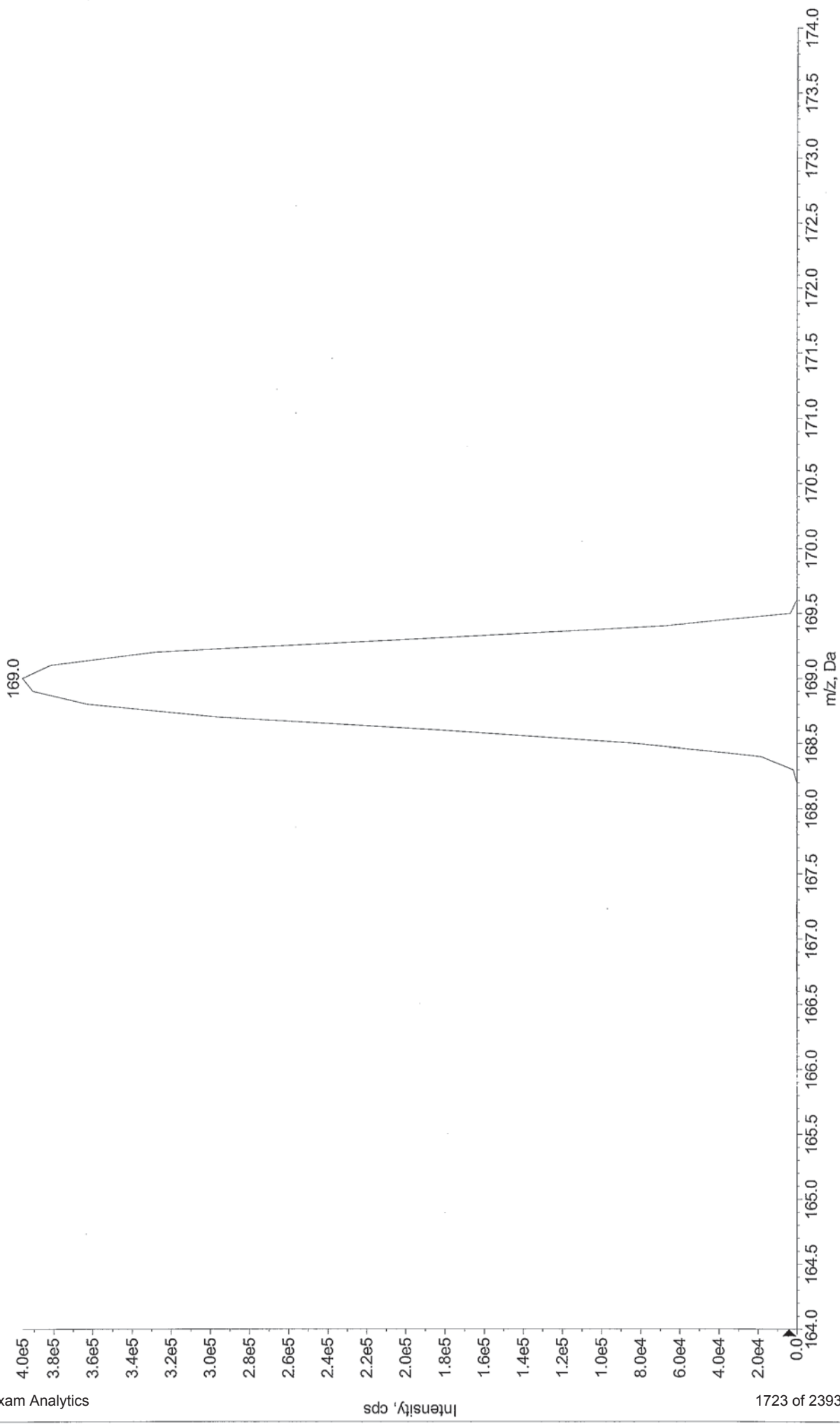
-MS2 (511.90) CE (-37): 0.050 to 0.056 min from Sample 139 (MEFOSA Q3 Res) of Tune Check_170130.wiff (Turbo Spray)

Max. 4.0e5 cps.



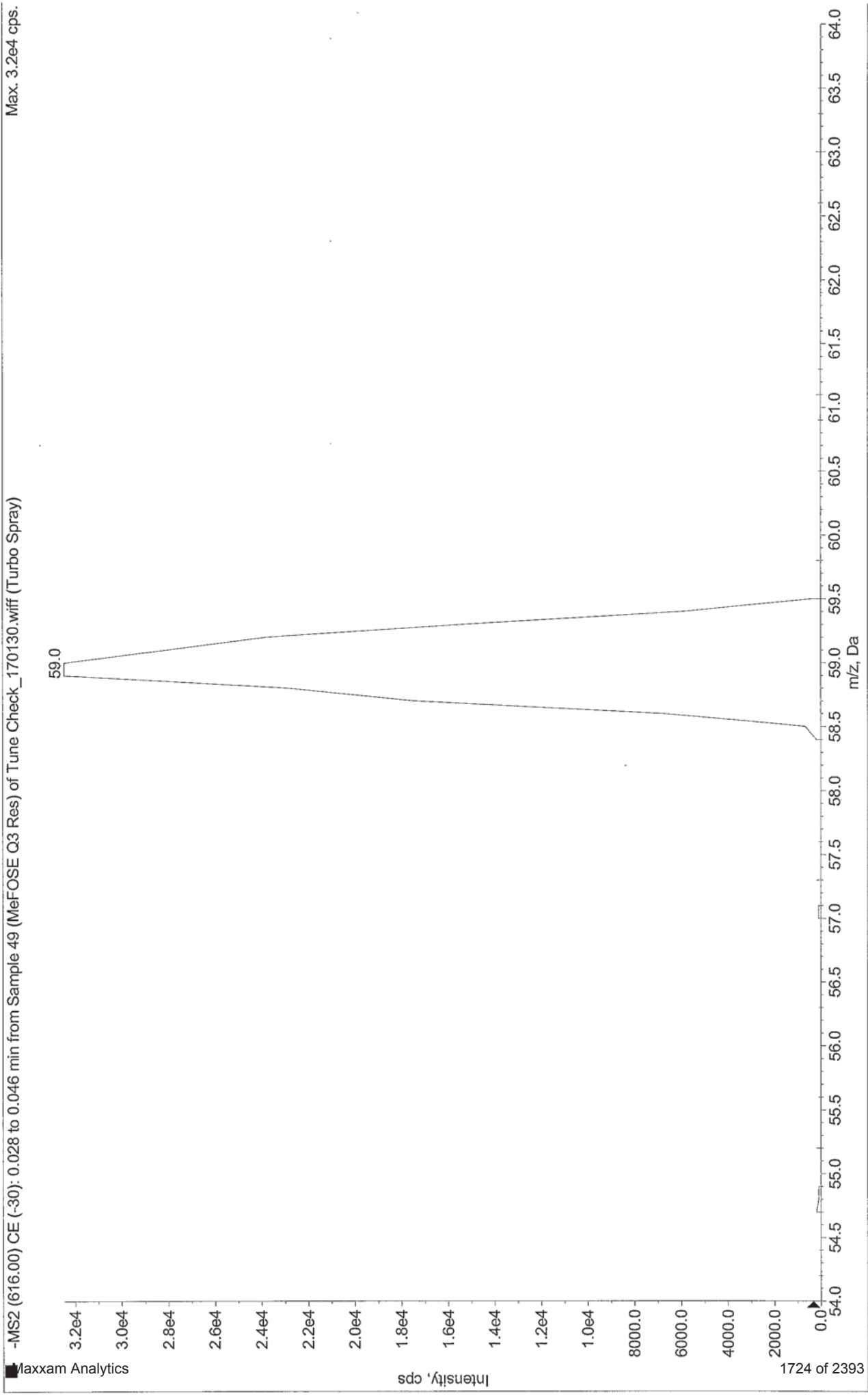
Maxxam Analytics

Max. 4.0e5 cps.



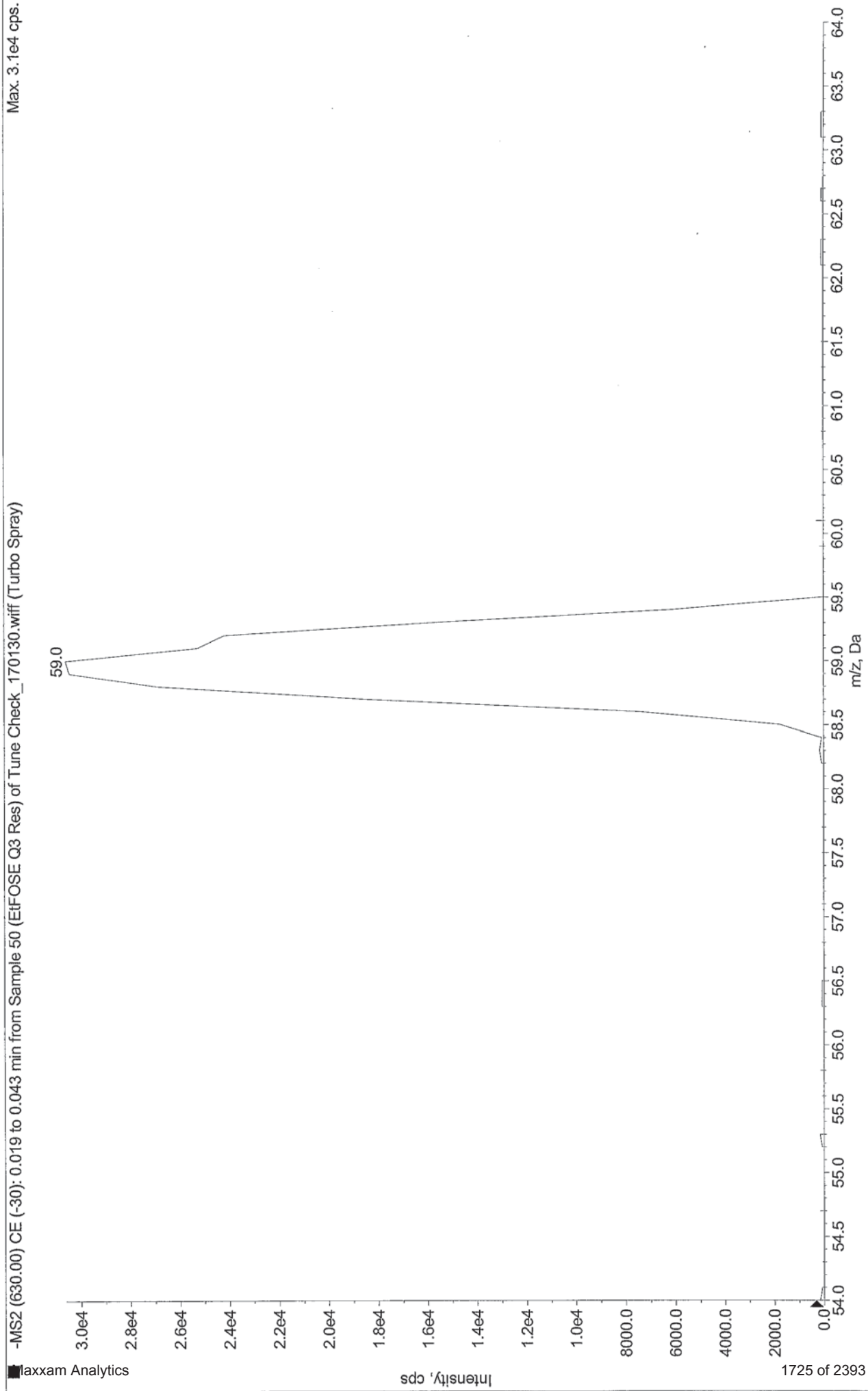
Max. 3.2e4 cps.

-MS2 (616.00) CE (-30): 0.028 to 0.046 min from Sample 49 (MeFOSE Q3 Res) of Tune Check_170130.wiff (Turbo Spray)



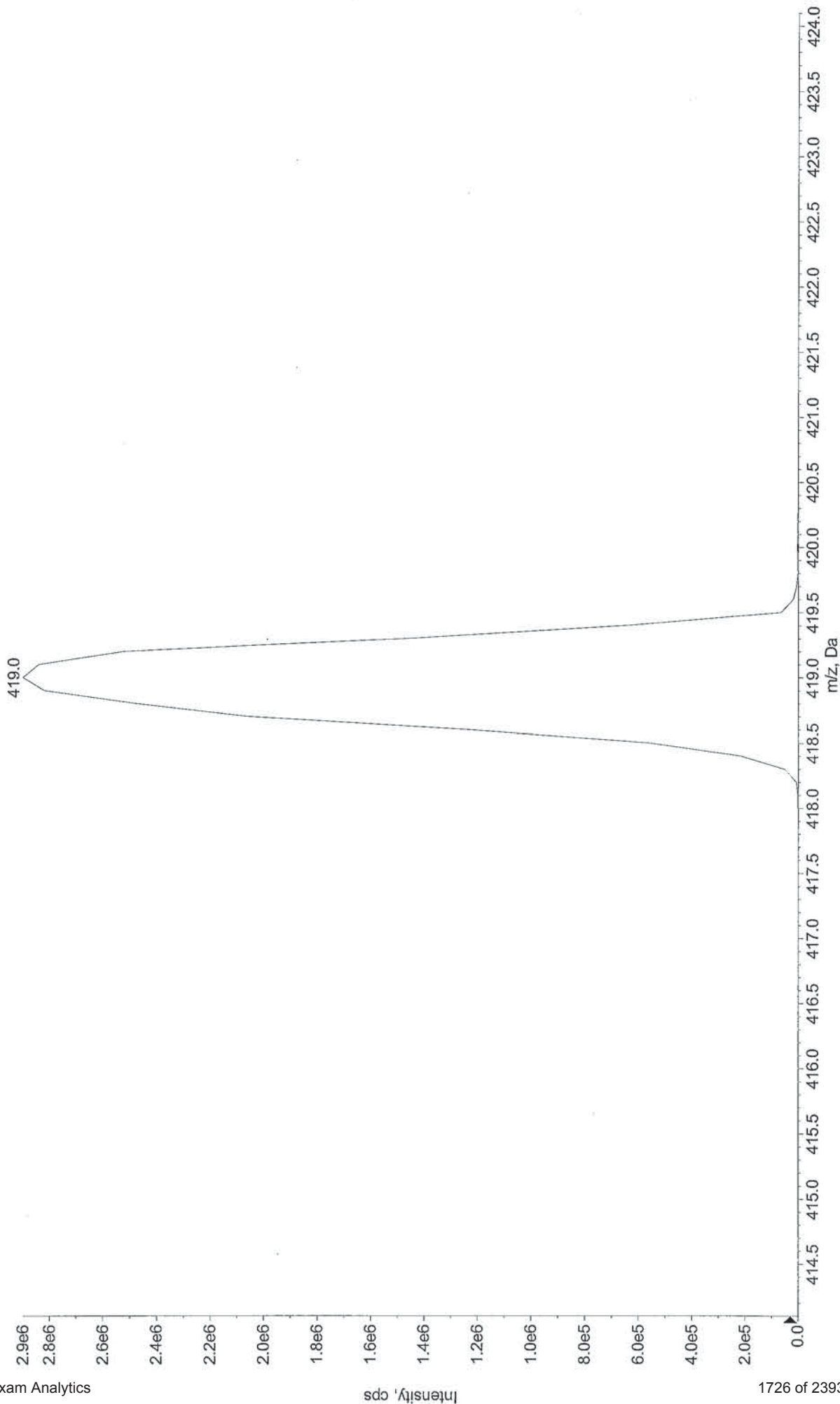
-MS2 (630.00) CE (-30): 0.019 to 0.043 min from Sample 50 (EI/TOF Q3 Res) of Tune Check_170130.wiff (Turbo Spray)

Max. 3.1e4 cps.



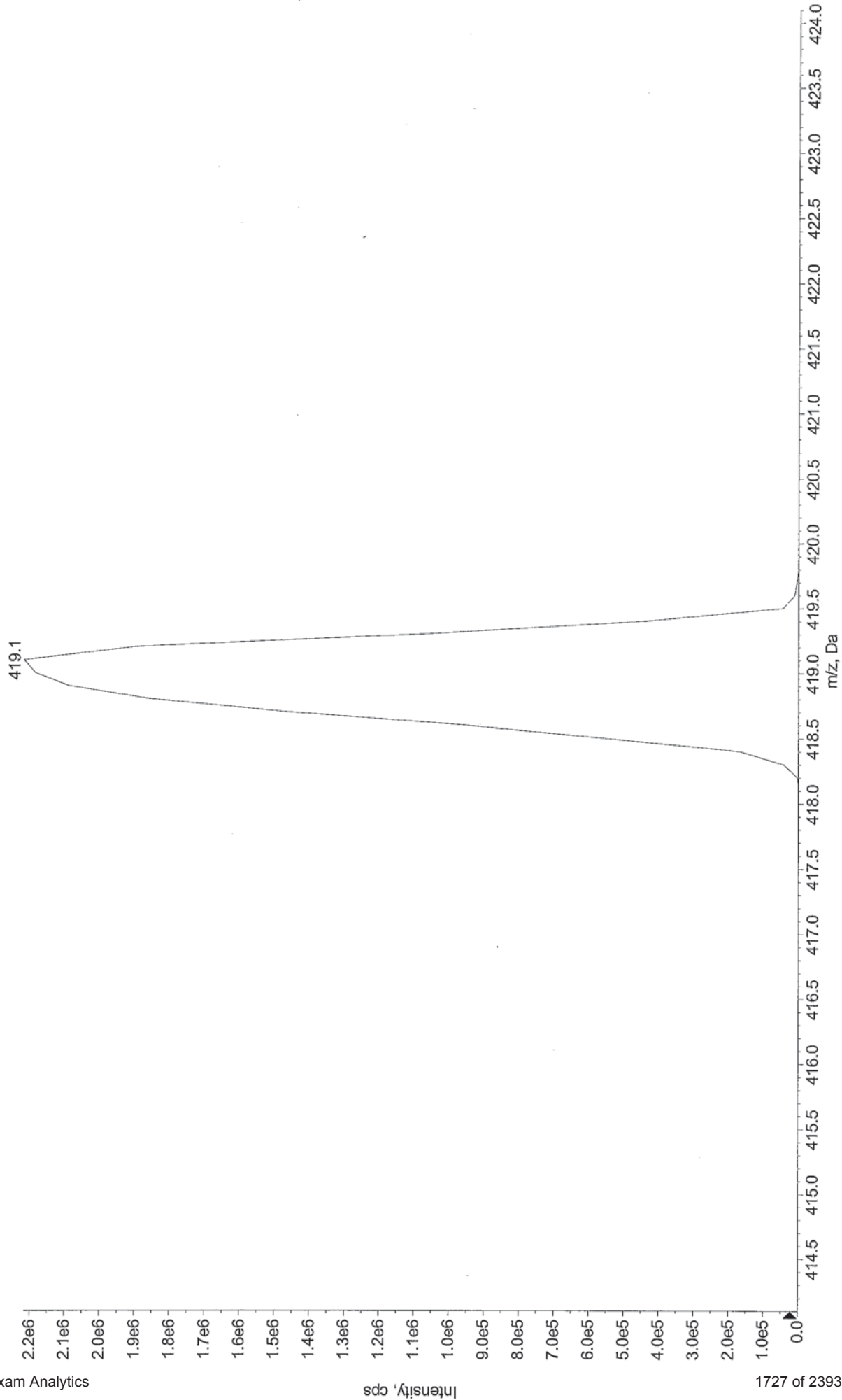
Maxxam Analytics

Max. 2.9e6 cps.



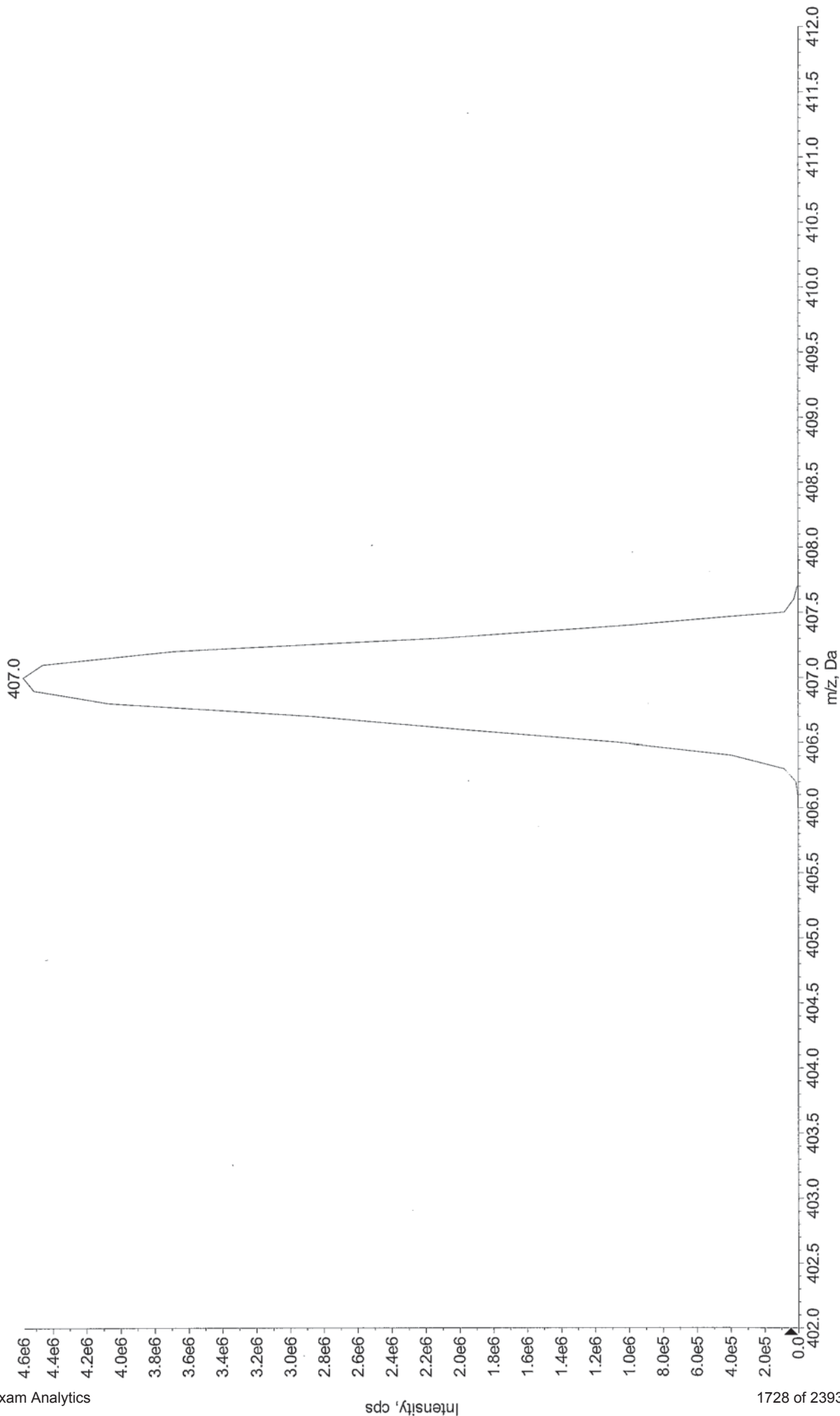
Maxxam Analytics

Max. 2.2e6 cps.



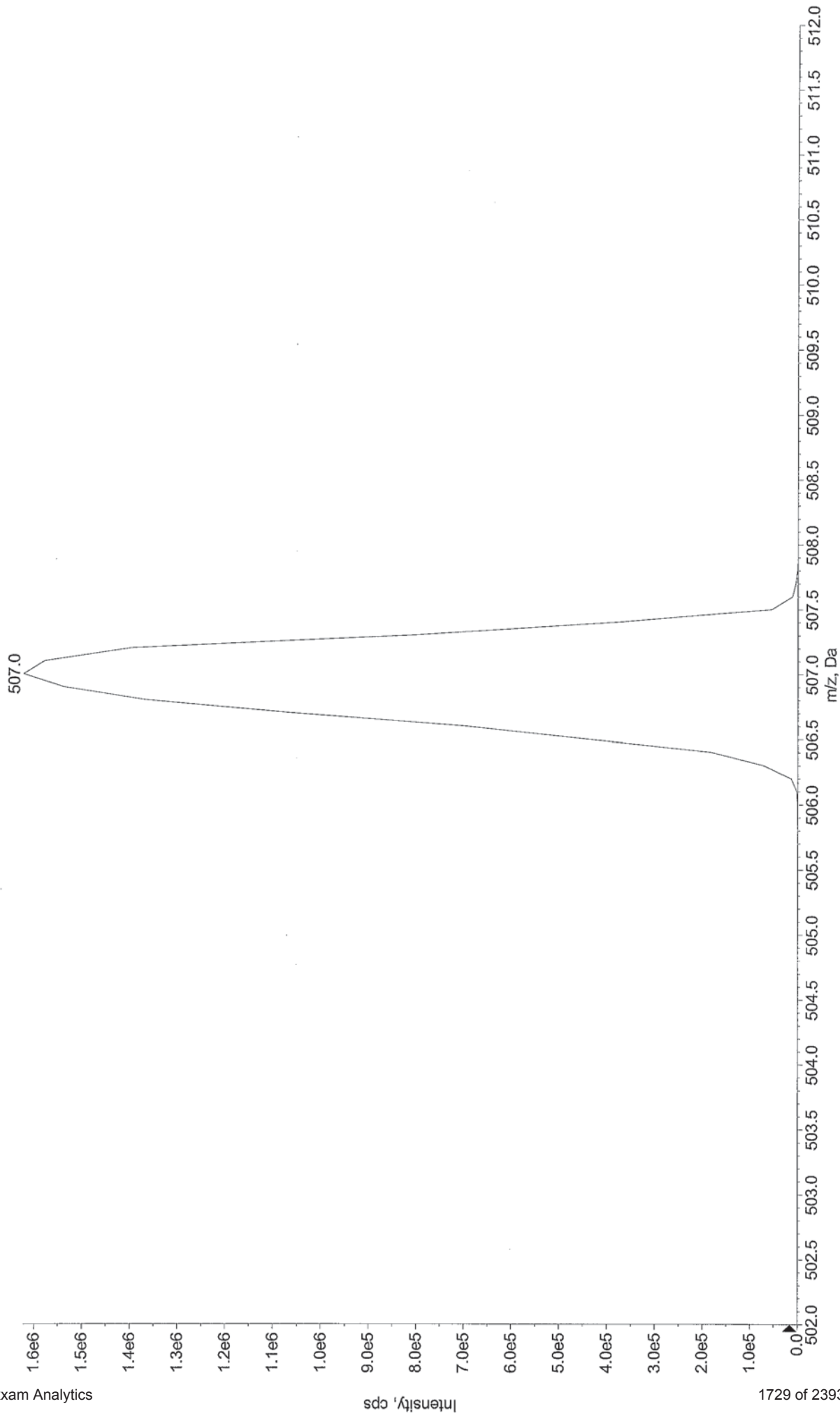
Maxxam Analytics
-MS2 (427.00) CE (-30): 0.026 to 0.030 min from Sample 53 (6:2-FTS Q3 Res) of Tune Check_170130.wiff (Turbo Spray)

Max. 4.6e6 cps.



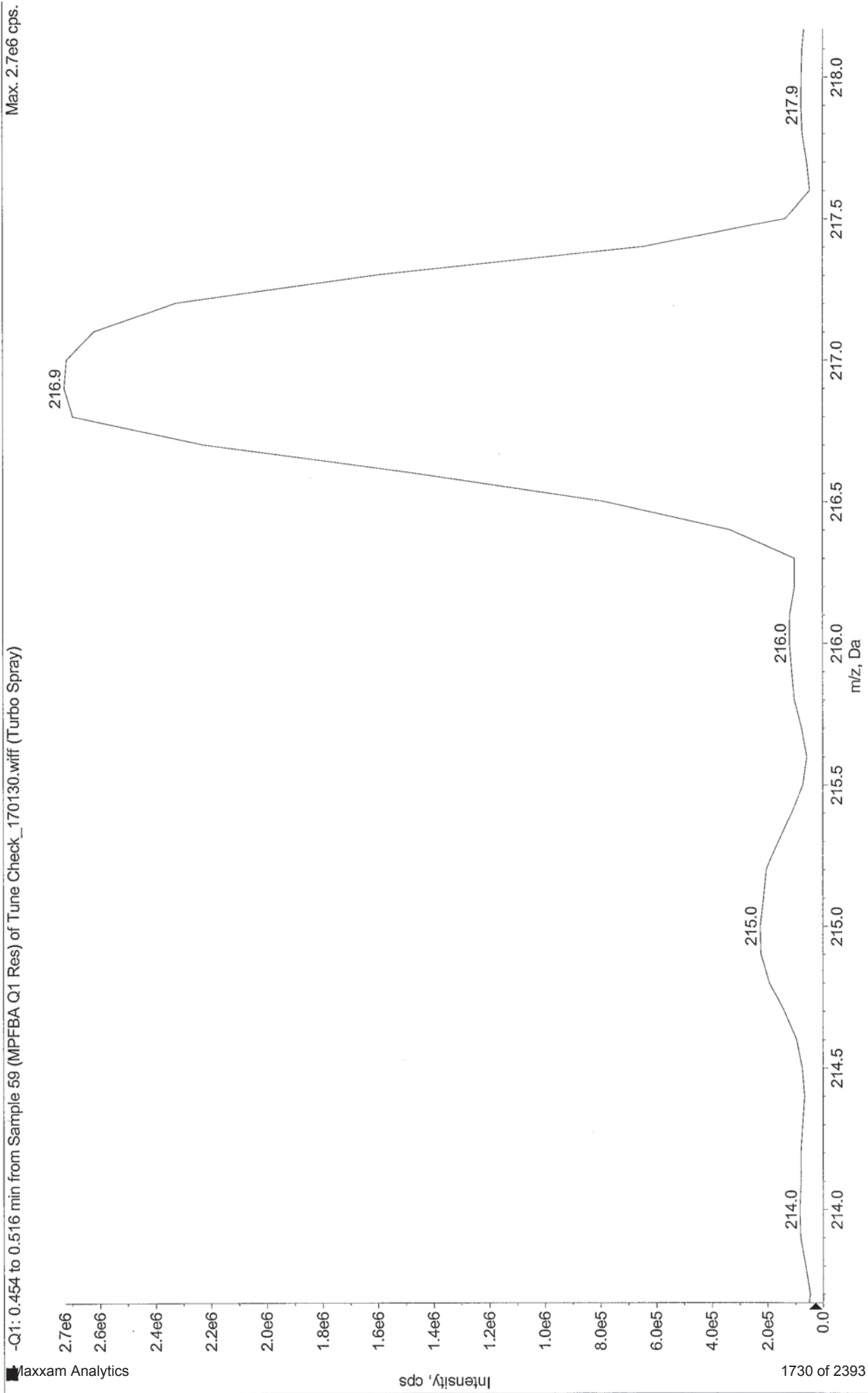
Maxxam Analytics
-MS2 (526.90) CE (-30): 0.036 to 0.063 min from Sample 54 (8-2-FTS Q3 Res) of Tune Check_170130.wiff (Turbo Spray)

Max. 1.6e6 cps.



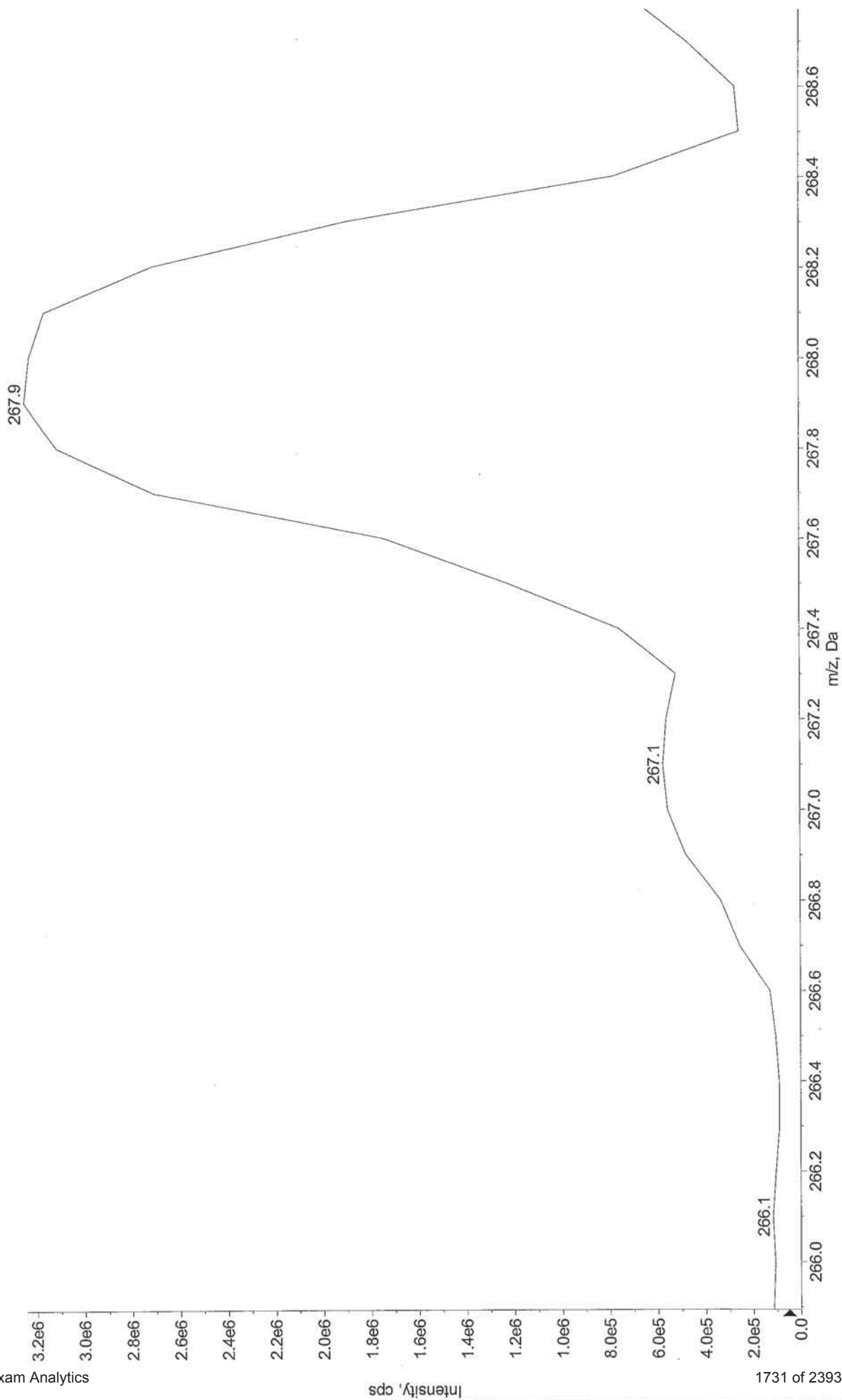
-Q1: 0.454 to 0.516 min from Sample 59 (MPFBA Q1 Res) of Tune Check_170130.wiff (Turbo Spray)

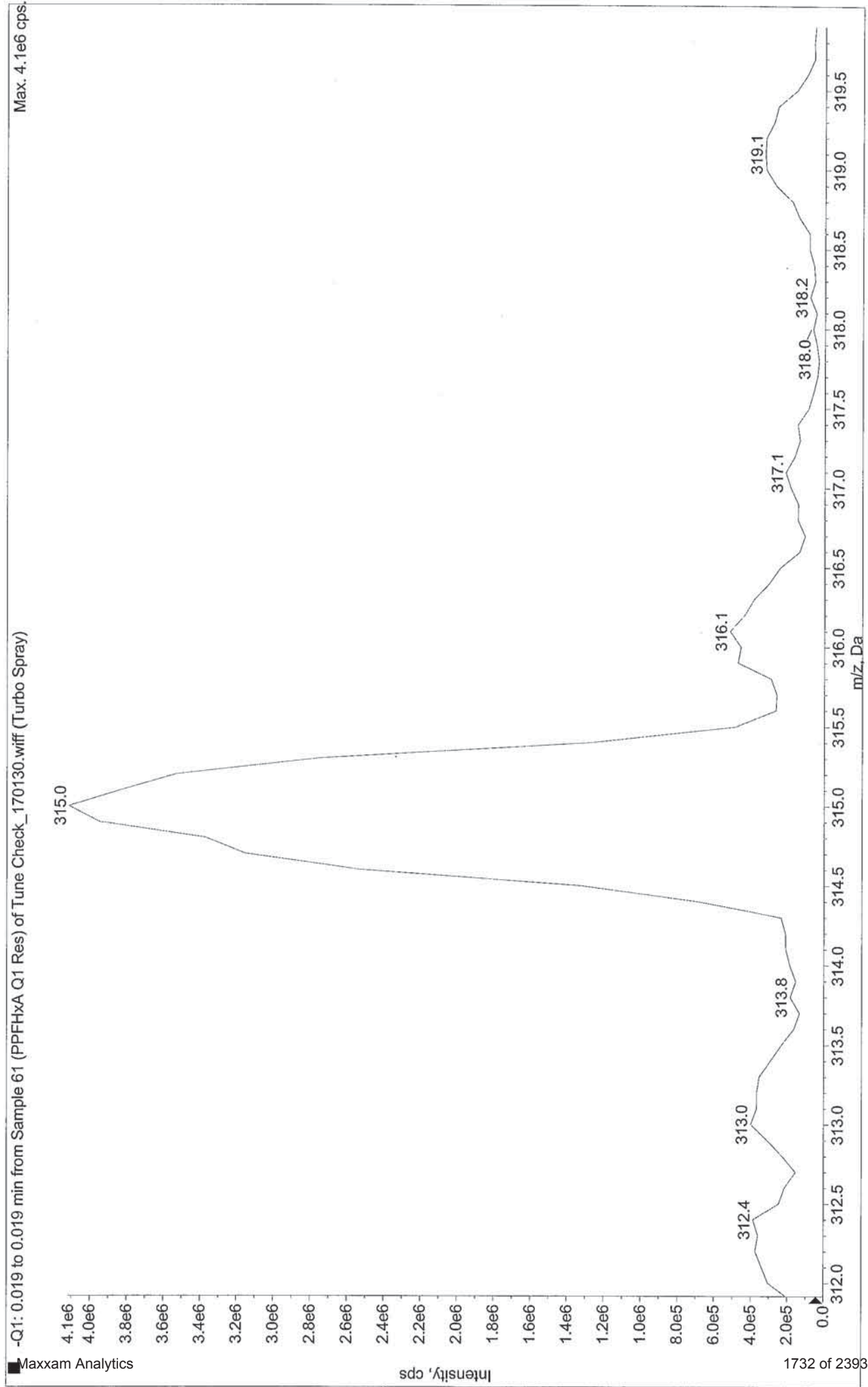
Max. 2.7e6 cps.



-Q1: 0.040 to 0.047 min from Sample 60 (MPFPeA Q1 Res) of Tune Check_170130.wiff (Turbo Spray)

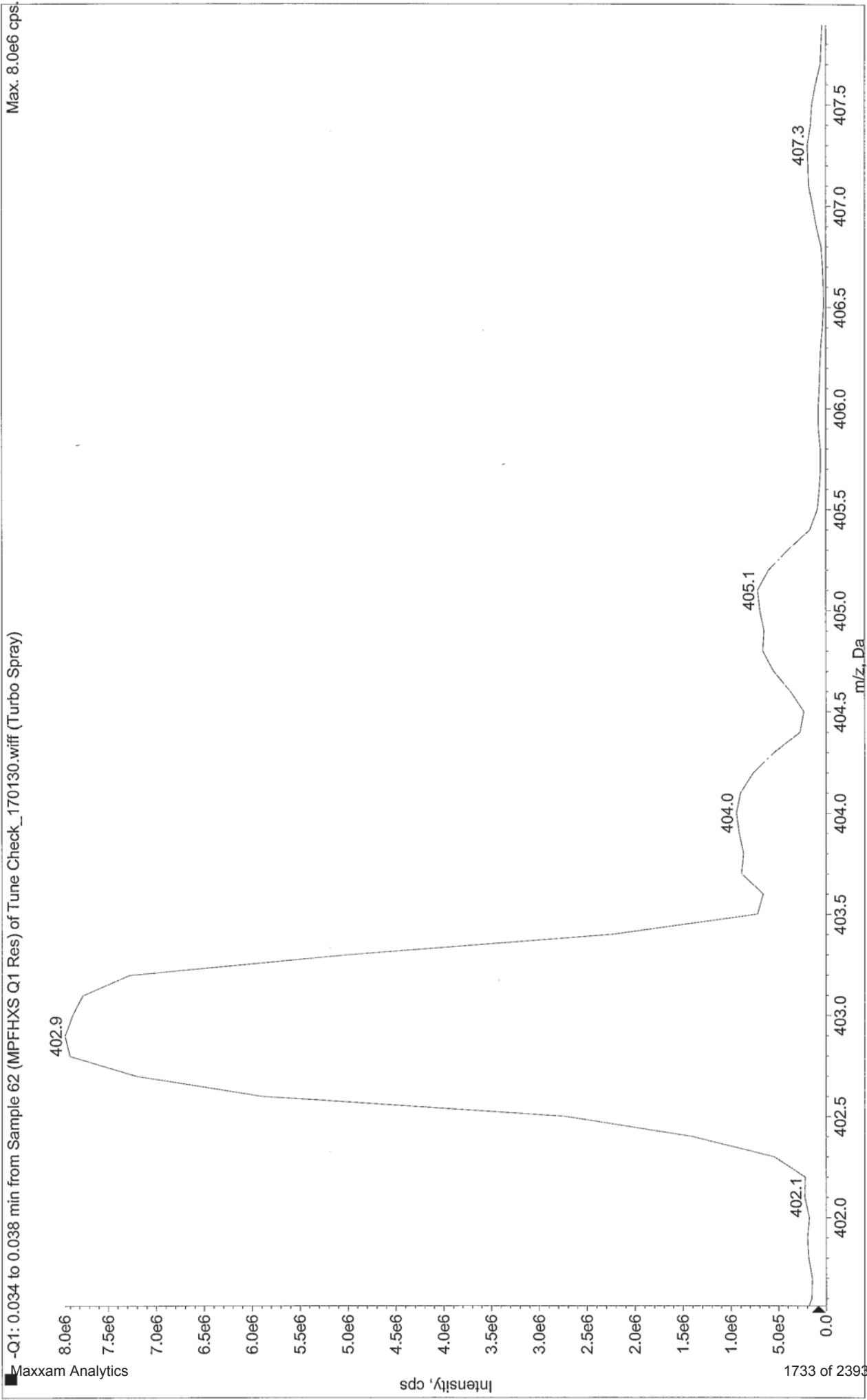
Max. 4.9e6 cps.

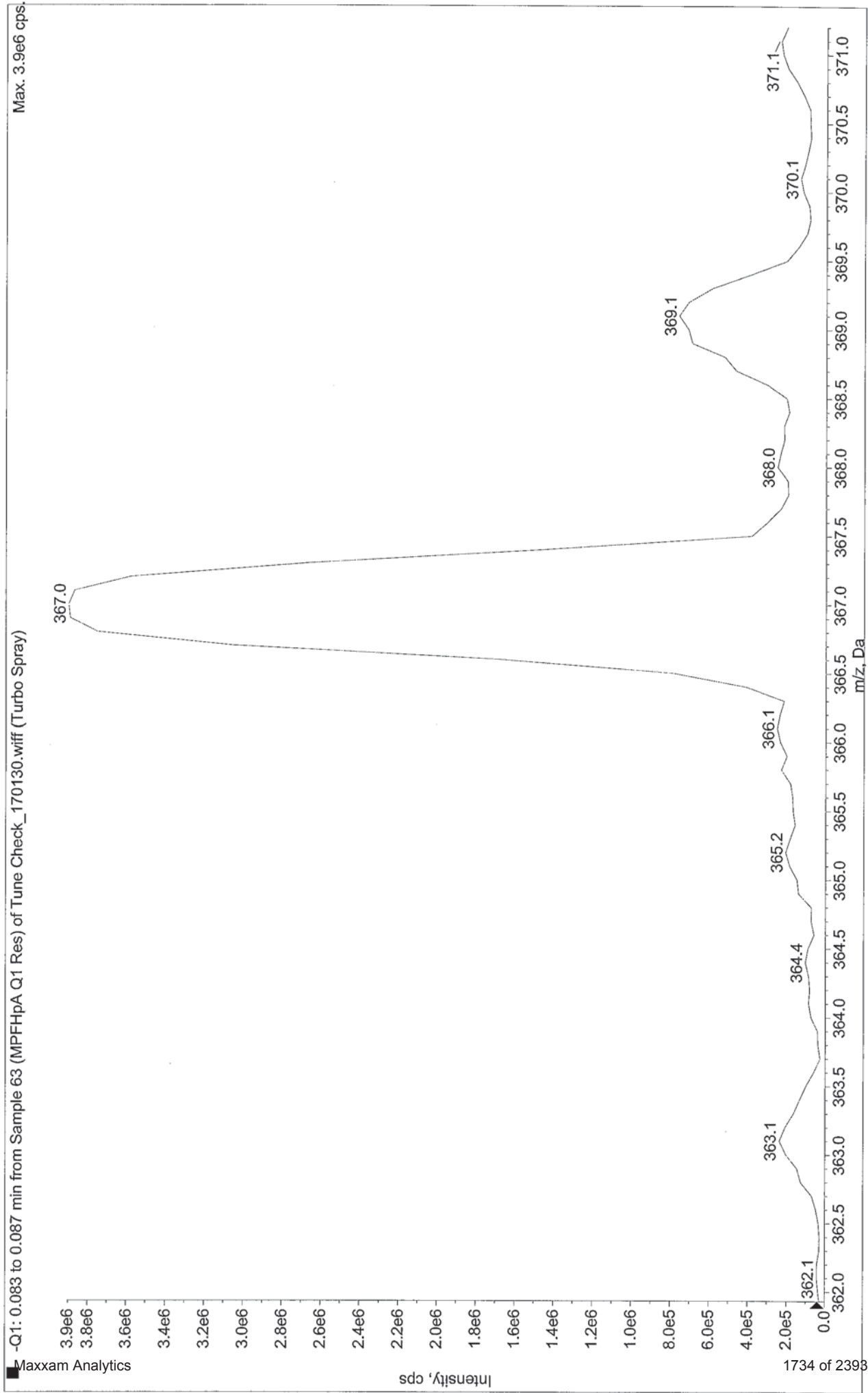




Max. 8.0e6 cps.

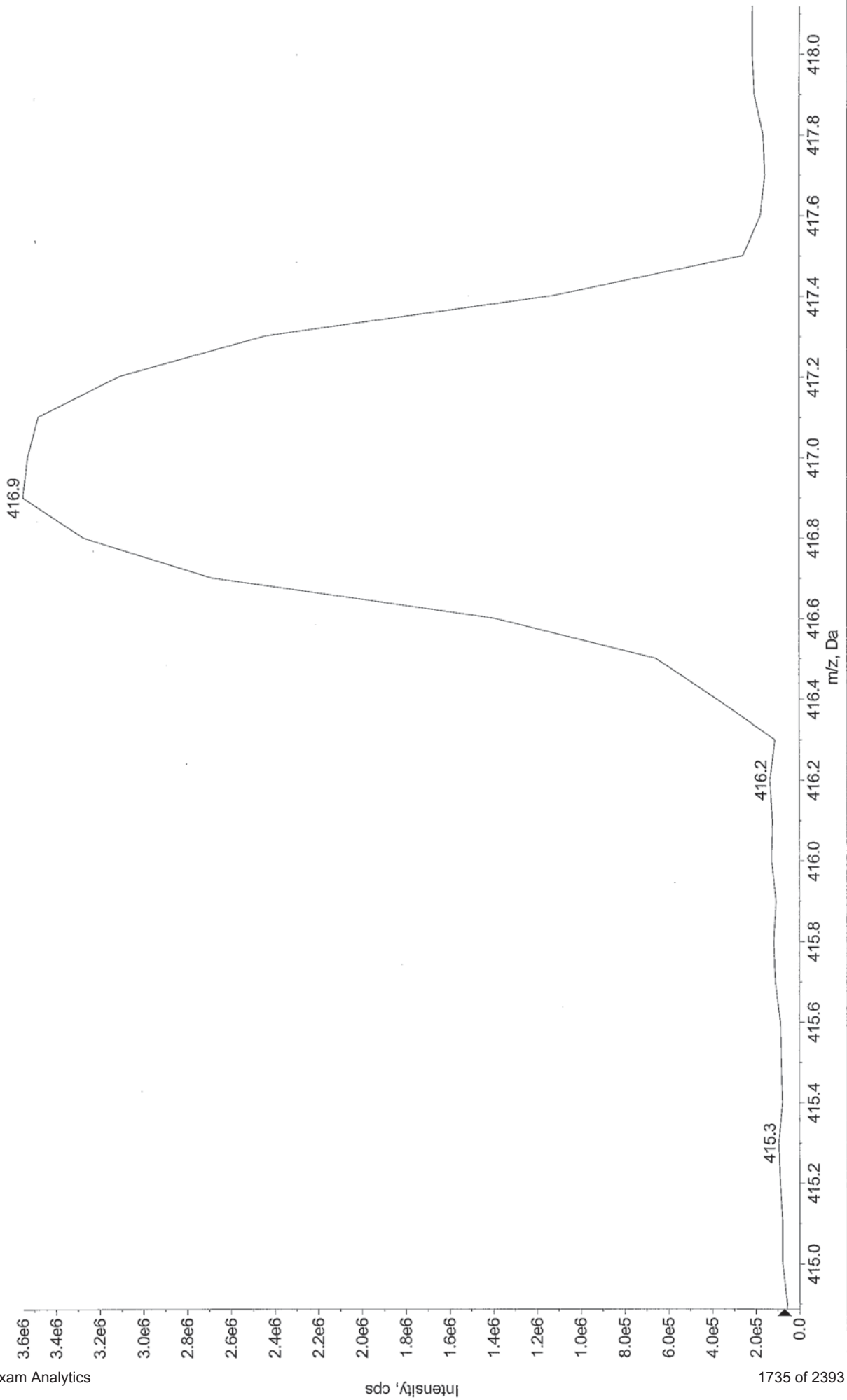
-Q1: 0.034 to 0.038 min from Sample 62 (MPFHXS Q1 Res) of Tune Check_170130.wiff (Turbo Spray)





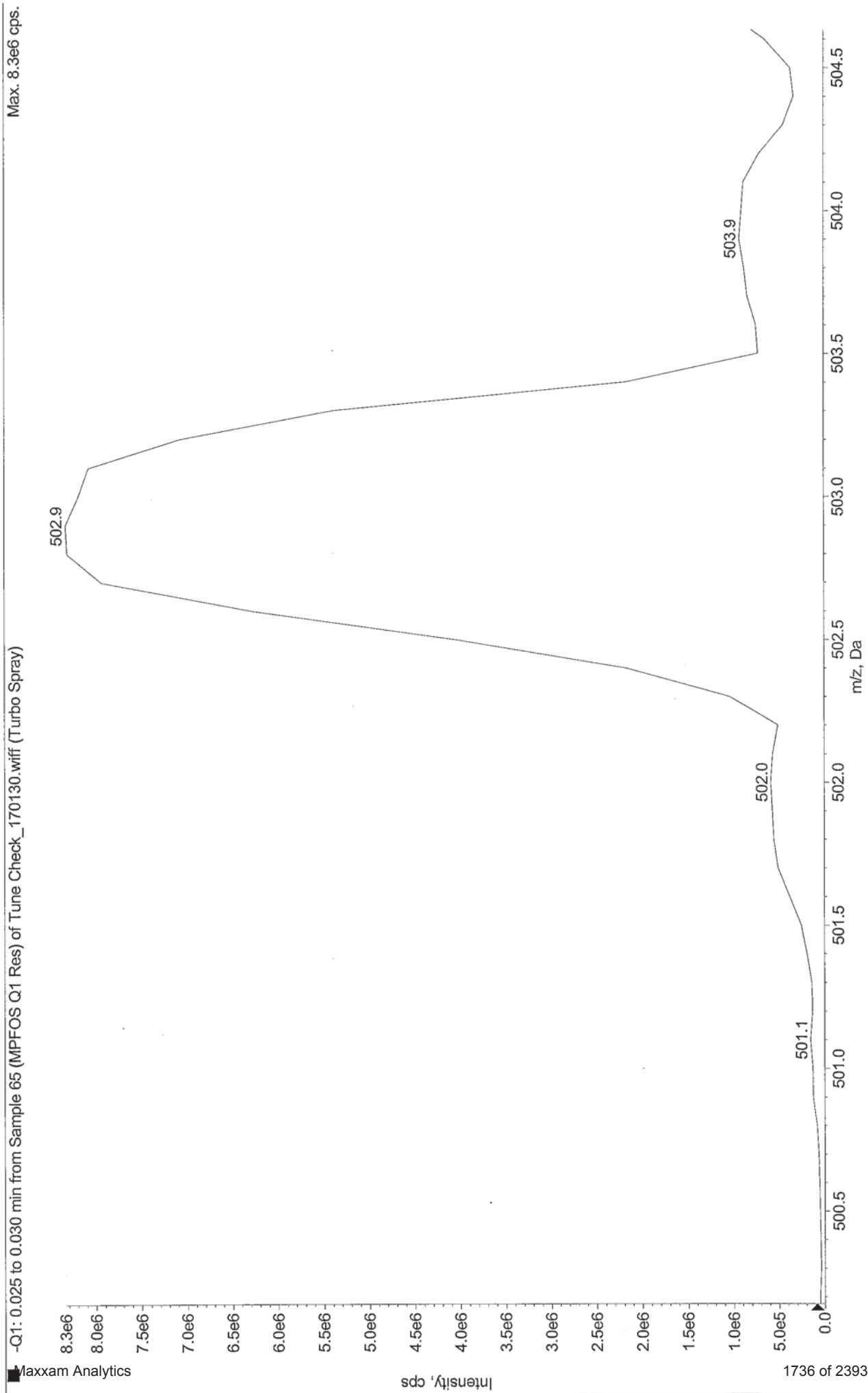
Maxxam Analytics
-Q1: 0.033 to 0.039 min from Sample 64 (MPFOA Q1 Res) of Tune Check_170130.wiff (Turbo Spray)

Max. 6.9e6 cps.

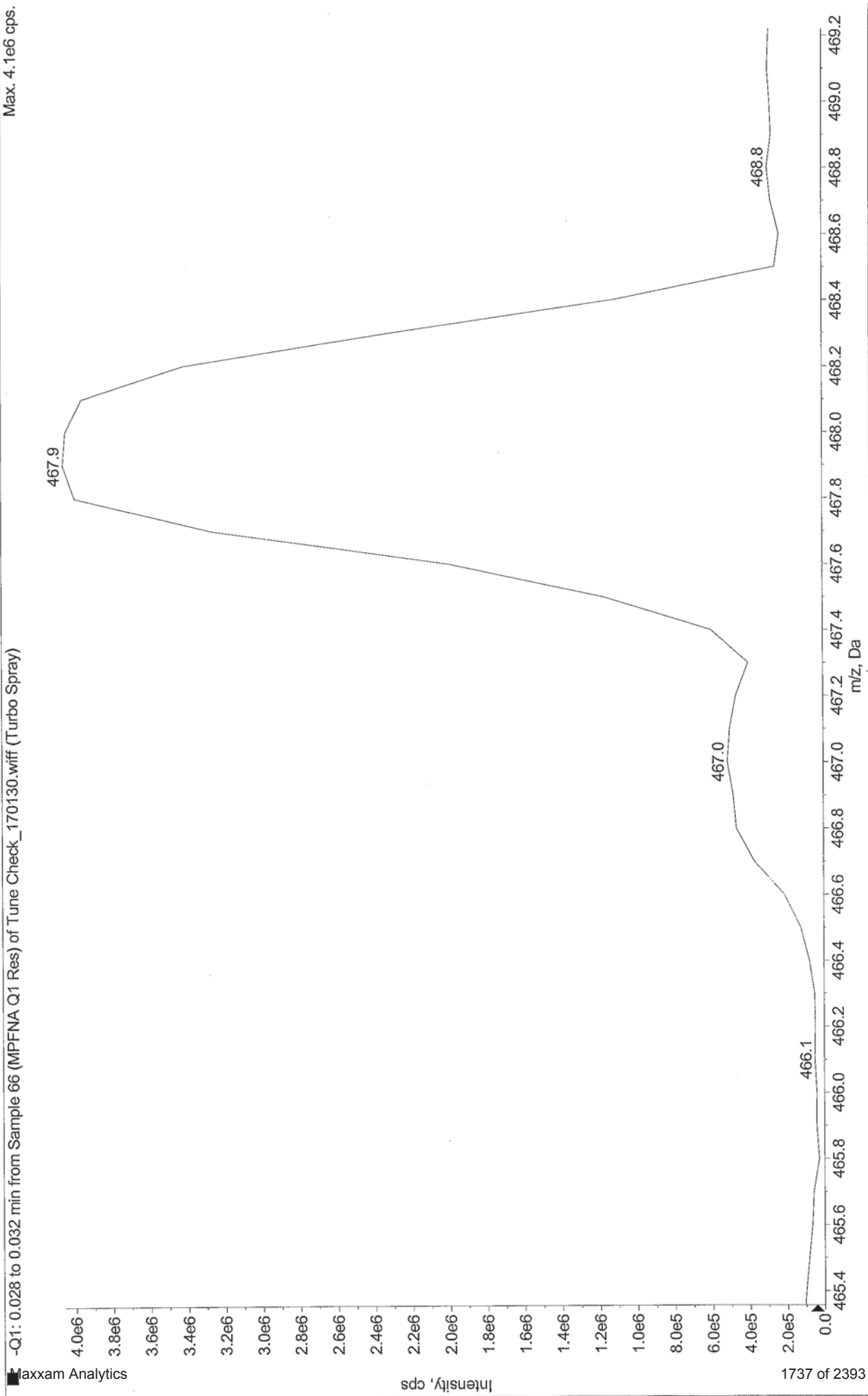


-Q1: 0.025 to 0.030 min from Sample 65 (MPFOS Q1 Res) of Tune Check_170130.wiff (Turbo Spray)

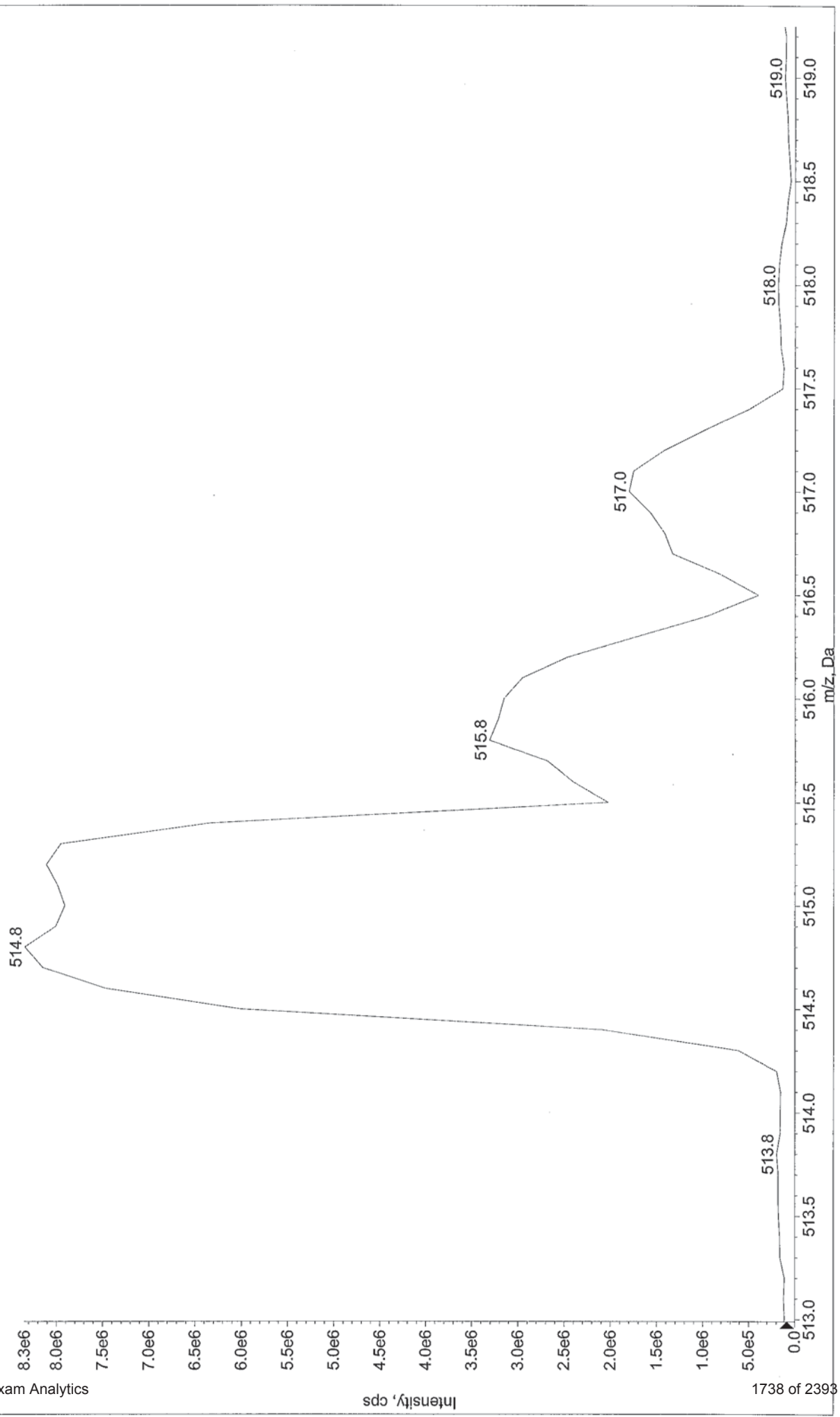
Max. 8.3e6 cps.



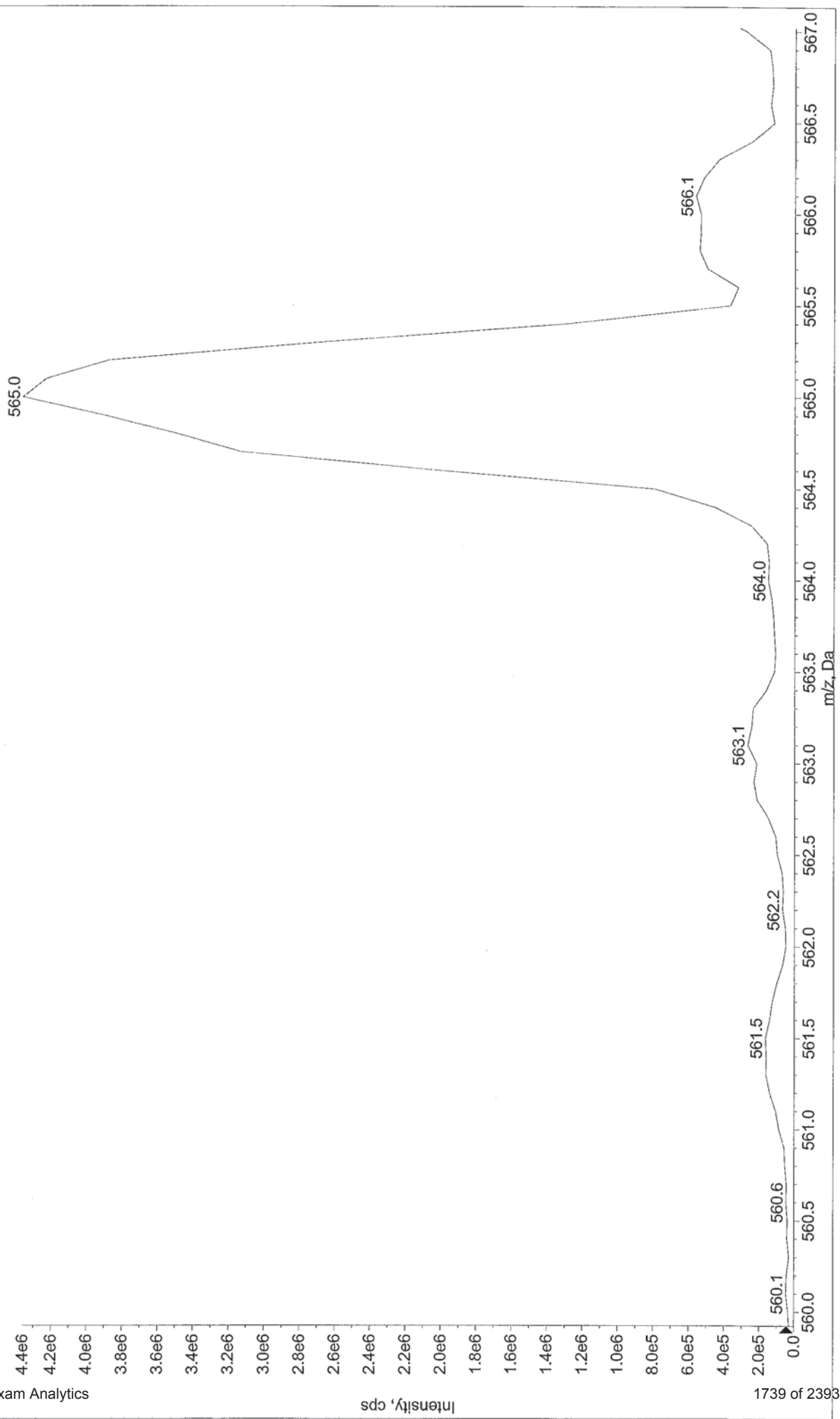
-Q1: 0.028 to 0.032 min from Sample 66 (MPFNA Q1 Res) of Tune Check_170130.wiff (Turbo Spray)



Maxxam Analytics
-Q1: 0.106 to 0.110 min from Sample 67 (MPFDA Q1 Res) of Tune Check_170130.wiff (Turbo Spray) Max. 8.3e6 cps

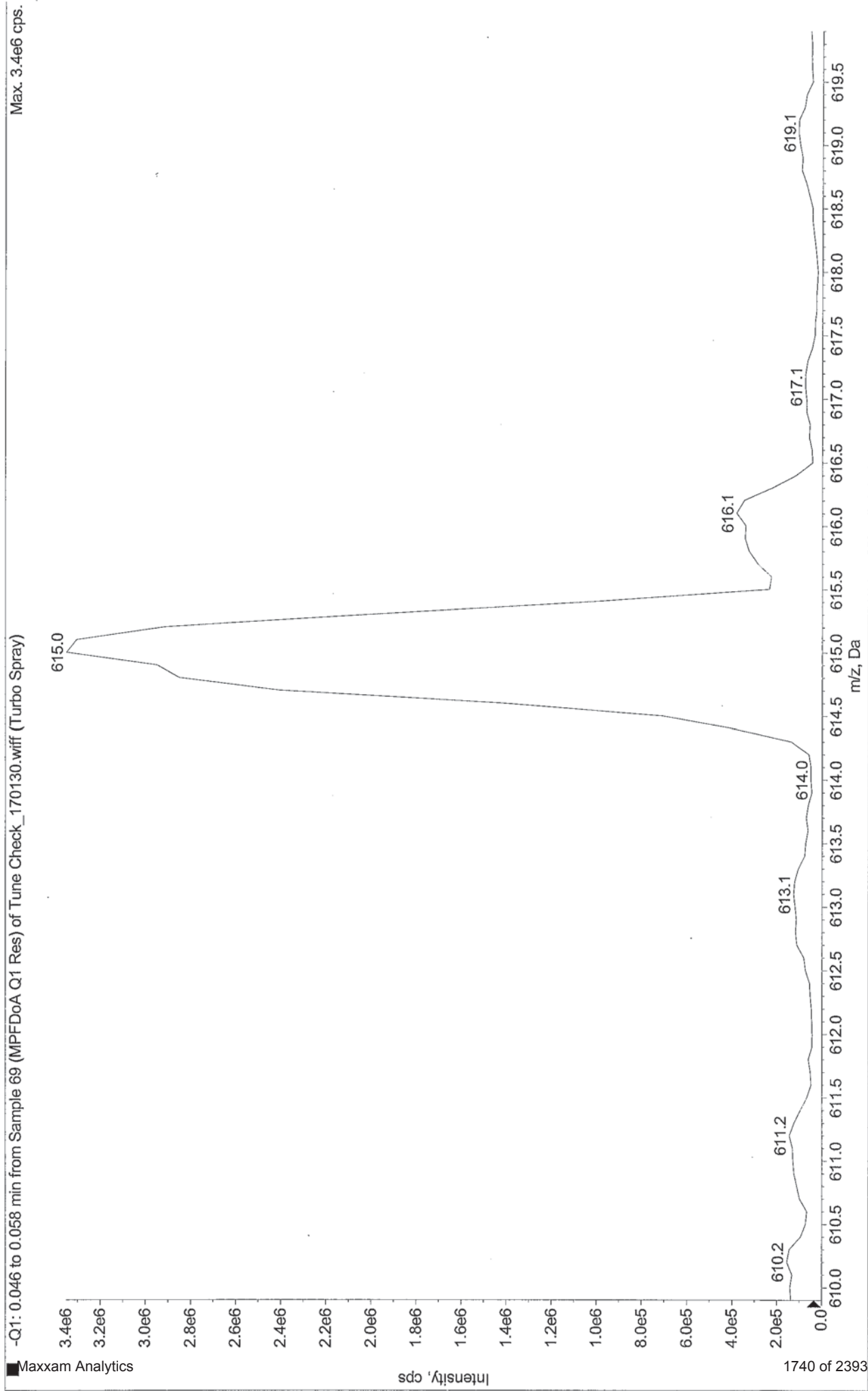


Maxxam Analytics
-Q1: 0.001 to 0.006 min from Sample 68 (MPFUnA Q1 Res) of Tune Check_170130.wiff (Turbo Spray) Max. 4.4e6 cps

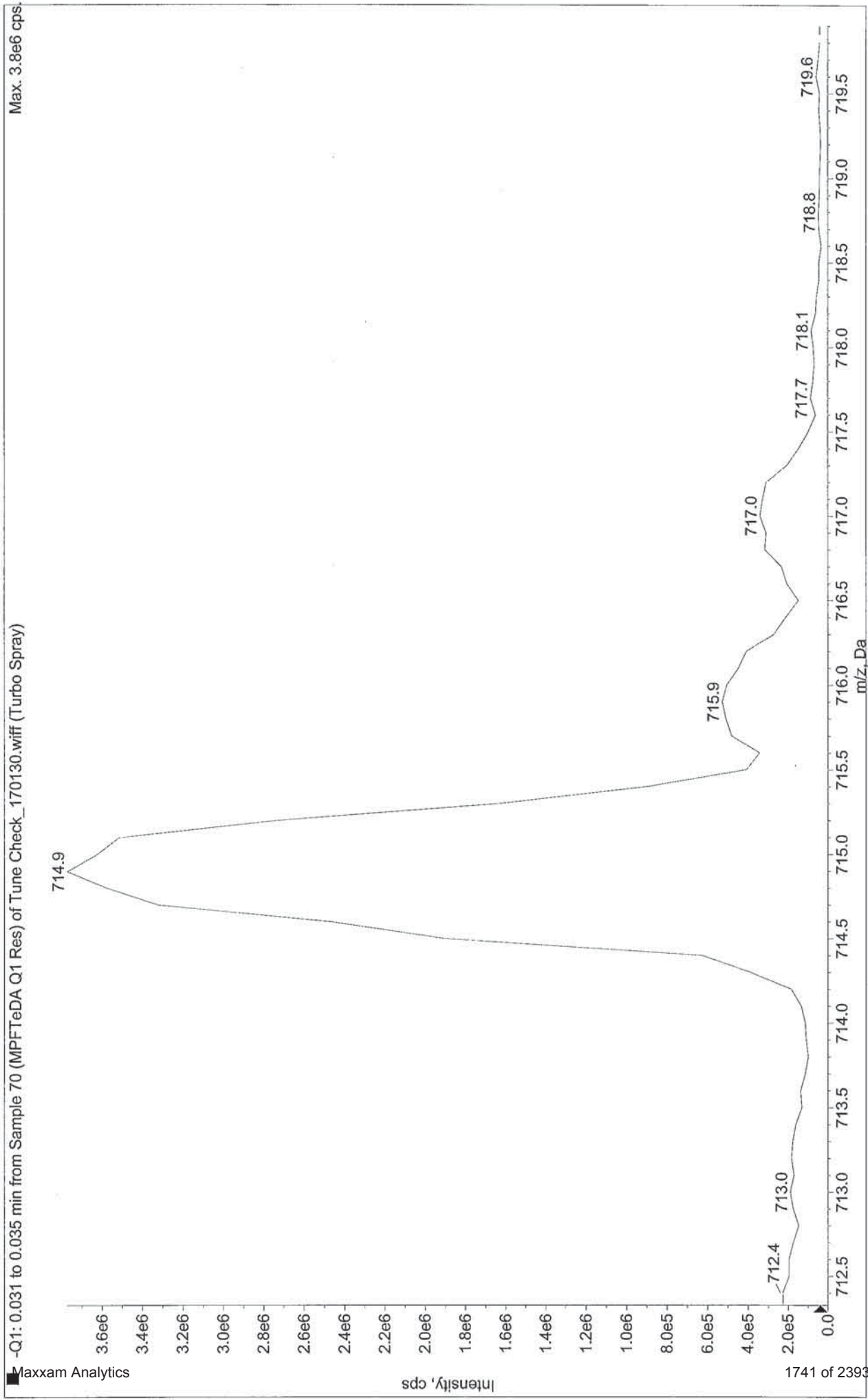


-Q1: 0.046 to 0.058 min from Sample 69 (MPFDa Q1 Res) of Tune Check_170130.wiff (Turbo Spray)

Max. 3.4e6 cps.

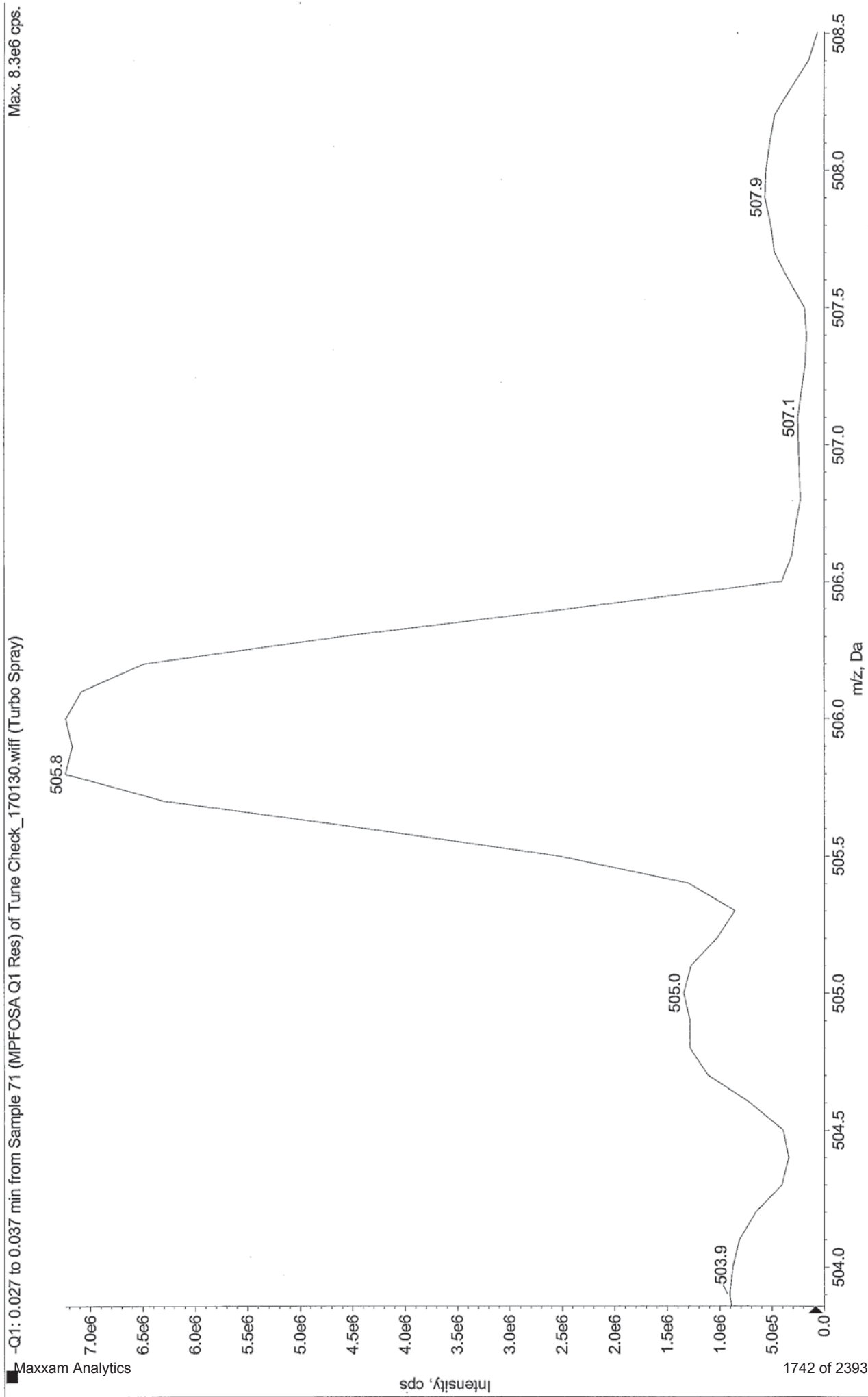


-Q1: 0.031 to 0.035 min from Sample 70 (MPFTeDA Q1 Res) of Tune Check_170130.wiff (Turbo Spray) Max. 3.8e6 cps



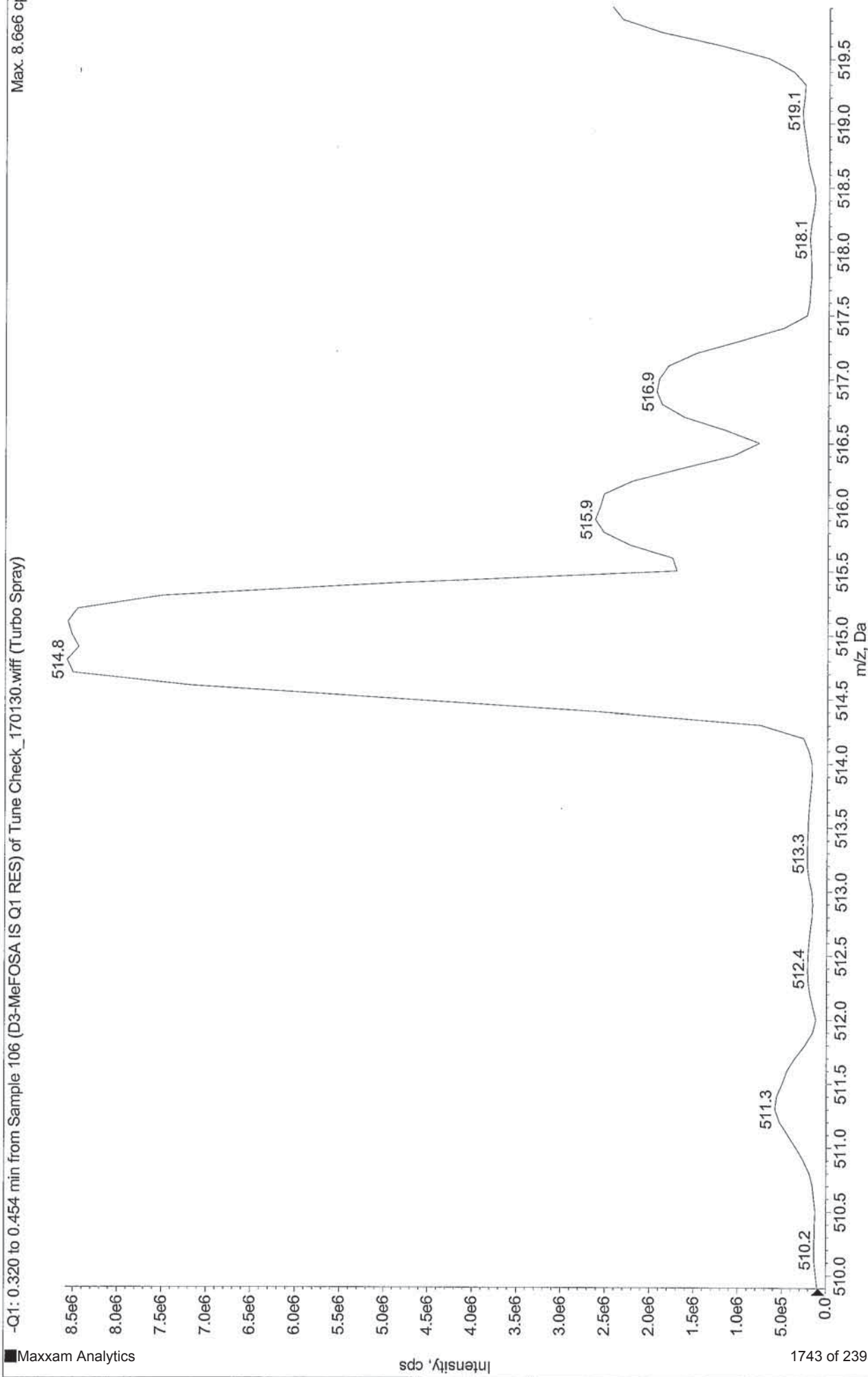
Max. 8.3e6 cps.

-Q1: 0.027 to 0.037 min from Sample 71 (MPFOSA Q1 Res) of Tune Check_170130.wiff (Turbo Spray)



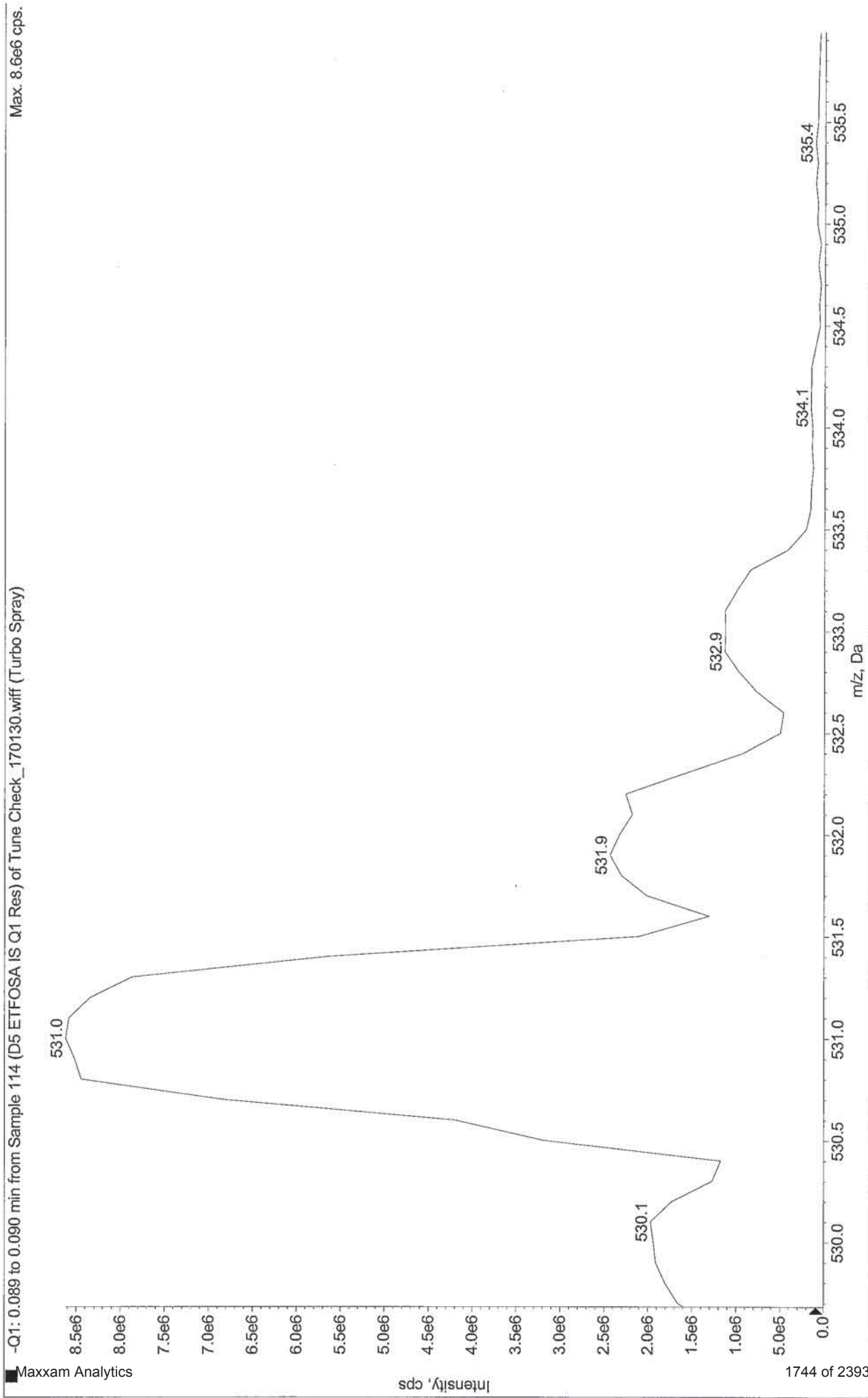
-Q1: 0.320 to 0.454 min from Sample 106 (D3-MeFOSA IS Q1 RES) of Tune Check_170130.wiff (Turbo Spray)

Max. 8.6e6 cps.



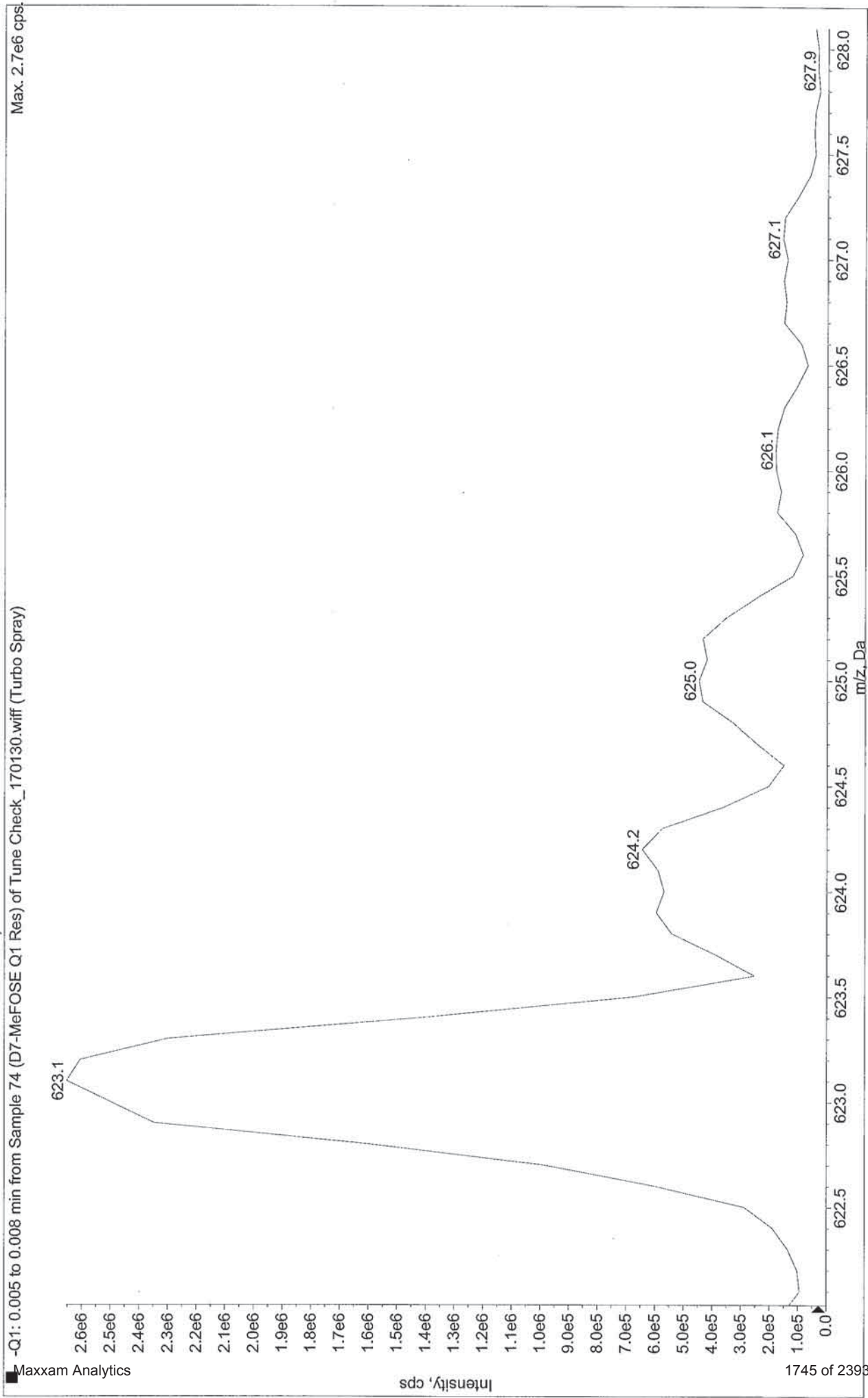
-Q1: 0.089 to 0.090 min from Sample 114 (D5 ETFOSA IS Q1 Res) of Tune Check_170130.wiff (Turbo Spray)

Max. 8.6e6 cps.



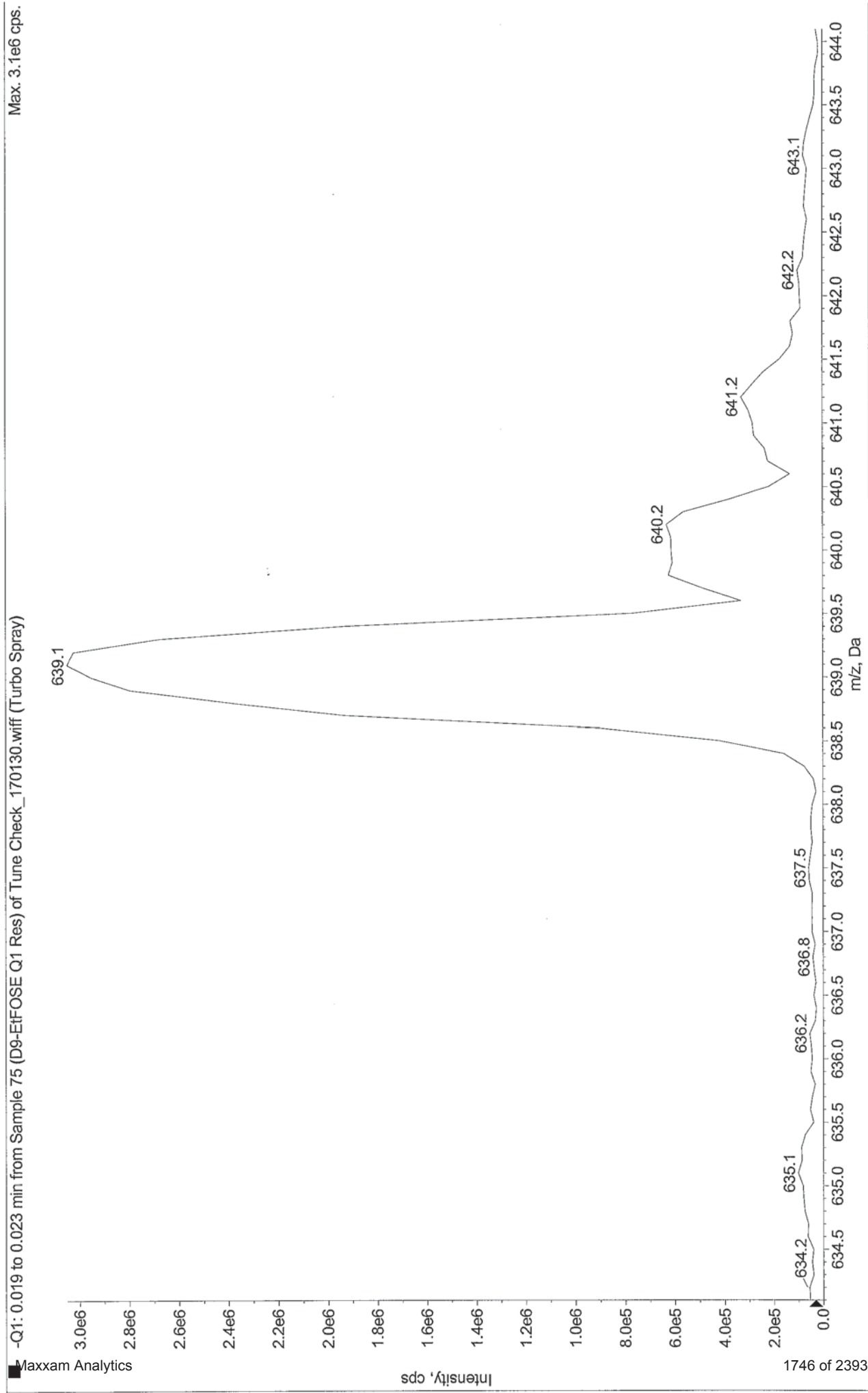
Max. 2.7e6 cps

-Q1: 0.005 to 0.008 min from Sample 74 (D7-MeFOSE Q1 Res) of Tune Check_170130.wiff (Turbo Spray)



Max. 3.1e6 cps.

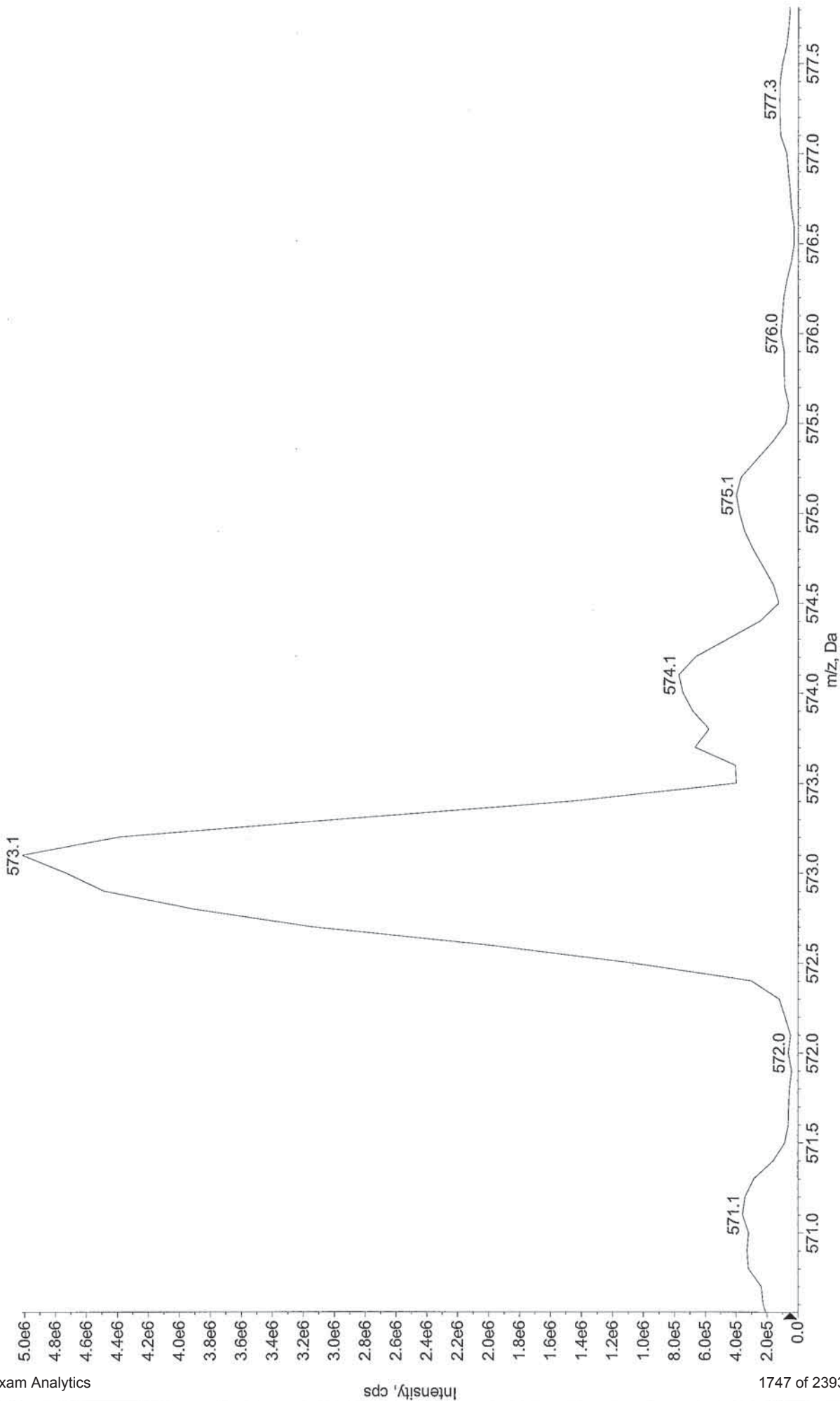
-Q1: 0.019 to 0.023 min from Sample 75 (D9-EtFOSE Q1 Res) of Tune Check_170130.wiff (Turbo Spray)



-Q1: 0.017 to 0.019 min from Sample 76 (D3-MeFOSAA Q1 Res) of Tune Check_170130.wiff (Turbo Spray)

Max. 5.0e6 cps.

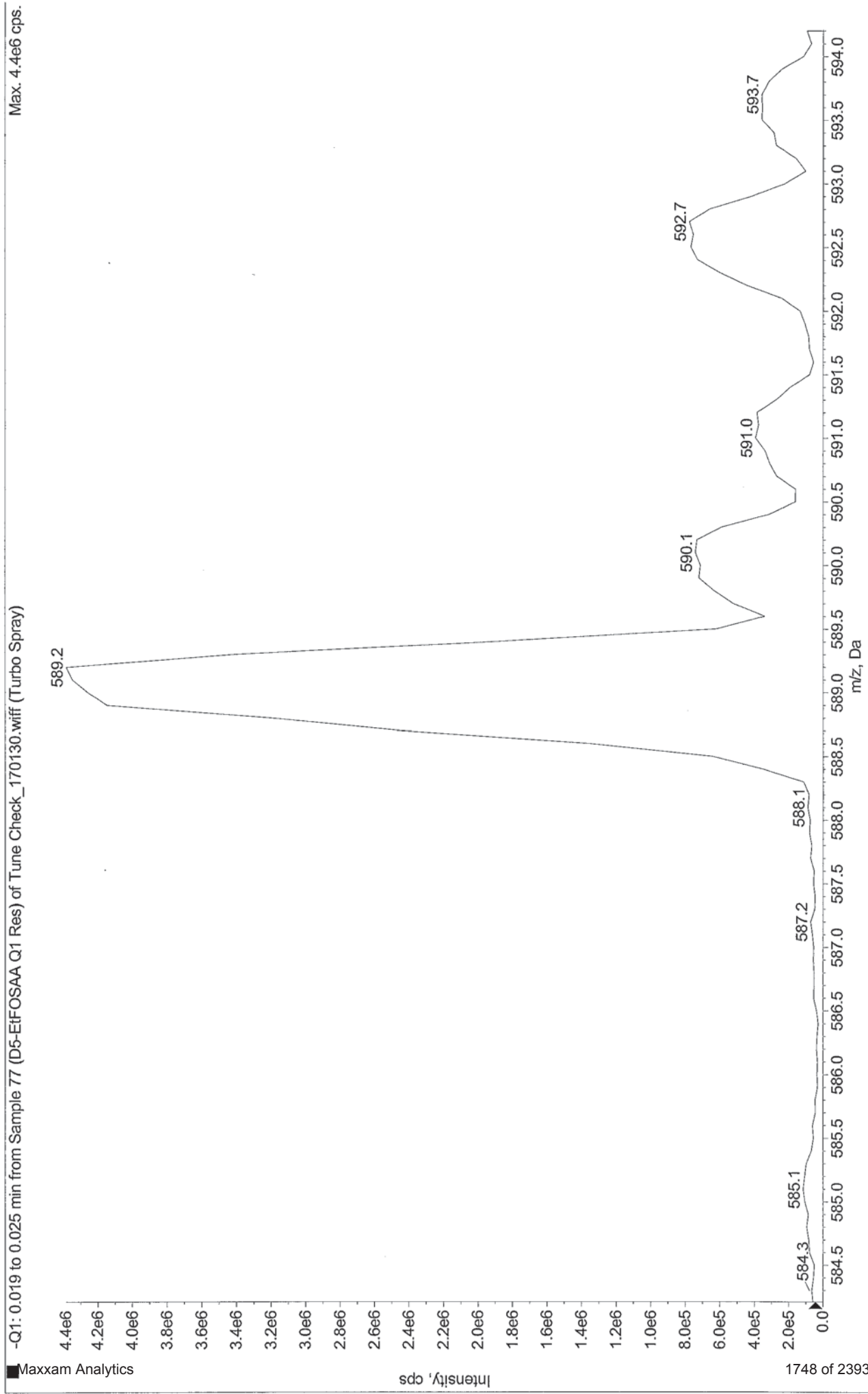
Maxxam Analytics



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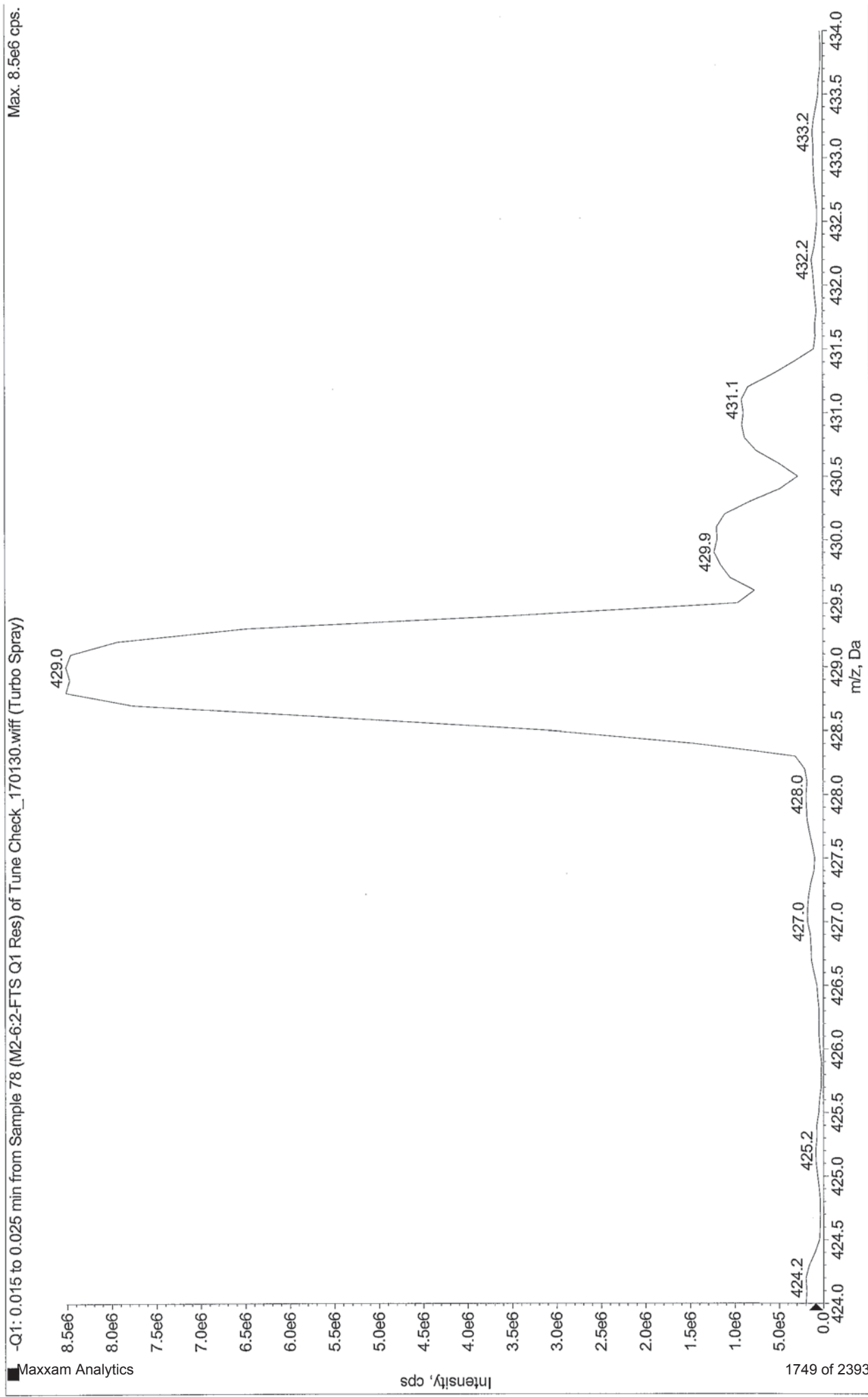
-Q1: 0.019 to 0.025 min from Sample 77 (D5-EtFOSAA Q1 Res) of Tune Check_170130.wiff (Turbo Spray)

Max. 4.4e6 cps.



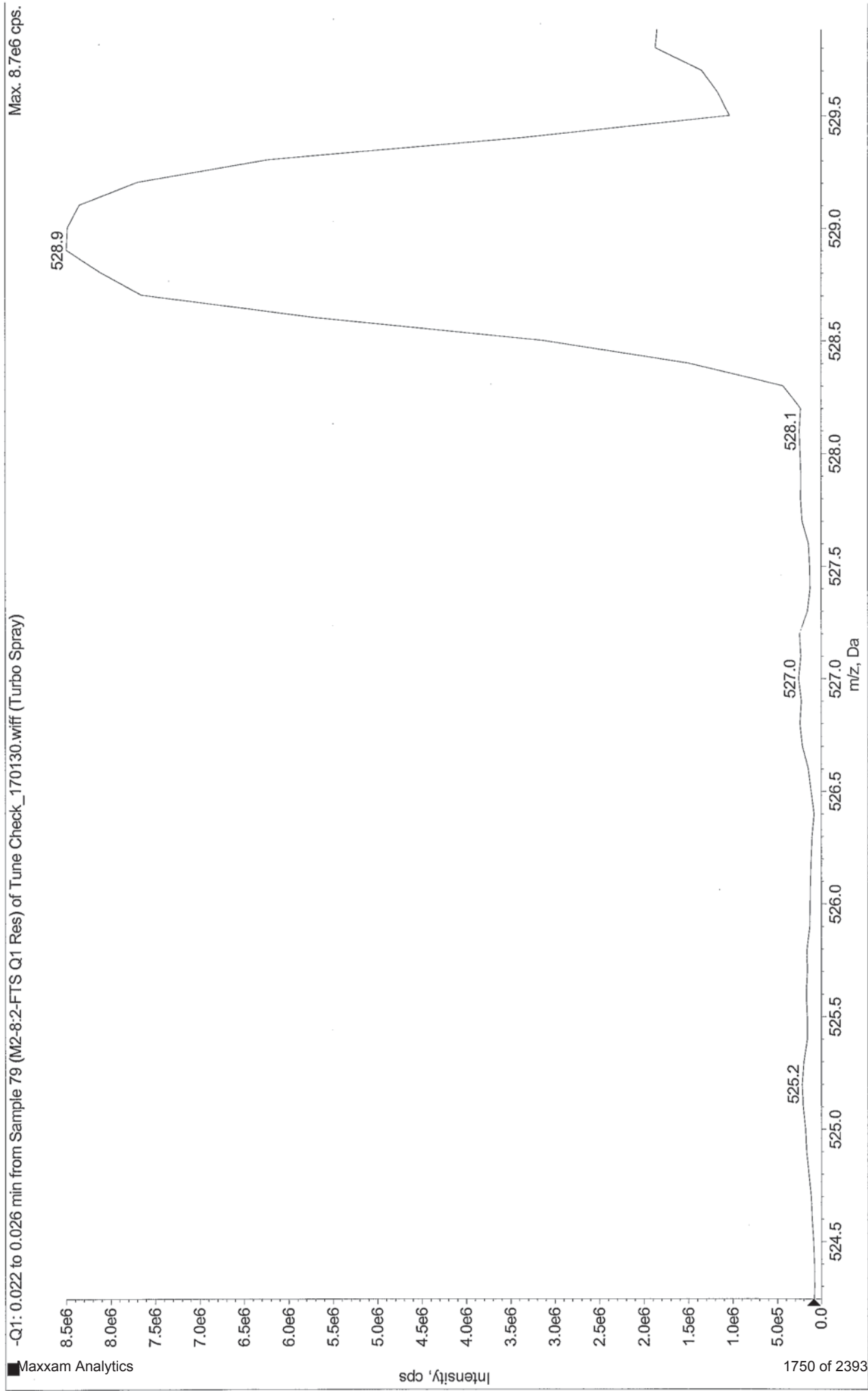
Max. 8.5e6 cps.

-Q1: 0.015 to 0.025 min from Sample 78 (M2-6:2-FTS Q1 Res) of Tune Check_170130.wiff (Turbo Spray)



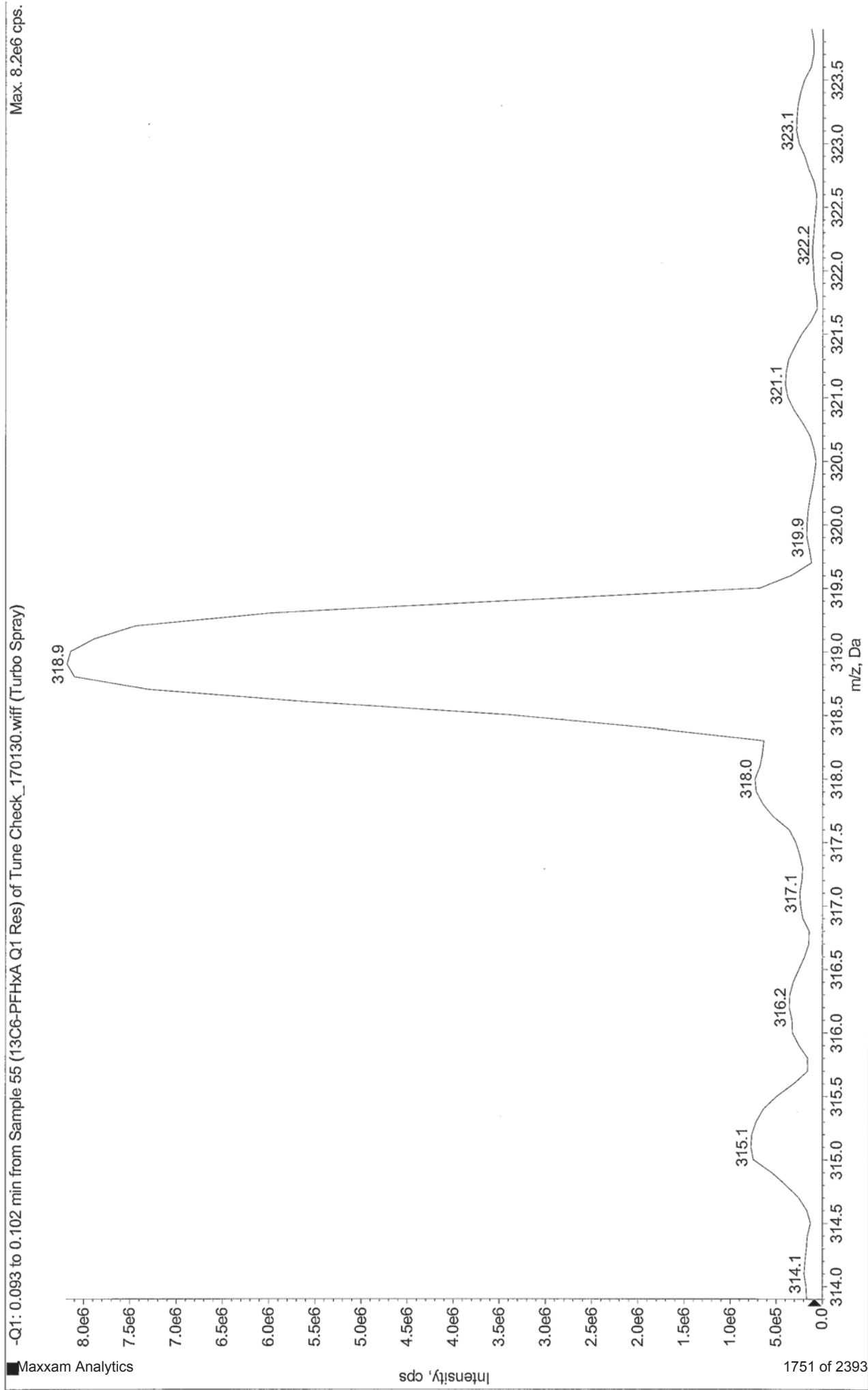
-Q1: 0.022 to 0.026 min from Sample 79 (M2-8:2-FTS Q1 Res) of Tune Check_170130.wiff (Turbo Spray)

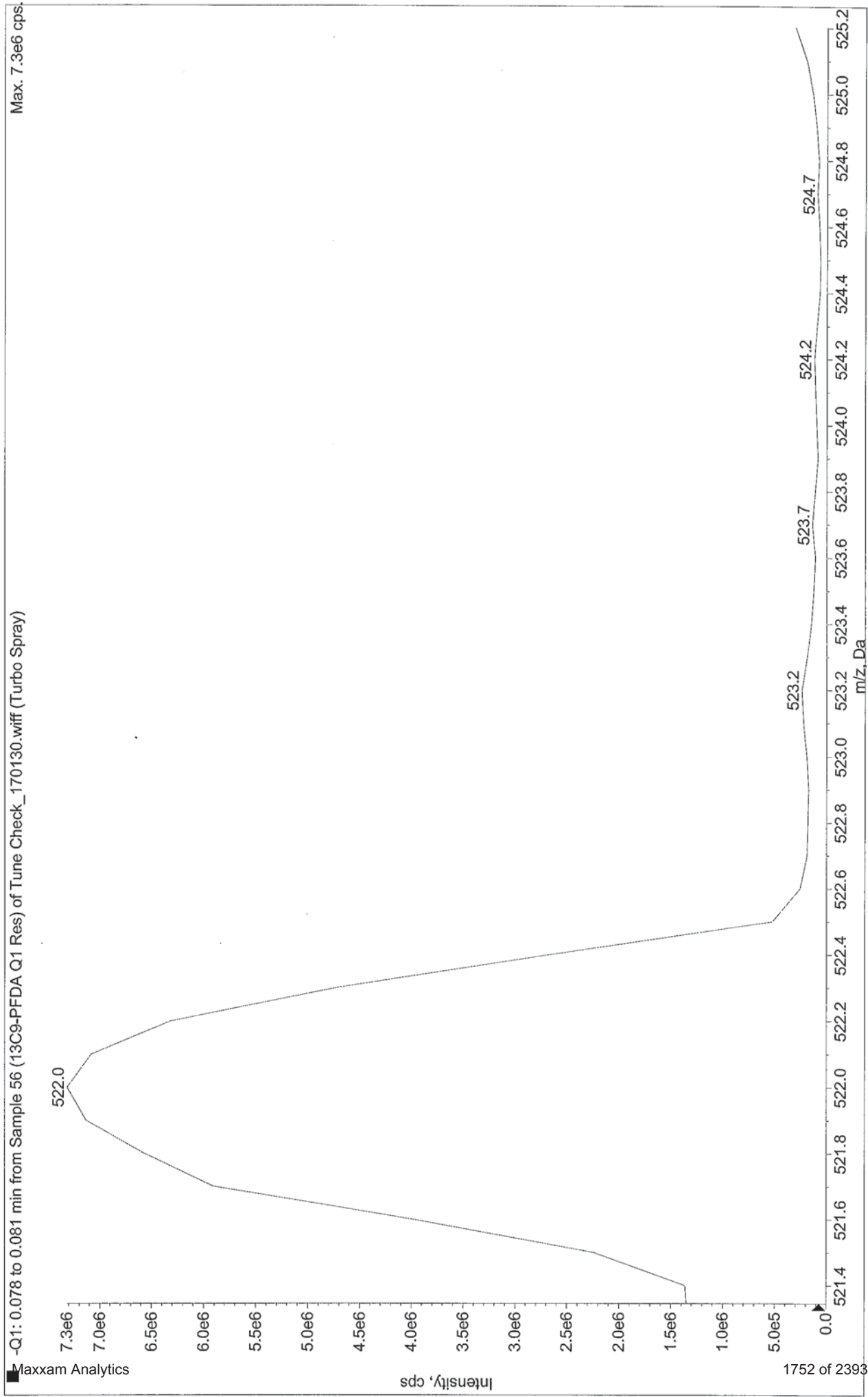
Max. 8.7e6 cps.



-Q1: 0.093 to 0.102 min from Sample 55 (13C6-PFHxA Q1 Res) of Tune Check_170130.wiff (Turbo Spray)

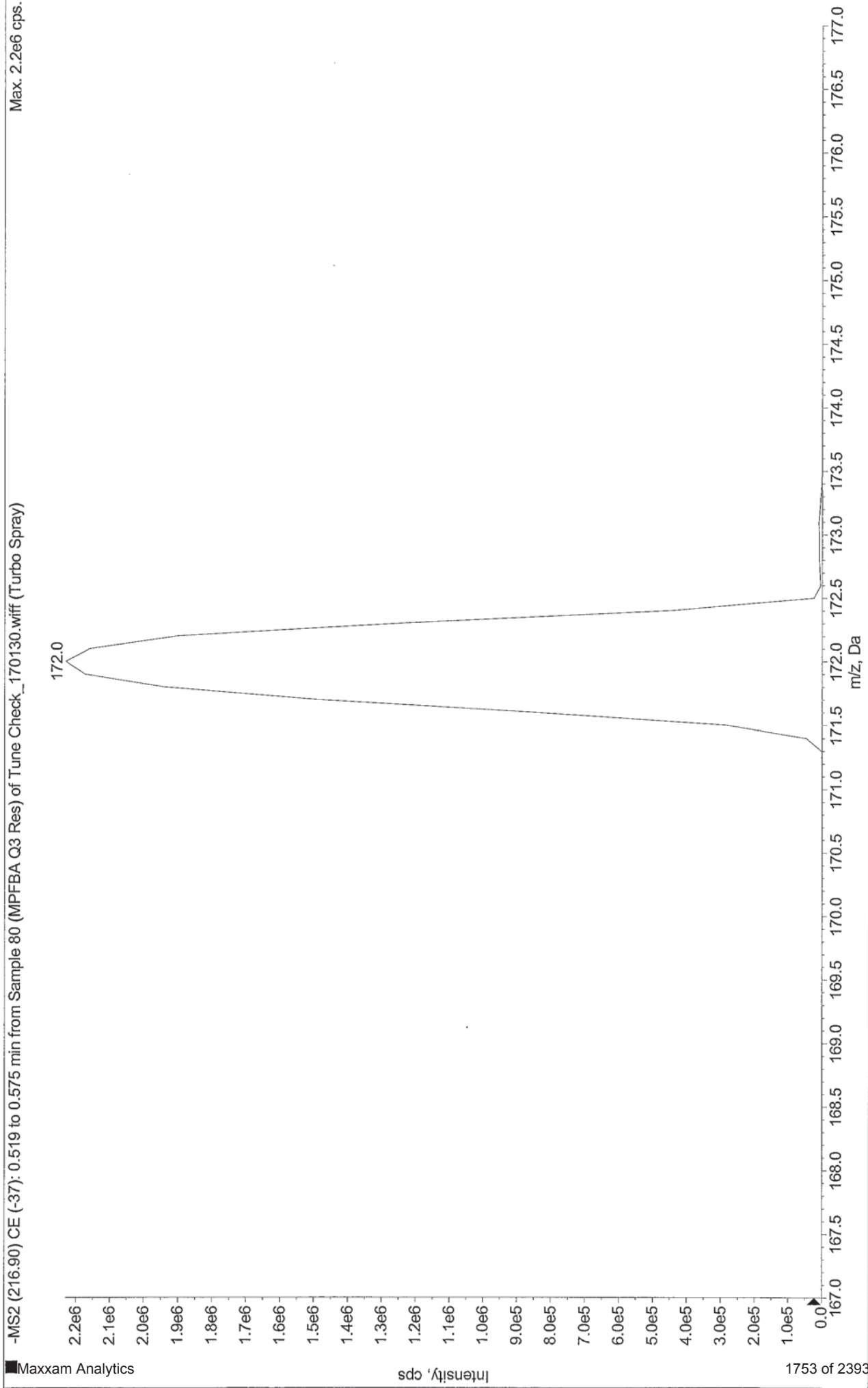
Max. 8.2e6 cps.





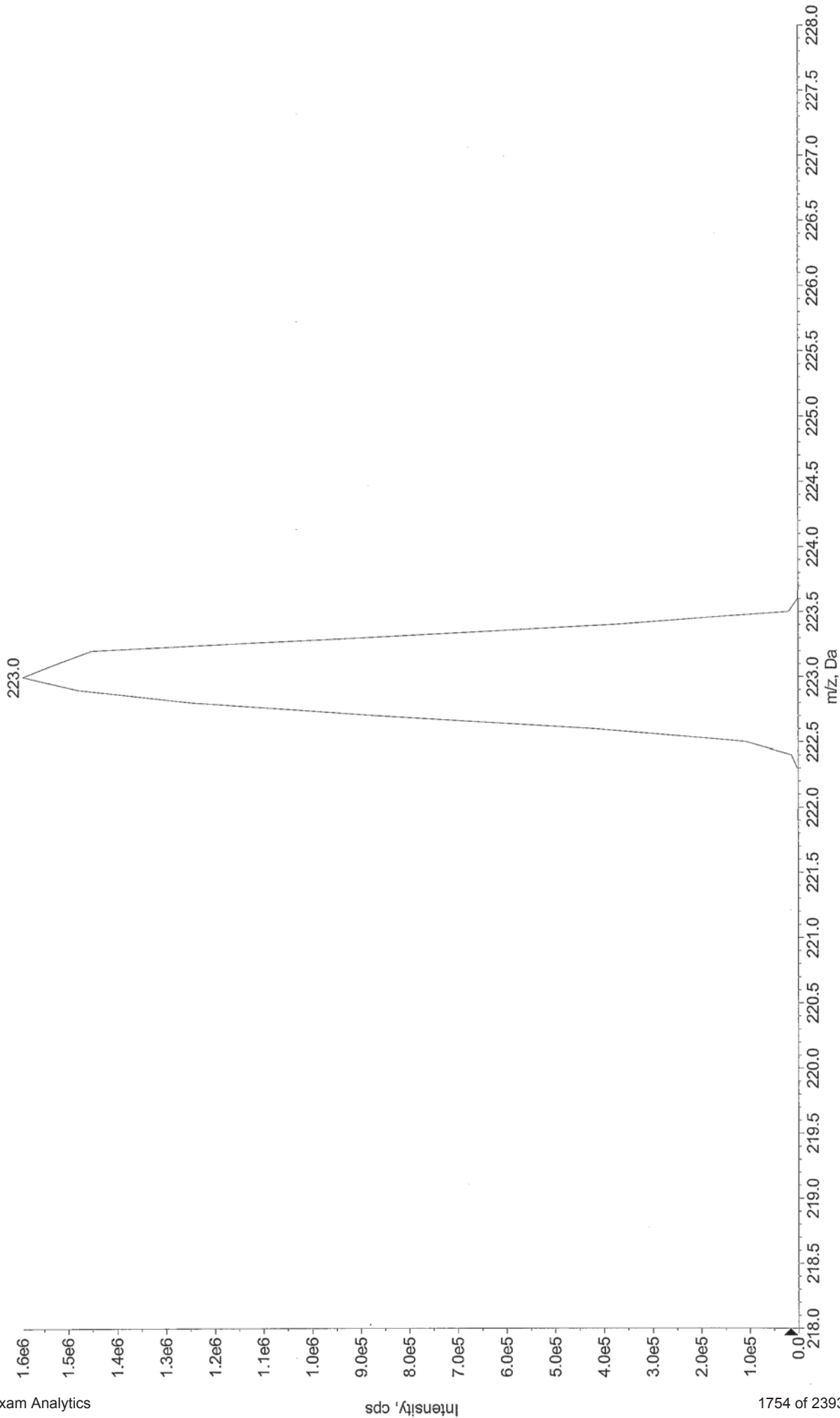
-MS2 (216.90) CE (-37): 0.519 to 0.575 min from Sample 80 (MPFBA Q3 Res) of Tune Check_170130.wiff (Turbo Spray)

Max. 2.2e6 cps.



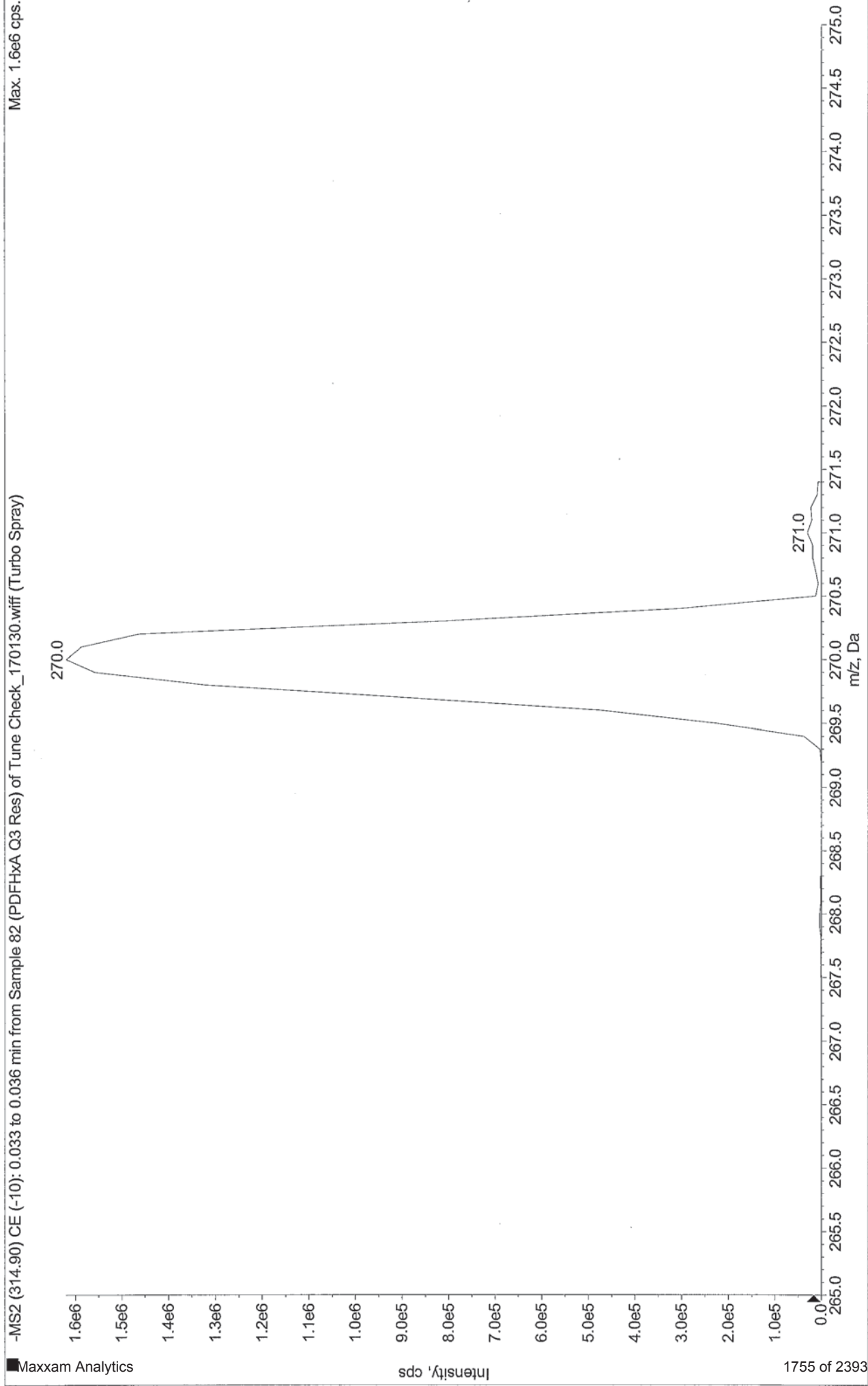
Maxxam Analytics
-MS2 (267.90) CE (-10): 0.036 to 0.040 min from Sample 81 (MPPeA Q3 Res) of Tune Check_170130.wiff (Turbo Spray)

Max. 1.6e6 cps.



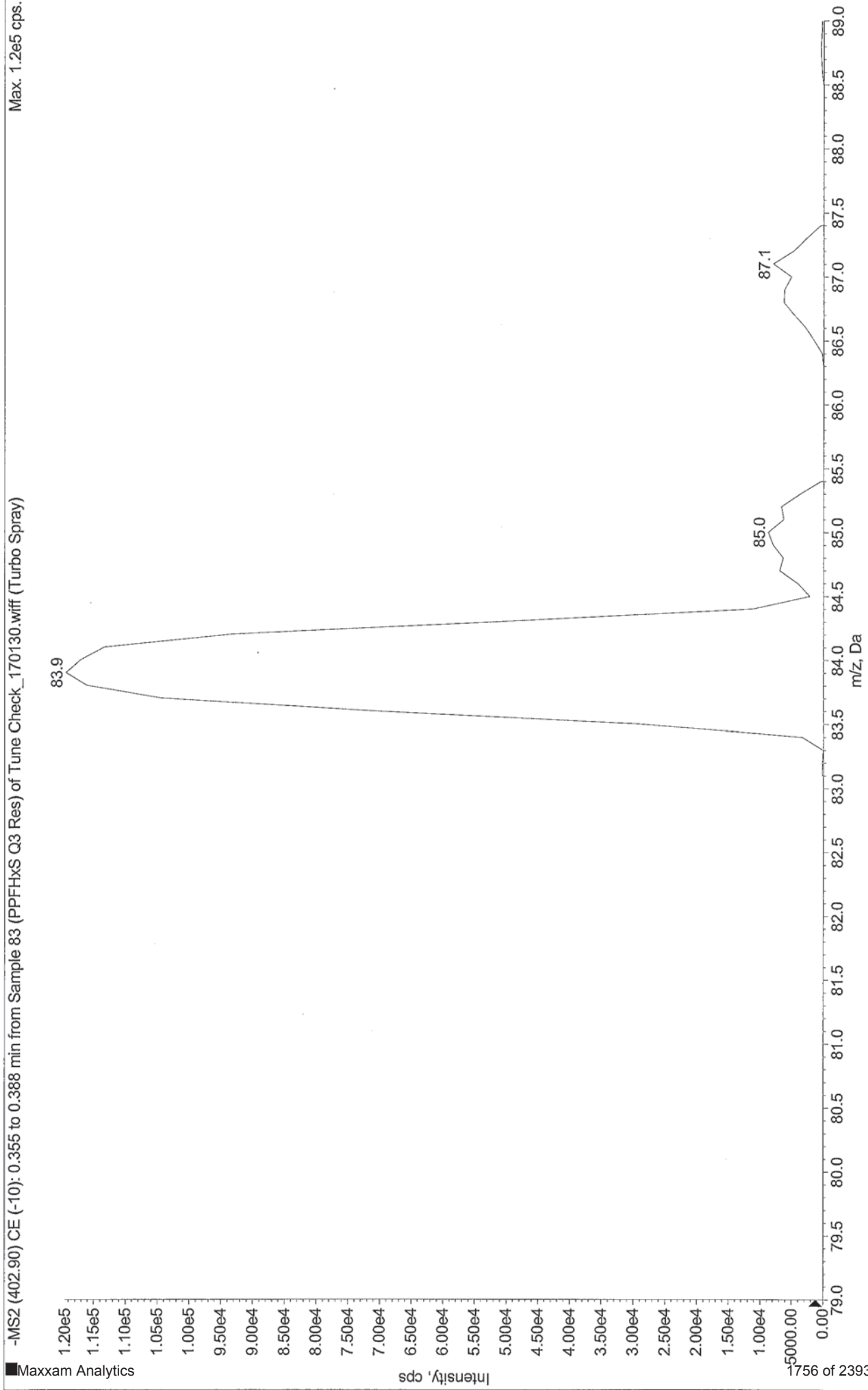
MS2 (314.90) CE (-10): 0.033 to 0.036 min from Sample 82 (PDFHxA Q3 Res) of Tune Check_170130.wiff (Turbo Spray)

Max. 1.6e6 cps.



-MS2 (402.90) CE (-10): 0.355 to 0.388 min from Sample 83 (PPFHxS Q3 Res) of Tune Check_170130.wiff (Turbo Spray)

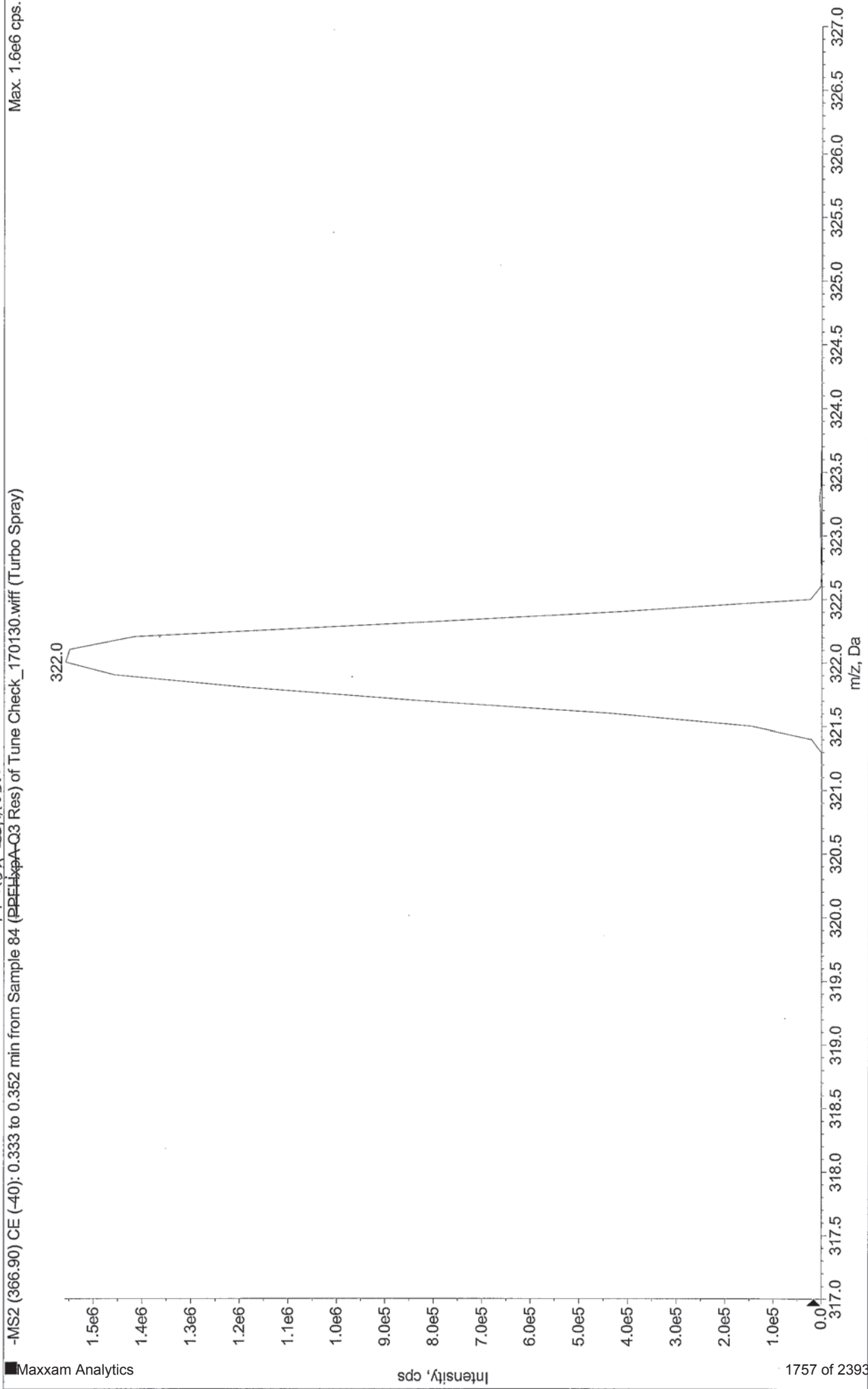
Max. 1.2e5 cps.



PE-H10A 5017103106

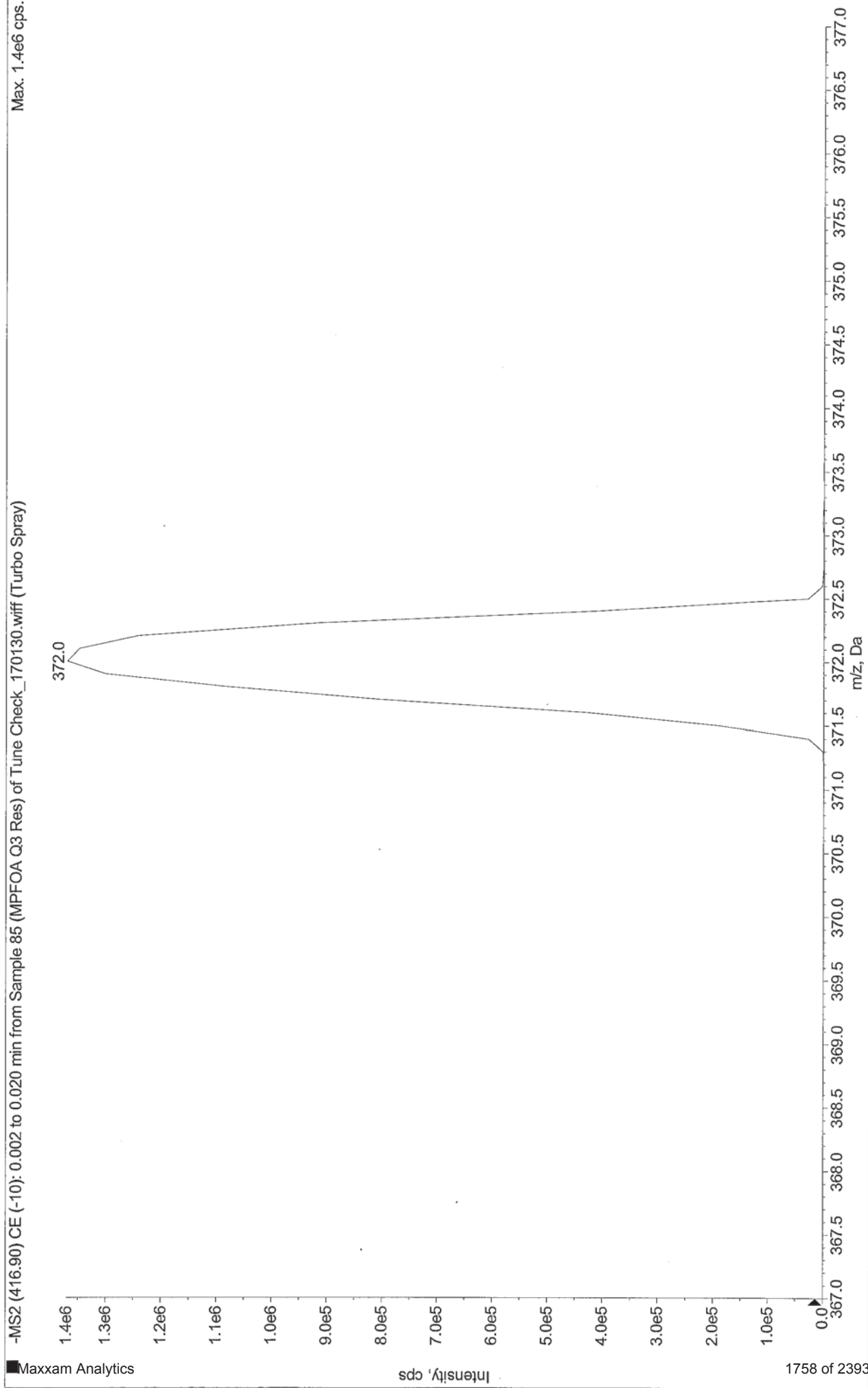
-MS2 (366.90) CE (-40): 0.333 to 0.352 min from Sample 84 (PE-H10A-Q3 Res) of Tune Check_170130.wiff (Turbo Spray)

Max. 1.6e6 cps.



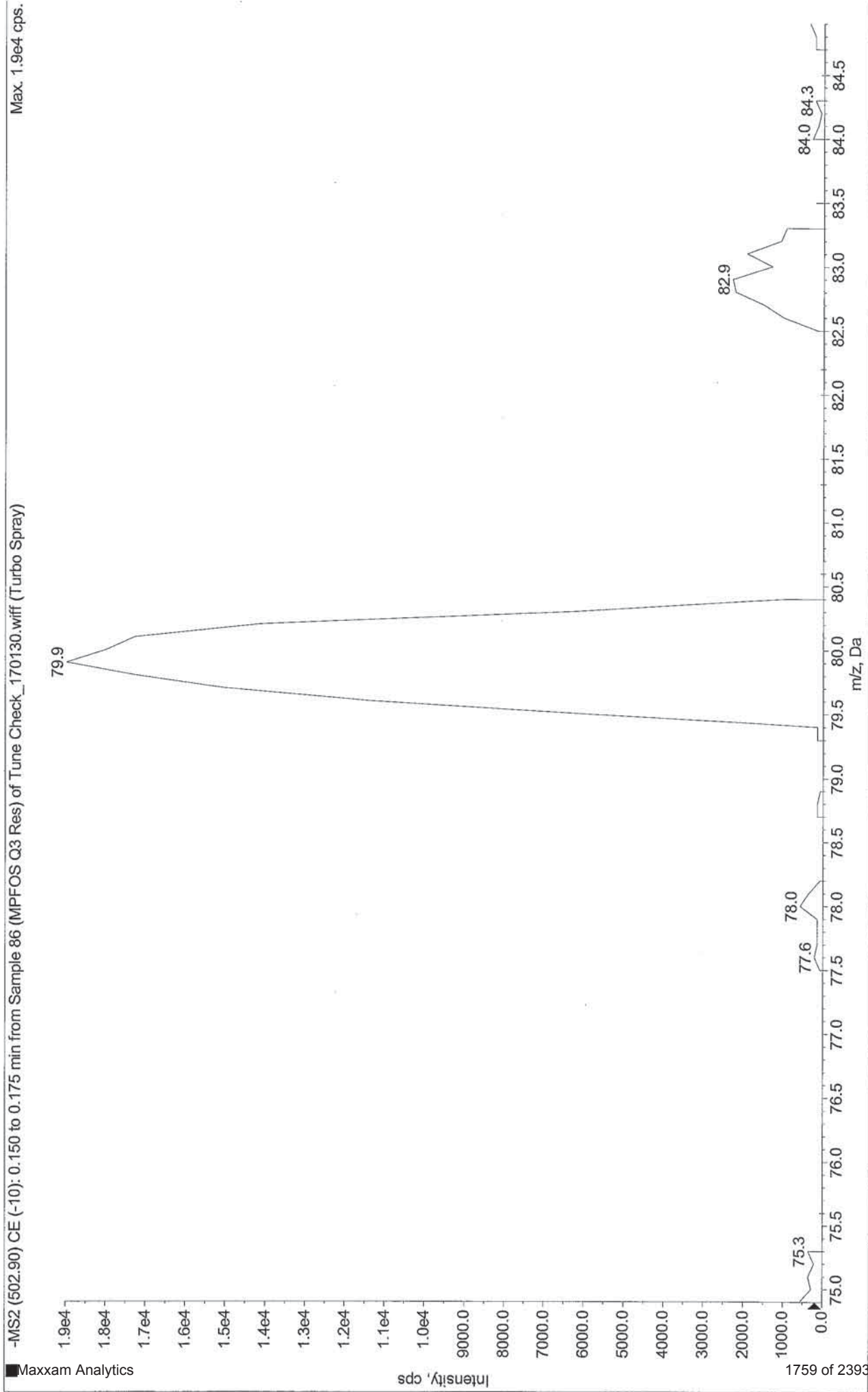
-MS2 (416.90) CE (-10): 0.002 to 0.020 min from Sample 85 (MPFOA Q3 Res) of Tune Check_170130.wiff (Turbo Spray)

Max. 1.4e6 cps.



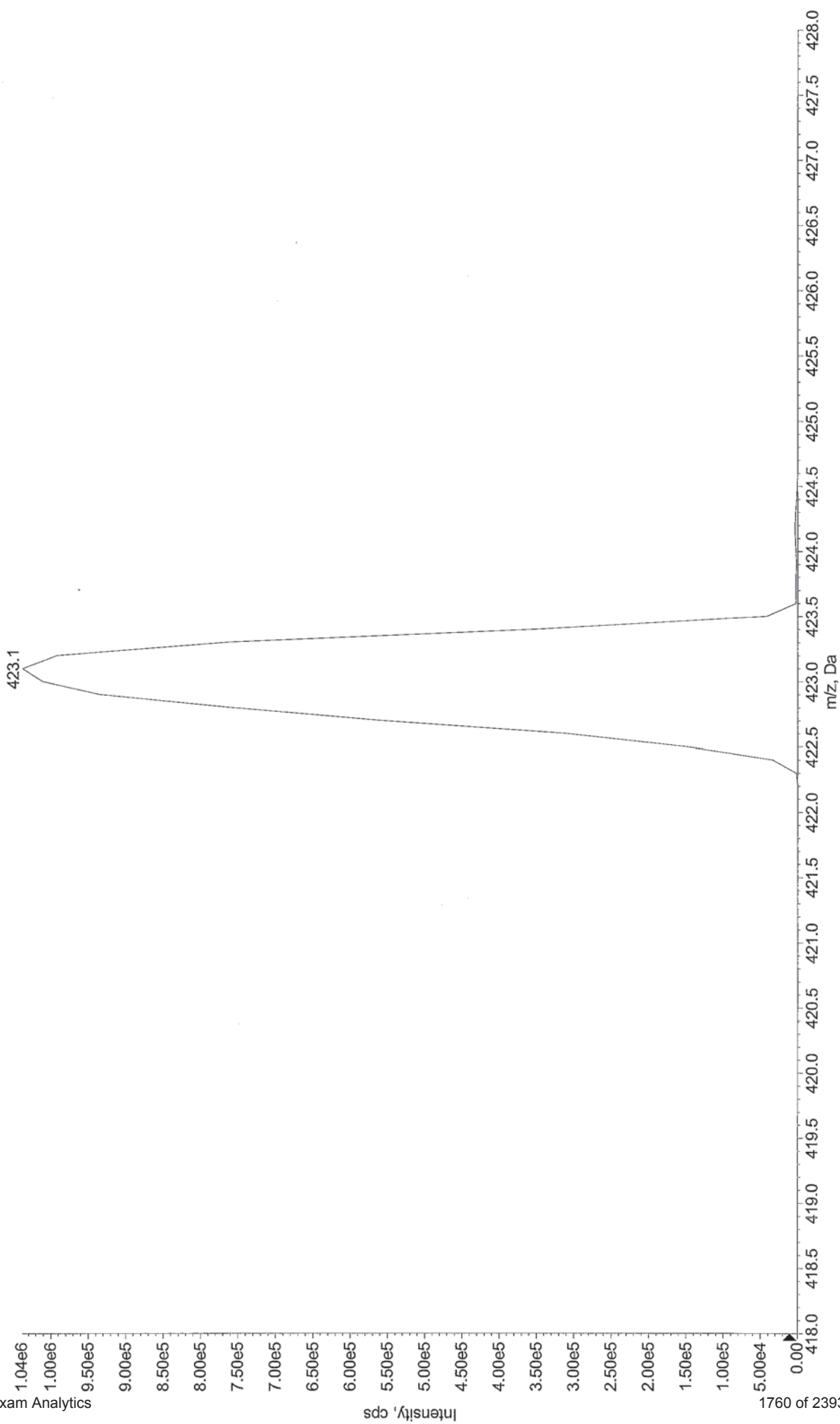
-MS2 (502.90) CE (-10): 0.150 to 0.175 min from Sample 86 (MPFOS Q3 Res) of Tune Check_170130.wiff (Turbo Spray)

Max. 1.9e4 cps.



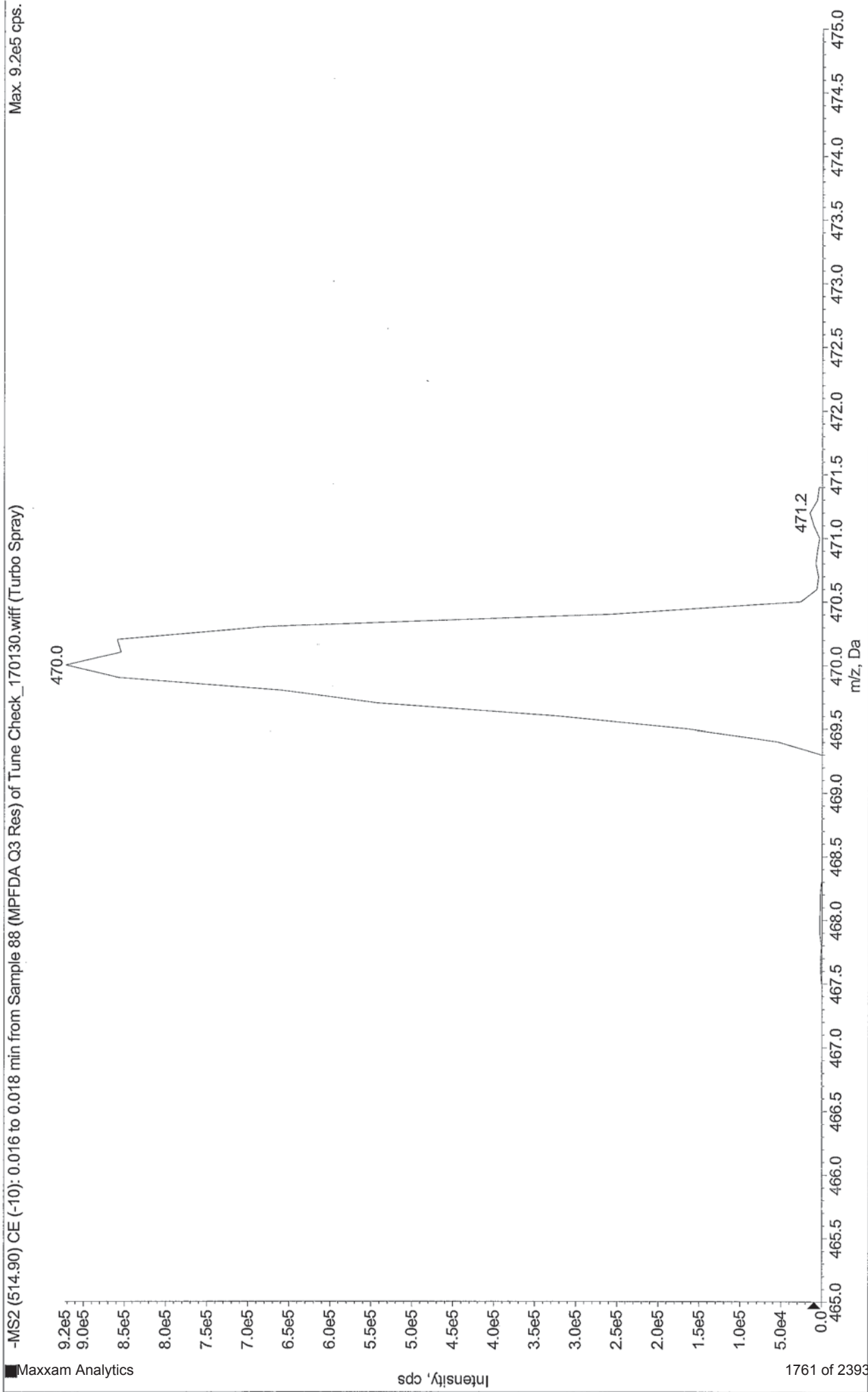
Maxxam Analytics
-MS2 (467.90) CE (-40): 0.230 to 0.280 min from Sample 87 (MPFNA Q3 Res) of Tune Check_170130.wiff (Turbo Spray)

Max. 1.0e6 cps.



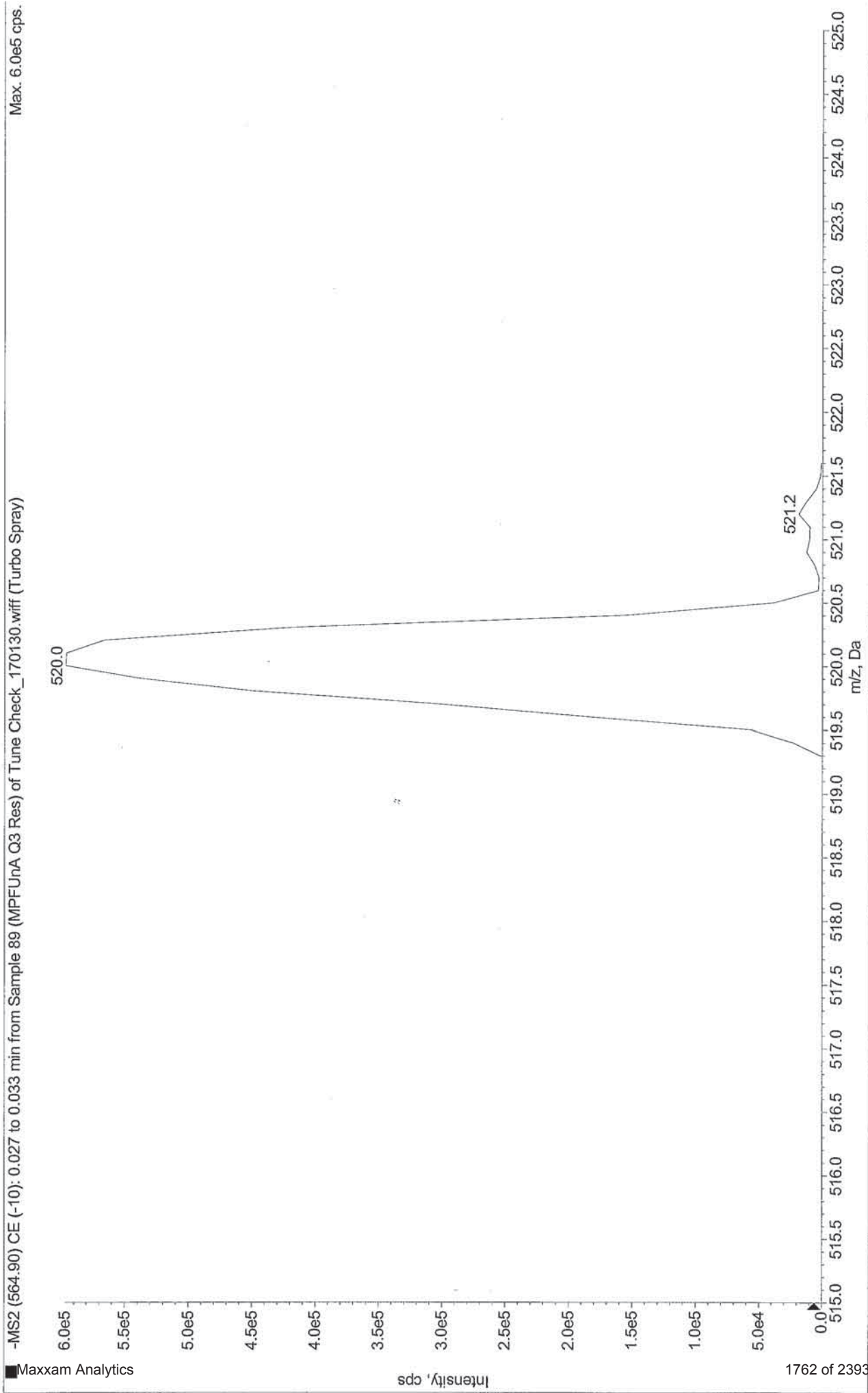
-MS2 (514.90) CE (-10): 0.016 to 0.018 min from Sample 88 (MPFDA Q3 Res) of Tune Check_170130.wiff (Turbo Spray)

Max 9.2e5 cps.



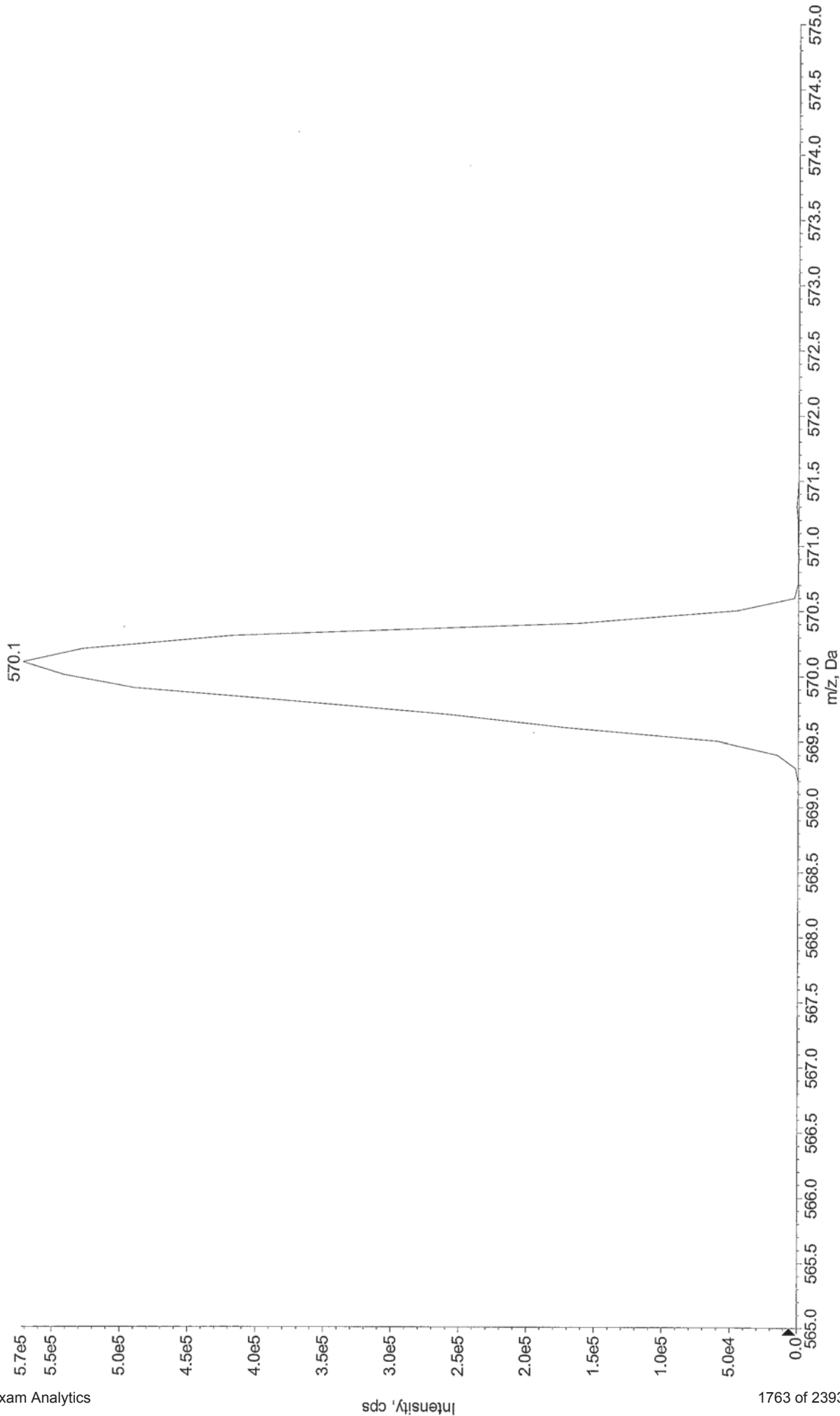
-MS2 (564.90) CE (-10): 0.027 to 0.033 min from Sample 89 (MPFUnA Q3 Res) of Tune Check_170130.wiff (Turbo Spray)

Max. 6.0e5 cps.



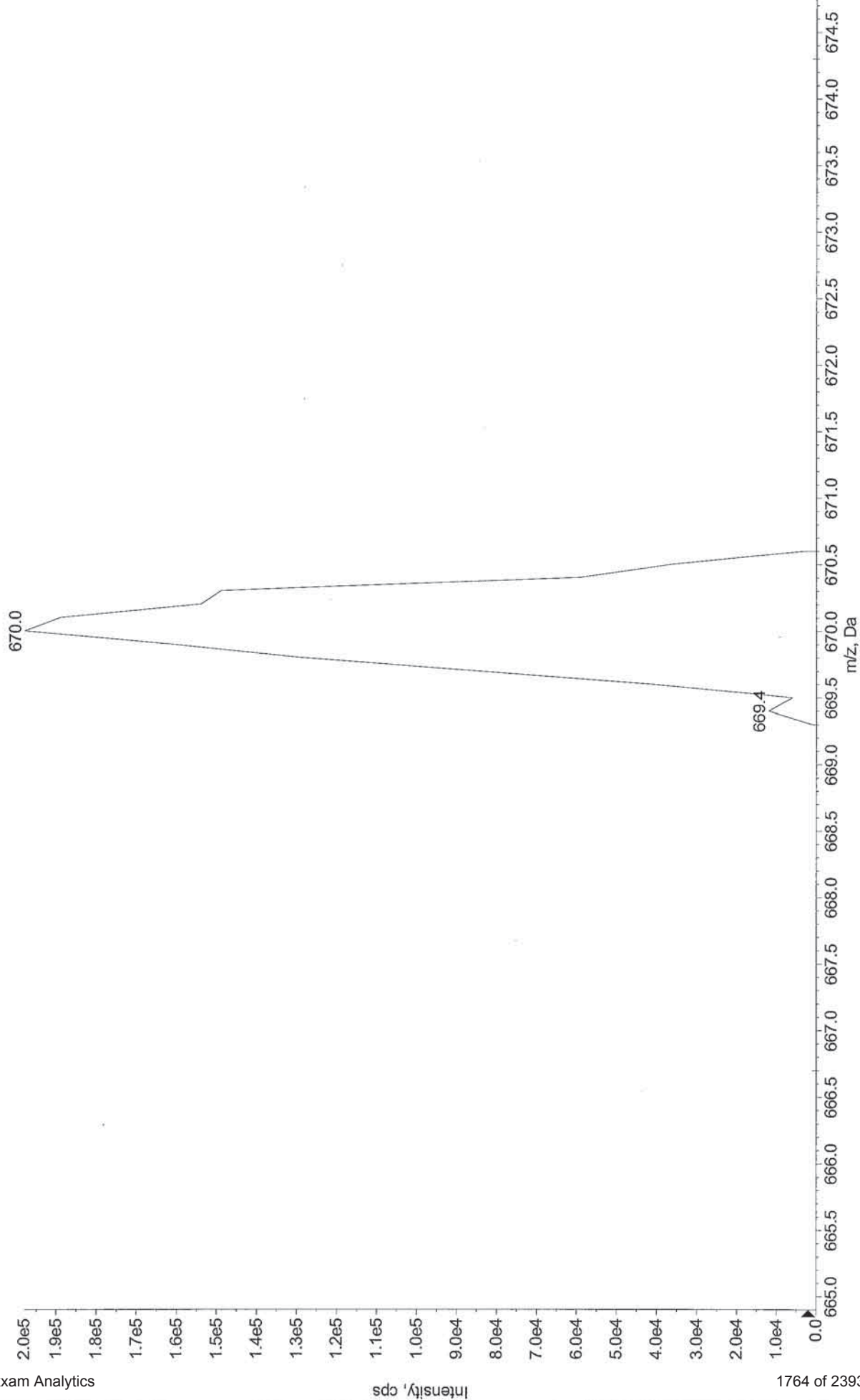
Maxxam Analytics
-MS2 (614.90) CE (-10): 0.032 to 0.044 min from Sample 90 (MPFDoA Q3 Res) of Tune Check_170130.wiff (Turbo Spray)

Max. 5.7e5 cps.



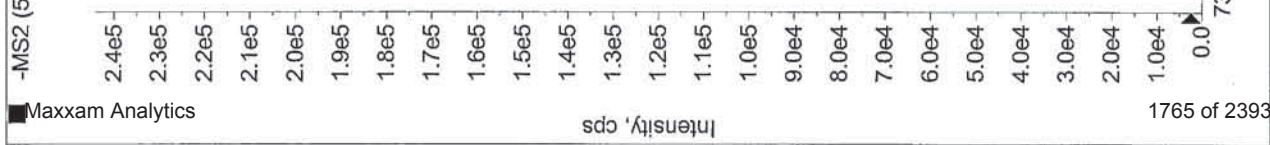
Maxxam Analytics
-MS2 (714.90) CE (-10): 0.039 to 0.040 min from Sample 91 (MPFTeDA Q3 Res) of Tune Check_170130.wiff (Turbo Spray)

Max. 2.0e5 cps.



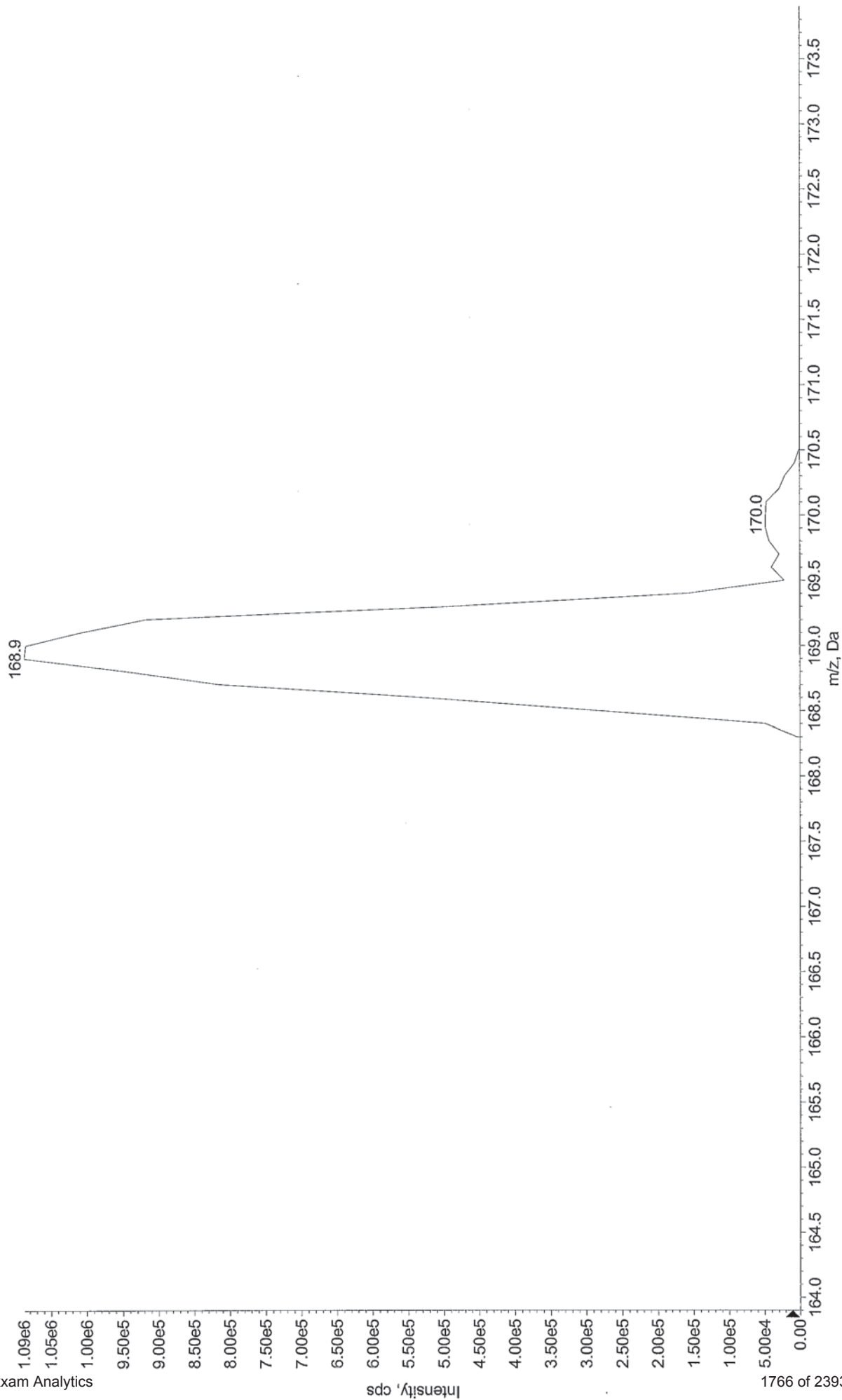
-MS2 (505.80) CE (-10): 0.366 to 0.393 min from Sample 92 (MPFOSA Q3 Res) of Tune Check_170130.wiff (Turbo Spray)

Max. 2.4e5 cps.



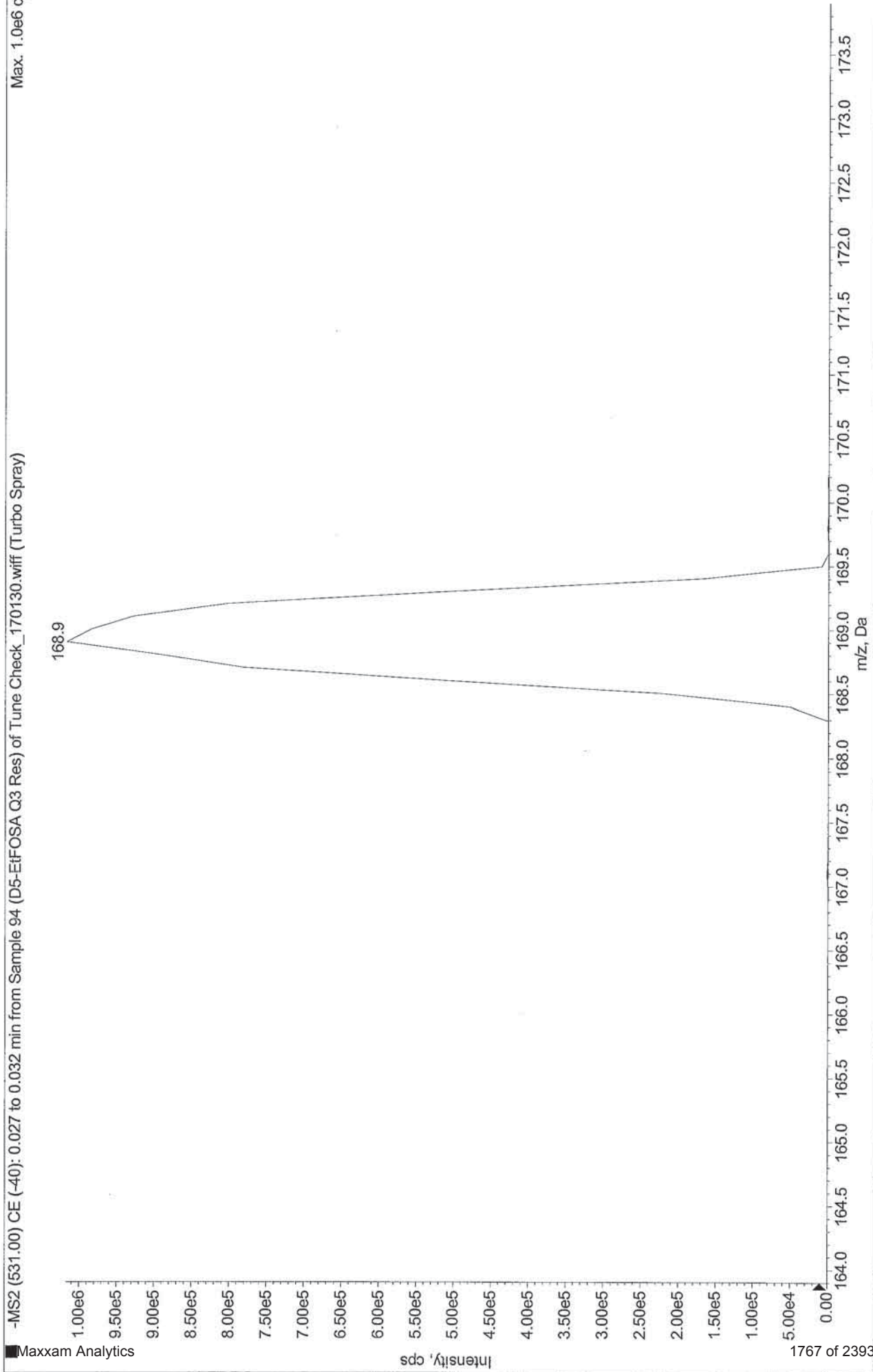
Maxxam Analytics -MS2 (514.96) CE (-40): 0.031 to 0.032 min from Sample 93 (D3-MeFOSA Q3 Res) of Tune Check_170130.wiff (Turbo Spray)

Max. 1.1e6 cps.



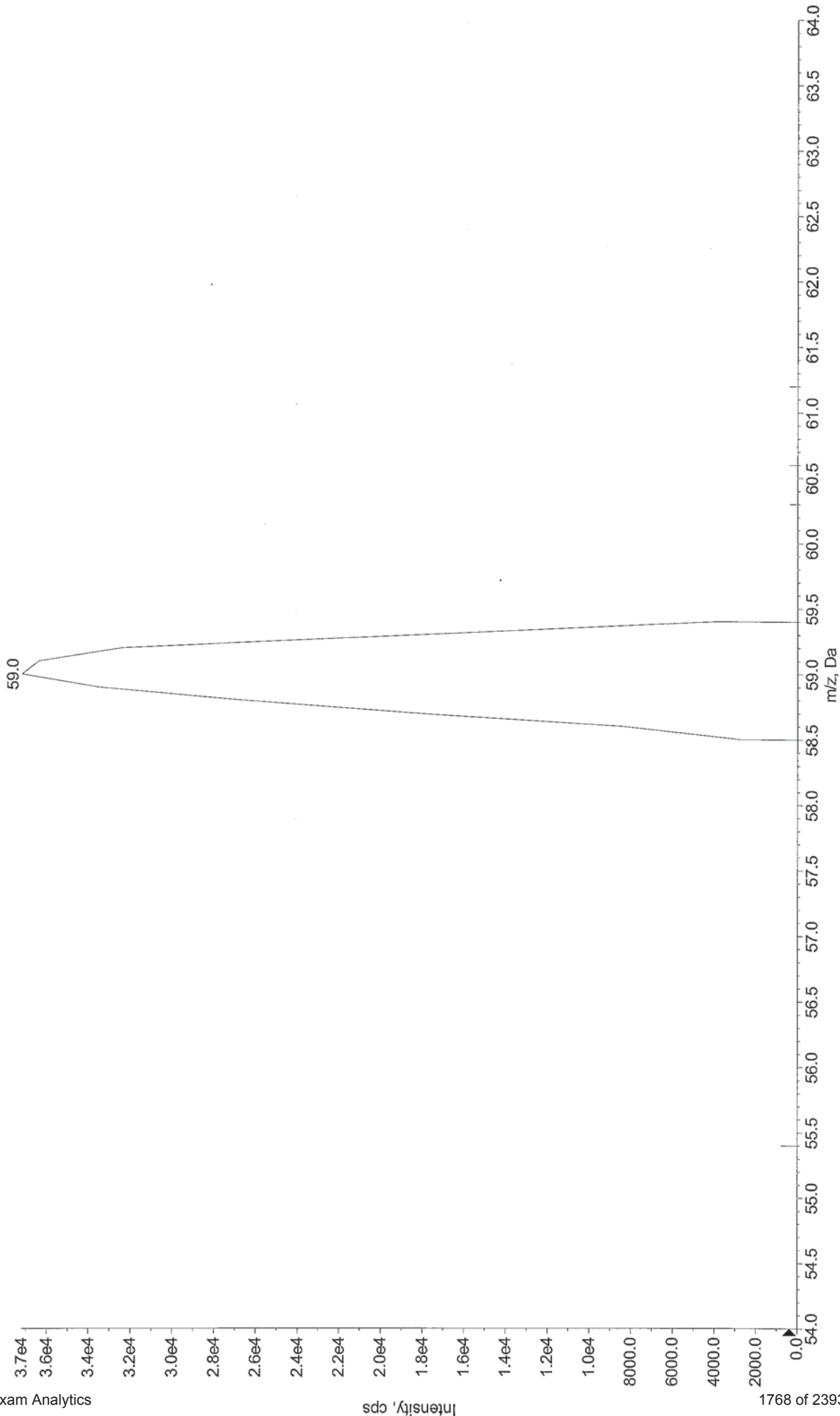
-MS2 (531.00) CE (-40): 0.027 to 0.032 min from Sample 94 (D5-EtFOSA Q3 Res) of Tune Check_170130.wiff (Turbo Spray)

Max. 1.0e6 cps.



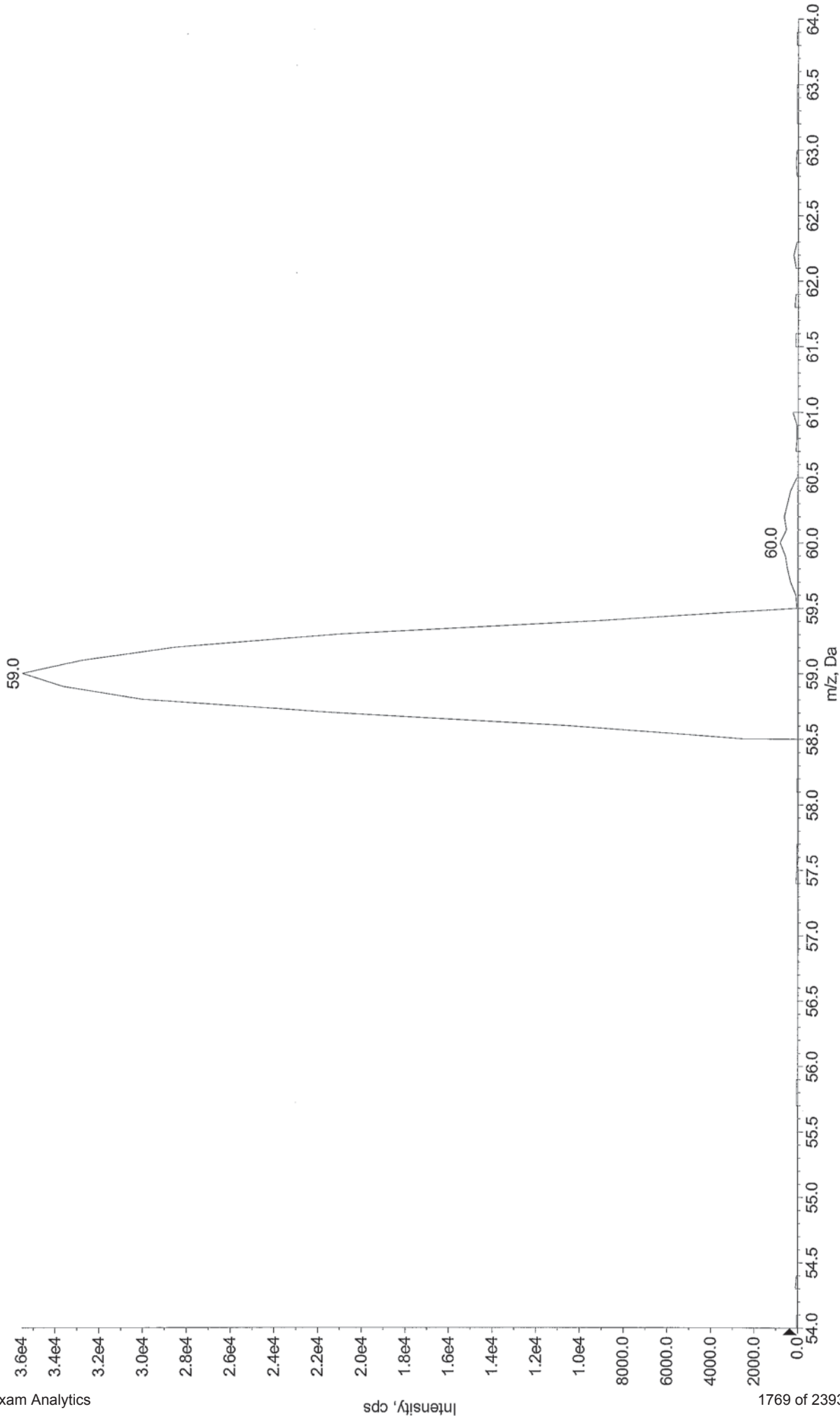
Maxxam Analytics
-MS2 (623.10) CE (-40): 0.030 to 0.033 min from Sample 95 (D7-MeFOSE Q3 Res) of Tune Check_170130.wiff (Turbo Spray)

Max. 3.7e4 cps.



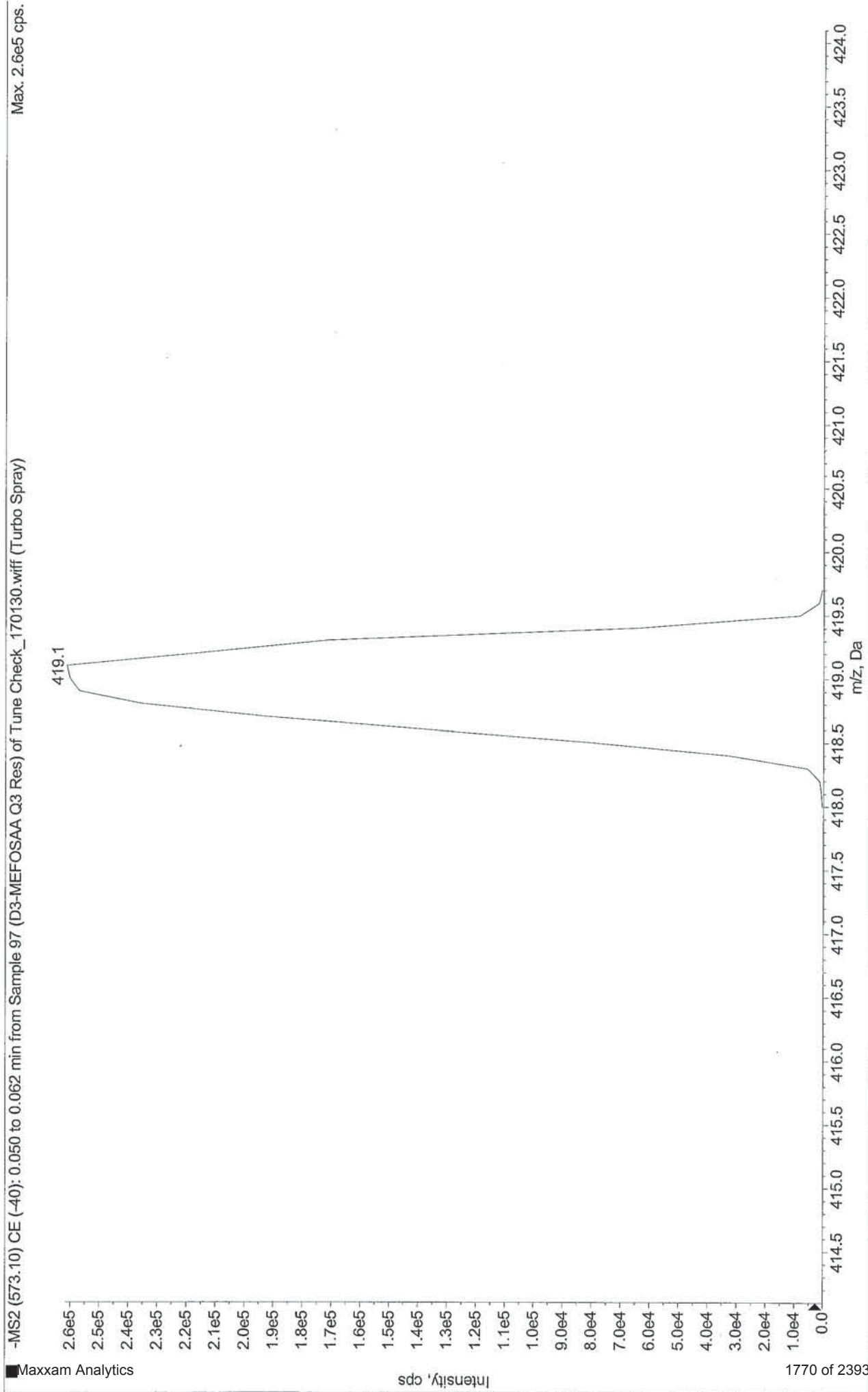
Maxxam Analytics
-MS2 (639.10) CE (-40): 0.020 to 0.058 min from Sample 96 (D9-EtFOSE Q3 Res) of Tune Check_170130.wiff (Turbo Spray)

Max. 3.6e4 cps.



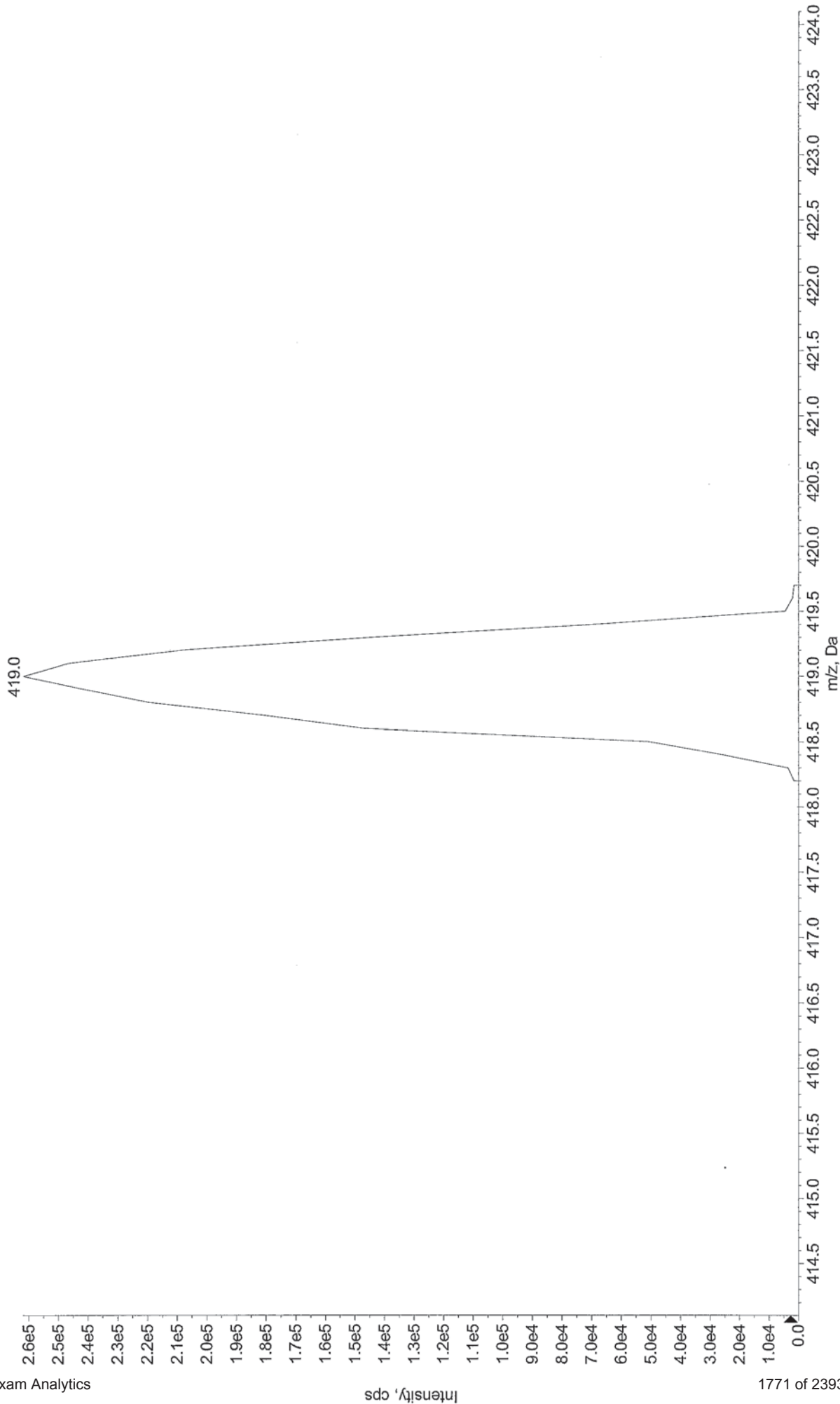
-MS2 (573.10) CE (-40): 0.050 to 0.062 min from Sample 97 (D3-MEFOSAA Q3 Res) of Tune Check_170130.wiff (Turbo Spray)

Max. 2.6e5 cps.



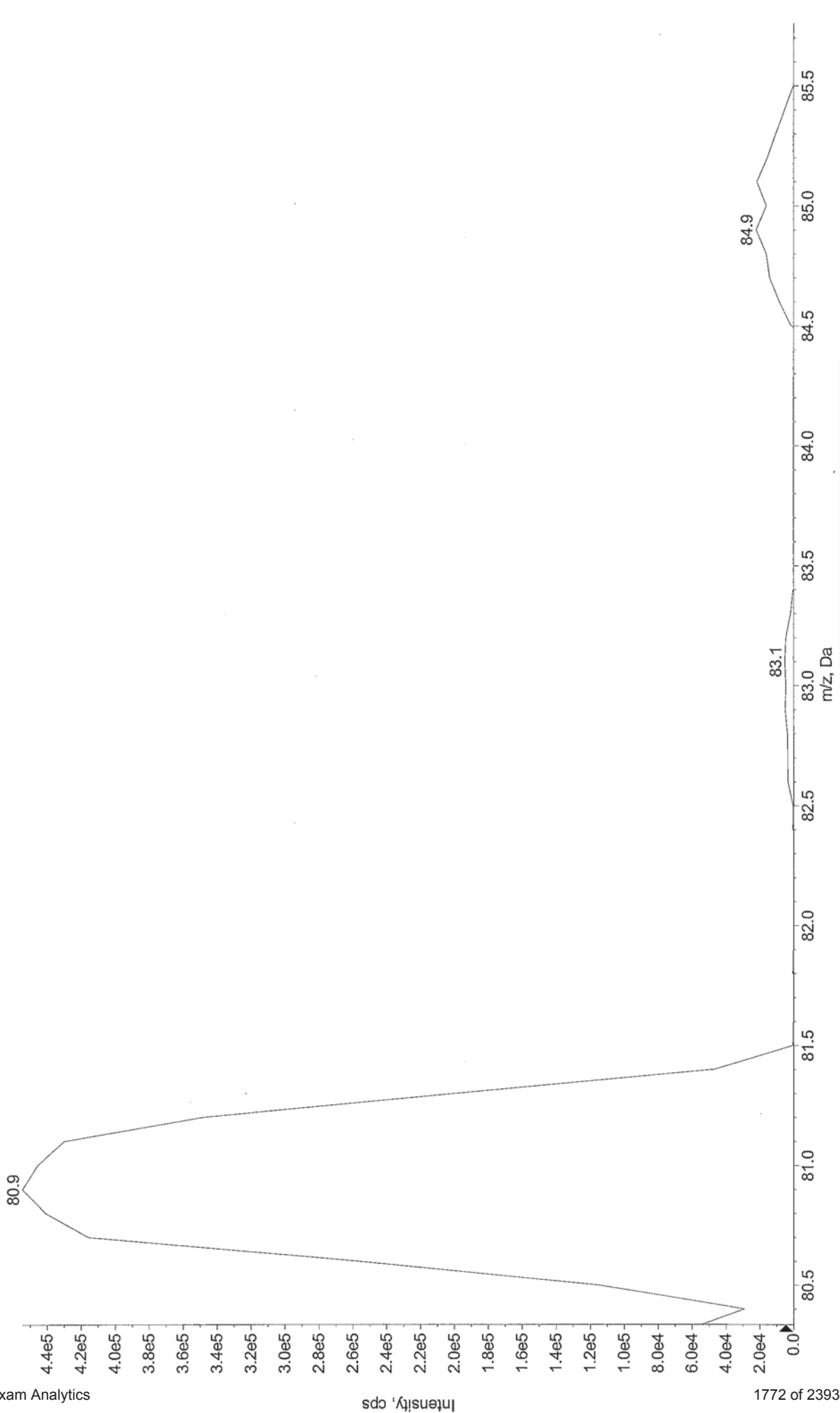
Maxxam Analytics -MS2 (589.20) CE (-40): 0.040 to 0.043 min from Sample 98 (D5-EtFOSAA Q3 Res) of Tune Check_170130.wiff (Turbo Spray)

Max. 2.6e5 cps.



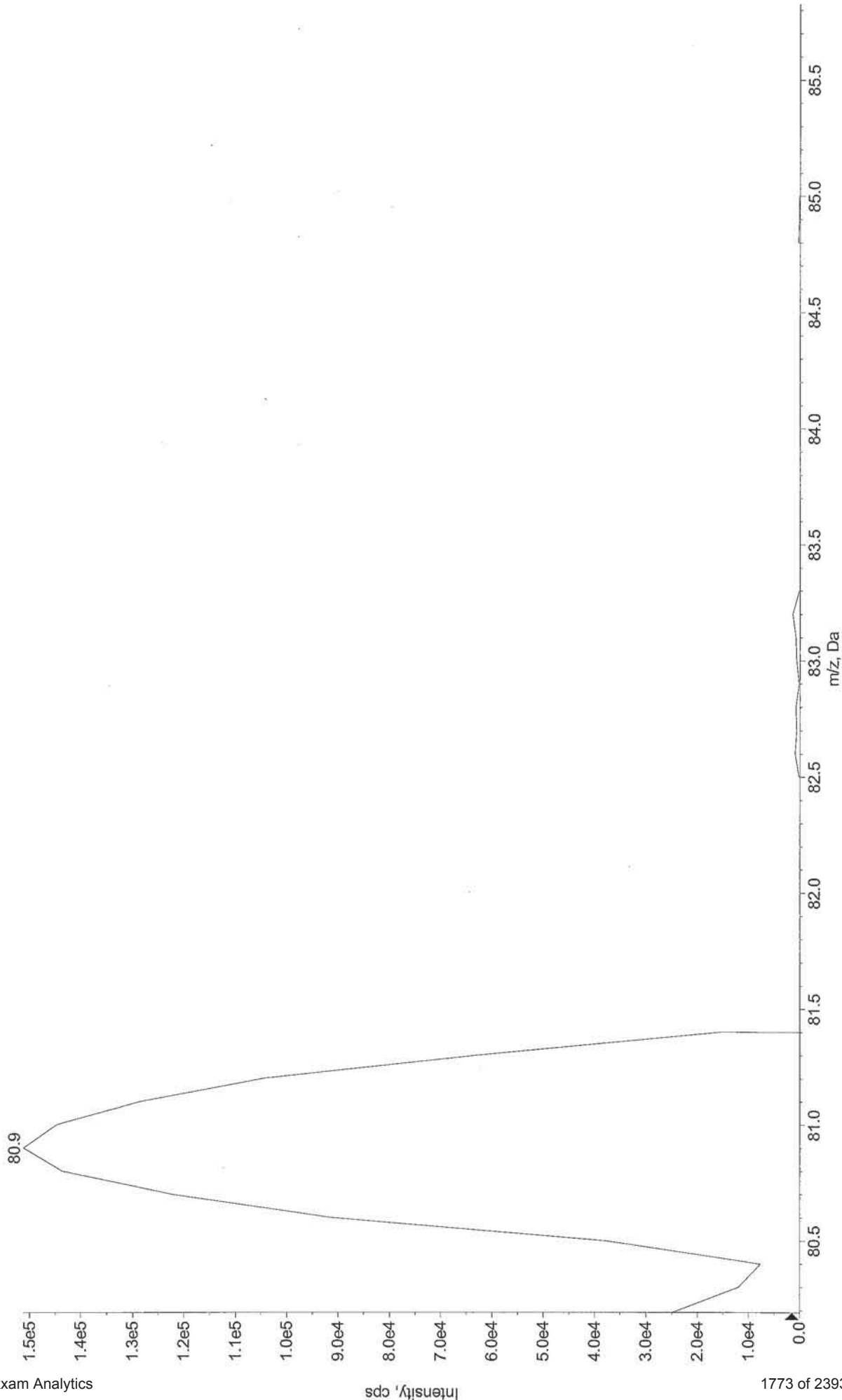
Maxxam Analytics
-MS2 (429.00) CE (-40): 0.023 to 0.034 min from Sample 99 (M2-6:2-FTS Q3 Res) of Tune Check_170130.wiff (Turbo Spray)

Max. 4.5e5 cps.



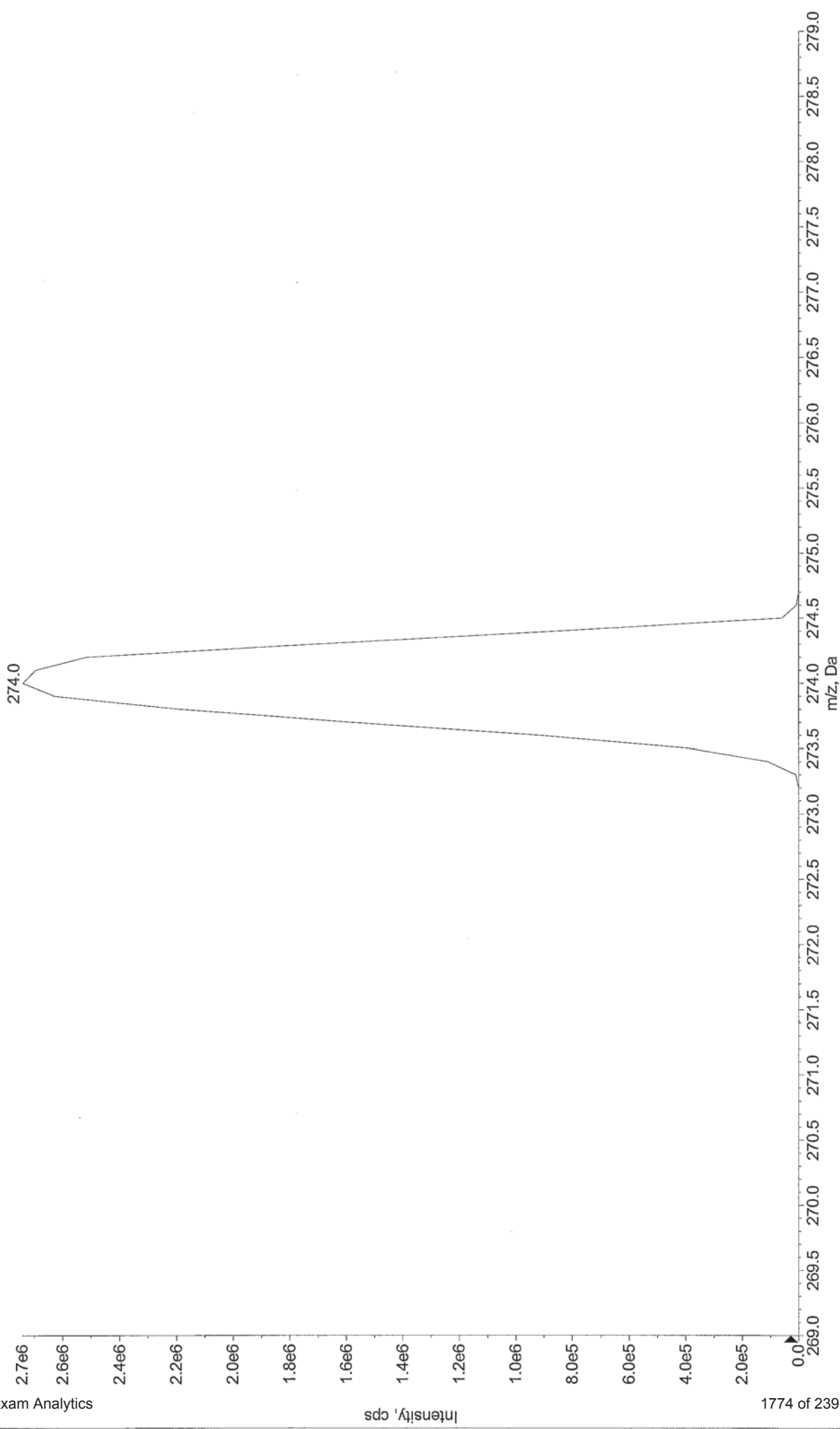
Maxxam Analytics

Max. 1.5e5 cps.

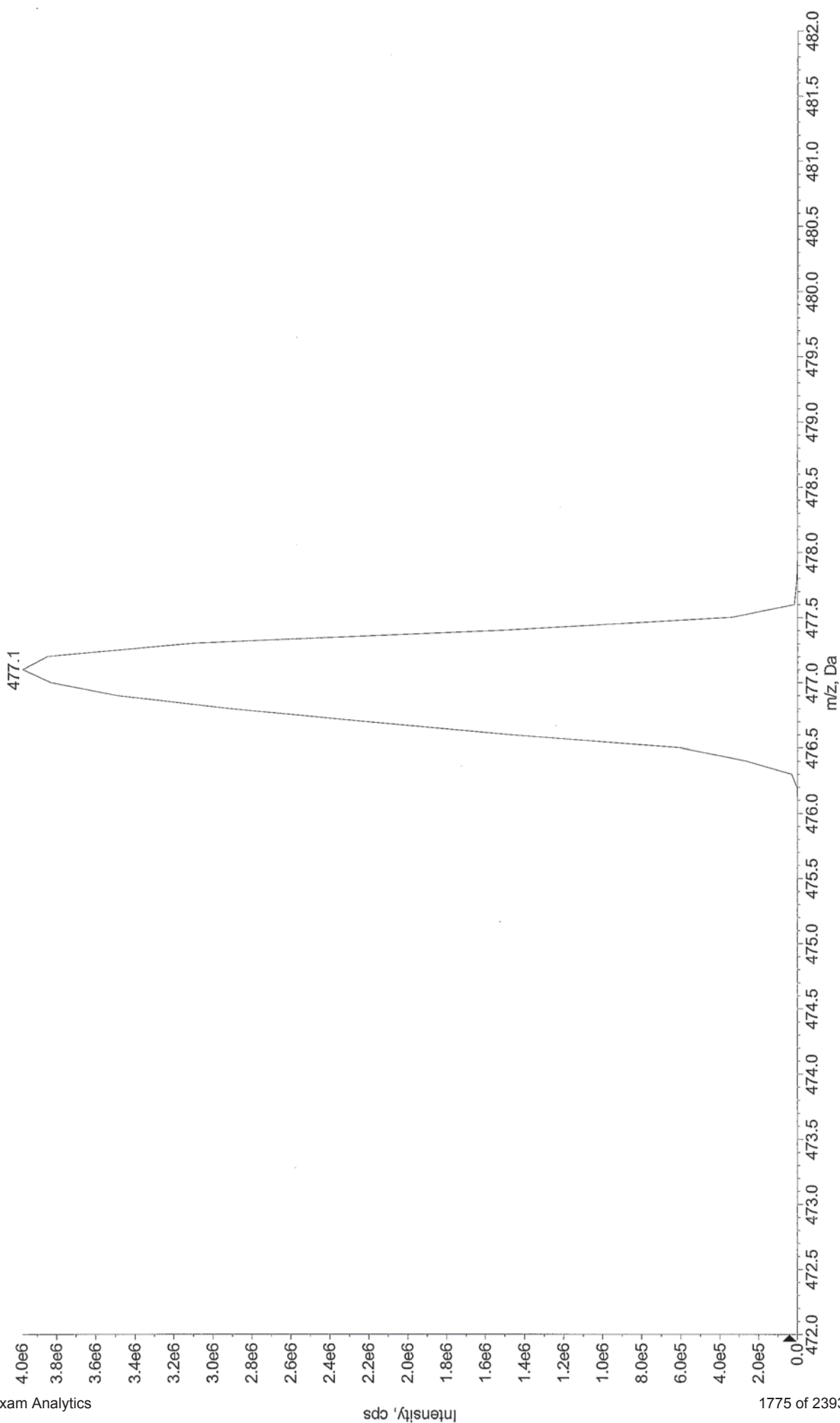


Maxxam Analytics
-MS2 (318.90) CE (-37): 0.458 to 0.499 min from Sample 57 (13C6-PFHxA Q3 Res) of Tune Check_170130.wiff (Turbo Spray)

Max. 2.7e6 cps.



Maxxam Analytics
-MS2 (521.90) CE (-17): 0.022 to 0.039 min from Sample 58 (13C9-PFDA Q3 Res) of Tune Check_170130.wiff (Turbo Spray) Max. 4.0e6 cps.





5. Initial Calibration

Maxxam Analytics International
6740 Campobello Rd
Mississauga, Ontario, Canada
L5N 2L8
1-800-668-0639
www.maxxamanalytics.com

Batch Path

T:\lcms4\PFC\20170524\WS#4990811\QuantResults\PFC_Soil_170524_WS#4990811_CTLabs14

Sample Name

STD 1

Instrument

LCMS04

Data File

WS#4990811_06.d

Operator

AD

Sample Type

Cal

Dilution

1

Acq. Method

PFC_Soil.m

Position

P2-A2

Acq. Date

2017/05/24 8:42:18 PM

Injection Volume

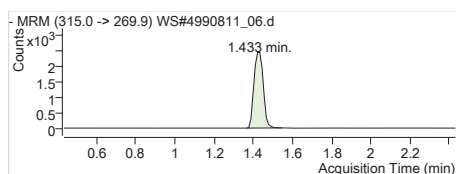
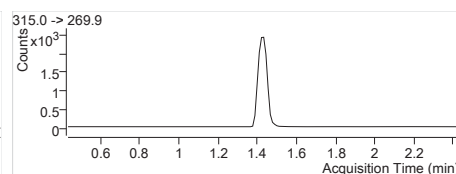
Per Method

Sample Annotation

-

ISTD Compounds	Response	RT	Target conc.		
MPFHxA	7878	1.43	1 µg/Kg		
MPFHxS	1416	1.69	1 µg/Kg		
MPFHpA	8948	1.69	1 µg/Kg		
MPFOA	8429	1.87	1 µg/Kg		
MPFOS	1768	1.98	1 µg/Kg		
MPFNA	8421	2.01	1 µg/Kg		
MPFDA	7078	2.13	1 µg/Kg		
MPFUnA	8564	2.22	1 µg/Kg		
MPFDoA	9244	2.31	1 µg/Kg		
MPFTeDA	11559	2.46	1 µg/Kg		
M2 6:2 FTS	2084	1.83	1 µg/Kg		
M2 8:2 FTS	2120	2.10	1 µg/Kg		
13C6-PFHxA IS	39552	1.42	1 µg/Kg		
13C9-PFDA IS	36034	2.12	1 µg/Kg		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	629	1.10	0.75	0.80 µg/Kg	106.76
PFHxA 1	2829	1.43	0.75	0.79 µg/Kg	105.60
PFHxS 1	500	1.69	0.75	0.80 µg/Kg	106.71
PFHpA 1	3134	1.69	0.75	0.83 µg/Kg	110.27
PFOA 1	3054	1.87	0.75	0.79 µg/Kg	104.77
PFOS 1	528	1.97	0.75	0.76 µg/Kg	100.91
PFNA 1	2779	2.01	0.75	0.79 µg/Kg	105.50
PFDA 1	2933	2.13	0.75	0.69 µg/Kg	92.67
PFUnA 1	3062	2.22	0.75	0.79 µg/Kg	105.85
PFDa 1	3633	2.31	0.75	0.75 µg/Kg	100.02
PFTTrDA 1	3606	2.39	0.75	0.73 µg/Kg	96.94
PFTeDA 1	3639	2.46	0.75	0.76 µg/Kg	101.43
6:2-FTS 1	818	1.83	0.75	0.84 µg/Kg	111.73
8:2-FTS 1	639	2.11	0.75	0.75 µg/Kg	99.80
13C2-PFHxA	7878	1.43	100.00	103.43 µg/Kg	103.43
18O2-PFHxS	1416	1.69	100.00	100.31 µg/Kg	100.31
13C4-PFHpA	8948	1.69	100.00	107.68 µg/Kg	107.68
13C4-PFOA	8429	1.87	100.00	105.15 µg/Kg	105.15
13C4-PFOS	1768	1.98	100.00	101.88 µg/Kg	101.88
13C5-PFNA	8421	2.01	100.00	103.94 µg/Kg	103.94
13C2-PFDA	7078	2.13	100.00	104.80 µg/Kg	104.80
13C2-PFUnA	8564	2.22	100.00	109.94 µg/Kg	109.94
13C2-PFDoA	9244	2.31	100.00	103.49 µg/Kg	103.49
13C2-PFTeDA	11559	2.46	100.00	105.29 µg/Kg	105.29
13C2-6:2-FTS	2084	1.83	100.00	107.92 µg/Kg	107.92
13C2-8:2 FTS	2120	2.10	100.00	106.45 µg/Kg	106.45
13C6-PFHxA	39552	1.42	100.00	98.04 µg/Kg	98.04
13C9-PFDA	36034	2.12	100.00	98.88 µg/Kg	98.88



MPFHxA

Internal Standard

RT (Exp. RT):

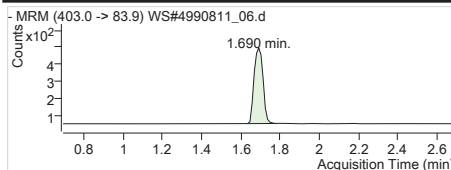
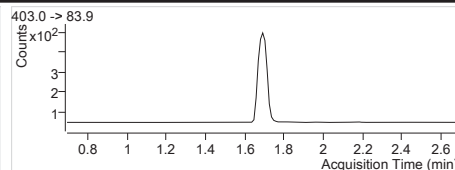
1.433 (1.433)

Concentration:

1 µg/Kg

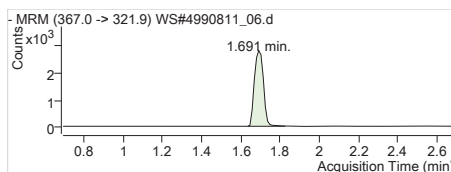
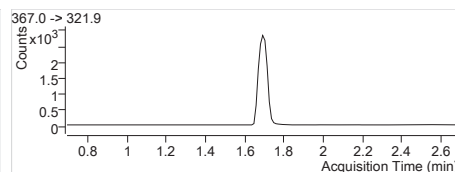
Sample type:

Calibration



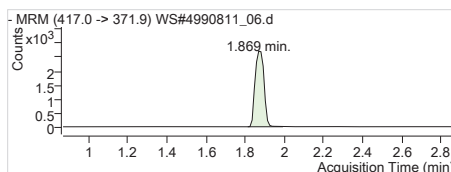
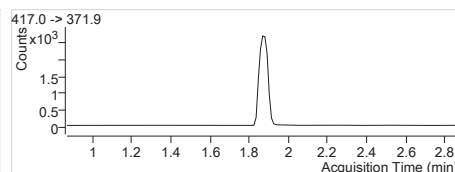
MPFHxS
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
1.690 (1.690)
1 µg/Kg
Calibration



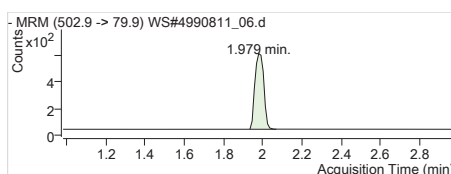
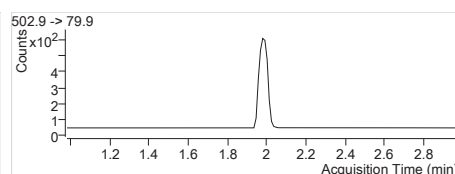
MPFHpA
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
1.691 (1.691)
1 µg/Kg
Calibration



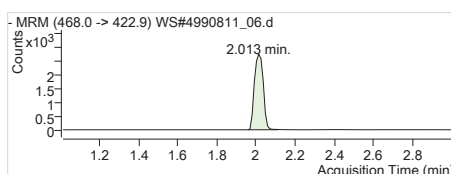
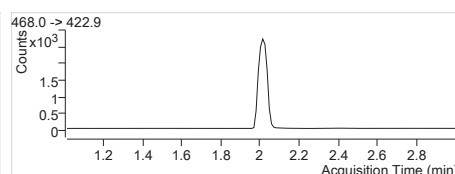
MPFOA
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
1.869 (1.869)
1 µg/Kg
Calibration



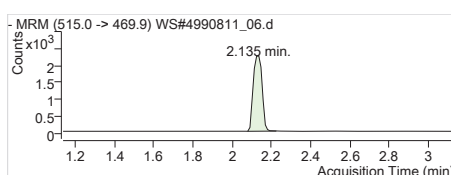
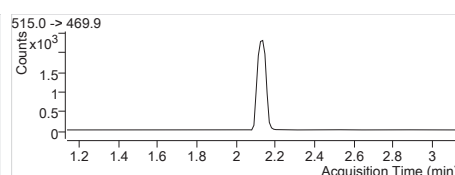
MPFOS
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
1.979 (1.979)
1 µg/Kg
Calibration



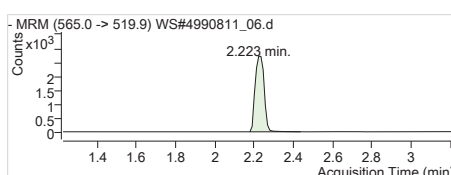
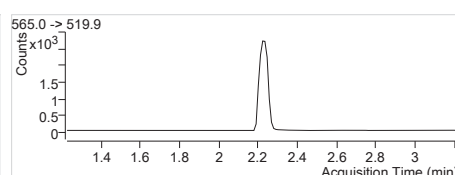
MPFNA
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
2.013 (2.013)
1 µg/Kg
Calibration



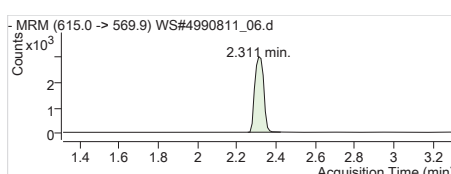
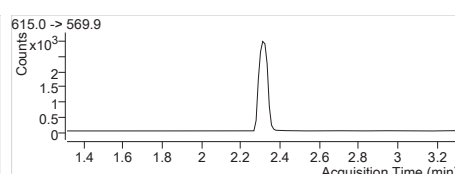
MPFDA
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
2.135 (2.135)
1 µg/Kg
Calibration



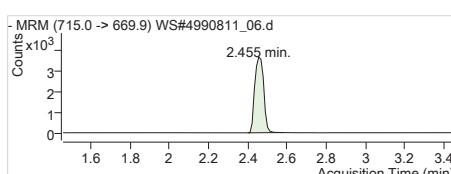
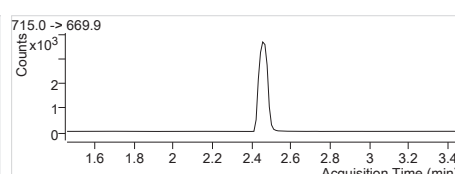
MPFUnA
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
2.223 (2.223)
1 µg/Kg
Calibration



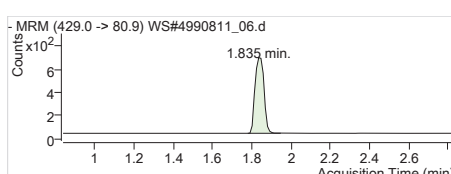
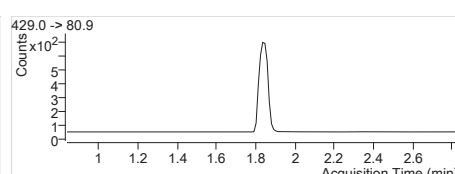
MPFDoA
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
2.311 (2.311)
1 µg/Kg
Calibration



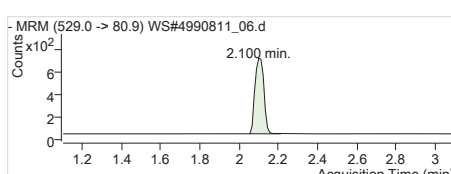
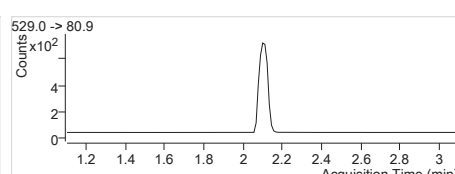
MPFTeDA
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
2.455 (2.455)
1 µg/Kg
Calibration



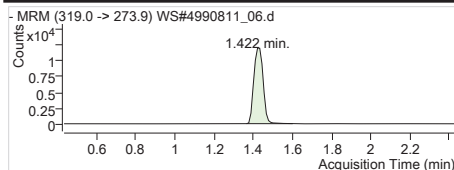
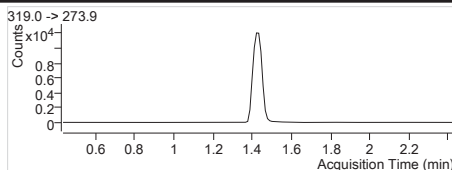
M2 6:2 FTS
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
1.835 (1.835)
1 µg/Kg
Calibration



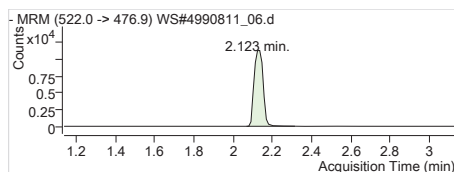
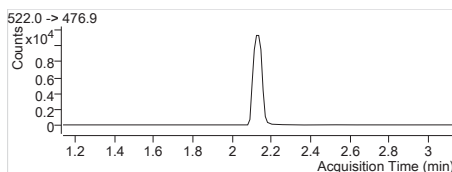
M2 8:2 FTS
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
2.100 (2.100)
1 µg/Kg
Calibration

**13C6-PFHxA IS**

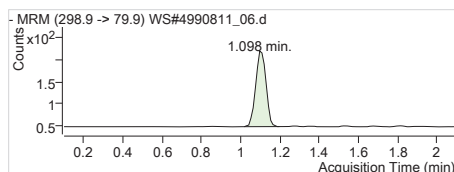
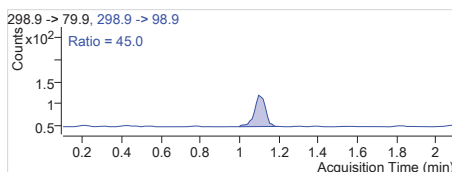
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
1.422 (1.433)
1 µg/Kg
Calibration

**13C9-PFDA IS**

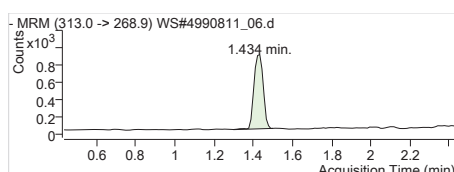
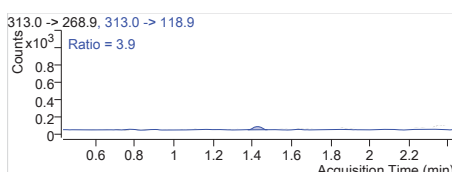
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
2.123 (2.134)
1 µg/Kg
Calibration

**PFBS 1**

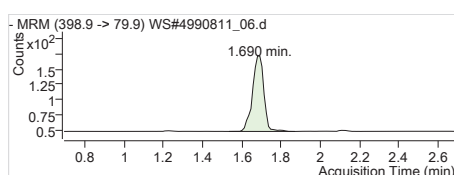
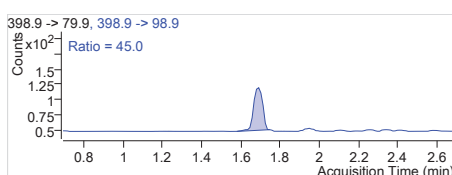
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

298.9 -> 79.9
1.098 (1.098)
0.80 µg/Kg
0.44421
Calibration

**PFHxA 1**

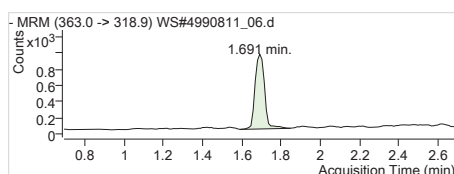
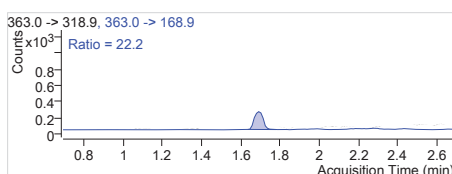
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

313.0 -> 268.9
1.434 (1.434)
0.79 µg/Kg
0.35910
Calibration

**PFHxS 1**

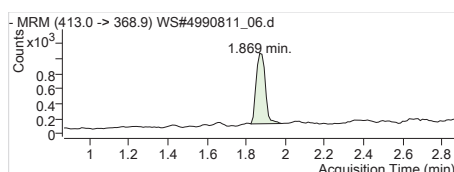
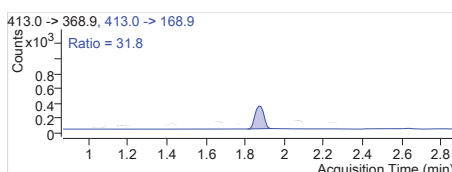
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

398.9 -> 79.9
1.690 (1.690)
0.80 µg/Kg
0.35311
Calibration

**PFHpA 1**

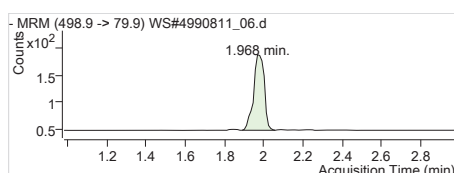
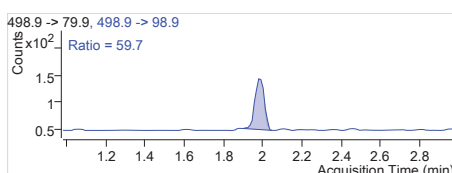
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

363.0 -> 318.9
1.691 (1.691)
0.83 µg/Kg
0.35025
Calibration

**PFOA 1**

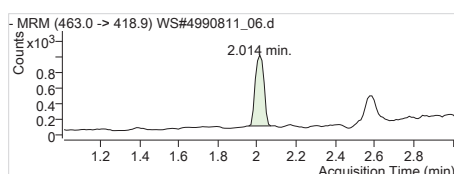
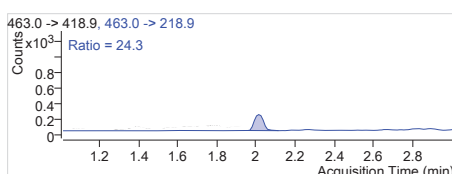
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

413.0 -> 368.9
1.869 (1.869)
0.79 µg/Kg
0.36232
Calibration

**PFOS 1**

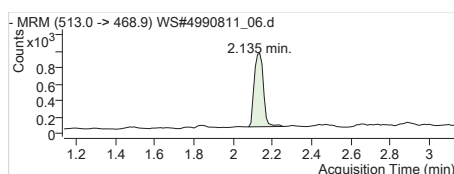
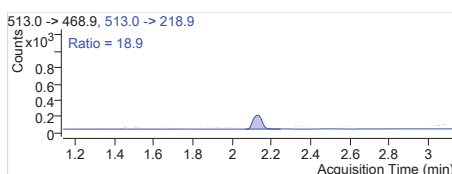
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

498.9 -> 79.9
1.968 (1.979)
0.76 µg/Kg
0.29864
Calibration

**PFNA 1**

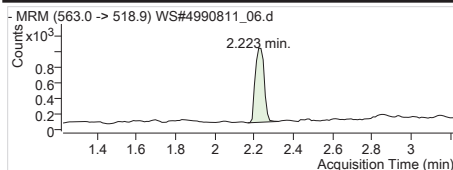
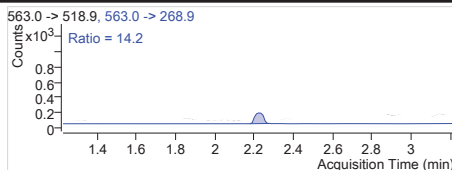
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

463.0 -> 418.9
2.014 (2.014)
0.79 µg/Kg
0.33001
Calibration

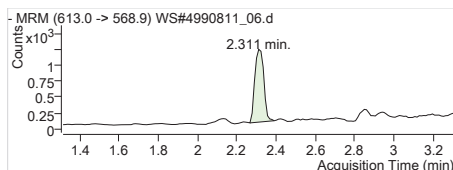
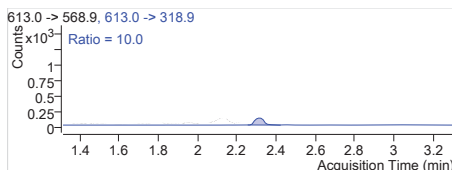
**PFDA 1**

RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

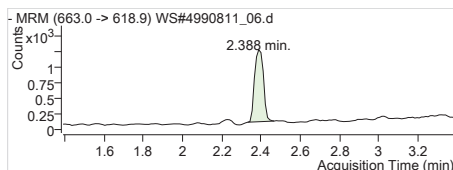
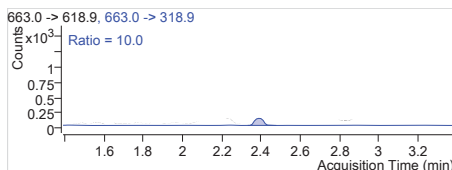
513.0 -> 468.9
2.135 (2.135)
0.69 µg/Kg
0.41438
Calibration



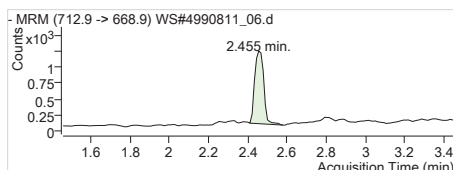
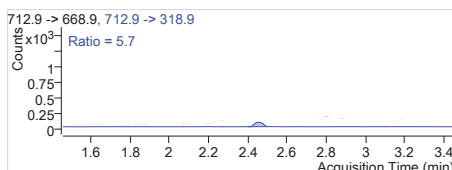
PFUnA 1
RT (Exp. RT): 563.0 -> 518.9
Calc. conc. 2.223 (2.223)
Area ratio: 0.79 µg/Kg
Sample type: 0.35754
Calibration



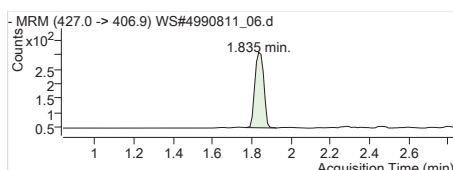
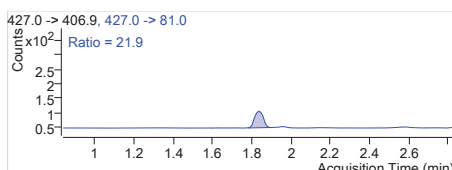
PFDoA 1
RT (Exp. RT): 613.0 -> 568.9
Calc. conc. 2.311 (2.311)
Area ratio: 0.75 µg/Kg
Sample type: 0.39301
Calibration



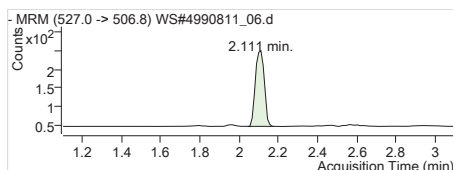
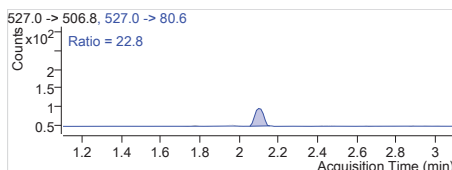
PFTrDA 1
RT (Exp. RT): 663.0 -> 618.9
Calc. conc. 2.388 (2.388)
Area ratio: 0.73 µg/Kg
Sample type: 0.31196
Calibration



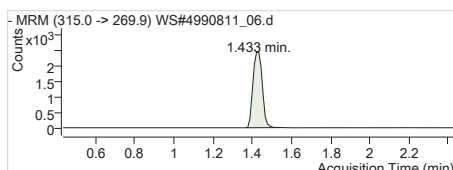
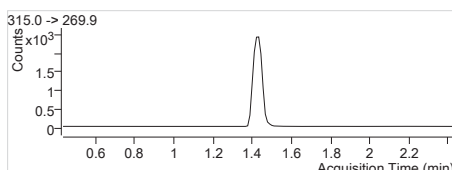
PFTEdA 1
RT (Exp. RT): 712.9 -> 668.9
Calc. conc. 2.455 (2.455)
Area ratio: 0.76 µg/Kg
Sample type: 0.31482
Calibration



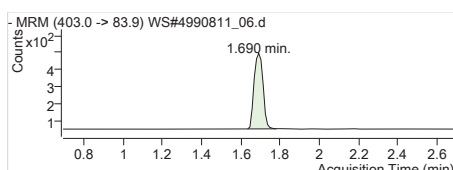
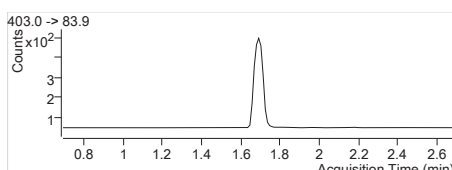
6:2-FTS 1
RT (Exp. RT): 427.0 -> 406.9
Calc. conc. 1.835 (1.835)
Area ratio: 0.84 µg/Kg
Sample type: 0.39251
Calibration



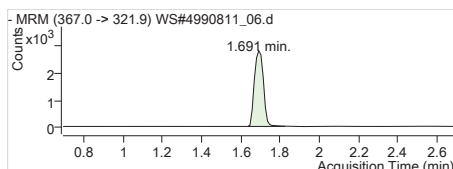
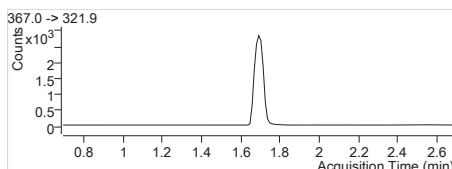
8:2-FTS 1
RT (Exp. RT): 527.0 -> 506.8
Calc. conc. 2.111 (2.100)
Area ratio: 0.75 µg/Kg
Sample type: 0.30142
Calibration



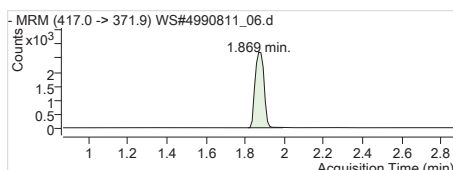
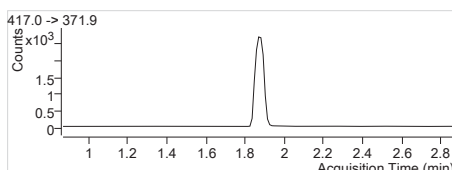
13C2-PFHxA
RT (Exp. RT): 315.0 -> 269.9
Calc. conc. 1.433 (1.433)
Area ratio: 103.43 µg/Kg
Sample type: 0.19918
Calibration



18O2-PFHxS
RT (Exp. RT): 403.0 -> 83.9
Calc. conc. 1.690 (1.690)
Area ratio: 100.31 µg/Kg
Sample type: 0.03580
Calibration

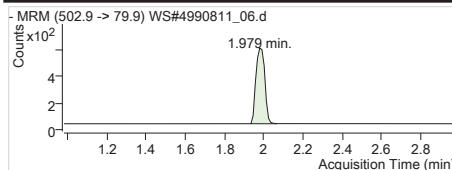
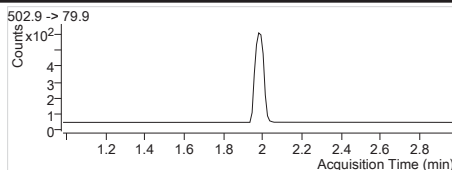


13C4-PFHpA
RT (Exp. RT): 367.0 -> 321.9
Calc. conc. 1.691 (1.691)
Area ratio: 107.68 µg/Kg
Sample type: 0.22623
Calibration

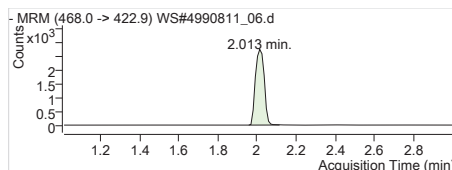
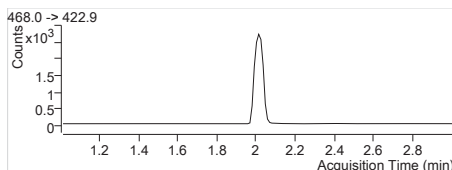


13C4-PFOA
RT (Exp. RT): 417.0 -> 371.9
Calc. conc. 1.869 (1.869)
Area ratio: 105.15 µg/Kg
Sample type: 0.21311
Calibration

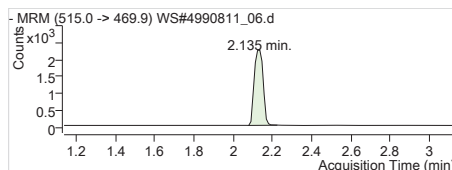
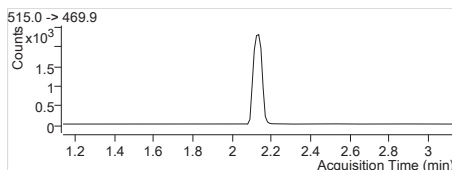
Quantitation Results



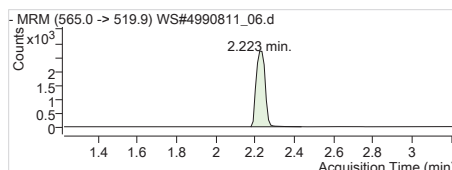
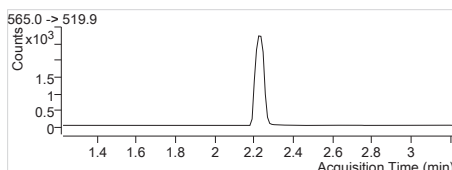
13C4-PFOS
RT (Exp. RT): 502.9 -> 79.9
Calc. conc. 1.979 (1.979)
Area ratio: 101.88 µg/Kg
Sample type: 0.04470
Calibration



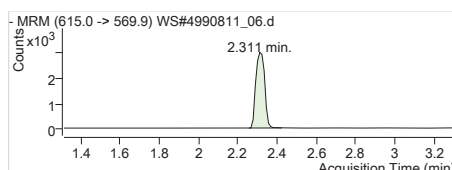
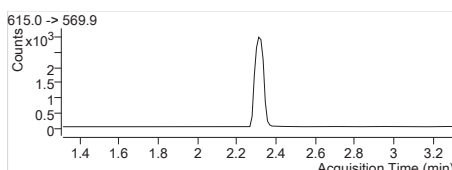
13C5-PFNA
RT (Exp. RT): 468.0 -> 422.9
Calc. conc. 2.013 (2.013)
Area ratio: 103.94 µg/Kg
Sample type: 0.21291
Calibration



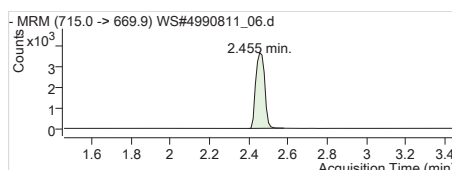
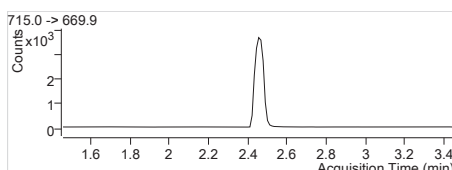
13C2-PFDA
RT (Exp. RT): 515.0 -> 469.9
Calc. conc. 2.135 (2.135)
Area ratio: 104.80 µg/Kg
Sample type: 0.19643
Calibration



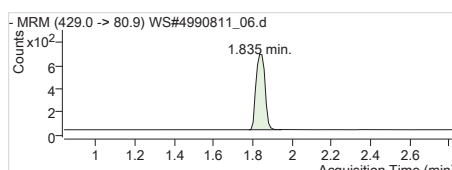
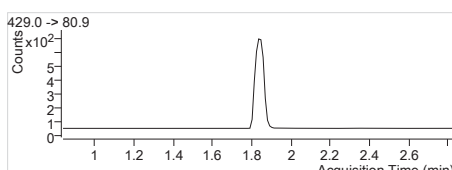
13C2-PFUnA
RT (Exp. RT): 565.0 -> 519.9
Calc. conc. 2.223 (2.223)
Area ratio: 109.94 µg/Kg
Sample type: 0.23766
Calibration



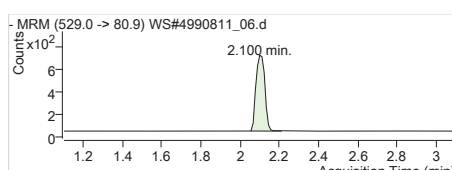
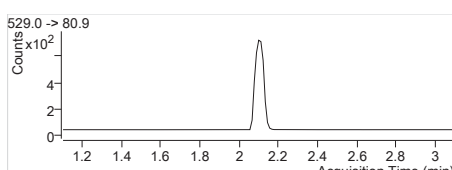
13C2-PFDoA
RT (Exp. RT): 615.0 -> 569.9
Calc. conc. 2.311 (2.311)
Area ratio: 103.49 µg/Kg
Sample type: 0.25654
Calibration



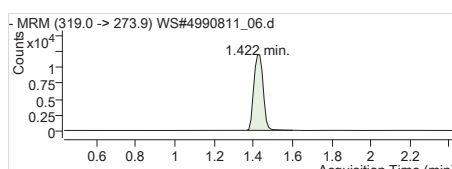
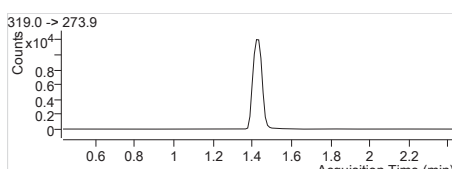
13C2-PFTeDA
RT (Exp. RT): 715.0 -> 669.9
Calc. conc. 2.455 (2.455)
Area ratio: 105.29 µg/Kg
Sample type: 0.32078
Calibration



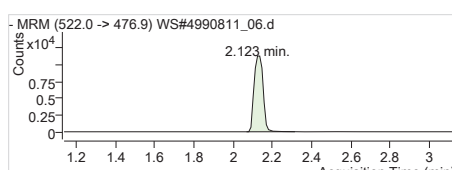
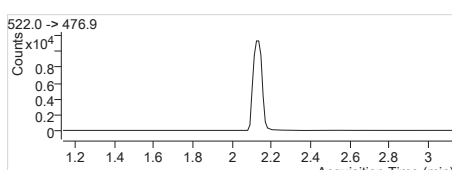
13C2-6:2-FTS
RT (Exp. RT): 429.0 -> 80.9
Calc. conc. 1.835 (1.835)
Area ratio: 107.92 µg/Kg
Sample type: 0.05269
Calibration



13C2-8:2 FTS
RT (Exp. RT): 529.0 -> 80.9
Calc. conc. 2.100 (2.100)
Area ratio: 106.45 µg/Kg
Sample type: 0.05360
Calibration



13C6-PFHxA
RT (Exp. RT): 319.0 -> 273.9
Calc. conc. 1.422 (1.433)
Area ratio: 98.04 µg/Kg
Sample type: 0
Calibration

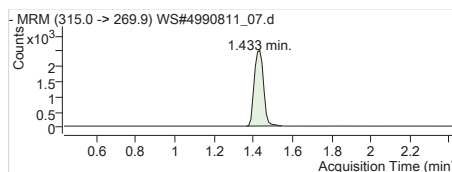
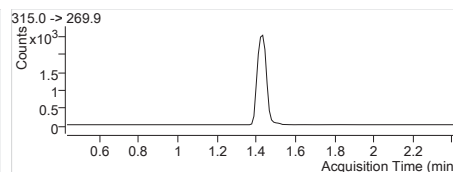


13C9-PFDA
RT (Exp. RT): 522.0 -> 476.9
Calc. conc. 2.123 (2.134)
Area ratio: 98.88 µg/Kg
Sample type: 0
Calibration

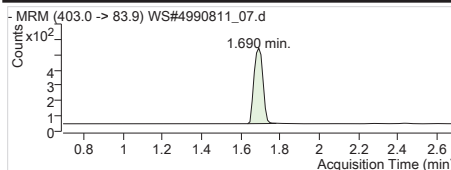
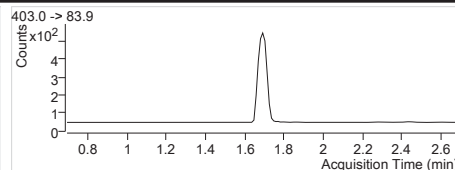
Batch Path	T:\lcms4\PFC\20170524\WS#4990811\QuantResults\PFC_Soil_170524_WS#4990811_CTLabs14		
Sample Name	STD 2	Instrument	LCMS04
Data File	WS#4990811_07.d	Operator	AD
Sample Type	Cal	Dilution	1
Acq. Method	PFC_Soil.m	Position	P2-A3
Acq. Date	2017/05/24 8:47:12 PM	Injection Volume	Per Method
Sample Annotation	-		

ISTD Compounds	Response	RT	Target conc.		
MPFHxA	8148	1.43	1 µg/Kg		
MPFHxS	1561	1.69	1 µg/Kg		
MPFHpA	9364	1.69	1 µg/Kg		
MPFOA	8440	1.87	1 µg/Kg		
MPFOS	1860	1.98	1 µg/Kg		
MPFNA	8530	2.01	1 µg/Kg		
MPFDA	6575	2.13	1 µg/Kg		
MPFUnA	7926	2.22	1 µg/Kg		
MPFDoA	9491	2.31	1 µg/Kg		
MPFTeDA	11313	2.46	1 µg/Kg		
M2 6:2 FTS	2061	1.83	1 µg/Kg		
M2 8:2 FTS	2189	2.10	1 µg/Kg		
13C6-PFHxA IS	38416	1.43	1 µg/Kg		
13C9-PFDA IS	34131	2.13	1 µg/Kg		

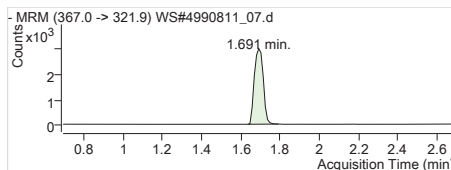
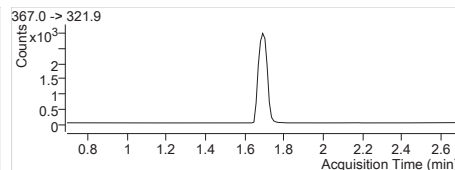
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	1373	1.10	1.50	1.48 µg/Kg	98.56
PFHxA 1	5531	1.43	1.50	1.48 µg/Kg	98.47
PFHxS 1	1121	1.69	1.50	1.50 µg/Kg	100.17
PFHpA 1	6128	1.69	1.50	1.45 µg/Kg	96.55
PFOA 1	6073	1.87	1.50	1.54 µg/Kg	102.61
PFOS 1	1053	1.97	1.50	1.44 µg/Kg	95.89
PFNA 1	5608	2.01	1.50	1.57 µg/Kg	104.89
PFDA 1	5756	2.13	1.50	1.56 µg/Kg	104.27
PFUnA 1	5803	2.22	1.50	1.55 µg/Kg	103.37
PFDaA 1	6829	2.31	1.50	1.48 µg/Kg	98.87
PFTTrDA 1	7505	2.39	1.50	1.57 µg/Kg	104.65
PFTeDA 1	6875	2.46	1.50	1.49 µg/Kg	99.36
6:2-FTS 1	1500	1.83	1.50	1.61 µg/Kg	107.46
8:2-FTS 1	1389	2.10	1.50	1.62 µg/Kg	107.90
13C2-PFHxA	8148	1.43	100.00	110.14 µg/Kg	110.14
18O2-PFHxS	1561	1.69	100.00	113.85 µg/Kg	113.85
13C4-PFHpA	9364	1.69	100.00	116.01 µg/Kg	116.01
13C4-PFOA	8440	1.87	100.00	108.40 µg/Kg	108.40
13C4-PFOS	1860	1.98	100.00	110.35 µg/Kg	110.35
13C5-PFNA	8530	2.01	100.00	108.39 µg/Kg	108.39
13C2-PFDA	6575	2.13	100.00	102.78 µg/Kg	102.78
13C2-PFUnA	7926	2.22	100.00	107.42 µg/Kg	107.42
13C2-PFDoA	9491	2.31	100.00	112.18 µg/Kg	112.18
13C2-PFTeDA	11313	2.46	100.00	108.80 µg/Kg	108.80
13C2-6:2-FTS	2061	1.83	100.00	109.89 µg/Kg	109.89
13C2-8:2 FTS	2189	2.10	100.00	113.16 µg/Kg	113.16
13C6-PFHxA	38416	1.43	100.00	95.23 µg/Kg	95.23
13C9-PFDA	34131	2.13	100.00	93.66 µg/Kg	93.66



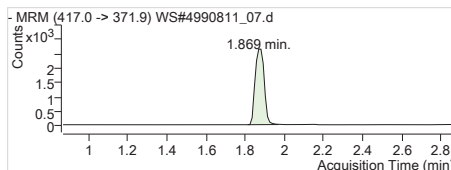
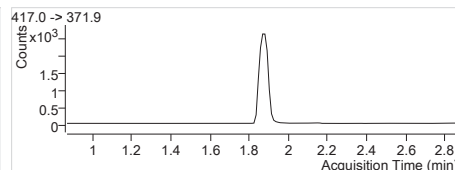
MPFHxA
 RT (Exp. RT): 1.433 (1.433)
 Concentration: 1 µg/Kg
 Sample type: Calibration



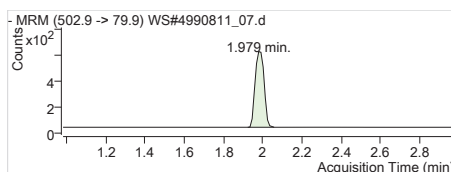
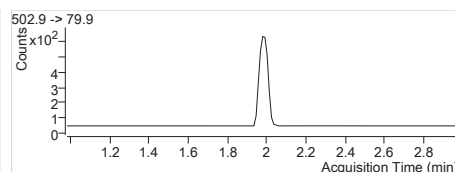
MPFHxS
RT (Exp. RT): 1.690 (1.690)
Concentration: 1 µg/Kg
Sample type: Calibration



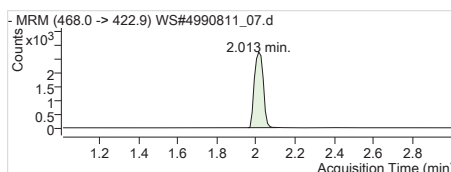
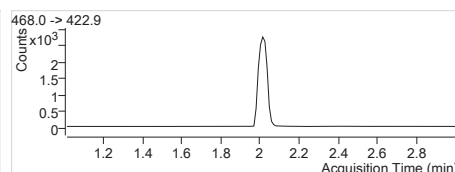
MPFHpA
RT (Exp. RT): 1.691 (1.691)
Concentration: 1 µg/Kg
Sample type: Calibration



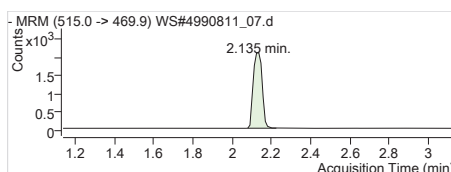
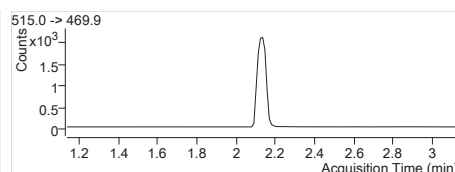
MPFOA
RT (Exp. RT): 1.869 (1.869)
Concentration: 1 µg/Kg
Sample type: Calibration



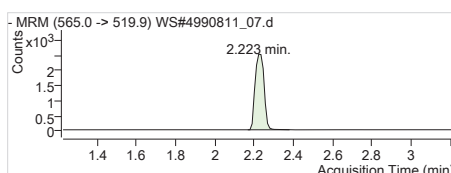
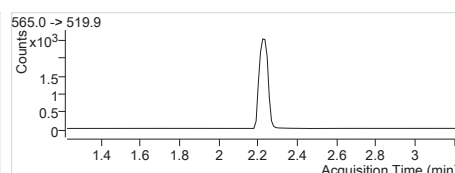
MPFOS
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/Kg
Sample type: Calibration



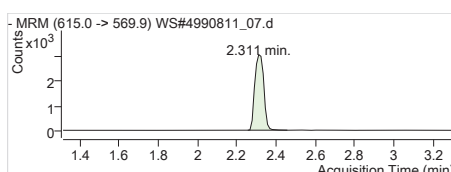
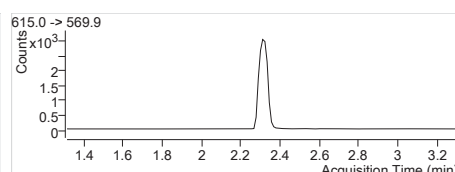
MPFNA
RT (Exp. RT): 2.013 (2.013)
Concentration: 1 µg/Kg
Sample type: Calibration



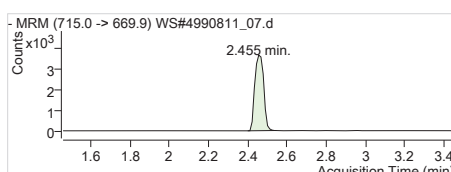
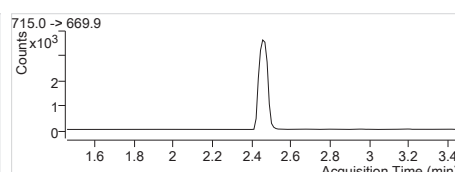
MPFDA
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/Kg
Sample type: Calibration



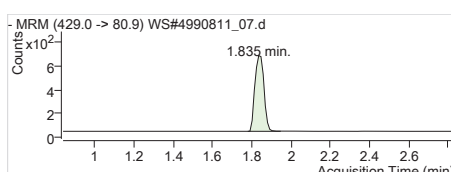
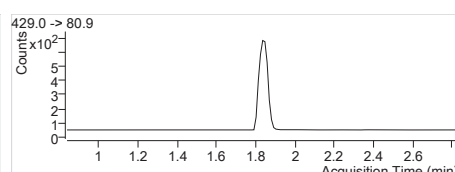
MPFUnA
RT (Exp. RT): 2.223 (2.223)
Concentration: 1 µg/Kg
Sample type: Calibration



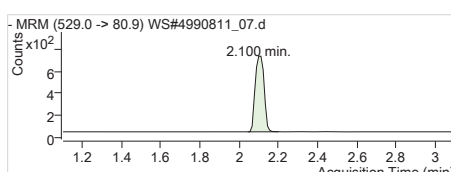
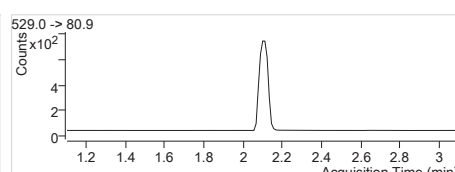
MPFDoA
RT (Exp. RT): 2.311 (2.311)
Concentration: 1 µg/Kg
Sample type: Calibration



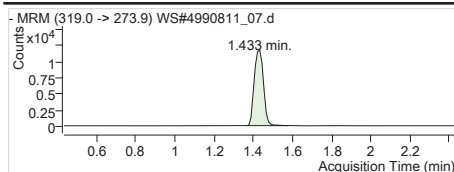
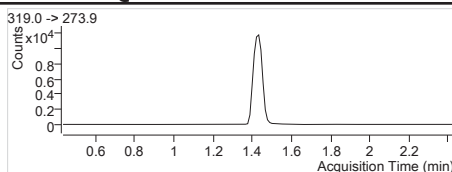
MPFTeDA
RT (Exp. RT): 2.455 (2.455)
Concentration: 1 µg/Kg
Sample type: Calibration



M2 6:2 FTS
RT (Exp. RT): 1.835 (1.835)
Concentration: 1 µg/Kg
Sample type: Calibration



M2 8:2 FTS
RT (Exp. RT): 2.100 (2.100)
Concentration: 1 µg/Kg
Sample type: Calibration

**13C6-PFHxA IS**

RT (Exp. RT):

Concentration:

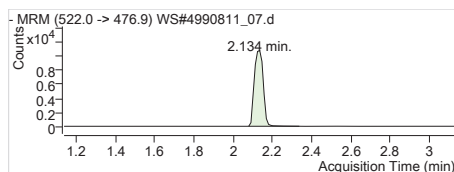
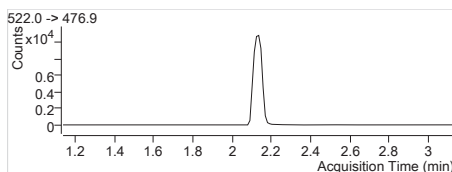
Sample type:

Internal Standard

1.433 (1.433)

1 µg/Kg

Calibration

**13C9-PFDA IS**

RT (Exp. RT):

Concentration:

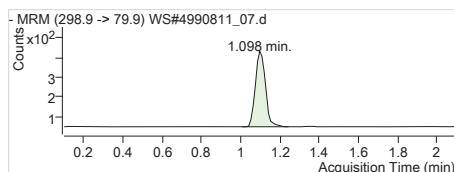
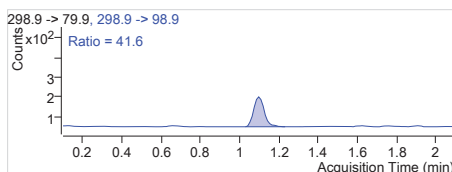
Sample type:

Internal Standard

2.134 (2.134)

1 µg/Kg

Calibration

**PFBS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

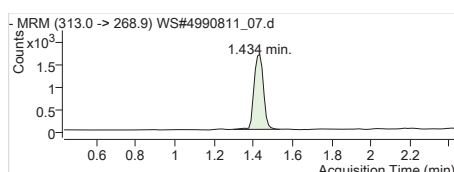
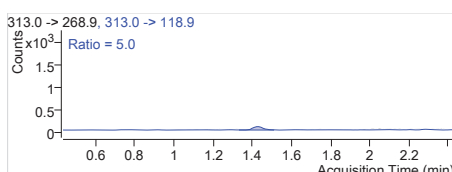
298.9 -> 79.9

1.098 (1.098)

1.48 µg/Kg

0.87956

Calibration

**PFHxA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

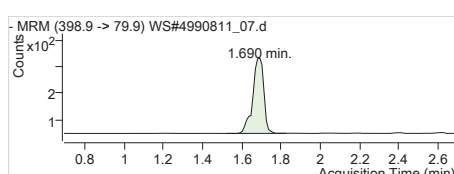
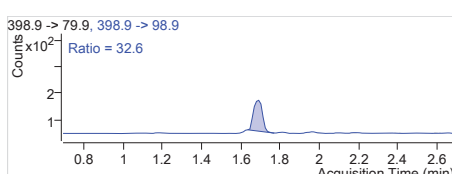
313.0 -> 268.9

1.434 (1.434)

1.48 µg/Kg

0.67882

Calibration

**PFHxS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

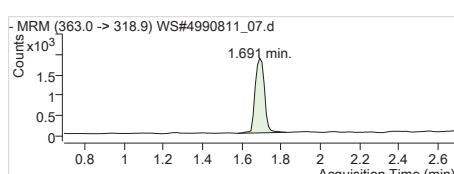
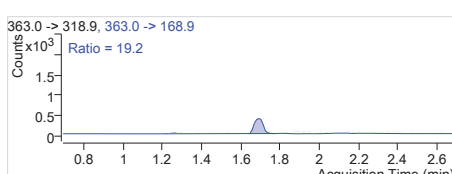
398.9 -> 79.9

1.690 (1.690)

1.50 µg/Kg

0.71813

Calibration

**PFHpA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

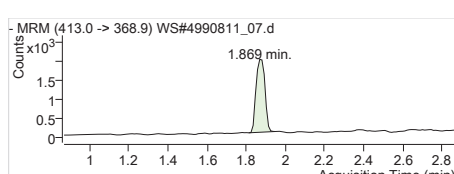
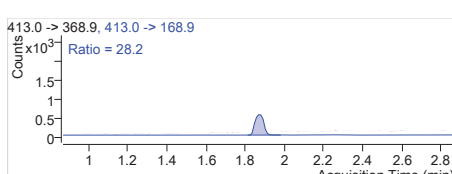
363.0 -> 318.9

1.691 (1.691)

1.45 µg/Kg

0.65442

Calibration

**PFOA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

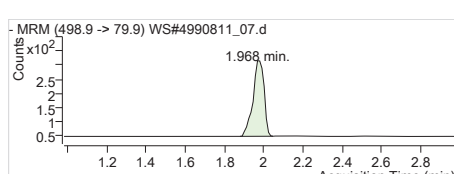
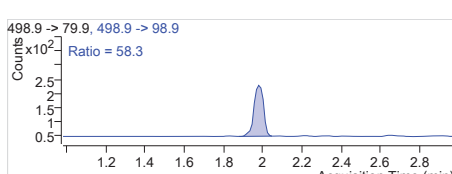
413.0 -> 368.9

1.869 (1.869)

1.54 µg/Kg

0.71955

Calibration

**PFOS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

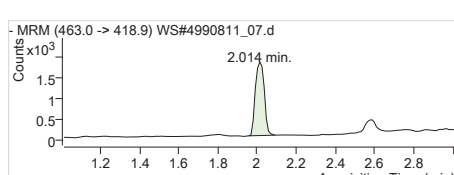
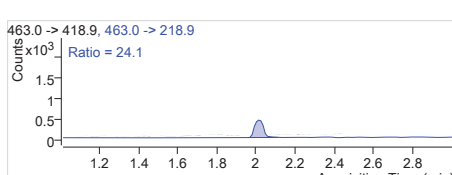
498.9 -> 79.9

1.968 (1.979)

1.44 µg/Kg

0.56613

Calibration

**PFNA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

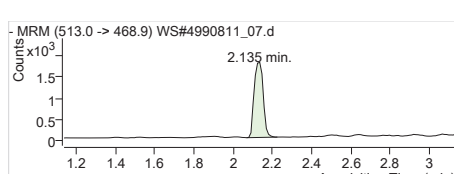
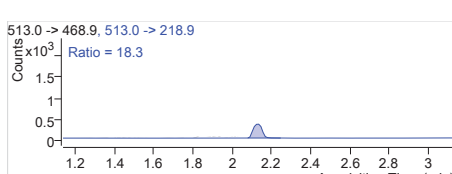
463.0 -> 418.9

2.014 (2.014)

1.57 µg/Kg

0.65744

Calibration

**PFDA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

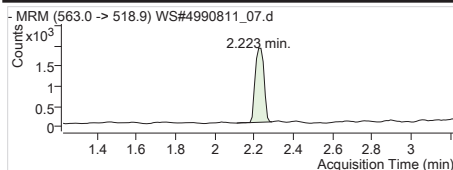
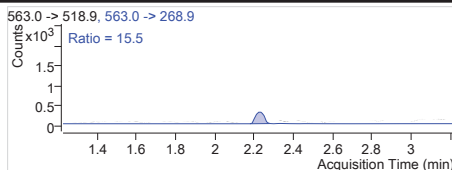
513.0 -> 468.9

2.135 (2.135)

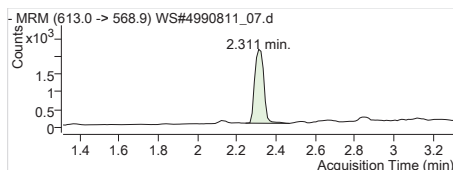
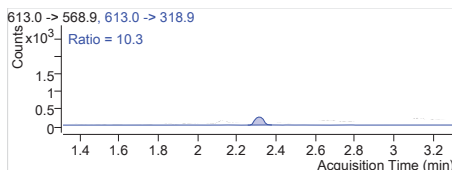
1.56 µg/Kg

0.87544

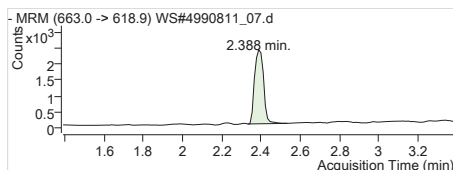
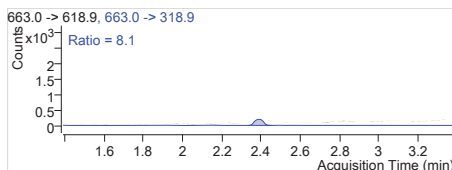
Calibration



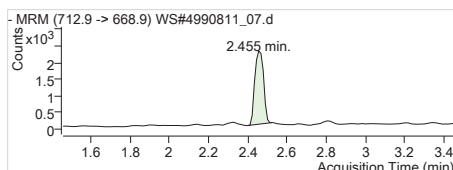
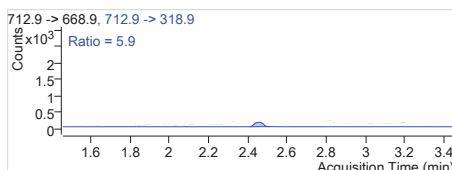
PFUnA 1
RT (Exp. RT): 563.0 -> 518.9
Calc. conc. 2.223 (2.223)
Area ratio: 1.55 µg/Kg
Sample type: 0.73215
Calibration



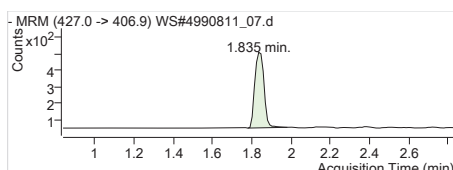
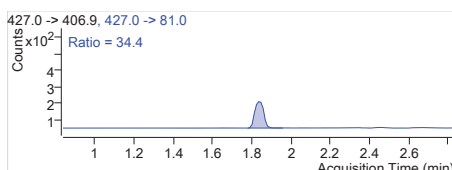
PFDoA 1
RT (Exp. RT): 613.0 -> 568.9
Calc. conc. 2.311 (2.311)
Area ratio: 1.48 µg/Kg
Sample type: 0.71952
Calibration



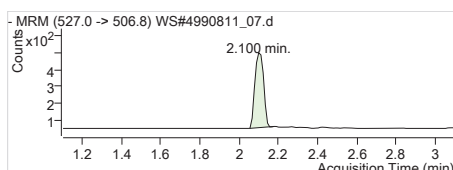
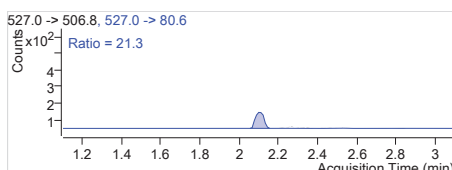
PFTrDA 1
RT (Exp. RT): 663.0 -> 618.9
Calc. conc. 2.388 (2.388)
Area ratio: 1.57 µg/Kg
Sample type: 0.66340
Calibration



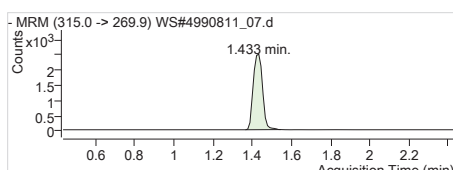
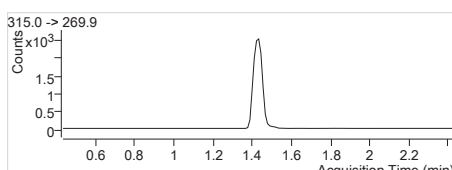
PFTEdA 1
RT (Exp. RT): 712.9 -> 668.9
Calc. conc. 2.455 (2.455)
Area ratio: 1.49 µg/Kg
Sample type: 0.60771
Calibration



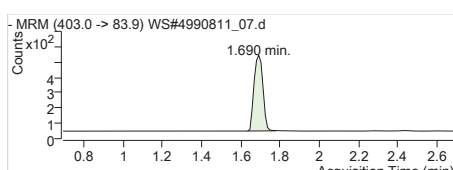
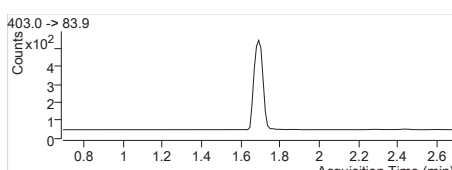
6:2-FTS 1
RT (Exp. RT): 427.0 -> 406.9
Calc. conc. 1.835 (1.835)
Area ratio: 1.61 µg/Kg
Sample type: 0.72780
Calibration



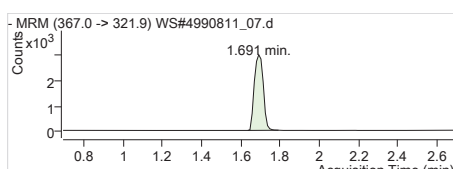
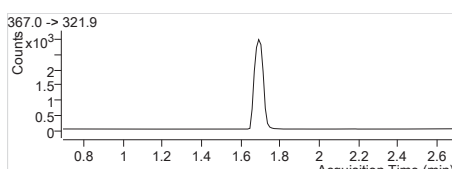
8:2-FTS 1
RT (Exp. RT): 527.0 -> 506.8
Calc. conc. 2.100 (2.100)
Area ratio: 1.62 µg/Kg
Sample type: 0.63454
Calibration



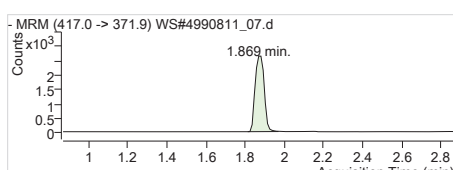
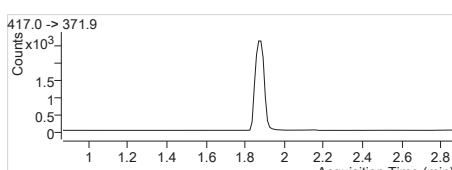
13C2-PFHxA
RT (Exp. RT): 315.0 -> 269.9
Calc. conc. 1.433 (1.433)
Area ratio: 110.14 µg/Kg
Sample type: 0.21210
Calibration



18O2-PFHxS
RT (Exp. RT): 403.0 -> 83.9
Calc. conc. 1.690 (1.690)
Area ratio: 113.85 µg/Kg
Sample type: 0.04063
Calibration

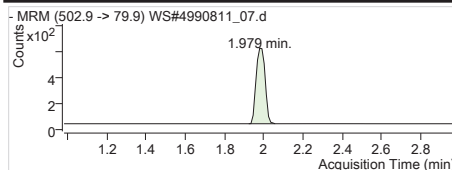
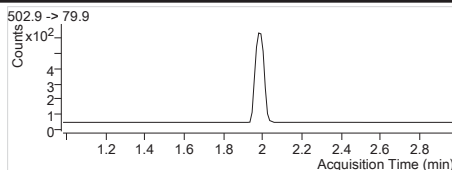


13C4-PFHpA
RT (Exp. RT): 367.0 -> 321.9
Calc. conc. 1.691 (1.691)
Area ratio: 116.01 µg/Kg
Sample type: 0.24375
Calibration

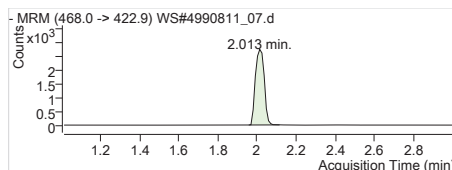
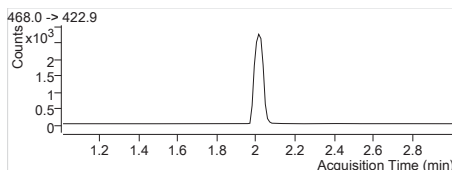


13C4-PFOA
RT (Exp. RT): 417.0 -> 371.9
Calc. conc. 1.869 (1.869)
Area ratio: 108.40 µg/Kg
Sample type: 0.21970
Calibration

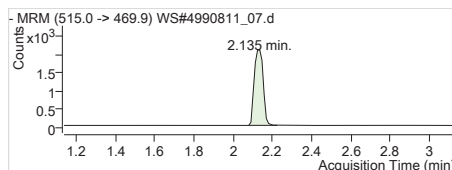
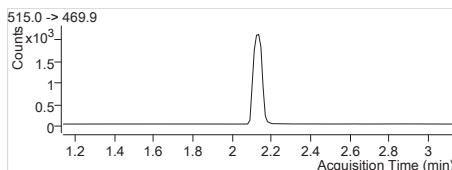
Quantitation Results



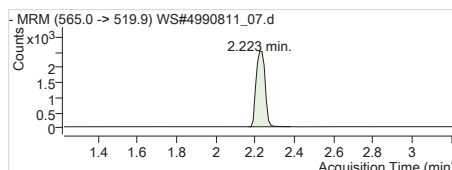
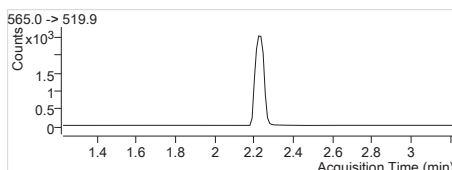
13C4-PFOS
RT (Exp. RT): 502.9 -> 79.9
Calc. conc. 1.979 (1.979)
Area ratio: 110.35 µg/Kg
Sample type: 0.04842
Calibration



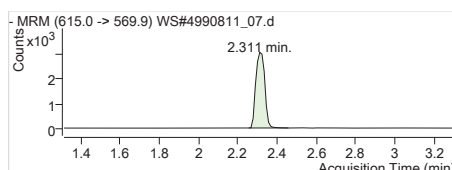
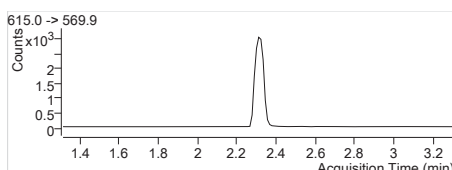
13C5-PFNA
RT (Exp. RT): 468.0 -> 422.9
Calc. conc. 2.013 (2.013)
Area ratio: 108.39 µg/Kg
Sample type: 0.22204
Calibration



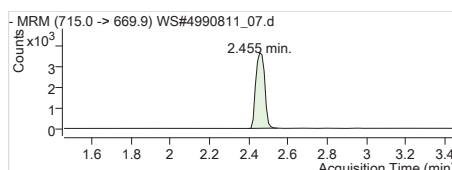
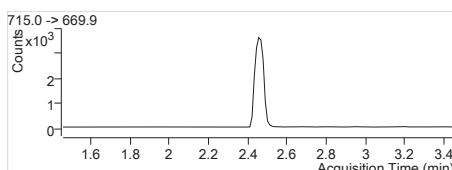
13C2-PFDA
RT (Exp. RT): 515.0 -> 469.9
Calc. conc. 2.135 (2.135)
Area ratio: 102.78 µg/Kg
Sample type: 0.19264
Calibration



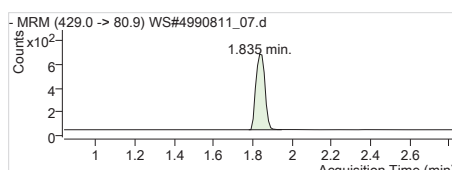
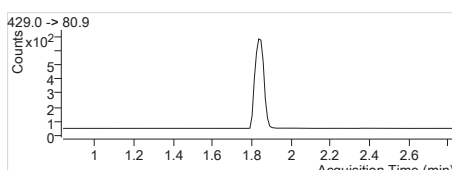
13C2-PFUnA
RT (Exp. RT): 565.0 -> 519.9
Calc. conc. 2.223 (2.223)
Area ratio: 107.42 µg/Kg
Sample type: 0.23222
Calibration



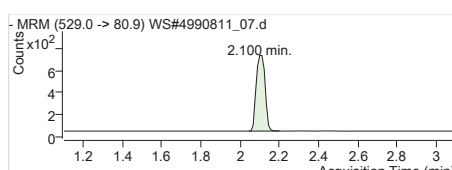
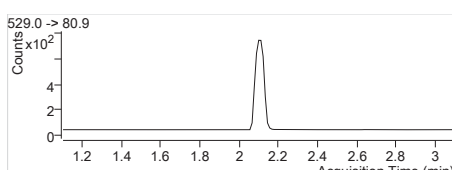
13C2-PFDoA
RT (Exp. RT): 615.0 -> 569.9
Calc. conc. 2.311 (2.311)
Area ratio: 112.18 µg/Kg
Sample type: 0.27808
Calibration



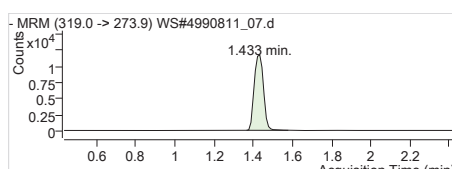
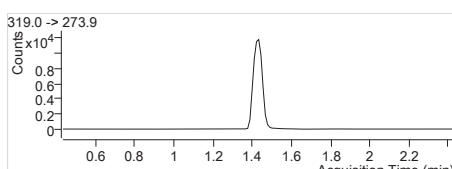
13C2-PFTeDA
RT (Exp. RT): 715.0 -> 669.9
Calc. conc. 2.455 (2.455)
Area ratio: 108.80 µg/Kg
Sample type: 0.33146
Calibration



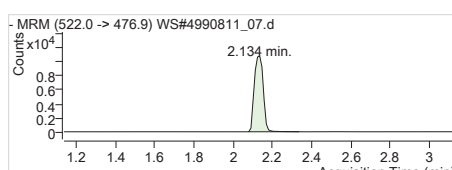
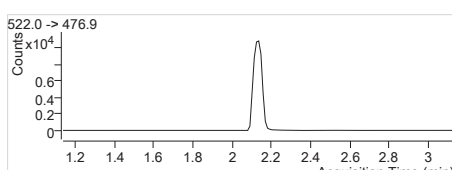
13C2-6:2-FTS
RT (Exp. RT): 429.0 -> 80.9
Calc. conc. 1.835 (1.835)
Area ratio: 109.89 µg/Kg
Sample type: 0.05365
Calibration



13C2-8:2 FTS
RT (Exp. RT): 529.0 -> 80.9
Calc. conc. 2.100 (2.100)
Area ratio: 113.16 µg/Kg
Sample type: 0.05698
Calibration



13C6-PFHxA
RT (Exp. RT): 319.0 -> 273.9
Calc. conc. 1.433 (1.433)
Area ratio: 95.23 µg/Kg
Sample type: 0
Calibration

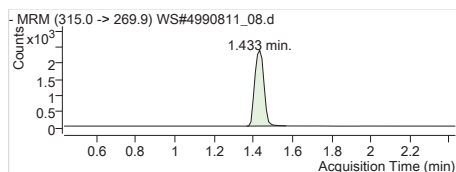
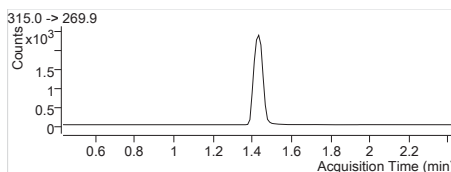


13C9-PFDA
RT (Exp. RT): 522.0 -> 476.9
Calc. conc. 2.134 (2.134)
Area ratio: 93.66 µg/Kg
Sample type: 0
Calibration

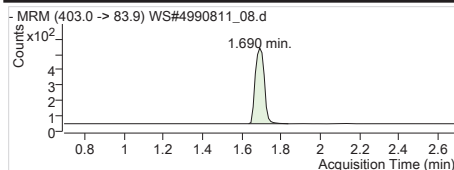
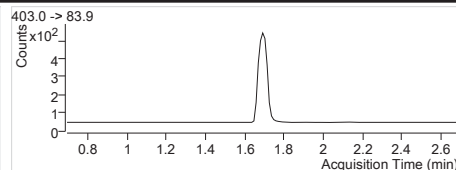
Batch Path	T:\lcms4\PFC\20170524\WS#4990811\QuantResults\PFC_Soil_170524_WS#4990811_CTLabs14		
Sample Name	STD 3	Instrument	LCMS04
Data File	WS#4990811_08.d	Operator	AD
Sample Type	Cal	Dilution	1
Acq. Method	PFC_Soil.m	Position	P2-A4
Acq. Date	2017/05/24 8:52:06 PM	Injection Volume	Per Method
Sample Annotation	-		

ISTD Compounds	Response	RT	Target conc.		
MPFHxA	7637	1.43	1 µg/Kg		
MPFHxS	1586	1.69	1 µg/Kg		
MPFHpA	8508	1.69	1 µg/Kg		
MPFOA	8509	1.87	1 µg/Kg		
MPFOS	1731	1.98	1 µg/Kg		
MPFNA	8764	2.01	1 µg/Kg		
MPFDA	6875	2.12	1 µg/Kg		
MPFUnA	7826	2.22	1 µg/Kg		
MPFDoA	9080	2.31	1 µg/Kg		
MPFTeDA	11082	2.46	1 µg/Kg		
M2 6:2 FTS	2042	1.83	1 µg/Kg		
M2 8:2 FTS	2117	2.10	1 µg/Kg		
13C6-PFHxA IS	42253	1.43	1 µg/Kg		
13C9-PFDA IS	38512	2.12	1 µg/Kg		

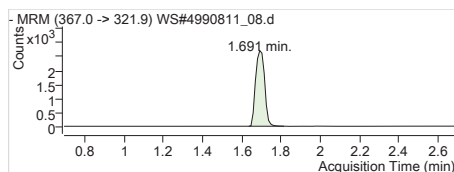
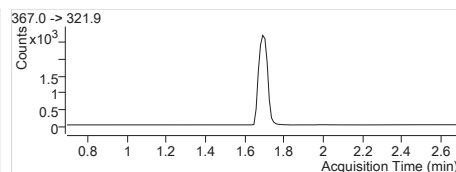
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	4158	1.10	4.50	4.19 µg/Kg	93.12
PFHxA 1	15810	1.43	4.50	4.46 µg/Kg	99.08
PFHxS 1	3208	1.69	4.50	4.01 µg/Kg	89.17
PFHpA 1	18010	1.69	4.50	4.44 µg/Kg	98.56
PFOA 1	17200	1.87	4.50	4.29 µg/Kg	95.22
PFOS 1	3175	1.98	4.50	4.67 µg/Kg	103.76
PFNA 1	15377	2.01	4.50	4.19 µg/Kg	93.20
PFDA 1	17271	2.12	4.50	4.65 µg/Kg	103.31
PFUnA 1	16857	2.22	4.50	4.42 µg/Kg	98.28
PFDaA 1	19043	2.31	4.50	4.58 µg/Kg	101.68
PFTTrDA 1	21137	2.39	4.50	4.55 µg/Kg	101.17
PFTeDA 1	20518	2.46	4.50	4.59 µg/Kg	101.97
6:2-FTS 1	3748	1.83	4.50	4.17 µg/Kg	92.64
8:2-FTS 1	3472	2.10	4.50	4.24 µg/Kg	94.32
13C2-PFHxA	7637	1.43	100.00	93.85 µg/Kg	93.85
18O2-PFHxS	1586	1.69	100.00	105.17 µg/Kg	105.17
13C4-PFHpA	8508	1.69	100.00	95.84 µg/Kg	95.84
13C4-PFOA	8509	1.87	100.00	99.36 µg/Kg	99.36
13C4-PFOS	1731	1.98	100.00	93.37 µg/Kg	93.37
13C5-PFNA	8764	2.01	100.00	101.25 µg/Kg	101.25
13C2-PFDA	6875	2.12	100.00	95.25 µg/Kg	95.25
13C2-PFUnA	7826	2.22	100.00	94.00 µg/Kg	94.00
13C2-PFDoA	9080	2.31	100.00	95.11 µg/Kg	95.11
13C2-PFTeDA	11082	2.46	100.00	94.45 µg/Kg	94.45
13C2-6:2-FTS	2042	1.83	100.00	98.99 µg/Kg	98.99
13C2-8:2 FTS	2117	2.10	100.00	99.50 µg/Kg	99.50
13C6-PFHxA	42253	1.43	100.00	104.74 µg/Kg	104.74
13C9-PFDA	38512	2.12	100.00	105.68 µg/Kg	105.68



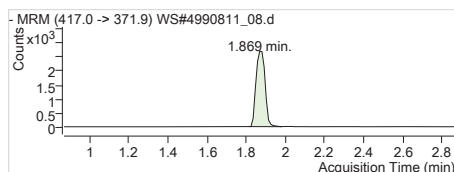
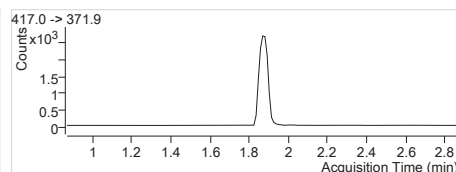
MPFHxA
 RT (Exp. RT): 1.433 (1.433)
 Concentration: 1 µg/Kg
 Sample type: Calibration



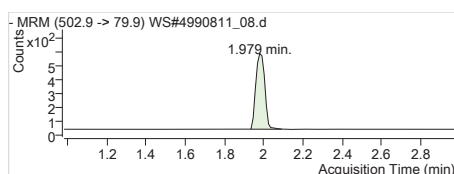
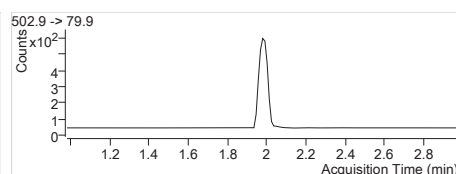
MPFHxS
RT (Exp. RT): 1.690 (1.690)
Concentration: 1 µg/Kg
Sample type: Calibration



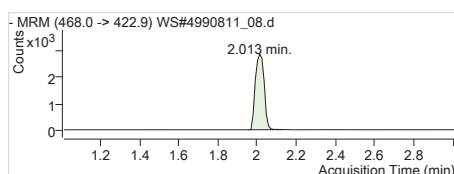
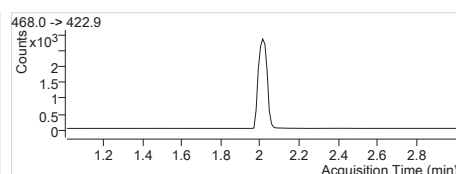
MPFHpA
RT (Exp. RT): 1.691 (1.691)
Concentration: 1 µg/Kg
Sample type: Calibration



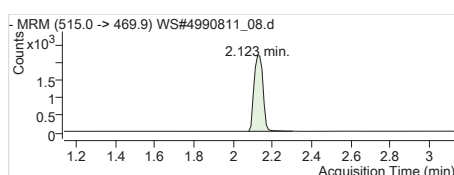
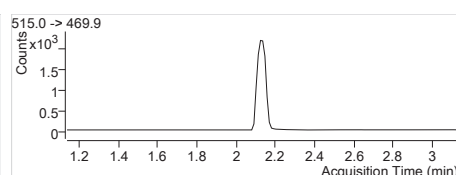
MPFOA
RT (Exp. RT): 1.869 (1.869)
Concentration: 1 µg/Kg
Sample type: Calibration



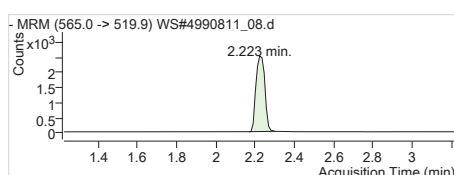
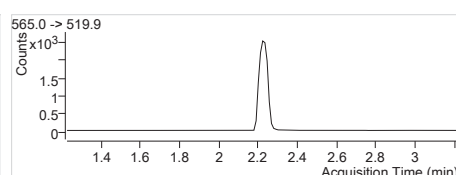
MPFOS
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/Kg
Sample type: Calibration



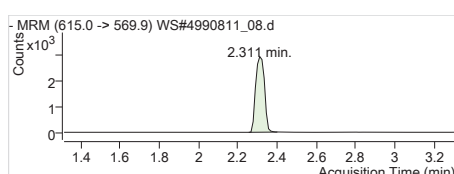
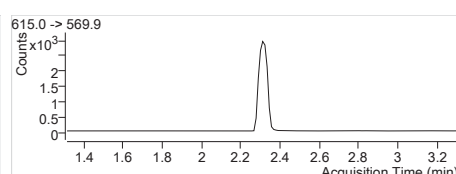
MPFNA
RT (Exp. RT): 2.013 (2.013)
Concentration: 1 µg/Kg
Sample type: Calibration



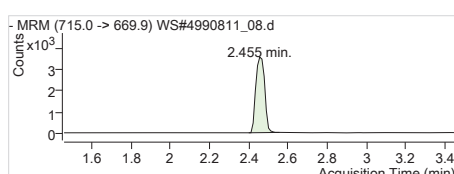
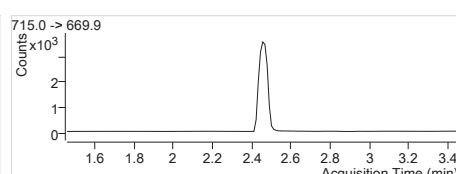
MPFDA
RT (Exp. RT): 2.123 (2.135)
Concentration: 1 µg/Kg
Sample type: Calibration



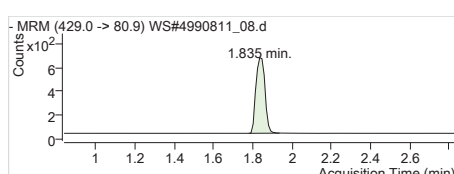
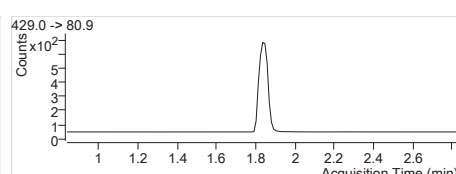
MPFUnA
RT (Exp. RT): 2.223 (2.223)
Concentration: 1 µg/Kg
Sample type: Calibration



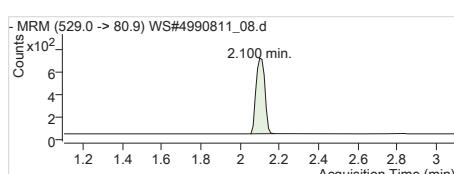
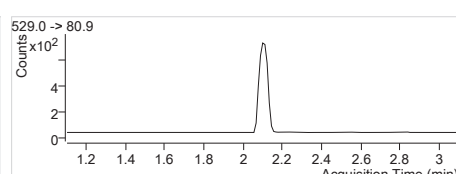
MPFDoA
RT (Exp. RT): 2.311 (2.311)
Concentration: 1 µg/Kg
Sample type: Calibration



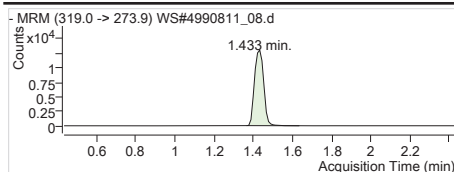
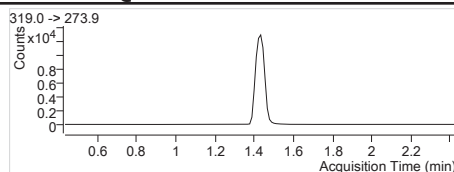
MPFTeDA
RT (Exp. RT): 2.455 (2.455)
Concentration: 1 µg/Kg
Sample type: Calibration



M2 6:2 FTS
RT (Exp. RT): 1.835 (1.835)
Concentration: 1 µg/Kg
Sample type: Calibration

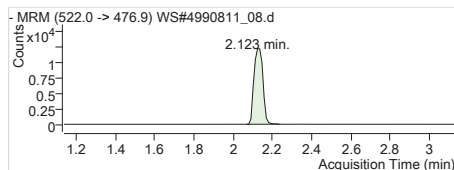
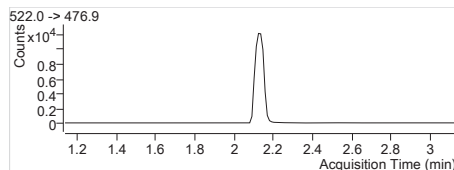


M2 8:2 FTS
RT (Exp. RT): 2.100 (2.100)
Concentration: 1 µg/Kg
Sample type: Calibration

**13C6-PFHxA IS**

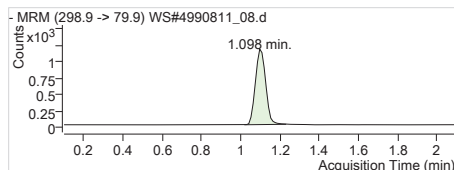
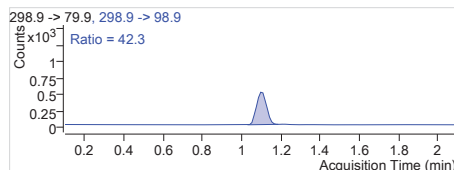
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
1.433 (1.433)
1 µg/Kg
Calibration

**13C9-PFDA IS**

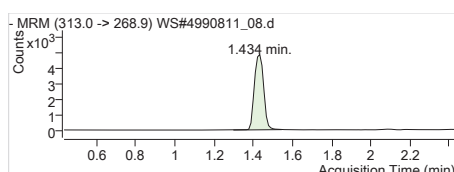
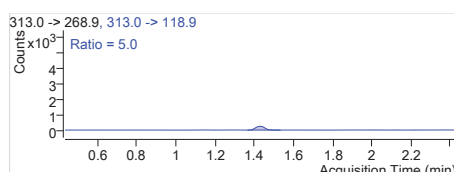
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
2.123 (2.134)
1 µg/Kg
Calibration

**PFBS 1**

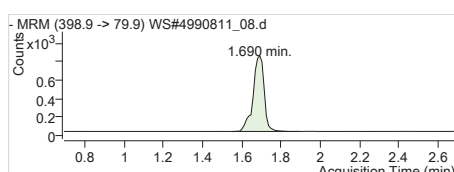
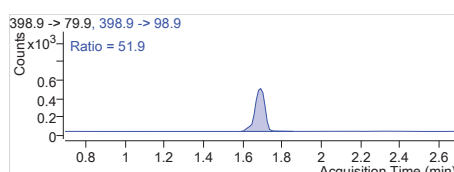
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

298.9 -> 79.9
1.098 (1.098)
4.19 µg/Kg
2.62169
Calibration

**PFHxA 1**

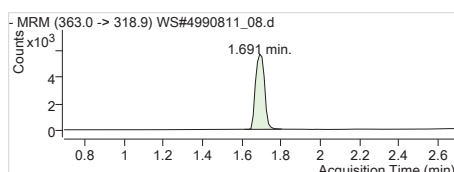
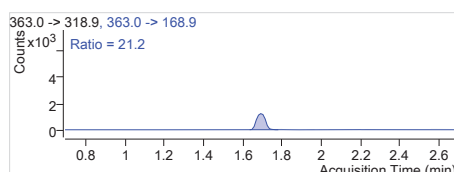
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

313.0 -> 268.9
1.434 (1.434)
4.46 µg/Kg
2.07018
Calibration

**PFHxS 1**

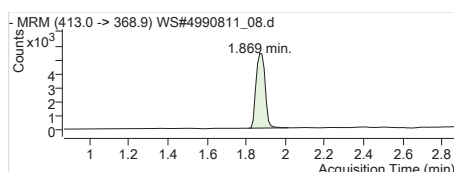
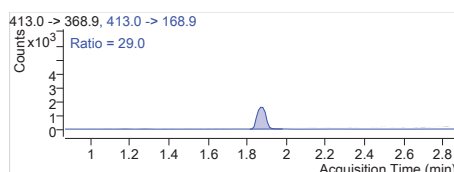
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

398.9 -> 79.9
1.690 (1.690)
4.01 µg/Kg
2.02270
Calibration

**PFHpA 1**

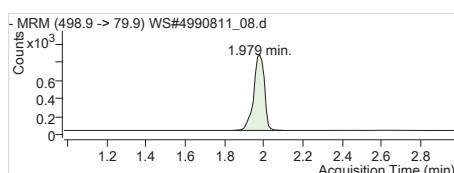
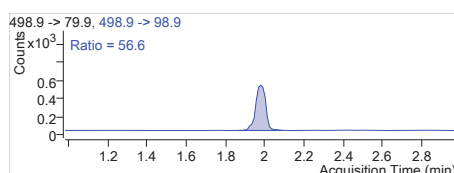
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

363.0 -> 318.9
1.691 (1.691)
4.44 µg/Kg
2.11683
Calibration

**PFOA 1**

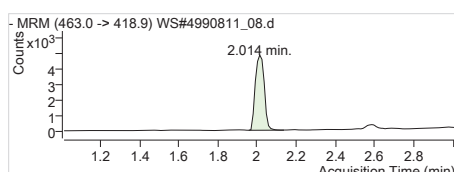
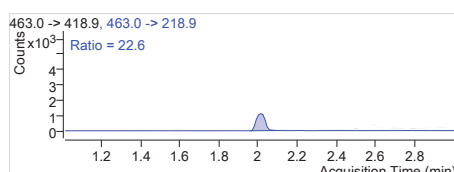
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

413.0 -> 368.9
1.869 (1.869)
4.29 µg/Kg
2.02139
Calibration

**PFOS 1**

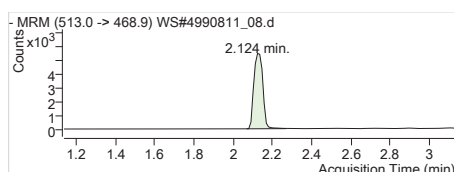
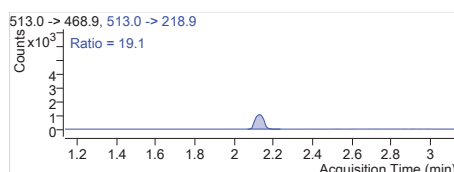
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

498.9 -> 79.9
1.979 (1.979)
4.67 µg/Kg
1.83420
Calibration

**PFNA 1**

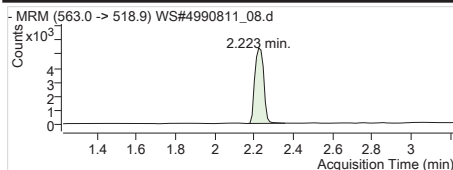
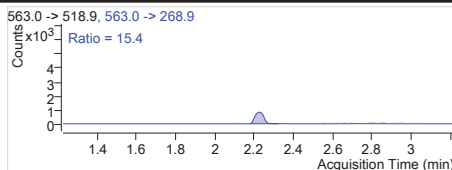
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

463.0 -> 418.9
2.014 (2.014)
4.19 µg/Kg
1.75456
Calibration

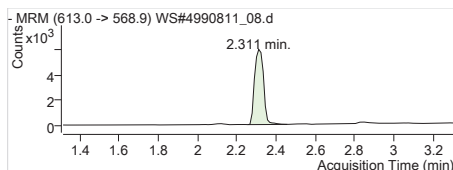
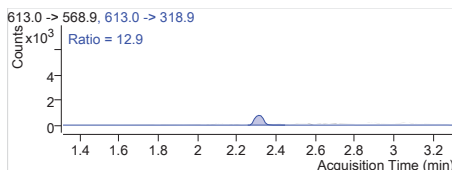
**PFDA 1**

RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

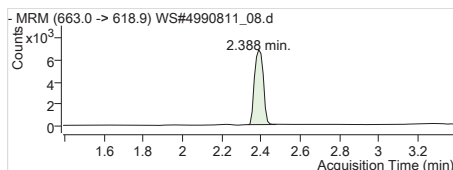
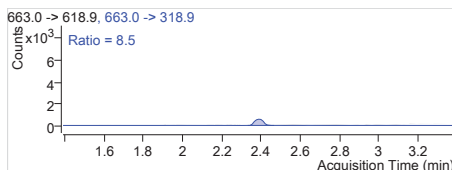
513.0 -> 468.9
2.124 (2.135)
4.65 µg/Kg
2.51215
Calibration



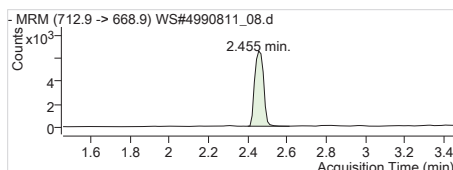
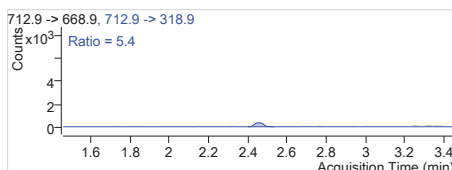
PFUnA 1
RT (Exp. RT): 563.0 -> 518.9
Calc. conc. 2.223 (2.223)
Area ratio: 4.42 µg/Kg
Sample type: 2.15397
Calibration



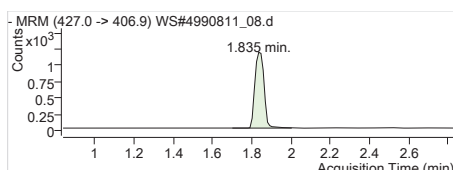
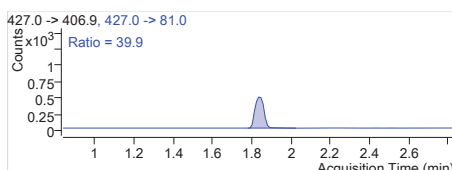
PFDa 1
RT (Exp. RT): 613.0 -> 568.9
Calc. conc. 2.311 (2.311)
Area ratio: 4.58 µg/Kg
Sample type: 2.09725
Calibration



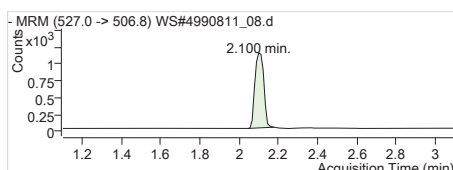
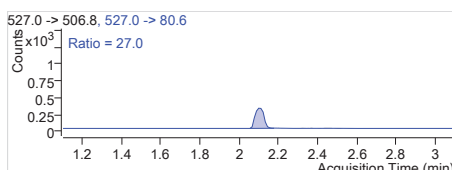
PFTraDA 1
RT (Exp. RT): 663.0 -> 618.9
Calc. conc. 2.388 (2.388)
Area ratio: 4.55 µg/Kg
Sample type: 1.90733
Calibration



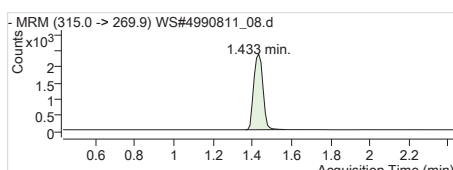
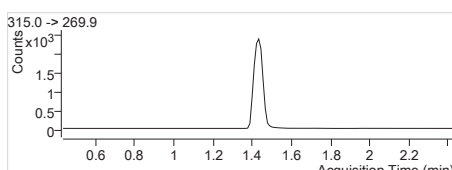
PFTeDA 1
RT (Exp. RT): 712.9 -> 668.9
Calc. conc. 2.455 (2.455)
Area ratio: 4.59 µg/Kg
Sample type: 1.85147
Calibration



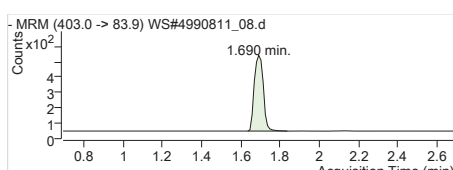
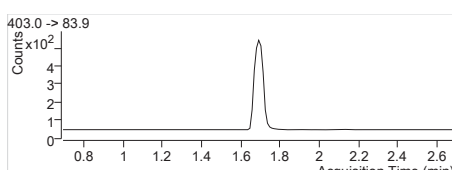
6:2-FTS 1
RT (Exp. RT): 427.0 -> 406.9
Calc. conc. 1.835 (1.835)
Area ratio: 4.17 µg/Kg
Sample type: 1.83546
Calibration



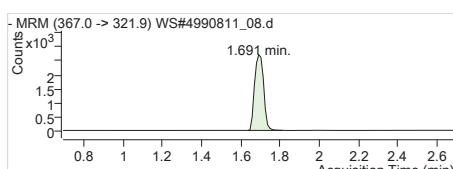
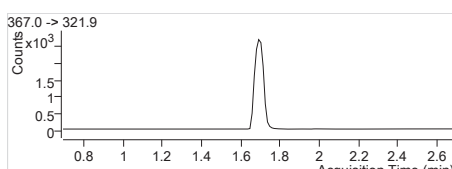
8:2-FTS 1
RT (Exp. RT): 527.0 -> 506.8
Calc. conc. 2.100 (2.100)
Area ratio: 4.24 µg/Kg
Sample type: 1.64006
Calibration



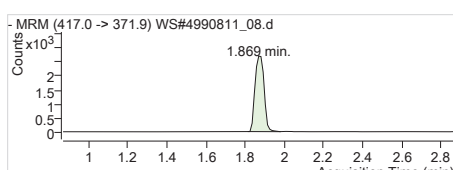
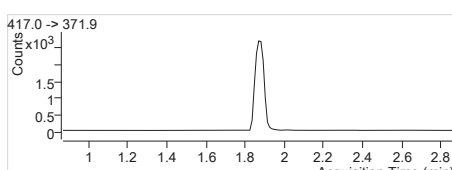
13C2-PFHxA
RT (Exp. RT): 315.0 -> 269.9
Calc. conc. 1.433 (1.433)
Area ratio: 93.85 µg/Kg
Sample type: 0.18074
Calibration



18O2-PFHxS
RT (Exp. RT): 403.0 -> 83.9
Calc. conc. 1.690 (1.690)
Area ratio: 105.17 µg/Kg
Sample type: 0.03754
Calibration

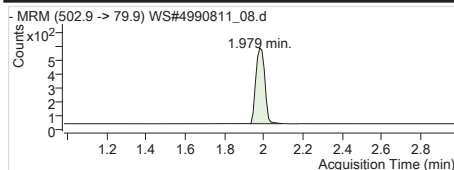
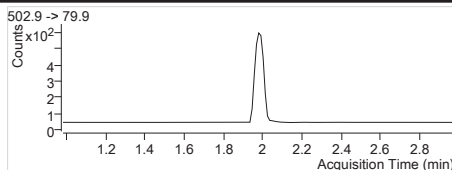


13C4-PFHpA
RT (Exp. RT): 367.0 -> 321.9
Calc. conc. 1.691 (1.691)
Area ratio: 95.84 µg/Kg
Sample type: 0.20136
Calibration

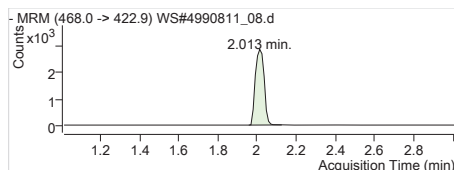
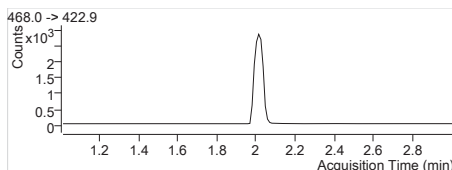


13C4-PFOA
RT (Exp. RT): 417.0 -> 371.9
Calc. conc. 1.869 (1.869)
Area ratio: 99.36 µg/Kg
Sample type: 0.20138
Calibration

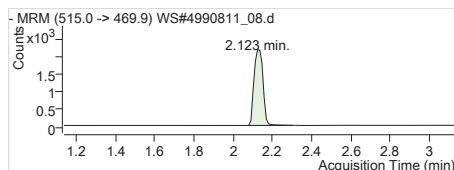
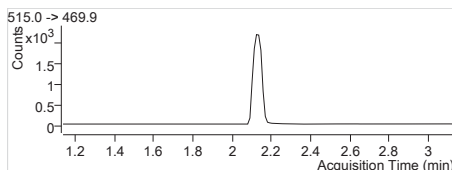
Quantitation Results



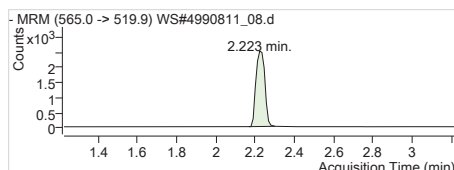
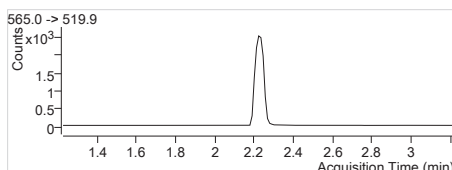
13C4-PFOS
RT (Exp. RT): 502.9 -> 79.9
Calc. conc. 1.979 (1.979)
Area ratio: 93.37 µg/Kg
Sample type: 0.04097
Calibration



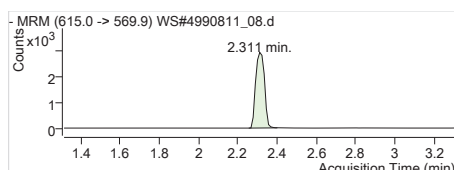
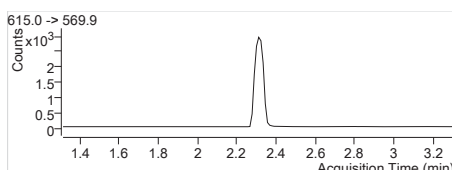
13C5-PFNA
RT (Exp. RT): 468.0 -> 422.9
Calc. conc. 2.013 (2.013)
Area ratio: 101.25 µg/Kg
Sample type: 0.20742
Calibration



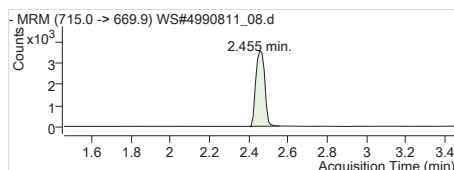
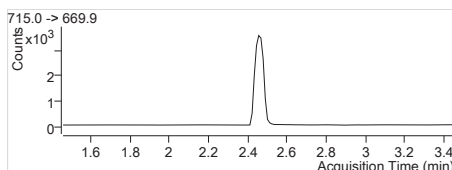
13C2-PFDA
RT (Exp. RT): 515.0 -> 469.9
Calc. conc. 2.123 (2.135)
Area ratio: 95.25 µg/Kg
Sample type: 0.17852
Calibration



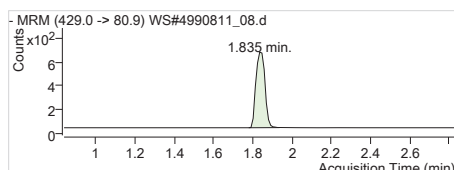
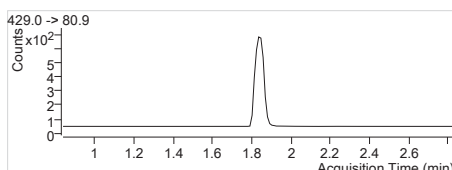
13C2-PFUnA
RT (Exp. RT): 565.0 -> 519.9
Calc. conc. 2.223 (2.223)
Area ratio: 94.00 µg/Kg
Sample type: 0.20321
Calibration



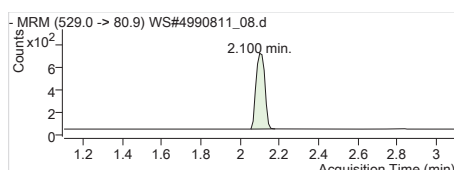
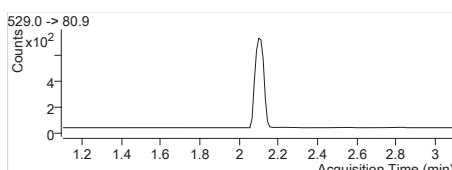
13C2-PFDoA
RT (Exp. RT): 615.0 -> 569.9
Calc. conc. 2.311 (2.311)
Area ratio: 95.11 µg/Kg
Sample type: 0.23577
Calibration



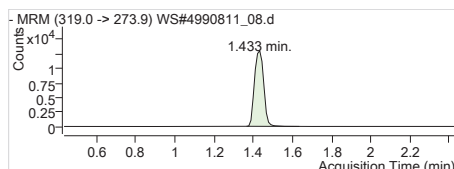
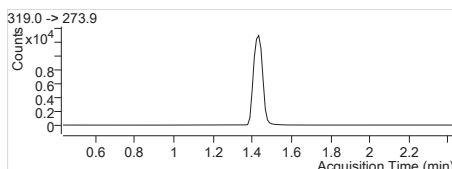
13C2-PFTeDA
RT (Exp. RT): 715.0 -> 669.9
Calc. conc. 2.455 (2.455)
Area ratio: 94.45 µg/Kg
Sample type: 0.28775
Calibration



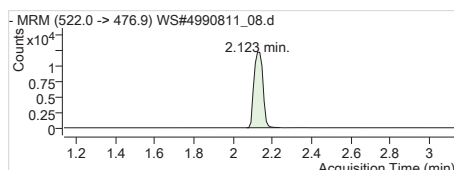
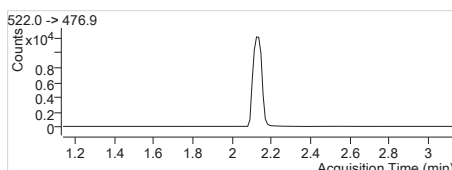
13C2-6:2-FTS
RT (Exp. RT): 429.0 -> 80.9
Calc. conc. 1.835 (1.835)
Area ratio: 98.99 µg/Kg
Sample type: 0.04833
Calibration



13C2-8:2 FTS
RT (Exp. RT): 529.0 -> 80.9
Calc. conc. 2.100 (2.100)
Area ratio: 99.50 µg/Kg
Sample type: 0.05010
Calibration



13C6-PFHxA
RT (Exp. RT): 319.0 -> 273.9
Calc. conc. 1.433 (1.433)
Area ratio: 104.74 µg/Kg
Sample type: 0
Calibration

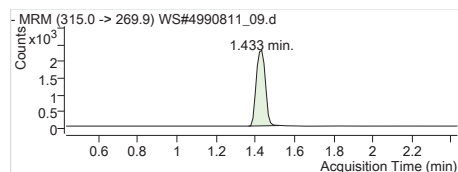
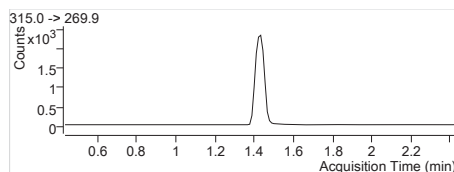


13C9-PFDA
RT (Exp. RT): 522.0 -> 476.9
Calc. conc. 2.123 (2.134)
Area ratio: 105.68 µg/Kg
Sample type: 0
Calibration

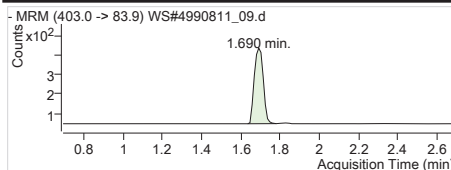
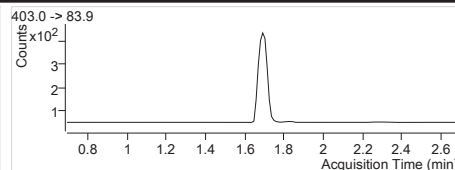
Batch Path	T:\lcms4\PFC\20170524\WS#4990811\QuantResults\PFC_Soil_170524_WS#4990811_CTLabs14		
Sample Name	STD 4	Instrument	LCMS04
Data File	WS#4990811_09.d	Operator	AD
Sample Type	Cal	Dilution	1
Acq. Method	PFC_Soil.m	Position	P2-A5
Acq. Date	2017/05/24 8:57:00 PM	Injection Volume	Per Method
Sample Annotation	-		

ISTD Compounds	Response	RT	Target conc.		
MPFHxA	7407	1.43	1 µg/Kg		
MPFHxS	1237	1.69	1 µg/Kg		
MPFHpA	8173	1.69	1 µg/Kg		
MPFOA	7823	1.87	1 µg/Kg		
MPFOS	1637	1.98	1 µg/Kg		
MPFNA	7742	2.01	1 µg/Kg		
MPFDA	6488	2.13	1 µg/Kg		
MPFUnA	7620	2.22	1 µg/Kg		
MPFDoA	8194	2.31	1 µg/Kg		
MPFTeDA	10710	2.46	1 µg/Kg		
M2 6:2 FTS	2138	1.83	1 µg/Kg		
M2 8:2 FTS	1903	2.10	1 µg/Kg		
13C6-PFHxA IS	43427	1.43	1 µg/Kg		
13C9-PFDA IS	39243	2.13	1 µg/Kg		

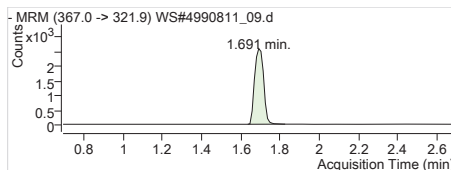
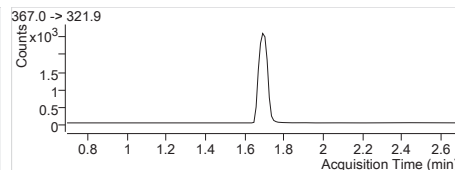
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	9145	1.10	11.30	11.62 µg/Kg	102.81
PFHxA 1	38134	1.43	11.30	11.05 µg/Kg	97.83
PFHxS 1	7567	1.69	11.30	11.89 µg/Kg	105.22
PFHpA 1	41683	1.69	11.30	10.53 µg/Kg	93.17
PFOA 1	39822	1.87	11.30	10.76 µg/Kg	95.20
PFOS 1	7647	1.98	11.30	11.90 µg/Kg	105.29
PFNA 1	35429	2.01	11.30	10.93 µg/Kg	96.76
PFDA 1	39040	2.13	11.30	11.26 µg/Kg	99.61
PFUnA 1	39481	2.22	11.30	10.54 µg/Kg	93.25
PFDaA 1	41871	2.31	11.30	11.34 µg/Kg	100.34
PFTTrDA 1	49166	2.39	11.30	10.99 µg/Kg	97.23
PFTeDA 1	45605	2.46	11.30	10.58 µg/Kg	93.67
6:2-FTS 1	8724	1.83	11.30	9.35 µg/Kg	82.75
8:2-FTS 1	8080	2.10	11.30	11.05 µg/Kg	97.79
13C2-PFHxA	7407	1.43	100.00	88.57 µg/Kg	88.57
18O2-PFHxS	1237	1.69	100.00	79.81 µg/Kg	79.81
13C4-PFHpA	8173	1.69	100.00	89.57 µg/Kg	89.57
13C4-PFOA	7823	1.87	100.00	88.88 µg/Kg	88.88
13C4-PFOS	1637	1.98	100.00	85.91 µg/Kg	85.91
13C5-PFNA	7742	2.01	100.00	87.03 µg/Kg	87.03
13C2-PFDA	6488	2.13	100.00	88.21 µg/Kg	88.21
13C2-PFUnA	7620	2.22	100.00	89.82 µg/Kg	89.82
13C2-PFDoA	8194	2.31	100.00	84.23 µg/Kg	84.23
13C2-PFTeDA	10710	2.46	100.00	89.58 µg/Kg	89.58
13C2-6:2-FTS	2138	1.83	100.00	100.84 µg/Kg	100.84
13C2-8:2 FTS	1903	2.10	100.00	87.02 µg/Kg	87.02
13C6-PFHxA	43427	1.43	100.00	107.65 µg/Kg	107.65
13C9-PFDA	39243	2.13	100.00	107.68 µg/Kg	107.68



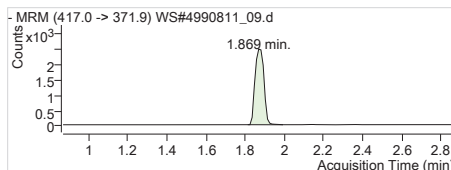
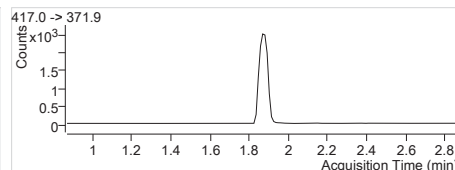
MPFHxA Internal Standard
RT (Exp. RT): 1.433 (1.433)
Concentration: 1 µg/Kg
Sample type: Calibration



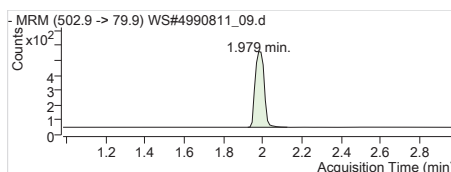
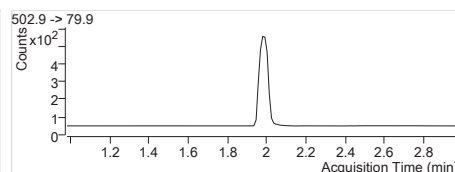
MPFHxS
RT (Exp. RT): 1.690 (1.690)
Concentration: 1 µg/Kg
Sample type: Calibration



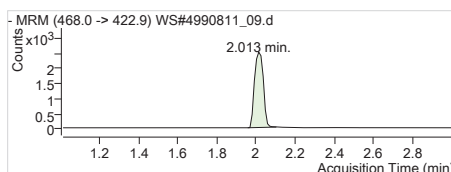
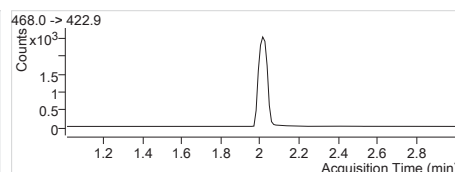
MPFHpA
RT (Exp. RT): 1.691 (1.691)
Concentration: 1 µg/Kg
Sample type: Calibration



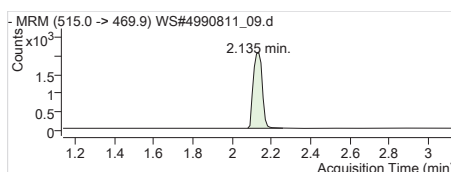
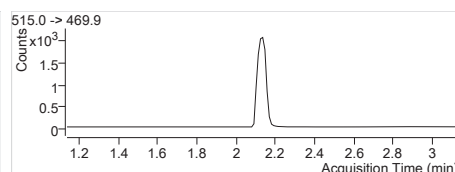
MPFOA
RT (Exp. RT): 1.869 (1.869)
Concentration: 1 µg/Kg
Sample type: Calibration



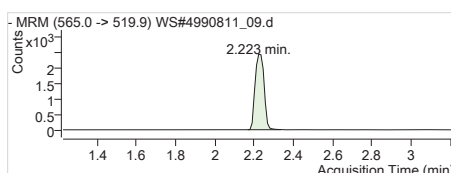
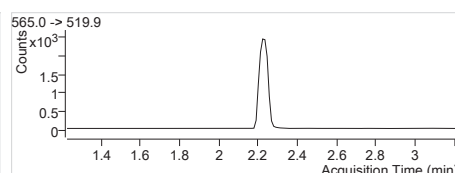
MPFOS
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/Kg
Sample type: Calibration



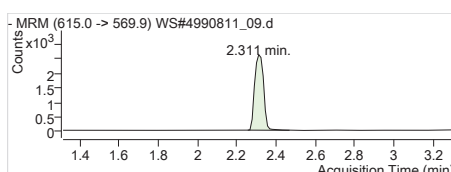
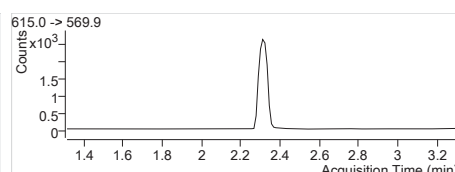
MPFNA
RT (Exp. RT): 2.013 (2.013)
Concentration: 1 µg/Kg
Sample type: Calibration



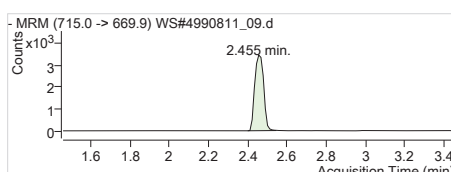
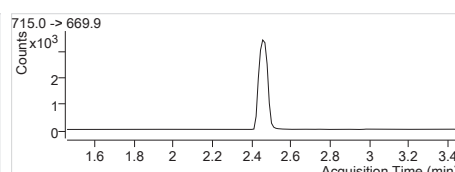
MPFDA
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/Kg
Sample type: Calibration



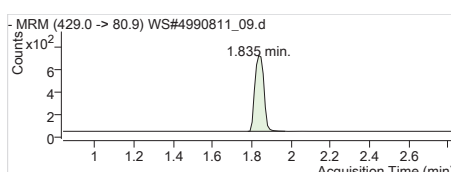
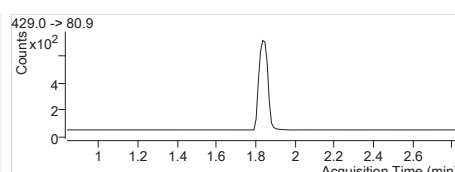
MPFUnA
RT (Exp. RT): 2.223 (2.223)
Concentration: 1 µg/Kg
Sample type: Calibration



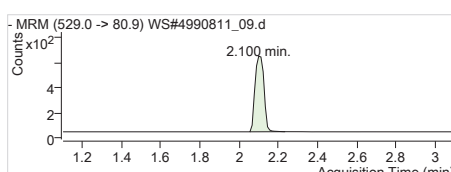
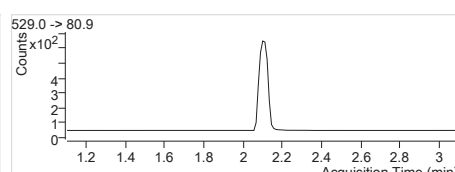
MPFDoA
RT (Exp. RT): 2.311 (2.311)
Concentration: 1 µg/Kg
Sample type: Calibration



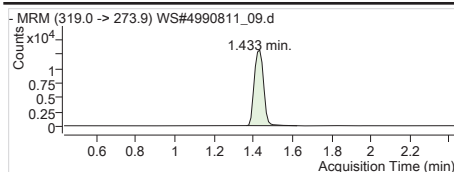
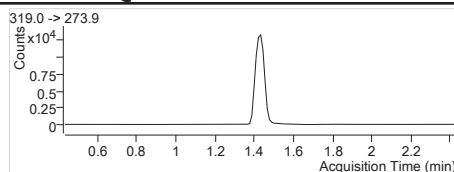
MPFTeDA
RT (Exp. RT): 2.455 (2.455)
Concentration: 1 µg/Kg
Sample type: Calibration



M2 6:2 FTS
RT (Exp. RT): 1.835 (1.835)
Concentration: 1 µg/Kg
Sample type: Calibration

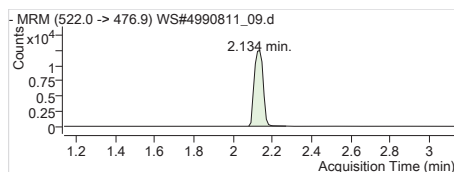
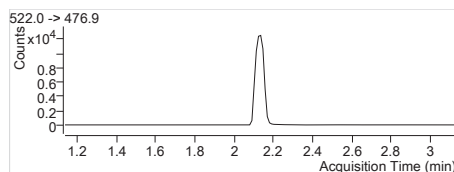


M2 8:2 FTS
RT (Exp. RT): 2.100 (2.100)
Concentration: 1 µg/Kg
Sample type: Calibration

**13C6-PFHxA IS**

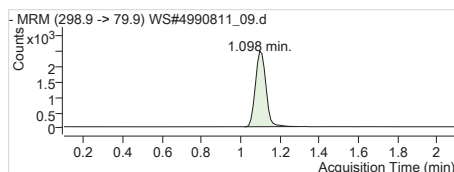
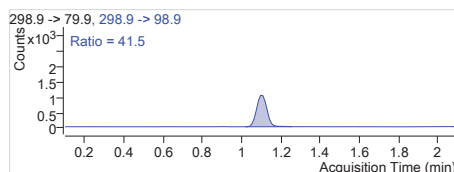
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
1.433 (1.433)
1 µg/Kg
Calibration

**13C9-PFDA IS**

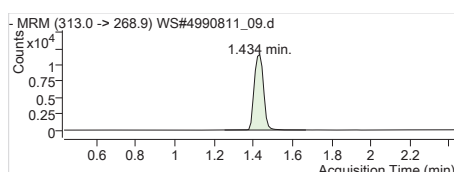
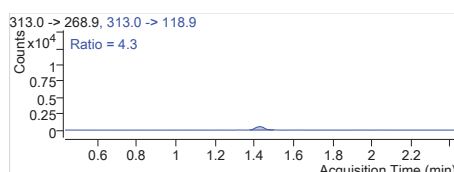
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
2.134 (2.134)
1 µg/Kg
Calibration

**PFBS 1**

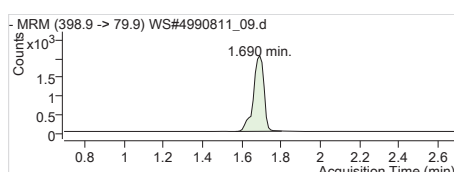
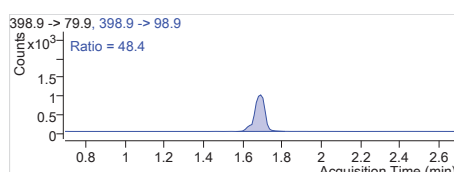
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

298.9 -> 79.9
1.098 (1.098)
11.62 µg/Kg
7.39289
Calibration

**PFHxA 1**

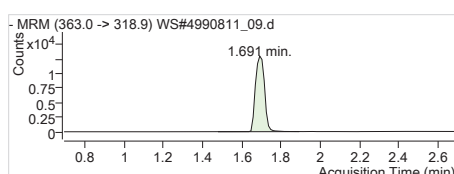
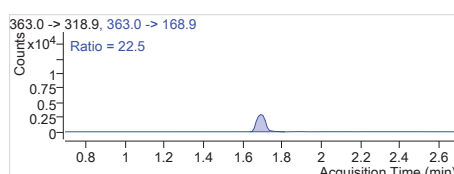
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

313.0 -> 268.9
1.434 (1.434)
11.05 µg/Kg
5.14837
Calibration

**PFHxS 1**

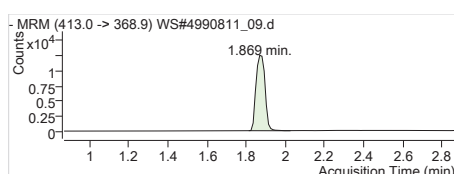
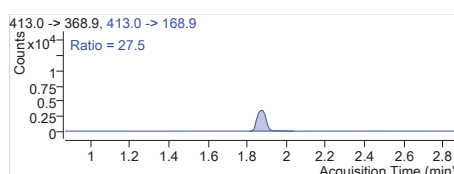
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

398.9 -> 79.9
1.690 (1.690)
11.89 µg/Kg
6.11722
Calibration

**PFHpA 1**

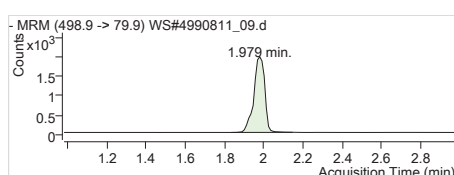
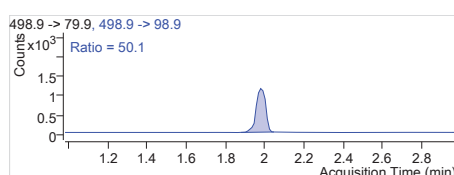
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

363.0 -> 318.9
1.691 (1.691)
10.53 µg/Kg
5.10009
Calibration

**PFOA 1**

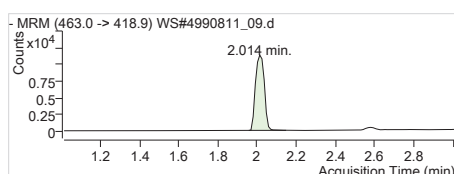
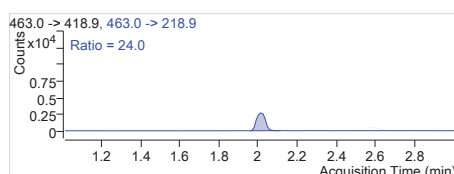
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

413.0 -> 368.9
1.869 (1.869)
10.76 µg/Kg
5.09037
Calibration

**PFOS 1**

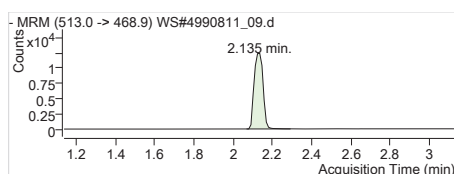
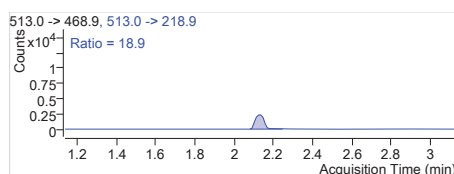
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

498.9 -> 79.9
1.979 (1.979)
11.90 µg/Kg
4.67135
Calibration

**PFNA 1**

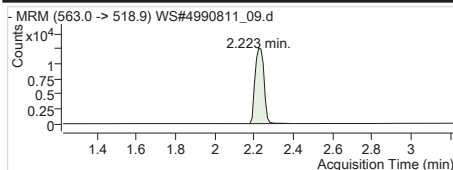
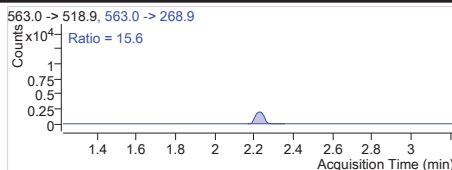
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

463.0 -> 418.9
2.014 (2.014)
10.93 µg/Kg
4.57621
Calibration

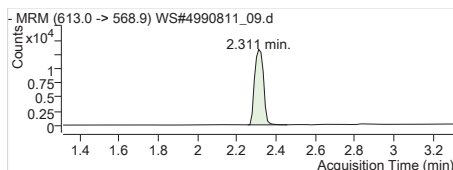
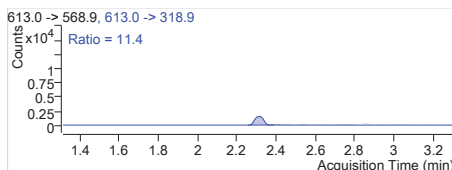
**PFDA 1**

RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

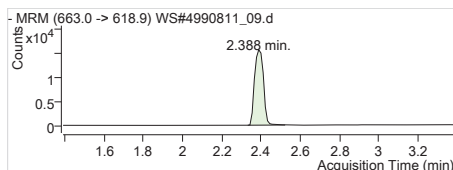
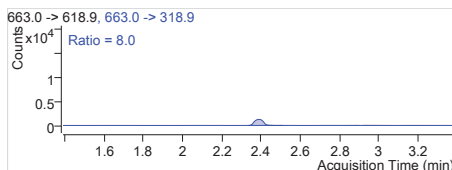
513.0 -> 468.9
2.135 (2.135)
11.26 µg/Kg
6.01726
Calibration



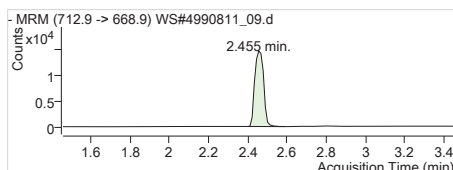
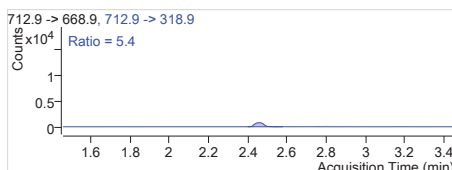
PFUnA 1
RT (Exp. RT): 563.0 -> 518.9
Calc. conc. 2.223 (2.223)
Area ratio: 10.54 µg/Kg
Sample type: 5.18123
Calibration



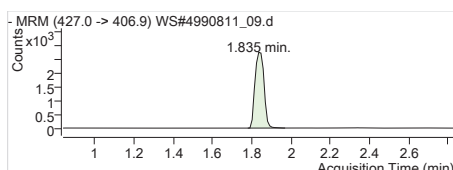
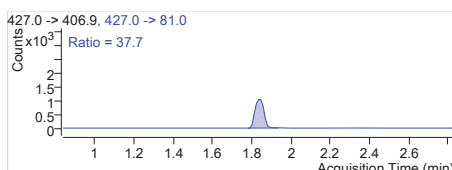
PFDoA 1
RT (Exp. RT): 613.0 -> 568.9
Calc. conc. 2.311 (2.311)
Area ratio: 11.34 µg/Kg
Sample type: 5.10996
Calibration



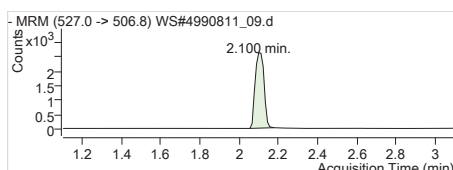
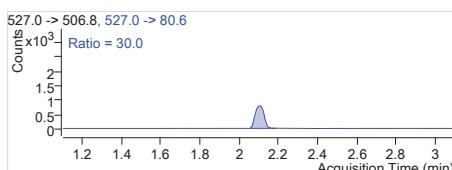
PFTrDA 1
RT (Exp. RT): 663.0 -> 618.9
Calc. conc. 2.388 (2.388)
Area ratio: 10.99 µg/Kg
Sample type: 4.59066
Calibration



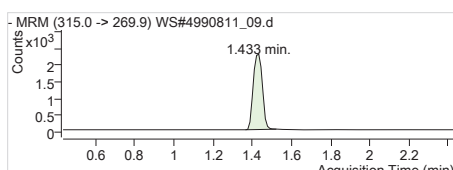
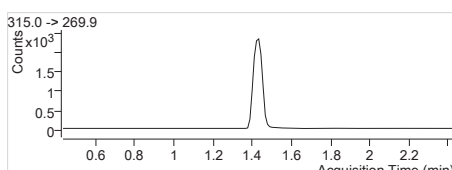
PFTEdA 1
RT (Exp. RT): 712.9 -> 668.9
Calc. conc. 2.455 (2.455)
Area ratio: 10.58 µg/Kg
Sample type: 4.25817
Calibration



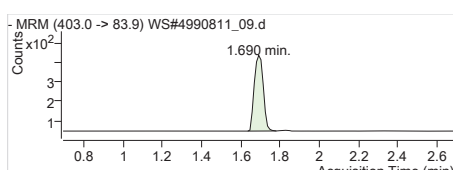
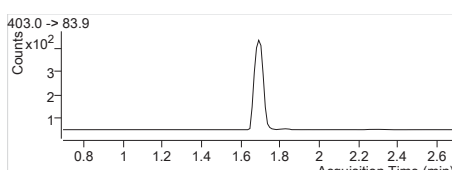
6:2-FTS 1
RT (Exp. RT): 427.0 -> 406.9
Calc. conc. 1.835 (1.835)
Area ratio: 9.35 µg/Kg
Sample type: 4.08045
Calibration



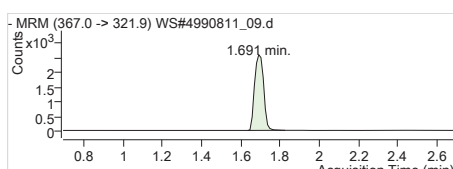
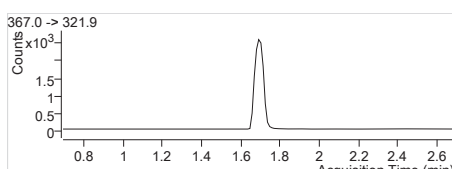
8:2-FTS 1
RT (Exp. RT): 527.0 -> 506.8
Calc. conc. 2.100 (2.100)
Area ratio: 11.05 µg/Kg
Sample type: 4.24593
Calibration



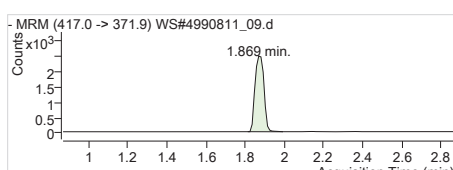
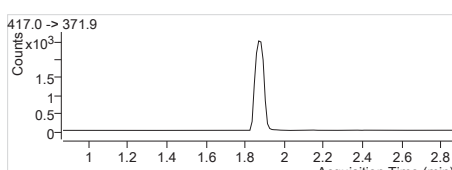
13C2-PFHxA
RT (Exp. RT): 315.0 -> 269.9
Calc. conc. 1.433 (1.433)
Area ratio: 88.57 µg/Kg
Sample type: 0.17056
Calibration



18O2-PFHxS
RT (Exp. RT): 403.0 -> 83.9
Calc. conc. 1.690 (1.690)
Area ratio: 79.81 µg/Kg
Sample type: 0.02848
Calibration

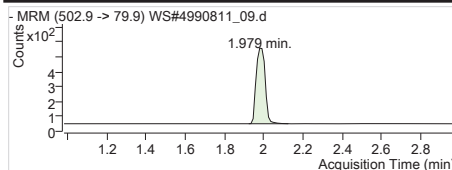
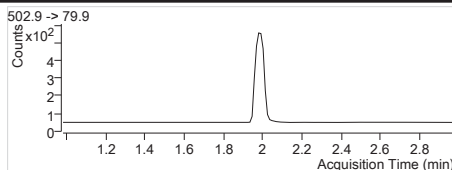


13C4-PFHpA
RT (Exp. RT): 367.0 -> 321.9
Calc. conc. 1.691 (1.691)
Area ratio: 89.57 µg/Kg
Sample type: 0.18820
Calibration

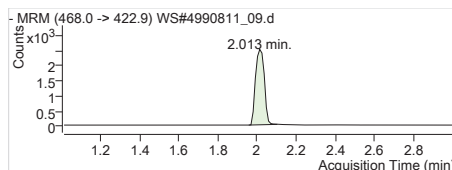
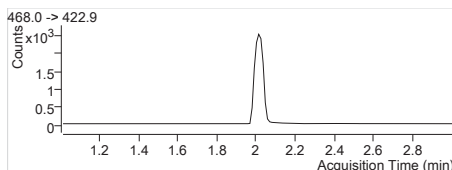


13C4-PFOA
RT (Exp. RT): 417.0 -> 371.9
Calc. conc. 1.869 (1.869)
Area ratio: 88.88 µg/Kg
Sample type: 0.18014
Calibration

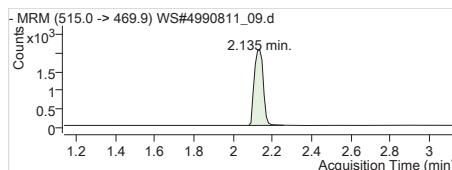
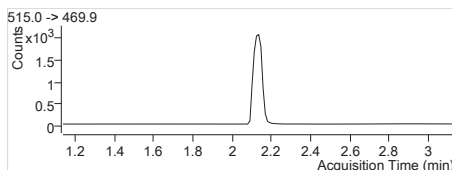
Quantitation Results



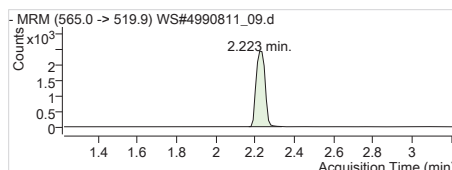
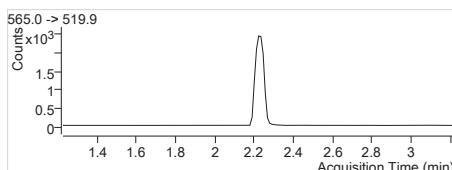
13C4-PFOS
RT (Exp. RT): 502.9 -> 79.9
Calc. conc. 1.979 (1.979)
85.91 µg/Kg
Area ratio: 0.03770
Sample type: Calibration



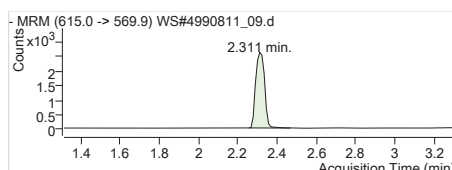
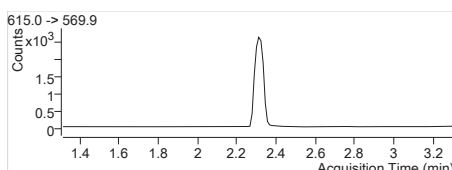
13C5-PFNA
RT (Exp. RT): 468.0 -> 422.9
Calc. conc. 2.013 (2.013)
87.03 µg/Kg
Area ratio: 0.17828
Sample type: Calibration



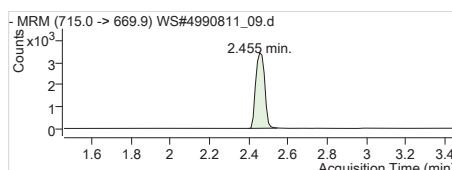
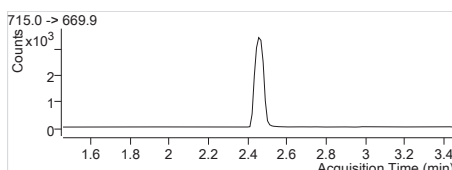
13C2-PFDA
RT (Exp. RT): 515.0 -> 469.9
Calc. conc. 2.135 (2.135)
88.21 µg/Kg
Area ratio: 0.16533
Sample type: Calibration



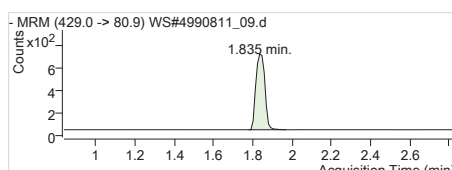
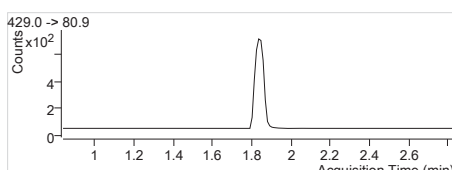
13C2-PFUnA
RT (Exp. RT): 565.0 -> 519.9
Calc. conc. 2.223 (2.223)
89.82 µg/Kg
Area ratio: 0.19417
Sample type: Calibration



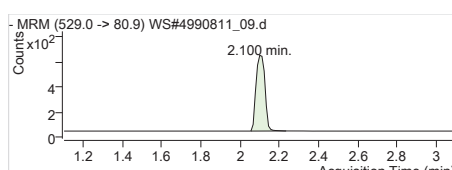
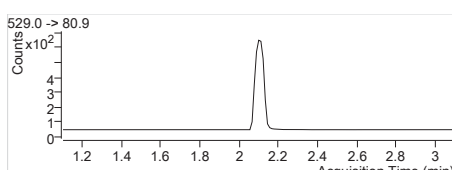
13C2-PFDoA
RT (Exp. RT): 615.0 -> 569.9
Calc. conc. 2.311 (2.311)
84.23 µg/Kg
Area ratio: 0.20880
Sample type: Calibration



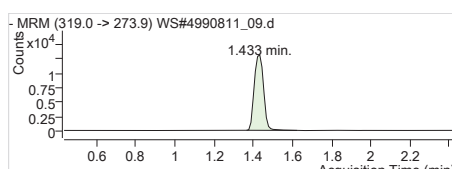
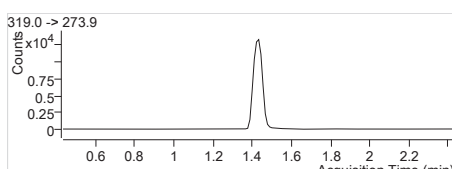
13C2-PFTeDA
RT (Exp. RT): 715.0 -> 669.9
Calc. conc. 2.455 (2.455)
89.58 µg/Kg
Area ratio: 0.27291
Sample type: Calibration



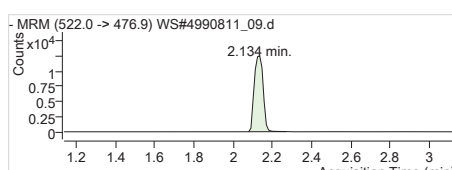
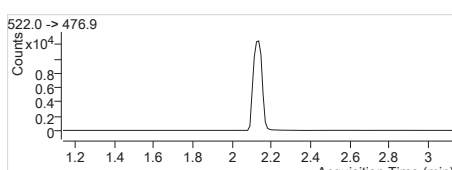
13C2-6:2-FTS
RT (Exp. RT): 429.0 -> 80.9
Calc. conc. 1.835 (1.835)
100.84 µg/Kg
Area ratio: 0.04923
Sample type: Calibration



13C2-8:2 FTS
RT (Exp. RT): 529.0 -> 80.9
Calc. conc. 2.100 (2.100)
87.02 µg/Kg
Area ratio: 0.04382
Sample type: Calibration



13C6-PFHxA
RT (Exp. RT): 319.0 -> 273.9
Calc. conc. 1.433 (1.433)
107.65 µg/Kg
Area ratio: 0
Sample type: Calibration

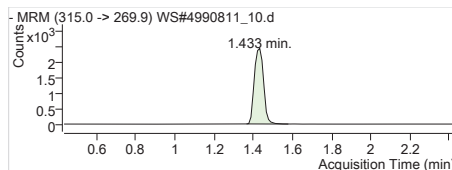
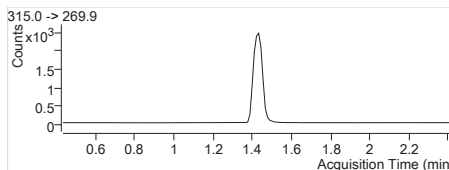


13C9-PFDA
RT (Exp. RT): 522.0 -> 476.9
Calc. conc. 2.134 (2.134)
107.68 µg/Kg
Area ratio: 0
Sample type: Calibration

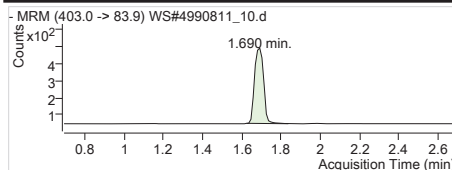
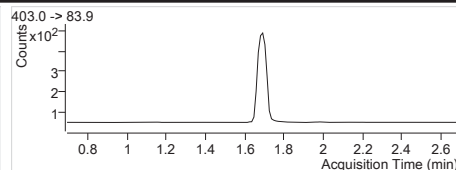
Batch Path	T:\lcms4\PFC\20170524\WS#4990811\QuantResults\PFC_Soil_170524_WS#4990811_CTLabs14		
Sample Name	STD 5	Instrument	LCMS04
Data File	WS#4990811_10.d	Operator	AD
Sample Type	Cal	Dilution	1
Acq. Method	PFC_Soil.m	Position	P2-A6
Acq. Date	2017/05/24 9:01:54 PM	Injection Volume	Per Method
Sample Annotation	-		

ISTD Compounds	Response	RT	Target conc.		
MPFHxA	7942	1.43	1 µg/Kg		
MPFHxS	1409	1.69	1 µg/Kg		
MPFHpA	7978	1.69	1 µg/Kg		
MPFOA	7842	1.87	1 µg/Kg		
MPFOS	1840	1.98	1 µg/Kg		
MPFNA	8311	2.01	1 µg/Kg		
MPFDA	6924	2.13	1 µg/Kg		
MPFUnA	8104	2.22	1 µg/Kg		
MPFDoA	8933	2.31	1 µg/Kg		
MPFTeDA	10613	2.46	1 µg/Kg		
M2 6:2 FTS	1812	1.83	1 µg/Kg		
M2 8:2 FTS	1954	2.11	1 µg/Kg		
13C6-PFHxA IS	38948	1.43	1 µg/Kg		
13C9-PFDA IS	36531	2.13	1 µg/Kg		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	19685	1.10	22.50	21.86 µg/Kg	97.14
PFHxA 1	79785	1.43	22.50	21.55 µg/Kg	95.77
PFHxS 1	16038	1.69	22.50	22.02 µg/Kg	97.87
PFHpA 1	85901	1.69	22.50	22.10 µg/Kg	98.23
PFOA 1	84362	1.87	22.50	22.71 µg/Kg	100.94
PFOS 1	14649	1.98	22.50	20.28 µg/Kg	90.13
PFNA 1	74700	2.01	22.50	21.47 µg/Kg	95.43
PFDA 1	83915	2.12	22.50	22.76 µg/Kg	101.14
PFUnA 1	83801	2.22	22.50	20.96 µg/Kg	93.15
PFDaA 1	88612	2.31	22.50	22.13 µg/Kg	98.37
PFTTrDA 1	98306	2.39	22.50	22.19 µg/Kg	98.62
PFTeDA 1	100508	2.46	22.50	23.57 µg/Kg	104.75
6:2-FTS 1	17660	1.83	22.50	22.43 µg/Kg	99.68
8:2-FTS 1	16504	2.10	22.50	22.02 µg/Kg	97.87
13C2-PFHxA	7942	1.43	100.00	105.89 µg/Kg	105.89
18O2-PFHxS	1409	1.69	100.00	101.36 µg/Kg	101.36
13C4-PFHpA	7978	1.69	100.00	97.49 µg/Kg	97.49
13C4-PFOA	7842	1.87	100.00	99.34 µg/Kg	99.34
13C4-PFOS	1840	1.98	100.00	107.67 µg/Kg	107.67
13C5-PFNA	8311	2.01	100.00	104.17 µg/Kg	104.17
13C2-PFDA	6924	2.13	100.00	101.13 µg/Kg	101.13
13C2-PFUnA	8104	2.22	100.00	102.62 µg/Kg	102.62
13C2-PFDoA	8933	2.31	100.00	98.65 µg/Kg	98.65
13C2-PFTeDA	10613	2.46	100.00	95.36 µg/Kg	95.36
13C2-6:2-FTS	1812	1.83	100.00	95.29 µg/Kg	95.29
13C2-8:2 FTS	1954	2.11	100.00	99.63 µg/Kg	99.63
13C6-PFHxA	38948	1.43	100.00	96.55 µg/Kg	96.55
13C9-PFDA	36531	2.13	100.00	100.24 µg/Kg	100.24

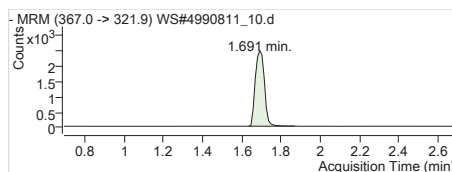
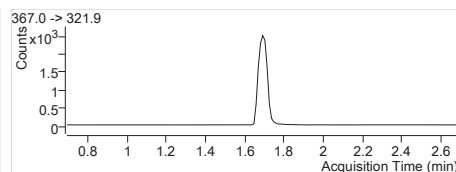


MPFHxA
 RT (Exp. RT): 1.433 (1.433)
 Concentration: 1 µg/Kg
 Sample type: Calibration



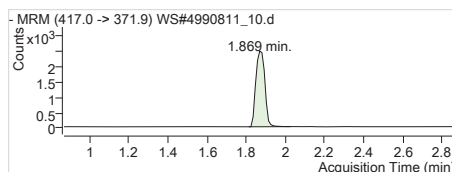
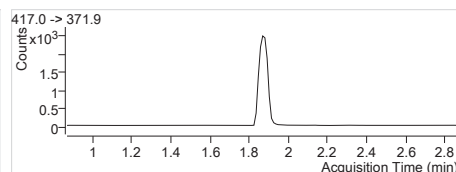
MPFHxS
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
1.690 (1.690)
1 µg/Kg
Calibration



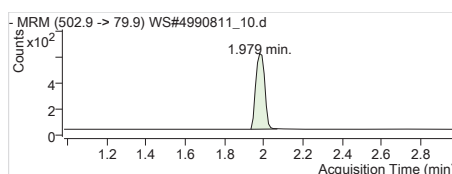
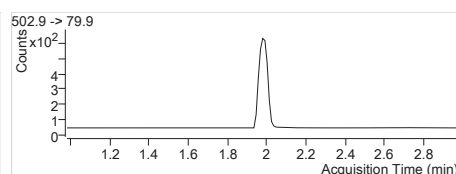
MPFHpA
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
1.691 (1.691)
1 µg/Kg
Calibration



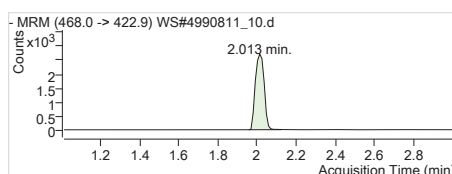
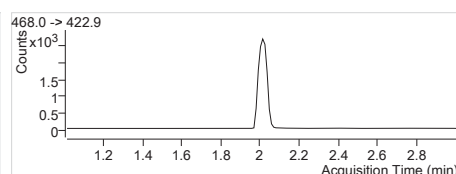
MPFOA
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
1.869 (1.869)
1 µg/Kg
Calibration



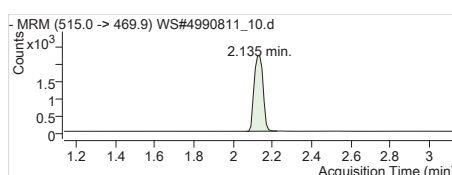
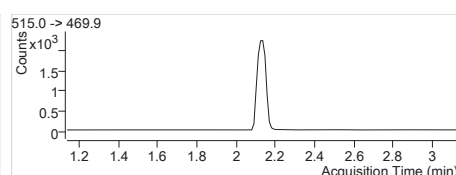
MPFOS
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
1.979 (1.979)
1 µg/Kg
Calibration



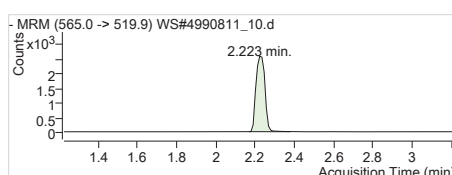
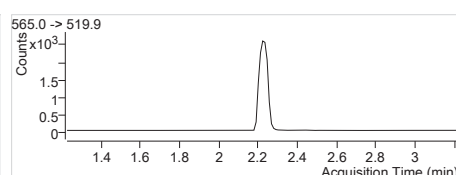
MPFNA
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
2.013 (2.013)
1 µg/Kg
Calibration



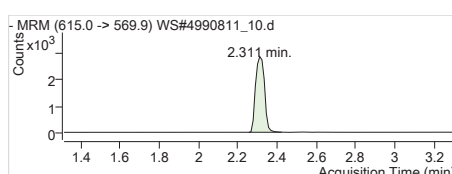
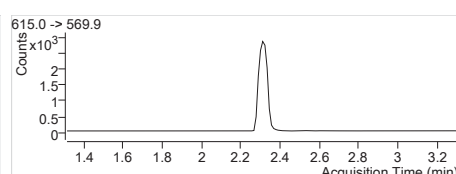
MPFDA
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
2.135 (2.135)
1 µg/Kg
Calibration



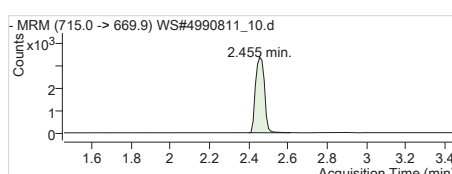
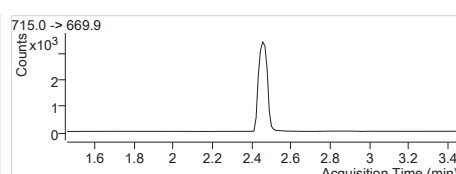
MPFUnA
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
2.223 (2.223)
1 µg/Kg
Calibration



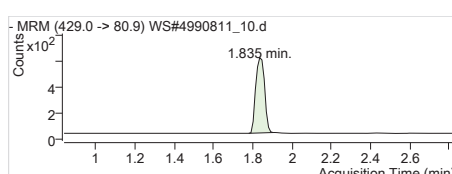
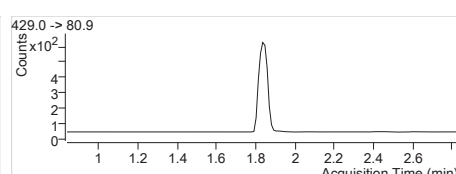
MPFDoA
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
2.311 (2.311)
1 µg/Kg
Calibration



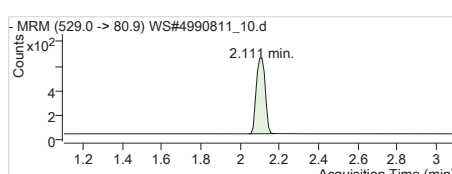
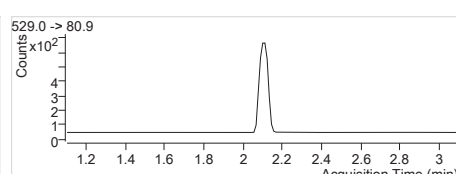
MPFTeDA
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
2.455 (2.455)
1 µg/Kg
Calibration



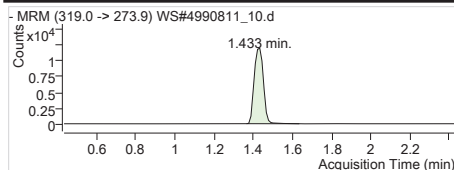
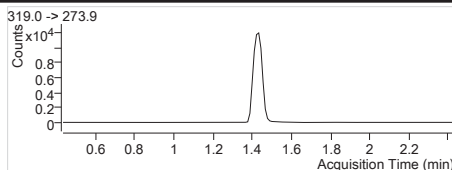
M2 6:2 FTS
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
1.835 (1.835)
1 µg/Kg
Calibration



M2 8:2 FTS
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
2.111 (2.100)
1 µg/Kg
Calibration

**13C6-PFHxA IS**

RT (Exp. RT):

Concentration:

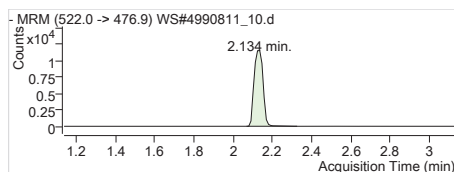
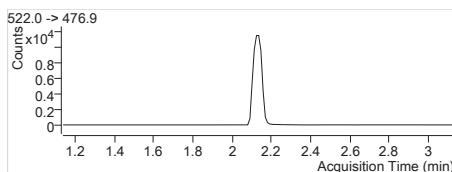
Sample type:

Internal Standard

1.433 (1.433)

1 µg/Kg

Calibration

**13C9-PFDA IS**

RT (Exp. RT):

Concentration:

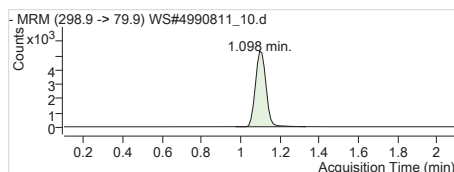
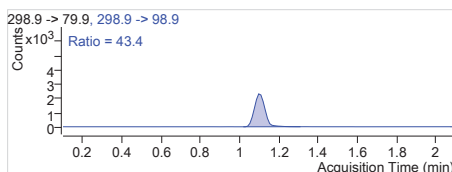
Sample type:

Internal Standard

2.134 (2.134)

1 µg/Kg

Calibration

**PFBS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

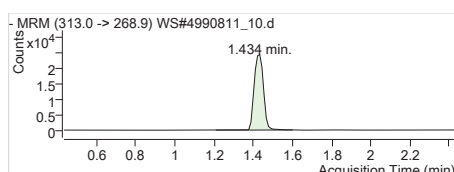
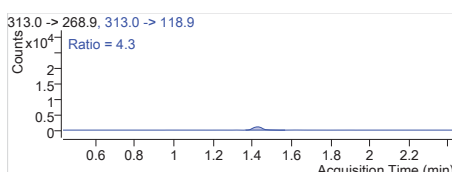
298.9 -> 79.9

1.098 (1.098)

21.86 µg/Kg

13.97090

Calibration

**PFHxA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

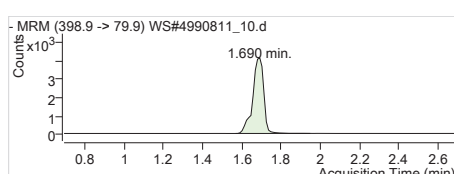
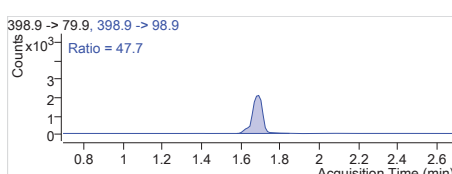
313.0 -> 268.9

1.434 (1.434)

21.55 µg/Kg

10.04596

Calibration

**PFHxS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

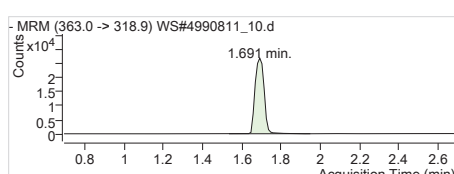
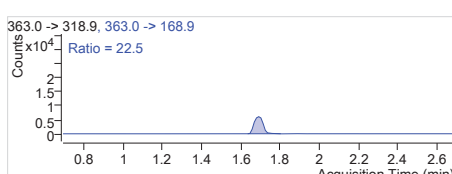
398.9 -> 79.9

1.690 (1.690)

22.02 µg/Kg

11.38254

Calibration

**PFHpA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

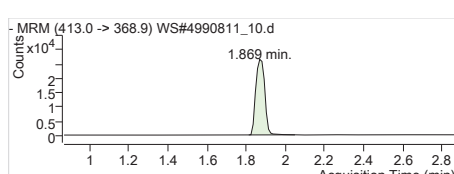
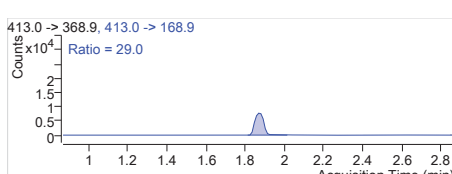
363.0 -> 318.9

1.691 (1.691)

22.10 µg/Kg

10.76723

Calibration

**PFOA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

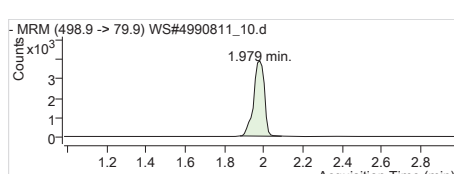
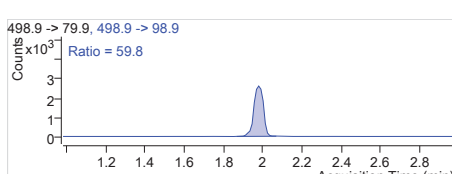
413.0 -> 368.9

1.869 (1.869)

22.71 µg/Kg

10.75771

Calibration

**PFOS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

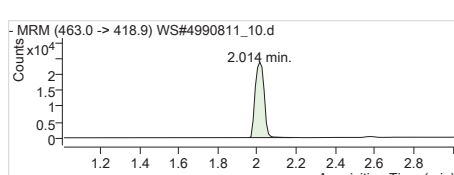
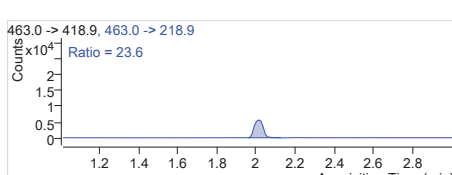
498.9 -> 79.9

1.979 (1.979)

20.28 µg/Kg

7.96141

Calibration

**PFNA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

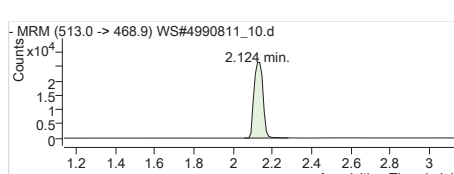
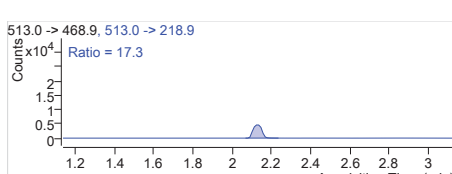
463.0 -> 418.9

2.014 (2.014)

21.47 µg/Kg

8.98809

Calibration

**PFDA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

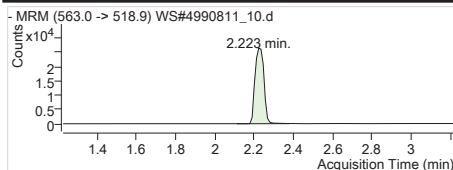
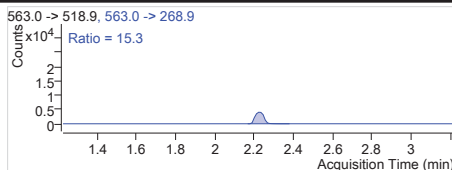
513.0 -> 468.9

2.124 (2.135)

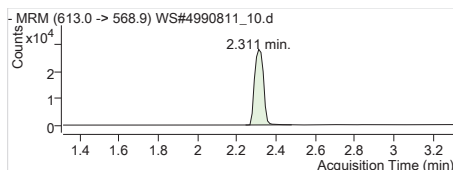
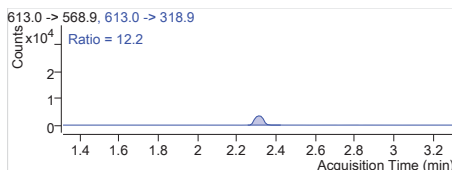
22.76 µg/Kg

12.11944

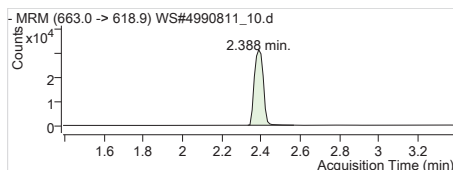
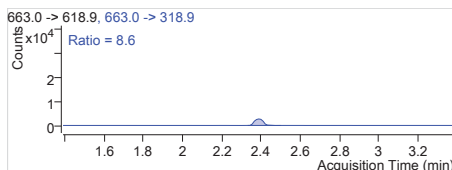
Calibration



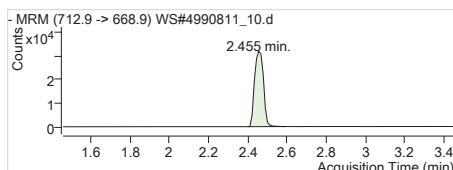
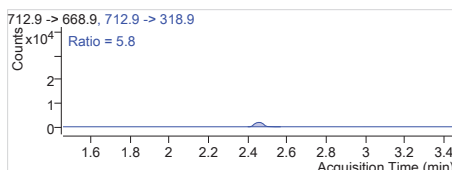
PFUnA 1
RT (Exp. RT): 563.0 -> 518.9
Calc. conc. 2.223 (2.223)
Area ratio: 20.96 µg/Kg
Sample type: 10.34070
Calibration



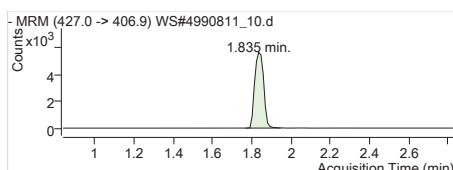
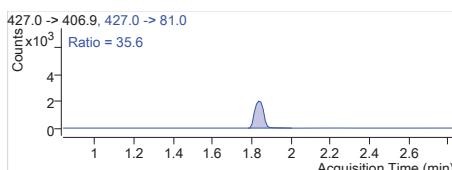
PFDa 1
RT (Exp. RT): 613.0 -> 568.9
Calc. conc. 2.311 (2.311)
Area ratio: 22.13 µg/Kg
Sample type: 9.91962
Calibration



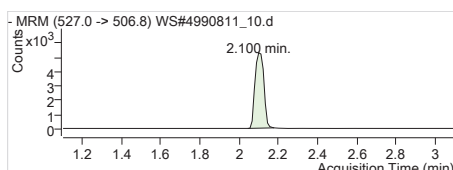
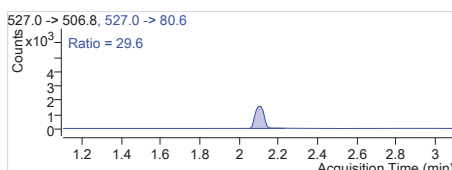
PFTra 1
RT (Exp. RT): 663.0 -> 618.9
Calc. conc. 2.388 (2.388)
Area ratio: 22.19 µg/Kg
Sample type: 9.26279
Calibration



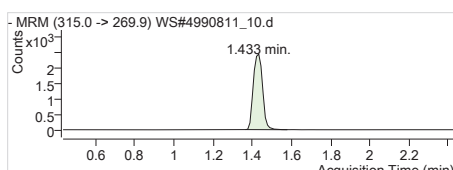
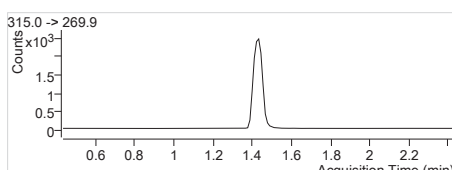
PFTeDa 1
RT (Exp. RT): 712.9 -> 668.9
Calc. conc. 2.455 (2.455)
Area ratio: 23.57 µg/Kg
Sample type: 9.47027
Calibration



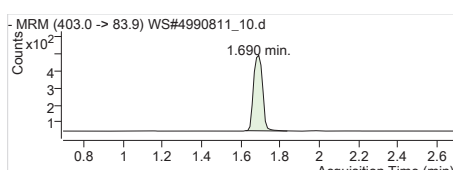
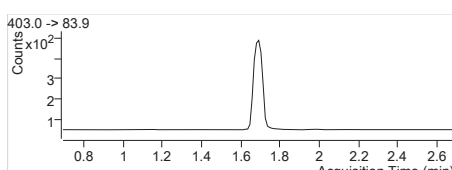
6:2-FTS 1
RT (Exp. RT): 427.0 -> 406.9
Calc. conc. 1.835 (1.835)
Area ratio: 22.43 µg/Kg
Sample type: 9.74614
Calibration



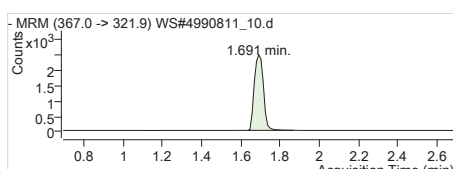
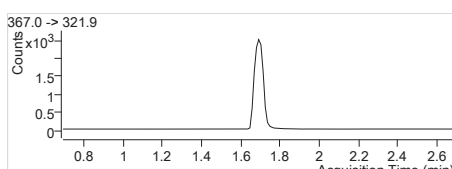
8:2-FTS 1
RT (Exp. RT): 527.0 -> 506.8
Calc. conc. 2.100 (2.100)
Area ratio: 22.02 µg/Kg
Sample type: 8.44626
Calibration



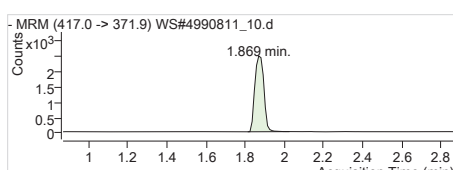
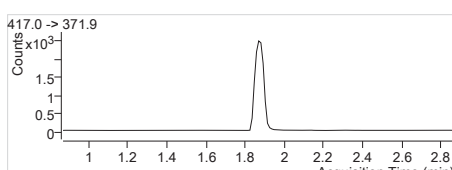
13C2-PFHxA
RT (Exp. RT): 315.0 -> 269.9
Calc. conc. 1.433 (1.433)
Area ratio: 105.89 µg/Kg
Sample type: 0.20391
Calibration



18O2-PFHxS
RT (Exp. RT): 403.0 -> 83.9
Calc. conc. 1.690 (1.690)
Area ratio: 101.36 µg/Kg
Sample type: 0.03618
Calibration

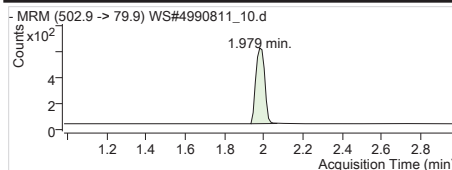
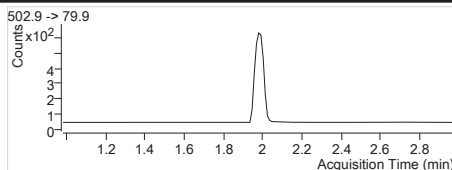


13C4-PFHpA
RT (Exp. RT): 367.0 -> 321.9
Calc. conc. 1.691 (1.691)
Area ratio: 97.49 µg/Kg
Sample type: 0.20484
Calibration

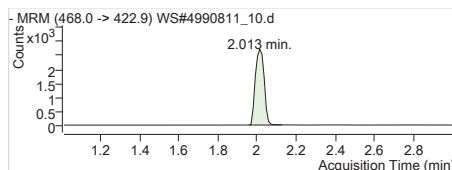
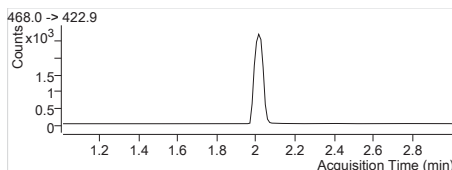


13C4-PFOA
RT (Exp. RT): 417.0 -> 371.9
Calc. conc. 1.869 (1.869)
Area ratio: 99.34 µg/Kg
Sample type: 0.20135
Calibration

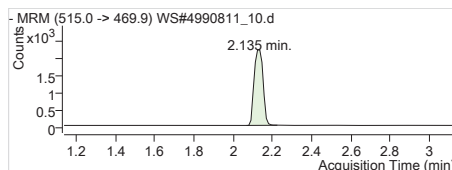
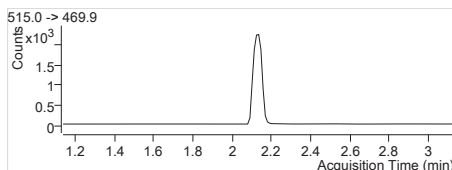
Quantitation Results



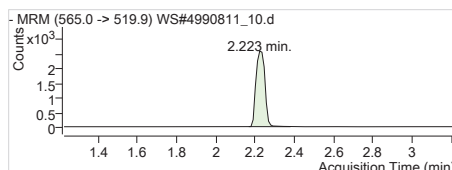
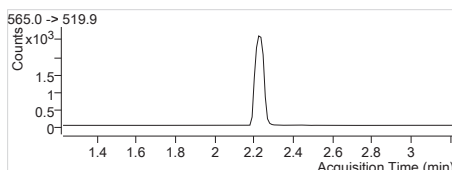
13C4-PFOS
 RT (Exp. RT): 502.9 -> 79.9
 Calc. conc. 1.979 (1.979)
 Area ratio: 107.67 µg/Kg
 Sample type: 0.04724
 Calibration



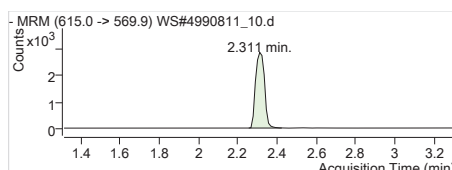
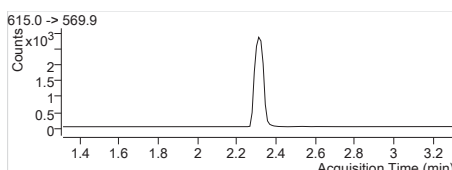
13C5-PFNA
 RT (Exp. RT): 468.0 -> 422.9
 Calc. conc. 2.013 (2.013)
 Area ratio: 104.17 µg/Kg
 Sample type: 0.21339
 Calibration



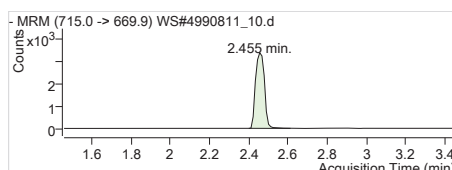
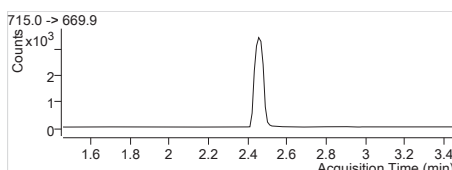
13C2-PFDA
 RT (Exp. RT): 515.0 -> 469.9
 Calc. conc. 2.135 (2.135)
 Area ratio: 101.13 µg/Kg
 Sample type: 0.18954
 Calibration



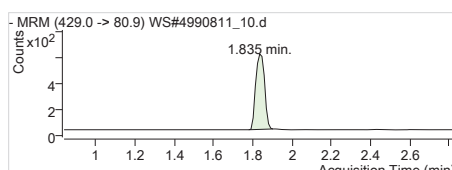
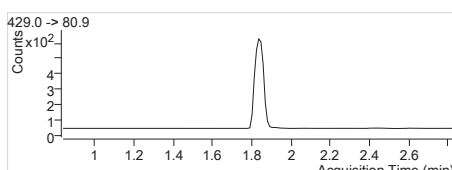
13C2-PFUnA
 RT (Exp. RT): 565.0 -> 519.9
 Calc. conc. 2.223 (2.223)
 Area ratio: 102.62 µg/Kg
 Sample type: 0.22184
 Calibration



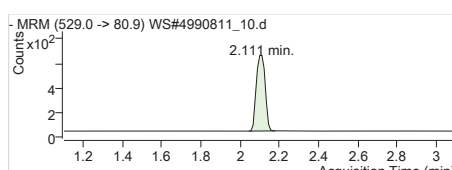
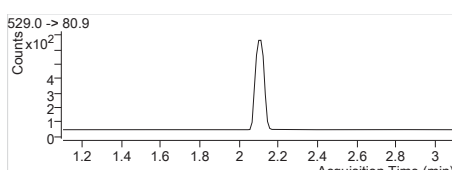
13C2-PFDoA
 RT (Exp. RT): 615.0 -> 569.9
 Calc. conc. 2.311 (2.311)
 Area ratio: 98.65 µg/Kg
 Sample type: 0.24453
 Calibration



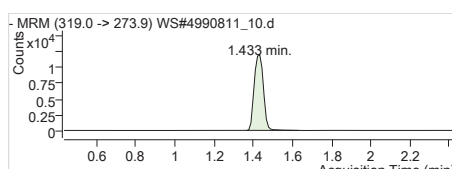
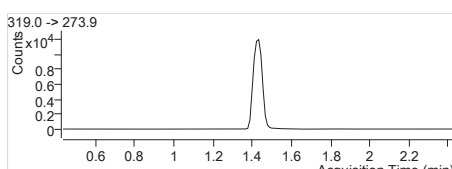
13C2-PFTeDA
 RT (Exp. RT): 715.0 -> 669.9
 Calc. conc. 2.455 (2.455)
 Area ratio: 95.36 µg/Kg
 Sample type: 0.29052
 Calibration



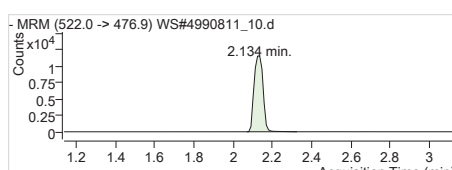
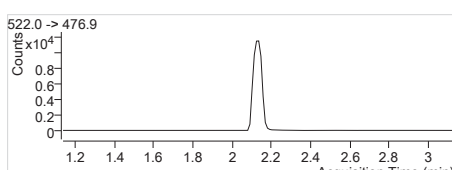
13C2-6:2-FTS
 RT (Exp. RT): 429.0 -> 80.9
 Calc. conc. 1.835 (1.835)
 Area ratio: 95.29 µg/Kg
 Sample type: 0.04652
 Calibration



13C2-8:2 FTS
 RT (Exp. RT): 529.0 -> 80.9
 Calc. conc. 2.111 (2.100)
 Area ratio: 99.63 µg/Kg
 Sample type: 0.05017
 Calibration



13C6-PFHxA
 RT (Exp. RT): 319.0 -> 273.9
 Calc. conc. 1.433 (1.433)
 Area ratio: 96.55 µg/Kg
 Sample type: 0
 Calibration

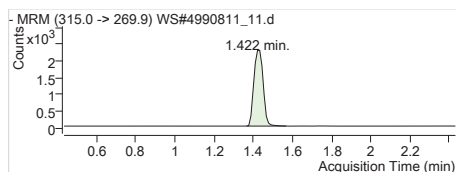
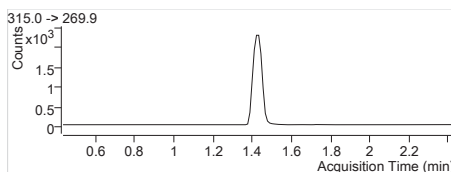


13C9-PFDA
 RT (Exp. RT): 522.0 -> 476.9
 Calc. conc. 2.134 (2.134)
 Area ratio: 100.24 µg/Kg
 Sample type: 0
 Calibration

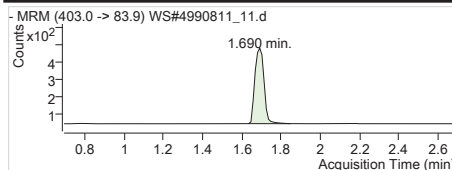
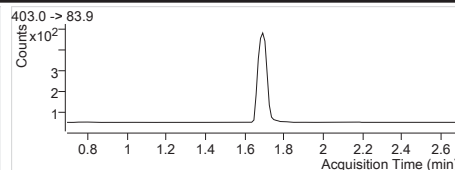
Batch Path	T:\lcms4\PFC\20170524\WS#4990811\QuantResults\PFC_Soil_170524_WS#4990811_CTLabs14		
Sample Name	STD 6	Instrument	LCMS04
Data File	WS#4990811_11.d	Operator	AD
Sample Type	Cal	Dilution	1
Acq. Method	PFC_Soil.m	Position	P2-A7
Acq. Date	2017/05/24 9:06:49 PM	Injection Volume	Per Method
Sample Annotation	-		

ISTD Compounds	Response	RT	Target conc.		
MPFHxA	7455	1.42	1 µg/Kg		
MPFHxS	1401	1.69	1 µg/Kg		
MPFHpA	7742	1.69	1 µg/Kg		
MPFOA	7905	1.87	1 µg/Kg		
MPFOS	1745	1.98	1 µg/Kg		
MPFNA	7695	2.01	1 µg/Kg		
MPFDA	6912	2.13	1 µg/Kg		
MPFUnA	7113	2.22	1 µg/Kg		
MPFDoA	9016	2.31	1 µg/Kg		
MPFTeDA	11099	2.46	1 µg/Kg		
M2 6:2 FTS	1677	1.83	1 µg/Kg		
M2 8:2 FTS	1872	2.10	1 µg/Kg		
13C6-PFHxA IS	39450	1.43	1 µg/Kg		
13C9-PFDA IS	34205	2.13	1 µg/Kg		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	34197	1.10	37.50	38.11 µg/Kg	101.62
PFHxA 1	134626	1.42	37.50	38.72 µg/Kg	103.25
PFHxS 1	27456	1.69	37.50	37.82 µg/Kg	100.87
PFHpA 1	146312	1.69	37.50	38.71 µg/Kg	103.23
PFOA 1	142229	1.87	37.50	37.97 µg/Kg	101.25
PFOS 1	26720	1.98	37.50	39.01 µg/Kg	104.02
PFNA 1	125908	2.01	37.50	39.09 µg/Kg	104.23
PFDA 1	136478	2.13	37.50	37.13 µg/Kg	99.01
PFUnA 1	139860	2.22	37.50	39.79 µg/Kg	106.10
PFDaA 1	152238	2.31	37.50	37.77 µg/Kg	100.72
PFTTrDA 1	176093	2.39	37.50	38.02 µg/Kg	101.40
PFTeDA 1	165208	2.46	37.50	37.06 µg/Kg	98.82
6:2-FTS 1	28859	1.83	37.50	39.65 µg/Kg	105.74
8:2-FTS 1	27530	2.10	37.50	38.37 µg/Kg	102.32
13C2-PFHxA	7455	1.42	100.00	98.13 µg/Kg	98.13
18O2-PFHxS	1401	1.69	100.00	99.50 µg/Kg	99.50
13C4-PFHpA	7742	1.69	100.00	93.40 µg/Kg	93.40
13C4-PFOA	7905	1.87	100.00	98.87 µg/Kg	98.87
13C4-PFOS	1745	1.98	100.00	100.81 µg/Kg	100.81
13C5-PFNA	7695	2.01	100.00	95.22 µg/Kg	95.22
13C2-PFDA	6912	2.13	100.00	107.82 µg/Kg	107.82
13C2-PFUnA	7113	2.22	100.00	96.20 µg/Kg	96.20
13C2-PFDoA	9016	2.31	100.00	106.33 µg/Kg	106.33
13C2-PFTeDA	11099	2.46	100.00	106.51 µg/Kg	106.51
13C2-6:2-FTS	1677	1.83	100.00	87.07 µg/Kg	87.07
13C2-8:2 FTS	1872	2.10	100.00	94.24 µg/Kg	94.24
13C6-PFHxA	39450	1.43	100.00	97.79 µg/Kg	97.79
13C9-PFDA	34205	2.13	100.00	93.86 µg/Kg	93.86

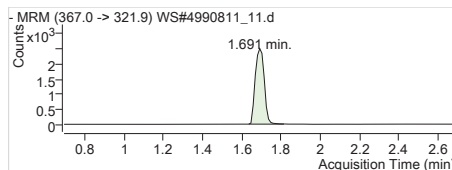
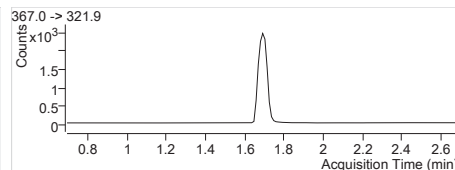


MPFHxA
 RT (Exp. RT): 1.422 (1.433)
 Concentration: 1 µg/Kg
 Sample type: Calibration



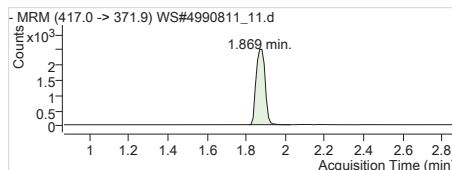
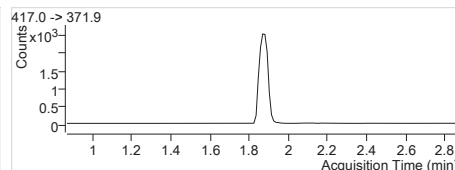
MPFHxS
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
1.690 (1.690)
1 µg/Kg
Calibration



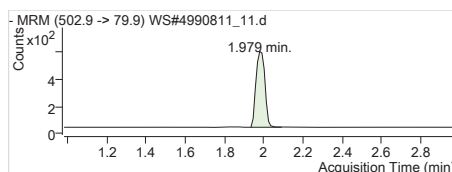
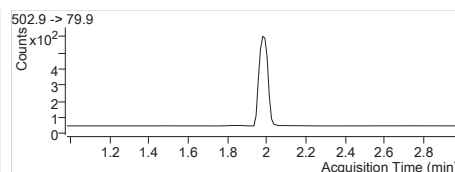
MPFHpA
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
1.691 (1.691)
1 µg/Kg
Calibration



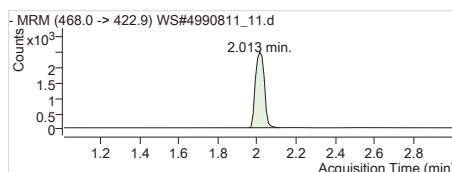
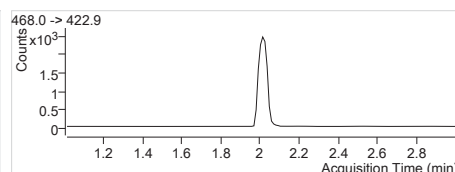
MPFOA
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
1.869 (1.869)
1 µg/Kg
Calibration



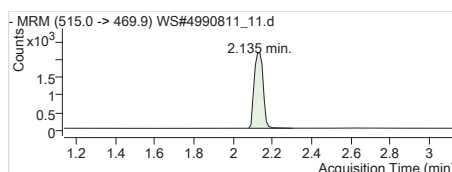
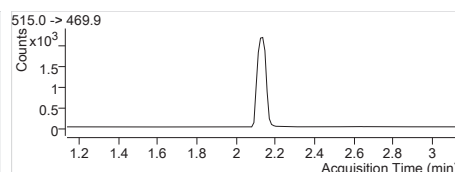
MPFOS
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
1.979 (1.979)
1 µg/Kg
Calibration



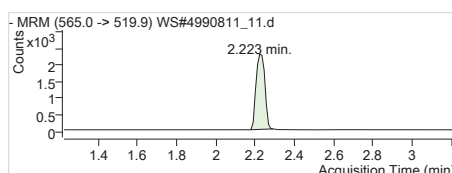
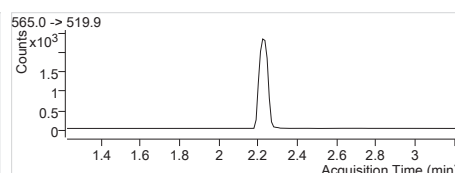
MPFNA
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
2.013 (2.013)
1 µg/Kg
Calibration



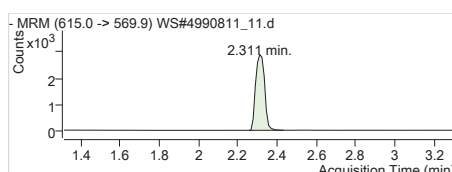
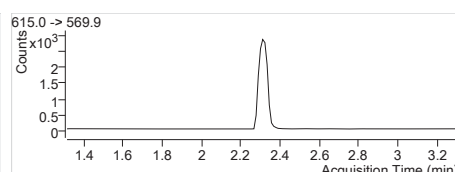
MPFDA
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
2.135 (2.135)
1 µg/Kg
Calibration



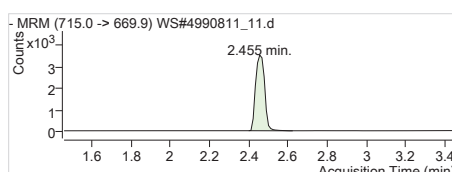
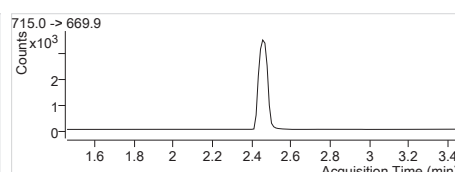
MPFUnA
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
2.223 (2.223)
1 µg/Kg
Calibration



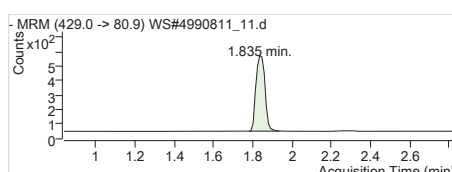
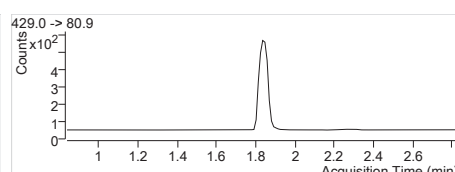
MPFDoA
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
2.311 (2.311)
1 µg/Kg
Calibration



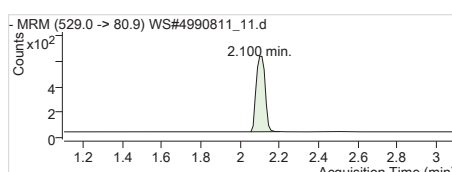
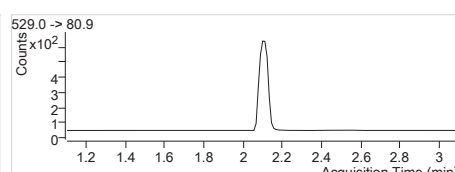
MPFTeDA
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
2.455 (2.455)
1 µg/Kg
Calibration



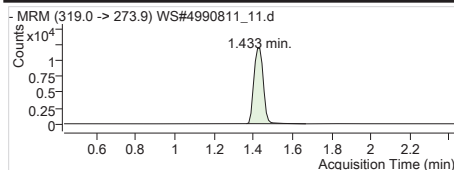
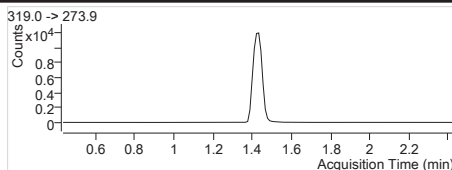
M2 6:2 FTS
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
1.835 (1.835)
1 µg/Kg
Calibration



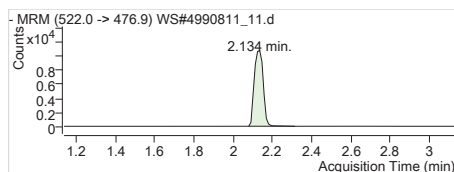
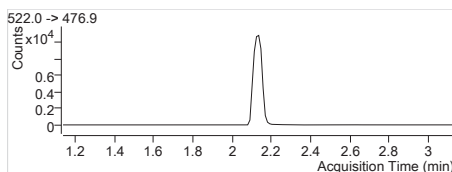
M2 8:2 FTS
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
2.100 (2.100)
1 µg/Kg
Calibration

**13C6-PFHxA IS**

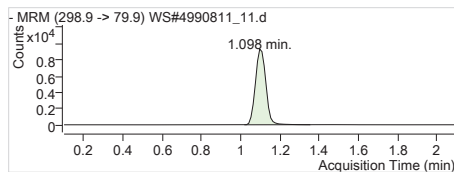
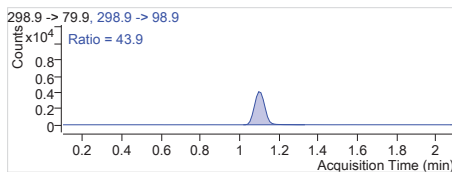
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
1.433 (1.433)
1 µg/Kg
Calibration

**13C9-PFDA IS**

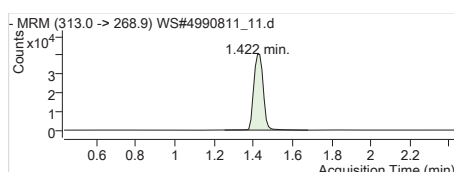
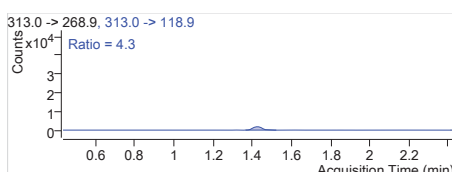
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
2.134 (2.134)
1 µg/Kg
Calibration

**PFBS 1**

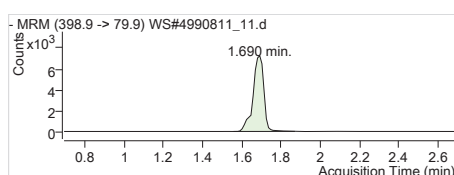
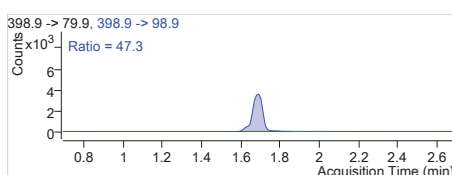
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

298.9 -> 79.9
1.098 (1.098)
38.11 µg/Kg
24.40899
Calibration

**PFHxA 1**

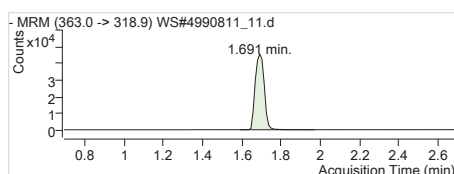
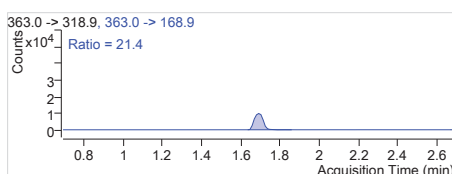
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

313.0 -> 268.9
1.422 (1.434)
38.72 µg/Kg
18.05848
Calibration

**PFHxS 1**

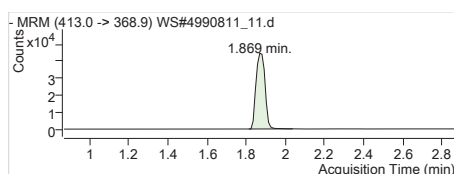
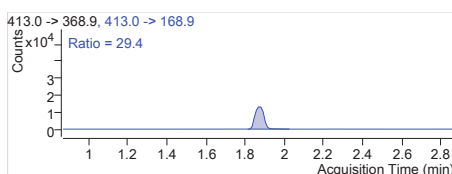
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

398.9 -> 79.9
1.690 (1.690)
37.82 µg/Kg
19.59743
Calibration

**PFHpA 1**

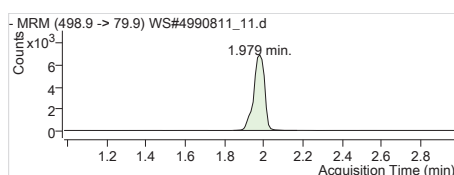
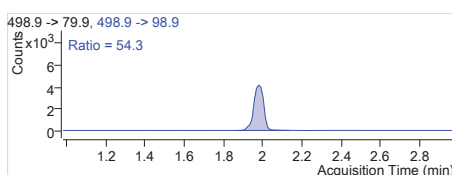
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

363.0 -> 318.9
1.691 (1.691)
38.71 µg/Kg
18.89848
Calibration

**PFOA 1**

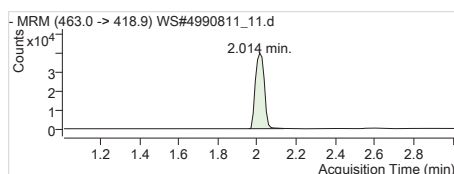
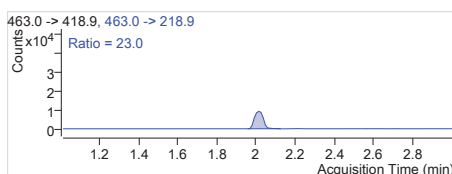
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

413.0 -> 368.9
1.869 (1.869)
37.97 µg/Kg
17.99228
Calibration

**PFOS 1**

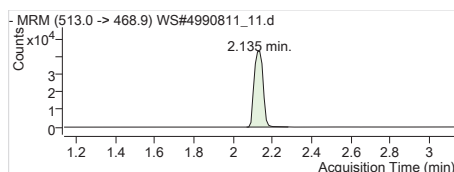
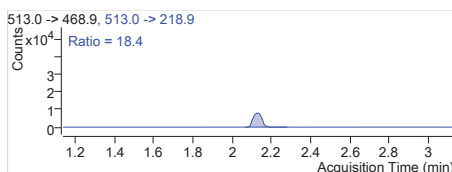
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

498.9 -> 79.9
1.979 (1.979)
39.01 µg/Kg
15.31232
Calibration

**PFNA 1**

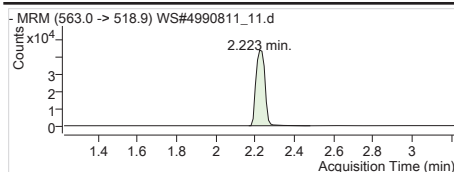
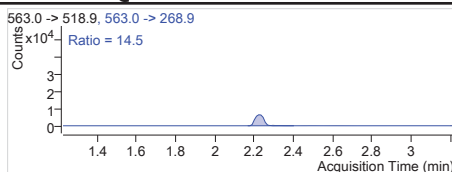
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

463.0 -> 418.9
2.014 (2.014)
39.09 µg/Kg
16.36231
Calibration

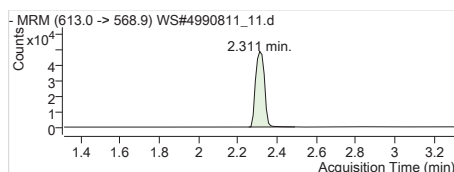
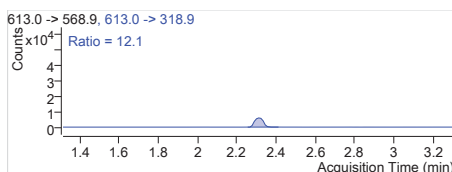
**PFDA 1**

RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

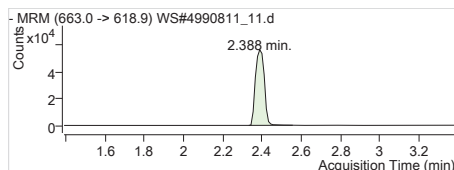
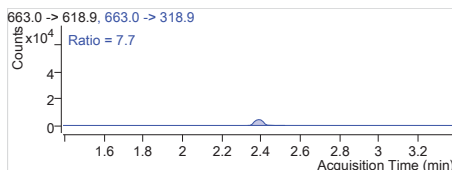
513.0 -> 468.9
2.135 (2.135)
37.13 µg/Kg
19.74508
Calibration



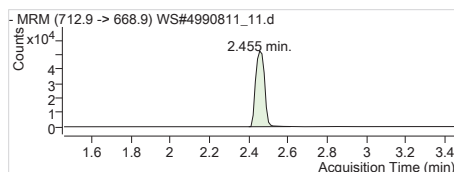
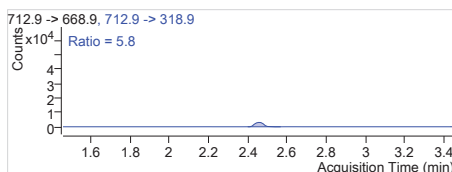
PFUnA 1
RT (Exp. RT): 563.0 -> 518.9
Calc. conc. 2.223 (2.223)
Area ratio: 39.79 µg/Kg
Sample type: 19.66259
Calibration



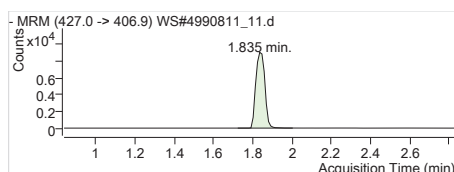
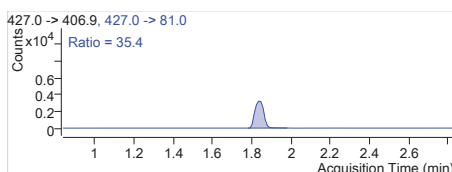
PFDoA 1
RT (Exp. RT): 613.0 -> 568.9
Calc. conc. 2.311 (2.311)
Area ratio: 37.77 µg/Kg
Sample type: 16.88531
Calibration



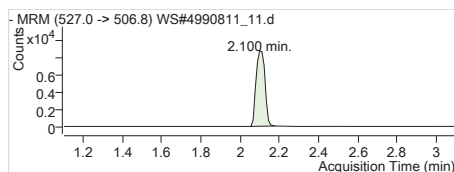
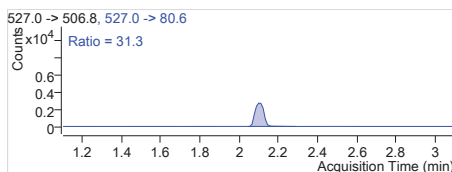
PFTrDA 1
RT (Exp. RT): 663.0 -> 618.9
Calc. conc. 2.388 (2.388)
Area ratio: 38.02 µg/Kg
Sample type: 15.86566
Calibration



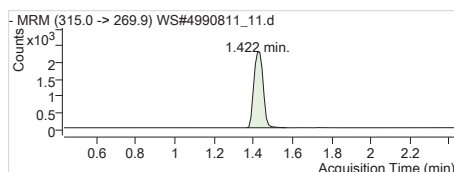
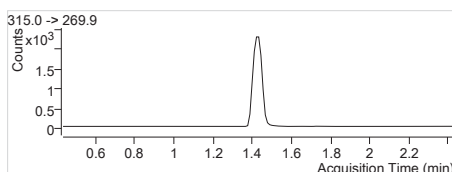
PFTEdA 1
RT (Exp. RT): 712.9 -> 668.9
Calc. conc. 2.455 (2.455)
Area ratio: 37.06 µg/Kg
Sample type: 14.88494
Calibration



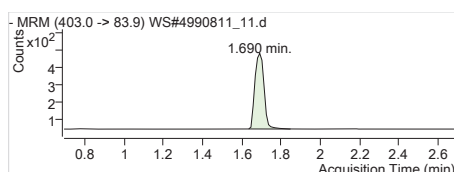
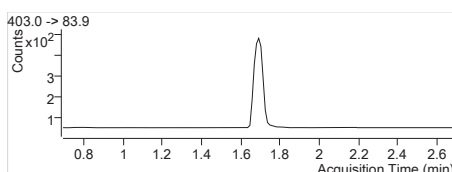
6:2-FTS 1
RT (Exp. RT): 427.0 -> 406.9
Calc. conc. 1.835 (1.835)
Area ratio: 39.65 µg/Kg
Sample type: 17.20871
Calibration



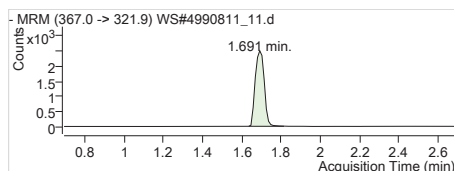
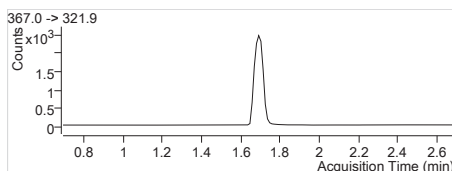
8:2-FTS 1
RT (Exp. RT): 527.0 -> 506.8
Calc. conc. 2.100 (2.100)
Area ratio: 38.37 µg/Kg
Sample type: 14.70620
Calibration



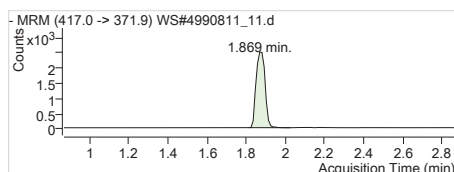
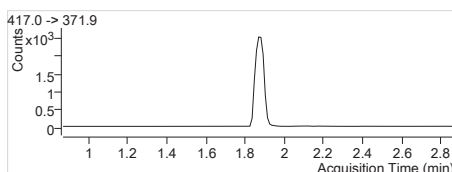
13C2-PFHxA
RT (Exp. RT): 315.0 -> 269.9
Calc. conc. 1.422 (1.433)
Area ratio: 98.13 µg/Kg
Sample type: 0.18897
Calibration



18O2-PFHxS
RT (Exp. RT): 403.0 -> 83.9
Calc. conc. 1.690 (1.690)
Area ratio: 99.50 µg/Kg
Sample type: 0.03551
Calibration

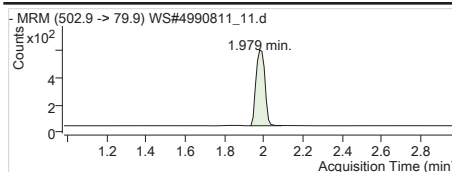
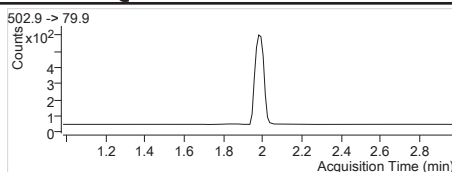


13C4-PFHpA
RT (Exp. RT): 367.0 -> 321.9
Calc. conc. 1.691 (1.691)
Area ratio: 93.40 µg/Kg
Sample type: 0.19625
Calibration

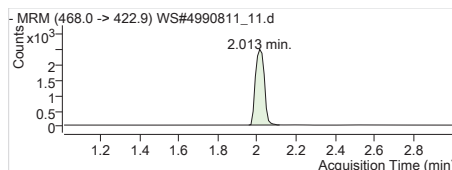
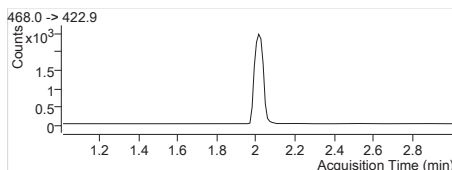


13C4-PFOA
RT (Exp. RT): 417.0 -> 371.9
Calc. conc. 1.869 (1.869)
Area ratio: 98.87 µg/Kg
Sample type: 0.20038
Calibration

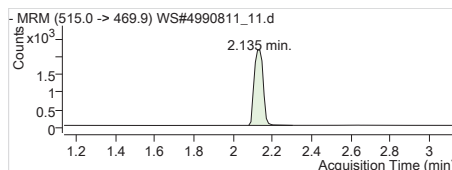
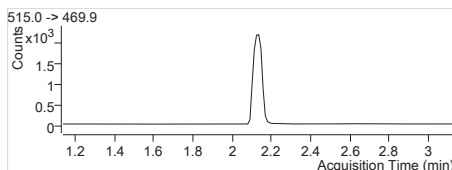
Quantitation Results



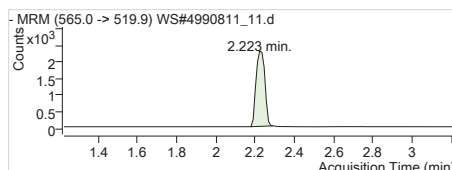
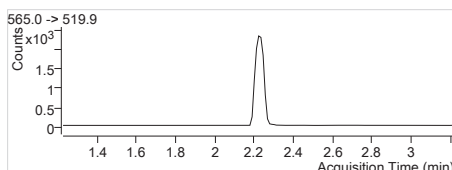
13C4-PFOS
RT (Exp. RT): 502.9 -> 79.9
Calc. conc. 1.979 (1.979)
Area ratio: 100.81 µg/Kg
Sample type: 0.04423
Calibration



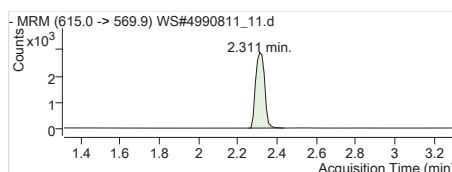
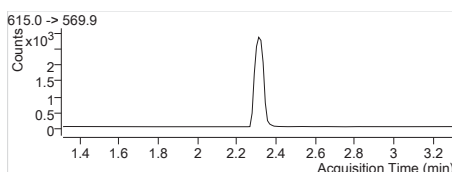
13C5-PFNA
RT (Exp. RT): 468.0 -> 422.9
Calc. conc. 2.013 (2.013)
Area ratio: 95.22 µg/Kg
Sample type: 0.19506
Calibration



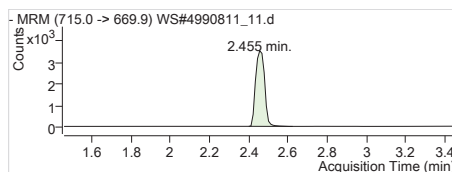
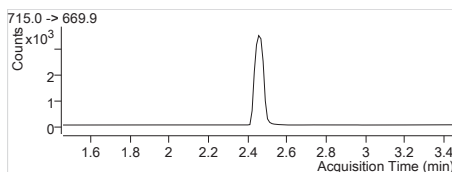
13C2-PFDA
RT (Exp. RT): 515.0 -> 469.9
Calc. conc. 2.135 (2.135)
Area ratio: 107.82 µg/Kg
Sample type: 0.20208
Calibration



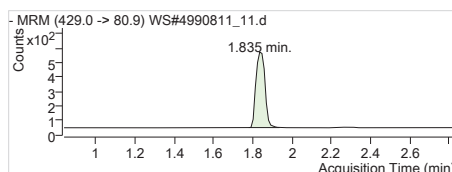
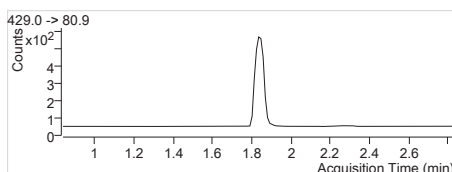
13C2-PFUnA
RT (Exp. RT): 565.0 -> 519.9
Calc. conc. 2.223 (2.223)
Area ratio: 96.20 µg/Kg
Sample type: 0.20795
Calibration



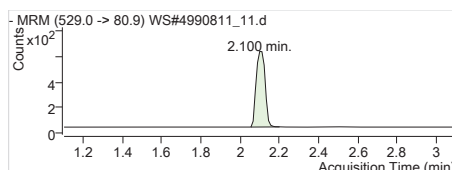
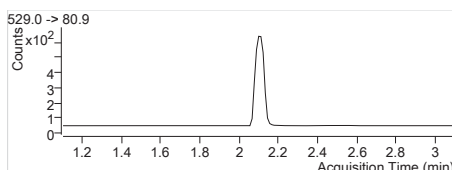
13C2-PFDoA
RT (Exp. RT): 615.0 -> 569.9
Calc. conc. 2.311 (2.311)
Area ratio: 106.33 µg/Kg
Sample type: 0.26359
Calibration



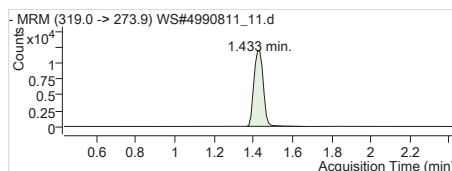
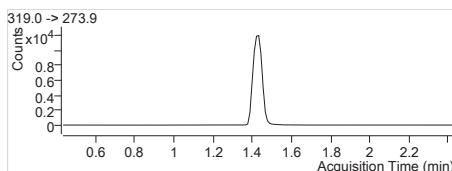
13C2-PFTeDA
RT (Exp. RT): 715.0 -> 669.9
Calc. conc. 2.455 (2.455)
Area ratio: 106.51 µg/Kg
Sample type: 0.32448
Calibration



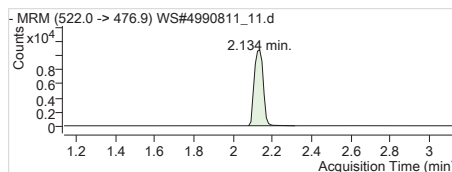
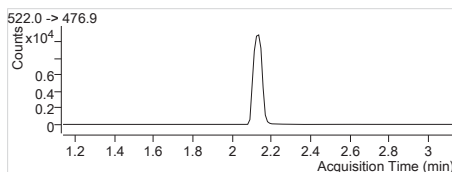
13C2-6:2-FTS
RT (Exp. RT): 429.0 -> 80.9
Calc. conc. 1.835 (1.835)
Area ratio: 87.07 µg/Kg
Sample type: 0.04251
Calibration



13C2-8:2 FTS
RT (Exp. RT): 529.0 -> 80.9
Calc. conc. 2.100 (2.100)
Area ratio: 94.24 µg/Kg
Sample type: 0.04745
Calibration



13C6-PFHxA
RT (Exp. RT): 319.0 -> 273.9
Calc. conc. 1.433 (1.433)
Area ratio: 97.79 µg/Kg
Sample type: 0
Calibration



13C9-PFDA
RT (Exp. RT): 522.0 -> 476.9
Calc. conc. 2.134 (2.134)
Area ratio: 93.86 µg/Kg
Sample type: 0
Calibration

Sample Name

STD 1

Instrument

LCMS04

Data File

WS#4990811_FOSAA_10.d

Operator

AD

Sample Type

Cal

Dilution

1

Acq. Method

PFC_Soil_FOSAA.m

Position

P2-A2

Acq. Date

2017/05/25 1:33:14 AM

Injection Volume

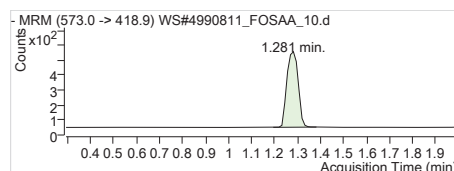
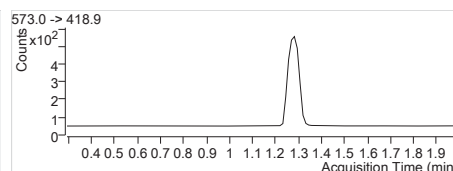
Per Method

Sample Annotation

-

ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1742	1.28	1 µg/Kg		
D5-EtFOSAA IS	1528	1.31	1 µg/Kg		
13C9-PFDA IS	3112	0.85	1 µg/Kg		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	548	1.28	0.75	0.71 µg/Kg	95.05
EtFOSAA 1	525	1.30	0.75	0.77 µg/Kg	102.59
D3-MeFOSAA	1758	1.28	100.00	104.53 µg/Kg	104.53
D5-EtFOSAA	1535	1.31	100.00	102.09 µg/Kg	102.09
13C9-PFDA	31873	0.85	100.00	101.79 µg/Kg	101.79

**D3-MeFOSAA IS**

Internal Standard

RT (Exp. RT):

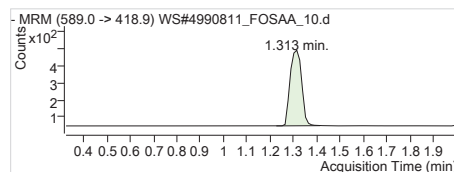
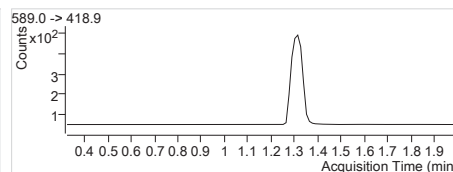
1.281 (1.281)

Concentration:

1 µg/Kg

Sample type:

Calibration

**D5-EtFOSAA IS**

Internal Standard

RT (Exp. RT):

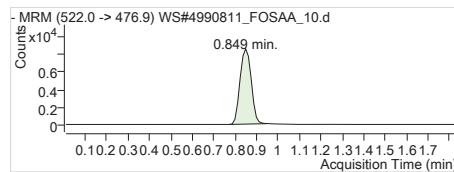
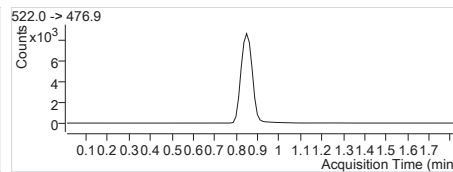
1.313 (1.313)

Concentration:

1 µg/Kg

Sample type:

Calibration

**13C9-PFDA IS**

Internal Standard

RT (Exp. RT):

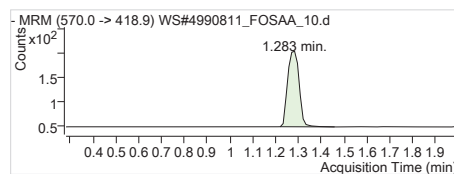
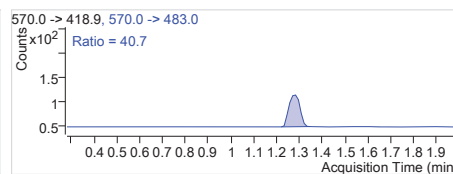
0.849 (0.849)

Concentration:

1 µg/Kg

Sample type:

Calibration

**MeFOSAA 1**

570.0 -> 418.9

RT (Exp. RT):

1.283 (1.271)

Calc. conc.

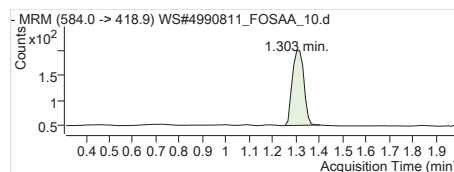
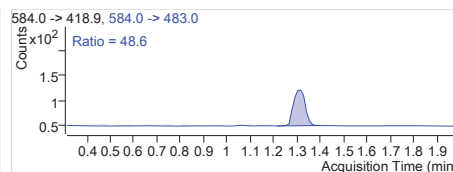
0.71 µg/Kg

Area ratio:

0.31458

Sample type:

Calibration

**EtFOSAA 1**

584.0 -> 418.9

RT (Exp. RT):

1.303 (1.303)

Calc. conc.

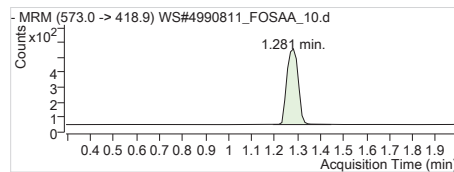
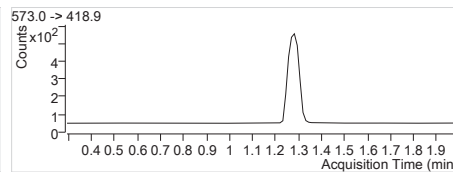
0.77 µg/Kg

Area ratio:

0.34359

Sample type:

Calibration

**D3-MeFOSAA**

573.0 -> 418.9

RT (Exp. RT):

1.281 (1.281)

Calc. conc.

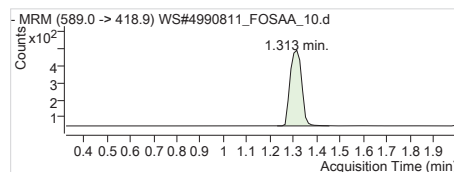
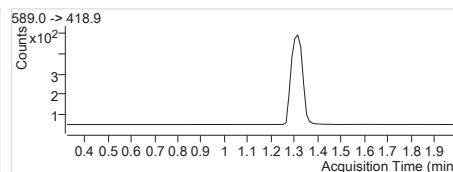
104.53 µg/Kg

Area ratio:

0.05651

Sample type:

Calibration

**D5-EtFOSAA**

589.0 -> 418.9

RT (Exp. RT):

1.313 (1.313)

Calc. conc.

102.09 µg/Kg

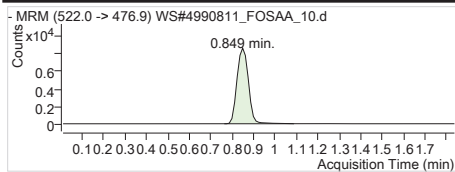
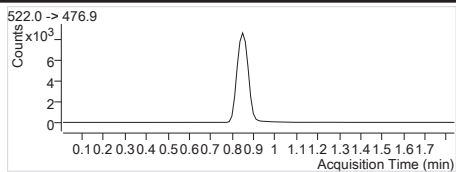
Area ratio:

0.04935

Sample type:

Calibration

Quantitation Results



13C9-PFDA
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

522.0 -> 476.9
0.849 (0.849)
101.79 µg/Kg
0
Calibration

Sample Name

STD 2

Instrument

LCMS04

Data File

WS#4990811_FOSAA_11.d

Operator

AD

Sample Type

Cal

Dilution

1

Acq. Method

PFC_Soil_FOSAA.m

Position

P2-A3

Acq. Date

2017/05/25 1:35:37 AM

Injection Volume

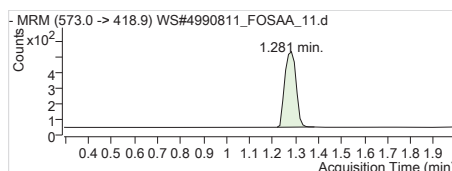
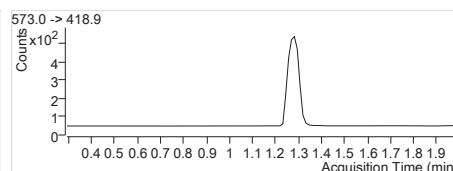
Per Method

Sample Annotation

-

ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1672	1.28	1 µg/Kg		
D5-EtFOSAA IS	1492	1.31	1 µg/Kg		
13C9-PFDA IS	28734	0.85	1 µg/Kg		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	1066	1.27	1.50	1.53 µg/Kg	102.27
EtFOSAA 1	1024	1.30	1.50	1.54 µg/Kg	102.48
D3-MeFOSAA	1689	1.28	100.00	108.75 µg/Kg	108.75
D5-EtFOSAA	1486	1.31	100.00	107.00 µg/Kg	107.00
13C9-PFDA	29277	0.85	100.00	93.50 µg/Kg	93.50

**D3-MeFOSAA IS**

Internal Standard

RT (Exp. RT):

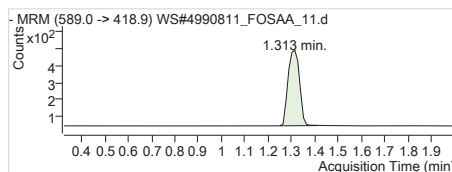
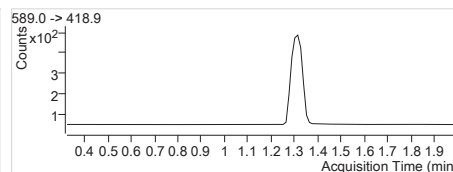
1.281 (1.281)

Concentration:

1 µg/Kg

Sample type:

Calibration

**D5-EtFOSAA IS**

Internal Standard

RT (Exp. RT):

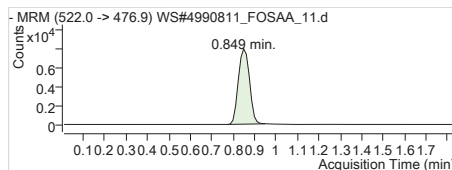
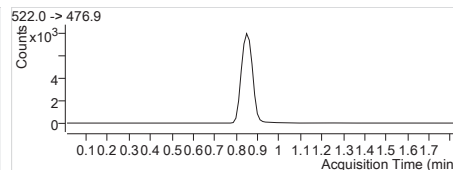
1.313 (1.313)

Concentration:

1 µg/Kg

Sample type:

Calibration

**13C9-PFDA IS**

Internal Standard

RT (Exp. RT):

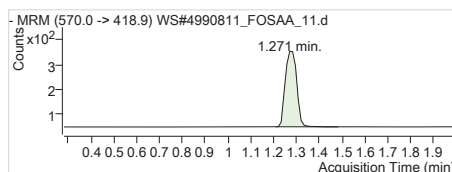
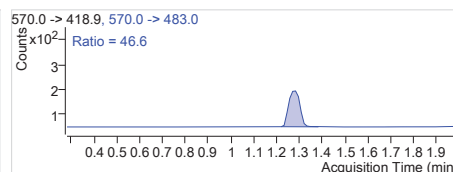
0.849 (0.849)

Concentration:

1 µg/Kg

Sample type:

Calibration

**MeFOSAA 1**

570.0 -> 418.9

RT (Exp. RT):

1.271 (1.271)

Calc. conc.

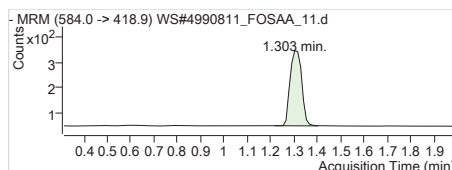
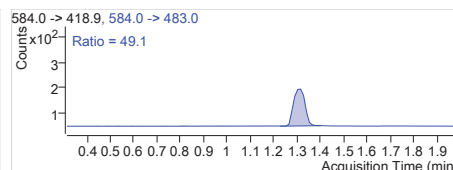
1.53 µg/Kg

Area ratio:

0.63756

Sample type:

Calibration

**EtFOSAA 1**

584.0 -> 418.9

RT (Exp. RT):

1.303 (1.303)

Calc. conc.

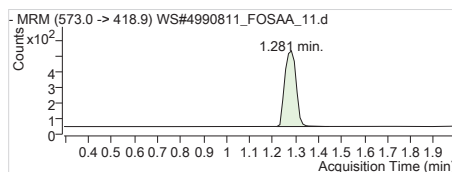
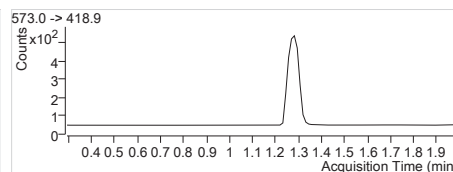
1.54 µg/Kg

Area ratio:

0.68633

Sample type:

Calibration

**D3-MeFOSAA**

573.0 -> 418.9

RT (Exp. RT):

1.281 (1.281)

Calc. conc.

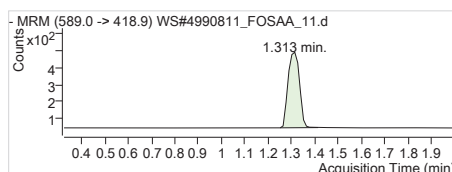
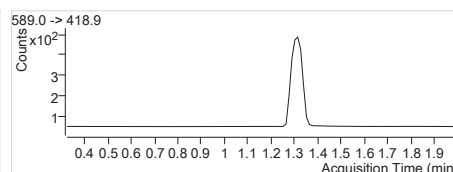
108.75 µg/Kg

Area ratio:

0.05879

Sample type:

Calibration

**D5-EtFOSAA**

589.0 -> 418.9

RT (Exp. RT):

1.313 (1.313)

Calc. conc.

107.00 µg/Kg

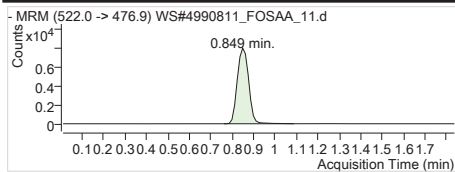
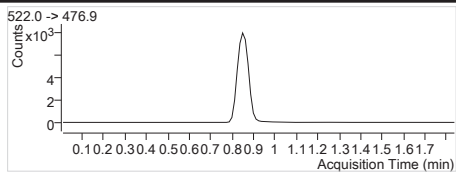
Area ratio:

0.05173

Sample type:

Calibration

Quantitation Results



13C9-PFDA
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

522.0 -> 476.9
0.849 (0.849)
93.50 µg/Kg
0
Calibration

Sample Name

STD 3

Instrument

LCMS04

Data File

WS#4990811_FOSAA_12.d

Operator

AD

Sample Type

Cal

Dilution

1

Acq. Method

PFC_Soil_FOSAA.m

Position

P2-A4

Acq. Date

2017/05/25 1:38:00 AM

Injection Volume

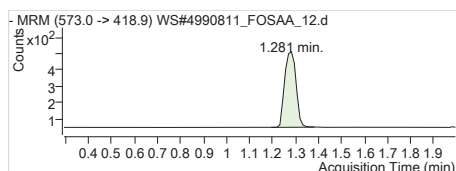
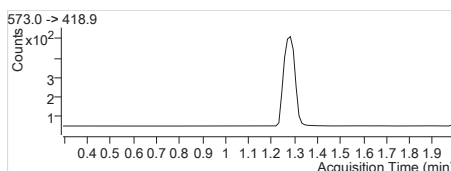
Per Method

Sample Annotation

-

ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1597	1.28	1 µg/Kg		
D5-EtFOSAA IS	1517	1.31	1 µg/Kg		
13C9-PFDA IS	31659	0.85	1 µg/Kg		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	3083	1.27	4.50	4.82 µg/Kg	107.15
EtFOSAA 1	2988	1.30	4.50	4.41 µg/Kg	98.04
D3-MeFOSAA	1605	1.28	100.00	93.77 µg/Kg	93.77
D5-EtFOSAA	1517	1.31	100.00	99.11 µg/Kg	99.11
13C9-PFDA	32229	0.85	100.00	102.92 µg/Kg	102.92

**D3-MeFOSAA IS**

Internal Standard

RT (Exp. RT):

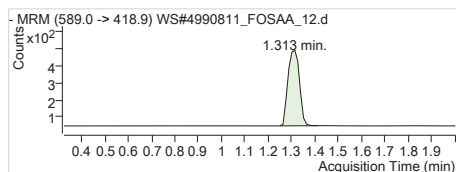
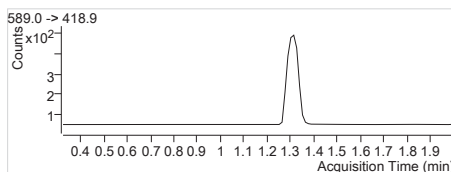
1.281 (1.281)

Concentration:

1 µg/Kg

Sample type:

Calibration

**D5-EtFOSAA IS**

Internal Standard

RT (Exp. RT):

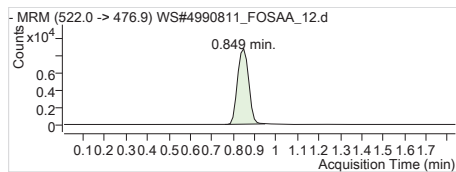
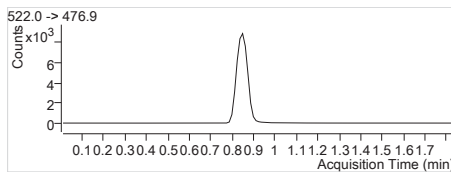
1.313 (1.313)

Concentration:

1 µg/Kg

Sample type:

Calibration

**13C9-PFDA IS**

Internal Standard

RT (Exp. RT):

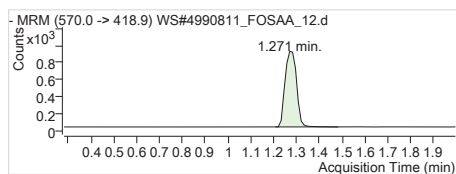
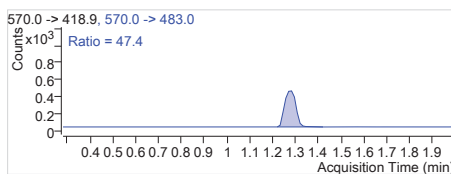
0.849 (0.849)

Concentration:

1 µg/Kg

Sample type:

Calibration

**MeFOSAA 1**

570.0 -> 418.9

RT (Exp. RT):

1.271 (1.271)

Calc. conc.

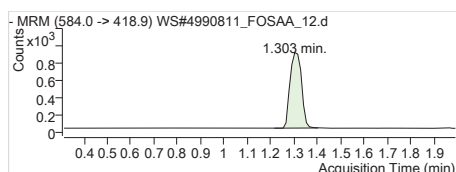
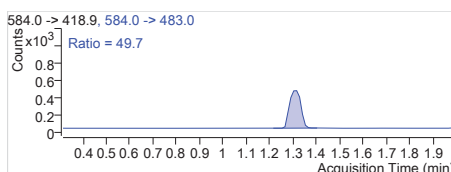
4.82 µg/Kg

Area ratio:

1.93049

Sample type:

Calibration

**EtFOSAA 1**

584.0 -> 418.9

RT (Exp. RT):

1.303 (1.303)

Calc. conc.

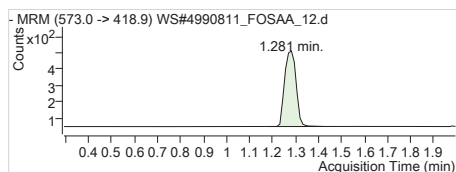
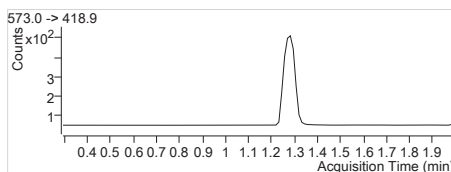
4.41 µg/Kg

Area ratio:

1.96968

Sample type:

Calibration

**D3-MeFOSAA**

573.0 -> 418.9

RT (Exp. RT):

1.281 (1.281)

Calc. conc.

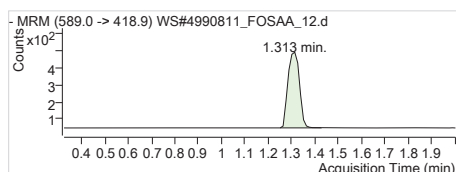
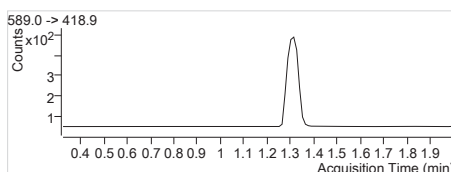
93.77 µg/Kg

Area ratio:

0.05069

Sample type:

Calibration

**D5-EtFOSAA**

589.0 -> 418.9

RT (Exp. RT):

1.313 (1.313)

Calc. conc.

99.11 µg/Kg

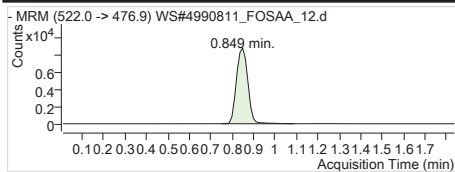
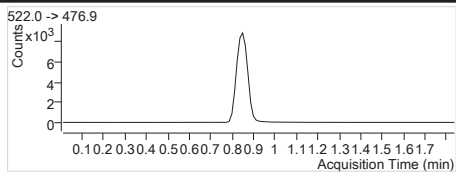
Area ratio:

0.04791

Sample type:

Calibration

Quantitation Results



13C9-PFDA
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

522.0 -> 476.9
0.849 (0.849)
102.92 µg/Kg
0
Calibration

Sample Name

STD 4

Instrument

LCMS04

Data File

WS#4990811_FOSAA_13.d

Operator

AD

Sample Type

Cal

Dilution

1

Acq. Method

PFC_Soil_FOSAA.m

Position

P2-A5

Acq. Date

2017/05/25 1:40:23 AM

Injection Volume

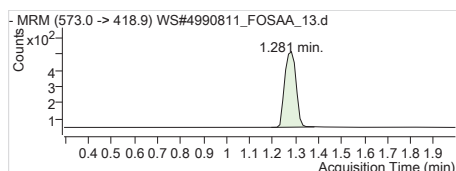
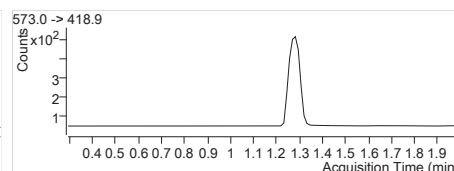
Per Method

Sample Annotation

-

ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1606	1.28	1 µg/Kg		
D5-EtFOSAA IS	1431	1.31	1 µg/Kg		
13C9-PFDA IS	32472	0.85	1 µg/Kg		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	6856	1.27	11.30	10.77 µg/Kg	95.29
EtFOSAA 1	6831	1.30	11.30	10.69 µg/Kg	94.62
D3-MeFOSAA	1619	1.28	100.00	92.24 µg/Kg	92.24
D5-EtFOSAA	1431	1.31	100.00	91.13 µg/Kg	91.13
13C9-PFDA	33085	0.85	100.00	105.66 µg/Kg	105.66

**D3-MeFOSAA IS**

RT (Exp. RT):

Internal Standard

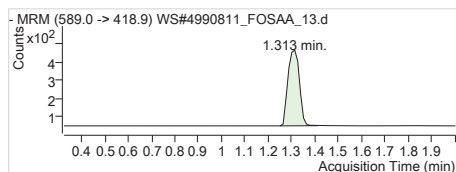
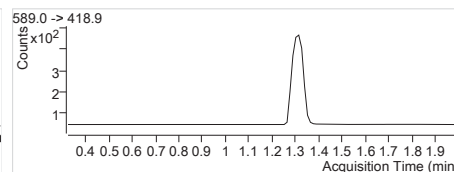
Concentration:

1.281 (1.281)

Sample type:

1 µg/Kg

Calibration

**D5-EtFOSAA IS**

RT (Exp. RT):

Internal Standard

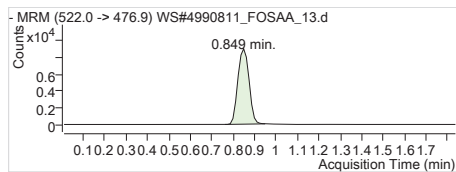
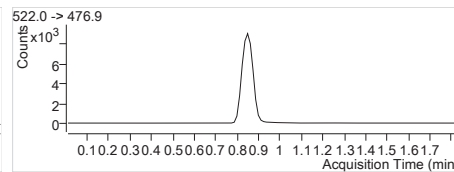
Concentration:

1.313 (1.313)

Sample type:

1 µg/Kg

Calibration

**13C9-PFDA IS**

RT (Exp. RT):

Internal Standard

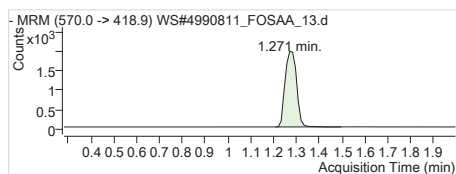
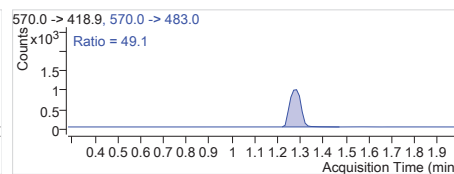
Concentration:

0.849 (0.849)

Sample type:

1 µg/Kg

Calibration

**MeFOSAA 1**

RT (Exp. RT):

570.0 -> 418.9

Calc. conc.

1.271 (1.271)

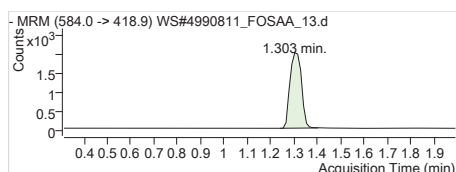
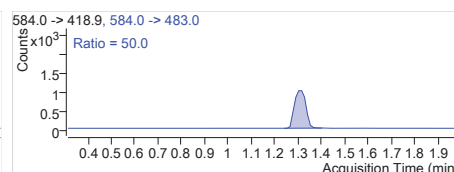
Area ratio:

10.77 µg/Kg

Sample type:

4.26899

Calibration

**EtFOSAA 1**

RT (Exp. RT):

584.0 -> 418.9

Calc. conc.

1.303 (1.303)

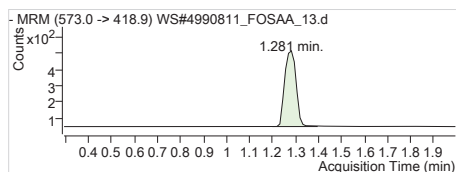
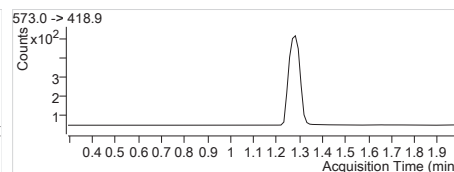
Area ratio:

10.69 µg/Kg

Sample type:

4.77358

Calibration

**D3-MeFOSAA**

RT (Exp. RT):

573.0 -> 418.9

Calc. conc.

1.281 (1.281)

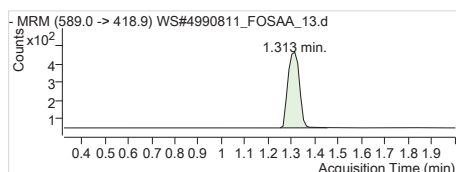
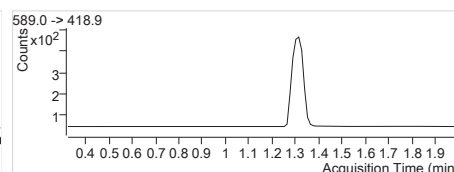
Area ratio:

92.24 µg/Kg

Sample type:

0.04986

Calibration

**D5-EtFOSAA**

RT (Exp. RT):

589.0 -> 418.9

Calc. conc.

1.313 (1.313)

Area ratio:

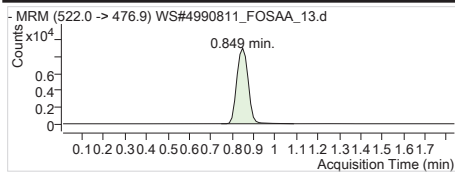
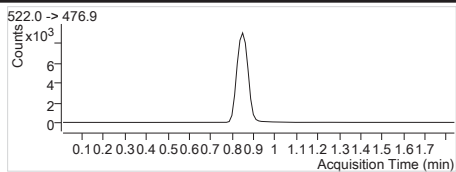
91.13 µg/Kg

Sample type:

0.04406

Calibration

Quantitation Results



13C9-PFDA
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

522.0 -> 476.9
0.849 (0.849)
105.66 µg/Kg
0
Calibration

Sample Name

STD 5

Instrument

LCMS04

Data File

WS#4990811_FOSAA_14.d

Operator

AD

Sample Type

Cal

Dilution

1

Acq. Method

PFC_Soil_FOSAA.m

Position

P2-A6

Acq. Date

2017/05/25 1:42:46 AM

Injection Volume

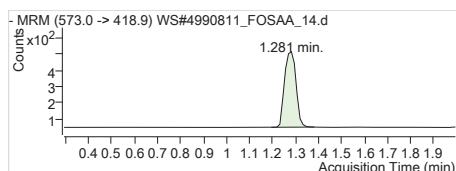
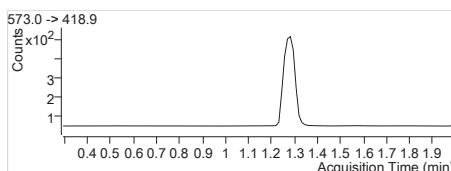
Per Method

Sample Annotation

-

ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1617	1.28	1 µg/Kg		
D5-EtFOSAA IS	1443	1.31	1 µg/Kg		
13C9-PFDA IS	30571	0.85	1 µg/Kg		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	14245	1.27	22.50	22.31 µg/Kg	99.17
EtFOSAA 1	14697	1.30	22.50	22.81 µg/Kg	101.40
D3-MeFOSAA	1635	1.28	100.00	98.90 µg/Kg	98.90
D5-EtFOSAA	1450	1.31	100.00	98.08 µg/Kg	98.08
13C9-PFDA	31233	0.85	100.00	99.74 µg/Kg	99.74

**D3-MeFOSAA IS**

Internal Standard

RT (Exp. RT):

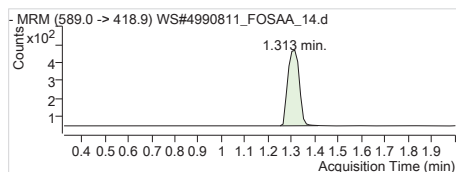
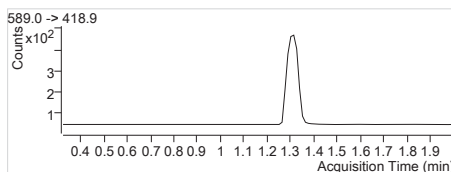
1.281 (1.281)

Concentration:

1 µg/Kg

Sample type:

Calibration

**D5-EtFOSAA IS**

Internal Standard

RT (Exp. RT):

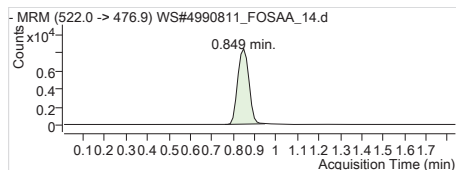
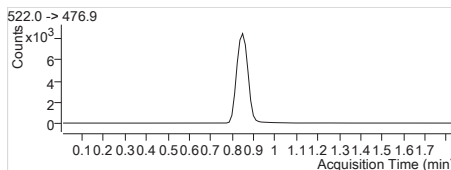
1.313 (1.313)

Concentration:

1 µg/Kg

Sample type:

Calibration

**13C9-PFDA IS**

Internal Standard

RT (Exp. RT):

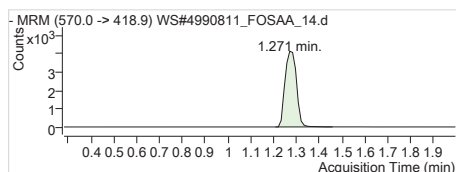
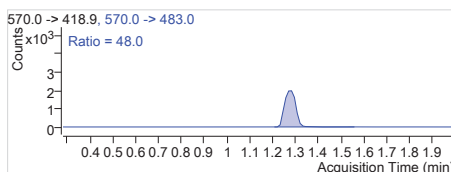
0.849 (0.849)

Concentration:

1 µg/Kg

Sample type:

Calibration

**MeFOSAA 1**

570.0 -> 418.9

RT (Exp. RT):

1.271 (1.271)

Calc. conc.

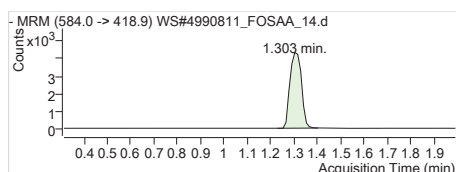
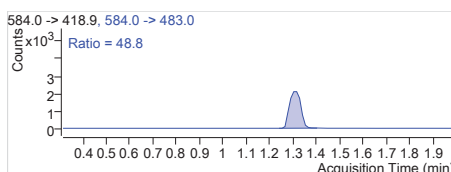
22.31 µg/Kg

Area ratio:

8.80952

Sample type:

Calibration

**EtFOSAA 1**

584.0 -> 418.9

RT (Exp. RT):

1.303 (1.303)

Calc. conc.

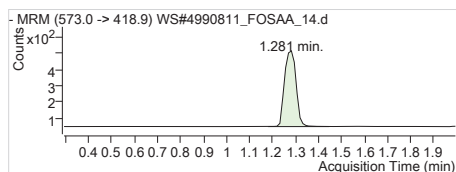
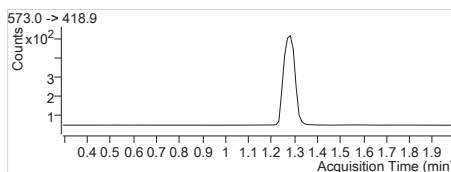
22.81 µg/Kg

Area ratio:

10.18503

Sample type:

Calibration

**D3-MeFOSAA**

573.0 -> 418.9

RT (Exp. RT):

1.281 (1.281)

Calc. conc.

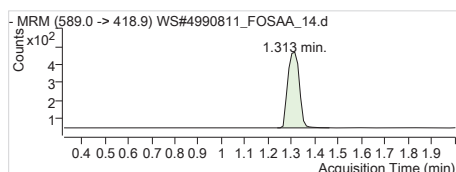
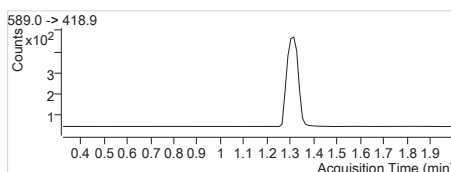
98.90 µg/Kg

Area ratio:

0.05347

Sample type:

Calibration

**D5-EtFOSAA**

589.0 -> 418.9

RT (Exp. RT):

1.313 (1.313)

Calc. conc.

98.08 µg/Kg

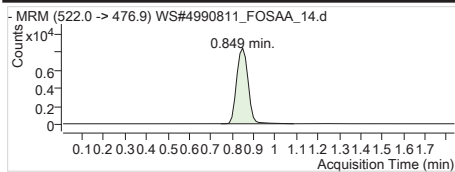
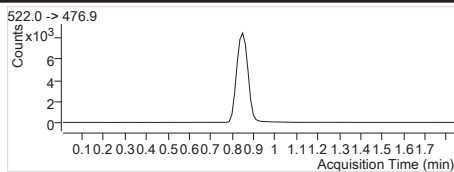
Area ratio:

0.04741

Sample type:

Calibration

Quantitation Results



13C9-PFDA
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

522.0 -> 476.9
0.849 (0.849)
99.74 µg/Kg
0
Calibration

Sample Name

STD 6

Instrument

LCMS04

Data File

WS#4990811_FOSAA_15.d

Operator

AD

Sample Type

Cal

Dilution

1

Acq. Method

PFC_Soil_FOSAA.m

Position

P2-A7

Acq. Date

2017/05/25 1:45:09 AM

Injection Volume

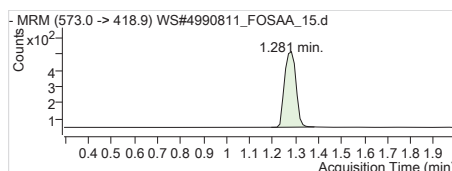
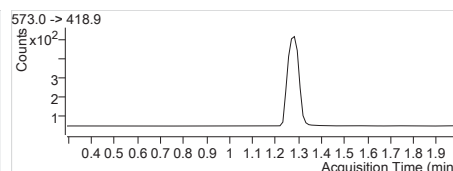
Per Method

Sample Annotation

-

ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1609	1.28	1 µg/Kg		
D5-EtFOSAA IS	1455	1.31	1 µg/Kg		
13C9-PFDA IS	29552	0.85	1 µg/Kg		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	24038	1.27	37.50	37.90 µg/Kg	101.07
EtFOSAA 1	24570	1.30	37.50	37.83 µg/Kg	100.87
D3-MeFOSAA	1626	1.28	100.00	101.81 µg/Kg	101.81
D5-EtFOSAA	1466	1.31	100.00	102.58 µg/Kg	102.58
13C9-PFDA	30182	0.85	100.00	96.39 µg/Kg	96.39

**D3-MeFOSAA IS**

RT (Exp. RT):

Internal Standard

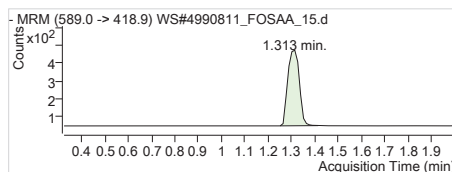
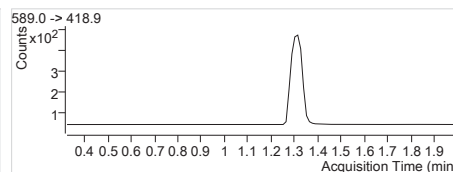
Concentration:

1.281 (1.281)

Sample type:

1 µg/Kg

Calibration

**D5-EtFOSAA IS**

RT (Exp. RT):

Internal Standard

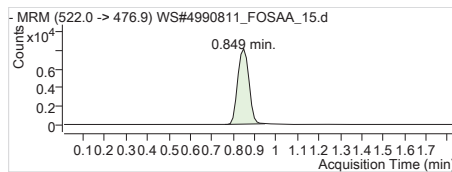
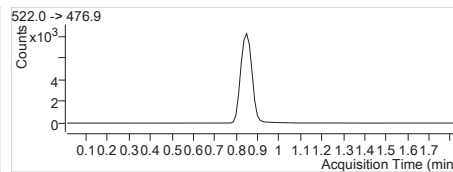
Concentration:

1.313 (1.313)

Sample type:

1 µg/Kg

Calibration

**13C9-PFDA IS**

RT (Exp. RT):

Internal Standard

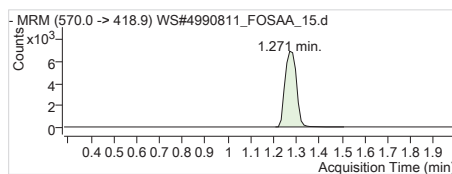
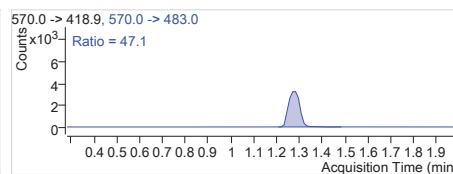
Concentration:

0.849 (0.849)

Sample type:

1 µg/Kg

Calibration

**MeFOSAA 1**

RT (Exp. RT):

570.0 -> 418.9

Calc. conc.

1.271 (1.271)

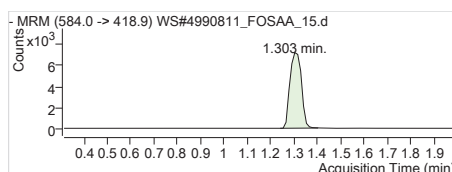
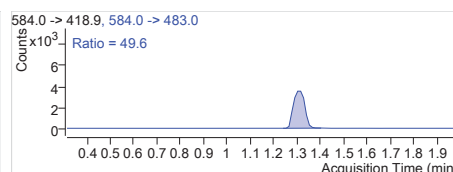
Area ratio:

37.90 µg/Kg

Sample type:

14.93971

Calibration

**EtFOSAA 1**

RT (Exp. RT):

584.0 -> 418.9

Calc. conc.

1.303 (1.303)

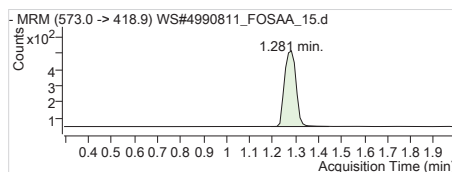
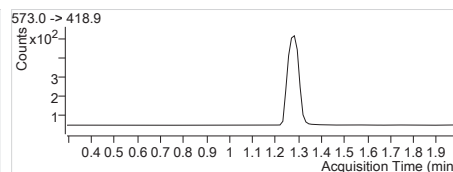
Area ratio:

37.83 µg/Kg

Sample type:

16.88660

Calibration

**D3-MeFOSAA**

RT (Exp. RT):

573.0 -> 418.9

Calc. conc.

1.281 (1.281)

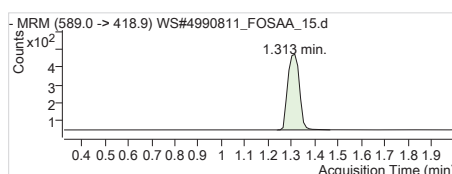
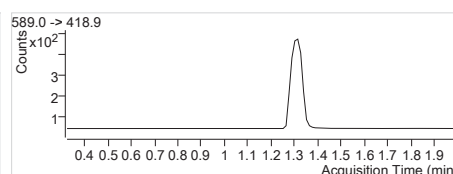
Area ratio:

101.81 µg/Kg

Sample type:

0.05504

Calibration

**D5-EtFOSAA**

RT (Exp. RT):

589.0 -> 418.9

Calc. conc.

1.313 (1.313)

Area ratio:

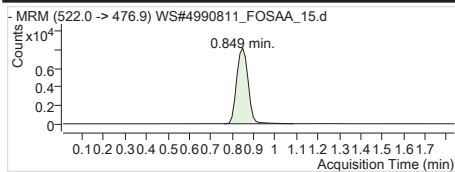
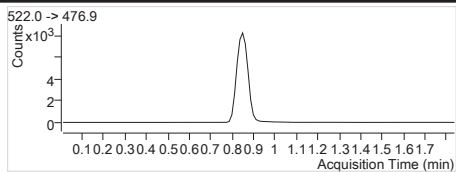
102.58 µg/Kg

Sample type:

0.04959

Calibration

Quantitation Results



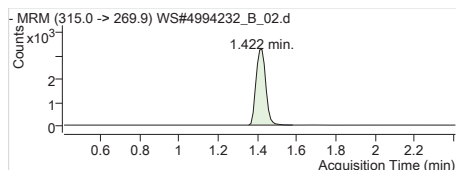
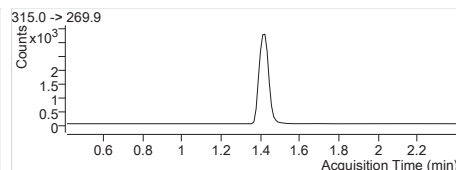
13C9-PFDA
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

522.0 -> 476.9
0.849 (0.849)
96.39 µg/Kg
0
Calibration

Batch Path	T:\lcms4\PFC\20170526\WS#4994375_B\QuantResults\PFC_Soil_170526_WS#4994375_CTLabs		
Sample Name	STD 1	Instrument	LCMS04
Data File	WS#4994232_B_02.d	Operator	AD
Sample Type	Cal	Dilution	1
Acq. Method	PFC_Soil.m	Position	P1-A2
Acq. Date	2017/05/30 9:29:29 AM	Injection Volume	Per Method
Sample Annotation	-		

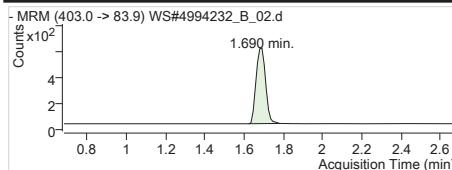
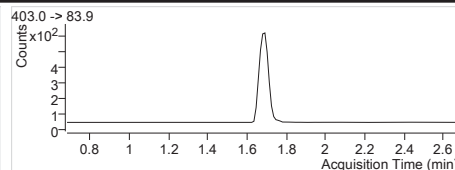
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	11141	1.42	1 µg/Kg		
MPFHxS	1942	1.69	1 µg/Kg		
MPFHpA	12296	1.68	1 µg/Kg		
MPFOA	10839	1.87	1 µg/Kg		
MPFNA	11055	2.01	1 µg/Kg		
MPFDA	9695	2.12	1 µg/Kg		
MPFUnA	10876	2.22	1 µg/Kg		
MPFDoA	12199	2.31	1 µg/Kg		
MPFTeDA	14519	2.46	1 µg/Kg		
M2 6:2 FTS	2508	1.83	1 µg/Kg		
M2 8:2 FTS	2752	2.10	1 µg/Kg		
13C6-PFHxA IS	65354	1.42	1 µg/Kg		
13C9-PFDA	54765	2.12	1 µg/Kg		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	846	1.09	0.75	0.74 µg/Kg	99.16
PFHxA 1	3541	1.42	0.75	0.78 µg/Kg	103.78
PFHxS 1	731	1.68	0.75	0.80 µg/Kg	106.16
PFHpA 1	4545	1.68	0.75	0.77 µg/Kg	102.55
PFOA 1	3953	1.87	0.75	0.84 µg/Kg	112.38
PFNA 1	3122	2.01	0.75	0.73 µg/Kg	97.48
PFDA 1	3139	2.12	0.75	0.69 µg/Kg	91.71
PFUnA 1	3524	2.22	0.75	0.77 µg/Kg	102.75
PFDaA 1	3854	2.31	0.75	0.79 µg/Kg	105.14
PFTTrDA 1	4462	2.39	0.75	0.80 µg/Kg	107.10
PFTeDA 1	4714	2.46	0.75	0.80 µg/Kg	106.86
6:2-FTS 1	883	1.84	0.75	0.81 µg/Kg	108.12
8:2-FTS 1	829	2.10	0.75	0.76 µg/Kg	101.69
13C2-PFHxA	11141	1.42	100.00	82.09 µg/Kg	82.09
18O2-PFHxS	1942	1.69	100.00	84.77 µg/Kg	84.77
13C4-PFHpA	12296	1.68	100.00	85.53 µg/Kg	85.53
13C4-PFOA	10839	1.87	100.00	80.50 µg/Kg	80.50
13C5-PFNA	11055	2.01	100.00	83.65 µg/Kg	83.65
13C2-PFDA	9695	2.12	100.00	85.19 µg/Kg	85.19
13C2-PFUnA	10920	2.22	100.00	86.04 µg/Kg	86.04
13C2-PFDoA	12199	2.31	100.00	86.71 µg/Kg	86.71
13C2-PFTeDA	14519	2.46	100.00	80.64 µg/Kg	80.64
13C2-6:2-FTS	2508	1.83	100.00	73.80 µg/Kg	73.80
13C2-8:2 FTS	2752	2.10	100.00	82.95 µg/Kg	82.95
13C6-PFHxA	65354	1.42	100.00	130.83 µg/Kg	130.83
13C9-PFDA	54765	2.12	100.00	129.64 µg/Kg	129.64

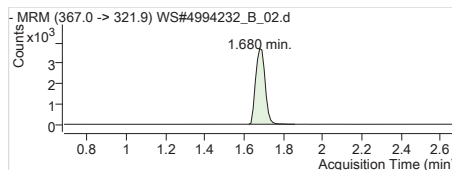
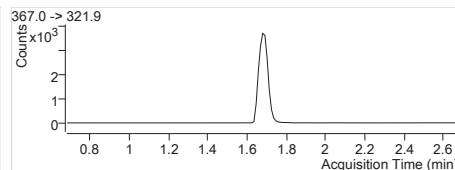


MPFHxA
RT (Exp. RT):
Concentration:
Sample type:

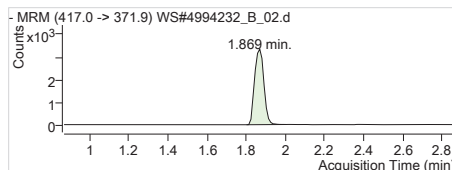
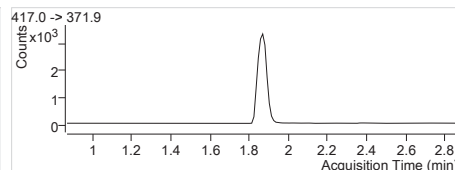
Internal Standard
1.422 (1.411)
1 µg/Kg
Calibration



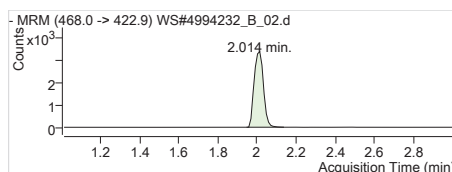
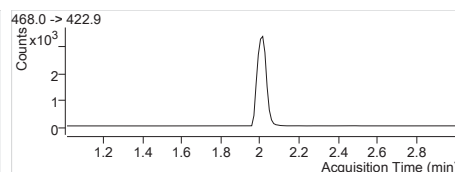
MPFHxS
RT (Exp. RT): 1.690 (1.679)
Concentration: 1 µg/Kg
Sample type: Calibration



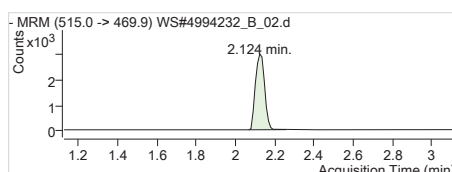
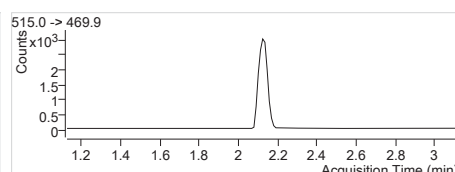
MPFHpA
RT (Exp. RT): 1.680 (1.680)
Concentration: 1 µg/Kg
Sample type: Calibration



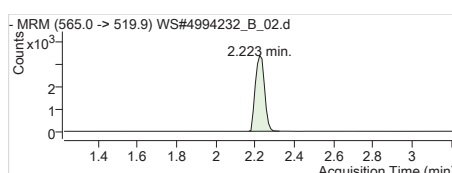
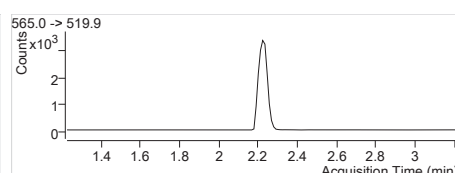
MPFOA
RT (Exp. RT): 1.869 (1.869)
Concentration: 1 µg/Kg
Sample type: Calibration



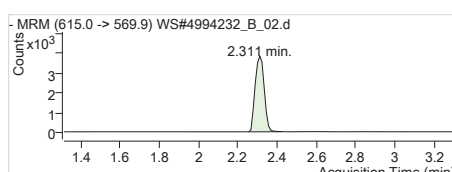
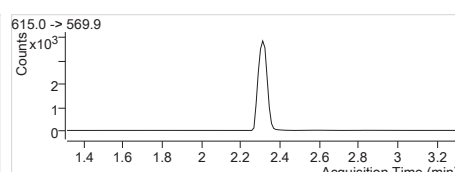
MPFNA
RT (Exp. RT): 2.014 (2.014)
Concentration: 1 µg/Kg
Sample type: Calibration



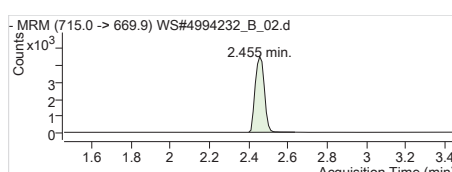
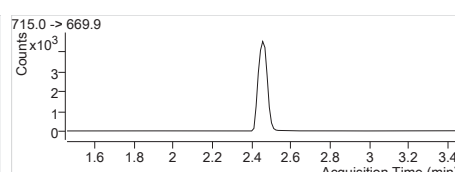
MPFDA
RT (Exp. RT): 2.124 (2.124)
Concentration: 1 µg/Kg
Sample type: Calibration



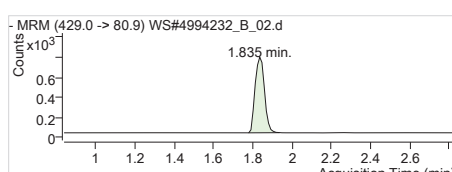
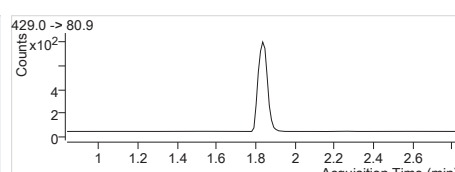
MPFUnA
RT (Exp. RT): 2.223 (2.223)
Concentration: 1 µg/Kg
Sample type: Calibration



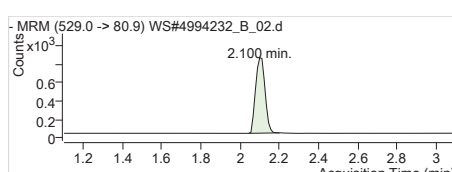
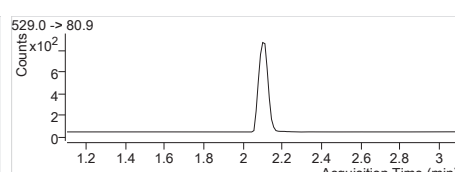
MPFDoA
RT (Exp. RT): 2.311 (2.311)
Concentration: 1 µg/Kg
Sample type: Calibration



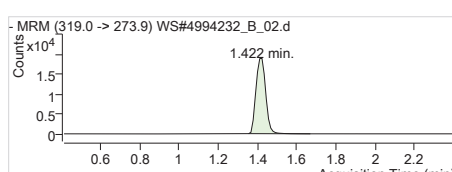
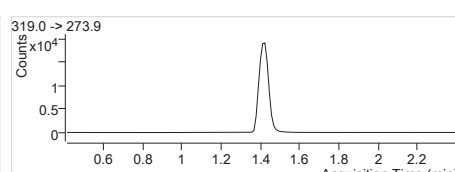
MPFTeDA
RT (Exp. RT): 2.455 (2.455)
Concentration: 1 µg/Kg
Sample type: Calibration



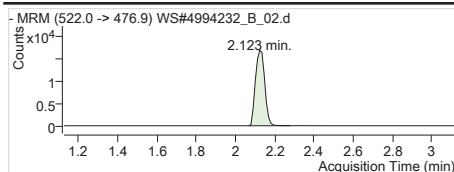
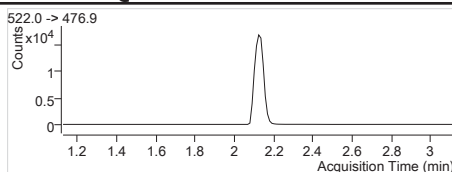
M2 6:2 FTS
RT (Exp. RT): 1.835 (1.835)
Concentration: 1 µg/Kg
Sample type: Calibration



M2 8:2 FTS
RT (Exp. RT): 2.100 (2.100)
Concentration: 1 µg/Kg
Sample type: Calibration



13C6-PFHxA IS
RT (Exp. RT): 1.422 (1.411)
Concentration: 1 µg/Kg
Sample type: Calibration

**13C9-PFDA IS**

RT (Exp. RT):

Concentration:

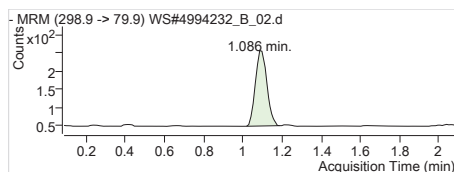
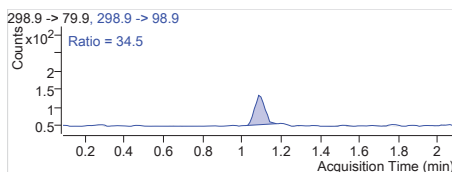
Sample type:

Internal Standard

2.123 (2.124)

1 µg/Kg

Calibration

**PFBS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

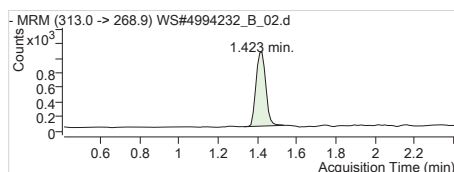
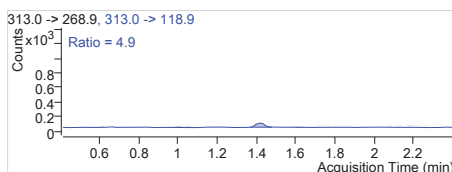
298.9 → 79.9

1.086 (1.087)

0.74 µg/Kg

0.43563

Calibration

**PFHxA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

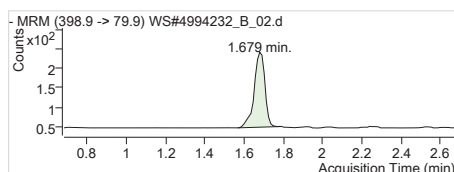
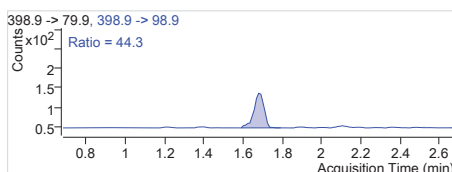
313.0 → 268.9

1.423 (1.411)

0.78 µg/Kg

0.31784

Calibration

**PFHxS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

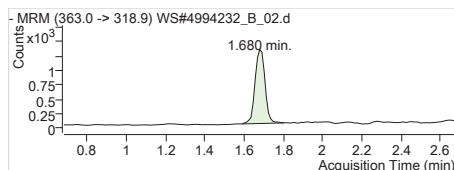
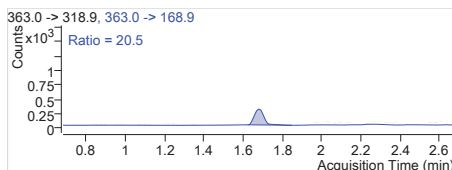
398.9 → 79.9

1.679 (1.679)

0.80 µg/Kg

0.37642

Calibration

**PFHpA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

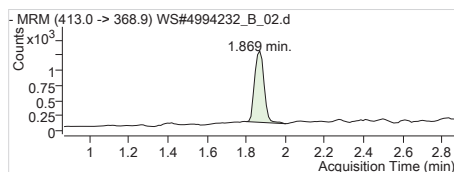
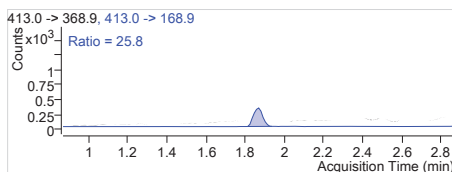
363.0 → 318.9

1.680 (1.680)

0.77 µg/Kg

0.36963

Calibration

**PFOA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

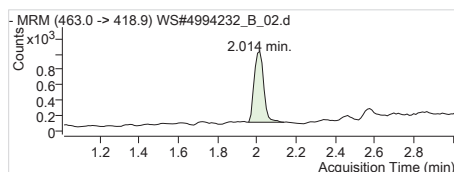
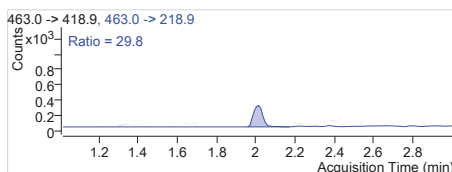
413.0 → 368.9

1.869 (1.869)

0.84 µg/Kg

0.36470

Calibration

**PFNA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

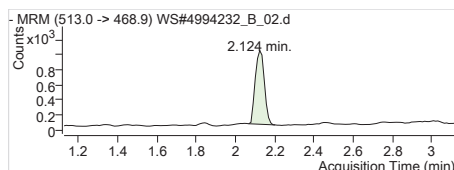
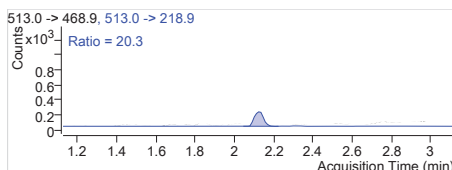
463.0 → 418.9

2.014 (2.014)

0.73 µg/Kg

0.28241

Calibration

**PFDA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

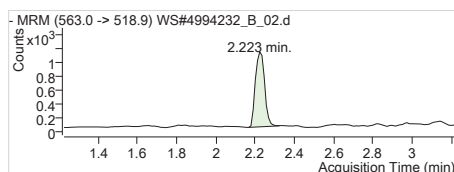
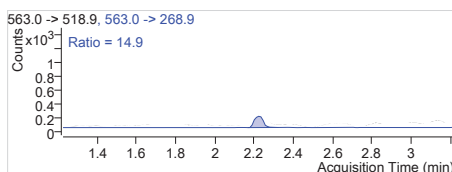
513.0 → 468.9

2.124 (2.124)

0.69 µg/Kg

0.32378

Calibration

**PFUnA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

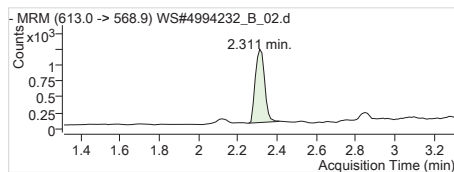
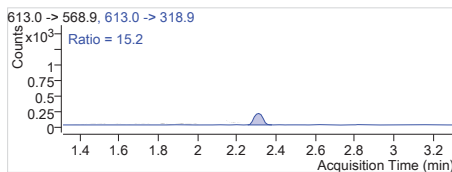
563.0 → 518.9

2.223 (2.223)

0.77 µg/Kg

0.32402

Calibration

**PFDoA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

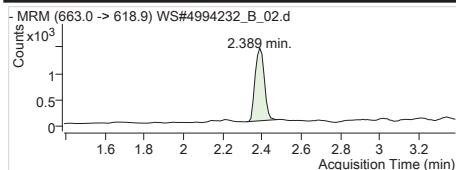
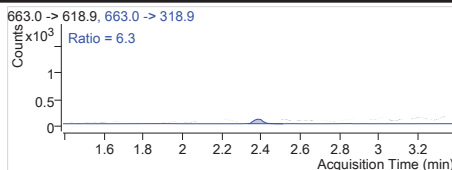
613.0 → 568.9

2.311 (2.311)

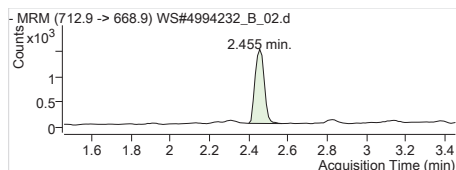
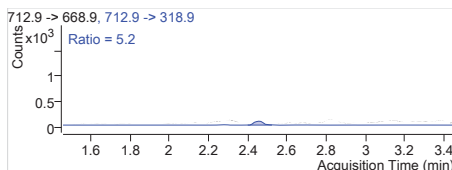
0.79 µg/Kg

0.31593

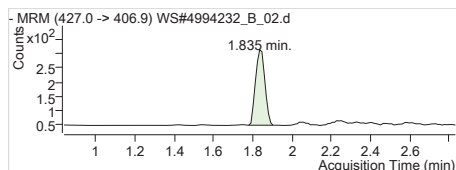
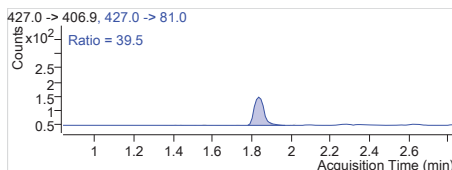
Calibration



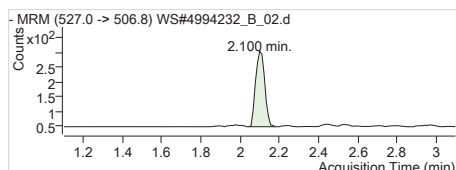
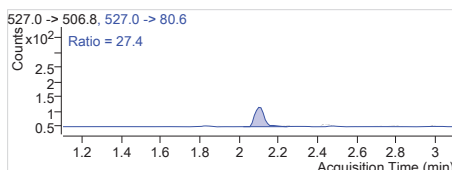
PFTDA 1
RT (Exp. RT): 663.0 -> 618.9
Calc. conc. 2.389 (2.389)
Area ratio: 0.80 µg/Kg
Sample type: 0.30732
Calibration



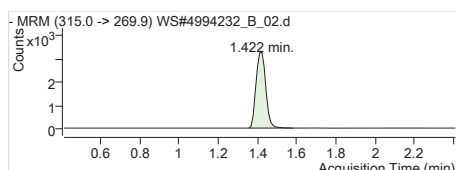
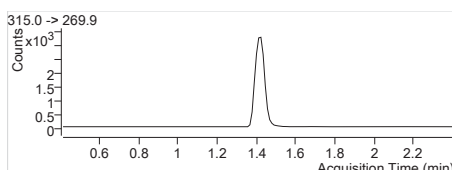
PFTeDA 1
RT (Exp. RT): 712.9 -> 668.9
Calc. conc. 2.455 (2.456)
Area ratio: 0.80 µg/Kg
Sample type: 0.32468
Calibration



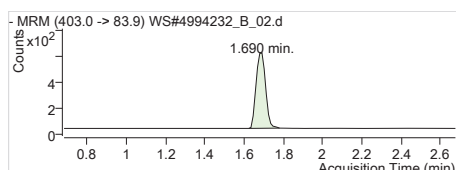
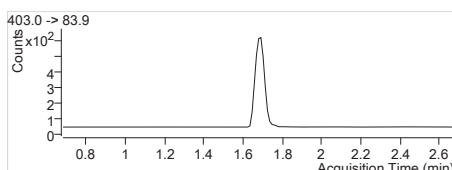
6:2-FTS 1
RT (Exp. RT): 427.0 -> 406.9
Calc. conc. 1.835 (1.835)
Area ratio: 0.81 µg/Kg
Sample type: 0.35207
Calibration



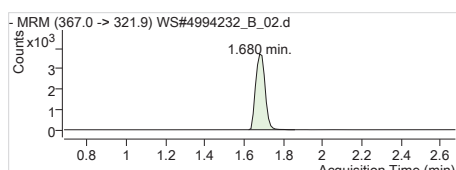
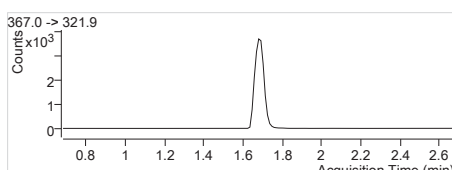
8:2-FTS 1
RT (Exp. RT): 527.0 -> 506.8
Calc. conc. 2.100 (2.101)
Area ratio: 0.76 µg/Kg
Sample type: 0.30124
Calibration



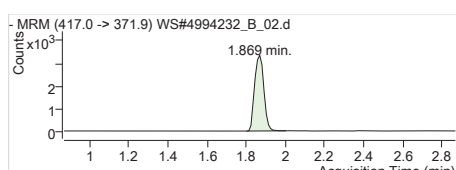
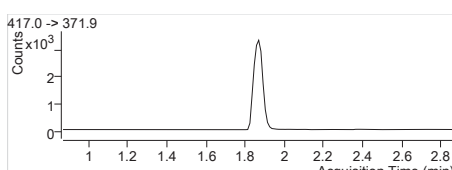
13C2-PFHxA
RT (Exp. RT): 315.0 -> 269.9
Calc. conc. 1.422 (1.411)
Area ratio: 82.09 µg/Kg
Sample type: 0.17047
Calibration



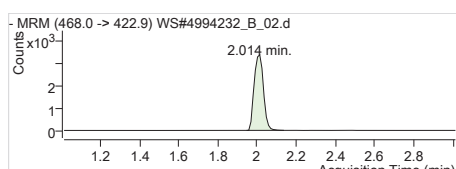
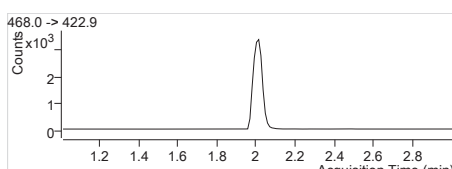
18O2-PFHxS
RT (Exp. RT): 403.0 -> 83.9
Calc. conc. 1.690 (1.679)
Area ratio: 84.77 µg/Kg
Sample type: 0.02972
Calibration



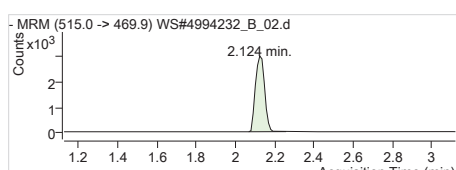
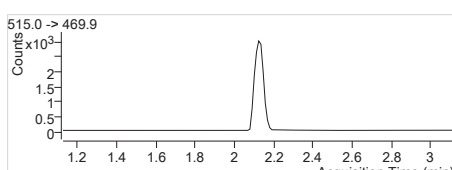
13C4-PFHpA
RT (Exp. RT): 367.0 -> 321.9
Calc. conc. 1.680 (1.680)
Area ratio: 85.53 µg/Kg
Sample type: 0.18814
Calibration



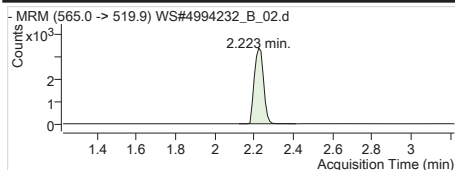
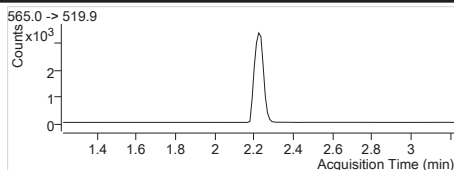
13C4-PFOA
RT (Exp. RT): 417.0 -> 371.9
Calc. conc. 1.869 (1.869)
Area ratio: 80.50 µg/Kg
Sample type: 0.16585
Calibration



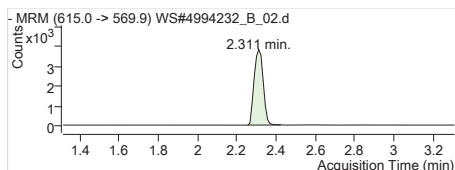
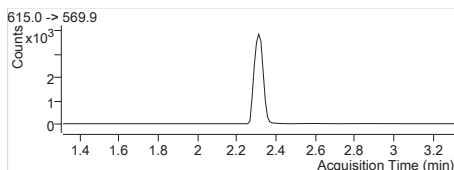
13C5-PFNA
RT (Exp. RT): 468.0 -> 422.9
Calc. conc. 2.014 (2.014)
Area ratio: 83.65 µg/Kg
Sample type: 0.16916
Calibration



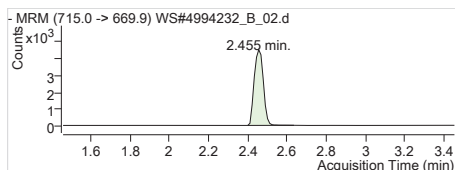
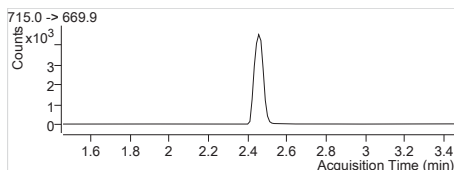
13C2-PFDA
RT (Exp. RT): 515.0 -> 469.9
Calc. conc. 2.124 (2.124)
Area ratio: 85.19 µg/Kg
Sample type: 0.17703
Calibration



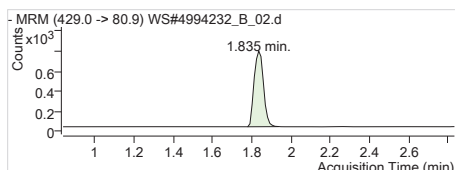
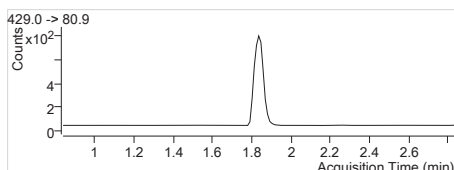
13C2-PFUnA
RT (Exp. RT): 565.0 -> 519.9
Calc. conc. 2.223 (2.223)
Area ratio: 86.04 µg/Kg
Sample type: 0.19940
Calibration



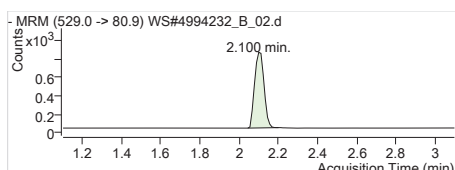
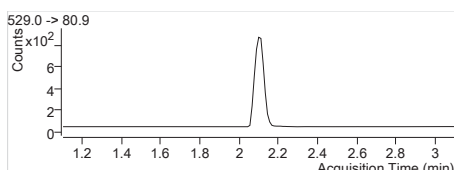
13C2-PFDoA
RT (Exp. RT): 615.0 -> 569.9
Calc. conc. 2.311 (2.311)
Area ratio: 86.71 µg/Kg
Sample type: 0.22275
Calibration



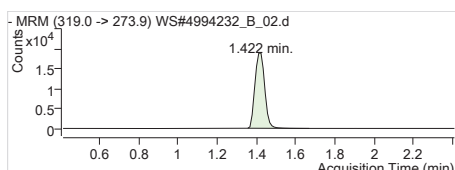
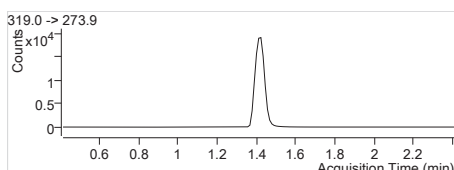
13C2-PFTeDA
RT (Exp. RT): 715.0 -> 669.9
Calc. conc. 2.455 (2.455)
Area ratio: 80.64 µg/Kg
Sample type: 0.26511
Calibration



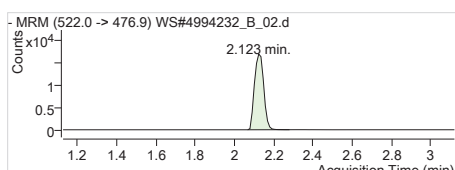
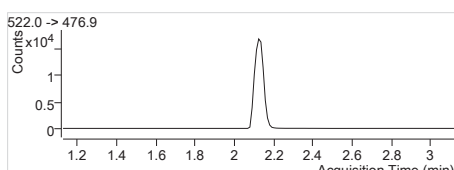
13C2-6:2-FTS
RT (Exp. RT): 429.0 -> 80.9
Calc. conc. 1.835 (1.835)
Area ratio: 73.80 µg/Kg
Sample type: 0.03838
Calibration



13C2-8:2 FTS
RT (Exp. RT): 529.0 -> 80.9
Calc. conc. 2.100 (2.100)
Area ratio: 82.95 µg/Kg
Sample type: 0.04211
Calibration



13C6-PFHxA
RT (Exp. RT): 319.0 -> 273.9
Calc. conc. 1.422 (1.411)
Area ratio: 130.83 µg/Kg
Sample type: 0
Calibration

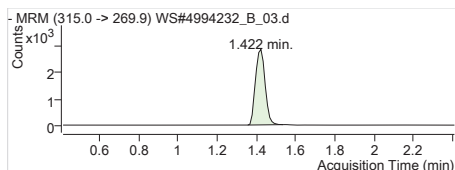
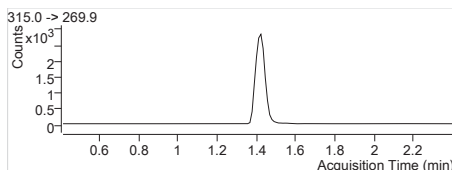


13C9-PFDA
RT (Exp. RT): 522.0 -> 476.9
Calc. conc. 2.123 (2.124)
Area ratio: 129.64 µg/Kg
Sample type: 0
Calibration

Batch Path	T:\lcms4\PFC\20170526\WS#4994375_B\QuantResults\PFC_Soil_170526_WS#4994375_CTLabs		
Sample Name	STD 2	Instrument	LCMS04
Data File	WS#4994232_B_03.d	Operator	AD
Sample Type	Cal	Dilution	1
Acq. Method	PFC_Soil.m	Position	P1-A3
Acq. Date	2017/05/30 9:34:24 AM	Injection Volume	Per Method
Sample Annotation	-		

ISTD Compounds	Response	RT	Target conc.		
MPFHxA	9556	1.42	1 µg/Kg		
MPFHxS	1642	1.69	1 µg/Kg		
MPFHpA	10803	1.69	1 µg/Kg		
MPFOA	10146	1.87	1 µg/Kg		
MPFNA	9443	2.01	1 µg/Kg		
MPFDA	7841	2.12	1 µg/Kg		
MPFUnA	9428	2.22	1 µg/Kg		
MPFDoA	10334	2.31	1 µg/Kg		
MPFTeDA	13154	2.46	1 µg/Kg		
M2 6:2 FTS	2335	1.83	1 µg/Kg		
M2 8:2 FTS	2221	2.10	1 µg/Kg		
13C6-PFHxA IS	44478	1.42	1 µg/Kg		
13C9-PFDA IS	38794	2.12	1 µg/Kg		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	1397	1.10	1.50	1.46 µg/Kg	97.18
PFHxA 1	5863	1.42	1.50	1.51 µg/Kg	100.82
PFHxS 1	1060	1.68	1.50	1.40 µg/Kg	93.17
PFHpA 1	7129	1.68	1.50	1.46 µg/Kg	97.29
PFOA 1	5919	1.87	1.50	1.35 µg/Kg	90.09
PFNA 1	5239	2.01	1.50	1.46 µg/Kg	97.15
PFDA 1	5246	2.12	1.50	1.50 µg/Kg	99.87
PFUnA 1	5113	2.22	1.50	1.31 µg/Kg	87.54
PFDaA 1	5852	2.31	1.50	1.42 µg/Kg	94.87
PFTTrDA 1	6781	2.39	1.50	1.37 µg/Kg	91.01
PFTeDA 1	7056	2.46	1.50	1.43 µg/Kg	95.01
6:2-FTS 1	1220	1.84	1.50	1.29 µg/Kg	86.32
8:2-FTS 1	1104	2.10	1.50	1.36 µg/Kg	90.64
13C2-PFHxA	9556	1.42	100.00	103.46 µg/Kg	103.46
18O2-PFHxS	1642	1.69	100.00	105.31 µg/Kg	105.31
13C4-PFHpA	10803	1.69	100.00	110.42 µg/Kg	110.42
13C4-PFOA	10146	1.87	100.00	110.73 µg/Kg	110.73
13C5-PFNA	9443	2.01	100.00	104.99 µg/Kg	104.99
13C2-PFDA	7841	2.12	100.00	97.26 µg/Kg	97.26
13C2-PFUnA	9432	2.22	100.00	104.91 µg/Kg	104.91
13C2-PFDoA	10334	2.31	100.00	103.69 µg/Kg	103.69
13C2-PFTeDA	13154	2.46	100.00	103.13 µg/Kg	103.13
13C2-6:2-FTS	2335	1.83	100.00	100.96 µg/Kg	100.96
13C2-8:2 FTS	2221	2.10	100.00	98.37 µg/Kg	98.37
13C6-PFHxA	44478	1.42	100.00	89.04 µg/Kg	89.04
13C9-PFDA	38780	2.12	100.00	91.80 µg/Kg	91.80



MPFHxA

RT (Exp. RT):

Concentration:

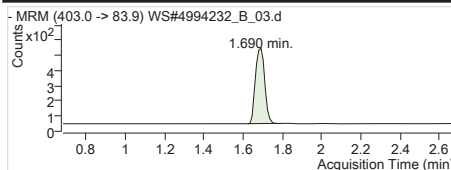
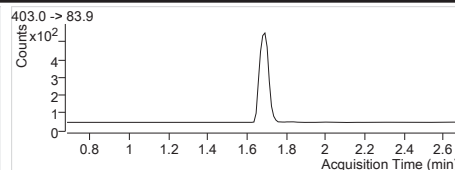
Sample type:

Internal Standard

1.422 (1.411)

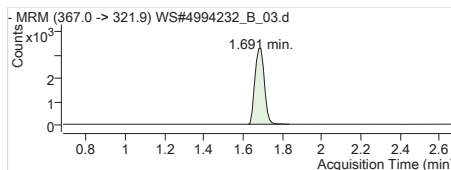
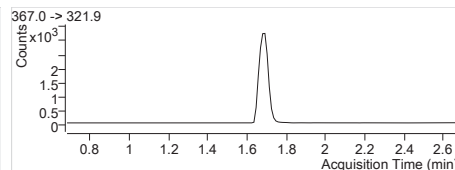
1 µg/Kg

Calibration



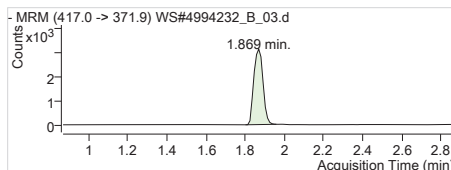
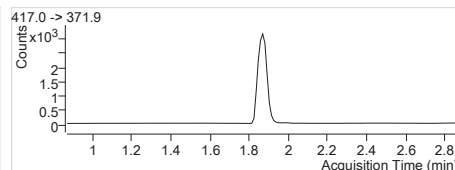
MPFHxS
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
1.690 (1.679)
1 µg/Kg
Calibration



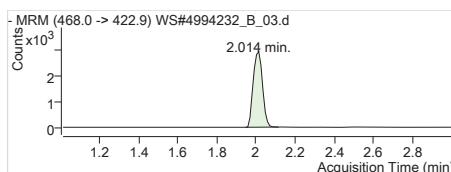
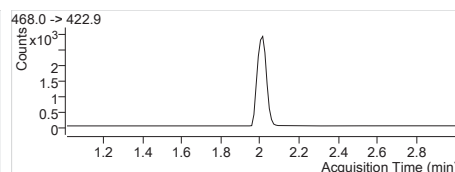
MPFHpA
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
1.691 (1.680)
1 µg/Kg
Calibration



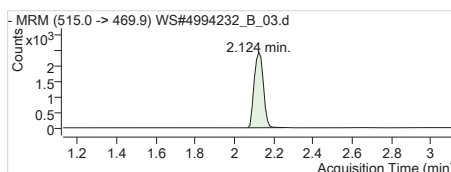
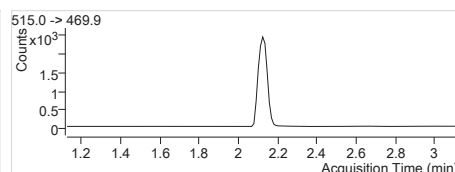
MPFOA
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
1.869 (1.869)
1 µg/Kg
Calibration



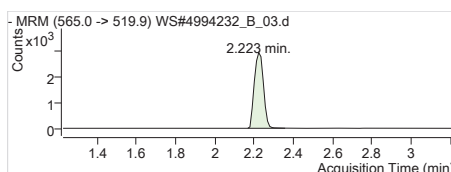
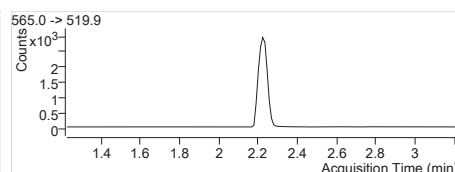
MPFNA
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
2.014 (2.014)
1 µg/Kg
Calibration



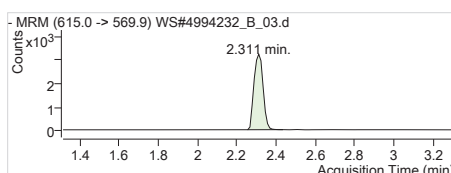
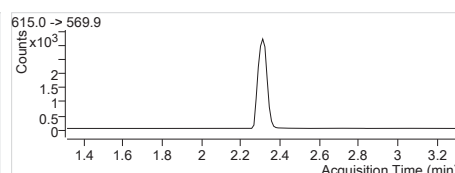
MPFDA
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
2.124 (2.124)
1 µg/Kg
Calibration



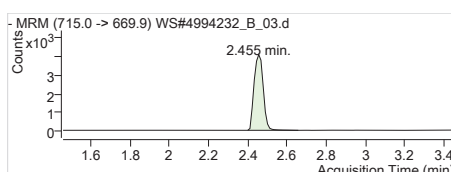
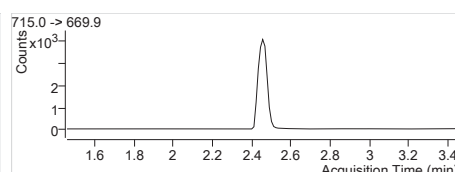
MPFUnA
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
2.223 (2.223)
1 µg/Kg
Calibration



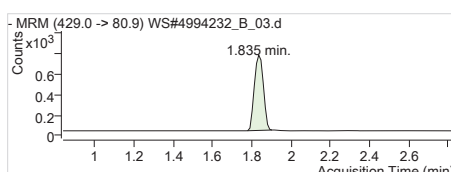
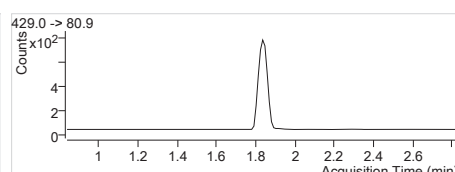
MPFDoA
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
2.311 (2.311)
1 µg/Kg
Calibration



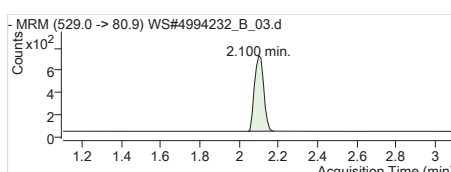
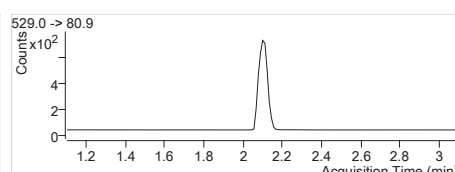
MPFTeDA
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
2.455 (2.455)
1 µg/Kg
Calibration



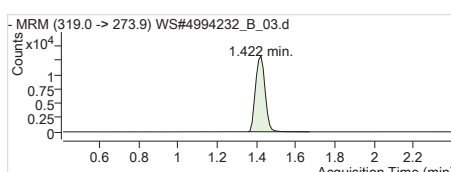
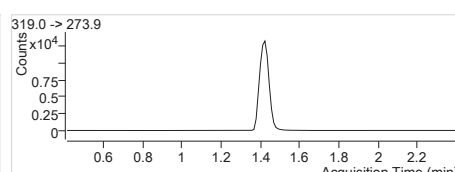
M2 6:2 FTS
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
1.835 (1.835)
1 µg/Kg
Calibration



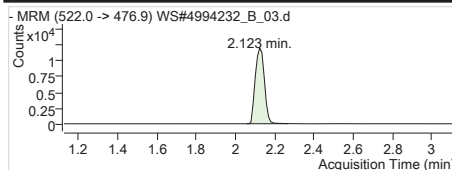
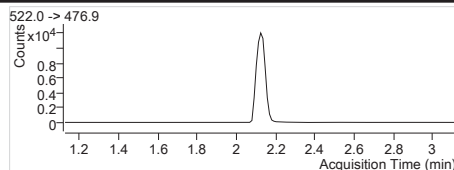
M2 8:2 FTS
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
2.100 (2.100)
1 µg/Kg
Calibration



13C6-PFHxA IS
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
1.422 (1.411)
1 µg/Kg
Calibration

**13C9-PFDA IS**

RT (Exp. RT):

Concentration:

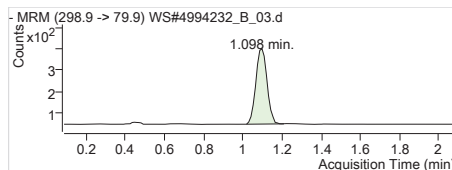
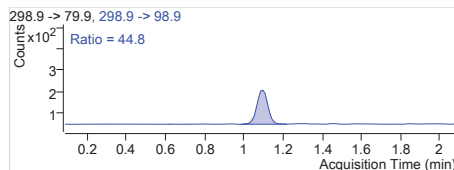
Sample type:

Internal Standard

2.123 (2.124)

1 µg/Kg

Calibration

**PFBS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

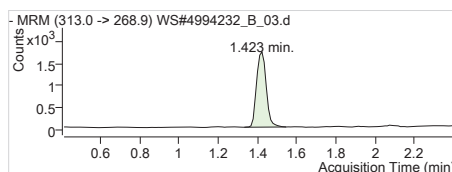
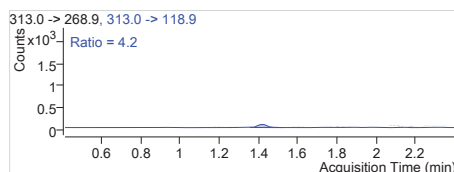
298.9 -> 79.9

1.098 (1.087)

1.46 µg/Kg

0.85079

Calibration

**PFHxA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

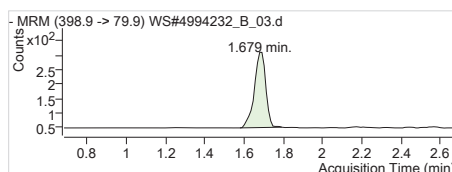
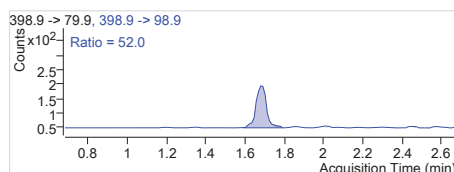
313.0 -> 268.9

1.423 (1.411)

1.51 µg/Kg

0.61354

Calibration

**PFHxS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

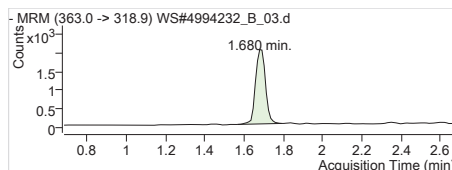
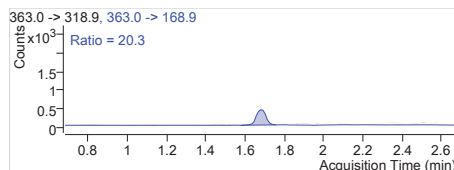
398.9 -> 79.9

1.679 (1.679)

1.40 µg/Kg

0.64555

Calibration

**PFHpA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

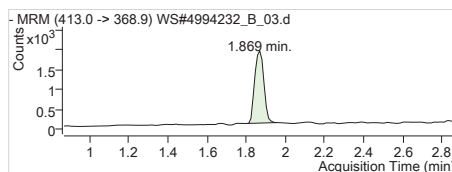
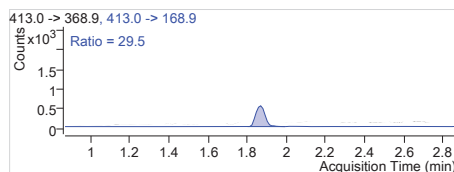
363.0 -> 318.9

1.680 (1.680)

1.46 µg/Kg

0.65991

Calibration

**PFOA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

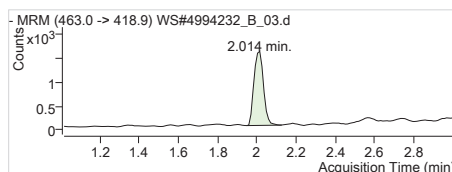
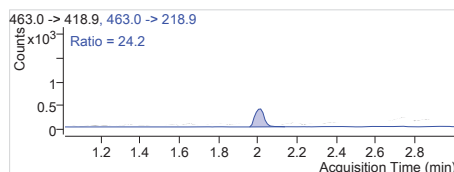
413.0 -> 368.9

1.869 (1.869)

1.35 µg/Kg

0.58338

Calibration

**PFNA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

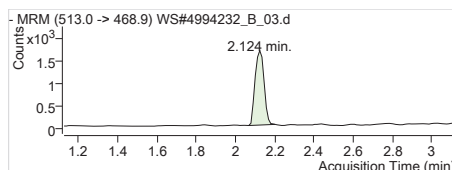
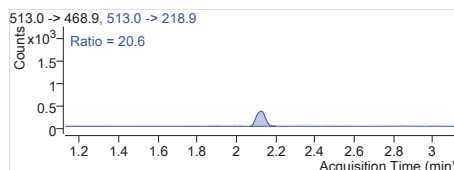
463.0 -> 418.9

2.014 (2.014)

1.46 µg/Kg

0.55480

Calibration

**PFDA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

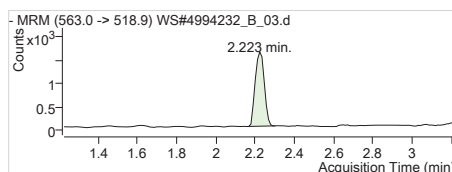
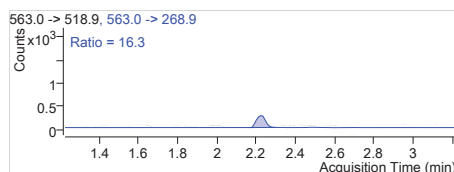
513.0 -> 468.9

2.124 (2.124)

1.50 µg/Kg

0.66905

Calibration

**PFUnA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

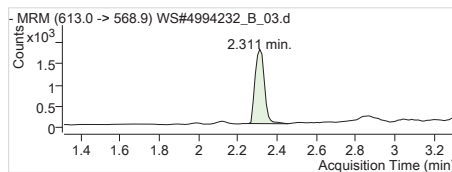
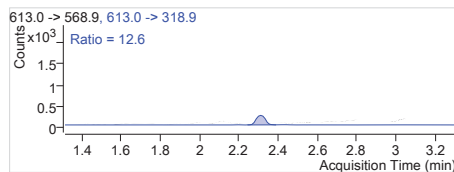
563.0 -> 518.9

2.223 (2.223)

1.31 µg/Kg

0.54232

Calibration

**PFDaA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

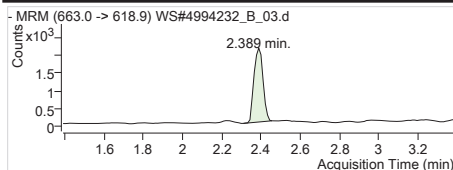
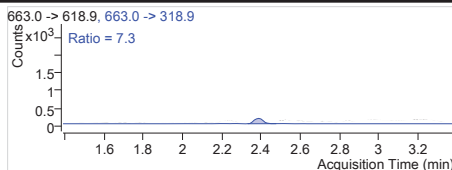
613.0 -> 568.9

2.311 (2.311)

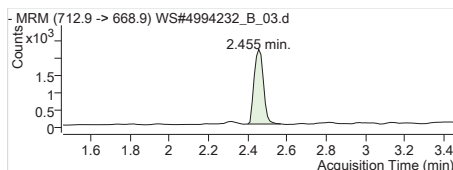
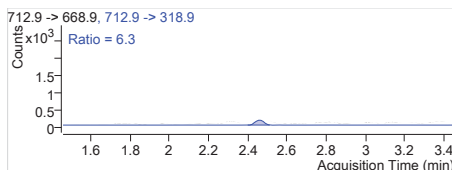
1.42 µg/Kg

0.56629

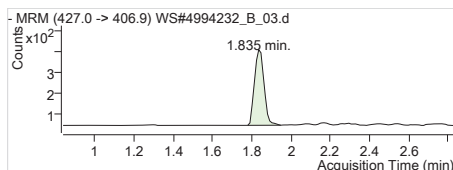
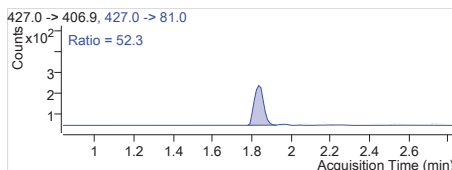
Calibration



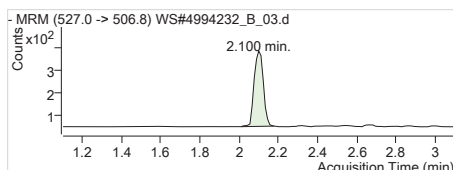
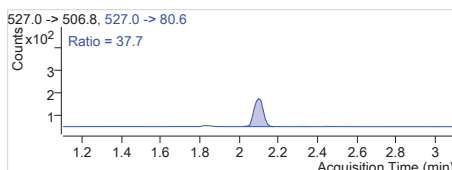
PFTDA 1
RT (Exp. RT): 663.0 -> 618.9
Calc. conc. 2.389 (2.389)
Area ratio: 1.37 µg/Kg
Sample type: 0.51551
Calibration



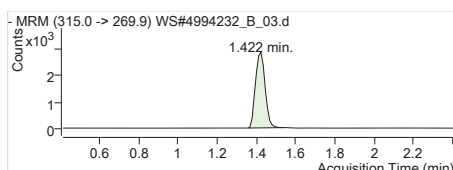
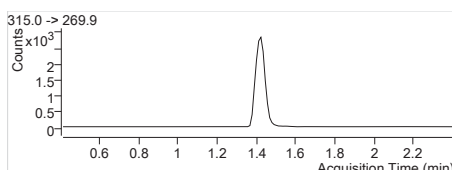
PFTDA 1
RT (Exp. RT): 712.9 -> 668.9
Calc. conc. 2.455 (2.456)
Area ratio: 1.43 µg/Kg
Sample type: 0.53641
Calibration



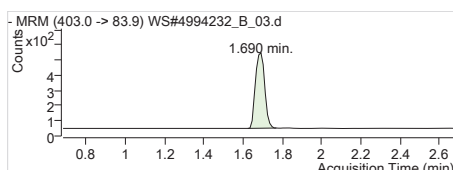
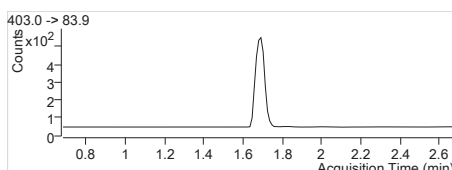
6:2-FTS 1
RT (Exp. RT): 427.0 -> 406.9
Calc. conc. 1.835 (1.835)
Area ratio: 1.29 µg/Kg
Sample type: 0.52248
Calibration



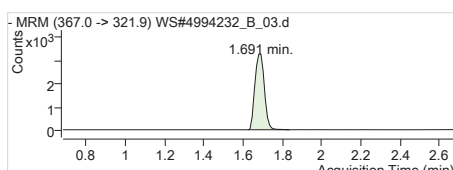
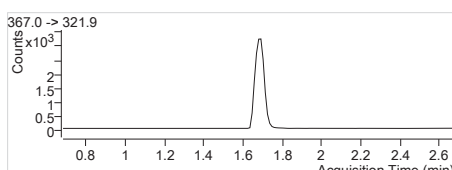
8:2-FTS 1
RT (Exp. RT): 527.0 -> 506.8
Calc. conc. 2.100 (2.101)
Area ratio: 1.36 µg/Kg
Sample type: 0.49707
Calibration



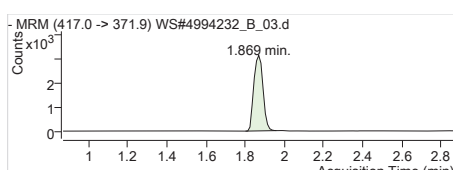
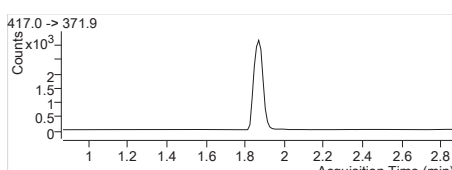
13C2-PFHxA
RT (Exp. RT): 315.0 -> 269.9
Calc. conc. 1.422 (1.411)
Area ratio: 103.46 µg/Kg
Sample type: 0.21485
Calibration



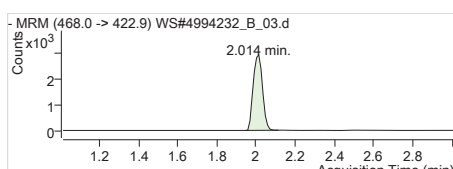
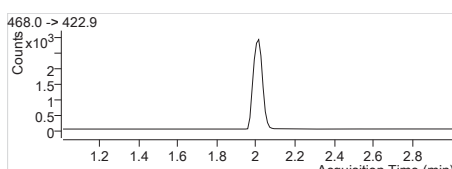
18O2-PFHxS
RT (Exp. RT): 403.0 -> 83.9
Calc. conc. 1.690 (1.679)
Area ratio: 105.31 µg/Kg
Sample type: 0.03692
Calibration



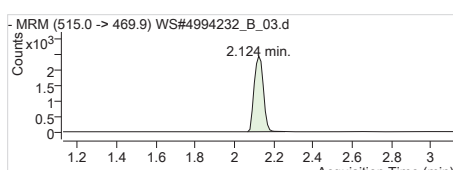
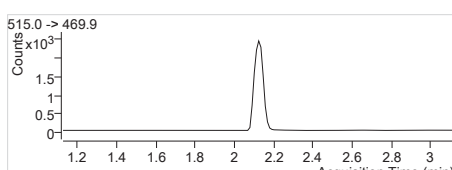
13C4-PFHpA
RT (Exp. RT): 367.0 -> 321.9
Calc. conc. 1.691 (1.680)
Area ratio: 110.42 µg/Kg
Sample type: 0.24288
Calibration



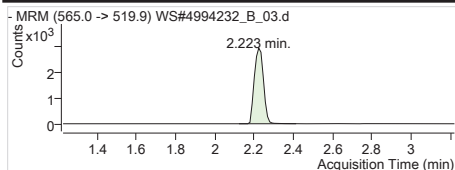
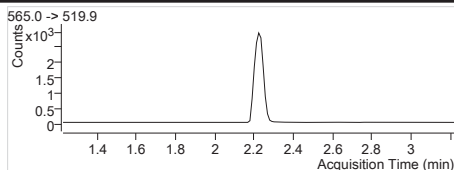
13C4-PFOA
RT (Exp. RT): 417.0 -> 371.9
Calc. conc. 1.869 (1.869)
Area ratio: 110.73 µg/Kg
Sample type: 0.22811
Calibration



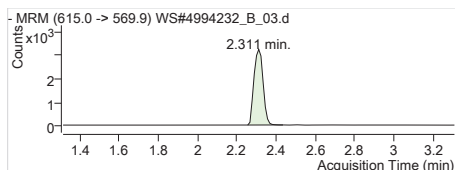
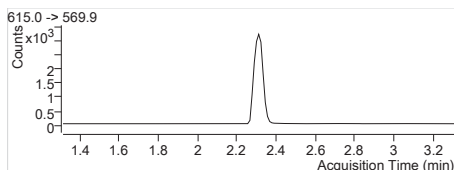
13C5-PFNA
RT (Exp. RT): 468.0 -> 422.9
Calc. conc. 2.014 (2.014)
Area ratio: 104.99 µg/Kg
Sample type: 0.21231
Calibration



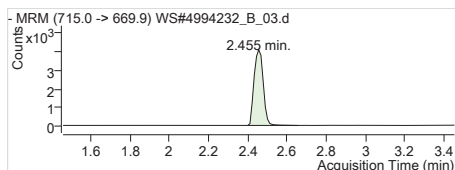
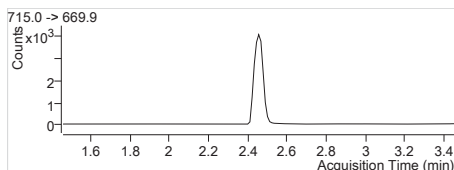
13C2-PFDA
RT (Exp. RT): 515.0 -> 469.9
Calc. conc. 2.124 (2.124)
Area ratio: 97.26 µg/Kg
Sample type: 0.20212
Calibration



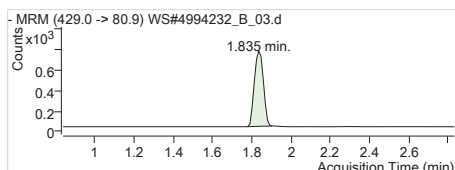
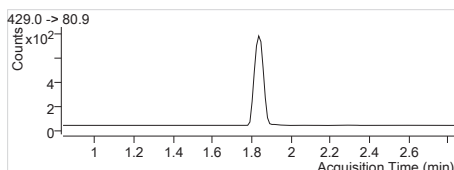
13C2-PFUnA
RT (Exp. RT): 565.0 -> 519.9
Calc. conc. 2.223 (2.223)
Area ratio: 104.91 µg/Kg
Sample type: 0.24313
Calibration



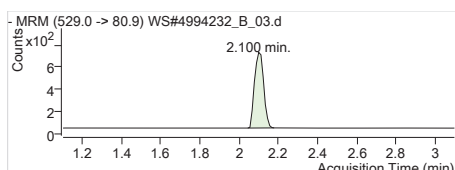
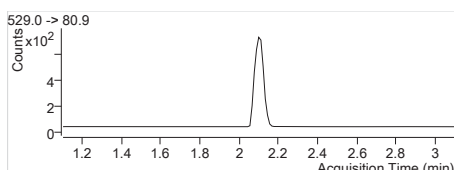
13C2-PFDoA
RT (Exp. RT): 615.0 -> 569.9
Calc. conc. 2.311 (2.311)
Area ratio: 103.69 µg/Kg
Sample type: 0.26638
Calibration



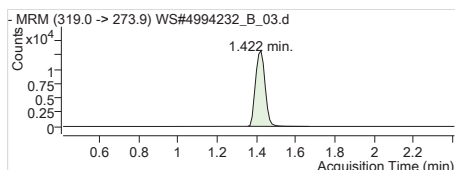
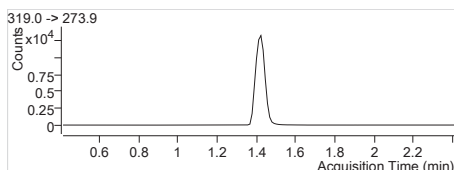
13C2-PFTeDA
RT (Exp. RT): 715.0 -> 669.9
Calc. conc. 2.455 (2.455)
Area ratio: 103.13 µg/Kg
Sample type: 0.33907
Calibration



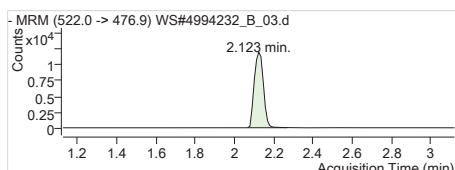
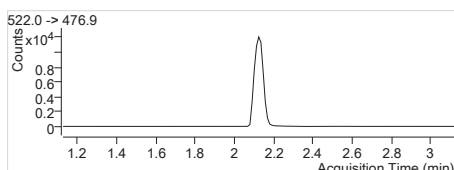
13C2-6:2-FTS
RT (Exp. RT): 429.0 -> 80.9
Calc. conc. 1.835 (1.835)
Area ratio: 100.96 µg/Kg
Sample type: 0.05250
Calibration



13C2-8:2-FTS
RT (Exp. RT): 529.0 -> 80.9
Calc. conc. 2.100 (2.100)
Area ratio: 98.37 µg/Kg
Sample type: 0.04993
Calibration



13C6-PFHxA
RT (Exp. RT): 319.0 -> 273.9
Calc. conc. 1.422 (1.411)
Area ratio: 89.04 µg/Kg
Sample type: 0
Calibration

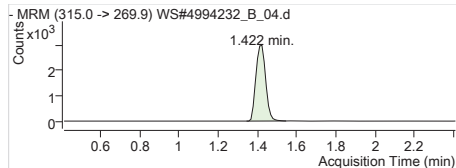
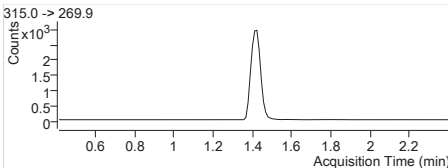


13C9-PFDA
RT (Exp. RT): 522.0 -> 476.9
Calc. conc. 2.123 (2.124)
Area ratio: 91.80 µg/Kg
Sample type: 0
Calibration

Batch Path	T:\lcms4\PFC\20170526\WS#4994375_B\QuantResults\PFC_Soil_170526_WS#4994375_CTLabs		
Sample Name	STD 3	Instrument	LCMS04
Data File	WS#4994232_B_04.d	Operator	AD
Sample Type	Cal	Dilution	1
Acq. Method	PFC_Soil.m	Position	P1-A4
Acq. Date	2017/05/30 9:39:18 AM	Injection Volume	Per Method
Sample Annotation	-		

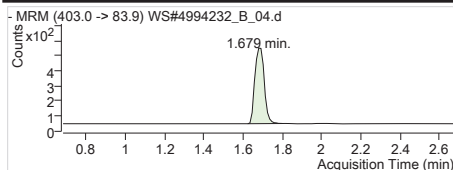
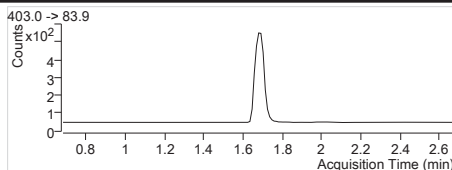
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	10158	1.42	1 µg/Kg		
MPFHxS	1676	1.68	1 µg/Kg		
MPFHpA	10538	1.68	1 µg/Kg		
MPFOA	10198	1.87	1 µg/Kg		
MPFNA	9769	2.01	1 µg/Kg		
MPFDA	8178	2.12	1 µg/Kg		
MPFUnA	9085	2.22	1 µg/Kg		
MPFDoA	10527	2.31	1 µg/Kg		
MPFTeDA	13453	2.46	1 µg/Kg		
M2 6:2 FTS	2737	1.83	1 µg/Kg		
M2 8:2 FTS	2441	2.10	1 µg/Kg		
13C6-PFHxA IS	45895	1.42	1 µg/Kg		
13C9-PFDA IS	38627	2.12	1 µg/Kg		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	4595	1.09	4.50	4.71 µg/Kg	104.67
PFHxA 1	18282	1.42	4.50	4.46 µg/Kg	99.03
PFHxS 1	3472	1.68	4.50	4.58 µg/Kg	101.86
PFHpA 1	20700	1.68	4.50	4.56 µg/Kg	101.36
PFOA 1	19610	1.87	4.50	4.47 µg/Kg	99.24
PFNA 1	17605	2.01	4.50	4.78 µg/Kg	106.28
PFDA 1	17650	2.12	4.50	4.99 µg/Kg	110.94
PFUnA 1	17815	2.22	4.50	4.84 µg/Kg	107.51
PFDaA 1	18608	2.31	4.50	4.47 µg/Kg	99.29
PFTrDA 1	23711	2.39	4.50	4.73 µg/Kg	105.12
PFTeDA 1	21313	2.46	4.50	4.51 µg/Kg	100.26
6:2-FTS 1	4879	1.84	4.50	4.87 µg/Kg	108.29
8:2-FTS 1	4179	2.10	4.50	5.06 µg/Kg	112.51
13C2-PFHxA	10158	1.42	100.00	106.59 µg/Kg	106.59
18O2-PFHxS	1676	1.68	100.00	104.18 µg/Kg	104.18
13C4-PFHpA	10538	1.68	100.00	104.38 µg/Kg	104.38
13C4-PFOA	10198	1.87	100.00	107.86 µg/Kg	107.86
13C5-PFNA	9769	2.01	100.00	105.27 µg/Kg	105.27
13C2-PFDA	8178	2.12	100.00	101.88 µg/Kg	101.88
13C2-PFUnA	9106	2.22	100.00	101.72 µg/Kg	101.72
13C2-PFDoA	10527	2.31	100.00	106.08 µg/Kg	106.08
13C2-PFTeDA	13453	2.46	100.00	105.93 µg/Kg	105.93
13C2-6:2-FTS	2737	1.83	100.00	114.68 µg/Kg	114.68
13C2-8:2 FTS	2441	2.10	100.00	104.77 µg/Kg	104.77
13C6-PFHxA	45895	1.42	100.00	91.87 µg/Kg	91.87
13C9-PFDA	38606	2.12	100.00	91.39 µg/Kg	91.39

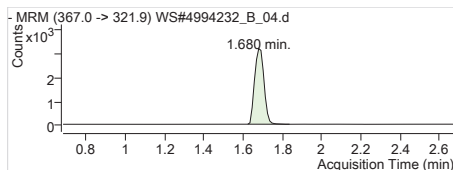
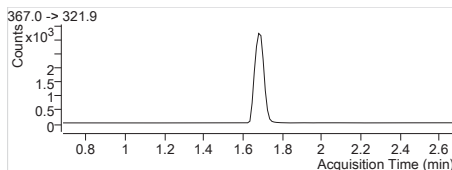


MPFHxA	Internal Standard
RT (Exp. RT):	1.422 (1.411)
Concentration:	1 µg/Kg
Sample type:	Calibration

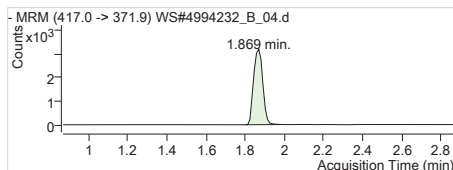
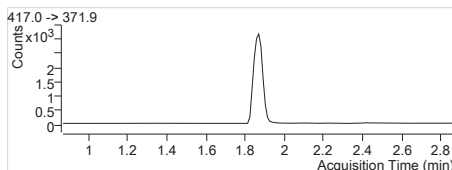
Quantitation Results



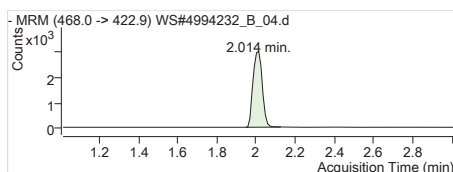
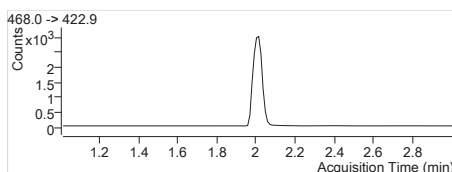
MPFHxS
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/Kg
Sample type: Calibration



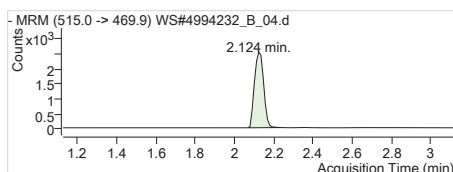
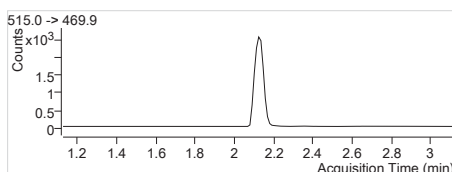
MPFHpA
RT (Exp. RT): 1.680 (1.680)
Concentration: 1 µg/Kg
Sample type: Calibration



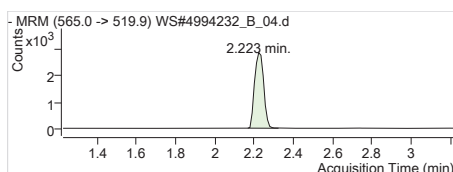
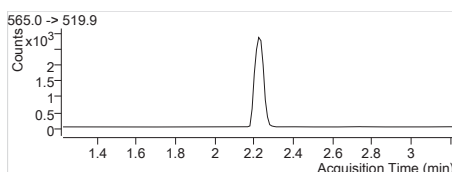
MPFOA
RT (Exp. RT): 1.869 (1.869)
Concentration: 1 µg/Kg
Sample type: Calibration



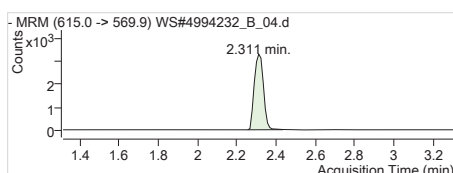
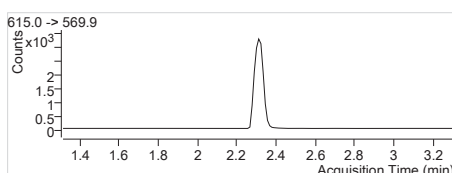
MPFNA
RT (Exp. RT): 2.014 (2.014)
Concentration: 1 µg/Kg
Sample type: Calibration



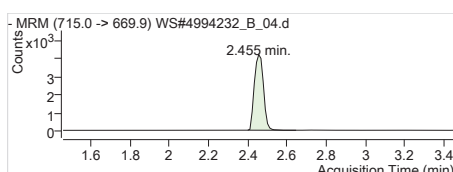
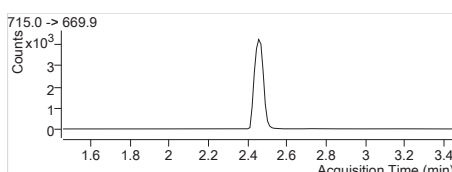
MPFDA
RT (Exp. RT): 2.124 (2.124)
Concentration: 1 µg/Kg
Sample type: Calibration



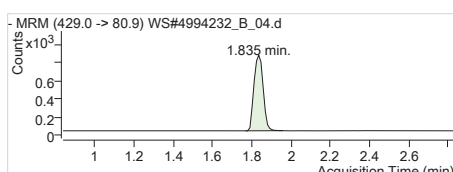
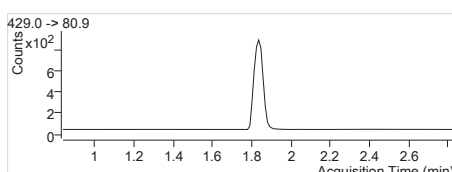
MPFUnA
RT (Exp. RT): 2.223 (2.223)
Concentration: 1 µg/Kg
Sample type: Calibration



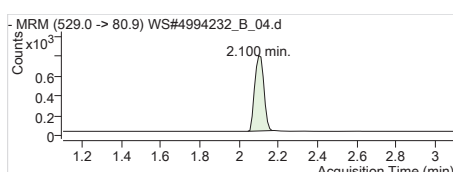
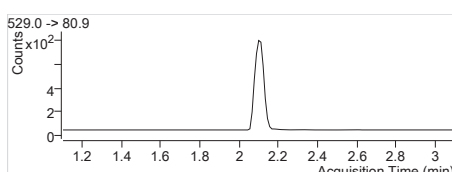
MPFDoA
RT (Exp. RT): 2.311 (2.311)
Concentration: 1 µg/Kg
Sample type: Calibration



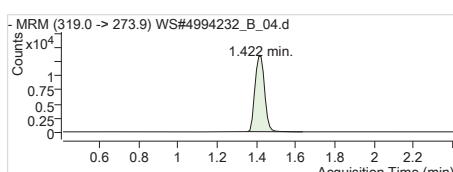
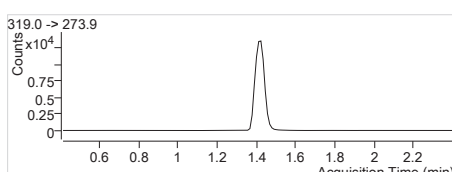
MPFTeDA
RT (Exp. RT): 2.455 (2.455)
Concentration: 1 µg/Kg
Sample type: Calibration



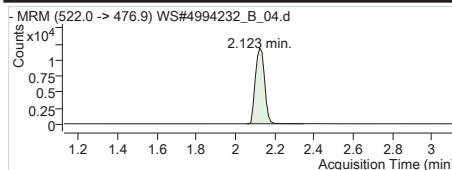
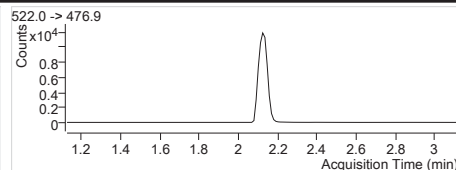
M2 6:2 FTS
RT (Exp. RT): 1.835 (1.835)
Concentration: 1 µg/Kg
Sample type: Calibration



M2 8:2 FTS
RT (Exp. RT): 2.100 (2.100)
Concentration: 1 µg/Kg
Sample type: Calibration



13C6-PFHxA IS
RT (Exp. RT): 1.422 (1.411)
Concentration: 1 µg/Kg
Sample type: Calibration

**13C9-PFDA IS**

RT (Exp. RT):

Concentration:

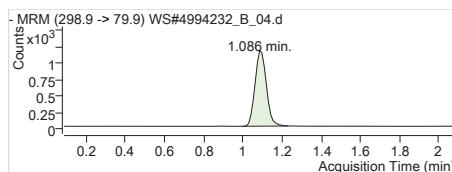
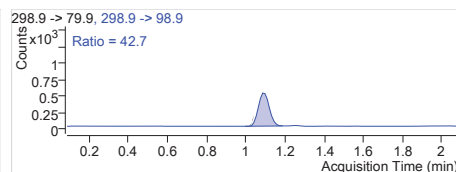
Sample type:

Internal Standard

2.123 (2.124)

1 µg/Kg

Calibration

**PFBS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

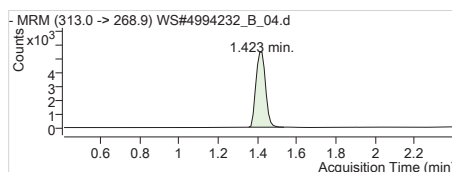
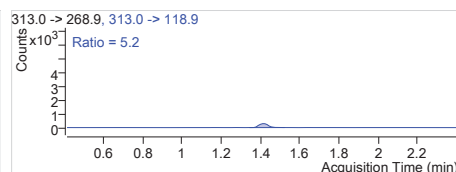
298.9 -> 79.9

1.086 (1.087)

4.71 µg/Kg

2.74165

Calibration

**PFHxA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

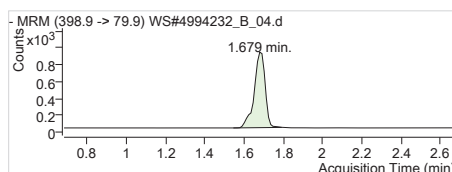
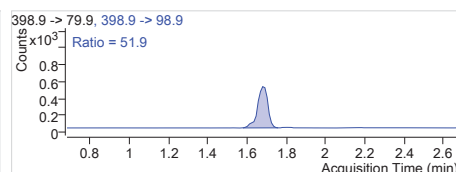
313.0 -> 268.9

1.423 (1.411)

4.46 µg/Kg

1.79976

Calibration

**PFHxS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

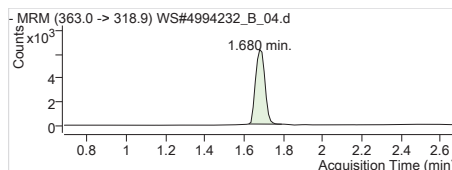
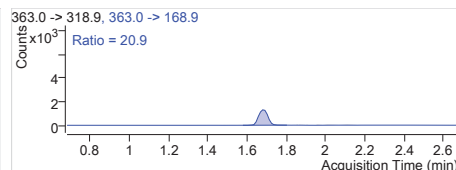
398.9 -> 79.9

1.679 (1.679)

4.58 µg/Kg

2.07160

Calibration

**PFHpA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

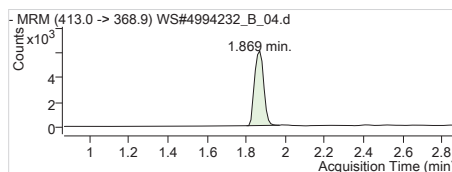
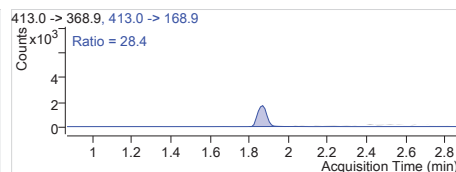
363.0 -> 318.9

1.680 (1.680)

4.56 µg/Kg

1.96432

Calibration

**PFOA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

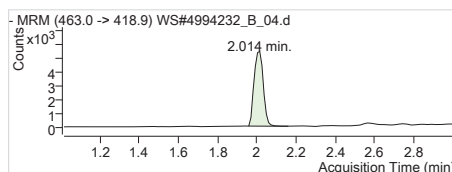
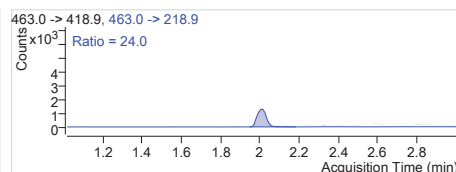
413.0 -> 368.9

1.869 (1.869)

4.47 µg/Kg

1.92293

Calibration

**PFNA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

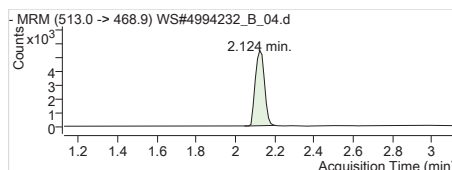
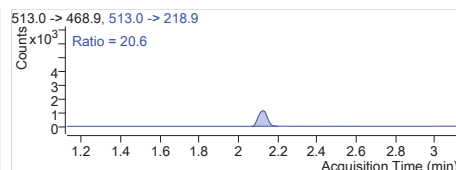
463.0 -> 418.9

2.014 (2.014)

4.78 µg/Kg

1.80213

Calibration

**PFDA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

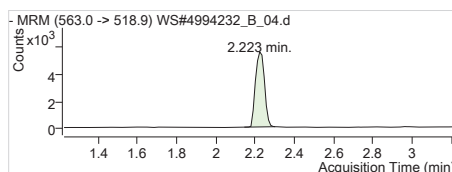
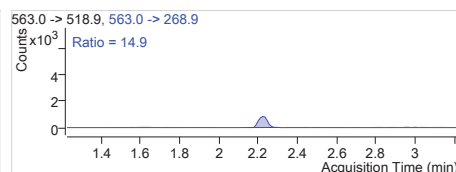
513.0 -> 468.9

2.124 (2.124)

4.99 µg/Kg

2.15823

Calibration

**PFUnA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

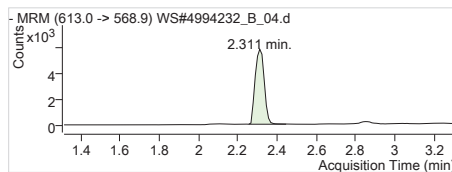
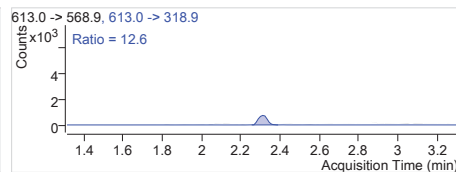
563.0 -> 518.9

2.223 (2.223)

4.84 µg/Kg

1.96092

Calibration

**PFDaA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

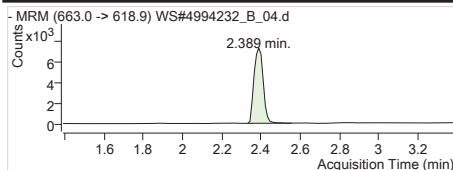
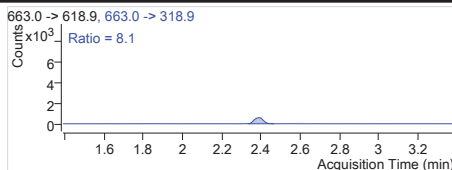
613.0 -> 568.9

2.311 (2.311)

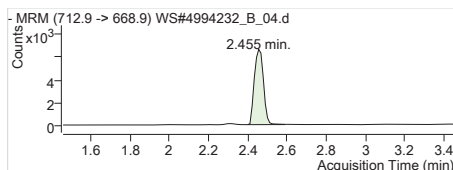
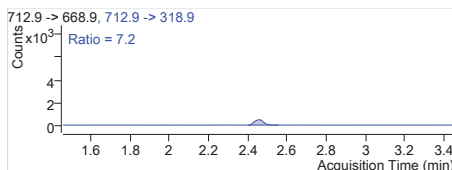
4.47 µg/Kg

1.76765

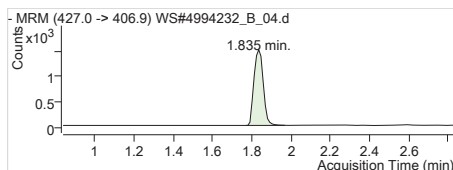
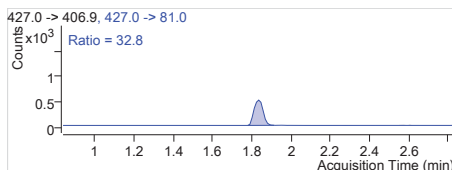
Calibration



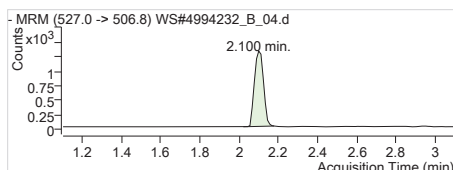
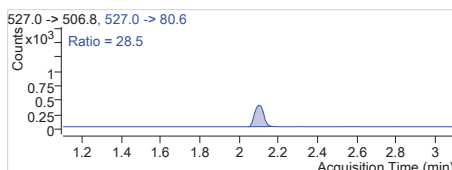
PFTDA 1
RT (Exp. RT): 663.0 -> 618.9
Calc. conc. 2.389 (2.389)
Area ratio: 4.73 µg/Kg
Sample type: 1.76251
Calibration



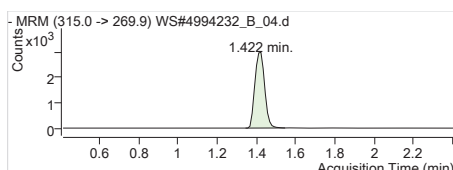
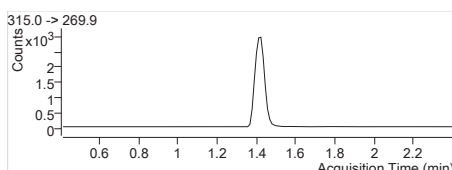
PFTDA 1
RT (Exp. RT): 712.9 -> 668.9
Calc. conc. 2.455 (2.456)
Area ratio: 4.51 µg/Kg
Sample type: 1.58426
Calibration



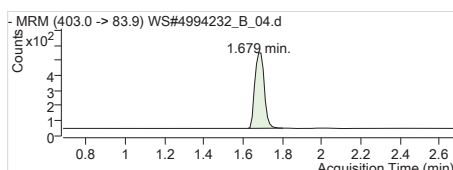
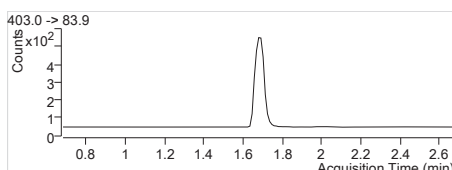
6:2-FTS 1
RT (Exp. RT): 427.0 -> 406.9
Calc. conc. 1.835 (1.835)
Area ratio: 4.87 µg/Kg
Sample type: 1.78261
Calibration



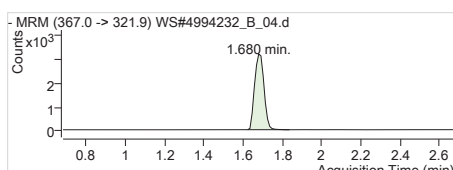
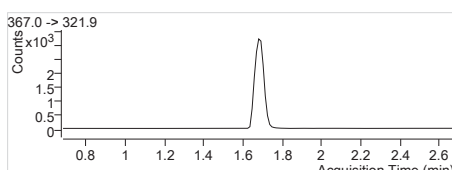
8:2-FTS 1
RT (Exp. RT): 527.0 -> 506.8
Calc. conc. 2.100 (2.101)
Area ratio: 5.06 µg/Kg
Sample type: 1.71200
Calibration



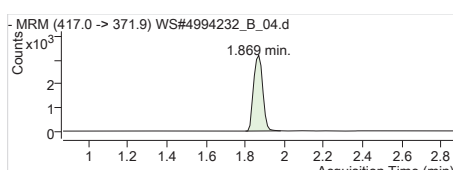
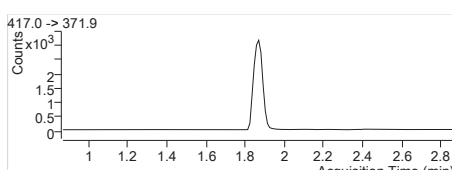
13C2-PFHxA
RT (Exp. RT): 315.0 -> 269.9
Calc. conc. 1.422 (1.411)
Area ratio: 106.59 µg/Kg
Sample type: 0.22133
Calibration



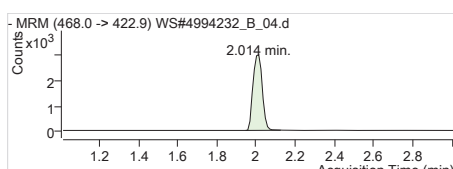
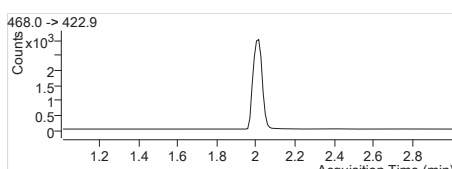
18O2-PFHxS
RT (Exp. RT): 403.0 -> 83.9
Calc. conc. 1.679 (1.679)
Area ratio: 104.18 µg/Kg
Sample type: 0.03652
Calibration



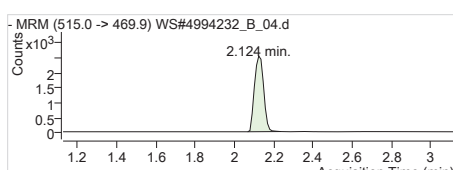
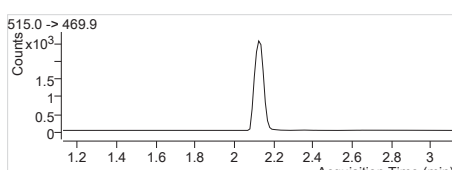
13C4-PFHpA
RT (Exp. RT): 367.0 -> 321.9
Calc. conc. 1.680 (1.680)
Area ratio: 104.38 µg/Kg
Sample type: 0.22961
Calibration



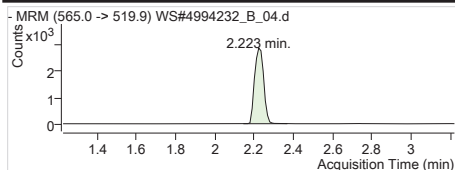
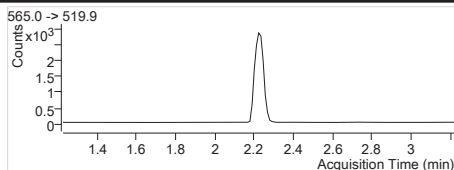
13C4-PFOA
RT (Exp. RT): 417.0 -> 371.9
Calc. conc. 1.869 (1.869)
Area ratio: 107.86 µg/Kg
Sample type: 0.22220
Calibration



13C5-PFNA
RT (Exp. RT): 468.0 -> 422.9
Calc. conc. 2.014 (2.014)
Area ratio: 105.27 µg/Kg
Sample type: 0.21286
Calibration



13C2-PFDA
RT (Exp. RT): 515.0 -> 469.9
Calc. conc. 2.124 (2.124)
Area ratio: 101.88 µg/Kg
Sample type: 0.21172
Calibration



13C2-PFUnA

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

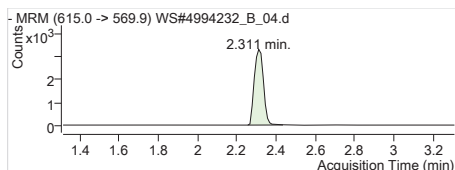
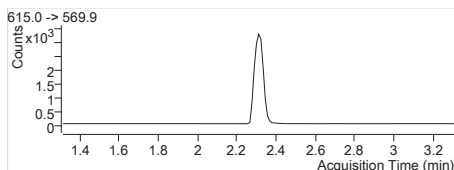
565.0 -> 519.9

2.223 (2.223)

101.72 µg/Kg

0.23574

Calibration



13C2-PFDoA

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

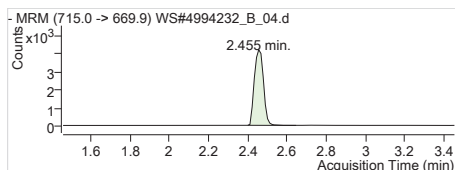
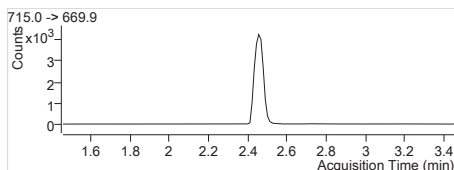
615.0 -> 569.9

2.311 (2.311)

106.08 µg/Kg

0.27253

Calibration



13C2-PFTeDA

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

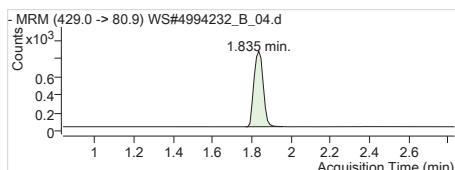
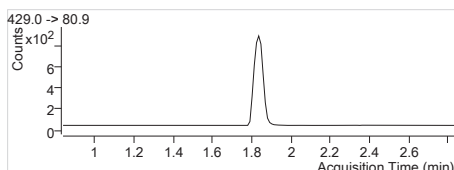
715.0 -> 669.9

2.455 (2.455)

105.93 µg/Kg

0.34828

Calibration



13C2-6:2-FTS

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

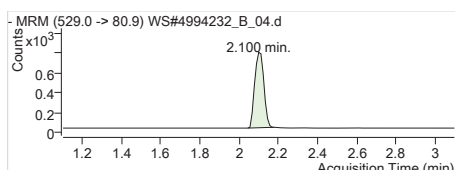
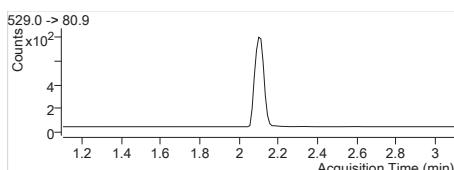
429.0 -> 80.9

1.835 (1.835)

114.68 µg/Kg

0.05964

Calibration



13C2-8:2 FTS

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

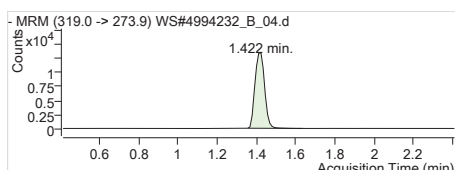
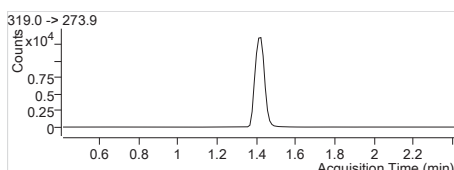
529.0 -> 80.9

2.100 (2.100)

104.77 µg/Kg

0.05319

Calibration



13C6-PFHxA

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

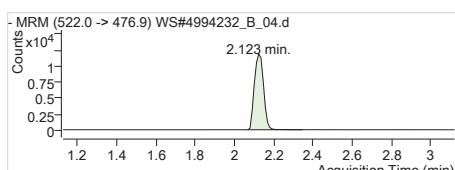
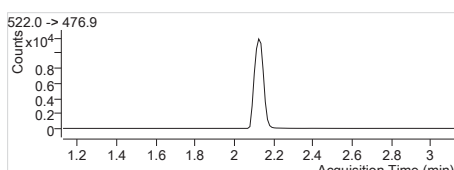
319.0 -> 273.9

1.422 (1.411)

91.87 µg/Kg

0

Calibration



13C9-PFDA

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

522.0 -> 476.9

2.123 (2.124)

91.39 µg/Kg

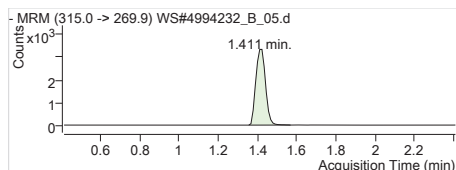
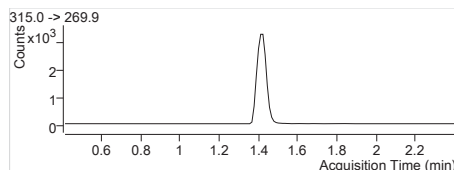
0

Calibration

Batch Path	T:\lcms4\PFC\20170526\WS#4994375_B\QuantResults\PFC_Soil_170526_WS#4994375_CTLabs		
Sample Name	STD 4	Instrument	LCMS04
Data File	WS#4994232_B_05.d	Operator	AD
Sample Type	Cal	Dilution	1
Acq. Method	PFC_Soil.m	Position	P1-A5
Acq. Date	2017/05/30 9:44:12 AM	Injection Volume	Per Method
Sample Annotation	-		

ISTD Compounds	Response	RT	Target conc.		
MPFHxA	11282	1.41	1 µg/Kg		
MPFHxS	1811	1.69	1 µg/Kg		
MPFHpA	11523	1.68	1 µg/Kg		
MPFOA	10515	1.87	1 µg/Kg		
MPFNA	10519	2.01	1 µg/Kg		
MPFDA	9247	2.12	1 µg/Kg		
MPFUnA	9704	2.22	1 µg/Kg		
MPFDoA	10905	2.31	1 µg/Kg		
MPFTeDA	14400	2.46	1 µg/Kg		
M2 6:2 FTS	2802	1.83	1 µg/Kg		
M2 8:2 FTS	2809	2.10	1 µg/Kg		
13C6-PFHxA IS	50656	1.42	1 µg/Kg		
13C9-PFDA	42479	2.12	1 µg/Kg		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	11562	1.09	11.30	10.98 µg/Kg	97.13
PFHxA 1	47798	1.42	11.30	10.50 µg/Kg	92.96
PFHxS 1	8771	1.68	11.30	10.78 µg/Kg	95.37
PFHpA 1	53428	1.68	11.30	10.92 µg/Kg	96.60
PFOA 1	49580	1.87	11.30	10.96 µg/Kg	96.97
PFNA 1	43999	2.01	11.30	11.13 µg/Kg	98.49
PFDA 1	43937	2.12	11.30	11.08 µg/Kg	98.03
PFUnA 1	44972	2.22	11.30	11.48 µg/Kg	101.60
PFDaA 1	48190	2.31	11.30	11.19 µg/Kg	99.01
PFTTrDA 1	57055	2.39	11.30	10.67 µg/Kg	94.39
PFTeDA 1	53346	2.46	11.30	10.76 µg/Kg	95.20
6:2-FTS 1	10924	1.84	11.30	10.88 µg/Kg	96.30
8:2-FTS 1	10067	2.10	11.30	10.77 µg/Kg	95.29
13C2-PFHxA	11282	1.41	100.00	107.25 µg/Kg	107.25
18O2-PFHxS	1811	1.69	100.00	101.99 µg/Kg	101.99
13C4-PFHpA	11523	1.68	100.00	103.41 µg/Kg	103.41
13C4-PFOA	10515	1.87	100.00	100.76 µg/Kg	100.76
13C5-PFNA	10519	2.01	100.00	102.69 µg/Kg	102.69
13C2-PFDA	9247	2.12	100.00	104.76 µg/Kg	104.76
13C2-PFUnA	9699	2.22	100.00	98.52 µg/Kg	98.52
13C2-PFDoA	10905	2.31	100.00	99.93 µg/Kg	99.93
13C2-PFTeDA	14400	2.46	100.00	103.11 µg/Kg	103.11
13C2-6:2-FTS	2802	1.83	100.00	106.37 µg/Kg	106.37
13C2-8:2 FTS	2809	2.10	100.00	109.24 µg/Kg	109.24
13C6-PFHxA	50656	1.42	100.00	101.40 µg/Kg	101.40
13C9-PFDA	42454	2.12	100.00	100.49 µg/Kg	100.49



MPFHxA

RT (Exp. RT):

Concentration:

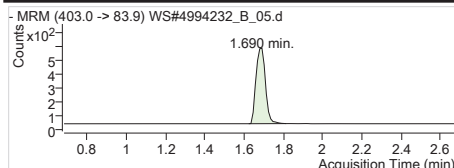
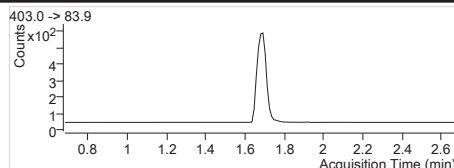
Sample type:

Internal Standard

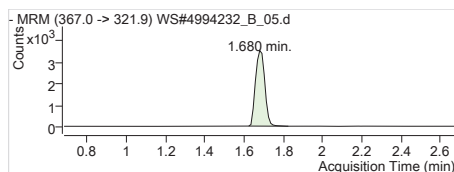
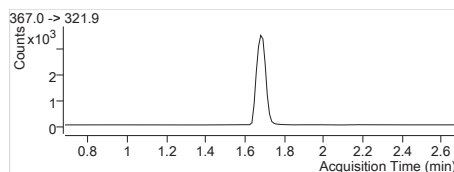
1.411 (1.411)

1 µg/Kg

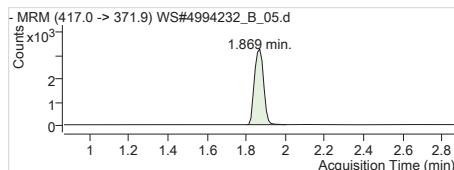
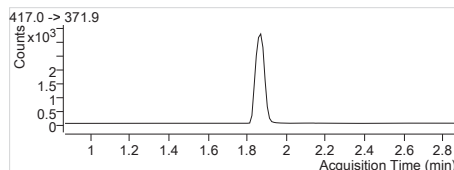
Calibration



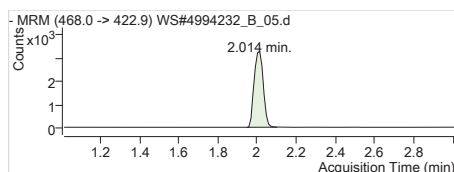
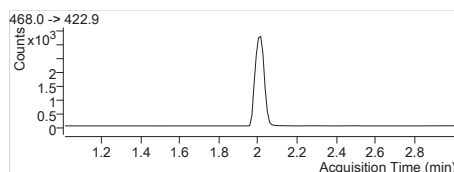
MPFHxS
RT (Exp. RT): 1.690 (1.679)
Concentration: 1 µg/Kg
Sample type: Calibration



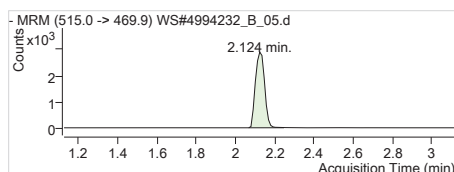
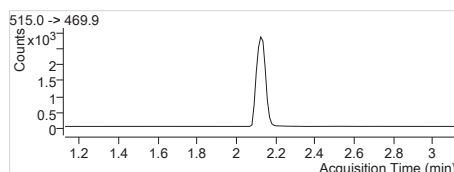
MPFHpA
RT (Exp. RT): 1.680 (1.680)
Concentration: 1 µg/Kg
Sample type: Calibration



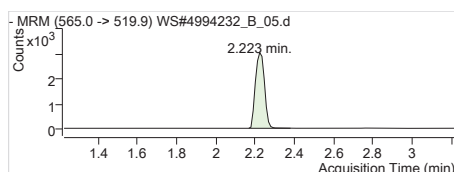
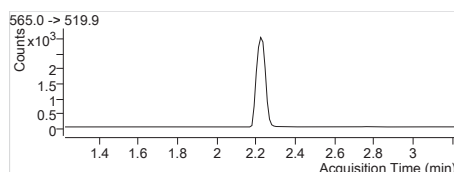
MPFOA
RT (Exp. RT): 1.869 (1.869)
Concentration: 1 µg/Kg
Sample type: Calibration



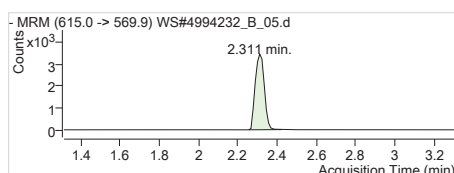
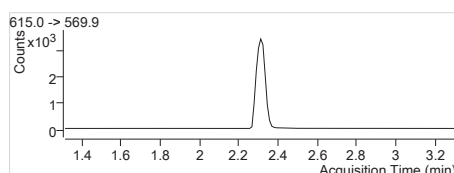
MPFNA
RT (Exp. RT): 2.014 (2.014)
Concentration: 1 µg/Kg
Sample type: Calibration



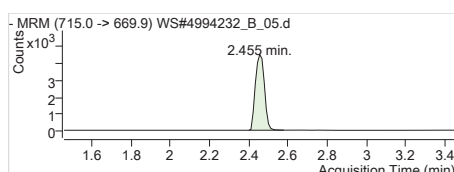
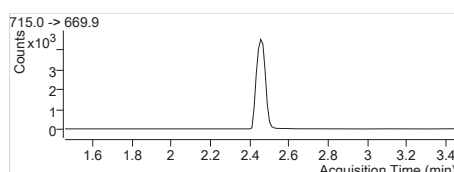
MPFDA
RT (Exp. RT): 2.124 (2.124)
Concentration: 1 µg/Kg
Sample type: Calibration



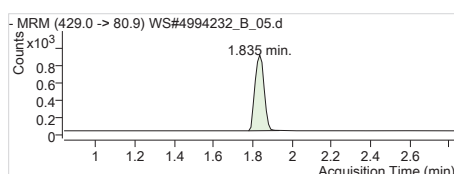
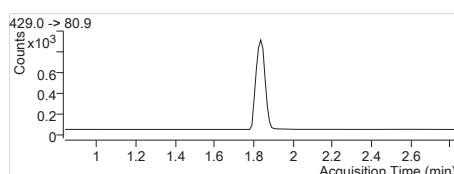
MPFUnA
RT (Exp. RT): 2.223 (2.223)
Concentration: 1 µg/Kg
Sample type: Calibration



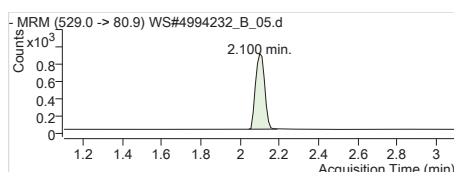
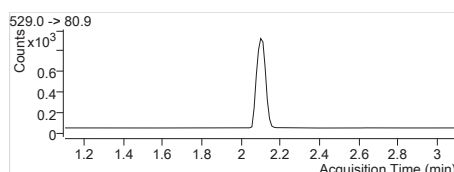
MPFDoA
RT (Exp. RT): 2.311 (2.311)
Concentration: 1 µg/Kg
Sample type: Calibration



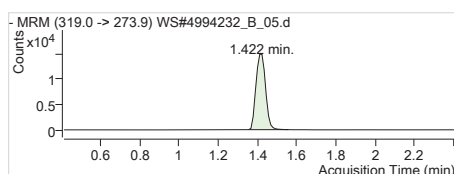
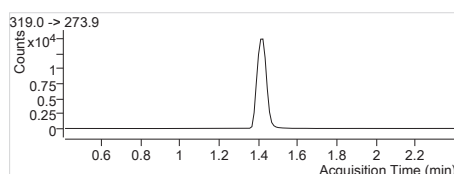
MPFTeDA
RT (Exp. RT): 2.455 (2.455)
Concentration: 1 µg/Kg
Sample type: Calibration



M2 6:2 FTS
RT (Exp. RT): 1.835 (1.835)
Concentration: 1 µg/Kg
Sample type: Calibration

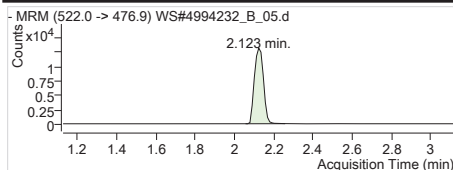
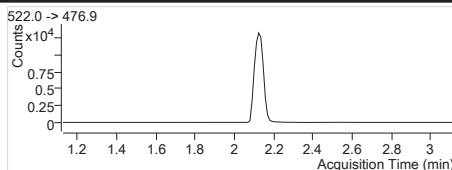


M2 8:2 FTS
RT (Exp. RT): 2.100 (2.100)
Concentration: 1 µg/Kg
Sample type: Calibration



13C6-PFHxA IS
RT (Exp. RT): 1.422 (1.411)
Concentration: 1 µg/Kg
Sample type: Calibration

Quantitation Results



13C9-PFDA IS

RT (Exp. RT):

Concentration:

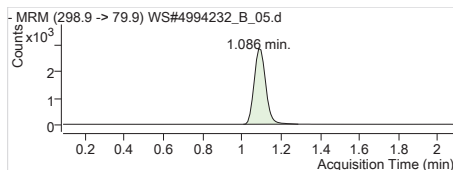
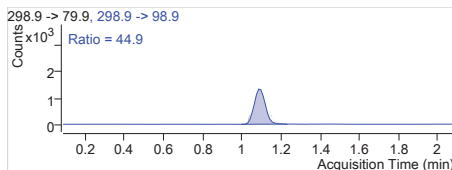
Sample type:

Internal Standard

2.123 (2.124)

1 µg/Kg

Calibration



PFBS 1

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

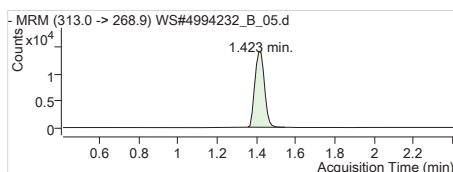
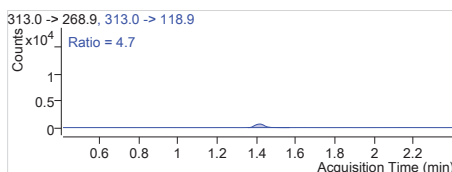
298.9 -> 79.9

1.086 (1.087)

10.98 µg/Kg

6.38432

Calibration



PFHxA 1

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

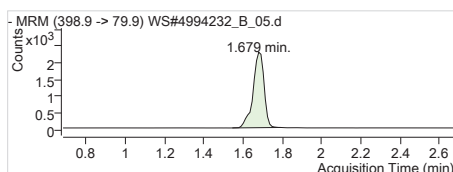
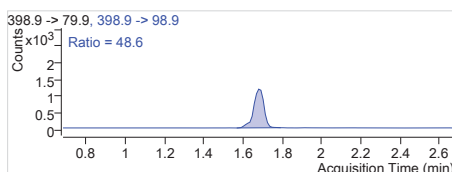
313.0 -> 268.9

1.423 (1.411)

10.50 µg/Kg

4.23666

Calibration



PFHxS 1

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

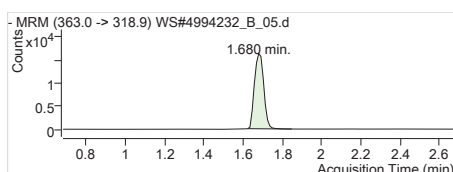
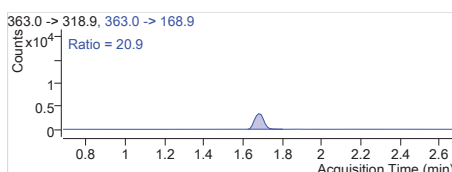
398.9 -> 79.9

1.679 (1.679)

10.78 µg/Kg

4.84318

Calibration



PFHpA 1

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

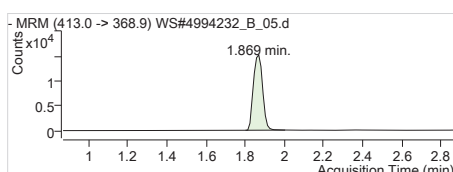
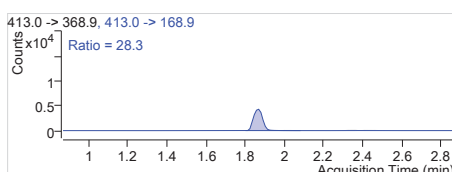
363.0 -> 318.9

1.680 (1.680)

10.92 µg/Kg

4.63664

Calibration



PFOA 1

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

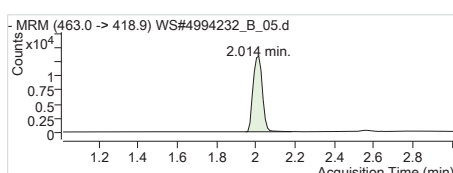
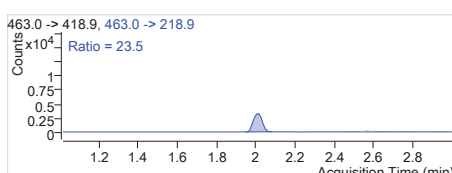
413.0 -> 368.9

1.869 (1.869)

10.96 µg/Kg

4.71517

Calibration



PFNA 1

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

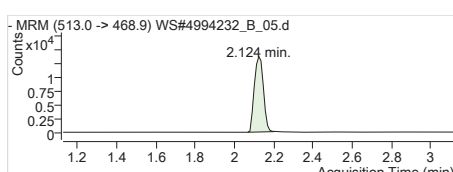
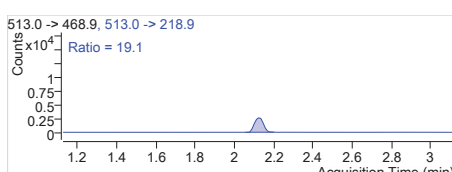
463.0 -> 418.9

2.014 (2.014)

11.13 µg/Kg

4.18281

Calibration



PFDA 1

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

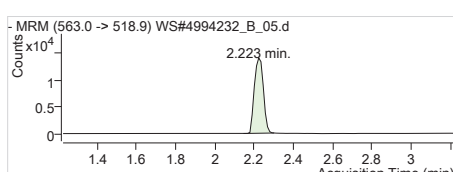
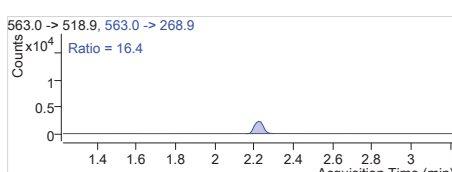
513.0 -> 468.9

2.124 (2.124)

11.08 µg/Kg

4.75149

Calibration



PFUnA 1

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

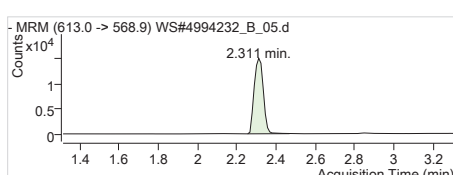
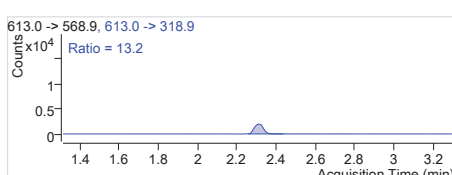
563.0 -> 518.9

2.223 (2.223)

11.48 µg/Kg

4.63438

Calibration



PFDoA 1

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

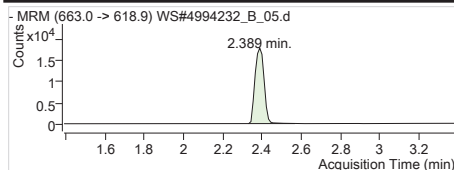
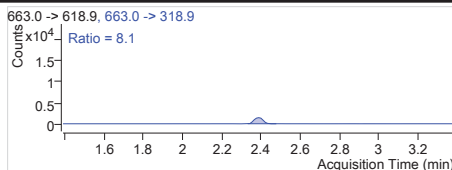
613.0 -> 568.9

2.311 (2.311)

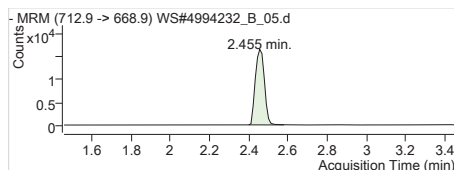
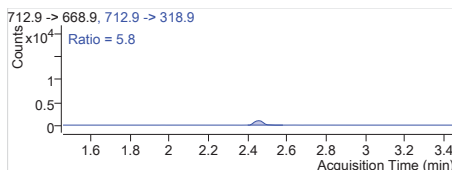
11.19 µg/Kg

4.41907

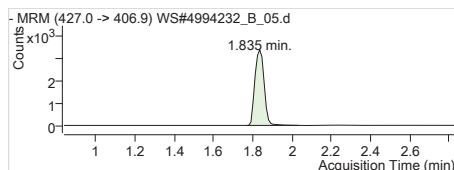
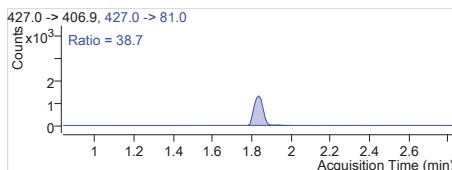
Calibration



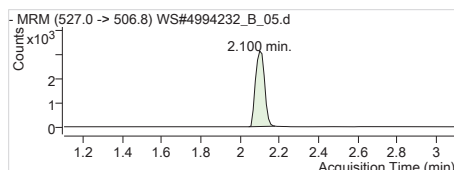
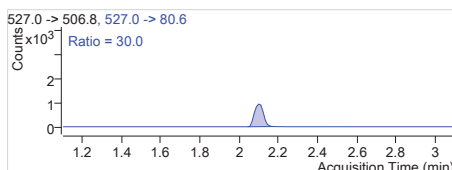
PFTDA 1
RT (Exp. RT): 663.0 -> 618.9
Calc. conc. 2.389 (2.389)
Area ratio: 10.67 µg/Kg
Sample type: 3.96215
Calibration



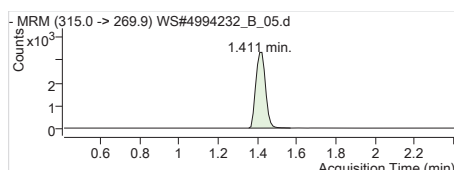
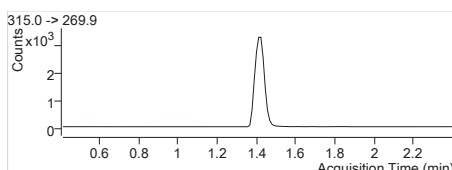
PFTeDA 1
RT (Exp. RT): 712.9 -> 668.9
Calc. conc. 2.455 (2.456)
Area ratio: 10.76 µg/Kg
Sample type: 3.70458
Calibration



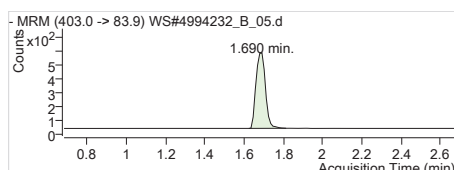
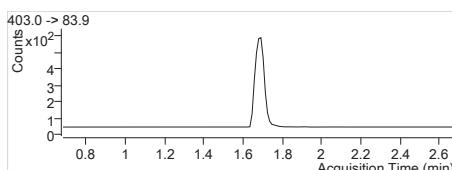
6:2-FTS 1
RT (Exp. RT): 427.0 -> 406.9
Calc. conc. 1.835 (1.835)
Area ratio: 10.88 µg/Kg
Sample type: 3.89864
Calibration



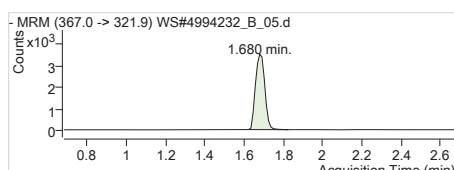
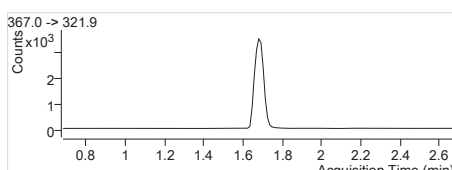
8:2-FTS 1
RT (Exp. RT): 527.0 -> 506.8
Calc. conc. 2.100 (2.101)
Area ratio: 10.77 µg/Kg
Sample type: 3.58384
Calibration



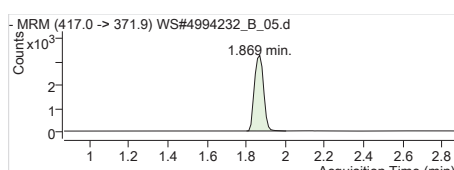
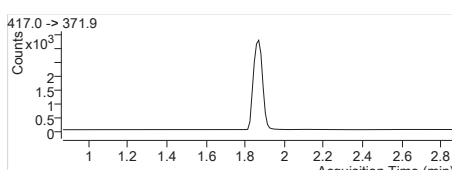
13C2-PFHxA
RT (Exp. RT): 315.0 -> 269.9
Calc. conc. 1.411 (1.411)
Area ratio: 107.25 µg/Kg
Sample type: 0.22272
Calibration



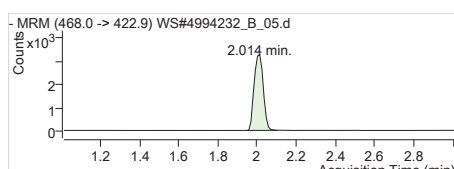
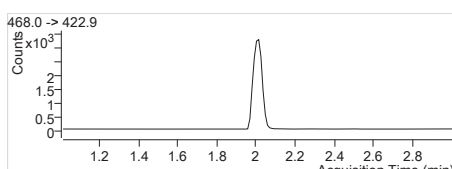
18O2-PFHxS
RT (Exp. RT): 403.0 -> 83.9
Calc. conc. 1.690 (1.679)
Area ratio: 101.99 µg/Kg
Sample type: 0.03575
Calibration



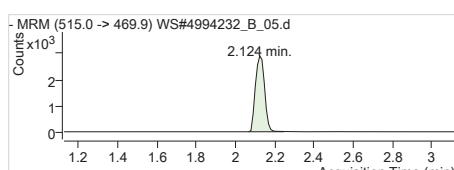
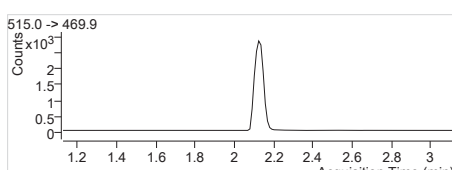
13C4-PFHpA
RT (Exp. RT): 367.0 -> 321.9
Calc. conc. 1.680 (1.680)
Area ratio: 103.41 µg/Kg
Sample type: 0.22748
Calibration



13C4-PFOA
RT (Exp. RT): 417.0 -> 371.9
Calc. conc. 1.869 (1.869)
Area ratio: 100.76 µg/Kg
Sample type: 0.20758
Calibration

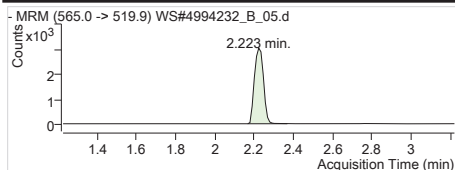
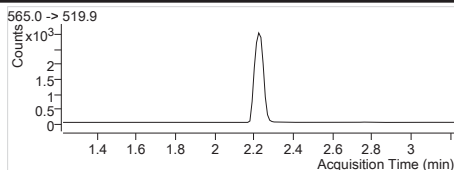


13C5-PFNA
RT (Exp. RT): 468.0 -> 422.9
Calc. conc. 2.014 (2.014)
Area ratio: 102.69 µg/Kg
Sample type: 0.20766
Calibration

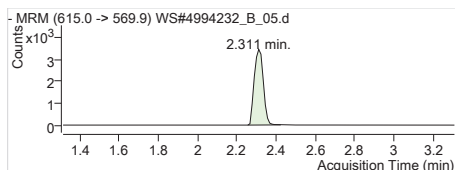
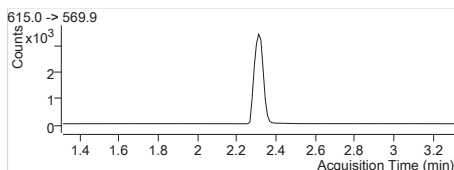


13C2-PFDA
RT (Exp. RT): 515.0 -> 469.9
Calc. conc. 2.124 (2.124)
Area ratio: 104.76 µg/Kg
Sample type: 0.21768
Calibration

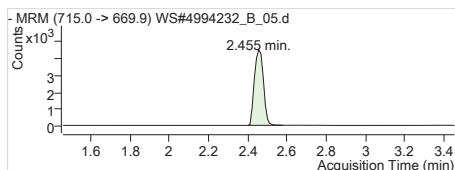
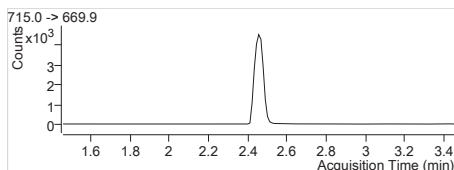
Quantitation Results



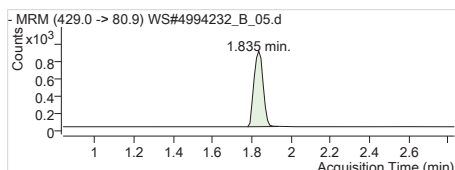
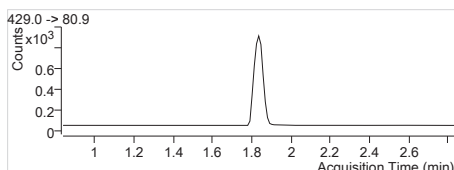
13C2-PFUnA
RT (Exp. RT): 565.0 -> 519.9
Calc. conc. 2.223 (2.223)
Area ratio: 98.52 µg/Kg
Sample type: 0.22832 Calibration



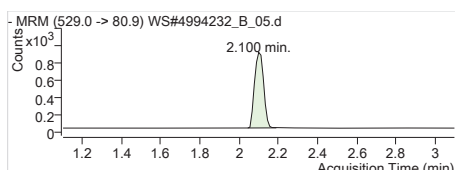
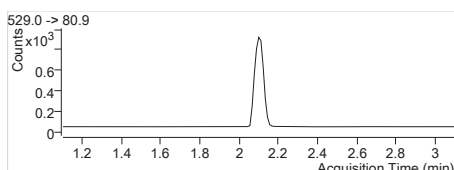
13C2-PFDoA
RT (Exp. RT): 615.0 -> 569.9
Calc. conc. 2.311 (2.311)
Area ratio: 99.93 µg/Kg
Sample type: 0.25672 Calibration



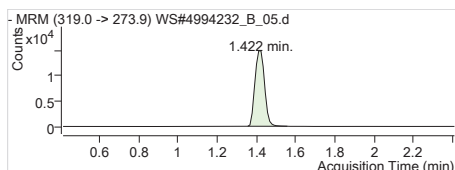
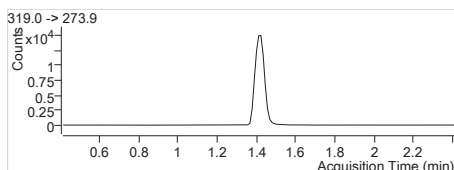
13C2-PFTeDA
RT (Exp. RT): 715.0 -> 669.9
Calc. conc. 2.455 (2.455)
Area ratio: 103.11 µg/Kg
Sample type: 0.33899 Calibration



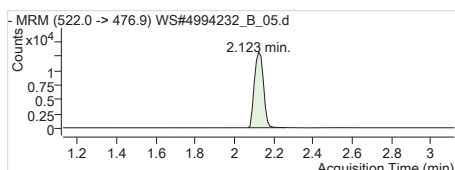
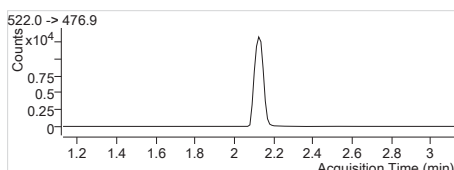
13C2-6:2-FTS
RT (Exp. RT): 429.0 -> 80.9
Calc. conc. 1.835 (1.835)
Area ratio: 106.37 µg/Kg
Sample type: 0.05531 Calibration



13C2-8:2 FTS
RT (Exp. RT): 529.0 -> 80.9
Calc. conc. 2.100 (2.100)
Area ratio: 109.24 µg/Kg
Sample type: 0.05545 Calibration



13C6-PFHxA
RT (Exp. RT): 319.0 -> 273.9
Calc. conc. 1.422 (1.411)
Area ratio: 101.40 µg/Kg
Sample type: 0 Calibration

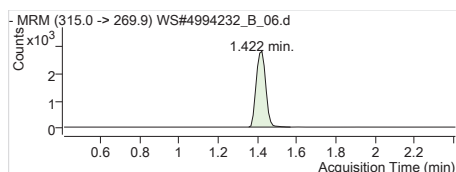
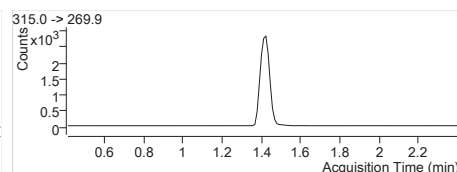


13C9-PFDA
RT (Exp. RT): 522.0 -> 476.9
Calc. conc. 2.123 (2.124)
Area ratio: 100.49 µg/Kg
Sample type: 0 Calibration

Batch Path	T:\lcms4\PFC\20170526\WS#4994375_B\QuantResults\PFC_Soil_170526_WS#4994375_CTLabs		
Sample Name	STD 5	Instrument	LCMS04
Data File	WS#4994232_B_06.d	Operator	AD
Sample Type	Cal	Dilution	1
Acq. Method	PFC_Soil.m	Position	P1-A6
Acq. Date	2017/05/30 9:49:06 AM	Injection Volume	Per Method
Sample Annotation	-		

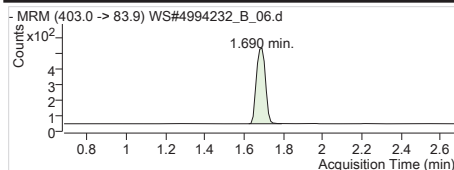
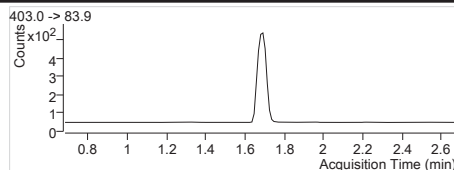
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	9385	1.42	1 µg/Kg		
MPFHxS	1578	1.69	1 µg/Kg		
MPFHpA	9763	1.68	1 µg/Kg		
MPFOA	9288	1.87	1 µg/Kg		
MPFNA	9384	2.01	1 µg/Kg		
MPFDA	8303	2.12	1 µg/Kg		
MPFUnA	9029	2.22	1 µg/Kg		
MPFDoA	9915	2.31	1 µg/Kg		
MPFTeDA	12726	2.46	1 µg/Kg		
M2 6:2 FTS	2426	1.83	1 µg/Kg		
M2 8:2 FTS	2408	2.10	1 µg/Kg		
13C6-PFHxA IS	44331	1.42	1 µg/Kg		
13C9-PFDA IS	36568	2.12	1 µg/Kg		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	21385	1.10	22.50	23.30 µg/Kg	103.57
PFHxA 1	87840	1.42	22.50	23.22 µg/Kg	103.20
PFHxS 1	16764	1.69	22.50	23.69 µg/Kg	105.30
PFHpA 1	95793	1.68	22.50	23.22 µg/Kg	103.21
PFOA 1	90283	1.87	22.50	22.60 µg/Kg	100.42
PFNA 1	80737	2.01	22.50	22.91 µg/Kg	101.84
PFDA 1	79860	2.12	22.50	22.50 µg/Kg	99.99
PFUnA 1	85054	2.22	22.50	23.37 µg/Kg	103.87
PFDaA 1	90692	2.31	22.50	23.17 µg/Kg	102.99
PFTTrDA 1	109108	2.39	22.50	23.11 µg/Kg	102.72
PFTeDA 1	100771	2.46	22.50	23.17 µg/Kg	102.98
6:2-FTS 1	19612	1.84	22.50	22.77 µg/Kg	101.19
8:2-FTS 1	17724	2.10	22.50	22.28 µg/Kg	99.02
13C2-PFHxA	9385	1.42	100.00	101.95 µg/Kg	101.95
18O2-PFHxS	1578	1.69	100.00	101.55 µg/Kg	101.55
13C4-PFHpA	9763	1.68	100.00	100.12 µg/Kg	100.12
13C4-PFOA	9288	1.87	100.00	101.70 µg/Kg	101.70
13C5-PFNA	9384	2.01	100.00	104.68 µg/Kg	104.68
13C2-PFDA	8303	2.12	100.00	109.27 µg/Kg	109.27
13C2-PFUnA	9040	2.22	100.00	106.67 µg/Kg	106.67
13C2-PFDoA	9915	2.31	100.00	105.54 µg/Kg	105.54
13C2-PFTeDA	12726	2.46	100.00	105.85 µg/Kg	105.85
13C2-6:2-FTS	2426	1.83	100.00	105.24 µg/Kg	105.24
13C2-8:2 FTS	2408	2.10	100.00	107.00 µg/Kg	107.00
13C6-PFHxA	44331	1.42	100.00	88.74 µg/Kg	88.74
13C9-PFDA	36956	2.12	100.00	87.48 µg/Kg	87.48



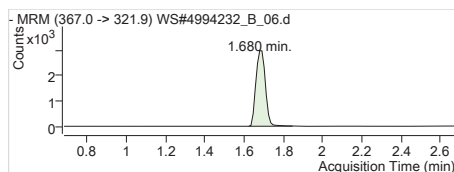
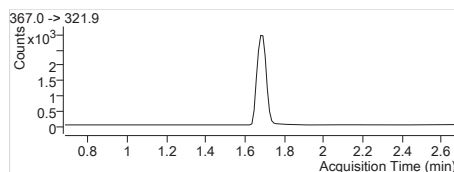
MPFHxA
 RT (Exp. RT):
 Concentration:
 Sample type:

Internal Standard
 1.422 (1.411)
 1 µg/Kg
 Calibration



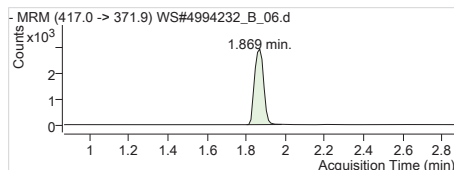
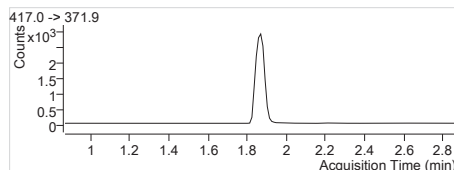
MPFHxS
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
1.690 (1.679)
1 µg/Kg
Calibration



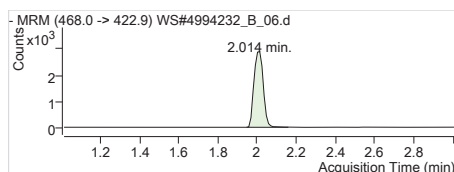
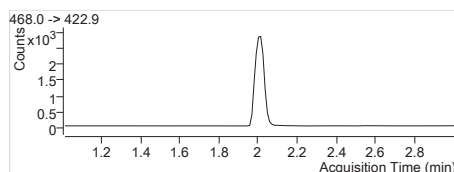
MPFHpA
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
1.680 (1.680)
1 µg/Kg
Calibration



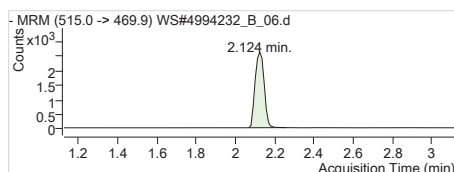
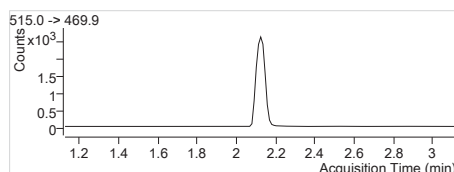
MPFOA
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
1.869 (1.869)
1 µg/Kg
Calibration



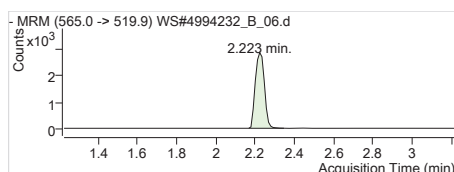
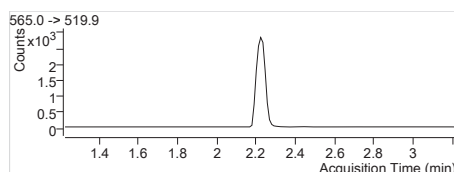
MPFNA
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
2.014 (2.014)
1 µg/Kg
Calibration



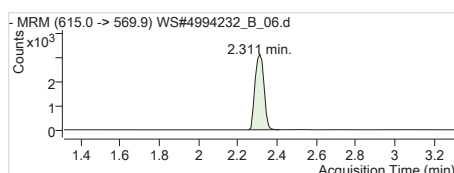
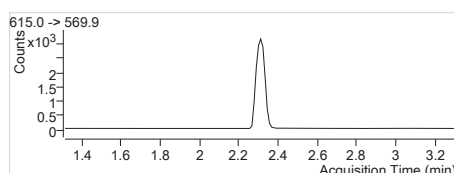
MPFDA
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
2.124 (2.124)
1 µg/Kg
Calibration



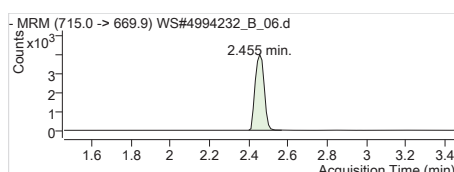
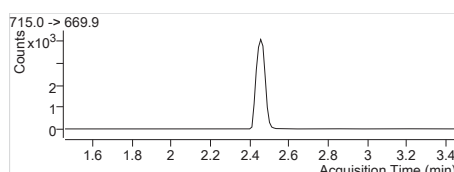
MPFUnA
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
2.223 (2.223)
1 µg/Kg
Calibration



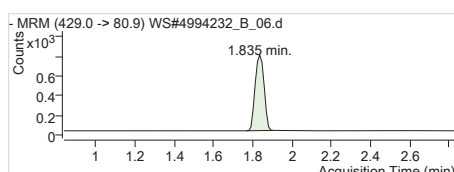
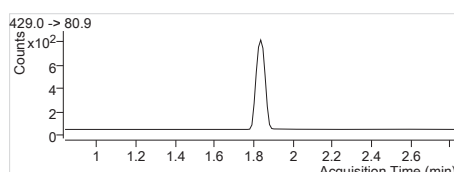
MPFDoA
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
2.311 (2.311)
1 µg/Kg
Calibration



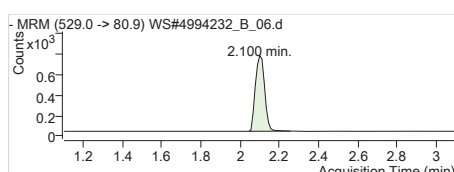
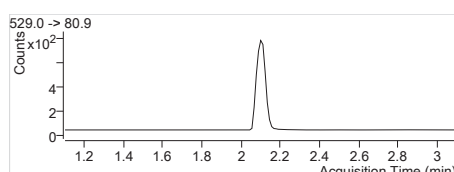
MPFTeDA
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
2.455 (2.455)
1 µg/Kg
Calibration



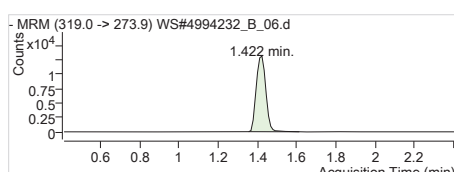
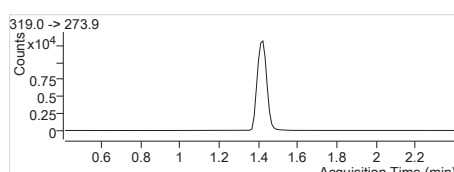
M2 6:2 FTS
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
1.835 (1.835)
1 µg/Kg
Calibration



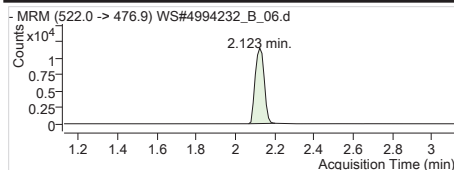
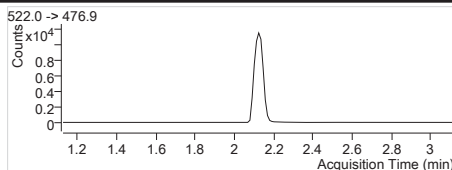
M2 8:2 FTS
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
2.100 (2.100)
1 µg/Kg
Calibration



13C6-PFHxA IS
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
1.422 (1.411)
1 µg/Kg
Calibration

**13C9-PFDA IS**

RT (Exp. RT):

Concentration:

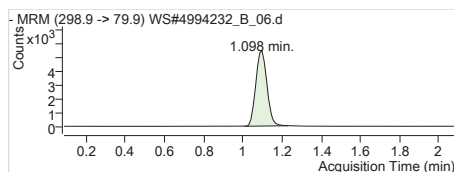
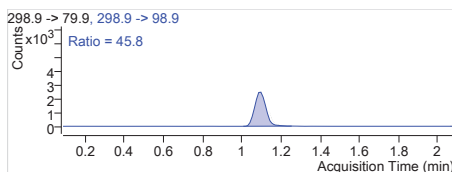
Sample type:

Internal Standard

2.123 (2.124)

1 µg/Kg

Calibration

**PFBS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

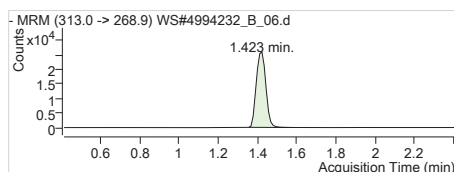
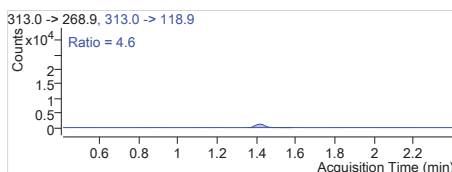
298.9 -> 79.9

1.098 (1.087)

23.30 µg/Kg

13.55196

Calibration

**PFHxA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

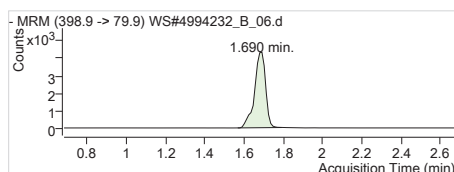
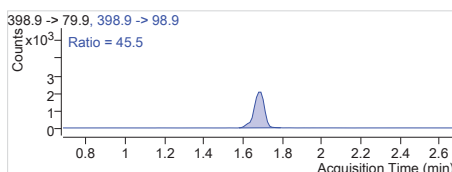
313.0 -> 268.9

1.423 (1.411)

23.22 µg/Kg

9.35962

Calibration

**PFHxS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

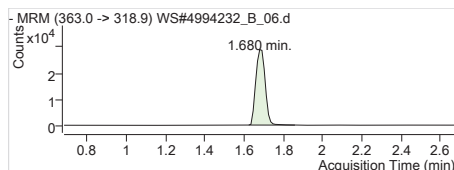
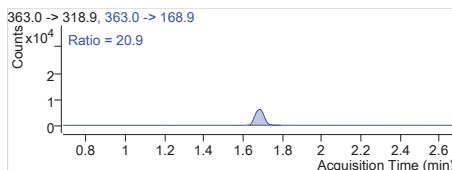
398.9 -> 79.9

1.690 (1.679)

23.69 µg/Kg

10.62357

Calibration

**PFHpA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

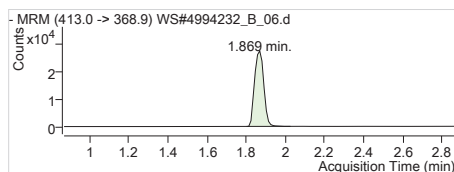
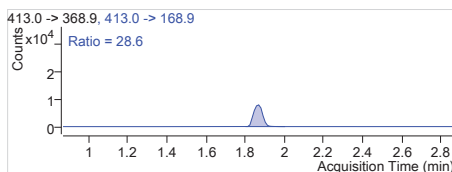
363.0 -> 318.9

1.680 (1.680)

23.22 µg/Kg

9.81184

Calibration

**PFOA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

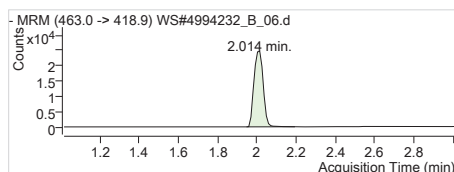
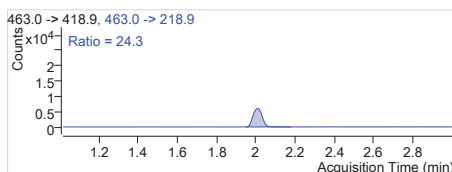
413.0 -> 368.9

1.869 (1.869)

22.60 µg/Kg

9.72039

Calibration

**PFNA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

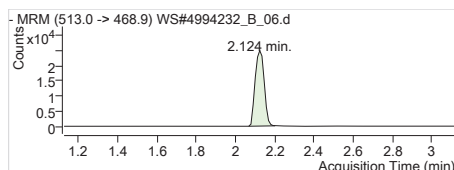
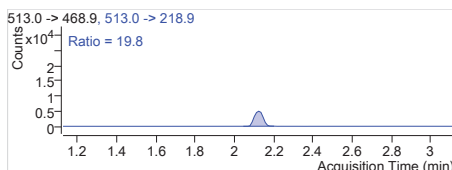
463.0 -> 418.9

2.014 (2.014)

22.91 µg/Kg

8.60369

Calibration

**PFDA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

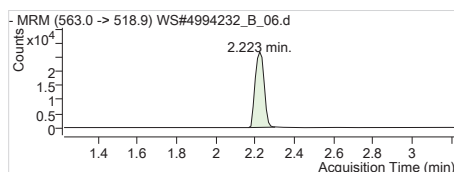
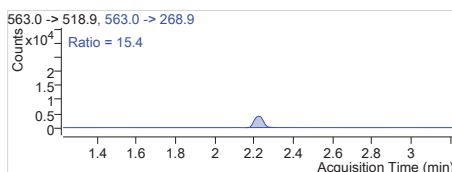
513.0 -> 468.9

2.124 (2.124)

22.50 µg/Kg

9.61821

Calibration

**PFUnA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

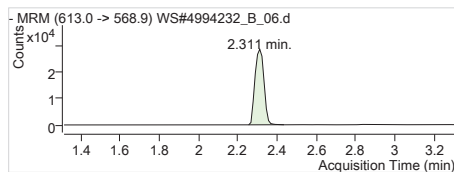
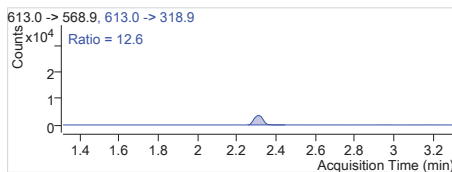
563.0 -> 518.9

2.223 (2.223)

23.37 µg/Kg

9.42009

Calibration

**PFDaA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

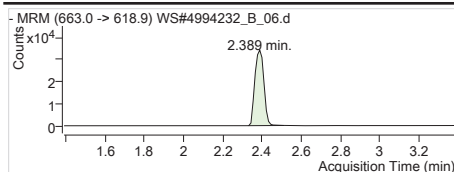
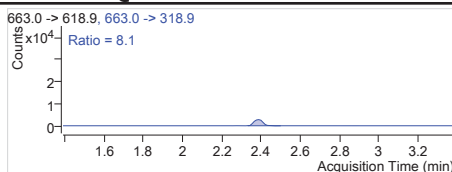
613.0 -> 568.9

2.311 (2.311)

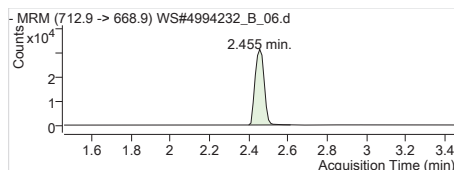
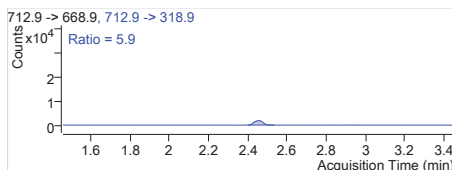
23.17 µg/Kg

9.14695

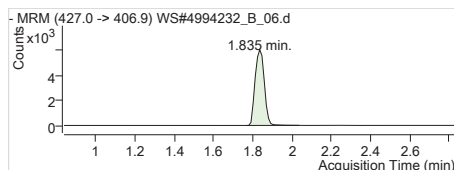
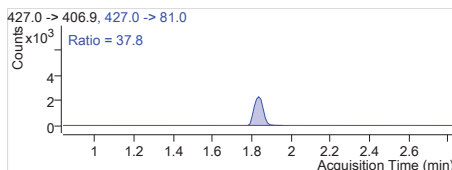
Calibration



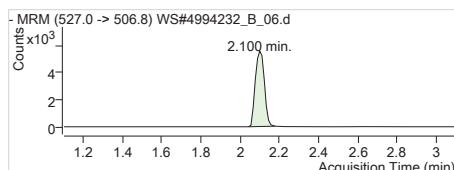
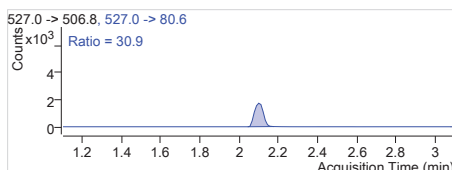
PFTrDA 1
RT (Exp. RT): 663.0 -> 618.9
Calc. conc. 2.389 (2.389)
Area ratio: 23.11 µg/Kg
Sample type: 8.57363
Calibration



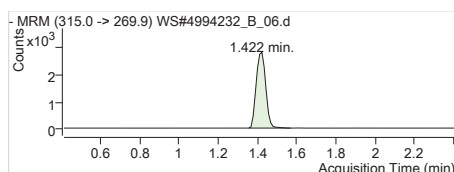
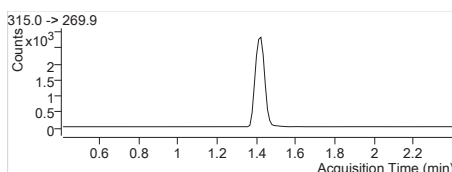
PFTeDA 1
RT (Exp. RT): 712.9 -> 668.9
Calc. conc. 2.455 (2.456)
Area ratio: 23.17 µg/Kg
Sample type: 7.91851
Calibration



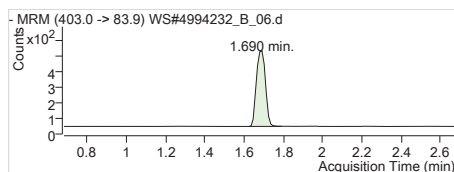
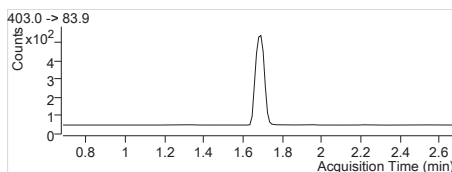
6:2-FTS 1
RT (Exp. RT): 427.0 -> 406.9
Calc. conc. 1.835 (1.835)
Area ratio: 22.77 µg/Kg
Sample type: 8.08409
Calibration



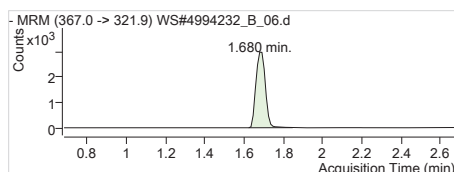
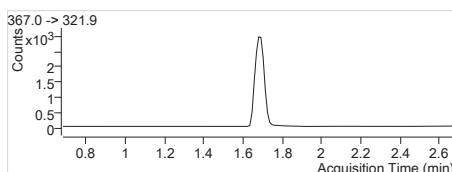
8:2-FTS 1
RT (Exp. RT): 527.0 -> 506.8
Calc. conc. 2.100 (2.101)
Area ratio: 22.28 µg/Kg
Sample type: 7.36047
Calibration



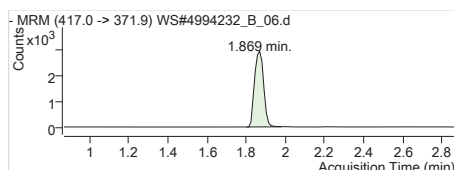
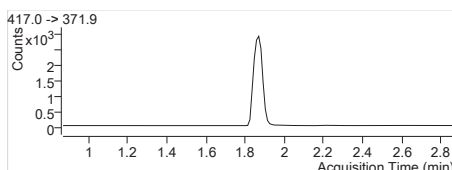
13C2-PFHxA
RT (Exp. RT): 315.0 -> 269.9
Calc. conc. 1.422 (1.411)
Area ratio: 101.95 µg/Kg
Sample type: 0.21170
Calibration



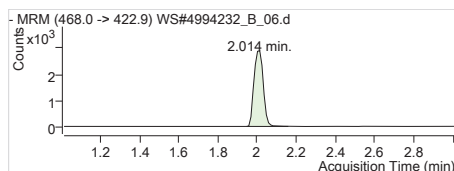
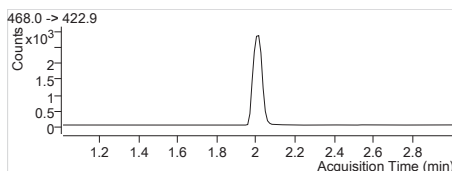
18O2-PFHxS
RT (Exp. RT): 403.0 -> 83.9
Calc. conc. 1.690 (1.679)
Area ratio: 101.55 µg/Kg
Sample type: 0.03560
Calibration



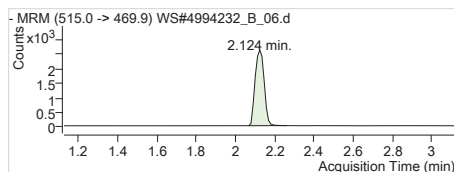
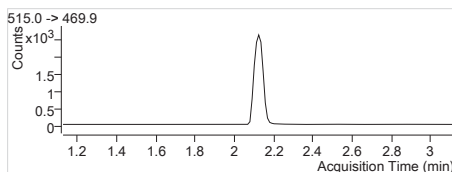
13C4-PFHpA
RT (Exp. RT): 367.0 -> 321.9
Calc. conc. 1.680 (1.680)
Area ratio: 100.12 µg/Kg
Sample type: 0.22023
Calibration



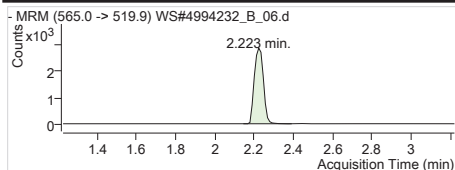
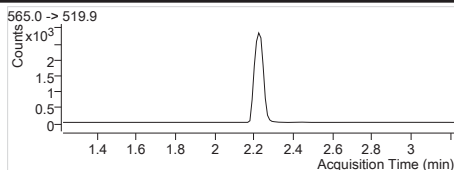
13C4-PFOA
RT (Exp. RT): 417.0 -> 371.9
Calc. conc. 1.869 (1.869)
Area ratio: 101.70 µg/Kg
Sample type: 0.20951
Calibration



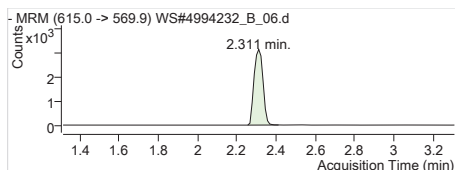
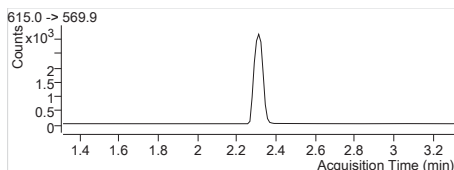
13C5-PFNA
RT (Exp. RT): 468.0 -> 422.9
Calc. conc. 2.014 (2.014)
Area ratio: 104.68 µg/Kg
Sample type: 0.21168
Calibration



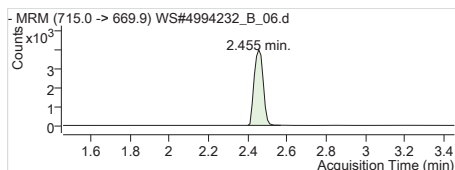
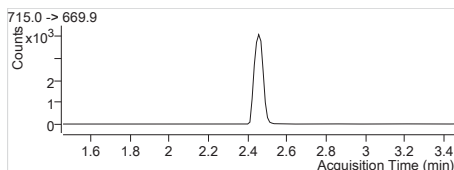
13C2-PFDA
RT (Exp. RT): 515.0 -> 469.9
Calc. conc. 2.124 (2.124)
Area ratio: 109.27 µg/Kg
Sample type: 0.22706
Calibration



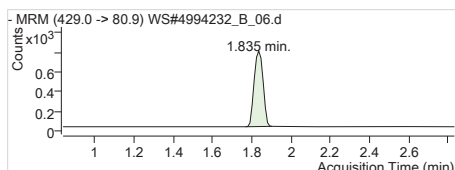
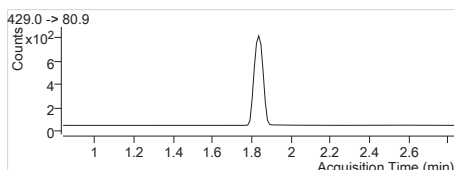
13C2-PFUnA
RT (Exp. RT): 565.0 -> 519.9
Calc. conc. 2.223 (2.223)
Area ratio: 106.67 µg/Kg
Sample type: 0.24721
Calibration



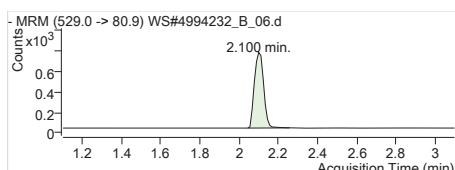
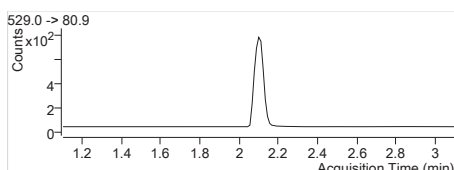
13C2-PFDoA
RT (Exp. RT): 615.0 -> 569.9
Calc. conc. 2.311 (2.311)
Area ratio: 105.54 µg/Kg
Sample type: 0.27114
Calibration



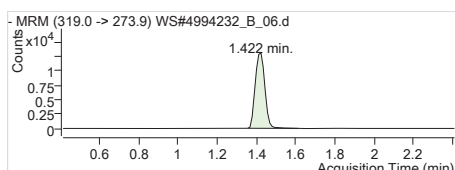
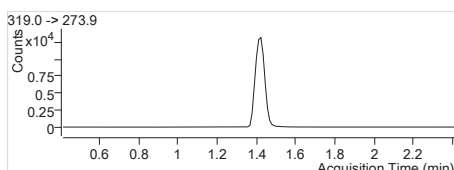
13C2-PFTeDA
RT (Exp. RT): 715.0 -> 669.9
Calc. conc. 2.455 (2.455)
Area ratio: 105.85 µg/Kg
Sample type: 0.34801
Calibration



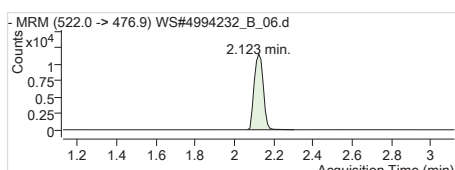
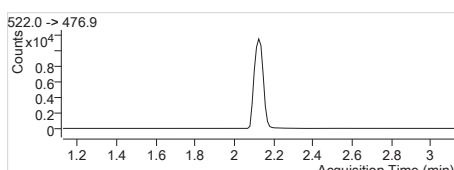
13C2-6:2-FTS
RT (Exp. RT): 429.0 -> 80.9
Calc. conc. 1.835 (1.835)
Area ratio: 105.24 µg/Kg
Sample type: 0.05472
Calibration



13C2-8:2-FTS
RT (Exp. RT): 529.0 -> 80.9
Calc. conc. 2.100 (2.100)
Area ratio: 107.00 µg/Kg
Sample type: 0.05432
Calibration



13C6-PFHxA
RT (Exp. RT): 319.0 -> 273.9
Calc. conc. 1.422 (1.411)
Area ratio: 88.74 µg/Kg
Sample type: 0
Calibration

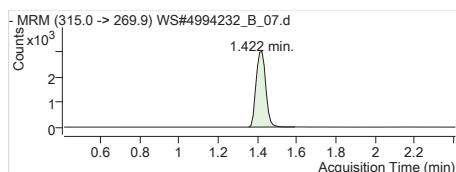
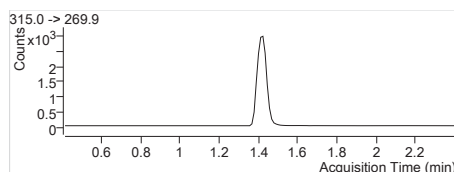


13C9-PFDA
RT (Exp. RT): 522.0 -> 476.9
Calc. conc. 2.123 (2.124)
Area ratio: 87.48 µg/Kg
Sample type: 0
Calibration

Batch Path	T:\lcms4\PFC\20170526\WS#4994375_B\QuantResults\PFC_Soil_170526_WS#4994375_CTLabs		
Sample Name	STD 6	Instrument	LCMS04
Data File	WS#4994232_B_07.d	Operator	AD
Sample Type	Cal	Dilution	1
Acq. Method	PFC_Soil.m	Position	P1-A7
Acq. Date	2017/05/30 9:54:00 AM	Injection Volume	Per Method
Sample Annotation	-		

ISTD Compounds	Response	RT	Target conc.		
MPFHxA	10041	1.42	1 µg/Kg		
MPFHxS	1756	1.69	1 µg/Kg		
MPFHpA	10365	1.68	1 µg/Kg		
MPFOA	9941	1.87	1 µg/Kg		
MPFNA	9783	2.01	1 µg/Kg		
MPFDA	8852	2.12	1 µg/Kg		
MPFUnA	9896	2.22	1 µg/Kg		
MPFDoA	10558	2.31	1 µg/Kg		
MPFTeDA	13963	2.46	1 µg/Kg		
M2 6:2 FTS	2522	1.83	1 µg/Kg		
M2 8:2 FTS	2430	2.10	1 µg/Kg		
13C6-PFHxA IS	49013	1.42	1 µg/Kg		
13C9-PFDA	41911	2.12	1 µg/Kg		

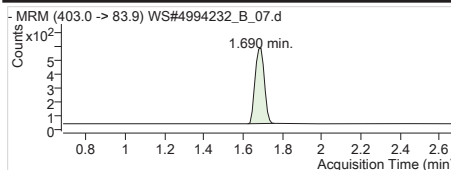
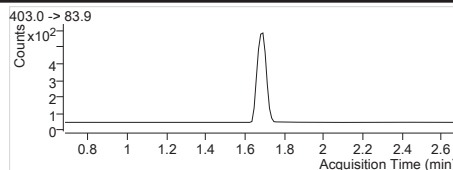
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	37637	1.09	37.50	36.86 µg/Kg	98.29
PFHxA 1	152079	1.42	37.50	37.58 µg/Kg	100.21
PFHxS 1	28961	1.68	37.50	36.80 µg/Kg	98.15
PFHpA 1	162285	1.68	37.50	37.12 µg/Kg	98.99
PFOA 1	161799	1.87	37.50	37.84 µg/Kg	100.90
PFNA 1	135989	2.00	37.50	37.04 µg/Kg	98.76
PFDA 1	140964	2.12	37.50	37.30 µg/Kg	99.46
PFUnA 1	144619	2.22	37.50	36.28 µg/Kg	96.74
PFDaA 1	154211	2.31	37.50	37.01 µg/Kg	98.69
PFTTrDA 1	193500	2.39	37.50	37.37 µg/Kg	99.66
PFTeDA 1	177936	2.46	37.50	37.38 µg/Kg	99.69
6:2-FTS 1	33405	1.84	37.50	37.42 µg/Kg	99.79
8:2-FTS 1	30273	2.10	37.50	37.82 µg/Kg	100.85
13C2-PFHxA	10041	1.42	100.00	98.66 µg/Kg	98.66
18O2-PFHxS	1756	1.69	100.00	102.21 µg/Kg	102.21
13C4-PFHpA	10365	1.68	100.00	96.14 µg/Kg	96.14
13C4-PFOA	9941	1.87	100.00	98.45 µg/Kg	98.45
13C5-PFNA	9783	2.01	100.00	98.71 µg/Kg	98.71
13C2-PFDA	8852	2.12	100.00	101.64 µg/Kg	101.64
13C2-PFUnA	9921	2.22	100.00	102.14 µg/Kg	102.14
13C2-PFDoA	10558	2.31	100.00	98.06 µg/Kg	98.06
13C2-PFTeDA	13963	2.46	100.00	101.33 µg/Kg	101.33
13C2-6:2-FTS	2522	1.83	100.00	98.95 µg/Kg	98.95
13C2-8:2 FTS	2430	2.10	100.00	97.67 µg/Kg	97.67
13C6-PFHxA	49013	1.42	100.00	98.12 µg/Kg	98.12
13C9-PFDA	41911	2.12	100.00	99.21 µg/Kg	99.21



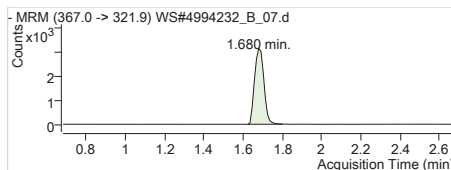
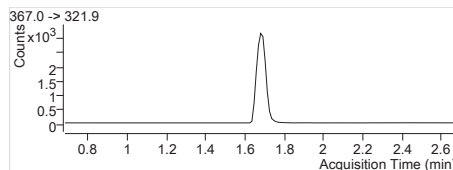
MPFHxA

RT (Exp. RT):
Concentration:
Sample type:

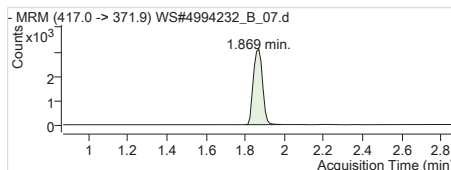
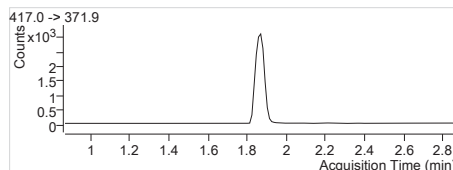
Internal Standard
1.422 (1.411)
1 µg/Kg
Calibration



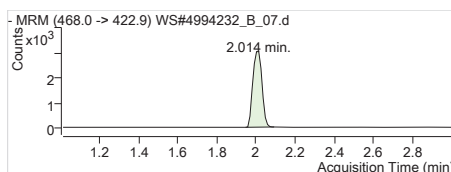
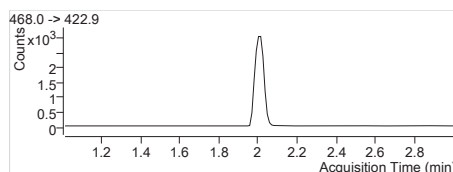
MPFHxS
RT (Exp. RT): 1.690 (1.679)
Concentration: 1 µg/Kg
Sample type: Calibration



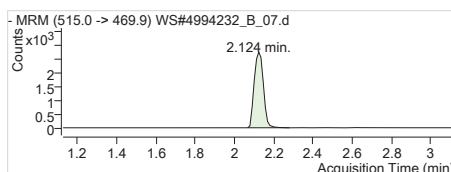
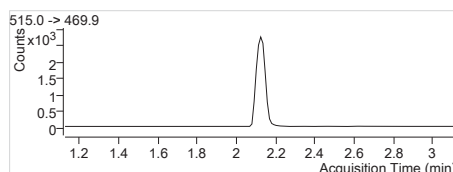
MPFHpA
RT (Exp. RT): 1.680 (1.680)
Concentration: 1 µg/Kg
Sample type: Calibration



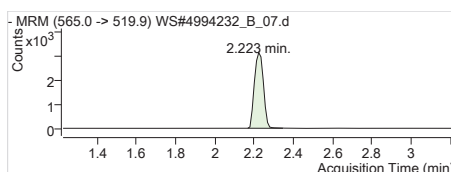
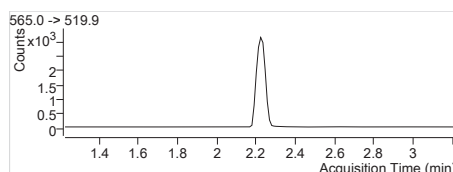
MPFOA
RT (Exp. RT): 1.869 (1.869)
Concentration: 1 µg/Kg
Sample type: Calibration



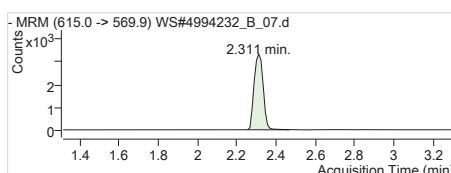
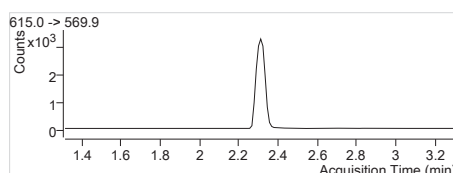
MPFNA
RT (Exp. RT): 2.014 (2.014)
Concentration: 1 µg/Kg
Sample type: Calibration



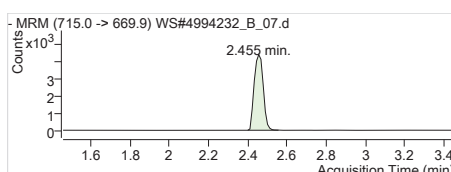
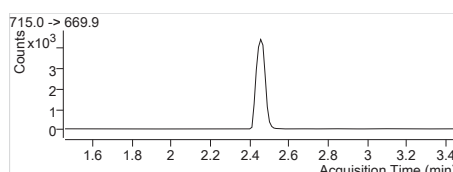
MPFDA
RT (Exp. RT): 2.124 (2.124)
Concentration: 1 µg/Kg
Sample type: Calibration



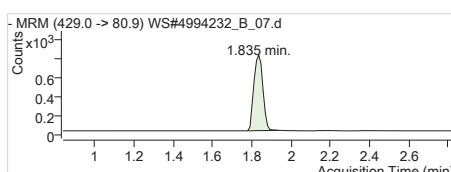
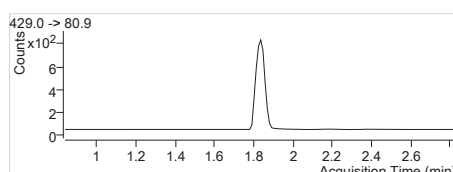
MPFUnA
RT (Exp. RT): 2.223 (2.223)
Concentration: 1 µg/Kg
Sample type: Calibration



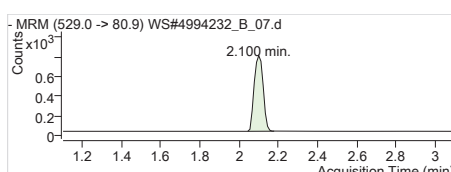
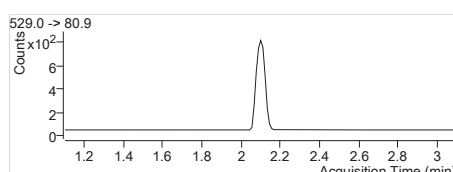
MPFDoA
RT (Exp. RT): 2.311 (2.311)
Concentration: 1 µg/Kg
Sample type: Calibration



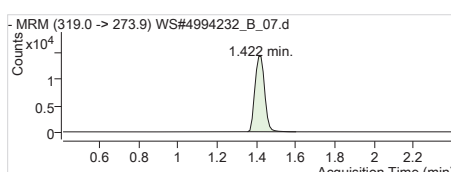
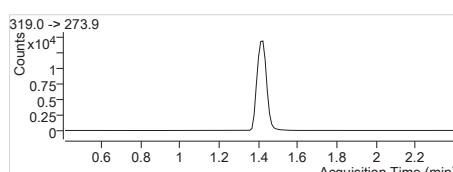
MPFTeDA
RT (Exp. RT): 2.455 (2.455)
Concentration: 1 µg/Kg
Sample type: Calibration



M2 6:2 FTS
RT (Exp. RT): 1.835 (1.835)
Concentration: 1 µg/Kg
Sample type: Calibration

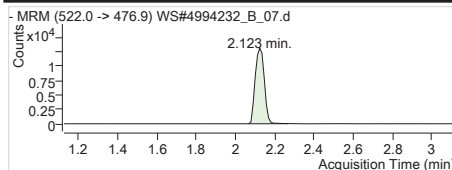
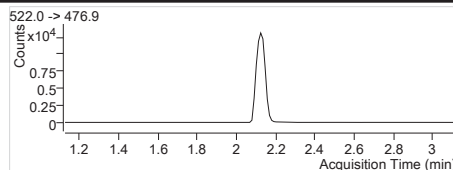


M2 8:2 FTS
RT (Exp. RT): 2.100 (2.100)
Concentration: 1 µg/Kg
Sample type: Calibration



13C6-PFHxA IS
RT (Exp. RT): 1.422 (1.411)
Concentration: 1 µg/Kg
Sample type: Calibration

Quantitation Results



13C9-PFDA IS

RT (Exp. RT):

Concentration:

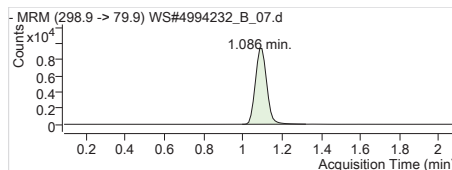
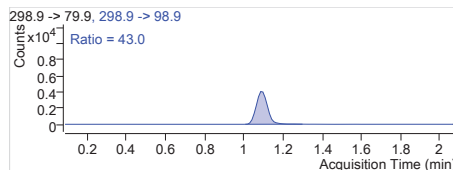
Sample type:

Internal Standard

2.123 (2.124)

1 µg/Kg

Calibration



PFBS 1

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

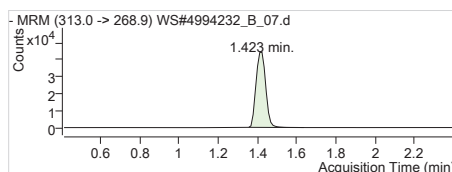
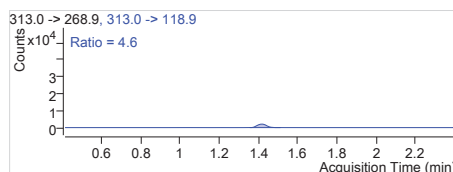
298.9 -> 79.9

1.086 (1.087)

36.86 µg/Kg

21.43337

Calibration



PFHxA 1

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

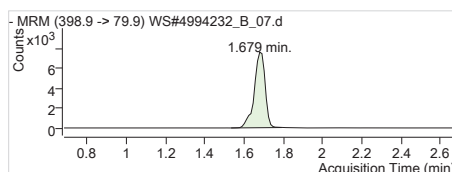
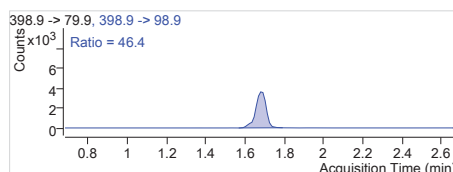
313.0 -> 268.9

1.423 (1.411)

37.58 µg/Kg

15.14580

Calibration



PFHxS 1

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

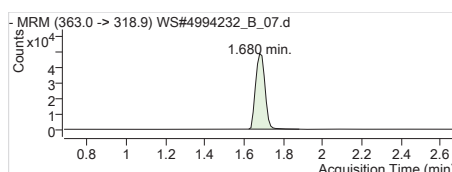
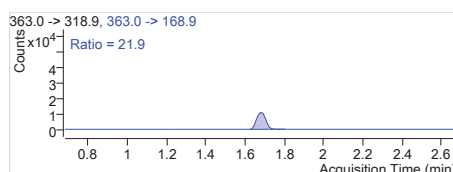
398.9 -> 79.9

1.679 (1.679)

36.80 µg/Kg

16.49260

Calibration



PFHpA 1

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

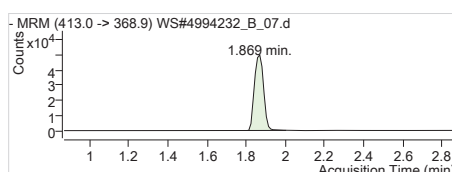
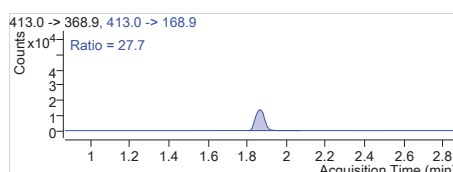
363.0 -> 318.9

1.680 (1.680)

37.12 µg/Kg

15.65702

Calibration



PFOA 1

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

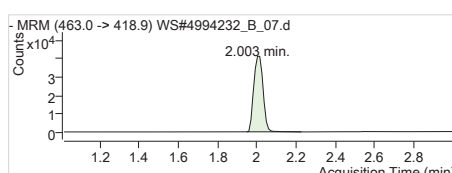
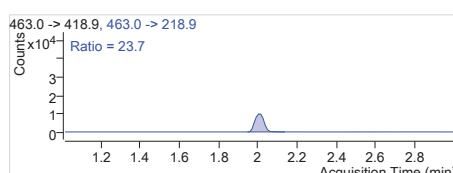
413.0 -> 368.9

1.869 (1.869)

37.84 µg/Kg

16.27593

Calibration



PFNA 1

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

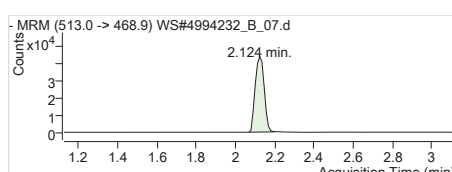
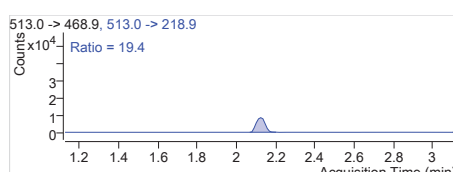
463.0 -> 418.9

2.003 (2.014)

37.04 µg/Kg

13.90054

Calibration



PFDA 1

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

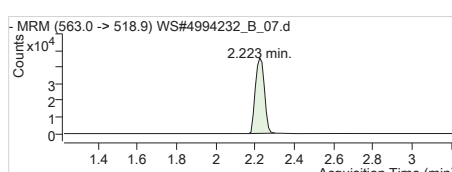
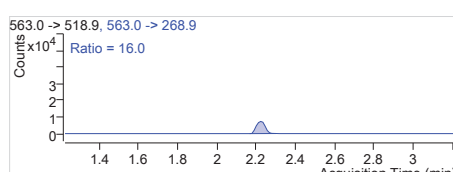
513.0 -> 468.9

2.124 (2.124)

37.30 µg/Kg

15.92454

Calibration



PFUnA 1

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

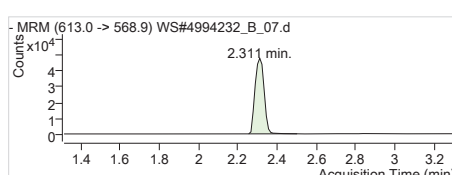
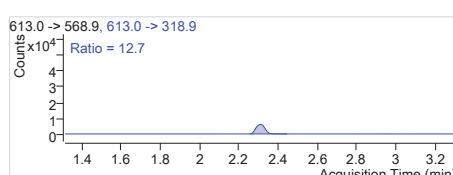
563.0 -> 518.9

2.223 (2.223)

36.28 µg/Kg

14.61388

Calibration



PFDoA 1

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

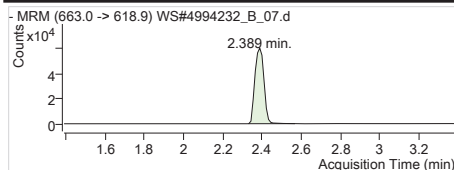
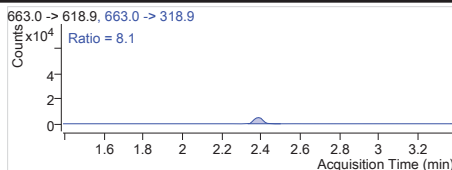
613.0 -> 568.9

2.311 (2.311)

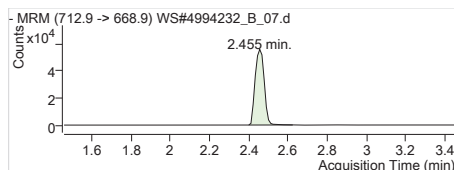
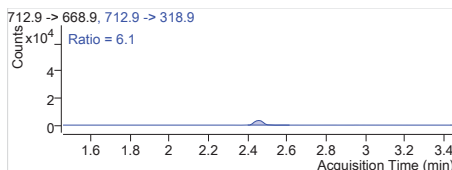
37.01 µg/Kg

14.60608

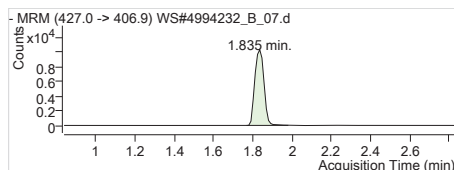
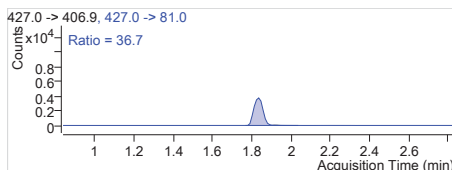
Calibration



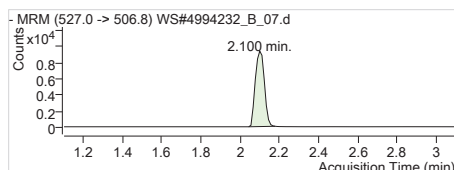
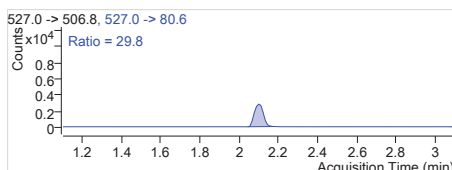
PFTDA 1
RT (Exp. RT): 663.0 -> 618.9
Calc. conc. 2.389 (2.389)
Area ratio: 37.37 µg/Kg
Sample type: 13.85805
Calibration



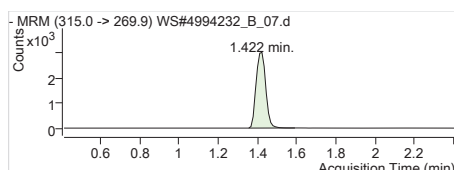
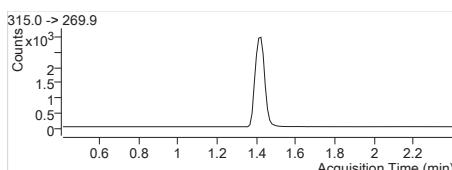
PFTDA 1
RT (Exp. RT): 712.9 -> 668.9
Calc. conc. 2.455 (2.456)
Area ratio: 37.38 µg/Kg
Sample type: 12.74339
Calibration



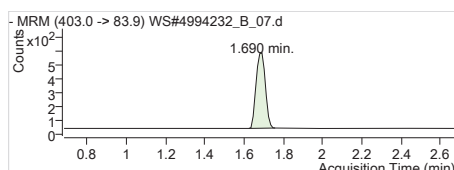
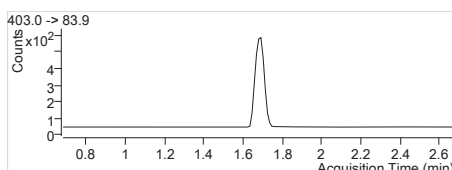
6:2-FTS 1
RT (Exp. RT): 427.0 -> 406.9
Calc. conc. 1.835 (1.835)
Area ratio: 37.42 µg/Kg
Sample type: 13.24544
Calibration



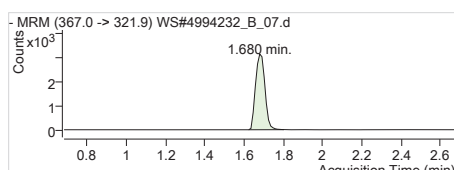
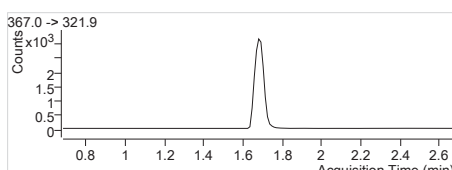
8:2-FTS 1
RT (Exp. RT): 527.0 -> 506.8
Calc. conc. 2.100 (2.101)
Area ratio: 37.82 µg/Kg
Sample type: 12.45802
Calibration



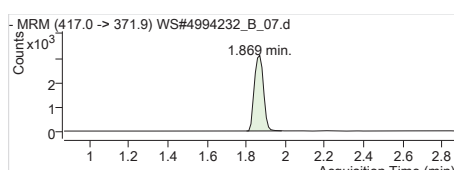
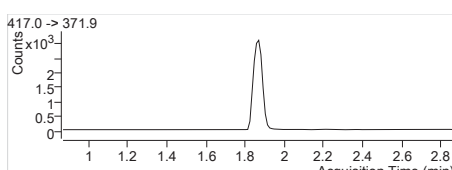
13C2-PFHxA
RT (Exp. RT): 315.0 -> 269.9
Calc. conc. 1.422 (1.411)
Area ratio: 98.66 µg/Kg
Sample type: 0.20486
Calibration



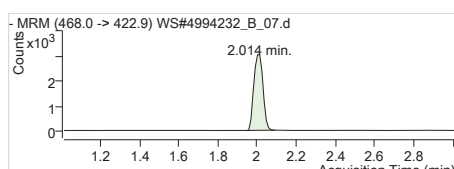
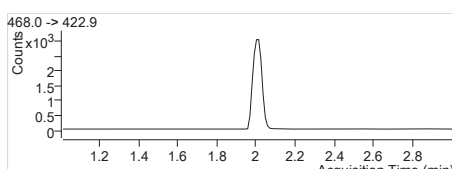
18O2-PFHxS
RT (Exp. RT): 403.0 -> 83.9
Calc. conc. 1.690 (1.679)
Area ratio: 102.21 µg/Kg
Sample type: 0.03583
Calibration



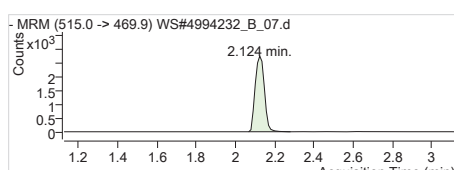
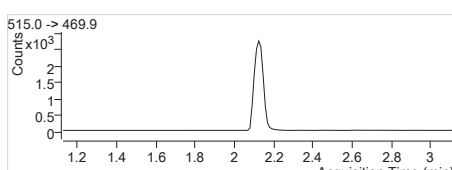
13C4-PFHpA
RT (Exp. RT): 367.0 -> 321.9
Calc. conc. 1.680 (1.680)
Area ratio: 96.14 µg/Kg
Sample type: 0.21147
Calibration



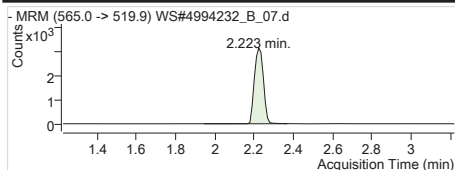
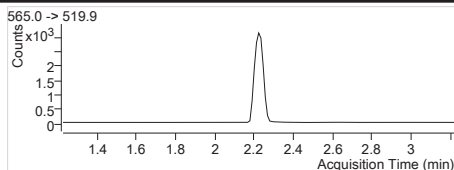
13C4-PFOA
RT (Exp. RT): 417.0 -> 371.9
Calc. conc. 1.869 (1.869)
Area ratio: 98.45 µg/Kg
Sample type: 0.20282
Calibration



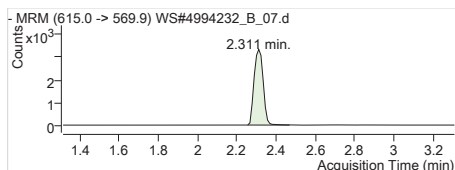
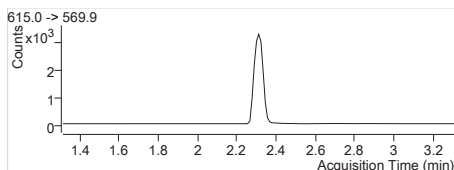
13C5-PFNA
RT (Exp. RT): 468.0 -> 422.9
Calc. conc. 2.014 (2.014)
Area ratio: 98.71 µg/Kg
Sample type: 0.19960
Calibration



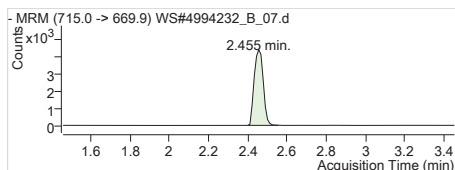
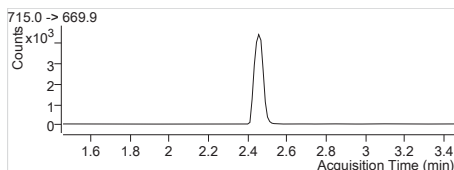
13C2-PFDA
RT (Exp. RT): 515.0 -> 469.9
Calc. conc. 2.124 (2.124)
Area ratio: 101.64 µg/Kg
Sample type: 0.21121
Calibration



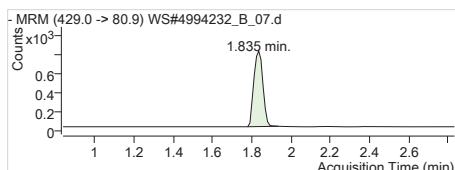
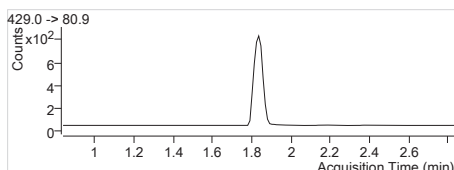
13C2-PFUnA
RT (Exp. RT): 565.0 -> 519.9
Calc. conc. 2.223 (2.223)
Area ratio: 102.14 µg/Kg
Sample type: 0.23672
Calibration



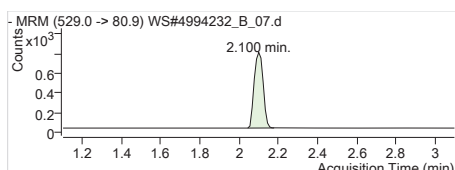
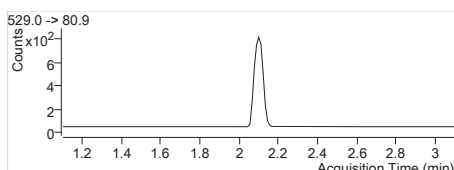
13C2-PFDoA
RT (Exp. RT): 615.0 -> 569.9
Calc. conc. 2.311 (2.311)
Area ratio: 98.06 µg/Kg
Sample type: 0.25191
Calibration



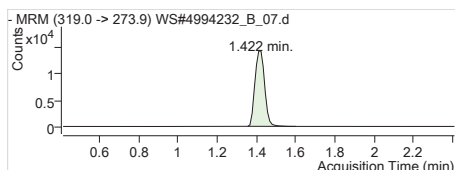
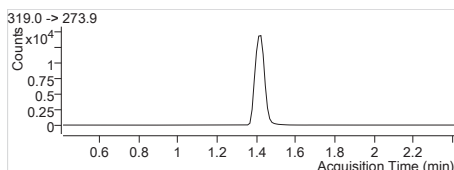
13C2-PFTeDA
RT (Exp. RT): 715.0 -> 669.9
Calc. conc. 2.455 (2.455)
Area ratio: 101.33 µg/Kg
Sample type: 0.33316
Calibration



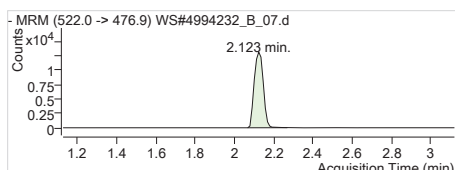
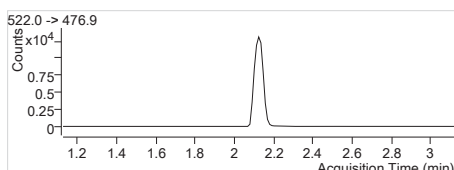
13C2-6:2-FTS
RT (Exp. RT): 429.0 -> 80.9
Calc. conc. 1.835 (1.835)
Area ratio: 98.95 µg/Kg
Sample type: 0.05146
Calibration



13C2-8:2 FTS
RT (Exp. RT): 529.0 -> 80.9
Calc. conc. 2.100 (2.100)
Area ratio: 97.67 µg/Kg
Sample type: 0.04958
Calibration



13C6-PFHxA
RT (Exp. RT): 319.0 -> 273.9
Calc. conc. 1.422 (1.411)
Area ratio: 98.12 µg/Kg
Sample type: 0
Calibration



13C9-PFDA
RT (Exp. RT): 522.0 -> 476.9
Calc. conc. 2.123 (2.124)
Area ratio: 99.21 µg/Kg
Sample type: 0
Calibration

Sample Name

STD 1

Instrument

LCMS04

Data File

WS#4994375_FOSAA_11.d

Operator

M_G

Sample Type

Cal

Dilution

1

Acq. Method

PFC_Soil_FOSAA.m

Position

P1-A2

Acq. Date

2017/05/26 4:25:43 PM

Injection Volume

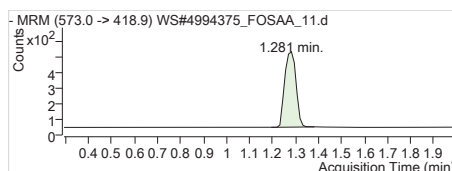
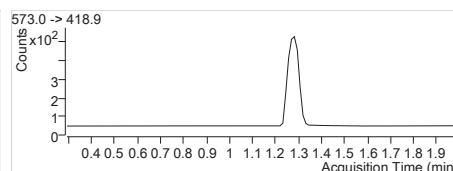
Per Method

Sample Annotation

-

ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1647	1.28	1 µg/Kg		
D5-EtFOSAA IS	1457	1.31	1 µg/Kg		
13C9-PFDA IS	25123	0.85	1 µg/Kg		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	456	1.27	0.75	0.72 µg/Kg	95.55
EtFOSAA 1	415	1.30	0.75	0.79 µg/Kg	105.08
D3-MeFOSAA	1666	1.28	100.00	109.56 µg/Kg	109.56
D5-EtFOSAA	1481	1.31	100.00	108.78 µg/Kg	108.78
13C9-PFDA	25657	0.85	100.00	92.34 µg/Kg	92.34

**D3-MeFOSAA IS**

Internal Standard

RT (Exp. RT):

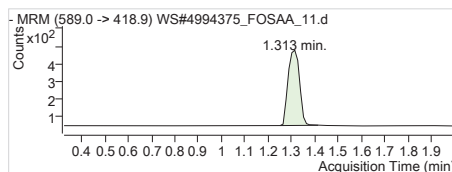
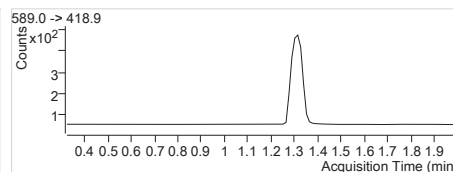
1.281 (1.281)

Concentration:

1 µg/Kg

Sample type:

Calibration

**D5-EtFOSAA IS**

Internal Standard

RT (Exp. RT):

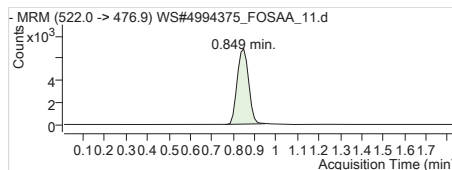
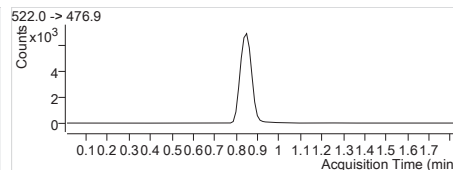
1.313 (1.313)

Concentration:

1 µg/Kg

Sample type:

Calibration

**13C9-PFDA IS**

Internal Standard

RT (Exp. RT):

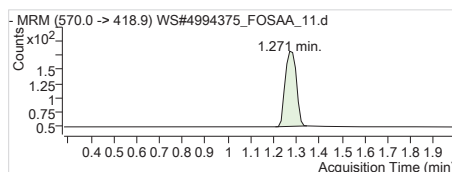
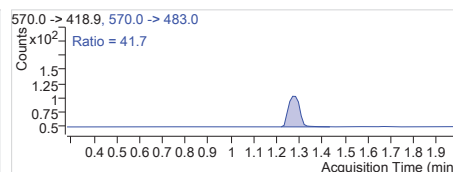
0.849 (0.849)

Concentration:

1 µg/Kg

Sample type:

Calibration

**MeFOSAA 1**

570.0 -> 418.9

RT (Exp. RT):

1.271 (1.271)

Calc. conc.

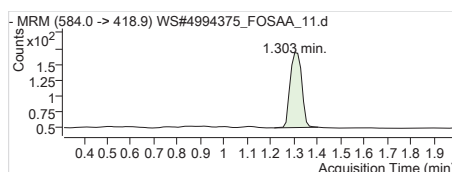
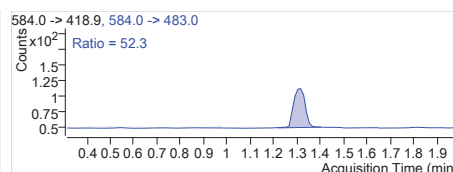
0.72 µg/Kg

Area ratio:

0.27687

Sample type:

Calibration

**EtFOSAA 1**

584.0 -> 418.9

RT (Exp. RT):

1.303 (1.303)

Calc. conc.

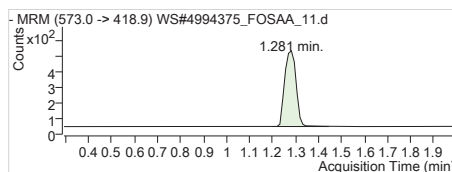
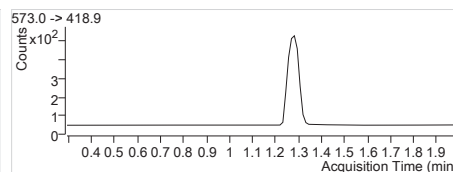
0.79 µg/Kg

Area ratio:

0.28483

Sample type:

Calibration

**D3-MeFOSAA**

573.0 -> 418.9

RT (Exp. RT):

1.281 (1.281)

Calc. conc.

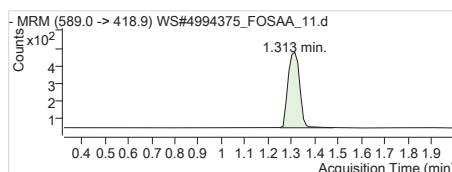
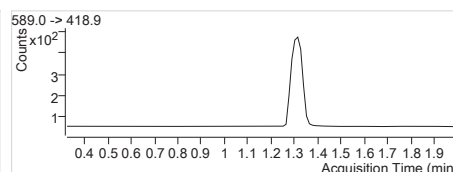
109.56 µg/Kg

Area ratio:

0.06630

Sample type:

Calibration

**D5-EtFOSAA**

589.0 -> 418.9

RT (Exp. RT):

1.313 (1.313)

Calc. conc.

108.78 µg/Kg

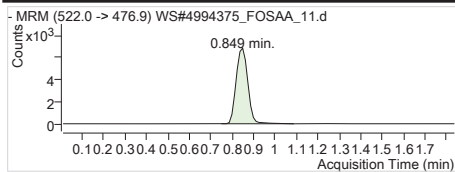
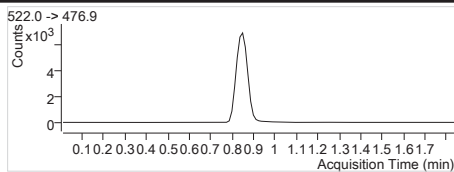
Area ratio:

0.05894

Sample type:

Calibration

Quantitation Results



13C9-PFDA
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

522.0 -> 476.9
0.849 (0.849)
92.34 µg/Kg
0
Calibration

Sample Name

STD 2

Instrument

LCMS04

Data File

WS#4994375_FOSAA_12.d

Operator

M_G

Sample Type

Cal

Dilution

1

Acq. Method

PFC_Soil_FOSAA.m

Position

P1-A3

Acq. Date

2017/05/26 4:28:06 PM

Injection Volume

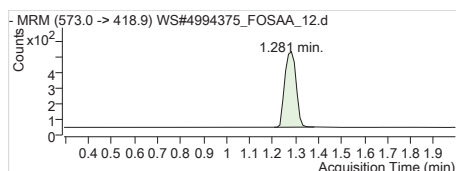
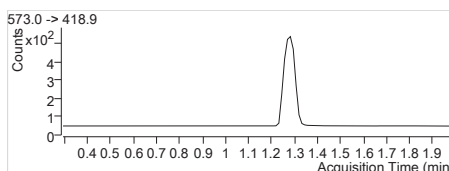
Per Method

Sample Annotation

-

ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1673	1.28	1 µg/Kg		
D5-EtFOSAA IS	1473	1.31	1 µg/Kg		
13C9-PFDA IS	28083	0.85	1 µg/Kg		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	941	1.27	1.50	1.52 µg/Kg	101.22
EtFOSAA 1	845	1.30	1.50	1.49 µg/Kg	99.65
D3-MeFOSAA	1684	1.28	100.00	99.09 µg/Kg	99.09
D5-EtFOSAA	1484	1.31	100.00	97.51 µg/Kg	97.51
13C9-PFDA	28660	0.85	100.00	103.15 µg/Kg	103.15

**D3-MeFOSAA IS**

RT (Exp. RT):

Internal Standard

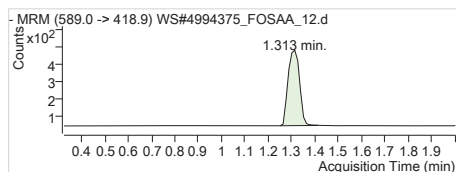
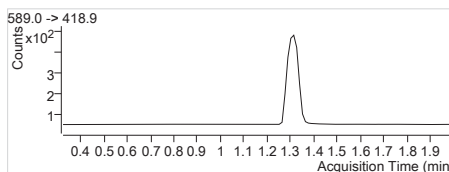
Concentration:

1.281 (1.281)

Sample type:

1 µg/Kg

Calibration

**D5-EtFOSAA IS**

RT (Exp. RT):

Internal Standard

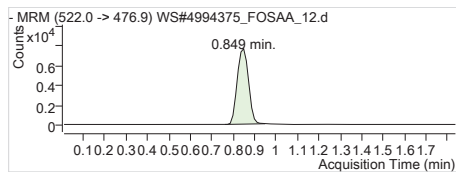
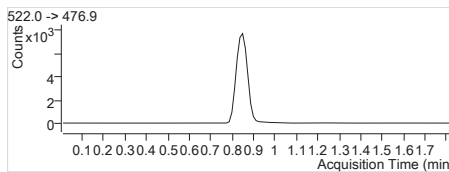
Concentration:

1.313 (1.313)

Sample type:

1 µg/Kg

Calibration

**13C9-PFDA IS**

RT (Exp. RT):

Internal Standard

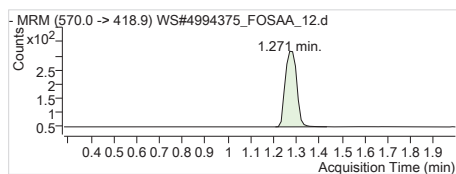
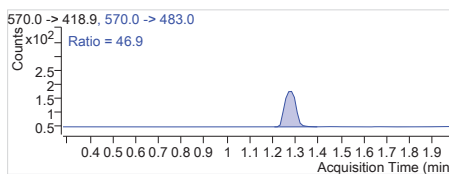
Concentration:

0.849 (0.849)

Sample type:

1 µg/Kg

Calibration

**MeFOSAA 1**

RT (Exp. RT):

570.0 -> 418.9

Calc. conc.

1.271 (1.271)

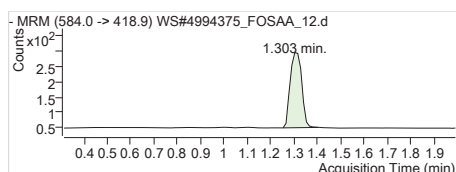
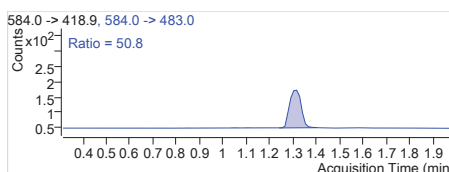
Area ratio:

1.52 µg/Kg

Sample type:

0.56246

Calibration

**EtFOSAA 1**

RT (Exp. RT):

584.0 -> 418.9

Calc. conc.

1.303 (1.303)

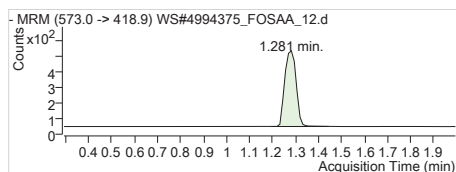
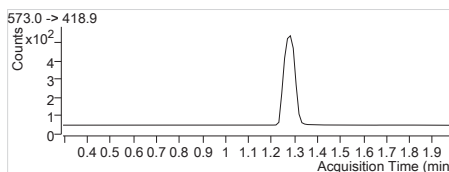
Area ratio:

1.49 µg/Kg

Sample type:

0.57366

Calibration

**D3-MeFOSAA**

RT (Exp. RT):

573.0 -> 418.9

Calc. conc.

1.281 (1.281)

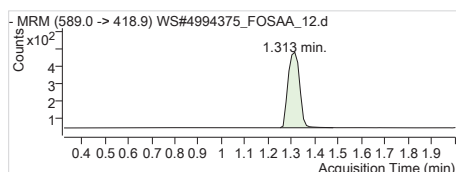
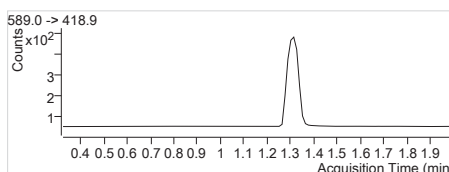
Area ratio:

99.09 µg/Kg

Sample type:

0.05997

Calibration

**D5-EtFOSAA**

RT (Exp. RT):

589.0 -> 418.9

Calc. conc.

1.313 (1.313)

Area ratio:

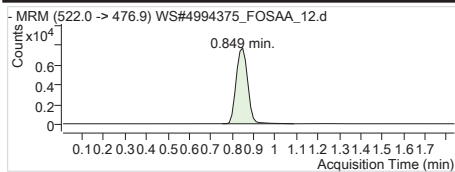
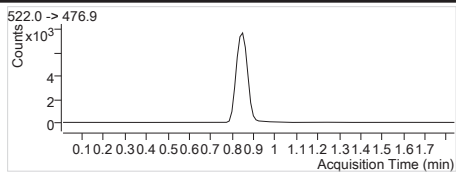
97.51 µg/Kg

Sample type:

0.05283

Calibration

Quantitation Results



13C9-PFDA
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

522.0 -> 476.9
0.849 (0.849)
103.15 µg/Kg
0
Calibration

Sample Name

STD 3

Instrument

LCMS04

Data File

WS#4994375_FOSAA_13.d

Operator

M_G

Sample Type

Cal

Dilution

1

Acq. Method

PFC_Soil_FOSAA.m

Position

P1-A4

Acq. Date

2017/05/26 4:30:29 PM

Injection Volume

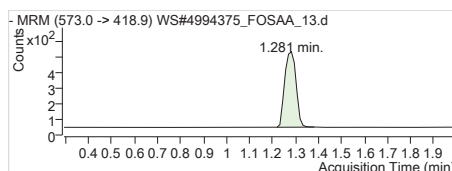
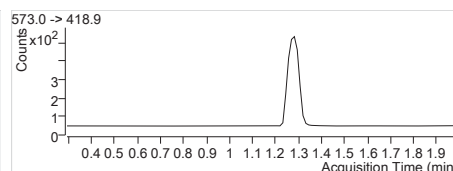
Per Method

Sample Annotation

-

ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1664	1.28	1 µg/Kg		
D5-EtFOSAA IS	1551	1.31	1 µg/Kg		
13C9-PFDA IS	27132	0.85	1 µg/Kg		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	2846	1.27	4.50	4.74 µg/Kg	105.35
EtFOSAA 1	2687	1.30	4.50	4.33 µg/Kg	96.22
D3-MeFOSAA	1674	1.28	100.00	101.93 µg/Kg	101.93
D5-EtFOSAA	1560	1.31	100.00	106.11 µg/Kg	106.11
13C9-PFDA	27582	0.85	100.00	99.27 µg/Kg	99.27

**D3-MeFOSAA IS**

RT (Exp. RT):

Internal Standard

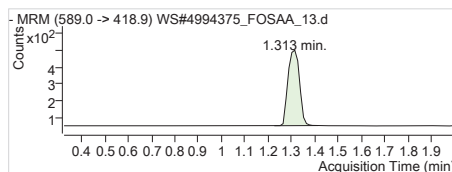
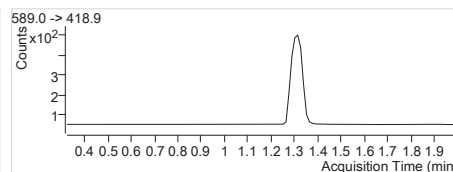
Concentration:

1.281 (1.281)

Sample type:

1 µg/Kg

Calibration

**D5-EtFOSAA IS**

RT (Exp. RT):

Internal Standard

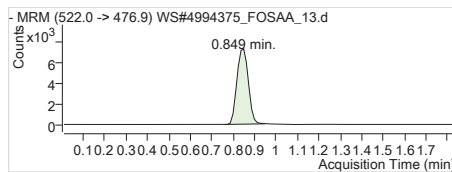
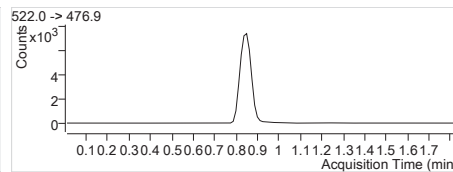
Concentration:

1.313 (1.313)

Sample type:

1 µg/Kg

Calibration

**13C9-PFDA IS**

RT (Exp. RT):

Internal Standard

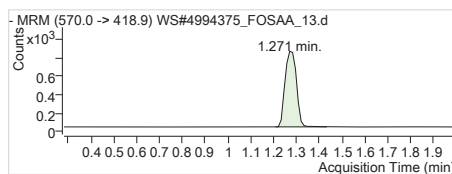
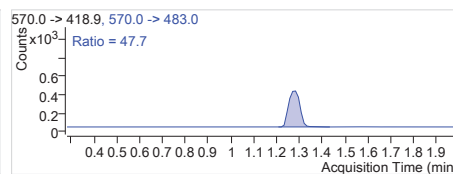
Concentration:

0.849 (0.849)

Sample type:

1 µg/Kg

Calibration

**MeFOSAA 1**

RT (Exp. RT):

570.0 -> 418.9

Calc. conc.

1.271 (1.271)

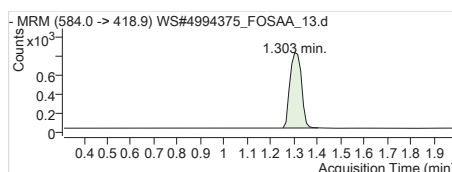
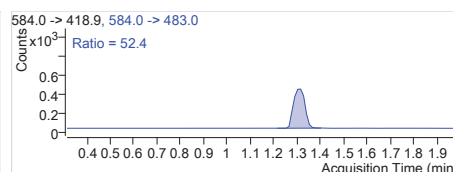
Area ratio:

4.74 µg/Kg

Sample type:

1.71034

Calibration

**EtFOSAA 1**

RT (Exp. RT):

584.0 -> 418.9

Calc. conc.

1.303 (1.303)

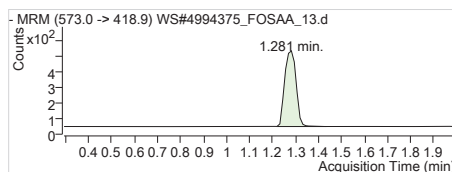
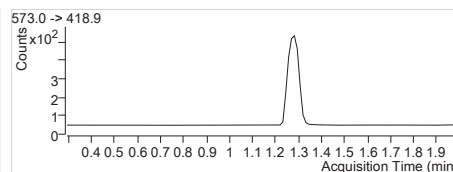
Area ratio:

4.33 µg/Kg

Sample type:

1.73243

Calibration

**D3-MeFOSAA**

RT (Exp. RT):

573.0 -> 418.9

Calc. conc.

1.281 (1.281)

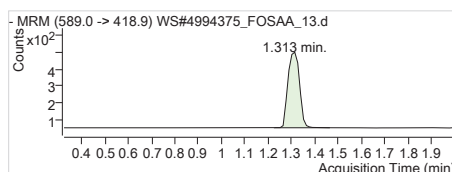
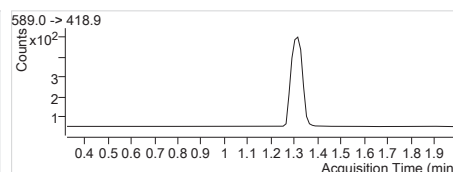
Area ratio:

101.93 µg/Kg

Sample type:

0.06169

Calibration

**D5-EtFOSAA**

RT (Exp. RT):

589.0 -> 418.9

Calc. conc.

1.313 (1.313)

Area ratio:

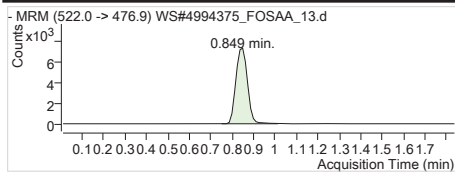
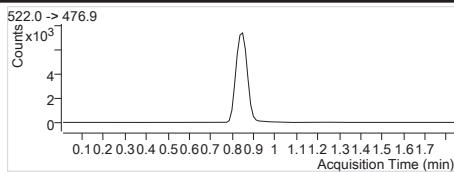
106.11 µg/Kg

Sample type:

0.05749

Calibration

Quantitation Results



13C9-PFDA
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

522.0 -> 476.9
0.849 (0.849)
99.27 µg/Kg
0
Calibration

Sample Name

STD 4

Instrument

LCMS04

Data File

WS#4994375_FOSAA_14.d

Operator

M_G

Sample Type

Cal

Dilution

1

Acq. Method

PFC_Soil_FOSAA.m

Position

P1-A5

Acq. Date

2017/05/26 4:32:51 PM

Injection Volume

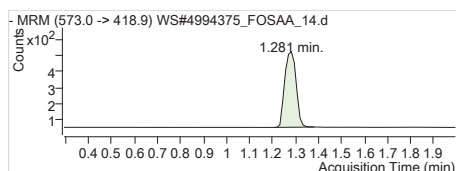
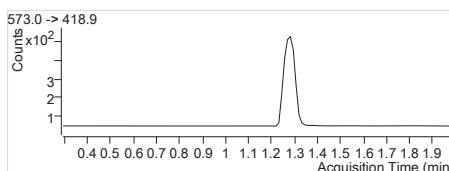
Per Method

Sample Annotation

-

ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1642	1.28	1 µg/Kg		
D5-EtFOSAA IS	1473	1.31	1 µg/Kg		
13C9-PFDA IS	27027	0.85	1 µg/Kg		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	6408	1.27	11.30	10.89 µg/Kg	96.41
EtFOSAA 1	6542	1.30	11.30	10.96 µg/Kg	96.97
D3-MeFOSAA	1645	1.28	100.00	100.55 µg/Kg	100.55
D5-EtFOSAA	1481	1.31	100.00	101.16 µg/Kg	101.16
13C9-PFDA	27561	0.85	100.00	99.19 µg/Kg	99.19

**D3-MeFOSAA IS**

Internal Standard

RT (Exp. RT):

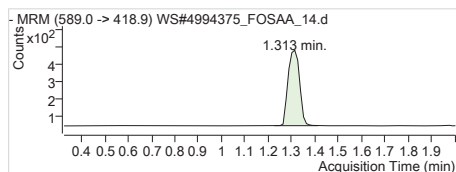
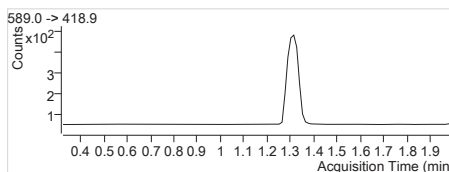
1.281 (1.281)

Concentration:

1 µg/Kg

Sample type:

Calibration

**D5-EtFOSAA IS**

Internal Standard

RT (Exp. RT):

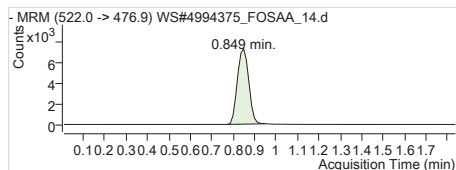
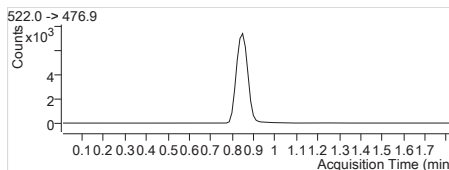
1.313 (1.313)

Concentration:

1 µg/Kg

Sample type:

Calibration

**13C9-PFDA IS**

Internal Standard

RT (Exp. RT):

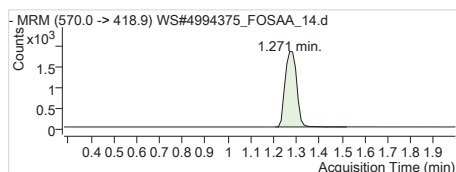
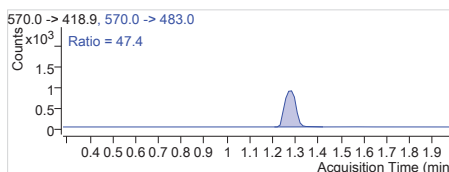
0.849 (0.849)

Concentration:

1 µg/Kg

Sample type:

Calibration

**MeFOSAA 1**

570.0 -> 418.9

RT (Exp. RT):

1.271 (1.271)

Calc. conc.

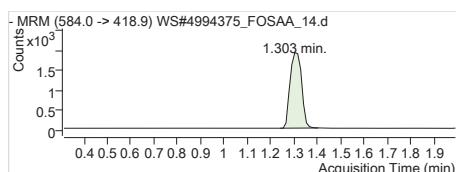
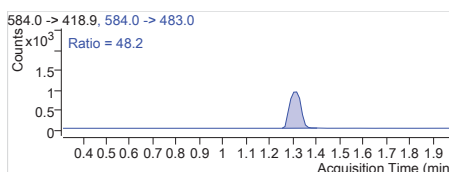
10.89 µg/Kg

Area ratio:

3.90256

Sample type:

Calibration

**EtFOSAA 1**

584.0 -> 418.9

RT (Exp. RT):

1.303 (1.303)

Calc. conc.

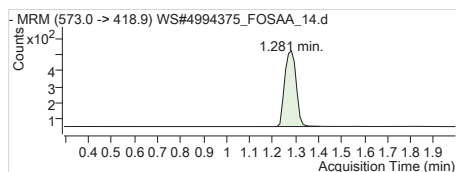
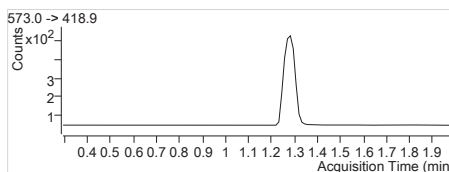
10.96 µg/Kg

Area ratio:

4.44128

Sample type:

Calibration

**D3-MeFOSAA**

573.0 -> 418.9

RT (Exp. RT):

1.281 (1.281)

Calc. conc.

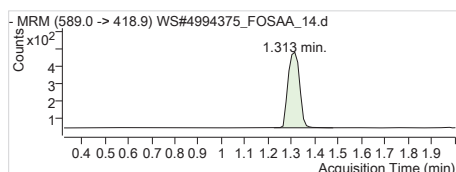
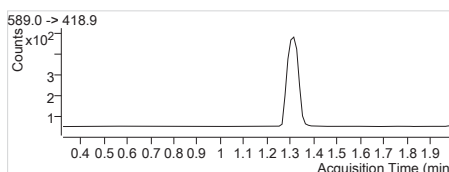
100.55 µg/Kg

Area ratio:

0.06085

Sample type:

Calibration

**D5-EtFOSAA**

589.0 -> 418.9

RT (Exp. RT):

1.313 (1.313)

Calc. conc.

101.16 µg/Kg

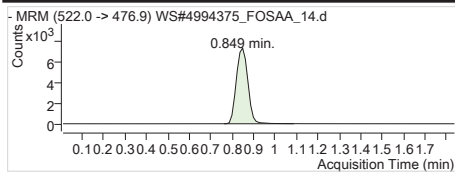
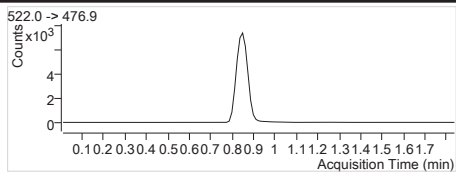
Area ratio:

0.05481

Sample type:

Calibration

Quantitation Results



13C9-PFDA
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

522.0 -> 476.9
0.849 (0.849)
99.19 µg/Kg
0
Calibration

Sample Name

STD 5

Instrument

LCMS04

Data File

WS#4994375_FOSAA_15.d

Operator

M_G

Sample Type

Cal

Dilution

1

Acq. Method

PFC_Soil_FOSAA.m

Position

P1-A6

Acq. Date

2017/05/26 4:35:14 PM

Injection Volume

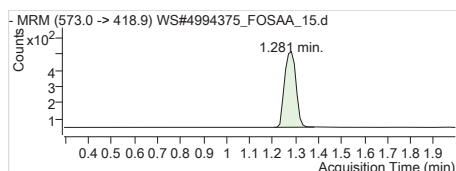
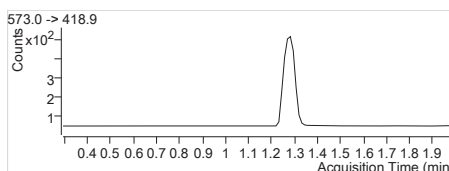
Per Method

Sample Annotation

-

ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1613	1.28	1 µg/Kg		
D5-EtFOSAA IS	1434	1.31	1 µg/Kg		
13C9-PFDA IS	27719	0.85	1 µg/Kg		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	13284	1.27	22.50	23.06 µg/Kg	102.48
EtFOSAA 1	13397	1.30	22.50	22.95 µg/Kg	102.00
D3-MeFOSAA	1621	1.28	100.00	96.64 µg/Kg	96.64
D5-EtFOSAA	1442	1.31	100.00	96.00 µg/Kg	96.00
13C9-PFDA	28250	0.85	100.00	101.67 µg/Kg	101.67

**D3-MeFOSAA IS**

RT (Exp. RT):

Internal Standard

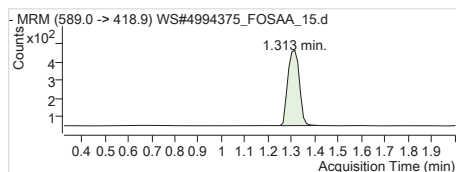
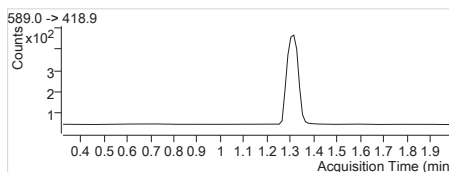
Concentration:

1.281 (1.281)

Sample type:

1 µg/Kg

Calibration

**D5-EtFOSAA IS**

RT (Exp. RT):

Internal Standard

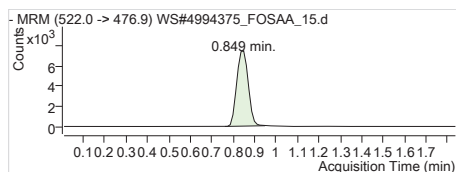
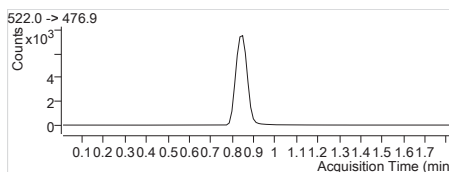
Concentration:

1.313 (1.313)

Sample type:

1 µg/Kg

Calibration

**13C9-PFDA IS**

RT (Exp. RT):

Internal Standard

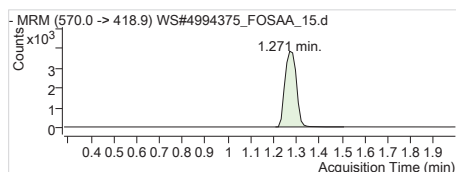
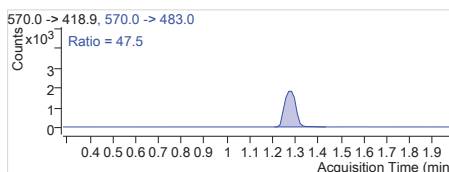
Concentration:

0.849 (0.849)

Sample type:

1 µg/Kg

Calibration

**MeFOSAA 1**

RT (Exp. RT):

570.0 -> 418.9

Calc. conc.

1.271 (1.271)

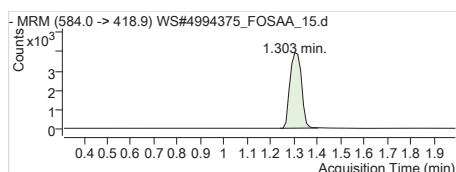
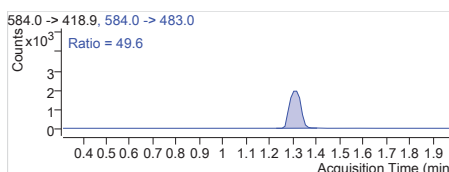
Area ratio:

23.06 µg/Kg

Sample type:

8.23559

Calibration

**EtFOSAA 1**

RT (Exp. RT):

584.0 -> 418.9

Calc. conc.

1.303 (1.303)

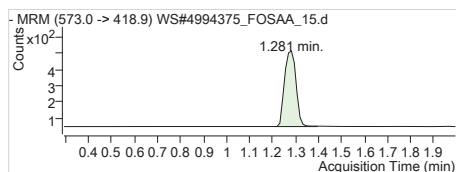
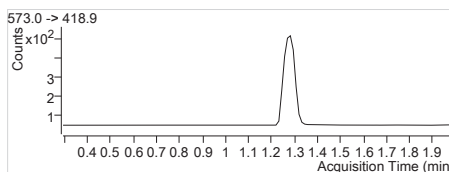
Area ratio:

22.95 µg/Kg

Sample type:

9.34240

Calibration

**D3-MeFOSAA**

RT (Exp. RT):

573.0 -> 418.9

Calc. conc.

1.281 (1.281)

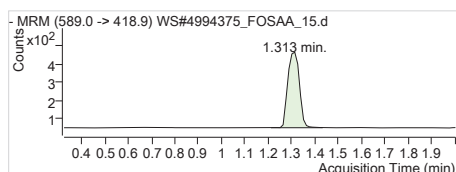
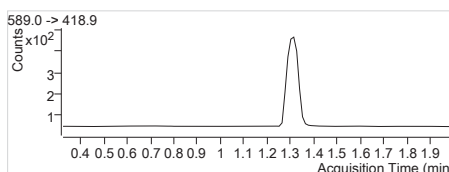
Area ratio:

96.64 µg/Kg

Sample type:

0.05849

Calibration

**D5-EtFOSAA**

RT (Exp. RT):

589.0 -> 418.9

Calc. conc.

1.313 (1.313)

Area ratio:

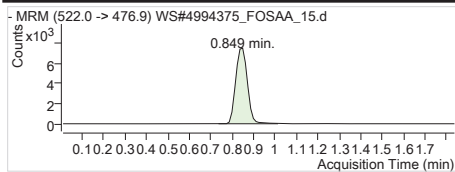
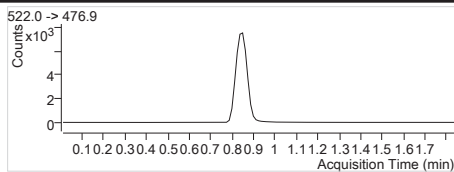
96.00 µg/Kg

Sample type:

0.05201

Calibration

Quantitation Results



13C9-PFDA
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

522.0 -> 476.9
0.849 (0.849)
101.67 µg/Kg
0
Calibration

Sample Name

STD 6

Instrument

LCMS04

Data File

WS#4994375_FOSAA_16.d

Operator

M_G

Sample Type

Cal

Dilution

1

Acq. Method

PFC_Soil_FOSAA.m

Position

P1-A7

Acq. Date

2017/05/26 4:37:36 PM

Injection Volume

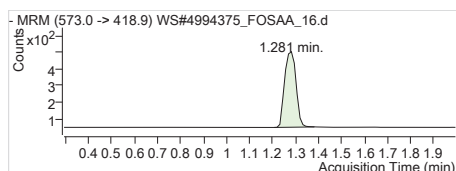
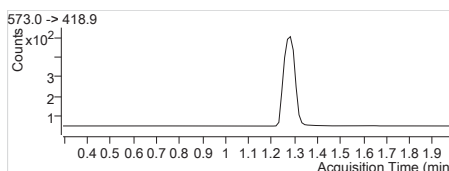
Per Method

Sample Annotation

-

ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1574	1.28	1 µg/Kg		
D5-EtFOSAA IS	1386	1.31	1 µg/Kg		
13C9-PFDA IS	28458	0.85	1 µg/Kg		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	20848	1.27	37.50	37.12 µg/Kg	98.99
EtFOSAA 1	21207	1.30	37.50	37.53 µg/Kg	100.08
D3-MeFOSAA	1589	1.28	100.00	92.23 µg/Kg	92.23
D5-EtFOSAA	1394	1.31	100.00	90.44 µg/Kg	90.44
13C9-PFDA	29000	0.85	100.00	104.37 µg/Kg	104.37

**D3-MeFOSAA IS**

RT (Exp. RT):

Internal Standard

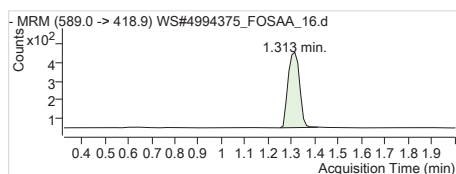
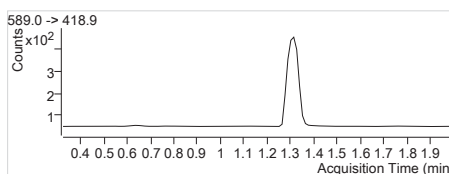
1.281 (1.281)

Concentration:

1 µg/Kg

Sample type:

Calibration

**D5-EtFOSAA IS**

RT (Exp. RT):

Internal Standard

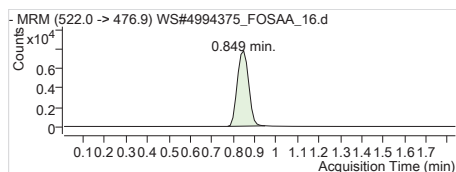
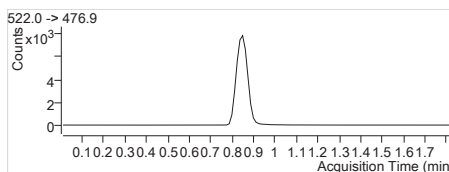
1.313 (1.313)

Concentration:

1 µg/Kg

Sample type:

Calibration

**13C9-PFDA IS**

RT (Exp. RT):

Internal Standard

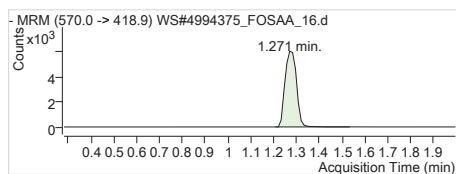
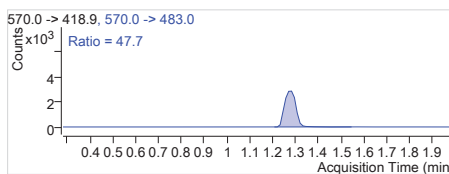
0.849 (0.849)

Concentration:

1 µg/Kg

Sample type:

Calibration

**MeFOSAA 1**

RT (Exp. RT):

570.0 -> 418.9

1.271 (1.271)

Calc. conc.

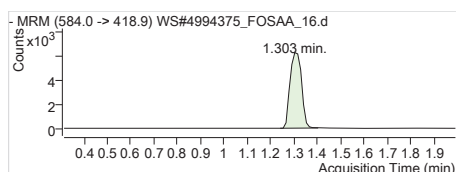
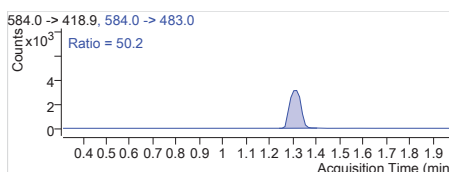
37.12 µg/Kg

Area ratio:

13.24524

Sample type:

Calibration

**EtFOSAA 1**

RT (Exp. RT):

584.0 -> 418.9

1.303 (1.303)

Calc. conc.

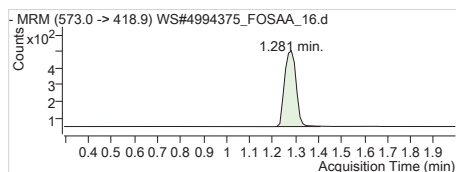
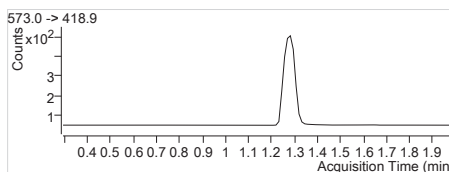
37.53 µg/Kg

Area ratio:

15.30087

Sample type:

Calibration

**D3-MeFOSAA**

RT (Exp. RT):

573.0 -> 418.9

1.281 (1.281)

Calc. conc.

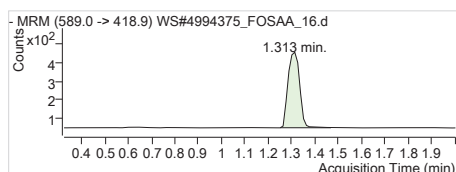
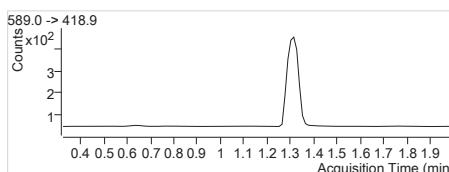
92.23 µg/Kg

Area ratio:

0.05582

Sample type:

Calibration

**D5-EtFOSAA**

RT (Exp. RT):

589.0 -> 418.9

1.313 (1.313)

Calc. conc.

90.44 µg/Kg

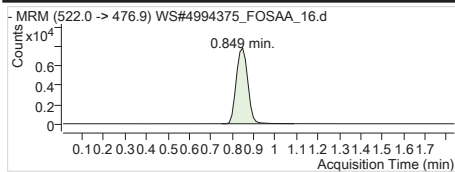
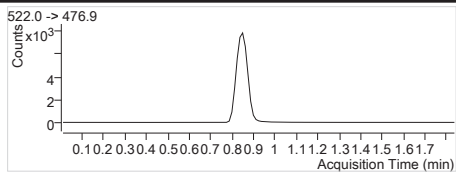
Area ratio:

0.04900

Sample type:

Calibration

Quantitation Results



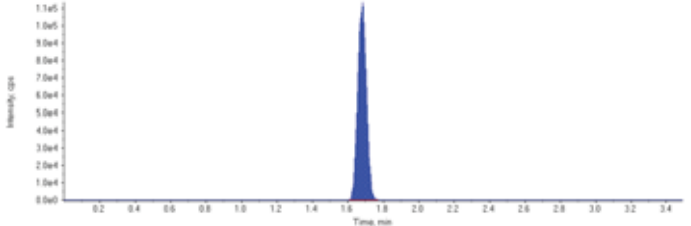
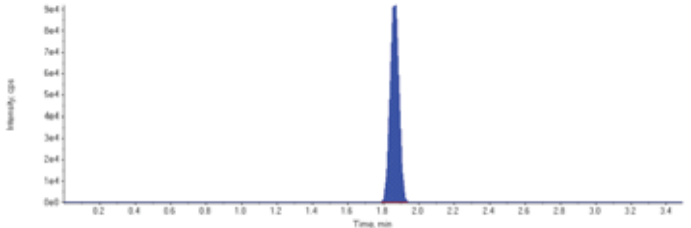
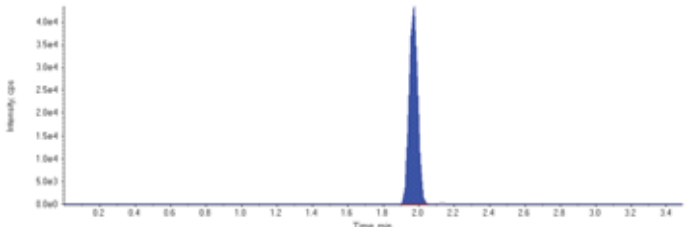
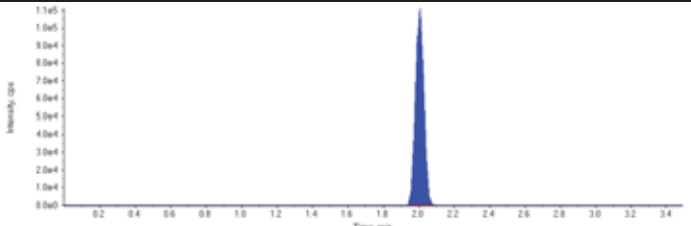
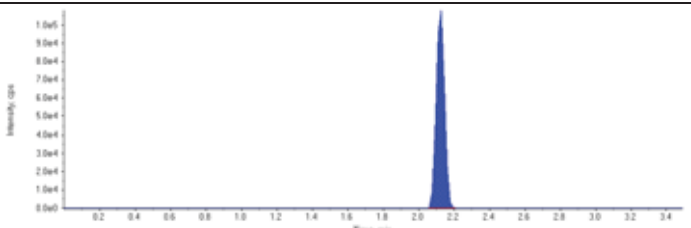
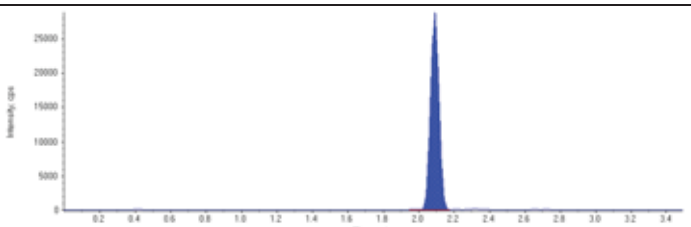
13C9-PFDA
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

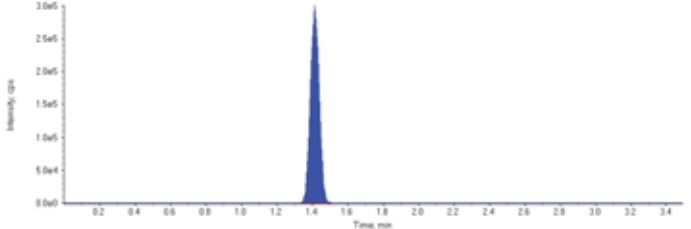
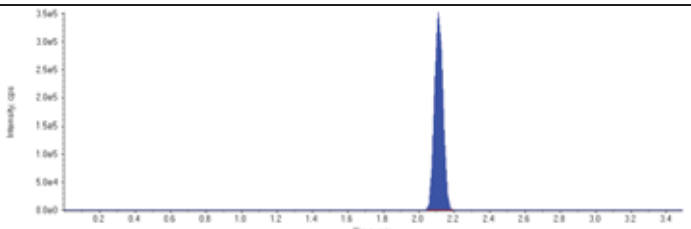
522.0 -> 476.9
0.849 (0.849)
104.37 µg/Kg
0
Calibration

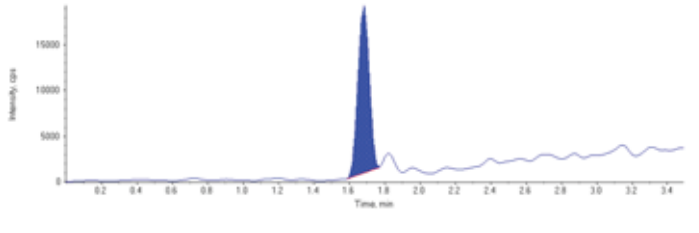
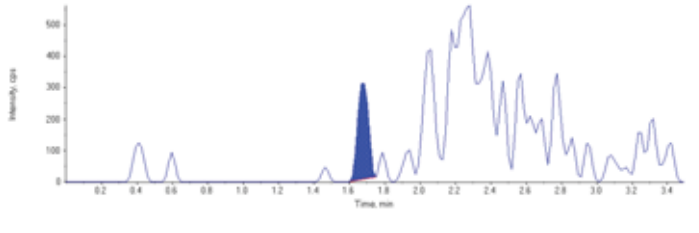
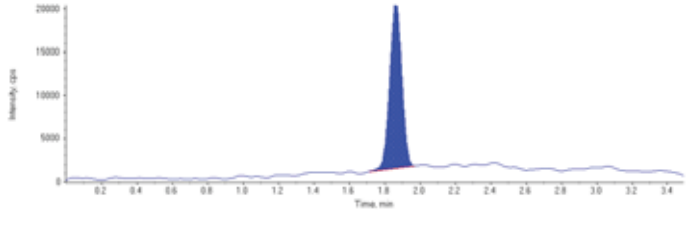
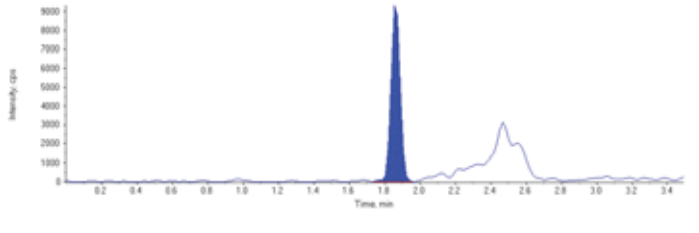
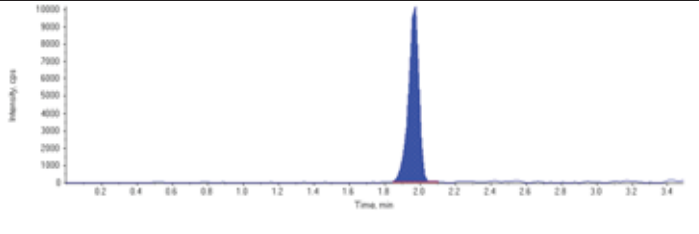
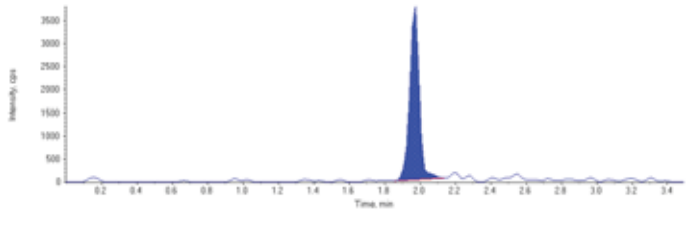
Sample ID	Std 1	Injection Volume (µL)	1
Sample Type	Standard	Injection Vial	2
Acquisition Date	2017/06/13 1:31:14 PM	Dilution Factor	1.00
Acquisition Method	PFC_Soil.dam	Instrument Name	LCMS03
Project	Enviro\PFOS	Algorithm Used	Analyst Classic
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Result Table	PFC_Soil_170613_5023570_CT.rdb		
Samples Annotation	-		

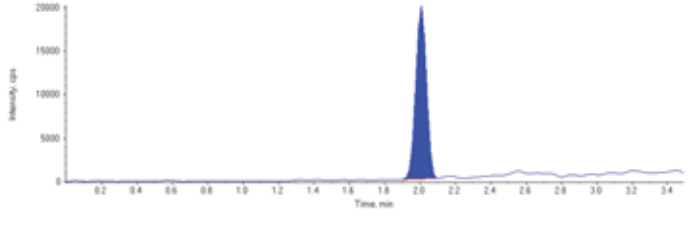
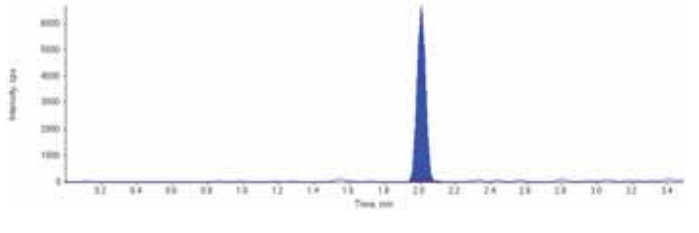
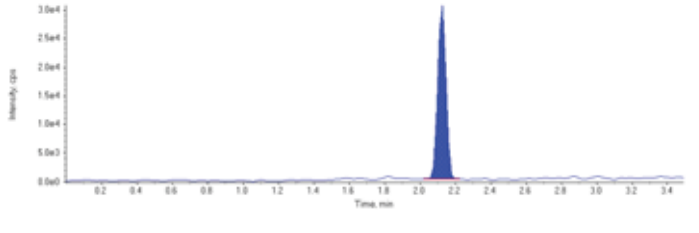
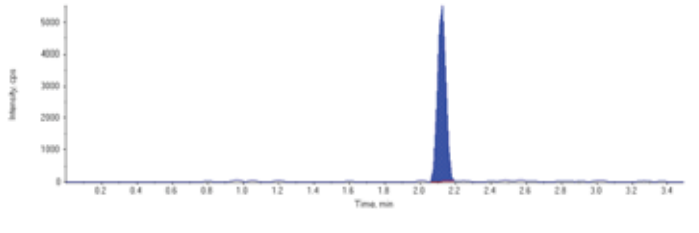
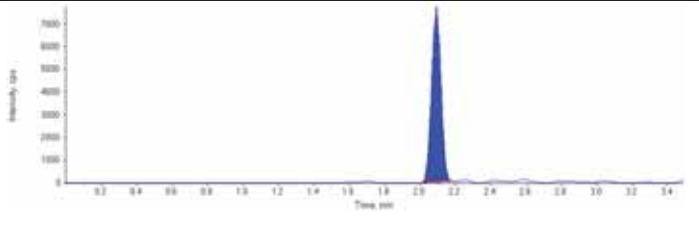
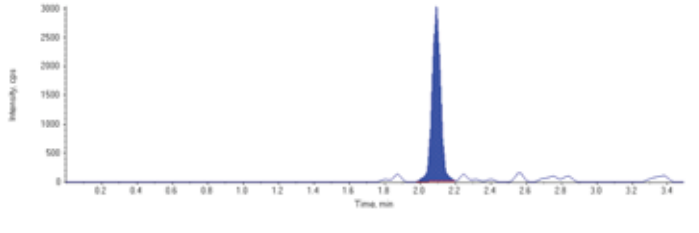
Internal Standard	Area (cps)	RT (min)	Target Conc. (ug/kg)	Calc. Conc. (ug/kg)
MPFHpA	383000.	1.68	1.00	-
MPFOA	326000.	1.86	1.00	-
MPFOS	143000.	1.97	1.00	-
MPFNA	365000.	2.01	1.00	-
MPFDA	361000.	2.12	1.00	-
M2 8:2 FTS	96700.	2.09	1.00	-
13C6-PFHxA IS	1030000.	1.41	1.00	-
13C9-PFDA IS	1160000.	2.11	1.00	-
N/A	N/A	N/A	N/A	-
N/A	N/A	N/A	N/A	-

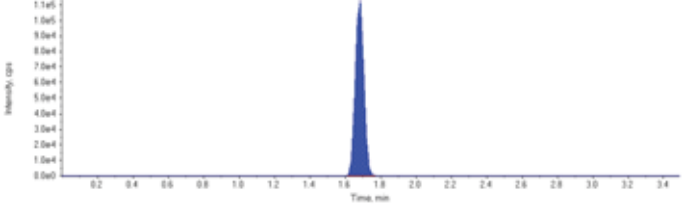
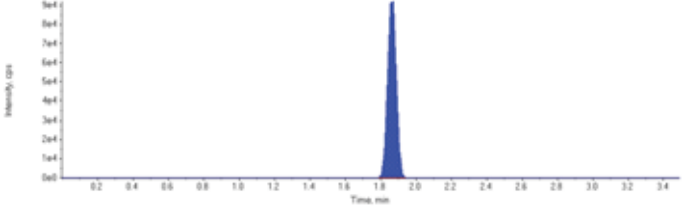
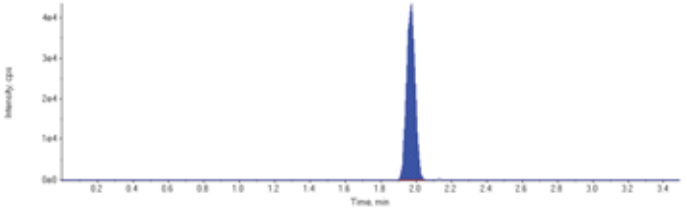
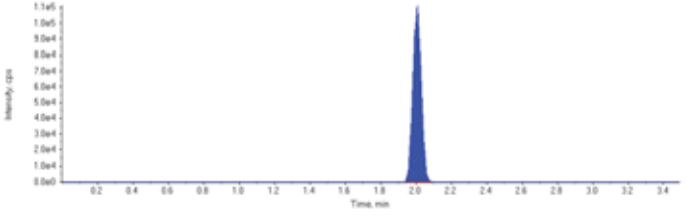
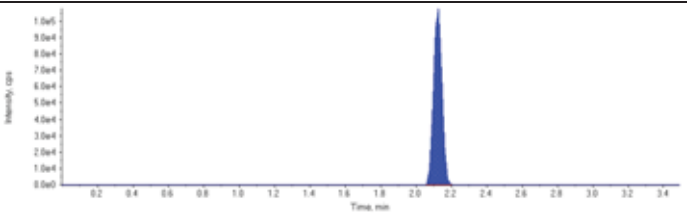
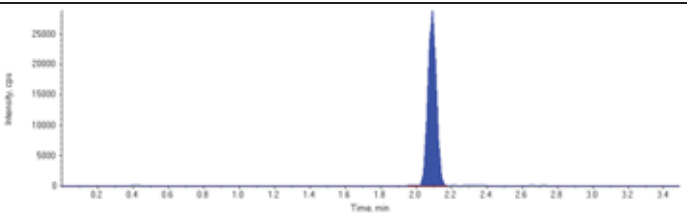
Target Analyte	Area (cps)	RT (min)	Target Conc. (ug/kg)	Calc. Conc. (ug/kg)	Accuracy (%)
PFHpA 1	81600	1.68	0.750	0.705	94.0
PFHpA 2	1340	1.68	0.750	0.710	94.7
PFOA 1	90300	1.86	0.750	0.726	96.7
PFOA 2	33700	1.86	0.750	0.708	94.4
PFOS 1	41700	1.97	0.750	0.749	99.8
PFOS 2	14200	1.97	0.750	0.786	105.0
PFNA 1	83100	2.01	0.750	0.729	97.1
PFNA 2	21900	2.01	0.750	0.656	87.5
PFDA 1	99300	2.12	0.750	0.757	101.0
PFDA 2	18100	2.12	0.750	0.794	106.0
8:2-FTS 1	28900	2.09	0.750	0.839	112.0
8:2-FTS 2	9970	2.09	0.750	0.651	86.8
13C4-PFHpA	383000	1.68	100.	102.	102.0
13C4-PFOA	326000	1.86	100.	103.	103.0
13C4-PFOS	143000	1.97	100.	99.9	99.9
13C5-PFNA	365000	2.01	100.	102.	102.0
13C2-PFDA	361000	2.12	100.	94.2	94.2
13C2-8:2 FTS	96700	2.09	100.	102.	102.0
13C6-PFHxA	1030000	1.41	100.	99.3	99.3
13C9-PFDA	1160000	2.11	100.	105.	105.0

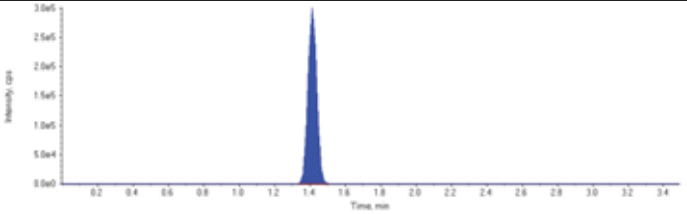
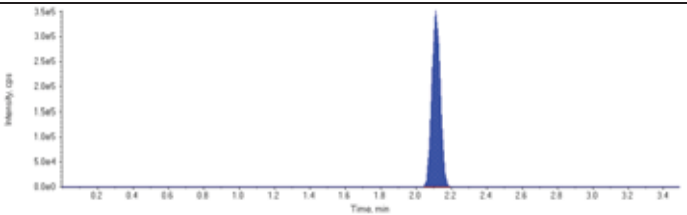
<p>MPFHpA (Internal Standard)</p> <p>RT (Exp. RT): 1.68(1.76) min</p> <p>Concentration: 1.00 ug/kg</p> <p>Sample Type: (Standard)</p>	
<p>MPFOA (Internal Standard)</p> <p>RT (Exp. RT): 1.86(1.93) min</p> <p>Concentration: 1.00 ug/kg</p> <p>Sample Type: (Standard)</p>	
<p>MPFOS (Internal Standard)</p> <p>RT (Exp. RT): 1.97(2.05) min</p> <p>Concentration: 1.00 ug/kg</p> <p>Sample Type: (Standard)</p>	
<p>MPFNA (Internal Standard)</p> <p>RT (Exp. RT): 2.01(2.07) min</p> <p>Concentration: 1.00 ug/kg</p> <p>Sample Type: (Standard)</p>	
<p>MPFDA (Internal Standard)</p> <p>RT (Exp. RT): 2.12(2.18) min</p> <p>Concentration: 1.00 ug/kg</p> <p>Sample Type: (Standard)</p>	
<p>M2 8:2 FTS (Internal Standard)</p> <p>RT (Exp. RT): 2.09(2.15) min</p> <p>Concentration: 1.00 ug/kg</p> <p>Sample Type: (Standard)</p>	

<p>13C6-PFHxA IS (Internal Standard)</p> <p>RT (Exp. RT): 1.41(1.41) min</p> <p>Concentration: 1.00 ug/kg</p> <p>Sample Type: (Standard)</p>	
<p>13C9-PFDA IS (Internal Standard)</p> <p>RT (Exp. RT): 2.11(2.18) min</p> <p>Concentration: 1.00 ug/kg</p> <p>Sample Type: (Standard)</p>	
<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min</p> <p>Concentration: N/A N/A</p> <p>Sample Type: (Standard)</p>	<p>This image is not available</p>
<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min</p> <p>Concentration: N/A N/A</p> <p>Sample Type: (Standard)</p>	<p>This image is not available</p>

<p>PFHpA 1 (363.000/319.000 Da)</p> <p>RT (Exp. RT): 1.68 (1.68) min</p> <p>Calculated Conc: 0.705 µg/kg</p> <p>Area Ratio: 0.213</p> <p>Sample Type: (Standard)</p>	
<p>PFHpA 2 (363.000/169.200 Da)</p> <p>RT (Exp. RT): 1.68 (1.68) min</p> <p>Calculated Conc: 0.710 µg/kg</p> <p>Area Ratio: 0.00350</p> <p>Sample Type: (Standard)</p>	
<p>PFOA 1 (413.100/369.000 Da)</p> <p>RT (Exp. RT): 1.86 (1.85) min</p> <p>Calculated Conc: 0.726 µg/kg</p> <p>Area Ratio: 0.277</p> <p>Sample Type: (Standard)</p>	
<p>PFOA 2 (413.100/169.000 Da)</p> <p>RT (Exp. RT): 1.86 (1.85) min</p> <p>Calculated Conc: 0.708 µg/kg</p> <p>Area Ratio: 0.104</p> <p>Sample Type: (Standard)</p>	
<p>PFOS 1 (498.900/79.900 Da)</p> <p>RT (Exp. RT): 1.97 (2.05) min</p> <p>Calculated Conc: 0.749 µg/kg</p> <p>Area Ratio: 0.291</p> <p>Sample Type: (Standard)</p>	
<p>PFOS 2 (498.900/98.900 Da)</p> <p>RT (Exp. RT): 1.97 (1.97) min</p> <p>Calculated Conc: 0.786 µg/kg</p> <p>Area Ratio: 0.0992</p> <p>Sample Type: (Standard)</p>	

<p>PFNA 1 (462.900/419.000 Da)</p> <p>RT (Exp. RT): 2.01 (2.07) min</p> <p>Calculated Conc: 0.729 µg/kg</p> <p>Area Ratio: 0.228</p> <p>Sample Type: (Standard)</p>	
<p>PFNA 2 (462.900/219.100 Da)</p> <p>RT (Exp. RT): 2.01 (2.07) min</p> <p>Calculated Conc: 0.656 µg/kg</p> <p>Area Ratio: 0.0600</p> <p>Sample Type: (Standard)</p>	
<p>PFDA 1 (513.000/469.100 Da)</p> <p>RT (Exp. RT): 2.12 (2.18) min</p> <p>Calculated Conc: 0.757 µg/kg</p> <p>Area Ratio: 0.275</p> <p>Sample Type: (Standard)</p>	
<p>PFDA 2 (513.000/218.900 Da)</p> <p>RT (Exp. RT): 2.12 (2.18) min</p> <p>Calculated Conc: 0.794 µg/kg</p> <p>Area Ratio: 0.0502</p> <p>Sample Type: (Standard)</p>	
<p>8:2-FTS 1 (526.900/507.000 Da)</p> <p>RT (Exp. RT): 2.09 (2.16) min</p> <p>Calculated Conc: 0.839 µg/kg</p> <p>Area Ratio: 0.299</p> <p>Sample Type: (Standard)</p>	
<p>8:2-FTS 2 (526.900/80.900 Da)</p> <p>RT (Exp. RT): 2.09 (2.09) min</p> <p>Calculated Conc: 0.651 µg/kg</p> <p>Area Ratio: 0.103</p> <p>Sample Type: (Standard)</p>	

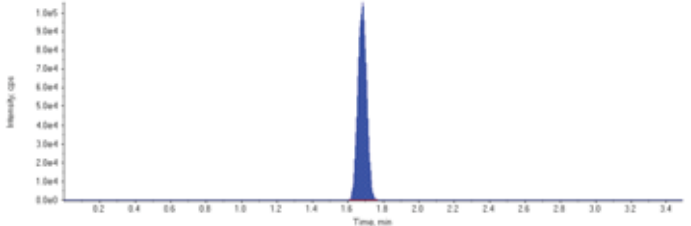
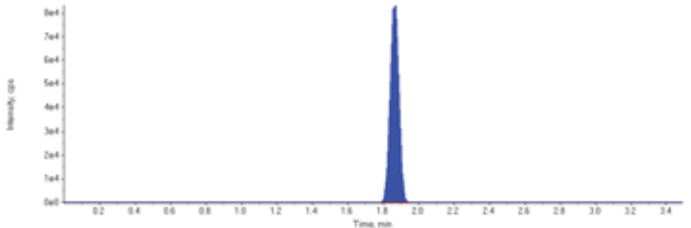
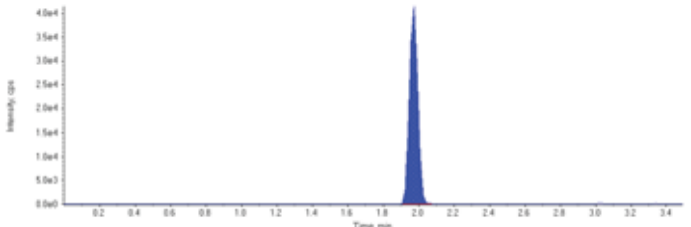
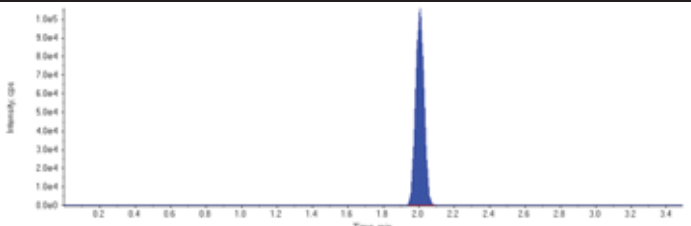
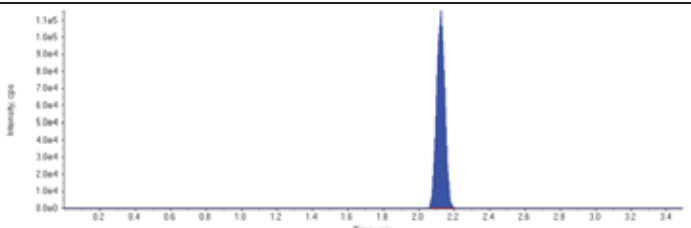
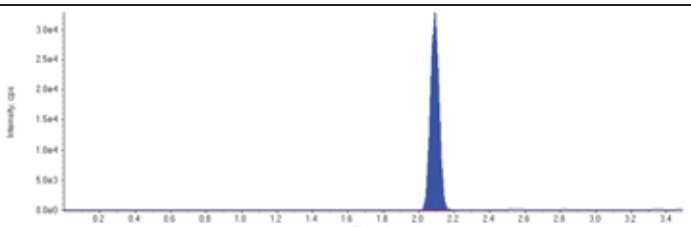
<p>13C4-PFHpa (366.900/322.000 Da)</p> <p>RT (Exp. RT): 1.68 (1.76) min</p> <p>Calculated Conc: 102. µg/kg</p> <p>Area Ratio: 0.373</p> <p>Sample Type: (Standard)</p>	
<p>13C4-PFOA (416.900/372.000 Da)</p> <p>RT (Exp. RT): 1.86 (1.93) min</p> <p>Calculated Conc: 103. µg/kg</p> <p>Area Ratio: 0.317</p> <p>Sample Type: (Standard)</p>	
<p>13C4-PFOS (502.900/79.900 Da)</p> <p>RT (Exp. RT): 1.97 (2.05) min</p> <p>Calculated Conc: 99.9 µg/kg</p> <p>Area Ratio: 0.140</p> <p>Sample Type: (Standard)</p>	
<p>13C5-PFNA (467.900/423.000 Da)</p> <p>RT (Exp. RT): 2.01 (2.07) min</p> <p>Calculated Conc: 102. µg/kg</p> <p>Area Ratio: 0.355</p> <p>Sample Type: (Standard)</p>	
<p>13C2-PFDA (514.900/470.000 Da)</p> <p>RT (Exp. RT): 2.12 (2.18) min</p> <p>Calculated Conc: 94.2 µg/kg</p> <p>Area Ratio: 0.312</p> <p>Sample Type: (Standard)</p>	
<p>13C2-8:2 FTS (528.900/80.900 Da)</p> <p>RT (Exp. RT): 2.09 (2.15) min</p> <p>Calculated Conc: 102. µg/kg</p> <p>Area Ratio: 0.0941</p> <p>Sample Type: (Standard)</p>	

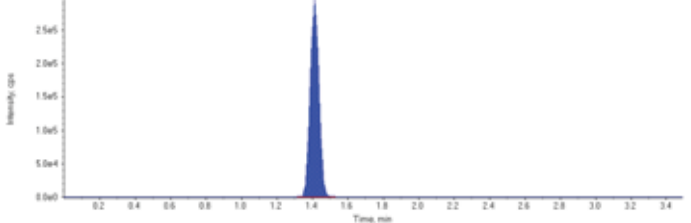
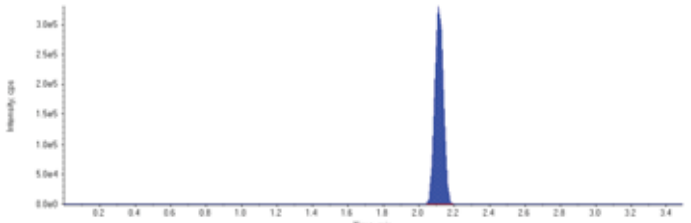
<p>13C6-PFHxA (318.900/274.000 Da)</p> <p>RT (Exp. RT): 1.41 (1.41) min</p> <p>Calculated Conc: 99.3 µg/kg</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Standard)</p>	
<p>13C9-PFDA (521.900/477.100 Da)</p> <p>RT (Exp. RT): 2.11 (2.18) min</p> <p>Calculated Conc: 105. µg/kg</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Standard)</p>	

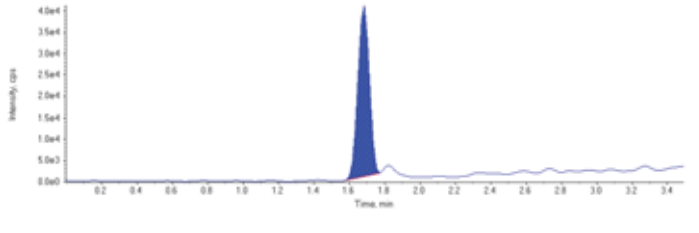
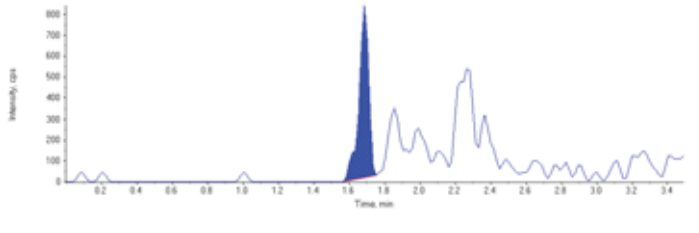
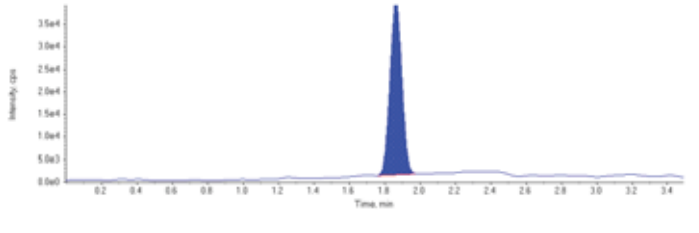
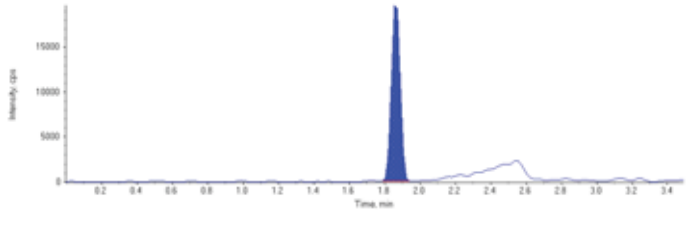
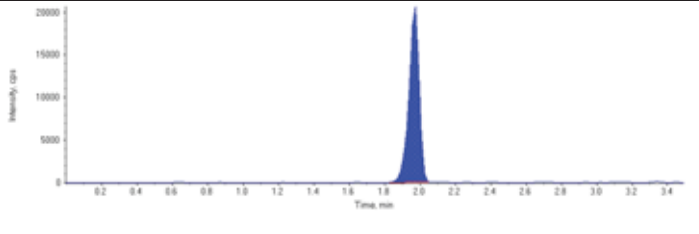
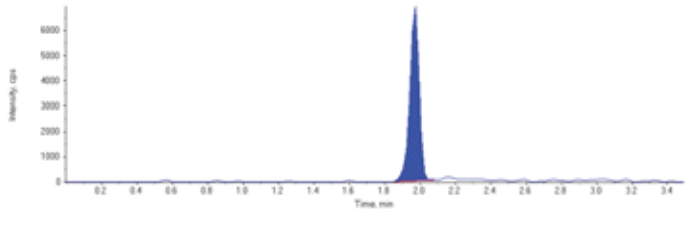
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Sample Type	Standard	Injection Vial	3
Acquisition Date	2017/06/13 1:36:18 PM	Dilution Factor	1.00
Acquisition Method	PFC_Soil.dam	Instrument Name	LCMS03
Project	Enviro\PFOS	Algorithm Used	Analyst Classic
Data File	PFC_170613\WS#5023570.wiff		
Result Table	PFC_Soil_170613_5023570_CT.rdb		
Samples Annotation	-		

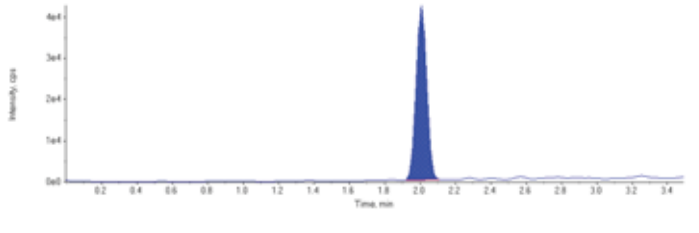
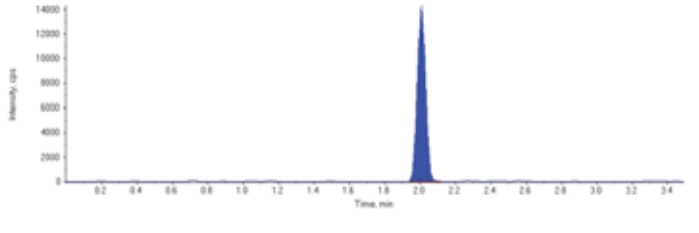
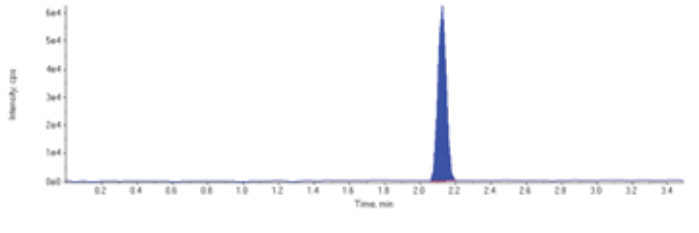
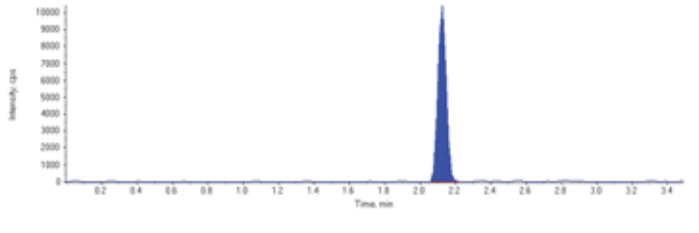
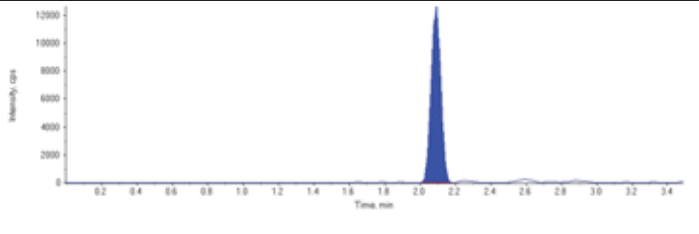
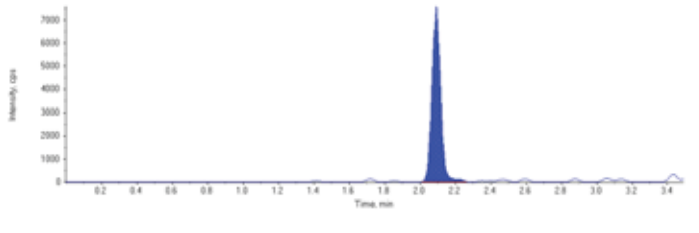
Internal Standard	Area (cps)	RT (min)	Target Conc. (ug/kg)	Calc. Conc. (ug/kg)
MPFHpA	358000.	1.68	1.00	-
MPFOA	294000.	1.86	1.00	-
MPFOS	137000.	1.97	1.00	-
MPFNA	344000.	2.01	1.00	-
MPFDA	375000.	2.12	1.00	-
M2 8:2 FTS	110000.	2.09	1.00	-
13C6-PFHxA IS	1000000.	1.41	1.00	-
13C9-PFDA IS	1110000.	2.11	1.00	-
N/A	N/A	N/A	N/A	-
N/A	N/A	N/A	N/A	-

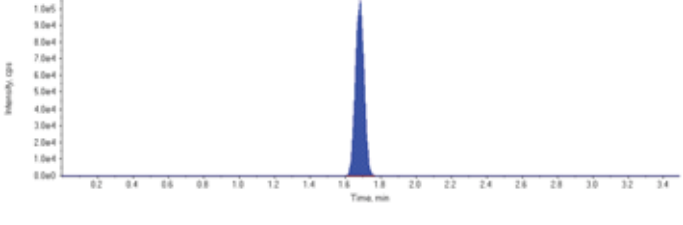
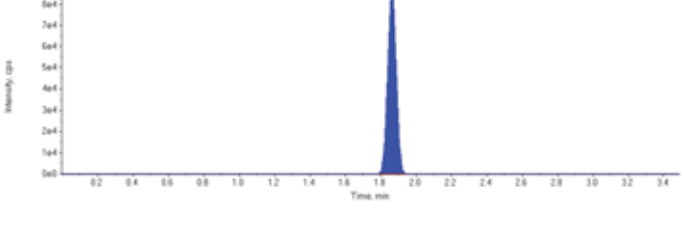
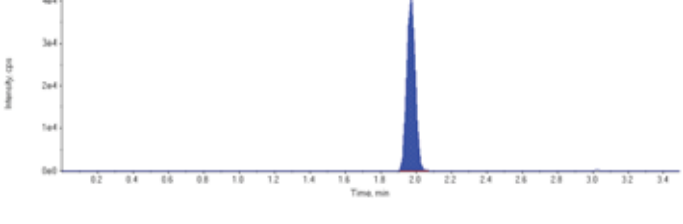
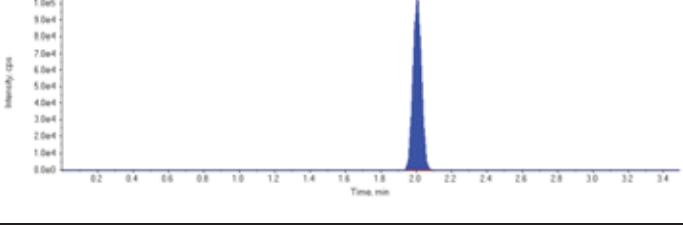
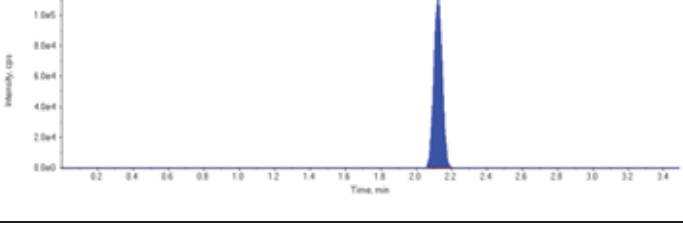
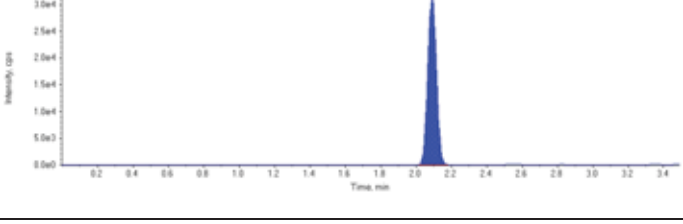
Target Analyte	Area (cps)	RT (min)	Target Conc. (ug/kg)	Calc. Conc. (ug/kg)	Accuracy (%)
PFHpA 1	181000	1.68	1.50	1.48	98.6
PFHpA 2	3170	1.69	1.50	1.63	109.0
PFOA 1	178000	1.86	1.50	1.54	103.0
PFOA 2	69200	1.86	1.50	1.57	105.0
PFOS 1	83800	1.97	1.50	1.54	103.0
PFOS 2	25600	1.97	1.50	1.45	96.8
PFNA 1	175000	2.01	1.50	1.57	105.0
PFNA 2	46600	2.01	1.50	1.62	108.0
PFDA 1	202000	2.12	1.50	1.46	97.1
PFDA 2	34000	2.12	1.50	1.37	91.1
8:2-FTS 1	48500	2.09	1.50	1.17	77.9
8:2-FTS 2	26000	2.09	1.50	1.47	98.0
13C4-PFHpA	358000	1.68	100.	97.7	97.7
13C4-PFOA	294000	1.86	100.	95.6	95.6
13C4-PFOS	137000	1.97	100.	97.8	97.8
13C5-PFNA	344000	2.01	100.	98.1	98.1
13C2-PFDA	375000	2.12	100.	102.	102.0
13C2-8:2 FTS	110000	2.09	100.	119.	119.0
13C6-PFHxA	1000000	1.41	100.	96.9	96.9
13C9-PFDA	1110000	2.11	100.	101.	101.0

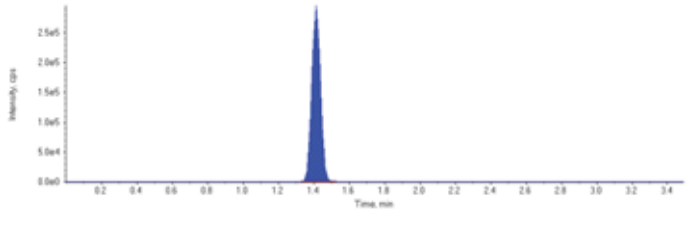
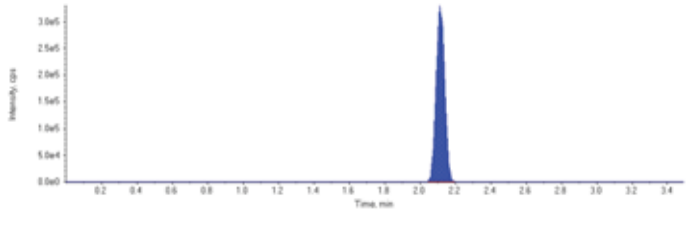
<p>MPFHpA (Internal Standard)</p> <p>RT (Exp. RT): 1.68(1.76) min</p> <p>Concentration: 1.00 ug/kg</p> <p>Sample Type: (Standard)</p>	
<p>MPFOA (Internal Standard)</p> <p>RT (Exp. RT): 1.86(1.93) min</p> <p>Concentration: 1.00 ug/kg</p> <p>Sample Type: (Standard)</p>	
<p>MPFOS (Internal Standard)</p> <p>RT (Exp. RT): 1.97(2.05) min</p> <p>Concentration: 1.00 ug/kg</p> <p>Sample Type: (Standard)</p>	
<p>MPFNA (Internal Standard)</p> <p>RT (Exp. RT): 2.01(2.07) min</p> <p>Concentration: 1.00 ug/kg</p> <p>Sample Type: (Standard)</p>	
<p>MPFDA (Internal Standard)</p> <p>RT (Exp. RT): 2.12(2.18) min</p> <p>Concentration: 1.00 ug/kg</p> <p>Sample Type: (Standard)</p>	
<p>M2 8:2 FTS (Internal Standard)</p> <p>RT (Exp. RT): 2.09(2.15) min</p> <p>Concentration: 1.00 ug/kg</p> <p>Sample Type: (Standard)</p>	

<p>13C6-PFHxA IS (Internal Standard)</p> <p>RT (Exp. RT): 1.41(1.41) min</p> <p>Concentration: 1.00 ug/kg</p> <p>Sample Type: (Standard)</p>	
<p>13C9-PFDA IS (Internal Standard)</p> <p>RT (Exp. RT): 2.11(2.18) min</p> <p>Concentration: 1.00 ug/kg</p> <p>Sample Type: (Standard)</p>	
<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min</p> <p>Concentration: N/A N/A</p> <p>Sample Type: (Standard)</p>	<p>This image is not available</p>
<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min</p> <p>Concentration: N/A N/A</p> <p>Sample Type: (Standard)</p>	<p>This image is not available</p>

<p>PFHpA 1 (363.000/319.000 Da)</p> <p>RT (Exp. RT): 1.68 (1.68) min</p> <p>Calculated Conc: 1.48 µg/kg</p> <p>Area Ratio: 0.505</p> <p>Sample Type: (Standard)</p>	
<p>PFHpA 2 (363.000/169.200 Da)</p> <p>RT (Exp. RT): 1.69 (1.68) min</p> <p>Calculated Conc: 1.63 µg/kg</p> <p>Area Ratio: 0.00885</p> <p>Sample Type: (Standard)</p>	
<p>PFOA 1 (413.100/369.000 Da)</p> <p>RT (Exp. RT): 1.86 (1.85) min</p> <p>Calculated Conc: 1.54 µg/kg</p> <p>Area Ratio: 0.605</p> <p>Sample Type: (Standard)</p>	
<p>PFOA 2 (413.100/169.000 Da)</p> <p>RT (Exp. RT): 1.86 (1.85) min</p> <p>Calculated Conc: 1.57 µg/kg</p> <p>Area Ratio: 0.235</p> <p>Sample Type: (Standard)</p>	
<p>PFOS 1 (498.900/79.900 Da)</p> <p>RT (Exp. RT): 1.97 (2.05) min</p> <p>Calculated Conc: 1.54 µg/kg</p> <p>Area Ratio: 0.612</p> <p>Sample Type: (Standard)</p>	
<p>PFOS 2 (498.900/98.900 Da)</p> <p>RT (Exp. RT): 1.97 (1.97) min</p> <p>Calculated Conc: 1.45 µg/kg</p> <p>Area Ratio: 0.187</p> <p>Sample Type: (Standard)</p>	

<p>PFNA 1 (462.900/419.000 Da)</p> <p>RT (Exp. RT): 2.01 (2.07) min</p> <p>Calculated Conc: 1.57 µg/kg</p> <p>Area Ratio: 0.510</p> <p>Sample Type: (Standard)</p>	
<p>PFNA 2 (462.900/219.100 Da)</p> <p>RT (Exp. RT): 2.01 (2.07) min</p> <p>Calculated Conc: 1.62 µg/kg</p> <p>Area Ratio: 0.135</p> <p>Sample Type: (Standard)</p>	
<p>PFDA 1 (513.000/469.100 Da)</p> <p>RT (Exp. RT): 2.12 (2.18) min</p> <p>Calculated Conc: 1.46 µg/kg</p> <p>Area Ratio: 0.540</p> <p>Sample Type: (Standard)</p>	
<p>PFDA 2 (513.000/218.900 Da)</p> <p>RT (Exp. RT): 2.12 (2.18) min</p> <p>Calculated Conc: 1.37 µg/kg</p> <p>Area Ratio: 0.0909</p> <p>Sample Type: (Standard)</p>	
<p>8:2-FTS 1 (526.900/507.000 Da)</p> <p>RT (Exp. RT): 2.09 (2.16) min</p> <p>Calculated Conc: 1.17 µg/kg</p> <p>Area Ratio: 0.441</p> <p>Sample Type: (Standard)</p>	
<p>8:2-FTS 2 (526.900/80.900 Da)</p> <p>RT (Exp. RT): 2.09 (2.09) min</p> <p>Calculated Conc: 1.47 µg/kg</p> <p>Area Ratio: 0.237</p> <p>Sample Type: (Standard)</p>	

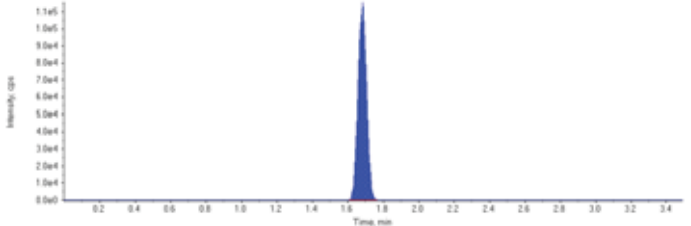
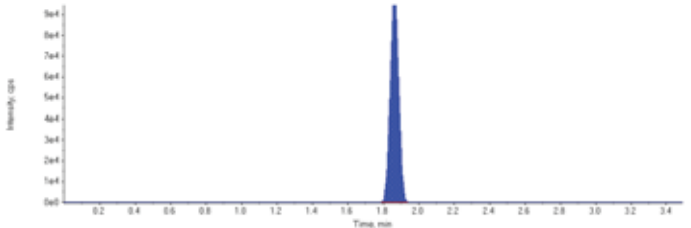
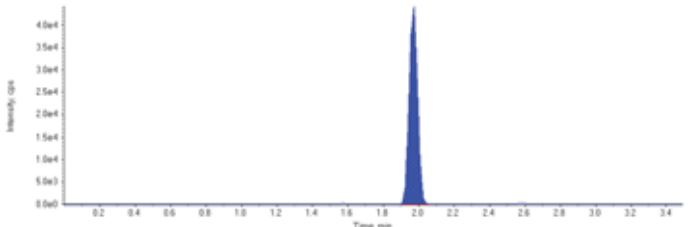
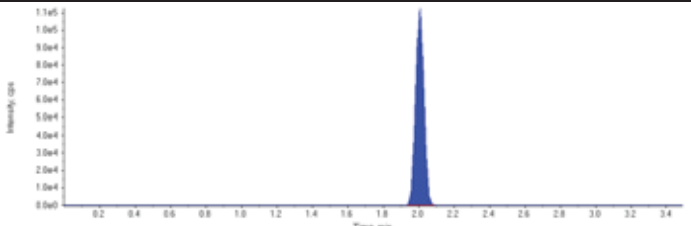
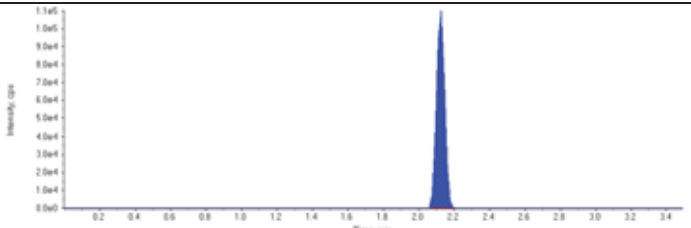
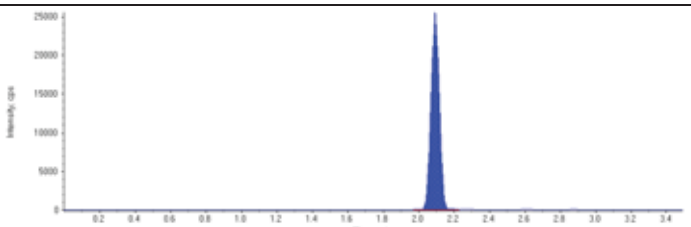
<p>13C4-PFHpa (366.900/322.000 Da)</p> <p>RT (Exp. RT): 1.68 (1.76) min</p> <p>Calculated Conc: 97.7 µg/kg</p> <p>Area Ratio: 0.357</p> <p>Sample Type: (Standard)</p>	
<p>13C4-PFOA (416.900/372.000 Da)</p> <p>RT (Exp. RT): 1.86 (1.93) min</p> <p>Calculated Conc: 95.6 µg/kg</p> <p>Area Ratio: 0.294</p> <p>Sample Type: (Standard)</p>	
<p>13C4-PFOS (502.900/79.900 Da)</p> <p>RT (Exp. RT): 1.97 (2.05) min</p> <p>Calculated Conc: 97.8 µg/kg</p> <p>Area Ratio: 0.137</p> <p>Sample Type: (Standard)</p>	
<p>13C5-PFNA (467.900/423.000 Da)</p> <p>RT (Exp. RT): 2.01 (2.07) min</p> <p>Calculated Conc: 98.1 µg/kg</p> <p>Area Ratio: 0.343</p> <p>Sample Type: (Standard)</p>	
<p>13C2-PFDA (514.900/470.000 Da)</p> <p>RT (Exp. RT): 2.12 (2.18) min</p> <p>Calculated Conc: 102. µg/kg</p> <p>Area Ratio: 0.336</p> <p>Sample Type: (Standard)</p>	
<p>13C2-8:2 FTS (528.900/80.900 Da)</p> <p>RT (Exp. RT): 2.09 (2.15) min</p> <p>Calculated Conc: 119. µg/kg</p> <p>Area Ratio: 0.110</p> <p>Sample Type: (Standard)</p>	

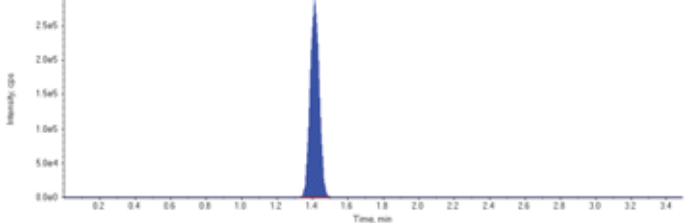
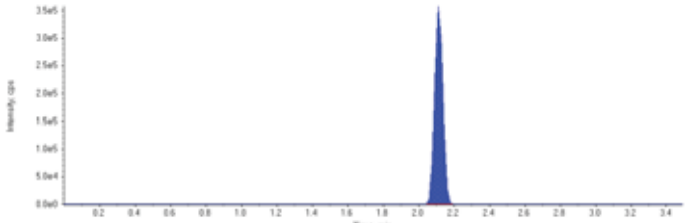
<p>13C6-PFHxA (318.900/274.000 Da)</p> <p>RT (Exp. RT): 1.41 (1.41) min</p> <p>Calculated Conc: 96.9 µg/kg</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Standard)</p>	
<p>13C9-PFDA (521.900/477.100 Da)</p> <p>RT (Exp. RT): 2.11 (2.18) min</p> <p>Calculated Conc: 101. µg/kg</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Standard)</p>	

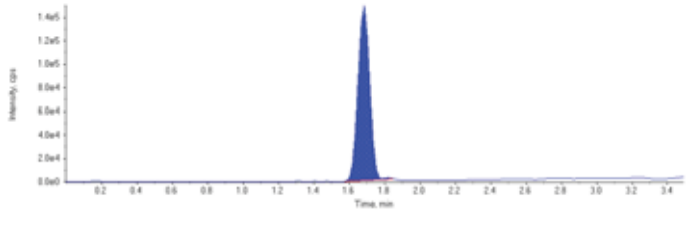
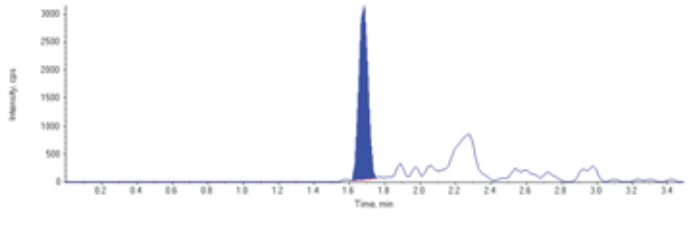
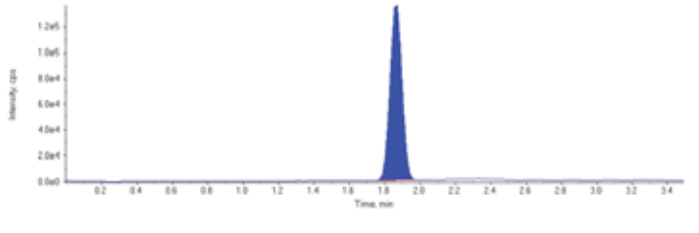
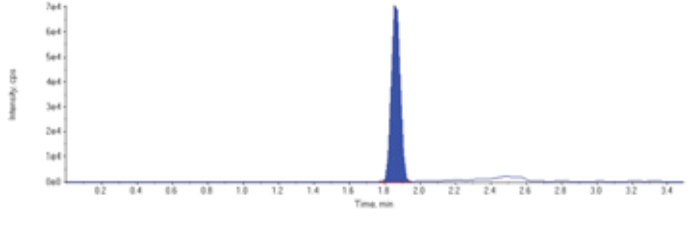
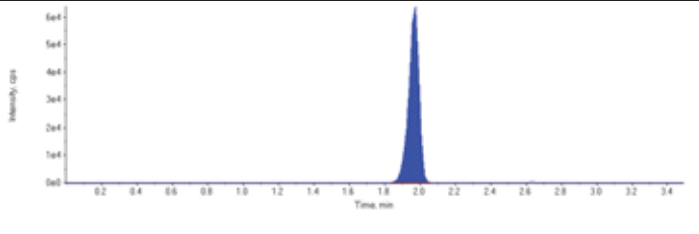
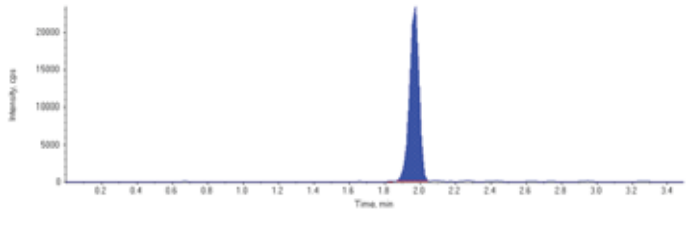
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Sample Type	Standard	Injection Vial	4
Acquisition Date	2017/06/13 1:41:23 PM	Dilution Factor	1.00
Acquisition Method	PFC_Soil.dam	Instrument Name	LCMS03
Project	Enviro\PFOS	Algorithm Used	Analyst Classic
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Result Table	PFC_Soil_170613_5023570_CT.rdb		
Samples Annotation	-		

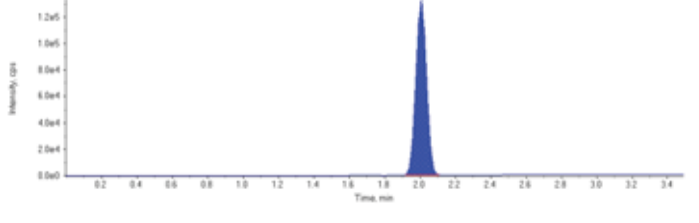
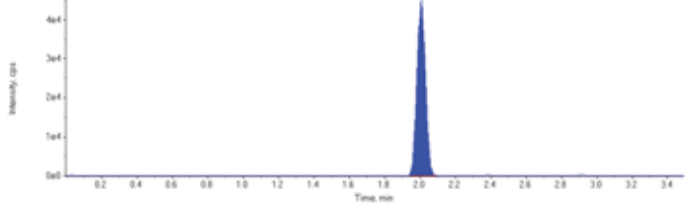
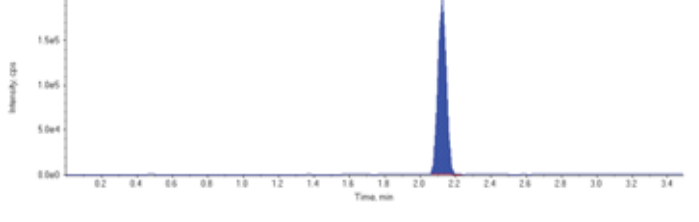
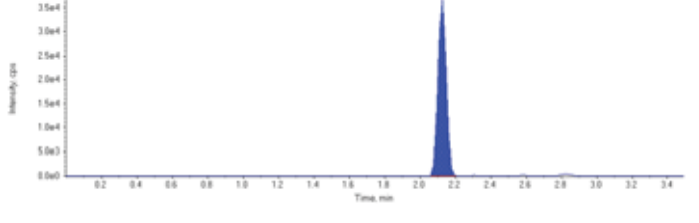
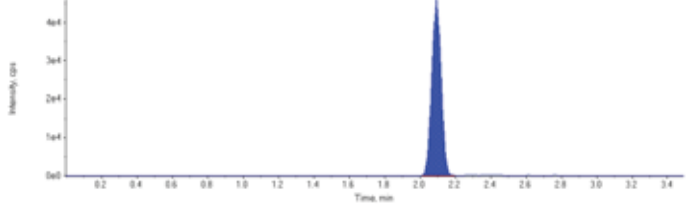
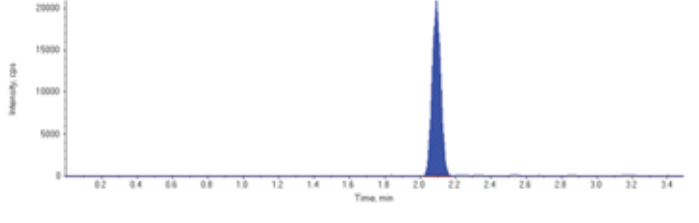
Internal Standard	Area (cps)	RT (min)	Target Conc. (ug/kg)	Calc. Conc. (ug/kg)
MPFHpA	384000.	1.68	1.00	-
MPFOA	332000.	1.86	1.00	-
MPFOS	146000.	1.97	1.00	-
MPFNA	371000.	2.01	1.00	-
MPFDA	362000.	2.12	1.00	-
M2 8:2 FTS	83400.	2.09	1.00	-
13C6-PFHxA IS	989000.	1.41	1.00	-
13C9-PFDA IS	1160000.	2.11	1.00	-
N/A	N/A	N/A	N/A	-
N/A	N/A	N/A	N/A	-

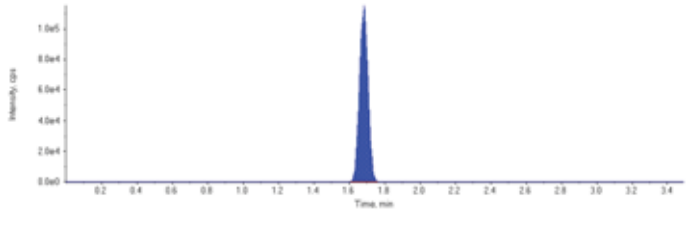
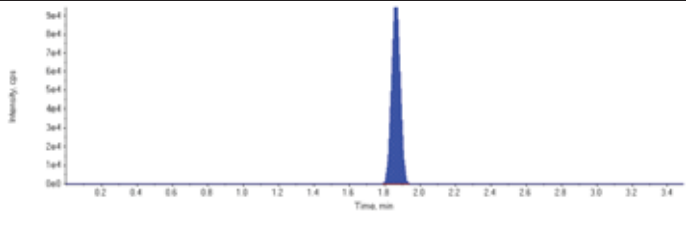
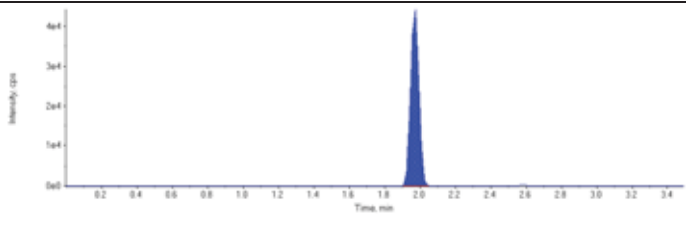
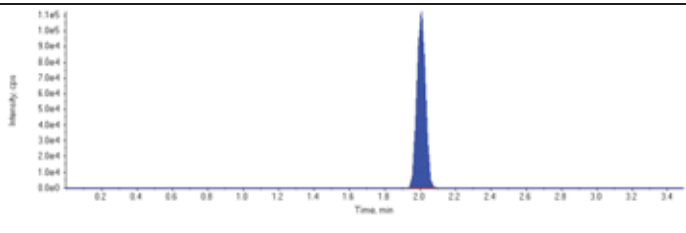
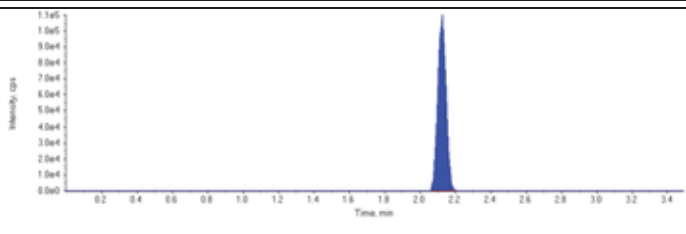
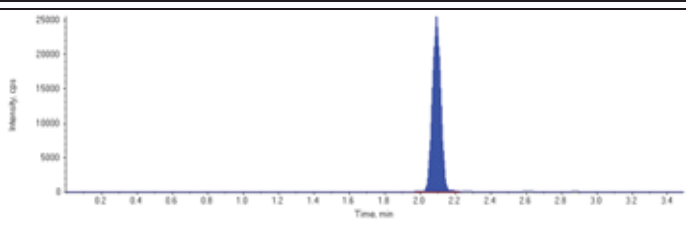
Target Analyte	Area (cps)	RT (min)	Target Conc. (ug/kg)	Calc. Conc. (ug/kg)	Accuracy (%)
PFHpA 1	687000	1.68	4.50	4.88	109.0
PFHpA 2	10900	1.68	4.50	5.01	111.0
PFOA 1	640000	1.86	4.50	4.81	107.0
PFOA 2	247000	1.86	4.50	4.89	109.0
PFOS 1	258000	1.97	4.50	4.39	97.6
PFOS 2	86400	1.97	4.50	4.55	101.0
PFNA 1	556000	2.01	4.50	4.53	101.0
PFNA 2	150000	2.01	4.50	5.06	113.0
PFDA 1	636000	2.13	4.50	4.68	104.0
PFDA 2	120000	2.12	4.50	4.75	106.0
8:2-FTS 1	170000	2.09	4.50	4.89	109.0
8:2-FTS 2	69600	2.09	4.50	5.14	114.0
13C4-PFHpA	384000	1.68	100.	106.	106.0
13C4-PFOA	332000	1.86	100.	109.	109.0
13C4-PFOS	146000	1.97	100.	105.	105.0
13C5-PFNA	371000	2.01	100.	107.	107.0
13C2-PFDA	362000	2.12	100.	94.4	94.4
13C2-8:2 FTS	83400	2.09	100.	91.6	91.6
13C6-PFHxA	989000	1.41	100.	95.6	95.6
13C9-PFDA	1160000	2.11	100.	105.	105.0

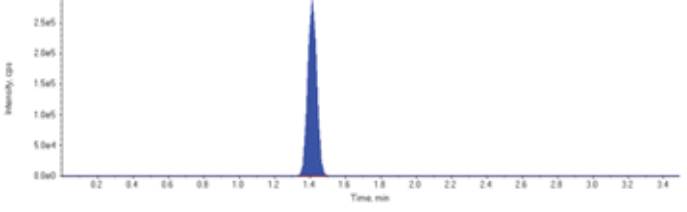
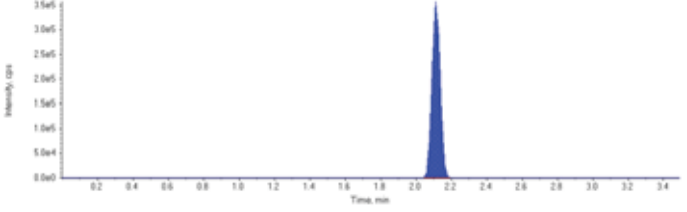
<p>MPFHpA (Internal Standard)</p> <p>RT (Exp. RT): 1.68(1.76) min</p> <p>Concentration: 1.00 ug/kg</p> <p>Sample Type: (Standard)</p>	
<p>MPFOA (Internal Standard)</p> <p>RT (Exp. RT): 1.86(1.93) min</p> <p>Concentration: 1.00 ug/kg</p> <p>Sample Type: (Standard)</p>	
<p>MPFOS (Internal Standard)</p> <p>RT (Exp. RT): 1.97(2.05) min</p> <p>Concentration: 1.00 ug/kg</p> <p>Sample Type: (Standard)</p>	
<p>MPFNA (Internal Standard)</p> <p>RT (Exp. RT): 2.01(2.07) min</p> <p>Concentration: 1.00 ug/kg</p> <p>Sample Type: (Standard)</p>	
<p>MPFDA (Internal Standard)</p> <p>RT (Exp. RT): 2.12(2.18) min</p> <p>Concentration: 1.00 ug/kg</p> <p>Sample Type: (Standard)</p>	
<p>M2 8:2 FTS (Internal Standard)</p> <p>RT (Exp. RT): 2.09(2.15) min</p> <p>Concentration: 1.00 ug/kg</p> <p>Sample Type: (Standard)</p>	

<p>13C6-PFHxA IS (Internal Standard)</p> <p>RT (Exp. RT): 1.41(1.41) min</p> <p>Concentration: 1.00 ug/kg</p> <p>Sample Type: (Standard)</p>	
<p>13C9-PFDA IS (Internal Standard)</p> <p>RT (Exp. RT): 2.11(2.18) min</p> <p>Concentration: 1.00 ug/kg</p> <p>Sample Type: (Standard)</p>	
<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min</p> <p>Concentration: N/A N/A</p> <p>Sample Type: (Standard)</p>	<p>This image is not available</p>
<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min</p> <p>Concentration: N/A N/A</p> <p>Sample Type: (Standard)</p>	<p>This image is not available</p>

<p>PFHpA 1 (363.000/319.000 Da)</p> <p>RT (Exp. RT): 1.68 (1.68) min</p> <p>Calculated Conc: 4.88 µg/kg</p> <p>Area Ratio: 1.79</p> <p>Sample Type: (Standard)</p>	
<p>PFHpA 2 (363.000/169.200 Da)</p> <p>RT (Exp. RT): 1.68 (1.68) min</p> <p>Calculated Conc: 5.01 µg/kg</p> <p>Area Ratio: 0.0284</p> <p>Sample Type: (Standard)</p>	
<p>PFOA 1 (413.100/369.000 Da)</p> <p>RT (Exp. RT): 1.86 (1.85) min</p> <p>Calculated Conc: 4.81 µg/kg</p> <p>Area Ratio: 1.93</p> <p>Sample Type: (Standard)</p>	
<p>PFOA 2 (413.100/169.000 Da)</p> <p>RT (Exp. RT): 1.86 (1.85) min</p> <p>Calculated Conc: 4.89 µg/kg</p> <p>Area Ratio: 0.743</p> <p>Sample Type: (Standard)</p>	
<p>PFOS 1 (498.900/79.900 Da)</p> <p>RT (Exp. RT): 1.97 (2.05) min</p> <p>Calculated Conc: 4.39 µg/kg</p> <p>Area Ratio: 1.77</p> <p>Sample Type: (Standard)</p>	
<p>PFOS 2 (498.900/98.900 Da)</p> <p>RT (Exp. RT): 1.97 (1.97) min</p> <p>Calculated Conc: 4.55 µg/kg</p> <p>Area Ratio: 0.593</p> <p>Sample Type: (Standard)</p>	

<p>PFNA 1 (462.900/419.000 Da)</p> <p>RT (Exp. RT): 2.01 (2.07) min</p> <p>Calculated Conc: 4.53 µg/kg</p> <p>Area Ratio: 1.50</p> <p>Sample Type: (Standard)</p>	
<p>PFNA 2 (462.900/219.100 Da)</p> <p>RT (Exp. RT): 2.01 (2.07) min</p> <p>Calculated Conc: 5.06 µg/kg</p> <p>Area Ratio: 0.403</p> <p>Sample Type: (Standard)</p>	
<p>PFDA 1 (513.000/469.100 Da)</p> <p>RT (Exp. RT): 2.13 (2.18) min</p> <p>Calculated Conc: 4.68 µg/kg</p> <p>Area Ratio: 1.76</p> <p>Sample Type: (Standard)</p>	
<p>PFDA 2 (513.000/218.900 Da)</p> <p>RT (Exp. RT): 2.12 (2.18) min</p> <p>Calculated Conc: 4.75 µg/kg</p> <p>Area Ratio: 0.331</p> <p>Sample Type: (Standard)</p>	
<p>8:2-FTS 1 (526.900/507.000 Da)</p> <p>RT (Exp. RT): 2.09 (2.16) min</p> <p>Calculated Conc: 4.89 µg/kg</p> <p>Area Ratio: 2.04</p> <p>Sample Type: (Standard)</p>	
<p>8:2-FTS 2 (526.900/80.900 Da)</p> <p>RT (Exp. RT): 2.09 (2.09) min</p> <p>Calculated Conc: 5.14 µg/kg</p> <p>Area Ratio: 0.835</p> <p>Sample Type: (Standard)</p>	

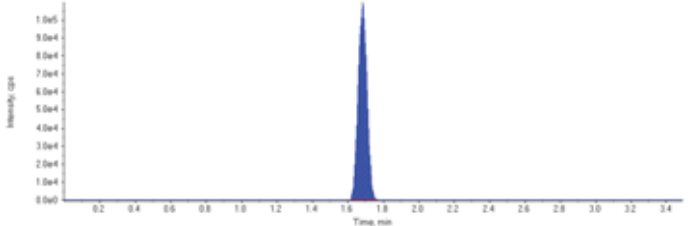
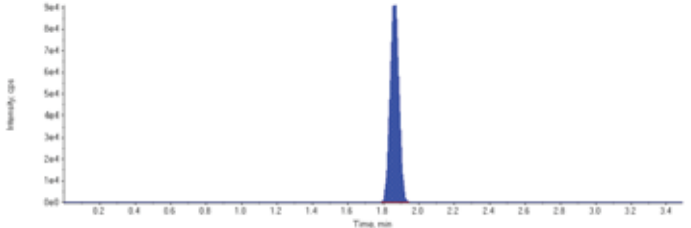
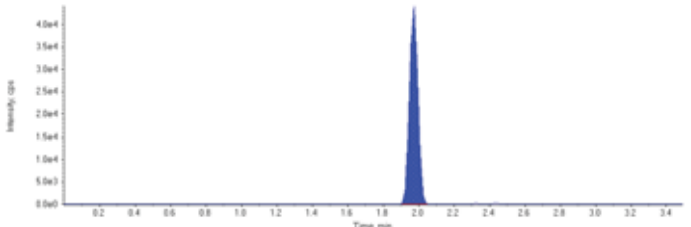
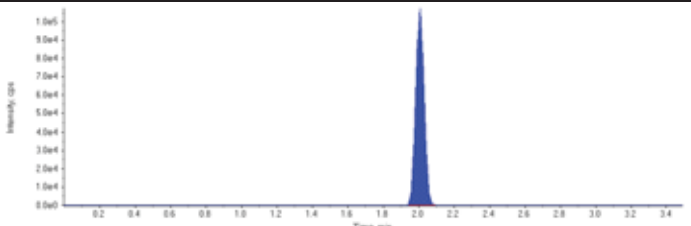
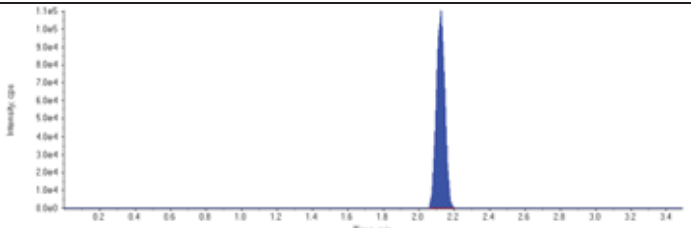
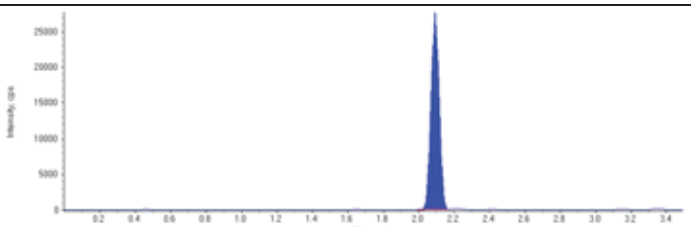
<p>13C4-PFH_pA (366.900/322.000 Da)</p> <p>RT (Exp. RT): 1.68 (1.76) min</p> <p>Calculated Conc: 106. µg/kg</p> <p>Area Ratio: 0.388</p> <p>Sample Type: (Standard)</p>	
<p>13C4-PFOA (416.900/372.000 Da)</p> <p>RT (Exp. RT): 1.86 (1.93) min</p> <p>Calculated Conc: 109. µg/kg</p> <p>Area Ratio: 0.336</p> <p>Sample Type: (Standard)</p>	
<p>13C4-PFOS (502.900/79.900 Da)</p> <p>RT (Exp. RT): 1.97 (2.05) min</p> <p>Calculated Conc: 105. µg/kg</p> <p>Area Ratio: 0.147</p> <p>Sample Type: (Standard)</p>	
<p>13C5-PFNA (467.900/423.000 Da)</p> <p>RT (Exp. RT): 2.01 (2.07) min</p> <p>Calculated Conc: 107. µg/kg</p> <p>Area Ratio: 0.375</p> <p>Sample Type: (Standard)</p>	
<p>13C2-PFDA (514.900/470.000 Da)</p> <p>RT (Exp. RT): 2.12 (2.18) min</p> <p>Calculated Conc: 94.4 µg/kg</p> <p>Area Ratio: 0.312</p> <p>Sample Type: (Standard)</p>	
<p>13C2-8:2 FTS (528.900/80.900 Da)</p> <p>RT (Exp. RT): 2.09 (2.15) min</p> <p>Calculated Conc: 91.6 µg/kg</p> <p>Area Ratio: 0.0843</p> <p>Sample Type: (Standard)</p>	

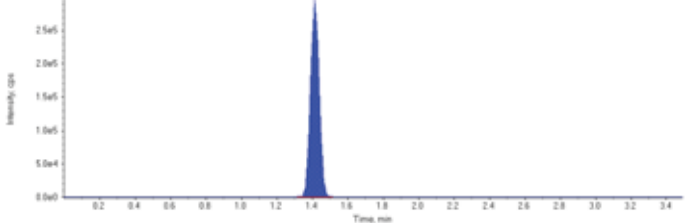
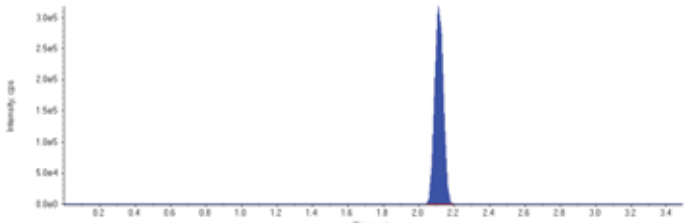
<p>13C6-PFHxA (318.900/274.000 Da)</p> <p>RT (Exp. RT): 1.41 (1.41) min</p> <p>Calculated Conc: 95.6 µg/kg</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Standard)</p>	
<p>13C9-PFDA (521.900/477.100 Da)</p> <p>RT (Exp. RT): 2.11 (2.18) min</p> <p>Calculated Conc: 105. µg/kg</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Standard)</p>	

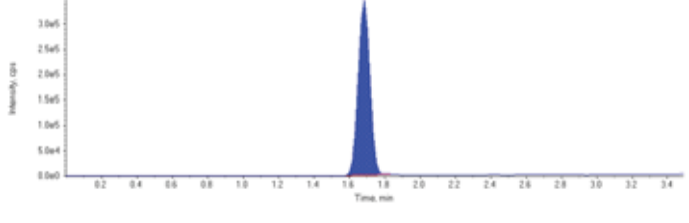
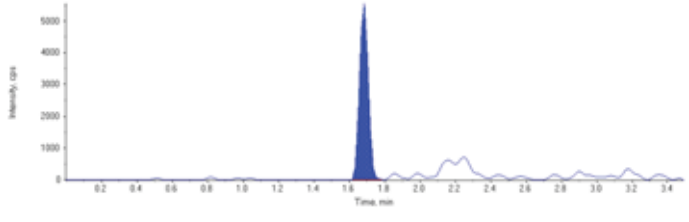
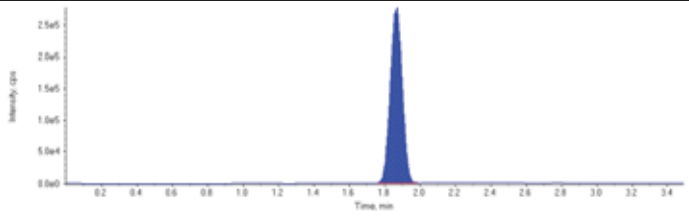
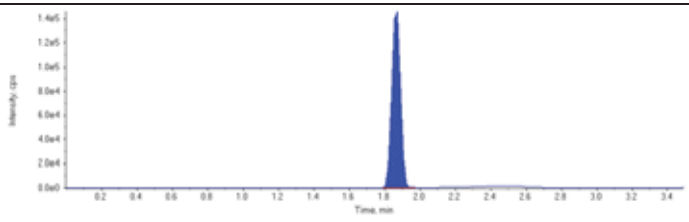
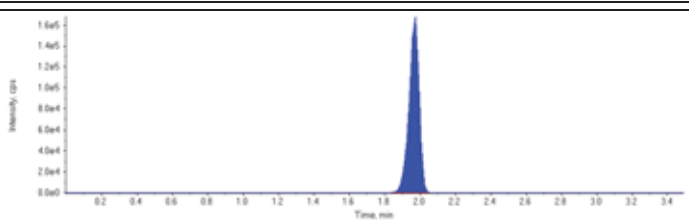
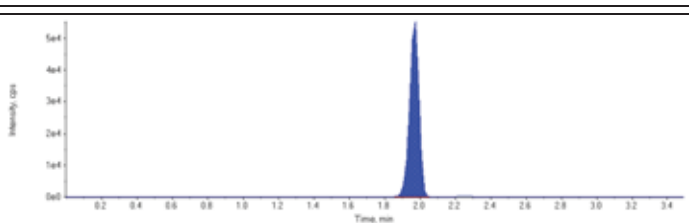
Sample ID	Std 4	Injection Volume (µL)	1
Sample Type	Standard	Injection Vial	5
Acquisition Date	2017/06/13 1:46:27 PM	Dilution Factor	1.00
Acquisition Method	PFC_Soil.dam	Instrument Name	LCMS03
Project	Enviro\PFOS	Algorithm Used	Analyst Classic
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Result Table	PFC_Soil_170613_5023570_CT.rdb		
Samples Annotation	-		

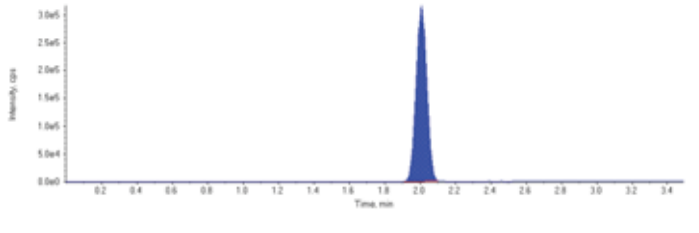
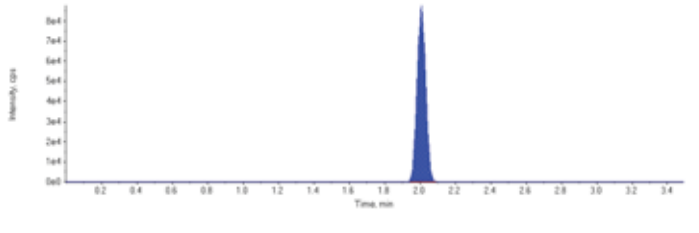
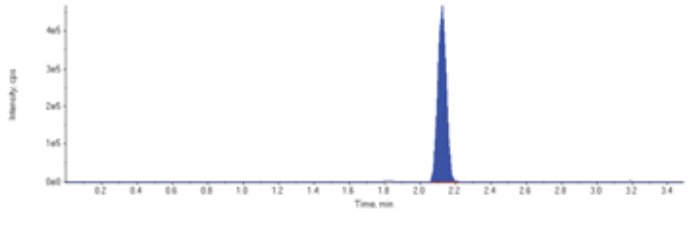
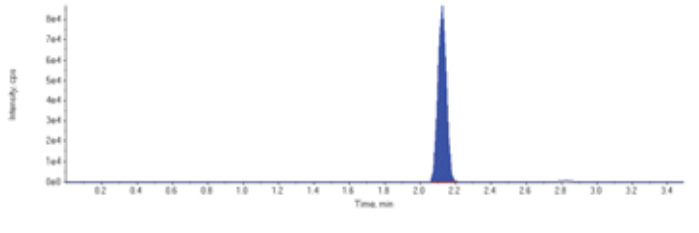
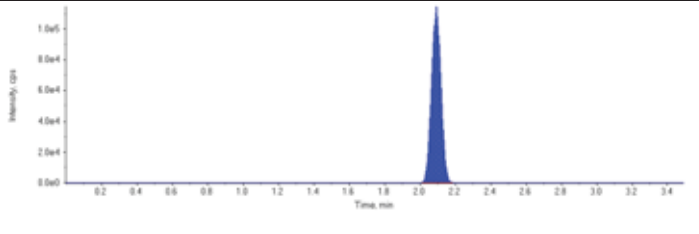
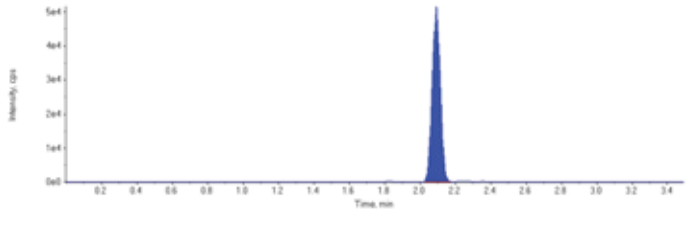
Internal Standard	Area (cps)	RT (min)	Target Conc. (ug/kg)	Calc. Conc. (ug/kg)
MPFHpA	373000.	1.68	1.00	-
MPFOA	322000.	1.86	1.00	-
MPFOS	146000.	1.97	1.00	-
MPFNA	357000.	2.01	1.00	-
MPFDA	366000.	2.12	1.00	-
M2 8:2 FTS	88300.	2.09	1.00	-
13C6-PFHxA IS	1000000.	1.41	1.00	-
13C9-PFDA IS	1060000.	2.11	1.00	-
N/A	N/A	N/A	N/A	-
N/A	N/A	N/A	N/A	-

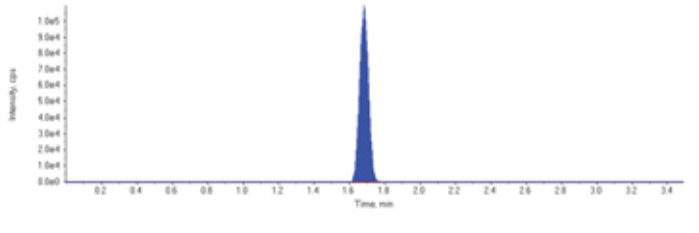
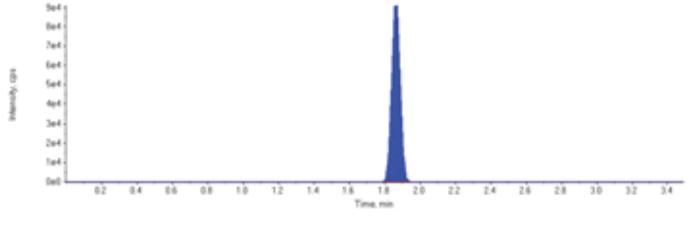
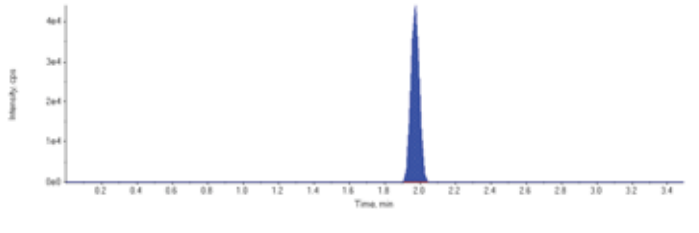
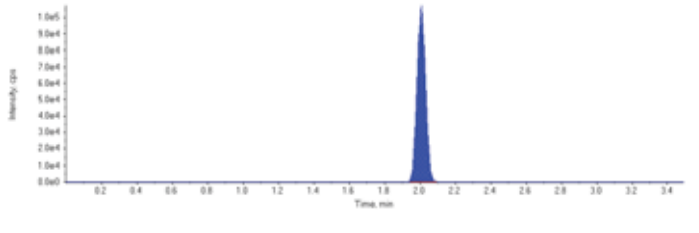
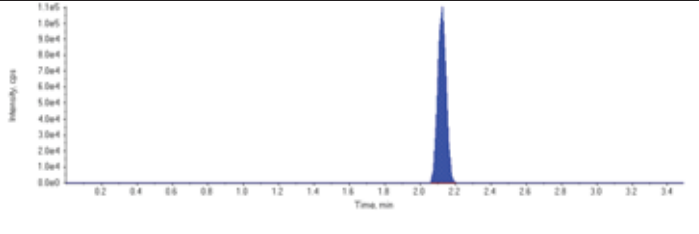
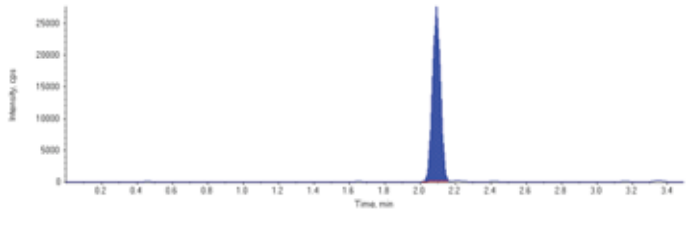
Target Analyte	Area (cps)	RT (min)	Target Conc. (ug/kg)	Calc. Conc. (ug/kg)	Accuracy (%)
PFHpA 1	1590000	1.68	11.3	11.4	101.0
PFHpA 2	19200	1.68	11.3	8.98	79.5
PFOA 1	1300000	1.87	11.3	10.0	88.6
PFOA 2	508000	1.87	11.3	10.4	91.6
PFOS 1	665000	1.97	11.3	11.3	99.7
PFOS 2	206000	1.97	11.3	10.8	95.5
PFNA 1	1320000	2.01	11.3	11.1	98.3
PFNA 2	293000	2.01	11.3	10.4	92.2
PFDA 1	1540000	2.12	11.3	11.1	98.5
PFDA 2	285000	2.13	11.3	11.1	97.8
8:2-FTS 1	430000	2.09	11.3	11.5	102.0
8:2-FTS 2	165000	2.09	11.3	11.5	102.0
13C4-PFHpA	373000	1.68	100.	102.	102.0
13C4-PFOA	322000	1.86	100.	104.	104.0
13C4-PFOS	146000	1.97	100.	104.	104.0
13C5-PFNA	357000	2.01	100.	102.	102.0
13C2-PFDA	366000	2.12	100.	105.	105.0
13C2-8:2 FTS	88300	2.09	100.	95.6	95.6
13C6-PFHxA	1000000	1.41	100.	97.0	97.0
13C9-PFDA	1060000	2.11	100.	96.2	96.2

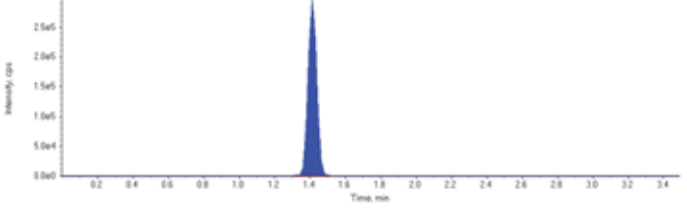
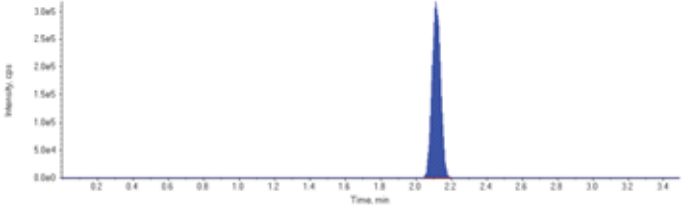
<p>MPFHpA (Internal Standard)</p> <p>RT (Exp. RT): 1.68(1.76) min</p> <p>Concentration: 1.00 ug/kg</p> <p>Sample Type: (Standard)</p>	
<p>MPFOA (Internal Standard)</p> <p>RT (Exp. RT): 1.86(1.93) min</p> <p>Concentration: 1.00 ug/kg</p> <p>Sample Type: (Standard)</p>	
<p>MPFOS (Internal Standard)</p> <p>RT (Exp. RT): 1.97(2.05) min</p> <p>Concentration: 1.00 ug/kg</p> <p>Sample Type: (Standard)</p>	
<p>MPFNA (Internal Standard)</p> <p>RT (Exp. RT): 2.01(2.07) min</p> <p>Concentration: 1.00 ug/kg</p> <p>Sample Type: (Standard)</p>	
<p>MPFDA (Internal Standard)</p> <p>RT (Exp. RT): 2.12(2.18) min</p> <p>Concentration: 1.00 ug/kg</p> <p>Sample Type: (Standard)</p>	
<p>M2 8:2 FTS (Internal Standard)</p> <p>RT (Exp. RT): 2.09(2.15) min</p> <p>Concentration: 1.00 ug/kg</p> <p>Sample Type: (Standard)</p>	

<p>13C6-PFHxA IS (Internal Standard)</p> <p>RT (Exp. RT): 1.41(1.41) min</p> <p>Concentration: 1.00 ug/kg</p> <p>Sample Type: (Standard)</p>	
<p>13C9-PFDA IS (Internal Standard)</p> <p>RT (Exp. RT): 2.11(2.18) min</p> <p>Concentration: 1.00 ug/kg</p> <p>Sample Type: (Standard)</p>	
<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min</p> <p>Concentration: N/A N/A</p> <p>Sample Type: (Standard)</p>	<p>This image is not available</p>
<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min</p> <p>Concentration: N/A N/A</p> <p>Sample Type: (Standard)</p>	<p>This image is not available</p>

<p>PFHpA 1 (363.000/319.000 Da)</p> <p>RT (Exp. RT): 1.68 (1.68) min</p> <p>Calculated Conc: 11.4 µg/kg</p> <p>Area Ratio: 4.26</p> <p>Sample Type: (Standard)</p>	
<p>PFHpA 2 (363.000/169.200 Da)</p> <p>RT (Exp. RT): 1.68 (1.68) min</p> <p>Calculated Conc: 8.98 µg/kg</p> <p>Area Ratio: 0.0515</p> <p>Sample Type: (Standard)</p>	
<p>PFOA 1 (413.100/369.000 Da)</p> <p>RT (Exp. RT): 1.87 (1.85) min</p> <p>Calculated Conc: 10.0 µg/kg</p> <p>Area Ratio: 4.03</p> <p>Sample Type: (Standard)</p>	
<p>PFOA 2 (413.100/169.000 Da)</p> <p>RT (Exp. RT): 1.87 (1.85) min</p> <p>Calculated Conc: 10.4 µg/kg</p> <p>Area Ratio: 1.58</p> <p>Sample Type: (Standard)</p>	
<p>PFOS 1 (498.900/79.900 Da)</p> <p>RT (Exp. RT): 1.97 (2.05) min</p> <p>Calculated Conc: 11.3 µg/kg</p> <p>Area Ratio: 4.57</p> <p>Sample Type: (Standard)</p>	
<p>PFOS 2 (498.900/98.900 Da)</p> <p>RT (Exp. RT): 1.97 (1.97) min</p> <p>Calculated Conc: 10.8 µg/kg</p> <p>Area Ratio: 1.41</p> <p>Sample Type: (Standard)</p>	

<p>PFNA 1 (462.900/419.000 Da)</p> <p>RT (Exp. RT): 2.01 (2.07) min</p> <p>Calculated Conc: 11.1 µg/kg</p> <p>Area Ratio: 3.70</p> <p>Sample Type: (Standard)</p>	
<p>PFNA 2 (462.900/219.100 Da)</p> <p>RT (Exp. RT): 2.01 (2.07) min</p> <p>Calculated Conc: 10.4 µg/kg</p> <p>Area Ratio: 0.821</p> <p>Sample Type: (Standard)</p>	
<p>PFDA 1 (513.000/469.100 Da)</p> <p>RT (Exp. RT): 2.12 (2.18) min</p> <p>Calculated Conc: 11.1 µg/kg</p> <p>Area Ratio: 4.20</p> <p>Sample Type: (Standard)</p>	
<p>PFDA 2 (513.000/218.900 Da)</p> <p>RT (Exp. RT): 2.13 (2.18) min</p> <p>Calculated Conc: 11.1 µg/kg</p> <p>Area Ratio: 0.778</p> <p>Sample Type: (Standard)</p>	
<p>8:2-FTS 1 (526.900/507.000 Da)</p> <p>RT (Exp. RT): 2.09 (2.16) min</p> <p>Calculated Conc: 11.5 µg/kg</p> <p>Area Ratio: 4.87</p> <p>Sample Type: (Standard)</p>	
<p>8:2-FTS 2 (526.900/80.900 Da)</p> <p>RT (Exp. RT): 2.09 (2.09) min</p> <p>Calculated Conc: 11.5 µg/kg</p> <p>Area Ratio: 1.87</p> <p>Sample Type: (Standard)</p>	

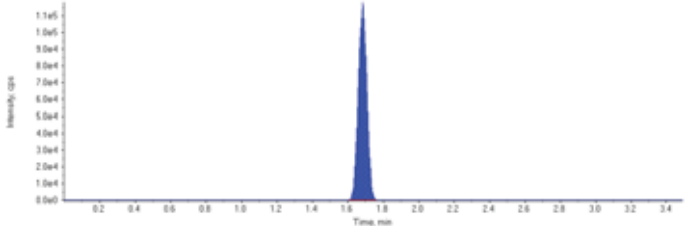
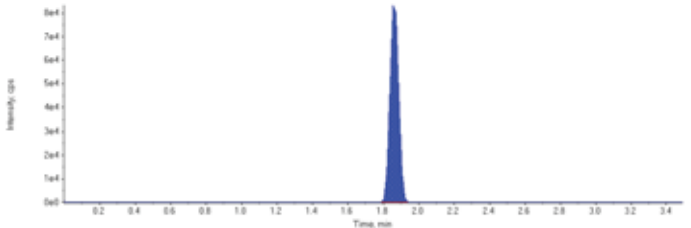
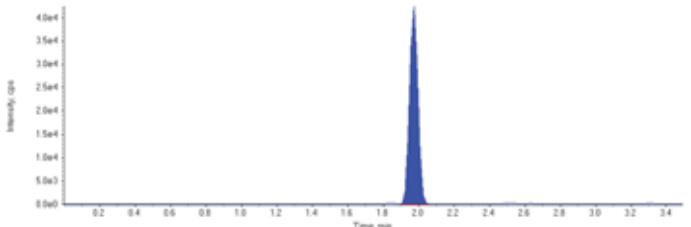
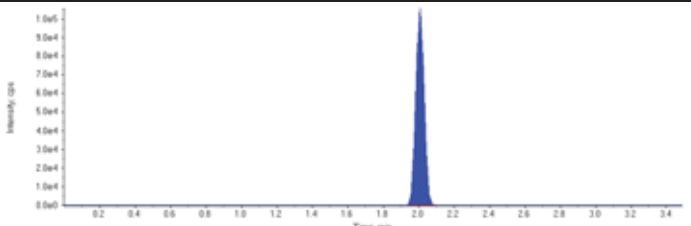
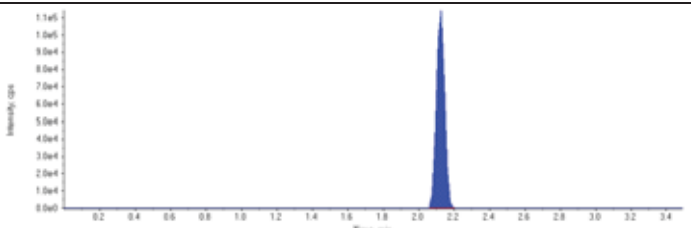
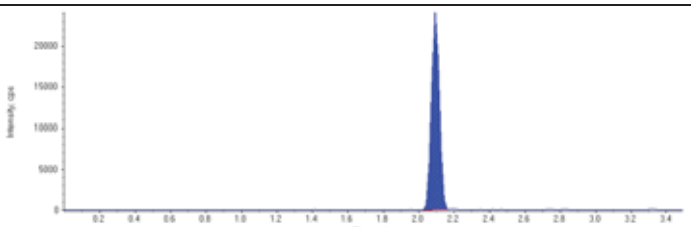
<p>13C4-PFH_pA (366.900/322.000 Da)</p> <p>RT (Exp. RT): 1.68 (1.76) min</p> <p>Calculated Conc: 102. µg/kg</p> <p>Area Ratio: 0.372</p> <p>Sample Type: (Standard)</p>	
<p>13C4-PFOA (416.900/372.000 Da)</p> <p>RT (Exp. RT): 1.86 (1.93) min</p> <p>Calculated Conc: 104. µg/kg</p> <p>Area Ratio: 0.321</p> <p>Sample Type: (Standard)</p>	
<p>13C4-PFOS (502.900/79.900 Da)</p> <p>RT (Exp. RT): 1.97 (2.05) min</p> <p>Calculated Conc: 104. µg/kg</p> <p>Area Ratio: 0.145</p> <p>Sample Type: (Standard)</p>	
<p>13C5-PFNA (467.900/423.000 Da)</p> <p>RT (Exp. RT): 2.01 (2.07) min</p> <p>Calculated Conc: 102. µg/kg</p> <p>Area Ratio: 0.356</p> <p>Sample Type: (Standard)</p>	
<p>13C2-PFDA (514.900/470.000 Da)</p> <p>RT (Exp. RT): 2.12 (2.18) min</p> <p>Calculated Conc: 105. µg/kg</p> <p>Area Ratio: 0.347</p> <p>Sample Type: (Standard)</p>	
<p>13C2-8:2 FTS (528.900/80.900 Da)</p> <p>RT (Exp. RT): 2.09 (2.15) min</p> <p>Calculated Conc: 95.6 µg/kg</p> <p>Area Ratio: 0.0879</p> <p>Sample Type: (Standard)</p>	

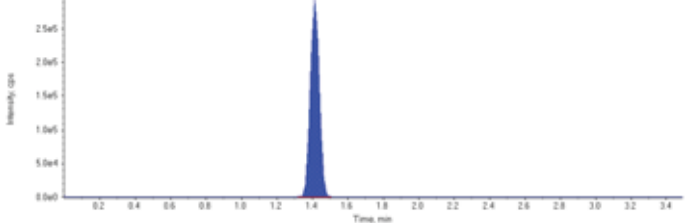
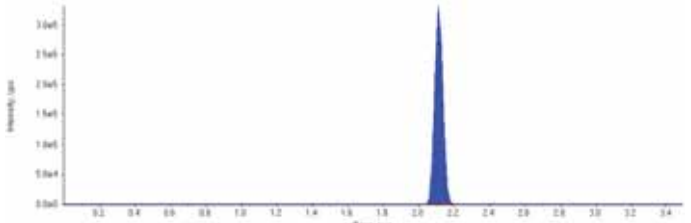
<p>13C6-PFHxA (318.900/274.000 Da)</p> <p>RT (Exp. RT): 1.41 (1.41) min</p> <p>Calculated Conc: 97.0 µg/kg</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Standard)</p>	
<p>13C9-PFDA (521.900/477.100 Da)</p> <p>RT (Exp. RT): 2.11 (2.18) min</p> <p>Calculated Conc: 96.2 µg/kg</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Standard)</p>	

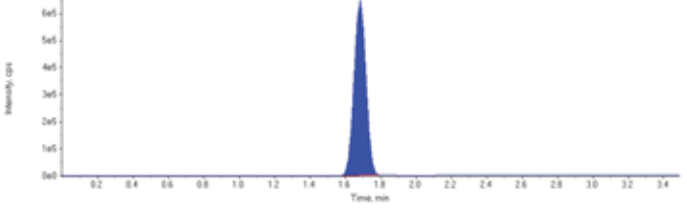
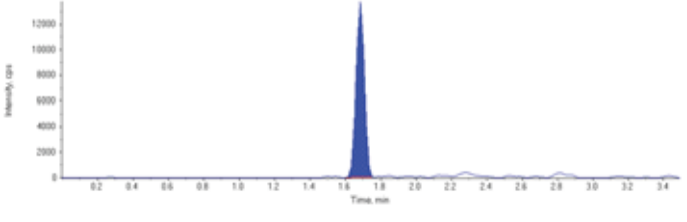
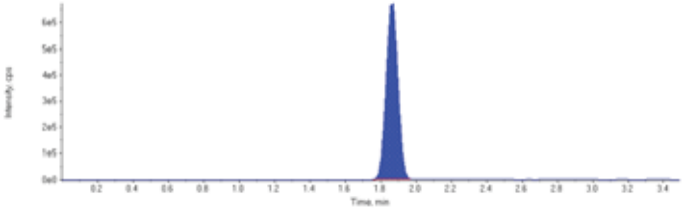
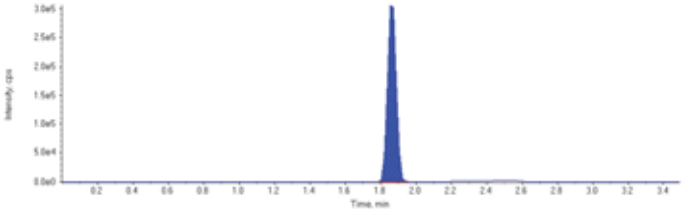
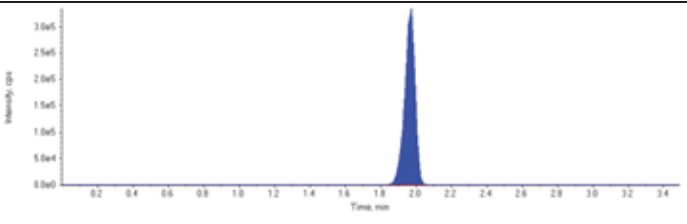
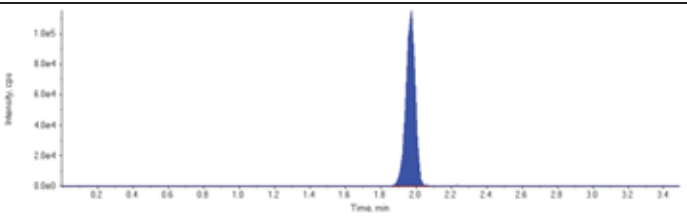
Sample ID	Std 5	Injection Volume (µL)	1
Sample Type	Quality Control	Injection Vial	6
Acquisition Date	2017/06/13 1:51:31 PM	Dilution Factor	1.00
Acquisition Method	PFC_Soil.dam	Instrument Name	LCMS03
Project	Enviro\PFOS	Algorithm Used	Analyst Classic
Data File	PFC_170613\WS#5023570.wiff		
Result Table	PFC_Soil_170613_5023570_CT.rdb		
Samples Annotation	-		

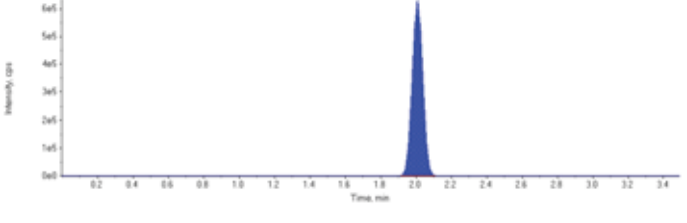
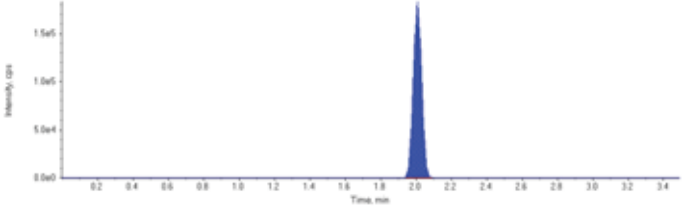
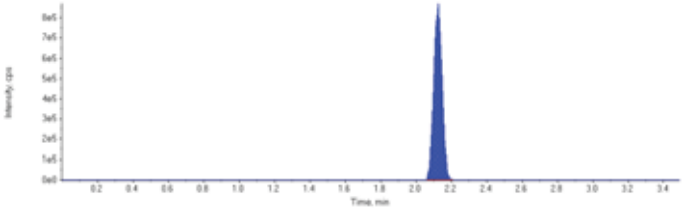
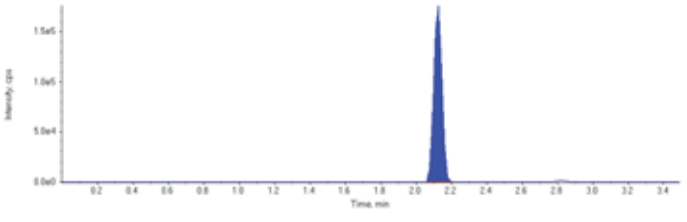
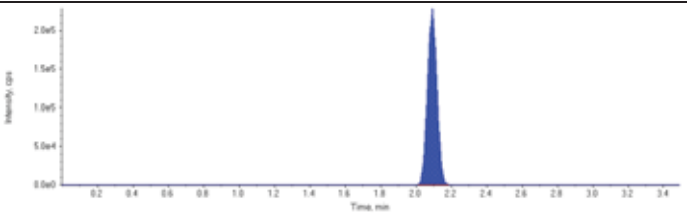
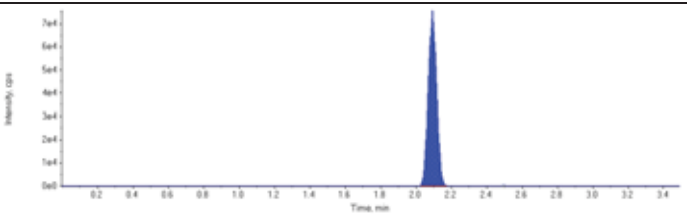
Internal Standard	Area (cps)	RT (min)	Target Conc. (ug/kg)	Calc. Conc. (ug/kg)
MPFHpA	392000.	1.68	1.00	-
MPFOA	291000.	1.86	1.00	-
MPFOS	138000.	1.97	1.00	-
MPFNA	345000.	2.01	1.00	-
MPFDA	372000.	2.12	1.00	-
M2 8:2 FTS	75200.	2.09	1.00	-
13C6-PFHxA IS	1020000.	1.41	1.00	-
13C9-PFDA IS	1080000.	2.11	1.00	-
N/A	N/A	N/A	N/A	-
N/A	N/A	N/A	N/A	-

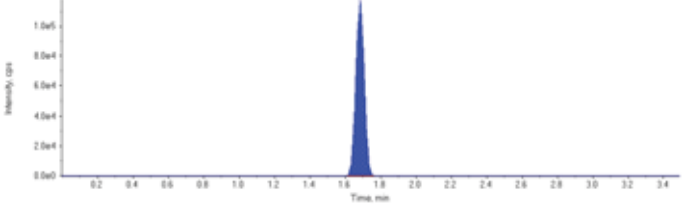
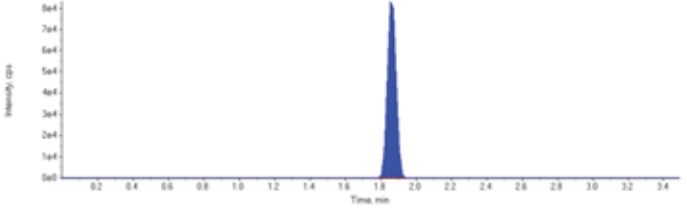
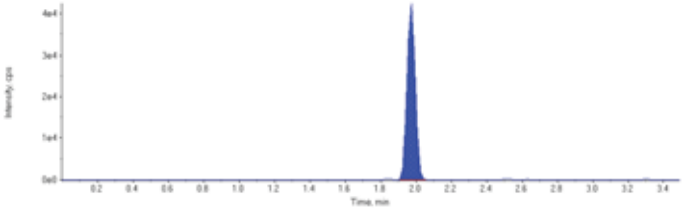
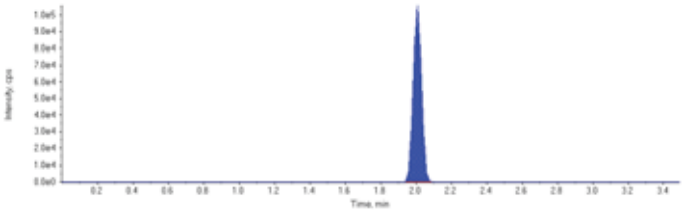
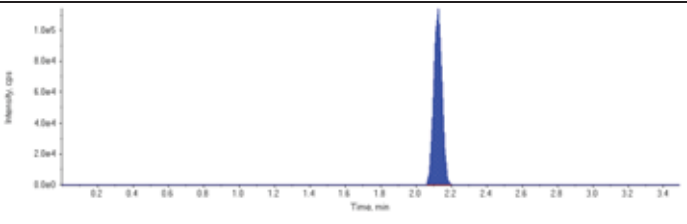
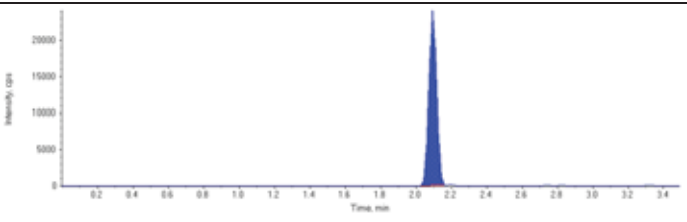
Target Analyte	Area (cps)	RT (min)	Target Conc. (ug/kg)	Calc. Conc. (ug/kg)	Accuracy (%)
PFHpA 1	3010000	1.68	22.5	20.5	91.2
PFHpA 2	45600	1.68	22.5	20.1	89.5
PFOA 1	3150000	1.86	22.5	26.9	120.0
PFOA 2	1080000	1.86	22.5	24.3	108.0
PFOS 1	1360000	1.97	22.5	24.2	107.0
PFOS 2	415000	1.97	22.5	22.9	102.0
PFNA 1	2640000	2.01	22.5	22.9	102.0
PFNA 2	605000	2.01	22.5	22.4	99.5
PFDA 1	2870000	2.12	22.5	20.4	90.6
PFDA 2	577000	2.12	22.5	21.9	97.5
8:2-FTS 1	864000	2.09	22.5	26.8	119.0
8:2-FTS 2	251000	2.09	22.5	20.5	91.2
13C4-PFHpA	392000	1.68	100.	105.	105.0
13C4-PFOA	291000	1.86	100.	92.6	92.6
13C4-PFOS	138000	1.97	100.	96.9	96.9
13C5-PFNA	345000	2.01	100.	96.6	96.6
13C2-PFDA	372000	2.12	100.	104.	104.0
13C2-8:2 FTS	75200	2.09	100.	80.0	80.0
13C6-PFHxA	1020000	1.41	100.	98.8	98.8
13C9-PFDA	1080000	2.11	100.	98.2	98.2

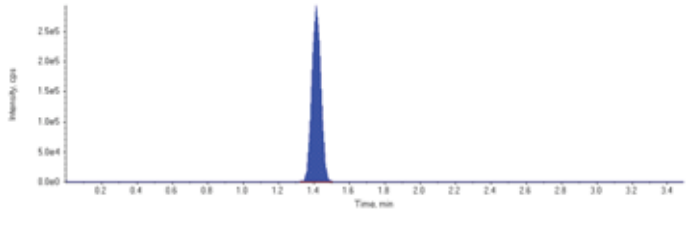
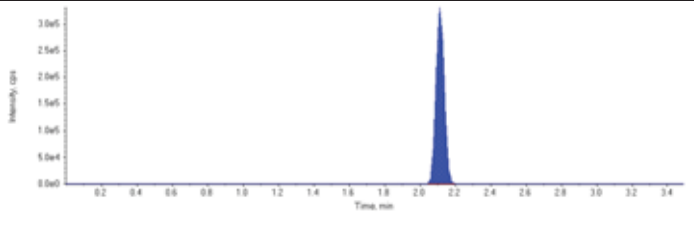
<p>MPFHpA (Internal Standard)</p> <p>RT (Exp. RT): 1.68(1.76) min</p> <p>Concentration: 1.00 ug/kg</p> <p>Sample Type: (Quality Control)</p>	
<p>MPFOA (Internal Standard)</p> <p>RT (Exp. RT): 1.86(1.93) min</p> <p>Concentration: 1.00 ug/kg</p> <p>Sample Type: (Quality Control)</p>	
<p>MPFOS (Internal Standard)</p> <p>RT (Exp. RT): 1.97(2.05) min</p> <p>Concentration: 1.00 ug/kg</p> <p>Sample Type: (Quality Control)</p>	
<p>MPFNA (Internal Standard)</p> <p>RT (Exp. RT): 2.01(2.07) min</p> <p>Concentration: 1.00 ug/kg</p> <p>Sample Type: (Quality Control)</p>	
<p>MPFDA (Internal Standard)</p> <p>RT (Exp. RT): 2.12(2.18) min</p> <p>Concentration: 1.00 ug/kg</p> <p>Sample Type: (Quality Control)</p>	
<p>M2 8:2 FTS (Internal Standard)</p> <p>RT (Exp. RT): 2.09(2.15) min</p> <p>Concentration: 1.00 ug/kg</p> <p>Sample Type: (Quality Control)</p>	

<p>13C6-PFHxA IS (Internal Standard)</p> <p>RT (Exp. RT): 1.41(1.41) min</p> <p>Concentration: 1.00 ug/kg</p> <p>Sample Type: (Quality Control)</p>	
<p>13C9-PFDA IS (Internal Standard)</p> <p>RT (Exp. RT): 2.11(2.18) min</p> <p>Concentration: 1.00 ug/kg</p> <p>Sample Type: (Quality Control)</p>	
<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min</p> <p>Concentration: N/A N/A</p> <p>Sample Type: (Quality Control)</p>	<p>This image is not available</p>
<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min</p> <p>Concentration: N/A N/A</p> <p>Sample Type: (Quality Control)</p>	<p>This image is not available</p>

<p>PFHpA 1 (363.000/319.000 Da)</p> <p>RT (Exp. RT): 1.68 (1.68) min</p> <p>Calculated Conc: 20.5 µg/kg</p> <p>Area Ratio: 7.68</p> <p>Sample Type: (Quality Control)</p>	
<p>PFHpA 2 (363.000/169.200 Da)</p> <p>RT (Exp. RT): 1.68 (1.68) min</p> <p>Calculated Conc: 20.1 µg/kg</p> <p>Area Ratio: 0.116</p> <p>Sample Type: (Quality Control)</p>	
<p>PFOA 1 (413.100/369.000 Da)</p> <p>RT (Exp. RT): 1.86 (1.85) min</p> <p>Calculated Conc: 26.9 µg/kg</p> <p>Area Ratio: 10.9</p> <p>Sample Type: (Quality Control)</p>	
<p>PFOA 2 (413.100/169.000 Da)</p> <p>RT (Exp. RT): 1.86 (1.85) min</p> <p>Calculated Conc: 24.3 µg/kg</p> <p>Area Ratio: 3.72</p> <p>Sample Type: (Quality Control)</p>	
<p>PFOS 1 (498.900/79.900 Da)</p> <p>RT (Exp. RT): 1.97 (2.05) min</p> <p>Calculated Conc: 24.2 µg/kg</p> <p>Area Ratio: 9.82</p> <p>Sample Type: (Quality Control)</p>	
<p>PFOS 2 (498.900/98.900 Da)</p> <p>RT (Exp. RT): 1.97 (1.97) min</p> <p>Calculated Conc: 22.9 µg/kg</p> <p>Area Ratio: 2.99</p> <p>Sample Type: (Quality Control)</p>	

<p>PFNA 1 (462.900/419.000 Da)</p> <p>RT (Exp. RT): 2.01 (2.07) min</p> <p>Calculated Conc: 22.9 µg/kg</p> <p>Area Ratio: 7.64</p> <p>Sample Type: (Quality Control)</p>	
<p>PFNA 2 (462.900/219.100 Da)</p> <p>RT (Exp. RT): 2.01 (2.07) min</p> <p>Calculated Conc: 22.4 µg/kg</p> <p>Area Ratio: 1.75</p> <p>Sample Type: (Quality Control)</p>	
<p>PFDA 1 (513.000/469.100 Da)</p> <p>RT (Exp. RT): 2.12 (2.18) min</p> <p>Calculated Conc: 20.4 µg/kg</p> <p>Area Ratio: 7.70</p> <p>Sample Type: (Quality Control)</p>	
<p>PFDA 2 (513.000/218.900 Da)</p> <p>RT (Exp. RT): 2.12 (2.18) min</p> <p>Calculated Conc: 21.9 µg/kg</p> <p>Area Ratio: 1.55</p> <p>Sample Type: (Quality Control)</p>	
<p>8:2-FTS 1 (526.900/507.000 Da)</p> <p>RT (Exp. RT): 2.09 (2.16) min</p> <p>Calculated Conc: 26.8 µg/kg</p> <p>Area Ratio: 11.5</p> <p>Sample Type: (Quality Control)</p>	
<p>8:2-FTS 2 (526.900/80.900 Da)</p> <p>RT (Exp. RT): 2.09 (2.09) min</p> <p>Calculated Conc: 20.5 µg/kg</p> <p>Area Ratio: 3.34</p> <p>Sample Type: (Quality Control)</p>	

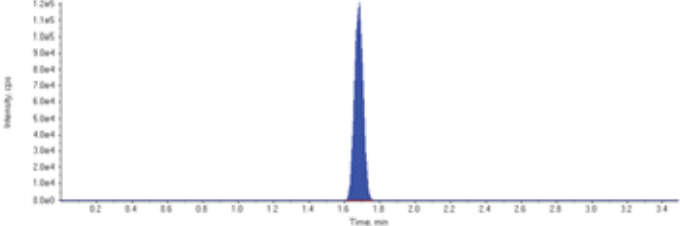
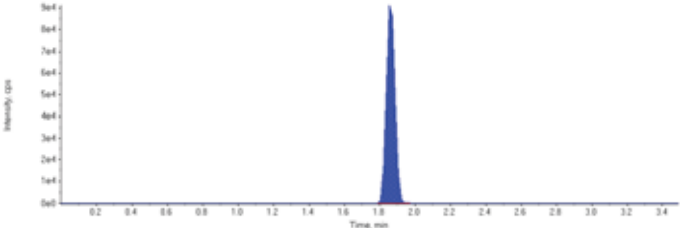
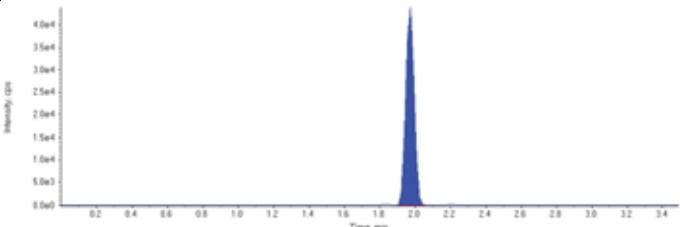
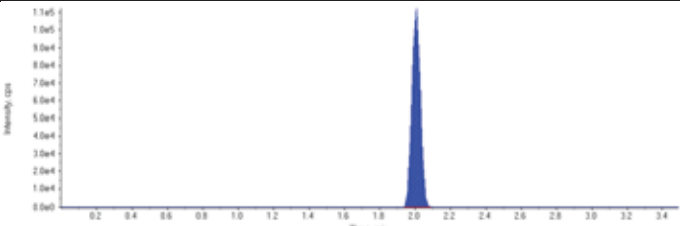
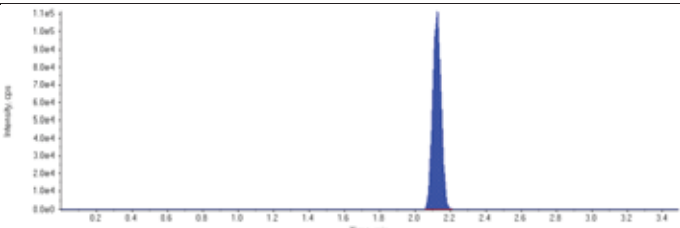
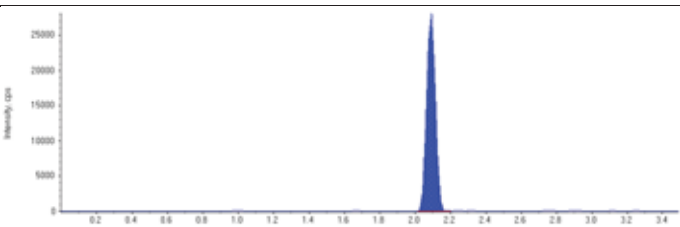
<p>13C4-PFH_pA (366.900/322.000 Da)</p> <p>RT (Exp. RT): 1.68 (1.76) min</p> <p>Calculated Conc: 105. µg/kg</p> <p>Area Ratio: 0.383</p> <p>Sample Type: (Quality Control)</p>	
<p>13C4-PFOA (416.900/372.000 Da)</p> <p>RT (Exp. RT): 1.86 (1.93) min</p> <p>Calculated Conc: 92.6 µg/kg</p> <p>Area Ratio: 0.284</p> <p>Sample Type: (Quality Control)</p>	
<p>13C4-PFOS (502.900/79.900 Da)</p> <p>RT (Exp. RT): 1.97 (2.05) min</p> <p>Calculated Conc: 96.9 µg/kg</p> <p>Area Ratio: 0.135</p> <p>Sample Type: (Quality Control)</p>	
<p>13C5-PFNA (467.900/423.000 Da)</p> <p>RT (Exp. RT): 2.01 (2.07) min</p> <p>Calculated Conc: 96.6 µg/kg</p> <p>Area Ratio: 0.338</p> <p>Sample Type: (Quality Control)</p>	
<p>13C2-PFDA (514.900/470.000 Da)</p> <p>RT (Exp. RT): 2.12 (2.18) min</p> <p>Calculated Conc: 104. µg/kg</p> <p>Area Ratio: 0.344</p> <p>Sample Type: (Quality Control)</p>	
<p>13C2-8:2 FTS (528.900/80.900 Da)</p> <p>RT (Exp. RT): 2.09 (2.15) min</p> <p>Calculated Conc: 80.0 µg/kg</p> <p>Area Ratio: 0.0736</p> <p>Sample Type: (Quality Control)</p>	

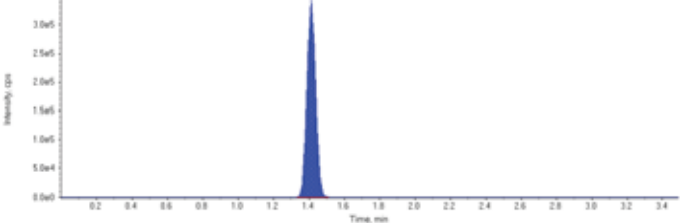
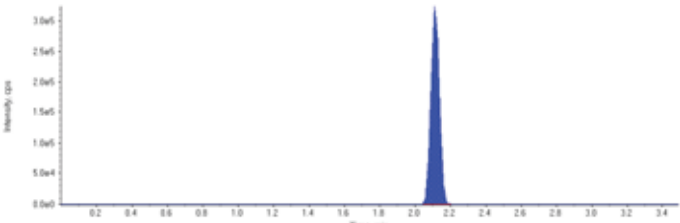
<p>13C6-PFHxA (318.900/274.000 Da)</p> <p>RT (Exp. RT): 1.41 (1.41) min</p> <p>Calculated Conc: 98.8 µg/kg</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Quality Control)</p>	
<p>13C9-PFDA (521.900/477.100 Da)</p> <p>RT (Exp. RT): 2.11 (2.18) min</p> <p>Calculated Conc: 98.2 µg/kg</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Quality Control)</p>	

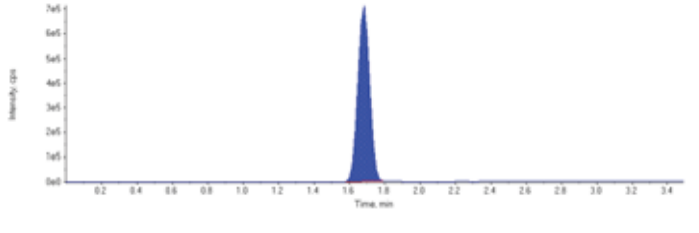
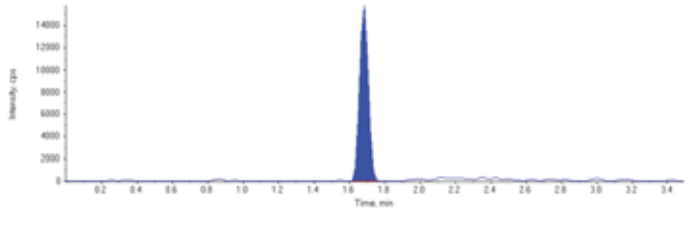
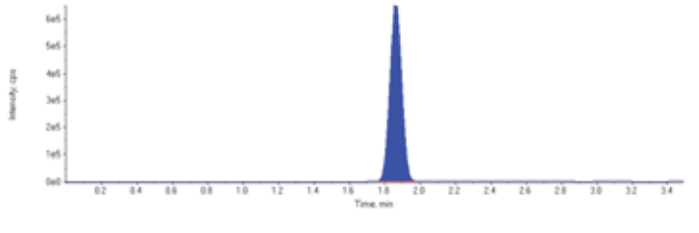
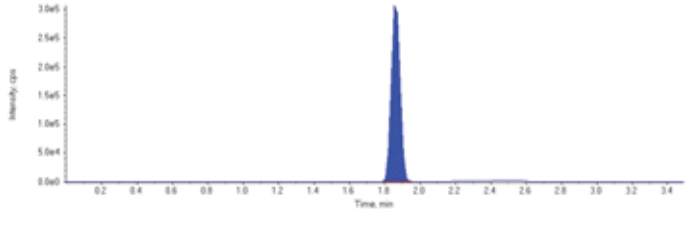
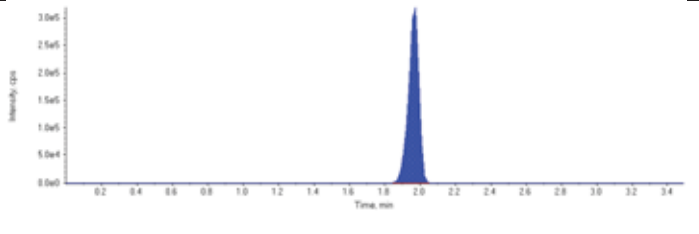
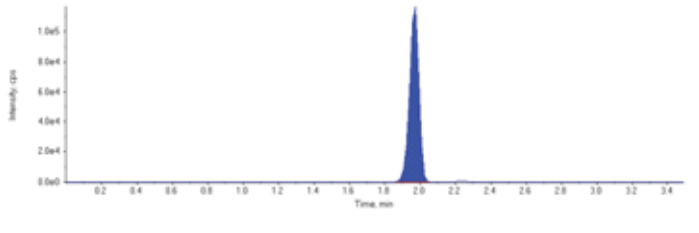
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Sample Type	Standard	Injection Vial	6
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Acquisition Method	PFC_Soil.dam	Instrument Name	LCMS03
Project	Enviro\PFOS	Algorithm Used	Analyst Classic
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Result Table	PFC_Soil_170613_5023570_CT.rdb		
Samples Annotation	-		

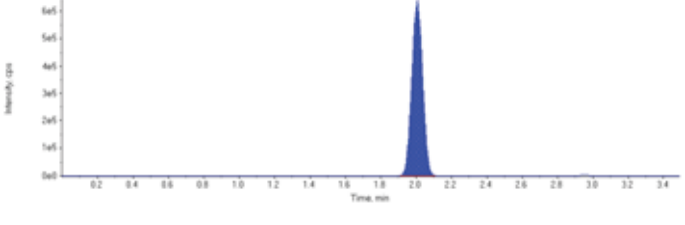
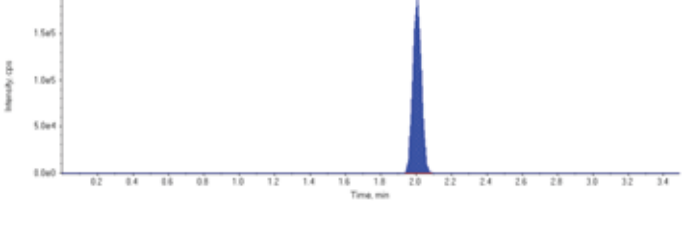
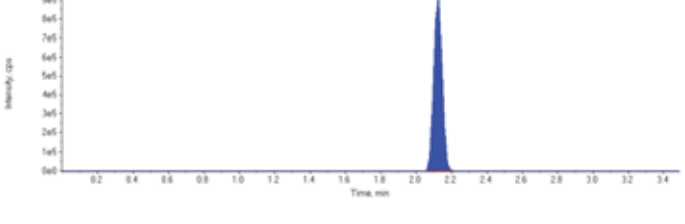
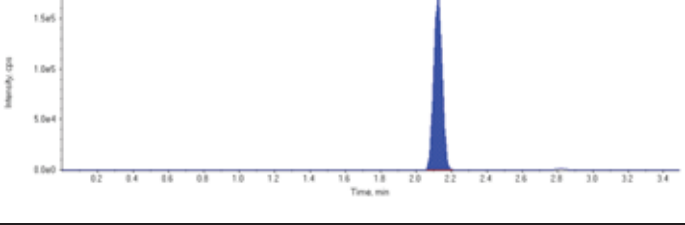
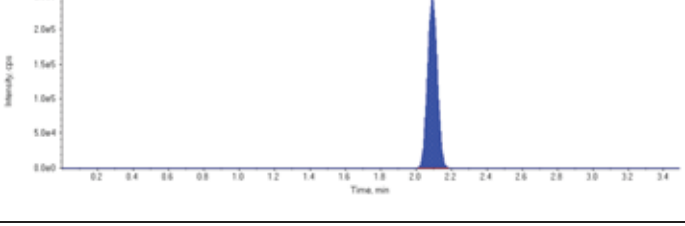
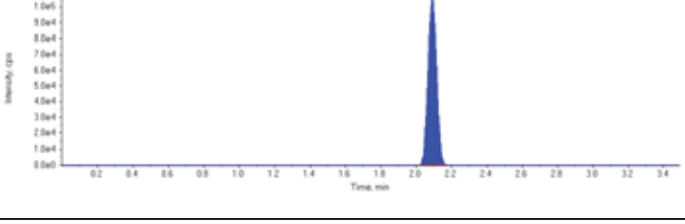
Internal Standard	Area (cps)	RT (min)	Target Conc. (ug/kg)	Calc. Conc. (ug/kg)
MPFHpA	404000.	1.68	1.00	-
MPFOA	317000.	1.86	1.00	-
MPFOS	144000.	1.97	1.00	-
MPFNA	370000.	2.01	1.00	-
MPFDA	369000.	2.12	1.00	-
M2 8:2 FTS	97500.	2.09	1.00	-
13C6-PFHxA IS	1180000.	1.41	1.00	-
13C9-PFDA IS	1080000.	2.11	1.00	-
N/A	N/A	N/A	N/A	-
N/A	N/A	N/A	N/A	-

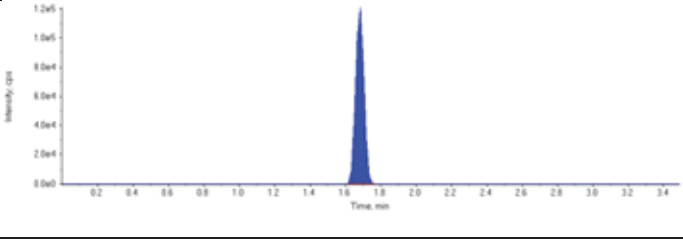
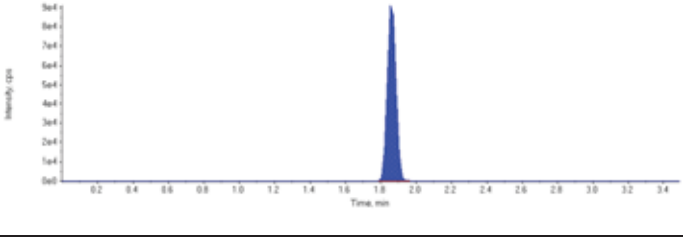
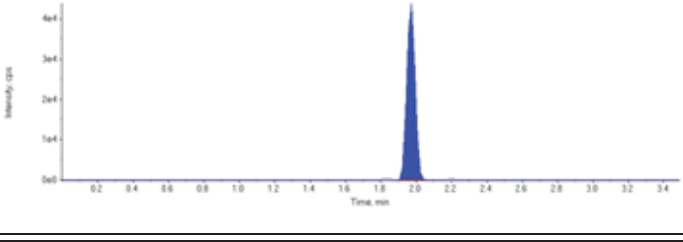
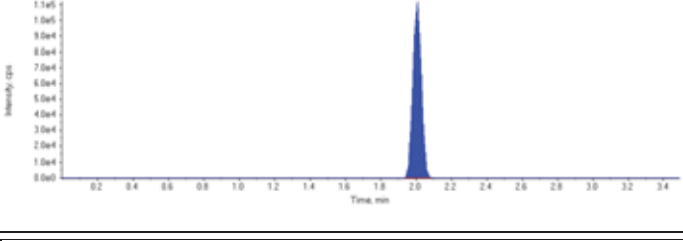
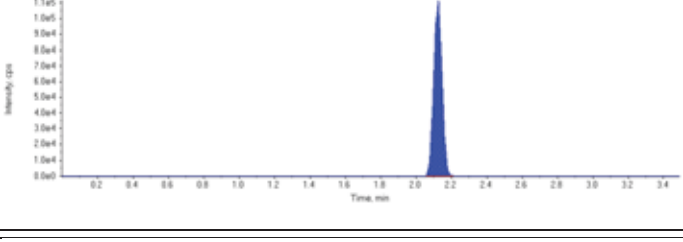
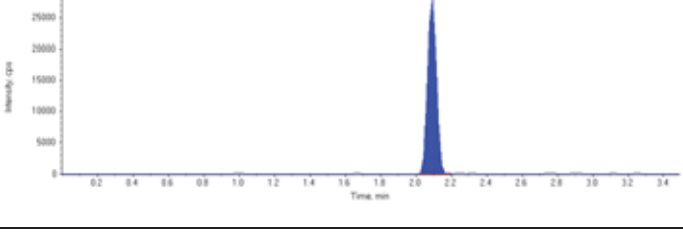
Target Analyte	Area (cps)	RT (min)	Target Conc. (ug/kg)	Calc. Conc. (ug/kg)	Accuracy (%)
PFHpA 1	3310000	1.68	22.5	21.9	97.2
PFHpA 2	54000	1.68	22.5	23.1	103.0
PFOA 1	3070000	1.86	22.5	24.0	107.0
PFOA 2	1070000	1.86	22.5	22.1	98.1
PFOS 1	1310000	1.97	22.5	22.5	99.9
PFOS 2	430000	1.97	22.5	22.8	101.0
PFNA 1	2700000	2.01	22.5	21.8	97.0
PFNA 2	631000	2.01	22.5	21.8	96.8
PFDA 1	3090000	2.12	22.5	22.2	98.5
PFDA 2	579000	2.12	22.5	22.2	98.5
8:2-FTS 1	957000	2.09	22.5	23.0	102.0
8:2-FTS 2	368000	2.09	22.5	23.1	103.0
13C4-PFHpA	404000	1.68	100.	94.0	94.0
13C4-PFOA	317000	1.86	100.	87.9	87.9
13C4-PFOS	144000	1.97	100.	87.6	87.6
13C5-PFNA	370000	2.01	100.	90.0	90.0
13C2-PFDA	369000	2.12	100.	103.	103.0
13C2-8:2 FTS	97500	2.09	100.	90.1	90.1
13C6-PFHxA	1180000	1.41	100.	114.	114.0
13C9-PFDA	1080000	2.11	100.	98.4	98.4

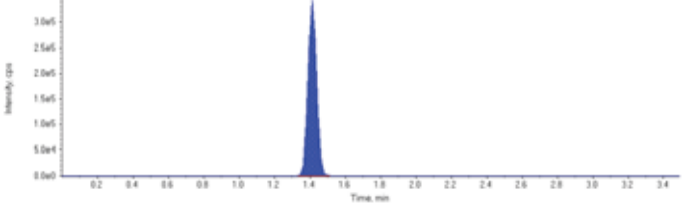
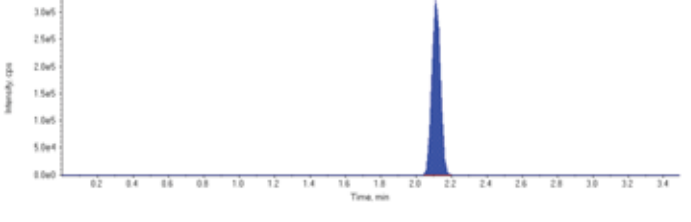
<p>MPFHpA (Internal Standard)</p> <p>RT (Exp. RT): 1.68(1.76) min</p> <p>Concentration: 1.00 ug/kg</p> <p>Sample Type: (Standard)</p>	
<p>MPFOA (Internal Standard)</p> <p>RT (Exp. RT): 1.86(1.93) min</p> <p>Concentration: 1.00 ug/kg</p> <p>Sample Type: (Standard)</p>	
<p>MPFOS (Internal Standard)</p> <p>RT (Exp. RT): 1.97(2.05) min</p> <p>Concentration: 1.00 ug/kg</p> <p>Sample Type: (Standard)</p>	
<p>MPFNA (Internal Standard)</p> <p>RT (Exp. RT): 2.01(2.07) min</p> <p>Concentration: 1.00 ug/kg</p> <p>Sample Type: (Standard)</p>	
<p>MPFDA (Internal Standard)</p> <p>RT (Exp. RT): 2.12(2.18) min</p> <p>Concentration: 1.00 ug/kg</p> <p>Sample Type: (Standard)</p>	
<p>M2 8:2 FTS (Internal Standard)</p> <p>RT (Exp. RT): 2.09(2.15) min</p> <p>Concentration: 1.00 ug/kg</p> <p>Sample Type: (Standard)</p>	

<p>13C6-PFHxA IS (Internal Standard)</p> <p>RT (Exp. RT): 1.41(1.41) min</p> <p>Concentration: 1.00 ug/kg</p> <p>Sample Type: (Standard)</p>	
<p>13C9-PFDA IS (Internal Standard)</p> <p>RT (Exp. RT): 2.11(2.18) min</p> <p>Concentration: 1.00 ug/kg</p> <p>Sample Type: (Standard)</p>	
<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min</p> <p>Concentration: N/A N/A</p> <p>Sample Type: (Standard)</p>	<p>This image is not available</p>
<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min</p> <p>Concentration: N/A N/A</p> <p>Sample Type: (Standard)</p>	<p>This image is not available</p>

<p>PFHpA 1 (363.000/319.000 Da)</p> <p>RT (Exp. RT): 1.68 (1.68) min</p> <p>Calculated Conc: 21.9 µg/kg</p> <p>Area Ratio: 8.19</p> <p>Sample Type: (Standard)</p>	
<p>PFHpA 2 (363.000/169.200 Da)</p> <p>RT (Exp. RT): 1.68 (1.68) min</p> <p>Calculated Conc: 23.1 µg/kg</p> <p>Area Ratio: 0.134</p> <p>Sample Type: (Standard)</p>	
<p>PFOA 1 (413.100/369.000 Da)</p> <p>RT (Exp. RT): 1.86 (1.85) min</p> <p>Calculated Conc: 24.0 µg/kg</p> <p>Area Ratio: 9.67</p> <p>Sample Type: (Standard)</p>	
<p>PFOA 2 (413.100/169.000 Da)</p> <p>RT (Exp. RT): 1.86 (1.85) min</p> <p>Calculated Conc: 22.1 µg/kg</p> <p>Area Ratio: 3.37</p> <p>Sample Type: (Standard)</p>	
<p>PFOS 1 (498.900/79.900 Da)</p> <p>RT (Exp. RT): 1.97 (2.05) min</p> <p>Calculated Conc: 22.5 µg/kg</p> <p>Area Ratio: 9.13</p> <p>Sample Type: (Standard)</p>	
<p>PFOS 2 (498.900/98.900 Da)</p> <p>RT (Exp. RT): 1.97 (1.97) min</p> <p>Calculated Conc: 22.8 µg/kg</p> <p>Area Ratio: 2.99</p> <p>Sample Type: (Standard)</p>	

<p>PFNA 1 (462.900/419.000 Da)</p> <p>RT (Exp. RT): 2.01 (2.07) min</p> <p>Calculated Conc: 21.8 µg/kg</p> <p>Area Ratio: 7.28</p> <p>Sample Type: (Standard)</p>	
<p>PFNA 2 (462.900/219.100 Da)</p> <p>RT (Exp. RT): 2.01 (2.07) min</p> <p>Calculated Conc: 21.8 µg/kg</p> <p>Area Ratio: 1.71</p> <p>Sample Type: (Standard)</p>	
<p>PFDA 1 (513.000/469.100 Da)</p> <p>RT (Exp. RT): 2.12 (2.18) min</p> <p>Calculated Conc: 22.2 µg/kg</p> <p>Area Ratio: 8.37</p> <p>Sample Type: (Standard)</p>	
<p>PFDA 2 (513.000/218.900 Da)</p> <p>RT (Exp. RT): 2.12 (2.18) min</p> <p>Calculated Conc: 22.2 µg/kg</p> <p>Area Ratio: 1.57</p> <p>Sample Type: (Standard)</p>	
<p>8:2-FTS 1 (526.900/507.000 Da)</p> <p>RT (Exp. RT): 2.09 (2.16) min</p> <p>Calculated Conc: 23.0 µg/kg</p> <p>Area Ratio: 9.81</p> <p>Sample Type: (Standard)</p>	
<p>8:2-FTS 2 (526.900/80.900 Da)</p> <p>RT (Exp. RT): 2.09 (2.09) min</p> <p>Calculated Conc: 23.1 µg/kg</p> <p>Area Ratio: 3.77</p> <p>Sample Type: (Standard)</p>	

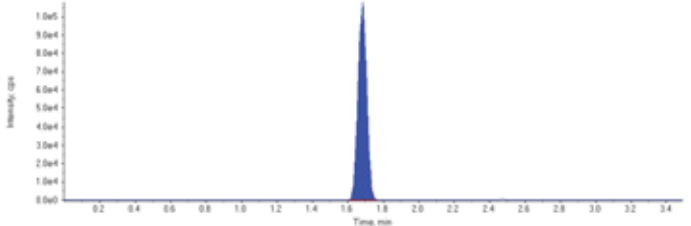
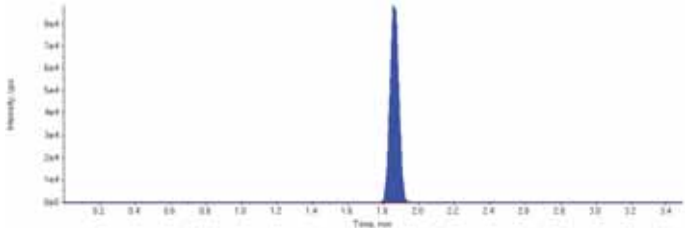
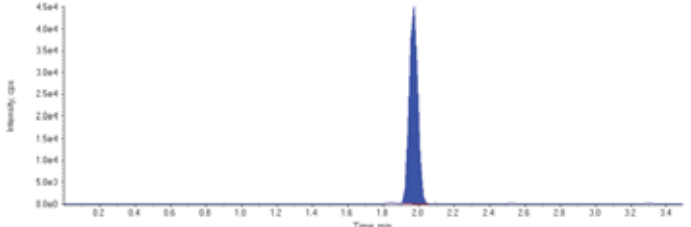
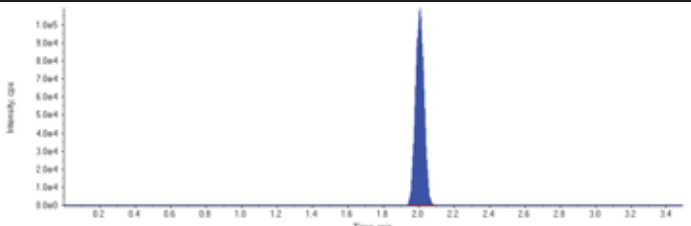
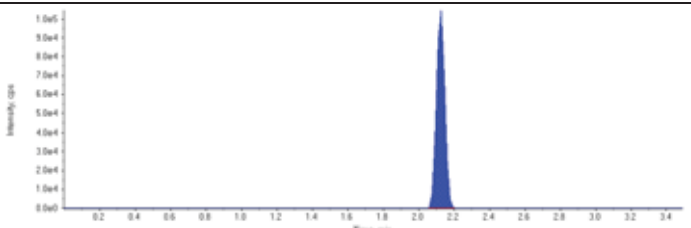
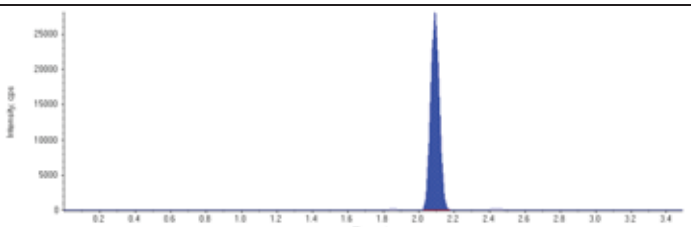
<p>13C4-PFHpA (366.900/322.000 Da)</p> <p>RT (Exp. RT): 1.68 (1.76) min</p> <p>Calculated Conc: 94.0 µg/kg</p> <p>Area Ratio: 0.343</p> <p>Sample Type: (Standard)</p>	
<p>13C4-PFOA (416.900/372.000 Da)</p> <p>RT (Exp. RT): 1.86 (1.93) min</p> <p>Calculated Conc: 87.9 µg/kg</p> <p>Area Ratio: 0.270</p> <p>Sample Type: (Standard)</p>	
<p>13C4-PFOS (502.900/79.900 Da)</p> <p>RT (Exp. RT): 1.97 (2.05) min</p> <p>Calculated Conc: 87.6 µg/kg</p> <p>Area Ratio: 0.122</p> <p>Sample Type: (Standard)</p>	
<p>13C5-PFNA (467.900/423.000 Da)</p> <p>RT (Exp. RT): 2.01 (2.07) min</p> <p>Calculated Conc: 90.0 µg/kg</p> <p>Area Ratio: 0.315</p> <p>Sample Type: (Standard)</p>	
<p>13C2-PFDA (514.900/470.000 Da)</p> <p>RT (Exp. RT): 2.12 (2.18) min</p> <p>Calculated Conc: 103. µg/kg</p> <p>Area Ratio: 0.341</p> <p>Sample Type: (Standard)</p>	
<p>13C2-8:2 FTS (528.900/80.900 Da)</p> <p>RT (Exp. RT): 2.09 (2.15) min</p> <p>Calculated Conc: 90.1 µg/kg</p> <p>Area Ratio: 0.0829</p> <p>Sample Type: (Standard)</p>	

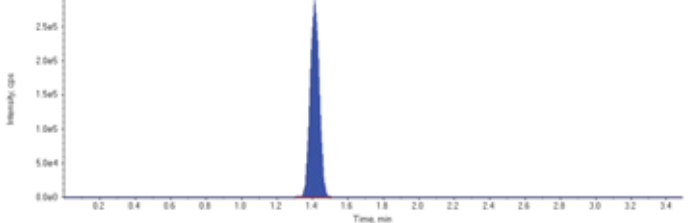
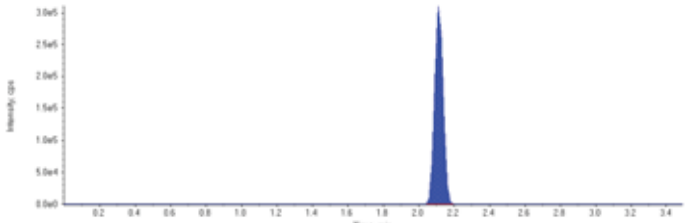
<p>13C6-PFHxA (318.900/274.000 Da)</p> <p>RT (Exp. RT): 1.41 (1.41) min</p> <p>Calculated Conc: 114. µg/kg</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Standard)</p>	
<p>13C9-PFDA (521.900/477.100 Da)</p> <p>RT (Exp. RT): 2.11 (2.18) min</p> <p>Calculated Conc: 98.4 µg/kg</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Standard)</p>	

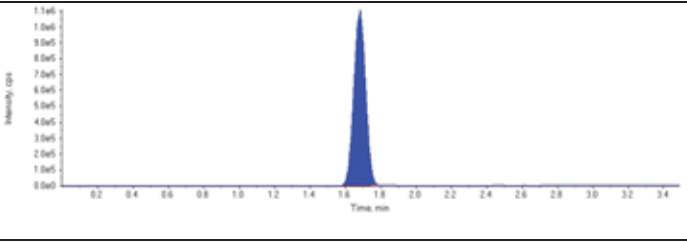
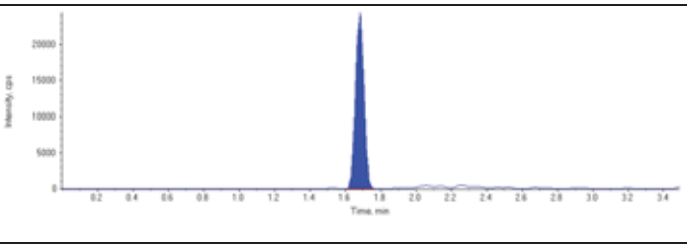
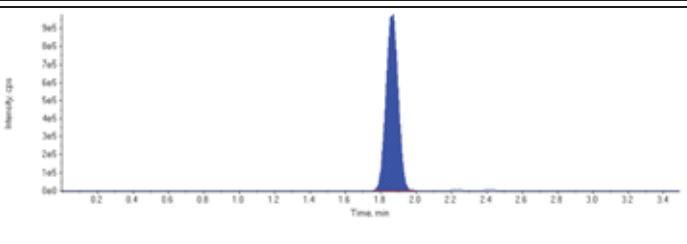
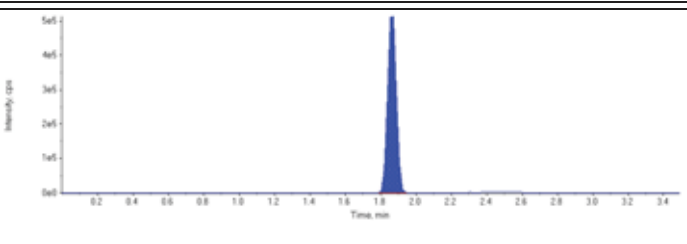
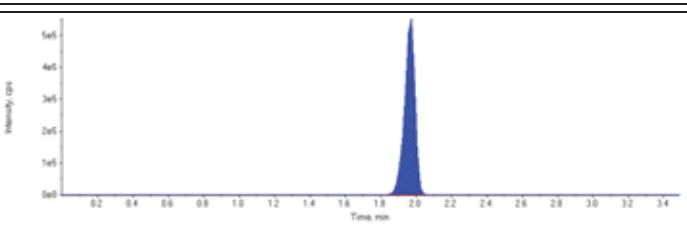
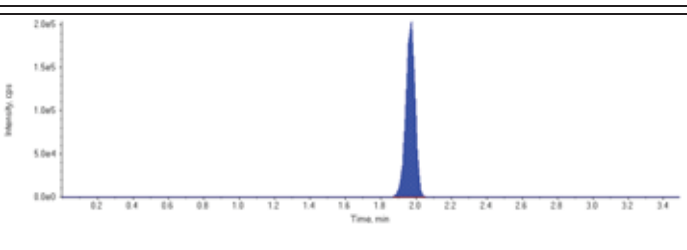
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Sample Type	Standard	Injection Vial	7
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Acquisition Method	PFC_Soil.dam	Instrument Name	LCMS03
Project	Enviro\PFOS	Algorithm Used	Analyst Classic
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Result Table	PFC_Soil_170613_5023570_CT.rdb		
Samples Annotation	-		

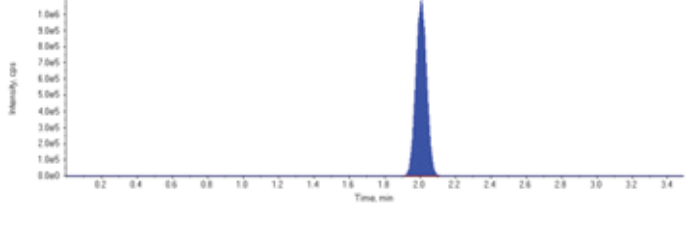
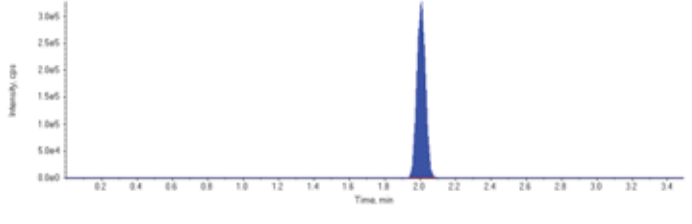
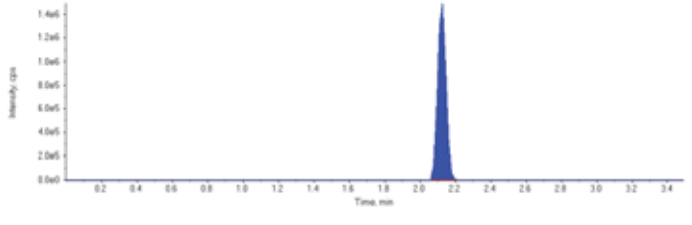
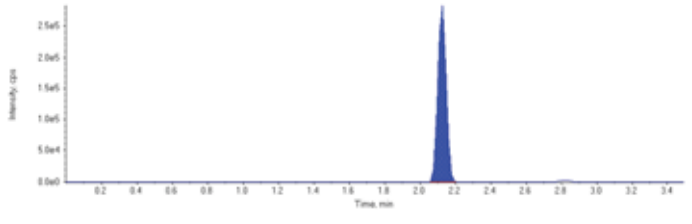
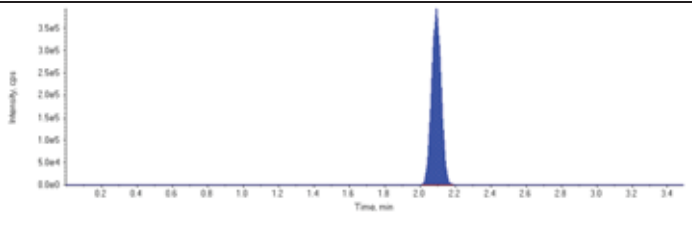
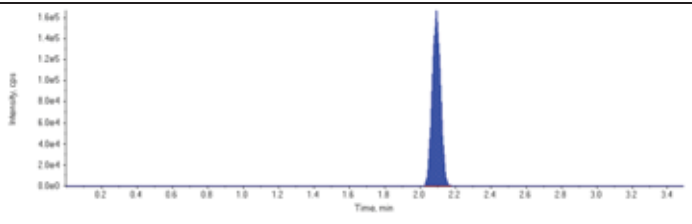
Internal Standard	Area (cps)	RT (min)	Target Conc. (ug/kg)	Calc. Conc. (ug/kg)
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MPFOA	308000.	1.86	1.00	-
MPFOS	149000.	1.97	1.00	-
MPFNA	357000.	2.01	1.00	-
MPFDA	349000.	2.12	1.00	-
M2 8:2 FTS	93900.	2.09	1.00	-
13C6-PFHxA IS	1010000.	1.41	1.00	-
13C9-PFDA IS	1030000.	2.11	1.00	-
N/A	N/A	N/A	N/A	-
N/A	N/A	N/A	N/A	-

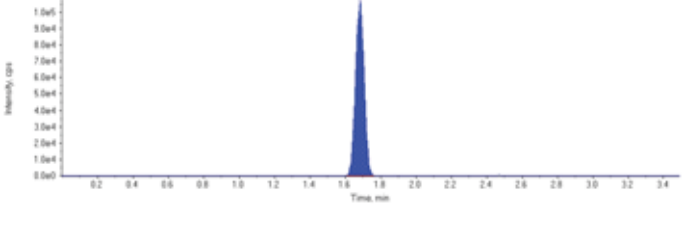
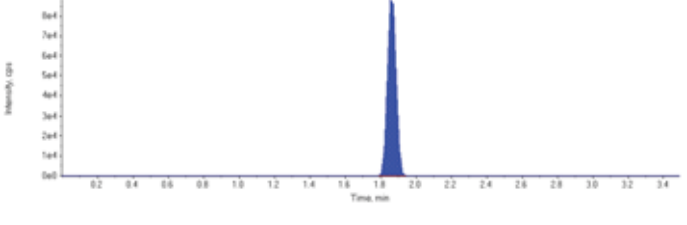
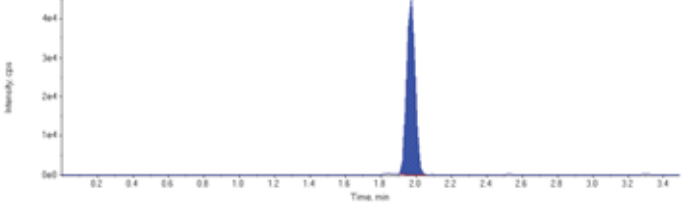
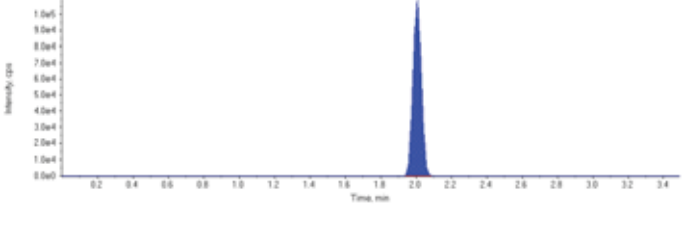
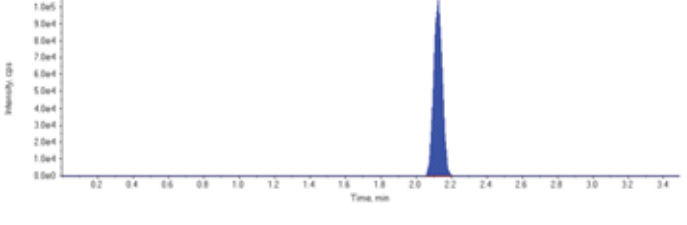
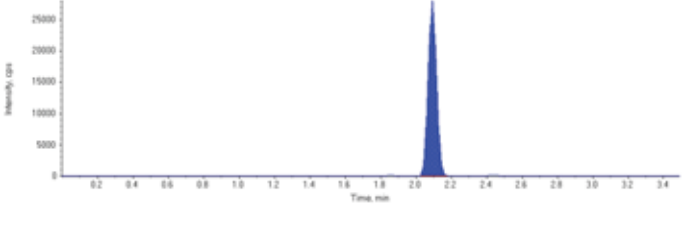
Target Analyte	Area (cps)	RT (min)	Target Conc. (ug/kg)	Calc. Conc. (ug/kg)	Accuracy (%)
PFHpA 1	5130000	1.68	37.5	37.7	100.0
PFHpA 2	81000	1.68	37.5	38.6	103.0
PFOA 1	4600000	1.86	37.5	37.0	98.6
PFOA 2	1810000	1.86	37.5	38.4	103.0
PFOS 1	2270000	1.97	37.5	37.6	100.0
PFOS 2	734000	1.97	37.5	37.7	100.0
PFNA 1	4570000	2.01	37.5	38.3	102.0
PFNA 2	1080000	2.01	37.5	38.5	103.0
PFDA 1	5000000	2.12	37.5	37.9	101.0
PFDA 2	937000	2.12	37.5	37.9	101.0
8:2-FTS 1	1480000	2.09	37.5	36.7	97.9
8:2-FTS 2	554000	2.09	37.5	36.2	96.4
13C4-PFHpA	363000	1.68	100.	98.4	98.4
13C4-PFOA	308000	1.86	100.	99.5	99.5
13C4-PFOS	149000	1.97	100.	106.	106.0
13C5-PFNA	357000	2.01	100.	101.	101.0
13C2-PFDA	349000	2.12	100.	102.	102.0
13C2-8:2 FTS	93900	2.09	100.	101.	101.0
13C6-PFHxA	1010000	1.41	100.	97.5	97.5
13C9-PFDA	1030000	2.11	100.	93.8	93.8

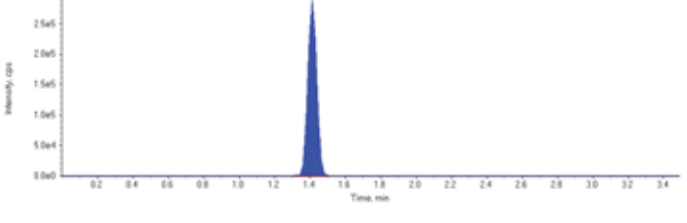
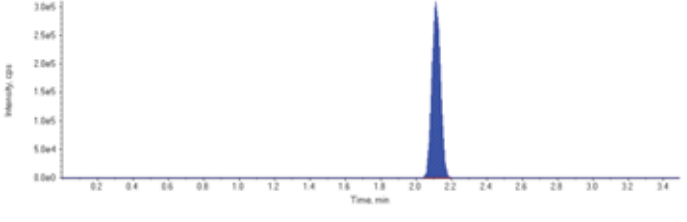
<p>MPFHpA (Internal Standard)</p> <p>RT (Exp. RT): 1.68(1.76) min</p> <p>Concentration: 1.00 ug/kg</p> <p>Sample Type: (Standard)</p>	
<p>MPFOA (Internal Standard)</p> <p>RT (Exp. RT): 1.86(1.93) min</p> <p>Concentration: 1.00 ug/kg</p> <p>Sample Type: (Standard)</p>	
<p>MPFOS (Internal Standard)</p> <p>RT (Exp. RT): 1.97(2.05) min</p> <p>Concentration: 1.00 ug/kg</p> <p>Sample Type: (Standard)</p>	
<p>MPFNA (Internal Standard)</p> <p>RT (Exp. RT): 2.01(2.07) min</p> <p>Concentration: 1.00 ug/kg</p> <p>Sample Type: (Standard)</p>	
<p>MPFDA (Internal Standard)</p> <p>RT (Exp. RT): 2.12(2.18) min</p> <p>Concentration: 1.00 ug/kg</p> <p>Sample Type: (Standard)</p>	
<p>M2 8:2 FTS (Internal Standard)</p> <p>RT (Exp. RT): 2.09(2.15) min</p> <p>Concentration: 1.00 ug/kg</p> <p>Sample Type: (Standard)</p>	

<p>13C6-PFHxA IS (Internal Standard)</p> <p>RT (Exp. RT): 1.41(1.41) min</p> <p>Concentration: 1.00 ug/kg</p> <p>Sample Type: (Standard)</p>	
<p>13C9-PFDA IS (Internal Standard)</p> <p>RT (Exp. RT): 2.11(2.18) min</p> <p>Concentration: 1.00 ug/kg</p> <p>Sample Type: (Standard)</p>	
<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min</p> <p>Concentration: N/A N/A</p> <p>Sample Type: (Standard)</p>	<p>This image is not available</p>
<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min</p> <p>Concentration: N/A N/A</p> <p>Sample Type: (Standard)</p>	<p>This image is not available</p>

<p>PFHpA 1 (363.000/319.000 Da)</p> <p>RT (Exp. RT): 1.68 (1.68) min</p> <p>Calculated Conc: 37.7 µg/kg</p> <p>Area Ratio: 14.2</p> <p>Sample Type: (Standard)</p>	
<p>PFHpA 2 (363.000/169.200 Da)</p> <p>RT (Exp. RT): 1.68 (1.68) min</p> <p>Calculated Conc: 38.6 µg/kg</p> <p>Area Ratio: 0.223</p> <p>Sample Type: (Standard)</p>	
<p>PFOA 1 (413.100/369.000 Da)</p> <p>RT (Exp. RT): 1.86 (1.85) min</p> <p>Calculated Conc: 37.0 µg/kg</p> <p>Area Ratio: 14.9</p> <p>Sample Type: (Standard)</p>	
<p>PFOA 2 (413.100/169.000 Da)</p> <p>RT (Exp. RT): 1.86 (1.85) min</p> <p>Calculated Conc: 38.4 µg/kg</p> <p>Area Ratio: 5.88</p> <p>Sample Type: (Standard)</p>	
<p>PFOS 1 (498.900/79.900 Da)</p> <p>RT (Exp. RT): 1.97 (2.05) min</p> <p>Calculated Conc: 37.6 µg/kg</p> <p>Area Ratio: 15.3</p> <p>Sample Type: (Standard)</p>	
<p>PFOS 2 (498.900/98.900 Da)</p> <p>RT (Exp. RT): 1.97 (1.97) min</p> <p>Calculated Conc: 37.7 µg/kg</p> <p>Area Ratio: 4.94</p> <p>Sample Type: (Standard)</p>	

<p>PFNA 1 (462.900/419.000 Da)</p> <p>RT (Exp. RT): 2.01 (2.07) min</p> <p>Calculated Conc: 38.3 µg/kg</p> <p>Area Ratio: 12.8</p> <p>Sample Type: (Standard)</p>	
<p>PFNA 2 (462.900/219.100 Da)</p> <p>RT (Exp. RT): 2.01 (2.07) min</p> <p>Calculated Conc: 38.5 µg/kg</p> <p>Area Ratio: 3.01</p> <p>Sample Type: (Standard)</p>	
<p>PFDA 1 (513.000/469.100 Da)</p> <p>RT (Exp. RT): 2.12 (2.18) min</p> <p>Calculated Conc: 37.9 µg/kg</p> <p>Area Ratio: 14.3</p> <p>Sample Type: (Standard)</p>	
<p>PFDA 2 (513.000/218.900 Da)</p> <p>RT (Exp. RT): 2.12 (2.18) min</p> <p>Calculated Conc: 37.9 µg/kg</p> <p>Area Ratio: 2.69</p> <p>Sample Type: (Standard)</p>	
<p>8:2-FTS 1 (526.900/507.000 Da)</p> <p>RT (Exp. RT): 2.09 (2.16) min</p> <p>Calculated Conc: 36.7 µg/kg</p> <p>Area Ratio: 15.7</p> <p>Sample Type: (Standard)</p>	
<p>8:2-FTS 2 (526.900/80.900 Da)</p> <p>RT (Exp. RT): 2.09 (2.09) min</p> <p>Calculated Conc: 36.2 µg/kg</p> <p>Area Ratio: 5.89</p> <p>Sample Type: (Standard)</p>	

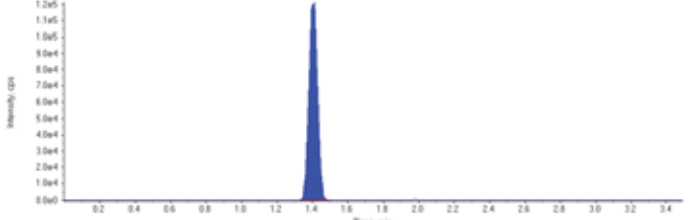
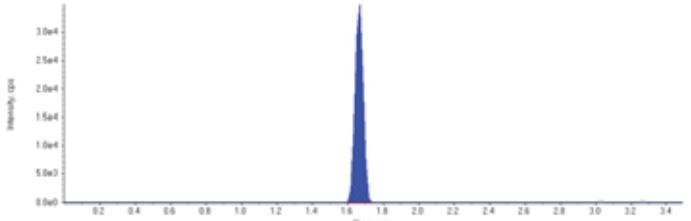
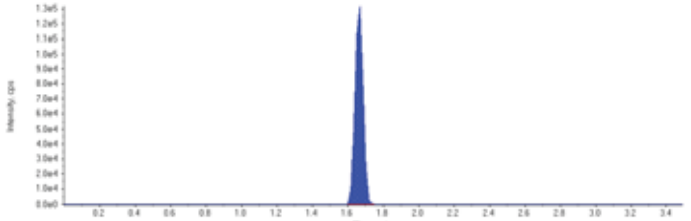
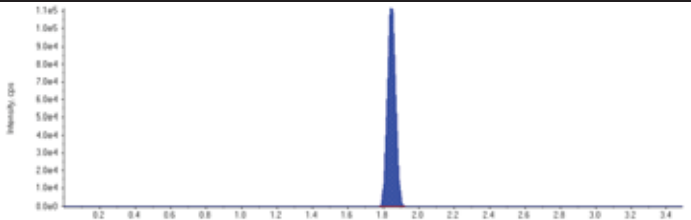
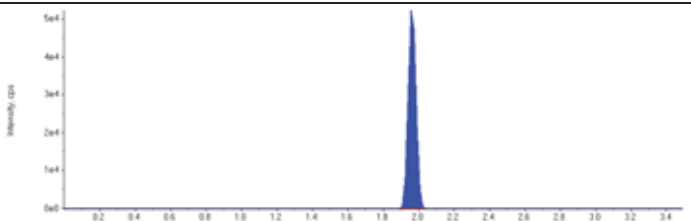
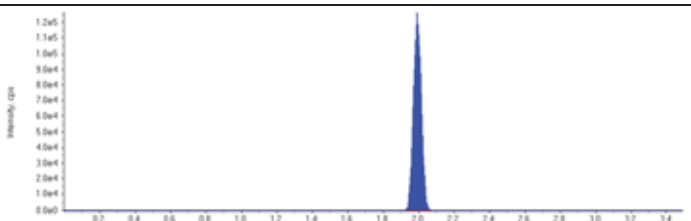
<p>13C4-PFHpa (366.900/322.000 Da)</p> <p>RT (Exp. RT): 1.68 (1.76) min</p> <p>Calculated Conc: 98.4 µg/kg</p> <p>Area Ratio: 0.360</p> <p>Sample Type: (Standard)</p>	
<p>13C4-PFOA (416.900/372.000 Da)</p> <p>RT (Exp. RT): 1.86 (1.93) min</p> <p>Calculated Conc: 99.5 µg/kg</p> <p>Area Ratio: 0.305</p> <p>Sample Type: (Standard)</p>	
<p>13C4-PFOS (502.900/79.900 Da)</p> <p>RT (Exp. RT): 1.97 (2.05) min</p> <p>Calculated Conc: 106. µg/kg</p> <p>Area Ratio: 0.147</p> <p>Sample Type: (Standard)</p>	
<p>13C5-PFNA (467.900/423.000 Da)</p> <p>RT (Exp. RT): 2.01 (2.07) min</p> <p>Calculated Conc: 101. µg/kg</p> <p>Area Ratio: 0.354</p> <p>Sample Type: (Standard)</p>	
<p>13C2-PFDA (514.900/470.000 Da)</p> <p>RT (Exp. RT): 2.12 (2.18) min</p> <p>Calculated Conc: 102. µg/kg</p> <p>Area Ratio: 0.338</p> <p>Sample Type: (Standard)</p>	
<p>13C2-8:2 FTS (528.900/80.900 Da)</p> <p>RT (Exp. RT): 2.09 (2.15) min</p> <p>Calculated Conc: 101. µg/kg</p> <p>Area Ratio: 0.0931</p> <p>Sample Type: (Standard)</p>	

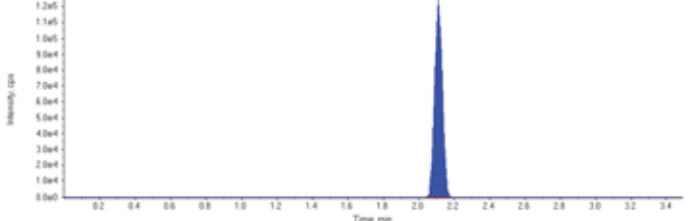
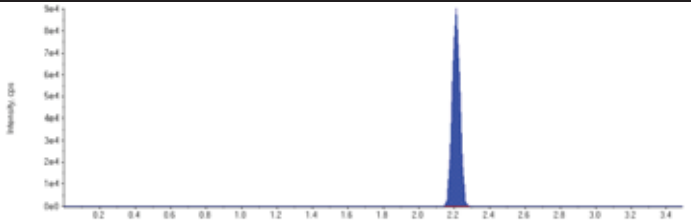
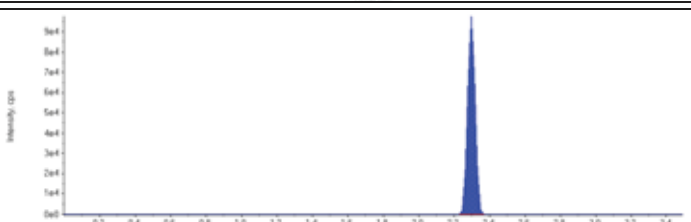
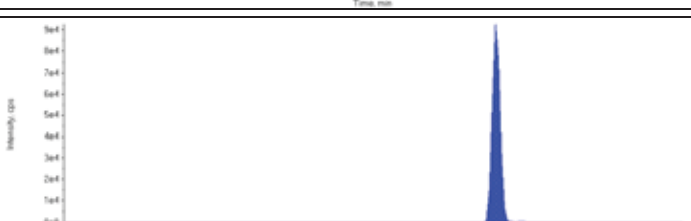
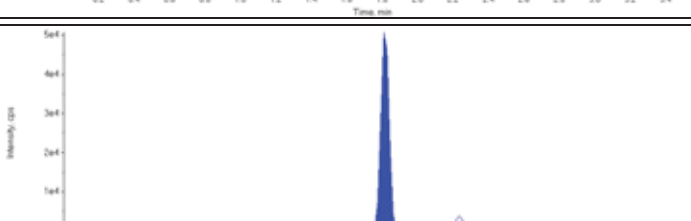
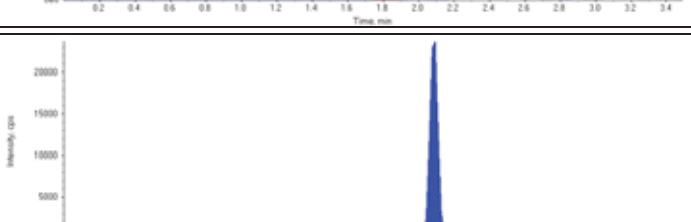
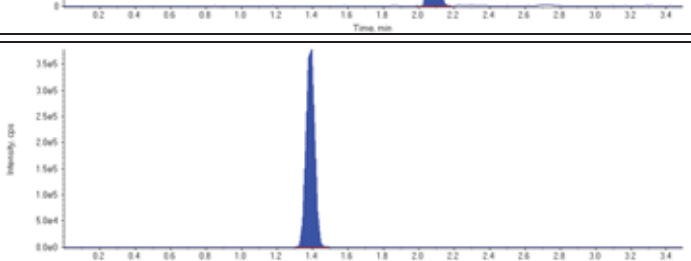
<p>13C6-PFHxA (318.900/274.000 Da)</p> <p>RT (Exp. RT): 1.41 (1.41) min</p> <p>Calculated Conc: 97.5 µg/kg</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Standard)</p>	
<p>13C9-PFDA (521.900/477.100 Da)</p> <p>RT (Exp. RT): 2.11 (2.18) min</p> <p>Calculated Conc: 93.8 µg/kg</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Standard)</p>	

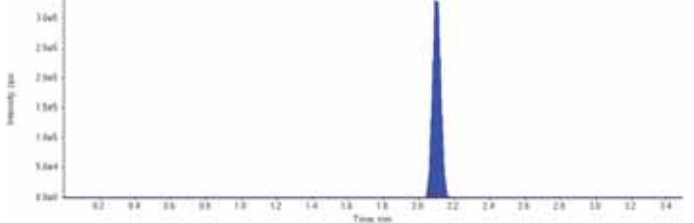
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Sample Type	Standard	Injection Vial	2
Acquisition Date	2017/05/23 12:58:34 PM	Dilution Factor	1.00
Acquisition Method	PFC_Water_Low.dam	Instrument Name	LCMS03
Project	Enviro\PFOS	Algorithm Used	Analyst Classic
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Result Table	PFC_Water_170523_4988945_CTLabs.rdb		
Samples Annotation	-		

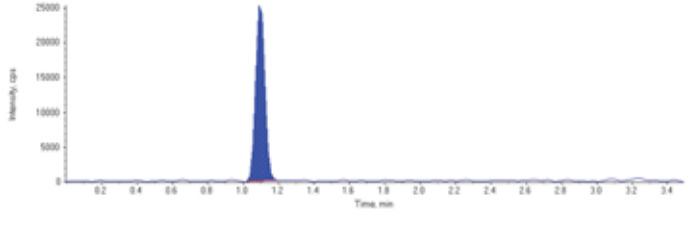
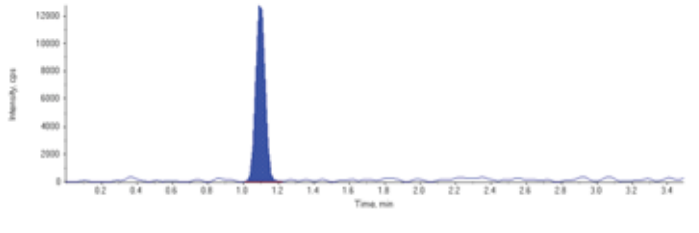
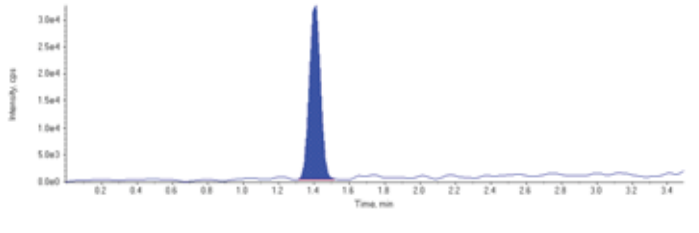
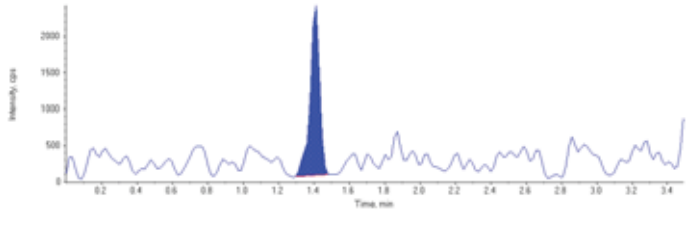
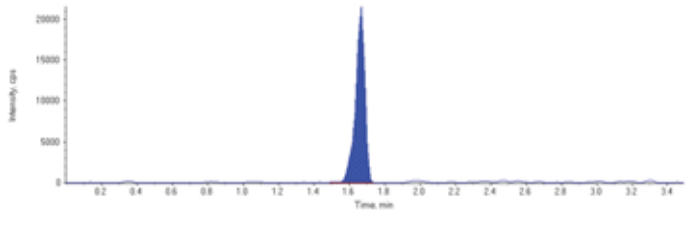
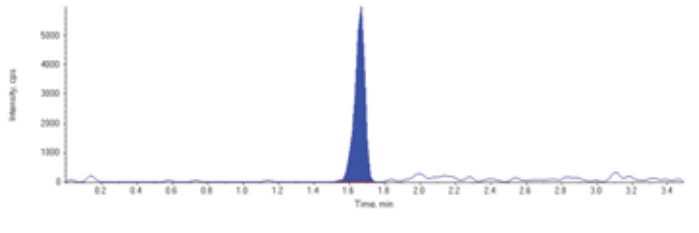
Internal Standard	Area (cps)	RT (min)	Target Conc. (ug/L)	Calc. Conc. (ug/L)
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MPFHxS	111000.	1.66	1.00	-
MPFHpA	424000.	1.66	1.00	-
MPFOA	377000.	1.85	1.00	-
MPFOS	167000.	1.96	1.00	-
MPFNA	385000.	1.99	1.00	-
MPFDA	374000.	2.11	1.00	-
MPFUnA	273000.	2.21	1.00	-
MPFDoA	292000.	2.30	1.00	-
MPFTeDA	285000.	2.44	1.00	-
M2 6:2 FTS	163000.	1.81	1.00	-
M2 8:2 FTS	79200.	2.09	1.00	-
13C6-PFHxA IS	1300000.	1.39	1.00	-
13C9-PFDA IS	1100000.	2.10	1.00	-
N/A	N/A	N/A	N/A	-
N/A	N/A	N/A	N/A	-

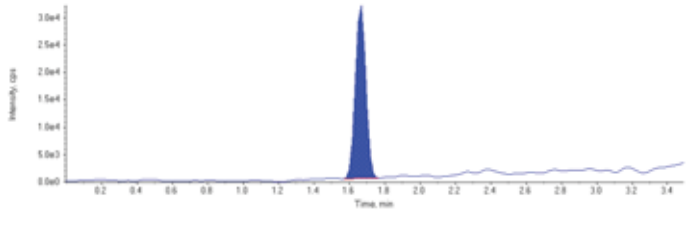
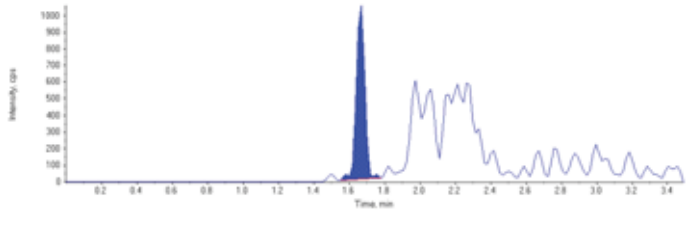
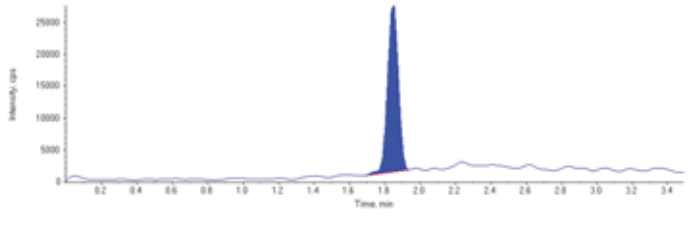
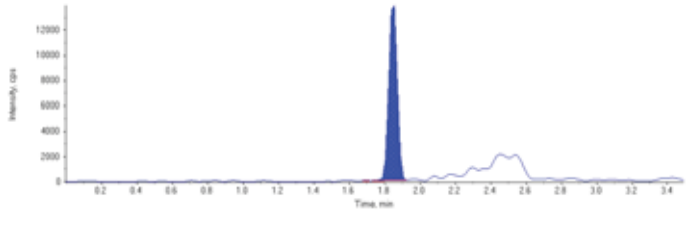
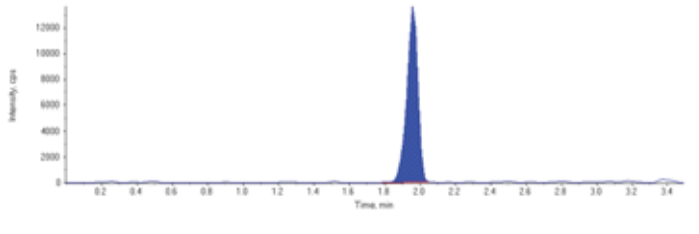
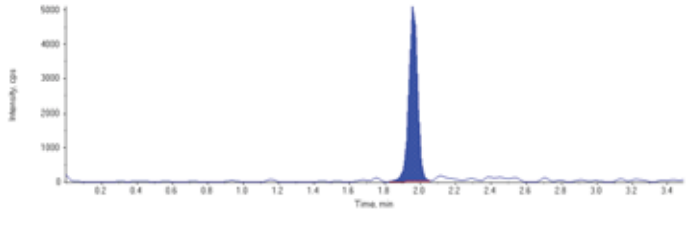
Target Analyte	Area (cps)	RT (min)	Target Conc. (ug/L)	Calc. Conc. (ug/L)	Accuracy (%)
PFBS 1	92000	1.10	0.830	0.946	114.0
PFBS 2	48000	1.10	0.830	0.911	110.0
PFHxA 1	140000	1.41	0.830	0.932	112.0
PFHxA 2	8820	1.41	0.830	0.913	110.0
PFHxS 1	77800	1.67	0.830	0.926	112.0
PFHxS 2	23200	1.66	0.830	0.948	114.0
PFHpA 1	131000	1.66	0.830	0.860	104.0
PFHpA 2	3610	1.66	0.830	1.01	122.0
PFOA 1	112000	1.85	0.830	0.849	102.0
PFOA 2	47400	1.85	0.830	0.905	109.0
PFOS 1	59200	1.96	0.830	0.865	104.0
PFOS 2	17700	1.96	0.830	0.867	104.0
PFNA 1	108000	1.99	0.830	0.846	102.0
PFNA 2	30200	1.99	0.830	0.890	107.0
PFDA 1	118000	2.11	0.830	0.857	103.0
PFDA 2	22300	2.11	0.830	0.839	101.0
PFUnA 1	89700	2.21	0.830	0.865	104.0
PFUnA 2	9230	2.21	0.830	0.843	102.0
PFDaA 1	80400	2.30	0.830	0.748	90.2
PFDaA 2	8580	2.30	0.830	0.841	101.0
PFTTrDA 1	93100	2.37	0.830	0.871	105.0
PFTTrDA 2	10300	2.37	0.830	0.815	98.2
PFTeDA 1	90300	2.44	0.830	0.968	117.0
PFTeDA 2	6330	2.44	0.830	0.918	111.0
6:2-FTS 1	31900	1.81	0.830	0.967	117.0
6:2-FTS 2	20400	1.81	0.830	0.813	97.9
8:2-FTS 1	28400	2.09	0.830	0.902	109.0
8:2-FTS 2	11200	2.09	0.830	0.971	117.0
13C2-PFHxA	419000	1.40	100.	100.	100.0
18O2-PFHxS	111000	1.66	100.	99.2	99.2
13C4-PFHpA	424000	1.66	100.	98.9	98.9
13C4-PFOA	377000	1.85	100.	106.	106.0
13C4-PFOS	167000	1.96	100.	102.	102.0
13C5-PFNA	385000	1.99	100.	101.	101.0
13C2-PFDA	374000	2.11	100.	109.	109.0
13C2-PFUnA	273000	2.21	100.	107.	107.0
13C2-PFDaA	292000	2.30	100.	119.	119.0
13C2-PFTeDA	285000	2.44	100.	106.	106.0
13C2-6:2-FTS	163000	1.81	100.	105.	105.0
13C2-8:2 FTS	79200	2.09	100.	91.6	91.6
13C6-PFHxA	1300000	1.39	100.	101.	101.0
13C9-PFDA	1100000	2.10	100.	92.2	92.2

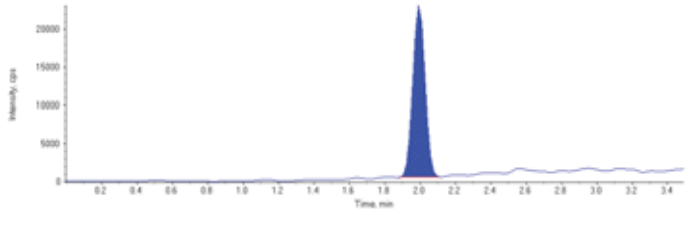
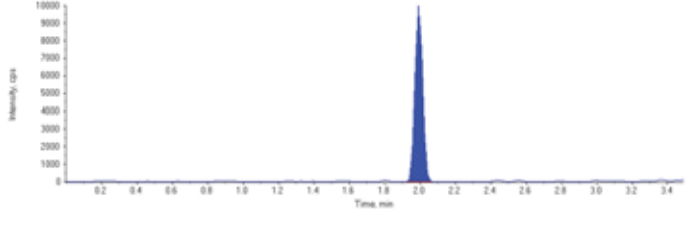
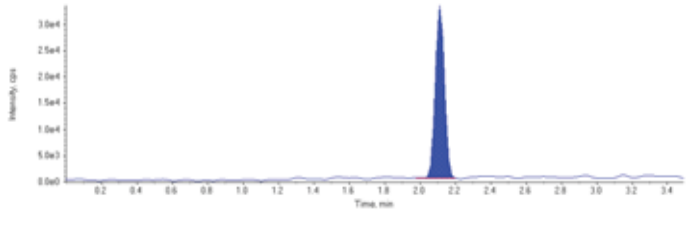
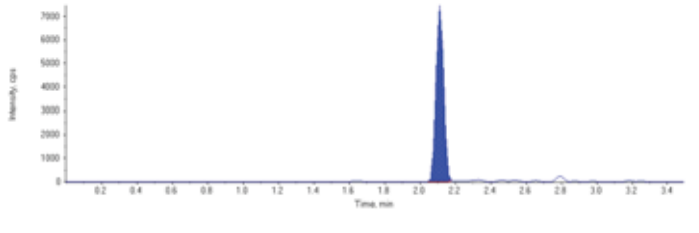
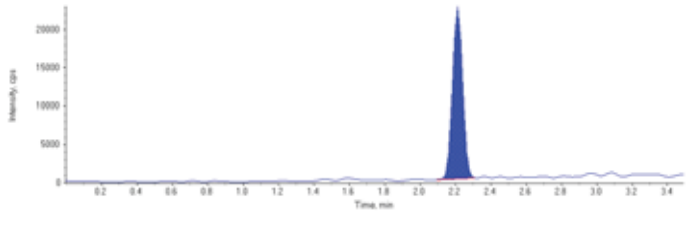
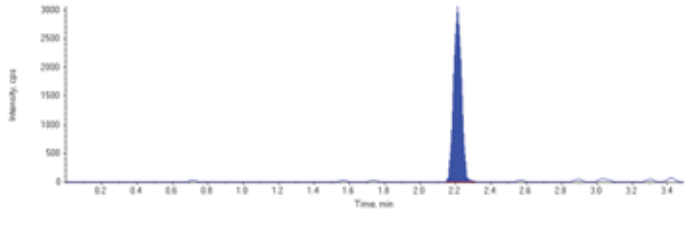
<p>MPFHxA (Internal Standard)</p> <p>RT (Exp. RT): 1.40(1.40) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Standard)</p>	
<p>MPFHxS (Internal Standard)</p> <p>RT (Exp. RT): 1.66(1.77) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Standard)</p>	
<p>MPFHpA (Internal Standard)</p> <p>RT (Exp. RT): 1.66(1.67) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Standard)</p>	
<p>MPFOA (Internal Standard)</p> <p>RT (Exp. RT): 1.85(1.84) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Standard)</p>	
<p>MPFOS (Internal Standard)</p> <p>RT (Exp. RT): 1.96(2.05) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Standard)</p>	
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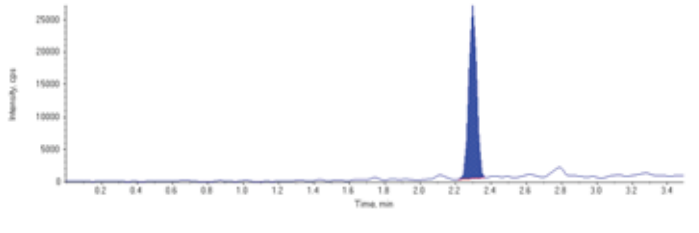
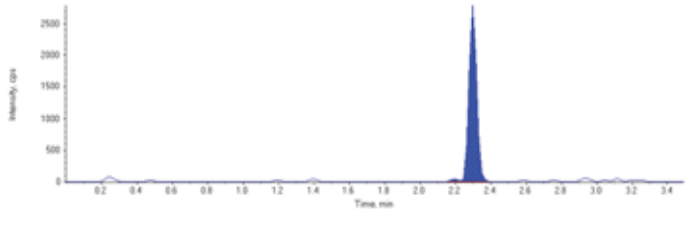
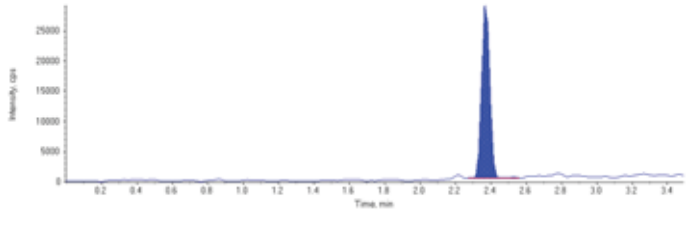
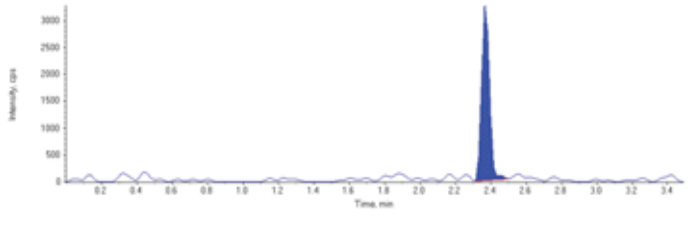
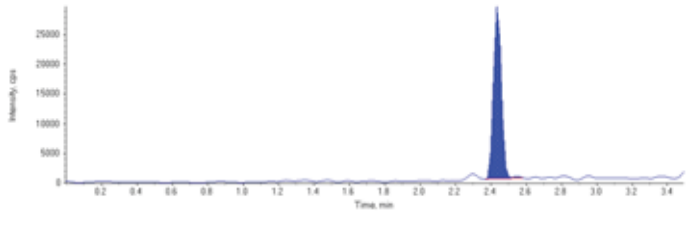
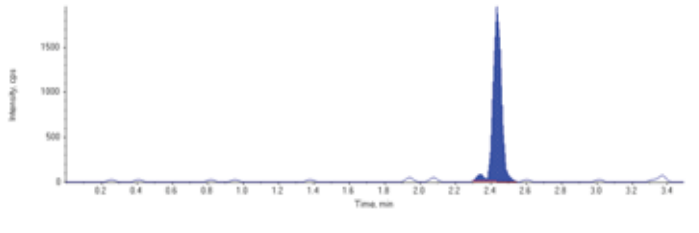
<p>MPFDA (Internal Standard)</p> <p>RT (Exp. RT): 2.11(2.18) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Standard)</p>	
<p>MPFUnA (Internal Standard)</p> <p>RT (Exp. RT): 2.21(2.27) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Standard)</p>	
<p>MPFDoA (Internal Standard)</p> <p>RT (Exp. RT): 2.30(2.35) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Standard)</p>	
<p>MPFTeDA (Internal Standard)</p> <p>RT (Exp. RT): 2.44(2.49) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Standard)</p>	
<p>M2 6:2 FTS (Internal Standard)</p> <p>RT (Exp. RT): 1.81(1.80) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Standard)</p>	
<p>M2 8:2 FTS (Internal Standard)</p> <p>RT (Exp. RT): 2.09(2.08) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Standard)</p>	
<p>13C6-PFHxA IS (Internal Standard)</p> <p>RT (Exp. RT): 1.39(1.40) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Standard)</p>	

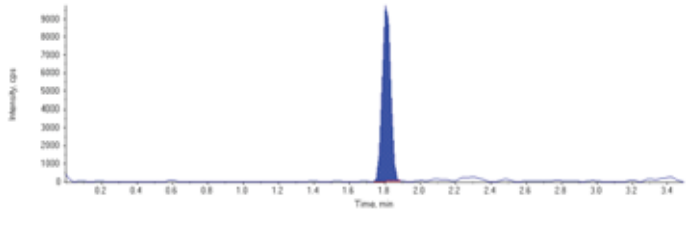
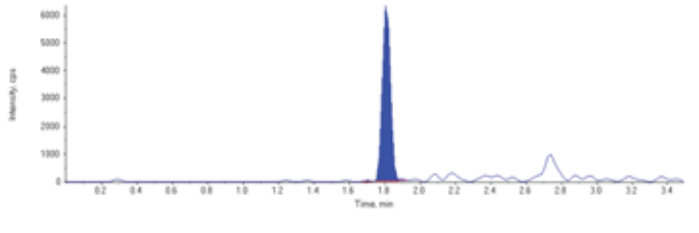
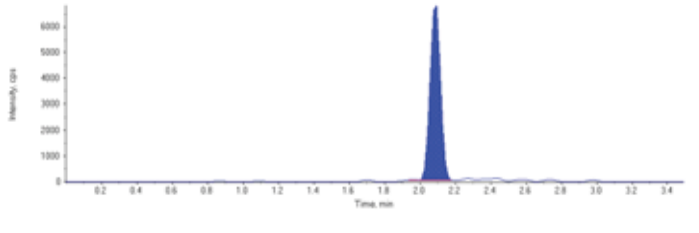
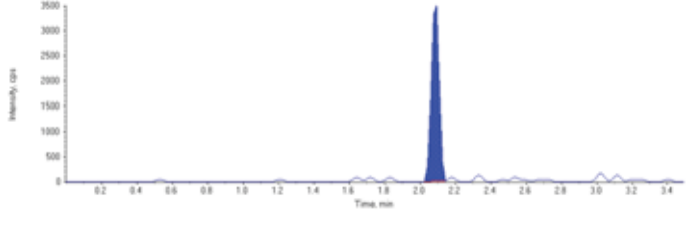
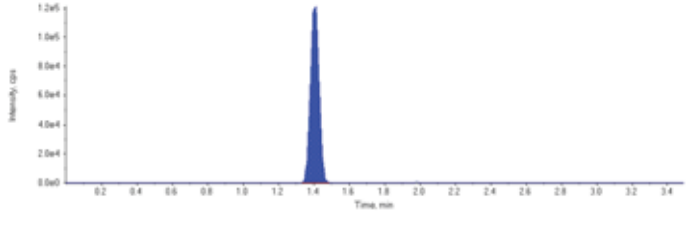
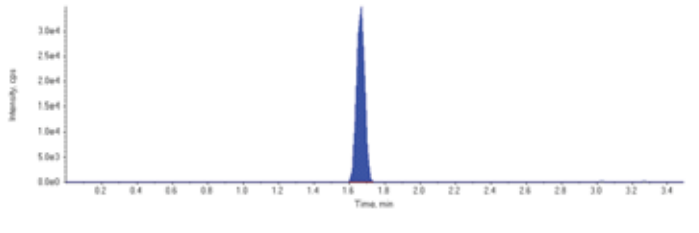
<p>13C9-PFDA IS (Internal Standard)</p> <p>RT (Exp. RT): 2.10(2.09) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Standard)</p>	 <p>The chromatogram displays a single, sharp, and prominent peak at a retention time of 2.10 minutes. The y-axis represents intensity, ranging from 0.0e0 to 3.0e6. The x-axis represents time in minutes, ranging from 0.2 to 3.4. The peak is centered at approximately 2.10 minutes, reaching an intensity of nearly 3.0e6.</p>
<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min</p> <p>Concentration: N/A N/A</p> <p>Sample Type: (Standard)</p>	<p>This image is not available</p>
<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min</p> <p>Concentration: N/A N/A</p> <p>Sample Type: (Standard)</p>	<p>This image is not available</p>

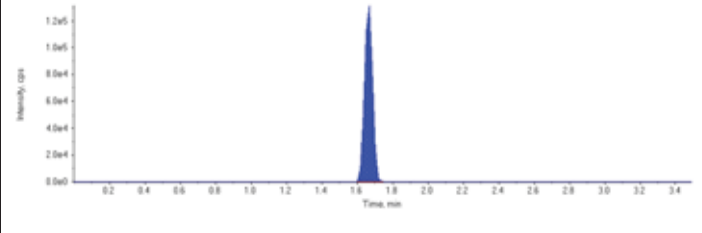
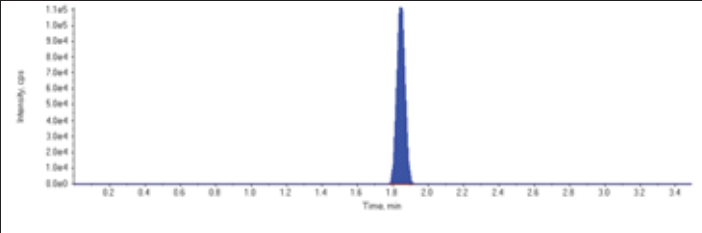
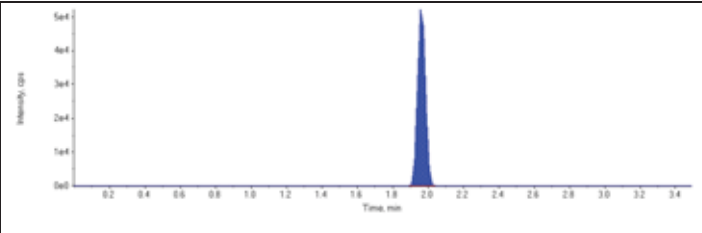
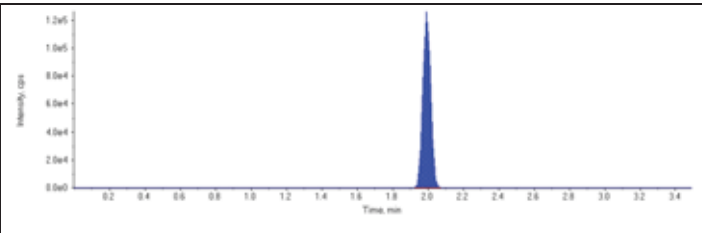
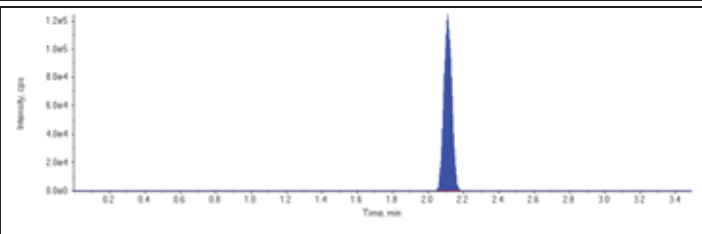
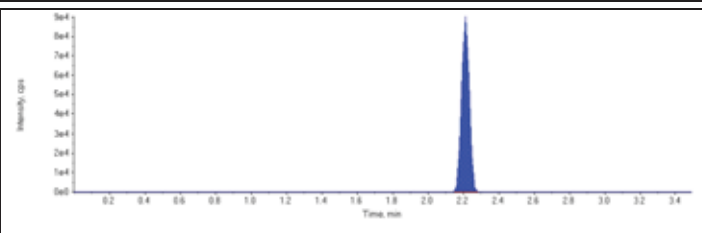
<p>PFBS 1 (298.900/79.900 Da)</p> <p>RT (Exp. RT): 1.10 (1.09) min</p> <p>Calculated Conc: 0.946 µg/L</p> <p>Area Ratio: 0.828</p> <p>Sample Type: (Standard)</p>	
<p>PFBS 2 (298.900/98.900 Da)</p> <p>RT (Exp. RT): 1.10 (1.09) min</p> <p>Calculated Conc: 0.911 µg/L</p> <p>Area Ratio: 0.432</p> <p>Sample Type: (Standard)</p>	
<p>PFHxA 1 (313.000/269.000 Da)</p> <p>RT (Exp. RT): 1.41 (1.40) min</p> <p>Calculated Conc: 0.932 µg/L</p> <p>Area Ratio: 0.334</p> <p>Sample Type: (Standard)</p>	
<p>PFHxA 2 (313.000/119.000 Da)</p> <p>RT (Exp. RT): 1.41 (1.41) min</p> <p>Calculated Conc: 0.913 µg/L</p> <p>Area Ratio: 0.0211</p> <p>Sample Type: (Standard)</p>	
<p>PFHxS 1 (398.900/79.900 Da)</p> <p>RT (Exp. RT): 1.67 (1.67) min</p> <p>Calculated Conc: 0.926 µg/L</p> <p>Area Ratio: 0.701</p> <p>Sample Type: (Standard)</p>	
<p>PFHxS 2 (398.900/98.900 Da)</p> <p>RT (Exp. RT): 1.66 (1.67) min</p> <p>Calculated Conc: 0.948 µg/L</p> <p>Area Ratio: 0.209</p> <p>Sample Type: (Standard)</p>	

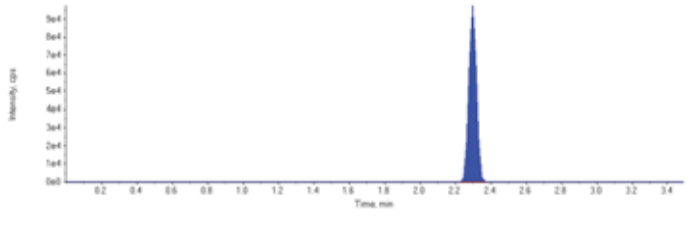
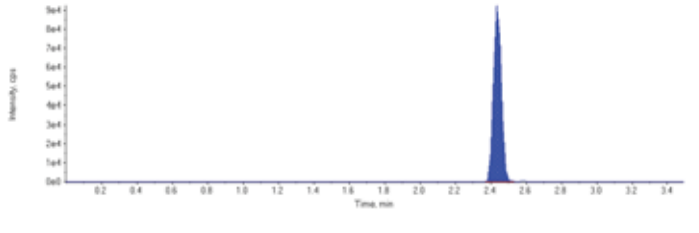
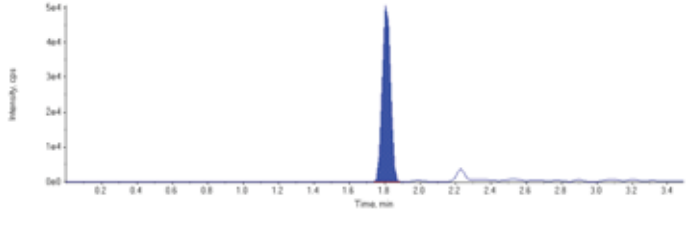
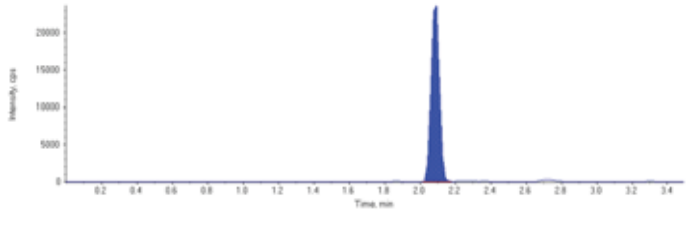
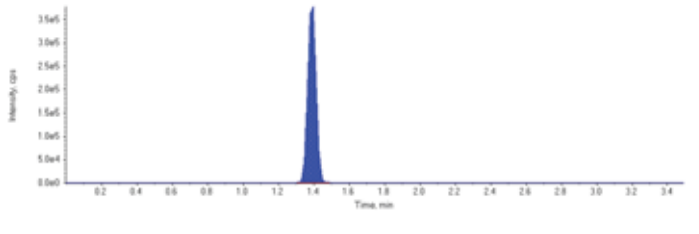
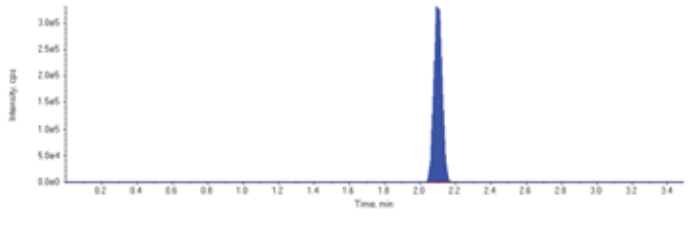
<p>PFHpA 1 (363.000/319.000 Da)</p> <p>RT (Exp. RT): 1.66 (1.67) min</p> <p>Calculated Conc: 0.860 µg/L</p> <p>Area Ratio: 0.309</p> <p>Sample Type: (Standard)</p>	
<p>PFHpA 2 (363.000/169.200 Da)</p> <p>RT (Exp. RT): 1.66 (1.67) min</p> <p>Calculated Conc: 1.01 µg/L</p> <p>Area Ratio: 0.00850</p> <p>Sample Type: (Standard)</p>	
<p>PFOA 1 (413.100/369.000 Da)</p> <p>RT (Exp. RT): 1.85 (1.85) min</p> <p>Calculated Conc: 0.849 µg/L</p> <p>Area Ratio: 0.297</p> <p>Sample Type: (Standard)</p>	
<p>PFOA 2 (413.100/169.000 Da)</p> <p>RT (Exp. RT): 1.85 (1.84) min</p> <p>Calculated Conc: 0.905 µg/L</p> <p>Area Ratio: 0.126</p> <p>Sample Type: (Standard)</p>	
<p>PFOS 1 (498.900/79.900 Da)</p> <p>RT (Exp. RT): 1.96 (1.96) min</p> <p>Calculated Conc: 0.865 µg/L</p> <p>Area Ratio: 0.353</p> <p>Sample Type: (Standard)</p>	
<p>PFOS 2 (498.900/98.900 Da)</p> <p>RT (Exp. RT): 1.96 (1.96) min</p> <p>Calculated Conc: 0.867 µg/L</p> <p>Area Ratio: 0.106</p> <p>Sample Type: (Standard)</p>	

<p>PFNA 1 (462.900/419.000 Da)</p> <p>RT (Exp. RT): 1.99 (1.99) min</p> <p>Calculated Conc: 0.846 µg/L</p> <p>Area Ratio: 0.279</p> <p>Sample Type: (Standard)</p>	
<p>PFNA 2 (462.900/219.100 Da)</p> <p>RT (Exp. RT): 1.99 (1.99) min</p> <p>Calculated Conc: 0.890 µg/L</p> <p>Area Ratio: 0.0785</p> <p>Sample Type: (Standard)</p>	
<p>PFDA 1 (513.000/469.100 Da)</p> <p>RT (Exp. RT): 2.11 (2.18) min</p> <p>Calculated Conc: 0.857 µg/L</p> <p>Area Ratio: 0.316</p> <p>Sample Type: (Standard)</p>	
<p>PFDA 2 (513.000/218.900 Da)</p> <p>RT (Exp. RT): 2.11 (2.11) min</p> <p>Calculated Conc: 0.839 µg/L</p> <p>Area Ratio: 0.0597</p> <p>Sample Type: (Standard)</p>	
<p>PFUnA 1 (562.900/519.000 Da)</p> <p>RT (Exp. RT): 2.21 (2.21) min</p> <p>Calculated Conc: 0.865 µg/L</p> <p>Area Ratio: 0.329</p> <p>Sample Type: (Standard)</p>	
<p>PFUnA 2 (562.900/269.200 Da)</p> <p>RT (Exp. RT): 2.21 (2.27) min</p> <p>Calculated Conc: 0.843 µg/L</p> <p>Area Ratio: 0.0338</p> <p>Sample Type: (Standard)</p>	

<p>PFD_oA 1 (612.900/569.000 Da)</p> <p>RT (Exp. RT): 2.30 (2.36) min</p> <p>Calculated Conc: 0.748 µg/L</p> <p>Area Ratio: 0.275</p> <p>Sample Type: (Standard)</p>	
<p>PFD_oA 2 (612.900/319.000 Da)</p> <p>RT (Exp. RT): 2.30 (2.35) min</p> <p>Calculated Conc: 0.841 µg/L</p> <p>Area Ratio: 0.0294</p> <p>Sample Type: (Standard)</p>	
<p>PFT_rDA 1 (663.000/619.000 Da)</p> <p>RT (Exp. RT): 2.37 (2.42) min</p> <p>Calculated Conc: 0.871 µg/L</p> <p>Area Ratio: 0.327</p> <p>Sample Type: (Standard)</p>	
<p>PFT_rDA 2 (663.000/318.900 Da)</p> <p>RT (Exp. RT): 2.37 (2.37) min</p> <p>Calculated Conc: 0.815 µg/L</p> <p>Area Ratio: 0.0360</p> <p>Sample Type: (Standard)</p>	
<p>PFT_eDA 1 (713.000/669.000 Da)</p> <p>RT (Exp. RT): 2.44 (2.49) min</p> <p>Calculated Conc: 0.968 µg/L</p> <p>Area Ratio: 0.317</p> <p>Sample Type: (Standard)</p>	
<p>PFT_eDA 2 (713.000/319.200 Da)</p> <p>RT (Exp. RT): 2.44 (2.49) min</p> <p>Calculated Conc: 0.918 µg/L</p> <p>Area Ratio: 0.0222</p> <p>Sample Type: (Standard)</p>	

<p>6:2-FTS 1 (427.000/407.000 Da)</p> <p>RT (Exp. RT): 1.81 (1.90) min</p> <p>Calculated Conc: 0.967 µg/L</p> <p>Area Ratio: 0.196</p> <p>Sample Type: (Standard)</p>	
<p>6:2-FTS 2 (427.000/80.900 Da)</p> <p>RT (Exp. RT): 1.81 (1.80) min</p> <p>Calculated Conc: 0.813 µg/L</p> <p>Area Ratio: 0.125</p> <p>Sample Type: (Standard)</p>	
<p>8:2-FTS 1 (526.900/507.000 Da)</p> <p>RT (Exp. RT): 2.09 (2.16) min</p> <p>Calculated Conc: 0.902 µg/L</p> <p>Area Ratio: 0.359</p> <p>Sample Type: (Standard)</p>	
<p>8:2-FTS 2 (526.900/80.900 Da)</p> <p>RT (Exp. RT): 2.09 (2.09) min</p> <p>Calculated Conc: 0.971 µg/L</p> <p>Area Ratio: 0.141</p> <p>Sample Type: (Standard)</p>	
<p>13C2-PFHxA (314.900/270.000 Da)</p> <p>RT (Exp. RT): 1.40 (1.40) min</p> <p>Calculated Conc: 100. µg/L</p> <p>Area Ratio: 0.323</p> <p>Sample Type: (Standard)</p>	
<p>18O2-PFHxS (402.900/84.000 Da)</p> <p>RT (Exp. RT): 1.66 (1.77) min</p> <p>Calculated Conc: 99.2 µg/L</p> <p>Area Ratio: 0.0856</p> <p>Sample Type: (Standard)</p>	

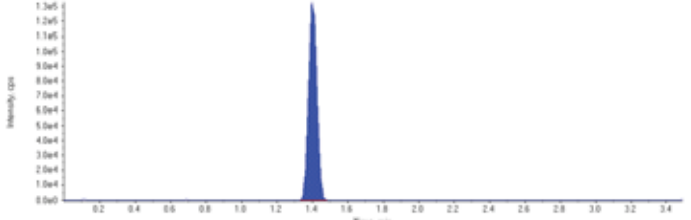
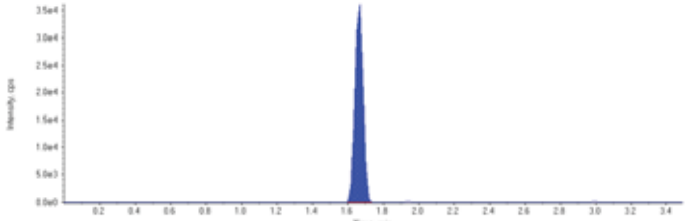
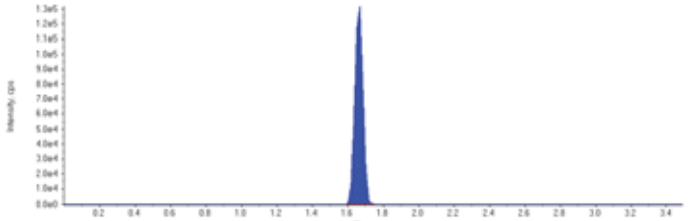
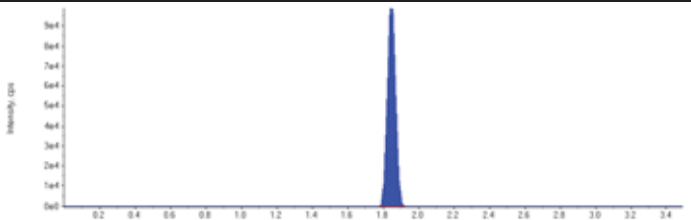
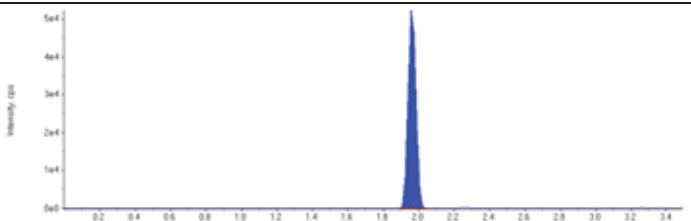
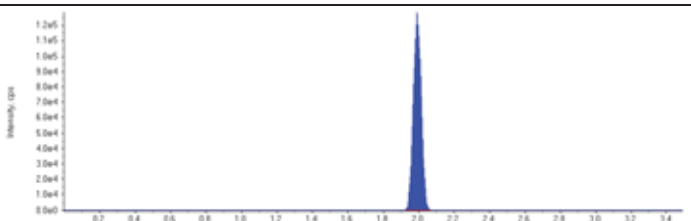
<p>13C4-PFHpa (366.900/322.000 Da)</p> <p>RT (Exp. RT): 1.66 (1.67) min</p> <p>Calculated Conc: 98.9 µg/L</p> <p>Area Ratio: 0.327</p> <p>Sample Type: (Standard)</p>	
<p>13C4-PFOA (416.900/372.000 Da)</p> <p>RT (Exp. RT): 1.85 (1.84) min</p> <p>Calculated Conc: 106. µg/L</p> <p>Area Ratio: 0.291</p> <p>Sample Type: (Standard)</p>	
<p>13C4-PFOS (502.900/79.900 Da)</p> <p>RT (Exp. RT): 1.96 (2.05) min</p> <p>Calculated Conc: 102. µg/L</p> <p>Area Ratio: 0.129</p> <p>Sample Type: (Standard)</p>	
<p>13C5-PFNA (467.900/423.000 Da)</p> <p>RT (Exp. RT): 1.99 (1.99) min</p> <p>Calculated Conc: 101. µg/L</p> <p>Area Ratio: 0.297</p> <p>Sample Type: (Standard)</p>	
<p>13C2-PFDA (514.900/470.000 Da)</p> <p>RT (Exp. RT): 2.11 (2.11) min</p> <p>Calculated Conc: 109. µg/L</p> <p>Area Ratio: 0.339</p> <p>Sample Type: (Standard)</p>	
<p>13C2-PFUnA (564.900/520.000 Da)</p> <p>RT (Exp. RT): 2.21 (2.27) min</p> <p>Calculated Conc: 107. µg/L</p> <p>Area Ratio: 0.247</p> <p>Sample Type: (Standard)</p>	

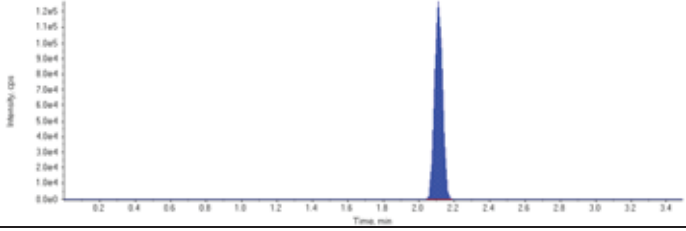
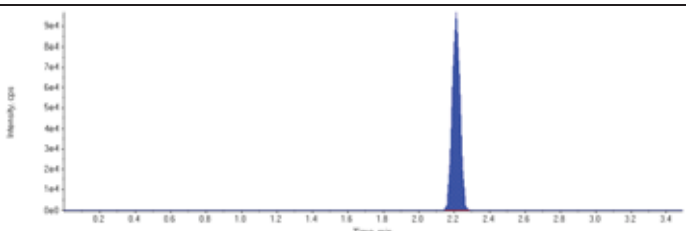
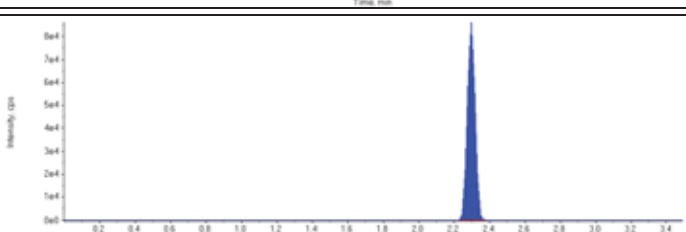
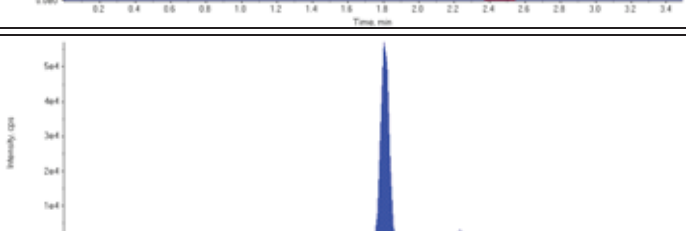
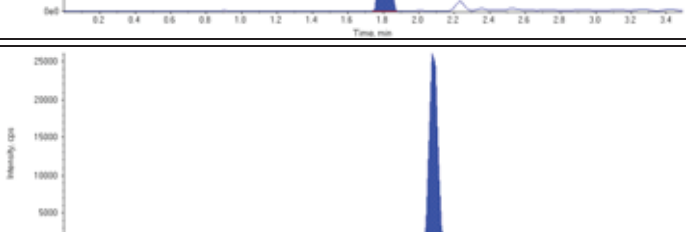
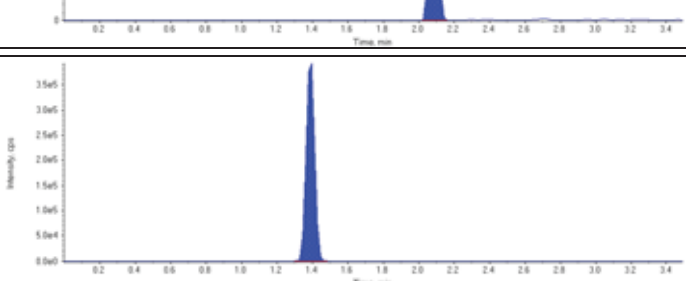
<p>13C2-PFDoA (614.900/570.000 Da)</p> <p>RT (Exp. RT): 2.30 (2.35) min</p> <p>Calculated Conc: 119. µg/L</p> <p>Area Ratio: 0.265</p> <p>Sample Type: (Standard)</p>	
<p>13C2-PFTeDA (714.900/669.900 Da)</p> <p>RT (Exp. RT): 2.44 (2.49) min</p> <p>Calculated Conc: 106. µg/L</p> <p>Area Ratio: 0.258</p> <p>Sample Type: (Standard)</p>	
<p>13C2-6:2-FTS (429.000/80.900 Da)</p> <p>RT (Exp. RT): 1.81 (1.80) min</p> <p>Calculated Conc: 105. µg/L</p> <p>Area Ratio: 0.125</p> <p>Sample Type: (Standard)</p>	
<p>13C2-8:2 FTS (528.900/80.900 Da)</p> <p>RT (Exp. RT): 2.09 (2.08) min</p> <p>Calculated Conc: 91.6 µg/L</p> <p>Area Ratio: 0.0610</p> <p>Sample Type: (Standard)</p>	
<p>13C6-PFHxA (318.900/274.000 Da)</p> <p>RT (Exp. RT): 1.39 (1.40) min</p> <p>Calculated Conc: 101. µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Standard)</p>	
<p>13C9-PFDA (521.900/477.100 Da)</p> <p>RT (Exp. RT): 2.10 (2.09) min</p> <p>Calculated Conc: 92.2 µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Standard)</p>	

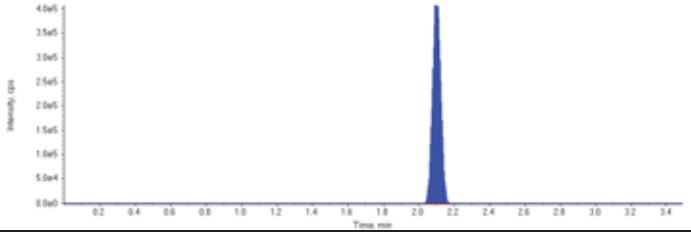
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Sample Type	Standard	Injection Vial	3
Acquisition Date	2017/05/23 1:03:39 PM	Dilution Factor	1.00
Acquisition Method	PFC_Water_Low.dam	Instrument Name	LCMS03
Project	Enviro\PFOS	Algorithm Used	Analyst Classic
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Result Table	PFC_Water_170523_4988945_CTLabs.rdb		
Samples Annotation	-		

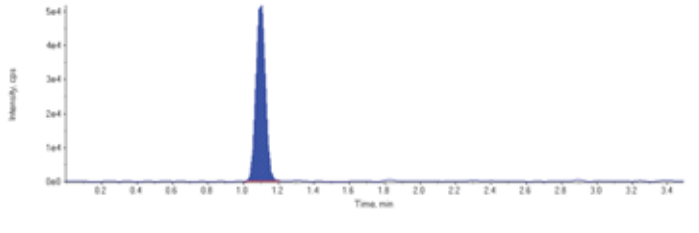
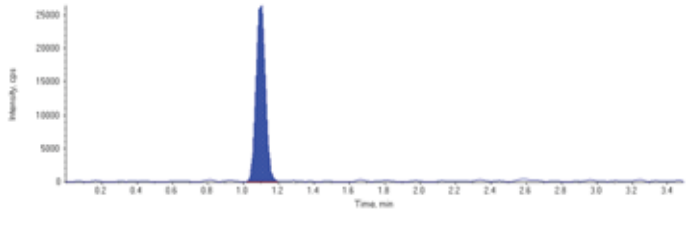
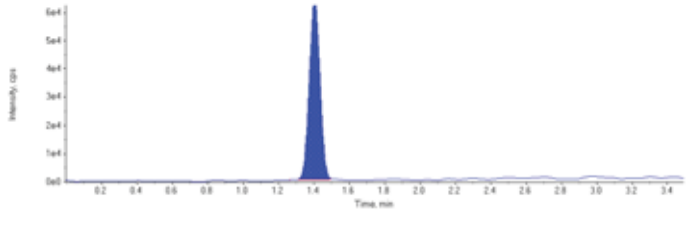
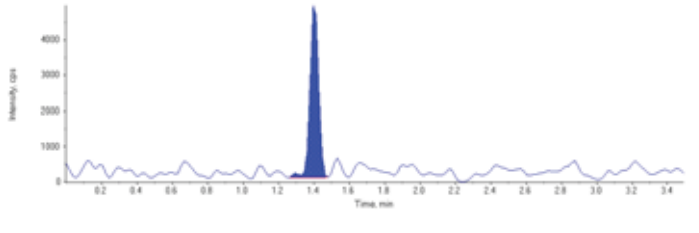
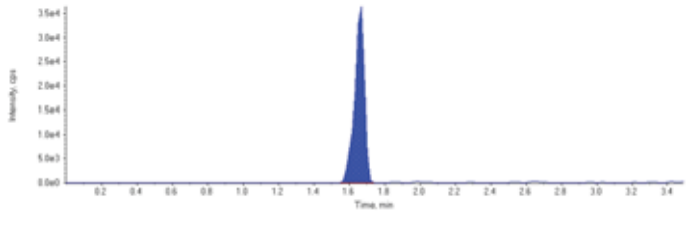
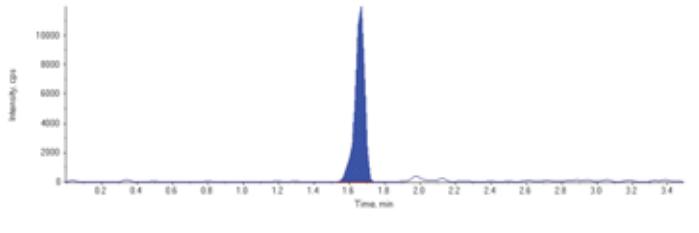
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MPFHxA	441000.	1.40	1.00	-
MPFHxS	116000.	1.66	1.00	-
MPFHpA	432000.	1.66	1.00	-
MPFOA	334000.	1.85	1.00	-
MPFOS	165000.	1.96	1.00	-
MPFNA	389000.	1.99	1.00	-
MPFDA	385000.	2.11	1.00	-
MPFUnA	291000.	2.21	1.00	-
MPFDoA	262000.	2.30	1.00	-
MPFTeDA	304000.	2.44	1.00	-
M2 6:2 FTS	180000.	1.81	1.00	-
M2 8:2 FTS	86700.	2.08	1.00	-
13C6-PFHxA IS	1350000.	1.39	1.00	-
13C9-PFDA IS	1370000.	2.10	1.00	-
N/A	N/A	N/A	N/A	-
N/A	N/A	N/A	N/A	-

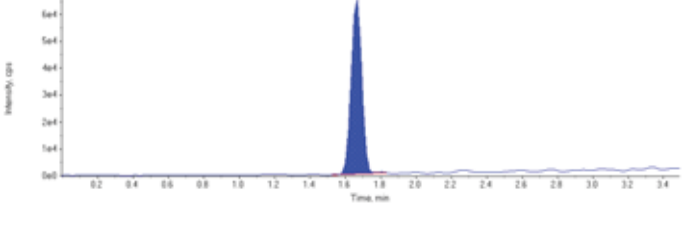
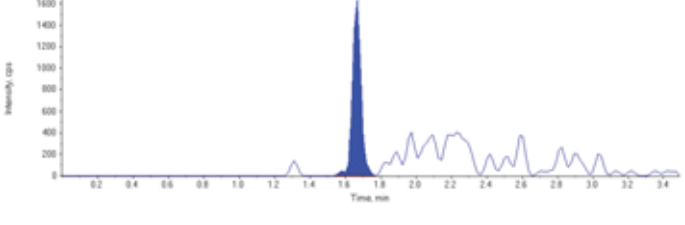
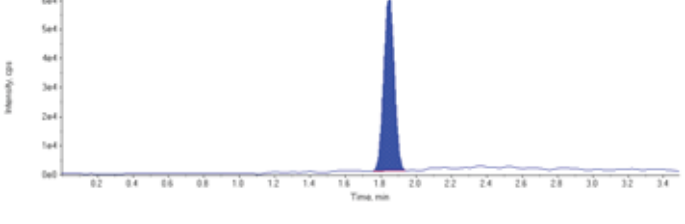
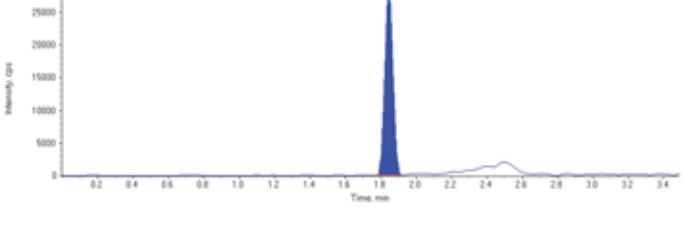
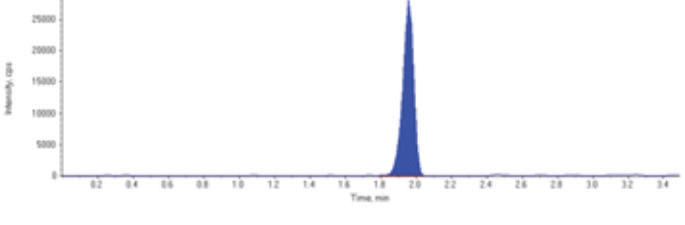
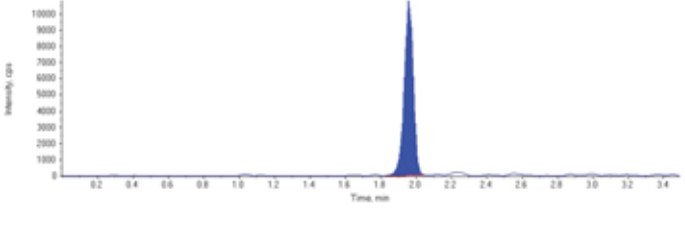
Target Analyte	Area (cps)	RT (min)	Target Conc. (ug/L)	Calc. Conc. (ug/L)	Accuracy (%)
PFBS 1	193000	1.10	1.70	1.66	97.4
PFBS 2	98000	1.10	1.70	1.63	95.6
PFHxA 1	267000	1.40	1.70	1.56	91.5
PFHxA 2	16900	1.40	1.70	1.59	93.5
PFHxS 1	141000	1.66	1.70	1.52	89.6
PFHxS 2	44300	1.66	1.70	1.62	95.3
PFHpA 1	272000	1.66	1.70	1.68	98.6
PFHpA 2	5490	1.66	1.70	1.61	94.5
PFOA 1	250000	1.85	1.70	1.84	108.0
PFOA 2	91100	1.85	1.70	1.70	99.9
PFOS 1	120000	1.96	1.70	1.67	98.2
PFOS 2	38100	1.96	1.70	1.73	102.0
PFNA 1	230000	1.99	1.70	1.71	101.0
PFNA 2	61400	1.99	1.70	1.73	102.0
PFDA 1	243000	2.11	1.70	1.62	95.4
PFDA 2	50800	2.11	1.70	1.74	103.0
PFUnA 1	186000	2.21	1.70	1.60	93.9
PFUnA 2	20900	2.21	1.70	1.65	97.2
PFDaA 1	183000	2.30	1.70	1.75	103.0
PFDaA 2	15600	2.30	1.70	1.54	90.8
PFTTrDA 1	192000	2.37	1.70	1.61	94.6
PFTTrDA 2	24600	2.37	1.70	1.80	106.0
PFTeDA 1	150000	2.44	1.70	1.44	84.5
PFTeDA 2	10700	2.44	1.70	1.39	82.0
6:2-FTS 1	65200	1.81	1.70	1.59	93.6
6:2-FTS 2	47800	1.81	1.70	1.59	93.6
8:2-FTS 1	55700	2.09	1.70	1.46	86.1
8:2-FTS 2	22000	2.09	1.70	1.58	92.9
13C2-PFHxA	441000	1.40	100.	101.	101.0
18O2-PFHxS	116000	1.66	100.	99.2	99.2
13C4-PFHpA	432000	1.66	100.	96.5	96.5
13C4-PFOA	334000	1.85	100.	89.7	89.7
13C4-PFOS	165000	1.96	100.	96.1	96.1
13C5-PFNA	389000	1.99	100.	98.1	98.1
13C2-PFDA	385000	2.11	100.	90.9	90.9
13C2-PFUnA	291000	2.21	100.	92.7	92.7
13C2-PFDaA	262000	2.30	100.	86.3	86.3
13C2-PFTeDA	304000	2.44	100.	91.1	91.1
13C2-6:2-FTS	180000	1.81	100.	111.	111.0
13C2-8:2 FTS	86700	2.08	100.	96.1	96.1
13C6-PFHxA	1350000	1.39	100.	106.	106.0
13C9-PFDA	1370000	2.10	100.	114.	114.0

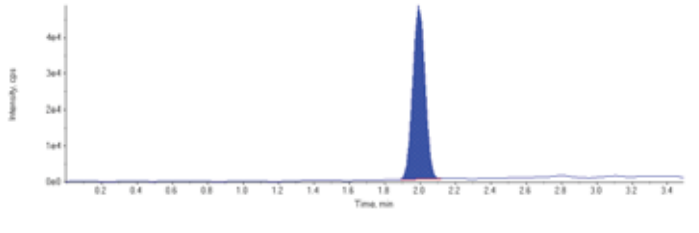
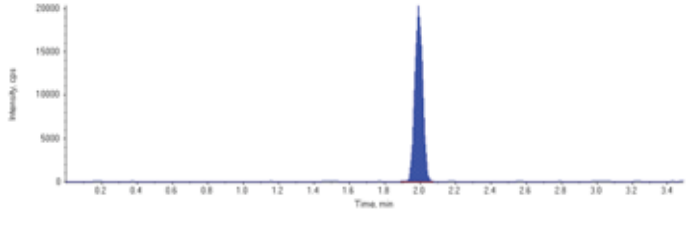
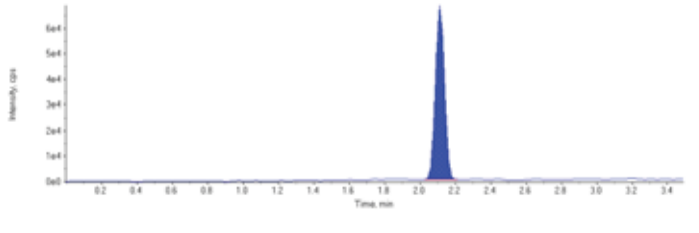
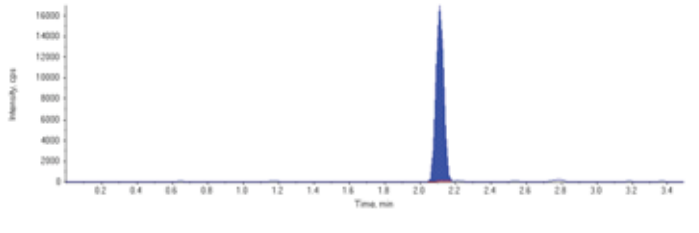
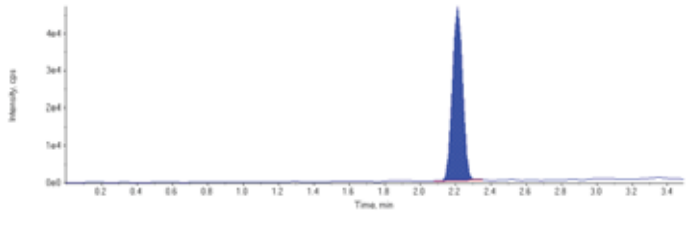
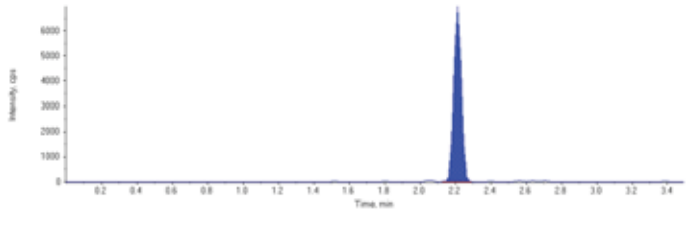
<p>MPFHxA (Internal Standard)</p> <p>RT (Exp. RT): 1.40(1.40) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Standard)</p>	
<p>MPFHxS (Internal Standard)</p> <p>RT (Exp. RT): 1.66(1.77) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Standard)</p>	
<p>MPFHpA (Internal Standard)</p> <p>RT (Exp. RT): 1.66(1.67) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Standard)</p>	
<p>MPFOA (Internal Standard)</p> <p>RT (Exp. RT): 1.85(1.84) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Standard)</p>	
<p>MPFOS (Internal Standard)</p> <p>RT (Exp. RT): 1.96(2.05) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Standard)</p>	
<p>MPFNA (Internal Standard)</p> <p>RT (Exp. RT): 1.99(1.99) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Standard)</p>	

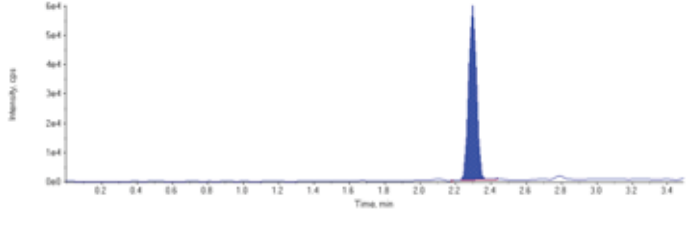
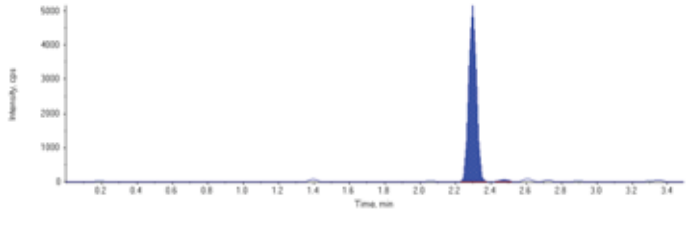
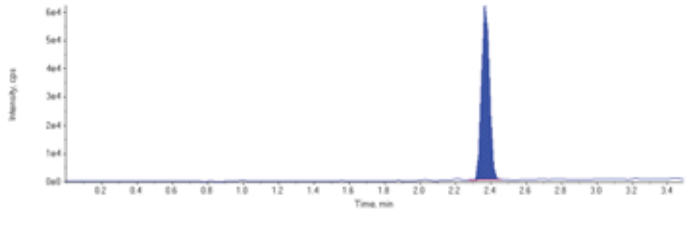
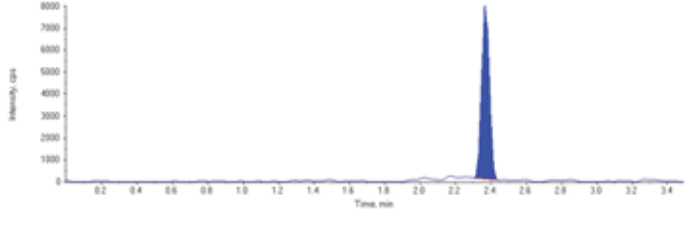
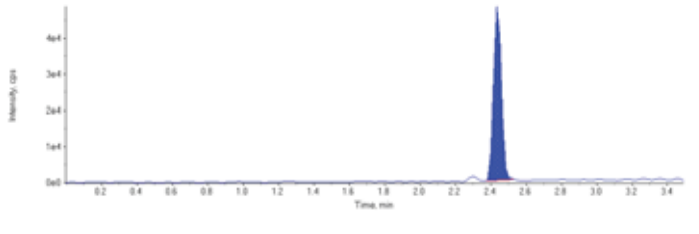
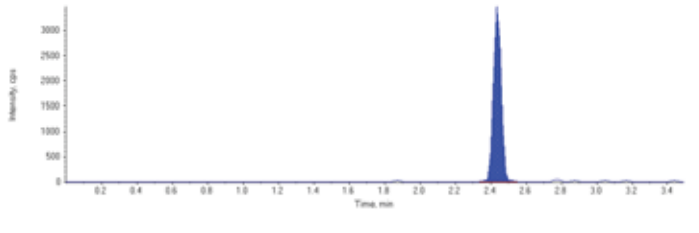
<p>MPFDA (Internal Standard)</p> <p>RT (Exp. RT): 2.11(2.18) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Standard)</p>	
<p>MPFUnA (Internal Standard)</p> <p>RT (Exp. RT): 2.21(2.27) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Standard)</p>	
<p>MPFDoA (Internal Standard)</p> <p>RT (Exp. RT): 2.30(2.35) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Standard)</p>	
<p>MPFTeDA (Internal Standard)</p> <p>RT (Exp. RT): 2.44(2.49) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Standard)</p>	
<p>M2 6:2 FTS (Internal Standard)</p> <p>RT (Exp. RT): 1.81(1.80) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Standard)</p>	
<p>M2 8:2 FTS (Internal Standard)</p> <p>RT (Exp. RT): 2.08(2.08) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Standard)</p>	
<p>13C6-PFHxA IS (Internal Standard)</p> <p>RT (Exp. RT): 1.39(1.40) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Standard)</p>	

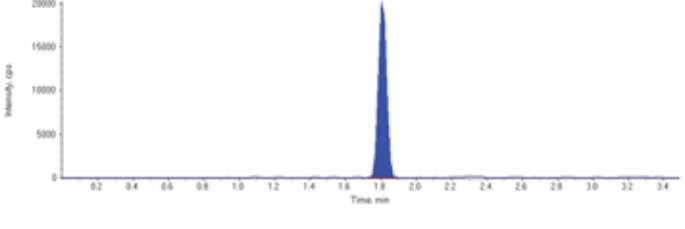
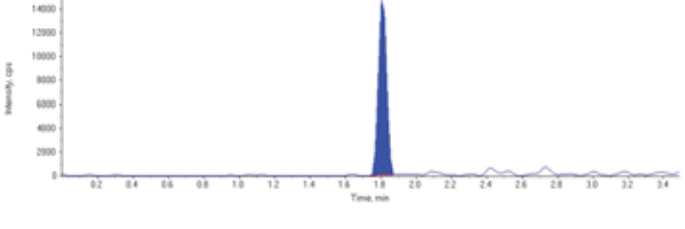
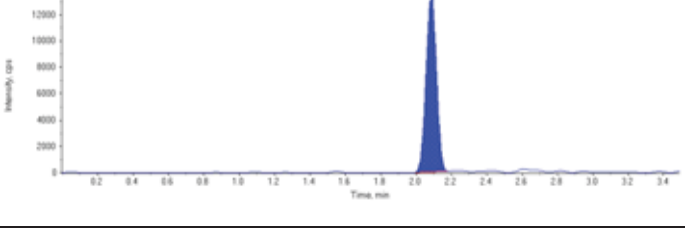
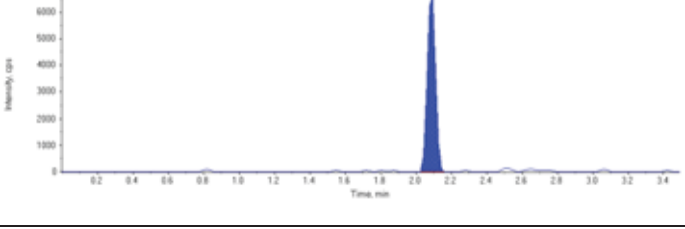
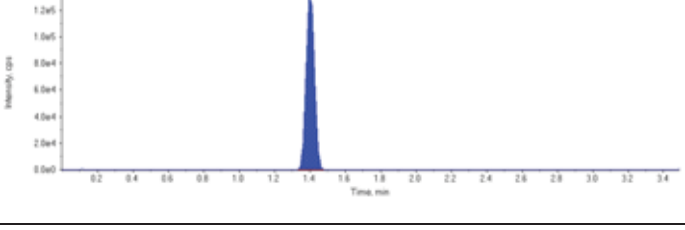
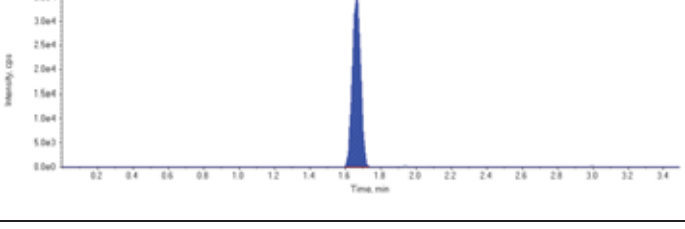
<p>13C9-PFDA IS (Internal Standard)</p> <p>RT (Exp. RT): 2.10(2.09) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Standard)</p>	
<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min</p> <p>Concentration: N/A N/A</p> <p>Sample Type: (Standard)</p>	<p>This image is not available</p>
<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min</p> <p>Concentration: N/A N/A</p> <p>Sample Type: (Standard)</p>	<p>This image is not available</p>

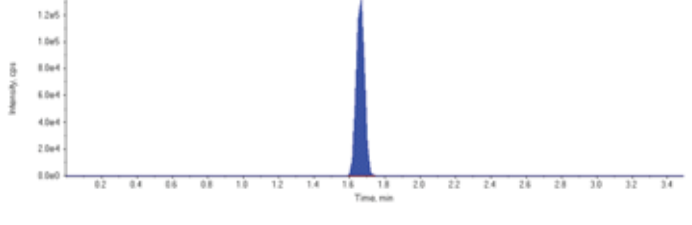
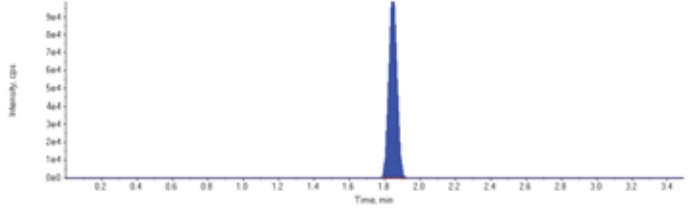
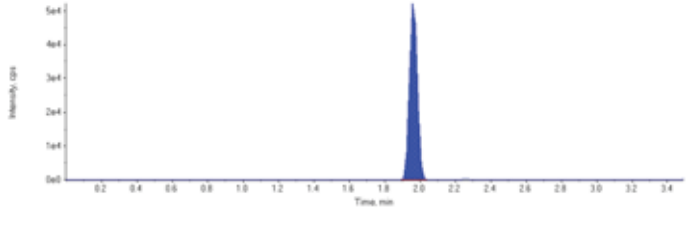
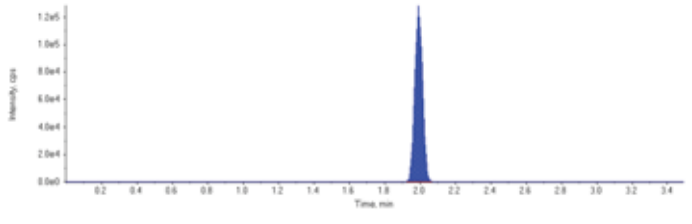
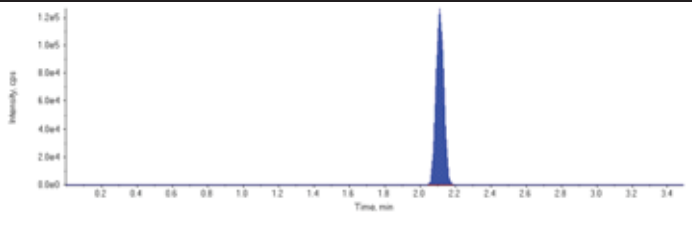
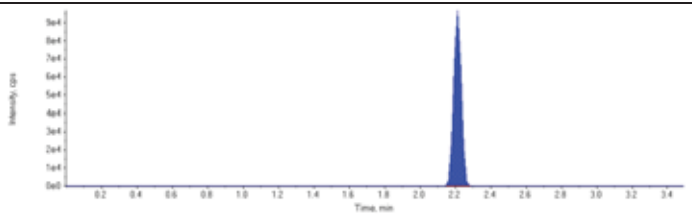
<p>PFBS 1 (298.900/79.900 Da)</p> <p>RT (Exp. RT): 1.10 (1.09) min</p> <p>Calculated Conc: 1.66 µg/L</p> <p>Area Ratio: 1.66</p> <p>Sample Type: (Standard)</p>	
<p>PFBS 2 (298.900/98.900 Da)</p> <p>RT (Exp. RT): 1.10 (1.09) min</p> <p>Calculated Conc: 1.63 µg/L</p> <p>Area Ratio: 0.846</p> <p>Sample Type: (Standard)</p>	
<p>PFHxA 1 (313.000/269.000 Da)</p> <p>RT (Exp. RT): 1.40 (1.40) min</p> <p>Calculated Conc: 1.56 µg/L</p> <p>Area Ratio: 0.607</p> <p>Sample Type: (Standard)</p>	
<p>PFHxA 2 (313.000/119.000 Da)</p> <p>RT (Exp. RT): 1.40 (1.41) min</p> <p>Calculated Conc: 1.59 µg/L</p> <p>Area Ratio: 0.0383</p> <p>Sample Type: (Standard)</p>	
<p>PFHxS 1 (398.900/79.900 Da)</p> <p>RT (Exp. RT): 1.66 (1.67) min</p> <p>Calculated Conc: 1.52 µg/L</p> <p>Area Ratio: 1.22</p> <p>Sample Type: (Standard)</p>	
<p>PFHxS 2 (398.900/98.900 Da)</p> <p>RT (Exp. RT): 1.66 (1.67) min</p> <p>Calculated Conc: 1.62 µg/L</p> <p>Area Ratio: 0.383</p> <p>Sample Type: (Standard)</p>	

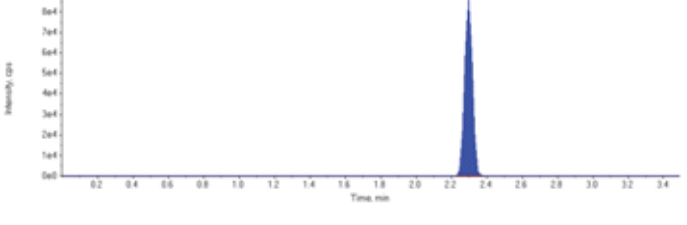
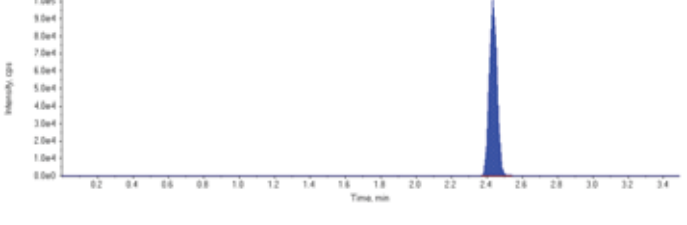
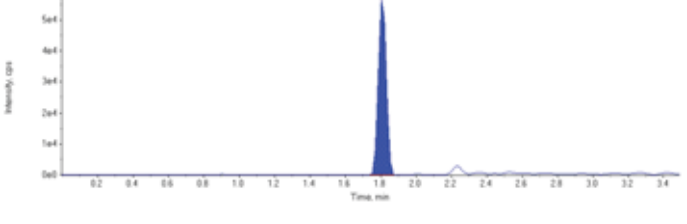
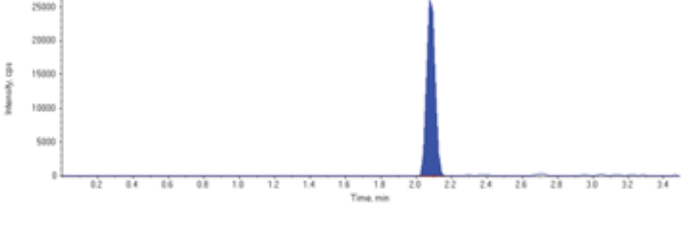
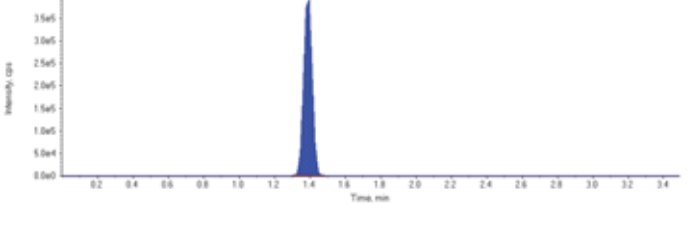
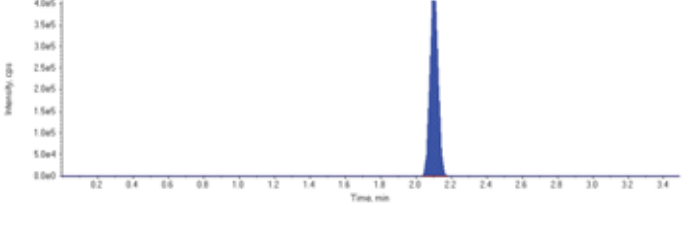
<p>PFHpA 1 (363.000/319.000 Da)</p> <p>RT (Exp. RT): 1.66 (1.67) min</p> <p>Calculated Conc: 1.68 µg/L</p> <p>Area Ratio: 0.629</p> <p>Sample Type: (Standard)</p>	
<p>PFHpA 2 (363.000/169.200 Da)</p> <p>RT (Exp. RT): 1.66 (1.67) min</p> <p>Calculated Conc: 1.61 µg/L</p> <p>Area Ratio: 0.0127</p> <p>Sample Type: (Standard)</p>	
<p>PFOA 1 (413.100/369.000 Da)</p> <p>RT (Exp. RT): 1.85 (1.85) min</p> <p>Calculated Conc: 1.84 µg/L</p> <p>Area Ratio: 0.747</p> <p>Sample Type: (Standard)</p>	
<p>PFOA 2 (413.100/169.000 Da)</p> <p>RT (Exp. RT): 1.85 (1.84) min</p> <p>Calculated Conc: 1.70 µg/L</p> <p>Area Ratio: 0.273</p> <p>Sample Type: (Standard)</p>	
<p>PFOS 1 (498.900/79.900 Da)</p> <p>RT (Exp. RT): 1.96 (1.96) min</p> <p>Calculated Conc: 1.67 µg/L</p> <p>Area Ratio: 0.730</p> <p>Sample Type: (Standard)</p>	
<p>PFOS 2 (498.900/98.900 Da)</p> <p>RT (Exp. RT): 1.96 (1.96) min</p> <p>Calculated Conc: 1.73 µg/L</p> <p>Area Ratio: 0.231</p> <p>Sample Type: (Standard)</p>	

<p>PFNA 1 (462.900/419.000 Da)</p> <p>RT (Exp. RT): 1.99 (1.99) min</p> <p>Calculated Conc: 1.71 µg/L</p> <p>Area Ratio: 0.592</p> <p>Sample Type: (Standard)</p>	
<p>PFNA 2 (462.900/219.100 Da)</p> <p>RT (Exp. RT): 1.99 (1.99) min</p> <p>Calculated Conc: 1.73 µg/L</p> <p>Area Ratio: 0.158</p> <p>Sample Type: (Standard)</p>	
<p>PFDA 1 (513.000/469.100 Da)</p> <p>RT (Exp. RT): 2.11 (2.18) min</p> <p>Calculated Conc: 1.62 µg/L</p> <p>Area Ratio: 0.632</p> <p>Sample Type: (Standard)</p>	
<p>PFDA 2 (513.000/218.900 Da)</p> <p>RT (Exp. RT): 2.11 (2.11) min</p> <p>Calculated Conc: 1.74 µg/L</p> <p>Area Ratio: 0.132</p> <p>Sample Type: (Standard)</p>	
<p>PFUnA 1 (562.900/519.000 Da)</p> <p>RT (Exp. RT): 2.21 (2.21) min</p> <p>Calculated Conc: 1.60 µg/L</p> <p>Area Ratio: 0.639</p> <p>Sample Type: (Standard)</p>	
<p>PFUnA 2 (562.900/269.200 Da)</p> <p>RT (Exp. RT): 2.21 (2.27) min</p> <p>Calculated Conc: 1.65 µg/L</p> <p>Area Ratio: 0.0717</p> <p>Sample Type: (Standard)</p>	

<p>PFD_oA 1 (612.900/569.000 Da)</p> <p>RT (Exp. RT): 2.30 (2.36) min</p> <p>Calculated Conc: 1.75 µg/L</p> <p>Area Ratio: 0.696</p> <p>Sample Type: (Standard)</p>	
<p>PFD_oA 2 (612.900/319.000 Da)</p> <p>RT (Exp. RT): 2.30 (2.35) min</p> <p>Calculated Conc: 1.54 µg/L</p> <p>Area Ratio: 0.0594</p> <p>Sample Type: (Standard)</p>	
<p>PFT_rDA 1 (663.000/619.000 Da)</p> <p>RT (Exp. RT): 2.37 (2.42) min</p> <p>Calculated Conc: 1.61 µg/L</p> <p>Area Ratio: 0.632</p> <p>Sample Type: (Standard)</p>	
<p>PFT_rDA 2 (663.000/318.900 Da)</p> <p>RT (Exp. RT): 2.37 (2.37) min</p> <p>Calculated Conc: 1.80 µg/L</p> <p>Area Ratio: 0.0809</p> <p>Sample Type: (Standard)</p>	
<p>PFT_eDA 1 (713.000/669.000 Da)</p> <p>RT (Exp. RT): 2.44 (2.49) min</p> <p>Calculated Conc: 1.44 µg/L</p> <p>Area Ratio: 0.493</p> <p>Sample Type: (Standard)</p>	
<p>PFT_eDA 2 (713.000/319.200 Da)</p> <p>RT (Exp. RT): 2.44 (2.49) min</p> <p>Calculated Conc: 1.39 µg/L</p> <p>Area Ratio: 0.0351</p> <p>Sample Type: (Standard)</p>	

<p>6:2-FTS 1 (427.000/407.000 Da)</p> <p>RT (Exp. RT): 1.81 (1.90) min</p> <p>Calculated Conc: 1.59 µg/L</p> <p>Area Ratio: 0.363</p> <p>Sample Type: (Standard)</p>	
<p>6:2-FTS 2 (427.000/80.900 Da)</p> <p>RT (Exp. RT): 1.81 (1.80) min</p> <p>Calculated Conc: 1.59 µg/L</p> <p>Area Ratio: 0.266</p> <p>Sample Type: (Standard)</p>	
<p>8:2-FTS 1 (526.900/507.000 Da)</p> <p>RT (Exp. RT): 2.09 (2.16) min</p> <p>Calculated Conc: 1.46 µg/L</p> <p>Area Ratio: 0.643</p> <p>Sample Type: (Standard)</p>	
<p>8:2-FTS 2 (526.900/80.900 Da)</p> <p>RT (Exp. RT): 2.09 (2.09) min</p> <p>Calculated Conc: 1.58 µg/L</p> <p>Area Ratio: 0.253</p> <p>Sample Type: (Standard)</p>	
<p>13C2-PFHxA (314.900/270.000 Da)</p> <p>RT (Exp. RT): 1.40 (1.40) min</p> <p>Calculated Conc: 101. µg/L</p> <p>Area Ratio: 0.326</p> <p>Sample Type: (Standard)</p>	
<p>18O2-PFHxS (402.900/84.000 Da)</p> <p>RT (Exp. RT): 1.66 (1.77) min</p> <p>Calculated Conc: 99.2 µg/L</p> <p>Area Ratio: 0.0855</p> <p>Sample Type: (Standard)</p>	

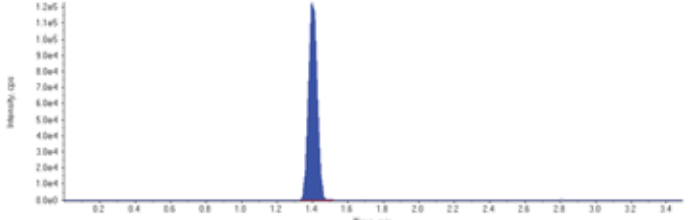
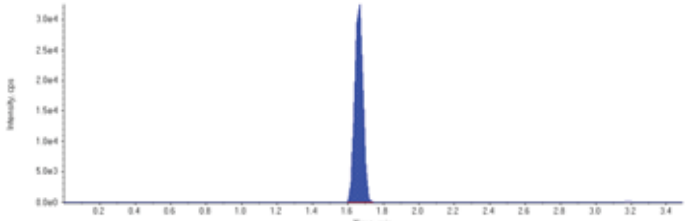
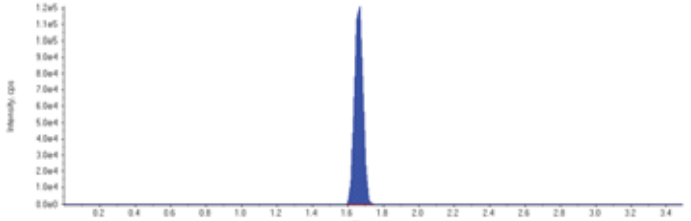
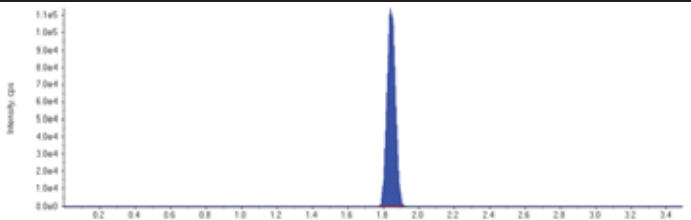
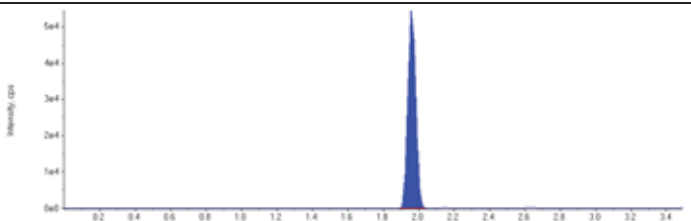
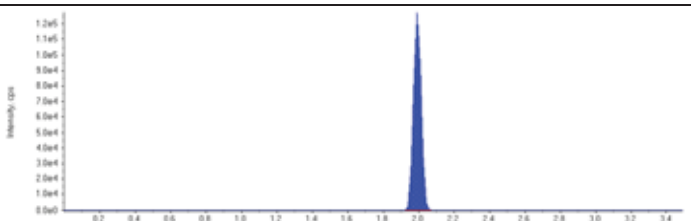
<p>13C4-PFHpa (366.900/322.000 Da)</p> <p>RT (Exp. RT): 1.66 (1.67) min</p> <p>Calculated Conc: 96.5 µg/L</p> <p>Area Ratio: 0.319</p> <p>Sample Type: (Standard)</p>	
<p>13C4-PFOA (416.900/372.000 Da)</p> <p>RT (Exp. RT): 1.85 (1.84) min</p> <p>Calculated Conc: 89.7 µg/L</p> <p>Area Ratio: 0.247</p> <p>Sample Type: (Standard)</p>	
<p>13C4-PFOS (502.900/79.900 Da)</p> <p>RT (Exp. RT): 1.96 (2.05) min</p> <p>Calculated Conc: 96.1 µg/L</p> <p>Area Ratio: 0.122</p> <p>Sample Type: (Standard)</p>	
<p>13C5-PFNA (467.900/423.000 Da)</p> <p>RT (Exp. RT): 1.99 (1.99) min</p> <p>Calculated Conc: 98.1 µg/L</p> <p>Area Ratio: 0.287</p> <p>Sample Type: (Standard)</p>	
<p>13C2-PFDA (514.900/470.000 Da)</p> <p>RT (Exp. RT): 2.11 (2.11) min</p> <p>Calculated Conc: 90.9 µg/L</p> <p>Area Ratio: 0.282</p> <p>Sample Type: (Standard)</p>	
<p>13C2-PFUnA (564.900/520.000 Da)</p> <p>RT (Exp. RT): 2.21 (2.27) min</p> <p>Calculated Conc: 92.7 µg/L</p> <p>Area Ratio: 0.213</p> <p>Sample Type: (Standard)</p>	

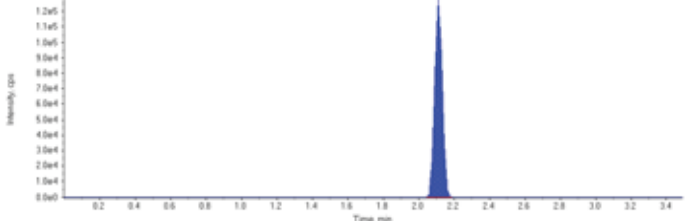
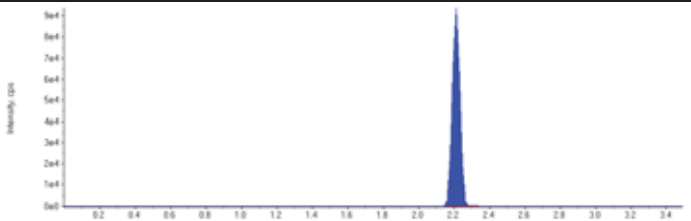
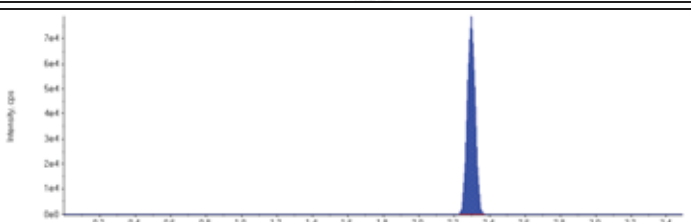
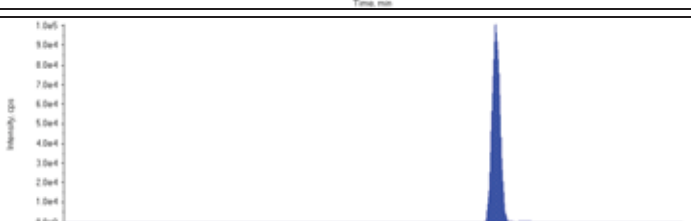
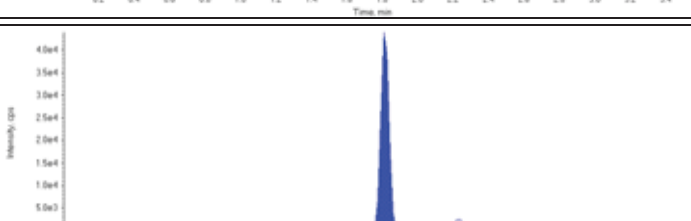
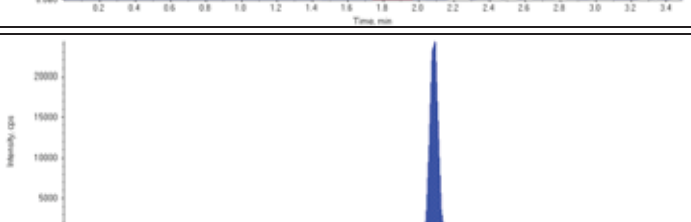
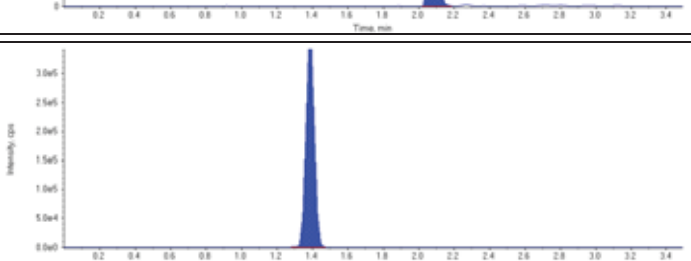
<p>13C2-PFDoA (614.900/570.000 Da)</p> <p>RT (Exp. RT): 2.30 (2.35) min</p> <p>Calculated Conc: 86.3 µg/L</p> <p>Area Ratio: 0.192</p> <p>Sample Type: (Standard)</p>	
<p>13C2-PFTeDA (714.900/669.900 Da)</p> <p>RT (Exp. RT): 2.44 (2.49) min</p> <p>Calculated Conc: 91.1 µg/L</p> <p>Area Ratio: 0.222</p> <p>Sample Type: (Standard)</p>	
<p>13C2-6:2-FTS (429.000/80.900 Da)</p> <p>RT (Exp. RT): 1.81 (1.80) min</p> <p>Calculated Conc: 111. µg/L</p> <p>Area Ratio: 0.133</p> <p>Sample Type: (Standard)</p>	
<p>13C2-8:2 FTS (528.900/80.900 Da)</p> <p>RT (Exp. RT): 2.08 (2.08) min</p> <p>Calculated Conc: 96.1 µg/L</p> <p>Area Ratio: 0.0640</p> <p>Sample Type: (Standard)</p>	
<p>13C6-PFHxA (318.900/274.000 Da)</p> <p>RT (Exp. RT): 1.39 (1.40) min</p> <p>Calculated Conc: 106. µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Standard)</p>	
<p>13C9-PFDA (521.900/477.100 Da)</p> <p>RT (Exp. RT): 2.10 (2.09) min</p> <p>Calculated Conc: 114. µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Standard)</p>	

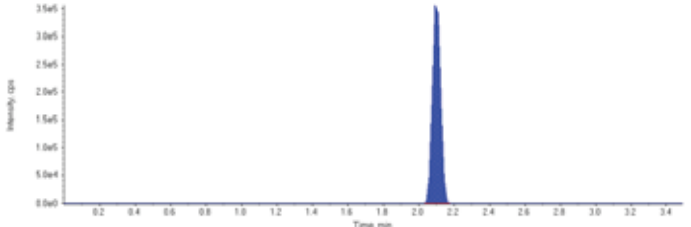
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Sample Type	Standard	Injection Vial	4
Acquisition Date	2017/05/23 1:08:43 PM	Dilution Factor	1.00
Acquisition Method	PFC_Water_Low.dam	Instrument Name	LCMS03
Project	Enviro\PFOS	Algorithm Used	Analyst Classic
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Result Table	PFC_Water_170523_4988945_CTLabs.rdb		
Samples Annotation	-		

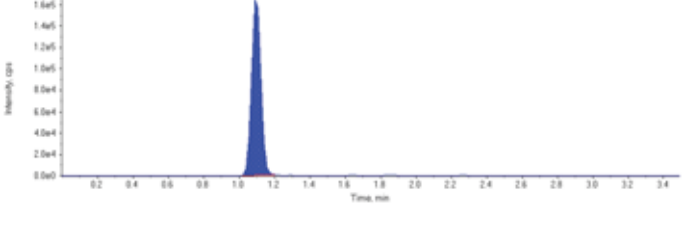
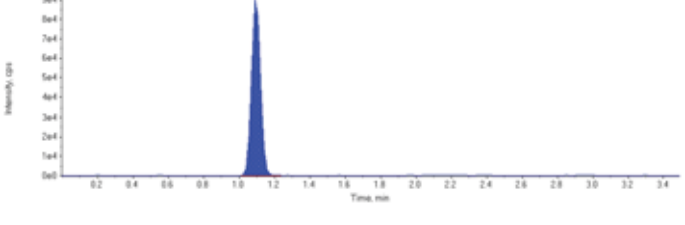
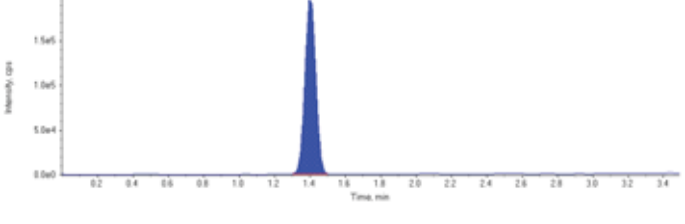
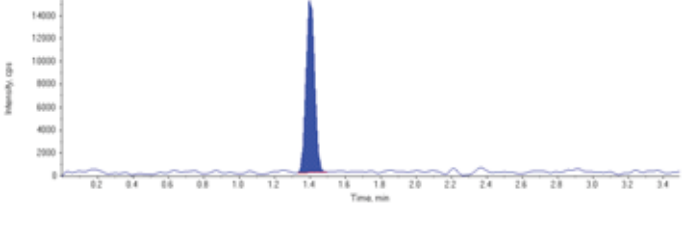
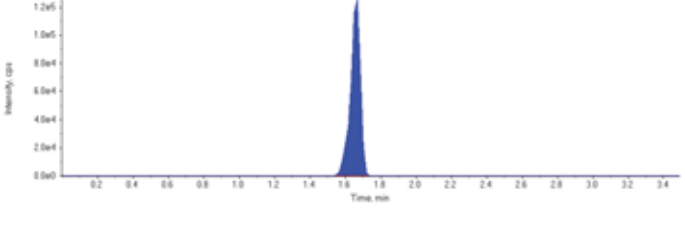
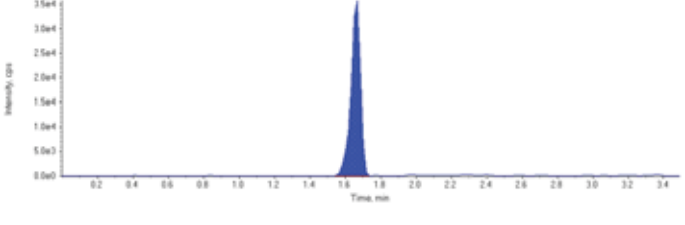
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MPFHxS	106000.	1.66	1.00	-
MPFHpA	405000.	1.66	1.00	-
MPFOA	377000.	1.84	1.00	-
MPFOS	170000.	1.96	1.00	-
MPFNA	387000.	1.99	1.00	-
MPFDA	383000.	2.11	1.00	-
MPFUnA	283000.	2.21	1.00	-
MPFDoA	241000.	2.30	1.00	-
MPFTeDA	305000.	2.44	1.00	-
M2 6:2 FTS	141000.	1.81	1.00	-
M2 8:2 FTS	80900.	2.09	1.00	-
13C6-PFHxA IS	1200000.	1.39	1.00	-
13C9-PFDA IS	1170000.	2.10	1.00	-
N/A	N/A	N/A	N/A	-
N/A	N/A	N/A	N/A	-

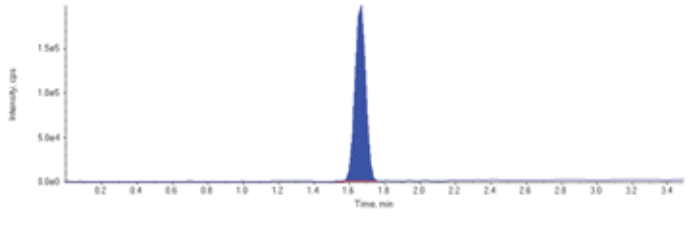
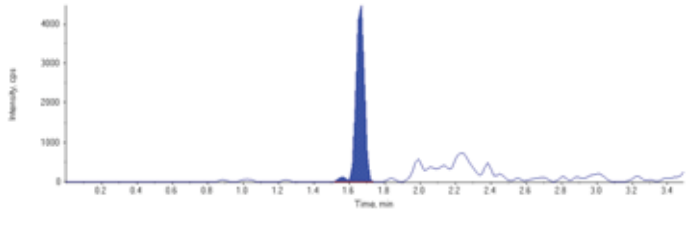
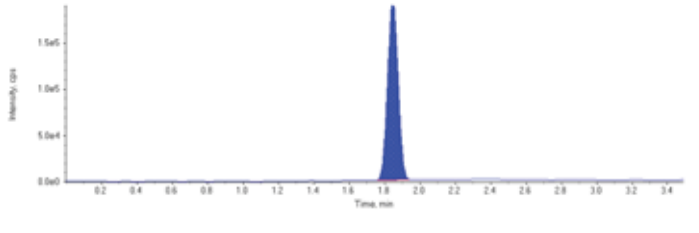
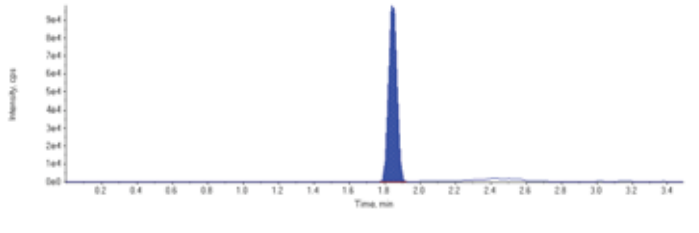
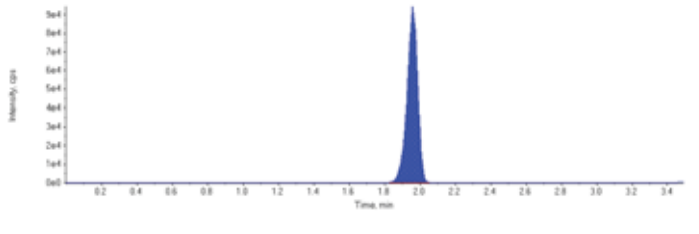
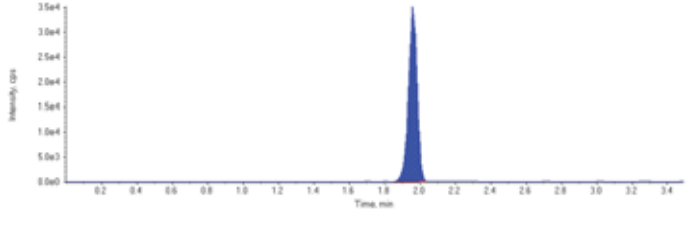
Target Analyte	Area (cps)	RT (min)	Target Conc. (ug/L)	Calc. Conc. (ug/L)	Accuracy (%)
PFBS 1	613000	1.10	5.00	5.16	103.0
PFBS 2	323000	1.09	5.00	5.43	109.0
PFHxA 1	849000	1.40	5.00	4.80	96.1
PFHxA 2	50700	1.40	5.00	4.86	97.1
PFHxS 1	488000	1.66	5.00	5.41	108.0
PFHxS 2	136000	1.66	5.00	5.11	102.0
PFHpA 1	830000	1.66	5.00	5.30	106.0
PFHpA 2	14900	1.66	5.00	5.00	100.0
PFOA 1	805000	1.85	5.00	4.89	97.7
PFOA 2	328000	1.85	5.00	4.92	98.4
PFOS 1	395000	1.96	5.00	5.09	102.0
PFOS 2	120000	1.96	5.00	4.99	99.8
PFNA 1	698000	1.99	5.00	5.08	102.0
PFNA 2	185000	1.99	5.00	5.11	102.0
PFDA 1	784000	2.11	5.00	5.05	101.0
PFDA 2	148000	2.11	5.00	4.92	98.5
PFUnA 1	614000	2.21	5.00	5.22	104.0
PFUnA 2	71100	2.21	5.00	5.49	110.0
PFDaA 1	559000	2.30	5.00	5.64	113.0
PFDaA 2	57300	2.30	5.00	5.72	114.0
PFTTrDA 1	617000	2.37	5.00	4.98	99.6
PFTTrDA 2	66900	2.37	5.00	4.85	97.0
PFTeDA 1	575000	2.44	5.00	5.14	103.0
PFTeDA 2	40700	2.44	5.00	5.04	101.0
6:2-FTS 1	182000	1.81	5.00	5.04	101.0
6:2-FTS 2	145000	1.81	5.00	5.83	117.0
8:2-FTS 1	211000	2.09	5.00	5.34	107.0
8:2-FTS 2	70400	2.09	5.00	4.93	98.6
13C2-PFHxA	418000	1.40	100.	108.	108.0
18O2-PFHxS	106000	1.66	100.	102.	102.0
13C4-PFHpA	405000	1.66	100.	102.	102.0
13C4-PFOA	377000	1.84	100.	114.	114.0
13C4-PFOS	170000	1.96	100.	111.	111.0
13C5-PFNA	387000	1.99	100.	110.	110.0
13C2-PFDA	383000	2.11	100.	105.	105.0
13C2-PFUnA	283000	2.21	100.	105.	105.0
13C2-PFDaA	241000	2.30	100.	92.2	92.2
13C2-PFTeDA	305000	2.44	100.	106.	106.0
13C2-6:2-FTS	141000	1.81	100.	98.4	98.4
13C2-8:2 FTS	80900	2.09	100.	101.	101.0
13C6-PFHxA	1200000	1.39	100.	93.9	93.9
13C9-PFDA	1170000	2.10	100.	98.0	98.0

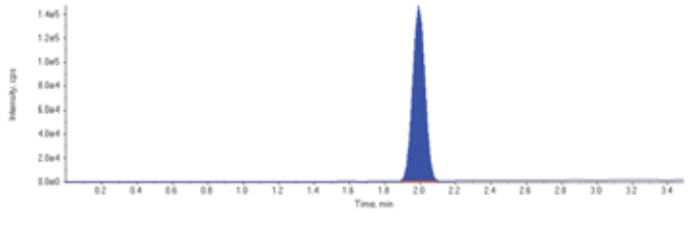
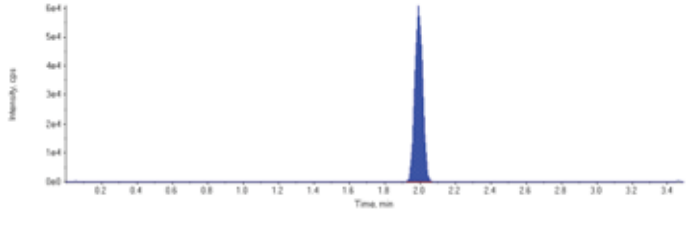
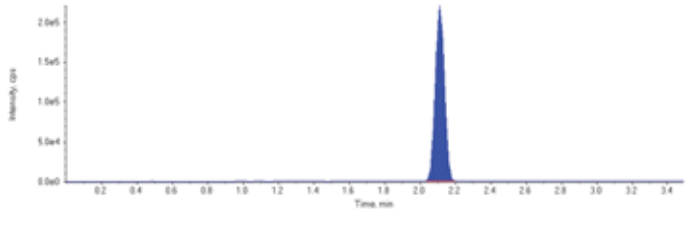
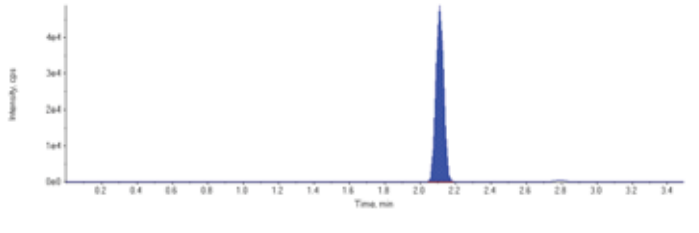
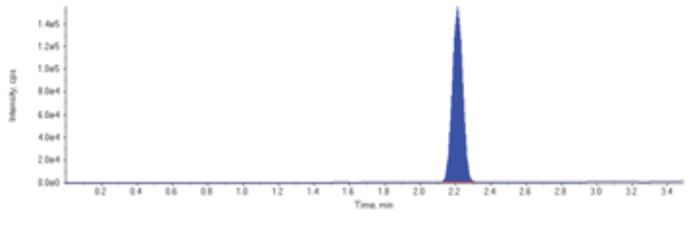
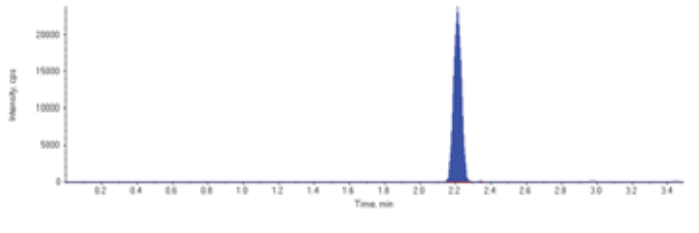
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<p>MPFHxS (Internal Standard)</p> <p>RT (Exp. RT): 1.66(1.77) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Standard)</p>	
<p>MPFHpA (Internal Standard)</p> <p>RT (Exp. RT): 1.66(1.67) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Standard)</p>	
<p>MPFOA (Internal Standard)</p> <p>RT (Exp. RT): 1.84(1.84) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Standard)</p>	
<p>MPFOS (Internal Standard)</p> <p>RT (Exp. RT): 1.96(2.05) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Standard)</p>	
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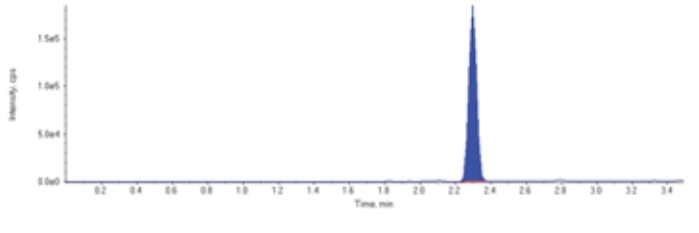
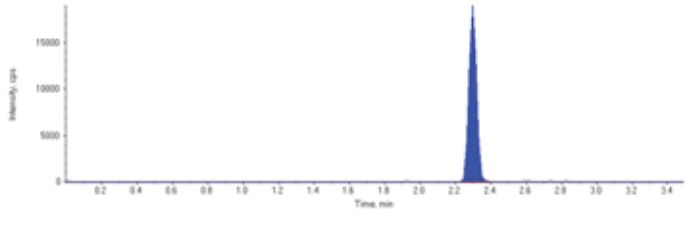
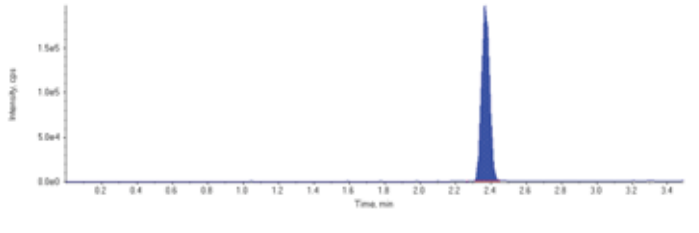
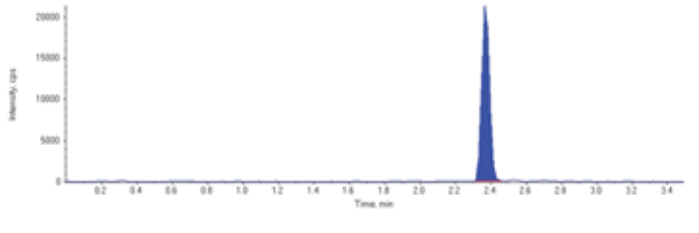
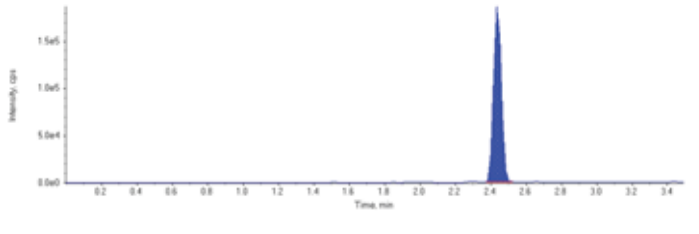
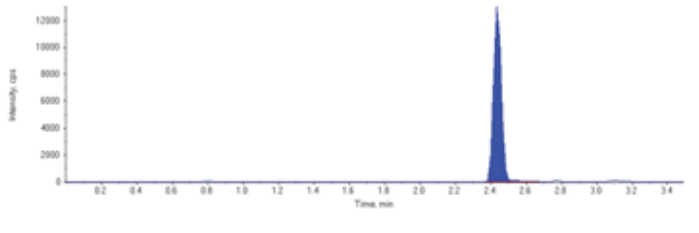
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<p>MPFUnA (Internal Standard)</p> <p>RT (Exp. RT): 2.21(2.27) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Standard)</p>	
<p>MPFDoA (Internal Standard)</p> <p>RT (Exp. RT): 2.30(2.35) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Standard)</p>	
<p>MPFTeDA (Internal Standard)</p> <p>RT (Exp. RT): 2.44(2.49) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Standard)</p>	
<p>M2 6:2 FTS (Internal Standard)</p> <p>RT (Exp. RT): 1.81(1.80) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Standard)</p>	
<p>M2 8:2 FTS (Internal Standard)</p> <p>RT (Exp. RT): 2.09(2.08) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Standard)</p>	
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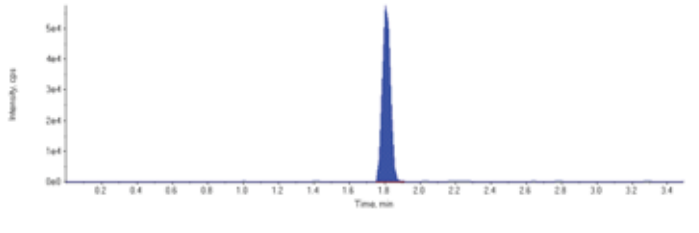
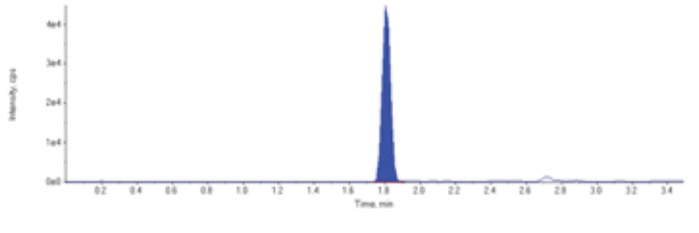
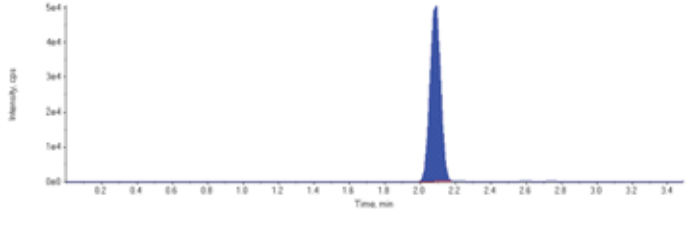
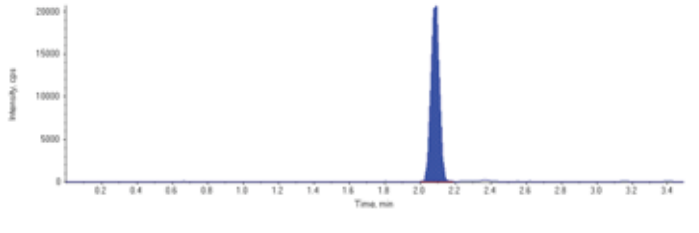
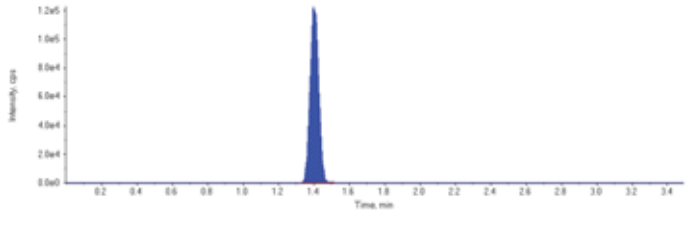
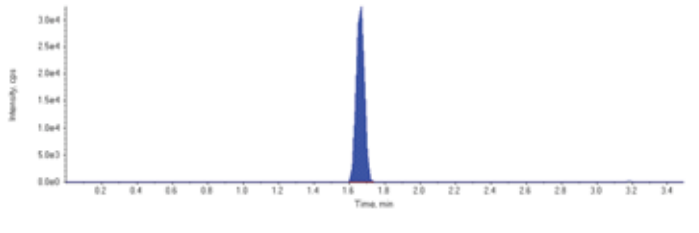
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<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min</p> <p>Concentration: N/A N/A</p> <p>Sample Type: (Standard)</p>	<p>This image is not available</p>
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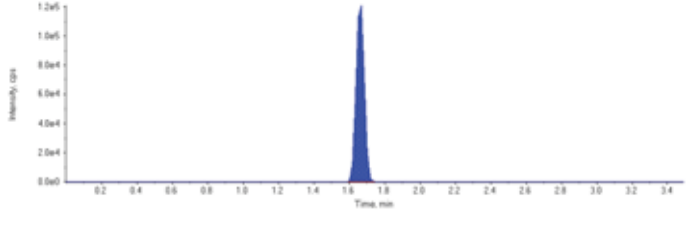
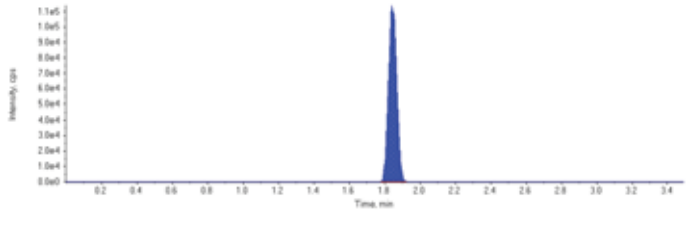
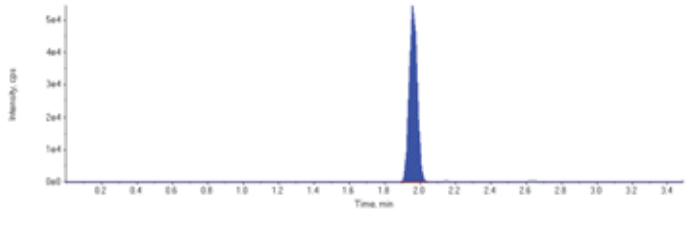
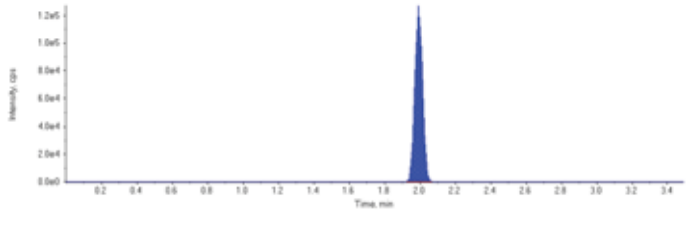
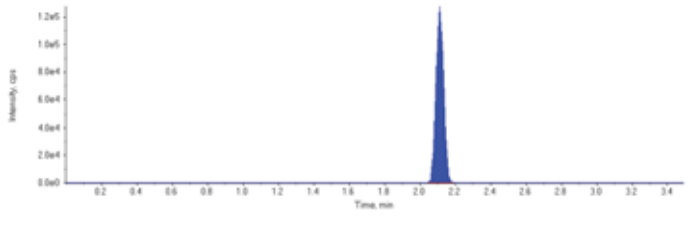
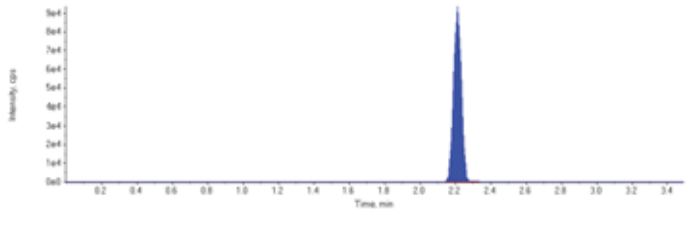
<p>PFBS 1 (298.900/79.900 Da)</p> <p>RT (Exp. RT): 1.10 (1.09) min</p> <p>Calculated Conc: 5.16 µg/L</p> <p>Area Ratio: 5.79</p> <p>Sample Type: (Standard)</p>	
<p>PFBS 2 (298.900/98.900 Da)</p> <p>RT (Exp. RT): 1.09 (1.09) min</p> <p>Calculated Conc: 5.43 µg/L</p> <p>Area Ratio: 3.05</p> <p>Sample Type: (Standard)</p>	
<p>PFHxA 1 (313.000/269.000 Da)</p> <p>RT (Exp. RT): 1.40 (1.40) min</p> <p>Calculated Conc: 4.80 µg/L</p> <p>Area Ratio: 2.03</p> <p>Sample Type: (Standard)</p>	
<p>PFHxA 2 (313.000/119.000 Da)</p> <p>RT (Exp. RT): 1.40 (1.41) min</p> <p>Calculated Conc: 4.86 µg/L</p> <p>Area Ratio: 0.121</p> <p>Sample Type: (Standard)</p>	
<p>PFHxS 1 (398.900/79.900 Da)</p> <p>RT (Exp. RT): 1.66 (1.67) min</p> <p>Calculated Conc: 5.41 µg/L</p> <p>Area Ratio: 4.61</p> <p>Sample Type: (Standard)</p>	
<p>PFHxS 2 (398.900/98.900 Da)</p> <p>RT (Exp. RT): 1.66 (1.67) min</p> <p>Calculated Conc: 5.11 µg/L</p> <p>Area Ratio: 1.28</p> <p>Sample Type: (Standard)</p>	

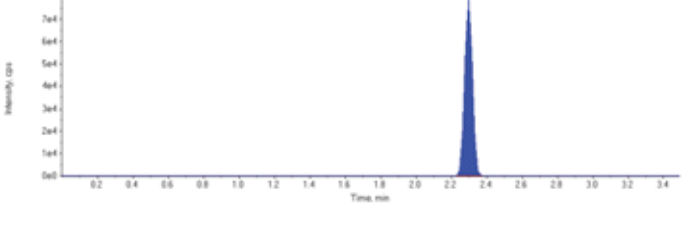
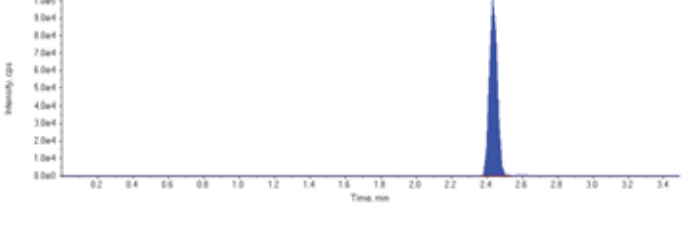
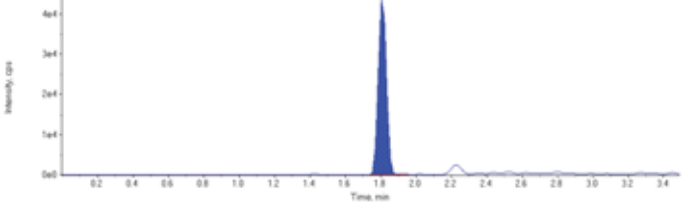
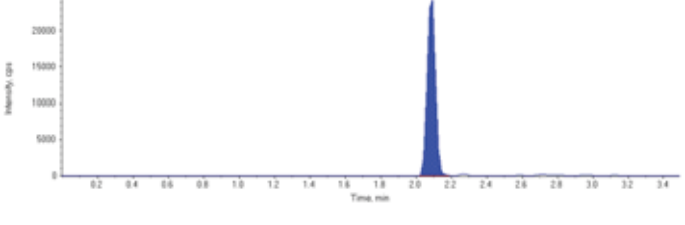
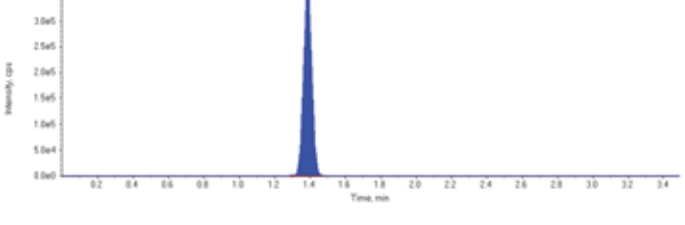
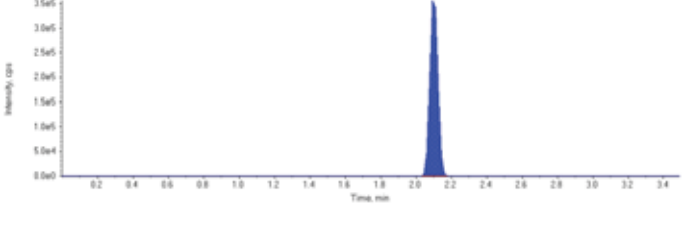
<p>PFHpA 1 (363.000/319.000 Da)</p> <p>RT (Exp. RT): 1.66 (1.67) min</p> <p>Calculated Conc: 5.30 µg/L</p> <p>Area Ratio: 2.05</p> <p>Sample Type: (Standard)</p>	
<p>PFHpA 2 (363.000/169.200 Da)</p> <p>RT (Exp. RT): 1.66 (1.67) min</p> <p>Calculated Conc: 5.00 µg/L</p> <p>Area Ratio: 0.0367</p> <p>Sample Type: (Standard)</p>	
<p>PFOA 1 (413.100/369.000 Da)</p> <p>RT (Exp. RT): 1.85 (1.85) min</p> <p>Calculated Conc: 4.89 µg/L</p> <p>Area Ratio: 2.14</p> <p>Sample Type: (Standard)</p>	
<p>PFOA 2 (413.100/169.000 Da)</p> <p>RT (Exp. RT): 1.85 (1.84) min</p> <p>Calculated Conc: 4.92 µg/L</p> <p>Area Ratio: 0.870</p> <p>Sample Type: (Standard)</p>	
<p>PFOS 1 (498.900/79.900 Da)</p> <p>RT (Exp. RT): 1.96 (1.96) min</p> <p>Calculated Conc: 5.09 µg/L</p> <p>Area Ratio: 2.33</p> <p>Sample Type: (Standard)</p>	
<p>PFOS 2 (498.900/98.900 Da)</p> <p>RT (Exp. RT): 1.96 (1.96) min</p> <p>Calculated Conc: 4.99 µg/L</p> <p>Area Ratio: 0.706</p> <p>Sample Type: (Standard)</p>	

<p>PFNA 1 (462.900/419.000 Da)</p> <p>RT (Exp. RT): 1.99 (1.99) min</p> <p>Calculated Conc: 5.08 µg/L</p> <p>Area Ratio: 1.80</p> <p>Sample Type: (Standard)</p>	
<p>PFNA 2 (462.900/219.100 Da)</p> <p>RT (Exp. RT): 1.99 (1.99) min</p> <p>Calculated Conc: 5.11 µg/L</p> <p>Area Ratio: 0.479</p> <p>Sample Type: (Standard)</p>	
<p>PFDA 1 (513.000/469.100 Da)</p> <p>RT (Exp. RT): 2.11 (2.18) min</p> <p>Calculated Conc: 5.05 µg/L</p> <p>Area Ratio: 2.05</p> <p>Sample Type: (Standard)</p>	
<p>PFDA 2 (513.000/218.900 Da)</p> <p>RT (Exp. RT): 2.11 (2.11) min</p> <p>Calculated Conc: 4.92 µg/L</p> <p>Area Ratio: 0.386</p> <p>Sample Type: (Standard)</p>	
<p>PFUnA 1 (562.900/519.000 Da)</p> <p>RT (Exp. RT): 2.21 (2.21) min</p> <p>Calculated Conc: 5.22 µg/L</p> <p>Area Ratio: 2.17</p> <p>Sample Type: (Standard)</p>	
<p>PFUnA 2 (562.900/269.200 Da)</p> <p>RT (Exp. RT): 2.21 (2.27) min</p> <p>Calculated Conc: 5.49 µg/L</p> <p>Area Ratio: 0.251</p> <p>Sample Type: (Standard)</p>	

<p>PFD_oA 1 (612.900/569.000 Da)</p> <p>RT (Exp. RT): 2.30 (2.36) min</p> <p>Calculated Conc: 5.64 µg/L</p> <p>Area Ratio: 2.32</p> <p>Sample Type: (Standard)</p>	
<p>PFD_oA 2 (612.900/319.000 Da)</p> <p>RT (Exp. RT): 2.30 (2.35) min</p> <p>Calculated Conc: 5.72 µg/L</p> <p>Area Ratio: 0.238</p> <p>Sample Type: (Standard)</p>	
<p>PFT_rDA 1 (663.000/619.000 Da)</p> <p>RT (Exp. RT): 2.37 (2.42) min</p> <p>Calculated Conc: 4.98 µg/L</p> <p>Area Ratio: 2.03</p> <p>Sample Type: (Standard)</p>	
<p>PFT_rDA 2 (663.000/318.900 Da)</p> <p>RT (Exp. RT): 2.37 (2.37) min</p> <p>Calculated Conc: 4.85 µg/L</p> <p>Area Ratio: 0.220</p> <p>Sample Type: (Standard)</p>	
<p>PFT_eDA 1 (713.000/669.000 Da)</p> <p>RT (Exp. RT): 2.44 (2.49) min</p> <p>Calculated Conc: 5.14 µg/L</p> <p>Area Ratio: 1.89</p> <p>Sample Type: (Standard)</p>	
<p>PFT_eDA 2 (713.000/319.200 Da)</p> <p>RT (Exp. RT): 2.44 (2.49) min</p> <p>Calculated Conc: 5.04 µg/L</p> <p>Area Ratio: 0.134</p> <p>Sample Type: (Standard)</p>	

<p>6:2-FTS 1 (427.000/407.000 Da)</p> <p>RT (Exp. RT): 1.81 (1.90) min</p> <p>Calculated Conc: 5.04 µg/L</p> <p>Area Ratio: 1.29</p> <p>Sample Type: (Standard)</p>	
<p>6:2-FTS 2 (427.000/80.900 Da)</p> <p>RT (Exp. RT): 1.81 (1.80) min</p> <p>Calculated Conc: 5.83 µg/L</p> <p>Area Ratio: 1.03</p> <p>Sample Type: (Standard)</p>	
<p>8:2-FTS 1 (526.900/507.000 Da)</p> <p>RT (Exp. RT): 2.09 (2.16) min</p> <p>Calculated Conc: 5.34 µg/L</p> <p>Area Ratio: 2.60</p> <p>Sample Type: (Standard)</p>	
<p>8:2-FTS 2 (526.900/80.900 Da)</p> <p>RT (Exp. RT): 2.09 (2.09) min</p> <p>Calculated Conc: 4.93 µg/L</p> <p>Area Ratio: 0.870</p> <p>Sample Type: (Standard)</p>	
<p>13C2-PFHxA (314.900/270.000 Da)</p> <p>RT (Exp. RT): 1.40 (1.40) min</p> <p>Calculated Conc: 108. µg/L</p> <p>Area Ratio: 0.348</p> <p>Sample Type: (Standard)</p>	
<p>18O2-PFHxS (402.900/84.000 Da)</p> <p>RT (Exp. RT): 1.66 (1.77) min</p> <p>Calculated Conc: 102. µg/L</p> <p>Area Ratio: 0.0881</p> <p>Sample Type: (Standard)</p>	

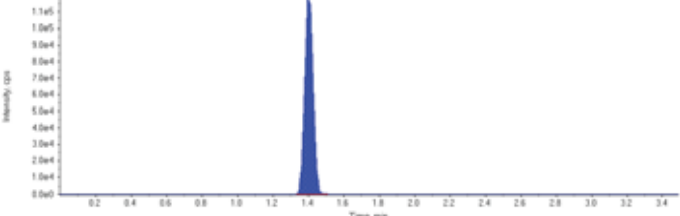
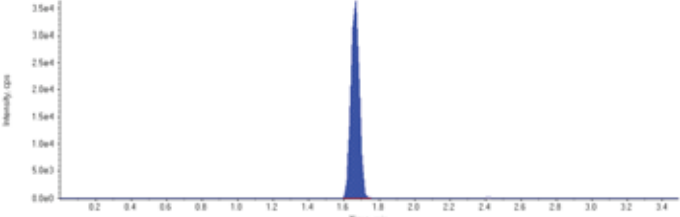
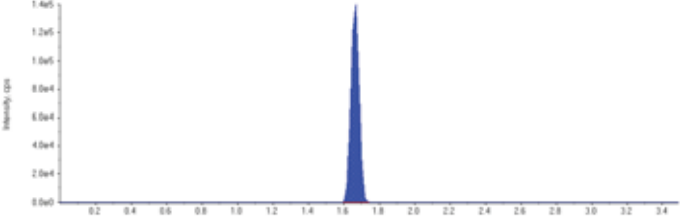
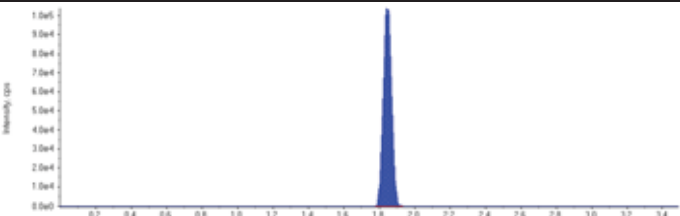
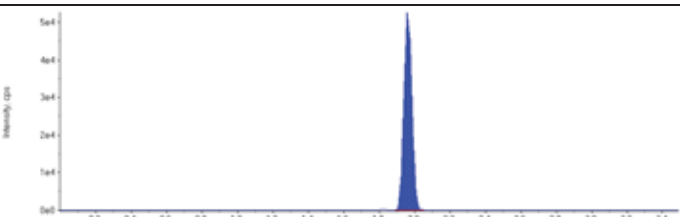
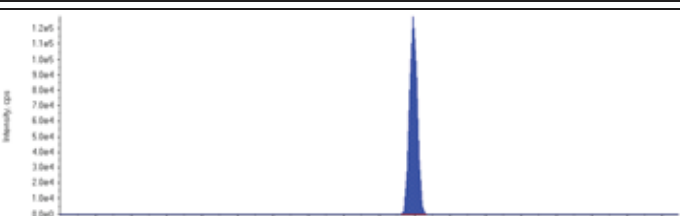
<p>13C4-PFHpa (366.900/322.000 Da)</p> <p>RT (Exp. RT): 1.66 (1.67) min</p> <p>Calculated Conc: 102. µg/L</p> <p>Area Ratio: 0.337</p> <p>Sample Type: (Standard)</p>	
<p>13C4-PFOA (416.900/372.000 Da)</p> <p>RT (Exp. RT): 1.84 (1.84) min</p> <p>Calculated Conc: 114. µg/L</p> <p>Area Ratio: 0.313</p> <p>Sample Type: (Standard)</p>	
<p>13C4-PFOS (502.900/79.900 Da)</p> <p>RT (Exp. RT): 1.96 (2.05) min</p> <p>Calculated Conc: 111. µg/L</p> <p>Area Ratio: 0.141</p> <p>Sample Type: (Standard)</p>	
<p>13C5-PFNA (467.900/423.000 Da)</p> <p>RT (Exp. RT): 1.99 (1.99) min</p> <p>Calculated Conc: 110. µg/L</p> <p>Area Ratio: 0.322</p> <p>Sample Type: (Standard)</p>	
<p>13C2-PFDA (514.900/470.000 Da)</p> <p>RT (Exp. RT): 2.11 (2.11) min</p> <p>Calculated Conc: 105. µg/L</p> <p>Area Ratio: 0.327</p> <p>Sample Type: (Standard)</p>	
<p>13C2-PFUnA (564.900/520.000 Da)</p> <p>RT (Exp. RT): 2.21 (2.27) min</p> <p>Calculated Conc: 105. µg/L</p> <p>Area Ratio: 0.241</p> <p>Sample Type: (Standard)</p>	

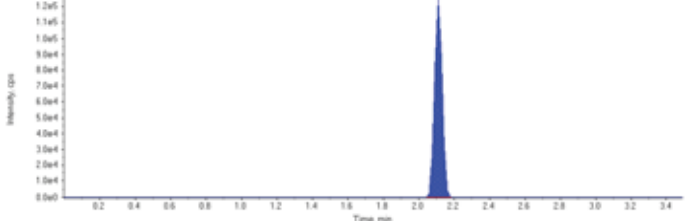
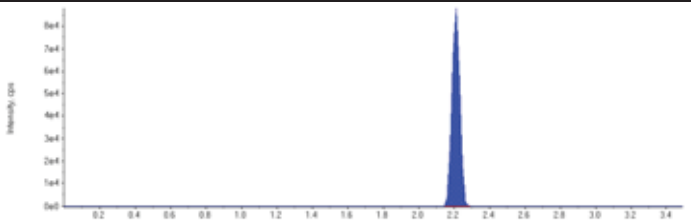
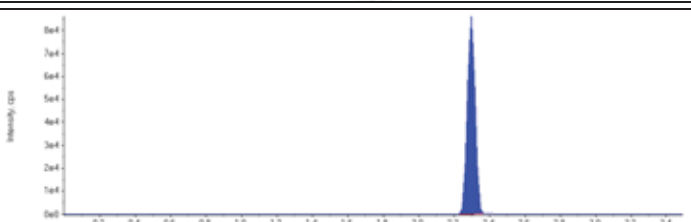
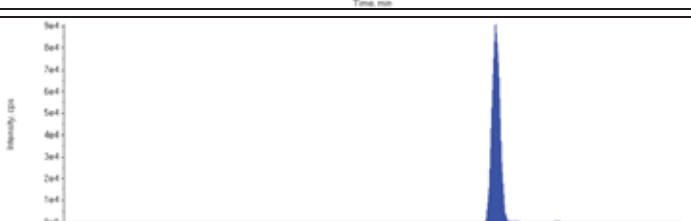
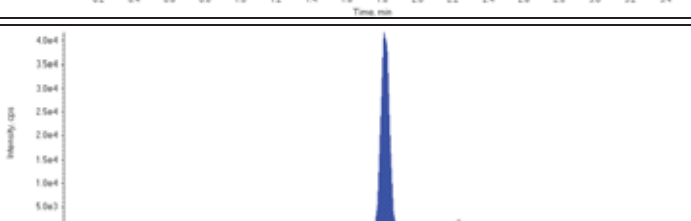
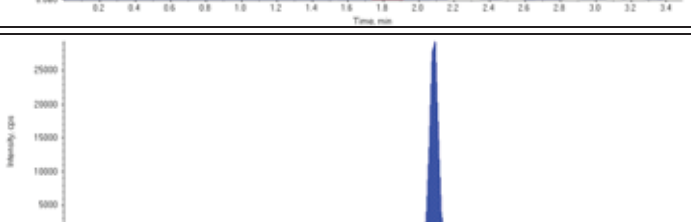
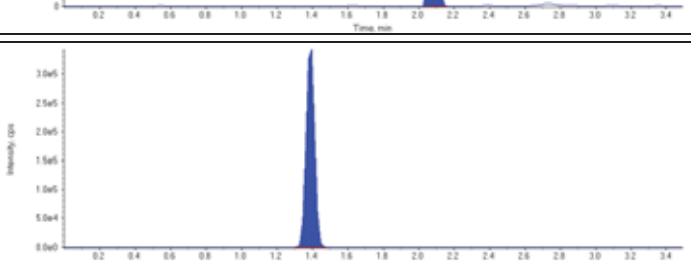
<p>13C2-PFDoA (614.900/570.000 Da)</p> <p>RT (Exp. RT): 2.30 (2.35) min</p> <p>Calculated Conc: 92.2 µg/L</p> <p>Area Ratio: 0.205</p> <p>Sample Type: (Standard)</p>	
<p>13C2-PFTeDA (714.900/669.900 Da)</p> <p>RT (Exp. RT): 2.44 (2.49) min</p> <p>Calculated Conc: 106. µg/L</p> <p>Area Ratio: 0.260</p> <p>Sample Type: (Standard)</p>	
<p>13C2-6:2-FTS (429.000/80.900 Da)</p> <p>RT (Exp. RT): 1.81 (1.80) min</p> <p>Calculated Conc: 98.4 µg/L</p> <p>Area Ratio: 0.118</p> <p>Sample Type: (Standard)</p>	
<p>13C2-8:2 FTS (528.900/80.900 Da)</p> <p>RT (Exp. RT): 2.09 (2.08) min</p> <p>Calculated Conc: 101. µg/L</p> <p>Area Ratio: 0.0674</p> <p>Sample Type: (Standard)</p>	
<p>13C6-PFHxA (318.900/274.000 Da)</p> <p>RT (Exp. RT): 1.39 (1.40) min</p> <p>Calculated Conc: 93.9 µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Standard)</p>	
<p>13C9-PFDA (521.900/477.100 Da)</p> <p>RT (Exp. RT): 2.10 (2.09) min</p> <p>Calculated Conc: 98.0 µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Standard)</p>	

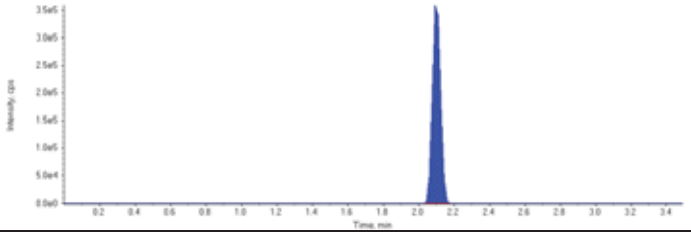
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Samples Annotation	-		

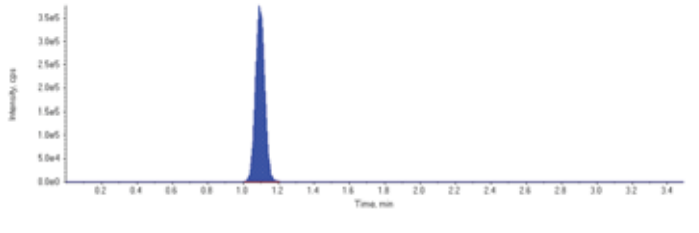
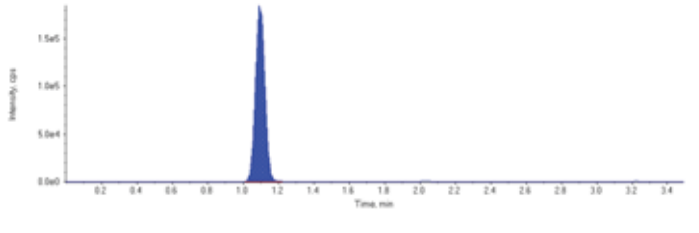
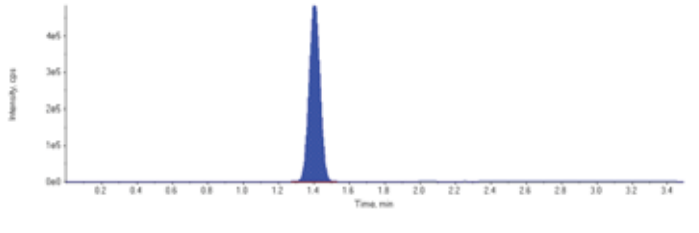
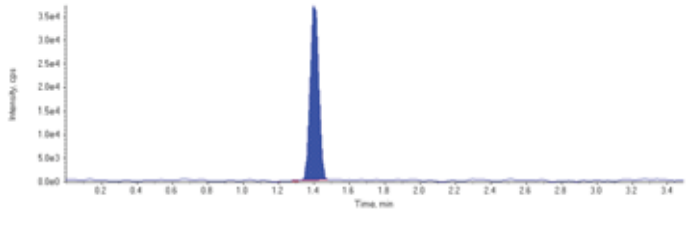
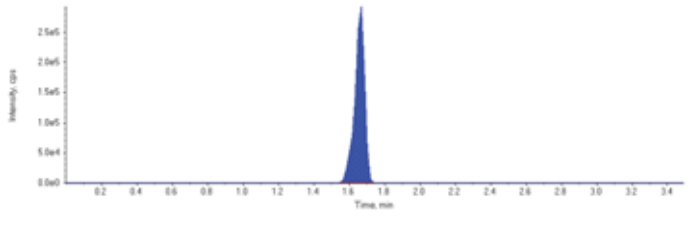
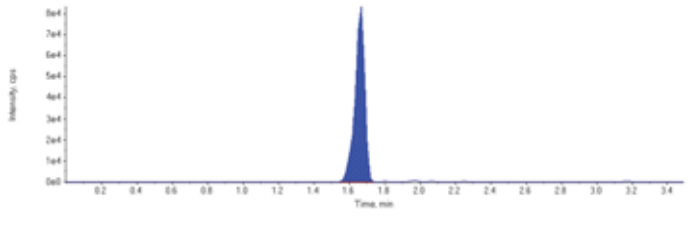
Internal Standard	Area (cps)	RT (min)	Target Conc. (ug/L)	Calc. Conc. (ug/L)
MPFHxA	405000.	1.40	1.00	-
MPFHxS	118000.	1.66	1.00	-
MPFHpA	452000.	1.66	1.00	-
MPFOA	350000.	1.85	1.00	-
MPFOS	166000.	1.96	1.00	-
MPFNA	388000.	1.99	1.00	-
MPFDA	375000.	2.11	1.00	-
MPFUnA	272000.	2.21	1.00	-
MPFDoA	262000.	2.30	1.00	-
MPFTeDA	275000.	2.44	1.00	-
M2 6:2 FTS	136000.	1.81	1.00	-
M2 8:2 FTS	95600.	2.09	1.00	-
13C6-PFHxA IS	1180000.	1.39	1.00	-
13C9-PFDA IS	1180000.	2.10	1.00	-
N/A	N/A	N/A	N/A	-
N/A	N/A	N/A	N/A	-

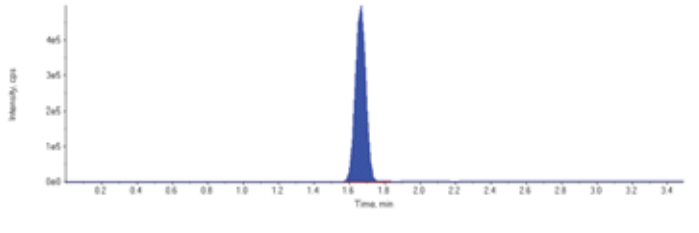
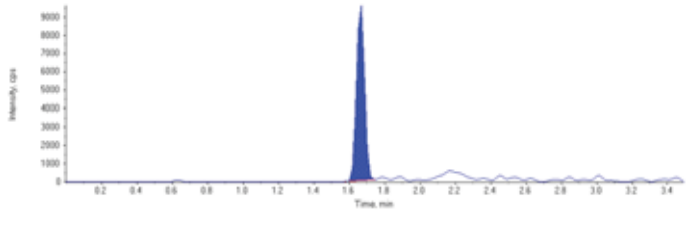
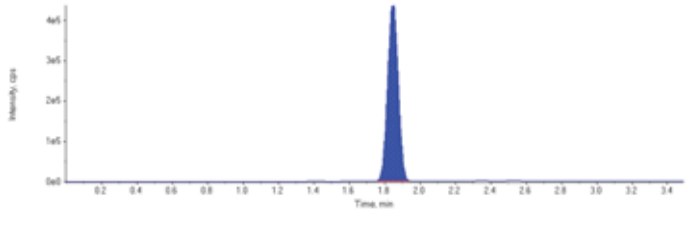
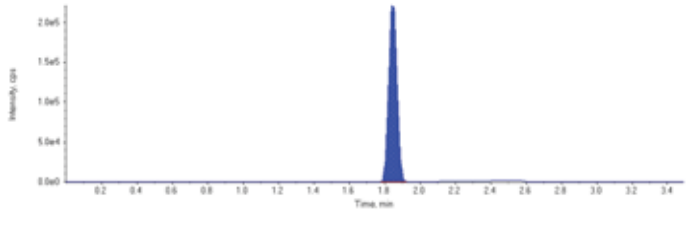
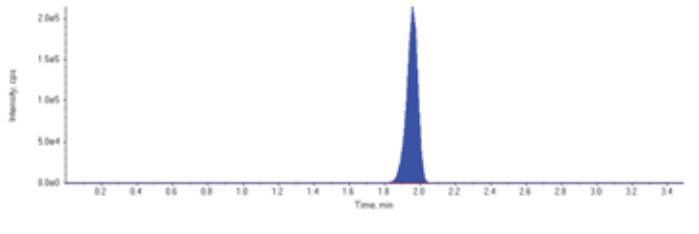
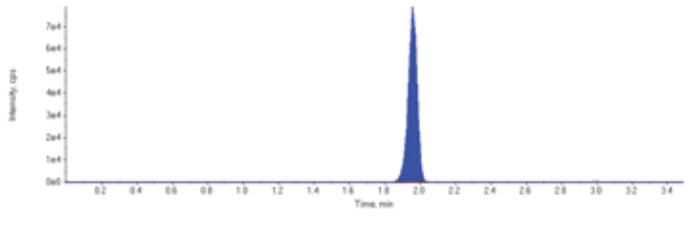
Target Analyte	Area (cps)	RT (min)	Target Conc. (ug/L)	Calc. Conc. (ug/L)	Accuracy (%)
PFBS 1	1380000	1.09	12.5	10.2	81.3
PFBS 2	689000	1.10	12.5	10.2	81.8
PFHxA 1	2100000	1.40	12.5	12.0	96.1
PFHxA 2	126000	1.40	12.5	12.3	98.7
PFHxS 1	1130000	1.66	12.5	11.1	88.5
PFHxS 2	317000	1.66	12.5	10.5	84.2
PFHpA 1	2050000	1.66	12.5	11.6	92.9
PFHpA 2	30700	1.66	12.5	9.40	75.2
PFOA 1	1850000	1.85	12.5	11.8	94.4
PFOA 2	747000	1.85	12.5	11.8	94.0
PFOS 1	918000	1.96	12.5	11.9	95.4
PFOS 2	276000	1.96	12.5	11.5	92.3
PFNA 1	1580000	1.99	12.5	11.3	90.8
PFNA 2	388000	1.99	12.5	10.6	84.8
PFDA 1	2030000	2.11	12.5	13.2	105.0
PFDA 2	384000	2.11	12.5	12.9	103.0
PFUnA 1	1410000	2.21	12.5	12.3	98.4
PFUnA 2	144000	2.21	12.5	11.4	91.3
PFDaA 1	1360000	2.30	12.5	12.5	99.9
PFDaA 2	133000	2.30	12.5	12.1	96.4
PFTTrDA 1	1450000	2.37	12.5	12.8	103.0
PFTTrDA 2	156000	2.37	12.5	12.5	99.9
PFTeDA 1	1230000	2.44	12.5	12.0	95.7
PFTeDA 2	96400	2.44	12.5	13.1	104.0
6:2-FTS 1	389000	1.81	12.5	11.0	87.6
6:2-FTS 2	275000	1.81	12.5	11.3	90.7
8:2-FTS 1	559000	2.09	12.5	11.8	94.1
8:2-FTS 2	193000	2.09	12.5	11.2	89.3
13C2-PFHxA	405000	1.40	100.	107.	107.0
18O2-PFHxS	118000	1.66	100.	116.	116.0
13C4-PFHpA	452000	1.66	100.	116.	116.0
13C4-PFOA	350000	1.85	100.	108.	108.0
13C4-PFOS	166000	1.96	100.	111.	111.0
13C5-PFNA	388000	1.99	100.	113.	113.0
13C2-PFDA	375000	2.11	100.	103.	103.0
13C2-PFUnA	272000	2.21	100.	100.	100.0
13C2-PFDaA	262000	2.30	100.	99.6	99.6
13C2-PFTeDA	275000	2.44	100.	95.4	95.4
13C2-6:2-FTS	136000	1.81	100.	96.9	96.9
13C2-8:2 FTS	95600	2.09	100.	122.	122.0
13C6-PFHxA	1180000	1.39	100.	91.9	91.9
13C9-PFDA	1180000	2.10	100.	98.6	98.6

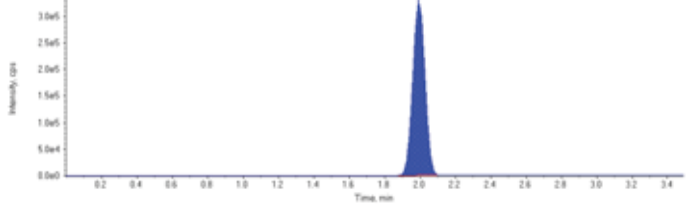
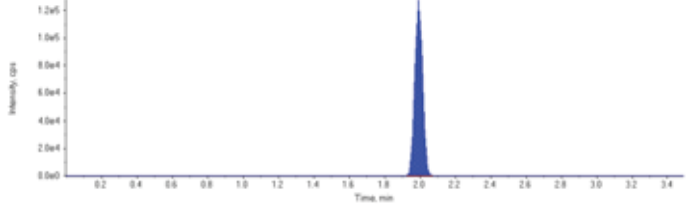
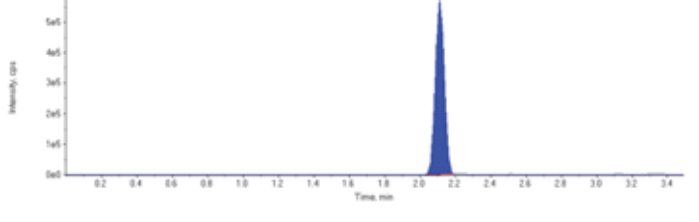
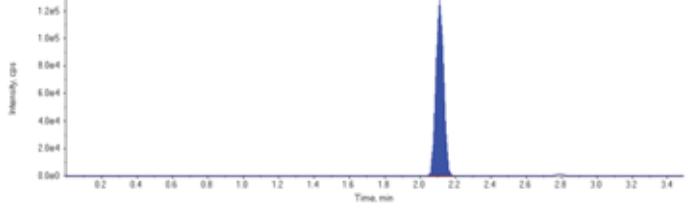
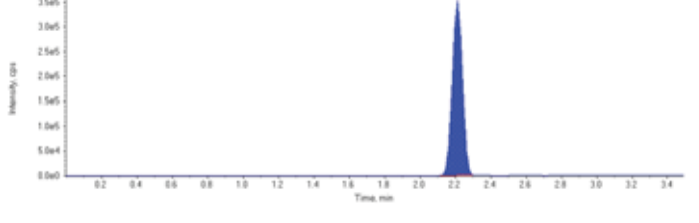
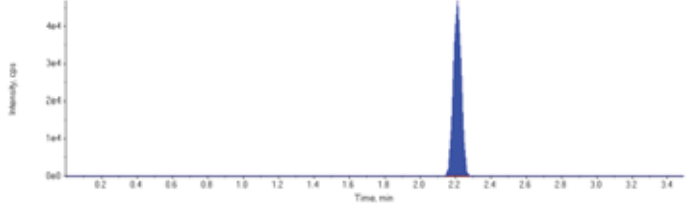
<p>MPFHxA (Internal Standard)</p> <p>RT (Exp. RT): 1.40(1.40) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Standard)</p>	
<p>MPFHxS (Internal Standard)</p> <p>RT (Exp. RT): 1.66(1.77) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Standard)</p>	
<p>MPFHpA (Internal Standard)</p> <p>RT (Exp. RT): 1.66(1.67) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Standard)</p>	
<p>MPFOA (Internal Standard)</p> <p>RT (Exp. RT): 1.85(1.84) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Standard)</p>	
<p>MPFOS (Internal Standard)</p> <p>RT (Exp. RT): 1.96(2.05) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Standard)</p>	
<p>MPFNA (Internal Standard)</p> <p>RT (Exp. RT): 1.99(1.99) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Standard)</p>	

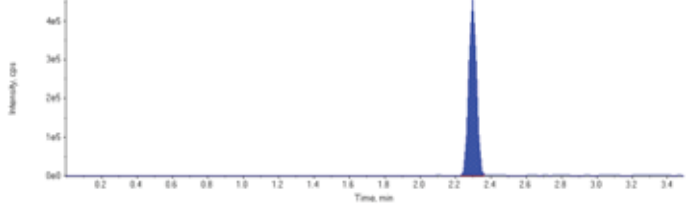
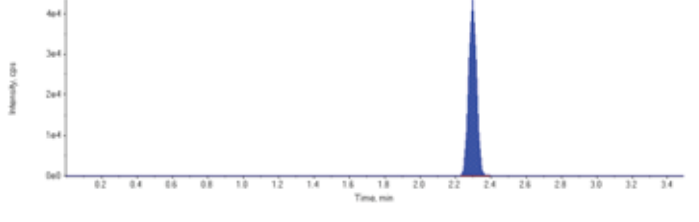
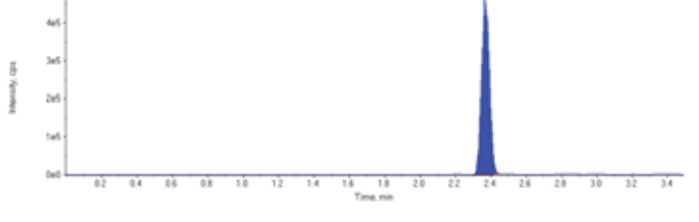
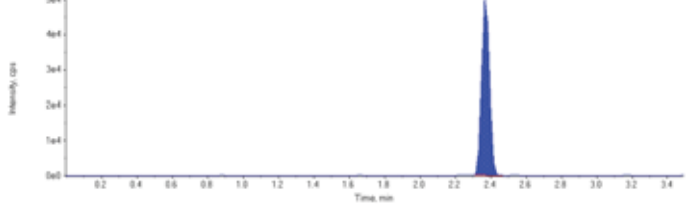
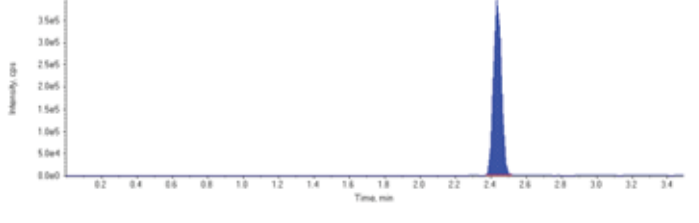
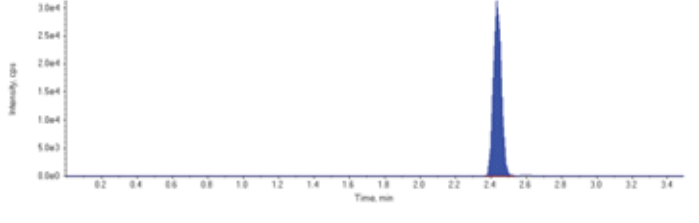
<p>MPFDA (Internal Standard)</p> <p>RT (Exp. RT): 2.11(2.18) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Standard)</p>	
<p>MPFUnA (Internal Standard)</p> <p>RT (Exp. RT): 2.21(2.27) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Standard)</p>	
<p>MPFDoA (Internal Standard)</p> <p>RT (Exp. RT): 2.30(2.35) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Standard)</p>	
<p>MPFTeDA (Internal Standard)</p> <p>RT (Exp. RT): 2.44(2.49) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Standard)</p>	
<p>M2 6:2 FTS (Internal Standard)</p> <p>RT (Exp. RT): 1.81(1.80) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Standard)</p>	
<p>M2 8:2 FTS (Internal Standard)</p> <p>RT (Exp. RT): 2.09(2.08) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Standard)</p>	
<p>13C6-PFHxA IS (Internal Standard)</p> <p>RT (Exp. RT): 1.39(1.40) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Standard)</p>	

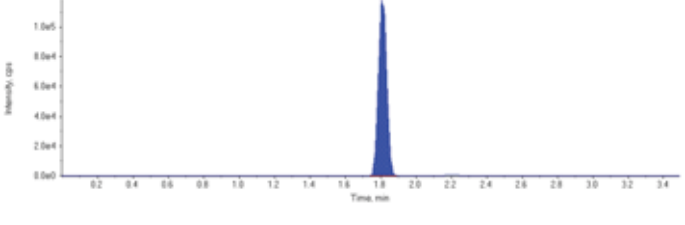
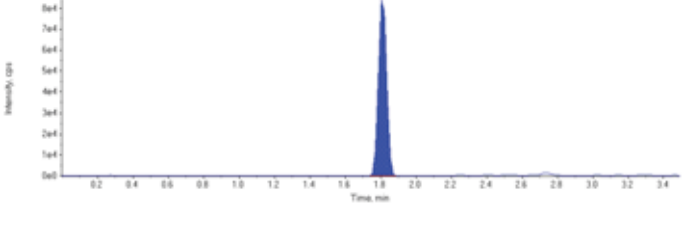
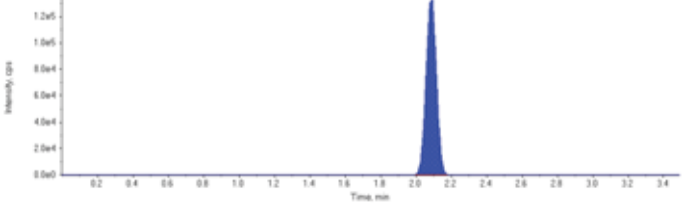
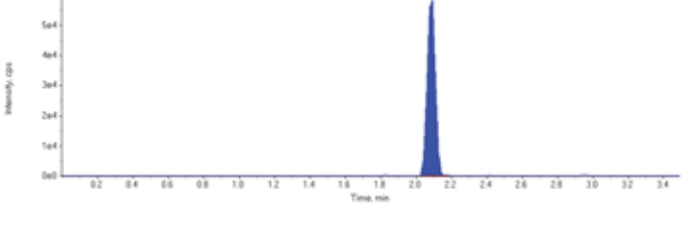
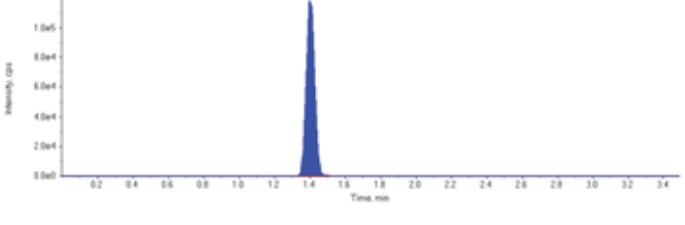
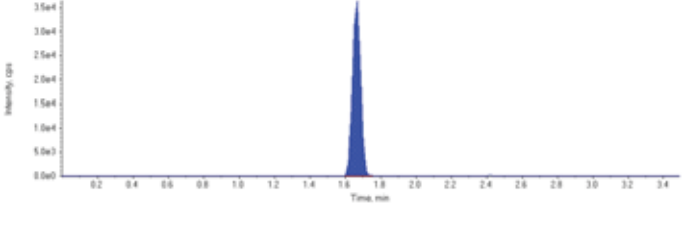
<p>13C9-PFDA IS (Internal Standard)</p> <p>RT (Exp. RT): 2.10(2.09) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Standard)</p>	
<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min</p> <p>Concentration: N/A N/A</p> <p>Sample Type: (Standard)</p>	<p>This image is not available</p>
<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min</p> <p>Concentration: N/A N/A</p> <p>Sample Type: (Standard)</p>	<p>This image is not available</p>

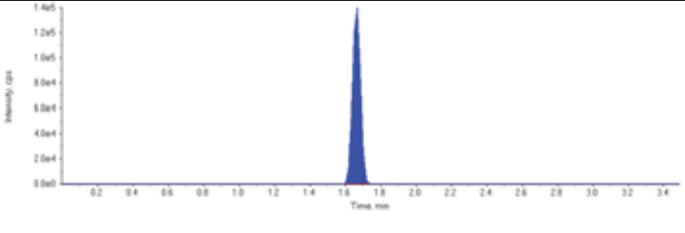
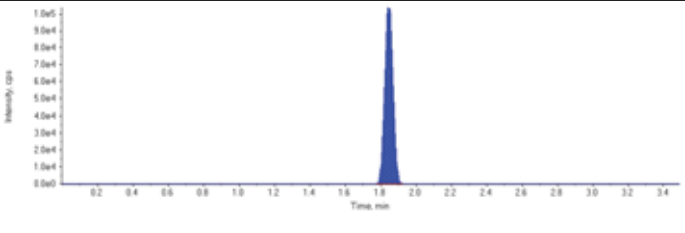
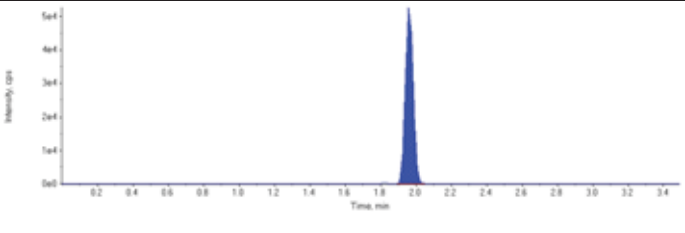
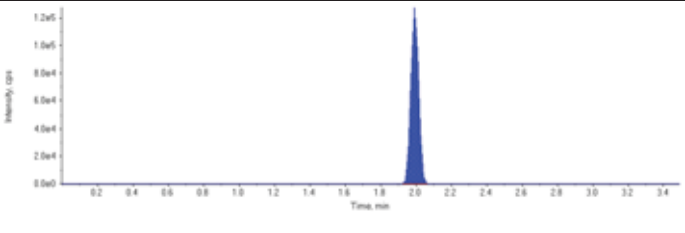
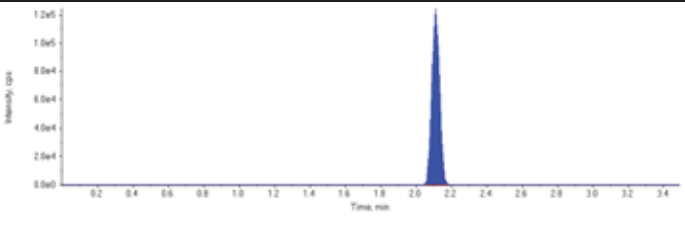
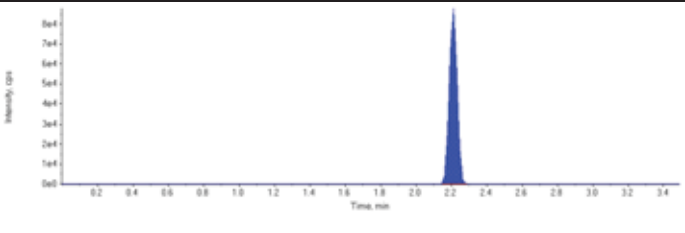
<p>PFBS 1 (298.900/79.900 Da)</p> <p>RT (Exp. RT): 1.09 (1.09) min</p> <p>Calculated Conc: 10.2 µg/L</p> <p>Area Ratio: 11.7</p> <p>Sample Type: (Standard)</p>	
<p>PFBS 2 (298.900/98.900 Da)</p> <p>RT (Exp. RT): 1.10 (1.09) min</p> <p>Calculated Conc: 10.2 µg/L</p> <p>Area Ratio: 5.83</p> <p>Sample Type: (Standard)</p>	
<p>PFHxA 1 (313.000/269.000 Da)</p> <p>RT (Exp. RT): 1.40 (1.40) min</p> <p>Calculated Conc: 12.0 µg/L</p> <p>Area Ratio: 5.18</p> <p>Sample Type: (Standard)</p>	
<p>PFHxA 2 (313.000/119.000 Da)</p> <p>RT (Exp. RT): 1.40 (1.41) min</p> <p>Calculated Conc: 12.3 µg/L</p> <p>Area Ratio: 0.311</p> <p>Sample Type: (Standard)</p>	
<p>PFHxS 1 (398.900/79.900 Da)</p> <p>RT (Exp. RT): 1.66 (1.67) min</p> <p>Calculated Conc: 11.1 µg/L</p> <p>Area Ratio: 9.54</p> <p>Sample Type: (Standard)</p>	
<p>PFHxS 2 (398.900/98.900 Da)</p> <p>RT (Exp. RT): 1.66 (1.67) min</p> <p>Calculated Conc: 10.5 µg/L</p> <p>Area Ratio: 2.68</p> <p>Sample Type: (Standard)</p>	

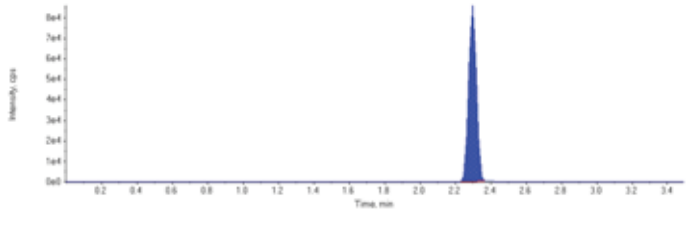
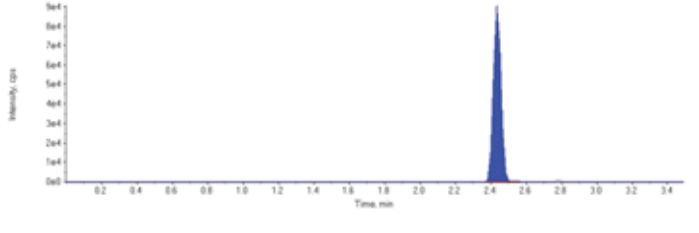
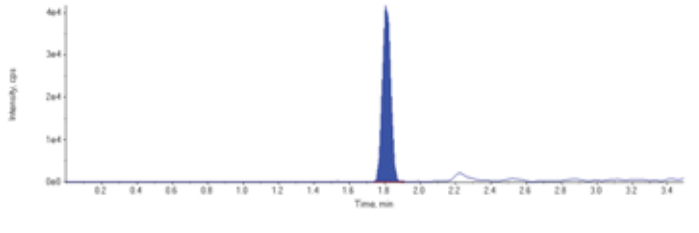
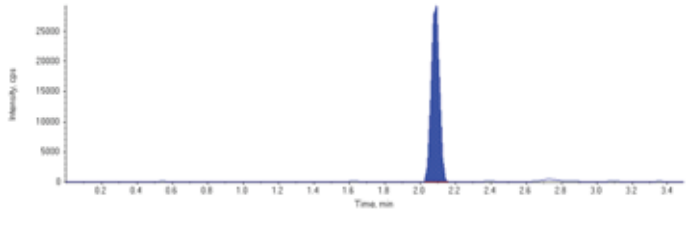
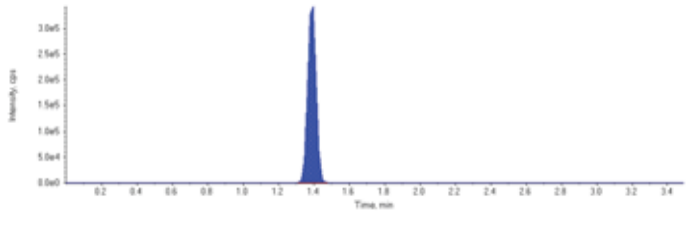
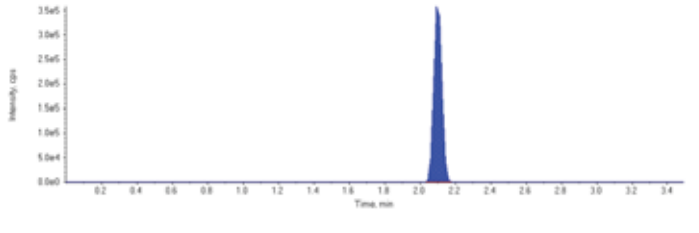
<p>PFHpA 1 (363.000/319.000 Da)</p> <p>RT (Exp. RT): 1.66 (1.67) min</p> <p>Calculated Conc: 11.6 µg/L</p> <p>Area Ratio: 4.52</p> <p>Sample Type: (Standard)</p>	
<p>PFHpA 2 (363.000/169.200 Da)</p> <p>RT (Exp. RT): 1.66 (1.67) min</p> <p>Calculated Conc: 9.40 µg/L</p> <p>Area Ratio: 0.0678</p> <p>Sample Type: (Standard)</p>	
<p>PFOA 1 (413.100/369.000 Da)</p> <p>RT (Exp. RT): 1.85 (1.85) min</p> <p>Calculated Conc: 11.8 µg/L</p> <p>Area Ratio: 5.29</p> <p>Sample Type: (Standard)</p>	
<p>PFOA 2 (413.100/169.000 Da)</p> <p>RT (Exp. RT): 1.85 (1.84) min</p> <p>Calculated Conc: 11.8 µg/L</p> <p>Area Ratio: 2.14</p> <p>Sample Type: (Standard)</p>	
<p>PFOS 1 (498.900/79.900 Da)</p> <p>RT (Exp. RT): 1.96 (1.96) min</p> <p>Calculated Conc: 11.9 µg/L</p> <p>Area Ratio: 5.53</p> <p>Sample Type: (Standard)</p>	
<p>PFOS 2 (498.900/98.900 Da)</p> <p>RT (Exp. RT): 1.96 (1.96) min</p> <p>Calculated Conc: 11.5 µg/L</p> <p>Area Ratio: 1.66</p> <p>Sample Type: (Standard)</p>	

<p>PFNA 1 (462.900/419.000 Da)</p> <p>RT (Exp. RT): 1.99 (1.99) min</p> <p>Calculated Conc: 11.3 µg/L</p> <p>Area Ratio: 4.07</p> <p>Sample Type: (Standard)</p>	
<p>PFNA 2 (462.900/219.100 Da)</p> <p>RT (Exp. RT): 1.99 (1.99) min</p> <p>Calculated Conc: 10.6 µg/L</p> <p>Area Ratio: 1.00</p> <p>Sample Type: (Standard)</p>	
<p>PFDA 1 (513.000/469.100 Da)</p> <p>RT (Exp. RT): 2.11 (2.18) min</p> <p>Calculated Conc: 13.2 µg/L</p> <p>Area Ratio: 5.40</p> <p>Sample Type: (Standard)</p>	
<p>PFDA 2 (513.000/218.900 Da)</p> <p>RT (Exp. RT): 2.11 (2.11) min</p> <p>Calculated Conc: 12.9 µg/L</p> <p>Area Ratio: 1.02</p> <p>Sample Type: (Standard)</p>	
<p>PFUnA 1 (562.900/519.000 Da)</p> <p>RT (Exp. RT): 2.21 (2.21) min</p> <p>Calculated Conc: 12.3 µg/L</p> <p>Area Ratio: 5.18</p> <p>Sample Type: (Standard)</p>	
<p>PFUnA 2 (562.900/269.200 Da)</p> <p>RT (Exp. RT): 2.21 (2.27) min</p> <p>Calculated Conc: 11.4 µg/L</p> <p>Area Ratio: 0.528</p> <p>Sample Type: (Standard)</p>	

<p>PFD_oA 1 (612.900/569.000 Da)</p> <p>RT (Exp. RT): 2.30 (2.36) min</p> <p>Calculated Conc: 12.5 µg/L</p> <p>Area Ratio: 5.19</p> <p>Sample Type: (Standard)</p>	
<p>PFD_oA 2 (612.900/319.000 Da)</p> <p>RT (Exp. RT): 2.30 (2.35) min</p> <p>Calculated Conc: 12.1 µg/L</p> <p>Area Ratio: 0.509</p> <p>Sample Type: (Standard)</p>	
<p>PFT_rDA 1 (663.000/619.000 Da)</p> <p>RT (Exp. RT): 2.37 (2.42) min</p> <p>Calculated Conc: 12.8 µg/L</p> <p>Area Ratio: 5.27</p> <p>Sample Type: (Standard)</p>	
<p>PFT_rDA 2 (663.000/318.900 Da)</p> <p>RT (Exp. RT): 2.37 (2.37) min</p> <p>Calculated Conc: 12.5 µg/L</p> <p>Area Ratio: 0.567</p> <p>Sample Type: (Standard)</p>	
<p>PFT_eDA 1 (713.000/669.000 Da)</p> <p>RT (Exp. RT): 2.44 (2.49) min</p> <p>Calculated Conc: 12.0 µg/L</p> <p>Area Ratio: 4.46</p> <p>Sample Type: (Standard)</p>	
<p>PFT_eDA 2 (713.000/319.200 Da)</p> <p>RT (Exp. RT): 2.44 (2.49) min</p> <p>Calculated Conc: 13.1 µg/L</p> <p>Area Ratio: 0.351</p> <p>Sample Type: (Standard)</p>	

<p>6:2-FTS 1 (427.000/407.000 Da)</p> <p>RT (Exp. RT): 1.81 (1.90) min</p> <p>Calculated Conc: 11.0 µg/L</p> <p>Area Ratio: 2.86</p> <p>Sample Type: (Standard)</p>	
<p>6:2-FTS 2 (427.000/80.900 Da)</p> <p>RT (Exp. RT): 1.81 (1.80) min</p> <p>Calculated Conc: 11.3 µg/L</p> <p>Area Ratio: 2.02</p> <p>Sample Type: (Standard)</p>	
<p>8:2-FTS 1 (526.900/507.000 Da)</p> <p>RT (Exp. RT): 2.09 (2.16) min</p> <p>Calculated Conc: 11.8 µg/L</p> <p>Area Ratio: 5.85</p> <p>Sample Type: (Standard)</p>	
<p>8:2-FTS 2 (526.900/80.900 Da)</p> <p>RT (Exp. RT): 2.09 (2.09) min</p> <p>Calculated Conc: 11.2 µg/L</p> <p>Area Ratio: 2.02</p> <p>Sample Type: (Standard)</p>	
<p>13C2-PFHxA (314.900/270.000 Da)</p> <p>RT (Exp. RT): 1.40 (1.40) min</p> <p>Calculated Conc: 107. µg/L</p> <p>Area Ratio: 0.344</p> <p>Sample Type: (Standard)</p>	
<p>18O2-PFHxS (402.900/84.000 Da)</p> <p>RT (Exp. RT): 1.66 (1.77) min</p> <p>Calculated Conc: 116. µg/L</p> <p>Area Ratio: 0.101</p> <p>Sample Type: (Standard)</p>	

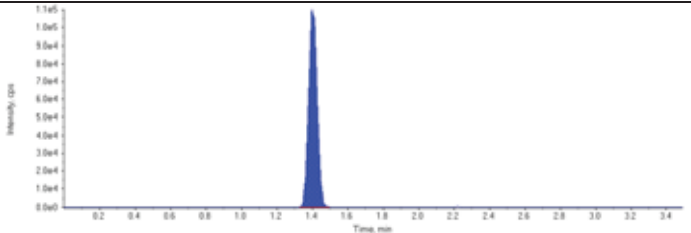
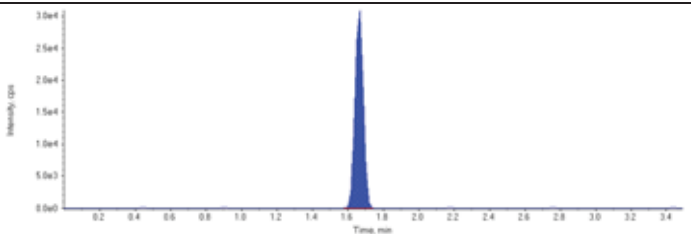
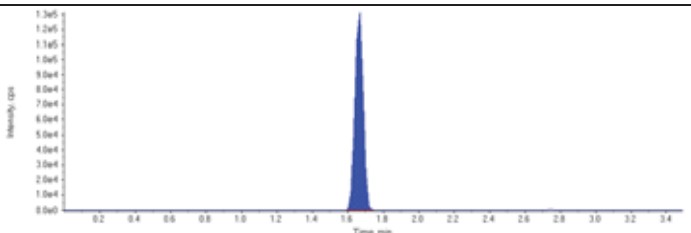
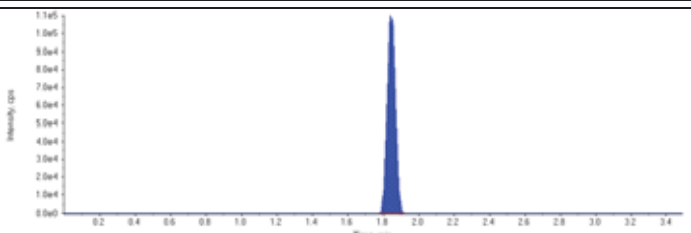
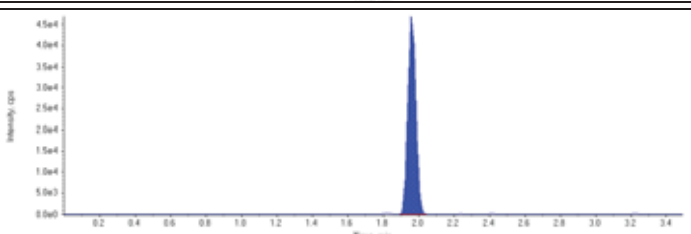
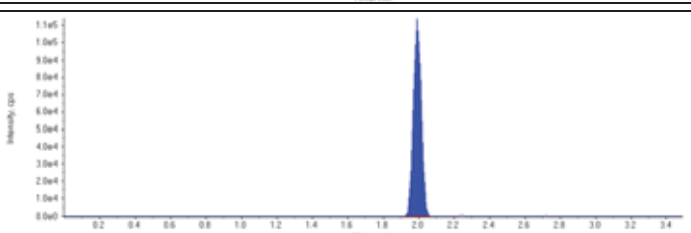
<p>13C4-PFHpa (366.900/322.000 Da)</p> <p>RT (Exp. RT): 1.66 (1.67) min</p> <p>Calculated Conc: 116. µg/L</p> <p>Area Ratio: 0.385</p> <p>Sample Type: (Standard)</p>	
<p>13C4-PFOA (416.900/372.000 Da)</p> <p>RT (Exp. RT): 1.85 (1.84) min</p> <p>Calculated Conc: 108. µg/L</p> <p>Area Ratio: 0.297</p> <p>Sample Type: (Standard)</p>	
<p>13C4-PFOS (502.900/79.900 Da)</p> <p>RT (Exp. RT): 1.96 (2.05) min</p> <p>Calculated Conc: 111. µg/L</p> <p>Area Ratio: 0.141</p> <p>Sample Type: (Standard)</p>	
<p>13C5-PFNA (467.900/423.000 Da)</p> <p>RT (Exp. RT): 1.99 (1.99) min</p> <p>Calculated Conc: 113. µg/L</p> <p>Area Ratio: 0.330</p> <p>Sample Type: (Standard)</p>	
<p>13C2-PFDA (514.900/470.000 Da)</p> <p>RT (Exp. RT): 2.11 (2.11) min</p> <p>Calculated Conc: 103. µg/L</p> <p>Area Ratio: 0.318</p> <p>Sample Type: (Standard)</p>	
<p>13C2-PFUnA (564.900/520.000 Da)</p> <p>RT (Exp. RT): 2.21 (2.27) min</p> <p>Calculated Conc: 100. µg/L</p> <p>Area Ratio: 0.230</p> <p>Sample Type: (Standard)</p>	

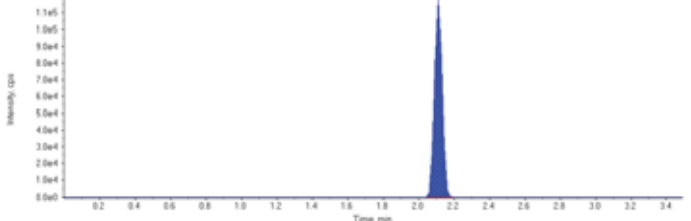
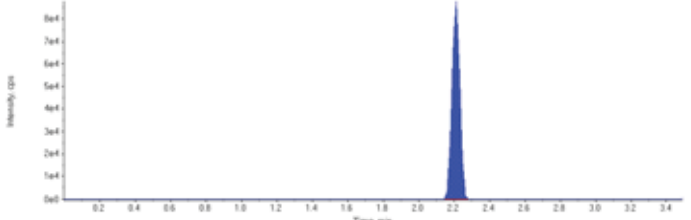
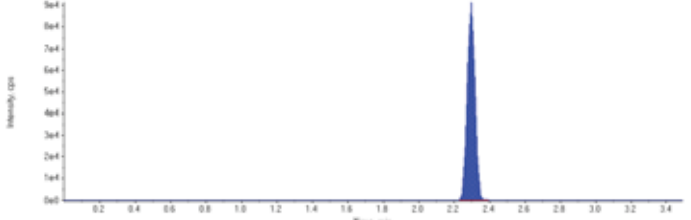
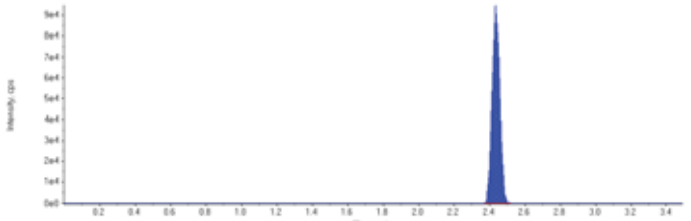
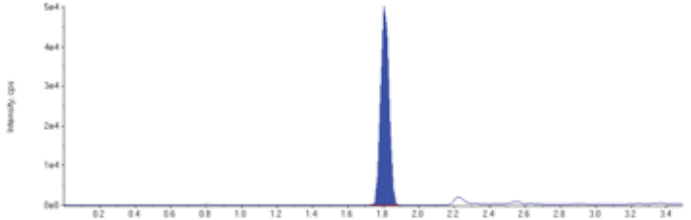
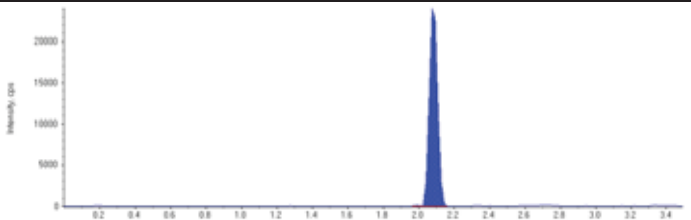
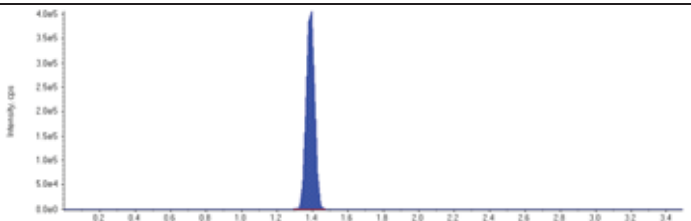
<p>13C2-PFDoA (614.900/570.000 Da)</p> <p>RT (Exp. RT): 2.30 (2.35) min</p> <p>Calculated Conc: 99.6 µg/L</p> <p>Area Ratio: 0.222</p> <p>Sample Type: (Standard)</p>	
<p>13C2-PFTeDA (714.900/669.900 Da)</p> <p>RT (Exp. RT): 2.44 (2.49) min</p> <p>Calculated Conc: 95.4 µg/L</p> <p>Area Ratio: 0.233</p> <p>Sample Type: (Standard)</p>	
<p>13C2-6:2-FTS (429.000/80.900 Da)</p> <p>RT (Exp. RT): 1.81 (1.80) min</p> <p>Calculated Conc: 96.9 µg/L</p> <p>Area Ratio: 0.116</p> <p>Sample Type: (Standard)</p>	
<p>13C2-8:2 FTS (528.900/80.900 Da)</p> <p>RT (Exp. RT): 2.09 (2.08) min</p> <p>Calculated Conc: 122. µg/L</p> <p>Area Ratio: 0.0813</p> <p>Sample Type: (Standard)</p>	
<p>13C6-PFHxA (318.900/274.000 Da)</p> <p>RT (Exp. RT): 1.39 (1.40) min</p> <p>Calculated Conc: 91.9 µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Standard)</p>	
<p>13C9-PFDA (521.900/477.100 Da)</p> <p>RT (Exp. RT): 2.10 (2.09) min</p> <p>Calculated Conc: 98.6 µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Standard)</p>	

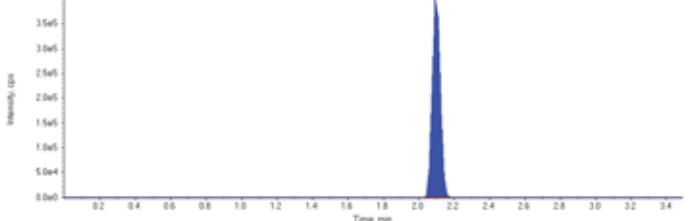
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Sample Type	Standard	Injection Vial	6
Acquisition Date	2017/05/23 1:18:51 PM	Dilution Factor	1.00
Acquisition Method	PFC_Water_Low.dam	Instrument Name	LCMS03
Project	Enviro\PFOS	Algorithm Used	Analyst Classic
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Result Table	PFC_Water_170523_4988945_CTLabs.rdb		
Samples Annotation	-		

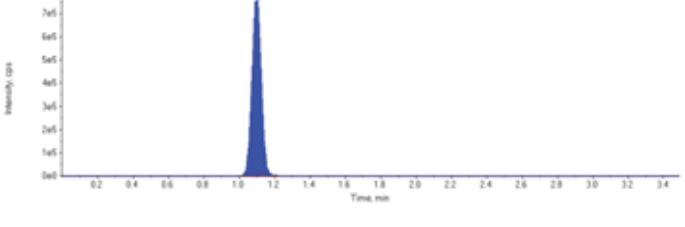
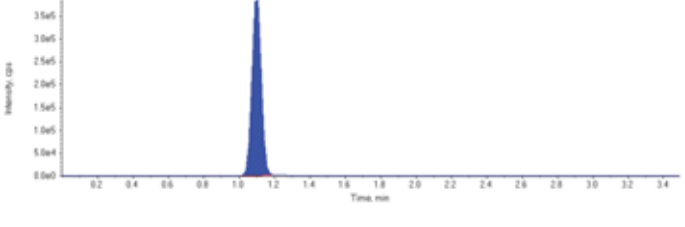
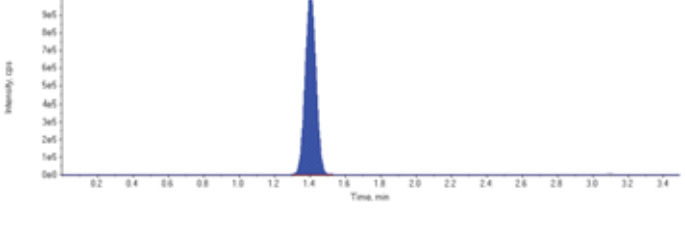
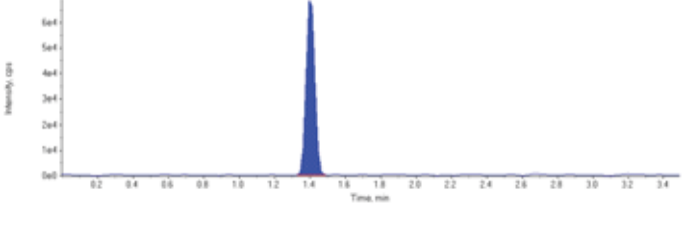
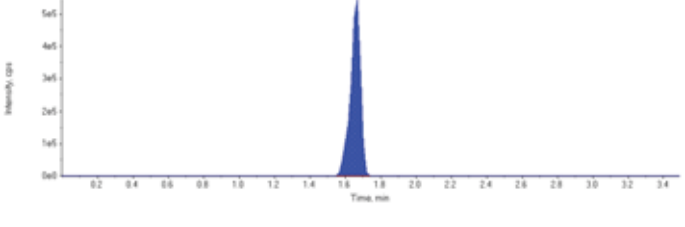
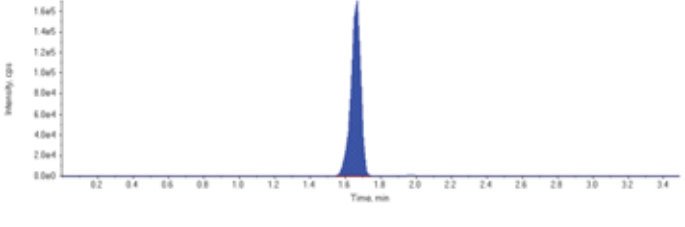
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MPFHxS	101000.	1.66	1.00	-
MPFHpA	424000.	1.66	1.00	-
MPFOA	365000.	1.85	1.00	-
MPFOS	148000.	1.96	1.00	-
MPFNA	349000.	1.99	1.00	-
MPFDA	359000.	2.11	1.00	-
MPFUnA	267000.	2.21	1.00	-
MPFDoA	279000.	2.30	1.00	-
MPFTeDA	284000.	2.44	1.00	-
M2 6:2 FTS	159000.	1.81	1.00	-
M2 8:2 FTS	79400.	2.08	1.00	-
13C6-PFHxA IS	1370000.	1.39	1.00	-
13C9-PFDA IS	1280000.	2.10	1.00	-
N/A	N/A	N/A	N/A	-
N/A	N/A	N/A	N/A	-

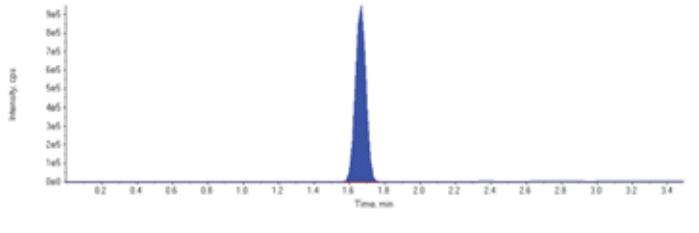
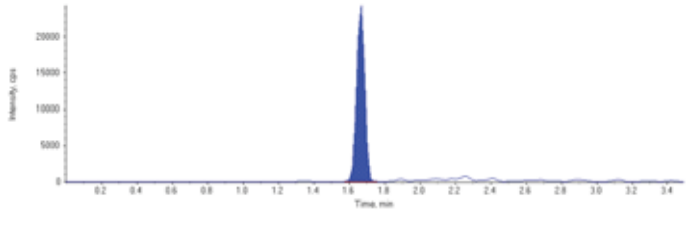
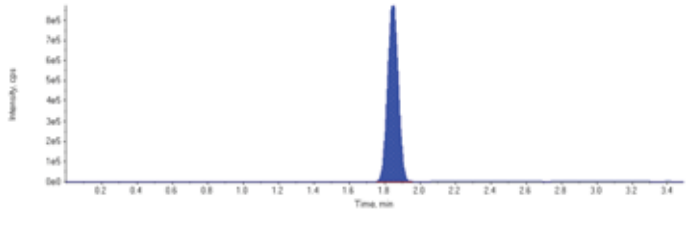
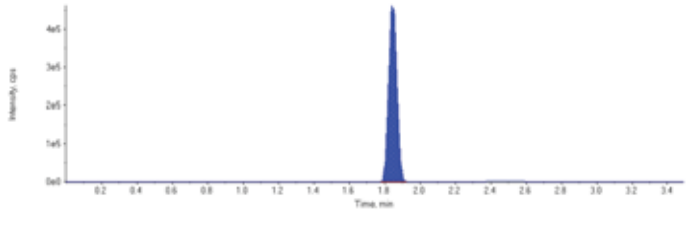
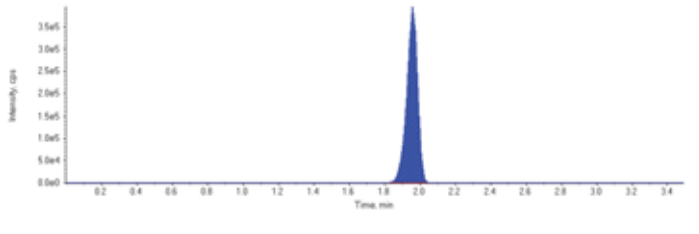
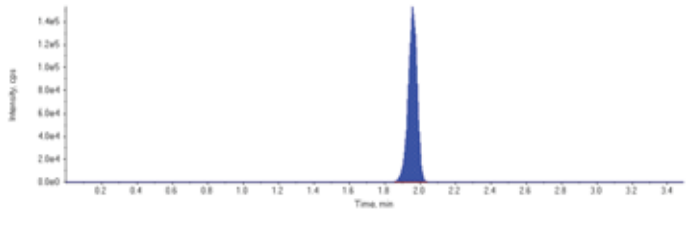
Target Analyte	Area (cps)	RT (min)	Target Conc. (ug/L)	Calc. Conc. (ug/L)	Accuracy (%)
PFBS 1	2860000	1.10	25.0	24.4	97.7
PFBS 2	1450000	1.10	25.0	25.0	99.8
PFHxA 1	4330000	1.40	25.0	26.4	106.0
PFHxA 2	238000	1.40	25.0	24.9	99.8
PFHxS 1	2150000	1.66	25.0	24.6	98.4
PFHxS 2	643000	1.66	25.0	24.9	99.6
PFHpA 1	3900000	1.66	25.0	23.5	94.1
PFHpA 2	77800	1.66	25.0	25.8	103.0
PFOA 1	3710000	1.85	25.0	22.5	89.8
PFOA 2	1550000	1.85	25.0	23.1	92.3
PFOS 1	1690000	1.96	25.0	24.5	98.1
PFOS 2	531000	1.96	25.0	24.8	99.1
PFNA 1	3340000	1.99	25.0	26.6	107.0
PFNA 2	827000	1.99	25.0	25.0	100.0
PFDA 1	3370000	2.11	25.0	22.8	91.3
PFDA 2	637000	2.11	25.0	22.3	89.0
PFUnA 1	2750000	2.21	25.0	24.4	97.4
PFUnA 2	300000	2.21	25.0	24.1	96.5
PFDaA 1	2570000	2.30	25.0	22.1	88.4
PFDaA 2	277000	2.30	25.0	23.4	93.5
PFTTrDA 1	2850000	2.37	25.0	24.3	97.1
PFTTrDA 2	313000	2.37	25.0	24.2	96.8
PFTeDA 1	2610000	2.44	25.0	24.4	97.8
PFTeDA 2	207000	2.44	25.0	27.0	108.0
6:2-FTS 1	998000	1.81	25.0	23.7	94.8
6:2-FTS 2	717000	1.81	25.0	25.1	100.0
8:2-FTS 1	1070000	2.08	25.0	26.8	107.0
8:2-FTS 2	352000	2.08	25.0	24.3	97.0
13C2-PFHxA	376000	1.40	100.	85.1	85.1
18O2-PFHxS	101000	1.66	100.	84.8	84.8
13C4-PFHpA	424000	1.66	100.	93.1	93.1
13C4-PFOA	365000	1.85	100.	96.5	96.5
13C4-PFOS	148000	1.96	100.	84.8	84.8
13C5-PFNA	349000	1.99	100.	86.6	86.6
13C2-PFDA	359000	2.11	100.	90.6	90.6
13C2-PFUnA	267000	2.21	100.	90.7	90.7
13C2-PFDaA	279000	2.30	100.	97.9	97.9
13C2-PFTeDA	284000	2.44	100.	91.2	91.2
13C2-6:2-FTS	159000	1.81	100.	97.0	97.0
13C2-8:2 FTS	79400	2.08	100.	86.7	86.7
13C6-PFHxA	1370000	1.39	100.	107.	107.0
13C9-PFDA	1280000	2.10	100.	107.	107.0

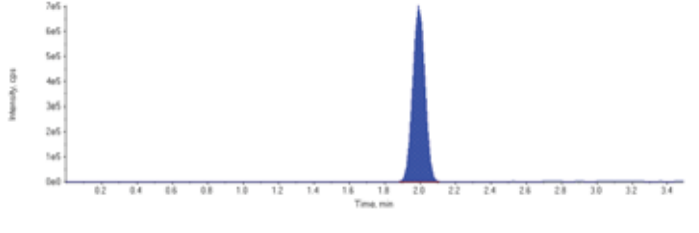
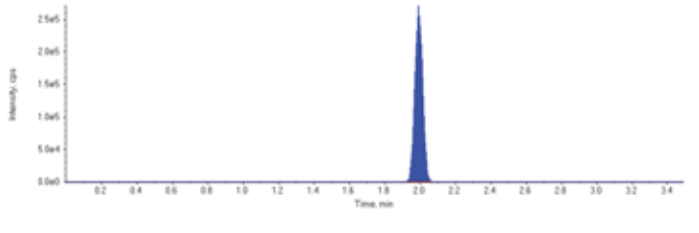
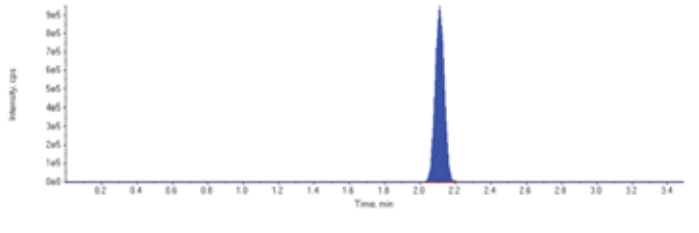
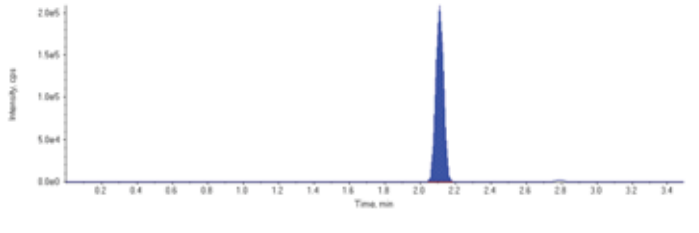
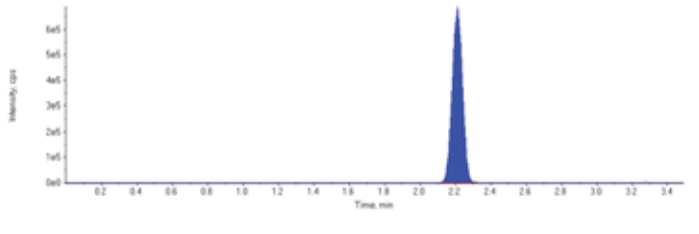
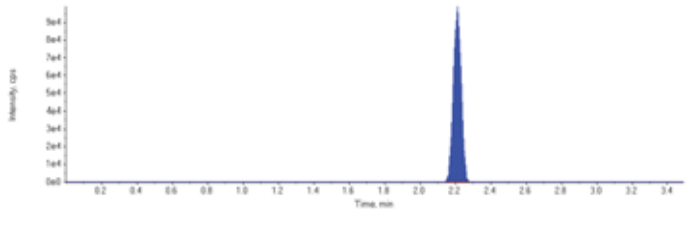
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<p>MPFHxS (Internal Standard)</p> <p>RT (Exp. RT): 1.66(1.77) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Standard)</p>	
<p>MPFHpA (Internal Standard)</p> <p>RT (Exp. RT): 1.66(1.67) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Standard)</p>	
<p>MPFOA (Internal Standard)</p> <p>RT (Exp. RT): 1.85(1.84) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Standard)</p>	
<p>MPFOS (Internal Standard)</p> <p>RT (Exp. RT): 1.96(2.05) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Standard)</p>	
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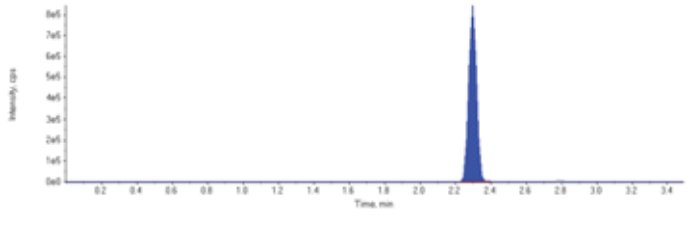
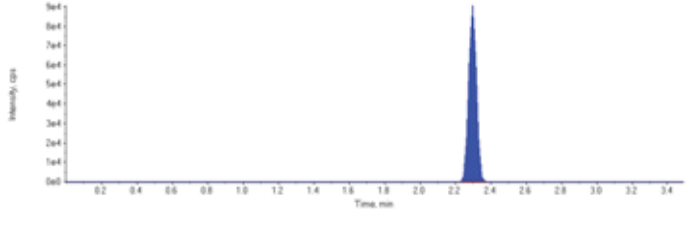
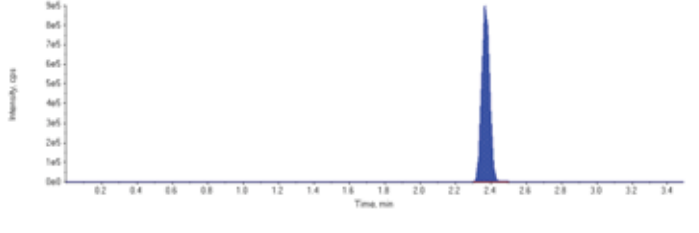
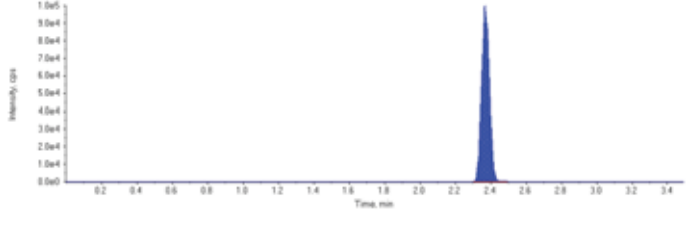
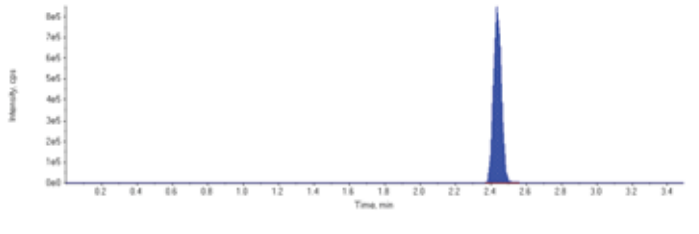
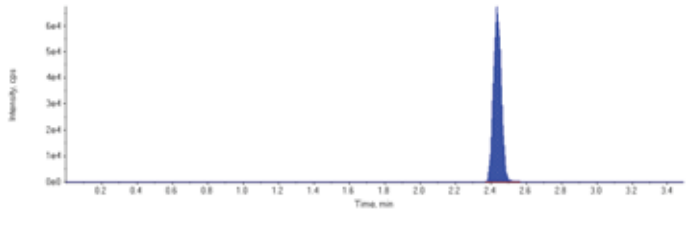
<p>MPFDA (Internal Standard)</p> <p>RT (Exp. RT): 2.11(2.18) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Standard)</p>	
<p>MPFUnA (Internal Standard)</p> <p>RT (Exp. RT): 2.21(2.27) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Standard)</p>	
<p>MPFDoA (Internal Standard)</p> <p>RT (Exp. RT): 2.30(2.35) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Standard)</p>	
<p>MPFTeDA (Internal Standard)</p> <p>RT (Exp. RT): 2.44(2.49) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Standard)</p>	
<p>M2 6:2 FTS (Internal Standard)</p> <p>RT (Exp. RT): 1.81(1.80) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Standard)</p>	
<p>M2 8:2 FTS (Internal Standard)</p> <p>RT (Exp. RT): 2.08(2.08) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Standard)</p>	
<p>13C6-PFHxA IS (Internal Standard)</p> <p>RT (Exp. RT): 1.39(1.40) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Standard)</p>	

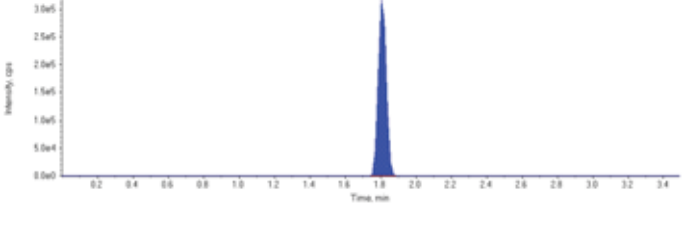
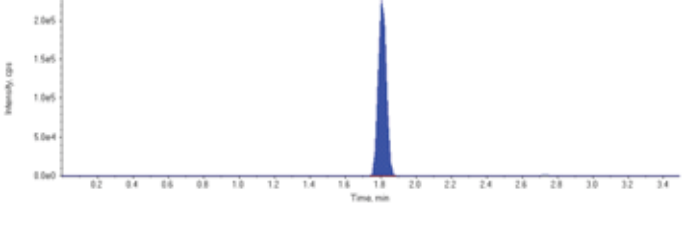
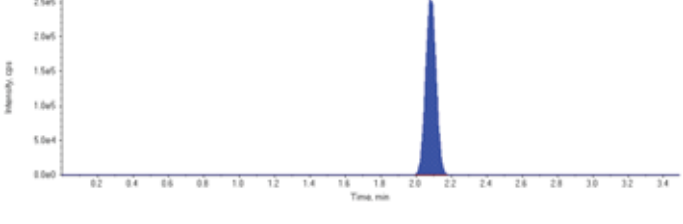
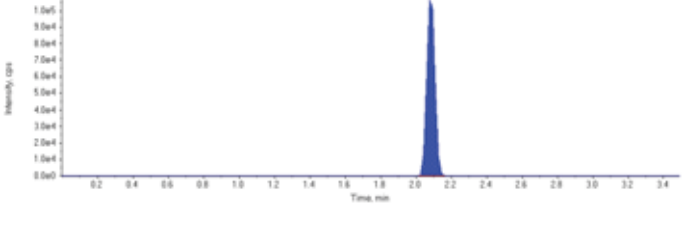
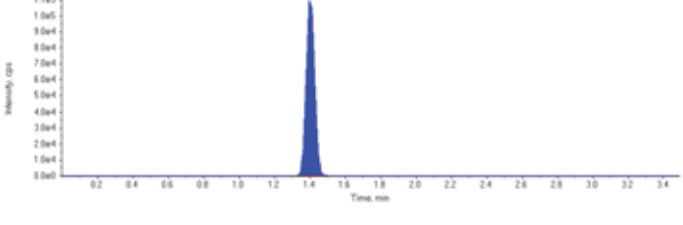
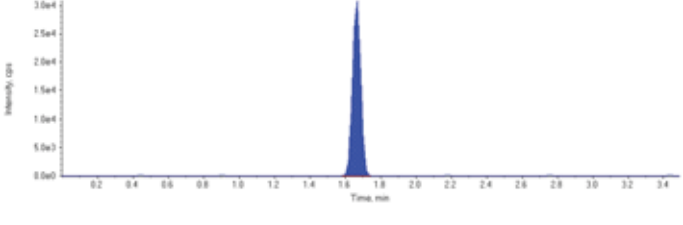
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<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min</p> <p>Concentration: N/A N/A</p> <p>Sample Type: (Standard)</p>	<p>This image is not available</p>
<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min</p> <p>Concentration: N/A N/A</p> <p>Sample Type: (Standard)</p>	<p>This image is not available</p>

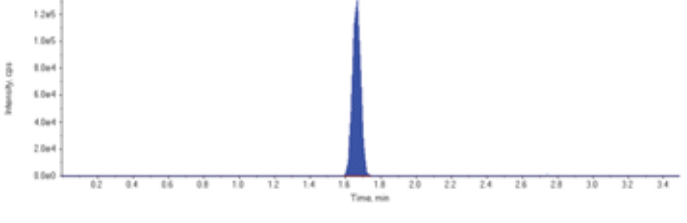
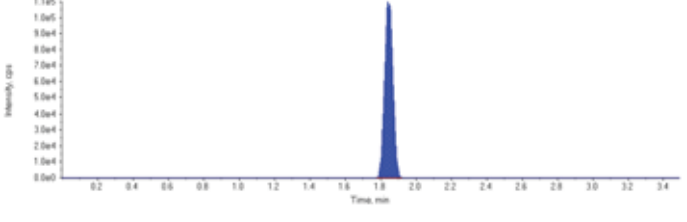
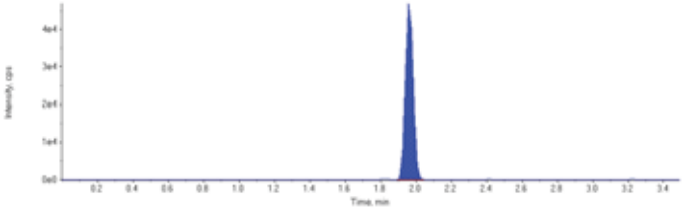
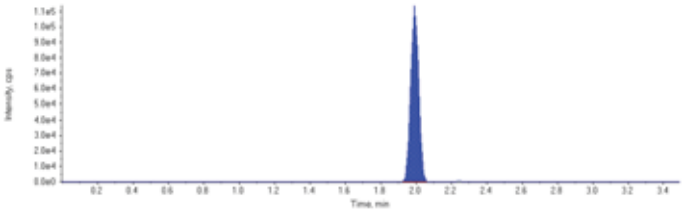
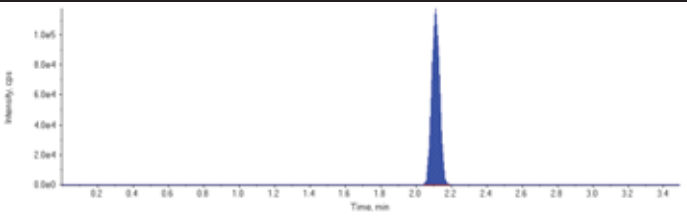
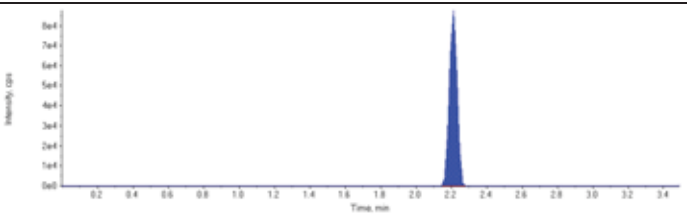
<p>PFBS 1 (298.900/79.900 Da)</p> <p>RT (Exp. RT): 1.10 (1.09) min</p> <p>Calculated Conc: 24.4 µg/L</p> <p>Area Ratio: 28.5</p> <p>Sample Type: (Standard)</p>	
<p>PFBS 2 (298.900/98.900 Da)</p> <p>RT (Exp. RT): 1.10 (1.09) min</p> <p>Calculated Conc: 25.0 µg/L</p> <p>Area Ratio: 14.4</p> <p>Sample Type: (Standard)</p>	
<p>PFHxA 1 (313.000/269.000 Da)</p> <p>RT (Exp. RT): 1.40 (1.40) min</p> <p>Calculated Conc: 26.4 µg/L</p> <p>Area Ratio: 11.5</p> <p>Sample Type: (Standard)</p>	
<p>PFHxA 2 (313.000/119.000 Da)</p> <p>RT (Exp. RT): 1.40 (1.41) min</p> <p>Calculated Conc: 24.9 µg/L</p> <p>Area Ratio: 0.631</p> <p>Sample Type: (Standard)</p>	
<p>PFHxS 1 (398.900/79.900 Da)</p> <p>RT (Exp. RT): 1.66 (1.67) min</p> <p>Calculated Conc: 24.6 µg/L</p> <p>Area Ratio: 21.4</p> <p>Sample Type: (Standard)</p>	
<p>PFHxS 2 (398.900/98.900 Da)</p> <p>RT (Exp. RT): 1.66 (1.67) min</p> <p>Calculated Conc: 24.9 µg/L</p> <p>Area Ratio: 6.39</p> <p>Sample Type: (Standard)</p>	

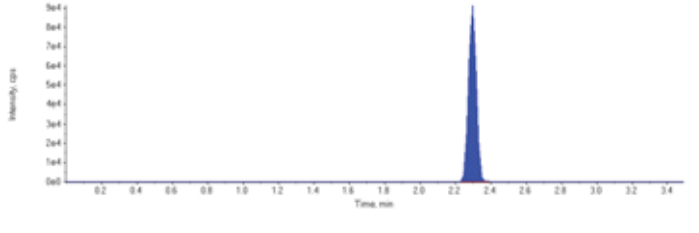
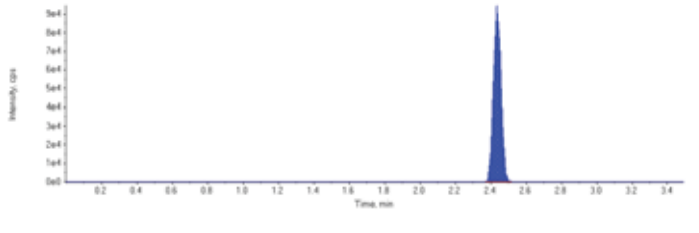
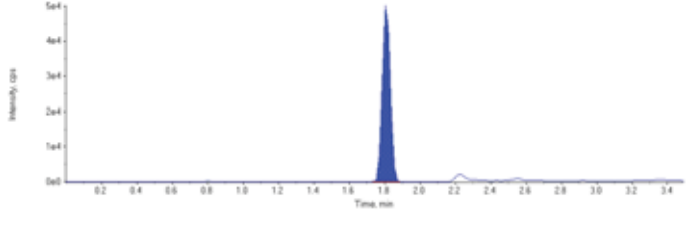
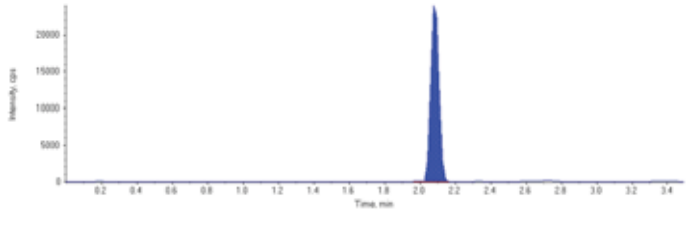
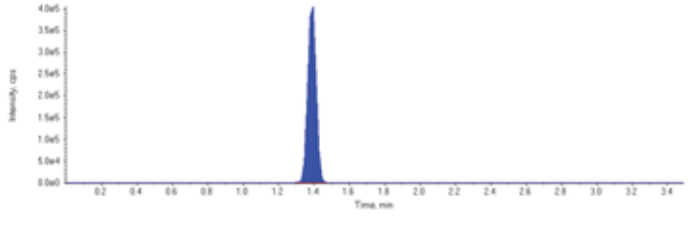
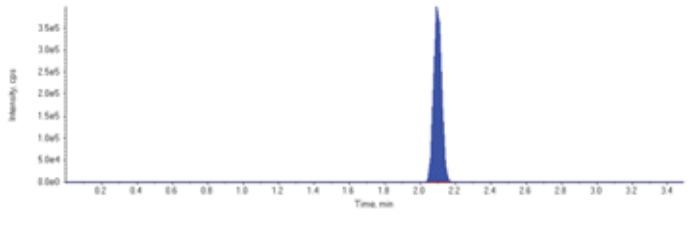
<p>PFHpA 1 (363.000/319.000 Da)</p> <p>RT (Exp. RT): 1.66 (1.67) min</p> <p>Calculated Conc: 23.5 µg/L</p> <p>Area Ratio: 9.20</p> <p>Sample Type: (Standard)</p>	
<p>PFHpA 2 (363.000/169.200 Da)</p> <p>RT (Exp. RT): 1.66 (1.67) min</p> <p>Calculated Conc: 25.8 µg/L</p> <p>Area Ratio: 0.184</p> <p>Sample Type: (Standard)</p>	
<p>PFOA 1 (413.100/369.000 Da)</p> <p>RT (Exp. RT): 1.85 (1.85) min</p> <p>Calculated Conc: 22.5 µg/L</p> <p>Area Ratio: 10.1</p> <p>Sample Type: (Standard)</p>	
<p>PFOA 2 (413.100/169.000 Da)</p> <p>RT (Exp. RT): 1.85 (1.84) min</p> <p>Calculated Conc: 23.1 µg/L</p> <p>Area Ratio: 4.23</p> <p>Sample Type: (Standard)</p>	
<p>PFOS 1 (498.900/79.900 Da)</p> <p>RT (Exp. RT): 1.96 (1.96) min</p> <p>Calculated Conc: 24.5 µg/L</p> <p>Area Ratio: 11.4</p> <p>Sample Type: (Standard)</p>	
<p>PFOS 2 (498.900/98.900 Da)</p> <p>RT (Exp. RT): 1.96 (1.96) min</p> <p>Calculated Conc: 24.8 µg/L</p> <p>Area Ratio: 3.59</p> <p>Sample Type: (Standard)</p>	

<p>PFNA 1 (462.900/419.000 Da)</p> <p>RT (Exp. RT): 1.99 (1.99) min</p> <p>Calculated Conc: 26.6 µg/L</p> <p>Area Ratio: 9.58</p> <p>Sample Type: (Standard)</p>	
<p>PFNA 2 (462.900/219.100 Da)</p> <p>RT (Exp. RT): 1.99 (1.99) min</p> <p>Calculated Conc: 25.0 µg/L</p> <p>Area Ratio: 2.37</p> <p>Sample Type: (Standard)</p>	
<p>PFDA 1 (513.000/469.100 Da)</p> <p>RT (Exp. RT): 2.11 (2.18) min</p> <p>Calculated Conc: 22.8 µg/L</p> <p>Area Ratio: 9.37</p> <p>Sample Type: (Standard)</p>	
<p>PFDA 2 (513.000/218.900 Da)</p> <p>RT (Exp. RT): 2.11 (2.11) min</p> <p>Calculated Conc: 22.3 µg/L</p> <p>Area Ratio: 1.77</p> <p>Sample Type: (Standard)</p>	
<p>PFUnA 1 (562.900/519.000 Da)</p> <p>RT (Exp. RT): 2.21 (2.21) min</p> <p>Calculated Conc: 24.4 µg/L</p> <p>Area Ratio: 10.3</p> <p>Sample Type: (Standard)</p>	
<p>PFUnA 2 (562.900/269.200 Da)</p> <p>RT (Exp. RT): 2.21 (2.27) min</p> <p>Calculated Conc: 24.1 µg/L</p> <p>Area Ratio: 1.12</p> <p>Sample Type: (Standard)</p>	

<p>PFD_oA 1 (612.900/569.000 Da)</p> <p>RT (Exp. RT): 2.30 (2.36) min</p> <p>Calculated Conc: 22.1 µg/L</p> <p>Area Ratio: 9.21</p> <p>Sample Type: (Standard)</p>	
<p>PFD_oA 2 (612.900/319.000 Da)</p> <p>RT (Exp. RT): 2.30 (2.35) min</p> <p>Calculated Conc: 23.4 µg/L</p> <p>Area Ratio: 0.993</p> <p>Sample Type: (Standard)</p>	
<p>PFT_rDA 1 (663.000/619.000 Da)</p> <p>RT (Exp. RT): 2.37 (2.42) min</p> <p>Calculated Conc: 24.3 µg/L</p> <p>Area Ratio: 10.0</p> <p>Sample Type: (Standard)</p>	
<p>PFT_rDA 2 (663.000/318.900 Da)</p> <p>RT (Exp. RT): 2.37 (2.37) min</p> <p>Calculated Conc: 24.2 µg/L</p> <p>Area Ratio: 1.10</p> <p>Sample Type: (Standard)</p>	
<p>PFT_eDA 1 (713.000/669.000 Da)</p> <p>RT (Exp. RT): 2.44 (2.49) min</p> <p>Calculated Conc: 24.4 µg/L</p> <p>Area Ratio: 9.17</p> <p>Sample Type: (Standard)</p>	
<p>PFT_eDA 2 (713.000/319.200 Da)</p> <p>RT (Exp. RT): 2.44 (2.49) min</p> <p>Calculated Conc: 27.0 µg/L</p> <p>Area Ratio: 0.728</p> <p>Sample Type: (Standard)</p>	

<p>6:2-FTS 1 (427.000/407.000 Da)</p> <p>RT (Exp. RT): 1.81 (1.90) min</p> <p>Calculated Conc: 23.7 µg/L</p> <p>Area Ratio: 6.27</p> <p>Sample Type: (Standard)</p>	
<p>6:2-FTS 2 (427.000/80.900 Da)</p> <p>RT (Exp. RT): 1.81 (1.80) min</p> <p>Calculated Conc: 25.1 µg/L</p> <p>Area Ratio: 4.51</p> <p>Sample Type: (Standard)</p>	
<p>8:2-FTS 1 (526.900/507.000 Da)</p> <p>RT (Exp. RT): 2.08 (2.16) min</p> <p>Calculated Conc: 26.8 µg/L</p> <p>Area Ratio: 13.5</p> <p>Sample Type: (Standard)</p>	
<p>8:2-FTS 2 (526.900/80.900 Da)</p> <p>RT (Exp. RT): 2.08 (2.09) min</p> <p>Calculated Conc: 24.3 µg/L</p> <p>Area Ratio: 4.43</p> <p>Sample Type: (Standard)</p>	
<p>13C2-PFHxA (314.900/270.000 Da)</p> <p>RT (Exp. RT): 1.40 (1.40) min</p> <p>Calculated Conc: 85.1 µg/L</p> <p>Area Ratio: 0.274</p> <p>Sample Type: (Standard)</p>	
<p>18O2-PFHxS (402.900/84.000 Da)</p> <p>RT (Exp. RT): 1.66 (1.77) min</p> <p>Calculated Conc: 84.8 µg/L</p> <p>Area Ratio: 0.0732</p> <p>Sample Type: (Standard)</p>	

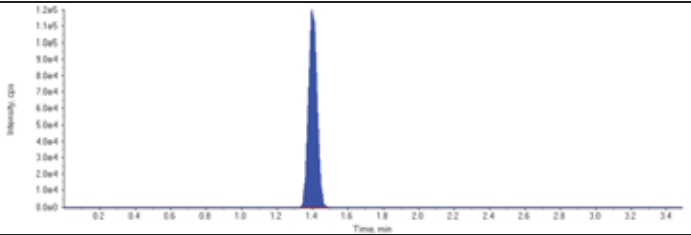
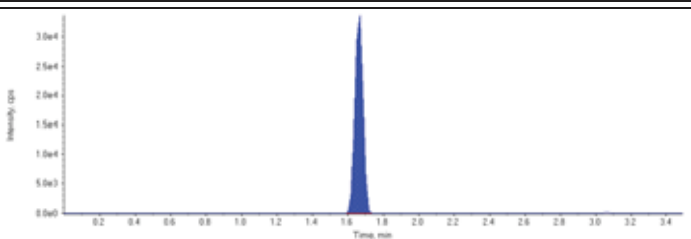
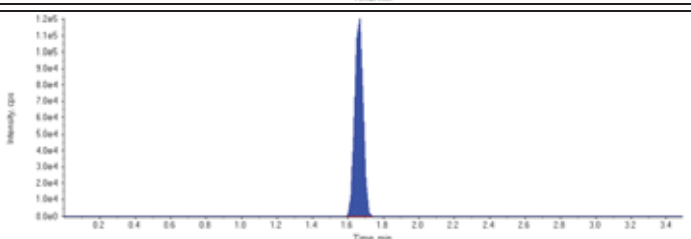
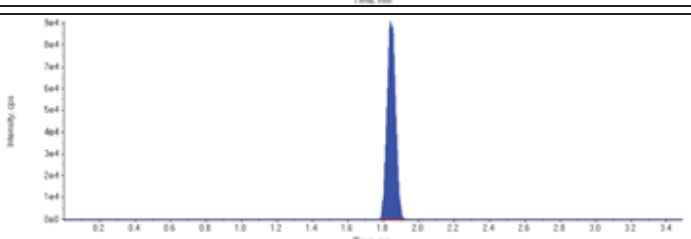
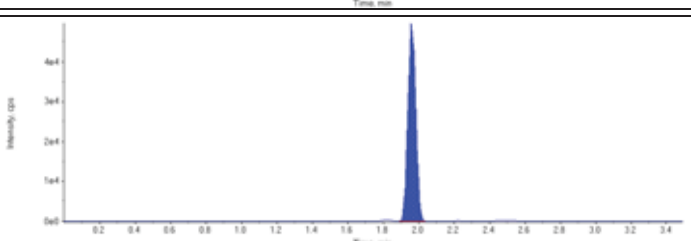
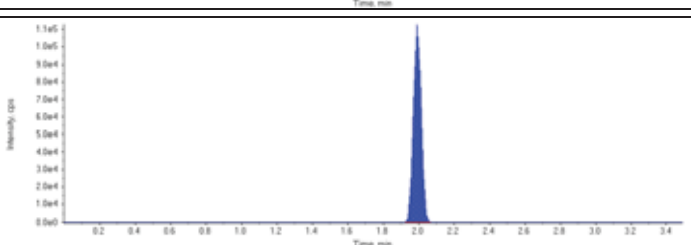
<p>13C4-PFHpa (366.900/322.000 Da)</p> <p>RT (Exp. RT): 1.66 (1.67) min</p> <p>Calculated Conc: 93.1 µg/L</p> <p>Area Ratio: 0.308</p> <p>Sample Type: (Standard)</p>	
<p>13C4-PFOA (416.900/372.000 Da)</p> <p>RT (Exp. RT): 1.85 (1.84) min</p> <p>Calculated Conc: 96.5 µg/L</p> <p>Area Ratio: 0.266</p> <p>Sample Type: (Standard)</p>	
<p>13C4-PFOS (502.900/79.900 Da)</p> <p>RT (Exp. RT): 1.96 (2.05) min</p> <p>Calculated Conc: 84.8 µg/L</p> <p>Area Ratio: 0.108</p> <p>Sample Type: (Standard)</p>	
<p>13C5-PFNA (467.900/423.000 Da)</p> <p>RT (Exp. RT): 1.99 (1.99) min</p> <p>Calculated Conc: 86.6 µg/L</p> <p>Area Ratio: 0.254</p> <p>Sample Type: (Standard)</p>	
<p>13C2-PFDA (514.900/470.000 Da)</p> <p>RT (Exp. RT): 2.11 (2.11) min</p> <p>Calculated Conc: 90.6 µg/L</p> <p>Area Ratio: 0.281</p> <p>Sample Type: (Standard)</p>	
<p>13C2-PFUnA (564.900/520.000 Da)</p> <p>RT (Exp. RT): 2.21 (2.27) min</p> <p>Calculated Conc: 90.7 µg/L</p> <p>Area Ratio: 0.209</p> <p>Sample Type: (Standard)</p>	

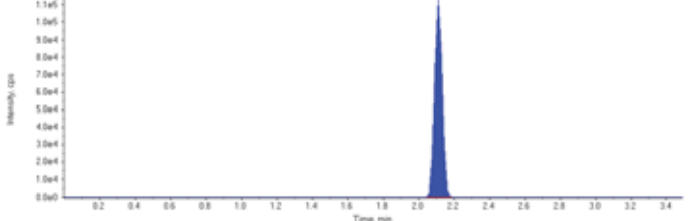
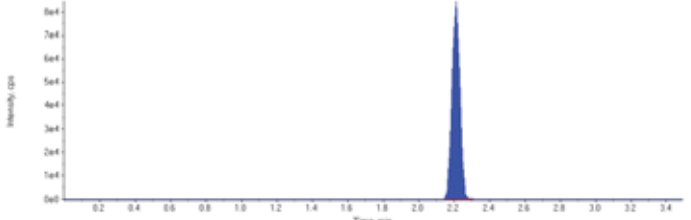
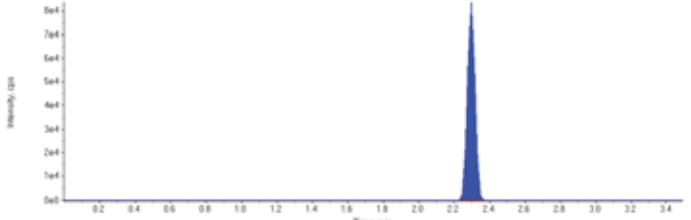
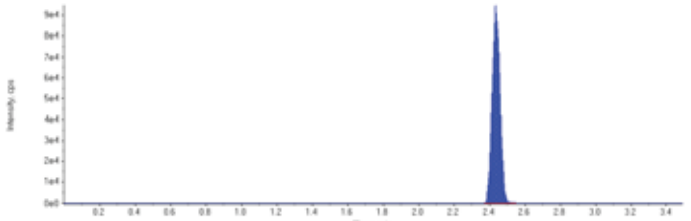
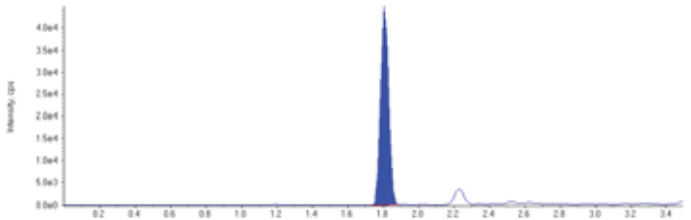
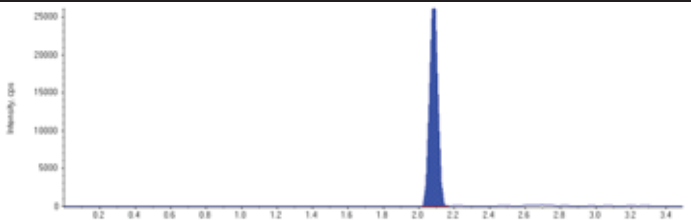
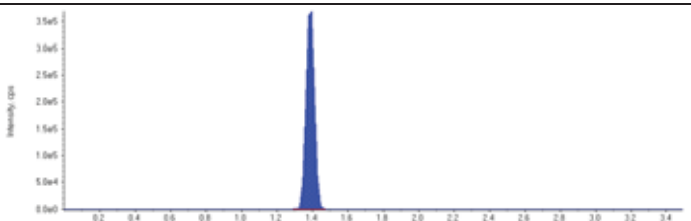
<p>13C2-PFDoA (614.900/570.000 Da)</p> <p>RT (Exp. RT): 2.30 (2.35) min</p> <p>Calculated Conc: 97.9 µg/L</p> <p>Area Ratio: 0.218</p> <p>Sample Type: (Standard)</p>	
<p>13C2-PFTeDA (714.900/669.900 Da)</p> <p>RT (Exp. RT): 2.44 (2.49) min</p> <p>Calculated Conc: 91.2 µg/L</p> <p>Area Ratio: 0.222</p> <p>Sample Type: (Standard)</p>	
<p>13C2-6:2-FTS (429.000/80.900 Da)</p> <p>RT (Exp. RT): 1.81 (1.80) min</p> <p>Calculated Conc: 97.0 µg/L</p> <p>Area Ratio: 0.116</p> <p>Sample Type: (Standard)</p>	
<p>13C2-8:2 FTS (528.900/80.900 Da)</p> <p>RT (Exp. RT): 2.08 (2.08) min</p> <p>Calculated Conc: 86.7 µg/L</p> <p>Area Ratio: 0.0578</p> <p>Sample Type: (Standard)</p>	
<p>13C6-PFHxA (318.900/274.000 Da)</p> <p>RT (Exp. RT): 1.39 (1.40) min</p> <p>Calculated Conc: 107. µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Standard)</p>	
<p>13C9-PFDA (521.900/477.100 Da)</p> <p>RT (Exp. RT): 2.10 (2.09) min</p> <p>Calculated Conc: 107. µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Standard)</p>	

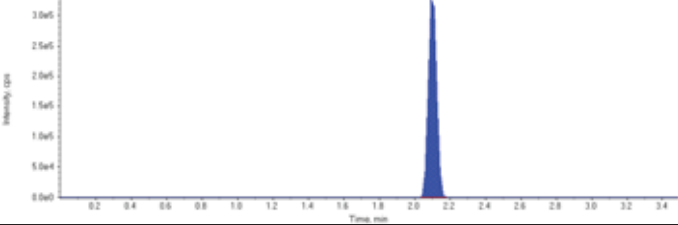
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Sample Type	Standard	Injection Vial	7
Acquisition Date	2017/05/23 1:23:55 PM	Dilution Factor	1.00
Acquisition Method	PFC_Water_Low.dam	Instrument Name	LCMS03
Project	Enviro\PFOS	Algorithm Used	Analyst Classic
Data File	PFC_170523\WS#4988945.wiff		
Result Table	PFC_Water_170523_4988945_CTLabs.rdb		
Samples Annotation	-		

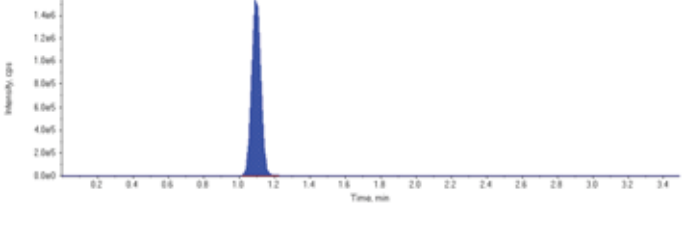
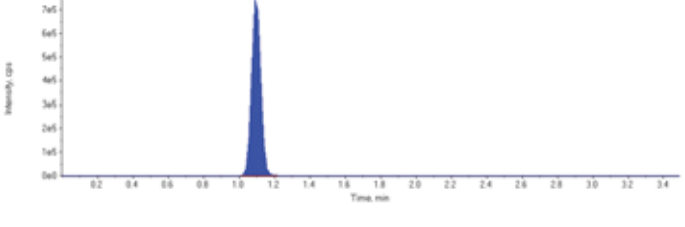
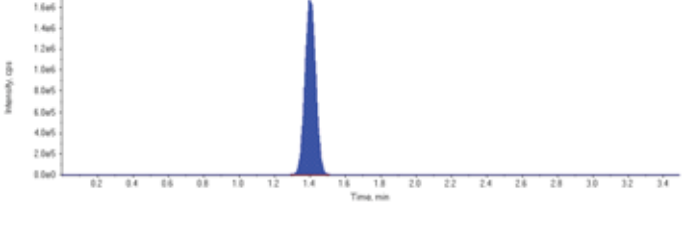
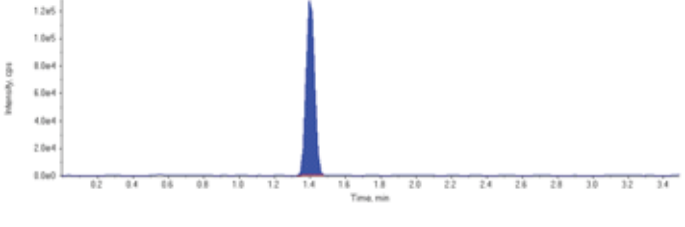
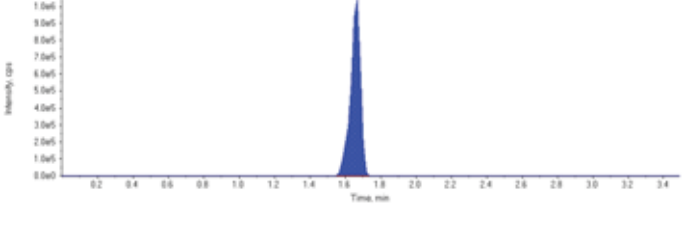
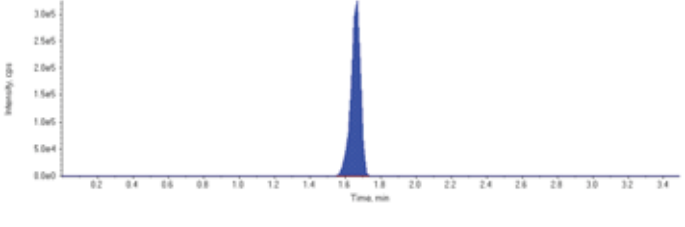
Internal Standard	Area (cps)	RT (min)	Target Conc. (ug/L)	Calc. Conc. (ug/L)
MPFHxA	402000.	1.40	1.00	-
MPFHxS	108000.	1.66	1.00	-
MPFHpA	393000.	1.66	1.00	-
MPFOA	303000.	1.85	1.00	-
MPFOS	154000.	1.96	1.00	-
MPFNA	343000.	1.99	1.00	-
MPFDA	339000.	2.11	1.00	-
MPFUnA	260000.	2.21	1.00	-
MPFDoA	253000.	2.30	1.00	-
MPFTeDA	290000.	2.44	1.00	-
M2 6:2 FTS	139000.	1.81	1.00	-
M2 8:2 FTS	86800.	2.08	1.00	-
13C6-PFHxA IS	1270000.	1.39	1.00	-
13C9-PFDA IS	1080000.	2.10	1.00	-
N/A	N/A	N/A	N/A	-
N/A	N/A	N/A	N/A	-

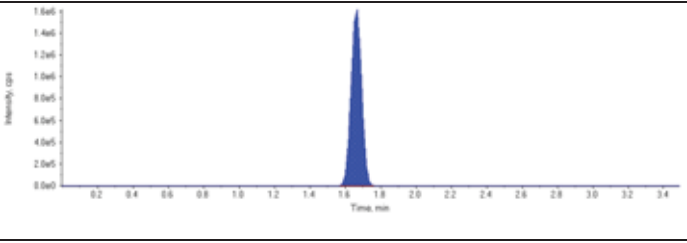
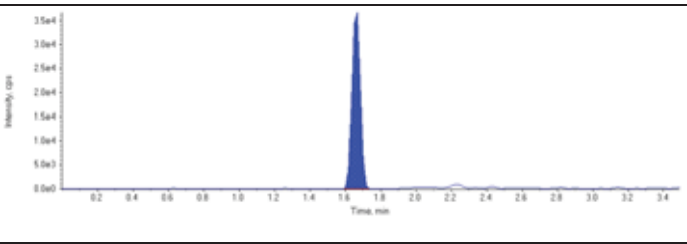
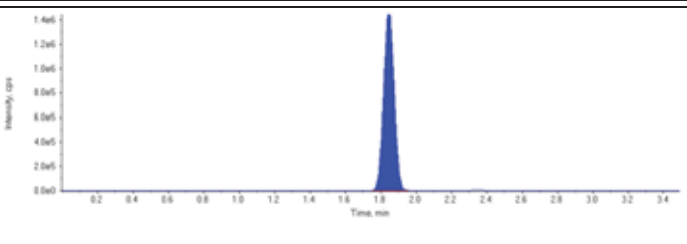
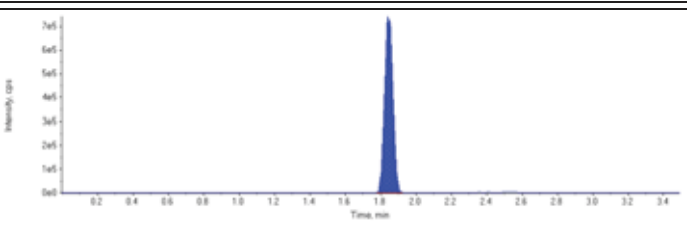
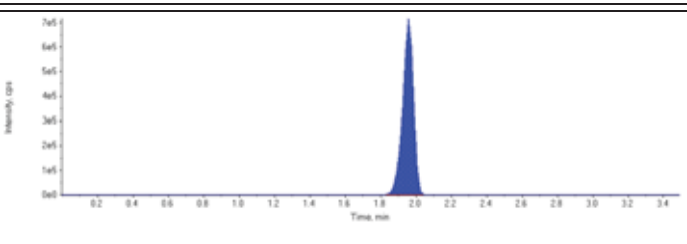
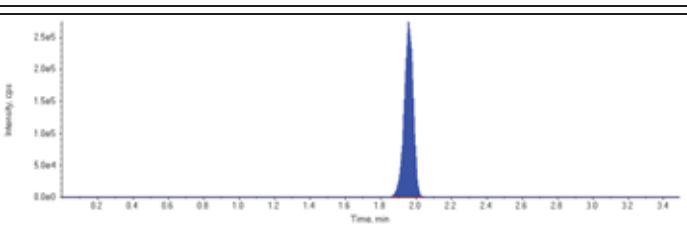
Target Analyte	Area (cps)	RT (min)	Target Conc. (ug/L)	Calc. Conc. (ug/L)	Accuracy (%)
PFBS 1	5610000	1.10	41.7	44.4	106.0
PFBS 2	2720000	1.10	41.7	43.6	105.0
PFHxA 1	7180000	1.40	41.7	41.0	98.3
PFHxA 2	429000	1.40	41.7	42.1	101.0
PFHxS 1	4050000	1.66	41.7	43.2	104.0
PFHxS 2	1210000	1.66	41.7	43.6	105.0
PFHpA 1	6740000	1.66	41.7	43.8	105.0
PFHpA 2	123000	1.66	41.7	43.9	105.0
PFOA 1	6170000	1.85	41.7	44.9	108.0
PFOA 2	2480000	1.85	41.7	44.4	106.0
PFOS 1	3060000	1.96	41.7	42.7	102.0
PFOS 2	955000	1.96	41.7	42.8	103.0
PFNA 1	5070000	1.99	41.7	41.1	98.6
PFNA 2	1410000	1.99	41.7	43.4	104.0
PFDA 1	6030000	2.11	41.7	43.2	104.0
PFDA 2	1190000	2.11	41.7	44.1	106.0
PFUnA 1	4660000	2.21	41.7	42.4	102.0
PFUnA 2	524000	2.21	41.7	43.2	104.0
PFDaA 1	4650000	2.30	41.7	44.0	106.0
PFDaA 2	466000	2.30	41.7	43.2	104.0
PFTTrDA 1	5060000	2.37	41.7	42.2	101.0
PFTTrDA 2	562000	2.37	41.7	42.6	102.0
PFTeDA 1	4660000	2.44	41.7	42.8	103.0
PFTeDA 2	308000	2.44	41.7	39.4	94.4
6:2-FTS 1	1650000	1.81	41.7	44.5	107.0
6:2-FTS 2	1050000	1.81	41.7	42.1	101.0
8:2-FTS 1	1760000	2.08	41.7	40.4	96.9
8:2-FTS 2	697000	2.08	41.7	43.8	105.0
13C2-PFHxA	402000	1.40	100.	98.1	98.1
18O2-PFHxS	108000	1.66	100.	98.2	98.2
13C4-PFHpA	393000	1.66	100.	93.3	93.3
13C4-PFOA	303000	1.85	100.	86.3	86.3
13C4-PFOS	154000	1.96	100.	95.0	95.0
13C5-PFNA	343000	1.99	100.	91.7	91.7
13C2-PFDA	339000	2.11	100.	101.	101.0
13C2-PFUnA	260000	2.21	100.	104.	104.0
13C2-PFDaA	253000	2.30	100.	105.	105.0
13C2-PFTeDA	290000	2.44	100.	110.	110.0
13C2-6:2-FTS	139000	1.81	100.	91.5	91.5
13C2-8:2 FTS	86800	2.08	100.	102.	102.0
13C6-PFHxA	1270000	1.39	100.	99.6	99.6
13C9-PFDA	1080000	2.10	100.	90.3	90.3

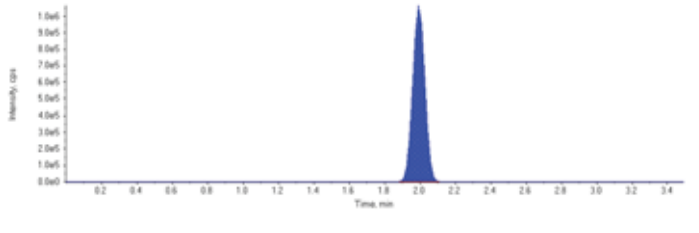
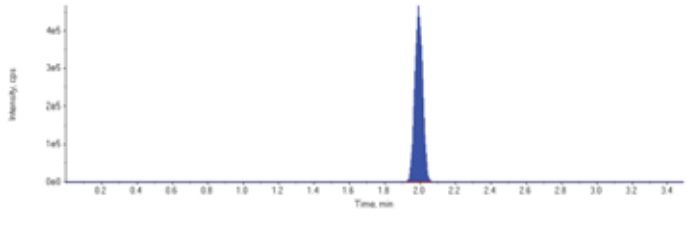
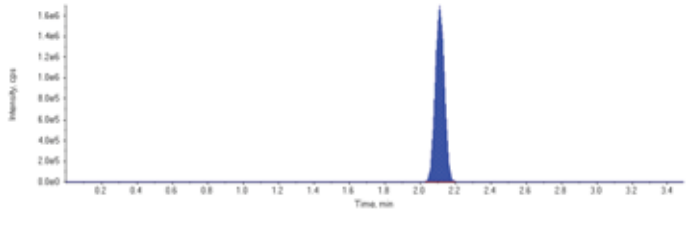
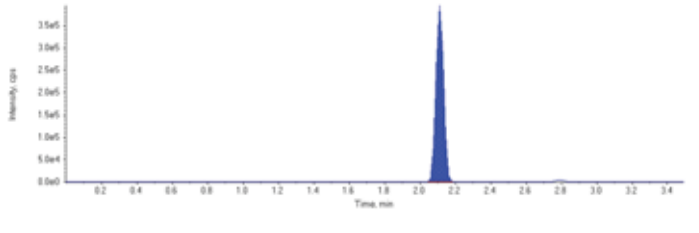
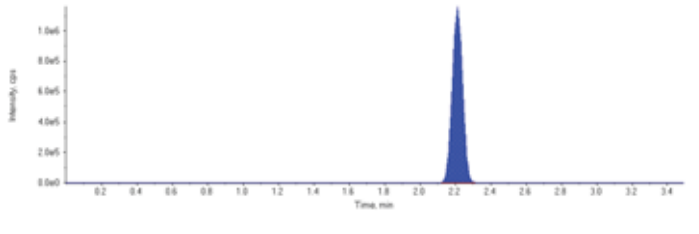
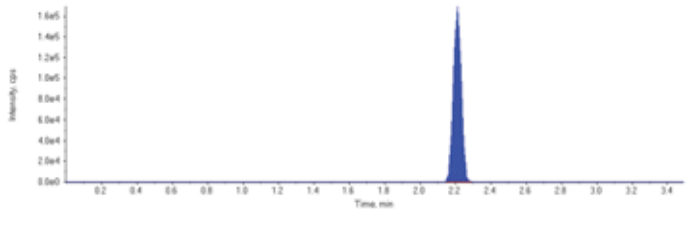
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<p>MPFHxS (Internal Standard)</p> <p>RT (Exp. RT): 1.66(1.77) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Standard)</p>	
<p>MPFHpA (Internal Standard)</p> <p>RT (Exp. RT): 1.66(1.67) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Standard)</p>	
<p>MPFOA (Internal Standard)</p> <p>RT (Exp. RT): 1.85(1.84) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Standard)</p>	
<p>MPFOS (Internal Standard)</p> <p>RT (Exp. RT): 1.96(2.05) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Standard)</p>	
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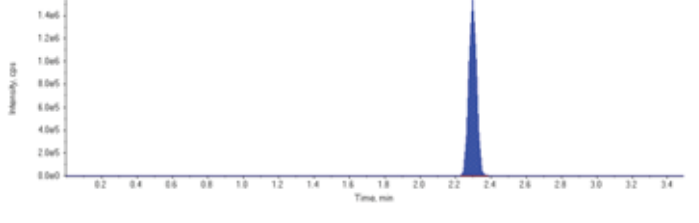
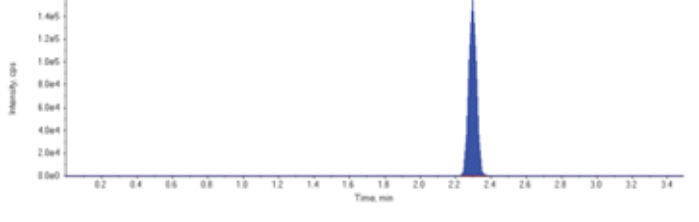
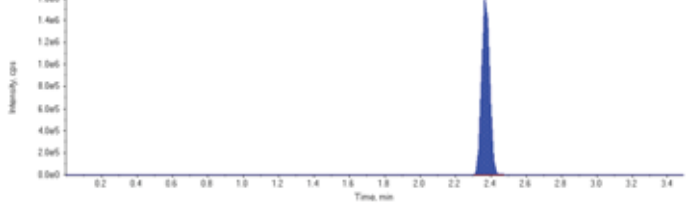
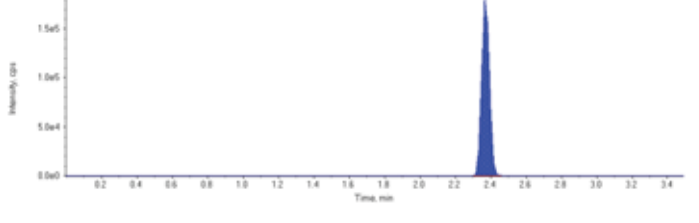
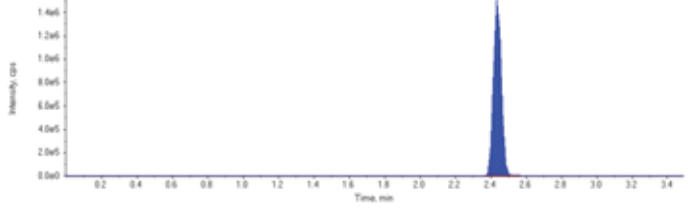
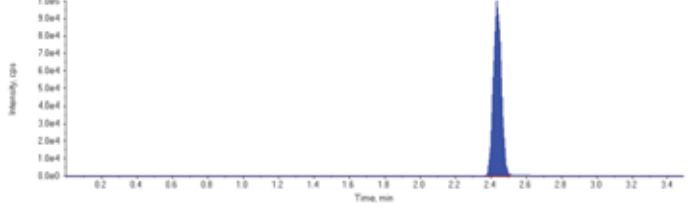
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<p>MPFUnA (Internal Standard)</p> <p>RT (Exp. RT): 2.21(2.27) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Standard)</p>	
<p>MPFDoA (Internal Standard)</p> <p>RT (Exp. RT): 2.30(2.35) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Standard)</p>	
<p>MPFTeDA (Internal Standard)</p> <p>RT (Exp. RT): 2.44(2.49) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Standard)</p>	
<p>M2 6:2 FTS (Internal Standard)</p> <p>RT (Exp. RT): 1.81(1.80) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Standard)</p>	
<p>M2 8:2 FTS (Internal Standard)</p> <p>RT (Exp. RT): 2.08(2.08) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Standard)</p>	
<p>13C6-PFHxA IS (Internal Standard)</p> <p>RT (Exp. RT): 1.39(1.40) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Standard)</p>	

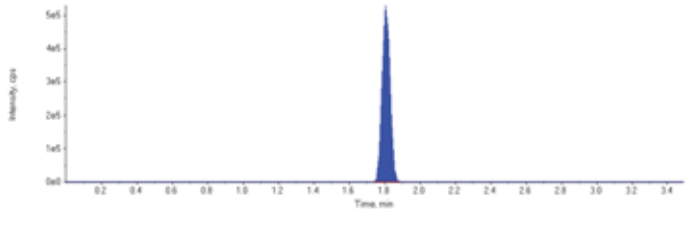
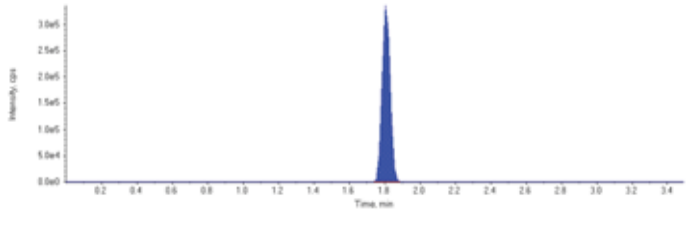
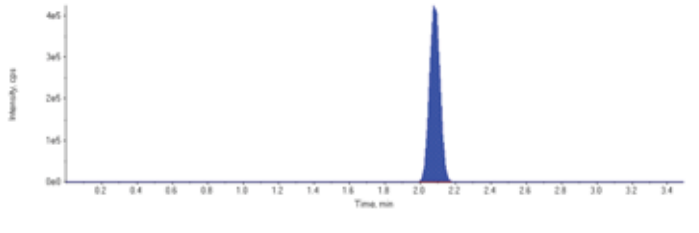
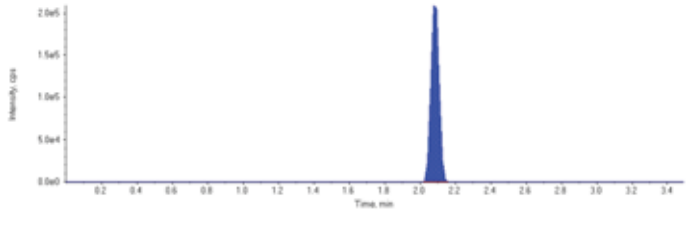
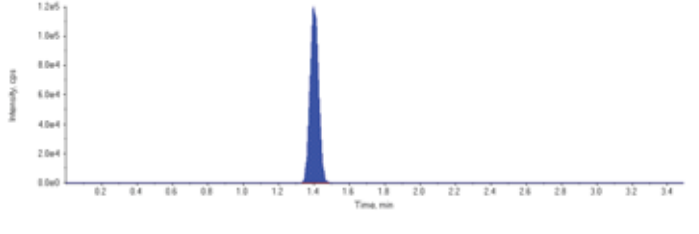
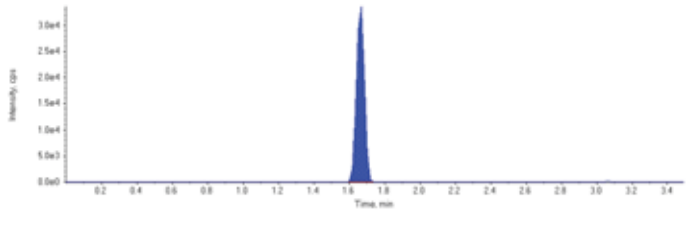
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<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min</p> <p>Concentration: N/A N/A</p> <p>Sample Type: (Standard)</p>	<p>This image is not available</p>
<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min</p> <p>Concentration: N/A N/A</p> <p>Sample Type: (Standard)</p>	<p>This image is not available</p>

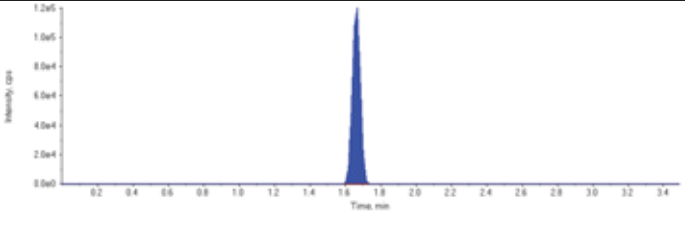
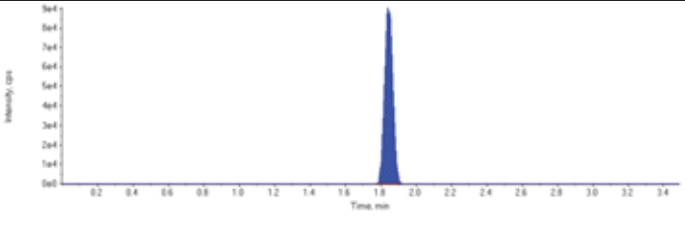
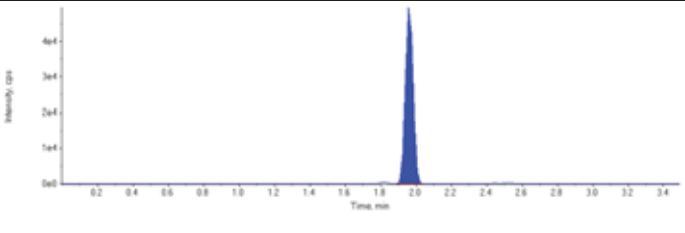
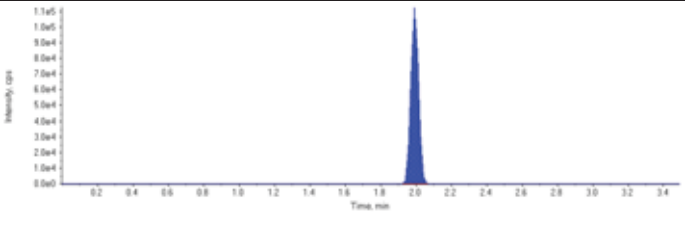
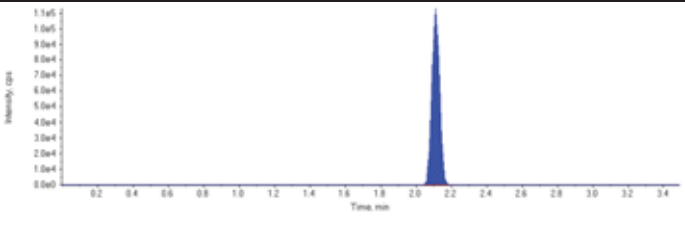
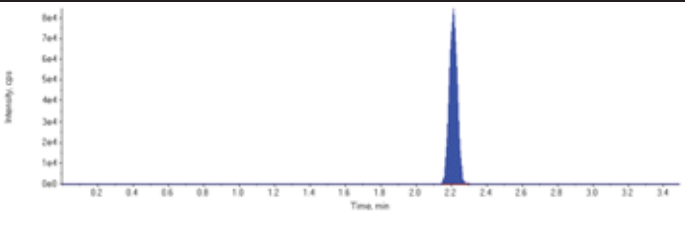
<p>PFBS 1 (298.900/79.900 Da)</p> <p>RT (Exp. RT): 1.10 (1.09) min</p> <p>Calculated Conc: 44.4 µg/L</p> <p>Area Ratio: 51.9</p> <p>Sample Type: (Standard)</p>	
<p>PFBS 2 (298.900/98.900 Da)</p> <p>RT (Exp. RT): 1.10 (1.09) min</p> <p>Calculated Conc: 43.6 µg/L</p> <p>Area Ratio: 25.2</p> <p>Sample Type: (Standard)</p>	
<p>PFHxA 1 (313.000/269.000 Da)</p> <p>RT (Exp. RT): 1.40 (1.40) min</p> <p>Calculated Conc: 41.0 µg/L</p> <p>Area Ratio: 17.9</p> <p>Sample Type: (Standard)</p>	
<p>PFHxA 2 (313.000/119.000 Da)</p> <p>RT (Exp. RT): 1.40 (1.41) min</p> <p>Calculated Conc: 42.1 µg/L</p> <p>Area Ratio: 1.07</p> <p>Sample Type: (Standard)</p>	
<p>PFHxS 1 (398.900/79.900 Da)</p> <p>RT (Exp. RT): 1.66 (1.67) min</p> <p>Calculated Conc: 43.2 µg/L</p> <p>Area Ratio: 37.6</p> <p>Sample Type: (Standard)</p>	
<p>PFHxS 2 (398.900/98.900 Da)</p> <p>RT (Exp. RT): 1.66 (1.67) min</p> <p>Calculated Conc: 43.6 µg/L</p> <p>Area Ratio: 11.2</p> <p>Sample Type: (Standard)</p>	

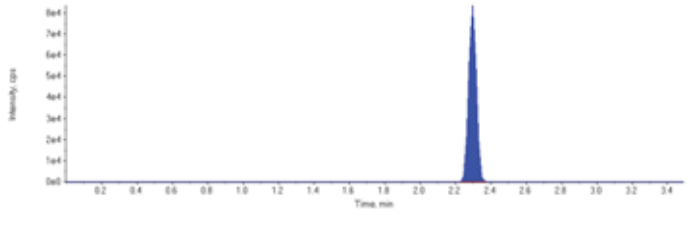
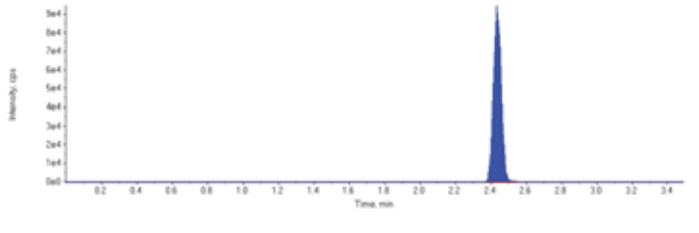
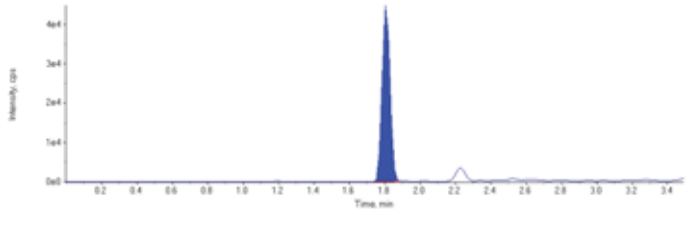
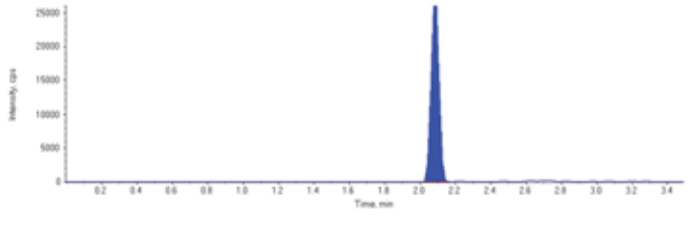
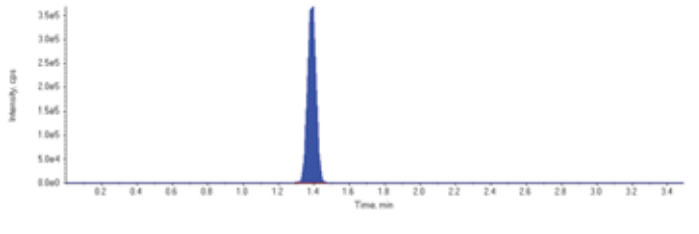
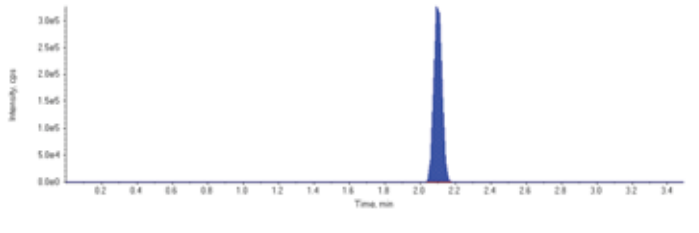
<p>PFHpA 1 (363.000/319.000 Da)</p> <p>RT (Exp. RT): 1.66 (1.67) min</p> <p>Calculated Conc: 43.8 µg/L</p> <p>Area Ratio: 17.1</p> <p>Sample Type: (Standard)</p>	
<p>PFHpA 2 (363.000/169.200 Da)</p> <p>RT (Exp. RT): 1.66 (1.67) min</p> <p>Calculated Conc: 43.9 µg/L</p> <p>Area Ratio: 0.312</p> <p>Sample Type: (Standard)</p>	
<p>PFOA 1 (413.100/369.000 Da)</p> <p>RT (Exp. RT): 1.85 (1.85) min</p> <p>Calculated Conc: 44.9 µg/L</p> <p>Area Ratio: 20.4</p> <p>Sample Type: (Standard)</p>	
<p>PFOA 2 (413.100/169.000 Da)</p> <p>RT (Exp. RT): 1.85 (1.84) min</p> <p>Calculated Conc: 44.4 µg/L</p> <p>Area Ratio: 8.18</p> <p>Sample Type: (Standard)</p>	
<p>PFOS 1 (498.900/79.900 Da)</p> <p>RT (Exp. RT): 1.96 (1.96) min</p> <p>Calculated Conc: 42.7 µg/L</p> <p>Area Ratio: 19.9</p> <p>Sample Type: (Standard)</p>	
<p>PFOS 2 (498.900/98.900 Da)</p> <p>RT (Exp. RT): 1.96 (1.96) min</p> <p>Calculated Conc: 42.8 µg/L</p> <p>Area Ratio: 6.22</p> <p>Sample Type: (Standard)</p>	

<p>PFNA 1 (462.900/419.000 Da)</p> <p>RT (Exp. RT): 1.99 (1.99) min</p> <p>Calculated Conc: 41.1 µg/L</p> <p>Area Ratio: 14.8</p> <p>Sample Type: (Standard)</p>	
<p>PFNA 2 (462.900/219.100 Da)</p> <p>RT (Exp. RT): 1.99 (1.99) min</p> <p>Calculated Conc: 43.4 µg/L</p> <p>Area Ratio: 4.11</p> <p>Sample Type: (Standard)</p>	
<p>PFDA 1 (513.000/469.100 Da)</p> <p>RT (Exp. RT): 2.11 (2.18) min</p> <p>Calculated Conc: 43.2 µg/L</p> <p>Area Ratio: 17.8</p> <p>Sample Type: (Standard)</p>	
<p>PFDA 2 (513.000/218.900 Da)</p> <p>RT (Exp. RT): 2.11 (2.11) min</p> <p>Calculated Conc: 44.1 µg/L</p> <p>Area Ratio: 3.52</p> <p>Sample Type: (Standard)</p>	
<p>PFUnA 1 (562.900/519.000 Da)</p> <p>RT (Exp. RT): 2.21 (2.21) min</p> <p>Calculated Conc: 42.4 µg/L</p> <p>Area Ratio: 17.9</p> <p>Sample Type: (Standard)</p>	
<p>PFUnA 2 (562.900/269.200 Da)</p> <p>RT (Exp. RT): 2.21 (2.27) min</p> <p>Calculated Conc: 43.2 µg/L</p> <p>Area Ratio: 2.02</p> <p>Sample Type: (Standard)</p>	

<p>PFD_oA 1 (612.900/569.000 Da)</p> <p>RT (Exp. RT): 2.30 (2.36) min</p> <p>Calculated Conc: 44.0 µg/L</p> <p>Area Ratio: 18.4</p> <p>Sample Type: (Standard)</p>	
<p>PFD_oA 2 (612.900/319.000 Da)</p> <p>RT (Exp. RT): 2.30 (2.35) min</p> <p>Calculated Conc: 43.2 µg/L</p> <p>Area Ratio: 1.84</p> <p>Sample Type: (Standard)</p>	
<p>PFT_rDA 1 (663.000/619.000 Da)</p> <p>RT (Exp. RT): 2.37 (2.42) min</p> <p>Calculated Conc: 42.2 µg/L</p> <p>Area Ratio: 17.4</p> <p>Sample Type: (Standard)</p>	
<p>PFT_rDA 2 (663.000/318.900 Da)</p> <p>RT (Exp. RT): 2.37 (2.37) min</p> <p>Calculated Conc: 42.6 µg/L</p> <p>Area Ratio: 1.94</p> <p>Sample Type: (Standard)</p>	
<p>PFT_eDA 1 (713.000/669.000 Da)</p> <p>RT (Exp. RT): 2.44 (2.49) min</p> <p>Calculated Conc: 42.8 µg/L</p> <p>Area Ratio: 16.1</p> <p>Sample Type: (Standard)</p>	
<p>PFT_eDA 2 (713.000/319.200 Da)</p> <p>RT (Exp. RT): 2.44 (2.49) min</p> <p>Calculated Conc: 39.4 µg/L</p> <p>Area Ratio: 1.06</p> <p>Sample Type: (Standard)</p>	

<p>6:2-FTS 1 (427.000/407.000 Da)</p> <p>RT (Exp. RT): 1.81 (1.90) min</p> <p>Calculated Conc: 44.5 µg/L</p> <p>Area Ratio: 11.8</p> <p>Sample Type: (Standard)</p>	
<p>6:2-FTS 2 (427.000/80.900 Da)</p> <p>RT (Exp. RT): 1.81 (1.80) min</p> <p>Calculated Conc: 42.1 µg/L</p> <p>Area Ratio: 7.56</p> <p>Sample Type: (Standard)</p>	
<p>8:2-FTS 1 (526.900/507.000 Da)</p> <p>RT (Exp. RT): 2.08 (2.16) min</p> <p>Calculated Conc: 40.4 µg/L</p> <p>Area Ratio: 20.3</p> <p>Sample Type: (Standard)</p>	
<p>8:2-FTS 2 (526.900/80.900 Da)</p> <p>RT (Exp. RT): 2.08 (2.09) min</p> <p>Calculated Conc: 43.8 µg/L</p> <p>Area Ratio: 8.03</p> <p>Sample Type: (Standard)</p>	
<p>13C2-PFHxA (314.900/270.000 Da)</p> <p>RT (Exp. RT): 1.40 (1.40) min</p> <p>Calculated Conc: 98.1 µg/L</p> <p>Area Ratio: 0.315</p> <p>Sample Type: (Standard)</p>	
<p>18O2-PFHxS (402.900/84.000 Da)</p> <p>RT (Exp. RT): 1.66 (1.77) min</p> <p>Calculated Conc: 98.2 µg/L</p> <p>Area Ratio: 0.0847</p> <p>Sample Type: (Standard)</p>	

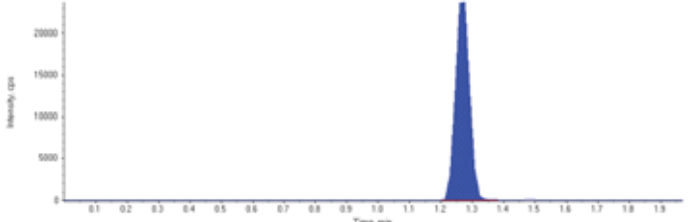
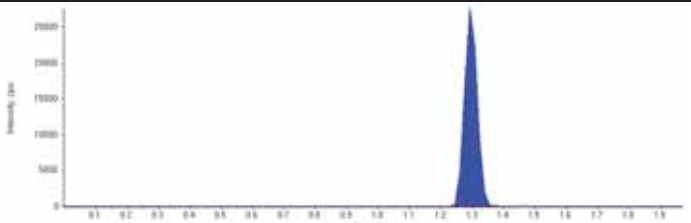
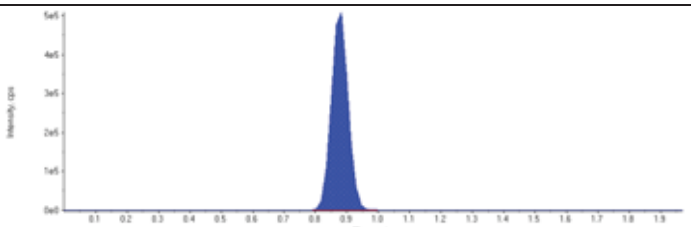
<p>13C4-PFHpa (366.900/322.000 Da)</p> <p>RT (Exp. RT): 1.66 (1.67) min</p> <p>Calculated Conc: 93.3 µg/L</p> <p>Area Ratio: 0.309</p> <p>Sample Type: (Standard)</p>	
<p>13C4-PFOA (416.900/372.000 Da)</p> <p>RT (Exp. RT): 1.85 (1.84) min</p> <p>Calculated Conc: 86.3 µg/L</p> <p>Area Ratio: 0.237</p> <p>Sample Type: (Standard)</p>	
<p>13C4-PFOS (502.900/79.900 Da)</p> <p>RT (Exp. RT): 1.96 (2.05) min</p> <p>Calculated Conc: 95.0 µg/L</p> <p>Area Ratio: 0.121</p> <p>Sample Type: (Standard)</p>	
<p>13C5-PFNA (467.900/423.000 Da)</p> <p>RT (Exp. RT): 1.99 (1.99) min</p> <p>Calculated Conc: 91.7 µg/L</p> <p>Area Ratio: 0.269</p> <p>Sample Type: (Standard)</p>	
<p>13C2-PFDA (514.900/470.000 Da)</p> <p>RT (Exp. RT): 2.11 (2.11) min</p> <p>Calculated Conc: 101. µg/L</p> <p>Area Ratio: 0.314</p> <p>Sample Type: (Standard)</p>	
<p>13C2-PFUnA (564.900/520.000 Da)</p> <p>RT (Exp. RT): 2.21 (2.27) min</p> <p>Calculated Conc: 104. µg/L</p> <p>Area Ratio: 0.241</p> <p>Sample Type: (Standard)</p>	

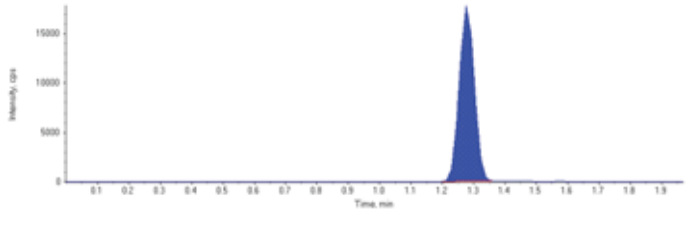
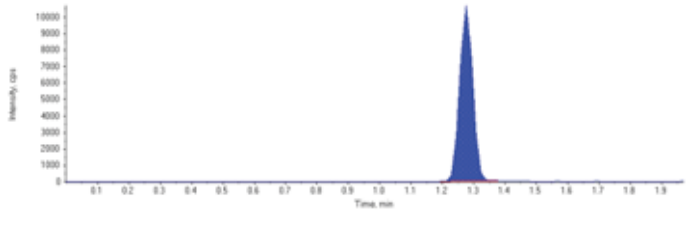
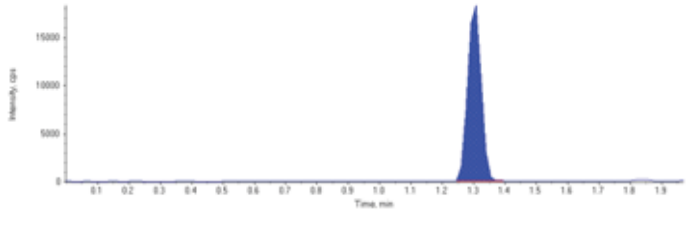
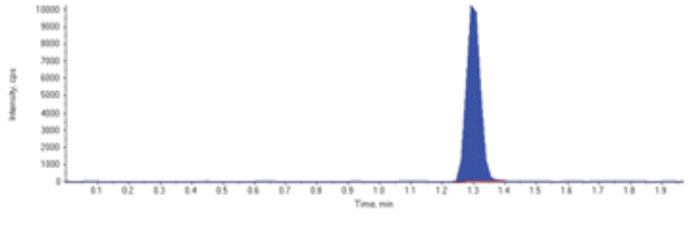
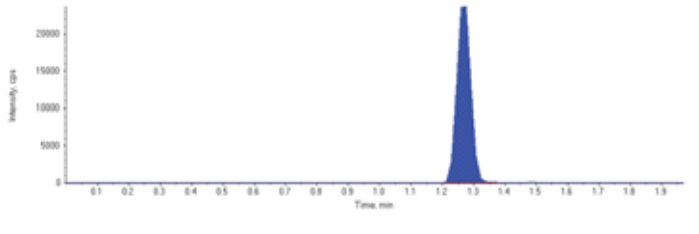
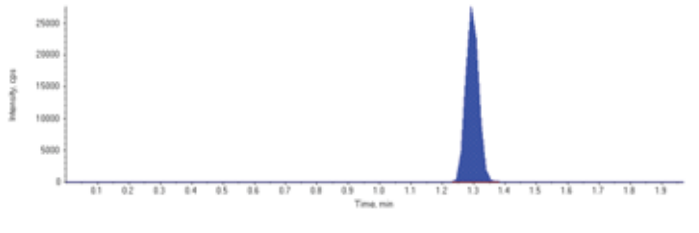
<p>13C2-PFDoA (614.900/570.000 Da)</p> <p>RT (Exp. RT): 2.30 (2.35) min</p> <p>Calculated Conc: 105. µg/L</p> <p>Area Ratio: 0.234</p> <p>Sample Type: (Standard)</p>	
<p>13C2-PFTeDA (714.900/669.900 Da)</p> <p>RT (Exp. RT): 2.44 (2.49) min</p> <p>Calculated Conc: 110. µg/L</p> <p>Area Ratio: 0.269</p> <p>Sample Type: (Standard)</p>	
<p>13C2-6:2-FTS (429.000/80.900 Da)</p> <p>RT (Exp. RT): 1.81 (1.80) min</p> <p>Calculated Conc: 91.5 µg/L</p> <p>Area Ratio: 0.109</p> <p>Sample Type: (Standard)</p>	
<p>13C2-8:2 FTS (528.900/80.900 Da)</p> <p>RT (Exp. RT): 2.08 (2.08) min</p> <p>Calculated Conc: 102. µg/L</p> <p>Area Ratio: 0.0681</p> <p>Sample Type: (Standard)</p>	
<p>13C6-PFHxA (318.900/274.000 Da)</p> <p>RT (Exp. RT): 1.39 (1.40) min</p> <p>Calculated Conc: 99.6 µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Standard)</p>	
<p>13C9-PFDA (521.900/477.100 Da)</p> <p>RT (Exp. RT): 2.10 (2.09) min</p> <p>Calculated Conc: 90.3 µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Standard)</p>	

Sample ID	Std 1	Injection Volume (µL)	2
Sample Type	Standard	Injection Vial	2
Acquisition Date	2017/05/23 10:59:42 PM	Dilution Factor	1.00
Acquisition Method	PFC_Water_Low_FOSAA.dam	Instrument Name	LCMS03
Project	Enviro\PFOS	Algorithm Used	Analyst Classic
Data File	PFC_170523\WS#4991421_FOSAA.wiff		
Result Table	PFC_Water_170523_4988945_FOSAA.rdb		
Samples Annotation	-		

Internal Standard	Area (cps)	RT (min)	Target Conc. (ug/L)	Calc. Conc. (ug/L)
D3-MeFOSAA IS	75400.	1.27	1.00	-
D5-EtFOSAA IS	79400.	1.29	1.00	-
13C9-PFDA IS	1910000.	0.877	1.00	-
N/A	N/A	N/A	N/A	-

Target Analyte	Area (cps)	RT (min)	Target Conc. (ug/L)	Calc. Conc. (ug/L)	Accuracy (%)
MeFOSAA 1	59500	1.28	0.830	0.871	105.0
MeFOSAA 2	31100	1.28	0.830	0.840	101.0
EtFOSAA 1	55100	1.30	0.830	0.944	114.0
EtFOSAA 2	31600	1.30	0.830	0.886	107.0
D3-MeFOSAA	75400	1.27	100.	90.3	90.3
D5-EtFOSAA	79400	1.29	100.	88.6	88.6
13C9-PFDA	1910000	0.877	100.	114.	114.0

<p>D3-MeFOSAA IS (Internal Standard)</p> <p>RT (Exp. RT): 1.27(1.26) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Standard)</p>	
<p>D5-EtFOSAA IS (Internal Standard)</p> <p>RT (Exp. RT): 1.29(1.28) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Standard)</p>	
<p>13C9-PFDA IS (Internal Standard)</p> <p>RT (Exp. RT): 0.877(0.912) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Standard)</p>	
<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min</p> <p>Concentration: N/A N/A</p> <p>Sample Type: (Standard)</p>	<p>This image is not available</p>

<p>MeFOSAA 1 (570.100/419.100 Da)</p> <p>RT (Exp. RT): 1.28 (1.28) min</p> <p>Calculated Conc: 0.871 µg/L</p> <p>Area Ratio: 0.788</p> <p>Sample Type: (Standard)</p>	
<p>MeFOSAA 2 (570.100/483.000 Da)</p> <p>RT (Exp. RT): 1.28 (1.27) min</p> <p>Calculated Conc: 0.840 µg/L</p> <p>Area Ratio: 0.412</p> <p>Sample Type: (Standard)</p>	
<p>EtFOSAA 1 (584.100/419.100 Da)</p> <p>RT (Exp. RT): 1.30 (1.30) min</p> <p>Calculated Conc: 0.944 µg/L</p> <p>Area Ratio: 0.694</p> <p>Sample Type: (Standard)</p>	
<p>EtFOSAA 2 (584.100/483.000 Da)</p> <p>RT (Exp. RT): 1.30 (1.30) min</p> <p>Calculated Conc: 0.886 µg/L</p> <p>Area Ratio: 0.398</p> <p>Sample Type: (Standard)</p>	
<p>D3-MeFOSAA (573.100/419.100 Da)</p> <p>RT (Exp. RT): 1.27 (1.26) min</p> <p>Calculated Conc: 90.3 µg/L</p> <p>Area Ratio: 0.0395</p> <p>Sample Type: (Standard)</p>	
<p>D5-EtFOSAA (589.200/419.000 Da)</p> <p>RT (Exp. RT): 1.29 (1.28) min</p> <p>Calculated Conc: 88.6 µg/L</p> <p>Area Ratio: 0.0416</p> <p>Sample Type: (Standard)</p>	

13C9-PFDA (521.900/477.100 Da)

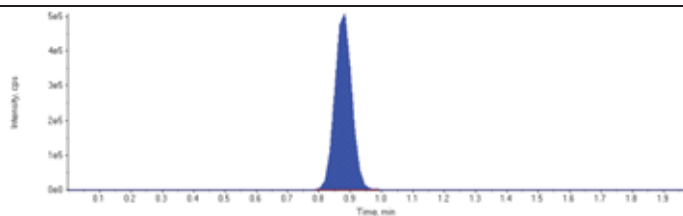
RT (Exp. RT): 0.877 (0.912) min

Calculated 114. µg/L

Conc:

Area Ratio: 0.00

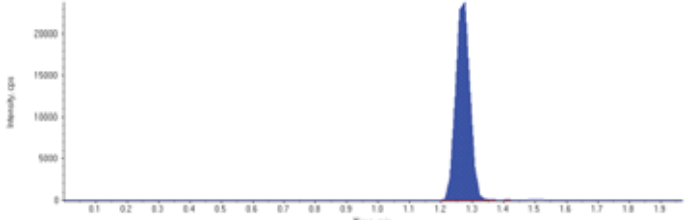
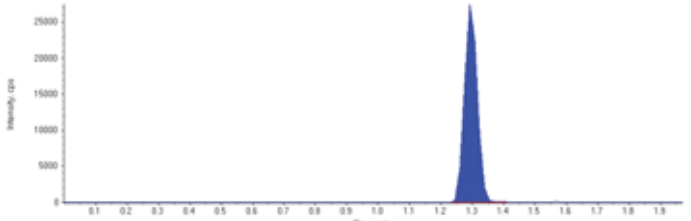
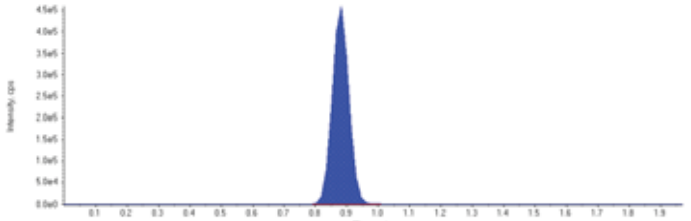
Sample Type: (Standard)

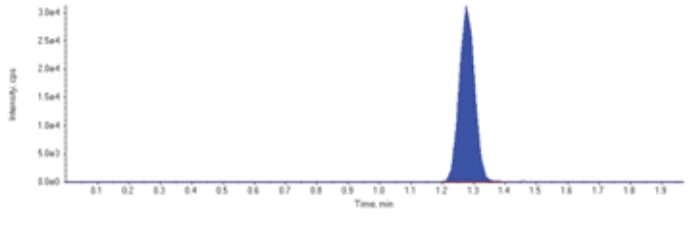
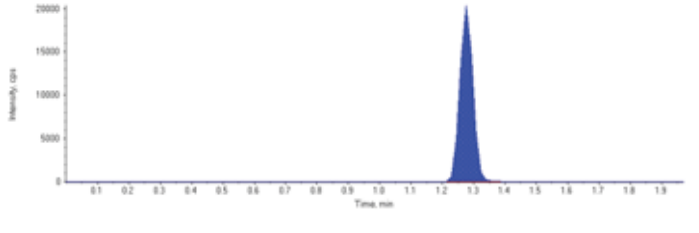
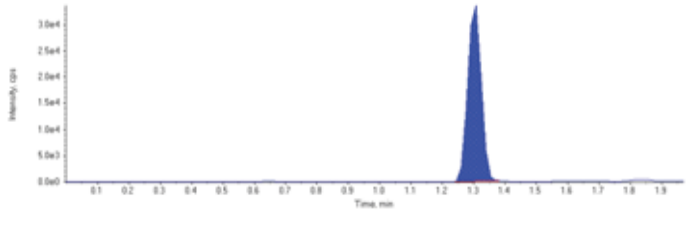
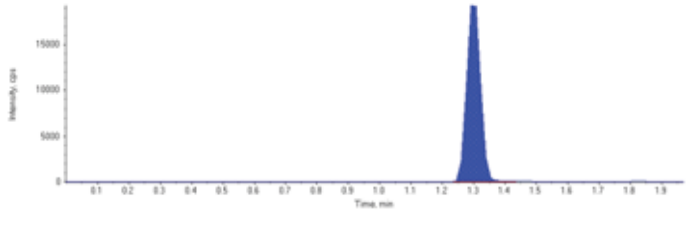
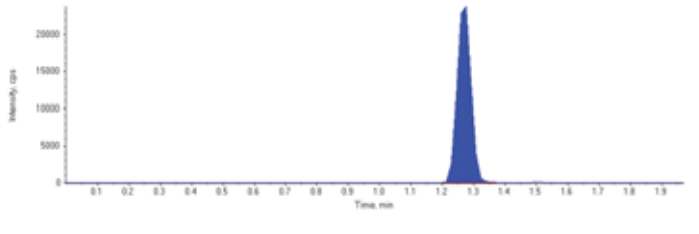
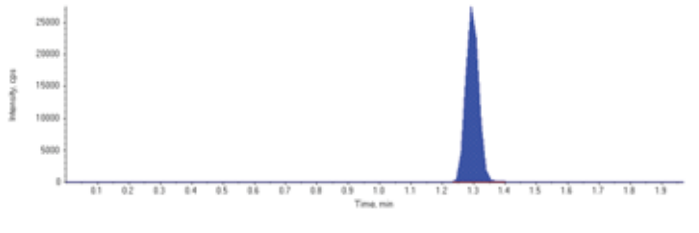


Sample ID	Std 2	Injection Volume (µL)	2
Sample Type	Standard	Injection Vial	3
Acquisition Date	2017/05/23 11:02:17 PM	Dilution Factor	1.00
Acquisition Method	PFC_Water_Low_FOSAA.dam	Instrument Name	LCMS03
Project	Enviro\PFOS	Algorithm Used	Analyst Classic
Data File	PFC_170523\WS#4991421_FOSAA.wiff		
Result Table	PFC_Water_170523_4988945_FOSAA.rdb		
Samples Annotation	-		

Internal Standard	Area (cps)	RT (min)	Target Conc. (ug/L)	Calc. Conc. (ug/L)
D3-MeFOSAA IS	74900.	1.27	1.00	-
D5-EtFOSAA IS	79000.	1.29	1.00	-
13C9-PFDA IS	1700000.	0.880	1.00	-
N/A	N/A	N/A	N/A	-

Target Analyte	Area (cps)	RT (min)	Target Conc. (ug/L)	Calc. Conc. (ug/L)	Accuracy (%)
MeFOSAA 1	105000	1.28	1.70	1.59	93.8
MeFOSAA 2	59200	1.28	1.70	1.60	94.0
EtFOSAA 1	101000	1.30	1.70	1.59	93.6
EtFOSAA 2	60600	1.30	1.70	1.61	94.6
D3-MeFOSAA	74900	1.27	100.	100.	100.0
D5-EtFOSAA	79000	1.29	100.	98.9	98.9
13C9-PFDA	1700000	0.880	100.	102.	102.0

<p>D3-MeFOSAA IS (Internal Standard)</p> <p>RT (Exp. RT): 1.27(1.26) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Standard)</p>	
<p>D5-EtFOSAA IS (Internal Standard)</p> <p>RT (Exp. RT): 1.29(1.28) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Standard)</p>	
<p>13C9-PFDA IS (Internal Standard)</p> <p>RT (Exp. RT): 0.880(0.912) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Standard)</p>	
<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min</p> <p>Concentration: N/A N/A</p> <p>Sample Type: (Standard)</p>	<p>This image is not available</p>

<p>MeFOSAA 1 (570.100/419.100 Da)</p> <p>RT (Exp. RT): 1.28 (1.28) min</p> <p>Calculated Conc: 1.59 µg/L</p> <p>Area Ratio: 1.40</p> <p>Sample Type: (Standard)</p>	
<p>MeFOSAA 2 (570.100/483.000 Da)</p> <p>RT (Exp. RT): 1.28 (1.27) min</p> <p>Calculated Conc: 1.60 µg/L</p> <p>Area Ratio: 0.790</p> <p>Sample Type: (Standard)</p>	
<p>EtFOSAA 1 (584.100/419.100 Da)</p> <p>RT (Exp. RT): 1.30 (1.30) min</p> <p>Calculated Conc: 1.59 µg/L</p> <p>Area Ratio: 1.28</p> <p>Sample Type: (Standard)</p>	
<p>EtFOSAA 2 (584.100/483.000 Da)</p> <p>RT (Exp. RT): 1.30 (1.30) min</p> <p>Calculated Conc: 1.61 µg/L</p> <p>Area Ratio: 0.767</p> <p>Sample Type: (Standard)</p>	
<p>D3-MeFOSAA (573.100/419.100 Da)</p> <p>RT (Exp. RT): 1.27 (1.26) min</p> <p>Calculated Conc: 100. µg/L</p> <p>Area Ratio: 0.0439</p> <p>Sample Type: (Standard)</p>	
<p>D5-EtFOSAA (589.200/419.000 Da)</p> <p>RT (Exp. RT): 1.29 (1.28) min</p> <p>Calculated Conc: 98.9 µg/L</p> <p>Area Ratio: 0.0464</p> <p>Sample Type: (Standard)</p>	

13C9-PFDA (521.900/477.100 Da)

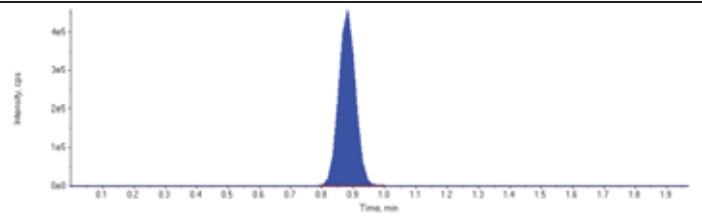
RT (Exp. RT): 0.880 (0.912) min

Calculated 102. µg/L

Conc:

Area Ratio: 0.00

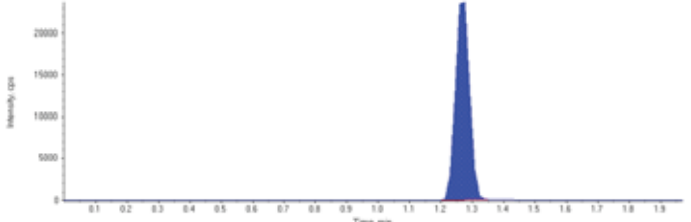
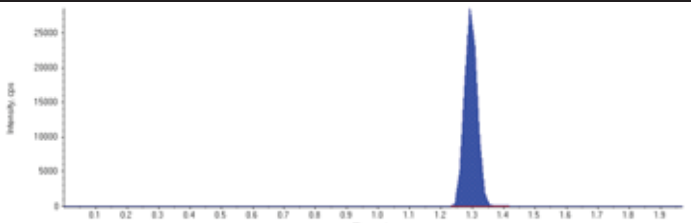
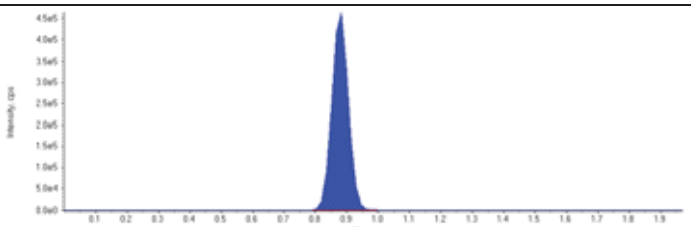
Sample Type: (Standard)

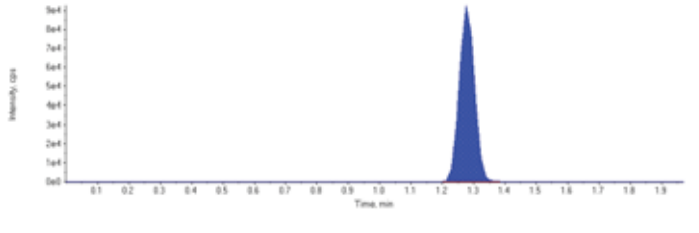
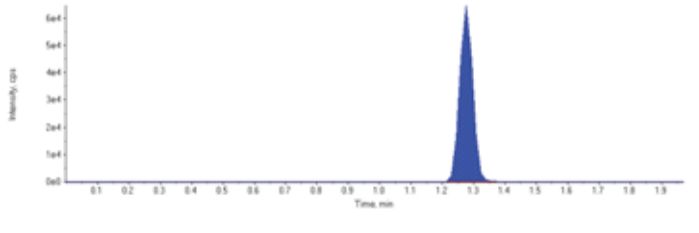
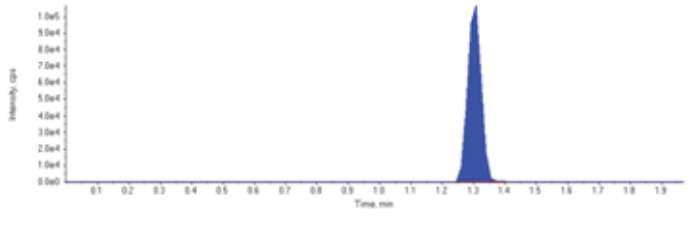
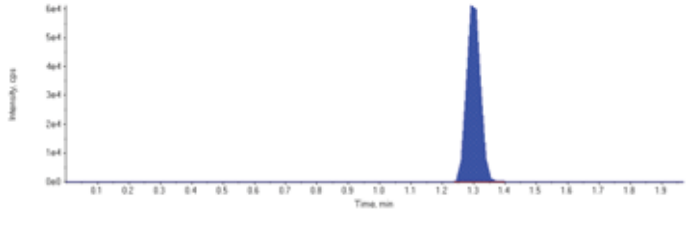
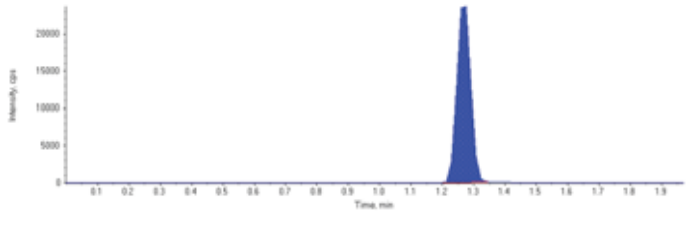
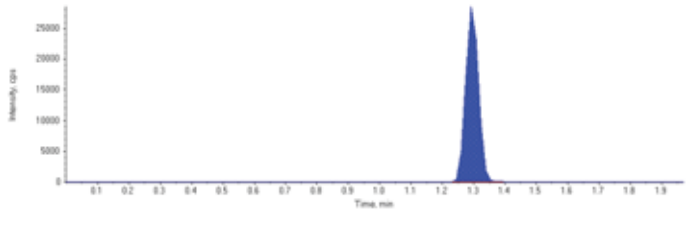


Sample ID	Std 3	Injection Volume (µL)	2
Sample Type	Standard	Injection Vial	4
Acquisition Date	2017/05/23 11:04:51 PM	Dilution Factor	1.00
Acquisition Method	PFC_Water_Low_FOSAA.dam	Instrument Name	LCMS03
Project	Enviro\PFOS	Algorithm Used	Analyst Classic
Data File	PFC_170523\WS#4991421_FOSAA.wiff		
Result Table	PFC_Water_170523_4988945_FOSAA.rdb		
Samples Annotation	-		

Internal Standard	Area (cps)	RT (min)	Target Conc. (ug/L)	Calc. Conc. (ug/L)
D3-MeFOSAA IS	75000.	1.27	1.00	-
D5-EtFOSAA IS	81900.	1.29	1.00	-
13C9-PFDA IS	1720000.	0.879	1.00	-
N/A	N/A	N/A	N/A	-

Target Analyte	Area (cps)	RT (min)	Target Conc. (ug/L)	Calc. Conc. (ug/L)	Accuracy (%)
MeFOSAA 1	313000	1.28	5.00	4.84	96.8
MeFOSAA 2	187000	1.28	5.00	5.02	100.0
EtFOSAA 1	322000	1.30	5.00	4.50	90.1
EtFOSAA 2	191000	1.30	5.00	4.67	93.5
D3-MeFOSAA	75000	1.27	100.	99.7	99.7
D5-EtFOSAA	81900	1.29	100.	102.	102.0
13C9-PFDA	1720000	0.879	100.	102.	102.0

<p>D3-MeFOSAA IS (Internal Standard)</p> <p>RT (Exp. RT): 1.27(1.26) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Standard)</p>	
<p>D5-EtFOSAA IS (Internal Standard)</p> <p>RT (Exp. RT): 1.29(1.28) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Standard)</p>	
<p>13C9-PFDA IS (Internal Standard)</p> <p>RT (Exp. RT): 0.879(0.912) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Standard)</p>	
<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min</p> <p>Concentration: N/A N/A</p> <p>Sample Type: (Standard)</p>	<p>This image is not available</p>

<p>MeFOSAA 1 (570.100/419.100 Da)</p> <p>RT (Exp. RT): 1.28 (1.28) min</p> <p>Calculated Conc: 4.84 µg/L</p> <p>Area Ratio: 4.17</p> <p>Sample Type: (Standard)</p>	
<p>MeFOSAA 2 (570.100/483.000 Da)</p> <p>RT (Exp. RT): 1.28 (1.27) min</p> <p>Calculated Conc: 5.02 µg/L</p> <p>Area Ratio: 2.49</p> <p>Sample Type: (Standard)</p>	
<p>EtFOSAA 1 (584.100/419.100 Da)</p> <p>RT (Exp. RT): 1.30 (1.30) min</p> <p>Calculated Conc: 4.50 µg/L</p> <p>Area Ratio: 3.92</p> <p>Sample Type: (Standard)</p>	
<p>EtFOSAA 2 (584.100/483.000 Da)</p> <p>RT (Exp. RT): 1.30 (1.30) min</p> <p>Calculated Conc: 4.67 µg/L</p> <p>Area Ratio: 2.33</p> <p>Sample Type: (Standard)</p>	
<p>D3-MeFOSAA (573.100/419.100 Da)</p> <p>RT (Exp. RT): 1.27 (1.26) min</p> <p>Calculated Conc: 99.7 µg/L</p> <p>Area Ratio: 0.0436</p> <p>Sample Type: (Standard)</p>	
<p>D5-EtFOSAA (589.200/419.000 Da)</p> <p>RT (Exp. RT): 1.29 (1.28) min</p> <p>Calculated Conc: 102. µg/L</p> <p>Area Ratio: 0.0477</p> <p>Sample Type: (Standard)</p>	

13C9-PFDA (521.900/477.100 Da)

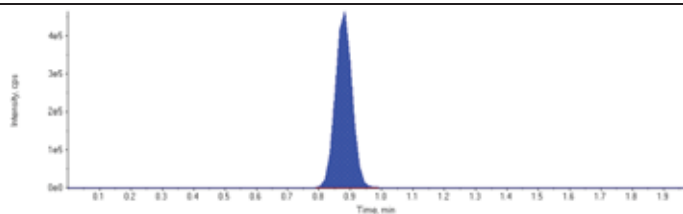
RT (Exp. RT): 0.879 (0.912) min

Calculated 102. µg/L

Conc:

Area Ratio: 0.00

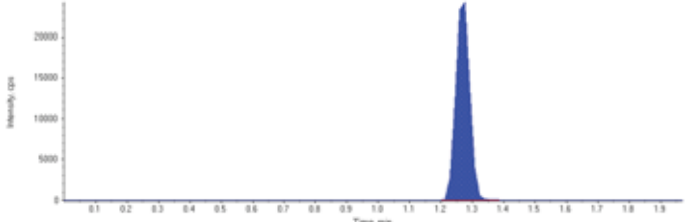
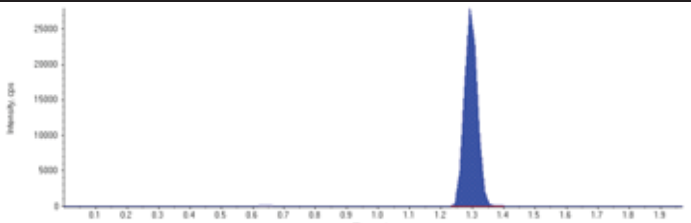
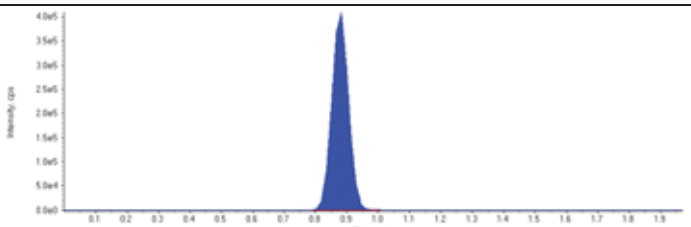
Sample Type: (Standard)

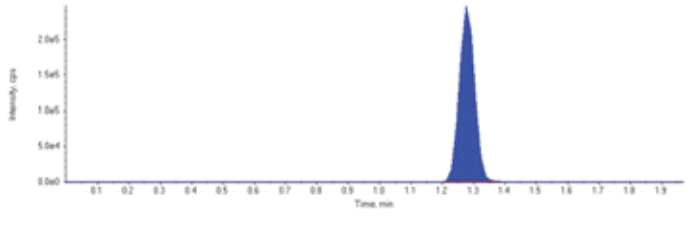
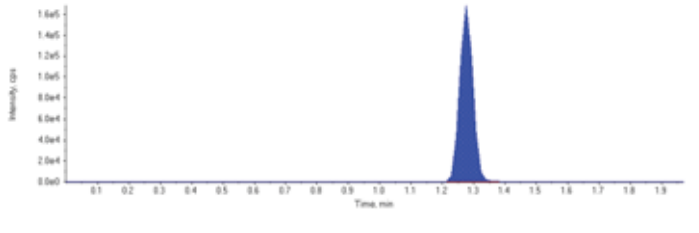
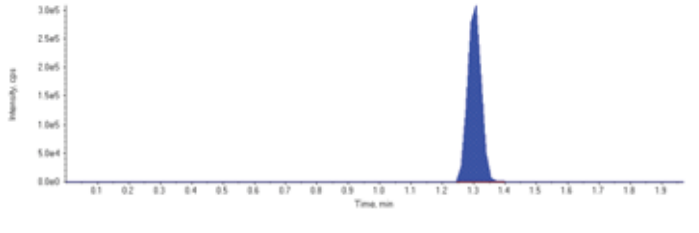
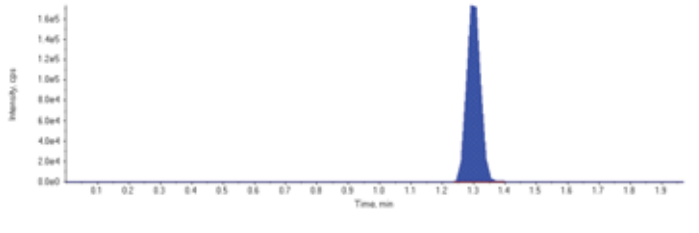
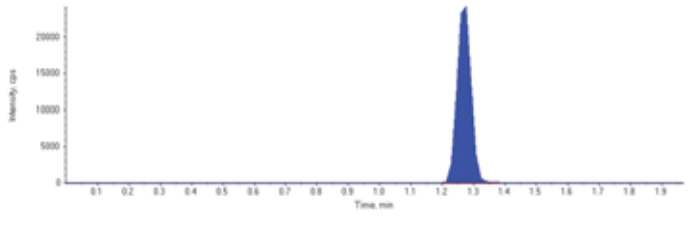
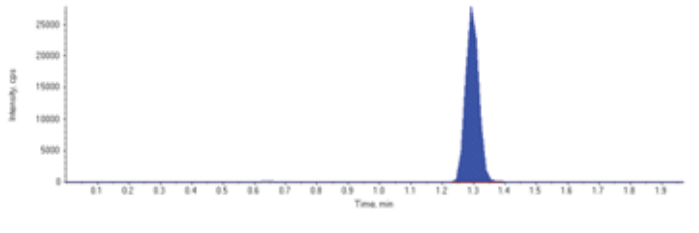


Sample ID	Std 4	Injection Volume (µL)	2
Sample Type	Standard	Injection Vial	5
Acquisition Date	2017/05/23 11:07:26 PM	Dilution Factor	1.00
Acquisition Method	PFC_Water_Low_FOSAA.dam	Instrument Name	LCMS03
Project	Enviro\PFOS	Algorithm Used	Analyst Classic
Data File	PFC_170523\WS#4991421_FOSAA.wiff		
Result Table	PFC_Water_170523_4988945_FOSAA.rdb		
Samples Annotation	-		

Internal Standard	Area (cps)	RT (min)	Target Conc. (ug/L)	Calc. Conc. (ug/L)
D3-MeFOSAA IS	75900.	1.27	1.00	-
D5-EtFOSAA IS	80400.	1.29	1.00	-
13C9-PFDA IS	1540000.	0.879	1.00	-
N/A	N/A	N/A	N/A	-

Target Analyte	Area (cps)	RT (min)	Target Conc. (ug/L)	Calc. Conc. (ug/L)	Accuracy (%)
MeFOSAA 1	839000	1.28	12.5	12.9	103.0
MeFOSAA 2	492000	1.28	12.5	13.0	104.0
EtFOSAA 1	932000	1.30	12.5	13.0	104.0
EtFOSAA 2	543000	1.30	12.5	13.3	107.0
D3-MeFOSAA	75900	1.27	100.	113.	113.0
D5-EtFOSAA	80400	1.29	100.	111.	111.0
13C9-PFDA	1540000	0.879	100.	91.6	91.6

<p>D3-MeFOSAA IS (Internal Standard)</p> <p>RT (Exp. RT): 1.27(1.26) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Standard)</p>	
<p>D5-EtFOSAA IS (Internal Standard)</p> <p>RT (Exp. RT): 1.29(1.28) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Standard)</p>	
<p>13C9-PFDA IS (Internal Standard)</p> <p>RT (Exp. RT): 0.879(0.912) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Standard)</p>	
<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min</p> <p>Concentration: N/A N/A</p> <p>Sample Type: (Standard)</p>	<p>This image is not available</p>

<p>MeFOSAA 1 (570.100/419.100 Da)</p> <p>RT (Exp. RT): 1.28 (1.28) min</p> <p>Calculated Conc: 12.9 µg/L</p> <p>Area Ratio: 11.1</p> <p>Sample Type: (Standard)</p>	
<p>MeFOSAA 2 (570.100/483.000 Da)</p> <p>RT (Exp. RT): 1.28 (1.27) min</p> <p>Calculated Conc: 13.0 µg/L</p> <p>Area Ratio: 6.48</p> <p>Sample Type: (Standard)</p>	
<p>EtFOSAA 1 (584.100/419.100 Da)</p> <p>RT (Exp. RT): 1.30 (1.30) min</p> <p>Calculated Conc: 13.0 µg/L</p> <p>Area Ratio: 11.6</p> <p>Sample Type: (Standard)</p>	
<p>EtFOSAA 2 (584.100/483.000 Da)</p> <p>RT (Exp. RT): 1.30 (1.30) min</p> <p>Calculated Conc: 13.3 µg/L</p> <p>Area Ratio: 6.76</p> <p>Sample Type: (Standard)</p>	
<p>D3-MeFOSAA (573.100/419.100 Da)</p> <p>RT (Exp. RT): 1.27 (1.26) min</p> <p>Calculated Conc: 113. µg/L</p> <p>Area Ratio: 0.0494</p> <p>Sample Type: (Standard)</p>	
<p>D5-EtFOSAA (589.200/419.000 Da)</p> <p>RT (Exp. RT): 1.29 (1.28) min</p> <p>Calculated Conc: 111. µg/L</p> <p>Area Ratio: 0.0522</p> <p>Sample Type: (Standard)</p>	

13C9-PFDA (521.900/477.100 Da)

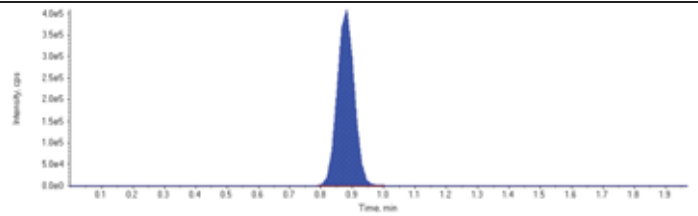
RT (Exp. RT): 0.879 (0.912) min

Calculated 91.6 µg/L

Conc:

Area Ratio: 0.00

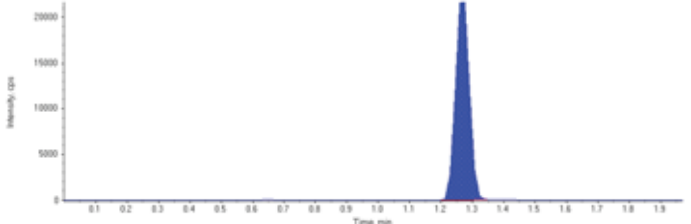
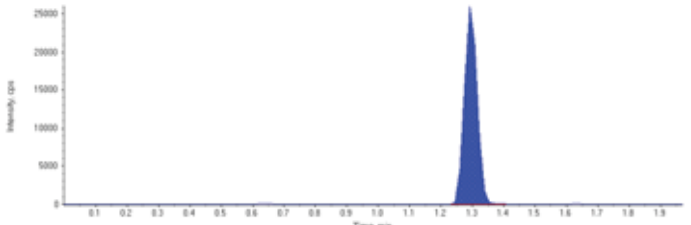
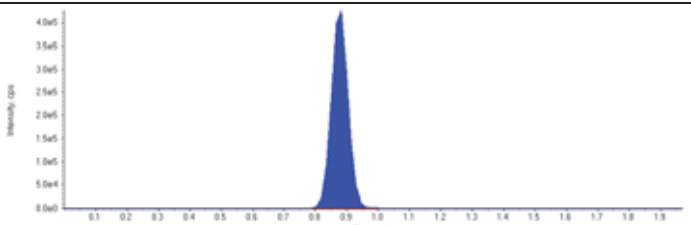
Sample Type: (Standard)

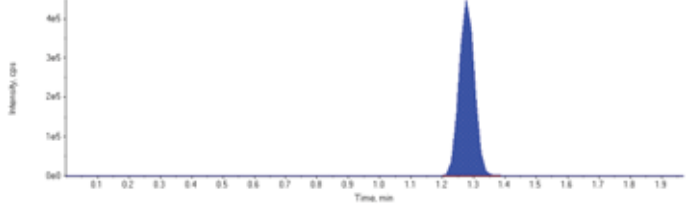
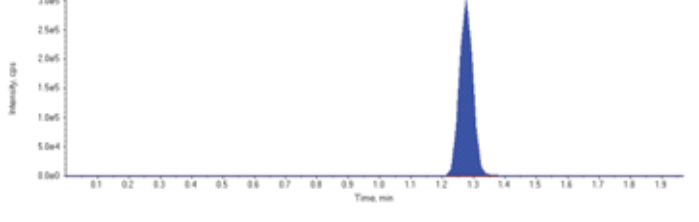
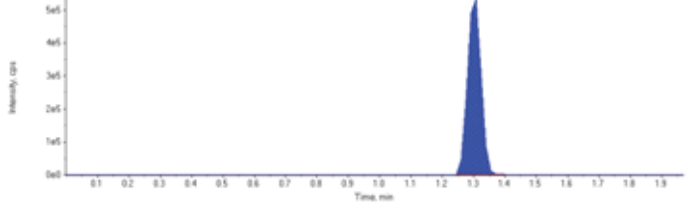
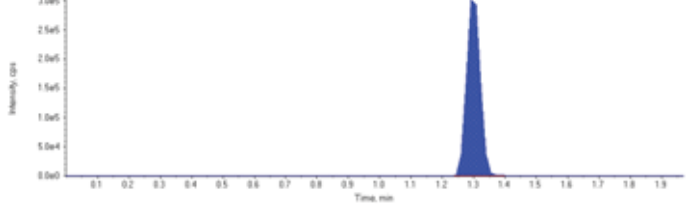
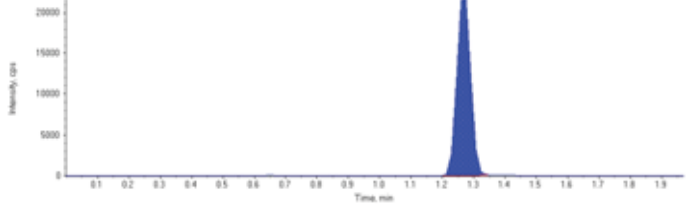
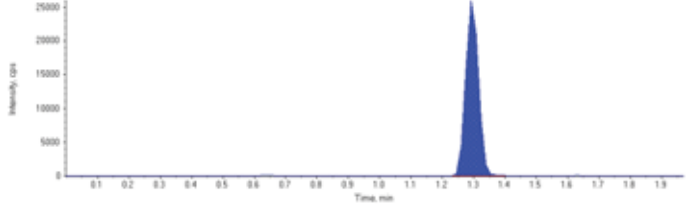


Sample ID	Std 5	Injection Volume (µL)	2
Sample Type	Standard	Injection Vial	6
Acquisition Date	2017/05/23 11:10:00 PM	Dilution Factor	1.00
Acquisition Method	PFC_Water_Low_FOSAA.dam	Instrument Name	LCMS03
Project	Enviro\PFOS	Algorithm Used	Analyst Classic
Data File	PFC_170523\WS#4991421_FOSAA.wiff		
Result Table	PFC_Water_170523_4988945_FOSAA.rdb		
Samples Annotation	-		

Internal Standard	Area (cps)	RT (min)	Target Conc. (ug/L)	Calc. Conc. (ug/L)
D3-MeFOSAA IS	68700.	1.27	1.00	-
D5-EtFOSAA IS	74300.	1.29	1.00	-
13C9-PFDA IS	1610000.	0.877	1.00	-
N/A	N/A	N/A	N/A	-

Target Analyte	Area (cps)	RT (min)	Target Conc. (ug/L)	Calc. Conc. (ug/L)	Accuracy (%)
MeFOSAA 1	1520000	1.28	25.0	26.0	104.0
MeFOSAA 2	889000	1.28	25.0	25.9	104.0
EtFOSAA 1	1620000	1.30	25.0	24.3	97.0
EtFOSAA 2	937000	1.30	25.0	24.8	99.1
D3-MeFOSAA	68700	1.27	100.	97.5	97.5
D5-EtFOSAA	74300	1.29	100.	98.4	98.4
13C9-PFDA	1610000	0.877	100.	96.0	96.0

<p>D3-MeFOSAA IS (Internal Standard)</p> <p>RT (Exp. RT): 1.27(1.26) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Standard)</p>	
<p>D5-EtFOSAA IS (Internal Standard)</p> <p>RT (Exp. RT): 1.29(1.28) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Standard)</p>	
<p>13C9-PFDA IS (Internal Standard)</p> <p>RT (Exp. RT): 0.877(0.912) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Standard)</p>	
<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min</p> <p>Concentration: N/A N/A</p> <p>Sample Type: (Standard)</p>	<p>This image is not available</p>

<p>MeFOSAA 1 (570.100/419.100 Da)</p> <p>RT (Exp. RT): 1.28 (1.28) min</p> <p>Calculated Conc: 26.0 µg/L</p> <p>Area Ratio: 22.2</p> <p>Sample Type: (Standard)</p>	
<p>MeFOSAA 2 (570.100/483.000 Da)</p> <p>RT (Exp. RT): 1.28 (1.27) min</p> <p>Calculated Conc: 25.9 µg/L</p> <p>Area Ratio: 12.9</p> <p>Sample Type: (Standard)</p>	
<p>EtFOSAA 1 (584.100/419.100 Da)</p> <p>RT (Exp. RT): 1.30 (1.30) min</p> <p>Calculated Conc: 24.3 µg/L</p> <p>Area Ratio: 21.8</p> <p>Sample Type: (Standard)</p>	
<p>EtFOSAA 2 (584.100/483.000 Da)</p> <p>RT (Exp. RT): 1.30 (1.30) min</p> <p>Calculated Conc: 24.8 µg/L</p> <p>Area Ratio: 12.6</p> <p>Sample Type: (Standard)</p>	
<p>D3-MeFOSAA (573.100/419.100 Da)</p> <p>RT (Exp. RT): 1.27 (1.26) min</p> <p>Calculated Conc: 97.5 µg/L</p> <p>Area Ratio: 0.0427</p> <p>Sample Type: (Standard)</p>	
<p>D5-EtFOSAA (589.200/419.000 Da)</p> <p>RT (Exp. RT): 1.29 (1.28) min</p> <p>Calculated Conc: 98.4 µg/L</p> <p>Area Ratio: 0.0461</p> <p>Sample Type: (Standard)</p>	

13C9-PFDA (521.900/477.100 Da)

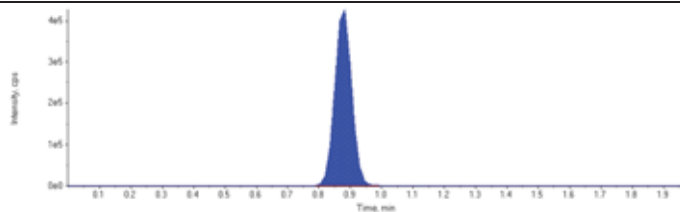
RT (Exp. RT): 0.877 (0.912) min

Calculated 96.0 µg/L

Conc:

Area Ratio: 0.00

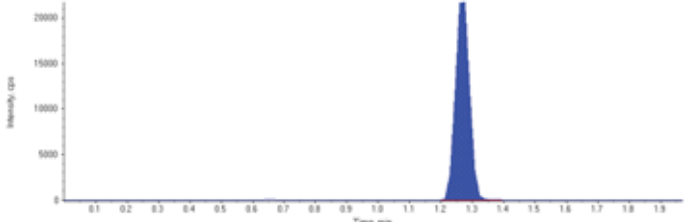
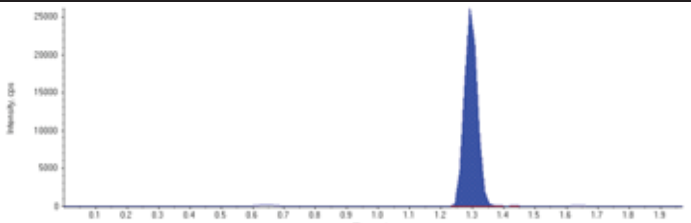
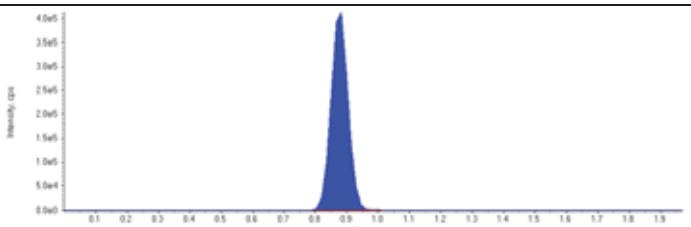
Sample Type: (Standard)

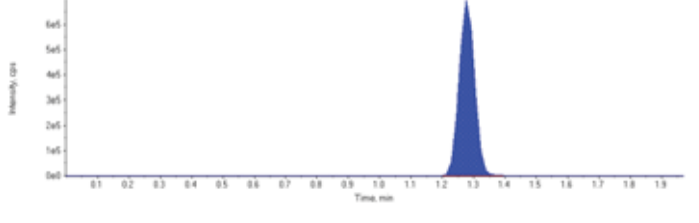
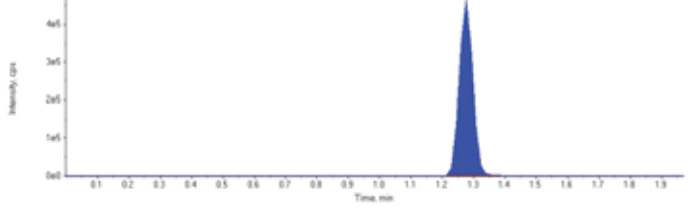
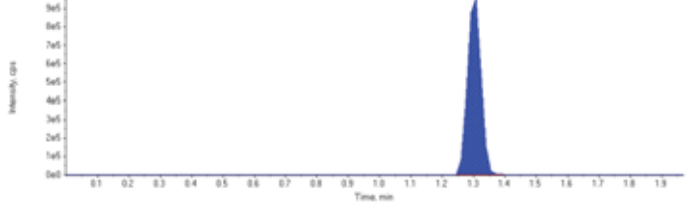
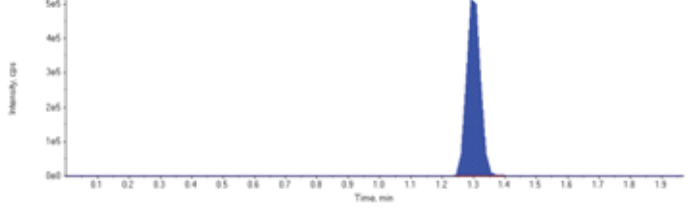
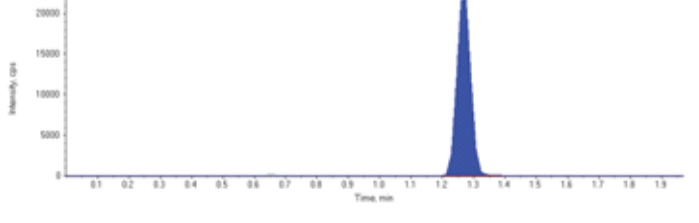
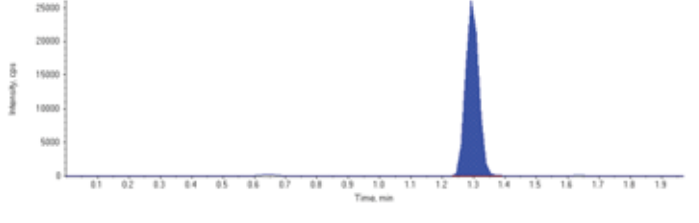


Sample ID	Std 6	Injection Volume (µL)	2
Sample Type	Standard	Injection Vial	7
Acquisition Date	2017/05/23 11:12:34 PM	Dilution Factor	1.00
Acquisition Method	PFC_Water_Low_FOSAA.dam	Instrument Name	LCMS03
Project	Enviro\PFOS	Algorithm Used	Analyst Classic
Data File	PFC_170523\WS#4991421_FOSAA.wiff		
Result Table	PFC_Water_170523_4988945_FOSAA.rdb		
Samples Annotation	-		

Internal Standard	Area (cps)	RT (min)	Target Conc. (ug/L)	Calc. Conc. (ug/L)
D3-MeFOSAA IS	69200.	1.27	1.00	-
D5-EtFOSAA IS	75400.	1.29	1.00	-
13C9-PFDA IS	1590000.	0.877	1.00	-
N/A	N/A	N/A	N/A	-

Target Analyte	Area (cps)	RT (min)	Target Conc. (ug/L)	Calc. Conc. (ug/L)	Accuracy (%)
MeFOSAA 1	2390000	1.28	41.7	40.5	97.2
MeFOSAA 2	1390000	1.28	41.7	40.3	96.7
EtFOSAA 1	2900000	1.30	41.7	42.5	102.0
EtFOSAA 2	1590000	1.30	41.7	41.5	99.4
D3-MeFOSAA	69200	1.27	100.	99.5	99.5
D5-EtFOSAA	75400	1.29	100.	101.	101.0
13C9-PFDA	1590000	0.877	100.	94.7	94.7

<p>D3-MeFOSAA IS (Internal Standard)</p> <p>RT (Exp. RT): 1.27(1.26) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Standard)</p>	
<p>D5-EtFOSAA IS (Internal Standard)</p> <p>RT (Exp. RT): 1.29(1.28) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Standard)</p>	
<p>13C9-PFDA IS (Internal Standard)</p> <p>RT (Exp. RT): 0.877(0.912) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Standard)</p>	
<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min</p> <p>Concentration: N/A N/A</p> <p>Sample Type: (Standard)</p>	<p>This image is not available</p>

<p>MeFOSAA 1 (570.100/419.100 Da)</p> <p>RT (Exp. RT): 1.28 (1.28) min</p> <p>Calculated Conc: 40.5 µg/L</p> <p>Area Ratio: 34.6</p> <p>Sample Type: (Standard)</p>	
<p>MeFOSAA 2 (570.100/483.000 Da)</p> <p>RT (Exp. RT): 1.28 (1.27) min</p> <p>Calculated Conc: 40.3 µg/L</p> <p>Area Ratio: 20.1</p> <p>Sample Type: (Standard)</p>	
<p>EtFOSAA 1 (584.100/419.100 Da)</p> <p>RT (Exp. RT): 1.30 (1.30) min</p> <p>Calculated Conc: 42.5 µg/L</p> <p>Area Ratio: 38.4</p> <p>Sample Type: (Standard)</p>	
<p>EtFOSAA 2 (584.100/483.000 Da)</p> <p>RT (Exp. RT): 1.30 (1.30) min</p> <p>Calculated Conc: 41.5 µg/L</p> <p>Area Ratio: 21.1</p> <p>Sample Type: (Standard)</p>	
<p>D3-MeFOSAA (573.100/419.100 Da)</p> <p>RT (Exp. RT): 1.27 (1.26) min</p> <p>Calculated Conc: 99.5 µg/L</p> <p>Area Ratio: 0.0435</p> <p>Sample Type: (Standard)</p>	
<p>D5-EtFOSAA (589.200/419.000 Da)</p> <p>RT (Exp. RT): 1.29 (1.28) min</p> <p>Calculated Conc: 101. µg/L</p> <p>Area Ratio: 0.0475</p> <p>Sample Type: (Standard)</p>	

13C9-PFDA (521.900/477.100 Da)

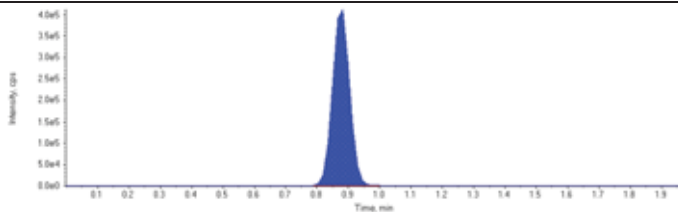
RT (Exp. RT): 0.877 (0.912) min

Calculated 94.7 µg/L

Conc:

Area Ratio: 0.00

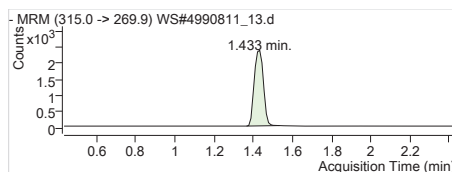
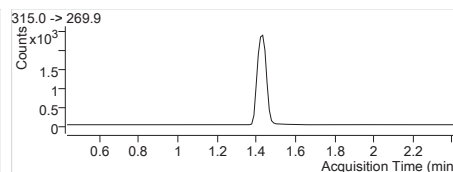
Sample Type: (Standard)



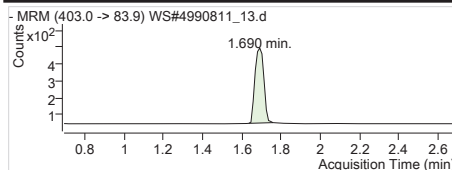
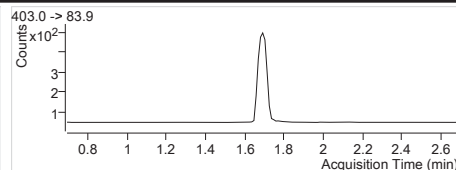
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Sample Name	ICV	Instrument	LCMS04
Data File	WS#4990811_13.d	Operator	AD
Sample Type	QC	Dilution	1
Acq. Method	PFC_Soil.m	Position	P2-A9
Acq. Date	2017/05/24 9:16:37 PM	Injection Volume	Per Method
Sample Annotation	-		

ISTD Compounds	Response	RT	Target conc.		
MPFHxA	7644	1.43	1 µg/Kg		
MPFHxS	1390	1.69	1 µg/Kg		
MPFHpA	8480	1.69	1 µg/Kg		
MPFOA	8448	1.87	1 µg/Kg		
MPFOS	1760	1.98	1 µg/Kg		
MPFNA	7725	2.01	1 µg/Kg		
MPFDA	6906	2.12	1 µg/Kg		
MPFUnA	7736	2.22	1 µg/Kg		
MPFDoA	9162	2.31	1 µg/Kg		
MPFTeDA	12348	2.46	1 µg/Kg		
M2 6:2 FTS	1811	1.83	1 µg/Kg		
M2 8:2 FTS	1980	2.10	1 µg/Kg		
13C6-PFHxA IS	39387	1.43	1 µg/Kg		
13C9-PFDA IS	35985	2.12	1 µg/Kg		

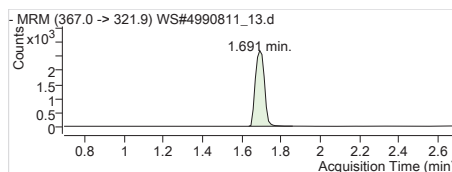
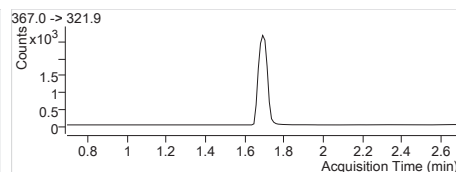
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	15153	1.10	18.80	17.08 µg/Kg	90.85
PFHxA 1	58751	1.43	18.80	16.49 µg/Kg	87.72
PFHxS 1	12201	1.69	18.80	17.01 µg/Kg	90.47
PFHpA 1	66897	1.69	18.80	16.22 µg/Kg	86.30
PFOA 1	62825	1.87	18.80	15.71 µg/Kg	83.55
PFOS 1	11501	1.98	18.80	16.64 µg/Kg	88.54
PFNA 1	58313	2.01	18.80	18.03 µg/Kg	95.92
PFDA 1	61461	2.12	18.80	16.69 µg/Kg	88.77
PFUnA 1	64067	2.22	18.80	16.80 µg/Kg	89.36
PFDaA 1	68554	2.31	18.80	16.66 µg/Kg	88.63
PFTTrDA 1	79483	2.39	18.80	15.41 µg/Kg	81.99
PFTeDA 1	73680	2.46	18.80	14.84 µg/Kg	78.94
6:2-FTS 1	13593	1.83	18.80	17.26 µg/Kg	91.79
8:2-FTS 1	12416	2.10	18.80	16.34 µg/Kg	86.90
13C2-PFHxA	7644	1.43	100.00	100.78 µg/Kg	100.78
18O2-PFHxS	1390	1.69	100.00	98.88 µg/Kg	98.88
13C4-PFHpA	8480	1.69	100.00	102.47 µg/Kg	102.47
13C4-PFOA	8448	1.87	100.00	105.83 µg/Kg	105.83
13C4-PFOS	1760	1.98	100.00	101.84 µg/Kg	101.84
13C5-PFNA	7725	2.01	100.00	95.74 µg/Kg	95.74
13C2-PFDA	6906	2.12	100.00	102.40 µg/Kg	102.40
13C2-PFUnA	7736	2.22	100.00	99.45 µg/Kg	99.45
13C2-PFDoA	9162	2.31	100.00	102.71 µg/Kg	102.71
13C2-PFTeDA	12348	2.46	100.00	112.63 µg/Kg	112.63
13C2-6:2-FTS	1811	1.83	100.00	94.18 µg/Kg	94.18
13C2-8:2 FTS	1980	2.10	100.00	99.83 µg/Kg	99.83
13C6-PFHxA	39387	1.43	100.00	97.64 µg/Kg	97.64
13C9-PFDA	35985	2.12	100.00	98.74 µg/Kg	98.74



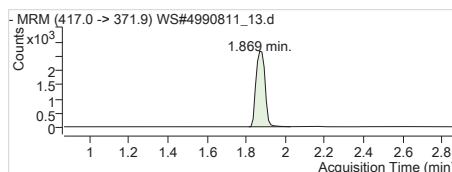
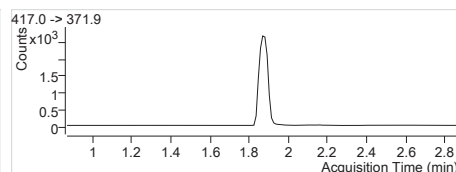
MPFHxA Internal Standard
RT (Exp. RT): 1.433 (1.433)
Concentration: 1 µg/Kg
Sample type: QC



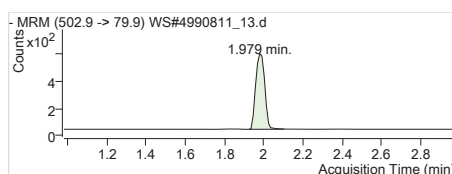
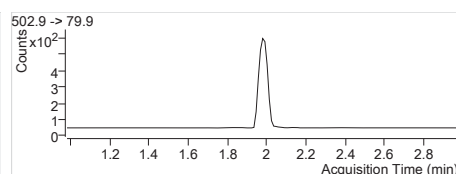
MPFHxS
RT (Exp. RT): 1.690 (1.690)
Concentration: 1 µg/Kg
Sample type: QC



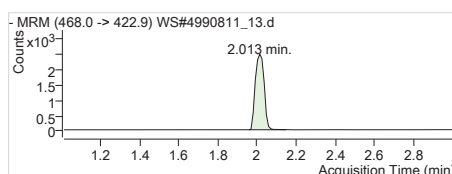
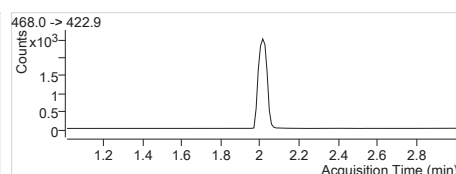
MPFHpA
RT (Exp. RT): 1.691 (1.691)
Concentration: 1 µg/Kg
Sample type: QC



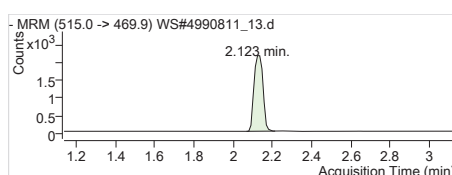
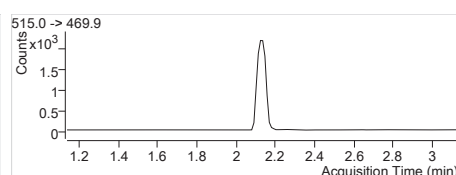
MPFOA
RT (Exp. RT): 1.869 (1.869)
Concentration: 1 µg/Kg
Sample type: QC



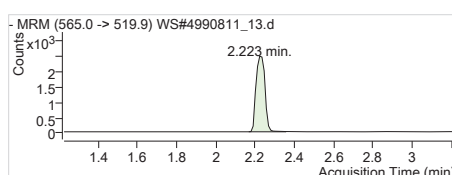
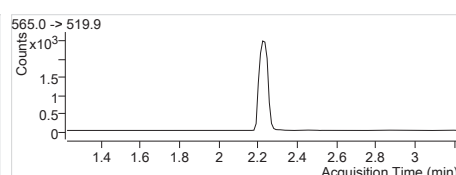
MPFOS
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/Kg
Sample type: QC



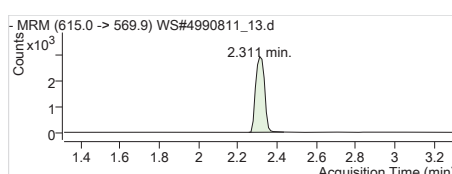
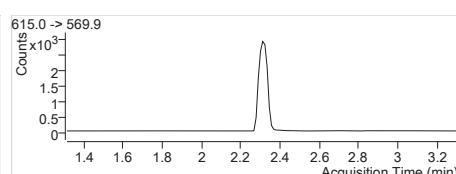
MPFNA
RT (Exp. RT): 2.013 (2.013)
Concentration: 1 µg/Kg
Sample type: QC



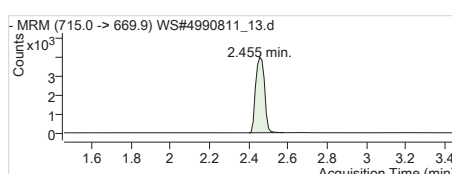
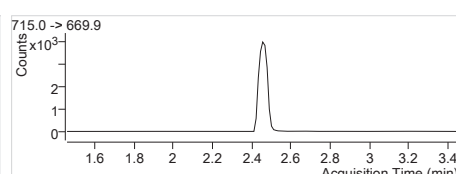
MPFDA
RT (Exp. RT): 2.123 (2.135)
Concentration: 1 µg/Kg
Sample type: QC



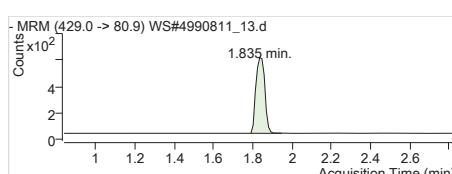
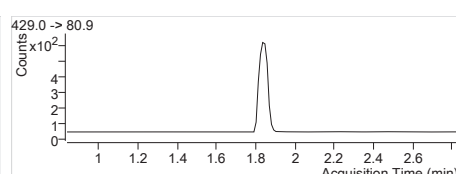
MPFUnA
RT (Exp. RT): 2.223 (2.223)
Concentration: 1 µg/Kg
Sample type: QC



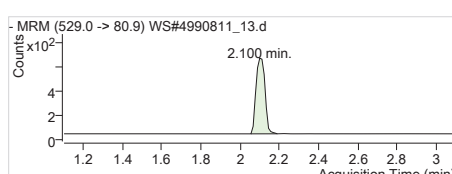
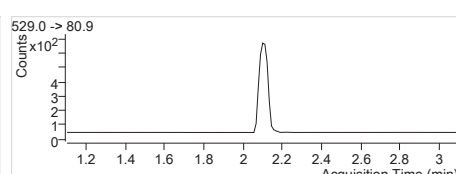
MPFDoA
RT (Exp. RT): 2.311 (2.311)
Concentration: 1 µg/Kg
Sample type: QC



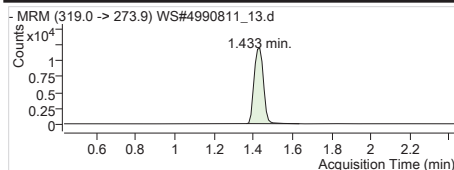
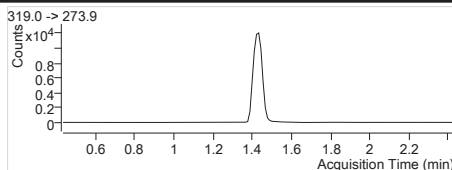
MPFTeDA
RT (Exp. RT): 2.455 (2.455)
Concentration: 1 µg/Kg
Sample type: QC



M2 6:2 FTS
RT (Exp. RT): 1.835 (1.835)
Concentration: 1 µg/Kg
Sample type: QC

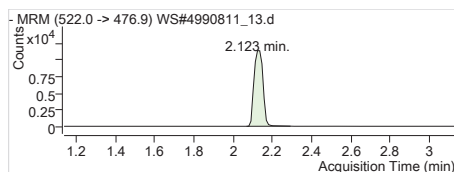
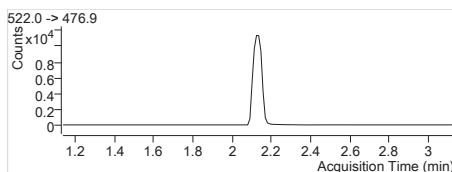


M2 8:2 FTS
RT (Exp. RT): 2.100 (2.100)
Concentration: 1 µg/Kg
Sample type: QC

**13C6-PFHxA IS**

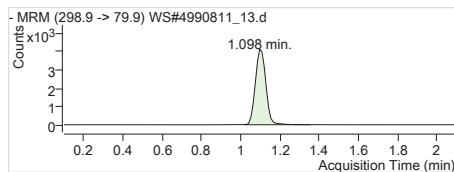
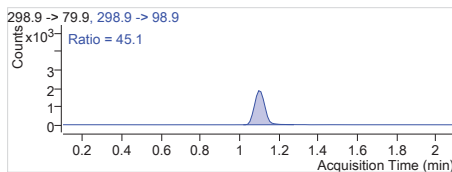
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
1.433 (1.433)
1 µg/Kg
QC

**13C9-PFDA IS**

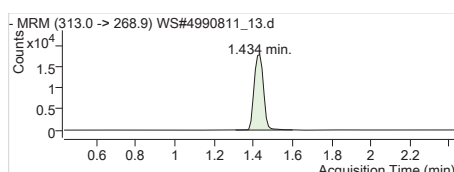
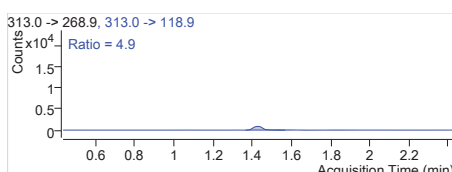
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
2.123 (2.134)
1 µg/Kg
QC

**PFBS 1**

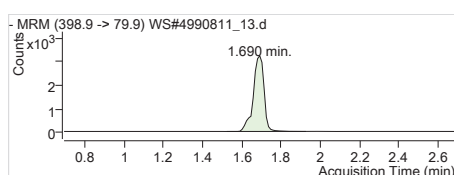
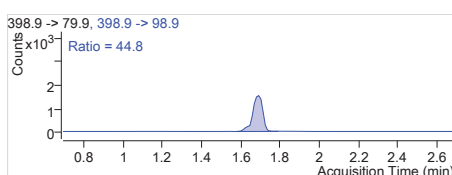
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

298.9 -> 79.9
1.098 (1.098)
17.08 µg/Kg
10.90144
QC

**PFHxA 1**

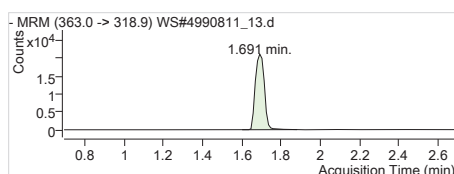
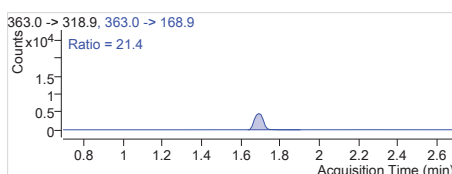
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

313.0 -> 268.9
1.434 (1.434)
16.49 µg/Kg
7.68590
QC

**PFHxS 1**

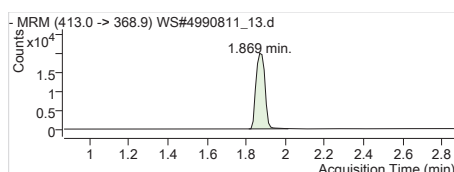
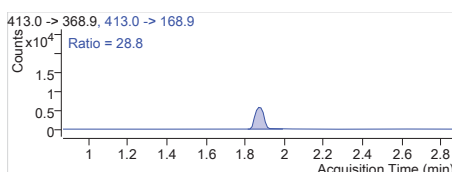
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

398.9 -> 79.9
1.690 (1.690)
17.01 µg/Kg
8.77770
QC

**PFHpA 1**

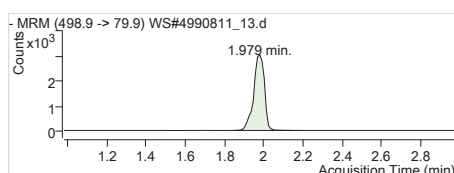
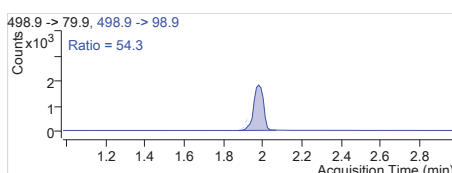
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

363.0 -> 318.9
1.691 (1.691)
16.22 µg/Kg
7.88880
QC

**PFOA 1**

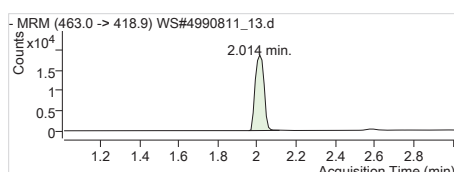
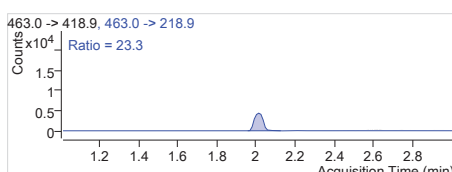
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

413.0 -> 368.9
1.869 (1.869)
15.71 µg/Kg
7.43667
QC

**PFOS 1**

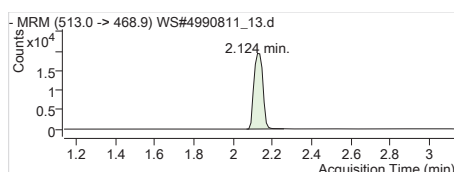
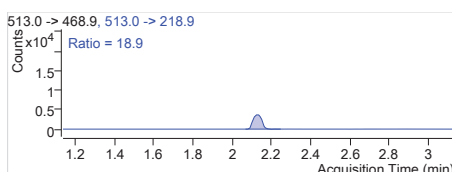
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

498.9 -> 79.9
1.979 (1.979)
16.64 µg/Kg
6.53466
QC

**PFNA 1**

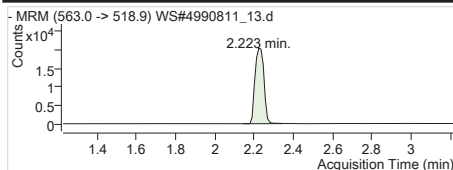
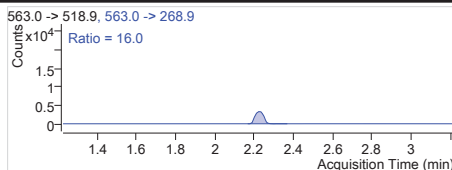
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

463.0 -> 418.9
2.014 (2.014)
18.03 µg/Kg
7.54861
QC

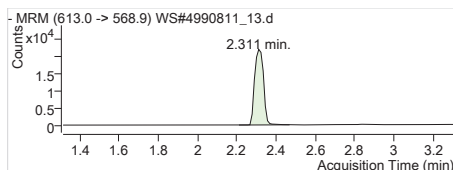
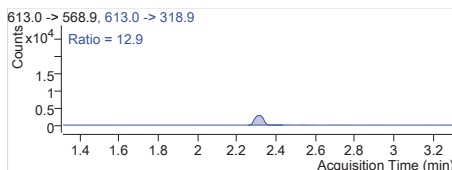
**PFDA 1**

RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

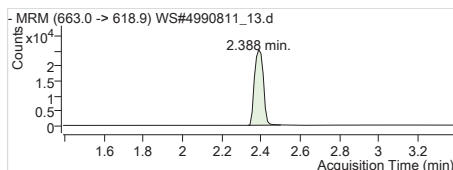
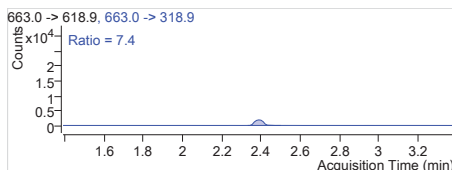
513.0 -> 468.9
2.124 (2.135)
16.69 µg/Kg
8.89965
QC



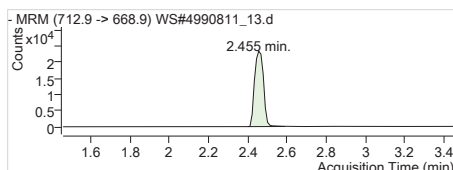
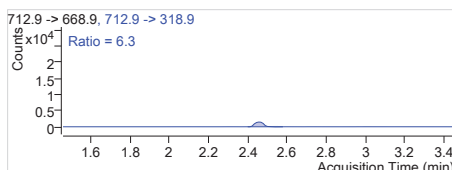
PFUnA 1
RT (Exp. RT): 563.0 -> 518.9
Calc. conc. 2.223 (2.223)
Area ratio: 16.80 µg/Kg
Sample type: 8.28167
QC



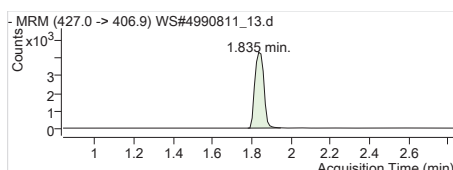
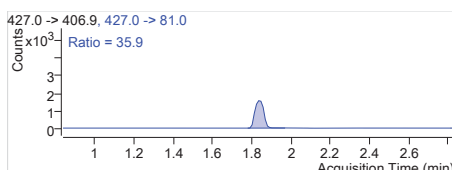
PFDa 1
RT (Exp. RT): 613.0 -> 568.9
Calc. conc. 2.311 (2.311)
Area ratio: 16.66 µg/Kg
Sample type: 7.48243
QC



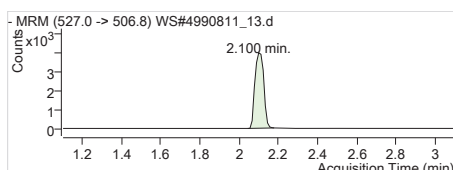
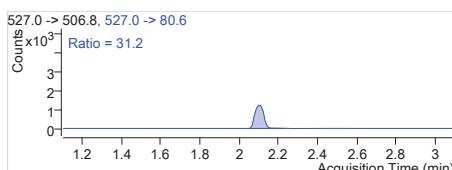
PFTra 1
RT (Exp. RT): 663.0 -> 618.9
Calc. conc. 2.388 (2.388)
Area ratio: 15.41 µg/Kg
Sample type: 6.43691
QC



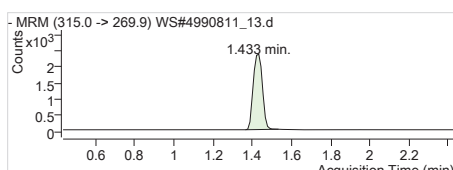
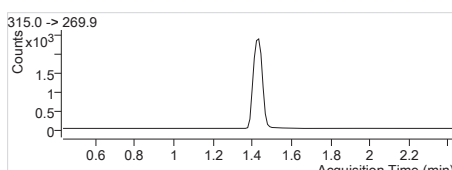
PFTeDa 1
RT (Exp. RT): 712.9 -> 668.9
Calc. conc. 2.455 (2.455)
Area ratio: 14.84 µg/Kg
Sample type: 5.96696
QC



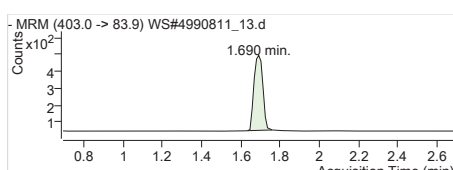
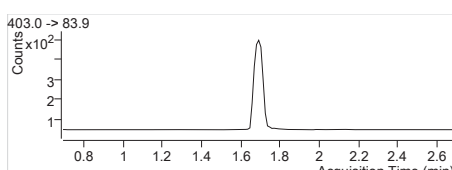
6:2-FTS 1
RT (Exp. RT): 427.0 -> 406.9
Calc. conc. 1.835 (1.835)
Area ratio: 17.26 µg/Kg
Sample type: 7.50580
QC



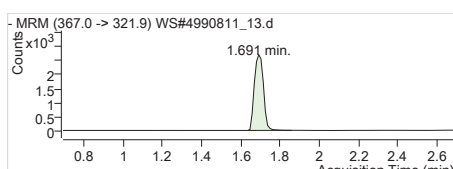
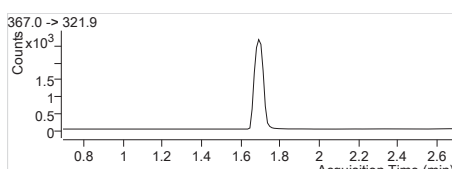
8:2-FTS 1
RT (Exp. RT): 527.0 -> 506.8
Calc. conc. 2.100 (2.100)
Area ratio: 16.34 µg/Kg
Sample type: 6.27071
QC



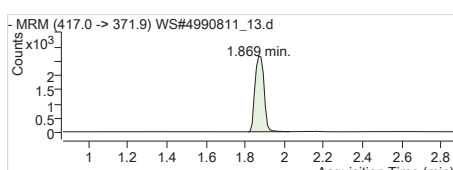
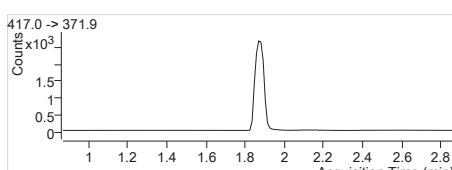
13C2-PFHxA
RT (Exp. RT): 315.0 -> 269.9
Calc. conc. 1.433 (1.433)
Area ratio: 100.78 µg/Kg
Sample type: 0.19407
QC



18O2-PFHxS
RT (Exp. RT): 403.0 -> 83.9
Calc. conc. 1.690 (1.690)
Area ratio: 98.88 µg/Kg
Sample type: 0.03529
QC

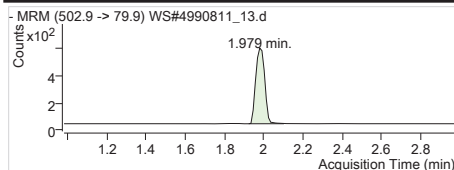
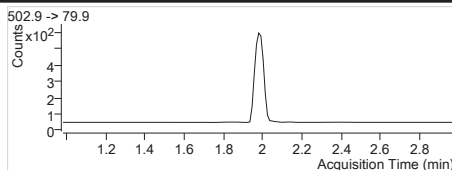


13C4-PFHpA
RT (Exp. RT): 367.0 -> 321.9
Calc. conc. 1.691 (1.691)
Area ratio: 102.47 µg/Kg
Sample type: 0.21530
QC

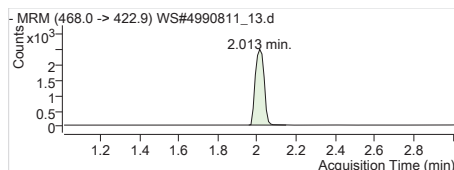
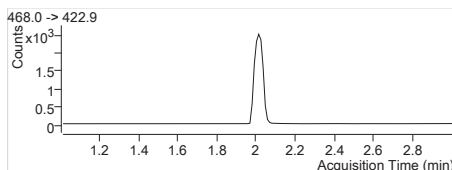


13C4-PFOA
RT (Exp. RT): 417.0 -> 371.9
Calc. conc. 1.869 (1.869)
Area ratio: 105.83 µg/Kg
Sample type: 0.21449
QC

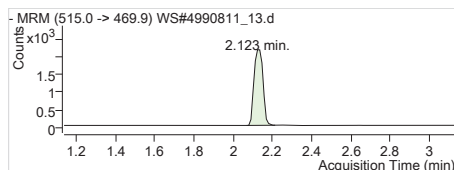
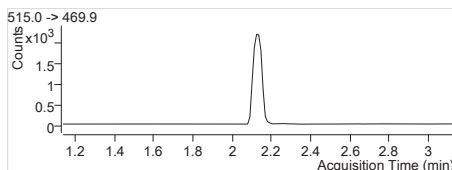
Quantitation Results



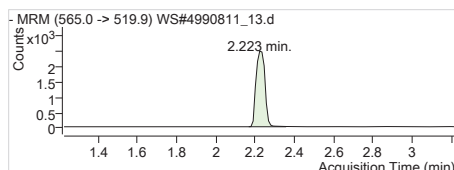
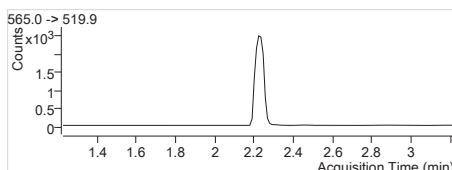
13C4-PFOS
RT (Exp. RT): 502.9 -> 79.9
Calc. conc. 1.979 (1.979)
Area ratio: 101.84 µg/Kg
Sample type: 0.04468
QC



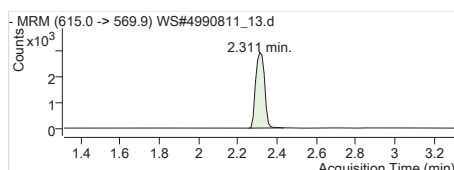
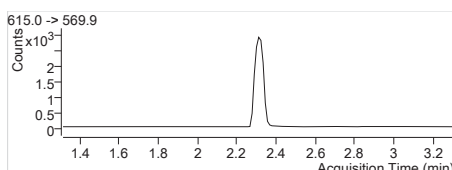
13C5-PFNA
RT (Exp. RT): 468.0 -> 422.9
Calc. conc. 2.013 (2.013)
Area ratio: 95.74 µg/Kg
Sample type: 0.19613
QC



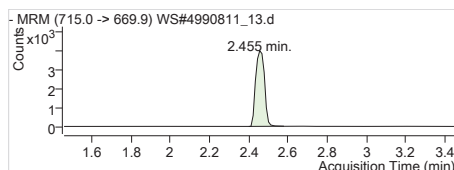
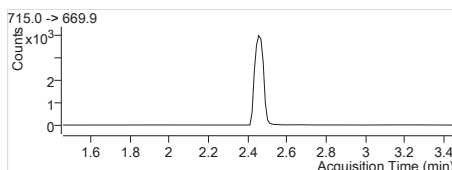
13C2-PFDA
RT (Exp. RT): 515.0 -> 469.9
Calc. conc. 2.123 (2.135)
Area ratio: 102.40 µg/Kg
Sample type: 0.19191
QC



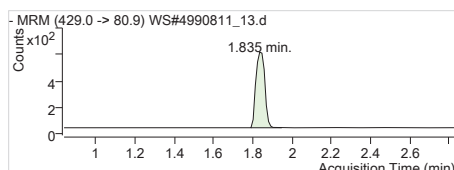
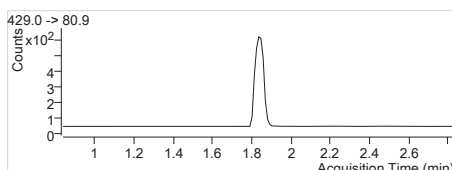
13C2-PFUnA
RT (Exp. RT): 565.0 -> 519.9
Calc. conc. 2.223 (2.223)
Area ratio: 99.45 µg/Kg
Sample type: 0.21498
QC



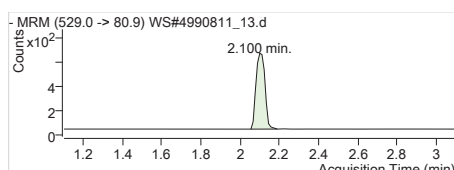
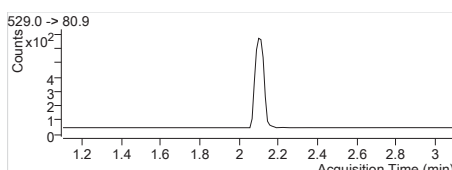
13C2-PFDoA
RT (Exp. RT): 615.0 -> 569.9
Calc. conc. 2.311 (2.311)
Area ratio: 102.71 µg/Kg
Sample type: 0.25461
QC



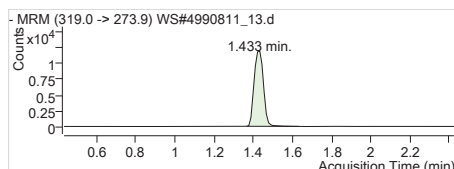
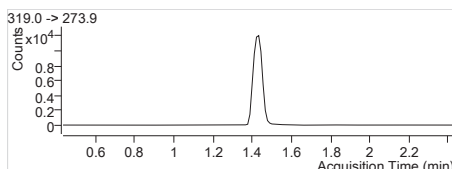
13C2-PFTeDA
RT (Exp. RT): 715.0 -> 669.9
Calc. conc. 2.455 (2.455)
Area ratio: 112.63 µg/Kg
Sample type: 0.34314
QC



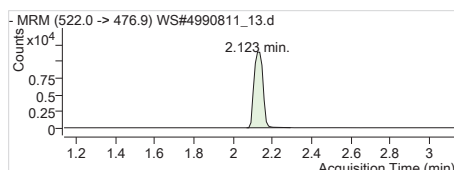
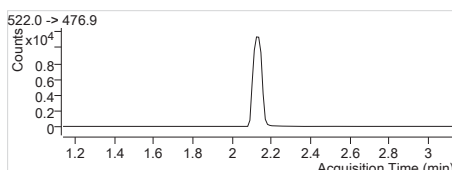
13C2-6:2-FTS
RT (Exp. RT): 429.0 -> 80.9
Calc. conc. 1.835 (1.835)
Area ratio: 94.18 µg/Kg
Sample type: 0.04598
QC



13C2-8:2 FTS
RT (Exp. RT): 529.0 -> 80.9
Calc. conc. 2.100 (2.100)
Area ratio: 99.83 µg/Kg
Sample type: 0.05027
QC



13C6-PFHxA
RT (Exp. RT): 319.0 -> 273.9
Calc. conc. 1.433 (1.433)
Area ratio: 97.64 µg/Kg
Sample type: 0
QC



13C9-PFDA
RT (Exp. RT): 522.0 -> 476.9
Calc. conc. 2.123 (2.134)
Area ratio: 98.74 µg/Kg
Sample type: 0
QC

Sample Name

ICV

Instrument

LCMS04

Data File

WS#4990811_FOSAA_17.d

Operator

AD

Sample Type

QC

Dilution

1

Acq. Method

PFC_Soil_FOSAA.m

Position

P2-A9

Acq. Date

2017/05/25 1:49:58 AM

Injection Volume

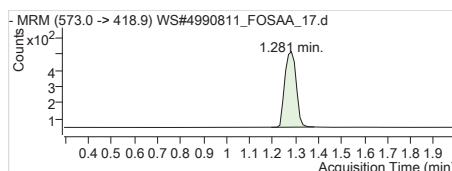
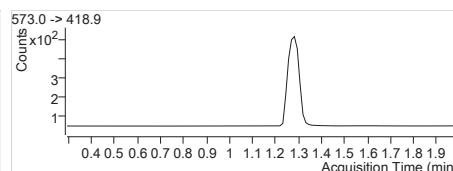
Per Method

Sample Annotation

-

ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1604	1.28	1 µg/Kg		
D5-EtFOSAA IS	1476	1.31	1 µg/Kg		
13C9-PFDA IS	29587	0.85	1 µg/Kg		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	10778	1.27	18.80	17.00 µg/Kg	90.42
EtFOSAA 1	10952	1.30	18.80	16.62 µg/Kg	88.41
D3-MeFOSAA	1621	1.28	100.00	101.34 µg/Kg	101.34
D5-EtFOSAA	1494	1.31	100.00	104.42 µg/Kg	104.42
13C9-PFDA	30233	0.85	100.00	96.55 µg/Kg	96.55

**D3-MeFOSAA IS**

Internal Standard

RT (Exp. RT):

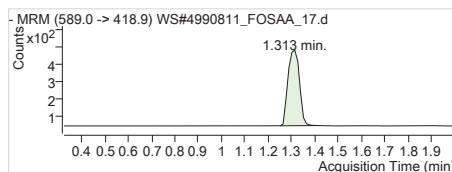
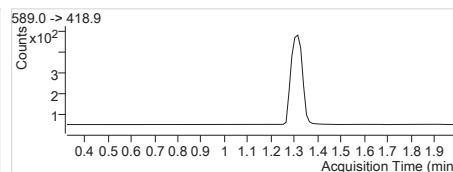
1.281 (1.281)

Concentration:

1 µg/Kg

Sample type:

QC

**D5-EtFOSAA IS**

Internal Standard

RT (Exp. RT):

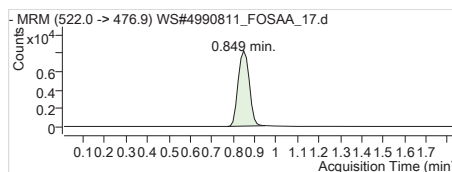
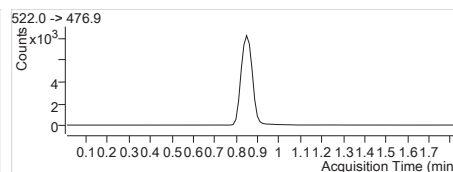
1.313 (1.313)

Concentration:

1 µg/Kg

Sample type:

QC

**13C9-PFDA IS**

Internal Standard

RT (Exp. RT):

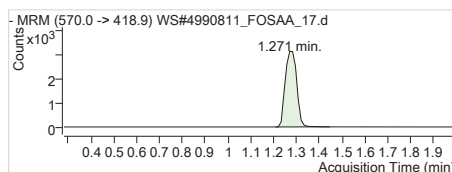
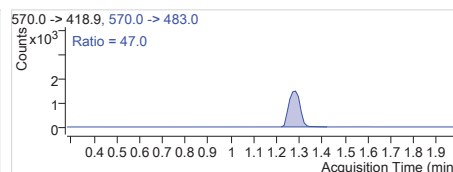
0.849 (0.849)

Concentration:

1 µg/Kg

Sample type:

QC

**MeFOSAA 1**

570.0 -> 418.9

RT (Exp. RT):

1.271 (1.271)

Calc. conc.

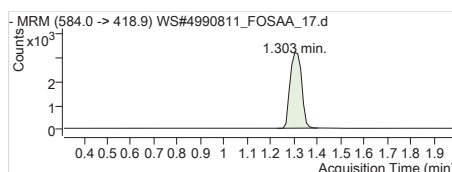
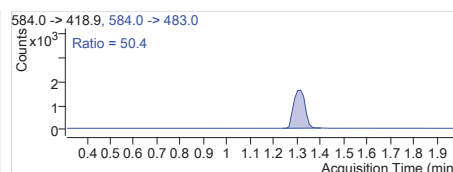
17.00 µg/Kg

Area ratio:

6.71945

Sample type:

QC

**EtFOSAA 1**

584.0 -> 418.9

RT (Exp. RT):

1.303 (1.303)

Calc. conc.

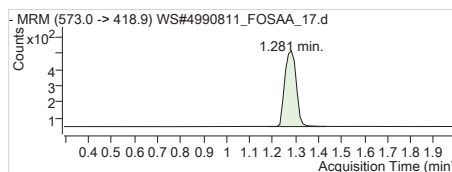
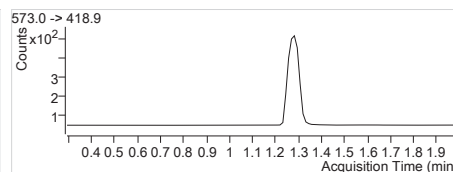
16.62 µg/Kg

Area ratio:

7.42005

Sample type:

QC

**D3-MeFOSAA**

573.0 -> 418.9

RT (Exp. RT):

1.281 (1.281)

Calc. conc.

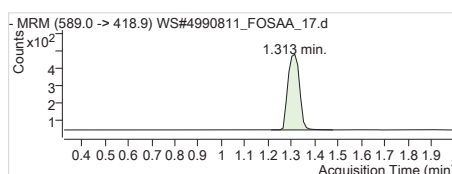
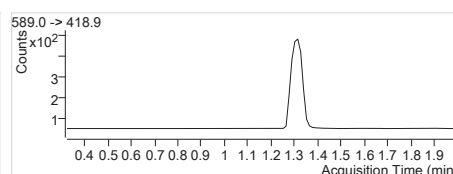
101.34 µg/Kg

Area ratio:

0.05478

Sample type:

QC

**D5-EtFOSAA**

589.0 -> 418.9

RT (Exp. RT):

1.313 (1.313)

Calc. conc.

104.42 µg/Kg

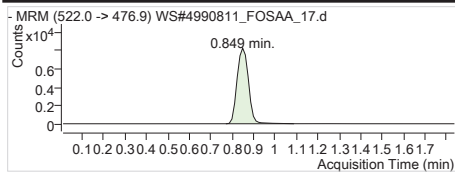
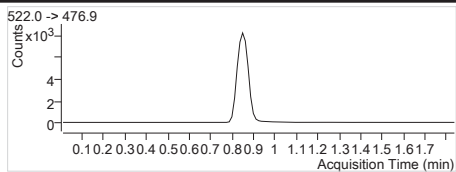
Area ratio:

0.05048

Sample type:

QC

Quantitation Results



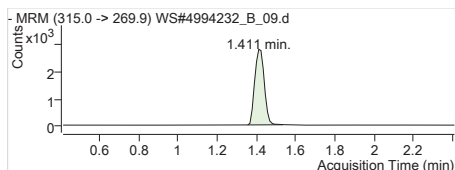
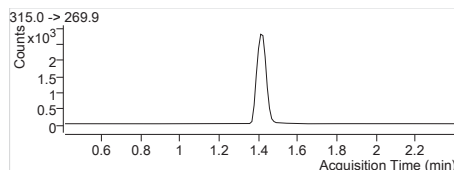
13C9-PFDA
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

522.0 -> 476.9
0.849 (0.849)
96.55 µg/Kg
0
QC

Batch Path	T:\lcms4\PFC\20170526\WS#4994375_B\QuantResults\PFC_Soil_170526_WS#4994375_CTLabs		
Sample Name	ICV	Instrument	LCMS04
Data File	WS#4994232_B_09.d	Operator	AD
Sample Type	QC	Dilution	1
Acq. Method	PFC_Soil.m	Position	P1-A9
Acq. Date	2017/05/30 10:03:48 AM	Injection Volume	Per Method
Sample Annotation	-		

ISTD Compounds	Response	RT	Target conc.		
MPFHxA	9280	1.41	1 µg/Kg		
MPFHxS	1560	1.69	1 µg/Kg		
MPFHpA	10038	1.68	1 µg/Kg		
MPFOA	9736	1.87	1 µg/Kg		
MPFNA	8907	2.01	1 µg/Kg		
MPFDA	8551	2.12	1 µg/Kg		
MPFUnA	8752	2.22	1 µg/Kg		
MPFDoA	10010	2.31	1 µg/Kg		
MPFTeDA	12136	2.46	1 µg/Kg		
M2 6:2 FTS	2220	1.83	1 µg/Kg		
M2 8:2 FTS	2422	2.10	1 µg/Kg		
13C6-PFHxA IS	41754	1.41	1 µg/Kg		
13C9-PFDA	36700	2.12	1 µg/Kg		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	18537	1.09	18.80	20.43 µg/Kg	108.68
PFHxA 1	77066	1.41	18.80	20.60 µg/Kg	109.58
PFHxS 1	14330	1.68	18.80	20.48 µg/Kg	108.93
PFHpA 1	84816	1.68	18.80	19.98 µg/Kg	106.29
PFOA 1	79408	1.87	18.80	18.96 µg/Kg	100.84
PFNA 1	70342	2.01	18.80	21.03 µg/Kg	111.87
PFDA 1	70745	2.12	18.80	19.34 µg/Kg	102.88
PFUnA 1	75280	2.22	18.80	21.34 µg/Kg	113.50
PFDaA 1	81677	2.31	18.80	20.67 µg/Kg	109.94
PFTTrDA 1	94750	2.39	18.80	21.04 µg/Kg	111.93
PFTeDA 1	89308	2.46	18.80	21.52 µg/Kg	114.48
6:2-FTS 1	17771	1.84	18.80	22.54 µg/Kg	119.90
8:2-FTS 1	16410	2.10	18.80	20.50 µg/Kg	109.02
13C2-PFHxA	9280	1.41	100.00	107.03 µg/Kg	107.03
18O2-PFHxS	1560	1.69	100.00	106.58 µg/Kg	106.58
13C4-PFHpA	10038	1.68	100.00	109.29 µg/Kg	109.29
13C4-PFOA	9736	1.87	100.00	113.18 µg/Kg	113.18
13C5-PFNA	8907	2.01	100.00	105.50 µg/Kg	105.50
13C2-PFDA	8551	2.12	100.00	112.12 µg/Kg	112.12
13C2-PFUnA	8847	2.22	100.00	104.02 µg/Kg	104.02
13C2-PFDoA	10010	2.31	100.00	106.17 µg/Kg	106.17
13C2-PFTeDA	12136	2.46	100.00	100.58 µg/Kg	100.58
13C2-6:2-FTS	2220	1.83	100.00	102.25 µg/Kg	102.25
13C2-8:2 FTS	2422	2.10	100.00	114.27 µg/Kg	114.27
13C6-PFHxA	41754	1.41	100.00	83.58 µg/Kg	83.58
13C9-PFDA	36697	2.12	100.00	86.87 µg/Kg	86.87



MPFHxA

RT (Exp. RT):

Concentration:

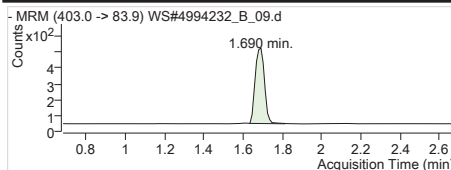
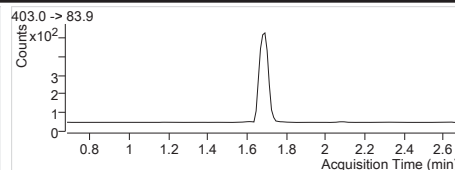
Sample type:

Internal Standard

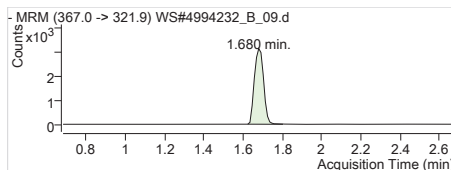
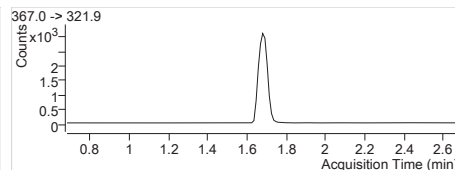
1.411 (1.411)

1 µg/Kg

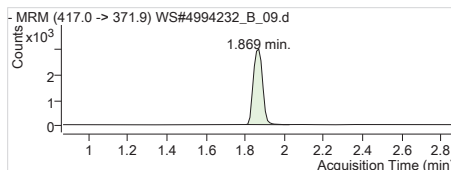
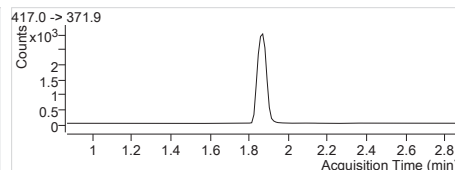
QC



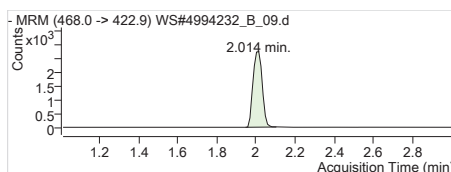
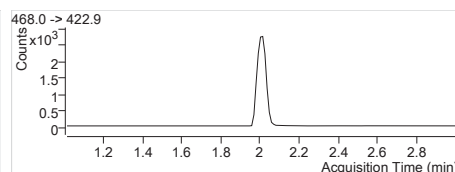
MPFHxS
RT (Exp. RT): 1.690 (1.679)
Concentration: 1 µg/Kg
Sample type: QC



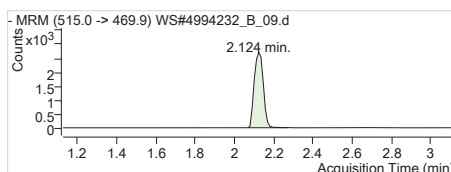
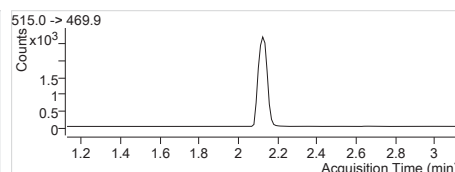
MPFHpA
RT (Exp. RT): 1.680 (1.680)
Concentration: 1 µg/Kg
Sample type: QC



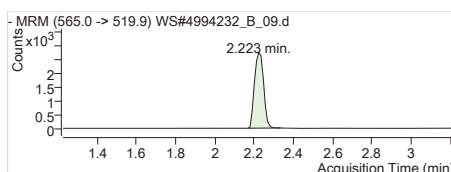
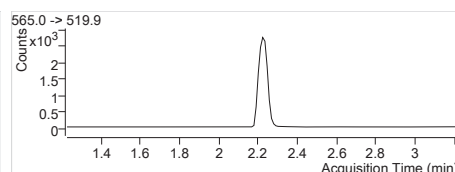
MPFOA
RT (Exp. RT): 1.869 (1.869)
Concentration: 1 µg/Kg
Sample type: QC



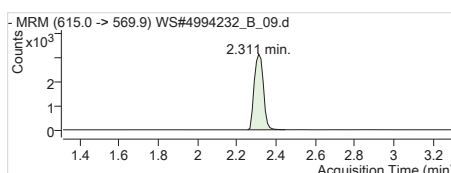
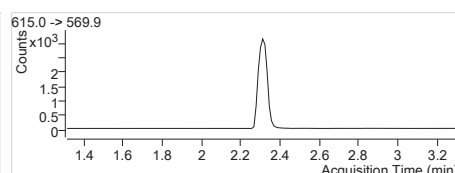
MPFNA
RT (Exp. RT): 2.014 (2.014)
Concentration: 1 µg/Kg
Sample type: QC



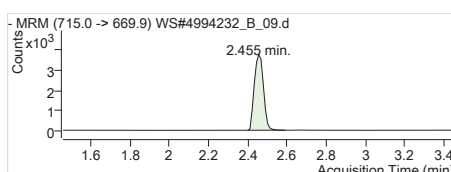
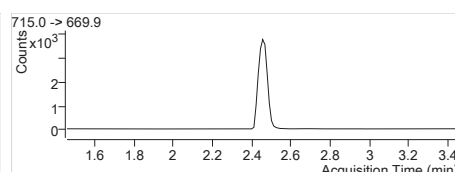
MPFDA
RT (Exp. RT): 2.124 (2.124)
Concentration: 1 µg/Kg
Sample type: QC



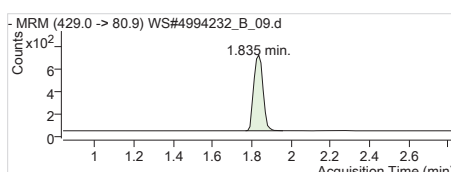
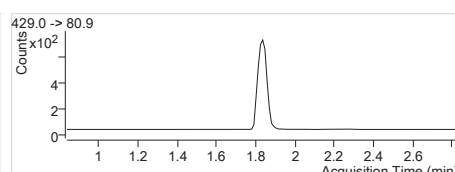
MPFUnA
RT (Exp. RT): 2.223 (2.223)
Concentration: 1 µg/Kg
Sample type: QC



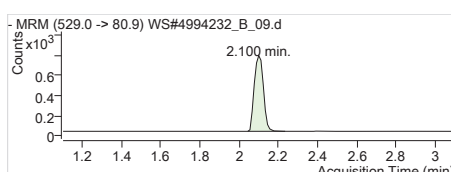
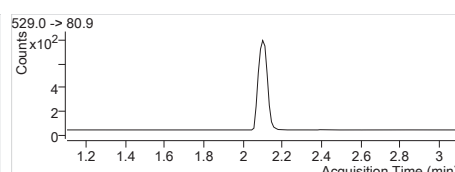
MPFDoA
RT (Exp. RT): 2.311 (2.311)
Concentration: 1 µg/Kg
Sample type: QC



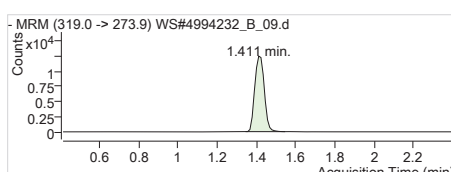
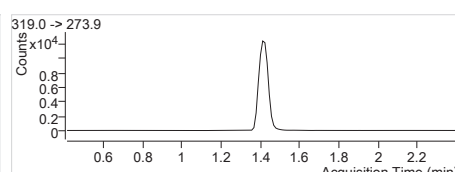
MPFTeDA
RT (Exp. RT): 2.455 (2.455)
Concentration: 1 µg/Kg
Sample type: QC



M2 6:2 FTS
RT (Exp. RT): 1.835 (1.835)
Concentration: 1 µg/Kg
Sample type: QC

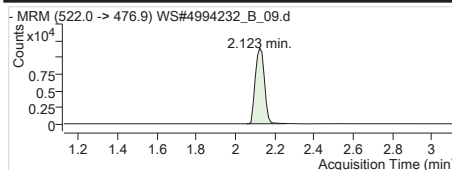
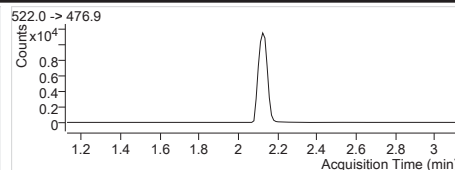


M2 8:2 FTS
RT (Exp. RT): 2.100 (2.100)
Concentration: 1 µg/Kg
Sample type: QC



13C6-PFHxA IS
RT (Exp. RT): 1.411 (1.411)
Concentration: 1 µg/Kg
Sample type: QC

Quantitation Results



13C9-PFDA IS

RT (Exp. RT):

Concentration:

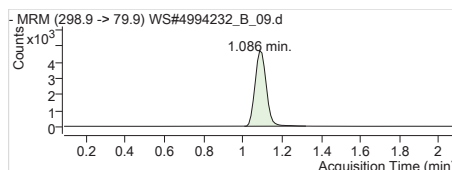
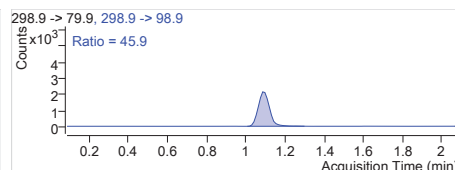
Sample type:

Internal Standard

2.123 (2.124)

1 µg/Kg

QC



PFBS 1

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

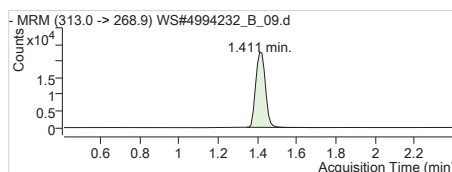
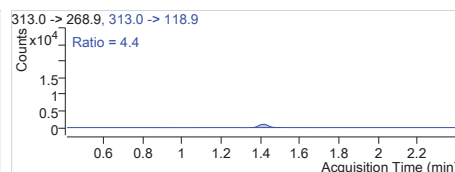
298.9 → 79.9

1.086 (1.087)

20.43 µg/Kg

11.88269

QC



PFHxA 1

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

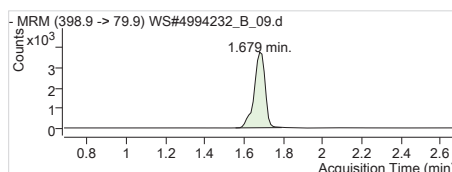
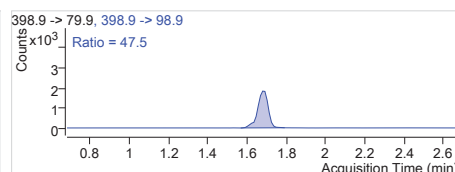
313.0 → 268.9

1.411 (1.411)

20.60 µg/Kg

8.30453

QC



PFHxS 1

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

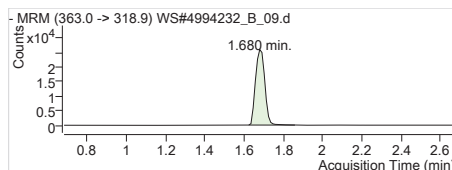
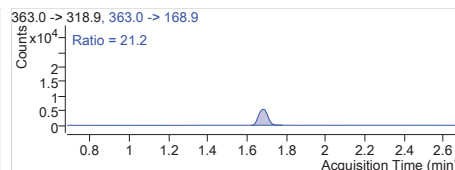
398.9 → 79.9

1.679 (1.679)

20.48 µg/Kg

9.18590

QC



PFHpA 1

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

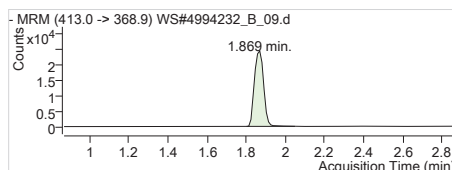
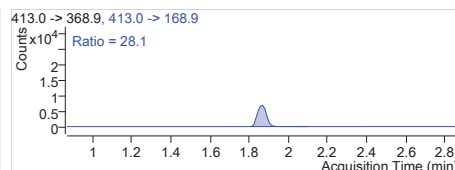
363.0 → 318.9

1.680 (1.680)

19.98 µg/Kg

8.44949

QC



PFOA 1

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

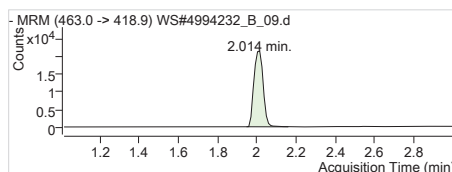
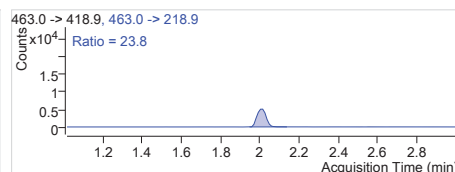
413.0 → 368.9

1.869 (1.869)

18.96 µg/Kg

8.15612

QC



PFNA 1

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

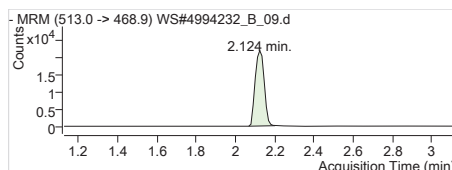
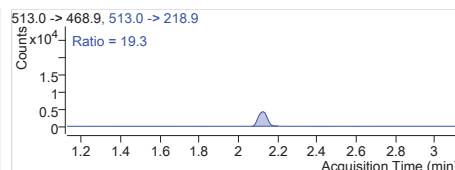
463.0 → 418.9

2.014 (2.014)

21.03 µg/Kg

7.89738

QC



PFDA 1

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

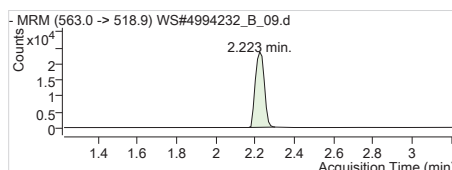
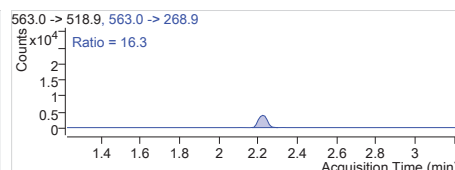
513.0 → 468.9

2.124 (2.124)

19.34 µg/Kg

8.27330

QC



PFUnA 1

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

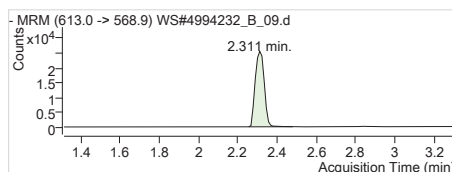
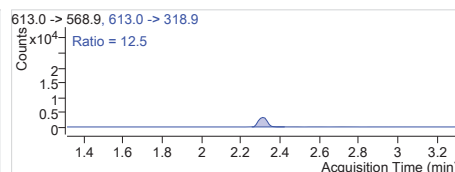
563.0 → 518.9

2.223 (2.223)

21.34 µg/Kg

8.60146

QC



PFDoA 1

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

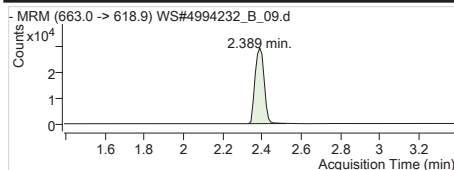
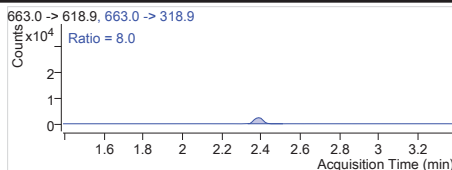
613.0 → 568.9

2.311 (2.311)

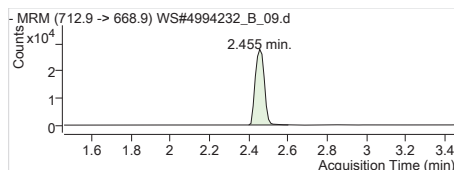
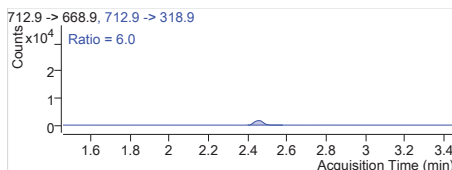
20.67 µg/Kg

8.15954

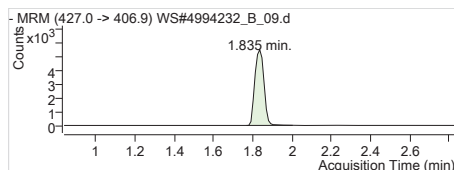
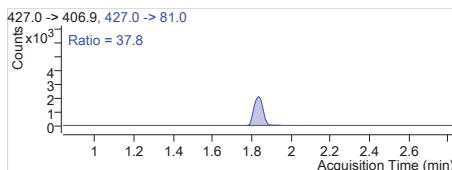
QC



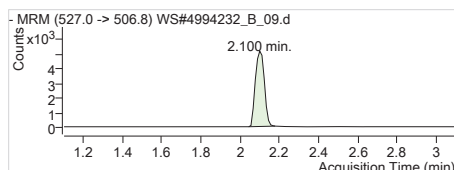
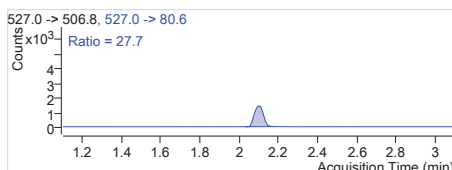
PFTDA 1
RT (Exp. RT): 663.0 -> 618.9
Calc. conc. 2.389 (2.389)
Area ratio: 21.04 µg/Kg
Sample type: 7.80735
QC



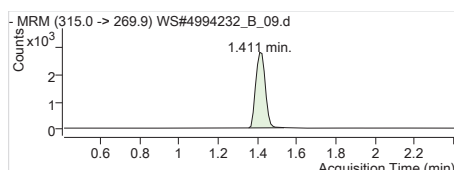
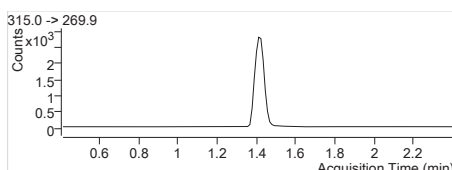
PFTDA 1
RT (Exp. RT): 712.9 -> 668.9
Calc. conc. 2.455 (2.456)
Area ratio: 21.52 µg/Kg
Sample type: 7.35893
QC



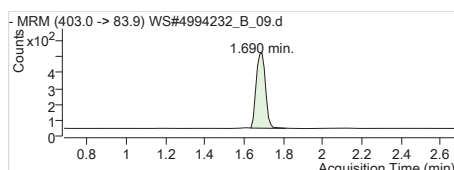
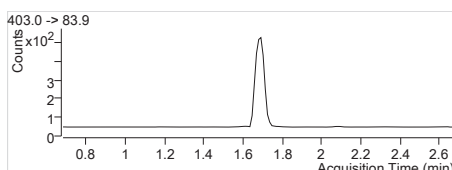
6:2-FTS 1
RT (Exp. RT): 427.0 -> 406.9
Calc. conc. 1.835 (1.835)
Area ratio: 22.54 µg/Kg
Sample type: 8.00495
QC



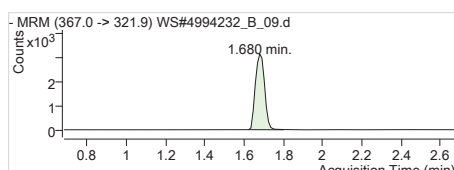
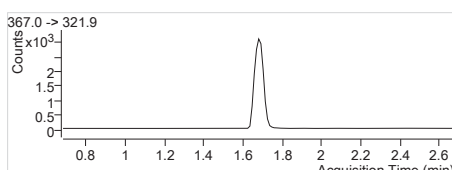
8:2-FTS 1
RT (Exp. RT): 527.0 -> 506.8
Calc. conc. 2.100 (2.101)
Area ratio: 20.50 µg/Kg
Sample type: 6.77539
QC



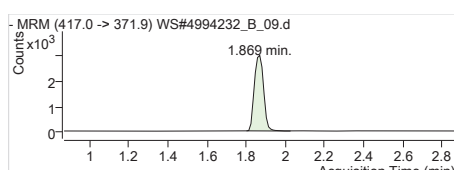
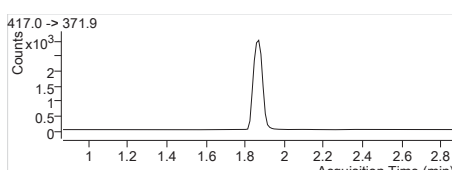
13C2-PFHxA
RT (Exp. RT): 315.0 -> 269.9
Calc. conc. 1.411 (1.411)
Area ratio: 107.03 µg/Kg
Sample type: 0.22225
QC



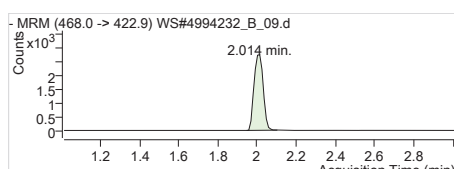
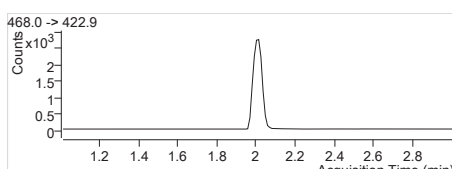
18O2-PFHxS
RT (Exp. RT): 403.0 -> 83.9
Calc. conc. 1.690 (1.679)
Area ratio: 106.58 µg/Kg
Sample type: 0.03736
QC



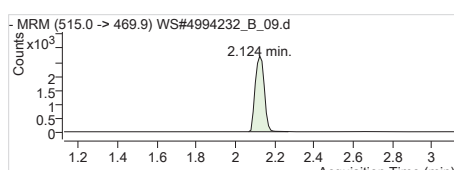
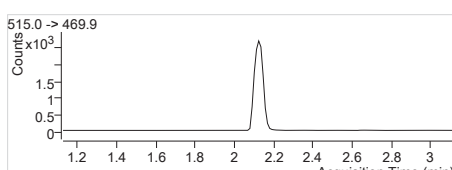
13C4-PFHpA
RT (Exp. RT): 367.0 -> 321.9
Calc. conc. 1.680 (1.680)
Area ratio: 109.29 µg/Kg
Sample type: 0.24041
QC



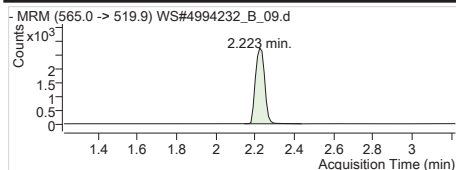
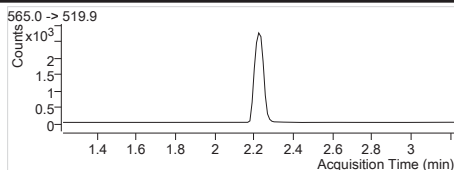
13C4-PFOA
RT (Exp. RT): 417.0 -> 371.9
Calc. conc. 1.869 (1.869)
Area ratio: 113.18 µg/Kg
Sample type: 0.23318
QC



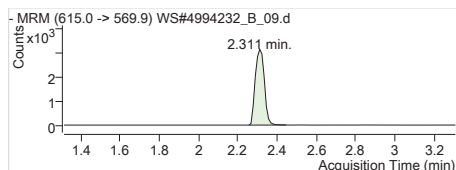
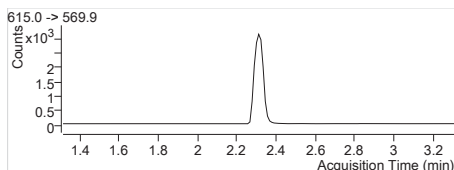
13C5-PFNA
RT (Exp. RT): 468.0 -> 422.9
Calc. conc. 2.014 (2.014)
Area ratio: 105.50 µg/Kg
Sample type: 0.21332
QC



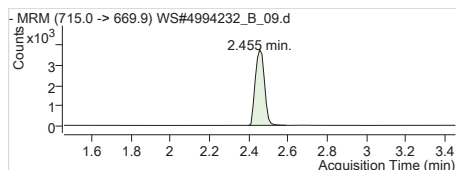
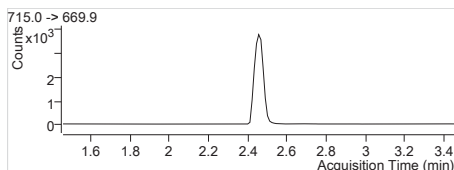
13C2-PFDA
RT (Exp. RT): 515.0 -> 469.9
Calc. conc. 2.124 (2.124)
Area ratio: 112.12 µg/Kg
Sample type: 0.23300
QC



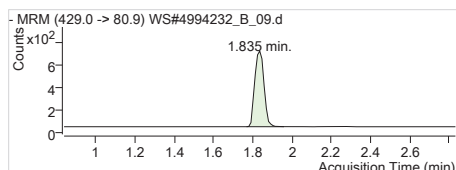
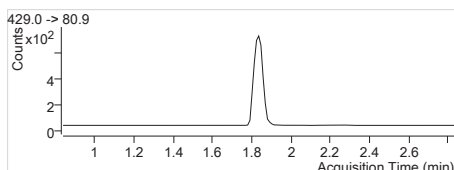
13C2-PFUnA
RT (Exp. RT): 565.0 -> 519.9
Calc. conc. 2.223 (2.223)
Area ratio: 104.02 µg/Kg
Sample type: 0.24106
QC



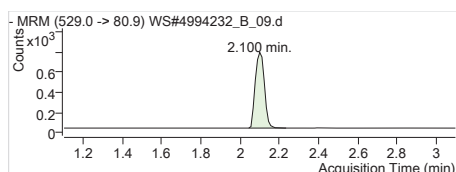
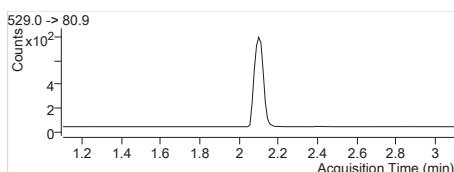
13C2-PFDoA
RT (Exp. RT): 615.0 -> 569.9
Calc. conc. 2.311 (2.311)
Area ratio: 106.17 µg/Kg
Sample type: 0.27275
QC



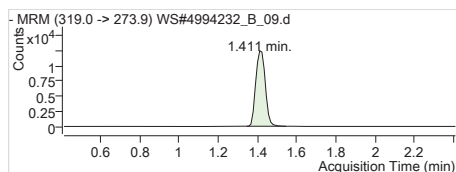
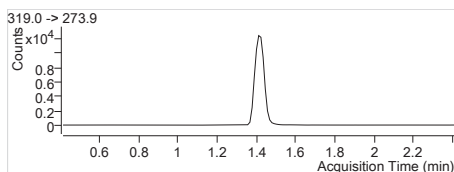
13C2-PFTeDA
RT (Exp. RT): 715.0 -> 669.9
Calc. conc. 2.455 (2.455)
Area ratio: 100.58 µg/Kg
Sample type: 0.33068
QC



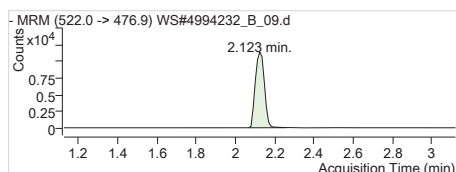
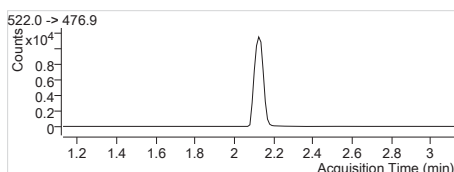
13C2-6:2-FTS
RT (Exp. RT): 429.0 -> 80.9
Calc. conc. 1.835 (1.835)
Area ratio: 102.25 µg/Kg
Sample type: 0.05317
QC



13C2-8:2 FTS
RT (Exp. RT): 529.0 -> 80.9
Calc. conc. 2.100 (2.100)
Area ratio: 114.27 µg/Kg
Sample type: 0.05801
QC



13C6-PFHxA
RT (Exp. RT): 319.0 -> 273.9
Calc. conc. 1.411 (1.411)
Area ratio: 83.58 µg/Kg
Sample type: 0
QC



13C9-PFDA
RT (Exp. RT): 522.0 -> 476.9
Calc. conc. 2.123 (2.124)
Area ratio: 86.87 µg/Kg
Sample type: 0
QC

Sample Name

ICV

Instrument

LCMS04

Data File

WS#4994375_FOSAA_18.d

Operator

M_G

Sample Type

QC

Dilution

1

Acq. Method

PFC_Soil_FOSAA.m

Position

P1-A9

Acq. Date

2017/05/26 4:42:23 PM

Injection Volume

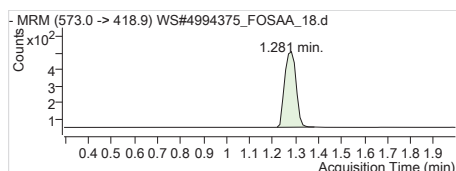
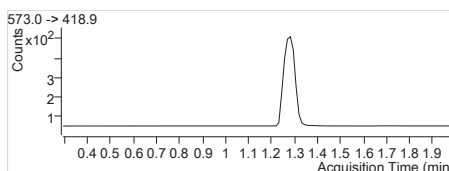
Per Method

Sample Annotation

-

ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1598	1.28	1 µg/Kg		
D5-EtFOSAA IS	1465	1.31	1 µg/Kg		
13C9-PFDA IS	26084	0.85	1 µg/Kg		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	11805	1.27	18.80	20.68 µg/Kg	109.99
EtFOSAA 1	11543	1.30	18.80	19.37 µg/Kg	103.03
D3-MeFOSAA	1611	1.28	100.00	102.05 µg/Kg	102.05
D5-EtFOSAA	1481	1.31	100.00	104.78 µg/Kg	104.78
13C9-PFDA	26635	0.85	100.00	95.86 µg/Kg	95.86

**D3-MeFOSAA IS**

Internal Standard

RT (Exp. RT):

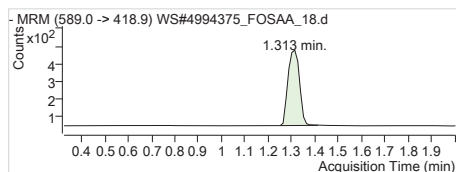
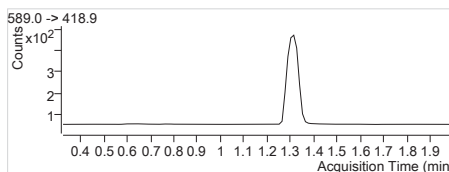
1.281 (1.281)

Concentration:

1 µg/Kg

Sample type:

QC

**D5-EtFOSAA IS**

Internal Standard

RT (Exp. RT):

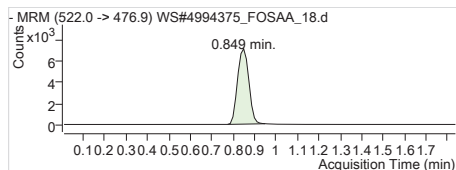
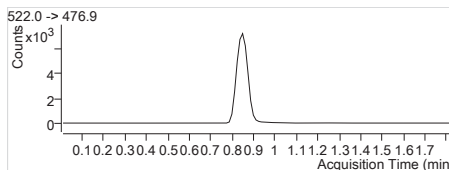
1.313 (1.313)

Concentration:

1 µg/Kg

Sample type:

QC

**13C9-PFDA IS**

Internal Standard

RT (Exp. RT):

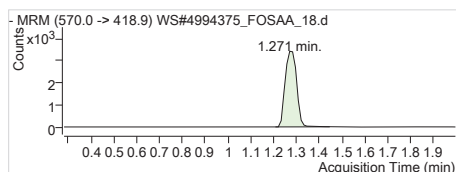
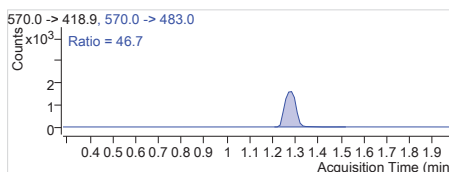
0.849 (0.849)

Concentration:

1 µg/Kg

Sample type:

QC

**MeFOSAA 1**

570.0 -> 418.9

RT (Exp. RT):

1.271 (1.271)

Calc. conc.

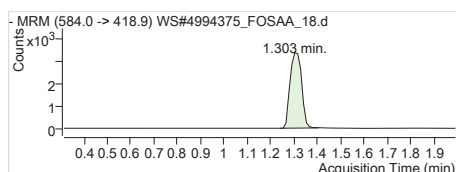
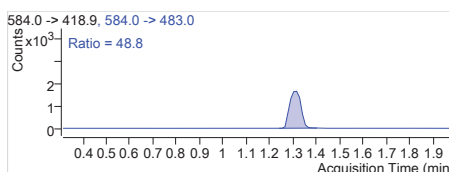
20.68 µg/Kg

Area ratio:

7.38736

Sample type:

QC

**EtFOSAA 1**

584.0 -> 418.9

RT (Exp. RT):

1.303 (1.303)

Calc. conc.

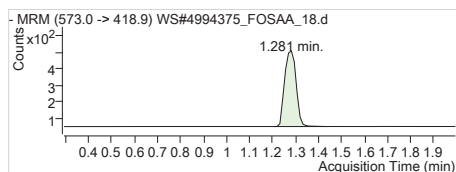
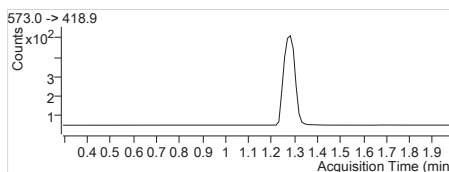
19.37 µg/Kg

Area ratio:

7.87918

Sample type:

QC

**D3-MeFOSAA**

573.0 -> 418.9

RT (Exp. RT):

1.281 (1.281)

Calc. conc.

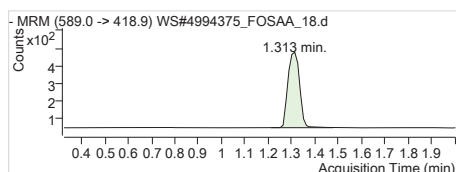
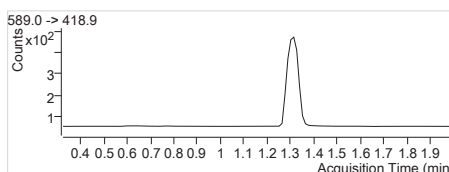
102.05 µg/Kg

Area ratio:

0.06176

Sample type:

QC

**D5-EtFOSAA**

589.0 -> 418.9

RT (Exp. RT):

1.313 (1.313)

Calc. conc.

104.78 µg/Kg

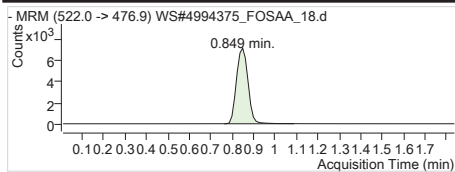
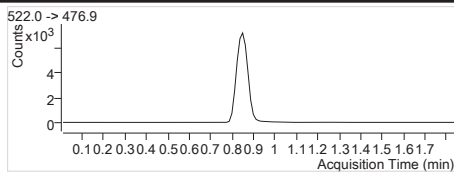
Area ratio:

0.05677

Sample type:

QC

Quantitation Results



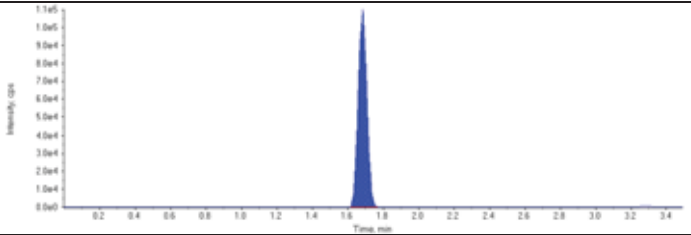
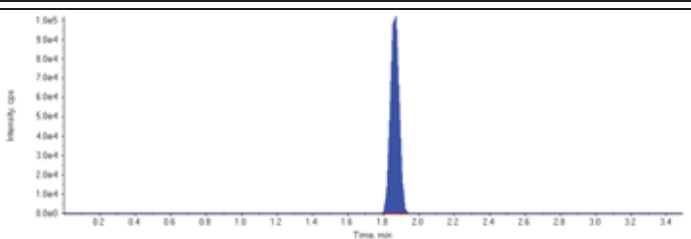
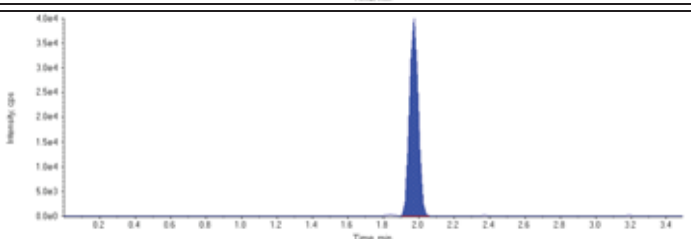
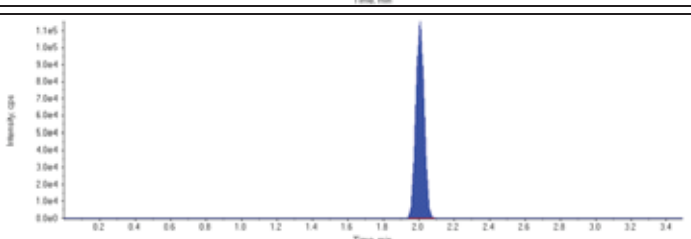
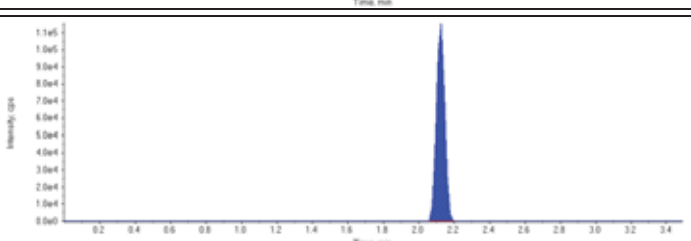
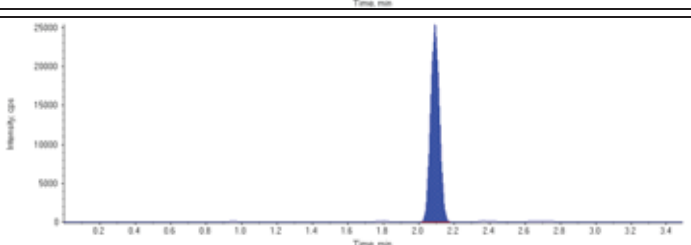
13C9-PFDA
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

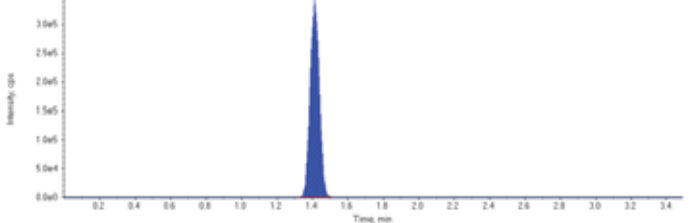
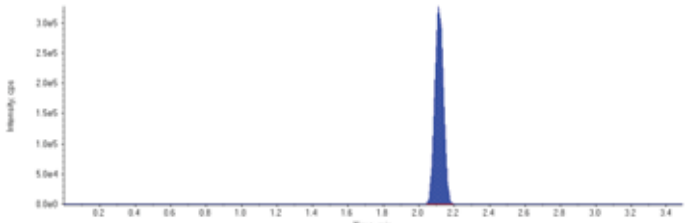
522.0 -> 476.9
0.849 (0.849)
95.86 µg/Kg
0
QC

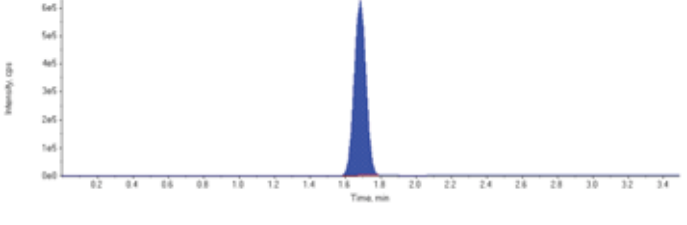
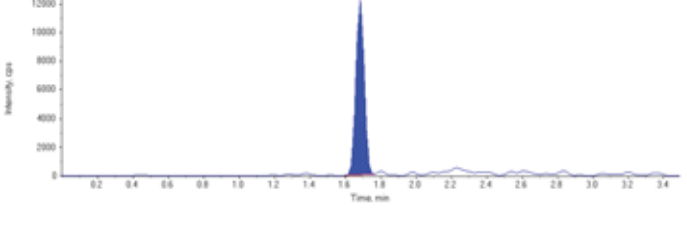
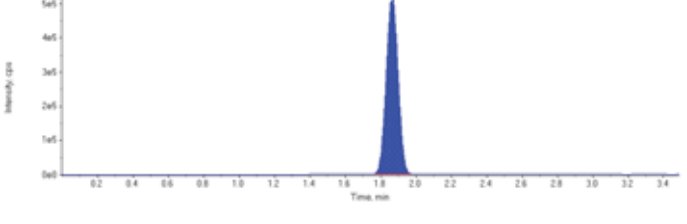
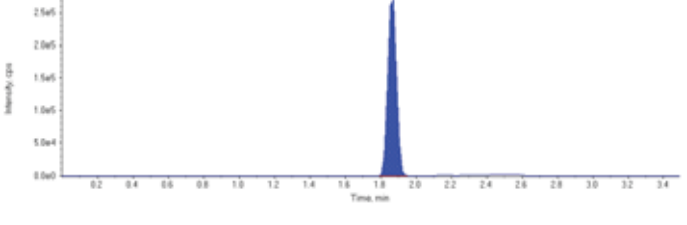
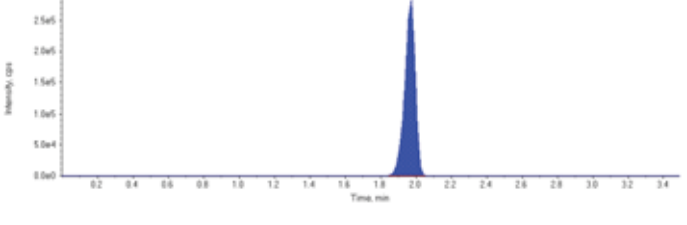
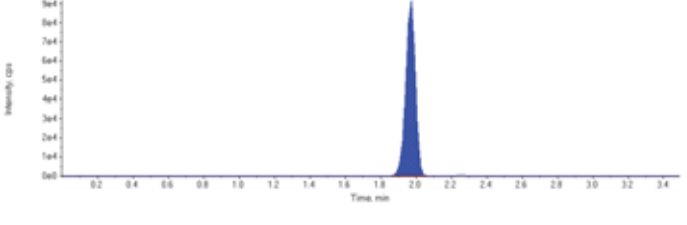
Sample ID	ICV	Injection Volume (µL)	1
Sample Type	Quality Control	Injection Vial	9
Acquisition Date	2017/06/13 2:47:17 PM	Dilution Factor	1.00
Acquisition Method	PFC_Soil.dam	Instrument Name	LCMS03
Project	Enviro\PFOS	Algorithm Used	Analyst Classic
Data File	PFC_170613\WS#5023570.wiff		
Result Table	PFC_Soil_170613_5023570_CT.rdb		
Samples Annotation	-		

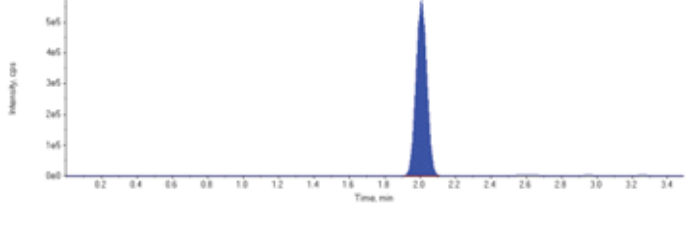
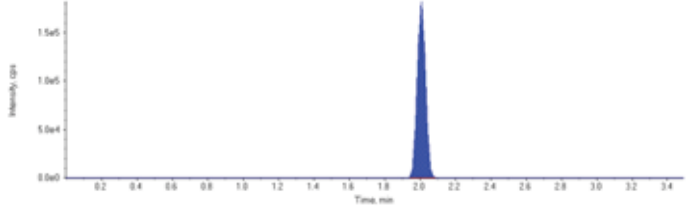
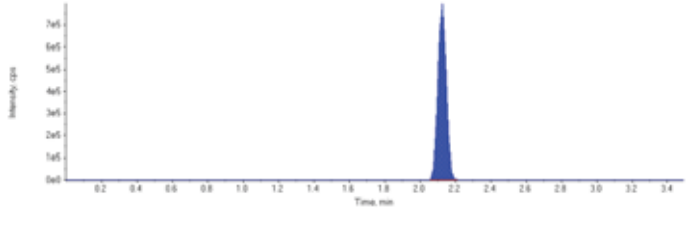
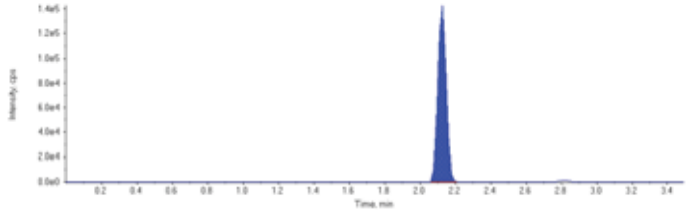
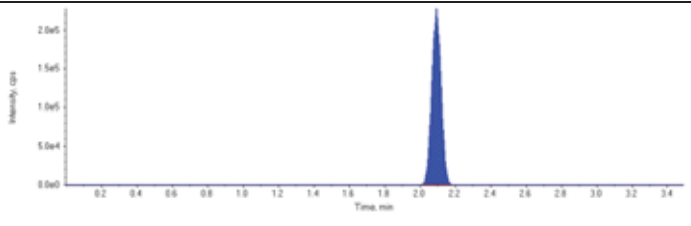
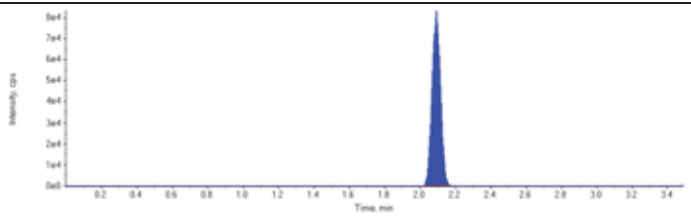
Internal Standard	Area (cps)	RT (min)	Target Conc. (ug/kg)	Calc. Conc. (ug/kg)
MPFHpA	375000.	1.68	1.00	-
MPFOA	350000.	1.86	1.00	-
MPFOS	135000.	1.97	1.00	-
MPFNA	374000.	2.01	1.00	-
MPFDA	381000.	2.12	1.00	-
M2 8:2 FTS	86200.	2.09	1.00	-
13C6-PFHxA IS	1200000.	1.41	1.00	-
13C9-PFDA IS	1110000.	2.12	1.00	-
N/A	N/A	N/A	N/A	-
N/A	N/A	N/A	N/A	-

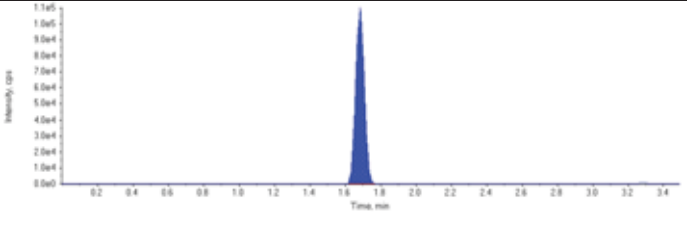
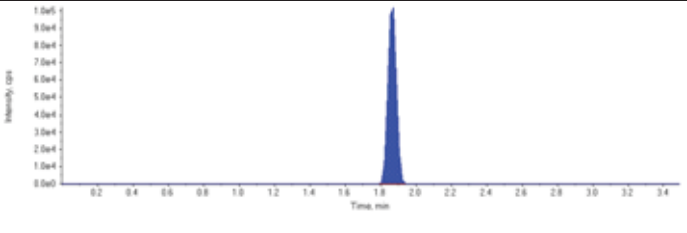
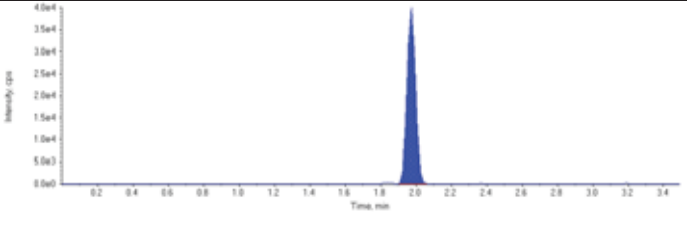
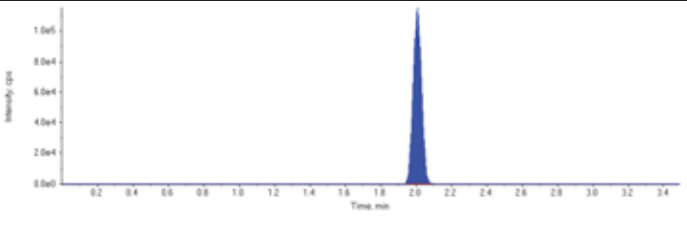
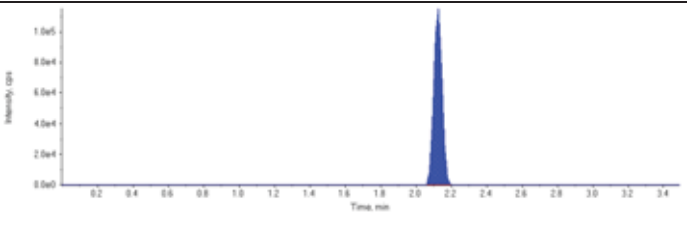
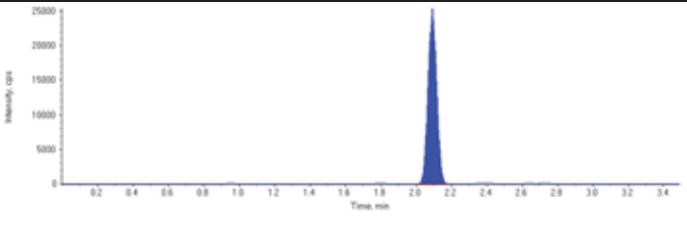
Target Analyte	Area (cps)	RT (min)	Target Conc. (ug/kg)	Calc. Conc. (ug/kg)	Accuracy (%)
PFHpA 1	2870000	1.68	18.8	20.5	109.0
PFHpA 2	39700	1.68	18.8	18.3	97.6
PFOA 1	2420000	1.87	18.8	17.1	91.2
PFOA 2	939000	1.86	18.8	17.6	93.4
PFOS 1	1170000	1.97	18.8	21.3	113.0
PFOS 2	344000	1.97	18.8	19.5	104.0
PFNA 1	2370000	2.01	18.8	19.0	101.0
PFNA 2	586000	2.01	18.8	20.0	106.0
PFDA 1	2630000	2.12	18.8	18.3	97.2
PFDA 2	475000	2.12	18.8	17.6	93.8
8:2-FTS 1	843000	2.09	18.8	22.9	122.0
8:2-FTS 2	279000	2.09	18.8	19.9	106.0
13C4-PFHpA	375000	1.68	100.	85.4	85.4
13C4-PFOA	350000	1.86	100.	94.8	94.8
13C4-PFOS	135000	1.97	100.	80.5	80.5
13C5-PFNA	374000	2.01	100.	89.1	89.1
13C2-PFDA	381000	2.12	100.	104.	104.0
13C2-8:2 FTS	86200	2.09	100.	78.0	78.0
13C6-PFHxA	1200000	1.41	100.	116.	116.0
13C9-PFDA	1110000	2.12	100.	101.	101.0

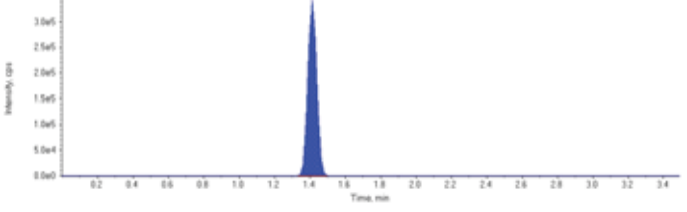
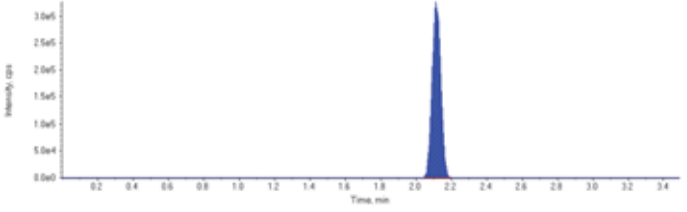
<p>MPFHpA (Internal Standard)</p> <p>RT (Exp. RT): 1.68(1.76) min</p> <p>Concentration: 1.00 ug/kg</p> <p>Sample Type: (Quality Control)</p>	
<p>MPFOA (Internal Standard)</p> <p>RT (Exp. RT): 1.86(1.93) min</p> <p>Concentration: 1.00 ug/kg</p> <p>Sample Type: (Quality Control)</p>	
<p>MPFOS (Internal Standard)</p> <p>RT (Exp. RT): 1.97(2.05) min</p> <p>Concentration: 1.00 ug/kg</p> <p>Sample Type: (Quality Control)</p>	
<p>MPFNA (Internal Standard)</p> <p>RT (Exp. RT): 2.01(2.07) min</p> <p>Concentration: 1.00 ug/kg</p> <p>Sample Type: (Quality Control)</p>	
<p>MPFDA (Internal Standard)</p> <p>RT (Exp. RT): 2.12(2.18) min</p> <p>Concentration: 1.00 ug/kg</p> <p>Sample Type: (Quality Control)</p>	
<p>M2 8:2 FTS (Internal Standard)</p> <p>RT (Exp. RT): 2.09(2.15) min</p> <p>Concentration: 1.00 ug/kg</p> <p>Sample Type: (Quality Control)</p>	

<p>13C6-PFHxA IS (Internal Standard)</p> <p>RT (Exp. RT): 1.41(1.41) min</p> <p>Concentration: 1.00 ug/kg</p> <p>Sample Type: (Quality Control)</p>	
<p>13C9-PFDA IS (Internal Standard)</p> <p>RT (Exp. RT): 2.12(2.18) min</p> <p>Concentration: 1.00 ug/kg</p> <p>Sample Type: (Quality Control)</p>	
<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min</p> <p>Concentration: N/A N/A</p> <p>Sample Type: (Quality Control)</p>	<p>This image is not available</p>
<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min</p> <p>Concentration: N/A N/A</p> <p>Sample Type: (Quality Control)</p>	<p>This image is not available</p>

<p>PFHpA 1 (363.000/319.000 Da)</p> <p>RT (Exp. RT): 1.68 (1.68) min</p> <p>Calculated Conc: 20.5 µg/kg</p> <p>Area Ratio: 7.66</p> <p>Sample Type: (Quality Control)</p>	
<p>PFHpA 2 (363.000/169.200 Da)</p> <p>RT (Exp. RT): 1.68 (1.68) min</p> <p>Calculated Conc: 18.3 µg/kg</p> <p>Area Ratio: 0.106</p> <p>Sample Type: (Quality Control)</p>	
<p>PFOA 1 (413.100/369.000 Da)</p> <p>RT (Exp. RT): 1.87 (1.85) min</p> <p>Calculated Conc: 17.1 µg/kg</p> <p>Area Ratio: 6.91</p> <p>Sample Type: (Quality Control)</p>	
<p>PFOA 2 (413.100/169.000 Da)</p> <p>RT (Exp. RT): 1.86 (1.85) min</p> <p>Calculated Conc: 17.6 µg/kg</p> <p>Area Ratio: 2.68</p> <p>Sample Type: (Quality Control)</p>	
<p>PFOS 1 (498.900/79.900 Da)</p> <p>RT (Exp. RT): 1.97 (2.05) min</p> <p>Calculated Conc: 21.3 µg/kg</p> <p>Area Ratio: 8.65</p> <p>Sample Type: (Quality Control)</p>	
<p>PFOS 2 (498.900/98.900 Da)</p> <p>RT (Exp. RT): 1.97 (1.97) min</p> <p>Calculated Conc: 19.5 µg/kg</p> <p>Area Ratio: 2.55</p> <p>Sample Type: (Quality Control)</p>	

<p>PFNA 1 (462.900/419.000 Da)</p> <p>RT (Exp. RT): 2.01 (2.07) min</p> <p>Calculated Conc: 19.0 µg/kg</p> <p>Area Ratio: 6.34</p> <p>Sample Type: (Quality Control)</p>	
<p>PFNA 2 (462.900/219.100 Da)</p> <p>RT (Exp. RT): 2.01 (2.07) min</p> <p>Calculated Conc: 20.0 µg/kg</p> <p>Area Ratio: 1.57</p> <p>Sample Type: (Quality Control)</p>	
<p>PFDA 1 (513.000/469.100 Da)</p> <p>RT (Exp. RT): 2.12 (2.18) min</p> <p>Calculated Conc: 18.3 µg/kg</p> <p>Area Ratio: 6.90</p> <p>Sample Type: (Quality Control)</p>	
<p>PFDA 2 (513.000/218.900 Da)</p> <p>RT (Exp. RT): 2.12 (2.18) min</p> <p>Calculated Conc: 17.6 µg/kg</p> <p>Area Ratio: 1.25</p> <p>Sample Type: (Quality Control)</p>	
<p>8:2-FTS 1 (526.900/507.000 Da)</p> <p>RT (Exp. RT): 2.09 (2.16) min</p> <p>Calculated Conc: 22.9 µg/kg</p> <p>Area Ratio: 9.78</p> <p>Sample Type: (Quality Control)</p>	
<p>8:2-FTS 2 (526.900/80.900 Da)</p> <p>RT (Exp. RT): 2.09 (2.09) min</p> <p>Calculated Conc: 19.9 µg/kg</p> <p>Area Ratio: 3.24</p> <p>Sample Type: (Quality Control)</p>	

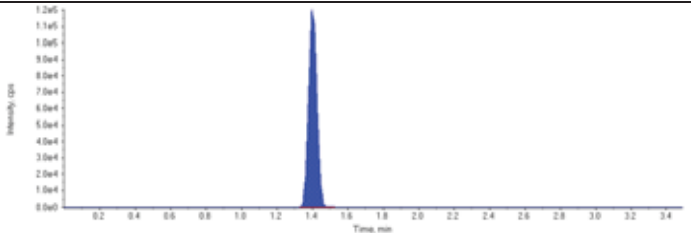
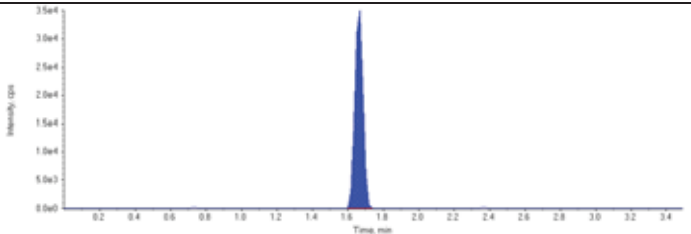
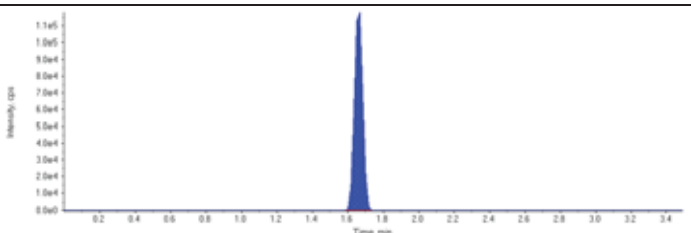
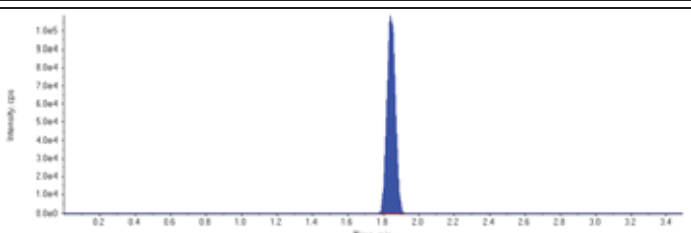
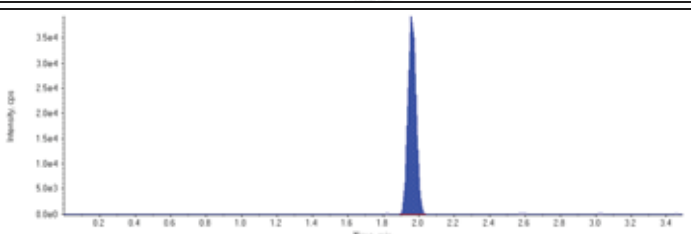
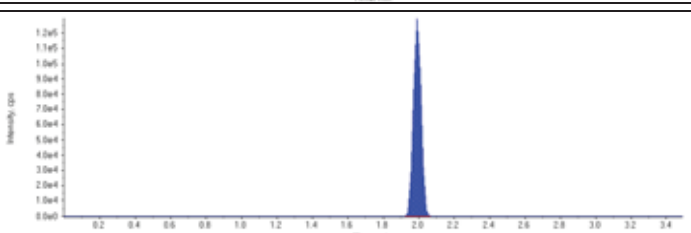
<p>13C4-PFHpa (366.900/322.000 Da)</p> <p>RT (Exp. RT): 1.68 (1.76) min</p> <p>Calculated Conc: 85.4 µg/kg</p> <p>Area Ratio: 0.312</p> <p>Sample Type: (Quality Control)</p>	
<p>13C4-PFOA (416.900/372.000 Da)</p> <p>RT (Exp. RT): 1.86 (1.93) min</p> <p>Calculated Conc: 94.8 µg/kg</p> <p>Area Ratio: 0.291</p> <p>Sample Type: (Quality Control)</p>	
<p>13C4-PFOS (502.900/79.900 Da)</p> <p>RT (Exp. RT): 1.97 (2.05) min</p> <p>Calculated Conc: 80.5 µg/kg</p> <p>Area Ratio: 0.112</p> <p>Sample Type: (Quality Control)</p>	
<p>13C5-PFNA (467.900/423.000 Da)</p> <p>RT (Exp. RT): 2.01 (2.07) min</p> <p>Calculated Conc: 89.1 µg/kg</p> <p>Area Ratio: 0.311</p> <p>Sample Type: (Quality Control)</p>	
<p>13C2-PFDA (514.900/470.000 Da)</p> <p>RT (Exp. RT): 2.12 (2.18) min</p> <p>Calculated Conc: 104. µg/kg</p> <p>Area Ratio: 0.343</p> <p>Sample Type: (Quality Control)</p>	
<p>13C2-8:2 FTS (528.900/80.900 Da)</p> <p>RT (Exp. RT): 2.09 (2.15) min</p> <p>Calculated Conc: 78.0 µg/kg</p> <p>Area Ratio: 0.0717</p> <p>Sample Type: (Quality Control)</p>	

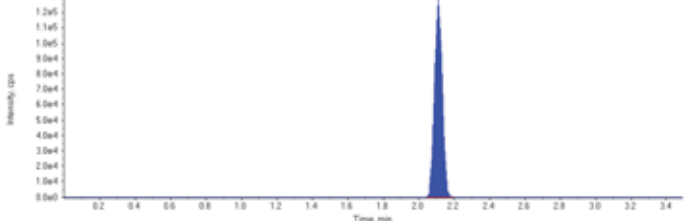
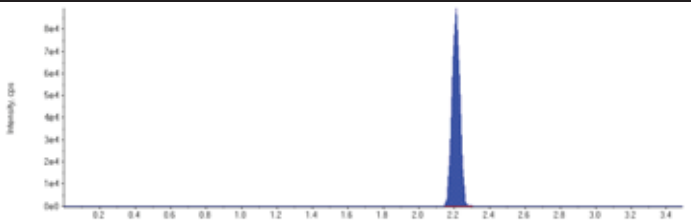
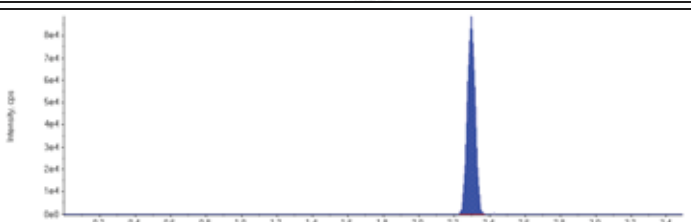
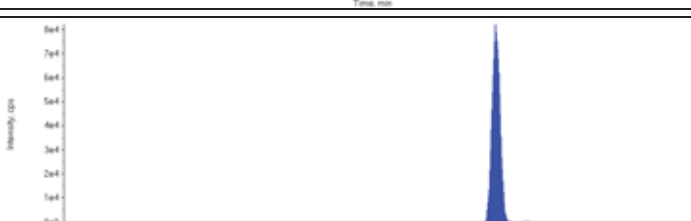
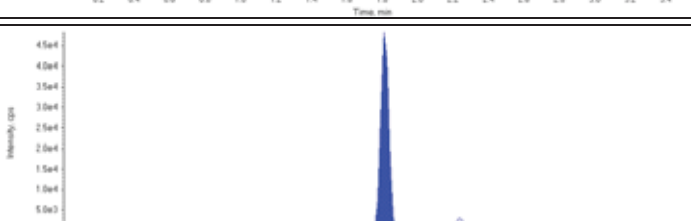
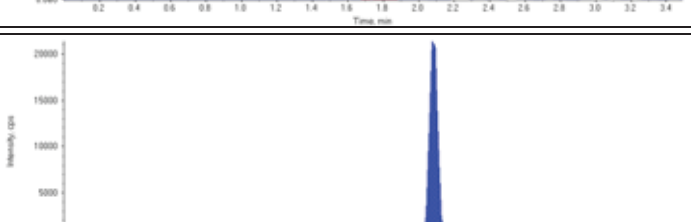
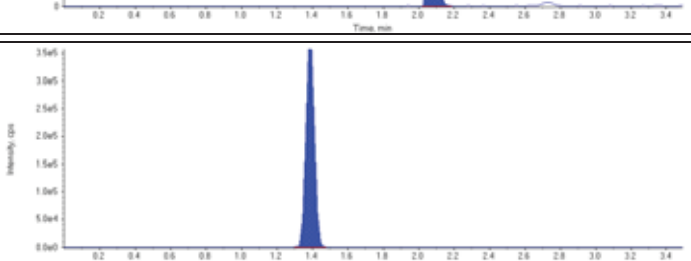
<p>13C6-PFHxA (318.900/274.000 Da)</p> <p>RT (Exp. RT): 1.41 (1.41) min</p> <p>Calculated Conc: 116. µg/kg</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Quality Control)</p>	
<p>13C9-PFDA (521.900/477.100 Da)</p> <p>RT (Exp. RT): 2.12 (2.18) min</p> <p>Calculated Conc: 101. µg/kg</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Quality Control)</p>	

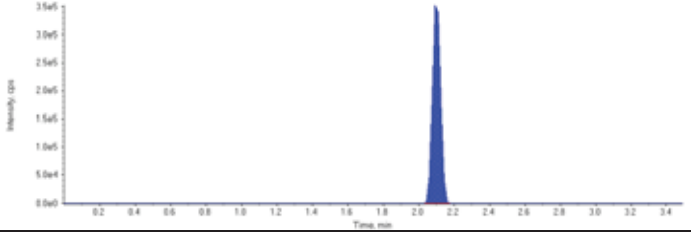
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Sample Type	Quality Control	Injection Vial	9
Acquisition Date	2017/05/23 1:34:04 PM	Dilution Factor	1.00
Acquisition Method	PFC_Water_Low.dam	Instrument Name	LCMS03
Project	Enviro\PFOS	Algorithm Used	Analyst Classic
Data File	PFC_170523\WS#4988945.wiff		
Result Table	PFC_Water_170523_4988945_CTLabs.rdb		
Samples Annotation	-		

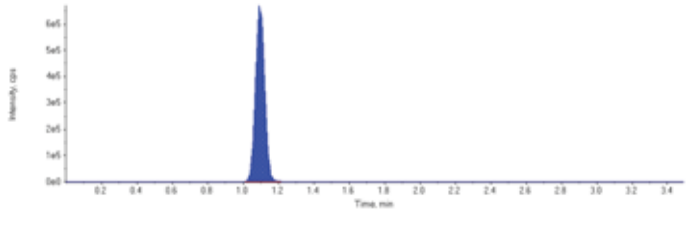
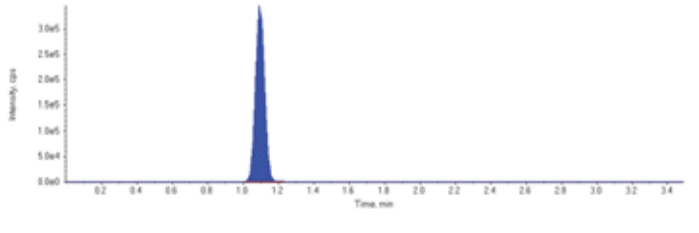
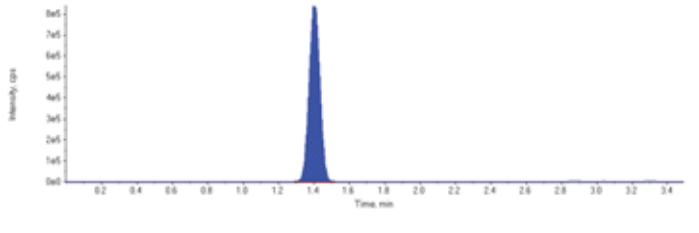
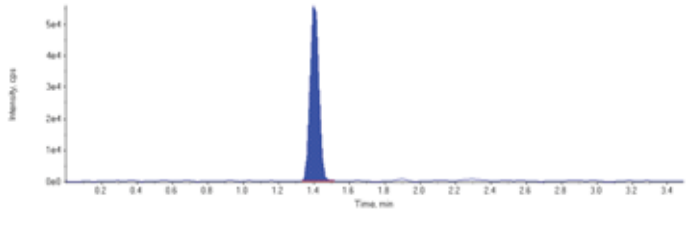
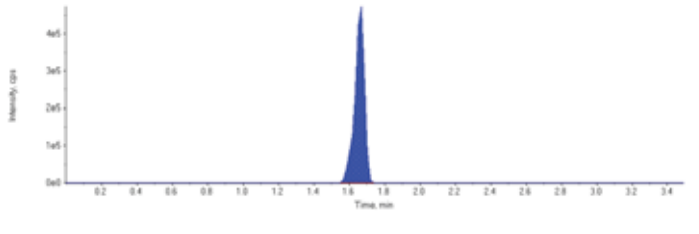
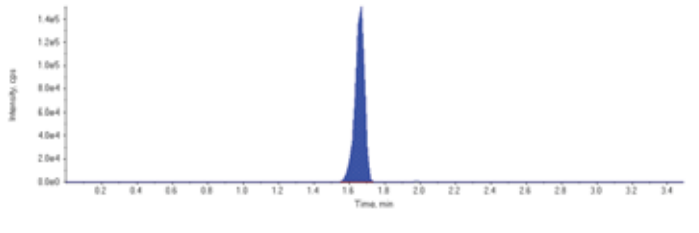
Internal Standard	Area (cps)	RT (min)	Target Conc. (ug/L)	Calc. Conc. (ug/L)
MPFHxA	403000.	1.40	1.00	-
MPFHxS	113000.	1.66	1.00	-
MPFHpA	399000.	1.66	1.00	-
MPFOA	356000.	1.84	1.00	-
MPFOS	125000.	1.96	1.00	-
MPFNA	389000.	1.99	1.00	-
MPFDA	386000.	2.11	1.00	-
MPFUnA	273000.	2.21	1.00	-
MPFDoA	267000.	2.30	1.00	-
MPFTeDA	251000.	2.44	1.00	-
M2 6:2 FTS	151000.	1.81	1.00	-
M2 8:2 FTS	71200.	2.08	1.00	-
13C6-PFHxA IS	1250000.	1.39	1.00	-
13C9-PFDA IS	1160000.	2.10	1.00	-
N/A	N/A	N/A	N/A	-
N/A	N/A	N/A	N/A	-

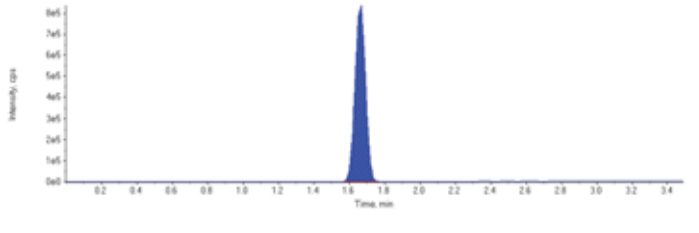
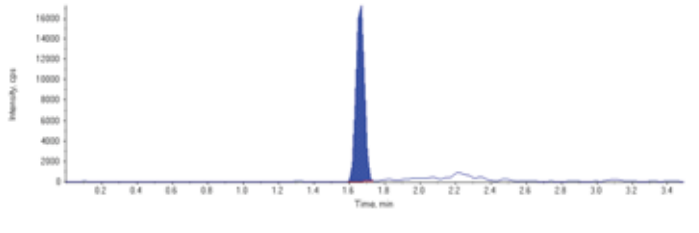
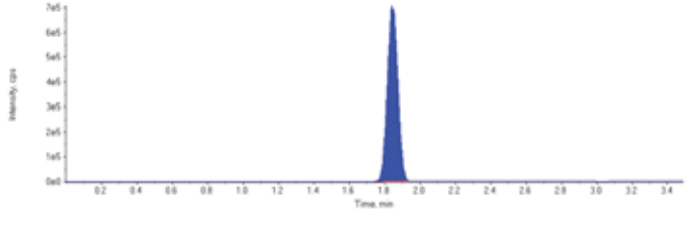
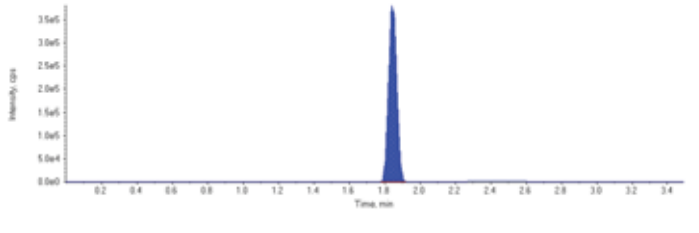
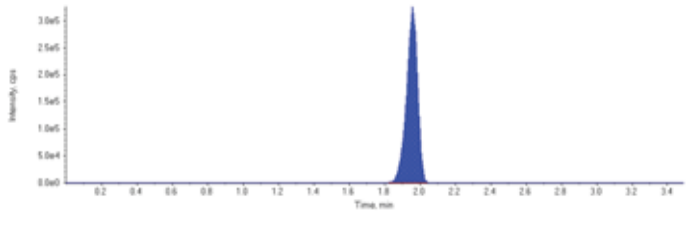
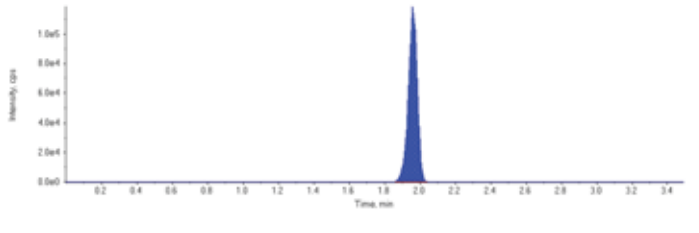
Target Analyte	Area (cps)	RT (min)	Target Conc. (ug/L)	Calc. Conc. (ug/L)	Accuracy (%)
PFBS 1	2450000	1.09	20.8	18.6	89.4
PFBS 2	1260000	1.09	20.8	19.3	92.8
PFHxA 1	3620000	1.40	20.8	20.7	99.3
PFHxA 2	192000	1.40	20.8	18.9	90.7
PFHxS 1	1810000	1.66	20.8	18.5	88.8
PFHxS 2	554000	1.66	20.8	19.1	91.6
PFHpA 1	3490000	1.66	20.8	22.4	107.0
PFHpA 2	57200	1.66	20.8	20.1	96.5
PFOA 1	2960000	1.84	20.8	18.4	88.5
PFOA 2	1250000	1.84	20.8	19.2	92.2
PFOS 1	1420000	1.96	20.8	24.3	117.0
PFOS 2	422000	1.96	20.8	23.2	112.0
PFNA 1	2560000	1.99	20.8	18.3	88.0
PFNA 2	704000	1.99	20.8	19.1	92.0
PFDA 1	2940000	2.11	20.8	18.5	89.1
PFDA 2	544000	2.11	20.8	17.7	85.1
PFUnA 1	2410000	2.21	20.8	20.9	100.0
PFUnA 2	269000	2.21	20.8	21.2	102.0
PFDaA 1	2050000	2.30	20.8	18.4	88.4
PFDaA 2	212000	2.30	20.8	18.7	90.0
PFTTrDA 1	2430000	2.37	20.8	23.4	113.0
PFTTrDA 2	258000	2.37	20.8	22.6	109.0
PFTeDA 1	2290000	2.44	20.8	24.3	117.0
PFTeDA 2	155000	2.44	20.8	22.9	110.0
6:2-FTS 1	752000	1.81	20.8	18.9	90.9
6:2-FTS 2	528000	1.81	20.8	19.6	94.0
8:2-FTS 1	781000	2.09	20.8	21.9	105.0
8:2-FTS 2	265000	2.08	20.8	20.4	98.3
13C2-PFHxA	403000	1.40	100.	100.	100.0
18O2-PFHxS	113000	1.66	100.	105.	105.0
13C4-PFHpA	399000	1.66	100.	96.6	96.6
13C4-PFOA	356000	1.84	100.	104.	104.0
13C4-PFOS	125000	1.96	100.	79.1	79.1
13C5-PFNA	389000	1.99	100.	106.	106.0
13C2-PFDA	386000	2.11	100.	107.	107.0
13C2-PFUnA	273000	2.21	100.	102.	102.0
13C2-PFDaA	267000	2.30	100.	103.	103.0
13C2-PFTeDA	251000	2.44	100.	88.3	88.3
13C2-6:2-FTS	151000	1.81	100.	101.	101.0
13C2-8:2 FTS	71200	2.08	100.	85.6	85.6
13C6-PFHxA	1250000	1.39	100.	97.6	97.6
13C9-PFDA	1160000	2.10	100.	97.3	97.3

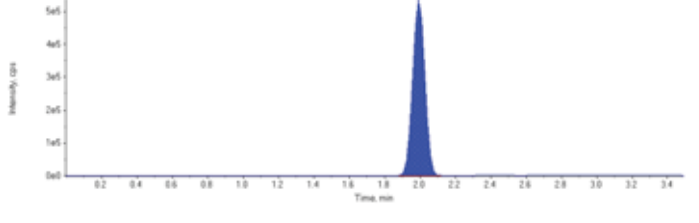
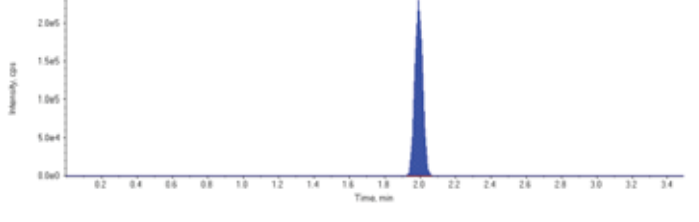
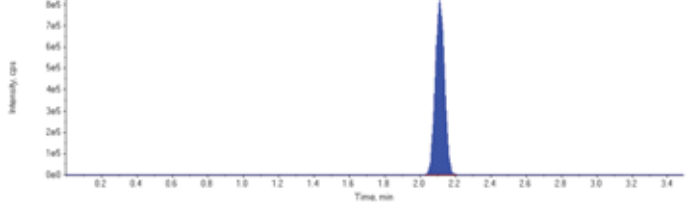
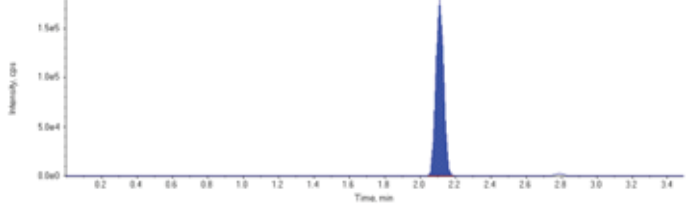
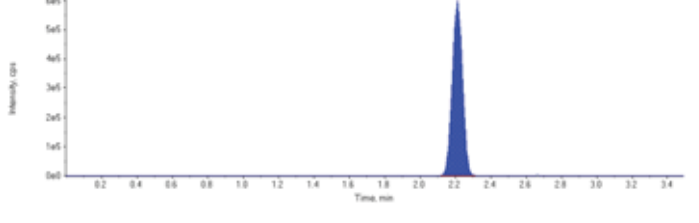
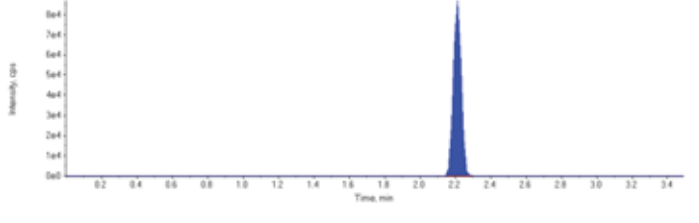
<p>MPFHxA (Internal Standard)</p> <p>RT (Exp. RT): 1.40(1.40) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>MPFHxS (Internal Standard)</p> <p>RT (Exp. RT): 1.66(1.77) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>MPFHpA (Internal Standard)</p> <p>RT (Exp. RT): 1.66(1.67) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>MPFOA (Internal Standard)</p> <p>RT (Exp. RT): 1.84(1.84) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>MPFOS (Internal Standard)</p> <p>RT (Exp. RT): 1.96(2.05) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>MPFNA (Internal Standard)</p> <p>RT (Exp. RT): 1.99(1.99) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	

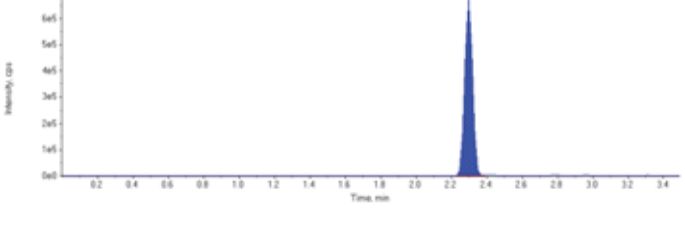
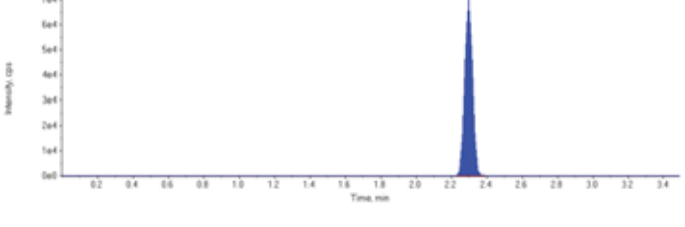
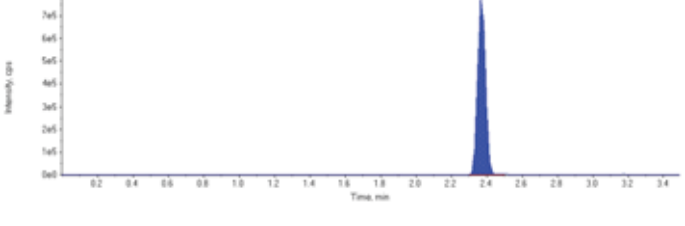
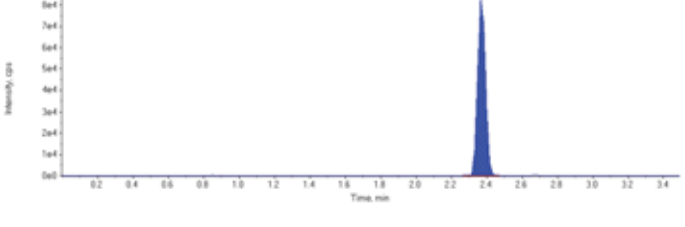
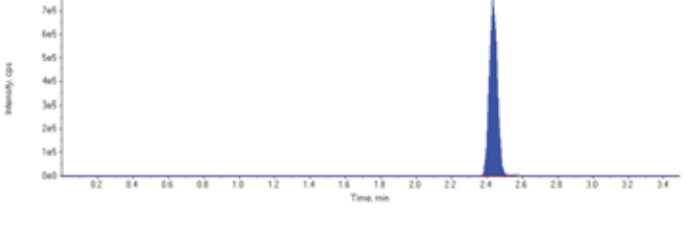
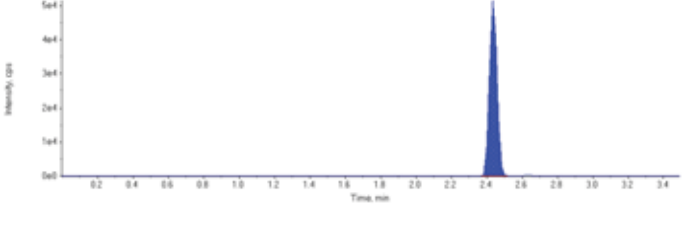
<p>MPFDA (Internal Standard)</p> <p>RT (Exp. RT): 2.11(2.18) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>MPFUnA (Internal Standard)</p> <p>RT (Exp. RT): 2.21(2.27) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>MPFDoA (Internal Standard)</p> <p>RT (Exp. RT): 2.30(2.35) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>MPFTeDA (Internal Standard)</p> <p>RT (Exp. RT): 2.44(2.49) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>M2 6:2 FTS (Internal Standard)</p> <p>RT (Exp. RT): 1.81(1.80) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>M2 8:2 FTS (Internal Standard)</p> <p>RT (Exp. RT): 2.08(2.08) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>13C6-PFHxA IS (Internal Standard)</p> <p>RT (Exp. RT): 1.39(1.40) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	

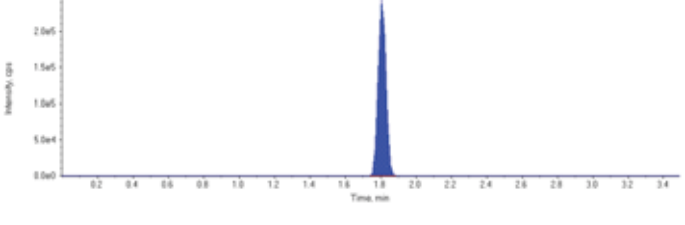
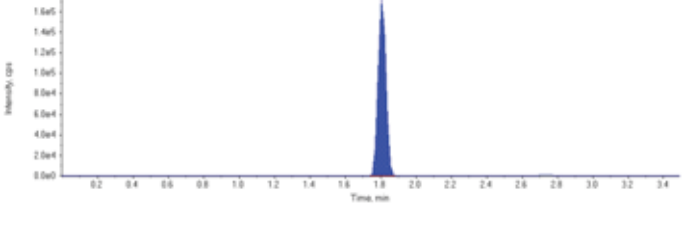
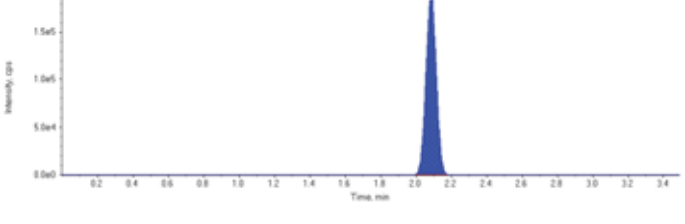
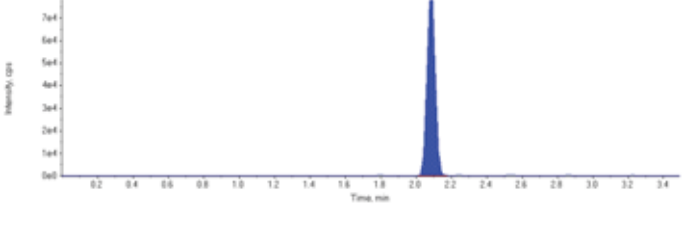
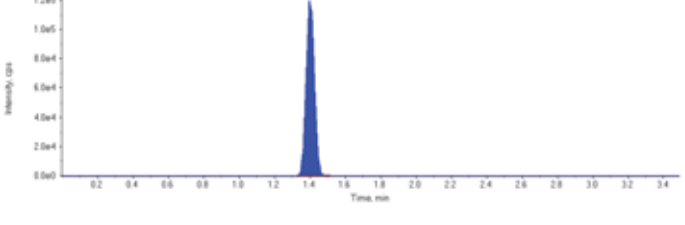
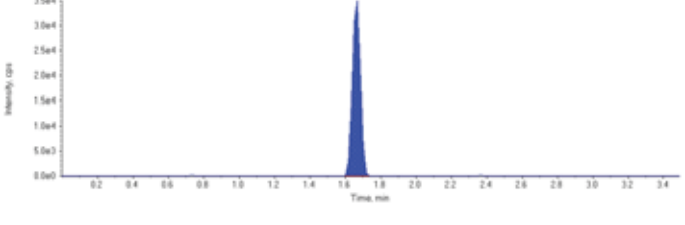
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<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min</p> <p>Concentration: N/A N/A</p> <p>Sample Type: (Quality Control)</p>	<p>This image is not available</p>
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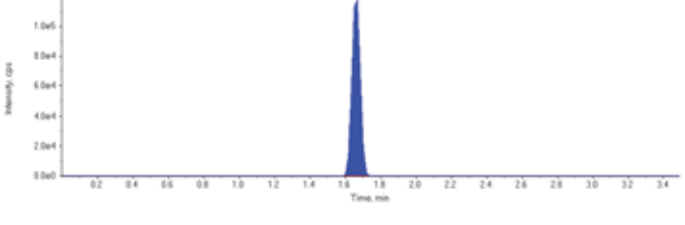
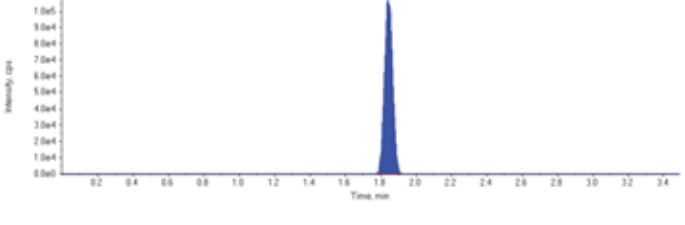
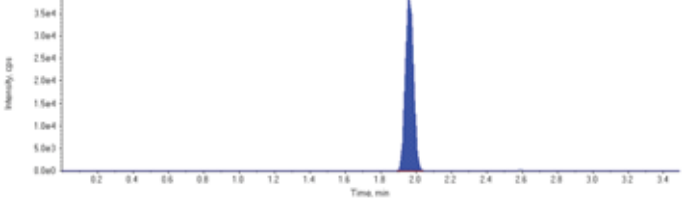
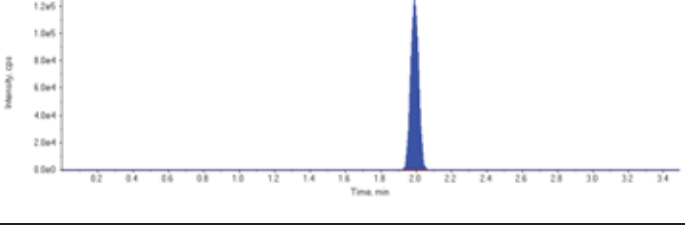
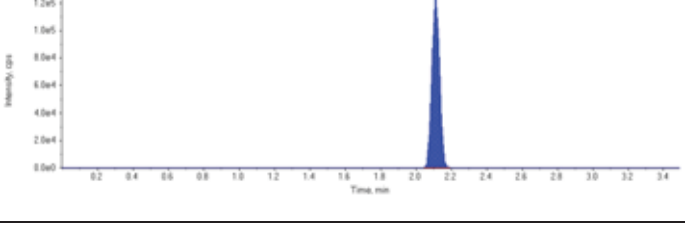
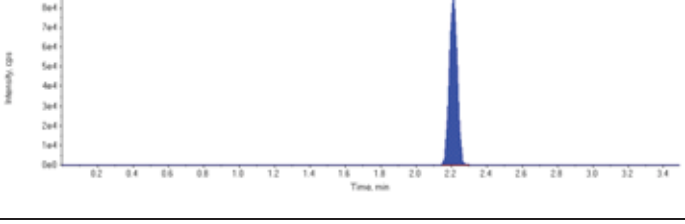
<p>PFBS 1 (298.900/79.900 Da)</p> <p>RT (Exp. RT): 1.09 (1.09) min</p> <p>Calculated Conc: 18.6 µg/L</p> <p>Area Ratio: 21.6</p> <p>Sample Type: (Quality Control)</p>	
<p>PFBS 2 (298.900/98.900 Da)</p> <p>RT (Exp. RT): 1.09 (1.09) min</p> <p>Calculated Conc: 19.3 µg/L</p> <p>Area Ratio: 11.1</p> <p>Sample Type: (Quality Control)</p>	
<p>PFHxA 1 (313.000/269.000 Da)</p> <p>RT (Exp. RT): 1.40 (1.40) min</p> <p>Calculated Conc: 20.7 µg/L</p> <p>Area Ratio: 8.97</p> <p>Sample Type: (Quality Control)</p>	
<p>PFHxA 2 (313.000/119.000 Da)</p> <p>RT (Exp. RT): 1.40 (1.41) min</p> <p>Calculated Conc: 18.9 µg/L</p> <p>Area Ratio: 0.477</p> <p>Sample Type: (Quality Control)</p>	
<p>PFHxS 1 (398.900/79.900 Da)</p> <p>RT (Exp. RT): 1.66 (1.67) min</p> <p>Calculated Conc: 18.5 µg/L</p> <p>Area Ratio: 16.0</p> <p>Sample Type: (Quality Control)</p>	
<p>PFHxS 2 (398.900/98.900 Da)</p> <p>RT (Exp. RT): 1.66 (1.67) min</p> <p>Calculated Conc: 19.1 µg/L</p> <p>Area Ratio: 4.89</p> <p>Sample Type: (Quality Control)</p>	

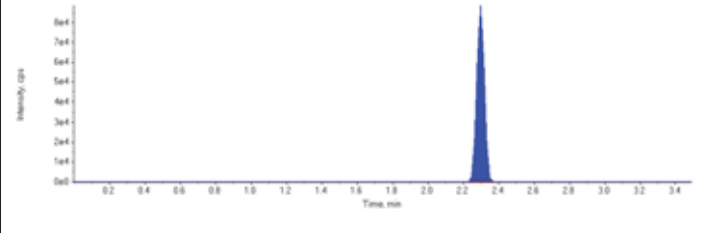
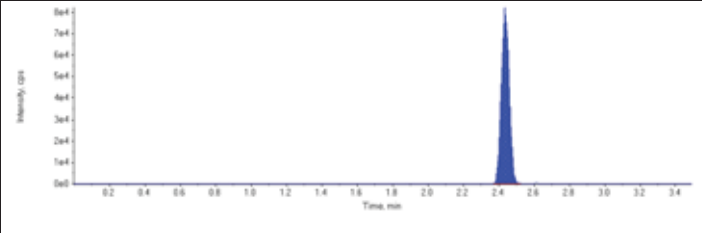
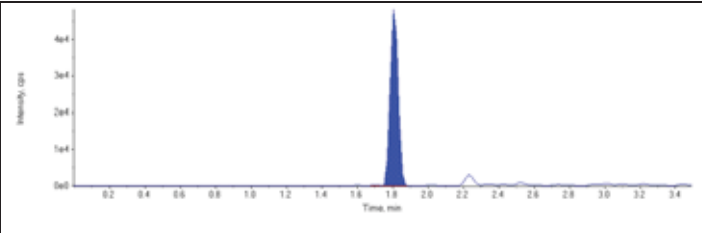
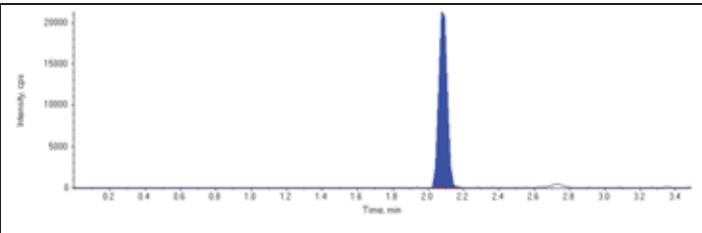
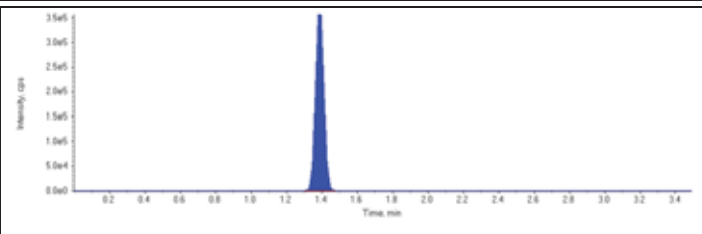
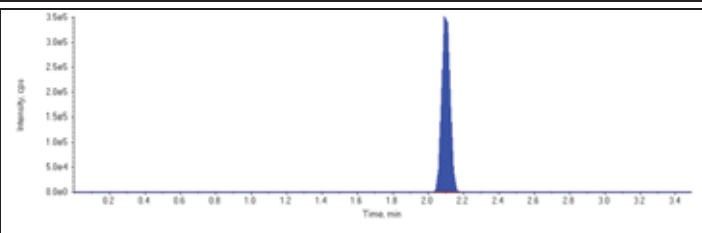
<p>PFHpA 1 (363.000/319.000 Da)</p> <p>RT (Exp. RT): 1.66 (1.67) min</p> <p>Calculated Conc: 22.4 µg/L</p> <p>Area Ratio: 8.74</p> <p>Sample Type: (Quality Control)</p>	
<p>PFHpA 2 (363.000/169.200 Da)</p> <p>RT (Exp. RT): 1.66 (1.67) min</p> <p>Calculated Conc: 20.1 µg/L</p> <p>Area Ratio: 0.143</p> <p>Sample Type: (Quality Control)</p>	
<p>PFOA 1 (413.100/369.000 Da)</p> <p>RT (Exp. RT): 1.84 (1.85) min</p> <p>Calculated Conc: 18.4 µg/L</p> <p>Area Ratio: 8.30</p> <p>Sample Type: (Quality Control)</p>	
<p>PFOA 2 (413.100/169.000 Da)</p> <p>RT (Exp. RT): 1.84 (1.84) min</p> <p>Calculated Conc: 19.2 µg/L</p> <p>Area Ratio: 3.51</p> <p>Sample Type: (Quality Control)</p>	
<p>PFOS 1 (498.900/79.900 Da)</p> <p>RT (Exp. RT): 1.96 (1.96) min</p> <p>Calculated Conc: 24.3 µg/L</p> <p>Area Ratio: 11.3</p> <p>Sample Type: (Quality Control)</p>	
<p>PFOS 2 (498.900/98.900 Da)</p> <p>RT (Exp. RT): 1.96 (1.96) min</p> <p>Calculated Conc: 23.2 µg/L</p> <p>Area Ratio: 3.36</p> <p>Sample Type: (Quality Control)</p>	

<p>PFNA 1 (462.900/419.000 Da)</p> <p>RT (Exp. RT): 1.99 (1.99) min</p> <p>Calculated Conc: 18.3 µg/L</p> <p>Area Ratio: 6.58</p> <p>Sample Type: (Quality Control)</p>	
<p>PFNA 2 (462.900/219.100 Da)</p> <p>RT (Exp. RT): 1.99 (1.99) min</p> <p>Calculated Conc: 19.1 µg/L</p> <p>Area Ratio: 1.81</p> <p>Sample Type: (Quality Control)</p>	
<p>PFDA 1 (513.000/469.100 Da)</p> <p>RT (Exp. RT): 2.11 (2.18) min</p> <p>Calculated Conc: 18.5 µg/L</p> <p>Area Ratio: 7.60</p> <p>Sample Type: (Quality Control)</p>	
<p>PFDA 2 (513.000/218.900 Da)</p> <p>RT (Exp. RT): 2.11 (2.11) min</p> <p>Calculated Conc: 17.7 µg/L</p> <p>Area Ratio: 1.41</p> <p>Sample Type: (Quality Control)</p>	
<p>PFUnA 1 (562.900/519.000 Da)</p> <p>RT (Exp. RT): 2.21 (2.21) min</p> <p>Calculated Conc: 20.9 µg/L</p> <p>Area Ratio: 8.82</p> <p>Sample Type: (Quality Control)</p>	
<p>PFUnA 2 (562.900/269.200 Da)</p> <p>RT (Exp. RT): 2.21 (2.27) min</p> <p>Calculated Conc: 21.2 µg/L</p> <p>Area Ratio: 0.985</p> <p>Sample Type: (Quality Control)</p>	

<p>PFD_oA 1 (612.900/569.000 Da)</p> <p>RT (Exp. RT): 2.30 (2.36) min</p> <p>Calculated Conc: 18.4 µg/L</p> <p>Area Ratio: 7.65</p> <p>Sample Type: (Quality Control)</p>	
<p>PFD_oA 2 (612.900/319.000 Da)</p> <p>RT (Exp. RT): 2.30 (2.35) min</p> <p>Calculated Conc: 18.7 µg/L</p> <p>Area Ratio: 0.794</p> <p>Sample Type: (Quality Control)</p>	
<p>PFT_rDA 1 (663.000/619.000 Da)</p> <p>RT (Exp. RT): 2.37 (2.42) min</p> <p>Calculated Conc: 23.4 µg/L</p> <p>Area Ratio: 9.66</p> <p>Sample Type: (Quality Control)</p>	
<p>PFT_rDA 2 (663.000/318.900 Da)</p> <p>RT (Exp. RT): 2.37 (2.37) min</p> <p>Calculated Conc: 22.6 µg/L</p> <p>Area Ratio: 1.03</p> <p>Sample Type: (Quality Control)</p>	
<p>PFT_eDA 1 (713.000/669.000 Da)</p> <p>RT (Exp. RT): 2.44 (2.49) min</p> <p>Calculated Conc: 24.3 µg/L</p> <p>Area Ratio: 9.10</p> <p>Sample Type: (Quality Control)</p>	
<p>PFT_eDA 2 (713.000/319.200 Da)</p> <p>RT (Exp. RT): 2.44 (2.49) min</p> <p>Calculated Conc: 22.9 µg/L</p> <p>Area Ratio: 0.617</p> <p>Sample Type: (Quality Control)</p>	

<p>6:2-FTS 1 (427.000/407.000 Da)</p> <p>RT (Exp. RT): 1.81 (1.90) min</p> <p>Calculated Conc: 18.9 µg/L</p> <p>Area Ratio: 4.99</p> <p>Sample Type: (Quality Control)</p>	
<p>6:2-FTS 2 (427.000/80.900 Da)</p> <p>RT (Exp. RT): 1.81 (1.80) min</p> <p>Calculated Conc: 19.6 µg/L</p> <p>Area Ratio: 3.50</p> <p>Sample Type: (Quality Control)</p>	
<p>8:2-FTS 1 (526.900/507.000 Da)</p> <p>RT (Exp. RT): 2.09 (2.16) min</p> <p>Calculated Conc: 21.9 µg/L</p> <p>Area Ratio: 11.0</p> <p>Sample Type: (Quality Control)</p>	
<p>8:2-FTS 2 (526.900/80.900 Da)</p> <p>RT (Exp. RT): 2.08 (2.09) min</p> <p>Calculated Conc: 20.4 µg/L</p> <p>Area Ratio: 3.73</p> <p>Sample Type: (Quality Control)</p>	
<p>13C2-PFHxA (314.900/270.000 Da)</p> <p>RT (Exp. RT): 1.40 (1.40) min</p> <p>Calculated Conc: 100. µg/L</p> <p>Area Ratio: 0.323</p> <p>Sample Type: (Quality Control)</p>	
<p>18O2-PFHxS (402.900/84.000 Da)</p> <p>RT (Exp. RT): 1.66 (1.77) min</p> <p>Calculated Conc: 105. µg/L</p> <p>Area Ratio: 0.0908</p> <p>Sample Type: (Quality Control)</p>	

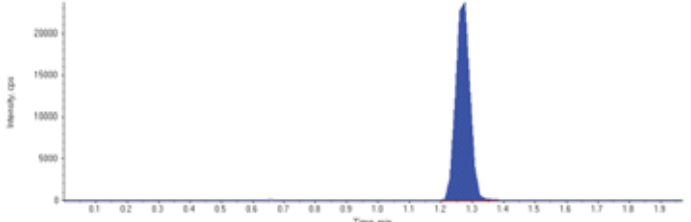
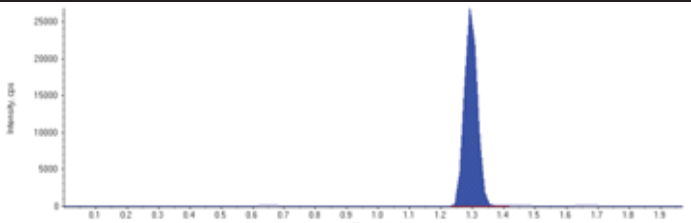
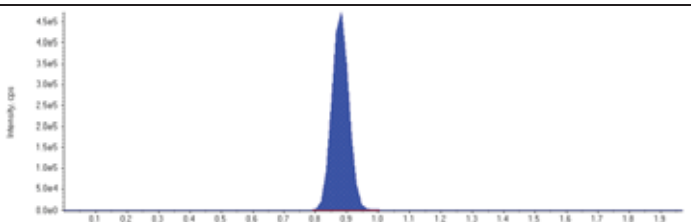
<p>13C4-PFHpa (366.900/322.000 Da)</p> <p>RT (Exp. RT): 1.66 (1.67) min</p> <p>Calculated Conc: 96.6 µg/L</p> <p>Area Ratio: 0.319</p> <p>Sample Type: (Quality Control)</p>	
<p>13C4-PFOA (416.900/372.000 Da)</p> <p>RT (Exp. RT): 1.84 (1.84) min</p> <p>Calculated Conc: 104. µg/L</p> <p>Area Ratio: 0.285</p> <p>Sample Type: (Quality Control)</p>	
<p>13C4-PFOS (502.900/79.900 Da)</p> <p>RT (Exp. RT): 1.96 (2.05) min</p> <p>Calculated Conc: 79.1 µg/L</p> <p>Area Ratio: 0.100</p> <p>Sample Type: (Quality Control)</p>	
<p>13C5-PFNA (467.900/423.000 Da)</p> <p>RT (Exp. RT): 1.99 (1.99) min</p> <p>Calculated Conc: 106. µg/L</p> <p>Area Ratio: 0.311</p> <p>Sample Type: (Quality Control)</p>	
<p>13C2-PFDA (514.900/470.000 Da)</p> <p>RT (Exp. RT): 2.11 (2.11) min</p> <p>Calculated Conc: 107. µg/L</p> <p>Area Ratio: 0.331</p> <p>Sample Type: (Quality Control)</p>	
<p>13C2-PFUnA (564.900/520.000 Da)</p> <p>RT (Exp. RT): 2.21 (2.27) min</p> <p>Calculated Conc: 102. µg/L</p> <p>Area Ratio: 0.234</p> <p>Sample Type: (Quality Control)</p>	

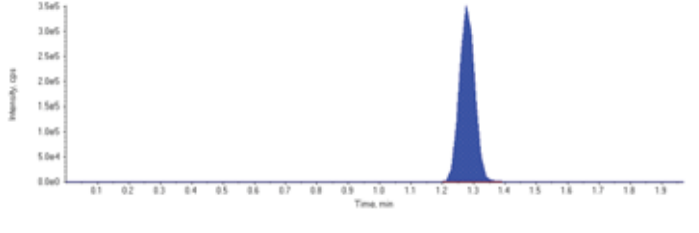
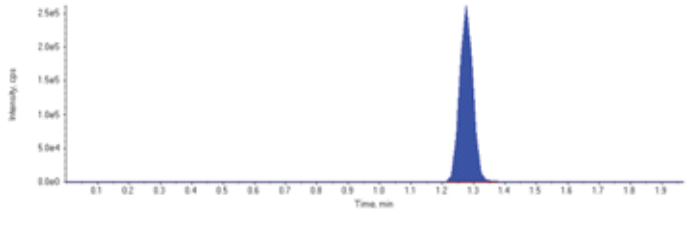
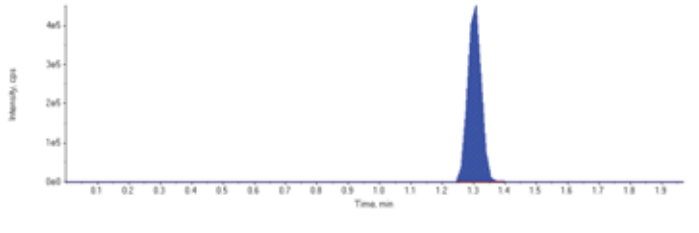
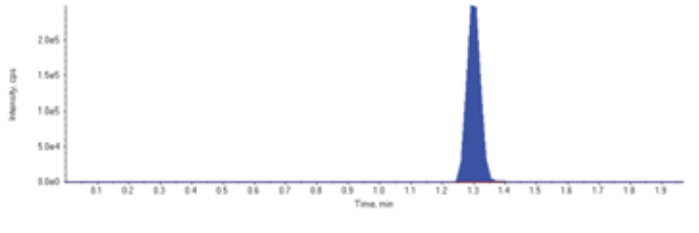
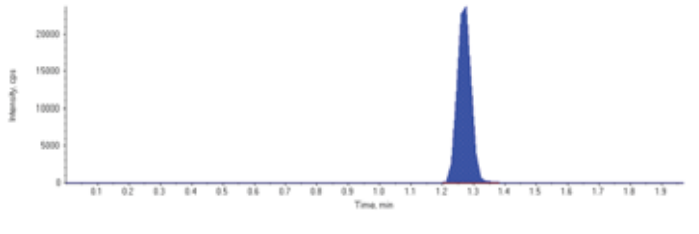
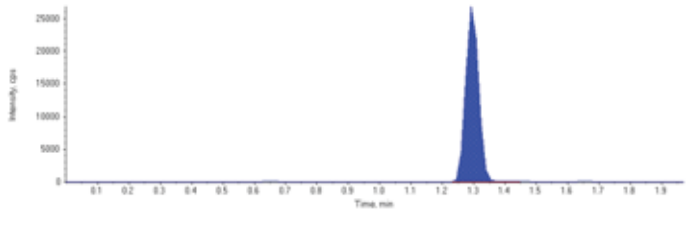
<p>13C2-PFDoA (614.900/570.000 Da)</p> <p>RT (Exp. RT): 2.30 (2.35) min</p> <p>Calculated Conc: 103. µg/L</p> <p>Area Ratio: 0.230</p> <p>Sample Type: (Quality Control)</p>	
<p>13C2-PFTeDA (714.900/669.900 Da)</p> <p>RT (Exp. RT): 2.44 (2.49) min</p> <p>Calculated Conc: 88.3 µg/L</p> <p>Area Ratio: 0.216</p> <p>Sample Type: (Quality Control)</p>	
<p>13C2-6:2-FTS (429.000/80.900 Da)</p> <p>RT (Exp. RT): 1.81 (1.80) min</p> <p>Calculated Conc: 101. µg/L</p> <p>Area Ratio: 0.121</p> <p>Sample Type: (Quality Control)</p>	
<p>13C2-8:2 FTS (528.900/80.900 Da)</p> <p>RT (Exp. RT): 2.08 (2.08) min</p> <p>Calculated Conc: 85.6 µg/L</p> <p>Area Ratio: 0.0570</p> <p>Sample Type: (Quality Control)</p>	
<p>13C6-PFHxA (318.900/274.000 Da)</p> <p>RT (Exp. RT): 1.39 (1.40) min</p> <p>Calculated Conc: 97.6 µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Quality Control)</p>	
<p>13C9-PFDA (521.900/477.100 Da)</p> <p>RT (Exp. RT): 2.10 (2.09) min</p> <p>Calculated Conc: 97.3 µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Quality Control)</p>	

Sample ID	ICV	Injection Volume (µL)	2
Sample Type	Quality Control	Injection Vial	9
Acquisition Date	2017/05/23 11:17:44 PM	Dilution Factor	1.00
Acquisition Method	PFC_Water_Low_FOSAA.dam	Instrument Name	LCMS03
Project	Enviro\PFOS	Algorithm Used	Analyst Classic
Data File	PFC_170523\WS#4991421_FOSAA.wiff		
Result Table	PFC_Water_170523_4988945_FOSAA.rdb		
Samples Annotation	-		

Internal Standard	Area (cps)	RT (min)	Target Conc. (ug/L)	Calc. Conc. (ug/L)
D3-MeFOSAA IS	74500.	1.27	1.00	-
D5-EtFOSAA IS	77100.	1.29	1.00	-
13C9-PFDA IS	1780000.	0.879	1.00	-
N/A	N/A	N/A	N/A	-

Target Analyte	Area (cps)	RT (min)	Target Conc. (ug/L)	Calc. Conc. (ug/L)	Accuracy (%)
MeFOSAA 1	1200000	1.28	20.8	18.8	90.6
MeFOSAA 2	763000	1.28	20.8	20.5	98.7
EtFOSAA 1	1360000	1.30	20.8	19.6	94.3
EtFOSAA 2	779000	1.30	20.8	19.9	95.6
D3-MeFOSAA	74500	1.27	100.	95.4	95.4
D5-EtFOSAA	77100	1.29	100.	92.1	92.1
13C9-PFDA	1780000	0.879	100.	106.	106.0

<p>D3-MeFOSAA IS (Internal Standard)</p> <p>RT (Exp. RT): 1.27(1.26) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>D5-EtFOSAA IS (Internal Standard)</p> <p>RT (Exp. RT): 1.29(1.28) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>13C9-PFDA IS (Internal Standard)</p> <p>RT (Exp. RT): 0.879(0.912) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min</p> <p>Concentration: N/A N/A</p> <p>Sample Type: (Quality Control)</p>	<p>This image is not available</p>

<p>MeFOSAA 1 (570.100/419.100 Da)</p> <p>RT (Exp. RT): 1.28 (1.28) min</p> <p>Calculated Conc: 18.8 µg/L</p> <p>Area Ratio: 16.1</p> <p>Sample Type: (Quality Control)</p>	
<p>MeFOSAA 2 (570.100/483.000 Da)</p> <p>RT (Exp. RT): 1.28 (1.27) min</p> <p>Calculated Conc: 20.5 µg/L</p> <p>Area Ratio: 10.2</p> <p>Sample Type: (Quality Control)</p>	
<p>EtFOSAA 1 (584.100/419.100 Da)</p> <p>RT (Exp. RT): 1.30 (1.30) min</p> <p>Calculated Conc: 19.6 µg/L</p> <p>Area Ratio: 17.6</p> <p>Sample Type: (Quality Control)</p>	
<p>EtFOSAA 2 (584.100/483.000 Da)</p> <p>RT (Exp. RT): 1.30 (1.30) min</p> <p>Calculated Conc: 19.9 µg/L</p> <p>Area Ratio: 10.1</p> <p>Sample Type: (Quality Control)</p>	
<p>D3-MeFOSAA (573.100/419.100 Da)</p> <p>RT (Exp. RT): 1.27 (1.26) min</p> <p>Calculated Conc: 95.4 µg/L</p> <p>Area Ratio: 0.0418</p> <p>Sample Type: (Quality Control)</p>	
<p>D5-EtFOSAA (589.200/419.000 Da)</p> <p>RT (Exp. RT): 1.29 (1.28) min</p> <p>Calculated Conc: 92.1 µg/L</p> <p>Area Ratio: 0.0432</p> <p>Sample Type: (Quality Control)</p>	

13C9-PFDA (521.900/477.100 Da)

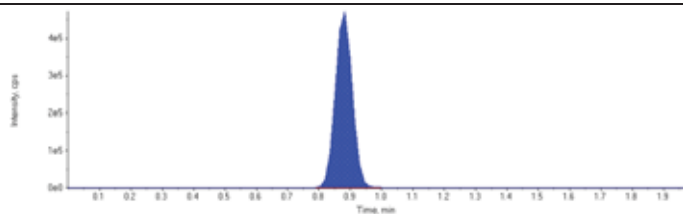
RT (Exp. RT): 0.879 (0.912) min

Calculated 106. µg/L

Conc:

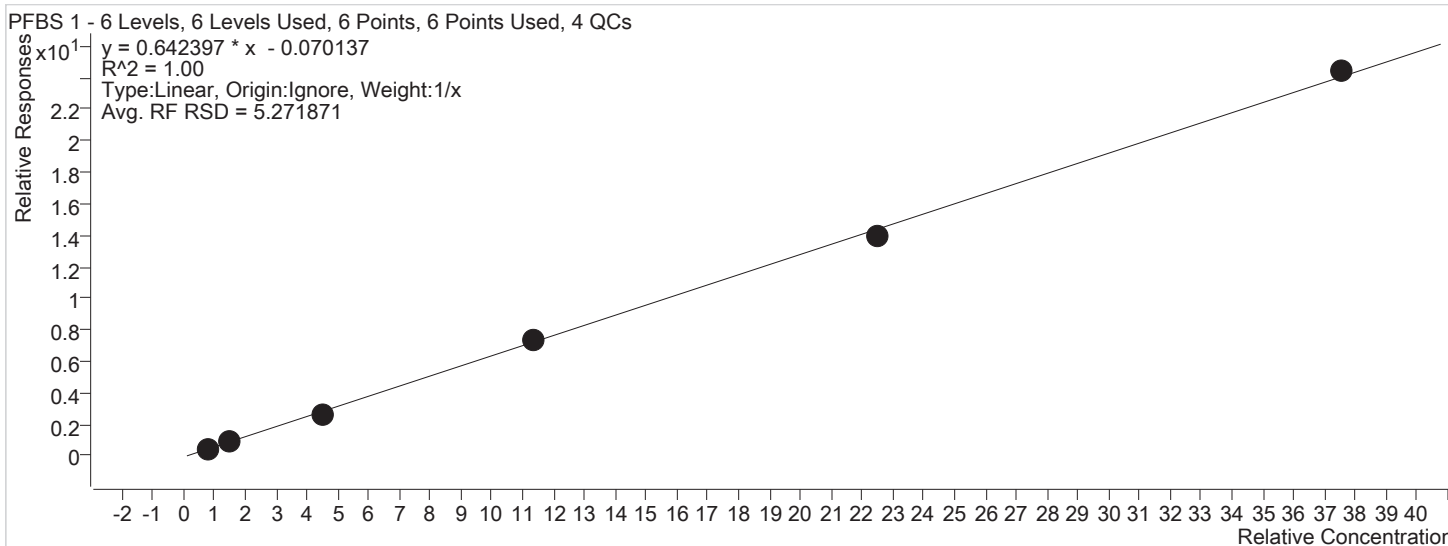
Area Ratio: 0.00

Sample Type: (Quality Control)



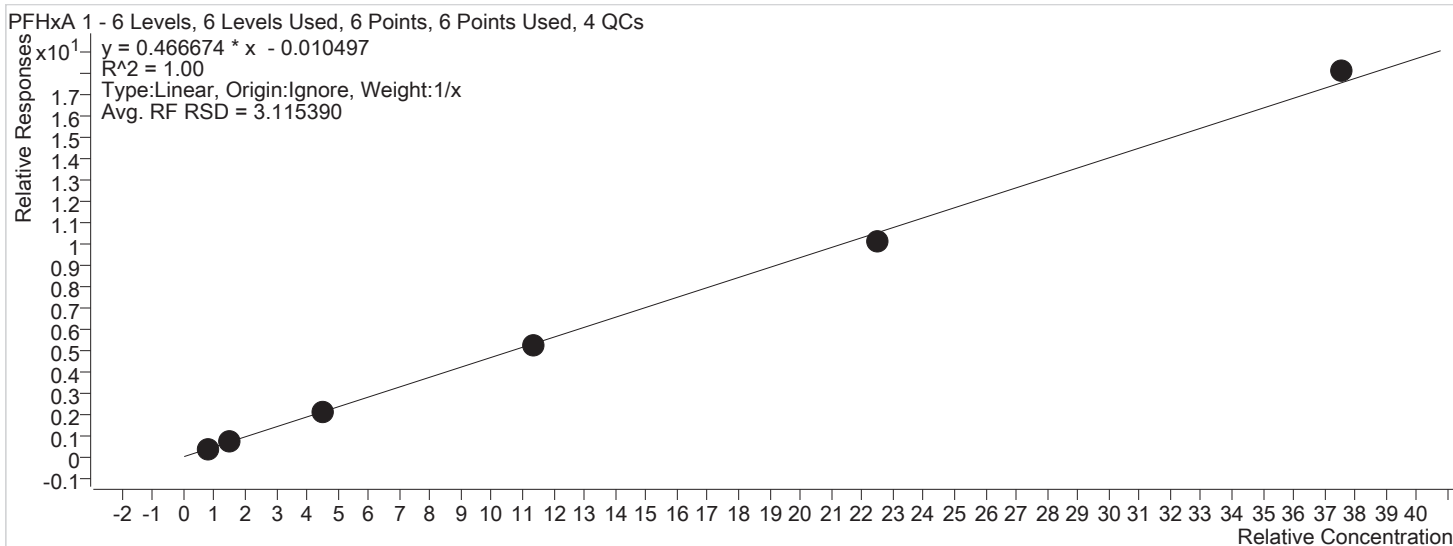
By Compound Report

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Last Calib Update 2017/07/26 11:30:11 AM
Instrument: LCMS04
Analyte: PFBS 1
Internal Standard: MPFHxS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2017/05/24 8:42:18 PM	0.75	0.80	629	0.5923	103	106.8
STD 2	STD 2	x	2017/05/24 8:47:12 PM	1.50	1.48	1373	0.5864	189	98.6
STD 3	STD 3	x	2017/05/24 8:52:06 PM	4.50	4.19	4158	0.5826	188	93.1
STD 4	STD 4	x	2017/05/24 8:57:00 PM	11.30	11.62	9145	0.6542	488	102.8
STD 5	STD 5	x	2017/05/24 9:01:54 PM	22.50	21.86	19685	0.6209	1149	97.1
STD 6	STD 6	x	2017/05/24 9:06:49 PM	37.50	38.11	34197	0.6509	1125	101.6

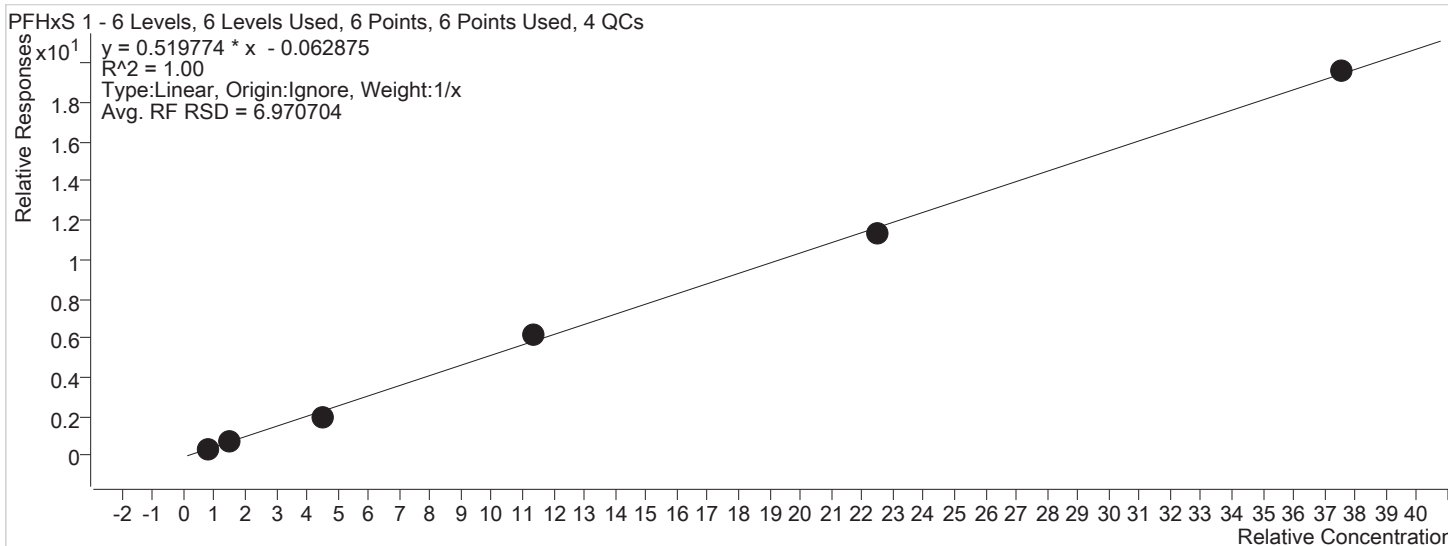
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Last Calib Update 2017/07/26 11:30:11 AM
Instrument: LCMS04
Analyte: PFHxA 1
Internal Standard: MPFHxA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2017/05/24 8:42:18 PM	0.75	0.79	2829	0.4788	44	105.6
STD 2	STD 2	x	2017/05/24 8:47:12 PM	1.50	1.48	5531	0.4525	75	98.5
STD 3	STD 3	x	2017/05/24 8:52:06 PM	4.50	4.46	15810	0.4600	166	99.1
STD 4	STD 4	x	2017/05/24 8:57:00 PM	11.30	11.05	38134	0.4556	546	97.8
STD 5	STD 5	x	2017/05/24 9:01:54 PM	22.50	21.55	79785	0.4465	874	95.8
STD 6	STD 6	x	2017/05/24 9:06:49 PM	37.50	38.72	134626	0.4816	1722	103.2

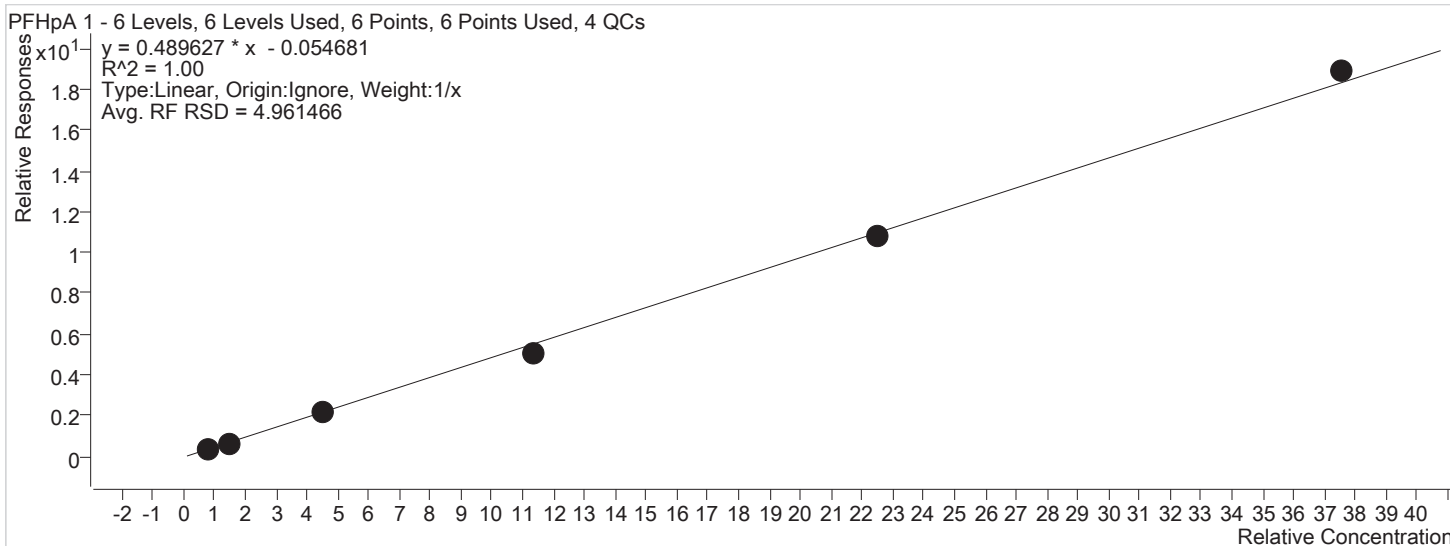
By Compound Report

Batch Path T:\lcms4\PFC\20170524\WS#4990811\QuantResults\PFC_Soil_170524_WS#4990811_CTLabs14.batch.bin
Last Calib Update 2017/07/26 11:30:11 AM
Instrument: LCMS04
Analyte: PFHxS 1
Internal Standard: MPFHxS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2017/05/24 8:42:18 PM	0.75	0.80	500	0.4708	89	106.7
STD 2	STD 2	x	2017/05/24 8:47:12 PM	1.50	1.50	1121	0.4788	155	100.2
STD 3	STD 3	x	2017/05/24 8:52:06 PM	4.50	4.01	3208	0.4495	720	89.2
STD 4	STD 4	x	2017/05/24 8:57:00 PM	11.30	11.89	7567	0.5413	333	105.2
STD 5	STD 5	x	2017/05/24 9:01:54 PM	22.50	22.02	16038	0.5059	1639	97.9
STD 6	STD 6	x	2017/05/24 9:06:49 PM	37.50	37.82	27456	0.5226	1429	100.9

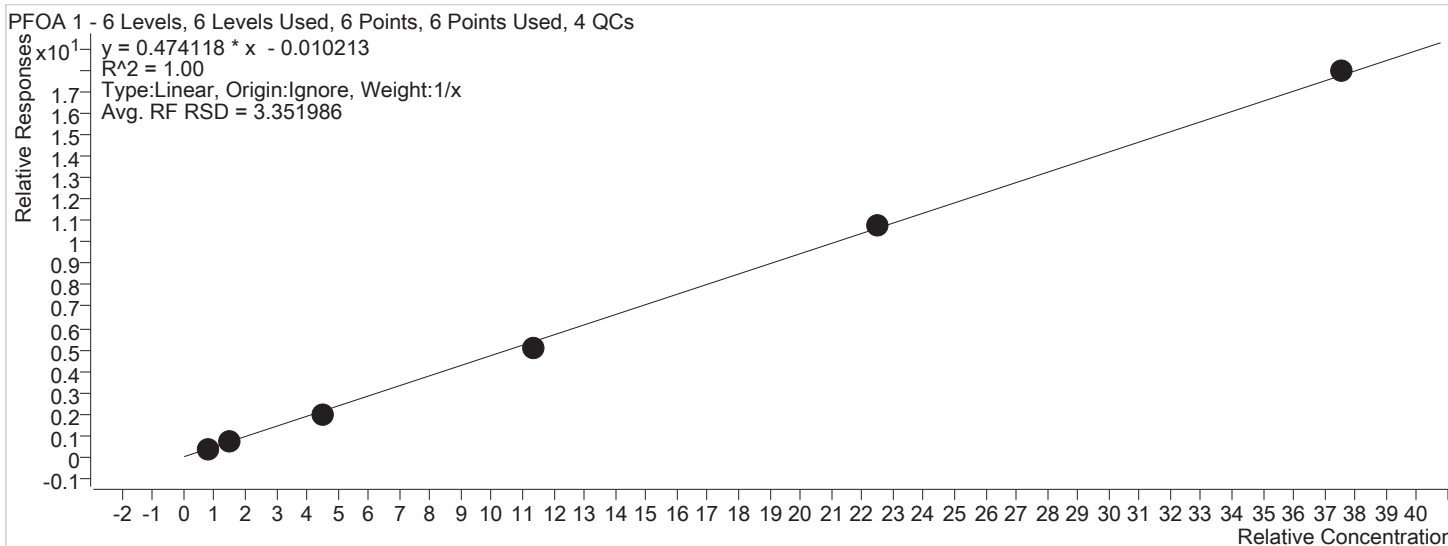
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Last Calib Update 2017/07/26 11:30:11 AM
Instrument: LCMS04
Analyte: PFHpA 1
Internal Standard: MPFHpA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2017/05/24 8:42:18 PM	0.75	0.83	3134	0.4670	28	110.3
STD 2	STD 2	x	2017/05/24 8:47:12 PM	1.50	1.45	6128	0.4363	58	96.6
STD 3	STD 3	x	2017/05/24 8:52:06 PM	4.50	4.44	18010	0.4704	158	98.6
STD 4	STD 4	x	2017/05/24 8:57:00 PM	11.30	10.53	41683	0.4513	388	93.2
STD 5	STD 5	x	2017/05/24 9:01:54 PM	22.50	22.10	85901	0.4785	914	98.2
STD 6	STD 6	x	2017/05/24 9:06:49 PM	37.50	38.71	146312	0.5040	1273	103.2

By Compound Report

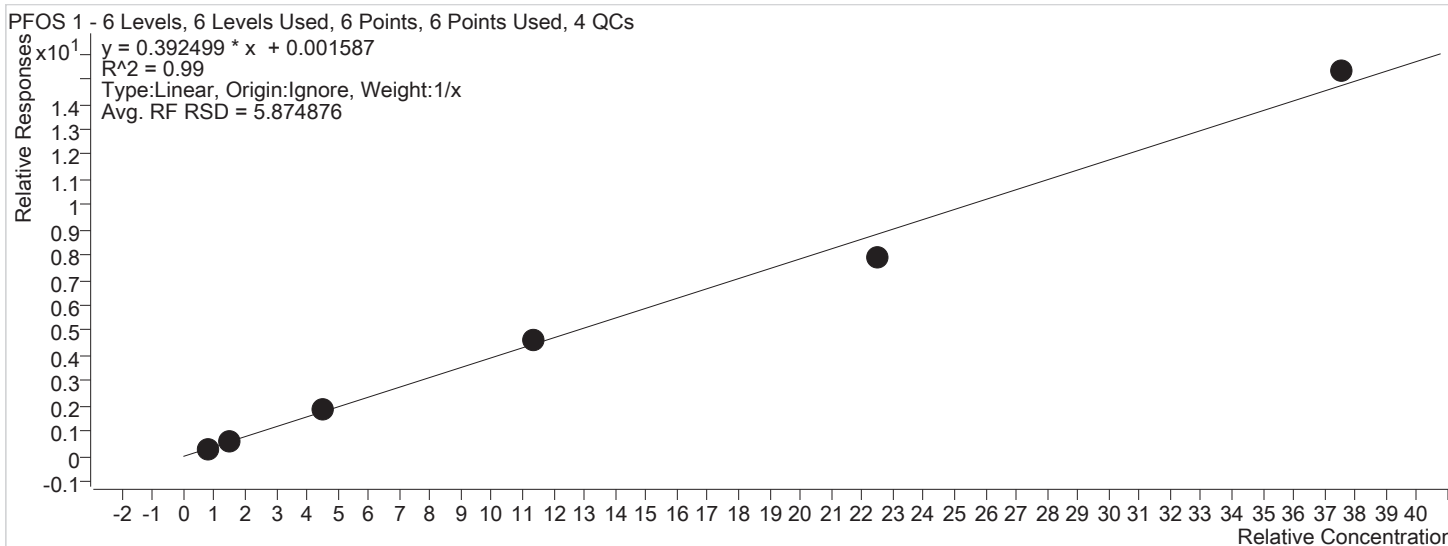
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Last Calib Update 2017/07/26 11:30:11 AM
Instrument: LCMS04
Analyte: PFOA 1
Internal Standard: MPFOA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2017/05/24 8:42:18 PM	0.75	0.79	3054	0.4831	16	104.8
STD 2	STD 2	x	2017/05/24 8:47:12 PM	1.50	1.54	6073	0.4797	32	102.6
STD 3	STD 3	x	2017/05/24 8:52:06 PM	4.50	4.29	17200	0.4492	78	95.2
STD 4	STD 4	x	2017/05/24 8:57:00 PM	11.30	10.76	39822	0.4505	207	95.2
STD 5	STD 5	x	2017/05/24 9:01:54 PM	22.50	22.71	84362	0.4781	539	100.9
STD 6	STD 6	x	2017/05/24 9:06:49 PM	37.50	37.97	142229	0.4798	717	101.3

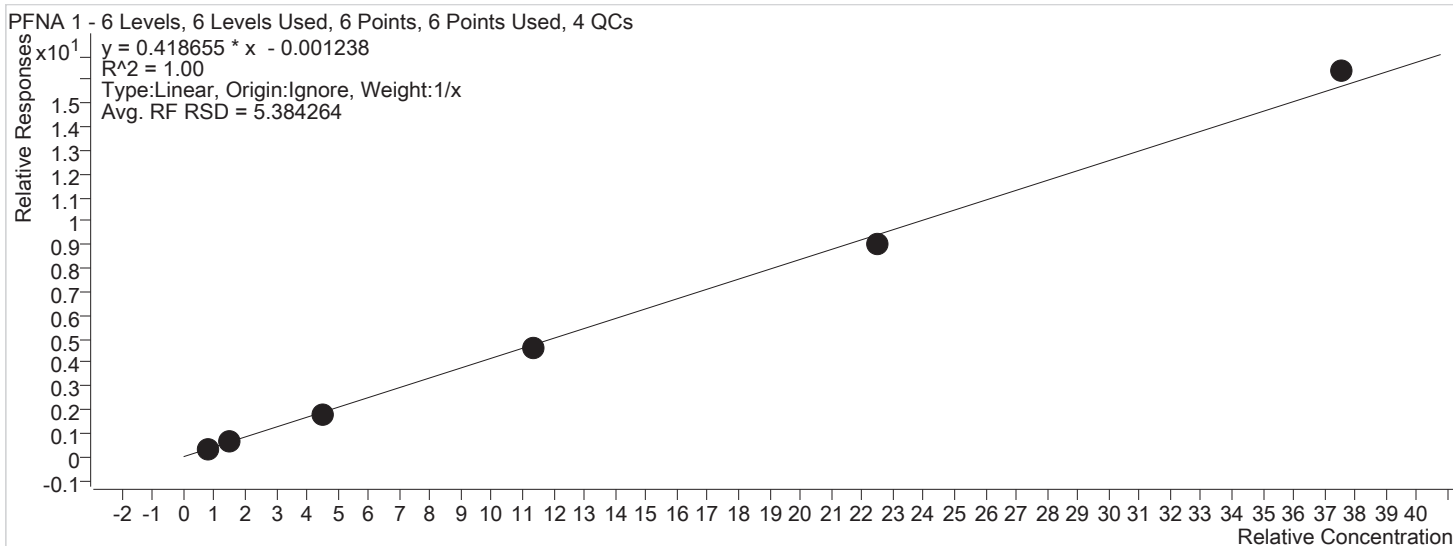
By Compound Report

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Last Calib Update 2017/07/26 11:30:11 AM
Instrument: LCMS04
Analyte: PFOS 1
Internal Standard: MPFOS



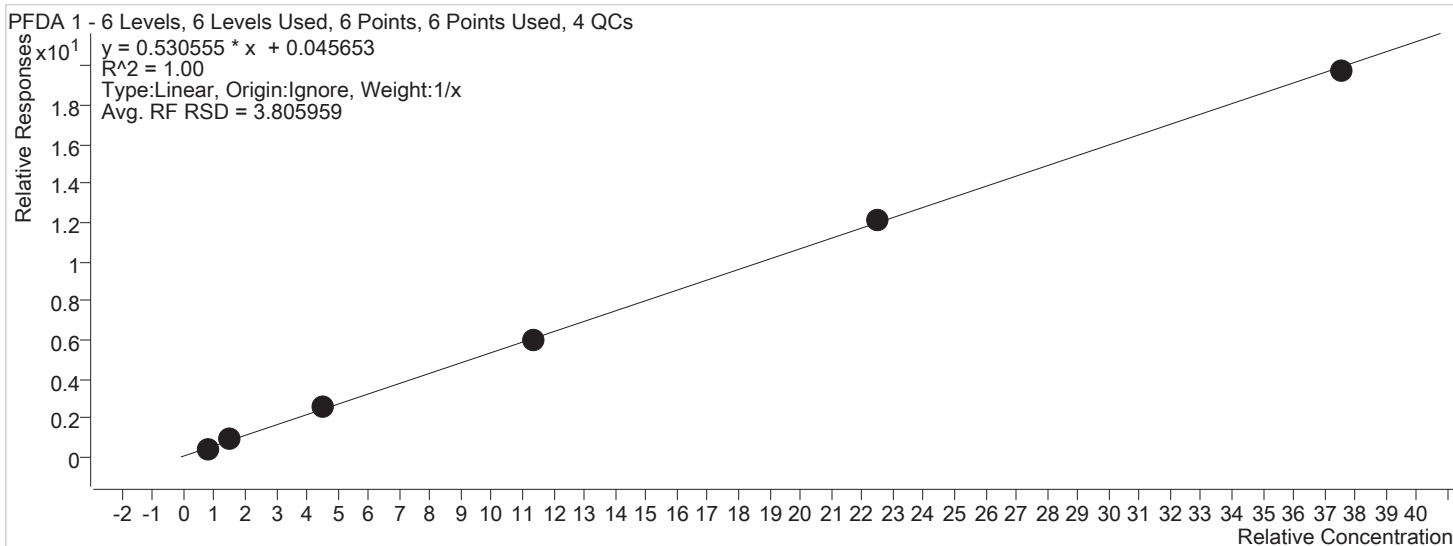
Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2017/05/24 8:42:18 PM	0.75	0.76	528	0.3982	98	100.9
STD 2	STD 2	x	2017/05/24 8:47:12 PM	1.50	1.44	1053	0.3774	241	95.9
STD 3	STD 3	x	2017/05/24 8:52:06 PM	4.50	4.67	3175	0.4076	344	103.8
STD 4	STD 4	x	2017/05/24 8:57:00 PM	11.30	11.90	7647	0.4134	1071	105.3
STD 5	STD 5	x	2017/05/24 9:01:54 PM	22.50	20.28	14649	0.3538	233	90.1
STD 6	STD 6	x	2017/05/24 9:06:49 PM	37.50	39.01	26720	0.4083	2172	104.0

Batch Path T:\lcms4\PFC\20170524\WS#4990811\QuantResults\PFC_Soil_170524_WS#4990811_CTLabs14.batch.bin
Last Calib Update 2017/07/26 11:30:11 AM
Instrument: LCMS04
Analyte: PFNA 1
Internal Standard: MPFNA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2017/05/24 8:42:18 PM	0.75	0.79	2779	0.4400	19	105.5
STD 2	STD 2	x	2017/05/24 8:47:12 PM	1.50	1.57	5608	0.4383	38	104.9
STD 3	STD 3	x	2017/05/24 8:52:06 PM	4.50	4.19	15377	0.3899	88	93.2
STD 4	STD 4	x	2017/05/24 8:57:00 PM	11.30	10.93	35429	0.4050	269	96.8
STD 5	STD 5	x	2017/05/24 9:01:54 PM	22.50	21.47	74700	0.3995	569	95.4
STD 6	STD 6	x	2017/05/24 9:06:49 PM	37.50	39.09	125908	0.4363	688	104.2

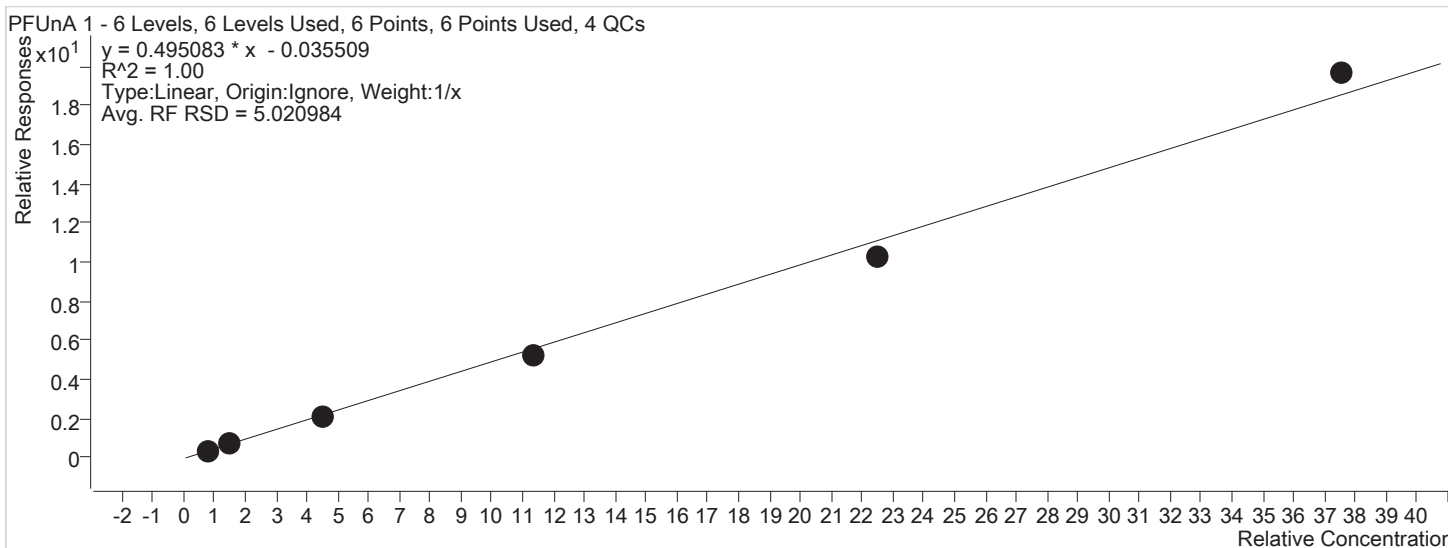
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Last Calib Update 2017/07/26 11:30:11 AM
Instrument: LCMS04
Analyte: PFDA 1
Internal Standard: MPFDA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2017/05/24 8:42:18 PM	0.75	0.69	2933	0.5525	20	92.7
STD 2	STD 2	x	2017/05/24 8:47:12 PM	1.50	1.56	5756	0.5836	38	104.3
STD 3	STD 3	x	2017/05/24 8:52:06 PM	4.50	4.65	17271	0.5583	166	103.3
STD 4	STD 4	x	2017/05/24 8:57:00 PM	11.30	11.26	39040	0.5325	284	99.6
STD 5	STD 5	x	2017/05/24 9:01:54 PM	22.50	22.76	83915	0.5386	576	101.1
STD 6	STD 6	x	2017/05/24 9:06:49 PM	37.50	37.13	136478	0.5265	740	99.0

By Compound Report

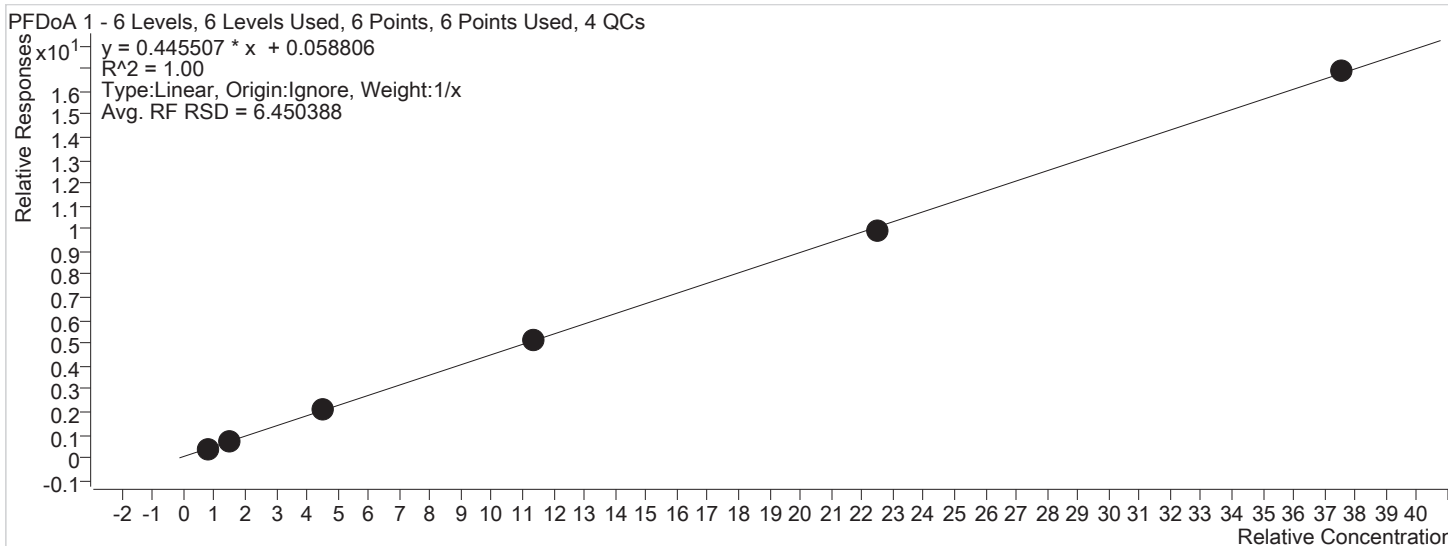
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Last Calib Update 2017/07/26 11:30:11 AM
Instrument: LCMS04
Analyte: PFUnA 1
Internal Standard: MPFUnA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2017/05/24 8:42:18 PM	0.75	0.79	3062	0.4767	16	105.9
STD 2	STD 2	x	2017/05/24 8:47:12 PM	1.50	1.55	5803	0.4881	30	103.4
STD 3	STD 3	x	2017/05/24 8:52:06 PM	4.50	4.42	16857	0.4787	101	98.3
STD 4	STD 4	x	2017/05/24 8:57:00 PM	11.30	10.54	39481	0.4585	265	93.2
STD 5	STD 5	x	2017/05/24 9:01:54 PM	22.50	20.96	83801	0.4596	461	93.1
STD 6	STD 6	x	2017/05/24 9:06:49 PM	37.50	39.79	139860	0.5243	906	106.1

By Compound Report

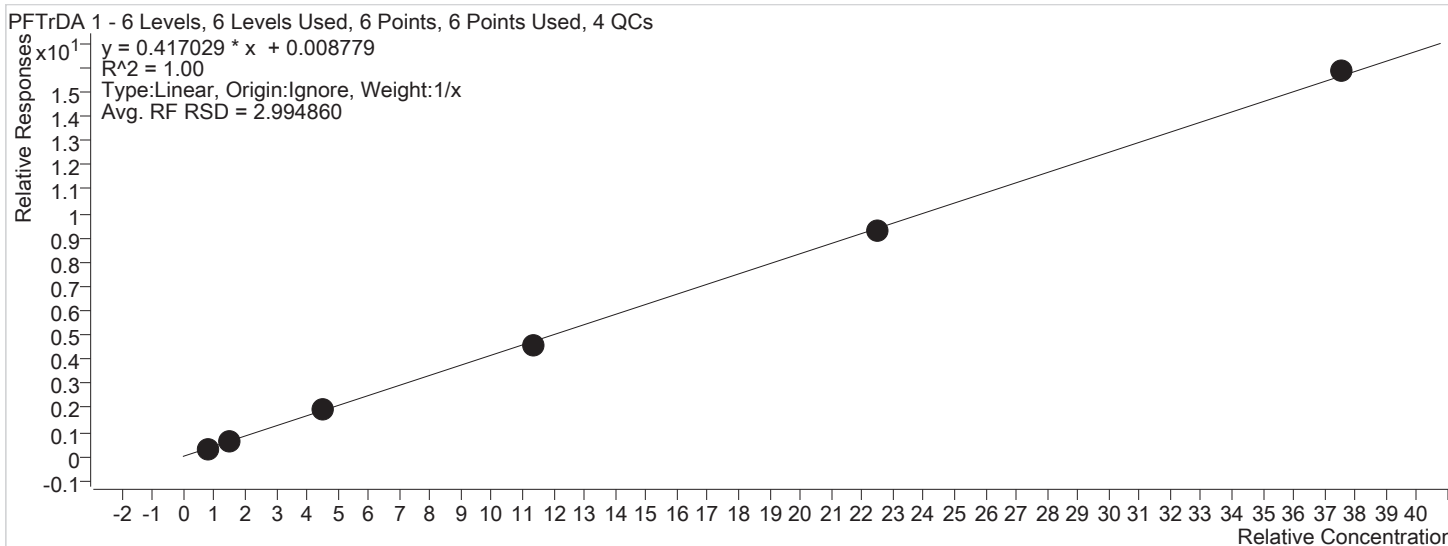
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Last Calib Update 2017/07/26 11:30:11 AM
Instrument: LCMS04
Analyte: PFDoA 1
Internal Standard: MPFDoA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2017/05/24 8:42:18 PM	0.75	0.75	3633	0.5240	59	100.0
STD 2	STD 2	x	2017/05/24 8:47:12 PM	1.50	1.48	6829	0.4797	117	98.9
STD 3	STD 3	x	2017/05/24 8:52:06 PM	4.50	4.58	19043	0.4661	269	101.7
STD 4	STD 4	x	2017/05/24 8:57:00 PM	11.30	11.34	41871	0.4522	524	100.3
STD 5	STD 5	x	2017/05/24 9:01:54 PM	22.50	22.13	88612	0.4409	1263	98.4
STD 6	STD 6	x	2017/05/24 9:06:49 PM	37.50	37.77	152238	0.4503	1831	100.7

By Compound Report

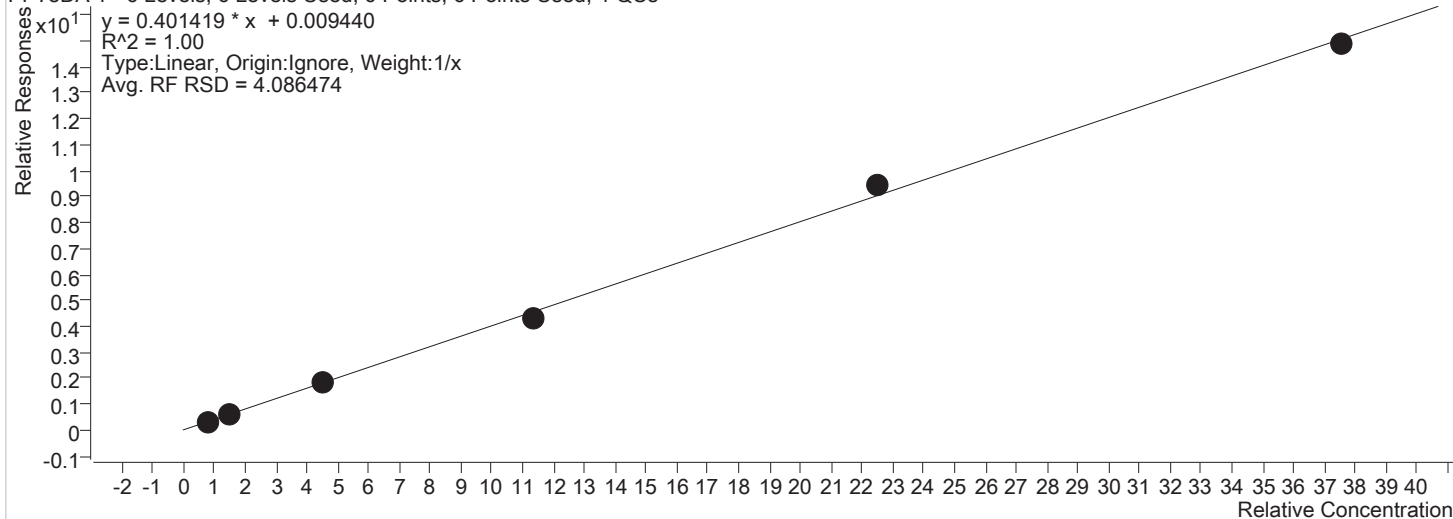
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Last Calib Update 2017/07/26 11:30:11 AM
Instrument: LCMS04
Analyte: PFTTrDA 1
Internal Standard: MPFTeDA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2017/05/24 8:42:18 PM	0.75	0.73	3606	0.4160	15	96.9
STD 2	STD 2	x	2017/05/24 8:47:12 PM	1.50	1.57	7505	0.4423	37	104.6
STD 3	STD 3	x	2017/05/24 8:52:06 PM	4.50	4.55	21137	0.4239	72	101.2
STD 4	STD 4	x	2017/05/24 8:57:00 PM	11.30	10.99	49166	0.4063	218	97.2
STD 5	STD 5	x	2017/05/24 9:01:54 PM	22.50	22.19	98306	0.4117	554	98.6
STD 6	STD 6	x	2017/05/24 9:06:49 PM	37.50	38.02	176093	0.4231	599	101.4

Batch Path T:\lcms4\PFC\20170524\WS#4990811\QuantResults\PFC_Soil_170524_WS#4990811_CTLabs14.batch.bin
Last Calib Update 2017/07/26 11:30:11 AM
Instrument: LCMS04
Analyte: PFTeDA 1
Internal Standard: MPFTeDA

PFTeDA 1 - 6 Levels, 6 Levels Used, 6 Points, 6 Points Used, 4 QCs

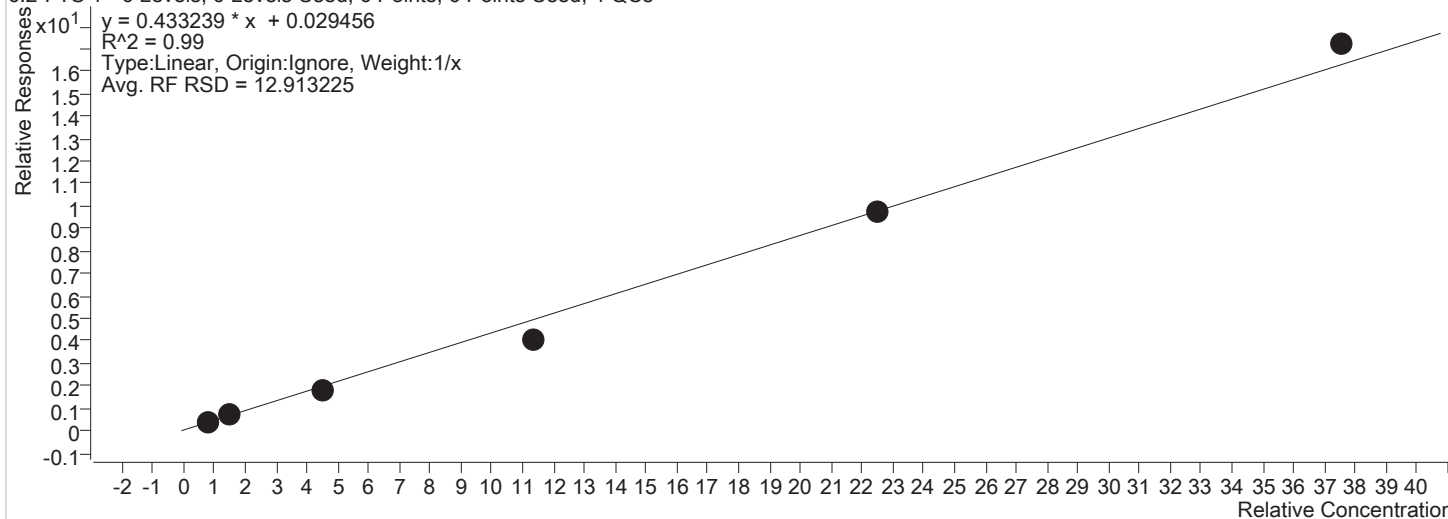


Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2017/05/24 8:42:18 PM	0.75	0.76	3639	0.4198	13	101.4
STD 2	STD 2	x	2017/05/24 8:47:12 PM	1.50	1.49	6875	0.4051	19	99.4
STD 3	STD 3	x	2017/05/24 8:52:06 PM	4.50	4.59	20518	0.4114	75	102.0
STD 4	STD 4	x	2017/05/24 8:57:00 PM	11.30	10.58	45605	0.3768	135	93.7
STD 5	STD 5	x	2017/05/24 9:01:54 PM	22.50	23.57	100508	0.4209	505	104.7
STD 6	STD 6	x	2017/05/24 9:06:49 PM	37.50	37.06	165208	0.3969	474	98.8

By Compound Report

Batch Path T:\lcms4\PFC\20170524\WS#4990811\QuantResults\PFC_Soil_170524_WS#4990811_CTLabs14.batch.bin
Last Calib Update 2017/07/26 11:30:11 AM
Instrument: LCMS04
Analyte: 6:2-FTS 1
Internal Standard: M2 6:2 FTS

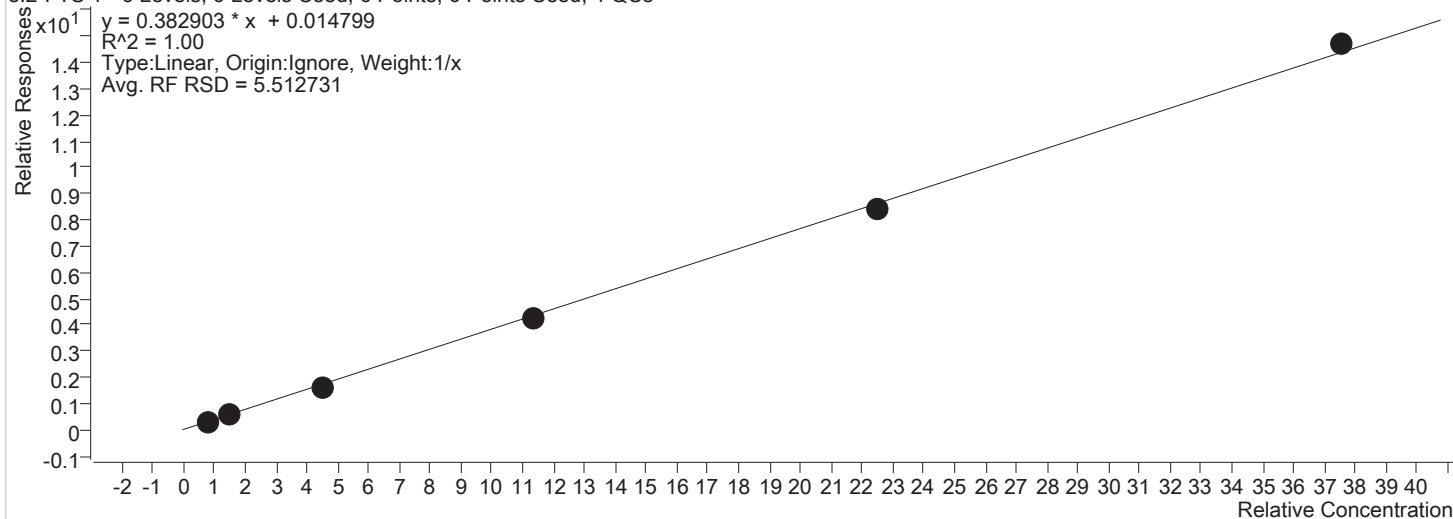
6:2-FTS 1 - 6 Levels, 6 Levels Used, 6 Points, 6 Points Used, 4 QCs



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2017/05/24 8:42:18 PM	0.75	0.84	818	0.5234	56	111.7
STD 2	STD 2	x	2017/05/24 8:47:12 PM	1.50	1.61	1500	0.4852	72	107.5
STD 3	STD 3	x	2017/05/24 8:52:06 PM	4.50	4.17	3748	0.4079	172	92.6
STD 4	STD 4	x	2017/05/24 8:57:00 PM	11.30	9.35	8724	0.3611	388	82.7
STD 5	STD 5	x	2017/05/24 9:01:54 PM	22.50	22.43	17660	0.4332	686	99.7
STD 6	STD 6	x	2017/05/24 9:06:49 PM	37.50	39.65	28859	0.4589	1037	105.7

Batch Path T:\lcms4\PFC\20170524\WS#4990811\QuantResults\PFC_Soil_170524_WS#4990811_CTLabs14.batch.bin
Last Calib Update 2017/07/26 11:30:11 AM
Instrument: LCMS04
Analyte: 8:2-FTS 1
Internal Standard: M2 8:2 FTS

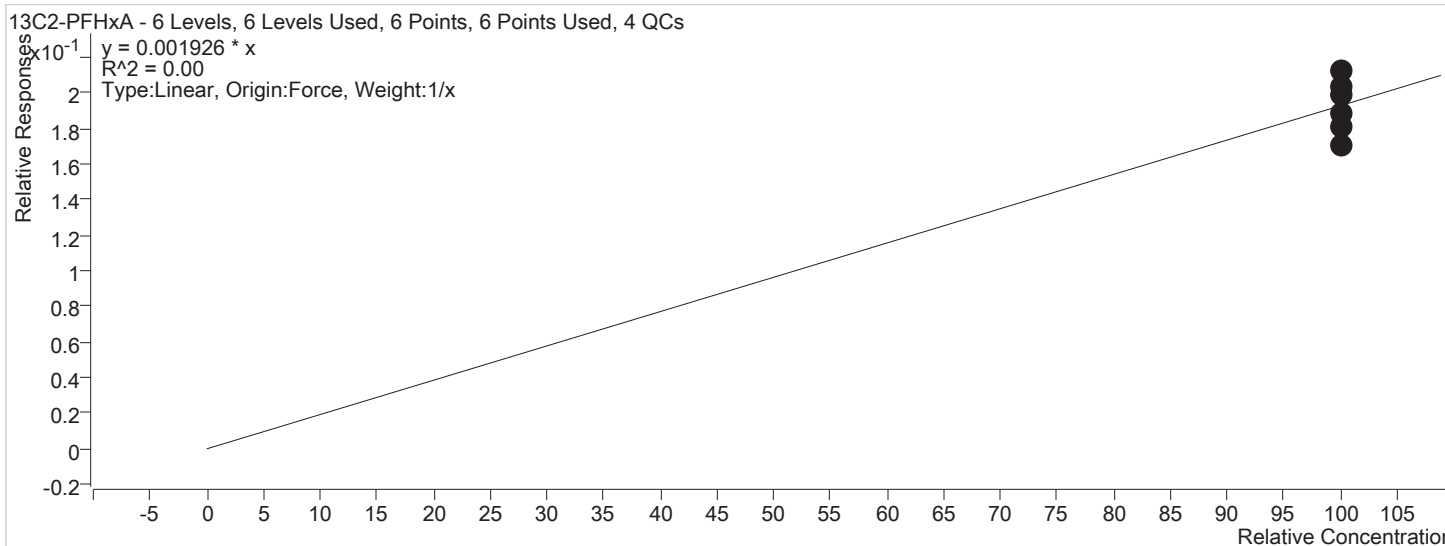
8:2-FTS 1 - 6 Levels, 6 Levels Used, 6 Points, 6 Points Used, 4 QCs



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2017/05/24 8:42:18 PM	0.75	0.75	639	0.4019	46	99.8
STD 2	STD 2	x	2017/05/24 8:47:12 PM	1.50	1.62	1389	0.4230	78	107.9
STD 3	STD 3	x	2017/05/24 8:52:06 PM	4.50	4.24	3472	0.3645	94	94.3
STD 4	STD 4	x	2017/05/24 8:57:00 PM	11.30	11.05	8080	0.3757	186	97.8
STD 5	STD 5	x	2017/05/24 9:01:54 PM	22.50	22.02	16504	0.3754	255	97.9
STD 6	STD 6	x	2017/05/24 9:06:49 PM	37.50	38.37	27530	0.3922	329	102.3

By Compound Report

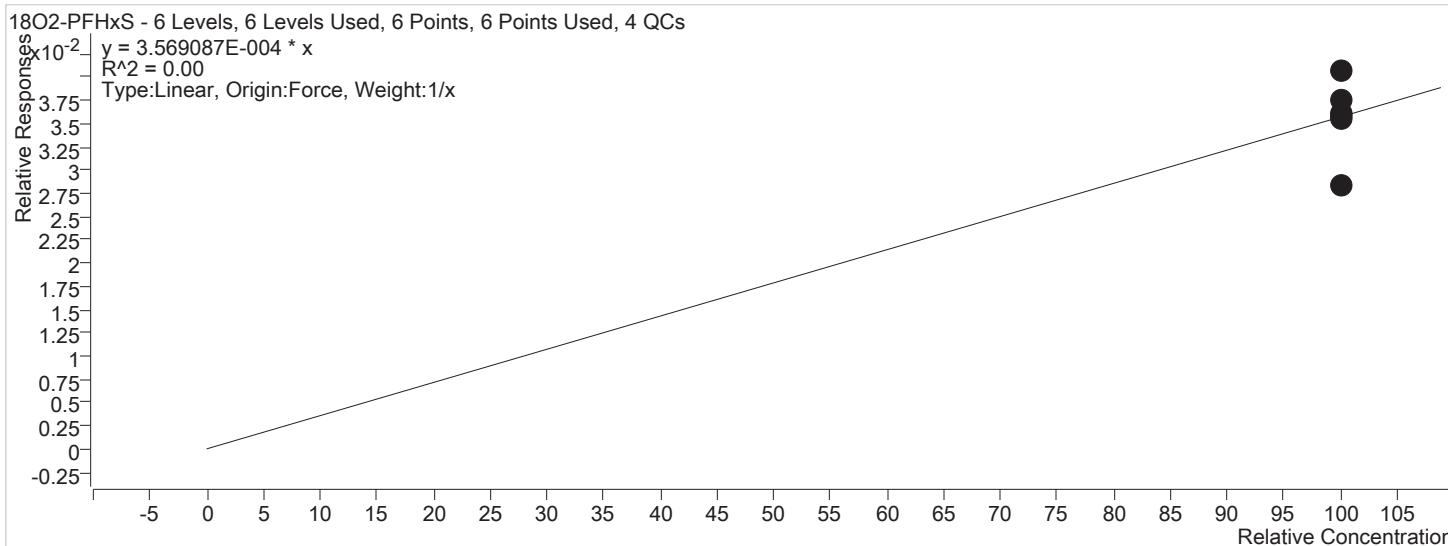
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Last Calib Update 2017/07/26 11:30:11 AM
Instrument: LCMS04
Analyte: 13C2-PFHxA
Internal Standard: 13C6-PFHxA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2017/05/24 8:42:18 PM	100.00	103.43	7878	0.0020	704	103.4
STD 2	STD 2	x	2017/05/24 8:47:12 PM	100.00	110.14	8148	0.0021	812	110.1
STD 3	STD 3	x	2017/05/24 8:52:06 PM	100.00	93.85	7637	0.0018	626	93.9
STD 4	STD 4	x	2017/05/24 8:57:00 PM	100.00	88.57	7407	0.0017	274	88.6
STD 5	STD 5	x	2017/05/24 9:01:54 PM	100.00	105.89	7942	0.0020	431	105.9
STD 6	STD 6	x	2017/05/24 9:06:49 PM	100.00	98.13	7455	0.0019	462	98.1

By Compound Report

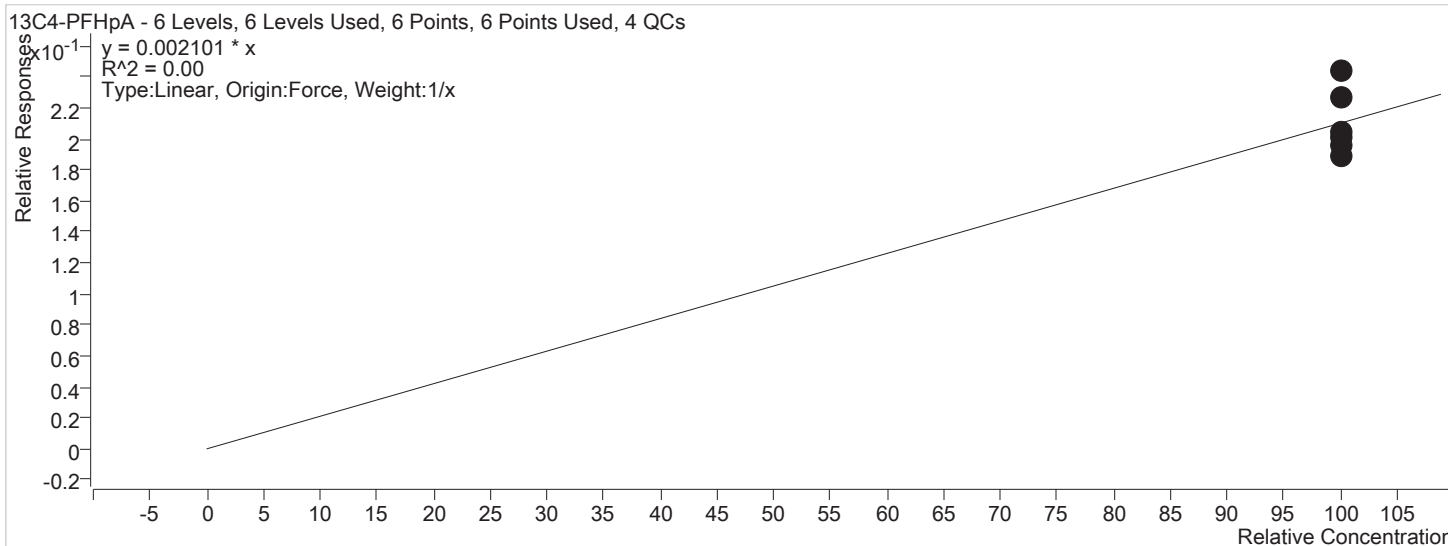
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Last Calib Update 2017/07/26 11:30:11 AM
Instrument: LCMS04
Analyte: 18O2-PFHxS
Internal Standard: 13C6-PFHxA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2017/05/24 8:42:18 PM	100.00	100.31	1416	0.0004	242	100.3
STD 2	STD 2	x	2017/05/24 8:47:12 PM	100.00	113.85	1561	0.0004	218	113.9
STD 3	STD 3	x	2017/05/24 8:52:06 PM	100.00	105.17	1586	0.0004	288	105.2
STD 4	STD 4	x	2017/05/24 8:57:00 PM	100.00	79.81	1237	0.0003	195	79.8
STD 5	STD 5	x	2017/05/24 9:01:54 PM	100.00	101.36	1409	0.0004	187	101.4
STD 6	STD 6	x	2017/05/24 9:06:49 PM	100.00	99.50	1401	0.0004	206	99.5

By Compound Report

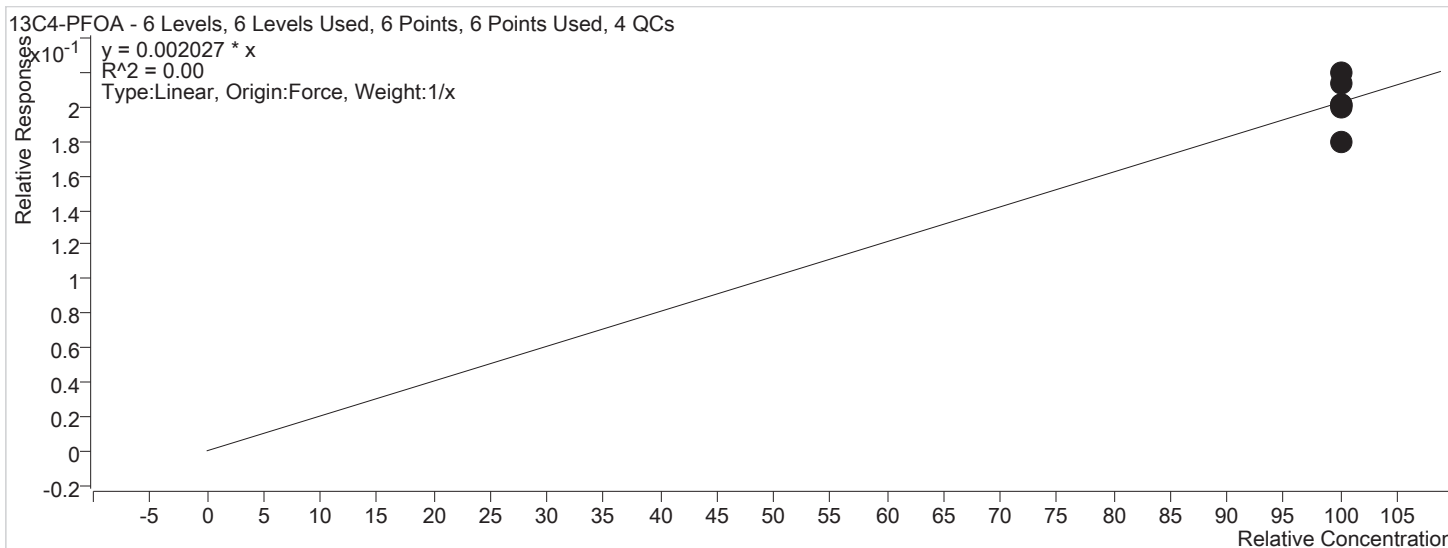
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Last Calib Update 2017/07/26 11:30:11 AM
Instrument: LCMS04
Analyte: 13C4-PFHpA
Internal Standard: 13C6-PFHxA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2017/05/24 8:42:18 PM	100.00	107.68	8948	0.0023	405	107.7
STD 2	STD 2	x	2017/05/24 8:47:12 PM	100.00	116.01	9364	0.0024	439	116.0
STD 3	STD 3	x	2017/05/24 8:52:06 PM	100.00	95.84	8508	0.0020	436	95.8
STD 4	STD 4	x	2017/05/24 8:57:00 PM	100.00	89.57	8173	0.0019	338	89.6
STD 5	STD 5	x	2017/05/24 9:01:54 PM	100.00	97.49	7978	0.0020	930	97.5
STD 6	STD 6	x	2017/05/24 9:06:49 PM	100.00	93.40	7742	0.0020	284	93.4

By Compound Report

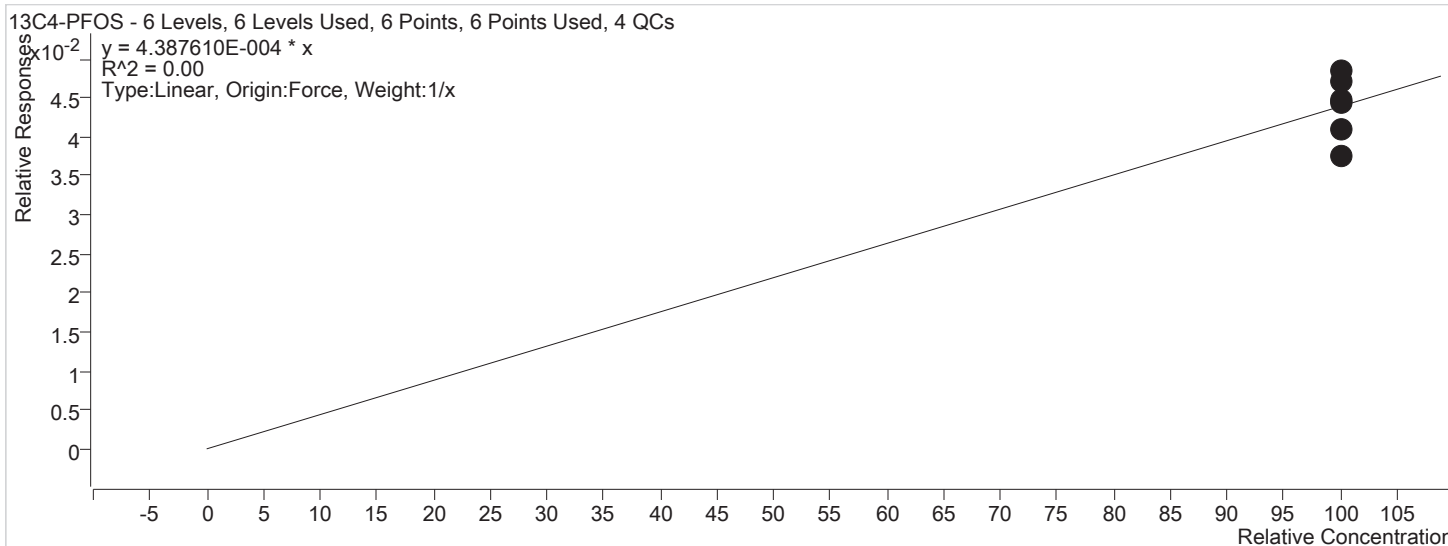
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Last Calib Update 2017/07/26 11:30:11 AM
Instrument: LCMS04
Analyte: 13C4-PFOA
Internal Standard: 13C6-PFHxA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2017/05/24 8:42:18 PM	100.00	105.15	8429	0.0021	301	105.1
STD 2	STD 2	x	2017/05/24 8:47:12 PM	100.00	108.40	8440	0.0022	225	108.4
STD 3	STD 3	x	2017/05/24 8:52:06 PM	100.00	99.36	8509	0.0020	294	99.4
STD 4	STD 4	x	2017/05/24 8:57:00 PM	100.00	88.88	7823	0.0018	278	88.9
STD 5	STD 5	x	2017/05/24 9:01:54 PM	100.00	99.34	7842	0.0020	357	99.3
STD 6	STD 6	x	2017/05/24 9:06:49 PM	100.00	98.87	7905	0.0020	266	98.9

By Compound Report

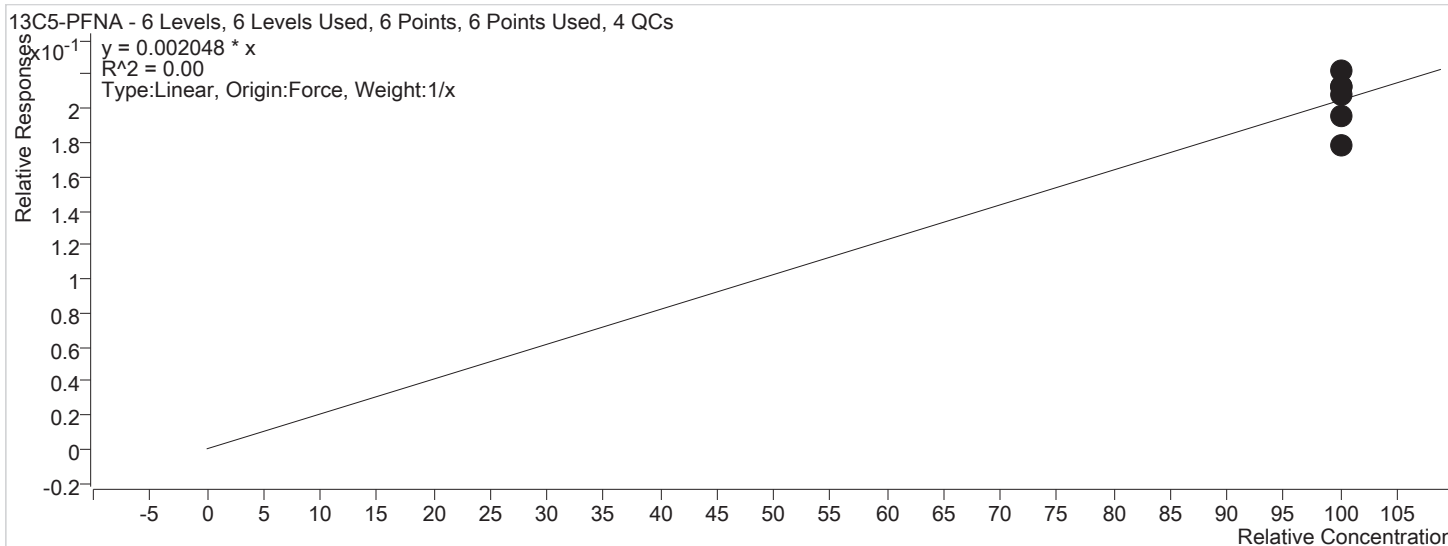
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Last Calib Update 2017/07/26 11:30:11 AM
Instrument: LCMS04
Analyte: 13C4-PFOS
Internal Standard: 13C6-PFHxA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2017/05/24 8:42:18 PM	100.00	101.88	1768	0.0004	413	101.9
STD 2	STD 2	x	2017/05/24 8:47:12 PM	100.00	110.35	1860	0.0005	527	110.4
STD 3	STD 3	x	2017/05/24 8:52:06 PM	100.00	93.37	1731	0.0004	432	93.4
STD 4	STD 4	x	2017/05/24 8:57:00 PM	100.00	85.91	1637	0.0004	347	85.9
STD 5	STD 5	x	2017/05/24 9:01:54 PM	100.00	107.67	1840	0.0005	265	107.7
STD 6	STD 6	x	2017/05/24 9:06:49 PM	100.00	100.81	1745	0.0004	179	100.8

By Compound Report

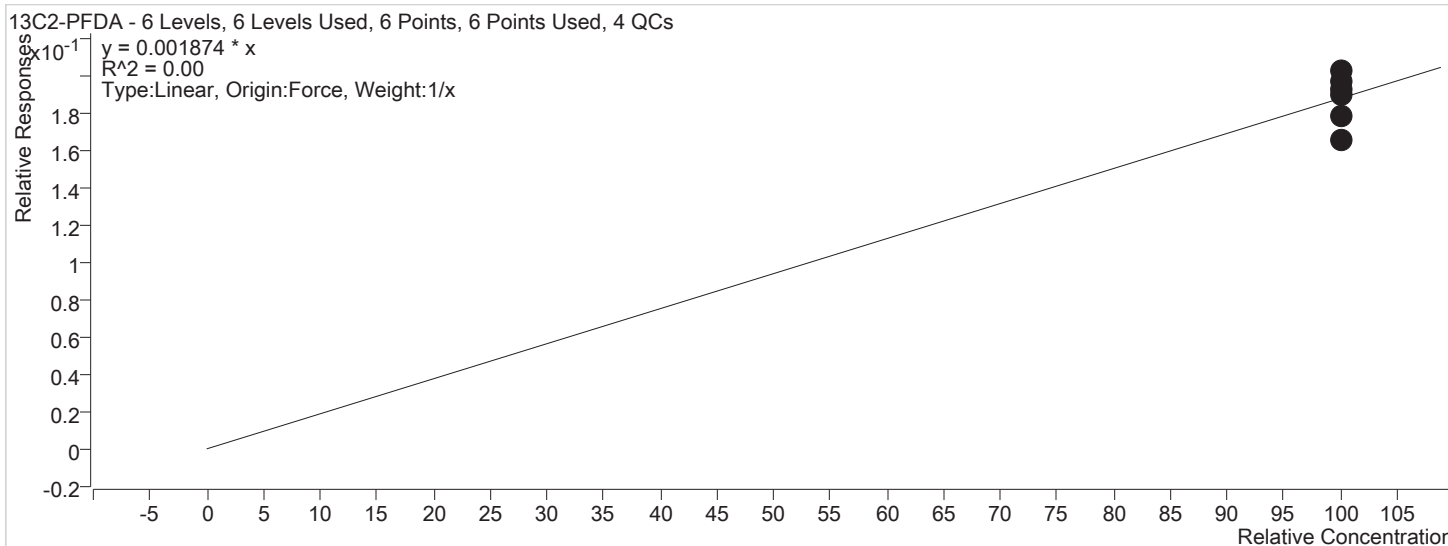
Batch Path T:\lcms4\PFC\20170524\WS#4990811\QuantResults\PFC_Soil_170524_WS#4990811_CTLabs14.batch.bin
Last Calib Update 2017/07/26 11:30:11 AM
Instrument: LCMS04
Analyte: 13C5-PFNA
Internal Standard: 13C6-PFHxA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2017/05/24 8:42:18 PM	100.00	103.94	8421	0.0021	474	103.9
STD 2	STD 2	x	2017/05/24 8:47:12 PM	100.00	108.39	8530	0.0022	432	108.4
STD 3	STD 3	x	2017/05/24 8:52:06 PM	100.00	101.25	8764	0.0021	529	101.3
STD 4	STD 4	x	2017/05/24 8:57:00 PM	100.00	87.03	7742	0.0018	173	87.0
STD 5	STD 5	x	2017/05/24 9:01:54 PM	100.00	104.17	8311	0.0021	370	104.2
STD 6	STD 6	x	2017/05/24 9:06:49 PM	100.00	95.22	7695	0.0020	442	95.2

By Compound Report

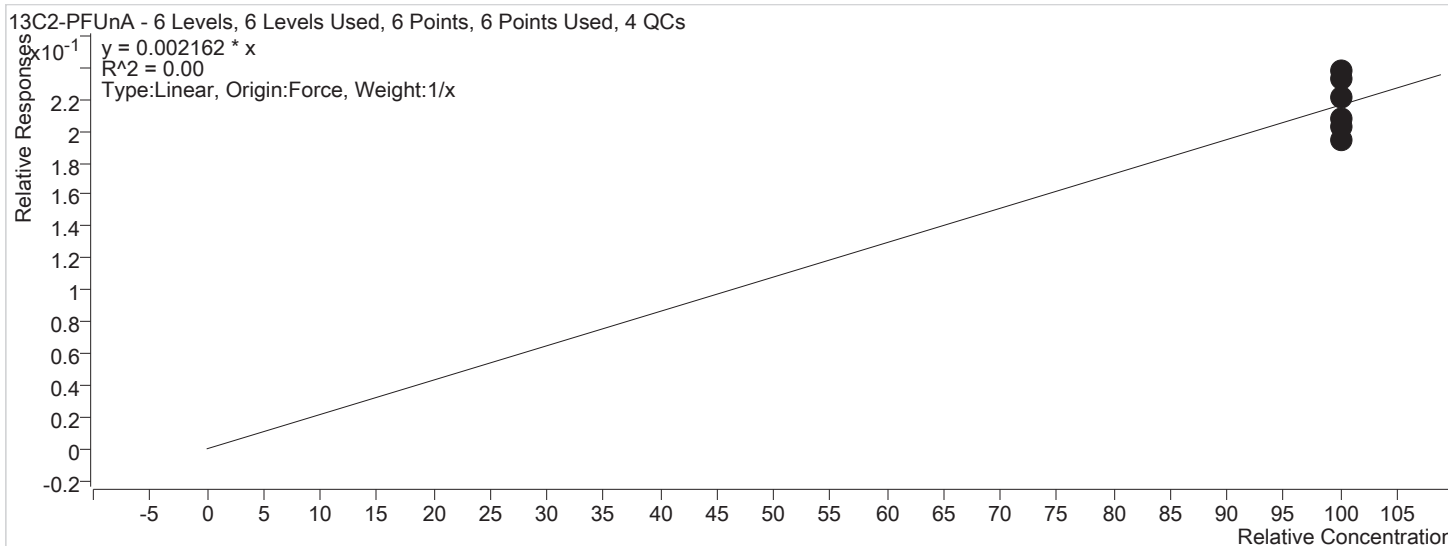
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Last Calib Update 2017/07/26 11:30:11 AM
Instrument: LCMS04
Analyte: 13C2-PFDA
Internal Standard: 13C9-PFDA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2017/05/24 8:42:18 PM	100.00	104.80	7078	0.0020	262	104.8
STD 2	STD 2	x	2017/05/24 8:47:12 PM	100.00	102.78	6575	0.0019	343	102.8
STD 3	STD 3	x	2017/05/24 8:52:06 PM	100.00	95.25	6875	0.0018	484	95.2
STD 4	STD 4	x	2017/05/24 8:57:00 PM	100.00	88.21	6488	0.0017	303	88.2
STD 5	STD 5	x	2017/05/24 9:01:54 PM	100.00	101.13	6924	0.0019	324	101.1
STD 6	STD 6	x	2017/05/24 9:06:49 PM	100.00	107.82	6912	0.0020	370	107.8

By Compound Report

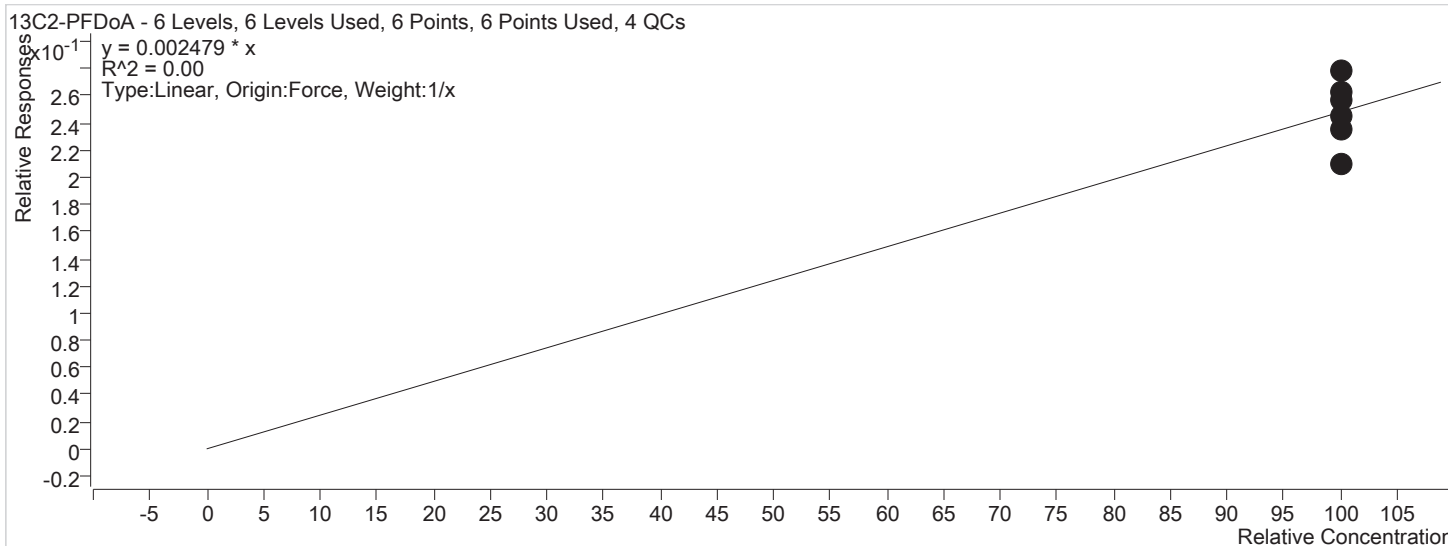
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Last Calib Update 2017/07/26 11:30:11 AM
Instrument: LCMS04
Analyte: 13C2-PFUnA
Internal Standard: 13C9-PFDA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2017/05/24 8:42:18 PM	100.00	109.94	8564	0.0024	504	109.9
STD 2	STD 2	x	2017/05/24 8:47:12 PM	100.00	107.42	7926	0.0023	399	107.4
STD 3	STD 3	x	2017/05/24 8:52:06 PM	100.00	94.00	7826	0.0020	235	94.0
STD 4	STD 4	x	2017/05/24 8:57:00 PM	100.00	89.82	7620	0.0019	340	89.8
STD 5	STD 5	x	2017/05/24 9:01:54 PM	100.00	102.62	8104	0.0022	260	102.6
STD 6	STD 6	x	2017/05/24 9:06:49 PM	100.00	96.20	7113	0.0021	152	96.2

By Compound Report

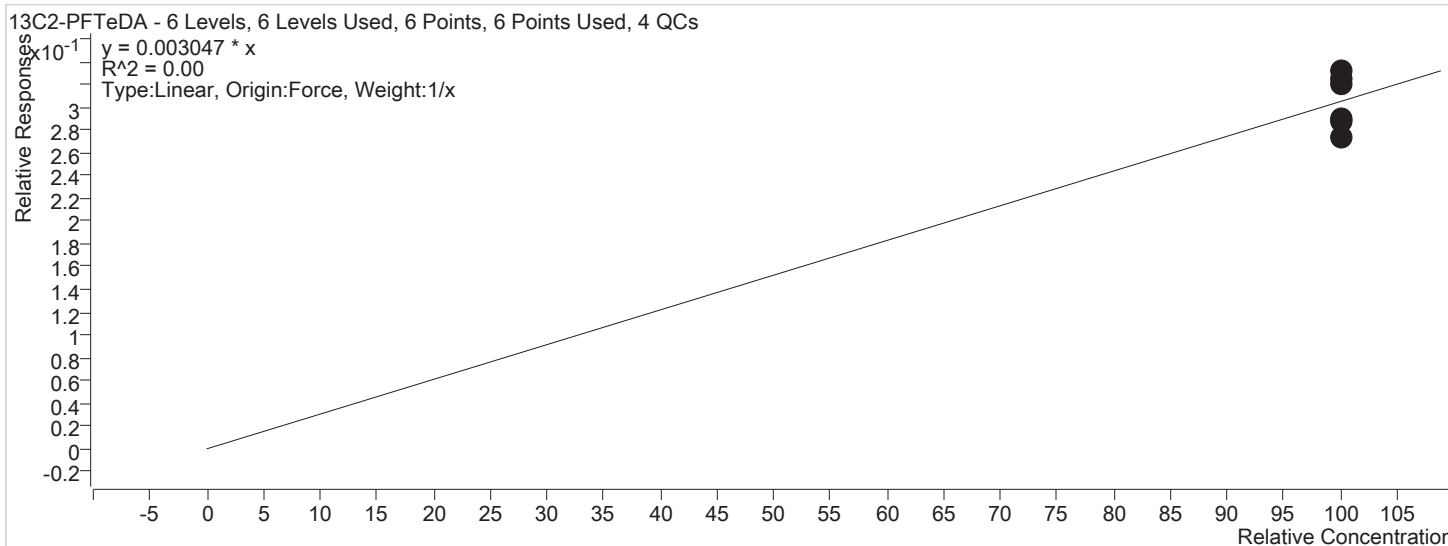
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Last Calib Update 2017/07/26 11:30:11 AM
Instrument: LCMS04
Analyte: 13C2-PFDoA
Internal Standard: 13C9-PFDA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2017/05/24 8:42:18 PM	100.00	103.49	9244	0.0026	381	103.5
STD 2	STD 2	x	2017/05/24 8:47:12 PM	100.00	112.18	9491	0.0028	365	112.2
STD 3	STD 3	x	2017/05/24 8:52:06 PM	100.00	95.11	9080	0.0024	323	95.1
STD 4	STD 4	x	2017/05/24 8:57:00 PM	100.00	84.23	8194	0.0021	254	84.2
STD 5	STD 5	x	2017/05/24 9:01:54 PM	100.00	98.65	8933	0.0024	443	98.6
STD 6	STD 6	x	2017/05/24 9:06:49 PM	100.00	106.33	9016	0.0026	360	106.3

By Compound Report

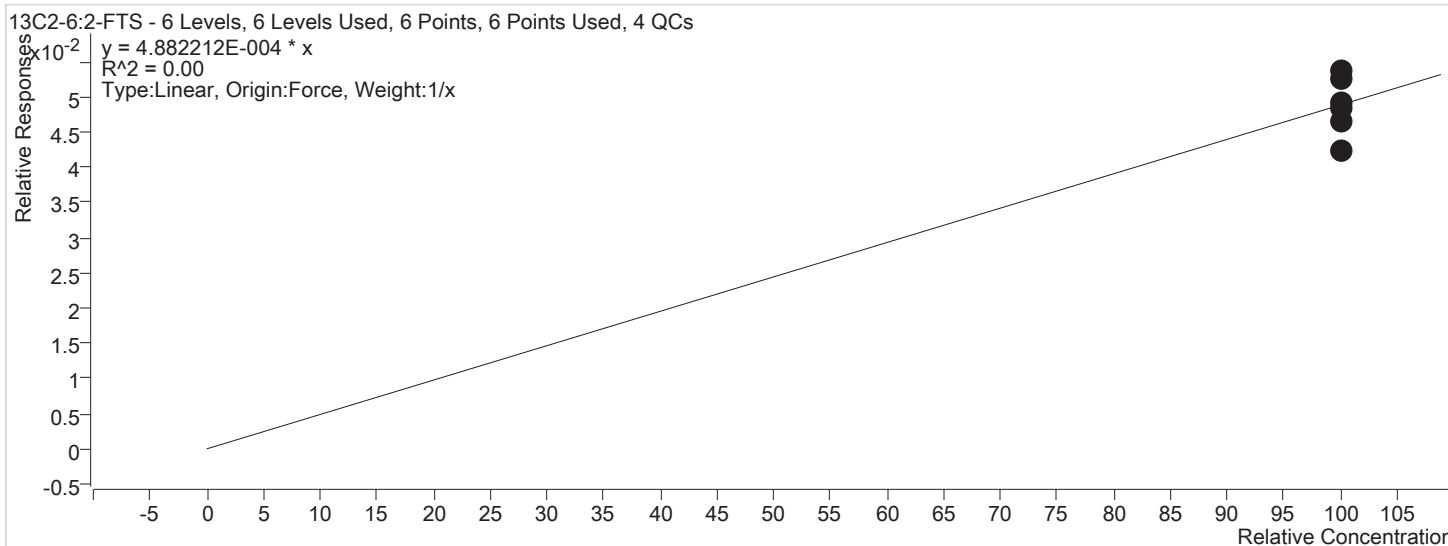
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Last Calib Update 2017/07/26 11:30:11 AM
Instrument: LCMS04
Analyte: 13C2-PFTeDA
Internal Standard: 13C9-PFDA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2017/05/24 8:42:18 PM	100.00	105.29	11559	0.0032	259	105.3
STD 2	STD 2	x	2017/05/24 8:47:12 PM	100.00	108.80	11313	0.0033	280	108.8
STD 3	STD 3	x	2017/05/24 8:52:06 PM	100.00	94.45	11082	0.0029	175	94.5
STD 4	STD 4	x	2017/05/24 8:57:00 PM	100.00	89.58	10710	0.0027	319	89.6
STD 5	STD 5	x	2017/05/24 9:01:54 PM	100.00	95.36	10613	0.0029	264	95.4
STD 6	STD 6	x	2017/05/24 9:06:49 PM	100.00	106.51	11099	0.0032	294	106.5

By Compound Report

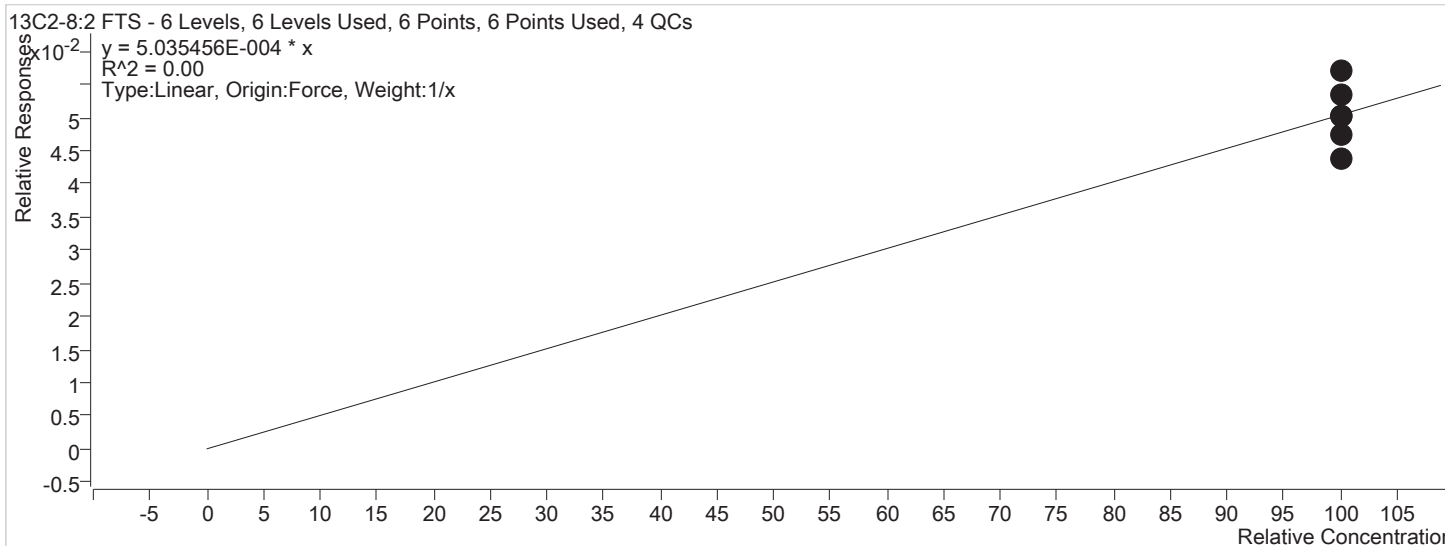
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Last Calib Update 2017/07/26 11:30:11 AM
Instrument: LCMS04
Analyte: 13C2-6:2-FTS
Internal Standard: 13C6-PFHxA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2017/05/24 8:42:18 PM	100.00	107.92	2084	0.0005	415	107.9
STD 2	STD 2	x	2017/05/24 8:47:12 PM	100.00	109.89	2061	0.0005	256	109.9
STD 3	STD 3	x	2017/05/24 8:52:06 PM	100.00	98.99	2042	0.0005	512	99.0
STD 4	STD 4	x	2017/05/24 8:57:00 PM	100.00	100.84	2138	0.0005	595	100.8
STD 5	STD 5	x	2017/05/24 9:01:54 PM	100.00	95.29	1812	0.0005	183	95.3
STD 6	STD 6	x	2017/05/24 9:06:49 PM	100.00	87.07	1677	0.0004	179	87.1

By Compound Report

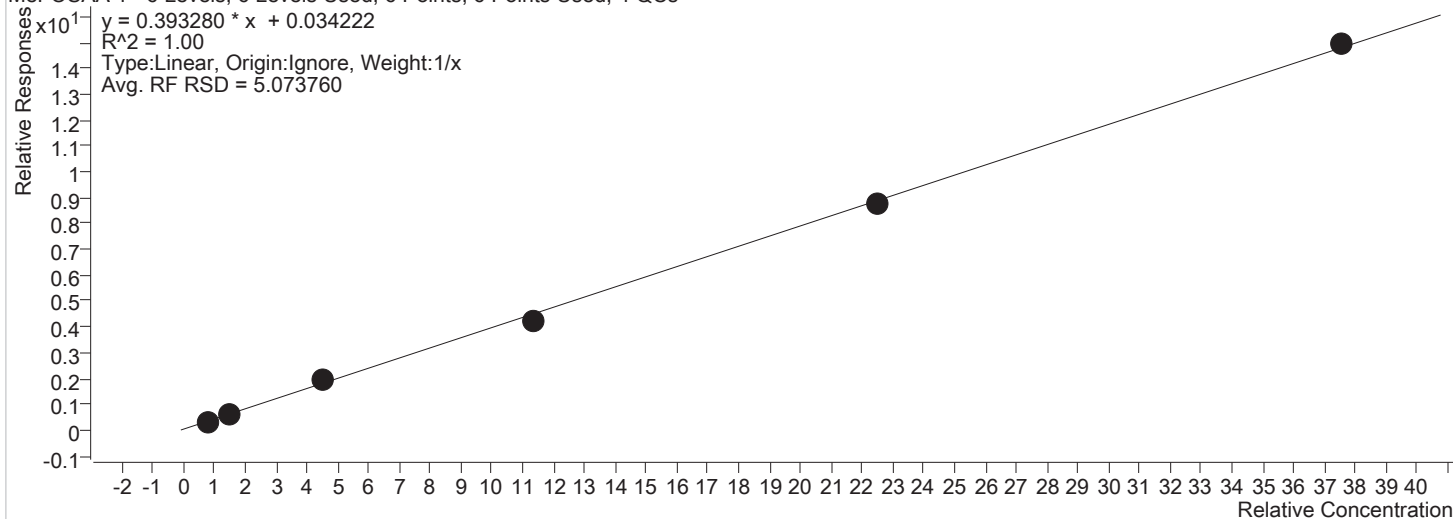
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Last Calib Update 2017/07/26 11:30:11 AM
Instrument: LCMS04
Analyte: 13C2-8:2 FTS
Internal Standard: 13C6-PFHxA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2017/05/24 8:42:18 PM	100.00	106.45	2120	0.0005	369	106.4
STD 2	STD 2	x	2017/05/24 8:47:12 PM	100.00	113.16	2189	0.0006	576	113.2
STD 3	STD 3	x	2017/05/24 8:52:06 PM	100.00	99.50	2117	0.0005	242	99.5
STD 4	STD 4	x	2017/05/24 8:57:00 PM	100.00	87.02	1903	0.0004	611	87.0
STD 5	STD 5	x	2017/05/24 9:01:54 PM	100.00	99.63	1954	0.0005	317	99.6
STD 6	STD 6	x	2017/05/24 9:06:49 PM	100.00	94.24	1872	0.0005	246	94.2

Batch Path T:\lcms4\PFC\20170524\WS#4990811_FOSAA\QuantResults\PFC_Soil_170524_WS#4990811_FOSAA.batch.bin
Last Calib Update 2017/06/27 11:36:12 AM
Instrument: LCMS04
Analyte: MeFOSAA 1
Internal Standard: D3-MeFOSAA IS

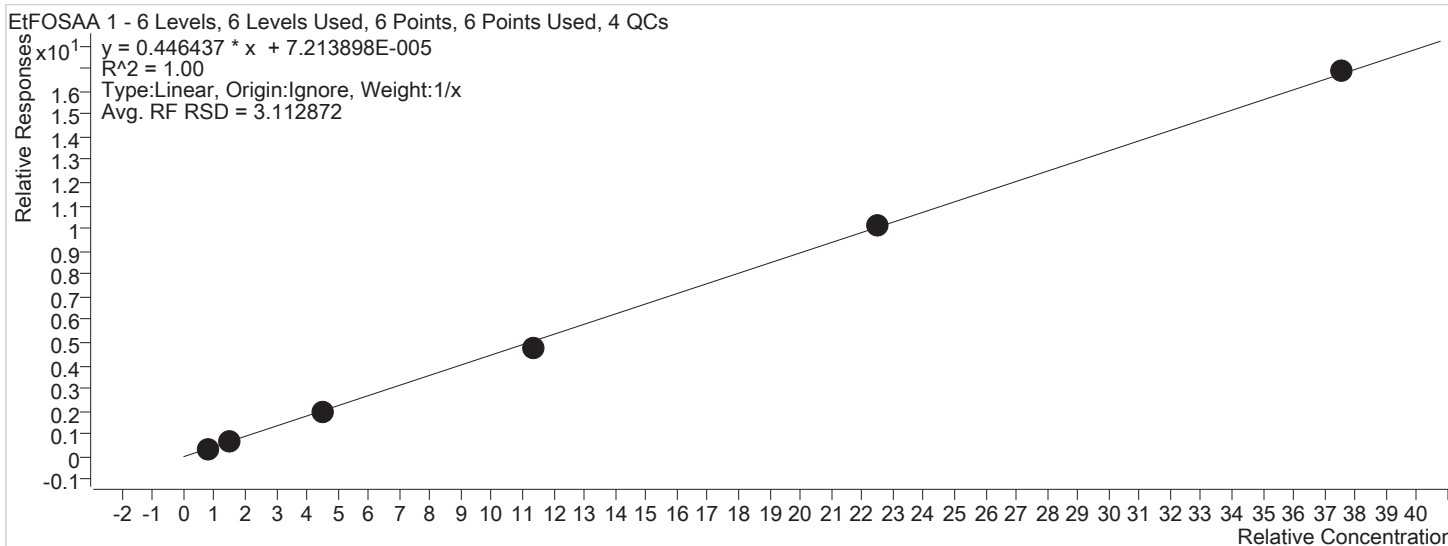
MeFOSAA 1 - 6 Levels, 6 Levels Used, 6 Points, 6 Points Used, 4 QCs



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2017/05/25 1:33:14 AM	0.75	0.71	548	0.4194	247	95.0
STD 2	STD 2	x	2017/05/25 1:35:37 AM	1.50	1.53	1066	0.4250	389	102.3
STD 3	STD 3	x	2017/05/25 1:38:00 AM	4.50	4.82	3083	0.4290	1011	107.1
STD 4	STD 4	x	2017/05/25 1:40:23 AM	11.30	10.77	6856	0.3778	1799	95.3
STD 5	STD 5	x	2017/05/25 1:42:46 AM	22.50	22.31	14245	0.3915	2376	99.2
STD 6	STD 6	x	2017/05/25 1:45:09 AM	37.50	37.90	24038	0.3984	4143	101.1

By Compound Report

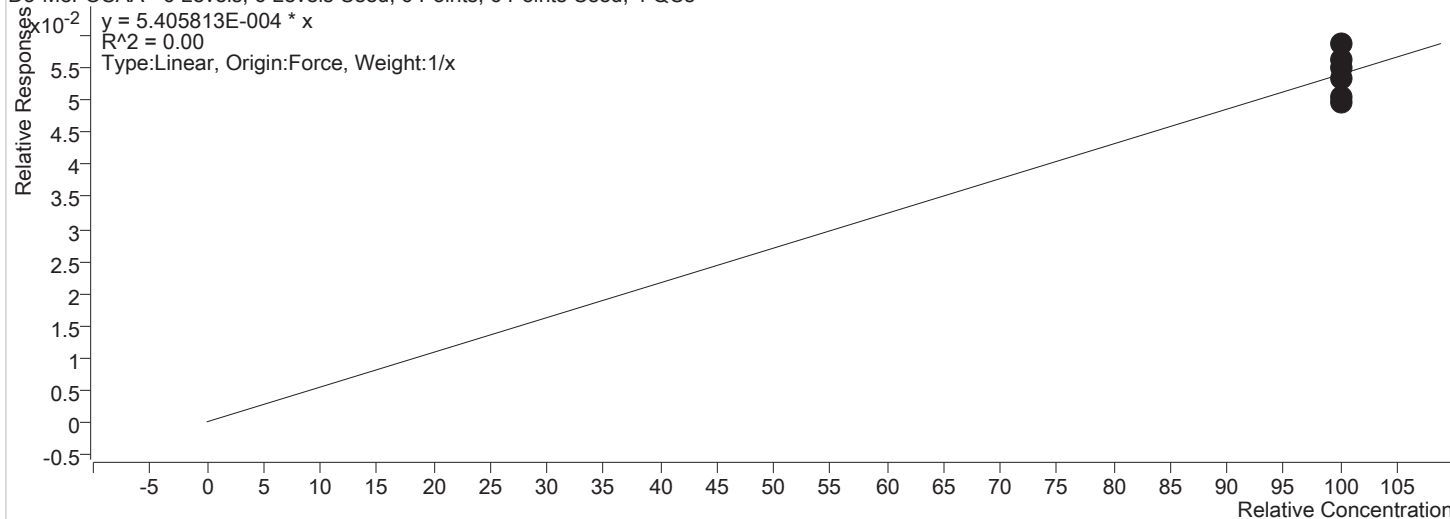
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Last Calib Update 2017/06/27 11:36:12 AM
Instrument: LCMS04
Analyte: EtFOSAA 1
Internal Standard: D5-EtFOSAA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2017/05/25 1:33:14 AM	0.75	0.77	525	0.4581	55	102.6
STD 2	STD 2	x	2017/05/25 1:35:37 AM	1.50	1.54	1024	0.4576	127	102.5
STD 3	STD 3	x	2017/05/25 1:38:00 AM	4.50	4.41	2988	0.4377	244	98.0
STD 4	STD 4	x	2017/05/25 1:40:23 AM	11.30	10.69	6831	0.4224	412	94.6
STD 5	STD 5	x	2017/05/25 1:42:46 AM	22.50	22.81	14697	0.4527	640	101.4
STD 6	STD 6	x	2017/05/25 1:45:09 AM	37.50	37.83	24570	0.4503	728	100.9

Batch Path T:\lcms4\PFC\20170524\WS#4990811_FOSAA\QuantResults\PFC_Soil_170524_WS#4990811_FOSAA.batch.bin
Last Calib Update 2017/06/27 11:36:12 AM
Instrument: LCMS04
Analyte: D3-MeFOSAA
Internal Standard: 13C9-PFDA IS

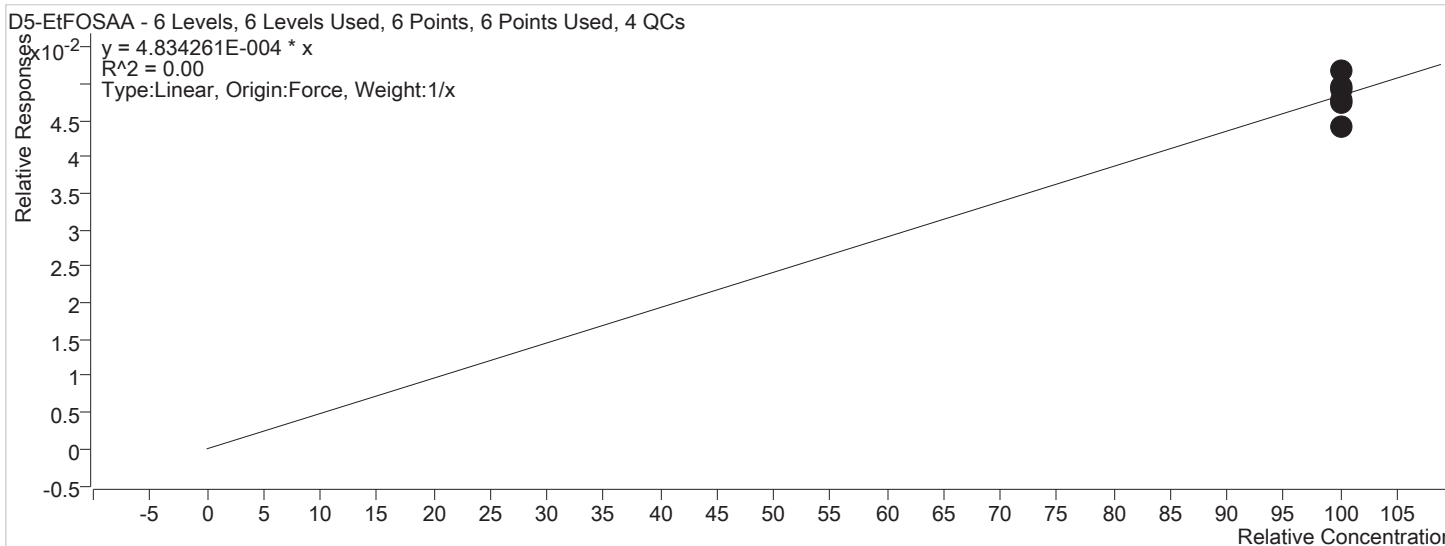
D3-MeFOSAA - 6 Levels, 6 Levels Used, 6 Points, 6 Points Used, 4 QCs



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2017/05/25 1:33:14 AM	100.00	104.53	1758	0.0006	621	104.5
STD 2	STD 2	x	2017/05/25 1:35:37 AM	100.00	108.75	1689	0.0006	615	108.7
STD 3	STD 3	x	2017/05/25 1:38:00 AM	100.00	93.77	1605	0.0005	1253	93.8
STD 4	STD 4	x	2017/05/25 1:40:23 AM	100.00	92.24	1619	0.0005	656	92.2
STD 5	STD 5	x	2017/05/25 1:42:46 AM	100.00	98.90	1635	0.0005	1100	98.9
STD 6	STD 6	x	2017/05/25 1:45:09 AM	100.00	101.81	1626	0.0006	662	101.8

By Compound Report

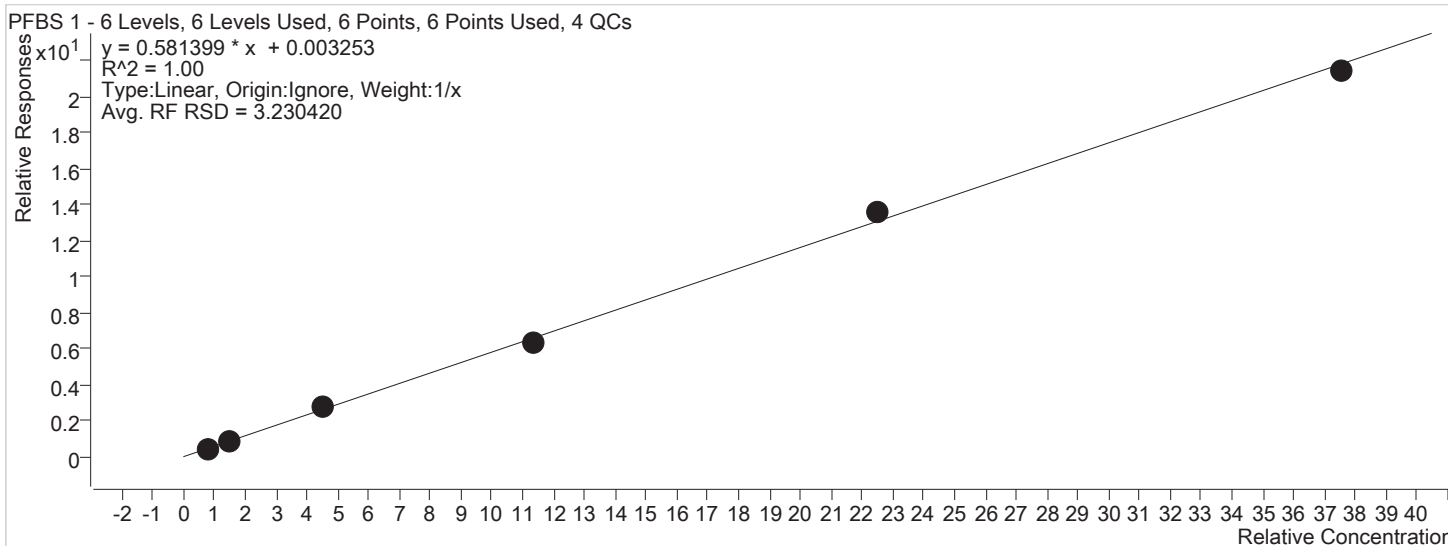
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Last Calib Update 2017/06/27 11:36:12 AM
Instrument: LCMS04
Analyte: D5-EtFOSAA
Internal Standard: 13C9-PFDA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2017/05/25 1:33:14 AM	100.00	102.09	1535	0.0005	Infinity	102.1
STD 2	STD 2	x	2017/05/25 1:35:37 AM	100.00	107.00	1486	0.0005	1657	107.0
STD 3	STD 3	x	2017/05/25 1:38:00 AM	100.00	99.11	1517	0.0005	380	99.1
STD 4	STD 4	x	2017/05/25 1:40:23 AM	100.00	91.13	1431	0.0004	449	91.1
STD 5	STD 5	x	2017/05/25 1:42:46 AM	100.00	98.08	1450	0.0005	655	98.1
STD 6	STD 6	x	2017/05/25 1:45:09 AM	100.00	102.58	1466	0.0005	1049	102.6

By Compound Report

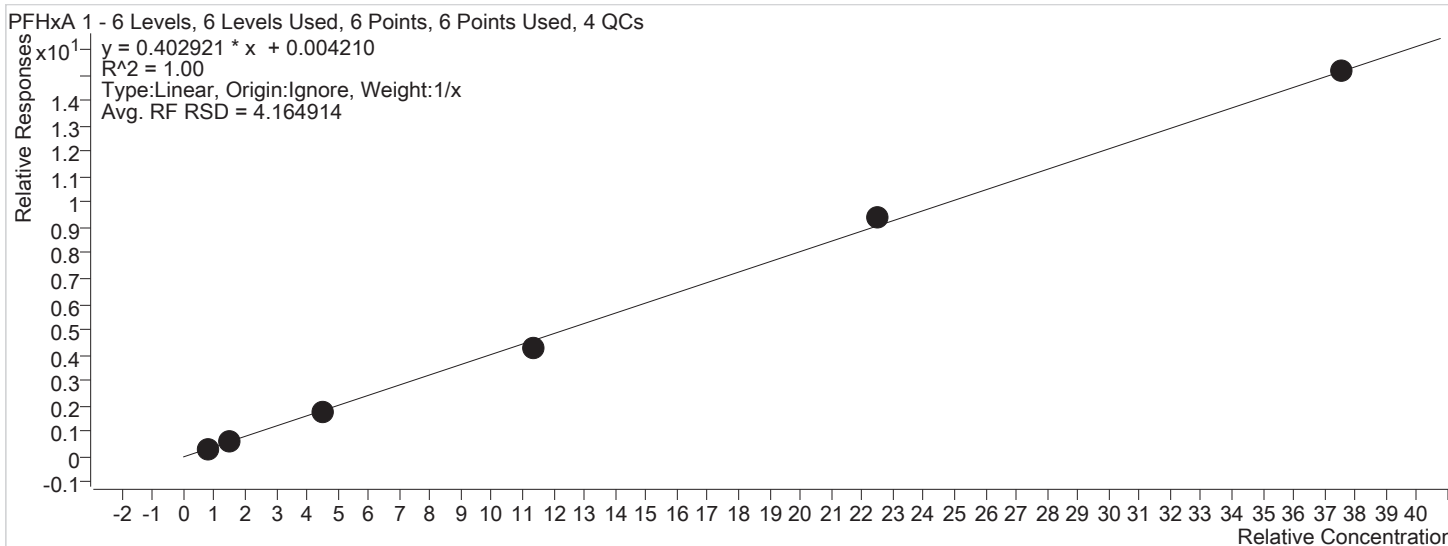
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Last Calib Update 2017/06/27 11:32:12 AM
Instrument: LCMS04
Analyte: PFBS 1
Internal Standard: MPFHxS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2017/05/30 9:29:29 AM	0.75	0.74	846	0.5808	41	99.2
STD 2	STD 2	x	2017/05/30 9:34:24 AM	1.50	1.46	1397	0.5672	54	97.2
STD 3	STD 3	x	2017/05/30 9:39:18 AM	4.50	4.71	4595	0.6093	423	104.7
STD 4	STD 4	x	2017/05/30 9:44:12 AM	11.30	10.98	11562	0.5650	1140	97.1
STD 5	STD 5	x	2017/05/30 9:49:06 AM	22.50	23.30	21385	0.6023	292	103.6
STD 6	STD 6	x	2017/05/30 9:54:00 AM	37.50	36.86	37637	0.5716	1156	98.3

By Compound Report

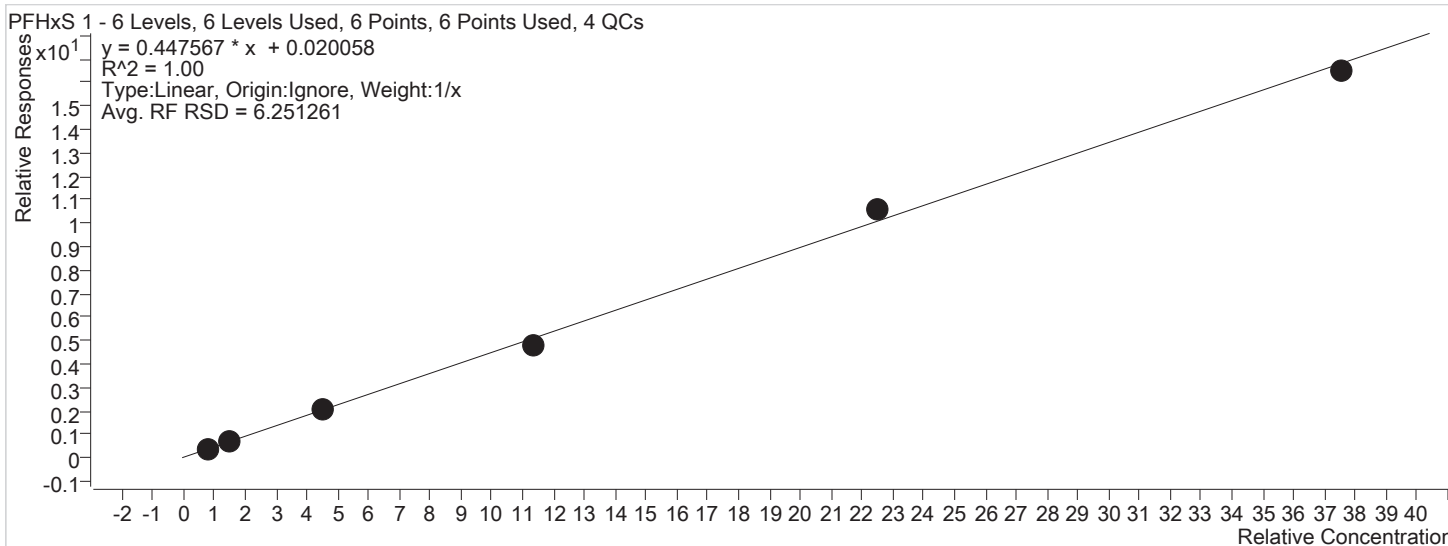
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Last Calib Update 2017/06/27 11:32:12 AM
Instrument: LCMS04
Analyte: PFHxA 1
Internal Standard: MPFHxA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2017/05/30 9:29:29 AM	0.75	0.78	3541	0.4238	50	103.8
STD 2	STD 2	x	2017/05/30 9:34:24 AM	1.50	1.51	5863	0.4090	56	100.8
STD 3	STD 3	x	2017/05/30 9:39:18 AM	4.50	4.46	18282	0.3999	192	99.0
STD 4	STD 4	x	2017/05/30 9:44:12 AM	11.30	10.50	47798	0.3749	214	93.0
STD 5	STD 5	x	2017/05/30 9:49:06 AM	22.50	23.22	87840	0.4160	430	103.2
STD 6	STD 6	x	2017/05/30 9:54:00 AM	37.50	37.58	152079	0.4039	469	100.2

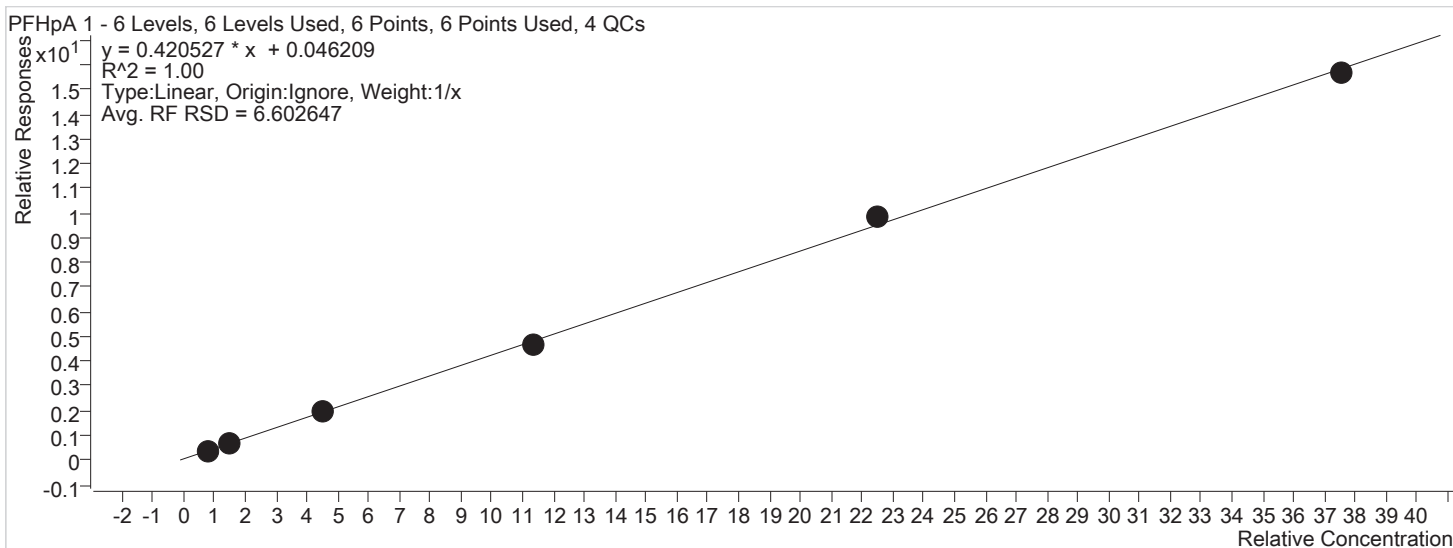
By Compound Report

Batch Path T:\lcms4\PFC\20170526\WS#4994375_B\QuantResults\PFC_Soil_170526_WS#4994375_CTLabs.batch.bin
Last Calib Update 2017/06/27 11:32:12 AM
Instrument: LCMS04
Analyte: PFHxS 1
Internal Standard: MPFHxS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2017/05/30 9:29:29 AM	0.75	0.80	731	0.5019	65	106.2
STD 2	STD 2	x	2017/05/30 9:34:24 AM	1.50	1.40	1060	0.4304	91	93.2
STD 3	STD 3	x	2017/05/30 9:39:18 AM	4.50	4.58	3472	0.4604	286	101.9
STD 4	STD 4	x	2017/05/30 9:44:12 AM	11.30	10.78	8771	0.4286	300	95.4
STD 5	STD 5	x	2017/05/30 9:49:06 AM	22.50	23.69	16764	0.4722	332	105.3
STD 6	STD 6	x	2017/05/30 9:54:00 AM	37.50	36.80	28961	0.4398	394	98.1

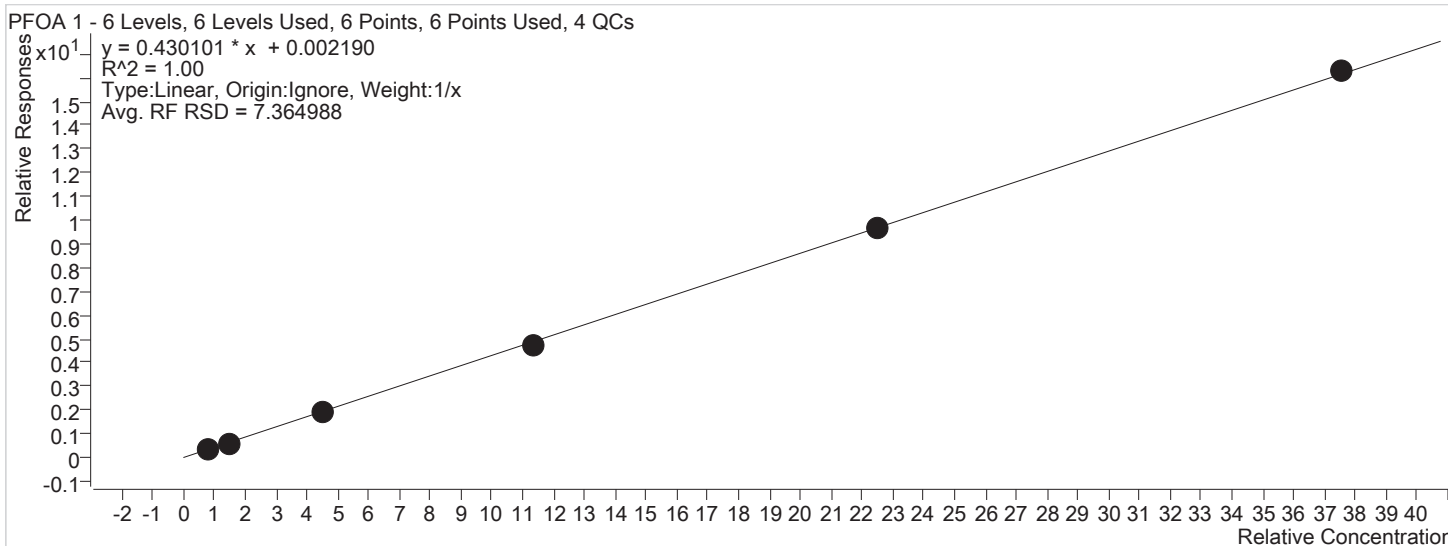
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Last Calib Update 2017/06/27 11:32:12 AM
Instrument: LCMS04
Analyte: PFHpA 1
Internal Standard: MPFHpA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2017/05/30 9:29:29 AM	0.75	0.77	4545	0.4928	32	102.5
STD 2	STD 2	x	2017/05/30 9:34:24 AM	1.50	1.46	7129	0.4399	58	97.3
STD 3	STD 3	x	2017/05/30 9:39:18 AM	4.50	4.56	20700	0.4365	71	101.4
STD 4	STD 4	x	2017/05/30 9:44:12 AM	11.30	10.92	53428	0.4103	222	96.6
STD 5	STD 5	x	2017/05/30 9:49:06 AM	22.50	23.22	95793	0.4361	412	103.2
STD 6	STD 6	x	2017/05/30 9:54:00 AM	37.50	37.12	162285	0.4175	709	99.0

By Compound Report

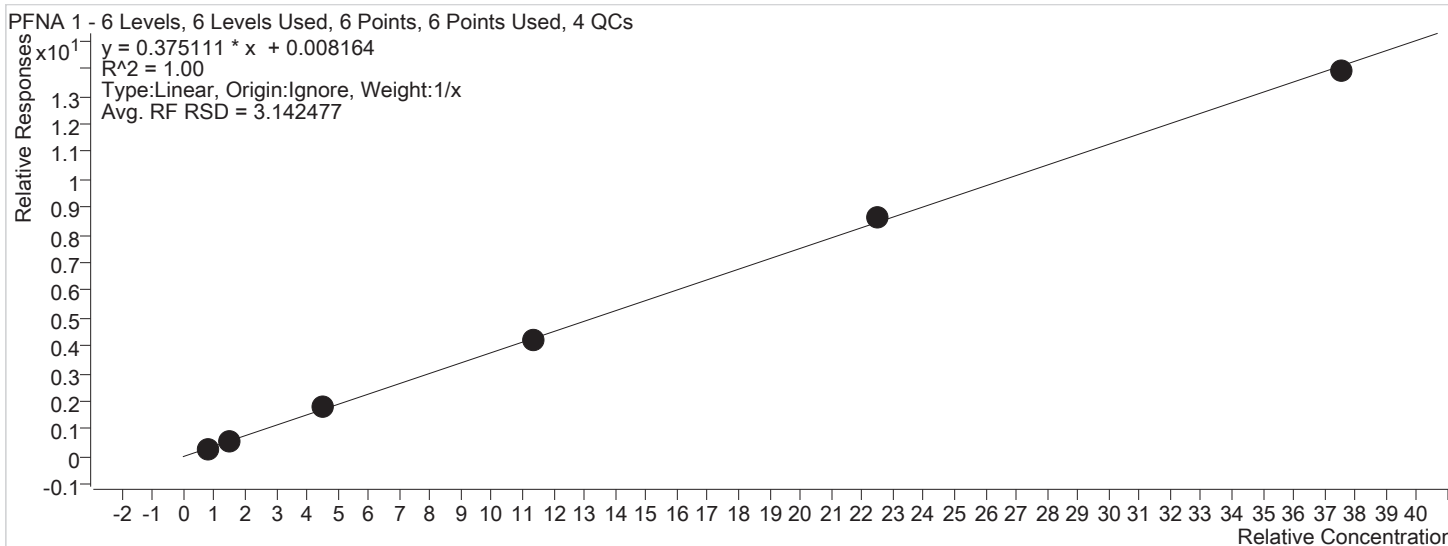
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Last Calib Update 2017/06/27 11:32:12 AM
Instrument: LCMS04
Analyte: PFOA 1
Internal Standard: MPFOA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2017/05/30 9:29:29 AM	0.75	0.84	3953	0.4863	18	112.4
STD 2	STD 2	x	2017/05/30 9:34:24 AM	1.50	1.35	5919	0.3889	33	90.1
STD 3	STD 3	x	2017/05/30 9:39:18 AM	4.50	4.47	19610	0.4273	98	99.2
STD 4	STD 4	x	2017/05/30 9:44:12 AM	11.30	10.96	49580	0.4173	215	97.0
STD 5	STD 5	x	2017/05/30 9:49:06 AM	22.50	22.60	90283	0.4320	391	100.4
STD 6	STD 6	x	2017/05/30 9:54:00 AM	37.50	37.84	161799	0.4340	743	100.9

By Compound Report

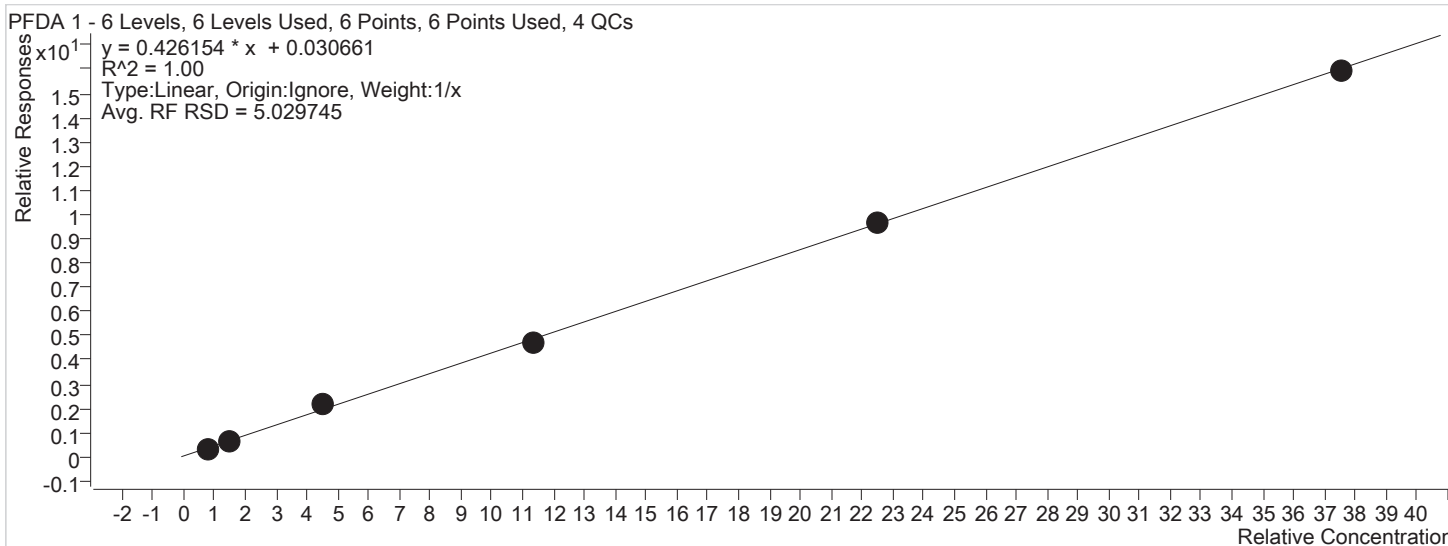
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Last Calib Update 2017/06/27 11:32:12 AM
Instrument: LCMS04
Analyte: PFNA 1
Internal Standard: MPFNA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2017/05/30 9:29:29 AM	0.75	0.73	3122	0.3765	42	97.5
STD 2	STD 2	x	2017/05/30 9:34:24 AM	1.50	1.46	5239	0.3699	54	97.2
STD 3	STD 3	x	2017/05/30 9:39:18 AM	4.50	4.78	17605	0.4005	224	106.3
STD 4	STD 4	x	2017/05/30 9:44:12 AM	11.30	11.13	43999	0.3702	722	98.5
STD 5	STD 5	x	2017/05/30 9:49:06 AM	22.50	22.91	80737	0.3824	884	101.8
STD 6	STD 6	x	2017/05/30 9:54:00 AM	37.50	37.04	135989	0.3707	1263	98.8

By Compound Report

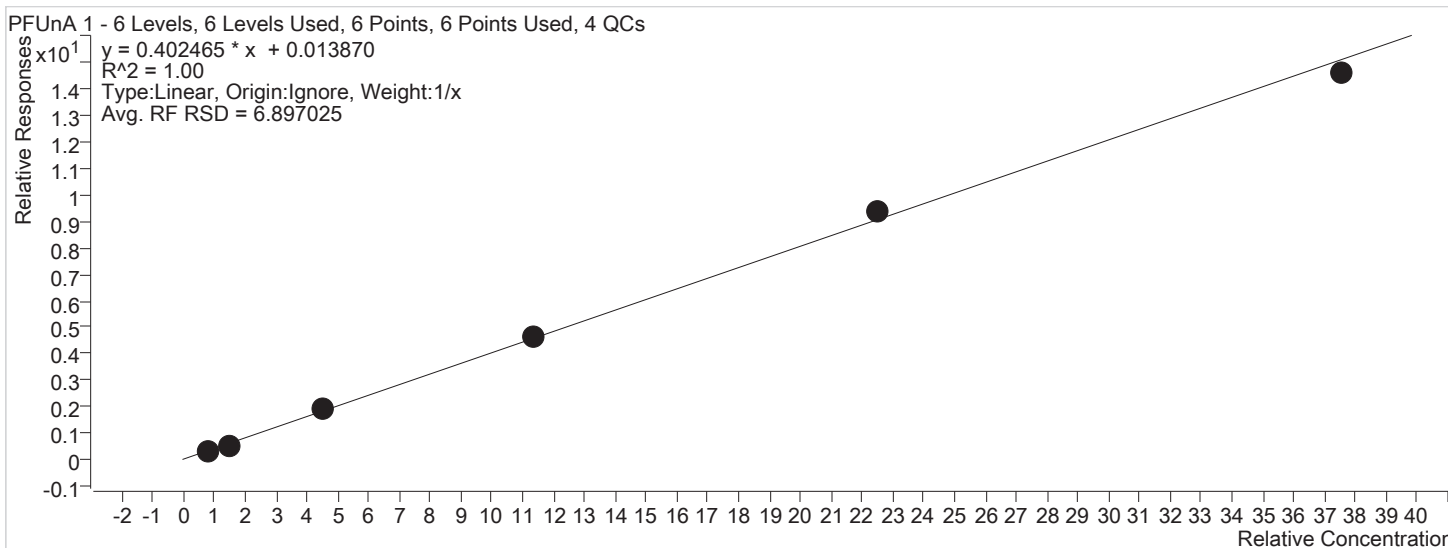
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Last Calib Update 2017/06/27 11:32:12 AM
Instrument: LCMS04
Analyte: PFDA 1
Internal Standard: MPFDA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2017/05/30 9:29:29 AM	0.75	0.69	3139	0.4317	22	91.7
STD 2	STD 2	x	2017/05/30 9:34:24 AM	1.50	1.50	5246	0.4460	50	99.9
STD 3	STD 3	x	2017/05/30 9:39:18 AM	4.50	4.99	17650	0.4796	119	110.9
STD 4	STD 4	x	2017/05/30 9:44:12 AM	11.30	11.08	43937	0.4205	207	98.0
STD 5	STD 5	x	2017/05/30 9:49:06 AM	22.50	22.50	79860	0.4275	302	100.0
STD 6	STD 6	x	2017/05/30 9:54:00 AM	37.50	37.30	140964	0.4247	311	99.5

By Compound Report

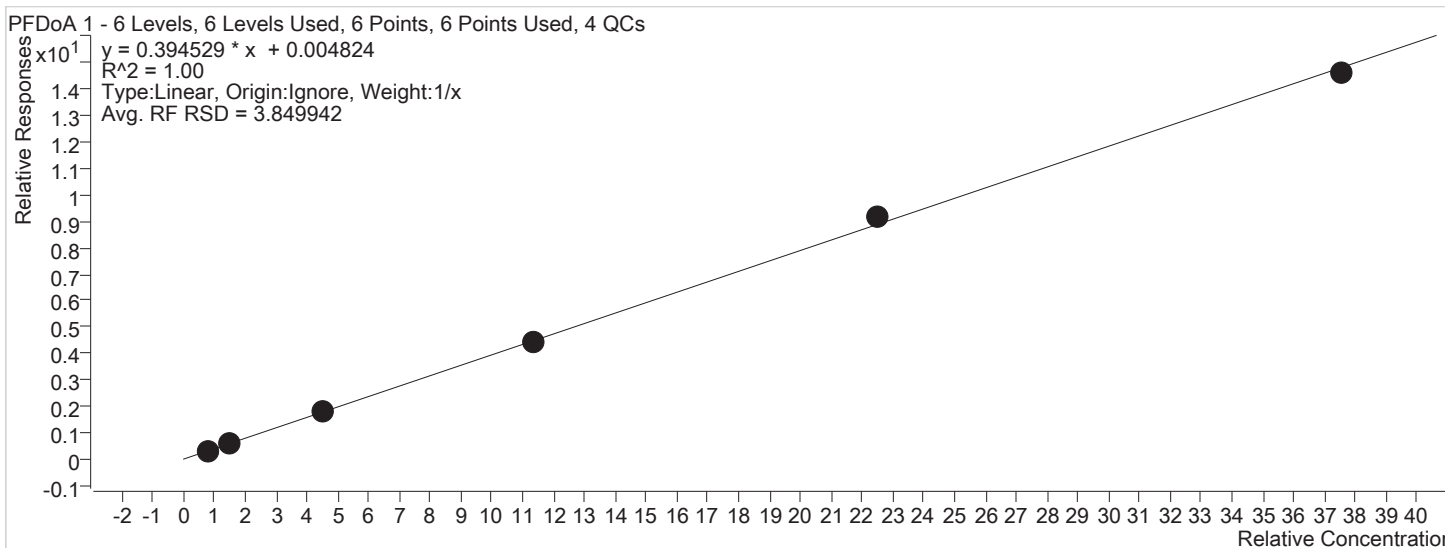
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Last Calib Update 2017/06/27 11:32:12 AM
Instrument: LCMS04
Analyte: PFUnA 1
Internal Standard: MPFUnA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2017/05/30 9:29:29 AM	0.75	0.77	3524	0.4320	21	102.7
STD 2	STD 2	x	2017/05/30 9:34:24 AM	1.50	1.31	5113	0.3615	30	87.5
STD 3	STD 3	x	2017/05/30 9:39:18 AM	4.50	4.84	17815	0.4358	115	107.5
STD 4	STD 4	x	2017/05/30 9:44:12 AM	11.30	11.48	44972	0.4101	173	101.6
STD 5	STD 5	x	2017/05/30 9:49:06 AM	22.50	23.37	85054	0.4187	265	103.9
STD 6	STD 6	x	2017/05/30 9:54:00 AM	37.50	36.28	144619	0.3897	313	96.7

By Compound Report

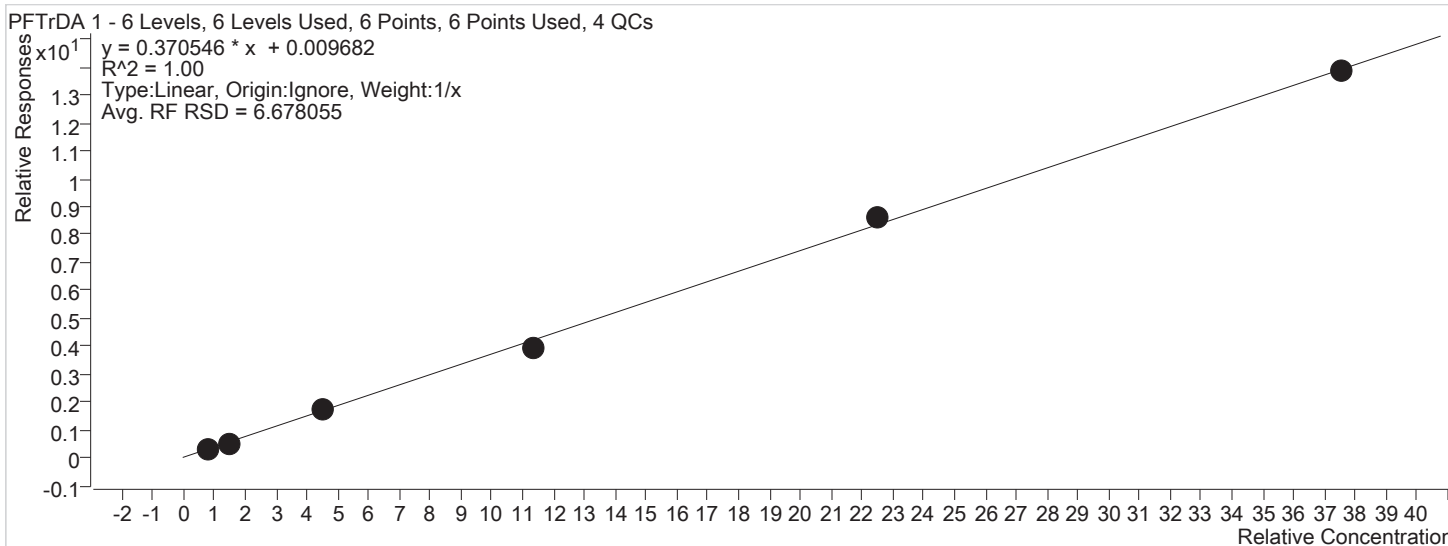
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Last Calib Update 2017/06/27 11:32:12 AM
Instrument: LCMS04
Analyte: PFDoA 1
Internal Standard: MPFDoA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2017/05/30 9:29:29 AM	0.75	0.79	3854	0.4212	10	105.1
STD 2	STD 2	x	2017/05/30 9:34:24 AM	1.50	1.42	5852	0.3775	33	94.9
STD 3	STD 3	x	2017/05/30 9:39:18 AM	4.50	4.47	18608	0.3928	98	99.3
STD 4	STD 4	x	2017/05/30 9:44:12 AM	11.30	11.19	48190	0.3911	128	99.0
STD 5	STD 5	x	2017/05/30 9:49:06 AM	22.50	23.17	90692	0.4065	249	103.0
STD 6	STD 6	x	2017/05/30 9:54:00 AM	37.50	37.01	154211	0.3895	351	98.7

By Compound Report

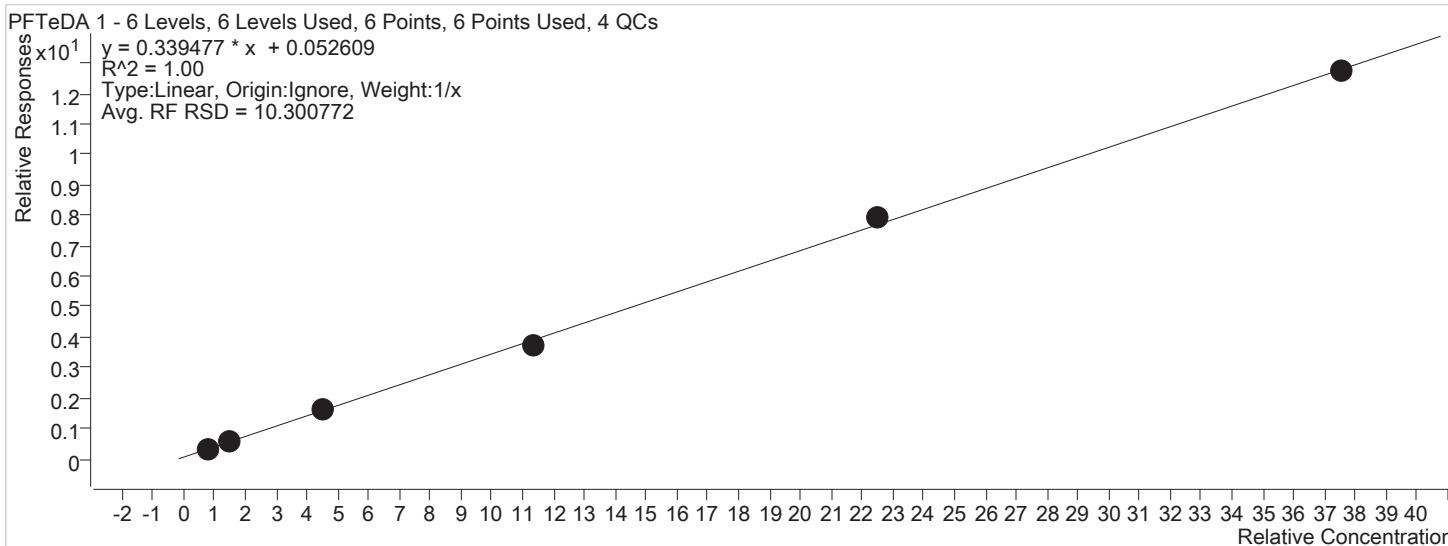
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Last Calib Update 2017/06/27 11:32:12 AM
Instrument: LCMS04
Analyte: PFTTrDA 1
Internal Standard: MPFTeDA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2017/05/30 9:29:29 AM	0.75	0.80	4462	0.4098	21	107.1
STD 2	STD 2	x	2017/05/30 9:34:24 AM	1.50	1.37	6781	0.3437	27	91.0
STD 3	STD 3	x	2017/05/30 9:39:18 AM	4.50	4.73	23711	0.3917	118	105.1
STD 4	STD 4	x	2017/05/30 9:44:12 AM	11.30	10.67	57055	0.3506	272	94.4
STD 5	STD 5	x	2017/05/30 9:49:06 AM	22.50	23.11	109108	0.3811	379	102.7
STD 6	STD 6	x	2017/05/30 9:54:00 AM	37.50	37.37	193500	0.3695	792	99.7

By Compound Report

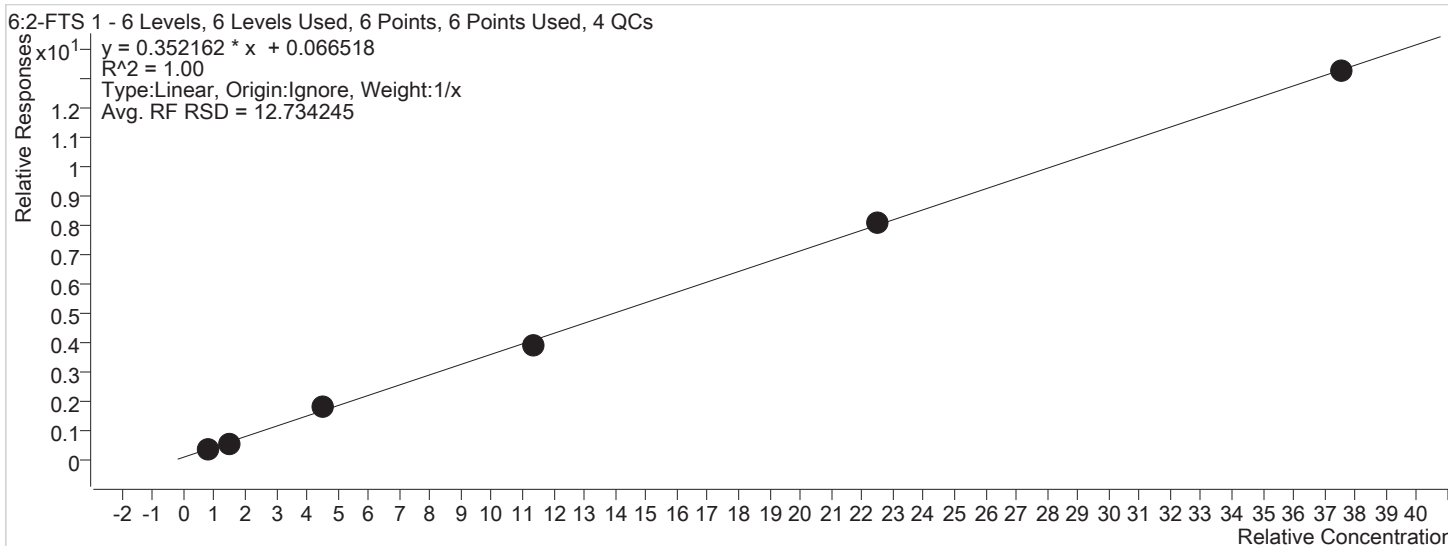
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Last Calib Update 2017/06/27 11:32:12 AM
Instrument: LCMS04
Analyte: PFTeDA 1
Internal Standard: MPFTeDA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2017/05/30 9:29:29 AM	0.75	0.80	4714	0.4329	29	106.9
STD 2	STD 2	x	2017/05/30 9:34:24 AM	1.50	1.43	7056	0.3576	70	95.0
STD 3	STD 3	x	2017/05/30 9:39:18 AM	4.50	4.51	21313	0.3521	312	100.3
STD 4	STD 4	x	2017/05/30 9:44:12 AM	11.30	10.76	53346	0.3278	308	95.2
STD 5	STD 5	x	2017/05/30 9:49:06 AM	22.50	23.17	100771	0.3519	637	103.0
STD 6	STD 6	x	2017/05/30 9:54:00 AM	37.50	37.38	177936	0.3398	1102	99.7

By Compound Report

Batch Path T:\lcms4\PFC\20170526\WS#4994375_B\QuantResults\PFC_Soil_170526_WS#4994375_CTLabs.batch.bin
Last Calib Update 2017/06/27 11:32:12 AM
Instrument: LCMS04
Analyte: 6:2-FTS 1
Internal Standard: M2 6:2 FTS

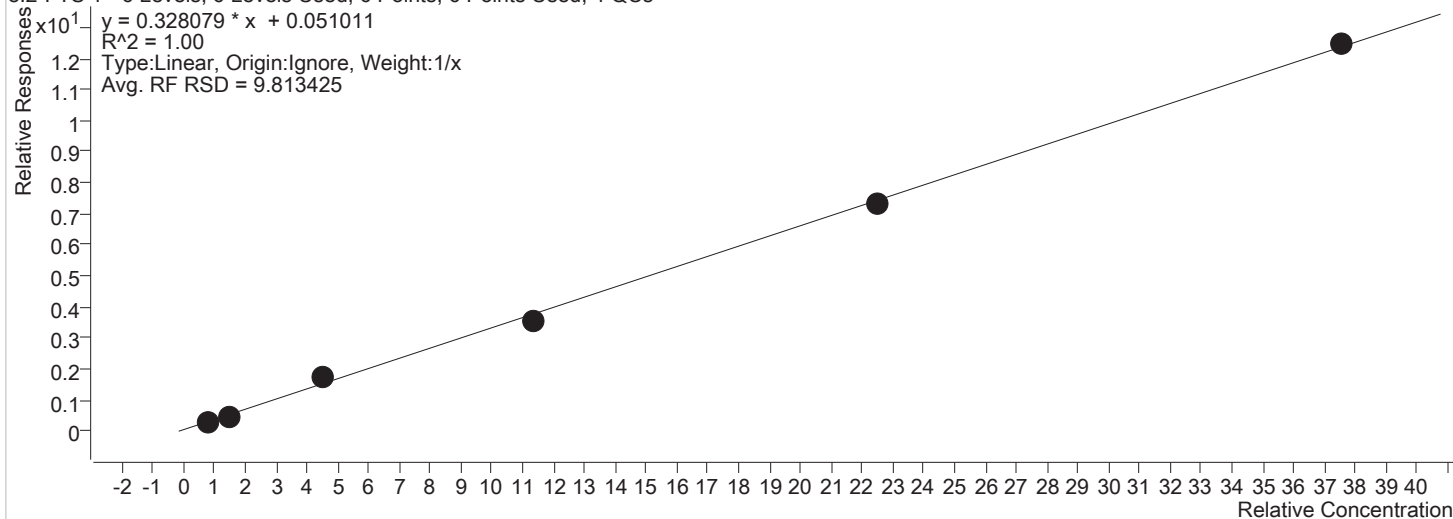


Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2017/05/30 9:29:29 AM	0.75	0.81	883	0.4694	28	108.1
STD 2	STD 2	x	2017/05/30 9:34:24 AM	1.50	1.29	1220	0.3483	47	86.3
STD 3	STD 3	x	2017/05/30 9:39:18 AM	4.50	4.87	4879	0.3961	178	108.3
STD 4	STD 4	x	2017/05/30 9:44:12 AM	11.30	10.88	10924	0.3450	491	96.3
STD 5	STD 5	x	2017/05/30 9:49:06 AM	22.50	22.77	19612	0.3593	1088	101.2
STD 6	STD 6	x	2017/05/30 9:54:00 AM	37.50	37.42	33405	0.3532	1790	99.8

By Compound Report

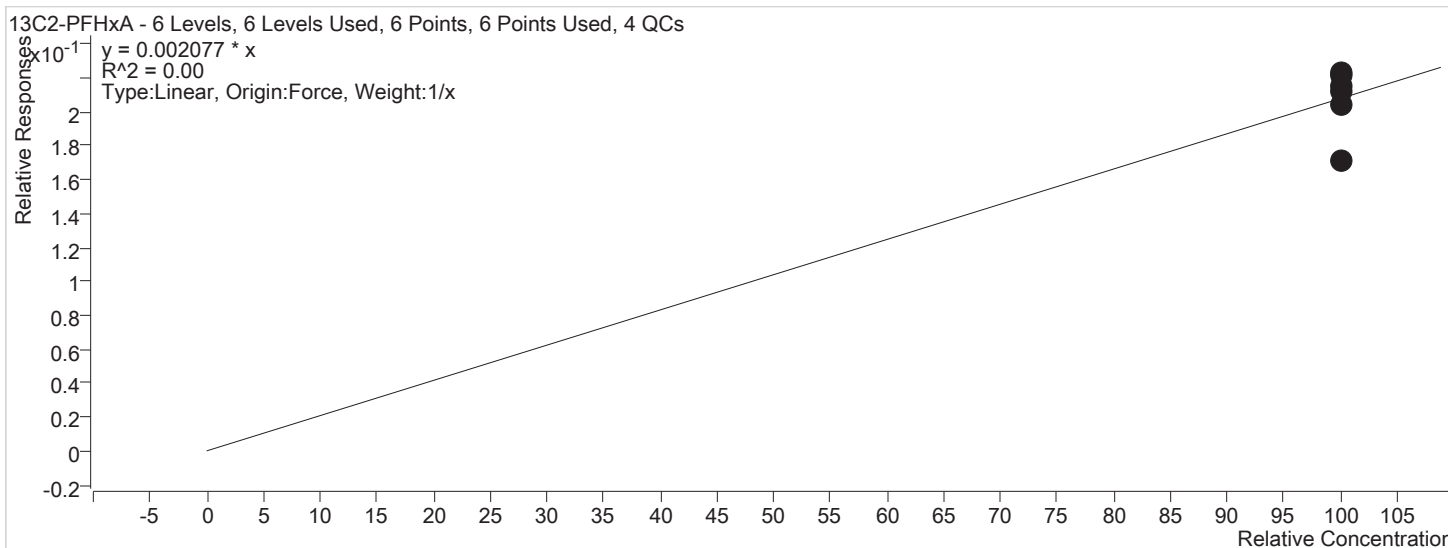
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Last Calib Update 2017/06/27 11:32:12 AM
Instrument: LCMS04
Analyte: 8:2-FTS 1
Internal Standard: M2 8:2 FTS

8:2-FTS 1 - 6 Levels, 6 Levels Used, 6 Points, 6 Points Used, 4 QCs



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2017/05/30 9:29:29 AM	0.75	0.76	829	0.4016	32	101.7
STD 2	STD 2	x	2017/05/30 9:34:24 AM	1.50	1.36	1104	0.3314	65	90.6
STD 3	STD 3	x	2017/05/30 9:39:18 AM	4.50	5.06	4179	0.3804	165	112.5
STD 4	STD 4	x	2017/05/30 9:44:12 AM	11.30	10.77	10067	0.3172	231	95.3
STD 5	STD 5	x	2017/05/30 9:49:06 AM	22.50	22.28	17724	0.3271	257	99.0
STD 6	STD 6	x	2017/05/30 9:54:00 AM	37.50	37.82	30273	0.3322	328	100.8

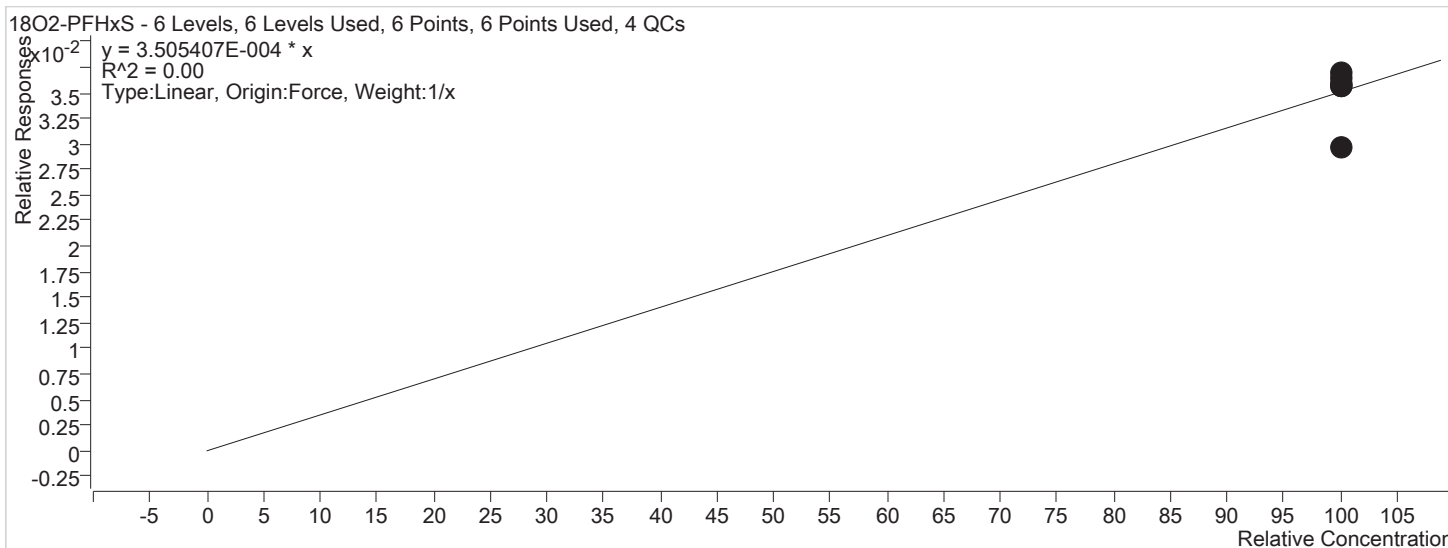
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Last Calib Update 2017/06/27 11:32:12 AM
Instrument: LCMS04
Analyte: 13C2-PFHxA
Internal Standard: 13C6-PFHxA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2017/05/30 9:29:29 AM	100.00	82.09	11141	0.0017	926	82.1
STD 2	STD 2	x	2017/05/30 9:34:24 AM	100.00	103.46	9556	0.0021	277	103.5
STD 3	STD 3	x	2017/05/30 9:39:18 AM	100.00	106.59	10158	0.0022	538	106.6
STD 4	STD 4	x	2017/05/30 9:44:12 AM	100.00	107.25	11282	0.0022	755	107.3
STD 5	STD 5	x	2017/05/30 9:49:06 AM	100.00	101.95	9385	0.0021	1306	101.9
STD 6	STD 6	x	2017/05/30 9:54:00 AM	100.00	98.66	10041	0.0020	767	98.7

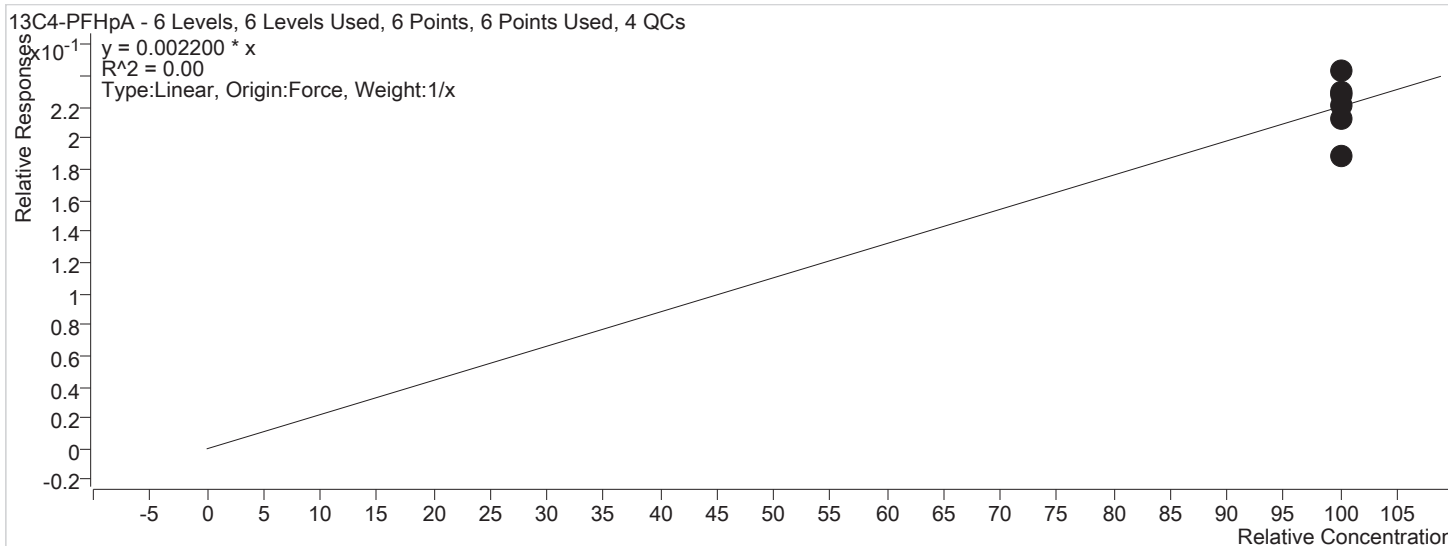
By Compound Report

Batch Path T:\lcms4\PFC\20170526\WS#4994375_B\QuantResults\PFC_Soil_170526_WS#4994375_CTLabs.batch.bin
Last Calib Update 2017/06/27 11:32:12 AM
Instrument: LCMS04
Analyte: 18O2-PFHxS
Internal Standard: 13C6-PFHxA IS



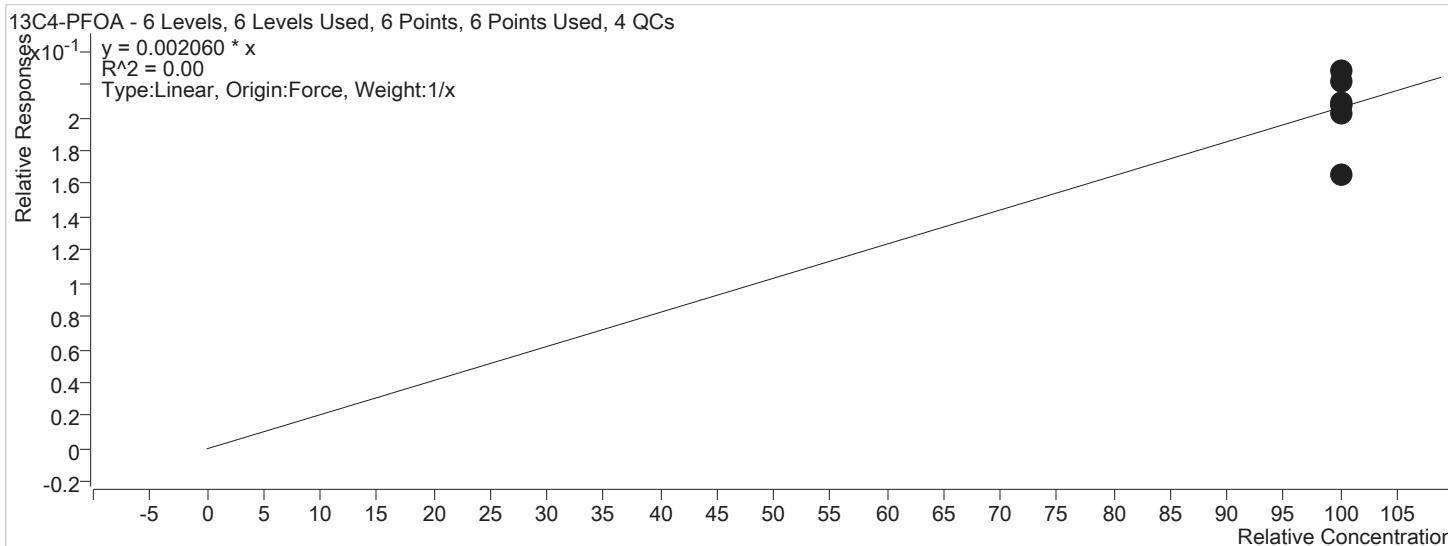
Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2017/05/30 9:29:29 AM	100.00	84.77	1942	0.0003	335	84.8
STD 2	STD 2	x	2017/05/30 9:34:24 AM	100.00	105.31	1642	0.0004	232	105.3
STD 3	STD 3	x	2017/05/30 9:39:18 AM	100.00	104.18	1676	0.0004	246	104.2
STD 4	STD 4	x	2017/05/30 9:44:12 AM	100.00	101.99	1811	0.0004	605	102.0
STD 5	STD 5	x	2017/05/30 9:49:06 AM	100.00	101.55	1578	0.0004	220	101.5
STD 6	STD 6	x	2017/05/30 9:54:00 AM	100.00	102.21	1756	0.0004	349	102.2

Batch Path T:\lcms4\PFC\20170526\WS#4994375_B\QuantResults\PFC_Soil_170526_WS#4994375_CTLabs.batch.bin
Last Calib Update 2017/06/27 11:32:12 AM
Instrument: LCMS04
Analyte: 13C4-PFHpA
Internal Standard: 13C6-PFHxA IS



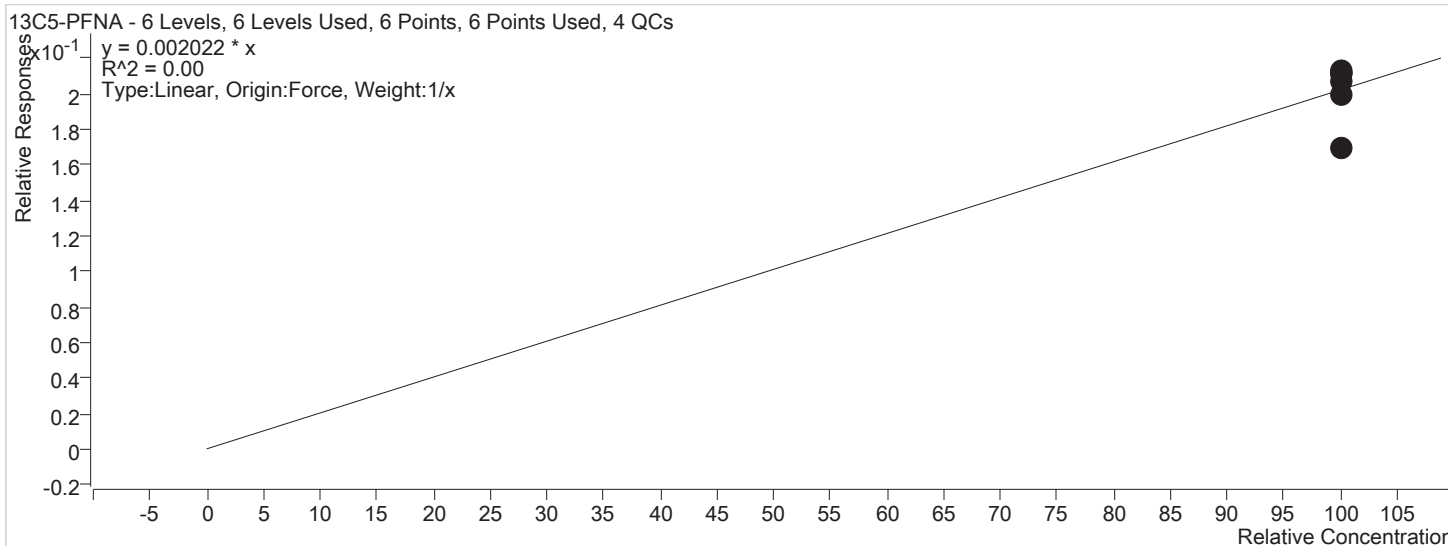
Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2017/05/30 9:29:29 AM	100.00	85.53	12296	0.0019	957	85.5
STD 2	STD 2	x	2017/05/30 9:34:24 AM	100.00	110.42	10803	0.0024	771	110.4
STD 3	STD 3	x	2017/05/30 9:39:18 AM	100.00	104.38	10538	0.0023	549	104.4
STD 4	STD 4	x	2017/05/30 9:44:12 AM	100.00	103.41	11523	0.0023	405	103.4
STD 5	STD 5	x	2017/05/30 9:49:06 AM	100.00	100.12	9763	0.0022	533	100.1
STD 6	STD 6	x	2017/05/30 9:54:00 AM	100.00	96.14	10365	0.0021	572	96.1

Batch Path T:\lcms4\PFC\20170526\WS#4994375_B\QuantResults\PFC_Soil_170526_WS#4994375_CTLabs.batch.bin
Last Calib Update 2017/06/27 11:32:12 AM
Instrument: LCMS04
Analyte: 13C4-PFOA
Internal Standard: 13C6-PFHxA IS



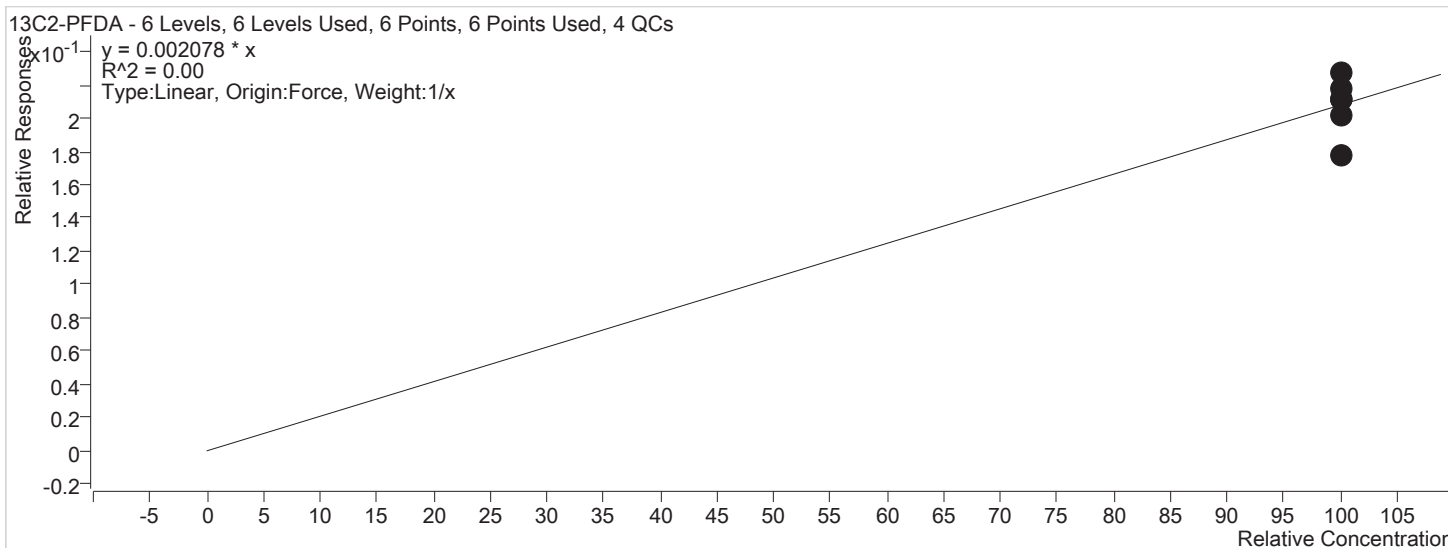
Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2017/05/30 9:29:29 AM	100.00	80.50	10839	0.0017	235	80.5
STD 2	STD 2	x	2017/05/30 9:34:24 AM	100.00	110.73	10146	0.0023	227	110.7
STD 3	STD 3	x	2017/05/30 9:39:18 AM	100.00	107.86	10198	0.0022	182	107.9
STD 4	STD 4	x	2017/05/30 9:44:12 AM	100.00	100.76	10515	0.0021	234	100.8
STD 5	STD 5	x	2017/05/30 9:49:06 AM	100.00	101.70	9288	0.0021	238	101.7
STD 6	STD 6	x	2017/05/30 9:54:00 AM	100.00	98.45	9941	0.0020	346	98.5

Batch Path T:\lcms4\PFC\20170526\WS#4994375_B\QuantResults\PFC_Soil_170526_WS#4994375_CTLabs.batch.bin
Last Calib Update 2017/06/27 11:32:12 AM
Instrument: LCMS04
Analyte: 13C5-PFNA
Internal Standard: 13C6-PFHxA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2017/05/30 9:29:29 AM	100.00	83.65	11055	0.0017	714	83.7
STD 2	STD 2	x	2017/05/30 9:34:24 AM	100.00	104.99	9443	0.0021	471	105.0
STD 3	STD 3	x	2017/05/30 9:39:18 AM	100.00	105.27	9769	0.0021	403	105.3
STD 4	STD 4	x	2017/05/30 9:44:12 AM	100.00	102.69	10519	0.0021	596	102.7
STD 5	STD 5	x	2017/05/30 9:49:06 AM	100.00	104.68	9384	0.0021	388	104.7
STD 6	STD 6	x	2017/05/30 9:54:00 AM	100.00	98.71	9783	0.0020	414	98.7

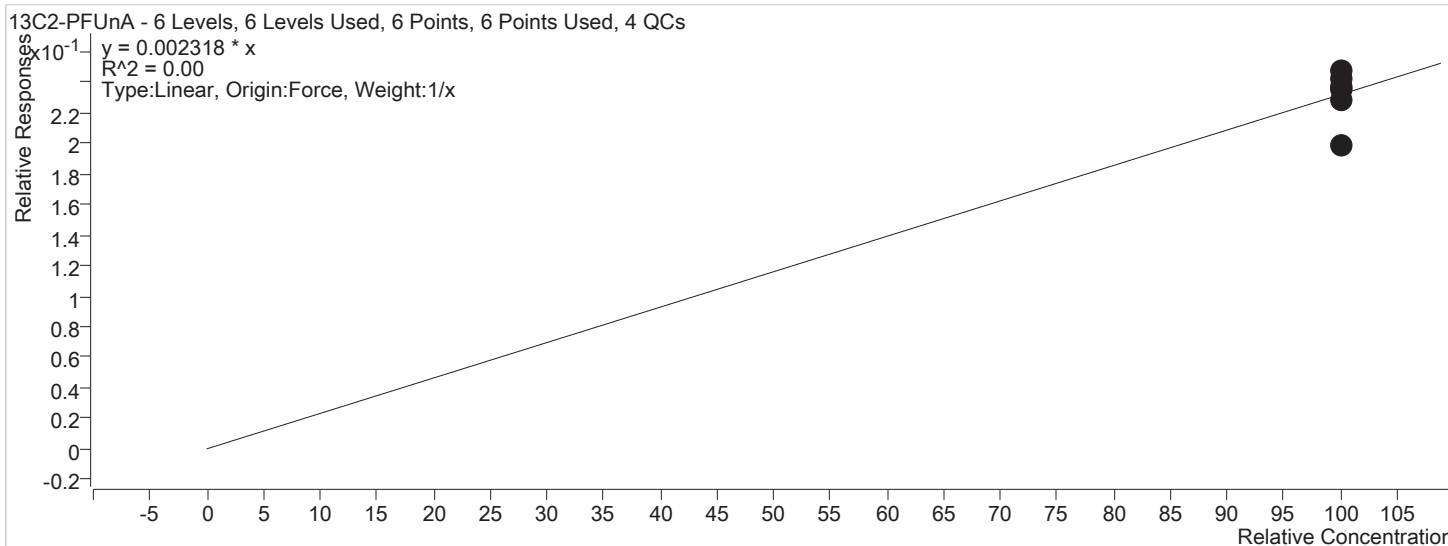
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Last Calib Update 2017/06/27 11:32:12 AM
Instrument: LCMS04
Analyte: 13C2-PFDA
Internal Standard: 13C9-PFDA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2017/05/30 9:29:29 AM	100.00	85.19	9695	0.0018	516	85.2
STD 2	STD 2	x	2017/05/30 9:34:24 AM	100.00	97.26	7841	0.0020	366	97.3
STD 3	STD 3	x	2017/05/30 9:39:18 AM	100.00	101.88	8178	0.0021	403	101.9
STD 4	STD 4	x	2017/05/30 9:44:12 AM	100.00	104.76	9247	0.0022	729	104.8
STD 5	STD 5	x	2017/05/30 9:49:06 AM	100.00	109.27	8303	0.0023	413	109.3
STD 6	STD 6	x	2017/05/30 9:54:00 AM	100.00	101.64	8852	0.0021	590	101.6

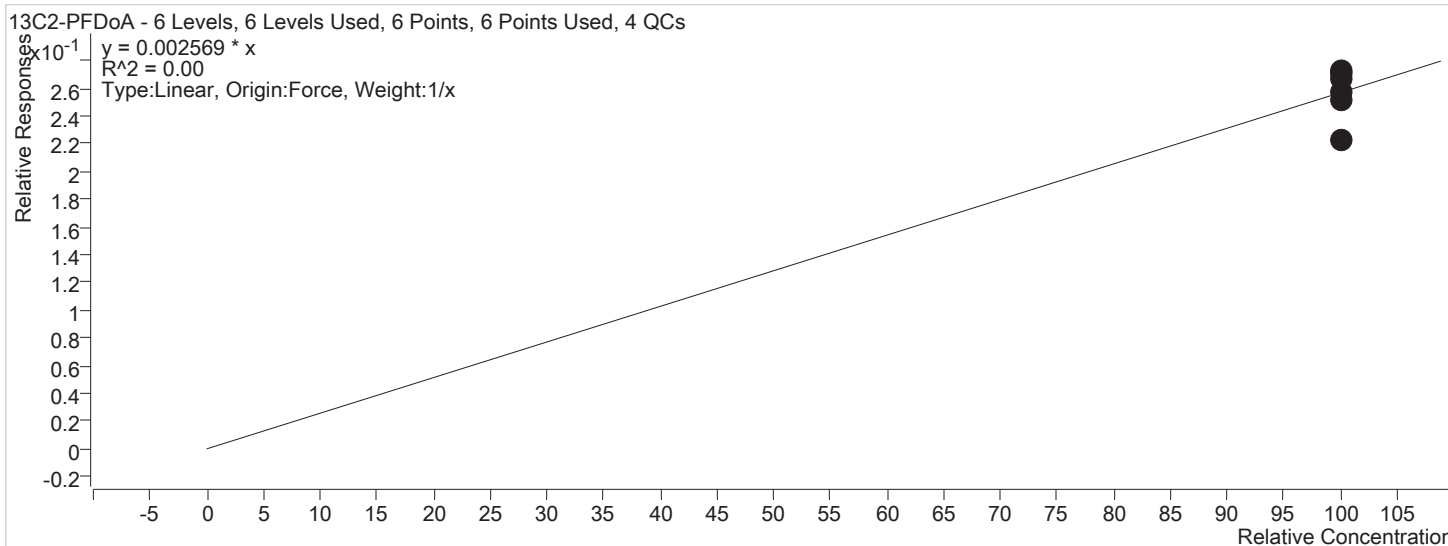
By Compound Report

Batch Path T:\lcms4\PFC\20170526\WS#4994375_B\QuantResults\PFC_Soil_170526_WS#4994375_CTLabs.batch.bin
Last Calib Update 2017/06/27 11:32:12 AM
Instrument: LCMS04
Analyte: 13C2-PFUnA
Internal Standard: 13C9-PFDA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2017/05/30 9:29:29 AM	100.00	86.04	10920	0.0020	736	86.0
STD 2	STD 2	x	2017/05/30 9:34:24 AM	100.00	104.91	9432	0.0024	546	104.9
STD 3	STD 3	x	2017/05/30 9:39:18 AM	100.00	101.72	9106	0.0024	525	101.7
STD 4	STD 4	x	2017/05/30 9:44:12 AM	100.00	98.52	9699	0.0023	435	98.5
STD 5	STD 5	x	2017/05/30 9:49:06 AM	100.00	106.67	9040	0.0025	539	106.7
STD 6	STD 6	x	2017/05/30 9:54:00 AM	100.00	102.14	9921	0.0024	750	102.1

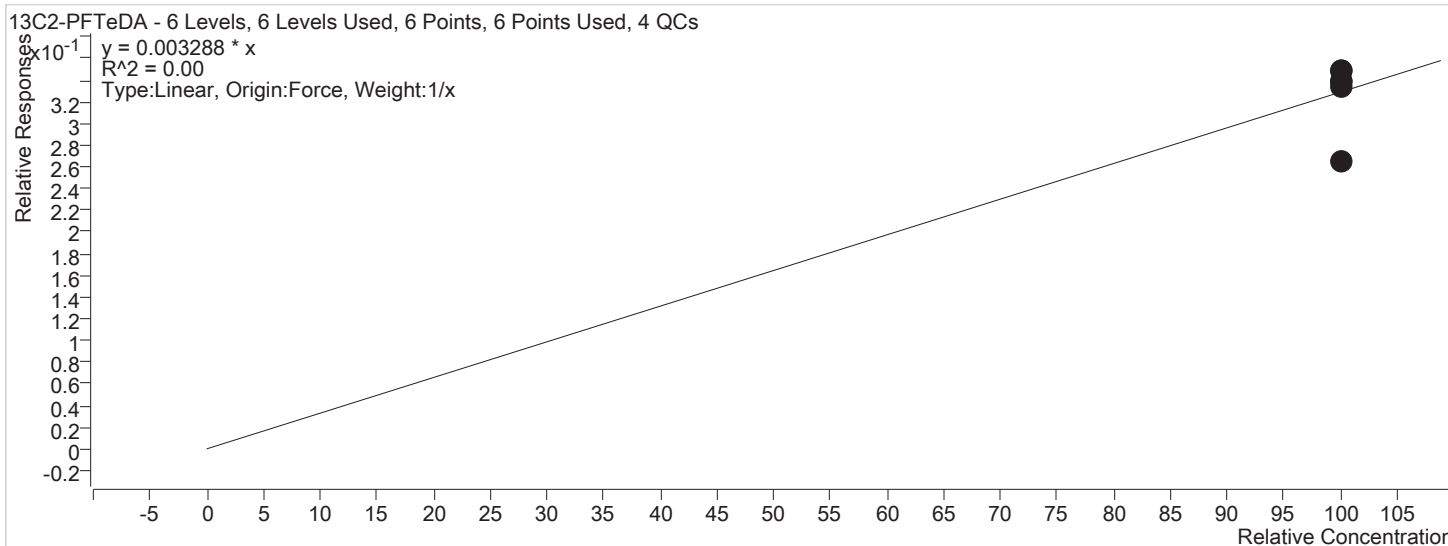
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Last Calib Update 2017/06/27 11:32:12 AM
Instrument: LCMS04
Analyte: 13C2-PFDoA
Internal Standard: 13C9-PFDA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2017/05/30 9:29:29 AM	100.00	86.71	12199	0.0022	539	86.7
STD 2	STD 2	x	2017/05/30 9:34:24 AM	100.00	103.69	10334	0.0027	420	103.7
STD 3	STD 3	x	2017/05/30 9:39:18 AM	100.00	106.08	10527	0.0027	534	106.1
STD 4	STD 4	x	2017/05/30 9:44:12 AM	100.00	99.93	10905	0.0026	366	99.9
STD 5	STD 5	x	2017/05/30 9:49:06 AM	100.00	105.54	9915	0.0027	651	105.5
STD 6	STD 6	x	2017/05/30 9:54:00 AM	100.00	98.06	10558	0.0025	540	98.1

By Compound Report

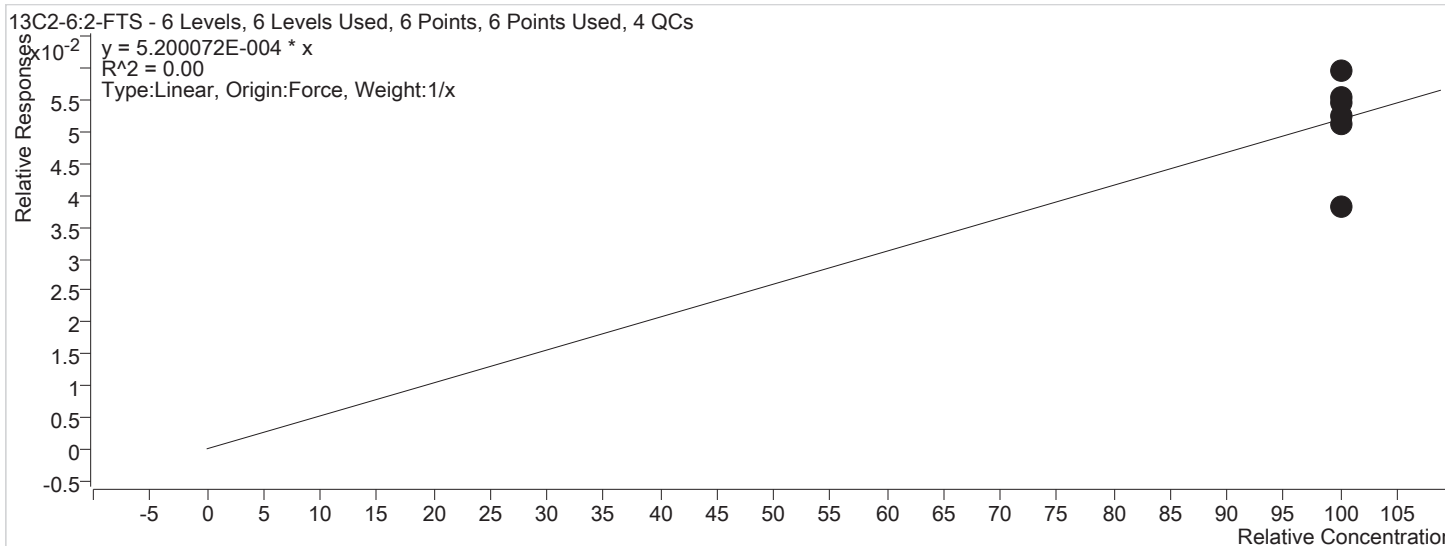
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Last Calib Update 2017/06/27 11:32:12 AM
Instrument: LCMS04
Analyte: 13C2-PFTeDA
Internal Standard: 13C9-PFDA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2017/05/30 9:29:29 AM	100.00	80.64	14519	0.0027	485	80.6
STD 2	STD 2	x	2017/05/30 9:34:24 AM	100.00	103.13	13154	0.0034	360	103.1
STD 3	STD 3	x	2017/05/30 9:39:18 AM	100.00	105.93	13453	0.0035	336	105.9
STD 4	STD 4	x	2017/05/30 9:44:12 AM	100.00	103.11	14400	0.0034	318	103.1
STD 5	STD 5	x	2017/05/30 9:49:06 AM	100.00	105.85	12726	0.0035	429	105.9
STD 6	STD 6	x	2017/05/30 9:54:00 AM	100.00	101.33	13963	0.0033	440	101.3

By Compound Report

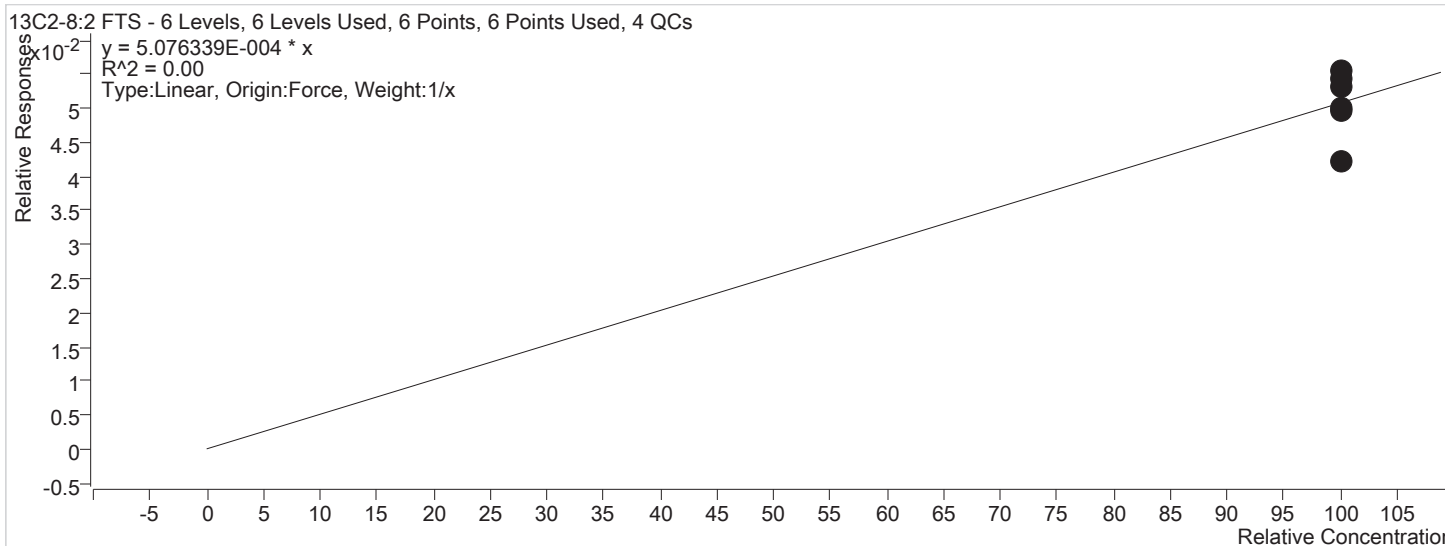
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Last Calib Update 2017/06/27 11:32:12 AM
Instrument: LCMS04
Analyte: 13C2-6:2-FTS
Internal Standard: 13C6-PFHxA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2017/05/30 9:29:29 AM	100.00	73.80	2508	0.0004	282	73.8
STD 2	STD 2	x	2017/05/30 9:34:24 AM	100.00	100.96	2335	0.0005	178	101.0
STD 3	STD 3	x	2017/05/30 9:39:18 AM	100.00	114.68	2737	0.0006	429	114.7
STD 4	STD 4	x	2017/05/30 9:44:12 AM	100.00	106.37	2802	0.0006	293	106.4
STD 5	STD 5	x	2017/05/30 9:49:06 AM	100.00	105.24	2426	0.0005	269	105.2
STD 6	STD 6	x	2017/05/30 9:54:00 AM	100.00	98.95	2522	0.0005	243	99.0

By Compound Report

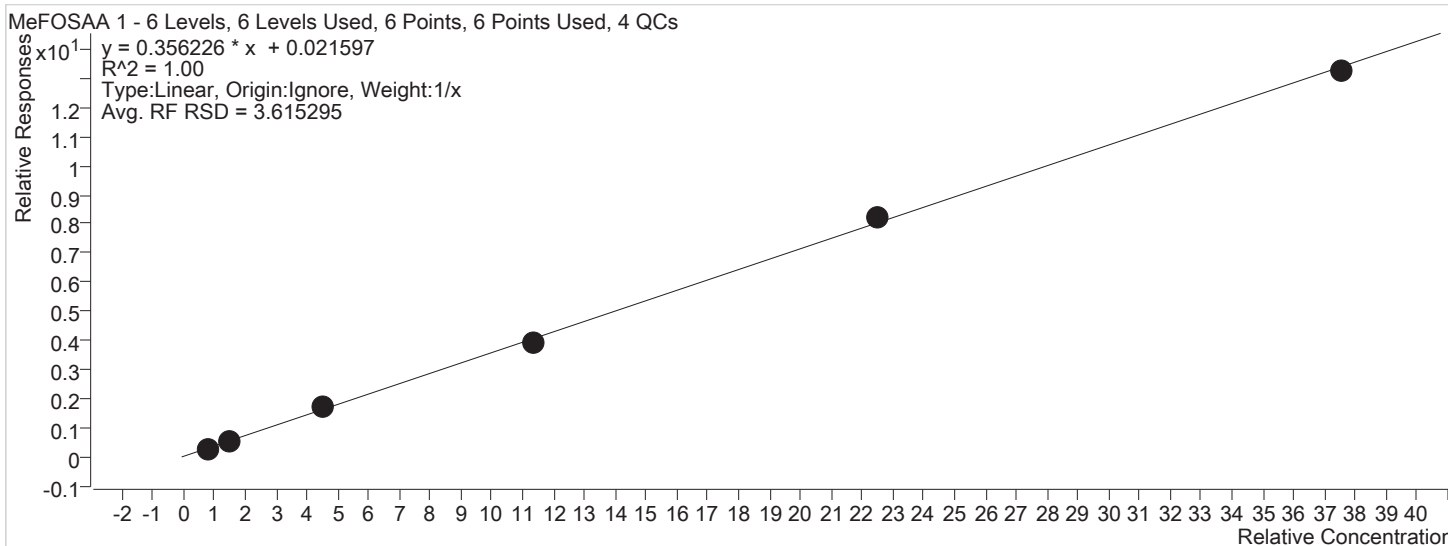
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Last Calib Update 2017/06/27 11:32:12 AM
Instrument: LCMS04
Analyte: 13C2-8:2 FTS
Internal Standard: 13C6-PFHxA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2017/05/30 9:29:29 AM	100.00	82.95	2752	0.0004	253	83.0
STD 2	STD 2	x	2017/05/30 9:34:24 AM	100.00	98.37	2221	0.0005	387	98.4
STD 3	STD 3	x	2017/05/30 9:39:18 AM	100.00	104.77	2441	0.0005	190	104.8
STD 4	STD 4	x	2017/05/30 9:44:12 AM	100.00	109.24	2809	0.0006	454	109.2
STD 5	STD 5	x	2017/05/30 9:49:06 AM	100.00	107.00	2408	0.0005	430	107.0
STD 6	STD 6	x	2017/05/30 9:54:00 AM	100.00	97.67	2430	0.0005	354	97.7

By Compound Report

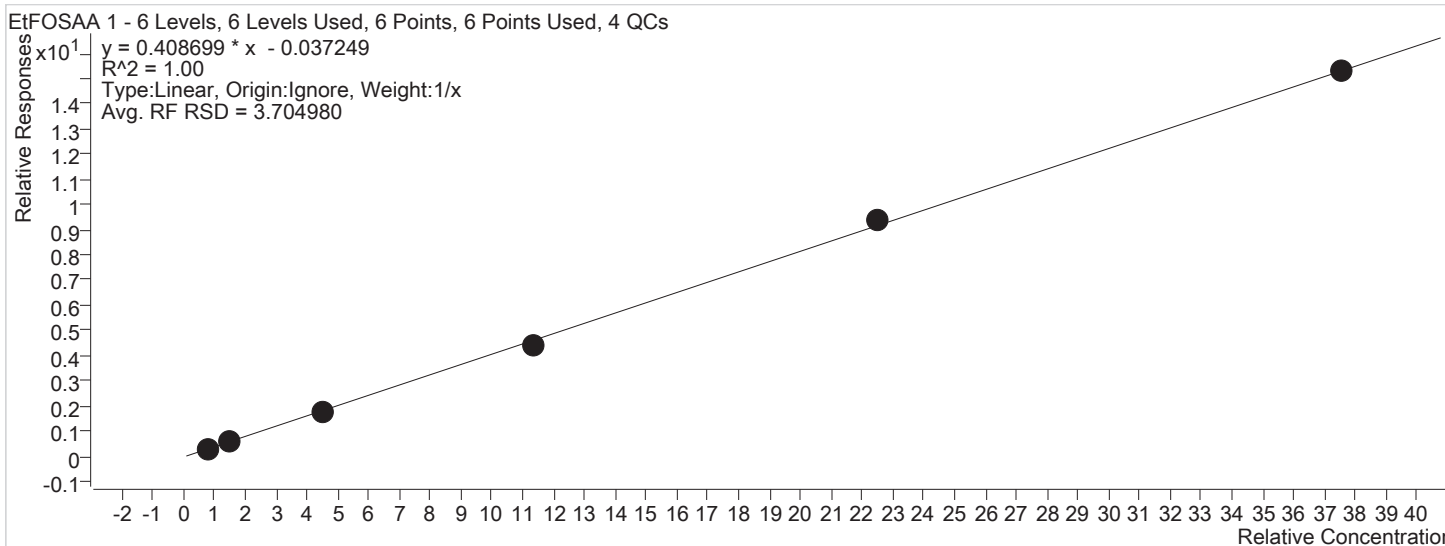
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Last Calib Update 2017/06/27 11:38:20 AM
Instrument: LCMS04
Analyte: MeFOSAA 1
Internal Standard: D3-MeFOSAA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2017/05/26 4:25:43 PM	0.75	0.72	456	0.3692	139	95.5
STD 2	STD 2	x	2017/05/26 4:28:06 PM	1.50	1.52	941	0.3750	378	101.2
STD 3	STD 3	x	2017/05/26 4:30:29 PM	4.50	4.74	2846	0.3801	759	105.3
STD 4	STD 4	x	2017/05/26 4:32:51 PM	11.30	10.89	6408	0.3454	1426	96.4
STD 5	STD 5	x	2017/05/26 4:35:14 PM	22.50	23.06	13284	0.3660	3038	102.5
STD 6	STD 6	x	2017/05/26 4:37:36 PM	37.50	37.12	20848	0.3532	4352	99.0

By Compound Report

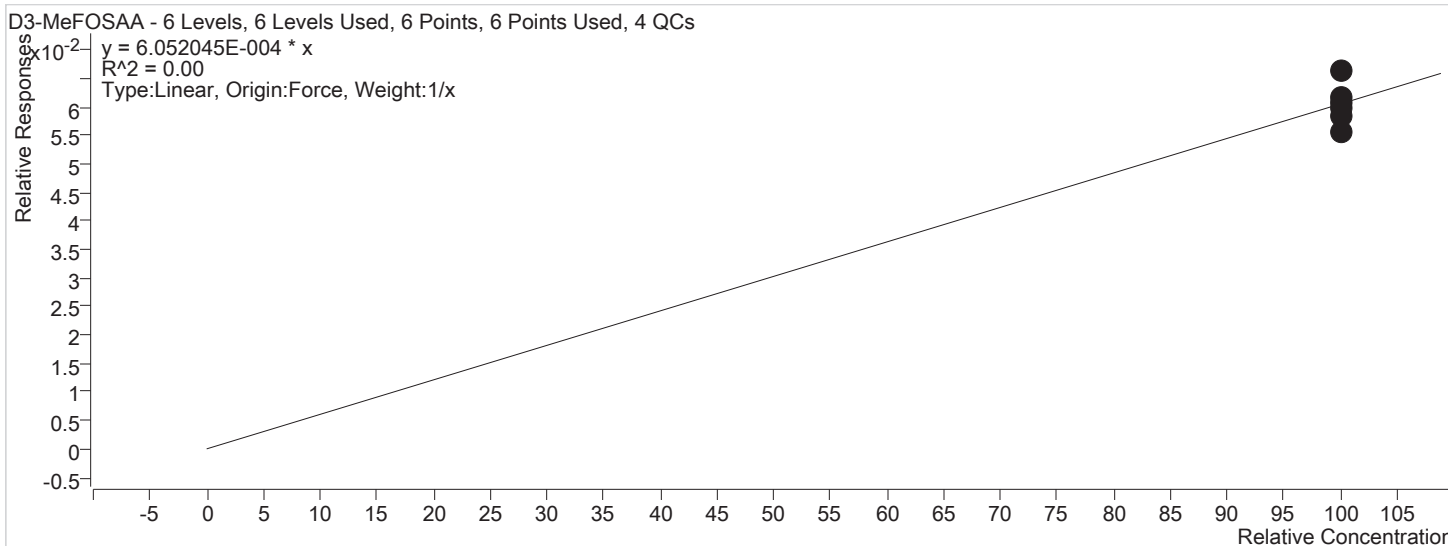
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Last Calib Update 2017/06/27 11:38:20 AM
Instrument: LCMS04
Analyte: EtFOSAA 1
Internal Standard: D5-EtFOSAA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2017/05/26 4:25:43 PM	0.75	0.79	415	0.3798	53	105.1
STD 2	STD 2	x	2017/05/26 4:28:06 PM	1.50	1.49	845	0.3824	100	99.7
STD 3	STD 3	x	2017/05/26 4:30:29 PM	4.50	4.33	2687	0.3850	350	96.2
STD 4	STD 4	x	2017/05/26 4:32:51 PM	11.30	10.96	6542	0.3930	443	97.0
STD 5	STD 5	x	2017/05/26 4:35:14 PM	22.50	22.95	13397	0.4152	690	102.0
STD 6	STD 6	x	2017/05/26 4:37:36 PM	37.50	37.53	21207	0.4080	589	100.1

By Compound Report

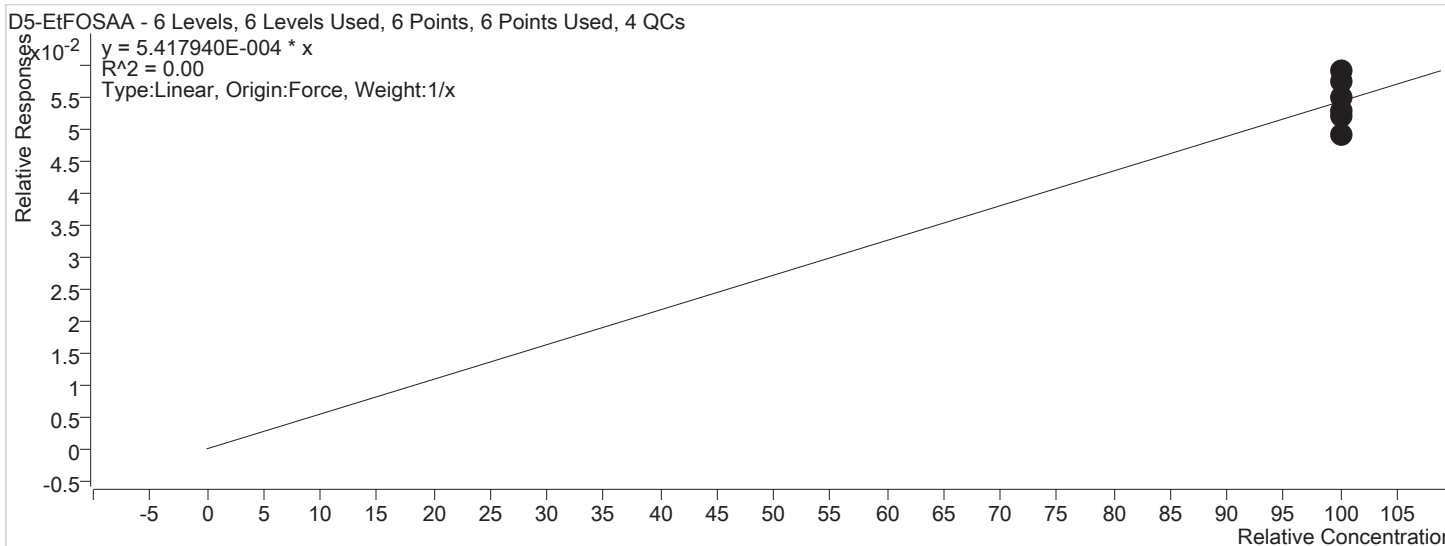
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Last Calib Update 2017/06/27 11:38:20 AM
Instrument: LCMS04
Analyte: D3-MeFOSAA
Internal Standard: 13C9-PFDA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2017/05/26 4:25:43 PM	100.00	109.56	1666	0.0007	876	109.6
STD 2	STD 2	x	2017/05/26 4:28:06 PM	100.00	99.09	1684	0.0006	559	99.1
STD 3	STD 3	x	2017/05/26 4:30:29 PM	100.00	101.93	1674	0.0006	579	101.9
STD 4	STD 4	x	2017/05/26 4:32:51 PM	100.00	100.55	1645	0.0006	834	100.6
STD 5	STD 5	x	2017/05/26 4:35:14 PM	100.00	96.64	1621	0.0006	2242	96.6
STD 6	STD 6	x	2017/05/26 4:37:36 PM	100.00	92.23	1589	0.0006	791	92.2

By Compound Report

Batch Path T:\lcms4\PFC\20170526\WS#4994375_FOSAA\QuantResults\PFC_Soil_170526_WS#4994375_FOSAA.batch.bin
Last Calib Update 2017/06/27 11:38:20 AM
Instrument: LCMS04
Analyte: D5-EtFOSAA
Internal Standard: 13C9-PFDA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2017/05/26 4:25:43 PM	100.00	108.78	1481	0.0006	407	108.8
STD 2	STD 2	x	2017/05/26 4:28:06 PM	100.00	97.51	1484	0.0005	322	97.5
STD 3	STD 3	x	2017/05/26 4:30:29 PM	100.00	106.11	1560	0.0006	407	106.1
STD 4	STD 4	x	2017/05/26 4:32:51 PM	100.00	101.16	1481	0.0005	392	101.2
STD 5	STD 5	x	2017/05/26 4:35:14 PM	100.00	96.00	1442	0.0005	525	96.0
STD 6	STD 6	x	2017/05/26 4:37:36 PM	100.00	90.44	1394	0.0005	383	90.4

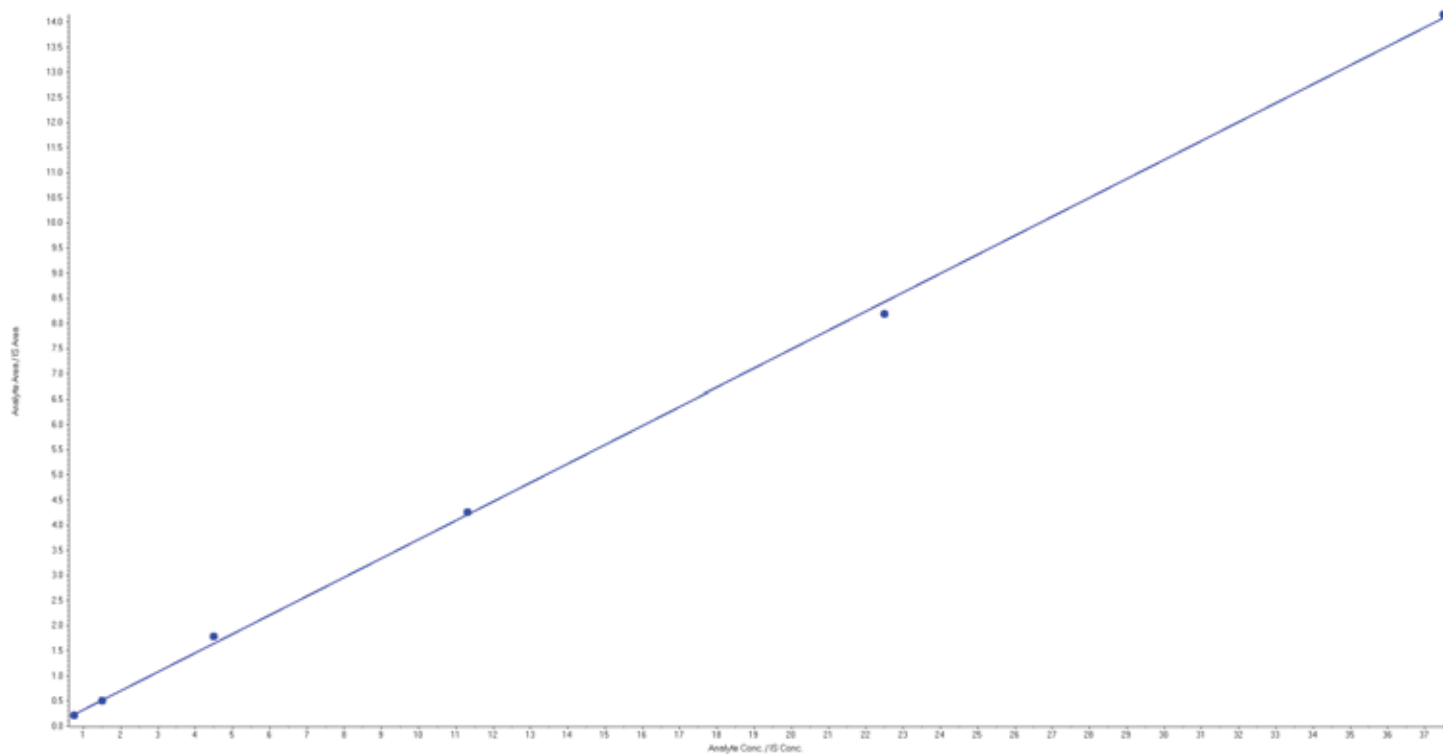
Analyte Name: PFHpA 1
Internal Standard: MPFHpA

Data File	PFC_170613\WS#5023570.wiff	Result Table	PFC_Soil_170613_5023570_CT.rdb
Acquisition Date	2017/06/13 1:31:14 PM	Project	Enviro\PFOS
Acquisition Method	PFC_Soil.dam	Instrument Name	LCMS03

Regression Equation: $y = 0.377 x + -0.0526$ ($r = 0.9996$)

Expected Concentration (µg/kg)	Number of Values	Calculated Concentration (µg/kg)	% Accuracy
0.75	1	0.70	94.0
1.5	1	1.48	98.6
4.5	1	4.88	108.5
11.3	1	11.43	101.2
37.5	1	37.68	100.5
22.5	1	21.87	97.2

Sample ID	Response Factor	S/N
Std 1	0.2840	53
Std 2	0.3370	99
Std 3	0.3970	333
Std 4	0.3770	2140
Std 6	0.3770	4580
Std 5	0.3640	2250



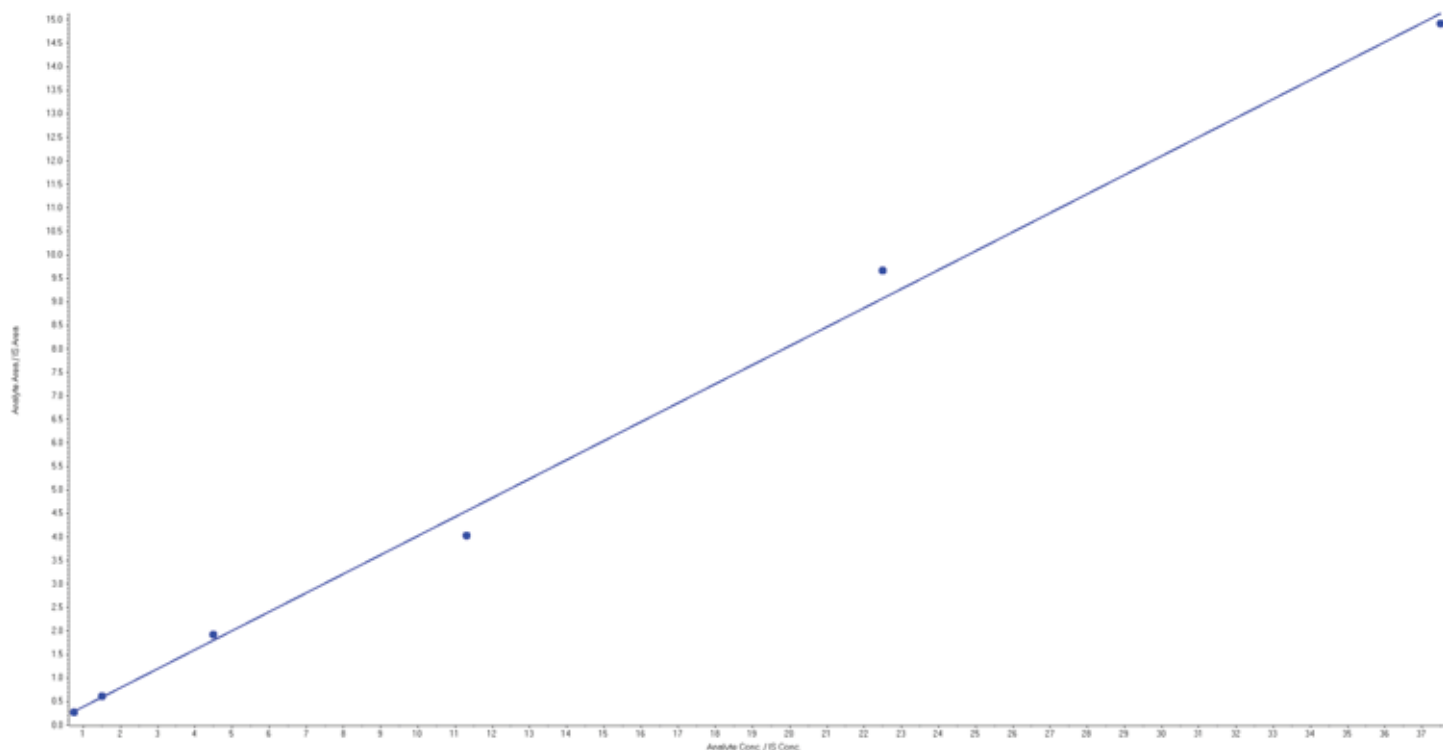
Analyte Name: PFOA 1
Internal Standard: MPFOA

Data File	PFC_170613\WS#5023570.wiff	Result Table	PFC_Soil_170613_5023570_CT.rdb
Acquisition Date	2017/06/13 1:31:14 PM	Project	Enviro\PFOS
Acquisition Method	PFC_Soil.dam	Instrument Name	LCMS03

Regression Equation: $y = 0.404 x + -0.0161$ ($r = 0.9978$)

Expected Concentration (µg/kg)	Number of Values	Calculated Concentration (µg/kg)	% Accuracy
0.75	1	0.73	96.7
1.5	1	1.54	102.5
4.5	1	4.81	106.9
11.3	1	10.02	88.6
37.5	1	36.98	98.6
22.5	1	23.98	106.6

Sample ID	Response Factor	S/N
Std 1	0.3690	103
Std 2	0.4030	216
Std 3	0.4280	1290
Std 4	0.3570	4590
Std 6	0.3980	5180
Std 5	0.4300	3850



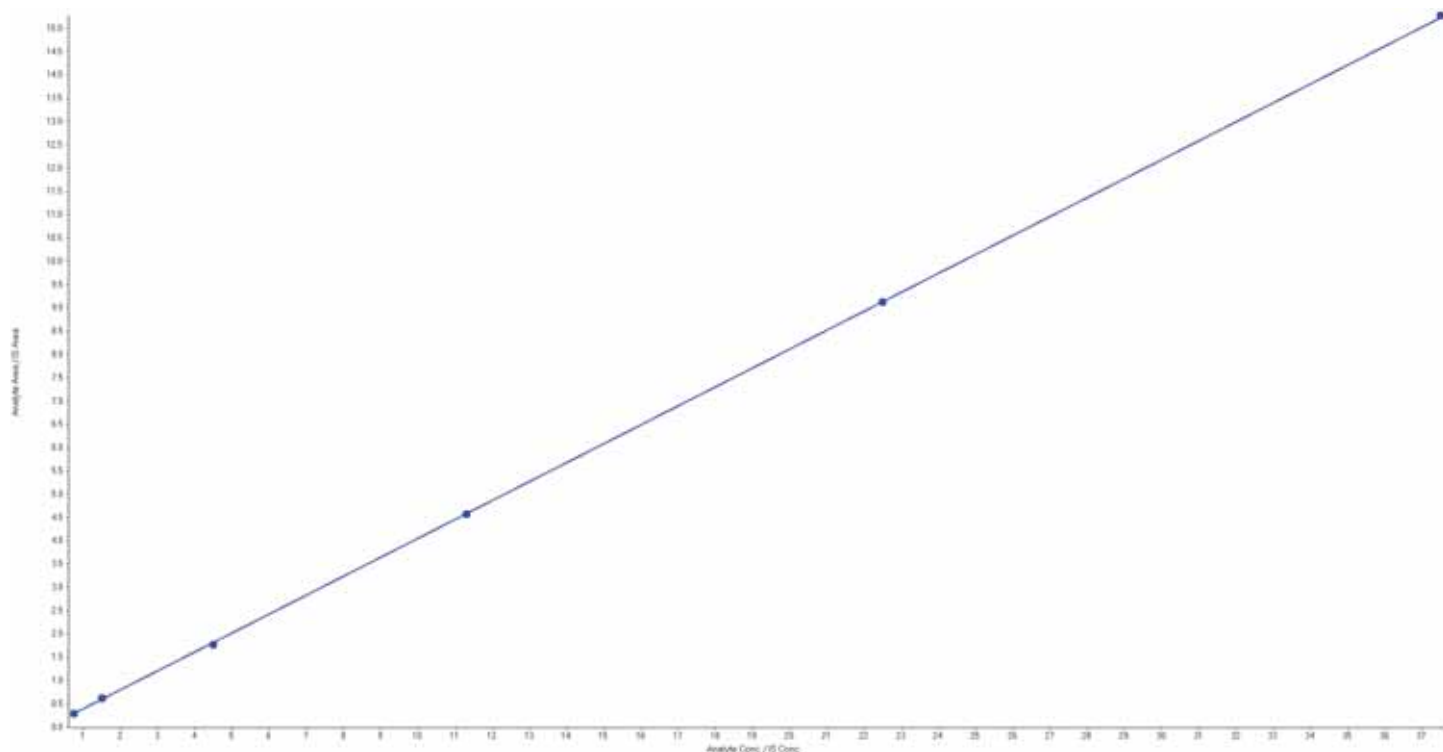
Analyte Name: PFOS 1
Internal Standard: MPFOS

Data File	PFC_170613\WS#5023570.wiff	Result Table	PFC_Soil_170613_5023570_CT.rdb
Acquisition Date	2017/06/13 1:31:14 PM	Project	Enviro\PFOS
Acquisition Method	PFC_Soil.dam	Instrument Name	LCMS03

Regression Equation: $y = 0.406 x + -0.0137$ ($r = 1.0000$)

Expected Concentration (µg/kg)	Number of Values	Calculated Concentration (µg/kg)	% Accuracy
0.75	1	0.75	99.8
1.5	1	1.54	102.6
4.5	1	4.39	97.6
11.3	1	11.27	99.7
37.5	1	37.62	100.3
22.5	1	22.48	99.9

Sample ID	Response Factor	S/N
Std 1	0.3870	209
Std 2	0.4080	584
Std 3	0.3940	2930
Std 4	0.4040	5060
Std 6	0.4070	21100
Std 5	0.4060	7460



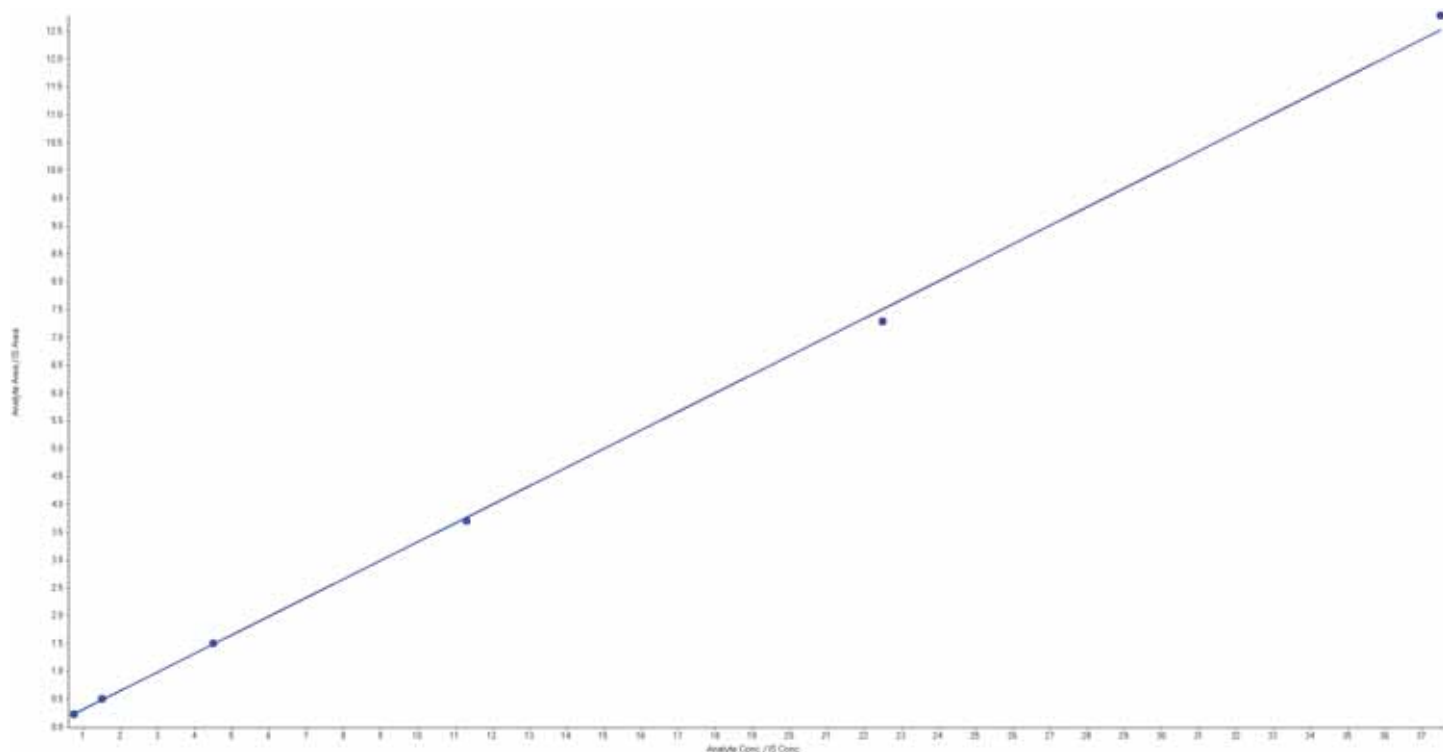
Analyte Name: PFNA 1
Internal Standard: MPFNA

Data File	PFC_170613\WS#5023570.wiff	Result Table	PFC_Soil_170613_5023570_CT.rdb
Acquisition Date	2017/06/13 1:31:14 PM	Project	Enviro\PFOS
Acquisition Method	PFC_Soil.dam	Instrument Name	LCMS03

Regression Equation: $y = 0.334 x + -0.016$ ($r = 0.9997$)

Expected Concentration (µg/kg)	Number of Values	Calculated Concentration (µg/kg)	% Accuracy
0.75	1	0.73	97.1
1.5	1	1.57	104.8
4.5	1	4.53	100.6
11.3	1	11.11	98.3
37.5	1	38.28	102.1
22.5	1	21.83	97.0

Sample ID	Response Factor	S/N
Std 1	0.3030	176
Std 2	0.3400	233
Std 3	0.3330	1640
Std 4	0.3270	2630
Std 6	0.3410	10900
Std 5	0.3240	5850



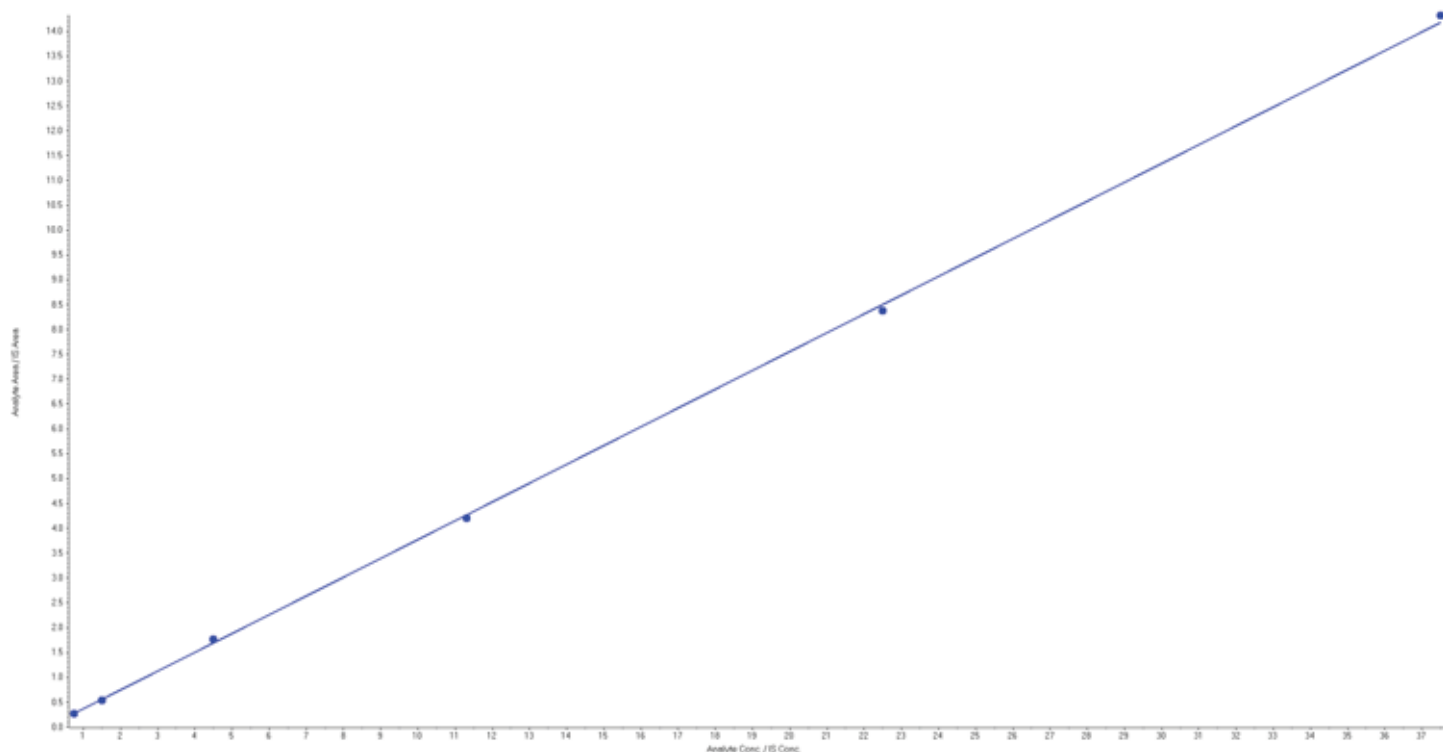
Analyte Name: PFDA 1
Internal Standard: MPFDA

Data File	PFC_170613\WS#5023570.wiff	Result Table	PFC_Soil_170613_5023570_CT.rdb
Acquisition Date	2017/06/13 1:31:14 PM	Project	Enviro\PFOS
Acquisition Method	PFC_Soil.dam	Instrument Name	LCMS03

Regression Equation: $y = 0.378x + -0.0113$ ($r = 0.9998$)

Expected Concentration (µg/kg)	Number of Values	Calculated Concentration (µg/kg)	% Accuracy
0.75	1	0.76	101.0
1.5	1	1.46	97.1
4.5	1	4.68	104.0
11.3	1	11.13	98.5
37.5	1	37.87	101.0
22.5	1	22.16	98.5

Sample ID	Response Factor	S/N
Std 1	0.3670	226
Std 2	0.3600	569
Std 3	0.3910	2330
Std 4	0.3720	3330
Std 6	0.3820	10000
Std 5	0.3720	6100



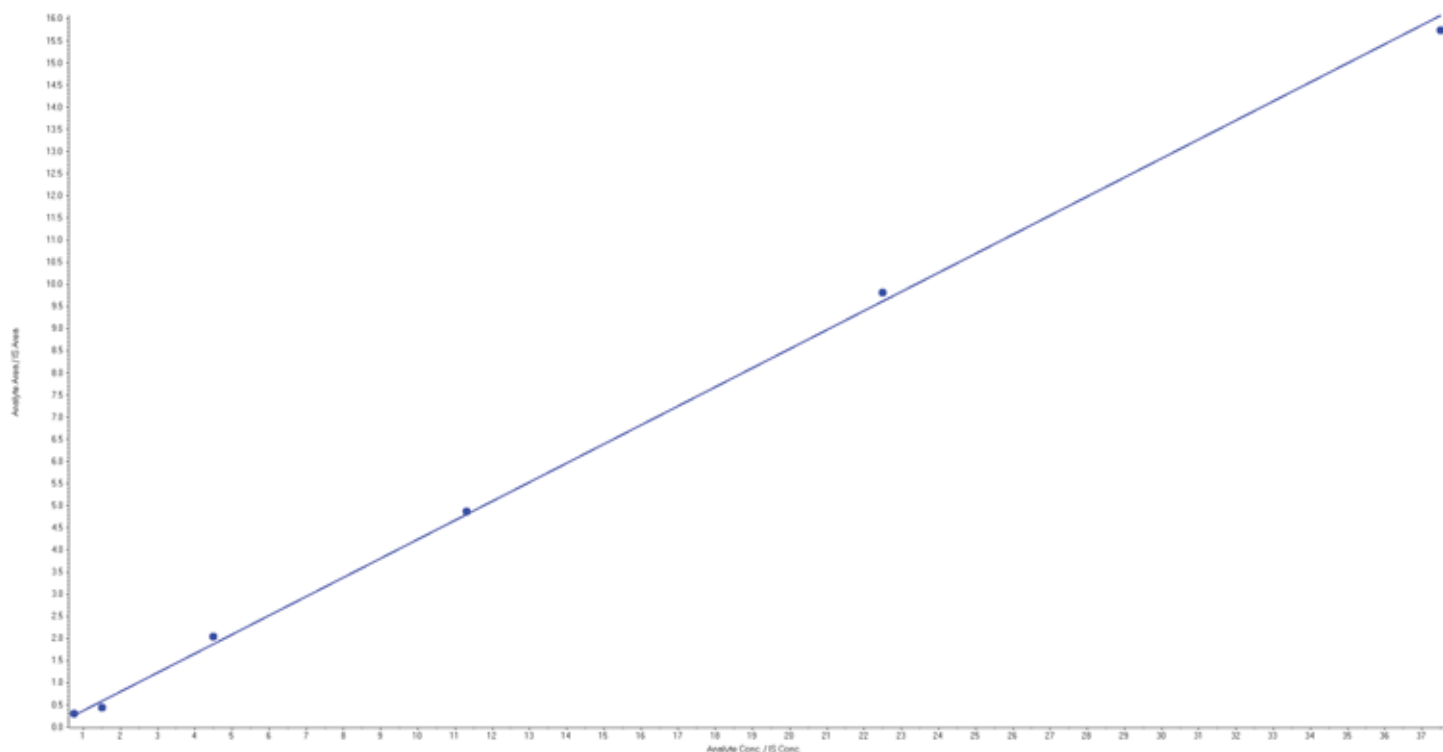
Analyte Name: 8:2-FTS 1
Internal Standard: M2 8:2 FTS

Data File	PFC_170613\WS#5023570.wiff	Result Table	PFC_Soil_170613_5023570_CT.rdb
Acquisition Date	2017/06/13 1:31:14 PM	Project	Enviro\PFOS
Acquisition Method	PFC_Soil.dam	Instrument Name	LCMS03

Regression Equation: $y = 0.43x + -0.0622$ ($r = 0.9988$)

Expected Concentration (µg/kg)	Number of Values	Calculated Concentration (µg/kg)	% Accuracy
0.75	1	0.84	111.8
1.5	1	1.17	77.9
4.5	1	4.89	108.8
11.3	1	11.47	101.5
37.5	1	36.72	97.9
22.5	1	22.95	102.0

Sample ID	Response Factor	S/N
Std 1	0.3980	238
Std 2	0.2940	389
Std 3	0.4540	3580
Std 4	0.4310	2480
Std 6	0.4200	10700
Std 5	0.4360	8740



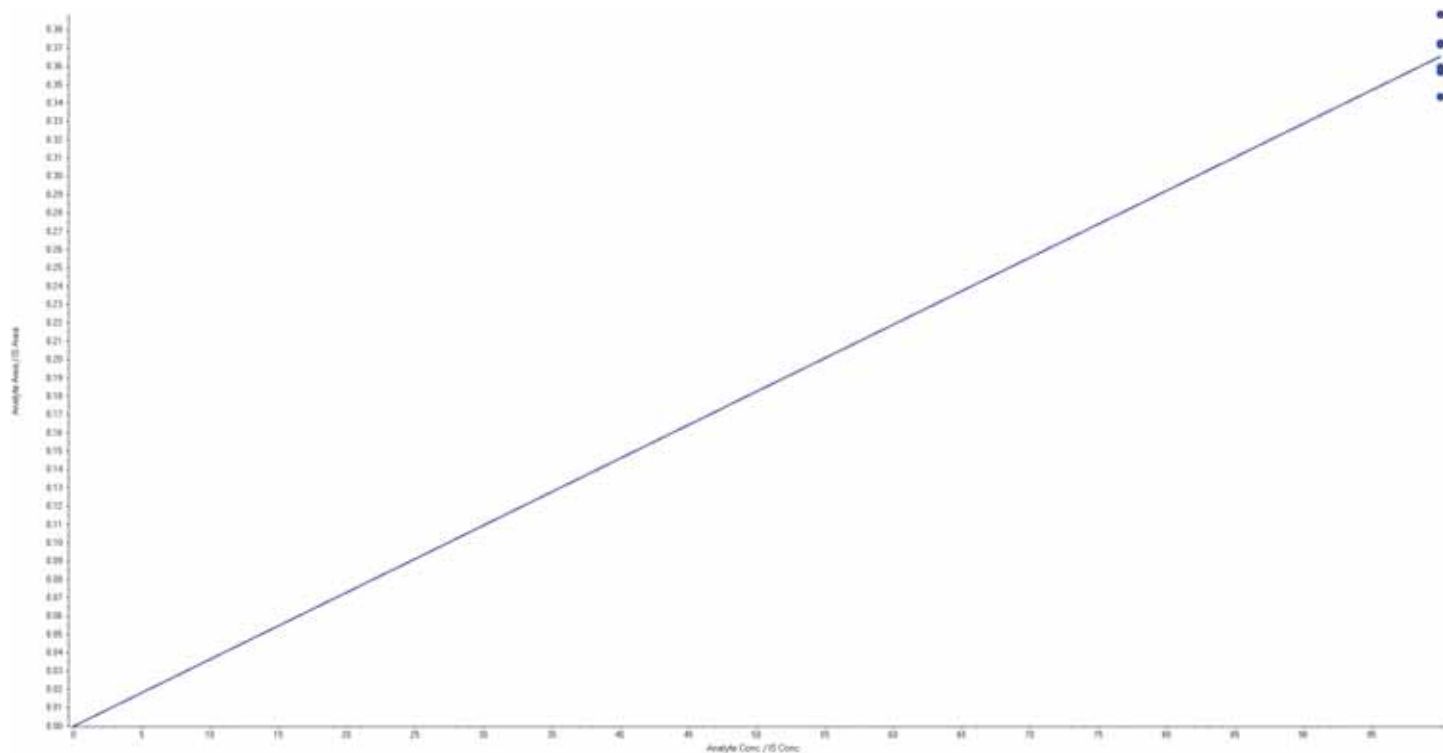
Analyte Name: 13C4-PFHpA
Internal Standard: 13C6-PFHxA IS

Data File	PFC_170613\WS#5023570.wiff	Result Table	PFC_Soil_170613_5023570_CT.rdb
Acquisition Date	2017/06/13 1:31:14 PM	Project	Enviro\PFOS
Acquisition Method	PFC_Soil.dam	Instrument Name	LCMS03

Regression Equation: $y = 0.00365 x$ ($r = 0.9992$)

Expected Concentration (µg/kg)	Number of Values	Calculated Concentration (µg/kg)	% Accuracy
100	6	100.00	100.0

Sample ID	Response Factor	S/N
Std 1	0.0037	6900
Std 2	0.0036	2710
Std 3	0.0039	6600
Std 4	0.0037	2030
Std 6	0.0036	8160
Std 5	0.0034	9060



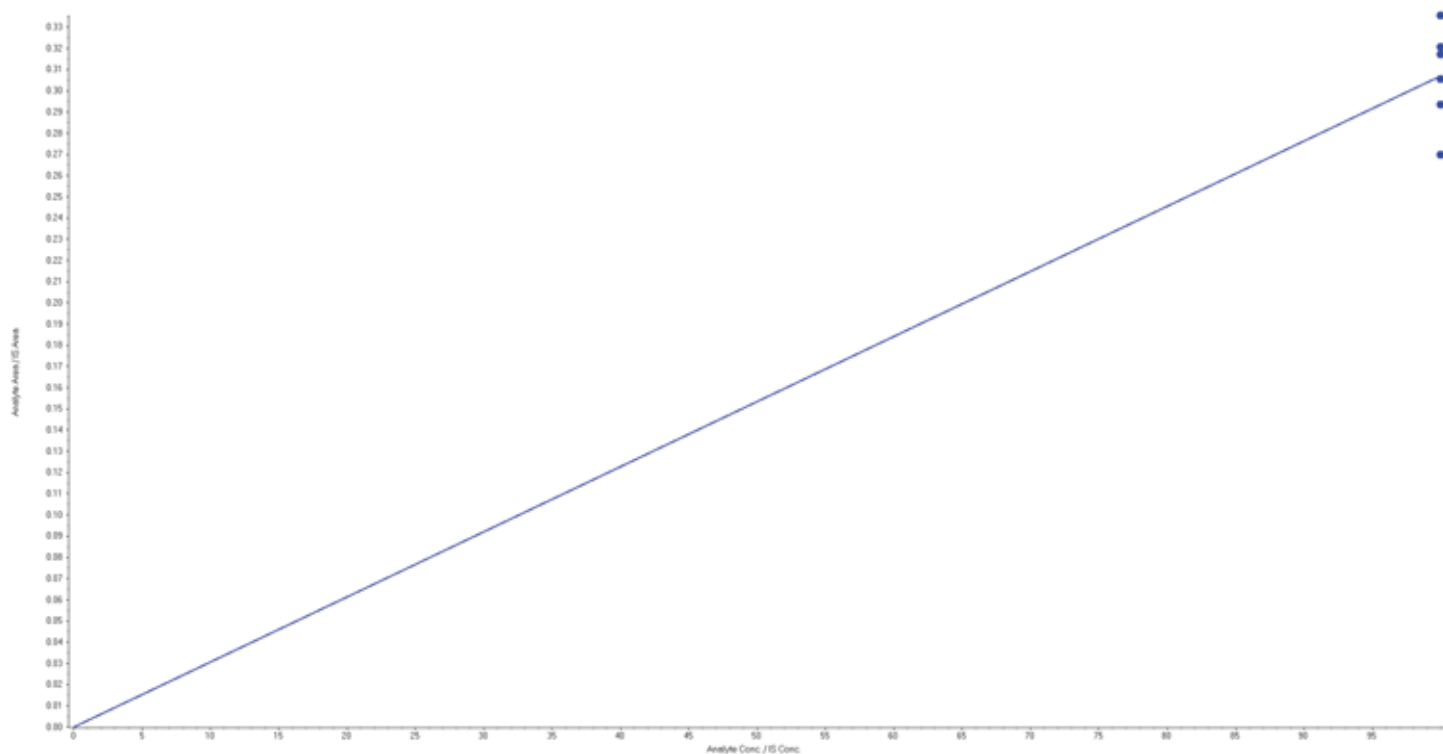
Analyte Name: 13C4-PFOA
Internal Standard: 13C6-PFHxA IS

Data File	PFC_170613\WS#5023570.wiff	Result Table	PFC_Soil_170613_5023570_CT.rdb
Acquisition Date	2017/06/13 1:31:14 PM	Project	Enviro\PFOS
Acquisition Method	PFC_Soil.dam	Instrument Name	LCMS03

Regression Equation: $y = 0.00307 x$ ($r = 0.9977$)

Expected Concentration (µg/kg)	Number of Values	Calculated Concentration (µg/kg)	% Accuracy
100	6	100.00	100.0

Sample ID	Response Factor	S/N
Std 1	0.0032	10800
Std 2	0.0029	8960
Std 3	0.0034	3790
Std 4	0.0032	6860
Std 6	0.0031	4800
Std 5	0.0027	3600



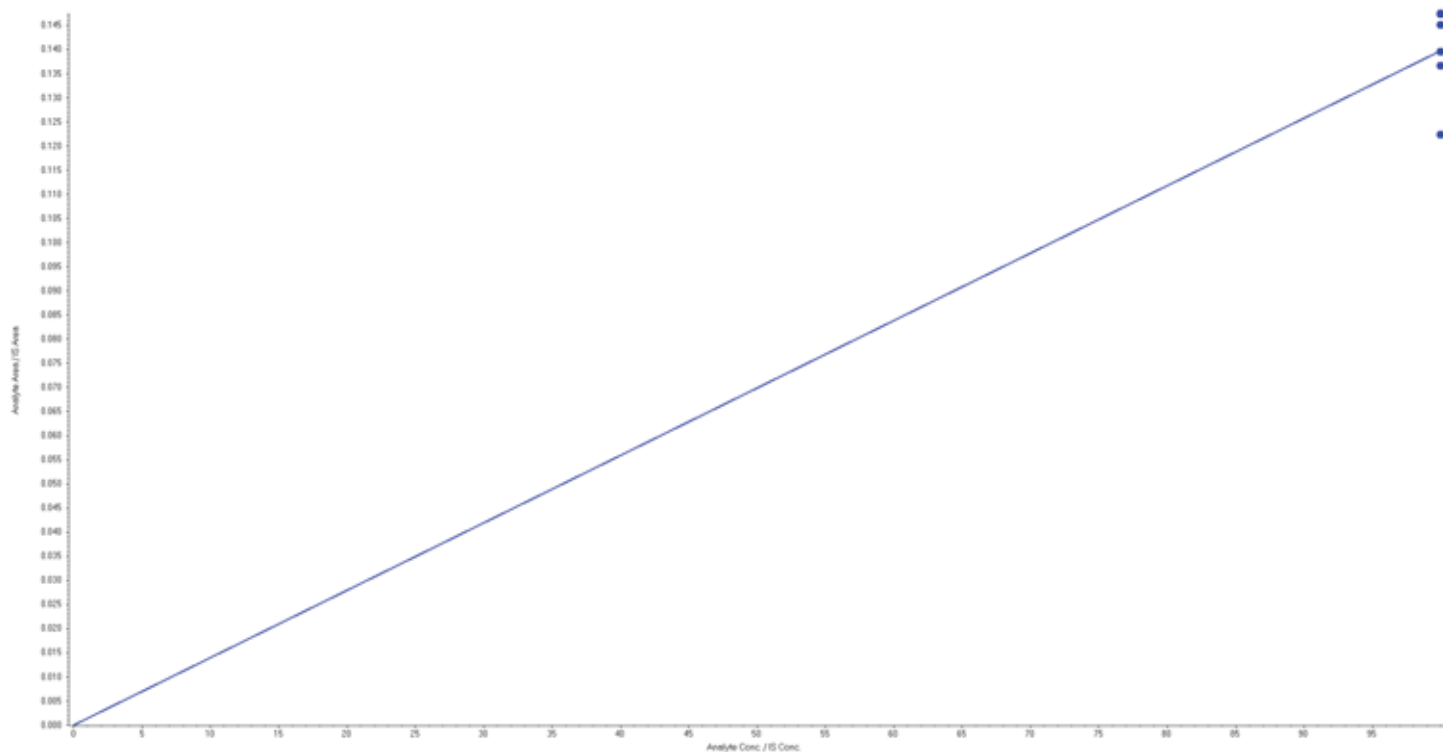
Analyte Name: 13C4-PFOS
Internal Standard: 13C6-PFHxA IS

Data File	PFC_170613\WS#5023570.wiff	Result Table	PFC_Soil_170613_5023570_CT.rdb
Acquisition Date	2017/06/13 1:31:14 PM	Project	Enviro\PFOS
Acquisition Method	PFC_Soil.dam	Instrument Name	LCMS03

Regression Equation: $y = 0.0014 x$ ($r = 0.9981$)

Expected Concentration (µg/kg)	Number of Values	Calculated Concentration (µg/kg)	% Accuracy
100	6	100.00	100.0

Sample ID	Response Factor	S/N
Std 1	0.0014	2550
Std 2	0.0014	1510
Std 3	0.0015	3230
Std 4	0.0015	4730
Std 6	0.0015	1050
Std 5	0.0012	2850



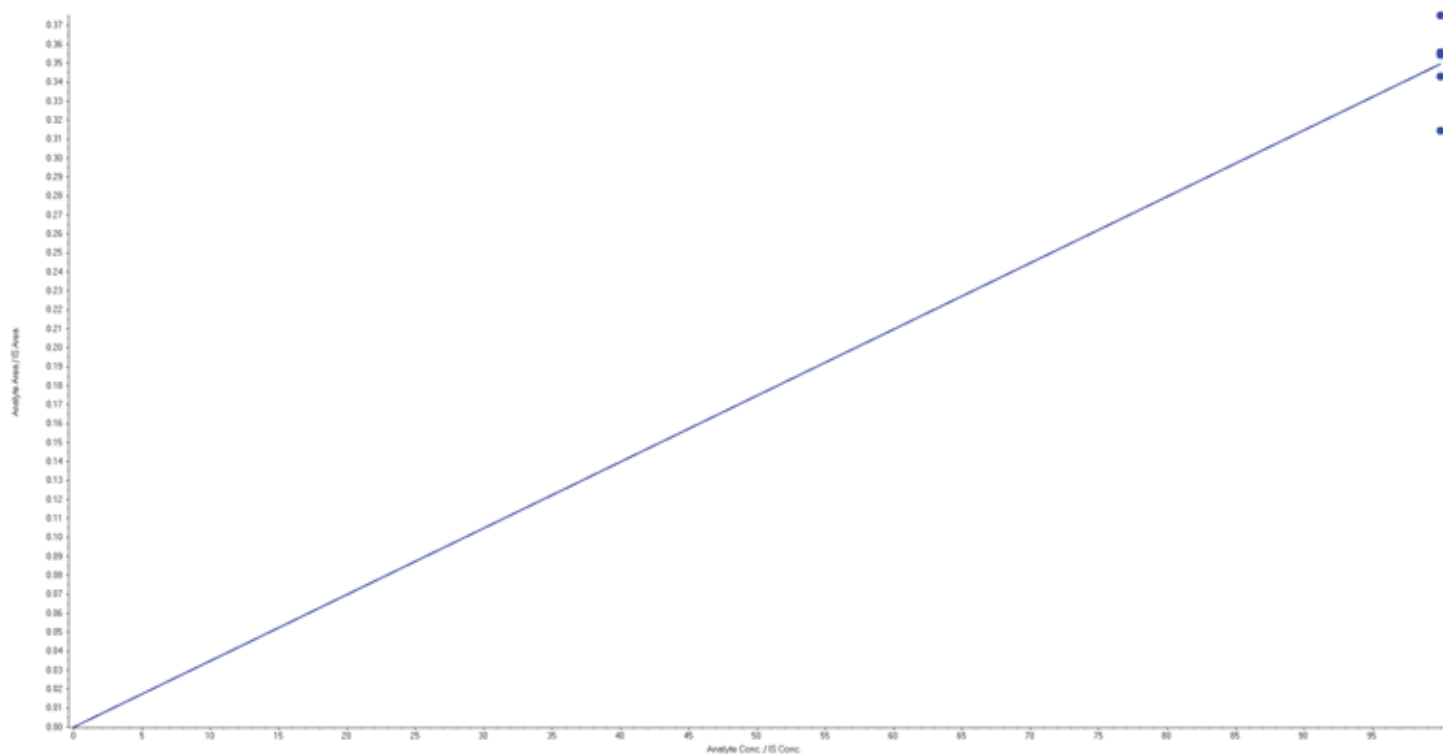
Analyte Name: 13C5-PFNA
Internal Standard: 13C6-PFHxA IS

Data File	PFC_170613\WS#5023570.wiff	Result Table	PFC_Soil_170613_5023570_CT.rdb
Acquisition Date	2017/06/13 1:31:14 PM	Project	Enviro\PFOS
Acquisition Method	PFC_Soil.dam	Instrument Name	LCMS03

Regression Equation: $y = 0.0035 x$ ($r = 0.9986$)

Expected Concentration (µg/kg)	Number of Values	Calculated Concentration (µg/kg)	% Accuracy
100	6	100.00	100.0

Sample ID	Response Factor	S/N
Std 1	0.0036	5680
Std 2	0.0034	4300
Std 3	0.0038	3270
Std 4	0.0036	3150
Std 6	0.0035	3690
Std 5	0.0031	4260



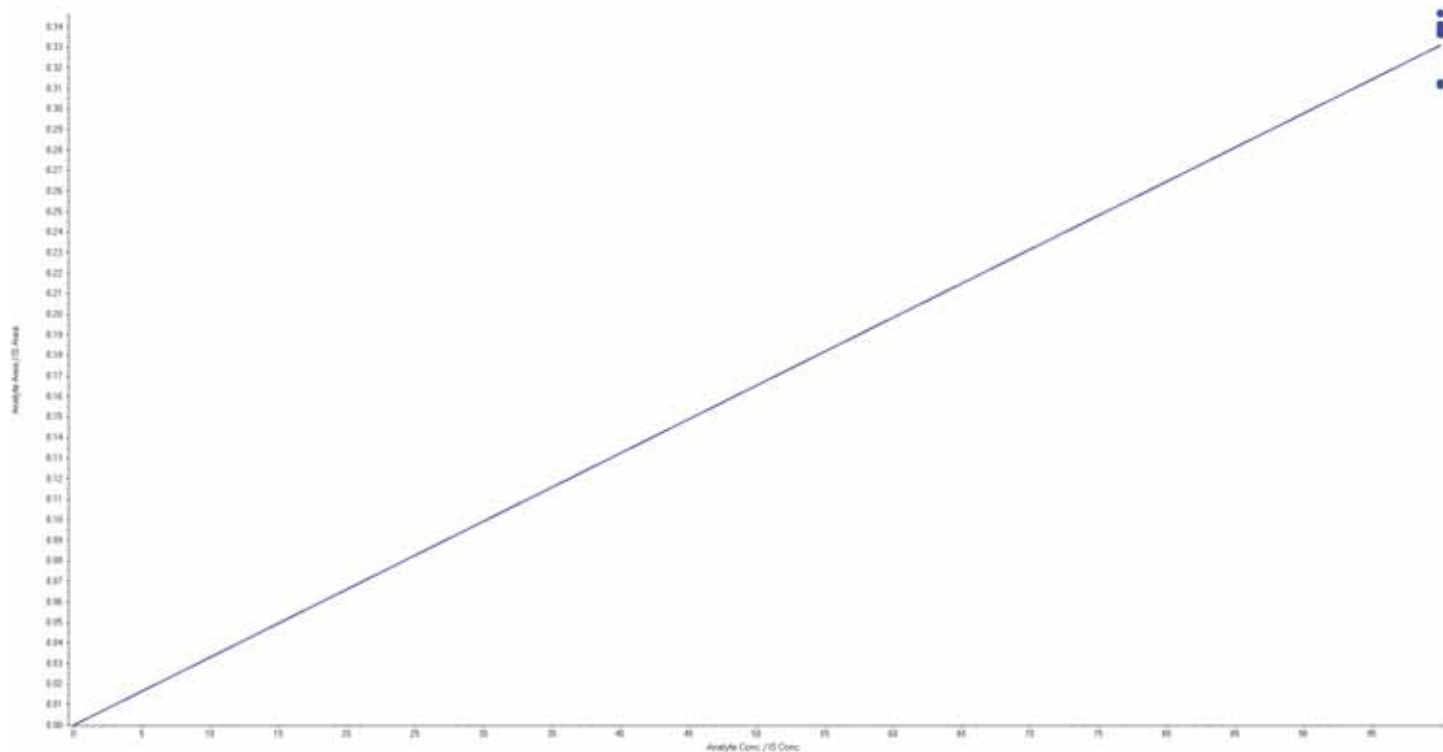
Analyte Name: 13C2-PFDA
Internal Standard: 13C9-PFDA IS

Data File	PFC_170613\WS#5023570.wiff	Result Table	PFC_Soil_170613_5023570_CT.rdb
Acquisition Date	2017/06/13 1:31:14 PM	Project	Enviro\PFOS
Acquisition Method	PFC_Soil.dam	Instrument Name	LCMS03

Regression Equation: $y = 0.00331 x$ ($r = 0.9991$)

Expected Concentration (µg/kg)	Number of Values	Calculated Concentration (µg/kg)	% Accuracy
100	6	100.00	100.0

Sample ID	Response Factor	S/N
Std 1	0.0031	N/A
Std 2	0.0034	6590
Std 3	0.0031	14400
Std 4	0.0035	5800
Std 6	0.0034	13600
Std 5	0.0034	3950



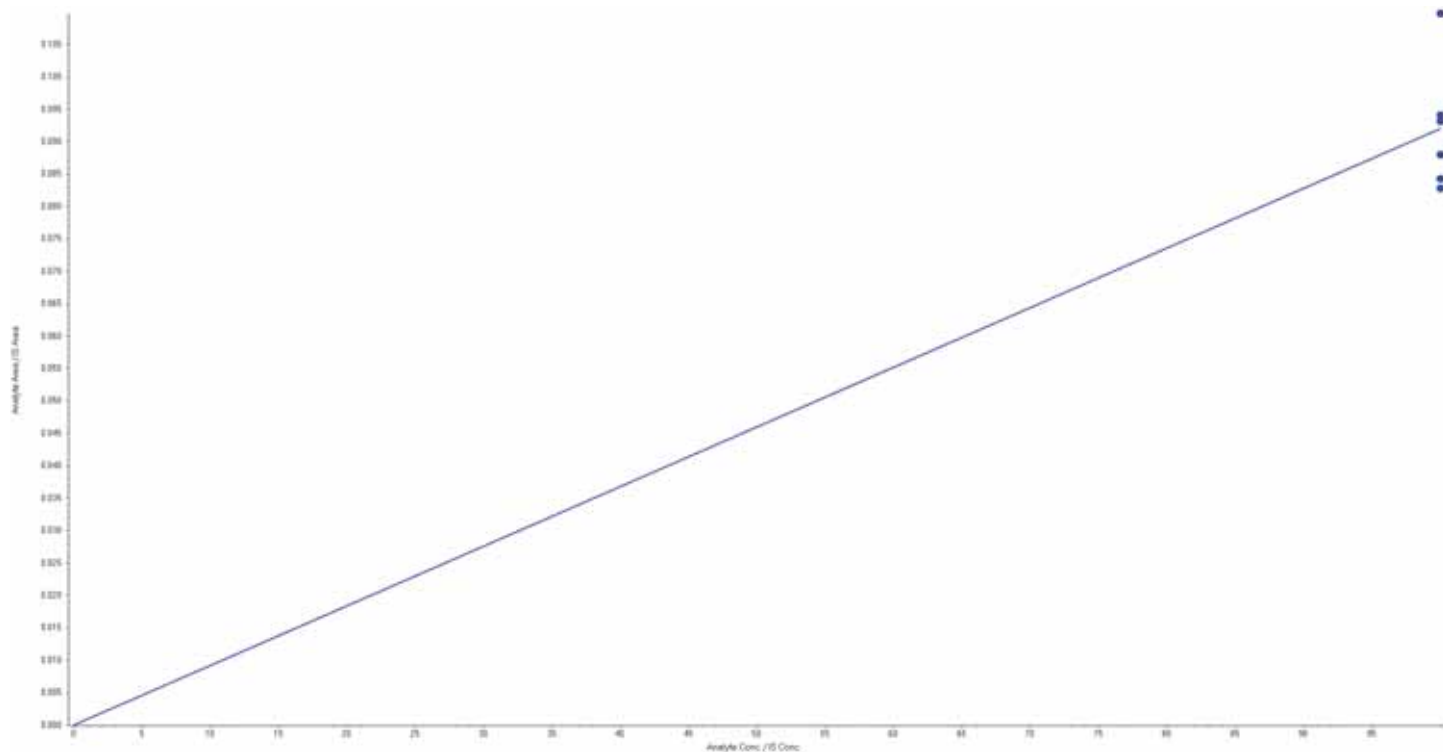
Analyte Name: 13C2-8:2 FTS
Internal Standard: 13C6-PFHxA IS

Data File	PFC_170613\WS#5023570.wiff	Result Table	PFC_Soil_170613_5023570_CT.rdb
Acquisition Date	2017/06/13 1:31:14 PM	Project	Enviro\PFOS
Acquisition Method	PFC_Soil.dam	Instrument Name	LCMS03

Regression Equation: $y = 0.00092 x$ ($r = 0.9953$)

Expected Concentration (µg/kg)	Number of Values	Calculated Concentration (µg/kg)	% Accuracy
100	6	100.00	100.0

Sample ID	Response Factor	S/N
Std 1	0.0009	N/A
Std 2	0.0011	637
Std 3	0.0008	N/A
Std 4	0.0009	339
Std 6	0.0009	1570
Std 5	0.0008	1010



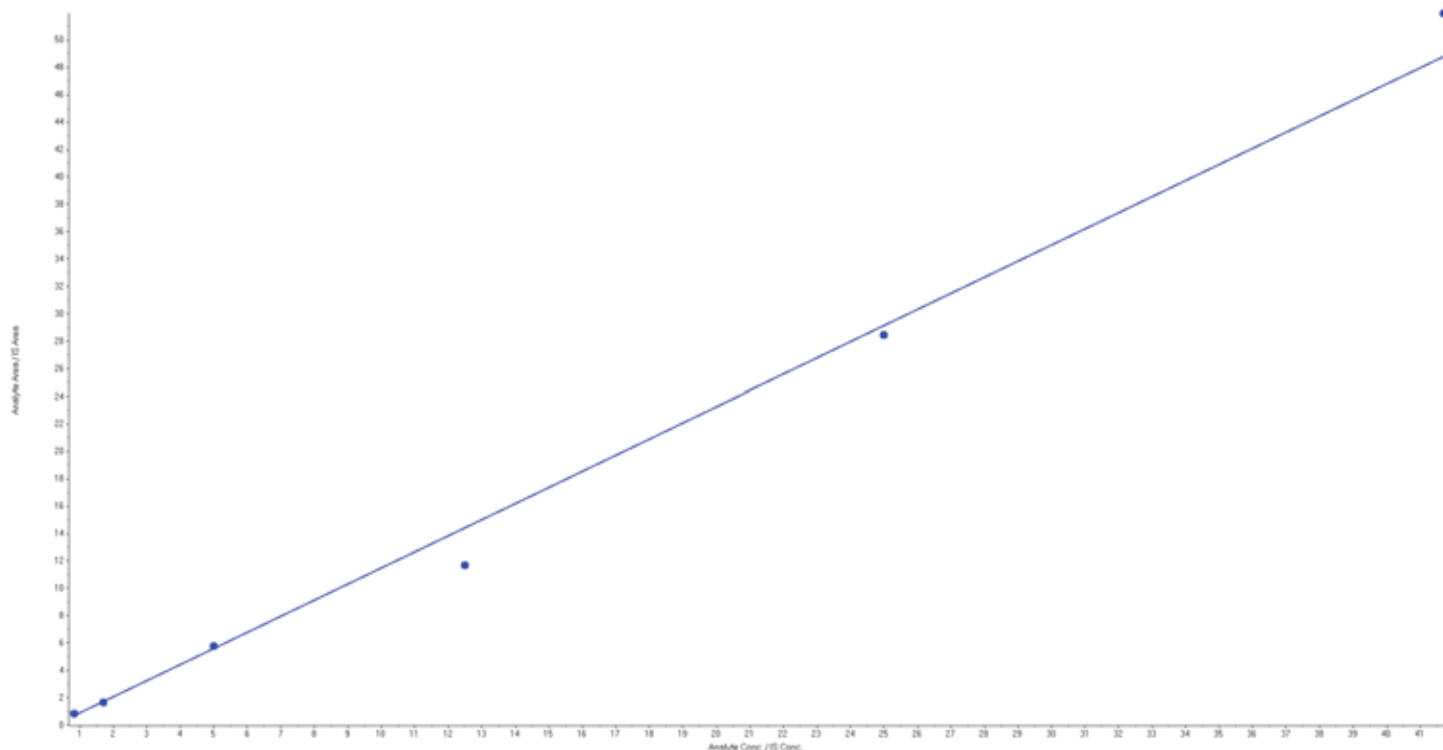
Analyte Name: PFBS 1
Internal Standard: MPFHxS

Data File	PFC_170523\WS#4988945.wiff	Result Table	PFC_Water_170523_4988945_CTLabs.rdb
Acquisition Date	2017/05/23 12:58:34 PM	Project	Enviro\PFOS
Acquisition Method	PFC_Water_Low.dam	Instrument Name	LCMS03

Regression Equation: $y = 1.18 x + -0.285$ ($r = 0.9954$)

Expected Concentration (µg/L)	Number of Values	Calculated Concentration (µg/L)	% Accuracy
0.83	1	0.95	113.9
1.7	1	1.66	97.4
5	1	5.16	103.2
12.5	1	10.17	81.3
25	1	24.42	97.7
41.7	1	44.38	106.4

Sample ID	Response Factor	S/N
Std 1	0.9980	167
Std 2	0.9790	462
Std 3	1.1600	2340
Std 4	0.9350	4410
Std 5	1.1400	7660
Std 6	1.2500	22300



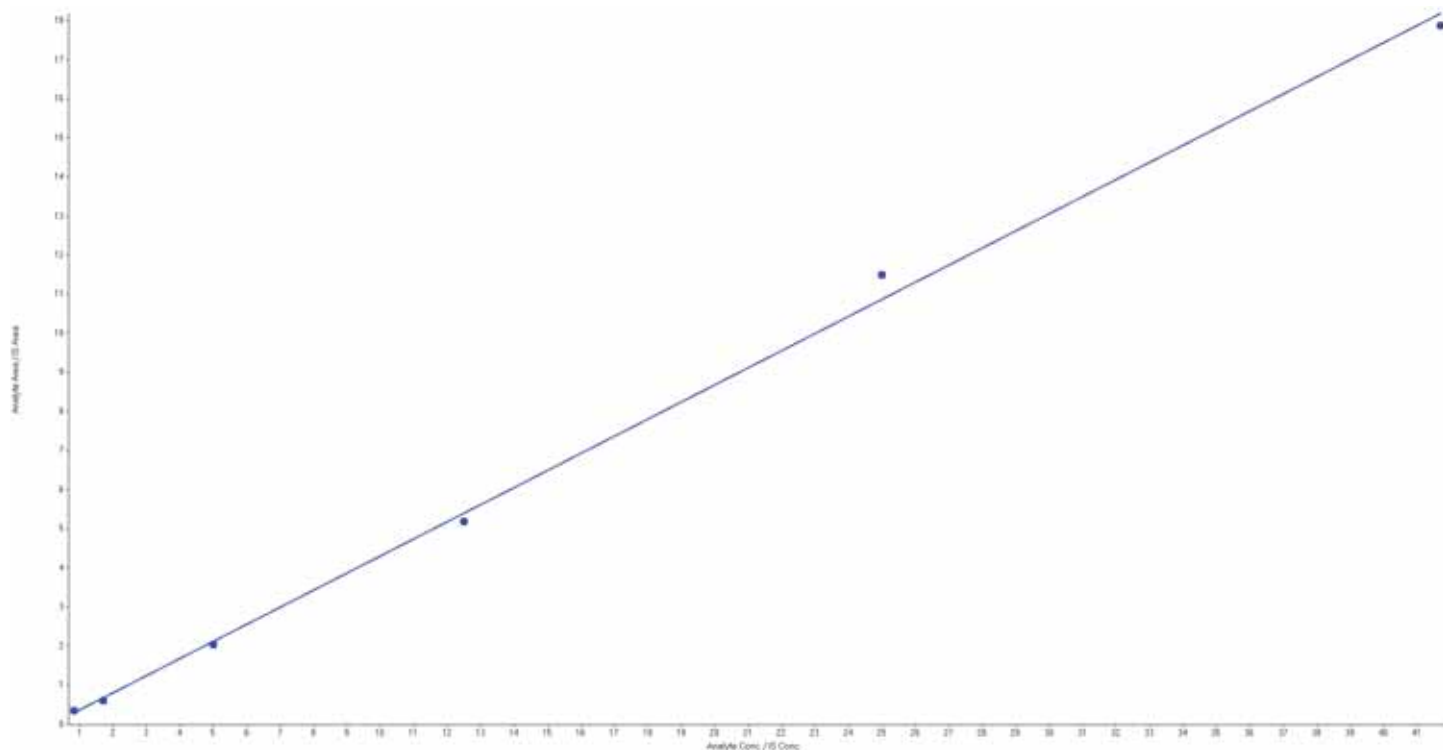
Analyte Name: PFHxA 1
Internal Standard: MPFHxA

Data File	PFC_170523\WS#4988945.wiff	Result Table	PFC_Water_170523_4988945_CTLabs.rdb
Acquisition Date	2017/05/23 12:58:34 PM	Project	Enviro\PFOS
Acquisition Method	PFC_Water_Low.dam	Instrument Name	LCMS03

Regression Equation: $y = 0.438 x + -0.0743$ ($r = 0.9990$)

Expected Concentration (µg/L)	Number of Values	Calculated Concentration (µg/L)	% Accuracy
0.83	1	0.93	112.3
1.7	1	1.56	91.5
5	1	4.80	96.1
12.5	1	12.01	96.1
25	1	26.43	105.7
41.7	1	40.99	98.3

Sample ID	Response Factor	S/N
Std 1	0.4020	106
Std 2	0.3570	279
Std 3	0.4060	1100
Std 4	0.4150	1290
Std 5	0.4600	4800
Std 6	0.4290	6960



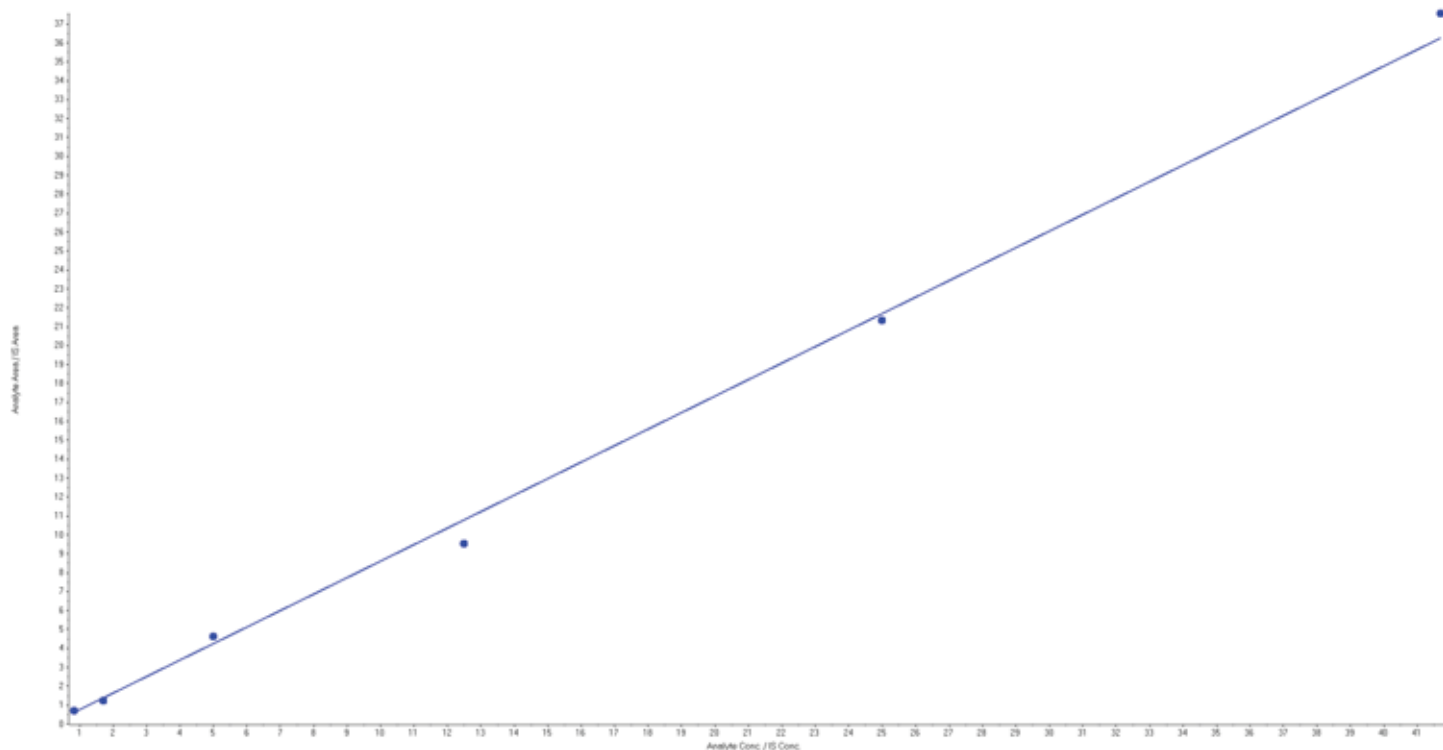
Analyte Name: PFHxS 1
Internal Standard: MPFHxS

Data File	PFC_170523\WS#4988945.wiff	Result Table	PFC_Water_170523_4988945_CTLabs.rdb
Acquisition Date	2017/05/23 12:58:34 PM	Project	Enviro\PFOS
Acquisition Method	PFC_Water_Low.dam	Instrument Name	LCMS03

Regression Equation: $y = 0.872 x + -0.107$ (r = 0.9979)

Expected Concentration (µg/L)	Number of Values	Calculated Concentration (µg/L)	% Accuracy
0.83	1	0.93	111.6
1.7	1	1.52	89.6
5	1	5.41	108.3
12.5	1	11.07	88.5
25	1	24.61	98.4
41.7	1	43.19	103.6

Sample ID	Response Factor	S/N
Std 1	0.8440	222
Std 2	0.7190	454
Std 3	0.9230	3960
Std 4	0.7630	4500
Std 5	0.8540	8170
Std 6	0.9010	10900



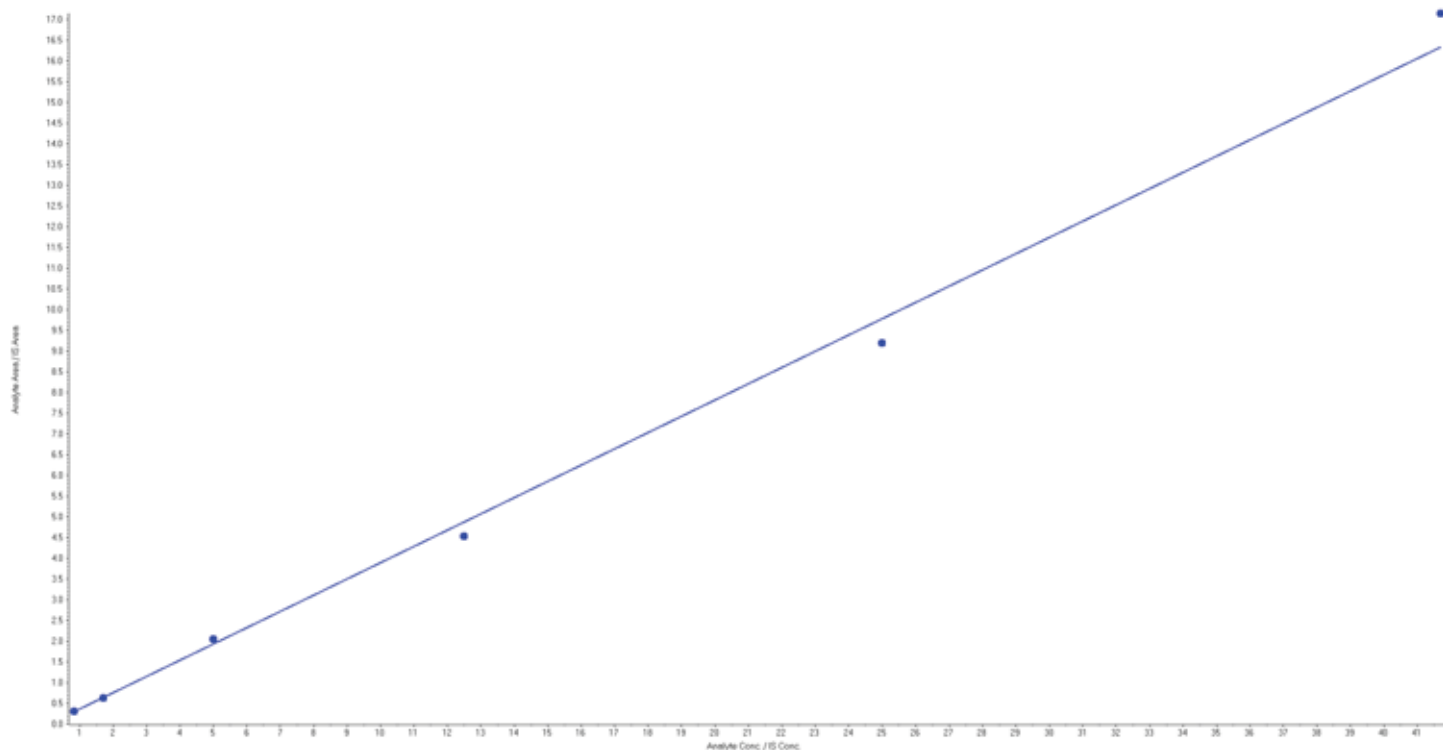
Analyte Name: PFHpA 1
Internal Standard: MPFHpA

Data File	PFC_170523\WS#4988945.wiff	Result Table	PFC_Water_170523_4988945_CTLabs.rdb
Acquisition Date	2017/05/23 12:58:34 PM	Project	Enviro\PFOS
Acquisition Method	PFC_Water_Low.dam	Instrument Name	LCMS03

Regression Equation: $y = 0.392 x + -0.0286$ ($r = 0.9981$)

Expected Concentration (µg/L)	Number of Values	Calculated Concentration (µg/L)	% Accuracy
0.83	1	0.86	103.6
1.7	1	1.68	98.6
5	1	5.30	105.9
12.5	1	11.61	92.9
25	1	23.52	94.1
41.7	1	43.77	105.0

Sample ID	Response Factor	S/N
Std 1	0.3720	73
Std 2	0.3700	163
Std 3	0.4100	1290
Std 4	0.3620	1150
Std 5	0.3680	4180
Std 6	0.4110	5710



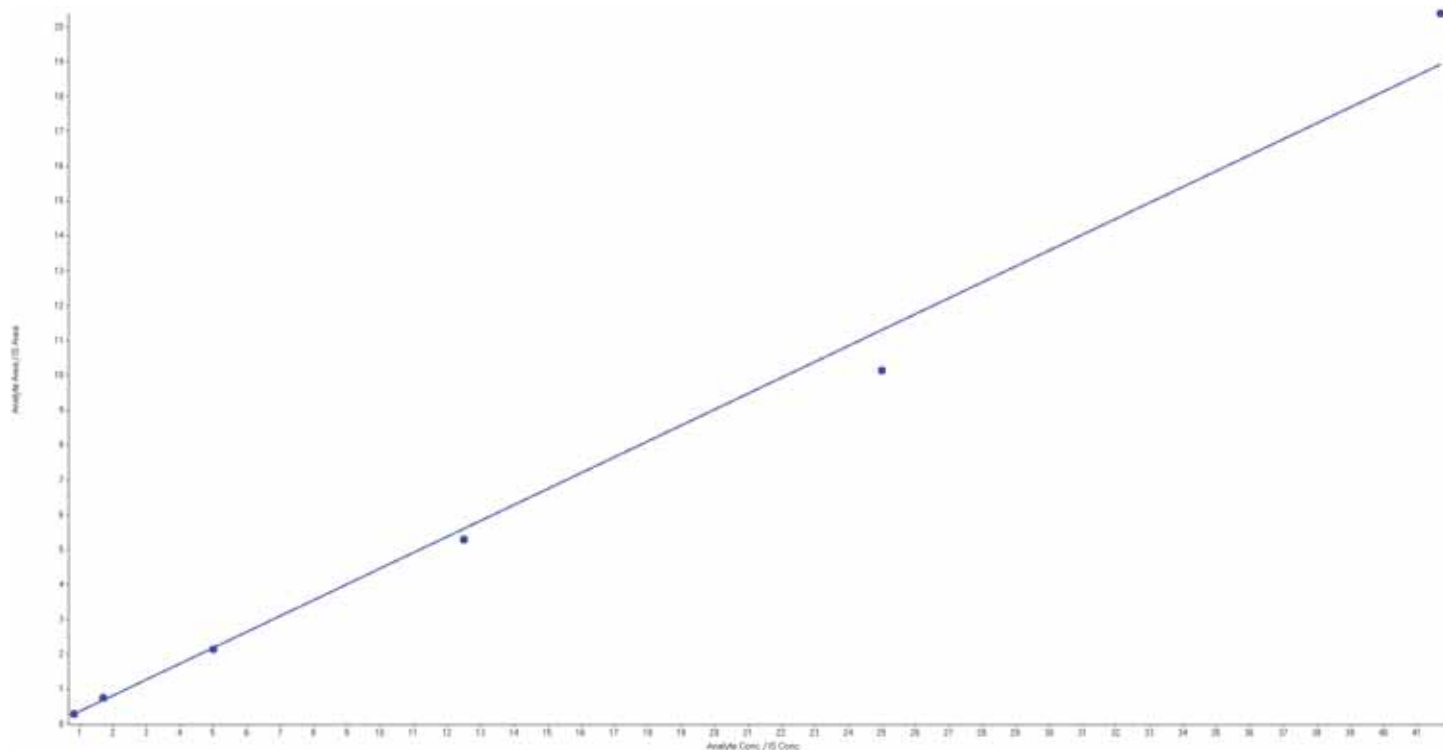
Analyte Name: PFOA 1
Internal Standard: MPFOA

Data File	PFC_170523\WS#4988945.wiff	Result Table	PFC_Water_170523_4988945_CTLabs.rdb
Acquisition Date	2017/05/23 12:58:34 PM	Project	Enviro\PFOS
Acquisition Method	PFC_Water_Low.dam	Instrument Name	LCMS03

Regression Equation: $y = 0.456 x + -0.0901$ ($r = 0.9960$)

Expected Concentration (µg/L)	Number of Values	Calculated Concentration (µg/L)	% Accuracy
0.83	1	0.85	102.3
1.7	1	1.84	108.0
5	1	4.89	97.7
12.5	1	11.81	94.4
25	1	22.45	89.8
41.7	1	44.90	107.7

Sample ID	Response Factor	S/N
Std 1	0.3580	147
Std 2	0.4390	436
Std 3	0.4280	1550
Std 4	0.4230	3030
Std 5	0.4060	3510
Std 6	0.4890	6140



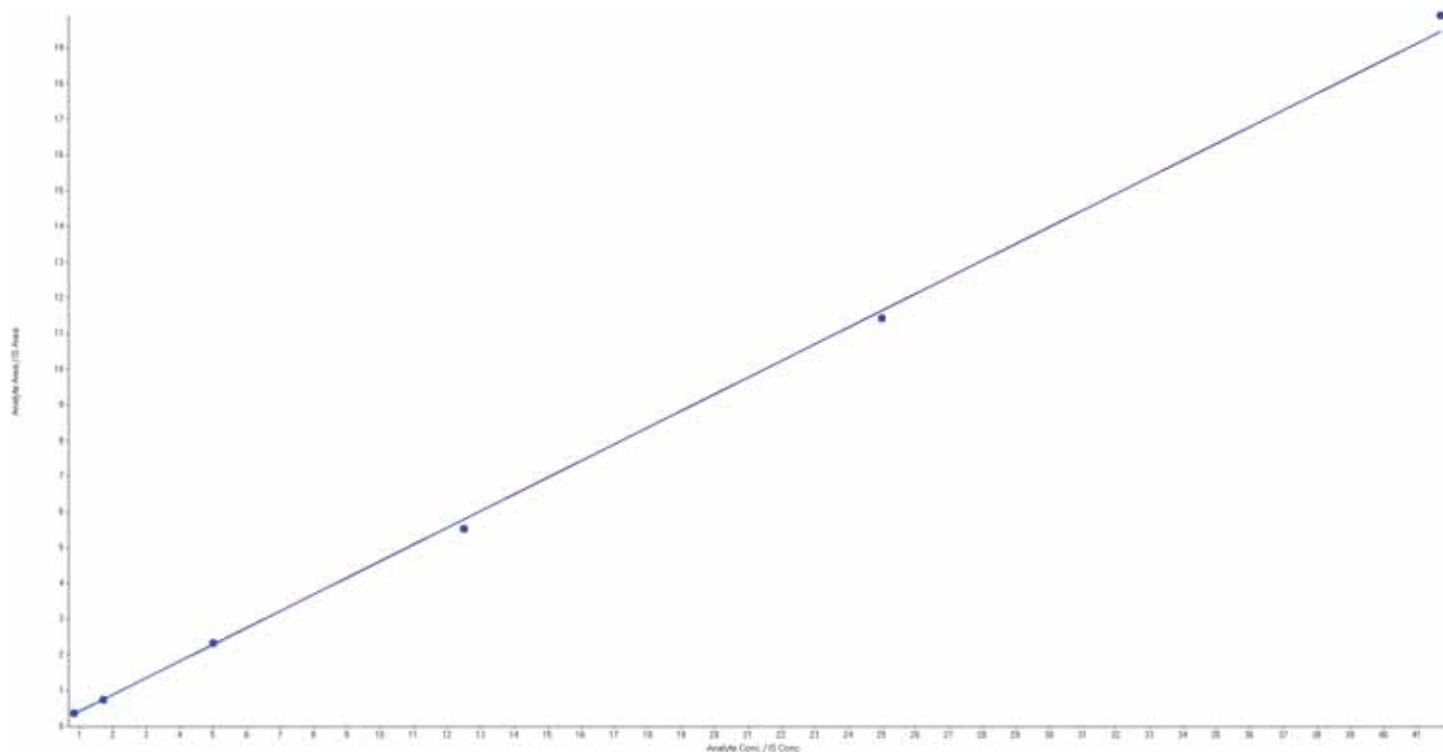
Analyte Name: PFOS 1
Internal Standard: MPFOS

Data File	PFC_170523\WS#4988945.wiff	Result Table	PFC_Water_170523_4988945_CTLabs.rdb
Acquisition Date	2017/05/23 12:58:34 PM	Project	Enviro\PFOS
Acquisition Method	PFC_Water_Low.dam	Instrument Name	LCMS03

Regression Equation: $y = 0.468 x + -0.0514$ ($r = 0.9996$)

Expected Concentration (µg/L)	Number of Values	Calculated Concentration (µg/L)	% Accuracy
0.83	1	0.87	104.3
1.7	1	1.67	98.2
5	1	5.09	101.8
12.5	1	11.92	95.4
25	1	24.52	98.1
41.7	1	42.67	102.3

Sample ID	Response Factor	S/N
Std 1	0.4260	174
Std 2	0.4290	517
Std 3	0.4660	956
Std 4	0.4420	8480
Std 5	0.4570	13300
Std 6	0.4780	25000



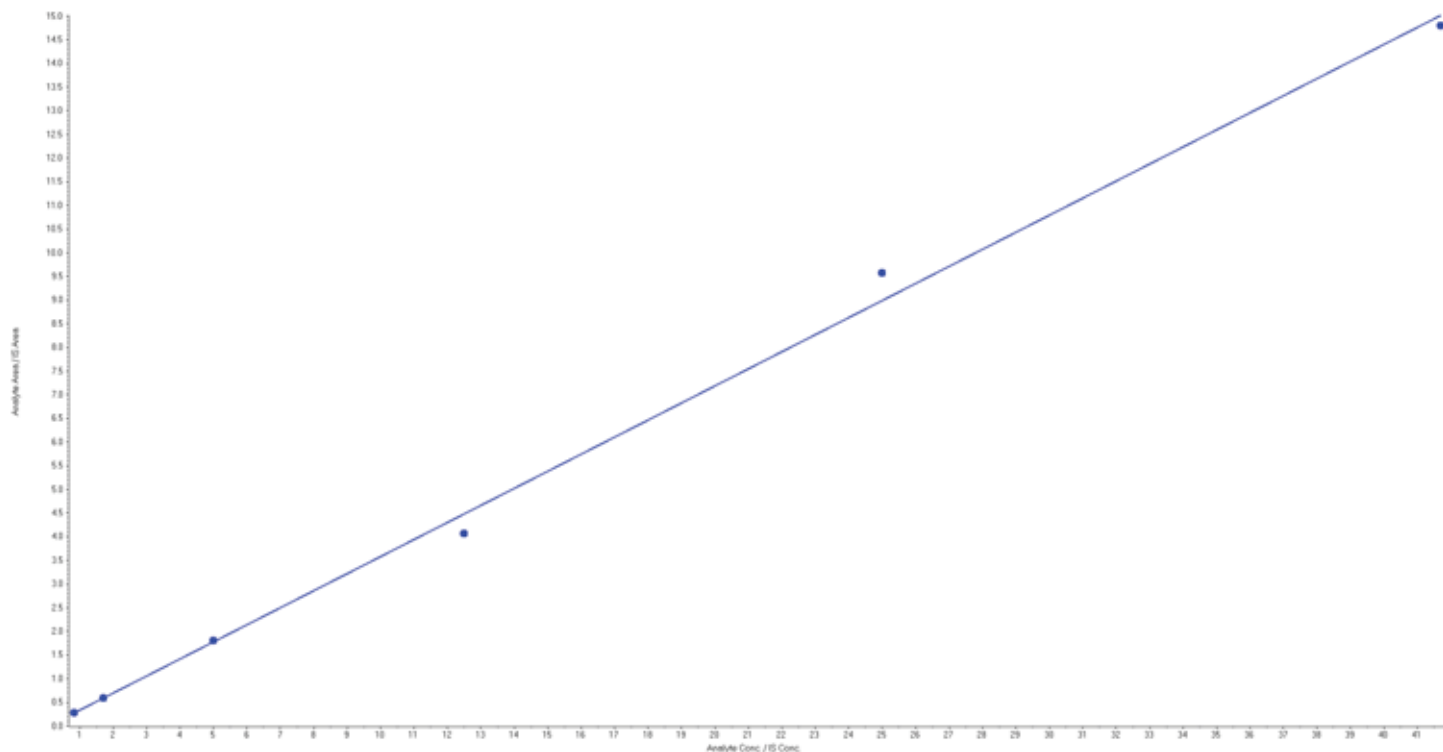
Analyte Name: PFNA 1
Internal Standard: MPFNA

Data File	PFC_170523\WS#4988945.wiff	Result Table	PFC_Water_170523_4988945_CTLabs.rdb
Acquisition Date	2017/05/23 12:58:34 PM	Project	Enviro\PFOS
Acquisition Method	PFC_Water_Low.dam	Instrument Name	LCMS03

Regression Equation: $y = 0.361 x + -0.0255$ ($r = 0.9984$)

Expected Concentration (µg/L)	Number of Values	Calculated Concentration (µg/L)	% Accuracy
0.83	1	0.85	101.9
1.7	1	1.71	100.7
5	1	5.08	101.5
12.5	1	11.35	90.8
25	1	26.63	106.5
41.7	1	41.12	98.6

Sample ID	Response Factor	S/N
Std 1	0.3370	151
Std 2	0.3480	450
Std 3	0.3610	2800
Std 4	0.3250	2890
Std 5	0.3830	5910
Std 6	0.3550	9850



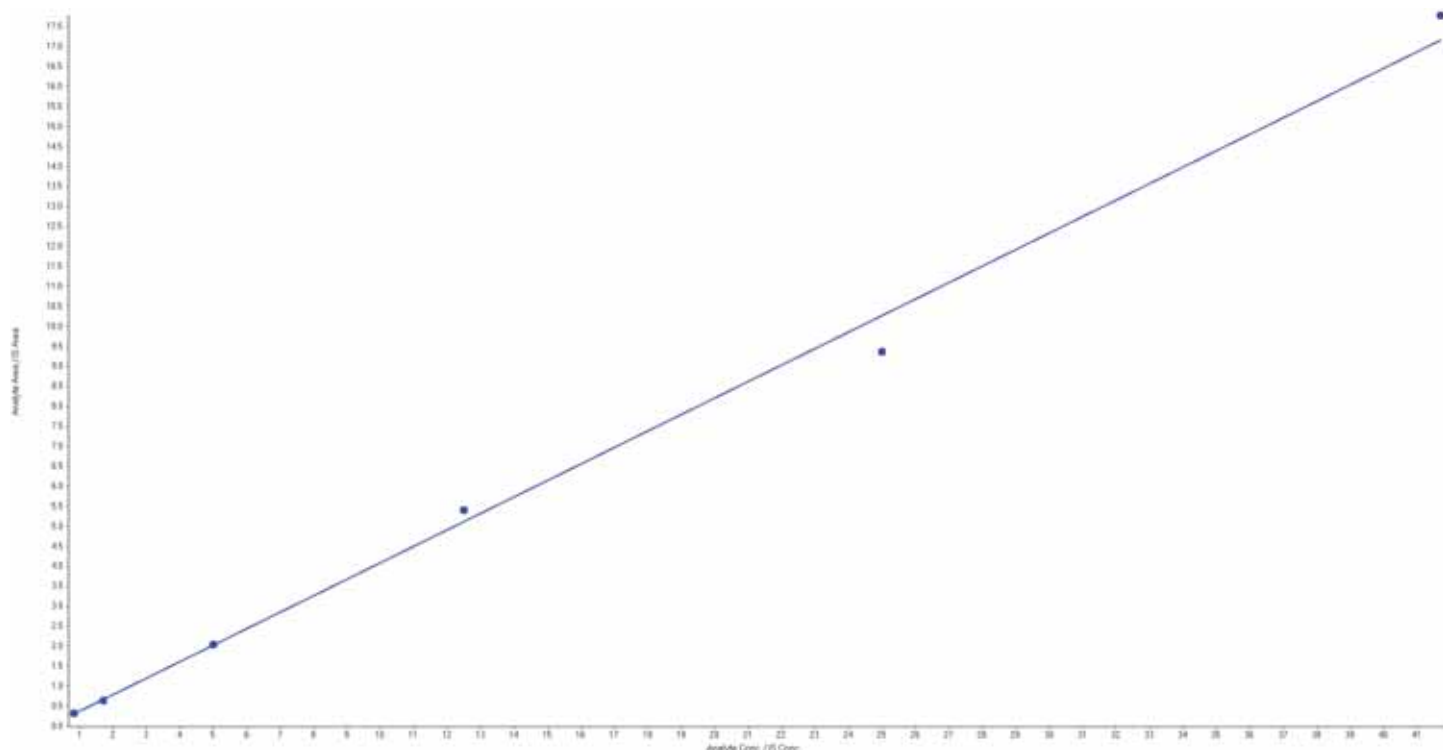
Analyte Name: PFDA 1
Internal Standard: MPFDA

Data File	PFC_170523\WS#4988945.wiff	Result Table	PFC_Water_170523_4988945_CTLabs.rdb
Acquisition Date	2017/05/23 12:58:34 PM	Project	Enviro\PFOS
Acquisition Method	PFC_Water_Low.dam	Instrument Name	LCMS03

Regression Equation: $y = 0.412 x + -0.037$ (r = 0.9980)

Expected Concentration (µg/L)	Number of Values	Calculated Concentration (µg/L)	% Accuracy
0.83	1	0.86	103.2
1.7	1	1.62	95.4
5	1	5.05	101.0
12.5	1	13.19	105.5
25	1	22.82	91.3
41.7	1	43.20	103.6

Sample ID	Response Factor	S/N
Std 1	0.3810	166
Std 2	0.3720	556
Std 3	0.4090	1910
Std 4	0.4320	3270
Std 5	0.3750	5340
Std 6	0.4260	17200



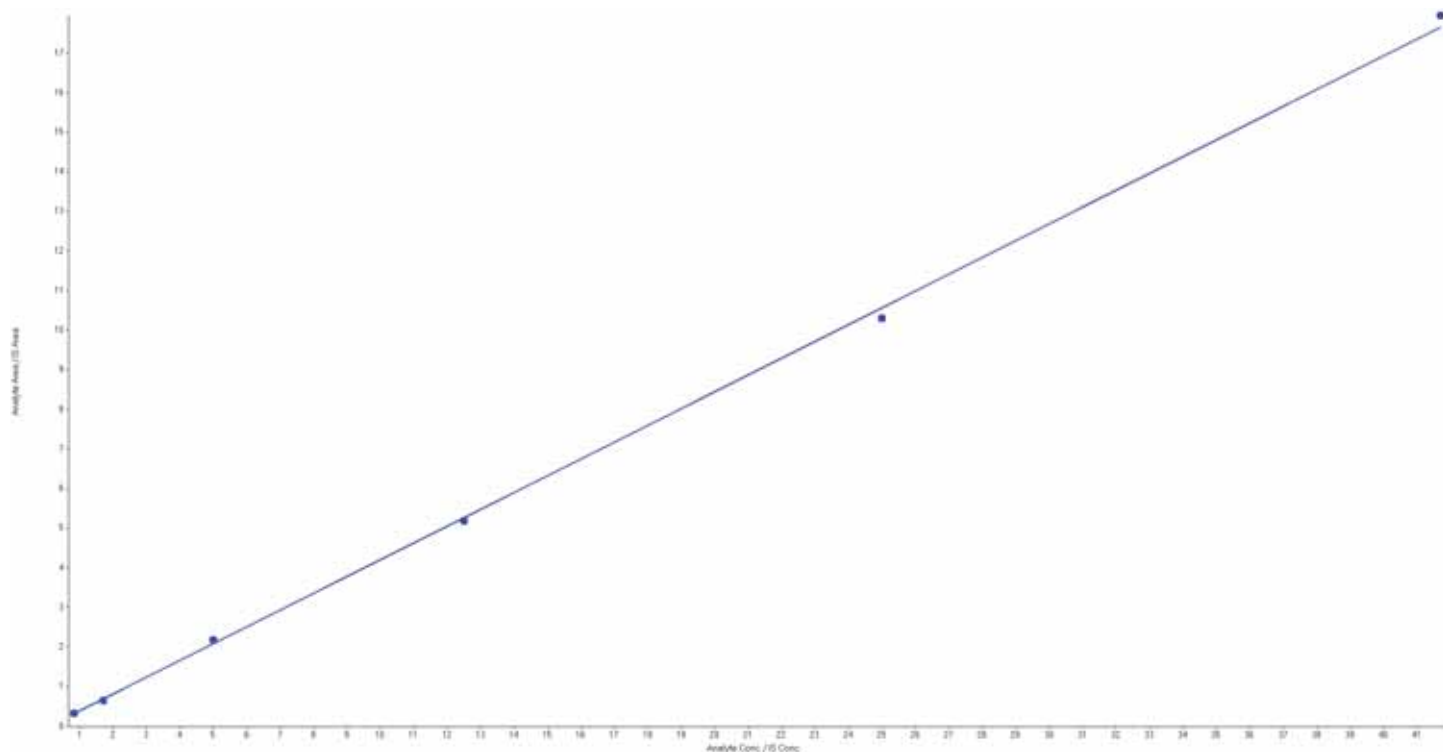
Analyte Name: PFUnA 1
Internal Standard: MPFUnA

Data File	PFC_170523\WS#4988945.wiff	Result Table	PFC_Water_170523_4988945_CTLabs.rdb
Acquisition Date	2017/05/23 12:58:34 PM	Project	Enviro\PFOS
Acquisition Method	PFC_Water_Low.dam	Instrument Name	LCMS03

Regression Equation: $y = 0.424 x + -0.0383$ ($r = 0.9997$)

Expected Concentration (µg/L)	Number of Values	Calculated Concentration (µg/L)	% Accuracy
0.83	1	0.87	104.3
1.7	1	1.60	93.9
5	1	5.22	104.3
12.5	1	12.30	98.4
25	1	24.35	97.4
41.7	1	42.40	101.7

Sample ID	Response Factor	S/N
Std 1	0.3960	143
Std 2	0.3760	309
Std 3	0.4350	1280
Std 4	0.4140	2220
Std 5	0.4120	4150
Std 6	0.4300	7720



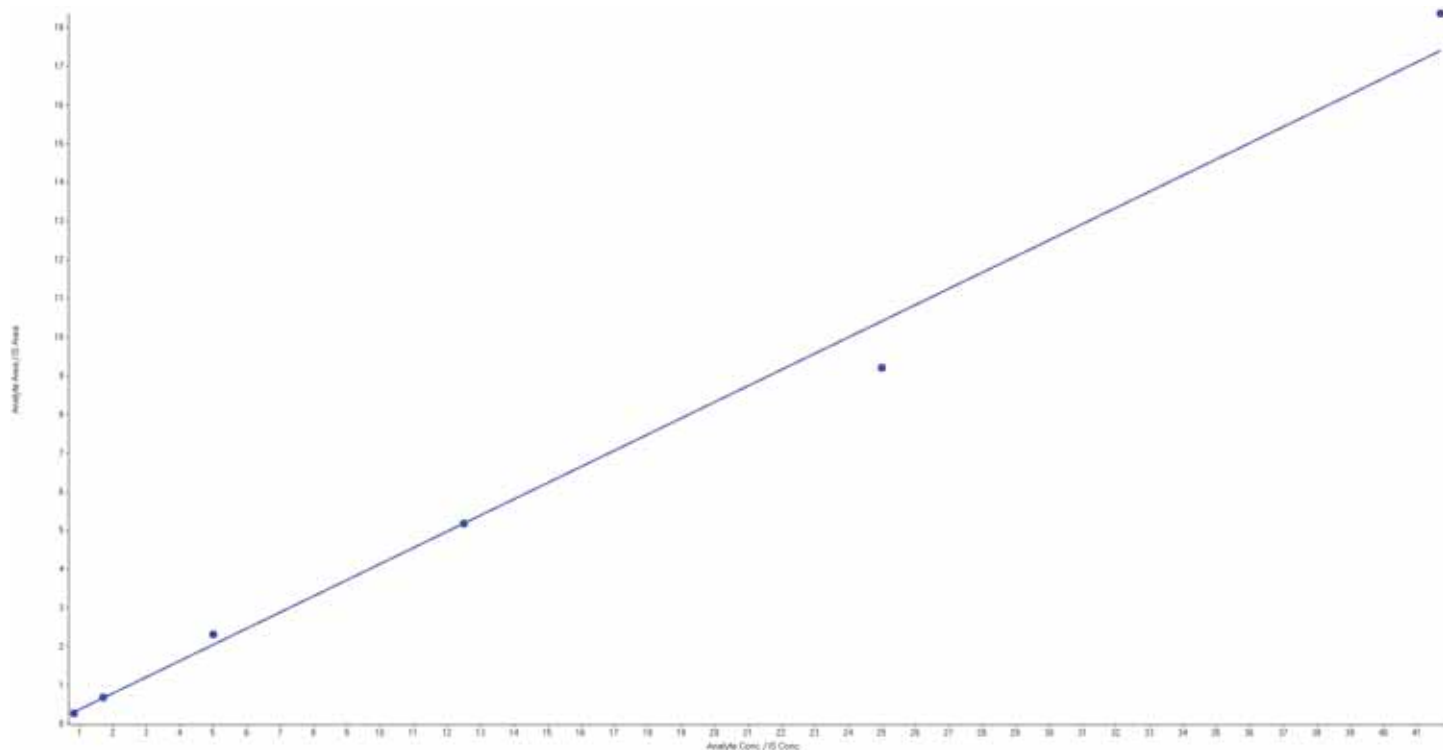
Analyte Name: PFD0A 1
Internal Standard: MPFD0A

Data File	PFC_170523\WS#4988945.wiff	Result Table	PFC_Water_170523_4988945_CTLabs.rdb
Acquisition Date	2017/05/23 12:58:34 PM	Project	Enviro\PFOS
Acquisition Method	PFC_Water_Low.dam	Instrument Name	LCMS03

Regression Equation: $y = 0.418x + -0.0376$ ($r = 0.9961$)

Expected Concentration (µg/L)	Number of Values	Calculated Concentration (µg/L)	% Accuracy
0.83	1	0.75	90.2
1.7	1	1.75	103.2
5	1	5.64	112.8
12.5	1	12.49	99.9
25	1	22.10	88.4
41.7	1	44.00	105.5

Sample ID	Response Factor	S/N
Std 1	0.3320	172
Std 2	0.4100	433
Std 3	0.4640	1250
Std 4	0.4150	3220
Std 5	0.3680	4640
Std 6	0.4400	6680



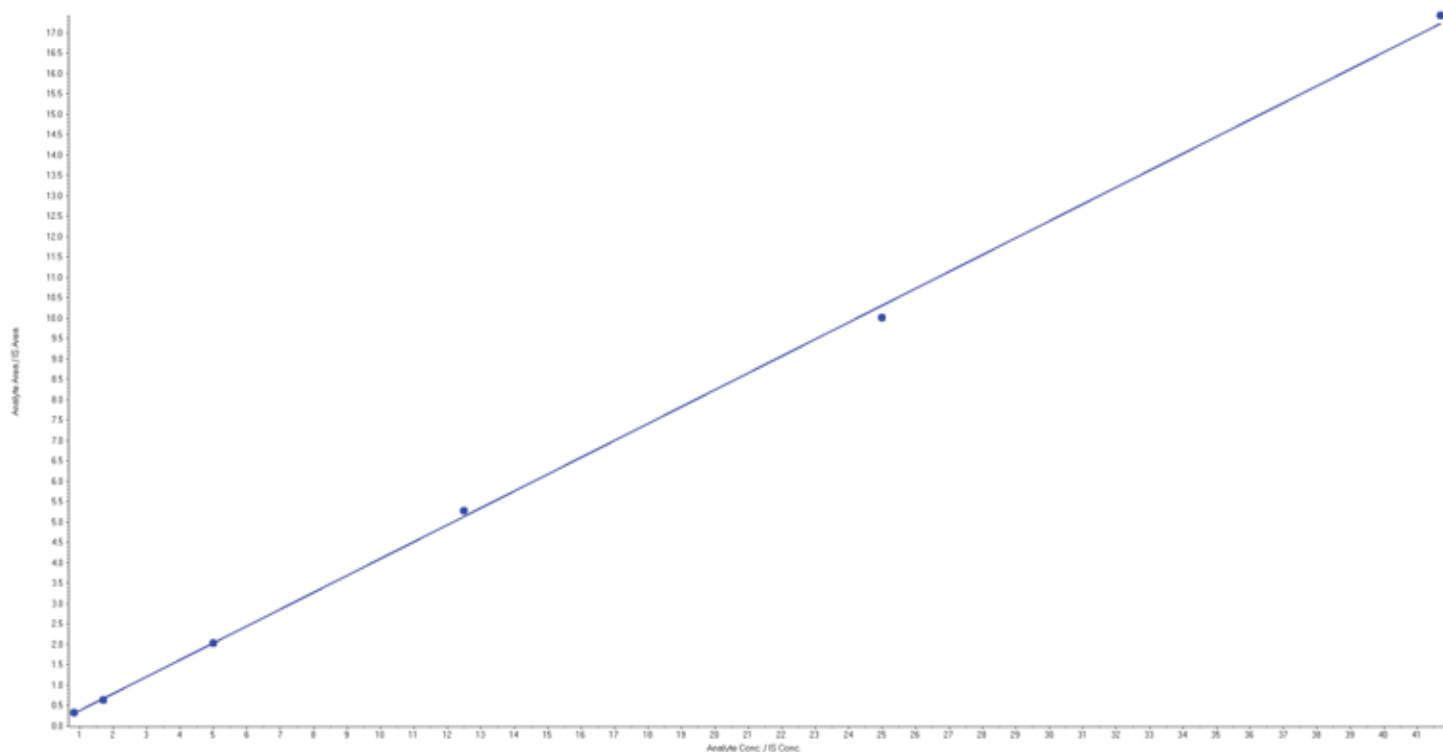
Analyte Name: PFTTrDA 1
Internal Standard: MPFTTeDA

Data File	PFC_170523\WS#4988945.wiff	Result Table	PFC_Water_170523_4988945_CTLabs.rdb
Acquisition Date	2017/05/23 12:58:34 PM	Project	Enviro\PFOS
Acquisition Method	PFC_Water_Low.dam	Instrument Name	LCMS03

Regression Equation: $y = 0.414 x + -0.0341$ ($r = 0.9997$)

Expected Concentration (µg/L)	Number of Values	Calculated Concentration (µg/L)	% Accuracy
0.83	1	0.87	105.0
1.7	1	1.61	94.6
5	1	4.98	99.6
12.5	1	12.82	102.6
25	1	24.27	97.1
41.7	1	42.18	101.1

Sample ID	Response Factor	S/N
Std 1	0.3940	247
Std 2	0.3720	538
Std 3	0.4050	1170
Std 4	0.4220	3690
Std 5	0.4010	4450
Std 6	0.4180	12700



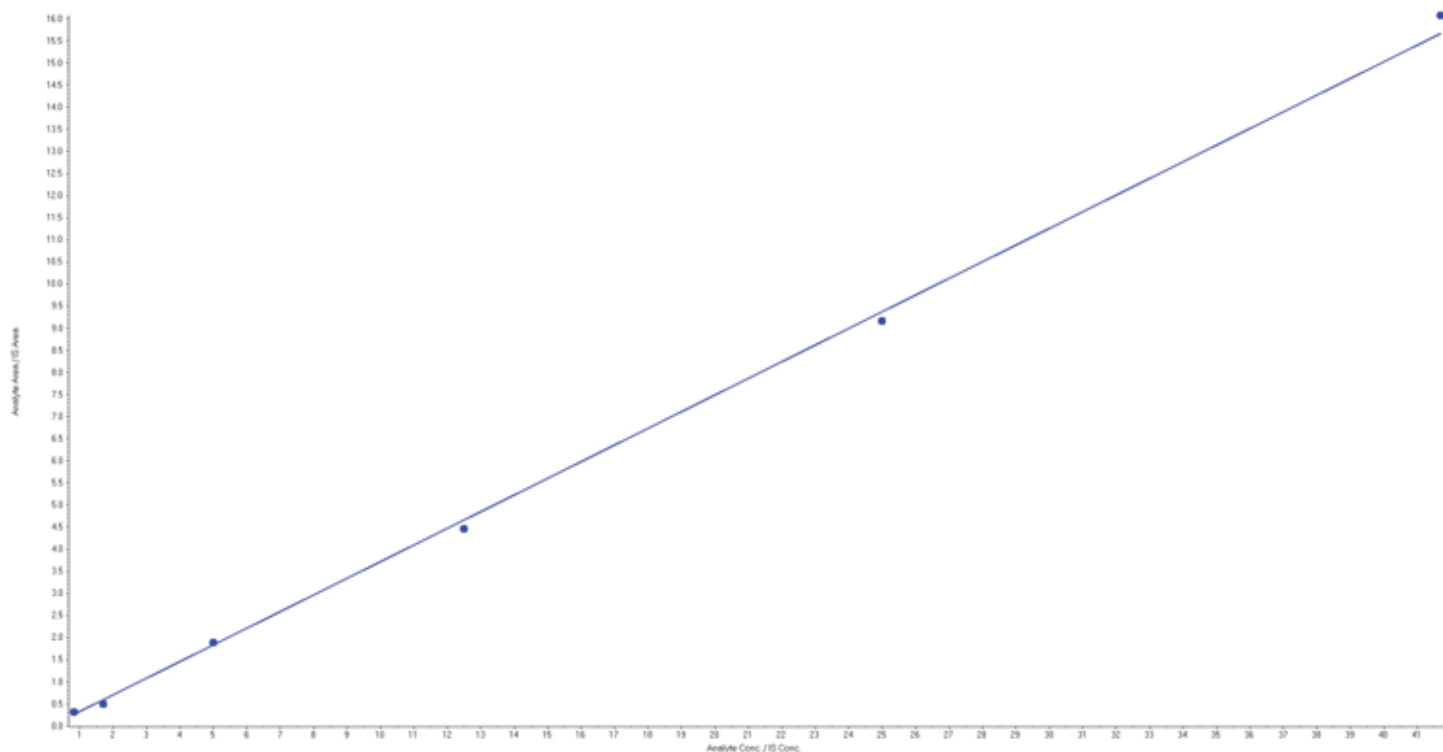
Analyte Name: PFTeDA 1
Internal Standard: MPFTeDA

Data File	PFC_170523\WS#4988945.wiff	Result Table	PFC_Water_170523_4988945_CTLabs.rdb
Acquisition Date	2017/05/23 12:58:34 PM	Project	Enviro\PFOS
Acquisition Method	PFC_Water_Low.dam	Instrument Name	LCMS03

Regression Equation: $y = 0.377 x + -0.048$ (r = 0.9991)

Expected Concentration (µg/L)	Number of Values	Calculated Concentration (µg/L)	% Accuracy
0.83	1	0.97	116.7
1.7	1	1.44	84.5
5	1	5.14	102.8
12.5	1	11.96	95.7
25	1	24.45	97.8
41.7	1	42.78	102.6

Sample ID	Response Factor	S/N
Std 1	0.3820	98
Std 2	0.2900	269
Std 3	0.3780	2440
Std 4	0.3570	5210
Std 5	0.3670	6620
Std 6	0.3860	10700



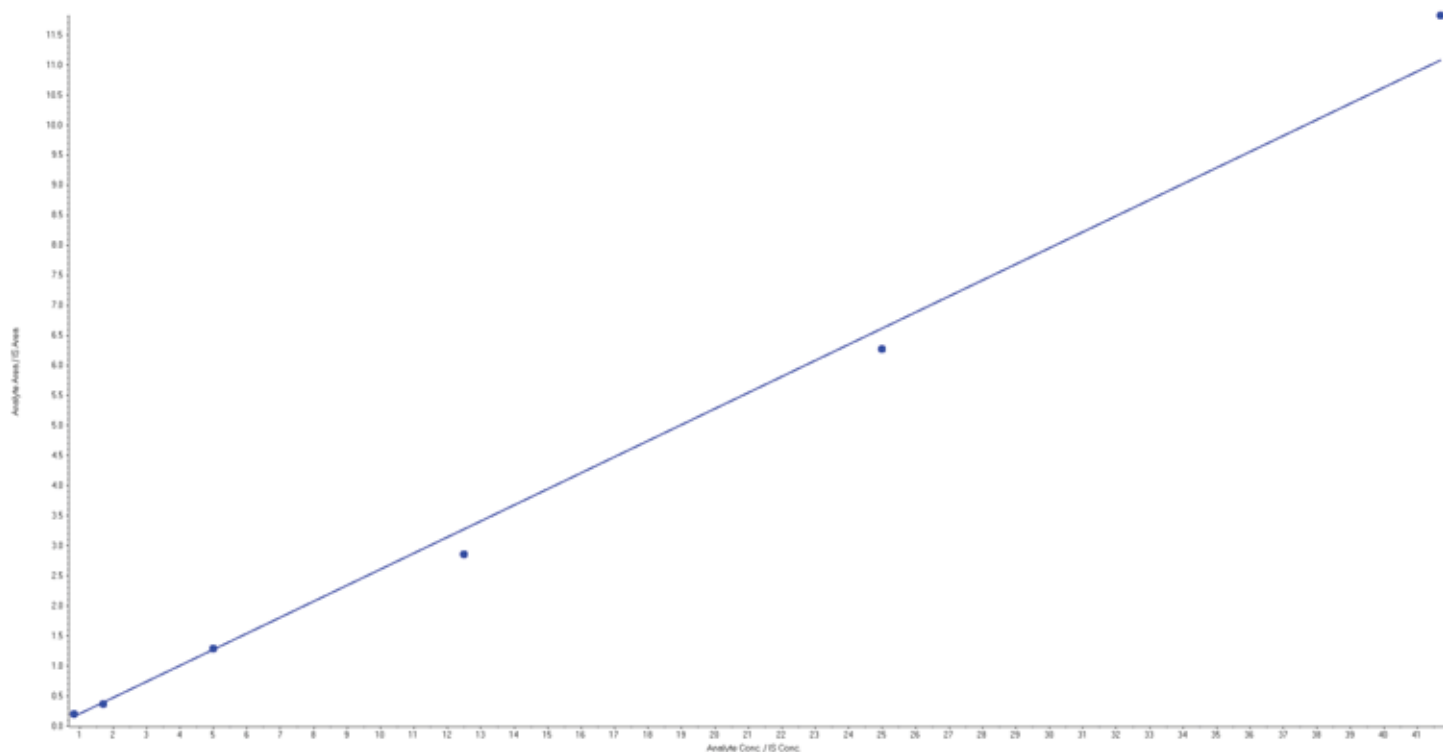
Analyte Name: 6:2-FTS 1
Internal Standard: M2 6:2 FTS

Data File	PFC_170523\WS#4988945.wiff	Result Table	PFC_Water_170523_4988945_CTLabs.rdb
Acquisition Date	2017/05/23 12:58:34 PM	Project	Enviro\PFOS
Acquisition Method	PFC_Water_Low.dam	Instrument Name	LCMS03

Regression Equation: $y = 0.267 x + -0.062$ (r = 0.9966)

Expected Concentration (µg/L)	Number of Values	Calculated Concentration (µg/L)	% Accuracy
0.83	1	0.97	116.5
1.7	1	1.59	93.6
5	1	5.04	100.9
12.5	1	10.95	87.6
25	1	23.69	94.8
41.7	1	44.48	106.7

Sample ID	Response Factor	S/N
Std 1	0.2370	131
Std 2	0.2140	560
Std 3	0.2570	1370
Std 4	0.2290	3240
Std 5	0.2510	5070
Std 6	0.2840	11900



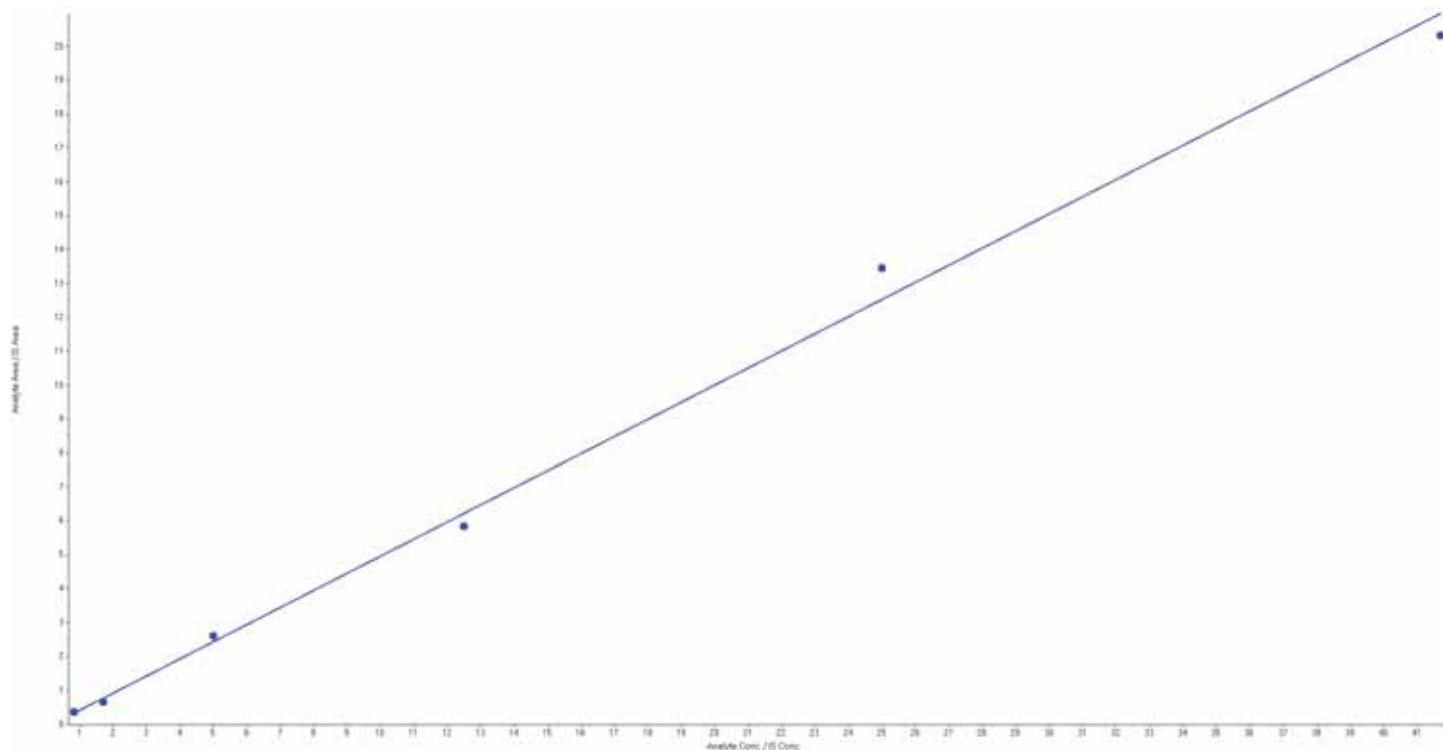
Analyte Name: 8:2-FTS 1
Internal Standard: M2 8:2 FTS

Data File	PFC_170523\WS#4988945.wiff	Result Table	PFC_Water_170523_4988945_CTLabs.rdb
Acquisition Date	2017/05/23 12:58:34 PM	Project	Enviro\PFOS
Acquisition Method	PFC_Water_Low.dam	Instrument Name	LCMS03

Regression Equation: $y = 0.505 x + -0.097$ (r = 0.9980)

Expected Concentration (µg/L)	Number of Values	Calculated Concentration (µg/L)	% Accuracy
0.83	1	0.90	108.6
1.7	1	1.46	86.1
5	1	5.34	106.9
12.5	1	11.76	94.1
25	1	26.84	107.4
41.7	1	40.42	96.9

Sample ID	Response Factor	S/N
Std 1	0.4320	N/A
Std 2	0.3780	372
Std 3	0.5200	1620
Std 4	0.4680	7120
Std 5	0.5380	21000
Std 6	0.4870	13300



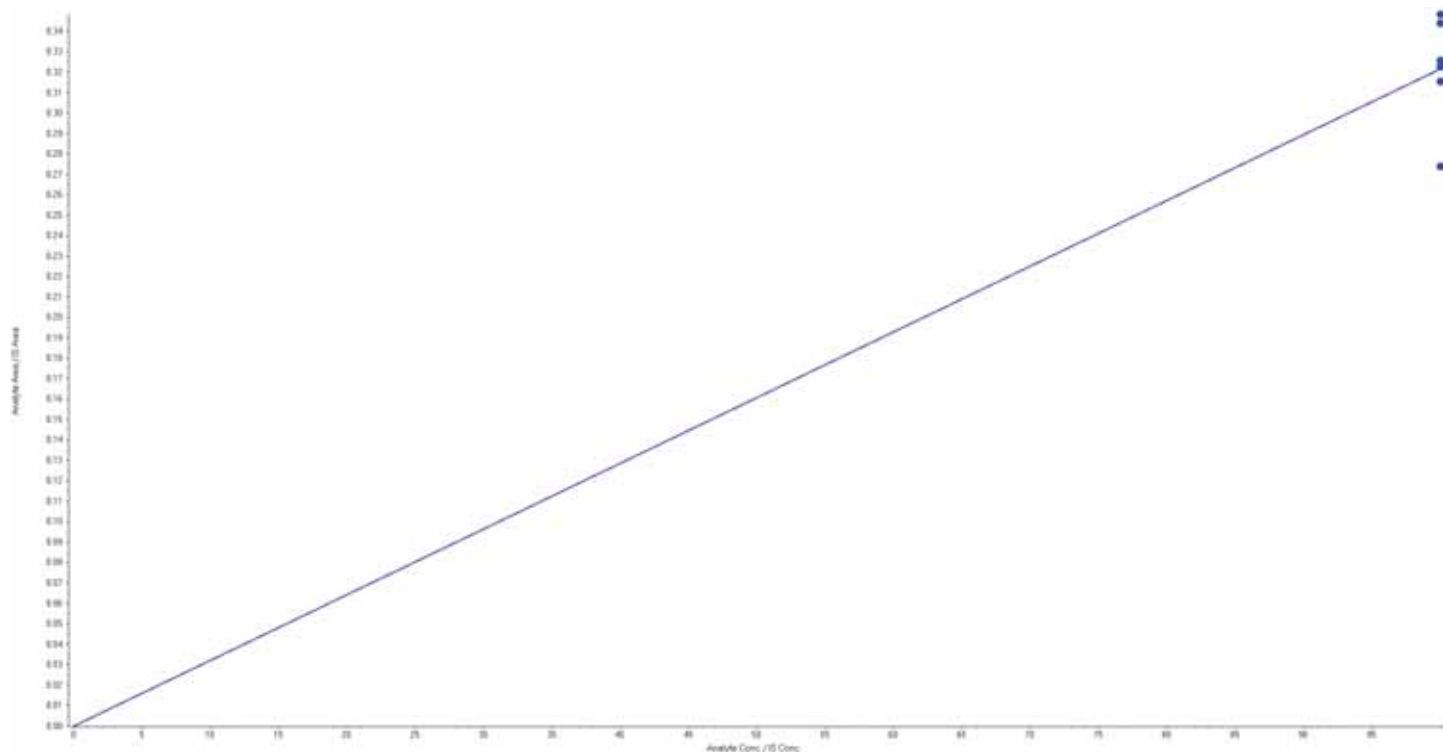
Analyte Name: 13C2-PFHxA
Internal Standard: 13C6-PFHxA IS

Data File	PFC_170523\WS#4988945.wiff	Result Table	PFC_Water_170523_4988945_CTLabs.rdb
Acquisition Date	2017/05/23 12:58:34 PM	Project	Enviro\PFOS
Acquisition Method	PFC_Water_Low.dam	Instrument Name	LCMS03

Regression Equation: $y = 0.00322 x$ ($r = 0.9971$)

Expected Concentration (µg/L)	Number of Values	Calculated Concentration (µg/L)	% Accuracy
100	6	100.00	100.0

Sample ID	Response Factor	S/N
Std 1	0.0032	3750
Std 2	0.0033	1630
Std 3	0.0035	4230
Std 4	0.0034	2560
Std 5	0.0027	4160
Std 6	0.0032	4850



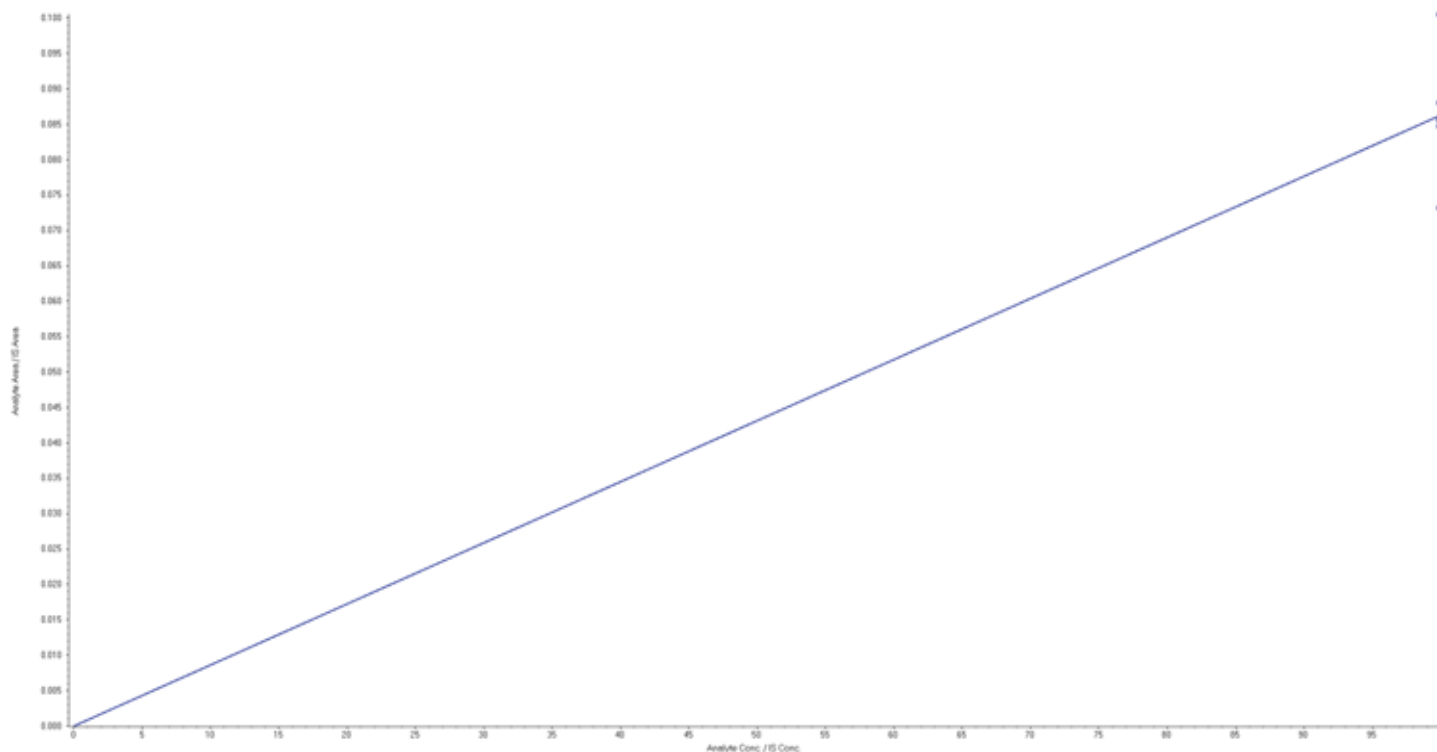
Analyte Name: 18O2-PFHxS
Internal Standard: 13C6-PFHxA IS

Data File	PFC_170523\WS#4988945.wiff	Result Table	PFC_Water_170523_4988945_CTLabs.rdb
Acquisition Date	2017/05/23 12:58:34 PM	Project	Enviro\PFOS
Acquisition Method	PFC_Water_Low.dam	Instrument Name	LCMS03

Regression Equation: $y = 0.000863 x$ ($r = 0.9958$)

Expected Concentration (µg/L)	Number of Values	Calculated Concentration (µg/L)	% Accuracy
100	6	100.00	100.0

Sample ID	Response Factor	S/N
Std 1	0.0009	N/A
Std 2	0.0009	N/A
Std 3	0.0009	N/A
Std 4	0.0010	3440
Std 5	0.0007	1450
Std 6	0.0008	N/A



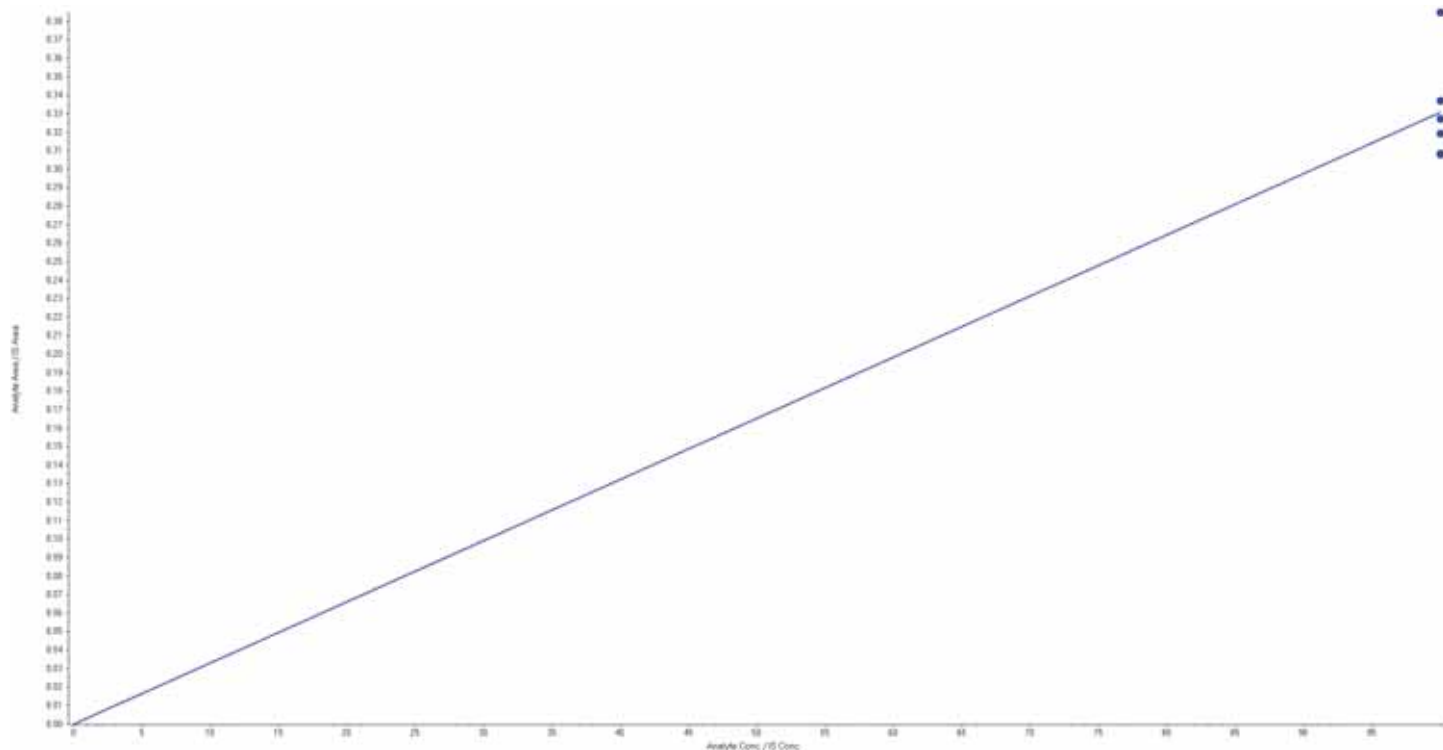
Analyte Name: 13C4-PFHpA
Internal Standard: 13C6-PFHxA IS

Data File	PFC_170523\WS#4988945.wiff	Result Table	PFC_Water_170523_4988945_CTLabs.rdb
Acquisition Date	2017/05/23 12:58:34 PM	Project	Enviro\PFOS
Acquisition Method	PFC_Water_Low.dam	Instrument Name	LCMS03

Regression Equation: $y = 0.00331 x$ ($r = 0.9969$)

Expected Concentration (µg/L)	Number of Values	Calculated Concentration (µg/L)	% Accuracy
100	6	100.00	100.0

Sample ID	Response Factor	S/N
Std 1	0.0033	3770
Std 2	0.0032	4540
Std 3	0.0034	N/A
Std 4	0.0039	3550
Std 5	0.0031	2260
Std 6	0.0031	4550



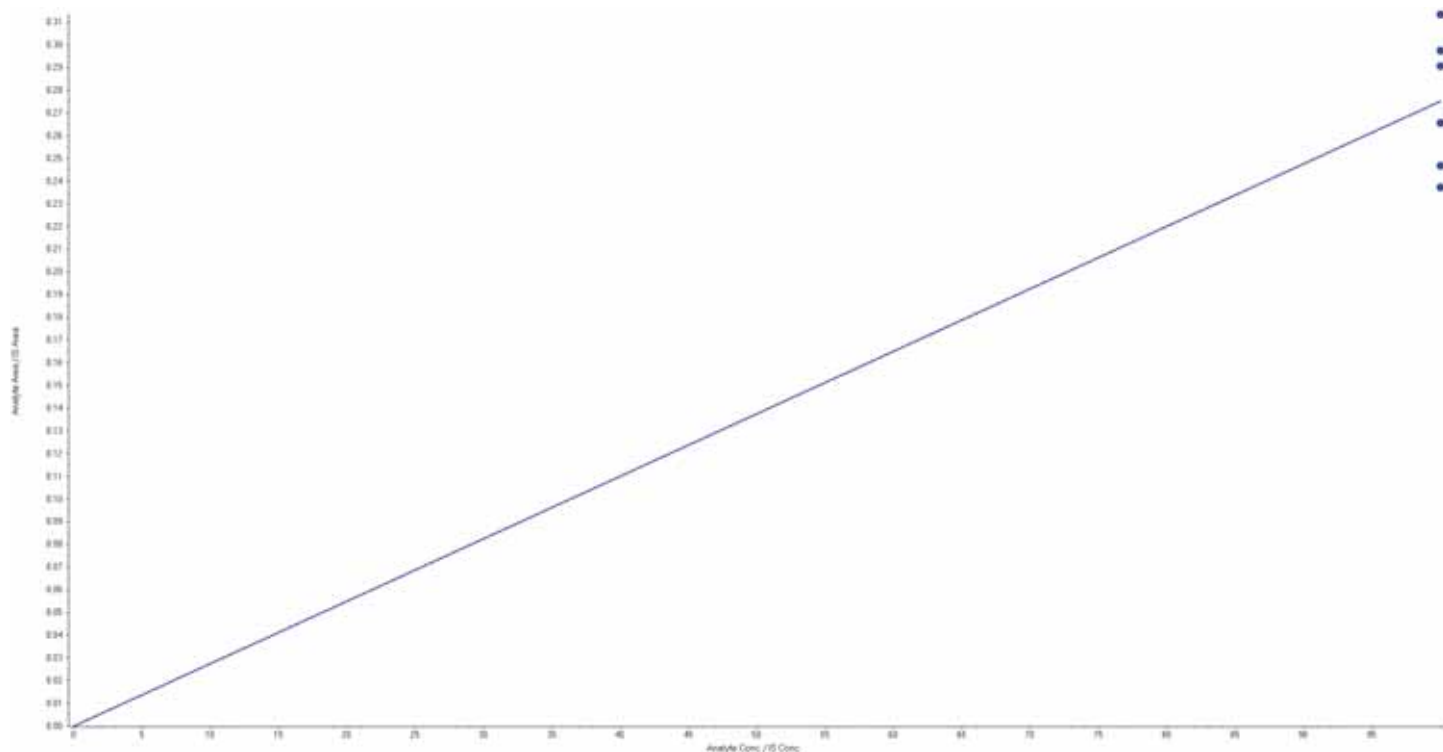
Analyte Name: 13C4-PFOA
Internal Standard: 13C6-PFHxA IS

Data File	PFC_170523\WS#4988945.wiff	Result Table	PFC_Water_170523_4988945_CTLabs.rdb
Acquisition Date	2017/05/23 12:58:34 PM	Project	Enviro\PFOS
Acquisition Method	PFC_Water_Low.dam	Instrument Name	LCMS03

Regression Equation: $y = 0.00275 x$ ($r = 0.9951$)

Expected Concentration (µg/L)	Number of Values	Calculated Concentration (µg/L)	% Accuracy
100	6	100.00	100.0

Sample ID	Response Factor	S/N
Std 1	0.0029	10200
Std 2	0.0025	5990
Std 3	0.0031	3050
Std 4	0.0030	6600
Std 5	0.0027	8910
Std 6	0.0024	13400



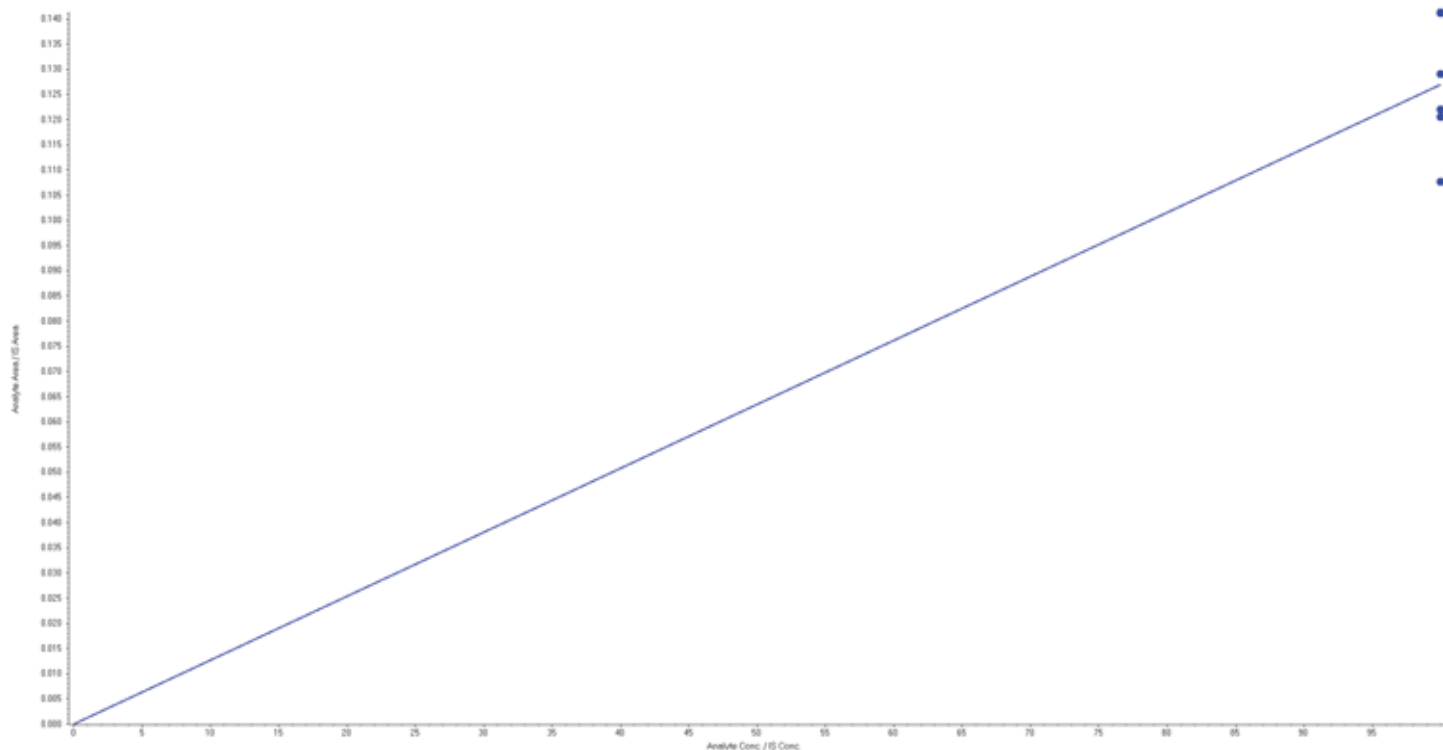
Analyte Name: 13C4-PFOS
Internal Standard: 13C6-PFHxA IS

Data File	PFC_170523\WS#4988945.wiff	Result Table	PFC_Water_170523_4988945_CTLabs.rdb
Acquisition Date	2017/05/23 12:58:34 PM	Project	Enviro\PFOS
Acquisition Method	PFC_Water_Low.dam	Instrument Name	LCMS03

Regression Equation: $y = 0.00127 x (r = 0.9956)$

Expected Concentration (µg/L)	Number of Values	Calculated Concentration (µg/L)	% Accuracy
100	6	100.00	100.0

Sample ID	Response Factor	S/N
Std 1	0.0013	2480
Std 2	0.0012	1340
Std 3	0.0014	1710
Std 4	0.0014	2800
Std 5	0.0011	1280
Std 6	0.0012	1900



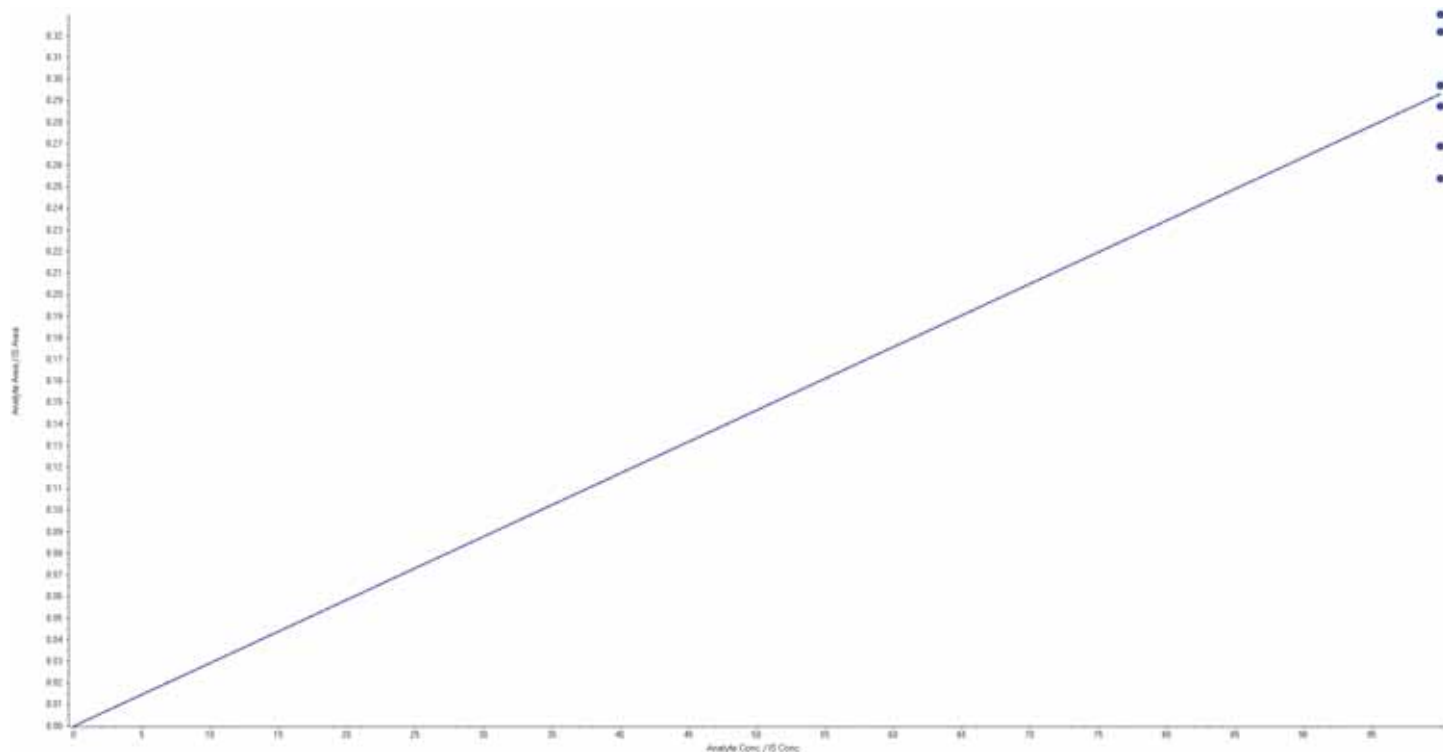
Analyte Name: 13C5-PFNA
Internal Standard: 13C6-PFHxA IS

Data File	PFC_170523\WS#4988945.wiff	Result Table	PFC_Water_170523_4988945_CTLabs.rdb
Acquisition Date	2017/05/23 12:58:34 PM	Project	Enviro\PFOS
Acquisition Method	PFC_Water_Low.dam	Instrument Name	LCMS03

Regression Equation: $y = 0.00293 x$ ($r = 0.9958$)

Expected Concentration (µg/L)	Number of Values	Calculated Concentration (µg/L)	% Accuracy
100	6	100.00	100.0

Sample ID	Response Factor	S/N
Std 1	0.0030	3440
Std 2	0.0029	9220
Std 3	0.0032	2920
Std 4	0.0033	3530
Std 5	0.0025	9100
Std 6	0.0027	3150



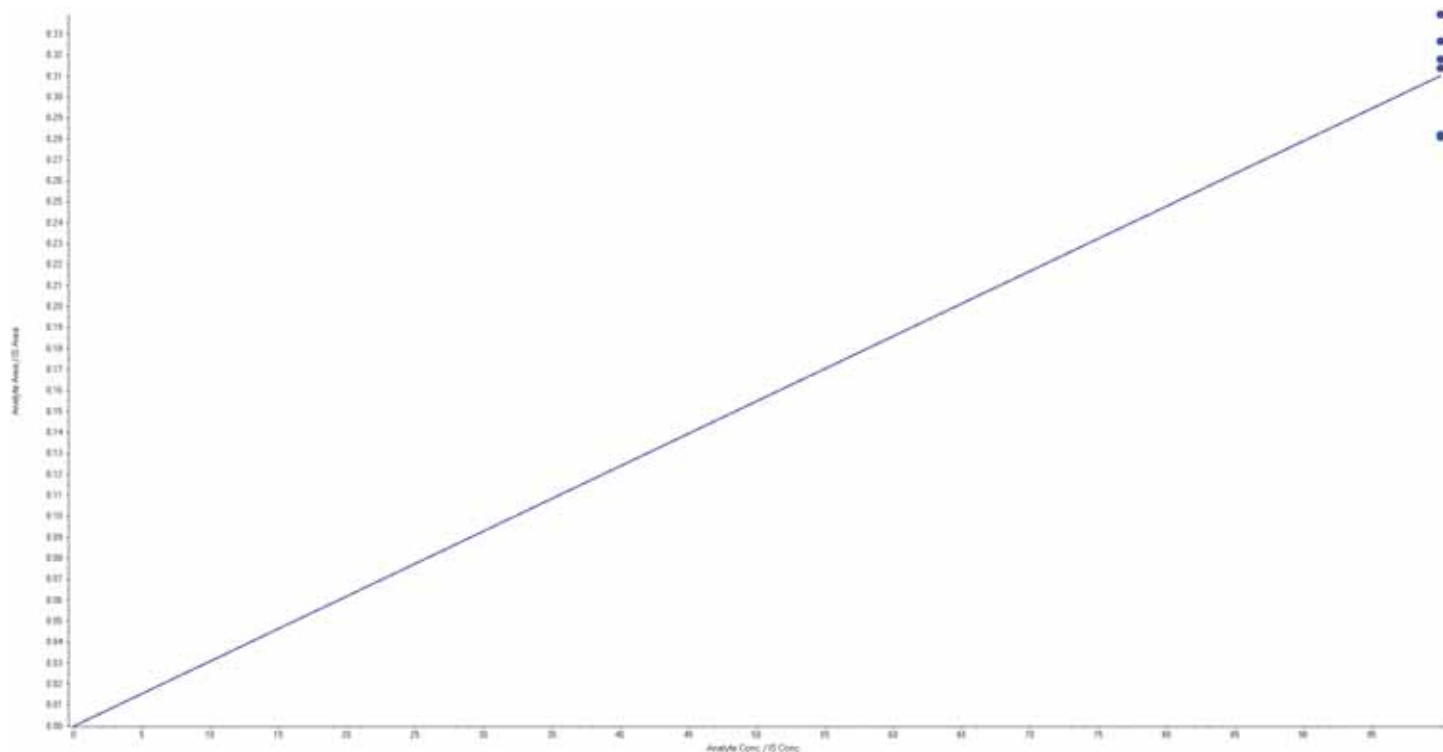
Analyte Name: 13C2-PFDA
Internal Standard: 13C9-PFDA IS

Data File	PFC_170523\WS#4988945.wiff	Result Table	PFC_Water_170523_4988945_CTLabs.rdb
Acquisition Date	2017/05/23 12:58:34 PM	Project	Enviro\PFOS
Acquisition Method	PFC_Water_Low.dam	Instrument Name	LCMS03

Regression Equation: $y = 0.0031 x (r = 0.9975)$

Expected Concentration (µg/L)	Number of Values	Calculated Concentration (µg/L)	% Accuracy
100	6	100.00	100.0

Sample ID	Response Factor	S/N
Std 1	0.0034	7470
Std 2	0.0028	3680
Std 3	0.0033	5410
Std 4	0.0032	6020
Std 5	0.0028	7920
Std 6	0.0031	6220



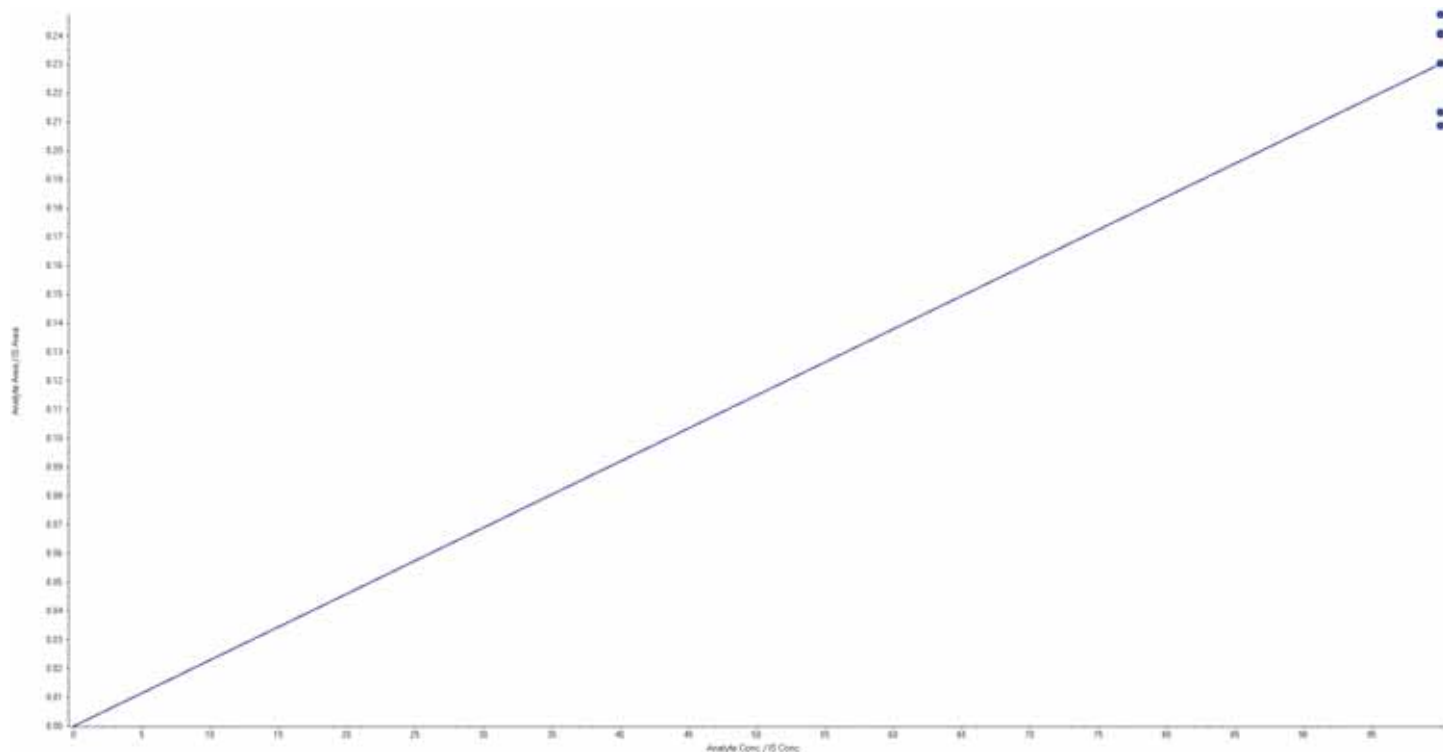
Analyte Name: 13C2-PFUnA
Internal Standard: 13C9-PFDA IS

Data File	PFC_170523\WS#4988945.wiff	Result Table	PFC_Water_170523_4988945_CTLabs.rdb
Acquisition Date	2017/05/23 12:58:34 PM	Project	Enviro\PFOS
Acquisition Method	PFC_Water_Low.dam	Instrument Name	LCMS03

Regression Equation: $y = 0.0023 x$ (r = 0.9980)

Expected Concentration (µg/L)	Number of Values	Calculated Concentration (µg/L)	% Accuracy
100	6	100.00	100.0

Sample ID	Response Factor	S/N
Std 1	0.0025	5300
Std 2	0.0021	10900
Std 3	0.0024	5400
Std 4	0.0023	2830
Std 5	0.0021	1740
Std 6	0.0024	3770



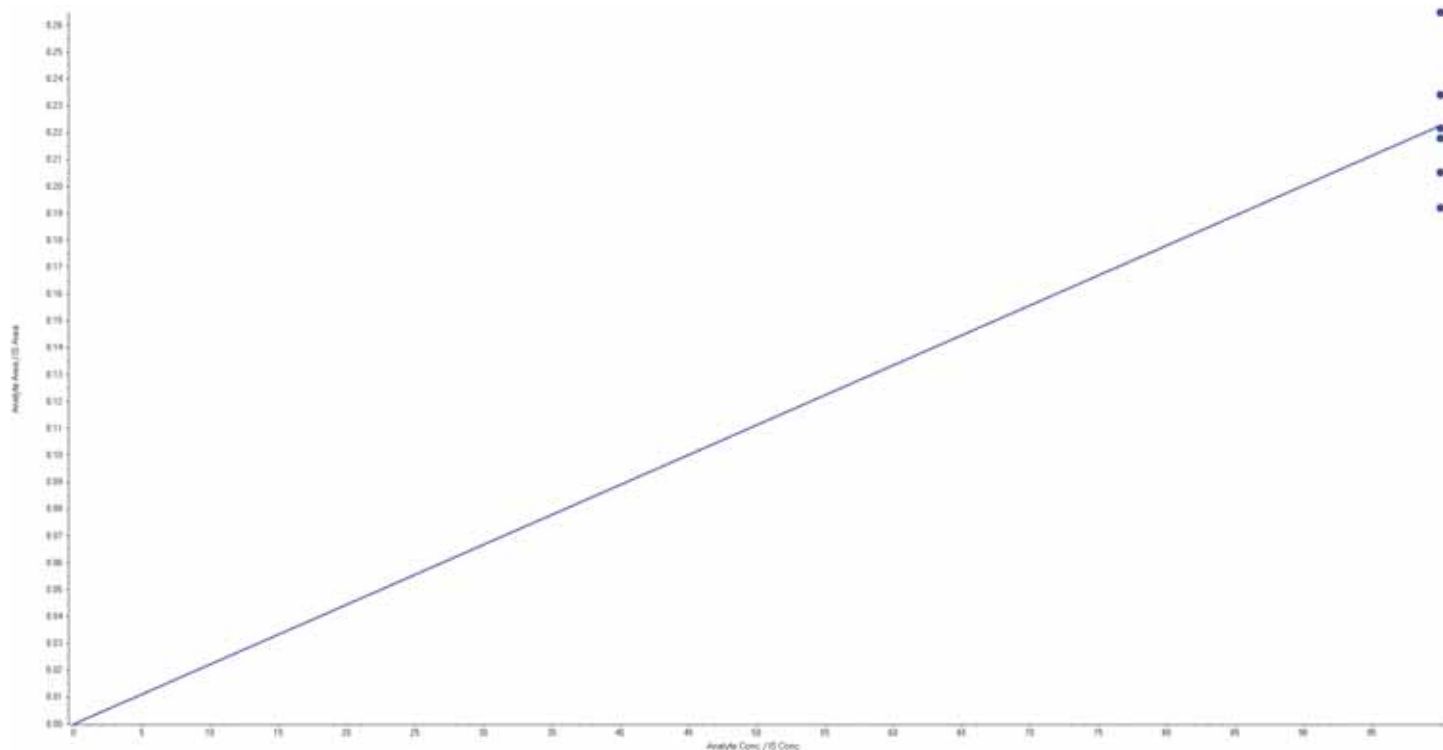
Analyte Name: 13C2-PFDoA
Internal Standard: 13C9-PFDA IS

Data File	PFC_170523\WS#4988945.wiff	Result Table	PFC_Water_170523_4988945_CTLabs.rdb
Acquisition Date	2017/05/23 12:58:34 PM	Project	Enviro\PFOS
Acquisition Method	PFC_Water_Low.dam	Instrument Name	LCMS03

Regression Equation: $y = 0.00223 x$ ($r = 0.9947$)

Expected Concentration (µg/L)	Number of Values	Calculated Concentration (µg/L)	% Accuracy
100	6	100.00	100.0

Sample ID	Response Factor	S/N
Std 1	0.0027	5640
Std 2	0.0019	4070
Std 3	0.0021	N/A
Std 4	0.0022	84700
Std 5	0.0022	4230
Std 6	0.0023	4030



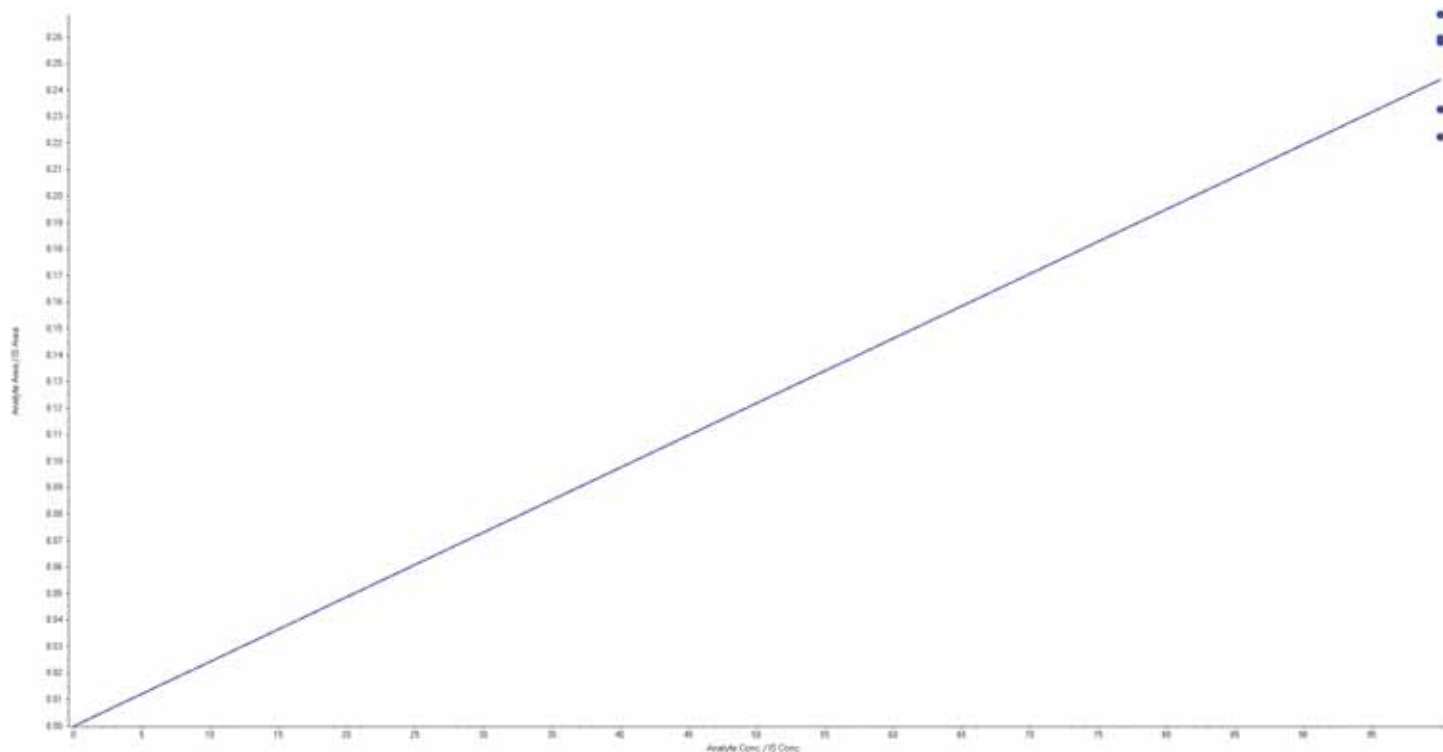
Analyte Name: 13C2-PFTeDA
Internal Standard: 13C9-PFDA IS

Data File	PFC_170523\WS#4988945.wiff	Result Table	PFC_Water_170523_4988945_CTLabs.rdb
Acquisition Date	2017/05/23 12:58:34 PM	Project	Enviro\PFOS
Acquisition Method	PFC_Water_Low.dam	Instrument Name	LCMS03

Regression Equation: $y = 0.00244 x$ ($r = 0.9971$)

Expected Concentration (µg/L)	Number of Values	Calculated Concentration (µg/L)	% Accuracy
100	6	100.00	100.0

Sample ID	Response Factor	S/N
Std 1	0.0026	20700
Std 2	0.0022	14700
Std 3	0.0026	6990
Std 4	0.0023	N/A
Std 5	0.0022	5380
Std 6	0.0027	17000



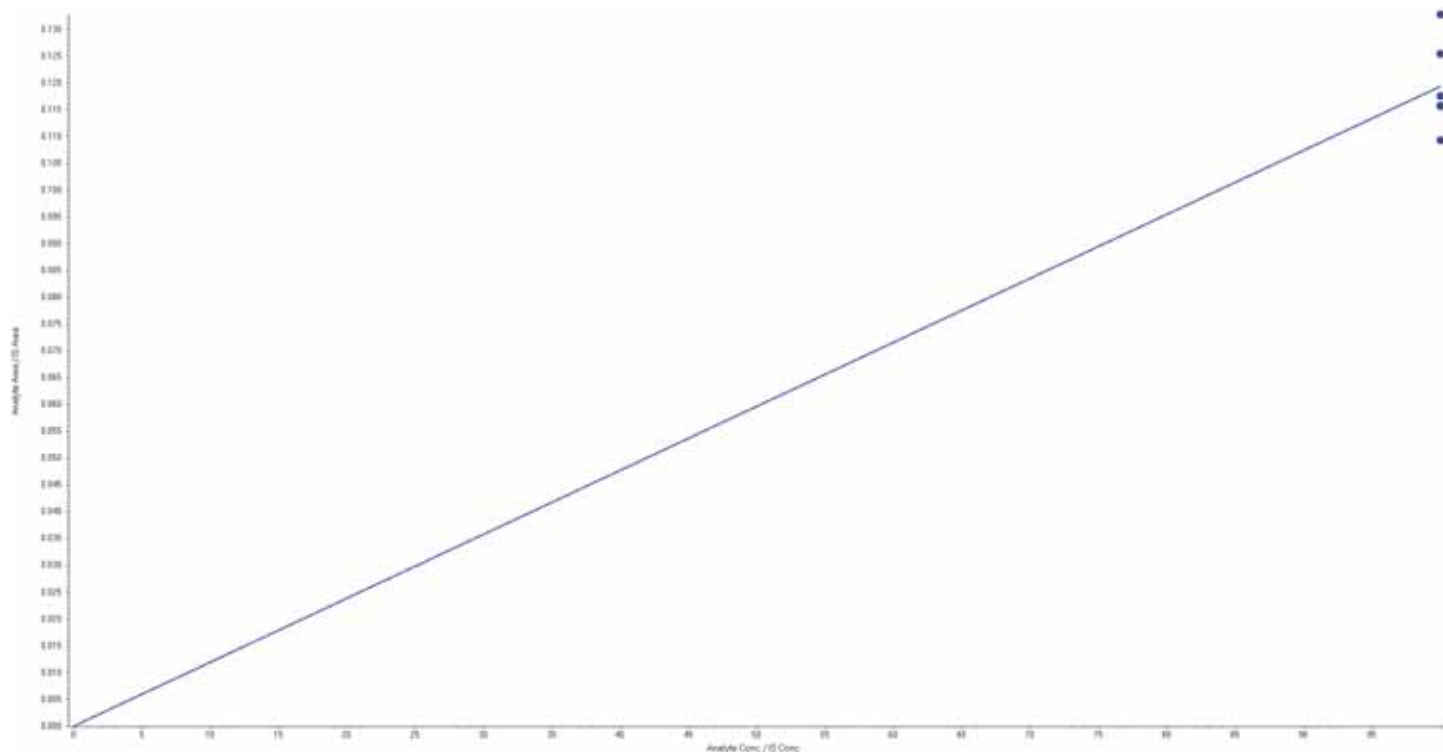
Analyte Name: 13C2-6:2-FTS
Internal Standard: 13C6-PFHxA IS

Data File	PFC_170523\WS#4988945.wiff	Result Table	PFC_Water_170523_4988945_CTLabs.rdb
Acquisition Date	2017/05/23 12:58:34 PM	Project	Enviro\PFOS
Acquisition Method	PFC_Water_Low.dam	Instrument Name	LCMS03

Regression Equation: $y = 0.00119 x$ ($r = 0.9980$)

Expected Concentration (µg/L)	Number of Values	Calculated Concentration (µg/L)	% Accuracy
100	6	100.00	100.0

Sample ID	Response Factor	S/N
Std 1	0.0013	872
Std 2	0.0013	258
Std 3	0.0012	386
Std 4	0.0012	243
Std 5	0.0012	568
Std 6	0.0011	420



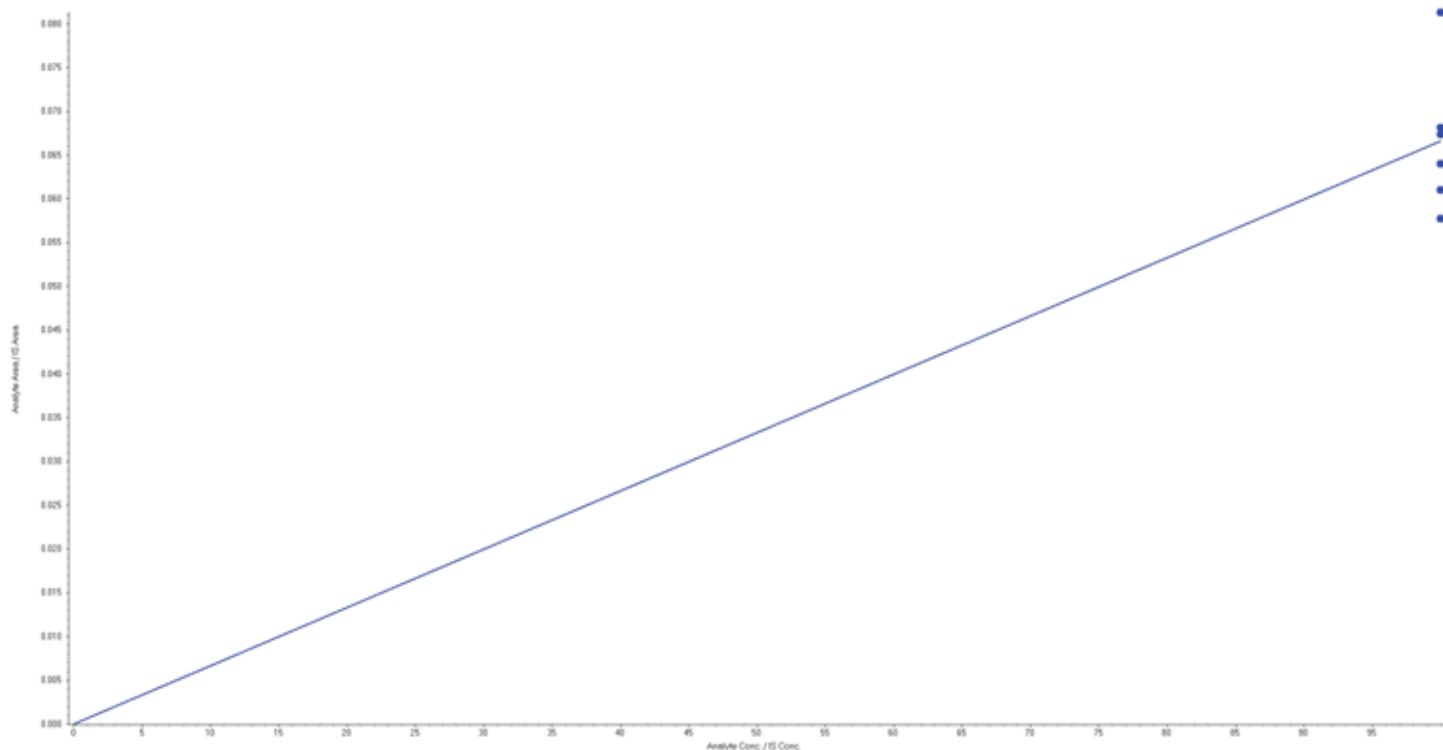
Analyte Name: 13C2-8:2 FTS
Internal Standard: 13C6-PFHxA IS

Data File	PFC_170523\WS#4988945.wiff	Result Table	PFC_Water_170523_4988945_CTLabs.rdb
Acquisition Date	2017/05/23 12:58:34 PM	Project	Enviro\PFOS
Acquisition Method	PFC_Water_Low.dam	Instrument Name	LCMS03

Regression Equation: $y = 0.000666 x$ ($r = 0.9938$)

Expected Concentration (µg/L)	Number of Values	Calculated Concentration (µg/L)	% Accuracy
100	6	100.00	100.0

Sample ID	Response Factor	S/N
Std 1	0.0006	845
Std 2	0.0006	928
Std 3	0.0007	N/A
Std 4	0.0008	1000
Std 5	0.0006	536
Std 6	0.0007	681



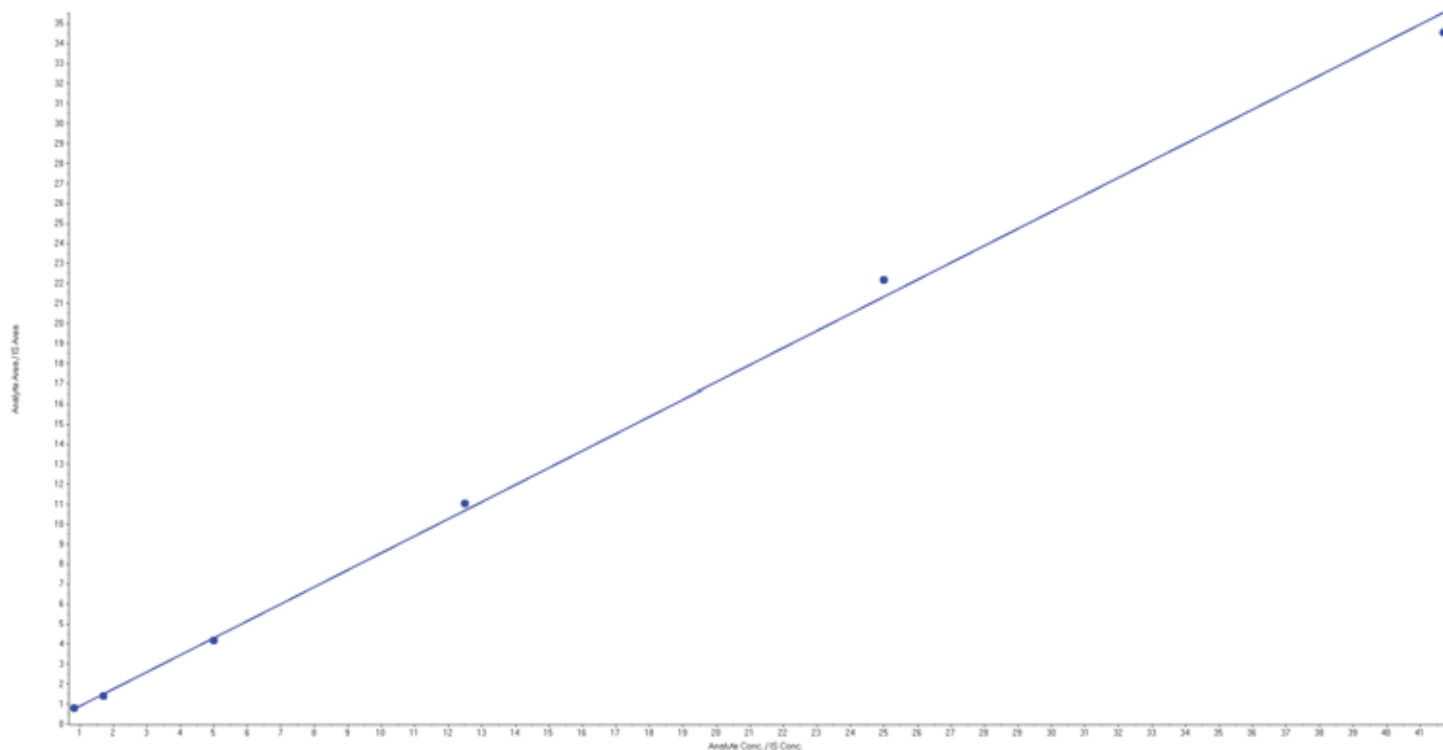
Analyte Name: MeFOSAA 1
Internal Standard: D3-MeFOSAA IS

Data File	PFC_170523\WS#4991421_FOSAA.wiff	Result Table	PFC_Water_170523_4988945_FOSAA.rdb
Acquisition Date	2017/05/23 10:59:42 PM	Project	Enviro\PFOS
Acquisition Method	PFC_Water_Low_FOSAA.dam	Instrument Name	LCMS03

Regression Equation: $y = 0.852 x + 0.0469$ ($r = 0.9993$)

Expected Concentration (µg/L)	Number of Values	Calculated Concentration (µg/L)	% Accuracy
0.83	1	0.87	104.9
1.7	1	1.59	93.8
5	1	4.84	96.8
12.5	1	12.92	103.4
25	1	25.97	103.9
41.7	1	40.53	97.2

Sample ID	Response Factor	S/N
Std 1	0.9500	3390
Std 2	0.8260	4840
Std 3	0.8340	14500
Std 4	0.8840	72600
Std 5	0.8870	97300
Std 6	0.8290	113000



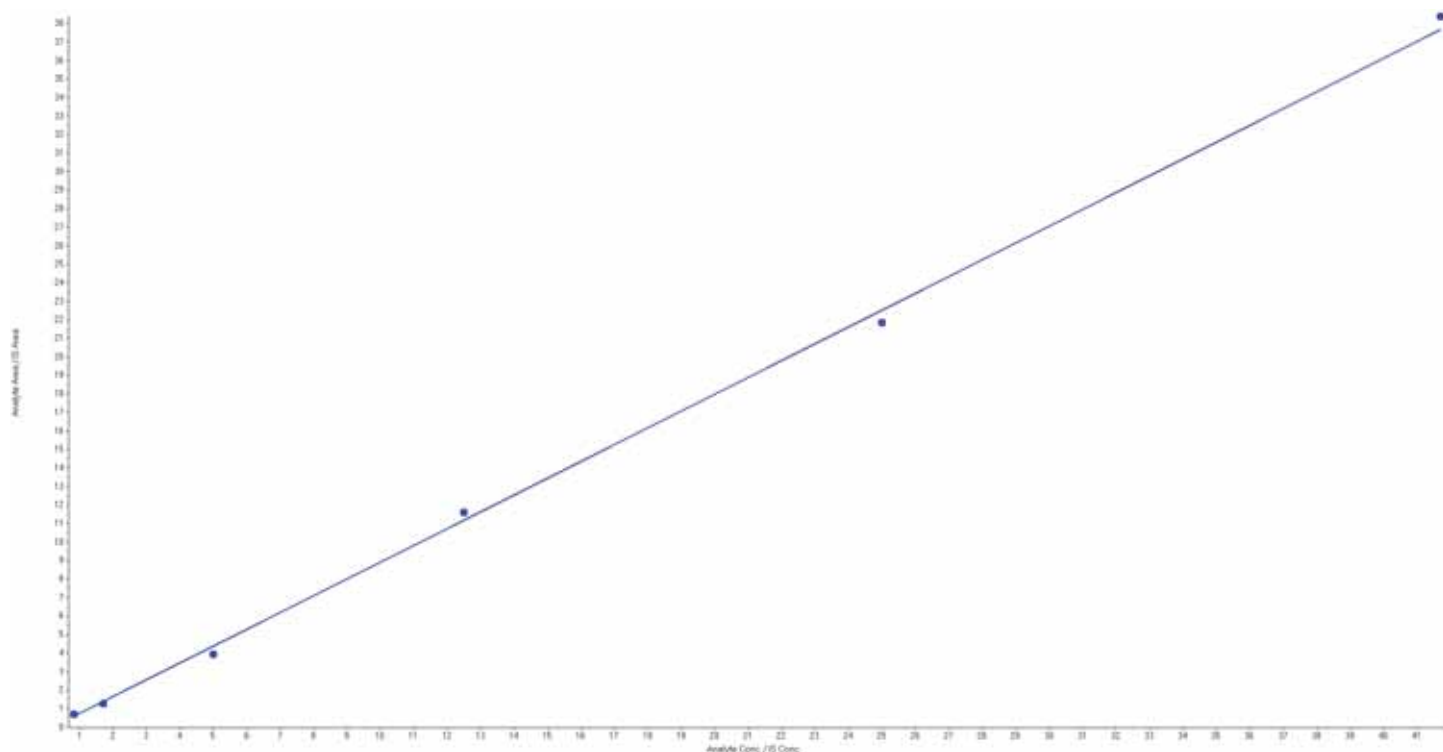
Analyte Name: EtFOSAA 1
Internal Standard: D5-EtFOSAA IS

Data File	PFC_170523\WS#4991421_FOSAA.wiff	Result Table	PFC_Water_170523_4988945_FOSAA.rdb
Acquisition Date	2017/05/23 10:59:42 PM	Project	Enviro\PFOS
Acquisition Method	PFC_Water_Low_FOSAA.dam	Instrument Name	LCMS03

Regression Equation: $y = 0.907 x + -0.163$ (r = 0.9991)

Expected Concentration (µg/L)	Number of Values	Calculated Concentration (µg/L)	% Accuracy
0.83	1	0.94	113.7
1.7	1	1.59	93.6
5	1	4.50	90.1
12.5	1	12.96	103.7
25	1	24.25	97.0
41.7	1	42.48	101.9

Sample ID	Response Factor	S/N
Std 1	0.8360	1860
Std 2	0.7540	3080
Std 3	0.7850	10100
Std 4	0.9280	23200
Std 5	0.8740	66600
Std 6	0.9200	102000



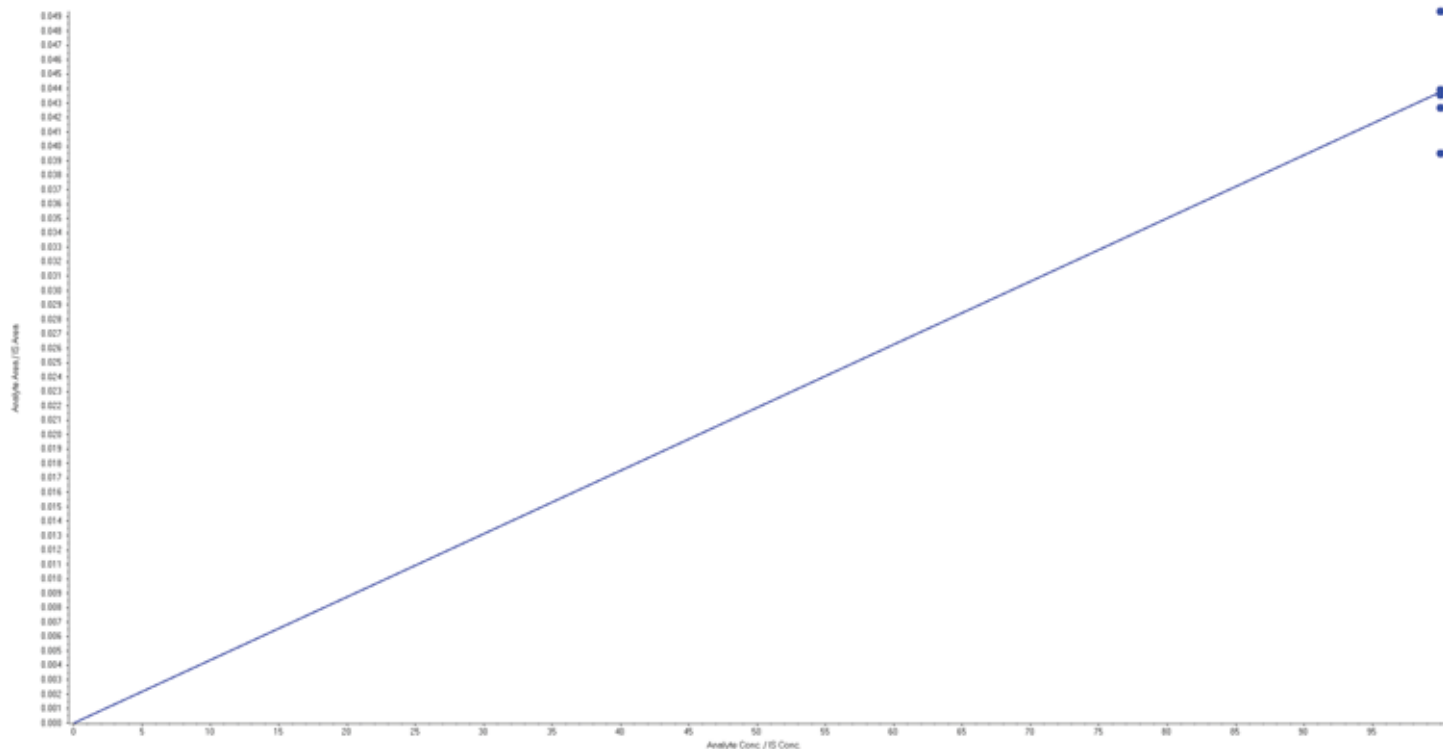
Analyte Name: D3-MeFOSAA
Internal Standard: 13C9-PFDA IS

Data File	PFC_170523\WS#4991421_FOSAA.wiff	Result Table	PFC_Water_170523_4988945_FOSAA.rdb
Acquisition Date	2017/05/23 10:59:42 PM	Project	Enviro\PFOS
Acquisition Method	PFC_Water_Low_FOSAA.dam	Instrument Name	LCMS03

Regression Equation: $y = 0.000438 x$ ($r = 0.9978$)

Expected Concentration (µg/L)	Number of Values	Calculated Concentration (µg/L)	% Accuracy
100	6	100.00	100.0

Sample ID	Response Factor	S/N
Std 1	0.0004	7800
Std 2	0.0004	7080
Std 3	0.0004	9220
Std 4	0.0005	5890
Std 5	0.0004	10600
Std 6	0.0004	9690



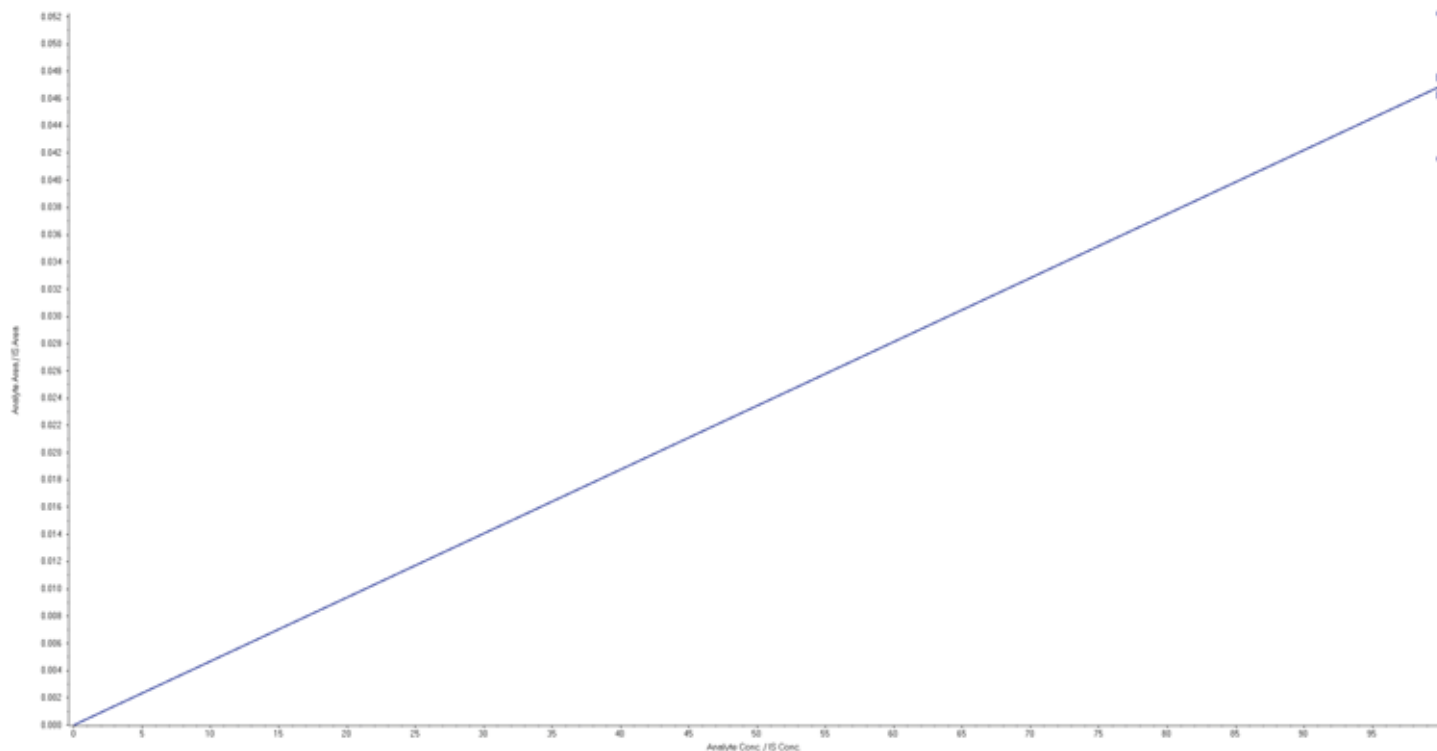
Analyte Name: D5-EtFOSAA
Internal Standard: 13C9-PFDA IS

Data File	PFC_170523\WS#4991421_FOSAA.wiff	Result Table	PFC_Water_170523_4988945_FOSAA.rdb
Acquisition Date	2017/05/23 10:59:42 PM	Project	Enviro\PFOS
Acquisition Method	PFC_Water_Low_FOSAA.dam	Instrument Name	LCMS03

Regression Equation: $y = 0.000469 x$ ($r = 0.9978$)

Expected Concentration (µg/L)	Number of Values	Calculated Concentration (µg/L)	% Accuracy
100	6	100.00	100.0

Sample ID	Response Factor	S/N
Std 1	0.0004	7610
Std 2	0.0005	7380
Std 3	0.0005	7690
Std 4	0.0005	7450
Std 5	0.0005	8110
Std 6	0.0005	4130





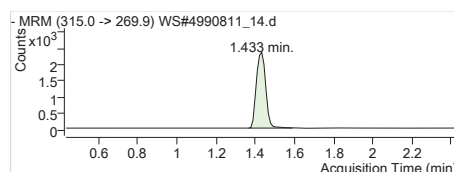
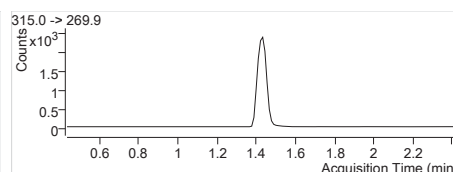
6. Continuing Calibration

Maxxam Analytics International
6740 Campobello Rd
Mississauga, Ontario, Canada
L5N 2L8
1-800-668-0639
www.maxxamanalytics.com

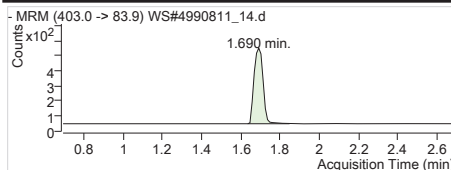
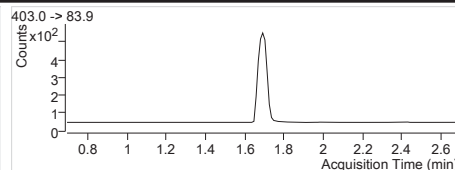
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Sample Name	ISC	Instrument	LCMS04
Data File	WS#4990811_14.d	Operator	AD
Sample Type	CC	Dilution	1
Acq. Method	PFC_Soil.m	Position	P2-A2
Acq. Date	2017/05/24 9:21:30 PM	Injection Volume	Per Method
Sample Annotation	-		

ISTD Compounds	Response	RT	Target conc.		
MPFHxA	7728	1.43	1 µg/Kg		
MPFHxS	1604	1.69	1 µg/Kg		
MPFHpA	8723	1.69	1 µg/Kg		
MPFOA	8990	1.88	1 µg/Kg		
MPFOS	1902	1.98	1 µg/Kg		
MPFNA	8239	2.01	1 µg/Kg		
MPFDA	7701	2.13	1 µg/Kg		
MPFUnA	8519	2.22	1 µg/Kg		
MPFDoA	9573	2.31	1 µg/Kg		
MPFTeDA	11152	2.46	1 µg/Kg		
M2 6:2 FTS	2104	1.83	1 µg/Kg		
M2 8:2 FTS	2164	2.10	1 µg/Kg		
13C6-PFHxA IS	40084	1.43	1 µg/Kg		
13C9-PFDA IS	37543	2.13	1 µg/Kg		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	681	1.10	0.75	0.77 µg/Kg	102.68
PFHxA 1	2632	1.43	0.75	0.75 µg/Kg	100.31
PFHxS 1	482	1.69	0.75	0.70 µg/Kg	93.21
PFHpA 1	2942	1.69	0.75	0.80 µg/Kg	106.73
PFOA 1	3001	1.87	0.75	0.73 µg/Kg	96.75
PFOS 1	553	1.98	0.75	0.74 µg/Kg	98.23
PFNA 1	2792	2.01	0.75	0.81 µg/Kg	108.32
PFDA 1	2871	2.12	0.75	0.62 µg/Kg	82.22
PFUnA 1	2746	2.22	0.75	0.72 µg/Kg	96.37
PFDa 1	3547	2.31	0.75	0.70 µg/Kg	93.29
PFTTrDA 1	3966	2.39	0.75	0.83 µg/Kg	110.90
PFTeDA 1	3822	2.46	0.75	0.83 µg/Kg	110.70
6:2-FTS 1	640	1.85	0.75	0.63 µg/Kg	84.55
8:2-FTS 1	546	2.11	0.75	0.62 µg/Kg	82.71
13C2-PFHxA	7728	1.43	100.00	100.11 µg/Kg	100.11
18O2-PFHxS	1604	1.69	100.00	112.12 µg/Kg	112.12
13C4-PFHpA	8723	1.69	100.00	103.58 µg/Kg	103.58
13C4-PFOA	8990	1.88	100.00	110.66 µg/Kg	110.66
13C4-PFOS	1902	1.98	100.00	108.15 µg/Kg	108.15
13C5-PFNA	8239	2.01	100.00	100.34 µg/Kg	100.34
13C2-PFDA	7701	2.13	100.00	109.45 µg/Kg	109.45
13C2-PFUnA	8519	2.22	100.00	104.97 µg/Kg	104.97
13C2-PFDoA	9573	2.31	100.00	102.87 µg/Kg	102.87
13C2-PFTeDA	11152	2.46	100.00	97.50 µg/Kg	97.50
13C2-6:2-FTS	2104	1.83	100.00	107.51 µg/Kg	107.51
13C2-8:2 FTS	2164	2.10	100.00	107.21 µg/Kg	107.21
13C6-PFHxA	40084	1.43	100.00	99.36 µg/Kg	99.36
13C9-PFDA	37543	2.13	100.00	103.02 µg/Kg	103.02

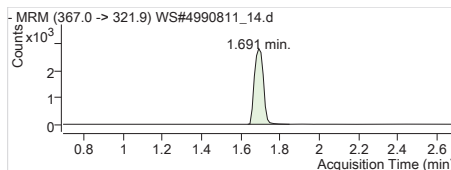
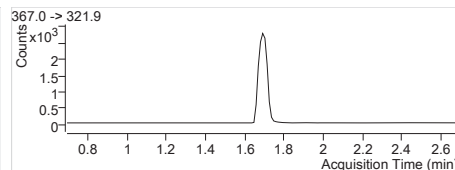


MPFHxA
 RT (Exp. RT): 1.433 (1.433)
 Concentration: 1 µg/Kg
 Sample type: CC



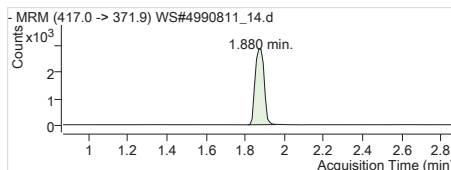
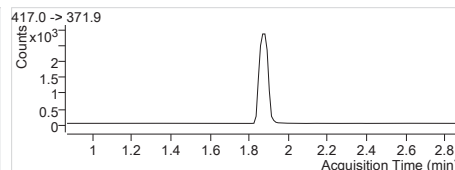
MPFHxS
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
1.690 (1.690)
1 µg/Kg
CC



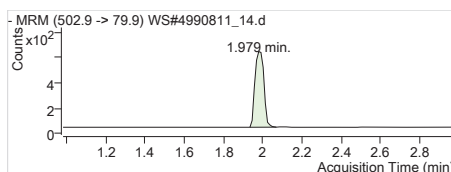
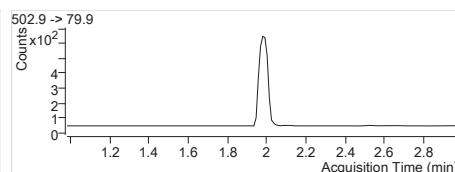
MPFHpA
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
1.691 (1.691)
1 µg/Kg
CC



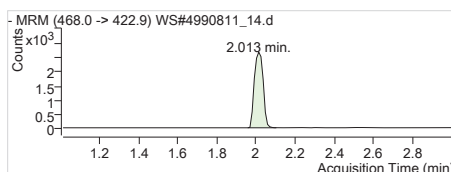
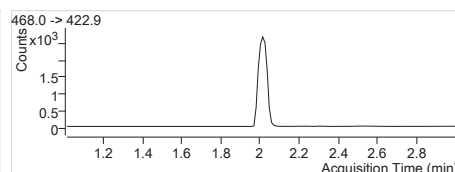
MPFOA
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
1.880 (1.869)
1 µg/Kg
CC



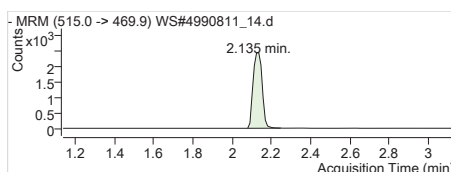
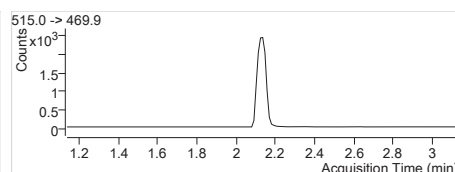
MPFOS
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
1.979 (1.979)
1 µg/Kg
CC



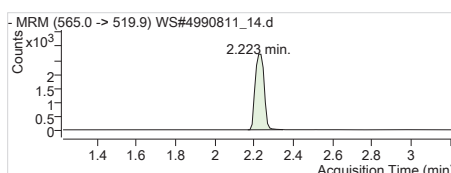
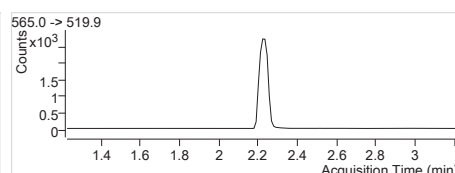
MPFNA
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
2.013 (2.013)
1 µg/Kg
CC



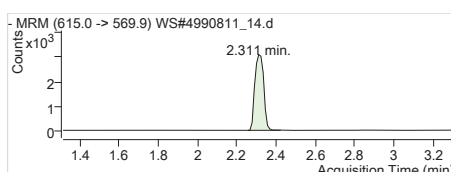
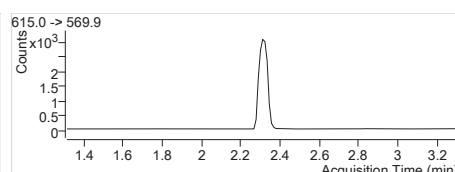
MPFDA
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
2.135 (2.135)
1 µg/Kg
CC



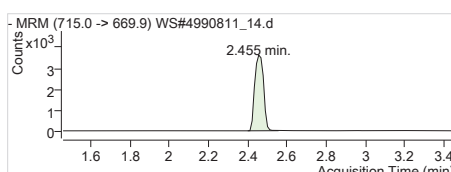
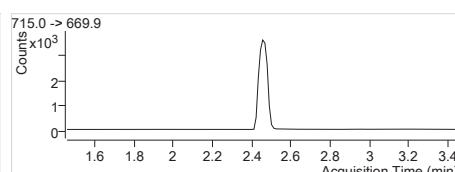
MPFUnA
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
2.223 (2.223)
1 µg/Kg
CC



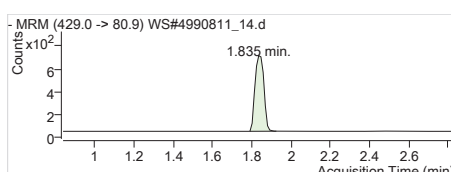
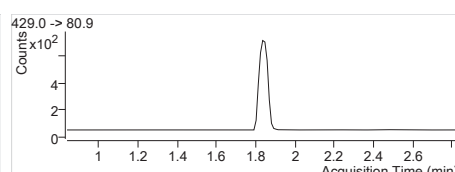
MPFDoA
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
2.311 (2.311)
1 µg/Kg
CC



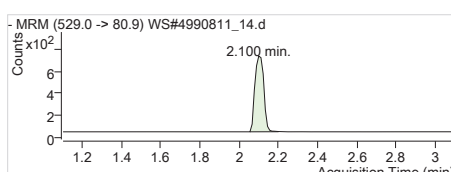
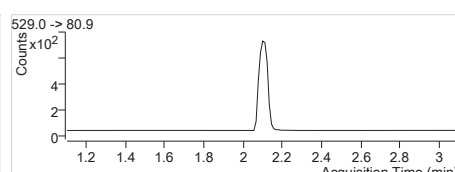
MPFTeDA
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
2.455 (2.455)
1 µg/Kg
CC



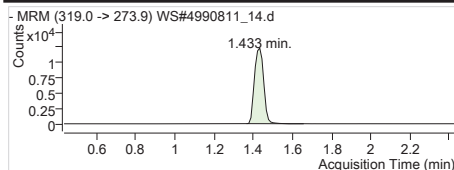
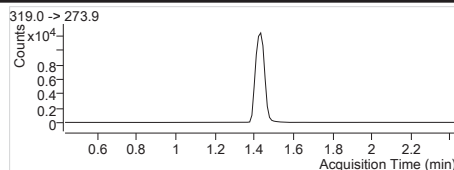
M2 6:2 FTS
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
1.835 (1.835)
1 µg/Kg
CC



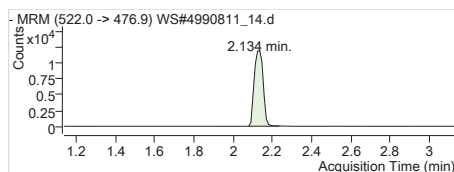
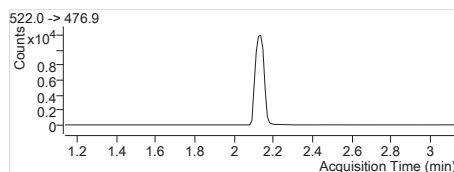
M2 8:2 FTS
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
2.100 (2.100)
1 µg/Kg
CC

**13C6-PFHxA IS**

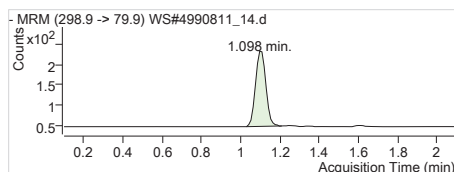
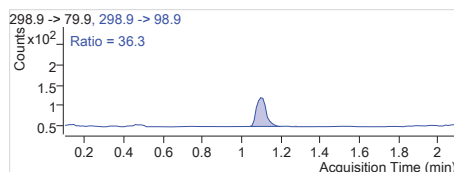
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
1.433 (1.433)
1 µg/Kg
CC

**13C9-PFDA IS**

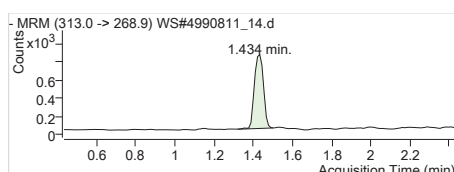
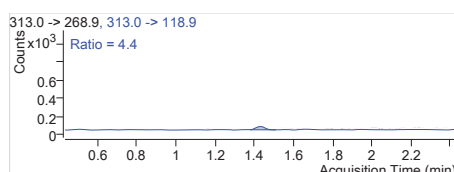
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
2.134 (2.134)
1 µg/Kg
CC

**PFBS 1**

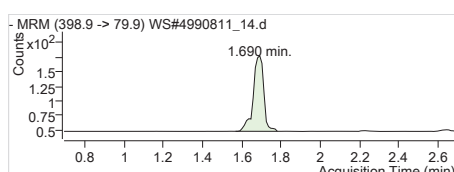
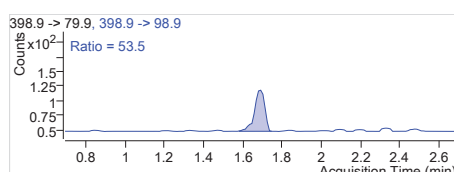
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

298.9 -> 79.9
1.098 (1.098)
0.77 µg/Kg
0.42456
CC

**PFHxA 1**

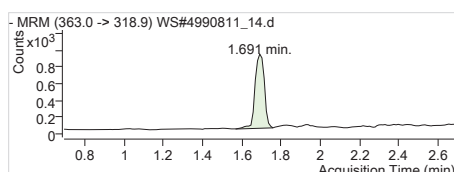
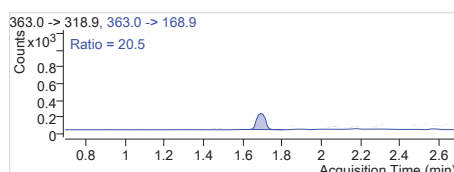
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

313.0 -> 268.9
1.434 (1.434)
0.75 µg/Kg
0.34058
CC

**PFHxS 1**

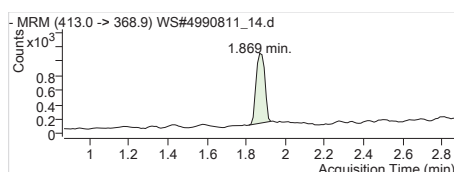
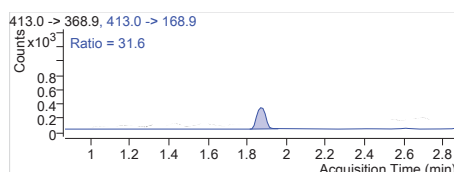
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

398.9 -> 79.9
1.690 (1.690)
0.70 µg/Kg
0.30050
CC

**PFHpA 1**

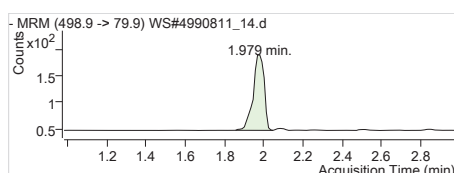
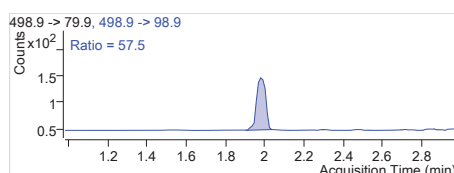
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

363.0 -> 318.9
1.691 (1.691)
0.80 µg/Kg
0.33727
CC

**PFOA 1**

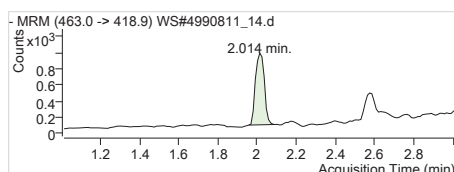
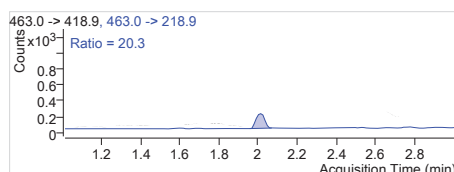
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

413.0 -> 368.9
1.869 (1.869)
0.73 µg/Kg
0.33382
CC

**PFOS 1**

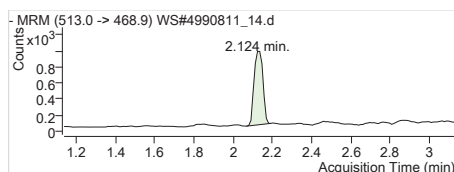
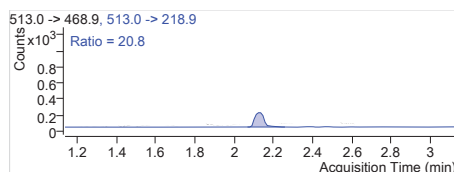
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

498.9 -> 79.9
1.979 (1.979)
0.74 µg/Kg
0.29075
CC

**PFNA 1**

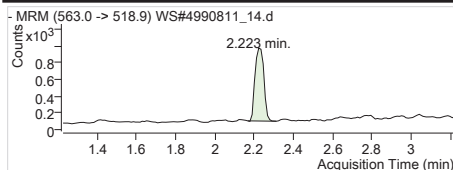
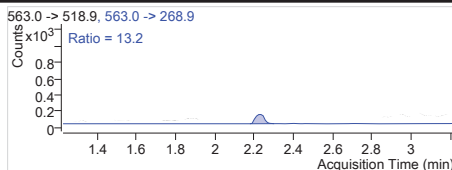
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

463.0 -> 418.9
2.014 (2.014)
0.81 µg/Kg
0.33888
CC

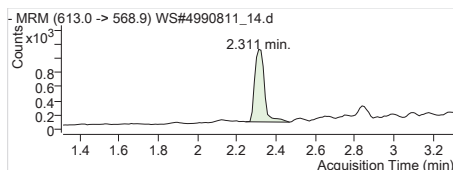
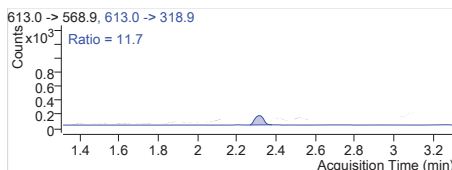
**PFDA 1**

RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

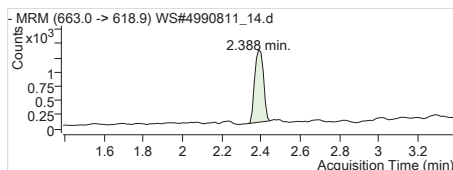
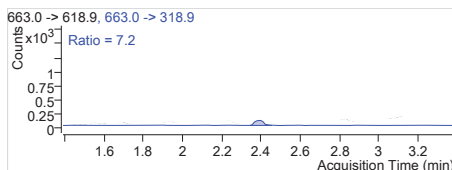
513.0 -> 468.9
2.124 (2.135)
0.62 µg/Kg
0.37281
CC



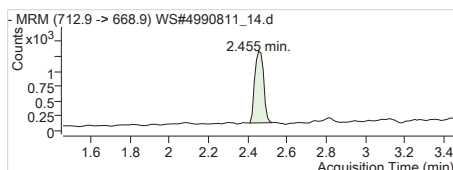
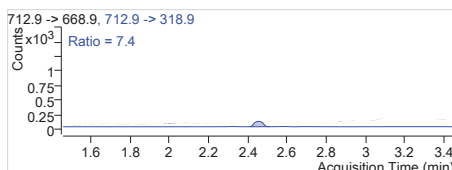
PFUnA 1
RT (Exp. RT): 563.0 -> 518.9
Calc. conc. 2.223 (2.223)
Area ratio: 0.72 µg/Kg
Sample type: 0.32234
CC



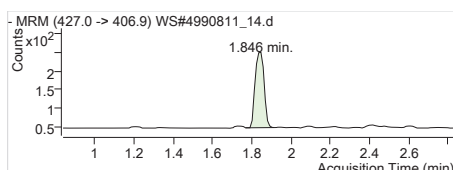
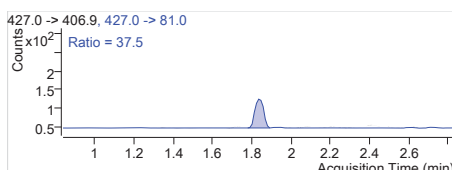
PFDoA 1
RT (Exp. RT): 613.0 -> 568.9
Calc. conc. 2.311 (2.311)
Area ratio: 0.70 µg/Kg
Sample type: 0.37052
CC



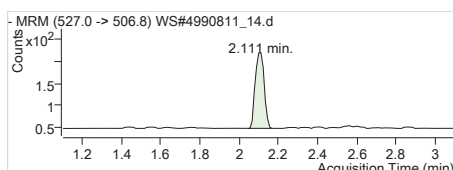
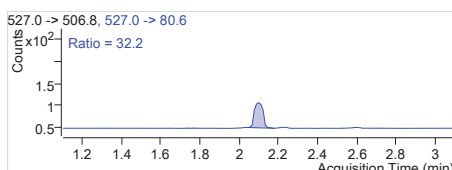
PFTrDA 1
RT (Exp. RT): 663.0 -> 618.9
Calc. conc. 2.388 (2.388)
Area ratio: 0.83 µg/Kg
Sample type: 0.35563
CC



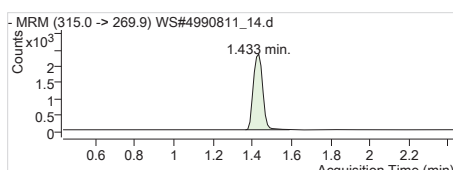
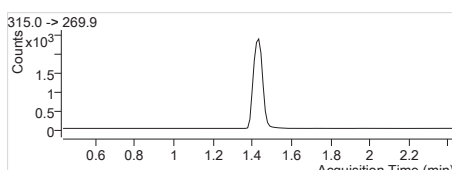
PFTEdA 1
RT (Exp. RT): 712.9 -> 668.9
Calc. conc. 2.455 (2.455)
Area ratio: 0.83 µg/Kg
Sample type: 0.34272
CC



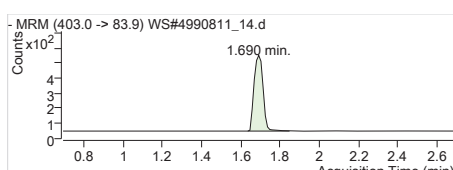
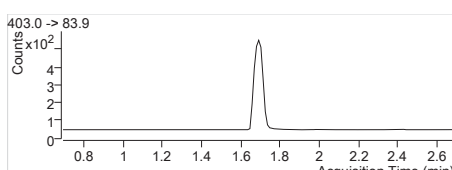
6:2-FTS 1
RT (Exp. RT): 427.0 -> 406.9
Calc. conc. 1.846 (1.835)
Area ratio: 0.63 µg/Kg
Sample type: 0.30418
CC



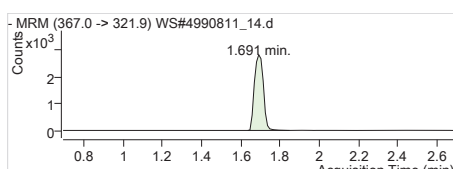
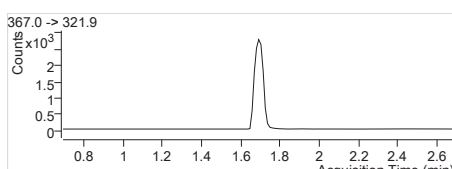
8:2-FTS 1
RT (Exp. RT): 527.0 -> 506.8
Calc. conc. 2.111 (2.100)
Area ratio: 0.62 µg/Kg
Sample type: 0.25231
CC



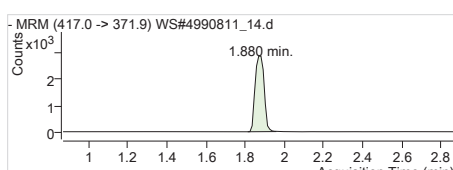
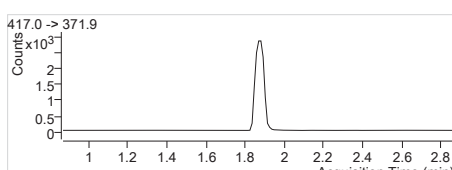
13C2-PFHxA
RT (Exp. RT): 315.0 -> 269.9
Calc. conc. 1.433 (1.433)
Area ratio: 100.11 µg/Kg
Sample type: 0.19280
CC



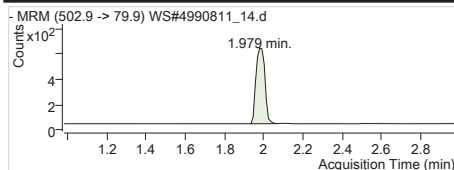
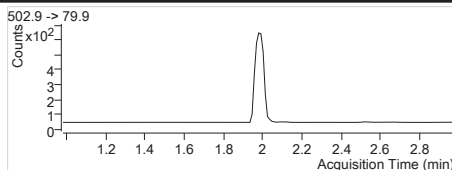
18O2-PFHxS
RT (Exp. RT): 403.0 -> 83.9
Calc. conc. 1.690 (1.690)
Area ratio: 112.12 µg/Kg
Sample type: 0.04002
CC



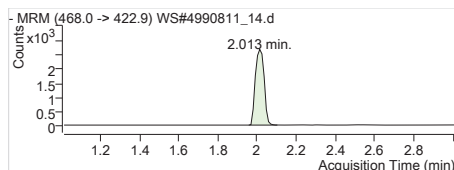
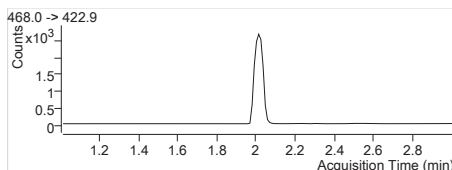
13C4-PFHpA
RT (Exp. RT): 367.0 -> 321.9
Calc. conc. 1.691 (1.691)
Area ratio: 103.58 µg/Kg
Sample type: 0.21762
CC



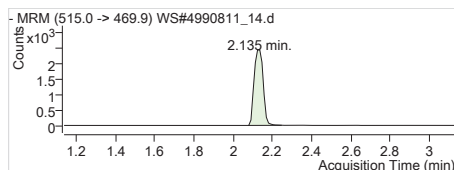
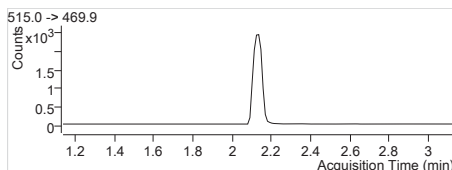
13C4-PFOA
RT (Exp. RT): 417.0 -> 371.9
Calc. conc. 1.880 (1.869)
Area ratio: 110.66 µg/Kg
Sample type: 0.22428
CC



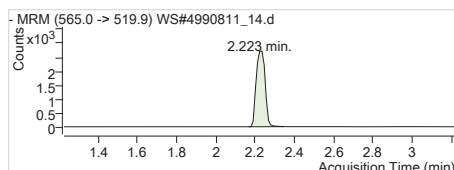
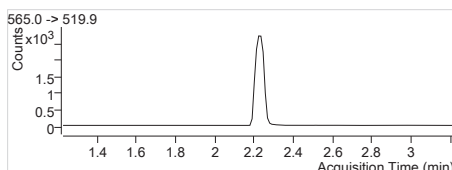
13C4-PFOS
RT (Exp. RT): 502.9 -> 79.9
Calc. conc. 1.979 (1.979)
Area ratio: 108.15 µg/Kg
Sample type: 0.04745
CC



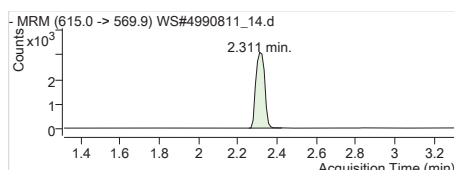
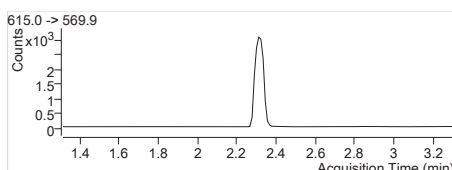
13C5-PFNA
RT (Exp. RT): 468.0 -> 422.9
Calc. conc. 2.013 (2.013)
Area ratio: 100.34 µg/Kg
Sample type: 0.20554
CC



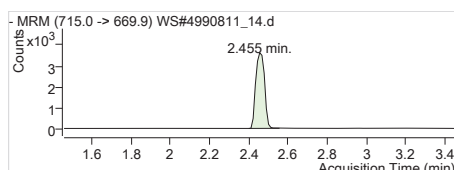
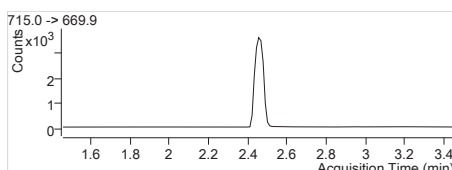
13C2-PFDA
RT (Exp. RT): 515.0 -> 469.9
Calc. conc. 2.135 (2.135)
Area ratio: 109.45 µg/Kg
Sample type: 0.20512
CC



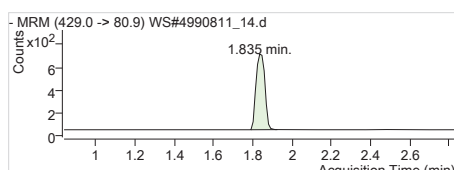
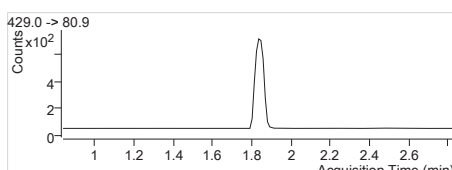
13C2-PFUnA
RT (Exp. RT): 565.0 -> 519.9
Calc. conc. 2.223 (2.223)
Area ratio: 104.97 µg/Kg
Sample type: 0.22691
CC



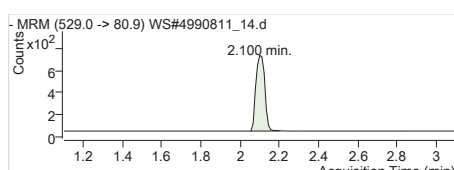
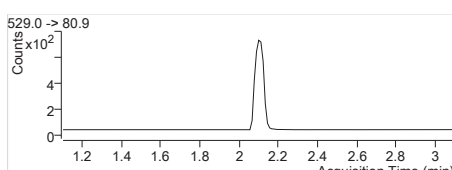
13C2-PFDoA
RT (Exp. RT): 615.0 -> 569.9
Calc. conc. 2.311 (2.311)
Area ratio: 102.87 µg/Kg
Sample type: 0.25499
CC



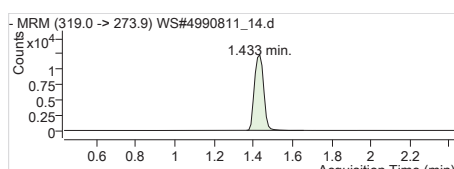
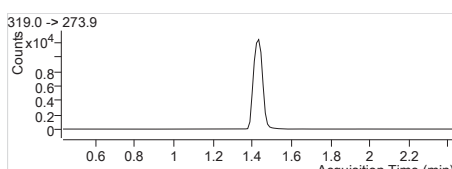
13C2-PFTeDA
RT (Exp. RT): 715.0 -> 669.9
Calc. conc. 2.455 (2.455)
Area ratio: 97.50 µg/Kg
Sample type: 0.29705
CC



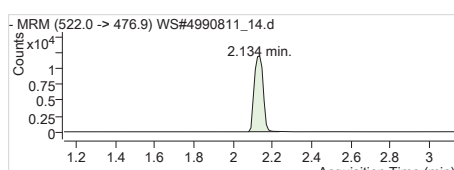
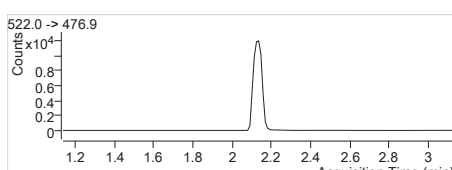
13C2-6:2-FTS
RT (Exp. RT): 429.0 -> 80.9
Calc. conc. 1.835 (1.835)
Area ratio: 107.51 µg/Kg
Sample type: 0.05249
CC



13C2-8:2 FTS
RT (Exp. RT): 529.0 -> 80.9
Calc. conc. 2.100 (2.100)
Area ratio: 107.21 µg/Kg
Sample type: 0.05399
CC



13C6-PFHxA
RT (Exp. RT): 319.0 -> 273.9
Calc. conc. 1.433 (1.433)
Area ratio: 99.36 µg/Kg
Sample type: 0
CC



13C9-PFDA
RT (Exp. RT): 522.0 -> 476.9
Calc. conc. 2.134 (2.134)
Area ratio: 103.02 µg/Kg
Sample type: 0
CC

Batch Path

T:\lcms4\PFC\20170524\WS#4990811\QuantResults\PFC_Soil_170524_WS#4990811_CTLabs14

Sample Name

CCV

Instrument

LCMS04

Data File

WS#4990811_30.d

Operator

AD

Sample Type

CC

Dilution

1

Acq. Method

PFC_Soil.m

Position

P2-A5

Acq. Date

2017/05/24 10:39:55 PM

Injection Volume

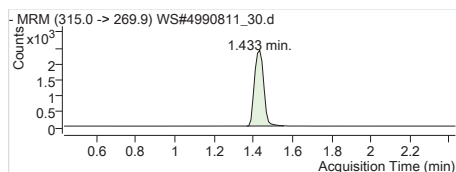
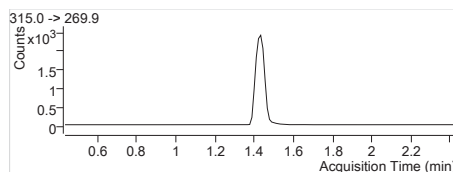
Per Method

Sample Annotation

-

ISTD Compounds	Response	RT	Target conc.		
MPFHxA	7782	1.43	1 µg/Kg		
MPFHxS	1367	1.69	1 µg/Kg		
MPFHpA	8078	1.69	1 µg/Kg		
MPFOA	8092	1.87	1 µg/Kg		
MPFOS	1667	1.98	1 µg/Kg		
MPFNA	7832	2.01	1 µg/Kg		
MPFDA	6352	2.13	1 µg/Kg		
MPFUnA	8004	2.22	1 µg/Kg		
MPFDoA	7899	2.31	1 µg/Kg		
MPFTeDA	10277	2.46	1 µg/Kg		
M2 6:2 FTS	1756	1.83	1 µg/Kg		
M2 8:2 FTS	1890	2.10	1 µg/Kg		
13C6-PFHxA IS	42532	1.43	1 µg/Kg		
13C9-PFDA IS	39357	2.12	1 µg/Kg		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	8908	1.10	11.30	10.25 µg/Kg	90.74
PFHxA 1	38232	1.43	11.30	10.55 µg/Kg	93.36
PFHxS 1	8098	1.69	11.30	11.52 µg/Kg	101.93
PFHpA 1	40524	1.69	11.30	10.36 µg/Kg	91.66
PFOA 1	41669	1.87	11.30	10.88 µg/Kg	96.31
PFOS 1	7389	1.98	11.30	11.29 µg/Kg	99.90
PFNA 1	33776	2.01	11.30	10.30 µg/Kg	91.19
PFDA 1	38675	2.12	11.30	11.39 µg/Kg	100.80
PFUnA 1	38620	2.22	11.30	9.82 µg/Kg	86.88
PFDaA 1	40805	2.31	11.30	11.46 µg/Kg	101.45
PFTTrDA 1	49323	2.39	11.30	11.49 µg/Kg	101.66
PFTeDA 1	46010	2.46	11.30	11.13 µg/Kg	98.49
6:2-FTS 1	8638	1.84	11.30	11.29 µg/Kg	99.88
8:2-FTS 1	8074	2.10	11.30	11.12 µg/Kg	98.39
13C2-PFHxA	7782	1.43	100.00	95.01 µg/Kg	95.01
18O2-PFHxS	1367	1.69	100.00	90.05 µg/Kg	90.05
13C4-PFHpA	8078	1.69	100.00	90.40 µg/Kg	90.40
13C4-PFOA	8092	1.87	100.00	93.87 µg/Kg	93.87
13C4-PFOS	1667	1.98	100.00	89.33 µg/Kg	89.33
13C5-PFNA	7832	2.01	100.00	89.89 µg/Kg	89.89
13C2-PFDA	6352	2.13	100.00	86.11 µg/Kg	86.11
13C2-PFUnA	8004	2.22	100.00	94.08 µg/Kg	94.08
13C2-PFDoA	7899	2.31	100.00	80.97 µg/Kg	80.97
13C2-PFTeDA	10277	2.46	100.00	85.71 µg/Kg	85.71
13C2-6:2-FTS	1756	1.83	100.00	84.57 µg/Kg	84.57
13C2-8:2 FTS	1890	2.10	100.00	88.25 µg/Kg	88.25
13C6-PFHxA	42532	1.43	100.00	105.43 µg/Kg	105.43
13C9-PFDA	39357	2.12	100.00	108.00 µg/Kg	108.00



MPFHxA

Internal Standard

RT (Exp. RT):

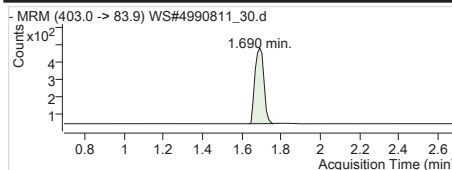
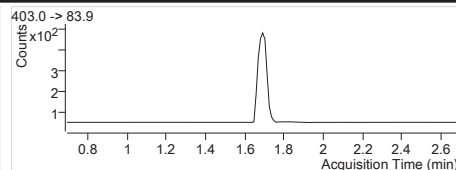
1.433 (1.433)

Concentration:

1 µg/Kg

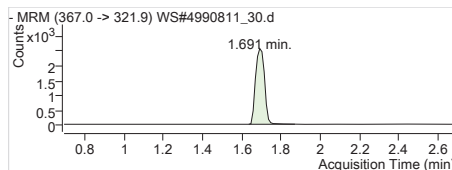
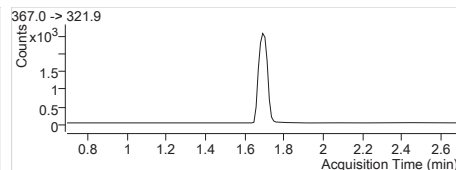
Sample type:

CC



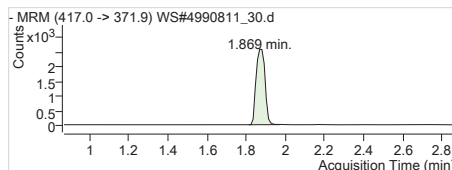
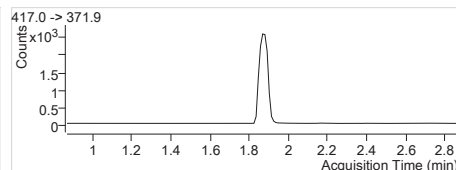
MPFHxS
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
1.690 (1.690)
1 µg/Kg
CC



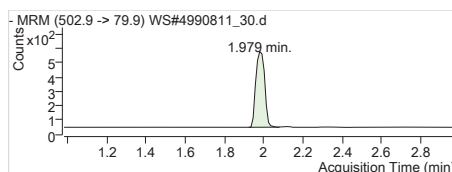
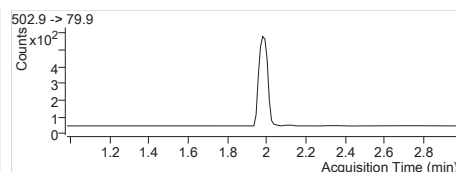
MPFHpA
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
1.691 (1.691)
1 µg/Kg
CC



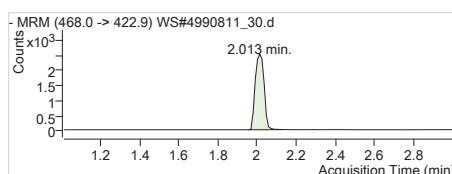
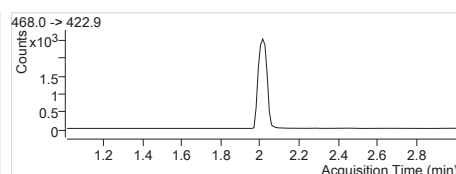
MPFOA
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
1.869 (1.869)
1 µg/Kg
CC



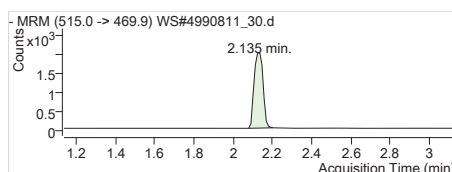
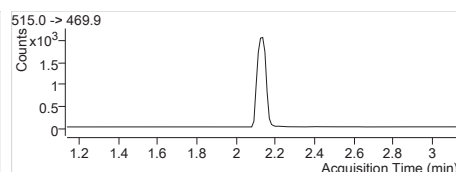
MPFOS
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
1.979 (1.979)
1 µg/Kg
CC



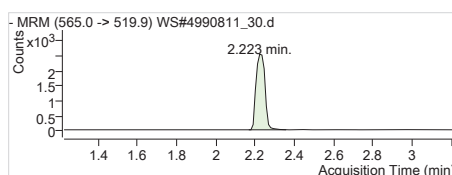
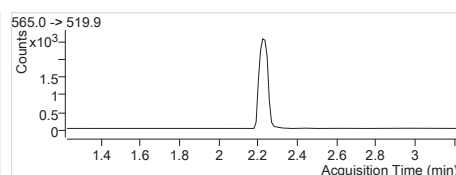
MPFNA
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
2.013 (2.013)
1 µg/Kg
CC



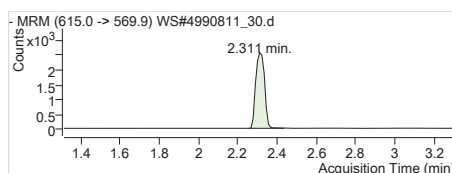
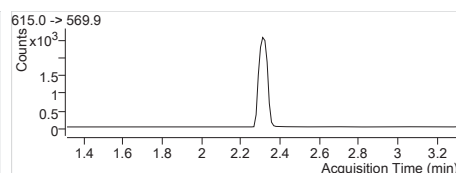
MPFDA
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
2.135 (2.135)
1 µg/Kg
CC



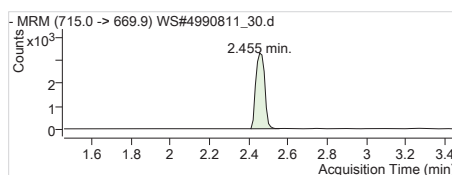
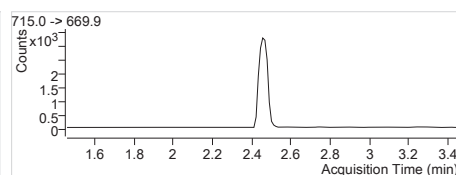
MPFUnA
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
2.223 (2.223)
1 µg/Kg
CC



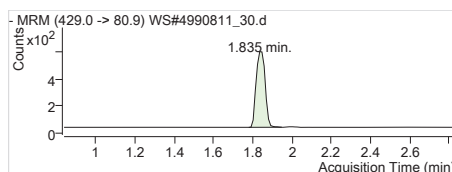
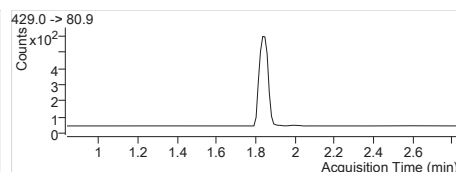
MPFDoA
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
2.311 (2.311)
1 µg/Kg
CC



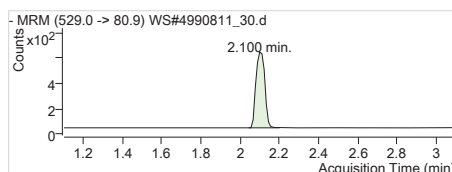
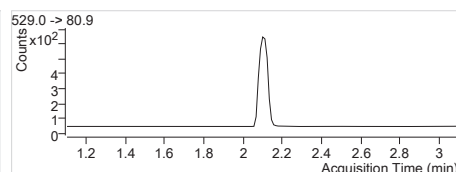
MPFTeDA
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
2.455 (2.455)
1 µg/Kg
CC



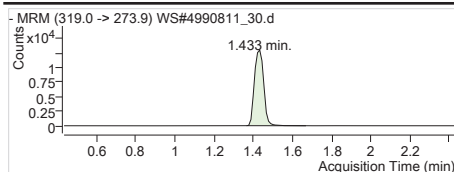
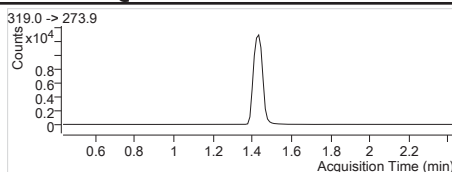
M2 6:2 FTS
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
1.835 (1.835)
1 µg/Kg
CC



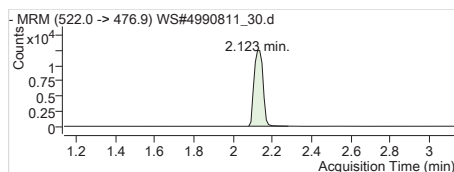
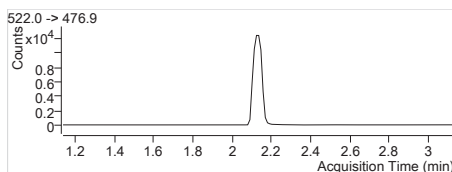
M2 8:2 FTS
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
2.100 (2.100)
1 µg/Kg
CC

**13C6-PFHxA IS**

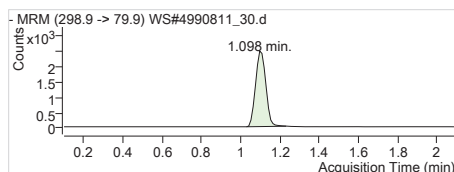
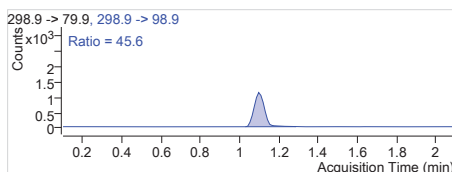
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
1.433 (1.433)
1 µg/Kg
CC

**13C9-PFDA IS**

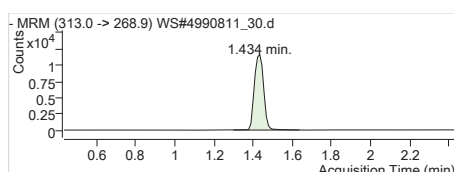
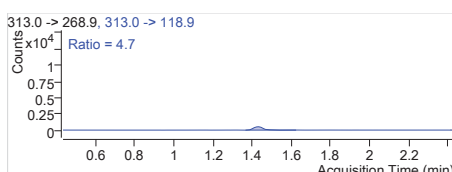
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
2.123 (2.134)
1 µg/Kg
CC

**PFBS 1**

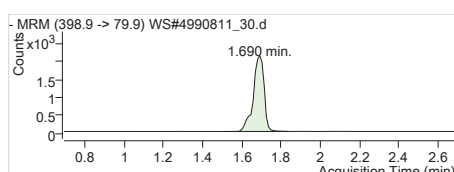
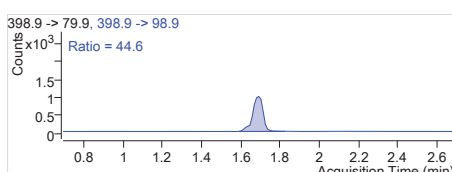
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

298.9 -> 79.9
1.098 (1.098)
10.25 µg/Kg
6.51646
CC

**PFHxA 1**

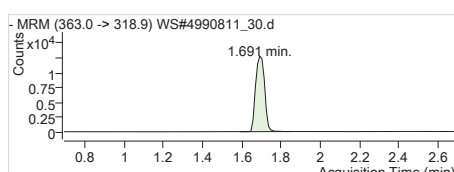
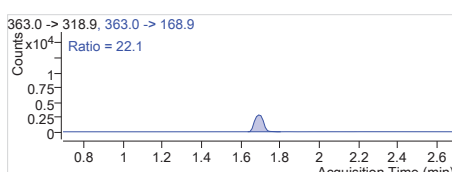
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

313.0 -> 268.9
1.434 (1.434)
10.55 µg/Kg
4.91288
CC

**PFHxS 1**

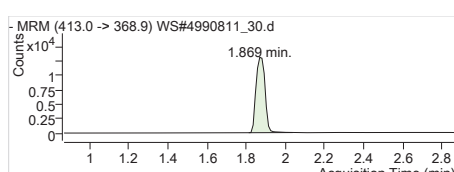
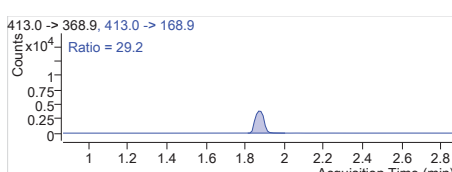
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

398.9 -> 79.9
1.690 (1.690)
11.52 µg/Kg
5.92392
CC

**PFHpA 1**

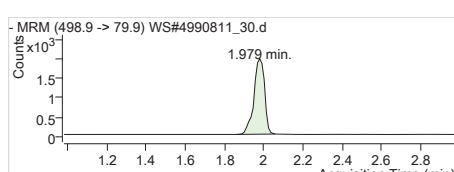
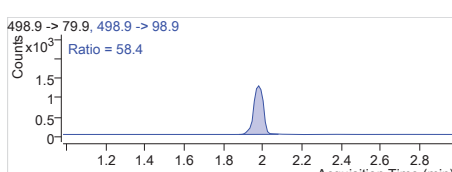
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

363.0 -> 318.9
1.691 (1.691)
10.36 µg/Kg
5.01659
CC

**PFOA 1**

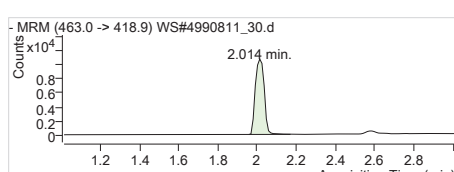
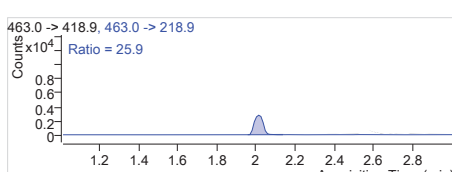
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

413.0 -> 368.9
1.869 (1.869)
10.88 µg/Kg
5.14941
CC

**PFOS 1**

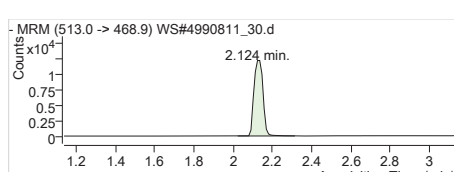
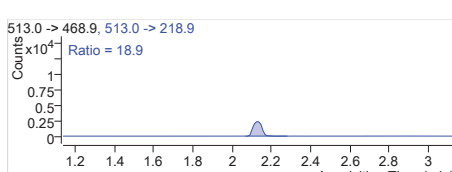
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

498.9 -> 79.9
1.979 (1.979)
11.29 µg/Kg
4.43251
CC

**PFNA 1**

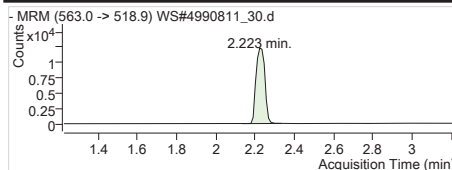
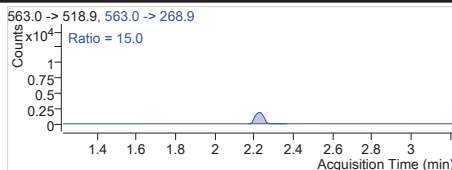
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

463.0 -> 418.9
2.014 (2.014)
10.30 µg/Kg
4.31256
CC

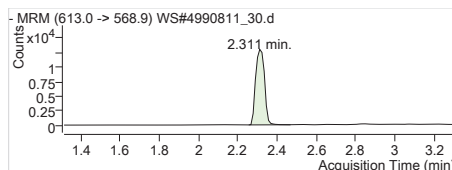
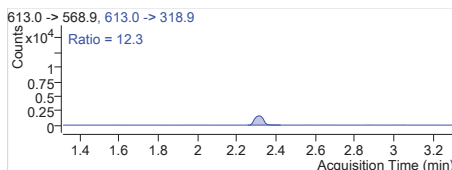
**PFDA 1**

RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

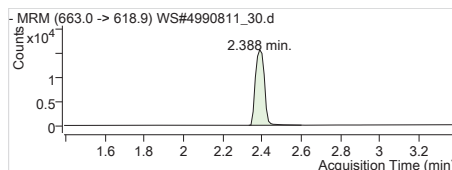
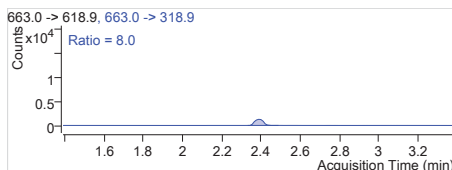
513.0 -> 468.9
2.124 (2.135)
11.39 µg/Kg
6.08863
CC



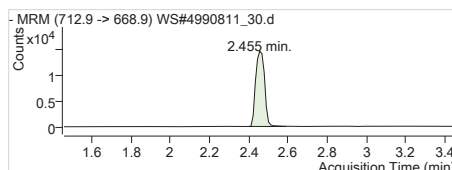
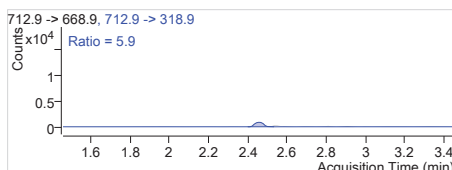
PFUnA 1
RT (Exp. RT): 563.0 -> 518.9
Calc. conc. 2.223 (2.223)
Area ratio: 9.82 µg/Kg
Sample type: 4.82509
CC



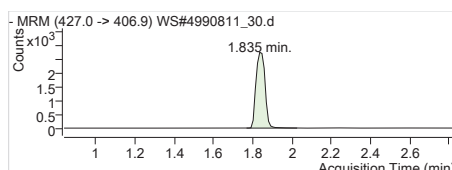
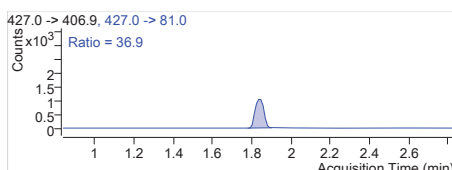
PFDoA 1
RT (Exp. RT): 613.0 -> 568.9
Calc. conc. 2.311 (2.311)
Area ratio: 11.46 µg/Kg
Sample type: 5.16584
CC



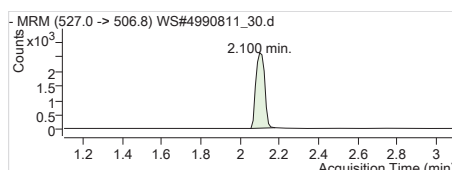
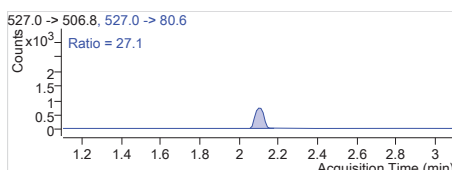
PFTrDA 1
RT (Exp. RT): 663.0 -> 618.9
Calc. conc. 2.388 (2.388)
Area ratio: 11.49 µg/Kg
Sample type: 4.79936
CC



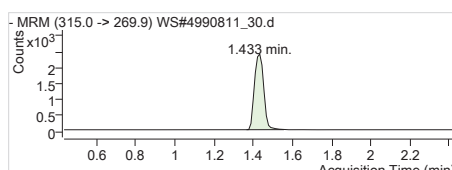
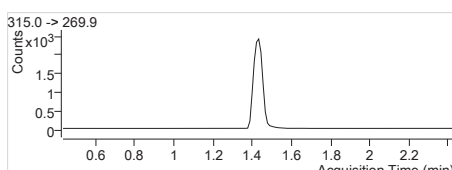
PFTEdA 1
RT (Exp. RT): 712.9 -> 668.9
Calc. conc. 2.455 (2.455)
Area ratio: 11.13 µg/Kg
Sample type: 4.47699
CC



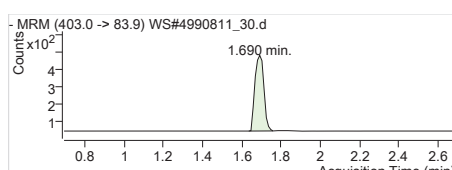
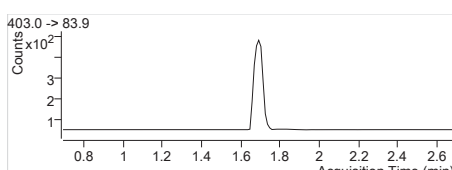
6:2-FTS 1
RT (Exp. RT): 427.0 -> 406.9
Calc. conc. 1.835 (1.835)
Area ratio: 11.29 µg/Kg
Sample type: 4.91913
CC



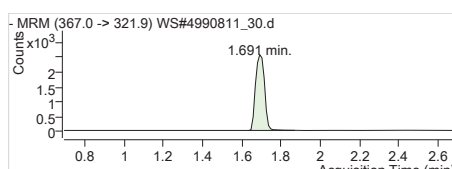
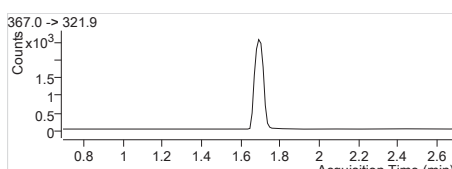
8:2-FTS 1
RT (Exp. RT): 527.0 -> 506.8
Calc. conc. 2.100 (2.100)
Area ratio: 11.12 µg/Kg
Sample type: 4.27196
CC



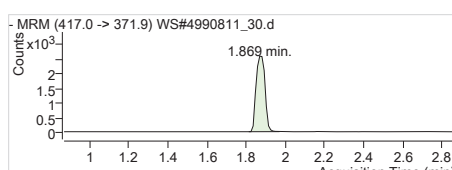
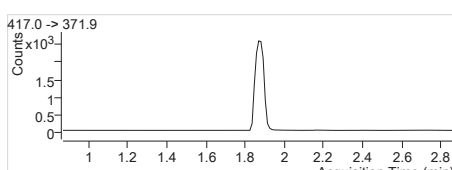
13C2-PFHxA
RT (Exp. RT): 315.0 -> 269.9
Calc. conc. 1.433 (1.433)
Area ratio: 95.01 µg/Kg
Sample type: 0.18297
CC



18O2-PFHxS
RT (Exp. RT): 403.0 -> 83.9
Calc. conc. 1.690 (1.690)
Area ratio: 90.05 µg/Kg
Sample type: 0.03214
CC

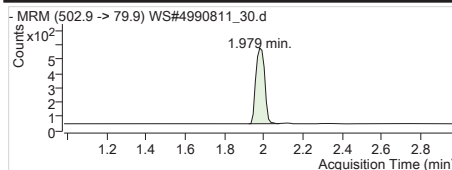
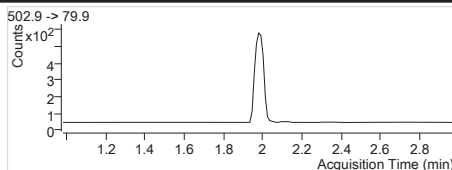


13C4-PFHpA
RT (Exp. RT): 367.0 -> 321.9
Calc. conc. 1.691 (1.691)
Area ratio: 90.40 µg/Kg
Sample type: 0.18993
CC

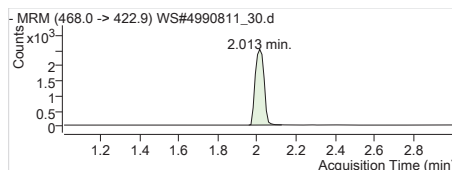
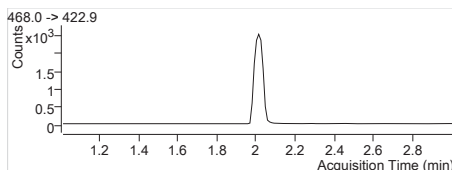


13C4-PFOA
RT (Exp. RT): 417.0 -> 371.9
Calc. conc. 1.869 (1.869)
Area ratio: 93.87 µg/Kg
Sample type: 0.19026
CC

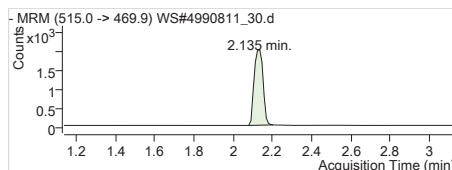
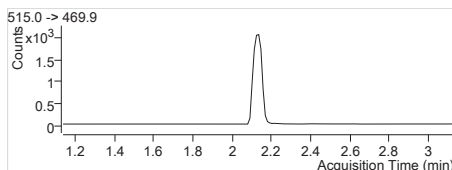
Quantitation Results



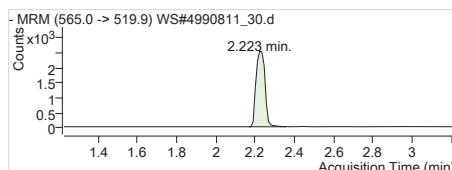
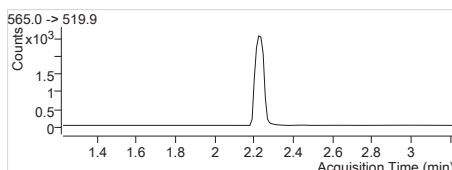
13C4-PFOS
RT (Exp. RT): 502.9 -> 79.9
Calc. conc. 1.979 (1.979)
89.33 µg/Kg
Area ratio: 0.03919
Sample type: CC



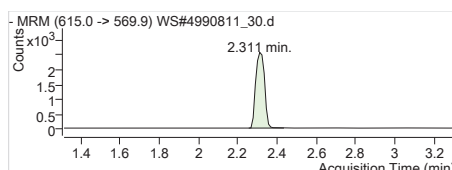
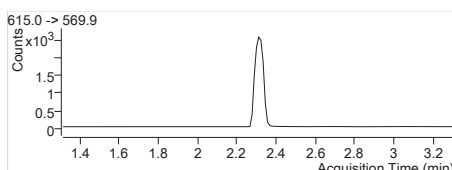
13C5-PFNA
RT (Exp. RT): 468.0 -> 422.9
Calc. conc. 2.013 (2.013)
89.89 µg/Kg
Area ratio: 0.18414
Sample type: CC



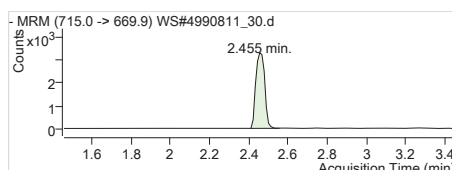
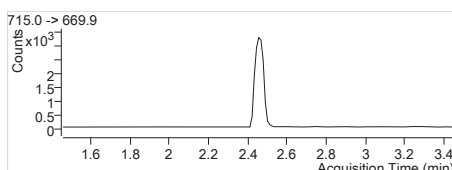
13C2-PFDA
RT (Exp. RT): 515.0 -> 469.9
Calc. conc. 2.135 (2.135)
86.11 µg/Kg
Area ratio: 0.16139
Sample type: CC



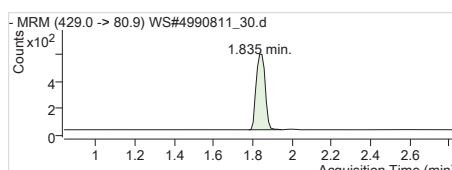
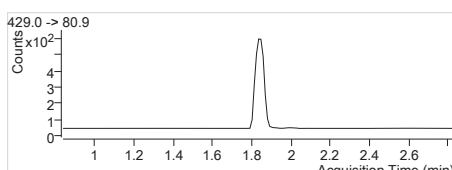
13C2-PFUnA
RT (Exp. RT): 565.0 -> 519.9
Calc. conc. 2.223 (2.223)
94.08 µg/Kg
Area ratio: 0.20337
Sample type: CC



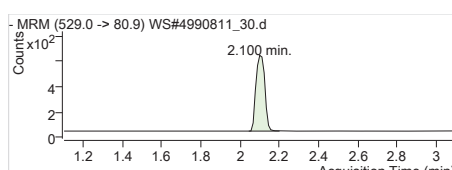
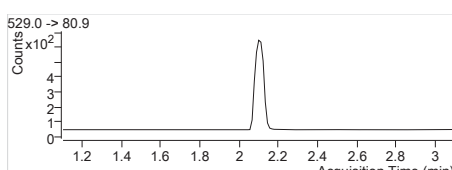
13C2-PFDoA
RT (Exp. RT): 615.0 -> 569.9
Calc. conc. 2.311 (2.311)
80.97 µg/Kg
Area ratio: 0.20070
Sample type: CC



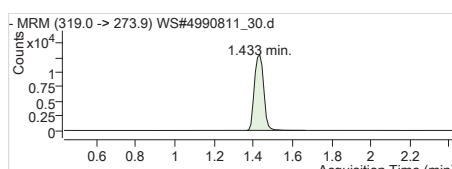
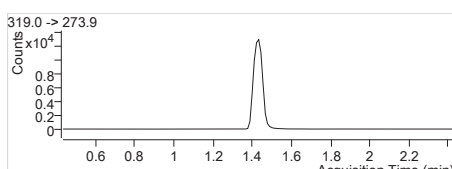
13C2-PFTeDA
RT (Exp. RT): 715.0 -> 669.9
Calc. conc. 2.455 (2.455)
85.71 µg/Kg
Area ratio: 0.26112
Sample type: CC



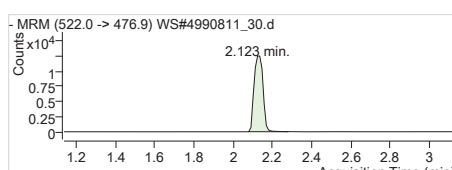
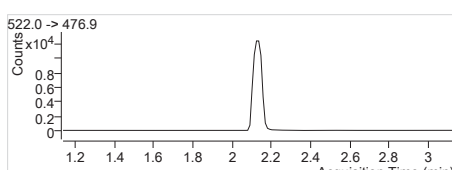
13C2-6:2-FTS
RT (Exp. RT): 429.0 -> 80.9
Calc. conc. 1.835 (1.835)
84.57 µg/Kg
Area ratio: 0.04129
Sample type: CC



13C2-8:2 FTS
RT (Exp. RT): 529.0 -> 80.9
Calc. conc. 2.100 (2.100)
88.25 µg/Kg
Area ratio: 0.04444
Sample type: CC



13C6-PFHxA
RT (Exp. RT): 319.0 -> 273.9
Calc. conc. 1.433 (1.433)
105.43 µg/Kg
Area ratio: 0
Sample type: CC



13C9-PFDA
RT (Exp. RT): 522.0 -> 476.9
Calc. conc. 2.123 (2.134)
108.00 µg/Kg
Area ratio: 0
Sample type: CC

Batch Path

T:\lcms4\PFC\20170524\WS#4990811\QuantResults\PFC_Soil_170524_WS#4990811_CTLabs14

Sample Name

CCV

Instrument

LCMS04

Data File

WS#4990811_45.d

Operator

AD

Sample Type

CC

Dilution

1

Acq. Method

PFC_Soil.m

Position

P2-A5

Acq. Date

2017/05/24 11:53:26 PM

Injection Volume

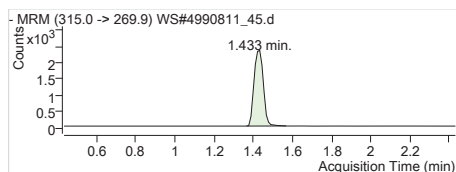
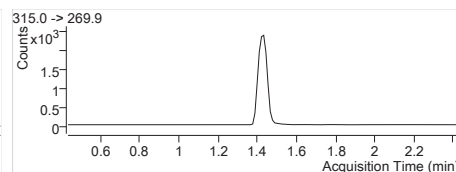
Per Method

Sample Annotation

-

ISTD Compounds	Response	RT	Target conc.		
MPFHxA	7707	1.43	1 µg/Kg		
MPFHxS	1455	1.69	1 µg/Kg		
MPFHpA	8237	1.69	1 µg/Kg		
MPFOA	7895	1.87	1 µg/Kg		
MPFOS	1810	1.98	1 µg/Kg		
MPFNA	8701	2.01	1 µg/Kg		
MPFDA	6475	2.13	1 µg/Kg		
MPFUnA	8117	2.22	1 µg/Kg		
MPFDoA	8670	2.31	1 µg/Kg		
MPFTeDA	10995	2.46	1 µg/Kg		
M2 6:2 FTS	1863	1.83	1 µg/Kg		
M2 8:2 FTS	1980	2.10	1 µg/Kg		
13C6-PFHxA IS	43238	1.43	1 µg/Kg		
13C9-PFDA IS	38507	2.12	1 µg/Kg		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	9437	1.10	11.30	10.21 µg/Kg	90.32
PFHxA 1	37585	1.43	11.30	10.47 µg/Kg	92.68
PFHxS 1	7517	1.69	11.30	10.06 µg/Kg	89.03
PFHpA 1	42232	1.69	11.30	10.58 µg/Kg	93.66
PFOA 1	40554	1.87	11.30	10.86 µg/Kg	96.07
PFOS 1	7652	1.98	11.30	10.77 µg/Kg	95.28
PFNA 1	35103	2.01	11.30	9.64 µg/Kg	85.30
PFDA 1	39362	2.14	11.30	11.37 µg/Kg	100.64
PFUnA 1	37427	2.22	11.30	9.39 µg/Kg	83.05
PFDaA 1	42033	2.31	11.30	10.75 µg/Kg	95.13
PFTTrDA 1	49224	2.39	11.30	10.71 µg/Kg	94.82
PFTeDA 1	45894	2.46	11.30	10.37 µg/Kg	91.81
6:2-FTS 1	8532	1.84	11.30	10.50 µg/Kg	92.95
8:2-FTS 1	7991	2.10	11.30	10.50 µg/Kg	92.93
13C2-PFHxA	7707	1.43	100.00	92.56 µg/Kg	92.56
18O2-PFHxS	1455	1.69	100.00	94.28 µg/Kg	94.28
13C4-PFHpA	8237	1.69	100.00	90.67 µg/Kg	90.67
13C4-PFOA	7895	1.87	100.00	90.09 µg/Kg	90.09
13C4-PFOS	1810	1.98	100.00	95.41 µg/Kg	95.41
13C5-PFNA	8701	2.01	100.00	98.24 µg/Kg	98.24
13C2-PFDA	6475	2.13	100.00	89.72 µg/Kg	89.72
13C2-PFUnA	8117	2.22	100.00	97.51 µg/Kg	97.51
13C2-PFDoA	8670	2.31	100.00	90.83 µg/Kg	90.83
13C2-PFTeDA	10995	2.46	100.00	93.72 µg/Kg	93.72
13C2-6:2-FTS	1863	1.83	100.00	88.25 µg/Kg	88.25
13C2-8:2 FTS	1980	2.10	100.00	90.94 µg/Kg	90.94
13C6-PFHxA	43238	1.43	100.00	107.18 µg/Kg	107.18
13C9-PFDA	38507	2.12	100.00	105.66 µg/Kg	105.66



MPFHxA

Internal Standard

RT (Exp. RT):

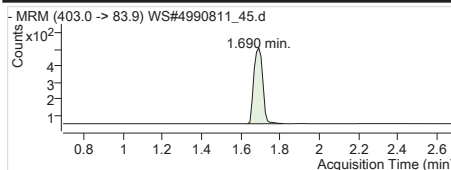
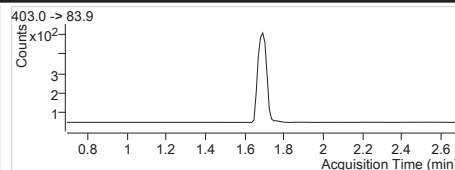
1.433 (1.433)

Concentration:

1 µg/Kg

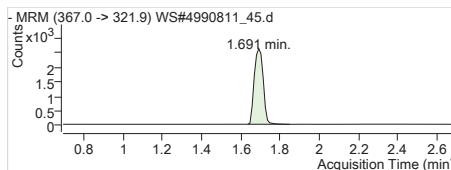
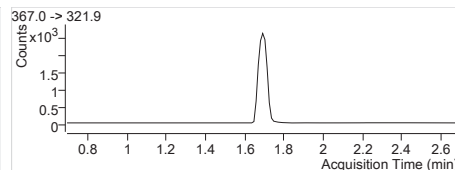
Sample type:

CC



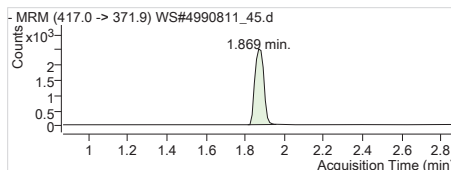
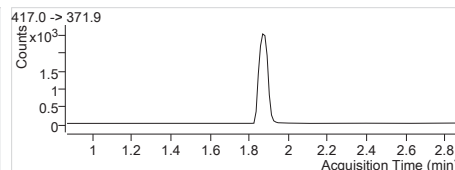
MPFHxS
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
1.690 (1.690)
1 µg/Kg
CC



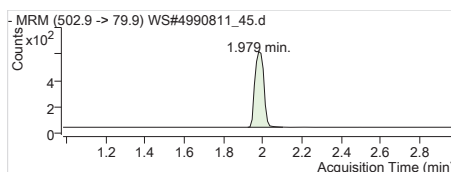
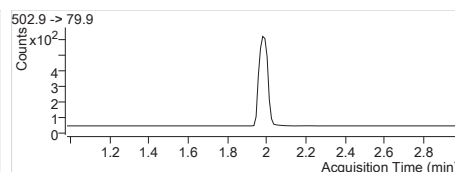
MPFHpA
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
1.691 (1.691)
1 µg/Kg
CC



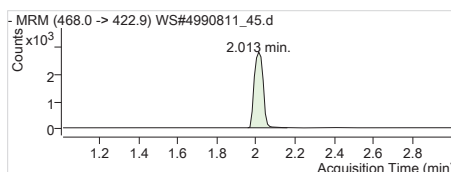
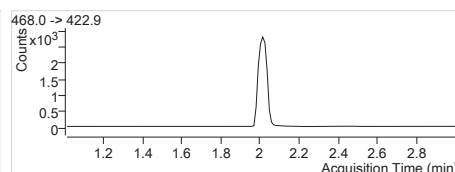
MPFOA
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
1.869 (1.869)
1 µg/Kg
CC



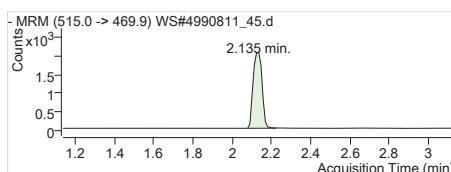
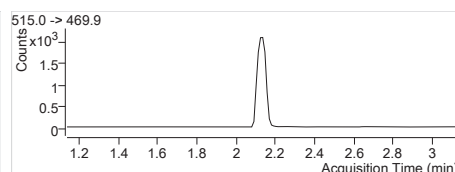
MPFOS
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
1.979 (1.979)
1 µg/Kg
CC



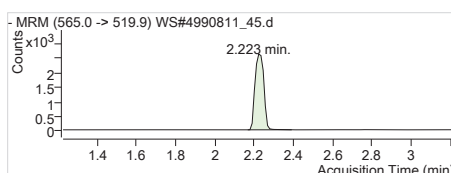
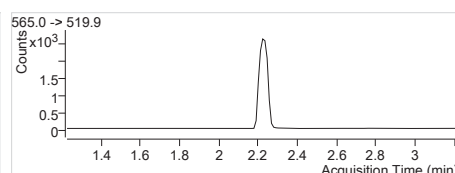
MPFNA
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
2.013 (2.013)
1 µg/Kg
CC



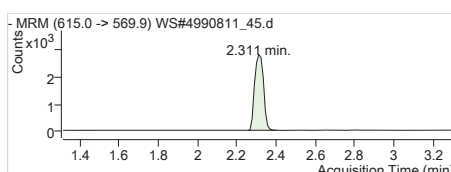
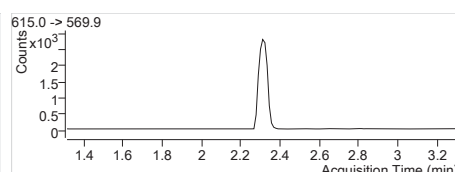
MPFDA
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
2.135 (2.135)
1 µg/Kg
CC



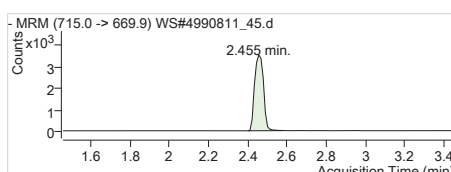
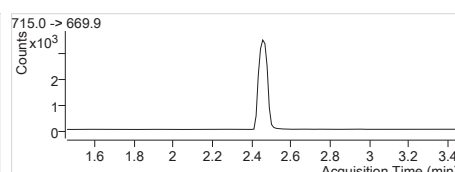
MPFUnA
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
2.223 (2.223)
1 µg/Kg
CC



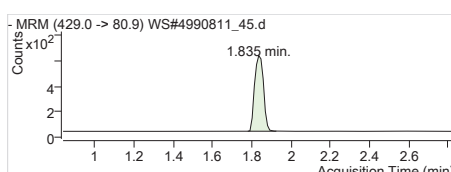
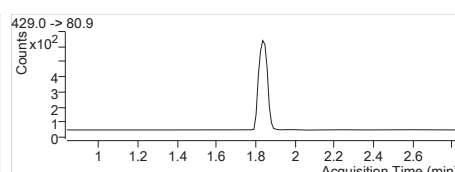
MPFDoA
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
2.311 (2.311)
1 µg/Kg
CC



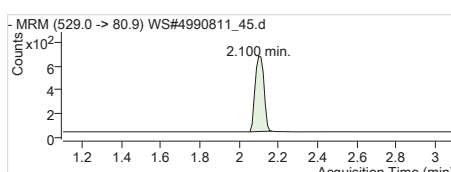
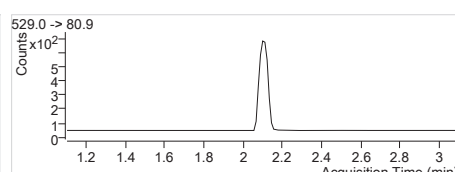
MPFTeDA
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
2.455 (2.455)
1 µg/Kg
CC



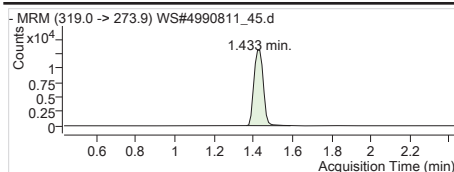
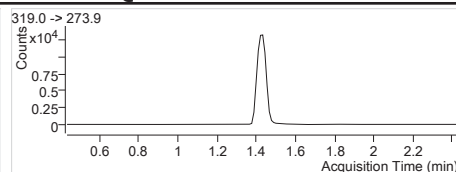
M2 6:2 FTS
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
1.835 (1.835)
1 µg/Kg
CC



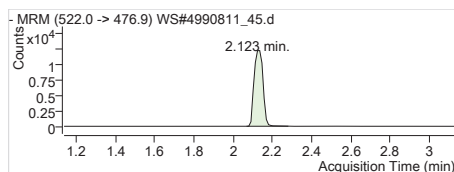
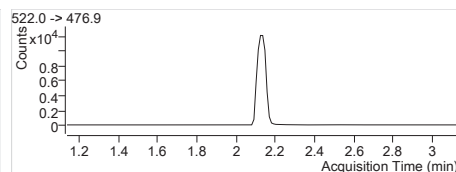
M2 8:2 FTS
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
2.100 (2.100)
1 µg/Kg
CC

**13C6-PFHxA IS**

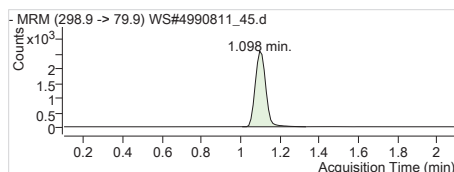
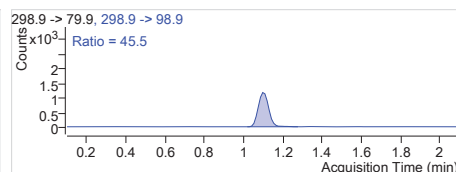
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
1.433 (1.433)
1 µg/Kg
CC

**13C9-PFDA IS**

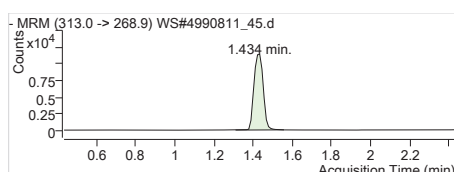
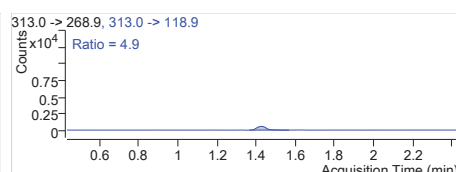
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
2.123 (2.134)
1 µg/Kg
CC

**PFBS 1**

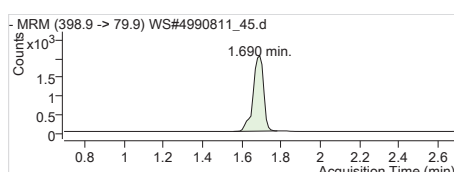
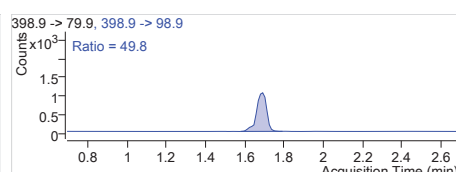
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

298.9 -> 79.9
1.098 (1.098)
10.21 µg/Kg
6.48591
CC

**PFHxA 1**

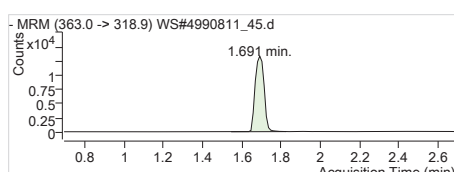
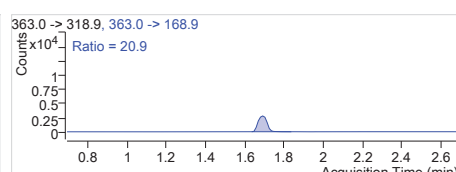
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

313.0 -> 268.9
1.434 (1.434)
10.47 µg/Kg
4.87674
CC

**PFHxS 1**

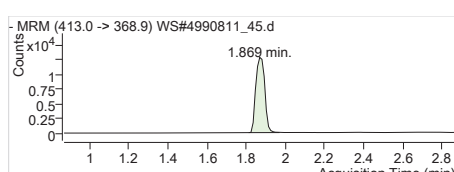
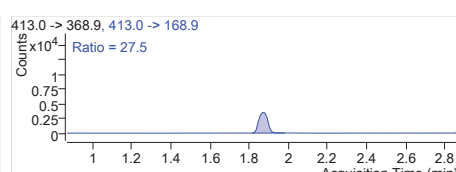
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

398.9 -> 79.9
1.690 (1.690)
10.06 µg/Kg
5.16632
CC

**PFHpA 1**

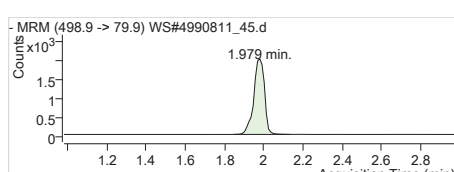
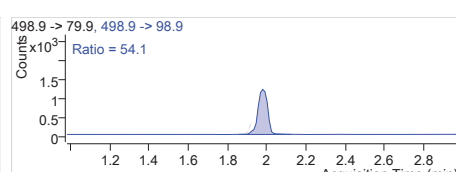
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

363.0 -> 318.9
1.691 (1.691)
10.58 µg/Kg
5.12711
CC

**PFOA 1**

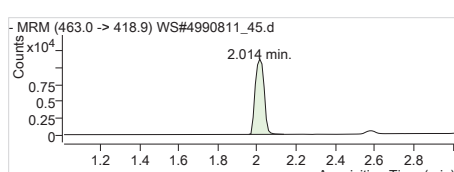
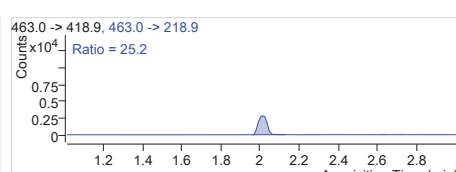
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

413.0 -> 368.9
1.869 (1.869)
10.86 µg/Kg
5.13667
CC

**PFOS 1**

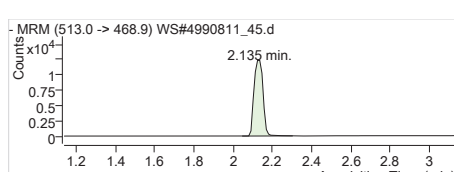
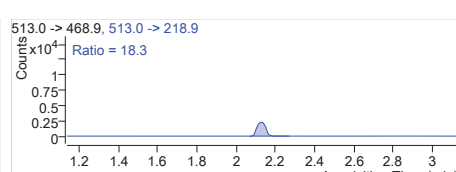
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

498.9 -> 79.9
1.979 (1.979)
10.77 µg/Kg
4.22762
CC

**PFNA 1**

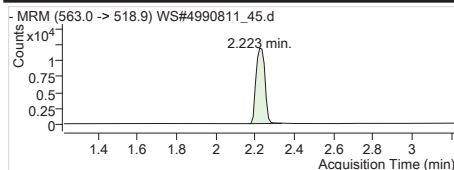
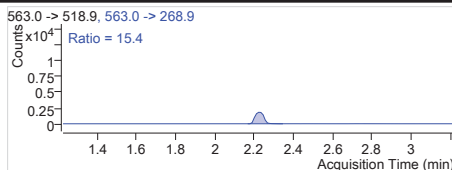
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

463.0 -> 418.9
2.014 (2.014)
9.64 µg/Kg
4.03436
CC

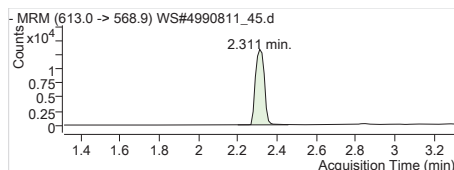
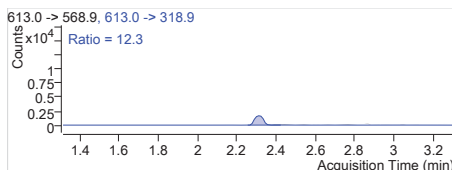
**PFDA 1**

RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

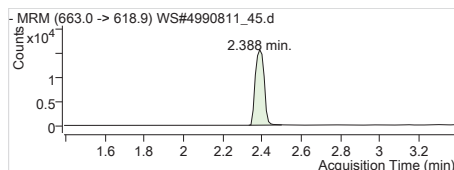
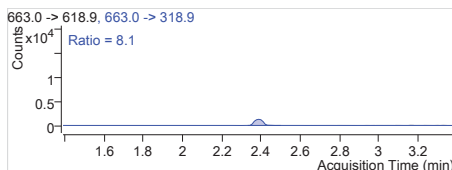
513.0 -> 468.9
2.135 (2.135)
11.37 µg/Kg
6.07907
CC



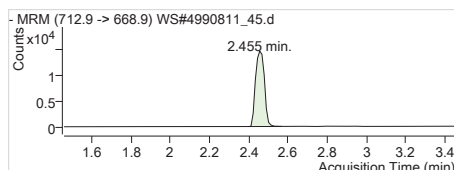
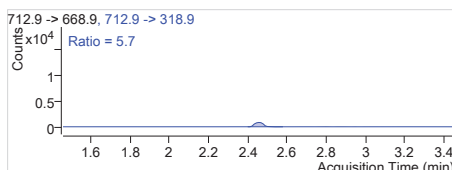
PFUnA 1
RT (Exp. RT): 563.0 -> 518.9
Calc. conc. 2.223 (2.223)
Area ratio: 9.39 µg/Kg
Sample type: 4.61094
CC



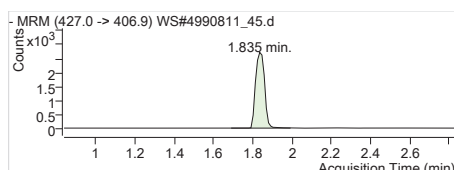
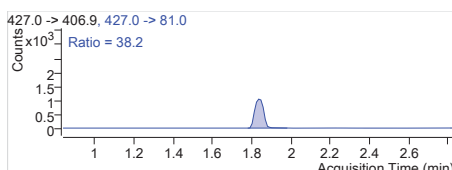
PFDoA 1
RT (Exp. RT): 613.0 -> 568.9
Calc. conc. 2.311 (2.311)
Area ratio: 10.75 µg/Kg
Sample type: 4.84810
CC



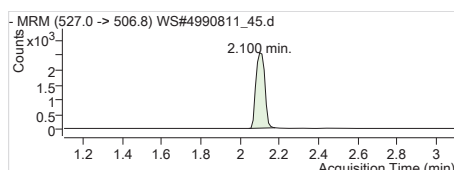
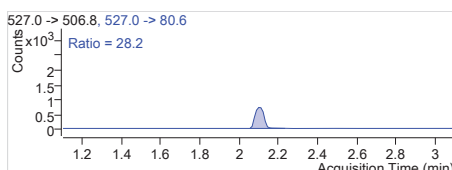
PFTrDA 1
RT (Exp. RT): 663.0 -> 618.9
Calc. conc. 2.388 (2.388)
Area ratio: 10.71 µg/Kg
Sample type: 4.47694
CC



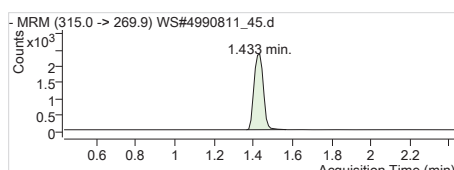
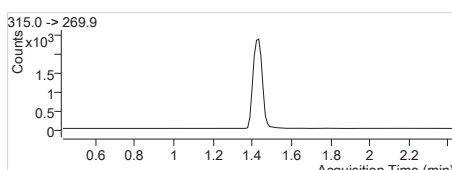
PFTEdA 1
RT (Exp. RT): 712.9 -> 668.9
Calc. conc. 2.455 (2.455)
Area ratio: 10.37 µg/Kg
Sample type: 4.17408
CC



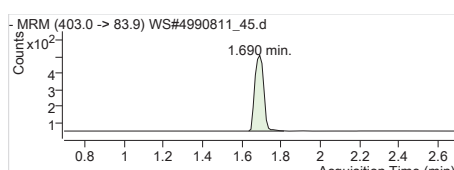
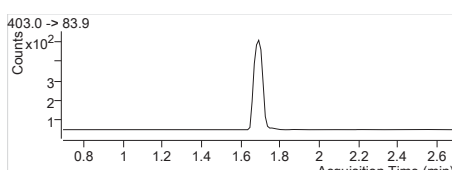
6:2-FTS 1
RT (Exp. RT): 427.0 -> 406.9
Calc. conc. 1.835 (1.835)
Area ratio: 10.50 µg/Kg
Sample type: 4.57971
CC



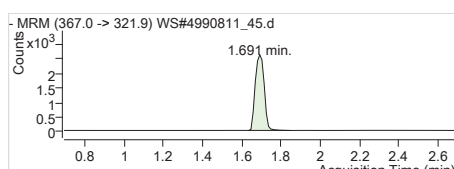
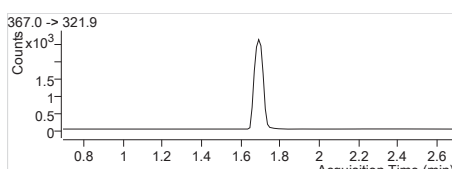
8:2-FTS 1
RT (Exp. RT): 527.0 -> 506.8
Calc. conc. 2.100 (2.100)
Area ratio: 10.50 µg/Kg
Sample type: 4.03586
CC



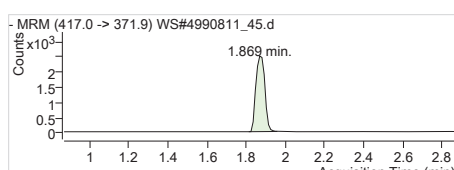
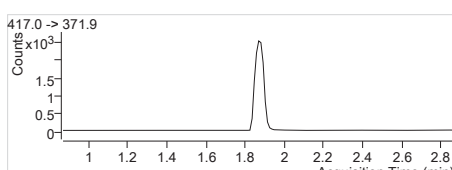
13C2-PFHxA
RT (Exp. RT): 315.0 -> 269.9
Calc. conc. 1.433 (1.433)
Area ratio: 92.56 µg/Kg
Sample type: 0.17825
CC



18O2-PFHxS
RT (Exp. RT): 403.0 -> 83.9
Calc. conc. 1.690 (1.690)
Area ratio: 94.28 µg/Kg
Sample type: 0.03365
CC

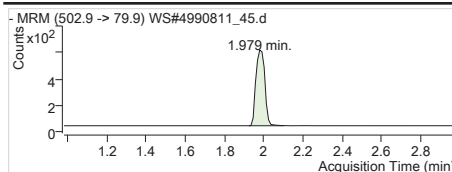
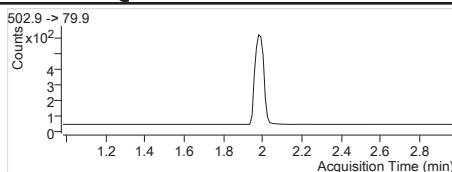


13C4-PFHpA
RT (Exp. RT): 367.0 -> 321.9
Calc. conc. 1.691 (1.691)
Area ratio: 90.67 µg/Kg
Sample type: 0.19050
CC

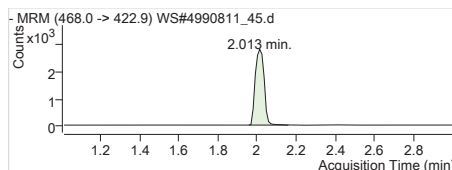
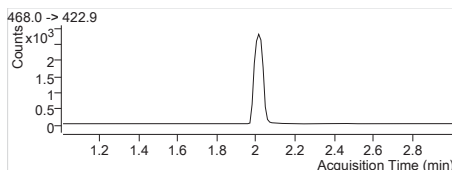


13C4-PFOA
RT (Exp. RT): 417.0 -> 371.9
Calc. conc. 1.869 (1.869)
Area ratio: 90.09 µg/Kg
Sample type: 0.18259
CC

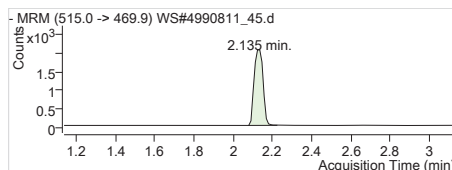
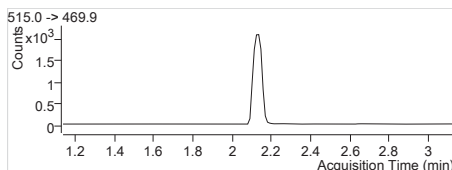
Quantitation Results



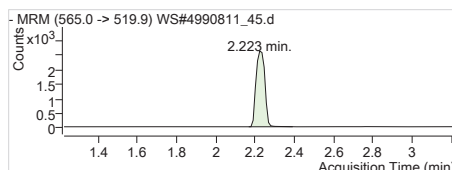
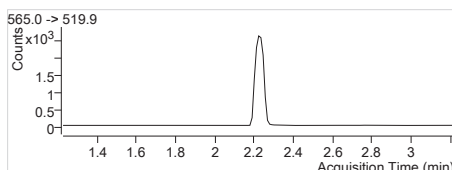
13C4-PFOS
 RT (Exp. RT): 502.9 -> 79.9
 Calc. conc. 1.979 (1.979)
 Area ratio: 95.41 µg/Kg
 Sample type: 0.04186
 CC



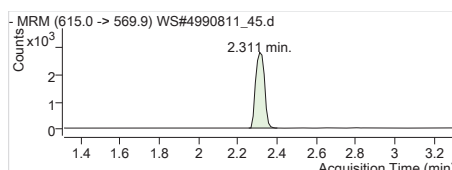
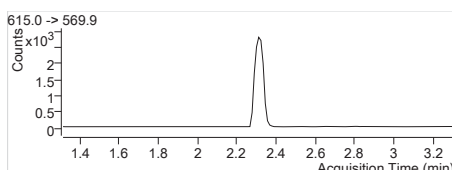
13C5-PFNA
 RT (Exp. RT): 468.0 -> 422.9
 Calc. conc. 2.013 (2.013)
 Area ratio: 98.24 µg/Kg
 Sample type: 0.20124
 CC



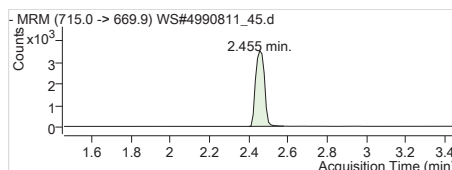
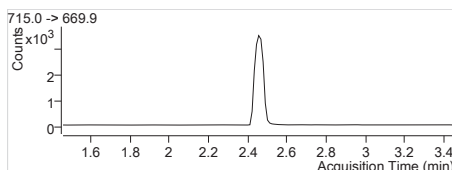
13C2-PFDA
 RT (Exp. RT): 515.0 -> 469.9
 Calc. conc. 2.135 (2.135)
 Area ratio: 89.72 µg/Kg
 Sample type: 0.16815
 CC



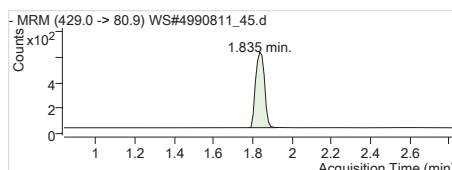
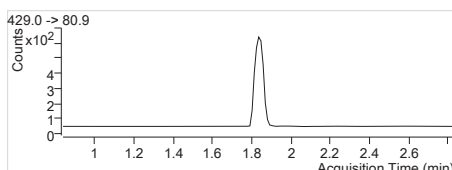
13C2-PFUnA
 RT (Exp. RT): 565.0 -> 519.9
 Calc. conc. 2.223 (2.223)
 Area ratio: 97.51 µg/Kg
 Sample type: 0.21079
 CC



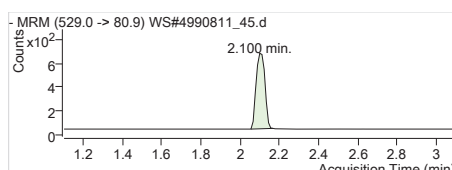
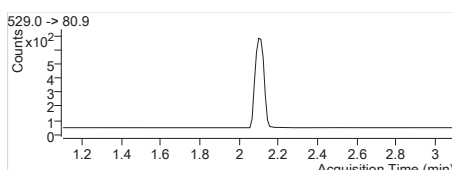
13C2-PFDoA
 RT (Exp. RT): 615.0 -> 569.9
 Calc. conc. 2.311 (2.311)
 Area ratio: 90.83 µg/Kg
 Sample type: 0.22515
 CC



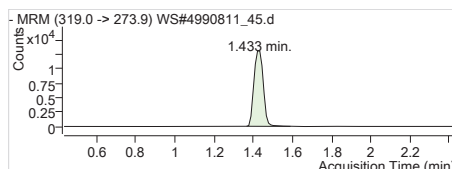
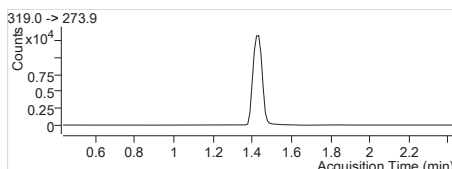
13C2-PFTeDA
 RT (Exp. RT): 715.0 -> 669.9
 Calc. conc. 2.455 (2.455)
 Area ratio: 93.72 µg/Kg
 Sample type: 0.28553
 CC



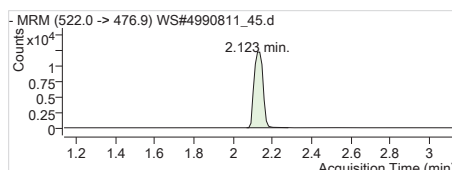
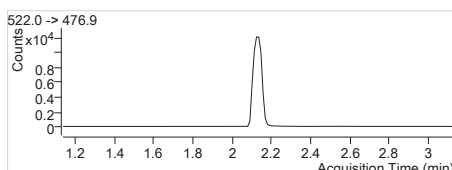
13C2-6:2-FTS
 RT (Exp. RT): 429.0 -> 80.9
 Calc. conc. 1.835 (1.835)
 Area ratio: 88.25 µg/Kg
 Sample type: 0.04309
 CC



13C2-8:2 FTS
 RT (Exp. RT): 529.0 -> 80.9
 Calc. conc. 2.100 (2.100)
 Area ratio: 90.94 µg/Kg
 Sample type: 0.04579
 CC



13C6-PFHxA
 RT (Exp. RT): 319.0 -> 273.9
 Calc. conc. 1.433 (1.433)
 Area ratio: 107.18 µg/Kg
 Sample type: 0
 CC

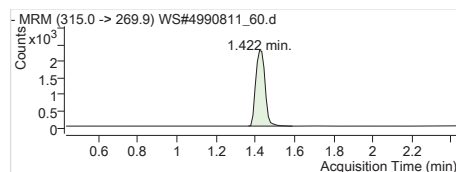
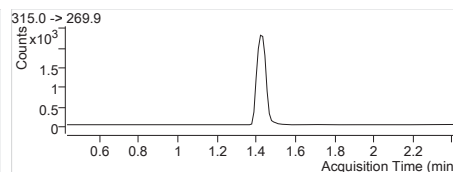


13C9-PFDA
 RT (Exp. RT): 522.0 -> 476.9
 Calc. conc. 2.123 (2.134)
 Area ratio: 105.66 µg/Kg
 Sample type: 0
 CC

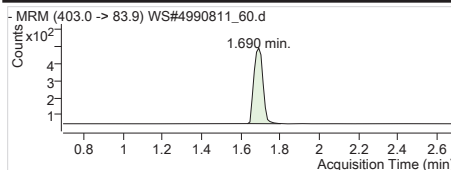
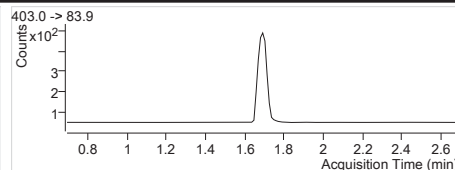
Batch Path	T:\lcms4\PFC\20170524\WS#4990811\QuantResults\PFC_Soil_170524_WS#4990811_CTLabs14		
Sample Name	CCV	Instrument	LCMS04
Data File	WS#4990811_60.d	Operator	AD
Sample Type	CC	Dilution	1
Acq. Method	PFC_Soil.m	Position	P2-A5
Acq. Date	2017/05/25 1:06:56 AM	Injection Volume	Per Method
Sample Annotation	-		

ISTD Compounds	Response	RT	Target conc.		
MPFHxA	7517	1.42	1 µg/Kg		
MPFHxS	1417	1.69	1 µg/Kg		
MPFHpA	8288	1.69	1 µg/Kg		
MPFOA	8146	1.87	1 µg/Kg		
MPFOS	1803	1.98	1 µg/Kg		
MPFNA	8191	2.01	1 µg/Kg		
MPFDA	6549	2.12	1 µg/Kg		
MPFUnA	7517	2.22	1 µg/Kg		
MPFDoA	8629	2.31	1 µg/Kg		
MPFTeDA	10636	2.46	1 µg/Kg		
M2 6:2 FTS	1921	1.83	1 µg/Kg		
M2 8:2 FTS	1955	2.10	1 µg/Kg		
13C6-PFHxA IS	43339	1.42	1 µg/Kg		
13C9-PFDA IS	38873	2.12	1 µg/Kg		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	9269	1.10	11.30	10.29 µg/Kg	91.08
PFHxA 1	36807	1.42	11.30	10.51 µg/Kg	93.05
PFHxS 1	7642	1.69	11.30	10.50 µg/Kg	92.89
PFHpA 1	40787	1.69	11.30	10.16 µg/Kg	89.93
PFOA 1	40037	1.87	11.30	10.39 µg/Kg	91.93
PFOS 1	7750	1.98	11.30	10.95 µg/Kg	96.88
PFNA 1	34216	2.01	11.30	9.98 µg/Kg	88.33
PFDA 1	38668	2.12	11.30	11.04 µg/Kg	97.72
PFUnA 1	39556	2.22	11.30	10.70 µg/Kg	94.70
PFDaA 1	41515	2.31	11.30	10.67 µg/Kg	94.40
PFTTrDA 1	48943	2.39	11.30	11.01 µg/Kg	97.46
PFTeDA 1	47779	2.46	11.30	11.17 µg/Kg	98.83
6:2-FTS 1	8907	1.84	11.30	10.63 µg/Kg	94.11
8:2-FTS 1	8270	2.10	11.30	11.01 µg/Kg	97.42
13C2-PFHxA	7517	1.42	100.00	90.07 µg/Kg	90.07
18O2-PFHxS	1417	1.69	100.00	91.61 µg/Kg	91.61
13C4-PFHpA	8288	1.69	100.00	91.02 µg/Kg	91.02
13C4-PFOA	8146	1.87	100.00	92.74 µg/Kg	92.74
13C4-PFOS	1803	1.98	100.00	94.82 µg/Kg	94.82
13C5-PFNA	8191	2.01	100.00	92.26 µg/Kg	92.26
13C2-PFDA	6549	2.12	100.00	89.89 µg/Kg	89.89
13C2-PFUnA	7517	2.22	100.00	89.45 µg/Kg	89.45
13C2-PFDoA	8629	2.31	100.00	89.55 µg/Kg	89.55
13C2-PFTeDA	10636	2.46	100.00	89.81 µg/Kg	89.81
13C2-6:2-FTS	1921	1.83	100.00	90.79 µg/Kg	90.79
13C2-8:2 FTS	1955	2.10	100.00	89.58 µg/Kg	89.58
13C6-PFHxA	43339	1.42	100.00	107.43 µg/Kg	107.43
13C9-PFDA	38873	2.12	100.00	106.67 µg/Kg	106.67

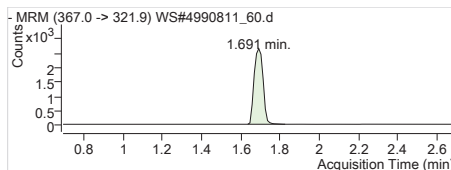
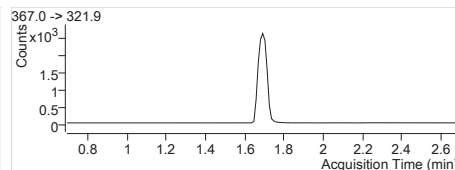


MPFHxA
 RT (Exp. RT): 1.422 (1.433)
 Concentration: 1 µg/Kg
 Sample type: CC



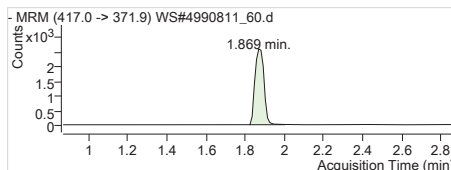
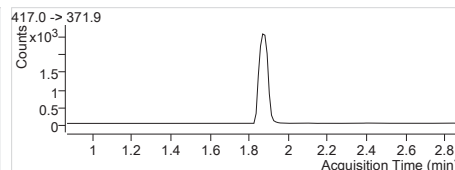
MPFHxS
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
1.690 (1.690)
1 µg/Kg
CC



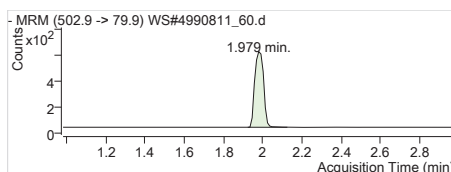
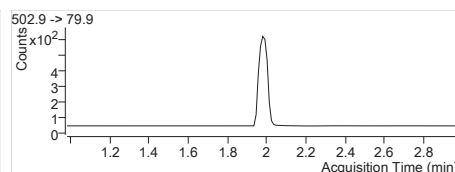
MPFHpA
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
1.691 (1.691)
1 µg/Kg
CC



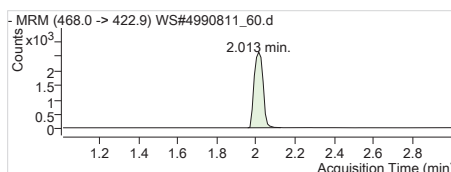
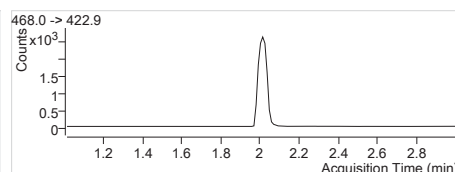
MPFOA
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
1.869 (1.869)
1 µg/Kg
CC



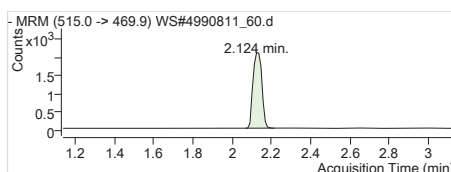
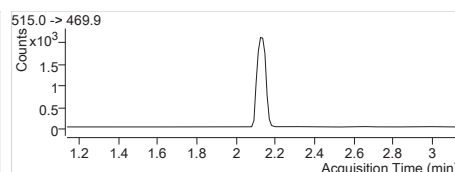
MPFOS
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
1.979 (1.979)
1 µg/Kg
CC



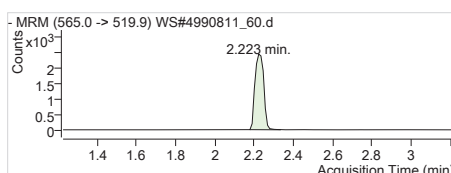
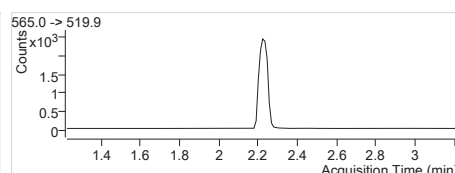
MPFNA
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
2.013 (2.013)
1 µg/Kg
CC



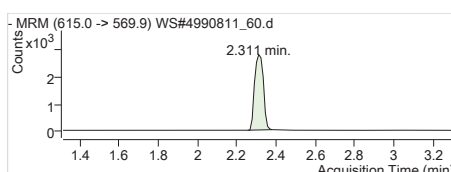
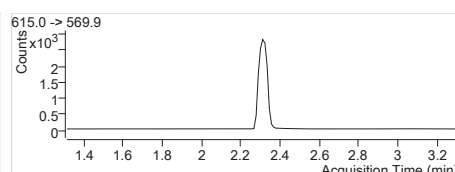
MPFDA
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
2.124 (2.135)
1 µg/Kg
CC



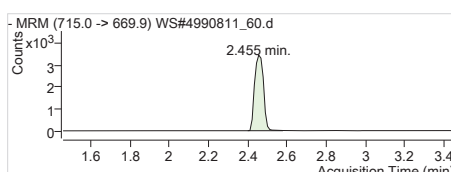
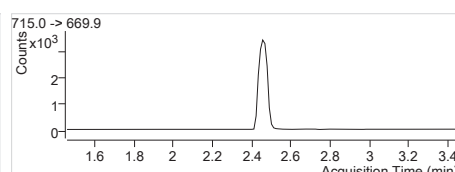
MPFUnA
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
2.223 (2.223)
1 µg/Kg
CC



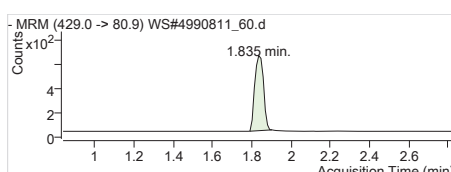
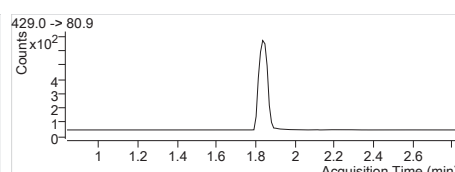
MPFDoA
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
2.311 (2.311)
1 µg/Kg
CC



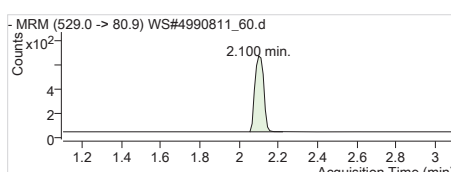
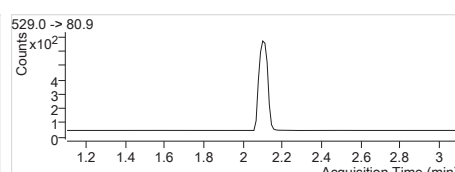
MPFTeDA
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
2.455 (2.455)
1 µg/Kg
CC



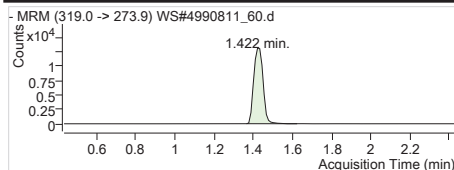
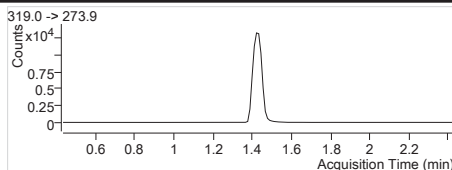
M2 6:2 FTS
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
1.835 (1.835)
1 µg/Kg
CC



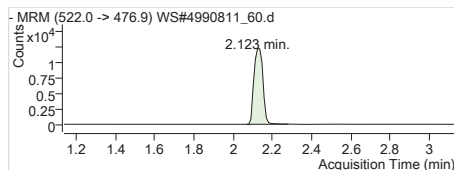
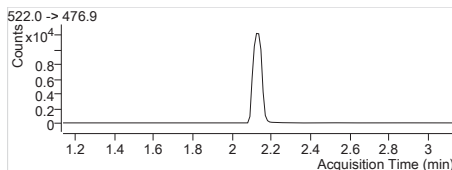
M2 8:2 FTS
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
2.100 (2.100)
1 µg/Kg
CC

**13C6-PFHxA IS**

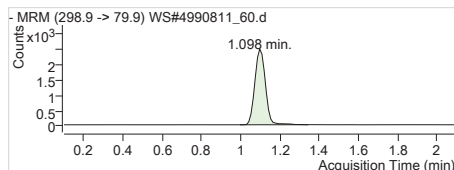
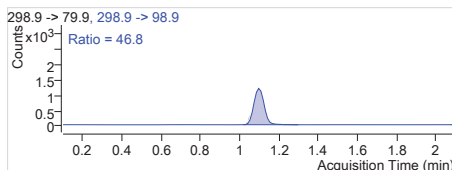
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
1.422 (1.433)
1 µg/Kg
CC

**13C9-PFDA IS**

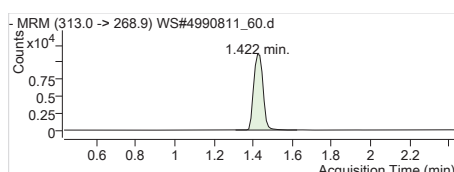
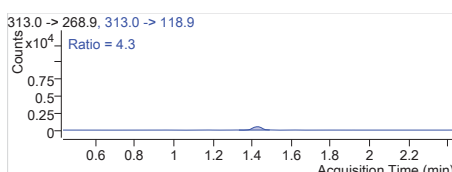
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
2.123 (2.134)
1 µg/Kg
CC

**PFBS 1**

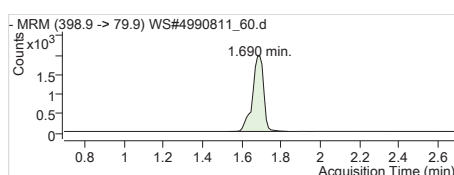
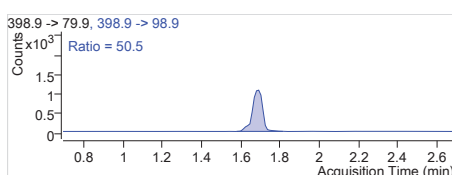
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

298.9 -> 79.9
1.098 (1.098)
10.29 µg/Kg
6.54128
CC

**PFHxA 1**

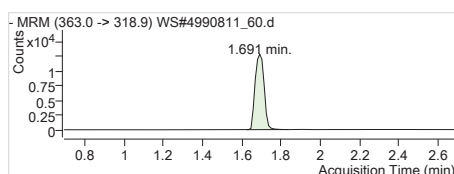
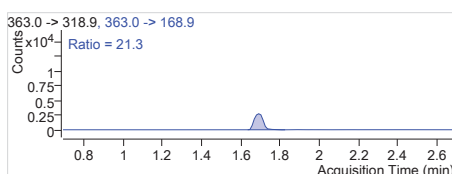
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

313.0 -> 268.9
1.422 (1.434)
10.51 µg/Kg
4.89650
CC

**PFHxS 1**

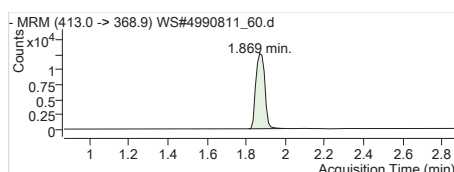
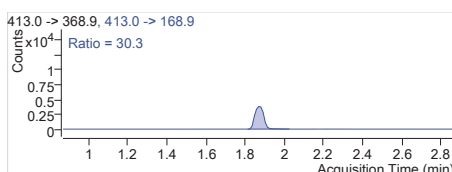
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

398.9 -> 79.9
1.690 (1.690)
10.50 µg/Kg
5.39308
CC

**PFHpA 1**

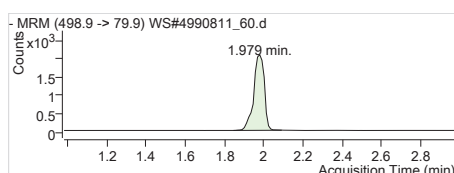
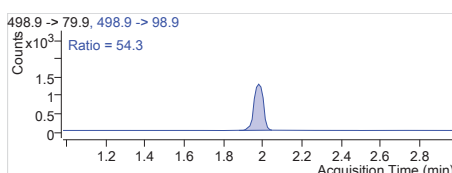
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

363.0 -> 318.9
1.691 (1.691)
10.16 µg/Kg
4.92121
CC

**PFOA 1**

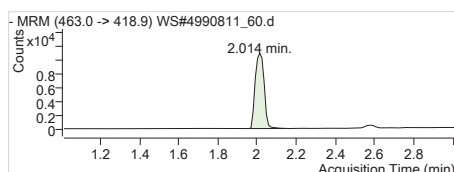
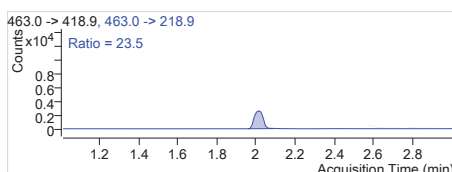
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

413.0 -> 368.9
1.869 (1.869)
10.39 µg/Kg
4.91493
CC

**PFOS 1**

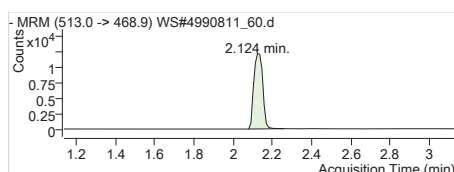
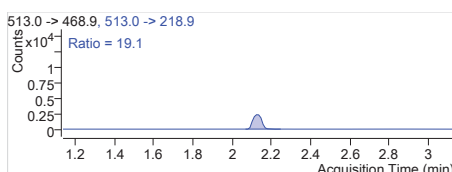
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

498.9 -> 79.9
1.979 (1.979)
10.95 µg/Kg
4.29839
CC

**PFNA 1**

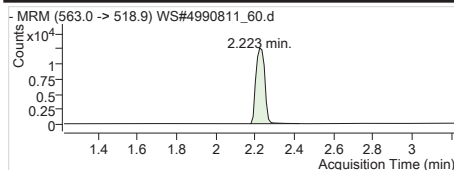
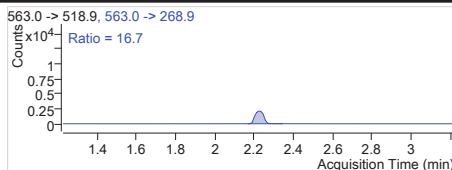
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

463.0 -> 418.9
2.014 (2.014)
9.98 µg/Kg
4.17727
CC

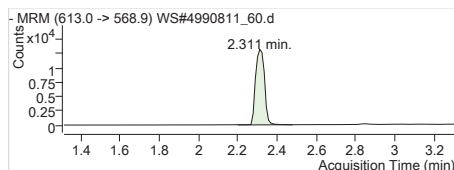
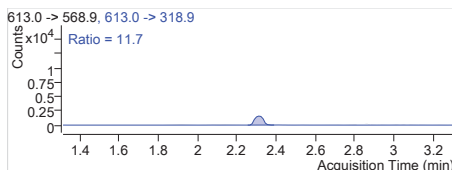
**PFDA 1**

RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

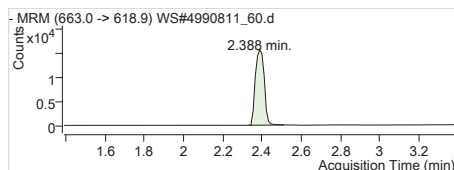
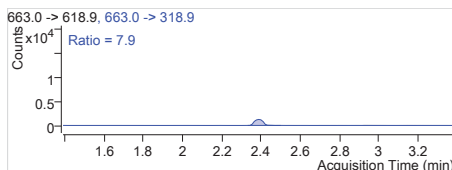
513.0 -> 468.9
2.124 (2.135)
11.04 µg/Kg
5.90441
CC



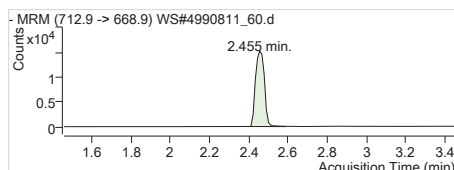
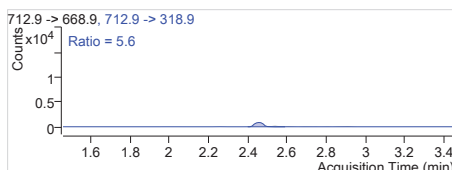
PFUnA 1
RT (Exp. RT): 563.0 -> 518.9
Calc. conc. 2.223 (2.223)
Area ratio: 10.70 µg/Kg
Sample type: 5.26221
CC



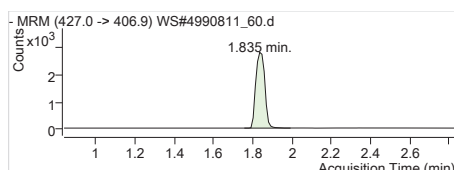
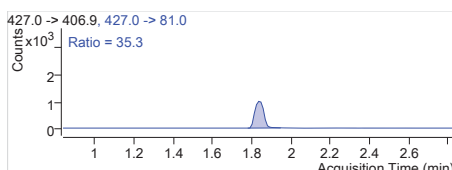
PFDa 1
RT (Exp. RT): 613.0 -> 568.9
Calc. conc. 2.311 (2.311)
Area ratio: 10.67 µg/Kg
Sample type: 4.81110
CC



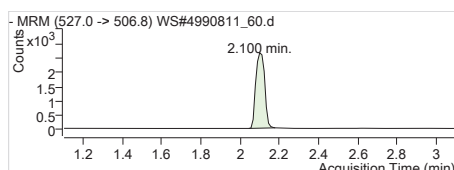
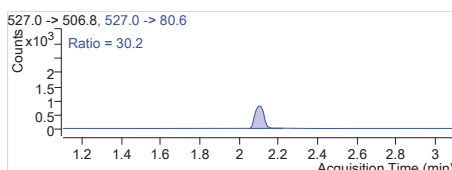
PFTraDA 1
RT (Exp. RT): 663.0 -> 618.9
Calc. conc. 2.388 (2.388)
Area ratio: 11.01 µg/Kg
Sample type: 4.60164
CC



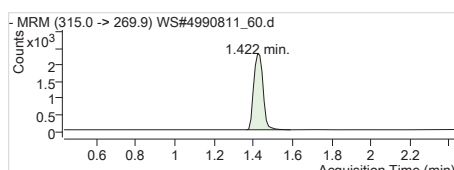
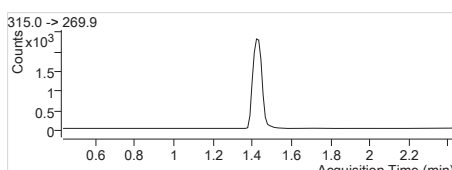
PFTeDA 1
RT (Exp. RT): 712.9 -> 668.9
Calc. conc. 2.455 (2.455)
Area ratio: 11.17 µg/Kg
Sample type: 4.49220
CC



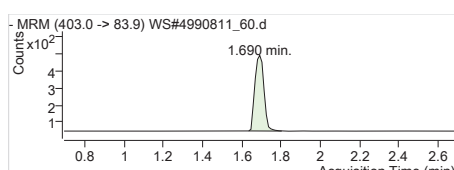
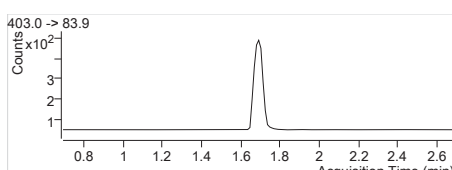
6:2-FTS 1
RT (Exp. RT): 427.0 -> 406.9
Calc. conc. 1.835 (1.835)
Area ratio: 10.63 µg/Kg
Sample type: 4.63665
CC



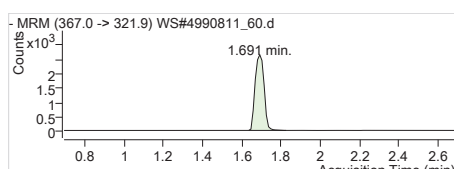
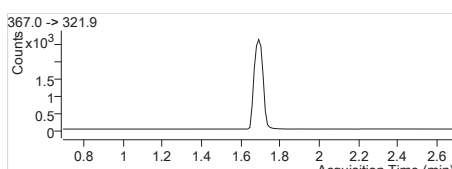
8:2-FTS 1
RT (Exp. RT): 527.0 -> 506.8
Calc. conc. 2.100 (2.100)
Area ratio: 11.01 µg/Kg
Sample type: 4.23018
CC



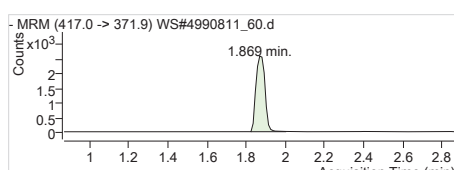
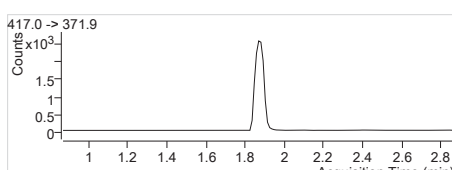
13C2-PFHxA
RT (Exp. RT): 315.0 -> 269.9
Calc. conc. 1.422 (1.433)
Area ratio: 90.07 µg/Kg
Sample type: 0.17345
CC



18O2-PFHxS
RT (Exp. RT): 403.0 -> 83.9
Calc. conc. 1.690 (1.690)
Area ratio: 91.61 µg/Kg
Sample type: 0.03270
CC

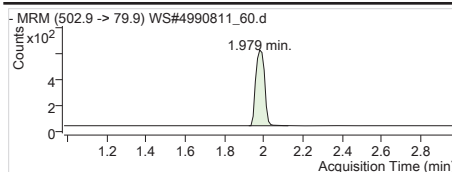
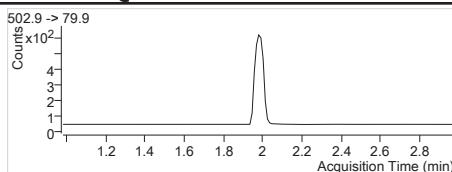


13C4-PFHpA
RT (Exp. RT): 367.0 -> 321.9
Calc. conc. 1.691 (1.691)
Area ratio: 91.02 µg/Kg
Sample type: 0.19124
CC

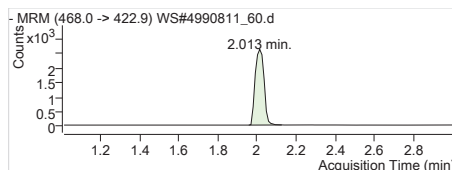
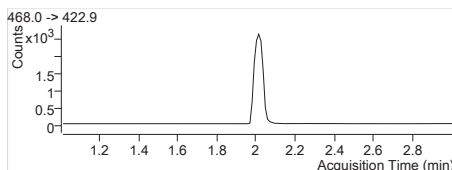


13C4-PFOA
RT (Exp. RT): 417.0 -> 371.9
Calc. conc. 1.869 (1.869)
Area ratio: 92.74 µg/Kg
Sample type: 0.18796
CC

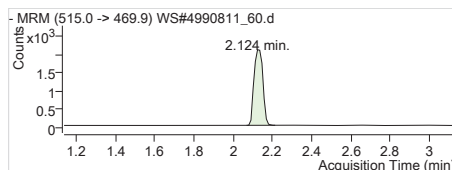
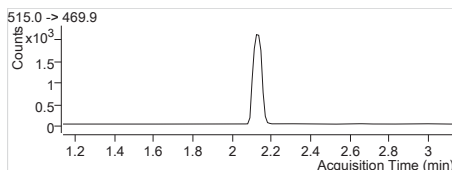
Quantitation Results



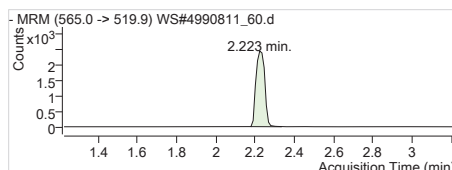
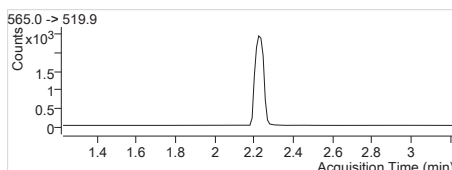
13C4-PFOS
RT (Exp. RT): 502.9 -> 79.9
Calc. conc. 1.979 (1.979)
Area ratio: 94.82 µg/Kg
Sample type: 0.04160
CC



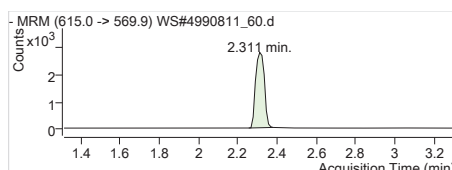
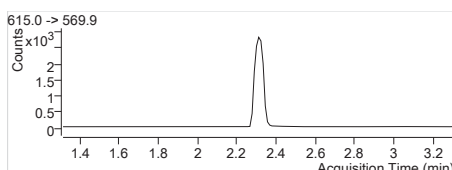
13C5-PFNA
RT (Exp. RT): 468.0 -> 422.9
Calc. conc. 2.013 (2.013)
Area ratio: 92.26 µg/Kg
Sample type: 0.18900
CC



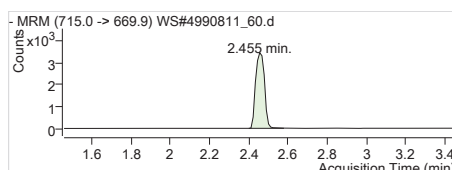
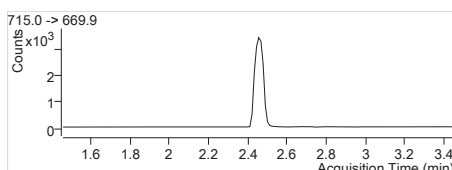
13C2-PFDA
RT (Exp. RT): 515.0 -> 469.9
Calc. conc. 2.124 (2.135)
Area ratio: 89.89 µg/Kg
Sample type: 0.16847
CC



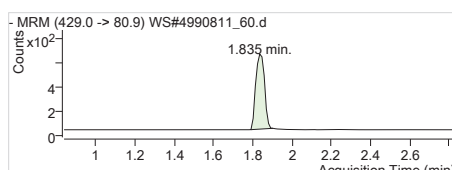
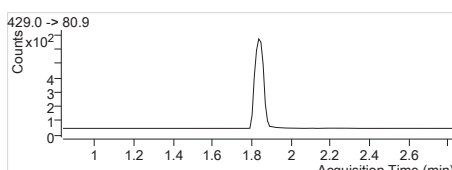
13C2-PFUnA
RT (Exp. RT): 565.0 -> 519.9
Calc. conc. 2.223 (2.223)
Area ratio: 89.45 µg/Kg
Sample type: 0.19337
CC



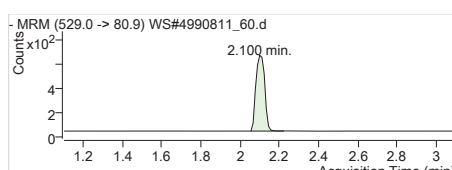
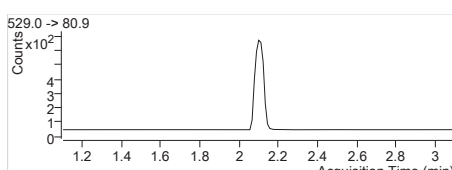
13C2-PFDoA
RT (Exp. RT): 615.0 -> 569.9
Calc. conc. 2.311 (2.311)
Area ratio: 89.55 µg/Kg
Sample type: 0.22198
CC



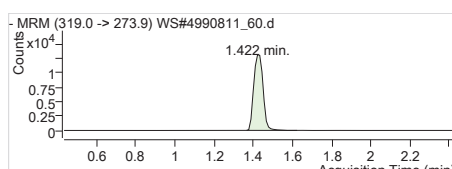
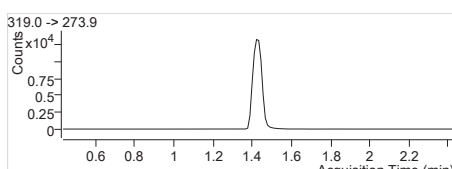
13C2-PFTeDA
RT (Exp. RT): 715.0 -> 669.9
Calc. conc. 2.455 (2.455)
Area ratio: 89.81 µg/Kg
Sample type: 0.27361
CC



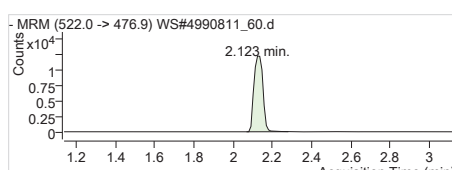
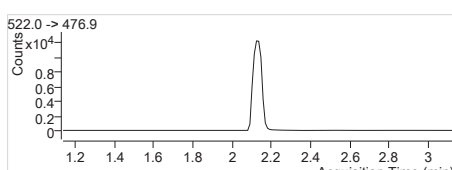
13C2-6:2-FTS
RT (Exp. RT): 429.0 -> 80.9
Calc. conc. 1.835 (1.835)
Area ratio: 90.79 µg/Kg
Sample type: 0.04432
CC



13C2-8:2 FTS
RT (Exp. RT): 529.0 -> 80.9
Calc. conc. 2.100 (2.100)
Area ratio: 89.58 µg/Kg
Sample type: 0.04511
CC



13C6-PFHxA
RT (Exp. RT): 319.0 -> 273.9
Calc. conc. 1.422 (1.433)
Area ratio: 107.43 µg/Kg
Sample type: 0
CC

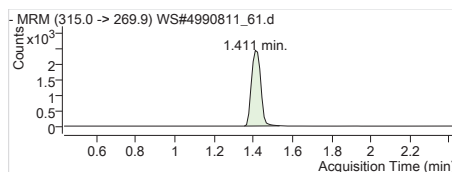
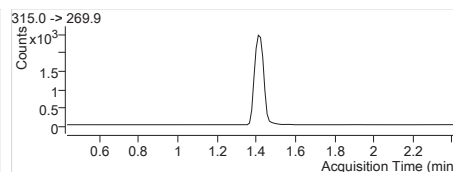


13C9-PFDA
RT (Exp. RT): 522.0 -> 476.9
Calc. conc. 2.123 (2.134)
Area ratio: 106.67 µg/Kg
Sample type: 0
CC

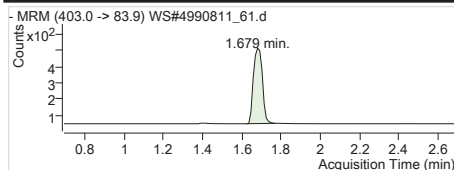
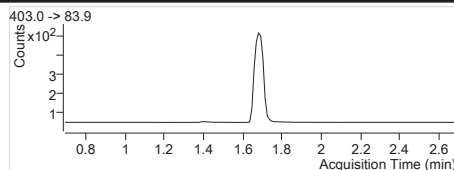
Batch Path	T:\lcms4\PFC\20170524\WS#4990811\QuantResults\PFC_Soil_170524_WS#4990811_CTLabs14		
Sample Name	ISC	Instrument	LCMS04
Data File	WS#4990811_61.d	Operator	M_G
Sample Type	CC	Dilution	1
Acq. Method	PFC_Soil.m	Position	P2-A2
Acq. Date	2017/05/25 2:41:14 PM	Injection Volume	Per Method
Sample Annotation	-		

ISTD Compounds	Response	RT	Target conc.		
MPFHxA	7955	1.41	1 µg/Kg		
MPFHxS	1485	1.68	1 µg/Kg		
MPFHpA	8520	1.68	1 µg/Kg		
MPFOA	8379	1.87	1 µg/Kg		
MPFOS	1675	1.98	1 µg/Kg		
MPFNA	8578	2.00	1 µg/Kg		
MPFDA	7015	2.12	1 µg/Kg		
MPFUnA	8378	2.22	1 µg/Kg		
MPFDoA	9181	2.31	1 µg/Kg		
MPFTeDA	11433	2.46	1 µg/Kg		
M2 6:2 FTS	1931	1.83	1 µg/Kg		
M2 8:2 FTS	2317	2.10	1 µg/Kg		
13C6-PFHxA IS	40121	1.41	1 µg/Kg		
13C9-PFDA IS	37678	2.12	1 µg/Kg		

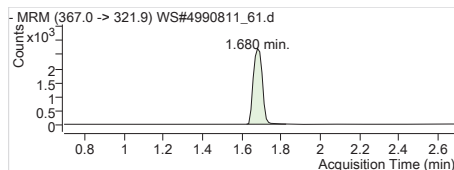
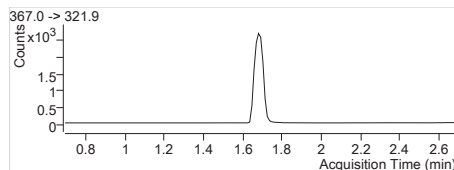
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	691	1.09	0.75	0.83 µg/Kg	111.14
PFHxA 1	2628	1.41	0.75	0.73 µg/Kg	97.39
PFHxS 1	517	1.68	0.75	0.79 µg/Kg	105.44
PFHpA 1	2908	1.68	0.75	0.81 µg/Kg	107.84
PFOA 1	2899	1.87	0.75	0.75 µg/Kg	100.17
PFOS 1	530	1.97	0.75	0.80 µg/Kg	106.95
PFNA 1	2628	2.00	0.75	0.73 µg/Kg	97.97
PFDA 1	3131	2.12	0.75	0.76 µg/Kg	100.69
PFUnA 1	2789	2.22	0.75	0.74 µg/Kg	99.22
PFDaA 1	3281	2.31	0.75	0.67 µg/Kg	89.36
PFTTrDA 1	3906	2.39	0.75	0.80 µg/Kg	106.42
PFTeDA 1	3783	2.46	0.75	0.80 µg/Kg	106.77
6:2-FTS 1	833	1.84	0.75	0.93 µg/Kg	123.70
8:2-FTS 1	687	2.10	0.75	0.74 µg/Kg	98.09
13C2-PFHxA	7955	1.41	100.00	102.96 µg/Kg	102.96
18O2-PFHxS	1485	1.68	100.00	103.70 µg/Kg	103.70
13C4-PFHpA	8520	1.68	100.00	101.07 µg/Kg	101.07
13C4-PFOA	8379	1.87	100.00	103.04 µg/Kg	103.04
13C4-PFOS	1675	1.98	100.00	95.15 µg/Kg	95.15
13C5-PFNA	8578	2.00	100.00	104.37 µg/Kg	104.37
13C2-PFDA	7015	2.12	100.00	99.34 µg/Kg	99.34
13C2-PFUnA	8378	2.22	100.00	102.86 µg/Kg	102.86
13C2-PFDoA	9181	2.31	100.00	98.30 µg/Kg	98.30
13C2-PFTeDA	11433	2.46	100.00	99.60 µg/Kg	99.60
13C2-6:2-FTS	1931	1.83	100.00	98.58 µg/Kg	98.58
13C2-8:2 FTS	2317	2.10	100.00	114.69 µg/Kg	114.69
13C6-PFHxA	40121	1.41	100.00	99.45 µg/Kg	99.45
13C9-PFDA	37678	2.12	100.00	103.39 µg/Kg	103.39



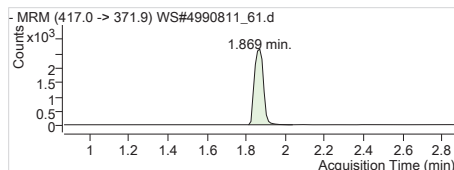
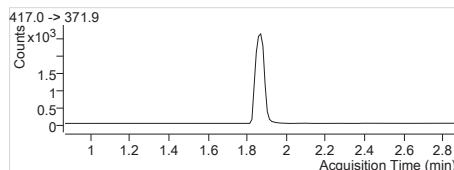
MPFHxA
 RT (Exp. RT): 1.411 (1.433)
 Concentration: 1 µg/Kg
 Sample type: CC



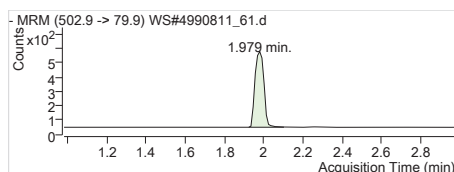
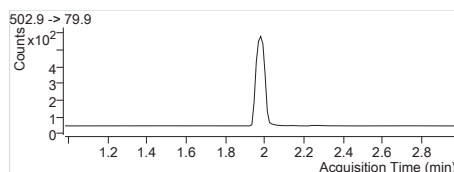
MPFHxS
RT (Exp. RT): 1.679 (1.690)
Concentration: 1 µg/Kg
Sample type: CC



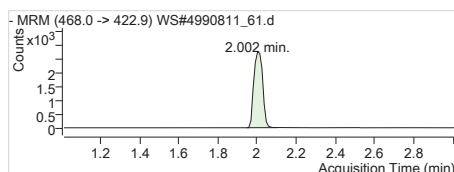
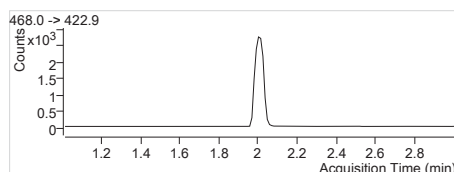
MPFHpA
RT (Exp. RT): 1.680 (1.691)
Concentration: 1 µg/Kg
Sample type: CC



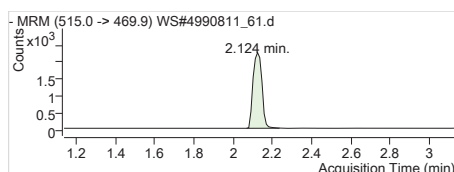
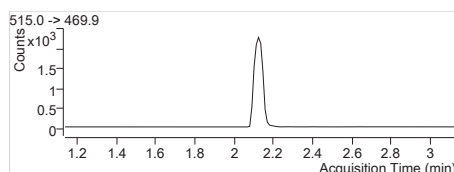
MPFOA
RT (Exp. RT): 1.869 (1.869)
Concentration: 1 µg/Kg
Sample type: CC



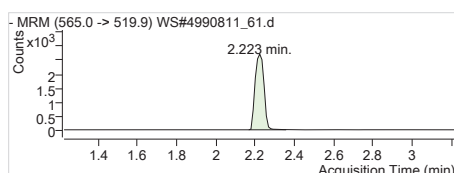
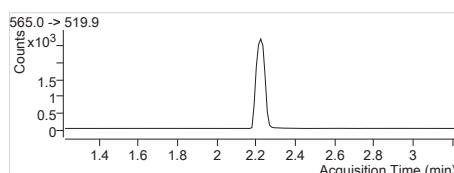
MPFOS
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/Kg
Sample type: CC



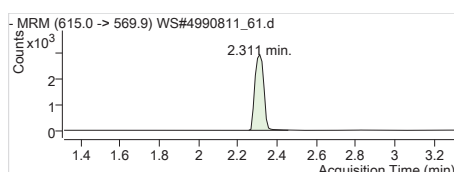
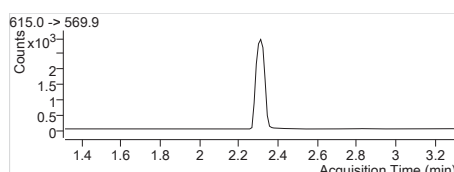
MPFNA
RT (Exp. RT): 2.002 (2.013)
Concentration: 1 µg/Kg
Sample type: CC



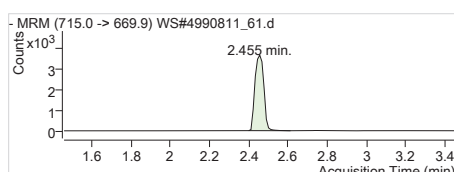
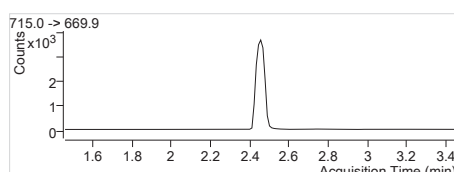
MPFDA
RT (Exp. RT): 2.124 (2.135)
Concentration: 1 µg/Kg
Sample type: CC



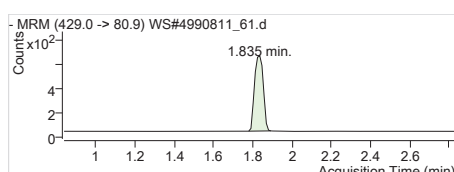
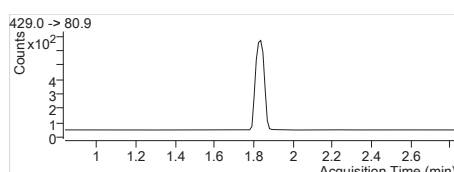
MPFUnA
RT (Exp. RT): 2.223 (2.223)
Concentration: 1 µg/Kg
Sample type: CC



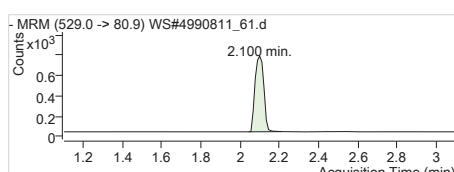
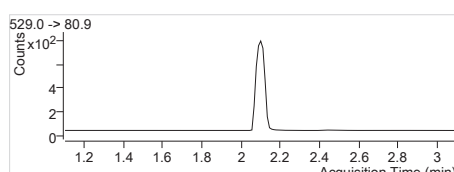
MPFDoA
RT (Exp. RT): 2.311 (2.311)
Concentration: 1 µg/Kg
Sample type: CC



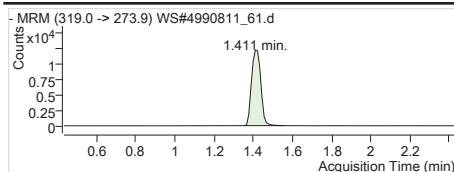
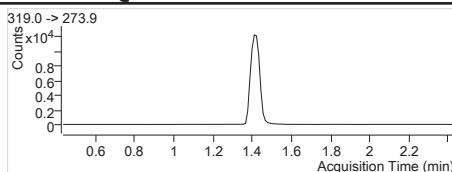
MPFTeDA
RT (Exp. RT): 2.455 (2.455)
Concentration: 1 µg/Kg
Sample type: CC



M2 6:2 FTS
RT (Exp. RT): 1.835 (1.835)
Concentration: 1 µg/Kg
Sample type: CC

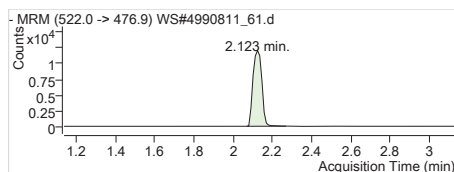
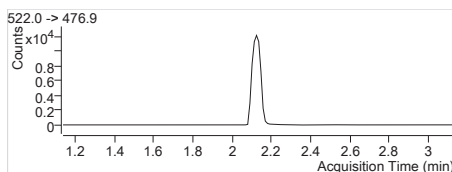


M2 8:2 FTS
RT (Exp. RT): 2.100 (2.100)
Concentration: 1 µg/Kg
Sample type: CC

**13C6-PFHxA IS**

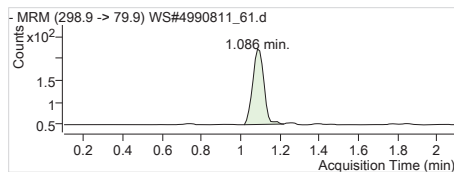
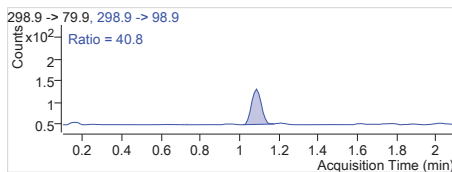
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
1.411 (1.433)
1 µg/Kg
CC

**13C9-PFDA IS**

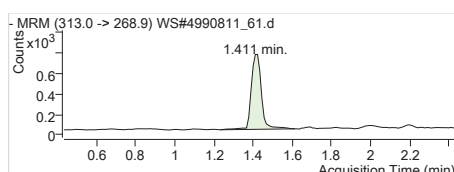
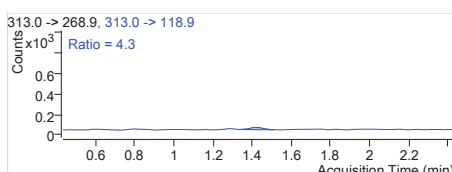
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
2.123 (2.134)
1 µg/Kg
CC

**PFBS 1**

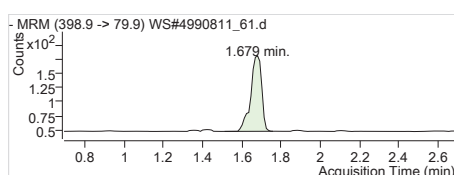
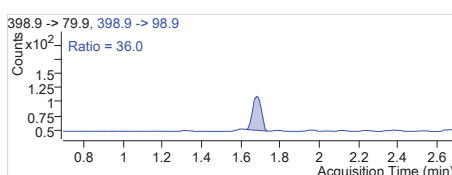
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

298.9 -> 79.9
1.086 (1.098)
0.83 µg/Kg
0.46532
CC

**PFHxA 1**

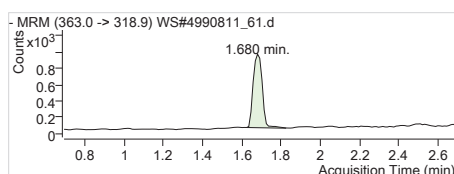
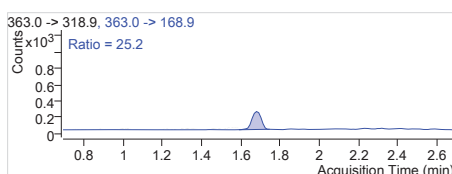
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

313.0 -> 268.9
1.411 (1.434)
0.73 µg/Kg
0.33036
CC

**PFHxS 1**

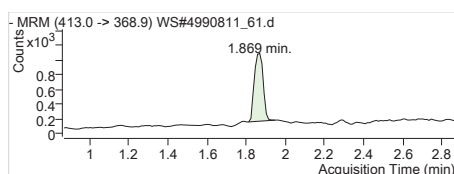
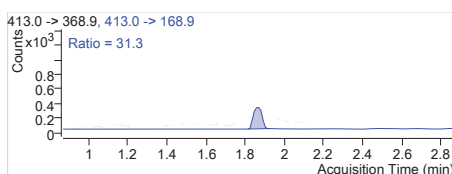
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

398.9 -> 79.9
1.679 (1.690)
0.79 µg/Kg
0.34815
CC

**PFHpA 1**

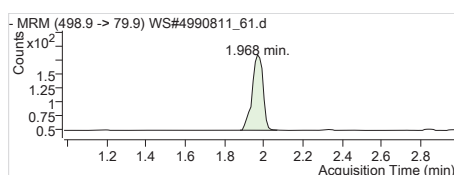
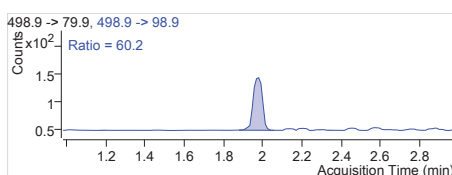
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

363.0 -> 318.9
1.680 (1.691)
0.81 µg/Kg
0.34131
CC

**PFOA 1**

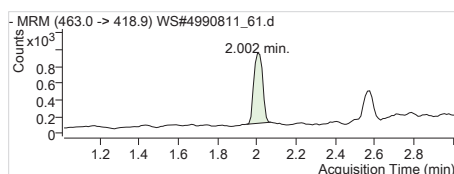
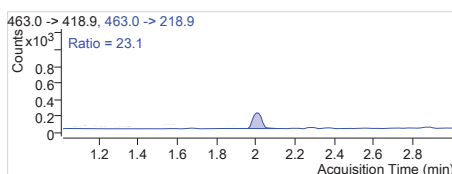
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

413.0 -> 368.9
1.869 (1.869)
0.75 µg/Kg
0.34598
CC

**PFOS 1**

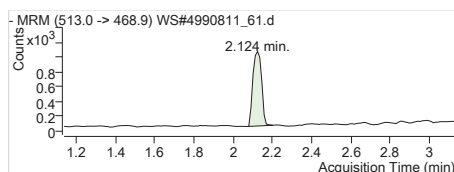
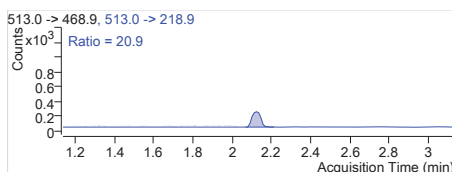
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

498.9 -> 79.9
1.968 (1.979)
0.80 µg/Kg
0.31642
CC

**PFNA 1**

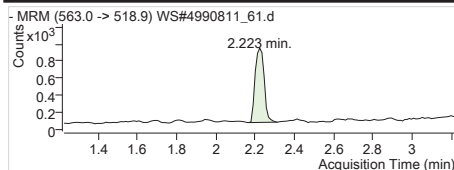
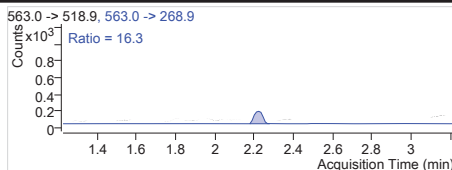
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

463.0 -> 418.9
2.002 (2.014)
0.73 µg/Kg
0.30637
CC

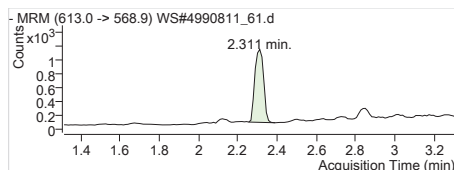
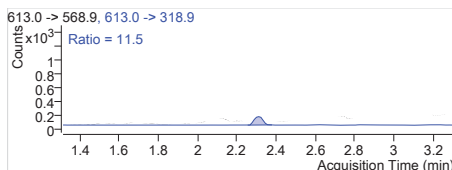
**PFDA 1**

RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

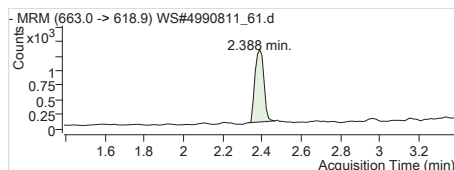
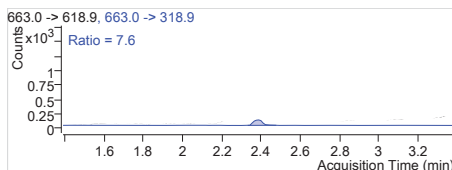
513.0 -> 468.9
2.124 (2.135)
0.76 µg/Kg
0.44633
CC



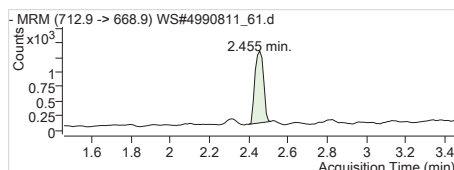
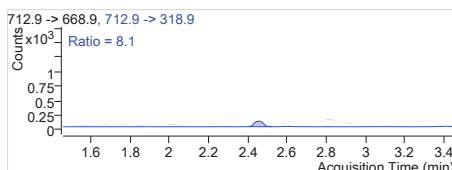
PFUnA 1
RT (Exp. RT): 563.0 -> 518.9
Calc. conc. 2.223 (2.223)
Area ratio: 0.74 µg/Kg
Sample type: 0.33290
CC



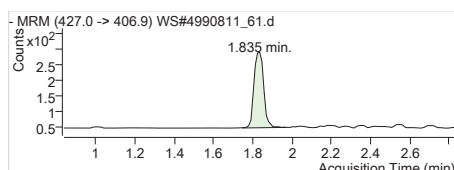
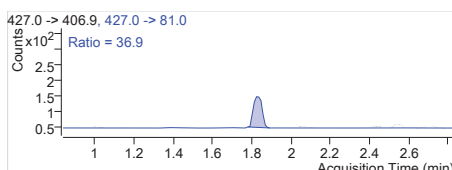
PFDoA 1
RT (Exp. RT): 613.0 -> 568.9
Calc. conc. 2.311 (2.311)
Area ratio: 0.67 µg/Kg
Sample type: 0.35737
CC



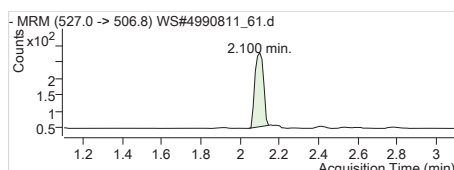
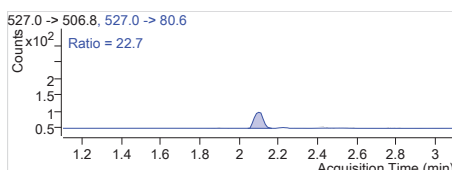
PFTrDA 1
RT (Exp. RT): 663.0 -> 618.9
Calc. conc. 2.388 (2.388)
Area ratio: 0.80 µg/Kg
Sample type: 0.34164
CC



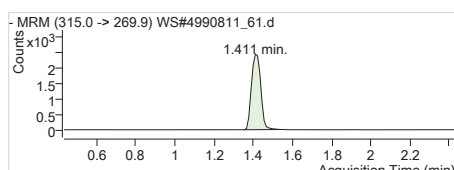
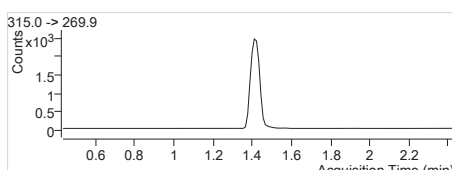
PFTEdA 1
RT (Exp. RT): 712.9 -> 668.9
Calc. conc. 2.455 (2.455)
Area ratio: 0.80 µg/Kg
Sample type: 0.33088
CC



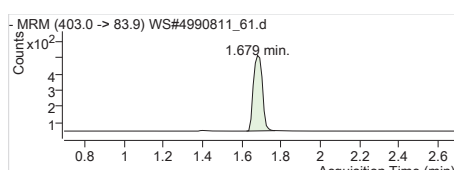
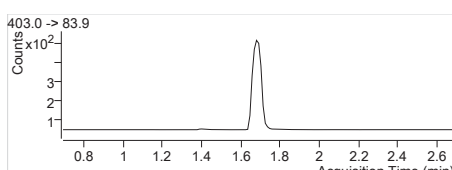
6:2-FTS 1
RT (Exp. RT): 427.0 -> 406.9
Calc. conc. 1.835 (1.835)
Area ratio: 0.93 µg/Kg
Sample type: 0.43138
CC



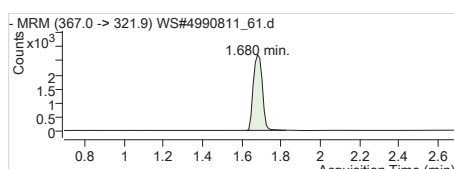
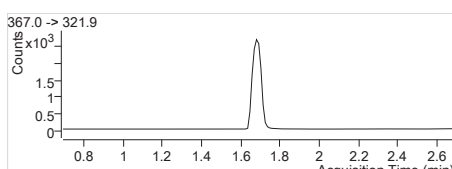
8:2-FTS 1
RT (Exp. RT): 527.0 -> 506.8
Calc. conc. 2.100 (2.100)
Area ratio: 0.74 µg/Kg
Sample type: 0.29650
CC



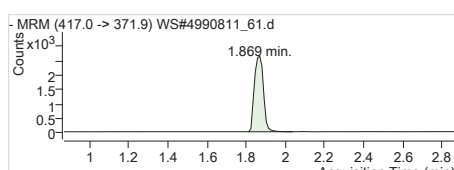
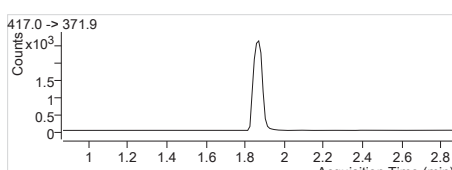
13C2-PFHxA
RT (Exp. RT): 315.0 -> 269.9
Calc. conc. 1.411 (1.433)
Area ratio: 102.96 µg/Kg
Sample type: 0.19828
CC



18O2-PFHxS
RT (Exp. RT): 403.0 -> 83.9
Calc. conc. 1.679 (1.690)
Area ratio: 103.70 µg/Kg
Sample type: 0.03701
CC

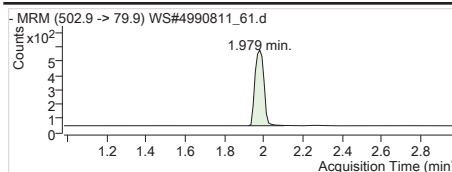
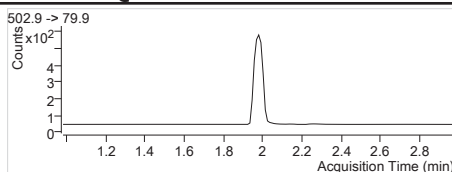


13C4-PFHpA
RT (Exp. RT): 367.0 -> 321.9
Calc. conc. 1.680 (1.691)
Area ratio: 101.07 µg/Kg
Sample type: 0.21236
CC

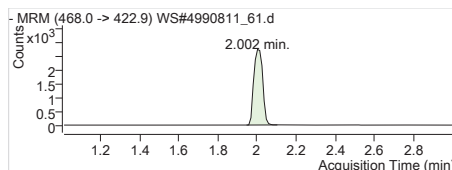
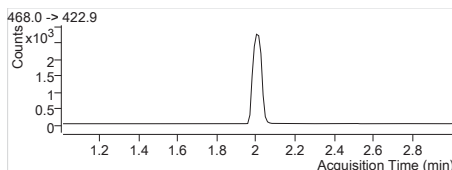


13C4-PFOA
RT (Exp. RT): 417.0 -> 371.9
Calc. conc. 1.869 (1.869)
Area ratio: 103.04 µg/Kg
Sample type: 0.20884
CC

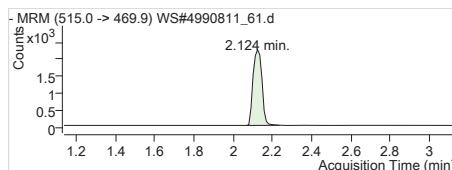
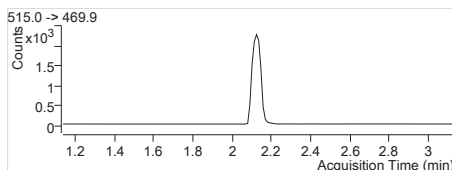
Quantitation Results



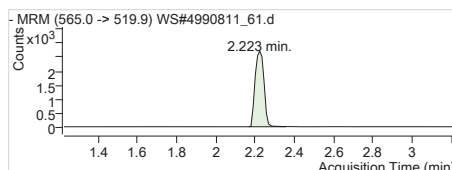
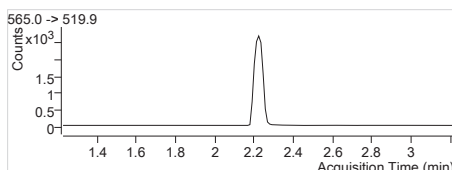
13C4-PFOS
RT (Exp. RT): 502.9 -> 79.9
Calc. conc. 1.979 (1.979)
Area ratio: 95.15 µg/Kg
Sample type: 0.04175
CC



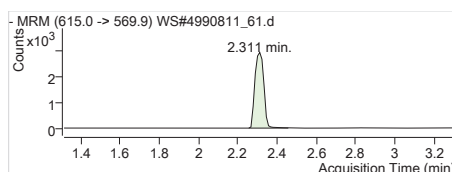
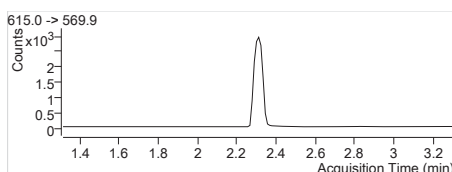
13C5-PFNA
RT (Exp. RT): 468.0 -> 422.9
Calc. conc. 2.002 (2.013)
Area ratio: 104.37 µg/Kg
Sample type: 0.21380
CC



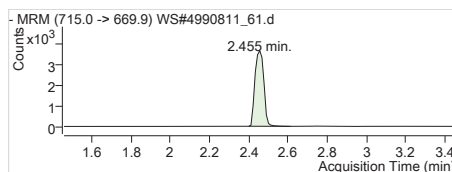
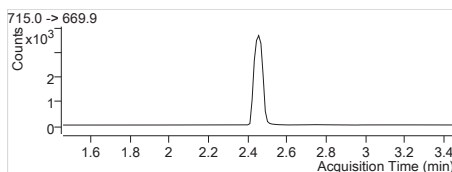
13C2-PFDA
RT (Exp. RT): 515.0 -> 469.9
Calc. conc. 2.124 (2.135)
Area ratio: 99.34 µg/Kg
Sample type: 0.18618
CC



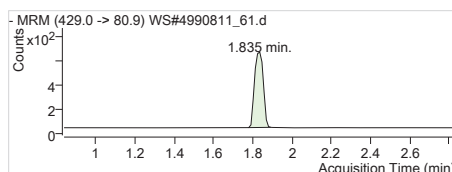
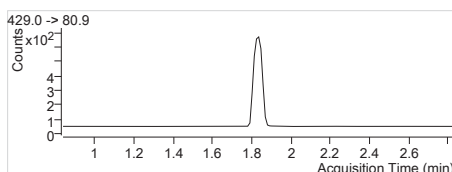
13C2-PFUnA
RT (Exp. RT): 565.0 -> 519.9
Calc. conc. 2.223 (2.223)
Area ratio: 102.86 µg/Kg
Sample type: 0.22236
CC



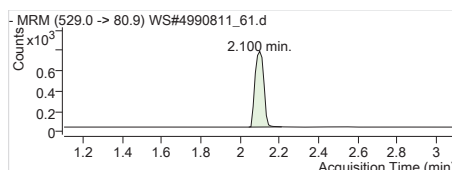
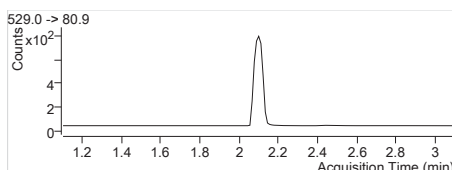
13C2-PFDoA
RT (Exp. RT): 615.0 -> 569.9
Calc. conc. 2.311 (2.311)
Area ratio: 98.30 µg/Kg
Sample type: 0.24367
CC



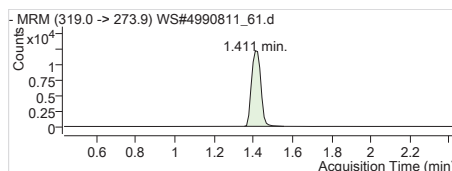
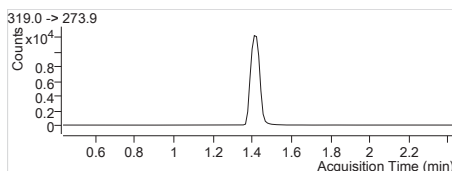
13C2-PFTeDA
RT (Exp. RT): 715.0 -> 669.9
Calc. conc. 2.455 (2.455)
Area ratio: 99.60 µg/Kg
Sample type: 0.30344
CC



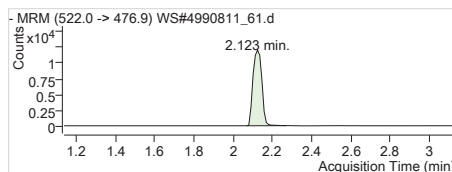
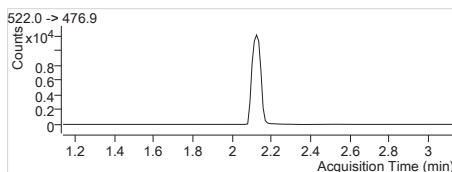
13C2-6:2-FTS
RT (Exp. RT): 429.0 -> 80.9
Calc. conc. 1.835 (1.835)
Area ratio: 98.58 µg/Kg
Sample type: 0.04813
CC



13C2-8:2 FTS
RT (Exp. RT): 529.0 -> 80.9
Calc. conc. 2.100 (2.100)
Area ratio: 114.69 µg/Kg
Sample type: 0.05775
CC



13C6-PFHxA
RT (Exp. RT): 319.0 -> 273.9
Calc. conc. 1.411 (1.433)
Area ratio: 99.45 µg/Kg
Sample type: 0
CC



13C9-PFDA
RT (Exp. RT): 522.0 -> 476.9
Calc. conc. 2.123 (2.134)
Area ratio: 103.39 µg/Kg
Sample type: 0
CC

Batch Path

T:\lcms4\PFC\20170524\WS#4990811\QuantResults\PFC_Soil_170524_WS#4990811_CTLabs14

Sample Name

CCV

Instrument

LCMS04

Data File

WS#4990811_74.d

Operator

M_G

Sample Type

CC

Dilution

1

Acq. Method

PFC_Soil.m

Position

P2-A5

Acq. Date

2017/05/25 3:44:55 PM

Injection Volume

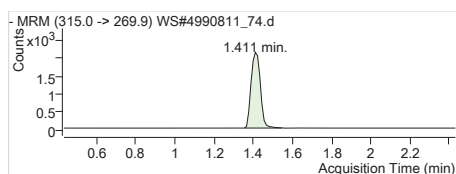
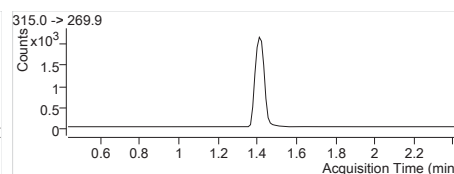
Per Method

Sample Annotation

-

ISTD Compounds	Response	RT	Target conc.		
MPFHxA	6936	1.41	1 µg/Kg		
MPFHxS	1424	1.68	1 µg/Kg		
MPFHpA	8089	1.68	1 µg/Kg		
MPFOA	7500	1.87	1 µg/Kg		
MPFOS	1707	1.98	1 µg/Kg		
MPFNA	7757	2.00	1 µg/Kg		
MPFDA	6244	2.12	1 µg/Kg		
MPFUnA	7643	2.22	1 µg/Kg		
MPFDoA	8513	2.31	1 µg/Kg		
MPFTeDA	10806	2.46	1 µg/Kg		
M2 6:2 FTS	2073	1.83	1 µg/Kg		
M2 8:2 FTS	1878	2.10	1 µg/Kg		
13C6-PFHxA IS	41853	1.41	1 µg/Kg		
13C9-PFDA IS	37814	2.12	1 µg/Kg		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	9215	1.09	11.30	10.18 µg/Kg	90.11
PFHxA 1	36454	1.41	11.30	11.28 µg/Kg	99.86
PFHxS 1	7583	1.68	11.30	10.37 µg/Kg	91.74
PFHpA 1	42322	1.68	11.30	10.80 µg/Kg	95.55
PFOA 1	39358	1.87	11.30	11.09 µg/Kg	98.14
PFOS 1	7148	1.97	11.30	10.66 µg/Kg	94.38
PFNA 1	33736	2.00	11.30	10.39 µg/Kg	91.96
PFDA 1	37617	2.12	11.30	11.27 µg/Kg	99.73
PFUnA 1	37681	2.22	11.30	10.03 µg/Kg	88.76
PFDaA 1	40146	2.31	11.30	10.45 µg/Kg	92.51
PFTTrDA 1	48551	2.39	11.30	10.75 µg/Kg	95.16
PFTeDA 1	45317	2.46	11.30	10.42 µg/Kg	92.24
6:2-FTS 1	8878	1.84	11.30	9.82 µg/Kg	86.88
8:2-FTS 1	7755	2.10	11.30	10.75 µg/Kg	95.10
13C2-PFHxA	6936	1.41	100.00	86.05 µg/Kg	86.05
18O2-PFHxS	1424	1.68	100.00	95.33 µg/Kg	95.33
13C4-PFHpA	8089	1.68	100.00	91.99 µg/Kg	91.99
13C4-PFOA	7500	1.87	100.00	88.42 µg/Kg	88.42
13C4-PFOS	1707	1.98	100.00	92.96 µg/Kg	92.96
13C5-PFNA	7757	2.00	100.00	90.48 µg/Kg	90.48
13C2-PFDA	6244	2.12	100.00	88.10 µg/Kg	88.10
13C2-PFUnA	7643	2.22	100.00	93.50 µg/Kg	93.50
13C2-PFDoA	8513	2.31	100.00	90.82 µg/Kg	90.82
13C2-PFTeDA	10806	2.46	100.00	93.80 µg/Kg	93.80
13C2-6:2-FTS	2073	1.83	100.00	101.45 µg/Kg	101.45
13C2-8:2 FTS	1878	2.10	100.00	89.11 µg/Kg	89.11
13C6-PFHxA	41853	1.41	100.00	103.75 µg/Kg	103.75
13C9-PFDA	37814	2.12	100.00	103.76 µg/Kg	103.76



MPFHxA

Internal Standard

RT (Exp. RT):

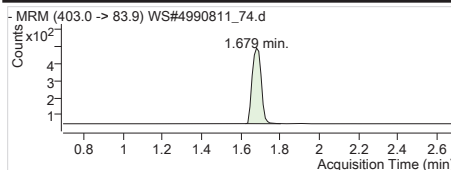
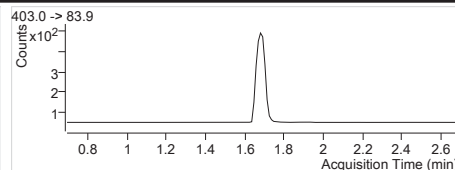
1.411 (1.433)

Concentration:

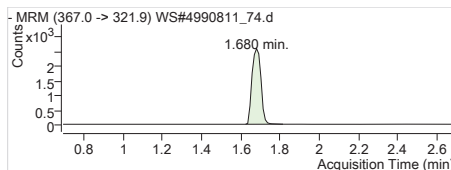
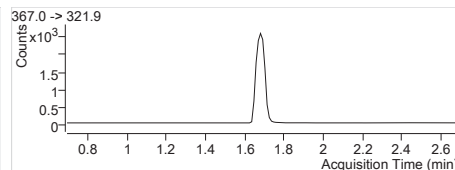
1 µg/Kg

Sample type:

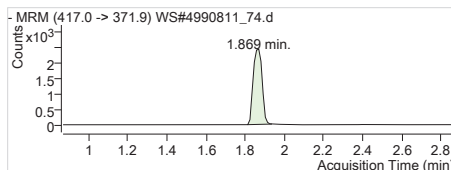
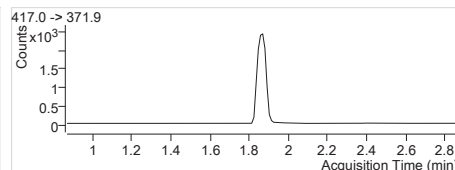
CC



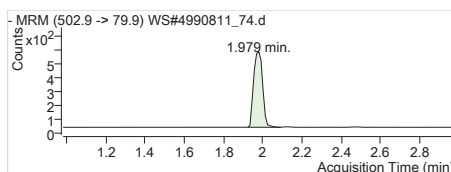
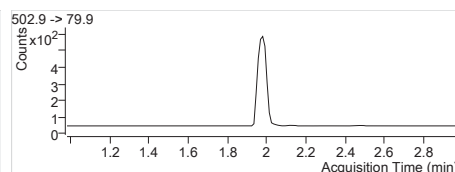
MPFHxS
RT (Exp. RT): 1.679 (1.690)
Concentration: 1 µg/Kg
Sample type: CC



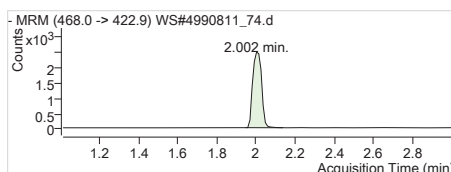
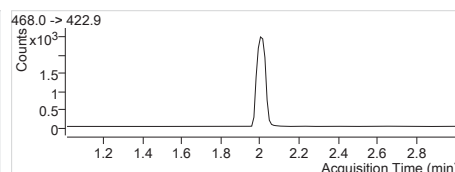
MPFHpA
RT (Exp. RT): 1.680 (1.691)
Concentration: 1 µg/Kg
Sample type: CC



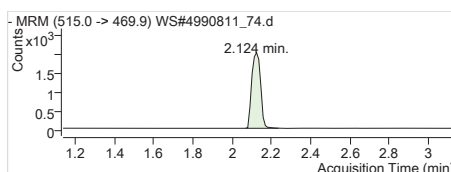
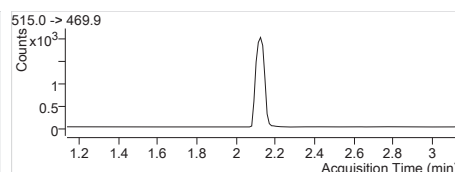
MPFOA
RT (Exp. RT): 1.869 (1.869)
Concentration: 1 µg/Kg
Sample type: CC



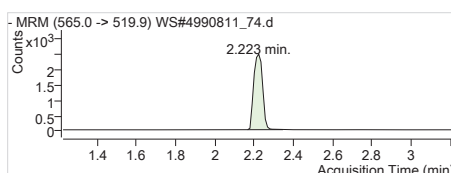
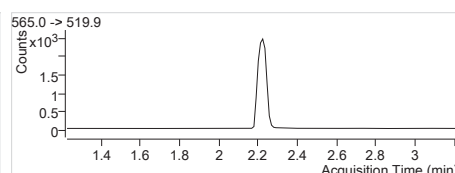
MPFOS
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/Kg
Sample type: CC



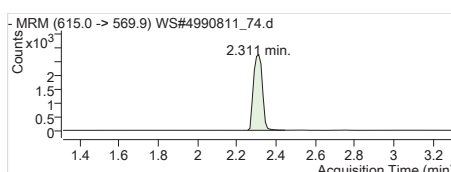
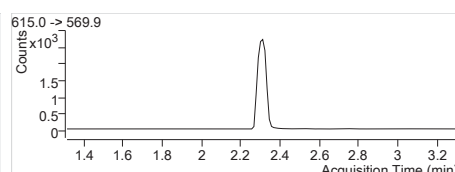
MPFNA
RT (Exp. RT): 2.002 (2.013)
Concentration: 1 µg/Kg
Sample type: CC



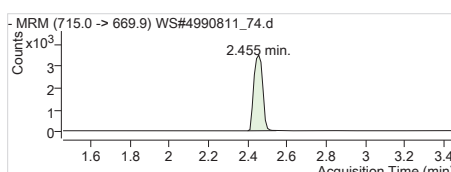
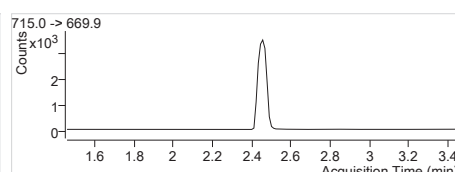
MPFDA
RT (Exp. RT): 2.124 (2.135)
Concentration: 1 µg/Kg
Sample type: CC



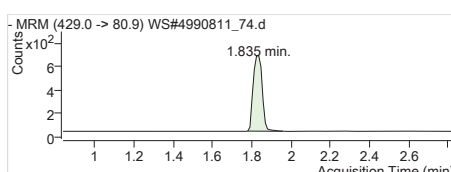
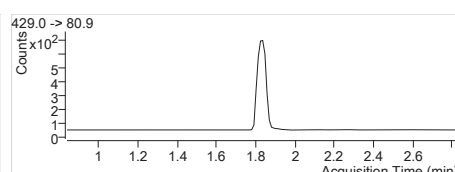
MPFUnA
RT (Exp. RT): 2.223 (2.223)
Concentration: 1 µg/Kg
Sample type: CC



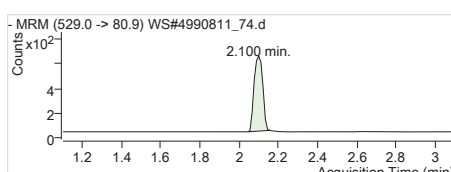
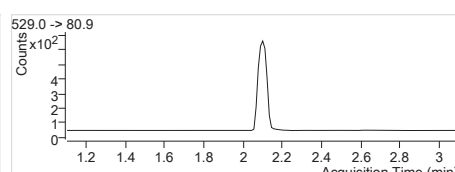
MPFDoA
RT (Exp. RT): 2.311 (2.311)
Concentration: 1 µg/Kg
Sample type: CC



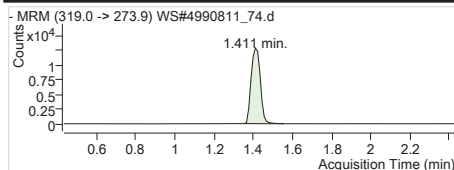
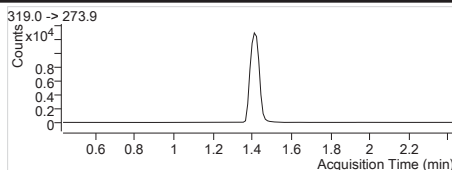
MPFTeDA
RT (Exp. RT): 2.455 (2.455)
Concentration: 1 µg/Kg
Sample type: CC



M2 6:2 FTS
RT (Exp. RT): 1.835 (1.835)
Concentration: 1 µg/Kg
Sample type: CC

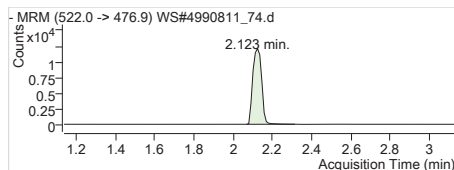
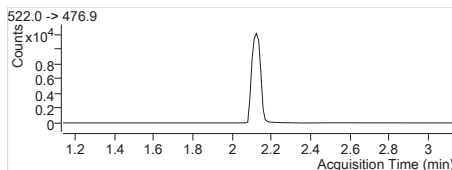


M2 8:2 FTS
RT (Exp. RT): 2.100 (2.100)
Concentration: 1 µg/Kg
Sample type: CC

**13C6-PFHxA IS**

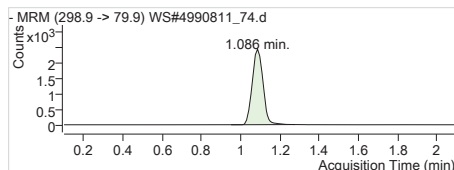
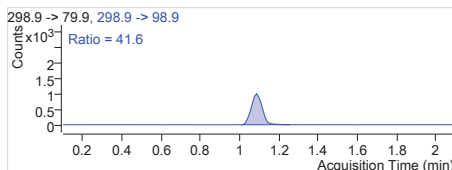
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
1.411 (1.433)
1 µg/Kg
CC

**13C9-PFDA IS**

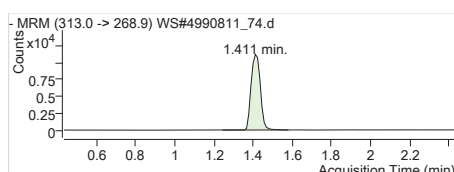
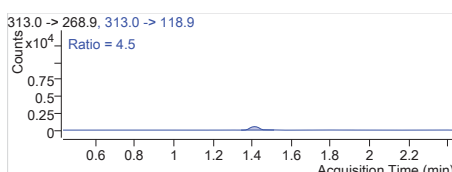
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
2.123 (2.134)
1 µg/Kg
CC

**PFBS 1**

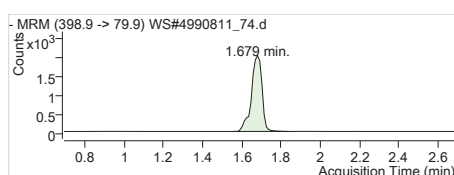
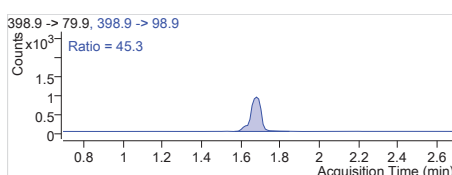
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

298.9 -> 79.9
1.086 (1.098)
10.18 µg/Kg
6.47121
CC

**PFHxA 1**

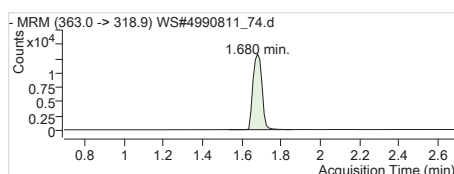
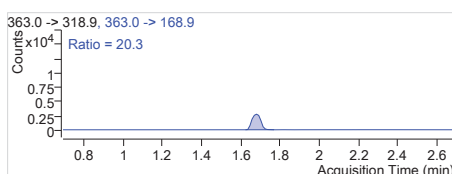
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

313.0 -> 268.9
1.411 (1.434)
11.28 µg/Kg
5.25577
CC

**PFHxS 1**

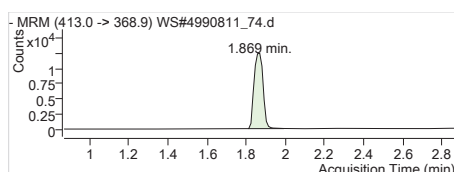
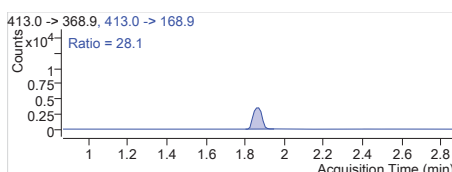
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

398.9 -> 79.9
1.679 (1.690)
10.37 µg/Kg
5.32514
CC

**PFHpA 1**

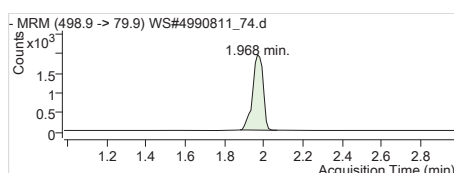
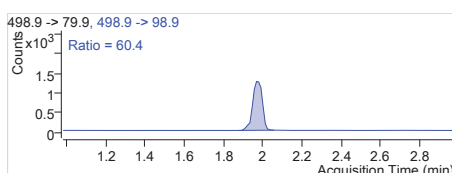
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

363.0 -> 318.9
1.680 (1.691)
10.80 µg/Kg
5.23204
CC

**PFOA 1**

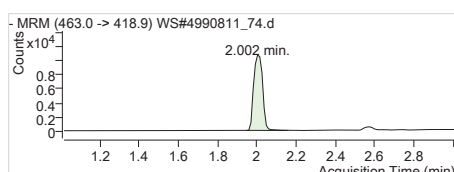
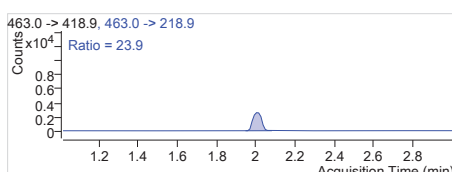
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

413.0 -> 368.9
1.869 (1.869)
11.09 µg/Kg
5.24773
CC

**PFOS 1**

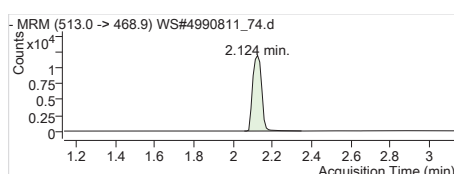
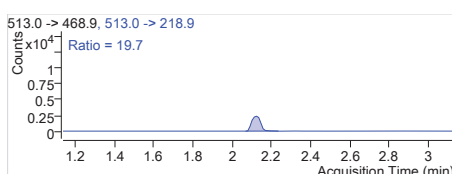
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

498.9 -> 79.9
1.968 (1.979)
10.66 µg/Kg
4.18746
CC

**PFNA 1**

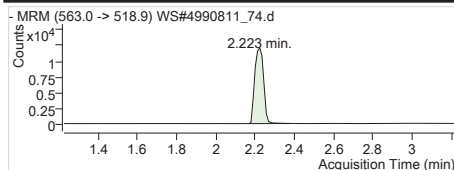
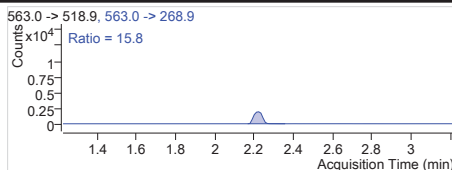
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

463.0 -> 418.9
2.002 (2.014)
10.39 µg/Kg
4.34910
CC

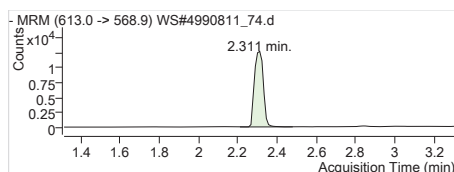
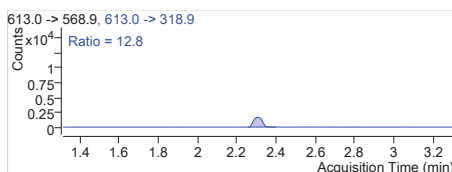
**PFDA 1**

RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

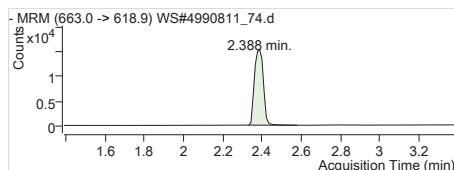
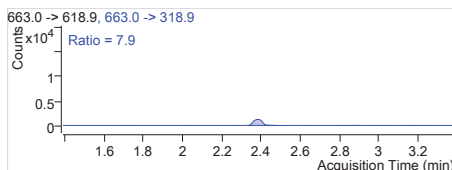
513.0 -> 468.9
2.124 (2.135)
11.27 µg/Kg
6.02450
CC



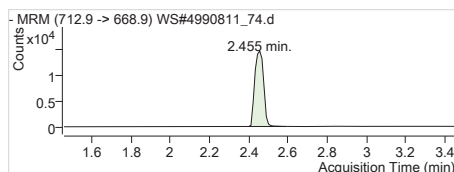
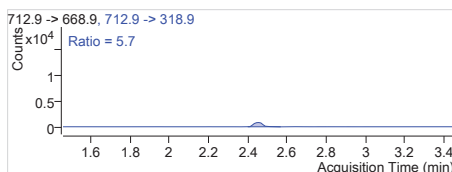
PFUnA 1
RT (Exp. RT): 563.0 -> 518.9
Calc. conc. 2.223 (2.223)
Area ratio: 10.03 µg/Kg
Sample type: 4.93013
CC



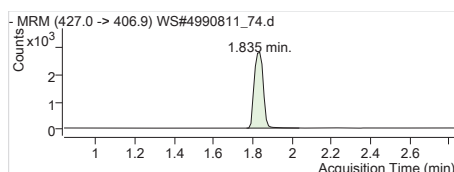
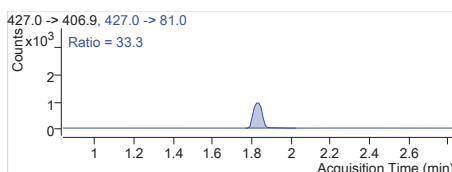
PFDoA 1
RT (Exp. RT): 613.0 -> 568.9
Calc. conc. 2.311 (2.311)
Area ratio: 10.45 µg/Kg
Sample type: 4.71585
CC



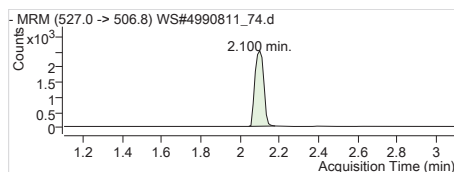
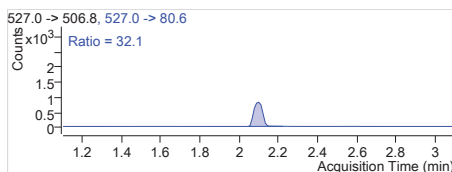
PFTrDA 1
RT (Exp. RT): 663.0 -> 618.9
Calc. conc. 2.388 (2.388)
Area ratio: 10.75 µg/Kg
Sample type: 4.49297
CC



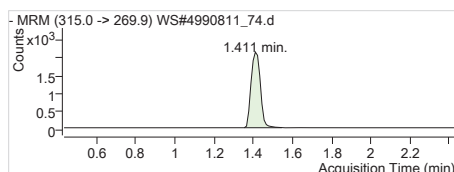
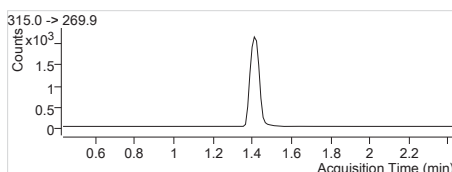
PFTEdA 1
RT (Exp. RT): 712.9 -> 668.9
Calc. conc. 2.455 (2.455)
Area ratio: 10.42 µg/Kg
Sample type: 4.19369
CC



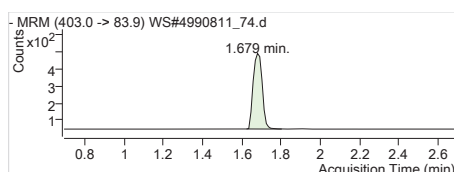
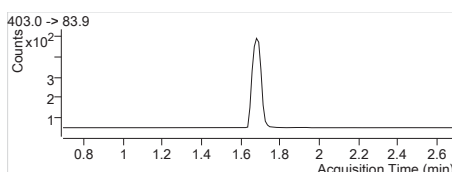
6:2-FTS 1
RT (Exp. RT): 427.0 -> 406.9
Calc. conc. 1.835 (1.835)
Area ratio: 9.82 µg/Kg
Sample type: 4.28268
CC



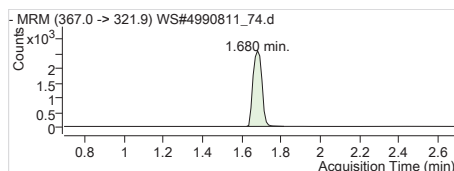
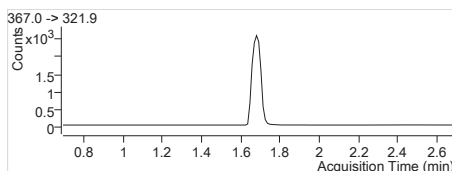
8:2-FTS 1
RT (Exp. RT): 527.0 -> 506.8
Calc. conc. 2.100 (2.100)
Area ratio: 10.75 µg/Kg
Sample type: 4.12939
CC



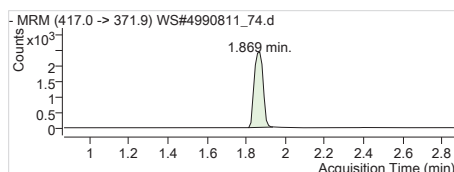
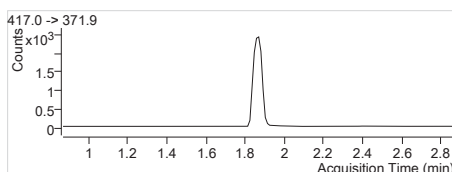
13C2-PFHxA
RT (Exp. RT): 315.0 -> 269.9
Calc. conc. 1.411 (1.433)
Area ratio: 86.05 µg/Kg
Sample type: 0.16572
CC



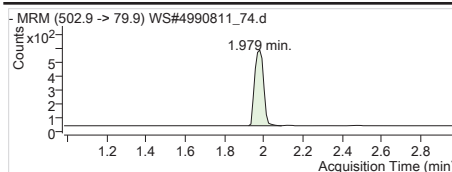
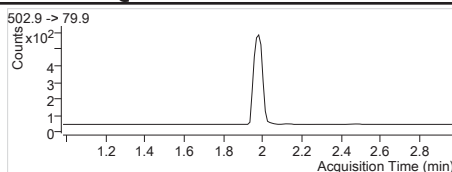
18O2-PFHxS
RT (Exp. RT): 403.0 -> 83.9
Calc. conc. 1.679 (1.690)
Area ratio: 95.33 µg/Kg
Sample type: 0.03402
CC



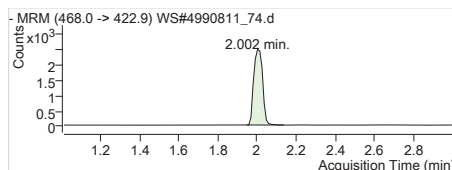
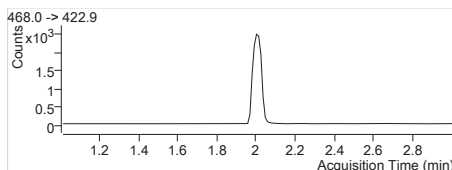
13C4-PFHpA
RT (Exp. RT): 367.0 -> 321.9
Calc. conc. 1.680 (1.691)
Area ratio: 91.99 µg/Kg
Sample type: 0.19327
CC



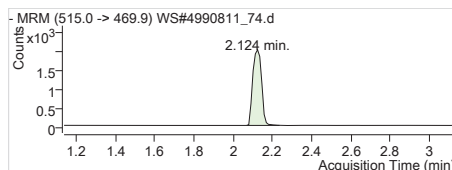
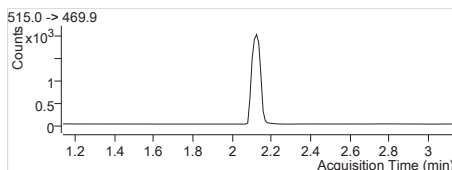
13C4-PFOA
RT (Exp. RT): 417.0 -> 371.9
Calc. conc. 1.869 (1.869)
Area ratio: 88.42 µg/Kg
Sample type: 0.17920
CC



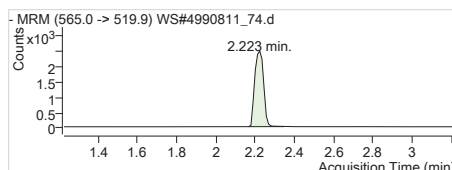
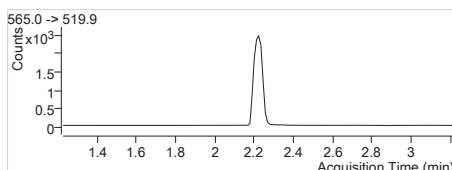
13C4-PFOS
RT (Exp. RT): 502.9 -> 79.9
Calc. conc. 1.979 (1.979)
Area ratio: 92.96 µg/Kg
Sample type: 0.04079
CC



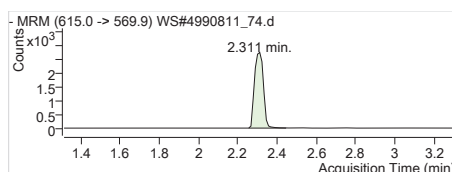
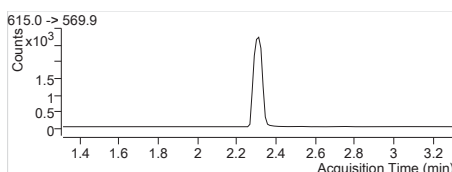
13C5-PFNA
RT (Exp. RT): 468.0 -> 422.9
Calc. conc. 2.002 (2.013)
Area ratio: 90.48 µg/Kg
Sample type: 0.18534
CC



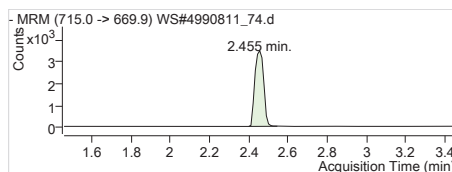
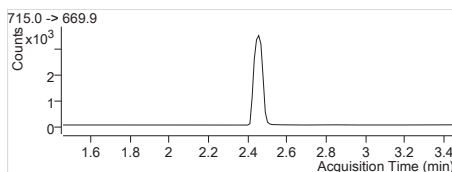
13C2-PFDA
RT (Exp. RT): 515.0 -> 469.9
Calc. conc. 2.124 (2.135)
Area ratio: 88.10 µg/Kg
Sample type: 0.16512
CC



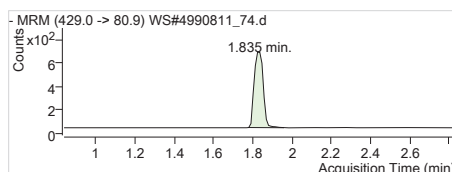
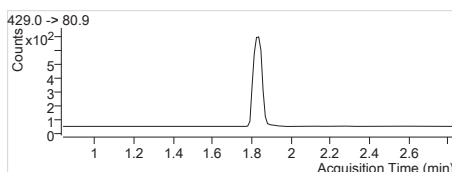
13C2-PFUnA
RT (Exp. RT): 565.0 -> 519.9
Calc. conc. 2.223 (2.223)
Area ratio: 93.50 µg/Kg
Sample type: 0.20212
CC



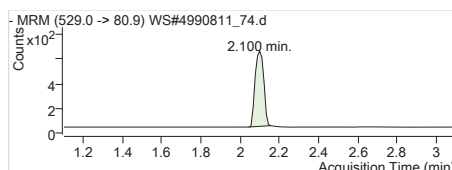
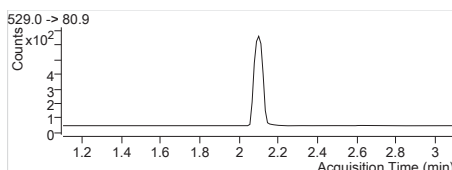
13C2-PFDoA
RT (Exp. RT): 615.0 -> 569.9
Calc. conc. 2.311 (2.311)
Area ratio: 90.82 µg/Kg
Sample type: 0.22513
CC



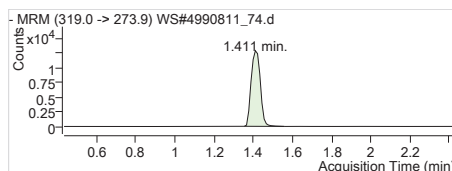
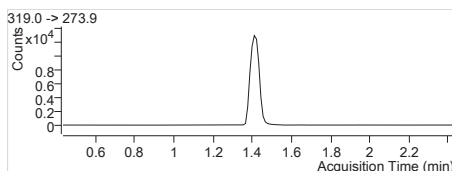
13C2-PFTeDA
RT (Exp. RT): 715.0 -> 669.9
Calc. conc. 2.455 (2.455)
Area ratio: 93.80 µg/Kg
Sample type: 0.28577
CC



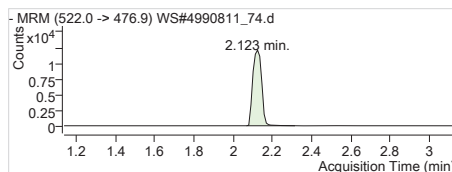
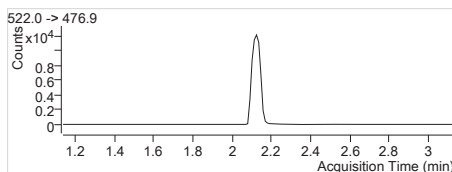
13C2-6:2-FTS
RT (Exp. RT): 429.0 -> 80.9
Calc. conc. 1.835 (1.835)
Area ratio: 101.45 µg/Kg
Sample type: 0.04953
CC



13C2-8:2 FTS
RT (Exp. RT): 529.0 -> 80.9
Calc. conc. 2.100 (2.100)
Area ratio: 89.11 µg/Kg
Sample type: 0.04487
CC



13C6-PFHxA
RT (Exp. RT): 319.0 -> 273.9
Calc. conc. 1.411 (1.433)
Area ratio: 103.75 µg/Kg
Sample type: 0
CC



13C9-PFDA
RT (Exp. RT): 522.0 -> 476.9
Calc. conc. 2.123 (2.134)
Area ratio: 103.76 µg/Kg
Sample type: 0
CC

Sample Name

ISC

Instrument

LCMS04

Data File

WS#4990811_FOSAA_18.d

Operator

AD

Sample Type

CC

Dilution

1

Acq. Method

PFC_Soil_FOSAA.m

Position

P2-A2

Acq. Date

2017/05/25 1:52:22 AM

Injection Volume

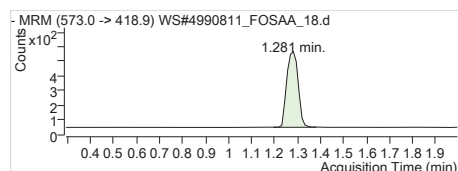
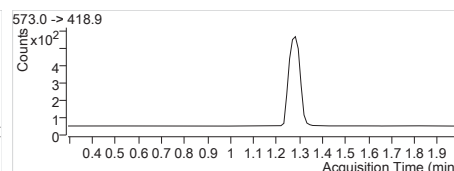
Per Method

Sample Annotation

-

ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1782	1.28	1 µg/Kg		
D5-EtFOSAA IS	1560	1.31	1 µg/Kg		
13C9-PFDA IS	31301	0.85	1 µg/Kg		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	522	1.28	0.75	0.66 µg/Kg	87.71
EtFOSAA 1	509	1.30	0.75	0.73 µg/Kg	97.43
D3-MeFOSAA	1789	1.28	100.00	105.72 µg/Kg	105.72
D5-EtFOSAA	1562	1.31	100.00	103.20 µg/Kg	103.20
13C9-PFDA	31938	0.85	100.00	101.99 µg/Kg	101.99

**D3-MeFOSAA IS**

Internal Standard

RT (Exp. RT):

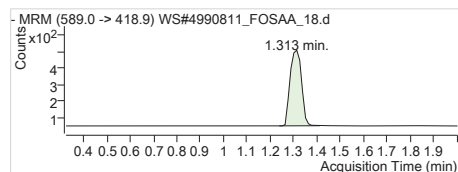
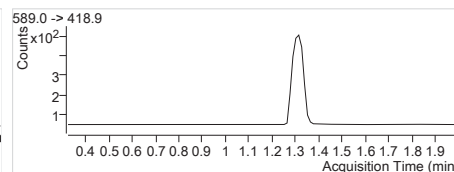
1.281 (1.281)

Concentration:

1 µg/Kg

Sample type:

CC

**D5-EtFOSAA IS**

Internal Standard

RT (Exp. RT):

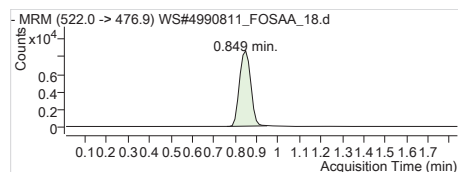
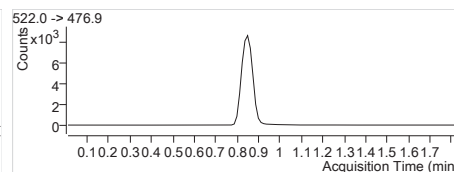
1.313 (1.313)

Concentration:

1 µg/Kg

Sample type:

CC

**13C9-PFDA IS**

Internal Standard

RT (Exp. RT):

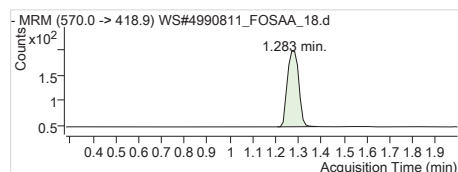
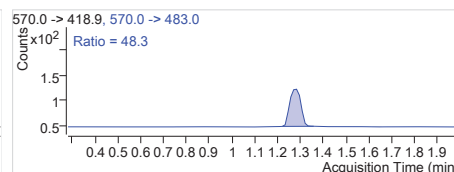
0.849 (0.849)

Concentration:

1 µg/Kg

Sample type:

CC

**MeFOSAA 1**

570.0 -> 418.9

RT (Exp. RT):

1.283 (1.271)

Calc. conc.

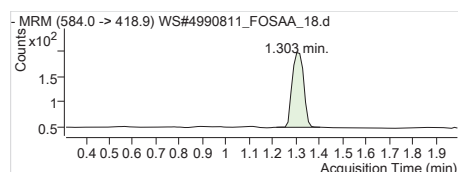
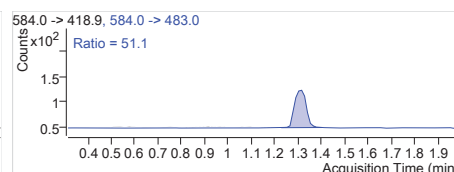
0.66 µg/Kg

Area ratio:

0.29293

Sample type:

CC

**EtFOSAA 1**

584.0 -> 418.9

RT (Exp. RT):

1.303 (1.303)

Calc. conc.

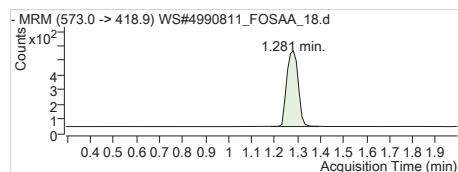
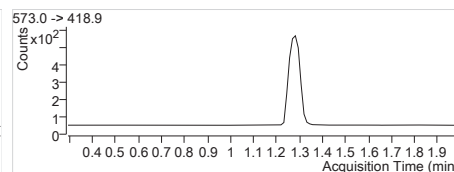
0.73 µg/Kg

Area ratio:

0.32628

Sample type:

CC

**D3-MeFOSAA**

573.0 -> 418.9

RT (Exp. RT):

1.281 (1.281)

Calc. conc.

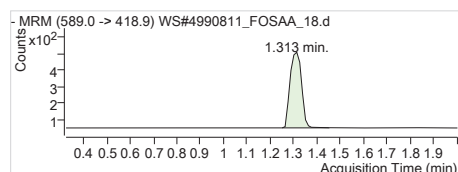
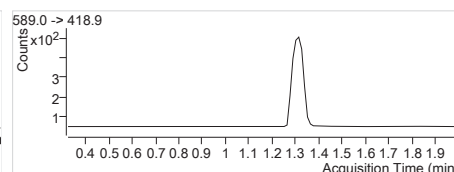
105.72 µg/Kg

Area ratio:

0.05715

Sample type:

CC

**D5-EtFOSAA**

589.0 -> 418.9

RT (Exp. RT):

1.313 (1.313)

Calc. conc.

103.20 µg/Kg

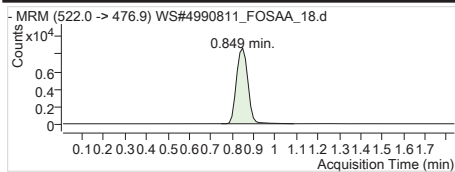
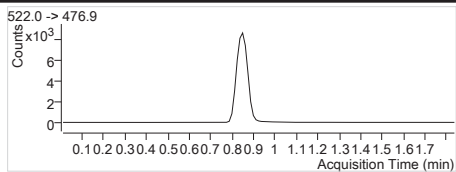
Area ratio:

0.04989

Sample type:

CC

Quantitation Results



13C9-PFDA
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

522.0 -> 476.9
0.849 (0.849)
101.99 µg/Kg
0
CC

Sample Name

CCV

Instrument

LCMS04

Data File

WS#4990811_FOSAA_34.d

Operator

AD

Sample Type

CC

Dilution

1

Acq. Method

PFC_Soil_FOSAA.m

Position

P2-A5

Acq. Date

2017/05/25 2:30:31 AM

Injection Volume

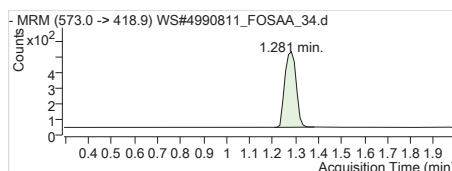
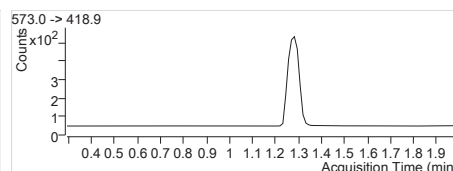
Per Method

Sample Annotation

-

ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1670	1.28	1 µg/Kg		
D5-EtFOSAA IS	1462	1.31	1 µg/Kg		
13C9-PFDA IS	33253	0.85	1 µg/Kg		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	7079	1.27	11.30	10.69 µg/Kg	94.61
EtFOSAA 1	7195	1.30	11.30	11.02 µg/Kg	97.55
D3-MeFOSAA	1684	1.28	100.00	93.67 µg/Kg	93.67
D5-EtFOSAA	1466	1.31	100.00	91.19 µg/Kg	91.19
13C9-PFDA	33860	0.85	100.00	108.13 µg/Kg	108.13

**D3-MeFOSAA IS**

Internal Standard

RT (Exp. RT):

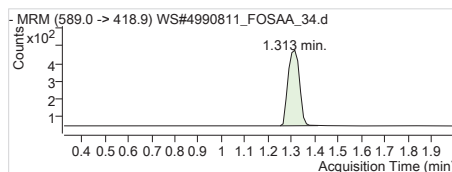
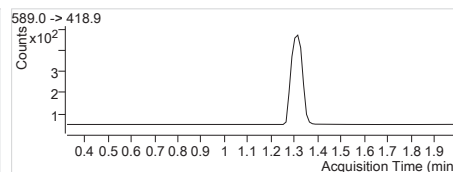
1.281 (1.281)

Concentration:

1 µg/Kg

Sample type:

CC

**D5-EtFOSAA IS**

Internal Standard

RT (Exp. RT):

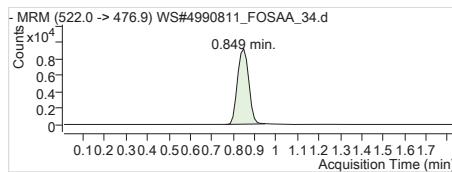
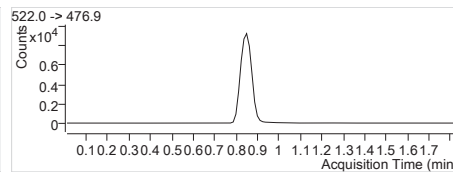
1.313 (1.313)

Concentration:

1 µg/Kg

Sample type:

CC

**13C9-PFDA IS**

Internal Standard

RT (Exp. RT):

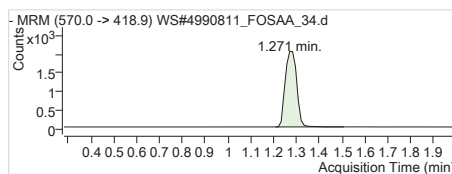
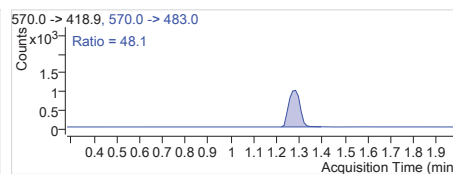
0.849 (0.849)

Concentration:

1 µg/Kg

Sample type:

CC

**MeFOSAA 1**

570.0 -> 418.9

RT (Exp. RT):

1.271 (1.271)

Calc. conc.

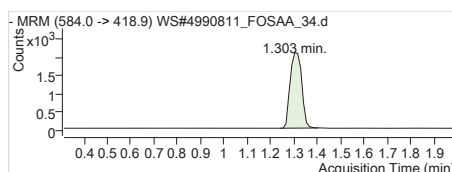
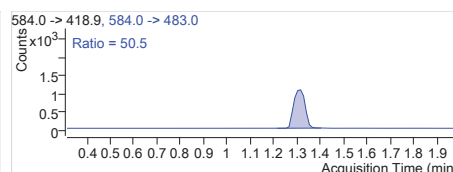
10.69 µg/Kg

Area ratio:

4.23892

Sample type:

CC

**EtFOSAA 1**

584.0 -> 418.9

RT (Exp. RT):

1.303 (1.303)

Calc. conc.

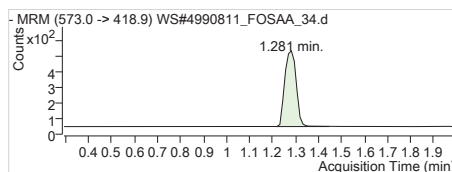
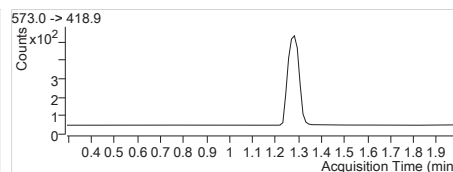
11.02 µg/Kg

Area ratio:

4.92134

Sample type:

CC

**D3-MeFOSAA**

573.0 -> 418.9

RT (Exp. RT):

1.281 (1.281)

Calc. conc.

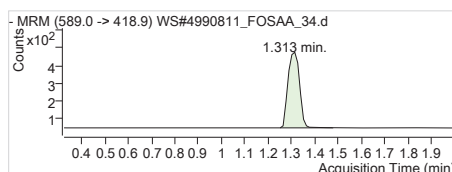
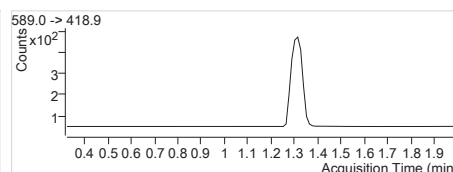
93.67 µg/Kg

Area ratio:

0.05064

Sample type:

CC

**D5-EtFOSAA**

589.0 -> 418.9

RT (Exp. RT):

1.313 (1.313)

Calc. conc.

91.19 µg/Kg

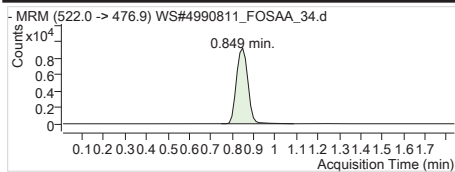
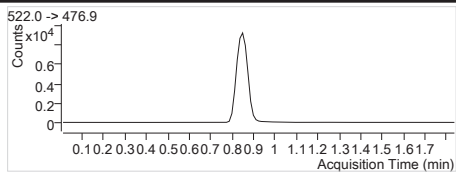
Area ratio:

0.04409

Sample type:

CC

Quantitation Results



13C9-PFDA
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

522.0 -> 476.9
0.849 (0.849)
108.13 µg/Kg
0
CC

Sample Name

CCV

Instrument

LCMS04

Data File

WS#4990811_FOSAA_49.d

Operator

AD

Sample Type

CC

Dilution

1

Acq. Method

PFC_Soil_FOSAA.m

Position

P2-A5

Acq. Date

2017/05/25 3:06:19 AM

Injection Volume

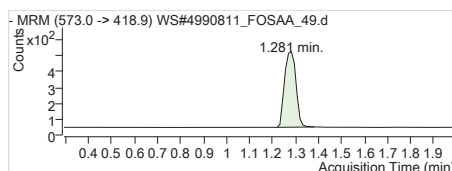
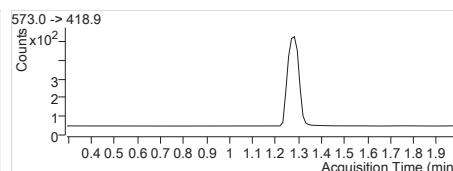
Per Method

Sample Annotation

-

ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1644	1.28	1 µg/Kg		
D5-EtFOSAA IS	1415	1.31	1 µg/Kg		
13C9-PFDA IS	32673	0.85	1 µg/Kg		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	6927	1.27	11.30	10.63 µg/Kg	94.04
EtFOSAA 1	7021	1.30	11.30	11.11 µg/Kg	98.36
D3-MeFOSAA	1664	1.28	100.00	94.23 µg/Kg	94.23
D5-EtFOSAA	1421	1.31	100.00	89.95 µg/Kg	89.95
13C9-PFDA	33291	0.85	100.00	106.32 µg/Kg	106.32

**D3-MeFOSAA IS**

Internal Standard

RT (Exp. RT):

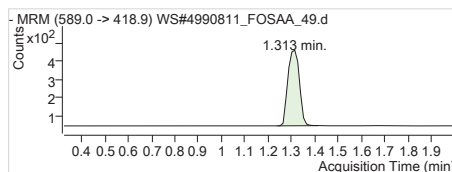
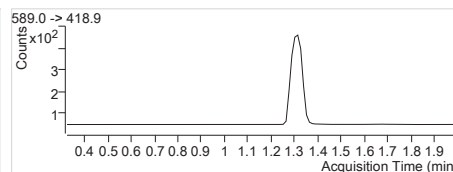
1.281 (1.281)

Concentration:

1 µg/Kg

Sample type:

CC

**D5-EtFOSAA IS**

Internal Standard

RT (Exp. RT):

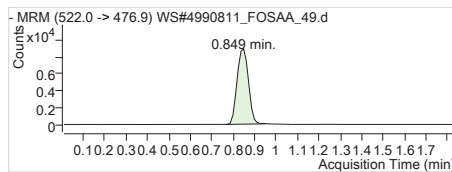
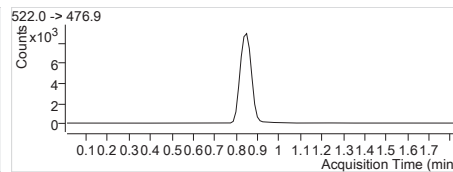
1.313 (1.313)

Concentration:

1 µg/Kg

Sample type:

CC

**13C9-PFDA IS**

Internal Standard

RT (Exp. RT):

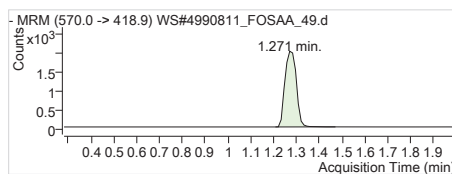
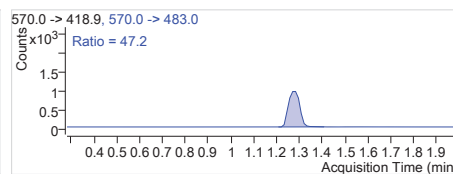
0.849 (0.849)

Concentration:

1 µg/Kg

Sample type:

CC

**MeFOSAA 1**

570.0 -> 418.9

RT (Exp. RT):

1.271 (1.271)

Calc. conc.

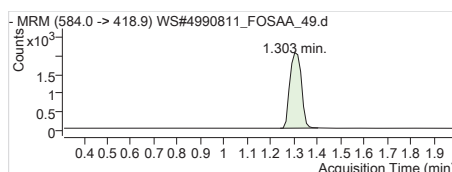
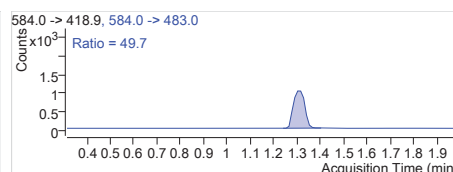
10.63 µg/Kg

Area ratio:

4.21350

Sample type:

CC

**EtFOSAA 1**

584.0 -> 418.9

RT (Exp. RT):

1.303 (1.303)

Calc. conc.

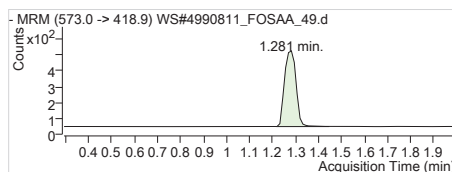
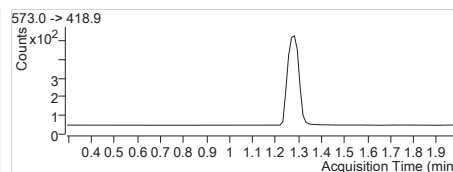
11.11 µg/Kg

Area ratio:

4.96184

Sample type:

CC

**D3-MeFOSAA**

573.0 -> 418.9

RT (Exp. RT):

1.281 (1.281)

Calc. conc.

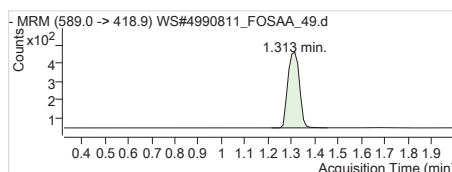
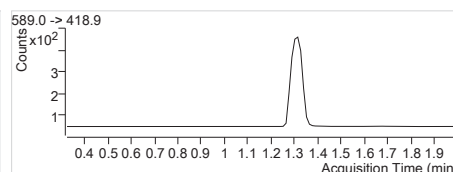
94.23 µg/Kg

Area ratio:

0.05094

Sample type:

CC

**D5-EtFOSAA**

589.0 -> 418.9

RT (Exp. RT):

1.313 (1.313)

Calc. conc.

89.95 µg/Kg

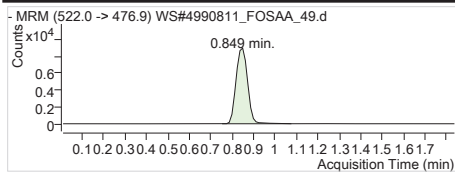
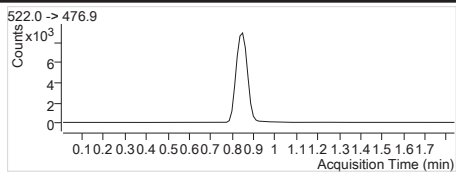
Area ratio:

0.04348

Sample type:

CC

Quantitation Results



13C9-PFDA
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

522.0 -> 476.9
0.849 (0.849)
106.32 µg/Kg
0
CC

Sample Name

CCV

Instrument

LCMS04

Data File

WS#4990811_FOSAA_64.d

Operator

AD

Sample Type

CC

Dilution

1

Acq. Method

PFC_Soil_FOSAA.m

Position

P2-A5

Acq. Date

2017/05/25 3:42:09 AM

Injection Volume

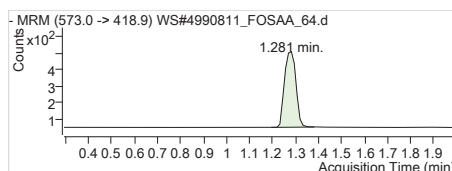
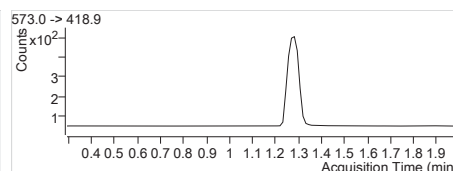
Per Method

Sample Annotation

-

ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1589	1.28	1 µg/Kg		
D5-EtFOSAA IS	1478	1.31	1 µg/Kg		
13C9-PFDA IS	32573	0.85	1 µg/Kg		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	6938	1.27	11.30	11.02 µg/Kg	97.48
EtFOSAA 1	7124	1.30	11.30	10.80 µg/Kg	95.54
D3-MeFOSAA	1599	1.28	100.00	90.84 µg/Kg	90.84
D5-EtFOSAA	1488	1.31	100.00	94.47 µg/Kg	94.47
13C9-PFDA	33352	0.85	100.00	106.51 µg/Kg	106.51

**D3-MeFOSAA IS**

Internal Standard

RT (Exp. RT):

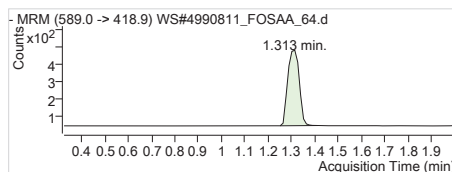
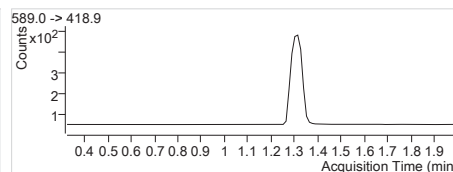
1.281 (1.281)

Concentration:

1 µg/Kg

Sample type:

CC

**D5-EtFOSAA IS**

Internal Standard

RT (Exp. RT):

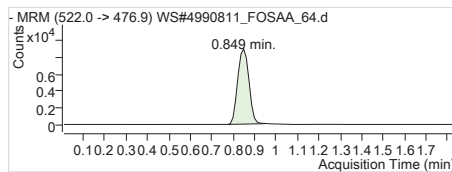
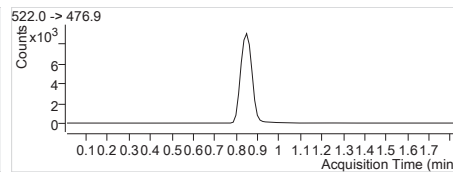
1.313 (1.313)

Concentration:

1 µg/Kg

Sample type:

CC

**13C9-PFDA IS**

Internal Standard

RT (Exp. RT):

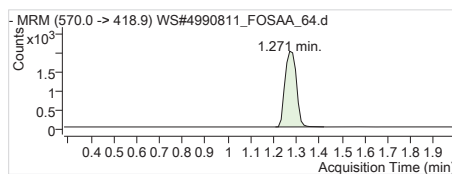
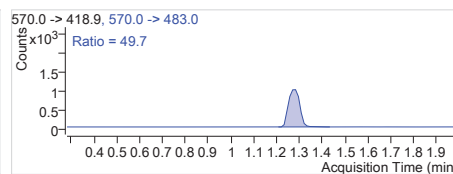
0.849 (0.849)

Concentration:

1 µg/Kg

Sample type:

CC

**MeFOSAA 1**

570.0 -> 418.9

RT (Exp. RT):

1.271 (1.271)

Calc. conc.

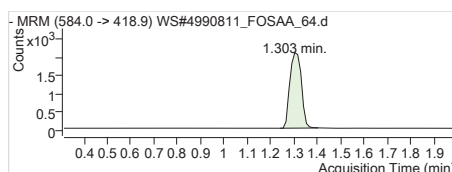
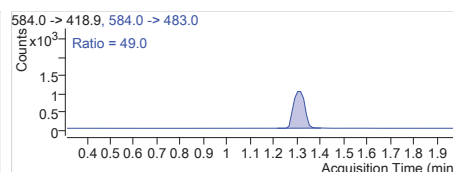
11.02 µg/Kg

Area ratio:

4.36627

Sample type:

CC

**EtFOSAA 1**

584.0 -> 418.9

RT (Exp. RT):

1.303 (1.303)

Calc. conc.

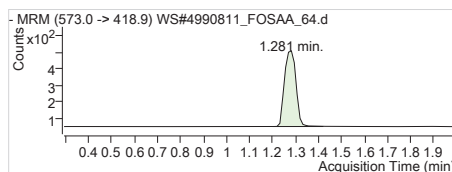
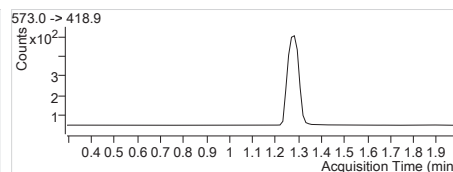
10.80 µg/Kg

Area ratio:

4.82003

Sample type:

CC

**D3-MeFOSAA**

573.0 -> 418.9

RT (Exp. RT):

1.281 (1.281)

Calc. conc.

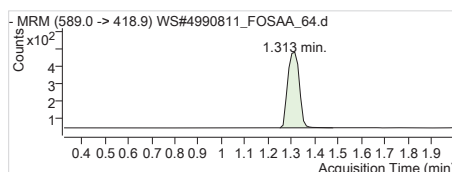
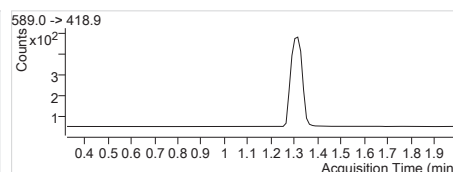
90.84 µg/Kg

Area ratio:

0.04910

Sample type:

CC

**D5-EtFOSAA**

589.0 -> 418.9

RT (Exp. RT):

1.313 (1.313)

Calc. conc.

94.47 µg/Kg

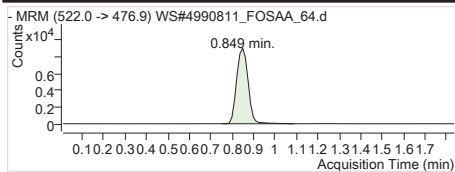
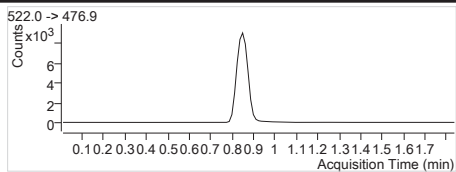
Area ratio:

0.04567

Sample type:

CC

Quantitation Results



13C9-PFDA
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

522.0 -> 476.9
0.849 (0.849)
106.51 µg/Kg
0
CC

Batch Path T:\lcms4\PFC\20170526\WS#4994375_B\QuantResults\PFC_Soil_170526_WS#4994375_CTLabs

Sample Name ISC Instrument LCMS04

Data File WS#4994232_B_10.d Operator AD

Sample Type CC Dilution 1

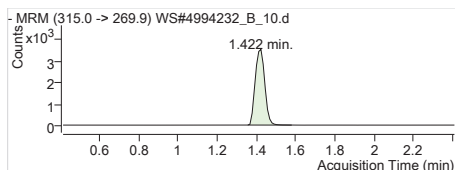
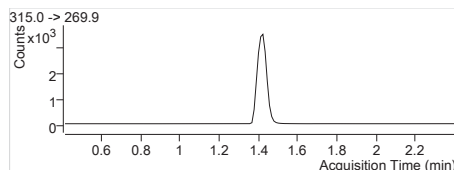
Acq. Method PFC_Soil.m Position P1-A2

Acq. Date 2017/05/30 10:08:41 AM Injection Volume Per Method

Sample Annotation -

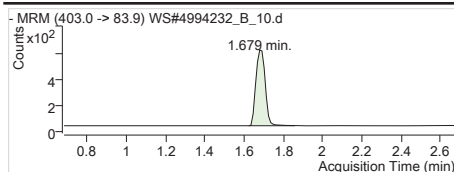
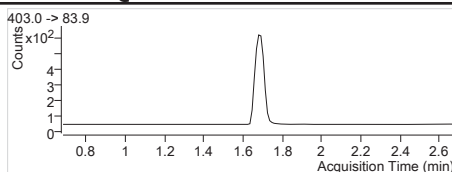
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	11831	1.42	1 µg/Kg		
MPFHxS	1895	1.68	1 µg/Kg		
MPFHpA	12898	1.68	1 µg/Kg		
MPFOA	10808	1.87	1 µg/Kg		
MPFNA	11450	2.01	1 µg/Kg		
MPFDA	10331	2.12	1 µg/Kg		
MPFUnA	11507	2.22	1 µg/Kg		
MPFDoA	11731	2.31	1 µg/Kg		
MPFTeDA	15844	2.46	1 µg/Kg		
M2 6:2 FTS	3186	1.83	1 µg/Kg		
M2 8:2 FTS	3025	2.10	1 µg/Kg		
13C6-PFHxA IS	66454	1.42	1 µg/Kg		
13C9-PFDA	56496	2.12	1 µg/Kg		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	776	1.10	0.75	0.70 µg/Kg	93.17
PFHxA 1	3897	1.42	0.75	0.81 µg/Kg	107.61
PFHxS 1	573	1.68	0.75	0.63 µg/Kg	84.10
PFHpA 1	4533	1.68	0.75	0.73 µg/Kg	96.78
PFOA 1	4078	1.87	0.75	0.87 µg/Kg	116.29
PFNA 1	3756	2.01	0.75	0.85 µg/Kg	113.70
PFDA 1	3435	2.12	0.75	0.71 µg/Kg	94.44
PFUnA 1	3847	2.22	0.75	0.80 µg/Kg	106.16
PFDaA 1	4037	2.31	0.75	0.86 µg/Kg	114.67
PFTTrDA 1	4614	2.39	0.75	0.76 µg/Kg	101.30
PFTeDA 1	4808	2.46	0.75	0.74 µg/Kg	98.52
6:2-FTS 1	919	1.84	0.75	0.63 µg/Kg	84.03
8:2-FTS 1	781	2.10	0.75	0.63 µg/Kg	84.20
13C2-PFHxA	11831	1.42	100.00	85.73 µg/Kg	85.73
18O2-PFHxS	1895	1.68	100.00	81.35 µg/Kg	81.35
13C4-PFHpA	12898	1.68	100.00	88.23 µg/Kg	88.23
13C4-PFOA	10808	1.87	100.00	78.95 µg/Kg	78.95
13C5-PFNA	11450	2.01	100.00	85.21 µg/Kg	85.21
13C2-PFDA	10331	2.12	100.00	88.00 µg/Kg	88.00
13C2-PFUnA	11538	2.22	100.00	88.12 µg/Kg	88.12
13C2-PFDaA	11731	2.31	100.00	80.82 µg/Kg	80.82
13C2-PFTeDA	15844	2.46	100.00	85.30 µg/Kg	85.30
13C2-6:2-FTS	3186	1.83	100.00	92.20 µg/Kg	92.20
13C2-8:2 FTS	3025	2.10	100.00	89.67 µg/Kg	89.67
13C6-PFHxA	66454	1.42	100.00	133.03 µg/Kg	133.03
13C9-PFDA	56984	2.12	100.00	134.89 µg/Kg	134.89

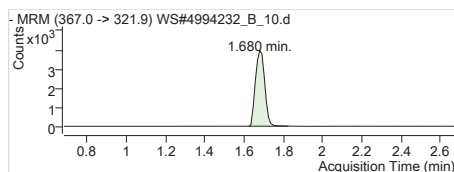
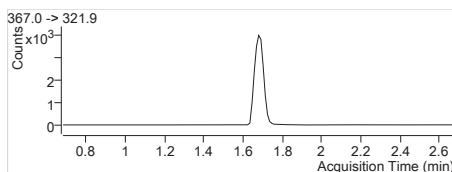


MPFHxA
 RT (Exp. RT):
 Concentration:
 Sample type:

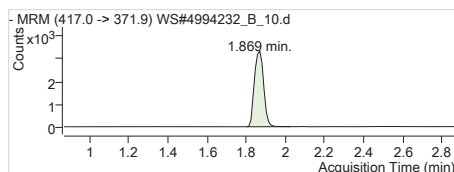
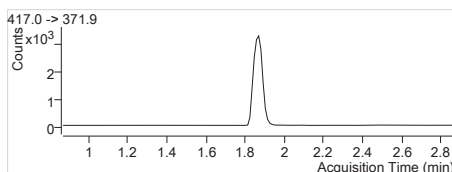
Internal Standard
 1.422 (1.411)
 1 µg/Kg
 CC



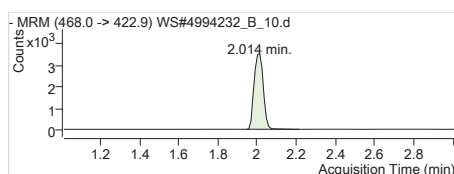
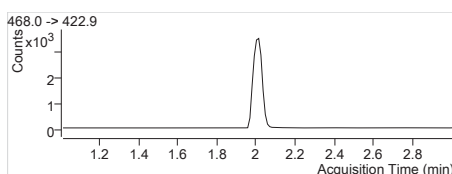
MPFHxS
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/Kg
Sample type: CC



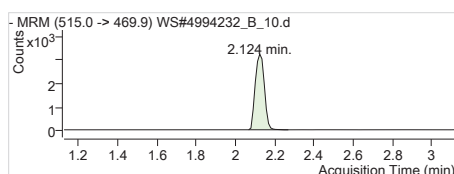
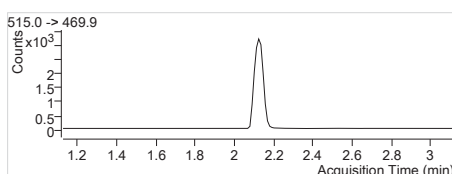
MPFHpA
RT (Exp. RT): 1.680 (1.680)
Concentration: 1 µg/Kg
Sample type: CC



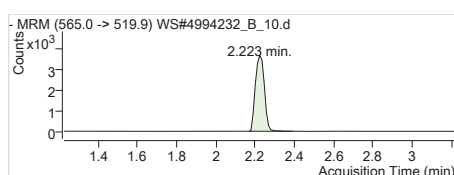
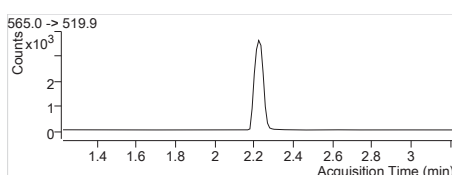
MPFOA
RT (Exp. RT): 1.869 (1.869)
Concentration: 1 µg/Kg
Sample type: CC



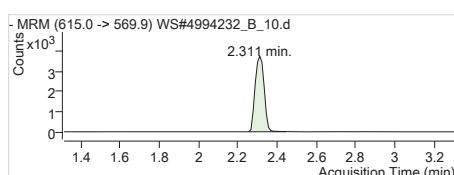
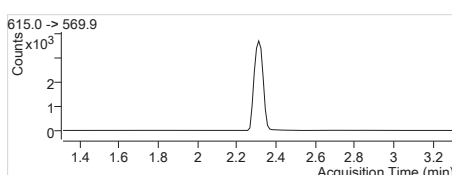
MPFNA
RT (Exp. RT): 2.014 (2.014)
Concentration: 1 µg/Kg
Sample type: CC



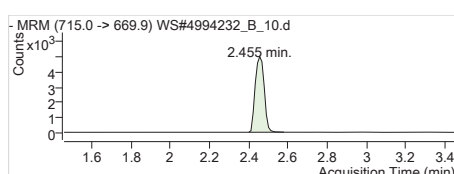
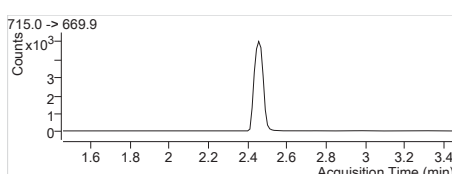
MPFDA
RT (Exp. RT): 2.124 (2.124)
Concentration: 1 µg/Kg
Sample type: CC



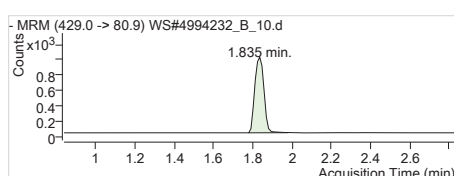
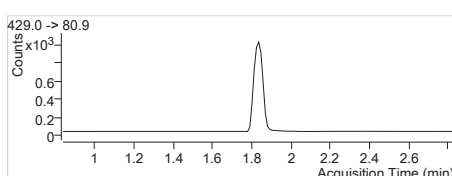
MPFUnA
RT (Exp. RT): 2.223 (2.223)
Concentration: 1 µg/Kg
Sample type: CC



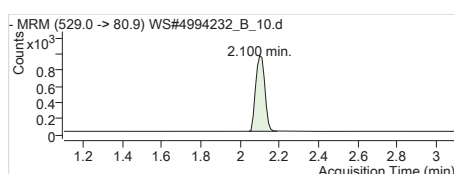
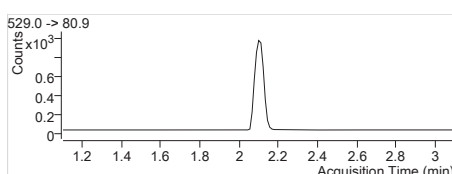
MPFDoA
RT (Exp. RT): 2.311 (2.311)
Concentration: 1 µg/Kg
Sample type: CC



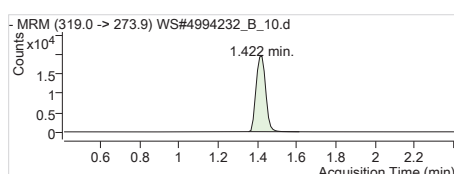
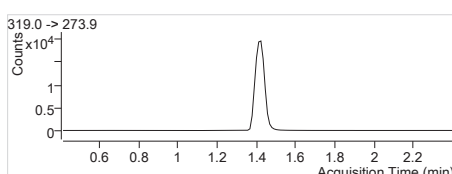
MPFTeDA
RT (Exp. RT): 2.455 (2.455)
Concentration: 1 µg/Kg
Sample type: CC



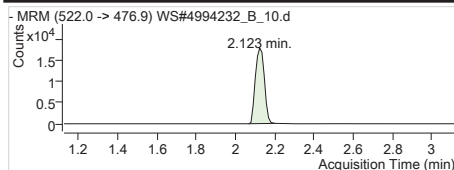
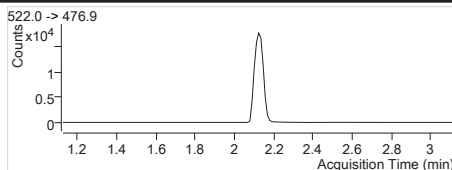
M2 6:2 FTS
RT (Exp. RT): 1.835 (1.835)
Concentration: 1 µg/Kg
Sample type: CC



M2 8:2 FTS
RT (Exp. RT): 2.100 (2.100)
Concentration: 1 µg/Kg
Sample type: CC



13C6-PFHxA IS
RT (Exp. RT): 1.422 (1.411)
Concentration: 1 µg/Kg
Sample type: CC

**13C9-PFDA IS**

RT (Exp. RT):

Concentration:

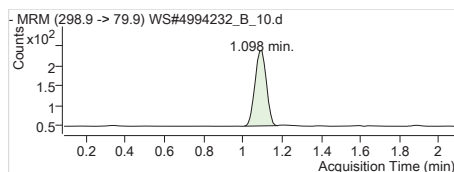
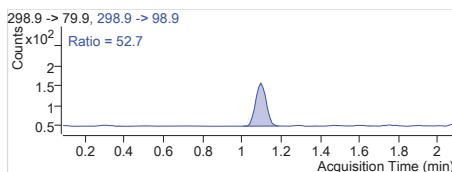
Sample type:

Internal Standard

2.123 (2.124)

1 µg/Kg

CC

**PFBS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

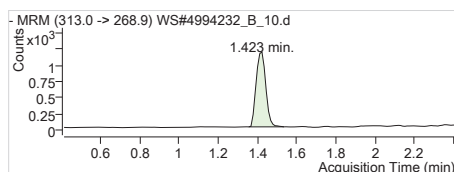
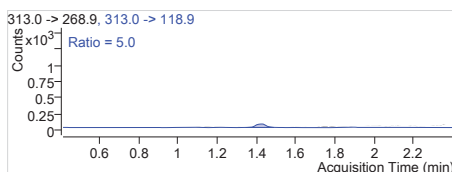
298.9 → 79.9

1.098 (1.087)

0.70 µg/Kg

0.40950

CC

**PFHxA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

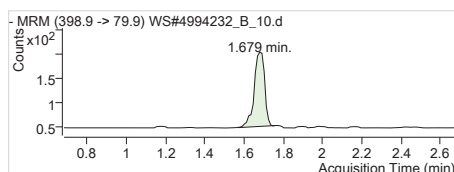
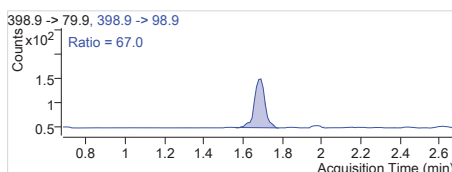
313.0 → 268.9

1.423 (1.411)

0.81 µg/Kg

0.32939

CC

**PFHxS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

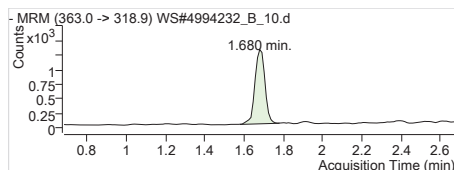
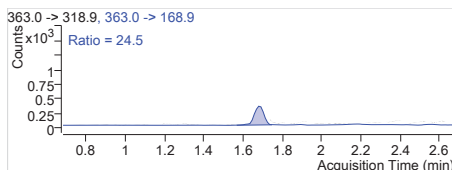
398.9 → 79.9

1.679 (1.679)

0.63 µg/Kg

0.30237

CC

**PFHpA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

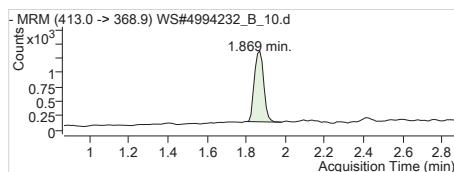
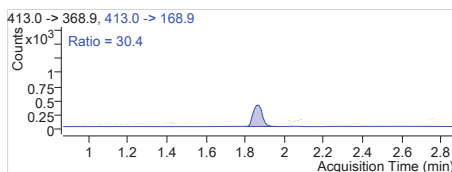
363.0 → 318.9

1.680 (1.680)

0.73 µg/Kg

0.35145

CC

**PFOA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

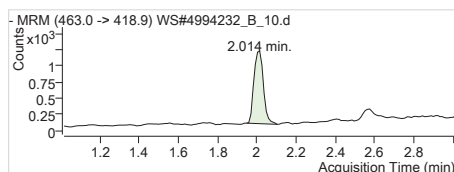
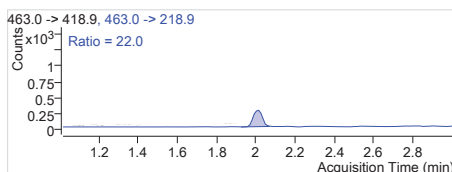
413.0 → 368.9

1.869 (1.869)

0.87 µg/Kg

0.37731

CC

**PFNA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

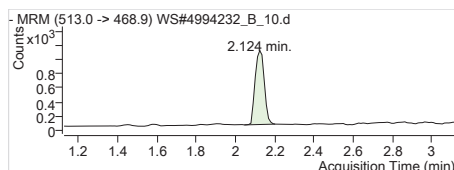
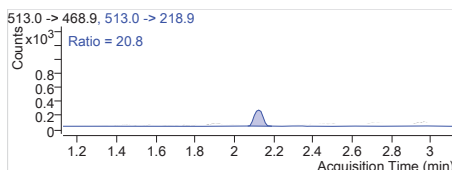
463.0 → 418.9

2.014 (2.014)

0.85 µg/Kg

0.32803

CC

**PFDA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

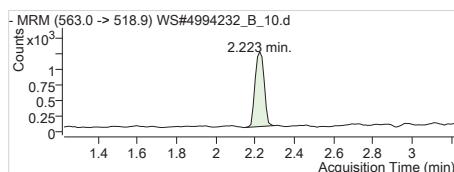
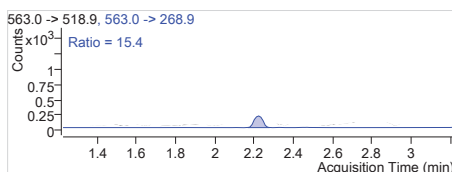
513.0 → 468.9

2.124 (2.124)

0.71 µg/Kg

0.33249

CC

**PFUnA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

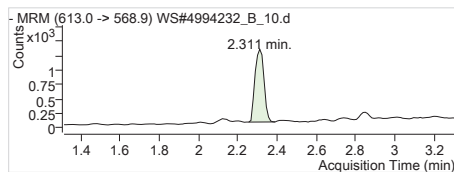
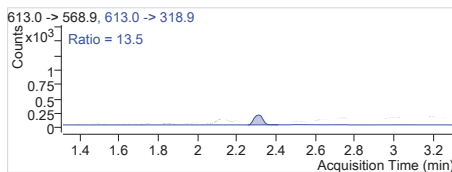
563.0 → 518.9

2.223 (2.223)

0.80 µg/Kg

0.33432

CC

**PFDoA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

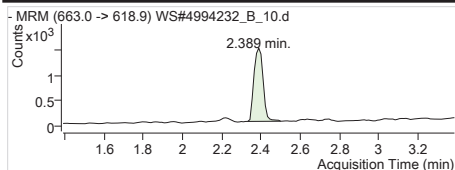
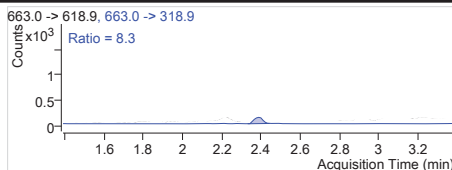
613.0 → 568.9

2.311 (2.311)

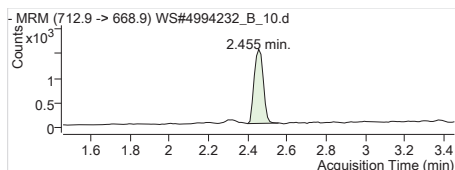
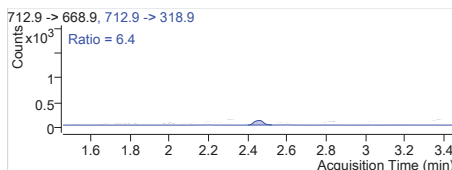
0.86 µg/Kg

0.34413

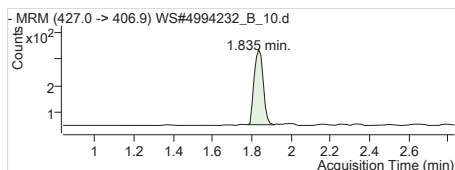
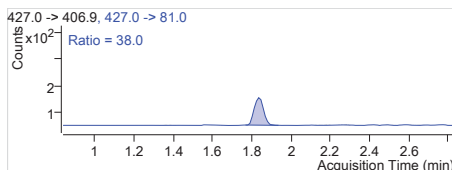
CC



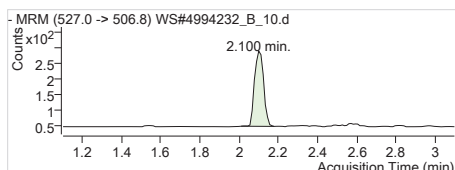
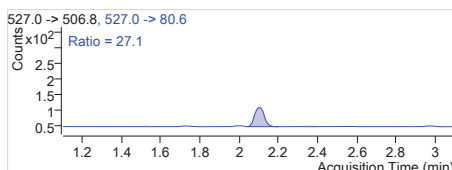
PFTDA 1
RT (Exp. RT): 663.0 -> 618.9
Calc. conc. 2.389 (2.389)
Area ratio: 0.76 µg/Kg
Sample type: 0.29121
CC



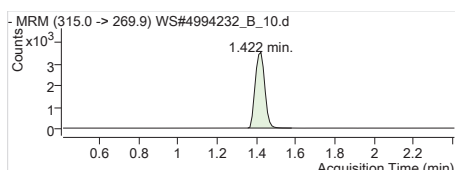
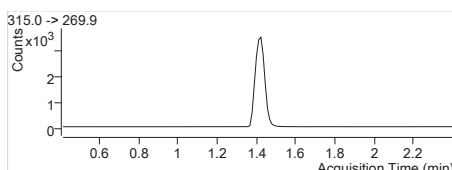
PFTeDA 1
RT (Exp. RT): 712.9 -> 668.9
Calc. conc. 2.455 (2.456)
Area ratio: 0.74 µg/Kg
Sample type: 0.30346
CC



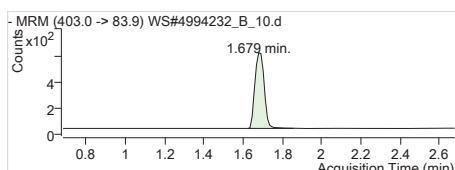
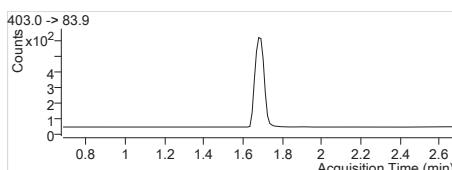
6:2-FTS 1
RT (Exp. RT): 427.0 -> 406.9
Calc. conc. 1.835 (1.835)
Area ratio: 0.63 µg/Kg
Sample type: 0.28845
CC



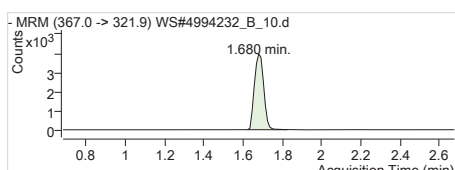
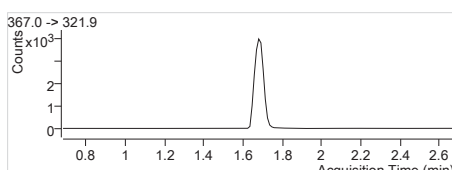
8:2-FTS 1
RT (Exp. RT): 527.0 -> 506.8
Calc. conc. 2.100 (2.101)
Area ratio: 0.63 µg/Kg
Sample type: 0.25818
CC



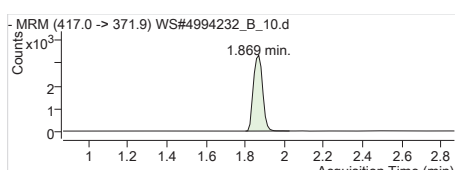
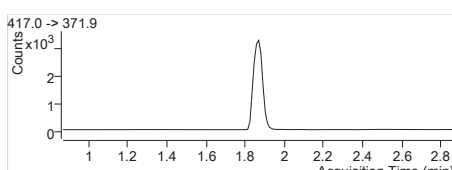
13C2-PFHxA
RT (Exp. RT): 315.0 -> 269.9
Calc. conc. 1.422 (1.411)
Area ratio: 85.73 µg/Kg
Sample type: 0.17803
CC



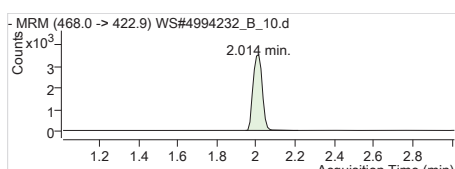
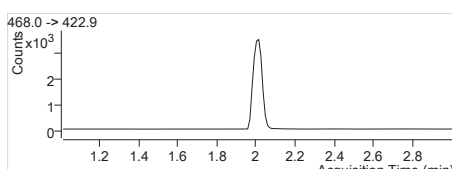
18O2-PFHxS
RT (Exp. RT): 403.0 -> 83.9
Calc. conc. 1.679 (1.679)
Area ratio: 81.35 µg/Kg
Sample type: 0.02852
CC



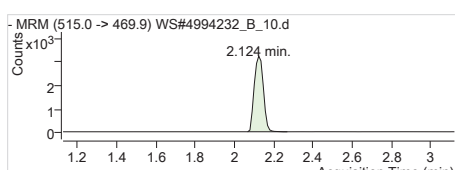
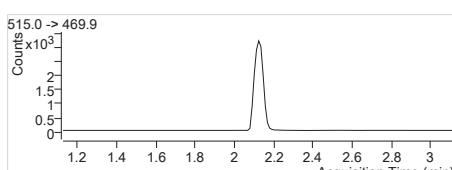
13C4-PFHpA
RT (Exp. RT): 367.0 -> 321.9
Calc. conc. 1.680 (1.680)
Area ratio: 88.23 µg/Kg
Sample type: 0.19409
CC



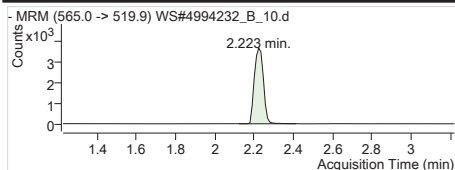
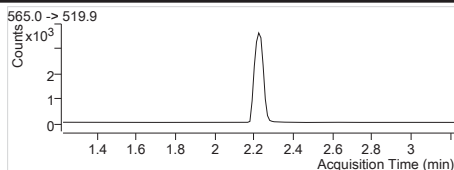
13C4-PFOA
RT (Exp. RT): 417.0 -> 371.9
Calc. conc. 1.869 (1.869)
Area ratio: 78.95 µg/Kg
Sample type: 0.16264
CC



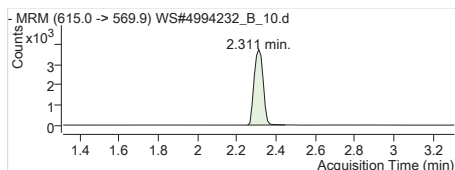
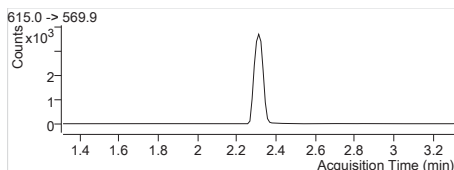
13C5-PFNA
RT (Exp. RT): 468.0 -> 422.9
Calc. conc. 2.014 (2.014)
Area ratio: 85.21 µg/Kg
Sample type: 0.17230
CC



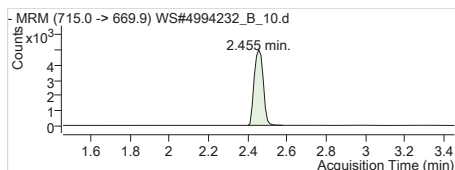
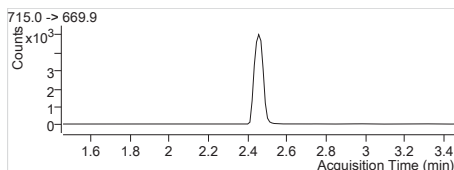
13C2-PFDA
RT (Exp. RT): 515.0 -> 469.9
Calc. conc. 2.124 (2.124)
Area ratio: 88.00 µg/Kg
Sample type: 0.18286
CC



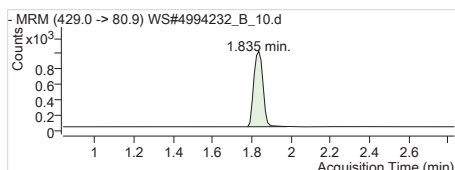
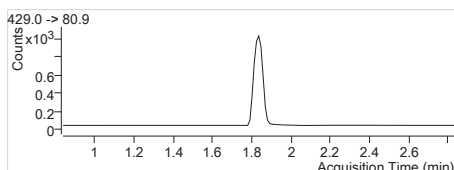
13C2-PFUnA
RT (Exp. RT): 565.0 -> 519.9
Calc. conc. 2.223 (2.223)
88.12 µg/Kg
Area ratio: 0.20423
Sample type: CC



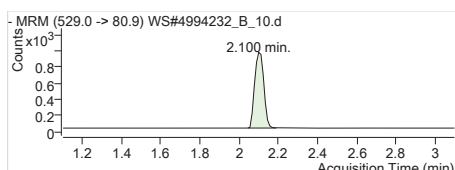
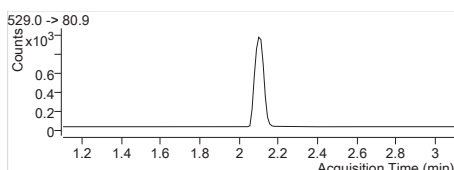
13C2-PFDoA
RT (Exp. RT): 615.0 -> 569.9
Calc. conc. 2.311 (2.311)
80.82 µg/Kg
Area ratio: 0.20764
Sample type: CC



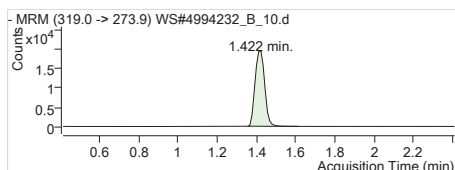
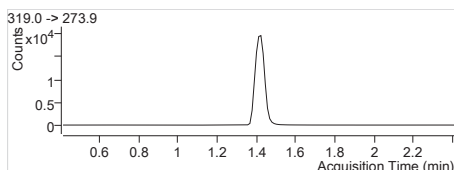
13C2-PFTeDA
RT (Exp. RT): 715.0 -> 669.9
Calc. conc. 2.455 (2.455)
85.30 µg/Kg
Area ratio: 0.28044
Sample type: CC



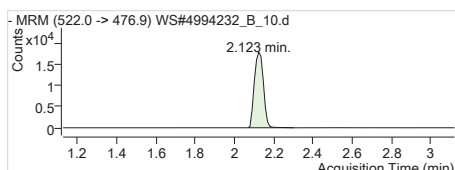
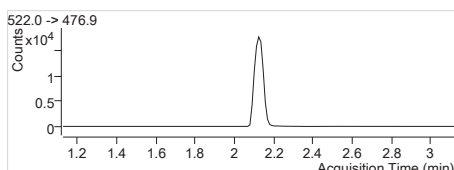
13C2-6:2-FTS
RT (Exp. RT): 429.0 -> 80.9
Calc. conc. 1.835 (1.835)
92.20 µg/Kg
Area ratio: 0.04794
Sample type: CC



13C2-8:2-FTS
RT (Exp. RT): 529.0 -> 80.9
Calc. conc. 2.100 (2.100)
89.67 µg/Kg
Area ratio: 0.04552
Sample type: CC



13C6-PFHxA
RT (Exp. RT): 319.0 -> 273.9
Calc. conc. 1.422 (1.411)
133.03 µg/Kg
Area ratio: 0
Sample type: CC

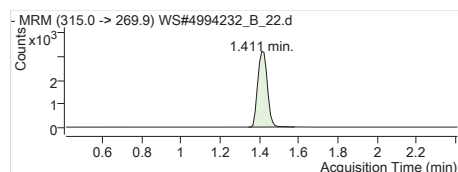
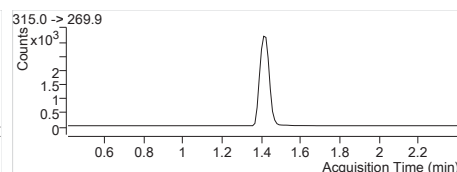


13C9-PFDA
RT (Exp. RT): 522.0 -> 476.9
Calc. conc. 2.123 (2.124)
134.89 µg/Kg
Area ratio: 0
Sample type: CC

Batch Path	T:\lcms4\PFC\20170526\WS#4994375_B\QuantResults\PFC_Soil_170526_WS#4994375_CTLabs		
Sample Name	CCV	Instrument	LCMS04
Data File	WS#4994232_B_22.d	Operator	AD
Sample Type	CC	Dilution	1
Acq. Method	PFC_Soil.m	Position	P1-A5
Acq. Date	2017/05/30 10:13:36 AM	Injection Volume	Per Method
Sample Annotation	-		

ISTD Compounds	Response	RT	Target conc.		
MPFHxA	10763	1.41	1 µg/Kg		
MPFHxS	1727	1.69	1 µg/Kg		
MPFHpA	12006	1.68	1 µg/Kg		
MPFOA	11025	1.87	1 µg/Kg		
MPFNA	10186	2.01	1 µg/Kg		
MPFDA	8962	2.12	1 µg/Kg		
MPFUnA	10126	2.22	1 µg/Kg		
MPFDoA	11236	2.31	1 µg/Kg		
MPFTeDA	14029	2.46	1 µg/Kg		
M2 6:2 FTS	2751	1.83	1 µg/Kg		
M2 8:2 FTS	2751	2.10	1 µg/Kg		
13C6-PFHxA IS	51055	1.41	1 µg/Kg		
13C9-PFDA	42257	2.12	1 µg/Kg		

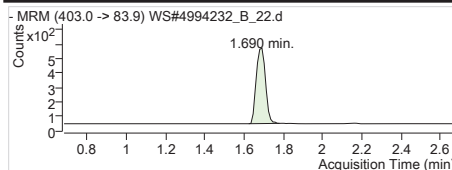
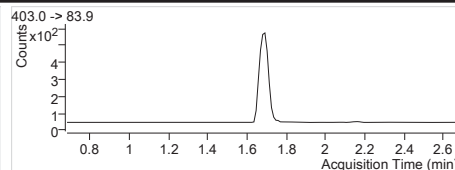
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	11835	1.09	11.30	11.78 µg/Kg	104.26
PFHxA 1	46862	1.41	11.30	10.80 µg/Kg	95.54
PFHxS 1	9182	1.68	11.30	11.83 µg/Kg	104.73
PFHpA 1	53364	1.68	11.30	10.46 µg/Kg	92.56
PFOA 1	50386	1.87	11.30	10.62 µg/Kg	93.99
PFNA 1	44213	2.01	11.30	11.55 µg/Kg	102.21
PFDA 1	46662	2.12	11.30	12.15 µg/Kg	107.49
PFUnA 1	46754	2.22	11.30	11.44 µg/Kg	101.22
PFDaA 1	48371	2.31	11.30	10.90 µg/Kg	96.46
PFTTrDA 1	59921	2.39	11.30	11.50 µg/Kg	101.78
PFTeDA 1	52261	2.46	11.30	10.82 µg/Kg	95.74
6:2-FTS 1	11145	1.84	11.30	11.32 µg/Kg	100.13
8:2-FTS 1	10061	2.10	11.30	10.99 µg/Kg	97.27
13C2-PFHxA	10763	1.41	100.00	101.52 µg/Kg	101.52
18O2-PFHxS	1727	1.69	100.00	96.50 µg/Kg	96.50
13C4-PFHpA	12006	1.68	100.00	106.90 µg/Kg	106.90
13C4-PFOA	11025	1.87	100.00	104.82 µg/Kg	104.82
13C5-PFNA	10186	2.01	100.00	98.67 µg/Kg	98.67
13C2-PFDA	8962	2.12	100.00	102.06 µg/Kg	102.06
13C2-PFUnA	10250	2.22	100.00	104.66 µg/Kg	104.66
13C2-PFDaA	11236	2.31	100.00	103.50 µg/Kg	103.50
13C2-PFTeDA	14029	2.46	100.00	100.98 µg/Kg	100.98
13C2-6:2-FTS	2751	1.83	100.00	103.62 µg/Kg	103.62
13C2-8:2 FTS	2751	2.10	100.00	106.15 µg/Kg	106.15
13C6-PFHxA	51055	1.41	100.00	102.20 µg/Kg	102.20
13C9-PFDA	42257	2.12	100.00	100.03 µg/Kg	100.03



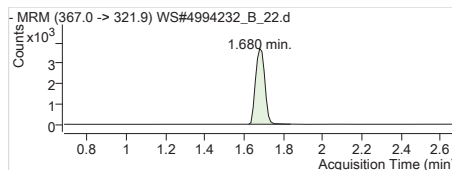
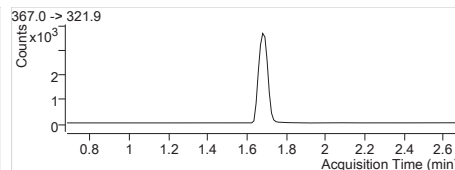
MPFHxA

RT (Exp. RT):
Concentration:
Sample type:

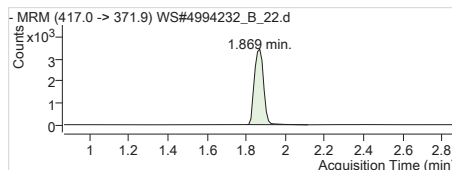
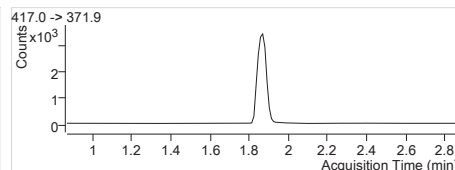
Internal Standard
1.411 (1.411)
1 µg/Kg
CC



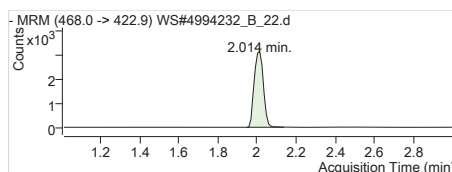
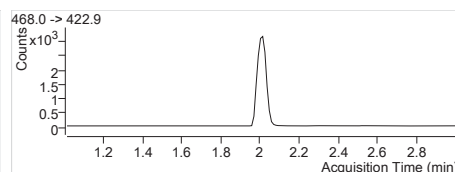
MPFHxS
RT (Exp. RT): 1.690 (1.679)
Concentration: 1 µg/Kg
Sample type: CC



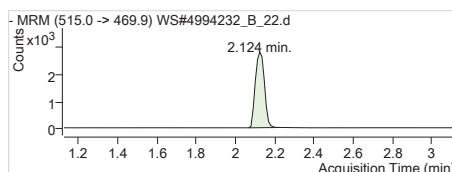
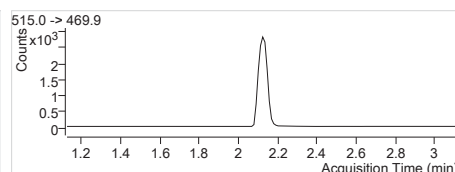
MPFHpA
RT (Exp. RT): 1.680 (1.680)
Concentration: 1 µg/Kg
Sample type: CC



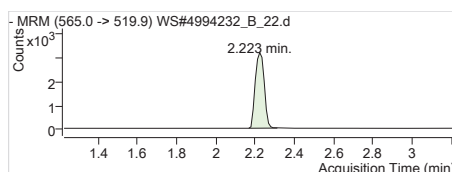
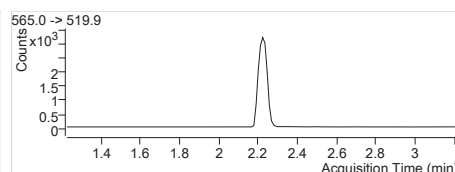
MPFOA
RT (Exp. RT): 1.869 (1.869)
Concentration: 1 µg/Kg
Sample type: CC



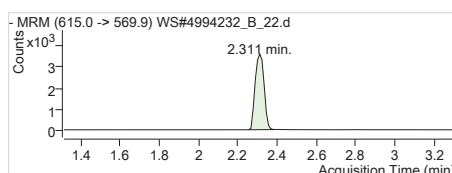
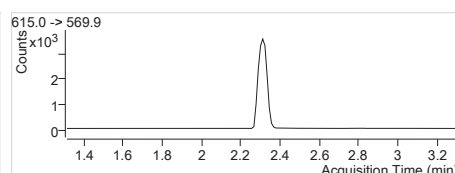
MPFNA
RT (Exp. RT): 2.014 (2.014)
Concentration: 1 µg/Kg
Sample type: CC



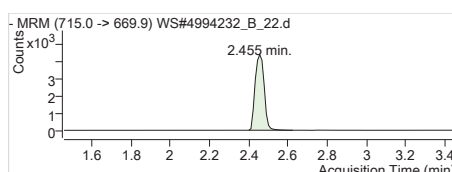
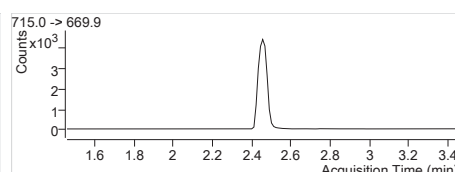
MPFDA
RT (Exp. RT): 2.124 (2.124)
Concentration: 1 µg/Kg
Sample type: CC



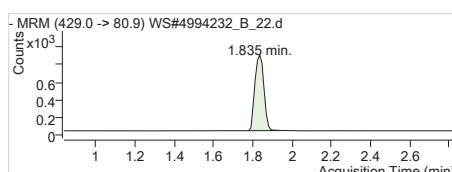
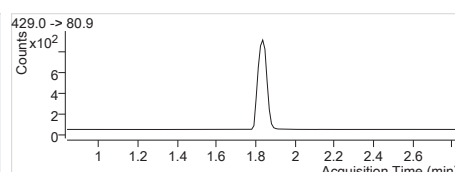
MPFUnA
RT (Exp. RT): 2.223 (2.223)
Concentration: 1 µg/Kg
Sample type: CC



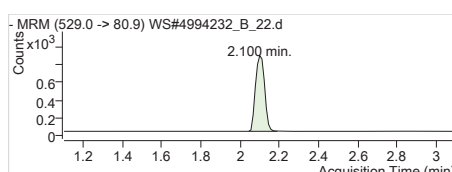
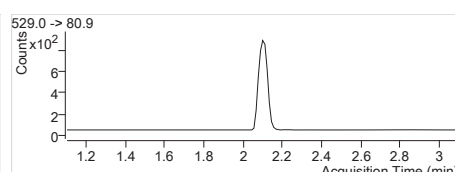
MPFDoA
RT (Exp. RT): 2.311 (2.311)
Concentration: 1 µg/Kg
Sample type: CC



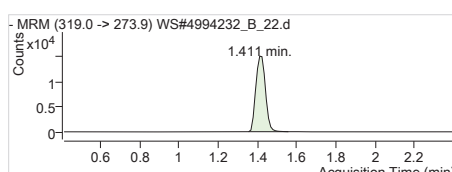
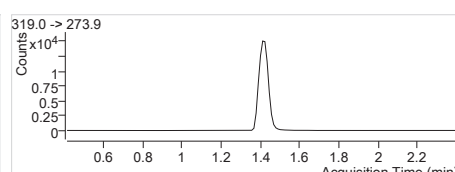
MPFTeDA
RT (Exp. RT): 2.455 (2.455)
Concentration: 1 µg/Kg
Sample type: CC



M2 6:2 FTS
RT (Exp. RT): 1.835 (1.835)
Concentration: 1 µg/Kg
Sample type: CC

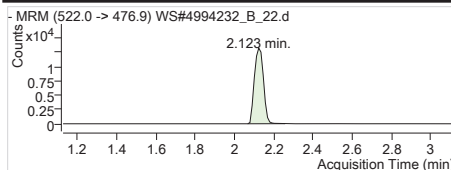
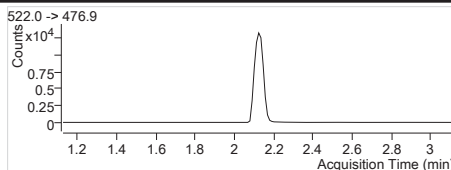


M2 8:2 FTS
RT (Exp. RT): 2.100 (2.100)
Concentration: 1 µg/Kg
Sample type: CC



13C6-PFHxA IS
RT (Exp. RT): 1.411 (1.411)
Concentration: 1 µg/Kg
Sample type: CC

Quantitation Results



13C9-PFDA IS

RT (Exp. RT):

Concentration:

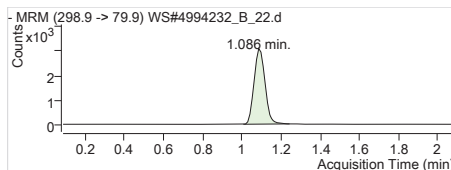
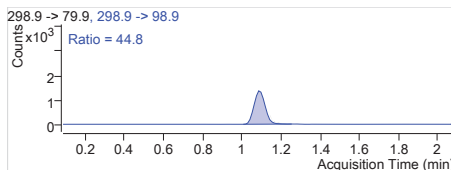
Sample type:

Internal Standard

2.123 (2.124)

1 µg/Kg

CC



PFBS 1

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

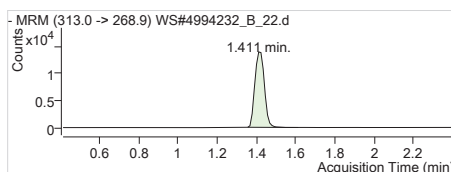
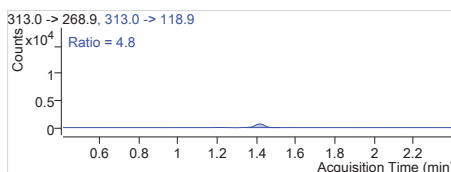
298.9 -> 79.9

1.086 (1.087)

11.78 µg/Kg

6.85292

CC



PFHxA 1

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

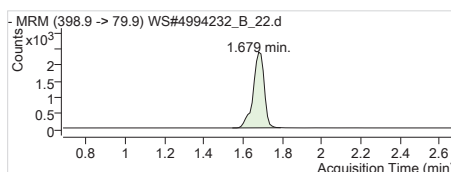
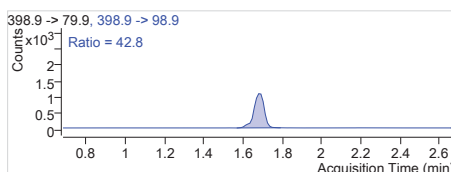
313.0 -> 268.9

1.411 (1.411)

10.80 µg/Kg

4.35399

CC



PFHxS 1

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

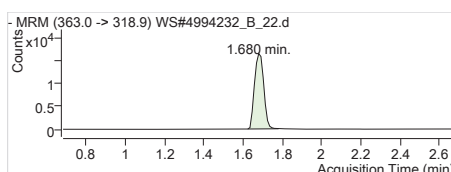
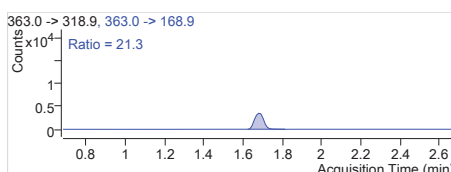
398.9 -> 79.9

1.679 (1.679)

11.83 µg/Kg

5.31673

CC



PFHpA 1

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

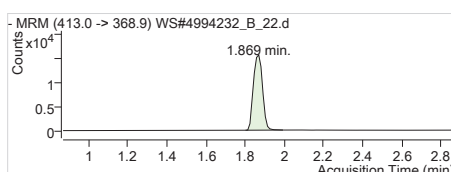
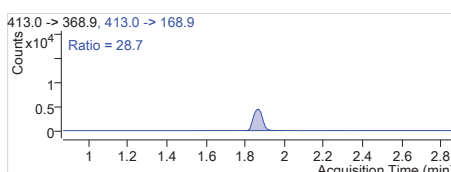
363.0 -> 318.9

1.680 (1.680)

10.46 µg/Kg

4.44478

CC



PFOA 1

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

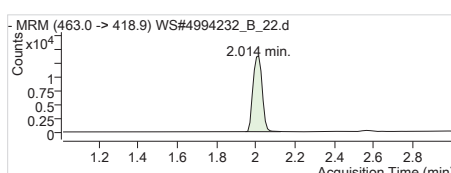
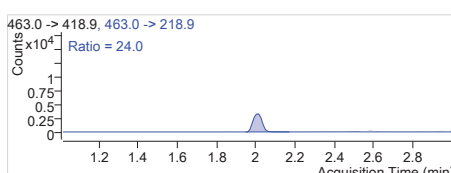
413.0 -> 368.9

1.869 (1.869)

10.62 µg/Kg

4.57016

CC



PFNA 1

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

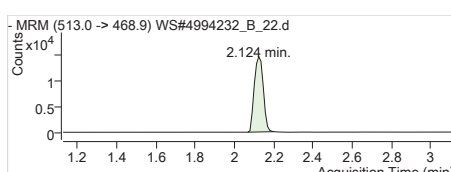
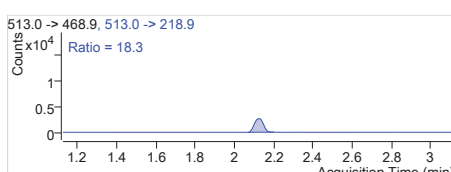
463.0 -> 418.9

2.014 (2.014)

11.55 µg/Kg

4.34057

CC



PFDA 1

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

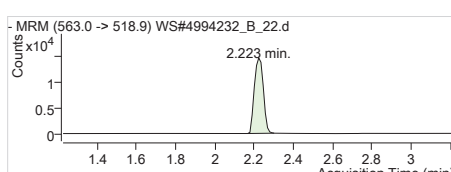
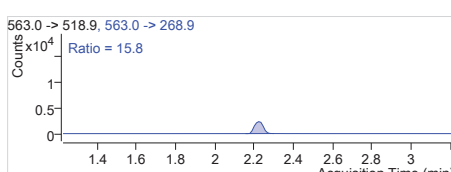
513.0 -> 468.9

2.124 (2.124)

12.15 µg/Kg

5.20665

CC



PFUnA 1

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

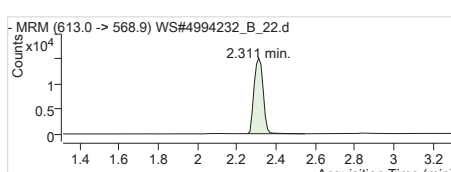
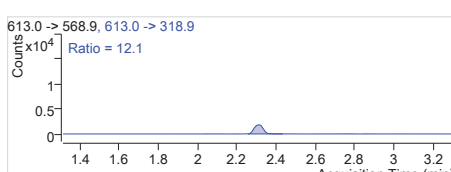
563.0 -> 518.9

2.223 (2.223)

11.44 µg/Kg

4.61722

CC



PFDoA 1

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

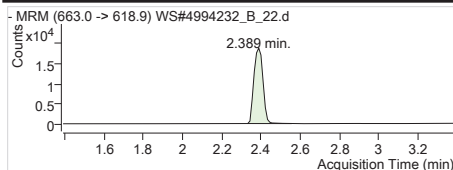
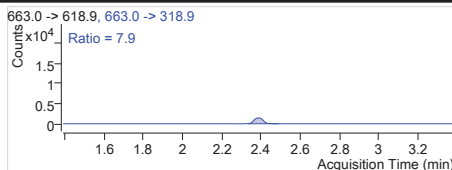
613.0 -> 568.9

2.311 (2.311)

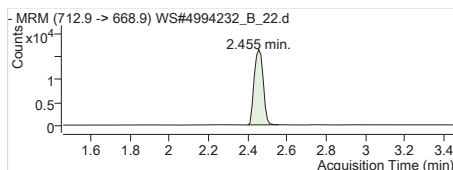
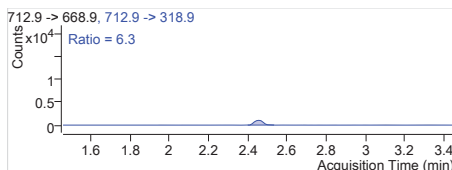
10.90 µg/Kg

4.30500

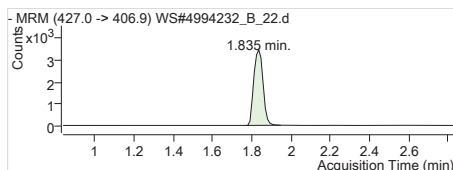
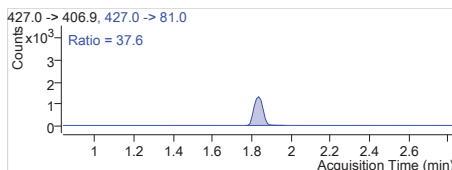
CC



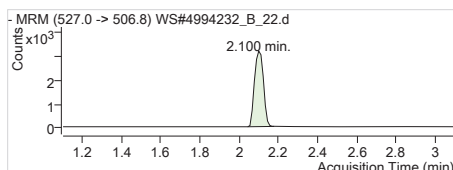
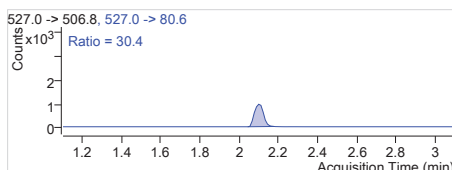
PFTDA 1
RT (Exp. RT): 663.0 -> 618.9
Calc. conc. 2.389 (2.389)
Area ratio: 11.50 µg/Kg
Sample type: 4.27122
CC



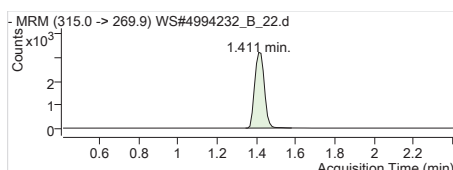
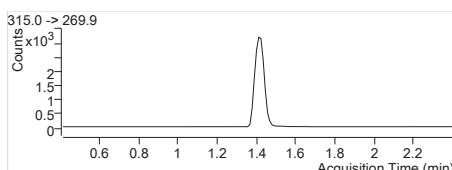
PFTDA 1
RT (Exp. RT): 712.9 -> 668.9
Calc. conc. 2.455 (2.456)
Area ratio: 10.82 µg/Kg
Sample type: 3.72521
CC



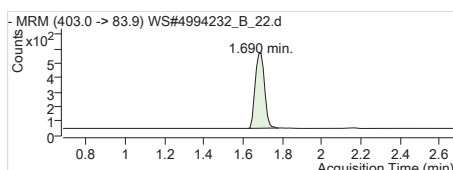
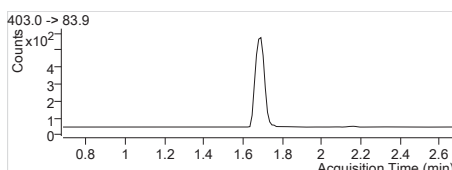
6:2-FTS 1
RT (Exp. RT): 427.0 -> 406.9
Calc. conc. 1.835 (1.835)
Area ratio: 11.32 µg/Kg
Sample type: 4.05125
CC



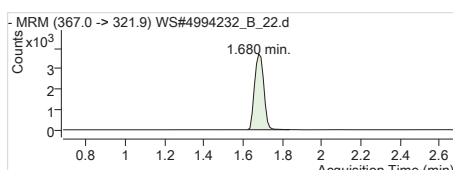
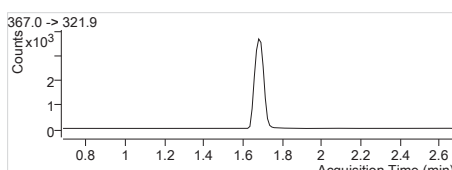
8:2-FTS 1
RT (Exp. RT): 527.0 -> 506.8
Calc. conc. 2.100 (2.101)
Area ratio: 10.99 µg/Kg
Sample type: 3.65722
CC



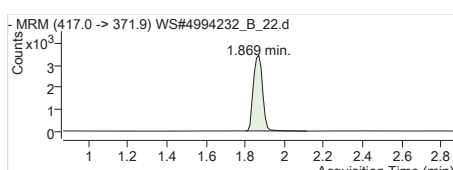
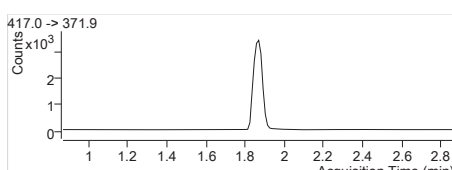
13C2-PFHxA
RT (Exp. RT): 315.0 -> 269.9
Calc. conc. 1.411 (1.411)
Area ratio: 101.52 µg/Kg
Sample type: 0.21081
CC



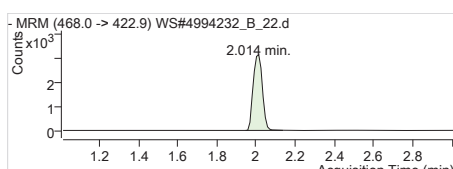
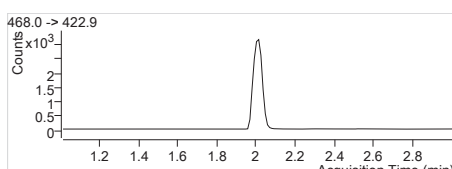
18O2-PFHxS
RT (Exp. RT): 403.0 -> 83.9
Calc. conc. 1.690 (1.679)
Area ratio: 96.50 µg/Kg
Sample type: 0.03383
CC



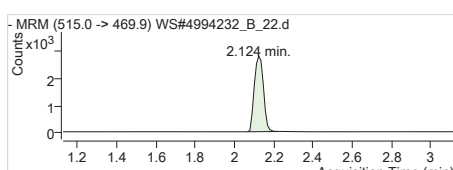
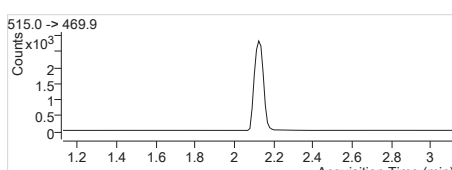
13C4-PFHpA
RT (Exp. RT): 367.0 -> 321.9
Calc. conc. 1.680 (1.680)
Area ratio: 106.90 µg/Kg
Sample type: 0.23516
CC



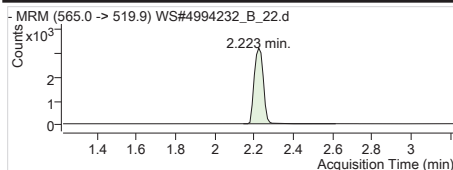
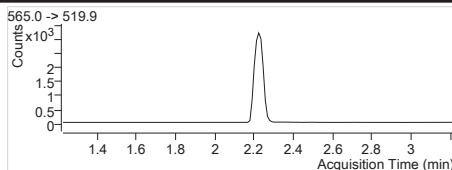
13C4-PFOA
RT (Exp. RT): 417.0 -> 371.9
Calc. conc. 1.869 (1.869)
Area ratio: 104.82 µg/Kg
Sample type: 0.21594
CC



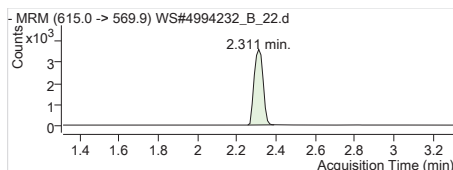
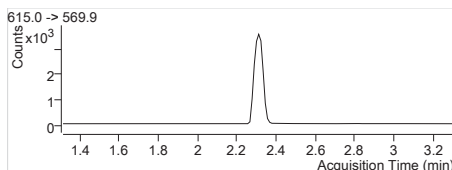
13C5-PFNA
RT (Exp. RT): 468.0 -> 422.9
Calc. conc. 2.014 (2.014)
Area ratio: 98.67 µg/Kg
Sample type: 0.19951
CC



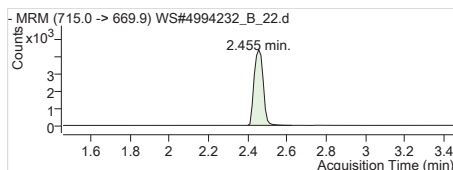
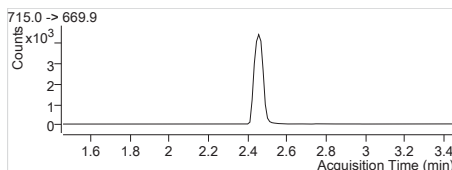
13C2-PFDA
RT (Exp. RT): 515.0 -> 469.9
Calc. conc. 2.124 (2.124)
Area ratio: 102.06 µg/Kg
Sample type: 0.21208
CC



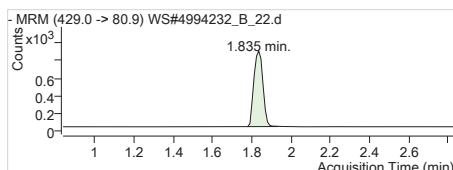
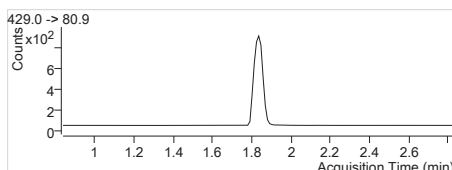
13C2-PFUnA
RT (Exp. RT): 565.0 -> 519.9
Calc. conc. 2.223 (2.223)
Area ratio: 104.66 µg/Kg
Sample type: 0.24256
CC



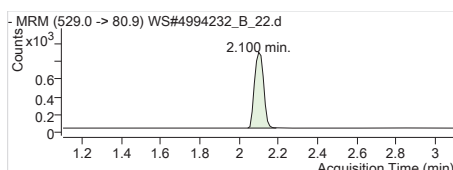
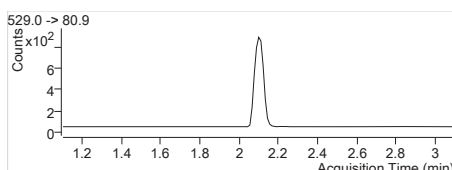
13C2-PFDoA
RT (Exp. RT): 615.0 -> 569.9
Calc. conc. 2.311 (2.311)
Area ratio: 103.50 µg/Kg
Sample type: 0.26590
CC



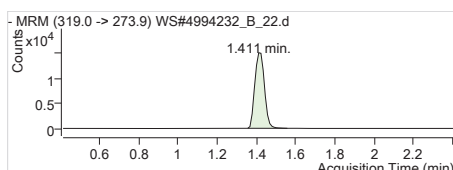
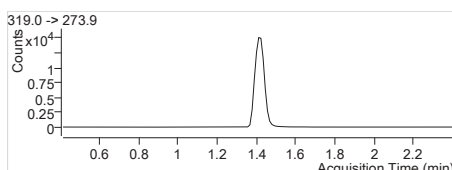
13C2-PFTeDA
RT (Exp. RT): 715.0 -> 669.9
Calc. conc. 2.455 (2.455)
Area ratio: 100.98 µg/Kg
Sample type: 0.33199
CC



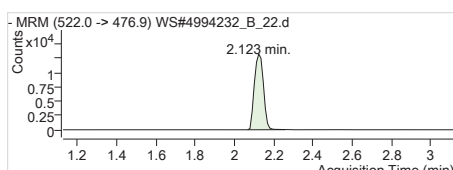
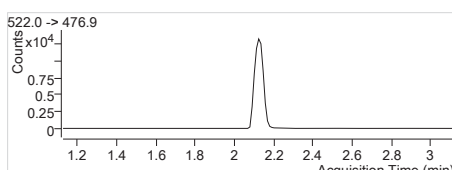
13C2-6:2-FTS
RT (Exp. RT): 429.0 -> 80.9
Calc. conc. 1.835 (1.835)
Area ratio: 103.62 µg/Kg
Sample type: 0.05388
CC



13C2-8:2 FTS
RT (Exp. RT): 529.0 -> 80.9
Calc. conc. 2.100 (2.100)
Area ratio: 106.15 µg/Kg
Sample type: 0.05388
CC



13C6-PFHxA
RT (Exp. RT): 319.0 -> 273.9
Calc. conc. 1.411 (1.411)
Area ratio: 102.20 µg/Kg
Sample type: 0
CC

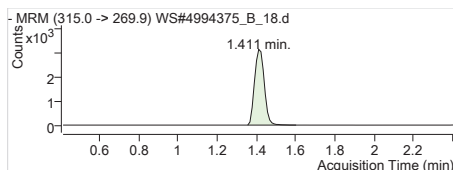
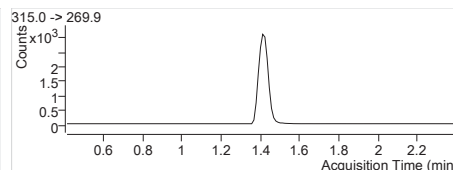


13C9-PFDA
RT (Exp. RT): 522.0 -> 476.9
Calc. conc. 2.123 (2.124)
Area ratio: 100.03 µg/Kg
Sample type: 0
CC

Batch Path	T:\lcms4\PFC\20170526\WS#4994375_B\QuantResults\PFC_Soil_170526_WS#4994375_CTLabs		
Sample Name	CCV	Instrument	LCMS04
Data File	WS#4994375_B_18.d	Operator	AD
Sample Type	CC	Dilution	1
Acq. Method	PFC_Soil.m	Position	P1-A5
Acq. Date	2017/05/30 11:41:50 AM	Injection Volume	Per Method
Sample Annotation	-		

ISTD Compounds	Response	RT	Target conc.		
MPFHxA	10592	1.41	1 µg/Kg		
MPFHxS	1709	1.68	1 µg/Kg		
MPFHpA	11271	1.68	1 µg/Kg		
MPFOA	10337	1.87	1 µg/Kg		
MPFNA	10274	2.01	1 µg/Kg		
MPFDA	8886	2.12	1 µg/Kg		
MPFUnA	9674	2.22	1 µg/Kg		
MPFDoA	11404	2.31	1 µg/Kg		
MPFTeDA	13400	2.46	1 µg/Kg		
M2 6:2 FTS	2699	1.83	1 µg/Kg		
M2 8:2 FTS	2611	2.10	1 µg/Kg		
13C6-PFHxA IS	47469	1.41	1 µg/Kg		
13C9-PFDA IS	41526	2.12	1 µg/Kg		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	11505	1.09	11.30	11.57 µg/Kg	102.42
PFHxA 1	47198	1.41	11.30	11.05 µg/Kg	97.78
PFHxS 1	8665	1.68	11.30	11.28 µg/Kg	99.85
PFHpA 1	51351	1.68	11.30	10.72 µg/Kg	94.90
PFOA 1	49526	1.87	11.30	11.13 µg/Kg	98.54
PFNA 1	42172	2.01	11.30	10.92 µg/Kg	96.65
PFDA 1	44344	2.12	11.30	11.64 µg/Kg	102.99
PFUnA 1	45990	2.22	11.30	11.78 µg/Kg	104.23
PFDaA 1	48034	2.31	11.30	10.66 µg/Kg	94.37
PFTTrDA 1	58344	2.39	11.30	11.72 µg/Kg	103.75
PFTeDA 1	53764	2.46	11.30	11.66 µg/Kg	103.22
6:2-FTS 1	10925	1.84	11.30	11.31 µg/Kg	100.05
8:2-FTS 1	10071	2.10	11.30	11.60 µg/Kg	102.67
13C2-PFHxA	10592	1.41	100.00	107.45 µg/Kg	107.45
18O2-PFHxS	1709	1.68	100.00	102.71 µg/Kg	102.71
13C4-PFHpA	11271	1.68	100.00	107.94 µg/Kg	107.94
13C4-PFOA	10337	1.87	100.00	105.70 µg/Kg	105.70
13C5-PFNA	10274	2.01	100.00	107.04 µg/Kg	107.04
13C2-PFDA	8886	2.12	100.00	102.98 µg/Kg	102.98
13C2-PFUnA	9731	2.22	100.00	101.11 µg/Kg	101.11
13C2-PFDaA	11404	2.31	100.00	106.90 µg/Kg	106.90
13C2-PFTeDA	13400	2.46	100.00	98.15 µg/Kg	98.15
13C2-6:2-FTS	2699	1.83	100.00	109.34 µg/Kg	109.34
13C2-8:2 FTS	2611	2.10	100.00	108.35 µg/Kg	108.35
13C6-PFHxA	47469	1.41	100.00	95.02 µg/Kg	95.02
13C9-PFDA	41517	2.12	100.00	98.28 µg/Kg	98.28



MPFHxA

RT (Exp. RT):

Concentration:

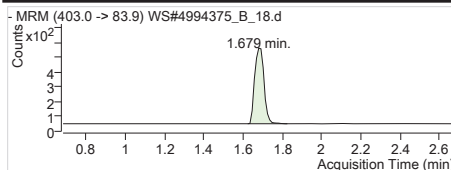
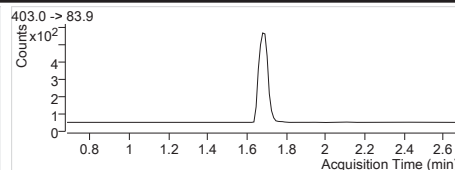
Sample type:

Internal Standard

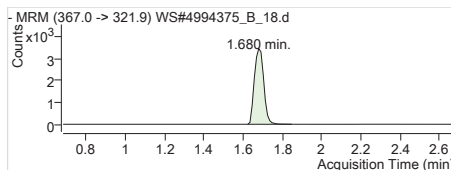
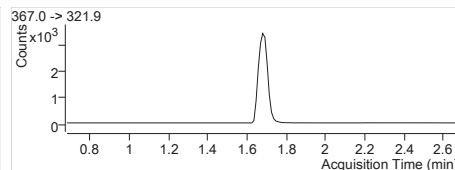
1.411 (1.411)

1 µg/Kg

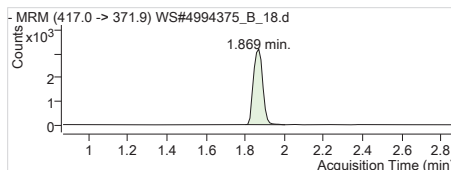
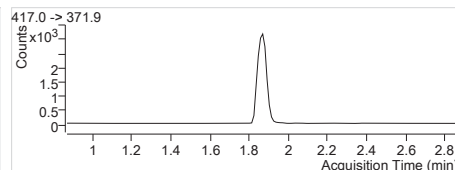
CC



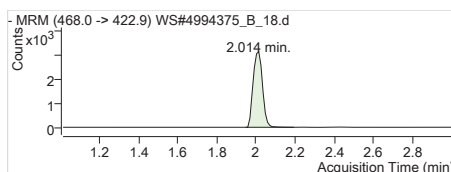
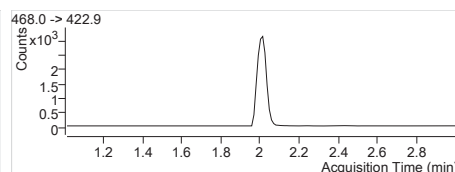
MPFHxS
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/Kg
Sample type: CC



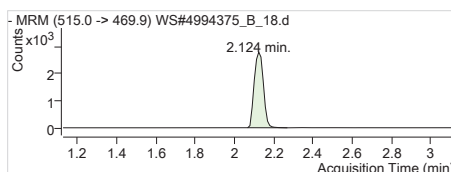
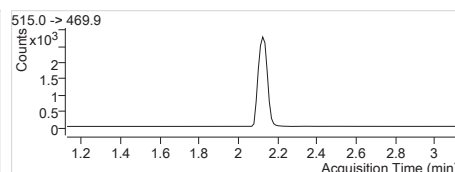
MPFHpA
RT (Exp. RT): 1.680 (1.680)
Concentration: 1 µg/Kg
Sample type: CC



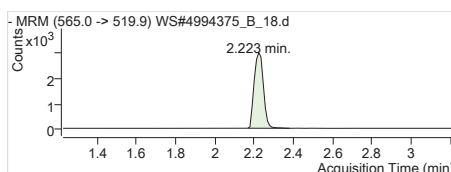
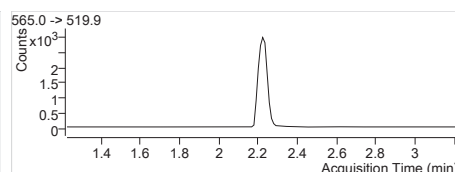
MPFOA
RT (Exp. RT): 1.869 (1.869)
Concentration: 1 µg/Kg
Sample type: CC



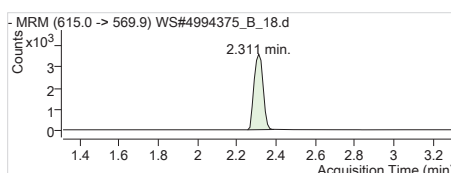
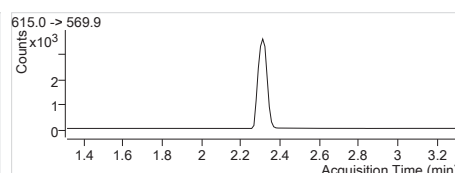
MPFNA
RT (Exp. RT): 2.014 (2.014)
Concentration: 1 µg/Kg
Sample type: CC



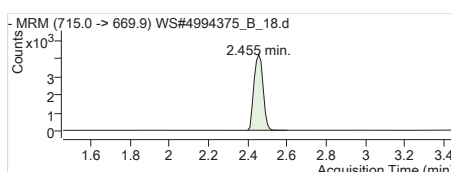
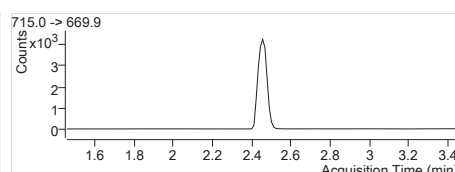
MPFDA
RT (Exp. RT): 2.124 (2.124)
Concentration: 1 µg/Kg
Sample type: CC



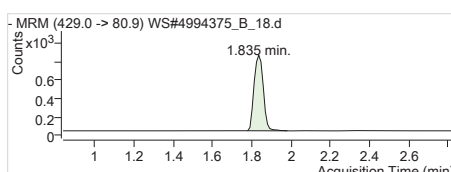
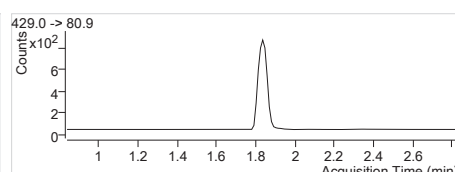
MPFUnA
RT (Exp. RT): 2.223 (2.223)
Concentration: 1 µg/Kg
Sample type: CC



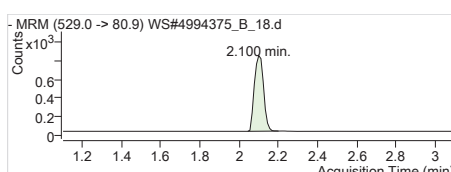
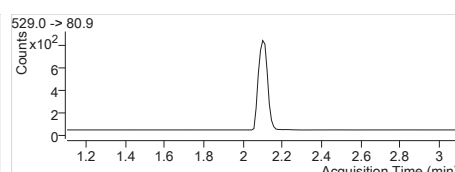
MPFDoA
RT (Exp. RT): 2.311 (2.311)
Concentration: 1 µg/Kg
Sample type: CC



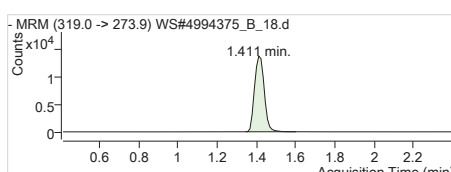
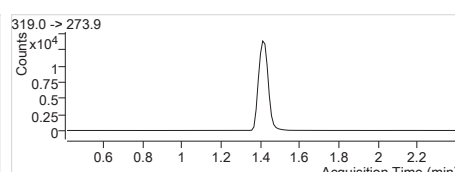
MPFTeDA
RT (Exp. RT): 2.455 (2.455)
Concentration: 1 µg/Kg
Sample type: CC



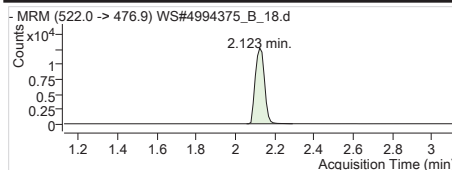
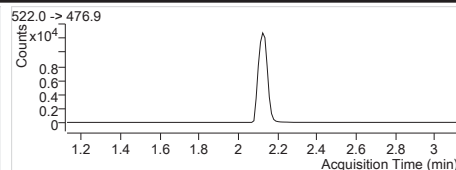
M2 6:2 FTS
RT (Exp. RT): 1.835 (1.835)
Concentration: 1 µg/Kg
Sample type: CC



M2 8:2 FTS
RT (Exp. RT): 2.100 (2.100)
Concentration: 1 µg/Kg
Sample type: CC



13C6-PFHxA IS
RT (Exp. RT): 1.411 (1.411)
Concentration: 1 µg/Kg
Sample type: CC

**13C9-PFDA IS**

RT (Exp. RT):

Concentration:

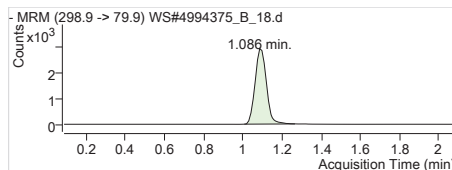
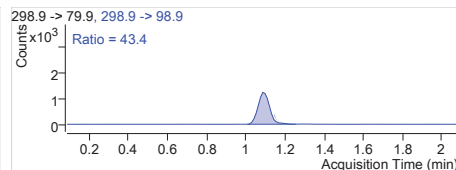
Sample type:

Internal Standard

2.123 (2.124)

1 µg/Kg

CC

**PFBS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

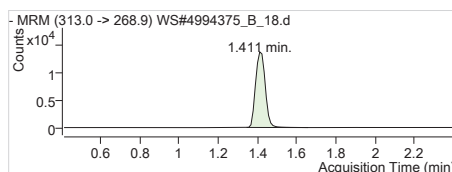
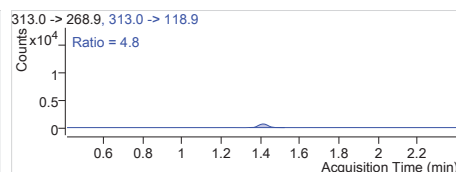
298.9 -> 79.9

1.086 (1.087)

11.57 µg/Kg

6.73201

CC

**PFHxA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

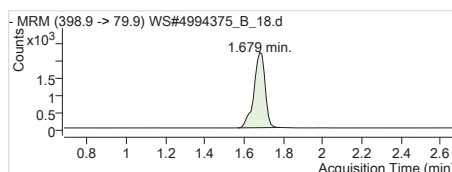
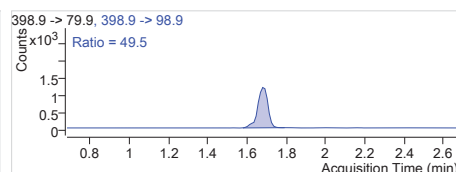
313.0 -> 268.9

1.411 (1.411)

11.05 µg/Kg

4.45600

CC

**PFHxS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

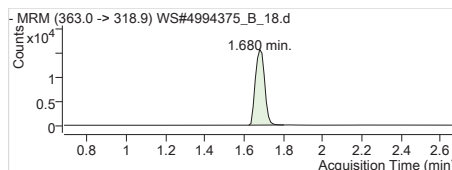
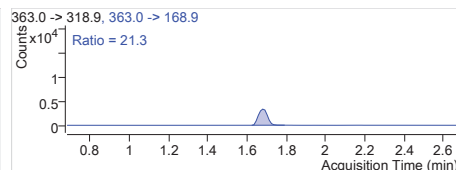
398.9 -> 79.9

1.679 (1.679)

11.28 µg/Kg

5.07022

CC

**PFHpA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

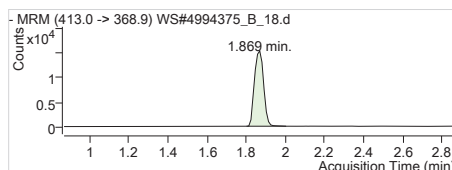
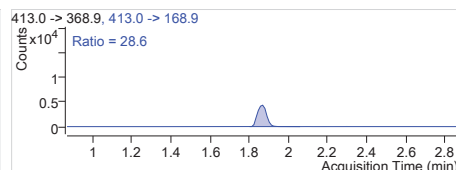
363.0 -> 318.9

1.680 (1.680)

10.72 µg/Kg

4.55603

CC

**PFOA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

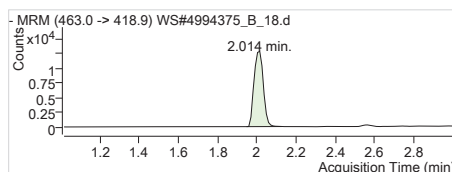
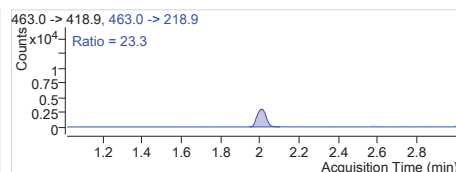
413.0 -> 368.9

1.869 (1.869)

11.13 µg/Kg

4.79114

CC

**PFNA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

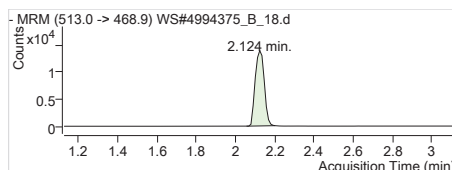
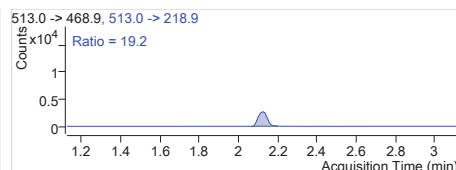
463.0 -> 418.9

2.014 (2.014)

10.92 µg/Kg

4.10473

CC

**PFDA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

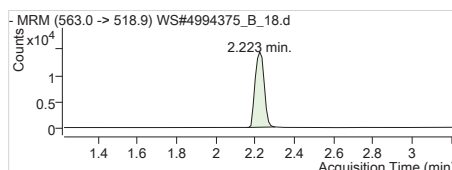
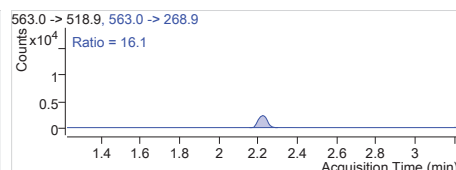
513.0 -> 468.9

2.124 (2.124)

11.64 µg/Kg

4.99032

CC

**PFUnA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

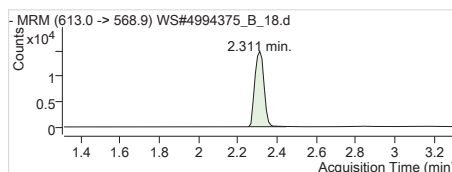
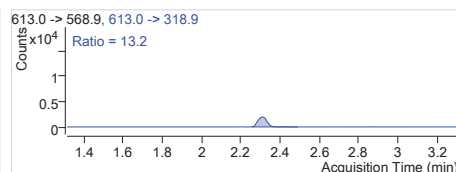
563.0 -> 518.9

2.223 (2.223)

11.78 µg/Kg

4.75398

CC

**PFDaA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

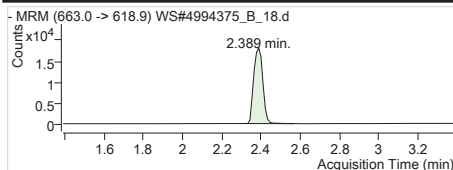
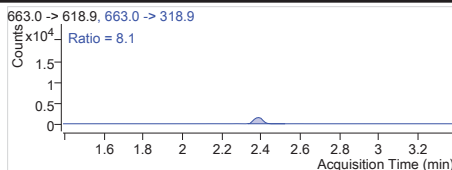
613.0 -> 568.9

2.311 (2.311)

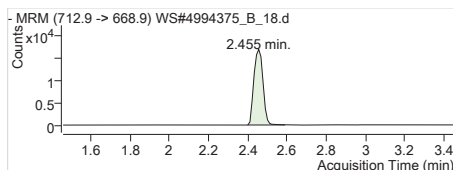
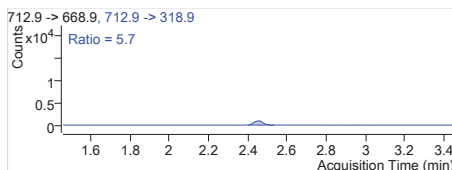
10.66 µg/Kg

4.21203

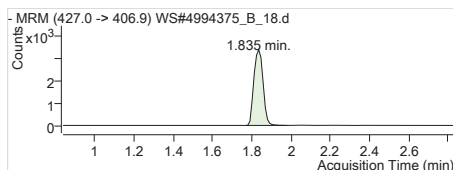
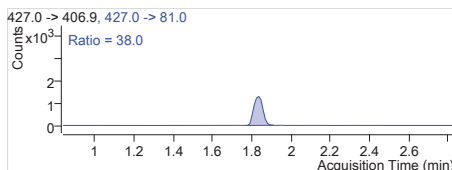
CC



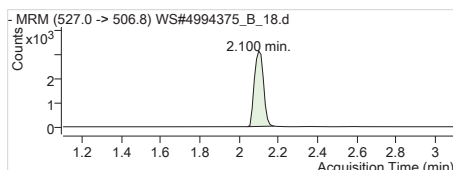
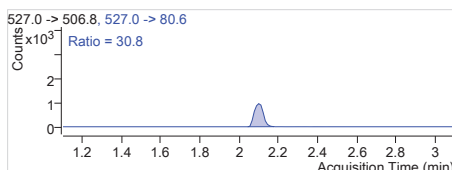
PFTDA 1
RT (Exp. RT): 663.0 -> 618.9
Calc. conc. 2.389 (2.389)
Area ratio: 11.72 µg/Kg
Sample type: 4.35403
CC



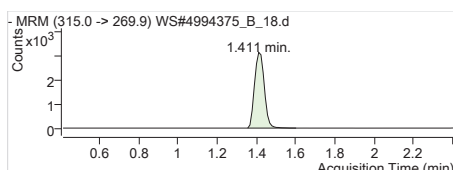
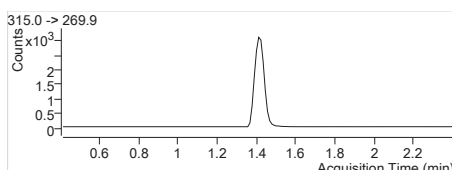
PFTeDA 1
RT (Exp. RT): 712.9 -> 668.9
Calc. conc. 2.455 (2.456)
Area ratio: 11.66 µg/Kg
Sample type: 4.01224
CC



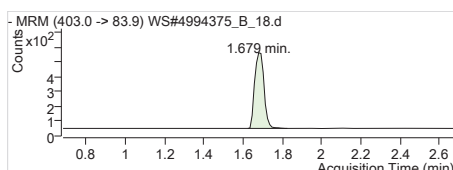
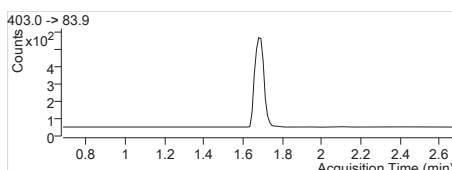
6:2-FTS 1
RT (Exp. RT): 427.0 -> 406.9
Calc. conc. 1.835 (1.835)
Area ratio: 11.31 µg/Kg
Sample type: 4.04780
CC



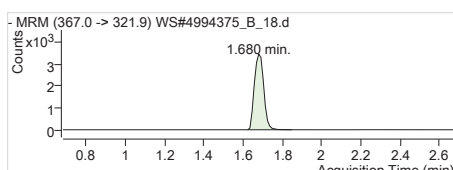
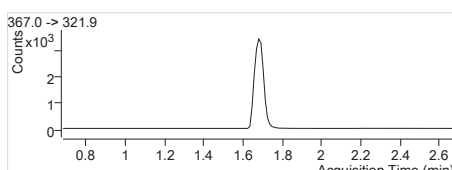
8:2-FTS 1
RT (Exp. RT): 527.0 -> 506.8
Calc. conc. 2.100 (2.101)
Area ratio: 11.60 µg/Kg
Sample type: 3.85714
CC



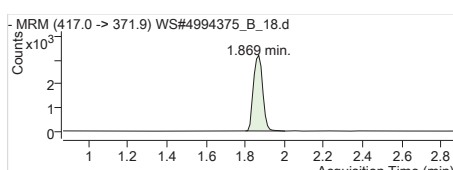
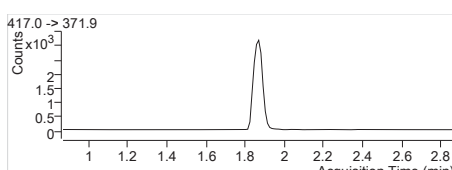
13C2-PFHxA
RT (Exp. RT): 315.0 -> 269.9
Calc. conc. 1.411 (1.411)
Area ratio: 107.45 µg/Kg
Sample type: 0.22314
CC



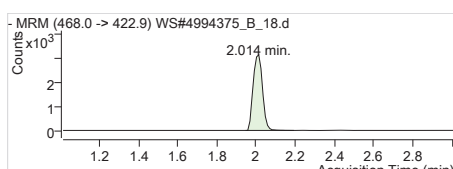
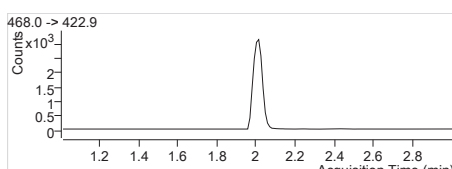
18O2-PFHxS
RT (Exp. RT): 403.0 -> 83.9
Calc. conc. 1.679 (1.679)
Area ratio: 102.71 µg/Kg
Sample type: 0.03600
CC



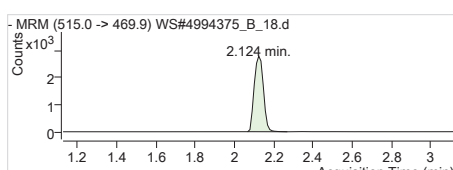
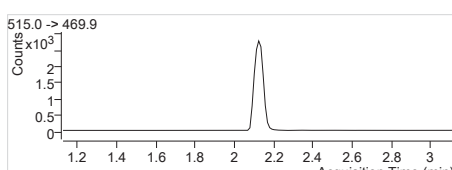
13C4-PFHpA
RT (Exp. RT): 367.0 -> 321.9
Calc. conc. 1.680 (1.680)
Area ratio: 107.94 µg/Kg
Sample type: 0.23744
CC



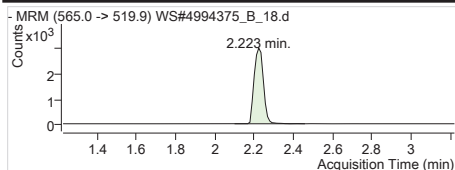
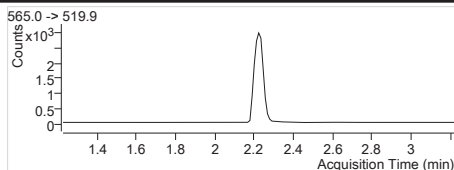
13C4-PFOA
RT (Exp. RT): 417.0 -> 371.9
Calc. conc. 1.869 (1.869)
Area ratio: 105.70 µg/Kg
Sample type: 0.21776
CC



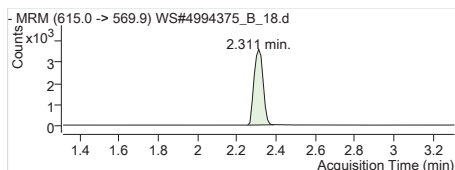
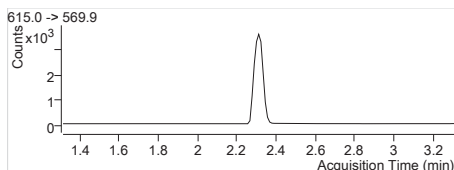
13C5-PFNA
RT (Exp. RT): 468.0 -> 422.9
Calc. conc. 2.014 (2.014)
Area ratio: 107.04 µg/Kg
Sample type: 0.21644
CC



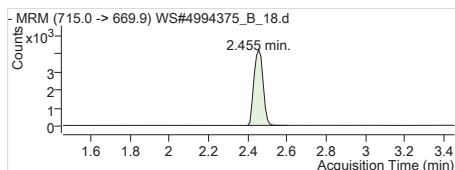
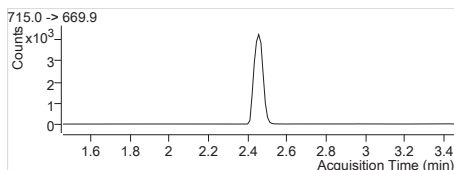
13C2-PFDA
RT (Exp. RT): 515.0 -> 469.9
Calc. conc. 2.124 (2.124)
Area ratio: 102.98 µg/Kg
Sample type: 0.21399
CC



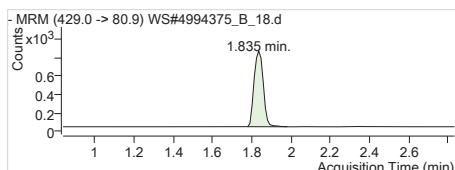
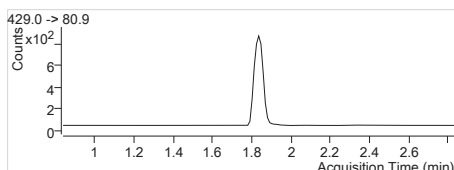
13C2-PFUnA
RT (Exp. RT): 565.0 -> 519.9
Calc. conc. 2.223 (2.223)
Area ratio: 101.11 µg/Kg
Sample type: 0.23434
CC



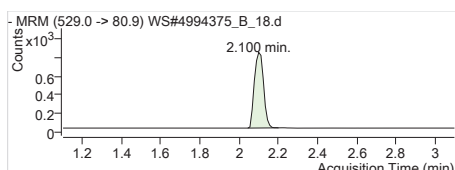
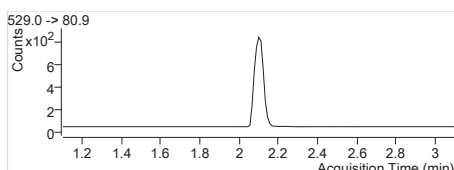
13C2-PFDoA
RT (Exp. RT): 615.0 -> 569.9
Calc. conc. 2.311 (2.311)
Area ratio: 106.90 µg/Kg
Sample type: 0.27462
CC



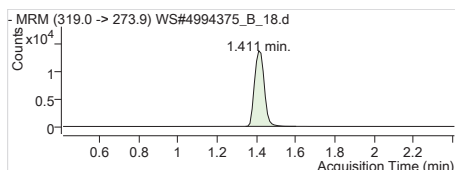
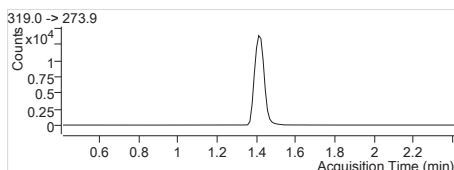
13C2-PFTeDA
RT (Exp. RT): 715.0 -> 669.9
Calc. conc. 2.455 (2.455)
Area ratio: 98.15 µg/Kg
Sample type: 0.32269
CC



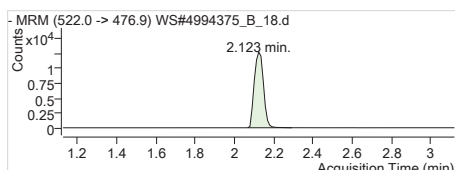
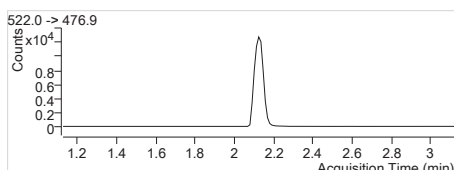
13C2-6:2-FTS
RT (Exp. RT): 429.0 -> 80.9
Calc. conc. 1.835 (1.835)
Area ratio: 109.34 µg/Kg
Sample type: 0.05686
CC



13C2-8:2 FTS
RT (Exp. RT): 529.0 -> 80.9
Calc. conc. 2.100 (2.100)
Area ratio: 108.35 µg/Kg
Sample type: 0.05500
CC



13C6-PFHxA
RT (Exp. RT): 319.0 -> 273.9
Calc. conc. 1.411 (1.411)
Area ratio: 95.02 µg/Kg
Sample type: 0
CC

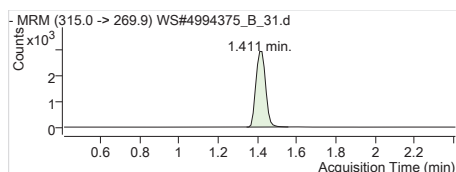
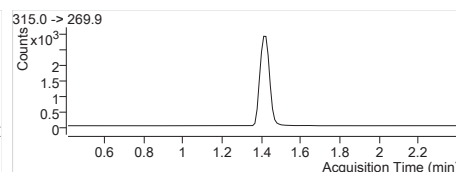


13C9-PFDA
RT (Exp. RT): 522.0 -> 476.9
Calc. conc. 2.123 (2.124)
Area ratio: 98.28 µg/Kg
Sample type: 0
CC

Batch Path	T:\lcms4\PFC\20170526\WS#4994375_B\QuantResults\PFC_Soil_170526_WS#4994375_CTLabs		
Sample Name	CCV	Instrument	LCMS04
Data File	WS#4994375_B_31.d	Operator	AD
Sample Type	CC	Dilution	1
Acq. Method	PFC_Soil.m	Position	P1-A5
Acq. Date	2017/05/30 12:50:26 PM	Injection Volume	Per Method
Sample Annotation	-		

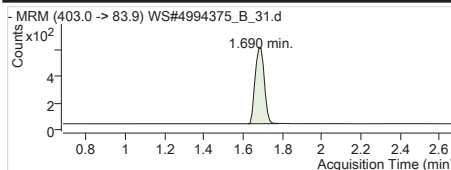
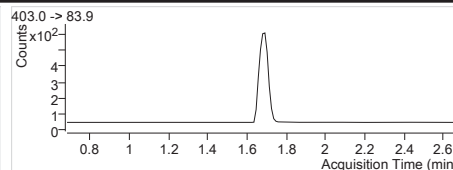
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	9967	1.41	1 µg/Kg		
MPFHxS	1836	1.69	1 µg/Kg		
MPFHpA	10940	1.68	1 µg/Kg		
MPFOA	10351	1.87	1 µg/Kg		
MPFNA	9851	2.01	1 µg/Kg		
MPFDA	8447	2.12	1 µg/Kg		
MPFUnA	10039	2.22	1 µg/Kg		
MPFDoA	10993	2.31	1 µg/Kg		
MPFTeDA	13538	2.46	1 µg/Kg		
M2 6:2 FTS	2621	1.83	1 µg/Kg		
M2 8:2 FTS	2465	2.10	1 µg/Kg		
13C6-PFHxA IS	46243	1.41	1 µg/Kg		
13C9-PFDA	40639	2.12	1 µg/Kg		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	11456	1.09	11.30	10.73 µg/Kg	94.93
PFHxA 1	44623	1.42	11.30	11.10 µg/Kg	98.24
PFHxS 1	8963	1.68	11.30	10.86 µg/Kg	96.13
PFHpA 1	49490	1.68	11.30	10.65 µg/Kg	94.23
PFOA 1	47701	1.87	11.30	10.71 µg/Kg	94.77
PFNA 1	42551	2.01	11.30	11.49 µg/Kg	101.71
PFDA 1	45148	2.12	11.30	12.47 µg/Kg	110.36
PFUnA 1	45667	2.22	11.30	11.27 µg/Kg	99.72
PFDaA 1	47766	2.31	11.30	11.00 µg/Kg	97.36
PFTTrDA 1	57219	2.39	11.30	11.38 µg/Kg	100.71
PFTeDA 1	52368	2.46	11.30	11.24 µg/Kg	99.47
6:2-FTS 1	10798	1.84	11.30	11.51 µg/Kg	101.86
8:2-FTS 1	9168	2.10	11.30	11.18 µg/Kg	98.95
13C2-PFHxA	9967	1.41	100.00	103.79 µg/Kg	103.79
18O2-PFHxS	1836	1.69	100.00	113.26 µg/Kg	113.26
13C4-PFHpA	10940	1.68	100.00	107.55 µg/Kg	107.55
13C4-PFOA	10351	1.87	100.00	108.65 µg/Kg	108.65
13C5-PFNA	9851	2.01	100.00	105.35 µg/Kg	105.35
13C2-PFDA	8447	2.12	100.00	100.03 µg/Kg	100.03
13C2-PFUnA	10077	2.22	100.00	106.99 µg/Kg	106.99
13C2-PFDoA	10993	2.31	100.00	105.29 µg/Kg	105.29
13C2-PFTeDA	13538	2.46	100.00	101.33 µg/Kg	101.33
13C2-6:2-FTS	2621	1.83	100.00	109.00 µg/Kg	109.00
13C2-8:2 FTS	2465	2.10	100.00	105.01 µg/Kg	105.01
13C6-PFHxA	46243	1.41	100.00	92.57 µg/Kg	92.57
13C9-PFDA	40418	2.12	100.00	95.67 µg/Kg	95.67

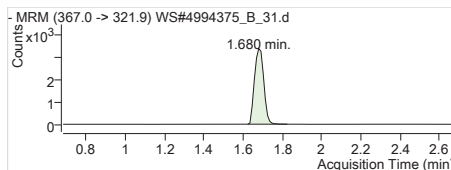
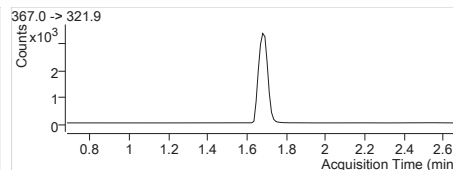


MPFHxA
 RT (Exp. RT):
 Concentration:
 Sample type:

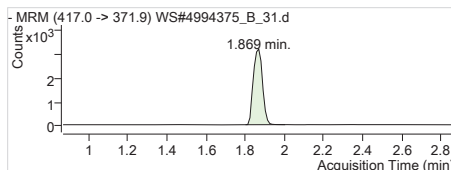
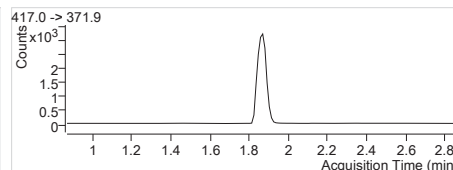
Internal Standard
 1.411 (1.411)
 1 µg/Kg
 CC



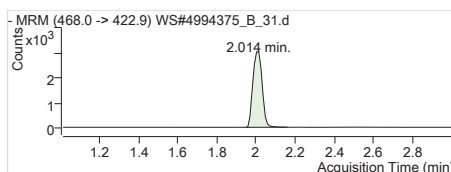
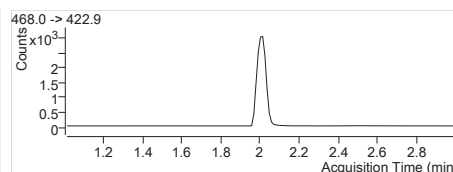
MPFHxS
RT (Exp. RT): 1.690 (1.679)
Concentration: 1 µg/Kg
Sample type: CC



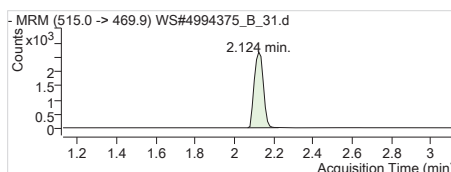
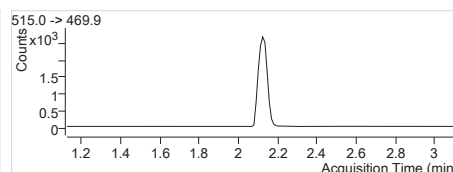
MPFHpA
RT (Exp. RT): 1.680 (1.680)
Concentration: 1 µg/Kg
Sample type: CC



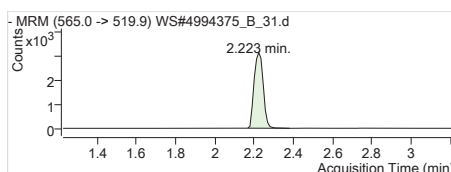
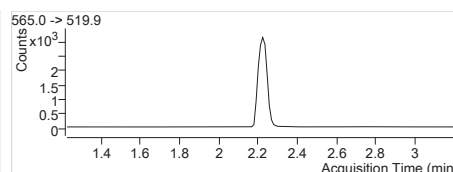
MPFOA
RT (Exp. RT): 1.869 (1.869)
Concentration: 1 µg/Kg
Sample type: CC



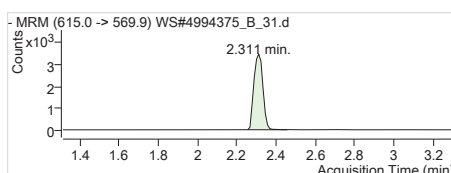
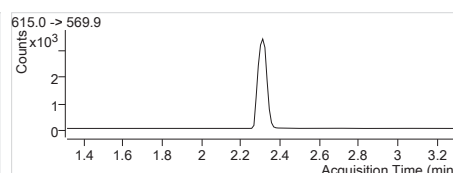
MPFNA
RT (Exp. RT): 2.014 (2.014)
Concentration: 1 µg/Kg
Sample type: CC



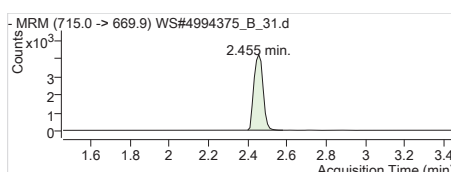
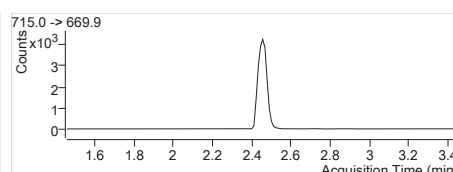
MPFDA
RT (Exp. RT): 2.124 (2.124)
Concentration: 1 µg/Kg
Sample type: CC



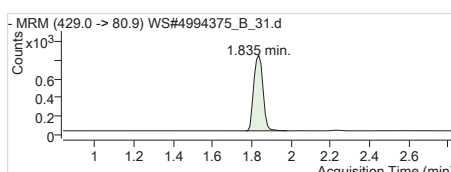
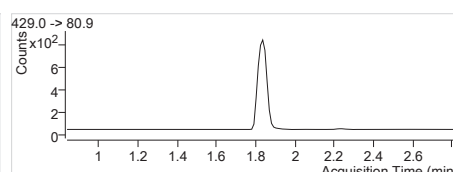
MPFUnA
RT (Exp. RT): 2.223 (2.223)
Concentration: 1 µg/Kg
Sample type: CC



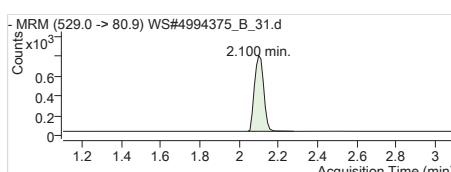
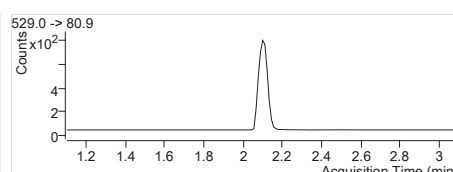
MPFDoA
RT (Exp. RT): 2.311 (2.311)
Concentration: 1 µg/Kg
Sample type: CC



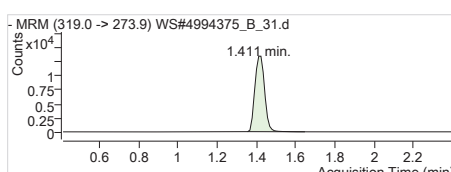
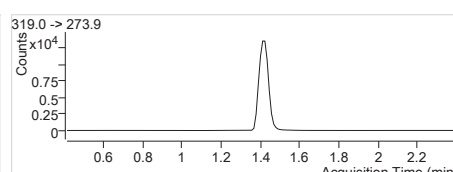
MPFTeDA
RT (Exp. RT): 2.455 (2.455)
Concentration: 1 µg/Kg
Sample type: CC



M2 6:2 FTS
RT (Exp. RT): 1.835 (1.835)
Concentration: 1 µg/Kg
Sample type: CC

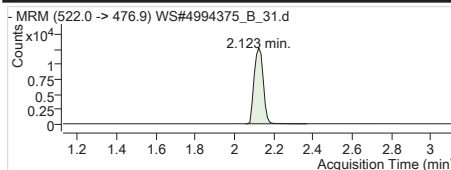
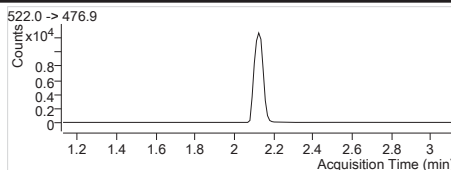


M2 8:2 FTS
RT (Exp. RT): 2.100 (2.100)
Concentration: 1 µg/Kg
Sample type: CC



13C6-PFHxA IS
RT (Exp. RT): 1.411 (1.411)
Concentration: 1 µg/Kg
Sample type: CC

Quantitation Results



13C9-PFDA IS

RT (Exp. RT):

Concentration:

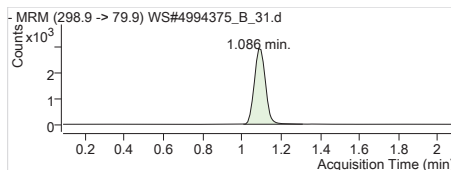
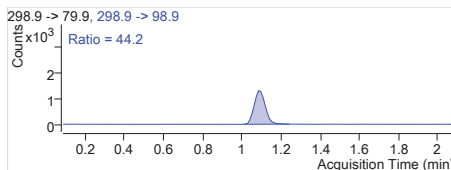
Sample type:

Internal Standard

2.123 (2.124)

1 µg/Kg

CC



PFBS 1

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

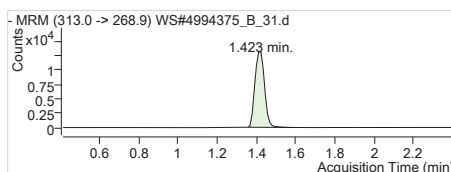
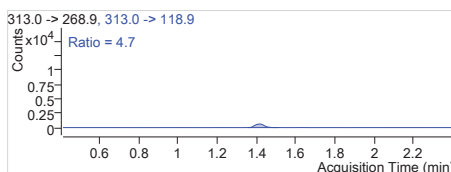
298.9 -> 79.9

1.086 (1.087)

10.73 µg/Kg

6.23965

CC



PFHxA 1

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

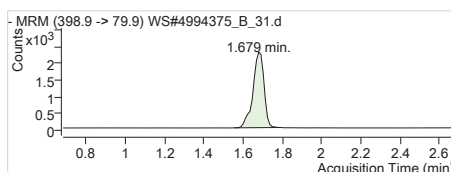
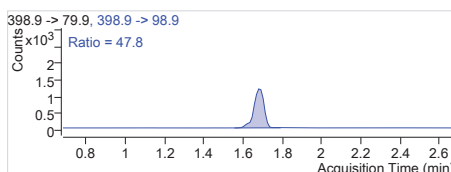
313.0 -> 268.9

1.423 (1.411)

11.10 µg/Kg

4.47707

CC



PFHxS 1

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

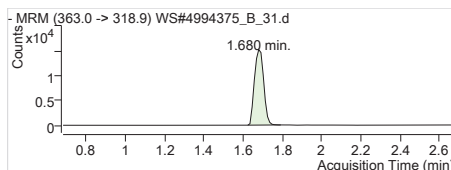
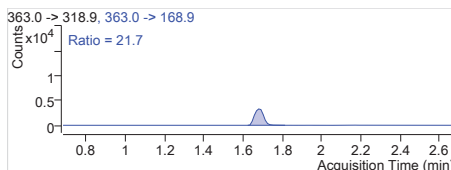
398.9 -> 79.9

1.679 (1.679)

10.86 µg/Kg

4.88181

CC



PFHpA 1

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

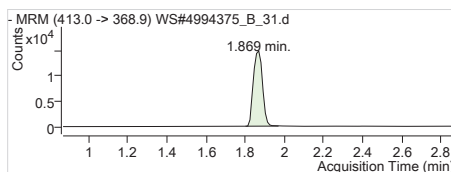
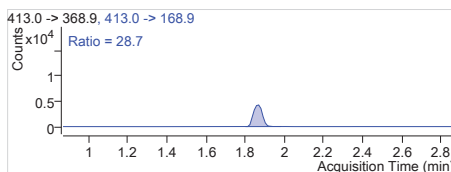
363.0 -> 318.9

1.680 (1.680)

10.65 µg/Kg

4.52377

CC



PFOA 1

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

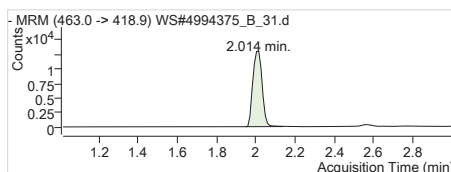
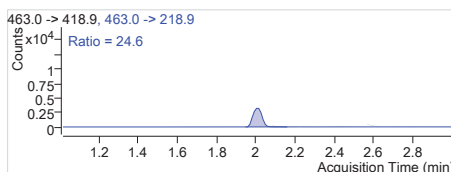
413.0 -> 368.9

1.869 (1.869)

10.71 µg/Kg

4.60835

CC



PFNA 1

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

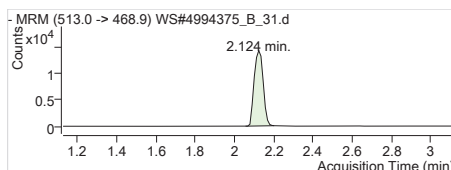
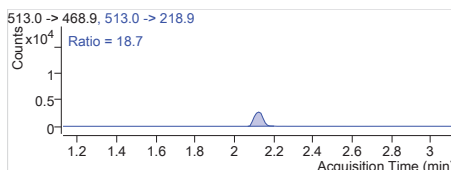
463.0 -> 418.9

2.014 (2.014)

11.49 µg/Kg

4.31946

CC



PFDA 1

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

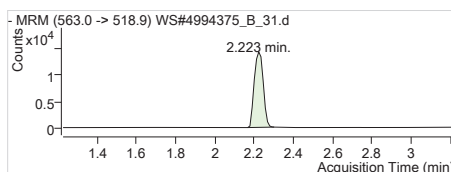
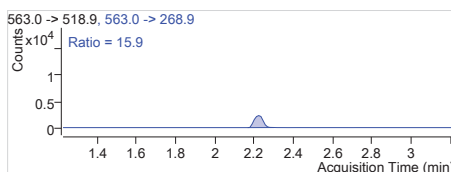
513.0 -> 468.9

2.124 (2.124)

12.47 µg/Kg

5.34486

CC



PFUnA 1

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

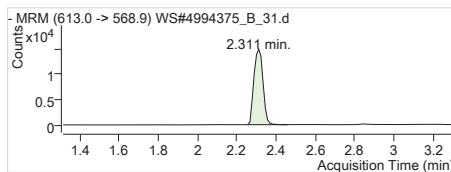
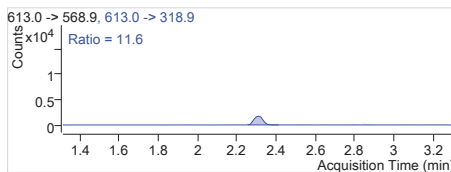
563.0 -> 518.9

2.223 (2.223)

11.27 µg/Kg

4.54896

CC



PFDoA 1

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

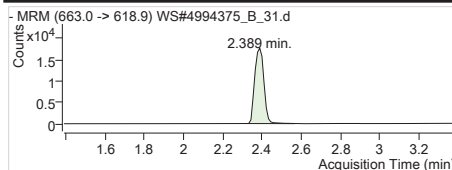
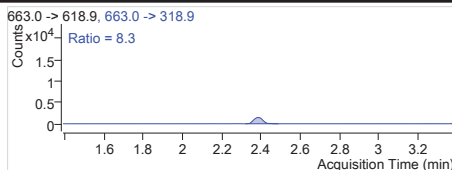
613.0 -> 568.9

2.311 (2.311)

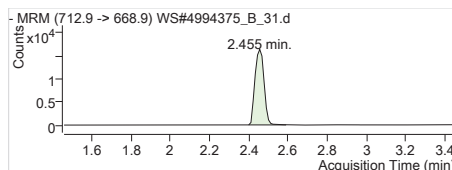
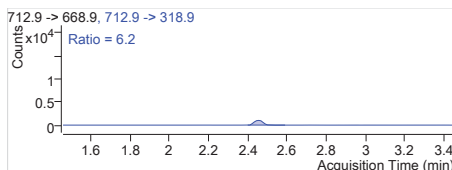
11.00 µg/Kg

4.34513

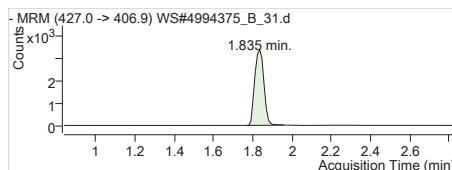
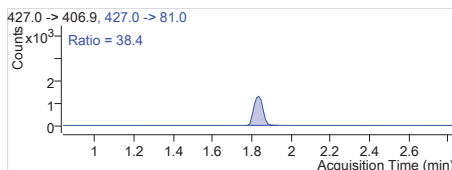
CC



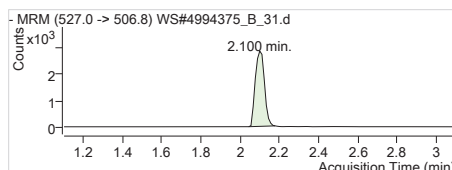
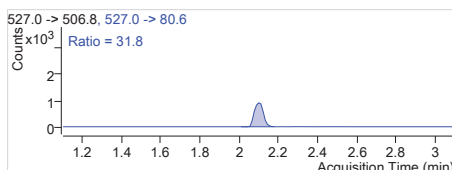
PFTDA 1
RT (Exp. RT): 663.0 -> 618.9
Calc. conc. 2.389 (2.389)
Area ratio: 11.38 µg/Kg
Sample type: 4.22655
CC



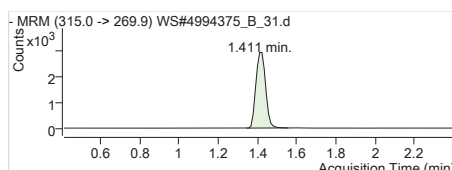
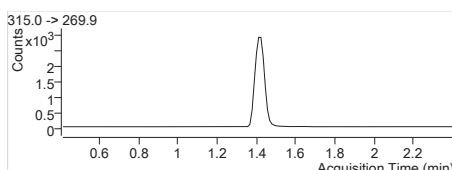
PFTDA 1
RT (Exp. RT): 712.9 -> 668.9
Calc. conc. 2.455 (2.456)
Area ratio: 11.24 µg/Kg
Sample type: 3.86822
CC



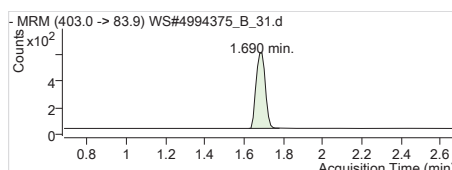
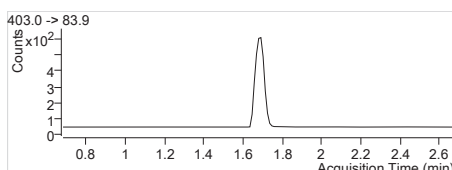
6:2-FTS 1
RT (Exp. RT): 427.0 -> 406.9
Calc. conc. 1.835 (1.835)
Area ratio: 11.51 µg/Kg
Sample type: 4.11980
CC



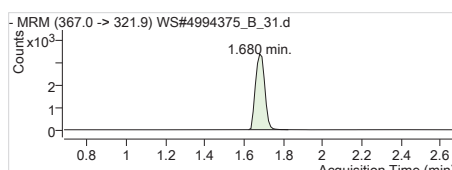
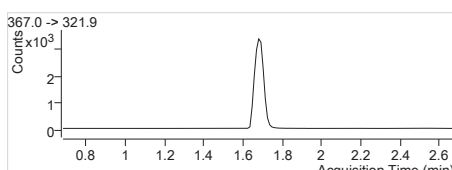
8:2-FTS 1
RT (Exp. RT): 527.0 -> 506.8
Calc. conc. 2.100 (2.101)
Area ratio: 11.18 µg/Kg
Sample type: 3.71927
CC



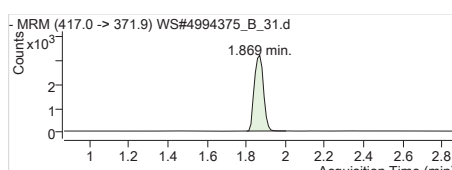
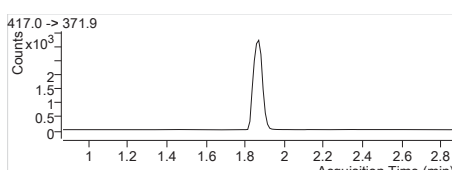
13C2-PFHxA
RT (Exp. RT): 315.0 -> 269.9
Calc. conc. 1.411 (1.411)
Area ratio: 103.79 µg/Kg
Sample type: 0.21554
CC



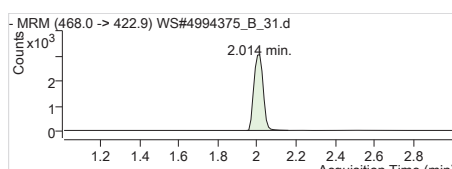
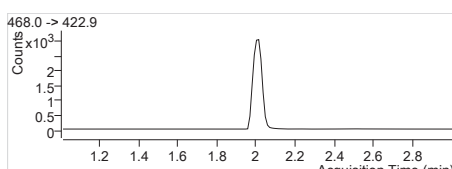
18O2-PFHxS
RT (Exp. RT): 403.0 -> 83.9
Calc. conc. 1.690 (1.679)
Area ratio: 113.26 µg/Kg
Sample type: 0.03970
CC



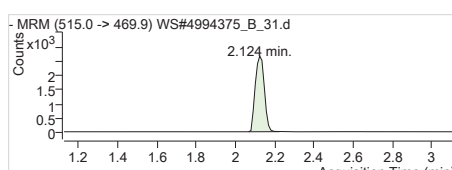
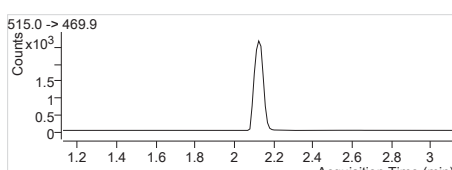
13C4-PFHpA
RT (Exp. RT): 367.0 -> 321.9
Calc. conc. 1.680 (1.680)
Area ratio: 107.55 µg/Kg
Sample type: 0.23658
CC



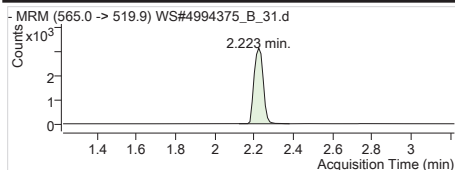
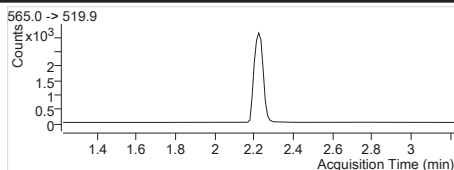
13C4-PFOA
RT (Exp. RT): 417.0 -> 371.9
Calc. conc. 1.869 (1.869)
Area ratio: 108.65 µg/Kg
Sample type: 0.22384
CC



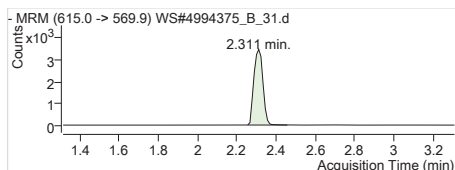
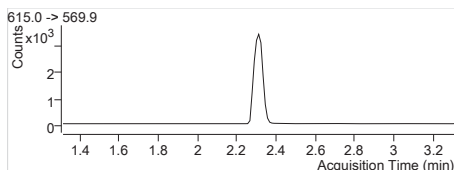
13C5-PFNA
RT (Exp. RT): 468.0 -> 422.9
Calc. conc. 2.014 (2.014)
Area ratio: 105.35 µg/Kg
Sample type: 0.21303
CC



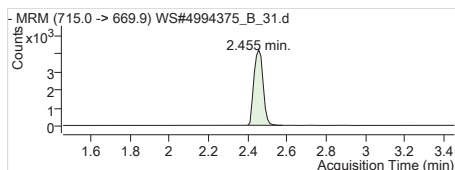
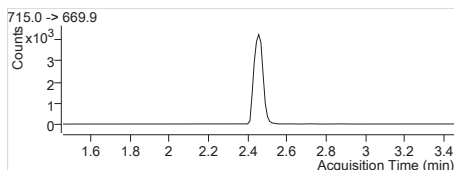
13C2-PFDA
RT (Exp. RT): 515.0 -> 469.9
Calc. conc. 2.124 (2.124)
Area ratio: 100.03 µg/Kg
Sample type: 0.20785
CC



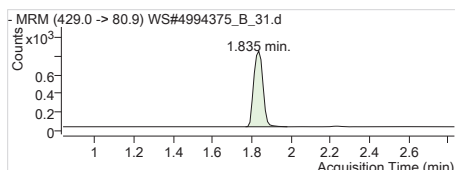
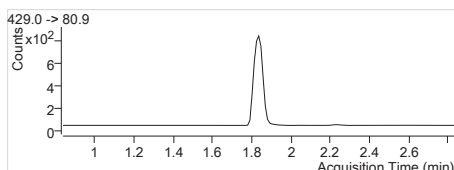
13C2-PFUnA
RT (Exp. RT): 565.0 -> 519.9
Calc. conc. 2.223 (2.223)
Area ratio: 106.99 µg/Kg
Sample type: 0.24796
CC



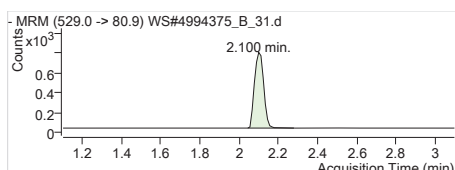
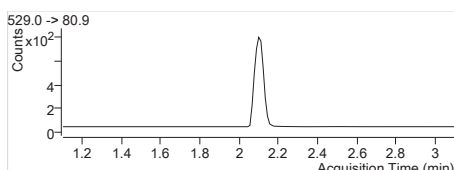
13C2-PFDoA
RT (Exp. RT): 615.0 -> 569.9
Calc. conc. 2.311 (2.311)
Area ratio: 105.29 µg/Kg
Sample type: 0.27050
CC



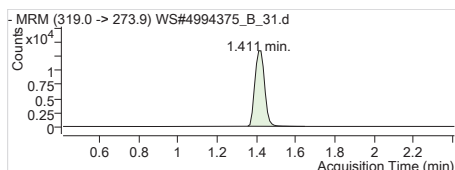
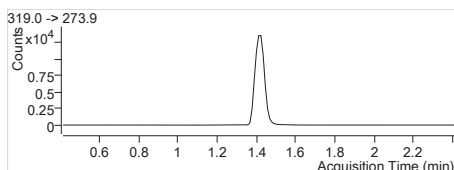
13C2-PFTeDA
RT (Exp. RT): 715.0 -> 669.9
Calc. conc. 2.455 (2.455)
Area ratio: 101.33 µg/Kg
Sample type: 0.33313
CC



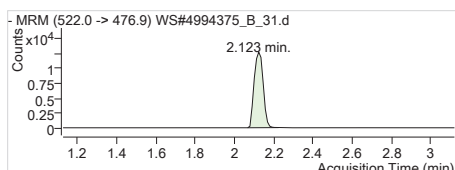
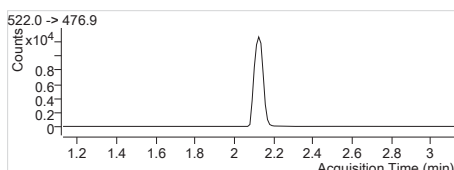
13C2-6:2-FTS
RT (Exp. RT): 429.0 -> 80.9
Calc. conc. 1.835 (1.835)
Area ratio: 109.00 µg/Kg
Sample type: 0.05668
CC



13C2-8:2 FTS
RT (Exp. RT): 529.0 -> 80.9
Calc. conc. 2.100 (2.100)
Area ratio: 105.01 µg/Kg
Sample type: 0.05331
CC



13C6-PFHxA
RT (Exp. RT): 319.0 -> 273.9
Calc. conc. 1.411 (1.411)
Area ratio: 92.57 µg/Kg
Sample type: 0
CC

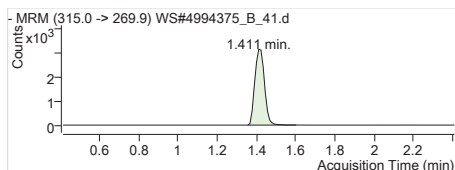
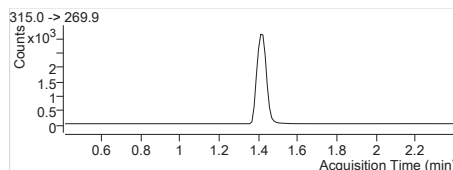


13C9-PFDA
RT (Exp. RT): 522.0 -> 476.9
Calc. conc. 2.123 (2.124)
Area ratio: 95.67 µg/Kg
Sample type: 0
CC

Batch Path	T:\lcms4\PFC\20170526\WS#4994375_B\QuantResults\PFC_Soil_170526_WS#4994375_CTLabs		
Sample Name	CCV	Instrument	LCMS04
Data File	WS#4994375_B_41.d	Operator	AD
Sample Type	CC	Dilution	1
Acq. Method	PFC_Soil.m	Position	P1-A5
Acq. Date	2017/05/30 1:39:26 PM	Injection Volume	Per Method
Sample Annotation	-		

ISTD Compounds	Response	RT	Target conc.		
MPFHxA	10606	1.41	1 µg/Kg		
MPFHxS	1836	1.68	1 µg/Kg		
MPFHpA	10937	1.68	1 µg/Kg		
MPFOA	10221	1.87	1 µg/Kg		
MPFNA	10368	2.01	1 µg/Kg		
MPFDA	8688	2.12	1 µg/Kg		
MPFUnA	10005	2.22	1 µg/Kg		
MPFDoA	10723	2.31	1 µg/Kg		
MPFTeDA	13880	2.46	1 µg/Kg		
M2 6:2 FTS	2624	1.83	1 µg/Kg		
M2 8:2 FTS	2454	2.10	1 µg/Kg		
13C6-PFHxA IS	46411	1.41	1 µg/Kg		
13C9-PFDA	39100	2.12	1 µg/Kg		

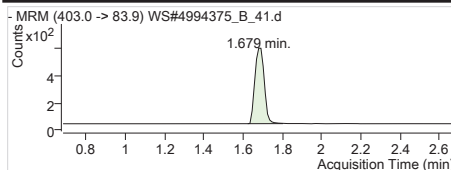
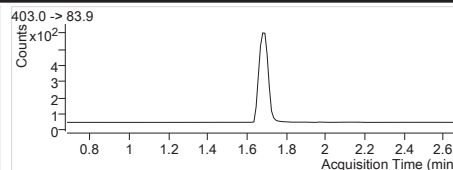
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	11481	1.09	11.30	10.75 µg/Kg	95.13
PFHxA 1	45184	1.41	11.30	10.56 µg/Kg	93.48
PFHxS 1	8759	1.68	11.30	10.61 µg/Kg	93.93
PFHpA 1	49723	1.68	11.30	10.70 µg/Kg	94.70
PFOA 1	47713	1.87	11.30	10.85 µg/Kg	96.00
PFNA 1	42475	2.01	11.30	10.90 µg/Kg	96.46
PFDA 1	44919	2.12	11.30	12.06 µg/Kg	106.73
PFUnA 1	46935	2.22	11.30	11.62 µg/Kg	102.85
PFDaA 1	47863	2.31	11.30	11.30 µg/Kg	100.01
PFTTrDA 1	55671	2.39	11.30	10.80 µg/Kg	95.56
PFTeDA 1	51219	2.46	11.30	10.72 µg/Kg	94.82
6:2-FTS 1	10789	1.84	11.30	11.49 µg/Kg	101.65
8:2-FTS 1	9097	2.10	11.30	11.14 µg/Kg	98.62
13C2-PFHxA	10606	1.41	100.00	110.05 µg/Kg	110.05
18O2-PFHxS	1836	1.68	100.00	112.85 µg/Kg	112.85
13C4-PFHpA	10937	1.68	100.00	107.13 µg/Kg	107.13
13C4-PFOA	10221	1.87	100.00	106.90 µg/Kg	106.90
13C5-PFNA	10368	2.01	100.00	110.48 µg/Kg	110.48
13C2-PFDA	8688	2.12	100.00	106.93 µg/Kg	106.93
13C2-PFUnA	10039	2.22	100.00	110.79 µg/Kg	110.79
13C2-PFDoA	10723	2.31	100.00	106.75 µg/Kg	106.75
13C2-PFTeDA	13880	2.46	100.00	107.97 µg/Kg	107.97
13C2-6:2-FTS	2624	1.83	100.00	108.73 µg/Kg	108.73
13C2-8:2 FTS	2454	2.10	100.00	104.16 µg/Kg	104.16
13C6-PFHxA	46411	1.41	100.00	92.91 µg/Kg	92.91
13C9-PFDA	39401	2.12	100.00	93.27 µg/Kg	93.27



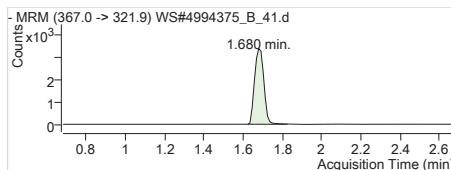
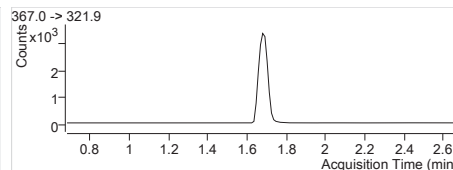
MPFHxA

RT (Exp. RT):
Concentration:
Sample type:

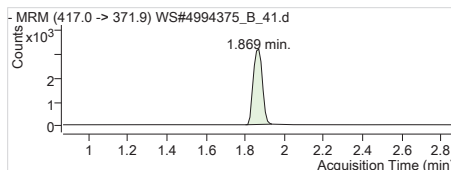
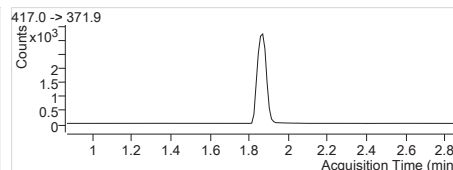
Internal Standard
1.411 (1.411)
1 µg/Kg
CC



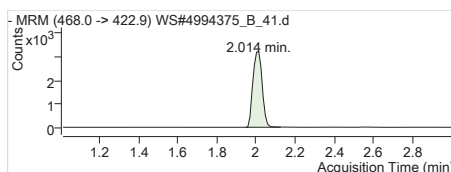
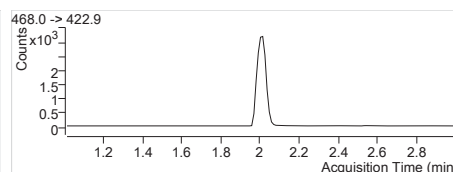
MPFHxS
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/Kg
Sample type: CC



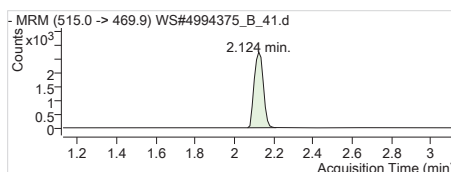
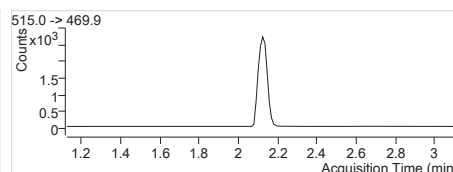
MPFHpA
RT (Exp. RT): 1.680 (1.680)
Concentration: 1 µg/Kg
Sample type: CC



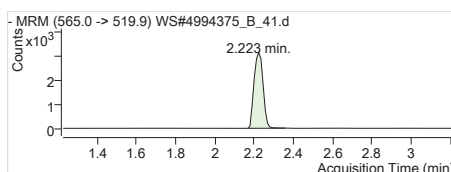
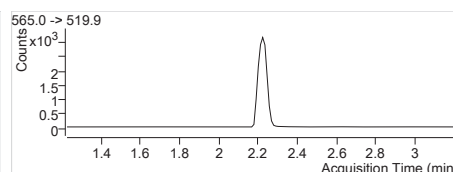
MPFOA
RT (Exp. RT): 1.869 (1.869)
Concentration: 1 µg/Kg
Sample type: CC



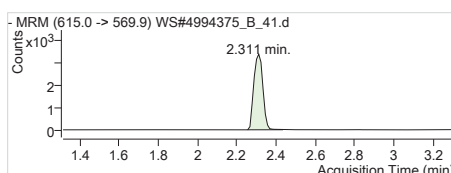
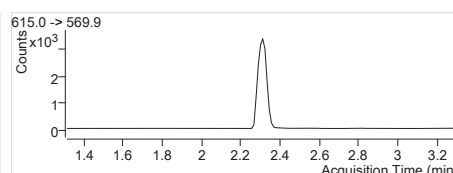
MPFNA
RT (Exp. RT): 2.014 (2.014)
Concentration: 1 µg/Kg
Sample type: CC



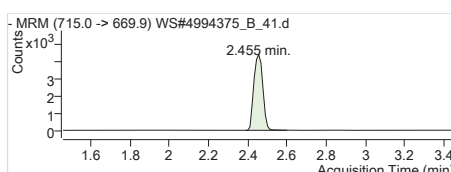
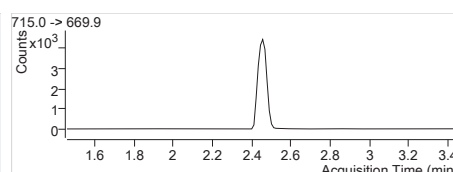
MPFDA
RT (Exp. RT): 2.124 (2.124)
Concentration: 1 µg/Kg
Sample type: CC



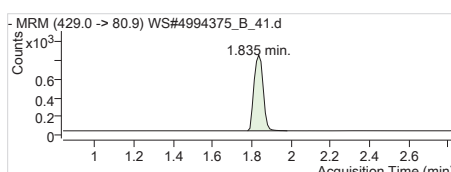
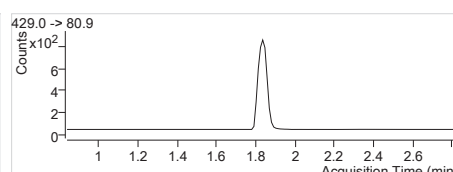
MPFUnA
RT (Exp. RT): 2.223 (2.223)
Concentration: 1 µg/Kg
Sample type: CC



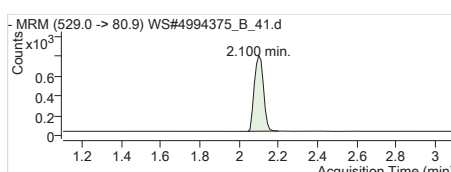
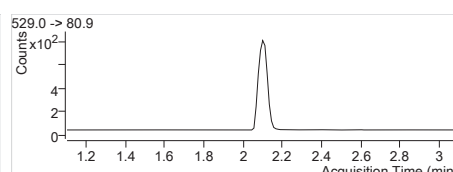
MPFDoA
RT (Exp. RT): 2.311 (2.311)
Concentration: 1 µg/Kg
Sample type: CC



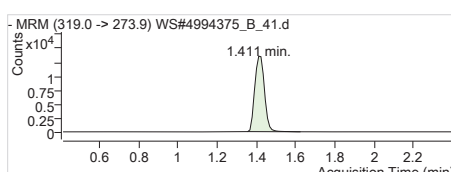
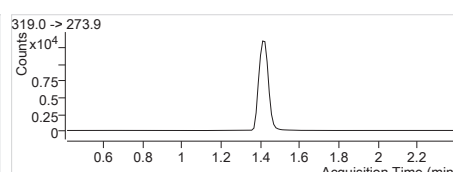
MPFTeDA
RT (Exp. RT): 2.455 (2.455)
Concentration: 1 µg/Kg
Sample type: CC



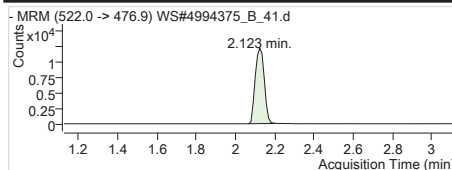
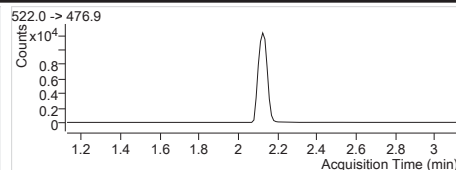
M2 6:2 FTS
RT (Exp. RT): 1.835 (1.835)
Concentration: 1 µg/Kg
Sample type: CC



M2 8:2 FTS
RT (Exp. RT): 2.100 (2.100)
Concentration: 1 µg/Kg
Sample type: CC



13C6-PFHxA IS
RT (Exp. RT): 1.411 (1.411)
Concentration: 1 µg/Kg
Sample type: CC

**13C9-PFDA IS**

RT (Exp. RT):

Concentration:

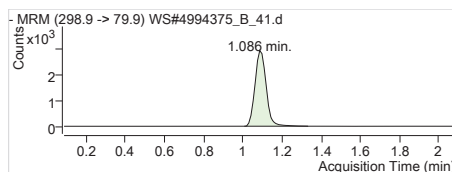
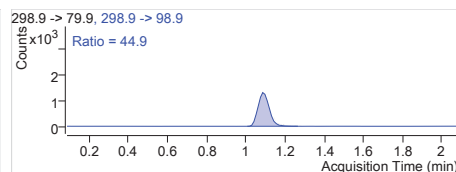
Sample type:

Internal Standard

2.123 (2.124)

1 µg/Kg

CC

**PFBS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

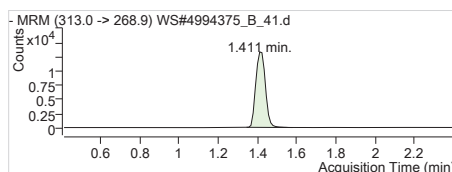
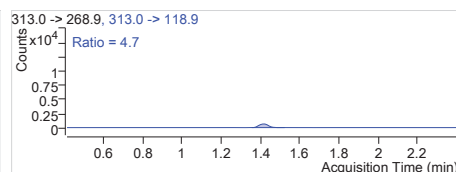
298.9 → 79.9

1.086 (1.087)

10.75 µg/Kg

6.25327

CC

**PFHxA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

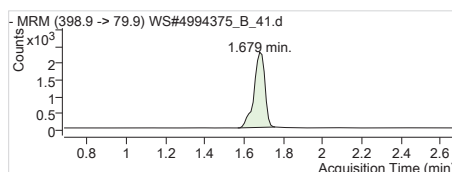
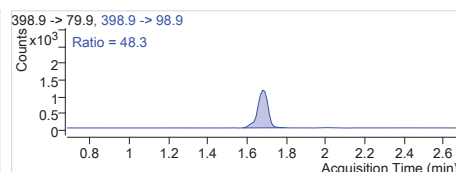
313.0 → 268.9

1.411 (1.411)

10.56 µg/Kg

4.26023

CC

**PFHxS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

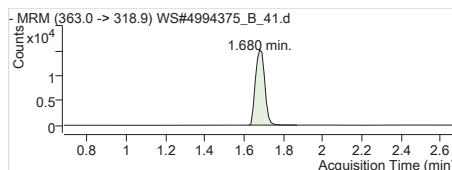
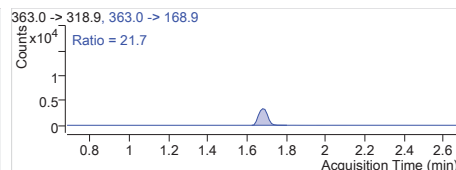
398.9 → 79.9

1.679 (1.679)

10.61 µg/Kg

4.77070

CC

**PFHpA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

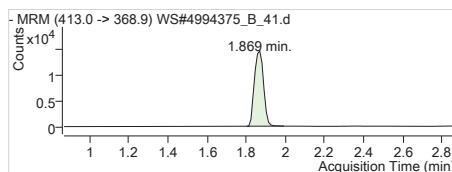
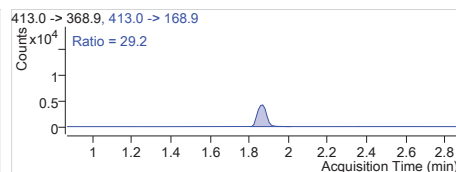
363.0 → 318.9

1.680 (1.680)

10.70 µg/Kg

4.54631

CC

**PFOA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

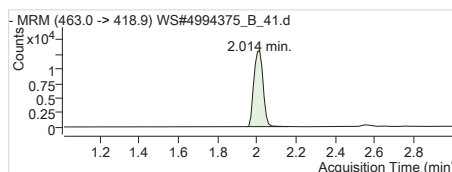
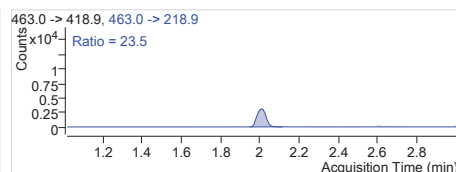
413.0 → 368.9

1.869 (1.869)

10.85 µg/Kg

4.66813

CC

**PFNA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

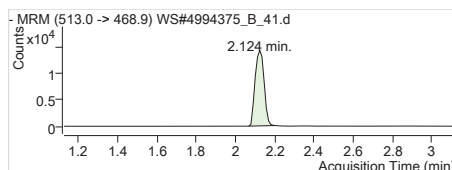
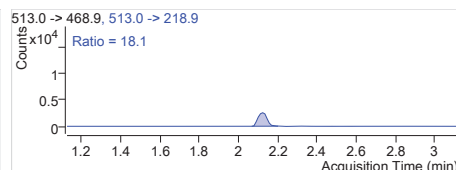
463.0 → 418.9

2.014 (2.014)

10.90 µg/Kg

4.09674

CC

**PFDA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

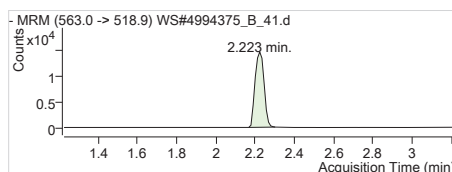
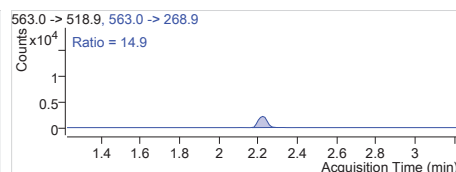
513.0 → 468.9

2.124 (2.124)

12.06 µg/Kg

5.17023

CC

**PFUnA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

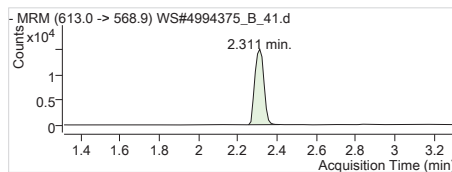
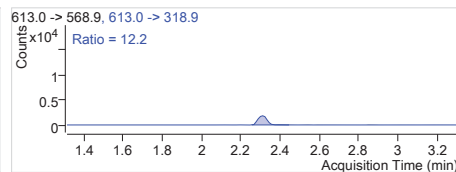
563.0 → 518.9

2.223 (2.223)

11.62 µg/Kg

4.69115

CC

**PFDaA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

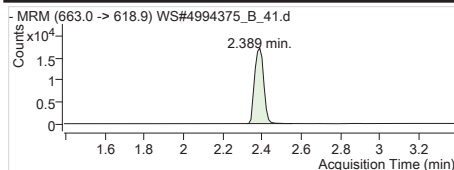
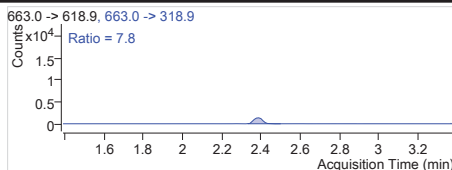
613.0 → 568.9

2.311 (2.311)

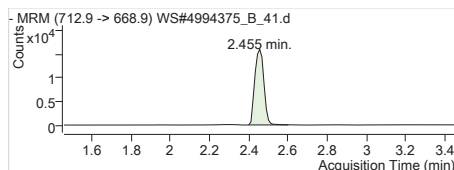
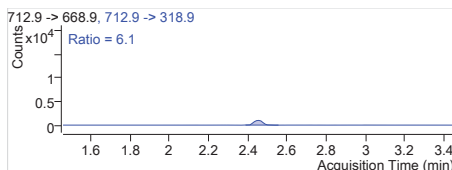
11.30 µg/Kg

4.46358

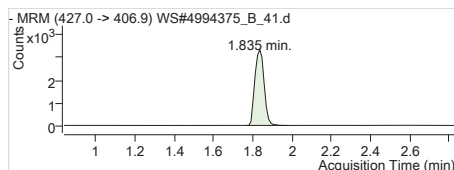
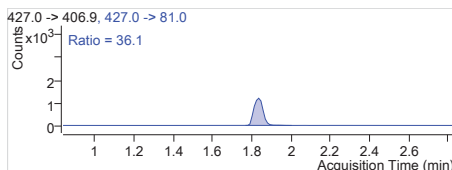
CC



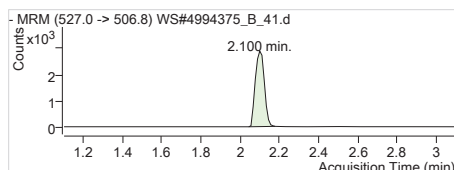
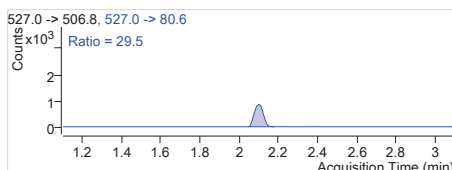
PFTDA 1
RT (Exp. RT): 663.0 -> 618.9
Calc. conc. 2.389 (2.389)
Area ratio: 10.80 µg/Kg
Sample type: 4.01088
CC



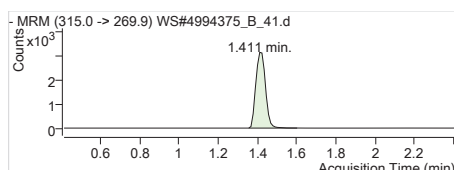
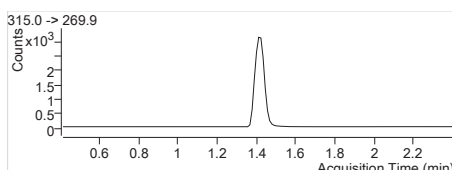
PFTeDA 1
RT (Exp. RT): 712.9 -> 668.9
Calc. conc. 2.455 (2.456)
Area ratio: 10.72 µg/Kg
Sample type: 3.69013
CC



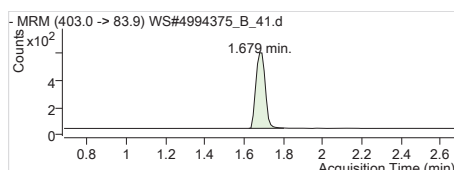
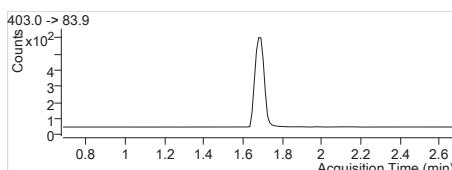
6:2-FTS 1
RT (Exp. RT): 427.0 -> 406.9
Calc. conc. 1.835 (1.835)
Area ratio: 11.49 µg/Kg
Sample type: 4.11166
CC



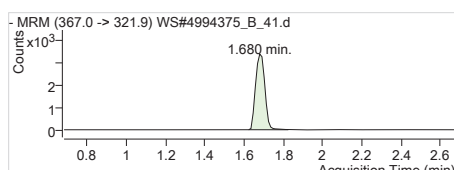
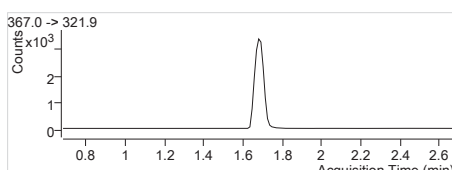
8:2-FTS 1
RT (Exp. RT): 527.0 -> 506.8
Calc. conc. 2.100 (2.101)
Area ratio: 11.14 µg/Kg
Sample type: 3.70701
CC



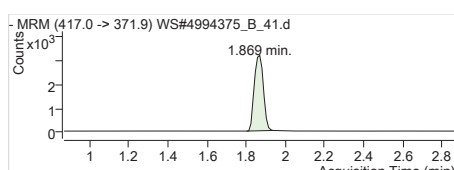
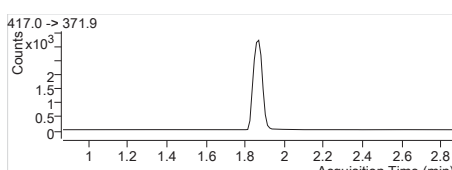
13C2-PFHxA
RT (Exp. RT): 315.0 -> 269.9
Calc. conc. 1.411 (1.411)
Area ratio: 110.05 µg/Kg
Sample type: 0.22852
CC



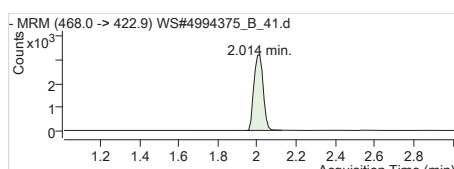
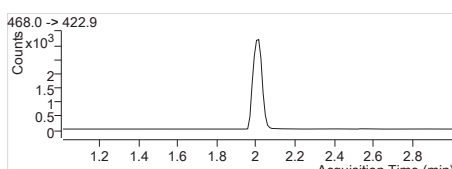
18O2-PFHxS
RT (Exp. RT): 403.0 -> 83.9
Calc. conc. 1.679 (1.679)
Area ratio: 112.85 µg/Kg
Sample type: 0.03956
CC



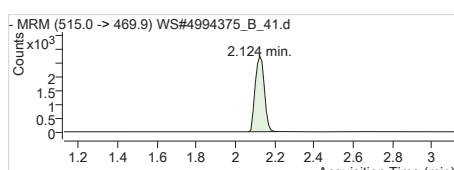
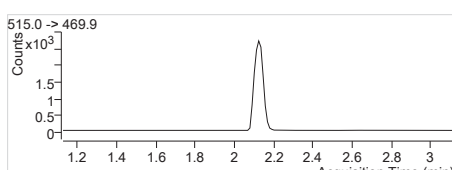
13C4-PFHpA
RT (Exp. RT): 367.0 -> 321.9
Calc. conc. 1.680 (1.680)
Area ratio: 107.13 µg/Kg
Sample type: 0.23566
CC



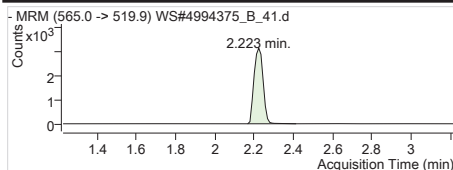
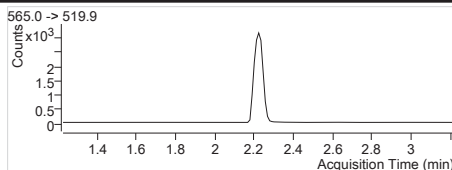
13C4-PFOA
RT (Exp. RT): 417.0 -> 371.9
Calc. conc. 1.869 (1.869)
Area ratio: 106.90 µg/Kg
Sample type: 0.22023
CC



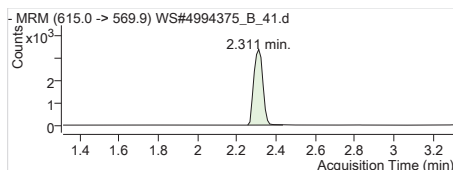
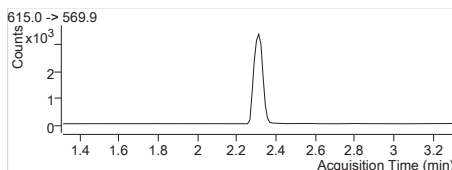
13C5-PFNA
RT (Exp. RT): 468.0 -> 422.9
Calc. conc. 2.014 (2.014)
Area ratio: 110.48 µg/Kg
Sample type: 0.22340
CC



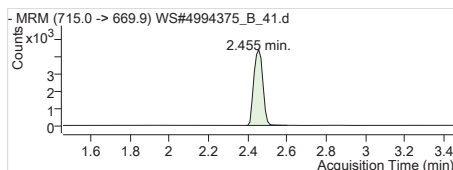
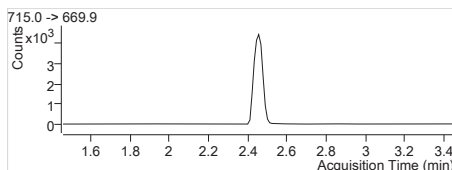
13C2-PFDA
RT (Exp. RT): 515.0 -> 469.9
Calc. conc. 2.124 (2.124)
Area ratio: 106.93 µg/Kg
Sample type: 0.22220
CC



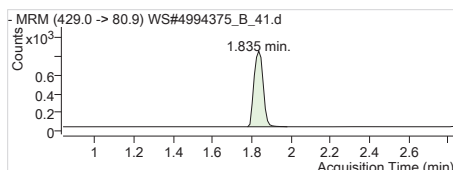
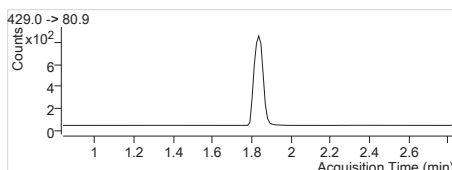
13C2-PFUnA
RT (Exp. RT): 565.0 -> 519.9
Calc. conc. 2.223 (2.223)
Area ratio: 110.79 µg/Kg
Sample type: 0.25675
CC



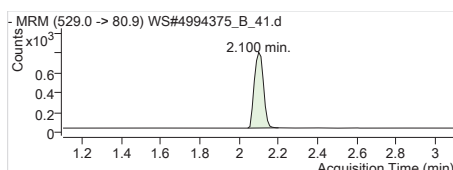
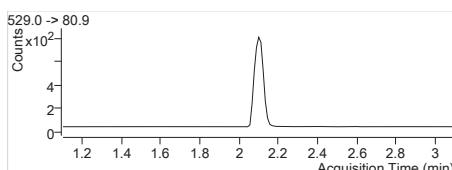
13C2-PFDoA
RT (Exp. RT): 615.0 -> 569.9
Calc. conc. 2.311 (2.311)
Area ratio: 106.75 µg/Kg
Sample type: 0.27425
CC



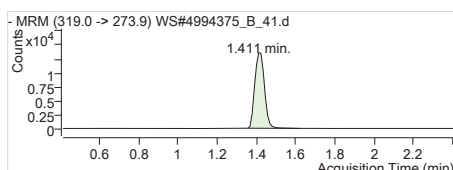
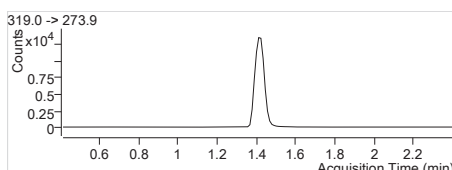
13C2-PFTeDA
RT (Exp. RT): 715.0 -> 669.9
Calc. conc. 2.455 (2.455)
Area ratio: 107.97 µg/Kg
Sample type: 0.35499
CC



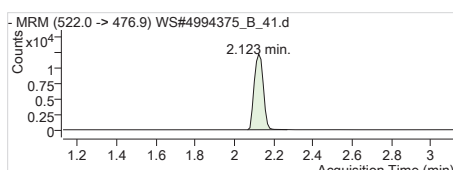
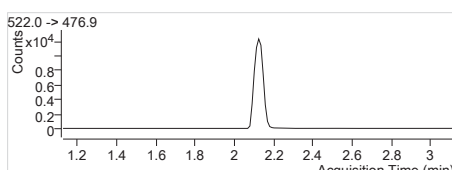
13C2-6:2-FTS
RT (Exp. RT): 429.0 -> 80.9
Calc. conc. 1.835 (1.835)
Area ratio: 108.73 µg/Kg
Sample type: 0.05654
CC



13C2-8:2 FTS
RT (Exp. RT): 529.0 -> 80.9
Calc. conc. 2.100 (2.100)
Area ratio: 104.16 µg/Kg
Sample type: 0.05288
CC



13C6-PFHxA
RT (Exp. RT): 319.0 -> 273.9
Calc. conc. 1.411 (1.411)
Area ratio: 92.91 µg/Kg
Sample type: 0
CC

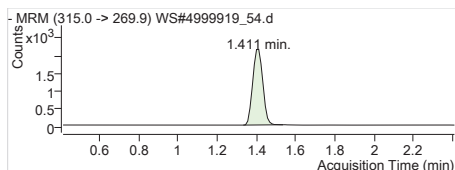
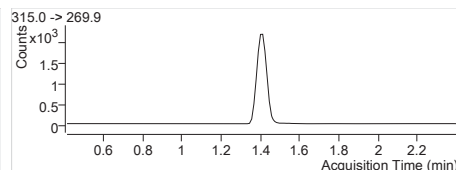


13C9-PFDA
RT (Exp. RT): 522.0 -> 476.9
Calc. conc. 2.123 (2.124)
Area ratio: 93.27 µg/Kg
Sample type: 0
CC

Batch Path	T:\lcms4\PFC\20170526\WS#4994375_B\QuantResults\PFC_Soil_170526_WS#4994375_CTLabs		
Sample Name	ISC	Instrument	LCMS04
Data File	WS#4999919_54.d	Operator	AD
Sample Type	CC	Dilution	1
Acq. Method	PFC_Soil.m	Position	P3-A2
Acq. Date	2017/06/05 8:42:50 AM	Injection Volume	Per Method
Sample Annotation	-		

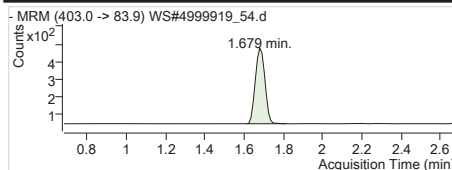
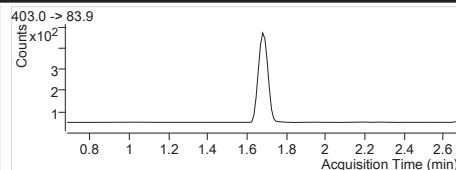
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	7623	1.41	1 µg/Kg		
MPFHxS	1456	1.68	1 µg/Kg		
MPFHpA	8172	1.68	1 µg/Kg		
MPFOA	8074	1.86	1 µg/Kg		
MPFNA	7932	2.00	1 µg/Kg		
MPFDA	6789	2.11	1 µg/Kg		
MPFUnA	7769	2.22	1 µg/Kg		
MPFDoA	8514	2.30	1 µg/Kg		
MPFTeDA	11194	2.46	1 µg/Kg		
M2 6:2 FTS	2093	1.82	1 µg/Kg		
M2 8:2 FTS	1843	2.10	1 µg/Kg		
13C6-PFHxA IS	40485	1.41	1 µg/Kg		
13C9-PFDA	37749	2.12	1 µg/Kg		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	635	1.09	0.75	0.74 µg/Kg	99.27
PFHxA 1	2035	1.41	0.75	0.65 µg/Kg	86.95
PFHxS 1	394	1.68	0.75	0.56 µg/Kg	74.64
PFHpA 1	2844	1.68	0.75	0.72 µg/Kg	95.69
PFOA 1	3060	1.86	0.75	0.88 µg/Kg	116.81
PFNA 1	2400	2.00	0.75	0.78 µg/Kg	104.65
PFDA 1	2768	2.11	0.75	0.88 µg/Kg	117.97
PFUnA 1	2500	2.22	0.75	0.77 µg/Kg	102.01
PFDaA 1	2627	2.31	0.75	0.77 µg/Kg	102.65
PFTTrDA 1	3486	2.38	0.75	0.81 µg/Kg	108.57
PFTeDA 1	2669	2.46	0.75	0.55 µg/Kg	72.98
6:2-FTS 1	571	1.82	0.75	0.59 µg/Kg	78.11
8:2-FTS 1	533	2.10	0.75	0.73 µg/Kg	96.80
13C2-PFHxA	7623	1.41	100.00	90.67 µg/Kg	90.67
18O2-PFHxS	1456	1.68	100.00	102.60 µg/Kg	102.60
13C4-PFHpA	8172	1.68	100.00	91.76 µg/Kg	91.76
13C4-PFOA	8074	1.86	100.00	96.81 µg/Kg	96.81
13C5-PFNA	7932	2.00	100.00	96.89 µg/Kg	96.89
13C2-PFDA	6789	2.11	100.00	86.55 µg/Kg	86.55
13C2-PFUnA	7804	2.22	100.00	89.20 µg/Kg	89.20
13C2-PFDoA	8514	2.30	100.00	87.79 µg/Kg	87.79
13C2-PFTeDA	11194	2.46	100.00	90.20 µg/Kg	90.20
13C2-6:2-FTS	2093	1.82	100.00	99.42 µg/Kg	99.42
13C2-8:2 FTS	1843	2.10	100.00	89.68 µg/Kg	89.68
13C6-PFHxA	40485	1.41	100.00	81.04 µg/Kg	81.04
13C9-PFDA	38256	2.12	100.00	90.56 µg/Kg	90.56



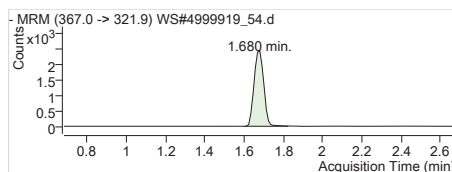
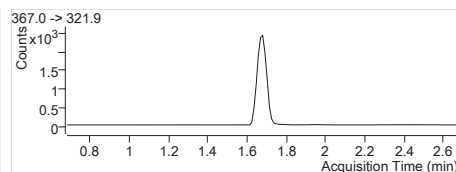
MPFHxA
 RT (Exp. RT):
 Concentration:
 Sample type:

Internal Standard
 1.411 (1.411)
 1 µg/Kg
 CC



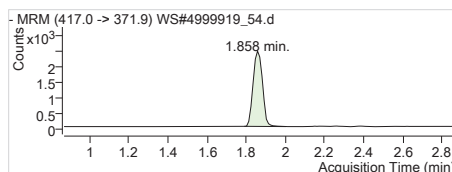
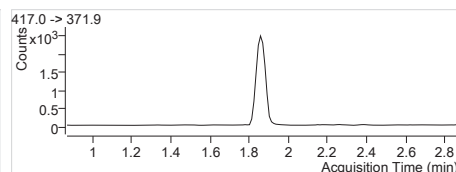
MPFHxS
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
1.679 (1.679)
1 µg/Kg
CC



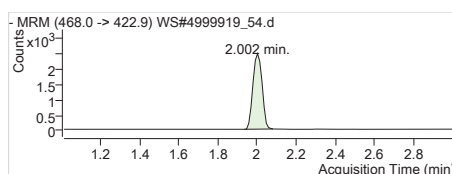
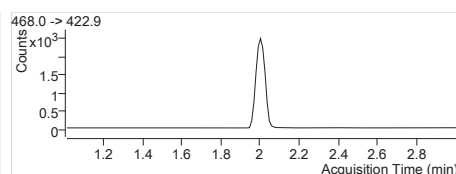
MPFHpA
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
1.680 (1.680)
1 µg/Kg
CC



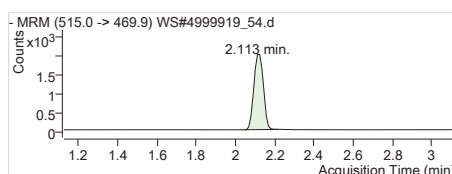
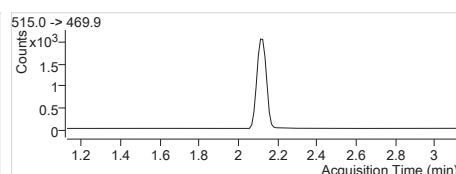
MPFOA
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
1.858 (1.869)
1 µg/Kg
CC



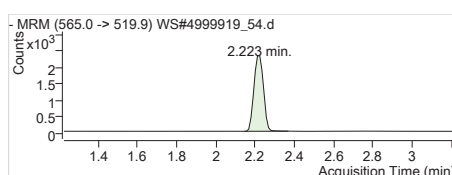
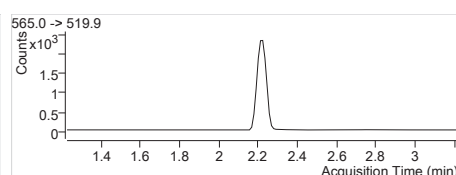
MPFNA
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
2.002 (2.014)
1 µg/Kg
CC



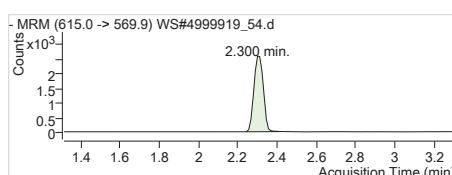
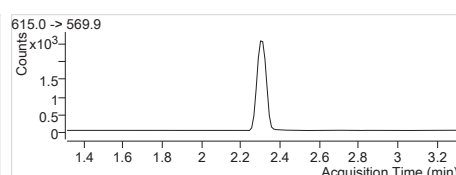
MPFDA
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
2.113 (2.124)
1 µg/Kg
CC



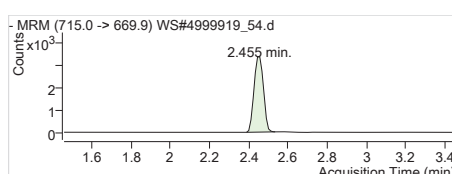
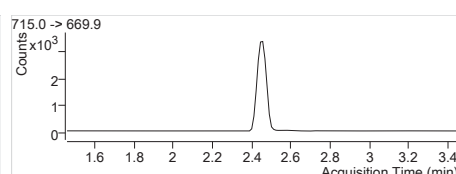
MPFUnA
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
2.223 (2.223)
1 µg/Kg
CC



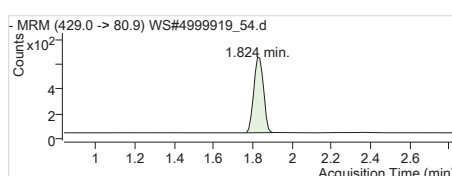
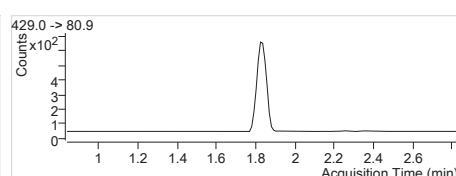
MPFDoA
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
2.300 (2.311)
1 µg/Kg
CC



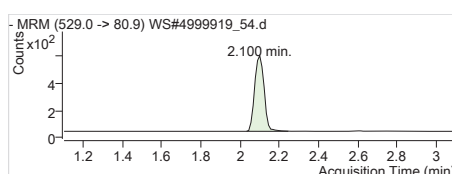
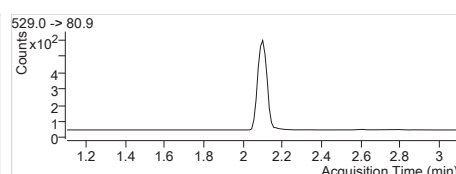
MPFTeDA
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
2.455 (2.455)
1 µg/Kg
CC



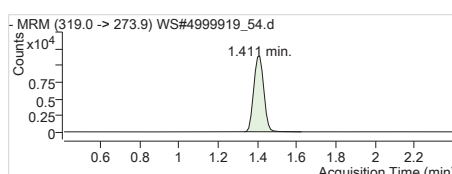
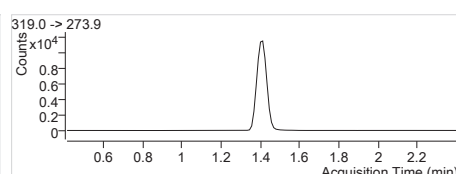
M2 6:2 FTS
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
1.824 (1.835)
1 µg/Kg
CC



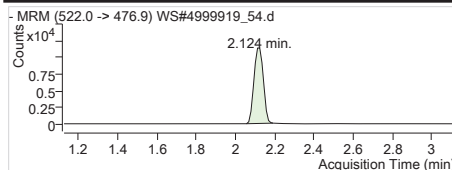
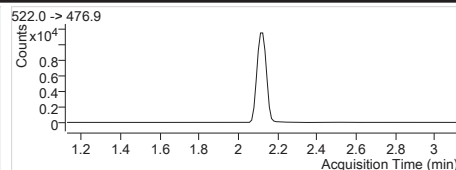
M2 8:2 FTS
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
2.100 (2.100)
1 µg/Kg
CC



13C6-PFHxA IS
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
1.411 (1.411)
1 µg/Kg
CC

**13C9-PFDA IS**

RT (Exp. RT):

Concentration:

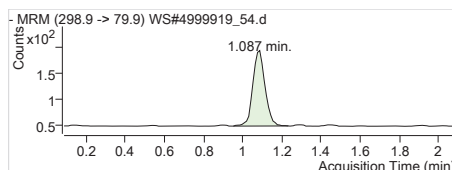
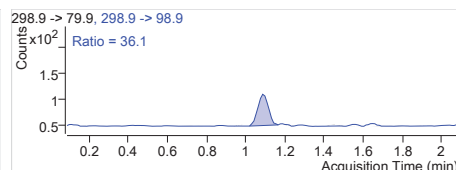
Sample type:

Internal Standard

2.124 (2.124)

1 µg/Kg

CC

**PFBS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

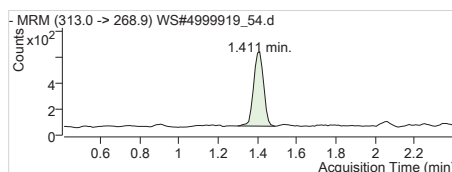
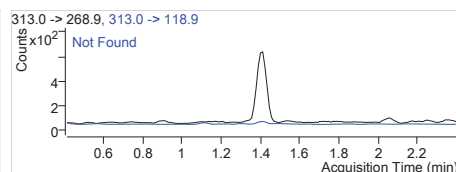
298.9 -> 79.9

1.087 (1.087)

0.74 µg/Kg

0.43613

CC

**PFHxA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

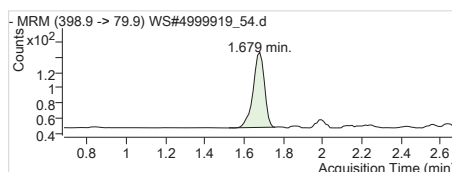
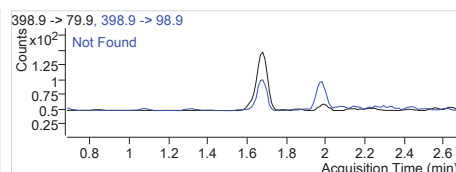
313.0 -> 268.9

1.411 (1.411)

0.65 µg/Kg

0.26696

CC

**PFHxS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

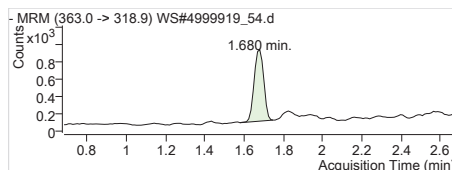
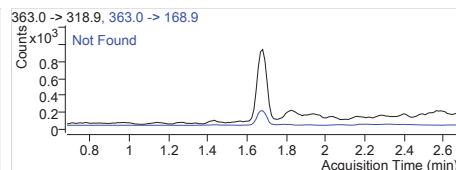
398.9 -> 79.9

1.679 (1.679)

0.56 µg/Kg

0.27060

CC

**PFHpA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

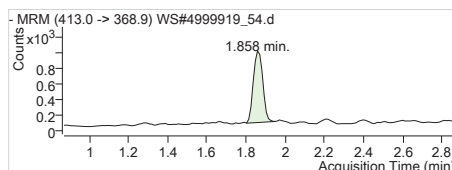
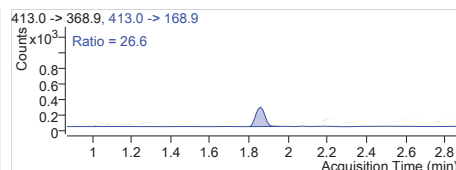
363.0 -> 318.9

1.680 (1.680)

0.72 µg/Kg

0.34802

CC

**PFOA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

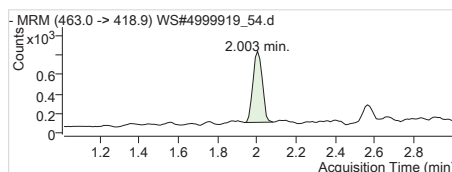
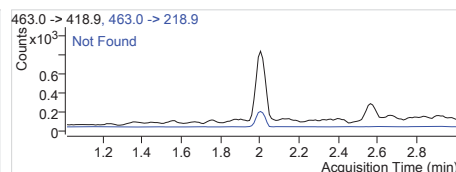
413.0 -> 368.9

1.858 (1.869)

0.88 µg/Kg

0.37899

CC

**PFNA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

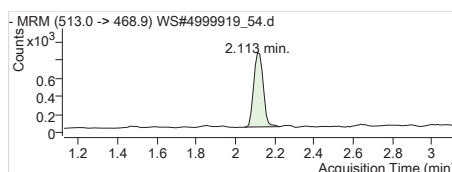
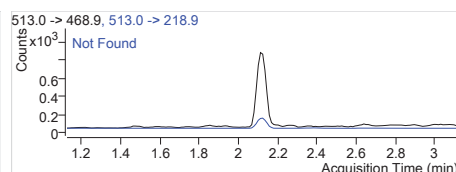
463.0 -> 418.9

2.003 (2.014)

0.78 µg/Kg

0.30257

CC

**PFDA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

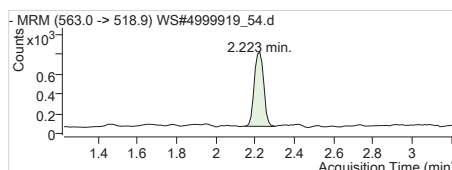
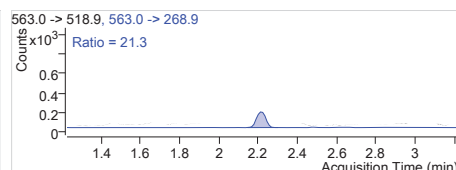
513.0 -> 468.9

2.113 (2.124)

0.88 µg/Kg

0.40772

CC

**PFUnA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

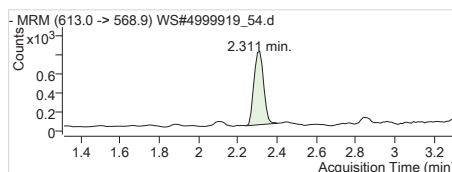
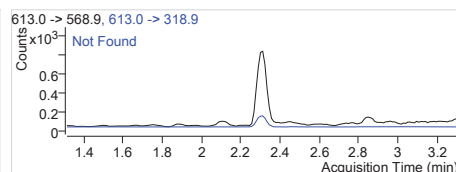
563.0 -> 518.9

2.223 (2.223)

0.77 µg/Kg

0.32179

CC

**PFDoA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

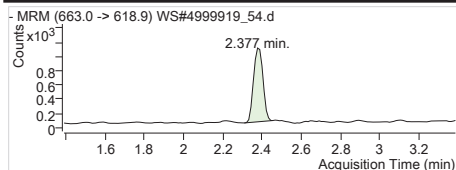
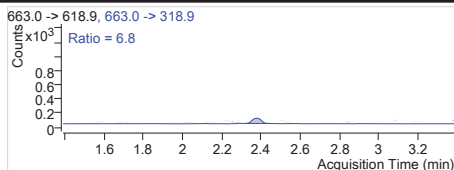
613.0 -> 568.9

2.311 (2.311)

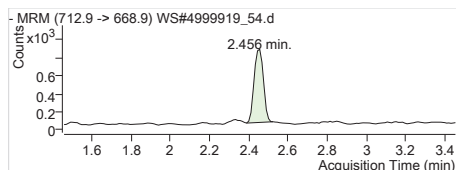
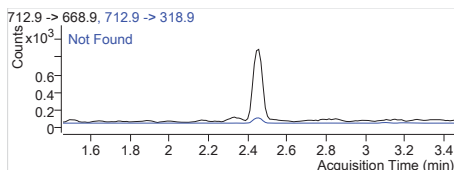
0.77 µg/Kg

0.30855

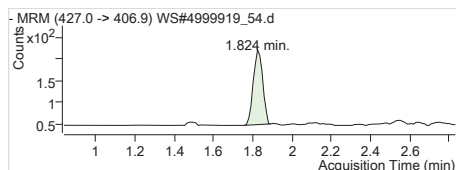
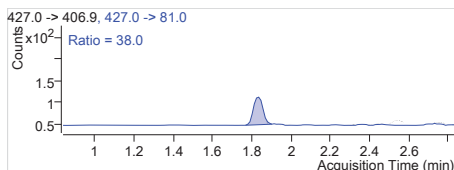
CC



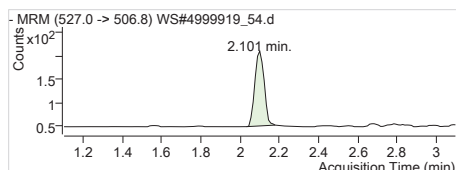
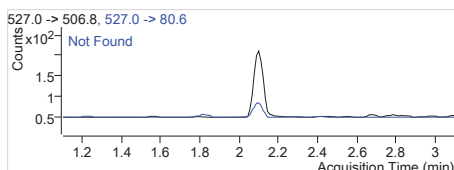
PFTrDA 1
RT (Exp. RT): 663.0 -> 618.9
Calc. conc. 2.377 (2.389)
Area ratio: 0.81 µg/Kg
Sample type: 0.31142
CC



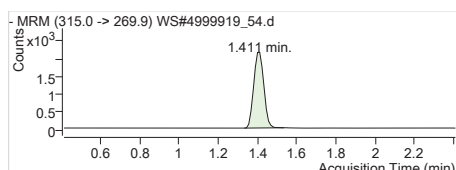
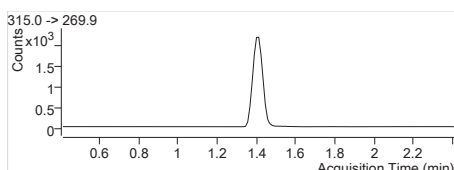
PFTeDA 1
RT (Exp. RT): 712.9 -> 668.9
Calc. conc. 2.456 (2.456)
Area ratio: 0.55 µg/Kg
Sample type: 0.23843
CC



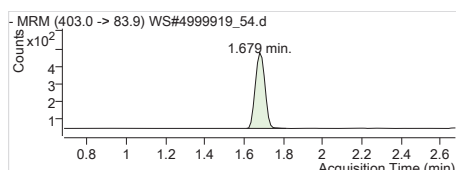
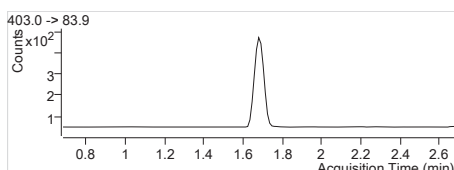
6:2-FTS 1
RT (Exp. RT): 427.0 -> 406.9
Calc. conc. 1.824 (1.835)
Area ratio: 0.59 µg/Kg
Sample type: 0.27281
CC



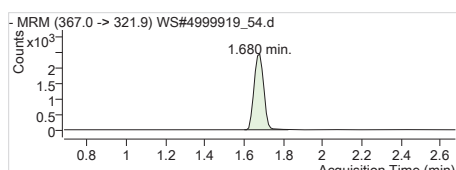
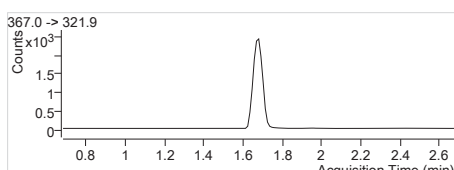
8:2-FTS 1
RT (Exp. RT): 527.0 -> 506.8
Calc. conc. 2.101 (2.101)
Area ratio: 0.73 µg/Kg
Sample type: 0.28920
CC



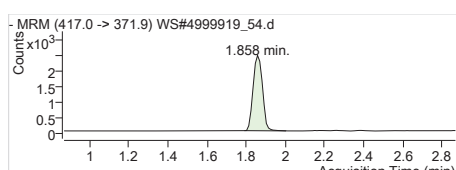
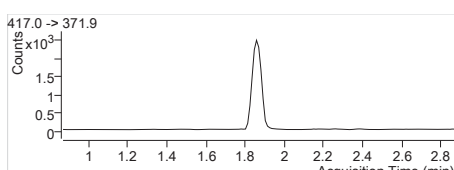
13C2-PFHxA
RT (Exp. RT): 315.0 -> 269.9
Calc. conc. 1.411 (1.411)
Area ratio: 90.67 µg/Kg
Sample type: 0.18829
CC



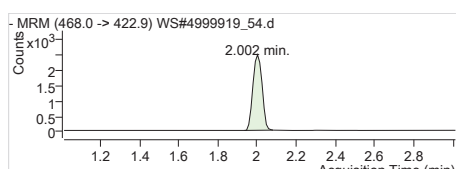
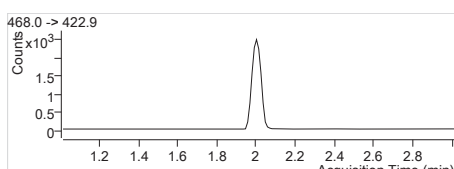
18O2-PFHxS
RT (Exp. RT): 403.0 -> 83.9
Calc. conc. 1.679 (1.679)
Area ratio: 102.60 µg/Kg
Sample type: 0.03596
CC



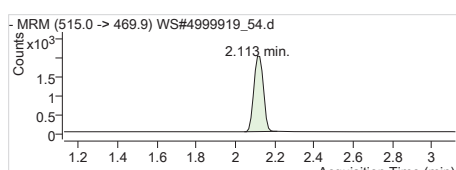
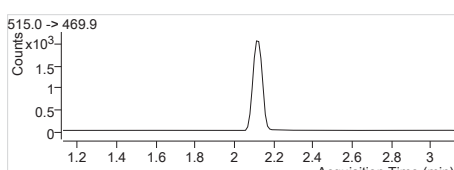
13C4-PFHpA
RT (Exp. RT): 367.0 -> 321.9
Calc. conc. 1.680 (1.680)
Area ratio: 91.76 µg/Kg
Sample type: 0.20185
CC



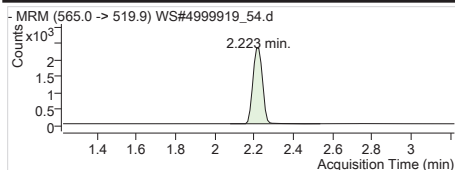
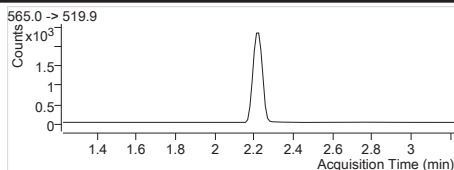
13C4-PFOA
RT (Exp. RT): 417.0 -> 371.9
Calc. conc. 1.858 (1.869)
Area ratio: 96.81 µg/Kg
Sample type: 0.19943
CC



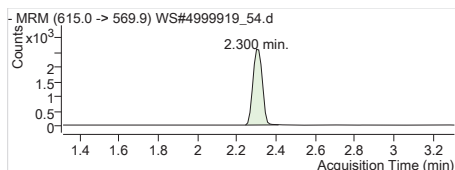
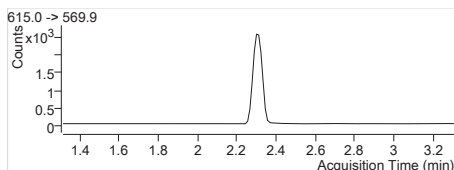
13C5-PFNA
RT (Exp. RT): 468.0 -> 422.9
Calc. conc. 2.002 (2.014)
Area ratio: 96.89 µg/Kg
Sample type: 0.19592
CC



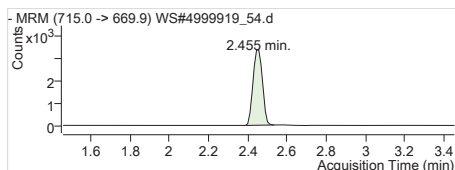
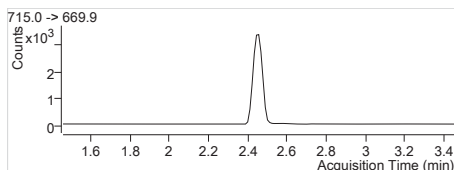
13C2-PFDA
RT (Exp. RT): 515.0 -> 469.9
Calc. conc. 2.113 (2.124)
Area ratio: 86.55 µg/Kg
Sample type: 0.17985
CC



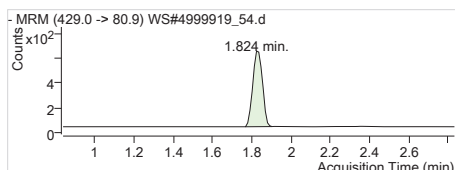
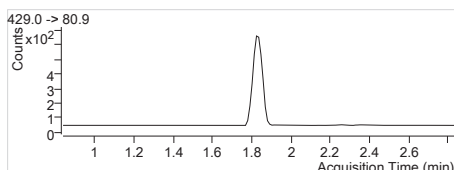
13C2-PFUnA
RT (Exp. RT): 565.0 -> 519.9
Calc. conc. 2.223 (2.223)
Area ratio: 89.20 µg/Kg
Sample type: 0.20673
CC



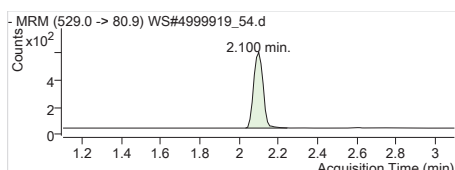
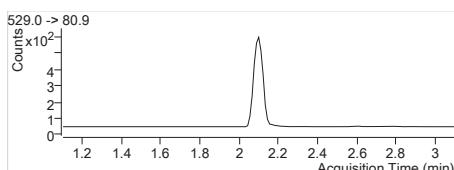
13C2-PFDoA
RT (Exp. RT): 615.0 -> 569.9
Calc. conc. 2.300 (2.311)
Area ratio: 87.79 µg/Kg
Sample type: 0.22554
CC



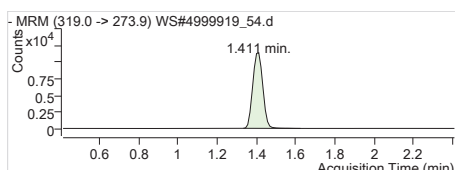
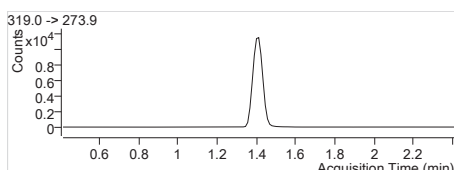
13C2-PFTeDA
RT (Exp. RT): 715.0 -> 669.9
Calc. conc. 2.455 (2.455)
Area ratio: 90.20 µg/Kg
Sample type: 0.29654
CC



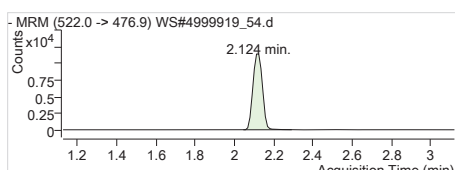
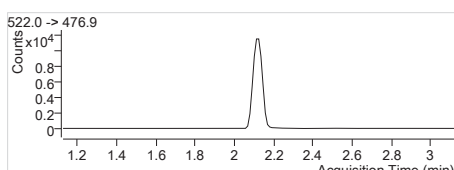
13C2-6:2-FTS
RT (Exp. RT): 429.0 -> 80.9
Calc. conc. 1.824 (1.835)
Area ratio: 99.42 µg/Kg
Sample type: 0.05170
CC



13C2-8:2-FTS
RT (Exp. RT): 529.0 -> 80.9
Calc. conc. 2.100 (2.100)
Area ratio: 89.68 µg/Kg
Sample type: 0.04552
CC



13C6-PFHxA
RT (Exp. RT): 319.0 -> 273.9
Calc. conc. 1.411 (1.411)
Area ratio: 81.04 µg/Kg
Sample type: 0
CC

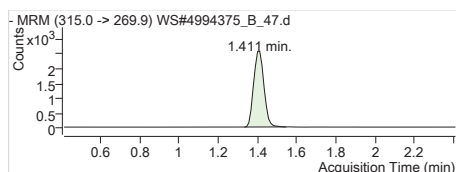
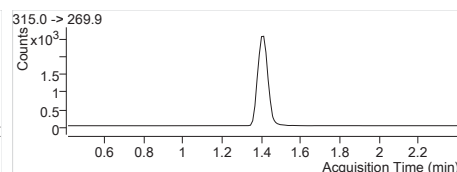


13C9-PFDA
RT (Exp. RT): 522.0 -> 476.9
Calc. conc. 2.124 (2.124)
Area ratio: 90.56 µg/Kg
Sample type: 0
CC

Batch Path	T:\lcms4\PFC\20170526\WS#4994375_B\QuantResults\PFC_Soil_170526_WS#4994375_CTLabs		
Sample Name	CCV	Instrument	LCMS04
Data File	WS#4994375_B_47.d	Operator	AD9
Sample Type	CC	Dilution	1
Acq. Method	PFC_Soil.m	Position	P3-A5
Acq. Date	2017/06/05 3:01:04 PM	Injection Volume	Per Method
Sample Annotation	-		

ISTD Compounds	Response	RT	Target conc.		
MPFHxA	9272	1.41	1 µg/Kg		
MPFHxS	1480	1.68	1 µg/Kg		
MPFHpA	9822	1.68	1 µg/Kg		
MPFOA	8910	1.86	1 µg/Kg		
MPFNA	8825	2.00	1 µg/Kg		
MPFDA	8264	2.12	1 µg/Kg		
MPFUnA	9423	2.22	1 µg/Kg		
MPFDoA	9417	2.31	1 µg/Kg		
MPFTeDA	11779	2.46	1 µg/Kg		
M2 6:2 FTS	2305	1.84	1 µg/Kg		
M2 8:2 FTS	1983	2.10	1 µg/Kg		
13C6-PFHxA IS	46804	1.41	1 µg/Kg		
13C9-PFDA	43379	2.12	1 µg/Kg		

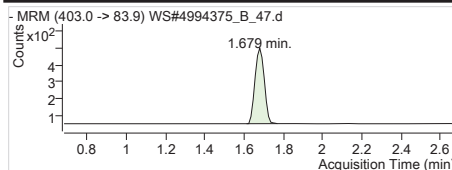
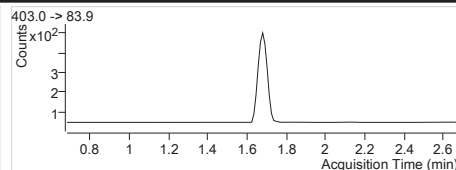
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	9757	1.09	11.30	11.33 µg/Kg	100.30
PFHxA 1	37289	1.41	11.30	9.97 µg/Kg	88.24
PFHxS 1	7191	1.68	11.30	10.81 µg/Kg	95.67
PFHpA 1	42784	1.68	11.30	10.25 µg/Kg	90.69
PFOA 1	39691	1.86	11.30	10.35 µg/Kg	91.61
PFNA 1	35516	2.00	11.30	10.71 µg/Kg	94.75
PFDA 1	38246	2.12	11.30	10.79 µg/Kg	95.47
PFUnA 1	38696	2.22	11.30	10.17 µg/Kg	89.99
PFDaA 1	40120	2.31	11.30	10.79 µg/Kg	95.45
PFTTrDA 1	48314	2.39	11.30	11.04 µg/Kg	97.73
PFTeDA 1	44166	2.46	11.30	10.89 µg/Kg	96.37
6:2-FTS 1	8352	1.84	11.30	10.10 µg/Kg	89.38
8:2-FTS 1	7688	2.10	11.30	11.66 µg/Kg	103.20
13C2-PFHxA	9272	1.41	100.00	95.40 µg/Kg	95.40
18O2-PFHxS	1480	1.68	100.00	90.21 µg/Kg	90.21
13C4-PFHpA	9822	1.68	100.00	95.40 µg/Kg	95.40
13C4-PFOA	8910	1.86	100.00	92.41 µg/Kg	92.41
13C5-PFNA	8825	2.00	100.00	93.25 µg/Kg	93.25
13C2-PFDA	8264	2.12	100.00	91.68 µg/Kg	91.68
13C2-PFUnA	9465	2.22	100.00	94.15 µg/Kg	94.15
13C2-PFDaA	9417	2.31	100.00	84.50 µg/Kg	84.50
13C2-PFTeDA	11779	2.46	100.00	82.59 µg/Kg	82.59
13C2-6:2-FTS	2305	1.84	100.00	94.71 µg/Kg	94.71
13C2-8:2 FTS	1983	2.10	100.00	83.46 µg/Kg	83.46
13C6-PFHxA	46804	1.41	100.00	93.69 µg/Kg	93.69
13C9-PFDA	44000	2.12	100.00	104.15 µg/Kg	104.15



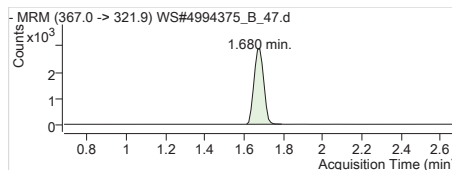
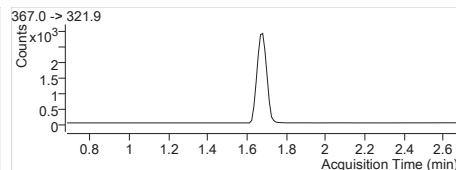
MPFHxA

RT (Exp. RT):
Concentration:
Sample type:

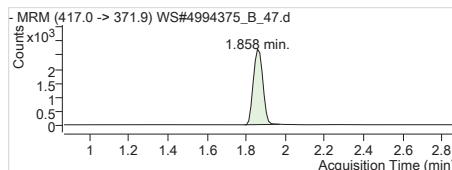
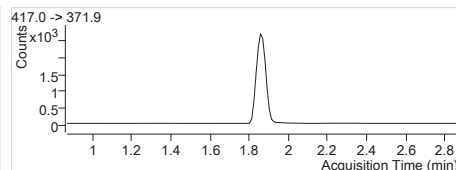
Internal Standard
1.411 (1.411)
1 µg/Kg
CC



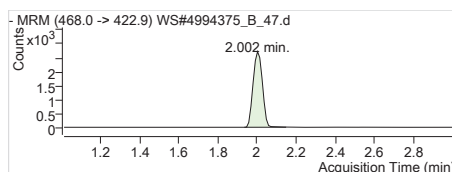
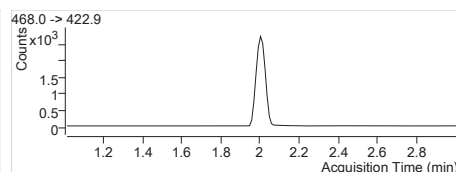
MPFHxS
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/Kg
Sample type: CC



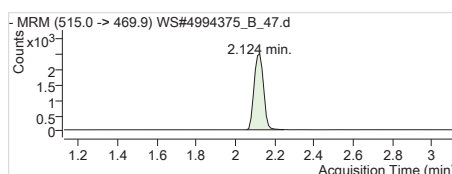
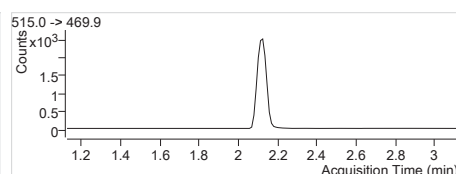
MPFHpA
RT (Exp. RT): 1.680 (1.680)
Concentration: 1 µg/Kg
Sample type: CC



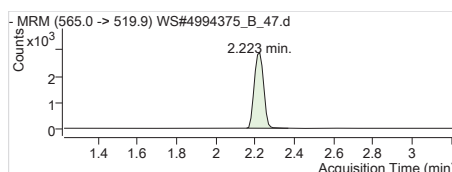
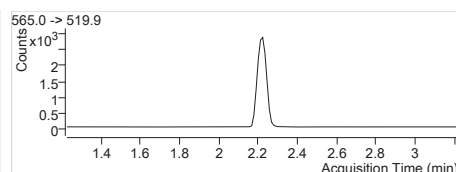
MPFOA
RT (Exp. RT): 1.858 (1.869)
Concentration: 1 µg/Kg
Sample type: CC



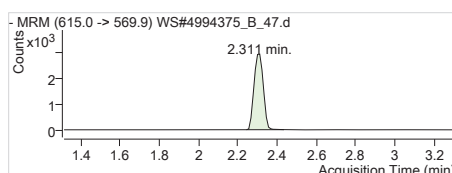
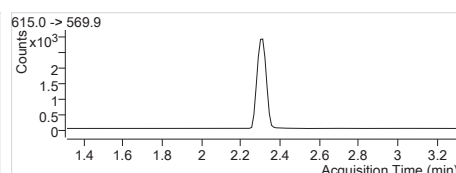
MPFNA
RT (Exp. RT): 2.002 (2.014)
Concentration: 1 µg/Kg
Sample type: CC



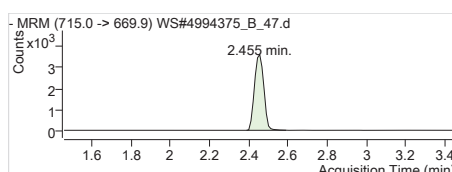
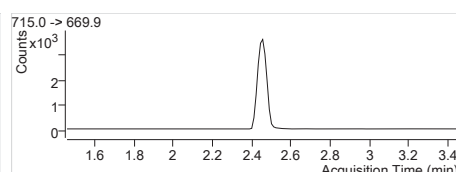
MPFDA
RT (Exp. RT): 2.124 (2.124)
Concentration: 1 µg/Kg
Sample type: CC



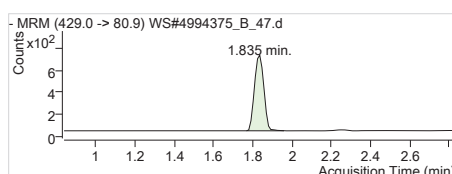
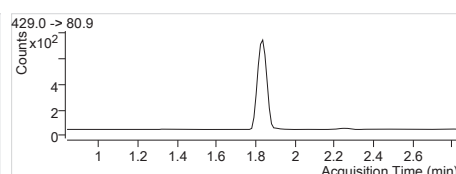
MPFUnA
RT (Exp. RT): 2.223 (2.223)
Concentration: 1 µg/Kg
Sample type: CC



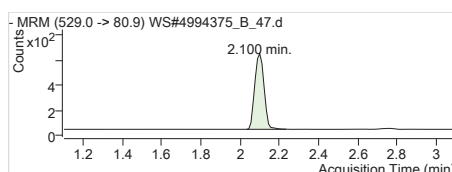
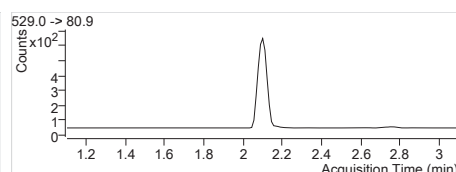
MPFDoA
RT (Exp. RT): 2.311 (2.311)
Concentration: 1 µg/Kg
Sample type: CC



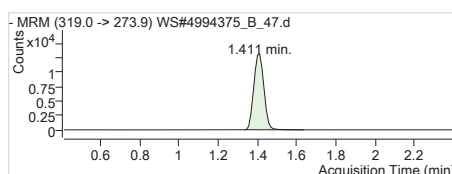
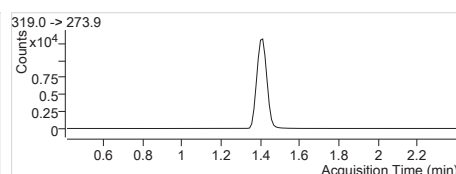
MPFTeDA
RT (Exp. RT): 2.455 (2.455)
Concentration: 1 µg/Kg
Sample type: CC



M2 6:2 FTS
RT (Exp. RT): 1.835 (1.835)
Concentration: 1 µg/Kg
Sample type: CC

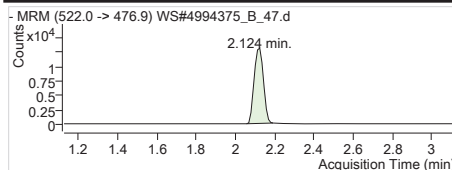
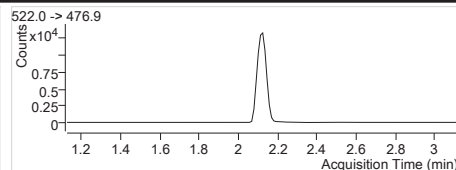


M2 8:2 FTS
RT (Exp. RT): 2.100 (2.100)
Concentration: 1 µg/Kg
Sample type: CC



13C6-PFHxA IS
RT (Exp. RT): 1.411 (1.411)
Concentration: 1 µg/Kg
Sample type: CC

Quantitation Results



13C9-PFDA IS

RT (Exp. RT):

Concentration:

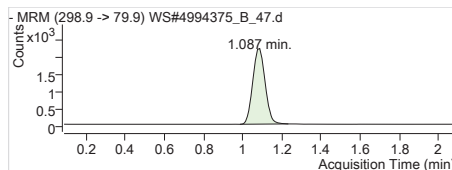
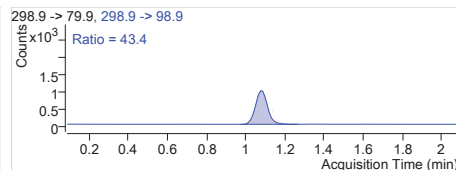
Sample type:

Internal Standard

2.124 (2.124)

1 µg/Kg

CC



PFBS 1

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

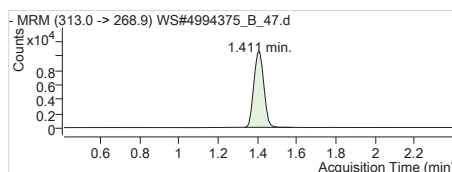
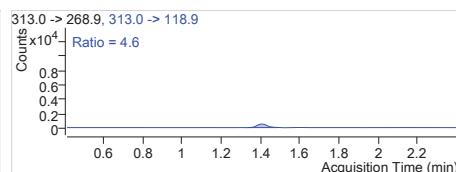
298.9 -> 79.9

1.087 (1.087)

11.33 µg/Kg

6.59257

CC



PFHxA 1

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

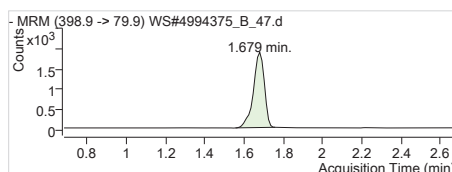
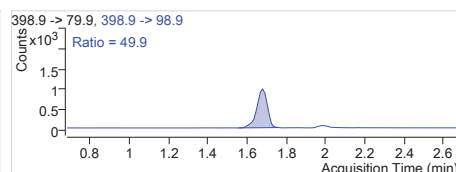
313.0 -> 268.9

1.411 (1.411)

9.97 µg/Kg

4.02168

CC



PFHxS 1

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

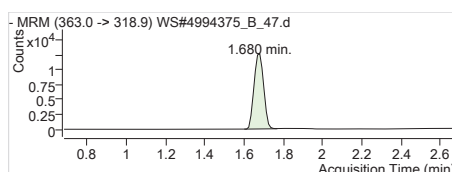
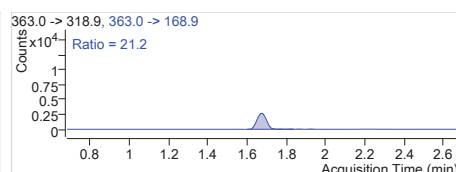
398.9 -> 79.9

1.679 (1.679)

10.81 µg/Kg

4.85878

CC



PFHpA 1

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

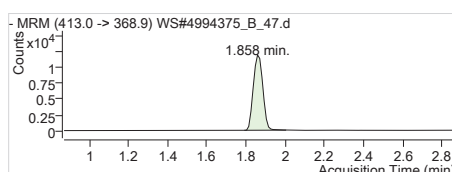
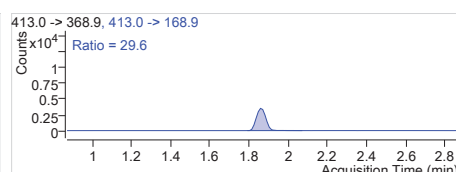
363.0 -> 318.9

1.680 (1.680)

10.25 µg/Kg

4.35594

CC



PFOA 1

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

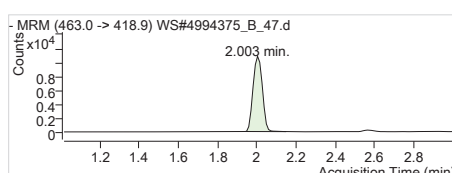
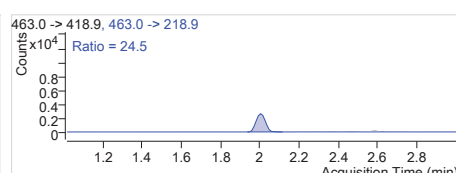
413.0 -> 368.9

1.858 (1.869)

10.35 µg/Kg

4.45466

CC



PFNA 1

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

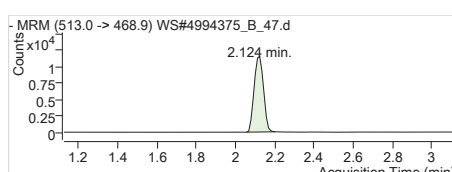
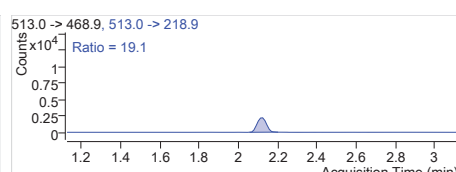
463.0 -> 418.9

2.003 (2.014)

10.71 µg/Kg

4.02448

CC



PFDA 1

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

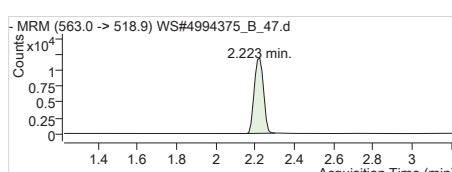
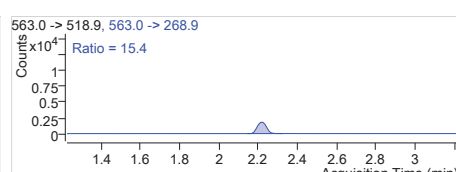
513.0 -> 468.9

2.124 (2.124)

10.79 µg/Kg

4.62803

CC



PFUnA 1

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

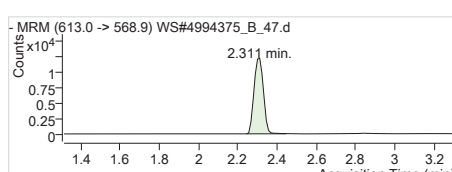
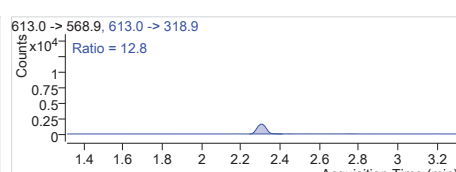
563.0 -> 518.9

2.223 (2.223)

10.17 µg/Kg

4.10655

CC



PFDoA 1

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

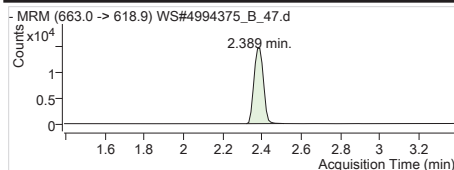
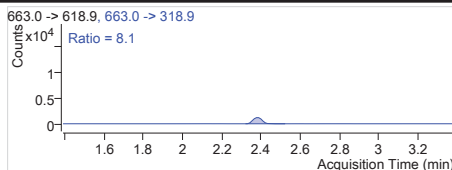
613.0 -> 568.9

2.311 (2.311)

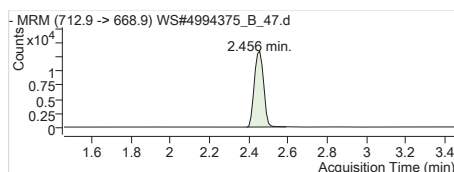
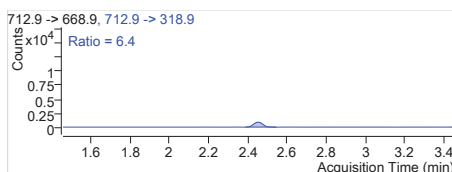
10.79 µg/Kg

4.26038

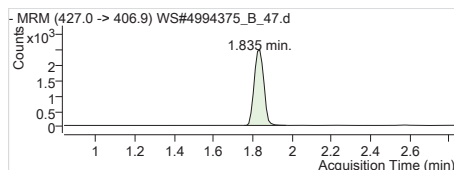
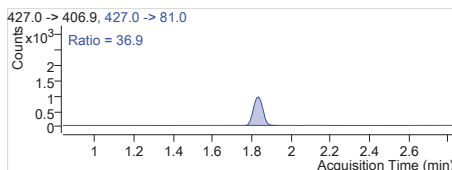
CC



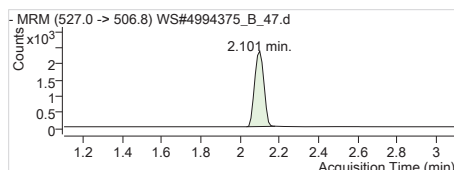
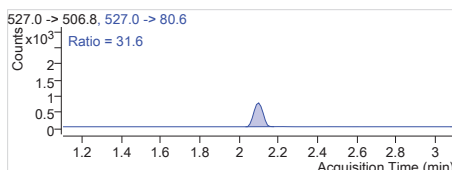
PFTDA 1
RT (Exp. RT): 663.0 -> 618.9
Calc. conc. 2.389 (2.389)
Area ratio: 11.04 µg/Kg
Sample type: 4.10171
CC



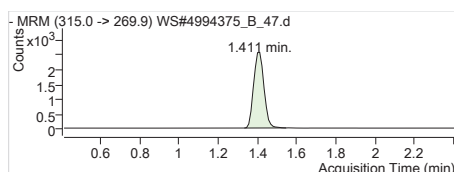
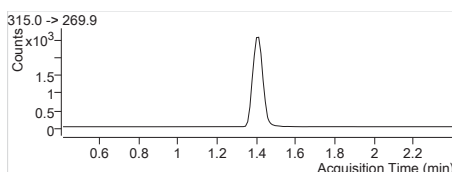
PFTDA 1
RT (Exp. RT): 712.9 -> 668.9
Calc. conc. 2.456 (2.456)
Area ratio: 10.89 µg/Kg
Sample type: 3.74955
CC



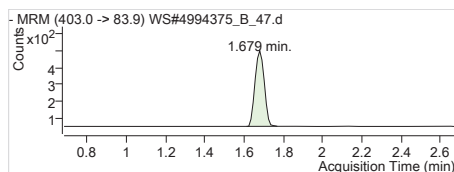
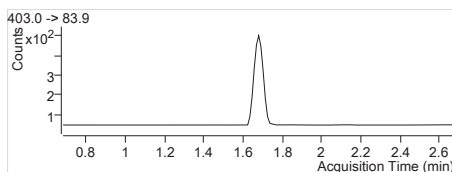
6:2-FTS 1
RT (Exp. RT): 427.0 -> 406.9
Calc. conc. 1.835 (1.835)
Area ratio: 10.10 µg/Kg
Sample type: 3.62343
CC



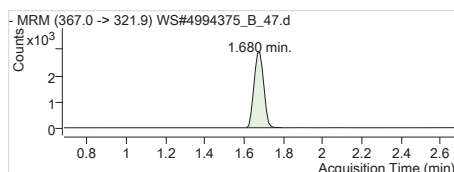
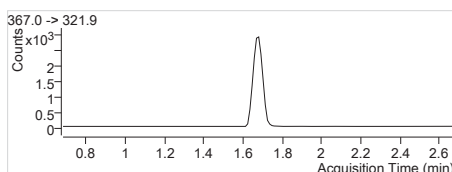
8:2-FTS 1
RT (Exp. RT): 527.0 -> 506.8
Calc. conc. 2.101 (2.101)
Area ratio: 11.66 µg/Kg
Sample type: 3.87695
CC



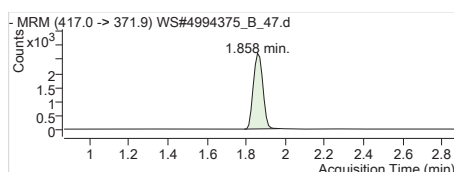
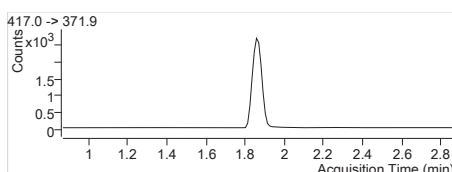
13C2-PFHxA
RT (Exp. RT): 315.0 -> 269.9
Calc. conc. 1.411 (1.411)
Area ratio: 95.40 µg/Kg
Sample type: 0.19810
CC



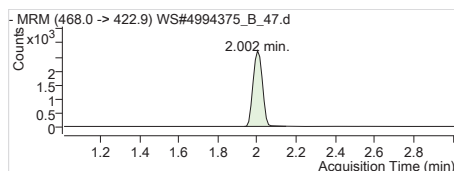
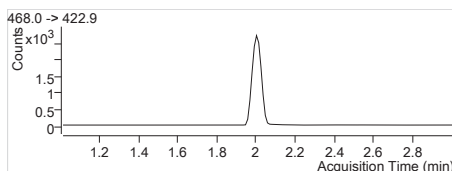
18O2-PFHxS
RT (Exp. RT): 403.0 -> 83.9
Calc. conc. 1.679 (1.679)
Area ratio: 90.21 µg/Kg
Sample type: 0.03162
CC



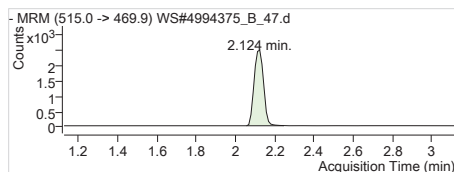
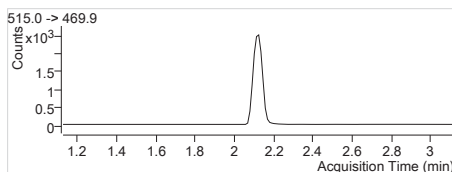
13C4-PFHpA
RT (Exp. RT): 367.0 -> 321.9
Calc. conc. 1.680 (1.680)
Area ratio: 95.40 µg/Kg
Sample type: 0.20985
CC



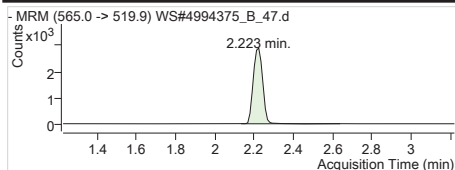
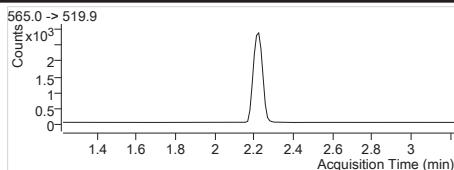
13C4-PFOA
RT (Exp. RT): 417.0 -> 371.9
Calc. conc. 1.858 (1.869)
Area ratio: 92.41 µg/Kg
Sample type: 0.19037
CC



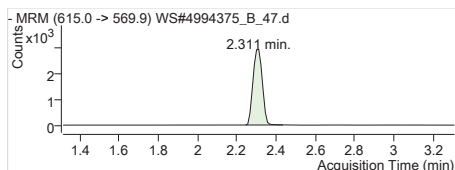
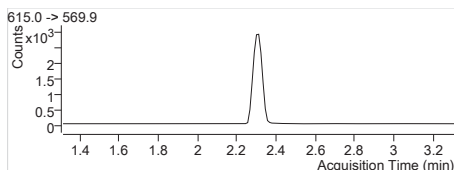
13C5-PFNA
RT (Exp. RT): 468.0 -> 422.9
Calc. conc. 2.002 (2.014)
Area ratio: 93.25 µg/Kg
Sample type: 0.18855
CC



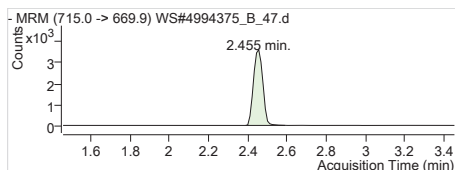
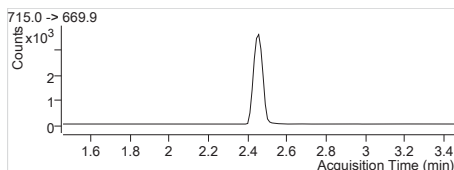
13C2-PFDA
RT (Exp. RT): 515.0 -> 469.9
Calc. conc. 2.124 (2.124)
Area ratio: 91.68 µg/Kg
Sample type: 0.19051
CC



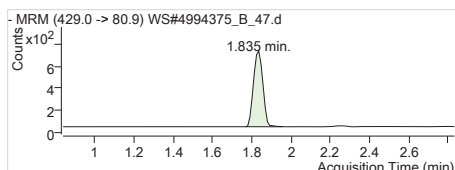
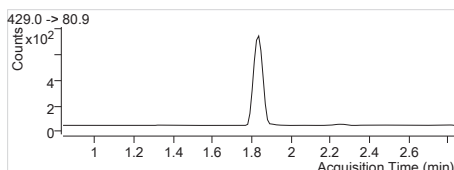
13C2-PFUnA
RT (Exp. RT): 565.0 -> 519.9
Calc. conc. 2.223 (2.223)
Area ratio: 94.15 µg/Kg
Sample type: 0.21819
CC



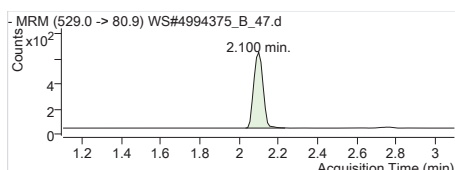
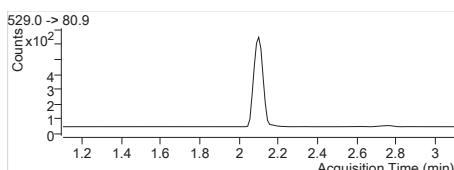
13C2-PFDoA
RT (Exp. RT): 615.0 -> 569.9
Calc. conc. 2.311 (2.311)
Area ratio: 84.50 µg/Kg
Sample type: 0.21709
CC



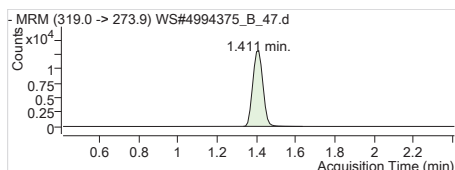
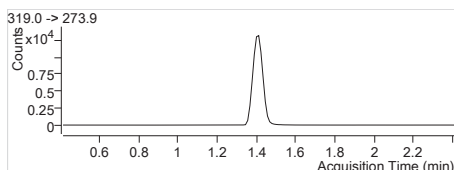
13C2-PFTeDA
RT (Exp. RT): 715.0 -> 669.9
Calc. conc. 2.455 (2.455)
Area ratio: 82.59 µg/Kg
Sample type: 0.27154
CC



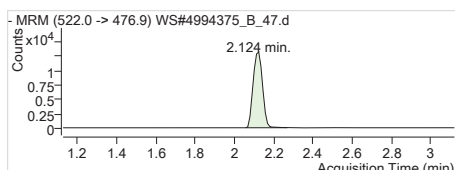
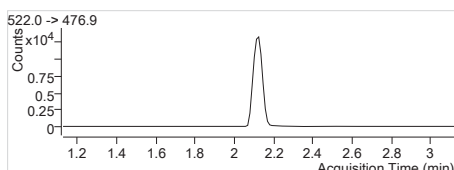
13C2-6:2-FTS
RT (Exp. RT): 429.0 -> 80.9
Calc. conc. 1.835 (1.835)
Area ratio: 94.71 µg/Kg
Sample type: 0.04925
CC



13C2-8:2 FTS
RT (Exp. RT): 529.0 -> 80.9
Calc. conc. 2.100 (2.100)
Area ratio: 83.46 µg/Kg
Sample type: 0.04237
CC



13C6-PFHxA
RT (Exp. RT): 319.0 -> 273.9
Calc. conc. 1.411 (1.411)
Area ratio: 93.69 µg/Kg
Sample type: 0
CC



13C9-PFDA
RT (Exp. RT): 522.0 -> 476.9
Calc. conc. 2.124 (2.124)
Area ratio: 104.15 µg/Kg
Sample type: 0
CC

Batch Path

T:\lcms4\PFC\20170526\WS#4994375_FOSAA\QuantResults\PFC_Soil_170526_WS#4994375_FOSAA

Sample Name

ISC

Instrument

LCMS04

Data File

WS#4994375_FOSAA_19.d

Operator

M_G

Sample Type

CC

Dilution

1

Acq. Method

PFC_Soil_FOSAA.m

Position

P1-A2

Acq. Date

2017/05/26 4:44:47 PM

Injection Volume

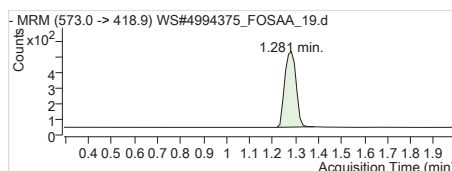
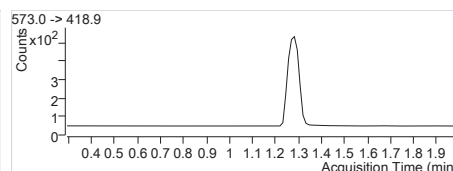
Per Method

Sample Annotation

-

ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1663	1.28	1 µg/Kg		
D5-EtFOSAA IS	1574	1.31	1 µg/Kg		
13C9-PFDA IS	24716	0.85	1 µg/Kg		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	493	1.27	0.75	0.77 µg/Kg	102.88
EtFOSAA 1	446	1.30	0.75	0.78 µg/Kg	104.59
D3-MeFOSAA	1681	1.28	100.00	112.37 µg/Kg	112.37
D5-EtFOSAA	1581	1.31	100.00	118.09 µg/Kg	118.09
13C9-PFDA	25190	0.85	100.00	90.66 µg/Kg	90.66

**D3-MeFOSAA IS**

Internal Standard

RT (Exp. RT):

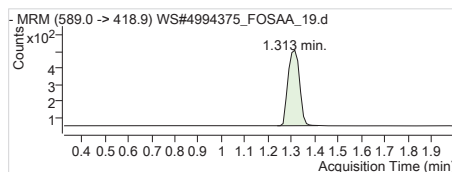
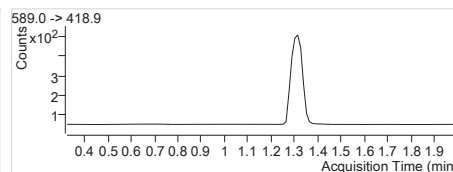
1.281 (1.281)

Concentration:

1 µg/Kg

Sample type:

CC

**D5-EtFOSAA IS**

Internal Standard

RT (Exp. RT):

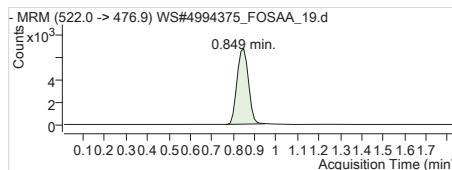
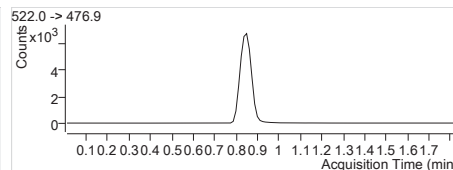
1.313 (1.313)

Concentration:

1 µg/Kg

Sample type:

CC

**13C9-PFDA IS**

Internal Standard

RT (Exp. RT):

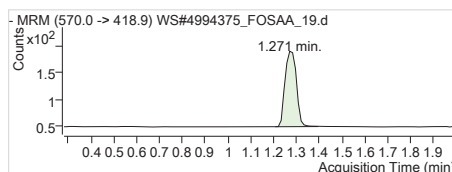
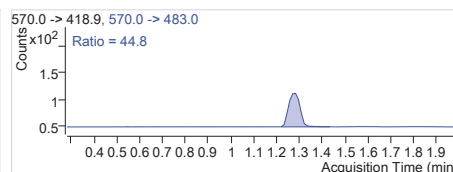
0.849 (0.849)

Concentration:

1 µg/Kg

Sample type:

CC

**MeFOSAA 1**

570.0 -> 418.9

RT (Exp. RT):

1.271 (1.271)

Calc. conc.

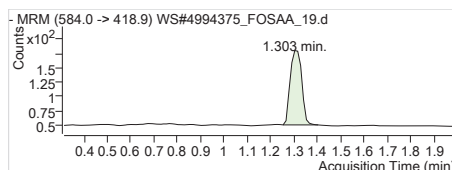
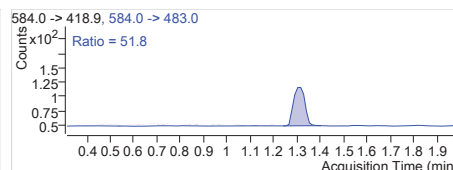
0.77 µg/Kg

Area ratio:

0.29645

Sample type:

CC

**EtFOSAA 1**

584.0 -> 418.9

RT (Exp. RT):

1.303 (1.303)

Calc. conc.

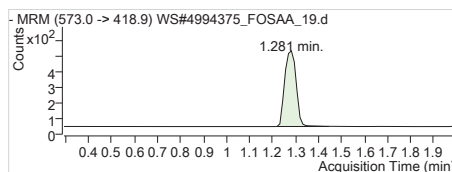
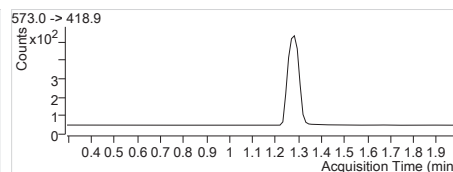
0.78 µg/Kg

Area ratio:

0.28335

Sample type:

CC

**D3-MeFOSAA**

573.0 -> 418.9

RT (Exp. RT):

1.281 (1.281)

Calc. conc.

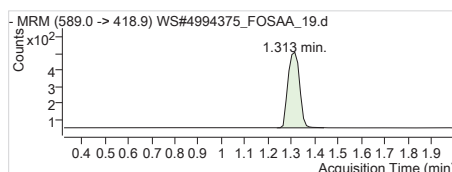
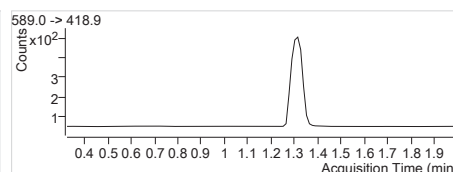
112.37 µg/Kg

Area ratio:

0.06801

Sample type:

CC

**D5-EtFOSAA**

589.0 -> 418.9

RT (Exp. RT):

1.313 (1.313)

Calc. conc.

118.09 µg/Kg

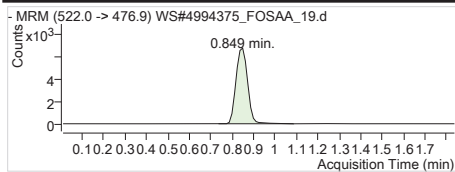
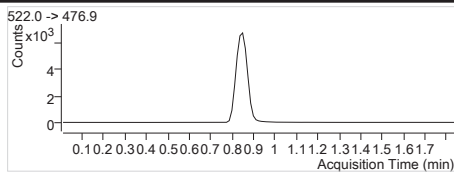
Area ratio:

0.06398

Sample type:

CC

Quantitation Results



13C9-PFDA
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

522.0 -> 476.9
0.849 (0.849)
90.66 µg/Kg
0
CC

Sample Name

CCV

Instrument

LCMS04

Data File

WS#4994375_FOSAA_31.d

Operator

M_G

Sample Type

CC

Dilution

1

Acq. Method

PFC_Soil_FOSAA.m

Position

P1-A5

Acq. Date

2017/05/26 5:13:19 PM

Injection Volume

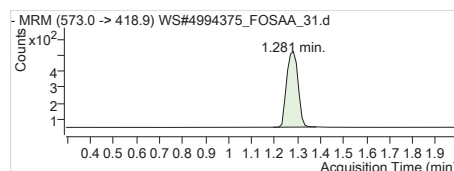
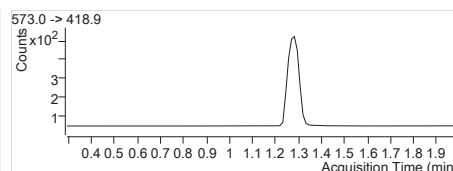
Per Method

Sample Annotation

-

ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1627	1.28	1 µg/Kg		
D5-EtFOSAA IS	1456	1.31	1 µg/Kg		
13C9-PFDA IS	27155	0.85	1 µg/Kg		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	6388	1.27	11.30	10.96 µg/Kg	97.00
EtFOSAA 1	6402	1.30	11.30	10.85 µg/Kg	96.01
D3-MeFOSAA	1650	1.28	100.00	100.42 µg/Kg	100.42
D5-EtFOSAA	1480	1.31	100.00	100.62 µg/Kg	100.62
13C9-PFDA	27568	0.85	100.00	99.22 µg/Kg	99.22

**D3-MeFOSAA IS**

Internal Standard

RT (Exp. RT):

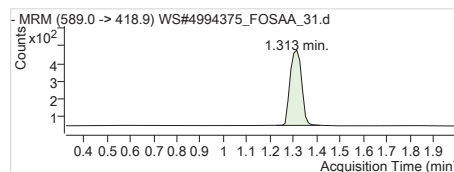
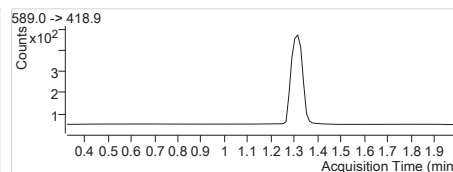
1.281 (1.281)

Concentration:

1 µg/Kg

Sample type:

CC

**D5-EtFOSAA IS**

Internal Standard

RT (Exp. RT):

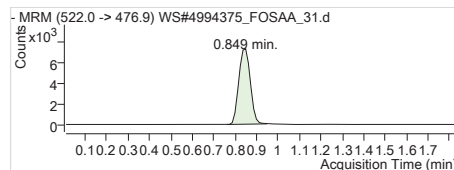
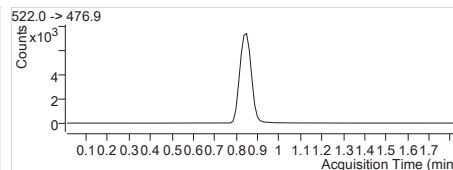
1.313 (1.313)

Concentration:

1 µg/Kg

Sample type:

CC

**13C9-PFDA IS**

Internal Standard

RT (Exp. RT):

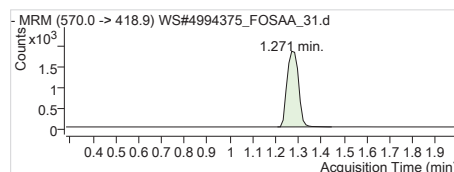
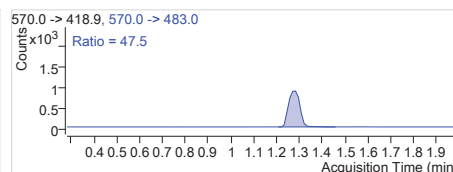
0.849 (0.849)

Concentration:

1 µg/Kg

Sample type:

CC

**MeFOSAA 1**

570.0 -> 418.9

RT (Exp. RT):

1.271 (1.271)

Calc. conc.

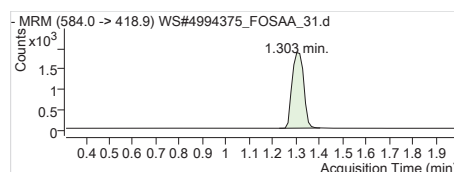
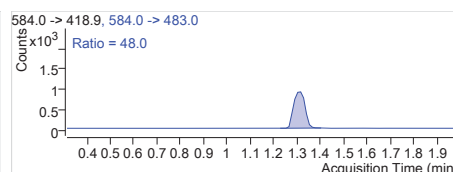
10.96 µg/Kg

Area ratio:

3.92624

Sample type:

CC

**EtFOSAA 1**

584.0 -> 418.9

RT (Exp. RT):

1.303 (1.303)

Calc. conc.

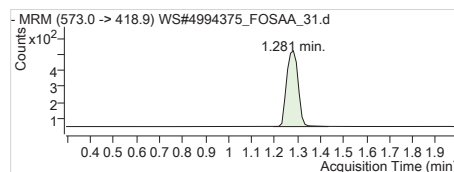
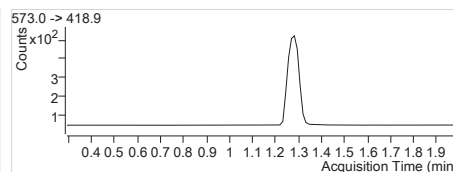
10.85 µg/Kg

Area ratio:

4.39698

Sample type:

CC

**D3-MeFOSAA**

573.0 -> 418.9

RT (Exp. RT):

1.281 (1.281)

Calc. conc.

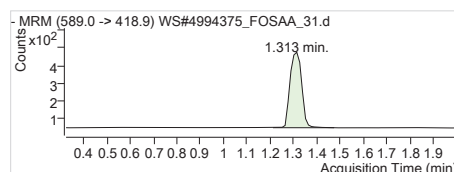
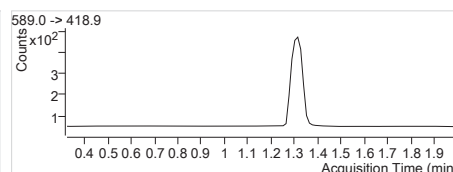
100.42 µg/Kg

Area ratio:

0.06078

Sample type:

CC

**D5-EtFOSAA**

589.0 -> 418.9

RT (Exp. RT):

1.313 (1.313)

Calc. conc.

100.62 µg/Kg

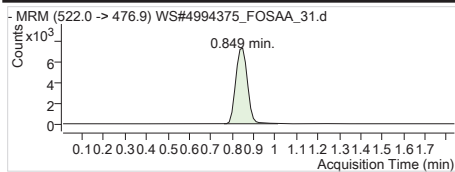
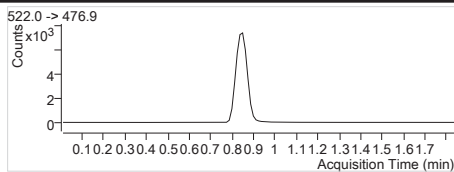
Area ratio:

0.05452

Sample type:

CC

Quantitation Results



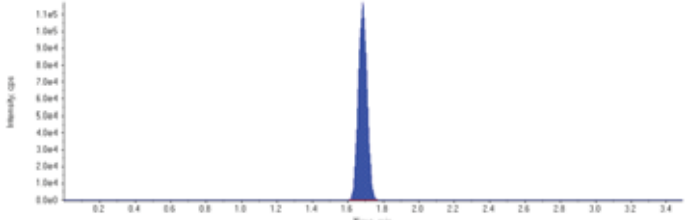
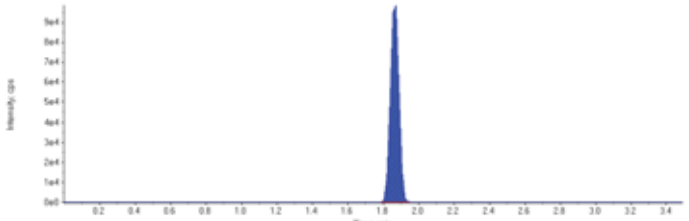
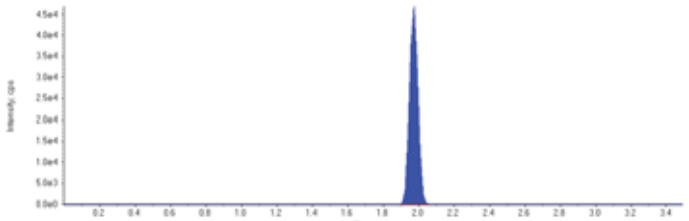
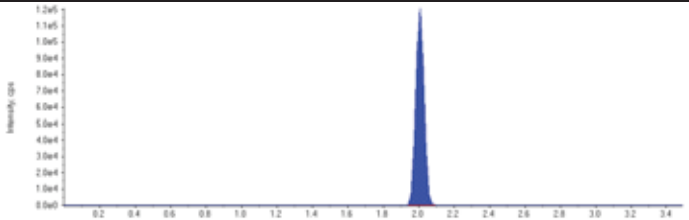
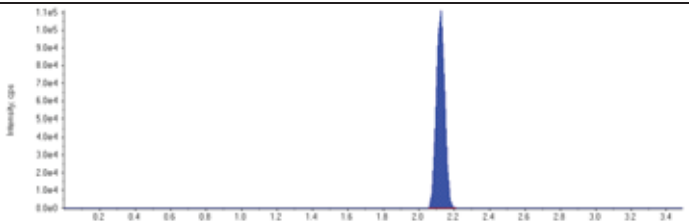
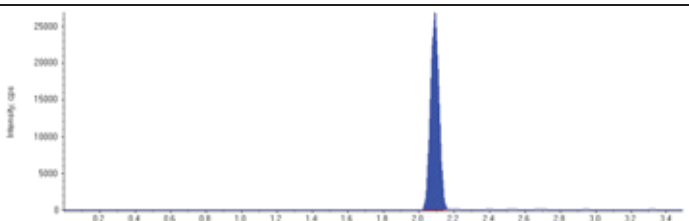
13C9-PFDA
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

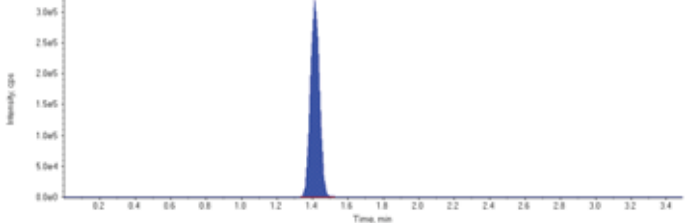
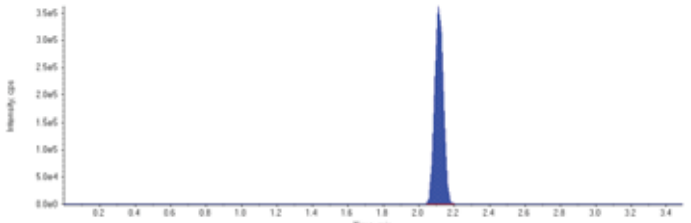
522.0 -> 476.9
0.849 (0.849)
99.22 µg/Kg
0
CC

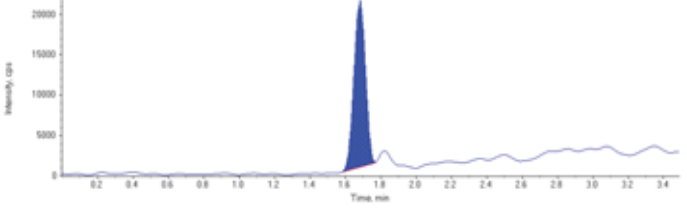
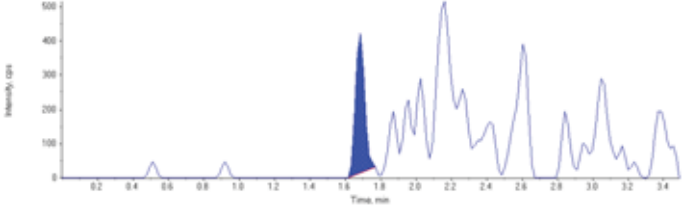
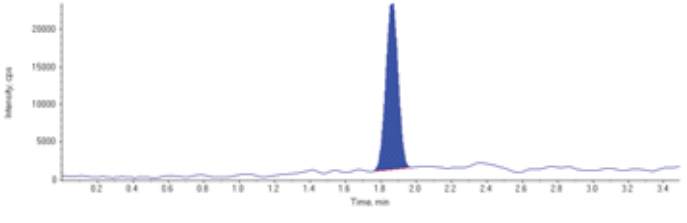
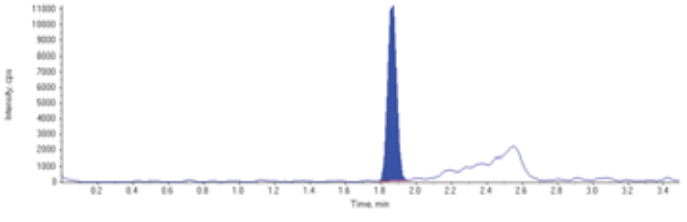
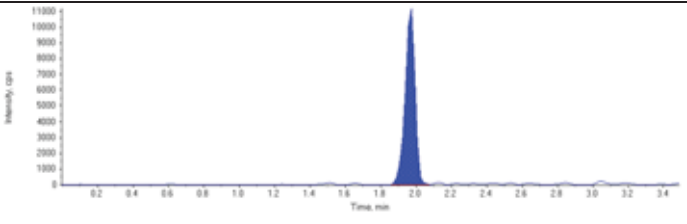
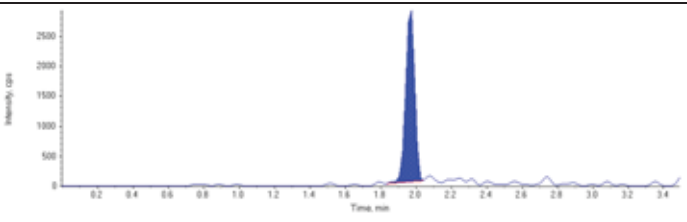
Sample ID	ISC	Injection Volume (µL)	1
Sample Type	Quality Control	Injection Vial	2
Acquisition Date	2017/06/13 3:02:30 PM	Dilution Factor	1.00
Acquisition Method	PFC_Soil.dam	Instrument Name	LCMS03
Project	Enviro\PFOS	Algorithm Used	Analyst Classic
Data File	PFC_170613\WS#5023570.wiff		
Result Table	PFC_Soil_170613_5023570_CT.rdb		
Samples Annotation	-		

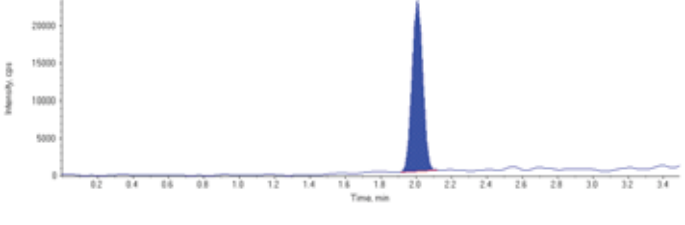
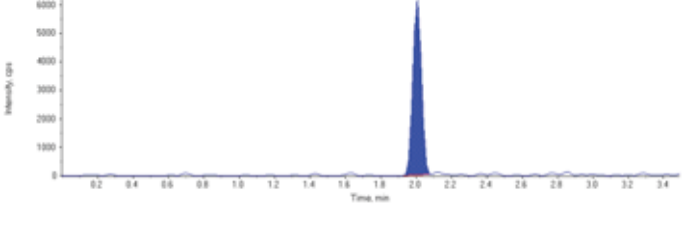
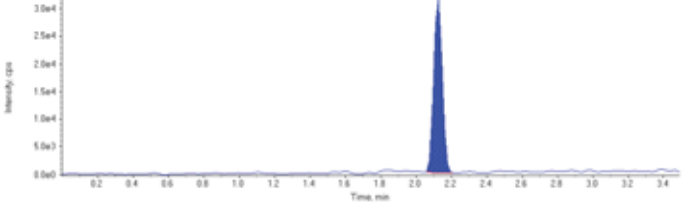
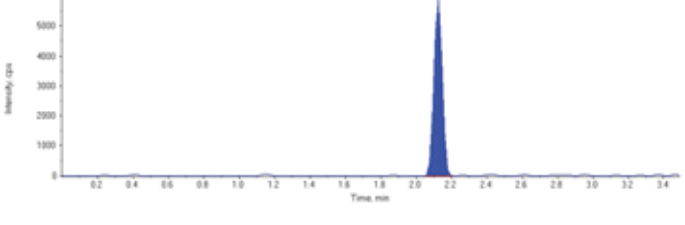
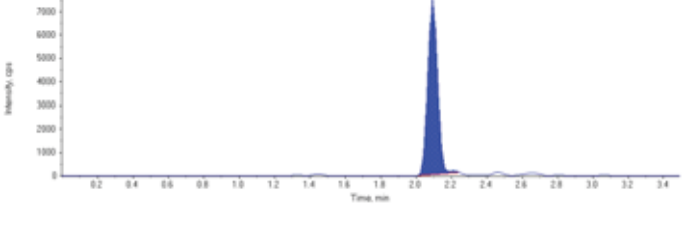
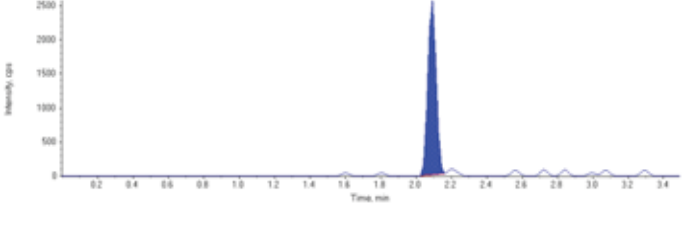
Internal Standard	Area (cps)	RT (min)	Target Conc. (ug/kg)	Calc. Conc. (ug/kg)
MPFHpA	396000.	1.68	1.00	-
MPFOA	340000.	1.86	1.00	-
MPFOS	156000.	1.97	1.00	-
MPFNA	397000.	2.01	1.00	-
MPFDA	370000.	2.12	1.00	-
M2 8:2 FTS	87900.	2.09	1.00	-
13C6-PFHxA IS	1110000.	1.41	1.00	-
13C9-PFDA IS	1220000.	2.11	1.00	-
N/A	N/A	N/A	N/A	-
N/A	N/A	N/A	N/A	-

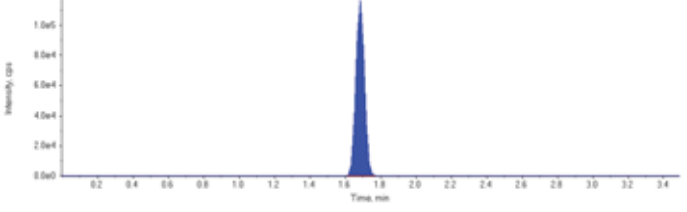
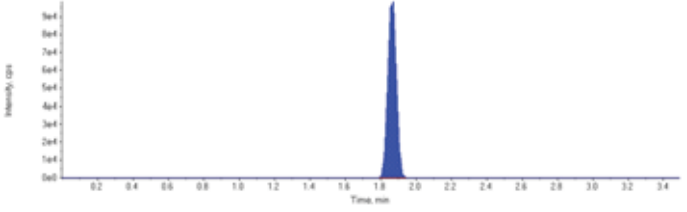
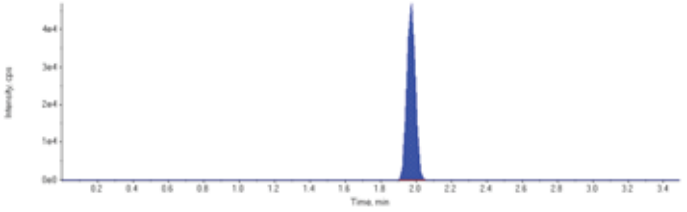
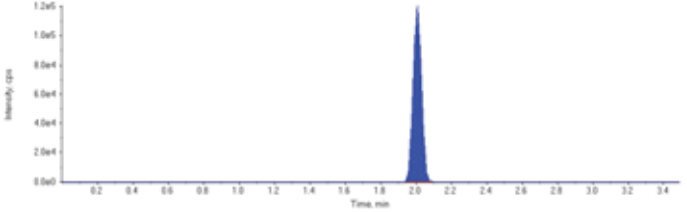
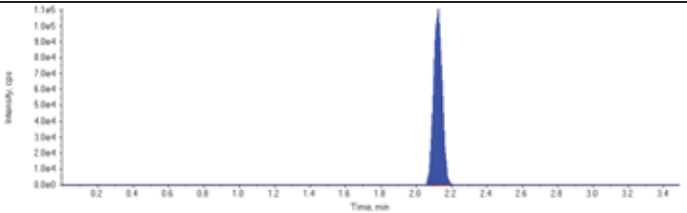
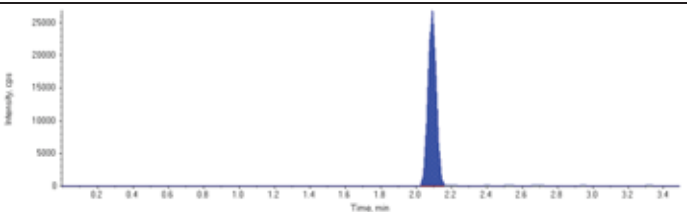
Target Analyte	Area (cps)	RT (min)	Target Conc. (ug/kg)	Calc. Conc. (ug/kg)	Accuracy (%)
PFHpA 1	93200	1.68	0.750	0.765	102.0
PFHpA 2	1490	1.68	0.750	0.757	101.0
PFOA 1	105000	1.86	0.750	0.802	107.0
PFOA 2	38600	1.86	0.750	0.774	103.0
PFOS 1	43600	1.97	0.750	0.722	96.3
PFOS 2	10300	1.97	0.750	0.535	71.4
PFNA 1	94800	2.01	0.750	0.762	102.0
PFNA 2	20900	2.01	0.750	0.561	74.7
PFDA 1	105000	2.12	0.750	0.780	104.0
PFDA 2	19300	2.13	0.750	0.821	110.0
8:2-FTS 1	29300	2.09	0.750	0.918	122.0
8:2-FTS 2	8420	2.09	0.750	0.606	80.8
13C4-PFHpA	396000	1.68	100.	97.8	97.8
13C4-PFOA	340000	1.86	100.	99.9	99.9
13C4-PFOS	156000	1.97	100.	101.	101.0
13C5-PFNA	397000	2.01	100.	103.	103.0
13C2-PFDA	370000	2.12	100.	91.7	91.7
13C2-8:2 FTS	87900	2.09	100.	86.4	86.4
13C6-PFHxA	1110000	1.41	100.	107.	107.0
13C9-PFDA	1220000	2.11	100.	111.	111.0

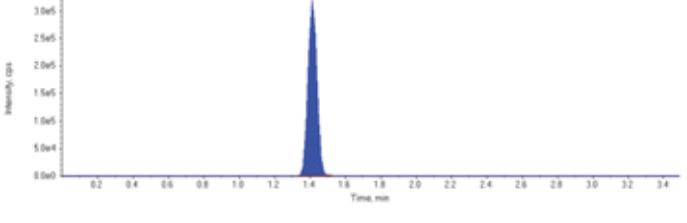
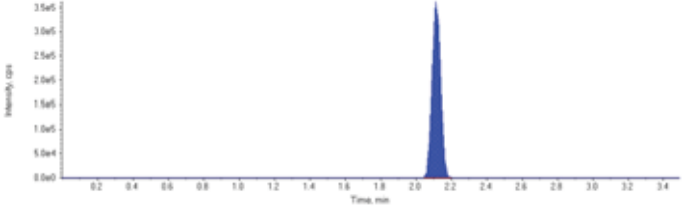
<p>MPFHpA (Internal Standard)</p> <p>RT (Exp. RT): 1.68(1.76) min</p> <p>Concentration: 1.00 ug/kg</p> <p>Sample Type: (Quality Control)</p>	
<p>MPFOA (Internal Standard)</p> <p>RT (Exp. RT): 1.86(1.93) min</p> <p>Concentration: 1.00 ug/kg</p> <p>Sample Type: (Quality Control)</p>	
<p>MPFOS (Internal Standard)</p> <p>RT (Exp. RT): 1.97(2.05) min</p> <p>Concentration: 1.00 ug/kg</p> <p>Sample Type: (Quality Control)</p>	
<p>MPFNA (Internal Standard)</p> <p>RT (Exp. RT): 2.01(2.07) min</p> <p>Concentration: 1.00 ug/kg</p> <p>Sample Type: (Quality Control)</p>	
<p>MPFDA (Internal Standard)</p> <p>RT (Exp. RT): 2.12(2.18) min</p> <p>Concentration: 1.00 ug/kg</p> <p>Sample Type: (Quality Control)</p>	
<p>M2 8:2 FTS (Internal Standard)</p> <p>RT (Exp. RT): 2.09(2.15) min</p> <p>Concentration: 1.00 ug/kg</p> <p>Sample Type: (Quality Control)</p>	

<p>13C6-PFHxA IS (Internal Standard)</p> <p>RT (Exp. RT): 1.41(1.41) min</p> <p>Concentration: 1.00 ug/kg</p> <p>Sample Type: (Quality Control)</p>	
<p>13C9-PFDA IS (Internal Standard)</p> <p>RT (Exp. RT): 2.11(2.18) min</p> <p>Concentration: 1.00 ug/kg</p> <p>Sample Type: (Quality Control)</p>	
<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min</p> <p>Concentration: N/A N/A</p> <p>Sample Type: (Quality Control)</p>	<p>This image is not available</p>
<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min</p> <p>Concentration: N/A N/A</p> <p>Sample Type: (Quality Control)</p>	<p>This image is not available</p>

<p>PFHpA 1 (363.000/319.000 Da)</p> <p>RT (Exp. RT): 1.68 (1.68) min</p> <p>Calculated Conc: 0.765 µg/kg</p> <p>Area Ratio: 0.236</p> <p>Sample Type: (Quality Control)</p>	
<p>PFHpA 2 (363.000/169.200 Da)</p> <p>RT (Exp. RT): 1.68 (1.68) min</p> <p>Calculated Conc: 0.757 µg/kg</p> <p>Area Ratio: 0.00377</p> <p>Sample Type: (Quality Control)</p>	
<p>PFOA 1 (413.100/369.000 Da)</p> <p>RT (Exp. RT): 1.86 (1.85) min</p> <p>Calculated Conc: 0.802 µg/kg</p> <p>Area Ratio: 0.308</p> <p>Sample Type: (Quality Control)</p>	
<p>PFOA 2 (413.100/169.000 Da)</p> <p>RT (Exp. RT): 1.86 (1.85) min</p> <p>Calculated Conc: 0.774 µg/kg</p> <p>Area Ratio: 0.114</p> <p>Sample Type: (Quality Control)</p>	
<p>PFOS 1 (498.900/79.900 Da)</p> <p>RT (Exp. RT): 1.97 (2.05) min</p> <p>Calculated Conc: 0.722 µg/kg</p> <p>Area Ratio: 0.280</p> <p>Sample Type: (Quality Control)</p>	
<p>PFOS 2 (498.900/98.900 Da)</p> <p>RT (Exp. RT): 1.97 (1.97) min</p> <p>Calculated Conc: 0.535 µg/kg</p> <p>Area Ratio: 0.0664</p> <p>Sample Type: (Quality Control)</p>	

<p>PFNA 1 (462.900/419.000 Da)</p> <p>RT (Exp. RT): 2.01 (2.07) min</p> <p>Calculated Conc: 0.762 µg/kg</p> <p>Area Ratio: 0.239</p> <p>Sample Type: (Quality Control)</p>	
<p>PFNA 2 (462.900/219.100 Da)</p> <p>RT (Exp. RT): 2.01 (2.07) min</p> <p>Calculated Conc: 0.561 µg/kg</p> <p>Area Ratio: 0.0525</p> <p>Sample Type: (Quality Control)</p>	
<p>PFDA 1 (513.000/469.100 Da)</p> <p>RT (Exp. RT): 2.12 (2.18) min</p> <p>Calculated Conc: 0.780 µg/kg</p> <p>Area Ratio: 0.284</p> <p>Sample Type: (Quality Control)</p>	
<p>PFDA 2 (513.000/218.900 Da)</p> <p>RT (Exp. RT): 2.13 (2.18) min</p> <p>Calculated Conc: 0.821 µg/kg</p> <p>Area Ratio: 0.0521</p> <p>Sample Type: (Quality Control)</p>	
<p>8:2-FTS 1 (526.900/507.000 Da)</p> <p>RT (Exp. RT): 2.09 (2.16) min</p> <p>Calculated Conc: 0.918 µg/kg</p> <p>Area Ratio: 0.333</p> <p>Sample Type: (Quality Control)</p>	
<p>8:2-FTS 2 (526.900/80.900 Da)</p> <p>RT (Exp. RT): 2.09 (2.09) min</p> <p>Calculated Conc: 0.606 µg/kg</p> <p>Area Ratio: 0.0958</p> <p>Sample Type: (Quality Control)</p>	

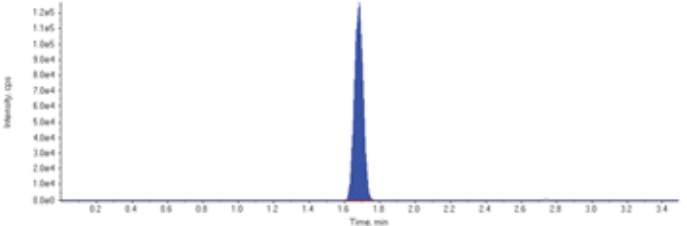
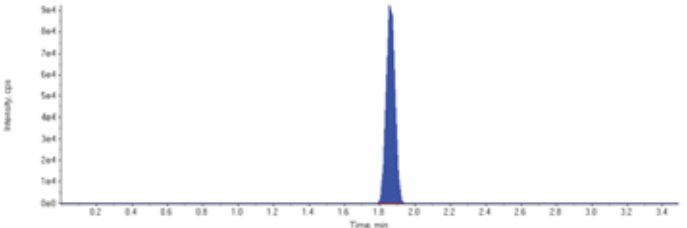
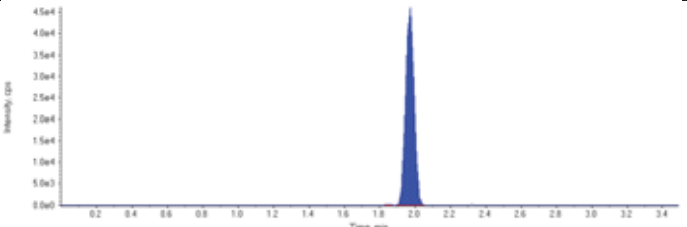
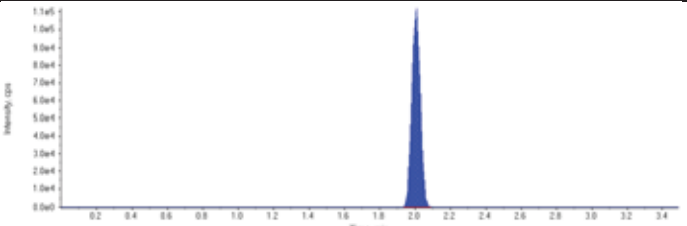
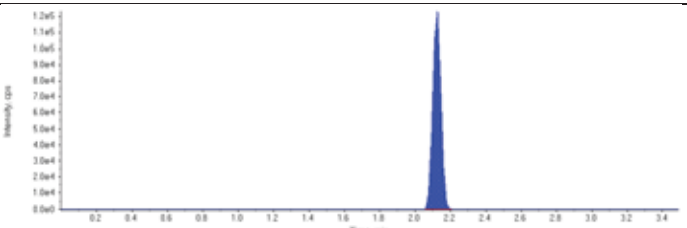
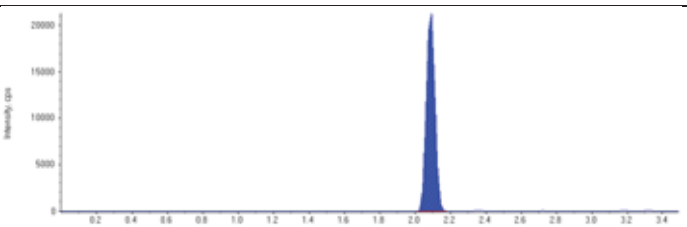
<p>13C4-PFHpa (366.900/322.000 Da)</p> <p>RT (Exp. RT): 1.68 (1.76) min</p> <p>Calculated Conc: 97.8 µg/kg</p> <p>Area Ratio: 0.357</p> <p>Sample Type: (Quality Control)</p>	
<p>13C4-PFOA (416.900/372.000 Da)</p> <p>RT (Exp. RT): 1.86 (1.93) min</p> <p>Calculated Conc: 99.9 µg/kg</p> <p>Area Ratio: 0.307</p> <p>Sample Type: (Quality Control)</p>	
<p>13C4-PFOS (502.900/79.900 Da)</p> <p>RT (Exp. RT): 1.97 (2.05) min</p> <p>Calculated Conc: 101. µg/kg</p> <p>Area Ratio: 0.141</p> <p>Sample Type: (Quality Control)</p>	
<p>13C5-PFNA (467.900/423.000 Da)</p> <p>RT (Exp. RT): 2.01 (2.07) min</p> <p>Calculated Conc: 103. µg/kg</p> <p>Area Ratio: 0.359</p> <p>Sample Type: (Quality Control)</p>	
<p>13C2-PFDA (514.900/470.000 Da)</p> <p>RT (Exp. RT): 2.12 (2.18) min</p> <p>Calculated Conc: 91.7 µg/kg</p> <p>Area Ratio: 0.304</p> <p>Sample Type: (Quality Control)</p>	
<p>13C2-8:2 FTS (528.900/80.900 Da)</p> <p>RT (Exp. RT): 2.09 (2.15) min</p> <p>Calculated Conc: 86.4 µg/kg</p> <p>Area Ratio: 0.0795</p> <p>Sample Type: (Quality Control)</p>	

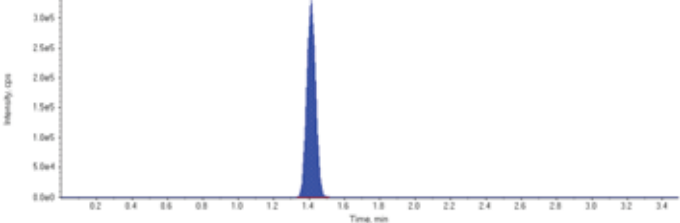
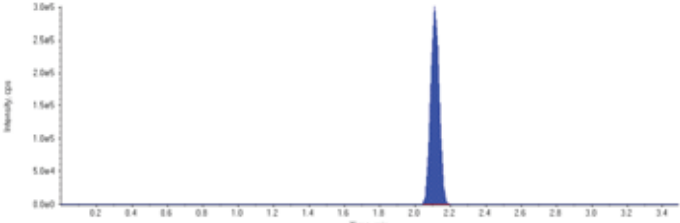
<p>13C6-PFHxA (318.900/274.000 Da)</p> <p>RT (Exp. RT): 1.41 (1.41) min</p> <p>Calculated Conc: 107. µg/kg</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Quality Control)</p>	
<p>13C9-PFDA (521.900/477.100 Da)</p> <p>RT (Exp. RT): 2.11 (2.18) min</p> <p>Calculated Conc: 111. µg/kg</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Quality Control)</p>	

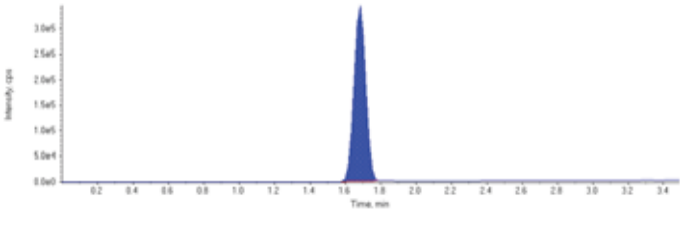
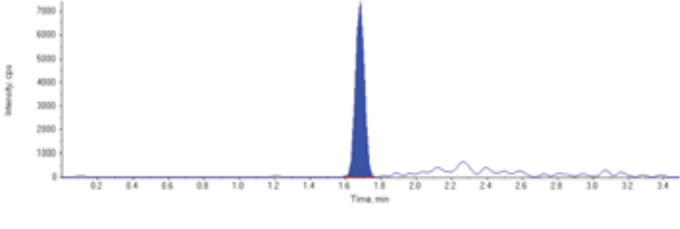
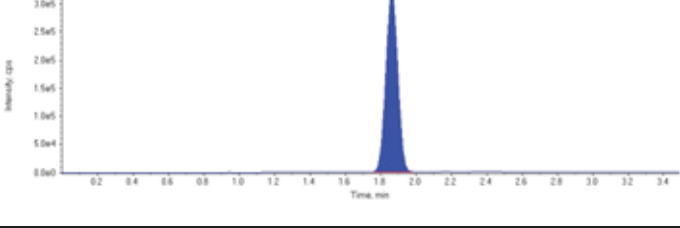
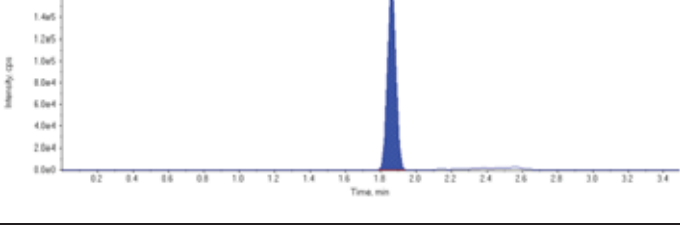
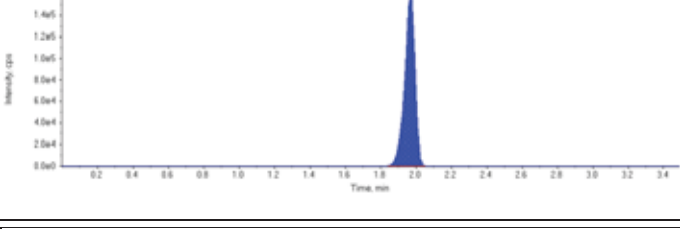
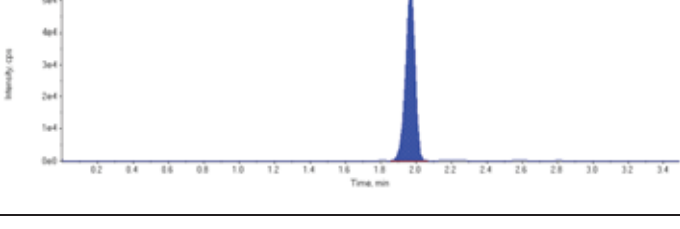
Sample ID	CCV	Injection Volume (μL)	1
Sample Type	Quality Control	Injection Vial	5
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Acquisition Method	PFC_Soil.dam	Instrument Name	LCMS03
Project	Enviro\PFOS	Algorithm Used	Analyst Classic
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Result Table	PFC_Soil_170613_5023570_CT.rdb		
Samples Annotation	-		

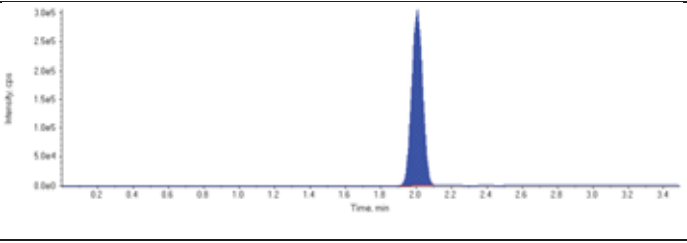
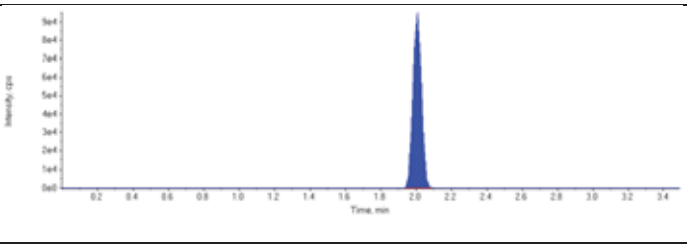
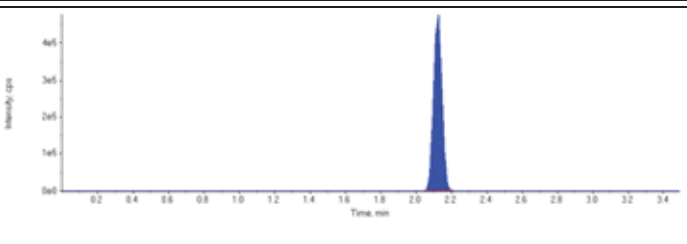
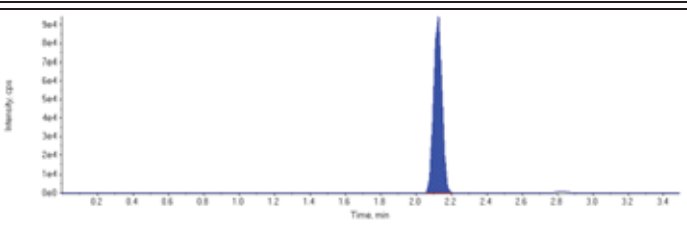
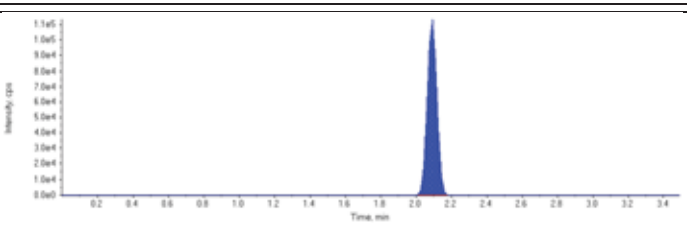
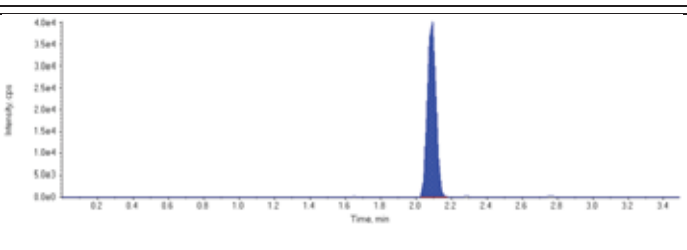
Internal Standard	Area (cps)	RT (min)	Target Conc. (ug/kg)	Calc. Conc. (ug/kg)
MPFHpA	424000.	1.68	1.00	-
MPFOA	319000.	1.86	1.00	-
MPFOS	154000.	1.97	1.00	-
MPFNA	367000.	2.01	1.00	-
MPFDA	402000.	2.12	1.00	-
M2 8:2 FTS	73000.	2.09	1.00	-
13C6-PFHxA IS	1140000.	1.41	1.00	-
13C9-PFDA IS	1010000.	2.11	1.00	-
N/A	N/A	N/A	N/A	-
N/A	N/A	N/A	N/A	-

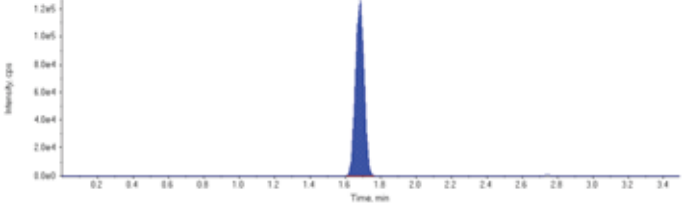
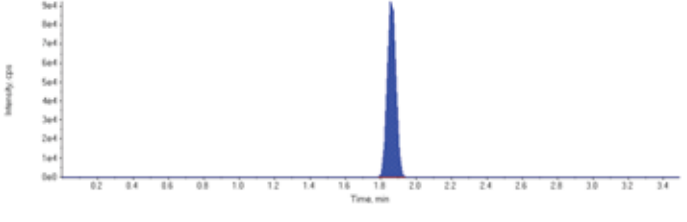
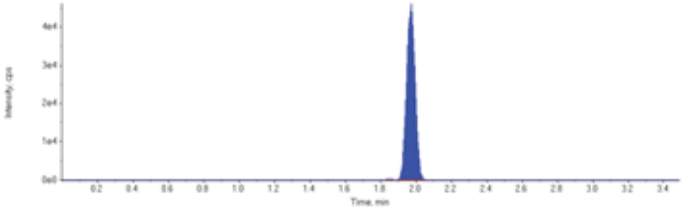
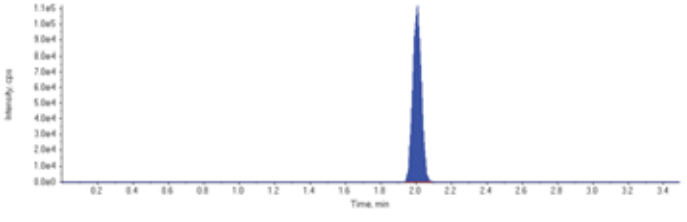
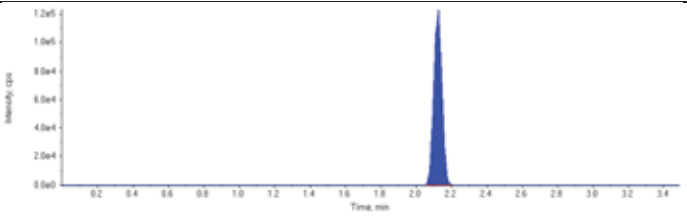
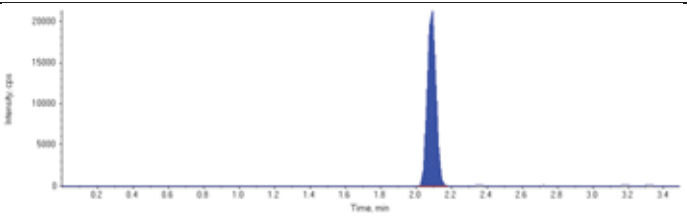
Target Analyte	Area (cps)	RT (min)	Target Conc. (ug/kg)	Calc. Conc. (ug/kg)	Accuracy (%)
PFHpA 1	1580000	1.68	11.3	10.0	88.9
PFHpA 2	25800	1.68	11.3	10.6	93.6
PFOA 1	1480000	1.86	11.3	11.5	102.0
PFOA 2	558000	1.86	11.3	11.5	101.0
PFOS 1	663000	1.97	11.3	10.6	94.0
PFOS 2	202000	1.97	11.3	10.0	88.6
PFNA 1	1280000	2.01	11.3	10.5	92.5
PFNA 2	315000	2.01	11.3	10.9	96.5
PFDA 1	1590000	2.12	11.3	10.5	92.9
PFDA 2	310000	2.12	11.3	11.0	96.9
8:2-FTS 1	434000	2.09	11.3	14.0	124.0
8:2-FTS 2	137000	2.09	11.3	11.5	102.0
13C4-PFHpA	424000	1.68	100.	102.	102.0
13C4-PFOA	319000	1.86	100.	91.4	91.4
13C4-PFOS	154000	1.97	100.	96.9	96.9
13C5-PFNA	367000	2.01	100.	92.3	92.3
13C2-PFDA	402000	2.12	100.	121.	121.0
13C2-8:2 FTS	73000	2.09	100.	69.7	69.7
13C6-PFHxA	1140000	1.41	100.	110.	110.0
13C9-PFDA	1010000	2.11	100.	91.5	91.5

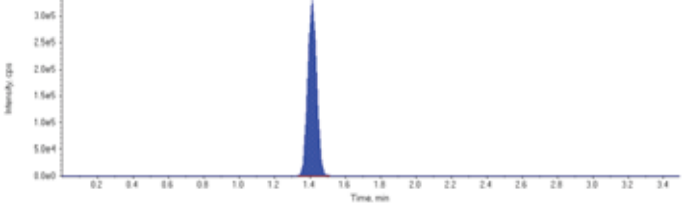
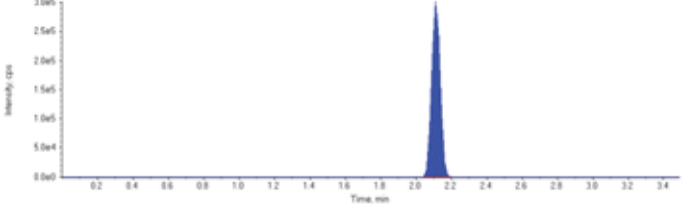
<p>MPFHpA (Internal Standard)</p> <p>RT (Exp. RT): 1.68(1.76) min</p> <p>Concentration: 1.00 ug/kg</p> <p>Sample Type: (Quality Control)</p>	
<p>MPFOA (Internal Standard)</p> <p>RT (Exp. RT): 1.86(1.93) min</p> <p>Concentration: 1.00 ug/kg</p> <p>Sample Type: (Quality Control)</p>	
<p>MPFOS (Internal Standard)</p> <p>RT (Exp. RT): 1.97(2.05) min</p> <p>Concentration: 1.00 ug/kg</p> <p>Sample Type: (Quality Control)</p>	
<p>MPFNA (Internal Standard)</p> <p>RT (Exp. RT): 2.01(2.07) min</p> <p>Concentration: 1.00 ug/kg</p> <p>Sample Type: (Quality Control)</p>	
<p>MPFDA (Internal Standard)</p> <p>RT (Exp. RT): 2.12(2.18) min</p> <p>Concentration: 1.00 ug/kg</p> <p>Sample Type: (Quality Control)</p>	
<p>M2 8:2 FTS (Internal Standard)</p> <p>RT (Exp. RT): 2.09(2.15) min</p> <p>Concentration: 1.00 ug/kg</p> <p>Sample Type: (Quality Control)</p>	

<p>13C6-PFHxA IS (Internal Standard)</p> <p>RT (Exp. RT): 1.41(1.41) min</p> <p>Concentration: 1.00 ug/kg</p> <p>Sample Type: (Quality Control)</p>	
<p>13C9-PFDA IS (Internal Standard)</p> <p>RT (Exp. RT): 2.11(2.18) min</p> <p>Concentration: 1.00 ug/kg</p> <p>Sample Type: (Quality Control)</p>	
<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min</p> <p>Concentration: N/A N/A</p> <p>Sample Type: (Quality Control)</p>	<p>This image is not available</p>
<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min</p> <p>Concentration: N/A N/A</p> <p>Sample Type: (Quality Control)</p>	<p>This image is not available</p>

<p>PFHpA 1 (363.000/319.000 Da)</p> <p>RT (Exp. RT): 1.68 (1.68) min</p> <p>Calculated Conc: 10.0 µg/kg</p> <p>Area Ratio: 3.74</p> <p>Sample Type: (Quality Control)</p>	
<p>PFHpA 2 (363.000/169.200 Da)</p> <p>RT (Exp. RT): 1.68 (1.68) min</p> <p>Calculated Conc: 10.6 µg/kg</p> <p>Area Ratio: 0.0608</p> <p>Sample Type: (Quality Control)</p>	
<p>PFOA 1 (413.100/369.000 Da)</p> <p>RT (Exp. RT): 1.86 (1.85) min</p> <p>Calculated Conc: 11.5 µg/kg</p> <p>Area Ratio: 4.62</p> <p>Sample Type: (Quality Control)</p>	
<p>PFOA 2 (413.100/169.000 Da)</p> <p>RT (Exp. RT): 1.86 (1.85) min</p> <p>Calculated Conc: 11.5 µg/kg</p> <p>Area Ratio: 1.75</p> <p>Sample Type: (Quality Control)</p>	
<p>PFOS 1 (498.900/79.900 Da)</p> <p>RT (Exp. RT): 1.97 (2.05) min</p> <p>Calculated Conc: 10.6 µg/kg</p> <p>Area Ratio: 4.30</p> <p>Sample Type: (Quality Control)</p>	
<p>PFOS 2 (498.900/98.900 Da)</p> <p>RT (Exp. RT): 1.97 (1.97) min</p> <p>Calculated Conc: 10.0 µg/kg</p> <p>Area Ratio: 1.31</p> <p>Sample Type: (Quality Control)</p>	

<p>PFNA 1 (462.900/419.000 Da)</p> <p>RT (Exp. RT): 2.01 (2.07) min</p> <p>Calculated Conc: 10.5 µg/kg</p> <p>Area Ratio: 3.48</p> <p>Sample Type: (Quality Control)</p>	
<p>PFNA 2 (462.900/219.100 Da)</p> <p>RT (Exp. RT): 2.01 (2.07) min</p> <p>Calculated Conc: 10.9 µg/kg</p> <p>Area Ratio: 0.858</p> <p>Sample Type: (Quality Control)</p>	
<p>PFDA 1 (513.000/469.100 Da)</p> <p>RT (Exp. RT): 2.12 (2.18) min</p> <p>Calculated Conc: 10.5 µg/kg</p> <p>Area Ratio: 3.96</p> <p>Sample Type: (Quality Control)</p>	
<p>PFDA 2 (513.000/218.900 Da)</p> <p>RT (Exp. RT): 2.12 (2.18) min</p> <p>Calculated Conc: 11.0 µg/kg</p> <p>Area Ratio: 0.772</p> <p>Sample Type: (Quality Control)</p>	
<p>8:2-FTS 1 (526.900/507.000 Da)</p> <p>RT (Exp. RT): 2.09 (2.16) min</p> <p>Calculated Conc: 14.0 µg/kg</p> <p>Area Ratio: 5.95</p> <p>Sample Type: (Quality Control)</p>	
<p>8:2-FTS 2 (526.900/80.900 Da)</p> <p>RT (Exp. RT): 2.09 (2.09) min</p> <p>Calculated Conc: 11.5 µg/kg</p> <p>Area Ratio: 1.87</p> <p>Sample Type: (Quality Control)</p>	

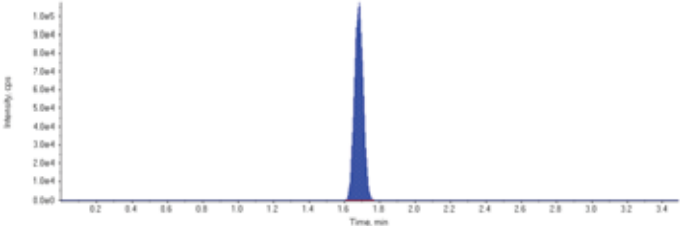
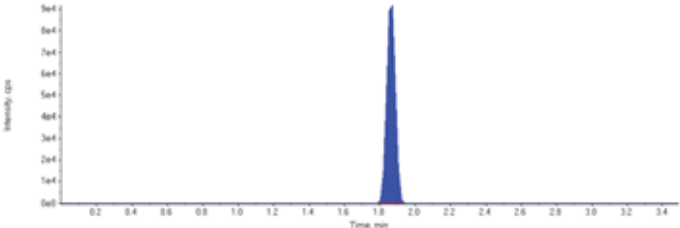
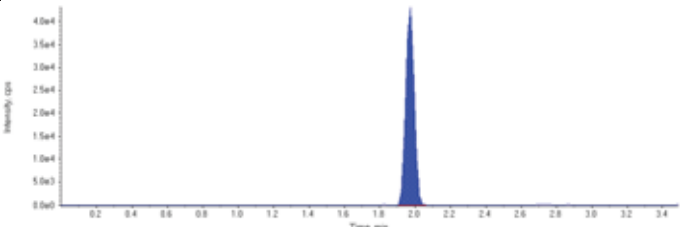
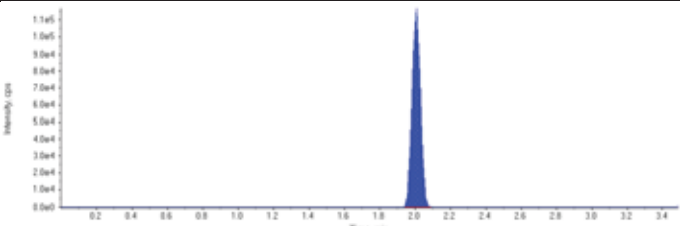
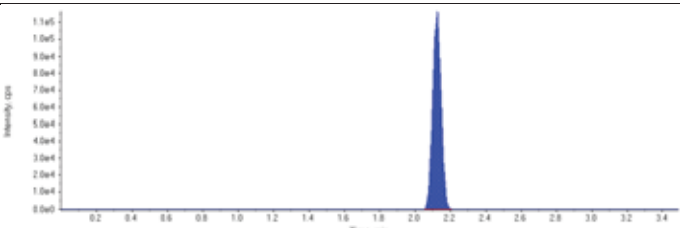
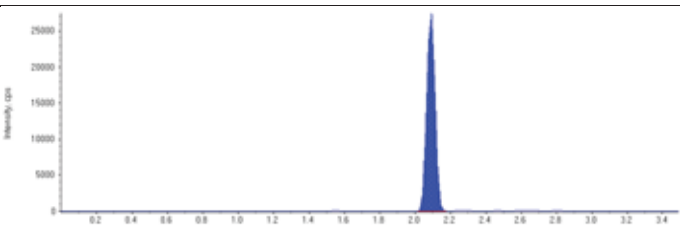
<p>13C4-PFHpa (366.900/322.000 Da)</p> <p>RT (Exp. RT): 1.68 (1.76) min</p> <p>Calculated Conc: 102. µg/kg</p> <p>Area Ratio: 0.373</p> <p>Sample Type: (Quality Control)</p>	
<p>13C4-PFOA (416.900/372.000 Da)</p> <p>RT (Exp. RT): 1.86 (1.93) min</p> <p>Calculated Conc: 91.4 µg/kg</p> <p>Area Ratio: 0.281</p> <p>Sample Type: (Quality Control)</p>	
<p>13C4-PFOS (502.900/79.900 Da)</p> <p>RT (Exp. RT): 1.97 (2.05) min</p> <p>Calculated Conc: 96.9 µg/kg</p> <p>Area Ratio: 0.135</p> <p>Sample Type: (Quality Control)</p>	
<p>13C5-PFNA (467.900/423.000 Da)</p> <p>RT (Exp. RT): 2.01 (2.07) min</p> <p>Calculated Conc: 92.3 µg/kg</p> <p>Area Ratio: 0.323</p> <p>Sample Type: (Quality Control)</p>	
<p>13C2-PFDA (514.900/470.000 Da)</p> <p>RT (Exp. RT): 2.12 (2.18) min</p> <p>Calculated Conc: 121. µg/kg</p> <p>Area Ratio: 0.399</p> <p>Sample Type: (Quality Control)</p>	
<p>13C2-8:2 FTS (528.900/80.900 Da)</p> <p>RT (Exp. RT): 2.09 (2.15) min</p> <p>Calculated Conc: 69.7 µg/kg</p> <p>Area Ratio: 0.0642</p> <p>Sample Type: (Quality Control)</p>	

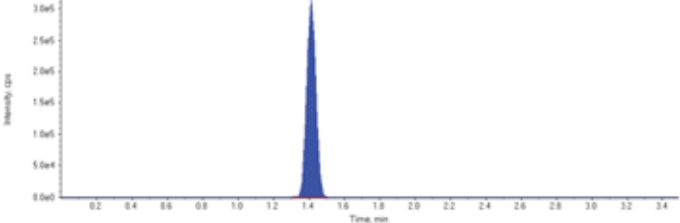
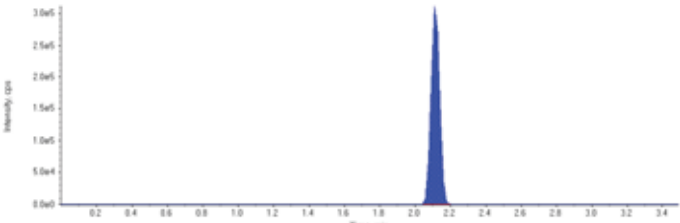
<p>13C6-PFHxA (318.900/274.000 Da)</p> <p>RT (Exp. RT): 1.41 (1.41) min</p> <p>Calculated Conc: 110. µg/kg</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Quality Control)</p>	
<p>13C9-PFDA (521.900/477.100 Da)</p> <p>RT (Exp. RT): 2.11 (2.18) min</p> <p>Calculated Conc: 91.5 µg/kg</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Quality Control)</p>	

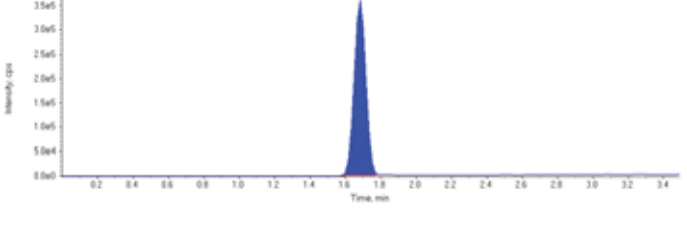
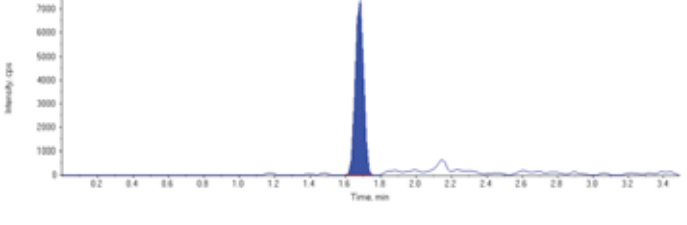
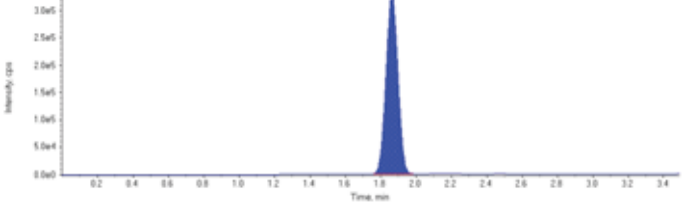
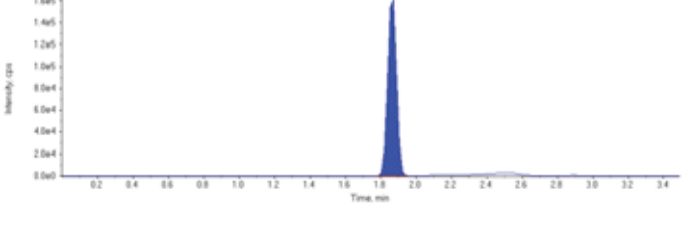
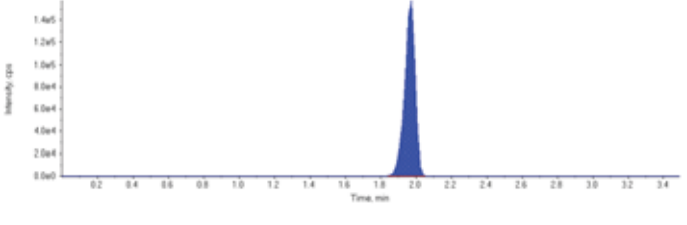
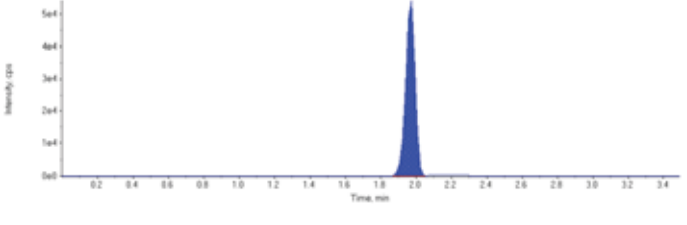
Sample ID	CCV	Injection Volume (µL)	1
Sample Type	Quality Control	Injection Vial	5
Acquisition Date	2017/06/13 5:19:25 PM	Dilution Factor	1.00
Acquisition Method	PFC_Soil.dam	Instrument Name	LCMS03
Project	Enviro\PFOS	Algorithm Used	Analyst Classic
Data File	PFC_170613\WS#5023570.wiff		
Result Table	PFC_Soil_170613_5023570_CT.rdb		
Samples Annotation	-		

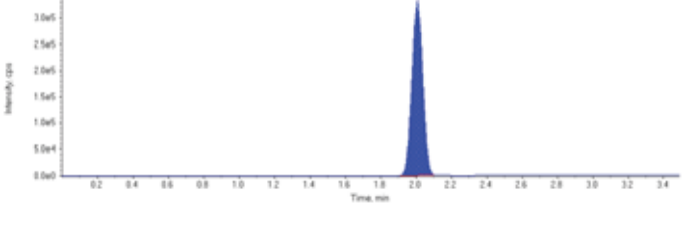
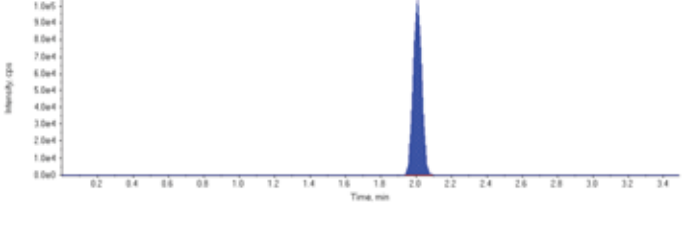
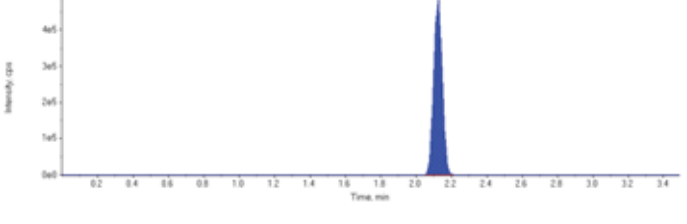
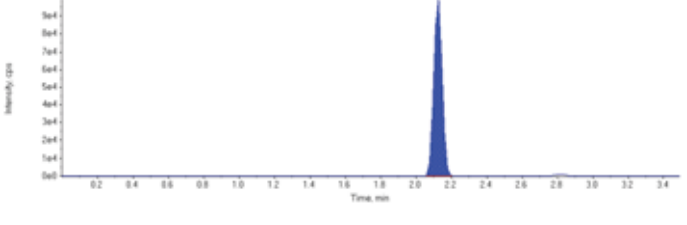
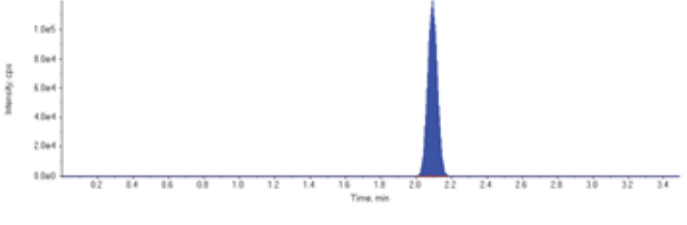
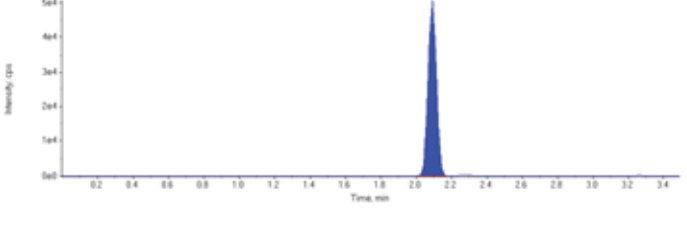
Internal Standard	Area (cps)	RT (min)	Target Conc. (ug/kg)	Calc. Conc. (ug/kg)
MPFHpA	370000.	1.68	1.00	-
MPFOA	322000.	1.86	1.00	-
MPFOS	143000.	1.97	1.00	-
MPFNA	383000.	2.01	1.00	-
MPFDA	388000.	2.12	1.00	-
M2 8:2 FTS	91000.	2.09	1.00	-
13C6-PFHxA IS	1110000.	1.41	1.00	-
13C9-PFDA IS	1060000.	2.11	1.00	-
N/A	N/A	N/A	N/A	-
N/A	N/A	N/A	N/A	-

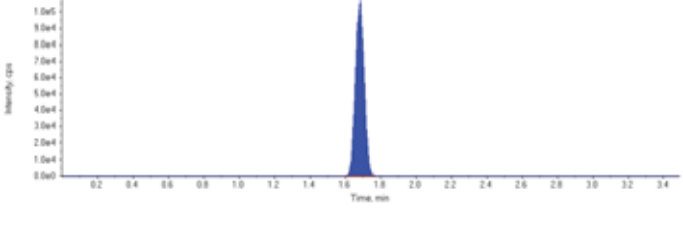
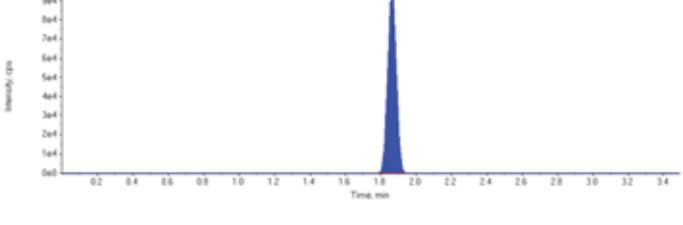
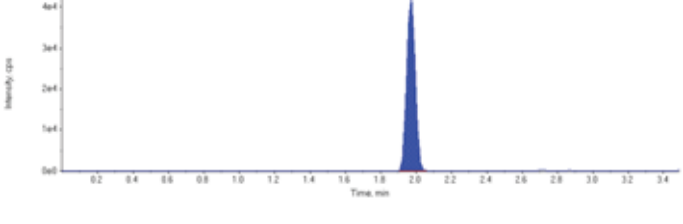
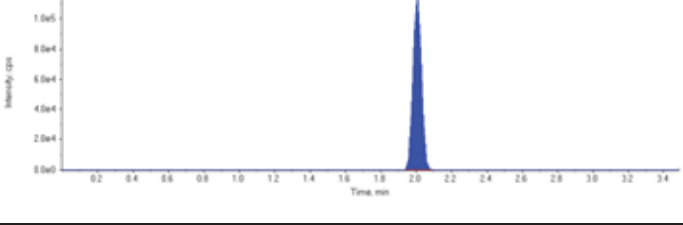
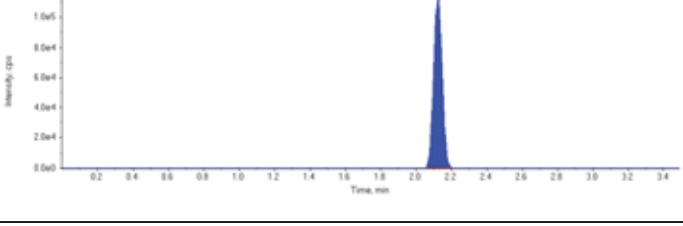
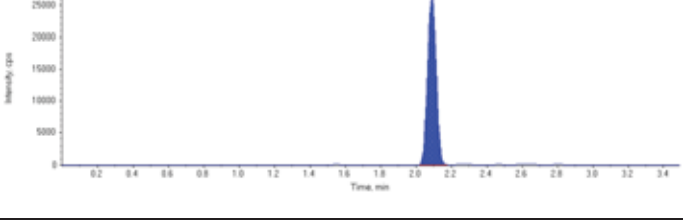
Target Analyte	Area (cps)	RT (min)	Target Conc. (ug/kg)	Calc. Conc. (ug/kg)	Accuracy (%)
PFHpA 1	1660000	1.68	11.3	12.0	107.0
PFHpA 2	24400	1.68	11.3	11.5	101.0
PFOA 1	1530000	1.86	11.3	11.8	105.0
PFOA 2	568000	1.87	11.3	11.6	102.0
PFOS 1	652000	1.97	11.3	11.2	99.3
PFOS 2	202000	1.97	11.3	10.8	95.5
PFNA 1	1400000	2.01	11.3	11.0	97.5
PFNA 2	345000	2.01	11.3	11.4	101.0
PFDA 1	1630000	2.12	11.3	11.1	98.3
PFDA 2	330000	2.12	11.3	12.1	107.0
8:2-FTS 1	453000	2.09	11.3	11.7	104.0
8:2-FTS 2	167000	2.09	11.3	11.3	99.6
13C4-PFHpA	370000	1.68	100.	90.9	90.9
13C4-PFOA	322000	1.86	100.	94.1	94.1
13C4-PFOS	143000	1.97	100.	92.1	92.1
13C5-PFNA	383000	2.01	100.	98.2	98.2
13C2-PFDA	388000	2.12	100.	111.	111.0
13C2-8:2 FTS	91000	2.09	100.	88.8	88.8
13C6-PFHxA	1110000	1.41	100.	108.	108.0
13C9-PFDA	1060000	2.11	100.	96.2	96.2

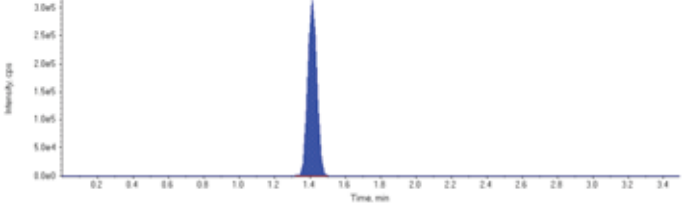
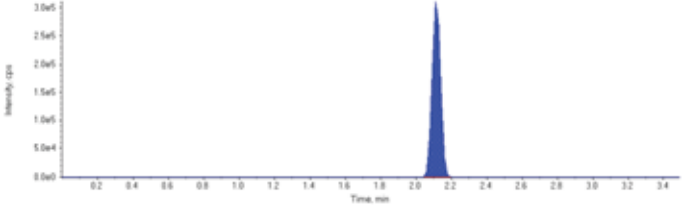
<p>MPFHpA (Internal Standard)</p> <p>RT (Exp. RT): 1.68(1.76) min</p> <p>Concentration: 1.00 ug/kg</p> <p>Sample Type: (Quality Control)</p>	
<p>MPFOA (Internal Standard)</p> <p>RT (Exp. RT): 1.86(1.93) min</p> <p>Concentration: 1.00 ug/kg</p> <p>Sample Type: (Quality Control)</p>	
<p>MPFOS (Internal Standard)</p> <p>RT (Exp. RT): 1.97(2.05) min</p> <p>Concentration: 1.00 ug/kg</p> <p>Sample Type: (Quality Control)</p>	
<p>MPFNA (Internal Standard)</p> <p>RT (Exp. RT): 2.01(2.07) min</p> <p>Concentration: 1.00 ug/kg</p> <p>Sample Type: (Quality Control)</p>	
<p>MPFDA (Internal Standard)</p> <p>RT (Exp. RT): 2.12(2.18) min</p> <p>Concentration: 1.00 ug/kg</p> <p>Sample Type: (Quality Control)</p>	
<p>M2 8:2 FTS (Internal Standard)</p> <p>RT (Exp. RT): 2.09(2.15) min</p> <p>Concentration: 1.00 ug/kg</p> <p>Sample Type: (Quality Control)</p>	

<p>13C6-PFHxA IS (Internal Standard)</p> <p>RT (Exp. RT): 1.41(1.41) min</p> <p>Concentration: 1.00 ug/kg</p> <p>Sample Type: (Quality Control)</p>	
<p>13C9-PFDA IS (Internal Standard)</p> <p>RT (Exp. RT): 2.11(2.18) min</p> <p>Concentration: 1.00 ug/kg</p> <p>Sample Type: (Quality Control)</p>	
<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min</p> <p>Concentration: N/A N/A</p> <p>Sample Type: (Quality Control)</p>	<p>This image is not available</p>
<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min</p> <p>Concentration: N/A N/A</p> <p>Sample Type: (Quality Control)</p>	<p>This image is not available</p>

<p>PFHpA 1 (363.000/319.000 Da)</p> <p>RT (Exp. RT): 1.68 (1.68) min</p> <p>Calculated Conc: 12.0 µg/kg</p> <p>Area Ratio: 4.49</p> <p>Sample Type: (Quality Control)</p>	
<p>PFHpA 2 (363.000/169.200 Da)</p> <p>RT (Exp. RT): 1.68 (1.68) min</p> <p>Calculated Conc: 11.5 µg/kg</p> <p>Area Ratio: 0.0658</p> <p>Sample Type: (Quality Control)</p>	
<p>PFOA 1 (413.100/369.000 Da)</p> <p>RT (Exp. RT): 1.86 (1.85) min</p> <p>Calculated Conc: 11.8 µg/kg</p> <p>Area Ratio: 4.75</p> <p>Sample Type: (Quality Control)</p>	
<p>PFOA 2 (413.100/169.000 Da)</p> <p>RT (Exp. RT): 1.87 (1.85) min</p> <p>Calculated Conc: 11.6 µg/kg</p> <p>Area Ratio: 1.77</p> <p>Sample Type: (Quality Control)</p>	
<p>PFOS 1 (498.900/79.900 Da)</p> <p>RT (Exp. RT): 1.97 (2.05) min</p> <p>Calculated Conc: 11.2 µg/kg</p> <p>Area Ratio: 4.55</p> <p>Sample Type: (Quality Control)</p>	
<p>PFOS 2 (498.900/98.900 Da)</p> <p>RT (Exp. RT): 1.97 (1.97) min</p> <p>Calculated Conc: 10.8 µg/kg</p> <p>Area Ratio: 1.41</p> <p>Sample Type: (Quality Control)</p>	

<p>PFNA 1 (462.900/419.000 Da)</p> <p>RT (Exp. RT): 2.01 (2.07) min</p> <p>Calculated Conc: 11.0 µg/kg</p> <p>Area Ratio: 3.67</p> <p>Sample Type: (Quality Control)</p>	
<p>PFNA 2 (462.900/219.100 Da)</p> <p>RT (Exp. RT): 2.01 (2.07) min</p> <p>Calculated Conc: 11.4 µg/kg</p> <p>Area Ratio: 0.900</p> <p>Sample Type: (Quality Control)</p>	
<p>PFDA 1 (513.000/469.100 Da)</p> <p>RT (Exp. RT): 2.12 (2.18) min</p> <p>Calculated Conc: 11.1 µg/kg</p> <p>Area Ratio: 4.19</p> <p>Sample Type: (Quality Control)</p>	
<p>PFDA 2 (513.000/218.900 Da)</p> <p>RT (Exp. RT): 2.12 (2.18) min</p> <p>Calculated Conc: 12.1 µg/kg</p> <p>Area Ratio: 0.851</p> <p>Sample Type: (Quality Control)</p>	
<p>8:2-FTS 1 (526.900/507.000 Da)</p> <p>RT (Exp. RT): 2.09 (2.16) min</p> <p>Calculated Conc: 11.7 µg/kg</p> <p>Area Ratio: 4.98</p> <p>Sample Type: (Quality Control)</p>	
<p>8:2-FTS 2 (526.900/80.900 Da)</p> <p>RT (Exp. RT): 2.09 (2.09) min</p> <p>Calculated Conc: 11.3 µg/kg</p> <p>Area Ratio: 1.83</p> <p>Sample Type: (Quality Control)</p>	

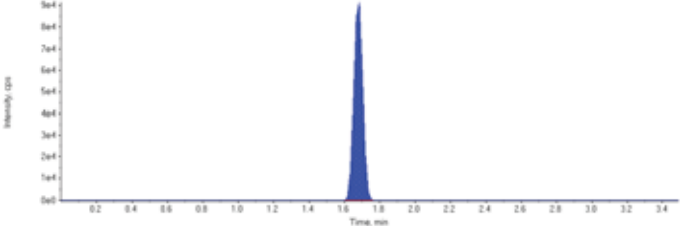
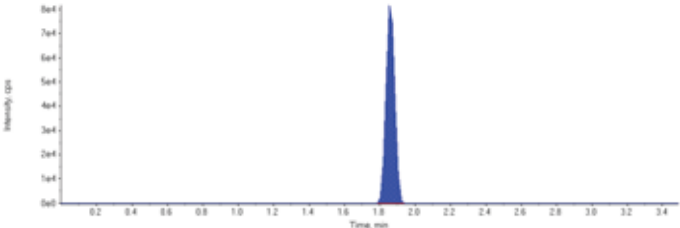
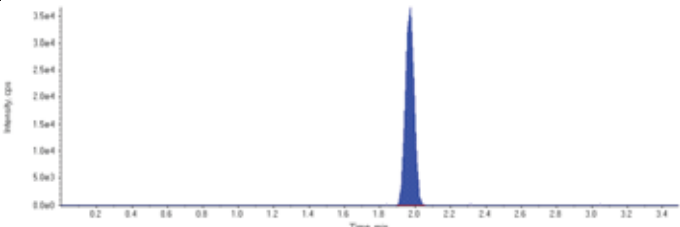
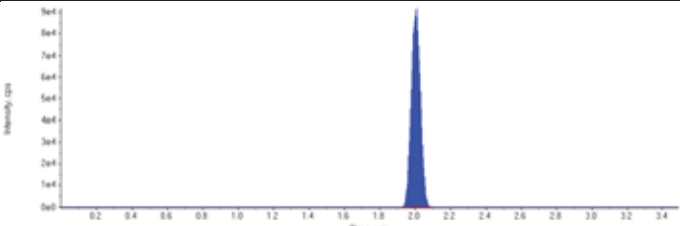
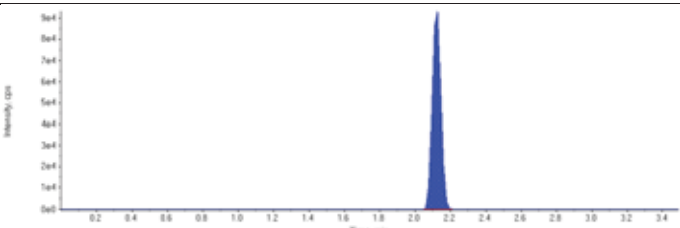
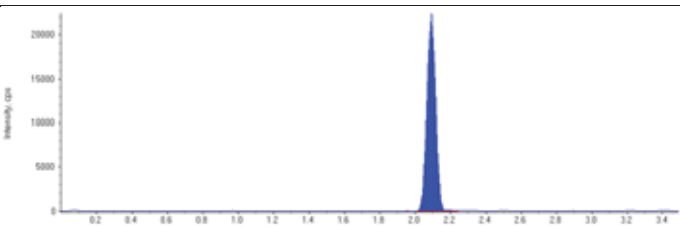
<p>13C4-PFHpa (366.900/322.000 Da)</p> <p>RT (Exp. RT): 1.68 (1.76) min</p> <p>Calculated Conc: 90.9 µg/kg</p> <p>Area Ratio: 0.332</p> <p>Sample Type: (Quality Control)</p>	
<p>13C4-PFOA (416.900/372.000 Da)</p> <p>RT (Exp. RT): 1.86 (1.93) min</p> <p>Calculated Conc: 94.1 µg/kg</p> <p>Area Ratio: 0.289</p> <p>Sample Type: (Quality Control)</p>	
<p>13C4-PFOS (502.900/79.900 Da)</p> <p>RT (Exp. RT): 1.97 (2.05) min</p> <p>Calculated Conc: 92.1 µg/kg</p> <p>Area Ratio: 0.129</p> <p>Sample Type: (Quality Control)</p>	
<p>13C5-PFNA (467.900/423.000 Da)</p> <p>RT (Exp. RT): 2.01 (2.07) min</p> <p>Calculated Conc: 98.2 µg/kg</p> <p>Area Ratio: 0.343</p> <p>Sample Type: (Quality Control)</p>	
<p>13C2-PFDA (514.900/470.000 Da)</p> <p>RT (Exp. RT): 2.12 (2.18) min</p> <p>Calculated Conc: 111. µg/kg</p> <p>Area Ratio: 0.367</p> <p>Sample Type: (Quality Control)</p>	
<p>13C2-8:2 FTS (528.900/80.900 Da)</p> <p>RT (Exp. RT): 2.09 (2.15) min</p> <p>Calculated Conc: 88.8 µg/kg</p> <p>Area Ratio: 0.0817</p> <p>Sample Type: (Quality Control)</p>	

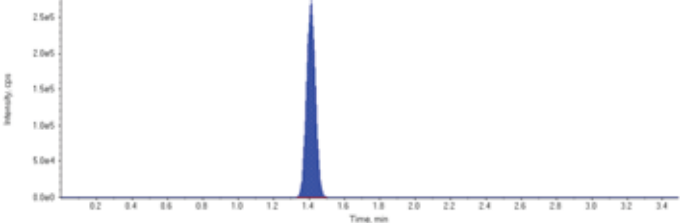
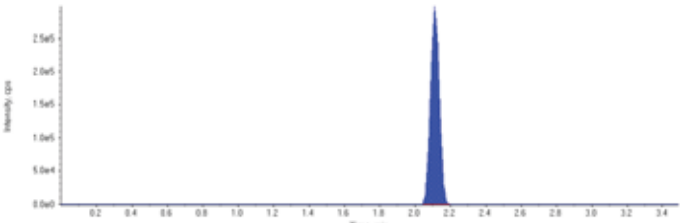
<p>13C6-PFHxA (318.900/274.000 Da)</p> <p>RT (Exp. RT): 1.41 (1.41) min</p> <p>Calculated Conc: 108. µg/kg</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Quality Control)</p>	
<p>13C9-PFDA (521.900/477.100 Da)</p> <p>RT (Exp. RT): 2.11 (2.18) min</p> <p>Calculated Conc: 96.2 µg/kg</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Quality Control)</p>	

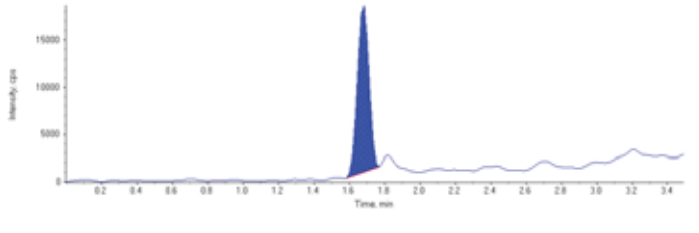
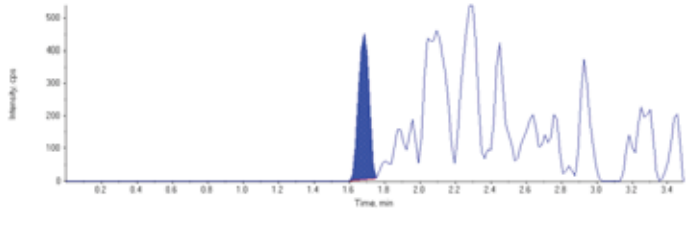
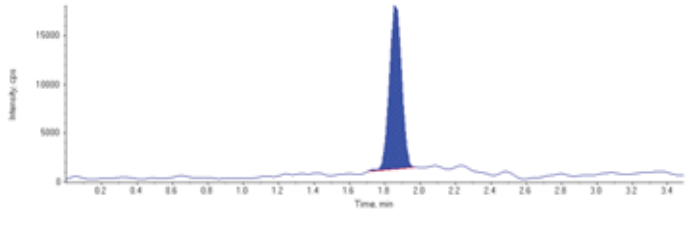
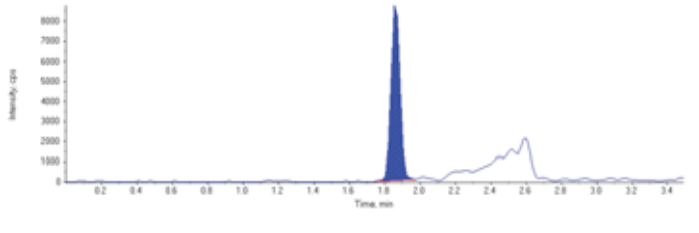
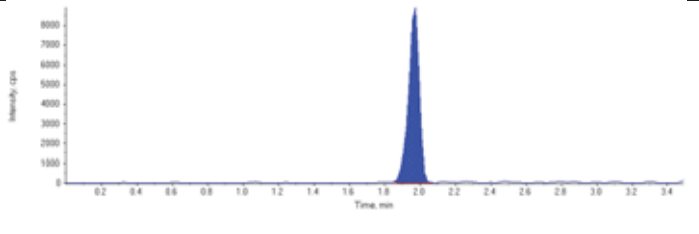
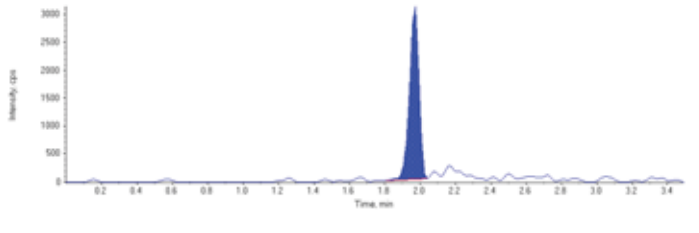
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Sample Type	Quality Control	Injection Vial	2
Acquisition Date	2017/06/14 7:18:27 AM	Dilution Factor	1.00
Acquisition Method	PFC_Soil.dam	Instrument Name	LCMS03
Project	Enviro\PFOS	Algorithm Used	Analyst Classic
Data File	PFC_170613\WS#5023570.wiff		
Result Table	PFC_Soil_170613_5023570_CT.rdb		
Samples Annotation	-		

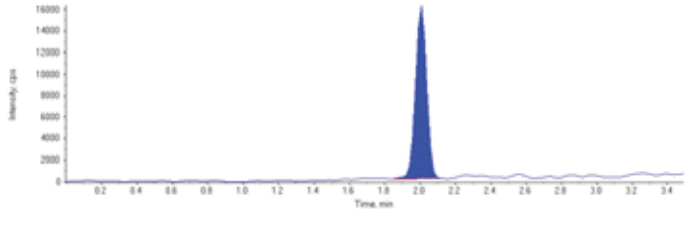
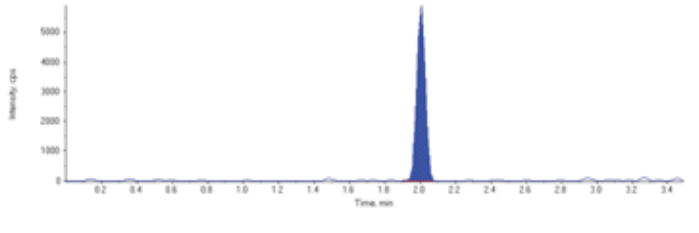
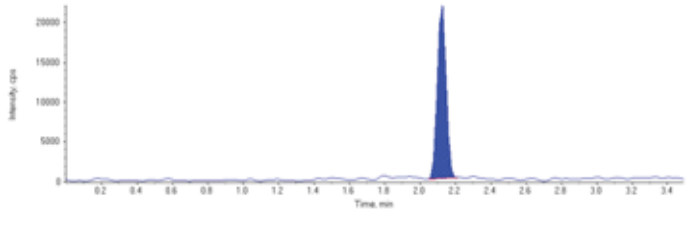
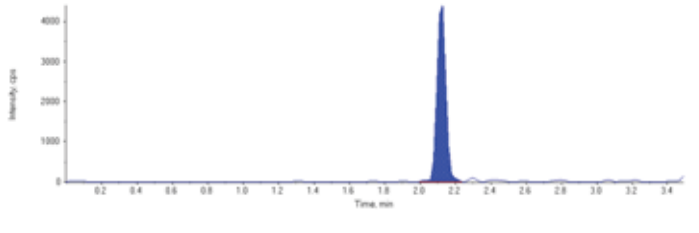
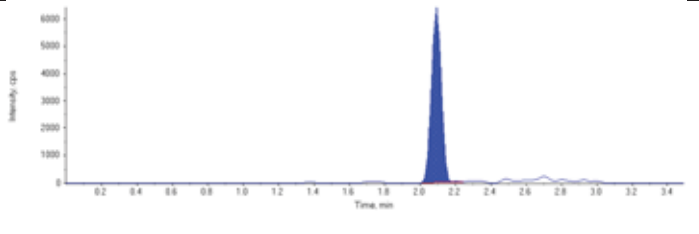
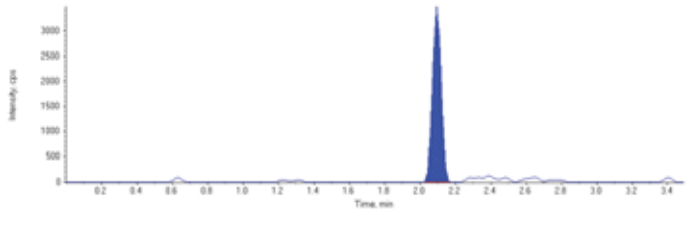
Internal Standard	Area (cps)	RT (min)	Target Conc. (ug/kg)	Calc. Conc. (ug/kg)
MPFHpA	326000.	1.68	1.00	-
MPFOA	285000.	1.86	1.00	-
MPFOS	124000.	1.97	1.00	-
MPFNA	322000.	2.00	1.00	-
MPFDA	324000.	2.12	1.00	-
M2 8:2 FTS	76700.	2.09	1.00	-
13C6-PFHxA IS	947000.	1.41	1.00	-
13C9-PFDA IS	1030000.	2.11	1.00	-
N/A	N/A	N/A	N/A	-
N/A	N/A	N/A	N/A	-

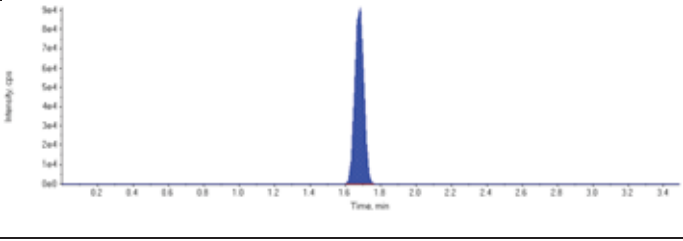
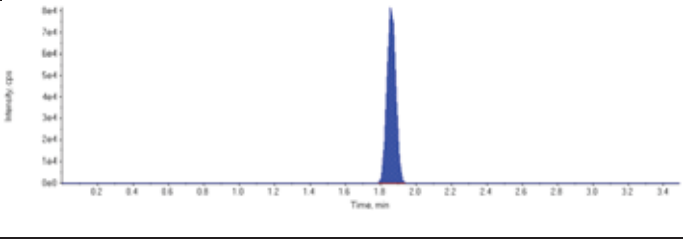
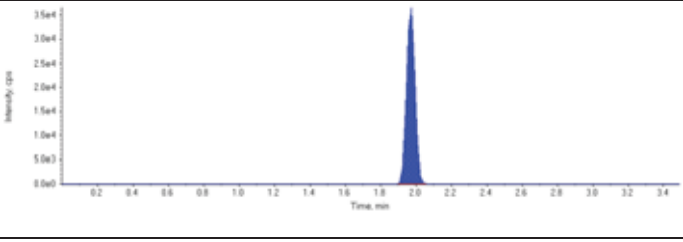
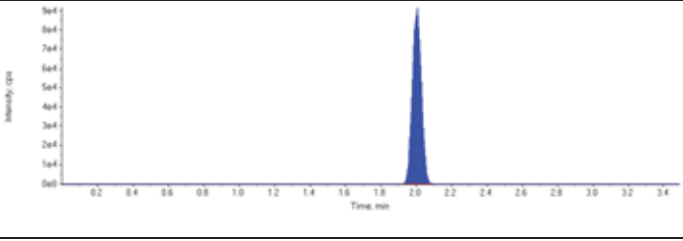
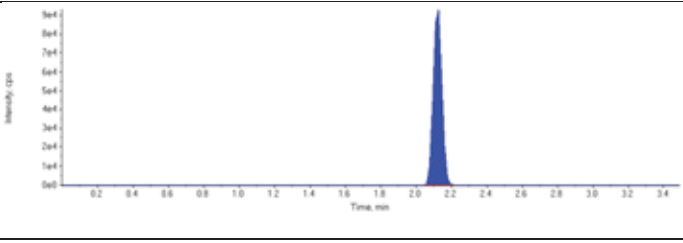
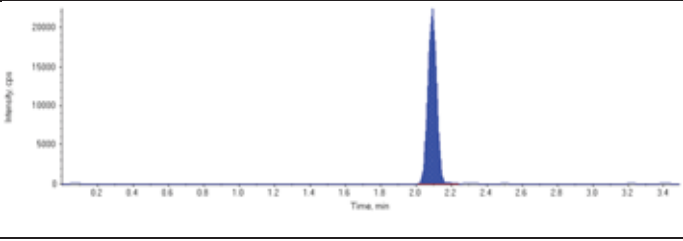
Target Analyte	Area (cps)	RT (min)	Target Conc. (ug/kg)	Calc. Conc. (ug/kg)	Accuracy (%)
PFHpA 1	81200	1.68	0.750	0.801	107.0
PFHpA 2	1880	1.68	0.750	1.10	147.0
PFOA 1	79200	1.86	0.750	0.728	97.1
PFOA 2	31200	1.86	0.750	0.747	99.6
PFOS 1	37600	1.97	0.750	0.777	104.0
PFOS 2	11600	1.97	0.750	0.741	98.8
PFNA 1	70300	2.01	0.750	0.700	93.3
PFNA 2	19800	2.01	0.750	0.674	89.9
PFDA 1	75400	2.12	0.750	0.645	86.0
PFDA 2	15700	2.12	0.750	0.768	102.0
8:2-FTS 1	24900	2.09	0.750	0.898	120.0
8:2-FTS 2	12000	2.09	0.750	0.978	130.0
13C4-PFHpA	326000	1.68	100.	94.1	94.1
13C4-PFOA	285000	1.86	100.	98.0	98.0
13C4-PFOS	124000	1.97	100.	94.0	94.0
13C5-PFNA	322000	2.00	100.	97.4	97.4
13C2-PFDA	324000	2.12	100.	95.0	95.0
13C2-8:2 FTS	76700	2.09	100.	88.1	88.1
13C6-PFHxA	947000	1.41	100.	91.5	91.5
13C9-PFDA	1030000	2.11	100.	93.6	93.6

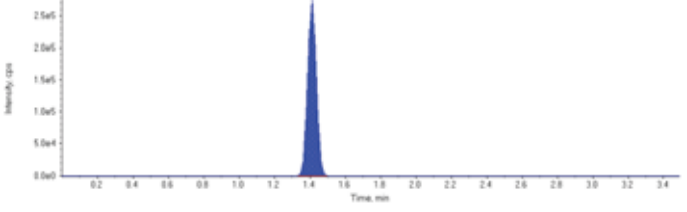
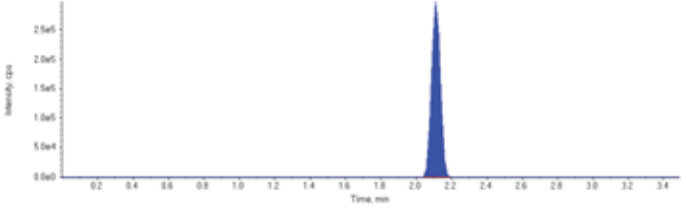
<p>MPFHpA (Internal Standard)</p> <p>RT (Exp. RT): 1.68(1.76) min</p> <p>Concentration: 1.00 ug/kg</p> <p>Sample Type: (Quality Control)</p>	
<p>MPFOA (Internal Standard)</p> <p>RT (Exp. RT): 1.86(1.93) min</p> <p>Concentration: 1.00 ug/kg</p> <p>Sample Type: (Quality Control)</p>	
<p>MPFOS (Internal Standard)</p> <p>RT (Exp. RT): 1.97(2.05) min</p> <p>Concentration: 1.00 ug/kg</p> <p>Sample Type: (Quality Control)</p>	
<p>MPFNA (Internal Standard)</p> <p>RT (Exp. RT): 2.00(2.07) min</p> <p>Concentration: 1.00 ug/kg</p> <p>Sample Type: (Quality Control)</p>	
<p>MPFDA (Internal Standard)</p> <p>RT (Exp. RT): 2.12(2.18) min</p> <p>Concentration: 1.00 ug/kg</p> <p>Sample Type: (Quality Control)</p>	
<p>M2 8:2 FTS (Internal Standard)</p> <p>RT (Exp. RT): 2.09(2.15) min</p> <p>Concentration: 1.00 ug/kg</p> <p>Sample Type: (Quality Control)</p>	

<p>13C6-PFHxA IS (Internal Standard)</p> <p>RT (Exp. RT): 1.41(1.41) min</p> <p>Concentration: 1.00 ug/kg</p> <p>Sample Type: (Quality Control)</p>	
<p>13C9-PFDA IS (Internal Standard)</p> <p>RT (Exp. RT): 2.11(2.18) min</p> <p>Concentration: 1.00 ug/kg</p> <p>Sample Type: (Quality Control)</p>	
<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min</p> <p>Concentration: N/A N/A</p> <p>Sample Type: (Quality Control)</p>	<p>This image is not available</p>
<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min</p> <p>Concentration: N/A N/A</p> <p>Sample Type: (Quality Control)</p>	<p>This image is not available</p>

<p>PFHpA 1 (363.000/319.000 Da)</p> <p>RT (Exp. RT): 1.68 (1.68) min</p> <p>Calculated Conc: 0.801 µg/kg</p> <p>Area Ratio: 0.249</p> <p>Sample Type: (Quality Control)</p>	
<p>PFHpA 2 (363.000/169.200 Da)</p> <p>RT (Exp. RT): 1.68 (1.68) min</p> <p>Calculated Conc: 1.10 µg/kg</p> <p>Area Ratio: 0.00578</p> <p>Sample Type: (Quality Control)</p>	
<p>PFOA 1 (413.100/369.000 Da)</p> <p>RT (Exp. RT): 1.86 (1.85) min</p> <p>Calculated Conc: 0.728 µg/kg</p> <p>Area Ratio: 0.278</p> <p>Sample Type: (Quality Control)</p>	
<p>PFOA 2 (413.100/169.000 Da)</p> <p>RT (Exp. RT): 1.86 (1.85) min</p> <p>Calculated Conc: 0.747 µg/kg</p> <p>Area Ratio: 0.109</p> <p>Sample Type: (Quality Control)</p>	
<p>PFOS 1 (498.900/79.900 Da)</p> <p>RT (Exp. RT): 1.97 (2.05) min</p> <p>Calculated Conc: 0.777 µg/kg</p> <p>Area Ratio: 0.302</p> <p>Sample Type: (Quality Control)</p>	
<p>PFOS 2 (498.900/98.900 Da)</p> <p>RT (Exp. RT): 1.97 (1.97) min</p> <p>Calculated Conc: 0.741 µg/kg</p> <p>Area Ratio: 0.0934</p> <p>Sample Type: (Quality Control)</p>	

<p>PFNA 1 (462.900/419.000 Da)</p> <p>RT (Exp. RT): 2.01 (2.07) min</p> <p>Calculated Conc: 0.700 µg/kg</p> <p>Area Ratio: 0.218</p> <p>Sample Type: (Quality Control)</p>	
<p>PFNA 2 (462.900/219.100 Da)</p> <p>RT (Exp. RT): 2.01 (2.07) min</p> <p>Calculated Conc: 0.674 µg/kg</p> <p>Area Ratio: 0.0613</p> <p>Sample Type: (Quality Control)</p>	
<p>PFDA 1 (513.000/469.100 Da)</p> <p>RT (Exp. RT): 2.12 (2.18) min</p> <p>Calculated Conc: 0.645 µg/kg</p> <p>Area Ratio: 0.233</p> <p>Sample Type: (Quality Control)</p>	
<p>PFDA 2 (513.000/218.900 Da)</p> <p>RT (Exp. RT): 2.12 (2.18) min</p> <p>Calculated Conc: 0.768 µg/kg</p> <p>Area Ratio: 0.0484</p> <p>Sample Type: (Quality Control)</p>	
<p>8:2-FTS 1 (526.900/507.000 Da)</p> <p>RT (Exp. RT): 2.09 (2.16) min</p> <p>Calculated Conc: 0.898 µg/kg</p> <p>Area Ratio: 0.324</p> <p>Sample Type: (Quality Control)</p>	
<p>8:2-FTS 2 (526.900/80.900 Da)</p> <p>RT (Exp. RT): 2.09 (2.09) min</p> <p>Calculated Conc: 0.978 µg/kg</p> <p>Area Ratio: 0.156</p> <p>Sample Type: (Quality Control)</p>	

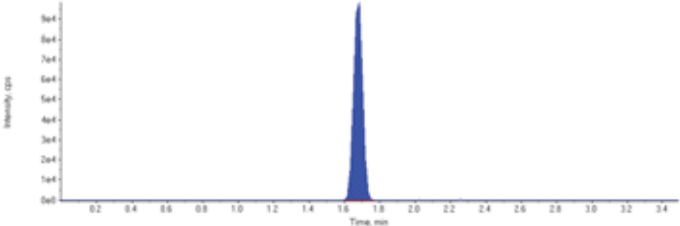
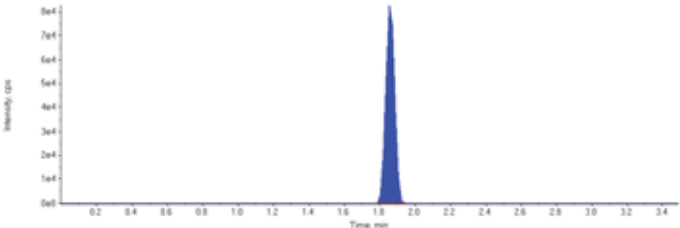
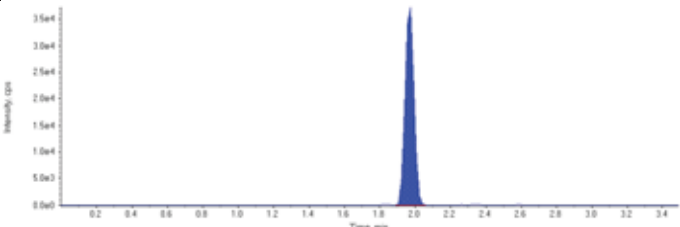
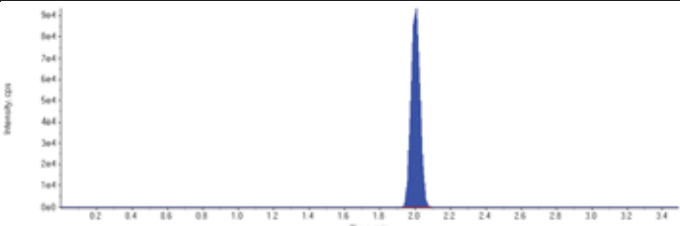
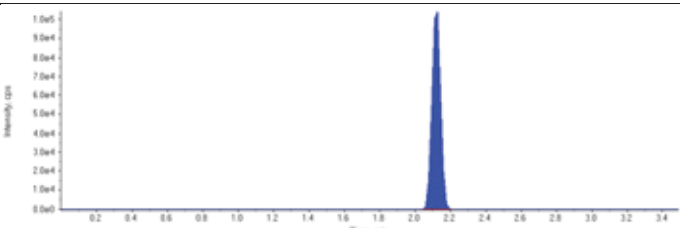
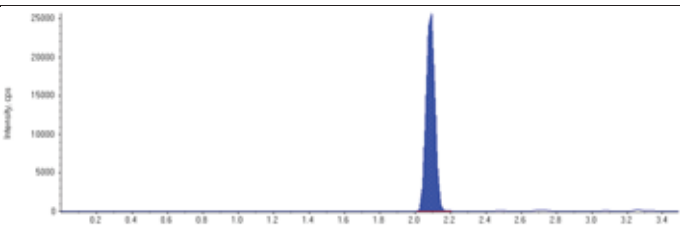
<p>13C4-PFH_pA (366.900/322.000 Da)</p> <p>RT (Exp. RT): 1.68 (1.76) min</p> <p>Calculated Conc: 94.1 µg/kg</p> <p>Area Ratio: 0.344</p> <p>Sample Type: (Quality Control)</p>	
<p>13C4-PFOA (416.900/372.000 Da)</p> <p>RT (Exp. RT): 1.86 (1.93) min</p> <p>Calculated Conc: 98.0 µg/kg</p> <p>Area Ratio: 0.301</p> <p>Sample Type: (Quality Control)</p>	
<p>13C4-PFOS (502.900/79.900 Da)</p> <p>RT (Exp. RT): 1.97 (2.05) min</p> <p>Calculated Conc: 94.0 µg/kg</p> <p>Area Ratio: 0.131</p> <p>Sample Type: (Quality Control)</p>	
<p>13C5-PFNA (467.900/423.000 Da)</p> <p>RT (Exp. RT): 2.00 (2.07) min</p> <p>Calculated Conc: 97.4 µg/kg</p> <p>Area Ratio: 0.341</p> <p>Sample Type: (Quality Control)</p>	
<p>13C2-PFDA (514.900/470.000 Da)</p> <p>RT (Exp. RT): 2.12 (2.18) min</p> <p>Calculated Conc: 95.0 µg/kg</p> <p>Area Ratio: 0.315</p> <p>Sample Type: (Quality Control)</p>	
<p>13C2-8:2 FTS (528.900/80.900 Da)</p> <p>RT (Exp. RT): 2.09 (2.15) min</p> <p>Calculated Conc: 88.1 µg/kg</p> <p>Area Ratio: 0.0811</p> <p>Sample Type: (Quality Control)</p>	

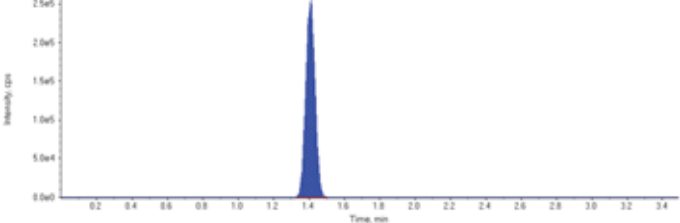
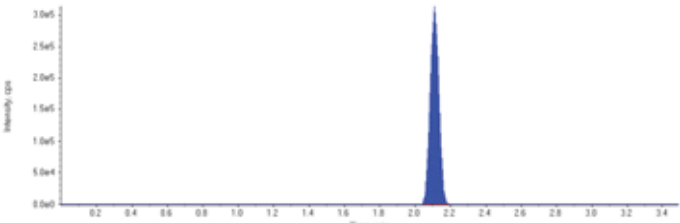
<p>13C6-PFHxA (318.900/274.000 Da)</p> <p>RT (Exp. RT): 1.41 (1.41) min</p> <p>Calculated Conc: 91.5 µg/kg</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Quality Control)</p>	
<p>13C9-PFDA (521.900/477.100 Da)</p> <p>RT (Exp. RT): 2.11 (2.18) min</p> <p>Calculated Conc: 93.6 µg/kg</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Quality Control)</p>	

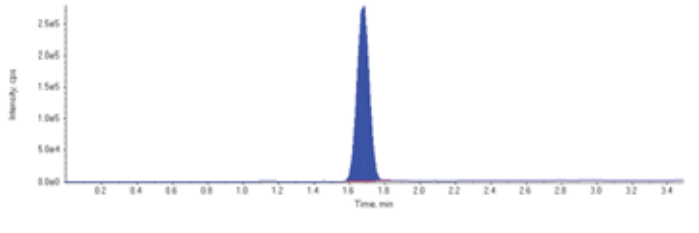
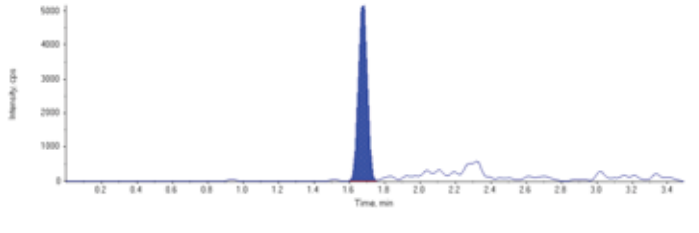
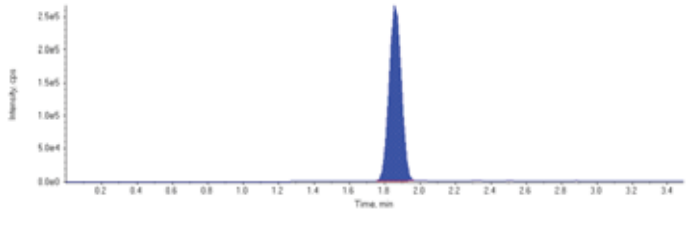
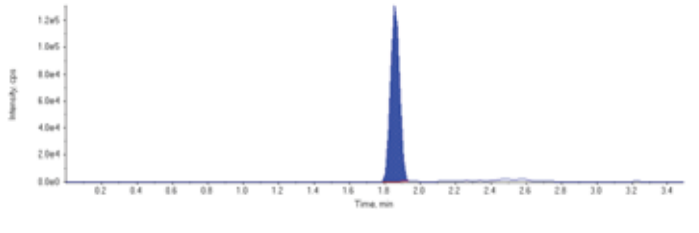
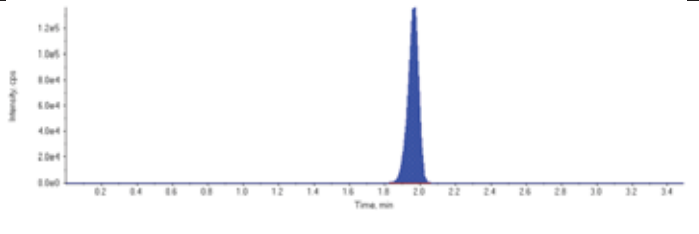
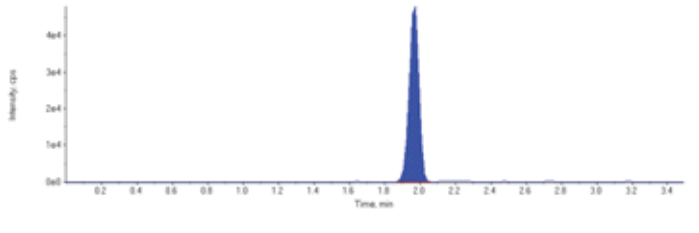
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Sample Type	Quality Control	Injection Vial	5
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Acquisition Method	PFC_Soil.dam	Instrument Name	LCMS03
Project	Enviro\PFOS	Algorithm Used	Analyst Classic
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Result Table	PFC_Soil_170613_5023570_CT.rdb		
Samples Annotation	-		

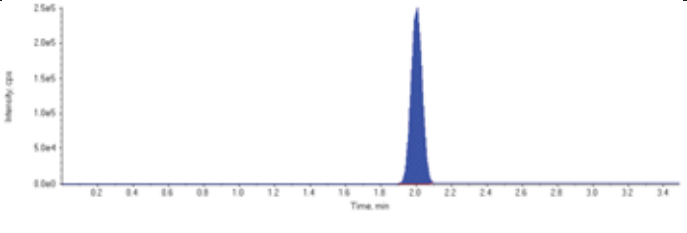
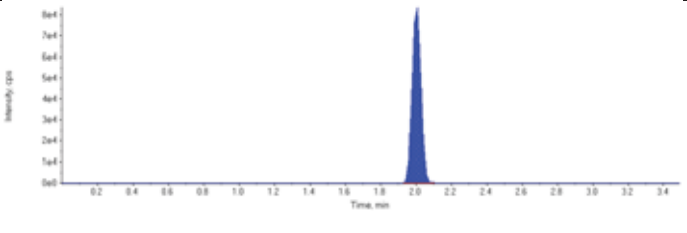
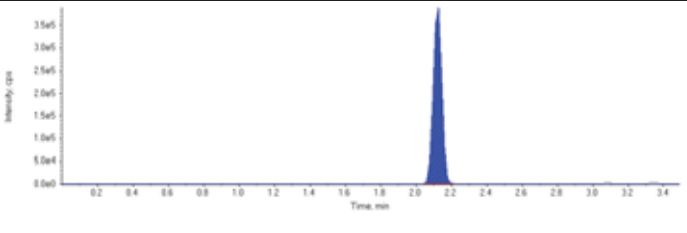
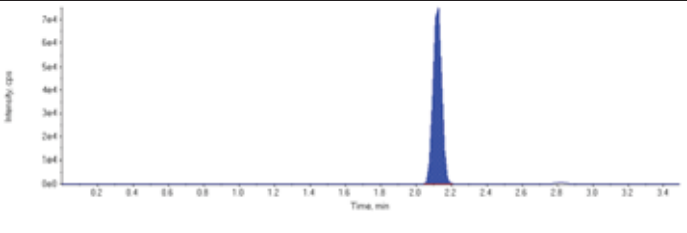
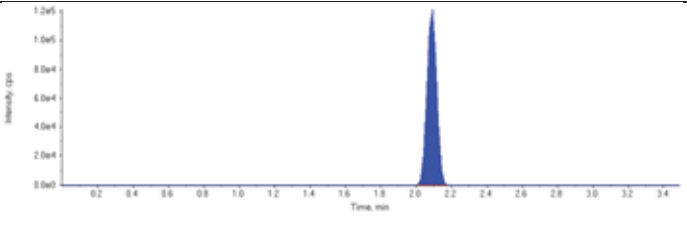
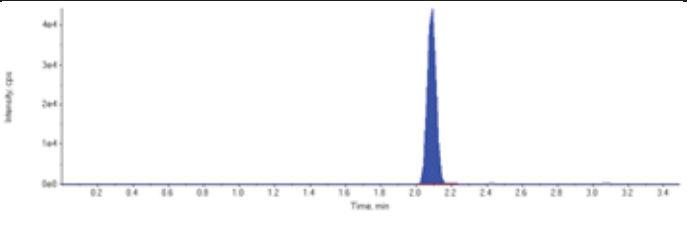
Internal Standard	Area (cps)	RT (min)	Target Conc. (ug/kg)	Calc. Conc. (ug/kg)
MPFHpA	352000.	1.68	1.00	-
MPFOA	294000.	1.86	1.00	-
MPFOS	131000.	1.97	1.00	-
MPFNA	327000.	2.00	1.00	-
MPFDA	368000.	2.12	1.00	-
M2 8:2 FTS	90200.	2.09	1.00	-
13C6-PFHxA IS	917000.	1.41	1.00	-
13C9-PFDA IS	1050000.	2.11	1.00	-
N/A	N/A	N/A	N/A	-
N/A	N/A	N/A	N/A	-

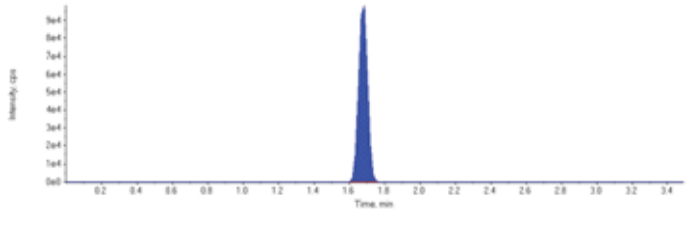
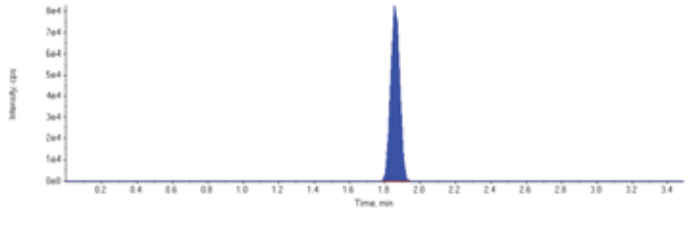
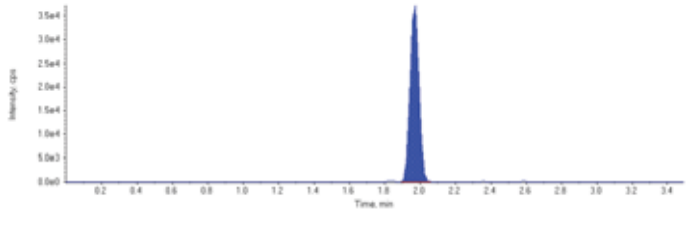
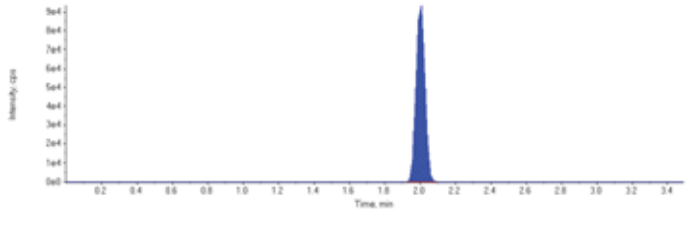
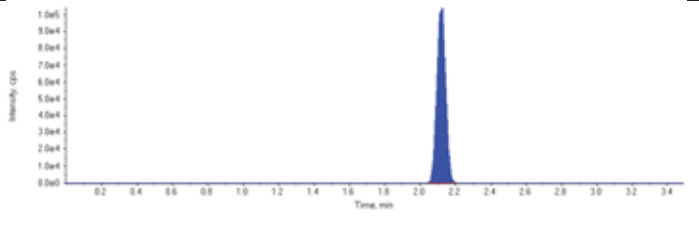
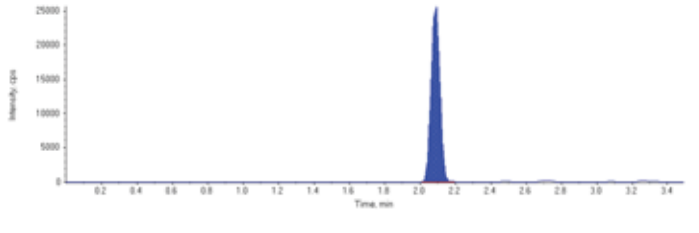
Target Analyte	Area (cps)	RT (min)	Target Conc. (ug/kg)	Calc. Conc. (ug/kg)	Accuracy (%)
PFHpA 1	1330000	1.68	11.3	10.2	90.0
PFHpA 2	18700	1.68	11.3	9.28	82.1
PFOA 1	1260000	1.86	11.3	10.7	94.3
PFOA 2	467000	1.86	11.3	10.4	91.9
PFOS 1	584000	1.97	11.3	11.0	97.2
PFOS 2	185000	1.97	11.3	10.8	95.3
PFNA 1	1090000	2.00	11.3	10.0	88.6
PFNA 2	295000	2.00	11.3	11.5	101.0
PFDA 1	1340000	2.12	11.3	9.63	85.2
PFDA 2	260000	2.12	11.3	10.0	88.9
8:2-FTS 1	465000	2.09	11.3	12.1	107.0
8:2-FTS 2	153000	2.09	11.3	10.4	92.4
13C4-PFHpA	352000	1.68	100.	105.	105.0
13C4-PFOA	294000	1.86	100.	105.	105.0
13C4-PFOS	131000	1.97	100.	102.	102.0
13C5-PFNA	327000	2.00	100.	102.	102.0
13C2-PFDA	368000	2.12	100.	106.	106.0
13C2-8:2 FTS	90200	2.09	100.	107.	107.0
13C6-PFHxA	917000	1.41	100.	88.6	88.6
13C9-PFDA	1050000	2.11	100.	95.1	95.1

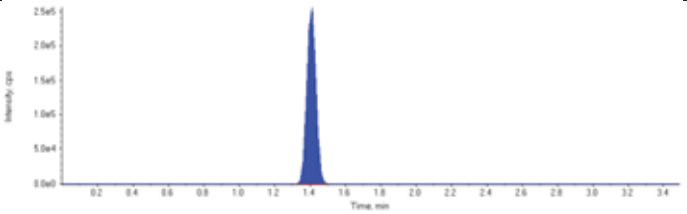
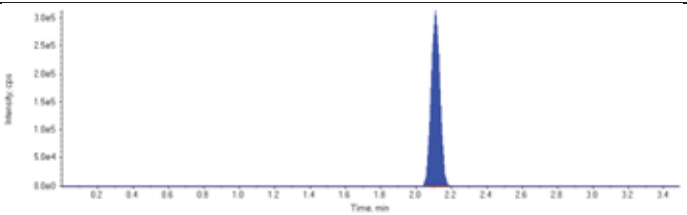
<p>MPFHpA (Internal Standard)</p> <p>RT (Exp. RT): 1.68(1.76) min</p> <p>Concentration: 1.00 ug/kg</p> <p>Sample Type: (Quality Control)</p>	
<p>MPFOA (Internal Standard)</p> <p>RT (Exp. RT): 1.86(1.93) min</p> <p>Concentration: 1.00 ug/kg</p> <p>Sample Type: (Quality Control)</p>	
<p>MPFOS (Internal Standard)</p> <p>RT (Exp. RT): 1.97(2.05) min</p> <p>Concentration: 1.00 ug/kg</p> <p>Sample Type: (Quality Control)</p>	
<p>MPFNA (Internal Standard)</p> <p>RT (Exp. RT): 2.00(2.07) min</p> <p>Concentration: 1.00 ug/kg</p> <p>Sample Type: (Quality Control)</p>	
<p>MPFDA (Internal Standard)</p> <p>RT (Exp. RT): 2.12(2.18) min</p> <p>Concentration: 1.00 ug/kg</p> <p>Sample Type: (Quality Control)</p>	
<p>M2 8:2 FTS (Internal Standard)</p> <p>RT (Exp. RT): 2.09(2.15) min</p> <p>Concentration: 1.00 ug/kg</p> <p>Sample Type: (Quality Control)</p>	

<p>13C6-PFHxA IS (Internal Standard)</p> <p>RT (Exp. RT): 1.41(1.41) min</p> <p>Concentration: 1.00 ug/kg</p> <p>Sample Type: (Quality Control)</p>	
<p>13C9-PFDA IS (Internal Standard)</p> <p>RT (Exp. RT): 2.11(2.18) min</p> <p>Concentration: 1.00 ug/kg</p> <p>Sample Type: (Quality Control)</p>	
<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min</p> <p>Concentration: N/A N/A</p> <p>Sample Type: (Quality Control)</p>	<p>This image is not available</p>
<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min</p> <p>Concentration: N/A N/A</p> <p>Sample Type: (Quality Control)</p>	<p>This image is not available</p>

<p>PFHpA 1 (363.000/319.000 Da)</p> <p>RT (Exp. RT): 1.68 (1.68) min</p> <p>Calculated Conc: 10.2 µg/kg</p> <p>Area Ratio: 3.78</p> <p>Sample Type: (Quality Control)</p>	
<p>PFHpA 2 (363.000/169.200 Da)</p> <p>RT (Exp. RT): 1.68 (1.68) min</p> <p>Calculated Conc: 9.28 µg/kg</p> <p>Area Ratio: 0.0532</p> <p>Sample Type: (Quality Control)</p>	
<p>PFOA 1 (413.100/369.000 Da)</p> <p>RT (Exp. RT): 1.86 (1.85) min</p> <p>Calculated Conc: 10.7 µg/kg</p> <p>Area Ratio: 4.29</p> <p>Sample Type: (Quality Control)</p>	
<p>PFOA 2 (413.100/169.000 Da)</p> <p>RT (Exp. RT): 1.86 (1.85) min</p> <p>Calculated Conc: 10.4 µg/kg</p> <p>Area Ratio: 1.58</p> <p>Sample Type: (Quality Control)</p>	
<p>PFOS 1 (498.900/79.900 Da)</p> <p>RT (Exp. RT): 1.97 (2.05) min</p> <p>Calculated Conc: 11.0 µg/kg</p> <p>Area Ratio: 4.45</p> <p>Sample Type: (Quality Control)</p>	
<p>PFOS 2 (498.900/98.900 Da)</p> <p>RT (Exp. RT): 1.97 (1.97) min</p> <p>Calculated Conc: 10.8 µg/kg</p> <p>Area Ratio: 1.41</p> <p>Sample Type: (Quality Control)</p>	

<p>PFNA 1 (462.900/419.000 Da)</p> <p>RT (Exp. RT): 2.00 (2.07) min</p> <p>Calculated Conc: 10.0 µg/kg</p> <p>Area Ratio: 3.33</p> <p>Sample Type: (Quality Control)</p>	
<p>PFNA 2 (462.900/219.100 Da)</p> <p>RT (Exp. RT): 2.00 (2.07) min</p> <p>Calculated Conc: 11.5 µg/kg</p> <p>Area Ratio: 0.902</p> <p>Sample Type: (Quality Control)</p>	
<p>PFDA 1 (513.000/469.100 Da)</p> <p>RT (Exp. RT): 2.12 (2.18) min</p> <p>Calculated Conc: 9.63 µg/kg</p> <p>Area Ratio: 3.63</p> <p>Sample Type: (Quality Control)</p>	
<p>PFDA 2 (513.000/218.900 Da)</p> <p>RT (Exp. RT): 2.12 (2.18) min</p> <p>Calculated Conc: 10.0 µg/kg</p> <p>Area Ratio: 0.707</p> <p>Sample Type: (Quality Control)</p>	
<p>8:2-FTS 1 (526.900/507.000 Da)</p> <p>RT (Exp. RT): 2.09 (2.16) min</p> <p>Calculated Conc: 12.1 µg/kg</p> <p>Area Ratio: 5.15</p> <p>Sample Type: (Quality Control)</p>	
<p>8:2-FTS 2 (526.900/80.900 Da)</p> <p>RT (Exp. RT): 2.09 (2.09) min</p> <p>Calculated Conc: 10.4 µg/kg</p> <p>Area Ratio: 1.70</p> <p>Sample Type: (Quality Control)</p>	

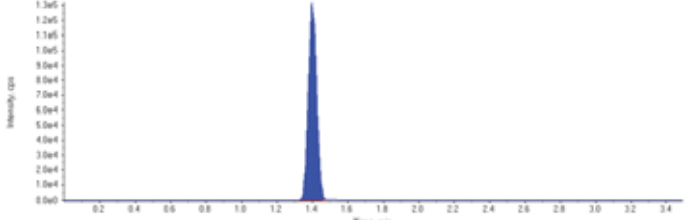
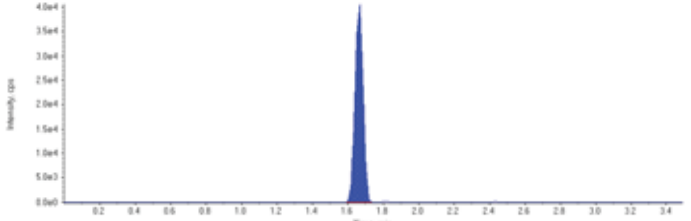
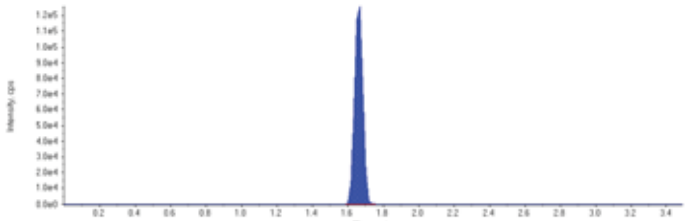
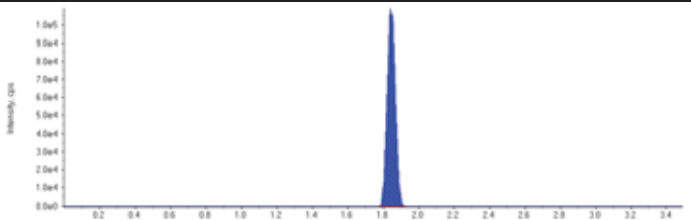
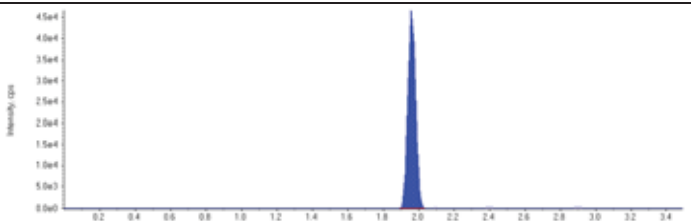
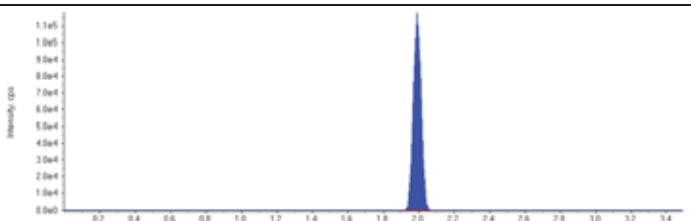
<p>13C4-PFHpA (366.900/322.000 Da)</p> <p>RT (Exp. RT): 1.68 (1.76) min</p> <p>Calculated Conc: 105. µg/kg</p> <p>Area Ratio: 0.384</p> <p>Sample Type: (Quality Control)</p>	
<p>13C4-PFOA (416.900/372.000 Da)</p> <p>RT (Exp. RT): 1.86 (1.93) min</p> <p>Calculated Conc: 105. µg/kg</p> <p>Area Ratio: 0.321</p> <p>Sample Type: (Quality Control)</p>	
<p>13C4-PFOS (502.900/79.900 Da)</p> <p>RT (Exp. RT): 1.97 (2.05) min</p> <p>Calculated Conc: 102. µg/kg</p> <p>Area Ratio: 0.143</p> <p>Sample Type: (Quality Control)</p>	
<p>13C5-PFNA (467.900/423.000 Da)</p> <p>RT (Exp. RT): 2.00 (2.07) min</p> <p>Calculated Conc: 102. µg/kg</p> <p>Area Ratio: 0.357</p> <p>Sample Type: (Quality Control)</p>	
<p>13C2-PFDA (514.900/470.000 Da)</p> <p>RT (Exp. RT): 2.12 (2.18) min</p> <p>Calculated Conc: 106. µg/kg</p> <p>Area Ratio: 0.351</p> <p>Sample Type: (Quality Control)</p>	
<p>13C2-8:2 FTS (528.900/80.900 Da)</p> <p>RT (Exp. RT): 2.09 (2.15) min</p> <p>Calculated Conc: 107. µg/kg</p> <p>Area Ratio: 0.0984</p> <p>Sample Type: (Quality Control)</p>	

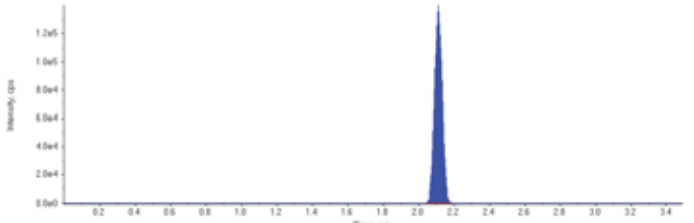
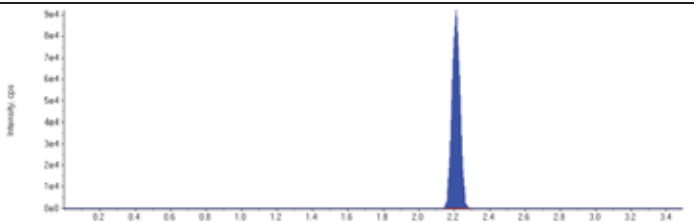
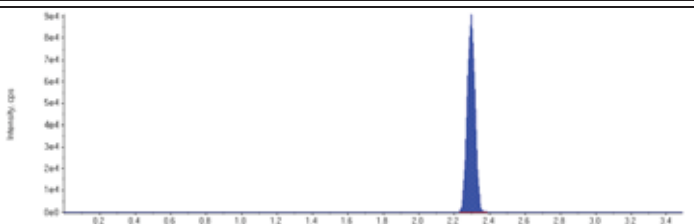
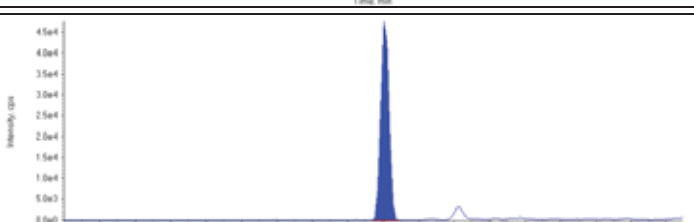
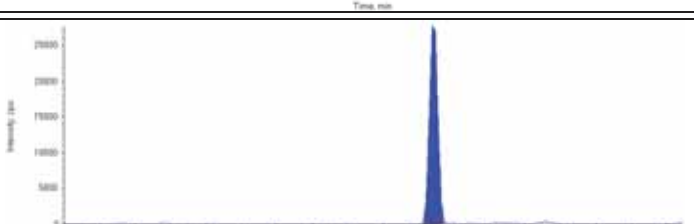
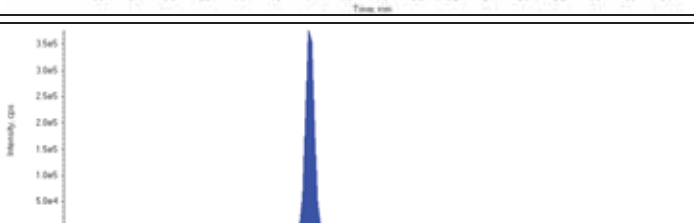
<p>13C6-PFHxA (318.900/274.000 Da)</p> <p>RT (Exp. RT): 1.41 (1.41) min</p> <p>Calculated Conc: 88.6 µg/kg</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Quality Control)</p>	
<p>13C9-PFDA (521.900/477.100 Da)</p> <p>RT (Exp. RT): 2.11 (2.18) min</p> <p>Calculated Conc: 95.1 µg/kg</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Quality Control)</p>	

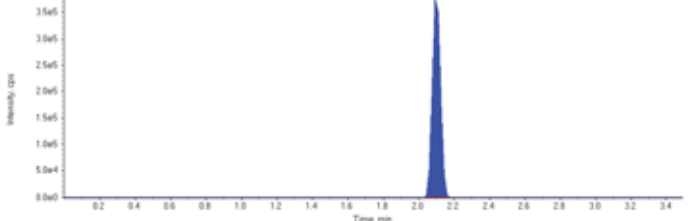
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Project	Enviro\PFOS	Algorithm Used	Analyst Classic
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Result Table	PFC_Water_170523_4988945_CTLabs.rdb		
Samples Annotation	-		

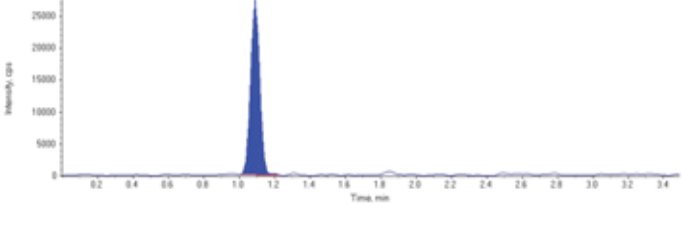
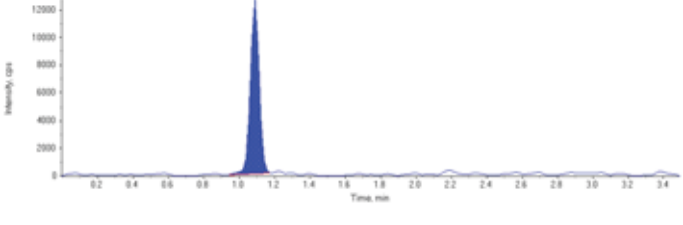
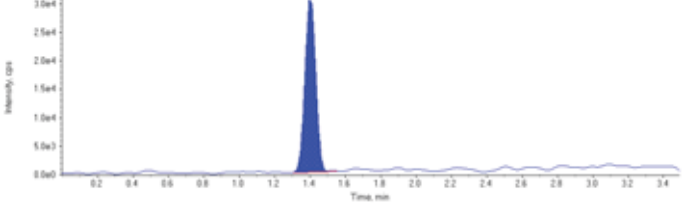
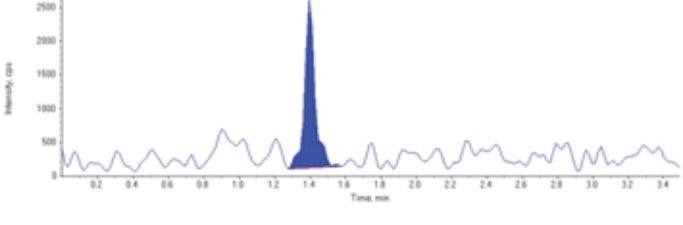
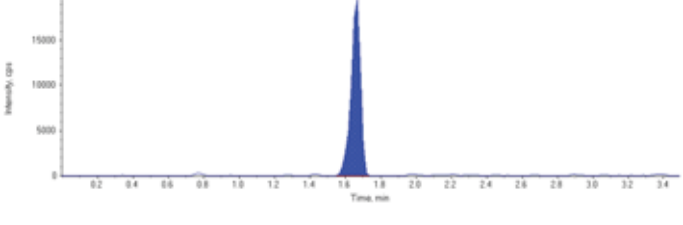
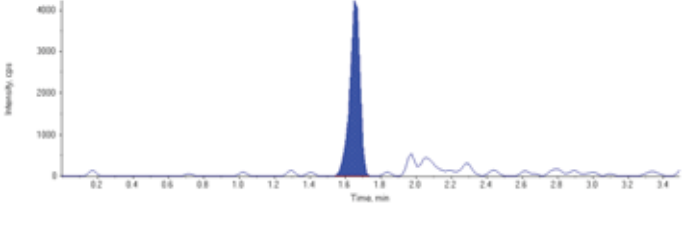
Internal Standard	Area (cps)	RT (min)	Target Conc. (ug/L)	Calc. Conc. (ug/L)
MPFHxA	431000.	1.40	1.00	-
MPFHxS	129000.	1.66	1.00	-
MPFHpA	419000.	1.66	1.00	-
MPFOA	361000.	1.84	1.00	-
MPFOS	143000.	1.96	1.00	-
MPFNA	358000.	1.99	1.00	-
MPFDA	418000.	2.11	1.00	-
MPFUnA	282000.	2.21	1.00	-
MPFDoA	274000.	2.30	1.00	-
MPFTeDA	272000.	2.44	1.00	-
M2 6:2 FTS	152000.	1.81	1.00	-
M2 8:2 FTS	91500.	2.08	1.00	-
13C6-PFHxA IS	1260000.	1.39	1.00	-
13C9-PFDA IS	1220000.	2.10	1.00	-
N/A	N/A	N/A	N/A	-
N/A	N/A	N/A	N/A	-

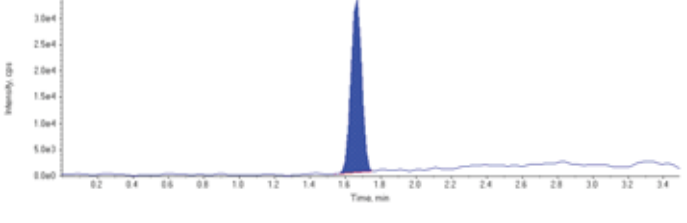
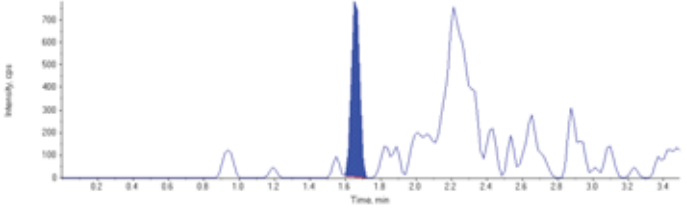
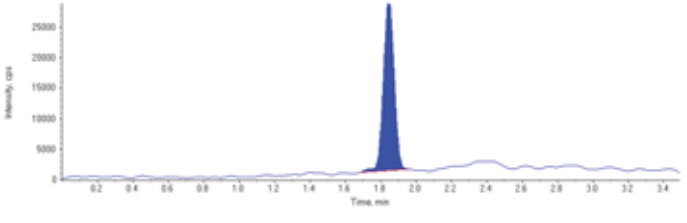
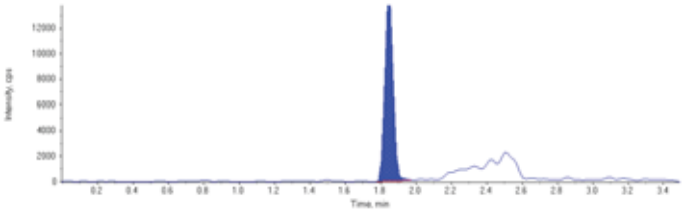
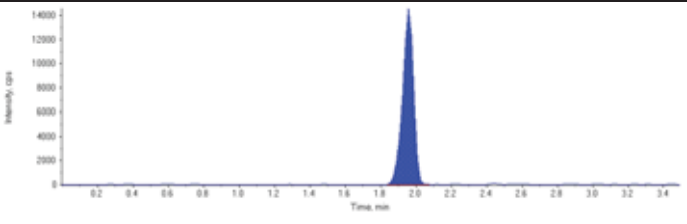
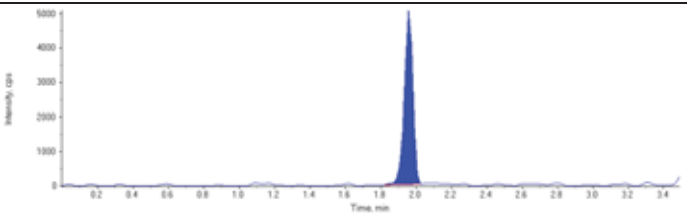
Target Analyte	Area (cps)	RT (min)	Target Conc. (ug/L)	Calc. Conc. (ug/L)	Accuracy (%)
PFBS 1	96700	1.09	0.830	0.881	106.0
PFBS 2	44000	1.09	0.830	0.756	91.1
PFHxA 1	131000	1.40	0.830	0.865	104.0
PFHxA 2	10200	1.40	0.830	1.02	122.0
PFHxS 1	72600	1.66	0.830	0.770	92.8
PFHxS 2	17000	1.66	0.830	0.649	78.2
PFHpA 1	139000	1.66	0.830	0.919	111.0
PFHpA 2	2520	1.66	0.830	0.661	79.6
PFOA 1	119000	1.85	0.830	0.918	111.0
PFOA 2	47600	1.85	0.830	0.938	113.0
PFOS 1	62900	1.96	0.830	1.05	127.0
PFOS 2	17200	1.96	0.830	0.968	117.0
PFNA 1	115000	1.99	0.830	0.964	116.0
PFNA 2	28000	1.99	0.830	0.886	107.0
PFDA 1	121000	2.11	0.830	0.793	95.5
PFDA 2	24200	2.11	0.830	0.816	98.3
PFUnA 1	89400	2.21	0.830	0.838	101.0
PFUnA 2	8490	2.21	0.830	0.764	92.1
PFDaA 1	90600	2.30	0.830	0.879	106.0
PFDaA 2	9980	2.30	0.830	1.00	121.0
PFTTrDA 1	107000	2.37	0.830	1.03	124.0
PFTTrDA 2	11300	2.37	0.830	0.934	113.0
PFTeDA 1	84700	2.44	0.830	0.952	115.0
PFTeDA 2	7330	2.44	0.830	1.09	131.0
6:2-FTS 1	33300	1.81	0.830	1.05	127.0
6:2-FTS 2	26000	1.81	0.830	1.07	129.0
8:2-FTS 1	29800	2.09	0.830	0.836	101.0
8:2-FTS 2	10300	2.08	0.830	0.818	98.5
13C2-PFHxA	431000	1.40	100.	106.	106.0
18O2-PFHxS	129000	1.66	100.	118.	118.0
13C4-PFHpA	419000	1.66	100.	100.	100.0
13C4-PFOA	361000	1.84	100.	104.	104.0
13C4-PFOS	143000	1.96	100.	89.0	89.0
13C5-PFNA	358000	1.99	100.	96.7	96.7
13C2-PFDA	418000	2.11	100.	110.	110.0
13C2-PFUnA	282000	2.21	100.	100.	100.0
13C2-PFDaA	274000	2.30	100.	101.	101.0
13C2-PFTeDA	272000	2.44	100.	91.5	91.5
13C2-6:2-FTS	152000	1.81	100.	100.	100.0
13C2-8:2 FTS	91500	2.08	100.	109.	109.0
13C6-PFHxA	1260000	1.39	100.	98.8	98.8
13C9-PFDA	1220000	2.10	100.	102.	102.0

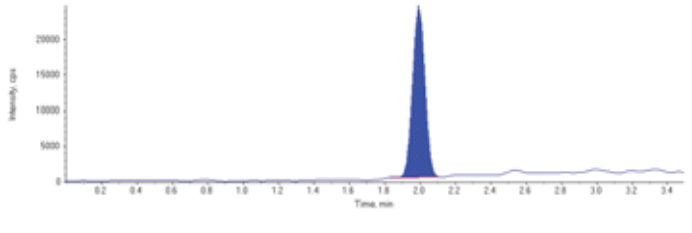
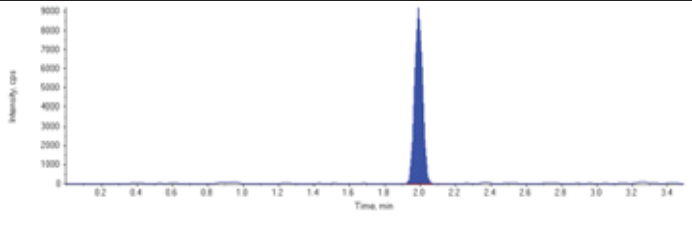
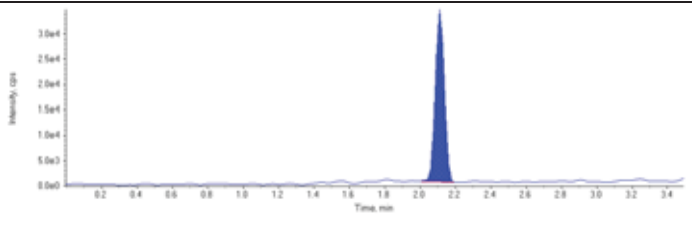
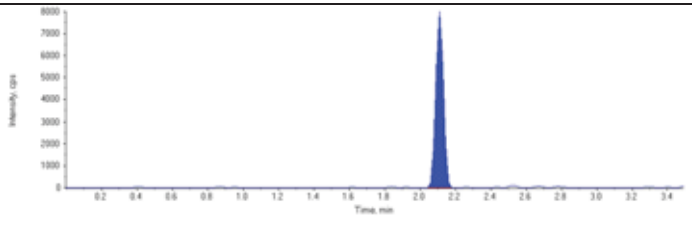
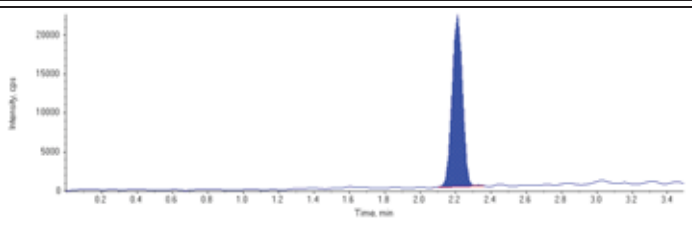
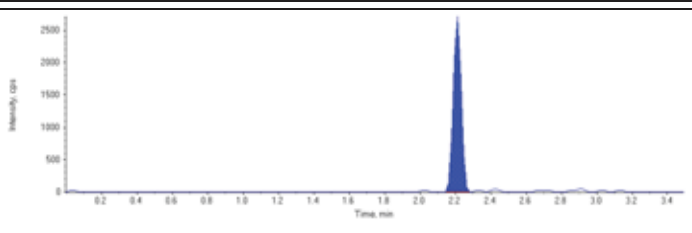
<p>MPFHxA (Internal Standard)</p> <p>RT (Exp. RT): 1.40(1.40) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>MPFHxS (Internal Standard)</p> <p>RT (Exp. RT): 1.66(1.77) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>MPFHpA (Internal Standard)</p> <p>RT (Exp. RT): 1.66(1.67) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>MPFOA (Internal Standard)</p> <p>RT (Exp. RT): 1.84(1.84) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>MPFOS (Internal Standard)</p> <p>RT (Exp. RT): 1.96(2.05) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>MPFNA (Internal Standard)</p> <p>RT (Exp. RT): 1.99(1.99) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	

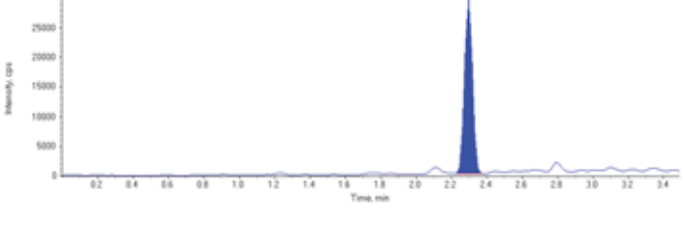
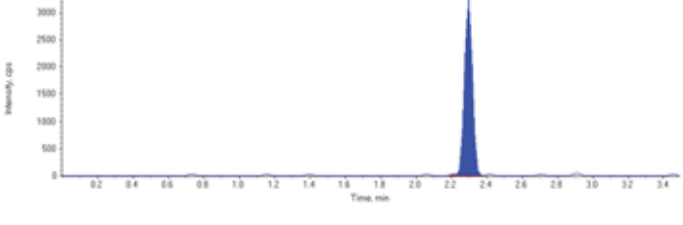
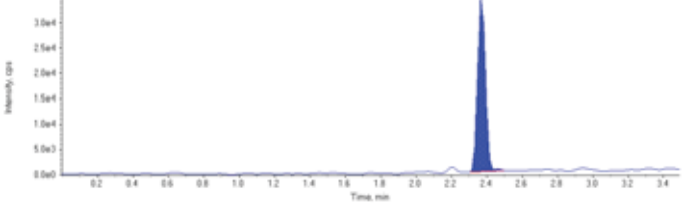
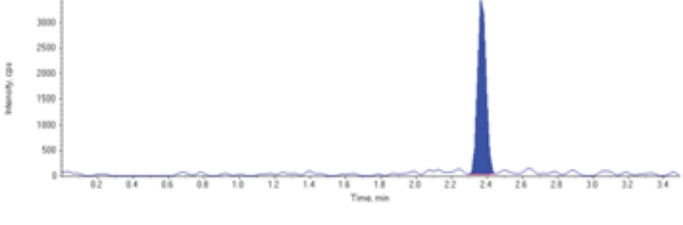
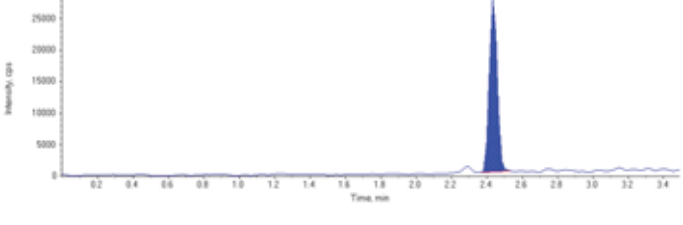
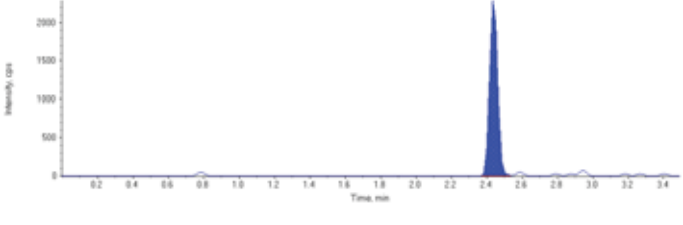
<p>MPFDA (Internal Standard)</p> <p>RT (Exp. RT): 2.11(2.18) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>MPFUnA (Internal Standard)</p> <p>RT (Exp. RT): 2.21(2.27) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>MPFDoA (Internal Standard)</p> <p>RT (Exp. RT): 2.30(2.35) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>MPFTeDA (Internal Standard)</p> <p>RT (Exp. RT): 2.44(2.49) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>M2 6:2 FTS (Internal Standard)</p> <p>RT (Exp. RT): 1.81(1.80) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>M2 8:2 FTS (Internal Standard)</p> <p>RT (Exp. RT): 2.08(2.08) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>13C6-PFHxA IS (Internal Standard)</p> <p>RT (Exp. RT): 1.39(1.40) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	

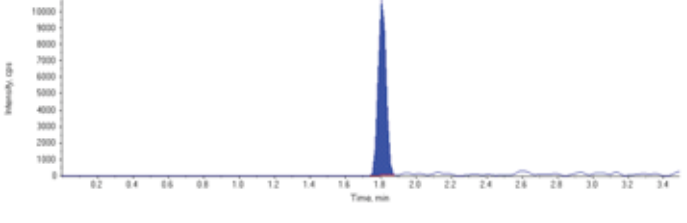
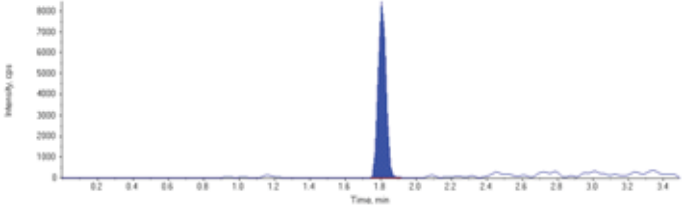
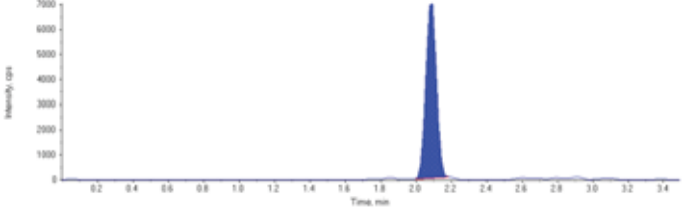
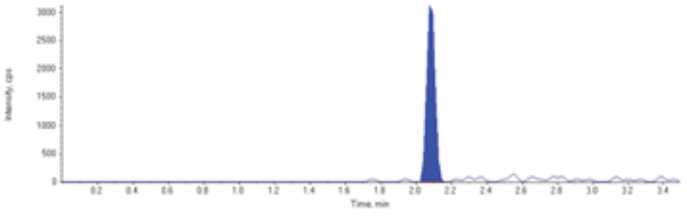
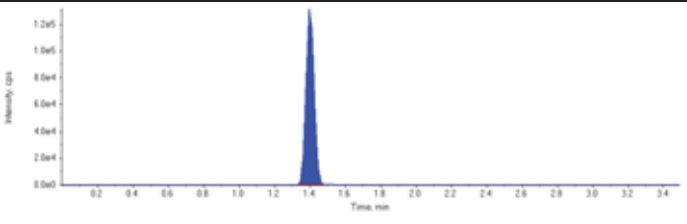
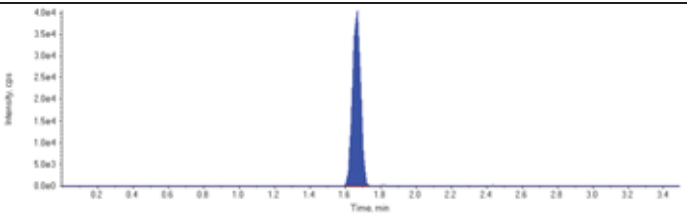
<p>13C9-PFDA IS (Internal Standard)</p> <p>RT (Exp. RT): 2.10(2.09) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min</p> <p>Concentration: N/A N/A</p> <p>Sample Type: (Quality Control)</p>	<p>This image is not available</p>
<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min</p> <p>Concentration: N/A N/A</p> <p>Sample Type: (Quality Control)</p>	<p>This image is not available</p>

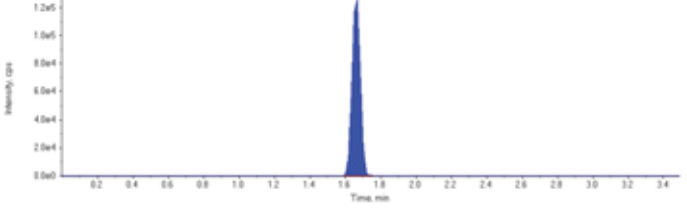
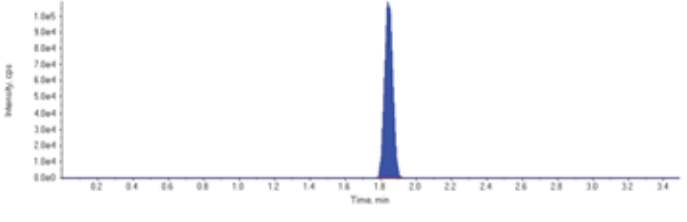
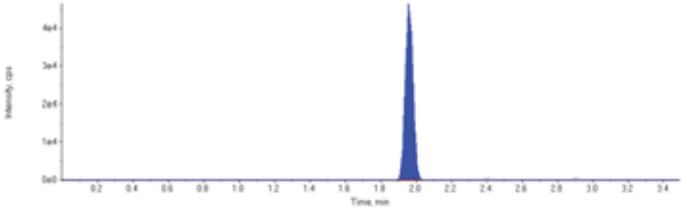
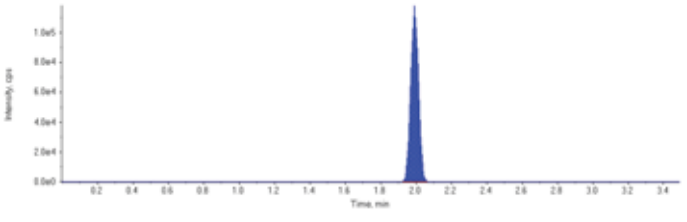
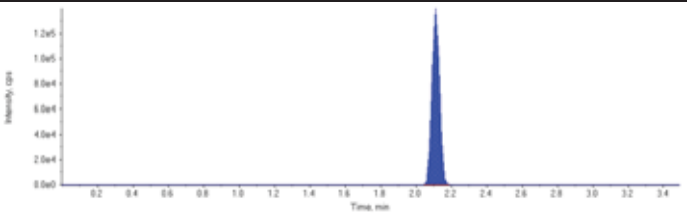
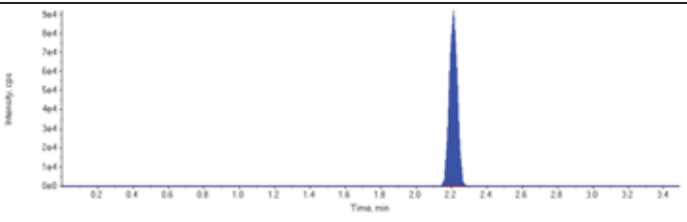
<p>PFBS 1 (298.900/79.900 Da)</p> <p>RT (Exp. RT): 1.09 (1.09) min</p> <p>Calculated Conc: 0.881 µg/L</p> <p>Area Ratio: 0.752</p> <p>Sample Type: (Quality Control)</p>	
<p>PFBS 2 (298.900/98.900 Da)</p> <p>RT (Exp. RT): 1.09 (1.09) min</p> <p>Calculated Conc: 0.756 µg/L</p> <p>Area Ratio: 0.342</p> <p>Sample Type: (Quality Control)</p>	
<p>PFHxA 1 (313.000/269.000 Da)</p> <p>RT (Exp. RT): 1.40 (1.40) min</p> <p>Calculated Conc: 0.865 µg/L</p> <p>Area Ratio: 0.304</p> <p>Sample Type: (Quality Control)</p>	
<p>PFHxA 2 (313.000/119.000 Da)</p> <p>RT (Exp. RT): 1.40 (1.41) min</p> <p>Calculated Conc: 1.02 µg/L</p> <p>Area Ratio: 0.0237</p> <p>Sample Type: (Quality Control)</p>	
<p>PFHxS 1 (398.900/79.900 Da)</p> <p>RT (Exp. RT): 1.66 (1.67) min</p> <p>Calculated Conc: 0.770 µg/L</p> <p>Area Ratio: 0.565</p> <p>Sample Type: (Quality Control)</p>	
<p>PFHxS 2 (398.900/98.900 Da)</p> <p>RT (Exp. RT): 1.66 (1.67) min</p> <p>Calculated Conc: 0.649 µg/L</p> <p>Area Ratio: 0.132</p> <p>Sample Type: (Quality Control)</p>	

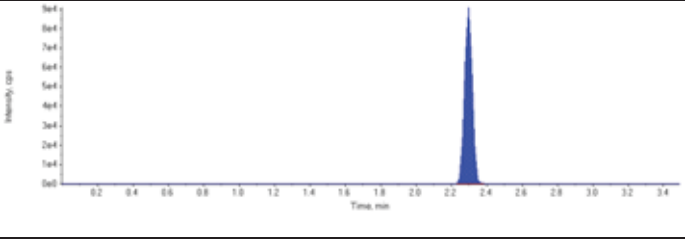
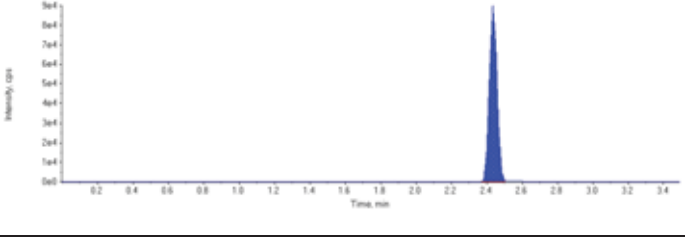
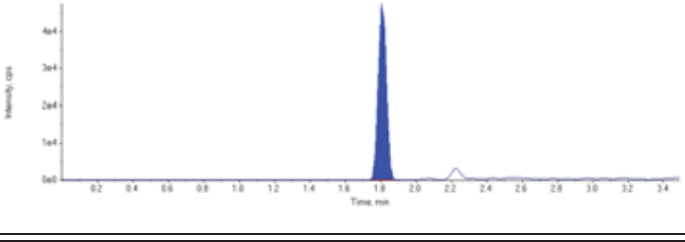
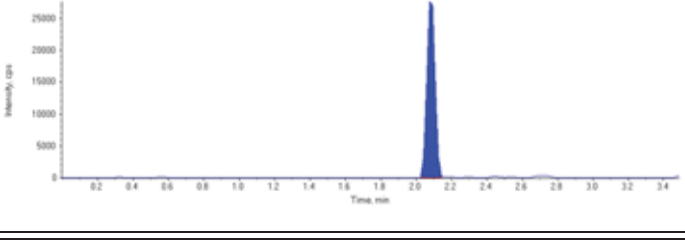
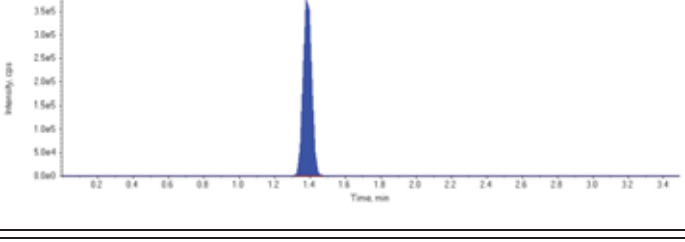
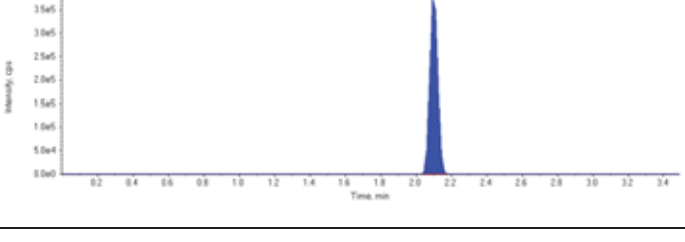
<p>PFHpA 1 (363.000/319.000 Da)</p> <p>RT (Exp. RT): 1.66 (1.67) min</p> <p>Calculated Conc: 0.919 µg/L</p> <p>Area Ratio: 0.332</p> <p>Sample Type: (Quality Control)</p>	
<p>PFHpA 2 (363.000/169.200 Da)</p> <p>RT (Exp. RT): 1.66 (1.67) min</p> <p>Calculated Conc: 0.661 µg/L</p> <p>Area Ratio: 0.00602</p> <p>Sample Type: (Quality Control)</p>	
<p>PFOA 1 (413.100/369.000 Da)</p> <p>RT (Exp. RT): 1.85 (1.85) min</p> <p>Calculated Conc: 0.918 µg/L</p> <p>Area Ratio: 0.328</p> <p>Sample Type: (Quality Control)</p>	
<p>PFOA 2 (413.100/169.000 Da)</p> <p>RT (Exp. RT): 1.85 (1.84) min</p> <p>Calculated Conc: 0.938 µg/L</p> <p>Area Ratio: 0.132</p> <p>Sample Type: (Quality Control)</p>	
<p>PFOS 1 (498.900/79.900 Da)</p> <p>RT (Exp. RT): 1.96 (1.96) min</p> <p>Calculated Conc: 1.05 µg/L</p> <p>Area Ratio: 0.440</p> <p>Sample Type: (Quality Control)</p>	
<p>PFOS 2 (498.900/98.900 Da)</p> <p>RT (Exp. RT): 1.96 (1.96) min</p> <p>Calculated Conc: 0.968 µg/L</p> <p>Area Ratio: 0.120</p> <p>Sample Type: (Quality Control)</p>	

<p>PFNA 1 (462.900/419.000 Da)</p> <p>RT (Exp. RT): 1.99 (1.99) min</p> <p>Calculated Conc: 0.964 µg/L</p> <p>Area Ratio: 0.322</p> <p>Sample Type: (Quality Control)</p>	
<p>PFNA 2 (462.900/219.100 Da)</p> <p>RT (Exp. RT): 1.99 (1.99) min</p> <p>Calculated Conc: 0.886 µg/L</p> <p>Area Ratio: 0.0781</p> <p>Sample Type: (Quality Control)</p>	
<p>PFDA 1 (513.000/469.100 Da)</p> <p>RT (Exp. RT): 2.11 (2.18) min</p> <p>Calculated Conc: 0.793 µg/L</p> <p>Area Ratio: 0.290</p> <p>Sample Type: (Quality Control)</p>	
<p>PFDA 2 (513.000/218.900 Da)</p> <p>RT (Exp. RT): 2.11 (2.11) min</p> <p>Calculated Conc: 0.816 µg/L</p> <p>Area Ratio: 0.0578</p> <p>Sample Type: (Quality Control)</p>	
<p>PFUnA 1 (562.900/519.000 Da)</p> <p>RT (Exp. RT): 2.21 (2.21) min</p> <p>Calculated Conc: 0.838 µg/L</p> <p>Area Ratio: 0.317</p> <p>Sample Type: (Quality Control)</p>	
<p>PFUnA 2 (562.900/269.200 Da)</p> <p>RT (Exp. RT): 2.21 (2.27) min</p> <p>Calculated Conc: 0.764 µg/L</p> <p>Area Ratio: 0.0301</p> <p>Sample Type: (Quality Control)</p>	

<p>PFD_oA 1 (612.900/569.000 Da)</p> <p>RT (Exp. RT): 2.30 (2.36) min</p> <p>Calculated Conc: 0.879 µg/L</p> <p>Area Ratio: 0.330</p> <p>Sample Type: (Quality Control)</p>	
<p>PFD_oA 2 (612.900/319.000 Da)</p> <p>RT (Exp. RT): 2.30 (2.35) min</p> <p>Calculated Conc: 1.00 µg/L</p> <p>Area Ratio: 0.0364</p> <p>Sample Type: (Quality Control)</p>	
<p>PFT_rDA 1 (663.000/619.000 Da)</p> <p>RT (Exp. RT): 2.37 (2.42) min</p> <p>Calculated Conc: 1.03 µg/L</p> <p>Area Ratio: 0.393</p> <p>Sample Type: (Quality Control)</p>	
<p>PFT_rDA 2 (663.000/318.900 Da)</p> <p>RT (Exp. RT): 2.37 (2.37) min</p> <p>Calculated Conc: 0.934 µg/L</p> <p>Area Ratio: 0.0414</p> <p>Sample Type: (Quality Control)</p>	
<p>PFT_eDA 1 (713.000/669.000 Da)</p> <p>RT (Exp. RT): 2.44 (2.49) min</p> <p>Calculated Conc: 0.952 µg/L</p> <p>Area Ratio: 0.311</p> <p>Sample Type: (Quality Control)</p>	
<p>PFT_eDA 2 (713.000/319.200 Da)</p> <p>RT (Exp. RT): 2.44 (2.49) min</p> <p>Calculated Conc: 1.09 µg/L</p> <p>Area Ratio: 0.0269</p> <p>Sample Type: (Quality Control)</p>	

<p>6:2-FTS 1 (427.000/407.000 Da)</p> <p>RT (Exp. RT): 1.81 (1.90) min</p> <p>Calculated Conc: 1.05 µg/L</p> <p>Area Ratio: 0.219</p> <p>Sample Type: (Quality Control)</p>	
<p>6:2-FTS 2 (427.000/80.900 Da)</p> <p>RT (Exp. RT): 1.81 (1.80) min</p> <p>Calculated Conc: 1.07 µg/L</p> <p>Area Ratio: 0.172</p> <p>Sample Type: (Quality Control)</p>	
<p>8:2-FTS 1 (526.900/507.000 Da)</p> <p>RT (Exp. RT): 2.09 (2.16) min</p> <p>Calculated Conc: 0.836 µg/L</p> <p>Area Ratio: 0.325</p> <p>Sample Type: (Quality Control)</p>	
<p>8:2-FTS 2 (526.900/80.900 Da)</p> <p>RT (Exp. RT): 2.08 (2.09) min</p> <p>Calculated Conc: 0.818 µg/L</p> <p>Area Ratio: 0.113</p> <p>Sample Type: (Quality Control)</p>	
<p>13C2-PFHxA (314.900/270.000 Da)</p> <p>RT (Exp. RT): 1.40 (1.40) min</p> <p>Calculated Conc: 106. µg/L</p> <p>Area Ratio: 0.341</p> <p>Sample Type: (Quality Control)</p>	
<p>18O2-PFHxS (402.900/84.000 Da)</p> <p>RT (Exp. RT): 1.66 (1.77) min</p> <p>Calculated Conc: 118. µg/L</p> <p>Area Ratio: 0.102</p> <p>Sample Type: (Quality Control)</p>	

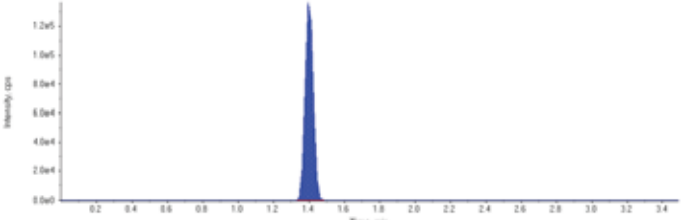
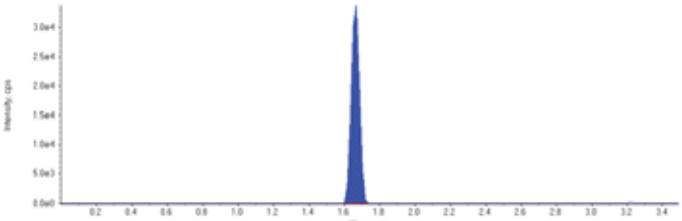
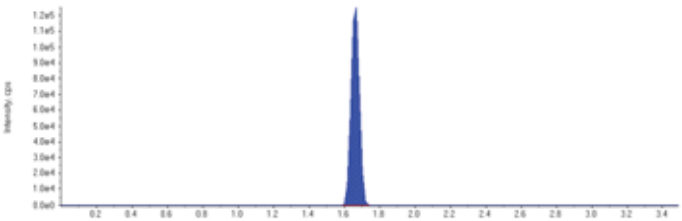
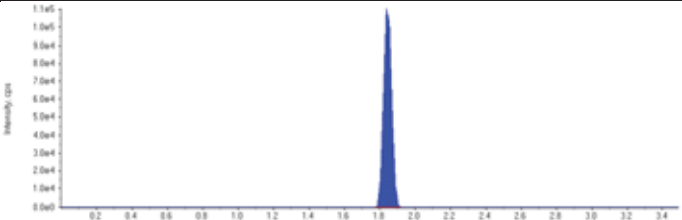
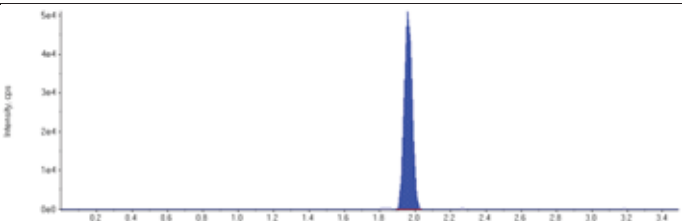
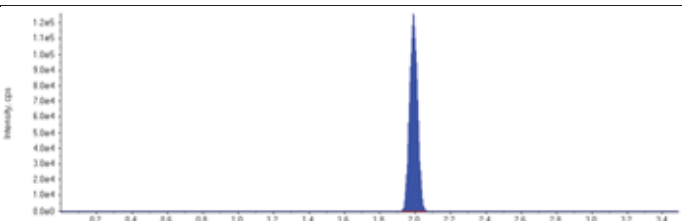
<p>13C4-PFHpa (366.900/322.000 Da)</p> <p>RT (Exp. RT): 1.66 (1.67) min</p> <p>Calculated Conc: 100. µg/L</p> <p>Area Ratio: 0.331</p> <p>Sample Type: (Quality Control)</p>	
<p>13C4-PFOA (416.900/372.000 Da)</p> <p>RT (Exp. RT): 1.84 (1.84) min</p> <p>Calculated Conc: 104. µg/L</p> <p>Area Ratio: 0.285</p> <p>Sample Type: (Quality Control)</p>	
<p>13C4-PFOS (502.900/79.900 Da)</p> <p>RT (Exp. RT): 1.96 (2.05) min</p> <p>Calculated Conc: 89.0 µg/L</p> <p>Area Ratio: 0.113</p> <p>Sample Type: (Quality Control)</p>	
<p>13C5-PFNA (467.900/423.000 Da)</p> <p>RT (Exp. RT): 1.99 (1.99) min</p> <p>Calculated Conc: 96.7 µg/L</p> <p>Area Ratio: 0.283</p> <p>Sample Type: (Quality Control)</p>	
<p>13C2-PFDA (514.900/470.000 Da)</p> <p>RT (Exp. RT): 2.11 (2.11) min</p> <p>Calculated Conc: 110. µg/L</p> <p>Area Ratio: 0.342</p> <p>Sample Type: (Quality Control)</p>	
<p>13C2-PFUnA (564.900/520.000 Da)</p> <p>RT (Exp. RT): 2.21 (2.27) min</p> <p>Calculated Conc: 100. µg/L</p> <p>Area Ratio: 0.231</p> <p>Sample Type: (Quality Control)</p>	

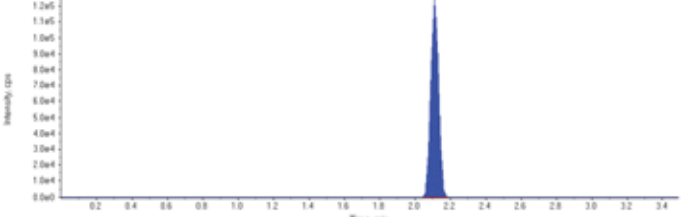
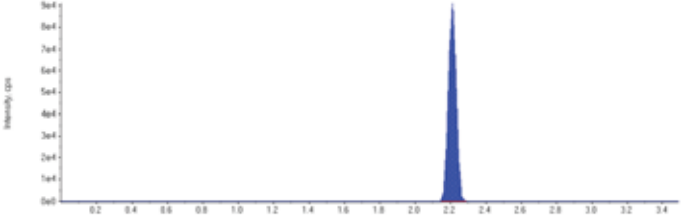
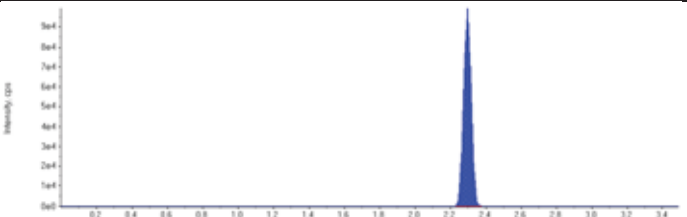
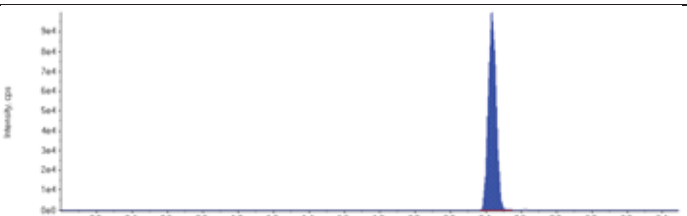
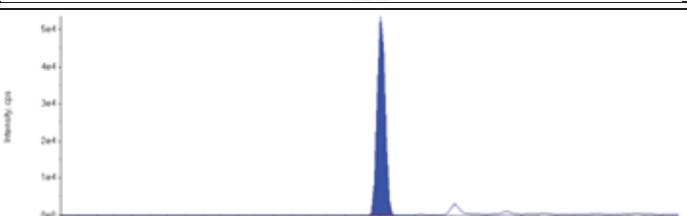
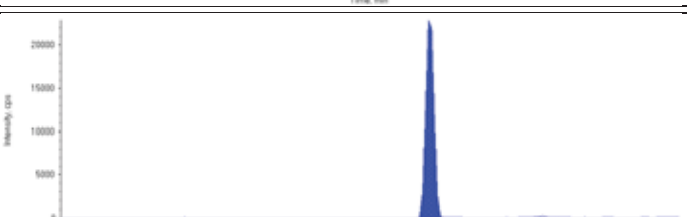
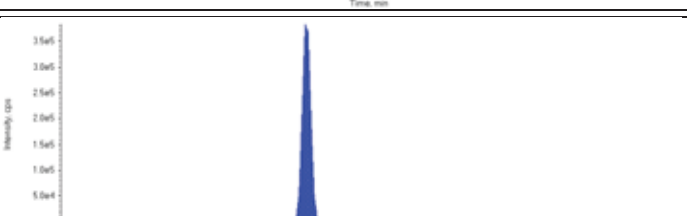
<p>13C2-PFDoA (614.900/570.000 Da)</p> <p>RT (Exp. RT): 2.30 (2.35) min</p> <p>Calculated Conc: 101. µg/L</p> <p>Area Ratio: 0.225</p> <p>Sample Type: (Quality Control)</p>	
<p>13C2-PFTeDA (714.900/669.900 Da)</p> <p>RT (Exp. RT): 2.44 (2.49) min</p> <p>Calculated Conc: 91.5 µg/L</p> <p>Area Ratio: 0.223</p> <p>Sample Type: (Quality Control)</p>	
<p>13C2-6:2-FTS (429.000/80.900 Da)</p> <p>RT (Exp. RT): 1.81 (1.80) min</p> <p>Calculated Conc: 100. µg/L</p> <p>Area Ratio: 0.120</p> <p>Sample Type: (Quality Control)</p>	
<p>13C2-8:2 FTS (528.900/80.900 Da)</p> <p>RT (Exp. RT): 2.08 (2.08) min</p> <p>Calculated Conc: 109. µg/L</p> <p>Area Ratio: 0.0724</p> <p>Sample Type: (Quality Control)</p>	
<p>13C6-PFHxA (318.900/274.000 Da)</p> <p>RT (Exp. RT): 1.39 (1.40) min</p> <p>Calculated Conc: 98.8 µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Quality Control)</p>	
<p>13C9-PFDA (521.900/477.100 Da)</p> <p>RT (Exp. RT): 2.10 (2.09) min</p> <p>Calculated Conc: 102. µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Quality Control)</p>	

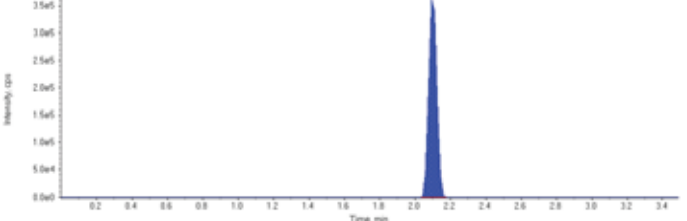
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Sample Type	Quality Control	Injection Vial	5
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Acquisition Method	PFC_Water_Low.dam	Instrument Name	LCMS03
Project	Enviro\PFOS	Algorithm Used	Analyst Classic
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Result Table	PFC_Water_170523_4988945_CTLabs.rdb		
Samples Annotation	-		

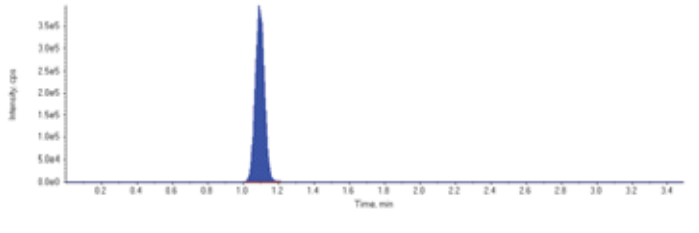
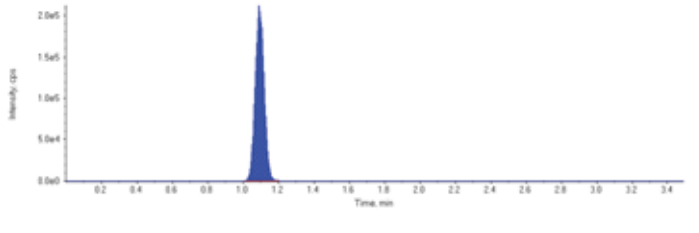
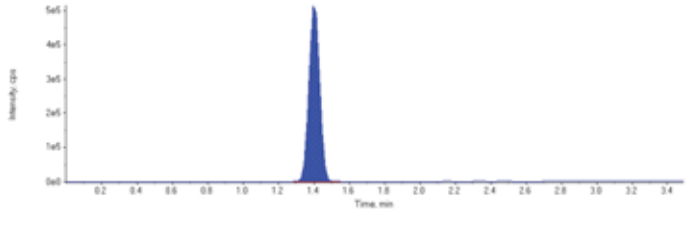
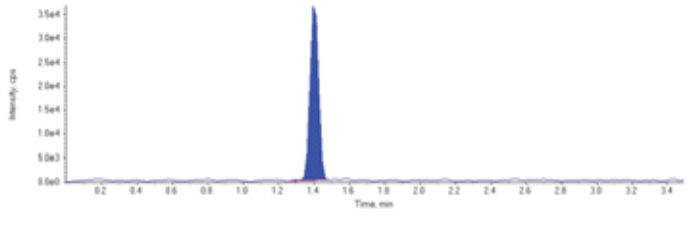
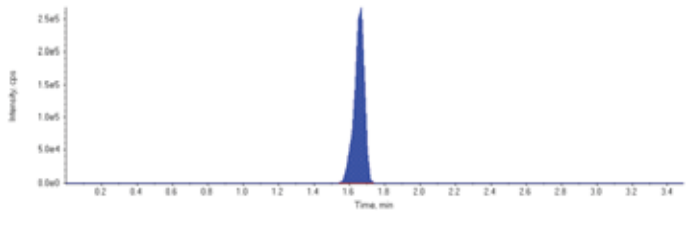
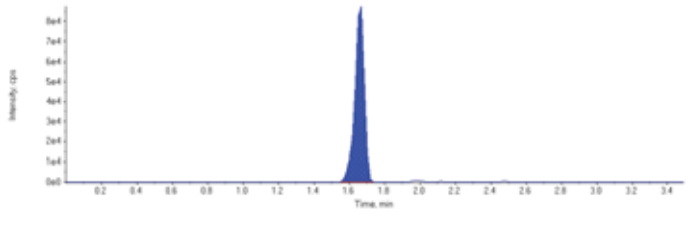
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MPFHxS	110000.	1.66	1.00	-
MPFHpA	418000.	1.66	1.00	-
MPFOA	360000.	1.84	1.00	-
MPFOS	157000.	1.96	1.00	-
MPFNA	383000.	1.99	1.00	-
MPFDA	378000.	2.11	1.00	-
MPFUnA	280000.	2.21	1.00	-
MPFDoA	301000.	2.30	1.00	-
MPFTeDA	301000.	2.44	1.00	-
M2 6:2 FTS	167000.	1.81	1.00	-
M2 8:2 FTS	75000.	2.08	1.00	-
13C6-PFHxA IS	1300000.	1.39	1.00	-
13C9-PFDA IS	1180000.	2.10	1.00	-
N/A	N/A	N/A	N/A	-
N/A	N/A	N/A	N/A	-

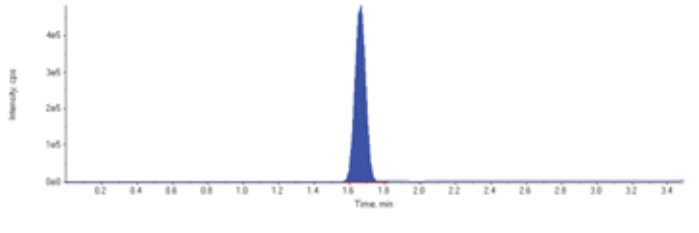
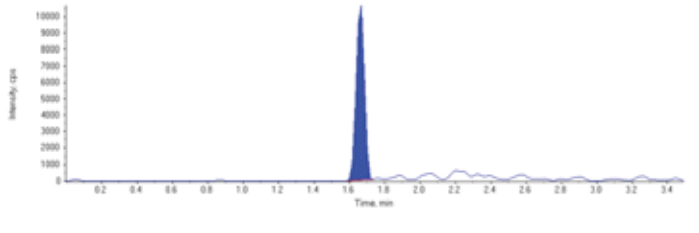
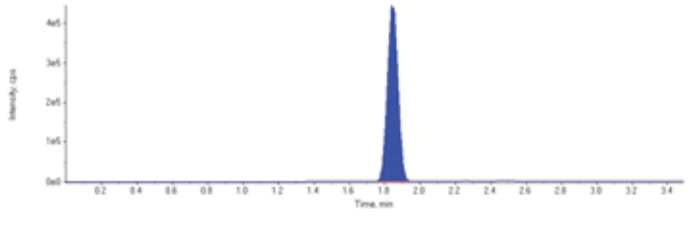
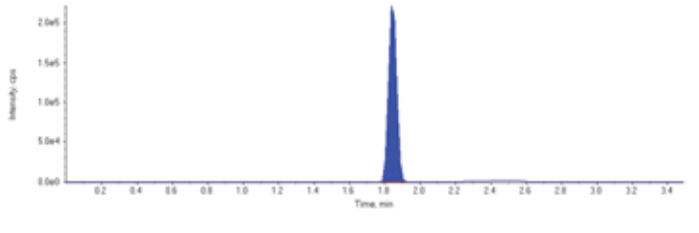
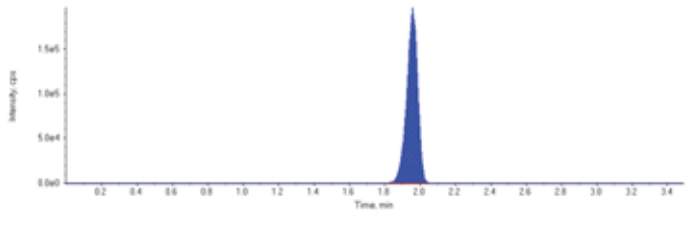
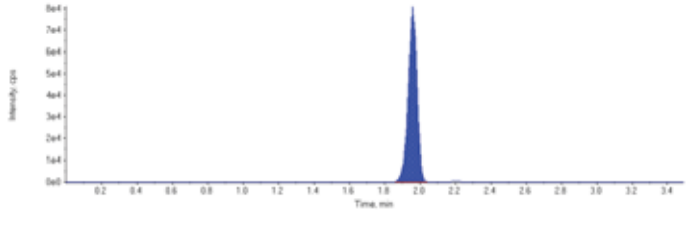
Target Analyte	Area (cps)	RT (min)	Target Conc. (ug/L)	Calc. Conc. (ug/L)	Accuracy (%)
PFBS 1	1430000	1.09	12.5	11.3	90.2
PFBS 2	746000	1.09	12.5	11.8	94.7
PFHxA 1	2180000	1.40	12.5	11.4	91.0
PFHxA 2	123000	1.40	12.5	11.0	87.9
PFHxS 1	1060000	1.66	12.5	11.1	88.8
PFHxS 2	332000	1.66	12.5	11.8	94.2
PFHpA 1	2030000	1.66	12.5	12.4	99.5
PFHpA 2	35000	1.66	12.5	11.6	93.1
PFOA 1	1870000	1.85	12.5	11.6	92.7
PFOA 2	726000	1.84	12.5	11.1	89.0
PFOS 1	840000	1.96	12.5	11.5	92.2
PFOS 2	278000	1.96	12.5	12.3	98.3
PFNA 1	1780000	1.99	12.5	13.0	104.0
PFNA 2	439000	1.99	12.5	12.1	96.9
PFDA 1	1930000	2.11	12.5	12.5	99.8
PFDA 2	361000	2.11	12.5	12.1	96.5
PFUnA 1	1350000	2.21	12.5	11.4	91.6
PFUnA 2	166000	2.21	12.5	12.8	102.0
PFDaA 1	1250000	2.30	12.5	10.0	80.3
PFDaA 2	141000	2.30	12.5	11.1	88.6
PFTTrDA 1	1480000	2.37	12.5	12.0	95.6
PFTTrDA 2	149000	2.37	12.5	10.9	87.2
PFTeDA 1	1320000	2.44	12.5	11.7	94.0
PFTeDA 2	91900	2.44	12.5	11.4	90.9
6:2-FTS 1	438000	1.81	12.5	10.1	80.6
6:2-FTS 2	307000	1.81	12.5	10.3	82.8
8:2-FTS 1	415000	2.09	12.5	11.1	89.1
8:2-FTS 2	142000	2.08	12.5	10.5	83.9
13C2-PFHxA	444000	1.40	100.	106.	106.0
18O2-PFHxS	110000	1.66	100.	98.4	98.4
13C4-PFHpA	418000	1.66	100.	97.2	97.2
13C4-PFOA	360000	1.84	100.	101.	101.0
13C4-PFOS	157000	1.96	100.	95.4	95.4
13C5-PFNA	383000	1.99	100.	101.	101.0
13C2-PFDA	378000	2.11	100.	103.	103.0
13C2-PFUnA	280000	2.21	100.	103.	103.0
13C2-PFDaA	301000	2.30	100.	115.	115.0
13C2-PFTeDA	301000	2.44	100.	105.	105.0
13C2-6:2-FTS	167000	1.81	100.	107.	107.0
13C2-8:2 FTS	75000	2.08	100.	86.7	86.7
13C6-PFHxA	1300000	1.39	100.	102.	102.0
13C9-PFDA	1180000	2.10	100.	98.5	98.5

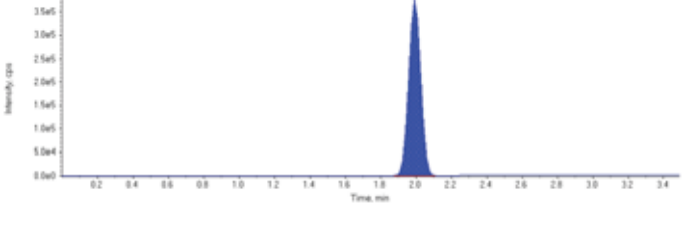
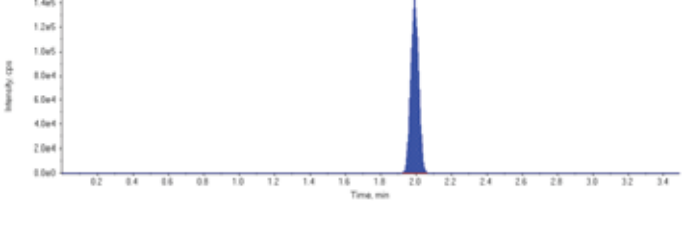
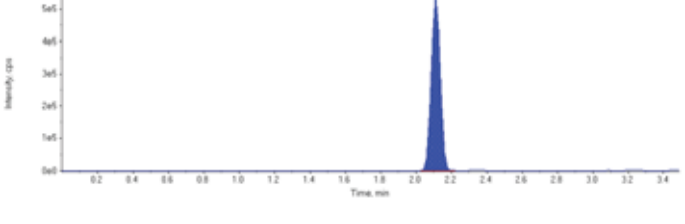
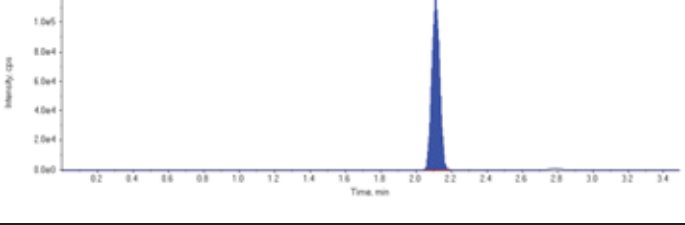
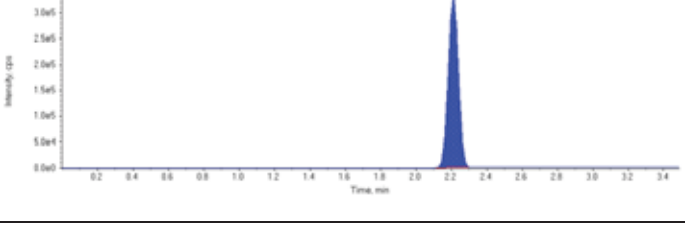
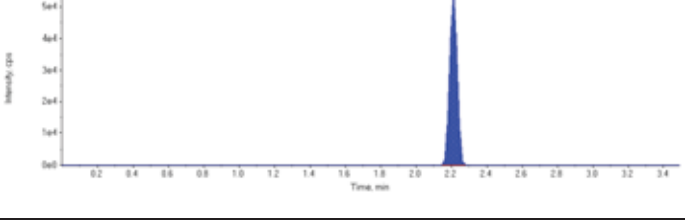
<p>MPFHxA (Internal Standard)</p> <p>RT (Exp. RT): 1.40(1.40) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>MPFHxS (Internal Standard)</p> <p>RT (Exp. RT): 1.66(1.77) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>MPFHpA (Internal Standard)</p> <p>RT (Exp. RT): 1.66(1.67) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>MPFOA (Internal Standard)</p> <p>RT (Exp. RT): 1.84(1.84) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>MPFOS (Internal Standard)</p> <p>RT (Exp. RT): 1.96(2.05) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>MPFNA (Internal Standard)</p> <p>RT (Exp. RT): 1.99(1.99) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	

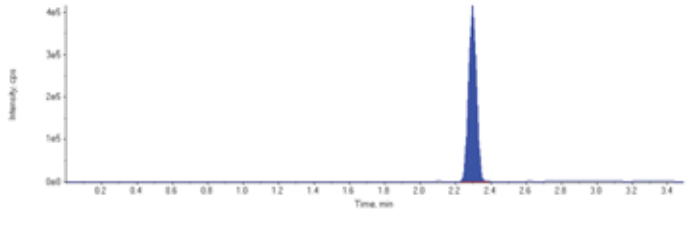
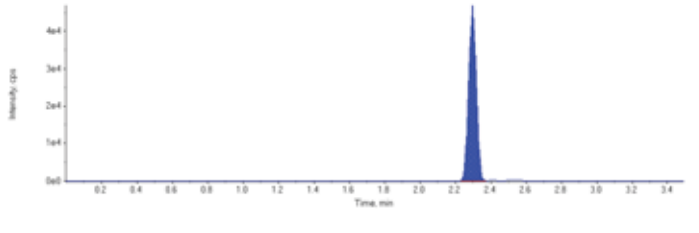
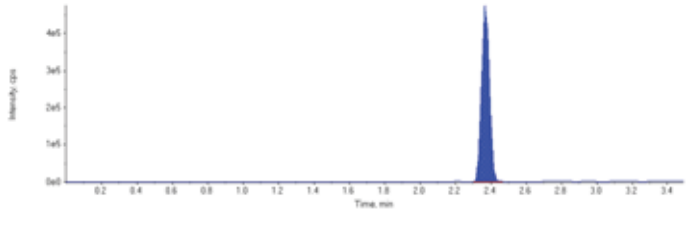
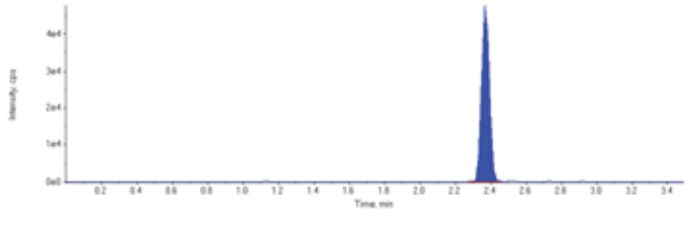
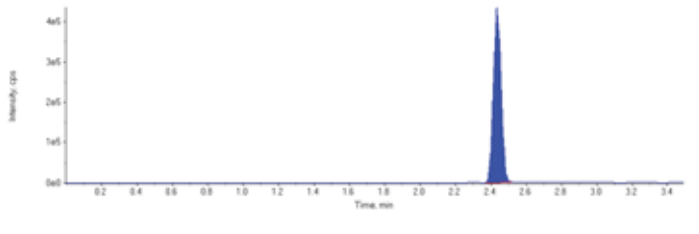
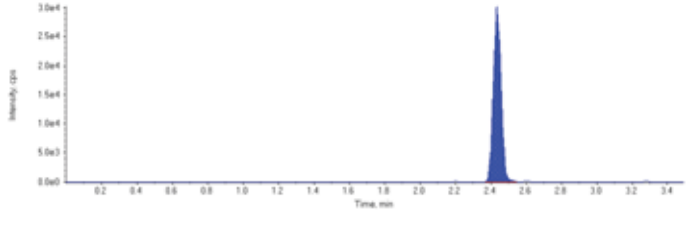
<p>MPFDA (Internal Standard)</p> <p>RT (Exp. RT): 2.11(2.18) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>MPFUnA (Internal Standard)</p> <p>RT (Exp. RT): 2.21(2.27) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>MPFDoA (Internal Standard)</p> <p>RT (Exp. RT): 2.30(2.35) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>MPFTeDA (Internal Standard)</p> <p>RT (Exp. RT): 2.44(2.49) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>M2 6:2 FTS (Internal Standard)</p> <p>RT (Exp. RT): 1.81(1.80) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>M2 8:2 FTS (Internal Standard)</p> <p>RT (Exp. RT): 2.08(2.08) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>13C6-PFHxA IS (Internal Standard)</p> <p>RT (Exp. RT): 1.39(1.40) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	

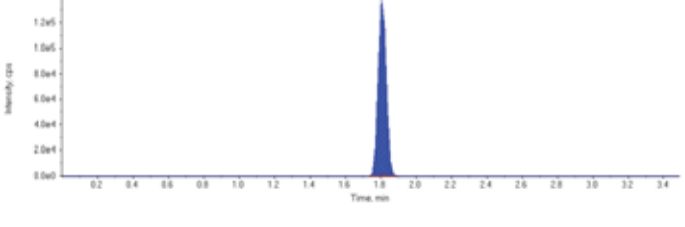
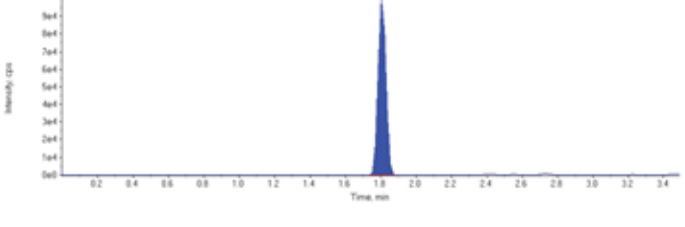
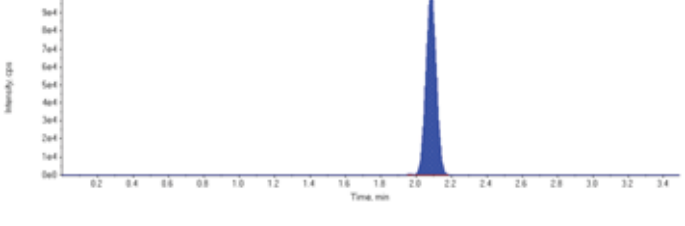
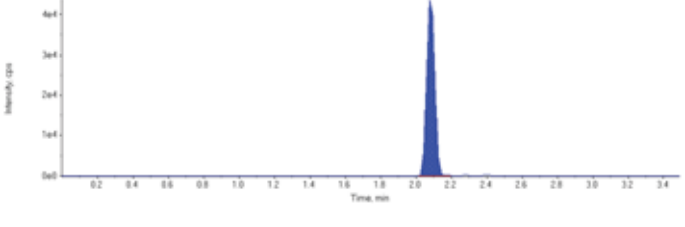
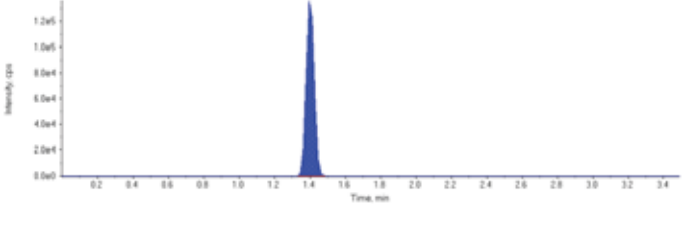
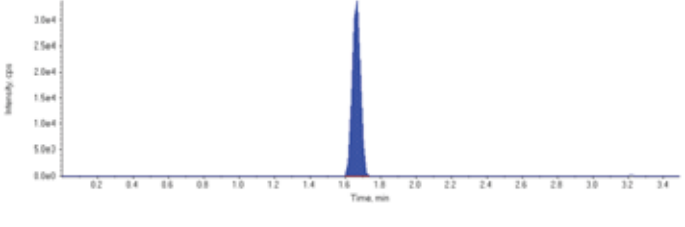
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<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min</p> <p>Concentration: N/A N/A</p> <p>Sample Type: (Quality Control)</p>	<p>This image is not available</p>
<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min</p> <p>Concentration: N/A N/A</p> <p>Sample Type: (Quality Control)</p>	<p>This image is not available</p>

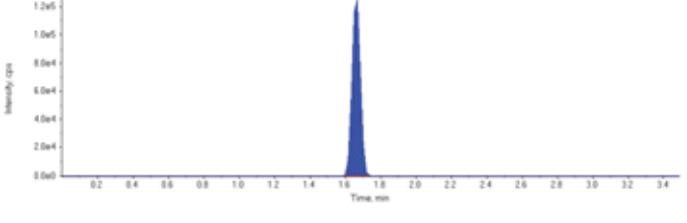
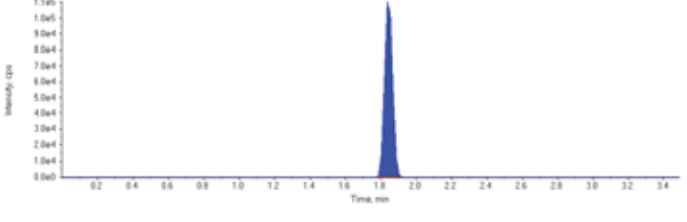
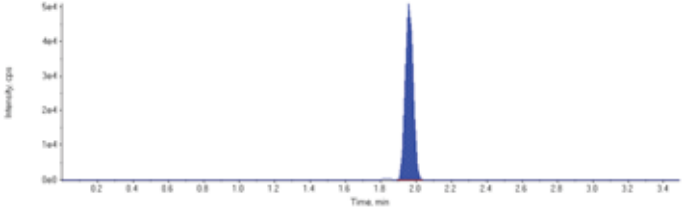
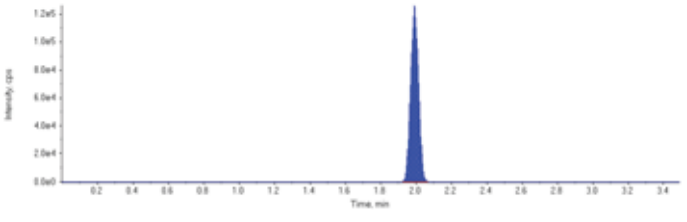
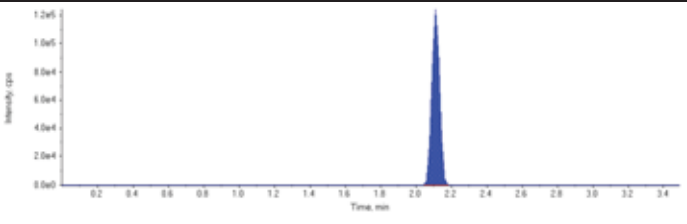
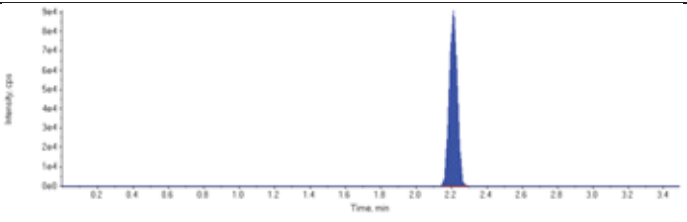
<p>PFBS 1 (298.900/79.900 Da)</p> <p>RT (Exp. RT): 1.09 (1.09) min</p> <p>Calculated Conc: 11.3 µg/L</p> <p>Area Ratio: 13.0</p> <p>Sample Type: (Quality Control)</p>	
<p>PFBS 2 (298.900/98.900 Da)</p> <p>RT (Exp. RT): 1.09 (1.09) min</p> <p>Calculated Conc: 11.8 µg/L</p> <p>Area Ratio: 6.77</p> <p>Sample Type: (Quality Control)</p>	
<p>PFHxA 1 (313.000/269.000 Da)</p> <p>RT (Exp. RT): 1.40 (1.40) min</p> <p>Calculated Conc: 11.4 µg/L</p> <p>Area Ratio: 4.91</p> <p>Sample Type: (Quality Control)</p>	
<p>PFHxA 2 (313.000/119.000 Da)</p> <p>RT (Exp. RT): 1.40 (1.41) min</p> <p>Calculated Conc: 11.0 µg/L</p> <p>Area Ratio: 0.277</p> <p>Sample Type: (Quality Control)</p>	
<p>PFHxS 1 (398.900/79.900 Da)</p> <p>RT (Exp. RT): 1.66 (1.67) min</p> <p>Calculated Conc: 11.1 µg/L</p> <p>Area Ratio: 9.57</p> <p>Sample Type: (Quality Control)</p>	
<p>PFHxS 2 (398.900/98.900 Da)</p> <p>RT (Exp. RT): 1.66 (1.67) min</p> <p>Calculated Conc: 11.8 µg/L</p> <p>Area Ratio: 3.01</p> <p>Sample Type: (Quality Control)</p>	

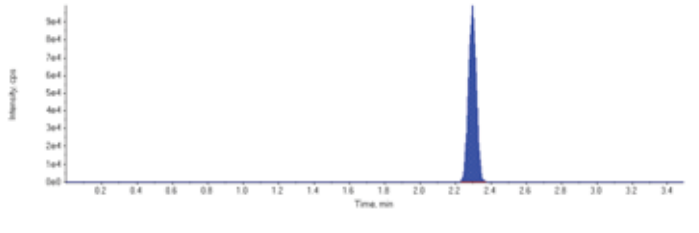
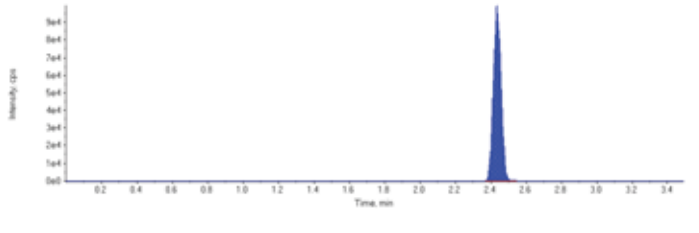
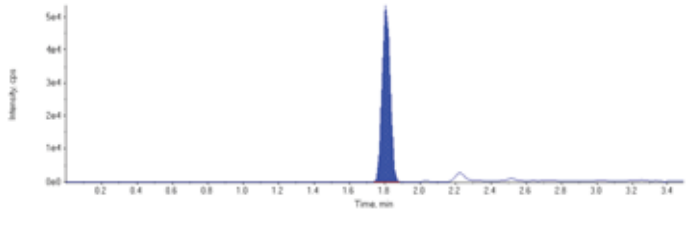
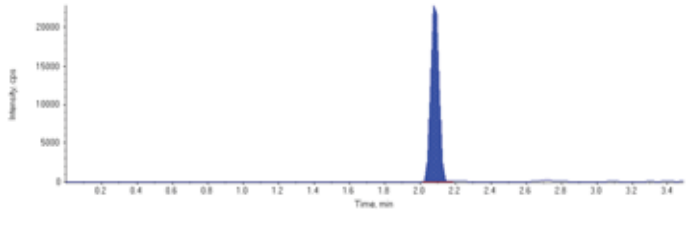
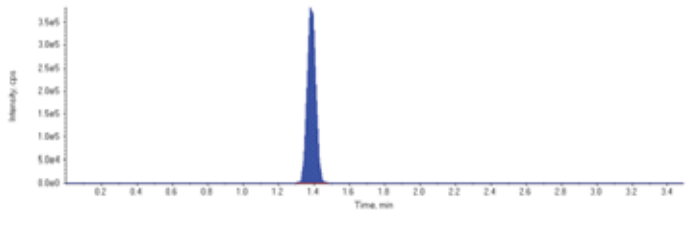
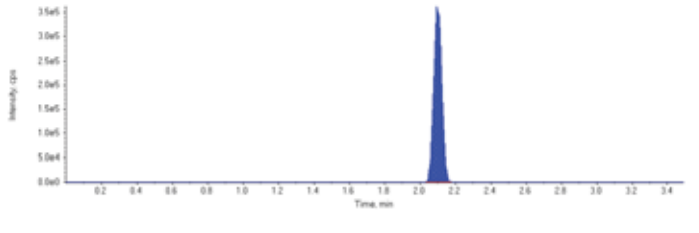
<p>PFHpA 1 (363.000/319.000 Da)</p> <p>RT (Exp. RT): 1.66 (1.67) min</p> <p>Calculated Conc: 12.4 µg/L</p> <p>Area Ratio: 4.85</p> <p>Sample Type: (Quality Control)</p>	
<p>PFHpA 2 (363.000/169.200 Da)</p> <p>RT (Exp. RT): 1.66 (1.67) min</p> <p>Calculated Conc: 11.6 µg/L</p> <p>Area Ratio: 0.0837</p> <p>Sample Type: (Quality Control)</p>	
<p>PFOA 1 (413.100/369.000 Da)</p> <p>RT (Exp. RT): 1.85 (1.85) min</p> <p>Calculated Conc: 11.6 µg/L</p> <p>Area Ratio: 5.19</p> <p>Sample Type: (Quality Control)</p>	
<p>PFOA 2 (413.100/169.000 Da)</p> <p>RT (Exp. RT): 1.84 (1.84) min</p> <p>Calculated Conc: 11.1 µg/L</p> <p>Area Ratio: 2.02</p> <p>Sample Type: (Quality Control)</p>	
<p>PFOS 1 (498.900/79.900 Da)</p> <p>RT (Exp. RT): 1.96 (1.96) min</p> <p>Calculated Conc: 11.5 µg/L</p> <p>Area Ratio: 5.34</p> <p>Sample Type: (Quality Control)</p>	
<p>PFOS 2 (498.900/98.900 Da)</p> <p>RT (Exp. RT): 1.96 (1.96) min</p> <p>Calculated Conc: 12.3 µg/L</p> <p>Area Ratio: 1.77</p> <p>Sample Type: (Quality Control)</p>	

<p>PFNA 1 (462.900/419.000 Da)</p> <p>RT (Exp. RT): 1.99 (1.99) min</p> <p>Calculated Conc: 13.0 µg/L</p> <p>Area Ratio: 4.65</p> <p>Sample Type: (Quality Control)</p>	
<p>PFNA 2 (462.900/219.100 Da)</p> <p>RT (Exp. RT): 1.99 (1.99) min</p> <p>Calculated Conc: 12.1 µg/L</p> <p>Area Ratio: 1.14</p> <p>Sample Type: (Quality Control)</p>	
<p>PFDA 1 (513.000/469.100 Da)</p> <p>RT (Exp. RT): 2.11 (2.18) min</p> <p>Calculated Conc: 12.5 µg/L</p> <p>Area Ratio: 5.11</p> <p>Sample Type: (Quality Control)</p>	
<p>PFDA 2 (513.000/218.900 Da)</p> <p>RT (Exp. RT): 2.11 (2.11) min</p> <p>Calculated Conc: 12.1 µg/L</p> <p>Area Ratio: 0.957</p> <p>Sample Type: (Quality Control)</p>	
<p>PFUnA 1 (562.900/519.000 Da)</p> <p>RT (Exp. RT): 2.21 (2.21) min</p> <p>Calculated Conc: 11.4 µg/L</p> <p>Area Ratio: 4.82</p> <p>Sample Type: (Quality Control)</p>	
<p>PFUnA 2 (562.900/269.200 Da)</p> <p>RT (Exp. RT): 2.21 (2.27) min</p> <p>Calculated Conc: 12.8 µg/L</p> <p>Area Ratio: 0.592</p> <p>Sample Type: (Quality Control)</p>	

<p>PFDa 1 (612.900/569.000 Da)</p> <p>RT (Exp. RT): 2.30 (2.36) min</p> <p>Calculated Conc: 10.0 µg/L</p> <p>Area Ratio: 4.16</p> <p>Sample Type: (Quality Control)</p>	
<p>PFDa 2 (612.900/319.000 Da)</p> <p>RT (Exp. RT): 2.30 (2.35) min</p> <p>Calculated Conc: 11.1 µg/L</p> <p>Area Ratio: 0.467</p> <p>Sample Type: (Quality Control)</p>	
<p>PFTrDA 1 (663.000/619.000 Da)</p> <p>RT (Exp. RT): 2.37 (2.42) min</p> <p>Calculated Conc: 12.0 µg/L</p> <p>Area Ratio: 4.91</p> <p>Sample Type: (Quality Control)</p>	
<p>PFTrDA 2 (663.000/318.900 Da)</p> <p>RT (Exp. RT): 2.37 (2.37) min</p> <p>Calculated Conc: 10.9 µg/L</p> <p>Area Ratio: 0.495</p> <p>Sample Type: (Quality Control)</p>	
<p>PFTeDA 1 (713.000/669.000 Da)</p> <p>RT (Exp. RT): 2.44 (2.49) min</p> <p>Calculated Conc: 11.7 µg/L</p> <p>Area Ratio: 4.38</p> <p>Sample Type: (Quality Control)</p>	
<p>PFTeDA 2 (713.000/319.200 Da)</p> <p>RT (Exp. RT): 2.44 (2.49) min</p> <p>Calculated Conc: 11.4 µg/L</p> <p>Area Ratio: 0.305</p> <p>Sample Type: (Quality Control)</p>	

<p>6:2-FTS 1 (427.000/407.000 Da)</p> <p>RT (Exp. RT): 1.81 (1.90) min</p> <p>Calculated Conc: 10.1 µg/L</p> <p>Area Ratio: 2.63</p> <p>Sample Type: (Quality Control)</p>	
<p>6:2-FTS 2 (427.000/80.900 Da)</p> <p>RT (Exp. RT): 1.81 (1.80) min</p> <p>Calculated Conc: 10.3 µg/L</p> <p>Area Ratio: 1.84</p> <p>Sample Type: (Quality Control)</p>	
<p>8:2-FTS 1 (526.900/507.000 Da)</p> <p>RT (Exp. RT): 2.09 (2.16) min</p> <p>Calculated Conc: 11.1 µg/L</p> <p>Area Ratio: 5.53</p> <p>Sample Type: (Quality Control)</p>	
<p>8:2-FTS 2 (526.900/80.900 Da)</p> <p>RT (Exp. RT): 2.08 (2.09) min</p> <p>Calculated Conc: 10.5 µg/L</p> <p>Area Ratio: 1.89</p> <p>Sample Type: (Quality Control)</p>	
<p>13C2-PFHxA (314.900/270.000 Da)</p> <p>RT (Exp. RT): 1.40 (1.40) min</p> <p>Calculated Conc: 106. µg/L</p> <p>Area Ratio: 0.342</p> <p>Sample Type: (Quality Control)</p>	
<p>18O2-PFHxS (402.900/84.000 Da)</p> <p>RT (Exp. RT): 1.66 (1.77) min</p> <p>Calculated Conc: 98.4 µg/L</p> <p>Area Ratio: 0.0849</p> <p>Sample Type: (Quality Control)</p>	

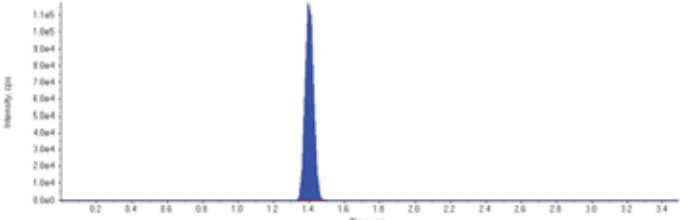
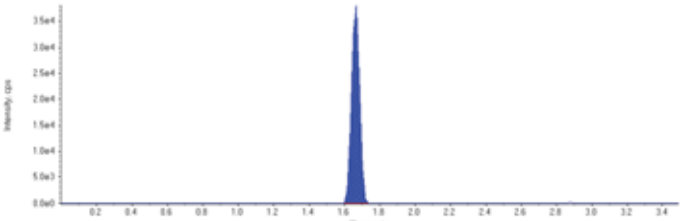
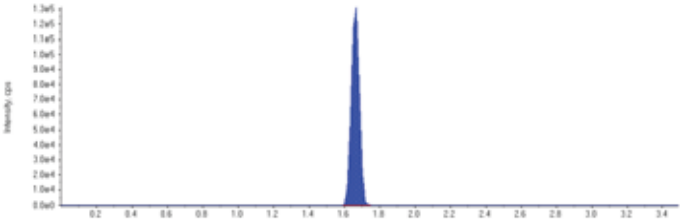
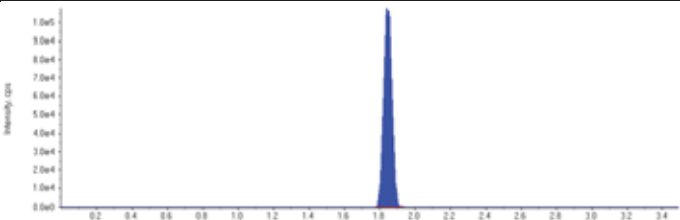
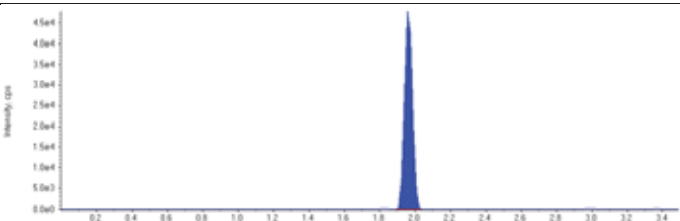
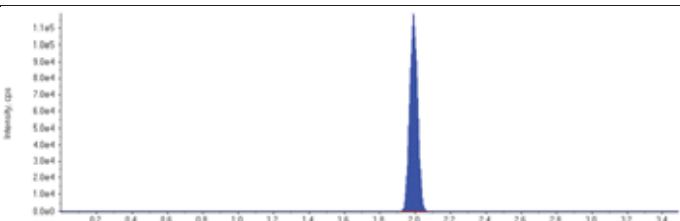
<p>13C4-PFHpa (366.900/322.000 Da)</p> <p>RT (Exp. RT): 1.66 (1.67) min</p> <p>Calculated Conc: 97.2 µg/L</p> <p>Area Ratio: 0.321</p> <p>Sample Type: (Quality Control)</p>	
<p>13C4-PFOA (416.900/372.000 Da)</p> <p>RT (Exp. RT): 1.84 (1.84) min</p> <p>Calculated Conc: 101. µg/L</p> <p>Area Ratio: 0.277</p> <p>Sample Type: (Quality Control)</p>	
<p>13C4-PFOS (502.900/79.900 Da)</p> <p>RT (Exp. RT): 1.96 (2.05) min</p> <p>Calculated Conc: 95.4 µg/L</p> <p>Area Ratio: 0.121</p> <p>Sample Type: (Quality Control)</p>	
<p>13C5-PFNA (467.900/423.000 Da)</p> <p>RT (Exp. RT): 1.99 (1.99) min</p> <p>Calculated Conc: 101. µg/L</p> <p>Area Ratio: 0.295</p> <p>Sample Type: (Quality Control)</p>	
<p>13C2-PFDA (514.900/470.000 Da)</p> <p>RT (Exp. RT): 2.11 (2.11) min</p> <p>Calculated Conc: 103. µg/L</p> <p>Area Ratio: 0.321</p> <p>Sample Type: (Quality Control)</p>	
<p>13C2-PFUnA (564.900/520.000 Da)</p> <p>RT (Exp. RT): 2.21 (2.27) min</p> <p>Calculated Conc: 103. µg/L</p> <p>Area Ratio: 0.238</p> <p>Sample Type: (Quality Control)</p>	

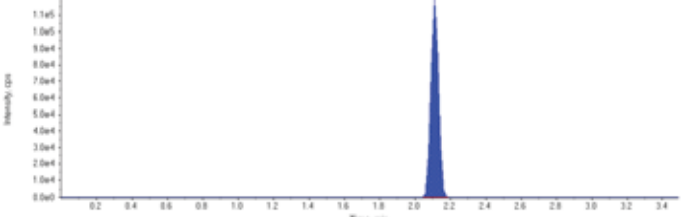
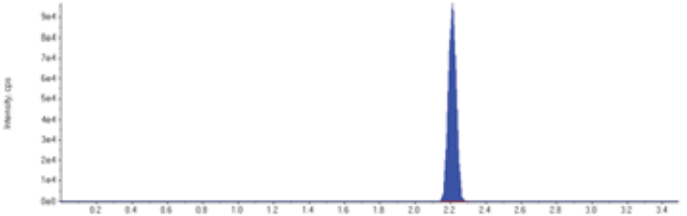
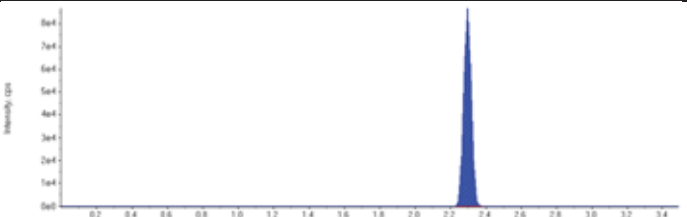
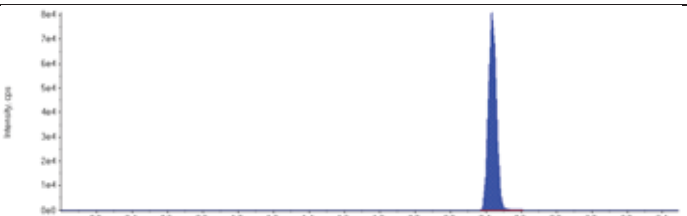
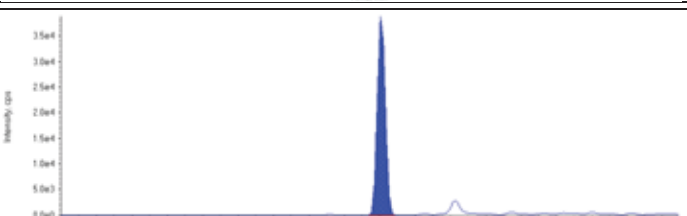
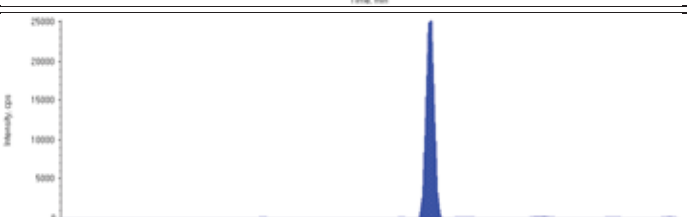
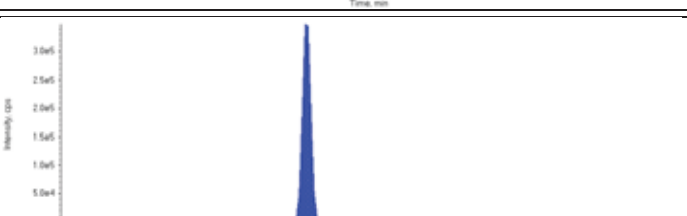
<p>13C2-PFDoA (614.900/570.000 Da)</p> <p>RT (Exp. RT): 2.30 (2.35) min</p> <p>Calculated Conc: 115. µg/L</p> <p>Area Ratio: 0.256</p> <p>Sample Type: (Quality Control)</p>	
<p>13C2-PFTeDA (714.900/669.900 Da)</p> <p>RT (Exp. RT): 2.44 (2.49) min</p> <p>Calculated Conc: 105. µg/L</p> <p>Area Ratio: 0.256</p> <p>Sample Type: (Quality Control)</p>	
<p>13C2-6:2-FTS (429.000/80.900 Da)</p> <p>RT (Exp. RT): 1.81 (1.80) min</p> <p>Calculated Conc: 107. µg/L</p> <p>Area Ratio: 0.128</p> <p>Sample Type: (Quality Control)</p>	
<p>13C2-8:2 FTS (528.900/80.900 Da)</p> <p>RT (Exp. RT): 2.08 (2.08) min</p> <p>Calculated Conc: 86.7 µg/L</p> <p>Area Ratio: 0.0577</p> <p>Sample Type: (Quality Control)</p>	
<p>13C6-PFHxA (318.900/274.000 Da)</p> <p>RT (Exp. RT): 1.39 (1.40) min</p> <p>Calculated Conc: 102. µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Quality Control)</p>	
<p>13C9-PFDA (521.900/477.100 Da)</p> <p>RT (Exp. RT): 2.10 (2.09) min</p> <p>Calculated Conc: 98.5 µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Quality Control)</p>	

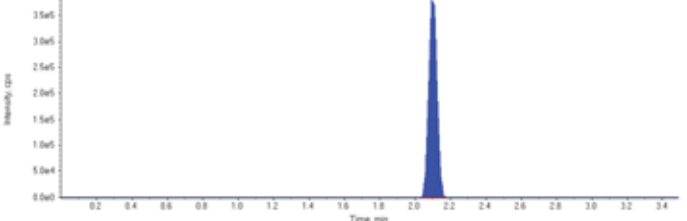
Sample ID	CCV	Injection Volume (µL)	1
Sample Type	Quality Control	Injection Vial	5
Acquisition Date	2017/05/23 4:36:39 PM	Dilution Factor	1.00
Acquisition Method	PFC_Water_Low.dam	Instrument Name	LCMS03
Project	Enviro\PFOS	Algorithm Used	Analyst Classic
Data File	PFC_170523\WS#4988945.wiff		
Result Table	PFC_Water_170523_4988945_CTLabs.rdb		
Samples Annotation	-		

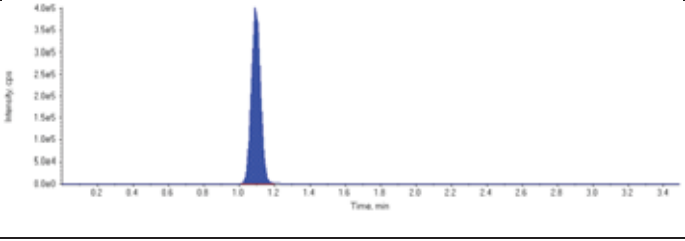
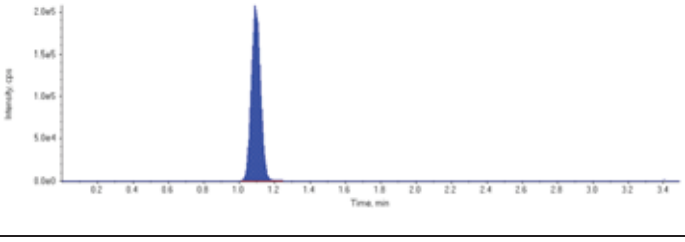
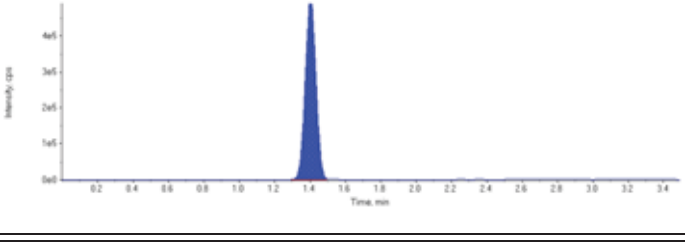
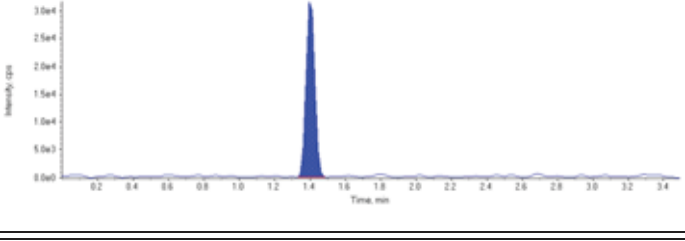
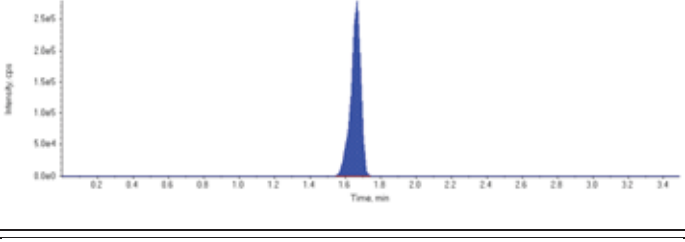
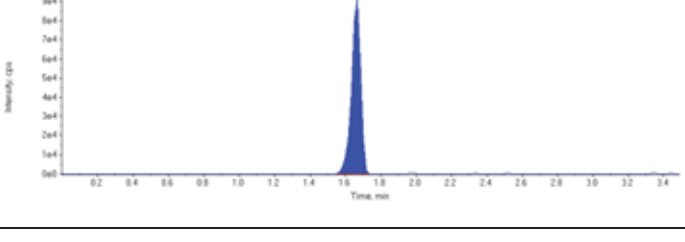
Internal Standard	Area (cps)	RT (min)	Target Conc. (ug/L)	Calc. Conc. (ug/L)
MPFHxA	396000.	1.40	1.00	-
MPFHxS	122000.	1.66	1.00	-
MPFHpA	427000.	1.66	1.00	-
MPFOA	361000.	1.85	1.00	-
MPFOS	152000.	1.96	1.00	-
MPFNA	362000.	1.99	1.00	-
MPFDA	362000.	2.11	1.00	-
MPFUnA	296000.	2.21	1.00	-
MPFDoA	262000.	2.30	1.00	-
MPFTeDA	253000.	2.44	1.00	-
M2 6:2 FTS	124000.	1.81	1.00	-
M2 8:2 FTS	84200.	2.09	1.00	-
13C6-PFHxA IS	1210000.	1.39	1.00	-
13C9-PFDA IS	1260000.	2.10	1.00	-
N/A	N/A	N/A	N/A	-
N/A	N/A	N/A	N/A	-

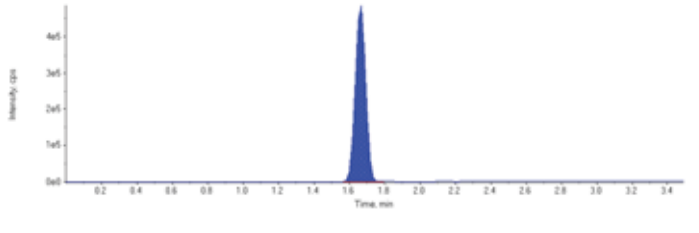
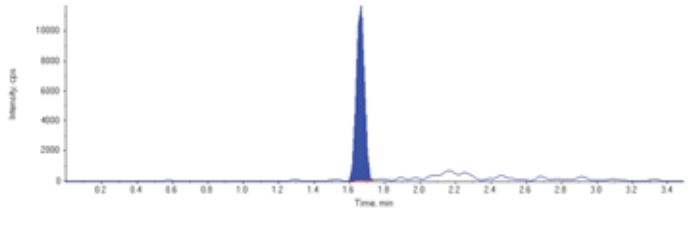
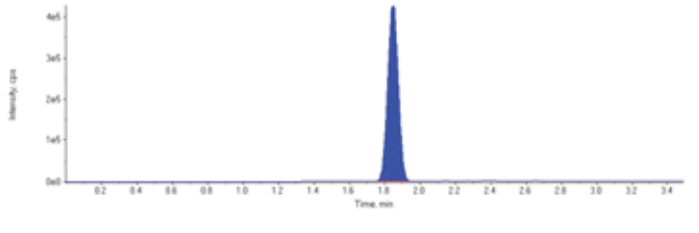
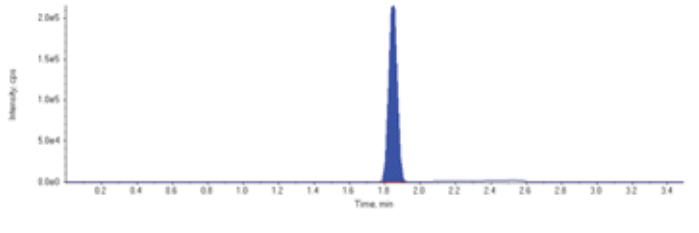
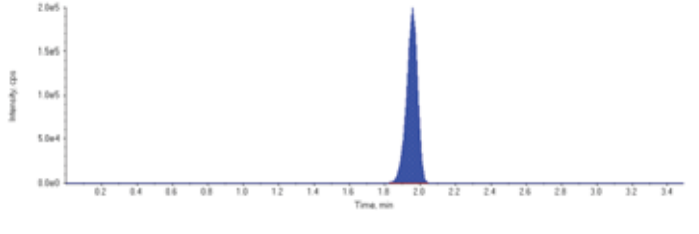
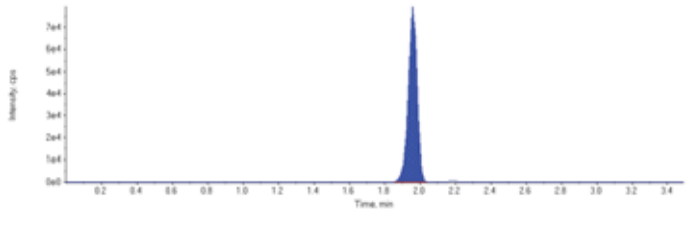
Target Analyte	Area (cps)	RT (min)	Target Conc. (ug/L)	Calc. Conc. (ug/L)	Accuracy (%)
PFBS 1	1450000	1.09	12.5	10.3	82.8
PFBS 2	751000	1.09	12.5	10.8	86.4
PFHxA 1	2130000	1.40	12.5	12.5	99.8
PFHxA 2	109000	1.40	12.5	11.0	87.7
PFHxS 1	1060000	1.66	12.5	10.1	80.7
PFHxS 2	329000	1.66	12.5	10.6	84.8
PFHpA 1	2010000	1.66	12.5	12.1	96.7
PFHpA 2	37100	1.66	12.5	12.1	96.8
PFOA 1	1810000	1.85	12.5	11.2	89.4
PFOA 2	729000	1.85	12.5	11.1	89.0
PFOS 1	852000	1.96	12.5	12.1	96.8
PFOS 2	272000	1.96	12.5	12.5	99.7
PFNA 1	1680000	1.99	12.5	13.0	104.0
PFNA 2	433000	1.99	12.5	12.7	101.0
PFDA 1	1870000	2.11	12.5	12.6	101.0
PFDA 2	377000	2.11	12.5	13.1	105.0
PFUnA 1	1390000	2.21	12.5	11.2	89.4
PFUnA 2	159000	2.21	12.5	11.6	92.7
PFDaA 1	1310000	2.30	12.5	12.0	96.1
PFDaA 2	136000	2.30	12.5	12.3	98.1
PFTTrDA 1	1580000	2.37	12.5	15.2	122.0
PFTTrDA 2	187000	2.37	12.5	16.3	130.0
PFTeDA 1	1380000	2.44	12.5	14.6	117.0
PFTeDA 2	102000	2.44	12.5	15.0	120.0
6:2-FTS 1	454000	1.81	12.5	13.9	111.0
6:2-FTS 2	316000	1.81	12.5	14.2	114.0
8:2-FTS 1	479000	2.09	12.5	11.4	91.5
8:2-FTS 2	169000	2.09	12.5	11.1	88.9
13C2-PFHxA	396000	1.40	100.	102.	102.0
18O2-PFHxS	122000	1.66	100.	117.	117.0
13C4-PFHpA	427000	1.66	100.	107.	107.0
13C4-PFOA	361000	1.85	100.	109.	109.0
13C4-PFOS	152000	1.96	100.	99.2	99.2
13C5-PFNA	362000	1.99	100.	102.	102.0
13C2-PFDA	362000	2.11	100.	92.5	92.5
13C2-PFUnA	296000	2.21	100.	102.	102.0
13C2-PFDaA	262000	2.30	100.	93.3	93.3
13C2-PFTeDA	253000	2.44	100.	82.3	82.3
13C2-6:2-FTS	124000	1.81	100.	86.4	86.4
13C2-8:2 FTS	84200	2.09	100.	105.	105.0
13C6-PFHxA	1210000	1.39	100.	94.2	94.2
13C9-PFDA	1260000	2.10	100.	105.	105.0

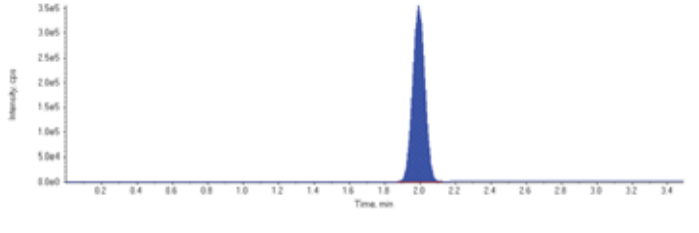
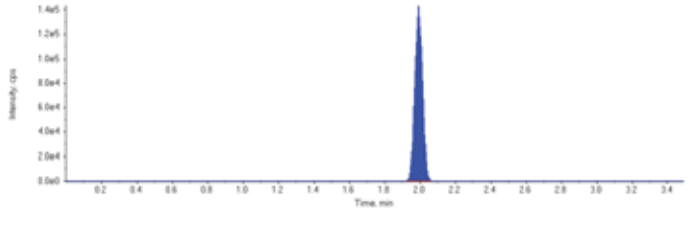
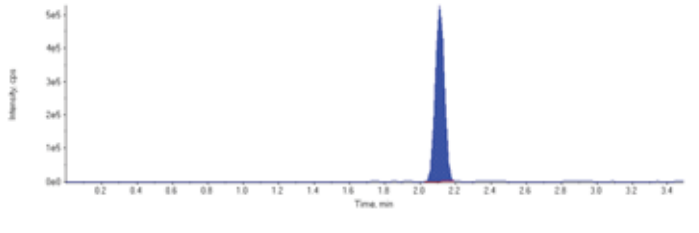
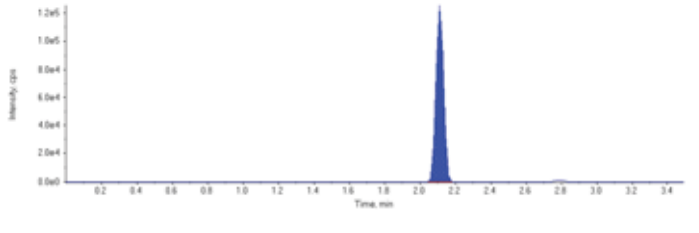
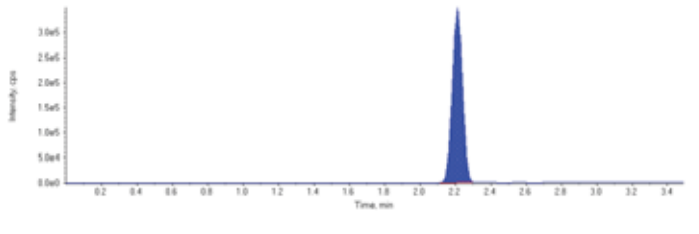
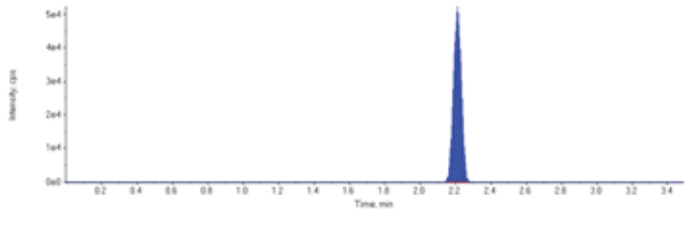
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<p>MPFHxS (Internal Standard)</p> <p>RT (Exp. RT): 1.66(1.77) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>MPFHpA (Internal Standard)</p> <p>RT (Exp. RT): 1.66(1.67) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>MPFOA (Internal Standard)</p> <p>RT (Exp. RT): 1.85(1.84) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>MPFOS (Internal Standard)</p> <p>RT (Exp. RT): 1.96(2.05) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>MPFNA (Internal Standard)</p> <p>RT (Exp. RT): 1.99(1.99) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	

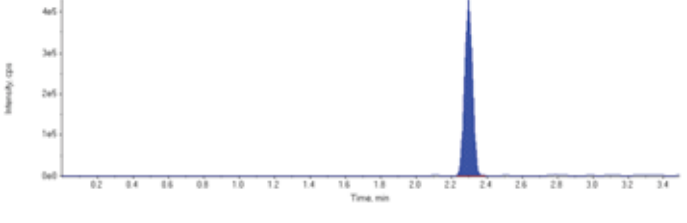
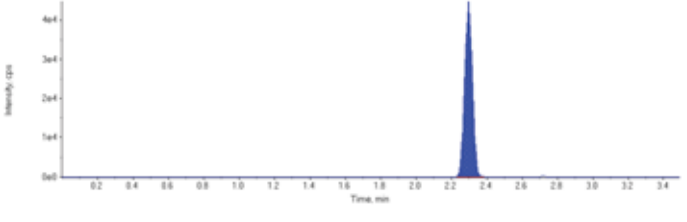
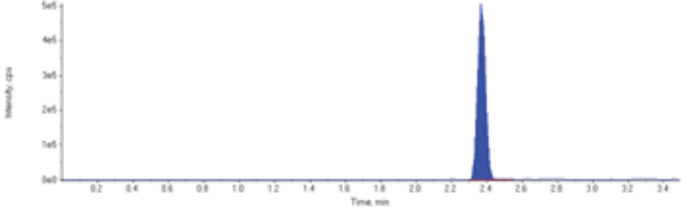
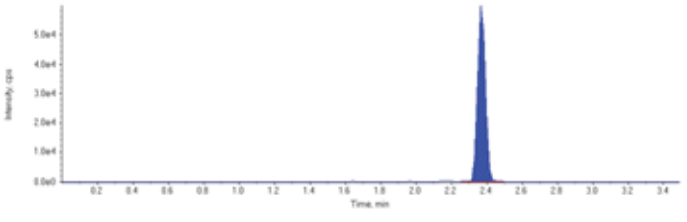
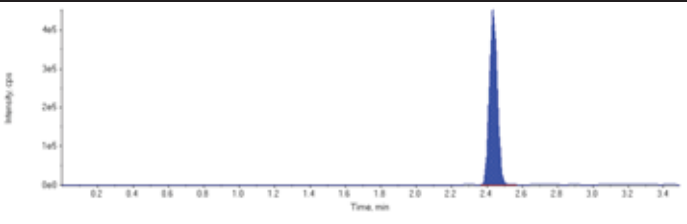
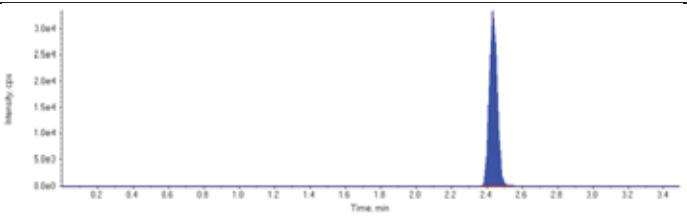
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<p>MPFUnA (Internal Standard)</p> <p>RT (Exp. RT): 2.21(2.27) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>MPFDoA (Internal Standard)</p> <p>RT (Exp. RT): 2.30(2.35) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>MPFTeDA (Internal Standard)</p> <p>RT (Exp. RT): 2.44(2.49) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>M2 6:2 FTS (Internal Standard)</p> <p>RT (Exp. RT): 1.81(1.80) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>M2 8:2 FTS (Internal Standard)</p> <p>RT (Exp. RT): 2.09(2.08) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>13C6-PFHxA IS (Internal Standard)</p> <p>RT (Exp. RT): 1.39(1.40) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	

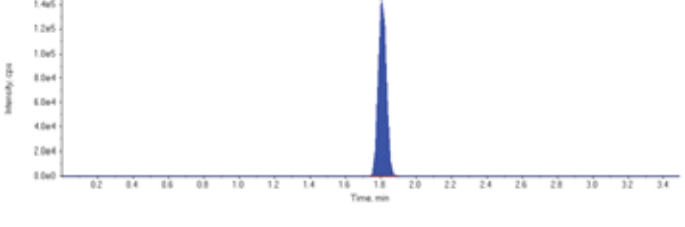
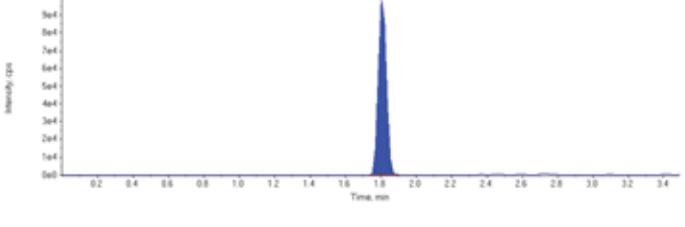
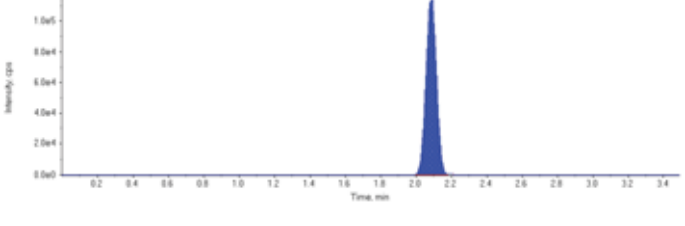
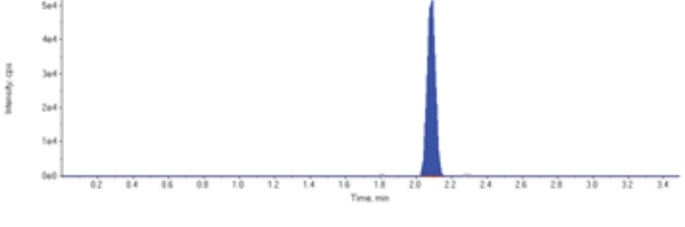
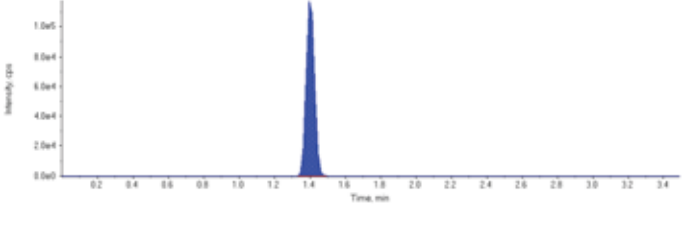
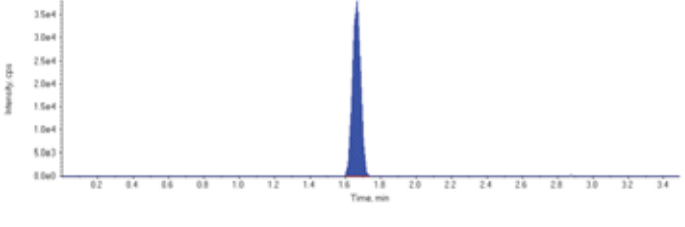
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<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min</p> <p>Concentration: N/A N/A</p> <p>Sample Type: (Quality Control)</p>	<p>This image is not available</p>
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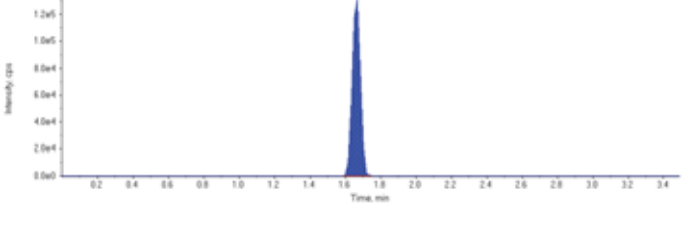
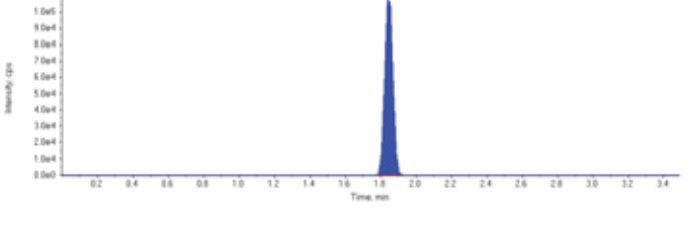
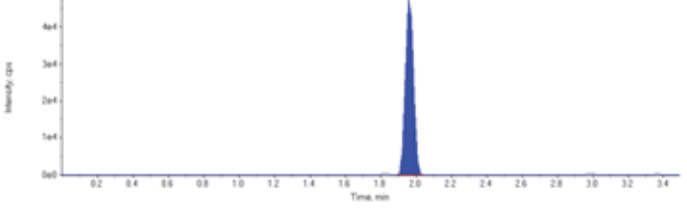
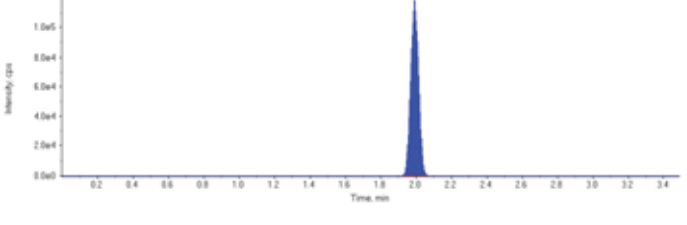
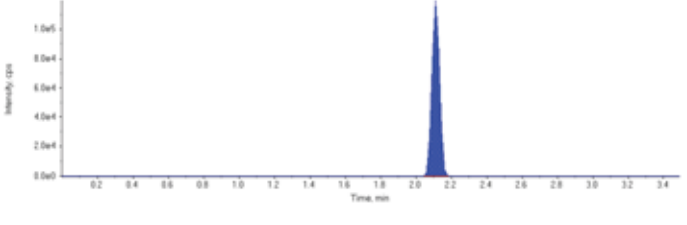
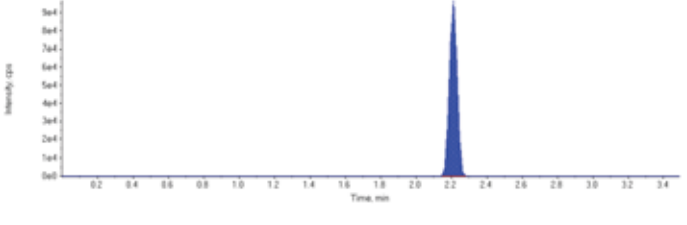
<p>PFBS 1 (298.900/79.900 Da)</p> <p>RT (Exp. RT): 1.09 (1.09) min</p> <p>Calculated Conc: 10.3 µg/L</p> <p>Area Ratio: 11.9</p> <p>Sample Type: (Quality Control)</p>	
<p>PFBS 2 (298.900/98.900 Da)</p> <p>RT (Exp. RT): 1.09 (1.09) min</p> <p>Calculated Conc: 10.8 µg/L</p> <p>Area Ratio: 6.17</p> <p>Sample Type: (Quality Control)</p>	
<p>PFHxA 1 (313.000/269.000 Da)</p> <p>RT (Exp. RT): 1.40 (1.40) min</p> <p>Calculated Conc: 12.5 µg/L</p> <p>Area Ratio: 5.39</p> <p>Sample Type: (Quality Control)</p>	
<p>PFHxA 2 (313.000/119.000 Da)</p> <p>RT (Exp. RT): 1.40 (1.41) min</p> <p>Calculated Conc: 11.0 µg/L</p> <p>Area Ratio: 0.276</p> <p>Sample Type: (Quality Control)</p>	
<p>PFHxS 1 (398.900/79.900 Da)</p> <p>RT (Exp. RT): 1.66 (1.67) min</p> <p>Calculated Conc: 10.1 µg/L</p> <p>Area Ratio: 8.69</p> <p>Sample Type: (Quality Control)</p>	
<p>PFHxS 2 (398.900/98.900 Da)</p> <p>RT (Exp. RT): 1.66 (1.67) min</p> <p>Calculated Conc: 10.6 µg/L</p> <p>Area Ratio: 2.70</p> <p>Sample Type: (Quality Control)</p>	

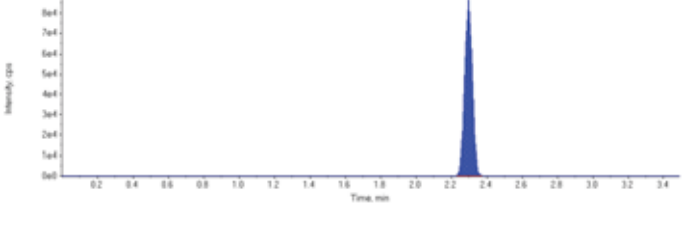
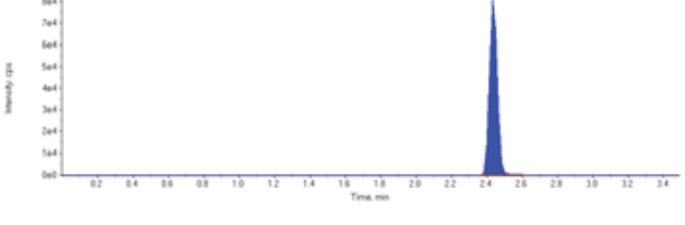
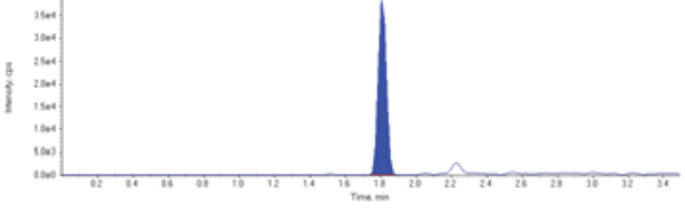
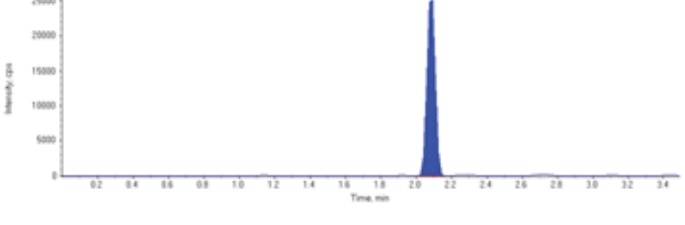
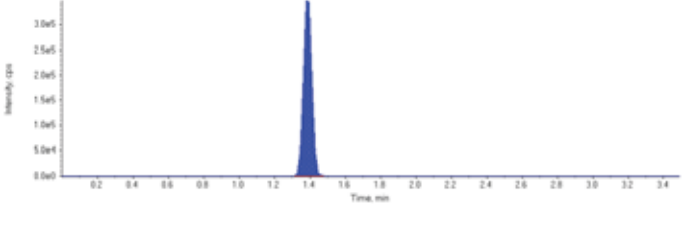
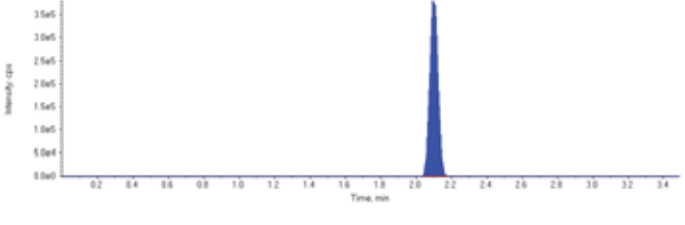
<p>PFHpA 1 (363.000/319.000 Da)</p> <p>RT (Exp. RT): 1.66 (1.67) min</p> <p>Calculated Conc: 12.1 µg/L</p> <p>Area Ratio: 4.71</p> <p>Sample Type: (Quality Control)</p>	
<p>PFHpA 2 (363.000/169.200 Da)</p> <p>RT (Exp. RT): 1.66 (1.67) min</p> <p>Calculated Conc: 12.1 µg/L</p> <p>Area Ratio: 0.0870</p> <p>Sample Type: (Quality Control)</p>	
<p>PFOA 1 (413.100/369.000 Da)</p> <p>RT (Exp. RT): 1.85 (1.85) min</p> <p>Calculated Conc: 11.2 µg/L</p> <p>Area Ratio: 5.00</p> <p>Sample Type: (Quality Control)</p>	
<p>PFOA 2 (413.100/169.000 Da)</p> <p>RT (Exp. RT): 1.85 (1.84) min</p> <p>Calculated Conc: 11.1 µg/L</p> <p>Area Ratio: 2.02</p> <p>Sample Type: (Quality Control)</p>	
<p>PFOS 1 (498.900/79.900 Da)</p> <p>RT (Exp. RT): 1.96 (1.96) min</p> <p>Calculated Conc: 12.1 µg/L</p> <p>Area Ratio: 5.61</p> <p>Sample Type: (Quality Control)</p>	
<p>PFOS 2 (498.900/98.900 Da)</p> <p>RT (Exp. RT): 1.96 (1.96) min</p> <p>Calculated Conc: 12.5 µg/L</p> <p>Area Ratio: 1.79</p> <p>Sample Type: (Quality Control)</p>	

<p>PFNA 1 (462.900/419.000 Da)</p> <p>RT (Exp. RT): 1.99 (1.99) min</p> <p>Calculated Conc: 13.0 µg/L</p> <p>Area Ratio: 4.65</p> <p>Sample Type: (Quality Control)</p>	
<p>PFNA 2 (462.900/219.100 Da)</p> <p>RT (Exp. RT): 1.99 (1.99) min</p> <p>Calculated Conc: 12.7 µg/L</p> <p>Area Ratio: 1.20</p> <p>Sample Type: (Quality Control)</p>	
<p>PFDA 1 (513.000/469.100 Da)</p> <p>RT (Exp. RT): 2.11 (2.18) min</p> <p>Calculated Conc: 12.6 µg/L</p> <p>Area Ratio: 5.16</p> <p>Sample Type: (Quality Control)</p>	
<p>PFDA 2 (513.000/218.900 Da)</p> <p>RT (Exp. RT): 2.11 (2.11) min</p> <p>Calculated Conc: 13.1 µg/L</p> <p>Area Ratio: 1.04</p> <p>Sample Type: (Quality Control)</p>	
<p>PFUnA 1 (562.900/519.000 Da)</p> <p>RT (Exp. RT): 2.21 (2.21) min</p> <p>Calculated Conc: 11.2 µg/L</p> <p>Area Ratio: 4.70</p> <p>Sample Type: (Quality Control)</p>	
<p>PFUnA 2 (562.900/269.200 Da)</p> <p>RT (Exp. RT): 2.21 (2.27) min</p> <p>Calculated Conc: 11.6 µg/L</p> <p>Area Ratio: 0.537</p> <p>Sample Type: (Quality Control)</p>	

<p>PFD_oA 1 (612.900/569.000 Da)</p> <p>RT (Exp. RT): 2.30 (2.36) min</p> <p>Calculated Conc: 12.0 µg/L</p> <p>Area Ratio: 4.99</p> <p>Sample Type: (Quality Control)</p>	
<p>PFD_oA 2 (612.900/319.000 Da)</p> <p>RT (Exp. RT): 2.30 (2.35) min</p> <p>Calculated Conc: 12.3 µg/L</p> <p>Area Ratio: 0.518</p> <p>Sample Type: (Quality Control)</p>	
<p>PFT_rDA 1 (663.000/619.000 Da)</p> <p>RT (Exp. RT): 2.37 (2.42) min</p> <p>Calculated Conc: 15.2 µg/L</p> <p>Area Ratio: 6.25</p> <p>Sample Type: (Quality Control)</p>	
<p>PFT_rDA 2 (663.000/318.900 Da)</p> <p>RT (Exp. RT): 2.37 (2.37) min</p> <p>Calculated Conc: 16.3 µg/L</p> <p>Area Ratio: 0.739</p> <p>Sample Type: (Quality Control)</p>	
<p>PFT_eDA 1 (713.000/669.000 Da)</p> <p>RT (Exp. RT): 2.44 (2.49) min</p> <p>Calculated Conc: 14.6 µg/L</p> <p>Area Ratio: 5.47</p> <p>Sample Type: (Quality Control)</p>	
<p>PFT_eDA 2 (713.000/319.200 Da)</p> <p>RT (Exp. RT): 2.44 (2.49) min</p> <p>Calculated Conc: 15.0 µg/L</p> <p>Area Ratio: 0.403</p> <p>Sample Type: (Quality Control)</p>	

<p>6:2-FTS 1 (427.000/407.000 Da)</p> <p>RT (Exp. RT): 1.81 (1.90) min</p> <p>Calculated Conc: 13.9 µg/L</p> <p>Area Ratio: 3.65</p> <p>Sample Type: (Quality Control)</p>	
<p>6:2-FTS 2 (427.000/80.900 Da)</p> <p>RT (Exp. RT): 1.81 (1.80) min</p> <p>Calculated Conc: 14.2 µg/L</p> <p>Area Ratio: 2.54</p> <p>Sample Type: (Quality Control)</p>	
<p>8:2-FTS 1 (526.900/507.000 Da)</p> <p>RT (Exp. RT): 2.09 (2.16) min</p> <p>Calculated Conc: 11.4 µg/L</p> <p>Area Ratio: 5.68</p> <p>Sample Type: (Quality Control)</p>	
<p>8:2-FTS 2 (526.900/80.900 Da)</p> <p>RT (Exp. RT): 2.09 (2.09) min</p> <p>Calculated Conc: 11.1 µg/L</p> <p>Area Ratio: 2.01</p> <p>Sample Type: (Quality Control)</p>	
<p>13C2-PFHxA (314.900/270.000 Da)</p> <p>RT (Exp. RT): 1.40 (1.40) min</p> <p>Calculated Conc: 102. µg/L</p> <p>Area Ratio: 0.329</p> <p>Sample Type: (Quality Control)</p>	
<p>18O2-PFHxS (402.900/84.000 Da)</p> <p>RT (Exp. RT): 1.66 (1.77) min</p> <p>Calculated Conc: 117. µg/L</p> <p>Area Ratio: 0.101</p> <p>Sample Type: (Quality Control)</p>	

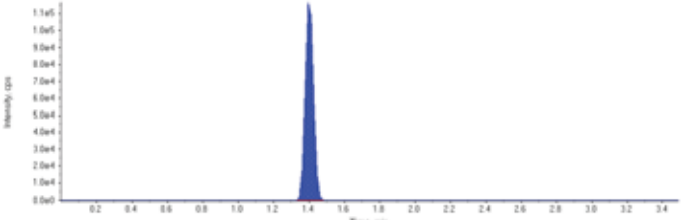
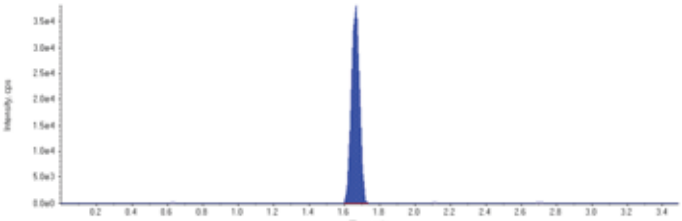
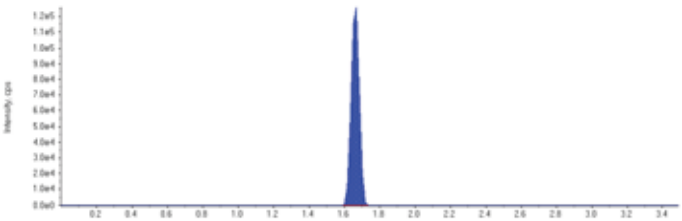
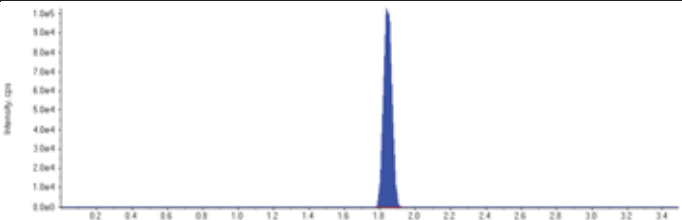
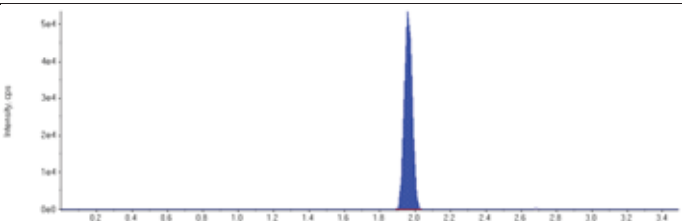
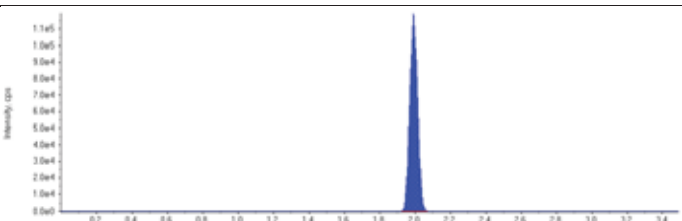
<p>13C4-PFHpa (366.900/322.000 Da)</p> <p>RT (Exp. RT): 1.66 (1.67) min</p> <p>Calculated Conc: 107. µg/L</p> <p>Area Ratio: 0.354</p> <p>Sample Type: (Quality Control)</p>	
<p>13C4-PFOA (416.900/372.000 Da)</p> <p>RT (Exp. RT): 1.85 (1.84) min</p> <p>Calculated Conc: 109. µg/L</p> <p>Area Ratio: 0.300</p> <p>Sample Type: (Quality Control)</p>	
<p>13C4-PFOS (502.900/79.900 Da)</p> <p>RT (Exp. RT): 1.96 (2.05) min</p> <p>Calculated Conc: 99.2 µg/L</p> <p>Area Ratio: 0.126</p> <p>Sample Type: (Quality Control)</p>	
<p>13C5-PFNA (467.900/423.000 Da)</p> <p>RT (Exp. RT): 1.99 (1.99) min</p> <p>Calculated Conc: 102. µg/L</p> <p>Area Ratio: 0.300</p> <p>Sample Type: (Quality Control)</p>	
<p>13C2-PFDA (514.900/470.000 Da)</p> <p>RT (Exp. RT): 2.11 (2.11) min</p> <p>Calculated Conc: 92.5 µg/L</p> <p>Area Ratio: 0.287</p> <p>Sample Type: (Quality Control)</p>	
<p>13C2-PFUnA (564.900/520.000 Da)</p> <p>RT (Exp. RT): 2.21 (2.27) min</p> <p>Calculated Conc: 102. µg/L</p> <p>Area Ratio: 0.235</p> <p>Sample Type: (Quality Control)</p>	

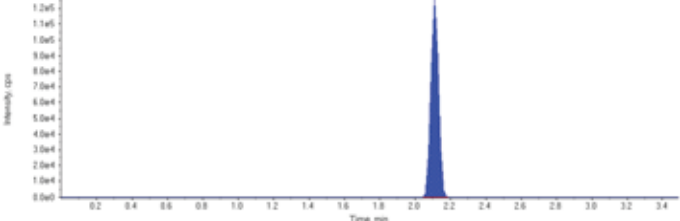
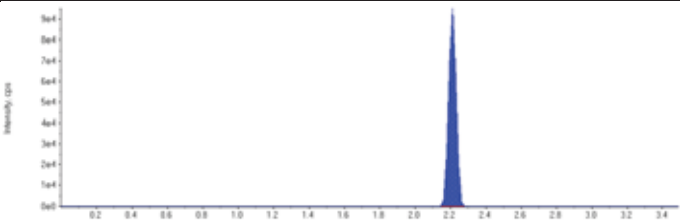
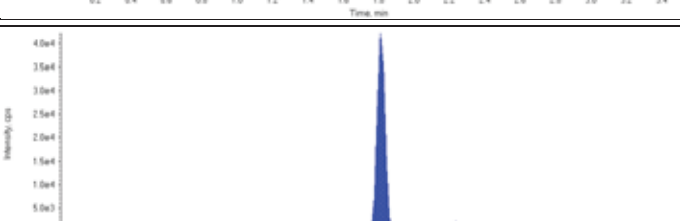
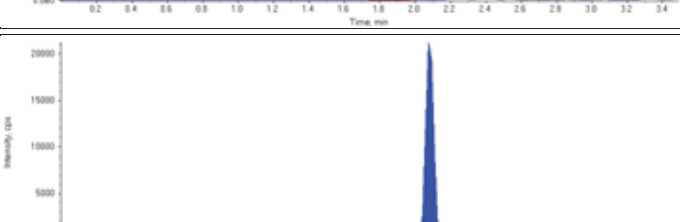
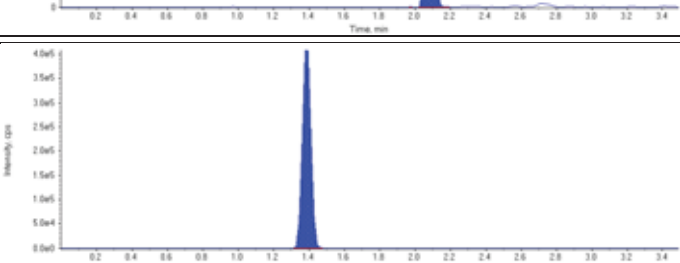
<p>13C2-PFDoA (614.900/570.000 Da)</p> <p>RT (Exp. RT): 2.30 (2.35) min</p> <p>Calculated Conc: 93.3 µg/L</p> <p>Area Ratio: 0.208</p> <p>Sample Type: (Quality Control)</p>	
<p>13C2-PFTeDA (714.900/669.900 Da)</p> <p>RT (Exp. RT): 2.44 (2.49) min</p> <p>Calculated Conc: 82.3 µg/L</p> <p>Area Ratio: 0.201</p> <p>Sample Type: (Quality Control)</p>	
<p>13C2-6:2-FTS (429.000/80.900 Da)</p> <p>RT (Exp. RT): 1.81 (1.80) min</p> <p>Calculated Conc: 86.4 µg/L</p> <p>Area Ratio: 0.103</p> <p>Sample Type: (Quality Control)</p>	
<p>13C2-8:2 FTS (528.900/80.900 Da)</p> <p>RT (Exp. RT): 2.09 (2.08) min</p> <p>Calculated Conc: 105. µg/L</p> <p>Area Ratio: 0.0699</p> <p>Sample Type: (Quality Control)</p>	
<p>13C6-PFHxA (318.900/274.000 Da)</p> <p>RT (Exp. RT): 1.39 (1.40) min</p> <p>Calculated Conc: 94.2 µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Quality Control)</p>	
<p>13C9-PFDA (521.900/477.100 Da)</p> <p>RT (Exp. RT): 2.10 (2.09) min</p> <p>Calculated Conc: 105. µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Quality Control)</p>	

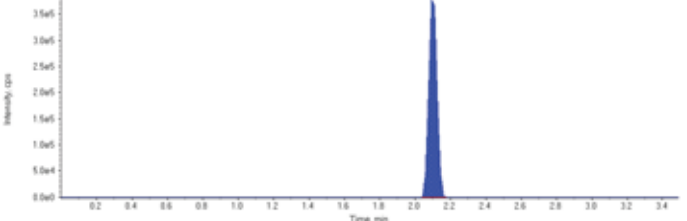
Sample ID	CCV	Injection Volume (µL)	1
Sample Type	Quality Control	Injection Vial	8
Acquisition Date	2017/05/23 5:27:21 PM	Dilution Factor	1.00
Acquisition Method	PFC_Water_Low.dam	Instrument Name	LCMS03
Project	Enviro\PFOS	Algorithm Used	Analyst Classic
Data File	PFC_170523\WS#4988945.wiff		
Result Table	PFC_Water_170523_4988945_CTLabs.rdb		
Samples Annotation	Sequence error		

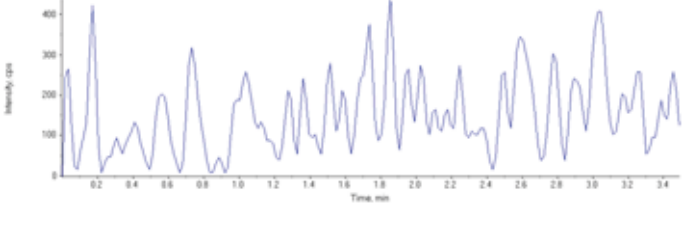
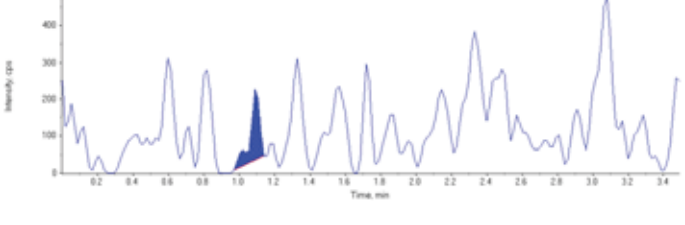
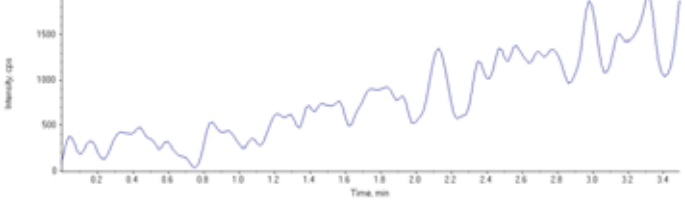
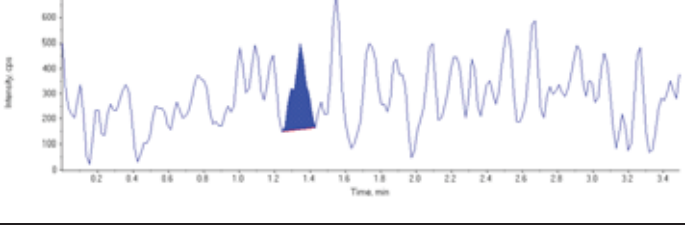
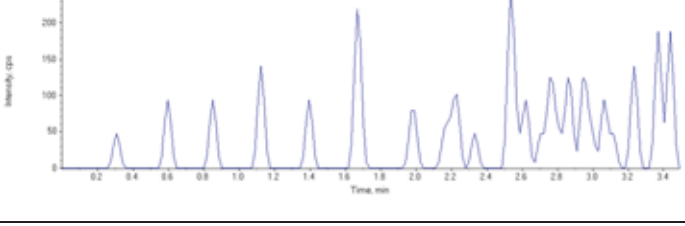
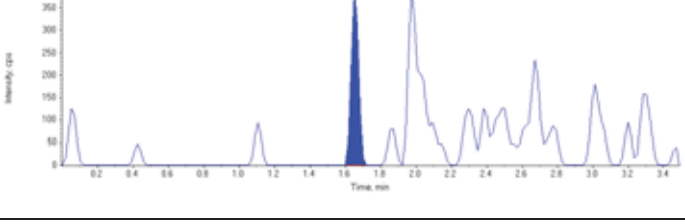
Internal Standard	Area (cps)	RT (min)	Target Conc. (ug/L)	Calc. Conc. (ug/L)
MPFHxA	390000.	1.40	1.00	-
MPFHxS	122000.	1.66	1.00	-
MPFHpA	412000.	1.66	1.00	-
MPFOA	339000.	1.84	1.00	-
MPFOS	166000.	1.96	1.00	-
MPFNA	362000.	1.99	1.00	-
MPFDA	377000.	2.11	1.00	-
MPFUnA	287000.	2.21	1.00	-
MPFDoA	246000.	2.30	1.00	-
MPFTeDA	288000.	2.44	1.00	-
M2 6:2 FTS	132000.	1.81	1.00	-
M2 8:2 FTS	68700.	2.08	1.00	-
13C6-PFHxA IS	1410000.	1.39	1.00	-
13C9-PFDA IS	1250000.	2.10	1.00	-
N/A	N/A	N/A	N/A	-
N/A	N/A	N/A	N/A	-

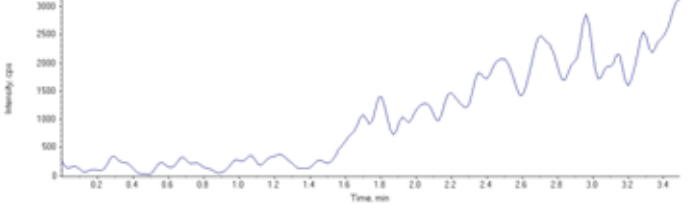
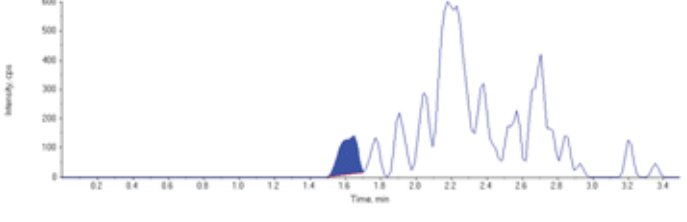
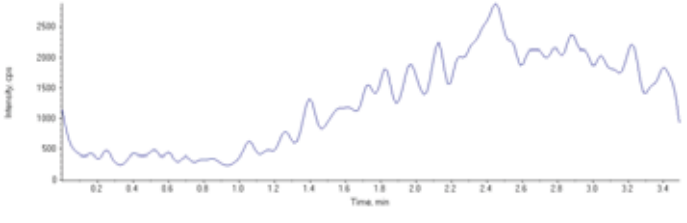
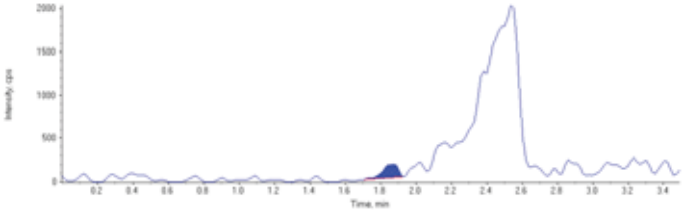
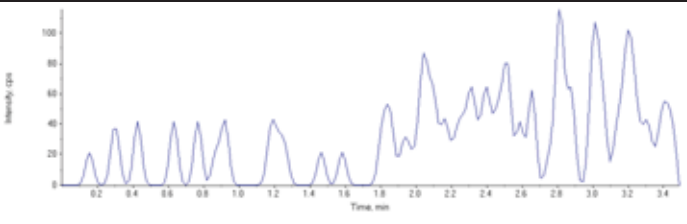
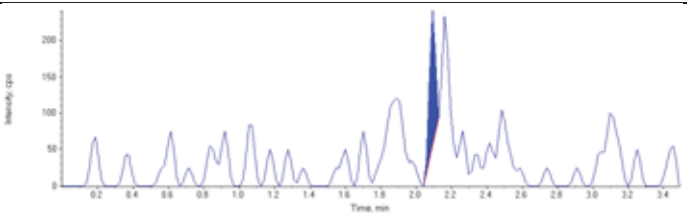
Target Analyte	Area (cps)	RT (min)	Target Conc. (ug/L)	Calc. Conc. (ug/L)	Accuracy (%)
PFBS 1	0	0.00	12.5	N/A	0.0
PFBS 2	714	1.09	12.5	0.176	1.4
PFHxA 1	0	0.00	12.5	N/A	0.0
PFHxA 2	1730	1.35	12.5	0.258	2.1
PFHxS 1	0	0.00	12.5	N/A	0.0
PFHxS 2	1150	1.65	12.5	0.175	1.4
PFHpA 1	0	0.00	12.5	N/A	0.0
PFHpA 2	925	1.65	12.5	0.128	1.0
PFOA 1	0	0.00	12.5	N/A	0.0
PFOA 2	976	1.87	12.5	0.241	1.9
PFOS 1	0	0.00	12.5	N/A	0.0
PFOS 2	434	2.09	12.5	0.160	1.3
PFNA 1	0	0.00	12.5	N/A	0.0
PFNA 2	403	1.99	12.5	0.0751	0.6
PFDA 1	0	0.00	12.5	N/A	0.0
PFDA 2	702	2.12	12.5	0.116	0.9
PFUnA 1	0	0.00	12.5	N/A	0.0
PFUnA 2	0	0.00	12.5	N/A	0.0
PFDaA 1	0	0.00	12.5	N/A	0.0
PFDaA 2	0	0.00	12.5	N/A	0.0
PFTTrDA 1	0	0.00	12.5	N/A	0.0
PFTTrDA 2	393	2.38	12.5	0.0534	0.4
PFTeDA 1	0	0.00	12.5	N/A	0.0
PFTeDA 2	0	0.00	12.5	N/A	0.0
6:2-FTS 1	0	0.00	12.5	N/A	0.0
6:2-FTS 2	1120	2.03	12.5	0.165	1.3
8:2-FTS 1	0	0.00	12.5	N/A	0.0
8:2-FTS 2	638	1.97	12.5	0.255	2.0
13C2-PFHxA	390000	1.40	100.	85.8	85.8
18O2-PFHxS	122000	1.66	100.	99.6	99.6
13C4-PFHpA	412000	1.66	100.	88.0	88.0
13C4-PFOA	339000	1.84	100.	87.1	87.1
13C4-PFOS	166000	1.96	100.	92.4	92.4
13C5-PFNA	362000	1.99	100.	87.4	87.4
13C2-PFDA	377000	2.11	100.	97.5	97.5
13C2-PFUnA	287000	2.21	100.	99.7	99.7
13C2-PFDaA	246000	2.30	100.	88.6	88.6
13C2-PFTeDA	288000	2.44	100.	94.7	94.7
13C2-6:2-FTS	132000	1.81	100.	78.1	78.1
13C2-8:2 FTS	68700	2.08	100.	72.9	72.9
13C6-PFHxA	1410000	1.39	100.	111.	111.0
13C9-PFDA	1250000	2.10	100.	104.	104.0

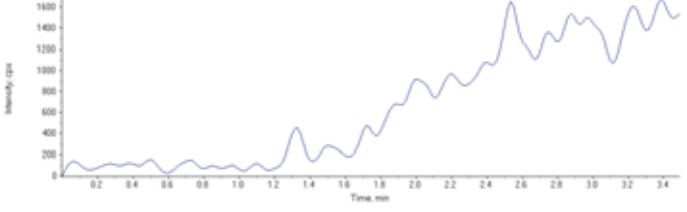
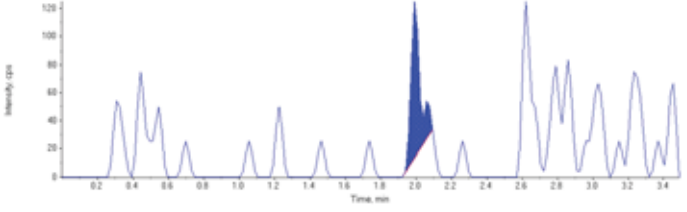
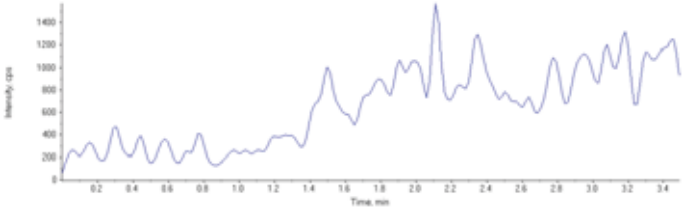
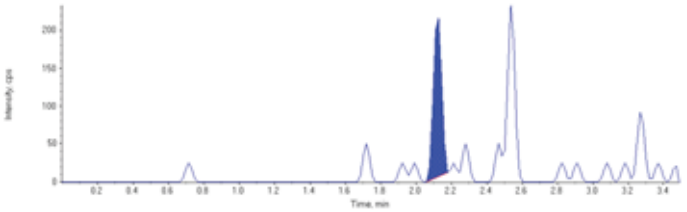
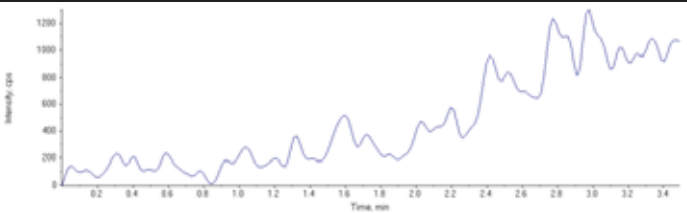
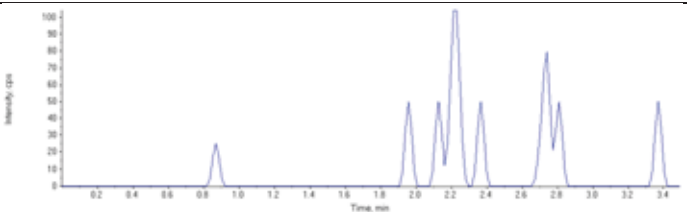
<p>MPFHxA (Internal Standard)</p> <p>RT (Exp. RT): 1.40(1.40) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>MPFHxS (Internal Standard)</p> <p>RT (Exp. RT): 1.66(1.77) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>MPFHpA (Internal Standard)</p> <p>RT (Exp. RT): 1.66(1.67) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>MPFOA (Internal Standard)</p> <p>RT (Exp. RT): 1.84(1.84) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>MPFOS (Internal Standard)</p> <p>RT (Exp. RT): 1.96(2.05) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>MPFNA (Internal Standard)</p> <p>RT (Exp. RT): 1.99(1.99) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	

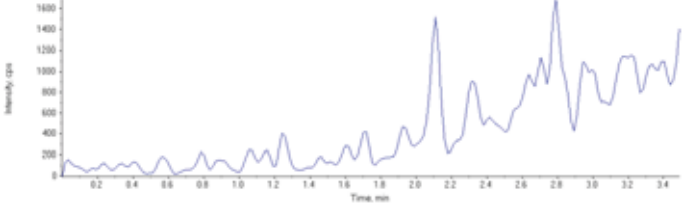
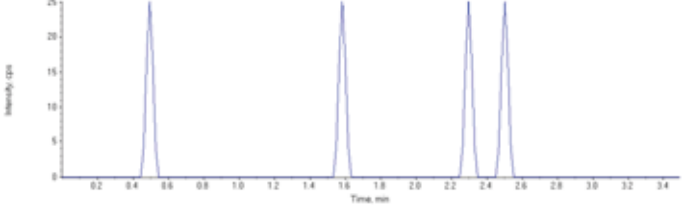
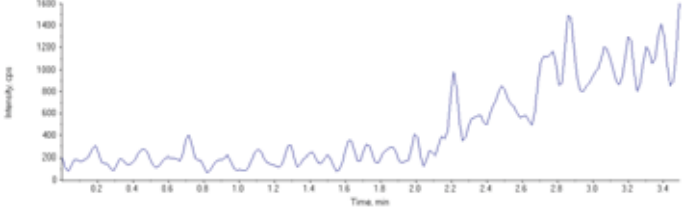
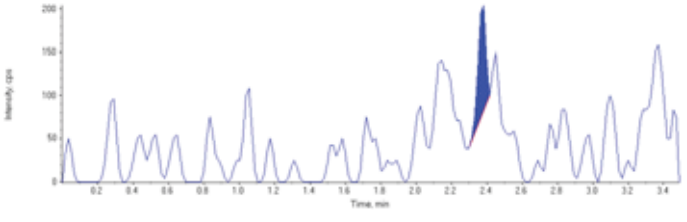
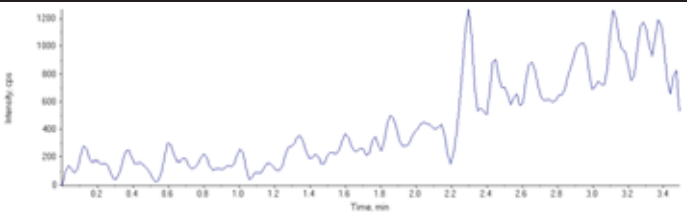
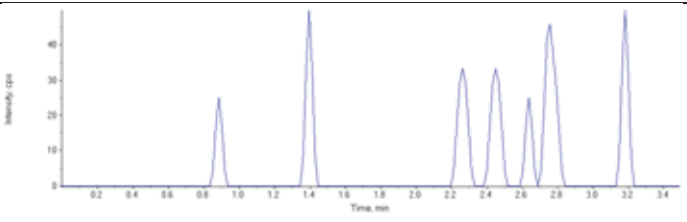
<p>MPFDA (Internal Standard)</p> <p>RT (Exp. RT): 2.11(2.18) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>MPFUnA (Internal Standard)</p> <p>RT (Exp. RT): 2.21(2.27) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>MPFDoA (Internal Standard)</p> <p>RT (Exp. RT): 2.30(2.35) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>MPFTeDA (Internal Standard)</p> <p>RT (Exp. RT): 2.44(2.49) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>M2 6:2 FTS (Internal Standard)</p> <p>RT (Exp. RT): 1.81(1.80) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>M2 8:2 FTS (Internal Standard)</p> <p>RT (Exp. RT): 2.08(2.08) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>13C6-PFHxA IS (Internal Standard)</p> <p>RT (Exp. RT): 1.39(1.40) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	

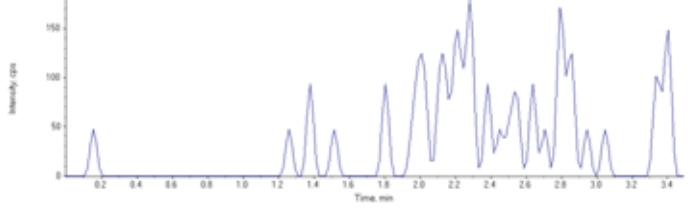
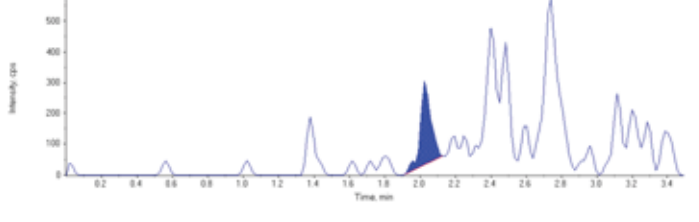
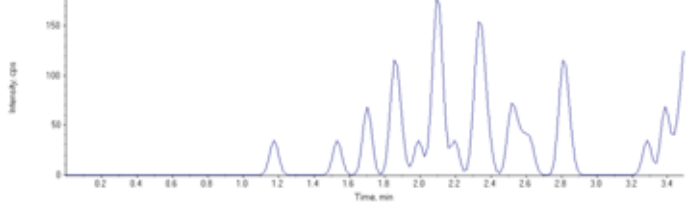
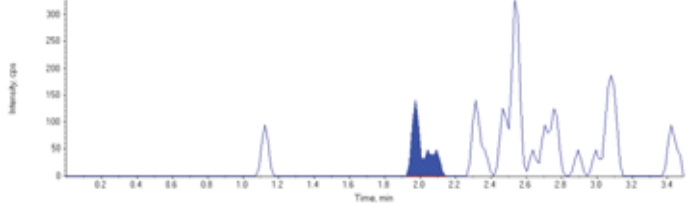
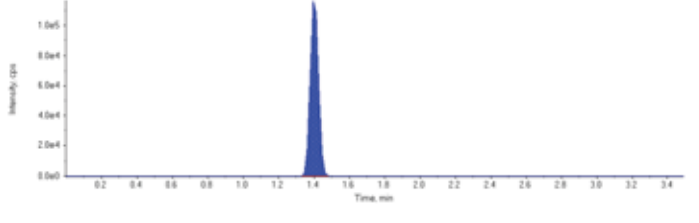
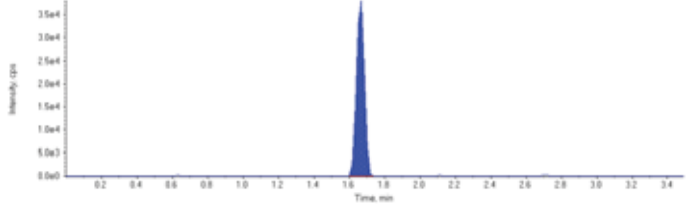
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<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min</p> <p>Concentration: N/A N/A</p> <p>Sample Type: (Quality Control)</p>	<p>This image is not available</p>
<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min</p> <p>Concentration: N/A N/A</p> <p>Sample Type: (Quality Control)</p>	<p>This image is not available</p>

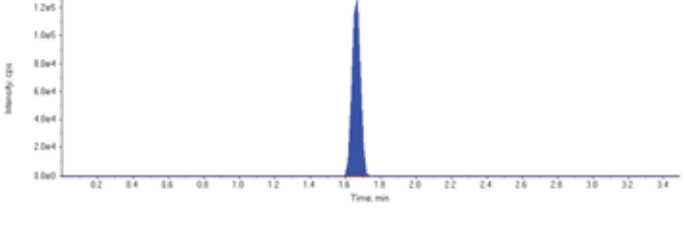
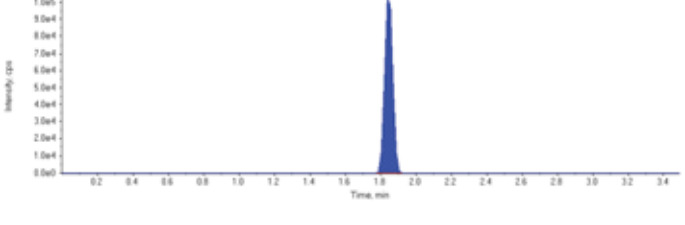
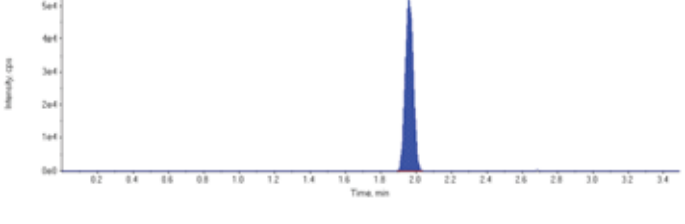
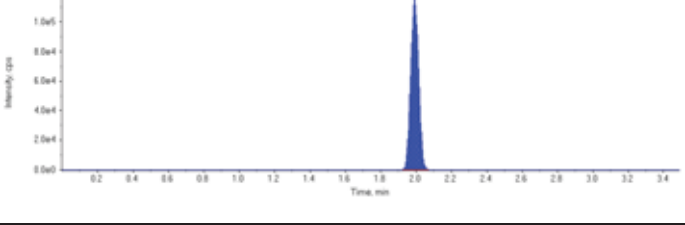
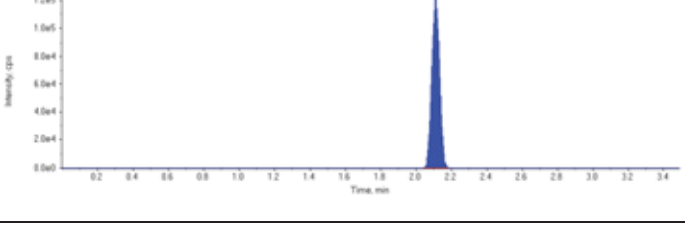
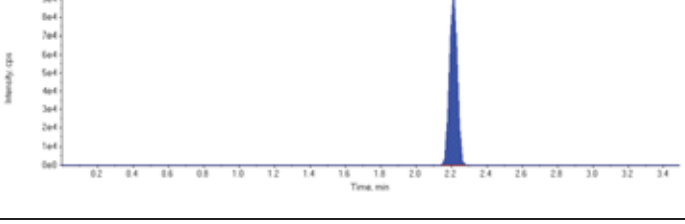
<p>PFBS 1 (298.900/79.900 Da)</p> <p>RT (Exp. RT): 0.00 (1.09) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Quality Control)</p>	
<p>PFBS 2 (298.900/98.900 Da)</p> <p>RT (Exp. RT): 1.09 (1.09) min</p> <p>Calculated Conc: 0.176 µg/L</p> <p>Area Ratio: 0.00588</p> <p>Sample Type: (Quality Control)</p>	
<p>PFHxA 1 (313.000/269.000 Da)</p> <p>RT (Exp. RT): 0.00 (1.40) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Quality Control)</p>	
<p>PFHxA 2 (313.000/119.000 Da)</p> <p>RT (Exp. RT): 1.35 (1.41) min</p> <p>Calculated Conc: 0.258 µg/L</p> <p>Area Ratio: 0.00443</p> <p>Sample Type: (Quality Control)</p>	
<p>PFHxS 1 (398.900/79.900 Da)</p> <p>RT (Exp. RT): 0.00 (1.67) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Quality Control)</p>	
<p>PFHxS 2 (398.900/98.900 Da)</p> <p>RT (Exp. RT): 1.65 (1.67) min</p> <p>Calculated Conc: 0.175 µg/L</p> <p>Area Ratio: 0.00945</p> <p>Sample Type: (Quality Control)</p>	

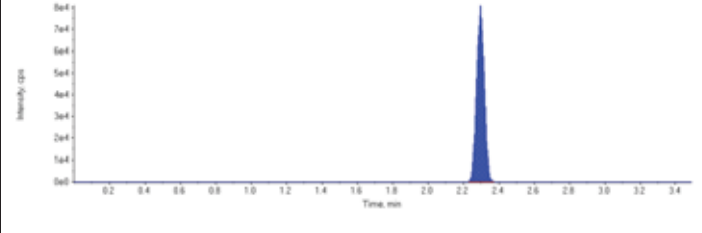
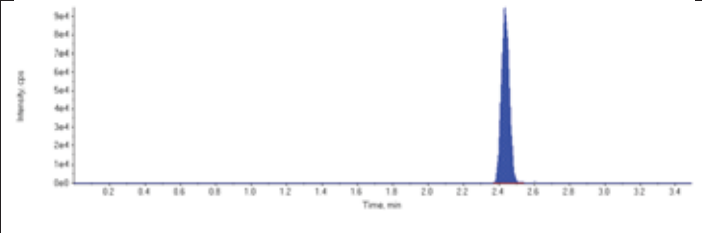
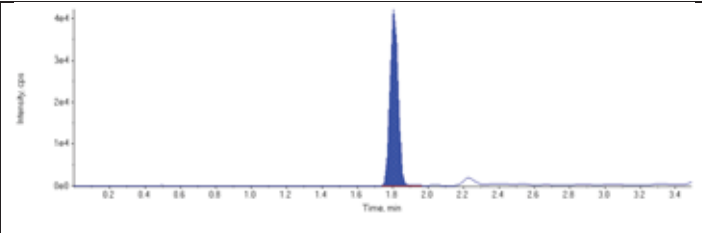
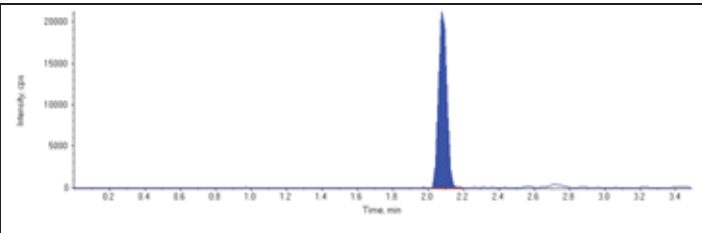
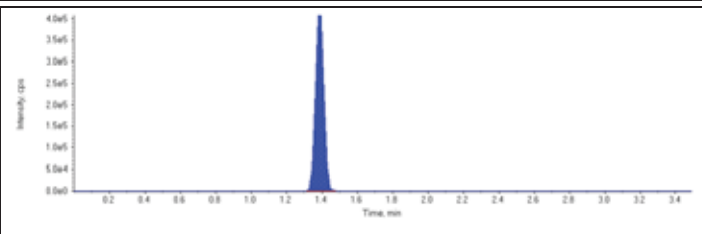
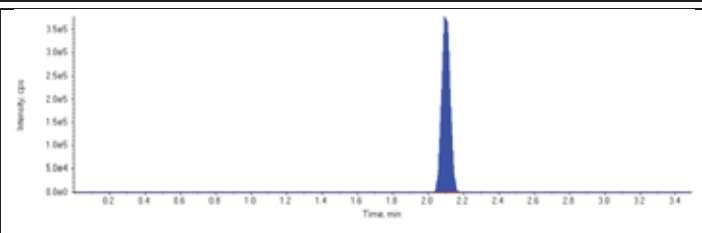
<p>PFHpA 1 (363.000/319.000 Da)</p> <p>RT (Exp. RT): 0.00 (1.67) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Quality Control)</p>	
<p>PFHpA 2 (363.000/169.200 Da)</p> <p>RT (Exp. RT): 1.65 (1.67) min</p> <p>Calculated Conc: 0.128 µg/L</p> <p>Area Ratio: 0.00225</p> <p>Sample Type: (Quality Control)</p>	
<p>PFOA 1 (413.100/369.000 Da)</p> <p>RT (Exp. RT): 0.00 (1.85) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Quality Control)</p>	
<p>PFOA 2 (413.100/169.000 Da)</p> <p>RT (Exp. RT): 1.87 (1.84) min</p> <p>Calculated Conc: 0.241 µg/L</p> <p>Area Ratio: 0.00288</p> <p>Sample Type: (Quality Control)</p>	
<p>PFOS 1 (498.900/79.900 Da)</p> <p>RT (Exp. RT): 0.00 (1.96) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Quality Control)</p>	
<p>PFOS 2 (498.900/98.900 Da)</p> <p>RT (Exp. RT): 2.09 (1.96) min</p> <p>Calculated Conc: 0.160 µg/L</p> <p>Area Ratio: 0.00261</p> <p>Sample Type: (Quality Control)</p>	

<p>PFNA 1 (462.900/419.000 Da)</p> <p>RT (Exp. RT): 0.00 (1.99) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Quality Control)</p>	
<p>PFNA 2 (462.900/219.100 Da)</p> <p>RT (Exp. RT): 1.99 (1.99) min</p> <p>Calculated Conc: 0.0751 µg/L</p> <p>Area Ratio: 0.00111</p> <p>Sample Type: (Quality Control)</p>	
<p>PFDA 1 (513.000/469.100 Da)</p> <p>RT (Exp. RT): 0.00 (2.18) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Quality Control)</p>	
<p>PFDA 2 (513.000/218.900 Da)</p> <p>RT (Exp. RT): 2.12 (2.11) min</p> <p>Calculated Conc: 0.116 µg/L</p> <p>Area Ratio: 0.00186</p> <p>Sample Type: (Quality Control)</p>	
<p>PFUnA 1 (562.900/519.000 Da)</p> <p>RT (Exp. RT): 0.00 (2.21) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Quality Control)</p>	
<p>PFUnA 2 (562.900/269.200 Da)</p> <p>RT (Exp. RT): 0.00 (2.27) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Quality Control)</p>	

<p>PFD_oA 1 (612.900/569.000 Da)</p> <p>RT (Exp. RT): 0.00 (2.36) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Quality Control)</p>	
<p>PFD_oA 2 (612.900/319.000 Da)</p> <p>RT (Exp. RT): 0.00 (2.35) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Quality Control)</p>	
<p>PFT_rDA 1 (663.000/619.000 Da)</p> <p>RT (Exp. RT): 0.00 (2.42) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Quality Control)</p>	
<p>PFT_rDA 2 (663.000/318.900 Da)</p> <p>RT (Exp. RT): 2.38 (2.37) min</p> <p>Calculated Conc: 0.0534 µg/L</p> <p>Area Ratio: 0.00136</p> <p>Sample Type: (Quality Control)</p>	
<p>PFT_eDA 1 (713.000/669.000 Da)</p> <p>RT (Exp. RT): 0.00 (2.49) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Quality Control)</p>	
<p>PFT_eDA 2 (713.000/319.200 Da)</p> <p>RT (Exp. RT): 0.00 (2.49) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Quality Control)</p>	

<p>6:2-FTS 1 (427.000/407.000 Da)</p> <p>RT (Exp. RT): 0.00 (1.90) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Quality Control)</p>	
<p>6:2-FTS 2 (427.000/80.900 Da)</p> <p>RT (Exp. RT): 2.03 (1.80) min</p> <p>Calculated Conc: 0.165 µg/L</p> <p>Area Ratio: 0.00847</p> <p>Sample Type: (Quality Control)</p>	
<p>8:2-FTS 1 (526.900/507.000 Da)</p> <p>RT (Exp. RT): 0.00 (2.16) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Quality Control)</p>	
<p>8:2-FTS 2 (526.900/80.900 Da)</p> <p>RT (Exp. RT): 1.97 (2.09) min</p> <p>Calculated Conc: 0.255 µg/L</p> <p>Area Ratio: 0.00929</p> <p>Sample Type: (Quality Control)</p>	
<p>13C2-PFHxA (314.900/270.000 Da)</p> <p>RT (Exp. RT): 1.40 (1.40) min</p> <p>Calculated Conc: 85.8 µg/L</p> <p>Area Ratio: 0.276</p> <p>Sample Type: (Quality Control)</p>	
<p>18O2-PFHxS (402.900/84.000 Da)</p> <p>RT (Exp. RT): 1.66 (1.77) min</p> <p>Calculated Conc: 99.6 µg/L</p> <p>Area Ratio: 0.0859</p> <p>Sample Type: (Quality Control)</p>	

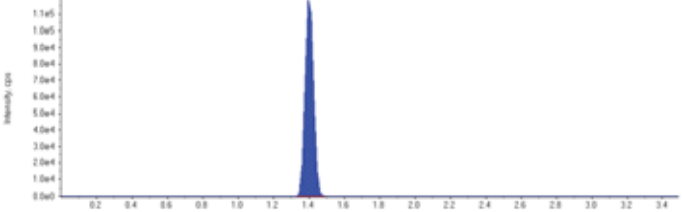
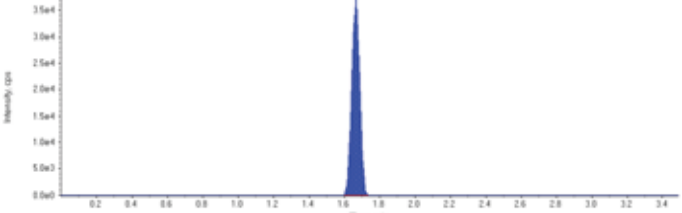
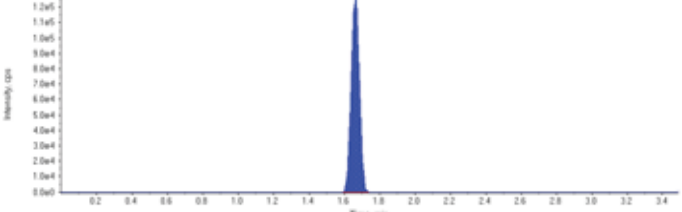
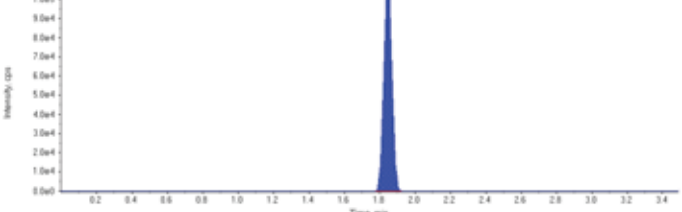
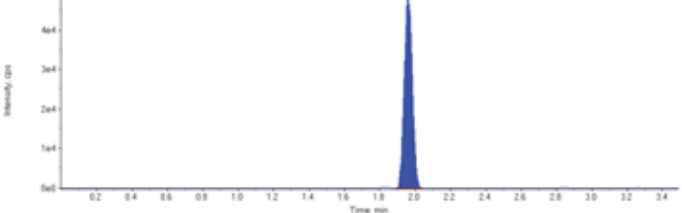
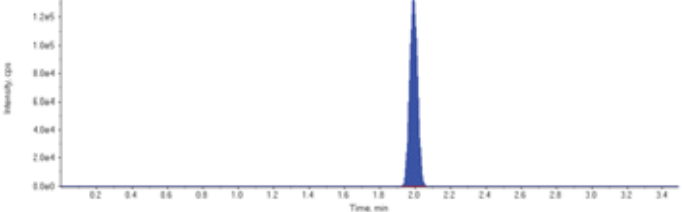
<p>13C4-PFHpa (366.900/322.000 Da)</p> <p>RT (Exp. RT): 1.66 (1.67) min</p> <p>Calculated Conc: 88.0 µg/L</p> <p>Area Ratio: 0.291</p> <p>Sample Type: (Quality Control)</p>	
<p>13C4-PFOA (416.900/372.000 Da)</p> <p>RT (Exp. RT): 1.84 (1.84) min</p> <p>Calculated Conc: 87.1 µg/L</p> <p>Area Ratio: 0.240</p> <p>Sample Type: (Quality Control)</p>	
<p>13C4-PFOS (502.900/79.900 Da)</p> <p>RT (Exp. RT): 1.96 (2.05) min</p> <p>Calculated Conc: 92.4 µg/L</p> <p>Area Ratio: 0.117</p> <p>Sample Type: (Quality Control)</p>	
<p>13C5-PFNA (467.900/423.000 Da)</p> <p>RT (Exp. RT): 1.99 (1.99) min</p> <p>Calculated Conc: 87.4 µg/L</p> <p>Area Ratio: 0.256</p> <p>Sample Type: (Quality Control)</p>	
<p>13C2-PFDA (514.900/470.000 Da)</p> <p>RT (Exp. RT): 2.11 (2.11) min</p> <p>Calculated Conc: 97.5 µg/L</p> <p>Area Ratio: 0.302</p> <p>Sample Type: (Quality Control)</p>	
<p>13C2-PFUnA (564.900/520.000 Da)</p> <p>RT (Exp. RT): 2.21 (2.27) min</p> <p>Calculated Conc: 99.7 µg/L</p> <p>Area Ratio: 0.230</p> <p>Sample Type: (Quality Control)</p>	

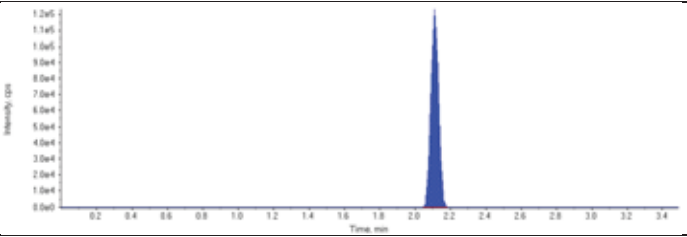
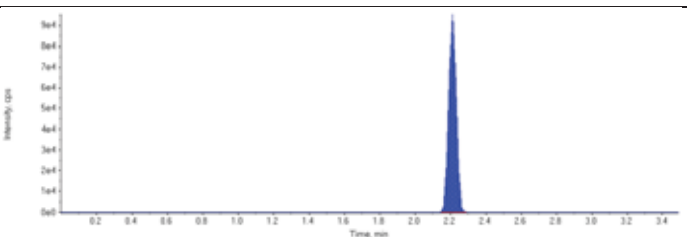
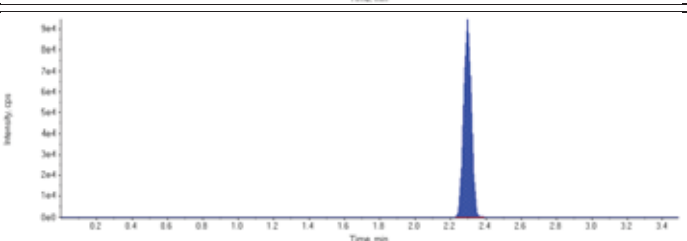
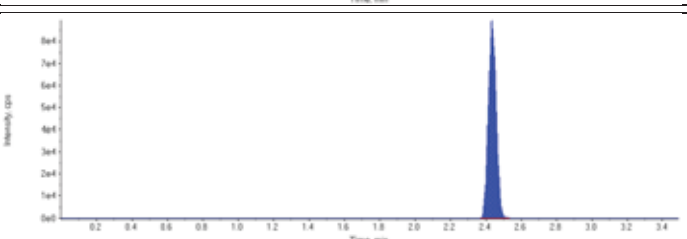
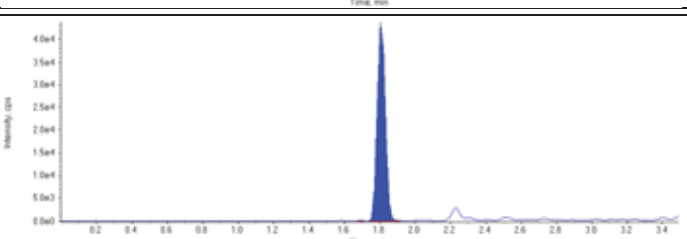
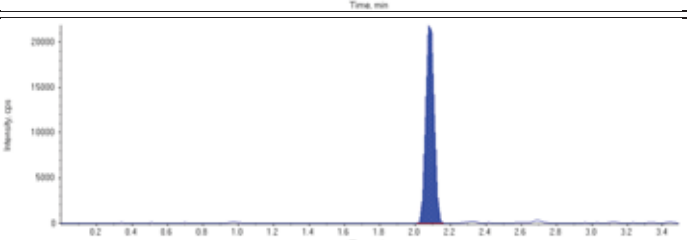
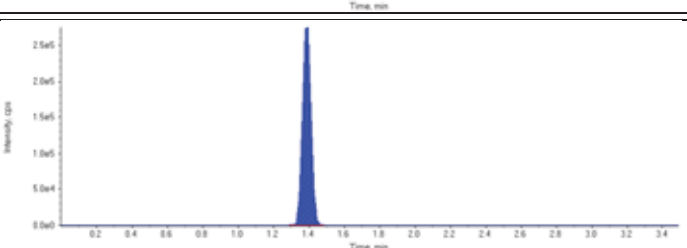
<p>13C2-PFDoA (614.900/570.000 Da)</p> <p>RT (Exp. RT): 2.30 (2.35) min</p> <p>Calculated Conc: 88.6 µg/L</p> <p>Area Ratio: 0.197</p> <p>Sample Type: (Quality Control)</p>	
<p>13C2-PFTeDA (714.900/669.900 Da)</p> <p>RT (Exp. RT): 2.44 (2.49) min</p> <p>Calculated Conc: 94.7 µg/L</p> <p>Area Ratio: 0.231</p> <p>Sample Type: (Quality Control)</p>	
<p>13C2-6:2-FTS (429.000/80.900 Da)</p> <p>RT (Exp. RT): 1.81 (1.80) min</p> <p>Calculated Conc: 78.1 µg/L</p> <p>Area Ratio: 0.0932</p> <p>Sample Type: (Quality Control)</p>	
<p>13C2-8:2 FTS (528.900/80.900 Da)</p> <p>RT (Exp. RT): 2.08 (2.08) min</p> <p>Calculated Conc: 72.9 µg/L</p> <p>Area Ratio: 0.0486</p> <p>Sample Type: (Quality Control)</p>	
<p>13C6-PFHxA (318.900/274.000 Da)</p> <p>RT (Exp. RT): 1.39 (1.40) min</p> <p>Calculated Conc: 111. µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Quality Control)</p>	
<p>13C9-PFDA (521.900/477.100 Da)</p> <p>RT (Exp. RT): 2.10 (2.09) min</p> <p>Calculated Conc: 104. µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Quality Control)</p>	

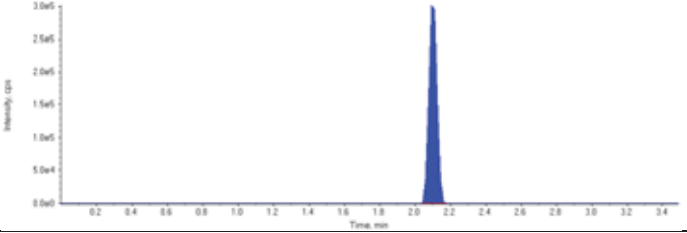
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Sample Type	Quality Control	Injection Vial	5
Acquisition Date	2017/05/23 8:29:36 PM	Dilution Factor	1.00
Acquisition Method	PFC_Water_Low.dam	Instrument Name	LCMS03
Project	Enviro\PFOS	Algorithm Used	Analyst Classic
Data File	PFC_170523\WS#4991421.wiff		
Result Table	PFC_Water_170523_4988945_CTLabs.rdb		
Samples Annotation	-		

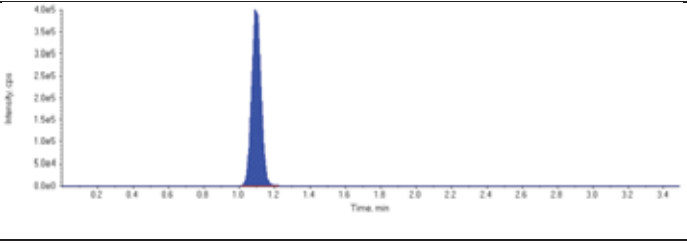
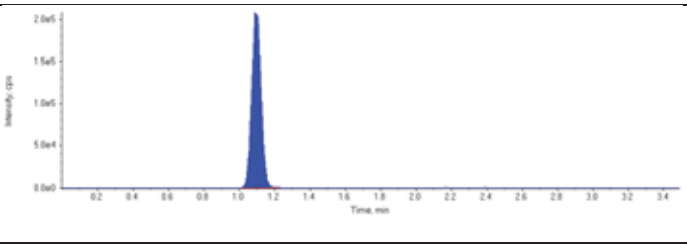
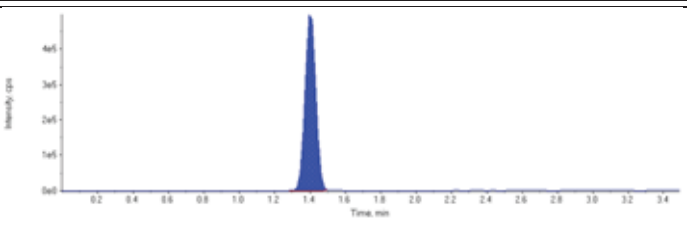
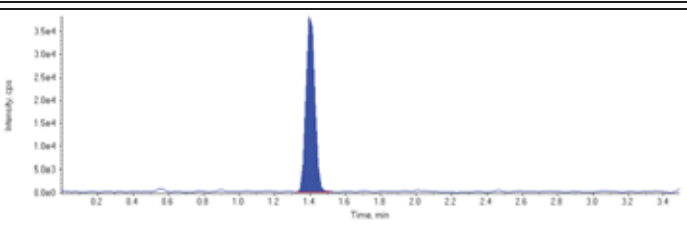
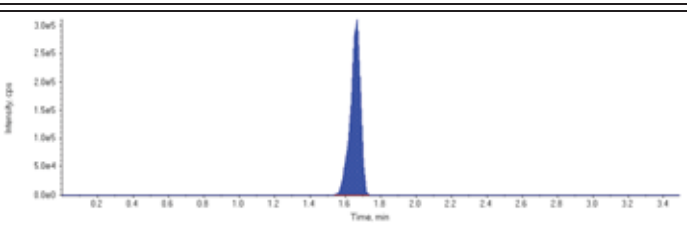
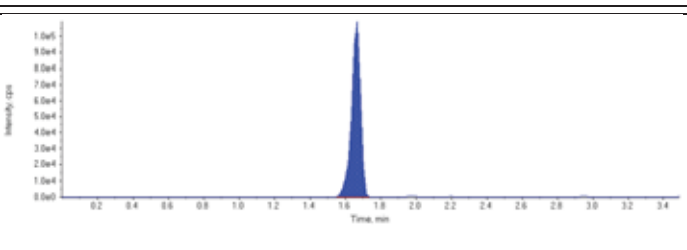
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MPFHxA	402000.	1.40	1.00	-
MPFHxS	119000.	1.67	1.00	-
MPFHpA	419000.	1.66	1.00	-
MPFOA	352000.	1.85	1.00	-
MPFOS	156000.	1.96	1.00	-
MPFNA	419000.	1.99	1.00	-
MPFDA	369000.	2.11	1.00	-
MPFUnA	285000.	2.21	1.00	-
MPFDoA	284000.	2.30	1.00	-
MPFTeDA	274000.	2.44	1.00	-
M2 6:2 FTS	139000.	1.81	1.00	-
M2 8:2 FTS	73100.	2.08	1.00	-
13C6-PFHxA IS	969000.	1.39	1.00	-
13C9-PFDA IS	1000000.	2.10	1.00	-
N/A	N/A	N/A	N/A	-
N/A	N/A	N/A	N/A	-

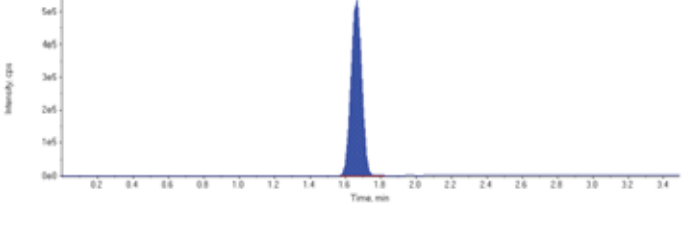
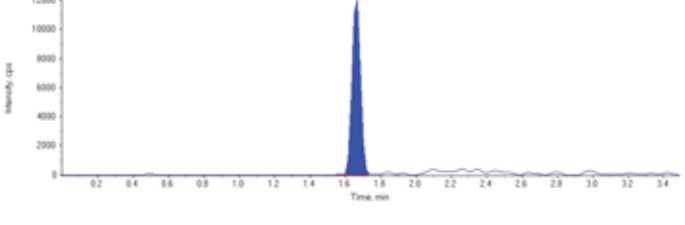
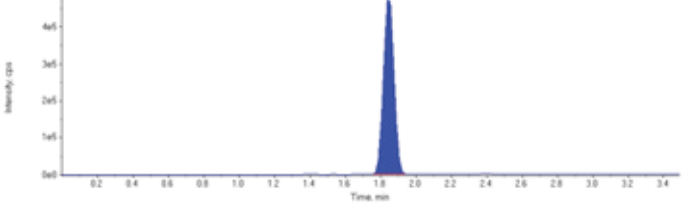
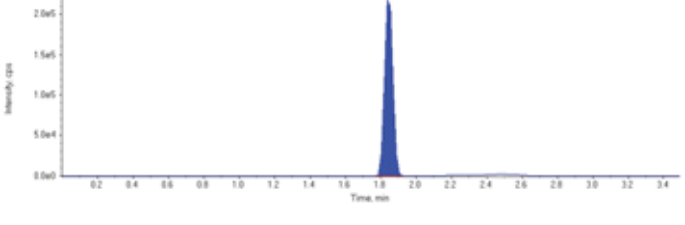
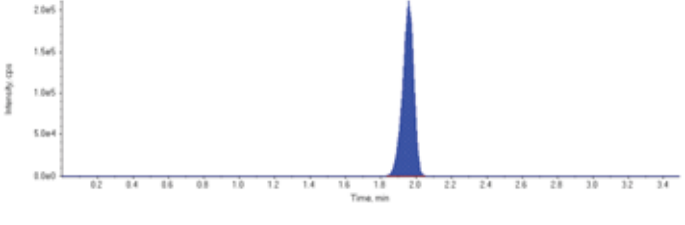
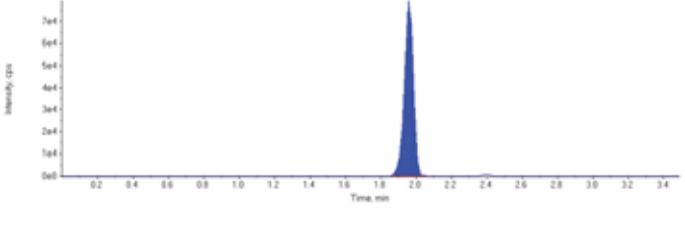
Target Analyte	Area (cps)	RT (min)	Target Conc. (ug/L)	Calc. Conc. (ug/L)	Accuracy (%)
PFBS 1	1500000	1.10	12.5	11.0	87.6
PFBS 2	779000	1.10	12.5	11.5	92.0
PFHxA 1	2140000	1.40	12.5	12.3	98.6
PFHxA 2	131000	1.40	12.5	12.9	103.0
PFHxS 1	1210000	1.66	12.5	11.8	94.7
PFHxS 2	388000	1.66	12.5	12.8	102.0
PFHpA 1	2230000	1.66	12.5	13.6	109.0
PFHpA 2	40300	1.66	12.5	13.4	107.0
PFOA 1	2000000	1.85	12.5	12.7	101.0
PFOA 2	724000	1.85	12.5	11.3	90.6
PFOS 1	920000	1.96	12.5	12.7	102.0
PFOS 2	282000	1.96	12.5	12.5	100.0
PFNA 1	1880000	1.99	12.5	12.5	100.0
PFNA 2	489000	1.99	12.5	12.4	98.9
PFDA 1	2100000	2.11	12.5	13.9	111.0
PFDA 2	353000	2.11	12.5	12.1	96.7
PFUnA 1	1430000	2.21	12.5	11.9	95.1
PFUnA 2	183000	2.21	12.5	13.8	111.0
PFDaA 1	1450000	2.30	12.5	12.3	98.6
PFDaA 2	142000	2.30	12.5	11.9	95.1
PFTTrDA 1	1600000	2.37	12.5	14.2	113.0
PFTTrDA 2	171000	2.37	12.5	13.8	110.0
PFTeDA 1	1350000	2.44	12.5	13.2	106.0
PFTeDA 2	95700	2.44	12.5	13.0	104.0
6:2-FTS 1	368000	1.81	12.5	10.1	81.2
6:2-FTS 2	286000	1.81	12.5	11.5	92.2
8:2-FTS 1	463000	2.09	12.5	12.7	102.0
8:2-FTS 2	166000	2.08	12.5	12.5	100.0
13C2-PFHxA	402000	1.40	100.	129.	129.0
18O2-PFHxS	119000	1.67	100.	142.	142.0
13C4-PFHpA	419000	1.66	100.	131.	131.0
13C4-PFOA	352000	1.85	100.	132.	132.0
13C4-PFOS	156000	1.96	100.	127.	127.0
13C5-PFNA	419000	1.99	100.	147.	147.0
13C2-PFDA	369000	2.11	100.	119.	119.0
13C2-PFUnA	285000	2.21	100.	124.	124.0
13C2-PFDaA	284000	2.30	100.	127.	127.0
13C2-PFTeDA	274000	2.44	100.	112.	112.0
13C2-6:2-FTS	139000	1.81	100.	120.	120.0
13C2-8:2 FTS	73100	2.08	100.	113.	113.0
13C6-PFHxA	969000	1.39	100.	75.8	75.8
13C9-PFDA	1000000	2.10	100.	83.6	83.6

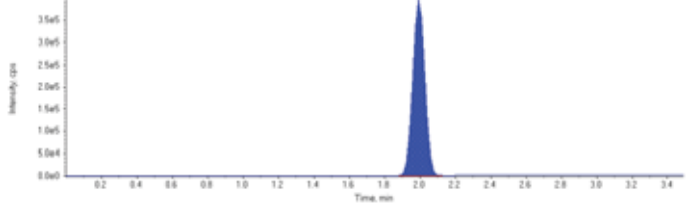
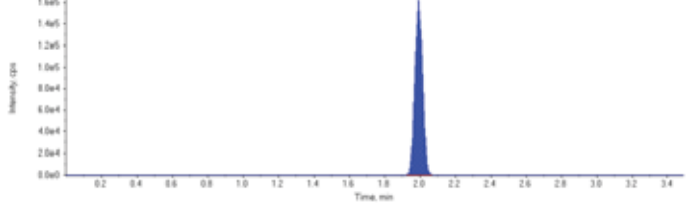
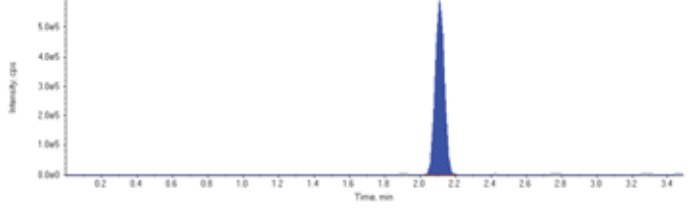
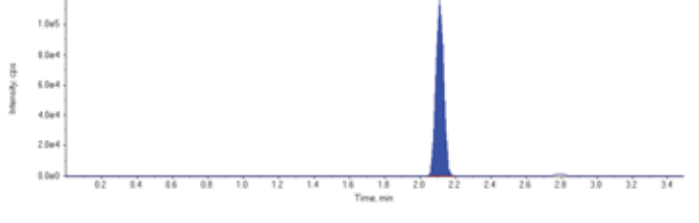
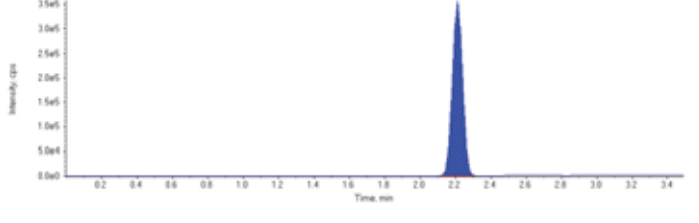
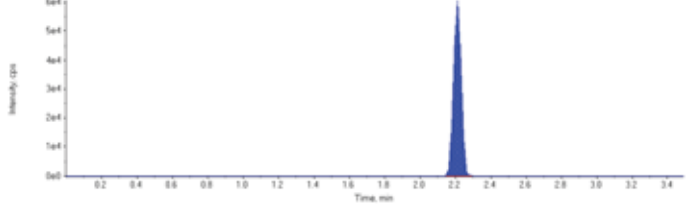
<p>MPFHxA (Internal Standard)</p> <p>RT (Exp. RT): 1.40(1.40) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>MPFHxS (Internal Standard)</p> <p>RT (Exp. RT): 1.67(1.77) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>MPFHpA (Internal Standard)</p> <p>RT (Exp. RT): 1.66(1.67) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>MPFOA (Internal Standard)</p> <p>RT (Exp. RT): 1.85(1.84) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>MPFOS (Internal Standard)</p> <p>RT (Exp. RT): 1.96(2.05) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>MPFNA (Internal Standard)</p> <p>RT (Exp. RT): 1.99(1.99) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	

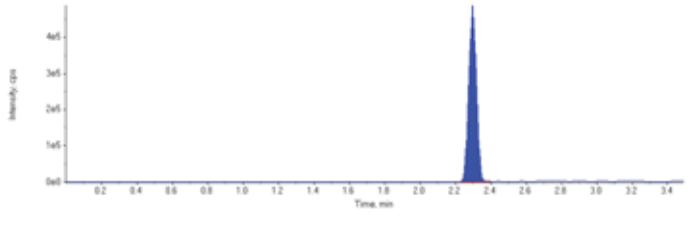
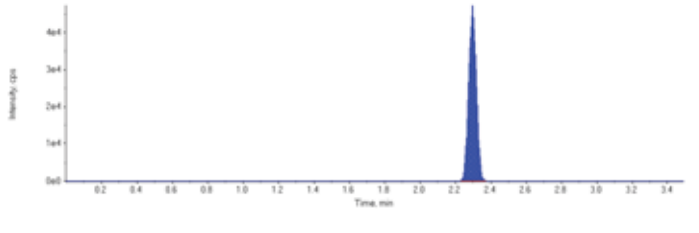
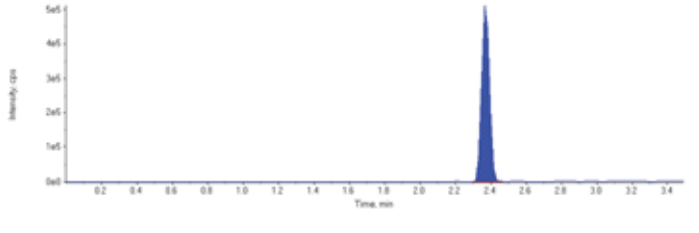
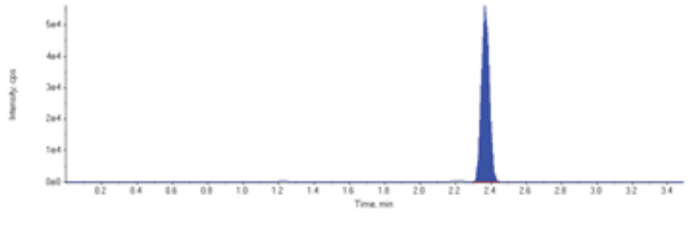
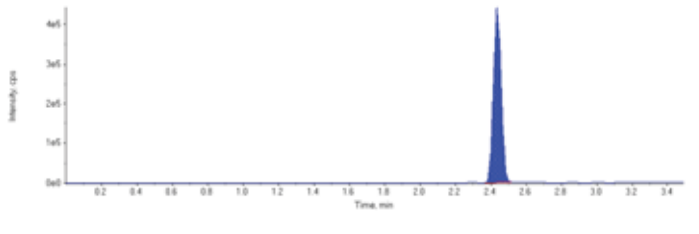
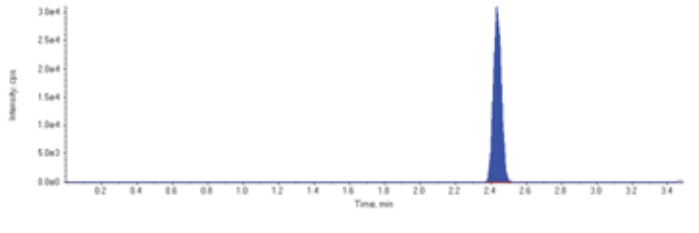
<p>MPFDA (Internal Standard)</p> <p>RT (Exp. RT): 2.11(2.18) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>MPFUnA (Internal Standard)</p> <p>RT (Exp. RT): 2.21(2.27) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>MPFDoA (Internal Standard)</p> <p>RT (Exp. RT): 2.30(2.35) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>MPFTeDA (Internal Standard)</p> <p>RT (Exp. RT): 2.44(2.49) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>M2 6:2 FTS (Internal Standard)</p> <p>RT (Exp. RT): 1.81(1.80) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>M2 8:2 FTS (Internal Standard)</p> <p>RT (Exp. RT): 2.08(2.08) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>13C6-PFHxA IS (Internal Standard)</p> <p>RT (Exp. RT): 1.39(1.40) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	

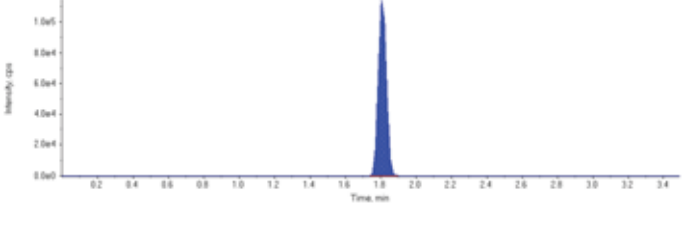
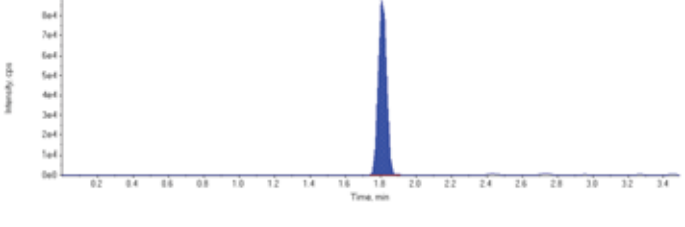
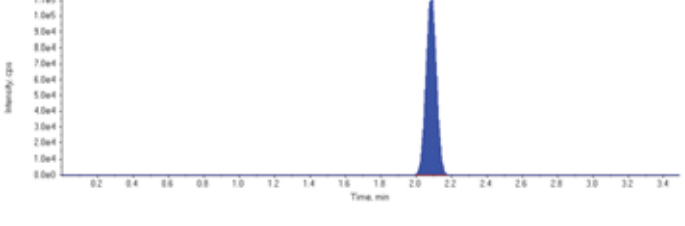
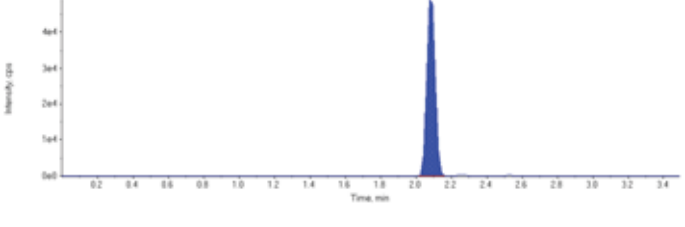
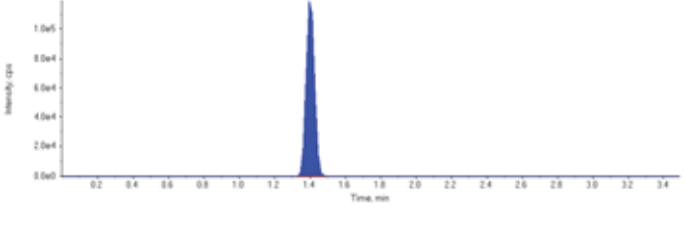
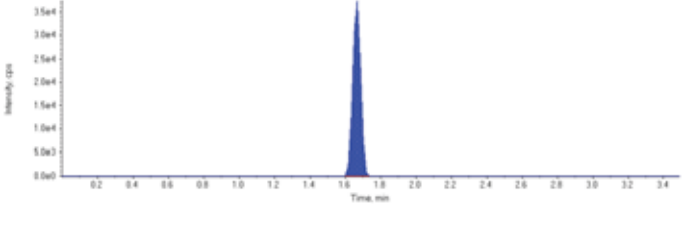
<p>13C9-PFDA IS (Internal Standard)</p> <p>RT (Exp. RT): 2.10(2.09) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min</p> <p>Concentration: N/A N/A</p> <p>Sample Type: (Quality Control)</p>	<p>This image is not available</p>
<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min</p> <p>Concentration: N/A N/A</p> <p>Sample Type: (Quality Control)</p>	<p>This image is not available</p>

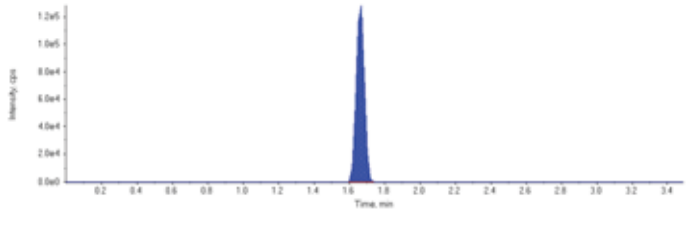
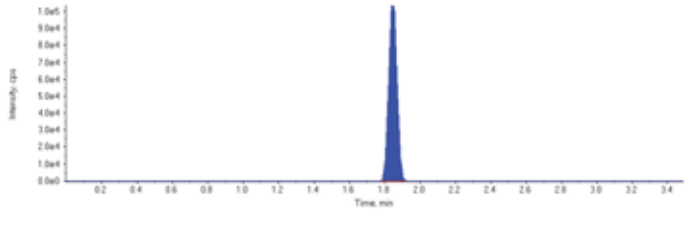
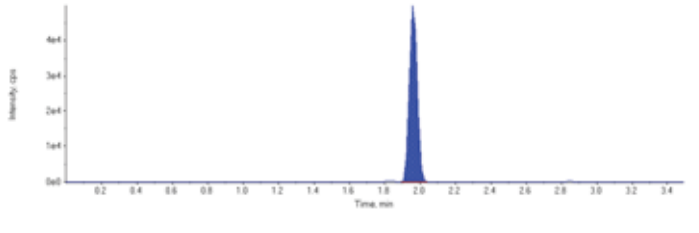
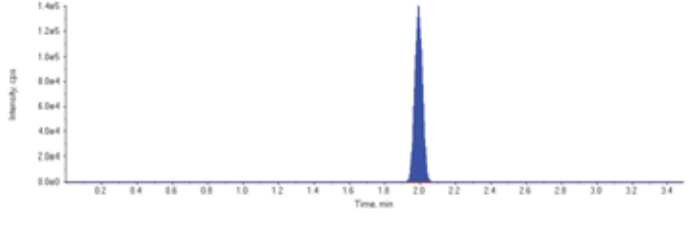
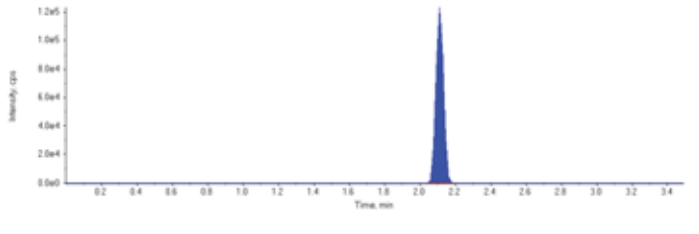
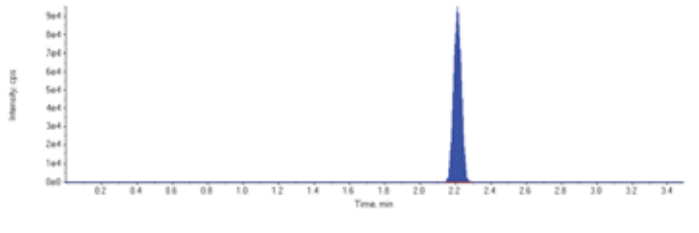
<p>PFBS 1 (298.900/79.900 Da)</p> <p>RT (Exp. RT): 1.10 (1.09) min</p> <p>Calculated Conc: 11.0 µg/L</p> <p>Area Ratio: 12.6</p> <p>Sample Type: (Quality Control)</p>	
<p>PFBS 2 (298.900/98.900 Da)</p> <p>RT (Exp. RT): 1.10 (1.09) min</p> <p>Calculated Conc: 11.5 µg/L</p> <p>Area Ratio: 6.57</p> <p>Sample Type: (Quality Control)</p>	
<p>PFHxA 1 (313.000/269.000 Da)</p> <p>RT (Exp. RT): 1.40 (1.40) min</p> <p>Calculated Conc: 12.3 µg/L</p> <p>Area Ratio: 5.32</p> <p>Sample Type: (Quality Control)</p>	
<p>PFHxA 2 (313.000/119.000 Da)</p> <p>RT (Exp. RT): 1.40 (1.41) min</p> <p>Calculated Conc: 12.9 µg/L</p> <p>Area Ratio: 0.326</p> <p>Sample Type: (Quality Control)</p>	
<p>PFHxS 1 (398.900/79.900 Da)</p> <p>RT (Exp. RT): 1.66 (1.67) min</p> <p>Calculated Conc: 11.8 µg/L</p> <p>Area Ratio: 10.2</p> <p>Sample Type: (Quality Control)</p>	
<p>PFHxS 2 (398.900/98.900 Da)</p> <p>RT (Exp. RT): 1.66 (1.67) min</p> <p>Calculated Conc: 12.8 µg/L</p> <p>Area Ratio: 3.27</p> <p>Sample Type: (Quality Control)</p>	

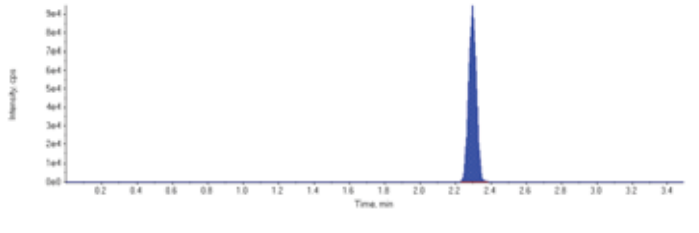
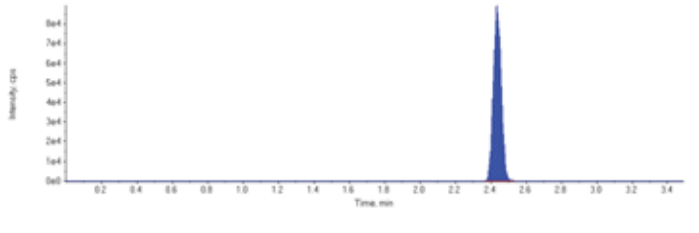
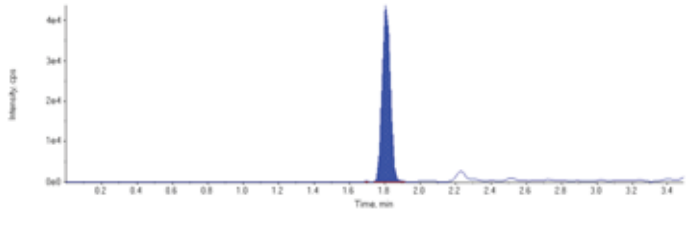
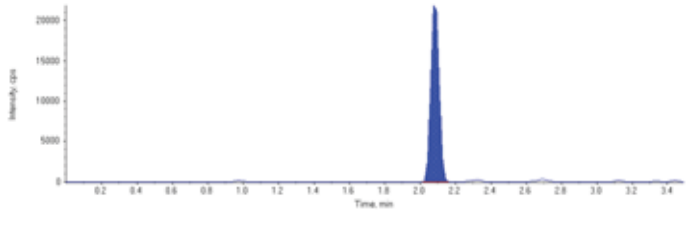
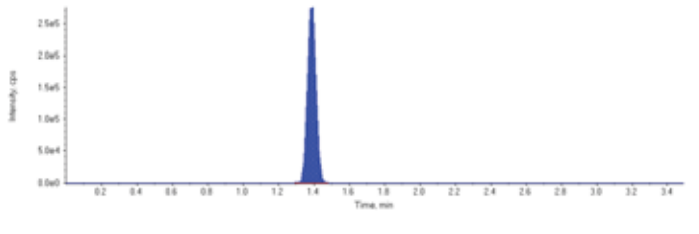
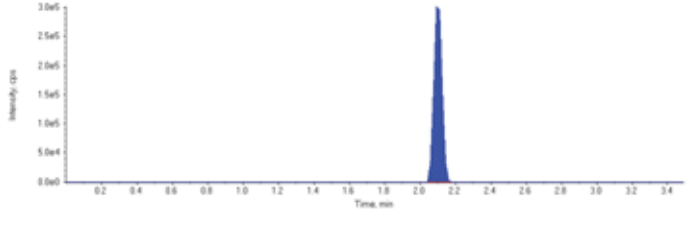
<p>PFHpA 1 (363.000/319.000 Da)</p> <p>RT (Exp. RT): 1.66 (1.67) min</p> <p>Calculated Conc: 13.6 µg/L</p> <p>Area Ratio: 5.33</p> <p>Sample Type: (Quality Control)</p>	
<p>PFHpA 2 (363.000/169.200 Da)</p> <p>RT (Exp. RT): 1.66 (1.67) min</p> <p>Calculated Conc: 13.4 µg/L</p> <p>Area Ratio: 0.0963</p> <p>Sample Type: (Quality Control)</p>	
<p>PFOA 1 (413.100/369.000 Da)</p> <p>RT (Exp. RT): 1.85 (1.85) min</p> <p>Calculated Conc: 12.7 µg/L</p> <p>Area Ratio: 5.69</p> <p>Sample Type: (Quality Control)</p>	
<p>PFOA 2 (413.100/169.000 Da)</p> <p>RT (Exp. RT): 1.85 (1.84) min</p> <p>Calculated Conc: 11.3 µg/L</p> <p>Area Ratio: 2.06</p> <p>Sample Type: (Quality Control)</p>	
<p>PFOS 1 (498.900/79.900 Da)</p> <p>RT (Exp. RT): 1.96 (1.96) min</p> <p>Calculated Conc: 12.7 µg/L</p> <p>Area Ratio: 5.90</p> <p>Sample Type: (Quality Control)</p>	
<p>PFOS 2 (498.900/98.900 Da)</p> <p>RT (Exp. RT): 1.96 (1.96) min</p> <p>Calculated Conc: 12.5 µg/L</p> <p>Area Ratio: 1.81</p> <p>Sample Type: (Quality Control)</p>	

<p>PFNA 1 (462.900/419.000 Da)</p> <p>RT (Exp. RT): 1.99 (1.99) min</p> <p>Calculated Conc: 12.5 µg/L</p> <p>Area Ratio: 4.49</p> <p>Sample Type: (Quality Control)</p>	
<p>PFNA 2 (462.900/219.100 Da)</p> <p>RT (Exp. RT): 1.99 (1.99) min</p> <p>Calculated Conc: 12.4 µg/L</p> <p>Area Ratio: 1.17</p> <p>Sample Type: (Quality Control)</p>	
<p>PFDA 1 (513.000/469.100 Da)</p> <p>RT (Exp. RT): 2.11 (2.18) min</p> <p>Calculated Conc: 13.9 µg/L</p> <p>Area Ratio: 5.69</p> <p>Sample Type: (Quality Control)</p>	
<p>PFDA 2 (513.000/218.900 Da)</p> <p>RT (Exp. RT): 2.11 (2.11) min</p> <p>Calculated Conc: 12.1 µg/L</p> <p>Area Ratio: 0.959</p> <p>Sample Type: (Quality Control)</p>	
<p>PFUnA 1 (562.900/519.000 Da)</p> <p>RT (Exp. RT): 2.21 (2.21) min</p> <p>Calculated Conc: 11.9 µg/L</p> <p>Area Ratio: 5.00</p> <p>Sample Type: (Quality Control)</p>	
<p>PFUnA 2 (562.900/269.200 Da)</p> <p>RT (Exp. RT): 2.21 (2.27) min</p> <p>Calculated Conc: 13.8 µg/L</p> <p>Area Ratio: 0.642</p> <p>Sample Type: (Quality Control)</p>	

<p>PFD_oA 1 (612.900/569.000 Da)</p> <p>RT (Exp. RT): 2.30 (2.36) min</p> <p>Calculated Conc: 12.3 µg/L</p> <p>Area Ratio: 5.12</p> <p>Sample Type: (Quality Control)</p>	
<p>PFD_oA 2 (612.900/319.000 Da)</p> <p>RT (Exp. RT): 2.30 (2.35) min</p> <p>Calculated Conc: 11.9 µg/L</p> <p>Area Ratio: 0.502</p> <p>Sample Type: (Quality Control)</p>	
<p>PFT_rDA 1 (663.000/619.000 Da)</p> <p>RT (Exp. RT): 2.37 (2.42) min</p> <p>Calculated Conc: 14.2 µg/L</p> <p>Area Ratio: 5.84</p> <p>Sample Type: (Quality Control)</p>	
<p>PFT_rDA 2 (663.000/318.900 Da)</p> <p>RT (Exp. RT): 2.37 (2.37) min</p> <p>Calculated Conc: 13.8 µg/L</p> <p>Area Ratio: 0.626</p> <p>Sample Type: (Quality Control)</p>	
<p>PFT_eDA 1 (713.000/669.000 Da)</p> <p>RT (Exp. RT): 2.44 (2.49) min</p> <p>Calculated Conc: 13.2 µg/L</p> <p>Area Ratio: 4.93</p> <p>Sample Type: (Quality Control)</p>	
<p>PFT_eDA 2 (713.000/319.200 Da)</p> <p>RT (Exp. RT): 2.44 (2.49) min</p> <p>Calculated Conc: 13.0 µg/L</p> <p>Area Ratio: 0.349</p> <p>Sample Type: (Quality Control)</p>	

<p>6:2-FTS 1 (427.000/407.000 Da)</p> <p>RT (Exp. RT): 1.81 (1.90) min</p> <p>Calculated Conc: 10.1 µg/L</p> <p>Area Ratio: 2.65</p> <p>Sample Type: (Quality Control)</p>	
<p>6:2-FTS 2 (427.000/80.900 Da)</p> <p>RT (Exp. RT): 1.81 (1.80) min</p> <p>Calculated Conc: 11.5 µg/L</p> <p>Area Ratio: 2.06</p> <p>Sample Type: (Quality Control)</p>	
<p>8:2-FTS 1 (526.900/507.000 Da)</p> <p>RT (Exp. RT): 2.09 (2.16) min</p> <p>Calculated Conc: 12.7 µg/L</p> <p>Area Ratio: 6.33</p> <p>Sample Type: (Quality Control)</p>	
<p>8:2-FTS 2 (526.900/80.900 Da)</p> <p>RT (Exp. RT): 2.08 (2.09) min</p> <p>Calculated Conc: 12.5 µg/L</p> <p>Area Ratio: 2.27</p> <p>Sample Type: (Quality Control)</p>	
<p>13C2-PFHxA (314.900/270.000 Da)</p> <p>RT (Exp. RT): 1.40 (1.40) min</p> <p>Calculated Conc: 129. µg/L</p> <p>Area Ratio: 0.415</p> <p>Sample Type: (Quality Control)</p>	
<p>18O2-PFHxS (402.900/84.000 Da)</p> <p>RT (Exp. RT): 1.67 (1.77) min</p> <p>Calculated Conc: 142. µg/L</p> <p>Area Ratio: 0.122</p> <p>Sample Type: (Quality Control)</p>	

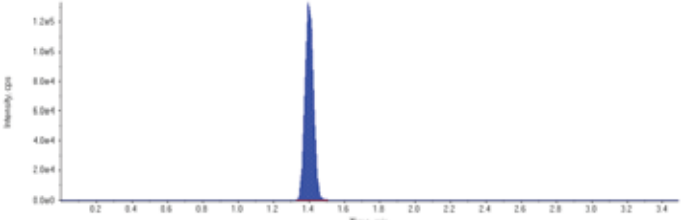
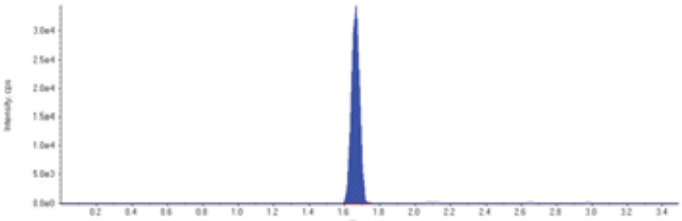
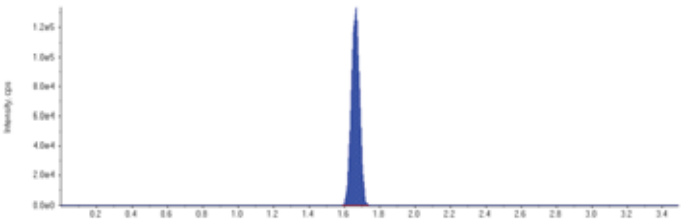
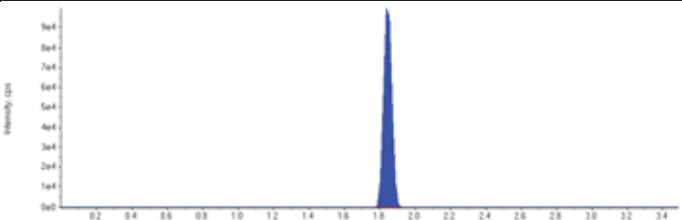
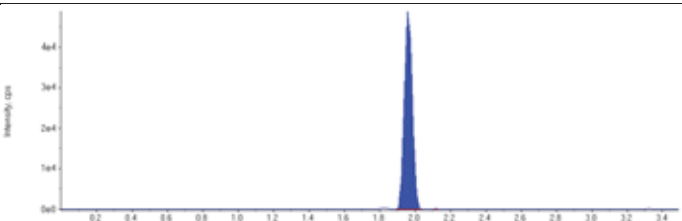
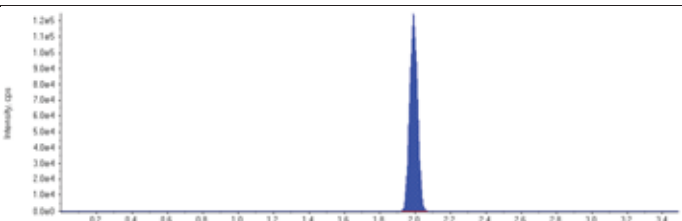
<p>13C4-PFHpa (366.900/322.000 Da)</p> <p>RT (Exp. RT): 1.66 (1.67) min</p> <p>Calculated Conc: 131. µg/L</p> <p>Area Ratio: 0.432</p> <p>Sample Type: (Quality Control)</p>	
<p>13C4-PFOA (416.900/372.000 Da)</p> <p>RT (Exp. RT): 1.85 (1.84) min</p> <p>Calculated Conc: 132. µg/L</p> <p>Area Ratio: 0.363</p> <p>Sample Type: (Quality Control)</p>	
<p>13C4-PFOS (502.900/79.900 Da)</p> <p>RT (Exp. RT): 1.96 (2.05) min</p> <p>Calculated Conc: 127. µg/L</p> <p>Area Ratio: 0.161</p> <p>Sample Type: (Quality Control)</p>	
<p>13C5-PFNA (467.900/423.000 Da)</p> <p>RT (Exp. RT): 1.99 (1.99) min</p> <p>Calculated Conc: 147. µg/L</p> <p>Area Ratio: 0.432</p> <p>Sample Type: (Quality Control)</p>	
<p>13C2-PFDA (514.900/470.000 Da)</p> <p>RT (Exp. RT): 2.11 (2.11) min</p> <p>Calculated Conc: 119. µg/L</p> <p>Area Ratio: 0.368</p> <p>Sample Type: (Quality Control)</p>	
<p>13C2-PFUnA (564.900/520.000 Da)</p> <p>RT (Exp. RT): 2.21 (2.27) min</p> <p>Calculated Conc: 124. µg/L</p> <p>Area Ratio: 0.285</p> <p>Sample Type: (Quality Control)</p>	

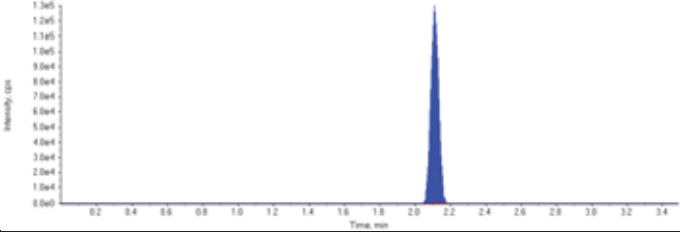
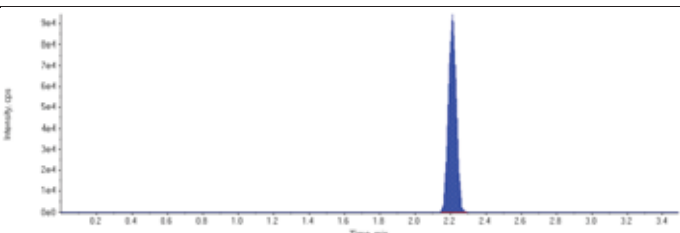
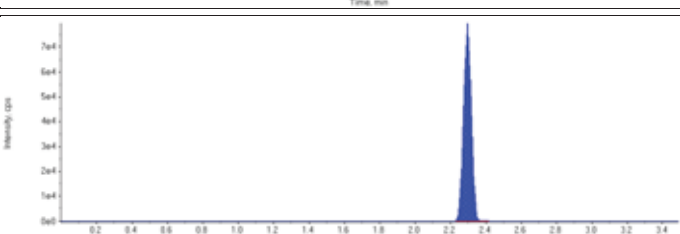
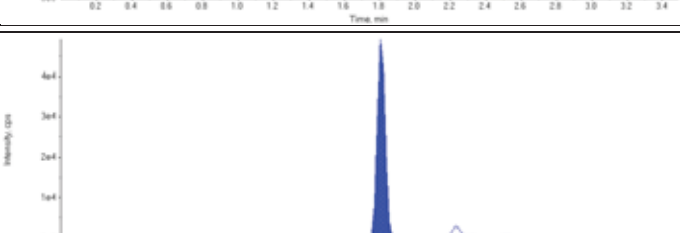
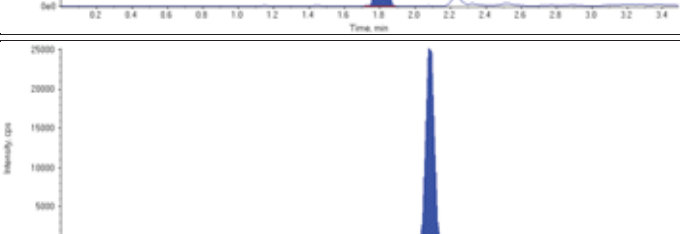
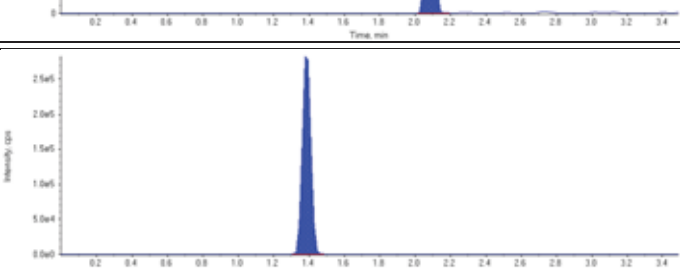
<p>13C2-PFDoA (614.900/570.000 Da)</p> <p>RT (Exp. RT): 2.30 (2.35) min</p> <p>Calculated Conc: 127. µg/L</p> <p>Area Ratio: 0.284</p> <p>Sample Type: (Quality Control)</p>	
<p>13C2-PFTeDA (714.900/669.900 Da)</p> <p>RT (Exp. RT): 2.44 (2.49) min</p> <p>Calculated Conc: 112. µg/L</p> <p>Area Ratio: 0.274</p> <p>Sample Type: (Quality Control)</p>	
<p>13C2-6:2-FTS (429.000/80.900 Da)</p> <p>RT (Exp. RT): 1.81 (1.80) min</p> <p>Calculated Conc: 120. µg/L</p> <p>Area Ratio: 0.143</p> <p>Sample Type: (Quality Control)</p>	
<p>13C2-8:2 FTS (528.900/80.900 Da)</p> <p>RT (Exp. RT): 2.08 (2.08) min</p> <p>Calculated Conc: 113. µg/L</p> <p>Area Ratio: 0.0755</p> <p>Sample Type: (Quality Control)</p>	
<p>13C6-PFHxA (318.900/274.000 Da)</p> <p>RT (Exp. RT): 1.39 (1.40) min</p> <p>Calculated Conc: 75.8 µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Quality Control)</p>	
<p>13C9-PFDA (521.900/477.100 Da)</p> <p>RT (Exp. RT): 2.10 (2.09) min</p> <p>Calculated Conc: 83.6 µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Quality Control)</p>	

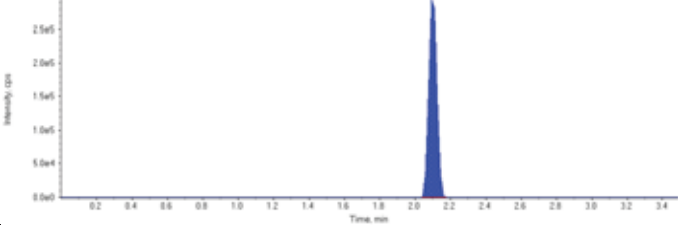
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Sample Type	Quality Control	Injection Vial	5
Acquisition Date	2017/05/23 8:34:39 PM	Dilution Factor	1.00
Acquisition Method	PFC_Water_Low.dam	Instrument Name	LCMS03
Project	Enviro\PFOS	Algorithm Used	Analyst Classic
Data File	PFC_170523\WS#4991421.wiff		
Result Table	PFC_Water_170523_4988945_CTLabs.rdb		
Samples Annotation	-		

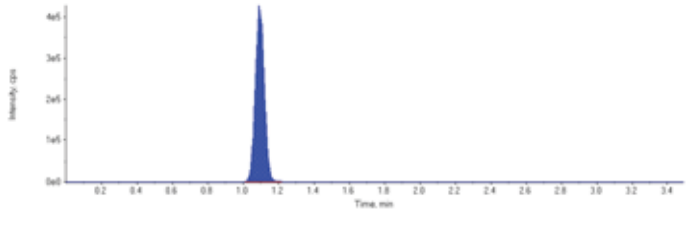
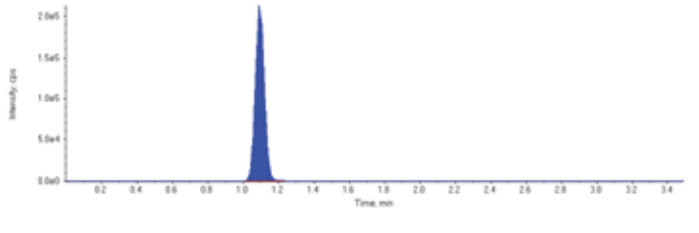
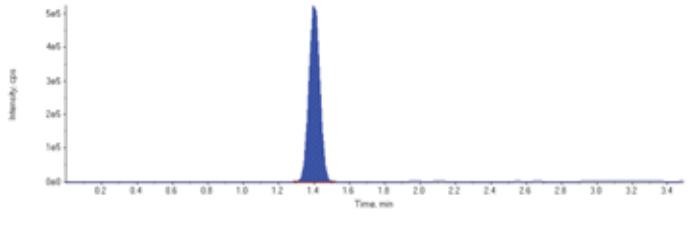
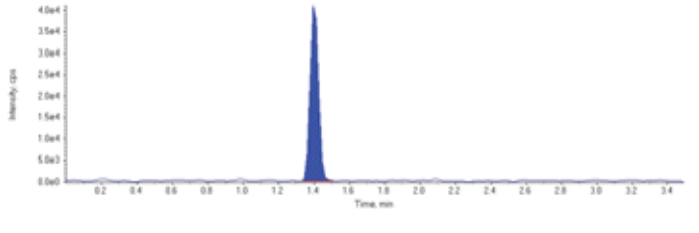
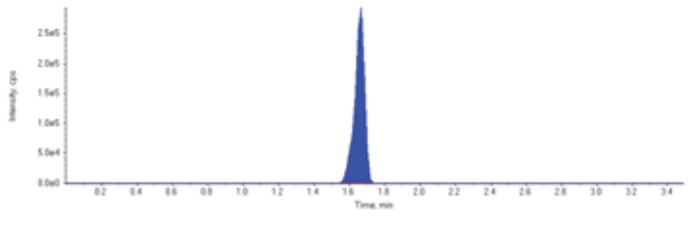
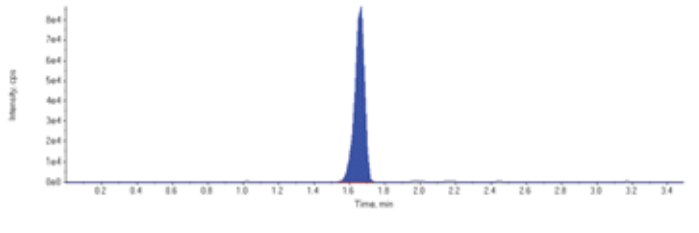
Internal Standard	Area (cps)	RT (min)	Target Conc. (ug/L)	Calc. Conc. (ug/L)
MPFHxA	443000.	1.40	1.00	-
MPFHxS	110000.	1.66	1.00	-
MPFHpA	432000.	1.66	1.00	-
MPFOA	331000.	1.84	1.00	-
MPFOS	153000.	1.96	1.00	-
MPFNA	378000.	1.99	1.00	-
MPFDA	392000.	2.11	1.00	-
MPFUnA	288000.	2.21	1.00	-
MPFDoA	242000.	2.30	1.00	-
MPFTeDA	291000.	2.44	1.00	-
M2 6:2 FTS	154000.	1.81	1.00	-
M2 8:2 FTS	84300.	2.08	1.00	-
13C6-PFHxA IS	979000.	1.39	1.00	-
13C9-PFDA IS	966000.	2.10	1.00	-
N/A	N/A	N/A	N/A	-
N/A	N/A	N/A	N/A	-

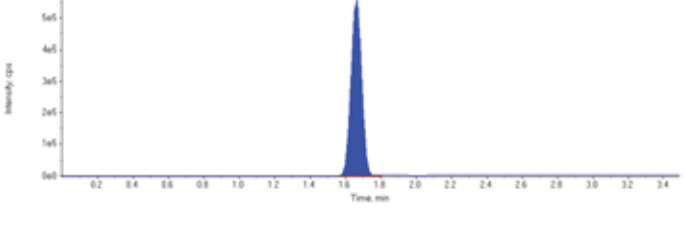
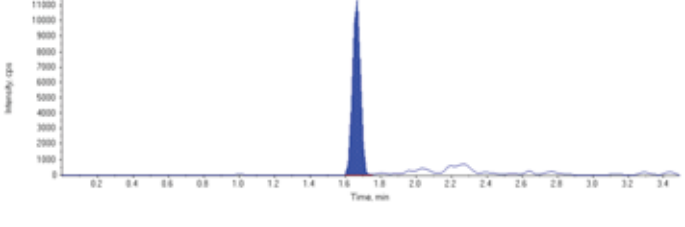
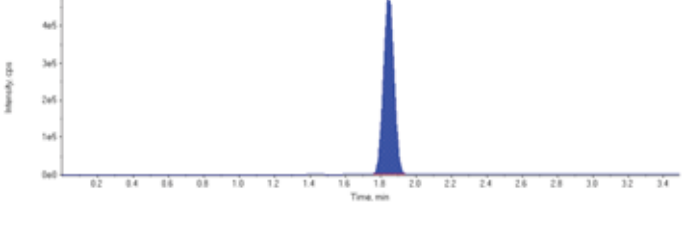
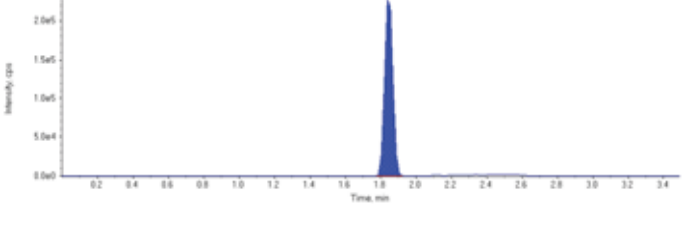
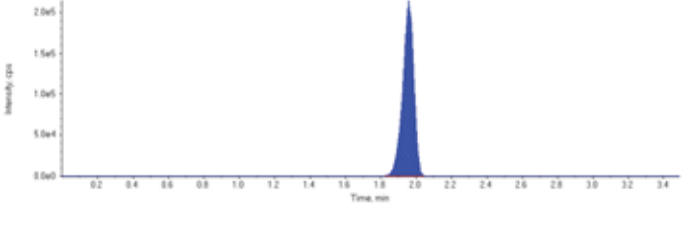
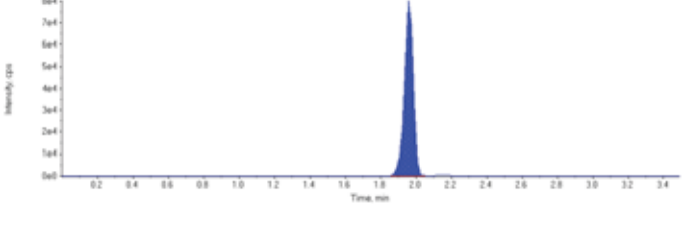
Target Analyte	Area (cps)	RT (min)	Target Conc. (ug/L)	Calc. Conc. (ug/L)	Accuracy (%)
PFBS 1	1530000	1.09	12.5	12.1	96.6
PFBS 2	765000	1.09	12.5	12.2	97.6
PFHxA 1	2240000	1.40	12.5	11.7	93.8
PFHxA 2	137000	1.40	12.5	12.2	97.8
PFHxS 1	1130000	1.66	12.5	12.0	95.6
PFHxS 2	328000	1.66	12.5	11.7	93.7
PFHpA 1	2320000	1.66	12.5	13.7	110.0
PFHpA 2	35800	1.66	12.5	11.5	92.0
PFOA 1	1990000	1.85	12.5	13.4	107.0
PFOA 2	758000	1.85	12.5	12.6	101.0
PFOS 1	924000	1.96	12.5	13.0	104.0
PFOS 2	281000	1.96	12.5	12.7	102.0
PFNA 1	1760000	1.99	12.5	13.0	104.0
PFNA 2	475000	1.99	12.5	13.3	106.0
PFDA 1	2010000	2.11	12.5	12.5	100.0
PFDA 2	391000	2.11	12.5	12.6	101.0
PFUnA 1	1570000	2.21	12.5	13.0	104.0
PFUnA 2	163000	2.21	12.5	12.3	98.0
PFDaA 1	1450000	2.30	12.5	14.4	115.0
PFDaA 2	152000	2.30	12.5	14.8	119.0
PFTTrDA 1	1640000	2.37	12.5	13.7	110.0
PFTTrDA 2	188000	2.37	12.5	14.2	114.0
PFTeDA 1	1420000	2.44	12.5	13.1	105.0
PFTeDA 2	105000	2.44	12.5	13.4	108.0
6:2-FTS 1	477000	1.81	12.5	11.8	94.4
6:2-FTS 2	339000	1.81	12.5	12.3	98.2
8:2-FTS 1	431000	2.09	12.5	10.3	82.6
8:2-FTS 2	169000	2.08	12.5	11.1	88.6
13C2-PFHxA	443000	1.40	100.	141.	141.0
18O2-PFHxS	110000	1.66	100.	130.	130.0
13C4-PFHpA	432000	1.66	100.	133.	133.0
13C4-PFOA	331000	1.84	100.	123.	123.0
13C4-PFOS	153000	1.96	100.	123.	123.0
13C5-PFNA	378000	1.99	100.	132.	132.0
13C2-PFDA	392000	2.11	100.	131.	131.0
13C2-PFUnA	288000	2.21	100.	129.	129.0
13C2-PFDaA	242000	2.30	100.	113.	113.0
13C2-PFTeDA	291000	2.44	100.	123.	123.0
13C2-6:2-FTS	154000	1.81	100.	132.	132.0
13C2-8:2 FTS	84300	2.08	100.	129.	129.0
13C6-PFHxA	979000	1.39	100.	76.5	76.5
13C9-PFDA	966000	2.10	100.	80.7	80.7

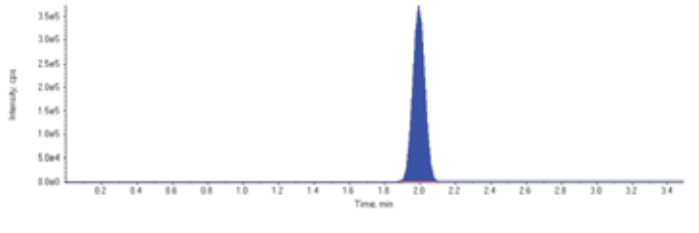
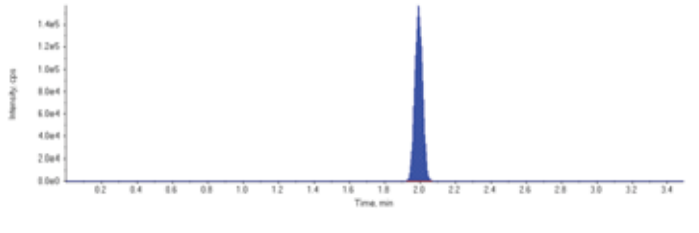
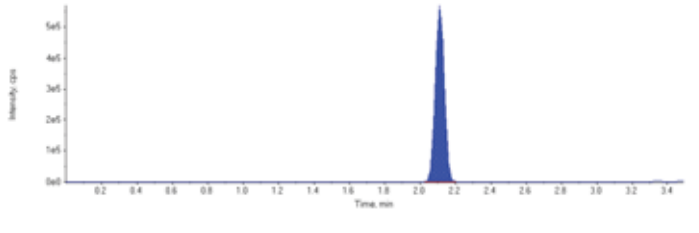
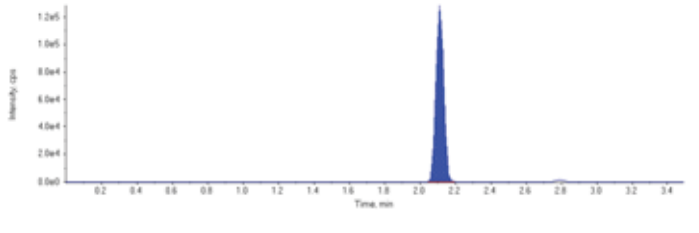
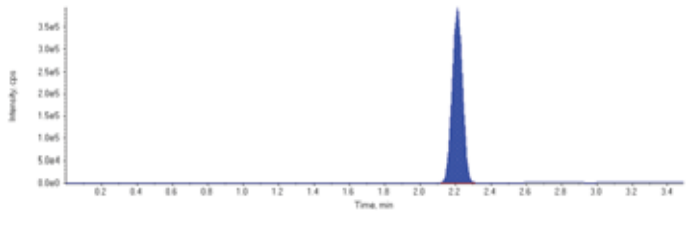
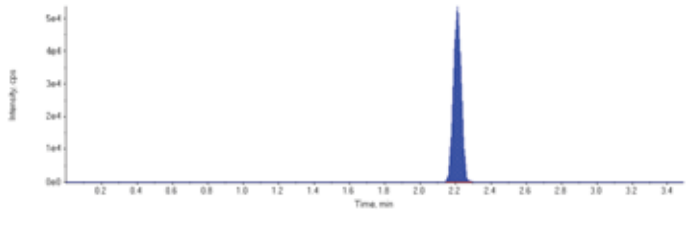
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<p>MPFHxS (Internal Standard)</p> <p>RT (Exp. RT): 1.66(1.77) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>MPFHpA (Internal Standard)</p> <p>RT (Exp. RT): 1.66(1.67) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>MPFOA (Internal Standard)</p> <p>RT (Exp. RT): 1.84(1.84) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>MPFOS (Internal Standard)</p> <p>RT (Exp. RT): 1.96(2.05) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
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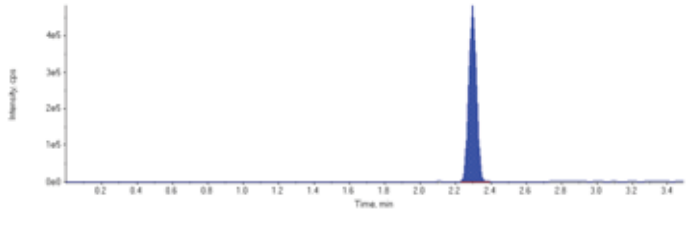
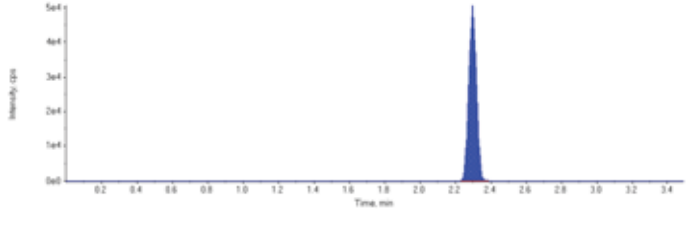
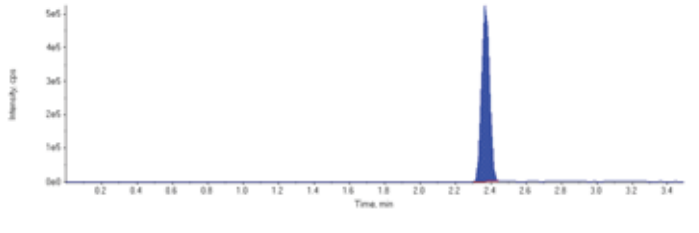
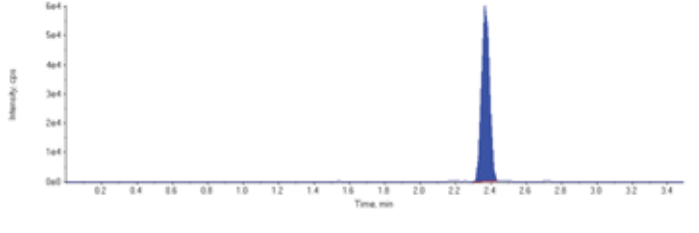
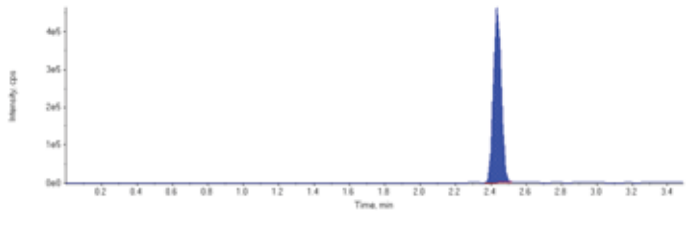
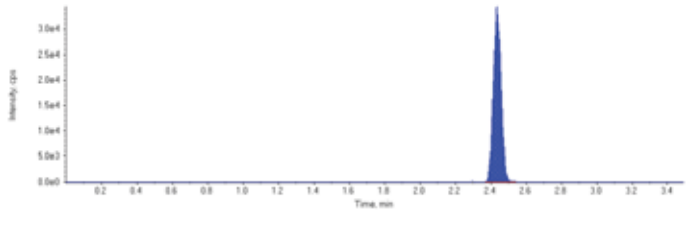
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<p>MPFUnA (Internal Standard)</p> <p>RT (Exp. RT): 2.21(2.27) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>MPFDoA (Internal Standard)</p> <p>RT (Exp. RT): 2.30(2.35) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>MPFTeDA (Internal Standard)</p> <p>RT (Exp. RT): 2.44(2.49) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>M2 6:2 FTS (Internal Standard)</p> <p>RT (Exp. RT): 1.81(1.80) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>M2 8:2 FTS (Internal Standard)</p> <p>RT (Exp. RT): 2.08(2.08) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>13C6-PFHxA IS (Internal Standard)</p> <p>RT (Exp. RT): 1.39(1.40) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	

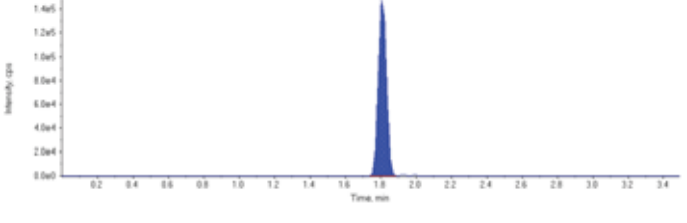
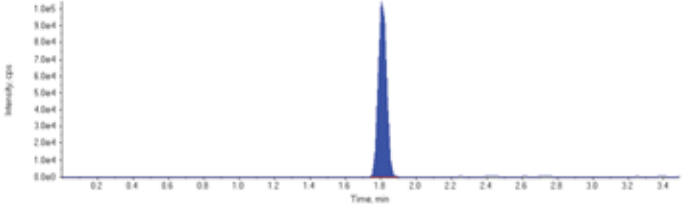
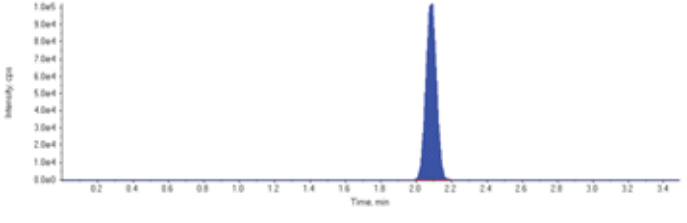
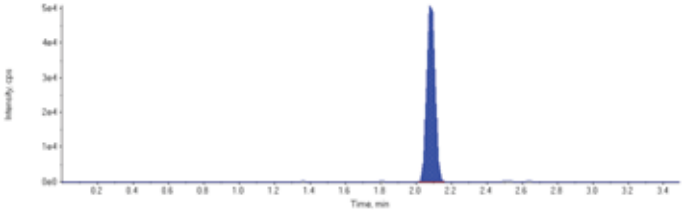
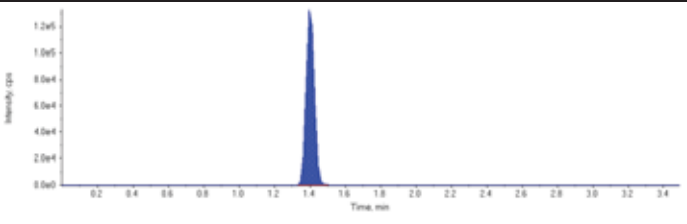
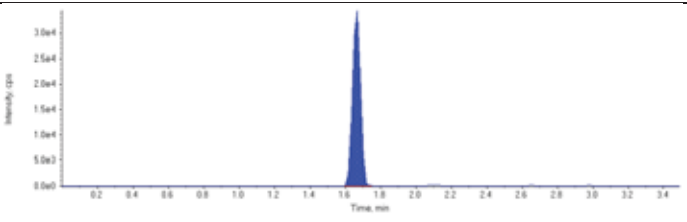
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<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min</p> <p>Concentration: N/A N/A</p> <p>Sample Type: (Quality Control)</p>	<p>This image is not available</p>
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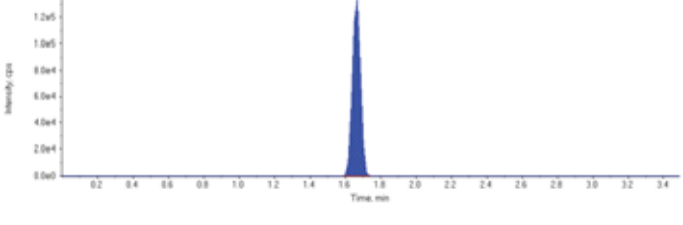
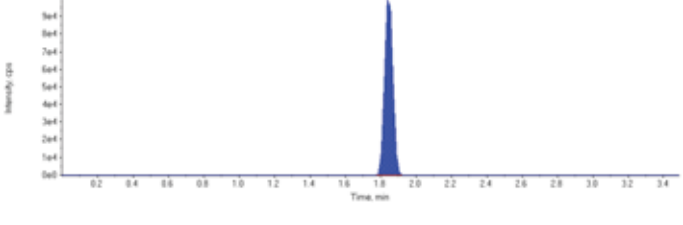
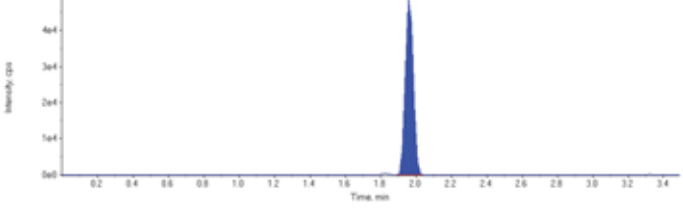
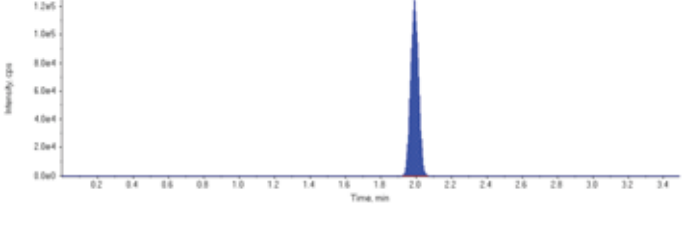
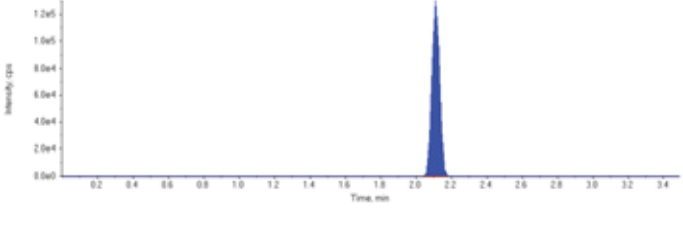
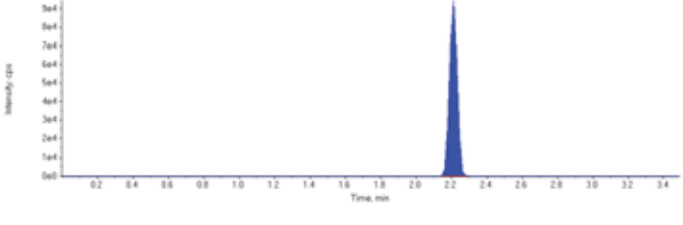
<p>PFBS 1 (298.900/79.900 Da)</p> <p>RT (Exp. RT): 1.09 (1.09) min</p> <p>Calculated Conc: 12.1 µg/L</p> <p>Area Ratio: 13.9</p> <p>Sample Type: (Quality Control)</p>	
<p>PFBS 2 (298.900/98.900 Da)</p> <p>RT (Exp. RT): 1.09 (1.09) min</p> <p>Calculated Conc: 12.2 µg/L</p> <p>Area Ratio: 6.98</p> <p>Sample Type: (Quality Control)</p>	
<p>PFHxA 1 (313.000/269.000 Da)</p> <p>RT (Exp. RT): 1.40 (1.40) min</p> <p>Calculated Conc: 11.7 µg/L</p> <p>Area Ratio: 5.06</p> <p>Sample Type: (Quality Control)</p>	
<p>PFHxA 2 (313.000/119.000 Da)</p> <p>RT (Exp. RT): 1.40 (1.41) min</p> <p>Calculated Conc: 12.2 µg/L</p> <p>Area Ratio: 0.309</p> <p>Sample Type: (Quality Control)</p>	
<p>PFHxS 1 (398.900/79.900 Da)</p> <p>RT (Exp. RT): 1.66 (1.67) min</p> <p>Calculated Conc: 12.0 µg/L</p> <p>Area Ratio: 10.3</p> <p>Sample Type: (Quality Control)</p>	
<p>PFHxS 2 (398.900/98.900 Da)</p> <p>RT (Exp. RT): 1.66 (1.67) min</p> <p>Calculated Conc: 11.7 µg/L</p> <p>Area Ratio: 2.99</p> <p>Sample Type: (Quality Control)</p>	

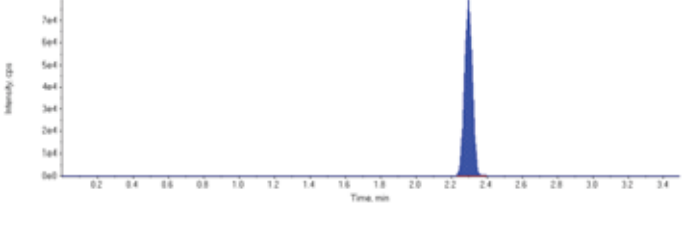
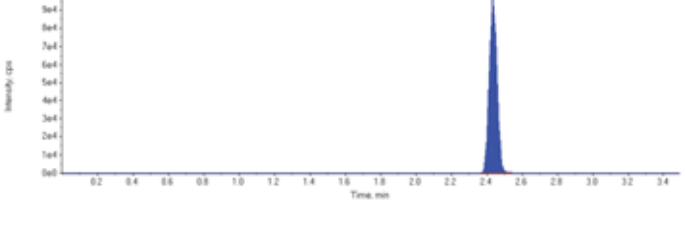
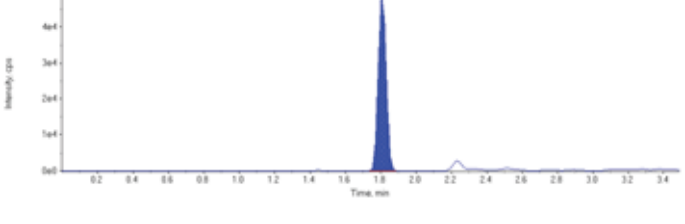
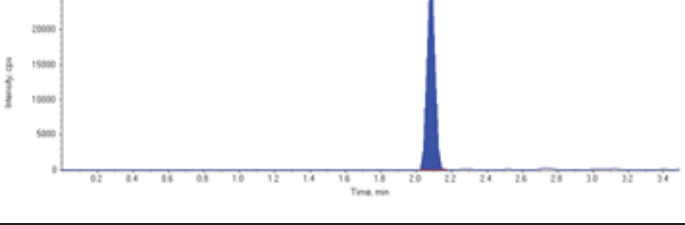
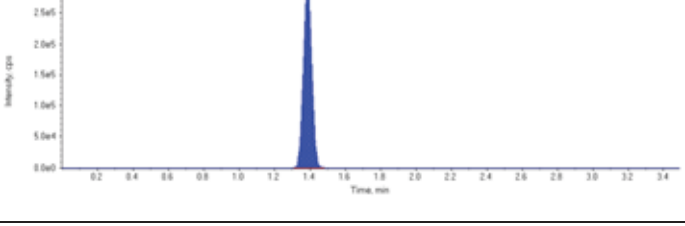
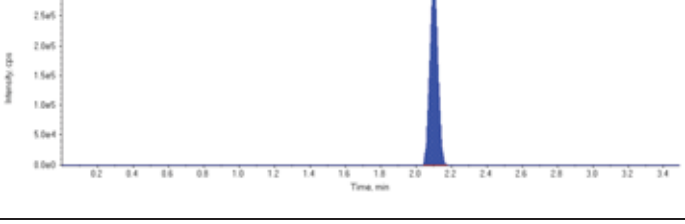
<p>PFHpA 1 (363.000/319.000 Da)</p> <p>RT (Exp. RT): 1.66 (1.67) min</p> <p>Calculated Conc: 13.7 µg/L</p> <p>Area Ratio: 5.36</p> <p>Sample Type: (Quality Control)</p>	
<p>PFHpA 2 (363.000/169.200 Da)</p> <p>RT (Exp. RT): 1.66 (1.67) min</p> <p>Calculated Conc: 11.5 µg/L</p> <p>Area Ratio: 0.0827</p> <p>Sample Type: (Quality Control)</p>	
<p>PFOA 1 (413.100/369.000 Da)</p> <p>RT (Exp. RT): 1.85 (1.85) min</p> <p>Calculated Conc: 13.4 µg/L</p> <p>Area Ratio: 6.00</p> <p>Sample Type: (Quality Control)</p>	
<p>PFOA 2 (413.100/169.000 Da)</p> <p>RT (Exp. RT): 1.85 (1.84) min</p> <p>Calculated Conc: 12.6 µg/L</p> <p>Area Ratio: 2.29</p> <p>Sample Type: (Quality Control)</p>	
<p>PFOS 1 (498.900/79.900 Da)</p> <p>RT (Exp. RT): 1.96 (1.96) min</p> <p>Calculated Conc: 13.0 µg/L</p> <p>Area Ratio: 6.02</p> <p>Sample Type: (Quality Control)</p>	
<p>PFOS 2 (498.900/98.900 Da)</p> <p>RT (Exp. RT): 1.96 (1.96) min</p> <p>Calculated Conc: 12.7 µg/L</p> <p>Area Ratio: 1.83</p> <p>Sample Type: (Quality Control)</p>	

<p>PFNA 1 (462.900/419.000 Da)</p> <p>RT (Exp. RT): 1.99 (1.99) min</p> <p>Calculated Conc: 13.0 µg/L</p> <p>Area Ratio: 4.67</p> <p>Sample Type: (Quality Control)</p>	
<p>PFNA 2 (462.900/219.100 Da)</p> <p>RT (Exp. RT): 1.99 (1.99) min</p> <p>Calculated Conc: 13.3 µg/L</p> <p>Area Ratio: 1.26</p> <p>Sample Type: (Quality Control)</p>	
<p>PFDA 1 (513.000/469.100 Da)</p> <p>RT (Exp. RT): 2.11 (2.18) min</p> <p>Calculated Conc: 12.5 µg/L</p> <p>Area Ratio: 5.14</p> <p>Sample Type: (Quality Control)</p>	
<p>PFDA 2 (513.000/218.900 Da)</p> <p>RT (Exp. RT): 2.11 (2.11) min</p> <p>Calculated Conc: 12.6 µg/L</p> <p>Area Ratio: 0.998</p> <p>Sample Type: (Quality Control)</p>	
<p>PFUnA 1 (562.900/519.000 Da)</p> <p>RT (Exp. RT): 2.21 (2.21) min</p> <p>Calculated Conc: 13.0 µg/L</p> <p>Area Ratio: 5.46</p> <p>Sample Type: (Quality Control)</p>	
<p>PFUnA 2 (562.900/269.200 Da)</p> <p>RT (Exp. RT): 2.21 (2.27) min</p> <p>Calculated Conc: 12.3 µg/L</p> <p>Area Ratio: 0.568</p> <p>Sample Type: (Quality Control)</p>	

<p>PFDa 1 (612.900/569.000 Da)</p> <p>RT (Exp. RT): 2.30 (2.36) min</p> <p>Calculated Conc: 14.4 µg/L</p> <p>Area Ratio: 5.98</p> <p>Sample Type: (Quality Control)</p>	
<p>PFDa 2 (612.900/319.000 Da)</p> <p>RT (Exp. RT): 2.30 (2.35) min</p> <p>Calculated Conc: 14.8 µg/L</p> <p>Area Ratio: 0.627</p> <p>Sample Type: (Quality Control)</p>	
<p>PFTrDA 1 (663.000/619.000 Da)</p> <p>RT (Exp. RT): 2.37 (2.42) min</p> <p>Calculated Conc: 13.7 µg/L</p> <p>Area Ratio: 5.64</p> <p>Sample Type: (Quality Control)</p>	
<p>PFTrDA 2 (663.000/318.900 Da)</p> <p>RT (Exp. RT): 2.37 (2.37) min</p> <p>Calculated Conc: 14.2 µg/L</p> <p>Area Ratio: 0.645</p> <p>Sample Type: (Quality Control)</p>	
<p>PFTeDA 1 (713.000/669.000 Da)</p> <p>RT (Exp. RT): 2.44 (2.49) min</p> <p>Calculated Conc: 13.1 µg/L</p> <p>Area Ratio: 4.88</p> <p>Sample Type: (Quality Control)</p>	
<p>PFTeDA 2 (713.000/319.200 Da)</p> <p>RT (Exp. RT): 2.44 (2.49) min</p> <p>Calculated Conc: 13.4 µg/L</p> <p>Area Ratio: 0.361</p> <p>Sample Type: (Quality Control)</p>	

<p>6:2-FTS 1 (427.000/407.000 Da)</p> <p>RT (Exp. RT): 1.81 (1.90) min</p> <p>Calculated Conc: 11.8 µg/L</p> <p>Area Ratio: 3.09</p> <p>Sample Type: (Quality Control)</p>	
<p>6:2-FTS 2 (427.000/80.900 Da)</p> <p>RT (Exp. RT): 1.81 (1.80) min</p> <p>Calculated Conc: 12.3 µg/L</p> <p>Area Ratio: 2.19</p> <p>Sample Type: (Quality Control)</p>	
<p>8:2-FTS 1 (526.900/507.000 Da)</p> <p>RT (Exp. RT): 2.09 (2.16) min</p> <p>Calculated Conc: 10.3 µg/L</p> <p>Area Ratio: 5.12</p> <p>Sample Type: (Quality Control)</p>	
<p>8:2-FTS 2 (526.900/80.900 Da)</p> <p>RT (Exp. RT): 2.08 (2.09) min</p> <p>Calculated Conc: 11.1 µg/L</p> <p>Area Ratio: 2.00</p> <p>Sample Type: (Quality Control)</p>	
<p>13C2-PFHxA (314.900/270.000 Da)</p> <p>RT (Exp. RT): 1.40 (1.40) min</p> <p>Calculated Conc: 141. µg/L</p> <p>Area Ratio: 0.452</p> <p>Sample Type: (Quality Control)</p>	
<p>18O2-PFHxS (402.900/84.000 Da)</p> <p>RT (Exp. RT): 1.66 (1.77) min</p> <p>Calculated Conc: 130. µg/L</p> <p>Area Ratio: 0.112</p> <p>Sample Type: (Quality Control)</p>	

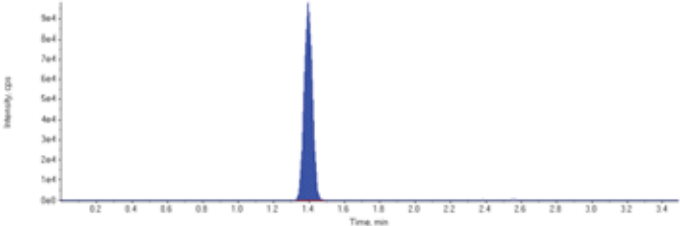
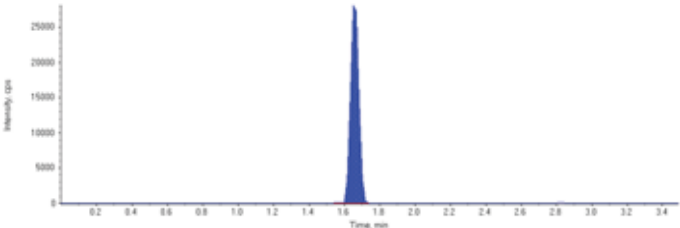
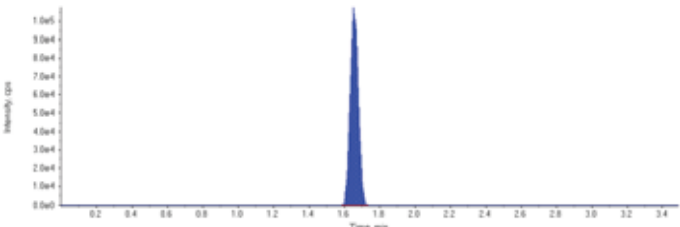
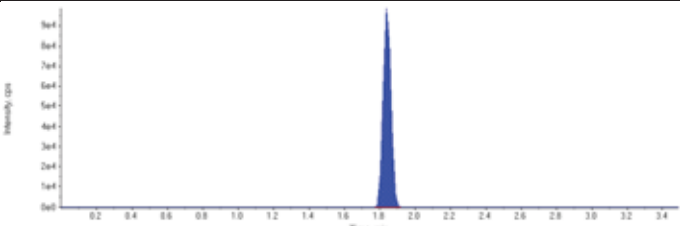
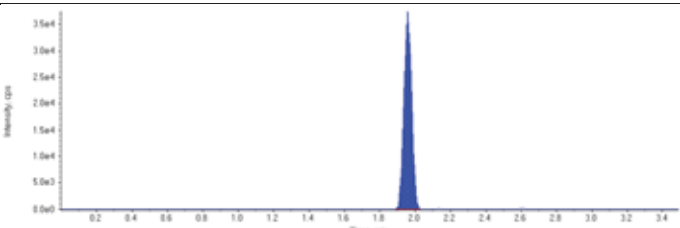
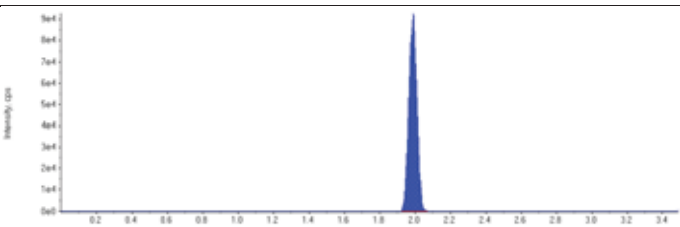
<p>13C4-PFH_pA (366.900/322.000 Da)</p> <p>RT (Exp. RT): 1.66 (1.67) min</p> <p>Calculated Conc: 133. µg/L</p> <p>Area Ratio: 0.441</p> <p>Sample Type: (Quality Control)</p>	
<p>13C4-PFOA (416.900/372.000 Da)</p> <p>RT (Exp. RT): 1.84 (1.84) min</p> <p>Calculated Conc: 123. µg/L</p> <p>Area Ratio: 0.338</p> <p>Sample Type: (Quality Control)</p>	
<p>13C4-PFOS (502.900/79.900 Da)</p> <p>RT (Exp. RT): 1.96 (2.05) min</p> <p>Calculated Conc: 123. µg/L</p> <p>Area Ratio: 0.157</p> <p>Sample Type: (Quality Control)</p>	
<p>13C5-PFNA (467.900/423.000 Da)</p> <p>RT (Exp. RT): 1.99 (1.99) min</p> <p>Calculated Conc: 132. µg/L</p> <p>Area Ratio: 0.386</p> <p>Sample Type: (Quality Control)</p>	
<p>13C2-PFDA (514.900/470.000 Da)</p> <p>RT (Exp. RT): 2.11 (2.11) min</p> <p>Calculated Conc: 131. µg/L</p> <p>Area Ratio: 0.406</p> <p>Sample Type: (Quality Control)</p>	
<p>13C2-PFUnA (564.900/520.000 Da)</p> <p>RT (Exp. RT): 2.21 (2.27) min</p> <p>Calculated Conc: 129. µg/L</p> <p>Area Ratio: 0.298</p> <p>Sample Type: (Quality Control)</p>	

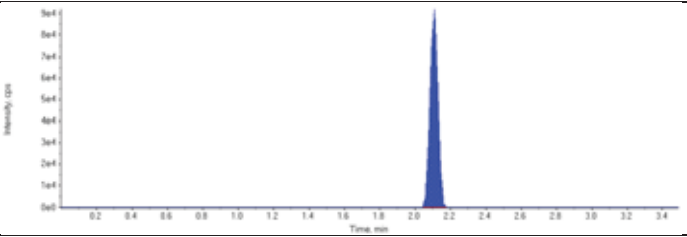
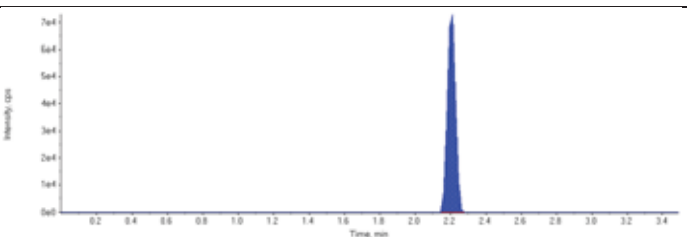
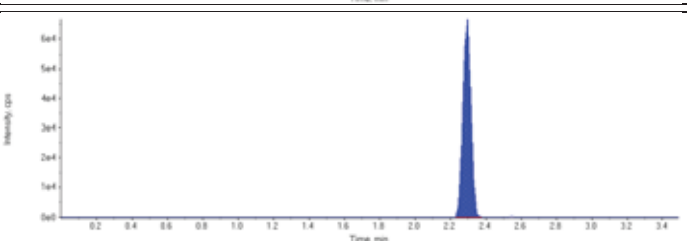
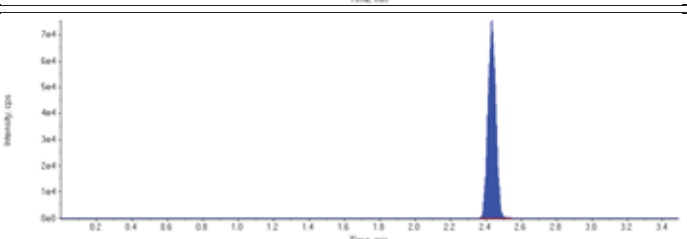
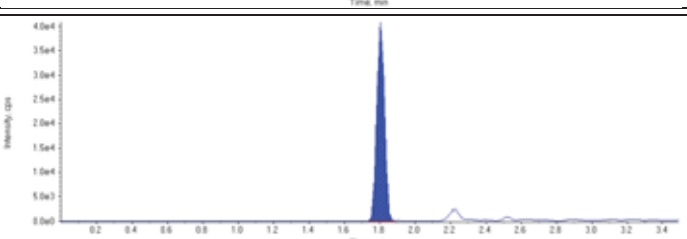
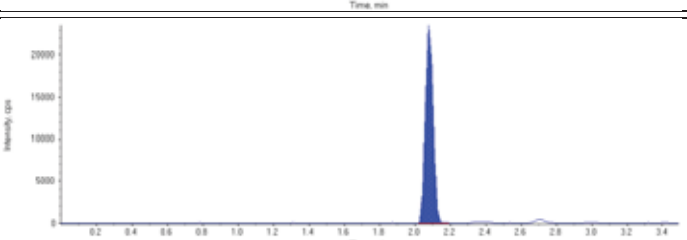
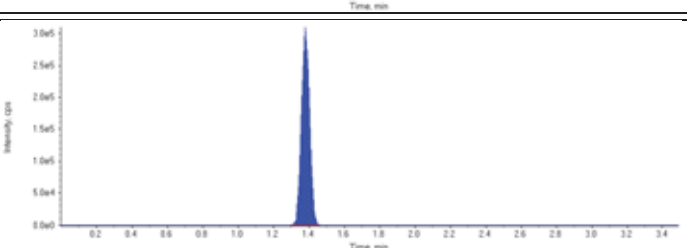
<p>13C2-PFDoA (614.900/570.000 Da)</p> <p>RT (Exp. RT): 2.30 (2.35) min</p> <p>Calculated Conc: 113. µg/L</p> <p>Area Ratio: 0.251</p> <p>Sample Type: (Quality Control)</p>	
<p>13C2-PFTeDA (714.900/669.900 Da)</p> <p>RT (Exp. RT): 2.44 (2.49) min</p> <p>Calculated Conc: 123. µg/L</p> <p>Area Ratio: 0.301</p> <p>Sample Type: (Quality Control)</p>	
<p>13C2-6:2-FTS (429.000/80.900 Da)</p> <p>RT (Exp. RT): 1.81 (1.80) min</p> <p>Calculated Conc: 132. µg/L</p> <p>Area Ratio: 0.158</p> <p>Sample Type: (Quality Control)</p>	
<p>13C2-8:2 FTS (528.900/80.900 Da)</p> <p>RT (Exp. RT): 2.08 (2.08) min</p> <p>Calculated Conc: 129. µg/L</p> <p>Area Ratio: 0.0861</p> <p>Sample Type: (Quality Control)</p>	
<p>13C6-PFHxA (318.900/274.000 Da)</p> <p>RT (Exp. RT): 1.39 (1.40) min</p> <p>Calculated Conc: 76.5 µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Quality Control)</p>	
<p>13C9-PFDA (521.900/477.100 Da)</p> <p>RT (Exp. RT): 2.10 (2.09) min</p> <p>Calculated Conc: 80.7 µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Quality Control)</p>	

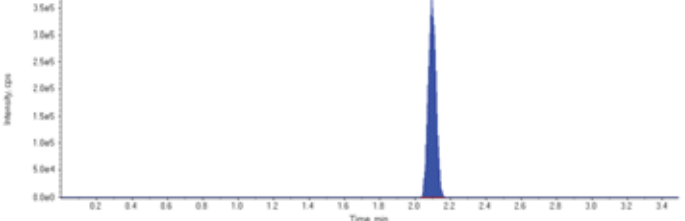
Sample ID	ISC	Injection Volume (µL)	1
Sample Type	Quality Control	Injection Vial	2
Acquisition Date	2017/05/24 8:03:41 AM	Dilution Factor	1.00
Acquisition Method	PFC_Water_Low.dam	Instrument Name	LCMS03
Project	Enviro\PFOS	Algorithm Used	Analyst Classic
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Result Table	PFC_Water_170523_4988945_CTLabs.rdb		
Samples Annotation	-		

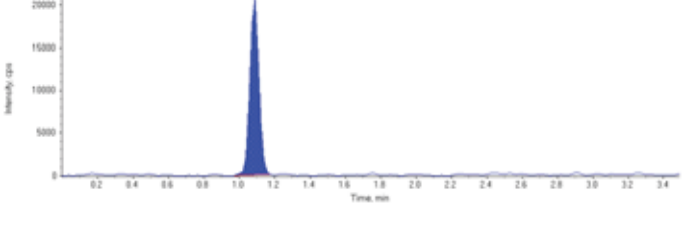
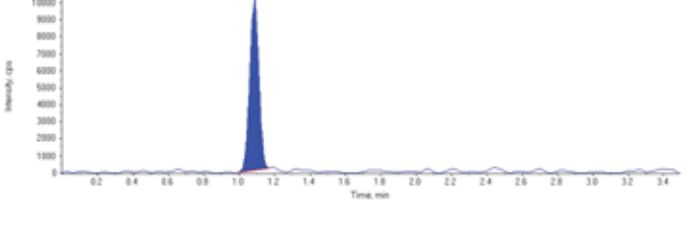
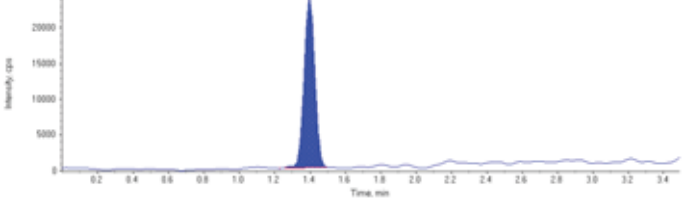
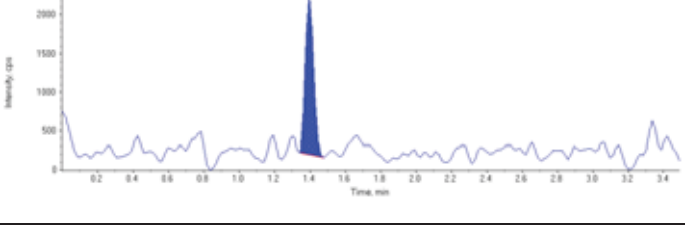
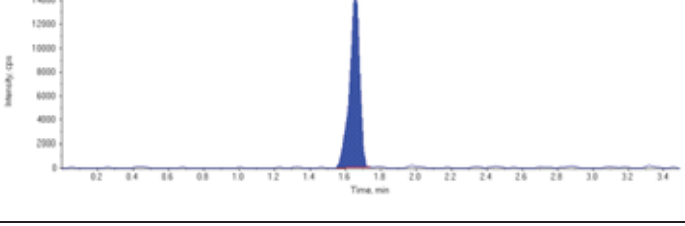
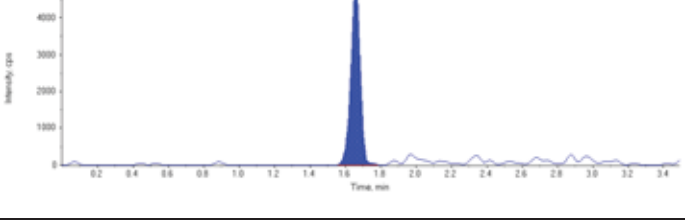
Internal Standard	Area (cps)	RT (min)	Target Conc. (ug/L)	Calc. Conc. (ug/L)
MPFHxA	311000.	1.40	1.00	-
MPFHxS	93900.	1.66	1.00	-
MPFHpA	346000.	1.66	1.00	-
MPFOA	305000.	1.84	1.00	-
MPFOS	113000.	1.96	1.00	-
MPFNA	294000.	1.99	1.00	-
MPFDA	287000.	2.11	1.00	-
MPFUnA	240000.	2.21	1.00	-
MPFDoA	211000.	2.29	1.00	-
MPFTeDA	227000.	2.43	1.00	-
M2 6:2 FTS	123000.	1.81	1.00	-
M2 8:2 FTS	71700.	2.08	1.00	-
13C6-PFHxA IS	981000.	1.38	1.00	-
13C9-PFDA IS	1110000.	2.10	1.00	-
N/A	N/A	N/A	N/A	-
N/A	N/A	N/A	N/A	-

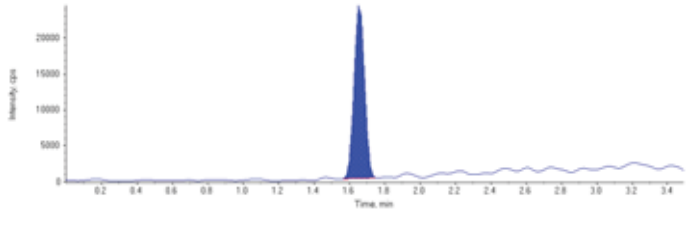
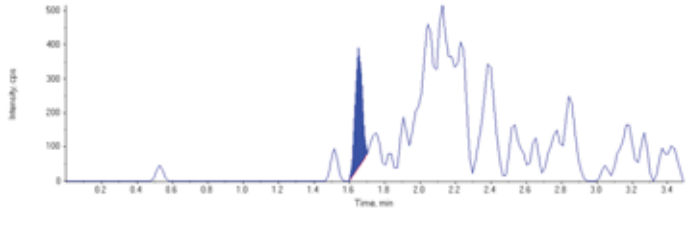
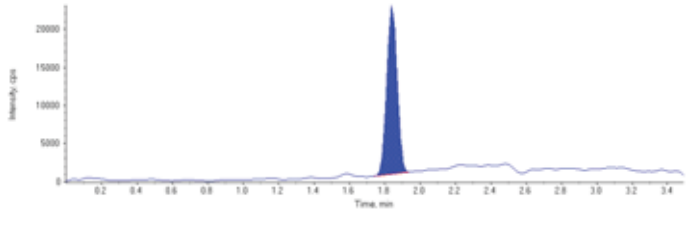
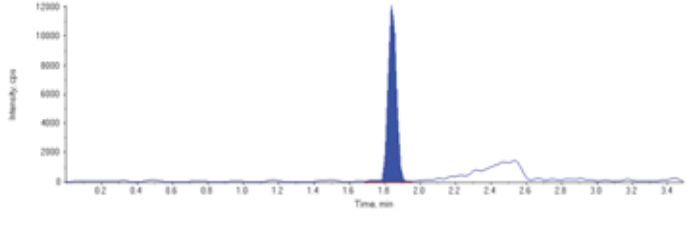
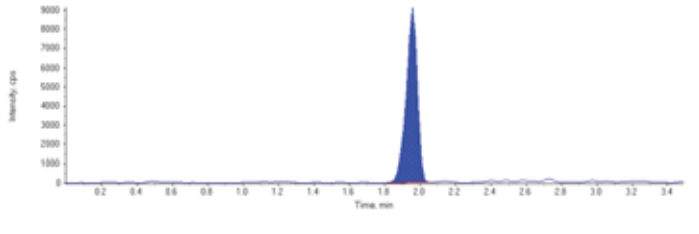
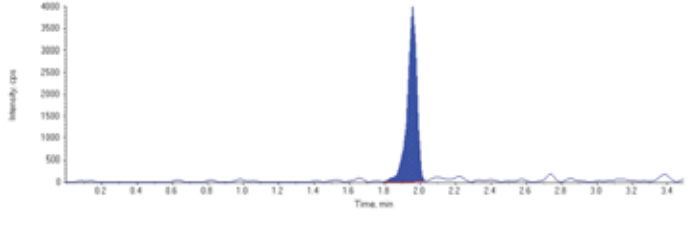
Target Analyte	Area (cps)	RT (min)	Target Conc. (ug/L)	Calc. Conc. (ug/L)	Accuracy (%)
PFBS 1	73700	1.09	0.830	0.908	109.0
PFBS 2	36100	1.09	0.830	0.829	99.9
PFHxA 1	101000	1.40	0.830	0.911	110.0
PFHxA 2	6830	1.40	0.830	0.947	114.0
PFHxS 1	57100	1.66	0.830	0.820	98.8
PFHxS 2	18300	1.66	0.830	0.891	107.0
PFHpA 1	99600	1.66	0.830	0.807	97.2
PFHpA 2	949	1.65	0.830	0.199	23.9
PFOA 1	88900	1.84	0.830	0.836	101.0
PFOA 2	38900	1.84	0.830	0.913	110.0
PFOS 1	39600	1.96	0.830	0.858	103.0
PFOS 2	14400	1.96	0.830	1.02	122.0
PFNA 1	74200	1.99	0.830	0.771	92.9
PFNA 2	24200	1.99	0.830	0.931	112.0
PFDA 1	99700	2.11	0.830	0.932	112.0
PFDA 2	15500	2.11	0.830	0.767	92.5
PFUnA 1	74100	2.21	0.830	0.819	98.7
PFUnA 2	7490	2.21	0.830	0.788	94.9
PFDaA 1	71900	2.29	0.830	0.904	109.0
PFDaA 2	6400	2.29	0.830	0.863	104.0
PFTTrDA 1	69800	2.37	0.830	0.825	99.4
PFTTrDA 2	8860	2.37	0.830	0.882	106.0
PFTeDA 1	63200	2.44	0.830	0.867	104.0
PFTeDA 2	4850	2.44	0.830	0.887	107.0
6:2-FTS 1	19300	1.81	0.830	0.816	98.4
6:2-FTS 2	14800	1.81	0.830	0.782	94.2
8:2-FTS 1	26300	2.08	0.830	0.919	111.0
8:2-FTS 2	8550	2.08	0.830	0.852	103.0
13C2-PFHxA	311000	1.40	100.	98.7	98.7
18O2-PFHxS	93900	1.66	100.	111.	111.0
13C4-PFHpA	346000	1.66	100.	107.	107.0
13C4-PFOA	305000	1.84	100.	113.	113.0
13C4-PFOS	113000	1.96	100.	91.0	91.0
13C5-PFNA	294000	1.99	100.	102.	102.0
13C2-PFDA	287000	2.11	100.	83.6	83.6
13C2-PFUnA	240000	2.21	100.	94.0	94.0
13C2-PFDaA	211000	2.29	100.	85.6	85.6
13C2-PFTeDA	227000	2.43	100.	84.0	84.0
13C2-6:2-FTS	123000	1.81	100.	105.	105.0
13C2-8:2 FTS	71700	2.08	100.	110.	110.0
13C6-PFHxA	981000	1.38	100.	76.7	76.7
13C9-PFDA	1110000	2.10	100.	92.5	92.5

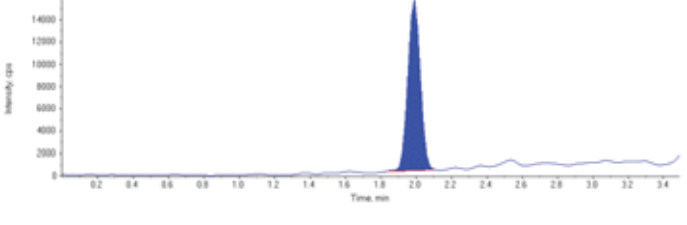
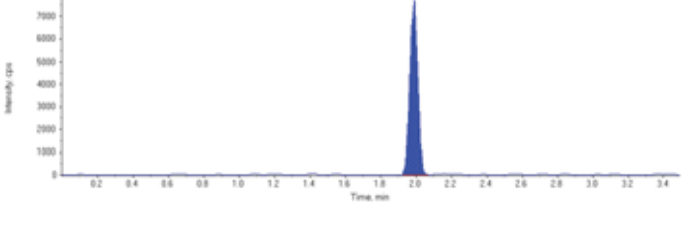
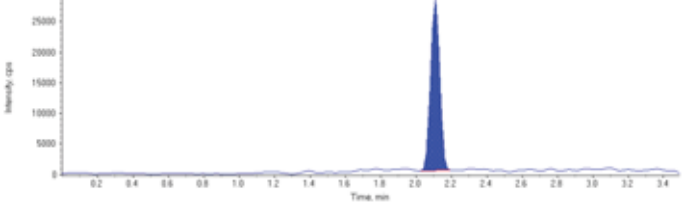
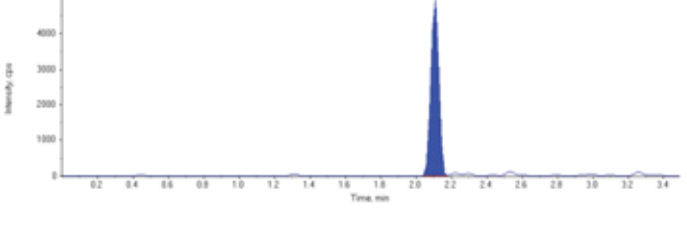
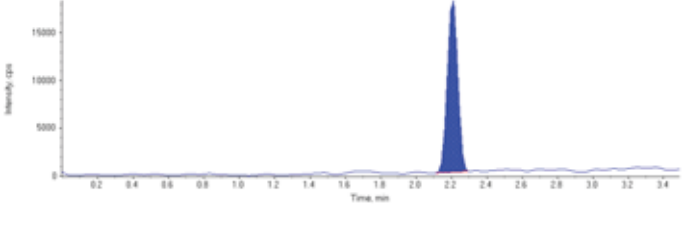
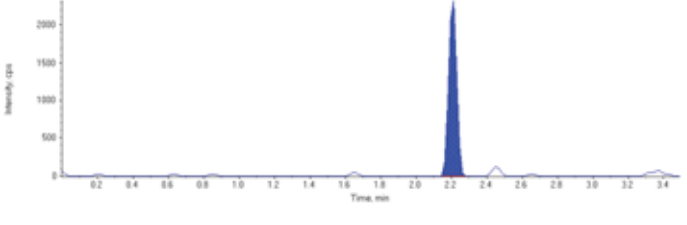
<p>MPFHxA (Internal Standard)</p> <p>RT (Exp. RT): 1.40(1.40) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>MPFHxS (Internal Standard)</p> <p>RT (Exp. RT): 1.66(1.77) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>MPFHpA (Internal Standard)</p> <p>RT (Exp. RT): 1.66(1.67) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>MPFOA (Internal Standard)</p> <p>RT (Exp. RT): 1.84(1.84) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>MPFOS (Internal Standard)</p> <p>RT (Exp. RT): 1.96(2.05) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
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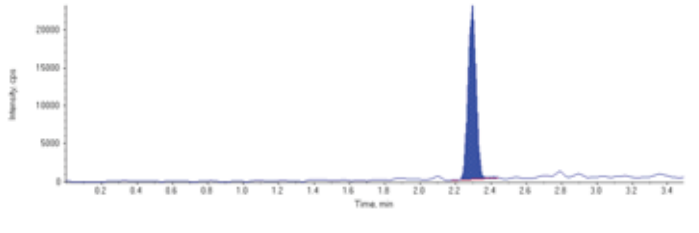
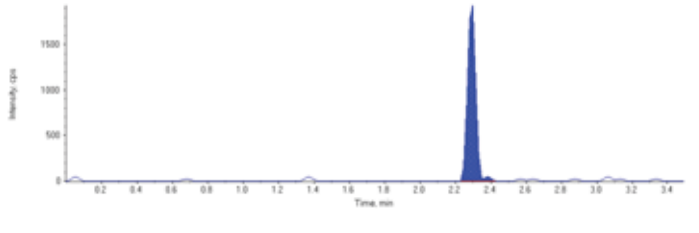
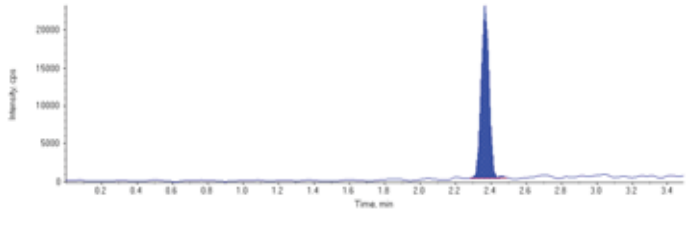
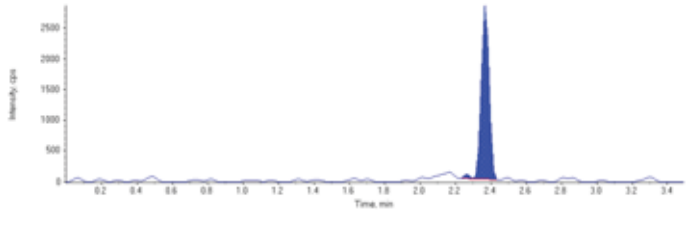
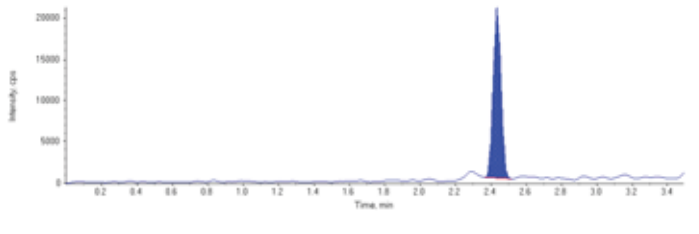
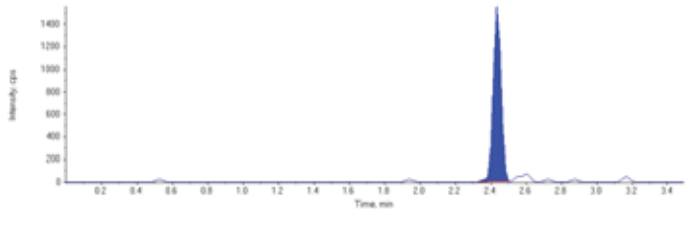
<p>MPFDA (Internal Standard)</p> <p>RT (Exp. RT): 2.11(2.18) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>MPFUnA (Internal Standard)</p> <p>RT (Exp. RT): 2.21(2.27) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>MPFDoA (Internal Standard)</p> <p>RT (Exp. RT): 2.29(2.35) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>MPFTeDA (Internal Standard)</p> <p>RT (Exp. RT): 2.43(2.49) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>M2 6:2 FTS (Internal Standard)</p> <p>RT (Exp. RT): 1.81(1.80) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>M2 8:2 FTS (Internal Standard)</p> <p>RT (Exp. RT): 2.08(2.08) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>13C6-PFHxA IS (Internal Standard)</p> <p>RT (Exp. RT): 1.38(1.40) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	

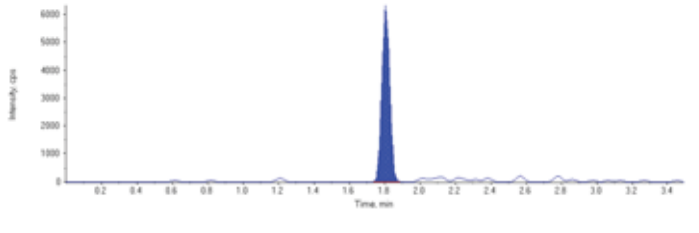
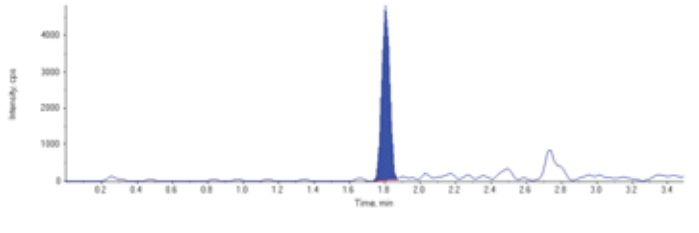
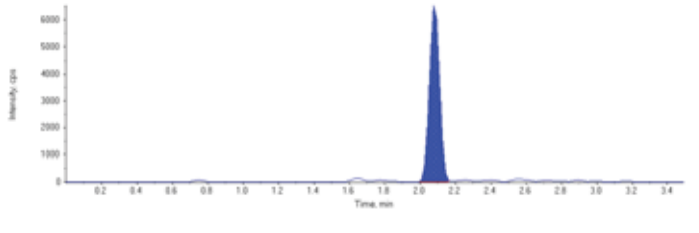
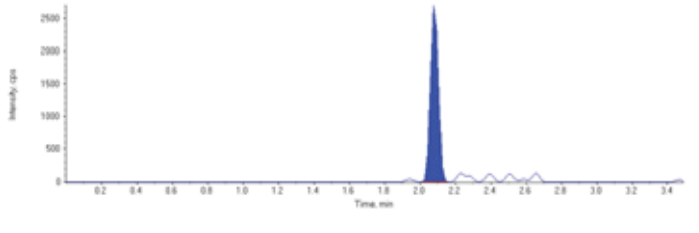
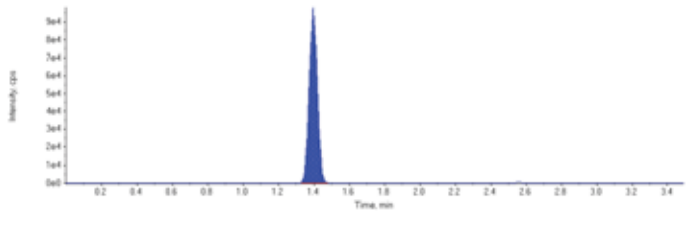
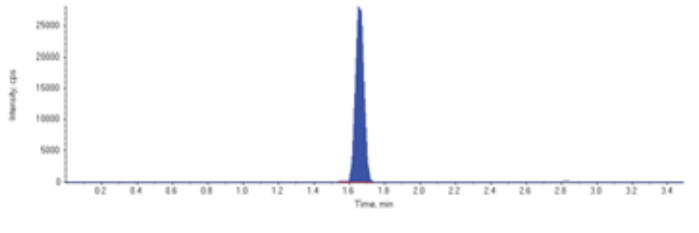
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<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min</p> <p>Concentration: N/A N/A</p> <p>Sample Type: (Quality Control)</p>	<p>This image is not available</p>
<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min</p> <p>Concentration: N/A N/A</p> <p>Sample Type: (Quality Control)</p>	<p>This image is not available</p>

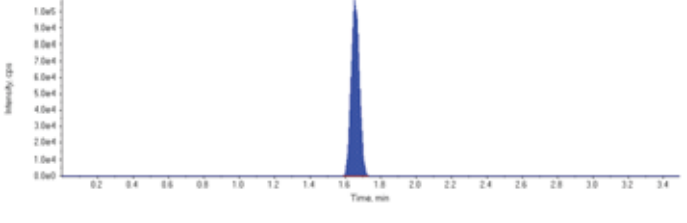
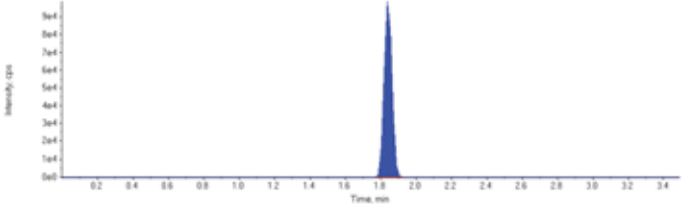
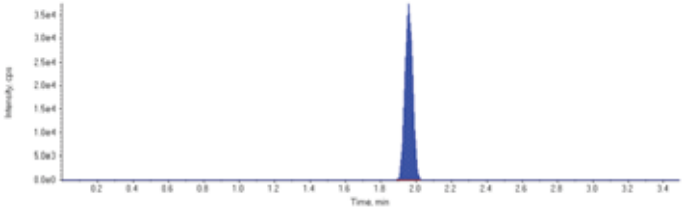
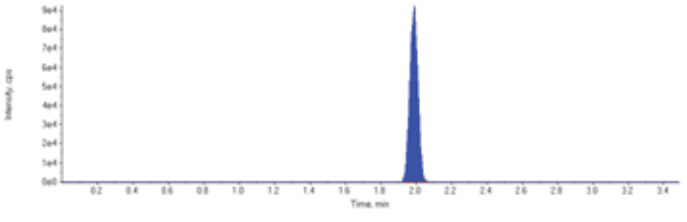
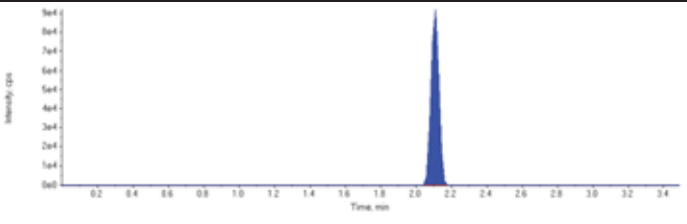
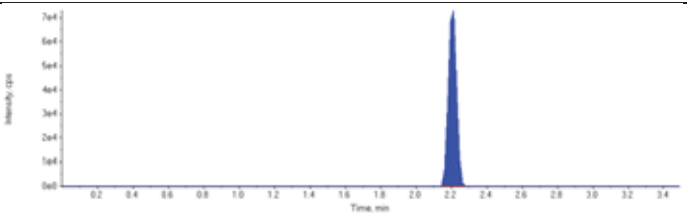
<p>PFBS 1 (298.900/79.900 Da)</p> <p>RT (Exp. RT): 1.09 (1.09) min</p> <p>Calculated Conc: 0.908 µg/L</p> <p>Area Ratio: 0.784</p> <p>Sample Type: (Quality Control)</p>	
<p>PFBS 2 (298.900/98.900 Da)</p> <p>RT (Exp. RT): 1.09 (1.09) min</p> <p>Calculated Conc: 0.829 µg/L</p> <p>Area Ratio: 0.385</p> <p>Sample Type: (Quality Control)</p>	
<p>PFHxA 1 (313.000/269.000 Da)</p> <p>RT (Exp. RT): 1.40 (1.40) min</p> <p>Calculated Conc: 0.911 µg/L</p> <p>Area Ratio: 0.325</p> <p>Sample Type: (Quality Control)</p>	
<p>PFHxA 2 (313.000/119.000 Da)</p> <p>RT (Exp. RT): 1.40 (1.41) min</p> <p>Calculated Conc: 0.947 µg/L</p> <p>Area Ratio: 0.0219</p> <p>Sample Type: (Quality Control)</p>	
<p>PFHxS 1 (398.900/79.900 Da)</p> <p>RT (Exp. RT): 1.66 (1.67) min</p> <p>Calculated Conc: 0.820 µg/L</p> <p>Area Ratio: 0.608</p> <p>Sample Type: (Quality Control)</p>	
<p>PFHxS 2 (398.900/98.900 Da)</p> <p>RT (Exp. RT): 1.66 (1.67) min</p> <p>Calculated Conc: 0.891 µg/L</p> <p>Area Ratio: 0.194</p> <p>Sample Type: (Quality Control)</p>	

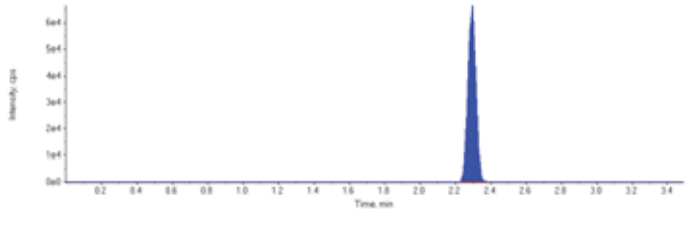
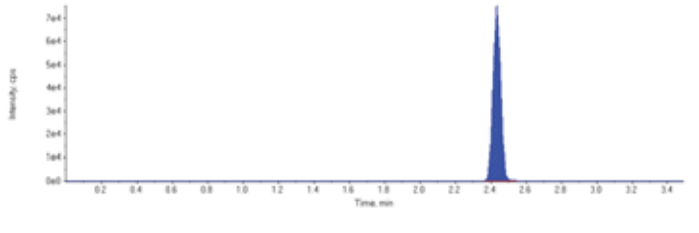
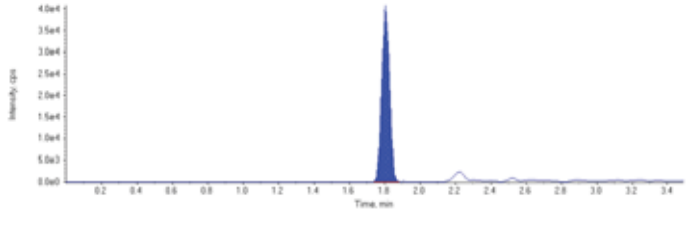
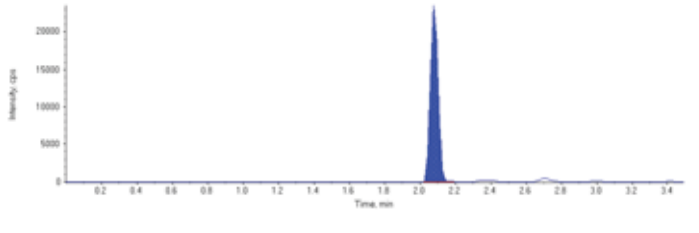
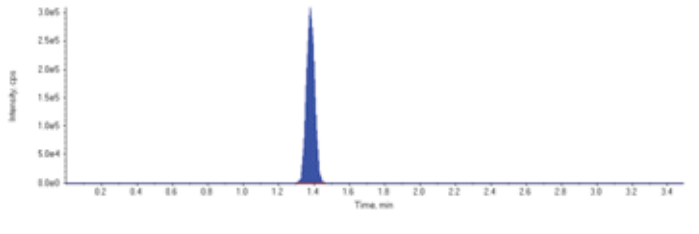
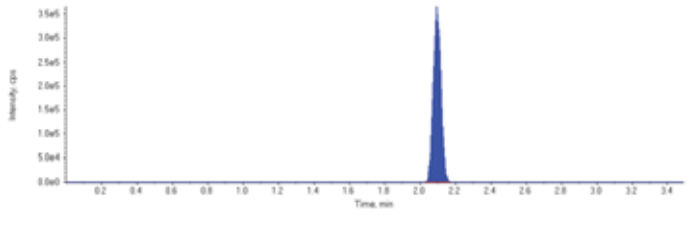
<p>PFHpA 1 (363.000/319.000 Da)</p> <p>RT (Exp. RT): 1.66 (1.67) min</p> <p>Calculated Conc: 0.807 µg/L</p> <p>Area Ratio: 0.288</p> <p>Sample Type: (Quality Control)</p>	
<p>PFHpA 2 (363.000/169.200 Da)</p> <p>RT (Exp. RT): 1.65 (1.67) min</p> <p>Calculated Conc: 0.199 µg/L</p> <p>Area Ratio: 0.00275</p> <p>Sample Type: (Quality Control)</p>	
<p>PFOA 1 (413.100/369.000 Da)</p> <p>RT (Exp. RT): 1.84 (1.85) min</p> <p>Calculated Conc: 0.836 µg/L</p> <p>Area Ratio: 0.291</p> <p>Sample Type: (Quality Control)</p>	
<p>PFOA 2 (413.100/169.000 Da)</p> <p>RT (Exp. RT): 1.84 (1.84) min</p> <p>Calculated Conc: 0.913 µg/L</p> <p>Area Ratio: 0.127</p> <p>Sample Type: (Quality Control)</p>	
<p>PFOS 1 (498.900/79.900 Da)</p> <p>RT (Exp. RT): 1.96 (1.96) min</p> <p>Calculated Conc: 0.858 µg/L</p> <p>Area Ratio: 0.350</p> <p>Sample Type: (Quality Control)</p>	
<p>PFOS 2 (498.900/98.900 Da)</p> <p>RT (Exp. RT): 1.96 (1.96) min</p> <p>Calculated Conc: 1.02 µg/L</p> <p>Area Ratio: 0.127</p> <p>Sample Type: (Quality Control)</p>	

<p>PFNA 1 (462.900/419.000 Da)</p> <p>RT (Exp. RT): 1.99 (1.99) min</p> <p>Calculated Conc: 0.771 µg/L</p> <p>Area Ratio: 0.253</p> <p>Sample Type: (Quality Control)</p>	
<p>PFNA 2 (462.900/219.100 Da)</p> <p>RT (Exp. RT): 1.99 (1.99) min</p> <p>Calculated Conc: 0.931 µg/L</p> <p>Area Ratio: 0.0823</p> <p>Sample Type: (Quality Control)</p>	
<p>PFDA 1 (513.000/469.100 Da)</p> <p>RT (Exp. RT): 2.11 (2.18) min</p> <p>Calculated Conc: 0.932 µg/L</p> <p>Area Ratio: 0.347</p> <p>Sample Type: (Quality Control)</p>	
<p>PFDA 2 (513.000/218.900 Da)</p> <p>RT (Exp. RT): 2.11 (2.11) min</p> <p>Calculated Conc: 0.767 µg/L</p> <p>Area Ratio: 0.0540</p> <p>Sample Type: (Quality Control)</p>	
<p>PFUnA 1 (562.900/519.000 Da)</p> <p>RT (Exp. RT): 2.21 (2.21) min</p> <p>Calculated Conc: 0.819 µg/L</p> <p>Area Ratio: 0.309</p> <p>Sample Type: (Quality Control)</p>	
<p>PFUnA 2 (562.900/269.200 Da)</p> <p>RT (Exp. RT): 2.21 (2.27) min</p> <p>Calculated Conc: 0.788 µg/L</p> <p>Area Ratio: 0.0312</p> <p>Sample Type: (Quality Control)</p>	

<p>PFD_oA 1 (612.900/569.000 Da)</p> <p>RT (Exp. RT): 2.29 (2.36) min</p> <p>Calculated Conc: 0.904 µg/L</p> <p>Area Ratio: 0.341</p> <p>Sample Type: (Quality Control)</p>	
<p>PFD_oA 2 (612.900/319.000 Da)</p> <p>RT (Exp. RT): 2.29 (2.35) min</p> <p>Calculated Conc: 0.863 µg/L</p> <p>Area Ratio: 0.0303</p> <p>Sample Type: (Quality Control)</p>	
<p>PFT_rDA 1 (663.000/619.000 Da)</p> <p>RT (Exp. RT): 2.37 (2.42) min</p> <p>Calculated Conc: 0.825 µg/L</p> <p>Area Ratio: 0.308</p> <p>Sample Type: (Quality Control)</p>	
<p>PFT_rDA 2 (663.000/318.900 Da)</p> <p>RT (Exp. RT): 2.37 (2.37) min</p> <p>Calculated Conc: 0.882 µg/L</p> <p>Area Ratio: 0.0391</p> <p>Sample Type: (Quality Control)</p>	
<p>PFT_eDA 1 (713.000/669.000 Da)</p> <p>RT (Exp. RT): 2.44 (2.49) min</p> <p>Calculated Conc: 0.867 µg/L</p> <p>Area Ratio: 0.279</p> <p>Sample Type: (Quality Control)</p>	
<p>PFT_eDA 2 (713.000/319.200 Da)</p> <p>RT (Exp. RT): 2.44 (2.49) min</p> <p>Calculated Conc: 0.887 µg/L</p> <p>Area Ratio: 0.0214</p> <p>Sample Type: (Quality Control)</p>	

<p>6:2-FTS 1 (427.000/407.000 Da)</p> <p>RT (Exp. RT): 1.81 (1.90) min</p> <p>Calculated Conc: 0.816 µg/L</p> <p>Area Ratio: 0.156</p> <p>Sample Type: (Quality Control)</p>	
<p>6:2-FTS 2 (427.000/80.900 Da)</p> <p>RT (Exp. RT): 1.81 (1.80) min</p> <p>Calculated Conc: 0.782 µg/L</p> <p>Area Ratio: 0.120</p> <p>Sample Type: (Quality Control)</p>	
<p>8:2-FTS 1 (526.900/507.000 Da)</p> <p>RT (Exp. RT): 2.08 (2.16) min</p> <p>Calculated Conc: 0.919 µg/L</p> <p>Area Ratio: 0.367</p> <p>Sample Type: (Quality Control)</p>	
<p>8:2-FTS 2 (526.900/80.900 Da)</p> <p>RT (Exp. RT): 2.08 (2.09) min</p> <p>Calculated Conc: 0.852 µg/L</p> <p>Area Ratio: 0.119</p> <p>Sample Type: (Quality Control)</p>	
<p>13C2-PFHxA (314.900/270.000 Da)</p> <p>RT (Exp. RT): 1.40 (1.40) min</p> <p>Calculated Conc: 98.7 µg/L</p> <p>Area Ratio: 0.317</p> <p>Sample Type: (Quality Control)</p>	
<p>18O2-PFHxS (402.900/84.000 Da)</p> <p>RT (Exp. RT): 1.66 (1.77) min</p> <p>Calculated Conc: 111. µg/L</p> <p>Area Ratio: 0.0958</p> <p>Sample Type: (Quality Control)</p>	

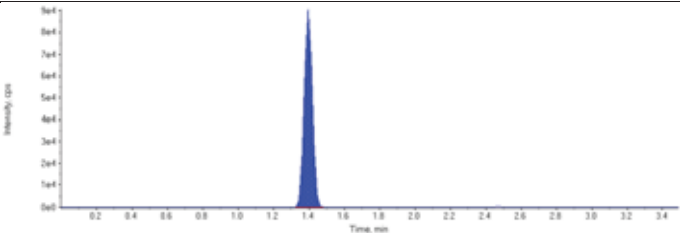
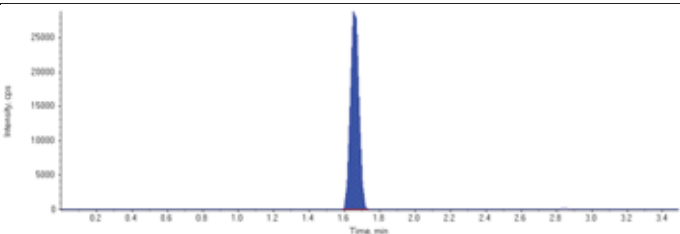
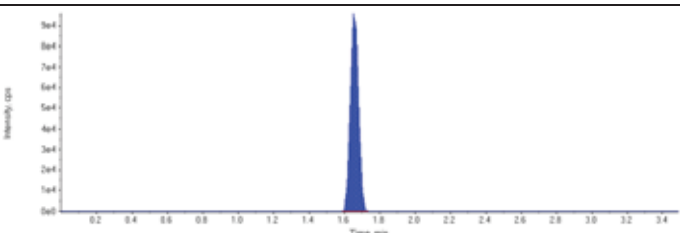
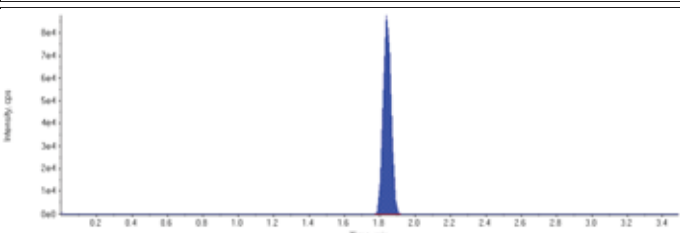
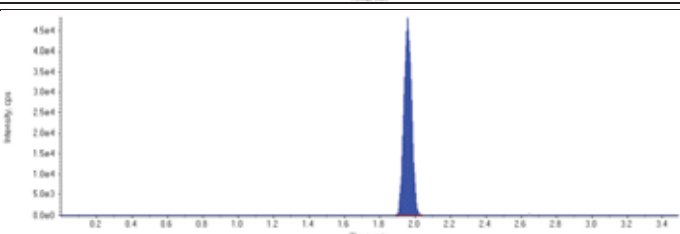
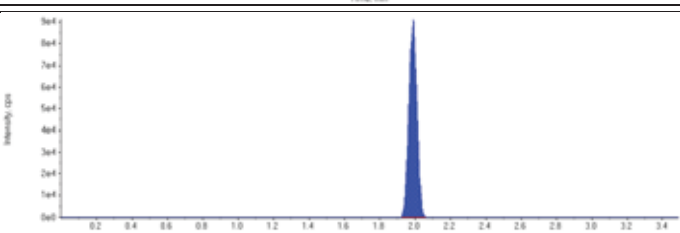
<p>13C4-PFHpa (366.900/322.000 Da)</p> <p>RT (Exp. RT): 1.66 (1.67) min</p> <p>Calculated Conc: 107. µg/L</p> <p>Area Ratio: 0.353</p> <p>Sample Type: (Quality Control)</p>	
<p>13C4-PFOA (416.900/372.000 Da)</p> <p>RT (Exp. RT): 1.84 (1.84) min</p> <p>Calculated Conc: 113. µg/L</p> <p>Area Ratio: 0.311</p> <p>Sample Type: (Quality Control)</p>	
<p>13C4-PFOS (502.900/79.900 Da)</p> <p>RT (Exp. RT): 1.96 (2.05) min</p> <p>Calculated Conc: 91.0 µg/L</p> <p>Area Ratio: 0.115</p> <p>Sample Type: (Quality Control)</p>	
<p>13C5-PFNA (467.900/423.000 Da)</p> <p>RT (Exp. RT): 1.99 (1.99) min</p> <p>Calculated Conc: 102. µg/L</p> <p>Area Ratio: 0.300</p> <p>Sample Type: (Quality Control)</p>	
<p>13C2-PFDA (514.900/470.000 Da)</p> <p>RT (Exp. RT): 2.11 (2.11) min</p> <p>Calculated Conc: 83.6 µg/L</p> <p>Area Ratio: 0.259</p> <p>Sample Type: (Quality Control)</p>	
<p>13C2-PFUnA (564.900/520.000 Da)</p> <p>RT (Exp. RT): 2.21 (2.27) min</p> <p>Calculated Conc: 94.0 µg/L</p> <p>Area Ratio: 0.217</p> <p>Sample Type: (Quality Control)</p>	

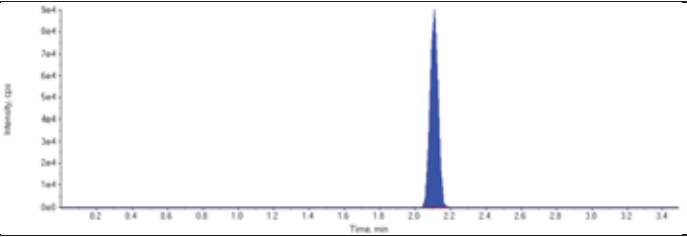
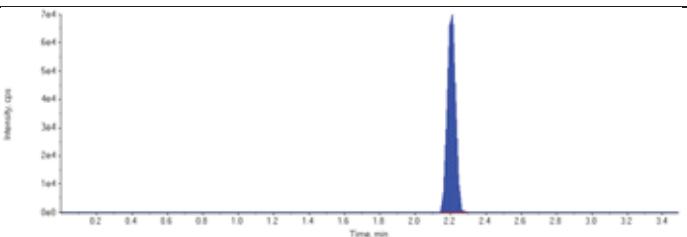
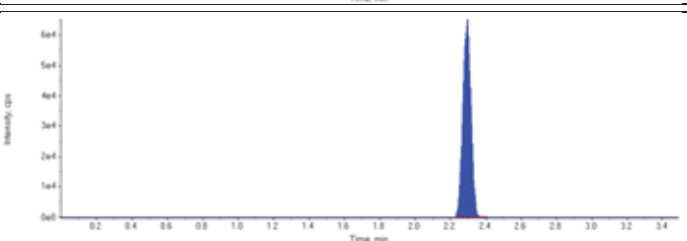
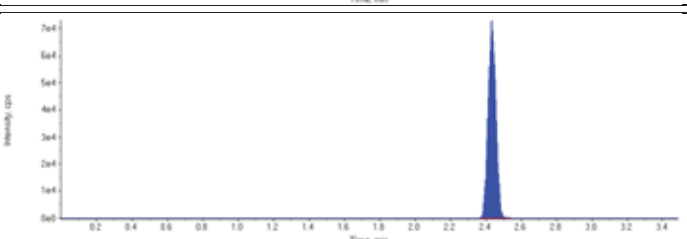
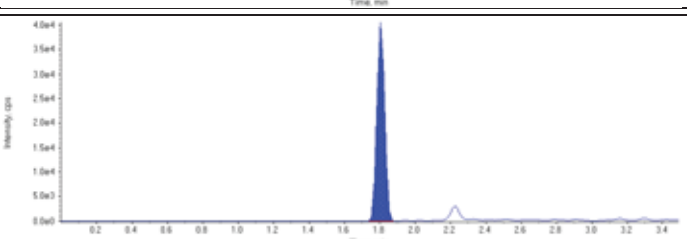
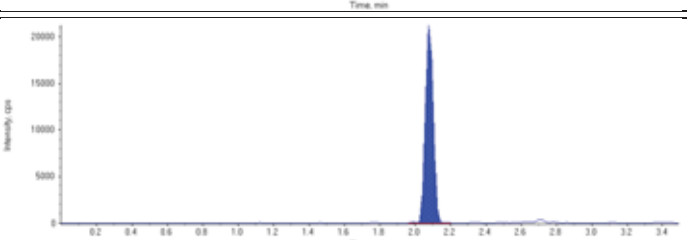
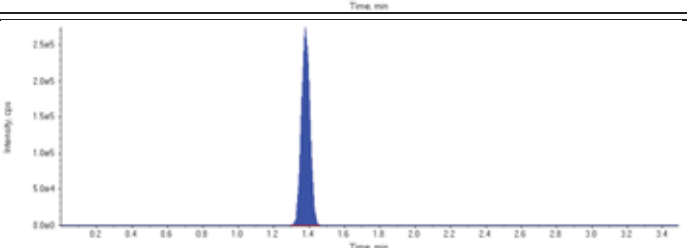
<p>13C2-PFDoA (614.900/570.000 Da)</p> <p>RT (Exp. RT): 2.29 (2.35) min</p> <p>Calculated Conc: 85.6 µg/L</p> <p>Area Ratio: 0.191</p> <p>Sample Type: (Quality Control)</p>	
<p>13C2-PFTeDA (714.900/669.900 Da)</p> <p>RT (Exp. RT): 2.43 (2.49) min</p> <p>Calculated Conc: 84.0 µg/L</p> <p>Area Ratio: 0.205</p> <p>Sample Type: (Quality Control)</p>	
<p>13C2-6:2-FTS (429.000/80.900 Da)</p> <p>RT (Exp. RT): 1.81 (1.80) min</p> <p>Calculated Conc: 105. µg/L</p> <p>Area Ratio: 0.126</p> <p>Sample Type: (Quality Control)</p>	
<p>13C2-8:2 FTS (528.900/80.900 Da)</p> <p>RT (Exp. RT): 2.08 (2.08) min</p> <p>Calculated Conc: 110. µg/L</p> <p>Area Ratio: 0.0731</p> <p>Sample Type: (Quality Control)</p>	
<p>13C6-PFHxA (318.900/274.000 Da)</p> <p>RT (Exp. RT): 1.38 (1.40) min</p> <p>Calculated Conc: 76.7 µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Quality Control)</p>	
<p>13C9-PFDA (521.900/477.100 Da)</p> <p>RT (Exp. RT): 2.10 (2.09) min</p> <p>Calculated Conc: 92.5 µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Quality Control)</p>	

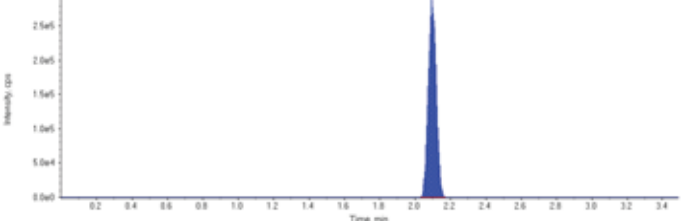
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Sample Type	Quality Control	Injection Vial	5
Acquisition Date	2017/05/24 8:45:48 AM	Dilution Factor	1.00
Acquisition Method	PFC_Water_Low.dam	Instrument Name	LCMS03
Project	Enviro\PFOS	Algorithm Used	Analyst Classic
Data File	PFC_170523\WS#4988945.wiff		
Result Table	PFC_Water_170523_4988945_CTLabs.rdb		
Samples Annotation	-		

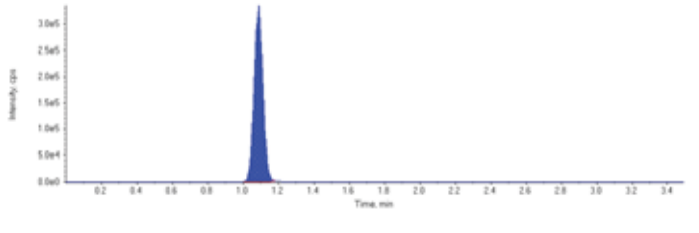
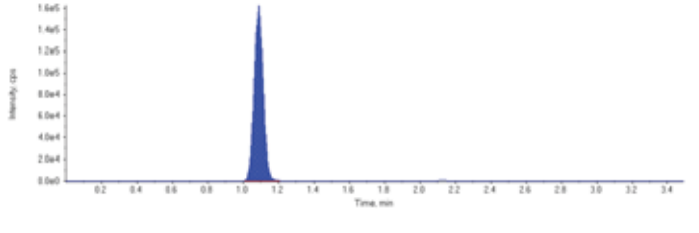
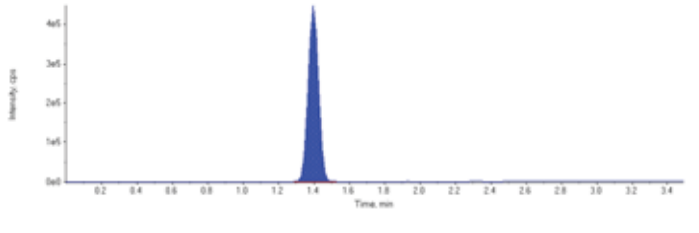
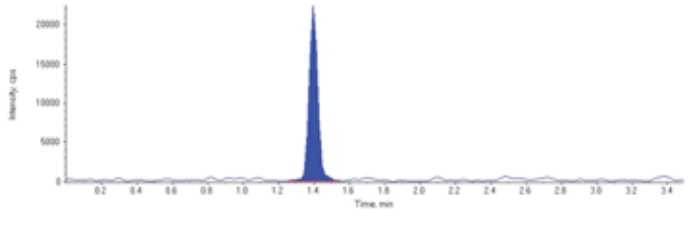
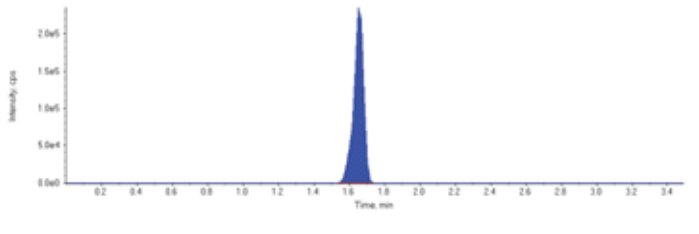
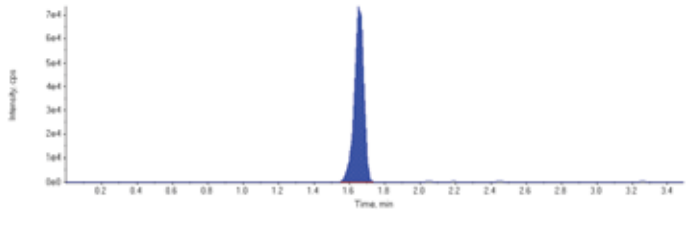
Internal Standard	Area (cps)	RT (min)	Target Conc. (ug/L)	Calc. Conc. (ug/L)
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MPFHxS	95900.	1.66	1.00	-
MPFHpA	312000.	1.66	1.00	-
MPFOA	273000.	1.84	1.00	-
MPFOS	144000.	1.96	1.00	-
MPFNA	289000.	1.99	1.00	-
MPFDA	282000.	2.11	1.00	-
MPFUnA	230000.	2.21	1.00	-
MPFDoA	206000.	2.29	1.00	-
MPFTeDA	221000.	2.43	1.00	-
M2 6:2 FTS	125000.	1.81	1.00	-
M2 8:2 FTS	66100.	2.08	1.00	-
13C6-PFHxA IS	897000.	1.38	1.00	-
13C9-PFDA IS	901000.	2.10	1.00	-
N/A	N/A	N/A	N/A	-
N/A	N/A	N/A	N/A	-

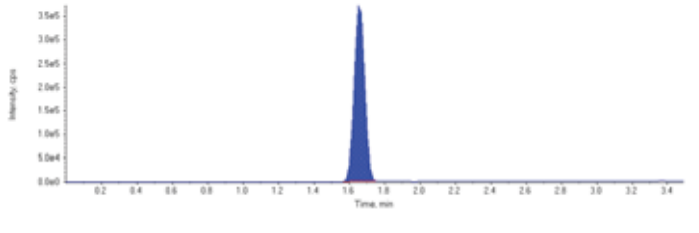
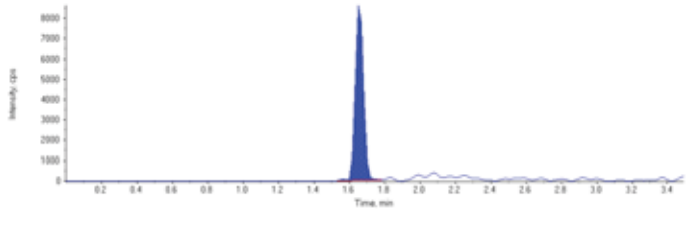
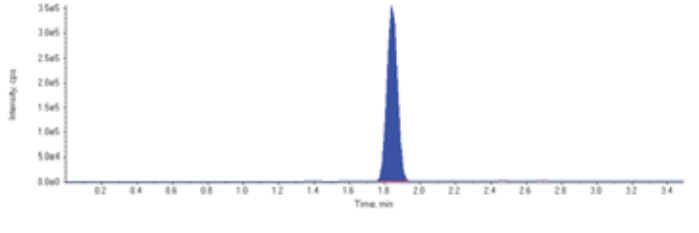
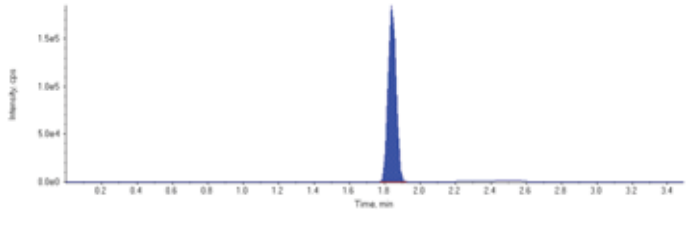
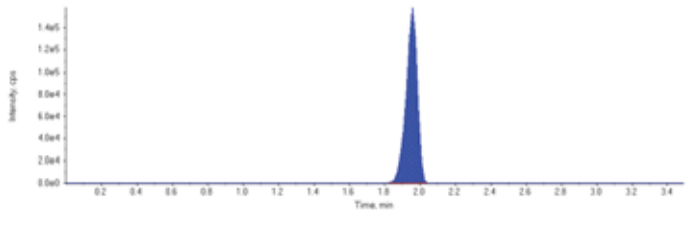
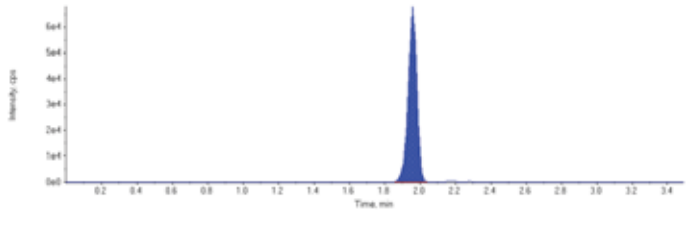
Target Analyte	Area (cps)	RT (min)	Target Conc. (ug/L)	Calc. Conc. (ug/L)	Accuracy (%)
PFBS 1	1180000	1.09	12.5	10.7	85.3
PFBS 2	580000	1.09	12.5	10.6	84.8
PFHxA 1	1830000	1.40	12.5	14.5	116.0
PFHxA 2	76200	1.40	12.5	10.4	82.9
PFHxS 1	920000	1.66	12.5	11.1	89.1
PFHxS 2	273000	1.66	12.5	11.1	89.2
PFHpA 1	1550000	1.66	12.5	12.7	102.0
PFHpA 2	28300	1.66	12.5	12.6	101.0
PFOA 1	1440000	1.84	12.5	11.7	93.8
PFOA 2	576000	1.84	12.5	11.6	92.7
PFOS 1	691000	1.96	12.5	10.4	82.9
PFOS 2	231000	1.96	12.5	11.2	89.3
PFNA 1	1250000	1.99	12.5	12.0	96.2
PFNA 2	338000	1.99	12.5	12.4	98.8
PFDA 1	1500000	2.11	12.5	13.0	104.0
PFDA 2	286000	2.11	12.5	12.8	102.0
PFUnA 1	1140000	2.21	12.5	11.7	93.9
PFUnA 2	120000	2.21	12.5	11.2	89.7
PFDaA 1	1010000	2.29	12.5	11.8	94.4
PFDaA 2	103000	2.29	12.5	11.8	94.4
PFTTrDA 1	1290000	2.37	12.5	14.2	113.0
PFTTrDA 2	136000	2.37	12.5	13.6	108.0
PFTeDA 1	1070000	2.43	12.5	12.9	104.0
PFTeDA 2	74800	2.43	12.5	12.6	101.0
6:2-FTS 1	322000	1.81	12.5	9.85	78.8
6:2-FTS 2	272000	1.81	12.5	12.2	97.2
8:2-FTS 1	371000	2.08	12.5	11.3	90.3
8:2-FTS 2	146000	2.08	12.5	12.2	97.6
13C2-PFHxA	292000	1.40	100.	101.	101.0
18O2-PFHxS	95900	1.66	100.	124.	124.0
13C4-PFHpA	312000	1.66	100.	105.	105.0
13C4-PFOA	273000	1.84	100.	111.	111.0
13C4-PFOS	144000	1.96	100.	127.	127.0
13C5-PFNA	289000	1.99	100.	110.	110.0
13C2-PFDA	282000	2.11	100.	101.	101.0
13C2-PFUnA	230000	2.21	100.	111.	111.0
13C2-PFDaA	206000	2.29	100.	103.	103.0
13C2-PFTeDA	221000	2.43	100.	100.	100.0
13C2-6:2-FTS	125000	1.81	100.	117.	117.0
13C2-8:2 FTS	66100	2.08	100.	111.	111.0
13C6-PFHxA	897000	1.38	100.	70.1	70.1
13C9-PFDA	901000	2.10	100.	75.3	75.3

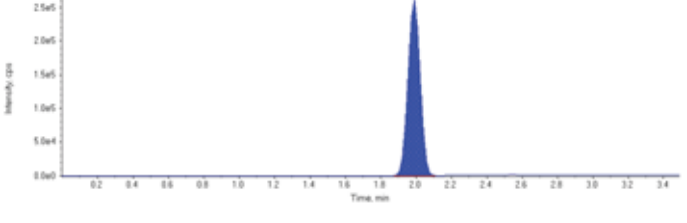
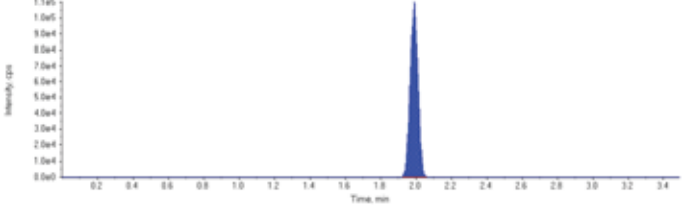
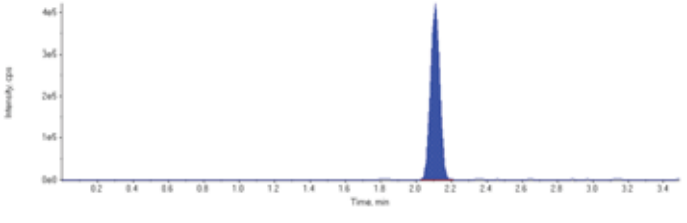
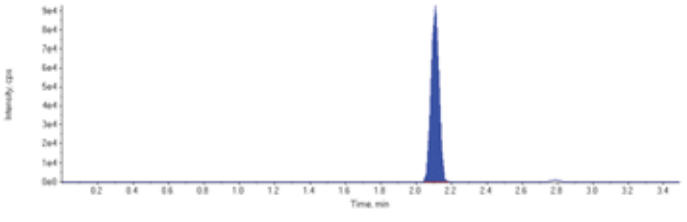
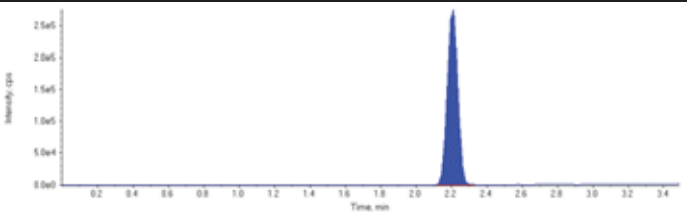
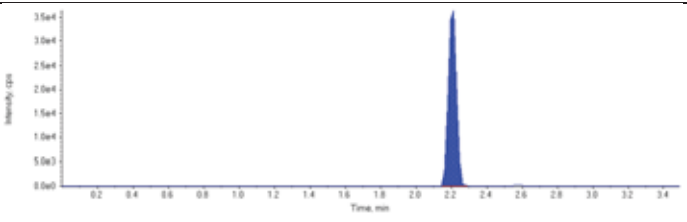
<p>MPFHxA (Internal Standard)</p> <p>RT (Exp. RT): 1.40(1.40) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>MPFHxS (Internal Standard)</p> <p>RT (Exp. RT): 1.66(1.77) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>MPFHpA (Internal Standard)</p> <p>RT (Exp. RT): 1.66(1.67) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>MPFOA (Internal Standard)</p> <p>RT (Exp. RT): 1.84(1.84) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>MPFOS (Internal Standard)</p> <p>RT (Exp. RT): 1.96(2.05) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>MPFNA (Internal Standard)</p> <p>RT (Exp. RT): 1.99(1.99) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	

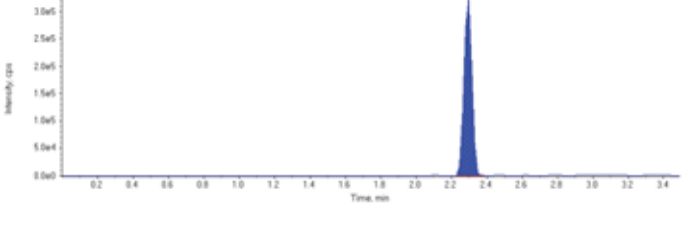
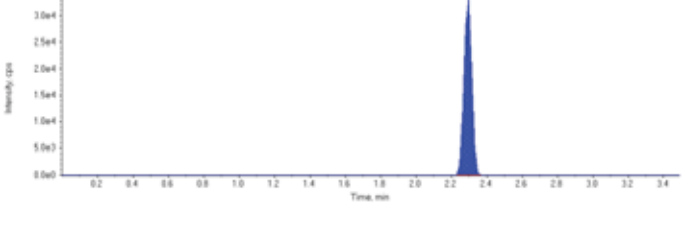
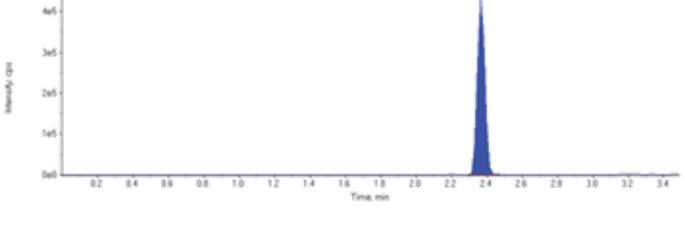
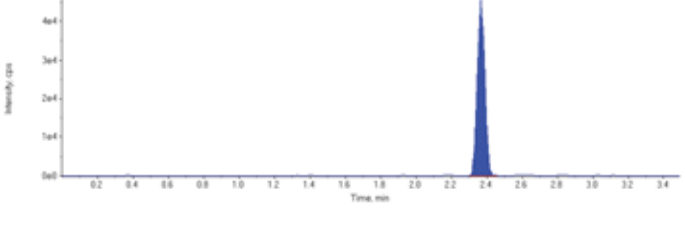
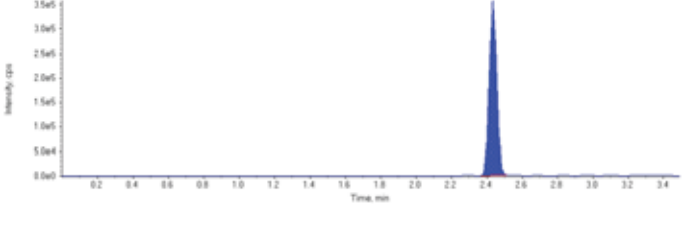
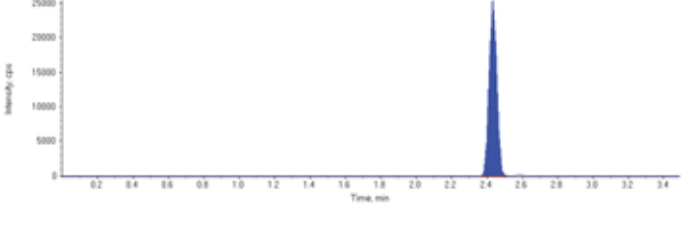
<p>MPFDA (Internal Standard)</p> <p>RT (Exp. RT): 2.11(2.18) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>MPFUnA (Internal Standard)</p> <p>RT (Exp. RT): 2.21(2.27) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>MPFDoA (Internal Standard)</p> <p>RT (Exp. RT): 2.29(2.35) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>MPFTeDA (Internal Standard)</p> <p>RT (Exp. RT): 2.43(2.49) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>M2 6:2 FTS (Internal Standard)</p> <p>RT (Exp. RT): 1.81(1.80) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>M2 8:2 FTS (Internal Standard)</p> <p>RT (Exp. RT): 2.08(2.08) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>13C6-PFHxA IS (Internal Standard)</p> <p>RT (Exp. RT): 1.38(1.40) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	

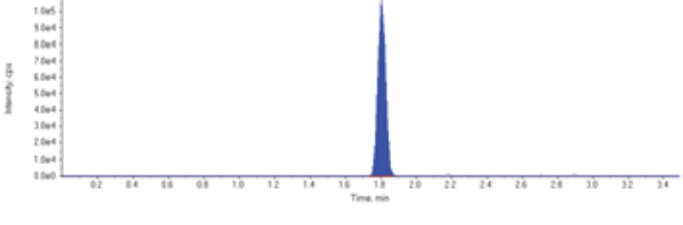
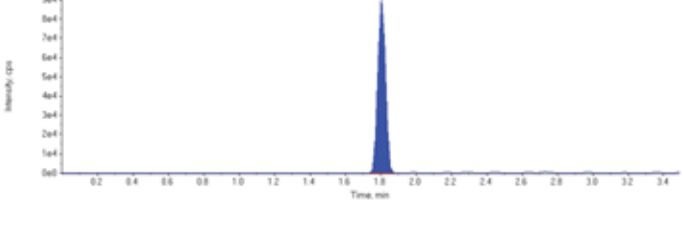
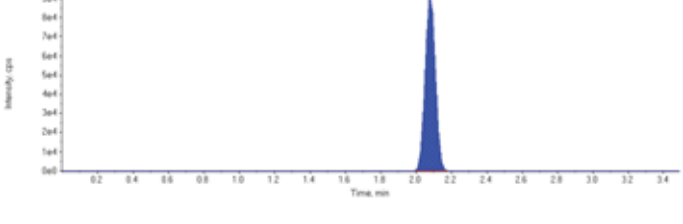
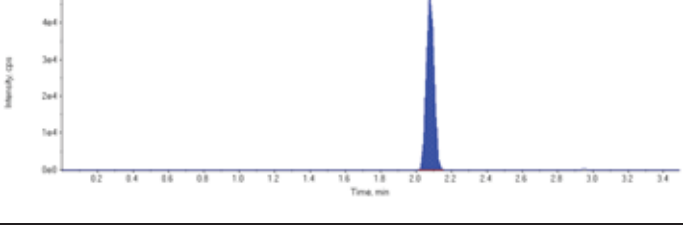
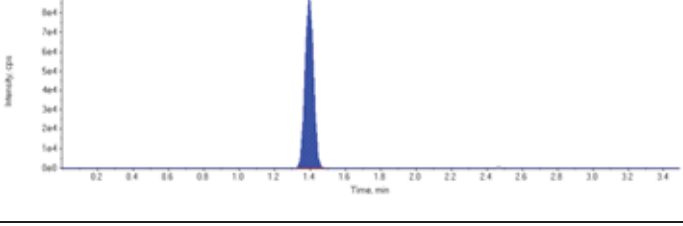
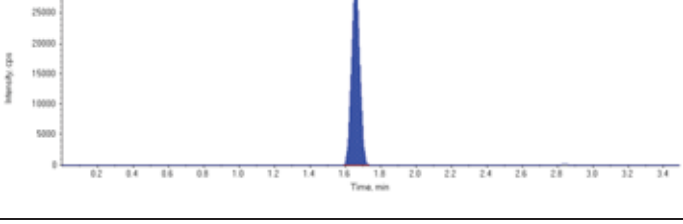
<p>13C9-PFDA IS (Internal Standard)</p> <p>RT (Exp. RT): 2.10(2.09) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min</p> <p>Concentration: N/A N/A</p> <p>Sample Type: (Quality Control)</p>	<p>This image is not available</p>
<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min</p> <p>Concentration: N/A N/A</p> <p>Sample Type: (Quality Control)</p>	<p>This image is not available</p>

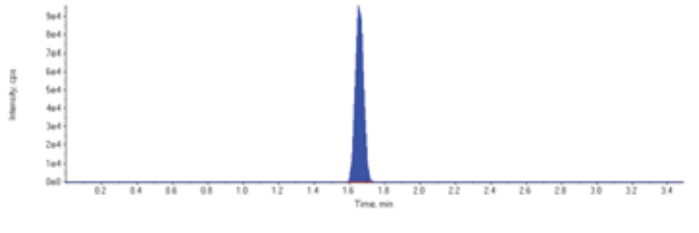
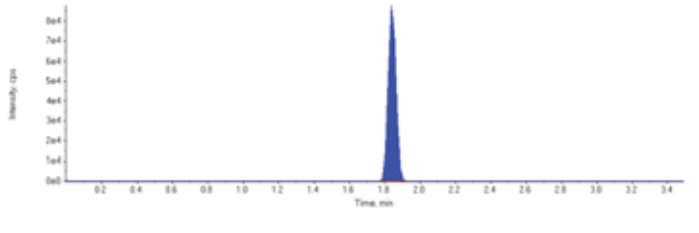
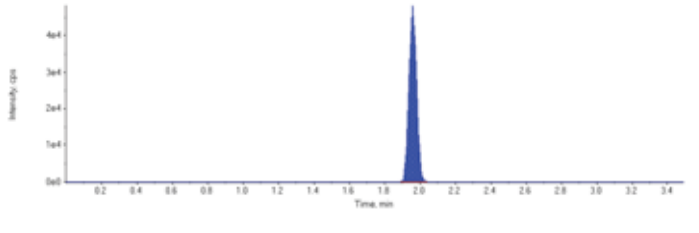
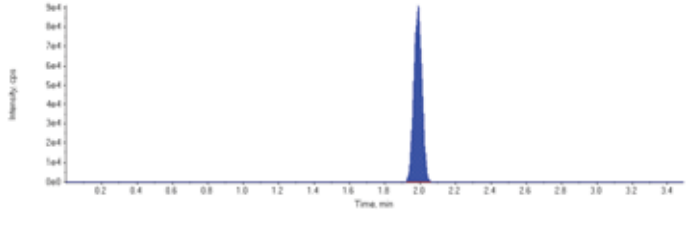
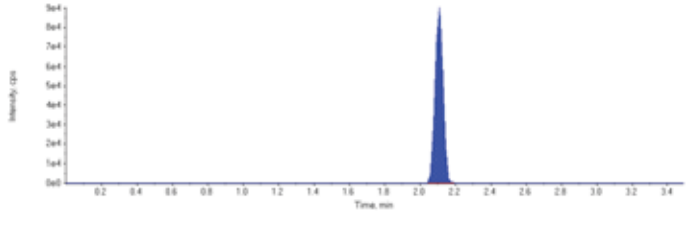
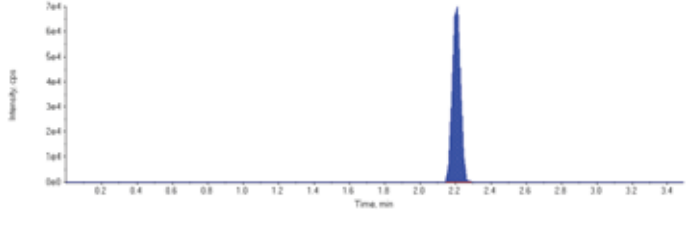
<p>PFBS 1 (298.900/79.900 Da)</p> <p>RT (Exp. RT): 1.09 (1.09) min</p> <p>Calculated Conc: 10.7 µg/L</p> <p>Area Ratio: 12.3</p> <p>Sample Type: (Quality Control)</p>	
<p>PFBS 2 (298.900/98.900 Da)</p> <p>RT (Exp. RT): 1.09 (1.09) min</p> <p>Calculated Conc: 10.6 µg/L</p> <p>Area Ratio: 6.05</p> <p>Sample Type: (Quality Control)</p>	
<p>PFHxA 1 (313.000/269.000 Da)</p> <p>RT (Exp. RT): 1.40 (1.40) min</p> <p>Calculated Conc: 14.5 µg/L</p> <p>Area Ratio: 6.25</p> <p>Sample Type: (Quality Control)</p>	
<p>PFHxA 2 (313.000/119.000 Da)</p> <p>RT (Exp. RT): 1.40 (1.41) min</p> <p>Calculated Conc: 10.4 µg/L</p> <p>Area Ratio: 0.261</p> <p>Sample Type: (Quality Control)</p>	
<p>PFHxS 1 (398.900/79.900 Da)</p> <p>RT (Exp. RT): 1.66 (1.67) min</p> <p>Calculated Conc: 11.1 µg/L</p> <p>Area Ratio: 9.60</p> <p>Sample Type: (Quality Control)</p>	
<p>PFHxS 2 (398.900/98.900 Da)</p> <p>RT (Exp. RT): 1.66 (1.67) min</p> <p>Calculated Conc: 11.1 µg/L</p> <p>Area Ratio: 2.84</p> <p>Sample Type: (Quality Control)</p>	

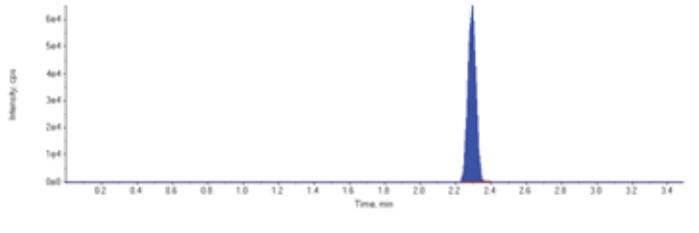
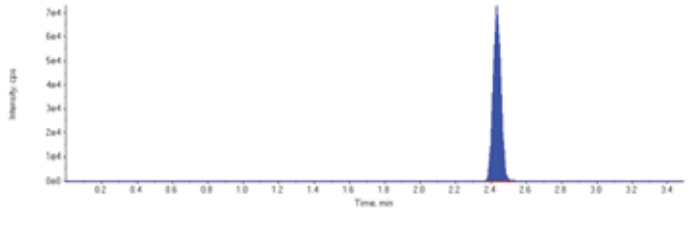
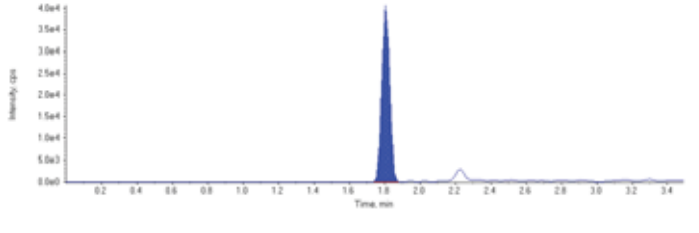
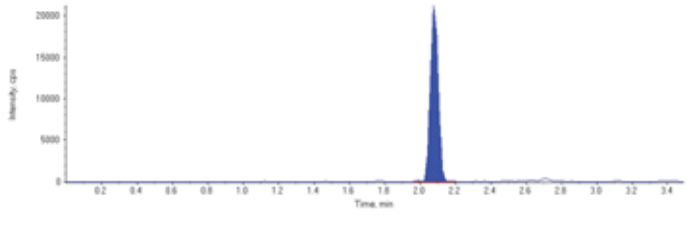
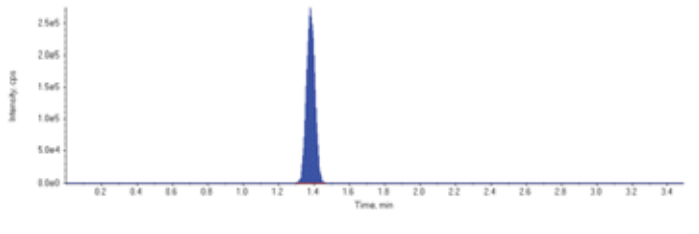
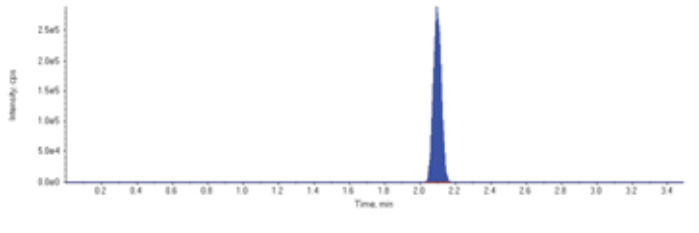
<p>PFHpA 1 (363.000/319.000 Da)</p> <p>RT (Exp. RT): 1.66 (1.67) min</p> <p>Calculated Conc: 12.7 µg/L</p> <p>Area Ratio: 4.96</p> <p>Sample Type: (Quality Control)</p>	
<p>PFHpA 2 (363.000/169.200 Da)</p> <p>RT (Exp. RT): 1.66 (1.67) min</p> <p>Calculated Conc: 12.6 µg/L</p> <p>Area Ratio: 0.0908</p> <p>Sample Type: (Quality Control)</p>	
<p>PFOA 1 (413.100/369.000 Da)</p> <p>RT (Exp. RT): 1.84 (1.85) min</p> <p>Calculated Conc: 11.7 µg/L</p> <p>Area Ratio: 5.25</p> <p>Sample Type: (Quality Control)</p>	
<p>PFOA 2 (413.100/169.000 Da)</p> <p>RT (Exp. RT): 1.84 (1.84) min</p> <p>Calculated Conc: 11.6 µg/L</p> <p>Area Ratio: 2.10</p> <p>Sample Type: (Quality Control)</p>	
<p>PFOS 1 (498.900/79.900 Da)</p> <p>RT (Exp. RT): 1.96 (1.96) min</p> <p>Calculated Conc: 10.4 µg/L</p> <p>Area Ratio: 4.80</p> <p>Sample Type: (Quality Control)</p>	
<p>PFOS 2 (498.900/98.900 Da)</p> <p>RT (Exp. RT): 1.96 (1.96) min</p> <p>Calculated Conc: 11.2 µg/L</p> <p>Area Ratio: 1.61</p> <p>Sample Type: (Quality Control)</p>	

<p>PFNA 1 (462.900/419.000 Da)</p> <p>RT (Exp. RT): 1.99 (1.99) min</p> <p>Calculated Conc: 12.0 µg/L</p> <p>Area Ratio: 4.31</p> <p>Sample Type: (Quality Control)</p>	
<p>PFNA 2 (462.900/219.100 Da)</p> <p>RT (Exp. RT): 1.99 (1.99) min</p> <p>Calculated Conc: 12.4 µg/L</p> <p>Area Ratio: 1.17</p> <p>Sample Type: (Quality Control)</p>	
<p>PFDA 1 (513.000/469.100 Da)</p> <p>RT (Exp. RT): 2.11 (2.18) min</p> <p>Calculated Conc: 13.0 µg/L</p> <p>Area Ratio: 5.32</p> <p>Sample Type: (Quality Control)</p>	
<p>PFDA 2 (513.000/218.900 Da)</p> <p>RT (Exp. RT): 2.11 (2.11) min</p> <p>Calculated Conc: 12.8 µg/L</p> <p>Area Ratio: 1.01</p> <p>Sample Type: (Quality Control)</p>	
<p>PFUnA 1 (562.900/519.000 Da)</p> <p>RT (Exp. RT): 2.21 (2.21) min</p> <p>Calculated Conc: 11.7 µg/L</p> <p>Area Ratio: 4.94</p> <p>Sample Type: (Quality Control)</p>	
<p>PFUnA 2 (562.900/269.200 Da)</p> <p>RT (Exp. RT): 2.21 (2.27) min</p> <p>Calculated Conc: 11.2 µg/L</p> <p>Area Ratio: 0.519</p> <p>Sample Type: (Quality Control)</p>	

<p>PFD_oA 1 (612.900/569.000 Da)</p> <p>RT (Exp. RT): 2.29 (2.36) min</p> <p>Calculated Conc: 11.8 µg/L</p> <p>Area Ratio: 4.90</p> <p>Sample Type: (Quality Control)</p>	
<p>PFD_oA 2 (612.900/319.000 Da)</p> <p>RT (Exp. RT): 2.29 (2.35) min</p> <p>Calculated Conc: 11.8 µg/L</p> <p>Area Ratio: 0.498</p> <p>Sample Type: (Quality Control)</p>	
<p>PFT_rDA 1 (663.000/619.000 Da)</p> <p>RT (Exp. RT): 2.37 (2.42) min</p> <p>Calculated Conc: 14.2 µg/L</p> <p>Area Ratio: 5.83</p> <p>Sample Type: (Quality Control)</p>	
<p>PFT_rDA 2 (663.000/318.900 Da)</p> <p>RT (Exp. RT): 2.37 (2.37) min</p> <p>Calculated Conc: 13.6 µg/L</p> <p>Area Ratio: 0.616</p> <p>Sample Type: (Quality Control)</p>	
<p>PFT_eDA 1 (713.000/669.000 Da)</p> <p>RT (Exp. RT): 2.43 (2.49) min</p> <p>Calculated Conc: 12.9 µg/L</p> <p>Area Ratio: 4.83</p> <p>Sample Type: (Quality Control)</p>	
<p>PFT_eDA 2 (713.000/319.200 Da)</p> <p>RT (Exp. RT): 2.43 (2.49) min</p> <p>Calculated Conc: 12.6 µg/L</p> <p>Area Ratio: 0.339</p> <p>Sample Type: (Quality Control)</p>	

<p>6:2-FTS 1 (427.000/407.000 Da)</p> <p>RT (Exp. RT): 1.81 (1.90) min</p> <p>Calculated Conc: 9.85 µg/L</p> <p>Area Ratio: 2.57</p> <p>Sample Type: (Quality Control)</p>	
<p>6:2-FTS 2 (427.000/80.900 Da)</p> <p>RT (Exp. RT): 1.81 (1.80) min</p> <p>Calculated Conc: 12.2 µg/L</p> <p>Area Ratio: 2.17</p> <p>Sample Type: (Quality Control)</p>	
<p>8:2-FTS 1 (526.900/507.000 Da)</p> <p>RT (Exp. RT): 2.08 (2.16) min</p> <p>Calculated Conc: 11.3 µg/L</p> <p>Area Ratio: 5.60</p> <p>Sample Type: (Quality Control)</p>	
<p>8:2-FTS 2 (526.900/80.900 Da)</p> <p>RT (Exp. RT): 2.08 (2.09) min</p> <p>Calculated Conc: 12.2 µg/L</p> <p>Area Ratio: 2.21</p> <p>Sample Type: (Quality Control)</p>	
<p>13C2-PFHxA (314.900/270.000 Da)</p> <p>RT (Exp. RT): 1.40 (1.40) min</p> <p>Calculated Conc: 101. µg/L</p> <p>Area Ratio: 0.325</p> <p>Sample Type: (Quality Control)</p>	
<p>18O2-PFHxS (402.900/84.000 Da)</p> <p>RT (Exp. RT): 1.66 (1.77) min</p> <p>Calculated Conc: 124. µg/L</p> <p>Area Ratio: 0.107</p> <p>Sample Type: (Quality Control)</p>	

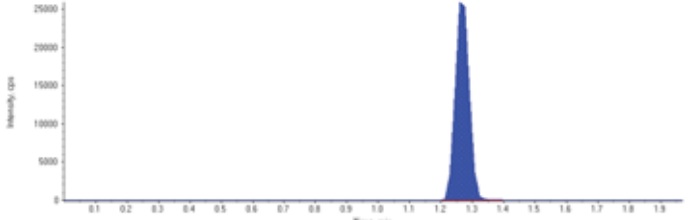
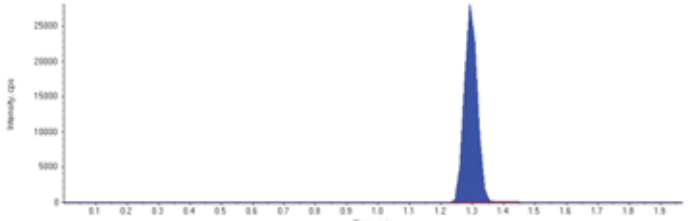
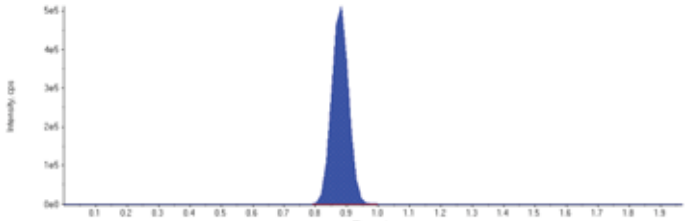
<p>13C4-PFHpa (366.900/322.000 Da)</p> <p>RT (Exp. RT): 1.66 (1.67) min</p> <p>Calculated Conc: 105. µg/L</p> <p>Area Ratio: 0.348</p> <p>Sample Type: (Quality Control)</p>	
<p>13C4-PFOA (416.900/372.000 Da)</p> <p>RT (Exp. RT): 1.84 (1.84) min</p> <p>Calculated Conc: 111. µg/L</p> <p>Area Ratio: 0.305</p> <p>Sample Type: (Quality Control)</p>	
<p>13C4-PFOS (502.900/79.900 Da)</p> <p>RT (Exp. RT): 1.96 (2.05) min</p> <p>Calculated Conc: 127. µg/L</p> <p>Area Ratio: 0.161</p> <p>Sample Type: (Quality Control)</p>	
<p>13C5-PFNA (467.900/423.000 Da)</p> <p>RT (Exp. RT): 1.99 (1.99) min</p> <p>Calculated Conc: 110. µg/L</p> <p>Area Ratio: 0.323</p> <p>Sample Type: (Quality Control)</p>	
<p>13C2-PFDA (514.900/470.000 Da)</p> <p>RT (Exp. RT): 2.11 (2.11) min</p> <p>Calculated Conc: 101. µg/L</p> <p>Area Ratio: 0.313</p> <p>Sample Type: (Quality Control)</p>	
<p>13C2-PFUnA (564.900/520.000 Da)</p> <p>RT (Exp. RT): 2.21 (2.27) min</p> <p>Calculated Conc: 111. µg/L</p> <p>Area Ratio: 0.256</p> <p>Sample Type: (Quality Control)</p>	

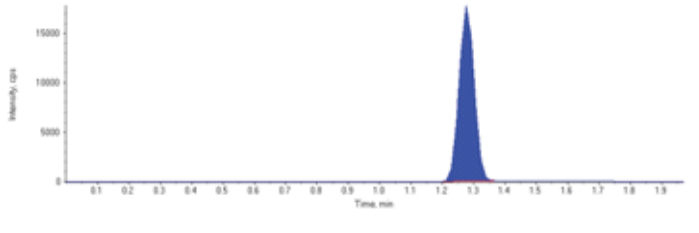
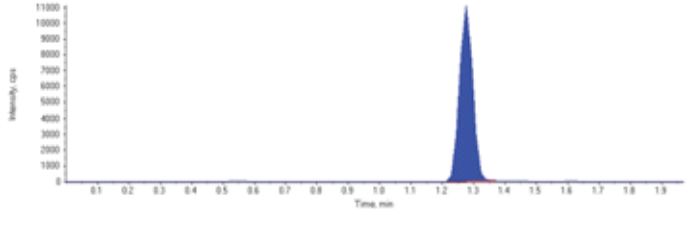
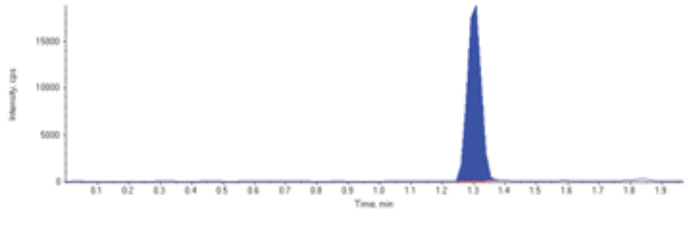
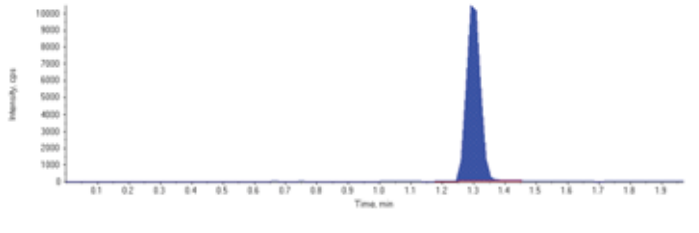
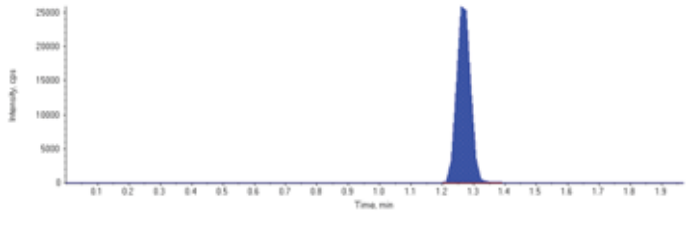
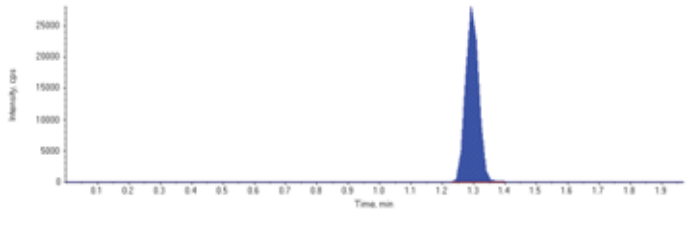
<p>13C2-PFDoA (614.900/570.000 Da)</p> <p>RT (Exp. RT): 2.29 (2.35) min</p> <p>Calculated Conc: 103. µg/L</p> <p>Area Ratio: 0.228</p> <p>Sample Type: (Quality Control)</p>	
<p>13C2-PFTeDA (714.900/669.900 Da)</p> <p>RT (Exp. RT): 2.43 (2.49) min</p> <p>Calculated Conc: 100. µg/L</p> <p>Area Ratio: 0.245</p> <p>Sample Type: (Quality Control)</p>	
<p>13C2-6:2-FTS (429.000/80.900 Da)</p> <p>RT (Exp. RT): 1.81 (1.80) min</p> <p>Calculated Conc: 117. µg/L</p> <p>Area Ratio: 0.140</p> <p>Sample Type: (Quality Control)</p>	
<p>13C2-8:2 FTS (528.900/80.900 Da)</p> <p>RT (Exp. RT): 2.08 (2.08) min</p> <p>Calculated Conc: 111. µg/L</p> <p>Area Ratio: 0.0737</p> <p>Sample Type: (Quality Control)</p>	
<p>13C6-PFHxA (318.900/274.000 Da)</p> <p>RT (Exp. RT): 1.38 (1.40) min</p> <p>Calculated Conc: 70.1 µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Quality Control)</p>	
<p>13C9-PFDA (521.900/477.100 Da)</p> <p>RT (Exp. RT): 2.10 (2.09) min</p> <p>Calculated Conc: 75.3 µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Quality Control)</p>	

Sample ID	ISC	Injection Volume (µL)	2
Sample Type	Quality Control	Injection Vial	2
Acquisition Date	2017/05/23 11:20:19 PM	Dilution Factor	1.00
Acquisition Method	PFC_Water_Low_FOSAA.dam	Instrument Name	LCMS03
Project	Enviro\PFOS	Algorithm Used	Analyst Classic
Data File	PFC_170523\WS#4991421_FOSAA.wiff		
Result Table	PFC_Water_170523_4988945_FOSAA.rdb		
Samples Annotation	-		

Internal Standard	Area (cps)	RT (min)	Target Conc. (ug/L)	Calc. Conc. (ug/L)
D3-MeFOSAA IS	81300.	1.27	1.00	-
D5-EtFOSAA IS	80600.	1.29	1.00	-
13C9-PFDA IS	1940000.	0.879	1.00	-
N/A	N/A	N/A	N/A	-

Target Analyte	Area (cps)	RT (min)	Target Conc. (ug/L)	Calc. Conc. (ug/L)	Accuracy (%)
MeFOSAA 1	59400	1.28	0.830	0.803	96.7
MeFOSAA 2	32300	1.28	0.830	0.810	97.6
EtFOSAA 1	57100	1.30	0.830	0.959	116.0
EtFOSAA 2	32800	1.30	0.830	0.903	109.0
D3-MeFOSAA	81300	1.27	100.	95.9	95.9
D5-EtFOSAA	80600	1.29	100.	88.7	88.7
13C9-PFDA	1940000	0.879	100.	115.	115.0

<p>D3-MeFOSAA IS (Internal Standard)</p> <p>RT (Exp. RT): 1.27(1.26) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>D5-EtFOSAA IS (Internal Standard)</p> <p>RT (Exp. RT): 1.29(1.28) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>13C9-PFDA IS (Internal Standard)</p> <p>RT (Exp. RT): 0.879(0.912) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min</p> <p>Concentration: N/A N/A</p> <p>Sample Type: (Quality Control)</p>	<p>This image is not available</p>

<p>MeFOSAA 1 (570.100/419.100 Da)</p> <p>RT (Exp. RT): 1.28 (1.28) min</p> <p>Calculated Conc: 0.803 µg/L</p> <p>Area Ratio: 0.731</p> <p>Sample Type: (Quality Control)</p>	
<p>MeFOSAA 2 (570.100/483.000 Da)</p> <p>RT (Exp. RT): 1.28 (1.27) min</p> <p>Calculated Conc: 0.810 µg/L</p> <p>Area Ratio: 0.397</p> <p>Sample Type: (Quality Control)</p>	
<p>EtFOSAA 1 (584.100/419.100 Da)</p> <p>RT (Exp. RT): 1.30 (1.30) min</p> <p>Calculated Conc: 0.959 µg/L</p> <p>Area Ratio: 0.708</p> <p>Sample Type: (Quality Control)</p>	
<p>EtFOSAA 2 (584.100/483.000 Da)</p> <p>RT (Exp. RT): 1.30 (1.30) min</p> <p>Calculated Conc: 0.903 µg/L</p> <p>Area Ratio: 0.407</p> <p>Sample Type: (Quality Control)</p>	
<p>D3-MeFOSAA (573.100/419.100 Da)</p> <p>RT (Exp. RT): 1.27 (1.26) min</p> <p>Calculated Conc: 95.9 µg/L</p> <p>Area Ratio: 0.0420</p> <p>Sample Type: (Quality Control)</p>	
<p>D5-EtFOSAA (589.200/419.000 Da)</p> <p>RT (Exp. RT): 1.29 (1.28) min</p> <p>Calculated Conc: 88.7 µg/L</p> <p>Area Ratio: 0.0416</p> <p>Sample Type: (Quality Control)</p>	

13C9-PFDA (521.900/477.100 Da)

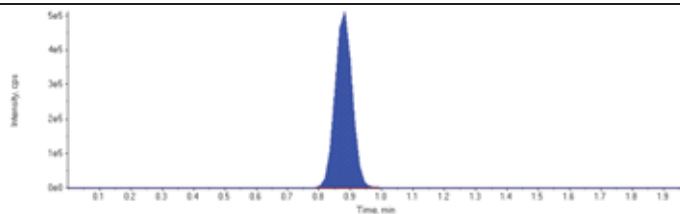
RT (Exp. RT): 0.879 (0.912) min

Calculated 115. µg/L

Conc:

Area Ratio: 0.00

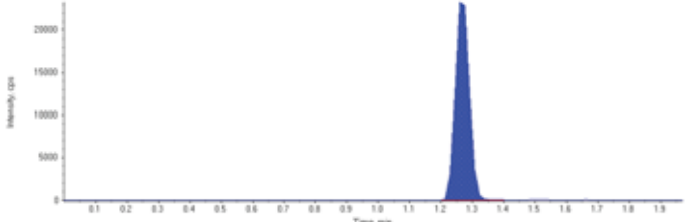
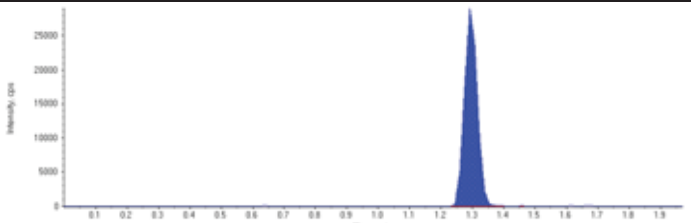
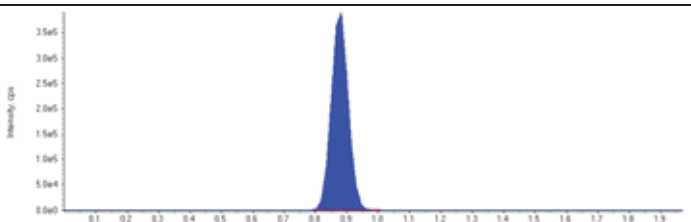
Sample Type: (Quality Control)

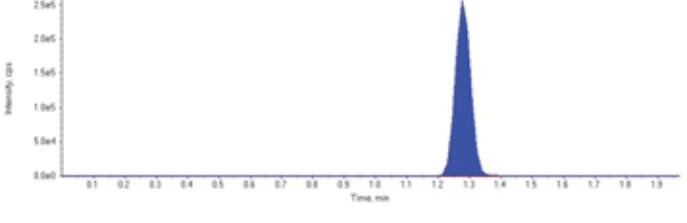
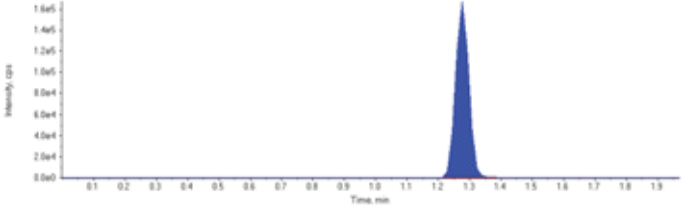
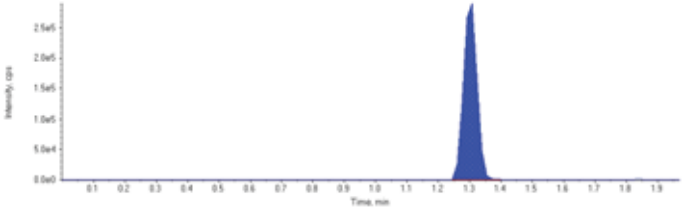
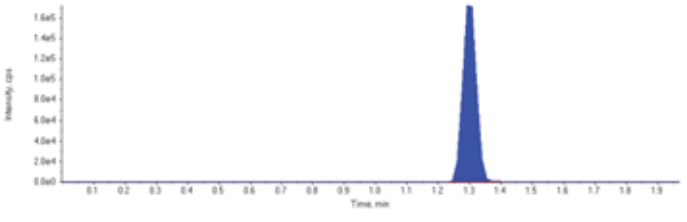
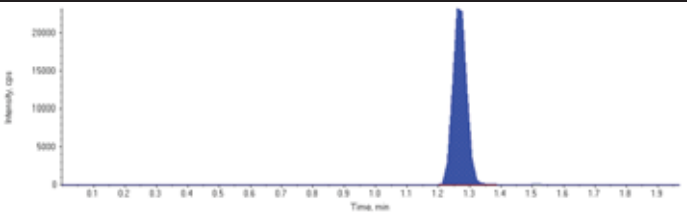
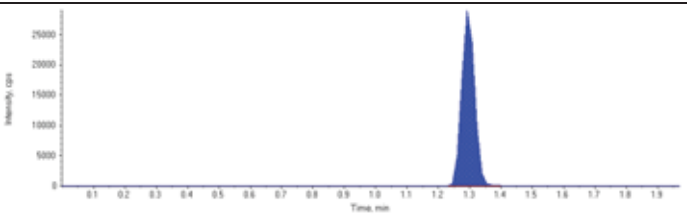


Sample ID	CCV	Injection Volume (µL)	2
Sample Type	Quality Control	Injection Vial	5
Acquisition Date	2017/05/24 12:47:57 AM	Dilution Factor	1.00
Acquisition Method	PFC_Water_Low_FOSAA.dam	Instrument Name	LCMS03
Project	Enviro\PFOS	Algorithm Used	Analyst Classic
Data File	PFC_170523\WS#4991421_FOSAA.wiff		
Result Table	PFC_Water_170523_4988945_FOSAA.rdb		
Samples Annotation	-		

Internal Standard	Area (cps)	RT (min)	Target Conc. (ug/L)	Calc. Conc. (ug/L)
D3-MeFOSAA IS	73900.	1.27	1.00	-
D5-EtFOSAA IS	83800.	1.29	1.00	-
13C9-PFDA IS	1480000.	0.877	1.00	-
N/A	N/A	N/A	N/A	-

Target Analyte	Area (cps)	RT (min)	Target Conc. (ug/L)	Calc. Conc. (ug/L)	Accuracy (%)
MeFOSAA 1	871000	1.28	12.5	13.8	110.0
MeFOSAA 2	490000	1.28	12.5	13.3	106.0
EtFOSAA 1	886000	1.30	12.5	11.8	94.6
EtFOSAA 2	539000	1.30	12.5	12.7	101.0
D3-MeFOSAA	73900	1.27	100.	114.	114.0
D5-EtFOSAA	83800	1.29	100.	120.	120.0
13C9-PFDA	1480000	0.877	100.	88.4	88.4

<p>D3-MeFOSAA IS (Internal Standard)</p> <p>RT (Exp. RT): 1.27(1.26) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>D5-EtFOSAA IS (Internal Standard)</p> <p>RT (Exp. RT): 1.29(1.28) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>13C9-PFDA IS (Internal Standard)</p> <p>RT (Exp. RT): 0.877(0.912) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min</p> <p>Concentration: N/A N/A</p> <p>Sample Type: (Quality Control)</p>	<p>This image is not available</p>

<p>MeFOSAA 1 (570.100/419.100 Da)</p> <p>RT (Exp. RT): 1.28 (1.28) min</p> <p>Calculated Conc: 13.8 µg/L</p> <p>Area Ratio: 11.8</p> <p>Sample Type: (Quality Control)</p>	
<p>MeFOSAA 2 (570.100/483.000 Da)</p> <p>RT (Exp. RT): 1.28 (1.27) min</p> <p>Calculated Conc: 13.3 µg/L</p> <p>Area Ratio: 6.63</p> <p>Sample Type: (Quality Control)</p>	
<p>EtFOSAA 1 (584.100/419.100 Da)</p> <p>RT (Exp. RT): 1.30 (1.30) min</p> <p>Calculated Conc: 11.8 µg/L</p> <p>Area Ratio: 10.6</p> <p>Sample Type: (Quality Control)</p>	
<p>EtFOSAA 2 (584.100/483.000 Da)</p> <p>RT (Exp. RT): 1.30 (1.30) min</p> <p>Calculated Conc: 12.7 µg/L</p> <p>Area Ratio: 6.42</p> <p>Sample Type: (Quality Control)</p>	
<p>D3-MeFOSAA (573.100/419.100 Da)</p> <p>RT (Exp. RT): 1.27 (1.26) min</p> <p>Calculated Conc: 114. µg/L</p> <p>Area Ratio: 0.0498</p> <p>Sample Type: (Quality Control)</p>	
<p>D5-EtFOSAA (589.200/419.000 Da)</p> <p>RT (Exp. RT): 1.29 (1.28) min</p> <p>Calculated Conc: 120. µg/L</p> <p>Area Ratio: 0.0565</p> <p>Sample Type: (Quality Control)</p>	

13C9-PFDA (521.900/477.100 Da)

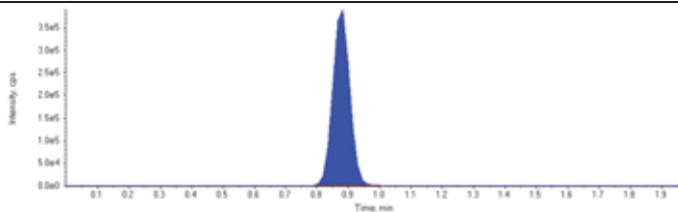
RT (Exp. RT): 0.877 (0.912) min

Calculated 88.4 µg/L

Conc:

Area Ratio: 0.00

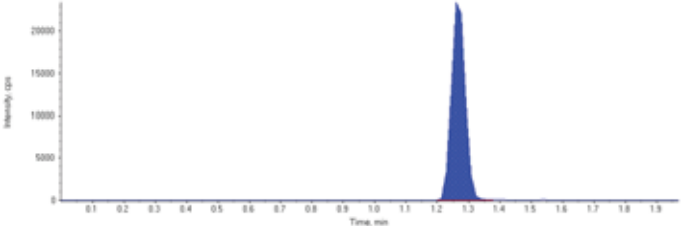
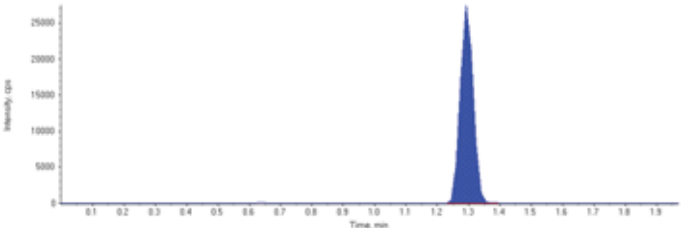
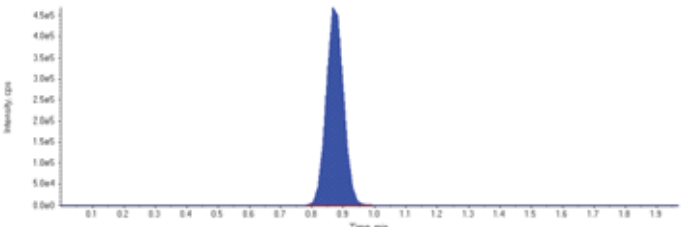
Sample Type: (Quality Control)

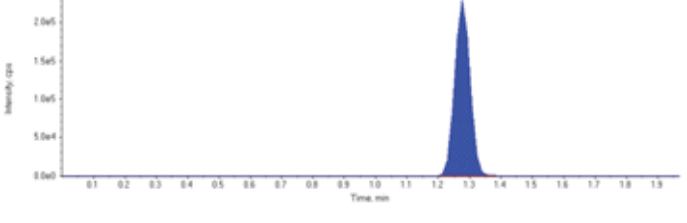
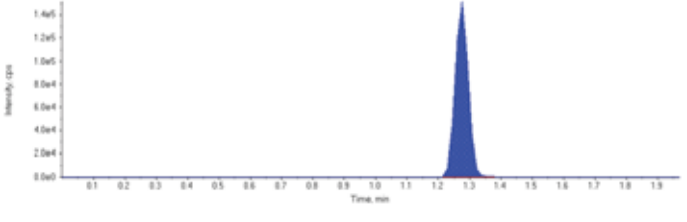
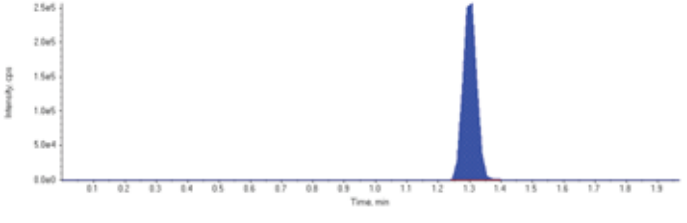
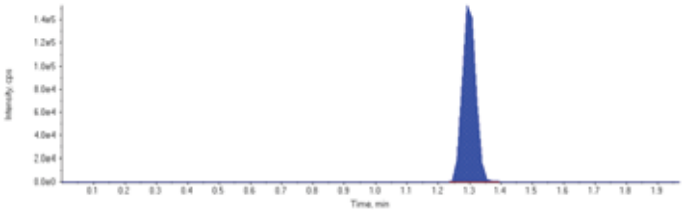
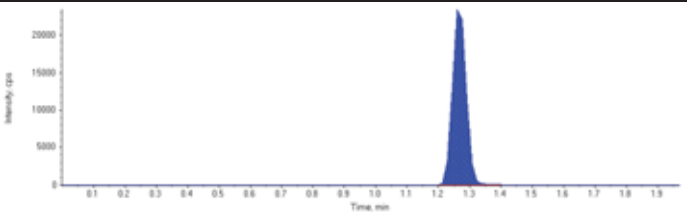
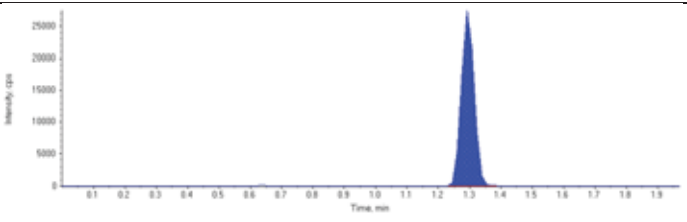


Sample ID	CCV	Injection Volume (µL)	2
Sample Type	Quality Control	Injection Vial	5
Acquisition Date	2017/05/24 2:28:37 AM	Dilution Factor	1.00
Acquisition Method	PFC_Water_Low_FOSAA.dam	Instrument Name	LCMS03
Project	Enviro\PFOS	Algorithm Used	Analyst Classic
Data File	PFC_170523\WS#4988945_FOSAA.wiff		
Result Table	PFC_Water_170523_4988945_FOSAA.rdb		
Samples Annotation	-		

Internal Standard	Area (cps)	RT (min)	Target Conc. (ug/L)	Calc. Conc. (ug/L)
D3-MeFOSAA IS	72600.	1.27	1.00	-
D5-EtFOSAA IS	78400.	1.29	1.00	-
13C9-PFDA IS	1820000.	0.872	1.00	-
N/A	N/A	N/A	N/A	-

Target Analyte	Area (cps)	RT (min)	Target Conc. (ug/L)	Calc. Conc. (ug/L)	Accuracy (%)
MeFOSAA 1	775000	1.28	12.5	12.5	99.9
MeFOSAA 2	446000	1.27	12.5	12.3	98.5
EtFOSAA 1	801000	1.30	12.5	11.4	91.6
EtFOSAA 2	463000	1.30	12.5	11.7	93.3
D3-MeFOSAA	72600	1.27	100.	91.4	91.4
D5-EtFOSAA	78400	1.29	100.	92.0	92.0
13C9-PFDA	1820000	0.872	100.	108.	108.0

<p>D3-MeFOSAA IS (Internal Standard)</p> <p>RT (Exp. RT): 1.27(1.26) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>D5-EtFOSAA IS (Internal Standard)</p> <p>RT (Exp. RT): 1.29(1.28) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>13C9-PFDA IS (Internal Standard)</p> <p>RT (Exp. RT): 0.872(0.912) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min</p> <p>Concentration: N/A N/A</p> <p>Sample Type: (Quality Control)</p>	<p>This image is not available</p>

<p>MeFOSAA 1 (570.100/419.100 Da)</p> <p>RT (Exp. RT): 1.28 (1.28) min</p> <p>Calculated Conc: 12.5 µg/L</p> <p>Area Ratio: 10.7</p> <p>Sample Type: (Quality Control)</p>	
<p>MeFOSAA 2 (570.100/483.000 Da)</p> <p>RT (Exp. RT): 1.27 (1.27) min</p> <p>Calculated Conc: 12.3 µg/L</p> <p>Area Ratio: 6.14</p> <p>Sample Type: (Quality Control)</p>	
<p>EtFOSAA 1 (584.100/419.100 Da)</p> <p>RT (Exp. RT): 1.30 (1.30) min</p> <p>Calculated Conc: 11.4 µg/L</p> <p>Area Ratio: 10.2</p> <p>Sample Type: (Quality Control)</p>	
<p>EtFOSAA 2 (584.100/483.000 Da)</p> <p>RT (Exp. RT): 1.30 (1.30) min</p> <p>Calculated Conc: 11.7 µg/L</p> <p>Area Ratio: 5.90</p> <p>Sample Type: (Quality Control)</p>	
<p>D3-MeFOSAA (573.100/419.100 Da)</p> <p>RT (Exp. RT): 1.27 (1.26) min</p> <p>Calculated Conc: 91.4 µg/L</p> <p>Area Ratio: 0.0400</p> <p>Sample Type: (Quality Control)</p>	
<p>D5-EtFOSAA (589.200/419.000 Da)</p> <p>RT (Exp. RT): 1.29 (1.28) min</p> <p>Calculated Conc: 92.0 µg/L</p> <p>Area Ratio: 0.0432</p> <p>Sample Type: (Quality Control)</p>	

13C9-PFDA (521.900/477.100 Da)

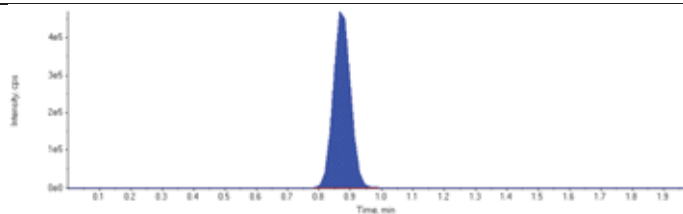
RT (Exp. RT): 0.872 (0.912) min

Calculated 108. µg/L

Conc:

Area Ratio: 0.00

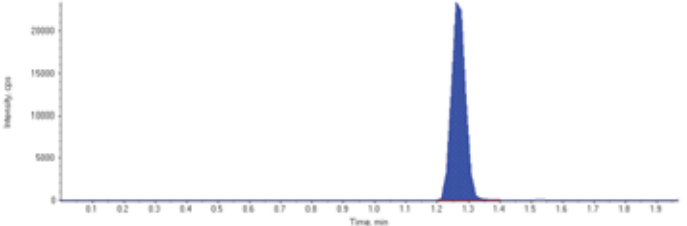
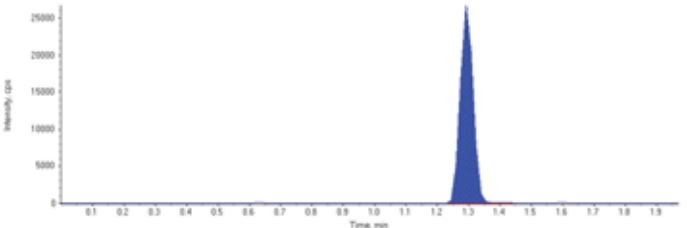
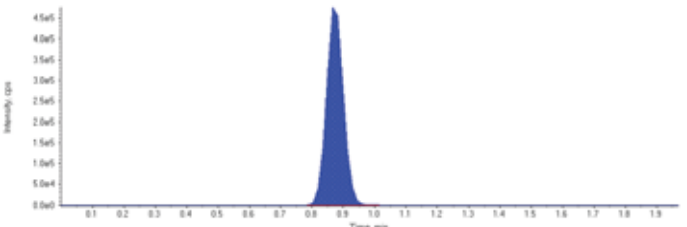
Sample Type: (Quality Control)

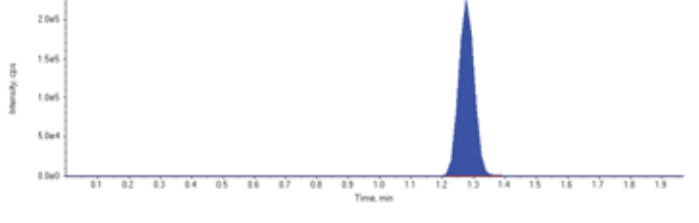
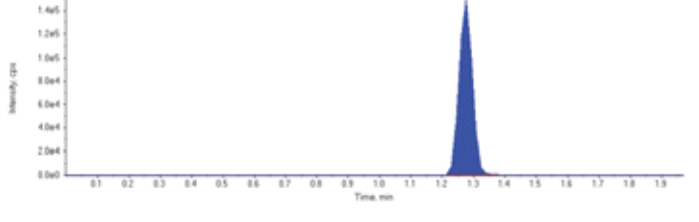
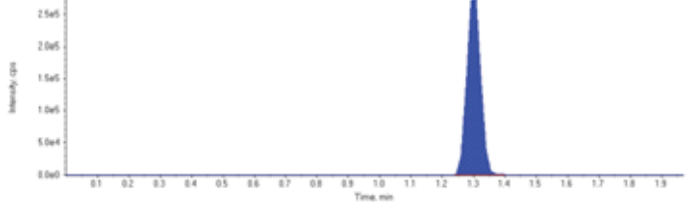
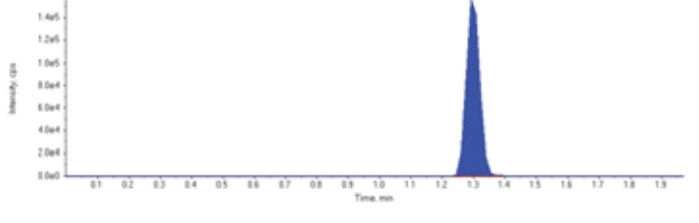
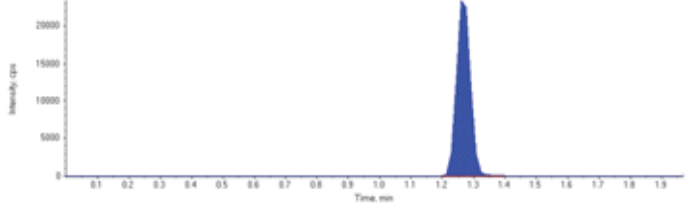
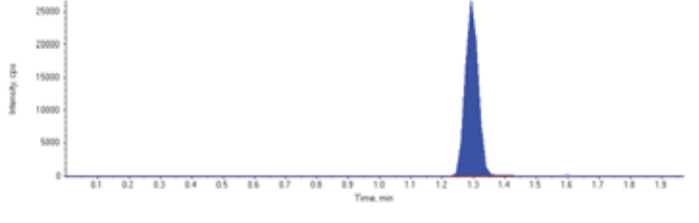


Sample ID	CCV	Injection Volume (µL)	2
Sample Type	Quality Control	Injection Vial	5
Acquisition Date	2017/05/24 3:09:56 AM	Dilution Factor	1.00
Acquisition Method	PFC_Water_Low_FOSAA.dam	Instrument Name	LCMS03
Project	Enviro\PFOS	Algorithm Used	Analyst Classic
Data File	PFC_170523\WS#4988945_FOSAA.wiff		
Result Table	PFC_Water_170523_4988945_FOSAA.rdb		
Samples Annotation	-		

Internal Standard	Area (cps)	RT (min)	Target Conc. (ug/L)	Calc. Conc. (ug/L)
D3-MeFOSAA IS	73500.	1.27	1.00	-
D5-EtFOSAA IS	75500.	1.29	1.00	-
13C9-PFDA IS	1820000.	0.872	1.00	-
N/A	N/A	N/A	N/A	-

Target Analyte	Area (cps)	RT (min)	Target Conc. (ug/L)	Calc. Conc. (ug/L)	Accuracy (%)
MeFOSAA 1	763000	1.28	12.5	12.1	97.1
MeFOSAA 2	442000	1.27	12.5	12.1	96.5
EtFOSAA 1	863000	1.30	12.5	12.8	102.0
EtFOSAA 2	470000	1.30	12.5	12.3	98.4
D3-MeFOSAA	73500	1.27	100.	92.4	92.4
D5-EtFOSAA	75500	1.29	100.	88.6	88.6
13C9-PFDA	1820000	0.872	100.	108.	108.0

<p>D3-MeFOSAA IS (Internal Standard)</p> <p>RT (Exp. RT): 1.27(1.26) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>D5-EtFOSAA IS (Internal Standard)</p> <p>RT (Exp. RT): 1.29(1.28) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>13C9-PFDA IS (Internal Standard)</p> <p>RT (Exp. RT): 0.872(0.912) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min</p> <p>Concentration: N/A N/A</p> <p>Sample Type: (Quality Control)</p>	<p>This image is not available</p>

<p>MeFOSAA 1 (570.100/419.100 Da)</p> <p>RT (Exp. RT): 1.28 (1.28) min</p> <p>Calculated Conc: 12.1 µg/L</p> <p>Area Ratio: 10.4</p> <p>Sample Type: (Quality Control)</p>	
<p>MeFOSAA 2 (570.100/483.000 Da)</p> <p>RT (Exp. RT): 1.27 (1.27) min</p> <p>Calculated Conc: 12.1 µg/L</p> <p>Area Ratio: 6.01</p> <p>Sample Type: (Quality Control)</p>	
<p>EtFOSAA 1 (584.100/419.100 Da)</p> <p>RT (Exp. RT): 1.30 (1.30) min</p> <p>Calculated Conc: 12.8 µg/L</p> <p>Area Ratio: 11.4</p> <p>Sample Type: (Quality Control)</p>	
<p>EtFOSAA 2 (584.100/483.000 Da)</p> <p>RT (Exp. RT): 1.30 (1.30) min</p> <p>Calculated Conc: 12.3 µg/L</p> <p>Area Ratio: 6.23</p> <p>Sample Type: (Quality Control)</p>	
<p>D3-MeFOSAA (573.100/419.100 Da)</p> <p>RT (Exp. RT): 1.27 (1.26) min</p> <p>Calculated Conc: 92.4 µg/L</p> <p>Area Ratio: 0.0405</p> <p>Sample Type: (Quality Control)</p>	
<p>D5-EtFOSAA (589.200/419.000 Da)</p> <p>RT (Exp. RT): 1.29 (1.28) min</p> <p>Calculated Conc: 88.6 µg/L</p> <p>Area Ratio: 0.0416</p> <p>Sample Type: (Quality Control)</p>	

13C9-PFDA (521.900/477.100 Da)

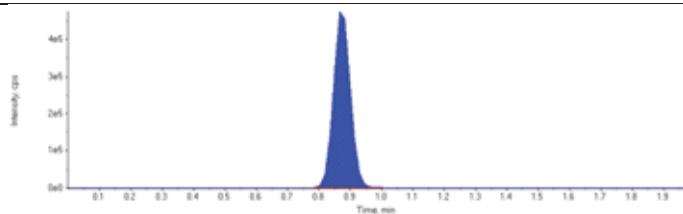
RT (Exp. RT): 0.872 (0.912) min

Calculated 108. µg/L

Conc:

Area Ratio: 0.00

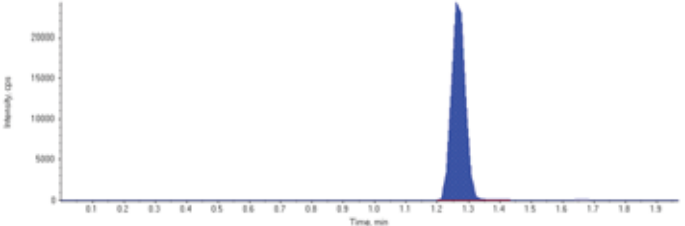
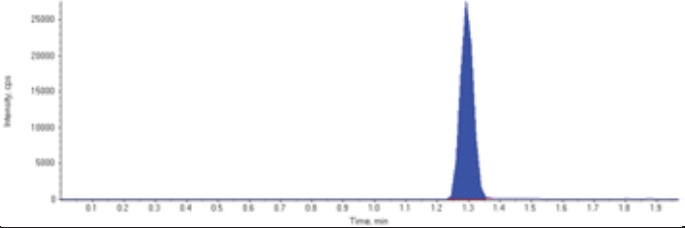
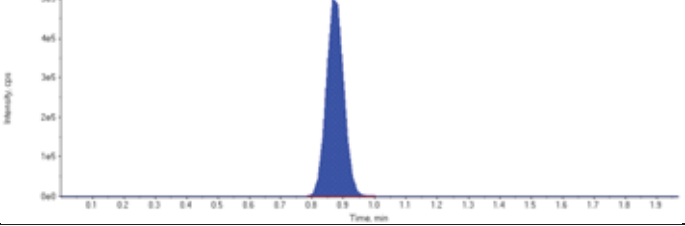
Sample Type: (Quality Control)

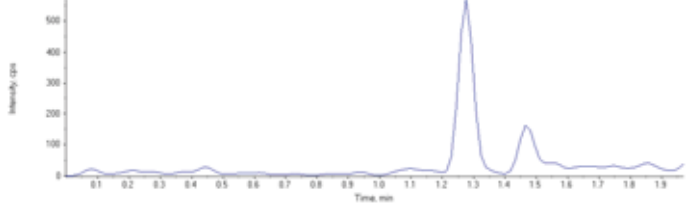
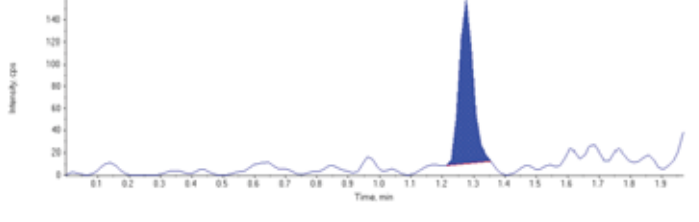
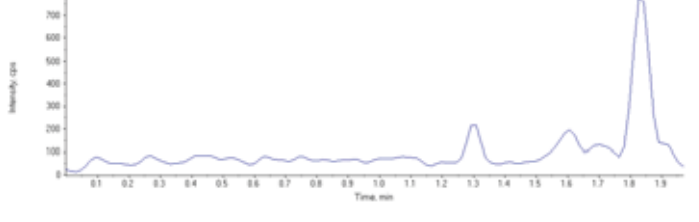
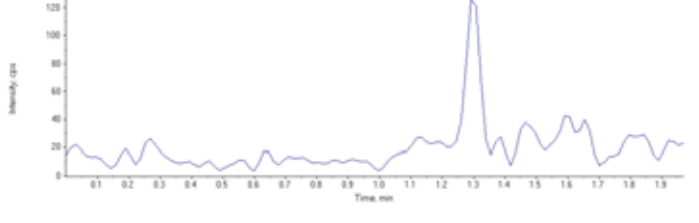
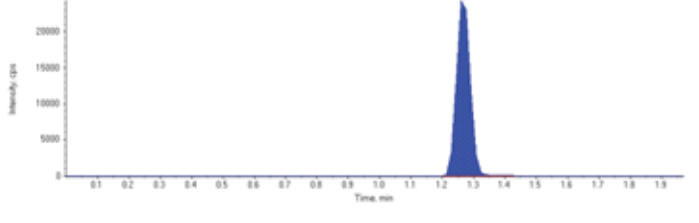
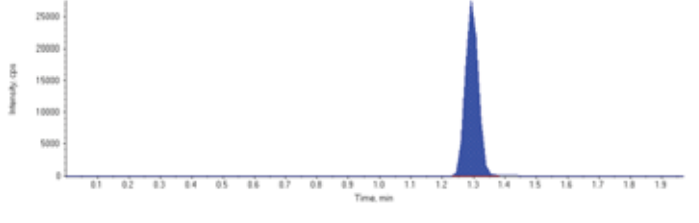


Sample ID	CCV	Injection Volume (µL)	2
Sample Type	Quality Control	Injection Vial	8
Acquisition Date	2017/05/24 3:35:46 AM	Dilution Factor	1.00
Acquisition Method	PFC_Water_Low_FOSAA.dam	Instrument Name	LCMS03
Project	Enviro\PFOS	Algorithm Used	Analyst Classic
Data File	PFC_170523\WS#4988945_FOSAA.wiff		
Result Table	PFC_Water_170523_4988945_FOSAA.rdb		
Samples Annotation	Sequence error		

Internal Standard	Area (cps)	RT (min)	Target Conc. (ug/L)	Calc. Conc. (ug/L)
D3-MeFOSAA IS	75400.	1.27	1.00	-
D5-EtFOSAA IS	78800.	1.29	1.00	-
13C9-PFDA IS	1950000.	0.873	1.00	-
N/A	N/A	N/A	N/A	-

Target Analyte	Area (cps)	RT (min)	Target Conc. (ug/L)	Calc. Conc. (ug/L)	Accuracy (%)
MeFOSAA 1	0	0.00	12.5	N/A	0.0
MeFOSAA 2	449	1.28	12.5	0.0255	0.2
EtFOSAA 1	0	0.00	12.5	N/A	0.0
EtFOSAA 2	0	0.00	12.5	N/A	0.0
D3-MeFOSAA	75400	1.27	100.	88.2	88.2
D5-EtFOSAA	78800	1.29	100.	86.0	86.0
13C9-PFDA	1950000	0.873	100.	116.	116.0

<p>D3-MeFOSAA IS (Internal Standard)</p> <p>RT (Exp. RT): 1.27(1.26) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>D5-EtFOSAA IS (Internal Standard)</p> <p>RT (Exp. RT): 1.29(1.28) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>13C9-PFDA IS (Internal Standard)</p> <p>RT (Exp. RT): 0.873(0.912) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min</p> <p>Concentration: N/A N/A</p> <p>Sample Type: (Quality Control)</p>	<p>This image is not available</p>

<p>MeFOSAA 1 (570.100/419.100 Da)</p> <p>RT (Exp. RT): 0.00 (1.28) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Quality Control)</p>	
<p>MeFOSAA 2 (570.100/483.000 Da)</p> <p>RT (Exp. RT): 1.28 (1.27) min</p> <p>Calculated Conc: 0.0255 µg/L</p> <p>Area Ratio: 0.00596</p> <p>Sample Type: (Quality Control)</p>	
<p>EtFOSAA 1 (584.100/419.100 Da)</p> <p>RT (Exp. RT): 0.00 (1.30) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Quality Control)</p>	
<p>EtFOSAA 2 (584.100/483.000 Da)</p> <p>RT (Exp. RT): 0.00 (1.30) min</p> <p>Calculated Conc: N/A µg/L</p> <p>Area Ratio: 0.00</p> <p>Sample Type: (Quality Control)</p>	
<p>D3-MeFOSAA (573.100/419.100 Da)</p> <p>RT (Exp. RT): 1.27 (1.26) min</p> <p>Calculated Conc: 88.2 µg/L</p> <p>Area Ratio: 0.0386</p> <p>Sample Type: (Quality Control)</p>	
<p>D5-EtFOSAA (589.200/419.000 Da)</p> <p>RT (Exp. RT): 1.29 (1.28) min</p> <p>Calculated Conc: 86.0 µg/L</p> <p>Area Ratio: 0.0404</p> <p>Sample Type: (Quality Control)</p>	

13C9-PFDA (521.900/477.100 Da)

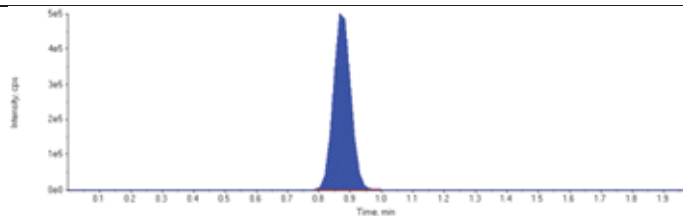
RT (Exp. RT): 0.873 (0.912) min

Calculated 116. µg/L

Conc:

Area Ratio: 0.00

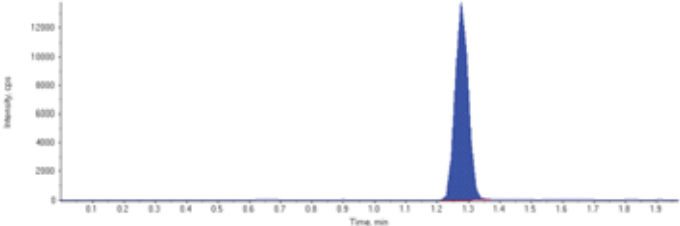
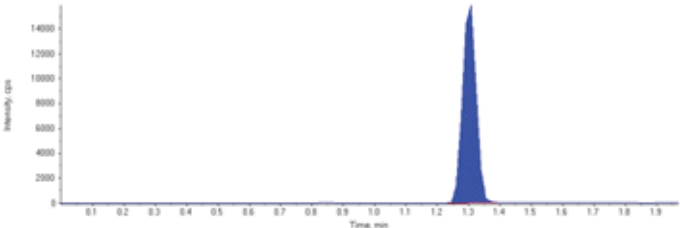
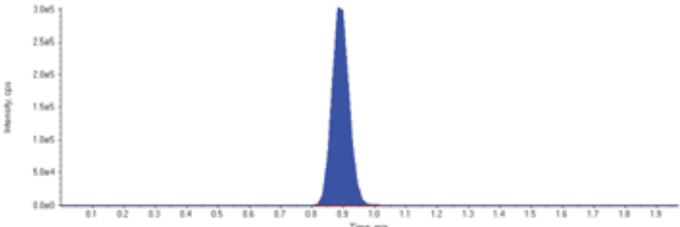
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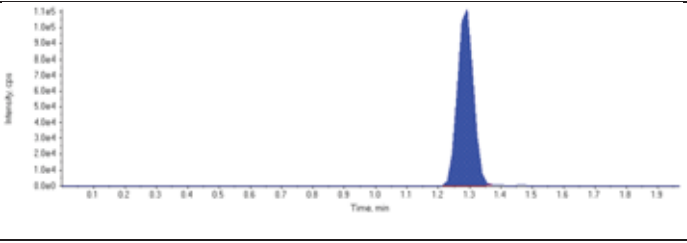
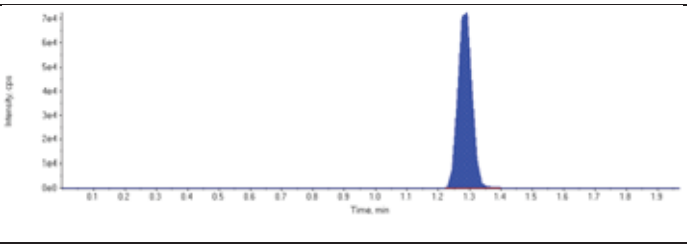
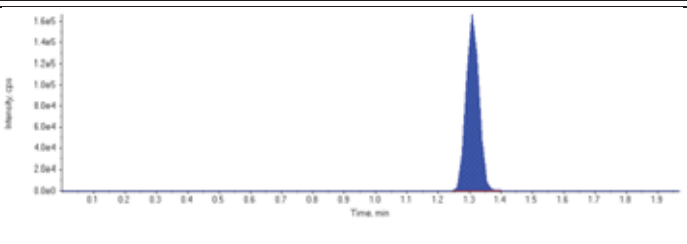
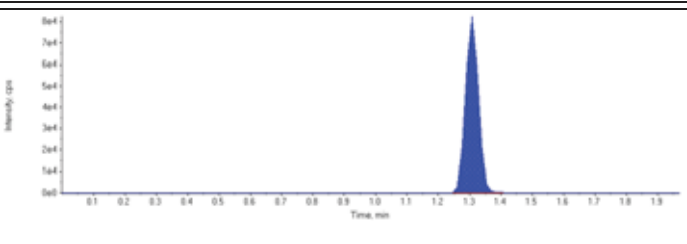
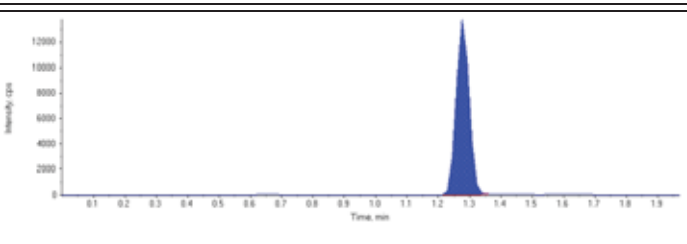
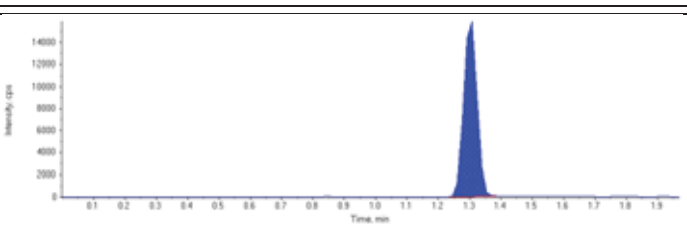


Sample ID	CCV	Injection Volume (µL)	2
Sample Type	Quality Control	Injection Vial	5
Acquisition Date	2017/05/24 7:17:51 AM	Dilution Factor	1.00
Acquisition Method	PFC_Water_Low_FOSAA.dam	Instrument Name	LCMS03
Project	Enviro\PFOS	Algorithm Used	Analyst Classic
Data File	PFC_170523\WS#4988945_FOSAA.wiff		
Result Table	PFC_Water_170523_4988945_FOSAA.rdb		
Samples Annotation	-		

Internal Standard	Area (cps)	RT (min)	Target Conc. (ug/L)	Calc. Conc. (ug/L)
D3-MeFOSAA IS	39700.	1.28	1.00	-
D5-EtFOSAA IS	47900.	1.30	1.00	-
13C9-PFDA IS	1170000.	0.889	1.00	-
N/A	N/A	N/A	N/A	-

Target Analyte	Area (cps)	RT (min)	Target Conc. (ug/L)	Calc. Conc. (ug/L)	Accuracy (%)
MeFOSAA 1	391000	1.29	12.5	11.5	92.1
MeFOSAA 2	229000	1.28	12.5	11.6	92.7
EtFOSAA 1	469000	1.31	12.5	11.0	87.9
EtFOSAA 2	237000	1.31	12.5	9.81	78.4
D3-MeFOSAA	39700	1.28	100.	77.7	77.7
D5-EtFOSAA	47900	1.30	100.	87.4	87.4
13C9-PFDA	1170000	0.889	100.	69.5	69.5

<p>D3-MeFOSAA IS (Internal Standard)</p> <p>RT (Exp. RT): 1.28(1.26) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>D5-EtFOSAA IS (Internal Standard)</p> <p>RT (Exp. RT): 1.30(1.28) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>13C9-PFDA IS (Internal Standard)</p> <p>RT (Exp. RT): 0.889(0.912) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min</p> <p>Concentration: N/A N/A</p> <p>Sample Type: (Quality Control)</p>	<p>This image is not available</p>

<p>MeFOSAA 1 (570.100/419.100 Da)</p> <p>RT (Exp. RT): 1.29 (1.28) min</p> <p>Calculated Conc: 11.5 µg/L</p> <p>Area Ratio: 9.85</p> <p>Sample Type: (Quality Control)</p>	
<p>MeFOSAA 2 (570.100/483.000 Da)</p> <p>RT (Exp. RT): 1.28 (1.27) min</p> <p>Calculated Conc: 11.6 µg/L</p> <p>Area Ratio: 5.77</p> <p>Sample Type: (Quality Control)</p>	
<p>EtFOSAA 1 (584.100/419.100 Da)</p> <p>RT (Exp. RT): 1.31 (1.30) min</p> <p>Calculated Conc: 11.0 µg/L</p> <p>Area Ratio: 9.80</p> <p>Sample Type: (Quality Control)</p>	
<p>EtFOSAA 2 (584.100/483.000 Da)</p> <p>RT (Exp. RT): 1.31 (1.30) min</p> <p>Calculated Conc: 9.81 µg/L</p> <p>Area Ratio: 4.95</p> <p>Sample Type: (Quality Control)</p>	
<p>D3-MeFOSAA (573.100/419.100 Da)</p> <p>RT (Exp. RT): 1.28 (1.26) min</p> <p>Calculated Conc: 77.7 µg/L</p> <p>Area Ratio: 0.0340</p> <p>Sample Type: (Quality Control)</p>	
<p>D5-EtFOSAA (589.200/419.000 Da)</p> <p>RT (Exp. RT): 1.30 (1.28) min</p> <p>Calculated Conc: 87.4 µg/L</p> <p>Area Ratio: 0.0410</p> <p>Sample Type: (Quality Control)</p>	

13C9-PFDA (521.900/477.100 Da)

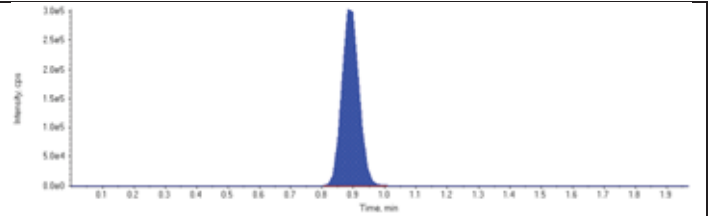
RT (Exp. RT): 0.889 (0.912) min

Calculated 69.5 µg/L

Conc:

Area Ratio: 0.00

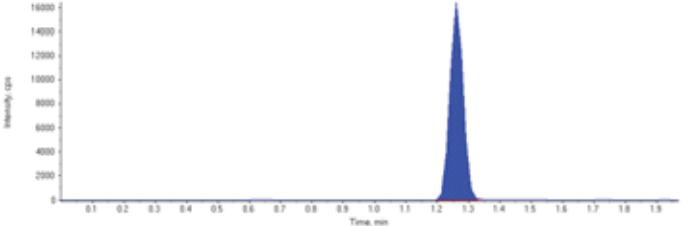
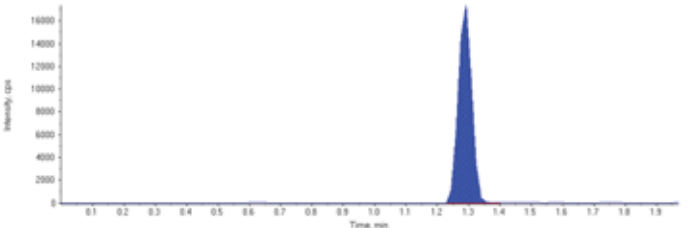
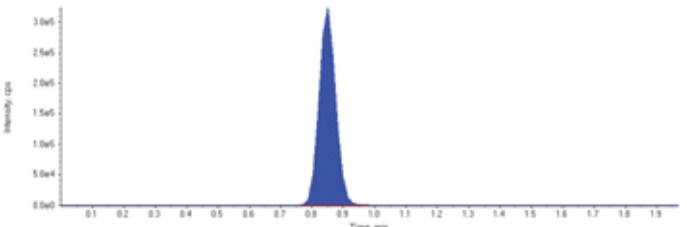
Sample Type: (Quality Control)

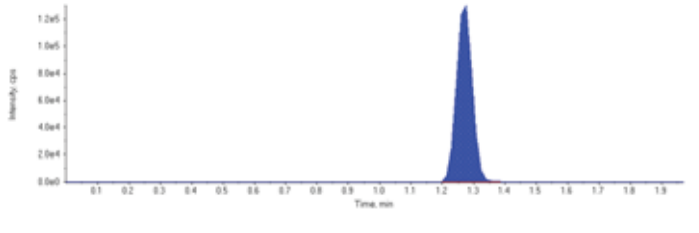
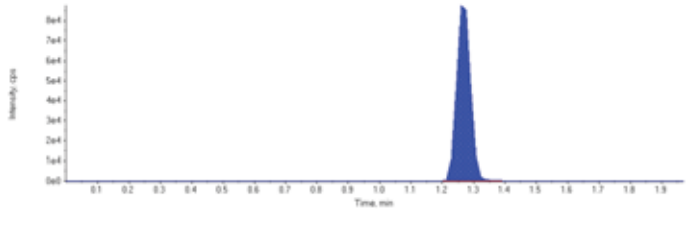
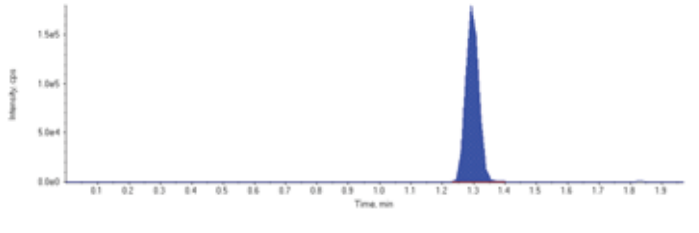
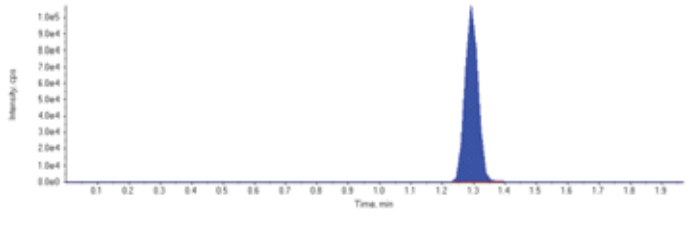
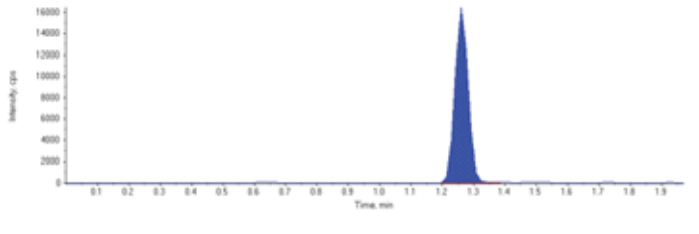
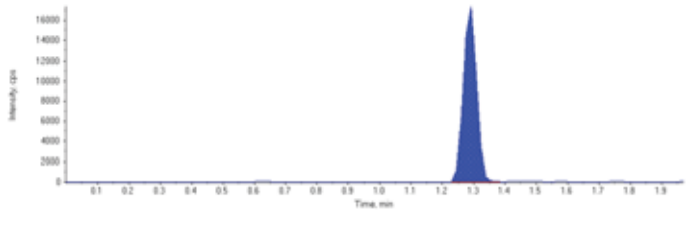


Sample ID	CCV	Injection Volume (µL)	2
Sample Type	Quality Control	Injection Vial	5
Acquisition Date	2017/05/24 7:20:26 AM	Dilution Factor	1.00
Acquisition Method	PFC_Water_Low_FOSAA.dam	Instrument Name	LCMS03
Project	Enviro\PFOS	Algorithm Used	Analyst Classic
Data File	PFC_170523\WS#4988945_FOSAA.wiff		
Result Table	PFC_Water_170523_4988945_FOSAA.rdb		
Samples Annotation	-		

Internal Standard	Area (cps)	RT (min)	Target Conc. (ug/L)	Calc. Conc. (ug/L)
D3-MeFOSAA IS	48100.	1.26	1.00	-
D5-EtFOSAA IS	51400.	1.29	1.00	-
13C9-PFDA IS	1200000.	0.849	1.00	-
N/A	N/A	N/A	N/A	-

Target Analyte	Area (cps)	RT (min)	Target Conc. (ug/L)	Calc. Conc. (ug/L)	Accuracy (%)
MeFOSAA 1	459000	1.27	12.5	11.2	89.2
MeFOSAA 2	277000	1.27	12.5	11.5	92.4
EtFOSAA 1	523000	1.29	12.5	11.4	91.2
EtFOSAA 2	306000	1.29	12.5	11.8	94.1
D3-MeFOSAA	48100	1.26	100.	91.9	91.9
D5-EtFOSAA	51400	1.29	100.	91.6	91.6
13C9-PFDA	1200000	0.849	100.	71.2	71.2

<p>D3-MeFOSAA IS (Internal Standard)</p> <p>RT (Exp. RT): 1.26(1.26) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>D5-EtFOSAA IS (Internal Standard)</p> <p>RT (Exp. RT): 1.29(1.28) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>13C9-PFDA IS (Internal Standard)</p> <p>RT (Exp. RT): 0.849(0.912) min</p> <p>Concentration: 1.00 ug/L</p> <p>Sample Type: (Quality Control)</p>	
<p>N/A (Internal Standard)</p> <p>RT (Exp. RT): N/A(N/A) min</p> <p>Concentration: N/A N/A</p> <p>Sample Type: (Quality Control)</p>	<p>This image is not available</p>

<p>MeFOSAA 1 (570.100/419.100 Da)</p> <p>RT (Exp. RT): 1.27 (1.28) min</p> <p>Calculated Conc: 11.2 µg/L</p> <p>Area Ratio: 9.55</p> <p>Sample Type: (Quality Control)</p>	
<p>MeFOSAA 2 (570.100/483.000 Da)</p> <p>RT (Exp. RT): 1.27 (1.27) min</p> <p>Calculated Conc: 11.5 µg/L</p> <p>Area Ratio: 5.75</p> <p>Sample Type: (Quality Control)</p>	
<p>EtFOSAA 1 (584.100/419.100 Da)</p> <p>RT (Exp. RT): 1.29 (1.30) min</p> <p>Calculated Conc: 11.4 µg/L</p> <p>Area Ratio: 10.2</p> <p>Sample Type: (Quality Control)</p>	
<p>EtFOSAA 2 (584.100/483.000 Da)</p> <p>RT (Exp. RT): 1.29 (1.30) min</p> <p>Calculated Conc: 11.8 µg/L</p> <p>Area Ratio: 5.96</p> <p>Sample Type: (Quality Control)</p>	
<p>D3-MeFOSAA (573.100/419.100 Da)</p> <p>RT (Exp. RT): 1.26 (1.26) min</p> <p>Calculated Conc: 91.9 µg/L</p> <p>Area Ratio: 0.0402</p> <p>Sample Type: (Quality Control)</p>	
<p>D5-EtFOSAA (589.200/419.000 Da)</p> <p>RT (Exp. RT): 1.29 (1.28) min</p> <p>Calculated Conc: 91.6 µg/L</p> <p>Area Ratio: 0.0429</p> <p>Sample Type: (Quality Control)</p>	

13C9-PFDA (521.900/477.100 Da)

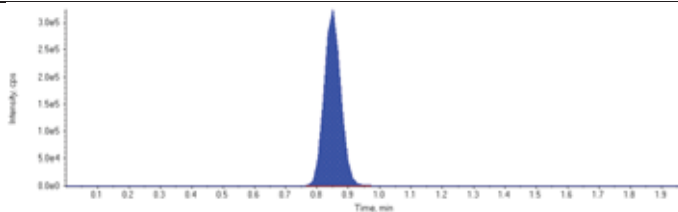
RT (Exp. RT): 0.849 (0.912) min

Calculated 71.2 µg/L

Conc:

Area Ratio: 0.00

Sample Type: (Quality Control)





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Maxxam Analytics International
6740 Campobello Rd.
Mississauga, Ontario, Canada
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1-800-668-0639
www.maxxamanalytics.com



Prepared for: CT Laboratories LLC

Project: 775303101

Analytical Data Package (Level IV)

Analysis: PFOS and PFOA in water and soil (Method 537 mod.)

Maxxam Job #: B797896

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Maxxam Analytics International
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5. Initial Calibration

6. Continuing Calibration

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I hereby certify that to the best of my knowledge all analytical data presented in this report:

- Has been checked for completeness.
- Is accurate, legible and error free.
- Has been conducted in accordance with approved SOP's and that all deviations are clearly listed in the Case Narrative.
- This report has been generated in .pdf format.

Review Performed By:

Steph Pollen
Project Manager

A Bureau Veritas Group Company

Stephanie
Pollen
2017.06.27
14:22:26 -04'00'

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Mississauga, Ontario, Canada
L5N 2L8
1-800-668-0639
www.maxxamanalytics.com

Glossary of Terms

- **Detection Limit (DL)** this can also be called **Method Detection Limit (MDL)**: The lowest concentration or amount of the target analyte that can be identified, measured, and reported with confidence that the analyte concentration is not a false positive value. (Clarification): The smallest analyte concentration that can be demonstrated to be different from zero or a blank concentration at the 99% level of confidence. At the DL, the false positive rate (Type I error) is 1%.
- **Limit of Detection (LOD)**: An estimate of the minimum amount of a substance that an analytical process can reliably detect. An LOD is analyte- and matrix-specific and may be laboratory-dependent. (Clarification): The smallest amount or concentration of a substance that must be present in a sample in order to be detected at a high level of confidence (99%). At the LOD, the false negative rate (Type II error) is 1%.
- **Limits of Quantitation (LOQ)** this can also be called **Reporting Detection Limit (RDL)**: The minimum levels, concentrations, or quantities of a target variable (e.g., target analyte) that can be reported with a specified degree of confidence. (Clarification): The lowest concentration that produces a quantitative result within specified limits of precision and bias. For DoD projects, the LOQ shall be set at or above the concentration of the lowest initial calibration standard.
- **Acceptance Criteria** are values used by the laboratory to determine that a process is in control.
- **Accuracy** is the degree of agreement of a measured value with the true or expected value.
- **Calibration Standards** are a set of solutions containing the analytes of interest at a specified concentration.
- **Calibration Verification Standard** consists of a calibration standard solution of intermediate concentration (mid-point initial calibration level) used to assess whether the initial calibration is still valid
- **Certified Reference Material** is a stable homogenous material that is certified by repetitive analysis from a supplier who is certified to generate said materials.

- **Internal Standard** a deuterated or ^{13}C -labelled analyte that is added to a sample extract prior to instrumental analysis to compensate for injection variability.
- **Isomer** is a member of a group of compounds that differ from each other only in the locations of a specific number of common substituent atoms or groups of atoms on the parent compound.
- **Method Blank** is a laboratory control sample using reagents that are known to be free of contamination.
- **Precision** is the degree of agreement between the data generated from repetitive measurements under specific conditions.
- **Quality Assurance** is a system of activities whose purpose is to provide the producer or user of a product with the assurance that the product meets a defined standard of quality.
- **Quality Control** is the overall system of activities whose purpose is to control the quality of a product so that it meets the needs of the end user.
- **RSD** is the relative standard deviation.
- **Blank Spike** is a laboratory control sample that has been fortified with native analytes of interest.
- **Window Defining Mixture** is a solution containing only the earliest and latest eluting congeners within each homologous group of target analytes on a specified GC column.
- **RPD** or Relative Percent Difference. A measure used to compare duplicate sample analysis.
- **EMPC/NDR** – Peak detected does not meet ratio criteria and has resulted in a higher detection limit.



1.0 Project Narrative

Maxxam Analytics International
6740 Campobello Rd.
Mississauga, Ontario, Canada
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Maxxam Job: B797896 – Soil Analysis

Sample Analysis

The sample was analyzed on QC batch 4987381 (2017/05/20). No analytical difficulties were encountered.

Data was evaluated in accordance with acceptance criteria specified in DoD QSM 5.1.

Sin Chii Chia, B.Sc.

schia@maxxam.ca

Office 905 817 5700

Maxxam Job: B797896 – Water Analysis

Sample Analysis

The sample was initially pre-screened and estimated concentrations were obtained so that appropriate sample volumes could be extracted on QC batch 4987523 (2017/05/23). Due to high concentrations of target analytes, a reduced sample volume was extracted and analyzed. Detection limits were adjusted accordingly.

Data was evaluated in accordance with acceptance criteria specified in DoD QSM 5.1.

Sin Chii Chia, B.Sc.

schia@maxxam.ca

Office 905 817 5700

PROJECT NARRATIVE

Maxxam Analytics
Client Project #: 775303101



Client: CT Laboratories LLC
Client Project: 775303101

I. SAMPLE RECEIPT/ANALYSIS

a) Sample Listing

Maxxam ID	Client Sample ID	Date Sampled	Date Received	Date Prepped	Date Run	Initial Calibration
PFOS and PFOA in soil by SPE/LCMS						
EJL629	FRCHD04-SO-006	2017/05/12	2017/05/13	2017/05/17	2017/05/20	2017/05/20
PFOS and PFOA in water by SPE/LCMS						
EJL630	FRCHD04-GW-002	2017/05/12	2017/05/13	2017/05/17	2017/05/23	2017/05/23

Run Date is defined as the date of injection of the last calibration standard (12 hours or less) prior to the samples analyzed within that run sequence. Therefore the time of calibration injection that defines the run date is always within 12 hours of the time of sample injection.

b) Shipping Problems: none encountered

c) Documentation Problems: Report revised to include updated MDL value for PFNA for sample "FRCHD04-GW-002".

II. SAMPLE PREP:

No problems encountered

III. SAMPLE ANALYSIS:

See also comments within the appropriate Certificate of Analysis

a) Hold Times: all within recommended hold times

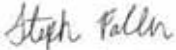
b) Instrument Calibration: all within control limits

c) Quality Control: All applicable QC meets control criteria, except where otherwise noted.

d) All analytes requiring manual integration(s) are noted on the sample chromatograms

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for other than the conditions detailed above.

In addition, I certify, that to the best of my knowledge and belief, the data as reported are true and accurate. Release of the data contained in this data package has been authorized by the cognizant laboratory official or his/her designee, as verified by this signature.


Project Manager- Site Assessment
and Remediation/ Ultra Trace

2017/06/27
Date



2. Sample Management Records

Maxxam Analytics International
6740 Campobello Rd
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www.maxxamanalytics.com



2.1 Sample Custody

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Acme Fiber/Wood Pulp Environment & Infrastructure
7335 SW Durham Road
Portland, OR 97224
(503) 670-5400

SHIP TO:
MAGNET
209 Cayuga Rd
Chesham, NY 14225
Attn: Melissa DiCrista
Lab Phone: 800-963-6266

DATE: 5/12/17
COC #: Massma 01
PAGE: 1 OF 1

PAGE: 1 OF 1

Project Name:	Fairchild A1B	Project Contact:	Joe Fabbro	Off To:	Ames Fakes Wireless Employment & Administration, Inc.	Dispatch Jobcode:	LAD
Project Number:	77388101	Phone Number:	(202) 639-3100			Signature Method:	FEDEX
Project Manager:	Melissa Haden	Project Phase:	0012.0000			Project Number:	N/A

No.	Sample ID	Date & Time Sampled	Matrix	Sample Type	MS/MSD
1	FRCHDOH-30-006	5/12/17 8:47	5		
2	FRCHDOH-30-002	5/12/17 1002	W		2
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					

Sampler's Signature:	Date:	Time:
<i>Joe Av...</i>	5/12/17	12:00

Resampler's Signature:	Date:	Time:
<i>Joe Av...</i>	5/12/17	12:00

Received By:	Date:	Time:
<i>Joe Av...</i>	5/12/17	12:00

Resampler's Signature:	Date:	Time:
<i>Joe Av...</i>	5/12/17	12:00

Received By:	Date:	Time:
<i>Joe Av...</i>	5/12/17	12:00

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Received By:	Date:	Time:
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Resampler's Signature:	Date:	Time:
<i>Joe Av...</i>	5/12/17	12:00

Received By:	Date:	Time:
<i>Joe Av...</i>	5/12/17	12:00

Resampler's Signature:	Date:	Time:
<i>Joe Av...</i>	5/12/17	12:00

Received By:	Date:	Time:
<i>Joe Av...</i>	5/12/17	12:00

Resampler's Signature:	Date:	Time:
<i>Joe Av...</i>	5/12/17	12:00

Received By:	Date:	Time:
<i>Joe Av...</i>	5/12/17	12:00

Resampler's Signature:	Date:	Time:
<i>Joe Av...</i>	5/12/17	12:00

Received By:	Date:	Time:
<i>Joe Av...</i>	5/12/17	12:00

Resampler's Signature:	Date:	Time:
<i>Joe Av...</i>	5/12/17	12:00

Received By:	Date:	Time:
<i>Joe Av...</i>	5/12/17	12:00

Resampler's Signature:	Date:	Time:
<i>Joe Av...</i>	5/12/17	12:00

Received By:	Date:	Time:
<i>Joe Av...</i>	5/12/17	12:00

Resampler's Signature:	Date:	Time:
<i>Joe Av...</i>	5/12/17	12:00

Received By:	Date:	Time:
<i>Joe Av...</i>	5/12/17	12:00

Resampler's Signature:	Date:	Time:
<i>Joe Av...</i>	5/12/17	12:00

Received By:	Date:	Time:
<i>Joe Av...</i>	5/12/17	12:00

Resampler's Signature:</

4. 9 | 2.8 | 1.1 | 1

13-May-17 13:41

Melissa DiGrazia

B797896

KES ENV-674



3. Analytical Results

Maxxam Analytics International
6740 Campobello Rd
Mississauga, Ontario, Canada
L5N 2L8
1-800-668-0639
www.maxxamanalytics.com



3.1 Summary Report

Maxxam Analytics International
6740 Campobello Rd
Mississauga, Ontario, Canada
L5N 2L8
1-800-668-0639
www.maxxamanalytics.com

Your P.O. #: F013900869
Your Project #: 775303101
Site Location: FAIRCHILD AFB
Your C.O.C. #: na

Attention: Fairchild AFB reporting group

CT Laboratories LLC
1230 Lange Court
Baraboo, WI
USA 53913

Report Date: 2017/06/22
Report #: R4554783
Version: 2 - Revision

CERTIFICATE OF ANALYSIS – REVISED REPORT

MAXXAM JOB #: B797896

Received: 2017/05/13, 13:41

Sample Matrix: Soil
Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Moisture	1	N/A	2017/05/18	CAM SOP-00445	Carter 2nd ed 51.2 m
PFOS and PFOA in soil by SPE/LCMS (1)	1	2017/05/17	2017/05/20	CAM SOP-00894	EPA537 m

Sample Matrix: Water
Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
PFOS and PFOA in water by SPE/LCMS (1)	1	2017/05/17	2017/05/23	CAM SOP-00894	EPA 537 m

Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Maxxam's profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Maxxam in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported: unless indicated otherwise, associated sample data are not blank corrected.

Maxxam Analytics' liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Maxxam has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Maxxam, unless otherwise agreed in writing.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.

Results relate to samples tested.

This Certificate shall not be reproduced except in full, without the written approval of the laboratory.

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

(1) Per- and polyfluoroalkyl substances (PFAS) identified as surrogates on the certificate of analysis represent the extracted internal standard.

Attention: Fairchild AFB reporting group

CT Laboratories LLC
1230 Lange Court
Baraboo, WI
USA 53913

Your P.O. #: F013900869
Your Project #: 775303101
Site Location: FAIRCHILD AFB
Your C.O.C. #: na

Report Date: 2017/06/22
Report #: R4554783
Version: 2 - Revision

CERTIFICATE OF ANALYSIS – REVISED REPORT

MAXXAM JOB #: B797896

Received: 2017/05/13, 13:41

Encryption Key



Stephanie Pollen
Project Manager
22 Jun 2017 17:18:46

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Melissa DiGrazia, Supervisor –Environmental Customer Service
Email: MDiGrazia@maxxam.ca
Phone# (905) 817-5700

=====

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

RESULTS OF ANALYSES OF SOIL

Maxxam ID		EJL629				
Sampling Date		2017/05/12 08:45				
COC Number		na				
	UNITS	FRCHD04-SO-006	DL	LOD	LOQ	QC Batch
Moisture	%	18	0.50	N/A	1.0	4989847
6:2 Fluorotelomer sulfonate	mg/kg	0.00028 J	0.00025	0.00066	0.0011	4987381
8:2 Fluorotelomer sulfonate	mg/kg	0.00066 U	0.00035	0.00066	0.0011	4987381
EtFOSAA	mg/kg	0.00066 U	0.00018	0.00066	0.0011	4987381
MeFOSAA	mg/kg	0.00066 U	0.00018	0.00066	0.0011	4987381
Perfluorobutane Sulfonate (PFBS)	mg/kg	0.00066 U	0.00019	0.00066	0.0011	4987381
Perfluorodecanoic Acid (PFDA)	mg/kg	0.00044 U	0.00014	0.00044	0.0011	4987381
Perfluorododecanoic Acid (PFDoA)	mg/kg	0.00066 U	0.00024	0.00066	0.0011	4987381
Perfluoroheptanoic Acid (PFHpA)	mg/kg	0.00065 J	0.00019	0.00066	0.0011	4987381
Perfluorohexane Sulfonate (PFHxS)	mg/kg	0.0051	0.00025	0.00066	0.0011	4987381
Perfluorohexanoic Acid (PFHxA)	mg/kg	0.00097 J	0.00021	0.00066	0.0011	4987381
Perfluoro-n-Octanoic Acid (PFOA)	mg/kg	0.00080 J	0.00029	0.00066	0.0011	4987381
Perfluorononanoic Acid (PFNA)	mg/kg	0.00066 U	0.00019	0.00066	0.0011	4987381
Perfluorooctane Sulfonate (PFOS)	mg/kg	0.0055	0.00023	0.00066	0.0011	4987381
Perfluorotetradecanoic Acid	mg/kg	0.00044 U	0.00012	0.00044	0.0011	4987381
Perfluorotridecanoic Acid	mg/kg	0.00044 U	0.00013	0.00044	0.0011	4987381
Perfluoroundecanoic Acid (PFUnA)	mg/kg	0.00066 U	0.00020	0.00066	0.0011	4987381
Surrogate Recovery (%)						
13C2-6:2 Fluorotelomer sulfonate	%	74				4987381
13C2-8:2 Fluorotelomer sulfonate	%	76				4987381
13C2-Perfluorodecanoic acid	%	72				4987381
13C2-Perfluorododecanoic acid	%	68				4987381
13C2-Perfluorohexanoic acid	%	73				4987381
13C2-perfluorotetradecanoic acid	%	69				4987381
13C2-Perfluoroundecanoic acid	%	71				4987381
13C4-Perfluoroheptanoic acid	%	73				4987381
13C4-Perfluorooctanesulfonate	%	72				4987381
13C4-Perfluorooctanoic acid	%	71				4987381
13C5-Perfluorononanoic acid	%	68				4987381
18O2-Perfluorohexanesulfonate	%	72				4987381
D3-MeFOSAA	%	64				4987381
D5-EtFOSAA	%	62				4987381
DL = Detection Limit LOD = Limit of Detection LOQ = Limit of Quantitation QC Batch = Quality Control Batch N/A = Not Applicable						

RESULTS OF ANALYSES OF WATER

Maxxam ID		EJL630				
Sampling Date		2017/05/12 10:08				
COC Number		na				
	UNITS	FRCHD04-GW-002	DL	LOD	LOQ	QC Batch
6:2 Fluorotelomer sulfonate	ug/L	0.63 (1)	0.032	0.10	0.20	4987523
8:2 Fluorotelomer sulfonate	ug/L	0.10 U (1)	0.036	0.10	0.20	4987523
EtFOSAA	ug/L	0.10 U (1)	0.036	0.10	0.20	4987523
MeFOSAA	ug/L	0.10 U (1)	0.026	0.10	0.20	4987523
Perfluorobutane Sulfonate (PFBS)	ug/L	0.62 (1)	0.048	0.10	0.20	4987523
Perfluorodecanoic Acid (PFDA)	ug/L	0.10 U (1)	0.040	0.10	0.20	4987523
Perfluorododecanoic Acid (PFDoA)	ug/L	0.10 U (1)	0.028	0.10	0.20	4987523
Perfluoroheptanoic Acid (PFHpA)	ug/L	1.0 (1)	0.033	0.10	0.20	4987523
Perfluorohexane Sulfonate (PFHxS)	ug/L	16 (2)	0.34	0.50	1.0	4987523
Perfluorohexanoic Acid (PFHxA)	ug/L	2.1 (1)	0.029	0.10	0.20	4987523
Perfluoro-n-Octanoic Acid (PFOA)	ug/L	1.6 (1)	0.046	0.10	0.20	4987523
Perfluorononanoic Acid (PFNA)	ug/L	0.13 J (1)	0.038	0.10	0.20	4987523
Perfluorooctane Sulfonate (PFOS)	ug/L	6.3 (1)	0.026	0.10	0.20	4987523
Perfluorotetradecanoic Acid	ug/L	0.10 U (1)	0.038	0.10	0.20	4987523
Perfluorotridecanoic Acid	ug/L	0.037 J (1)	0.033	0.10	0.20	4987523
Perfluoroundecanoic Acid (PFUnA)	ug/L	0.10 U (1)	0.043	0.10	0.20	4987523
Surrogate Recovery (%)						
13C2-6:2 Fluorotelomer sulfonate	%	89				4987523
13C2-8:2 Fluorotelomer sulfonate	%	93				4987523
13C2-Perfluorodecanoic acid	%	82				4987523
13C2-Perfluorododecanoic acid	%	86				4987523
13C2-Perfluorohexanoic acid	%	87				4987523
13C2-perfluorotetradecanoic acid	%	82				4987523
13C2-Perfluoroundecanoic acid	%	87				4987523
13C4-Perfluoroheptanoic acid	%	89				4987523
13C4-Perfluorooctanesulfonate	%	90				4987523
13C4-Perfluorooctanoic acid	%	85				4987523
13C5-Perfluorononanoic acid	%	88				4987523
DL = Detection Limit LOD = Limit of Detection LOQ = Limit of Quantitation QC Batch = Quality Control Batch N/A = Not Applicable (1) Due to high concentrations of the target analytes, a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (10x). (2) Due to high concentrations of the target analytes, a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (50x).						

Maxxam Job #: B797896
Report Date: 2017/06/22

CT Laboratories LLC
Client Project #: 775303101
Site Location: FAIRCHILD AFB
Your P.O. #: F013900869

RESULTS OF ANALYSES OF WATER

Maxxam ID		EJL630				
Sampling Date		2017/05/12 10:08				
COC Number		na				
	UNITS	FRCHD04-GW-002	DL	LOD	LOQ	QC Batch
18O2-Perfluorohexanesulfonate	%	87				4987523
D3-MeFOSAA	%	74				4987523
D5-EtFOSAA	%	73				4987523
DL = Detection Limit LOD = Limit of Detection LOQ = Limit of Quantitation QC Batch = Quality Control Batch N/A = Not Applicable						

Maxxam Job #: B797896
Report Date: 2017/06/22

CT Laboratories LLC
Client Project #: 775303101
Site Location: FAIRCHILD AFB
Your P.O. #: F013900869

TEST SUMMARY

Maxxam ID: EJL629
Sample ID: FRCHD04-SO-006
Matrix: Soil

Collected: 2017/05/12
Shipped:
Received: 2017/05/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Moisture	BAL	4989847	N/A	2017/05/18	Valentina Kaftani
PFOS and PFOA in soil by SPE/LCMS	LCMS	4987381	2017/05/17	2017/05/20	Marian Godax

Maxxam ID: EJL630
Sample ID: FRCHD04-GW-002
Matrix: Water

Collected: 2017/05/12
Shipped:
Received: 2017/05/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
PFOS and PFOA in water by SPE/LCMS	LCMS	4987523	2017/05/17	2017/05/23	Anjan Desai

Maxxam Job #: B797896
Report Date: 2017/06/22

CT Laboratories LLC
Client Project #: 775303101
Site Location: FAIRCHILD AFB
Your P.O. #: F013900869

GENERAL COMMENTS

Revised Report (2017/06/22): The incorrect method detection limit (MDL) value of 0.0046 ug/L was assigned to Perfluorononanoic acid (PFNA) in LIMS to sample EJL630. The test code has been updated with the correct MDL value of 0.0038 ug/L. There is no change to data.

Results relate only to the items tested.

QUALITY ASSURANCE REPORT

QA/QC	Batch	Init	QC Type	Parameter	Date Analyzed	Value	% Recovery	UNITS	QC Limits
4987381	M_G	Matrix Spike		13C2-6:2 Fluorotelomer sulfonate	2017/05/20		54	%	50 - 150
				13C2-8:2 Fluorotelomer sulfonate	2017/05/20		98	%	50 - 150
				13C2-Perfluorodecanoic acid	2017/05/20		83	%	50 - 150
				13C2-Perfluorododecanoic acid	2017/05/20		71	%	50 - 150
				13C2-Perfluorohexanoic acid	2017/05/20		86	%	50 - 150
				13C2-perfluorotetradecanoic acid	2017/05/20		67	%	50 - 150
				13C2-Perfluoroundecanoic acid	2017/05/20		82	%	50 - 150
				13C4-Perfluoroheptanoic acid	2017/05/20		75	%	50 - 150
				13C4-Perfluorooctanesulfonate	2017/05/20		73	%	50 - 150
				13C4-Perfluorooctanoic acid	2017/05/20		80	%	50 - 150
				13C5-Perfluorononanoic acid	2017/05/20		87	%	50 - 150
				18O2-Perfluorohexanesulfonate	2017/05/20		83	%	50 - 150
				6:2 Fluorotelomer sulfonate	2017/05/20		19 (1)	%	70 - 130
				8:2 Fluorotelomer sulfonate	2017/05/20		90	%	70 - 130
				D3-MeFOSAA	2017/05/20		74	%	50 - 150
				D5-EtFOSAA	2017/05/20		75	%	50 - 150
				EtFOSAA	2017/05/20		98	%	70 - 130
				MeFOSAA	2017/05/20		102	%	70 - 130
				Perfluorobutane Sulfonate (PFBS)	2017/05/20		106	%	70 - 130
				Perfluorodecanoic Acid (PFDA)	2017/05/20		96	%	70 - 130
				Perfluorododecanoic Acid (PFDoA)	2017/05/20		111	%	70 - 130
				Perfluorononanoic Acid (PFNA)	2017/05/20		103	%	70 - 130
				Perfluorotetradecanoic Acid	2017/05/20		98	%	70 - 130
				Perfluorotridecanoic Acid	2017/05/20		116	%	70 - 130
				Perfluoroundecanoic Acid (PFUnA)	2017/05/20		107	%	70 - 130
				Perfluoroheptanoic Acid (PFHpA)	2017/05/20		92	%	70 - 130
				Perfluorohexane Sulfonate (PFHxS)	2017/05/20		-150 (1)	%	70 - 130
				Perfluorohexanoic Acid (PFHxA)	2017/05/20		101	%	70 - 130
				Perfluoro-n-Octanoic Acid (PFOA)	2017/05/20		116	%	70 - 130
				Perfluorooctane Sulfonate (PFOS)	2017/05/20		275 (1)	%	70 - 130
4987381	M_G	Matrix Spike DUP		13C2-6:2 Fluorotelomer sulfonate	2017/05/20		55	%	50 - 150
				13C2-8:2 Fluorotelomer sulfonate	2017/05/20		80	%	50 - 150
				13C2-Perfluorodecanoic acid	2017/05/20		85	%	50 - 150
				13C2-Perfluorododecanoic acid	2017/05/20		77	%	50 - 150
				13C2-Perfluorohexanoic acid	2017/05/20		79	%	50 - 150
				13C2-perfluorotetradecanoic acid	2017/05/20		68	%	50 - 150
				13C2-Perfluoroundecanoic acid	2017/05/20		77	%	50 - 150
				13C4-Perfluoroheptanoic acid	2017/05/20		64	%	50 - 150
				13C4-Perfluorooctanesulfonate	2017/05/20		79	%	50 - 150
				13C4-Perfluorooctanoic acid	2017/05/20		78	%	50 - 150
				13C5-Perfluorononanoic acid	2017/05/20		81	%	50 - 150
				18O2-Perfluorohexanesulfonate	2017/05/20		65	%	50 - 150
				6:2 Fluorotelomer sulfonate	2017/05/20		-59 (1)	%	70 - 130
				8:2 Fluorotelomer sulfonate	2017/05/20		94	%	70 - 130
				D3-MeFOSAA	2017/05/20		70	%	50 - 150
				D5-EtFOSAA	2017/05/20		72	%	50 - 150
				EtFOSAA	2017/05/20		101	%	70 - 130
				MeFOSAA	2017/05/20		104	%	70 - 130
				Perfluorobutane Sulfonate (PFBS)	2017/05/20		137 (2)	%	70 - 130
				Perfluorodecanoic Acid (PFDA)	2017/05/20		91	%	70 - 130
				Perfluorododecanoic Acid (PFDoA)	2017/05/20		101	%	70 - 130
				Perfluorononanoic Acid (PFNA)	2017/05/20		100	%	70 - 130

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	% Recovery	UNITS	QC Limits
4987381	M_G	MS/MSD RPD	Perfluorotetradecanoic Acid	2017/05/20		103	%	70 - 130
			Perfluorotridecanoic Acid	2017/05/20		112	%	70 - 130
			Perfluoroundecanoic Acid (PFUnA)	2017/05/20		105	%	70 - 130
			Perfluoroheptanoic Acid (PFHpA)	2017/05/20		104	%	70 - 130
			Perfluorohexane Sulfonate (PFHxS)	2017/05/20		146 (1)	%	70 - 130
			Perfluorohexanoic Acid (PFHxA)	2017/05/20		108	%	70 - 130
			Perfluoro-n-Octanoic Acid (PFOA)	2017/05/20		101	%	70 - 130
			Perfluorooctane Sulfonate (PFOS)	2017/05/20		25 (1)	%	70 - 130
			6:2 Fluorotelomer sulfonate	2017/05/20	180 (1)		%	30
			8:2 Fluorotelomer sulfonate	2017/05/20	4.9		%	30
			EtFOSAA	2017/05/20	2.8		%	30
			MeFOSAA	2017/05/20	2.0		%	30
			Perfluorobutane Sulfonate (PFBS)	2017/05/20	26 (2)		%	30
			Perfluorodecanoic Acid (PFDA)	2017/05/20	5.3		%	30
			Perfluorododecanoic Acid (PFDoA)	2017/05/20	9.2		%	30
			Perfluorononanoic Acid (PFNA)	2017/05/20	2.6		%	30
			Perfluorotetradecanoic Acid	2017/05/20	4.8		%	30
			Perfluorotridecanoic Acid	2017/05/20	3.1		%	30
			Perfluoroundecanoic Acid (PFUnA)	2017/05/20	1.3		%	30
			Perfluoroheptanoic Acid (PFHpA)	2017/05/20	12		%	30
			Perfluorohexane Sulfonate (PFHxS)	2017/05/20	197 (1)		%	30
			Perfluorohexanoic Acid (PFHxA)	2017/05/20	6.7		%	30
			Perfluoro-n-Octanoic Acid (PFOA)	2017/05/20	14		%	30
			Perfluorooctane Sulfonate (PFOS)	2017/05/20	167 (1)		%	30
4987381	M_G	Spiked Blank	13C2-6:2 Fluorotelomer sulfonate	2017/05/20		70	%	50 - 150
			13C2-8:2 Fluorotelomer sulfonate	2017/05/20		74	%	50 - 150
			13C2-Perfluorodecanoic acid	2017/05/20		72	%	50 - 150
			13C2-Perfluorododecanoic acid	2017/05/20		67	%	50 - 150
			13C2-Perfluorohexanoic acid	2017/05/20		75	%	50 - 150
			13C2-perfluorotetradecanoic acid	2017/05/20		65	%	50 - 150
			13C2-Perfluoroundecanoic acid	2017/05/20		71	%	50 - 150
			13C4-Perfluoroheptanoic acid	2017/05/20		73	%	50 - 150
			13C4-Perfluorooctanesulfonate	2017/05/20		81	%	50 - 150
			13C4-Perfluorooctanoic acid	2017/05/20		74	%	50 - 150
			13C5-Perfluorononanoic acid	2017/05/20		69	%	50 - 150
			18O2-Perfluorohexanesulfonate	2017/05/20		64	%	50 - 150
			6:2 Fluorotelomer sulfonate	2017/05/20		112	%	70 - 130
			8:2 Fluorotelomer sulfonate	2017/05/20		101	%	70 - 130
			D3-MeFOSAA	2017/05/20		69	%	50 - 150
			D5-EtFOSAA	2017/05/20		69	%	50 - 150
			EtFOSAA	2017/05/20		99	%	70 - 130
			MeFOSAA	2017/05/20		100	%	70 - 130
			Perfluorobutane Sulfonate (PFBS)	2017/05/20		121	%	70 - 130
			Perfluorodecanoic Acid (PFDA)	2017/05/20		98	%	70 - 130
			Perfluorododecanoic Acid (PFDoA)	2017/05/20		102	%	70 - 130
			Perfluorononanoic Acid (PFNA)	2017/05/20		114	%	70 - 130
			Perfluorotetradecanoic Acid	2017/05/20		107	%	70 - 130
			Perfluorotridecanoic Acid	2017/05/20		107	%	70 - 130
			Perfluoroundecanoic Acid (PFUnA)	2017/05/20		107	%	70 - 130
			Perfluoroheptanoic Acid (PFHpA)	2017/05/20		108	%	70 - 130
			Perfluorohexane Sulfonate (PFHxS)	2017/05/20		117	%	70 - 130
			Perfluorohexanoic Acid (PFHxA)	2017/05/20		109	%	70 - 130

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	% Recovery	UNITS	QC Limits
4987381	M_G	Method Blank	Perfluoro-n-Octanoic Acid (PFOA)	2017/05/20		108	%	70 - 130
			Perfluorooctane Sulfonate (PFOS)	2017/05/20		93	%	70 - 130
			13C2-6:2 Fluorotelomer sulfonate	2017/05/20		84	%	50 - 150
			13C2-8:2 Fluorotelomer sulfonate	2017/05/20		89	%	50 - 150
			13C2-Perfluorodecanoic acid	2017/05/20		80	%	50 - 150
			13C2-Perfluorododecanoic acid	2017/05/20		75	%	50 - 150
			13C2-Perfluorohexanoic acid	2017/05/20		87	%	50 - 150
			13C2-perfluorotetradecanoic acid	2017/05/20		75	%	50 - 150
			13C2-Perfluoroundecanoic acid	2017/05/20		74	%	50 - 150
			13C4-Perfluoroheptanoic acid	2017/05/20		94	%	50 - 150
			13C4-Perfluorooctanesulfonate	2017/05/20		85	%	50 - 150
			13C4-Perfluorooctanoic acid	2017/05/20		84	%	50 - 150
			13C5-Perfluorononanoic acid	2017/05/20		87	%	50 - 150
			18O2-Perfluorohexanesulfonate	2017/05/20		83	%	50 - 150
			6:2 Fluorotelomer sulfonate	2017/05/20	0.00060 U, LOD=0.00060		mg/kg	
			8:2 Fluorotelomer sulfonate	2017/05/20	0.00060 U, LOD=0.00060		mg/kg	
			D3-MeFOSAA	2017/05/20		79	%	50 - 150
			D5-EtFOSAA	2017/05/20		78	%	50 - 150
			EtFOSAA	2017/05/20	0.00060 U, LOD=0.00060		mg/kg	
			MeFOSAA	2017/05/20	0.00060 U, LOD=0.00060		mg/kg	
			Perfluorobutane Sulfonate (PFBS)	2017/05/20	0.00060 U, LOD=0.00060		mg/kg	
			Perfluorodecanoic Acid (PFDA)	2017/05/20	0.00040 U, LOD=0.00040		mg/kg	
			Perfluorododecanoic Acid (PFDoA)	2017/05/20	0.00060 U, LOD=0.00060		mg/kg	
			Perfluorononanoic Acid (PFNA)	2017/05/20	0.00060 U, LOD=0.00060		mg/kg	
			Perfluorotetradecanoic Acid	2017/05/20	0.00040 U, LOD=0.00040		mg/kg	
			Perfluorotridecanoic Acid	2017/05/20	0.00040 U, LOD=0.00040		mg/kg	
			Perfluoroundecanoic Acid (PFUnA)	2017/05/20	0.00060 U, LOD=0.00060		mg/kg	
			Perfluoroheptanoic Acid (PFHpA)	2017/05/20	0.00060 U, LOD=0.00060		mg/kg	
			Perfluorohexane Sulfonate (PFHxS)	2017/05/20	0.00060 U, LOD=0.00060		mg/kg	
			Perfluorohexanoic Acid (PFHxA)	2017/05/20	0.00060 U, LOD=0.00060		mg/kg	
			Perfluoro-n-Octanoic Acid (PFOA)	2017/05/20	0.00060 U, LOD=0.00060		mg/kg	
			Perfluorooctane Sulfonate (PFOS)	2017/05/20	0.00060 U, LOD=0.00060		mg/kg	
4987523	AD9	Matrix Spike	13C2-6:2 Fluorotelomer sulfonate	2017/05/23		111	%	50 - 150
			13C2-8:2 Fluorotelomer sulfonate	2017/05/23		108	%	50 - 150
			13C2-Perfluorodecanoic acid	2017/05/23		97	%	50 - 150
			13C2-Perfluorododecanoic acid	2017/05/23		76	%	50 - 150

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	% Recovery	UNITS	QC Limits
4987523	AD9	Matrix Spike DUP	13C2-Perfluorohexanoic acid	2017/05/23		107	%	50 - 150
			13C2-perfluorotetradecanoic acid	2017/05/23		42 (3)	%	50 - 150
			13C2-Perfluoroundecanoic acid	2017/05/23		87	%	50 - 150
			13C4-Perfluoroheptanoic acid	2017/05/23		110	%	50 - 150
			13C4-Perfluorooctanesulfonate	2017/05/23		106	%	50 - 150
			13C4-Perfluorooctanoic acid	2017/05/23		112	%	50 - 150
			13C5-Perfluorononanoic acid	2017/05/23		117	%	50 - 150
			18O2-Perfluorohexanesulfonate	2017/05/23		105	%	50 - 150
			6:2 Fluorotelomer sulfonate	2017/05/23		83	%	70 - 130
			8:2 Fluorotelomer sulfonate	2017/05/23		106	%	70 - 130
			D3-MeFOSAA	2017/05/23		87	%	50 - 150
			D5-EtFOSAA	2017/05/23		87	%	50 - 150
			EtFOSAA	2017/05/23		92	%	70 - 130
			MeFOSAA	2017/05/23		94	%	70 - 130
			Perfluorobutane Sulfonate (PFBS)	2017/05/23		138 (4)	%	70 - 130
			Perfluoroheptanoic Acid (PFHpA)	2017/05/23		91	%	70 - 130
			Perfluorohexane Sulfonate (PFHxS)	2017/05/23		145 (4)	%	70 - 130
			Perfluorohexanoic Acid (PFHxA)	2017/05/23		82	%	70 - 130
			Perfluorononanoic Acid (PFNA)	2017/05/23		97	%	70 - 130
			Perfluorotetradecanoic Acid	2017/05/23		95	%	70 - 130
			Perfluorotridecanoic Acid	2017/05/23		NC	%	70 - 130
			Perfluoroundecanoic Acid (PFUnA)	2017/05/23		98	%	70 - 130
			Perfluorodecanoic Acid (PFDA)	2017/05/23		88	%	70 - 130
			Perfluorododecanoic Acid (PFDoA)	2017/05/23		99	%	70 - 130
			Perfluoro-n-Octanoic Acid (PFOA)	2017/05/23		99	%	70 - 130
			Perfluorooctane Sulfonate (PFOS)	2017/05/23		98	%	70 - 130
			13C2-6:2 Fluorotelomer sulfonate	2017/06/08		99	%	50 - 150
			13C2-8:2 Fluorotelomer sulfonate	2017/06/08		110	%	50 - 150
			13C2-Perfluorodecanoic acid	2017/06/08		90	%	50 - 150
			13C2-Perfluorododecanoic acid	2017/06/08		79	%	50 - 150
			13C2-Perfluorohexanoic acid	2017/06/08		99	%	50 - 150
			13C2-perfluorotetradecanoic acid	2017/06/08		40 (3)	%	50 - 150
			13C2-Perfluoroundecanoic acid	2017/06/08		89	%	50 - 150
			13C4-Perfluoroheptanoic acid	2017/06/08		108	%	50 - 150
			13C4-Perfluorooctanesulfonate	2017/06/08		111	%	50 - 150
			13C4-Perfluorooctanoic acid	2017/06/08		115	%	50 - 150
			13C5-Perfluorononanoic acid	2017/06/08		113	%	50 - 150
			18O2-Perfluorohexanesulfonate	2017/06/08		106	%	50 - 150
			6:2 Fluorotelomer sulfonate	2017/06/08		112	%	70 - 130
			8:2 Fluorotelomer sulfonate	2017/06/08		97	%	70 - 130
			D3-MeFOSAA	2017/06/08		92	%	50 - 150
			D5-EtFOSAA	2017/06/08		89	%	50 - 150
			EtFOSAA	2017/06/08		92	%	70 - 130
			MeFOSAA	2017/06/08		93	%	70 - 130
			Perfluorobutane Sulfonate (PFBS)	2017/06/08		130	%	70 - 130
			Perfluoroheptanoic Acid (PFHpA)	2017/06/08		89	%	70 - 130
			Perfluorohexane Sulfonate (PFHxS)	2017/06/08		132 (4)	%	70 - 130
			Perfluorohexanoic Acid (PFHxA)	2017/06/08		91	%	70 - 130
			Perfluorononanoic Acid (PFNA)	2017/06/08		97	%	70 - 130
			Perfluorotetradecanoic Acid	2017/06/08		98	%	70 - 130
			Perfluorotridecanoic Acid	2017/06/08		NC	%	70 - 130
			Perfluoroundecanoic Acid (PFUnA)	2017/06/08		102	%	70 - 130

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	% Recovery	UNITS	QC Limits
4987523	AD9	MS/MSD RPD	Perfluorodecanoic Acid (PFDA)	2017/06/08		96	%	70 - 130
			Perfluorododecanoic Acid (PFDoA)	2017/06/08		97	%	70 - 130
			Perfluoro-n-Octanoic Acid (PFOA)	2017/06/08		91	%	70 - 130
			Perfluorooctane Sulfonate (PFOS)	2017/06/08		87	%	70 - 130
			6:2 Fluorotelomer sulfonate	2017/06/08	30		%	30
			8:2 Fluorotelomer sulfonate	2017/06/08	9.1		%	30
			EtFOSAA	2017/06/08	0.010		%	30
			MeFOSAA	2017/06/08	1.2		%	30
			Perfluorobutane Sulfonate (PFBS)	2017/06/08	6.5		%	30
			Perfluoroheptanoic Acid (PFHpA)	2017/06/08	2.1		%	30
			Perfluorohexane Sulfonate (PFHxS)	2017/06/08	9.7 (4)		%	30
			Perfluorohexanoic Acid (PFHxA)	2017/06/08	11		%	30
			Perfluorononanoic Acid (PFNA)	2017/06/08	0.11		%	30
			Perfluorotetradecanoic Acid	2017/06/08	3.3		%	30
			Perfluorotridecanoic Acid	2017/06/08	0		%	30
			Perfluoroundecanoic Acid (PFUnA)	2017/06/08	4.0		%	30
			Perfluorodecanoic Acid (PFDA)	2017/06/08	8.9		%	30
			Perfluorododecanoic Acid (PFDoA)	2017/06/08	1.5		%	30
			Perfluoro-n-Octanoic Acid (PFOA)	2017/06/08	8.7		%	30
			Perfluorooctane Sulfonate (PFOS)	2017/06/08	11		%	30
4987523	AD9	Spiked Blank	13C2-6:2 Fluorotelomer sulfonate	2017/05/23		94	%	50 - 150
			13C2-8:2 Fluorotelomer sulfonate	2017/05/23		89	%	50 - 150
			13C2-Perfluorodecanoic acid	2017/05/23		92	%	50 - 150
			13C2-Perfluorododecanoic acid	2017/05/23		87	%	50 - 150
			13C2-Perfluorohexanoic acid	2017/05/23		90	%	50 - 150
			13C2-perfluorotetradecanoic acid	2017/05/23		86	%	50 - 150
			13C2-Perfluoroundecanoic acid	2017/05/23		89	%	50 - 150
			13C4-Perfluoroheptanoic acid	2017/05/23		90	%	50 - 150
			13C4-Perfluorooctanesulfonate	2017/05/23		96	%	50 - 150
			13C4-Perfluorooctanoic acid	2017/05/23		85	%	50 - 150
			13C5-Perfluorononanoic acid	2017/05/23		86	%	50 - 150
			18O2-Perfluorohexanesulfonate	2017/05/23		95	%	50 - 150
			6:2 Fluorotelomer sulfonate	2017/05/23		92	%	70 - 130
			8:2 Fluorotelomer sulfonate	2017/05/23		95	%	70 - 130
			D3-MeFOSAA	2017/05/23		81	%	50 - 150
			D5-EtFOSAA	2017/05/23		80	%	50 - 150
			EtFOSAA	2017/05/23		95	%	70 - 130
			MeFOSAA	2017/05/23		96	%	70 - 130
			Perfluorobutane Sulfonate (PFBS)	2017/05/23		94	%	70 - 130
			Perfluoroheptanoic Acid (PFHpA)	2017/05/23		97	%	70 - 130
			Perfluorohexane Sulfonate (PFHxS)	2017/05/23		94	%	70 - 130
			Perfluorohexanoic Acid (PFHxA)	2017/05/23		97	%	70 - 130
			Perfluorononanoic Acid (PFNA)	2017/05/23		101	%	70 - 130
			Perfluorotetradecanoic Acid	2017/05/23		93	%	70 - 130
			Perfluorotridecanoic Acid	2017/05/23		96	%	70 - 130
			Perfluoroundecanoic Acid (PFUnA)	2017/05/23		100	%	70 - 130
			Perfluorodecanoic Acid (PFDA)	2017/05/23		93	%	70 - 130
			Perfluorododecanoic Acid (PFDoA)	2017/05/23		100	%	70 - 130
			Perfluoro-n-Octanoic Acid (PFOA)	2017/05/23		106	%	70 - 130
			Perfluorooctane Sulfonate (PFOS)	2017/05/23		88	%	70 - 130
4987523	AD9	Method Blank	13C2-6:2 Fluorotelomer sulfonate	2017/05/23		98	%	50 - 150
			13C2-8:2 Fluorotelomer sulfonate	2017/05/23		99	%	50 - 150

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	% Recovery	UNITS	QC Limits
			13C2-Perfluorodecanoic acid	2017/05/23		90	%	50 - 150
			13C2-Perfluorododecanoic acid	2017/05/23		88	%	50 - 150
			13C2-Perfluorohexanoic acid	2017/05/23		92	%	50 - 150
			13C2-perfluorotetradecanoic acid	2017/05/23		86	%	50 - 150
			13C2-Perfluoroundecanoic acid	2017/05/23		86	%	50 - 150
			13C4-Perfluoroheptanoic acid	2017/05/23		101	%	50 - 150
			13C4-Perfluorooctanesulfonate	2017/05/23		102	%	50 - 150
			13C4-Perfluorooctanoic acid	2017/05/23		98	%	50 - 150
			13C5-Perfluorononanoic acid	2017/05/23		93	%	50 - 150
			18O2-Perfluorohexanesulfonate	2017/05/23		82	%	50 - 150
			6:2 Fluorotelomer sulfonate	2017/05/23	0.010 U, LOD=0.010		ug/L	
			8:2 Fluorotelomer sulfonate	2017/05/23	0.010 U, LOD=0.010		ug/L	
			D3-MeFOSAA	2017/05/23		79	%	50 - 150
			D5-EtFOSAA	2017/05/23		82	%	50 - 150
			EtFOSAA	2017/05/23	0.010 U, LOD=0.010		ug/L	
			MeFOSAA	2017/05/23	0.010 U, LOD=0.010		ug/L	
			Perfluorobutane Sulfonate (PFBS)	2017/05/23	0.010 U, LOD=0.010		ug/L	
			Perfluoroheptanoic Acid (PFHpA)	2017/05/23	0.010 U, LOD=0.010		ug/L	
			Perfluorohexane Sulfonate (PFHxS)	2017/05/23	0.010 U, LOD=0.010		ug/L	
			Perfluorohexanoic Acid (PFHxA)	2017/05/23	0.010 U, LOD=0.010		ug/L	
			Perfluorononanoic Acid (PFNA)	2017/05/23	0.010 U, LOD=0.010		ug/L	
			Perfluorotetradecanoic Acid	2017/05/23	0.010 U, LOD=0.010		ug/L	
			Perfluorotridecanoic Acid	2017/05/23	0.010 U, LOD=0.010		ug/L	
			Perfluoroundecanoic Acid (PFUnA)	2017/05/23	0.010 U, LOD=0.010		ug/L	
			Perfluorodecanoic Acid (PFDA)	2017/05/23	0.010 U, LOD=0.010		ug/L	
			Perfluorododecanoic Acid (PFDoA)	2017/05/23	0.010 U, LOD=0.010		ug/L	
			Perfluoro-n-Octanoic Acid (PFOA)	2017/05/23	0.010 U, LOD=0.010		ug/L	
			Perfluorooctane Sulfonate (PFOS)	2017/05/23	0.010 U, LOD=0.010		ug/L	

Maxxam Job #: B797896
Report Date: 2017/06/22

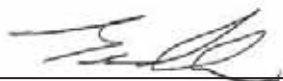
CT Laboratories LLC
Client Project #: 775303101
Site Location: FAIRCHILD AFB
Your P.O. #: F013900869

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC									
Batch	Init	QC Type	Parameter	Date Analyzed	Value	% Recovery	UNITS	QC Limits	
4989847	GG2	RPD - Sample/Sample Dup	Moisture	2017/05/18	0		%	20	
<p>Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.</p> <p>Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.</p> <p>Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.</p> <p>Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.</p> <p>NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)</p> <p>(1) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.</p> <p>(2) Recovery of the matrix spike was above the upper control limit. Laboratory spiked soil resulted in satisfactory recovery of the compound of interest. When considered together, these QC data suggest that matrix interferences may be biasing the data high. For results that were not detected (ND), this potential bias has no impact.</p> <p>(3) Extracted internal standard analyte recovery was below the defined lower control limit (LCL). Laboratory spiked water resulted in satisfactory recovery of the extracted internal standard analyte. When considered together, these QC data suggest that matrix interferences may be biasing the data low. Because quantitation is performed using isotope dilution techniques, any losses of the native compound that may occur during any of the sample preparation, extraction, cleanup or determinative steps will be mirrored by a similar loss of the labeled standard, and as such can be accounted for and corrected. Therefore, the quantification of these target compounds is not affected by the low extracted internal standard analyte recovery.</p> <p>(4) Recovery of the matrix spike was above the upper control limit. Laboratory spiked water resulted in satisfactory recovery of the compound of interest. When considered together, these QC data suggest that matrix interferences may be biasing the data high. For results that were not detected (ND), this potential bias has no impact.</p>									

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Brad Newman, Scientific Specialist



Colm McNamara, Senior Analyst, Liquid Chromatography



Sin Chii Chia, Scientific Services

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.



METHOD 537 Modified
DETERMINATION OF SELECTED PERFLUORINATED ALKYL
ACIDS IN DRINKING WATER BY SOLID PHASE EXTRACTION
AND LIQUID CHROMATOGRAPHY/TANDEM MASS SPECTROMETRY
(LC/MS/MS)

Maxxam Analytics International
6740 Campobello Rd
Mississauga, Ontario, Canada
L5N 2L8
1-800-668-0639
www.maxxamanalytics.com



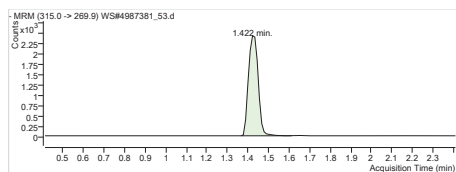
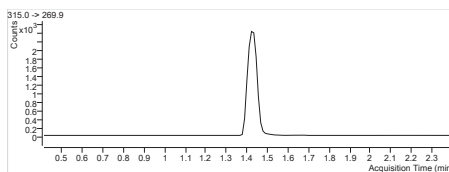
3.2 Sample Chromatograms

Maxxam Analytics International
6740 Campobello Rd
Mississauga, Ontario, Canada
L5N 2L8
1-800-668-0639
www.maxxamanalytics.com

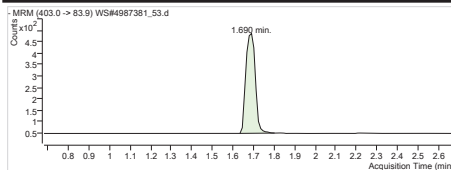
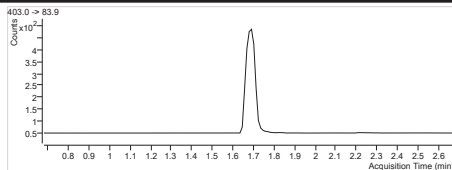
Batch Path T:\lcms4\PFC\20170519\WS#4987381\QuantResults\PFC_Soil_170519_WS#4987381_CTLabs
Sample Name 4987381:EJL629-01 **Instrument** LCMS04
Data File WS#4987381_53.d **Operator** M_G
Sample Type Sample **Dilution** 1.499
Acq. Method PFC_Soil.m **Position** P2-E1
Acq. Date 2017/05/20 7:19:56 AM **Injection Volume** Per Method
Sample Annotation Re-injected to confirm surrogate recovery, reported for all except PFOS

ISTD Compounds	Response	RT	Target conc.		
MPFHxA	7937	1.42	1 µg/Kg		
MPFHxS	1411	1.69	1 µg/Kg		
MPFHpA	8695	1.69	1 µg/Kg		
MPFOA	8282	1.87	1 µg/Kg		
MPFOS	944	1.98	1 µg/Kg		
MPFNA	7786	2.01	1 µg/Kg		
MPFDA	7052	2.14	1 µg/Kg		
MPFUnA	7752	2.22	1 µg/Kg		
MPFDoA	8521	2.31	1 µg/Kg		
MPFTeDA	10719	2.46	1 µg/Kg		
M2 6:2 FTS	2183	1.84	1 µg/Kg		
M2 8:2 FTS	2243	2.10	1 µg/Kg		
13C6-PFHxA IS	46939	1.42	1 µg/Kg		
13C9-PFDA IS	42360	2.13	1 µg/Kg		

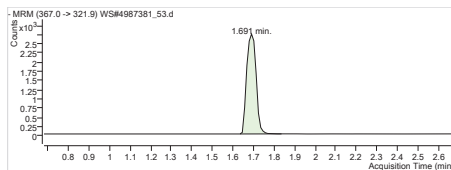
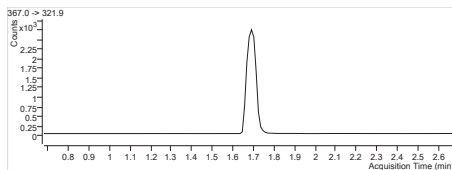
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1			-	ND	-
PFHxA 1	1777	1.42	-	0.97 µg/Kg	-
PFHxS 1	2167	1.68	-	5.06 µg/Kg	-
PFHpA 1	996	1.69	-	0.65 µg/Kg	-
PFOA 1	1630	1.87	-	0.80 µg/Kg	-
PFOS 1	2272	1.96	-	9.57 µg/Kg	-
PFNA 1			-	ND	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDaA 1			-	ND	-
PFTTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
6:2-FTS 1	231	1.84	-	0.28 µg/Kg	-
8:2-FTS 1			-	ND	-
13C2-PFHxA	7937	1.42	-	72.67 µg/Kg	-
18O2-PFHxS	1411	1.69	-	71.79 µg/Kg	-
13C4-PFHpA	8695	1.69	-	73.14 µg/Kg	-
13C4-PFOA	8282	1.87	-	71.12 µg/Kg	-
13C4-PFOS	944	1.98	-	39.55 µg/Kg	-
13C5-PFNA	7786	2.01	-	68.49 µg/Kg	-
13C2-PFDA	7052	2.14	-	72.07 µg/Kg	-
13C2-PFUnA	7752	2.22	-	70.84 µg/Kg	-
13C2-PFDoA	8521	2.31	-	67.93 µg/Kg	-
13C2-PFTeDA	10719	2.46	-	68.90 µg/Kg	-
13C2-6:2-FTS	2183	1.84	-	74.25 µg/Kg	-
13C2-8:2 FTS	2243	2.10	-	75.96 µg/Kg	-
13C6-PFHxA	46939	1.42	-	168.01 µg/Kg	-
13C9-PFDA	42360	2.13	-	165.22 µg/Kg	-



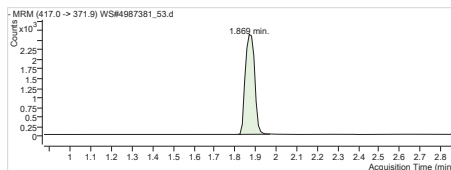
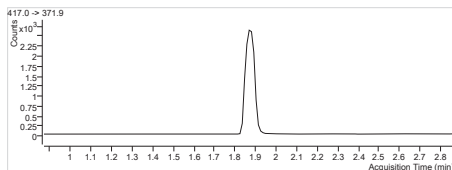
MPFHxA Internal Standard
 RT (Exp. RT): 1.422 (1.411)
 Concentration: 1 µg/Kg
 Sample type: Sample



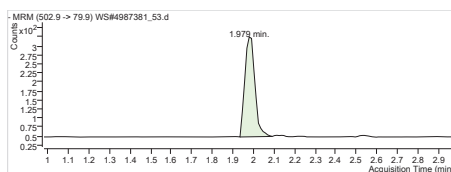
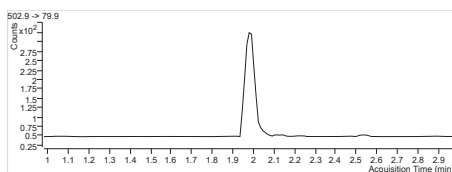
MPFHxS
 RT (Exp. RT): 1.690 (1.679)
 Concentration: 1 µg/Kg
 Sample type: Sample



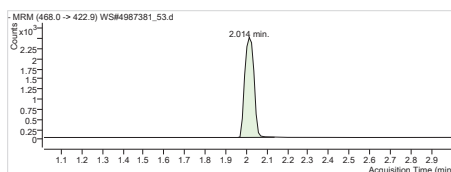
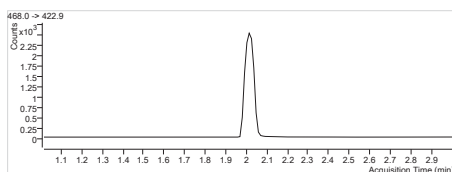
MPFHpA
 RT (Exp. RT): 1.691 (1.680)
 Concentration: 1 µg/Kg
 Sample type: Sample



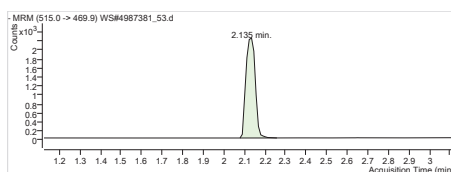
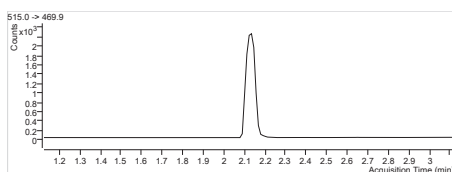
MPFOA
 RT (Exp. RT): 1.869 (1.869)
 Concentration: 1 µg/Kg
 Sample type: Sample



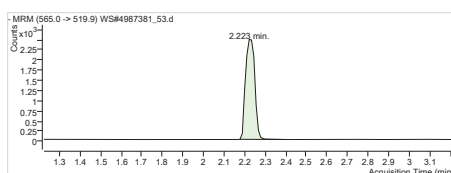
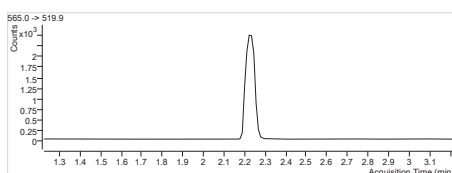
MPFOS
 RT (Exp. RT): 1.979 (1.979)
 Concentration: 1 µg/Kg
 Sample type: Sample



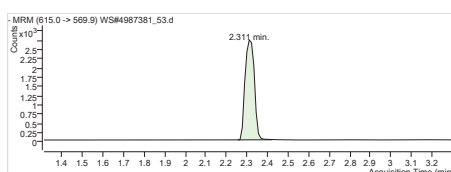
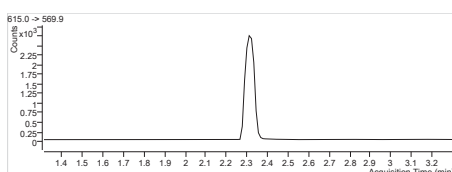
MPFNA
 RT (Exp. RT): 2.014 (2.014)
 Concentration: 1 µg/Kg
 Sample type: Sample



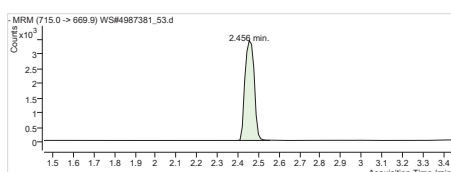
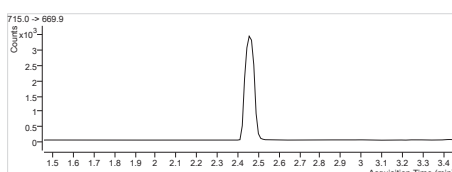
MPFDA
 RT (Exp. RT): 2.135 (2.124)
 Concentration: 1 µg/Kg
 Sample type: Sample



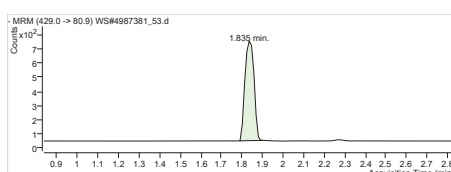
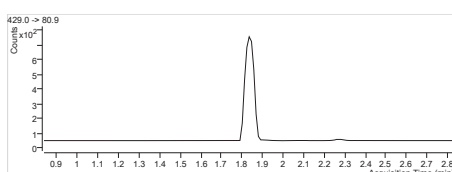
MPFUnA
 RT (Exp. RT): 2.223 (2.223)
 Concentration: 1 µg/Kg
 Sample type: Sample



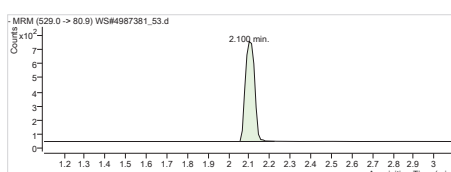
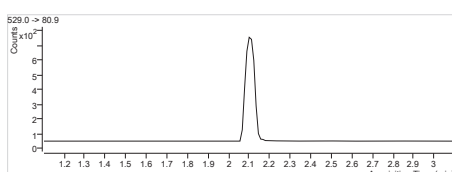
MPFDoA
 RT (Exp. RT): 2.311 (2.311)
 Concentration: 1 µg/Kg
 Sample type: Sample



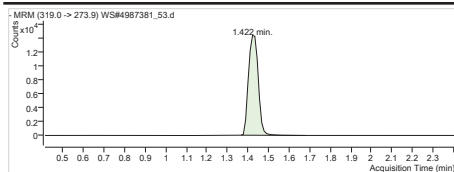
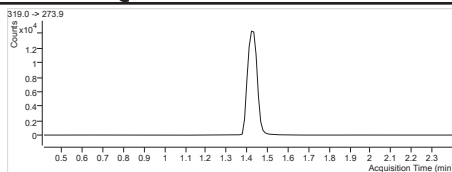
MPFTeDA
 RT (Exp. RT): 2.456 (2.455)
 Concentration: 1 µg/Kg
 Sample type: Sample



M2 6:2 FTS
 RT (Exp. RT): 1.835 (1.835)
 Concentration: 1 µg/Kg
 Sample type: Sample

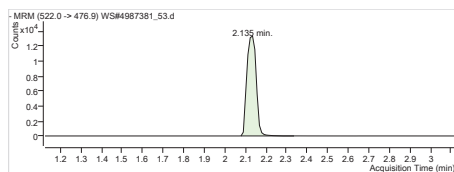
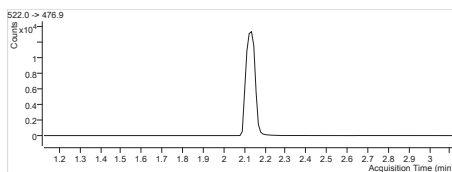


M2 8:2 FTS
 RT (Exp. RT): 2.100 (2.100)
 Concentration: 1 µg/Kg
 Sample type: Sample

**13C6-PFHxA IS**

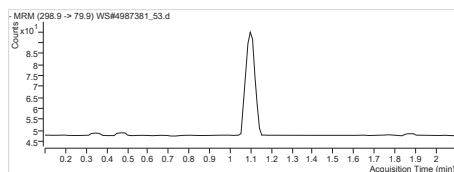
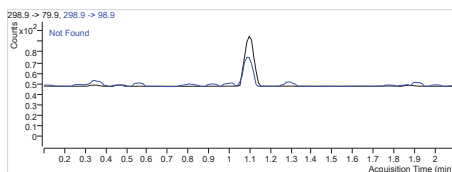
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
1.422 (1.411)
1 µg/Kg
Sample

**13C9-PFDA IS**

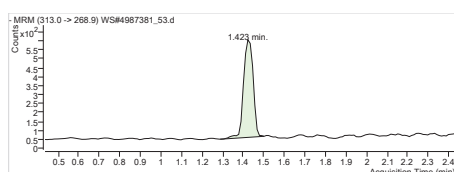
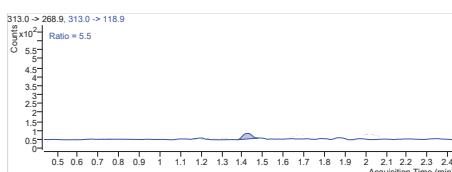
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
2.135 (2.124)
1 µg/Kg
Sample

**PFBS 1**

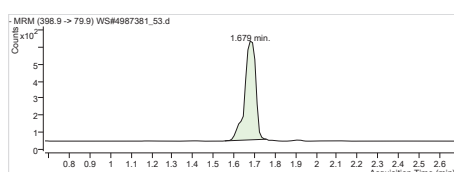
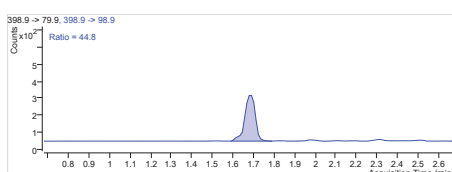
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

298.9 -> 79.9
0.000 (1.098)
N.D.
0
Sample

**PFHxA 1**

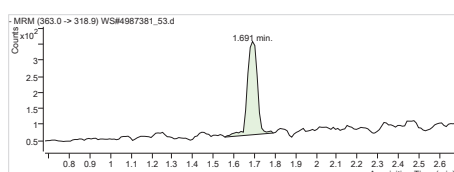
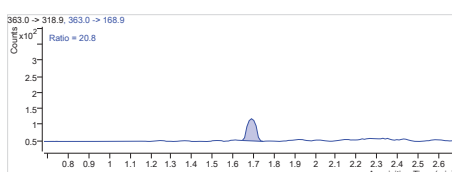
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

313.0 -> 268.9
1.423 (1.434)
0.97 µg/Kg
0.22389
Sample

**PFHxS 1**

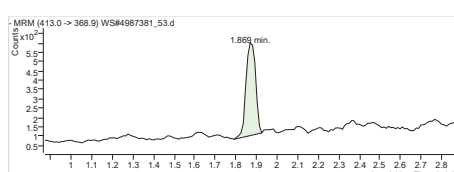
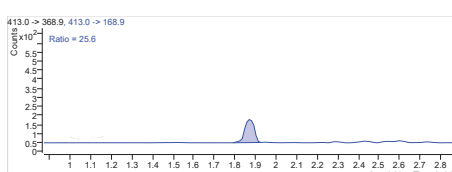
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

398.9 -> 79.9
1.679 (1.679)
5.06 µg/Kg
1.53579
Sample

**PFHpA 1**

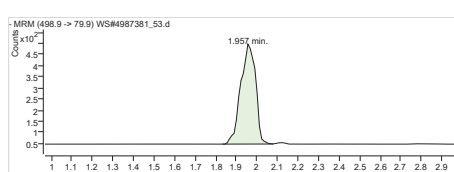
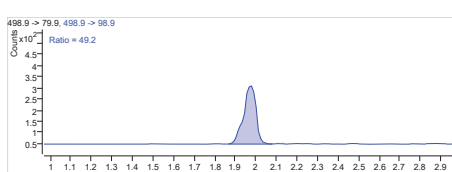
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

363.0 -> 318.9
1.691 (1.680)
0.65 µg/Kg
0.11455
Sample

**PFOA 1**

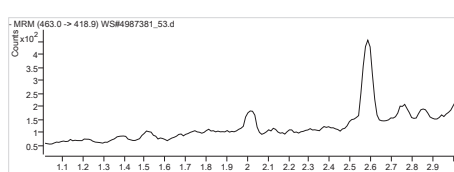
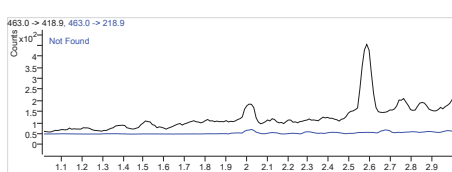
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

413.0 -> 368.9
1.869 (1.869)
0.80 µg/Kg
0.19681
Sample

**PFOS 1**

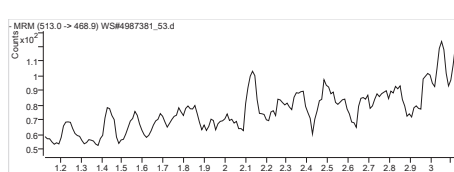
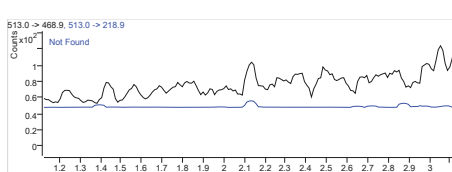
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

498.9 -> 79.9
1.957 (1.968)
9.57 µg/Kg
2.40678
Sample

**PFNA 1**

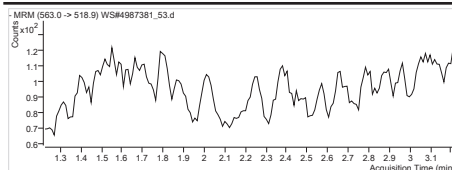
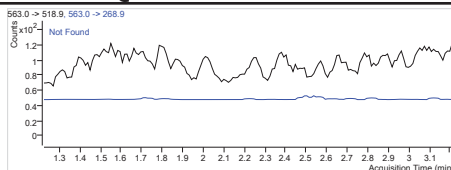
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

463.0 -> 418.9
0.000 (2.014)
N.D.
0
Sample

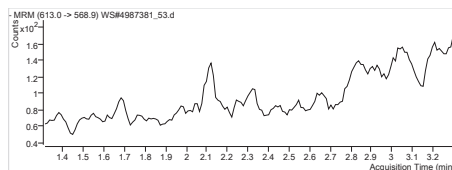
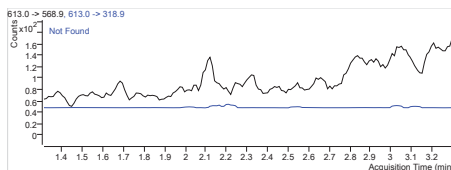
**PFDA 1**

RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

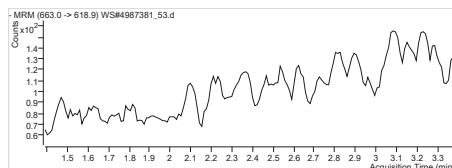
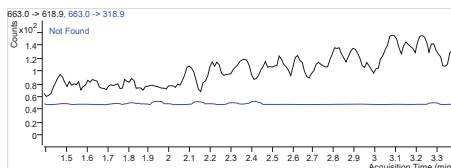
513.0 -> 468.9
0.000 (2.124)
N.D.
0
Sample



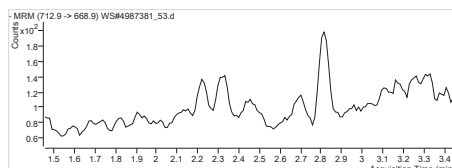
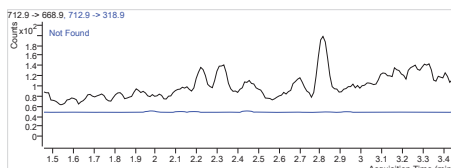
PFUnA 1
RT (Exp. RT): 563.0 -> 518.9
Calc. conc. 0.000 (2.223)
Area ratio: N.D.
Sample type: 0
Sample



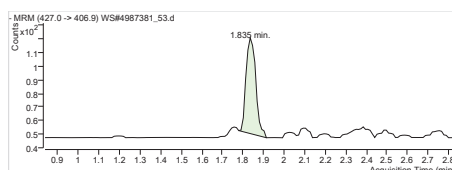
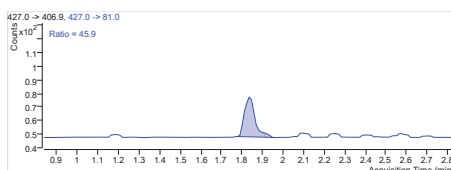
PFDa 1
RT (Exp. RT): 613.0 -> 568.9
Calc. conc. 0.000 (2.311)
Area ratio: N.D.
Sample type: 0
Sample



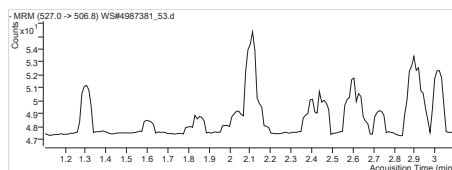
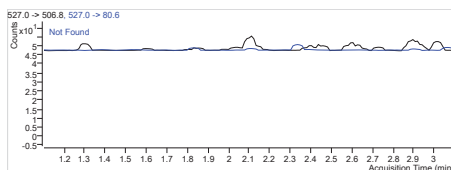
PFTraD 1
RT (Exp. RT): 663.0 -> 618.9
Calc. conc. 0.000 (2.389)
Area ratio: N.D.
Sample type: 0
Sample



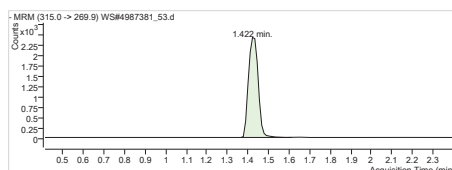
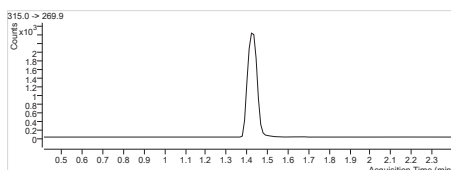
PFTeDa 1
RT (Exp. RT): 712.9 -> 668.9
Calc. conc. 0.000 (2.456)
Area ratio: N.D.
Sample type: 0
Sample



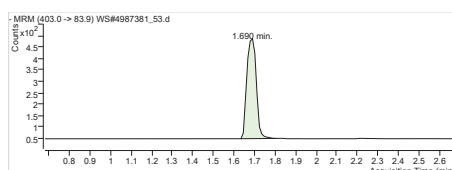
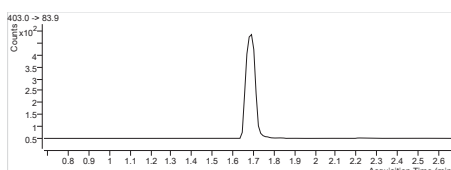
6:2-FTS 1
RT (Exp. RT): 427.0 -> 406.9
Calc. conc. 1.835 (1.835)
Area ratio: 0.28 µg/Kg
Sample type: 0.10582
Sample



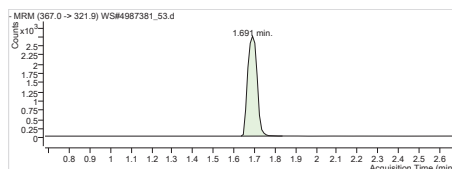
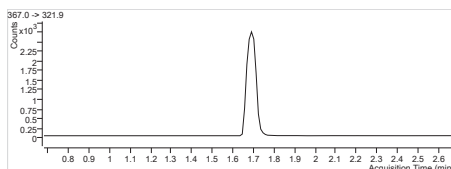
8:2-FTS 1
RT (Exp. RT): 527.0 -> 506.8
Calc. conc. 0.000 (2.101)
Area ratio: N.D.
Sample type: 0
Sample



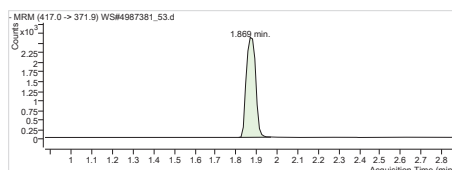
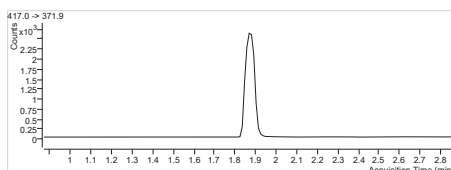
13C2-PFHxA
RT (Exp. RT): 315.0 -> 269.9
Calc. conc. 1.422 (1.411)
Area ratio: 72.67 µg/Kg
Sample type: 0.16909
Sample



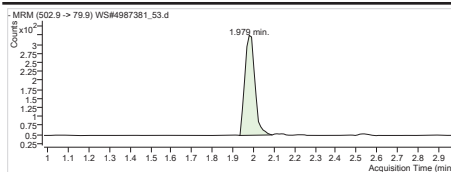
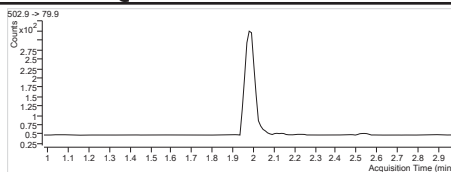
18O2-PFHxS
RT (Exp. RT): 403.0 -> 83.9
Calc. conc. 1.690 (1.679)
Area ratio: 71.79 µg/Kg
Sample type: 0.03006
Sample



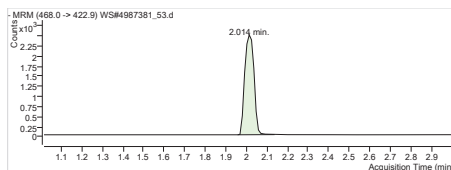
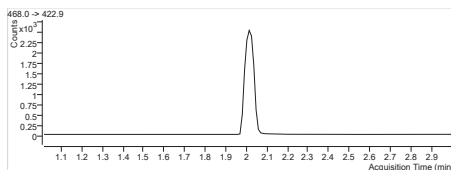
13C4-PFHpA
RT (Exp. RT): 367.0 -> 321.9
Calc. conc. 1.691 (1.680)
Area ratio: 73.14 µg/Kg
Sample type: 0.18524
Sample



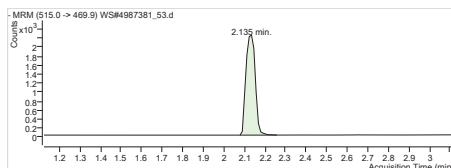
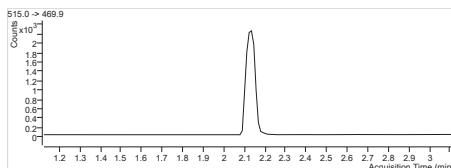
13C4-PFOA
RT (Exp. RT): 417.0 -> 371.9
Calc. conc. 1.869 (1.869)
Area ratio: 71.12 µg/Kg
Sample type: 0.17644
Sample



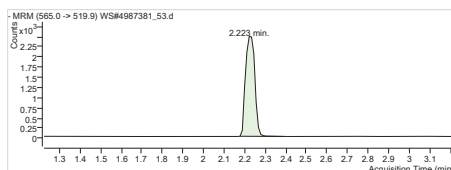
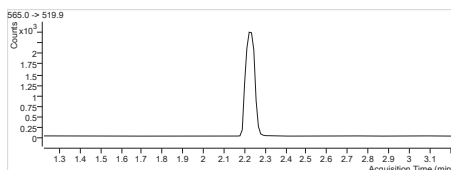
13C4-PFOS
RT (Exp. RT): 502.9 -> 79.9
Calc. conc. 1.979 (1.979)
39.55 µg/Kg
Area ratio: 0.02011
Sample type: Sample



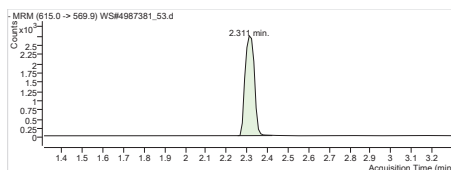
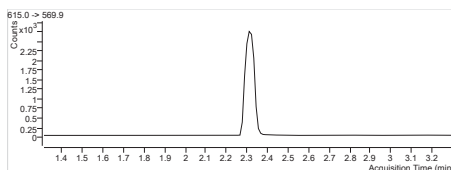
13C5-PFNA
RT (Exp. RT): 468.0 -> 422.9
Calc. conc. 2.014 (2.014)
68.49 µg/Kg
Area ratio: 0.16587
Sample type: Sample



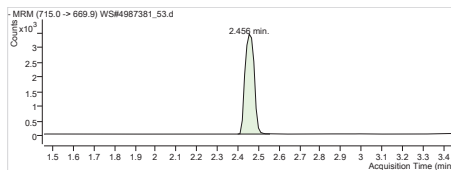
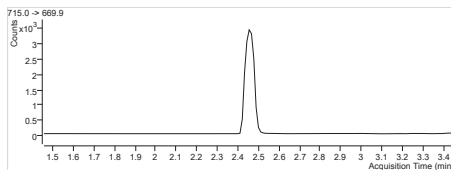
13C2-PFDA
RT (Exp. RT): 515.0 -> 469.9
Calc. conc. 2.135 (2.124)
72.07 µg/Kg
Area ratio: 0.16648
Sample type: Sample



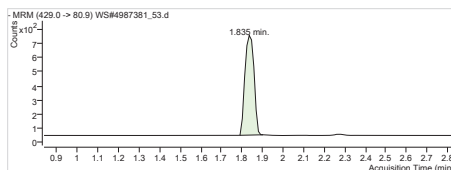
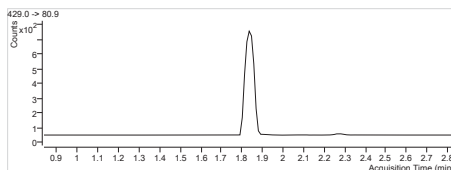
13C2-PFUnA
RT (Exp. RT): 565.0 -> 519.9
Calc. conc. 2.223 (2.223)
70.84 µg/Kg
Area ratio: 0.18300
Sample type: Sample



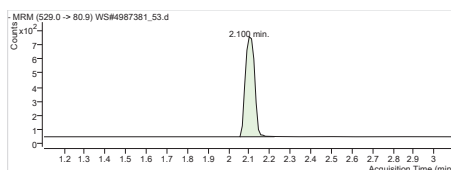
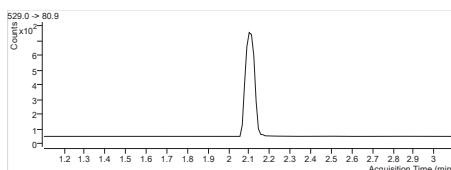
13C2-PFDoA
RT (Exp. RT): 615.0 -> 569.9
Calc. conc. 2.311 (2.311)
67.93 µg/Kg
Area ratio: 0.20116
Sample type: Sample



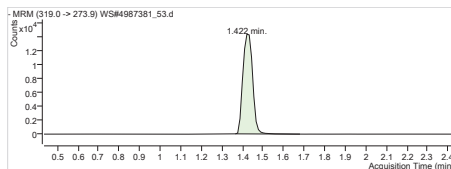
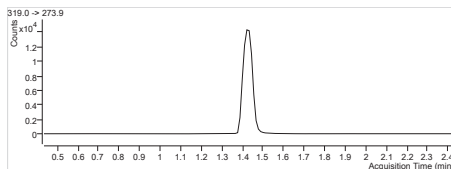
13C2-PFTeDA
RT (Exp. RT): 715.0 -> 669.9
Calc. conc. 2.456 (2.455)
68.90 µg/Kg
Area ratio: 0.25305
Sample type: Sample



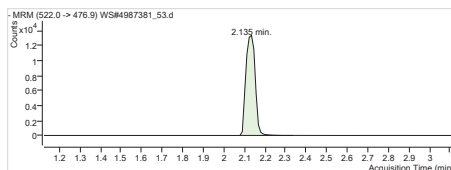
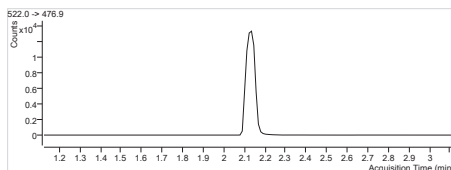
13C2-6:2-FTS
RT (Exp. RT): 429.0 -> 80.9
Calc. conc. 1.835 (1.835)
74.25 µg/Kg
Area ratio: 0.04651
Sample type: Sample



13C2-8:2 FTS
RT (Exp. RT): 529.0 -> 80.9
Calc. conc. 2.100 (2.100)
75.96 µg/Kg
Area ratio: 0.04779
Sample type: Sample



13C6-PFHxA
RT (Exp. RT): 319.0 -> 273.9
Calc. conc. 1.422 (1.434)
168.01 µg/Kg
Area ratio: 0
Sample type: Sample



13C9-PFDA
RT (Exp. RT): 522.0 -> 476.9
Calc. conc. 2.135 (2.124)
165.22 µg/Kg
Area ratio: 0
Sample type: Sample

Batch Path T:\lcms4\PFC\20170519\WS#4987381\QuantResults\PFC_Soil_170519_WS#4987381_CTLabs

Sample Name 4987381:EJL629-01 Instrument LCMS04

Data File WS#4987381_56.d Operator AD

Sample Type Sample Dilution 1.499

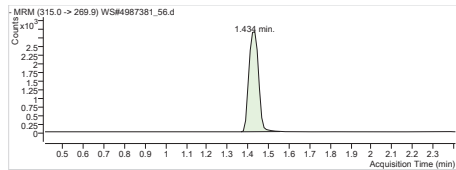
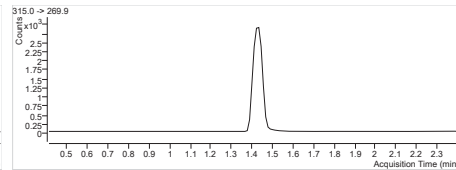
Acq. Method PFC_Soil.m Position P2-E1

Acq. Date 2017/05/23 2:15:37 PM Injection Volume Per Method

Sample Annotation Re-injection, reported for PFOS only

ISTD Compounds	Response	RT	Target conc.		
MPFHxA	9416	1.43	1 µg/Kg		
MPFHxS	1777	1.69	1 µg/Kg		
MPFHpA	11098	1.69	1 µg/Kg		
MPFOA	10176	1.87	1 µg/Kg		
MPFOS	2041	1.98	1 µg/Kg		
MPFNA	9229	2.01	1 µg/Kg		
MPFDA	7700	2.14	1 µg/Kg		
MPFUnA	8144	2.22	1 µg/Kg		
MPFDoA	9126	2.31	1 µg/Kg		
MPFTeDA	11431	2.46	1 µg/Kg		
M2 6:2 FTS	2598	1.84	1 µg/Kg		
M2 8:2 FTS	2521	2.10	1 µg/Kg		
13C6-PFHxA IS	55391	1.43	1 µg/Kg		
13C9-PFDA IS	47642	2.13	1 µg/Kg		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	162	1.10	-	0.57 µg/Kg	-
PFHxA 1	2175	1.42	-	0.99 µg/Kg	-
PFHxS 1	2535	1.69	-	4.71 µg/Kg	-
PFHpA 1	1336	1.69	-	0.67 µg/Kg	-
PFOA 1	2048	1.87	-	0.81 µg/Kg	-
PFOS 1	2762	1.96	-	5.55 µg/Kg	-
PFNA 1	565	2.01	-	0.40 µg/Kg	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDaA 1			-	ND	-
PFTTrDA 1			-	ND	-
PFTeDA 1	609	2.46	-	0.32 µg/Kg	-
6:2-FTS 1	257	1.84	-	0.25 µg/Kg	-
8:2-FTS 1			-	ND	-
13C2-PFHxA	9416	1.43	-	73.06 µg/Kg	-
18O2-PFHxS	1777	1.69	-	76.61 µg/Kg	-
13C4-PFHpA	11098	1.69	-	79.11 µg/Kg	-
13C4-PFOA	10176	1.87	-	74.05 µg/Kg	-
13C4-PFOS	2041	1.98	-	72.46 µg/Kg	-
13C5-PFNA	9229	2.01	-	68.80 µg/Kg	-
13C2-PFDA	7700	2.14	-	69.97 µg/Kg	-
13C2-PFUnA	8144	2.22	-	66.17 µg/Kg	-
13C2-PFDoA	9126	2.31	-	64.69 µg/Kg	-
13C2-PFTeDA	11431	2.46	-	65.33 µg/Kg	-
13C2-6:2-FTS	2598	1.84	-	74.88 µg/Kg	-
13C2-8:2 FTS	2521	2.10	-	72.35 µg/Kg	-
13C6-PFHxA	55391	1.43	-	198.26 µg/Kg	-
13C9-PFDA	47642	2.13	-	185.82 µg/Kg	-



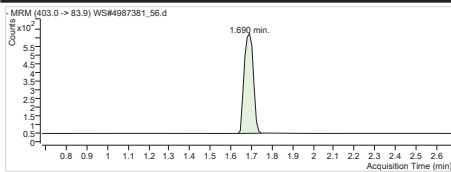
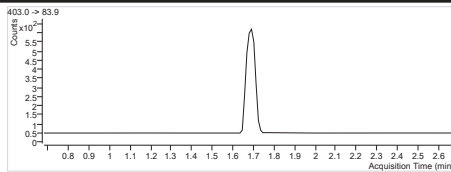
MPFHxA Internal Standard

RT (Exp. RT): 1.434 (1.411)

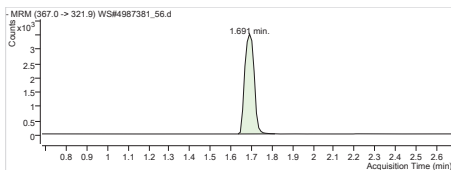
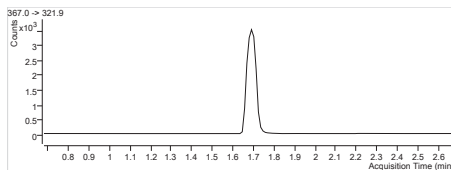
Concentration: 1 µg/Kg

Sample type: Sample

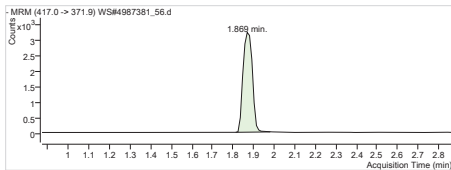
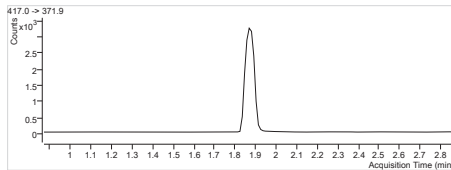
Quantitation Results



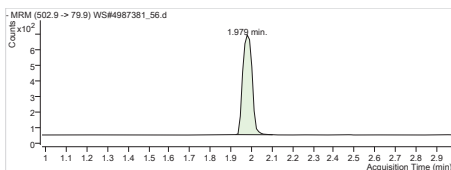
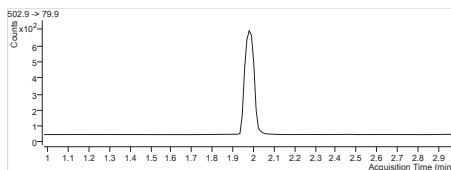
MPFHxS
 RT (Exp. RT): 1.690 (1.679)
 Concentration: 1 µg/Kg
 Sample type: Sample



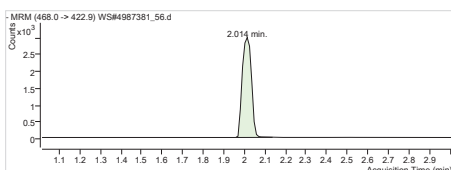
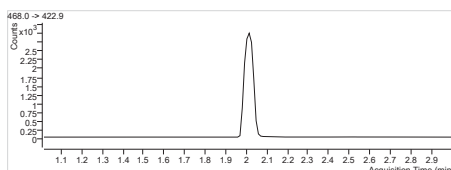
MPFHpA
 RT (Exp. RT): 1.691 (1.680)
 Concentration: 1 µg/Kg
 Sample type: Sample



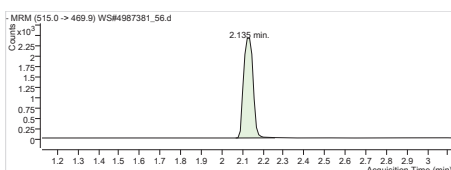
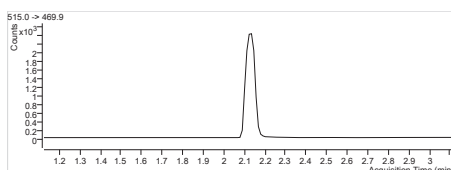
MPFOA
 RT (Exp. RT): 1.869 (1.869)
 Concentration: 1 µg/Kg
 Sample type: Sample



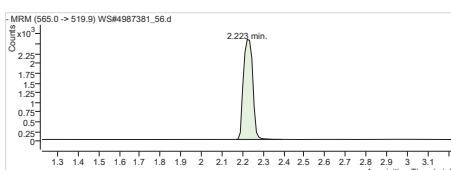
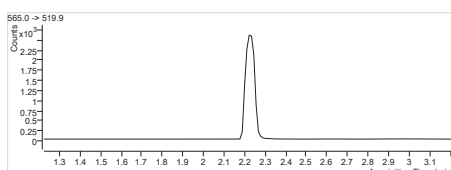
MPFOS
 RT (Exp. RT): 1.979 (1.979)
 Concentration: 1 µg/Kg
 Sample type: Sample



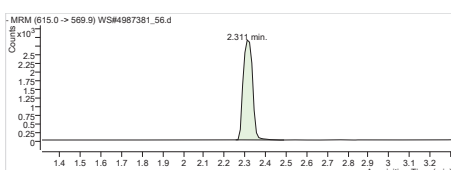
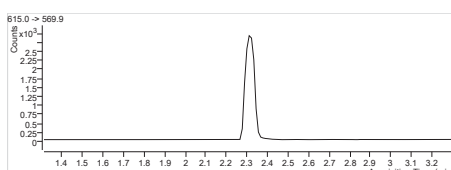
MPFNA
 RT (Exp. RT): 2.014 (2.014)
 Concentration: 1 µg/Kg
 Sample type: Sample



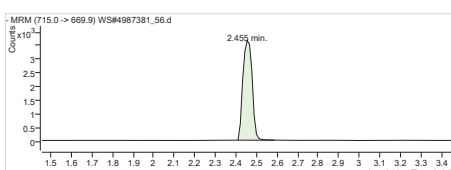
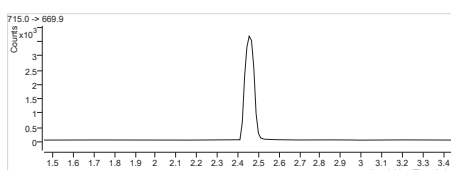
MPFDA
 RT (Exp. RT): 2.135 (2.124)
 Concentration: 1 µg/Kg
 Sample type: Sample



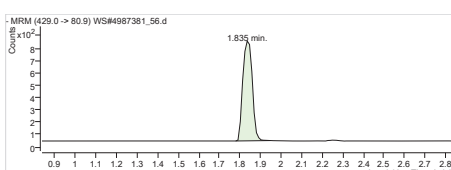
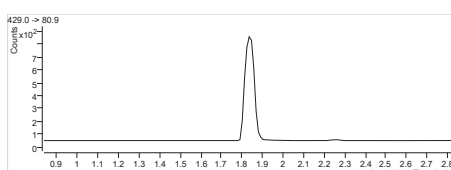
MPFUnA
 RT (Exp. RT): 2.223 (2.223)
 Concentration: 1 µg/Kg
 Sample type: Sample



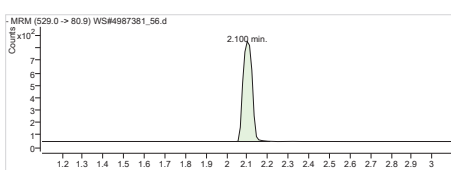
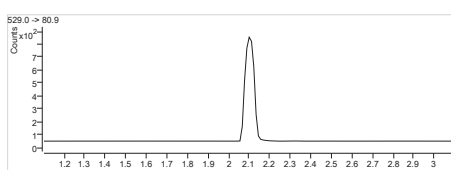
MPFDoA
 RT (Exp. RT): 2.311 (2.311)
 Concentration: 1 µg/Kg
 Sample type: Sample



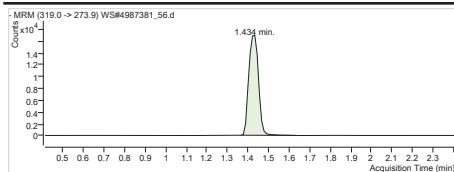
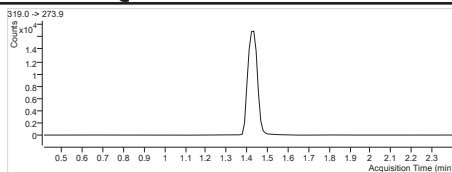
MPFTeDA
 RT (Exp. RT): 2.455 (2.455)
 Concentration: 1 µg/Kg
 Sample type: Sample



M2 6:2 FTS
 RT (Exp. RT): 1.835 (1.835)
 Concentration: 1 µg/Kg
 Sample type: Sample

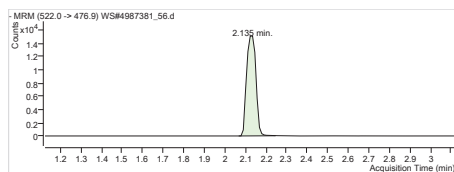
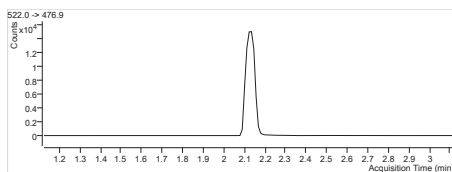


M2 8:2 FTS
 RT (Exp. RT): 2.100 (2.100)
 Concentration: 1 µg/Kg
 Sample type: Sample

**13C6-PFHxA IS**

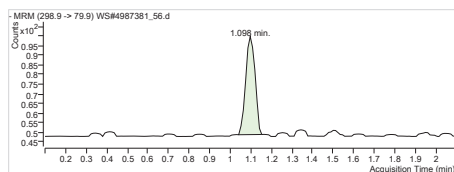
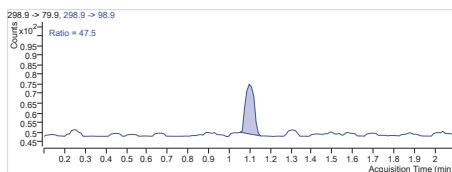
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
1.434 (1.411)
1 µg/Kg
Sample

**13C9-PFDA IS**

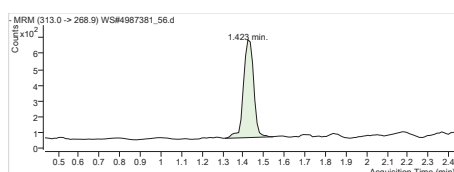
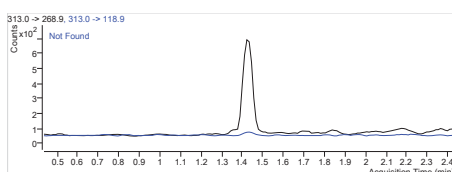
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
2.135 (2.124)
1 µg/Kg
Sample

**PFBS 1**

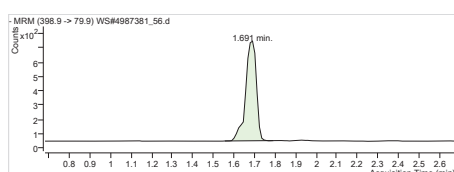
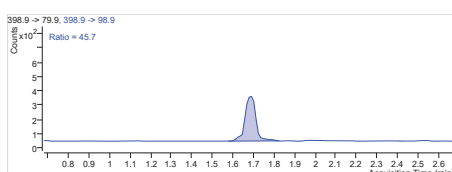
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

298.9 -> 79.9
1.098 (1.098)
0.57 µg/Kg
0.09116
Sample

**PFHxA 1**

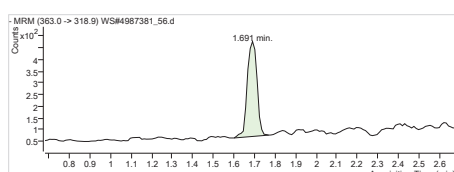
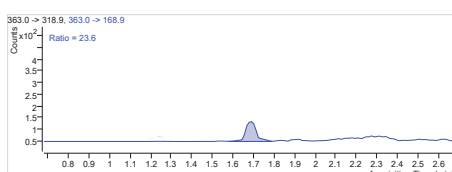
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

313.0 -> 268.9
1.423 (1.434)
0.99 µg/Kg
0.23099
Sample

**PFHxS 1**

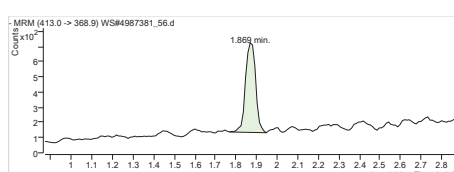
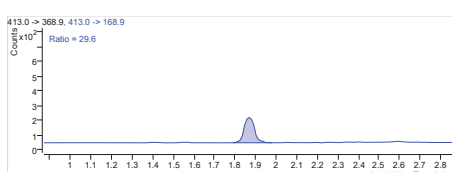
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

398.9 -> 79.9
1.691 (1.679)
4.71 µg/Kg
1.42656
Sample

**PFHpA 1**

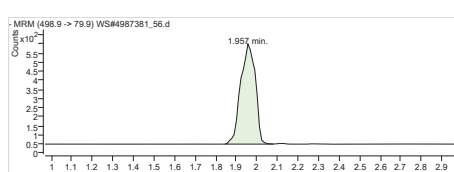
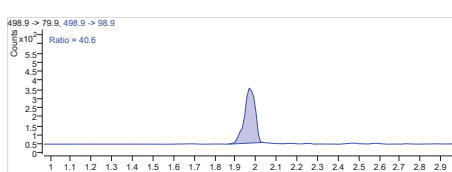
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

363.0 -> 318.9
1.691 (1.680)
0.67 µg/Kg
0.12038
Sample

**PFOA 1**

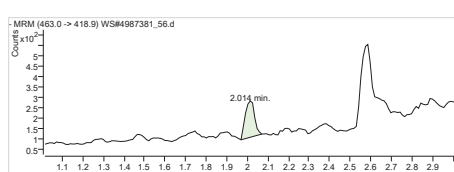
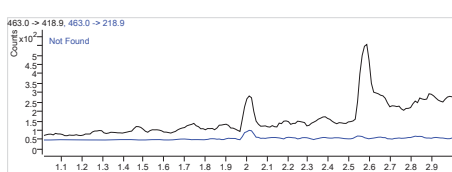
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

413.0 -> 368.9
1.869 (1.869)
0.81 µg/Kg
0.20126
Sample

**PFOS 1**

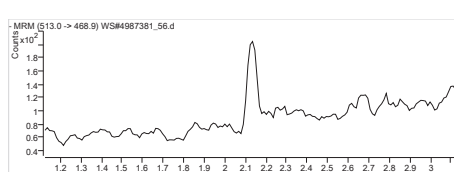
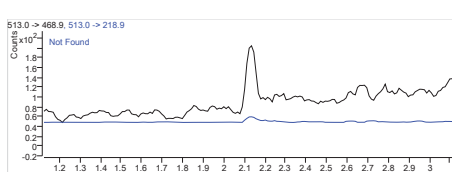
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

498.9 -> 79.9
1.957 (1.968)
5.55 µg/Kg
1.35326
Sample

**PFNA 1**

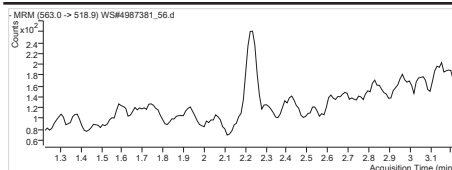
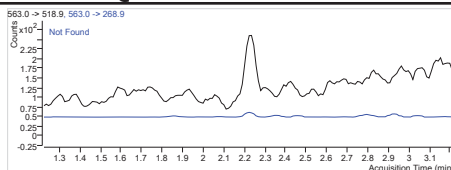
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

463.0 -> 418.9
2.014 (2.014)
0.40 µg/Kg
0.06122
Sample

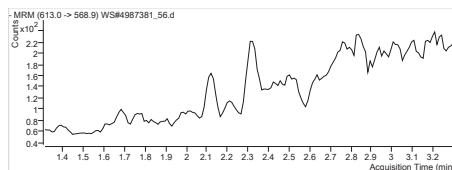
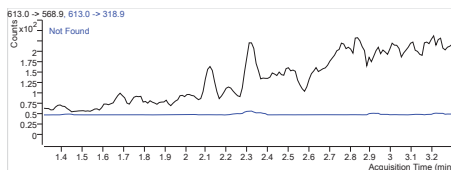
**PFDA 1**

RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

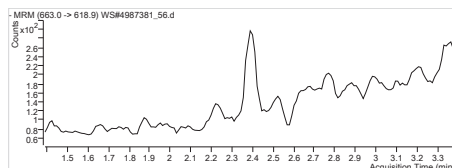
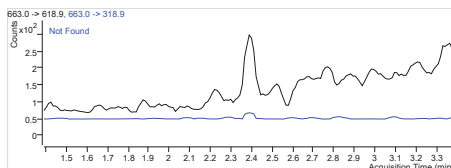
513.0 -> 468.9
0.000 (2.124)
N.D.
0
Sample



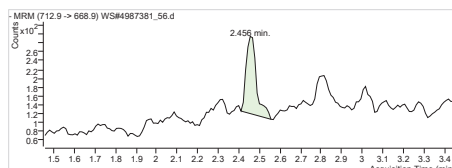
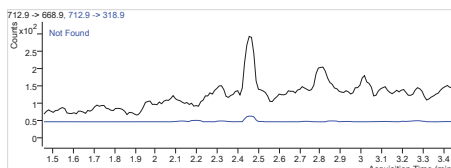
PFUnA 1
 RT (Exp. RT): 563.0 -> 518.9
 Calc. conc. 0.000 (2.223)
 Area ratio: N.D.
 Sample type: 0
 Sample



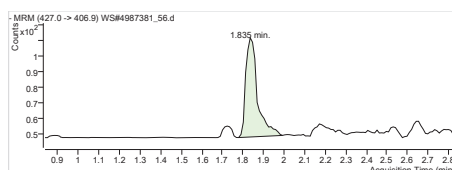
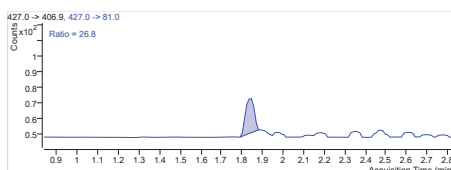
PFDa 1
 RT (Exp. RT): 613.0 -> 568.9
 Calc. conc. 0.000 (2.311)
 Area ratio: N.D.
 Sample type: 0
 Sample



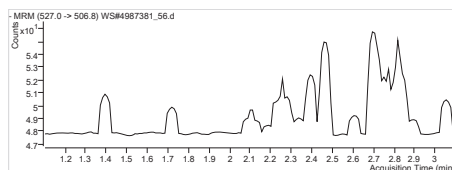
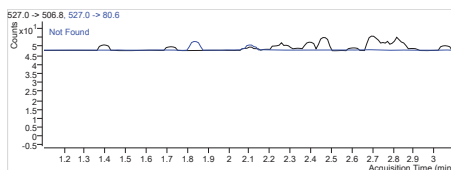
PFTraD 1
 RT (Exp. RT): 663.0 -> 618.9
 Calc. conc. 0.000 (2.389)
 Area ratio: N.D.
 Sample type: 0
 Sample



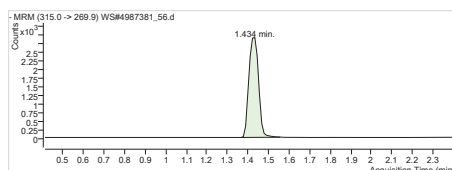
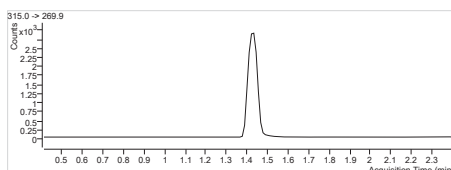
PFTeDa 1
 RT (Exp. RT): 712.9 -> 668.9
 Calc. conc. 2.456 (2.456)
 Area ratio: 0.32 µg/Kg
 Sample type: 0.05328
 Sample



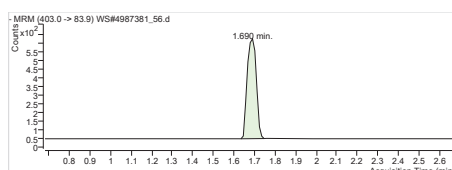
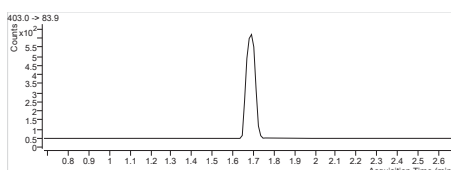
6:2-FTS 1
 RT (Exp. RT): 427.0 -> 406.9
 Calc. conc. 1.835 (1.835)
 Area ratio: 0.25 µg/Kg
 Sample type: 0.09892
 Sample



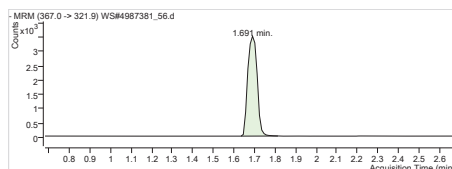
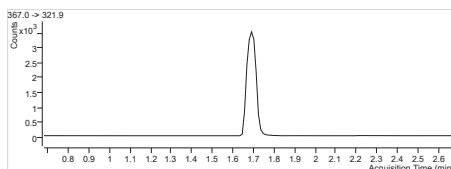
8:2-FTS 1
 RT (Exp. RT): 527.0 -> 506.8
 Calc. conc. 0.000 (2.101)
 Area ratio: N.D.
 Sample type: 0
 Sample



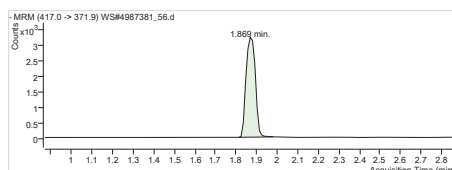
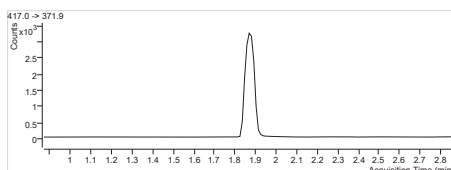
13C2-PFHxA
 RT (Exp. RT): 315.0 -> 269.9
 Calc. conc. 1.434 (1.411)
 Area ratio: 73.06 µg/Kg
 Sample type: 0.16999
 Sample



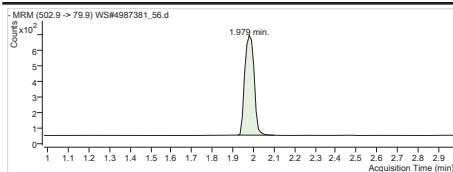
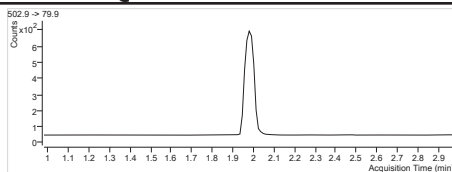
18O2-PFHxS
 RT (Exp. RT): 403.0 -> 83.9
 Calc. conc. 1.690 (1.679)
 Area ratio: 76.61 µg/Kg
 Sample type: 0.03208
 Sample



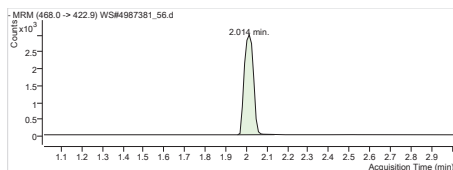
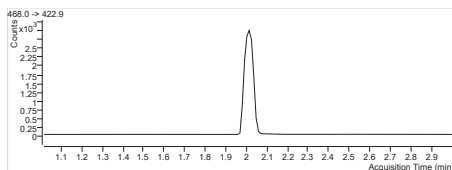
13C4-PFHpA
 RT (Exp. RT): 367.0 -> 321.9
 Calc. conc. 1.691 (1.680)
 Area ratio: 79.11 µg/Kg
 Sample type: 0.20036
 Sample



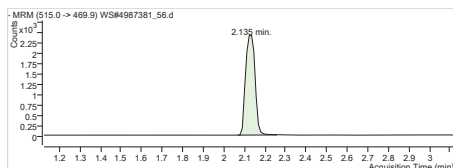
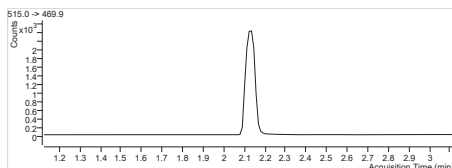
13C4-PFOA
 RT (Exp. RT): 417.0 -> 371.9
 Calc. conc. 1.869 (1.869)
 Area ratio: 74.05 µg/Kg
 Sample type: 0.18371
 Sample



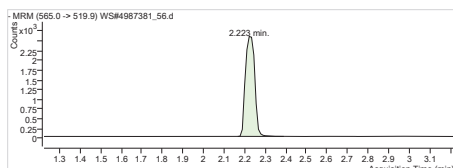
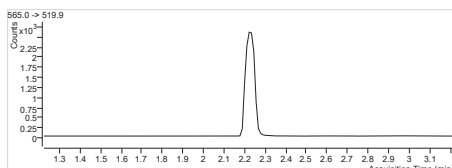
13C4-PFOS
RT (Exp. RT): 502.9 -> 79.9
Calc. conc. 1.979 (1.979)
Area ratio: 72.46 µg/Kg
Sample type: 0.03685
Sample



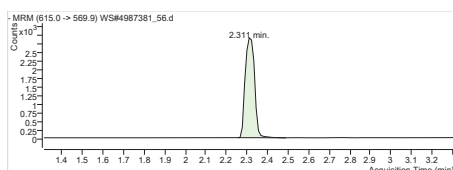
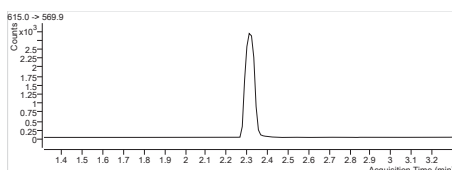
13C5-PFNA
RT (Exp. RT): 468.0 -> 422.9
Calc. conc. 2.014 (2.014)
Area ratio: 68.80 µg/Kg
Sample type: 0.16662
Sample



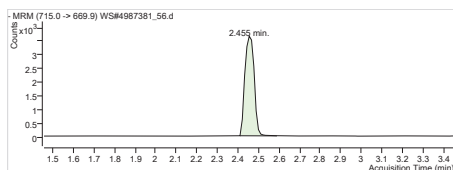
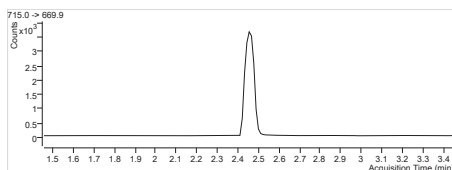
13C2-PFDA
RT (Exp. RT): 515.0 -> 469.9
Calc. conc. 2.135 (2.124)
Area ratio: 69.97 µg/Kg
Sample type: 0.16162
Sample



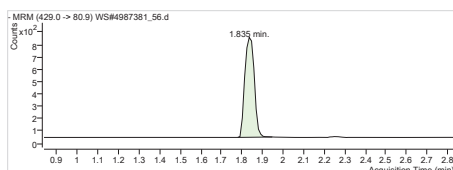
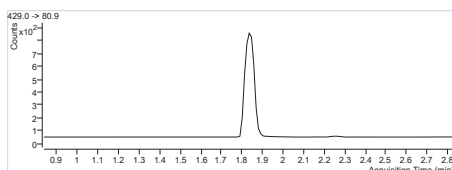
13C2-PFUnA
RT (Exp. RT): 565.0 -> 519.9
Calc. conc. 2.223 (2.223)
Area ratio: 66.17 µg/Kg
Sample type: 0.17094
Sample



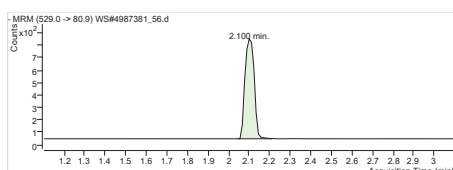
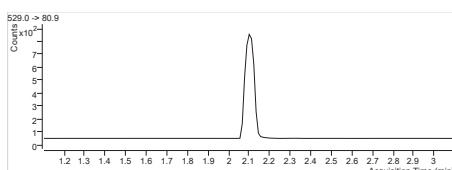
13C2-PFDoA
RT (Exp. RT): 615.0 -> 569.9
Calc. conc. 2.311 (2.311)
Area ratio: 64.69 µg/Kg
Sample type: 0.19155
Sample



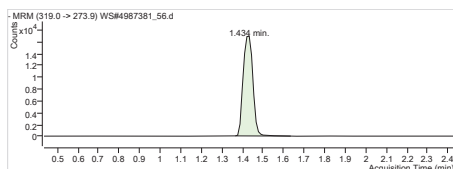
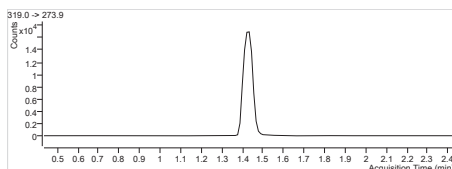
13C2-PFTeDA
RT (Exp. RT): 715.0 -> 669.9
Calc. conc. 2.455 (2.455)
Area ratio: 65.33 µg/Kg
Sample type: 0.23994
Sample



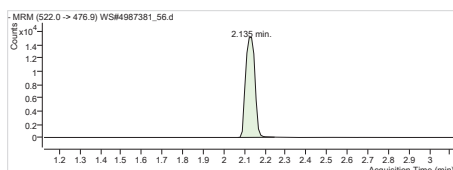
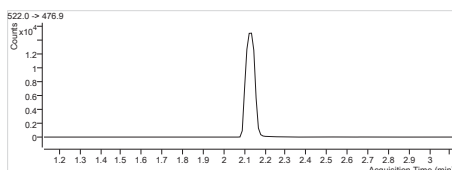
13C2-6:2-FTS
RT (Exp. RT): 429.0 -> 80.9
Calc. conc. 1.835 (1.835)
Area ratio: 74.88 µg/Kg
Sample type: 0.04690
Sample



13C2-8:2 FTS
RT (Exp. RT): 529.0 -> 80.9
Calc. conc. 2.100 (2.100)
Area ratio: 72.35 µg/Kg
Sample type: 0.04551
Sample



13C6-PFHxA
RT (Exp. RT): 319.0 -> 273.9
Calc. conc. 1.434 (1.434)
Area ratio: 198.26 µg/Kg
Sample type: 0
Sample



13C9-PFDA
RT (Exp. RT): 522.0 -> 476.9
Calc. conc. 2.135 (2.124)
Area ratio: 185.82 µg/Kg
Sample type: 0
Sample

Batch Path

T:\cms4\PFC\20170519\WS#4987381_FOSAA\QuantResults\PFC_Soil_170519_WS#4987381_FOSAA

Sample Name

4987381:EJL629-01

Instrument

LCMS04

Data File

WS#4987381_FOSAA_21.d

Operator

M_G

Sample Type

Sample

Dilution

1.499

Acq. Method

PFC_Soil_FOSAA.m

Position

P2-E1

Acq. Date

2017/05/20 12:18:37 PM

Injection Volume

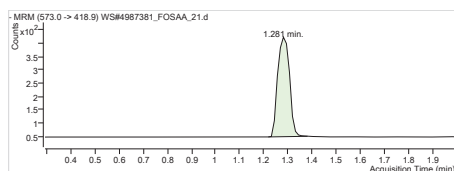
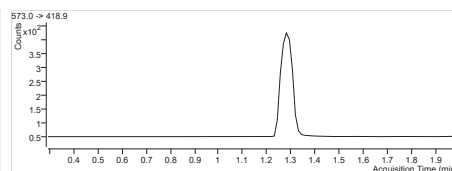
Per Method

Sample Annotation

-

ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1270	1.28	1 µg/Kg		
D5-EtFOSAA IS	1115	1.31	1 µg/Kg		
13C9-PFDA IS	35349	0.85	1 µg/Kg		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1			-	ND	-
EtFOSAA 1			-	ND	-
D3-MeFOSAA	1289	1.28	-	64.20 µg/Kg	-
D5-EtFOSAA	1119	1.31	-	61.66 µg/Kg	-
13C9-PFDA	34475	0.85	-	166.60 µg/Kg	-

**D3-MeFOSAA IS**

Internal Standard

RT (Exp. RT):

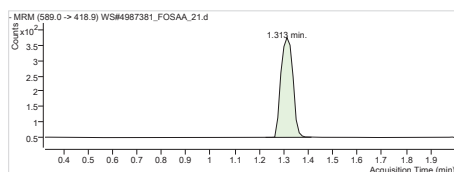
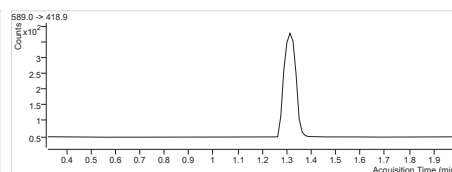
1.281 (1.281)

Concentration:

1 µg/Kg

Sample type:

Sample

**D5-EtFOSAA IS**

Internal Standard

RT (Exp. RT):

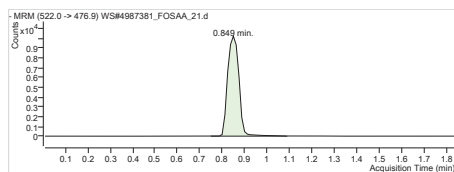
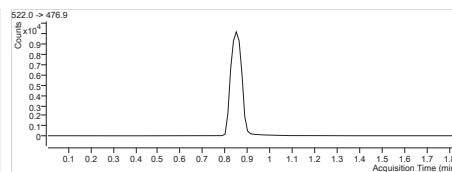
1.313 (1.313)

Concentration:

1 µg/Kg

Sample type:

Sample

**13C9-PFDA IS**

Internal Standard

RT (Exp. RT):

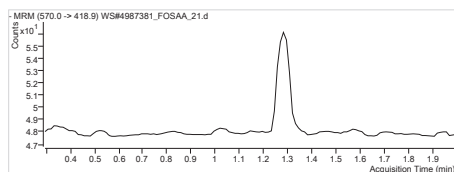
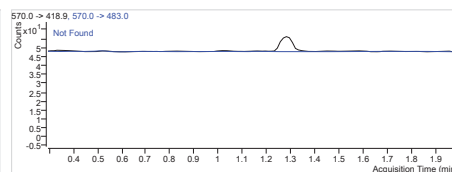
0.849 (0.849)

Concentration:

1 µg/Kg

Sample type:

Sample

**MeFOSAA 1**

570.0 -> 418.9

RT (Exp. RT):

0.000 (1.283)

Calc. conc.

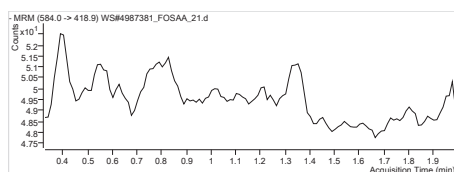
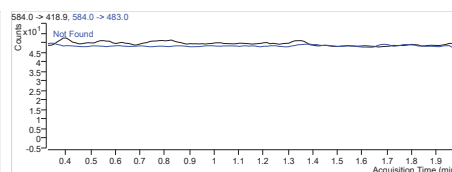
N.D.

Area ratio:

0

Sample type:

Sample

**EtFOSAA 1**

584.0 -> 418.9

RT (Exp. RT):

0.000 (1.315)

Calc. conc.

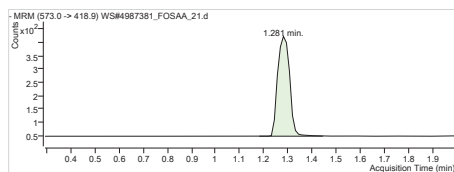
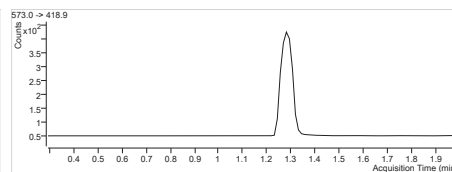
N.D.

Area ratio:

0

Sample type:

Sample

**D3-MeFOSAA**

573.0 -> 418.9

RT (Exp. RT):

1.281 (1.281)

Calc. conc.

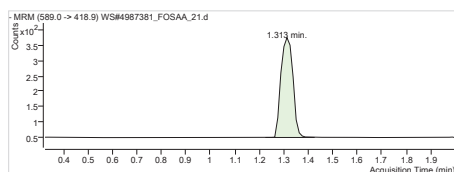
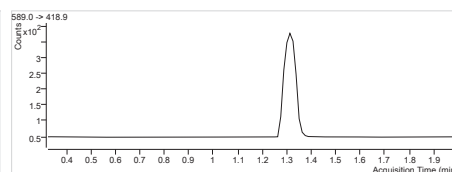
64.20 µg/Kg

Area ratio:

0.03645

Sample type:

Sample

**D5-EtFOSAA**

589.0 -> 418.9

RT (Exp. RT):

1.313 (1.313)

Calc. conc.

61.66 µg/Kg

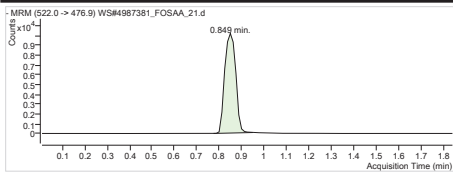
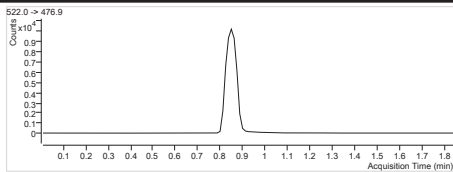
Area ratio:

0.03166

Sample type:

Sample

Quantitation Results



13C9-PFDA
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

522.0 -> 476.9
0.849 (0.849)
166.60 µg/Kg
0
Sample

Batch Path

T:\lcms4\PFC\20170523\WS#4987523\QuantResults\PFC_Water_Low_170523_WS#4987523_CT

Sample Name

4987523:EJL630-01:50x

Instrument

LCMS04

Data File

WS#4987523_31.d

Operator

AD

Sample Type

Sample

Dilution

1.2

Acq. Method

PFC_Water_Low.m

Position

P1-C5

Acq. Date

2017/05/23 12:07:42 PM

Injection Volume

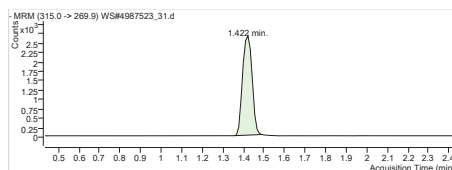
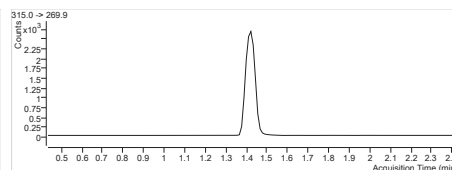
Per Method

Sample Annotation

Reported for PFHxS

ISTD Compounds	Response	RT	Target conc.		
MPFHxA	8478	1.42	1 µg/L		
MPFHxS	1364	1.68	1 µg/L		
MPFHpA	9463	1.69	1 µg/L		
MPFOA	9068	1.87	1 µg/L		
MPFOS	1830	1.98	1 µg/L		
MPFNA	8056	2.01	1 µg/L		
MPFDA	6963	2.12	1 µg/L		
MPFUnA	7469	2.22	1 µg/L		
MPFDoA	8370	2.31	1 µg/L		
MPFTeDA	10056	2.46	1 µg/L		
M2 6:2 FTS	2223	1.84	1 µg/L		
M2 8:2 FTS	2246	2.10	1 µg/L		
13C6-PFHxA IS	40287	1.42	1 µg/L		
13C9-PFDA	34088	2.12	1 µg/L		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	476	1.09	-	0.63 µg/L	-
PFHxA 1	6931	1.42	-	2.21 µg/L	-
PFHxS 1	9177	1.68	-	16.34 µg/L	-
PFHpA 1	3795	1.69	-	0.96 µg/L	-
PFOA 1	4855	1.87	-	1.29 µg/L	-
PFOS 1	3741	1.96	-	6.37 µg/L	-
PFNA 1			-	ND	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDaA 1			-	ND	-
PFTeDA 1			-	ND	-
PFTeDA 1			-	ND	-
6:2-FTS 1	572	1.84	-	0.53 µg/L	-
8:2-FTS 1			-	ND	-
13C2-PFHxA	8478	1.42	-	94.61 µg/L	-
18O2-PFHxS	1364	1.68	-	86.62 µg/L	-
13C4-PFHpA	9463	1.69	-	100.92 µg/L	-
13C4-PFOA	9068	1.87	-	98.61 µg/L	-
13C4-PFOS	1830	1.98	-	94.91 µg/L	-
13C5-PFNA	8056	2.01	-	89.89 µg/L	-
13C2-PFDA	6963	2.12	-	90.10 µg/L	-
13C2-PFUnA	7469	2.22	-	89.46 µg/L	-
13C2-PFDoA	8370	2.31	-	89.09 µg/L	-
13C2-PFTeDA	10056	2.46	-	84.67 µg/L	-
13C2-6:2-FTS	2223	1.84	-	99.65 µg/L	-
13C2-8:2 FTS	2246	2.10	-	93.39 µg/L	-
13C6-PFHxA	40287	1.42	-	123.76 µg/L	-
13C9-PFDA	34088	2.12	-	123.99 µg/L	-



MPFHxA

Internal Standard

RT (Exp. RT):

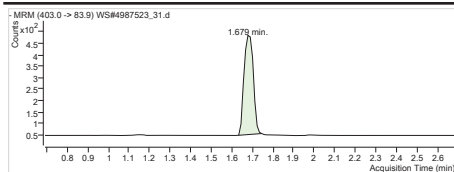
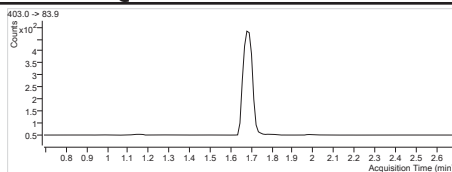
1.422 (1.434)

Concentration:

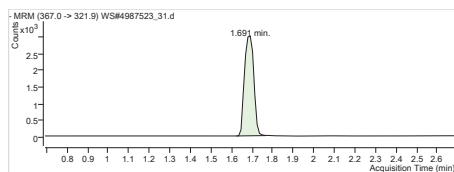
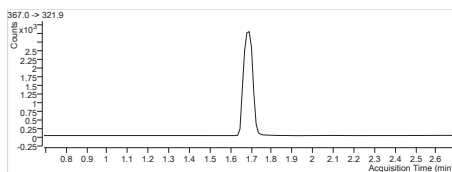
1 µg/L

Sample type:

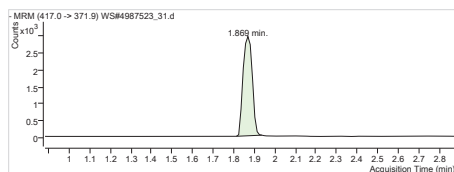
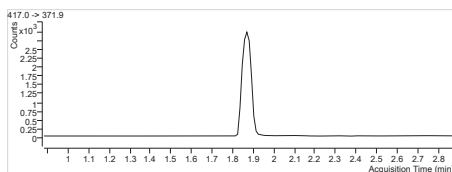
Sample



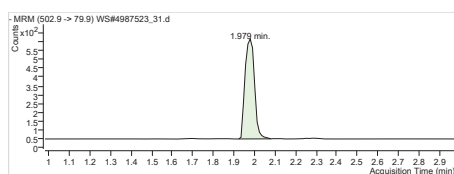
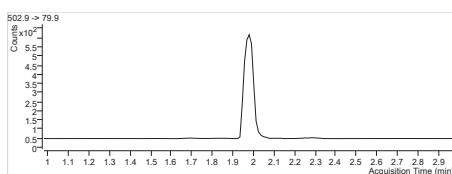
MPFHxS
 RT (Exp. RT): 1.679 (1.690)
 Concentration: 1 µg/L
 Sample type: Sample



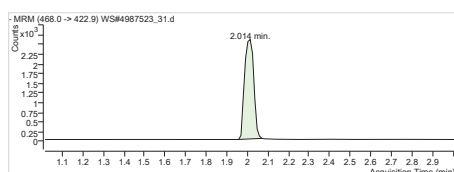
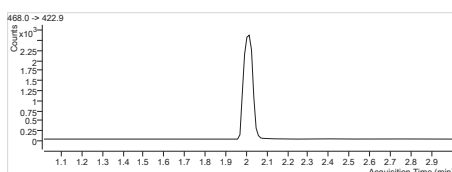
MPFHpA
 RT (Exp. RT): 1.691 (1.691)
 Concentration: 1 µg/L
 Sample type: Sample



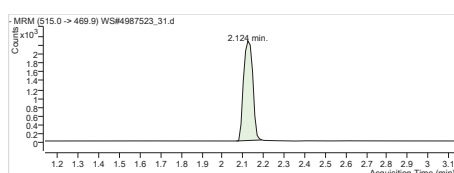
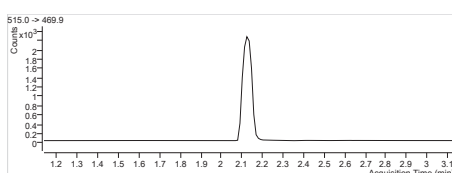
MPFOA
 RT (Exp. RT): 1.869 (1.881)
 Concentration: 1 µg/L
 Sample type: Sample



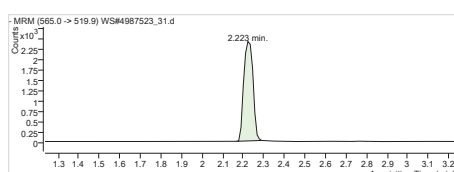
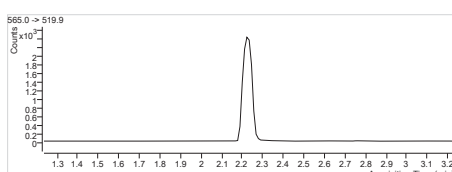
MPFOS
 RT (Exp. RT): 1.979 (1.979)
 Concentration: 1 µg/L
 Sample type: Sample



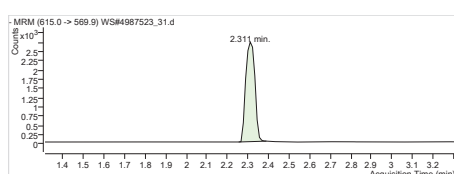
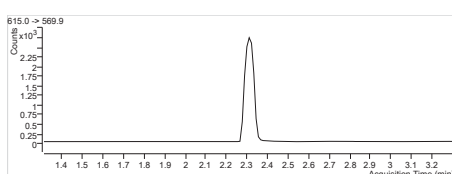
MPFNA
 RT (Exp. RT): 2.014 (2.014)
 Concentration: 1 µg/L
 Sample type: Sample



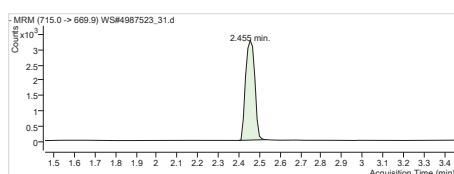
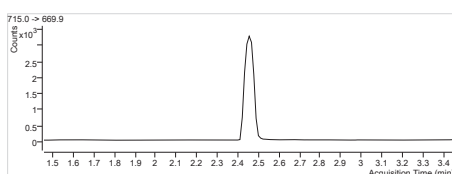
MPFDA
 RT (Exp. RT): 2.124 (2.135)
 Concentration: 1 µg/L
 Sample type: Sample



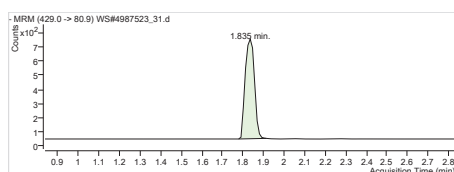
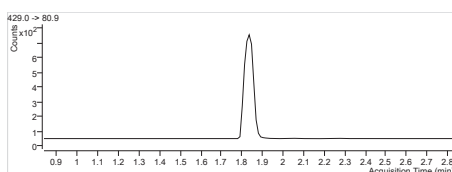
MPFUnA
 RT (Exp. RT): 2.223 (2.234)
 Concentration: 1 µg/L
 Sample type: Sample



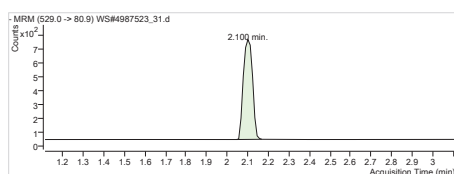
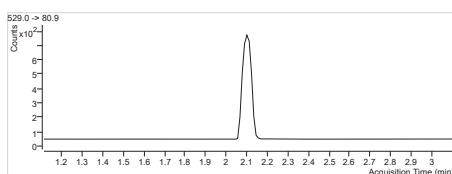
MPFDoA
 RT (Exp. RT): 2.311 (2.311)
 Concentration: 1 µg/L
 Sample type: Sample



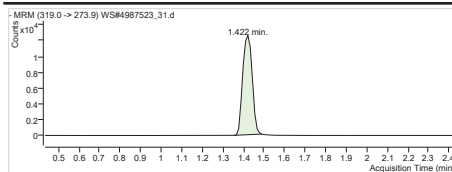
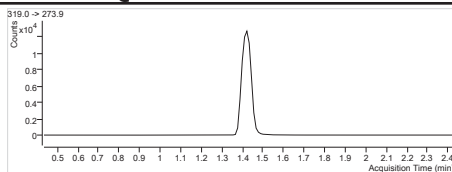
MPFTeDA
 RT (Exp. RT): 2.455 (2.455)
 Concentration: 1 µg/L
 Sample type: Sample



M2 6:2 FTS
 RT (Exp. RT): 1.835 (1.835)
 Concentration: 1 µg/L
 Sample type: Sample



M2 8:2 FTS
 RT (Exp. RT): 2.100 (2.112)
 Concentration: 1 µg/L
 Sample type: Sample

**13C6-PFHxA IS**

RT (Exp. RT):

Concentration:

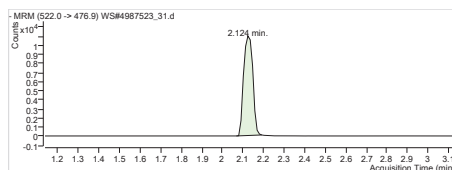
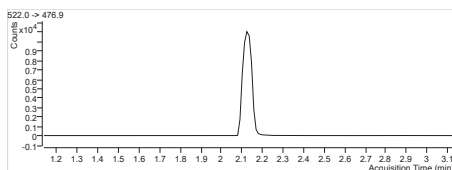
Sample type:

Internal Standard

1.422 (1.434)

1 µg/L

Sample

**13C9-PFDA IS**

RT (Exp. RT):

Concentration:

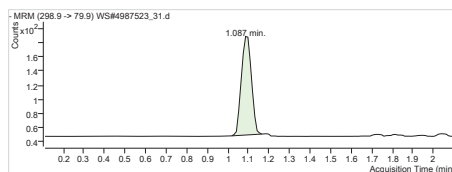
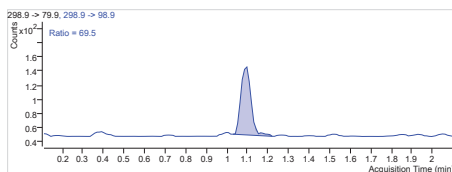
Sample type:

Internal Standard

2.124 (2.135)

1 µg/L

Sample

**PFBS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

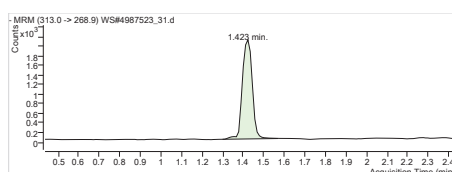
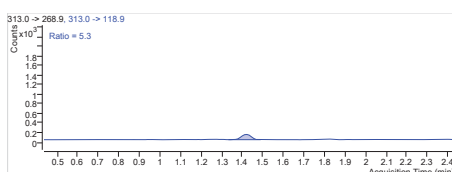
298.9 -> 79.9

1.087 (1.109)

0.63 µg/L

0.34897

Sample

**PFHxA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

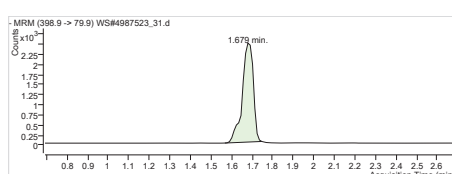
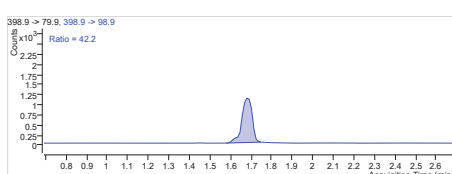
313.0 -> 268.9

1.423 (1.434)

2.21 µg/L

0.81753

Sample

**PFHxS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

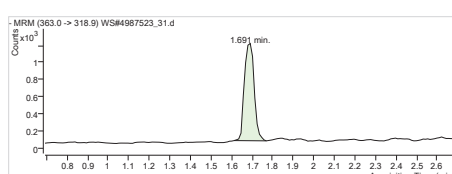
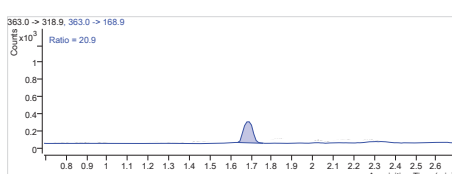
398.9 -> 79.9

1.679 (1.691)

16.34 µg/L

6.72801

Sample

**PFHpA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

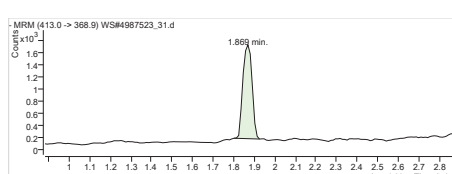
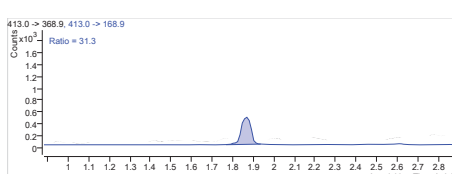
363.0 -> 318.9

1.691 (1.691)

0.96 µg/L

0.40104

Sample

**PFOA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

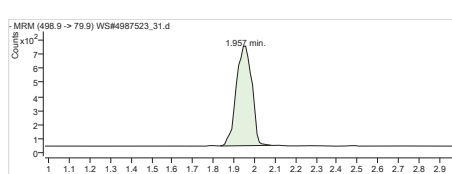
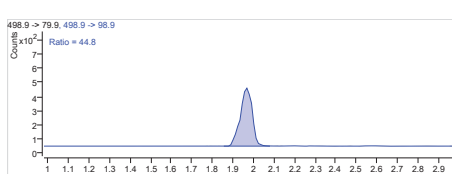
413.0 -> 368.9

1.869 (1.881)

1.29 µg/L

0.53540

Sample

**PFOS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

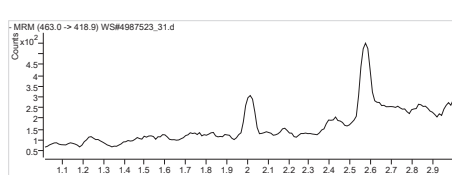
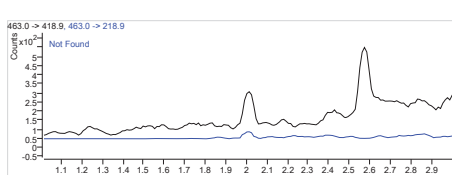
498.9 -> 79.9

1.957 (1.979)

6.37 µg/L

2.04426

Sample

**PFNA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

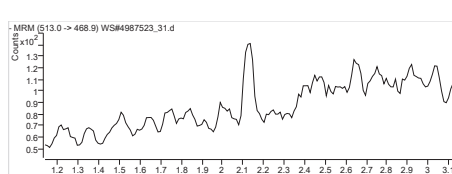
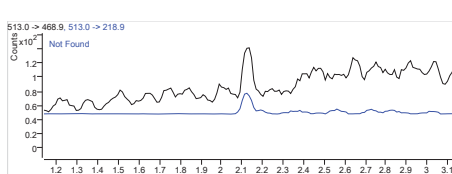
463.0 -> 418.9

0.000 (2.014)

N.D.

0

Sample

**PFDA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

513.0 -> 468.9

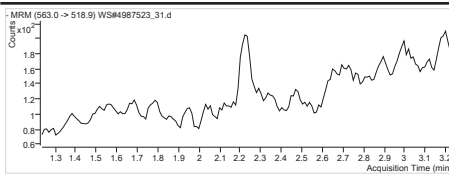
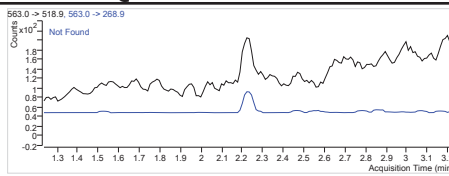
0.000 (2.135)

N.D.

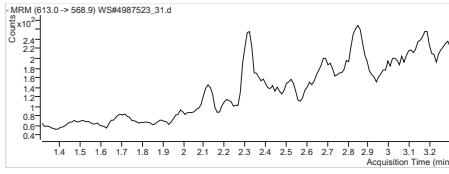
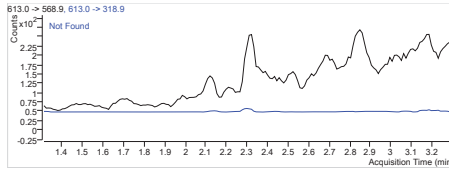
0

Sample

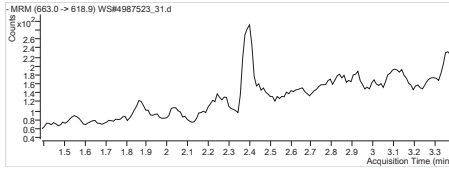
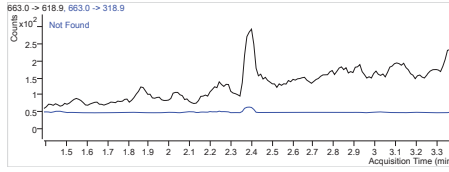
Quantitation Results



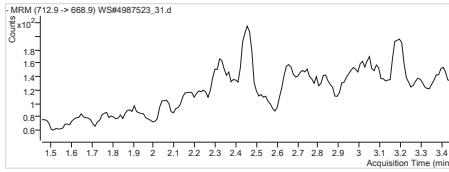
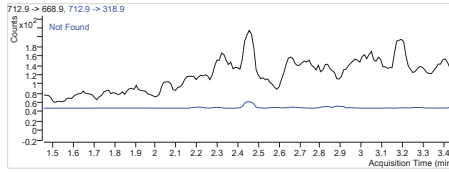
PFUnA 1
RT (Exp. RT): 563.0 -> 518.9
Calc. conc. 0.000 (2.234)
Area ratio: N.D.
Sample type: 0
Sample



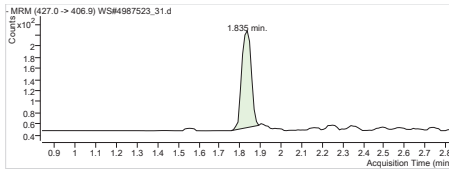
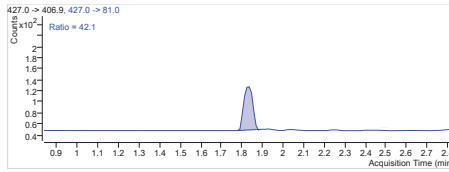
PFDa 1
RT (Exp. RT): 613.0 -> 568.9
Calc. conc. 0.000 (2.311)
Area ratio: N.D.
Sample type: 0
Sample



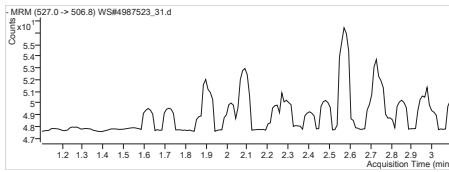
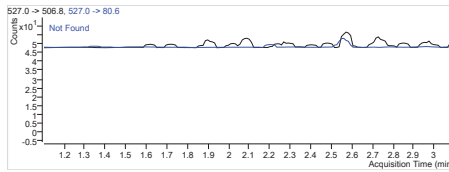
PFTra 1
RT (Exp. RT): 663.0 -> 618.9
Calc. conc. 0.000 (2.389)
Area ratio: N.D.
Sample type: 0
Sample



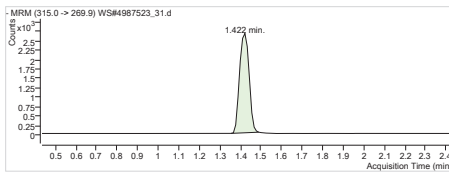
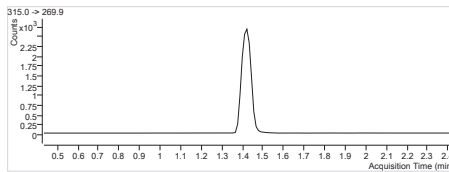
PFTeDa 1
RT (Exp. RT): 712.9 -> 668.9
Calc. conc. 0.000 (2.456)
Area ratio: N.D.
Sample type: 0
Sample



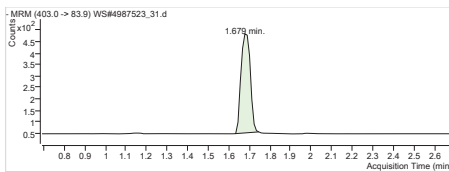
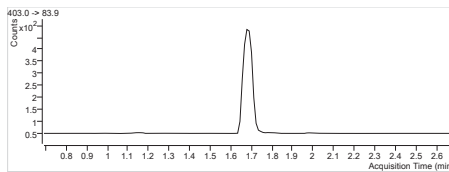
6:2-FTS 1
RT (Exp. RT): 427.0 -> 406.9
Calc. conc. 1.835 (1.835)
Area ratio: 0.53 µg/L
Sample type: 0.25731
Sample



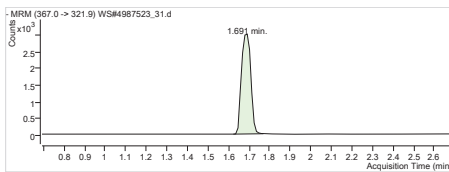
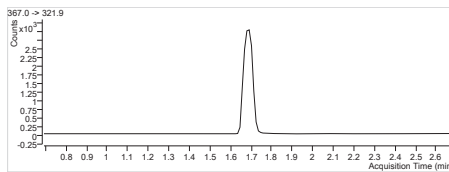
8:2-FTS 1
RT (Exp. RT): 527.0 -> 506.8
Calc. conc. 0.000 (2.101)
Area ratio: N.D.
Sample type: 0
Sample



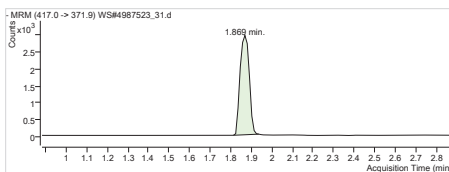
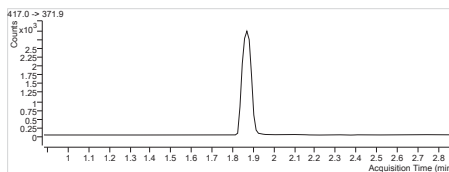
13C2-PFHxA
RT (Exp. RT): 315.0 -> 269.9
Calc. conc. 1.422 (1.434)
Area ratio: 94.61 µg/L
Sample type: 0.21044
Sample



18O2-PFHxS
RT (Exp. RT): 403.0 -> 83.9
Calc. conc. 1.679 (1.690)
Area ratio: 86.62 µg/L
Sample type: 0.03386
Sample

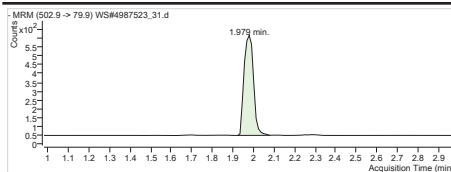
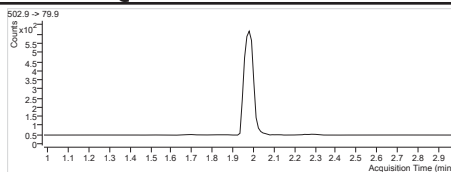


13C4-PFHpA
RT (Exp. RT): 367.0 -> 321.9
Calc. conc. 1.691 (1.691)
Area ratio: 100.92 µg/L
Sample type: 0.23489
Sample

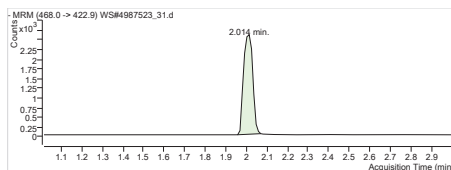
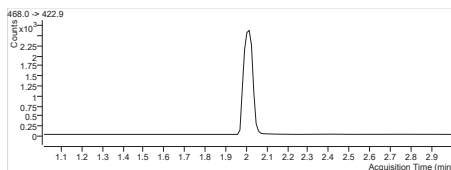


13C4-PFOA
RT (Exp. RT): 417.0 -> 371.9
Calc. conc. 1.869 (1.881)
Area ratio: 98.61 µg/L
Sample type: 0.22509
Sample

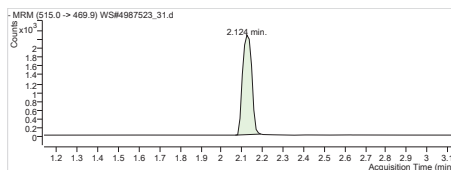
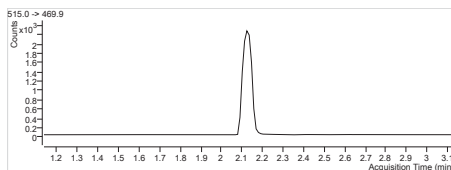
Quantitation Results



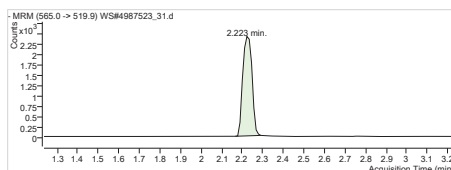
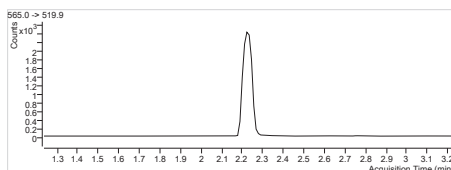
13C4-PFOS
RT (Exp. RT): 502.9 -> 79.9
Calc. conc. 1.979 (1.979)
Area ratio: 94.91 µg/L
Sample type: 0.04542
Sample



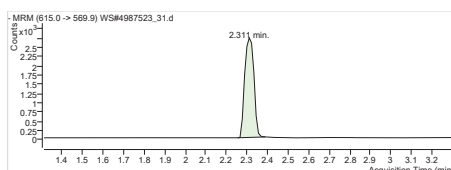
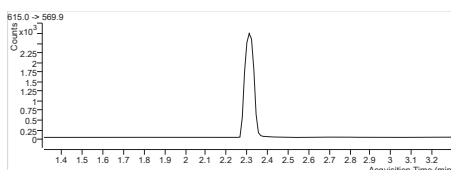
13C5-PFNA
RT (Exp. RT): 468.0 -> 422.9
Calc. conc. 2.014 (2.014)
Area ratio: 89.89 µg/L
Sample type: 0.19997
Sample



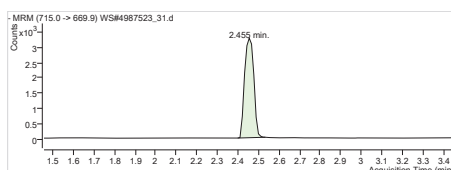
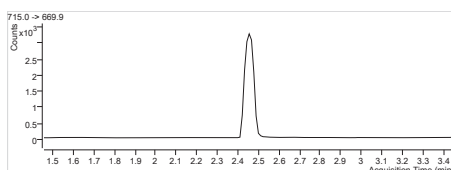
13C2-PFDA
RT (Exp. RT): 515.0 -> 469.9
Calc. conc. 2.124 (2.135)
Area ratio: 90.10 µg/L
Sample type: 0.20427
Sample



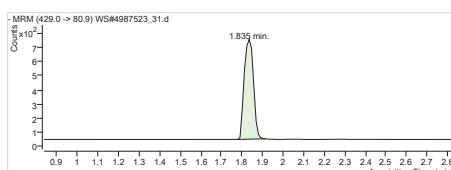
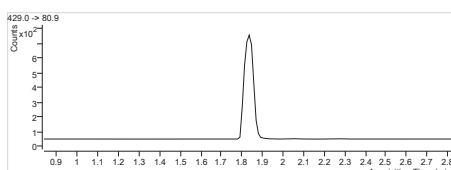
13C2-PFUnA
RT (Exp. RT): 565.0 -> 519.9
Calc. conc. 2.223 (2.234)
Area ratio: 89.46 µg/L
Sample type: 0.21911
Sample



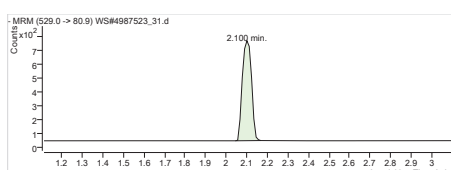
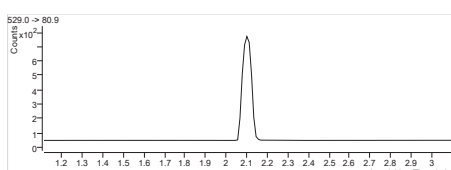
13C2-PFDoA
RT (Exp. RT): 615.0 -> 569.9
Calc. conc. 2.311 (2.311)
Area ratio: 89.09 µg/L
Sample type: 0.24554
Sample



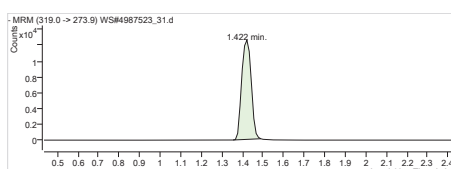
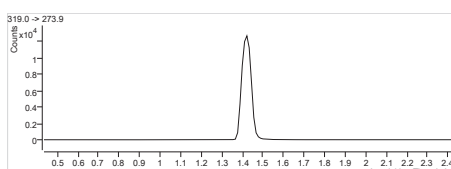
13C2-PFTeDA
RT (Exp. RT): 715.0 -> 669.9
Calc. conc. 2.455 (2.455)
Area ratio: 84.67 µg/L
Sample type: 0.29500
Sample



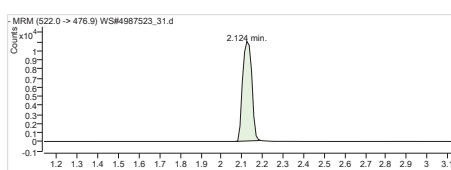
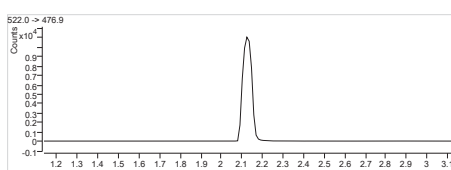
13C2-6:2-FTS
RT (Exp. RT): 429.0 -> 80.9
Calc. conc. 1.835 (1.835)
Area ratio: 99.65 µg/L
Sample type: 0.05518
Sample



13C2-8:2 FTS
RT (Exp. RT): 529.0 -> 80.9
Calc. conc. 2.100 (2.112)
Area ratio: 93.39 µg/L
Sample type: 0.05575
Sample



13C6-PFHxA
RT (Exp. RT): 319.0 -> 273.9
Calc. conc. 1.422 (1.434)
Area ratio: 123.76 µg/L
Sample type: 0
Sample



13C9-PFDA
RT (Exp. RT): 522.0 -> 476.9
Calc. conc. 2.124 (2.135)
Area ratio: 123.99 µg/L
Sample type: 0
Sample

Batch Path

T:\lcms4\PFC\20170523\WS#4987523\QuantResults\PFC_Water_Low_170523_WS#4987523_CT

Sample Name

4987523:EJL630-01:10x

Instrument

LCMS04

Data File

WS#4987523_32.d

Operator

AD

Sample Type

Sample

Dilution

0.24

Acq. Method

PFC_Water_Low.m

Position

P1-C6

Acq. Date

2017/05/23 12:12:36 PM

Injection Volume

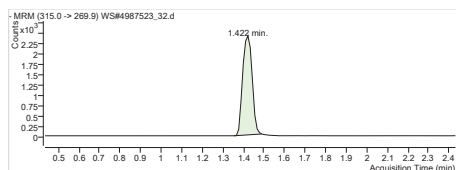
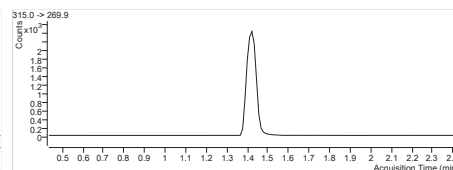
Per Method

Sample Annotation

Reported for all except PFHxS

ISTD Compounds	Response	RT	Target conc.		
MPFHxA	7615	1.42	1 µg/L		
MPFHxS	1488	1.68	1 µg/L		
MPFHpA	8159	1.69	1 µg/L		
MPFOA	7648	1.87	1 µg/L		
MPFOS	1693	1.98	1 µg/L		
MPFNA	7689	2.01	1 µg/L		
MPFDA	6215	2.12	1 µg/L		
MPFUnA	7138	2.22	1 µg/L		
MPFDoA	7984	2.31	1 µg/L		
MPFTeDA	9619	2.46	1 µg/L		
M2 6:2 FTS	1944	1.84	1 µg/L		
M2 8:2 FTS	2180	2.10	1 µg/L		
13C6-PFHxA IS	39280	1.42	1 µg/L		
13C9-PFDA	33580	2.12	1 µg/L		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	2433	1.09	-	0.62 µg/L	-
PFHxA 1	28924	1.42	-	2.07 µg/L	-
PFHxS 1	39101	1.68	-	12.80 µg/L	-
PFHpA 1	16499	1.69	-	1.04 µg/L	-
PFOA 1	22107	1.87	-	1.57 µg/L	-
PFOS 1	17031	1.96	-	6.27 µg/L	-
PFNA 1	1759	2.01	-	0.13 µg/L	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDaA 1			-	ND	-
PFTeDA 1	842	2.39	-	0.04 µg/L	-
6:2-FTS 1	2151	1.84	-	0.63 µg/L	-
8:2-FTS 1			-	ND	-
13C2-PFHxA	7615	1.42	-	87.16 µg/L	-
18O2-PFHxS	1488	1.68	-	96.92 µg/L	-
13C4-PFHpA	8159	1.69	-	89.24 µg/L	-
13C4-PFOA	7648	1.87	-	85.30 µg/L	-
13C4-PFOS	1693	1.98	-	90.05 µg/L	-
13C5-PFNA	7689	2.01	-	88.00 µg/L	-
13C2-PFDA	6215	2.12	-	81.64 µg/L	-
13C2-PFUnA	7138	2.22	-	86.78 µg/L	-
13C2-PFDoA	7984	2.31	-	86.27 µg/L	-
13C2-PFTeDA	9619	2.46	-	82.22 µg/L	-
13C2-6:2-FTS	1944	1.84	-	89.38 µg/L	-
13C2-8:2 FTS	2180	2.10	-	92.97 µg/L	-
13C6-PFHxA	39280	1.42	-	24.13 µg/L	-
13C9-PFDA	33580	2.12	-	24.43 µg/L	-



MPFHxA

Internal Standard

RT (Exp. RT):

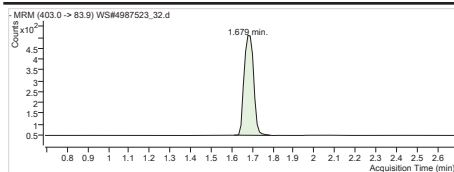
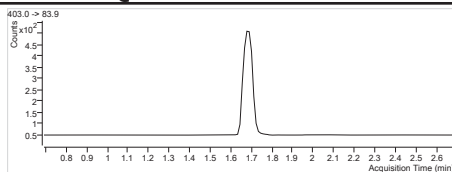
1.422 (1.434)

Concentration:

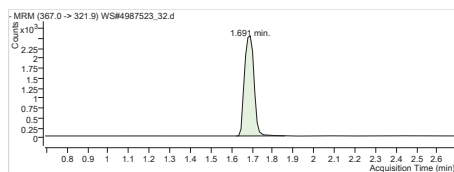
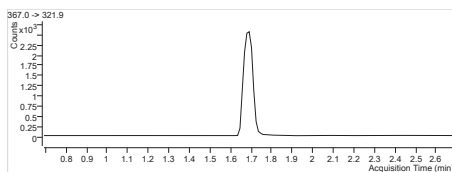
1 µg/L

Sample type:

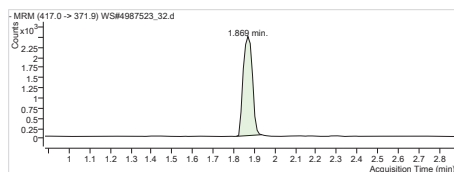
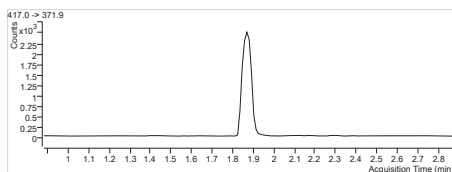
Sample



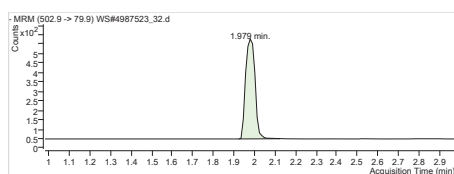
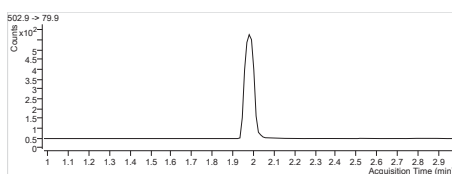
MPFHxS
 RT (Exp. RT): 1.679 (1.690)
 Concentration: 1 µg/L
 Sample type: Sample



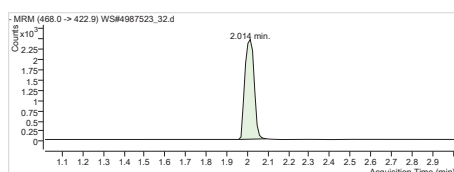
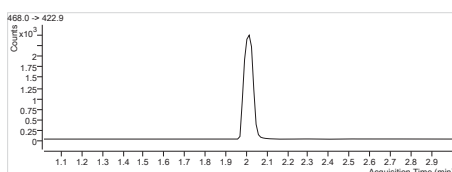
MPFHpA
 RT (Exp. RT): 1.691 (1.691)
 Concentration: 1 µg/L
 Sample type: Sample



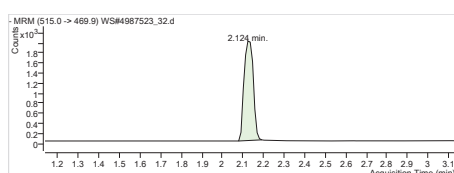
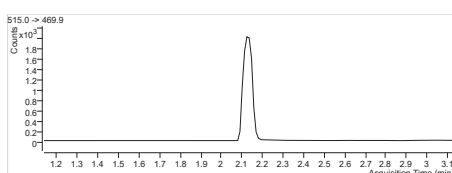
MPFOA
 RT (Exp. RT): 1.869 (1.881)
 Concentration: 1 µg/L
 Sample type: Sample



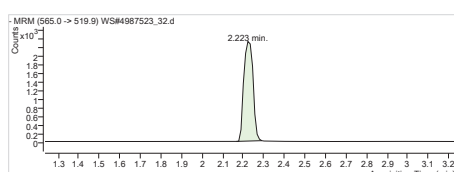
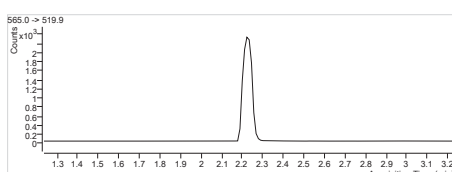
MPFOS
 RT (Exp. RT): 1.979 (1.979)
 Concentration: 1 µg/L
 Sample type: Sample



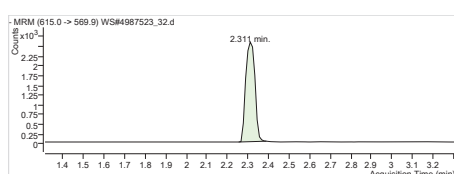
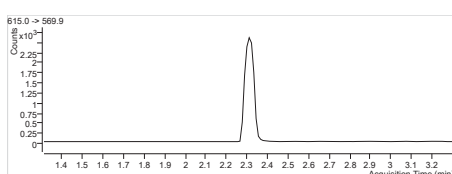
MPFNA
 RT (Exp. RT): 2.014 (2.014)
 Concentration: 1 µg/L
 Sample type: Sample



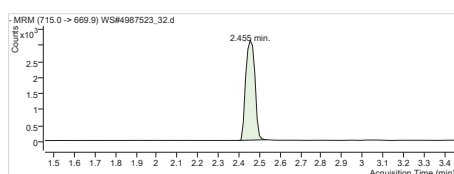
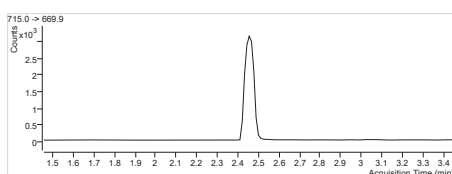
MPFDA
 RT (Exp. RT): 2.124 (2.135)
 Concentration: 1 µg/L
 Sample type: Sample



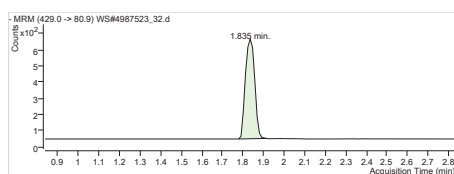
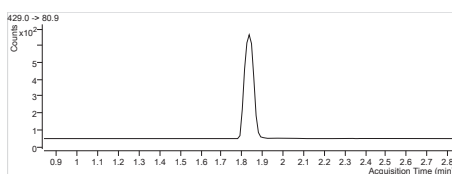
MPFUnA
 RT (Exp. RT): 2.223 (2.234)
 Concentration: 1 µg/L
 Sample type: Sample



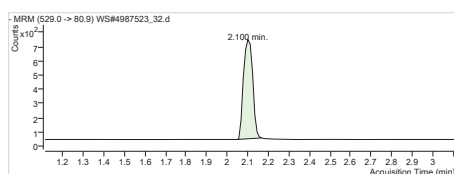
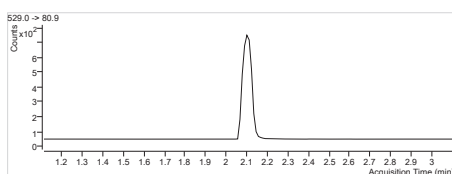
MPFDoA
 RT (Exp. RT): 2.311 (2.311)
 Concentration: 1 µg/L
 Sample type: Sample



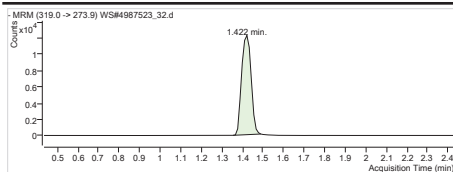
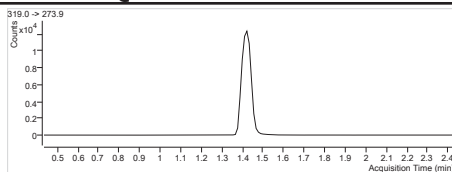
MPFTeDA
 RT (Exp. RT): 2.455 (2.455)
 Concentration: 1 µg/L
 Sample type: Sample



M2 6:2 FTS
 RT (Exp. RT): 1.835 (1.835)
 Concentration: 1 µg/L
 Sample type: Sample



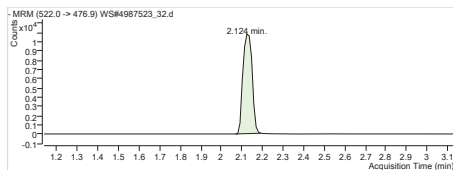
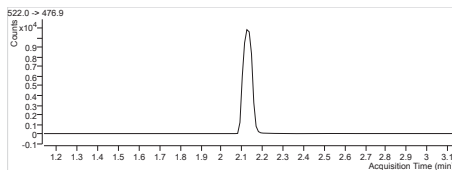
M2 8:2 FTS
 RT (Exp. RT): 2.100 (2.112)
 Concentration: 1 µg/L
 Sample type: Sample



13C6-PFHxA IS

RT (Exp. RT):
Concentration:
Sample type:

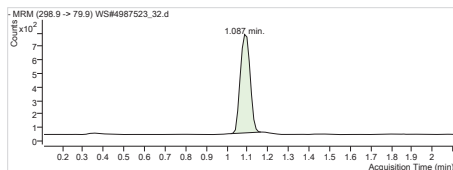
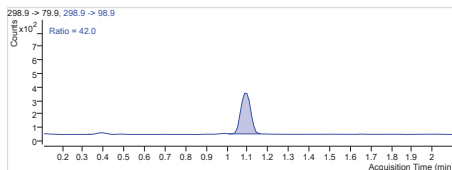
Internal Standard
1.422 (1.434)
1 µg/L
Sample



13C9-PFDA IS

RT (Exp. RT):
Concentration:
Sample type:

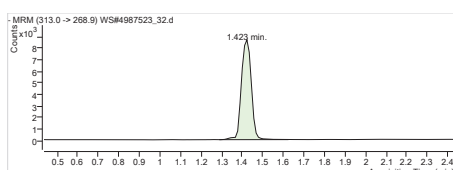
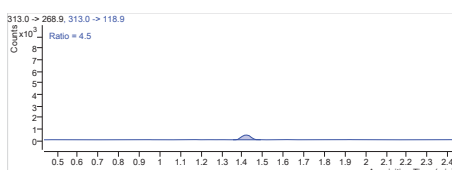
Internal Standard
2.124 (2.135)
1 µg/L
Sample



PFBS 1

RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

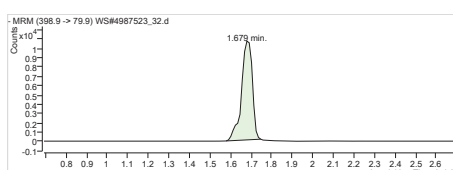
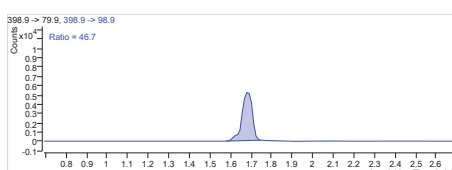
298.9 -> 79.9
1.087 (1.109)
0.62 µg/L
1.63508
Sample



PFHxA 1

RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

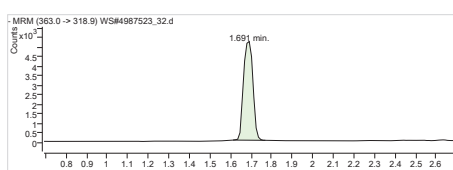
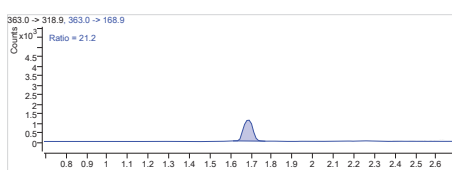
313.0 -> 268.9
1.423 (1.434)
2.07 µg/L
3.79829
Sample



PFHxS 1

RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

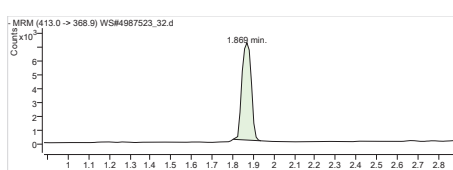
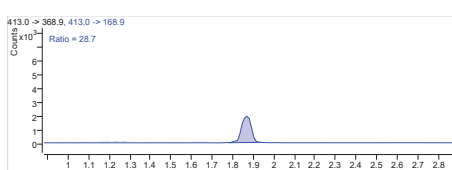
398.9 -> 79.9
1.679 (1.691)
12.80 µg/L
26.27755
Sample



PFHpA 1

RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

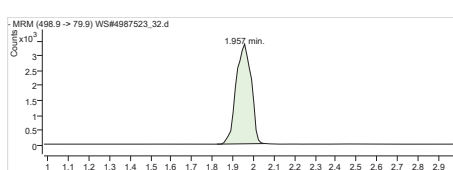
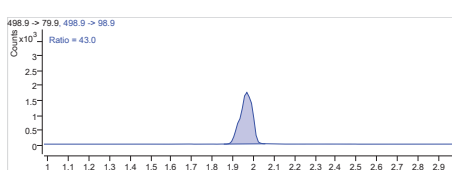
363.0 -> 318.9
1.691 (1.691)
1.04 µg/L
2.02218
Sample



PFOA 1

RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

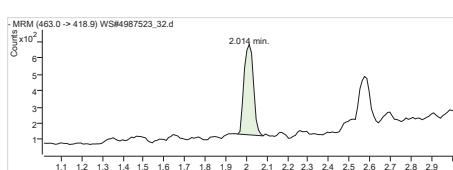
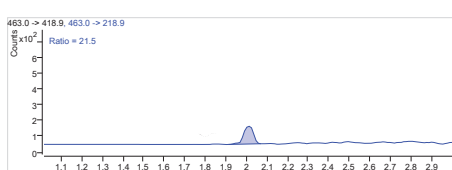
413.0 -> 368.9
1.869 (1.881)
1.57 µg/L
2.89056
Sample



PFOS 1

RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

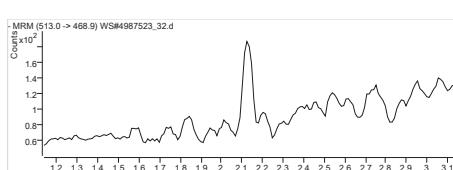
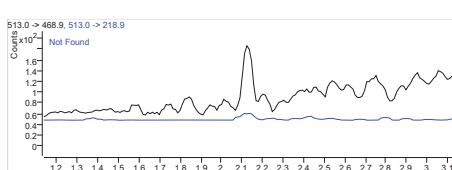
498.9 -> 79.9
1.957 (1.979)
6.27 µg/L
10.05966
Sample



PFNA 1

RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

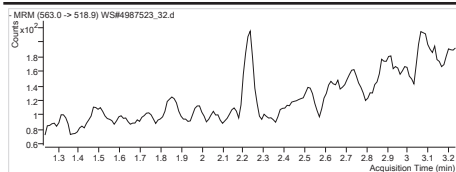
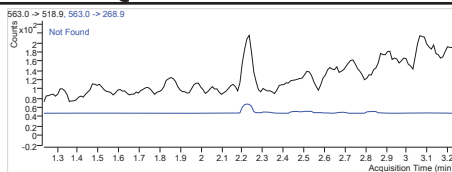
463.0 -> 418.9
2.014 (2.014)
0.13 µg/L
0.22877
Sample



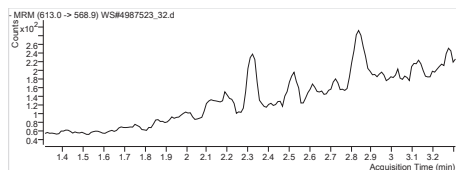
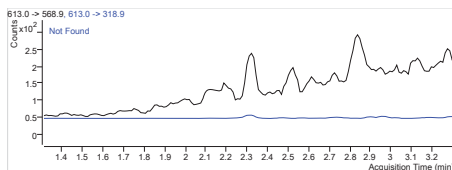
PFDA 1

RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

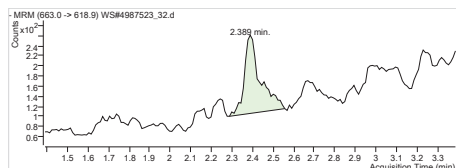
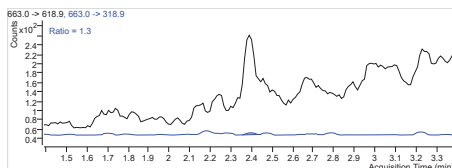
513.0 -> 468.9
0.000 (2.135)
N.D.
0
Sample



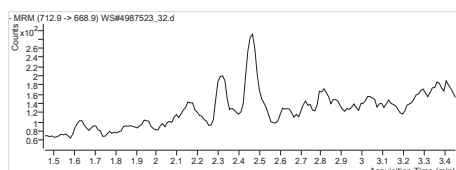
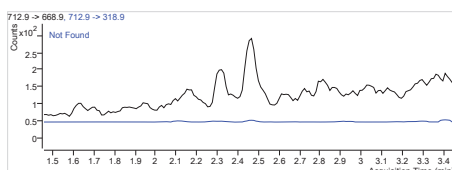
PFUnA 1
 RT (Exp. RT): 563.0 -> 518.9
 Calc. conc. 0.000 (2.234)
 Area ratio: N.D.
 Sample type: 0
 Sample



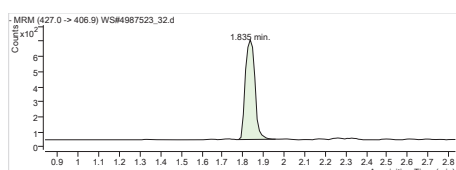
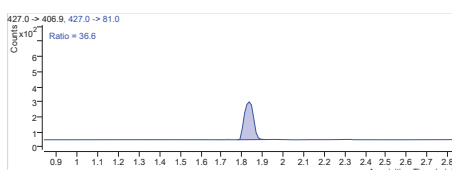
PFDaA 1
 RT (Exp. RT): 613.0 -> 568.9
 Calc. conc. 0.000 (2.311)
 Area ratio: N.D.
 Sample type: 0
 Sample



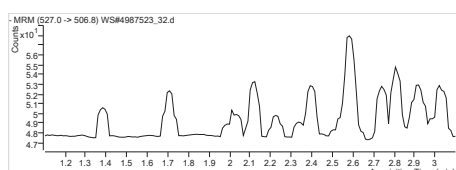
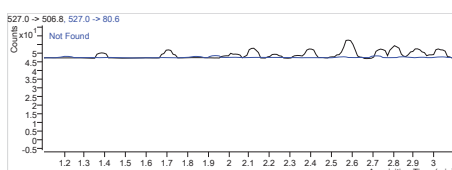
PFTrDa 1
 RT (Exp. RT): 663.0 -> 618.9
 Calc. conc. 2.389 (2.389)
 Area ratio: 0.04 µg/L
 Sample type: 0.08754
 Sample



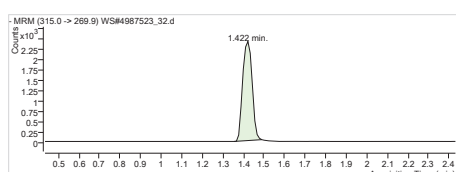
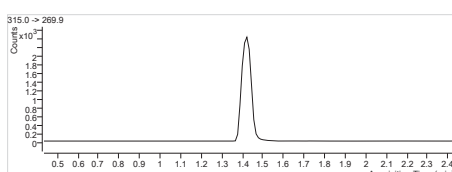
PFTeDa 1
 RT (Exp. RT): 712.9 -> 668.9
 Calc. conc. 0.000 (2.456)
 Area ratio: N.D.
 Sample type: 0
 Sample



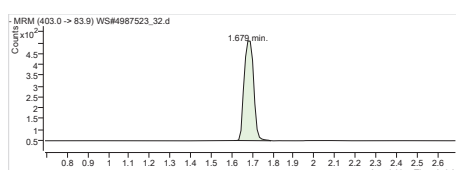
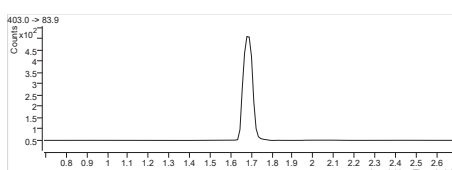
6:2-FTS 1
 RT (Exp. RT): 427.0 -> 406.9
 Calc. conc. 1.835 (1.835)
 Area ratio: 0.63 µg/L
 Sample type: 1.10648
 Sample



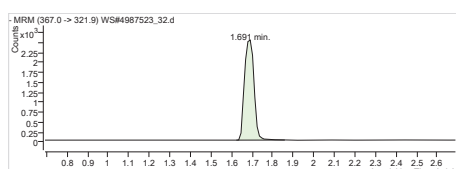
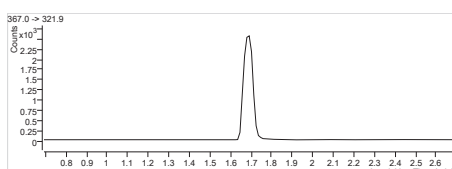
8:2-FTS 1
 RT (Exp. RT): 527.0 -> 506.8
 Calc. conc. 0.000 (2.101)
 Area ratio: N.D.
 Sample type: 0
 Sample



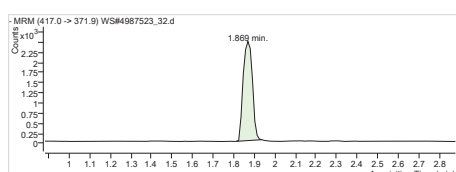
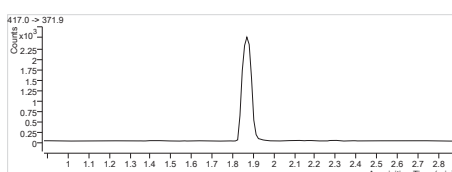
13C2-PFHxA
 RT (Exp. RT): 315.0 -> 269.9
 Calc. conc. 1.422 (1.434)
 Area ratio: 87.16 µg/L
 Sample type: 0.19386
 Sample



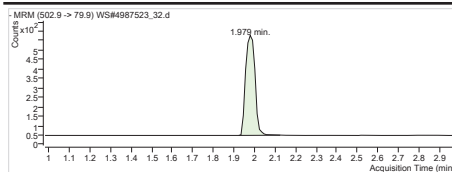
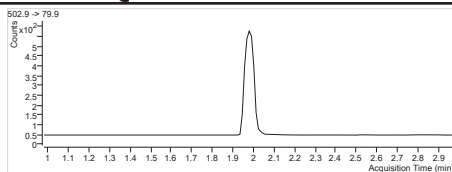
18O2-PFHxS
 RT (Exp. RT): 403.0 -> 83.9
 Calc. conc. 1.679 (1.690)
 Area ratio: 96.92 µg/L
 Sample type: 0.03788
 Sample



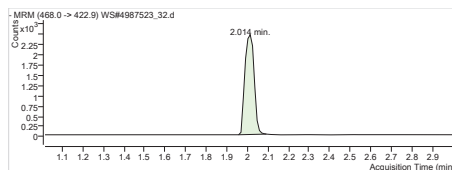
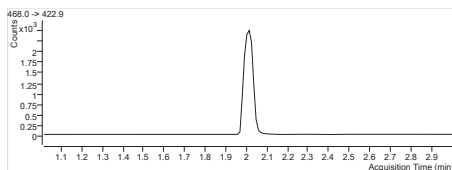
13C4-PFHpA
 RT (Exp. RT): 367.0 -> 321.9
 Calc. conc. 1.691 (1.691)
 Area ratio: 89.24 µg/L
 Sample type: 0.20771
 Sample



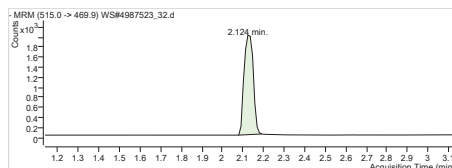
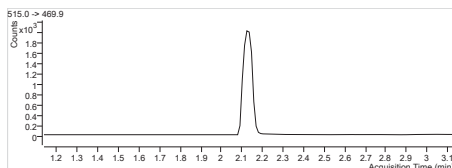
13C4-PFOA
 RT (Exp. RT): 417.0 -> 371.9
 Calc. conc. 1.869 (1.881)
 Area ratio: 85.30 µg/L
 Sample type: 0.19470
 Sample



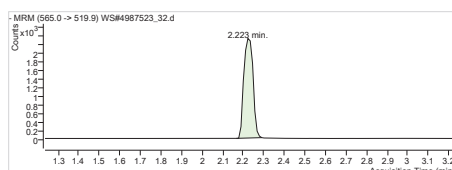
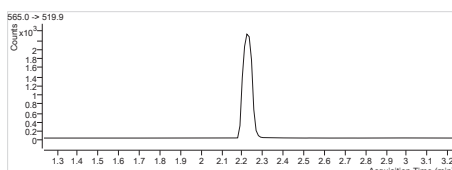
13C4-PFOS
RT (Exp. RT): 502.9 -> 79.9
Calc. conc. 1.979 (1.979)
Area ratio: 90.05 µg/L
Sample type: 0.04310
Sample



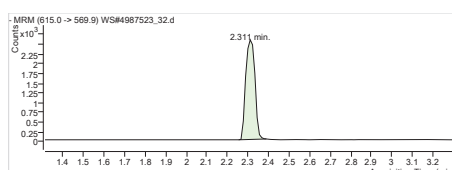
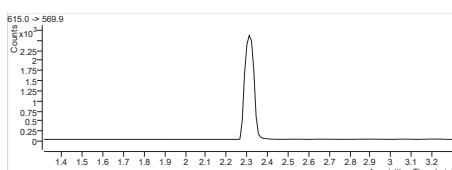
13C5-PFNA
RT (Exp. RT): 468.0 -> 422.9
Calc. conc. 2.014 (2.014)
Area ratio: 88.00 µg/L
Sample type: 0.19575
Sample



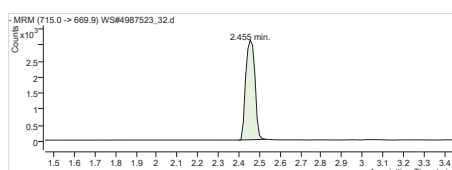
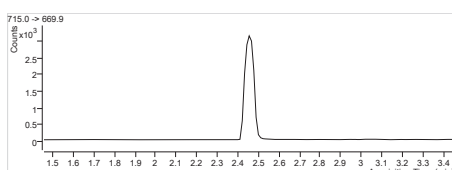
13C2-PFDA
RT (Exp. RT): 515.0 -> 469.9
Calc. conc. 2.124 (2.135)
Area ratio: 81.64 µg/L
Sample type: 0.18508
Sample



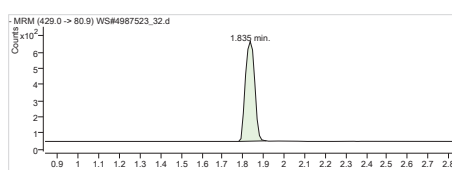
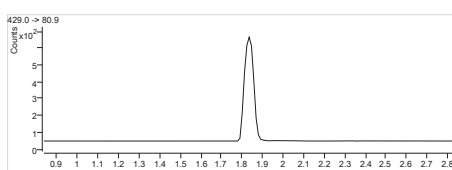
13C2-PFUnA
RT (Exp. RT): 565.0 -> 519.9
Calc. conc. 2.223 (2.234)
Area ratio: 86.78 µg/L
Sample type: 0.21257
Sample



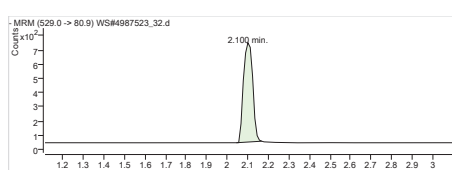
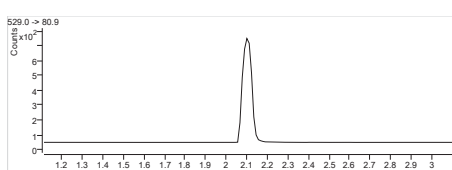
13C2-PFDoA
RT (Exp. RT): 615.0 -> 569.9
Calc. conc. 2.311 (2.311)
Area ratio: 86.27 µg/L
Sample type: 0.23776
Sample



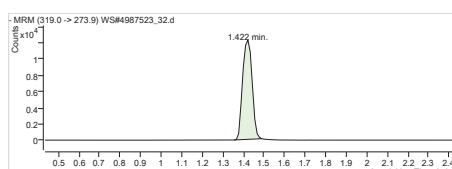
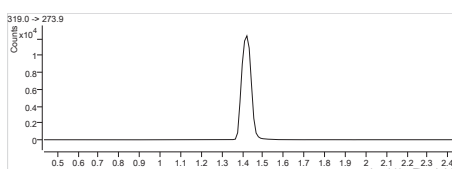
13C2-PFTeDA
RT (Exp. RT): 715.0 -> 669.9
Calc. conc. 2.455 (2.455)
Area ratio: 82.22 µg/L
Sample type: 0.28645
Sample



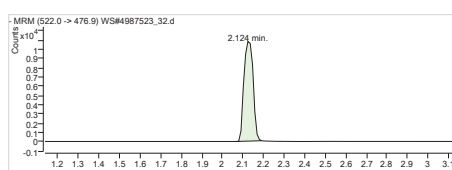
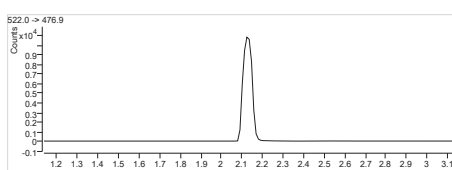
13C2-6:2-FTS
RT (Exp. RT): 429.0 -> 80.9
Calc. conc. 1.835 (1.835)
Area ratio: 89.38 µg/L
Sample type: 0.04949
Sample



13C2-8:2 FTS
RT (Exp. RT): 529.0 -> 80.9
Calc. conc. 2.100 (2.112)
Area ratio: 92.97 µg/L
Sample type: 0.05550
Sample



13C6-PFHxA
RT (Exp. RT): 319.0 -> 273.9
Calc. conc. 1.422 (1.434)
Area ratio: 24.13 µg/L
Sample type: 0
Sample



13C9-PFDA
RT (Exp. RT): 522.0 -> 476.9
Calc. conc. 2.124 (2.135)
Area ratio: 24.43 µg/L
Sample type: 0
Sample

Quantitation Results

Batch Path T:\lms4\PFC\20170523\WS#4987523_FOSAA\QuantResults\PFC_Water_Low_170523_WS#4987523_FOSAA

Sample Name 4987523:EJL630-01:50x Instrument LCMS04

Data File WS#4987523_FOSAA_27.d Operator AD

Sample Type Sample Dilution 1.2

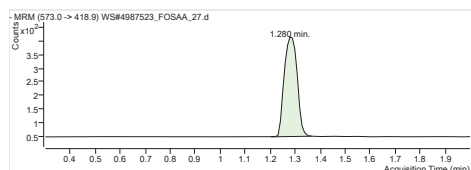
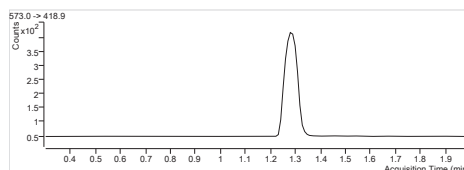
Acq. Method PFC_Water_Low_FOSAA.m Position P1-C5

Acq. Date 2017/05/23 7:03:38 PM Injection Volume Per Method

Sample Annotation not used

ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1320	1.28	1 µg/L		
D5-EtFOSAA IS	1195	1.31	1 µg/L		
13C9-PFDA IS	28989	0.85	1 µg/L		

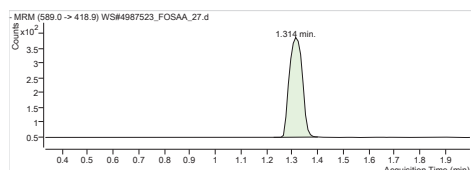
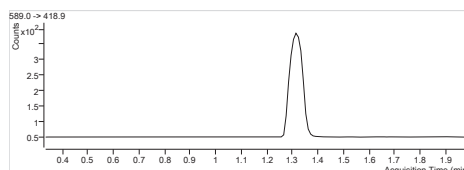
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1			-	ND	-
EtFOSAA 1			-	ND	-
D3-MeFOSAA	1328	1.28	-	79.75 µg/L	-
D5-EtFOSAA	1205	1.31	-	81.96 µg/L	-
13C9-PFDA	28219	0.85	-	124.30 µg/L	-



D3-MeFOSAA IS

RT (Exp. RT):
Concentration:
Sample type:

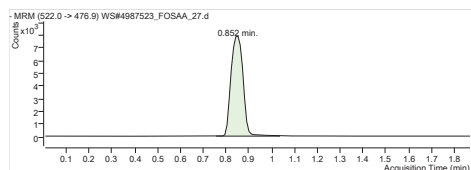
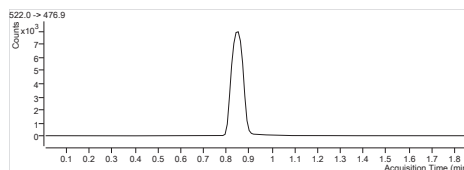
Internal Standard
1.280 (1.298)
1 µg/L
Sample



D5-EtFOSAA IS

RT (Exp. RT):
Concentration:
Sample type:

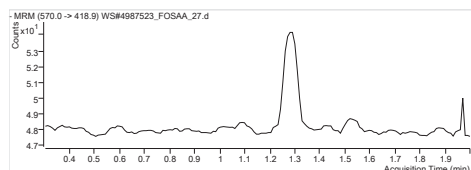
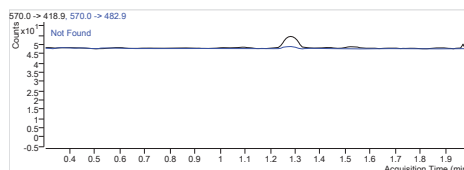
Internal Standard
1.314 (1.331)
1 µg/L
Sample



13C9-PFDA IS

RT (Exp. RT):
Concentration:
Sample type:

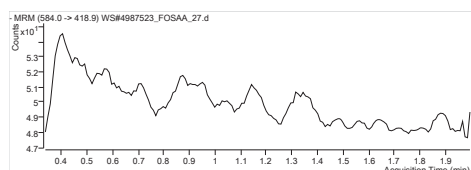
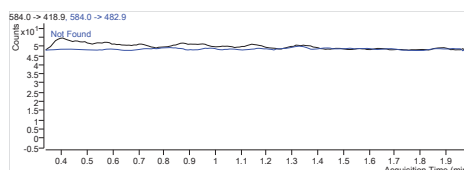
Internal Standard
0.852 (0.873)
1 µg/L
Sample



MeFOSAA 1

RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

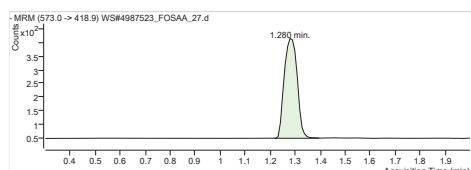
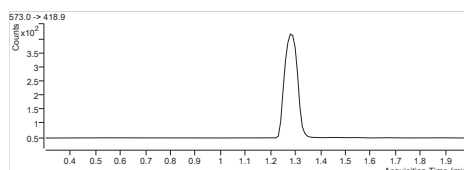
570.0 -> 418.9
0.000 (1.300)
N.D.
0
Sample



EtFOSAA 1

RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

584.0 -> 418.9
0.000 (1.333)
N.D.
0
Sample

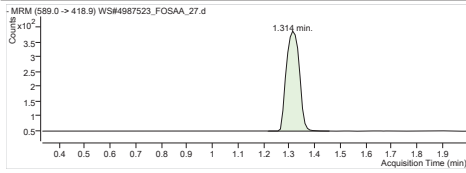
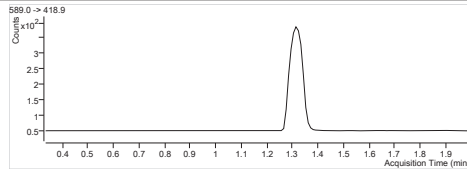


D3-MeFOSAA

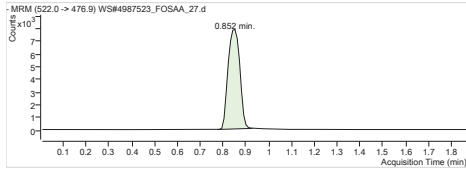
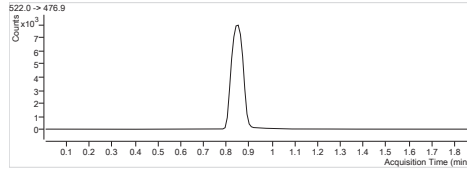
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

573.0 -> 418.9
1.280 (1.298)
79.75 µg/L
0.04581
Sample

Quantitation Results



D5-EtFOSAA
 RT (Exp. RT): 589.0 -> 418.9
 Calc. conc. 1.314 (1.331)
 Area ratio: 81.96 $\mu\text{g/L}$
 Sample type: 0.04155
 Sample



13C9-PFDA
 RT (Exp. RT): 522.0 -> 476.9
 Calc. conc. 0.852 (0.873)
 Area ratio: 124.30 $\mu\text{g/L}$
 Sample type: 0
 Sample

Quantitation Results

Batch Path T:\lms4\PFC\20170523\WS#4987523_FOSAA\QuantResults\PFC_Water_Low_170523_WS#4987523_FOSAA

Sample Name 4987523:EJL630-01:10x Instrument LCMS04

Data File WS#4987523_FOSAA_28.d Operator AD

Sample Type Sample Dilution 0.24

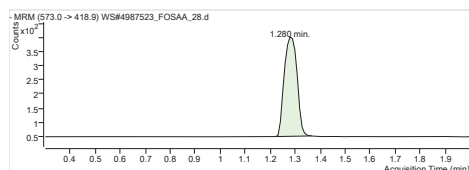
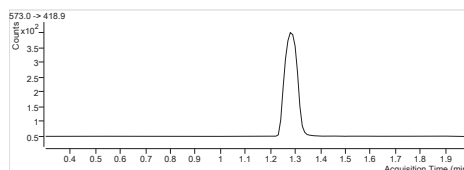
Acq. Method PFC_Water_Low_FOSAA.m Position P1-C6

Acq. Date 2017/05/23 7:06:00 PM Injection Volume Per Method

Sample Annotation Reported for all

ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1253	1.28	1 µg/L		
D5-EtFOSAA IS	1091	1.31	1 µg/L		
13C9-PFDA IS	29855	0.84	1 µg/L		

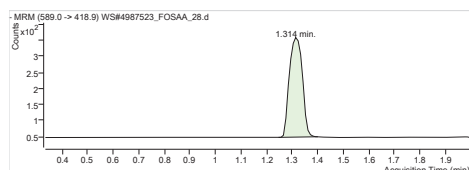
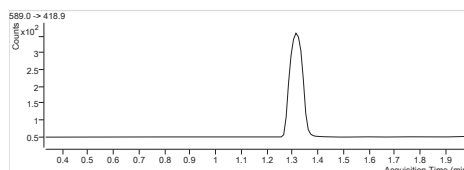
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1			-	ND	-
EtFOSAA 1			-	ND	-
D3-MeFOSAA	1270	1.28	-	74.05 µg/L	-
D5-EtFOSAA	1101	1.31	-	72.77 µg/L	-
13C9-PFDA	29030	0.84	-	25.57 µg/L	-



D3-MeFOSAA IS

RT (Exp. RT):
Concentration:
Sample type:

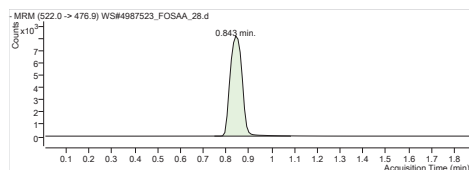
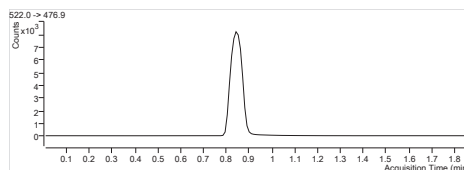
Internal Standard
1.280 (1.298)
1 µg/L
Sample



D5-EtFOSAA IS

RT (Exp. RT):
Concentration:
Sample type:

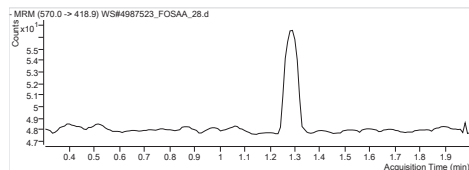
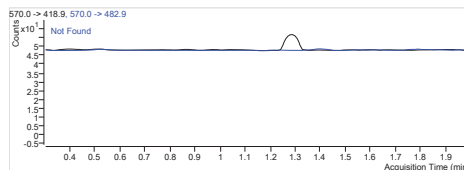
Internal Standard
1.314 (1.331)
1 µg/L
Sample



13C9-PFDA IS

RT (Exp. RT):
Concentration:
Sample type:

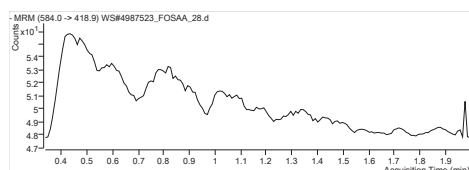
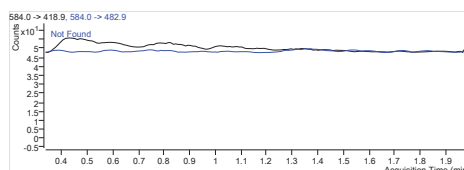
Internal Standard
0.843 (0.873)
1 µg/L
Sample



MeFOSAA 1

RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

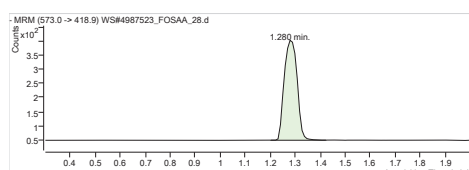
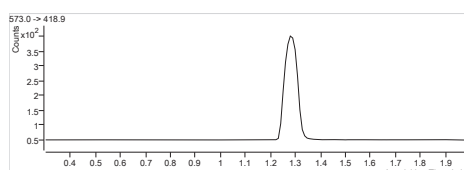
570.0 -> 418.9
0.000 (1.300)
N.D.
0
Sample



EtFOSAA 1

RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

584.0 -> 418.9
0.000 (1.333)
N.D.
0
Sample

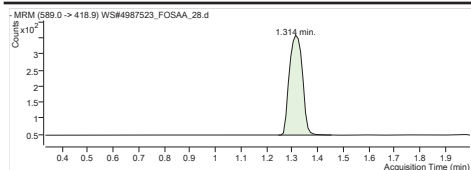
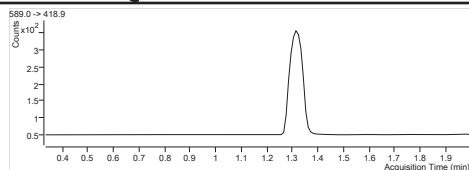


D3-MeFOSAA

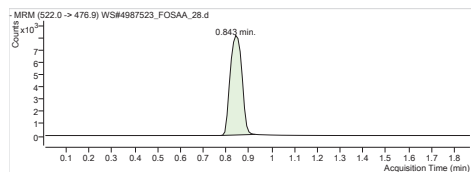
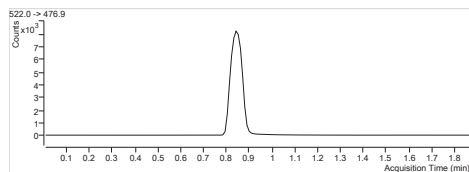
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

573.0 -> 418.9
1.280 (1.298)
74.05 µg/L
0.04254
Sample

Quantitation Results



D5-EtFOSAA
 RT (Exp. RT): 589.0 -> 418.9
 Calc. conc. 1.314 (1.331)
 Area ratio: 72.77 $\mu\text{g/L}$
 Sample type: 0.03689
 Sample



13C9-PFDA
 RT (Exp. RT): 522.0 -> 476.9
 Calc. conc. 0.843 (0.873)
 Area ratio: 25.57 $\mu\text{g/L}$
 Sample type: 0
 Sample



4. QA/QC Data

Maxxam Analytics International
6740 Campobello Rd
Mississauga, Ontario, Canada
L5N 2L8
1-800-668-0639
www.maxxamanalytics.com

Batch Path

T:\lcms4\PFC\20170519\WS#4987381\QuantResults\PFC_Soil_170519_WS#4987381_CTLabs

Sample Name

IB

Instrument

LCMS04

Data File

WS#4987381_08.d

Operator

M_G

Sample Type

Sample

Dilution

1.33

Acq. Method

PFC_Soil.m

Position

P2-A8

Acq. Date

2017/05/20 3:39:25 AM

Injection Volume

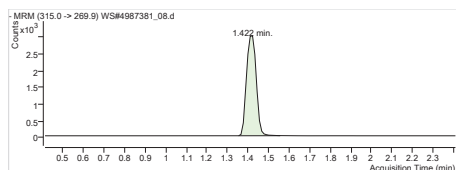
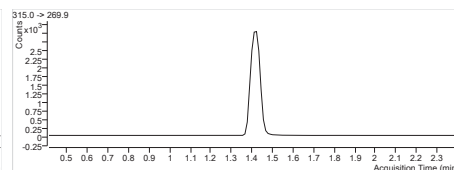
Per Method

Sample Annotation

-

ISTD Compounds	Response	RT	Target conc.		
MPFHxA	9932	1.42	1 µg/Kg		
MPFHxS	1790	1.68	1 µg/Kg		
MPFHpA	11060	1.68	1 µg/Kg		
MPFOA	10929	1.87	1 µg/Kg		
MPFOS	2322	1.98	1 µg/Kg		
MPFNA	10318	2.01	1 µg/Kg		
MPFDA	8970	2.12	1 µg/Kg		
MPFUnA	10029	2.22	1 µg/Kg		
MPFDoA	11436	2.31	1 µg/Kg		
MPFTeDA	14421	2.46	1 µg/Kg		
M2 6:2 FTS	2766	1.84	1 µg/Kg		
M2 8:2 FTS	2670	2.10	1 µg/Kg		
13C6-PFHxA IS	40927	1.41	1 µg/Kg		
13C9-PFDA IS	38549	2.12	1 µg/Kg		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1			-	ND	-
PFHxA 1			-	ND	-
PFHxS 1			-	ND	-
PFHpA 1			-	ND	-
PFOA 1			-	ND	-
PFOS 1			-	ND	-
PFNA 1			-	ND	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDaA 1			-	ND	-
PFTeDA 1			-	ND	-
PFTeDA 1			-	ND	-
6:2-FTS 1			-	ND	-
8:2-FTS 1			-	ND	-
13C2-PFHxA	9932	1.42	-	104.29 µg/Kg	-
18O2-PFHxS	1790	1.68	-	104.44 µg/Kg	-
13C4-PFHpA	11060	1.68	-	106.70 µg/Kg	-
13C4-PFOA	10929	1.87	-	107.64 µg/Kg	-
13C4-PFOS	2322	1.98	-	111.57 µg/Kg	-
13C5-PFNA	10318	2.01	-	104.10 µg/Kg	-
13C2-PFDA	8970	2.12	-	100.74 µg/Kg	-
13C2-PFUnA	10029	2.22	-	100.70 µg/Kg	-
13C2-PFDoA	11436	2.31	-	100.18 µg/Kg	-
13C2-PFTeDA	14421	2.46	-	101.85 µg/Kg	-
13C2-6:2-FTS	2766	1.84	-	107.89 µg/Kg	-
13C2-8:2 FTS	2670	2.10	-	103.71 µg/Kg	-
13C6-PFHxA	40927	1.41	-	129.97 µg/Kg	-
13C9-PFDA	38549	2.12	-	133.40 µg/Kg	-



MPFHxA

Internal Standard

RT (Exp. RT):

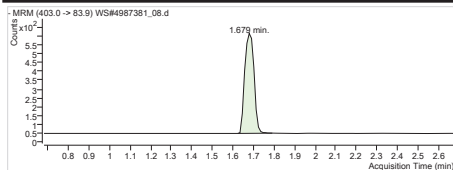
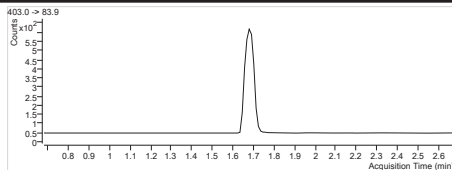
1.422 (1.411)

Concentration:

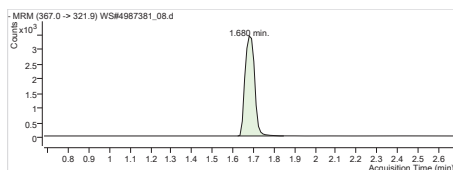
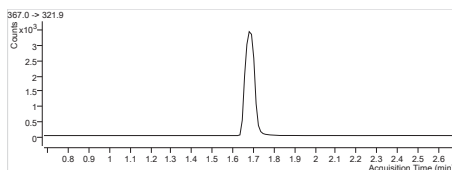
1 µg/Kg

Sample type:

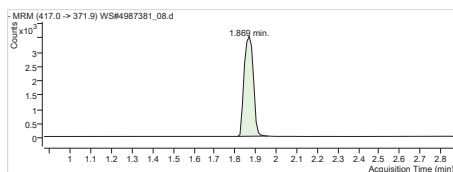
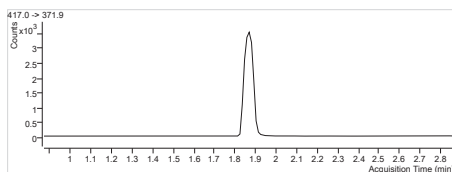
Sample



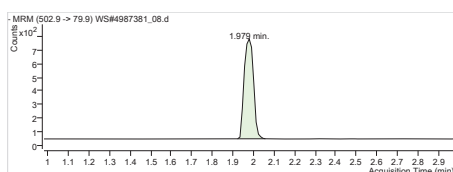
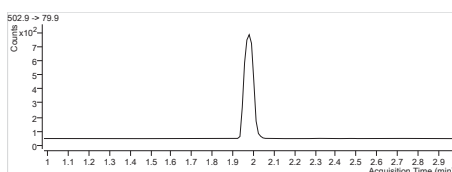
MPFHxS
 RT (Exp. RT): 1.679 (1.679)
 Concentration: 1 µg/Kg
 Sample type: Sample



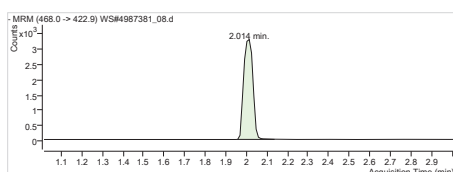
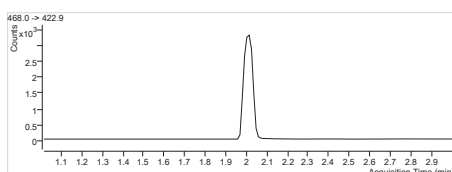
MPFHpA
 RT (Exp. RT): 1.680 (1.680)
 Concentration: 1 µg/Kg
 Sample type: Sample



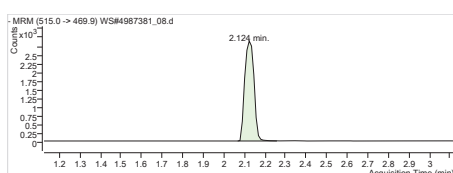
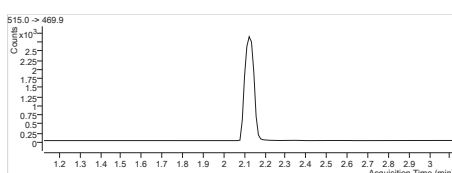
MPFOA
 RT (Exp. RT): 1.869 (1.869)
 Concentration: 1 µg/Kg
 Sample type: Sample



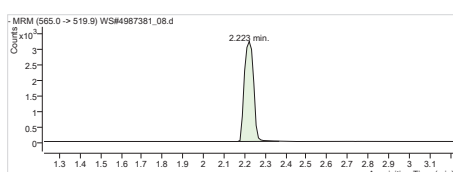
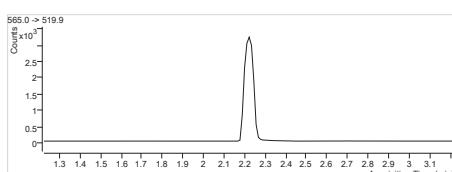
MPFOS
 RT (Exp. RT): 1.979 (1.979)
 Concentration: 1 µg/Kg
 Sample type: Sample



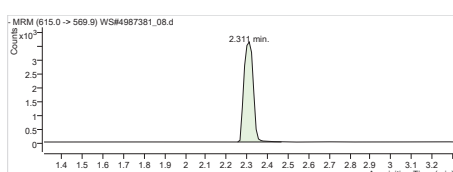
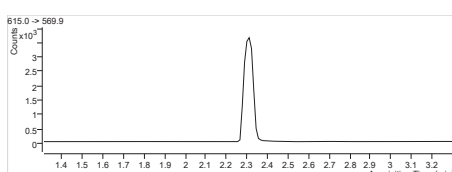
MPFNA
 RT (Exp. RT): 2.014 (2.014)
 Concentration: 1 µg/Kg
 Sample type: Sample



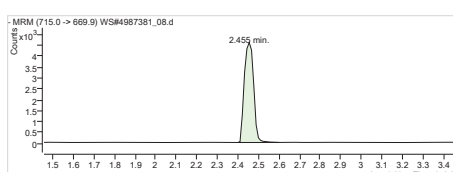
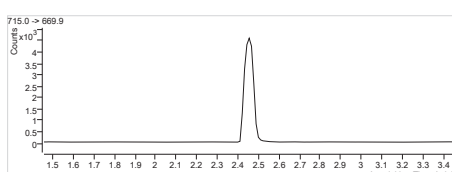
MPFDA
 RT (Exp. RT): 2.124 (2.124)
 Concentration: 1 µg/Kg
 Sample type: Sample



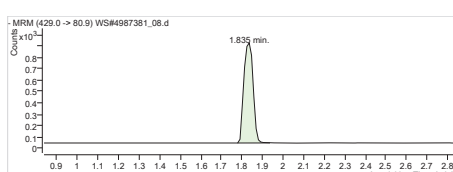
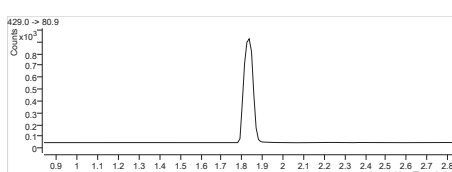
MPFUaA
 RT (Exp. RT): 2.223 (2.223)
 Concentration: 1 µg/Kg
 Sample type: Sample



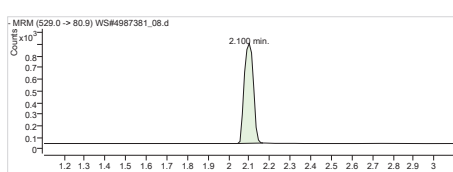
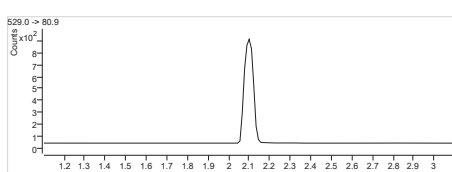
MPFDoA
 RT (Exp. RT): 2.311 (2.311)
 Concentration: 1 µg/Kg
 Sample type: Sample



MPFTeDA
 RT (Exp. RT): 2.455 (2.455)
 Concentration: 1 µg/Kg
 Sample type: Sample

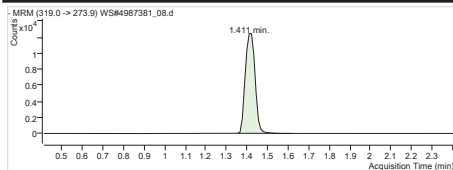
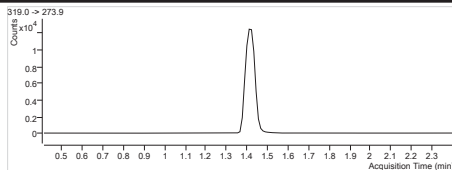


M2 6:2 FTS
 RT (Exp. RT): 1.835 (1.835)
 Concentration: 1 µg/Kg
 Sample type: Sample



M2 8:2 FTS
 RT (Exp. RT): 2.100 (2.100)
 Concentration: 1 µg/Kg
 Sample type: Sample

Quantitation Results



13C6-PFHxA IS

RT (Exp. RT):

Concentration:

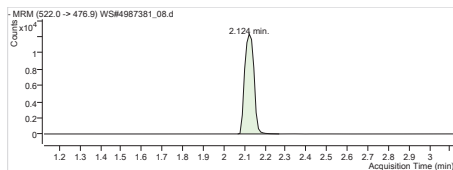
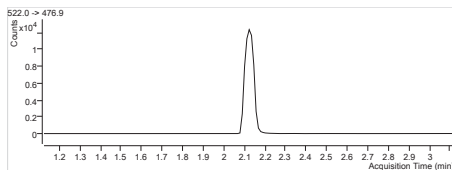
Sample type:

Internal Standard

1.411 (1.411)

1 µg/Kg

Sample



13C9-PFDA IS

RT (Exp. RT):

Concentration:

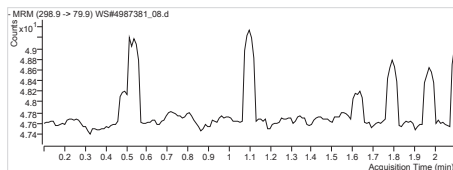
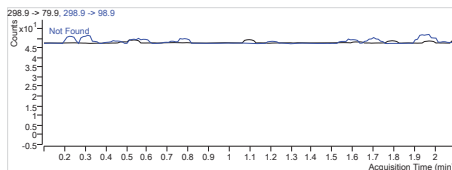
Sample type:

Internal Standard

2.124 (2.124)

1 µg/Kg

Sample



PFBS 1

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

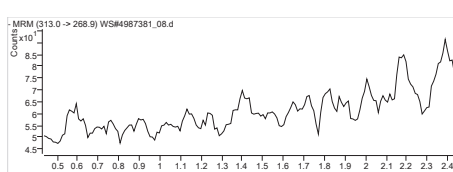
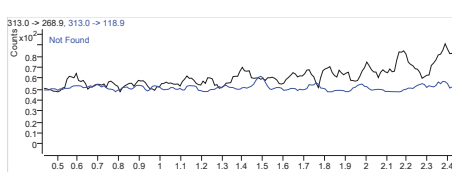
298.9 -> 79.9

0.000 (1.098)

N.D.

0

Sample



PFHxA 1

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

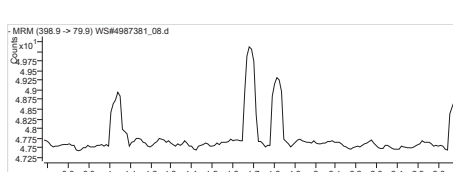
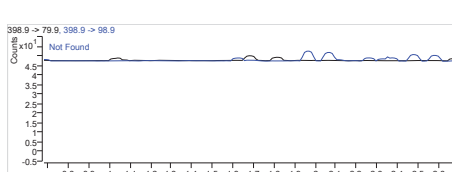
313.0 -> 268.9

0.000 (1.434)

N.D.

0

Sample



PFHxS 1

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

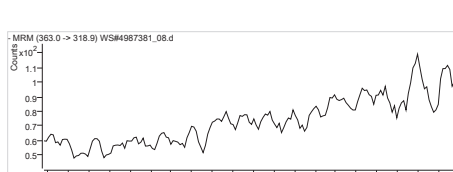
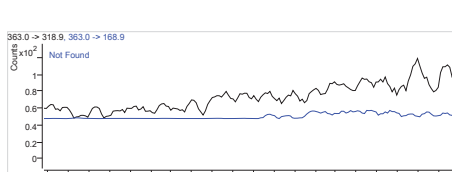
398.9 -> 79.9

0.000 (1.679)

N.D.

0

Sample



PFHpA 1

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

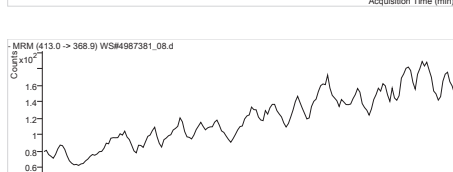
363.0 -> 318.9

0.000 (1.680)

N.D.

0

Sample



PFOA 1

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

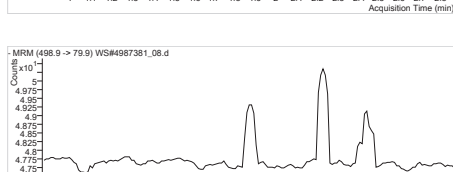
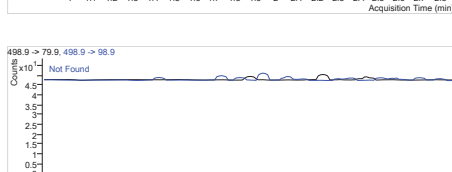
413.0 -> 368.9

0.000 (1.869)

N.D.

0

Sample



PFOS 1

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

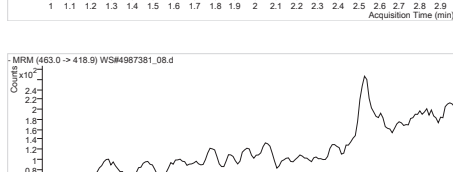
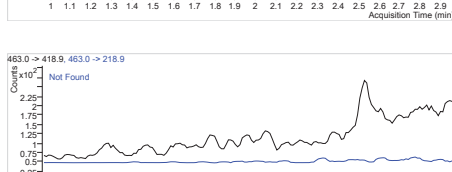
498.9 -> 79.9

0.000 (1.968)

N.D.

0

Sample



PFNA 1

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

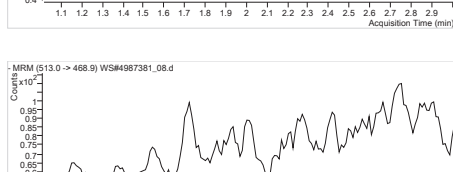
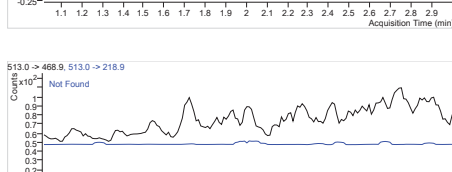
463.0 -> 418.9

0.000 (2.014)

N.D.

0

Sample



PFDA 1

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

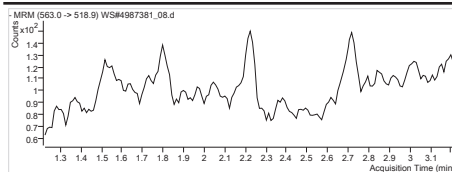
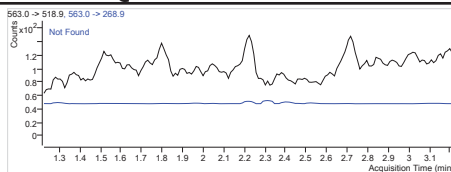
513.0 -> 468.9

0.000 (2.124)

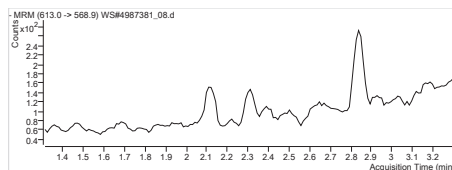
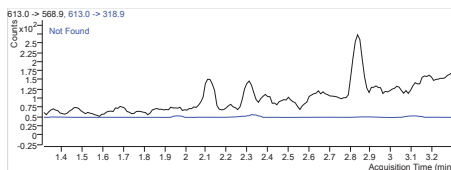
N.D.

0

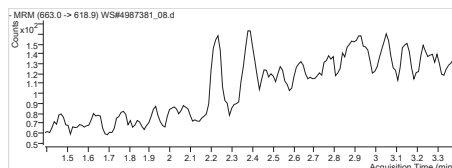
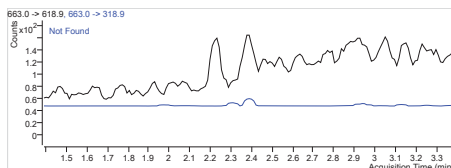
Sample



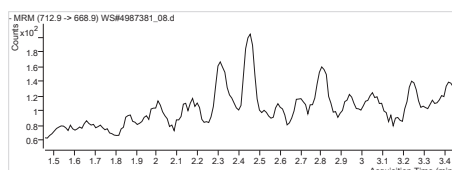
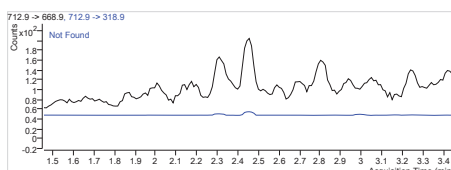
PFUnA 1
 RT (Exp. RT): 563.0 -> 518.9
 Calc. conc. 0.000 (2.223)
 Area ratio: N.D.
 Sample type: 0
 Sample



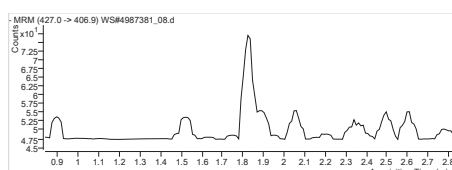
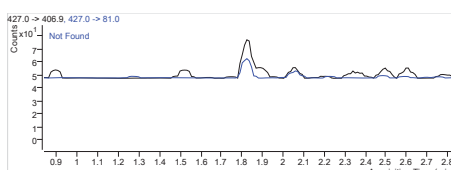
PFDaA 1
 RT (Exp. RT): 613.0 -> 568.9
 Calc. conc. 0.000 (2.311)
 Area ratio: N.D.
 Sample type: 0
 Sample



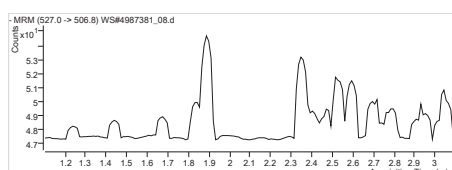
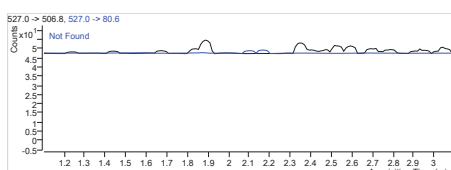
PFTraD 1
 RT (Exp. RT): 663.0 -> 618.9
 Calc. conc. 0.000 (2.389)
 Area ratio: N.D.
 Sample type: 0
 Sample



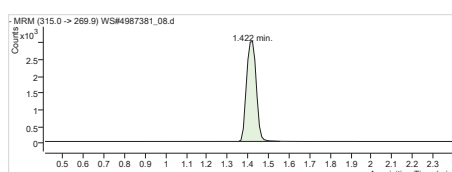
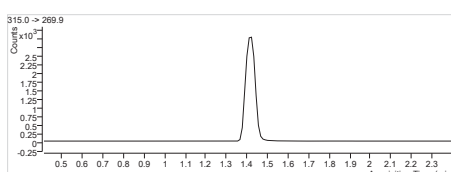
PFTeDa 1
 RT (Exp. RT): 712.9 -> 668.9
 Calc. conc. 0.000 (2.456)
 Area ratio: N.D.
 Sample type: 0
 Sample



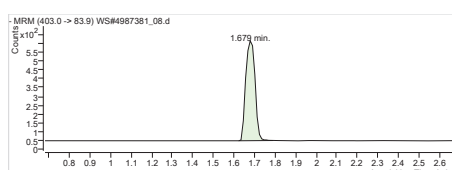
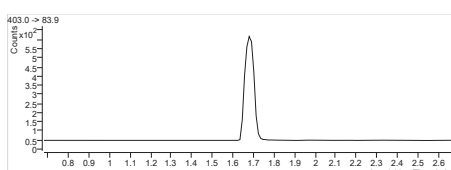
6:2-FTS 1
 RT (Exp. RT): 427.0 -> 406.9
 Calc. conc. 0.000 (1.835)
 Area ratio: N.D.
 Sample type: 0
 Sample



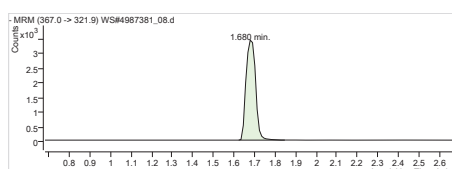
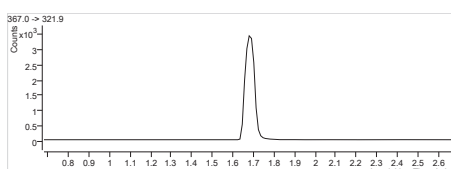
8:2-FTS 1
 RT (Exp. RT): 527.0 -> 506.8
 Calc. conc. 0.000 (2.101)
 Area ratio: N.D.
 Sample type: 0
 Sample



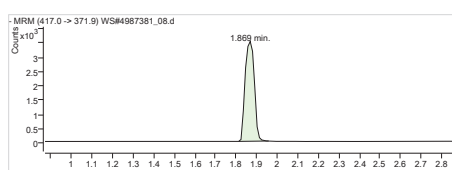
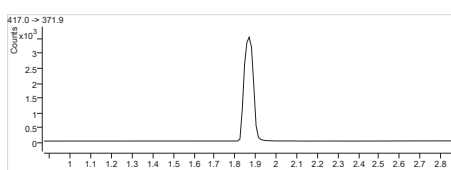
13C2-PFHxA
 RT (Exp. RT): 315.0 -> 269.9
 Calc. conc. 1.422 (1.411)
 Area ratio: 104.29 µg/Kg
 Sample type: 0.24268
 Sample



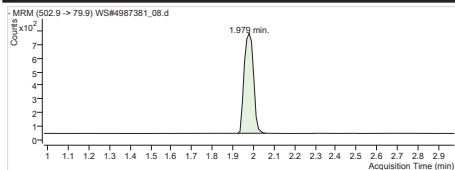
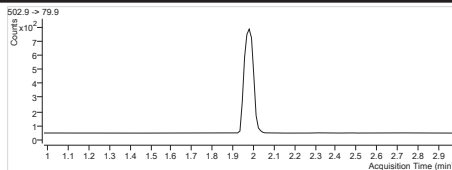
18O2-PFHxS
 RT (Exp. RT): 403.0 -> 83.9
 Calc. conc. 1.679 (1.679)
 Area ratio: 104.44 µg/Kg
 Sample type: 0.04374
 Sample



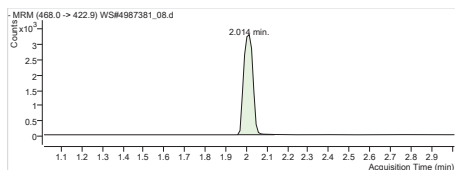
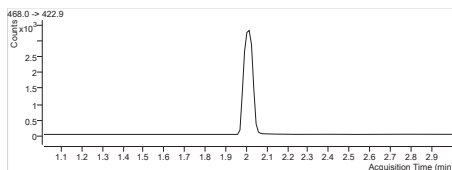
13C4-PFHpA
 RT (Exp. RT): 367.0 -> 321.9
 Calc. conc. 1.680 (1.680)
 Area ratio: 106.70 µg/Kg
 Sample type: 0.27024
 Sample



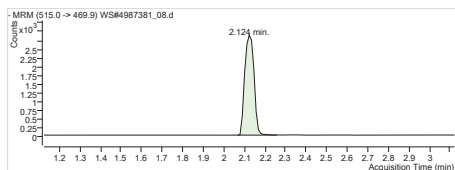
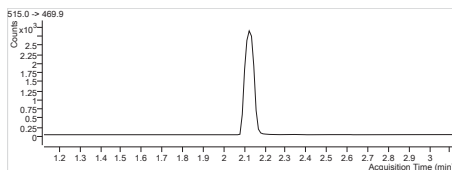
13C4-PFOA
 RT (Exp. RT): 417.0 -> 371.9
 Calc. conc. 1.869 (1.869)
 Area ratio: 107.64 µg/Kg
 Sample type: 0.26704
 Sample



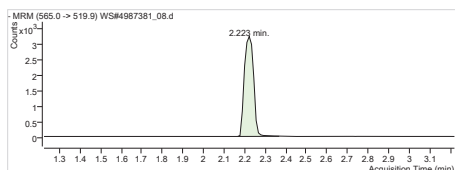
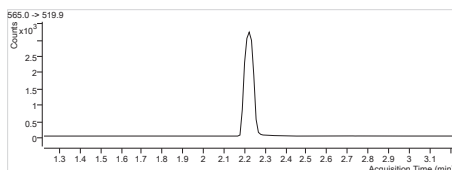
13C4-PFOS
 RT (Exp. RT): 502.9 -> 79.9
 Calc. conc. 1.979 (1.979)
 Area ratio: 111.57 µg/Kg
 Sample type: 0.05674
 Sample



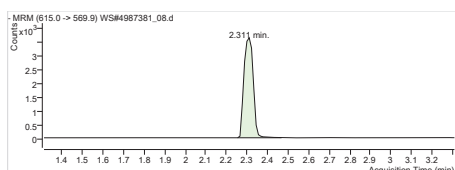
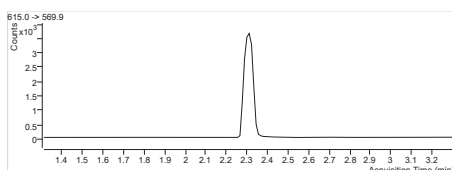
13C5-PFNA
 RT (Exp. RT): 468.0 -> 422.9
 Calc. conc. 2.014 (2.014)
 Area ratio: 104.10 µg/Kg
 Sample type: 0.25211
 Sample



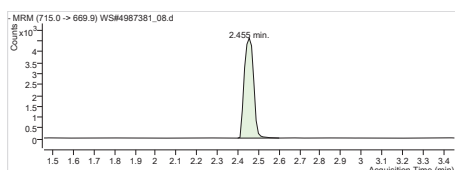
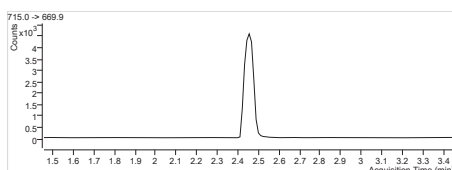
13C2-PFDA
 RT (Exp. RT): 515.0 -> 469.9
 Calc. conc. 2.124 (2.124)
 Area ratio: 100.74 µg/Kg
 Sample type: 0.23269
 Sample



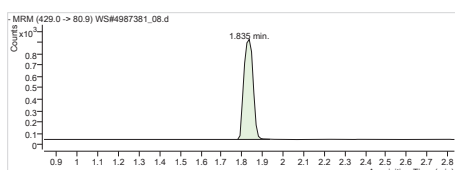
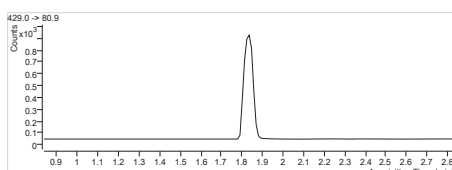
13C2-PFUnA
 RT (Exp. RT): 565.0 -> 519.9
 Calc. conc. 2.223 (2.223)
 Area ratio: 100.70 µg/Kg
 Sample type: 0.26016
 Sample



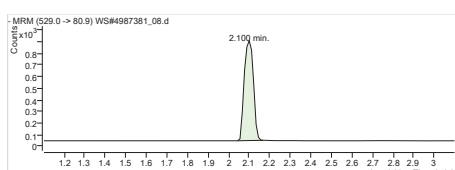
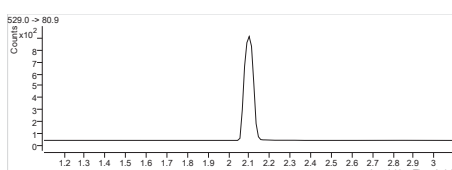
13C2-PFDoA
 RT (Exp. RT): 615.0 -> 569.9
 Calc. conc. 2.311 (2.311)
 Area ratio: 100.18 µg/Kg
 Sample type: 0.29666
 Sample



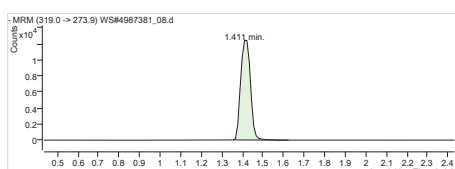
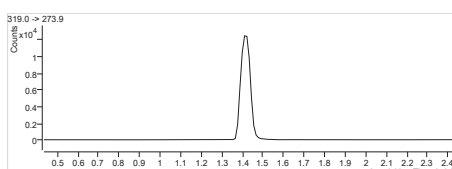
13C2-PFTeDA
 RT (Exp. RT): 715.0 -> 669.9
 Calc. conc. 2.455 (2.455)
 Area ratio: 101.85 µg/Kg
 Sample type: 0.37410
 Sample



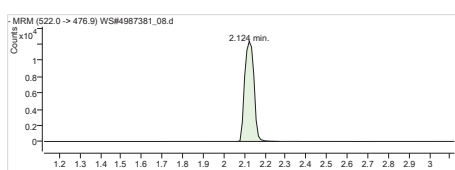
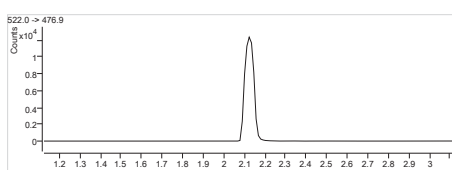
13C2-6:2-FTS
 RT (Exp. RT): 429.0 -> 80.9
 Calc. conc. 1.835 (1.835)
 Area ratio: 107.89 µg/Kg
 Sample type: 0.06758
 Sample



13C2-8:2 FTS
 RT (Exp. RT): 529.0 -> 80.9
 Calc. conc. 2.100 (2.100)
 Area ratio: 103.71 µg/Kg
 Sample type: 0.06524
 Sample



13C6-PFHxA
 RT (Exp. RT): 319.0 -> 273.9
 Calc. conc. 1.411 (1.434)
 Area ratio: 129.97 µg/Kg
 Sample type: 0
 Sample

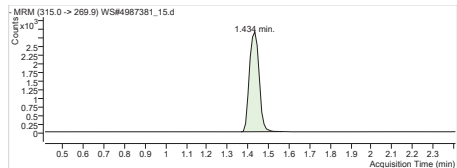
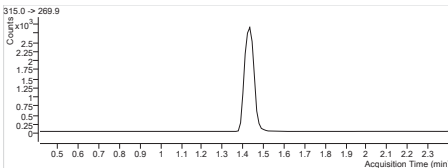


13C9-PFDA
 RT (Exp. RT): 522.0 -> 476.9
 Calc. conc. 2.124 (2.124)
 Area ratio: 133.40 µg/Kg
 Sample type: 0
 Sample

Batch Path	T:\lcms4\PFC\20170519\WS#4987381\QuantResults\PFC_Soil_170519_WS#4987381_CTLabs		
Sample Name	IB	Instrument	LCMS04
Data File	WS#4987381_15.d	Operator	M_G
Sample Type	Sample	Dilution	1.33
Acq. Method	PFC_Soil.m	Position	P2-A8
Acq. Date	2017/05/20 4:13:43 AM	Injection Volume	Per Method
Sample Annotation	-		

ISTD Compounds	Response	RT	Target conc.		
MPFHxA	9407	1.43	1 µg/Kg		
MPFHxS	1818	1.69	1 µg/Kg		
MPFHpA	10705	1.69	1 µg/Kg		
MPFOA	10438	1.87	1 µg/Kg		
MPFOS	2167	1.98	1 µg/Kg		
MPFNA	10016	2.01	1 µg/Kg		
MPFDA	9165	2.14	1 µg/Kg		
MPFUnA	10433	2.22	1 µg/Kg		
MPFDoA	11993	2.31	1 µg/Kg		
MPFTeDA	14235	2.46	1 µg/Kg		
M2 6:2 FTS	2701	1.84	1 µg/Kg		
M2 8:2 FTS	2925	2.10	1 µg/Kg		
13C6-PFHxA IS	43433	1.43	1 µg/Kg		
13C9-PFDA IS	39357	2.13	1 µg/Kg		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1			-	ND	-
PFHxA 1			-	ND	-
PFHxS 1			-	ND	-
PFHpA 1			-	ND	-
PFOA 1			-	ND	-
PFOS 1			-	ND	-
PFNA 1			-	ND	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDaA 1			-	ND	-
PFTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
6:2-FTS 1			-	ND	-
8:2-FTS 1			-	ND	-
13C2-PFHxA	9407	1.43	-	93.08 µg/Kg	-
18O2-PFHxS	1818	1.69	-	99.96 µg/Kg	-
13C4-PFHpA	10705	1.69	-	97.31 µg/Kg	-
13C4-PFOA	10438	1.87	-	96.87 µg/Kg	-
13C4-PFOS	2167	1.98	-	98.12 µg/Kg	-
13C5-PFNA	10016	2.01	-	95.22 µg/Kg	-
13C2-PFDA	9165	2.14	-	100.81 µg/Kg	-
13C2-PFUnA	10433	2.22	-	102.61 µg/Kg	-
13C2-PFDoA	11993	2.31	-	102.90 µg/Kg	-
13C2-PFTeDA	14235	2.46	-	98.48 µg/Kg	-
13C2-6:2-FTS	2701	1.84	-	99.28 µg/Kg	-
13C2-8:2 FTS	2925	2.10	-	107.06 µg/Kg	-
13C6-PFHxA	43433	1.43	-	137.93 µg/Kg	-
13C9-PFDA	39357	2.13	-	136.20 µg/Kg	-



MPFHxA

RT (Exp. RT):

Concentration:

Sample type:

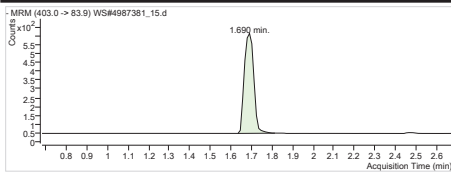
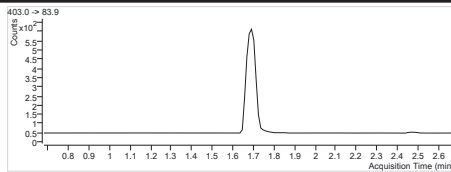
Internal Standard

1.434 (1.411)

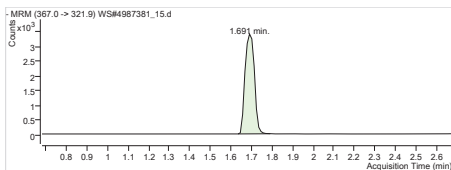
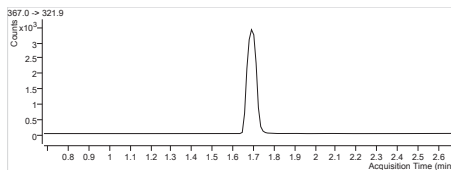
1 µg/Kg

Sample

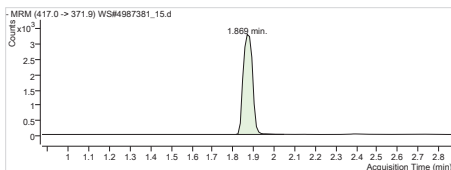
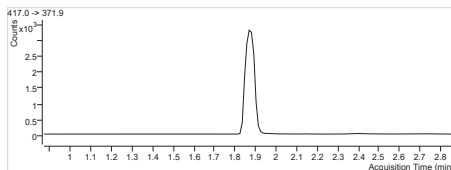
Quantitation Results



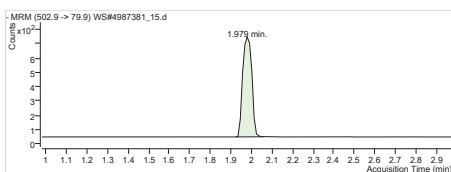
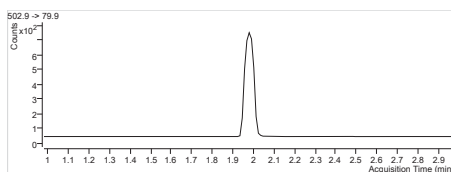
MPFHxS
 RT (Exp. RT): 1.690 (1.679)
 Concentration: 1 µg/Kg
 Sample type: Sample



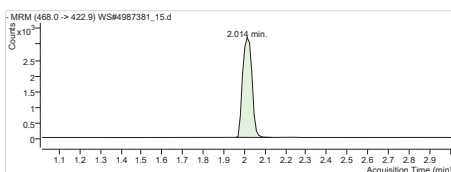
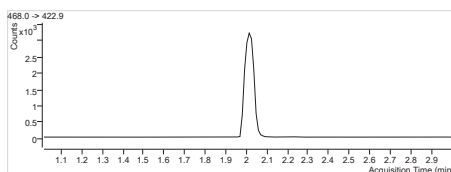
MPFHhpA
 RT (Exp. RT): 1.691 (1.680)
 Concentration: 1 µg/Kg
 Sample type: Sample



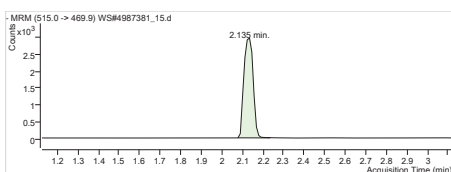
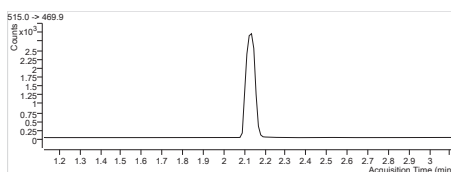
MPFOA
 RT (Exp. RT): 1.869 (1.869)
 Concentration: 1 µg/Kg
 Sample type: Sample



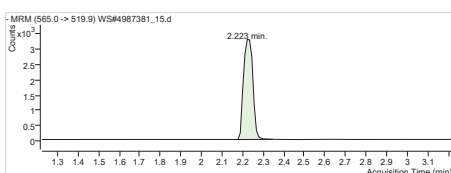
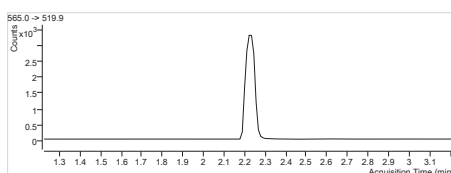
MPFOS
 RT (Exp. RT): 1.979 (1.979)
 Concentration: 1 µg/Kg
 Sample type: Sample



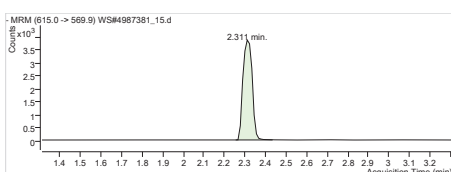
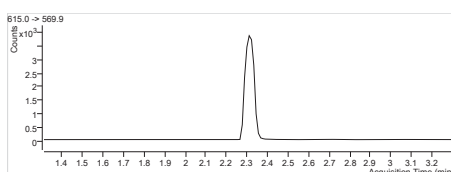
MPFNA
 RT (Exp. RT): 2.014 (2.014)
 Concentration: 1 µg/Kg
 Sample type: Sample



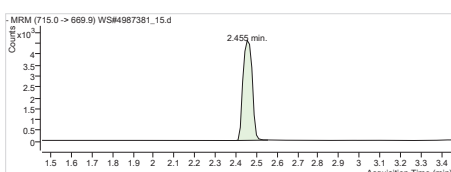
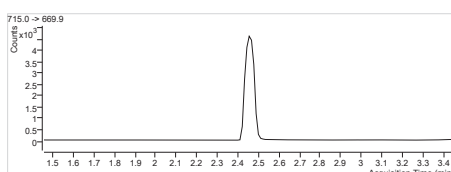
MPFDA
 RT (Exp. RT): 2.135 (2.124)
 Concentration: 1 µg/Kg
 Sample type: Sample



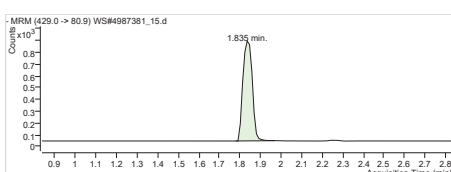
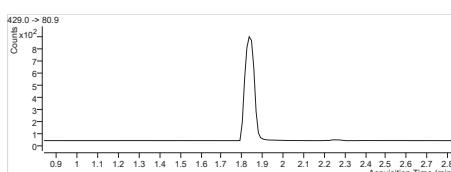
MPFUnA
 RT (Exp. RT): 2.223 (2.223)
 Concentration: 1 µg/Kg
 Sample type: Sample



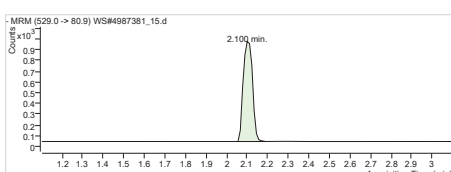
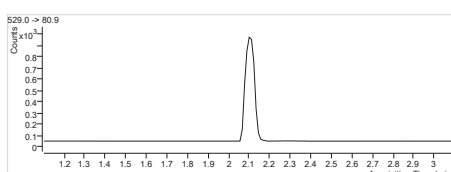
MPFDoA
 RT (Exp. RT): 2.311 (2.311)
 Concentration: 1 µg/Kg
 Sample type: Sample



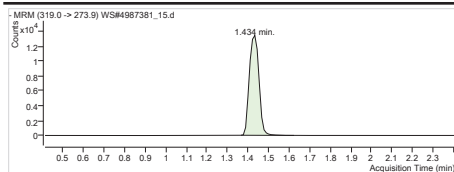
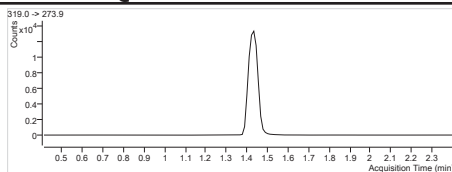
MPFTeDA
 RT (Exp. RT): 2.455 (2.455)
 Concentration: 1 µg/Kg
 Sample type: Sample



M2 6:2 FTS
 RT (Exp. RT): 1.835 (1.835)
 Concentration: 1 µg/Kg
 Sample type: Sample



M2 8:2 FTS
 RT (Exp. RT): 2.100 (2.100)
 Concentration: 1 µg/Kg
 Sample type: Sample

**13C6-PFHxA IS**

RT (Exp. RT):

Concentration:

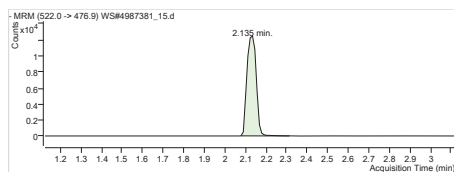
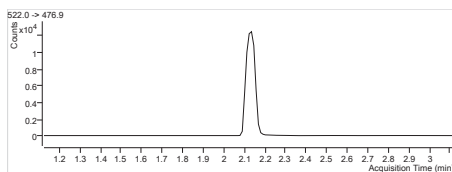
Sample type:

Internal Standard

1.434 (1.411)

1 µg/Kg

Sample

**13C9-PFDA IS**

RT (Exp. RT):

Concentration:

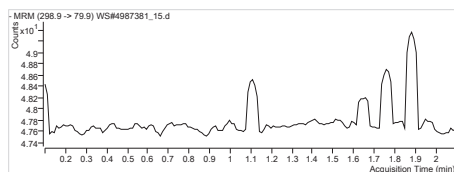
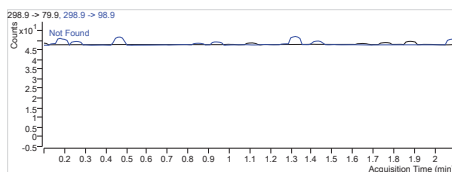
Sample type:

Internal Standard

2.135 (2.124)

1 µg/Kg

Sample

**PFBS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

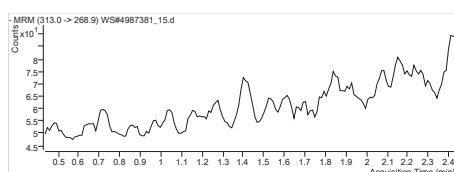
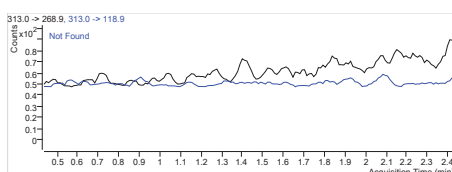
298.9 -> 79.9

0.000 (1.098)

N.D.

0

Sample

**PFHxA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

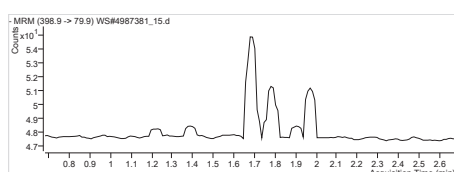
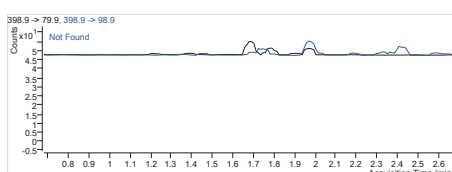
313.0 -> 268.9

0.000 (1.434)

N.D.

0

Sample

**PFHxS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

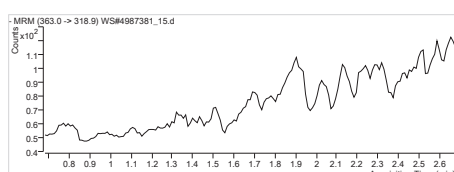
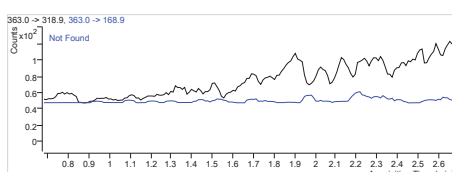
398.9 -> 79.9

0.000 (1.679)

N.D.

0

Sample

**PFHpA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

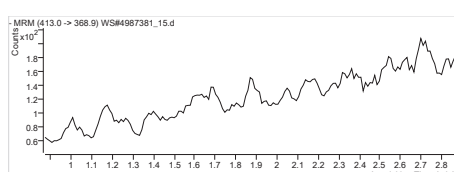
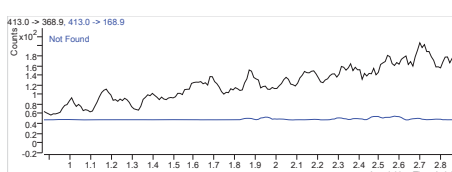
363.0 -> 318.9

0.000 (1.680)

N.D.

0

Sample

**PFOA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

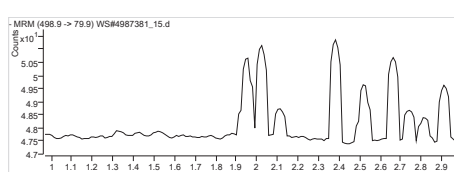
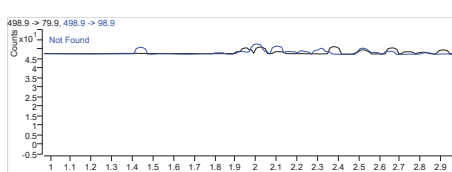
413.0 -> 368.9

0.000 (1.869)

N.D.

0

Sample

**PFOS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

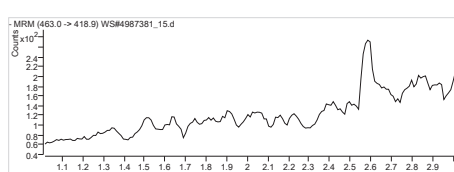
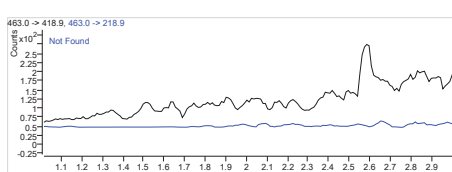
498.9 -> 79.9

0.000 (1.968)

N.D.

0

Sample

**PFNA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

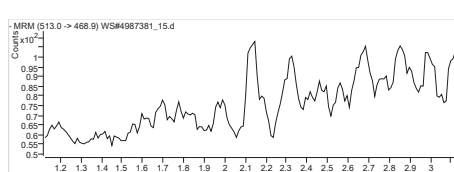
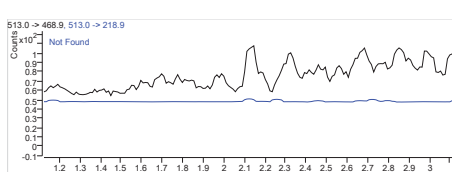
463.0 -> 418.9

0.000 (2.014)

N.D.

0

Sample

**PFDA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

513.0 -> 468.9

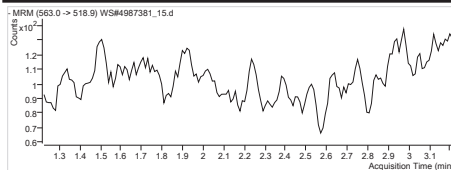
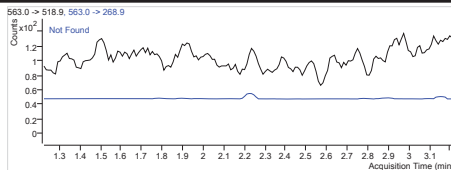
0.000 (2.124)

N.D.

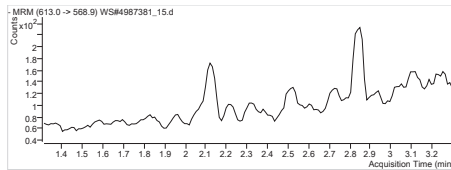
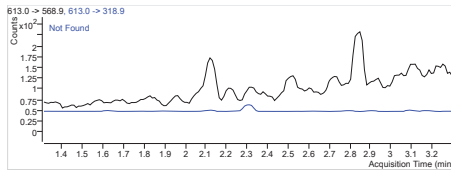
0

Sample

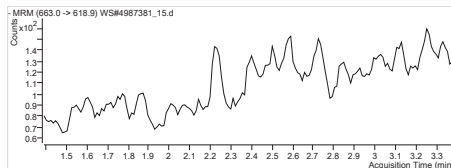
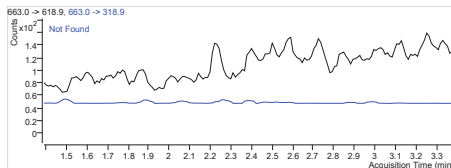
Quantitation Results



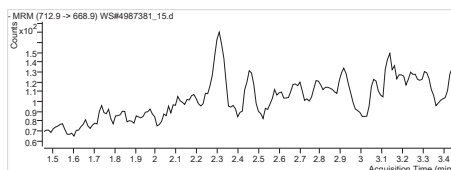
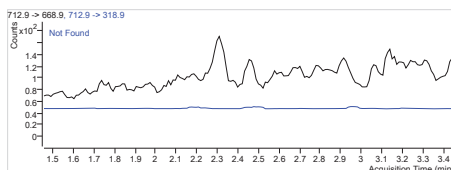
PFUnA 1
RT (Exp. RT): 563.0 -> 518.9
Calc. conc. 0.000 (2.223)
Area ratio: N.D.
Sample type: 0
Sample



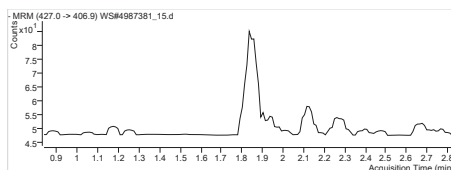
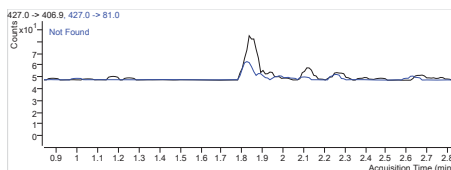
PFDaA 1
RT (Exp. RT): 613.0 -> 568.9
Calc. conc. 0.000 (2.311)
Area ratio: N.D.
Sample type: 0
Sample



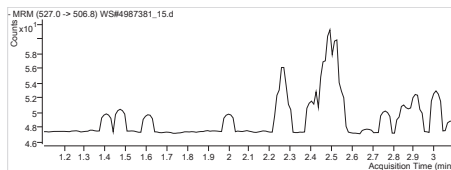
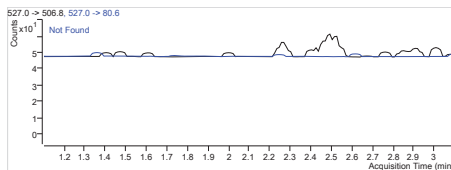
PFTraD 1
RT (Exp. RT): 663.0 -> 618.9
Calc. conc. 0.000 (2.389)
Area ratio: N.D.
Sample type: 0
Sample



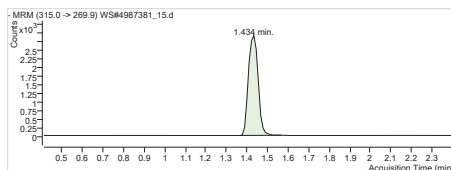
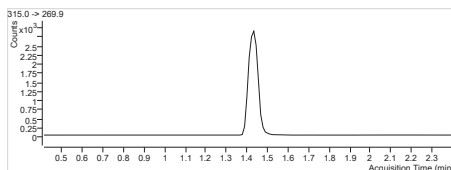
PFTeDa 1
RT (Exp. RT): 712.9 -> 668.9
Calc. conc. 0.000 (2.456)
Area ratio: N.D.
Sample type: 0
Sample



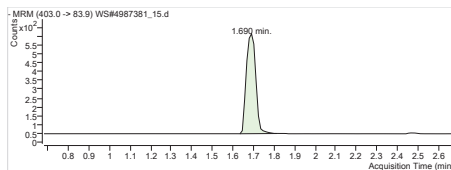
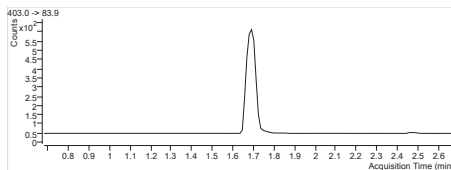
6:2-FTS 1
RT (Exp. RT): 427.0 -> 406.9
Calc. conc. 0.000 (1.835)
Area ratio: N.D.
Sample type: 0
Sample



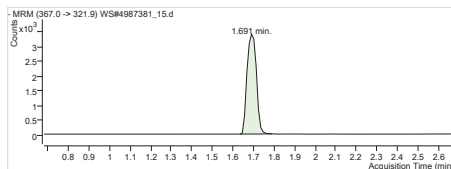
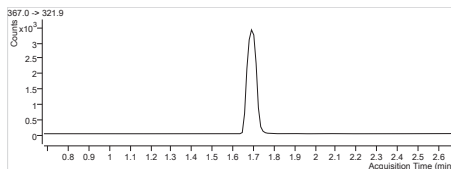
8:2-FTS 1
RT (Exp. RT): 527.0 -> 506.8
Calc. conc. 0.000 (2.101)
Area ratio: N.D.
Sample type: 0
Sample



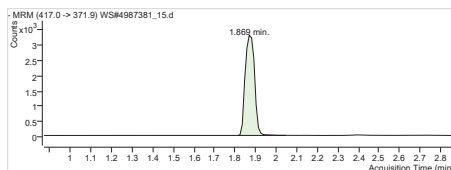
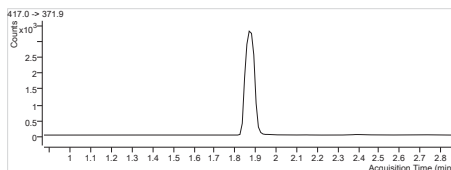
13C2-PFHxA
RT (Exp. RT): 315.0 -> 269.9
Calc. conc. 1.434 (1.411)
Area ratio: 93.08 µg/Kg
Sample type: 0.21659
Sample



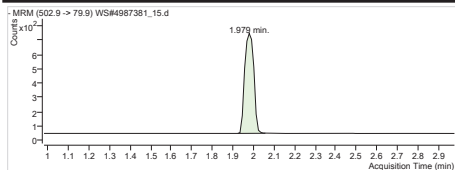
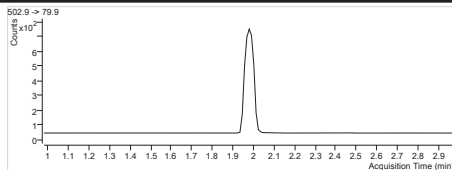
18O2-PFHxS
RT (Exp. RT): 403.0 -> 83.9
Calc. conc. 1.690 (1.679)
Area ratio: 99.96 µg/Kg
Sample type: 0.04186
Sample



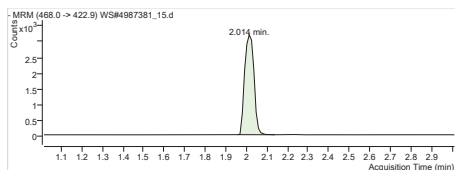
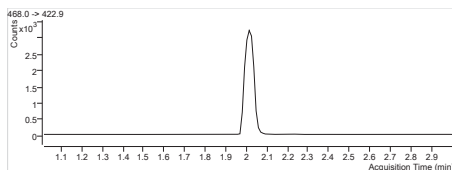
13C4-PFHpA
RT (Exp. RT): 367.0 -> 321.9
Calc. conc. 1.691 (1.680)
Area ratio: 97.31 µg/Kg
Sample type: 0.24647
Sample



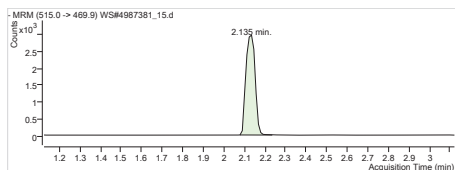
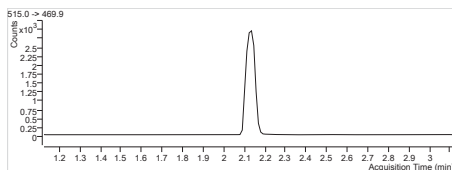
13C4-PFOA
RT (Exp. RT): 417.0 -> 371.9
Calc. conc. 1.869 (1.869)
Area ratio: 96.87 µg/Kg
Sample type: 0.24032
Sample



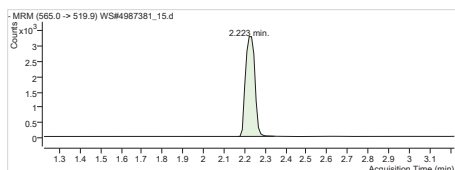
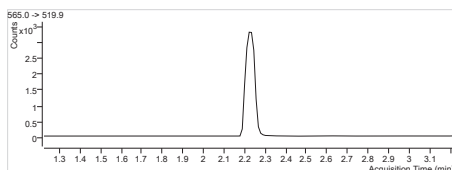
13C4-PFOS
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 98.12 µg/Kg
Area ratio: 0.04989
Sample type: Sample



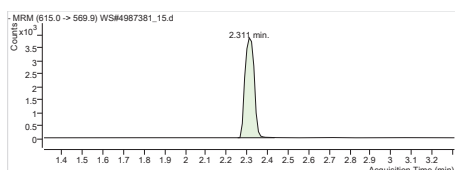
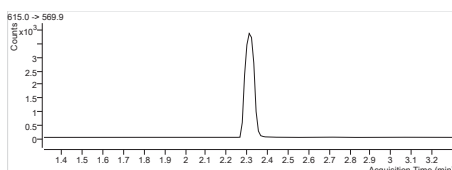
13C5-PFNA
RT (Exp. RT): 2.014 (2.014)
Calc. conc. 95.22 µg/Kg
Area ratio: 0.23061
Sample type: Sample



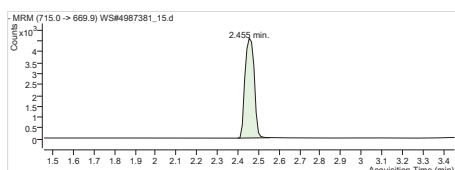
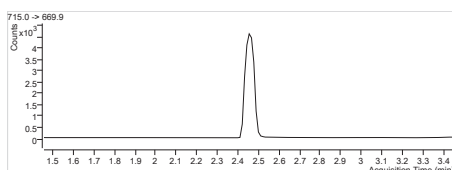
13C2-PFDA
RT (Exp. RT): 2.135 (2.124)
Calc. conc. 100.81 µg/Kg
Area ratio: 0.23287
Sample type: Sample



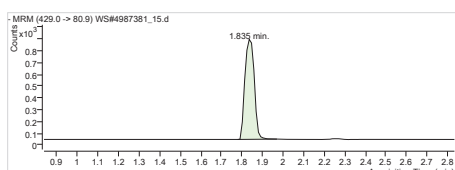
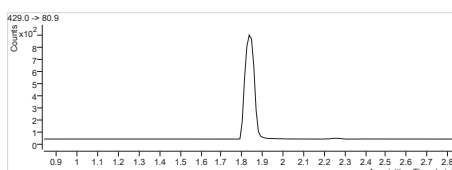
13C2-PFUnA
RT (Exp. RT): 2.223 (2.223)
Calc. conc. 102.61 µg/Kg
Area ratio: 0.26509
Sample type: Sample



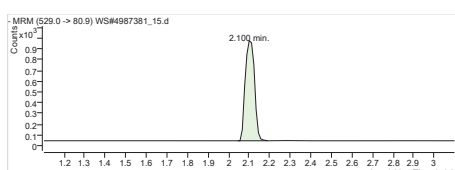
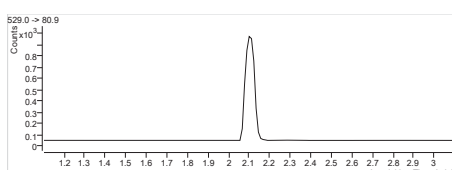
13C2-PFDoA
RT (Exp. RT): 2.311 (2.311)
Calc. conc. 102.90 µg/Kg
Area ratio: 0.30472
Sample type: Sample



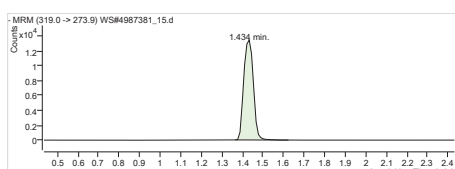
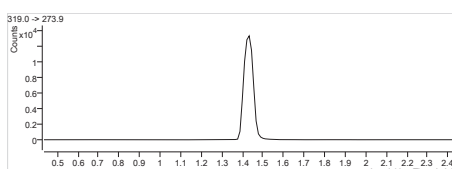
13C2-PFTeDA
RT (Exp. RT): 2.455 (2.455)
Calc. conc. 98.48 µg/Kg
Area ratio: 0.36169
Sample type: Sample



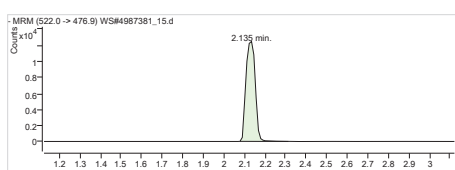
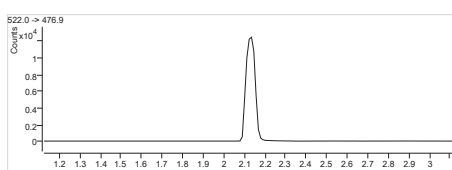
13C2-6:2-FTS
RT (Exp. RT): 1.835 (1.835)
Calc. conc. 99.28 µg/Kg
Area ratio: 0.06219
Sample type: Sample



13C2-8:2 FTS
RT (Exp. RT): 2.100 (2.100)
Calc. conc. 107.06 µg/Kg
Area ratio: 0.06735
Sample type: Sample



13C6-PFHxA
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 137.93 µg/Kg
Area ratio: 0
Sample type: Sample

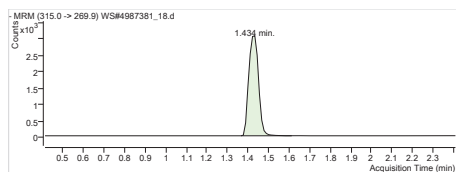
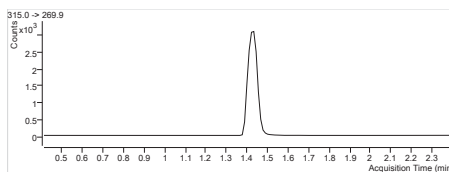


13C9-PFDA
RT (Exp. RT): 2.135 (2.124)
Calc. conc. 136.20 µg/Kg
Area ratio: 0
Sample type: Sample

Batch Path	T:\lcms4\PFC\20170519\WS#4987381\QuantResults\PFC_Soil_170519_WS#4987381_CTLabs		
Sample Name	IB	Instrument	LCMS04
Data File	WS#4987381_18.d	Operator	M_G
Sample Type	Sample	Dilution	1.33
Acq. Method	PFC_Soil.m	Position	P2-A8
Acq. Date	2017/05/20 4:28:25 AM	Injection Volume	Per Method
Sample Annotation	-		

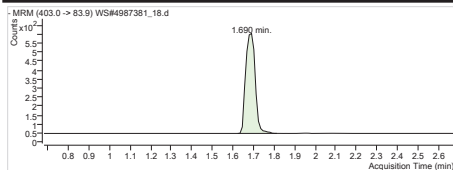
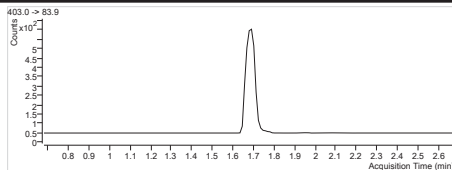
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	10101	1.43	1 µg/Kg		
MPFHxS	1800	1.69	1 µg/Kg		
MPFHpA	11463	1.69	1 µg/Kg		
MPFOA	10680	1.87	1 µg/Kg		
MPFOS	2186	1.98	1 µg/Kg		
MPFNA	10504	2.01	1 µg/Kg		
MPFDA	9267	2.14	1 µg/Kg		
MPFUnA	10362	2.23	1 µg/Kg		
MPFDoA	11632	2.31	1 µg/Kg		
MPFTeDA	14640	2.46	1 µg/Kg		
M2 6:2 FTS	2707	1.84	1 µg/Kg		
M2 8:2 FTS	2974	2.10	1 µg/Kg		
13C6-PFHxA IS	41931	1.43	1 µg/Kg		
13C9-PFDA IS	38034	2.13	1 µg/Kg		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1			-	ND	-
PFHxA 1			-	ND	-
PFHxS 1			-	ND	-
PFHpA 1			-	ND	-
PFOA 1			-	ND	-
PFOS 1			-	ND	-
PFNA 1			-	ND	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDaA 1			-	ND	-
PFTTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
6:2-FTS 1	159	1.84	-	0.08 µg/Kg	-
8:2-FTS 1			-	ND	-
13C2-PFHxA	10101	1.43	-	103.53 µg/Kg	-
18O2-PFHxS	1800	1.69	-	102.51 µg/Kg	-
13C4-PFHpA	11463	1.69	-	107.94 µg/Kg	-
13C4-PFOA	10680	1.87	-	102.67 µg/Kg	-
13C4-PFOS	2186	1.98	-	102.52 µg/Kg	-
13C5-PFNA	10504	2.01	-	103.44 µg/Kg	-
13C2-PFDA	9267	2.14	-	105.48 µg/Kg	-
13C2-PFUnA	10362	2.23	-	105.46 µg/Kg	-
13C2-PFDoA	11632	2.31	-	103.28 µg/Kg	-
13C2-PFTeDA	14640	2.46	-	104.80 µg/Kg	-
13C2-6:2-FTS	2707	1.84	-	103.06 µg/Kg	-
13C2-8:2 FTS	2974	2.10	-	112.75 µg/Kg	-
13C6-PFHxA	41931	1.43	-	133.16 µg/Kg	-
13C9-PFDA	38034	2.13	-	131.62 µg/Kg	-

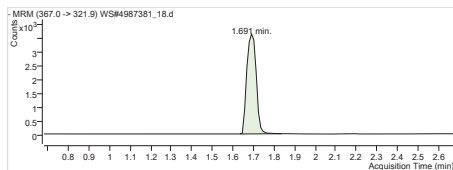
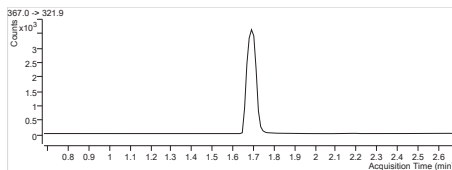


MPFHxA Internal Standard
 RT (Exp. RT): 1.434 (1.411)
 Concentration: 1 µg/Kg
 Sample type: Sample

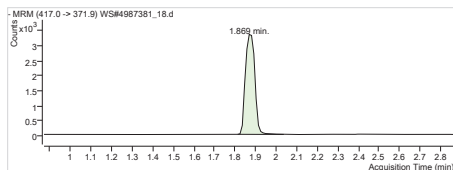
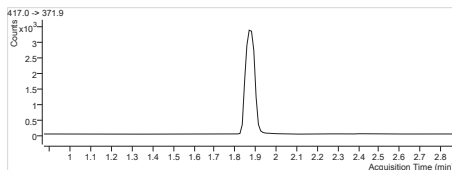
Quantitation Results



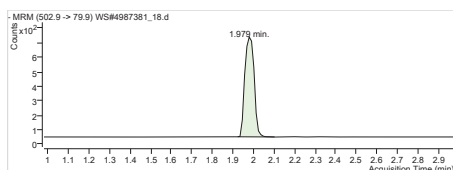
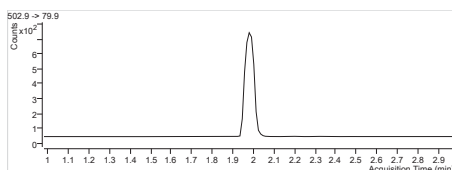
MPFHxS
 RT (Exp. RT): 1.690 (1.679)
 Concentration: 1 µg/Kg
 Sample type: Sample



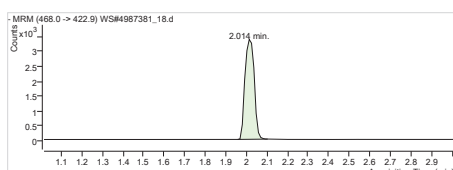
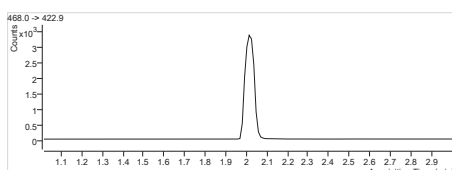
MPFHpA
 RT (Exp. RT): 1.691 (1.680)
 Concentration: 1 µg/Kg
 Sample type: Sample



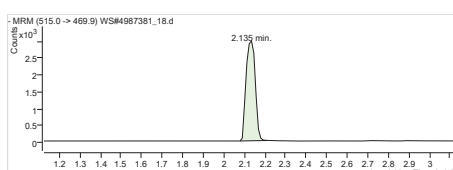
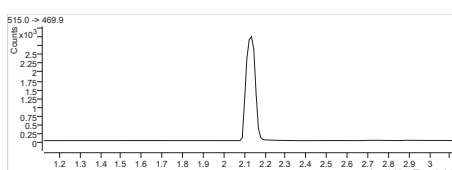
MPFOA
 RT (Exp. RT): 1.869 (1.869)
 Concentration: 1 µg/Kg
 Sample type: Sample



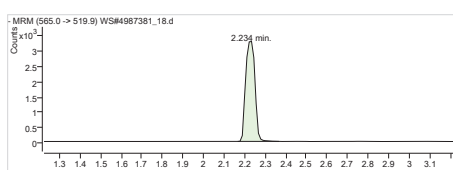
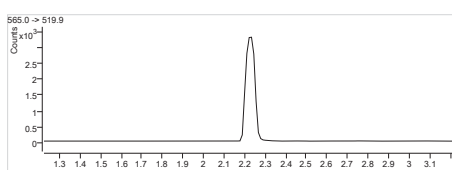
MPFOS
 RT (Exp. RT): 1.979 (1.979)
 Concentration: 1 µg/Kg
 Sample type: Sample



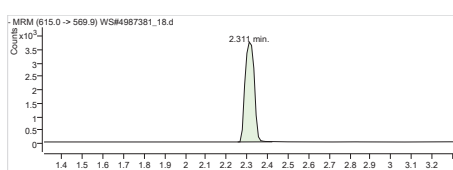
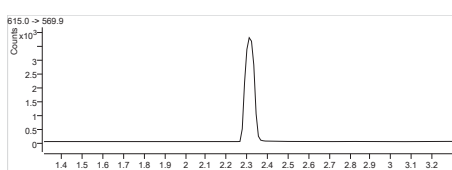
MPFNA
 RT (Exp. RT): 2.014 (2.014)
 Concentration: 1 µg/Kg
 Sample type: Sample



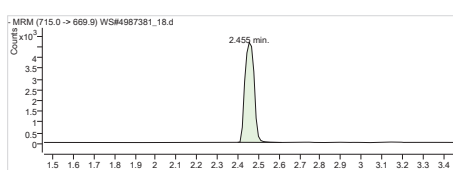
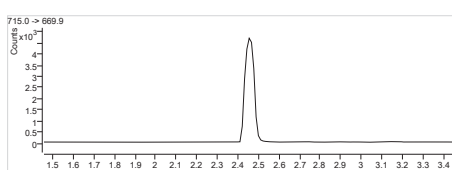
MPFDA
 RT (Exp. RT): 2.135 (2.124)
 Concentration: 1 µg/Kg
 Sample type: Sample



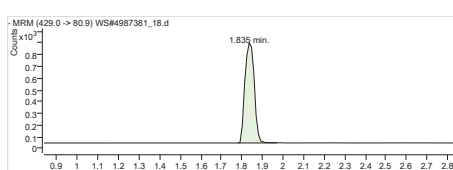
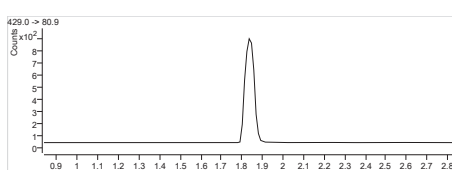
MPFUnA
 RT (Exp. RT): 2.234 (2.223)
 Concentration: 1 µg/Kg
 Sample type: Sample



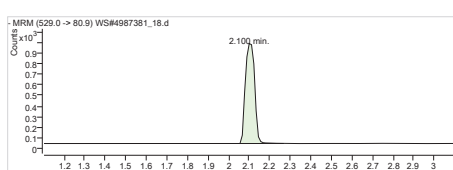
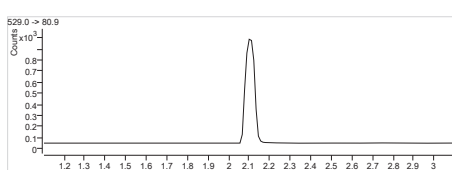
MPFDoA
 RT (Exp. RT): 2.311 (2.311)
 Concentration: 1 µg/Kg
 Sample type: Sample



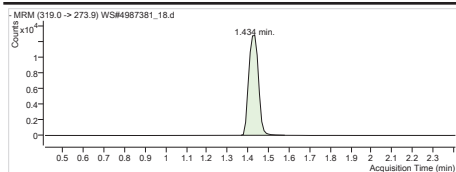
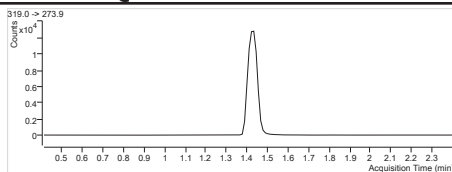
MPFTeDA
 RT (Exp. RT): 2.455 (2.455)
 Concentration: 1 µg/Kg
 Sample type: Sample



M2 6:2 FTS
 RT (Exp. RT): 1.835 (1.835)
 Concentration: 1 µg/Kg
 Sample type: Sample



M2 8:2 FTS
 RT (Exp. RT): 2.100 (2.100)
 Concentration: 1 µg/Kg
 Sample type: Sample

**13C6-PFHxA IS**

RT (Exp. RT):

Concentration:

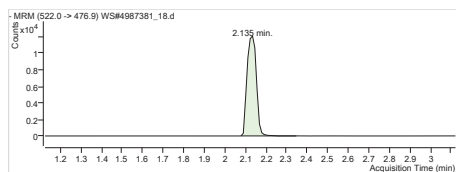
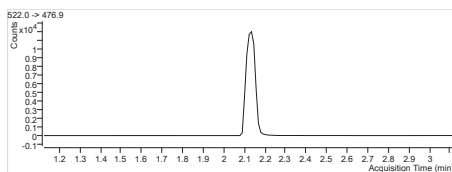
Sample type:

Internal Standard

1.434 (1.411)

1 µg/Kg

Sample

**13C9-PFDA IS**

RT (Exp. RT):

Concentration:

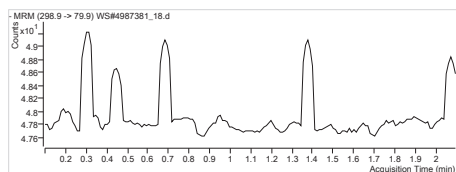
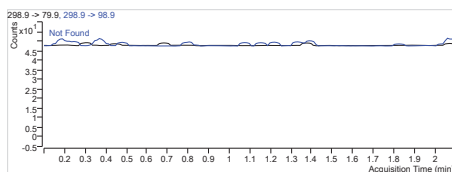
Sample type:

Internal Standard

2.135 (2.124)

1 µg/Kg

Sample

**PFBS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

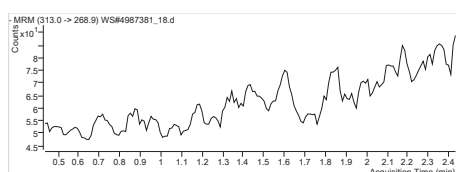
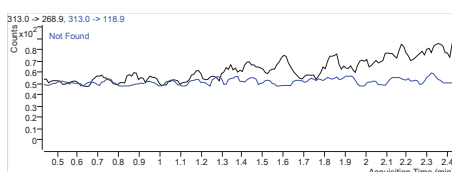
298.9 -> 79.9

0.000 (1.098)

N.D.

0

Sample

**PFHxA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

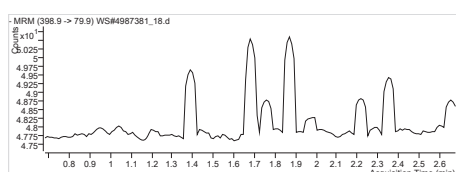
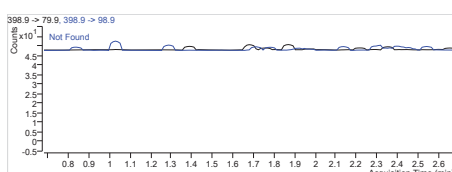
313.0 -> 268.9

0.000 (1.434)

N.D.

0

Sample

**PFHxS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

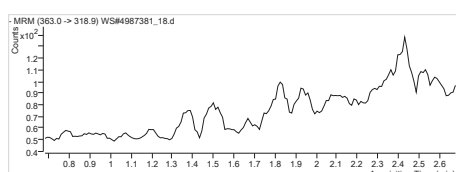
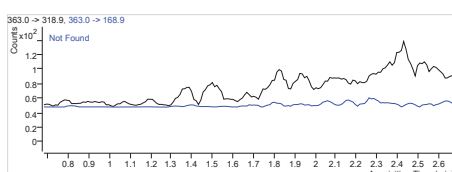
398.9 -> 79.9

0.000 (1.679)

N.D.

0

Sample

**PFHpA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

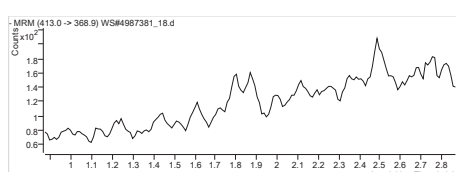
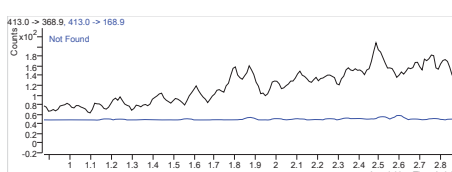
363.0 -> 318.9

0.000 (1.680)

N.D.

0

Sample

**PFOA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

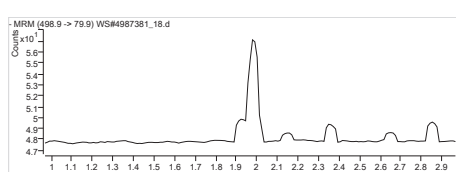
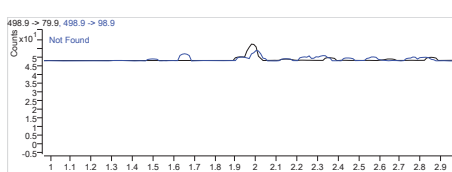
413.0 -> 368.9

0.000 (1.869)

N.D.

0

Sample

**PFOS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

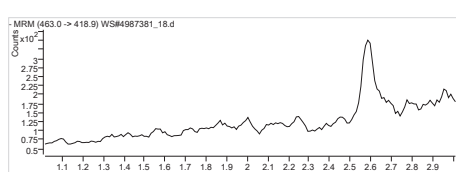
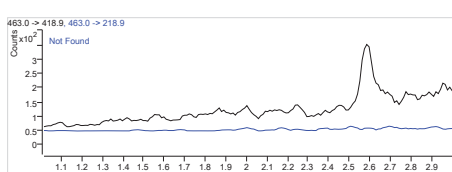
498.9 -> 79.9

0.000 (1.968)

N.D.

0

Sample

**PFNA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

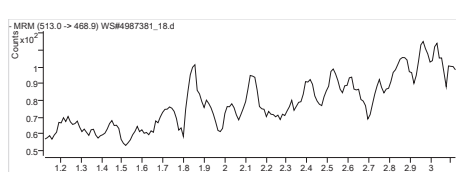
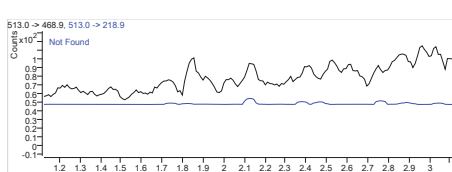
463.0 -> 418.9

0.000 (2.014)

N.D.

0

Sample

**PFDA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

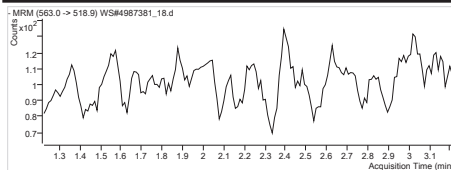
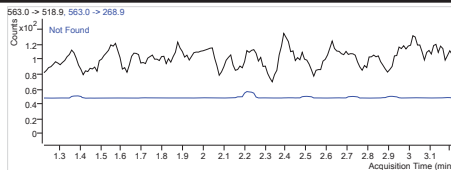
513.0 -> 468.9

0.000 (2.124)

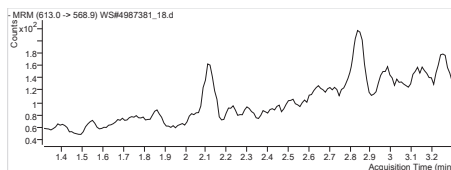
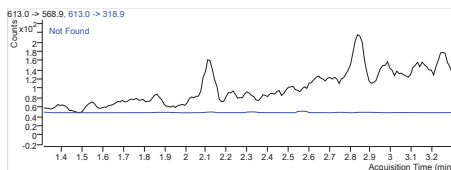
N.D.

0

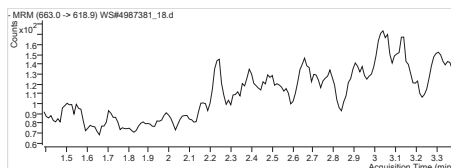
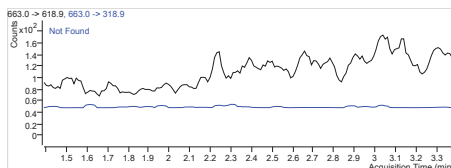
Sample



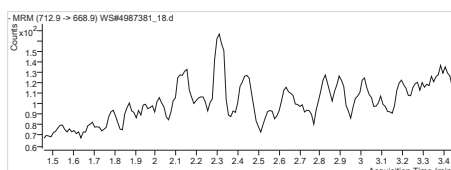
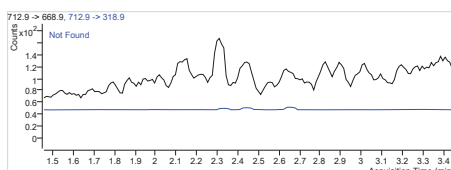
PFUnA 1
 RT (Exp. RT): 563.0 -> 518.9
 Calc. conc. 0.000 (2.223)
 Area ratio: N.D.
 Sample type: 0
 Sample



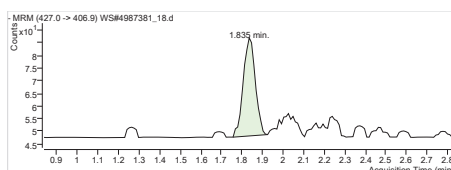
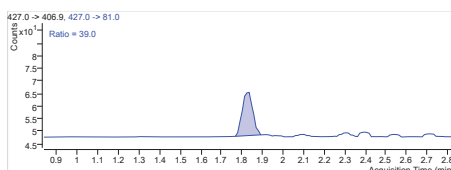
PFDaA 1
 RT (Exp. RT): 613.0 -> 568.9
 Calc. conc. 0.000 (2.311)
 Area ratio: N.D.
 Sample type: 0
 Sample



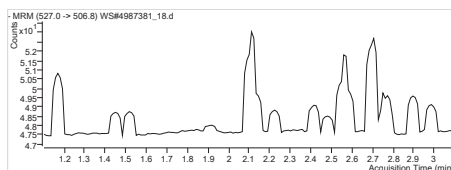
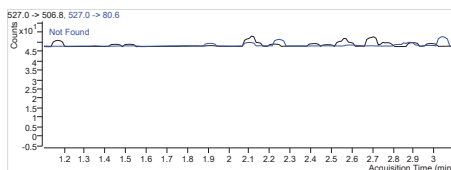
PFTraD 1
 RT (Exp. RT): 663.0 -> 618.9
 Calc. conc. 0.000 (2.389)
 Area ratio: N.D.
 Sample type: 0
 Sample



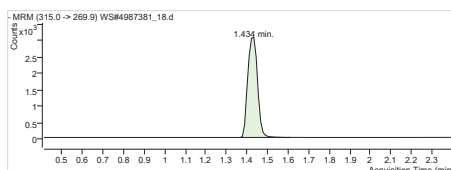
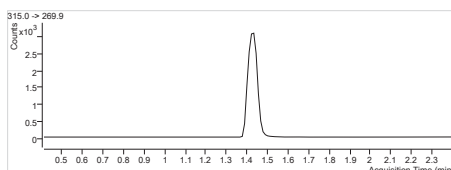
PFTeDa 1
 RT (Exp. RT): 712.9 -> 668.9
 Calc. conc. 0.000 (2.456)
 Area ratio: N.D.
 Sample type: 0
 Sample



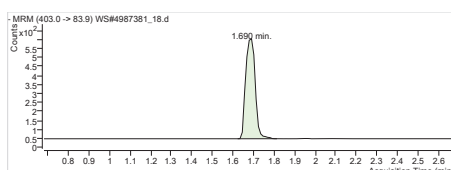
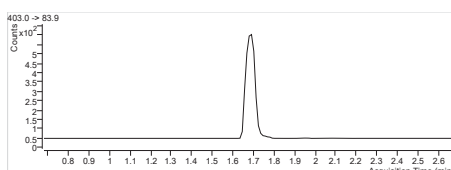
6:2-FTS 1
 RT (Exp. RT): 427.0 -> 406.9
 Calc. conc. 1.835 (1.835)
 Area ratio: 0.08 µg/Kg
 Sample type: 0.05874
 Sample



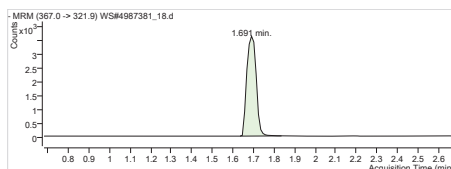
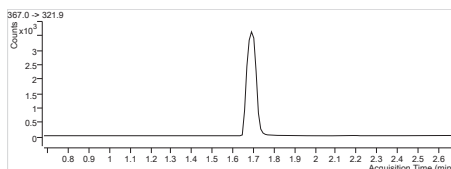
8:2-FTS 1
 RT (Exp. RT): 527.0 -> 506.8
 Calc. conc. 0.000 (2.101)
 Area ratio: N.D.
 Sample type: 0
 Sample



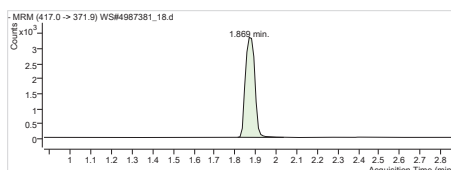
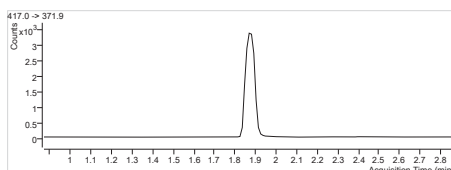
13C2-PFHxA
 RT (Exp. RT): 315.0 -> 269.9
 Calc. conc. 1.434 (1.411)
 Area ratio: 103.53 µg/Kg
 Sample type: 0.24090
 Sample



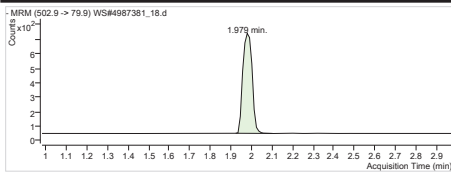
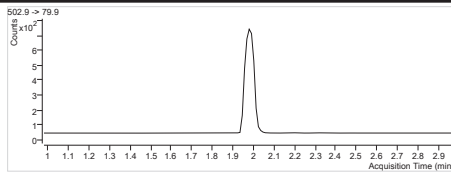
18O2-PFHxS
 RT (Exp. RT): 403.0 -> 83.9
 Calc. conc. 1.690 (1.679)
 Area ratio: 102.51 µg/Kg
 Sample type: 0.04293
 Sample



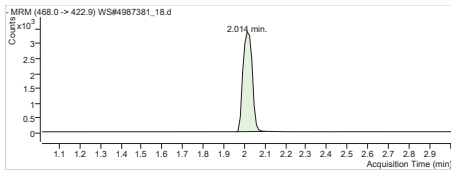
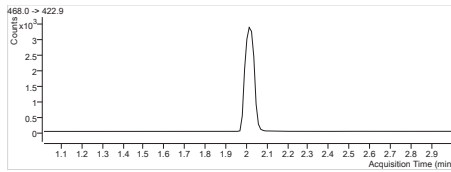
13C4-PFHpA
 RT (Exp. RT): 367.0 -> 321.9
 Calc. conc. 1.691 (1.680)
 Area ratio: 107.94 µg/Kg
 Sample type: 0.27338
 Sample



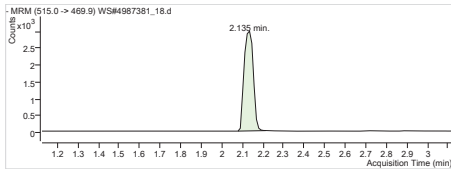
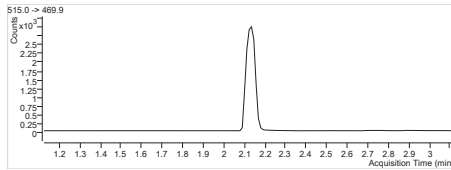
13C4-PFOA
 RT (Exp. RT): 417.0 -> 371.9
 Calc. conc. 1.869 (1.869)
 Area ratio: 102.67 µg/Kg
 Sample type: 0.25470
 Sample



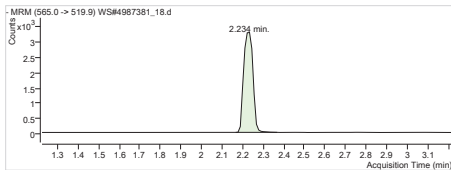
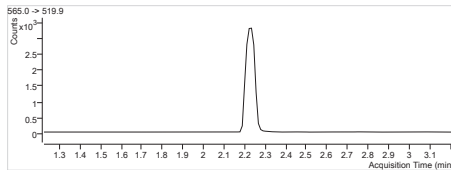
13C4-PFOS
RT (Exp. RT): 502.9 -> 79.9
Calc. conc. 1.979 (1.979)
Area ratio: 102.52 µg/Kg
Sample type: 0.05213
Sample



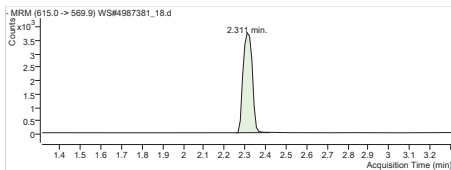
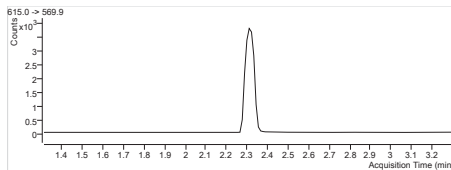
13C5-PFNA
RT (Exp. RT): 468.0 -> 422.9
Calc. conc. 2.014 (2.014)
Area ratio: 103.44 µg/Kg
Sample type: 0.25051
Sample



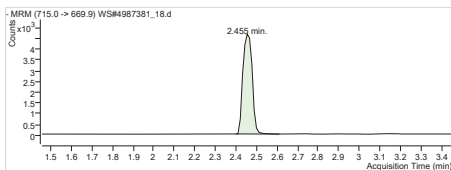
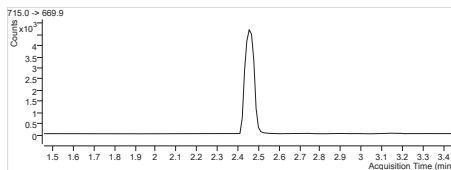
13C2-PFDA
RT (Exp. RT): 515.0 -> 469.9
Calc. conc. 2.135 (2.124)
Area ratio: 105.48 µg/Kg
Sample type: 0.24365
Sample



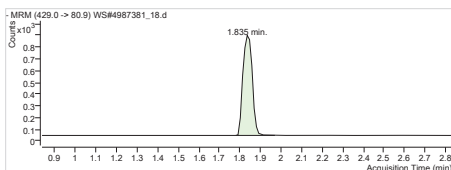
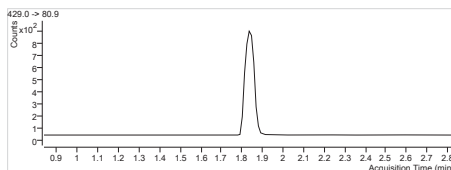
13C2-PFUnA
RT (Exp. RT): 565.0 -> 519.9
Calc. conc. 2.234 (2.223)
Area ratio: 105.46 µg/Kg
Sample type: 0.27244
Sample



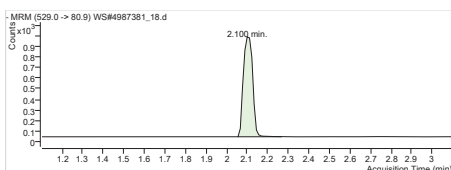
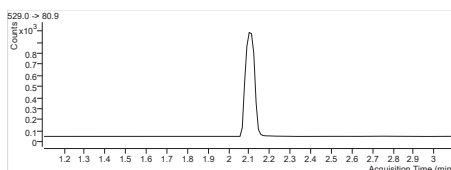
13C2-PFDoA
RT (Exp. RT): 615.0 -> 569.9
Calc. conc. 2.311 (2.311)
Area ratio: 103.28 µg/Kg
Sample type: 0.30583
Sample



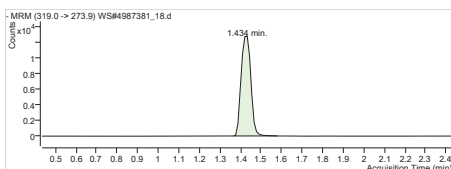
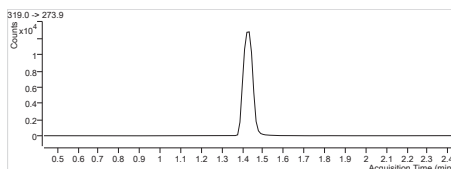
13C2-PFTeDA
RT (Exp. RT): 715.0 -> 669.9
Calc. conc. 2.455 (2.455)
Area ratio: 104.80 µg/Kg
Sample type: 0.38492
Sample



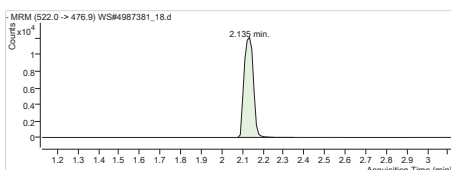
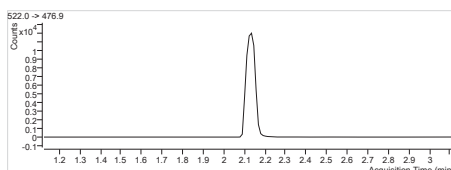
13C2-6:2-FTS
RT (Exp. RT): 429.0 -> 80.9
Calc. conc. 1.835 (1.835)
Area ratio: 103.06 µg/Kg
Sample type: 0.06456
Sample



13C2-8:2 FTS
RT (Exp. RT): 529.0 -> 80.9
Calc. conc. 2.100 (2.100)
Area ratio: 112.75 µg/Kg
Sample type: 0.07093
Sample



13C6-PFHxA
RT (Exp. RT): 319.0 -> 273.9
Calc. conc. 1.434 (1.434)
Area ratio: 133.16 µg/Kg
Sample type: 0
Sample

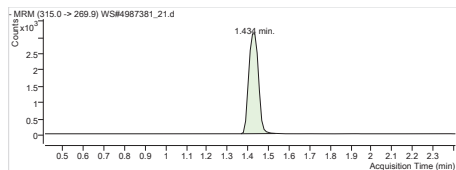
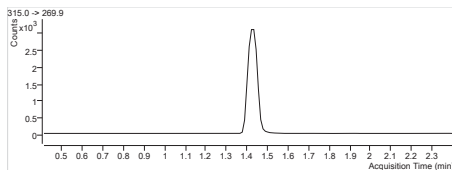


13C9-PFDA
RT (Exp. RT): 522.0 -> 476.9
Calc. conc. 2.135 (2.124)
Area ratio: 131.62 µg/Kg
Sample type: 0
Sample

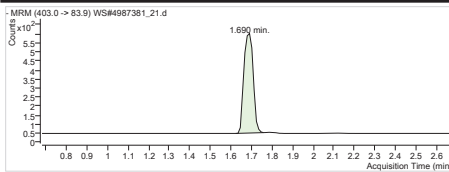
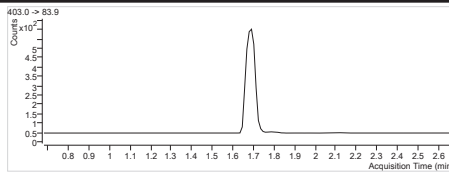
Sample Name	IB	Instrument	LCMS04
Data File	WS#4987381_21.d	Operator	M_G
Sample Type	Sample	Dilution	1.33
Acq. Method	PFC_Soil.m	Position	P2-A8
Acq. Date	2017/05/20 4:43:07 AM	Injection Volume	Per Method
Sample Annotation	-		

ISTD Compounds	Response	RT	Target conc.		
MPFHxA	10063	1.43	1 µg/Kg		
MPFHxS	1751	1.69	1 µg/Kg		
MPFHpA	11604	1.69	1 µg/Kg		
MPFOA	10949	1.87	1 µg/Kg		
MPFOS	2438	1.98	1 µg/Kg		
MPFNA	10437	2.01	1 µg/Kg		
MPFDA	9161	2.14	1 µg/Kg		
MPFUnA	10255	2.22	1 µg/Kg		
MPFDoA	11476	2.31	1 µg/Kg		
MPFTeDA	14836	2.46	1 µg/Kg		
M2 6:2 FTS	2642	1.84	1 µg/Kg		
M2 8:2 FTS	2676	2.10	1 µg/Kg		
13C6-PFHxA IS	41757	1.43	1 µg/Kg		
13C9-PFDA IS	39225	2.13	1 µg/Kg		

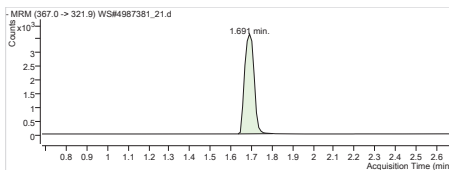
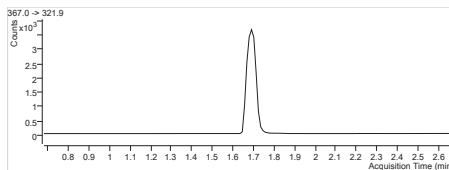
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1			-	ND	-
PFHxA 1			-	ND	-
PFHxS 1			-	ND	-
PFHpA 1			-	ND	-
PFOA 1			-	ND	-
PFOS 1			-	ND	-
PFNA 1			-	ND	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDaA 1			-	ND	-
PFTTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
6:2-FTS 1	169	1.84	-	0.10 µg/Kg	-
8:2-FTS 1			-	ND	-
13C2-PFHxA	10063	1.43	-	103.57 µg/Kg	-
18O2-PFHxS	1751	1.69	-	100.14 µg/Kg	-
13C4-PFHpA	11604	1.69	-	109.72 µg/Kg	-
13C4-PFOA	10949	1.87	-	105.69 µg/Kg	-
13C4-PFOS	2438	1.98	-	114.82 µg/Kg	-
13C5-PFNA	10437	2.01	-	103.21 µg/Kg	-
13C2-PFDA	9161	2.14	-	101.11 µg/Kg	-
13C2-PFUnA	10255	2.22	-	101.20 µg/Kg	-
13C2-PFDoA	11476	2.31	-	98.80 µg/Kg	-
13C2-PFTeDA	14836	2.46	-	102.98 µg/Kg	-
13C2-6:2-FTS	2642	1.84	-	101.01 µg/Kg	-
13C2-8:2 FTS	2676	2.10	-	101.88 µg/Kg	-
13C6-PFHxA	41757	1.43	-	132.61 µg/Kg	-
13C9-PFDA	39225	2.13	-	135.74 µg/Kg	-



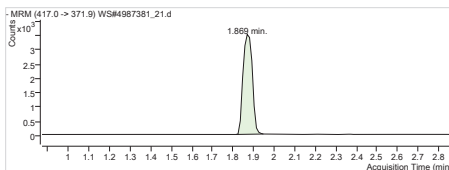
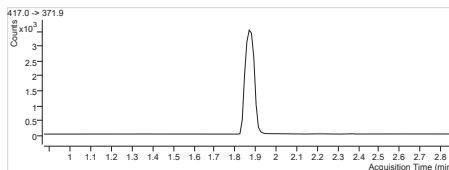
MPFHxA
 RT (Exp. RT): 1.434 (1.411)
 Concentration: 1 µg/Kg
 Sample type: Sample



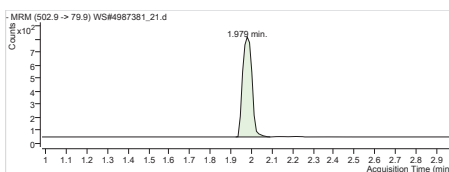
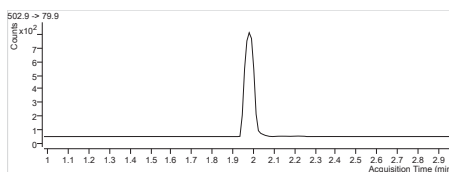
MPFHxS
 RT (Exp. RT): 1.690 (1.679)
 Concentration: 1 µg/Kg
 Sample type: Sample



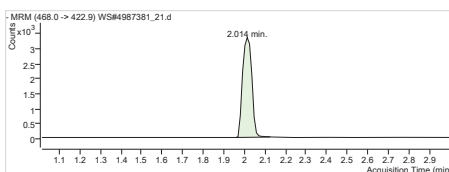
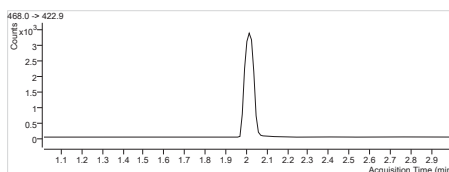
MPFHpA
 RT (Exp. RT): 1.691 (1.680)
 Concentration: 1 µg/Kg
 Sample type: Sample



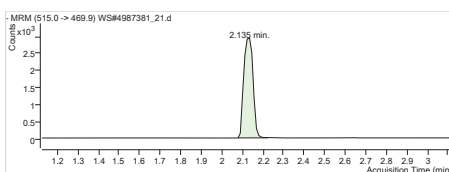
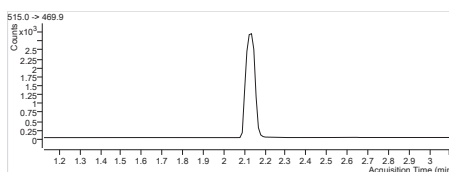
MPFOA
 RT (Exp. RT): 1.869 (1.869)
 Concentration: 1 µg/Kg
 Sample type: Sample



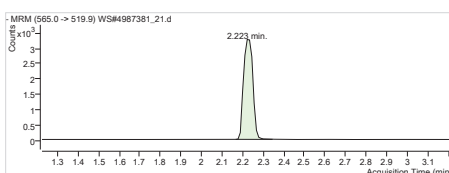
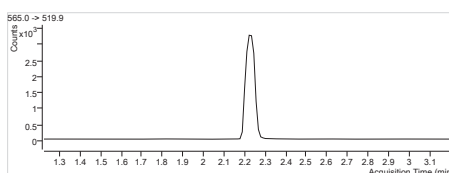
MPFOS
 RT (Exp. RT): 1.979 (1.979)
 Concentration: 1 µg/Kg
 Sample type: Sample



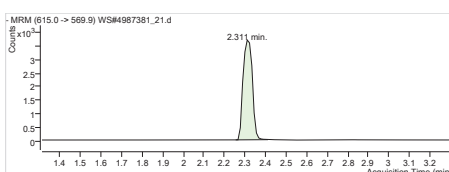
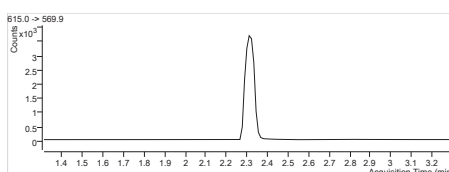
MPFNA
 RT (Exp. RT): 2.014 (2.014)
 Concentration: 1 µg/Kg
 Sample type: Sample



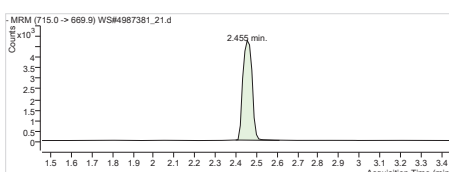
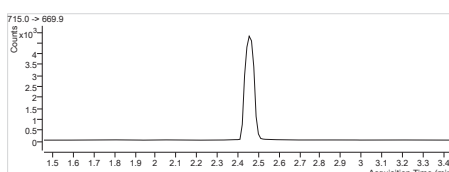
MPFDA
 RT (Exp. RT): 2.135 (2.124)
 Concentration: 1 µg/Kg
 Sample type: Sample



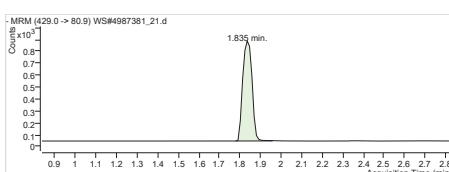
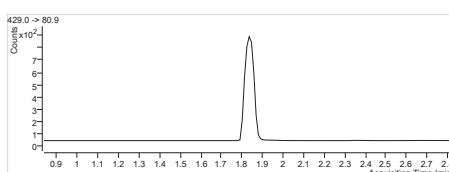
MPFUnA
 RT (Exp. RT): 2.223 (2.223)
 Concentration: 1 µg/Kg
 Sample type: Sample



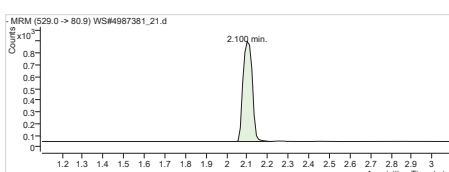
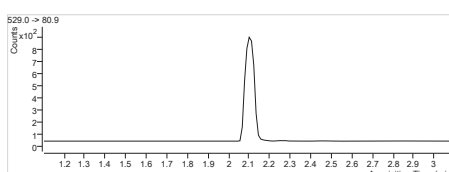
MPFDoA
 RT (Exp. RT): 2.311 (2.311)
 Concentration: 1 µg/Kg
 Sample type: Sample



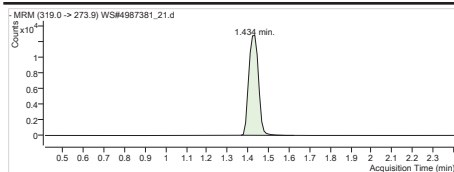
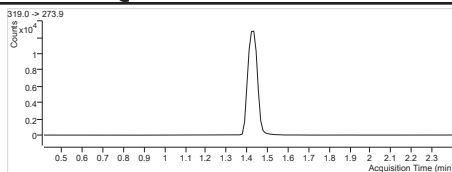
MPFTeDA
 RT (Exp. RT): 2.455 (2.455)
 Concentration: 1 µg/Kg
 Sample type: Sample



M2 6:2 FTS
 RT (Exp. RT): 1.835 (1.835)
 Concentration: 1 µg/Kg
 Sample type: Sample



M2 8:2 FTS
 RT (Exp. RT): 2.100 (2.100)
 Concentration: 1 µg/Kg
 Sample type: Sample

**13C6-PFHxA IS**

RT (Exp. RT):

Concentration:

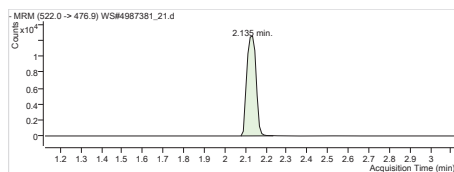
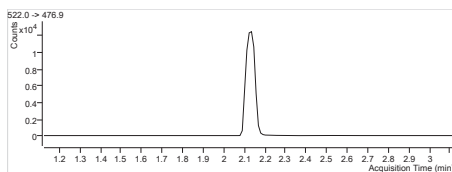
Sample type:

Internal Standard

1.434 (1.411)

1 µg/Kg

Sample

**13C9-PFDA IS**

RT (Exp. RT):

Concentration:

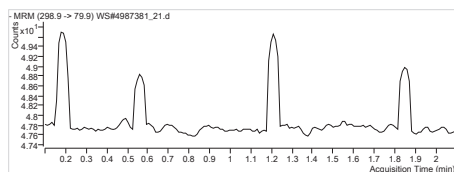
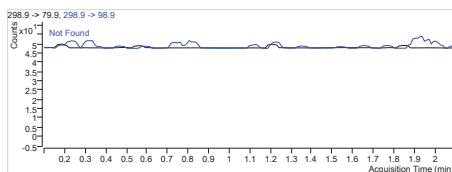
Sample type:

Internal Standard

2.135 (2.124)

1 µg/Kg

Sample

**PFBS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

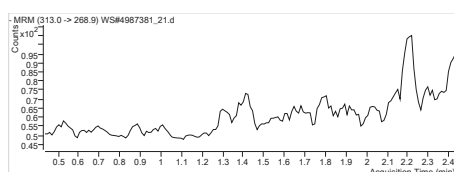
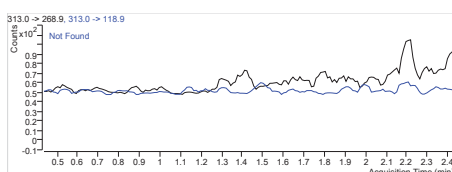
298.9 → 79.9

0.000 (1.098)

N.D.

0

Sample

**PFHxA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

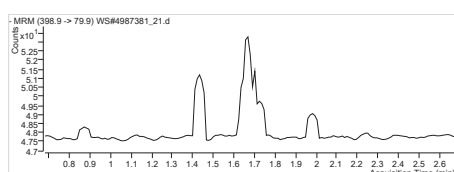
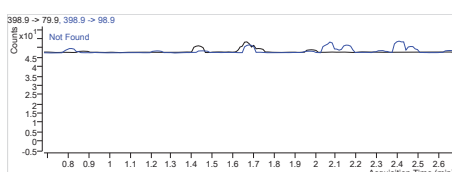
313.0 → 268.9

0.000 (1.434)

N.D.

0

Sample

**PFHxS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

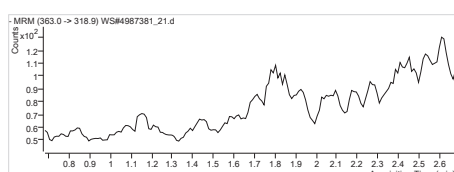
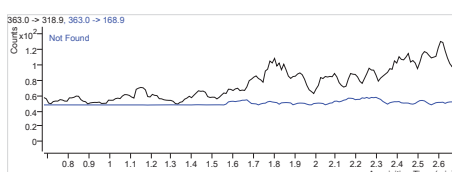
398.9 → 79.9

0.000 (1.679)

N.D.

0

Sample

**PFHpA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

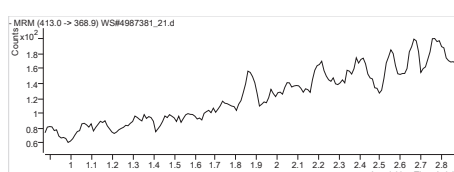
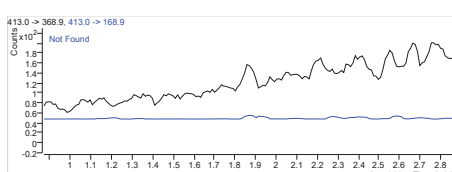
363.0 → 318.9

0.000 (1.680)

N.D.

0

Sample

**PFOA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

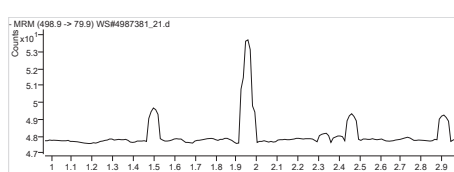
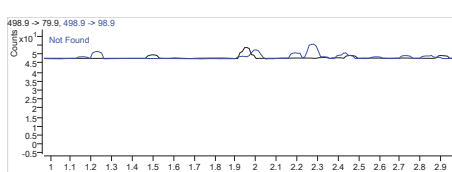
413.0 → 368.9

0.000 (1.869)

N.D.

0

Sample

**PFOS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

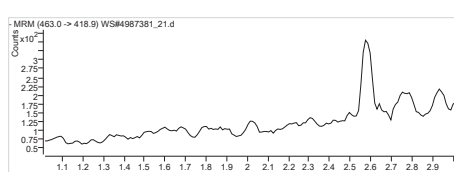
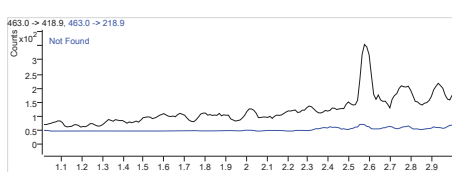
498.9 → 79.9

0.000 (1.968)

N.D.

0

Sample

**PFNA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

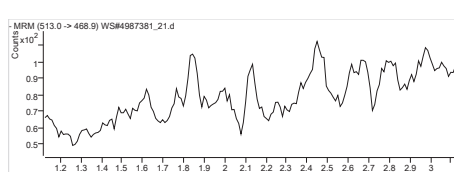
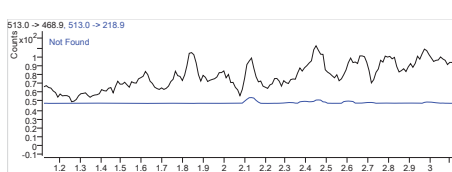
463.0 → 418.9

0.000 (2.014)

N.D.

0

Sample

**PFDA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

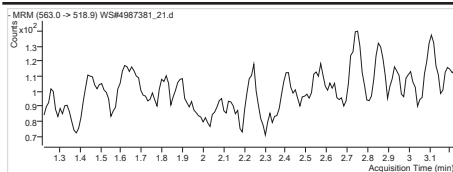
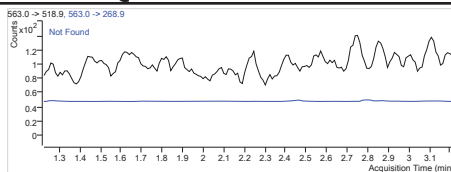
513.0 → 468.9

0.000 (2.124)

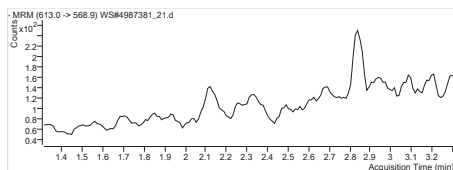
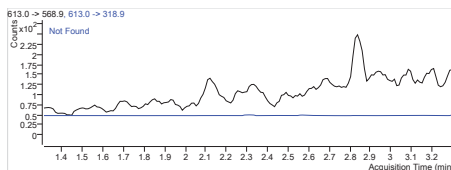
N.D.

0

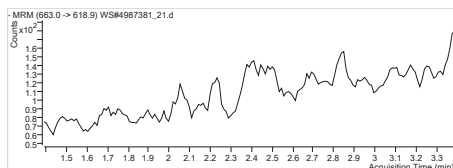
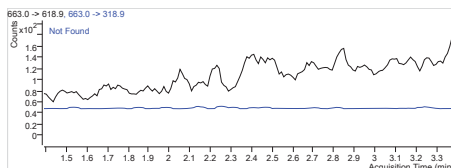
Sample



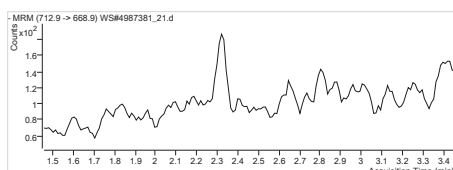
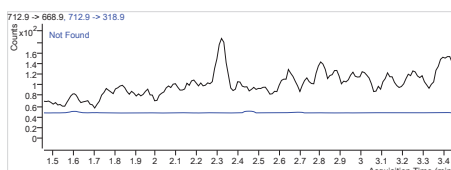
PFUnA 1
 RT (Exp. RT): 563.0 -> 518.9
 Calc. conc. 0.000 (2.223)
 Area ratio: N.D.
 Sample type: 0
 Sample



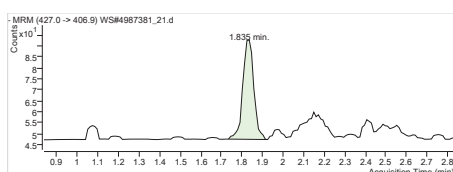
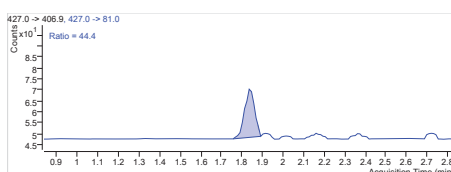
PFDaA 1
 RT (Exp. RT): 613.0 -> 568.9
 Calc. conc. 0.000 (2.311)
 Area ratio: N.D.
 Sample type: 0
 Sample



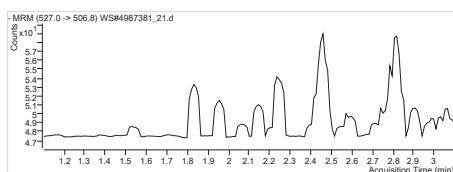
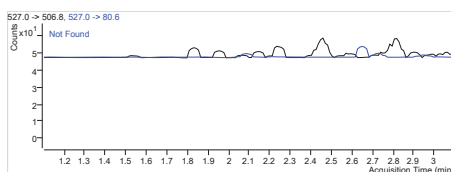
PFTraA 1
 RT (Exp. RT): 663.0 -> 618.9
 Calc. conc. 0.000 (2.389)
 Area ratio: N.D.
 Sample type: 0
 Sample



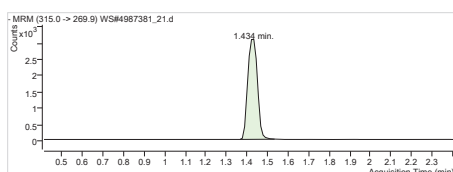
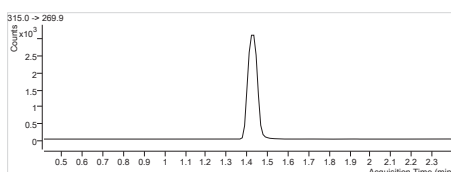
PFTeDa 1
 RT (Exp. RT): 712.9 -> 668.9
 Calc. conc. 0.000 (2.456)
 Area ratio: N.D.
 Sample type: 0
 Sample



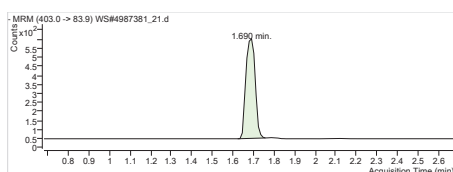
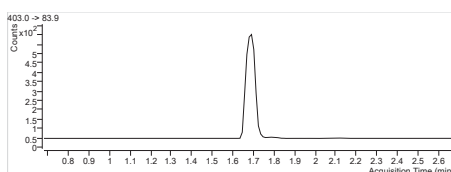
6:2-FTS 1
 RT (Exp. RT): 427.0 -> 406.9
 Calc. conc. 1.835 (1.835)
 Area ratio: 0.10 µg/Kg
 Sample type: 0.06397
 Sample



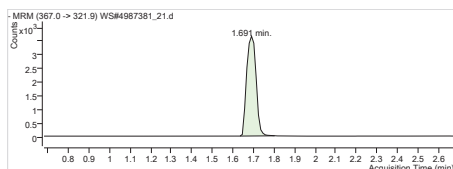
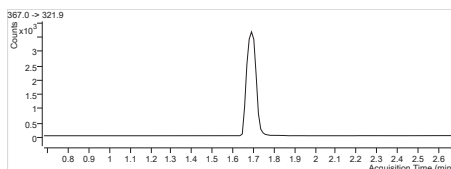
8:2-FTS 1
 RT (Exp. RT): 527.0 -> 506.8
 Calc. conc. 0.000 (2.101)
 Area ratio: N.D.
 Sample type: 0
 Sample



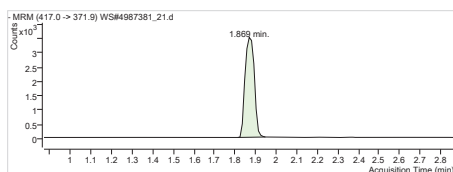
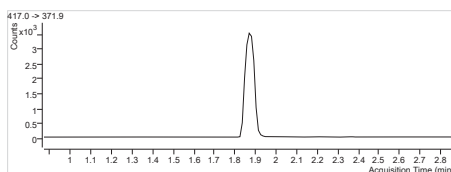
13C2-PFHxA
 RT (Exp. RT): 315.0 -> 269.9
 Calc. conc. 1.434 (1.411)
 Area ratio: 103.57 µg/Kg
 Sample type: 0.24099
 Sample



18O2-PFHxS
 RT (Exp. RT): 403.0 -> 83.9
 Calc. conc. 1.690 (1.679)
 Area ratio: 100.14 µg/Kg
 Sample type: 0.04193
 Sample

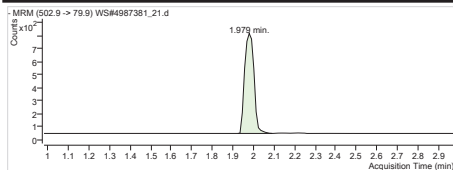
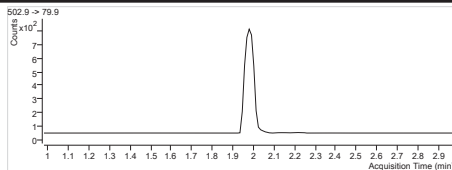


13C4-PFHpA
 RT (Exp. RT): 367.0 -> 321.9
 Calc. conc. 1.691 (1.680)
 Area ratio: 109.72 µg/Kg
 Sample type: 0.27789
 Sample

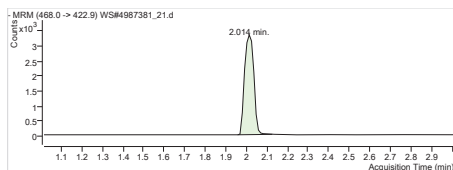
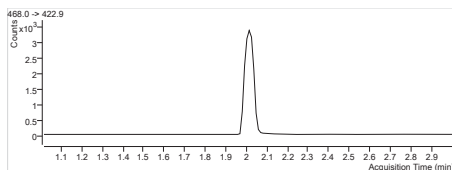


13C4-PFOA
 RT (Exp. RT): 417.0 -> 371.9
 Calc. conc. 1.869 (1.869)
 Area ratio: 105.69 µg/Kg
 Sample type: 0.26221
 Sample

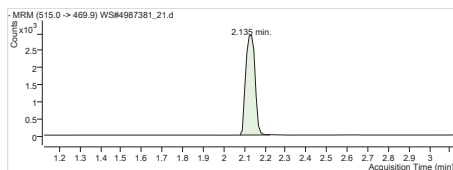
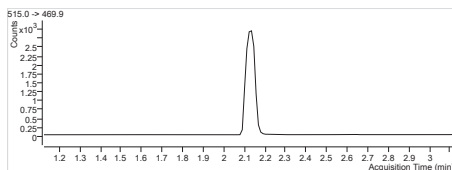
Quantitation Results



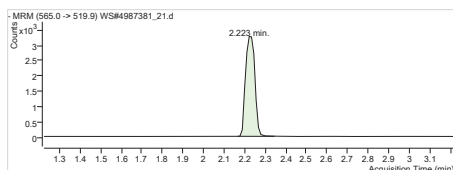
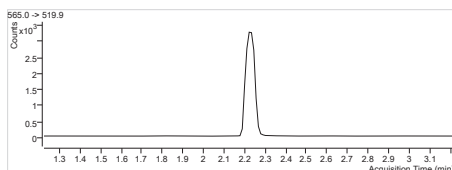
13C4-PFOS
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 114.82 µg/Kg
Area ratio: 0.05839
Sample type: Sample



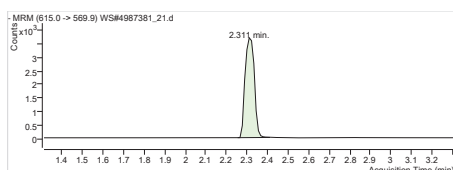
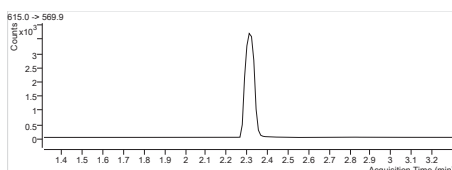
13C5-PFNA
RT (Exp. RT): 2.014 (2.014)
Calc. conc. 103.21 µg/Kg
Area ratio: 0.24995
Sample type: Sample



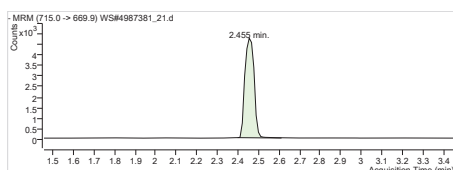
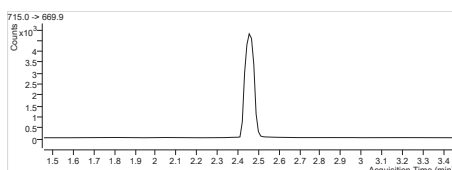
13C2-PFDA
RT (Exp. RT): 2.135 (2.124)
Calc. conc. 101.11 µg/Kg
Area ratio: 0.23355
Sample type: Sample



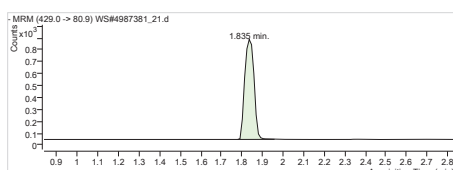
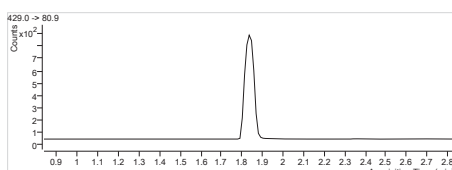
13C2-PFUnA
RT (Exp. RT): 2.223 (2.223)
Calc. conc. 101.20 µg/Kg
Area ratio: 0.26144
Sample type: Sample



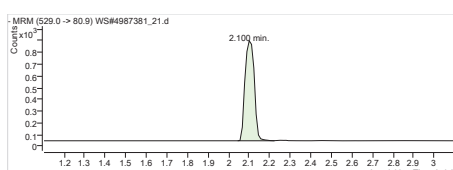
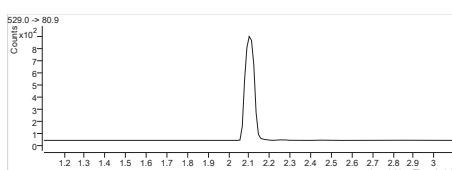
13C2-PFDoA
RT (Exp. RT): 2.311 (2.311)
Calc. conc. 98.80 µg/Kg
Area ratio: 0.29257
Sample type: Sample



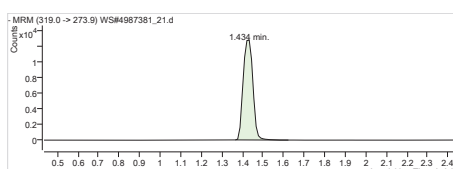
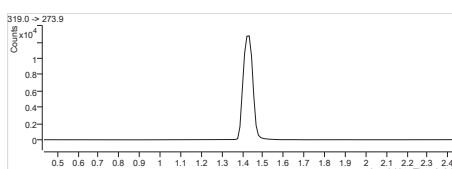
13C2-PFTeDA
RT (Exp. RT): 2.455 (2.455)
Calc. conc. 102.98 µg/Kg
Area ratio: 0.37823
Sample type: Sample



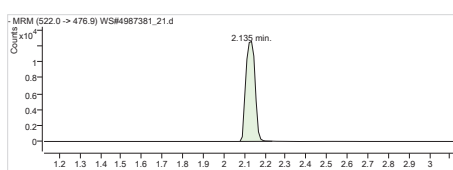
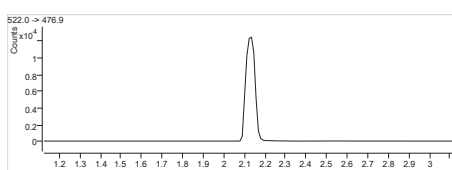
13C2-6:2-FTS
RT (Exp. RT): 1.835 (1.835)
Calc. conc. 101.01 µg/Kg
Area ratio: 0.06327
Sample type: Sample



13C2-8:2 FTS
RT (Exp. RT): 2.100 (2.100)
Calc. conc. 101.88 µg/Kg
Area ratio: 0.06409
Sample type: Sample



13C6-PFHxA
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 132.61 µg/Kg
Area ratio: 0
Sample type: Sample



13C9-PFDA
RT (Exp. RT): 2.135 (2.124)
Calc. conc. 135.74 µg/Kg
Area ratio: 0
Sample type: Sample

Batch Path

T:\lcms4\PFC\20170519\WS#4987381\QuantResults\PFC_Soil_170519_WS#4987381_CTLabs

Sample Name

IB

Instrument

LCMS04

Data File

WS#4987381_26.d

Operator

M_G

Sample Type

Sample

Dilution

1.33

Acq. Method

PFC_Soil.m

Position

P2-A8

Acq. Date

2017/05/20 5:07:37 AM

Injection Volume

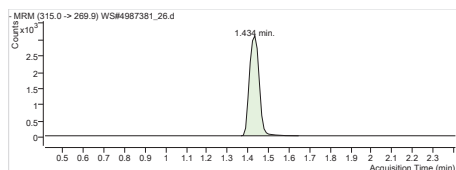
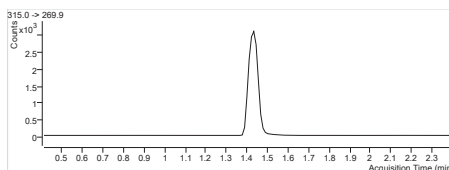
Per Method

Sample Annotation

-

ISTD Compounds	Response	RT	Target conc.		
MPFHxA	10163	1.43	1 µg/Kg		
MPFHxS	1795	1.69	1 µg/Kg		
MPFHpA	11277	1.69	1 µg/Kg		
MPFOA	10574	1.88	1 µg/Kg		
MPFOS	2094	1.98	1 µg/Kg		
MPFNA	10102	2.01	1 µg/Kg		
MPFDA	8706	2.14	1 µg/Kg		
MPFUnA	10071	2.22	1 µg/Kg		
MPFDoA	11666	2.31	1 µg/Kg		
MPFTeDA	14271	2.46	1 µg/Kg		
M2 6:2 FTS	2606	1.84	1 µg/Kg		
M2 8:2 FTS	3001	2.10	1 µg/Kg		
13C6-PFHxA IS	41698	1.43	1 µg/Kg		
13C9-PFDA IS	36903	2.13	1 µg/Kg		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1			-	ND	-
PFHxA 1			-	ND	-
PFHxS 1			-	ND	-
PFHpA 1			-	ND	-
PFOA 1			-	ND	-
PFOS 1			-	ND	-
PFNA 1			-	ND	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDaA 1			-	ND	-
PFTeDA 1			-	ND	-
6:2-FTS 1	197	1.85	-	0.14 µg/Kg	-
8:2-FTS 1			-	ND	-
13C2-PFHxA	10163	1.43	-	104.74 µg/Kg	-
18O2-PFHxS	1795	1.69	-	102.80 µg/Kg	-
13C4-PFHpA	11277	1.69	-	106.78 µg/Kg	-
13C4-PFOA	10574	1.88	-	102.22 µg/Kg	-
13C4-PFOS	2094	1.98	-	98.75 µg/Kg	-
13C5-PFNA	10102	2.01	-	100.04 µg/Kg	-
13C2-PFDA	8706	2.14	-	102.13 µg/Kg	-
13C2-PFUnA	10071	2.22	-	105.64 µg/Kg	-
13C2-PFDoA	11666	2.31	-	106.75 µg/Kg	-
13C2-PFTeDA	14271	2.46	-	105.29 µg/Kg	-
13C2-6:2-FTS	2606	1.84	-	99.77 µg/Kg	-
13C2-8:2 FTS	3001	2.10	-	114.41 µg/Kg	-
13C6-PFHxA	41698	1.43	-	132.42 µg/Kg	-
13C9-PFDA	36903	2.13	-	127.71 µg/Kg	-



MPFHxA

Internal Standard

RT (Exp. RT):

1.434 (1.411)

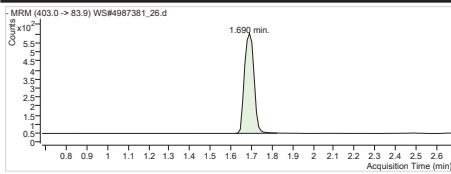
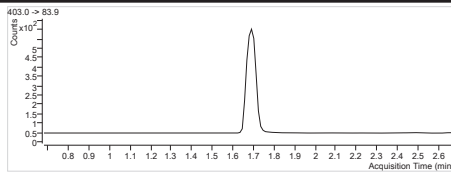
Concentration:

1 µg/Kg

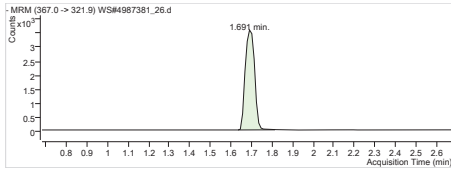
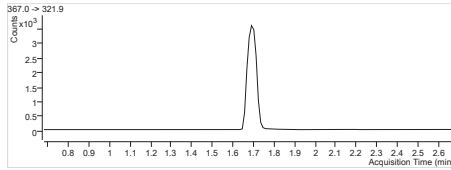
Sample type:

Sample

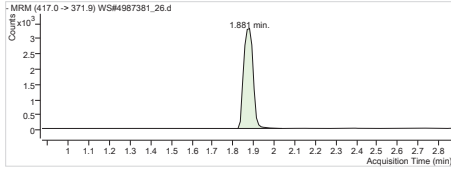
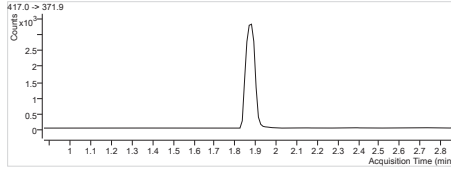
Quantitation Results



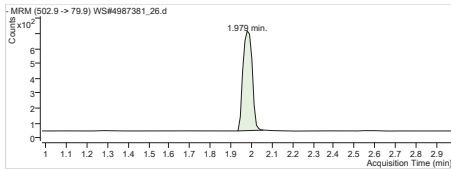
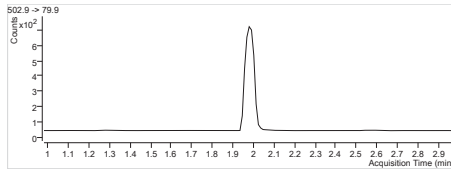
MPFHxS
RT (Exp. RT): 1.690 (1.679)
Concentration: 1 µg/Kg
Sample type: Sample



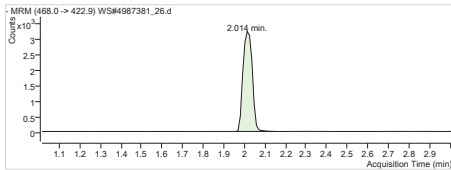
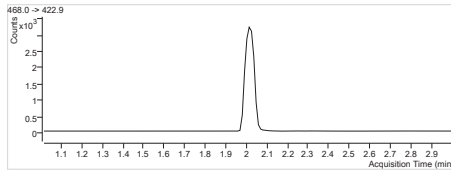
MPFHpA
RT (Exp. RT): 1.691 (1.680)
Concentration: 1 µg/Kg
Sample type: Sample



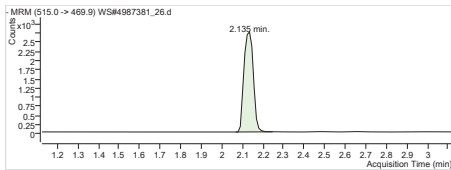
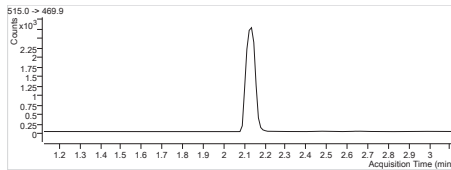
MPFOA
RT (Exp. RT): 1.881 (1.869)
Concentration: 1 µg/Kg
Sample type: Sample



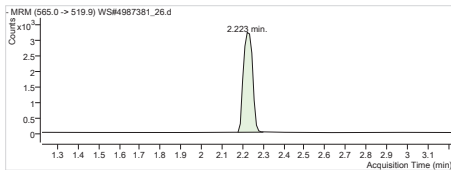
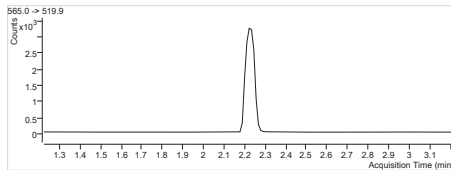
MPFOS
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/Kg
Sample type: Sample



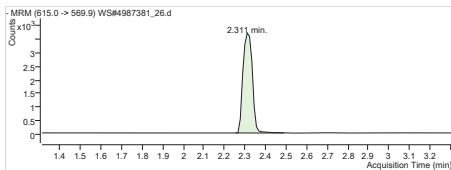
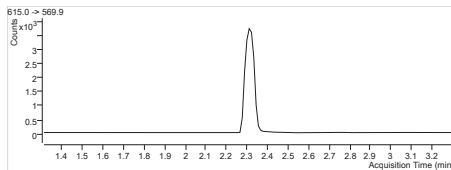
MPFNA
RT (Exp. RT): 2.014 (2.014)
Concentration: 1 µg/Kg
Sample type: Sample



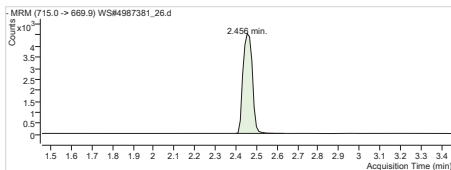
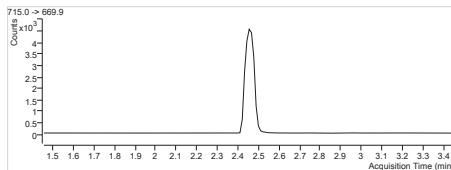
MPFDA
RT (Exp. RT): 2.135 (2.124)
Concentration: 1 µg/Kg
Sample type: Sample



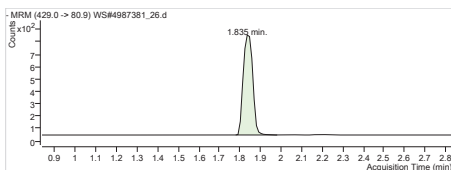
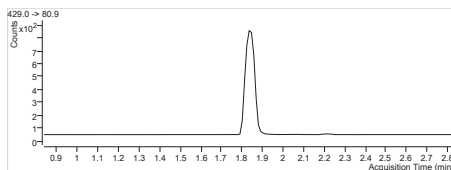
MPFUnA
RT (Exp. RT): 2.223 (2.223)
Concentration: 1 µg/Kg
Sample type: Sample



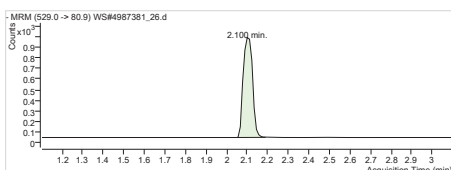
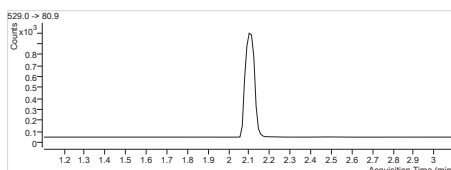
MPFDoA
RT (Exp. RT): 2.311 (2.311)
Concentration: 1 µg/Kg
Sample type: Sample



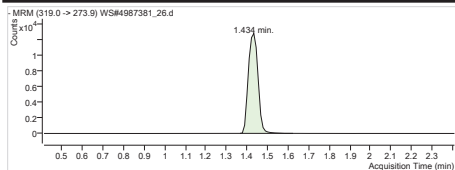
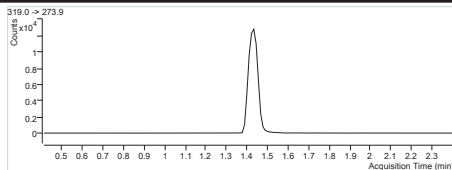
MPFTeDA
RT (Exp. RT): 2.456 (2.455)
Concentration: 1 µg/Kg
Sample type: Sample



M2 6:2 FTS
RT (Exp. RT): 1.835 (1.835)
Concentration: 1 µg/Kg
Sample type: Sample



M2 8:2 FTS
RT (Exp. RT): 2.100 (2.100)
Concentration: 1 µg/Kg
Sample type: Sample



13C6-PFHxA IS

RT (Exp. RT):

Concentration:

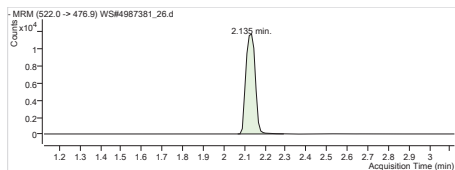
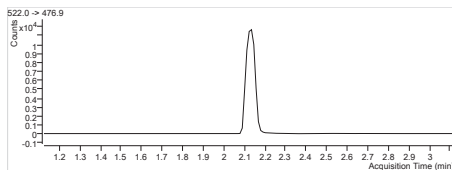
Sample type:

Internal Standard

1.434 (1.411)

1 µg/Kg

Sample



13C9-PFDA IS

RT (Exp. RT):

Concentration:

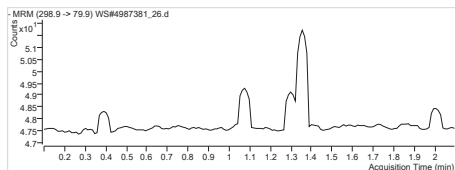
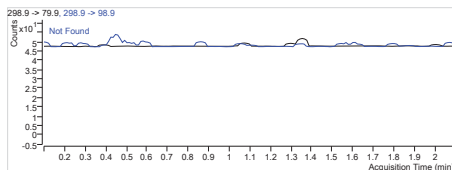
Sample type:

Internal Standard

2.135 (2.124)

1 µg/Kg

Sample



PFBS 1

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

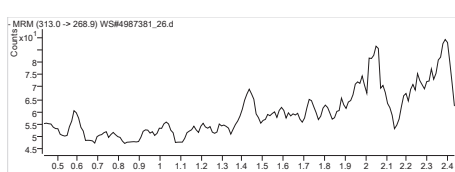
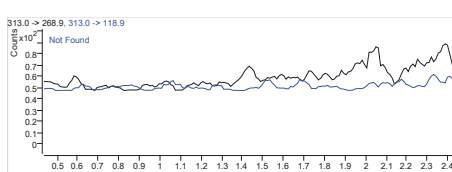
298.9 -> 79.9

0.000 (1.098)

N.D.

0

Sample



PFHxA 1

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

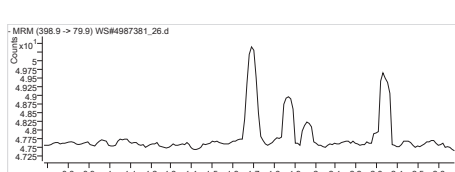
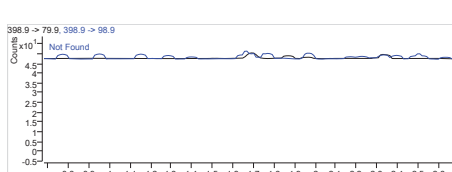
313.0 -> 268.9

0.000 (1.434)

N.D.

0

Sample



PFHxS 1

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

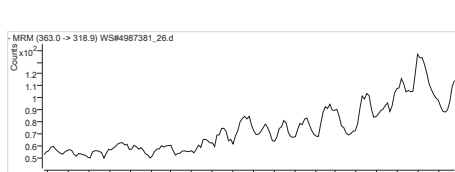
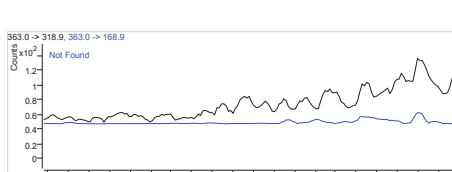
398.9 -> 79.9

0.000 (1.679)

N.D.

0

Sample



PFHpA 1

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

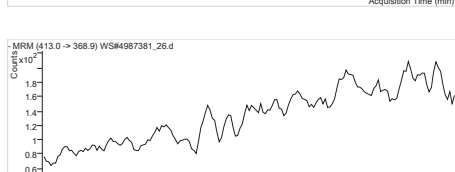
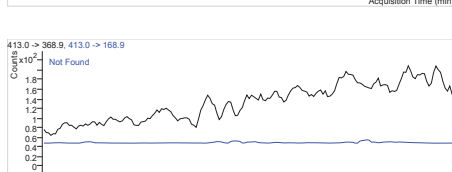
363.0 -> 318.9

0.000 (1.680)

N.D.

0

Sample



PFOA 1

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

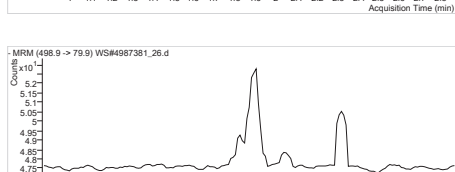
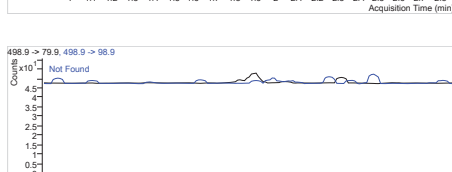
413.0 -> 368.9

0.000 (1.869)

N.D.

0

Sample



PFOS 1

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

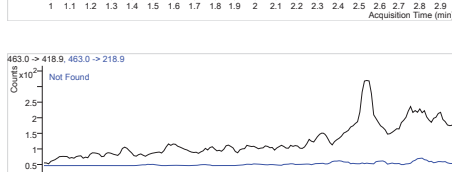
498.9 -> 79.9

0.000 (1.968)

N.D.

0

Sample



PFNA 1

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

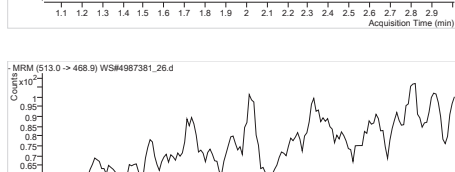
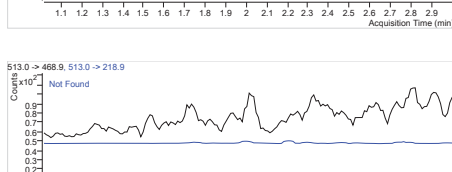
463.0 -> 418.9

0.000 (2.014)

N.D.

0

Sample



PFDA 1

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

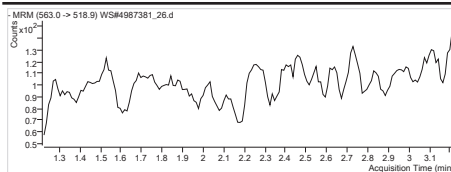
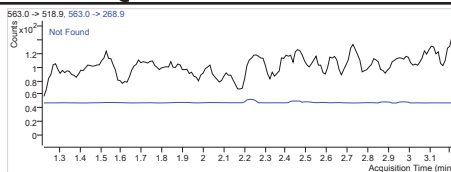
513.0 -> 468.9

0.000 (2.124)

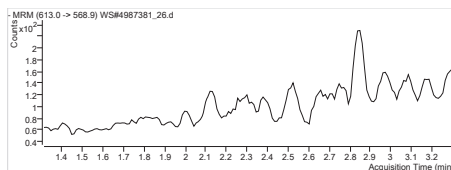
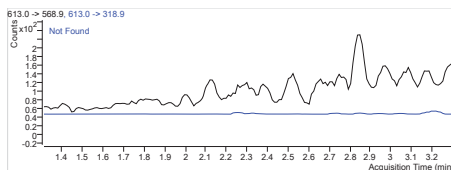
N.D.

0

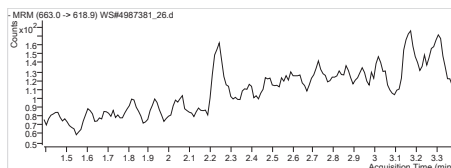
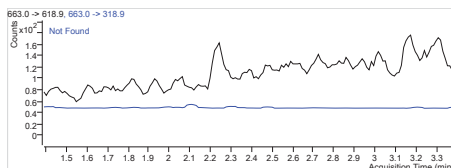
Sample



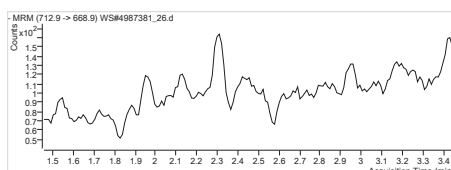
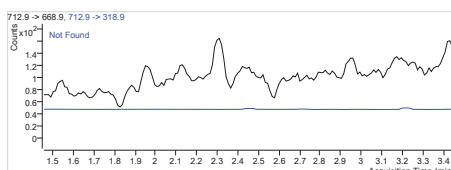
PFUnA 1
 RT (Exp. RT): 563.0 -> 518.9
 Calc. conc. 0.000 (2.223)
 Area ratio: N.D.
 Sample type: 0 Sample



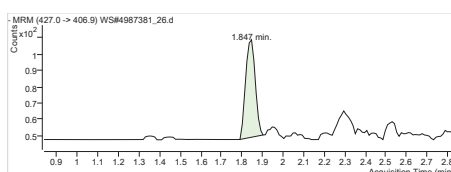
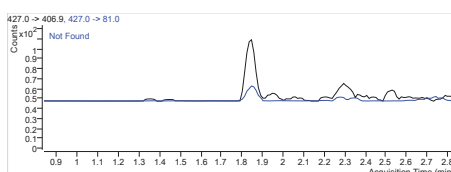
PFDaA 1
 RT (Exp. RT): 613.0 -> 568.9
 Calc. conc. 0.000 (2.311)
 Area ratio: N.D.
 Sample type: 0 Sample



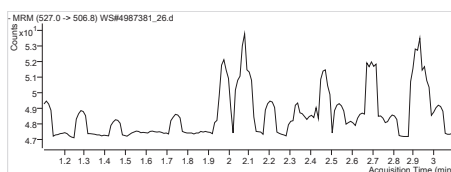
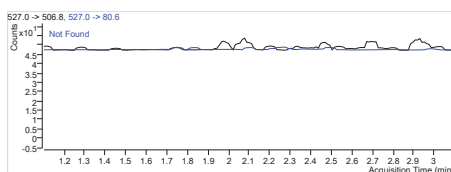
PFTraD 1
 RT (Exp. RT): 663.0 -> 618.9
 Calc. conc. 0.000 (2.389)
 Area ratio: N.D.
 Sample type: 0 Sample



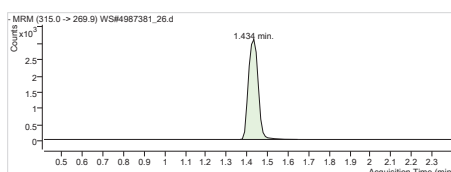
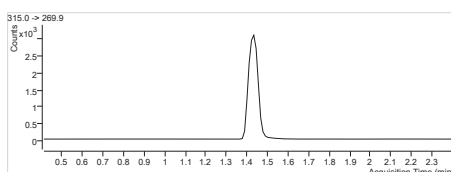
PFTeDa 1
 RT (Exp. RT): 712.9 -> 668.9
 Calc. conc. 0.000 (2.456)
 Area ratio: N.D.
 Sample type: 0 Sample



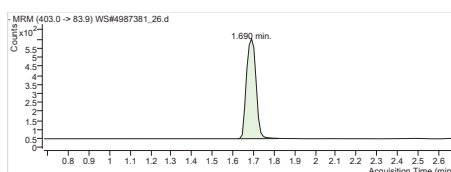
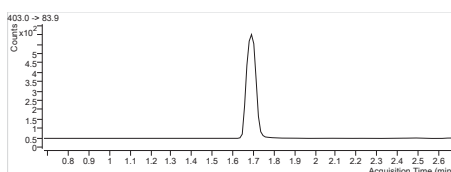
6:2-FTS 1
 RT (Exp. RT): 427.0 -> 406.9
 Calc. conc. 1.847 (1.835)
 Area ratio: 0.14 µg/Kg
 Sample type: 0.07559 Sample



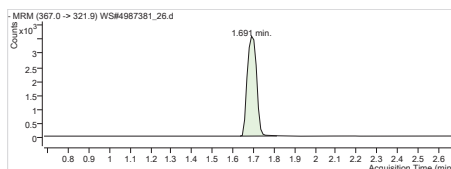
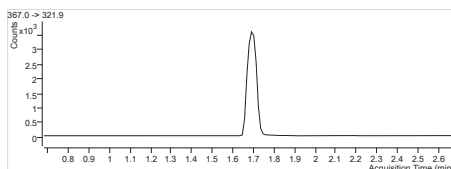
8:2-FTS 1
 RT (Exp. RT): 527.0 -> 506.8
 Calc. conc. 0.000 (2.101)
 Area ratio: N.D.
 Sample type: 0 Sample



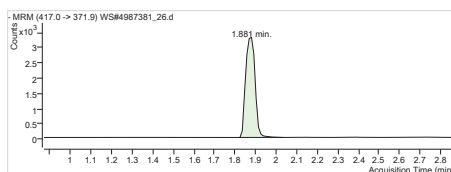
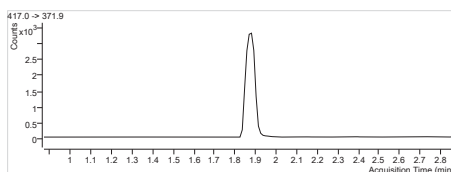
13C2-PFHxA
 RT (Exp. RT): 315.0 -> 269.9
 Calc. conc. 1.434 (1.411)
 Area ratio: 104.74 µg/Kg
 Sample type: 0.24373 Sample



18O2-PFHxS
 RT (Exp. RT): 403.0 -> 83.9
 Calc. conc. 1.690 (1.679)
 Area ratio: 102.80 µg/Kg
 Sample type: 0.04305 Sample

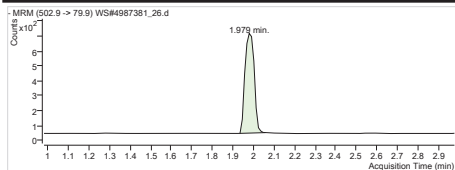
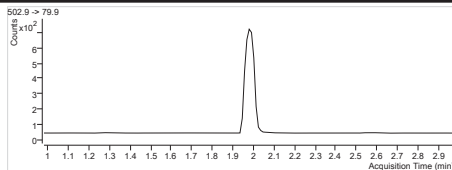


13C4-PFHpA
 RT (Exp. RT): 367.0 -> 321.9
 Calc. conc. 1.691 (1.680)
 Area ratio: 106.78 µg/Kg
 Sample type: 0.27044 Sample

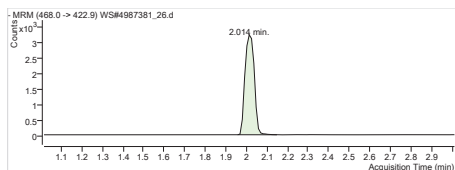
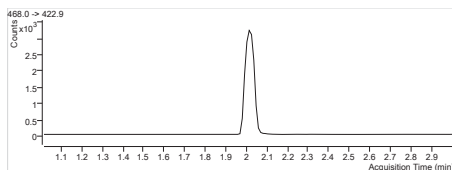


13C4-PFOA
 RT (Exp. RT): 417.0 -> 371.9
 Calc. conc. 1.881 (1.869)
 Area ratio: 102.22 µg/Kg
 Sample type: 0.25359 Sample

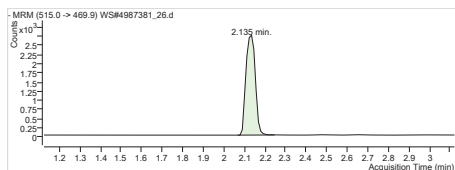
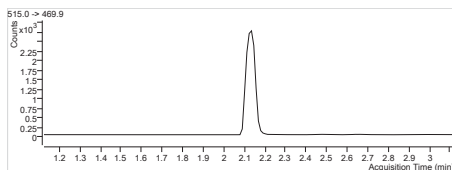
Quantitation Results



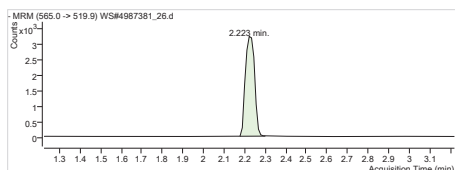
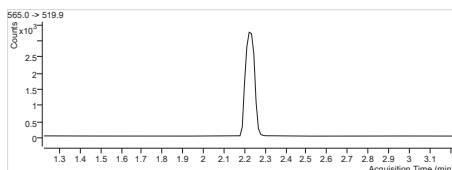
13C4-PFOS
RT (Exp. RT): 502.9 -> 79.9
Calc. conc. 1.979 (1.979)
Area ratio: 98.75 µg/Kg
Sample type: 0.05022
Sample



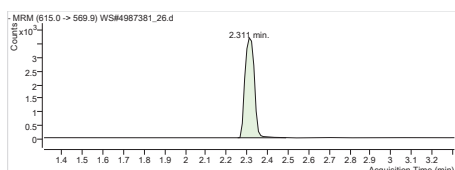
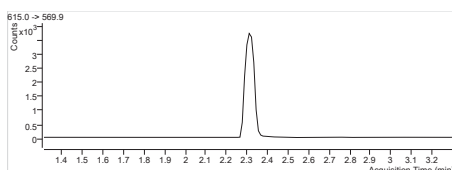
13C5-PFNA
RT (Exp. RT): 468.0 -> 422.9
Calc. conc. 2.014 (2.014)
Area ratio: 100.04 µg/Kg
Sample type: 0.24227
Sample



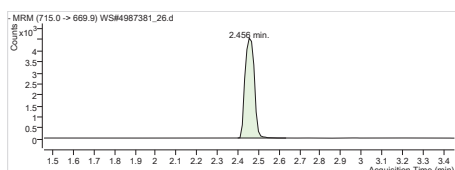
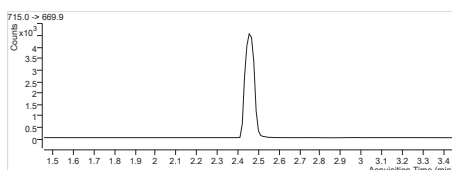
13C2-PFDA
RT (Exp. RT): 515.0 -> 469.9
Calc. conc. 2.135 (2.124)
Area ratio: 102.13 µg/Kg
Sample type: 0.23592
Sample



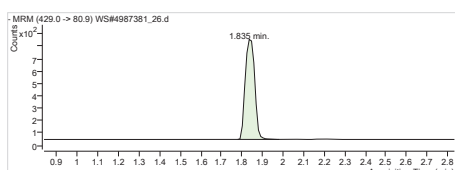
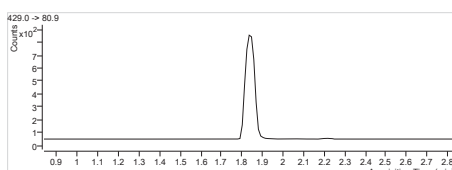
13C2-PFUnA
RT (Exp. RT): 565.0 -> 519.9
Calc. conc. 2.223 (2.223)
Area ratio: 105.64 µg/Kg
Sample type: 0.27290
Sample



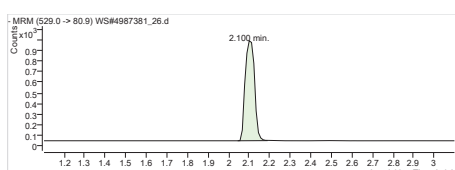
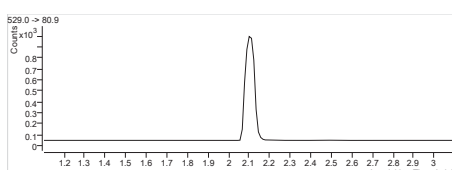
13C2-PFDoA
RT (Exp. RT): 615.0 -> 569.9
Calc. conc. 2.311 (2.311)
Area ratio: 106.75 µg/Kg
Sample type: 0.31613
Sample



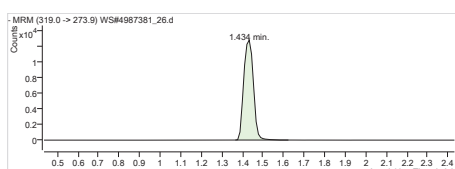
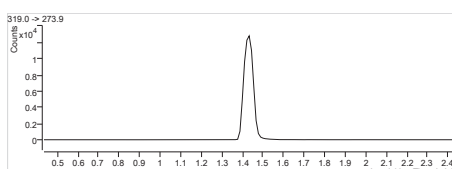
13C2-PFTeDA
RT (Exp. RT): 715.0 -> 669.9
Calc. conc. 2.456 (2.455)
Area ratio: 105.29 µg/Kg
Sample type: 0.38672
Sample



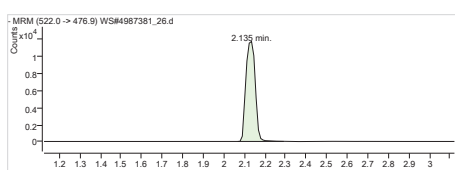
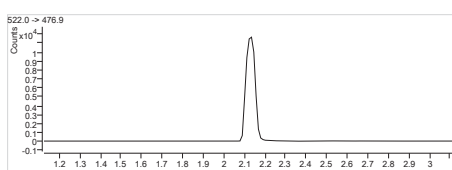
13C2-6:2-FTS
RT (Exp. RT): 429.0 -> 80.9
Calc. conc. 1.835 (1.835)
Area ratio: 99.77 µg/Kg
Sample type: 0.06250
Sample



13C2-8:2 FTS
RT (Exp. RT): 529.0 -> 80.9
Calc. conc. 2.100 (2.100)
Area ratio: 114.41 µg/Kg
Sample type: 0.07197
Sample



13C6-PFHxA
RT (Exp. RT): 319.0 -> 273.9
Calc. conc. 1.434 (1.434)
Area ratio: 132.42 µg/Kg
Sample type: 0
Sample

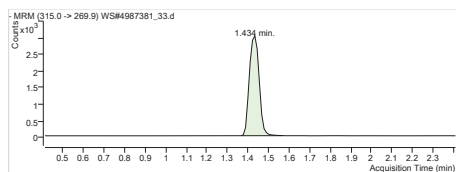
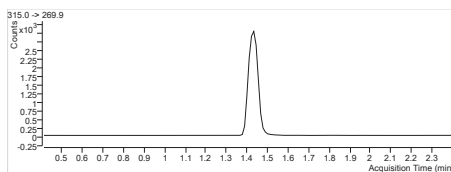


13C9-PFDA
RT (Exp. RT): 522.0 -> 476.9
Calc. conc. 2.135 (2.124)
Area ratio: 127.71 µg/Kg
Sample type: 0
Sample

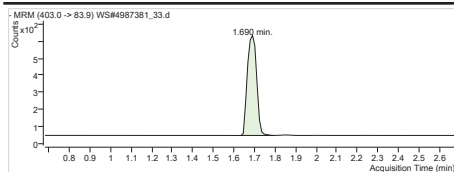
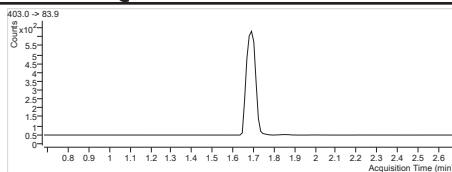
Batch Path	T:\lcms4\PFC\20170519\WS#4987381\QuantResults\PFC_Soil_170519_WS#4987381_CTLabs		
Sample Name	IB	Instrument	LCMS04
Data File	WS#4987381_33.d	Operator	M_G
Sample Type	Sample	Dilution	1.33
Acq. Method	PFC_Soil.m	Position	P2-A8
Acq. Date	2017/05/20 5:41:55 AM	Injection Volume	Per Method
Sample Annotation	-		

ISTD Compounds	Response	RT	Target conc.		
MPFHxA	9968	1.43	1 µg/Kg		
MPFHxS	1840	1.69	1 µg/Kg		
MPFHpA	10745	1.69	1 µg/Kg		
MPFOA	10492	1.88	1 µg/Kg		
MPFOS	2196	1.98	1 µg/Kg		
MPFNA	10140	2.01	1 µg/Kg		
MPFDA	8803	2.14	1 µg/Kg		
MPFUnA	10010	2.22	1 µg/Kg		
MPFDoA	11385	2.31	1 µg/Kg		
MPFTeDA	14883	2.46	1 µg/Kg		
M2 6:2 FTS	2822	1.84	1 µg/Kg		
M2 8:2 FTS	2710	2.10	1 µg/Kg		
13C6-PFHxA IS	41172	1.43	1 µg/Kg		
13C9-PFDA IS	38761	2.13	1 µg/Kg		

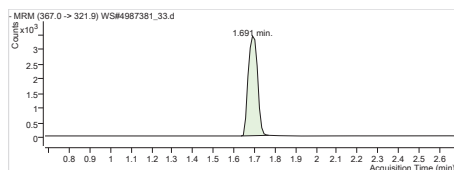
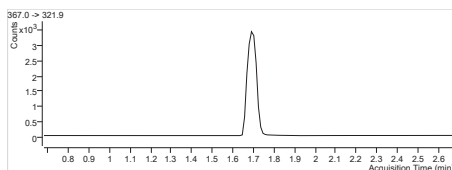
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1			-	ND	-
PFHxA 1			-	ND	-
PFHxS 1			-	ND	-
PFHpA 1			-	ND	-
PFOA 1			-	ND	-
PFOS 1			-	ND	-
PFNA 1			-	ND	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDaA 1			-	ND	-
PFTTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
6:2-FTS 1	181	1.84	-	0.10 µg/Kg	-
8:2-FTS 1			-	ND	-
13C2-PFHxA	9968	1.43	-	104.05 µg/Kg	-
18O2-PFHxS	1840	1.69	-	106.72 µg/Kg	-
13C4-PFHpA	10745	1.69	-	103.04 µg/Kg	-
13C4-PFOA	10492	1.88	-	102.72 µg/Kg	-
13C4-PFOS	2196	1.98	-	104.89 µg/Kg	-
13C5-PFNA	10140	2.01	-	101.70 µg/Kg	-
13C2-PFDA	8803	2.14	-	98.32 µg/Kg	-
13C2-PFUnA	10010	2.22	-	99.96 µg/Kg	-
13C2-PFDoA	11385	2.31	-	99.19 µg/Kg	-
13C2-PFTeDA	14883	2.46	-	104.54 µg/Kg	-
13C2-6:2-FTS	2822	1.84	-	109.42 µg/Kg	-
13C2-8:2 FTS	2710	2.10	-	104.64 µg/Kg	-
13C6-PFHxA	41172	1.43	-	130.75 µg/Kg	-
13C9-PFDA	38761	2.13	-	134.14 µg/Kg	-



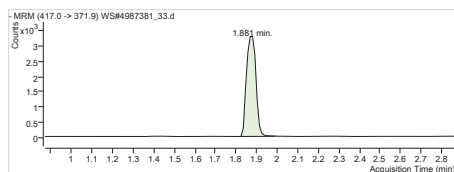
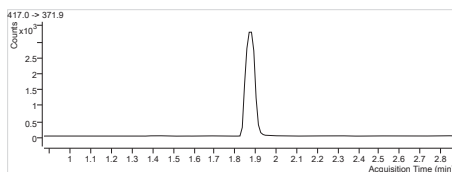
MPFHxA Internal Standard
 RT (Exp. RT): 1.434 (1.411)
 Concentration: 1 µg/Kg
 Sample type: Sample



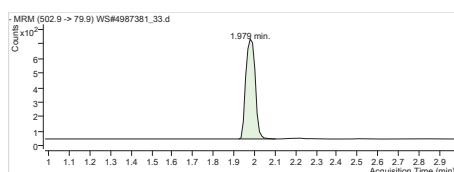
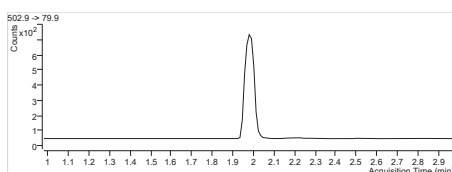
MPFHxS
RT (Exp. RT): 1.690 (1.679)
Concentration: 1 µg/Kg
Sample type: Sample



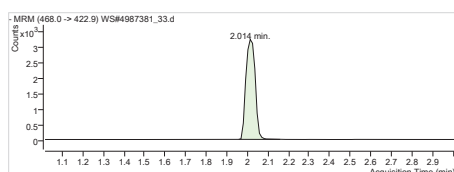
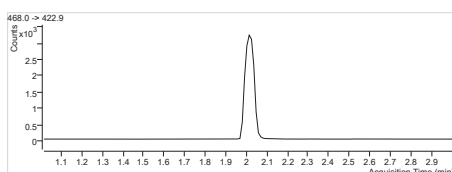
MPFHpa
RT (Exp. RT): 1.691 (1.680)
Concentration: 1 µg/Kg
Sample type: Sample



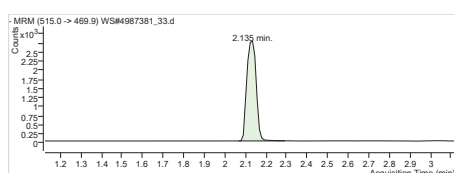
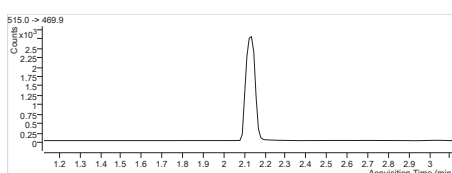
MPFOA
RT (Exp. RT): 1.881 (1.869)
Concentration: 1 µg/Kg
Sample type: Sample



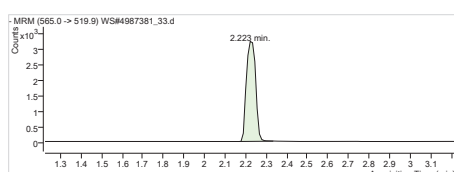
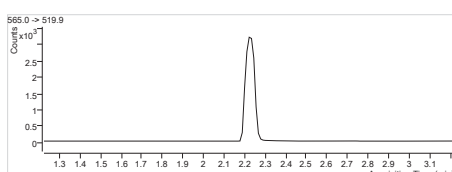
MPFOS
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/Kg
Sample type: Sample



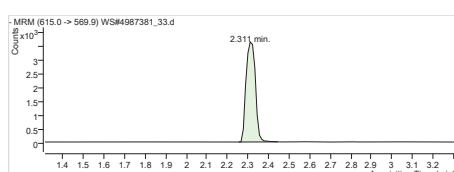
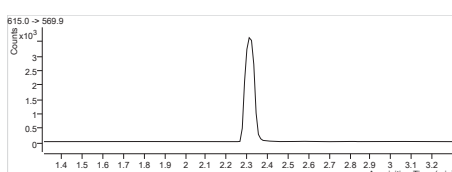
MPFNA
RT (Exp. RT): 2.014 (2.014)
Concentration: 1 µg/Kg
Sample type: Sample



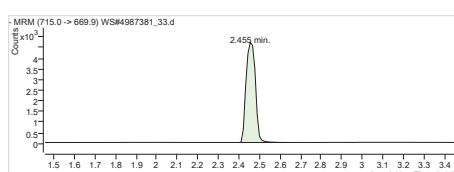
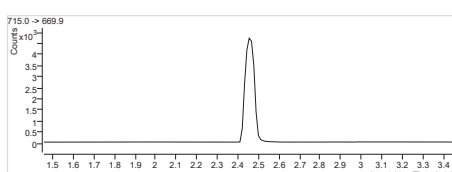
MPFDA
RT (Exp. RT): 2.135 (2.124)
Concentration: 1 µg/Kg
Sample type: Sample



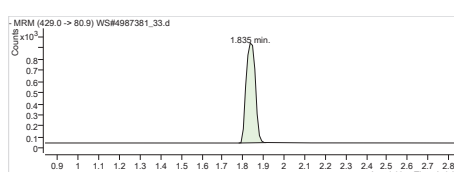
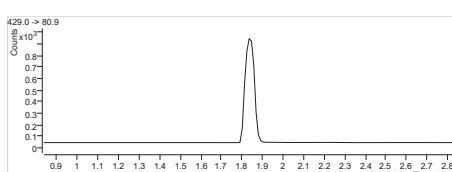
MPFUnA
RT (Exp. RT): 2.223 (2.223)
Concentration: 1 µg/Kg
Sample type: Sample



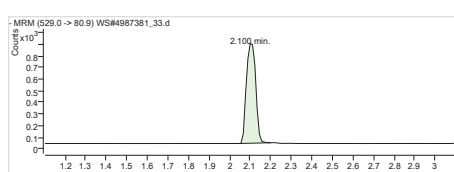
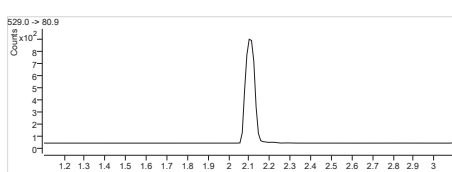
MPFDoA
RT (Exp. RT): 2.311 (2.311)
Concentration: 1 µg/Kg
Sample type: Sample



MPFTeDA
RT (Exp. RT): 2.455 (2.455)
Concentration: 1 µg/Kg
Sample type: Sample

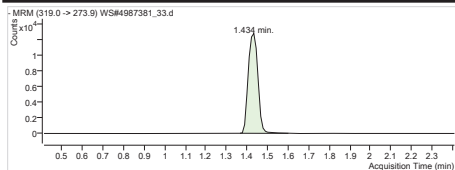
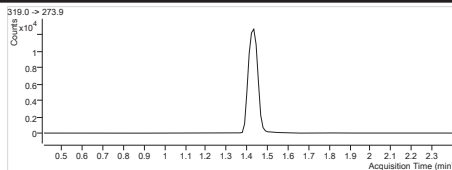


M2 6:2 FTS
RT (Exp. RT): 1.835 (1.835)
Concentration: 1 µg/Kg
Sample type: Sample



M2 8:2 FTS
RT (Exp. RT): 2.100 (2.100)
Concentration: 1 µg/Kg
Sample type: Sample

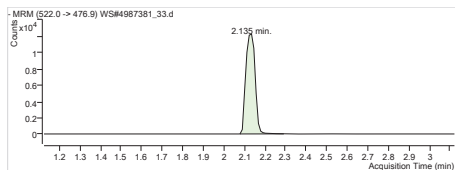
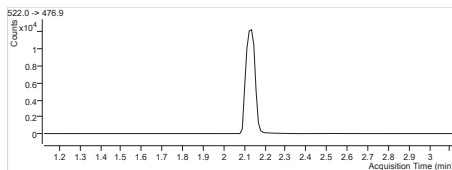
Quantitation Results



13C6-PFHxA IS

RT (Exp. RT):
Concentration:
Sample type:

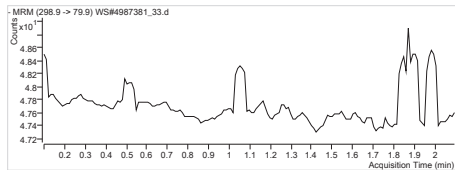
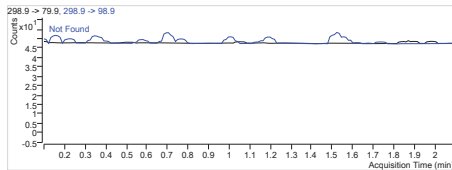
Internal Standard
1.434 (1.411)
1 µg/Kg
Sample



13C9-PFDA IS

RT (Exp. RT):
Concentration:
Sample type:

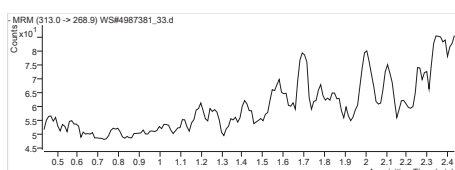
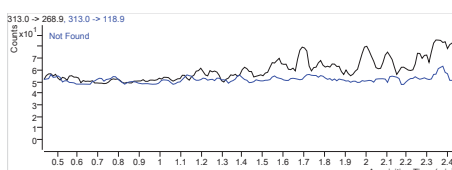
Internal Standard
2.135 (2.124)
1 µg/Kg
Sample



PFBS 1

RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

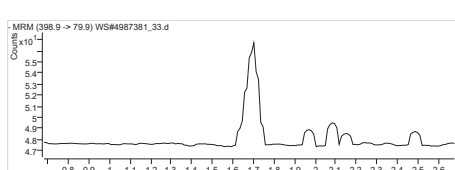
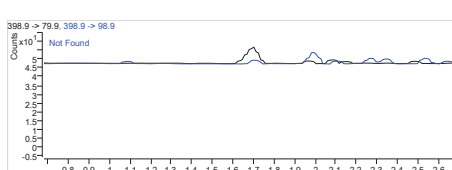
298.9 -> 79.9
0.000 (1.098)
N.D.
0
Sample



PFHxA 1

RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

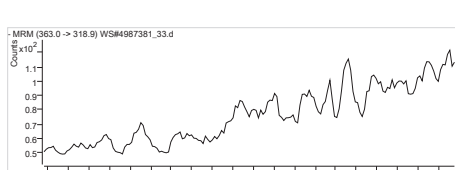
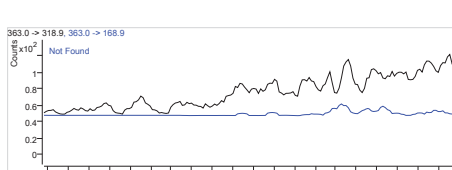
313.0 -> 268.9
0.000 (1.434)
N.D.
0
Sample



PFHxS 1

RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

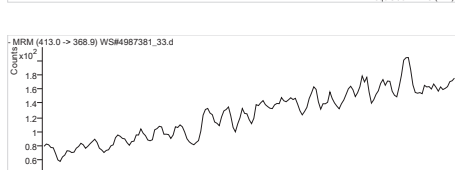
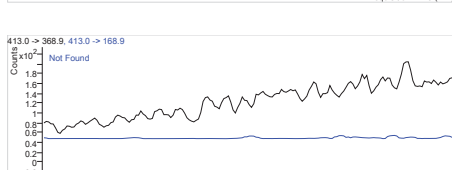
398.9 -> 79.9
0.000 (1.679)
N.D.
0
Sample



PFHpA 1

RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

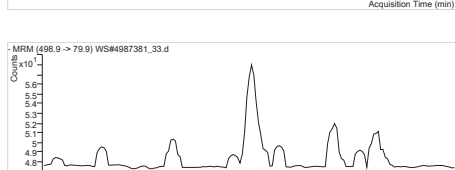
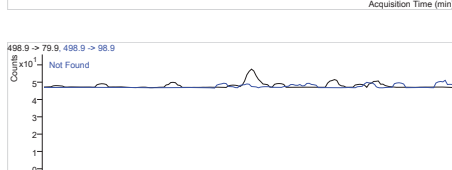
363.0 -> 318.9
0.000 (1.680)
N.D.
0
Sample



PFOA 1

RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

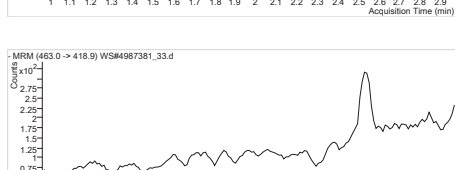
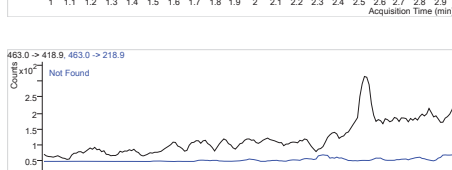
413.0 -> 368.9
0.000 (1.869)
N.D.
0
Sample



PFOS 1

RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

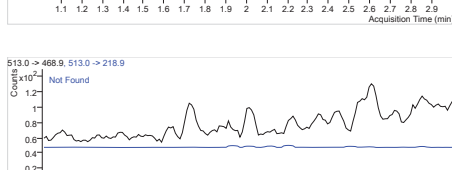
498.9 -> 79.9
0.000 (1.968)
N.D.
0
Sample



PFNA 1

RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

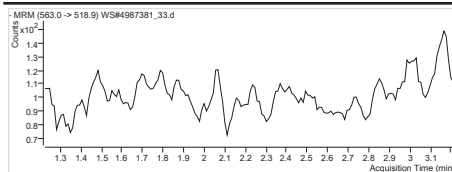
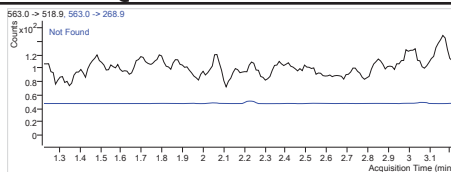
463.0 -> 418.9
0.000 (2.014)
N.D.
0
Sample



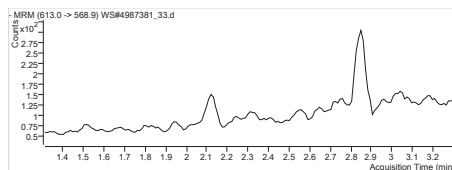
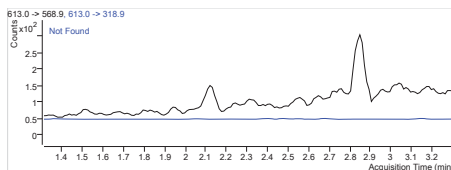
PFDA 1

RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

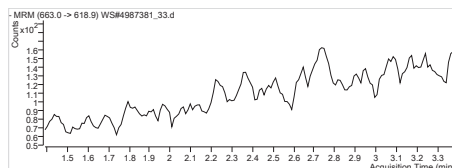
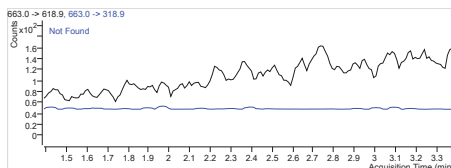
513.0 -> 468.9
0.000 (2.124)
N.D.
0
Sample



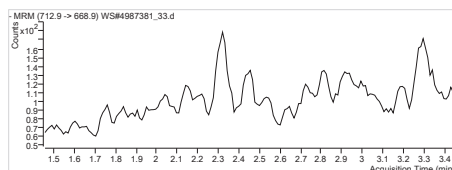
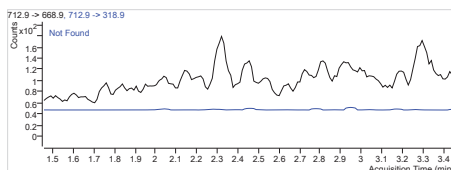
PFUnA 1
 RT (Exp. RT): 563.0 -> 518.9
 Calc. conc. 0.000 (2.223)
 Area ratio: N.D.
 Sample type: 0
 Sample



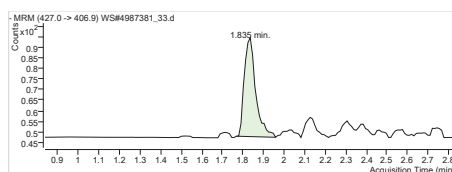
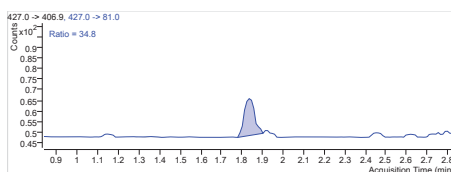
PFDaA 1
 RT (Exp. RT): 613.0 -> 568.9
 Calc. conc. 0.000 (2.311)
 Area ratio: N.D.
 Sample type: 0
 Sample



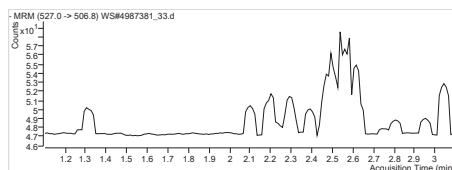
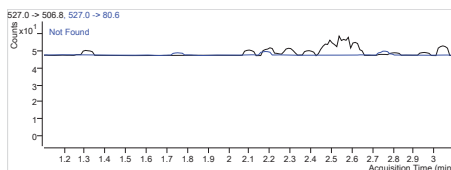
PFTraD 1
 RT (Exp. RT): 663.0 -> 618.9
 Calc. conc. 0.000 (2.389)
 Area ratio: N.D.
 Sample type: 0
 Sample



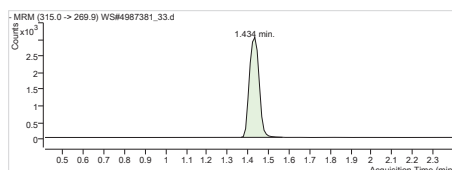
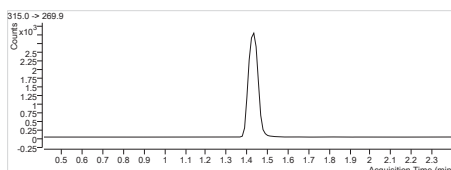
PFTeDa 1
 RT (Exp. RT): 712.9 -> 668.9
 Calc. conc. 0.000 (2.456)
 Area ratio: N.D.
 Sample type: 0
 Sample



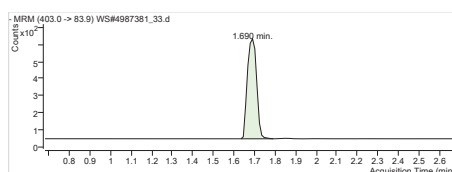
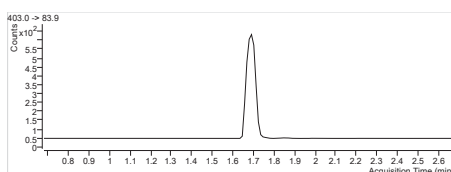
6:2-FTS 1
 RT (Exp. RT): 427.0 -> 406.9
 Calc. conc. 1.835 (1.835)
 Area ratio: 0.10 µg/Kg
 Sample type: 0.06414
 Sample



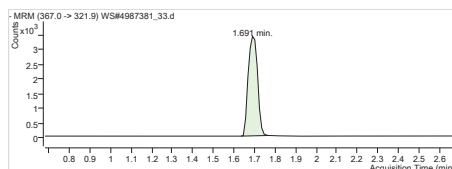
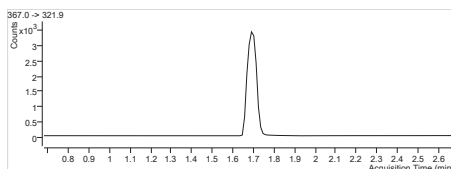
8:2-FTS 1
 RT (Exp. RT): 527.0 -> 506.8
 Calc. conc. 0.000 (2.101)
 Area ratio: N.D.
 Sample type: 0
 Sample



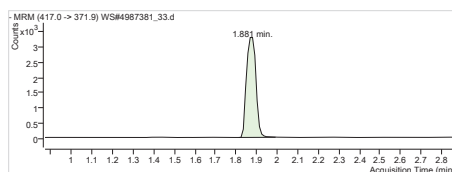
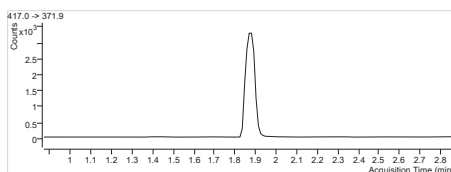
13C2-PFHxA
 RT (Exp. RT): 315.0 -> 269.9
 Calc. conc. 1.434 (1.411)
 Area ratio: 104.05 µg/Kg
 Sample type: 0.24211
 Sample



18O2-PFHxS
 RT (Exp. RT): 403.0 -> 83.9
 Calc. conc. 1.690 (1.679)
 Area ratio: 106.72 µg/Kg
 Sample type: 0.04469
 Sample

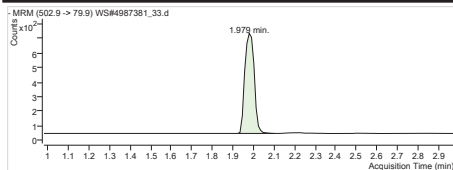
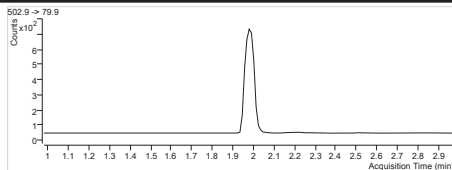


13C4-PFHpA
 RT (Exp. RT): 367.0 -> 321.9
 Calc. conc. 1.691 (1.680)
 Area ratio: 103.04 µg/Kg
 Sample type: 0.26098
 Sample

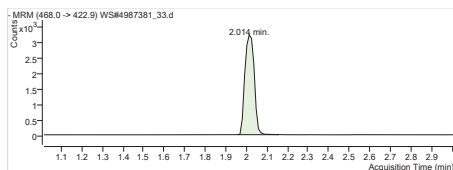
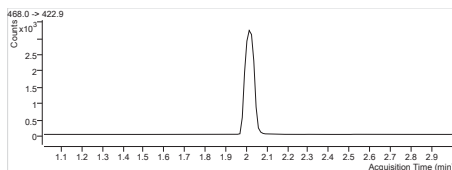


13C4-PFOA
 RT (Exp. RT): 417.0 -> 371.9
 Calc. conc. 1.881 (1.869)
 Area ratio: 102.72 µg/Kg
 Sample type: 0.25483
 Sample

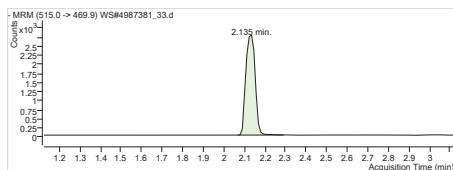
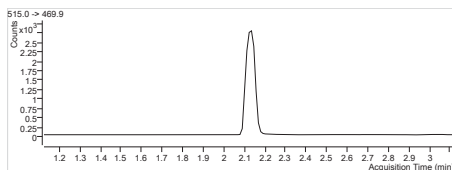
Quantitation Results



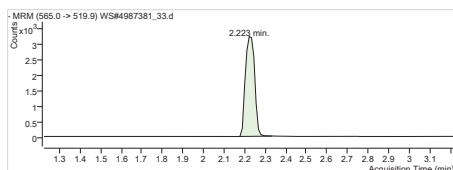
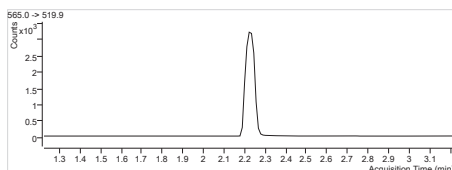
13C4-PFOS
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 104.89 µg/Kg
Area ratio: 0.05334
Sample type: Sample



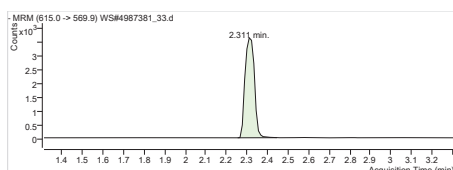
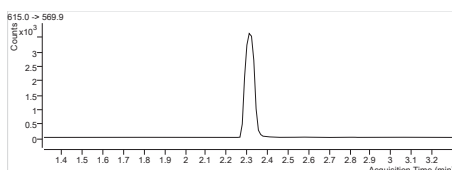
13C5-PFNA
RT (Exp. RT): 2.014 (2.014)
Calc. conc. 101.70 µg/Kg
Area ratio: 0.24628
Sample type: Sample



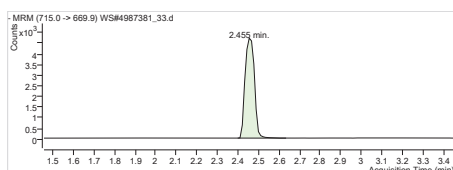
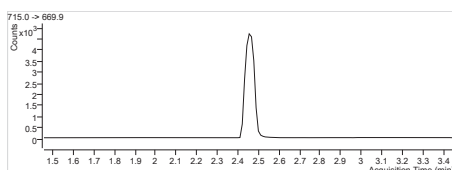
13C2-PFDA
RT (Exp. RT): 2.135 (2.124)
Calc. conc. 98.32 µg/Kg
Area ratio: 0.22711
Sample type: Sample



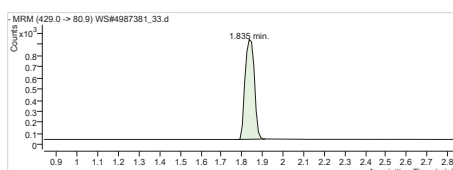
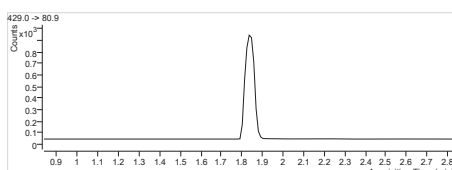
13C2-PFUnA
RT (Exp. RT): 2.223 (2.223)
Calc. conc. 99.96 µg/Kg
Area ratio: 0.25825
Sample type: Sample



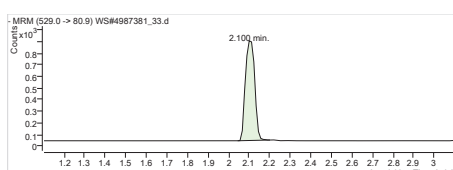
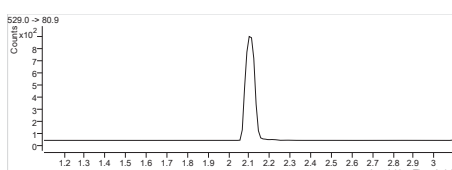
13C2-PFDoA
RT (Exp. RT): 2.311 (2.311)
Calc. conc. 99.19 µg/Kg
Area ratio: 0.29372
Sample type: Sample



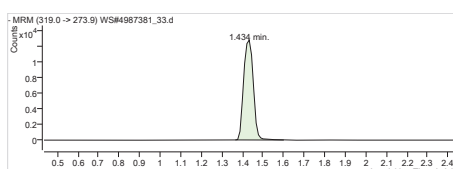
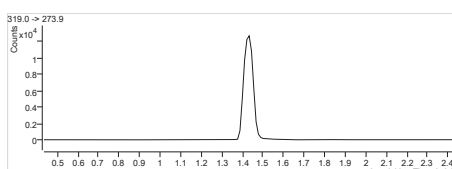
13C2-PFTeDA
RT (Exp. RT): 2.455 (2.455)
Calc. conc. 104.54 µg/Kg
Area ratio: 0.38397
Sample type: Sample



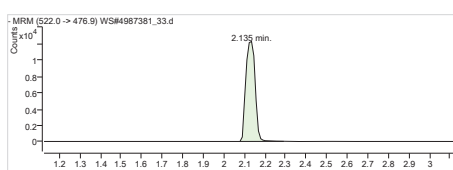
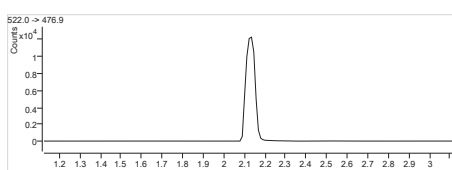
13C2-6:2-FTS
RT (Exp. RT): 1.835 (1.835)
Calc. conc. 109.42 µg/Kg
Area ratio: 0.06854
Sample type: Sample



13C2-8:2 FTS
RT (Exp. RT): 2.100 (2.100)
Calc. conc. 104.64 µg/Kg
Area ratio: 0.06582
Sample type: Sample



13C6-PFHxA
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 130.75 µg/Kg
Area ratio: 0
Sample type: Sample

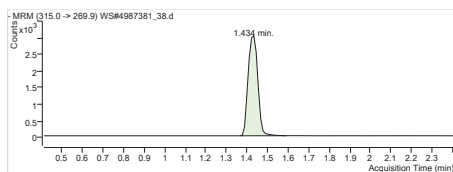
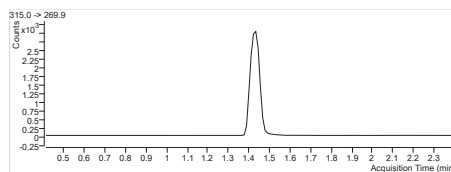


13C9-PFDA
RT (Exp. RT): 2.135 (2.124)
Calc. conc. 134.14 µg/Kg
Area ratio: 0
Sample type: Sample

Batch Path	T:\lcms4\PFC\20170519\WS#4987381\QuantResults\PFC_Soil_170519_WS#4987381_CTLabs		
Sample Name	IB	Instrument	LCMS04
Data File	WS#4987381_38.d	Operator	M_G
Sample Type	Sample	Dilution	1.33
Acq. Method	PFC_Soil.m	Position	P2-A8
Acq. Date	2017/05/20 6:06:27 AM	Injection Volume	Per Method
Sample Annotation	-		

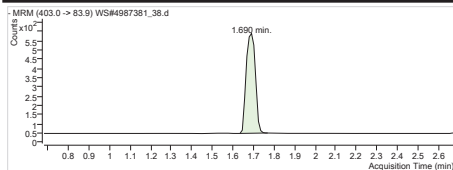
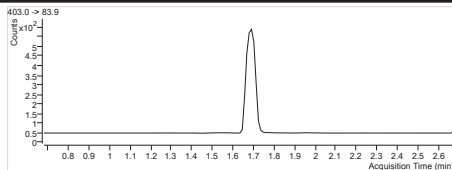
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	9891	1.43	1 µg/Kg		
MPFHxS	1689	1.69	1 µg/Kg		
MPFHpA	10938	1.69	1 µg/Kg		
MPFOA	11385	1.88	1 µg/Kg		
MPFOS	2392	1.98	1 µg/Kg		
MPFNA	10684	2.01	1 µg/Kg		
MPFDA	9274	2.14	1 µg/Kg		
MPFUnA	10224	2.22	1 µg/Kg		
MPFDoA	12199	2.31	1 µg/Kg		
MPFTeDA	14249	2.46	1 µg/Kg		
M2 6:2 FTS	2602	1.84	1 µg/Kg		
M2 8:2 FTS	2606	2.10	1 µg/Kg		
13C6-PFHxA IS	43518	1.43	1 µg/Kg		
13C9-PFDA IS	39387	2.13	1 µg/Kg		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1			-	ND	-
PFHxA 1			-	ND	-
PFHxS 1			-	ND	-
PFHpA 1			-	ND	-
PFOA 1			-	ND	-
PFOS 1			-	ND	-
PFNA 1			-	ND	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDaA 1			-	ND	-
PFTTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
6:2-FTS 1	157	1.84	-	0.08 µg/Kg	-
8:2-FTS 1			-	ND	-
13C2-PFHxA	9891	1.43	-	97.68 µg/Kg	-
18O2-PFHxS	1689	1.69	-	92.68 µg/Kg	-
13C4-PFHpA	10938	1.69	-	99.24 µg/Kg	-
13C4-PFOA	11385	1.88	-	105.45 µg/Kg	-
13C4-PFOS	2392	1.98	-	108.09 µg/Kg	-
13C5-PFNA	10684	2.01	-	101.37 µg/Kg	-
13C2-PFDA	9274	2.14	-	101.93 µg/Kg	-
13C2-PFUnA	10224	2.22	-	100.48 µg/Kg	-
13C2-PFDoA	12199	2.31	-	104.59 µg/Kg	-
13C2-PFTeDA	14249	2.46	-	98.50 µg/Kg	-
13C2-6:2-FTS	2602	1.84	-	95.45 µg/Kg	-
13C2-8:2 FTS	2606	2.10	-	95.20 µg/Kg	-
13C6-PFHxA	43518	1.43	-	138.20 µg/Kg	-
13C9-PFDA	39387	2.13	-	136.30 µg/Kg	-

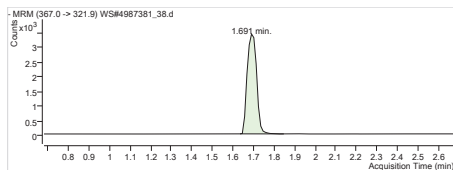
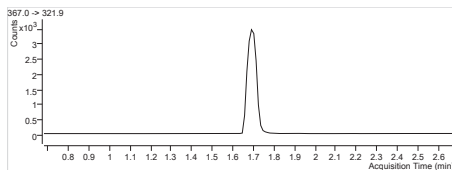


MPFHxA Internal Standard
 RT (Exp. RT): 1.434 (1.411)
 Concentration: 1 µg/Kg
 Sample type: Sample

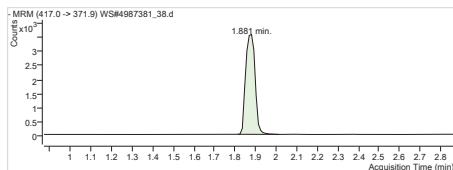
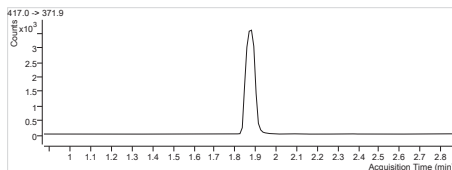
Quantitation Results



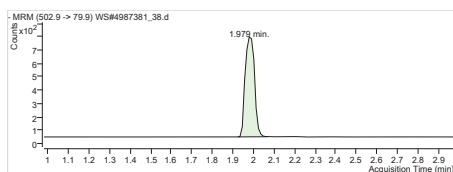
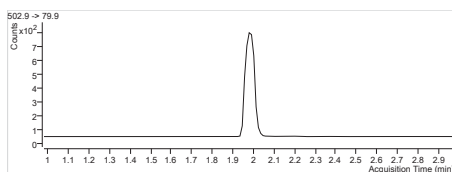
MPFHxS
RT (Exp. RT): 1.690 (1.679)
Concentration: 1 µg/Kg
Sample type: Sample



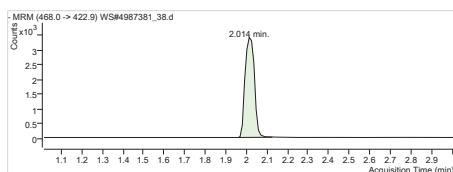
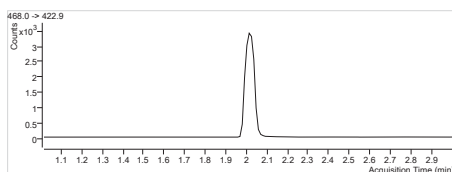
MPFHpa
RT (Exp. RT): 1.691 (1.680)
Concentration: 1 µg/Kg
Sample type: Sample



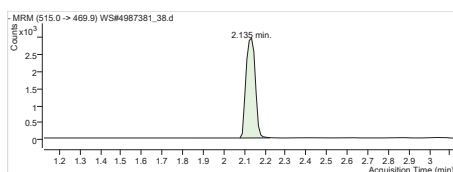
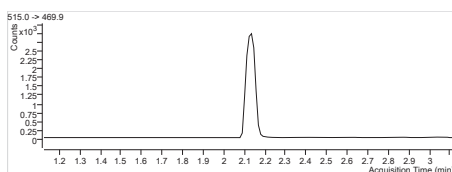
MPFOA
RT (Exp. RT): 1.881 (1.869)
Concentration: 1 µg/Kg
Sample type: Sample



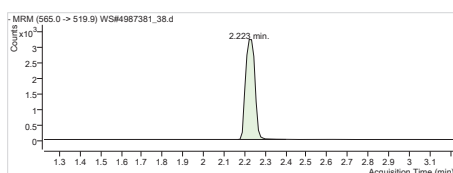
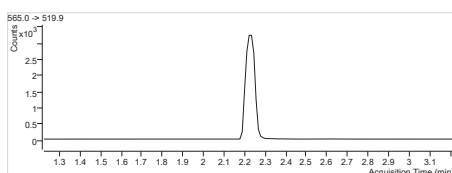
MPFOS
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/Kg
Sample type: Sample



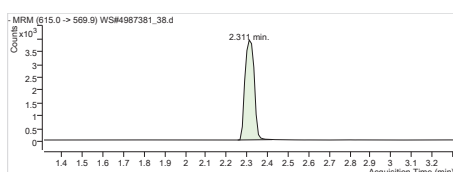
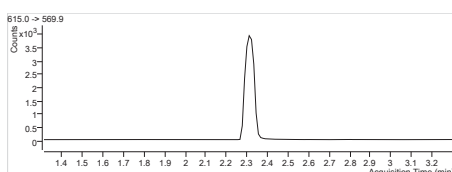
MPFNA
RT (Exp. RT): 2.014 (2.014)
Concentration: 1 µg/Kg
Sample type: Sample



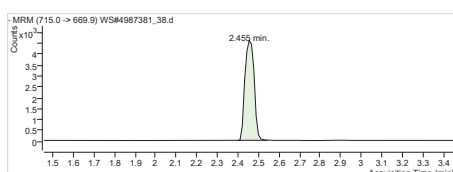
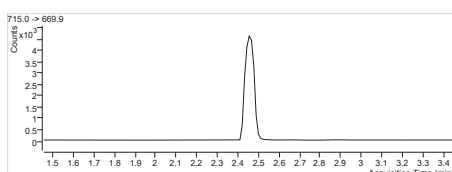
MPFDA
RT (Exp. RT): 2.135 (2.124)
Concentration: 1 µg/Kg
Sample type: Sample



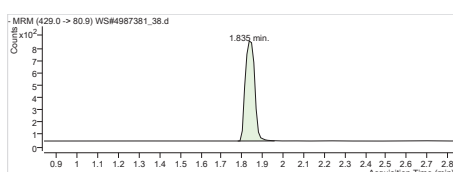
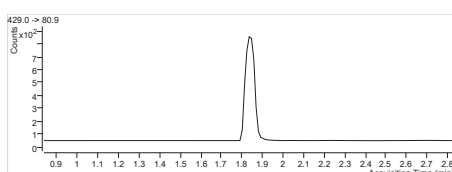
MPFUnA
RT (Exp. RT): 2.223 (2.223)
Concentration: 1 µg/Kg
Sample type: Sample



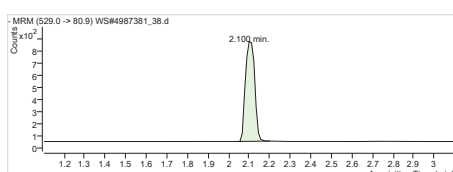
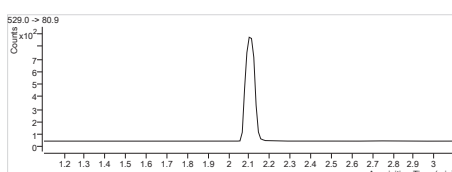
MPFDoA
RT (Exp. RT): 2.311 (2.311)
Concentration: 1 µg/Kg
Sample type: Sample



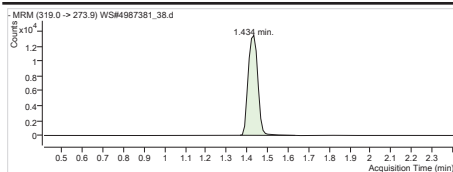
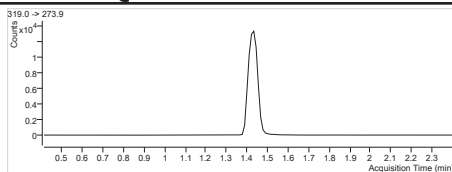
MPFTeDA
RT (Exp. RT): 2.455 (2.455)
Concentration: 1 µg/Kg
Sample type: Sample



M2 6:2 FTS
RT (Exp. RT): 1.835 (1.835)
Concentration: 1 µg/Kg
Sample type: Sample



M2 8:2 FTS
RT (Exp. RT): 2.100 (2.100)
Concentration: 1 µg/Kg
Sample type: Sample

**13C6-PFHxA IS**

RT (Exp. RT):

Concentration:

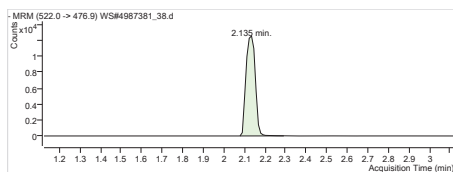
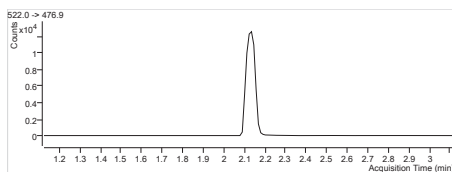
Sample type:

Internal Standard

1.434 (1.411)

1 µg/Kg

Sample

**13C9-PFDA IS**

RT (Exp. RT):

Concentration:

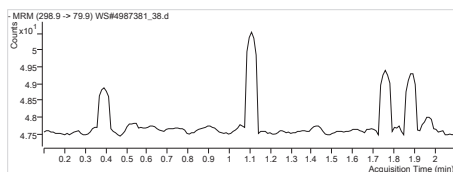
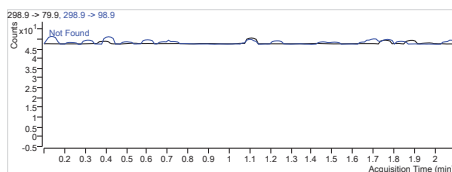
Sample type:

Internal Standard

2.135 (2.124)

1 µg/Kg

Sample

**PFBS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

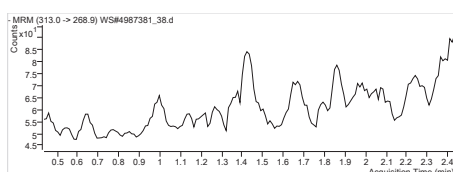
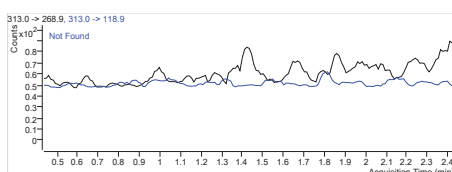
298.9 -> 79.9

0.000 (1.098)

N.D.

0

Sample

**PFHxA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

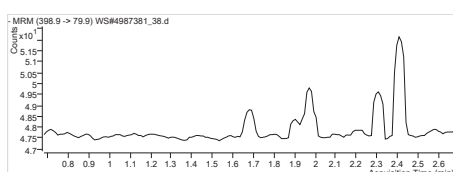
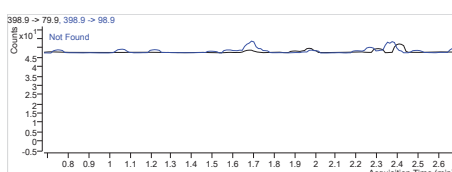
313.0 -> 268.9

0.000 (1.434)

N.D.

0

Sample

**PFHxS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

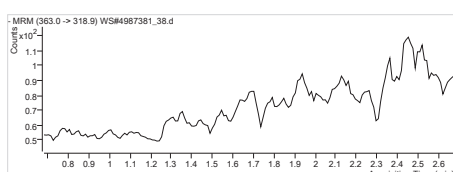
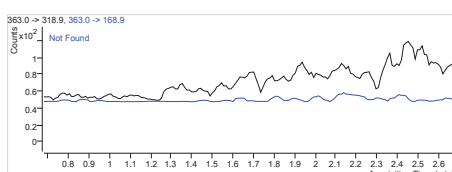
398.9 -> 79.9

0.000 (1.679)

N.D.

0

Sample

**PFHpA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

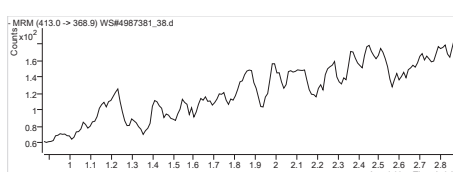
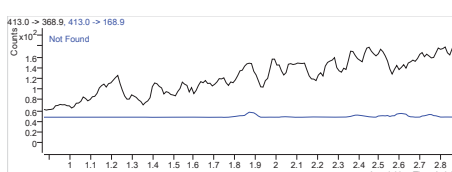
363.0 -> 318.9

0.000 (1.680)

N.D.

0

Sample

**PFOA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

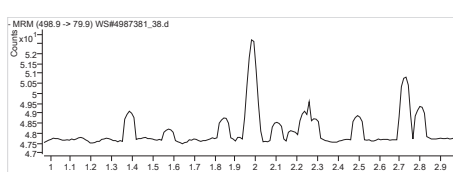
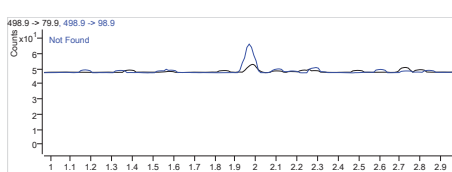
413.0 -> 368.9

0.000 (1.869)

N.D.

0

Sample

**PFOS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

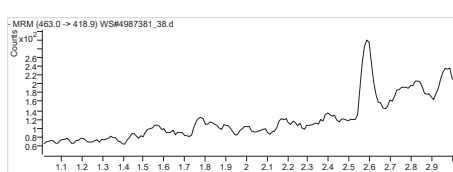
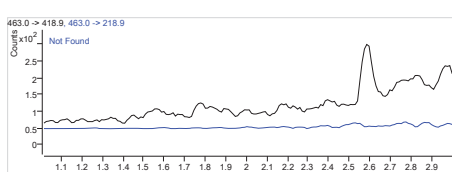
498.9 -> 79.9

0.000 (1.968)

N.D.

0

Sample

**PFNA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

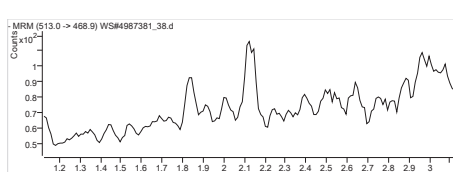
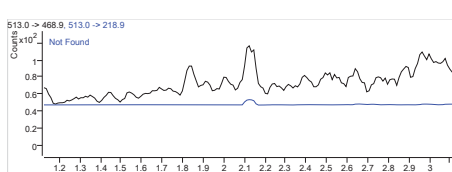
463.0 -> 418.9

0.000 (2.014)

N.D.

0

Sample

**PFDA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

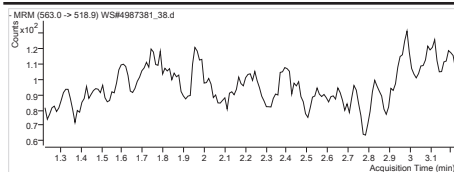
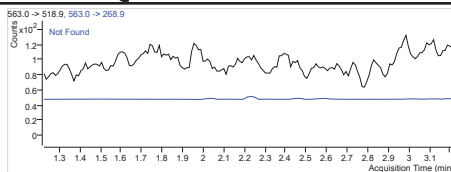
513.0 -> 468.9

0.000 (2.124)

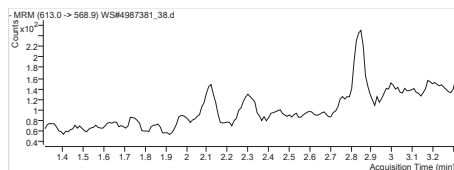
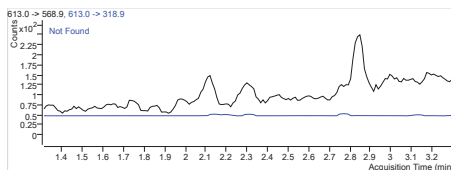
N.D.

0

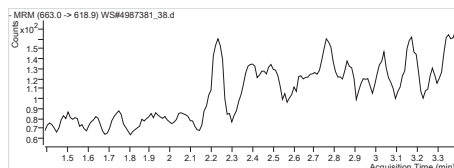
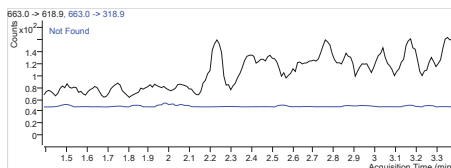
Sample



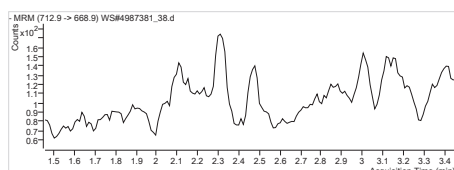
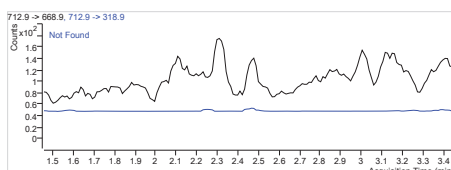
PFUnA 1
 RT (Exp. RT): 563.0 -> 518.9
 Calc. conc. 0.000 (2.223)
 Area ratio: N.D.
 Sample type: 0
 Sample



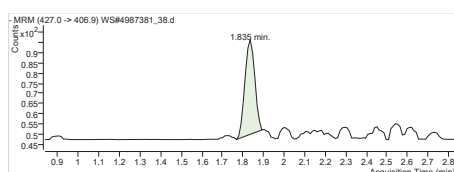
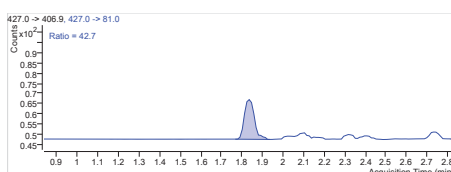
PFDa 1
 RT (Exp. RT): 613.0 -> 568.9
 Calc. conc. 0.000 (2.311)
 Area ratio: N.D.
 Sample type: 0
 Sample



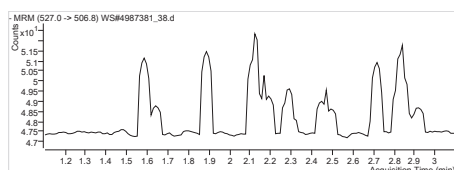
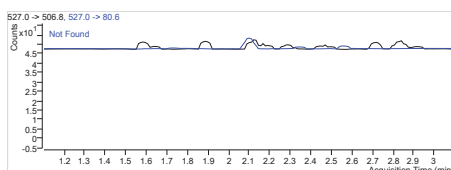
PFTraD 1
 RT (Exp. RT): 663.0 -> 618.9
 Calc. conc. 0.000 (2.389)
 Area ratio: N.D.
 Sample type: 0
 Sample



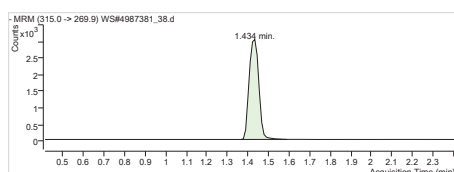
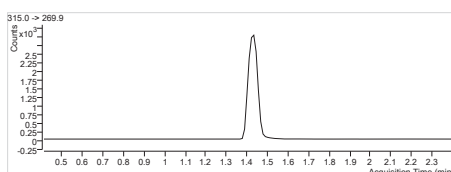
PFTeDa 1
 RT (Exp. RT): 712.9 -> 668.9
 Calc. conc. 0.000 (2.456)
 Area ratio: N.D.
 Sample type: 0
 Sample



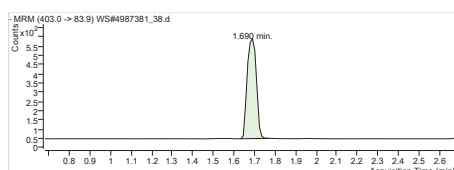
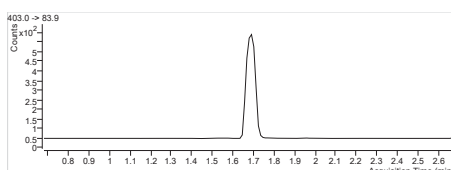
6:2-FTS 1
 RT (Exp. RT): 427.0 -> 406.9
 Calc. conc. 1.835 (1.835)
 Area ratio: 0.08 µg/Kg
 Sample type: 0.06034
 Sample



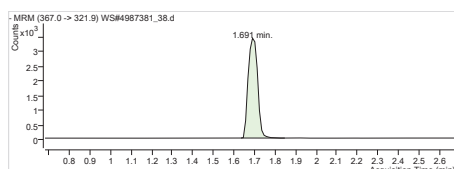
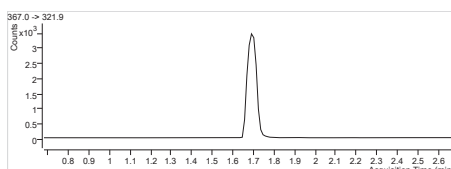
8:2-FTS 1
 RT (Exp. RT): 527.0 -> 506.8
 Calc. conc. 0.000 (2.101)
 Area ratio: N.D.
 Sample type: 0
 Sample



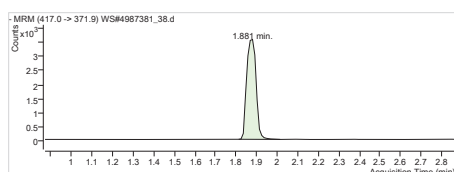
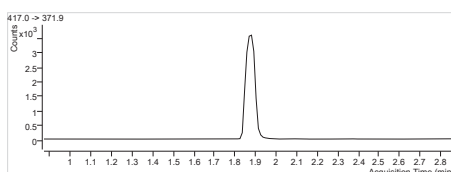
13C2-PFHxA
 RT (Exp. RT): 315.0 -> 269.9
 Calc. conc. 1.434 (1.411)
 Area ratio: 97.68 µg/Kg
 Sample type: 0.22729
 Sample



18O2-PFHxS
 RT (Exp. RT): 403.0 -> 83.9
 Calc. conc. 1.690 (1.679)
 Area ratio: 92.68 µg/Kg
 Sample type: 0.03881
 Sample

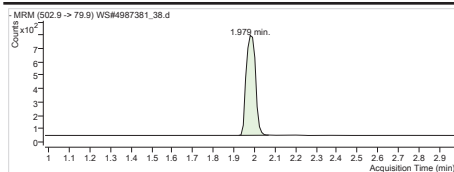
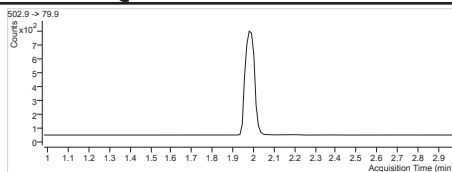


13C4-PFHpA
 RT (Exp. RT): 367.0 -> 321.9
 Calc. conc. 1.691 (1.680)
 Area ratio: 99.24 µg/Kg
 Sample type: 0.25134
 Sample

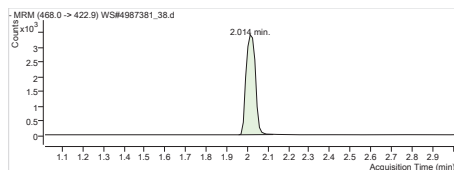
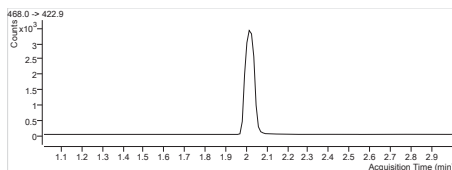


13C4-PFOA
 RT (Exp. RT): 417.0 -> 371.9
 Calc. conc. 1.881 (1.869)
 Area ratio: 105.45 µg/Kg
 Sample type: 0.26162
 Sample

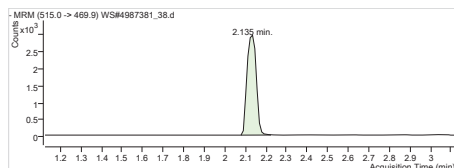
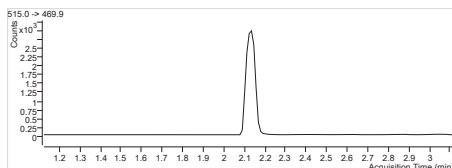
Quantitation Results



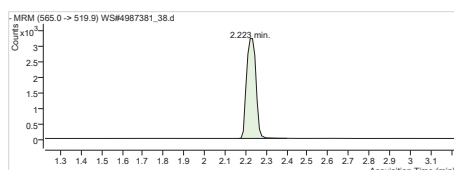
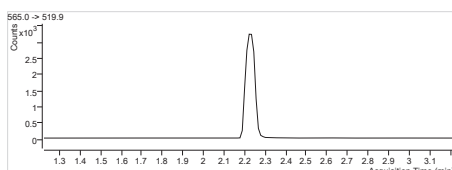
13C4-PFOS
 RT (Exp. RT): 502.9 -> 79.9
 Calc. conc. 1.979 (1.979)
 Area ratio: 108.09 µg/Kg
 Sample type: 0.05497
 Sample



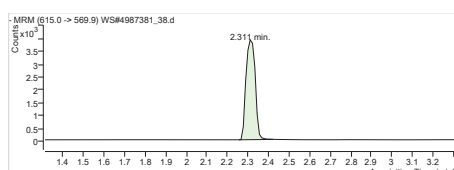
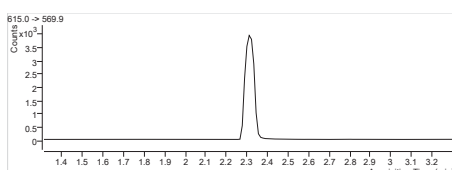
13C5-PFNA
 RT (Exp. RT): 468.0 -> 422.9
 Calc. conc. 2.014 (2.014)
 Area ratio: 101.37 µg/Kg
 Sample type: 0.24551
 Sample



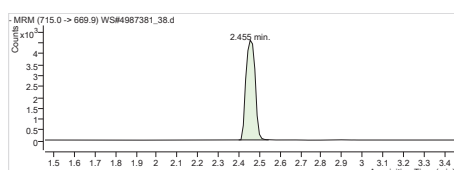
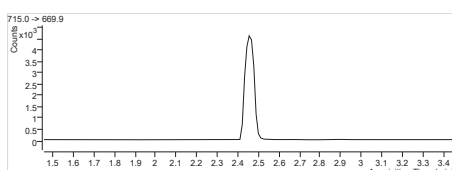
13C2-PFDA
 RT (Exp. RT): 515.0 -> 469.9
 Calc. conc. 2.135 (2.124)
 Area ratio: 101.93 µg/Kg
 Sample type: 0.23546
 Sample



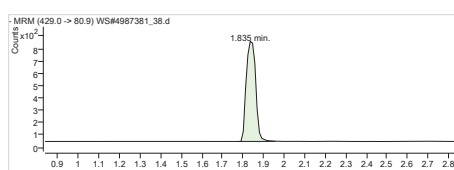
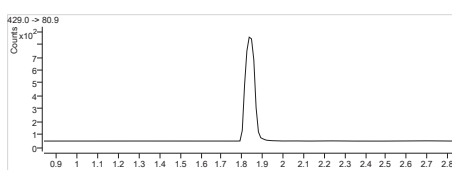
13C2-PFUnA
 RT (Exp. RT): 565.0 -> 519.9
 Calc. conc. 2.223 (2.223)
 Area ratio: 100.48 µg/Kg
 Sample type: 0.25958
 Sample



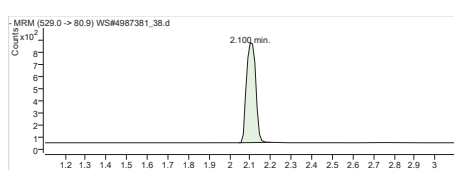
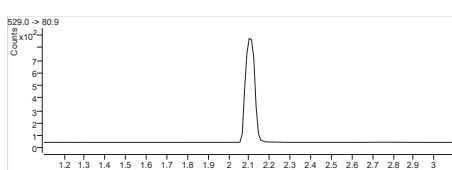
13C2-PFDoA
 RT (Exp. RT): 615.0 -> 569.9
 Calc. conc. 2.311 (2.311)
 Area ratio: 104.59 µg/Kg
 Sample type: 0.30972
 Sample



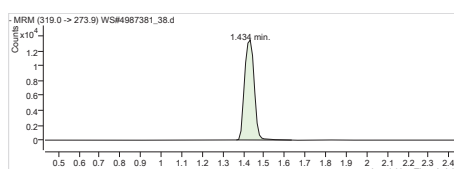
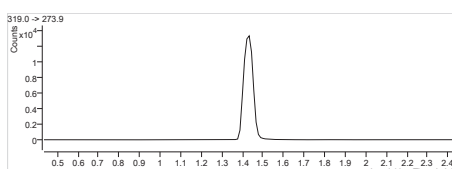
13C2-PFTeDA
 RT (Exp. RT): 715.0 -> 669.9
 Calc. conc. 2.455 (2.455)
 Area ratio: 98.50 µg/Kg
 Sample type: 0.36177
 Sample



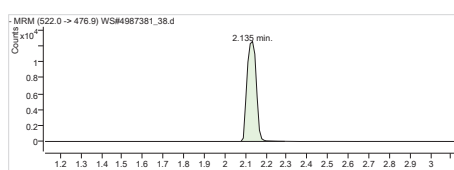
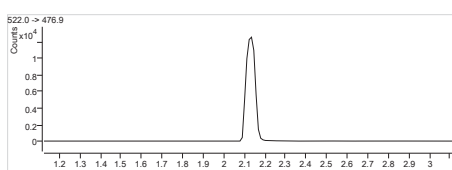
13C2-6:2-FTS
 RT (Exp. RT): 429.0 -> 80.9
 Calc. conc. 1.835 (1.835)
 Area ratio: 95.45 µg/Kg
 Sample type: 0.05979
 Sample



13C2-8:2 FTS
 RT (Exp. RT): 529.0 -> 80.9
 Calc. conc. 2.100 (2.100)
 Area ratio: 95.20 µg/Kg
 Sample type: 0.05988
 Sample



13C6-PFHxA
 RT (Exp. RT): 319.0 -> 273.9
 Calc. conc. 1.434 (1.434)
 Area ratio: 138.20 µg/Kg
 Sample type: 0
 Sample

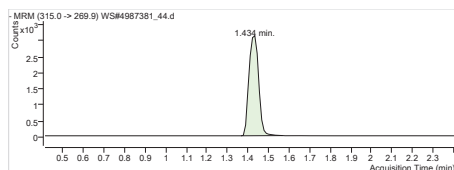
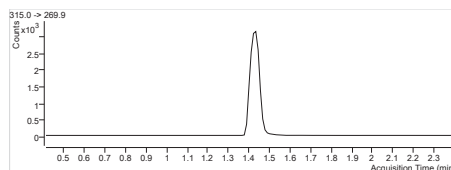


13C9-PFDA
 RT (Exp. RT): 522.0 -> 476.9
 Calc. conc. 2.135 (2.124)
 Area ratio: 136.30 µg/Kg
 Sample type: 0
 Sample

Batch Path	T:\lcms4\PFC\20170519\WS#4987381\QuantResults\PFC_Soil_170519_WS#4987381_CTLabs		
Sample Name	IB	Instrument	LCMS04
Data File	WS#4987381_44.d	Operator	M_G
Sample Type	Sample	Dilution	1.33
Acq. Method	PFC_Soil.m	Position	P2-A8
Acq. Date	2017/05/20 6:35:51 AM	Injection Volume	Per Method
Sample Annotation	-		

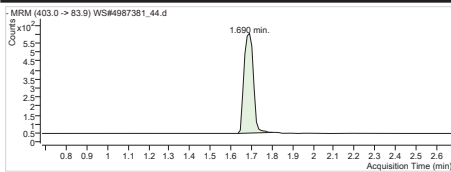
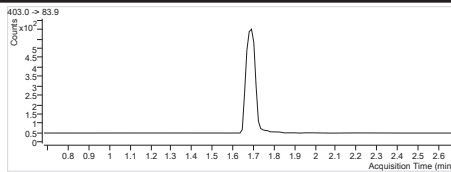
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	10193	1.43	1 µg/Kg		
MPFHxS	1759	1.69	1 µg/Kg		
MPFHpA	11078	1.69	1 µg/Kg		
MPFOA	10382	1.87	1 µg/Kg		
MPFOS	2042	1.98	1 µg/Kg		
MPFNA	10385	2.01	1 µg/Kg		
MPFDA	9334	2.14	1 µg/Kg		
MPFUnA	10122	2.22	1 µg/Kg		
MPFDoA	11873	2.31	1 µg/Kg		
MPFTeDA	14898	2.46	1 µg/Kg		
M2 6:2 FTS	2680	1.84	1 µg/Kg		
M2 8:2 FTS	2832	2.10	1 µg/Kg		
13C6-PFHxA IS	42659	1.43	1 µg/Kg		
13C9-PFDA IS	39465	2.13	1 µg/Kg		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1			-	ND	-
PFHxA 1			-	ND	-
PFHxS 1	53	1.68	-	0.23 µg/Kg	-
PFHpA 1			-	ND	-
PFOA 1			-	ND	-
PFOS 1			-	ND	-
PFNA 1			-	ND	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDaA 1			-	ND	-
PFTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
6:2-FTS 1			-	ND	-
8:2-FTS 1			-	ND	-
13C2-PFHxA	10193	1.43	-	102.69 µg/Kg	-
18O2-PFHxS	1759	1.69	-	98.47 µg/Kg	-
13C4-PFHpA	11078	1.69	-	102.53 µg/Kg	-
13C4-PFOA	10382	1.87	-	98.10 µg/Kg	-
13C4-PFOS	2042	1.98	-	94.13 µg/Kg	-
13C5-PFNA	10385	2.01	-	100.52 µg/Kg	-
13C2-PFDA	9334	2.14	-	102.39 µg/Kg	-
13C2-PFUnA	10122	2.22	-	99.28 µg/Kg	-
13C2-PFDoA	11873	2.31	-	101.59 µg/Kg	-
13C2-PFTeDA	14898	2.46	-	102.78 µg/Kg	-
13C2-6:2-FTS	2680	1.84	-	100.30 µg/Kg	-
13C2-8:2 FTS	2832	2.10	-	105.54 µg/Kg	-
13C6-PFHxA	42659	1.43	-	135.47 µg/Kg	-
13C9-PFDA	39465	2.13	-	136.57 µg/Kg	-

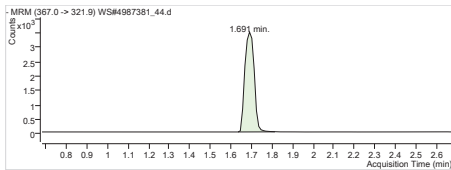
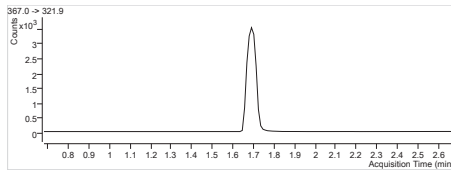


MPFHxA Internal Standard
 RT (Exp. RT): 1.434 (1.411)
 Concentration: 1 µg/Kg
 Sample type: Sample

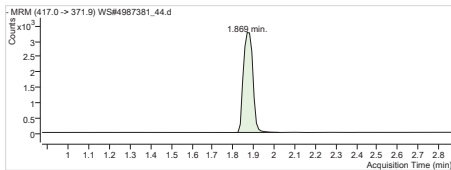
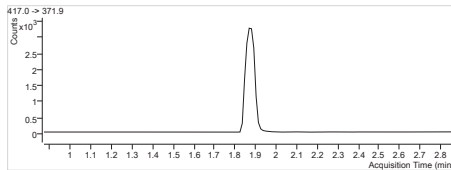
Quantitation Results



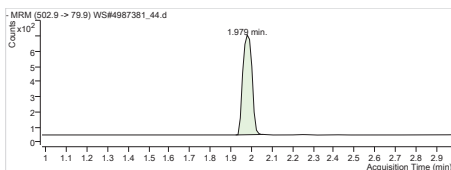
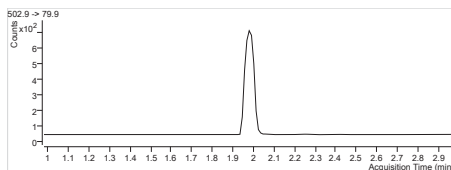
MPFHxS
 RT (Exp. RT): 1.690 (1.679)
 Concentration: 1 µg/Kg
 Sample type: Sample



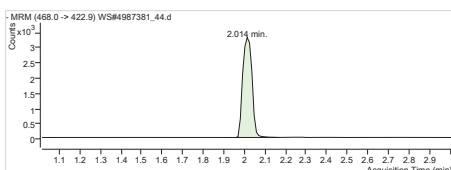
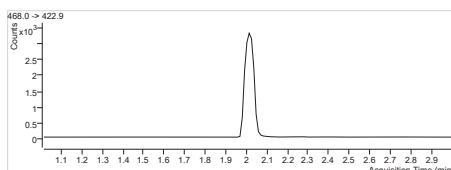
MPFHhpA
 RT (Exp. RT): 1.691 (1.680)
 Concentration: 1 µg/Kg
 Sample type: Sample



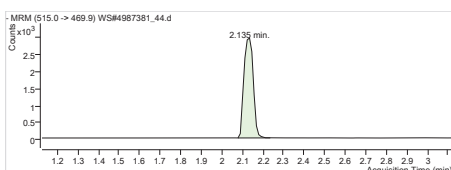
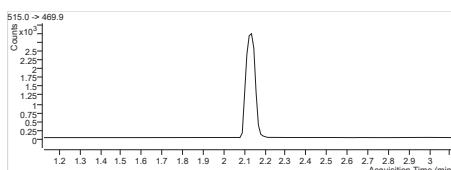
MPFOA
 RT (Exp. RT): 1.869 (1.869)
 Concentration: 1 µg/Kg
 Sample type: Sample



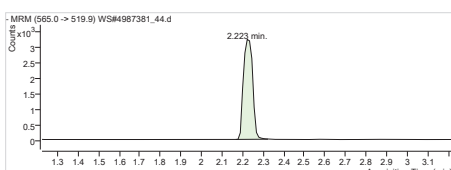
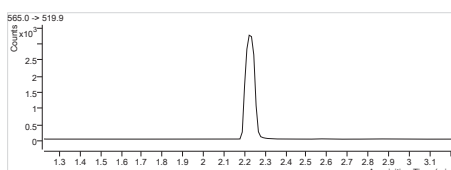
MPFOS
 RT (Exp. RT): 1.979 (1.979)
 Concentration: 1 µg/Kg
 Sample type: Sample



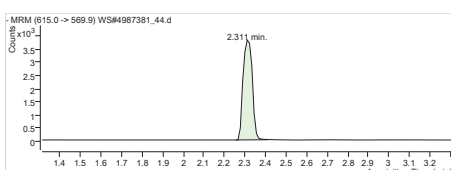
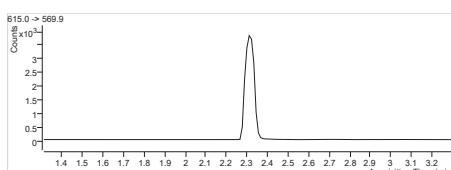
MPFNA
 RT (Exp. RT): 2.014 (2.014)
 Concentration: 1 µg/Kg
 Sample type: Sample



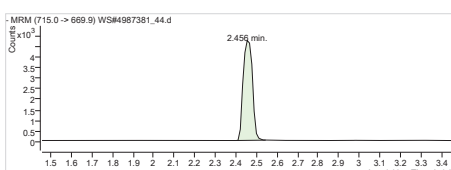
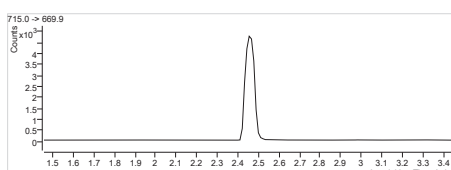
MPFDA
 RT (Exp. RT): 2.135 (2.124)
 Concentration: 1 µg/Kg
 Sample type: Sample



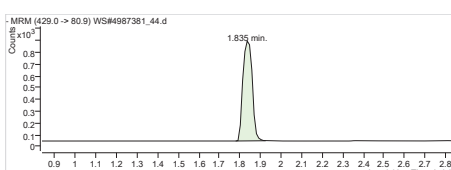
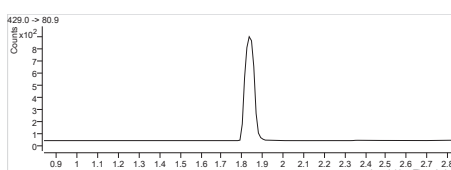
MPFUnA
 RT (Exp. RT): 2.223 (2.223)
 Concentration: 1 µg/Kg
 Sample type: Sample



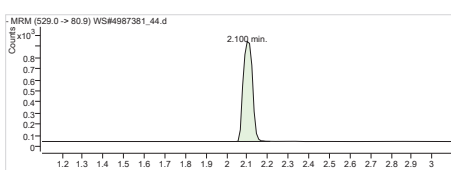
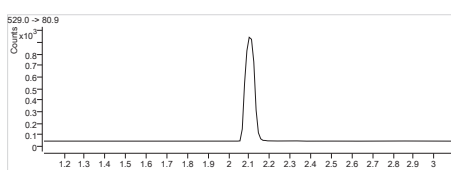
MPFDoA
 RT (Exp. RT): 2.311 (2.311)
 Concentration: 1 µg/Kg
 Sample type: Sample



MPFTeDA
 RT (Exp. RT): 2.456 (2.455)
 Concentration: 1 µg/Kg
 Sample type: Sample

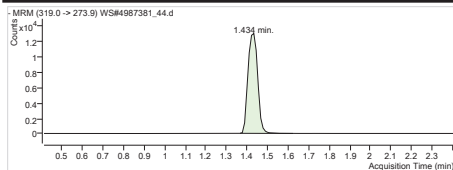
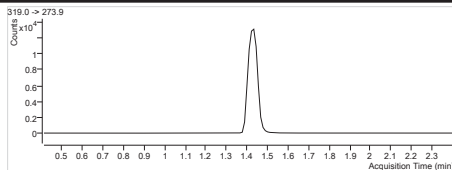


M2 6:2 FTS
 RT (Exp. RT): 1.835 (1.835)
 Concentration: 1 µg/Kg
 Sample type: Sample



M2 8:2 FTS
 RT (Exp. RT): 2.100 (2.100)
 Concentration: 1 µg/Kg
 Sample type: Sample

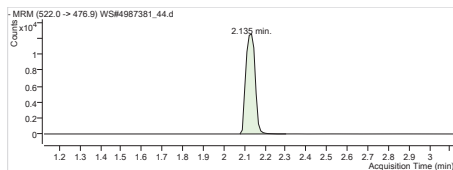
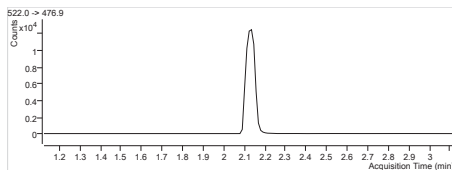
Quantitation Results



13C6-PFHxA IS

RT (Exp. RT):
Concentration:
Sample type:

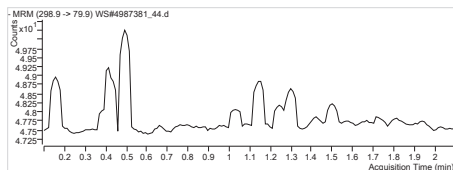
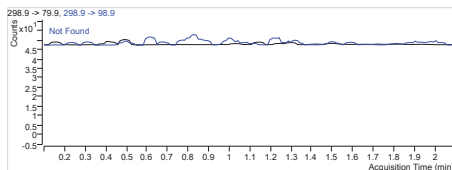
Internal Standard
1.434 (1.411)
1 µg/Kg
Sample



13C9-PFDA IS

RT (Exp. RT):
Concentration:
Sample type:

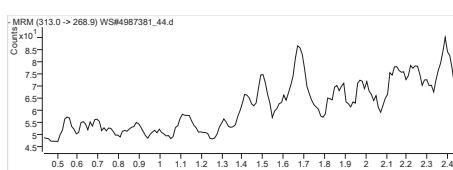
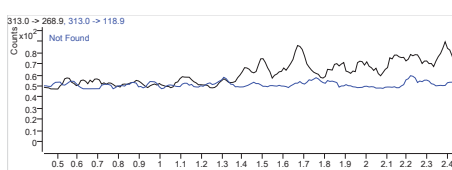
Internal Standard
2.135 (2.124)
1 µg/Kg
Sample



PFBS 1

RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

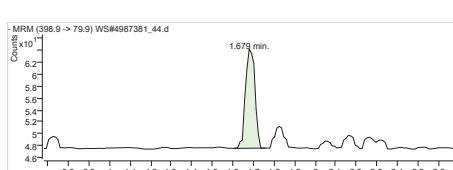
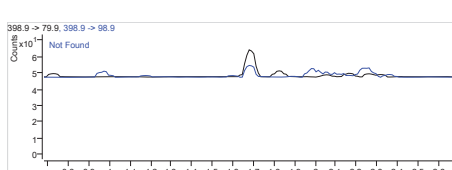
298.9 -> 79.9
0.000 (1.098)
N.D.
0
Sample



PFHxA 1

RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

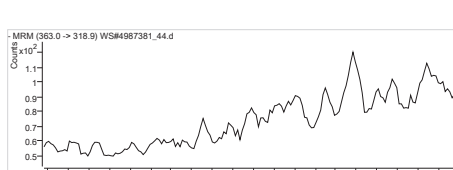
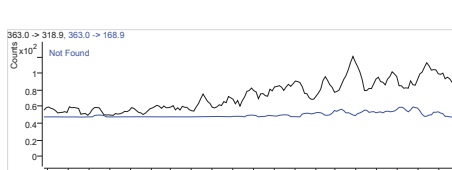
313.0 -> 268.9
0.000 (1.434)
N.D.
0
Sample



PFHxS 1

RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

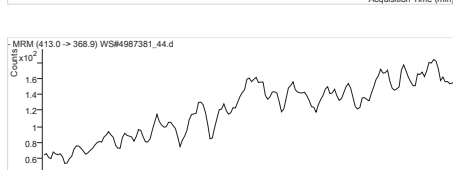
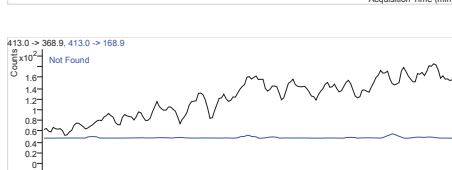
398.9 -> 79.9
1.679 (1.679)
0.23 µg/Kg
0.03013
Sample



PFHpA 1

RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

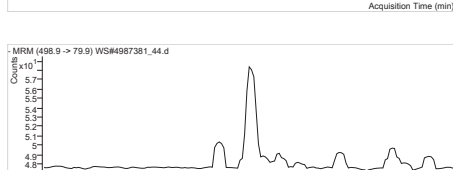
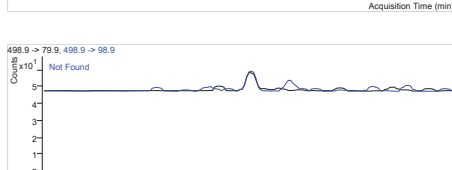
363.0 -> 318.9
0.000 (1.680)
N.D.
0
Sample



PFOA 1

RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

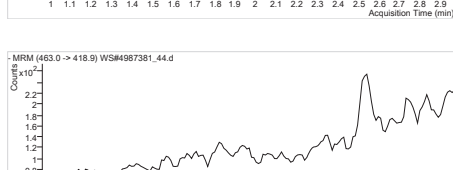
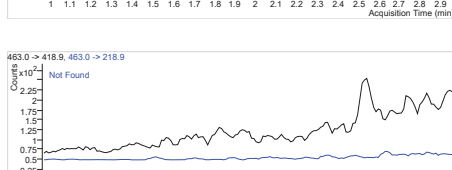
413.0 -> 368.9
0.000 (1.869)
N.D.
0
Sample



PFOS 1

RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

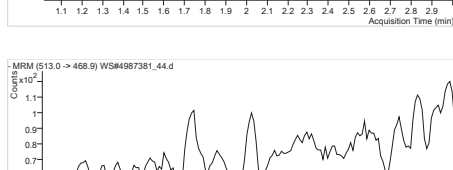
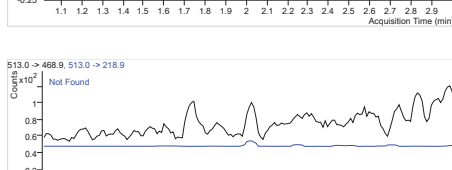
498.9 -> 79.9
0.000 (1.968)
N.D.
0
Sample



PFNA 1

RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

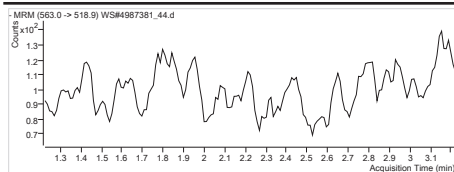
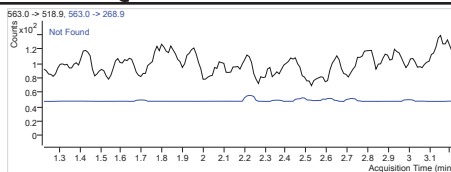
463.0 -> 418.9
0.000 (2.014)
N.D.
0
Sample



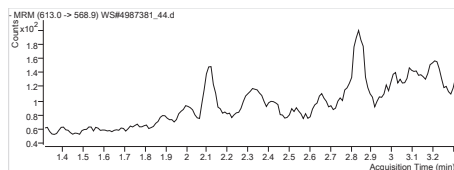
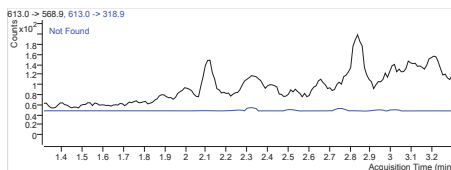
PFDA 1

RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

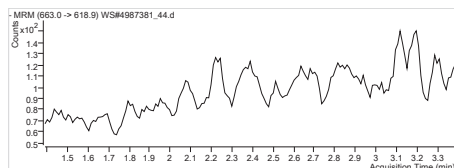
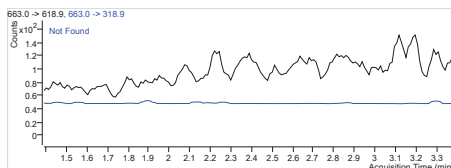
513.0 -> 468.9
0.000 (2.124)
N.D.
0
Sample



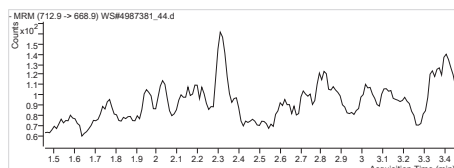
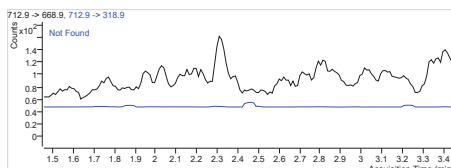
PFUnA 1
 RT (Exp. RT): 563.0 -> 518.9
 Calc. conc. 0.000 (2.223)
 Area ratio: N.D.
 Sample type: 0
 Sample



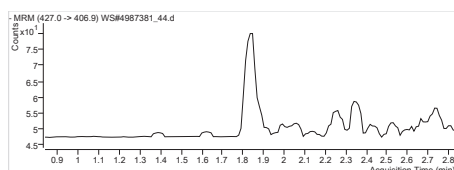
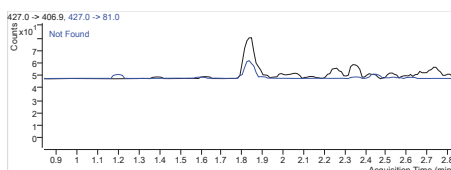
PFDaA 1
 RT (Exp. RT): 613.0 -> 568.9
 Calc. conc. 0.000 (2.311)
 Area ratio: N.D.
 Sample type: 0
 Sample



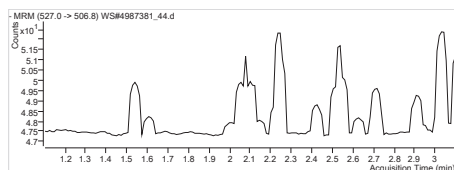
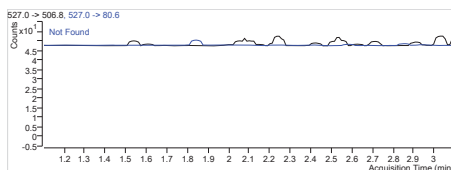
PFTraD 1
 RT (Exp. RT): 663.0 -> 618.9
 Calc. conc. 0.000 (2.389)
 Area ratio: N.D.
 Sample type: 0
 Sample



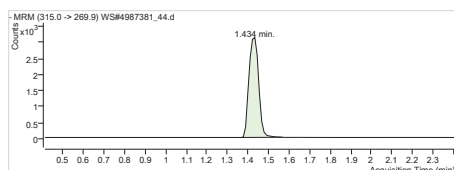
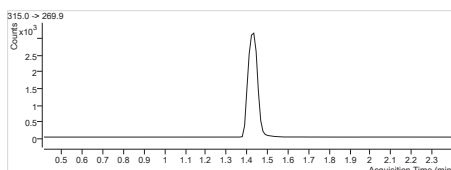
PFTeDa 1
 RT (Exp. RT): 712.9 -> 668.9
 Calc. conc. 0.000 (2.456)
 Area ratio: N.D.
 Sample type: 0
 Sample



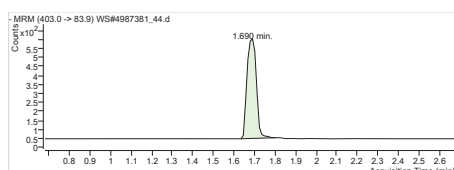
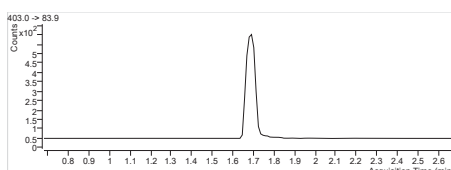
6:2-FTS 1
 RT (Exp. RT): 427.0 -> 406.9
 Calc. conc. 0.000 (1.835)
 Area ratio: N.D.
 Sample type: 0
 Sample



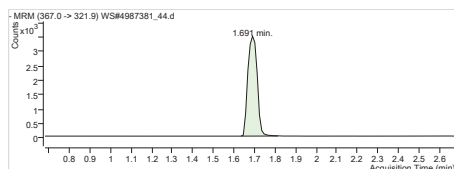
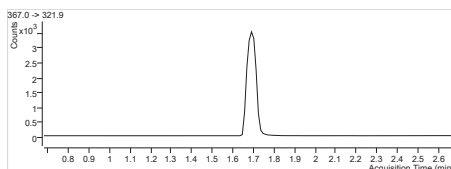
8:2-FTS 1
 RT (Exp. RT): 527.0 -> 506.8
 Calc. conc. 0.000 (2.101)
 Area ratio: N.D.
 Sample type: 0
 Sample



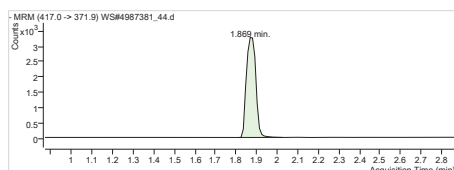
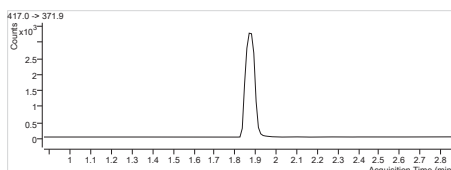
13C2-PFHxA
 RT (Exp. RT): 315.0 -> 269.9
 Calc. conc. 1.434 (1.411)
 Area ratio: 102.69 µg/Kg
 Sample type: 0.23894
 Sample



18O2-PFHxS
 RT (Exp. RT): 403.0 -> 83.9
 Calc. conc. 1.690 (1.679)
 Area ratio: 98.47 µg/Kg
 Sample type: 0.04123
 Sample

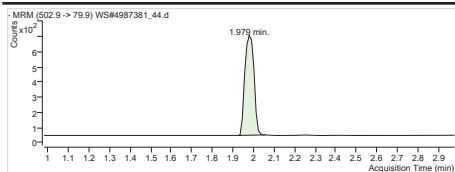
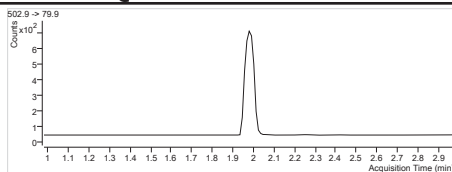


13C4-PFHpA
 RT (Exp. RT): 367.0 -> 321.9
 Calc. conc. 1.691 (1.680)
 Area ratio: 102.53 µg/Kg
 Sample type: 0.25969
 Sample

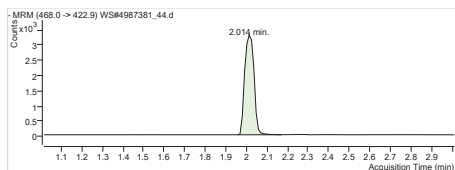
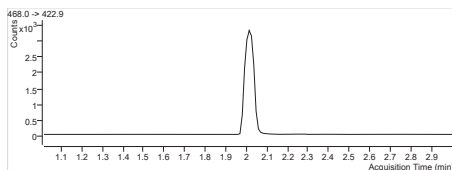


13C4-PFOA
 RT (Exp. RT): 417.0 -> 371.9
 Calc. conc. 1.869 (1.869)
 Area ratio: 98.10 µg/Kg
 Sample type: 0.24337
 Sample

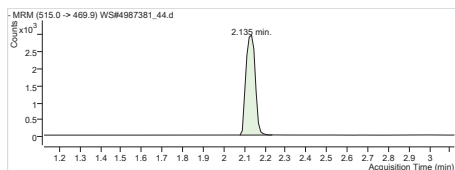
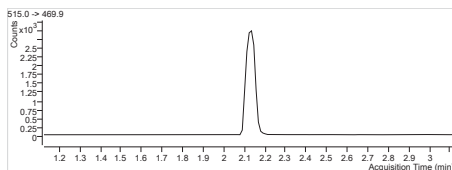
Quantitation Results



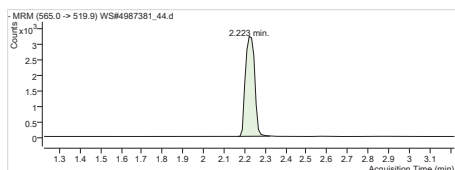
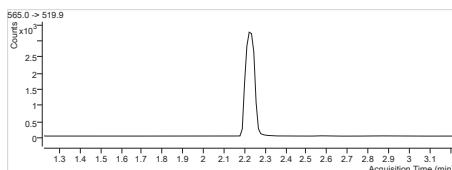
13C4-PFOS
RT (Exp. RT): 502.9 -> 79.9
Calc. conc. 1.979 (1.979)
Area ratio: 94.13 µg/Kg
Sample type: 0.04787
Sample



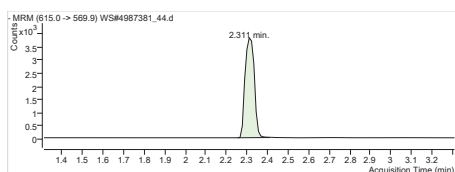
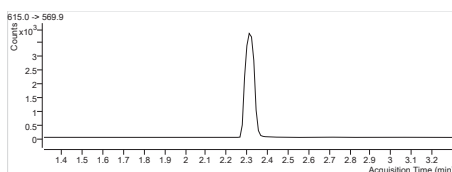
13C5-PFNA
RT (Exp. RT): 468.0 -> 422.9
Calc. conc. 2.014 (2.014)
Area ratio: 100.52 µg/Kg
Sample type: 0.24344
Sample



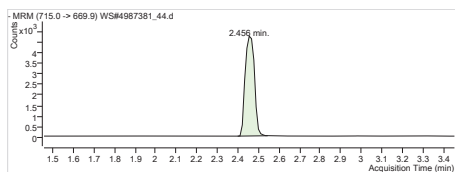
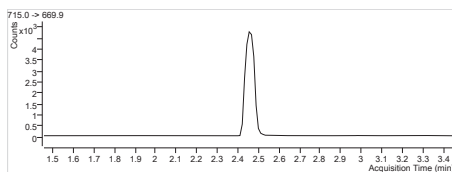
13C2-PFDA
RT (Exp. RT): 515.0 -> 469.9
Calc. conc. 2.135 (2.124)
Area ratio: 102.39 µg/Kg
Sample type: 0.23651
Sample



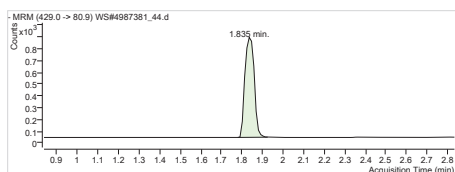
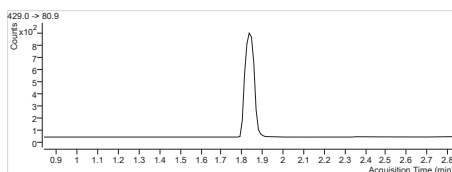
13C2-PFUnA
RT (Exp. RT): 565.0 -> 519.9
Calc. conc. 2.223 (2.223)
Area ratio: 99.28 µg/Kg
Sample type: 0.25648
Sample



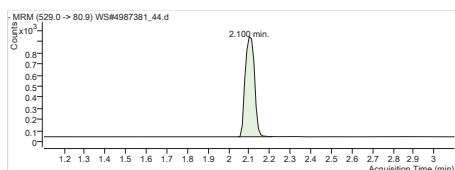
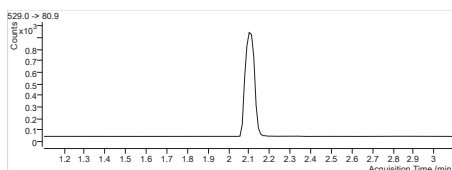
13C2-PFDoA
RT (Exp. RT): 615.0 -> 569.9
Calc. conc. 2.311 (2.311)
Area ratio: 101.59 µg/Kg
Sample type: 0.30085
Sample



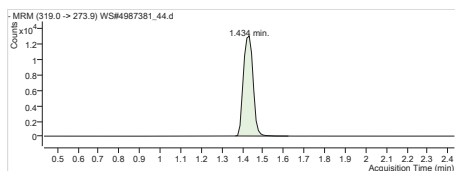
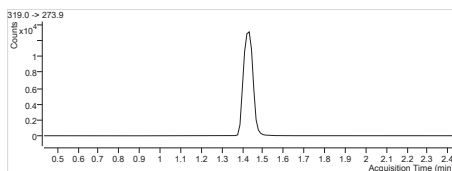
13C2-PFTeDA
RT (Exp. RT): 715.0 -> 669.9
Calc. conc. 2.456 (2.455)
Area ratio: 102.78 µg/Kg
Sample type: 0.37750
Sample



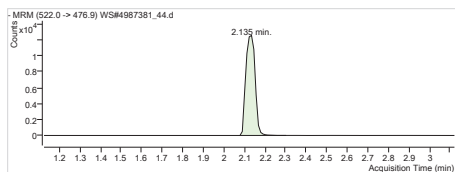
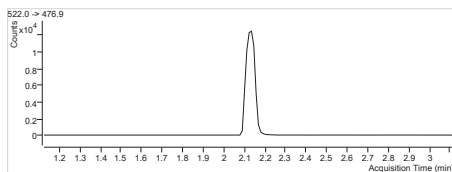
13C2-6:2-FTS
RT (Exp. RT): 429.0 -> 80.9
Calc. conc. 1.835 (1.835)
Area ratio: 100.30 µg/Kg
Sample type: 0.06282
Sample



13C2-8:2 FTS
RT (Exp. RT): 529.0 -> 80.9
Calc. conc. 2.100 (2.100)
Area ratio: 105.54 µg/Kg
Sample type: 0.06639
Sample



13C6-PFHxA
RT (Exp. RT): 319.0 -> 273.9
Calc. conc. 1.434 (1.434)
Area ratio: 135.47 µg/Kg
Sample type: 0
Sample



13C9-PFDA
RT (Exp. RT): 522.0 -> 476.9
Calc. conc. 2.135 (2.124)
Area ratio: 136.57 µg/Kg
Sample type: 0
Sample

Batch Path

T:\lcms4\PFC\20170519\WS#4987381\QuantResults\PFC_Soil_170519_WS#4987381_CTLabs

Sample Name

IB

Instrument

LCMS04

Data File

WS#4987381_50.d

Operator

M_G

Sample Type

Sample

Dilution

1.33

Acq. Method

PFC_Soil.m

Position

P2-A8

Acq. Date

2017/05/20 7:05:15 AM

Injection Volume

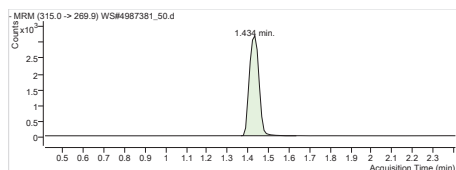
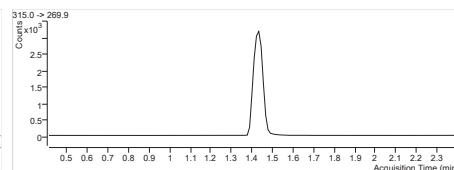
Per Method

Sample Annotation

-

ISTD Compounds	Response	RT	Target conc.		
MPFHxA	10291	1.43	1 µg/Kg		
MPFHxS	1983	1.69	1 µg/Kg		
MPFHpA	11264	1.69	1 µg/Kg		
MPFOA	10349	1.88	1 µg/Kg		
MPFOS	2417	1.98	1 µg/Kg		
MPFNA	10874	2.01	1 µg/Kg		
MPFDA	9431	2.14	1 µg/Kg		
MPFUnA	10128	2.22	1 µg/Kg		
MPFDoA	12128	2.31	1 µg/Kg		
MPFTeDA	14312	2.46	1 µg/Kg		
M2 6:2 FTS	2796	1.84	1 µg/Kg		
M2 8:2 FTS	2743	2.10	1 µg/Kg		
13C6-PFHxA IS	43536	1.43	1 µg/Kg		
13C9-PFDA IS	39579	2.13	1 µg/Kg		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1			-	ND	-
PFHxA 1			-	ND	-
PFHxS 1			-	ND	-
PFHpA 1			-	ND	-
PFOA 1			-	ND	-
PFOS 1			-	ND	-
PFNA 1			-	ND	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDaA 1			-	ND	-
PFTeDA 1			-	ND	-
6:2-FTS 1	200	1.85	-	0.12 µg/Kg	-
8:2-FTS 1			-	ND	-
13C2-PFHxA	10291	1.43	-	101.59 µg/Kg	-
18O2-PFHxS	1983	1.69	-	108.77 µg/Kg	-
13C4-PFHpA	11264	1.69	-	102.15 µg/Kg	-
13C4-PFOA	10349	1.88	-	95.82 µg/Kg	-
13C4-PFOS	2417	1.98	-	109.18 µg/Kg	-
13C5-PFNA	10874	2.01	-	103.14 µg/Kg	-
13C2-PFDA	9431	2.14	-	103.16 µg/Kg	-
13C2-PFUnA	10128	2.22	-	99.05 µg/Kg	-
13C2-PFDoA	12128	2.31	-	103.48 µg/Kg	-
13C2-PFTeDA	14312	2.46	-	98.45 µg/Kg	-
13C2-6:2-FTS	2796	1.84	-	102.53 µg/Kg	-
13C2-8:2 FTS	2743	2.10	-	100.16 µg/Kg	-
13C6-PFHxA	43536	1.43	-	138.26 µg/Kg	-
13C9-PFDA	39579	2.13	-	136.97 µg/Kg	-



MPFHxA

Internal Standard

RT (Exp. RT):

1.434 (1.411)

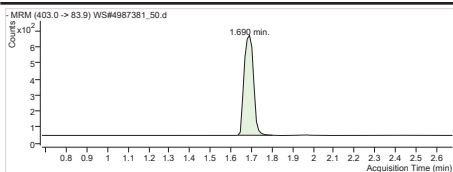
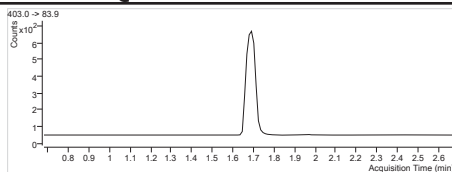
Concentration:

1 µg/Kg

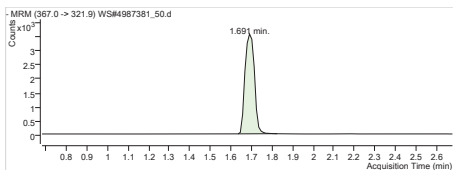
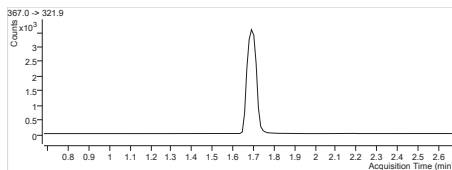
Sample type:

Sample

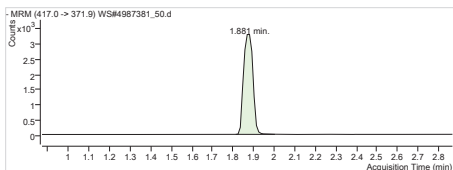
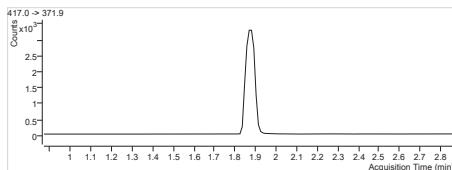
Quantitation Results



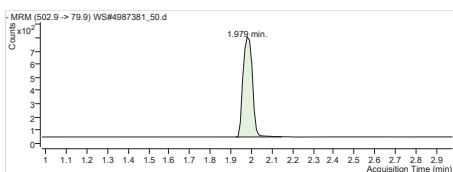
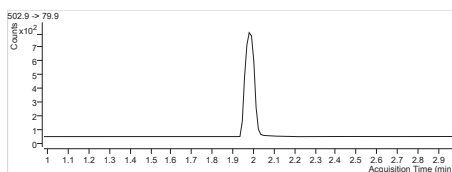
MPFHxS
RT (Exp. RT): 1.690 (1.679)
Concentration: 1 µg/Kg
Sample type: Sample



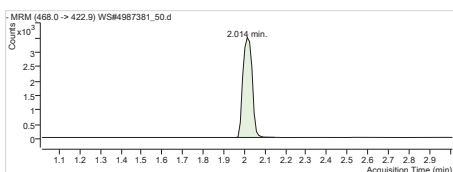
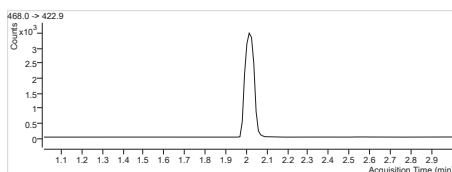
MPFHpA
RT (Exp. RT): 1.691 (1.680)
Concentration: 1 µg/Kg
Sample type: Sample



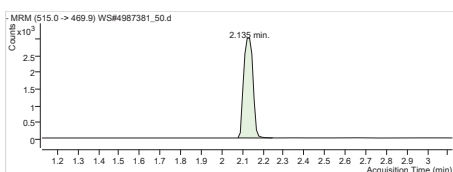
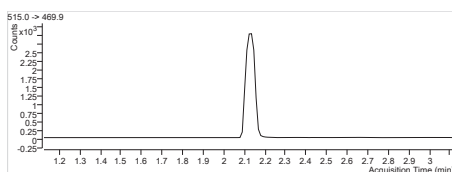
MPFOA
RT (Exp. RT): 1.881 (1.869)
Concentration: 1 µg/Kg
Sample type: Sample



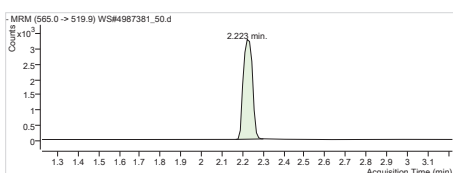
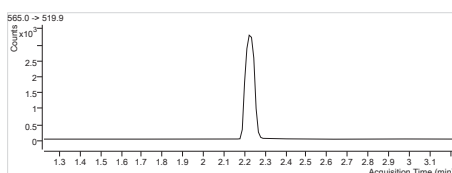
MPFOS
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/Kg
Sample type: Sample



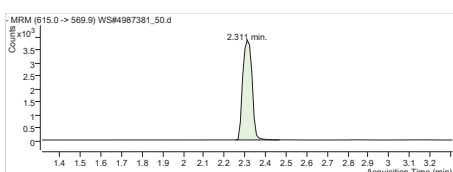
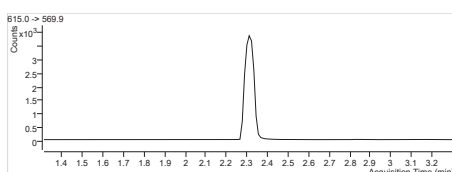
MPFNA
RT (Exp. RT): 2.014 (2.014)
Concentration: 1 µg/Kg
Sample type: Sample



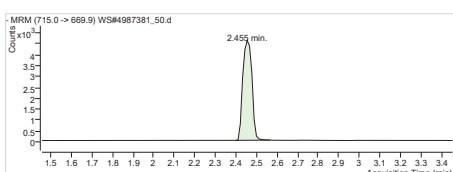
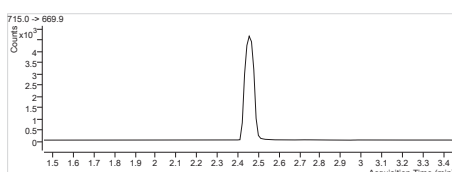
MPFDA
RT (Exp. RT): 2.135 (2.124)
Concentration: 1 µg/Kg
Sample type: Sample



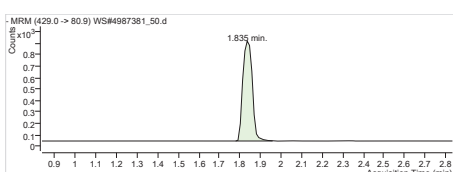
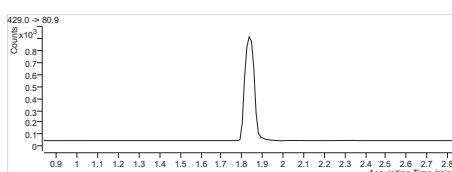
MPFUnA
RT (Exp. RT): 2.223 (2.223)
Concentration: 1 µg/Kg
Sample type: Sample



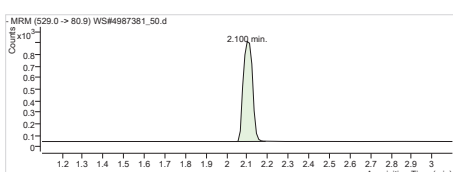
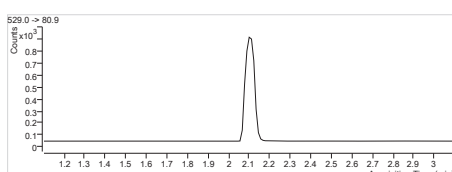
MPFDoA
RT (Exp. RT): 2.311 (2.311)
Concentration: 1 µg/Kg
Sample type: Sample



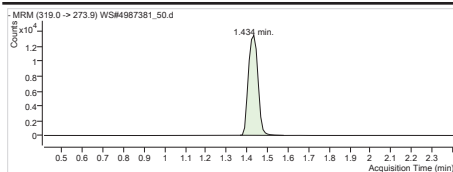
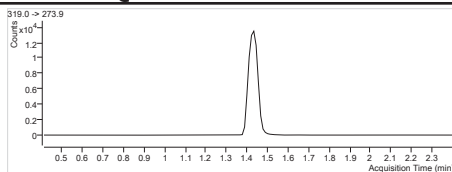
MPFTeDA
RT (Exp. RT): 2.455 (2.455)
Concentration: 1 µg/Kg
Sample type: Sample



M2 6:2 FTS
RT (Exp. RT): 1.835 (1.835)
Concentration: 1 µg/Kg
Sample type: Sample



M2 8:2 FTS
RT (Exp. RT): 2.100 (2.100)
Concentration: 1 µg/Kg
Sample type: Sample

**13C6-PFHxA IS**

RT (Exp. RT):

Concentration:

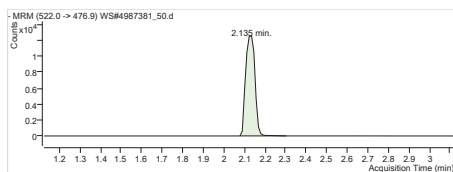
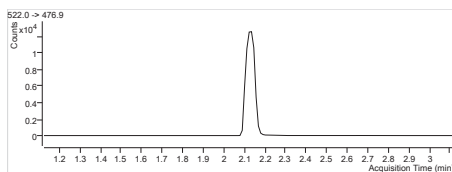
Sample type:

Internal Standard

1.434 (1.411)

1 µg/Kg

Sample

**13C9-PFDA IS**

RT (Exp. RT):

Concentration:

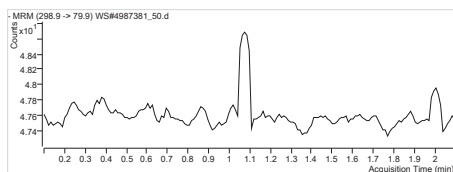
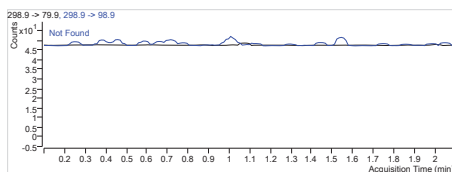
Sample type:

Internal Standard

2.135 (2.124)

1 µg/Kg

Sample

**PFBS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

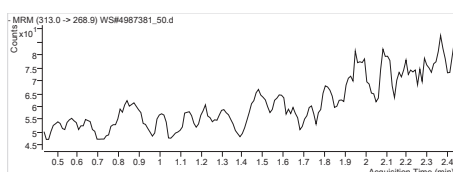
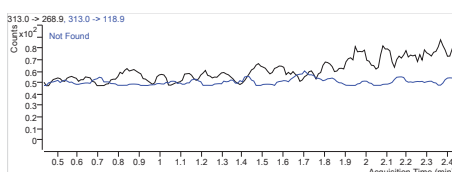
298.9 -> 79.9

0.000 (1.098)

N.D.

0

Sample

**PFHxA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

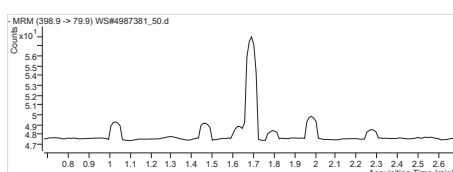
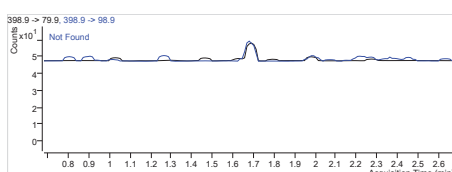
313.0 -> 268.9

0.000 (1.434)

N.D.

0

Sample

**PFHxS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

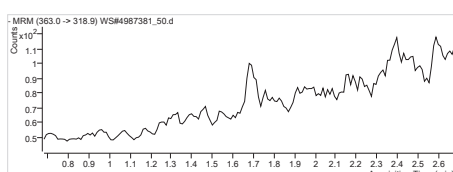
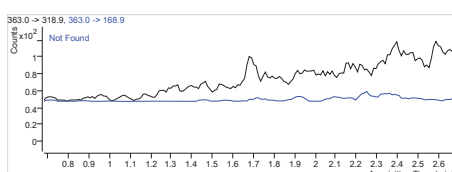
398.9 -> 79.9

0.000 (1.679)

N.D.

0

Sample

**PFHpA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

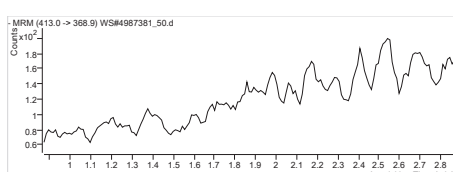
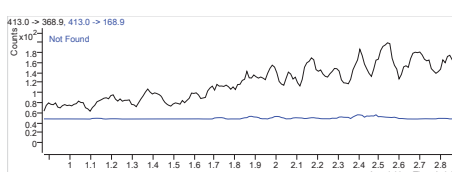
363.0 -> 318.9

0.000 (1.680)

N.D.

0

Sample

**PFOA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

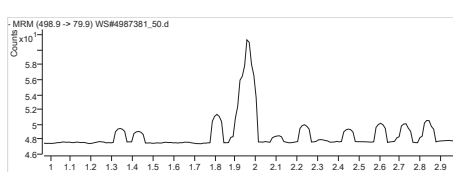
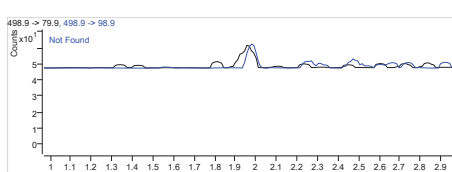
413.0 -> 368.9

0.000 (1.869)

N.D.

0

Sample

**PFOS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

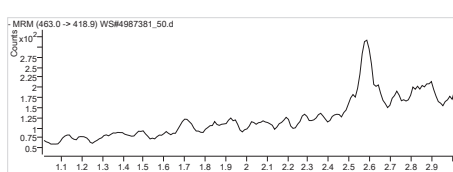
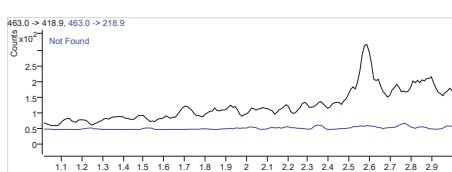
498.9 -> 79.9

0.000 (1.968)

N.D.

0

Sample

**PFNA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

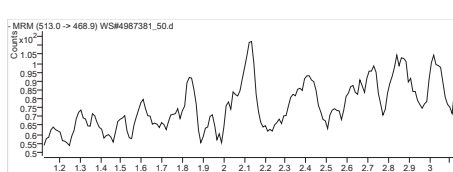
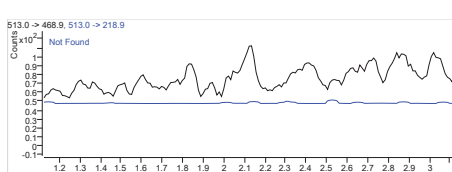
463.0 -> 418.9

0.000 (2.014)

N.D.

0

Sample

**PFDA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

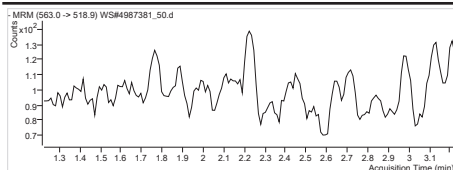
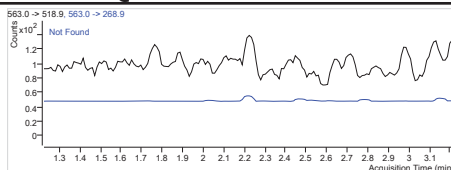
513.0 -> 468.9

0.000 (2.124)

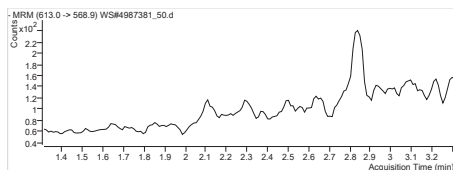
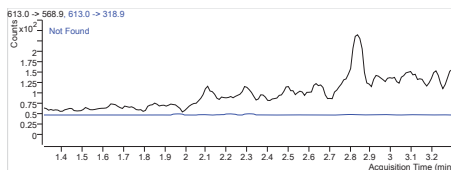
N.D.

0

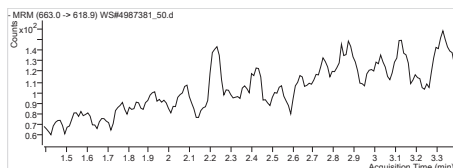
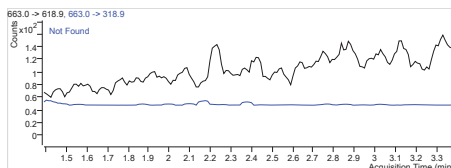
Sample



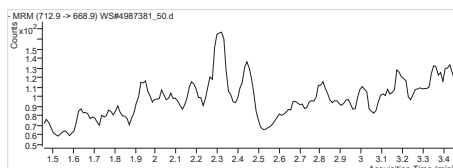
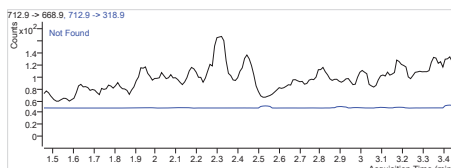
PFUnA 1
 RT (Exp. RT): 563.0 -> 518.9
 Calc. conc. 0.000 (2.223)
 Area ratio: N.D.
 Sample type: 0
 Sample



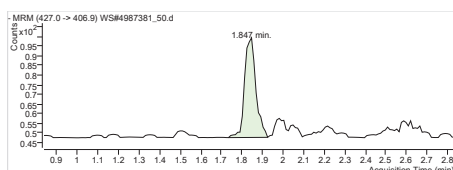
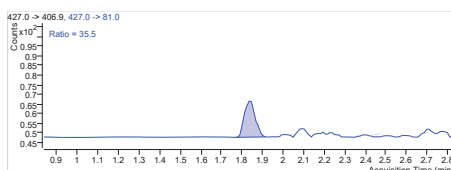
PFDaA 1
 RT (Exp. RT): 613.0 -> 568.9
 Calc. conc. 0.000 (2.311)
 Area ratio: N.D.
 Sample type: 0
 Sample



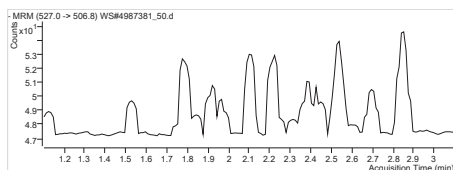
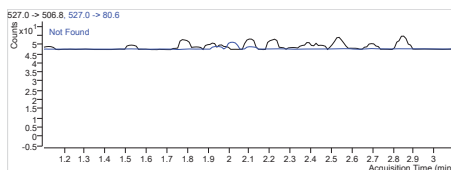
PFTrDa 1
 RT (Exp. RT): 663.0 -> 618.9
 Calc. conc. 0.000 (2.389)
 Area ratio: N.D.
 Sample type: 0
 Sample



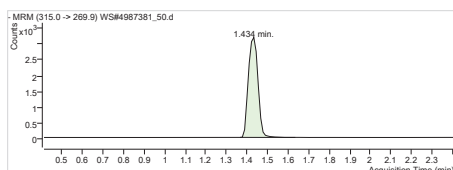
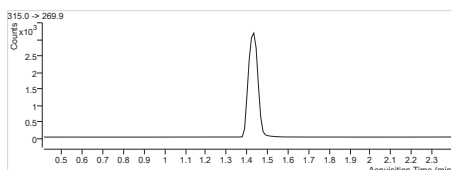
PFTeDa 1
 RT (Exp. RT): 712.9 -> 668.9
 Calc. conc. 0.000 (2.456)
 Area ratio: N.D.
 Sample type: 0
 Sample



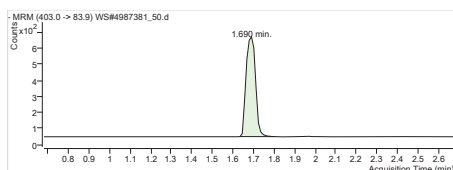
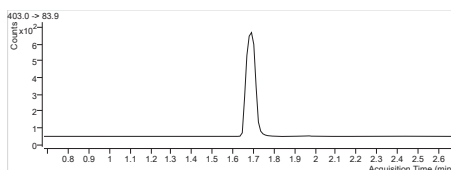
6:2-FTS 1
 RT (Exp. RT): 427.0 -> 406.9
 Calc. conc. 1.847 (1.835)
 Area ratio: 0.12 µg/Kg
 Sample type: 0.07153
 Sample



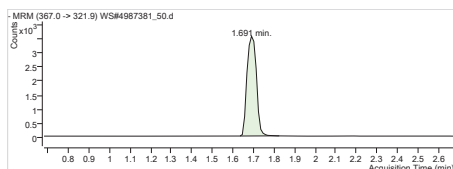
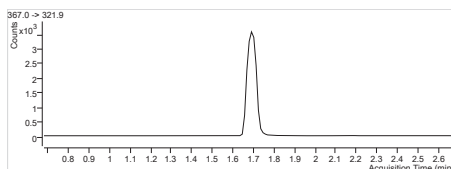
8:2-FTS 1
 RT (Exp. RT): 527.0 -> 506.8
 Calc. conc. 0.000 (2.101)
 Area ratio: N.D.
 Sample type: 0
 Sample



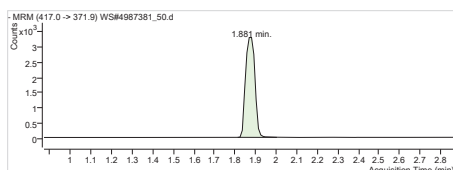
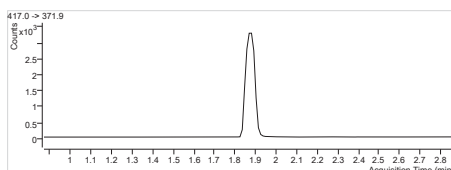
13C2-PFHxA
 RT (Exp. RT): 315.0 -> 269.9
 Calc. conc. 1.434 (1.411)
 Area ratio: 101.59 µg/Kg
 Sample type: 0.23638
 Sample



18O2-PFHxS
 RT (Exp. RT): 403.0 -> 83.9
 Calc. conc. 1.690 (1.679)
 Area ratio: 108.77 µg/Kg
 Sample type: 0.04555
 Sample

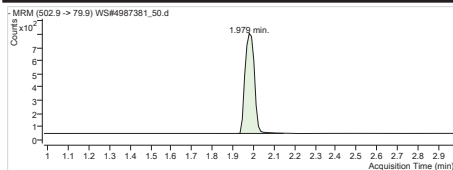
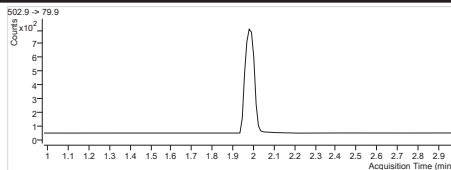


13C4-PFHpA
 RT (Exp. RT): 367.0 -> 321.9
 Calc. conc. 1.691 (1.680)
 Area ratio: 102.15 µg/Kg
 Sample type: 0.25873
 Sample

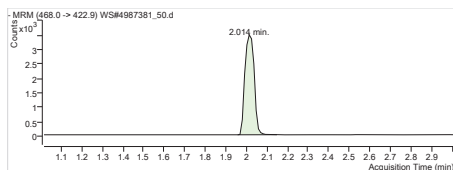
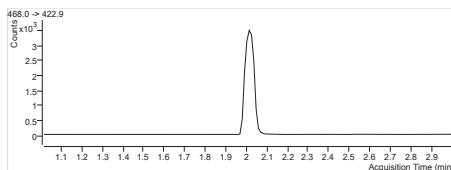


13C4-PFOA
 RT (Exp. RT): 417.0 -> 371.9
 Calc. conc. 1.881 (1.869)
 Area ratio: 95.82 µg/Kg
 Sample type: 0.23771
 Sample

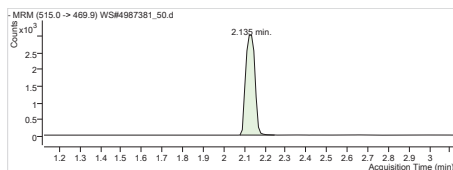
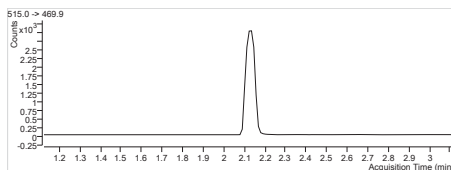
Quantitation Results



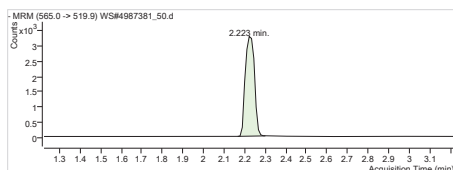
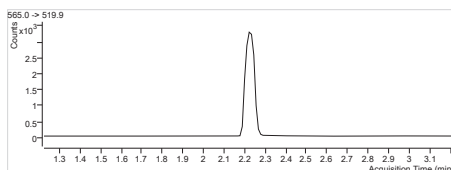
13C4-PFOS
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 109.18 µg/Kg
Area ratio: 0.05552
Sample type: Sample



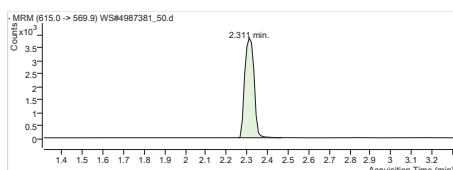
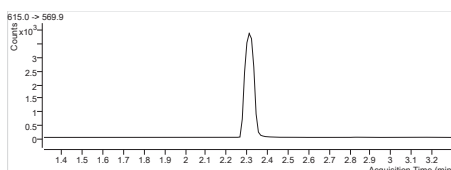
13C5-PFNA
RT (Exp. RT): 2.014 (2.014)
Calc. conc. 103.14 µg/Kg
Area ratio: 0.24977
Sample type: Sample



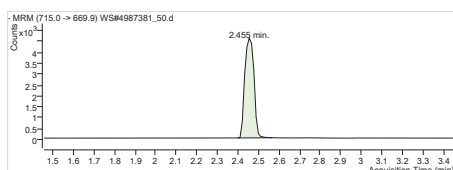
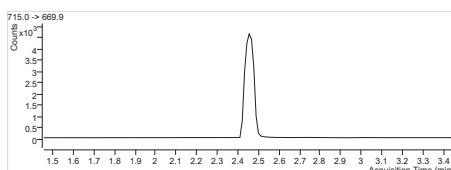
13C2-PFDA
RT (Exp. RT): 2.135 (2.124)
Calc. conc. 103.16 µg/Kg
Area ratio: 0.23828
Sample type: Sample



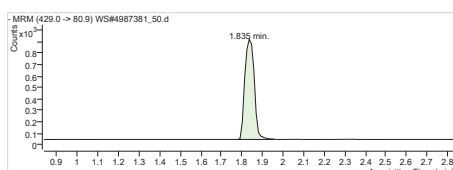
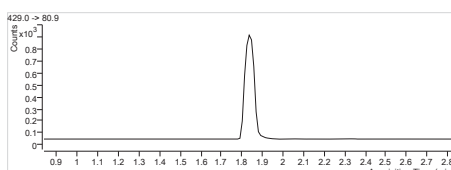
13C2-PFUnA
RT (Exp. RT): 2.223 (2.223)
Calc. conc. 99.05 µg/Kg
Area ratio: 0.25589
Sample type: Sample



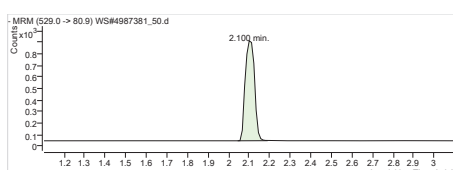
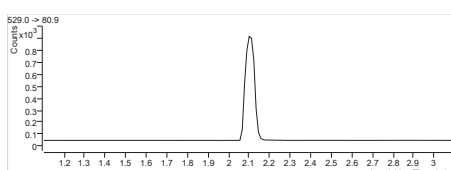
13C2-PFDoA
RT (Exp. RT): 2.311 (2.311)
Calc. conc. 103.48 µg/Kg
Area ratio: 0.30643
Sample type: Sample



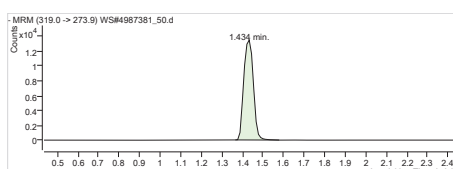
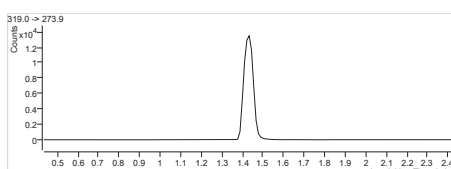
13C2-PFTeDA
RT (Exp. RT): 2.455 (2.455)
Calc. conc. 98.45 µg/Kg
Area ratio: 0.36161
Sample type: Sample



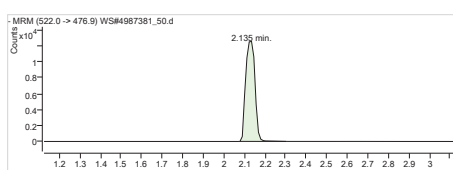
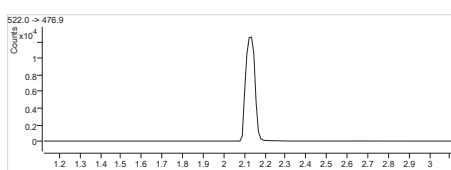
13C2-6:2-FTS
RT (Exp. RT): 1.835 (1.835)
Calc. conc. 102.53 µg/Kg
Area ratio: 0.06422
Sample type: Sample



13C2-8:2 FTS
RT (Exp. RT): 2.100 (2.100)
Calc. conc. 100.16 µg/Kg
Area ratio: 0.06301
Sample type: Sample



13C6-PFHxA
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 138.26 µg/Kg
Area ratio: 0
Sample type: Sample

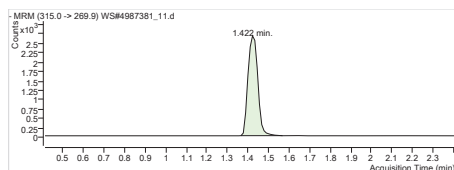
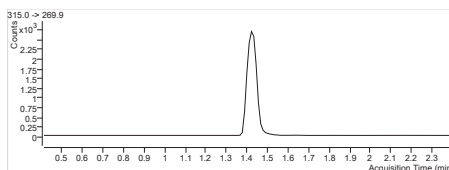


13C9-PFDA
RT (Exp. RT): 2.135 (2.124)
Calc. conc. 136.97 µg/Kg
Area ratio: 0
Sample type: Sample

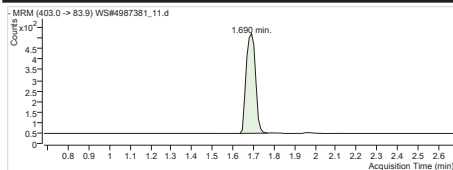
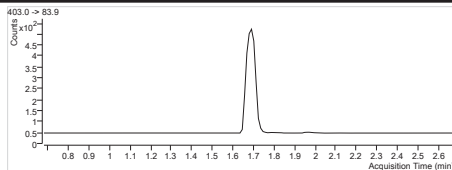
Batch Path	T:\lcms4\PFC\20170519\WS#4987381\QuantResults\PFC_Soil_170519_WS#4987381_CTLabs		
Sample Name	4987381:BLANK	Instrument	LCMS04
Data File	WS#4987381_11.d	Operator	M_G
Sample Type	Blank	Dilution	1.33
Acq. Method	PFC_Soil.m	Position	P2-B1
Acq. Date	2017/05/20 3:54:07 AM	Injection Volume	Per Method
Sample Annotation	-		

ISTD Compounds	Response	RT	Target conc.		
MPFHxA	8785	1.42	1 µg/Kg		
MPFHxS	1500	1.69	1 µg/Kg		
MPFHpA	10276	1.69	1 µg/Kg		
MPFOA	8954	1.87	1 µg/Kg		
MPFOS	1864	1.98	1 µg/Kg		
MPFNA	9104	2.01	1 µg/Kg		
MPFDA	7512	2.14	1 µg/Kg		
MPFUnA	7739	2.22	1 µg/Kg		
MPFDoA	9008	2.31	1 µg/Kg		
MPFTeDA	11145	2.46	1 µg/Kg		
M2 6:2 FTS	2269	1.84	1 µg/Kg		
M2 8:2 FTS	2406	2.10	1 µg/Kg		
13C6-PFHxA IS	43210	1.42	1 µg/Kg		
13C9-PFDA IS	40664	2.13	1 µg/Kg		

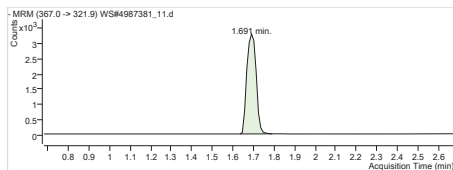
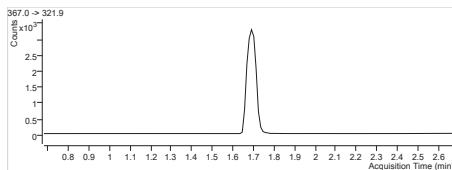
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1			-	ND	-
PFHxA 1			-	ND	-
PFHxS 1			-	ND	-
PFHpA 1			-	ND	-
PFOA 1			-	ND	-
PFOS 1			-	ND	-
PFNA 1			-	ND	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDaA 1			-	ND	-
PFTTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
6:2-FTS 1	155	1.84	-	0.11 µg/Kg	-
8:2-FTS 1			-	ND	-
13C2-PFHxA	8785	1.42	-	87.37 µg/Kg	-
18O2-PFHxS	1500	1.69	-	82.90 µg/Kg	-
13C4-PFHpA	10276	1.69	-	93.90 µg/Kg	-
13C4-PFOA	8954	1.87	-	83.53 µg/Kg	-
13C4-PFOS	1864	1.98	-	84.83 µg/Kg	-
13C5-PFNA	9104	2.01	-	87.00 µg/Kg	-
13C2-PFDA	7512	2.14	-	79.97 µg/Kg	-
13C2-PFUnA	7739	2.22	-	73.67 µg/Kg	-
13C2-PFDoA	9008	2.31	-	74.81 µg/Kg	-
13C2-PFTeDA	11145	2.46	-	74.62 µg/Kg	-
13C2-6:2-FTS	2269	1.84	-	83.83 µg/Kg	-
13C2-8:2 FTS	2406	2.10	-	88.52 µg/Kg	-
13C6-PFHxA	43210	1.42	-	137.22 µg/Kg	-
13C9-PFDA	40664	2.13	-	140.72 µg/Kg	-



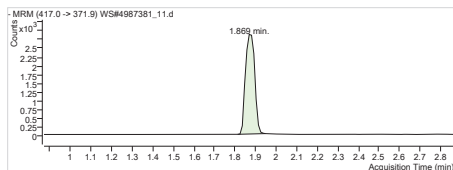
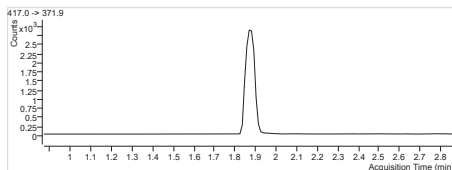
MPFHxA Internal Standard
 RT (Exp. RT): 1.422 (1.411)
 Concentration: 1 µg/Kg
 Sample type: Blank



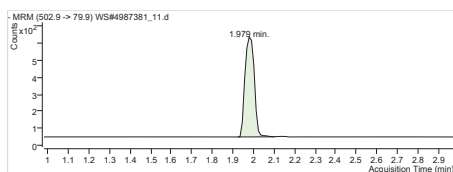
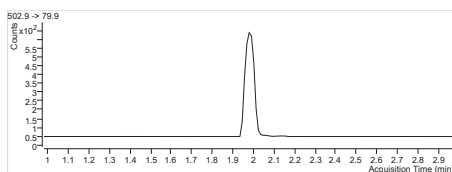
MPFHxS
 RT (Exp. RT): 1.690 (1.679)
 Concentration: 1 µg/Kg
 Sample type: Blank



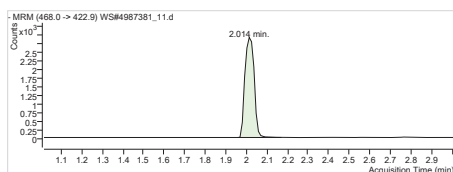
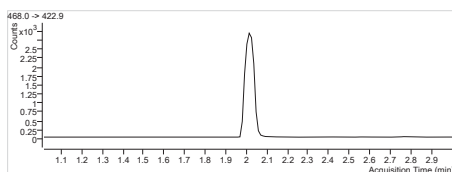
MPFHpA
 RT (Exp. RT): 1.691 (1.680)
 Concentration: 1 µg/Kg
 Sample type: Blank



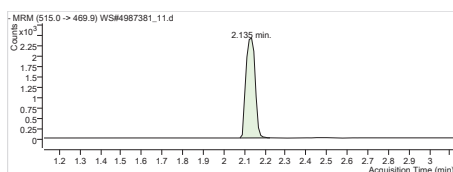
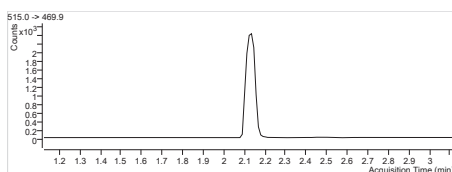
MPFOA
 RT (Exp. RT): 1.869 (1.869)
 Concentration: 1 µg/Kg
 Sample type: Blank



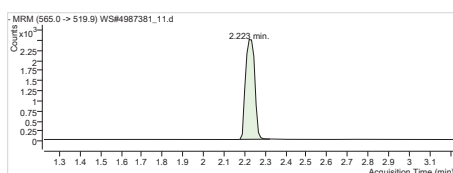
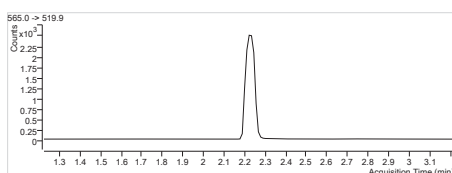
MPFOS
 RT (Exp. RT): 1.979 (1.979)
 Concentration: 1 µg/Kg
 Sample type: Blank



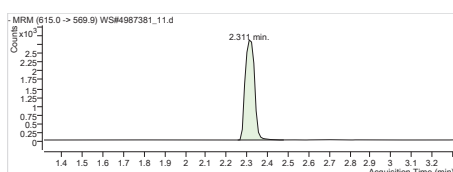
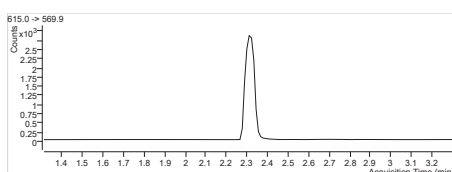
MPFNA
 RT (Exp. RT): 2.014 (2.014)
 Concentration: 1 µg/Kg
 Sample type: Blank



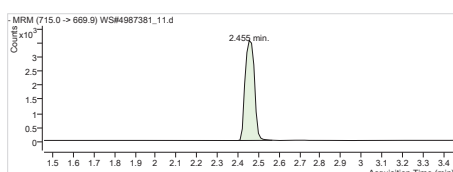
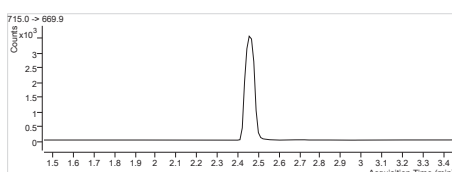
MPFDA
 RT (Exp. RT): 2.135 (2.124)
 Concentration: 1 µg/Kg
 Sample type: Blank



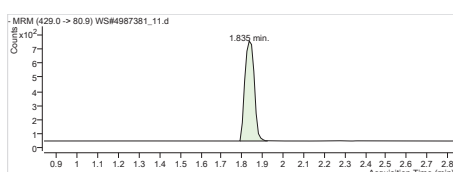
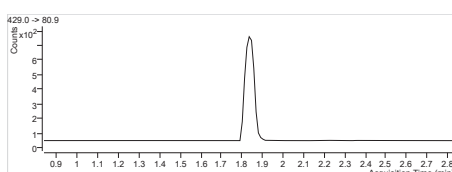
MPFUnA
 RT (Exp. RT): 2.223 (2.223)
 Concentration: 1 µg/Kg
 Sample type: Blank



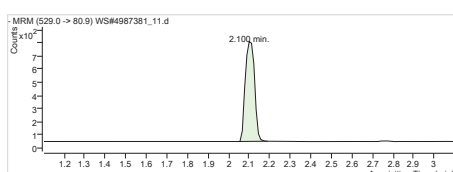
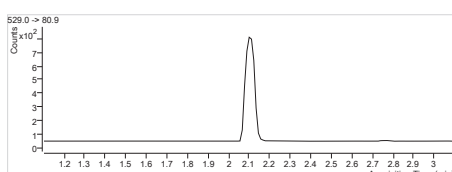
MPFDoA
 RT (Exp. RT): 2.311 (2.311)
 Concentration: 1 µg/Kg
 Sample type: Blank



MPFTeDA
 RT (Exp. RT): 2.455 (2.455)
 Concentration: 1 µg/Kg
 Sample type: Blank

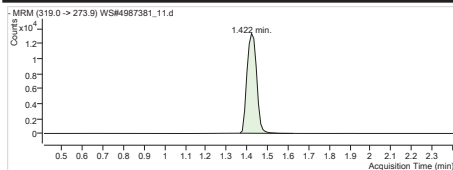
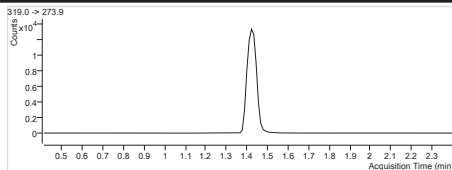


M2 6:2 FTS
 RT (Exp. RT): 1.835 (1.835)
 Concentration: 1 µg/Kg
 Sample type: Blank



M2 8:2 FTS
 RT (Exp. RT): 2.100 (2.100)
 Concentration: 1 µg/Kg
 Sample type: Blank

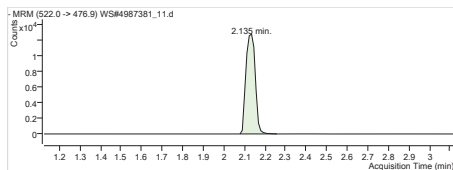
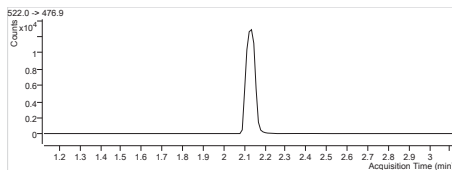
Quantitation Results



13C6-PFHxA IS

RT (Exp. RT):
Concentration:
Sample type:

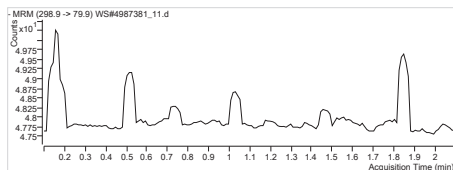
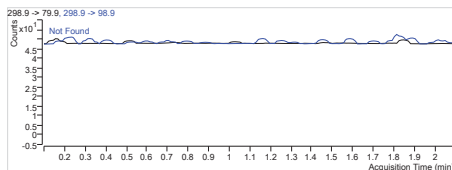
Internal Standard
1.422 (1.411)
1 µg/Kg
Blank



13C9-PFDA IS

RT (Exp. RT):
Concentration:
Sample type:

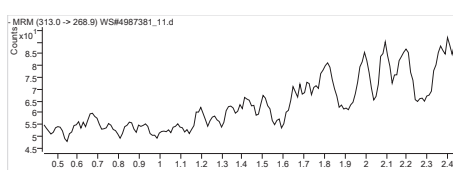
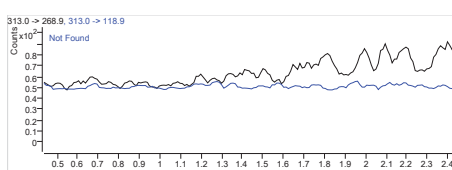
Internal Standard
2.135 (2.124)
1 µg/Kg
Blank



PFBS 1

RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

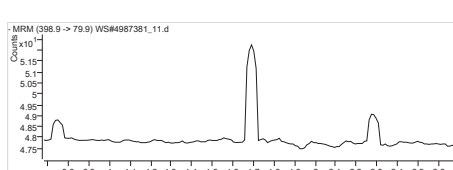
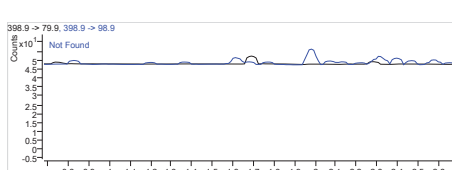
298.9 -> 79.9
0.000 (1.098)
N.D.
0
Blank



PFHxA 1

RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

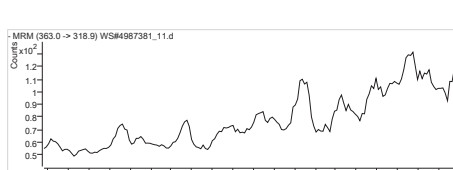
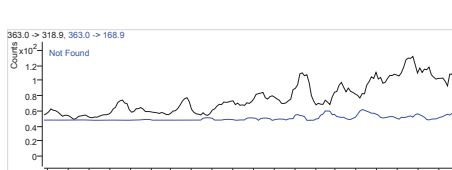
313.0 -> 268.9
0.000 (1.434)
N.D.
0
Blank



PFHxS 1

RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

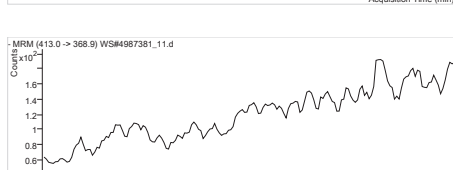
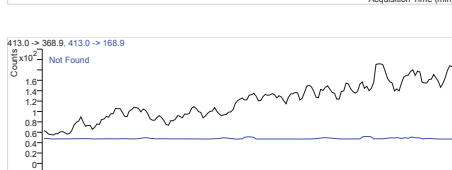
398.9 -> 79.9
0.000 (1.679)
N.D.
0
Blank



PFHpA 1

RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

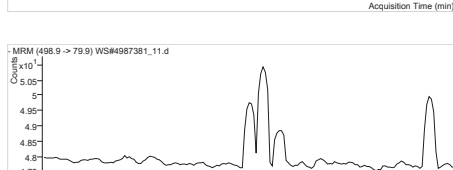
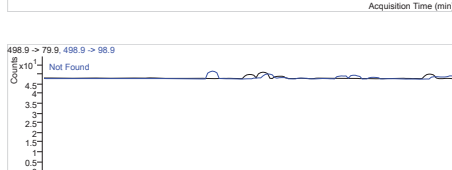
363.0 -> 318.9
0.000 (1.680)
N.D.
0
Blank



PFOA 1

RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

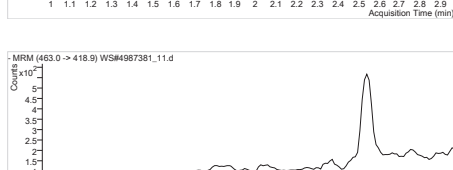
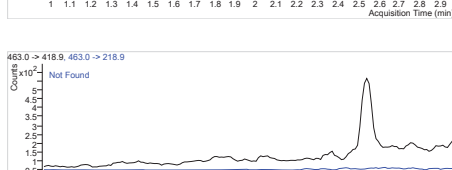
413.0 -> 368.9
0.000 (1.869)
N.D.
0
Blank



PFOS 1

RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

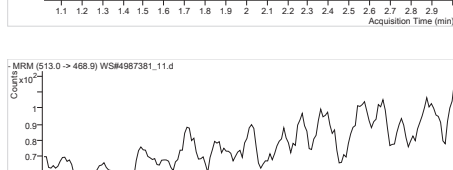
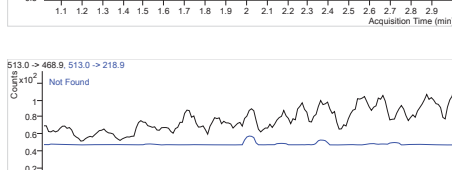
498.9 -> 79.9
0.000 (1.968)
N.D.
0
Blank



PFNA 1

RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

463.0 -> 418.9
0.000 (2.014)
N.D.
0
Blank

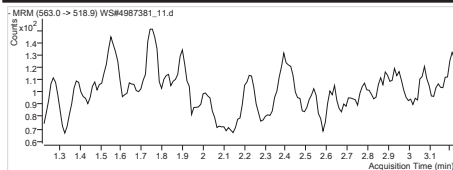
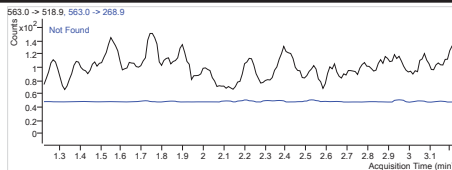


PFDA 1

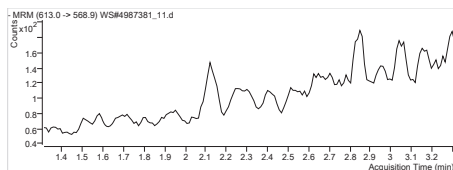
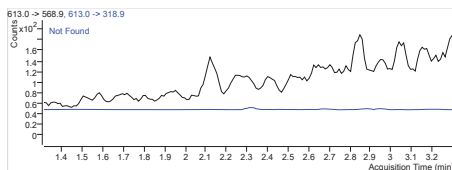
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

513.0 -> 468.9
0.000 (2.124)
N.D.
0
Blank

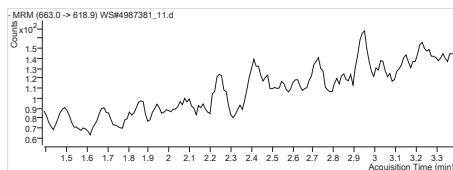
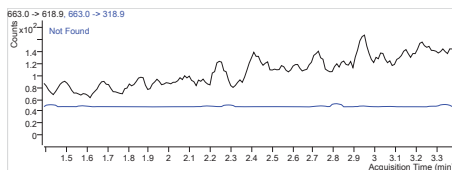
Quantitation Results



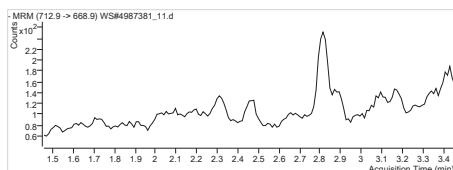
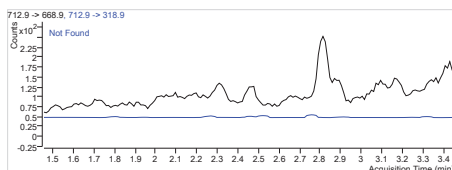
PFUnA 1
RT (Exp. RT): 563.0 -> 518.9
Calc. conc. 0.000 (2.223)
Area ratio: N.D.
Sample type: 0
Blank



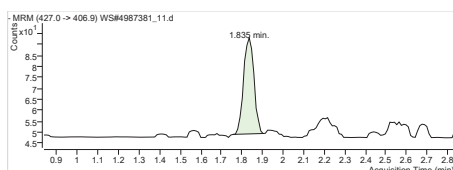
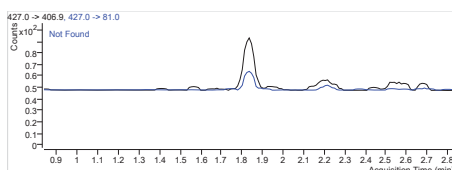
PFDaA 1
RT (Exp. RT): 613.0 -> 568.9
Calc. conc. 0.000 (2.311)
Area ratio: N.D.
Sample type: 0
Blank



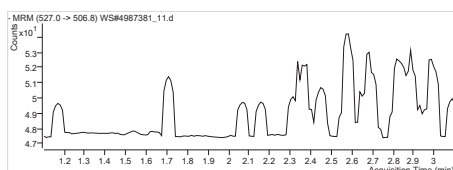
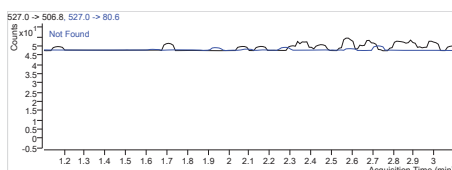
PFTraD 1
RT (Exp. RT): 663.0 -> 618.9
Calc. conc. 0.000 (2.389)
Area ratio: N.D.
Sample type: 0
Blank



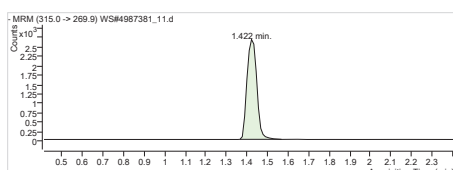
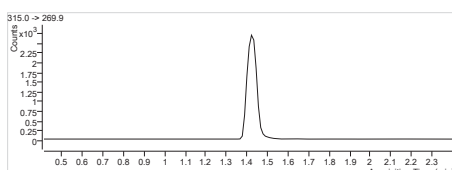
PFTeDa 1
RT (Exp. RT): 712.9 -> 668.9
Calc. conc. 0.000 (2.456)
Area ratio: N.D.
Sample type: 0
Blank



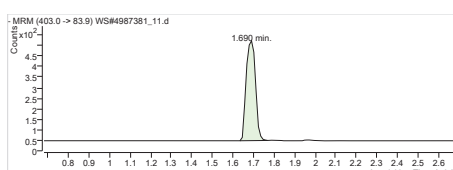
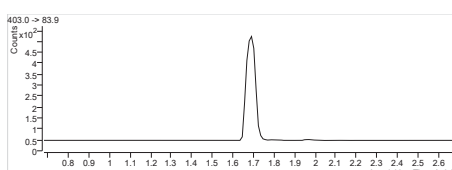
6:2-FTS 1
RT (Exp. RT): 427.0 -> 406.9
Calc. conc. 1.835 (1.835)
Area ratio: 0.11 µg/Kg
Sample type: 0.06831
Blank



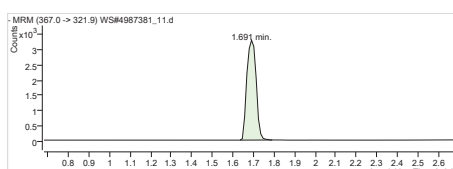
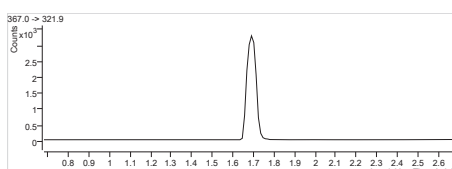
8:2-FTS 1
RT (Exp. RT): 527.0 -> 506.8
Calc. conc. 0.000 (2.101)
Area ratio: N.D.
Sample type: 0
Blank



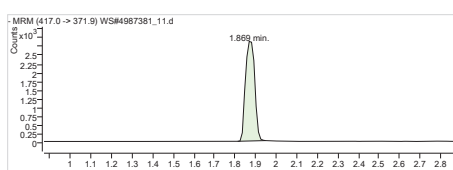
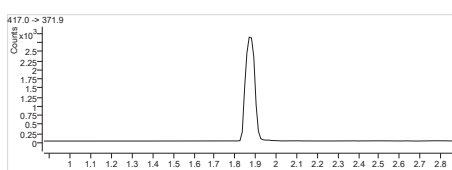
13C2-PFHxA
RT (Exp. RT): 315.0 -> 269.9
Calc. conc. 1.422 (1.411)
Area ratio: 87.37 µg/Kg
Sample type: 0.20331
Blank



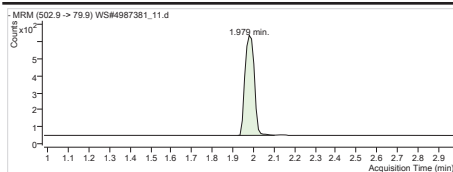
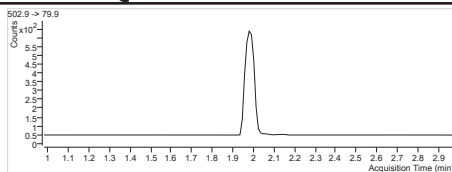
18O2-PFHxS
RT (Exp. RT): 403.0 -> 83.9
Calc. conc. 1.690 (1.679)
Area ratio: 82.90 µg/Kg
Sample type: 0.03471
Blank



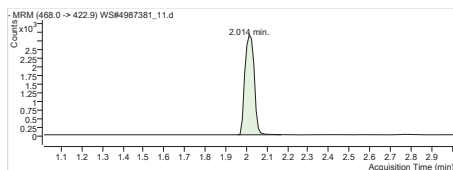
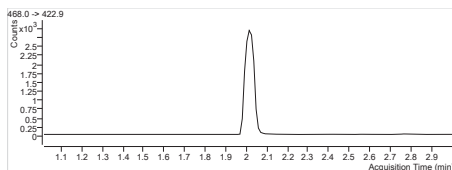
13C4-PFHpA
RT (Exp. RT): 367.0 -> 321.9
Calc. conc. 1.691 (1.680)
Area ratio: 93.90 µg/Kg
Sample type: 0.23782
Blank



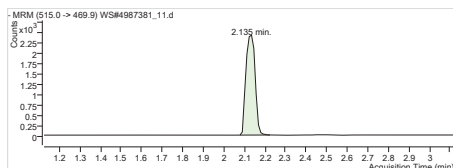
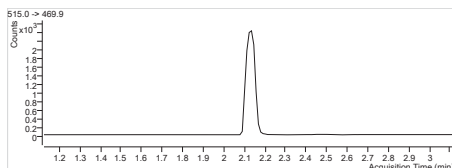
13C4-PFOA
RT (Exp. RT): 417.0 -> 371.9
Calc. conc. 1.869 (1.869)
Area ratio: 83.53 µg/Kg
Sample type: 0.20722
Blank



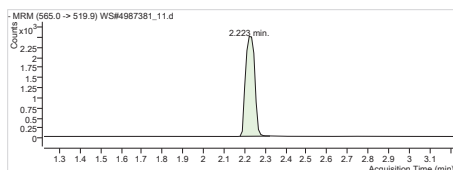
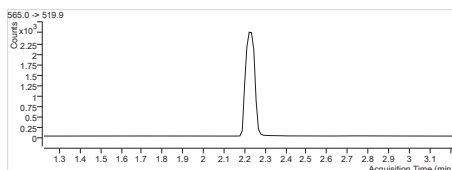
13C4-PFOS
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 84.83 µg/Kg
Area ratio: 0.04314
Sample type: Blank



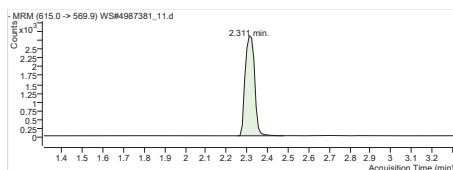
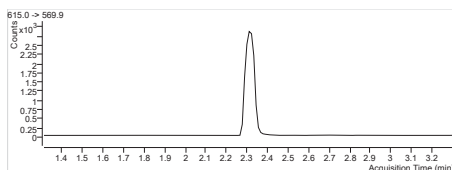
13C5-PFNA
RT (Exp. RT): 2.014 (2.014)
Calc. conc. 87.00 µg/Kg
Area ratio: 0.21069
Sample type: Blank



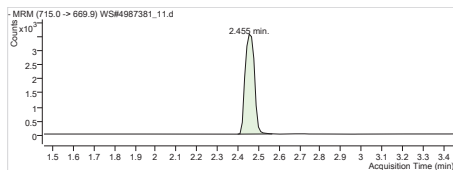
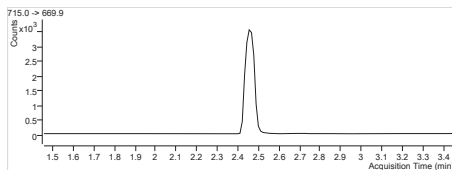
13C2-PFDA
RT (Exp. RT): 2.135 (2.124)
Calc. conc. 79.97 µg/Kg
Area ratio: 0.18473
Sample type: Blank



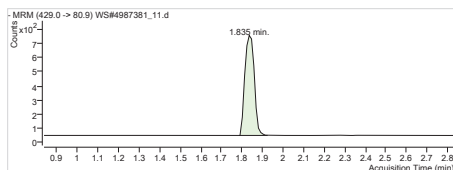
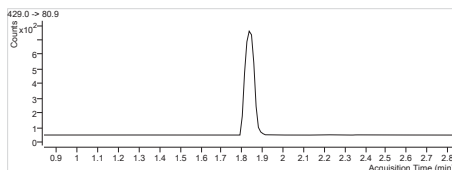
13C2-PFUnA
RT (Exp. RT): 2.223 (2.223)
Calc. conc. 73.67 µg/Kg
Area ratio: 0.19032
Sample type: Blank



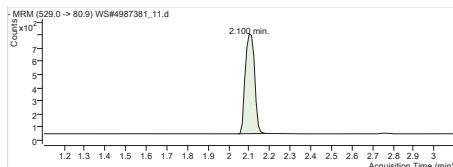
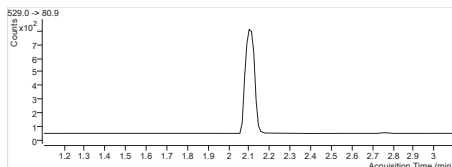
13C2-PFDoA
RT (Exp. RT): 2.311 (2.311)
Calc. conc. 74.81 µg/Kg
Area ratio: 0.22152
Sample type: Blank



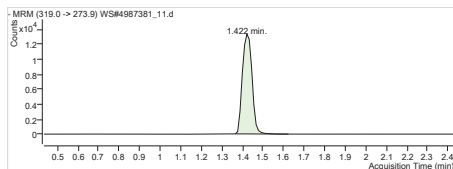
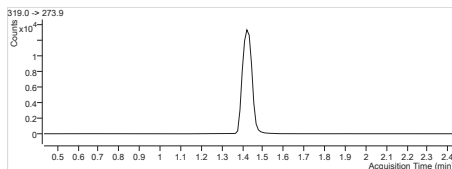
13C2-PFTeDA
RT (Exp. RT): 2.455 (2.455)
Calc. conc. 74.62 µg/Kg
Area ratio: 0.27408
Sample type: Blank



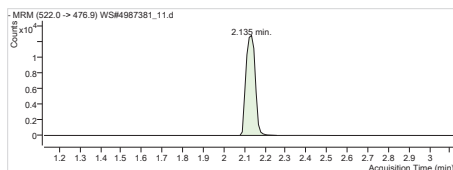
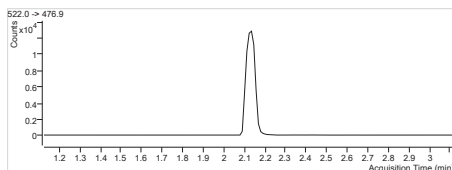
13C2-6:2-FTS
RT (Exp. RT): 1.835 (1.835)
Calc. conc. 83.83 µg/Kg
Area ratio: 0.05251
Sample type: Blank



13C2-8:2 FTS
RT (Exp. RT): 2.100 (2.100)
Calc. conc. 88.52 µg/Kg
Area ratio: 0.05568
Sample type: Blank



13C6-PFHxA
RT (Exp. RT): 1.422 (1.434)
Calc. conc. 137.22 µg/Kg
Area ratio: 0
Sample type: Blank



13C9-PFDA
RT (Exp. RT): 2.135 (2.124)
Calc. conc. 140.72 µg/Kg
Area ratio: 0
Sample type: Blank

Batch Path

T:\lcms4\PFC\20170519\WS#4987381\QuantResults\PFC_Soil_170519_WS#4987381_CTLabs

Sample Name

4987381:SPIKE

Instrument

LCMS04

Data File

WS#4987381_12.d

Operator

M_G

Sample Type

QC

Dilution

1.33

Acq. Method

PFC_Soil.m

Position

P2-B2

Acq. Date

2017/05/20 3:59:01 AM

Injection Volume

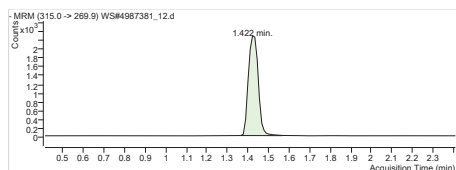
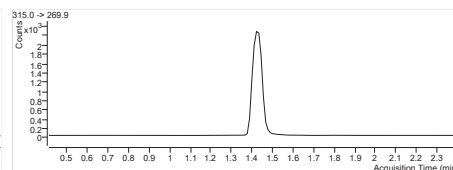
Per Method

Sample Annotation

-

ISTD Compounds	Response	RT	Target conc.		
MPFHxA	7477	1.42	1 µg/Kg		
MPFHxS	1153	1.69	1 µg/Kg		
MPFHpA	7939	1.69	1 µg/Kg		
MPFOA	7891	1.87	1 µg/Kg		
MPFOS	1758	1.98	1 µg/Kg		
MPFNA	7100	2.01	1 µg/Kg		
MPFDA	6693	2.14	1 µg/Kg		
MPFUnA	7404	2.22	1 µg/Kg		
MPFDoA	7925	2.31	1 µg/Kg		
MPFTeDA	9585	2.46	1 µg/Kg		
M2 6:2 FTS	1867	1.84	1 µg/Kg		
M2 8:2 FTS	1996	2.10	1 µg/Kg		
13C6-PFHxA IS	42697	1.42	1 µg/Kg		
13C9-PFDA IS	40197	2.13	1 µg/Kg		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	15403	1.10	18.80	30.17 µg/Kg	120.68
PFHxA 1	62887	1.42	18.80	27.17 µg/Kg	108.68
PFHxS 1	11876	1.69	18.80	29.27 µg/Kg	117.06
PFHpA 1	70995	1.69	18.80	26.89 µg/Kg	107.56
PFOA 1	68981	1.87	18.80	27.08 µg/Kg	108.31
PFOS 1	11898	1.98	18.80	23.27 µg/Kg	93.08
PFNA 1	59439	2.01	18.80	28.41 µg/Kg	113.64
PFDA 1	61493	2.14	18.80	24.60 µg/Kg	98.37
PFUnA 1	61530	2.22	18.80	26.71 µg/Kg	106.84
PFDaA 1	62487	2.31	18.80	25.61 µg/Kg	102.42
PFTTrDA 1	75091	2.39	18.80	26.68 µg/Kg	106.69
PFTeDA 1	69643	2.46	18.80	26.80 µg/Kg	107.17
6:2-FTS 1	14876	1.84	18.80	27.97 µg/Kg	111.87
8:2-FTS 1	14252	2.10	18.80	25.14 µg/Kg	100.56
13C2-PFHxA	7477	1.42	100.00	75.26 µg/Kg	75.26
18O2-PFHxS	1153	1.69	100.00	64.49 µg/Kg	64.49
13C4-PFHpA	7939	1.69	100.00	73.41 µg/Kg	73.41
13C4-PFOA	7891	1.87	100.00	74.50 µg/Kg	74.50
13C4-PFOS	1758	1.98	100.00	80.97 µg/Kg	80.97
13C5-PFNA	7100	2.01	100.00	68.66 µg/Kg	68.66
13C2-PFDA	6693	2.14	100.00	72.08 µg/Kg	72.08
13C2-PFUnA	7404	2.22	100.00	71.30 µg/Kg	71.30
13C2-PFDoA	7925	2.31	100.00	66.58 µg/Kg	66.58
13C2-PFTeDA	9585	2.46	100.00	64.92 µg/Kg	64.92
13C2-6:2-FTS	1867	1.84	100.00	69.81 µg/Kg	69.81
13C2-8:2 FTS	1996	2.10	100.00	74.32 µg/Kg	74.32
13C6-PFHxA	42697	1.42	100.00	135.59 µg/Kg	101.95
13C9-PFDA	40197	2.13	100.00	139.11 µg/Kg	104.59



MPFHxA

RT (Exp. RT):

Internal Standard

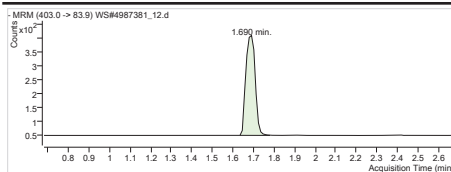
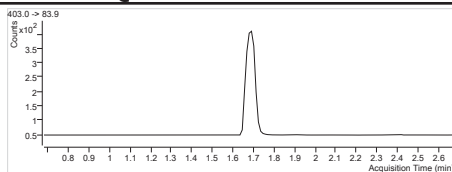
1.422 (1.411)

Concentration:

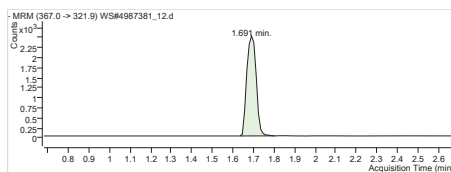
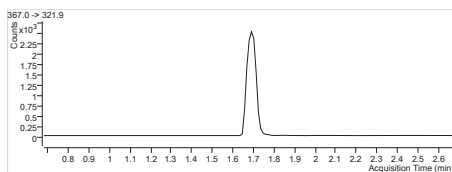
1 µg/Kg

Sample type:

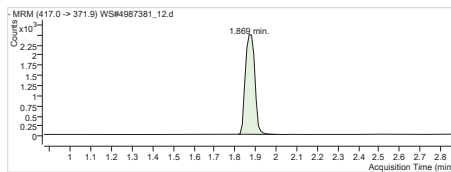
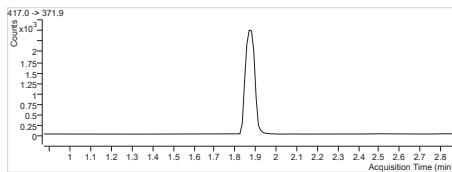
QC



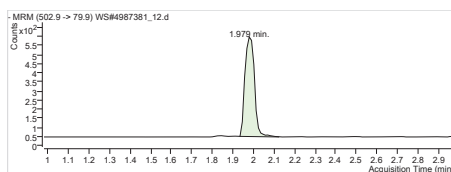
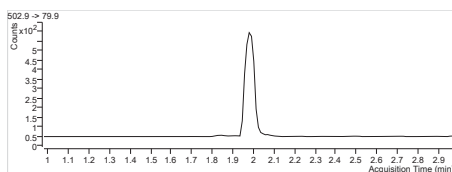
MPFHxS
RT (Exp. RT): 1.690 (1.679)
Concentration: 1 µg/Kg
Sample type: QC



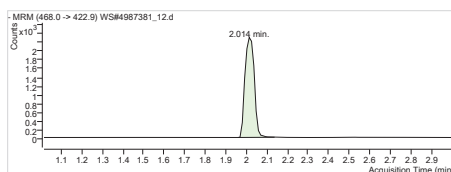
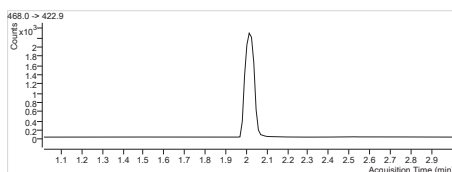
MPFHpA
RT (Exp. RT): 1.691 (1.680)
Concentration: 1 µg/Kg
Sample type: QC



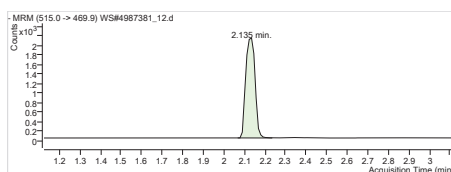
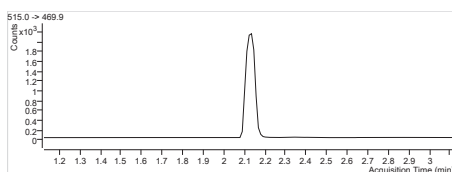
MPFOA
RT (Exp. RT): 1.869 (1.869)
Concentration: 1 µg/Kg
Sample type: QC



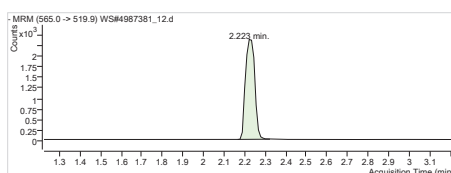
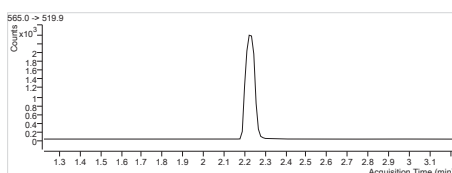
MPFOS
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/Kg
Sample type: QC



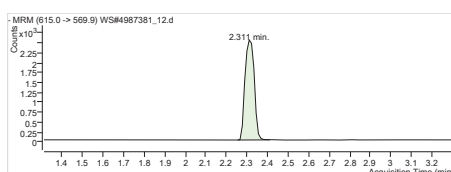
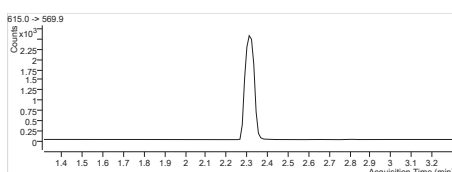
MPFNA
RT (Exp. RT): 2.014 (2.014)
Concentration: 1 µg/Kg
Sample type: QC



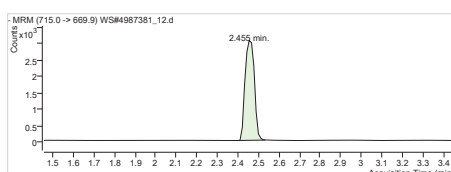
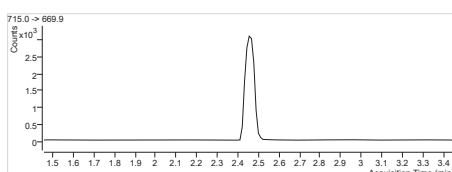
MPFDA
RT (Exp. RT): 2.135 (2.124)
Concentration: 1 µg/Kg
Sample type: QC



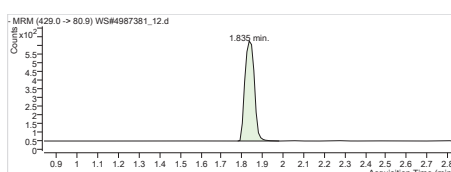
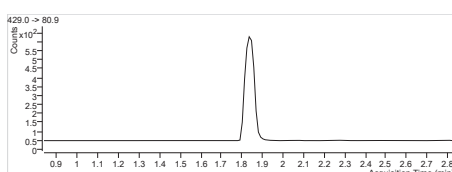
MPFUnA
RT (Exp. RT): 2.223 (2.223)
Concentration: 1 µg/Kg
Sample type: QC



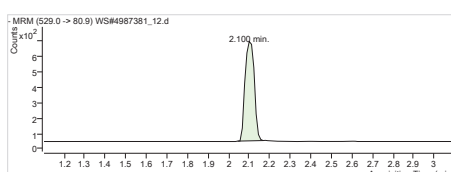
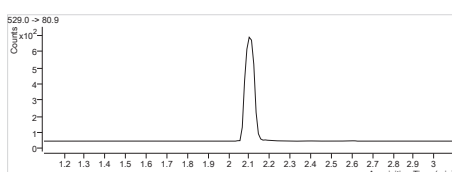
MPFDoA
RT (Exp. RT): 2.311 (2.311)
Concentration: 1 µg/Kg
Sample type: QC



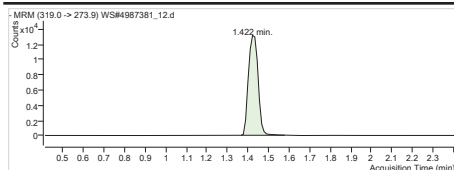
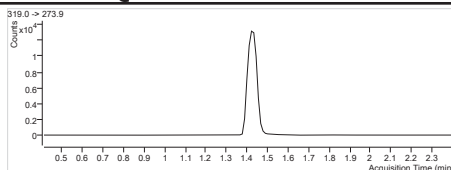
MPFTeDA
RT (Exp. RT): 2.455 (2.455)
Concentration: 1 µg/Kg
Sample type: QC



M2 6:2 FTS
RT (Exp. RT): 1.835 (1.835)
Concentration: 1 µg/Kg
Sample type: QC

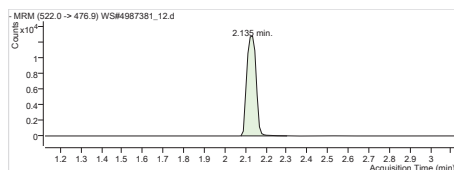
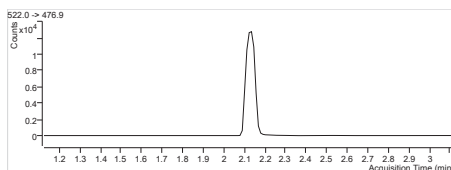


M2 8:2 FTS
RT (Exp. RT): 2.100 (2.100)
Concentration: 1 µg/Kg
Sample type: QC

**13C6-PFHxA IS**

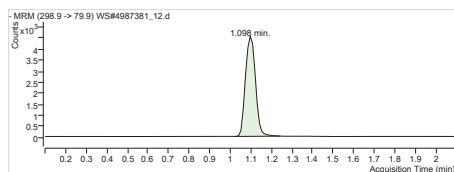
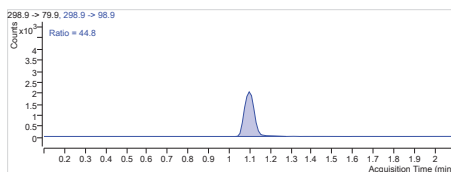
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
1.422 (1.411)
1 µg/Kg
QC

**13C9-PFDA IS**

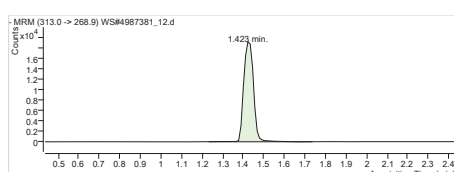
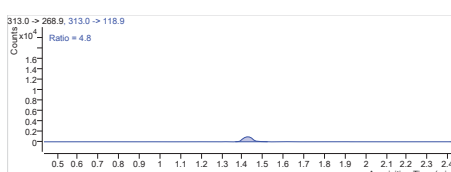
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
2.135 (2.124)
1 µg/Kg
QC

**PFBS 1**

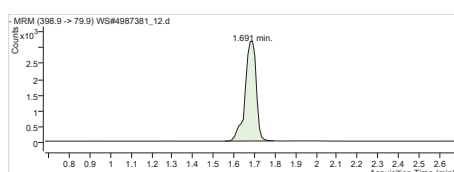
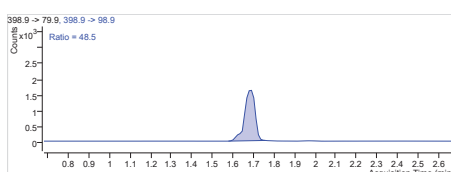
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

298.9 -> 79.9
1.098 (1.098)
30.17 µg/Kg
13.35906
QC

**PFHxA 1**

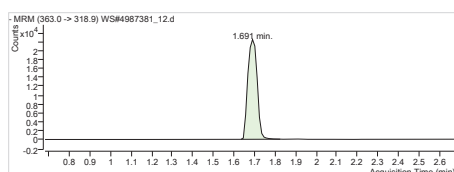
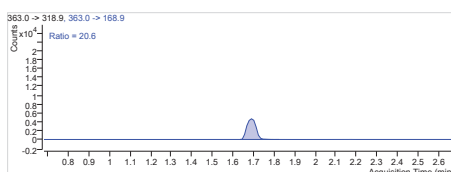
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

313.0 -> 268.9
1.423 (1.434)
27.17 µg/Kg
8.41073
QC

**PFHxS 1**

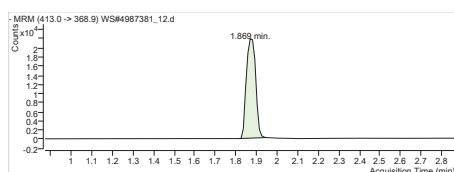
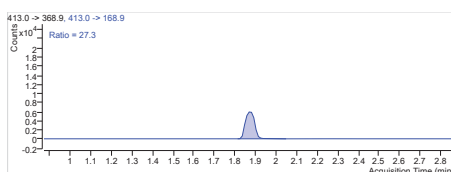
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

398.9 -> 79.9
1.691 (1.679)
29.27 µg/Kg
10.30009
QC

**PFHpA 1**

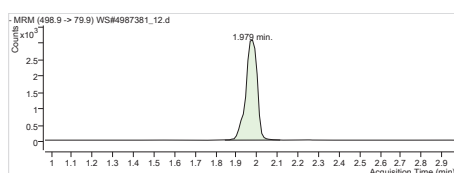
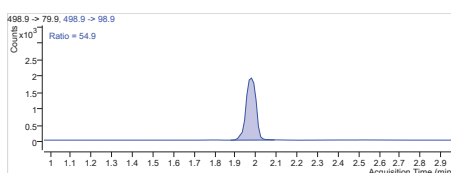
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

363.0 -> 318.9
1.691 (1.680)
26.89 µg/Kg
8.94256
QC

**PFOA 1**

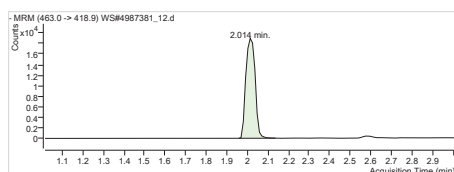
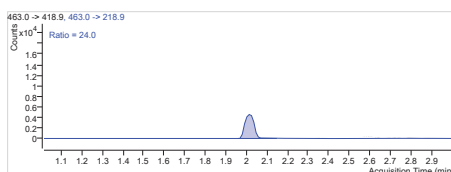
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

413.0 -> 368.9
1.869 (1.869)
27.08 µg/Kg
8.74173
QC

**PFOS 1**

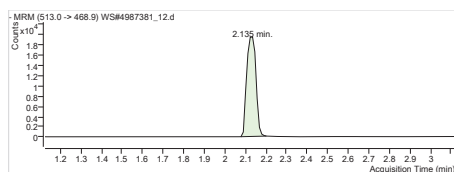
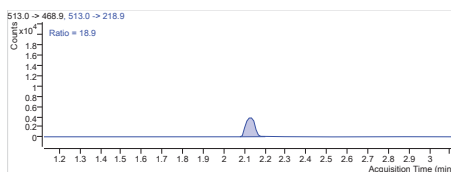
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

498.9 -> 79.9
1.979 (1.968)
23.27 µg/Kg
6.76792
QC

**PFNA 1**

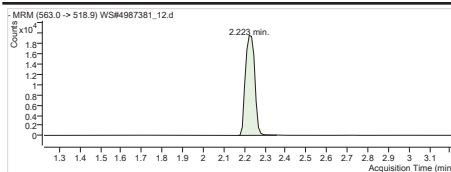
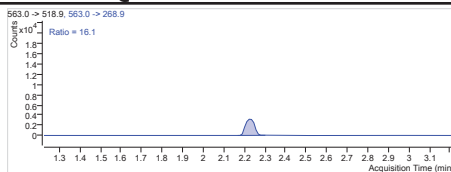
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

463.0 -> 418.9
2.014 (2.014)
28.41 µg/Kg
8.37169
QC

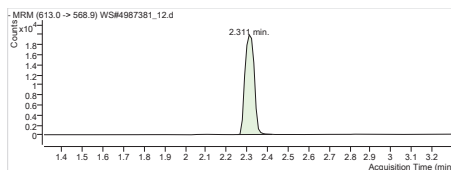
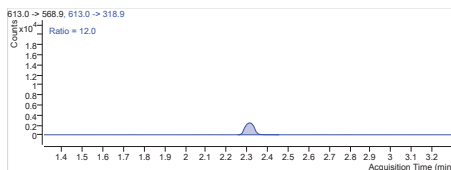
**PFDA 1**

RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

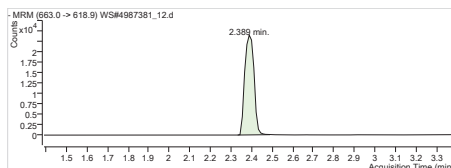
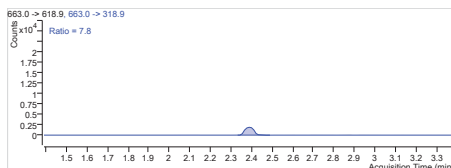
513.0 -> 468.9
2.135 (2.124)
24.60 µg/Kg
9.18766
QC



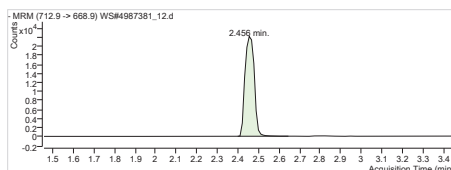
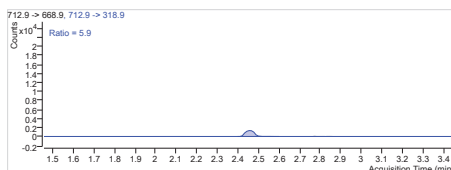
PFUnA 1
RT (Exp. RT): 563.0 -> 518.9
Calc. conc. 2.223 (2.223)
Area ratio: 26.71 µg/Kg
Sample type: 8.31037
QC



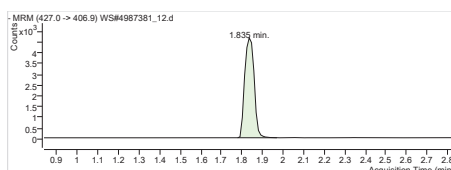
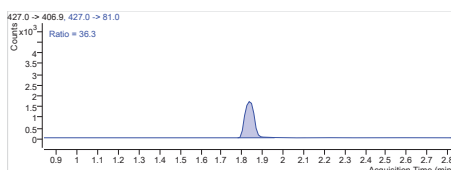
PFDaA 1
RT (Exp. RT): 613.0 -> 568.9
Calc. conc. 2.311 (2.311)
Area ratio: 25.61 µg/Kg
Sample type: 7.88479
QC



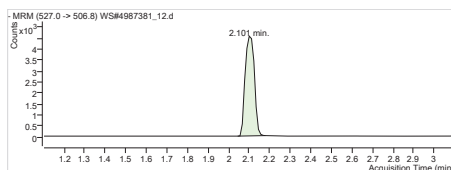
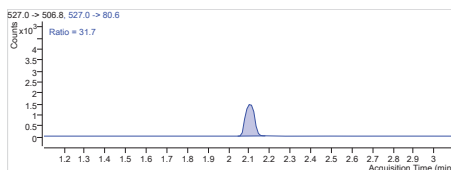
PFTrDA 1
RT (Exp. RT): 663.0 -> 618.9
Calc. conc. 2.389 (2.389)
Area ratio: 26.68 µg/Kg
Sample type: 7.83422
QC



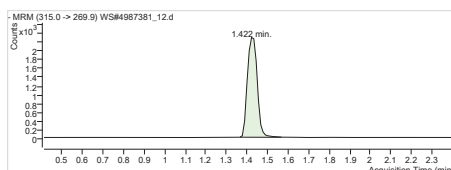
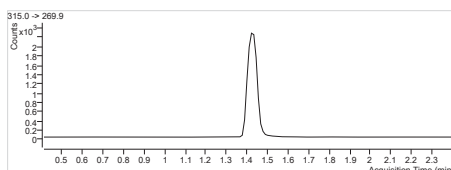
PFTeDA 1
RT (Exp. RT): 712.9 -> 668.9
Calc. conc. 2.456 (2.456)
Area ratio: 26.80 µg/Kg
Sample type: 7.26583
QC



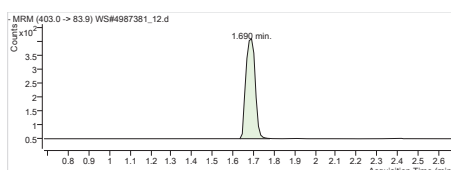
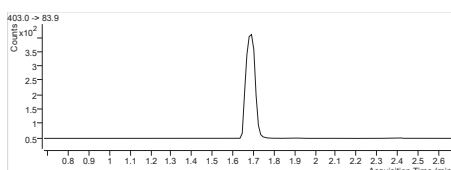
6:2-FTS 1
RT (Exp. RT): 427.0 -> 406.9
Calc. conc. 1.835 (1.835)
Area ratio: 27.97 µg/Kg
Sample type: 7.96786
QC



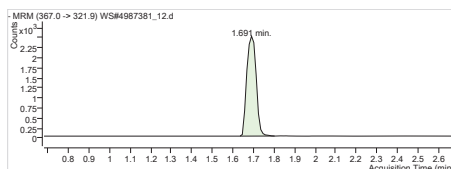
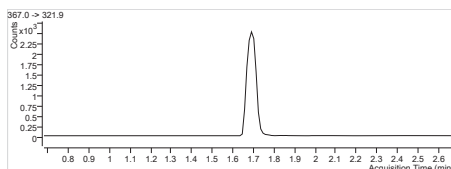
8:2-FTS 1
RT (Exp. RT): 527.0 -> 506.8
Calc. conc. 2.101 (2.101)
Area ratio: 25.14 µg/Kg
Sample type: 7.14028
QC



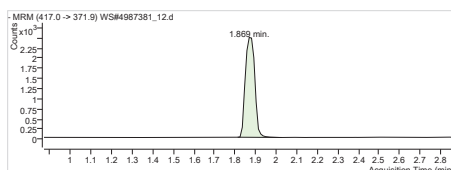
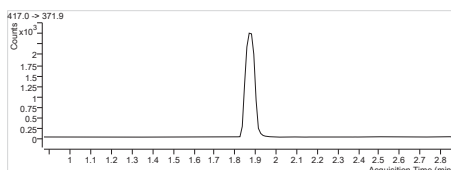
13C2-PFHxA
RT (Exp. RT): 315.0 -> 269.9
Calc. conc. 1.422 (1.411)
Area ratio: 75.26 µg/Kg
Sample type: 0.17512
QC



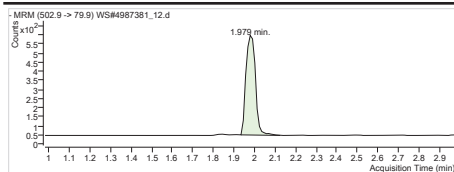
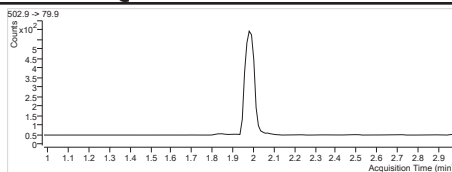
18O2-PFHxS
RT (Exp. RT): 403.0 -> 83.9
Calc. conc. 1.690 (1.679)
Area ratio: 64.49 µg/Kg
Sample type: 0.02700
QC



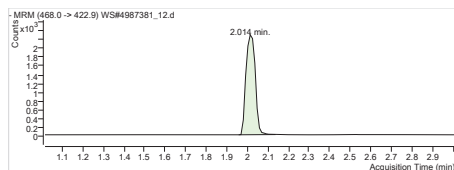
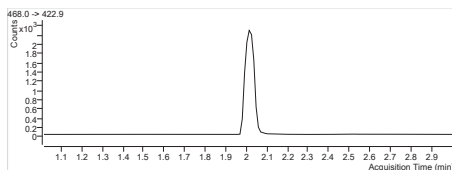
13C4-PFHpA
RT (Exp. RT): 367.0 -> 321.9
Calc. conc. 1.691 (1.680)
Area ratio: 73.41 µg/Kg
Sample type: 0.18594
QC



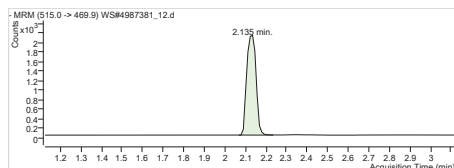
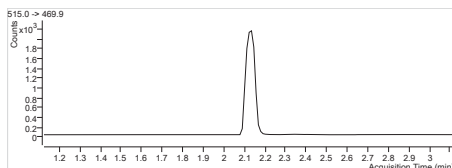
13C4-PFOA
RT (Exp. RT): 417.0 -> 371.9
Calc. conc. 1.869 (1.869)
Area ratio: 74.50 µg/Kg
Sample type: 0.18481
QC



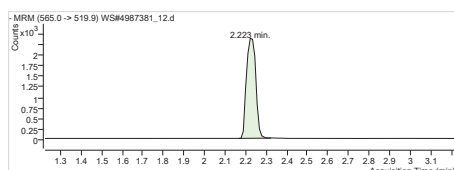
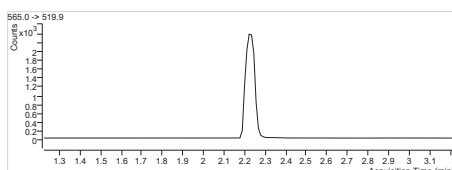
13C4-PFOS
 RT (Exp. RT): 502.9 -> 79.9
 Calc. conc. 1.979 (1.979)
 Area ratio: 80.97 µg/Kg
 0.04117
 Sample type: QC



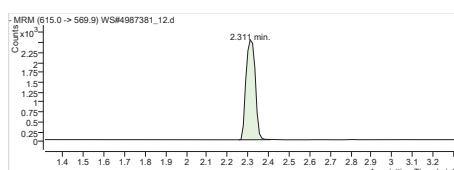
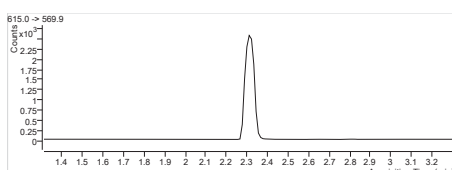
13C5-PFNA
 RT (Exp. RT): 468.0 -> 422.9
 Calc. conc. 2.014 (2.014)
 Area ratio: 68.66 µg/Kg
 0.16629
 Sample type: QC



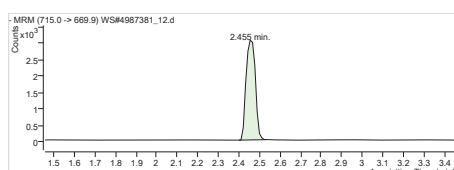
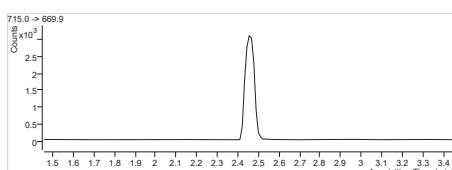
13C2-PFDA
 RT (Exp. RT): 515.0 -> 469.9
 Calc. conc. 2.135 (2.124)
 Area ratio: 72.08 µg/Kg
 0.16650
 Sample type: QC



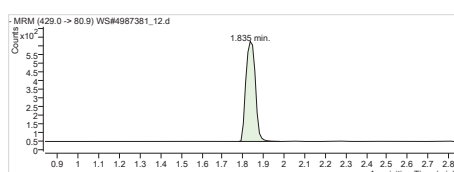
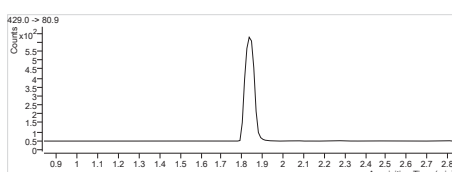
13C2-PFUnA
 RT (Exp. RT): 565.0 -> 519.9
 Calc. conc. 2.223 (2.223)
 Area ratio: 71.30 µg/Kg
 0.18419
 Sample type: QC



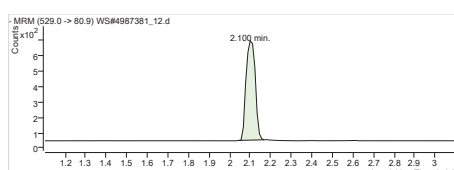
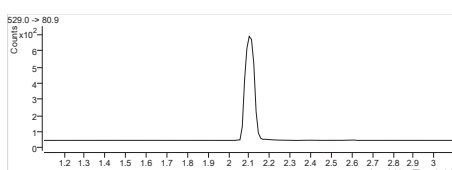
13C2-PFDoA
 RT (Exp. RT): 615.0 -> 569.9
 Calc. conc. 2.311 (2.311)
 Area ratio: 66.58 µg/Kg
 0.19715
 Sample type: QC



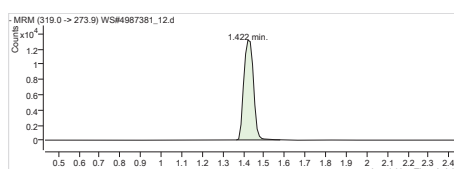
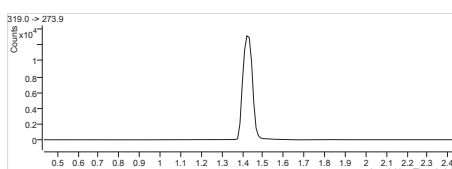
13C2-PFTeDA
 RT (Exp. RT): 715.0 -> 669.9
 Calc. conc. 2.455 (2.455)
 Area ratio: 64.92 µg/Kg
 0.23845
 Sample type: QC



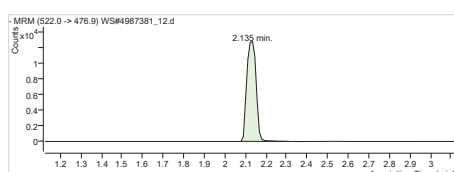
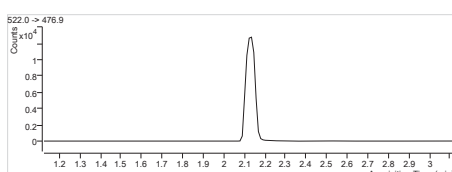
13C2-6:2-FTS
 RT (Exp. RT): 429.0 -> 80.9
 Calc. conc. 1.835 (1.835)
 Area ratio: 69.81 µg/Kg
 0.04373
 Sample type: QC



13C2-8:2 FTS
 RT (Exp. RT): 529.0 -> 80.9
 Calc. conc. 2.100 (2.100)
 Area ratio: 74.32 µg/Kg
 0.04675
 Sample type: QC



13C6-PFHxA
 RT (Exp. RT): 319.0 -> 273.9
 Calc. conc. 1.422 (1.434)
 Area ratio: 135.59 µg/Kg
 0
 Sample type: QC



13C9-PFDA
 RT (Exp. RT): 522.0 -> 476.9
 Calc. conc. 2.135 (2.124)
 Area ratio: 139.11 µg/Kg
 0
 Sample type: QC

Batch Path

T:\lcms4\PFC\20170519\WS#4987381\QuantResults\PFC_Soil_170519_WS#4987381_CTLabs

Sample Name

4987381:MTRX SPK

Instrument

LCMS04

Data File

WS#4987381_13.d

Operator

M_G

Sample Type

QC

Dilution

1.33

Acq. Method

PFC_Soil.m

Position

P2-B3

Acq. Date

2017/05/20 4:03:55 AM

Injection Volume

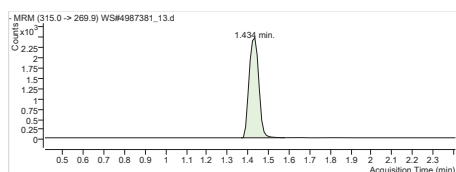
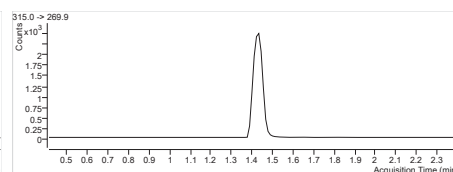
Per Method

Sample Annotation

EJK042

ISTD Compounds	Response	RT	Target conc.		
MPFHxA	8037	1.43	1 µg/Kg		
MPFHxS	1396	1.69	1 µg/Kg		
MPFHpA	7585	1.69	1 µg/Kg		
MPFOA	7996	1.88	1 µg/Kg		
MPFOS	1496	1.98	1 µg/Kg		
MPFNA	8421	2.01	1 µg/Kg		
MPFDA	7390	2.14	1 µg/Kg		
MPFUnA	8156	2.23	1 µg/Kg		
MPFDoA	8085	2.31	1 µg/Kg		
MPFTeDA	9479	2.46	1 µg/Kg		
M2 6:2 FTS	1352	1.84	1 µg/Kg		
M2 8:2 FTS	2470	2.10	1 µg/Kg		
13C6-PFHxA IS	40140	1.43	1 µg/Kg		
13C9-PFDA IS	38595	2.13	1 µg/Kg		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	28000	1.10	18.80	45.15 µg/Kg	180.57
PFHxA 1	142040	1.43	18.80	56.95 µg/Kg	227.76
PFHxS 1	170261	1.69	18.80	345.02 µg/Kg	1379.86
PFHpA 1	97918	1.69	18.80	38.72 µg/Kg	154.85
PFOA 1	144223	1.87	18.80	55.77 µg/Kg	223.06
PFOS 1	212030	1.96	18.80	480.70 µg/Kg	1922.50
PFNA 1	64864	2.01	18.80	26.15 µg/Kg	104.60
PFDA 1	65933	2.14	18.80	23.89 µg/Kg	95.55
PFUnA 1	67683	2.23	18.80	26.68 µg/Kg	106.69
PFDaA 1	69095	2.31	18.80	27.74 µg/Kg	110.96
PFTTrDA 1	80480	2.39	18.80	28.90 µg/Kg	115.59
PFTeDA 1	63378	2.46	18.80	24.67 µg/Kg	98.65
6:2-FTS 1	134037	1.84	18.80	349.51 µg/Kg	1397.81
8:2-FTS 1	16183	2.10	18.80	23.08 µg/Kg	92.31
13C2-PFHxA	8037	1.43	100.00	86.05 µg/Kg	86.05
18O2-PFHxS	1396	1.69	100.00	83.05 µg/Kg	83.05
13C4-PFHpA	7585	1.69	100.00	74.61 µg/Kg	74.61
13C4-PFOA	7996	1.88	100.00	80.30 µg/Kg	80.30
13C4-PFOS	1496	1.98	100.00	73.29 µg/Kg	73.29
13C5-PFNA	8421	2.01	100.00	86.63 µg/Kg	86.63
13C2-PFDA	7390	2.14	100.00	82.89 µg/Kg	82.89
13C2-PFUnA	8156	2.23	100.00	81.80 µg/Kg	81.80
13C2-PFDoA	8085	2.31	100.00	70.74 µg/Kg	70.74
13C2-PFTeDA	9479	2.46	100.00	66.87 µg/Kg	66.87
13C2-6:2-FTS	1352	1.84	100.00	53.77 µg/Kg	53.77
13C2-8:2 FTS	2470	2.10	100.00	97.82 µg/Kg	97.82
13C6-PFHxA	40140	1.43	100.00	127.47 µg/Kg	95.84
13C9-PFDA	38595	2.13	100.00	133.56 µg/Kg	100.42



MPFHxA

RT (Exp. RT):

Internal Standard

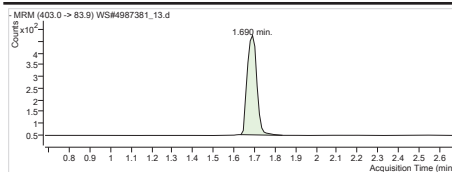
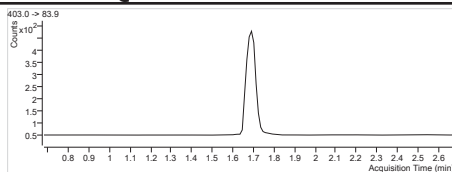
1.434 (1.411)

Concentration:

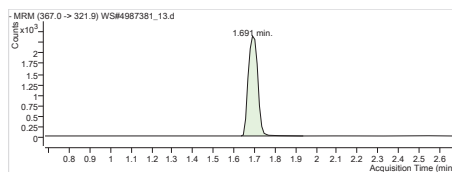
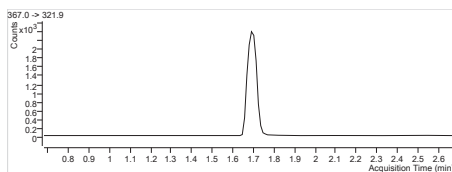
1 µg/Kg

Sample type:

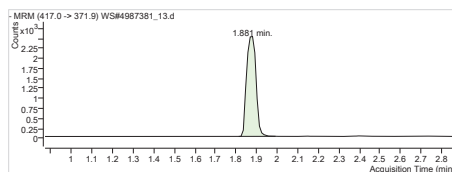
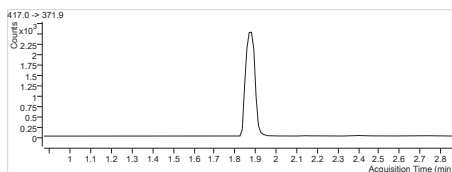
QC



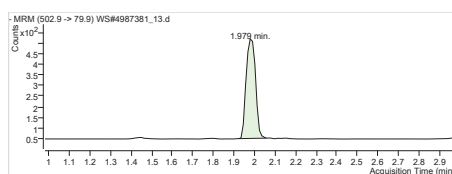
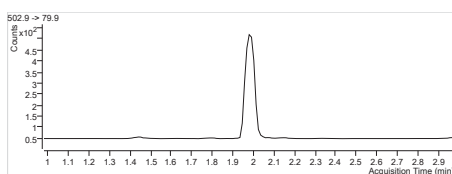
MPFHxS
RT (Exp. RT): 1.690 (1.679)
Concentration: 1 µg/Kg
Sample type: QC



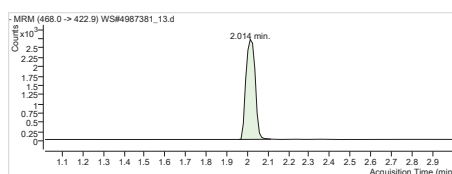
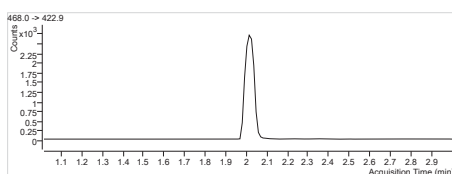
MPFHpA
RT (Exp. RT): 1.691 (1.680)
Concentration: 1 µg/Kg
Sample type: QC



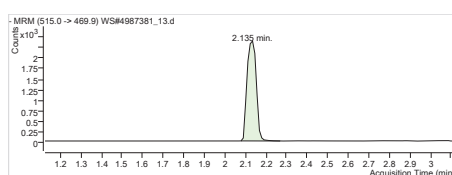
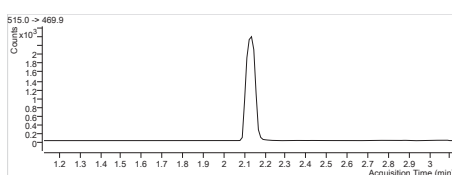
MPFOA
RT (Exp. RT): 1.881 (1.869)
Concentration: 1 µg/Kg
Sample type: QC



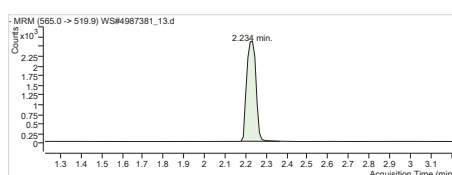
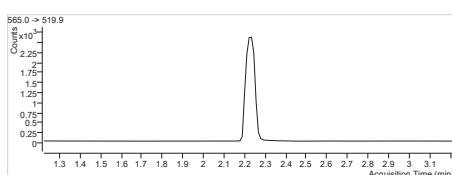
MPFOS
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/Kg
Sample type: QC



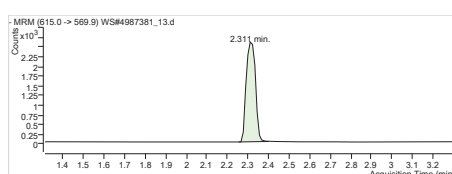
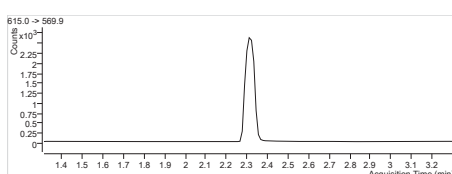
MPFNA
RT (Exp. RT): 2.014 (2.014)
Concentration: 1 µg/Kg
Sample type: QC



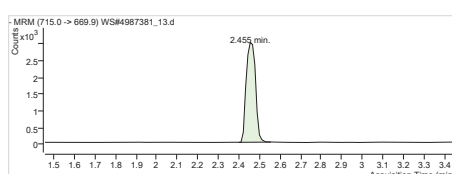
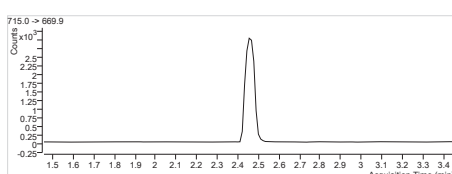
MPFDA
RT (Exp. RT): 2.135 (2.124)
Concentration: 1 µg/Kg
Sample type: QC



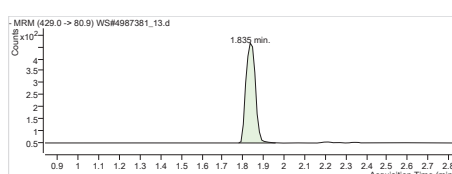
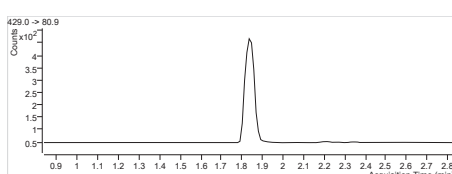
MPFUnA
RT (Exp. RT): 2.234 (2.223)
Concentration: 1 µg/Kg
Sample type: QC



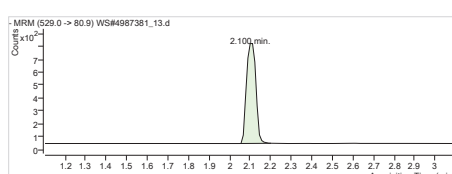
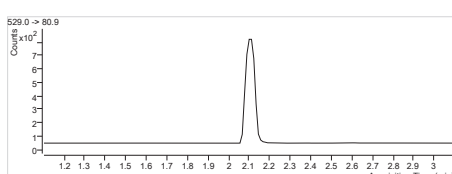
MPFDoA
RT (Exp. RT): 2.311 (2.311)
Concentration: 1 µg/Kg
Sample type: QC



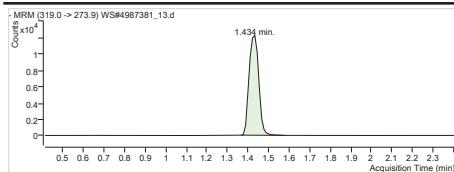
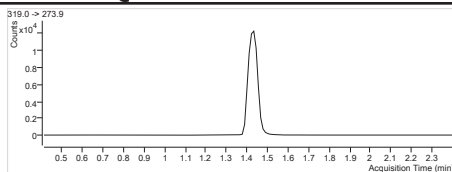
MPFTeDA
RT (Exp. RT): 2.455 (2.455)
Concentration: 1 µg/Kg
Sample type: QC



M2 6:2 FTS
RT (Exp. RT): 1.835 (1.835)
Concentration: 1 µg/Kg
Sample type: QC



M2 8:2 FTS
RT (Exp. RT): 2.100 (2.100)
Concentration: 1 µg/Kg
Sample type: QC

**13C6-PFHxA IS**

RT (Exp. RT):

Concentration:

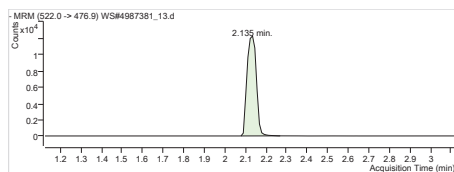
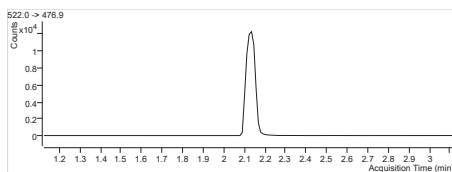
Sample type:

Internal Standard

1.434 (1.411)

1 µg/Kg

QC

**13C9-PFDA IS**

RT (Exp. RT):

Concentration:

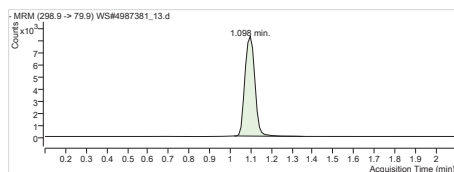
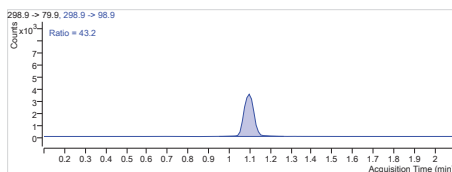
Sample type:

Internal Standard

2.135 (2.124)

1 µg/Kg

QC

**PFBS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

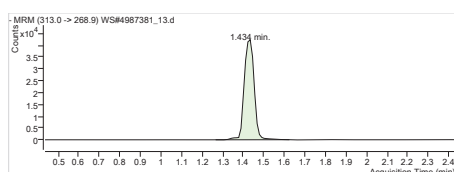
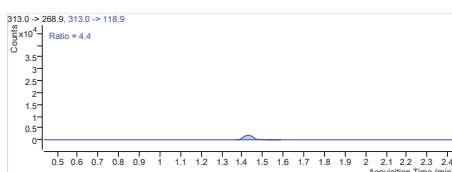
298.9 -> 79.9

1.098 (1.098)

45.15 µg/Kg

20.05731

QC

**PFHxA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

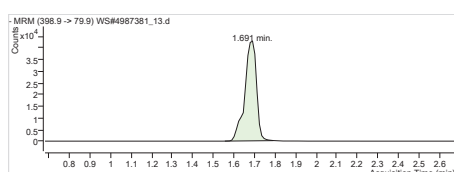
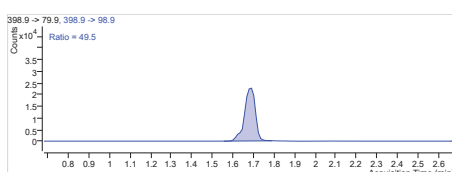
313.0 -> 268.9

1.434 (1.434)

56.95 µg/Kg

17.67326

QC

**PFHxS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

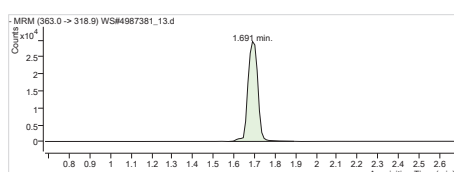
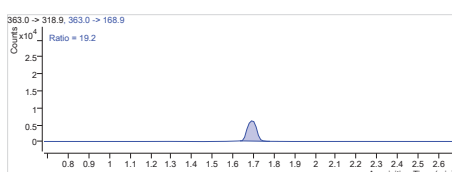
398.9 -> 79.9

1.691 (1.679)

345.02 µg/Kg

121.96347

QC

**PFHpA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

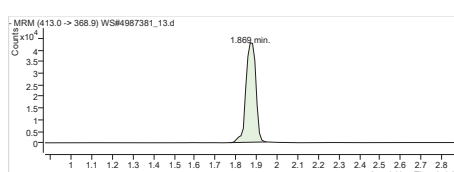
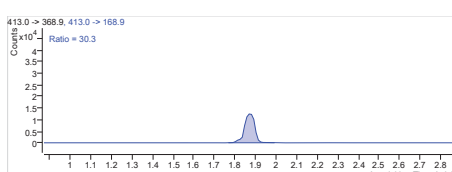
363.0 -> 318.9

1.691 (1.680)

38.72 µg/Kg

12.90943

QC

**PFOA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

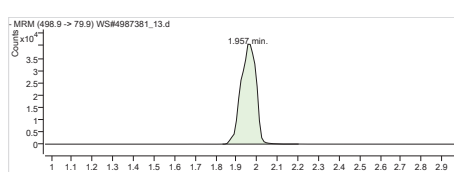
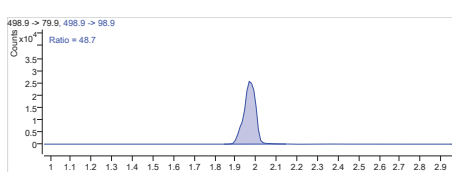
413.0 -> 368.9

1.869 (1.869)

55.77 µg/Kg

18.03689

QC

**PFOS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

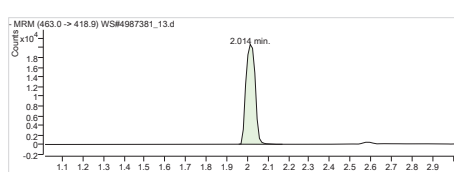
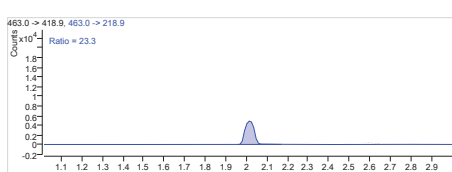
498.9 -> 79.9

1.957 (1.968)

480.70 µg/Kg

141.73128

QC

**PFNA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

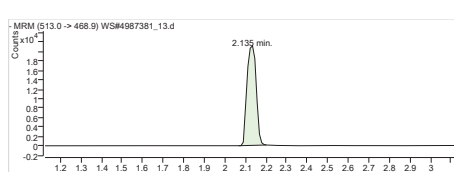
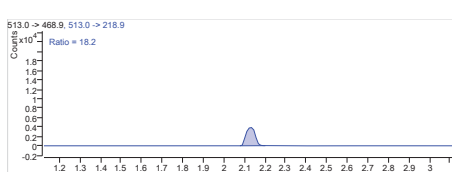
463.0 -> 418.9

2.014 (2.014)

26.15 µg/Kg

7.70265

QC

**PFDA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

513.0 -> 468.9

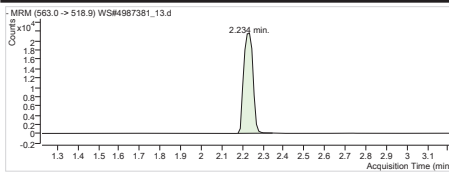
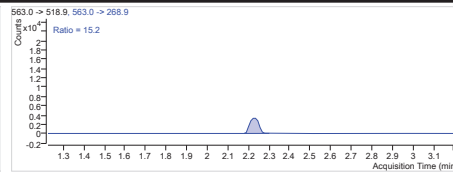
2.135 (2.124)

23.89 µg/Kg

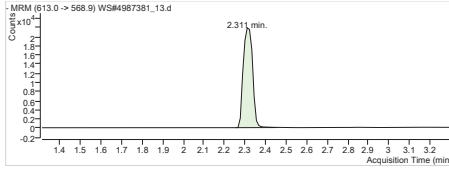
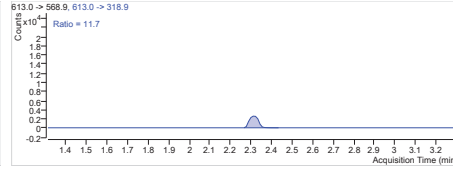
8.92192

QC

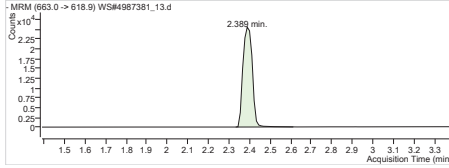
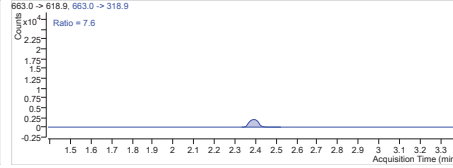
Quantitation Results



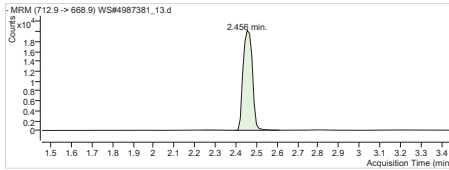
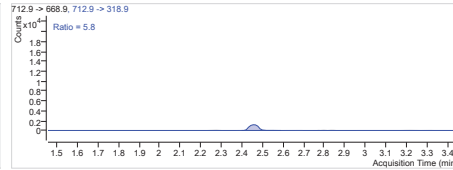
PFUnA 1
RT (Exp. RT): 2.234 (2.223)
Calc. conc. 26.68 µg/Kg
Area ratio: 8.29855
Sample type: QC



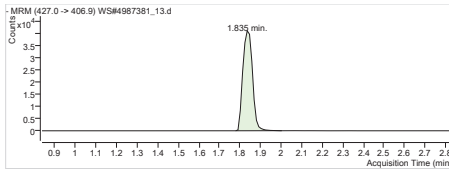
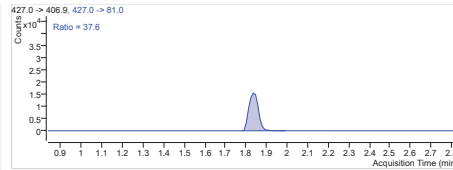
PFDaA 1
RT (Exp. RT): 2.311 (2.311)
Calc. conc. 27.74 µg/Kg
Area ratio: 8.54607
Sample type: QC



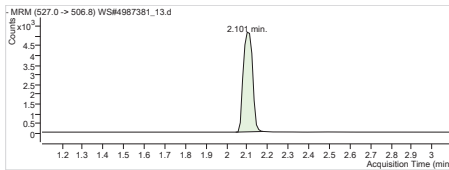
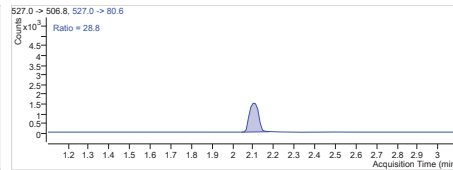
PFTraD 1
RT (Exp. RT): 2.389 (2.389)
Calc. conc. 28.90 µg/Kg
Area ratio: 8.49035
Sample type: QC



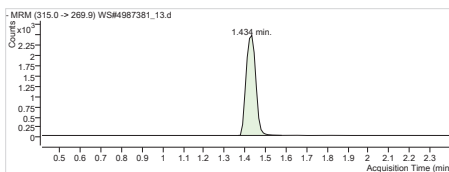
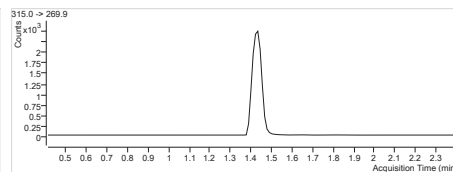
PFTeDa 1
RT (Exp. RT): 2.456 (2.456)
Calc. conc. 24.67 µg/Kg
Area ratio: 6.68615
Sample type: QC



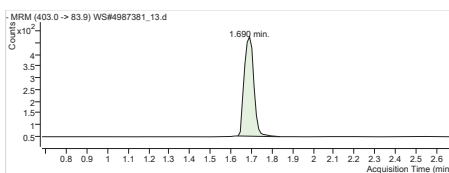
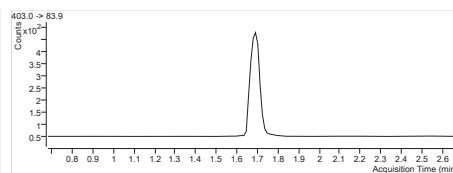
6:2-FTS 1
RT (Exp. RT): 1.835 (1.835)
Calc. conc. 349.51 µg/Kg
Area ratio: 99.13979
Sample type: QC



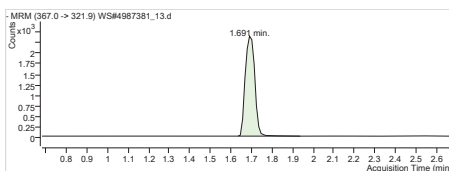
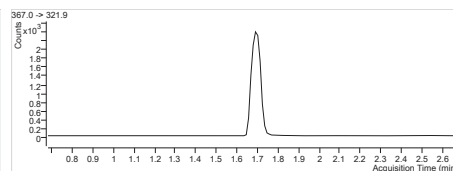
8:2-FTS 1
RT (Exp. RT): 2.101 (2.101)
Calc. conc. 23.08 µg/Kg
Area ratio: 6.55182
Sample type: QC



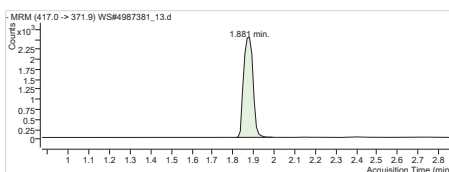
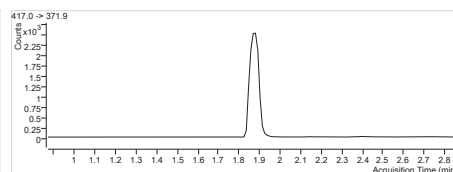
13C2-PFHxA
RT (Exp. RT): 1.434 (1.411)
Calc. conc. 86.05 µg/Kg
Area ratio: 0.20022
Sample type: QC



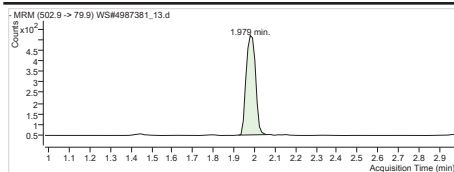
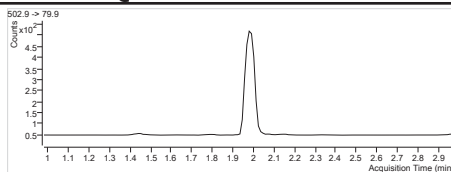
18O2-PFHxS
RT (Exp. RT): 1.690 (1.679)
Calc. conc. 83.05 µg/Kg
Area ratio: 0.03478
Sample type: QC



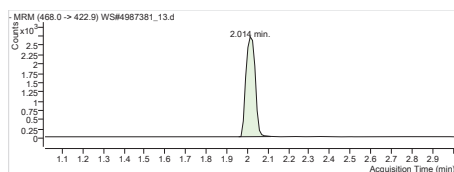
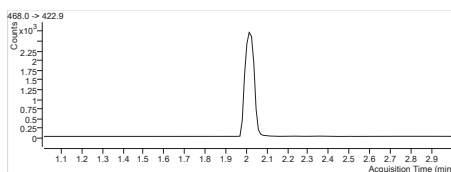
13C4-PFHpA
RT (Exp. RT): 1.691 (1.680)
Calc. conc. 74.61 µg/Kg
Area ratio: 0.18896
Sample type: QC



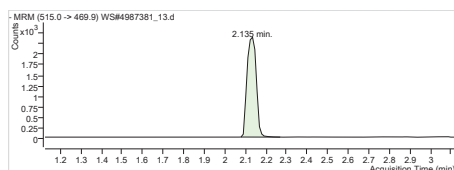
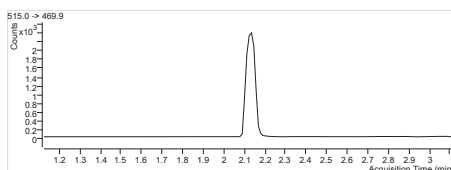
13C4-PFOA
RT (Exp. RT): 1.881 (1.869)
Calc. conc. 80.30 µg/Kg
Area ratio: 0.19920
Sample type: QC



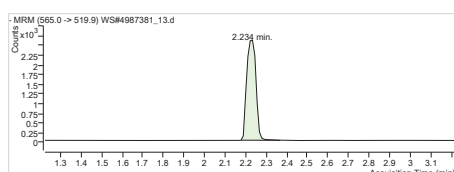
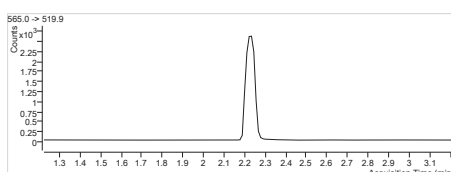
13C4-PFOS
RT (Exp. RT): 502.9 -> 79.9
Calc. conc. 1.979 (1.979)
Area ratio: 73.29 µg/Kg
Sample type: 0.03727
QC



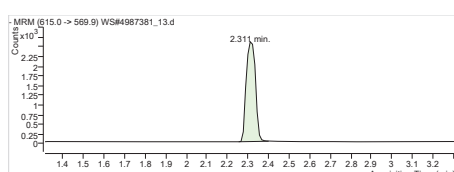
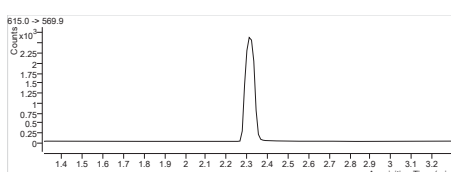
13C5-PFNA
RT (Exp. RT): 468.0 -> 422.9
Calc. conc. 2.014 (2.014)
Area ratio: 86.63 µg/Kg
Sample type: 0.20979
QC



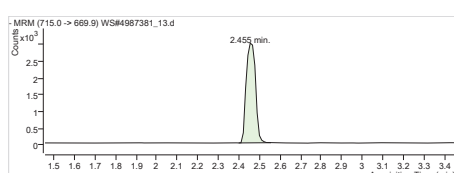
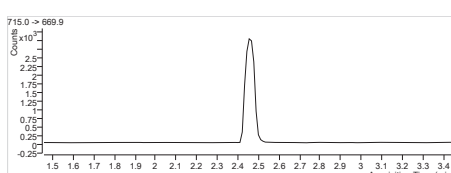
13C2-PFDA
RT (Exp. RT): 515.0 -> 469.9
Calc. conc. 2.135 (2.124)
Area ratio: 82.89 µg/Kg
Sample type: 0.19148
QC



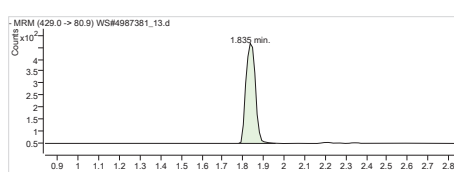
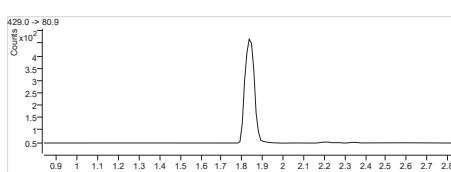
13C2-PFUnA
RT (Exp. RT): 565.0 -> 519.9
Calc. conc. 2.234 (2.223)
Area ratio: 81.80 µg/Kg
Sample type: 0.21132
QC



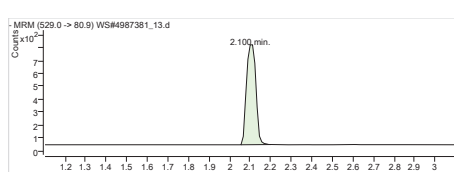
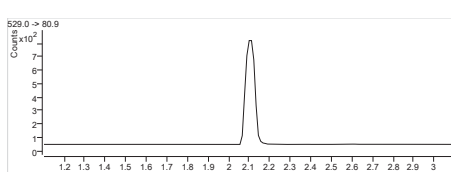
13C2-PFDoA
RT (Exp. RT): 615.0 -> 569.9
Calc. conc. 2.311 (2.311)
Area ratio: 70.74 µg/Kg
Sample type: 0.20948
QC



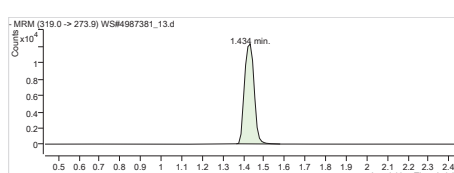
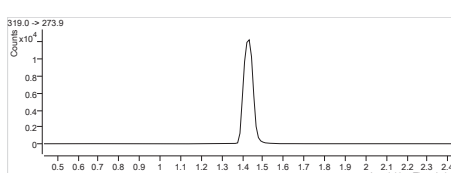
13C2-PFTeDA
RT (Exp. RT): 715.0 -> 669.9
Calc. conc. 2.455 (2.455)
Area ratio: 66.87 µg/Kg
Sample type: 0.24560
QC



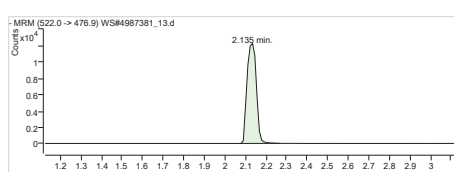
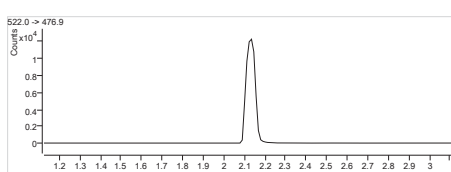
13C2-6:2-FTS
RT (Exp. RT): 429.0 -> 80.9
Calc. conc. 1.835 (1.835)
Area ratio: 53.77 µg/Kg
Sample type: 0.03368
QC



13C2-8:2 FTS
RT (Exp. RT): 529.0 -> 80.9
Calc. conc. 2.100 (2.100)
Area ratio: 97.82 µg/Kg
Sample type: 0.06153
QC



13C6-PFHxA
RT (Exp. RT): 319.0 -> 273.9
Calc. conc. 1.434 (1.434)
Area ratio: 127.47 µg/Kg
Sample type: 0
QC



13C9-PFDA
RT (Exp. RT): 522.0 -> 476.9
Calc. conc. 2.135 (2.124)
Area ratio: 133.56 µg/Kg
Sample type: 0
QC

Batch Path

T:\lcms4\PFC\20170519\WS#4987381\QuantResults\PFC_Soil_170519_WS#4987381_CTLabs

Sample Name

4987381:MTRX SPK:D1

Instrument

LCMS04

Data File

WS#4987381_14.d

Operator

M_G

Sample Type

QC

Dilution

1.33

Acq. Method

PFC_Soil.m

Position

P2-B4

Acq. Date

2017/05/20 4:08:49 AM

Injection Volume

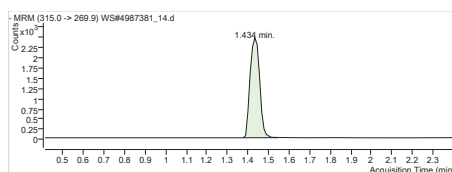
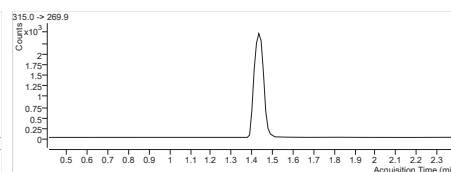
Per Method

Sample Annotation

EJK042

ISTD Compounds	Response	RT	Target conc.		
MPFHxA	7842	1.43	1 µg/Kg		
MPFHxS	1150	1.69	1 µg/Kg		
MPFHpA	6888	1.69	1 µg/Kg		
MPFOA	8167	1.88	1 µg/Kg		
MPFOS	1707	1.98	1 µg/Kg		
MPFNA	8336	2.01	1 µg/Kg		
MPFDA	7551	2.14	1 µg/Kg		
MPFUnA	7658	2.22	1 µg/Kg		
MPFDoA	8756	2.31	1 µg/Kg		
MPFTeDA	9530	2.46	1 µg/Kg		
M2 6:2 FTS	1450	1.84	1 µg/Kg		
M2 8:2 FTS	2126	2.10	1 µg/Kg		
13C6-PFHxA IS	42432	1.43	1 µg/Kg		
13C9-PFDA IS	38364	2.13	1 µg/Kg		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	27058	1.11	18.80	52.91 µg/Kg	211.62
PFHxA 1	142854	1.43	18.80	58.70 µg/Kg	234.74
PFHxS 1	170162	1.69	18.80	418.55 µg/Kg	1673.93
PFHpA 1	95615	1.69	18.80	41.62 µg/Kg	166.44
PFOA 1	137171	1.88	18.80	51.94 µg/Kg	207.74
PFOS 1	210414	1.97	18.80	418.12 µg/Kg	1672.20
PFNA 1	62561	2.01	18.80	25.49 µg/Kg	101.93
PFDA 1	63870	2.14	18.80	22.66 µg/Kg	90.62
PFUnA 1	62738	2.22	18.80	26.34 µg/Kg	105.33
PFDaA 1	68195	2.31	18.80	25.30 µg/Kg	101.17
PFTTrDA 1	78441	2.39	18.80	28.02 µg/Kg	112.07
PFTeDA 1	66322	2.46	18.80	25.67 µg/Kg	102.67
6:2-FTS 1	135749	1.84	18.80	330.04 µg/Kg	1319.96
8:2-FTS 1	14616	2.10	18.80	24.21 µg/Kg	96.84
13C2-PFHxA	7842	1.43	100.00	79.43 µg/Kg	79.43
18O2-PFHxS	1150	1.69	100.00	64.72 µg/Kg	64.72
13C4-PFHpA	6888	1.69	100.00	64.09 µg/Kg	64.09
13C4-PFOA	8167	1.88	100.00	77.58 µg/Kg	77.58
13C4-PFOS	1707	1.98	100.00	79.11 µg/Kg	79.11
13C5-PFNA	8336	2.01	100.00	81.12 µg/Kg	81.12
13C2-PFDA	7551	2.14	100.00	85.21 µg/Kg	85.21
13C2-PFUnA	7658	2.22	100.00	77.27 µg/Kg	77.27
13C2-PFDoA	8756	2.31	100.00	77.07 µg/Kg	77.07
13C2-PFTeDA	9530	2.46	100.00	67.63 µg/Kg	67.63
13C2-6:2-FTS	1450	1.84	100.00	54.55 µg/Kg	54.55
13C2-8:2 FTS	2126	2.10	100.00	79.65 µg/Kg	79.65
13C6-PFHxA	42432	1.43	100.00	134.75 µg/Kg	101.32
13C9-PFDA	38364	2.13	100.00	132.76 µg/Kg	99.82



MPFHxA

RT (Exp. RT):

Internal Standard

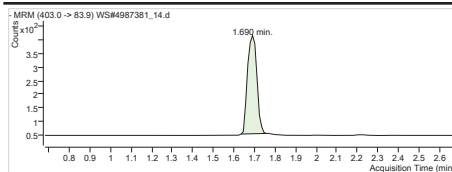
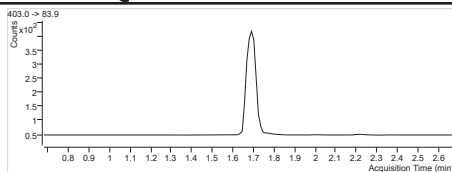
1.434 (1.411)

Concentration:

1 µg/Kg

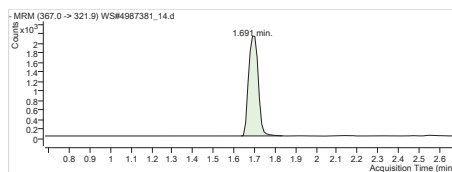
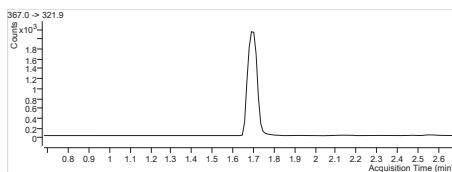
Sample type:

QC



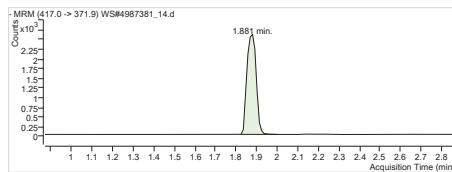
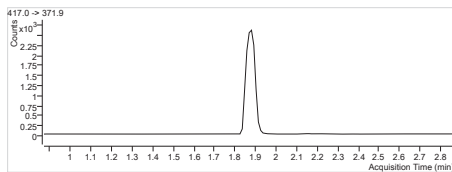
MPFHxS
 RT (Exp. RT):
 Concentration:
 Sample type:

Internal Standard
 1.690 (1.679)
 1 $\mu\text{g/Kg}$
 QC



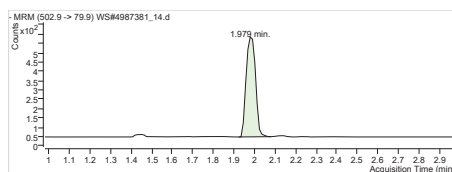
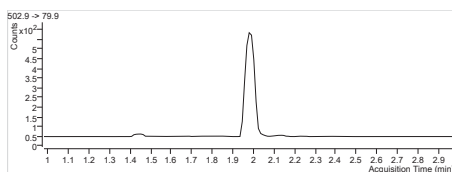
MPFHpA
 RT (Exp. RT):
 Concentration:
 Sample type:

Internal Standard
 1.691 (1.680)
 1 $\mu\text{g/Kg}$
 QC



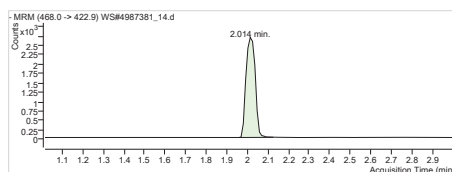
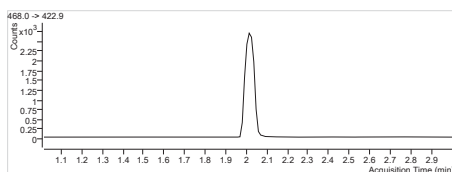
MPFOA
 RT (Exp. RT):
 Concentration:
 Sample type:

Internal Standard
 1.881 (1.869)
 1 $\mu\text{g/Kg}$
 QC



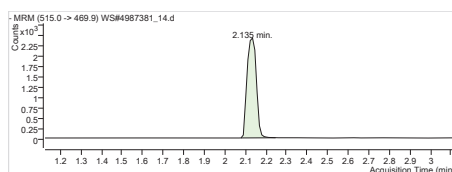
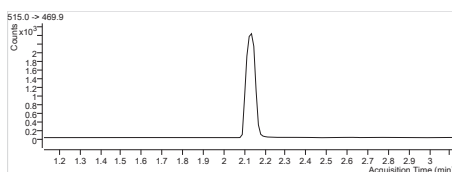
MPFOS
 RT (Exp. RT):
 Concentration:
 Sample type:

Internal Standard
 1.979 (1.979)
 1 $\mu\text{g/Kg}$
 QC



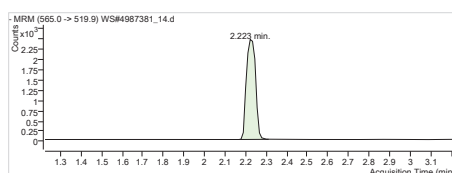
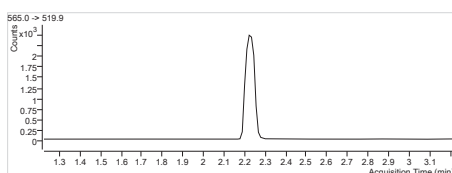
MPFNA
 RT (Exp. RT):
 Concentration:
 Sample type:

Internal Standard
 2.014 (2.014)
 1 $\mu\text{g/Kg}$
 QC



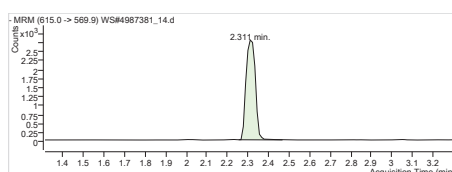
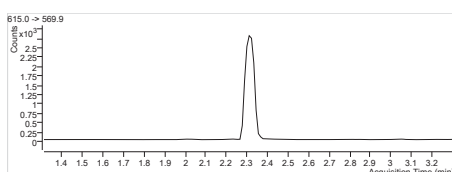
MPFDA
 RT (Exp. RT):
 Concentration:
 Sample type:

Internal Standard
 2.135 (2.124)
 1 $\mu\text{g/Kg}$
 QC



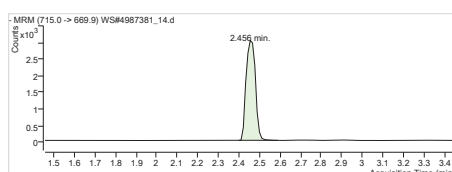
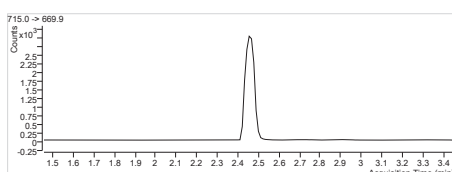
MPFUnA
 RT (Exp. RT):
 Concentration:
 Sample type:

Internal Standard
 2.223 (2.223)
 1 $\mu\text{g/Kg}$
 QC



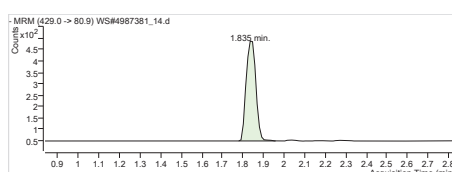
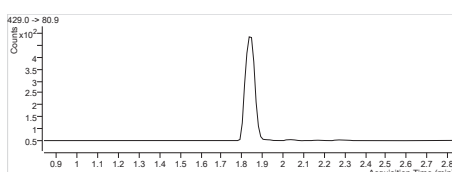
MPFDoA
 RT (Exp. RT):
 Concentration:
 Sample type:

Internal Standard
 2.311 (2.311)
 1 $\mu\text{g/Kg}$
 QC



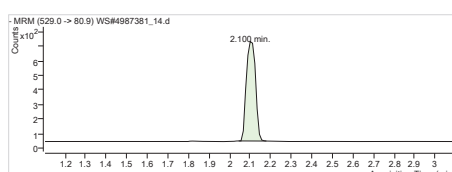
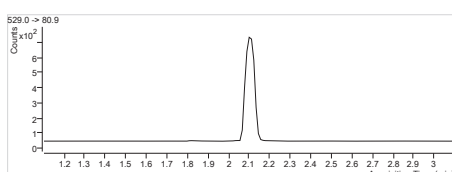
MPFTeDA
 RT (Exp. RT):
 Concentration:
 Sample type:

Internal Standard
 2.456 (2.455)
 1 $\mu\text{g/Kg}$
 QC



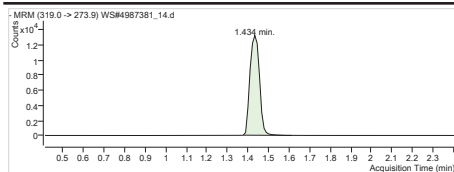
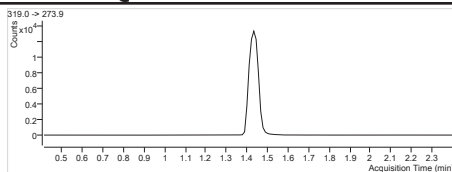
M2 6:2 FTS
 RT (Exp. RT):
 Concentration:
 Sample type:

Internal Standard
 1.835 (1.835)
 1 $\mu\text{g/Kg}$
 QC



M2 8:2 FTS
 RT (Exp. RT):
 Concentration:
 Sample type:

Internal Standard
 2.100 (2.100)
 1 $\mu\text{g/Kg}$
 QC

**13C6-PFHxA IS**

RT (Exp. RT):

Concentration:

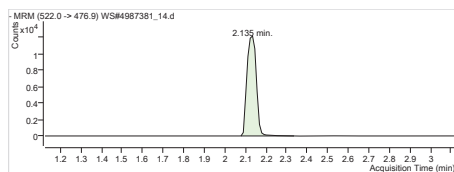
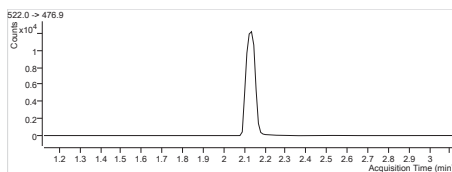
Sample type:

Internal Standard

1.434 (1.411)

1 µg/Kg

QC

**13C9-PFDA IS**

RT (Exp. RT):

Concentration:

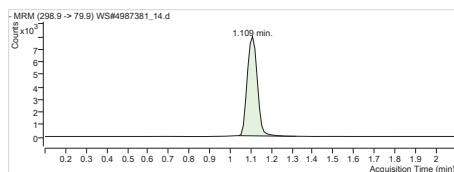
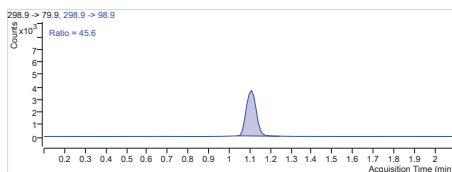
Sample type:

Internal Standard

2.135 (2.124)

1 µg/Kg

QC

**PFBS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

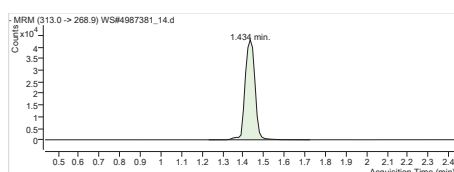
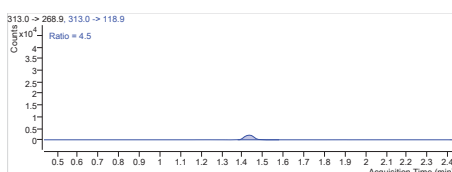
298.9 -> 79.9

1.109 (1.098)

52.91 µg/Kg

23.52870

QC

**PFHxA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

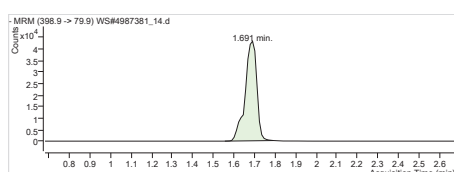
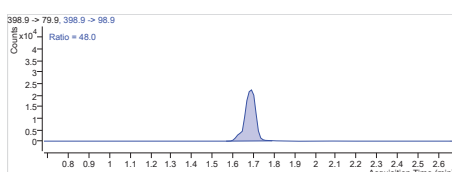
313.0 -> 268.9

1.434 (1.434)

58.70 µg/Kg

18.21653

QC

**PFHxS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

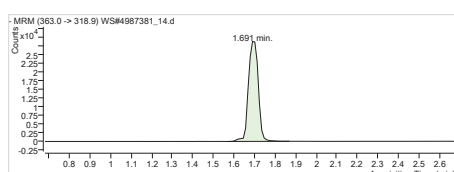
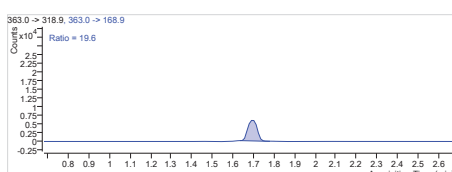
398.9 -> 79.9

1.691 (1.679)

418.55 µg/Kg

147.96696

QC

**PFHpA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

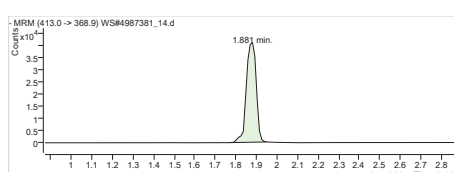
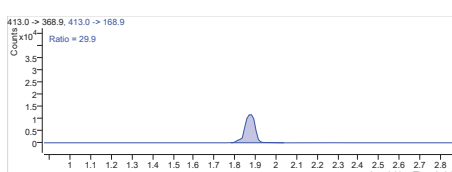
363.0 -> 318.9

1.691 (1.680)

41.62 µg/Kg

13.88139

QC

**PFOA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

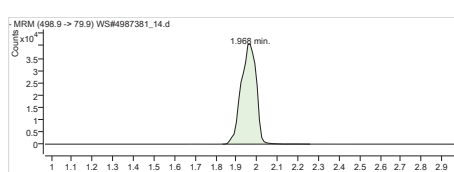
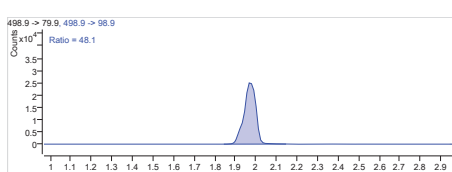
413.0 -> 368.9

1.881 (1.869)

51.94 µg/Kg

16.79576

QC

**PFOS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

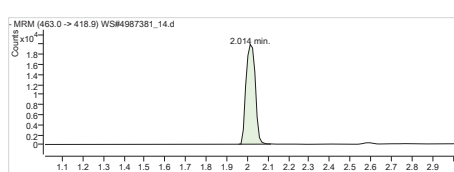
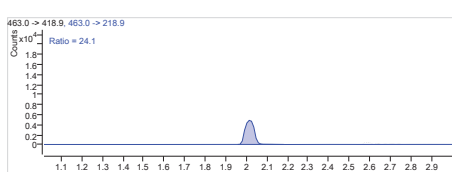
498.9 -> 79.9

1.968 (1.968)

418.12 µg/Kg

123.26538

QC

**PFNA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

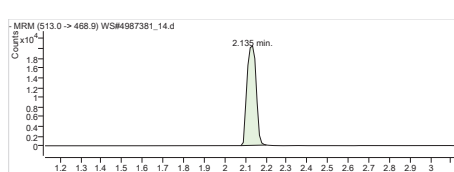
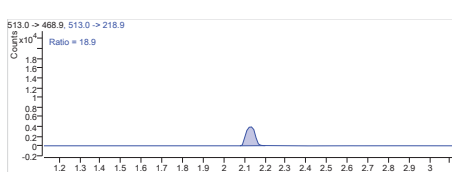
463.0 -> 418.9

2.014 (2.014)

25.49 µg/Kg

7.50492

QC

**PFDA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

513.0 -> 468.9

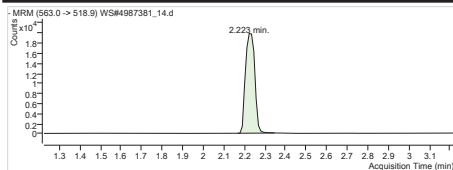
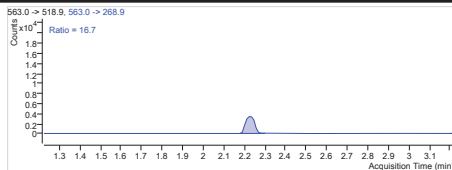
2.135 (2.124)

22.66 µg/Kg

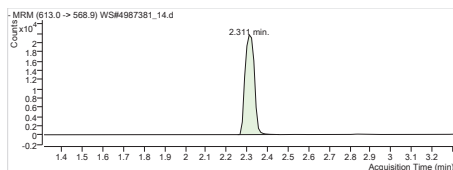
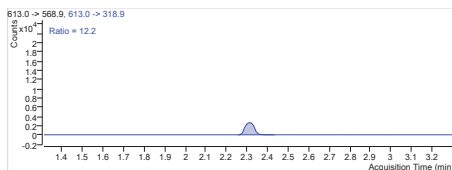
8.45848

QC

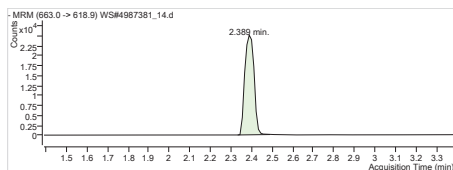
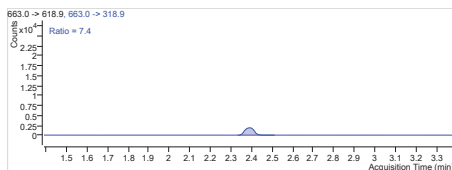
Quantitation Results



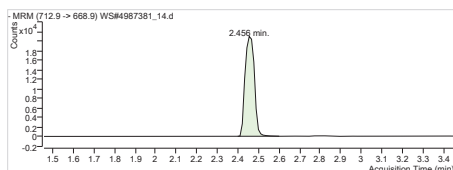
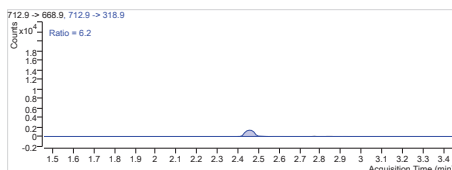
PFUnA 1
RT (Exp. RT): 563.0 -> 518.9
Calc. conc. 2.223 (2.223)
Area ratio: 26.34 µg/Kg
Sample type: 8.19248
QC



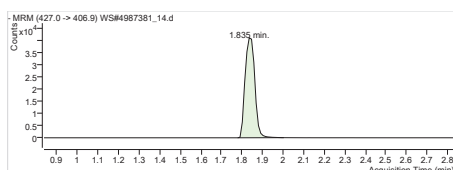
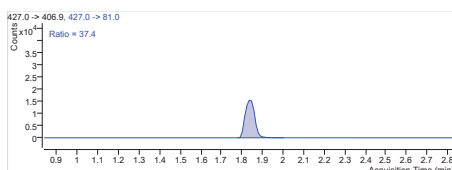
PFDaA 1
RT (Exp. RT): 613.0 -> 568.9
Calc. conc. 2.311 (2.311)
Area ratio: 25.30 µg/Kg
Sample type: 7.78837
QC



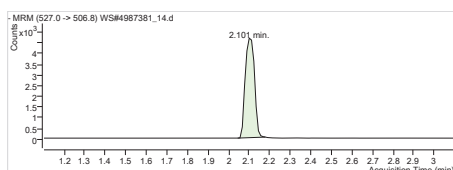
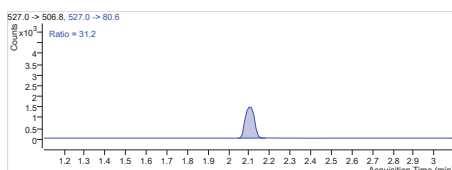
PFTrDA 1
RT (Exp. RT): 663.0 -> 618.9
Calc. conc. 2.389 (2.389)
Area ratio: 28.02 µg/Kg
Sample type: 8.23095
QC



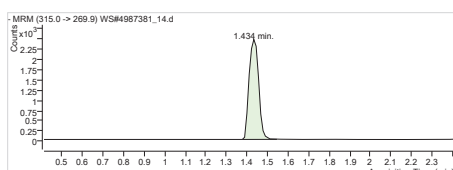
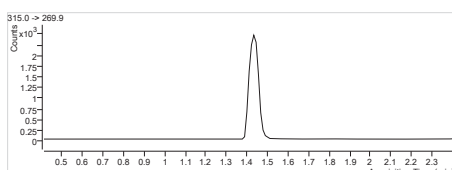
PFTeDA 1
RT (Exp. RT): 712.9 -> 668.9
Calc. conc. 2.456 (2.456)
Area ratio: 25.67 µg/Kg
Sample type: 6.95929
QC



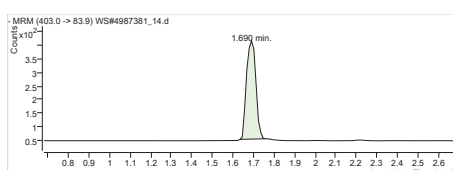
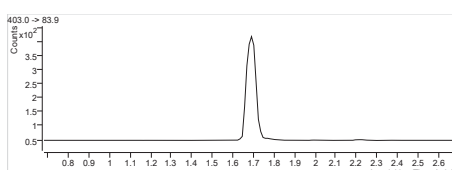
6:2-FTS 1
RT (Exp. RT): 427.0 -> 406.9
Calc. conc. 1.835 (1.835)
Area ratio: 330.04 µg/Kg
Sample type: 93.62000
QC



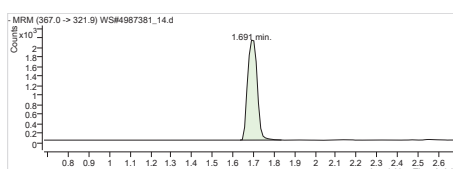
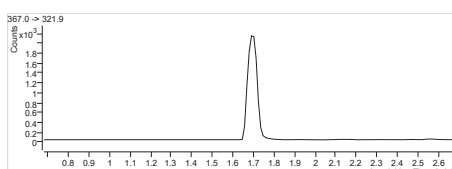
8:2-FTS 1
RT (Exp. RT): 527.0 -> 506.8
Calc. conc. 2.101 (2.101)
Area ratio: 24.21 µg/Kg
Sample type: 6.87488
QC



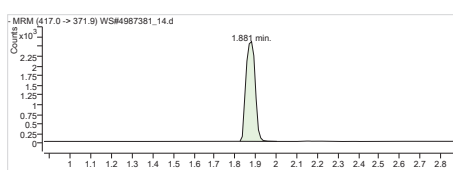
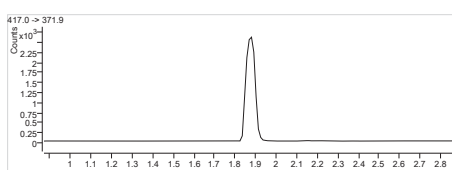
13C2-PFHxA
RT (Exp. RT): 315.0 -> 269.9
Calc. conc. 1.434 (1.411)
Area ratio: 79.43 µg/Kg
Sample type: 0.18481
QC



18O2-PFHxS
RT (Exp. RT): 403.0 -> 83.9
Calc. conc. 1.690 (1.679)
Area ratio: 64.72 µg/Kg
Sample type: 0.02710
QC

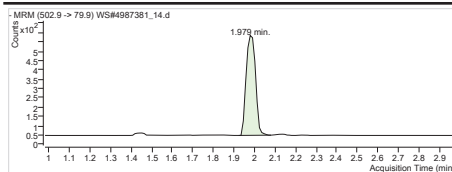
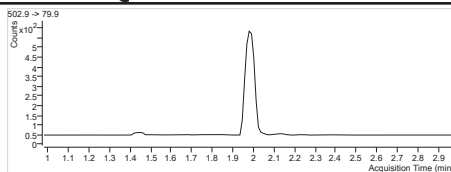


13C4-PFHpA
RT (Exp. RT): 367.0 -> 321.9
Calc. conc. 1.691 (1.680)
Area ratio: 64.09 µg/Kg
Sample type: 0.16233
QC

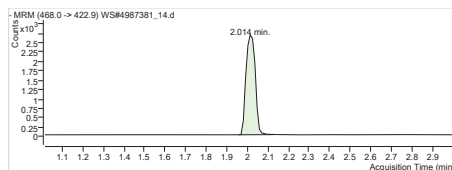
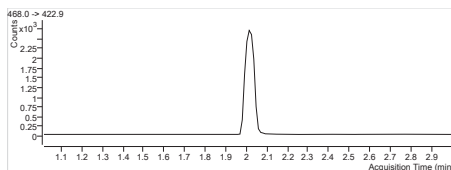


13C4-PFOA
RT (Exp. RT): 417.0 -> 371.9
Calc. conc. 1.881 (1.869)
Area ratio: 77.58 µg/Kg
Sample type: 0.19247
QC

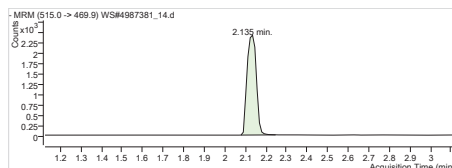
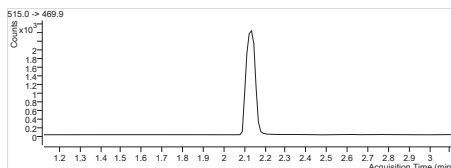
Quantitation Results



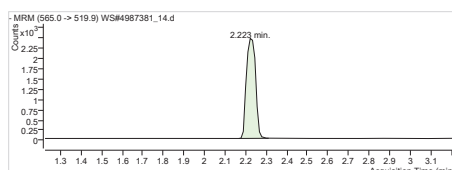
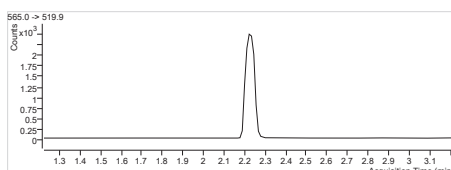
13C4-PFOS
RT (Exp. RT): 502.9 -> 79.9
Calc. conc. 1.979 (1.979)
Area ratio: 79.11 µg/Kg
Sample type: 0.04023
QC



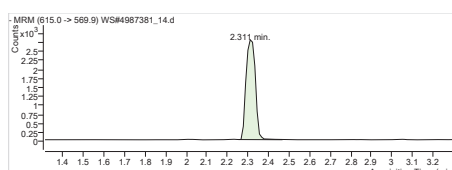
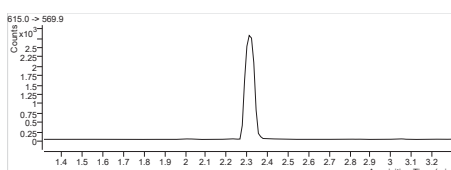
13C5-PFNA
RT (Exp. RT): 468.0 -> 422.9
Calc. conc. 2.014 (2.014)
Area ratio: 81.12 µg/Kg
Sample type: 0.19646
QC



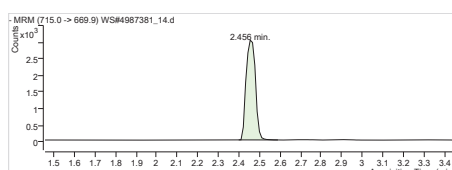
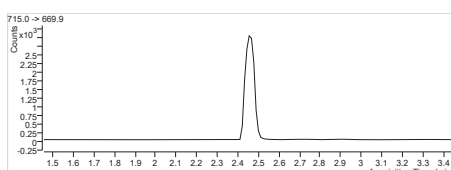
13C2-PFDA
RT (Exp. RT): 515.0 -> 469.9
Calc. conc. 2.135 (2.124)
Area ratio: 85.21 µg/Kg
Sample type: 0.19683
QC



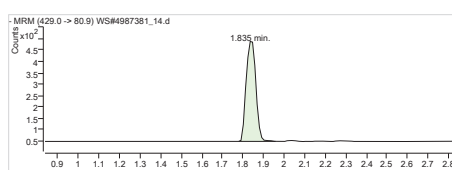
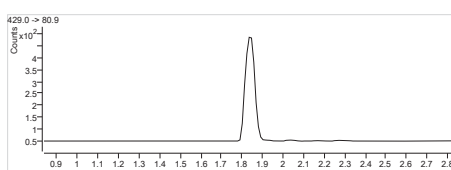
13C2-PFUnA
RT (Exp. RT): 565.0 -> 519.9
Calc. conc. 2.223 (2.223)
Area ratio: 77.27 µg/Kg
Sample type: 0.19961
QC



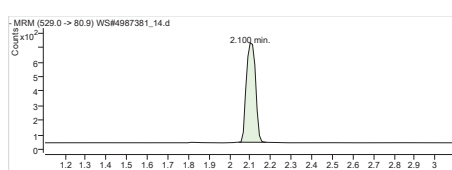
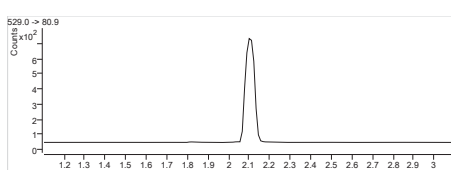
13C2-PFDoA
RT (Exp. RT): 615.0 -> 569.9
Calc. conc. 2.311 (2.311)
Area ratio: 77.07 µg/Kg
Sample type: 0.22823
QC



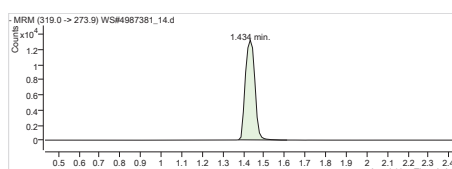
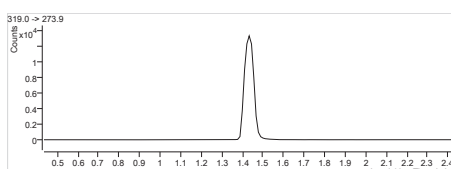
13C2-PFTeDA
RT (Exp. RT): 715.0 -> 669.9
Calc. conc. 2.456 (2.455)
Area ratio: 67.63 µg/Kg
Sample type: 0.24841
QC



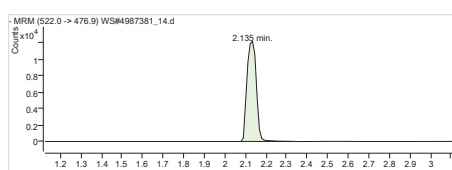
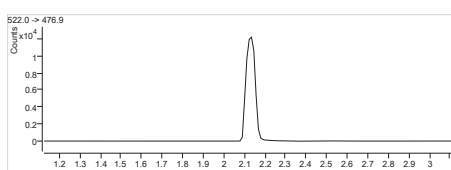
13C2-6:2-FTS
RT (Exp. RT): 429.0 -> 80.9
Calc. conc. 1.835 (1.835)
Area ratio: 54.55 µg/Kg
Sample type: 0.03417
QC



13C2-8:2 FTS
RT (Exp. RT): 529.0 -> 80.9
Calc. conc. 2.100 (2.100)
Area ratio: 79.65 µg/Kg
Sample type: 0.05010
QC



13C6-PFHxA
RT (Exp. RT): 319.0 -> 273.9
Calc. conc. 1.434 (1.434)
Area ratio: 134.75 µg/Kg
Sample type: 0
QC



13C9-PFDA
RT (Exp. RT): 522.0 -> 476.9
Calc. conc. 2.135 (2.124)
Area ratio: 132.76 µg/Kg
Sample type: 0
QC

Sample Name

IB

Instrument

LCMS04

Data File

WS#4987381_FOSAA_08.d

Operator

M_G

Sample Type

Sample

Dilution

1.33

Acq. Method

PFC_Soil_FOSAA.m

Position

P2-A8

Acq. Date

2017/05/20 11:47:35 AM

Injection Volume

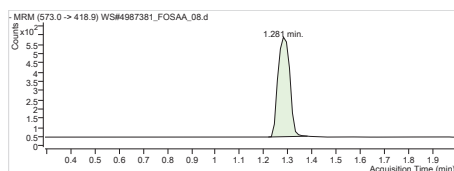
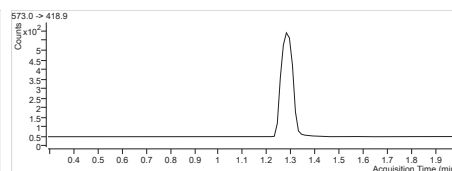
Per Method

Sample Annotation

-

ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1842	1.28	1 µg/Kg		
D5-EtFOSAA IS	1650	1.31	1 µg/Kg		
13C9-PFDA IS	31863	0.85	1 µg/Kg		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	60	1.28	-	0.17 µg/Kg	-
EtFOSAA 1			-	ND	-
D3-MeFOSAA	1873	1.28	-	103.50 µg/Kg	-
D5-EtFOSAA	1661	1.31	-	101.53 µg/Kg	-
13C9-PFDA	31030	0.85	-	133.04 µg/Kg	-

**D3-MeFOSAA IS**

Internal Standard

RT (Exp. RT):

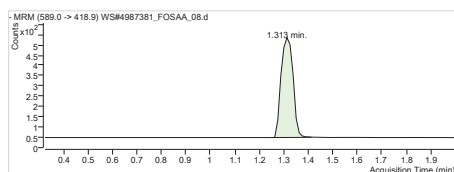
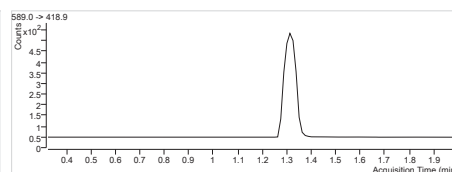
1.281 (1.281)

Concentration:

1 µg/Kg

Sample type:

Sample

**D5-EtFOSAA IS**

Internal Standard

RT (Exp. RT):

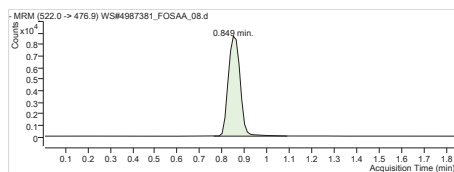
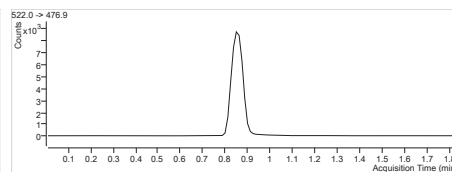
1.313 (1.313)

Concentration:

1 µg/Kg

Sample type:

Sample

**13C9-PFDA IS**

Internal Standard

RT (Exp. RT):

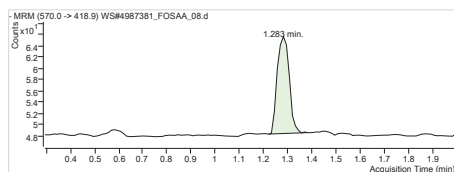
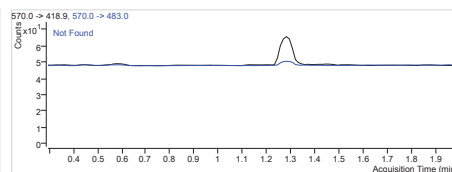
0.849 (0.849)

Concentration:

1 µg/Kg

Sample type:

Sample

**MeFOSAA 1**

570.0 -> 418.9

RT (Exp. RT):

1.283 (1.283)

Calc. conc.

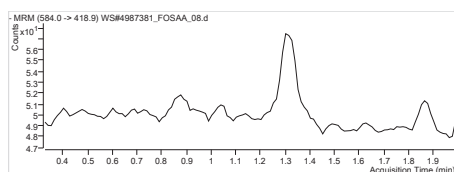
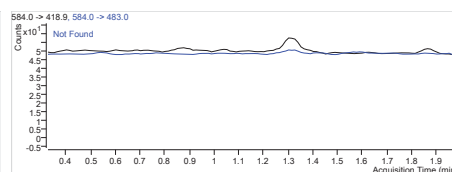
0.17 µg/Kg

Area ratio:

0.03257

Sample type:

Sample

**EtFOSAA 1**

584.0 -> 418.9

RT (Exp. RT):

0.000 (1.315)

Calc. conc.

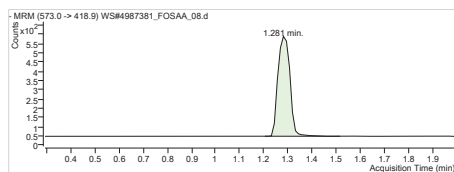
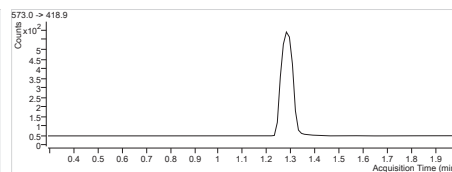
N.D.

Area ratio:

0

Sample type:

Sample

**D3-MeFOSAA**

573.0 -> 418.9

RT (Exp. RT):

1.281 (1.281)

Calc. conc.

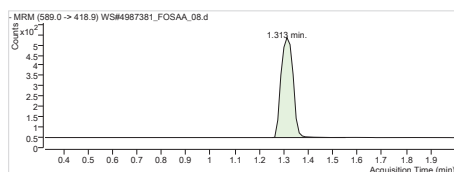
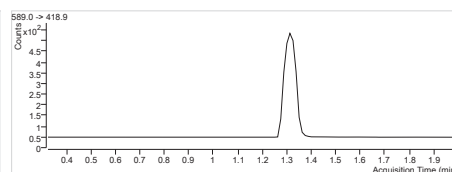
103.50 µg/Kg

Area ratio:

0.05877

Sample type:

Sample

**D5-EtFOSAA**

589.0 -> 418.9

RT (Exp. RT):

1.313 (1.313)

Calc. conc.

101.53 µg/Kg

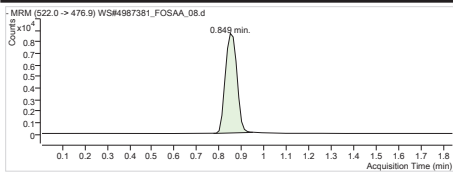
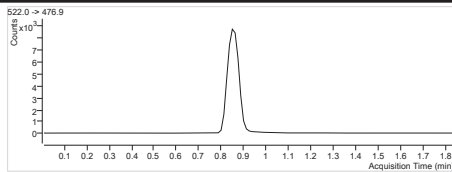
Area ratio:

0.05213

Sample type:

Sample

Quantitation Results



13C9-PFDA
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

522.0 -> 476.9
0.849 (0.849)
133.04 µg/Kg
0
Sample

Sample Name

IB

Instrument

LCMS04

Data File

WS#4987381_FOSAA_15.d

Operator

M_G

Sample Type

Sample

Dilution

1

Acq. Method

PFC_Soil_FOSAA.m

Position

P2-A8

Acq. Date

2017/05/20 12:04:18 PM

Injection Volume

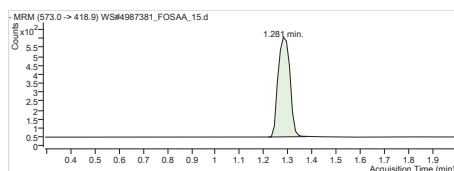
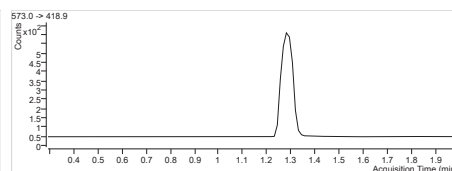
Per Method

Sample Annotation

-

ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1907	1.28	1 µg/Kg		
D5-EtFOSAA IS	1712	1.31	1 µg/Kg		
13C9-PFDA IS	32067	0.85	1 µg/Kg		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	41	1.28	-	0.10 µg/Kg	-
EtFOSAA 1			-	ND	-
D3-MeFOSAA	1926	1.28	-	105.75 µg/Kg	-
D5-EtFOSAA	1724	1.31	-	104.70 µg/Kg	-
13C9-PFDA	31250	0.85	-	100.74 µg/Kg	-

**D3-MeFOSAA IS**

Internal Standard

RT (Exp. RT):

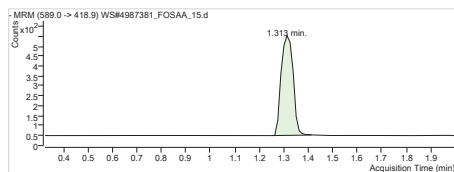
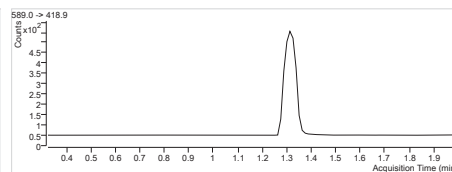
1.281 (1.281)

Concentration:

1 µg/Kg

Sample type:

Sample

**D5-EtFOSAA IS**

Internal Standard

RT (Exp. RT):

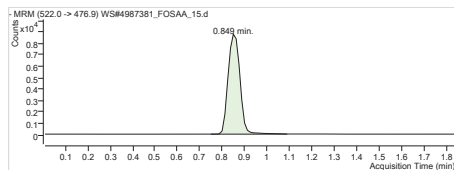
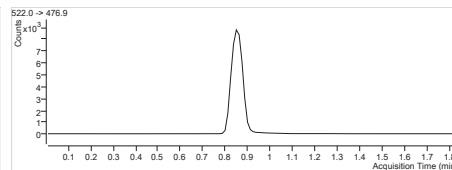
1.313 (1.313)

Concentration:

1 µg/Kg

Sample type:

Sample

**13C9-PFDA IS**

Internal Standard

RT (Exp. RT):

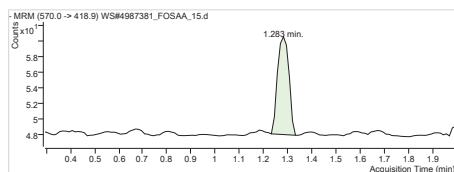
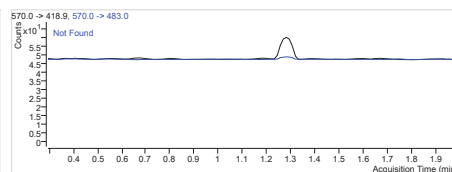
0.849 (0.849)

Concentration:

1 µg/Kg

Sample type:

Sample

**MeFOSAA 1**

570.0 -> 418.9

RT (Exp. RT):

1.283 (1.283)

Calc. conc.

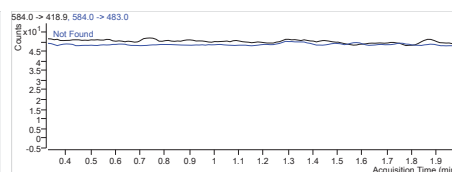
0.10 µg/Kg

Area ratio:

0.02150

Sample type:

Sample

**EtFOSAA 1**

584.0 -> 418.9

RT (Exp. RT):

0.000 (1.315)

Calc. conc.

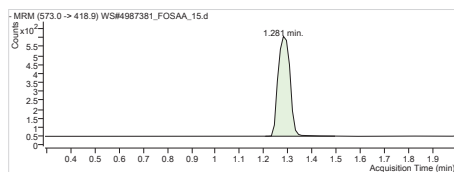
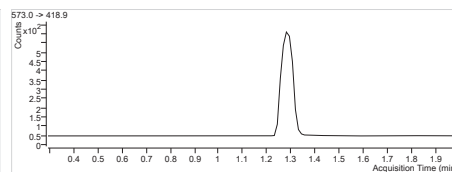
N.D.

Area ratio:

0

Sample type:

Sample

**D3-MeFOSAA**

573.0 -> 418.9

RT (Exp. RT):

1.281 (1.281)

Calc. conc.

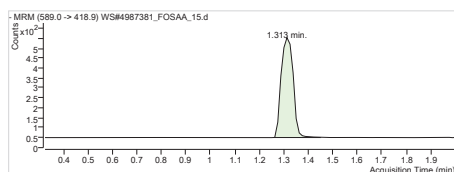
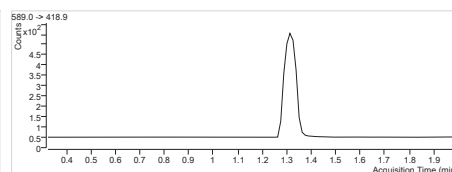
105.75 µg/Kg

Area ratio:

0.06005

Sample type:

Sample

**D5-EtFOSAA**

589.0 -> 418.9

RT (Exp. RT):

1.313 (1.313)

Calc. conc.

104.70 µg/Kg

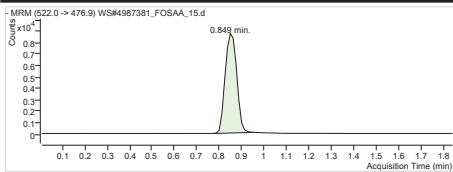
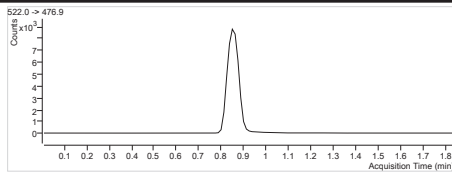
Area ratio:

0.05376

Sample type:

Sample

Quantitation Results



13C9-PFDA
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

522.0 -> 476.9
0.849 (0.849)
100.74 µg/Kg
0
Sample

Sample Name

IB

Instrument

LCMS04

Data File

WS#4987381_FOSAA_20.d

Operator

M_G

Sample Type

Sample

Dilution

1.33

Acq. Method

PFC_Soil_FOSAA.m

Position

P2-A8

Acq. Date

2017/05/20 12:16:13 PM

Injection Volume

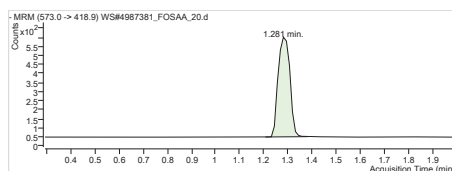
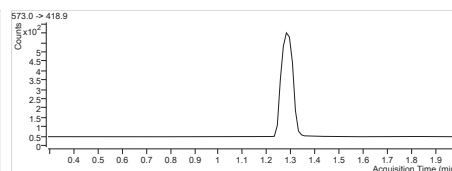
Per Method

Sample Annotation

-

ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1877	1.28	1 µg/Kg		
D5-EtFOSAA IS	1686	1.31	1 µg/Kg		
13C9-PFDA IS	32087	0.86	1 µg/Kg		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	55	1.28	-	0.16 µg/Kg	-
EtFOSAA 1			-	ND	-
D3-MeFOSAA	1897	1.28	-	104.09 µg/Kg	-
D5-EtFOSAA	1707	1.31	-	103.61 µg/Kg	-
13C9-PFDA	31342	0.86	-	134.38 µg/Kg	-

**D3-MeFOSAA IS**

Internal Standard

RT (Exp. RT):

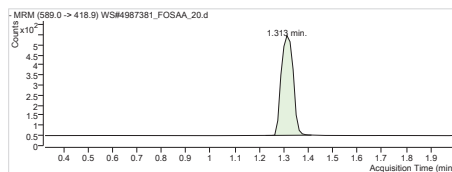
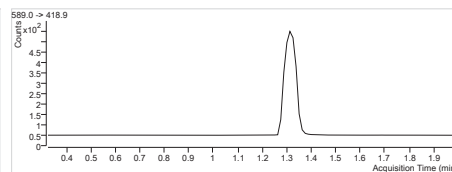
1.281 (1.281)

Concentration:

1 µg/Kg

Sample type:

Sample

**D5-EtFOSAA IS**

Internal Standard

RT (Exp. RT):

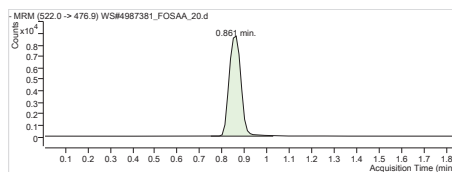
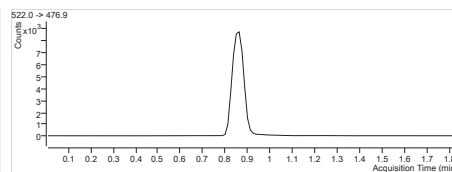
1.313 (1.313)

Concentration:

1 µg/Kg

Sample type:

Sample

**13C9-PFDA IS**

Internal Standard

RT (Exp. RT):

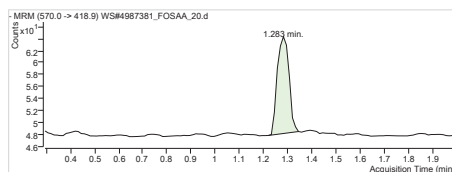
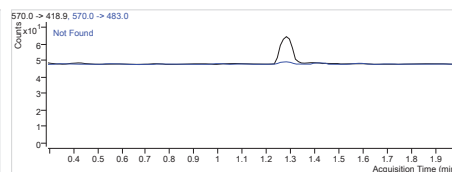
0.861 (0.849)

Concentration:

1 µg/Kg

Sample type:

Sample

**MeFOSAA 1**

570.0 -> 418.9

RT (Exp. RT):

1.283 (1.283)

Calc. conc.

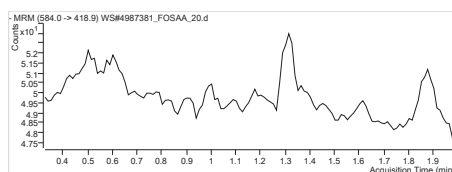
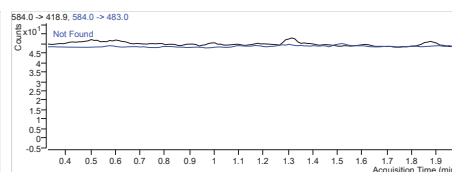
0.16 µg/Kg

Area ratio:

0.02930

Sample type:

Sample

**EtFOSAA 1**

584.0 -> 418.9

RT (Exp. RT):

0.000 (1.315)

Calc. conc.

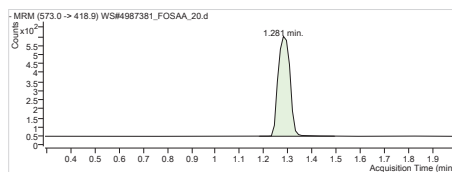
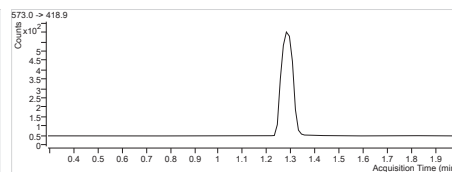
N.D.

Area ratio:

0

Sample type:

Sample

**D3-MeFOSAA**

573.0 -> 418.9

RT (Exp. RT):

1.281 (1.281)

Calc. conc.

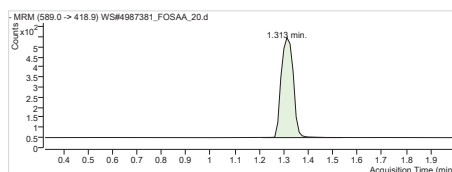
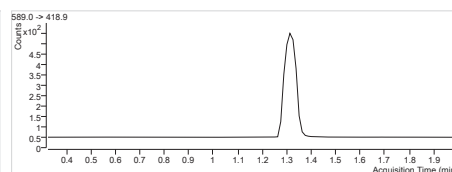
104.09 µg/Kg

Area ratio:

0.05911

Sample type:

Sample

**D5-EtFOSAA**

589.0 -> 418.9

RT (Exp. RT):

1.313 (1.313)

Calc. conc.

103.61 µg/Kg

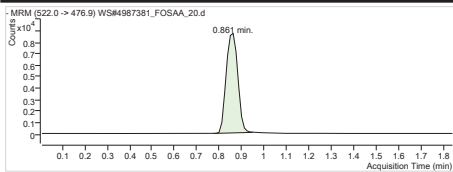
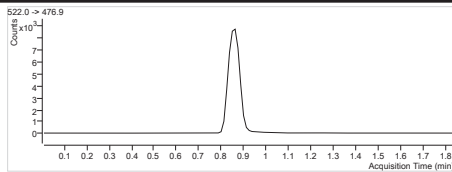
Area ratio:

0.05320

Sample type:

Sample

Quantitation Results



13C9-PFDA
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

522.0 -> 476.9
0.861 (0.849)
134.38 µg/Kg
0
Sample

Sample Name

4987381:BLANK

Instrument

LCMS04

Data File

WS#4987381_FOSAA_11.d

Operator

M_G

Sample Type

Blank

Dilution

1.33

Acq. Method

PFC_Soil_FOSAA.m

Position

P2-B1

Acq. Date

2017/05/20 11:54:46 AM

Injection Volume

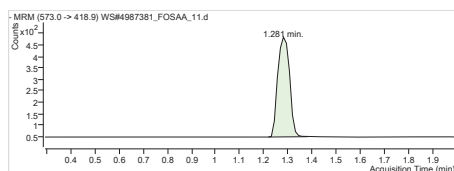
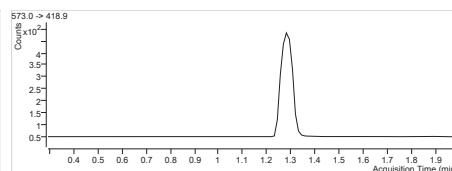
Per Method

Sample Annotation

-

ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1483	1.28	1 µg/Kg		
D5-EtFOSAA IS	1321	1.31	1 µg/Kg		
13C9-PFDA IS	33477	0.85	1 µg/Kg		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	37	1.28	-	0.14 µg/Kg	-
EtFOSAA 1			-	ND	-
D3-MeFOSAA	1494	1.28	-	78.59 µg/Kg	-
D5-EtFOSAA	1349	1.31	-	78.49 µg/Kg	-
13C9-PFDA	32705	0.85	-	140.23 µg/Kg	-

**D3-MeFOSAA IS**

Internal Standard

RT (Exp. RT):

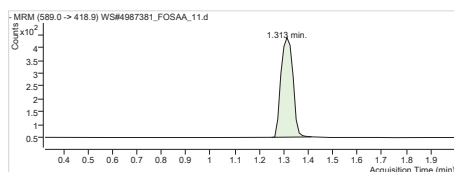
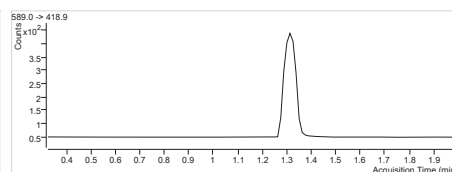
1.281 (1.281)

Concentration:

1 µg/Kg

Sample type:

Blank

**D5-EtFOSAA IS**

Internal Standard

RT (Exp. RT):

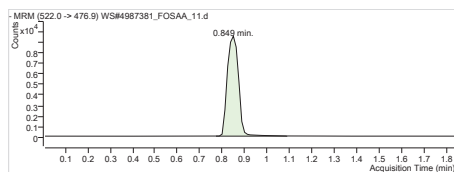
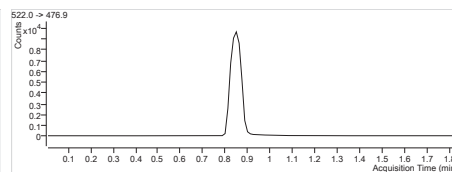
1.313 (1.313)

Concentration:

1 µg/Kg

Sample type:

Blank

**13C9-PFDA IS**

Internal Standard

RT (Exp. RT):

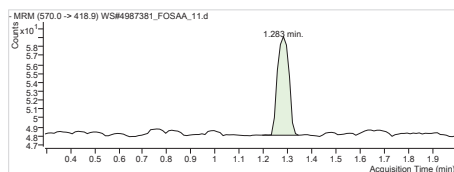
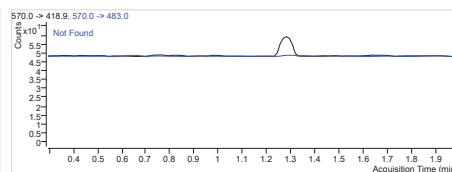
0.849 (0.849)

Concentration:

1 µg/Kg

Sample type:

Blank

**MeFOSAA 1**

570.0 -> 418.9

RT (Exp. RT):

1.283 (1.283)

Calc. conc.

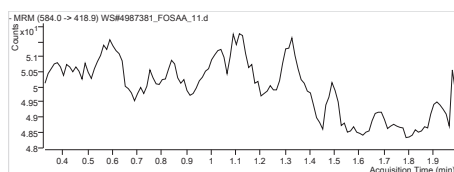
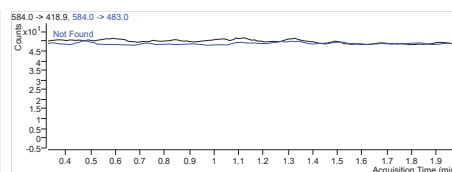
0.14 µg/Kg

Area ratio:

0.02495

Sample type:

Blank

**EtFOSAA 1**

584.0 -> 418.9

RT (Exp. RT):

0.000 (1.315)

Calc. conc.

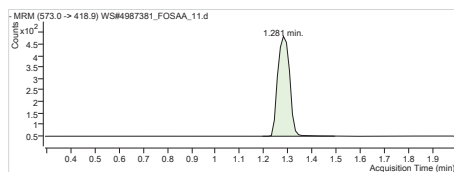
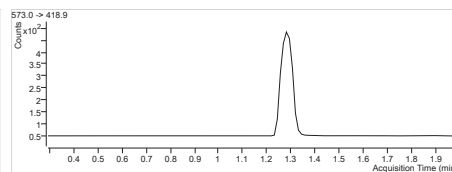
N.D.

Area ratio:

0

Sample type:

Blank

**D3-MeFOSAA**

573.0 -> 418.9

RT (Exp. RT):

1.281 (1.281)

Calc. conc.

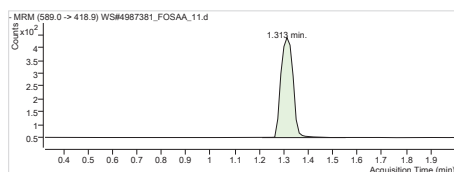
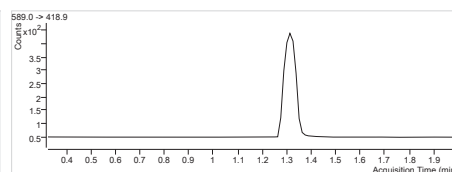
78.59 µg/Kg

Area ratio:

0.04463

Sample type:

Blank

**D5-EtFOSAA**

589.0 -> 418.9

RT (Exp. RT):

1.313 (1.313)

Calc. conc.

78.49 µg/Kg

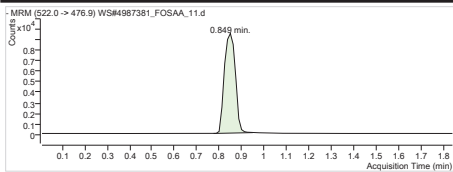
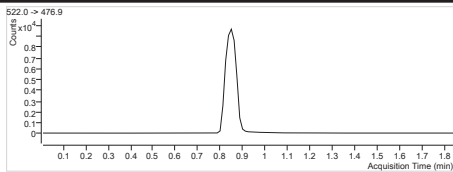
Area ratio:

0.04030

Sample type:

Blank

Quantitation Results



13C9-PFDA
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

522.0 -> 476.9
0.849 (0.849)
140.23 µg/Kg
0
Blank

Batch Path

T:\cms4\PFC\20170519\WS#4987381_FOSAA\QuantResults\PFC_Soil_170519_WS#4987381_FOSAA

Sample Name

4987381:SPIKE

Instrument

LCMS04

Data File

WS#4987381_FOSAA_12.d

Operator

M_G

Sample Type

QC

Dilution

1.33

Acq. Method

PFC_Soil_FOSAA.m

Position

P2-B2

Acq. Date

2017/05/20 11:57:09 AM

Injection Volume

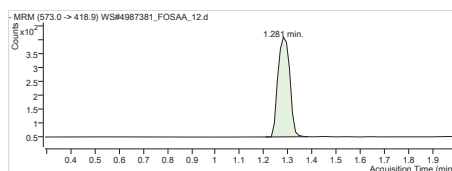
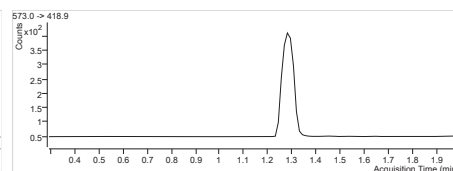
Per Method

Sample Annotation

-

ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1237	1.28	1 µg/Kg		
D5-EtFOSAA IS	1105	1.31	1 µg/Kg		
13C9-PFDA IS	31865	0.85	1 µg/Kg		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	9048	1.28	18.80	24.99 µg/Kg	99.95
EtFOSAA 1	8962	1.32	18.80	24.78 µg/Kg	99.09
D3-MeFOSAA	1244	1.28	100.00	68.73 µg/Kg	68.73
D5-EtFOSAA	1122	1.31	100.00	68.56 µg/Kg	68.56
13C9-PFDA	31107	0.85	100.00	133.37 µg/Kg	100.28



D3-MeFOSAA IS

RT (Exp. RT):

Internal Standard

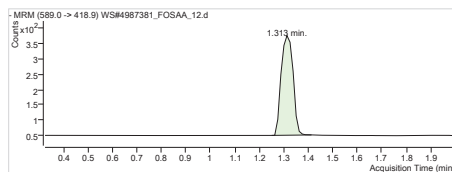
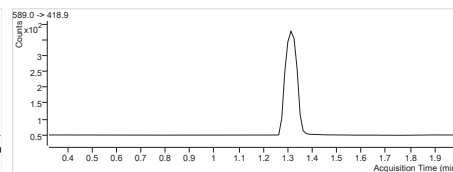
Concentration:

1.281 (1.281)

Sample type:

1 µg/Kg

QC



D5-EtFOSAA IS

RT (Exp. RT):

Internal Standard

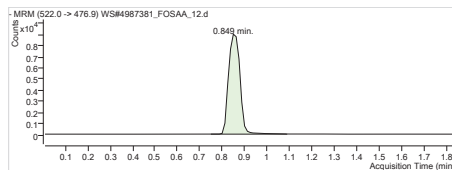
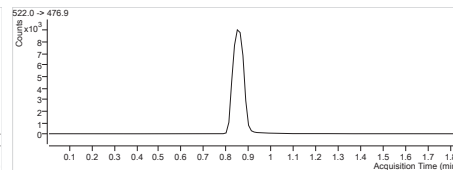
Concentration:

1.313 (1.313)

Sample type:

1 µg/Kg

QC



13C9-PFDA IS

RT (Exp. RT):

Internal Standard

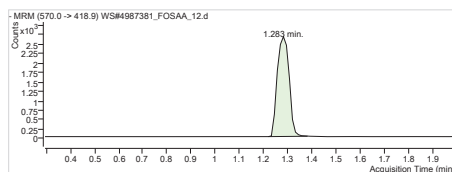
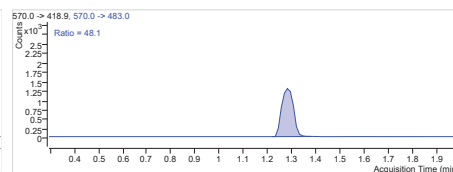
Concentration:

0.849 (0.849)

Sample type:

1 µg/Kg

QC



MeFOSAA 1

RT (Exp. RT):

570.0 -> 418.9

Calc. conc.

1.283 (1.283)

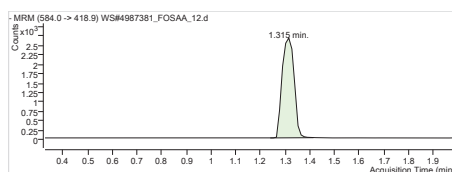
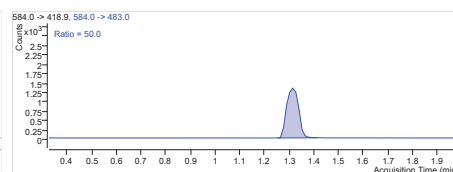
Area ratio:

24.99 µg/Kg

Sample type:

7.31447

QC



EtFOSAA 1

RT (Exp. RT):

584.0 -> 418.9

Calc. conc.

1.315 (1.315)

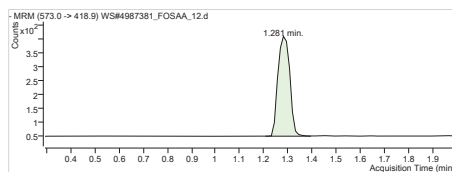
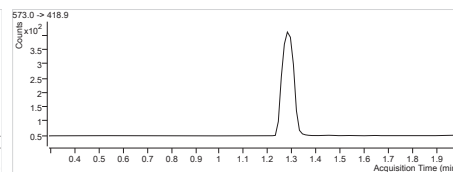
Area ratio:

24.78 µg/Kg

Sample type:

8.11041

QC



D3-MeFOSAA

RT (Exp. RT):

573.0 -> 418.9

Calc. conc.

1.281 (1.281)

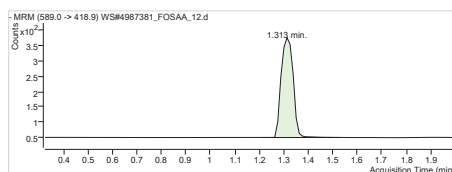
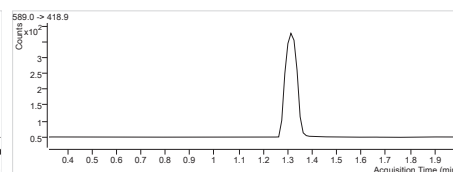
Area ratio:

68.73 µg/Kg

Sample type:

0.03903

QC



D5-EtFOSAA

RT (Exp. RT):

589.0 -> 418.9

Calc. conc.

1.313 (1.313)

Area ratio:

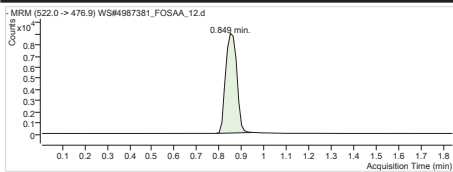
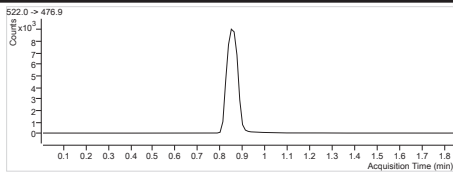
68.56 µg/Kg

Sample type:

0.03520

QC

Quantitation Results



13C9-PFDA
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

522.0 -> 476.9
0.849 (0.849)
133.37 µg/Kg
0
QC

Batch Path

T:\cms4\PFCA\20170519\WS#4987381_FOSAA\QuantResults\PFCA_Soil_170519_WS#4987381_FOSAA

Sample Name

4987381:MTRX SPK

Instrument

LCMS04

Data File

WS#4987381_FOSAA_13.d

Operator

M_G

Sample Type

QC

Dilution

1.33

Acq. Method

PFC_Soil_FOSAA.m

Position

P2-B3

Acq. Date

2017/05/20 11:59:32 AM

Injection Volume

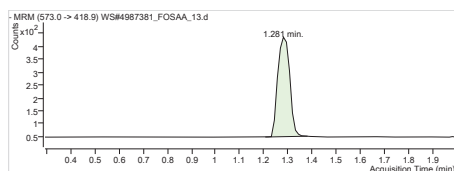
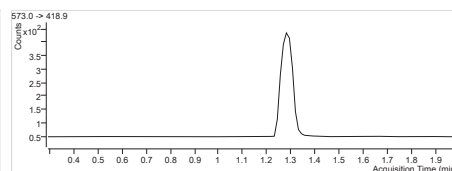
Per Method

Sample Annotation

EJK042

ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1333	1.28	1 µg/Kg		
D5-EtFOSAA IS	1237	1.31	1 µg/Kg		
13C9-PFDA IS	32062	0.85	1 µg/Kg		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	9960	1.28	18.80	25.53 µg/Kg	102.10
EtFOSAA 1	9959	1.32	18.80	24.60 µg/Kg	98.36
D3-MeFOSAA	1352	1.28	100.00	74.27 µg/Kg	74.27
D5-EtFOSAA	1243	1.31	100.00	75.50 µg/Kg	75.50
13C9-PFDA	31326	0.85	100.00	134.31 µg/Kg	100.99



D3-MeFOSAA IS

RT (Exp. RT):

Internal Standard

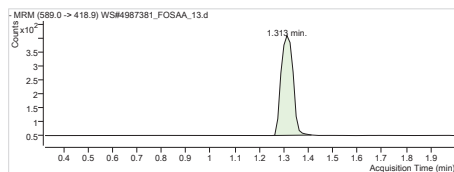
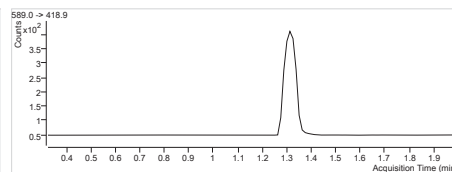
Concentration:

1.281 (1.281)

Sample type:

1 µg/Kg

QC



D5-EtFOSAA IS

RT (Exp. RT):

Internal Standard

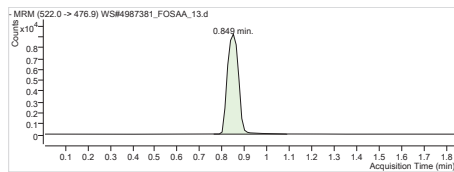
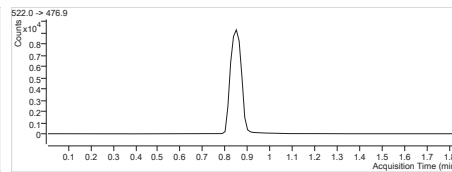
Concentration:

1.313 (1.313)

Sample type:

1 µg/Kg

QC



13C9-PFDA IS

RT (Exp. RT):

Internal Standard

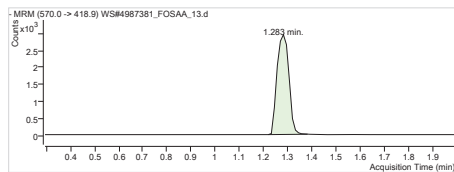
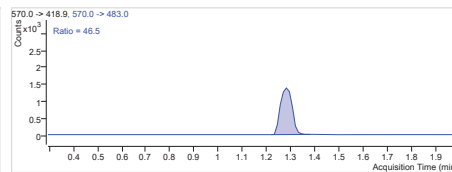
Concentration:

0.849 (0.849)

Sample type:

1 µg/Kg

QC



MeFOSAA 1

RT (Exp. RT):

570.0 -> 418.9

Calc. conc.

1.283 (1.283)

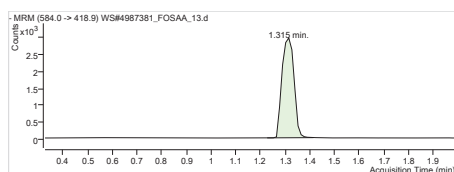
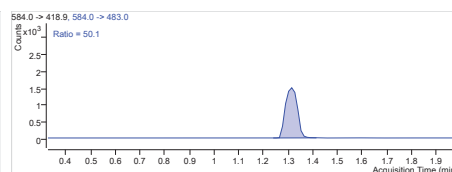
Area ratio:

25.53 µg/Kg

Sample type:

7.47187

QC



EtFOSAA 1

RT (Exp. RT):

584.0 -> 418.9

Calc. conc.

1.315 (1.315)

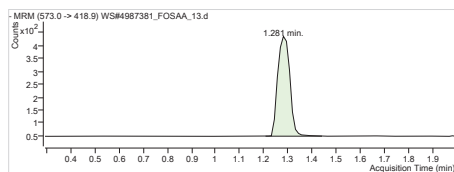
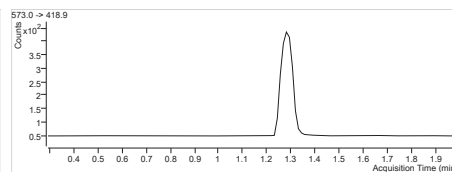
Area ratio:

24.60 µg/Kg

Sample type:

8.05093

QC



D3-MeFOSAA

RT (Exp. RT):

573.0 -> 418.9

Calc. conc.

1.281 (1.281)

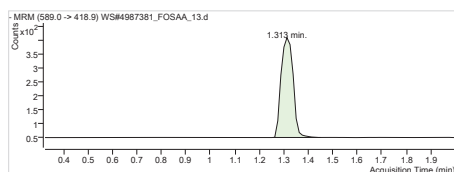
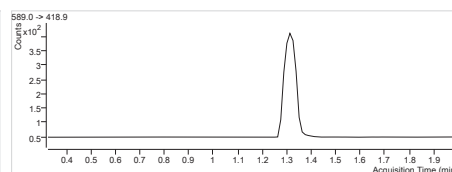
Area ratio:

74.27 µg/Kg

Sample type:

0.04217

QC



D5-EtFOSAA

RT (Exp. RT):

589.0 -> 418.9

Calc. conc.

1.313 (1.313)

Area ratio:

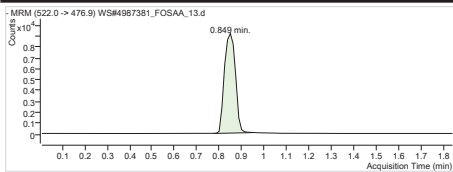
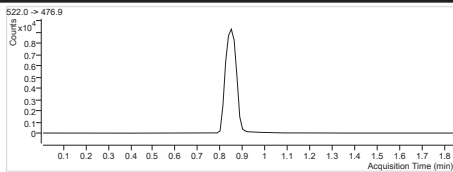
75.50 µg/Kg

Sample type:

0.03876

QC

Quantitation Results



13C9-PFDA
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

522.0 -> 476.9
0.849 (0.849)
134.31 µg/Kg
0
QC

Batch Path

T:\cms4\PFC\20170519\WS#4987381_FOSAA\QuantResults\PFC_Soil_170519_WS#4987381_FOSAA

Sample Name

4987381:MTRX SPK:D1

Instrument

LCMS04

Data File

WS#4987381_FOSAA_14.d

Operator

M_G

Sample Type

QC

Dilution

1.33

Acq. Method

PFC_Soil_FOSAA.m

Position

P2-B4

Acq. Date

2017/05/20 12:01:55 PM

Injection Volume

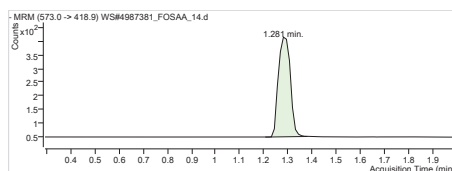
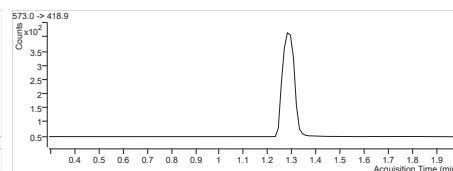
Per Method

Sample Annotation

EJK042

ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1264	1.28	1 µg/Kg		
D5-EtFOSAA IS	1173	1.31	1 µg/Kg		
13C9-PFDA IS	32120	0.86	1 µg/Kg		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	9635	1.28	18.80	26.04 µg/Kg	104.15
EtFOSAA 1	9717	1.32	18.80	25.30 µg/Kg	101.19
D3-MeFOSAA	1278	1.28	100.00	70.08 µg/Kg	70.08
D5-EtFOSAA	1181	1.31	100.00	71.62 µg/Kg	71.62
13C9-PFDA	31181	0.86	100.00	133.69 µg/Kg	100.52

**D3-MeFOSAA IS**

Internal Standard

RT (Exp. RT):

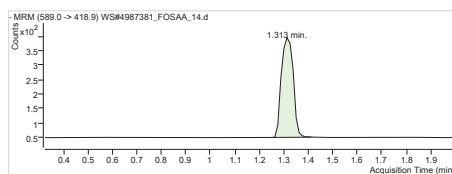
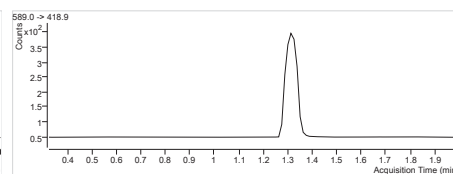
1.281 (1.281)

Concentration:

1 µg/Kg

Sample type:

QC

**D5-EtFOSAA IS**

Internal Standard

RT (Exp. RT):

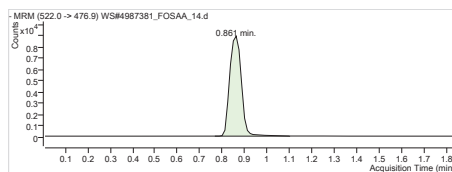
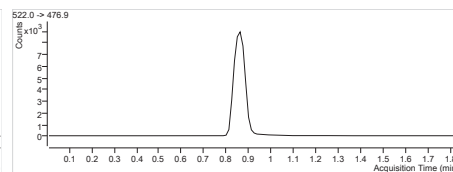
1.313 (1.313)

Concentration:

1 µg/Kg

Sample type:

QC

**13C9-PFDA IS**

Internal Standard

RT (Exp. RT):

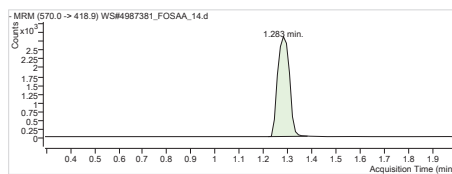
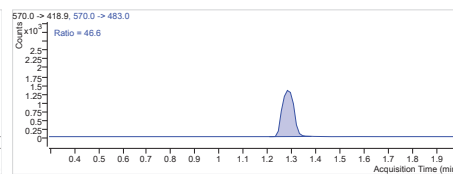
0.861 (0.849)

Concentration:

1 µg/Kg

Sample type:

QC

**MeFOSAA 1**

570.0 -> 418.9

RT (Exp. RT):

1.283 (1.283)

Calc. conc.

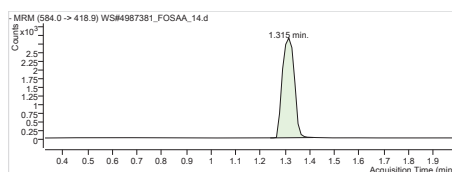
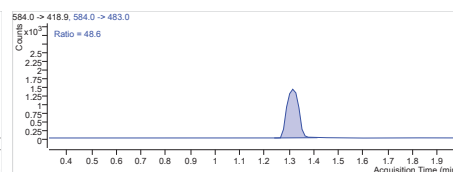
26.04 µg/Kg

Area ratio:

7.62263

Sample type:

QC

**EtFOSAA 1**

584.0 -> 418.9

RT (Exp. RT):

1.315 (1.315)

Calc. conc.

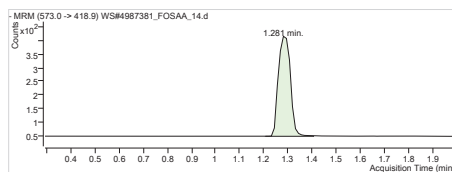
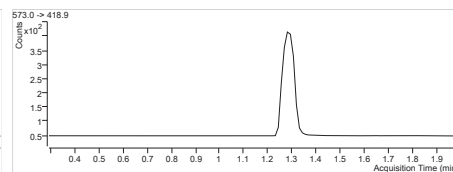
25.30 µg/Kg

Area ratio:

8.28389

Sample type:

QC

**D3-MeFOSAA**

573.0 -> 418.9

RT (Exp. RT):

1.281 (1.281)

Calc. conc.

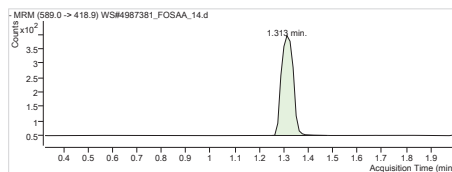
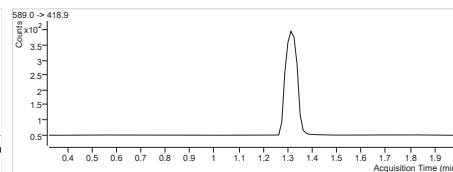
70.08 µg/Kg

Area ratio:

0.03979

Sample type:

QC

**D5-EtFOSAA**

589.0 -> 418.9

RT (Exp. RT):

1.313 (1.313)

Calc. conc.

71.62 µg/Kg

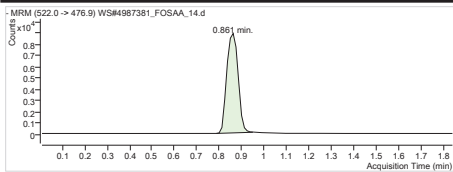
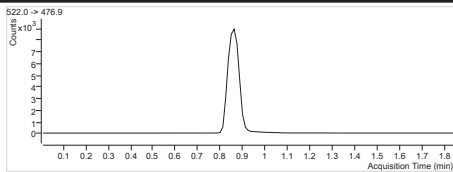
Area ratio:

0.03677

Sample type:

QC

Quantitation Results



13C9-PFDA
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

522.0 -> 476.9
0.861 (0.849)
133.69 µg/Kg
0
QC

Batch Path

T:\lcms4\PFC\20170523\WS#4987523\QuantResults\PFC_Water_Low_170523_WS#4987523_CT

Sample Name

IB1

Instrument

LCMS04

Data File

WS#4987523_08.d

Operator

AD

Sample Type

Blank

Dilution

0.024

Acq. Method

PFC_Water_Low.m

Position

P1-A8

Acq. Date

2017/05/23 9:47:56 AM

Injection Volume

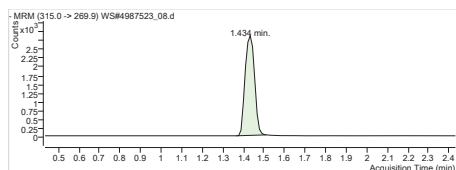
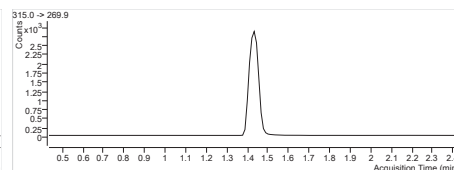
Per Method

Sample Annotation

-

ISTD Compounds	Response	RT	Target conc.		
MPFHxA	9069	1.43	1 µg/L		
MPFHxS	1663	1.69	1 µg/L		
MPFHpA	10592	1.69	1 µg/L		
MPFOA	9650	1.88	1 µg/L		
MPFOS	2018	1.98	1 µg/L		
MPFNA	9252	2.01	1 µg/L		
MPFDA	8083	2.14	1 µg/L		
MPFUnA	8688	2.23	1 µg/L		
MPFDoA	9827	2.31	1 µg/L		
MPFTeDA	12223	2.46	1 µg/L		
M2 6:2 FTS	2590	1.84	1 µg/L		
M2 8:2 FTS	2575	2.10	1 µg/L		
13C6-PFHxA IS	38942	1.43	1 µg/L		
13C9-PFDA IS	33090	2.13	1 µg/L		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1			-	ND	-
PFHxA 1			-	ND	-
PFHxS 1			-	ND	-
PFHpA 1			-	ND	-
PFOA 1			-	ND	-
PFOS 1			-	ND	-
PFNA 1			-	ND	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDaA 1			-	ND	-
PFTeDA 1			-	ND	-
6:2-FTS 1			-	ND	-
8:2-FTS 1			-	ND	-
13C2-PFHxA	9069	1.43	-	104.71 µg/L	-
18O2-PFHxS	1663	1.69	-	109.26 µg/L	-
13C4-PFHpA	10592	1.69	-	116.86 µg/L	-
13C4-PFOA	9650	1.88	-	108.57 µg/L	-
13C4-PFOS	2018	1.98	-	108.27 µg/L	-
13C5-PFNA	9252	2.01	-	106.81 µg/L	-
13C2-PFDA	8083	2.14	-	107.75 µg/L	-
13C2-PFUnA	8688	2.23	-	107.19 µg/L	-
13C2-PFDoA	9827	2.31	-	107.76 µg/L	-
13C2-PFTeDA	12223	2.46	-	106.02 µg/L	-
13C2-6:2-FTS	2590	1.84	-	120.11 µg/L	-
13C2-8:2 FTS	2575	2.10	-	110.77 µg/L	-
13C6-PFHxA	38942	1.43	-	2.39 µg/L	-
13C9-PFDA	33090	2.13	-	2.41 µg/L	-



MPFHxA

Internal Standard

RT (Exp. RT):

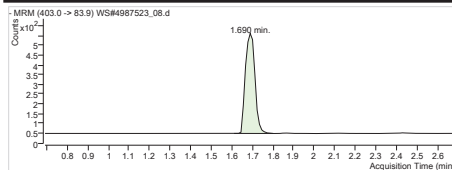
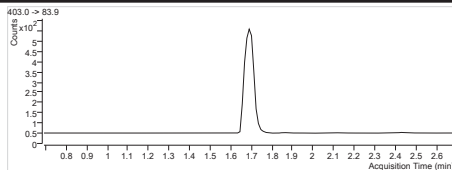
1.434 (1.434)

Concentration:

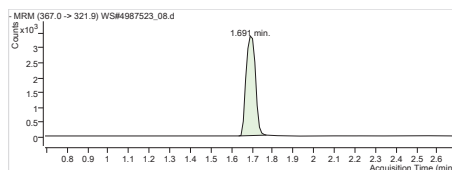
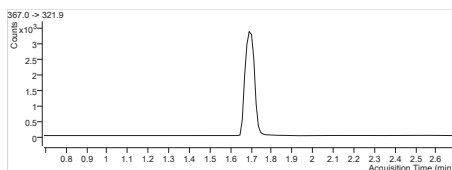
1 µg/L

Sample type:

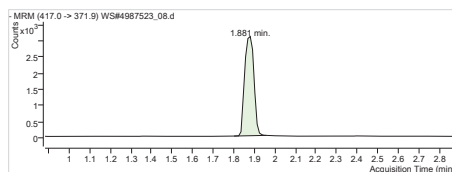
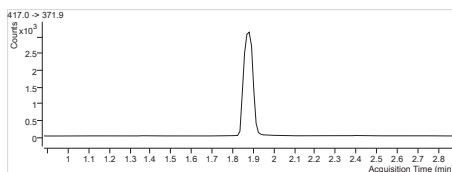
Blank



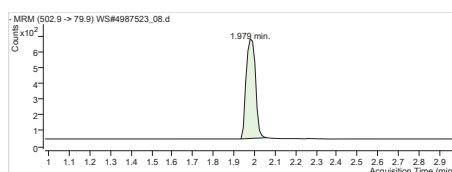
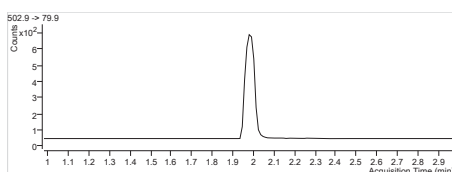
MPFHxS
 RT (Exp. RT): 1.690 (1.690)
 Concentration: 1 µg/L
 Sample type: Blank



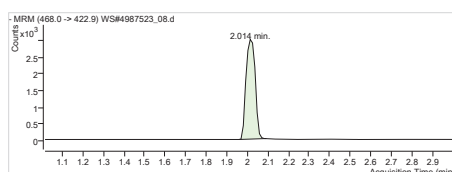
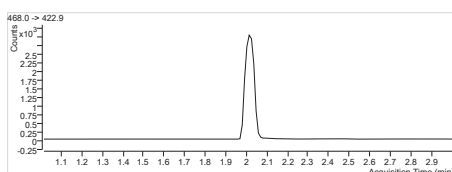
MPFHpA
 RT (Exp. RT): 1.691 (1.691)
 Concentration: 1 µg/L
 Sample type: Blank



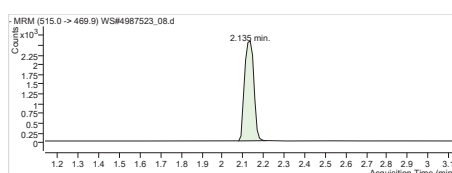
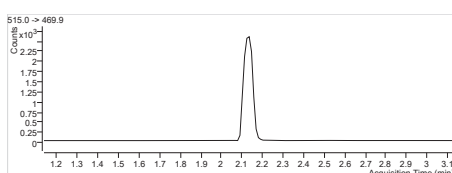
MPFOA
 RT (Exp. RT): 1.881 (1.881)
 Concentration: 1 µg/L
 Sample type: Blank



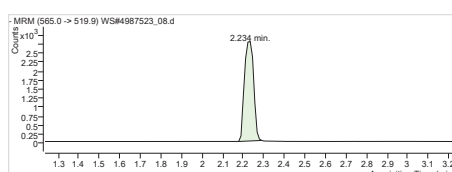
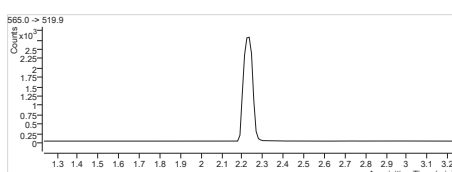
MPFOS
 RT (Exp. RT): 1.979 (1.979)
 Concentration: 1 µg/L
 Sample type: Blank



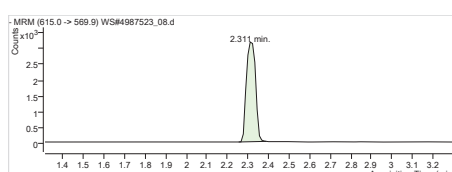
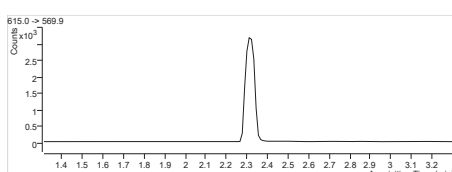
MPFNA
 RT (Exp. RT): 2.014 (2.014)
 Concentration: 1 µg/L
 Sample type: Blank



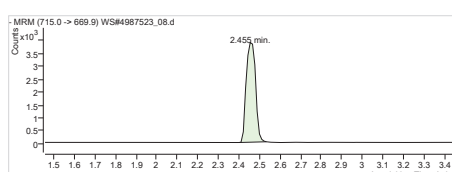
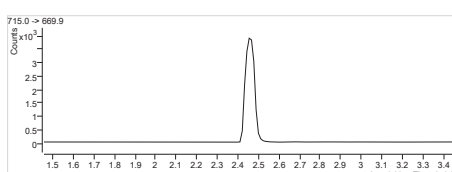
MPFDA
 RT (Exp. RT): 2.135 (2.135)
 Concentration: 1 µg/L
 Sample type: Blank



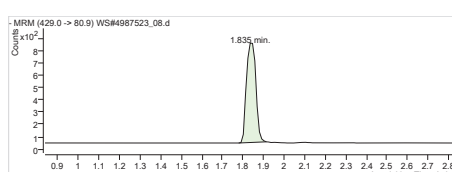
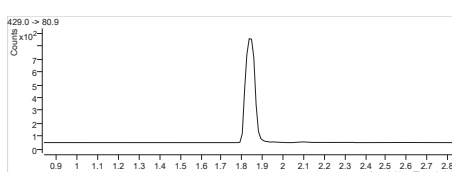
MPFUnA
 RT (Exp. RT): 2.234 (2.234)
 Concentration: 1 µg/L
 Sample type: Blank



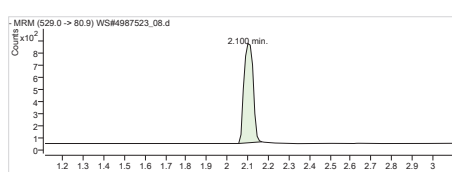
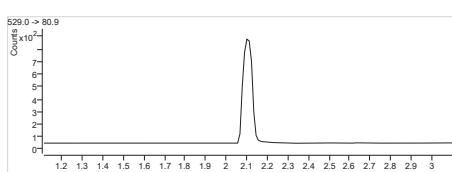
MPFDoA
 RT (Exp. RT): 2.311 (2.311)
 Concentration: 1 µg/L
 Sample type: Blank



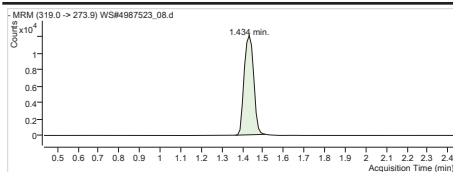
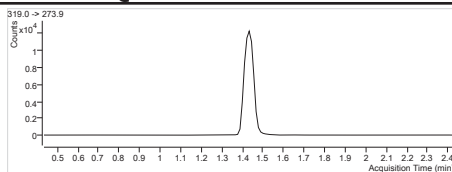
MPFTeDA
 RT (Exp. RT): 2.455 (2.455)
 Concentration: 1 µg/L
 Sample type: Blank



M2 6:2 FTS
 RT (Exp. RT): 1.835 (1.835)
 Concentration: 1 µg/L
 Sample type: Blank



M2 8:2 FTS
 RT (Exp. RT): 2.100 (2.112)
 Concentration: 1 µg/L
 Sample type: Blank

**13C6-PFHxA IS**

RT (Exp. RT):

Concentration:

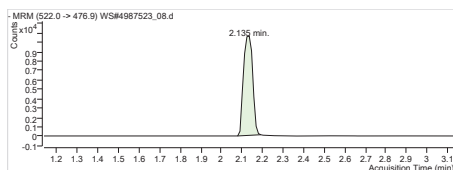
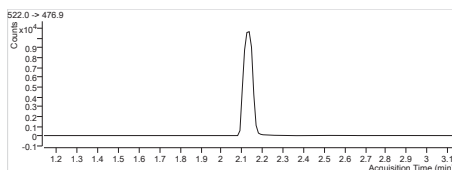
Sample type:

Internal Standard

1.434 (1.434)

1 µg/L

Blank

**13C9-PFDA IS**

RT (Exp. RT):

Concentration:

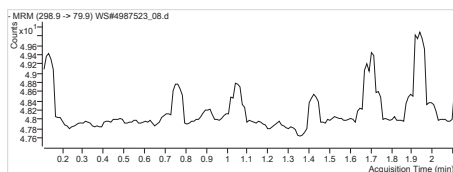
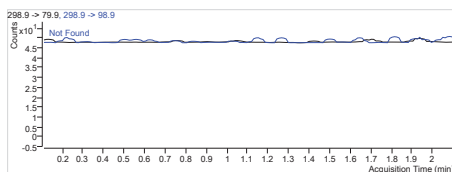
Sample type:

Internal Standard

2.135 (2.135)

1 µg/L

Blank

**PFBS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

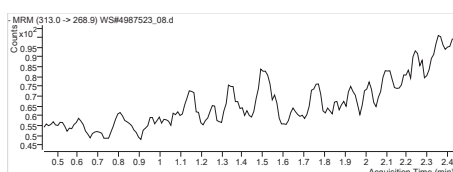
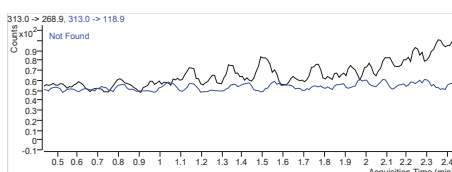
298.9 -> 79.9

0.000 (1.109)

N.D.

0

Blank

**PFHxA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

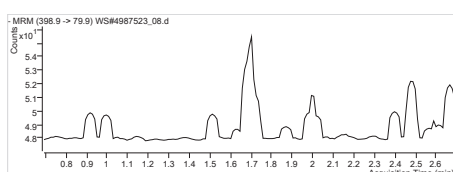
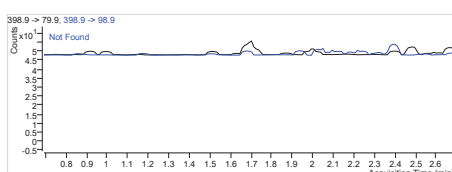
313.0 -> 268.9

0.000 (1.434)

N.D.

0

Blank

**PFHxS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

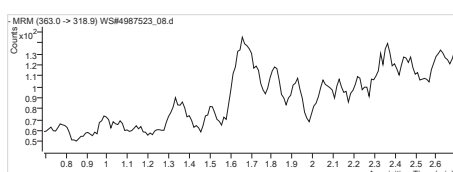
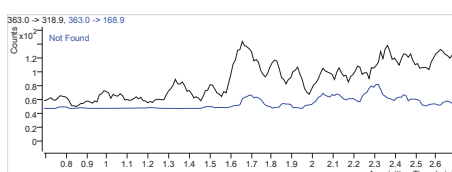
398.9 -> 79.9

0.000 (1.691)

N.D.

0

Blank

**PFHpA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

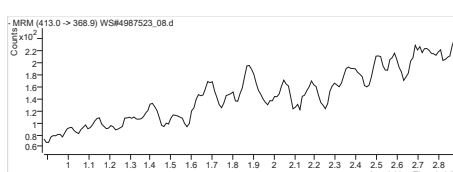
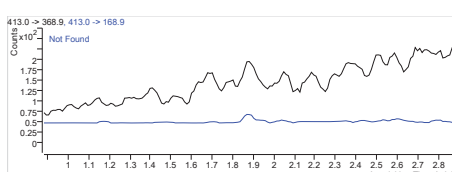
363.0 -> 318.9

0.000 (1.691)

N.D.

0

Blank

**PFOA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

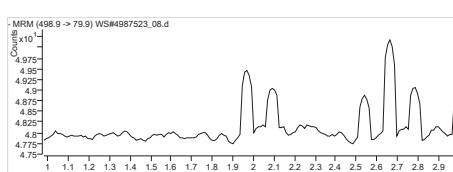
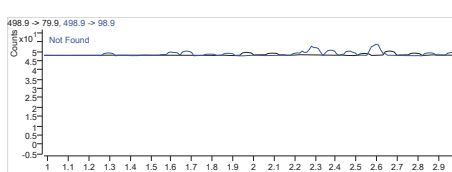
413.0 -> 368.9

0.000 (1.881)

N.D.

0

Blank

**PFOS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

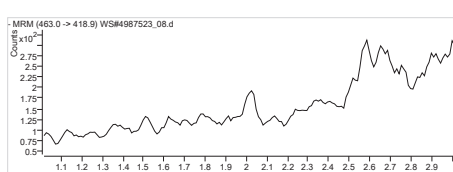
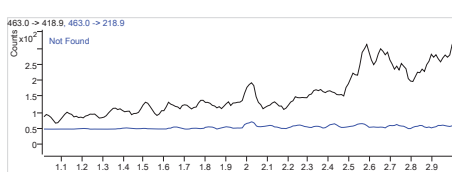
498.9 -> 79.9

0.000 (1.979)

N.D.

0

Blank

**PFNA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

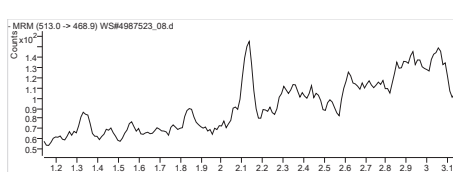
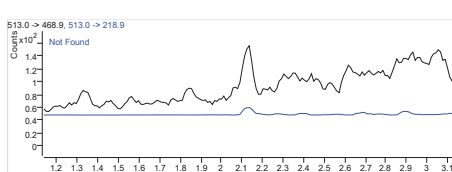
463.0 -> 418.9

0.000 (2.014)

N.D.

0

Blank

**PFDA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

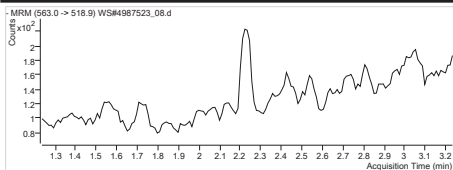
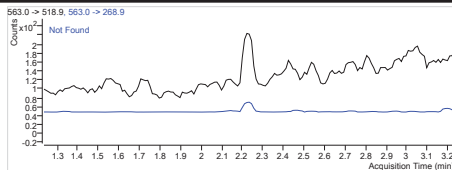
513.0 -> 468.9

0.000 (2.135)

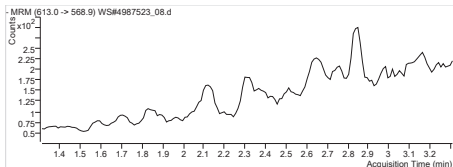
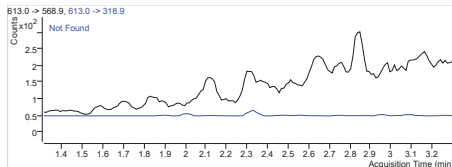
N.D.

0

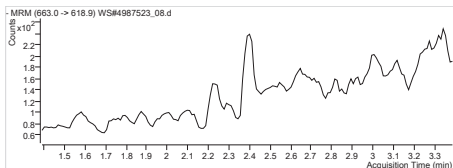
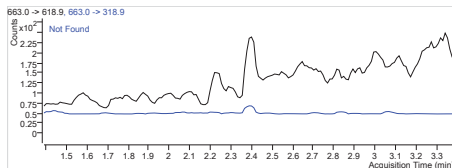
Blank



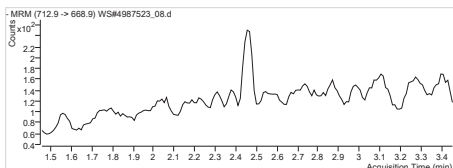
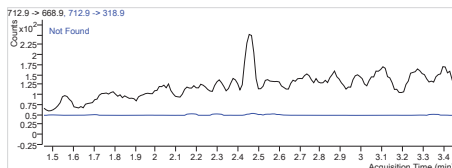
PFUnA 1
 RT (Exp. RT): 563.0 -> 518.9
 Calc. conc. 0.000 (2.234)
 Area ratio: N.D.
 Sample type: 0
 Blank



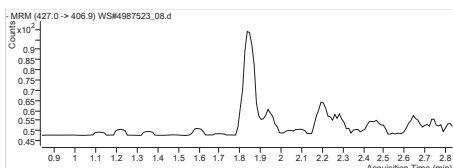
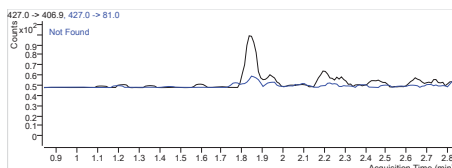
PFDa 1
 RT (Exp. RT): 613.0 -> 568.9
 Calc. conc. 0.000 (2.311)
 Area ratio: N.D.
 Sample type: 0
 Blank



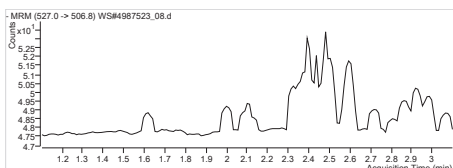
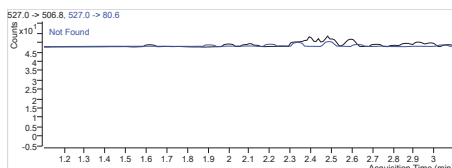
PFTraD 1
 RT (Exp. RT): 663.0 -> 618.9
 Calc. conc. 0.000 (2.389)
 Area ratio: N.D.
 Sample type: 0
 Blank



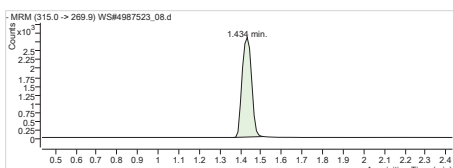
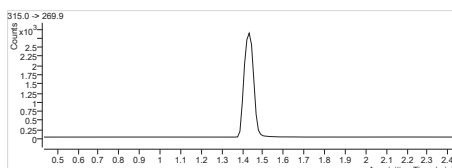
PFTeDa 1
 RT (Exp. RT): 712.9 -> 668.9
 Calc. conc. 0.000 (2.456)
 Area ratio: N.D.
 Sample type: 0
 Blank



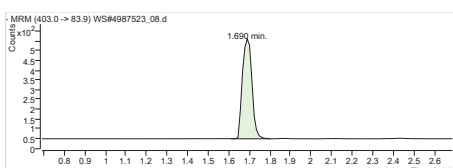
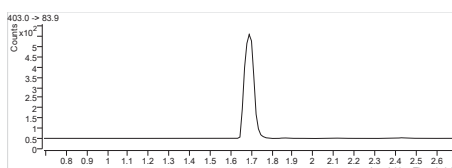
6:2-FTS 1
 RT (Exp. RT): 427.0 -> 406.9
 Calc. conc. 0.000 (1.835)
 Area ratio: N.D.
 Sample type: 0
 Blank



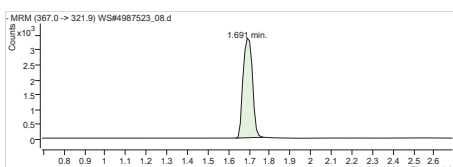
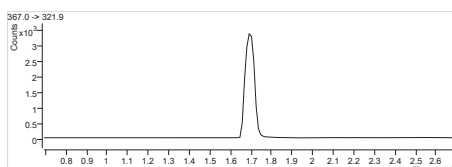
8:2-FTS 1
 RT (Exp. RT): 527.0 -> 506.8
 Calc. conc. 0.000 (2.101)
 Area ratio: N.D.
 Sample type: 0
 Blank



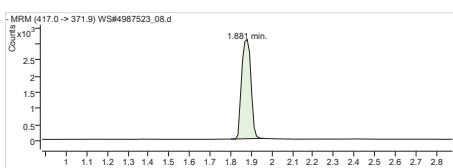
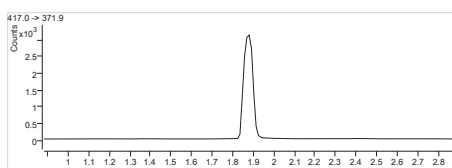
13C2-PFHxA
 RT (Exp. RT): 315.0 -> 269.9
 Calc. conc. 1.434 (1.434)
 Area ratio: 104.71 µg/L
 Sample type: 0.23288
 Blank



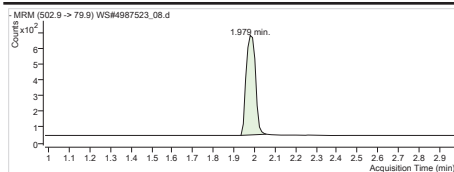
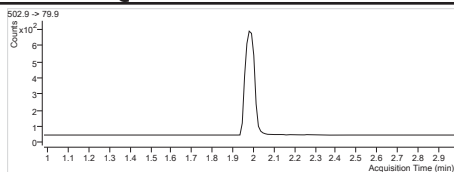
18O2-PFHxS
 RT (Exp. RT): 403.0 -> 83.9
 Calc. conc. 1.690 (1.690)
 Area ratio: 109.26 µg/L
 Sample type: 0.04270
 Blank



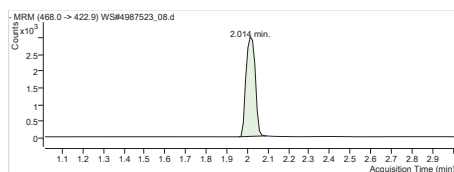
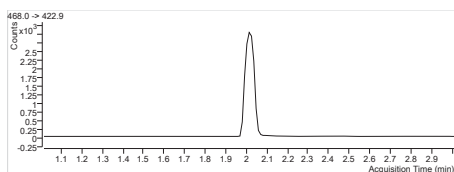
13C4-PFHpA
 RT (Exp. RT): 367.0 -> 321.9
 Calc. conc. 1.691 (1.691)
 Area ratio: 116.86 µg/L
 Sample type: 0.27199
 Blank



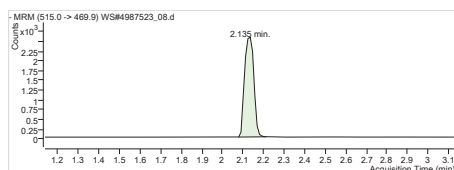
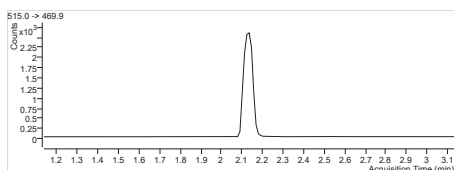
13C4-PFOA
 RT (Exp. RT): 417.0 -> 371.9
 Calc. conc. 1.881 (1.881)
 Area ratio: 108.57 µg/L
 Sample type: 0.24780
 Blank



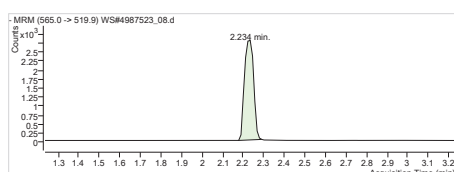
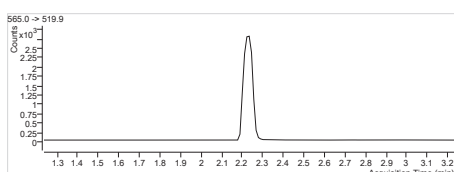
13C4-PFOS
 RT (Exp. RT): 502.9 -> 79.9
 Calc. conc. 1.979 (1.979)
 Area ratio: 108.27 µg/L
 Sample type: 0.05182
 Blank



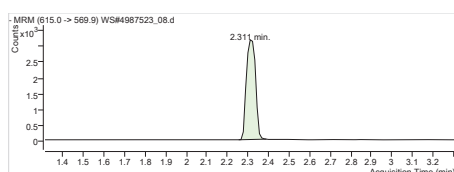
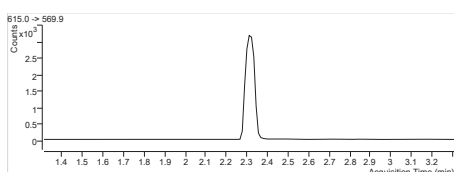
13C5-PFNA
 RT (Exp. RT): 468.0 -> 422.9
 Calc. conc. 2.014 (2.014)
 Area ratio: 106.81 µg/L
 Sample type: 0.23758
 Blank



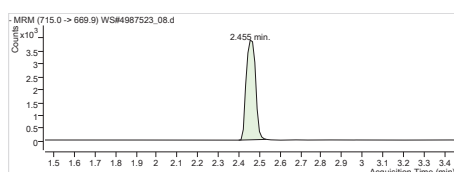
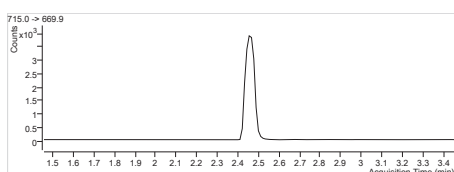
13C2-PFDA
 RT (Exp. RT): 515.0 -> 469.9
 Calc. conc. 2.135 (2.135)
 Area ratio: 107.75 µg/L
 Sample type: 0.24427
 Blank



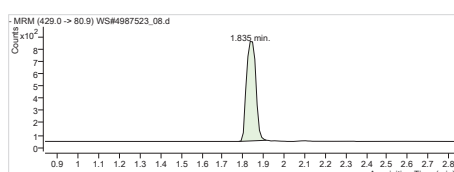
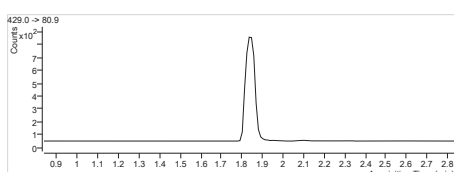
13C2-PFUnA
 RT (Exp. RT): 565.0 -> 519.9
 Calc. conc. 2.234 (2.234)
 Area ratio: 107.19 µg/L
 Sample type: 0.26256
 Blank



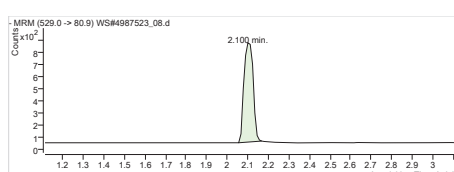
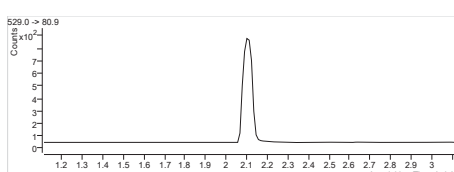
13C2-PFDoA
 RT (Exp. RT): 615.0 -> 569.9
 Calc. conc. 2.311 (2.311)
 Area ratio: 107.76 µg/L
 Sample type: 0.29698
 Blank



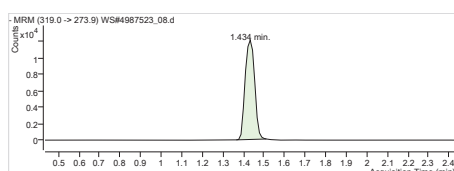
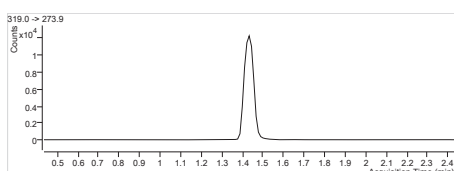
13C2-PFTeDA
 RT (Exp. RT): 715.0 -> 669.9
 Calc. conc. 2.455 (2.455)
 Area ratio: 106.02 µg/L
 Sample type: 0.36939
 Blank



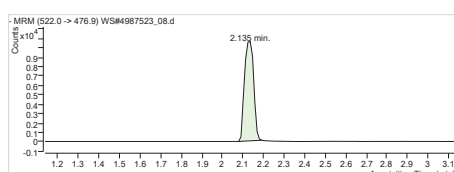
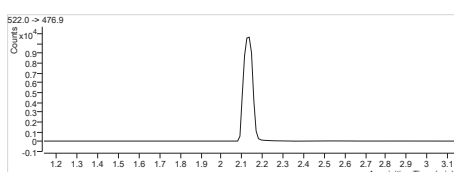
13C2-6:2-FTS
 RT (Exp. RT): 429.0 -> 80.9
 Calc. conc. 1.835 (1.835)
 Area ratio: 120.11 µg/L
 Sample type: 0.06651
 Blank



13C2-8:2 FTS
 RT (Exp. RT): 529.0 -> 80.9
 Calc. conc. 2.100 (2.112)
 Area ratio: 110.77 µg/L
 Sample type: 0.06612
 Blank



13C6-PFHxA
 RT (Exp. RT): 319.0 -> 273.9
 Calc. conc. 1.434 (1.434)
 Area ratio: 2.39 µg/L
 Sample type: 0
 Blank

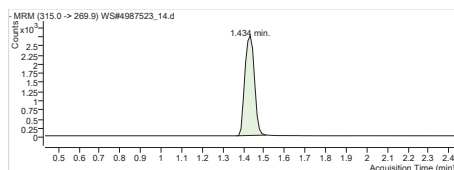
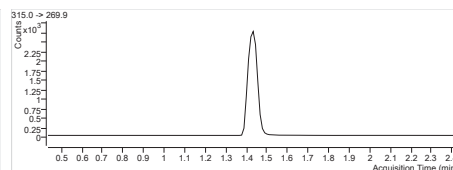


13C9-PFDA
 RT (Exp. RT): 522.0 -> 476.9
 Calc. conc. 2.135 (2.135)
 Area ratio: 2.41 µg/L
 Sample type: 0
 Blank

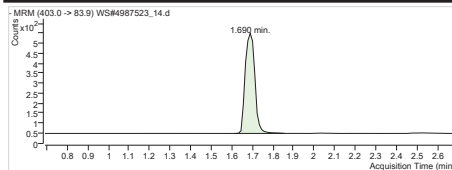
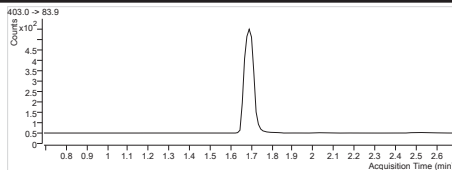
Batch Path	T:\lcms4\PFC\20170523\WS#4987523\QuantResults\PFC_Water_Low_170523_WS#4987523_CT		
Sample Name	IB1	Instrument	LCMS04
Data File	WS#4987523_14.d	Operator	AD
Sample Type	Blank	Dilution	0.024
Acq. Method	PFC_Water_Low.m	Position	P1-A8
Acq. Date	2017/05/23 10:17:20 AM	Injection Volume	Per Method
Sample Annotation	-		

ISTD Compounds	Response	RT	Target conc.		
MPFHxA	8799	1.43	1 µg/L		
MPFHxS	1646	1.69	1 µg/L		
MPFHpA	10213	1.69	1 µg/L		
MPFOA	9706	1.88	1 µg/L		
MPFOS	2151	1.98	1 µg/L		
MPFNA	9286	2.01	1 µg/L		
MPFDA	7734	2.14	1 µg/L		
MPFUnA	8632	2.23	1 µg/L		
MPFDoA	9398	2.31	1 µg/L		
MPFTeDA	12093	2.46	1 µg/L		
M2 6:2 FTS	2351	1.84	1 µg/L		
M2 8:2 FTS	2326	2.10	1 µg/L		
13C6-PFHxA IS	37975	1.43	1 µg/L		
13C9-PFDA IS	33240	2.13	1 µg/L		

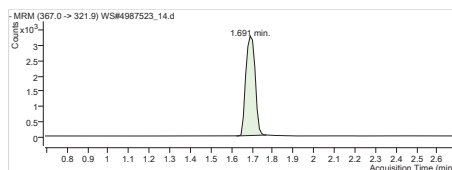
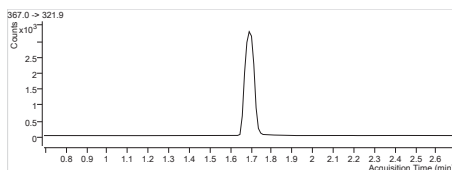
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1			-	ND	-
PFHxA 1			-	ND	-
PFHxS 1			-	ND	-
PFHpA 1			-	ND	-
PFOA 1			-	ND	-
PFOS 1			-	ND	-
PFNA 1			-	ND	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDaA 1			-	ND	-
PFTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
6:2-FTS 1			-	ND	-
8:2-FTS 1			-	ND	-
13C2-PFHxA	8799	1.43	-	104.18 µg/L	-
18O2-PFHxS	1646	1.69	-	110.89 µg/L	-
13C4-PFHpA	10213	1.69	-	115.55 µg/L	-
13C4-PFOA	9706	1.88	-	111.98 µg/L	-
13C4-PFOS	2151	1.98	-	118.35 µg/L	-
13C5-PFNA	9286	2.01	-	109.93 µg/L	-
13C2-PFDA	7734	2.14	-	102.63 µg/L	-
13C2-PFUnA	8632	2.23	-	106.02 µg/L	-
13C2-PFDoA	9398	2.31	-	102.59 µg/L	-
13C2-PFTeDA	12093	2.46	-	104.42 µg/L	-
13C2-6:2-FTS	2351	1.84	-	111.80 µg/L	-
13C2-8:2 FTS	2326	2.10	-	102.61 µg/L	-
13C6-PFHxA	37975	1.43	-	2.33 µg/L	-
13C9-PFDA	33240	2.13	-	2.42 µg/L	-



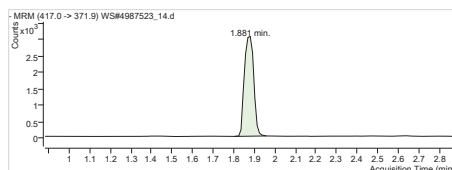
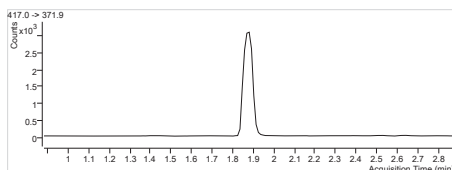
MPFHxA Internal Standard
 RT (Exp. RT): 1.434 (1.434)
 Concentration: 1 µg/L
 Sample type: Blank



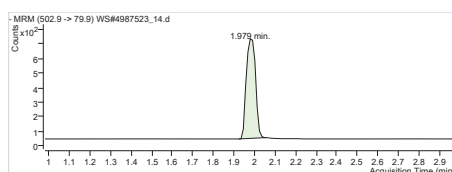
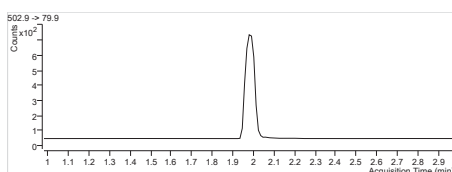
MPFHxS
 RT (Exp. RT): 1.690 (1.690)
 Concentration: 1 µg/L
 Sample type: Blank



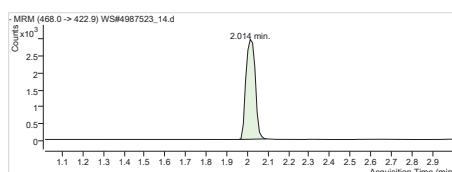
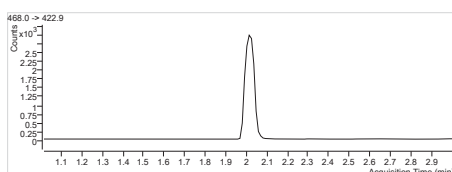
MPFHpA
 RT (Exp. RT): 1.691 (1.691)
 Concentration: 1 µg/L
 Sample type: Blank



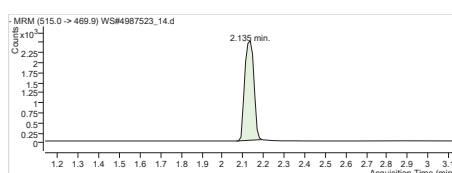
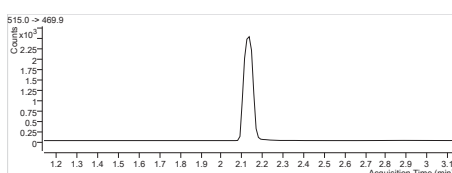
MPFOA
 RT (Exp. RT): 1.881 (1.881)
 Concentration: 1 µg/L
 Sample type: Blank



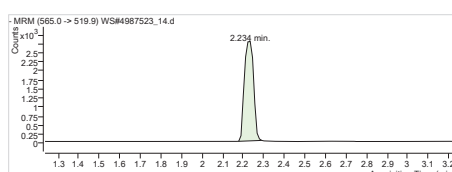
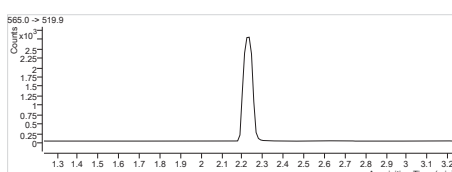
MPFOS
 RT (Exp. RT): 1.979 (1.979)
 Concentration: 1 µg/L
 Sample type: Blank



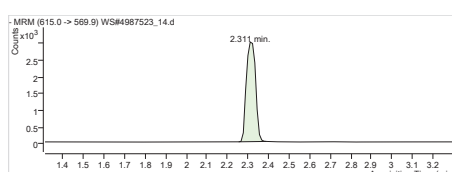
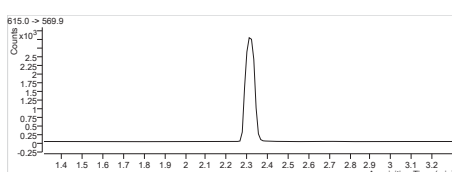
MPFNA
 RT (Exp. RT): 2.014 (2.014)
 Concentration: 1 µg/L
 Sample type: Blank



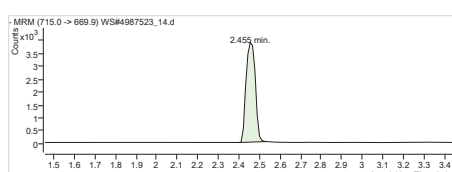
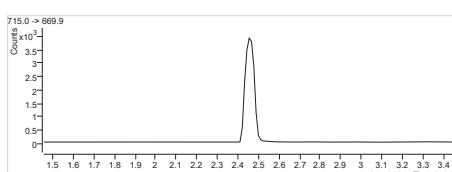
MPFDA
 RT (Exp. RT): 2.135 (2.135)
 Concentration: 1 µg/L
 Sample type: Blank



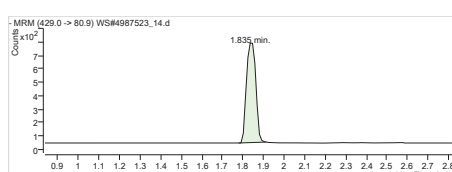
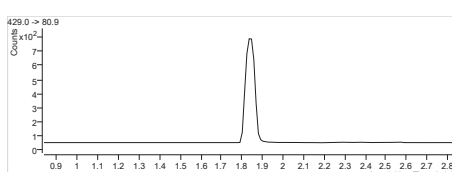
MPFUnA
 RT (Exp. RT): 2.234 (2.234)
 Concentration: 1 µg/L
 Sample type: Blank



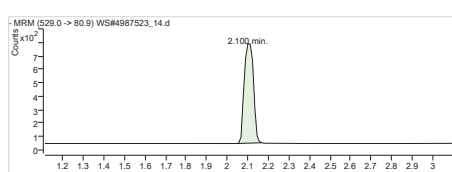
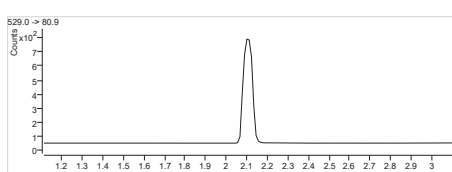
MPFDoA
 RT (Exp. RT): 2.311 (2.311)
 Concentration: 1 µg/L
 Sample type: Blank



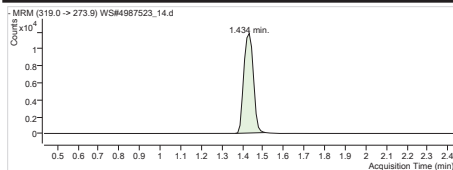
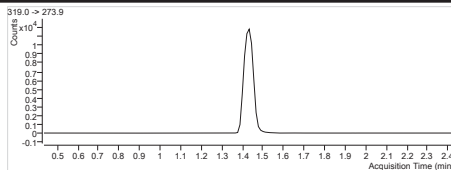
MPFTeDA
 RT (Exp. RT): 2.455 (2.455)
 Concentration: 1 µg/L
 Sample type: Blank



M2 6:2 FTS
 RT (Exp. RT): 1.835 (1.835)
 Concentration: 1 µg/L
 Sample type: Blank



M2 8:2 FTS
 RT (Exp. RT): 2.100 (2.112)
 Concentration: 1 µg/L
 Sample type: Blank

**13C6-PFHxA IS**

RT (Exp. RT):

Concentration:

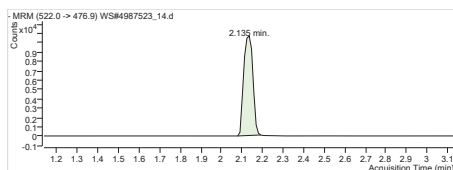
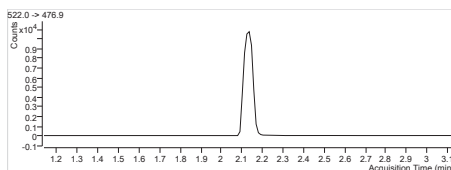
Sample type:

Internal Standard

1.434 (1.434)

1 µg/L

Blank

**13C9-PFDA IS**

RT (Exp. RT):

Concentration:

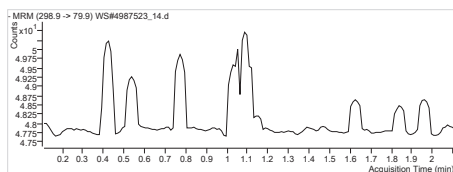
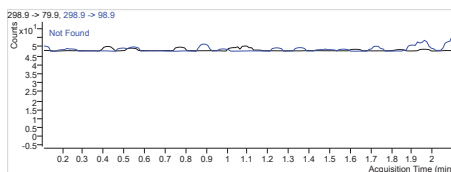
Sample type:

Internal Standard

2.135 (2.135)

1 µg/L

Blank

**PFBS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

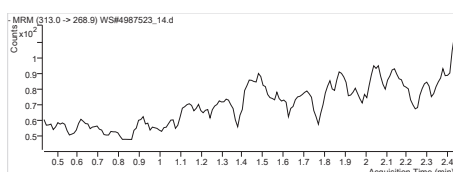
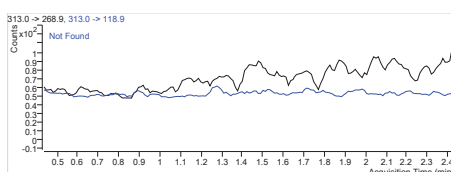
298.9 -> 79.9

0.000 (1.109)

N.D.

0

Blank

**PFHxA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

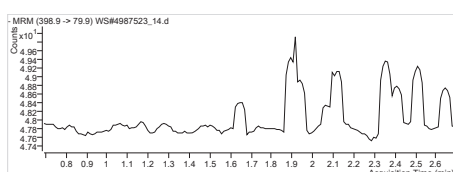
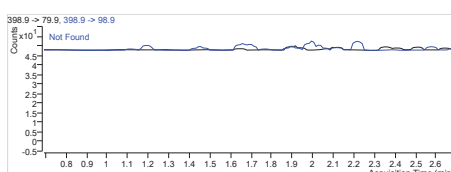
313.0 -> 268.9

0.000 (1.434)

N.D.

0

Blank

**PFHxS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

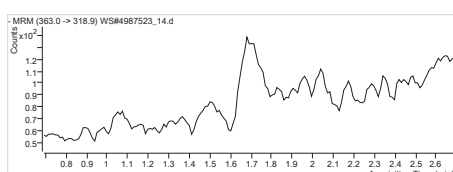
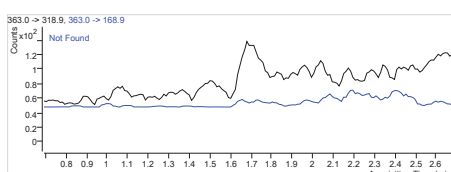
398.9 -> 79.9

0.000 (1.691)

N.D.

0

Blank

**PFHpA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

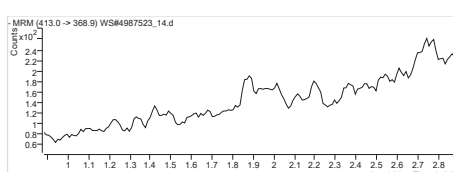
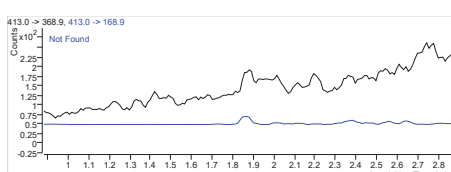
363.0 -> 318.9

0.000 (1.691)

N.D.

0

Blank

**PFOA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

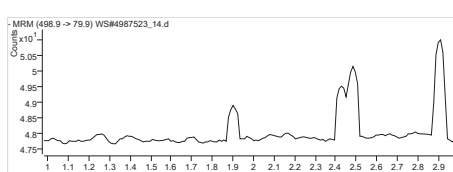
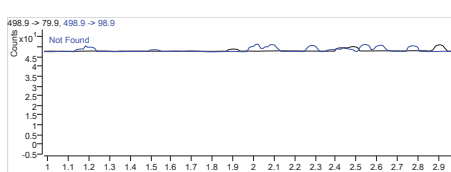
413.0 -> 368.9

0.000 (1.881)

N.D.

0

Blank

**PFOS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

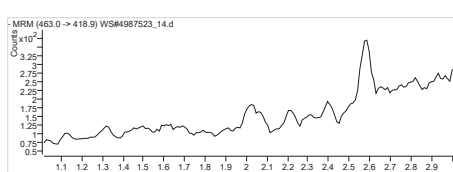
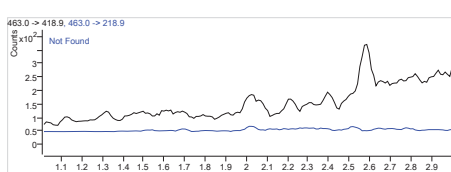
498.9 -> 79.9

0.000 (1.979)

N.D.

0

Blank

**PFNA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

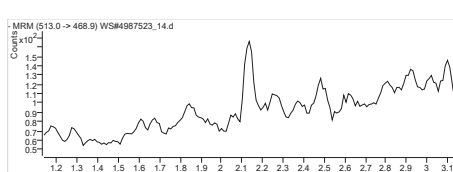
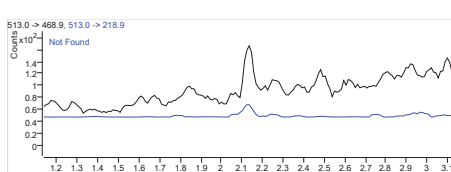
463.0 -> 418.9

0.000 (2.014)

N.D.

0

Blank

**PFDA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

513.0 -> 468.9

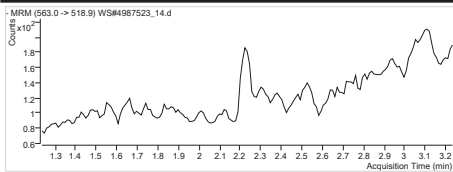
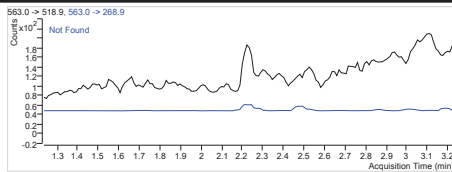
0.000 (2.135)

N.D.

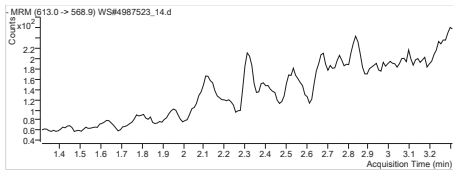
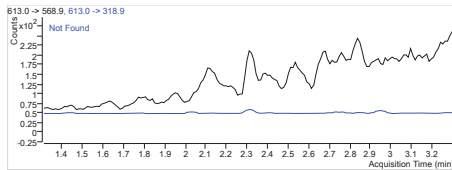
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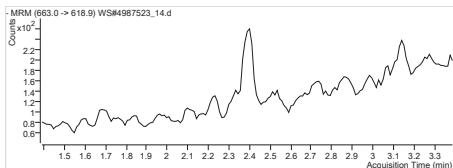
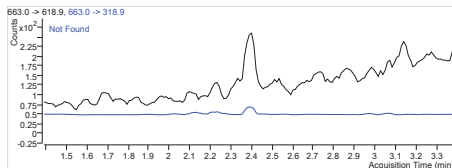
Quantitation Results



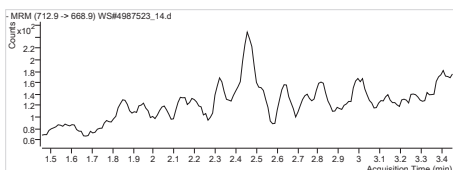
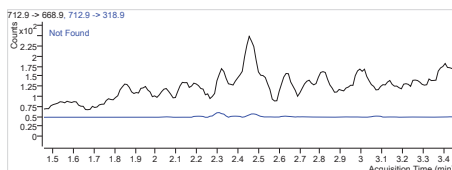
PFUnA 1
 RT (Exp. RT): 563.0 -> 518.9
 Calc. conc. 0.000 (2.234)
 Area ratio: N.D.
 Sample type: 0
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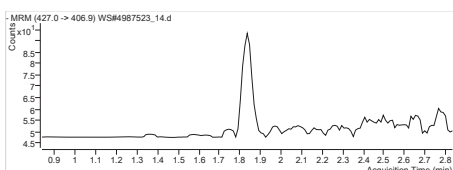
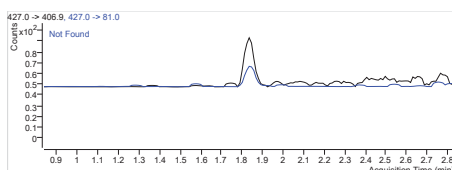
PFDaA 1
 RT (Exp. RT): 613.0 -> 568.9
 Calc. conc. 0.000 (2.311)
 Area ratio: N.D.
 Sample type: 0
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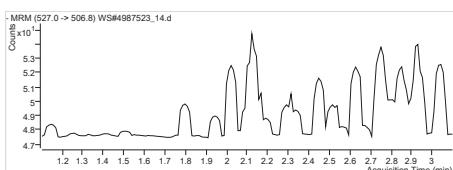
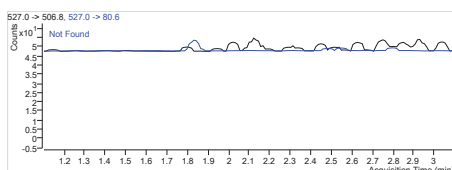
PFTraD 1
 RT (Exp. RT): 663.0 -> 618.9
 Calc. conc. 0.000 (2.389)
 Area ratio: N.D.
 Sample type: 0
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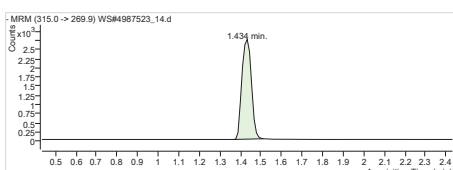
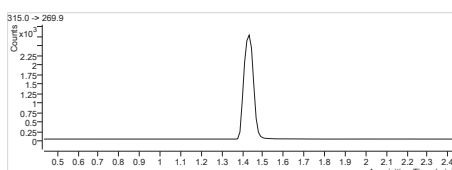
PFTeDa 1
 RT (Exp. RT): 712.9 -> 668.9
 Calc. conc. 0.000 (2.456)
 Area ratio: N.D.
 Sample type: 0
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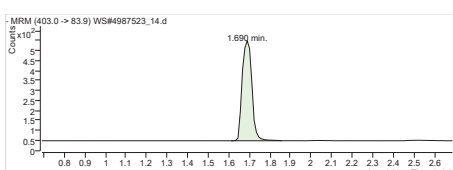
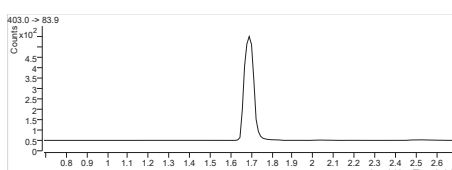
6:2-FTS 1
 RT (Exp. RT): 427.0 -> 406.9
 Calc. conc. 0.000 (1.835)
 Area ratio: N.D.
 Sample type: 0
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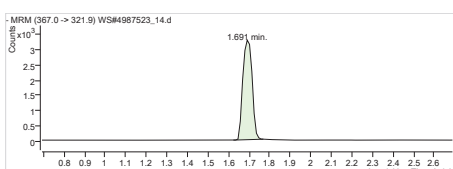
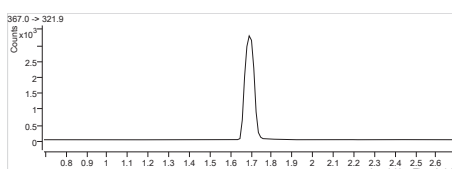
8:2-FTS 1
 RT (Exp. RT): 527.0 -> 506.8
 Calc. conc. 0.000 (2.101)
 Area ratio: N.D.
 Sample type: 0
 Blank



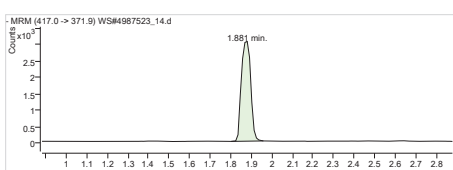
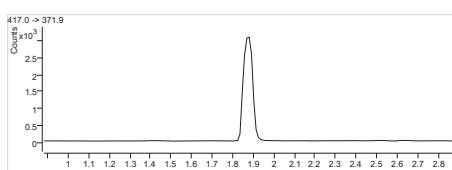
13C2-PFHxA
 RT (Exp. RT): 315.0 -> 269.9
 Calc. conc. 1.434 (1.434)
 Area ratio: 104.18 µg/L
 Sample type: 0.23171
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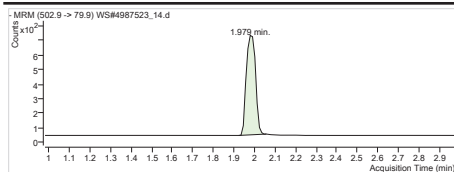
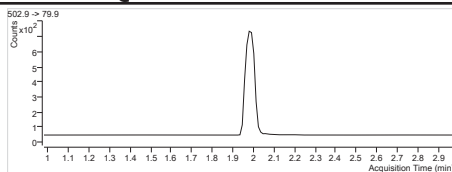
18O2-PFHxS
 RT (Exp. RT): 403.0 -> 83.9
 Calc. conc. 1.690 (1.690)
 Area ratio: 110.89 µg/L
 Sample type: 0.04334
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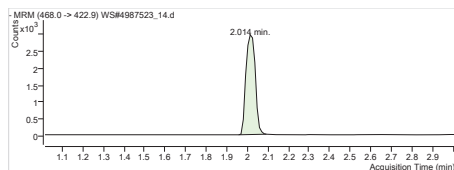
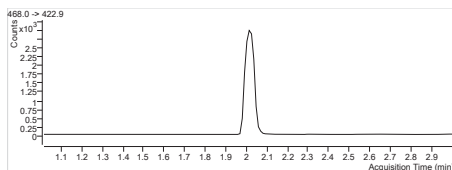
13C4-PFHpA
 RT (Exp. RT): 367.0 -> 321.9
 Calc. conc. 1.691 (1.691)
 Area ratio: 115.55 µg/L
 Sample type: 0.26894
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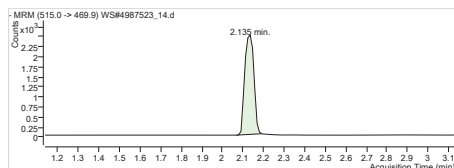
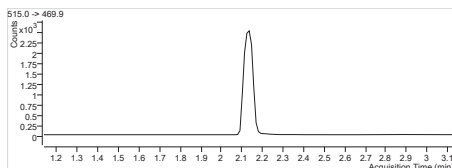
13C4-PFOA
 RT (Exp. RT): 417.0 -> 371.9
 Calc. conc. 1.881 (1.881)
 Area ratio: 111.98 µg/L
 Sample type: 0.25559
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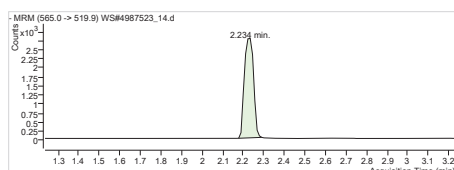
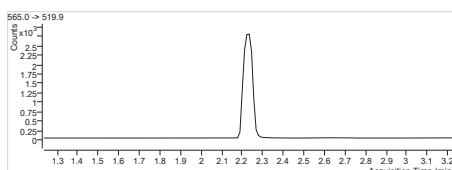
13C4-PFOS
RT (Exp. RT): 502.9 -> 79.9
Calc. conc. 1.979 (1.979)
Area ratio: 118.35 µg/L
Sample type: 0.05664
Blank



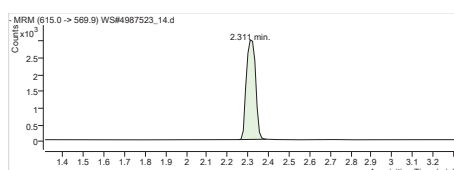
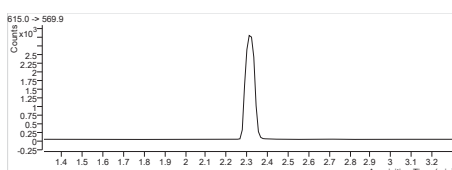
13C5-PFNA
RT (Exp. RT): 468.0 -> 422.9
Calc. conc. 2.014 (2.014)
Area ratio: 109.93 µg/L
Sample type: 0.24453
Blank



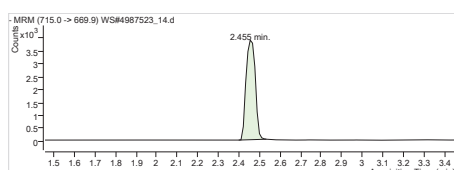
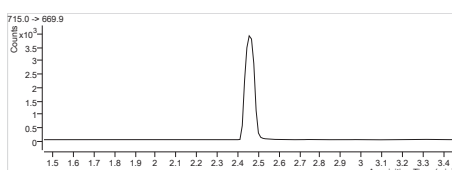
13C2-PFDA
RT (Exp. RT): 515.0 -> 469.9
Calc. conc. 2.135 (2.135)
Area ratio: 102.63 µg/L
Sample type: 0.23267
Blank



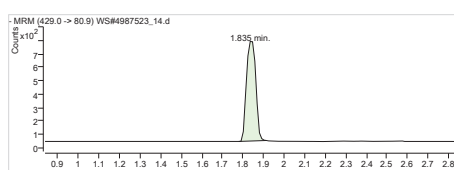
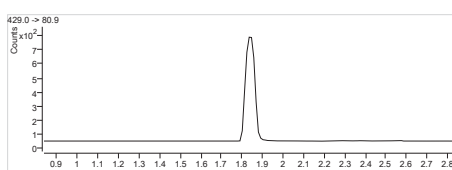
13C2-PFUnA
RT (Exp. RT): 565.0 -> 519.9
Calc. conc. 2.234 (2.234)
Area ratio: 106.02 µg/L
Sample type: 0.25969
Blank



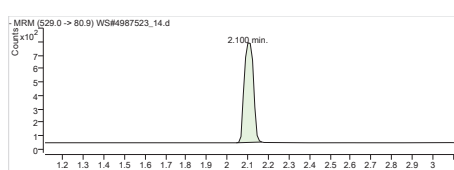
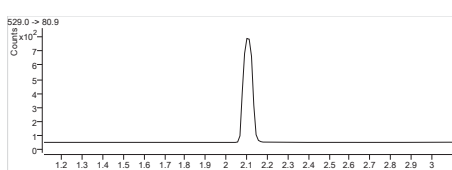
13C2-PFDoA
RT (Exp. RT): 615.0 -> 569.9
Calc. conc. 2.311 (2.311)
Area ratio: 102.59 µg/L
Sample type: 0.28273
Blank



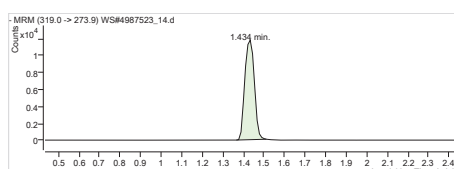
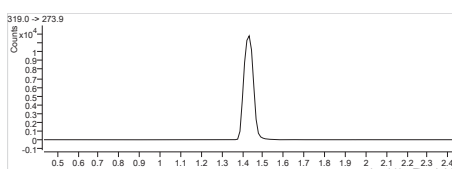
13C2-PFTeDA
RT (Exp. RT): 715.0 -> 669.9
Calc. conc. 2.455 (2.455)
Area ratio: 104.42 µg/L
Sample type: 0.36381
Blank



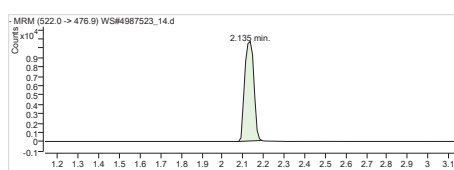
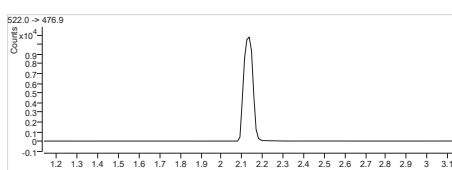
13C2-6:2-FTS
RT (Exp. RT): 429.0 -> 80.9
Calc. conc. 1.835 (1.835)
Area ratio: 111.80 µg/L
Sample type: 0.06191
Blank



13C2-8:2 FTS
RT (Exp. RT): 529.0 -> 80.9
Calc. conc. 2.100 (2.112)
Area ratio: 102.61 µg/L
Sample type: 0.06125
Blank



13C6-PFHxA
RT (Exp. RT): 319.0 -> 273.9
Calc. conc. 1.434 (1.434)
Area ratio: 2.33 µg/L
Sample type: 0
Blank



13C9-PFDA
RT (Exp. RT): 522.0 -> 476.9
Calc. conc. 2.135 (2.135)
Area ratio: 2.42 µg/L
Sample type: 0
Blank

Batch Path

T:\lcms4\PFC\20170523\WS#4987523\QuantResults\PFC_Water_Low_170523_WS#4987523_CT

Sample Name

IB1

Instrument

LCMS04

Data File

WS#4987523_19.d

Operator

AD

Sample Type

Blank

Dilution

0.024

Acq. Method

PFC_Water_Low.m

Position

P1-A8

Acq. Date

2017/05/23 10:41:48 AM

Injection Volume

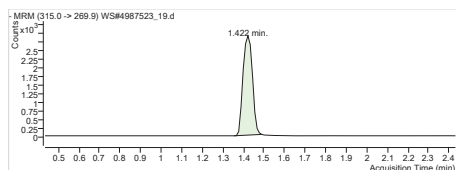
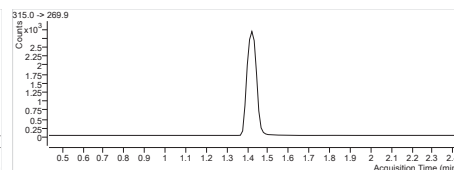
Per Method

Sample Annotation

-

ISTD Compounds	Response	RT	Target conc.		
MPFHxA	9150	1.42	1 µg/L		
MPFHxS	1606	1.69	1 µg/L		
MPFHpA	10280	1.69	1 µg/L		
MPFOA	9501	1.87	1 µg/L		
MPFOS	1864	1.98	1 µg/L		
MPFNA	9127	2.01	1 µg/L		
MPFDA	7746	2.12	1 µg/L		
MPFUnA	8389	2.22	1 µg/L		
MPFDoA	10174	2.31	1 µg/L		
MPFTeDA	12044	2.46	1 µg/L		
M2 6:2 FTS	2302	1.84	1 µg/L		
M2 8:2 FTS	2521	2.10	1 µg/L		
13C6-PFHxA IS	38983	1.42	1 µg/L		
13C9-PFDA IS	33629	2.12	1 µg/L		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1			-	ND	-
PFHxA 1			-	ND	-
PFHxS 1			-	ND	-
PFHpA 1			-	ND	-
PFOA 1			-	ND	-
PFOS 1			-	ND	-
PFNA 1			-	ND	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDaA 1			-	ND	-
PFTeDA 1			-	ND	-
PFTeDA 1			-	ND	-
6:2-FTS 1			-	ND	-
8:2-FTS 1			-	ND	-
13C2-PFHxA	9150	1.42	-	105.53 µg/L	-
18O2-PFHxS	1606	1.69	-	105.40 µg/L	-
13C4-PFHpA	10280	1.69	-	113.30 µg/L	-
13C4-PFOA	9501	1.87	-	106.78 µg/L	-
13C4-PFOS	1864	1.98	-	99.90 µg/L	-
13C5-PFNA	9127	2.01	-	105.25 µg/L	-
13C2-PFDA	7746	2.12	-	101.60 µg/L	-
13C2-PFUnA	8389	2.22	-	101.85 µg/L	-
13C2-PFDoA	10174	2.31	-	109.77 µg/L	-
13C2-PFTeDA	12044	2.46	-	102.79 µg/L	-
13C2-6:2-FTS	2302	1.84	-	106.64 µg/L	-
13C2-8:2 FTS	2521	2.10	-	108.34 µg/L	-
13C6-PFHxA	38983	1.42	-	2.40 µg/L	-
13C9-PFDA	33629	2.12	-	2.45 µg/L	-



MPFHxA

Internal Standard

RT (Exp. RT):

1.422 (1.434)

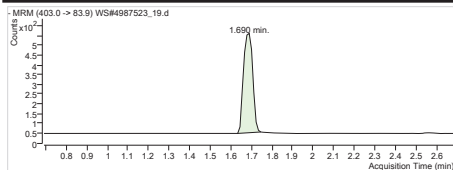
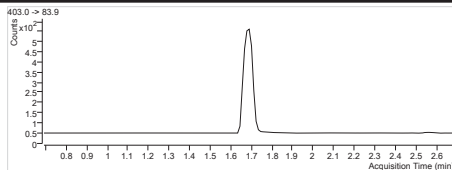
Concentration:

1 µg/L

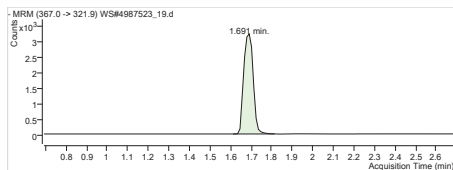
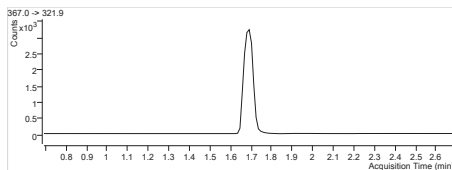
Sample type:

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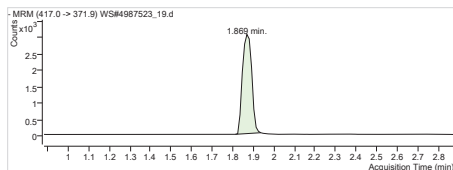
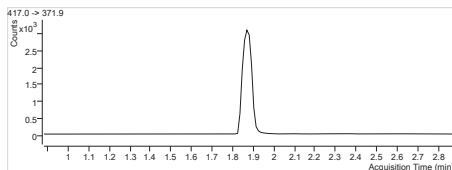
Quantitation Results



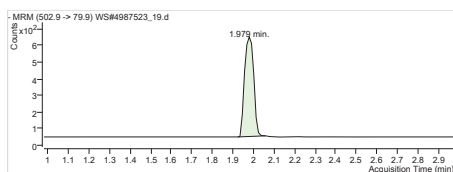
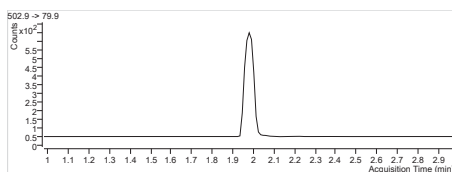
MPFHxS
 RT (Exp. RT): 1.690 (1.690)
 Concentration: 1 µg/L
 Sample type: Blank



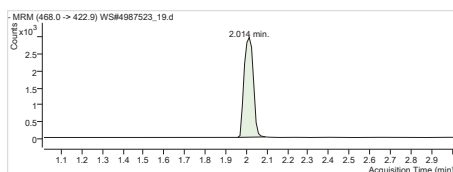
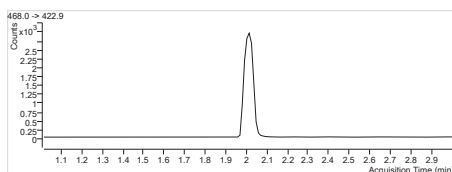
MPFHpA
 RT (Exp. RT): 1.691 (1.691)
 Concentration: 1 µg/L
 Sample type: Blank



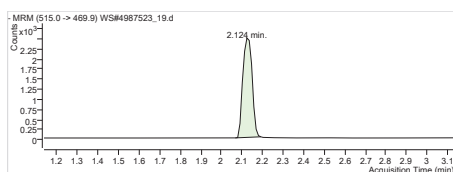
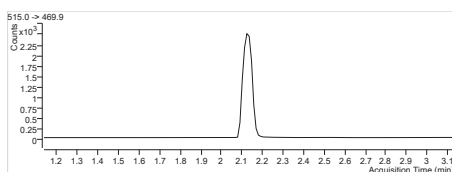
MPFOA
 RT (Exp. RT): 1.869 (1.881)
 Concentration: 1 µg/L
 Sample type: Blank



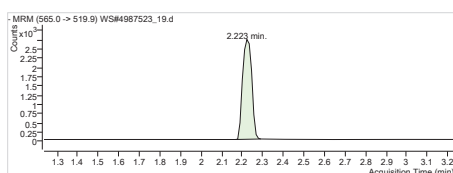
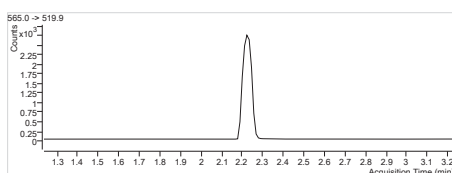
MPFOS
 RT (Exp. RT): 1.979 (1.979)
 Concentration: 1 µg/L
 Sample type: Blank



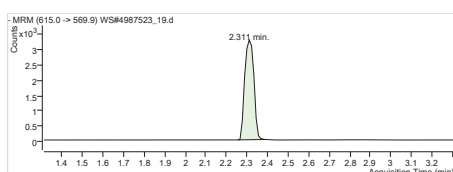
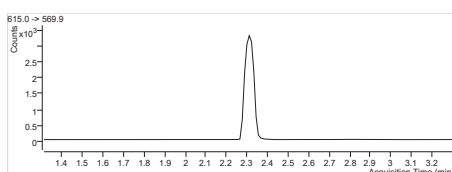
MPFNA
 RT (Exp. RT): 2.014 (2.014)
 Concentration: 1 µg/L
 Sample type: Blank



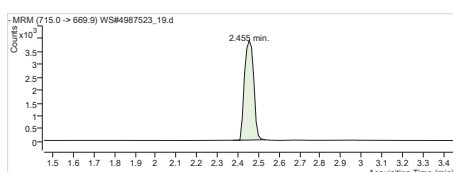
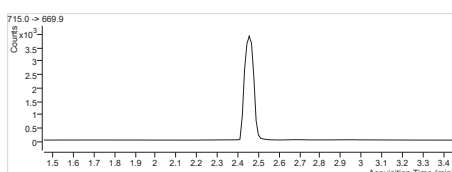
MPFDA
 RT (Exp. RT): 2.124 (2.135)
 Concentration: 1 µg/L
 Sample type: Blank



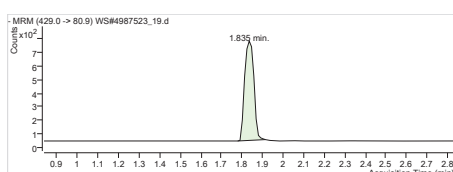
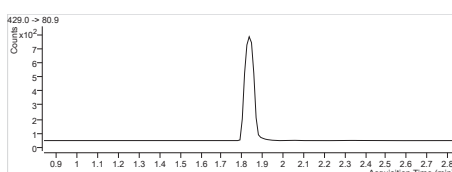
MPFUnA
 RT (Exp. RT): 2.223 (2.234)
 Concentration: 1 µg/L
 Sample type: Blank



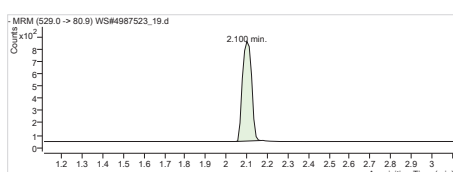
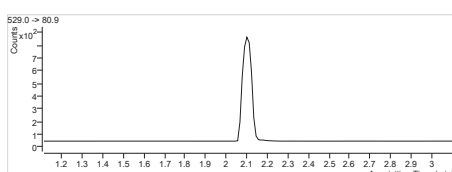
MPFDoA
 RT (Exp. RT): 2.311 (2.311)
 Concentration: 1 µg/L
 Sample type: Blank



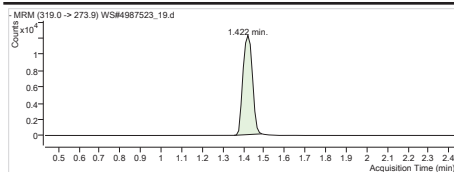
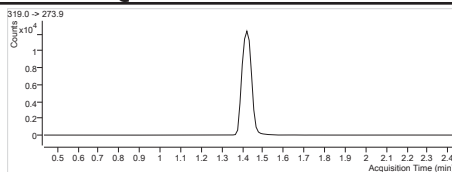
MPFTeDA
 RT (Exp. RT): 2.455 (2.455)
 Concentration: 1 µg/L
 Sample type: Blank



M2 6:2 FTS
 RT (Exp. RT): 1.835 (1.835)
 Concentration: 1 µg/L
 Sample type: Blank



M2 8:2 FTS
 RT (Exp. RT): 2.100 (2.112)
 Concentration: 1 µg/L
 Sample type: Blank

**13C6-PFHxA IS**

RT (Exp. RT):

Concentration:

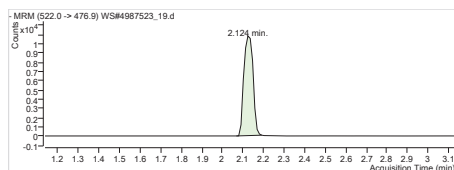
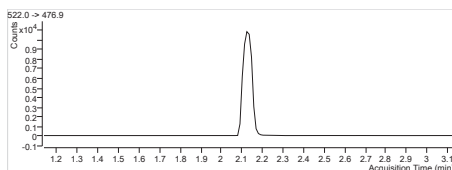
Sample type:

Internal Standard

1.422 (1.434)

1 µg/L

Blank

**13C9-PFDA IS**

RT (Exp. RT):

Concentration:

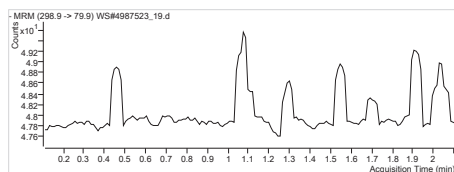
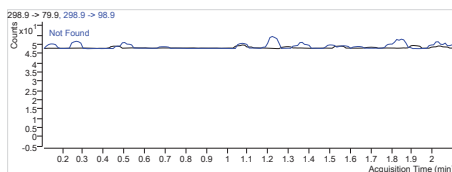
Sample type:

Internal Standard

2.124 (2.135)

1 µg/L

Blank

**PFBS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

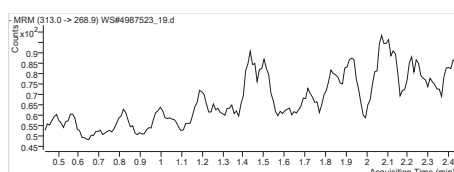
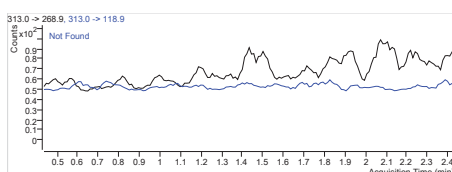
298.9 -> 79.9

0.000 (1.109)

N.D.

0

Blank

**PFHxA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

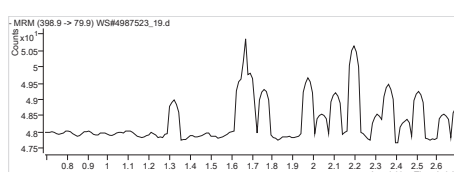
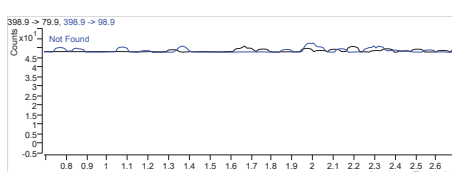
313.0 -> 268.9

0.000 (1.434)

N.D.

0

Blank

**PFHxS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

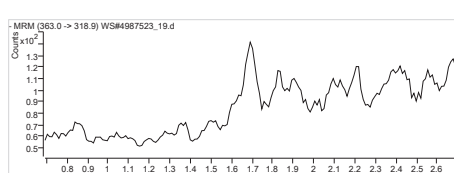
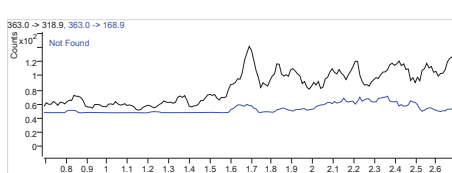
398.9 -> 79.9

0.000 (1.691)

N.D.

0

Blank

**PFHpA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

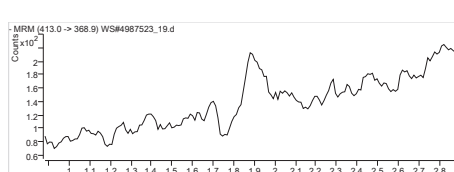
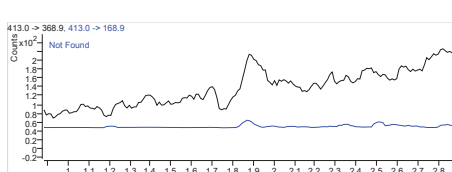
363.0 -> 318.9

0.000 (1.691)

N.D.

0

Blank

**PFOA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

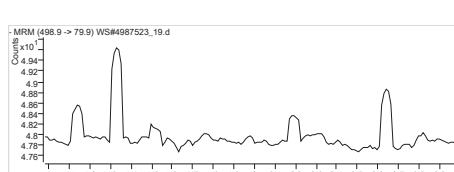
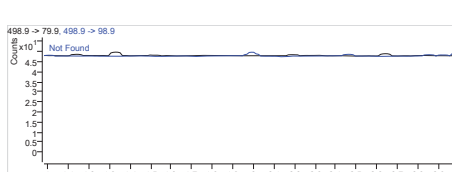
413.0 -> 368.9

0.000 (1.881)

N.D.

0

Blank

**PFOS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

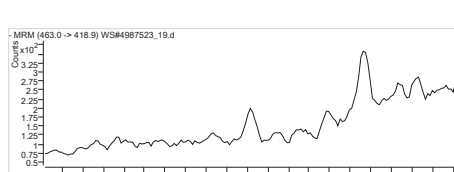
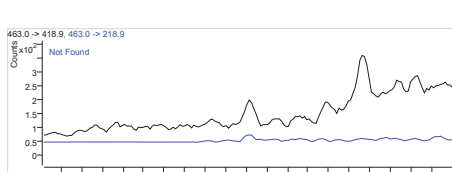
498.9 -> 79.9

0.000 (1.979)

N.D.

0

Blank

**PFNA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

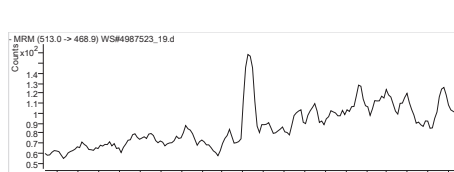
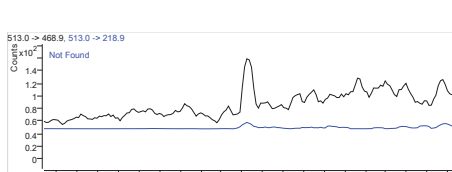
463.0 -> 418.9

0.000 (2.014)

N.D.

0

Blank

**PFDA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

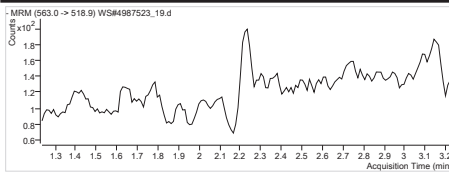
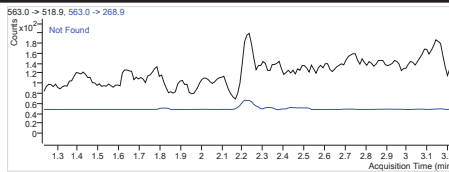
513.0 -> 468.9

0.000 (2.135)

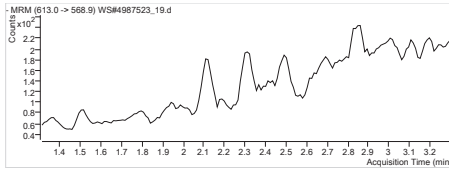
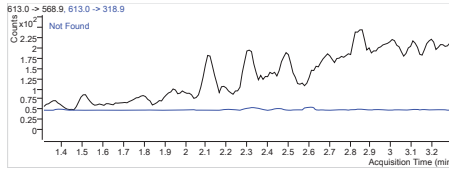
N.D.

0

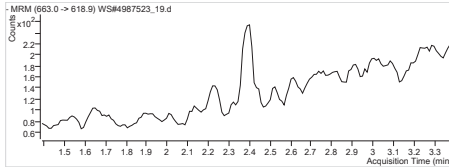
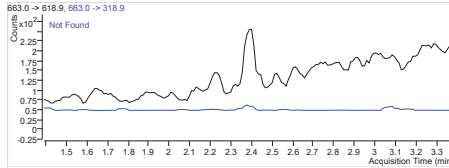
Blank



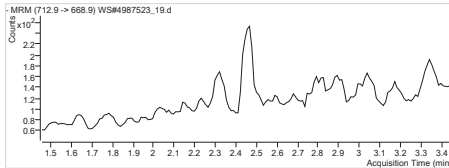
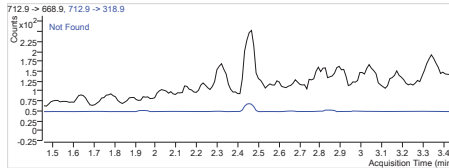
PFUnA 1
RT (Exp. RT): 563.0 -> 518.9
Calc. conc. 0.000 (2.234)
Area ratio: N.D.
Sample type: 0
Blank



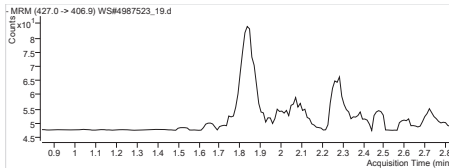
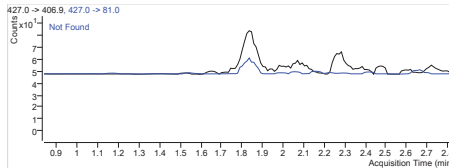
PFDa 1
RT (Exp. RT): 613.0 -> 568.9
Calc. conc. 0.000 (2.311)
Area ratio: N.D.
Sample type: 0
Blank



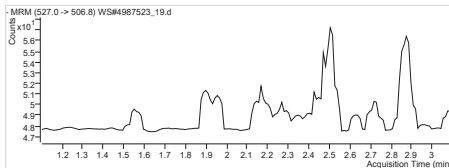
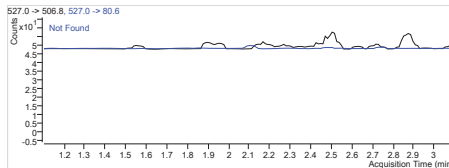
PFTraD 1
RT (Exp. RT): 663.0 -> 618.9
Calc. conc. 0.000 (2.389)
Area ratio: N.D.
Sample type: 0
Blank



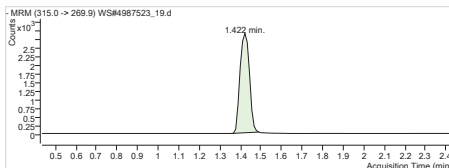
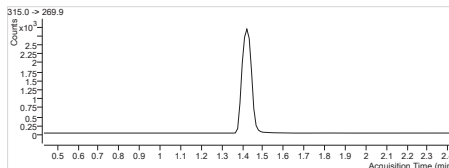
PFTeDa 1
RT (Exp. RT): 712.9 -> 668.9
Calc. conc. 0.000 (2.456)
Area ratio: N.D.
Sample type: 0
Blank



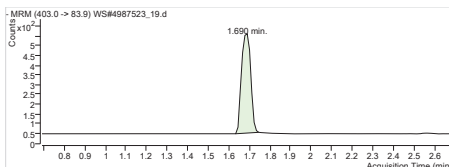
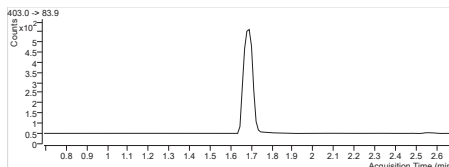
6:2-FTS 1
RT (Exp. RT): 427.0 -> 406.9
Calc. conc. 0.000 (1.835)
Area ratio: N.D.
Sample type: 0
Blank



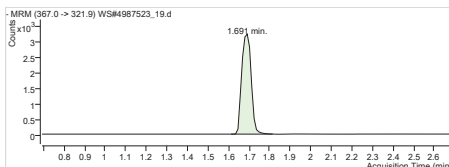
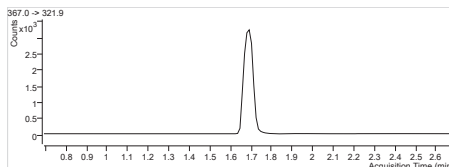
8:2-FTS 1
RT (Exp. RT): 527.0 -> 506.8
Calc. conc. 0.000 (2.101)
Area ratio: N.D.
Sample type: 0
Blank



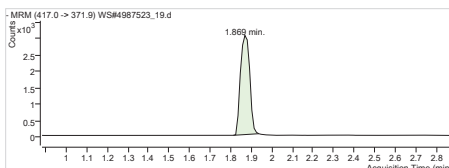
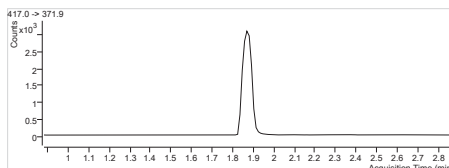
13C2-PFHxA
RT (Exp. RT): 315.0 -> 269.9
Calc. conc. 1.422 (1.434)
Area ratio: 105.53 µg/L
Sample type: 0.23472
Blank



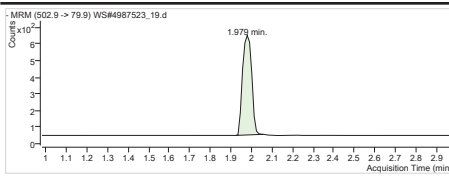
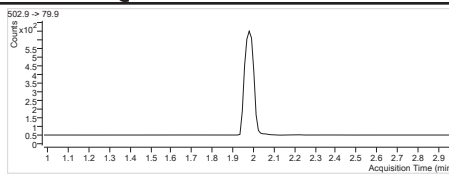
18O2-PFHxA
RT (Exp. RT): 403.0 -> 83.9
Calc. conc. 1.690 (1.690)
Area ratio: 105.40 µg/L
Sample type: 0.04120
Blank



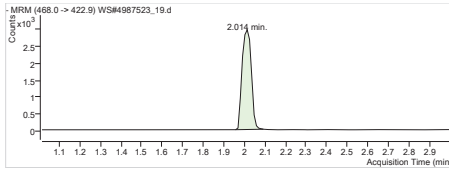
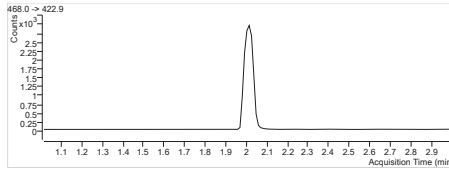
13C4-PFHpA
RT (Exp. RT): 367.0 -> 321.9
Calc. conc. 1.691 (1.691)
Area ratio: 113.30 µg/L
Sample type: 0.26370
Blank



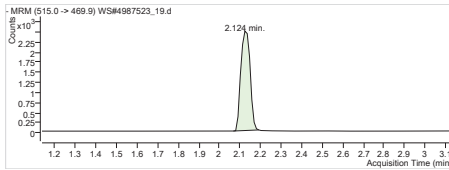
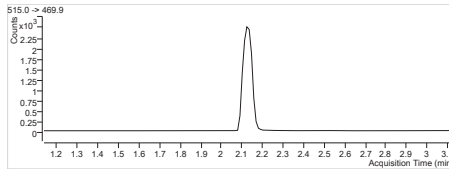
13C4-PFOA
RT (Exp. RT): 417.0 -> 371.9
Calc. conc. 1.869 (1.881)
Area ratio: 106.78 µg/L
Sample type: 0.24372
Blank



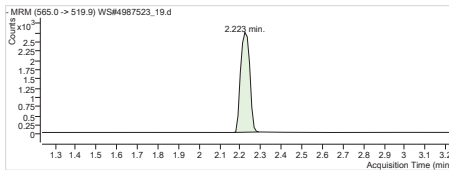
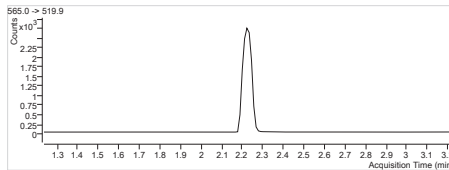
13C4-PFOS
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 99.90 µg/L
Area ratio: 0.04782
Sample type: Blank



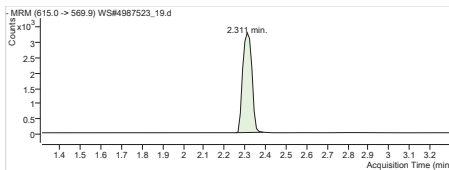
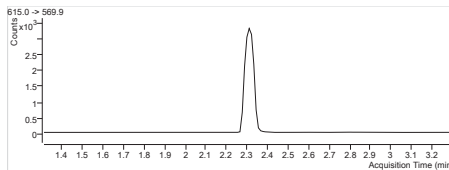
13C5-PFNA
RT (Exp. RT): 2.014 (2.014)
Calc. conc. 105.25 µg/L
Area ratio: 0.23413
Sample type: Blank



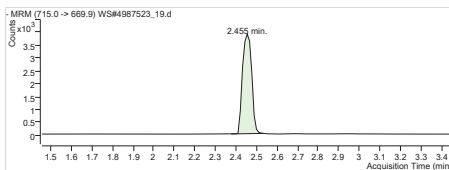
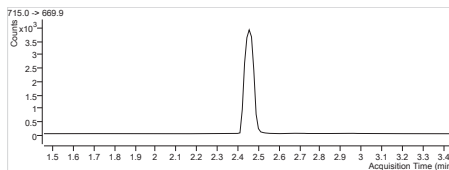
13C2-PFDA
RT (Exp. RT): 2.124 (2.135)
Calc. conc. 101.60 µg/L
Area ratio: 0.23034
Sample type: Blank



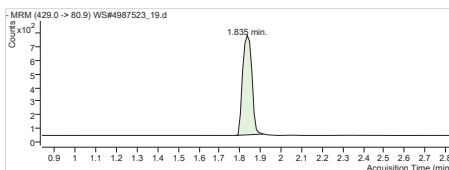
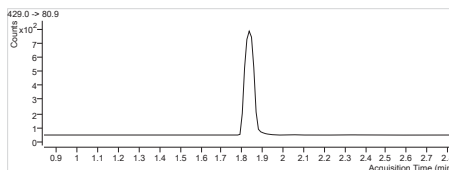
13C2-PFUnA
RT (Exp. RT): 2.223 (2.234)
Calc. conc. 101.85 µg/L
Area ratio: 0.24946
Sample type: Blank



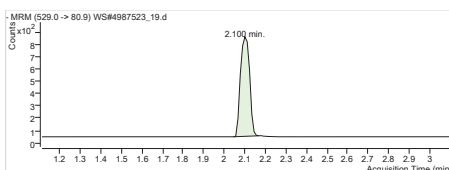
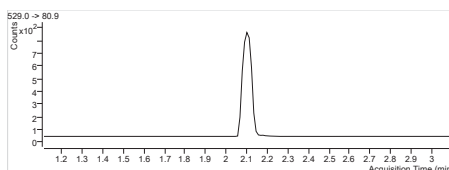
13C2-PFDoA
RT (Exp. RT): 2.311 (2.311)
Calc. conc. 109.77 µg/L
Area ratio: 0.30254
Sample type: Blank



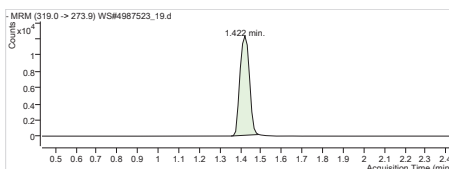
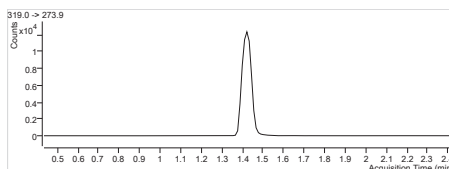
13C2-PFTeDA
RT (Exp. RT): 2.455 (2.455)
Calc. conc. 102.79 µg/L
Area ratio: 0.35814
Sample type: Blank



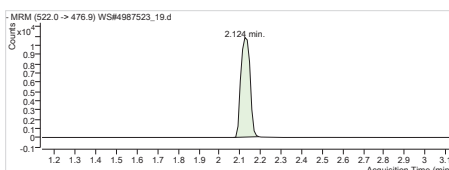
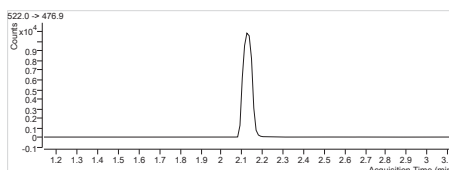
13C2-6:2-FTS
RT (Exp. RT): 1.835 (1.835)
Calc. conc. 106.64 µg/L
Area ratio: 0.05905
Sample type: Blank



13C2-8:2 FTS
RT (Exp. RT): 2.100 (2.112)
Calc. conc. 108.34 µg/L
Area ratio: 0.06467
Sample type: Blank



13C6-PFHxA
RT (Exp. RT): 1.422 (1.434)
Calc. conc. 2.40 µg/L
Area ratio: 0
Sample type: Blank



13C9-PFDA
RT (Exp. RT): 2.124 (2.135)
Calc. conc. 2.45 µg/L
Area ratio: 0
Sample type: Blank

Batch Path

T:\lcms4\PFC\20170523\WS#4987523\QuantResults\PFC_Water_Low_170523_WS#4987523_CT

Sample Name

IB1

Instrument

LCMS04

Data File

WS#4987523_23.d

Operator

AD

Sample Type

Blank

Dilution

0.024

Acq. Method

PFC_Water_Low.m

Position

P1-A8

Acq. Date

2017/05/23 11:01:24 AM

Injection Volume

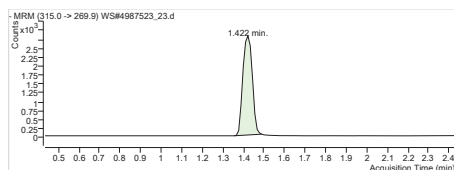
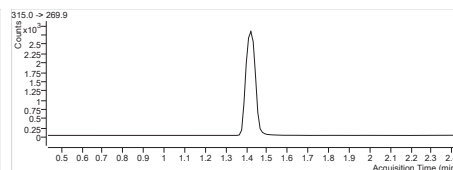
Per Method

Sample Annotation

-

ISTD Compounds	Response	RT	Target conc.		
MPFHxA	8896	1.42	1 µg/L		
MPFHxS	1496	1.69	1 µg/L		
MPFHpA	9694	1.69	1 µg/L		
MPFOA	9308	1.87	1 µg/L		
MPFOS	1899	1.98	1 µg/L		
MPFNA	8651	2.01	1 µg/L		
MPFDA	8262	2.12	1 µg/L		
MPFUnA	9420	2.22	1 µg/L		
MPFDoA	10105	2.31	1 µg/L		
MPFTeDA	12574	2.46	1 µg/L		
M2 6:2 FTS	2382	1.84	1 µg/L		
M2 8:2 FTS	2293	2.10	1 µg/L		
13C6-PFHxA IS	38837	1.42	1 µg/L		
13C9-PFDA IS	32992	2.12	1 µg/L		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1			-	ND	-
PFHxA 1			-	ND	-
PFHxS 1			-	ND	-
PFHpA 1			-	ND	-
PFOA 1			-	ND	-
PFOS 1			-	ND	-
PFNA 1			-	ND	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDaA 1			-	ND	-
PFTeDA 1			-	ND	-
PFTeDA 1			-	ND	-
6:2-FTS 1			-	ND	-
8:2-FTS 1			-	ND	-
13C2-PFHxA	8896	1.42	-	102.99 µg/L	-
18O2-PFHxS	1496	1.69	-	98.55 µg/L	-
13C4-PFHpA	9694	1.69	-	107.24 µg/L	-
13C4-PFOA	9308	1.87	-	105.00 µg/L	-
13C4-PFOS	1899	1.98	-	102.16 µg/L	-
13C5-PFNA	8651	2.01	-	100.14 µg/L	-
13C2-PFDA	8262	2.12	-	110.46 µg/L	-
13C2-PFUnA	9420	2.22	-	116.57 µg/L	-
13C2-PFDoA	10105	2.31	-	111.13 µg/L	-
13C2-PFTeDA	12574	2.46	-	109.39 µg/L	-
13C2-6:2-FTS	2382	1.84	-	110.76 µg/L	-
13C2-8:2 FTS	2293	2.10	-	98.91 µg/L	-
13C6-PFHxA	38837	1.42	-	2.39 µg/L	-
13C9-PFDA	32992	2.12	-	2.40 µg/L	-



MPFHxA

Internal Standard

RT (Exp. RT):

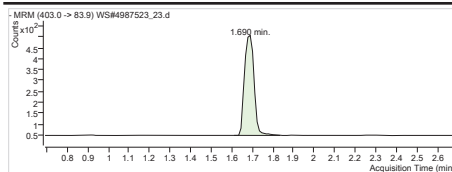
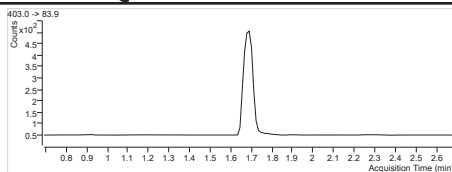
1.422 (1.434)

Concentration:

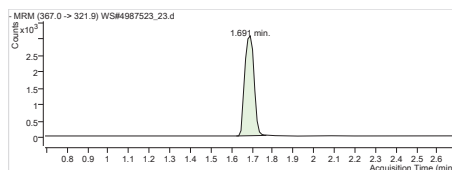
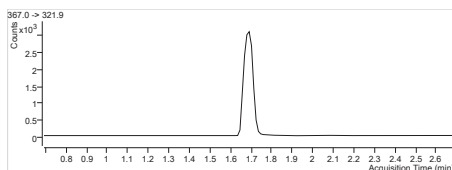
1 µg/L

Sample type:

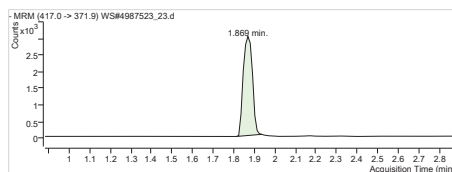
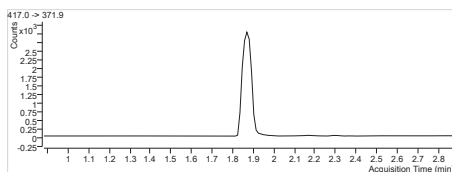
Blank



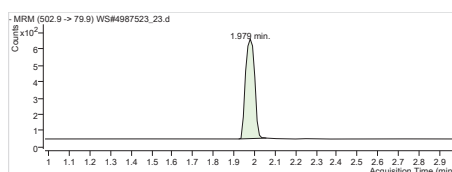
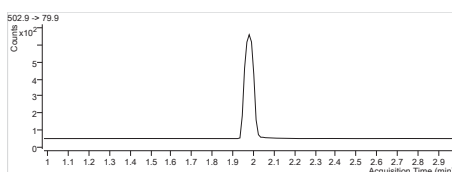
MPFHxS
RT (Exp. RT): 1.690 (1.690)
Concentration: 1 µg/L
Sample type: Blank



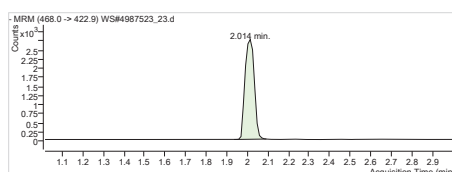
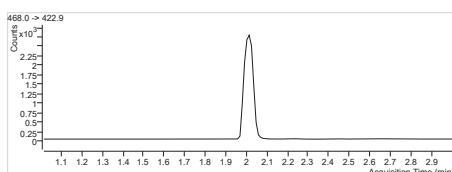
MPFHpA
RT (Exp. RT): 1.691 (1.691)
Concentration: 1 µg/L
Sample type: Blank



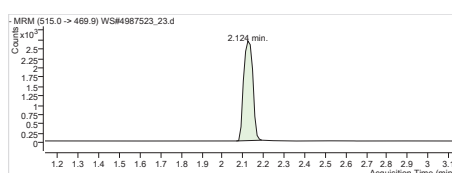
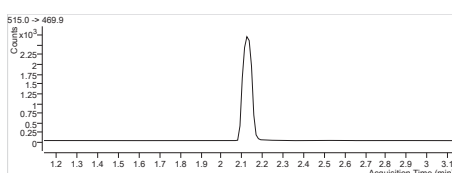
MPFOA
RT (Exp. RT): 1.869 (1.881)
Concentration: 1 µg/L
Sample type: Blank



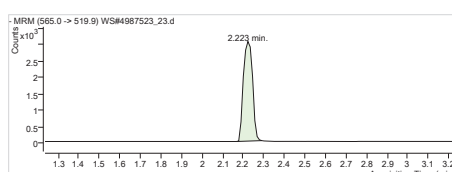
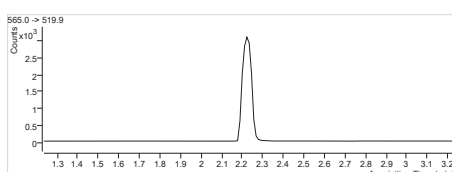
MPFOS
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: Blank



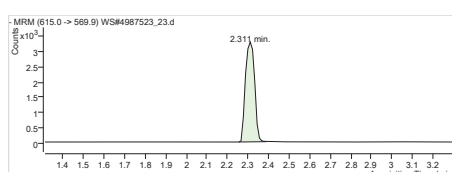
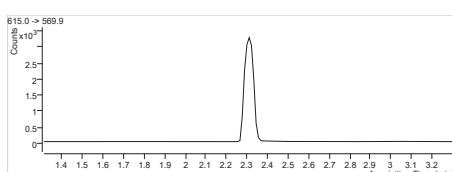
MPFNA
RT (Exp. RT): 2.014 (2.014)
Concentration: 1 µg/L
Sample type: Blank



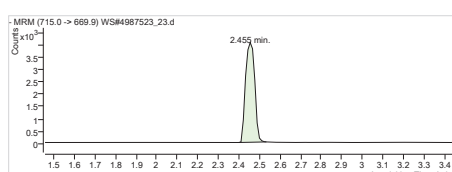
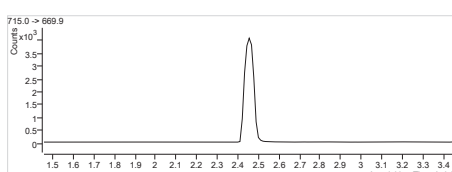
MPFDA
RT (Exp. RT): 2.124 (2.135)
Concentration: 1 µg/L
Sample type: Blank



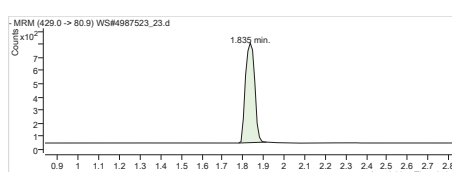
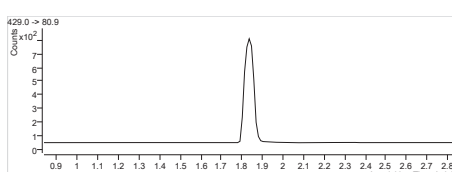
MPFUnA
RT (Exp. RT): 2.223 (2.234)
Concentration: 1 µg/L
Sample type: Blank



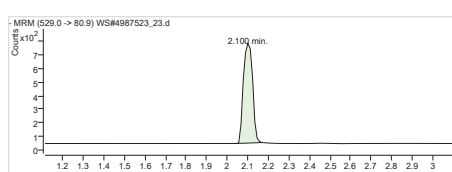
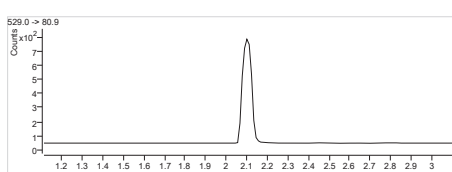
MPFDoA
RT (Exp. RT): 2.311 (2.311)
Concentration: 1 µg/L
Sample type: Blank



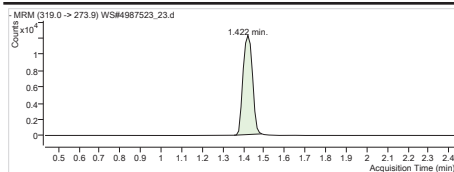
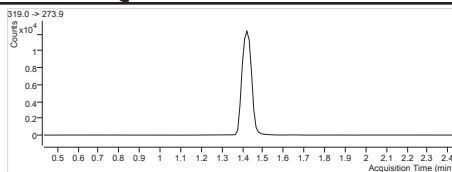
MPFTeDA
RT (Exp. RT): 2.455 (2.455)
Concentration: 1 µg/L
Sample type: Blank



M2 6:2 FTS
RT (Exp. RT): 1.835 (1.835)
Concentration: 1 µg/L
Sample type: Blank



M2 8:2 FTS
RT (Exp. RT): 2.100 (2.112)
Concentration: 1 µg/L
Sample type: Blank

**13C6-PFHxA IS**

RT (Exp. RT):

Concentration:

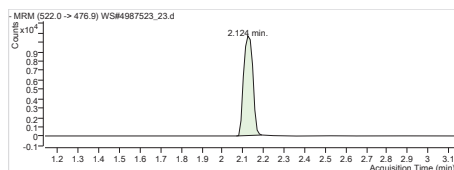
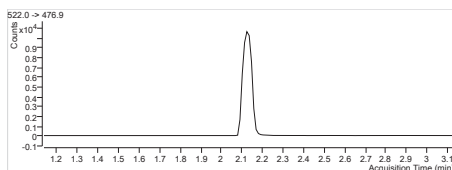
Sample type:

Internal Standard

1.422 (1.434)

1 µg/L

Blank

**13C9-PFDA IS**

RT (Exp. RT):

Concentration:

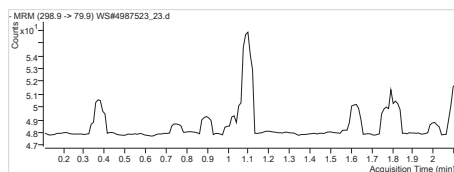
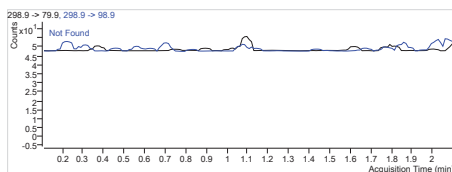
Sample type:

Internal Standard

2.124 (2.135)

1 µg/L

Blank

**PFBS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

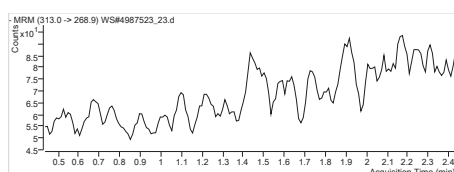
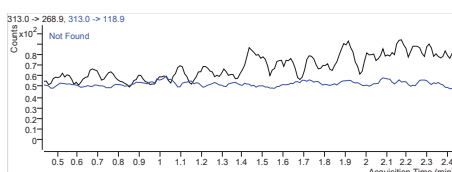
298.9 -> 79.9

0.000 (1.109)

N.D.

0

Blank

**PFHxA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

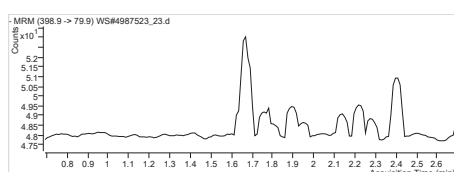
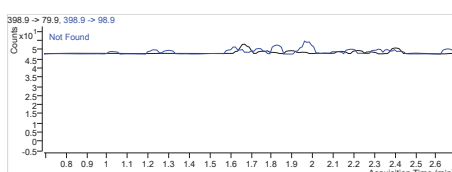
313.0 -> 268.9

0.000 (1.434)

N.D.

0

Blank

**PFHxS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

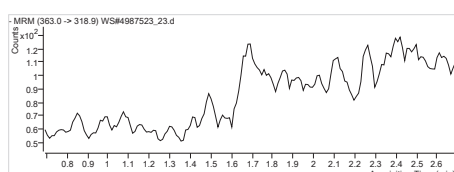
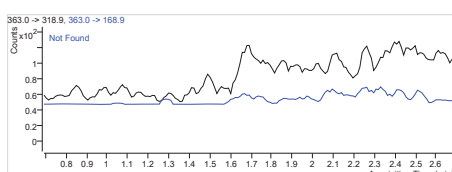
398.9 -> 79.9

0.000 (1.691)

N.D.

0

Blank

**PFHpA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

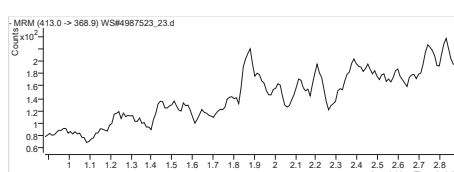
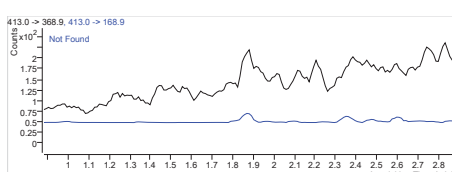
363.0 -> 318.9

0.000 (1.691)

N.D.

0

Blank

**PFOA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

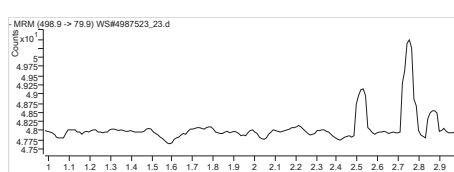
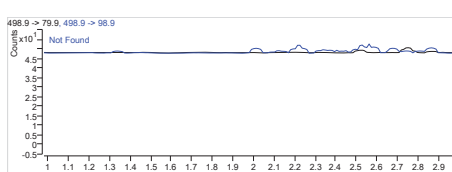
413.0 -> 368.9

0.000 (1.881)

N.D.

0

Blank

**PFOS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

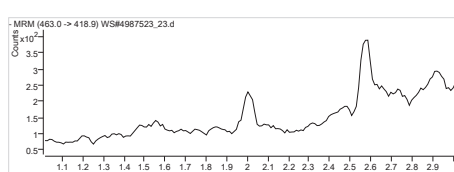
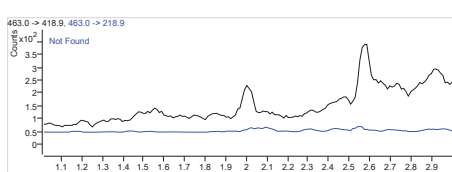
498.9 -> 79.9

0.000 (1.979)

N.D.

0

Blank

**PFNA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

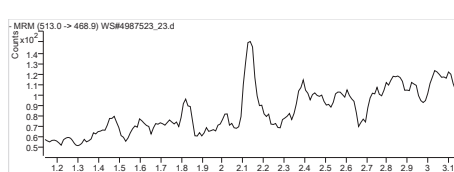
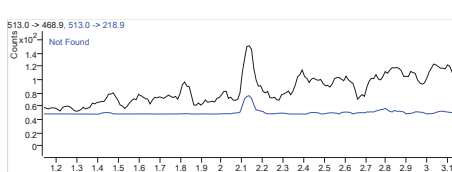
463.0 -> 418.9

0.000 (2.014)

N.D.

0

Blank

**PFDA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

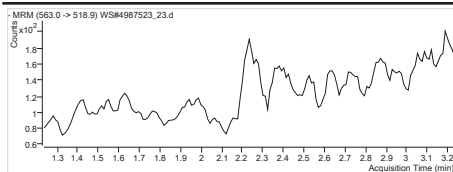
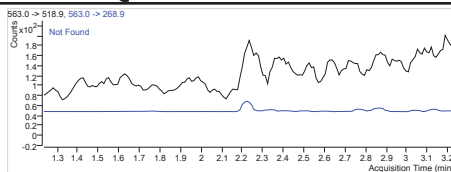
513.0 -> 468.9

0.000 (2.135)

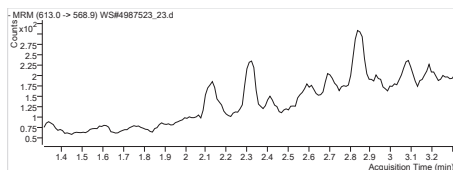
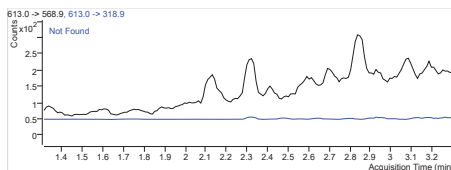
N.D.

0

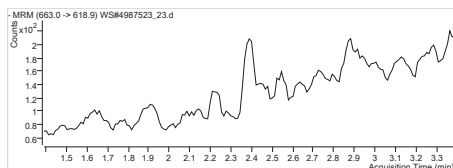
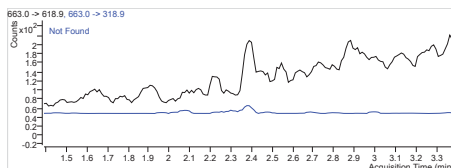
Blank



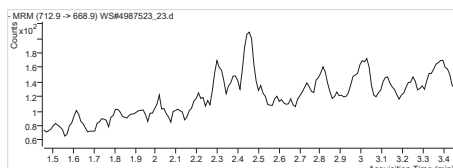
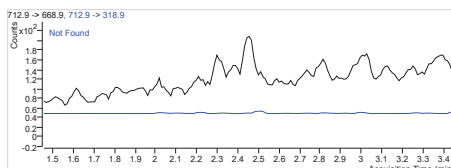
PFUnA 1
 RT (Exp. RT): 563.0 -> 518.9
 Calc. conc. 0.000 (2.234)
 Area ratio: N.D.
 Sample type: 0
 Blank



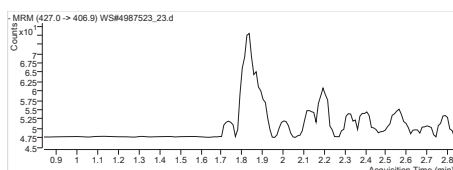
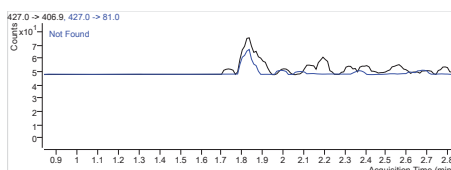
PFDa 1
 RT (Exp. RT): 613.0 -> 568.9
 Calc. conc. 0.000 (2.311)
 Area ratio: N.D.
 Sample type: 0
 Blank



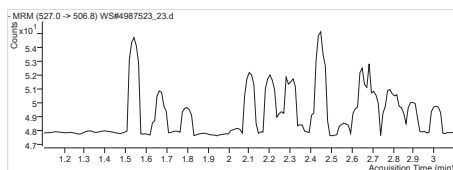
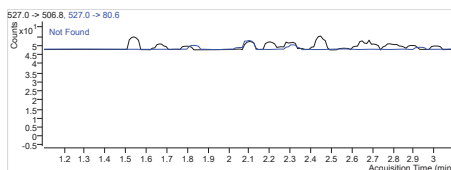
PFTraD 1
 RT (Exp. RT): 663.0 -> 618.9
 Calc. conc. 0.000 (2.389)
 Area ratio: N.D.
 Sample type: 0
 Blank



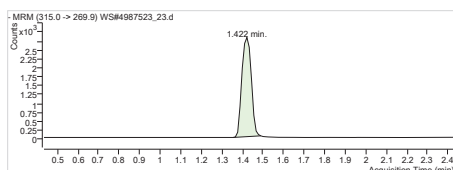
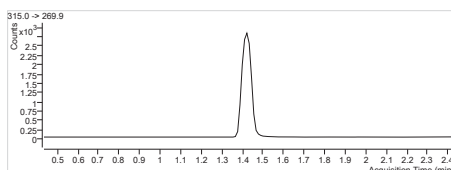
PFTeDa 1
 RT (Exp. RT): 712.9 -> 668.9
 Calc. conc. 0.000 (2.456)
 Area ratio: N.D.
 Sample type: 0
 Blank



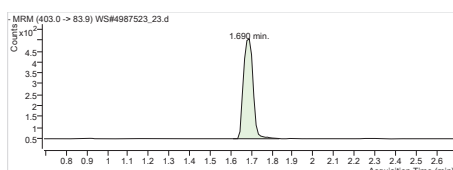
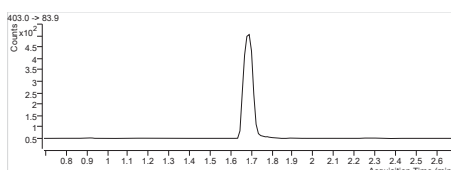
6:2-FTS 1
 RT (Exp. RT): 427.0 -> 406.9
 Calc. conc. 0.000 (1.835)
 Area ratio: N.D.
 Sample type: 0
 Blank



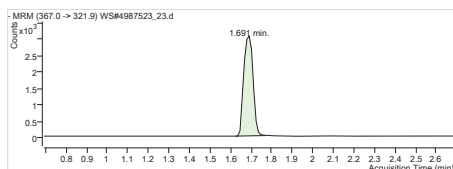
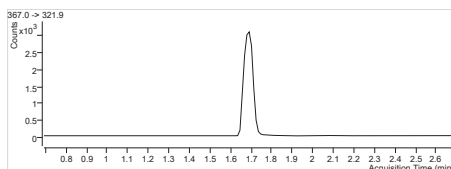
8:2-FTS 1
 RT (Exp. RT): 527.0 -> 506.8
 Calc. conc. 0.000 (2.101)
 Area ratio: N.D.
 Sample type: 0
 Blank



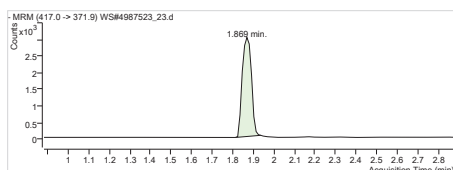
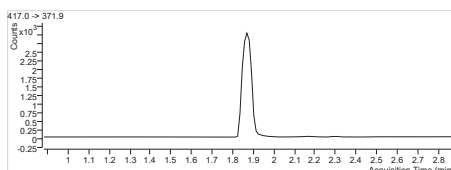
13C2-PFHxA
 RT (Exp. RT): 315.0 -> 269.9
 Calc. conc. 1.422 (1.434)
 Area ratio: 102.99 µg/L
 Sample type: 0.22906
 Blank



18O2-PFHxS
 RT (Exp. RT): 403.0 -> 83.9
 Calc. conc. 1.690 (1.690)
 Area ratio: 98.55 µg/L
 Sample type: 0.03852
 Blank

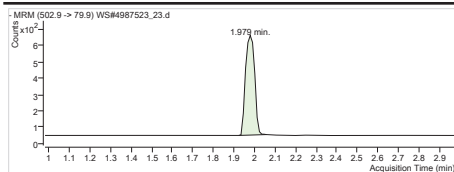
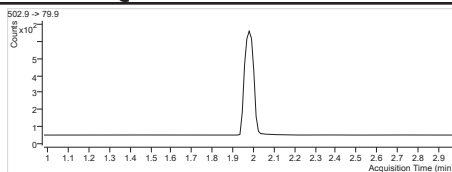


13C4-PFHpA
 RT (Exp. RT): 367.0 -> 321.9
 Calc. conc. 1.691 (1.691)
 Area ratio: 107.24 µg/L
 Sample type: 0.24961
 Blank

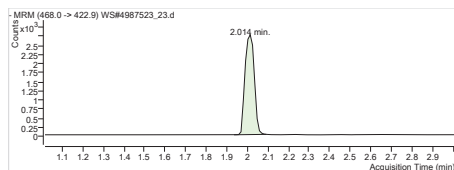
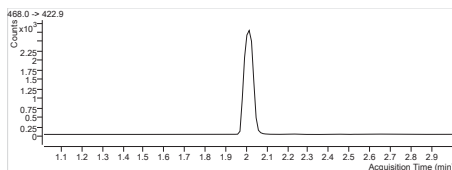


13C4-PFOA
 RT (Exp. RT): 417.0 -> 371.9
 Calc. conc. 1.869 (1.881)
 Area ratio: 105.00 µg/L
 Sample type: 0.23967
 Blank

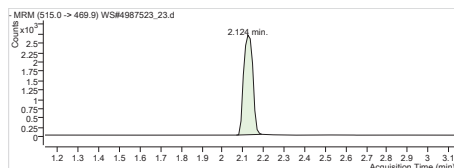
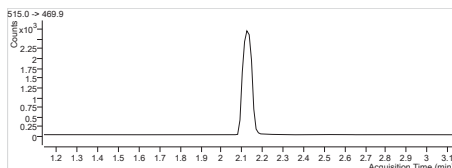
Quantitation Results



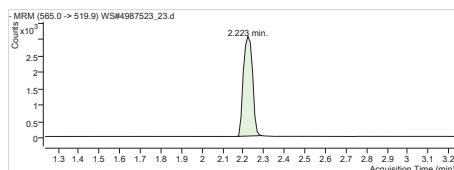
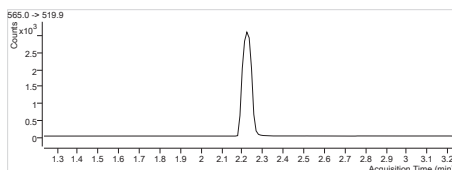
13C4-PFOS
RT (Exp. RT): 502.9 -> 79.9
Calc. conc. 1.979 (1.979)
Area ratio: 102.16 µg/L
Sample type: 0.04890
Blank



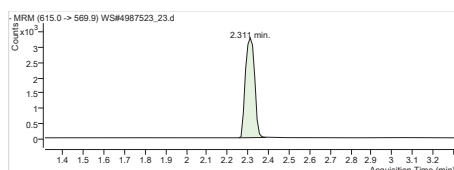
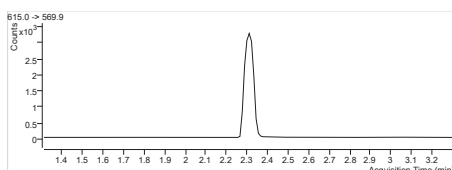
13C5-PFNA
RT (Exp. RT): 468.0 -> 422.9
Calc. conc. 2.014 (2.014)
Area ratio: 100.14 µg/L
Sample type: 0.22275
Blank



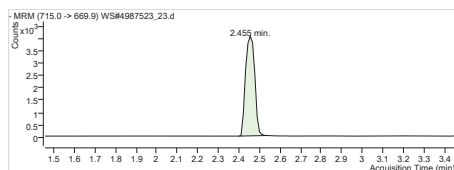
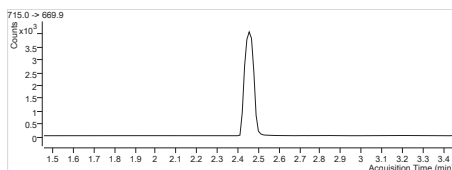
13C2-PFDA
RT (Exp. RT): 515.0 -> 469.9
Calc. conc. 2.124 (2.135)
Area ratio: 110.46 µg/L
Sample type: 0.25042
Blank



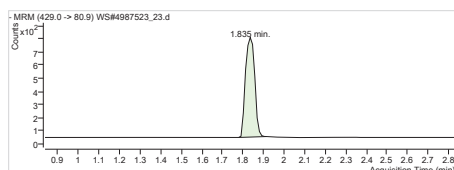
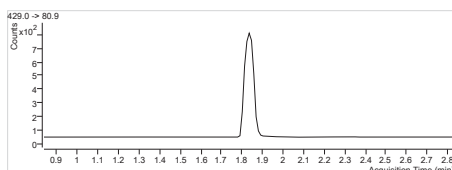
13C2-PFUnA
RT (Exp. RT): 565.0 -> 519.9
Calc. conc. 2.223 (2.234)
Area ratio: 116.57 µg/L
Sample type: 0.28552
Blank



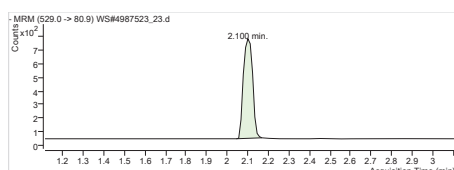
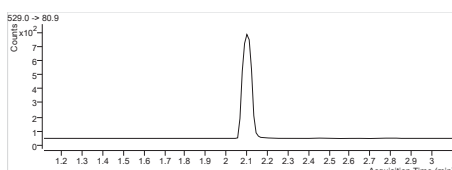
13C2-PFDoA
RT (Exp. RT): 615.0 -> 569.9
Calc. conc. 2.311 (2.311)
Area ratio: 111.13 µg/L
Sample type: 0.30629
Blank



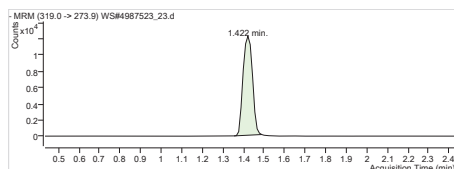
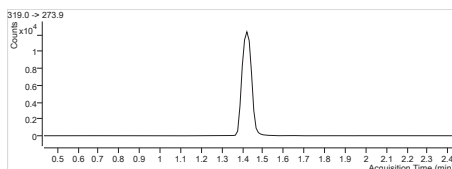
13C2-PFTeDA
RT (Exp. RT): 715.0 -> 669.9
Calc. conc. 2.455 (2.455)
Area ratio: 109.39 µg/L
Sample type: 0.38112
Blank



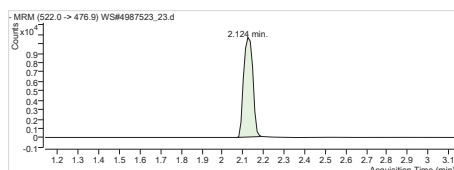
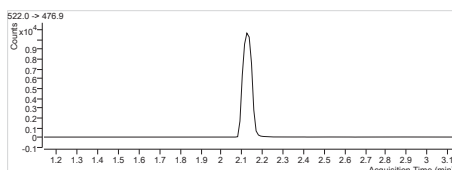
13C2-6:2-FTS
RT (Exp. RT): 429.0 -> 80.9
Calc. conc. 1.835 (1.835)
Area ratio: 110.76 µg/L
Sample type: 0.06133
Blank



13C2-8:2 FTS
RT (Exp. RT): 529.0 -> 80.9
Calc. conc. 2.100 (2.112)
Area ratio: 98.91 µg/L
Sample type: 0.05904
Blank



13C6-PFHxA
RT (Exp. RT): 319.0 -> 273.9
Calc. conc. 1.422 (1.434)
Area ratio: 2.39 µg/L
Sample type: 0
Blank



13C9-PFDA
RT (Exp. RT): 522.0 -> 476.9
Calc. conc. 2.124 (2.135)
Area ratio: 2.40 µg/L
Sample type: 0
Blank

Batch Path

T:\lcms4\PFC\20170523\WS#4987523\QuantResults\PFC_Water_Low_170523_WS#4987523_CT

Sample Name

IB1

Instrument

LCMS04

Data File

WS#4987523_27.d

Operator

AD

Sample Type

Blank

Dilution

0.024

Acq. Method

PFC_Water_Low.m

Position

P1-A8

Acq. Date

2017/05/23 11:21:00 AM

Injection Volume

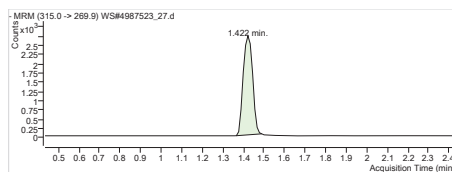
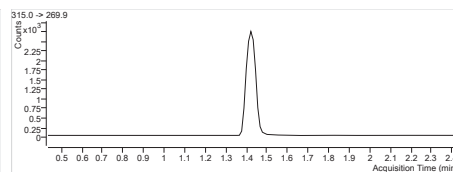
Per Method

Sample Annotation

-

ISTD Compounds	Response	RT	Target conc.		
MPFHxA	8586	1.42	1 µg/L		
MPFHxS	1746	1.69	1 µg/L		
MPFHpA	10000	1.69	1 µg/L		
MPFOA	9647	1.87	1 µg/L		
MPFOS	1941	1.98	1 µg/L		
MPFNA	9007	2.01	1 µg/L		
MPFDA	7659	2.12	1 µg/L		
MPFUnA	8684	2.22	1 µg/L		
MPFDoA	9636	2.31	1 µg/L		
MPFTeDA	12789	2.46	1 µg/L		
M2 6:2 FTS	2508	1.84	1 µg/L		
M2 8:2 FTS	2759	2.10	1 µg/L		
13C6-PFHxA IS	37115	1.42	1 µg/L		
13C9-PFDA IS	32046	2.12	1 µg/L		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1			-	ND	-
PFHxA 1			-	ND	-
PFHxS 1			-	ND	-
PFHpA 1			-	ND	-
PFOA 1			-	ND	-
PFOS 1			-	ND	-
PFNA 1			-	ND	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDaA 1			-	ND	-
PFTeDA 1			-	ND	-
PFTeDA 1			-	ND	-
6:2-FTS 1			-	ND	-
8:2-FTS 1			-	ND	-
13C2-PFHxA	8586	1.42	-	104.01 µg/L	-
18O2-PFHxS	1746	1.69	-	120.36 µg/L	-
13C4-PFHpA	10000	1.69	-	115.76 µg/L	-
13C4-PFOA	9647	1.87	-	113.88 µg/L	-
13C4-PFOS	1941	1.98	-	109.27 µg/L	-
13C5-PFNA	9007	2.01	-	109.10 µg/L	-
13C2-PFDA	7659	2.12	-	105.42 µg/L	-
13C2-PFUnA	8684	2.22	-	110.64 µg/L	-
13C2-PFDoA	9636	2.31	-	109.11 µg/L	-
13C2-PFTeDA	12789	2.46	-	114.55 µg/L	-
13C2-6:2-FTS	2508	1.84	-	122.03 µg/L	-
13C2-8:2 FTS	2759	2.10	-	124.53 µg/L	-
13C6-PFHxA	37115	1.42	-	2.28 µg/L	-
13C9-PFDA	32046	2.12	-	2.33 µg/L	-



MPFHxA

Internal Standard

RT (Exp. RT):

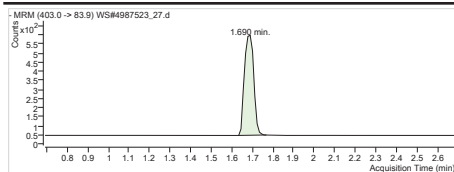
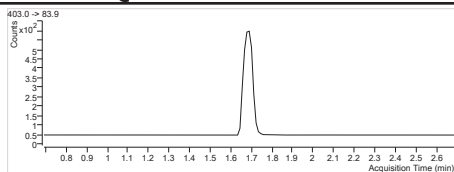
1.422 (1.434)

Concentration:

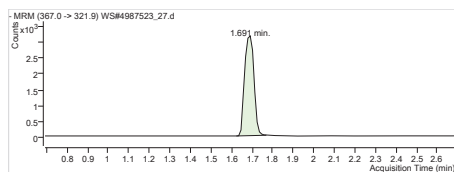
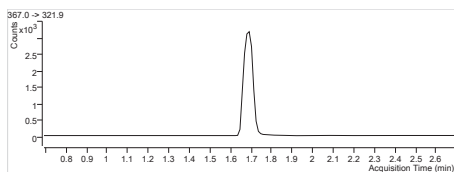
1 µg/L

Sample type:

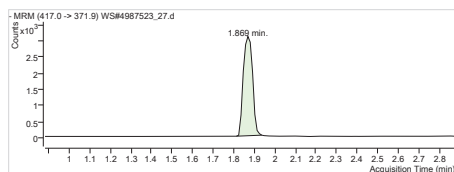
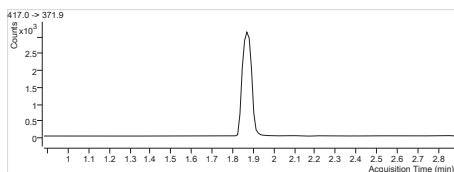
Blank



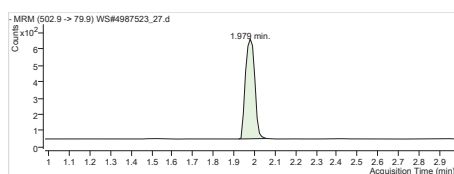
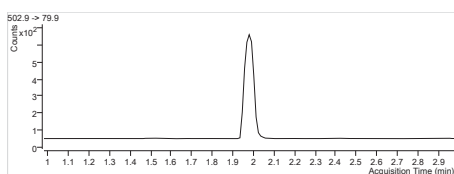
MPFHxS
RT (Exp. RT): 1.690 (1.690)
Concentration: 1 µg/L
Sample type: Blank



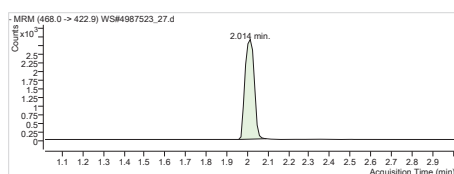
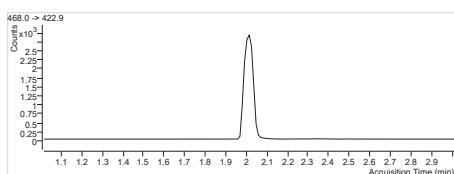
MPFHpA
RT (Exp. RT): 1.691 (1.691)
Concentration: 1 µg/L
Sample type: Blank



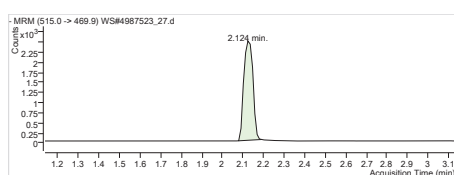
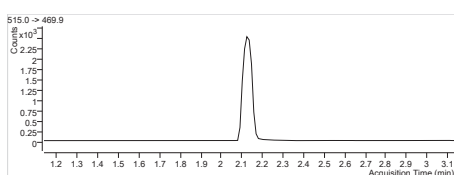
MPFOA
RT (Exp. RT): 1.869 (1.881)
Concentration: 1 µg/L
Sample type: Blank



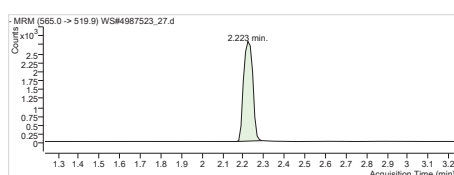
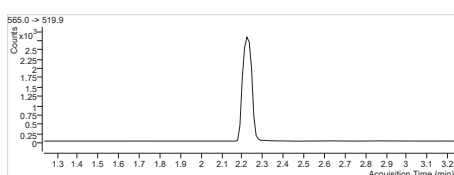
MPFOS
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: Blank



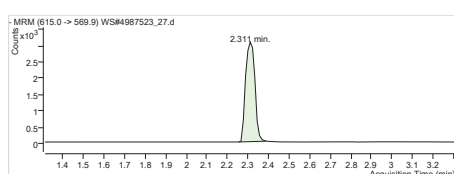
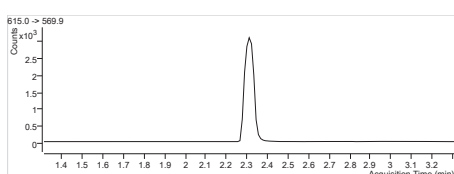
MPFNA
RT (Exp. RT): 2.014 (2.014)
Concentration: 1 µg/L
Sample type: Blank



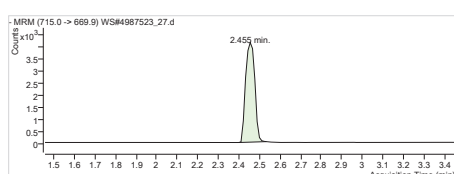
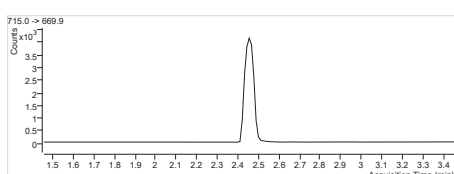
MPFDA
RT (Exp. RT): 2.124 (2.135)
Concentration: 1 µg/L
Sample type: Blank



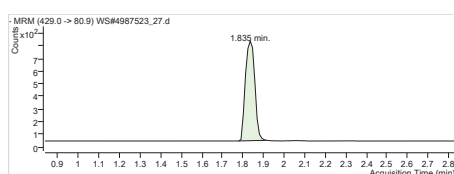
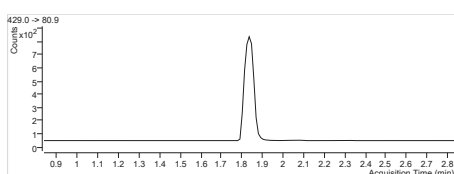
MPFUnA
RT (Exp. RT): 2.223 (2.234)
Concentration: 1 µg/L
Sample type: Blank



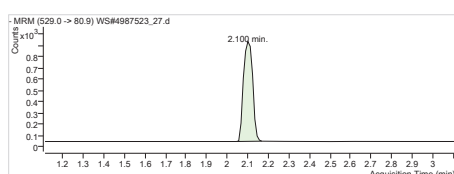
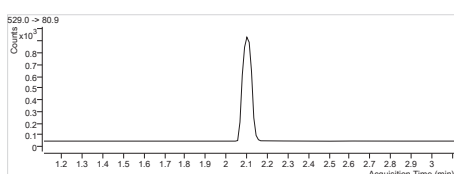
MPFDoA
RT (Exp. RT): 2.311 (2.311)
Concentration: 1 µg/L
Sample type: Blank



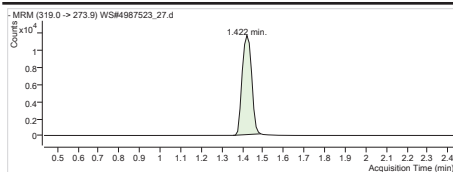
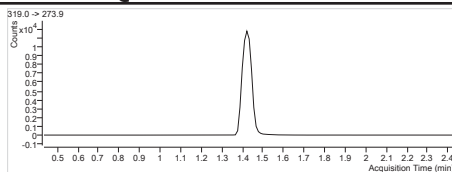
MPFTeDA
RT (Exp. RT): 2.455 (2.455)
Concentration: 1 µg/L
Sample type: Blank



M2 6:2 FTS
RT (Exp. RT): 1.835 (1.835)
Concentration: 1 µg/L
Sample type: Blank



M2 8:2 FTS
RT (Exp. RT): 2.100 (2.112)
Concentration: 1 µg/L
Sample type: Blank

**13C6-PFHxA IS**

RT (Exp. RT):

Concentration:

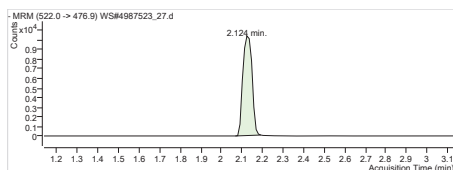
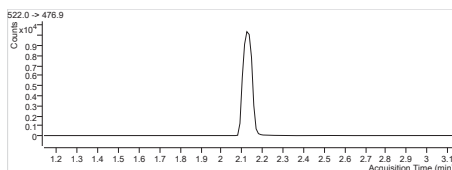
Sample type:

Internal Standard

1.422 (1.434)

1 µg/L

Blank

**13C9-PFDA IS**

RT (Exp. RT):

Concentration:

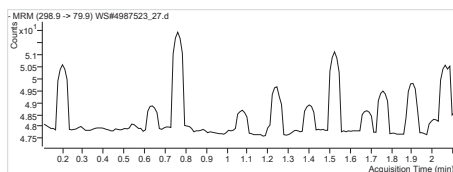
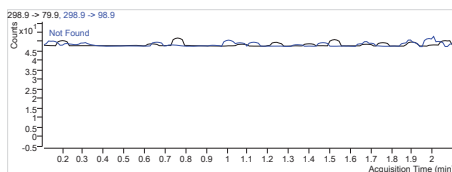
Sample type:

Internal Standard

2.124 (2.135)

1 µg/L

Blank

**PFBS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

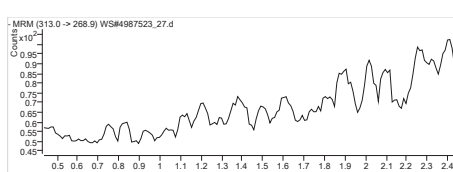
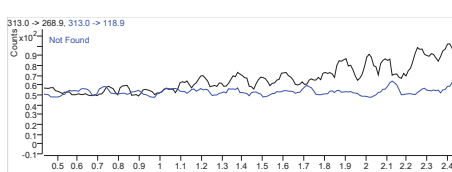
298.9 -> 79.9

0.000 (1.109)

N.D.

0

Blank

**PFHxA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

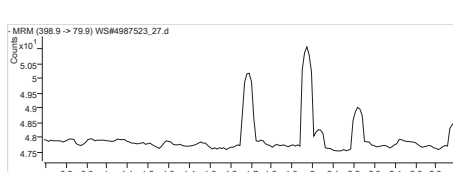
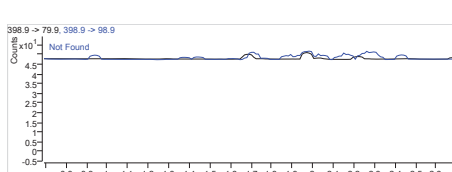
313.0 -> 268.9

0.000 (1.434)

N.D.

0

Blank

**PFHxS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

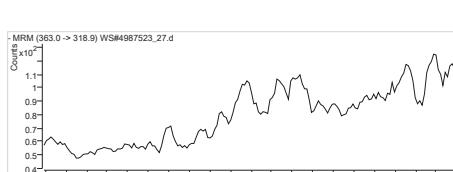
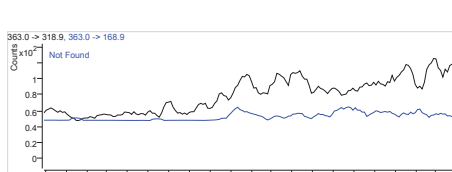
398.9 -> 79.9

0.000 (1.691)

N.D.

0

Blank

**PFHpA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

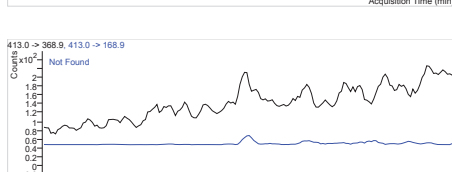
363.0 -> 318.9

0.000 (1.691)

N.D.

0

Blank

**PFOA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

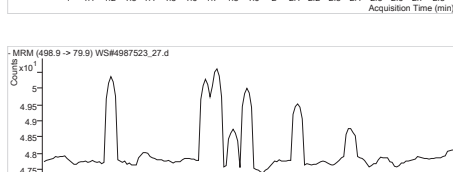
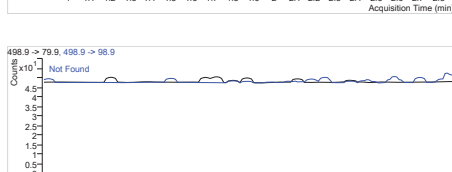
413.0 -> 368.9

0.000 (1.881)

N.D.

0

Blank

**PFOS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

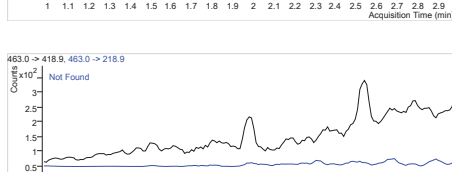
498.9 -> 79.9

0.000 (1.979)

N.D.

0

Blank

**PFNA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

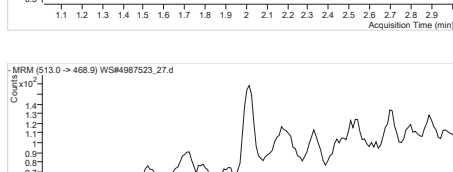
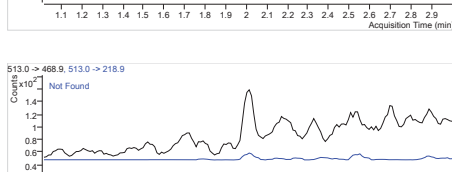
463.0 -> 418.9

0.000 (2.014)

N.D.

0

Blank

**PFDA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

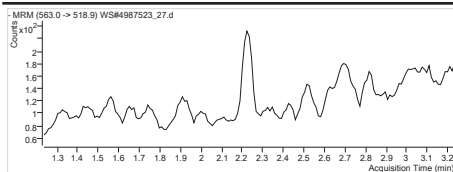
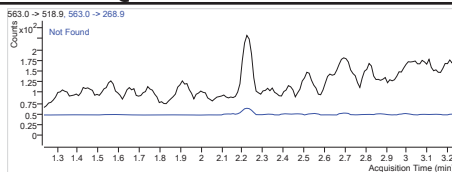
513.0 -> 468.9

0.000 (2.135)

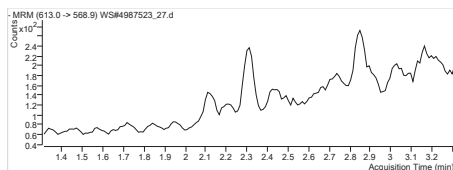
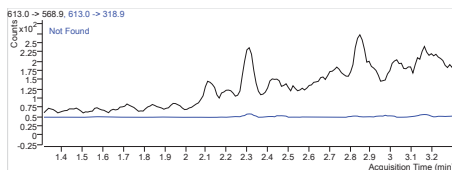
N.D.

0

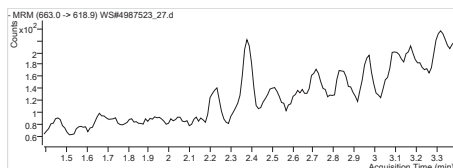
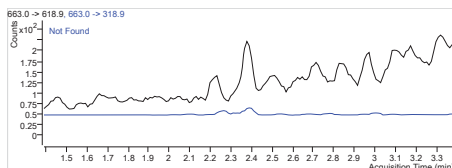
Blank



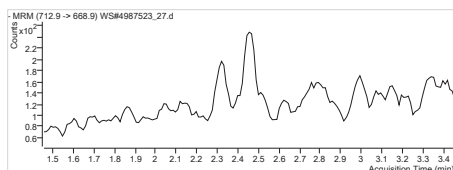
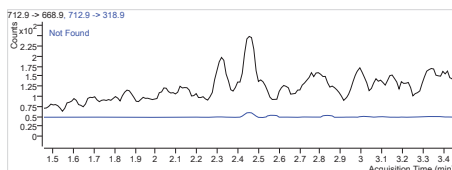
PFUnA 1
 RT (Exp. RT): 563.0 -> 518.9
 Calc. conc. 0.000 (2.234)
 Area ratio: N.D.
 Sample type: 0
 Blank



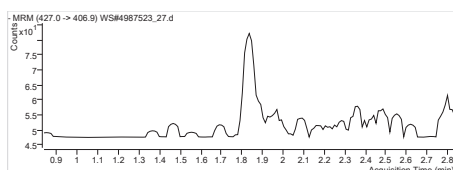
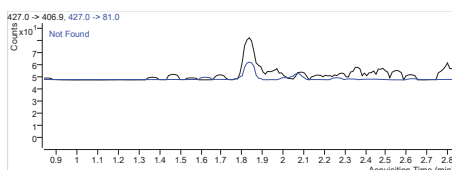
PFDa 1
 RT (Exp. RT): 613.0 -> 568.9
 Calc. conc. 0.000 (2.311)
 Area ratio: N.D.
 Sample type: 0
 Blank



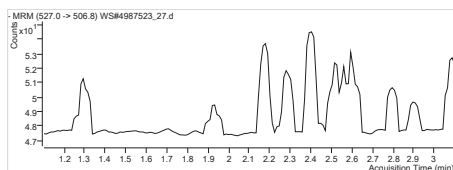
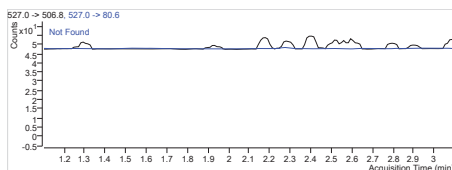
PFTraD 1
 RT (Exp. RT): 663.0 -> 618.9
 Calc. conc. 0.000 (2.389)
 Area ratio: N.D.
 Sample type: 0
 Blank



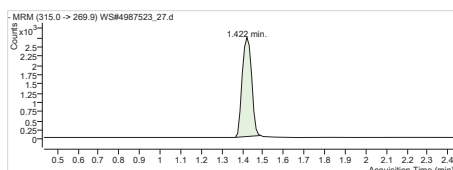
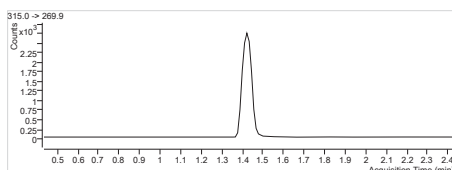
PFTeDa 1
 RT (Exp. RT): 712.9 -> 668.9
 Calc. conc. 0.000 (2.456)
 Area ratio: N.D.
 Sample type: 0
 Blank



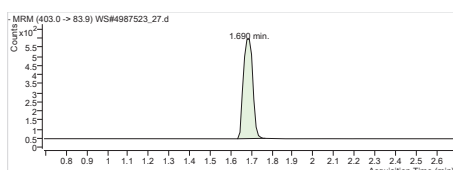
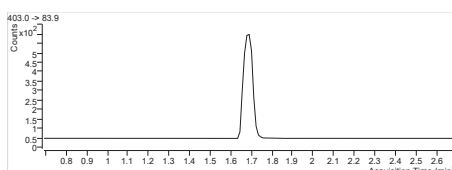
6:2-FTS 1
 RT (Exp. RT): 427.0 -> 406.9
 Calc. conc. 0.000 (1.835)
 Area ratio: N.D.
 Sample type: 0
 Blank



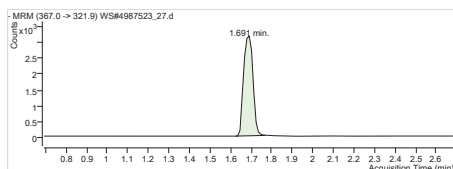
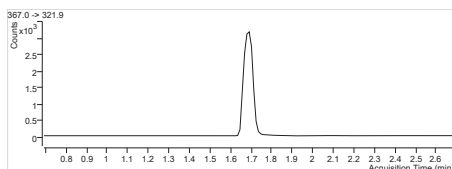
8:2-FTS 1
 RT (Exp. RT): 527.0 -> 506.8
 Calc. conc. 0.000 (2.101)
 Area ratio: N.D.
 Sample type: 0
 Blank



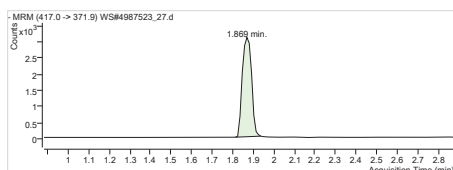
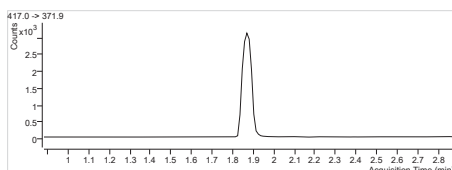
13C2-PFHxA
 RT (Exp. RT): 315.0 -> 269.9
 Calc. conc. 1.422 (1.434)
 Area ratio: 104.01 µg/L
 Sample type: 0.23134
 Blank



18O2-PFHxS
 RT (Exp. RT): 403.0 -> 83.9
 Calc. conc. 1.690 (1.690)
 Area ratio: 120.36 µg/L
 Sample type: 0.04704
 Blank

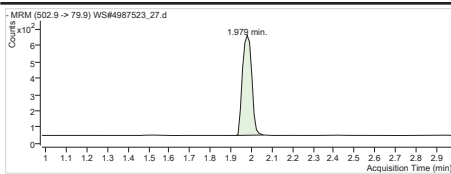
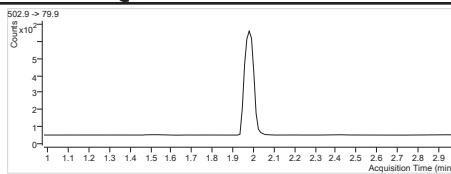


13C4-PFHpA
 RT (Exp. RT): 367.0 -> 321.9
 Calc. conc. 1.691 (1.691)
 Area ratio: 115.76 µg/L
 Sample type: 0.26943
 Blank

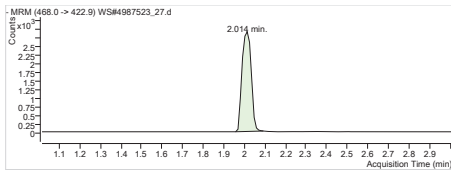
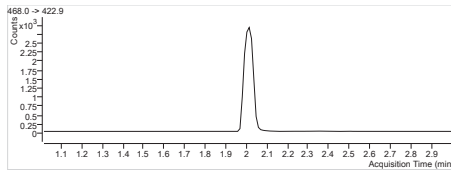


13C4-PFOA
 RT (Exp. RT): 417.0 -> 371.9
 Calc. conc. 1.869 (1.881)
 Area ratio: 113.88 µg/L
 Sample type: 0.25992
 Blank

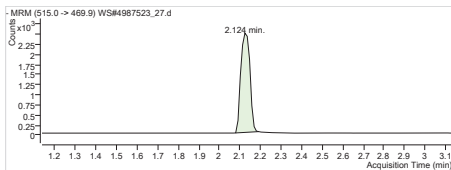
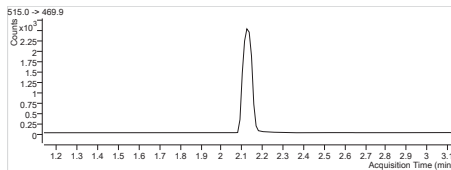
Quantitation Results



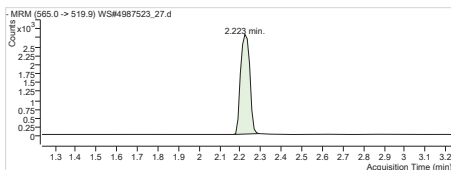
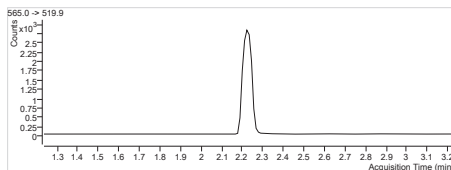
13C4-PFOS
RT (Exp. RT): 502.9 -> 79.9
Calc. conc. 1.979 (1.979)
Area ratio: 109.27 µg/L
Sample type: 0.05230
Blank



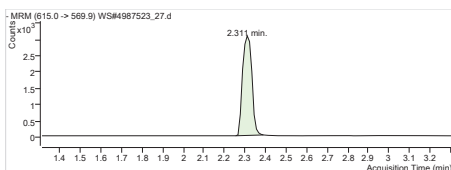
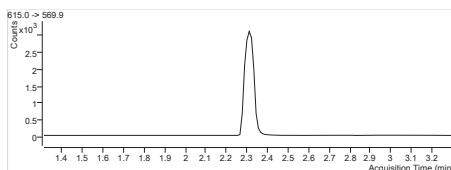
13C5-PFNA
RT (Exp. RT): 468.0 -> 422.9
Calc. conc. 2.014 (2.014)
Area ratio: 109.10 µg/L
Sample type: 0.24268
Blank



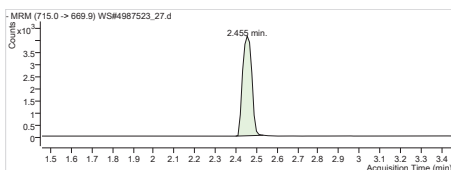
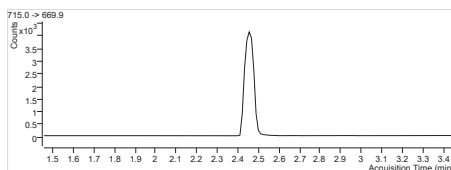
13C2-PFDA
RT (Exp. RT): 515.0 -> 469.9
Calc. conc. 2.124 (2.135)
Area ratio: 105.42 µg/L
Sample type: 0.23900
Blank



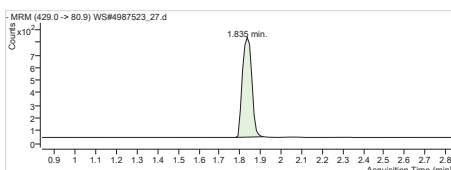
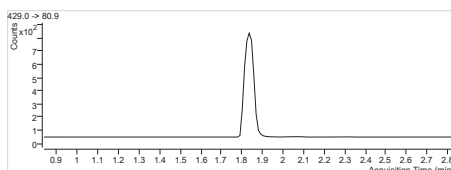
13C2-PFUnA
RT (Exp. RT): 565.0 -> 519.9
Calc. conc. 2.223 (2.234)
Area ratio: 110.64 µg/L
Sample type: 0.27099
Blank



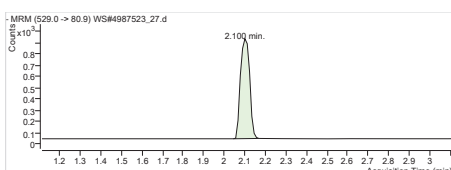
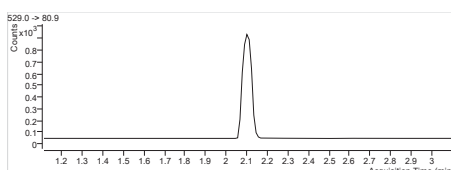
13C2-PFDoA
RT (Exp. RT): 615.0 -> 569.9
Calc. conc. 2.311 (2.311)
Area ratio: 109.11 µg/L
Sample type: 0.30069
Blank



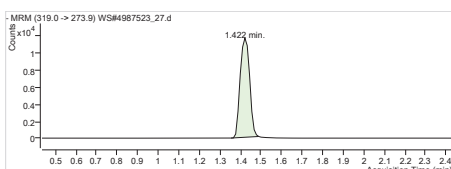
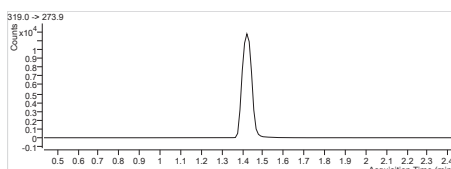
13C2-PFTeDA
RT (Exp. RT): 715.0 -> 669.9
Calc. conc. 2.455 (2.455)
Area ratio: 114.55 µg/L
Sample type: 0.39908
Blank



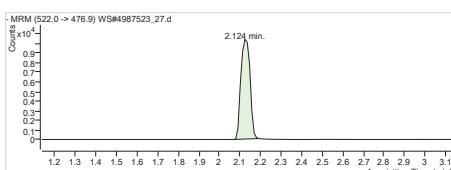
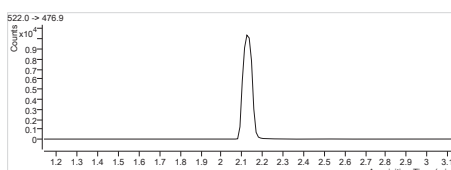
13C2-6:2-FTS
RT (Exp. RT): 429.0 -> 80.9
Calc. conc. 1.835 (1.835)
Area ratio: 122.03 µg/L
Sample type: 0.06757
Blank



13C2-8:2 FTS
RT (Exp. RT): 529.0 -> 80.9
Calc. conc. 2.100 (2.112)
Area ratio: 124.53 µg/L
Sample type: 0.07434
Blank



13C6-PFHxA
RT (Exp. RT): 319.0 -> 273.9
Calc. conc. 1.422 (1.434)
Area ratio: 2.28 µg/L
Sample type: 0
Blank

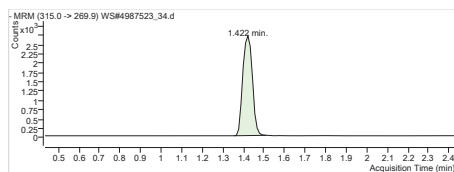
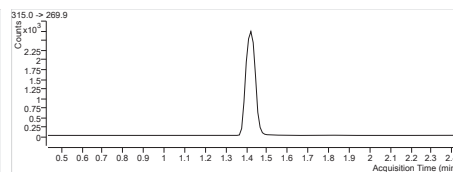


13C9-PFDA
RT (Exp. RT): 522.0 -> 476.9
Calc. conc. 2.124 (2.135)
Area ratio: 2.33 µg/L
Sample type: 0
Blank

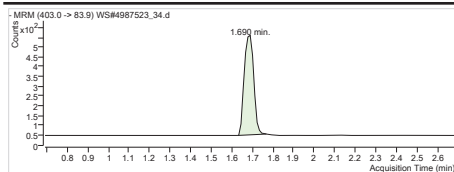
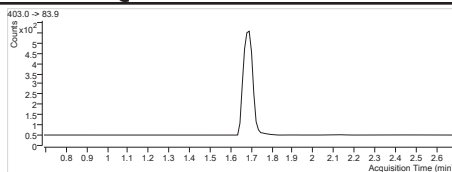
Batch Path	T:\lcms4\PFC\20170523\WS#4987523\QuantResults\PFC_Water_Low_170523_WS#4987523_CT		
Sample Name	IB1	Instrument	LCMS04
Data File	WS#4987523_34.d	Operator	AD
Sample Type	Blank	Dilution	0.024
Acq. Method	PFC_Water_Low.m	Position	P1-A8
Acq. Date	2017/05/23 12:22:24 PM	Injection Volume	Per Method
Sample Annotation	-		

ISTD Compounds	Response	RT	Target conc.		
MPFHxA	8711	1.42	1 µg/L		
MPFHxS	1645	1.69	1 µg/L		
MPFHpA	9685	1.69	1 µg/L		
MPFOA	8861	1.87	1 µg/L		
MPFOS	2093	1.98	1 µg/L		
MPFNA	8337	2.01	1 µg/L		
MPFDA	7974	2.12	1 µg/L		
MPFUnA	8795	2.22	1 µg/L		
MPFDoA	10146	2.31	1 µg/L		
MPFTeDA	11696	2.46	1 µg/L		
M2 6:2 FTS	2566	1.84	1 µg/L		
M2 8:2 FTS	2602	2.10	1 µg/L		
13C6-PFHxA IS	37552	1.42	1 µg/L		
13C9-PFDA IS	32989	2.12	1 µg/L		

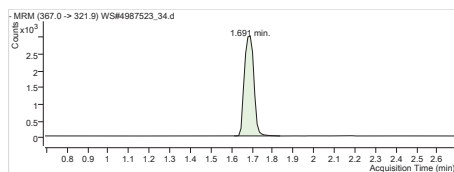
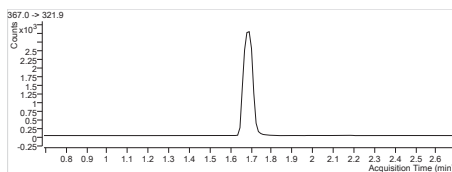
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1			-	ND	-
PFHxA 1			-	ND	-
PFHxS 1			-	ND	-
PFHpA 1			-	ND	-
PFOA 1			-	ND	-
PFOS 1			-	ND	-
PFNA 1			-	ND	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDaA 1			-	ND	-
PFTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
6:2-FTS 1			-	ND	-
8:2-FTS 1			-	ND	-
13C2-PFHxA	8711	1.42	-	104.30 µg/L	-
18O2-PFHxS	1645	1.69	-	112.07 µg/L	-
13C4-PFHpA	9685	1.69	-	110.81 µg/L	-
13C4-PFOA	8861	1.87	-	103.38 µg/L	-
13C4-PFOS	2093	1.98	-	116.45 µg/L	-
13C5-PFNA	8337	2.01	-	99.81 µg/L	-
13C2-PFDA	7974	2.12	-	106.62 µg/L	-
13C2-PFUnA	8795	2.22	-	108.85 µg/L	-
13C2-PFDoA	10146	2.31	-	111.60 µg/L	-
13C2-PFTeDA	11696	2.46	-	101.76 µg/L	-
13C2-6:2-FTS	2566	1.84	-	123.40 µg/L	-
13C2-8:2 FTS	2602	2.10	-	116.08 µg/L	-
13C6-PFHxA	37552	1.42	-	2.31 µg/L	-
13C9-PFDA	32989	2.12	-	2.40 µg/L	-



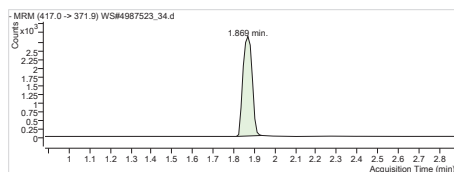
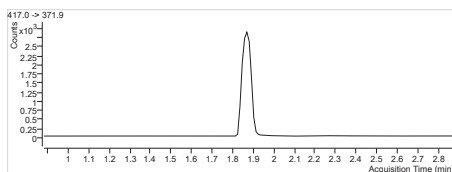
MPFHxA Internal Standard
 RT (Exp. RT): 1.422 (1.434)
 Concentration: 1 µg/L
 Sample type: Blank



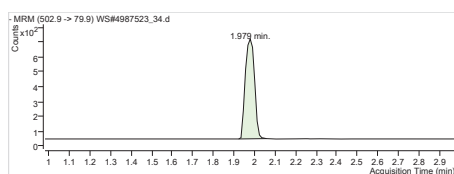
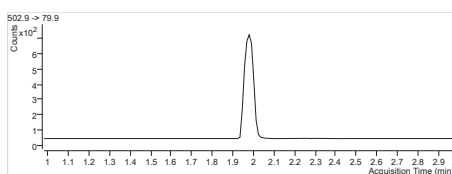
MPFHxS
 RT (Exp. RT): 1.690 (1.690)
 Concentration: 1 µg/L
 Sample type: Blank



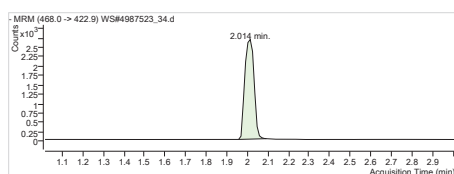
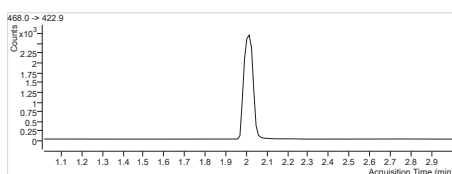
MPFHpA
 RT (Exp. RT): 1.691 (1.691)
 Concentration: 1 µg/L
 Sample type: Blank



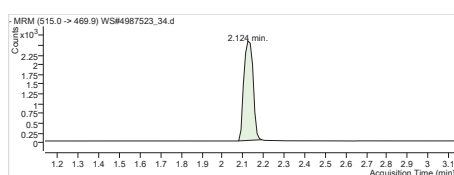
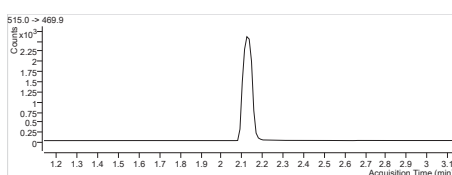
MPFOA
 RT (Exp. RT): 1.869 (1.881)
 Concentration: 1 µg/L
 Sample type: Blank



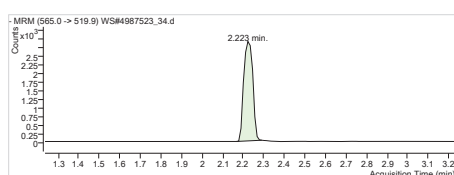
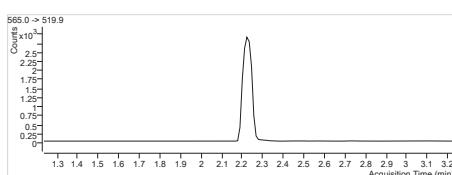
MPFOS
 RT (Exp. RT): 1.979 (1.979)
 Concentration: 1 µg/L
 Sample type: Blank



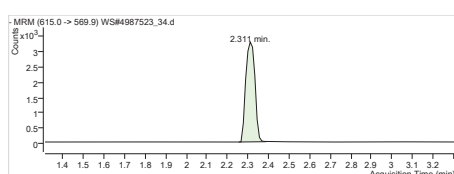
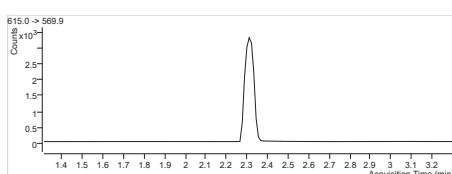
MPFNA
 RT (Exp. RT): 2.014 (2.014)
 Concentration: 1 µg/L
 Sample type: Blank



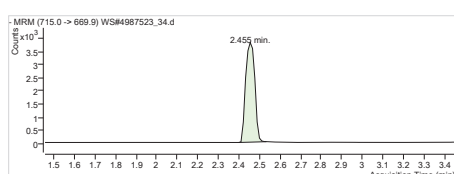
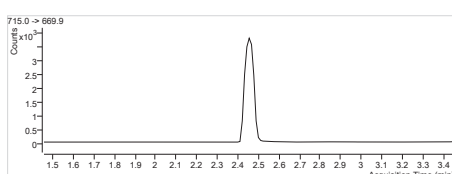
MPFDA
 RT (Exp. RT): 2.124 (2.135)
 Concentration: 1 µg/L
 Sample type: Blank



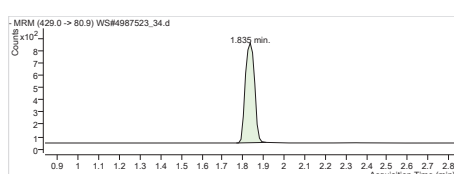
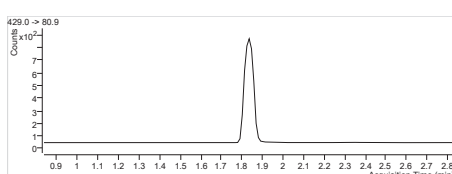
MPFUnA
 RT (Exp. RT): 2.223 (2.234)
 Concentration: 1 µg/L
 Sample type: Blank



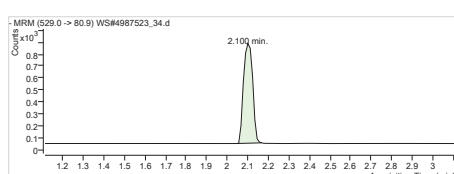
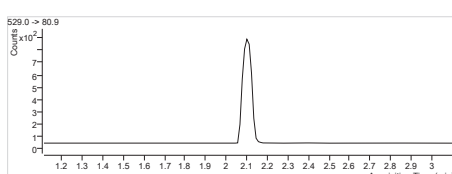
MPFDoA
 RT (Exp. RT): 2.311 (2.311)
 Concentration: 1 µg/L
 Sample type: Blank



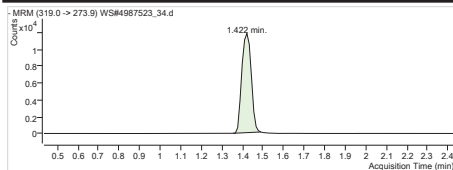
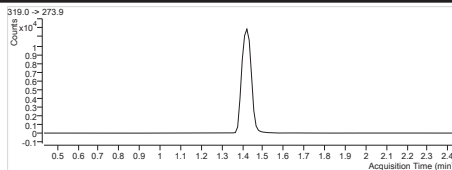
MPFTeDA
 RT (Exp. RT): 2.455 (2.455)
 Concentration: 1 µg/L
 Sample type: Blank



M2 6:2 FTS
 RT (Exp. RT): 1.835 (1.835)
 Concentration: 1 µg/L
 Sample type: Blank



M2 8:2 FTS
 RT (Exp. RT): 2.100 (2.112)
 Concentration: 1 µg/L
 Sample type: Blank

**13C6-PFHxA IS**

RT (Exp. RT):

Concentration:

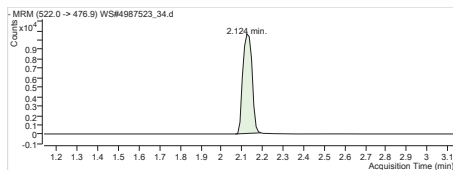
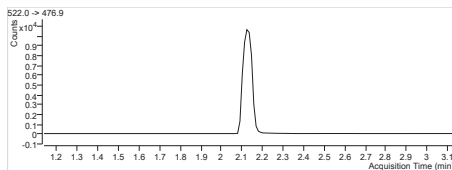
Sample type:

Internal Standard

1.422 (1.434)

1 µg/L

Blank

**13C9-PFDA IS**

RT (Exp. RT):

Concentration:

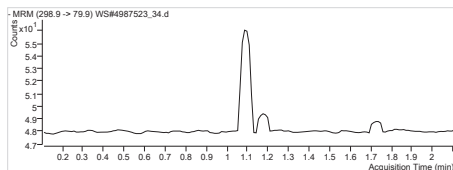
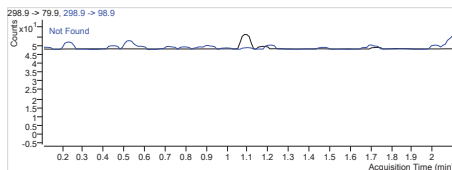
Sample type:

Internal Standard

2.124 (2.135)

1 µg/L

Blank

**PFBS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

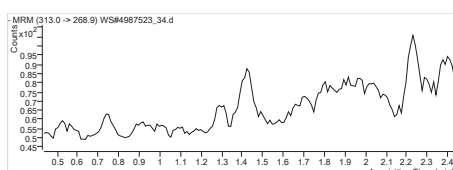
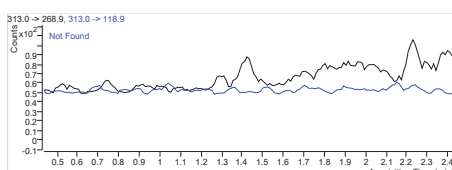
298.9 -> 79.9

0.000 (1.109)

N.D.

0

Blank

**PFHxA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

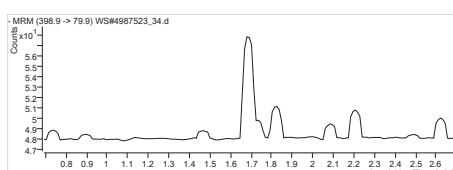
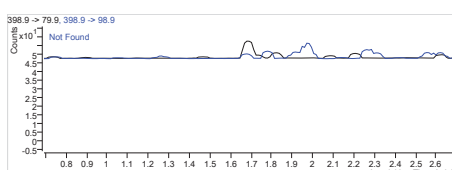
313.0 -> 268.9

0.000 (1.434)

N.D.

0

Blank

**PFHxS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

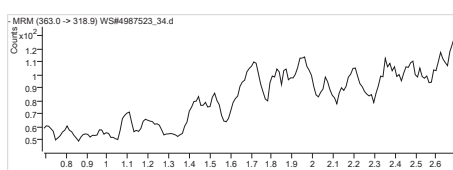
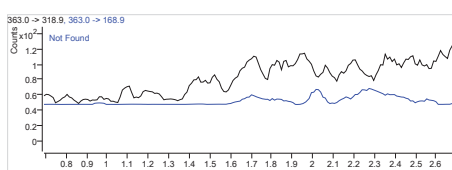
398.9 -> 79.9

0.000 (1.691)

N.D.

0

Blank

**PFHpA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

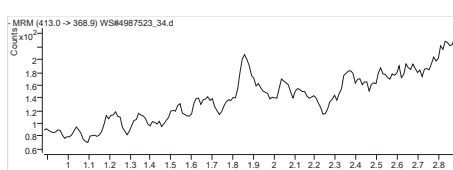
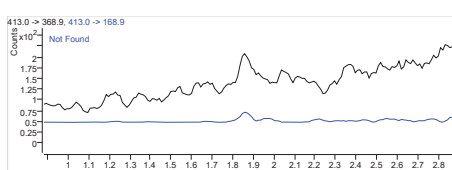
363.0 -> 318.9

0.000 (1.691)

N.D.

0

Blank

**PFOA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

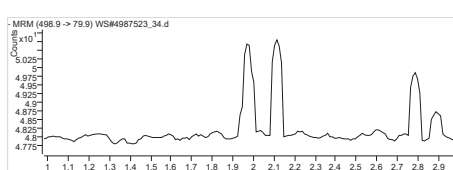
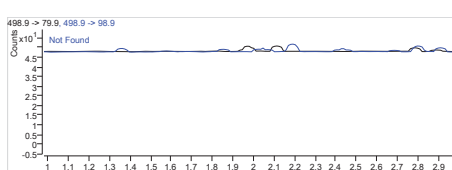
413.0 -> 368.9

0.000 (1.881)

N.D.

0

Blank

**PFOS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

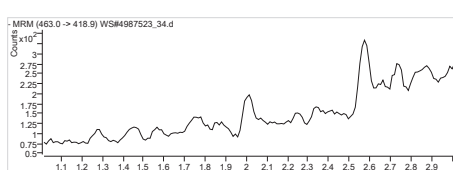
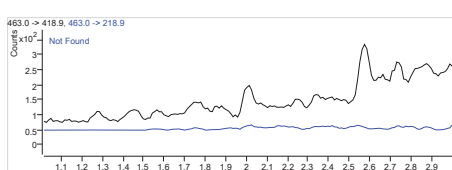
498.9 -> 79.9

0.000 (1.979)

N.D.

0

Blank

**PFNA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

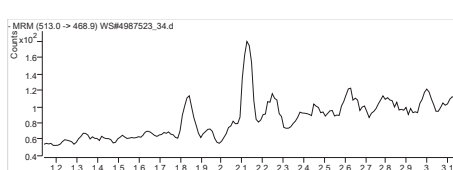
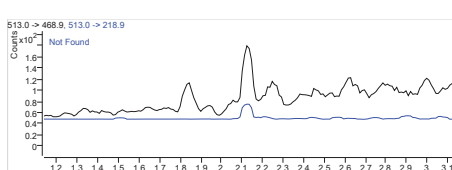
463.0 -> 418.9

0.000 (2.014)

N.D.

0

Blank

**PFDA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

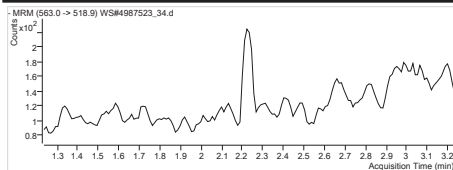
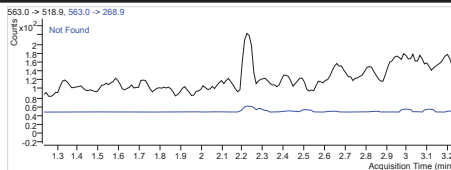
513.0 -> 468.9

0.000 (2.135)

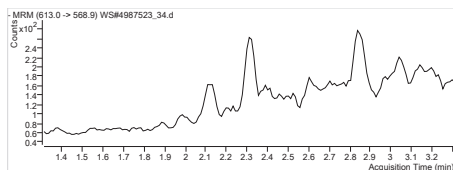
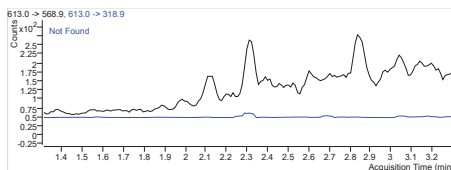
N.D.

0

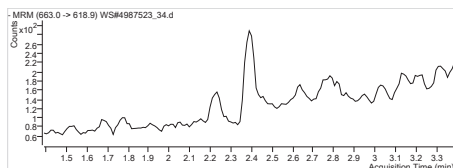
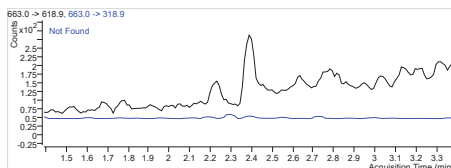
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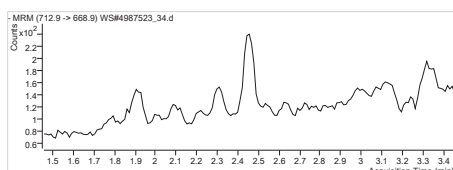
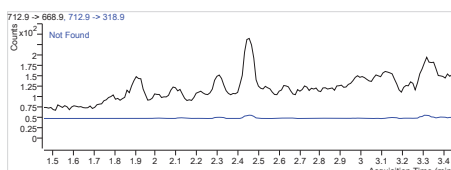
PFUnA 1
 RT (Exp. RT): 563.0 -> 518.9
 Calc. conc. 0.000 (2.234)
 Area ratio: N.D.
 Sample type: 0
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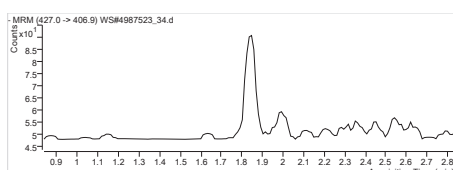
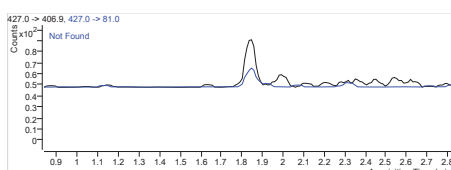
PFDa 1
 RT (Exp. RT): 613.0 -> 568.9
 Calc. conc. 0.000 (2.311)
 Area ratio: N.D.
 Sample type: 0
 Blank



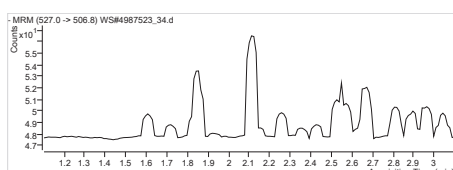
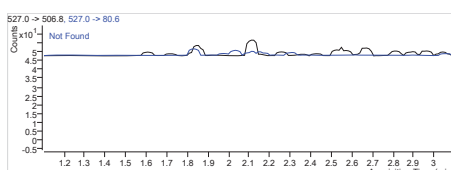
PFTraD 1
 RT (Exp. RT): 663.0 -> 618.9
 Calc. conc. 0.000 (2.389)
 Area ratio: N.D.
 Sample type: 0
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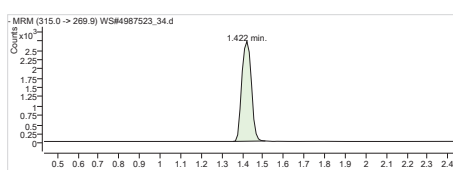
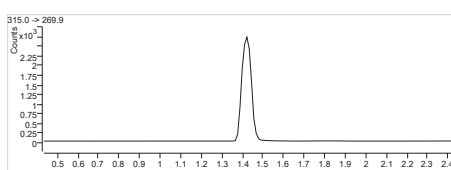
PFTeDa 1
 RT (Exp. RT): 712.9 -> 668.9
 Calc. conc. 0.000 (2.456)
 Area ratio: N.D.
 Sample type: 0
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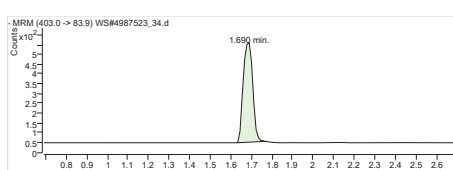
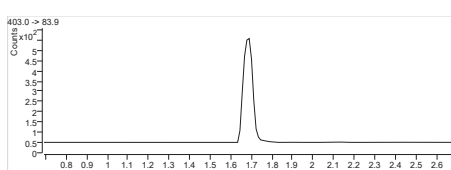
6:2-FTS 1
 RT (Exp. RT): 427.0 -> 406.9
 Calc. conc. 0.000 (1.835)
 Area ratio: N.D.
 Sample type: 0
 Blank



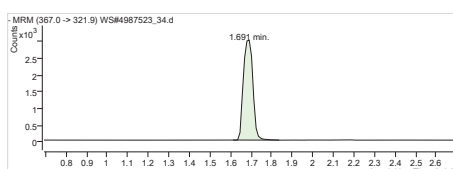
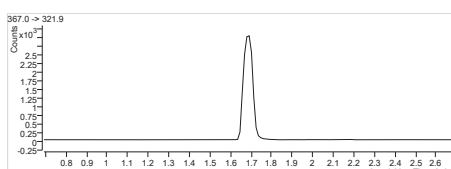
8:2-FTS 1
 RT (Exp. RT): 527.0 -> 506.8
 Calc. conc. 0.000 (2.101)
 Area ratio: N.D.
 Sample type: 0
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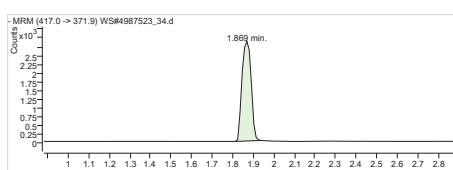
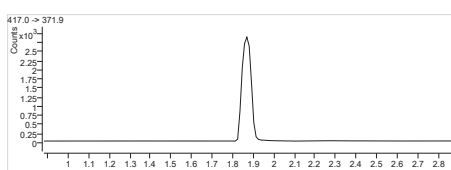
13C2-PFHxA
 RT (Exp. RT): 315.0 -> 269.9
 Calc. conc. 1.422 (1.434)
 Area ratio: 104.30 µg/L
 Sample type: 0.23197
 Blank



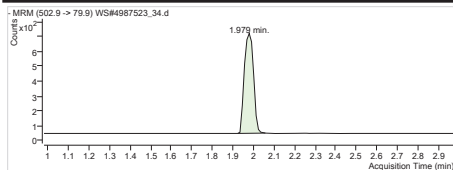
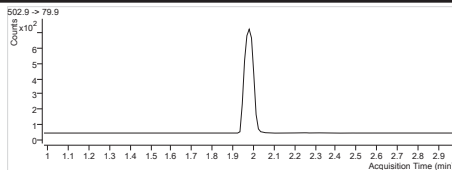
18O2-PFHxS
 RT (Exp. RT): 403.0 -> 83.9
 Calc. conc. 1.690 (1.690)
 Area ratio: 112.07 µg/L
 Sample type: 0.04381
 Blank



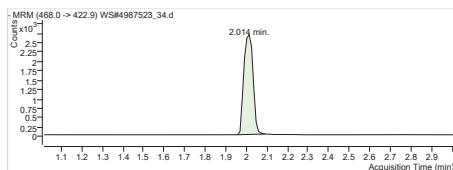
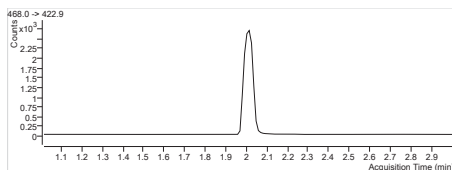
13C4-PFHpA
 RT (Exp. RT): 367.0 -> 321.9
 Calc. conc. 1.691 (1.691)
 Area ratio: 110.81 µg/L
 Sample type: 0.25791
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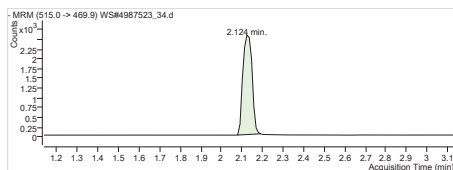
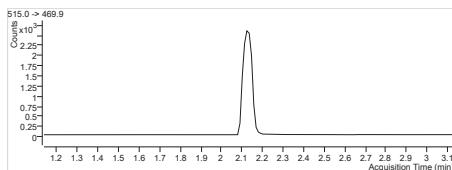
13C4-PFOA
 RT (Exp. RT): 417.0 -> 371.9
 Calc. conc. 1.869 (1.881)
 Area ratio: 103.38 µg/L
 Sample type: 0.23597
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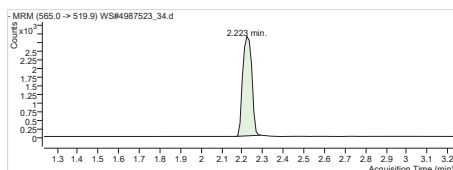
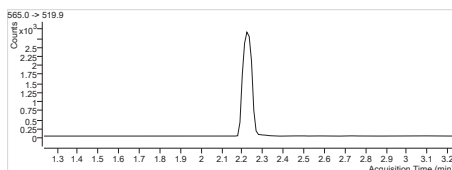
13C4-PFOS
 RT (Exp. RT): 502.9 -> 79.9
 Calc. conc. 1.979 (1.979)
 Area ratio: 116.45 µg/L
 Sample type: 0.05574
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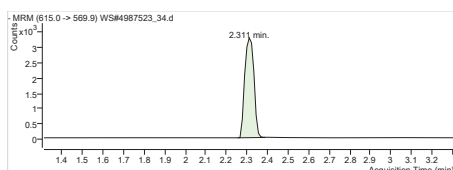
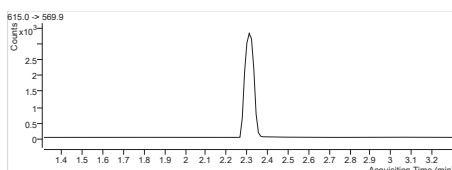
13C5-PFNA
 RT (Exp. RT): 468.0 -> 422.9
 Calc. conc. 2.014 (2.014)
 Area ratio: 99.81 µg/L
 Sample type: 0.22201
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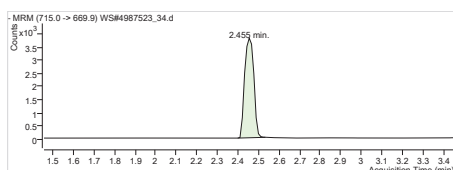
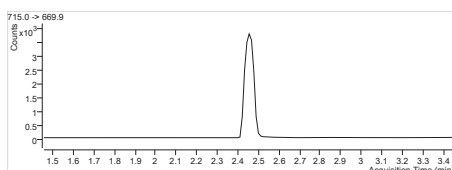
13C2-PFDA
 RT (Exp. RT): 515.0 -> 469.9
 Calc. conc. 2.124 (2.135)
 Area ratio: 106.62 µg/L
 Sample type: 0.24172
 Blank



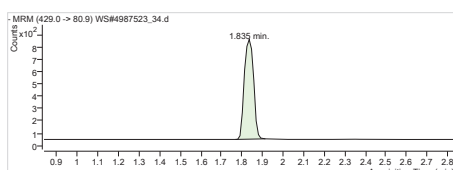
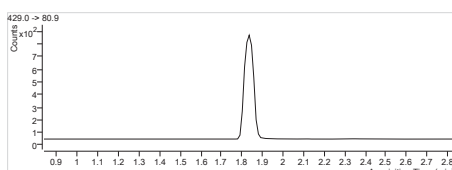
13C2-PFUnA
 RT (Exp. RT): 565.0 -> 519.9
 Calc. conc. 2.223 (2.234)
 Area ratio: 108.85 µg/L
 Sample type: 0.26660
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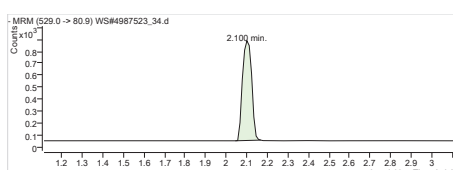
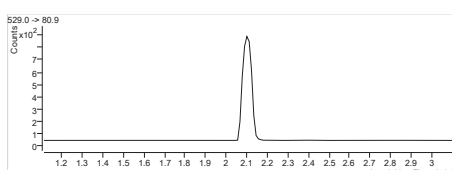
13C2-PFDoA
 RT (Exp. RT): 615.0 -> 569.9
 Calc. conc. 2.311 (2.311)
 Area ratio: 111.60 µg/L
 Sample type: 0.30756
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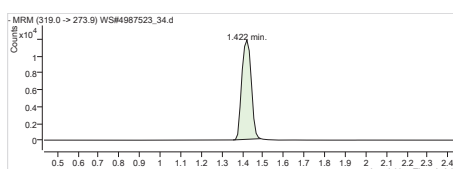
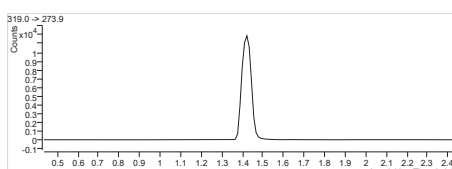
13C2-PFTeDA
 RT (Exp. RT): 715.0 -> 669.9
 Calc. conc. 2.455 (2.455)
 Area ratio: 101.76 µg/L
 Sample type: 0.35454
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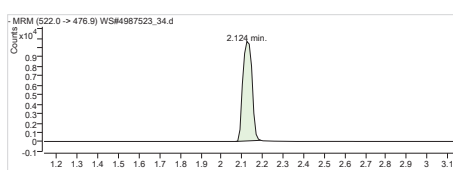
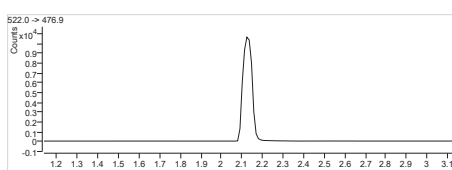
13C2-6:2-FTS
 RT (Exp. RT): 429.0 -> 80.9
 Calc. conc. 1.835 (1.835)
 Area ratio: 123.40 µg/L
 Sample type: 0.06833
 Blank



13C2-8:2 FTS
 RT (Exp. RT): 529.0 -> 80.9
 Calc. conc. 2.100 (2.112)
 Area ratio: 116.08 µg/L
 Sample type: 0.06929
 Blank



13C6-PFHxA
 RT (Exp. RT): 319.0 -> 273.9
 Calc. conc. 1.422 (1.434)
 Area ratio: 2.31 µg/L
 Sample type: 0
 Blank



13C9-PFDA
 RT (Exp. RT): 522.0 -> 476.9
 Calc. conc. 2.124 (2.135)
 Area ratio: 2.40 µg/L
 Sample type: 0
 Blank

Batch Path

T:\lcms4\PFC\20170523\WS#4987523\QuantResults\PFC_Water_Low_170523_WS#4987523_CT

Sample Name

IB1:R

Instrument

LCMS04

Data File

WS#4987523_23_.d

Operator

AD

Sample Type

Blank

Dilution

0.024

Acq. Method

PFC_Water_Low.m

Position

P1-A8

Acq. Date

2017/05/23 1:21:12 PM

Injection Volume

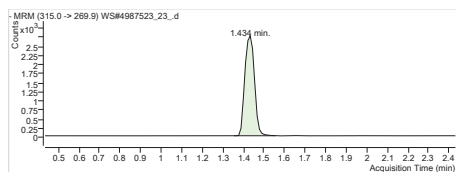
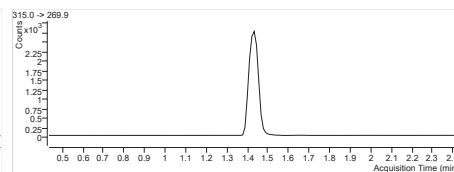
Per Method

Sample Annotation

-

ISTD Compounds	Response	RT	Target conc.		
MPFHxA	8933	1.43	1 µg/L		
MPFHxS	1550	1.69	1 µg/L		
MPFHpA	9368	1.69	1 µg/L		
MPFOA	9369	1.87	1 µg/L		
MPFOS	2082	1.98	1 µg/L		
MPFNA	8987	2.01	1 µg/L		
MPFDA	7811	2.12	1 µg/L		
MPFUnA	8426	2.22	1 µg/L		
MPFDoA	9057	2.31	1 µg/L		
MPFTeDA	12023	2.46	1 µg/L		
M2 6:2 FTS	2420	1.84	1 µg/L		
M2 8:2 FTS	2455	2.10	1 µg/L		
13C6-PFHxA IS	37656	1.43	1 µg/L		
13C9-PFDA IS	32048	2.12	1 µg/L		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1			-	ND	-
PFHxA 1			-	ND	-
PFHxS 1			-	ND	-
PFHpA 1			-	ND	-
PFOA 1			-	ND	-
PFOS 1			-	ND	-
PFNA 1			-	ND	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDaA 1			-	ND	-
PFTeDA 1			-	ND	-
PFTeDA 1			-	ND	-
6:2-FTS 1			-	ND	-
8:2-FTS 1			-	ND	-
13C2-PFHxA	8933	1.43	-	106.66 µg/L	-
18O2-PFHxS	1550	1.69	-	105.31 µg/L	-
13C4-PFHpA	9368	1.69	-	106.88 µg/L	-
13C4-PFOA	9369	1.87	-	109.01 µg/L	-
13C4-PFOS	2082	1.98	-	115.52 µg/L	-
13C5-PFNA	8987	2.01	-	107.29 µg/L	-
13C2-PFDA	7811	2.12	-	107.51 µg/L	-
13C2-PFUnA	8426	2.22	-	107.34 µg/L	-
13C2-PFDoA	9057	2.31	-	102.54 µg/L	-
13C2-PFTeDA	12023	2.46	-	107.68 µg/L	-
13C2-6:2-FTS	2420	1.84	-	116.06 µg/L	-
13C2-8:2 FTS	2455	2.10	-	109.22 µg/L	-
13C6-PFHxA	37656	1.43	-	2.31 µg/L	-
13C9-PFDA	32048	2.12	-	2.33 µg/L	-



MPFHxA

Internal Standard

RT (Exp. RT):

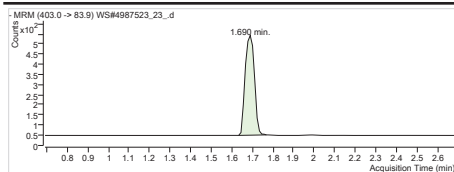
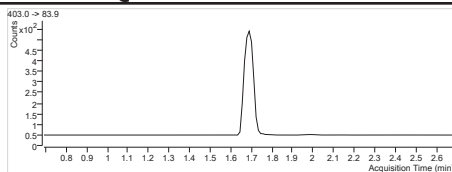
1.434 (1.434)

Concentration:

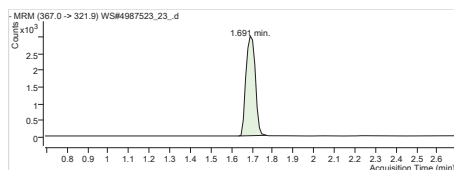
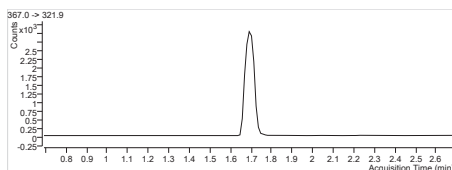
1 µg/L

Sample type:

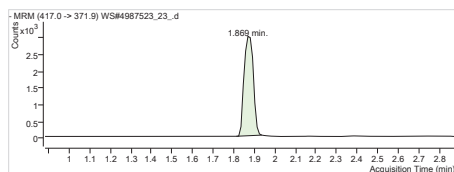
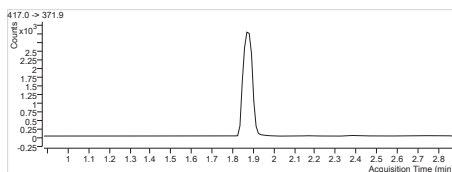
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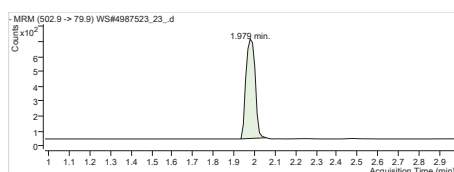
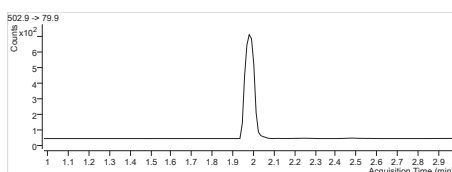
MPFHxS
 RT (Exp. RT): 1.690 (1.690)
 Concentration: 1 µg/L
 Sample type: Blank



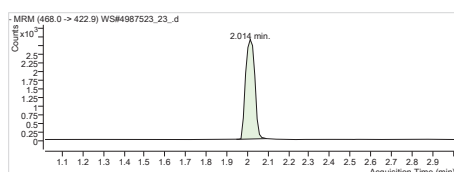
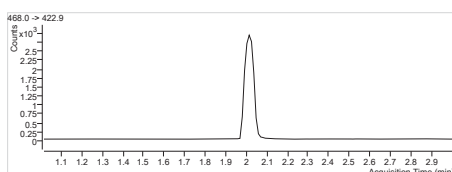
MPFHpA
 RT (Exp. RT): 1.691 (1.691)
 Concentration: 1 µg/L
 Sample type: Blank



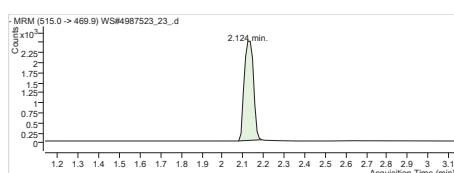
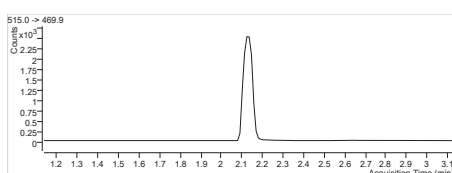
MPFOA
 RT (Exp. RT): 1.869 (1.881)
 Concentration: 1 µg/L
 Sample type: Blank



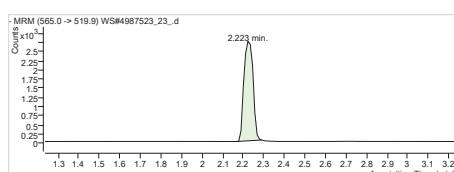
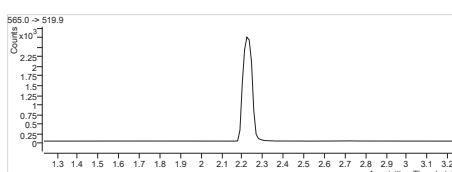
MPFOS
 RT (Exp. RT): 1.979 (1.979)
 Concentration: 1 µg/L
 Sample type: Blank



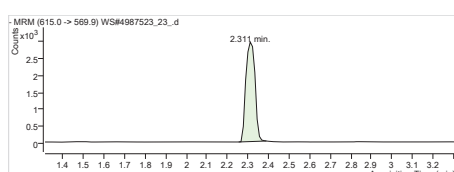
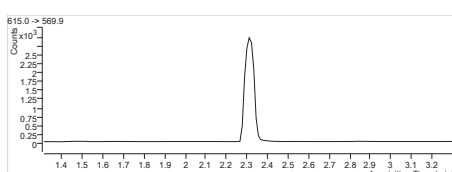
MPFNA
 RT (Exp. RT): 2.014 (2.014)
 Concentration: 1 µg/L
 Sample type: Blank



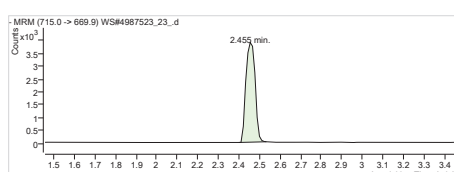
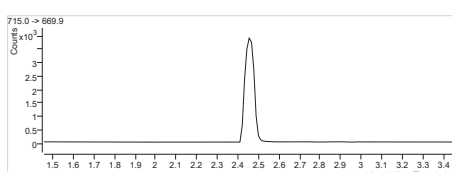
MPFDA
 RT (Exp. RT): 2.124 (2.135)
 Concentration: 1 µg/L
 Sample type: Blank



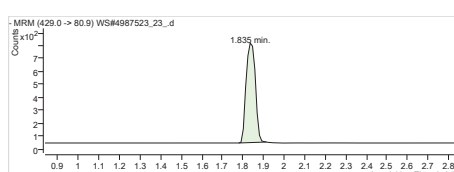
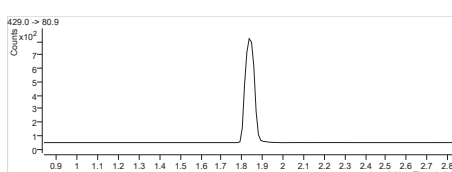
MPFUnA
 RT (Exp. RT): 2.223 (2.234)
 Concentration: 1 µg/L
 Sample type: Blank



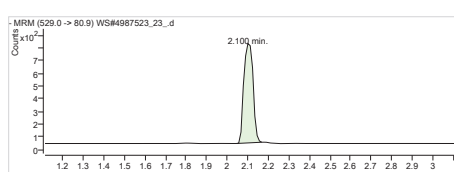
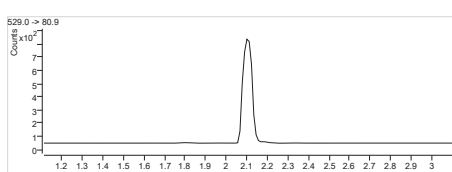
MPFDoA
 RT (Exp. RT): 2.311 (2.311)
 Concentration: 1 µg/L
 Sample type: Blank



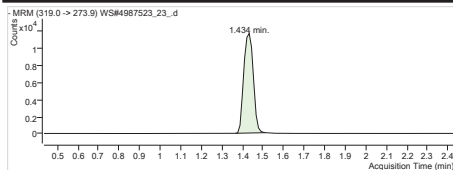
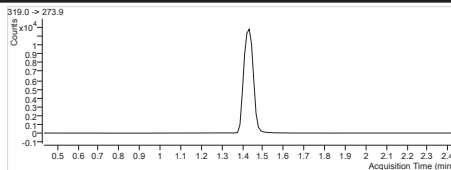
MPFTeDA
 RT (Exp. RT): 2.455 (2.455)
 Concentration: 1 µg/L
 Sample type: Blank



M2 6:2 FTS
 RT (Exp. RT): 1.835 (1.835)
 Concentration: 1 µg/L
 Sample type: Blank



M2 8:2 FTS
 RT (Exp. RT): 2.100 (2.112)
 Concentration: 1 µg/L
 Sample type: Blank

**13C6-PFHxA IS**

RT (Exp. RT):

Concentration:

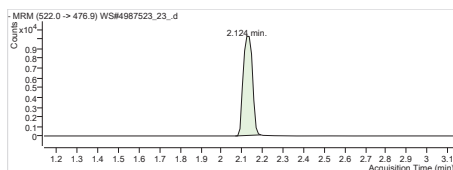
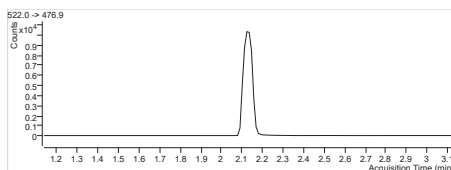
Sample type:

Internal Standard

1.434 (1.434)

1 µg/L

Blank

**13C9-PFDA IS**

RT (Exp. RT):

Concentration:

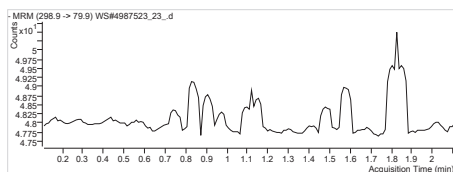
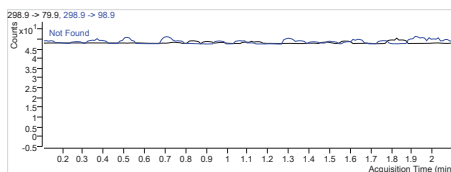
Sample type:

Internal Standard

2.124 (2.135)

1 µg/L

Blank

**PFBS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

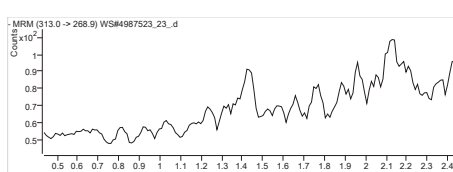
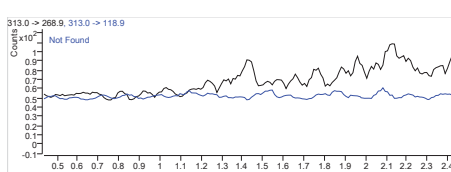
298.9 -> 79.9

0.000 (1.109)

N.D.

0

Blank

**PFHxA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

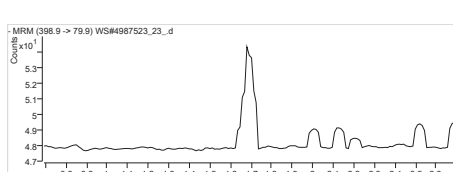
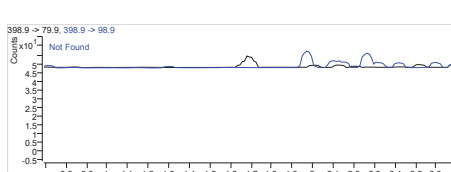
313.0 -> 268.9

0.000 (1.434)

N.D.

0

Blank

**PFHxS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

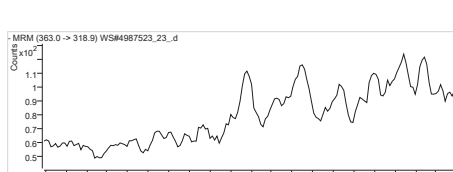
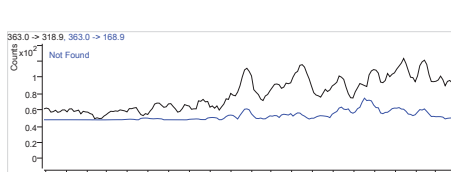
398.9 -> 79.9

0.000 (1.691)

N.D.

0

Blank

**PFHpA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

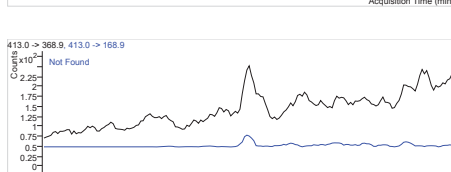
363.0 -> 318.9

0.000 (1.691)

N.D.

0

Blank

**PFOA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

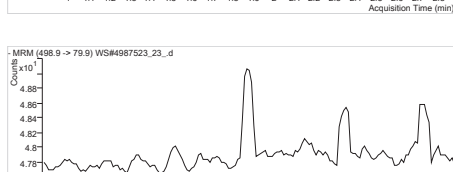
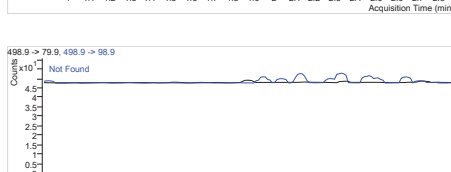
413.0 -> 368.9

0.000 (1.881)

N.D.

0

Blank

**PFOS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

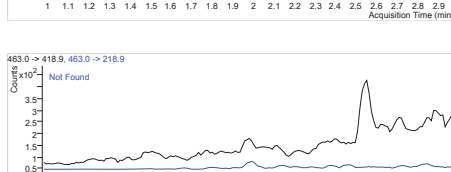
498.9 -> 79.9

0.000 (1.979)

N.D.

0

Blank

**PFNA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

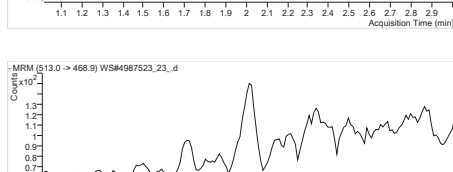
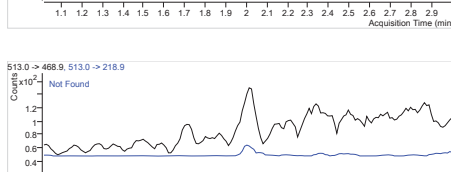
463.0 -> 418.9

0.000 (2.014)

N.D.

0

Blank

**PFDA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

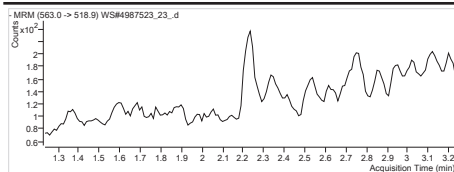
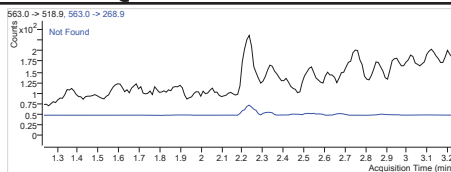
513.0 -> 468.9

0.000 (2.135)

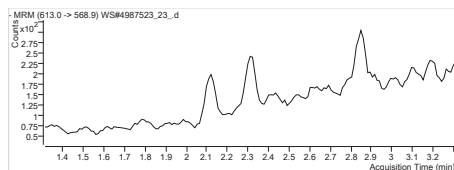
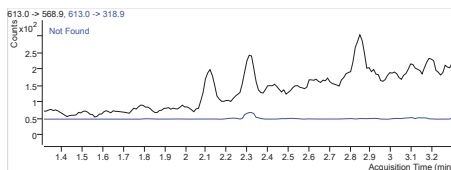
N.D.

0

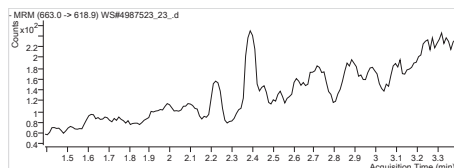
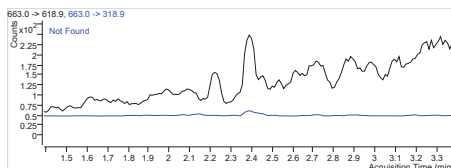
Blank



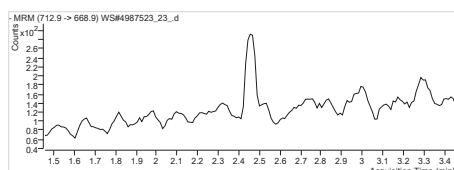
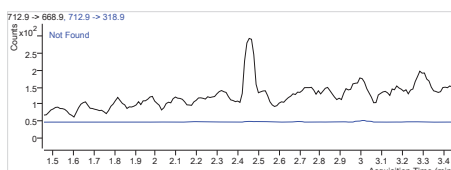
PFUnA 1
 RT (Exp. RT): 563.0 -> 518.9
 Calc. conc. 0.000 (2.234)
 Area ratio: N.D.
 Sample type: 0
 Blank



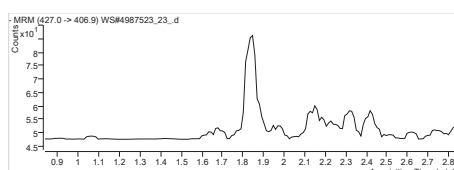
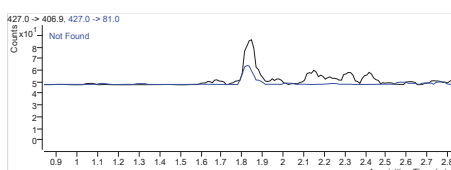
PFDa 1
 RT (Exp. RT): 613.0 -> 568.9
 Calc. conc. 0.000 (2.311)
 Area ratio: N.D.
 Sample type: 0
 Blank



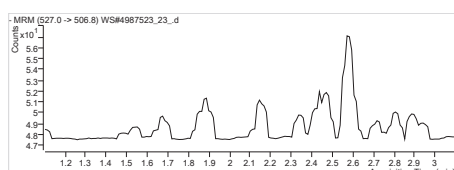
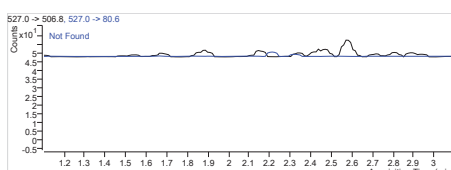
PFTraD 1
 RT (Exp. RT): 663.0 -> 618.9
 Calc. conc. 0.000 (2.389)
 Area ratio: N.D.
 Sample type: 0
 Blank



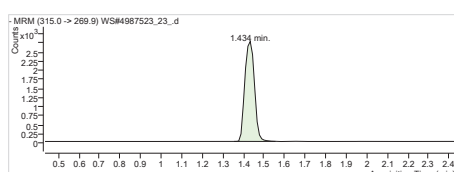
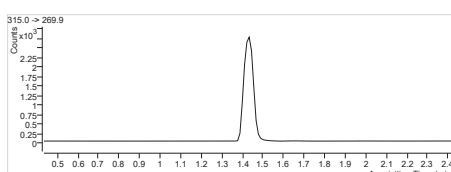
PFTeDa 1
 RT (Exp. RT): 712.9 -> 668.9
 Calc. conc. 0.000 (2.456)
 Area ratio: N.D.
 Sample type: 0
 Blank



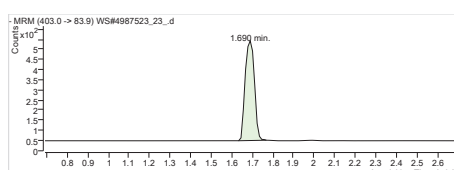
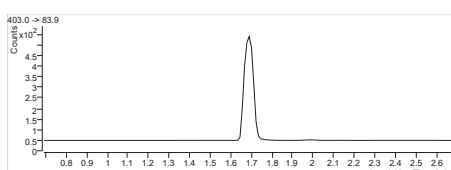
6:2-FTS 1
 RT (Exp. RT): 427.0 -> 406.9
 Calc. conc. 0.000 (1.835)
 Area ratio: N.D.
 Sample type: 0
 Blank



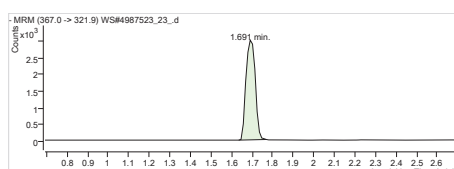
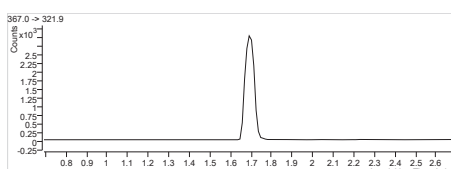
8:2-FTS 1
 RT (Exp. RT): 527.0 -> 506.8
 Calc. conc. 0.000 (2.101)
 Area ratio: N.D.
 Sample type: 0
 Blank



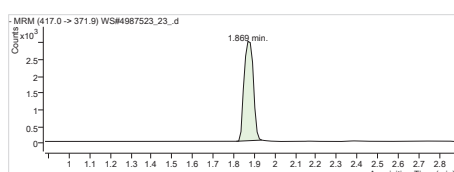
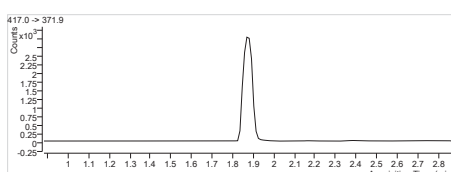
13C2-PFHxA
 RT (Exp. RT): 315.0 -> 269.9
 Calc. conc. 1.434 (1.434)
 Area ratio: 106.66 µg/L
 Sample type: 0.23723
 Blank



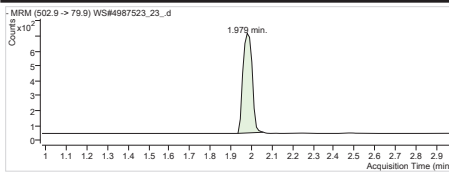
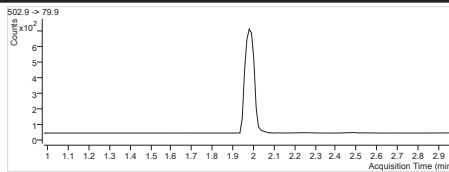
18O2-PFHxS
 RT (Exp. RT): 403.0 -> 83.9
 Calc. conc. 1.690 (1.690)
 Area ratio: 105.31 µg/L
 Sample type: 0.04116
 Blank



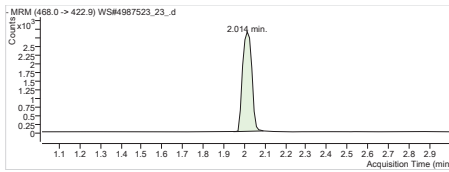
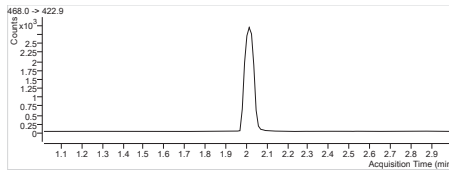
13C4-PFHpA
 RT (Exp. RT): 367.0 -> 321.9
 Calc. conc. 1.691 (1.691)
 Area ratio: 106.88 µg/L
 Sample type: 0.24878
 Blank



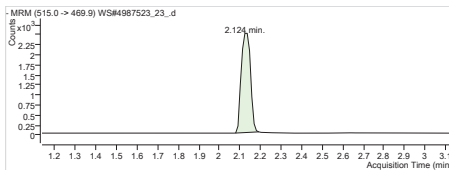
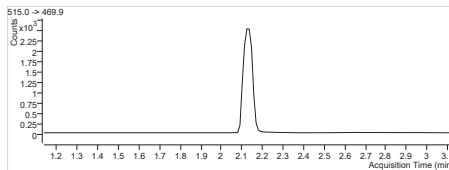
13C4-PFOA
 RT (Exp. RT): 417.0 -> 371.9
 Calc. conc. 1.869 (1.881)
 Area ratio: 109.01 µg/L
 Sample type: 0.24880
 Blank



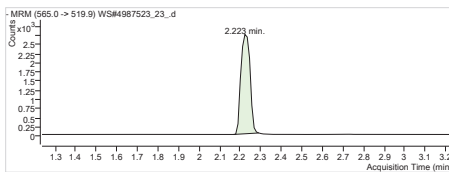
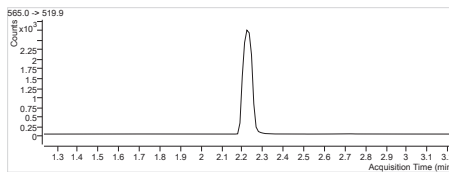
13C4-PFOS
 RT (Exp. RT): 502.9 -> 79.9
 Calc. conc. 1.979 (1.979)
 Area ratio: 115.52 µg/L
 Sample type: 0.05529
 Blank



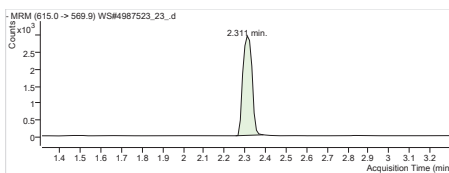
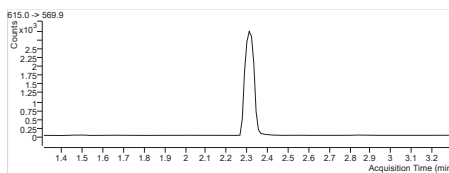
13C5-PFNA
 RT (Exp. RT): 468.0 -> 422.9
 Calc. conc. 2.014 (2.014)
 Area ratio: 107.29 µg/L
 Sample type: 0.23866
 Blank



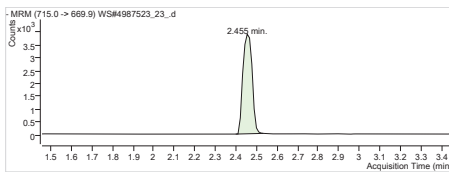
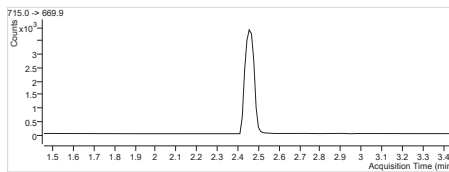
13C2-PFDA
 RT (Exp. RT): 515.0 -> 469.9
 Calc. conc. 2.124 (2.135)
 Area ratio: 107.51 µg/L
 Sample type: 0.24373
 Blank



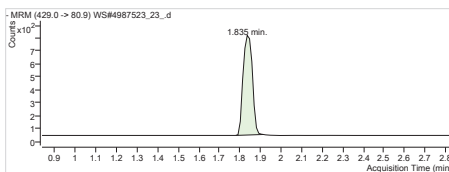
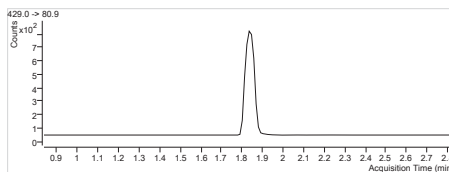
13C2-PFUnA
 RT (Exp. RT): 565.0 -> 519.9
 Calc. conc. 2.223 (2.234)
 Area ratio: 107.34 µg/L
 Sample type: 0.26292
 Blank



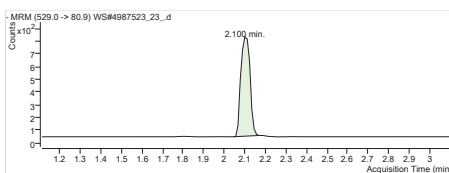
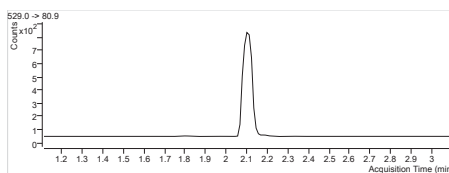
13C2-PFDoA
 RT (Exp. RT): 615.0 -> 569.9
 Calc. conc. 2.311 (2.311)
 Area ratio: 102.54 µg/L
 Sample type: 0.28261
 Blank



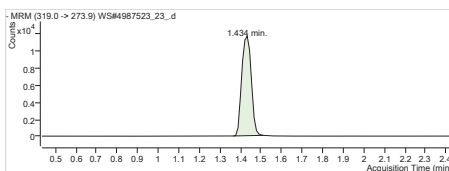
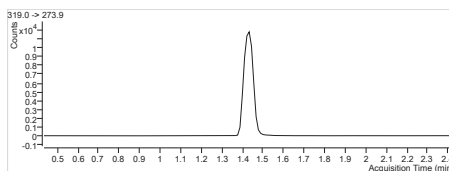
13C2-PFTeDA
 RT (Exp. RT): 715.0 -> 669.9
 Calc. conc. 2.455 (2.455)
 Area ratio: 107.68 µg/L
 Sample type: 0.37516
 Blank



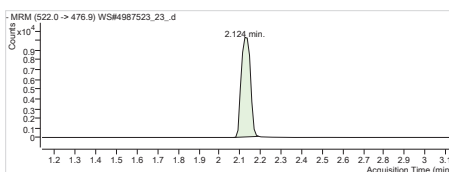
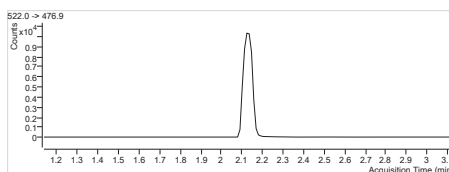
13C2-6:2-FTS
 RT (Exp. RT): 429.0 -> 80.9
 Calc. conc. 1.835 (1.835)
 Area ratio: 116.06 µg/L
 Sample type: 0.06427
 Blank



13C2-8:2 FTS
 RT (Exp. RT): 529.0 -> 80.9
 Calc. conc. 2.100 (2.112)
 Area ratio: 109.22 µg/L
 Sample type: 0.06520
 Blank



13C6-PFHxA
 RT (Exp. RT): 319.0 -> 273.9
 Calc. conc. 1.434 (1.434)
 Area ratio: 2.31 µg/L
 Sample type: 0
 Blank



13C9-PFDA
 RT (Exp. RT): 522.0 -> 476.9
 Calc. conc. 2.124 (2.135)
 Area ratio: 2.33 µg/L
 Sample type: 0
 Blank

Batch Path

T:\lcms4\PFC\20170523\WS#4987523\QuantResults\PFC_Water_Low_170523_WS#4987523_CT

Sample Name

4987523:BLANK

Instrument

LCMS04

Data File

WS#4987523_11.d

Operator

AD

Sample Type

Blank

Dilution

0.024

Acq. Method

PFC_Water_Low.m

Position

P1-B1

Acq. Date

2017/05/23 10:02:37 AM

Injection Volume

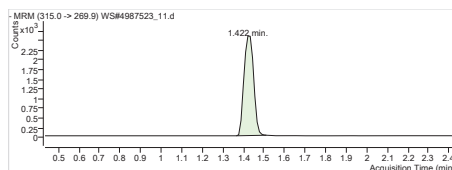
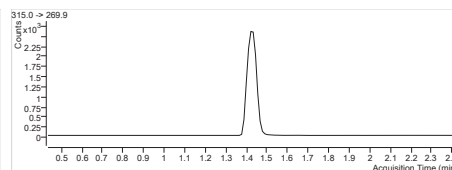
Per Method

Sample Annotation

-

ISTD Compounds	Response	RT	Target conc.		
MPFHxA	8391	1.42	1 µg/L		
MPFHxS	1309	1.69	1 µg/L		
MPFHpA	9594	1.69	1 µg/L		
MPFOA	9169	1.87	1 µg/L		
MPFOS	1995	1.98	1 µg/L		
MPFNA	8418	2.01	1 µg/L		
MPFDA	7097	2.14	1 µg/L		
MPFUnA	7332	2.23	1 µg/L		
MPFDoA	8425	2.31	1 µg/L		
MPFTeDA	10455	2.46	1 µg/L		
M2 6:2 FTS	2218	1.84	1 µg/L		
M2 8:2 FTS	2420	2.11	1 µg/L		
13C6-PFHxA IS	40810	1.42	1 µg/L		
13C9-PFDA IS	34738	2.13	1 µg/L		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1			-	ND	-
PFHxA 1			-	ND	-
PFHxS 1			-	ND	-
PFHpA 1			-	ND	-
PFOA 1			-	ND	-
PFOS 1			-	ND	-
PFNA 1			-	ND	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDaA 1			-	ND	-
PFTeDA 1			-	ND	-
PFTeDA 1			-	ND	-
6:2-FTS 1			-	ND	-
8:2-FTS 1			-	ND	-
13C2-PFHxA	8391	1.42	-	92.44 µg/L	-
18O2-PFHxS	1309	1.69	-	82.06 µg/L	-
13C4-PFHpA	9594	1.69	-	101.00 µg/L	-
13C4-PFOA	9169	1.87	-	98.43 µg/L	-
13C4-PFOS	1995	1.98	-	102.14 µg/L	-
13C5-PFNA	8418	2.01	-	92.73 µg/L	-
13C2-PFDA	7097	2.14	-	90.12 µg/L	-
13C2-PFUnA	7332	2.23	-	86.17 µg/L	-
13C2-PFDoA	8425	2.31	-	88.00 µg/L	-
13C2-PFTeDA	10455	2.46	-	86.38 µg/L	-
13C2-6:2-FTS	2218	1.84	-	98.15 µg/L	-
13C2-8:2 FTS	2420	2.11	-	99.34 µg/L	-
13C6-PFHxA	40810	1.42	-	2.51 µg/L	-
13C9-PFDA	34738	2.13	-	2.53 µg/L	-



MPFHxA

Internal Standard

RT (Exp. RT):

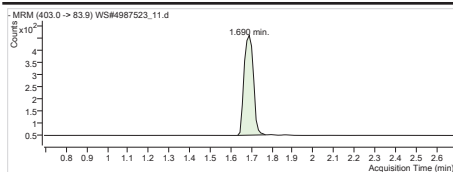
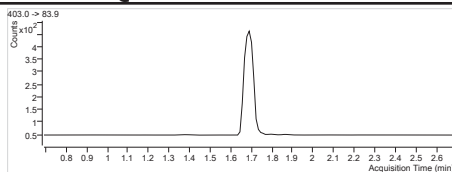
1.422 (1.434)

Concentration:

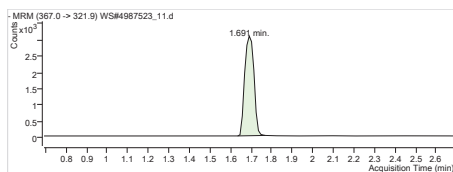
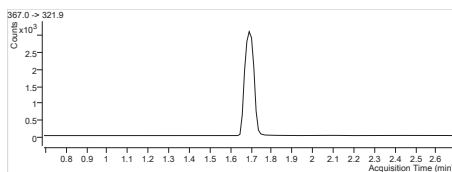
1 µg/L

Sample type:

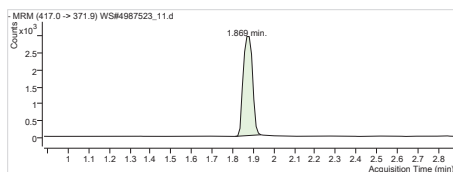
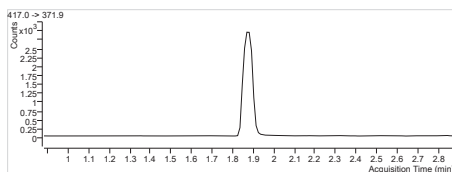
Blank



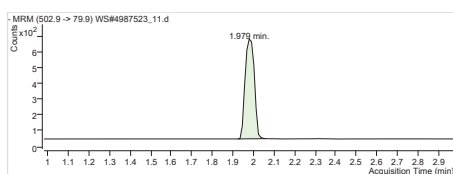
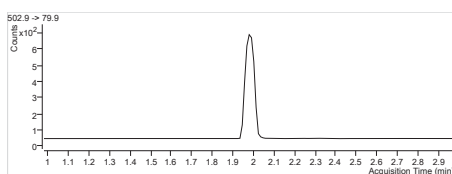
MPFHxS
 RT (Exp. RT): 1.690 (1.690)
 Concentration: 1 µg/L
 Sample type: Blank



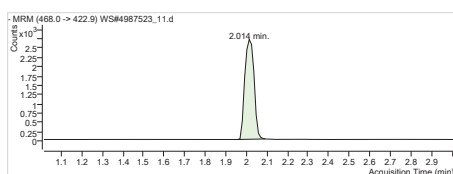
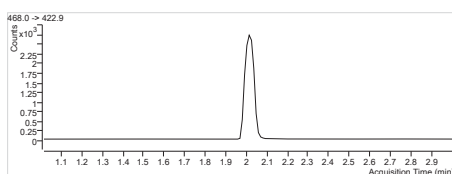
MPFHpA
 RT (Exp. RT): 1.691 (1.691)
 Concentration: 1 µg/L
 Sample type: Blank



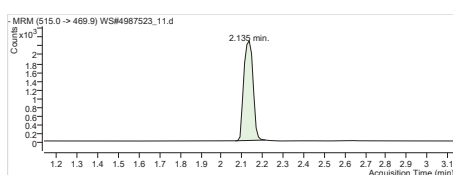
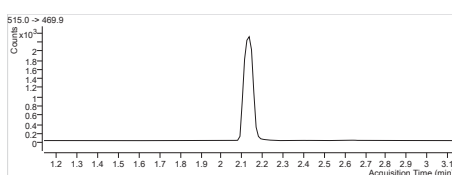
MPFOA
 RT (Exp. RT): 1.869 (1.881)
 Concentration: 1 µg/L
 Sample type: Blank



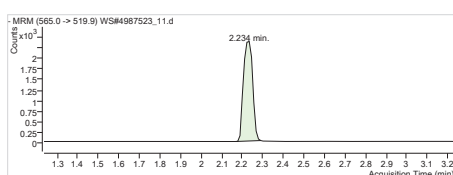
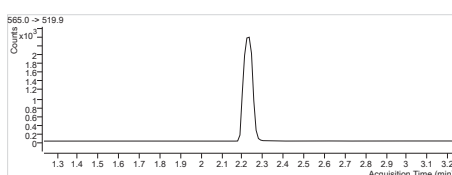
MPFOS
 RT (Exp. RT): 1.979 (1.979)
 Concentration: 1 µg/L
 Sample type: Blank



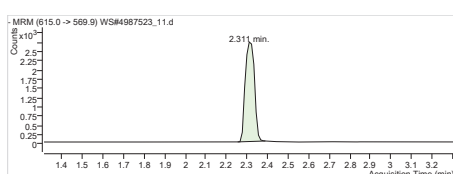
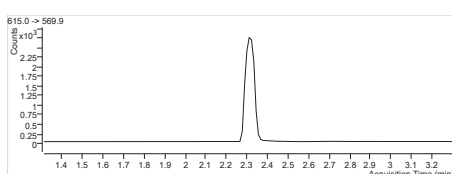
MPFNA
 RT (Exp. RT): 2.014 (2.014)
 Concentration: 1 µg/L
 Sample type: Blank



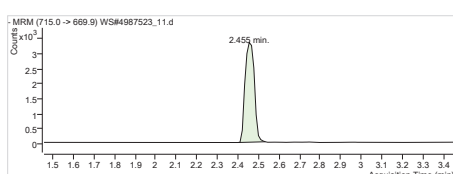
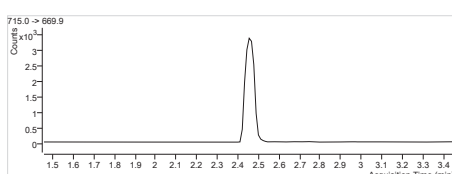
MPFDA
 RT (Exp. RT): 2.135 (2.135)
 Concentration: 1 µg/L
 Sample type: Blank



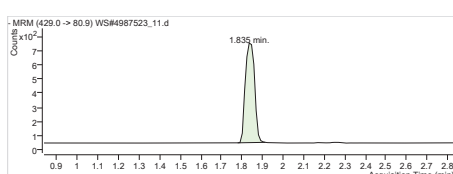
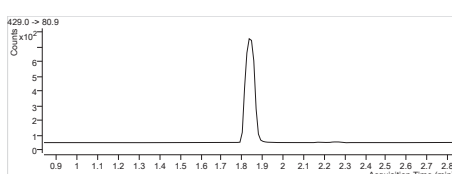
MPFUnA
 RT (Exp. RT): 2.234 (2.234)
 Concentration: 1 µg/L
 Sample type: Blank



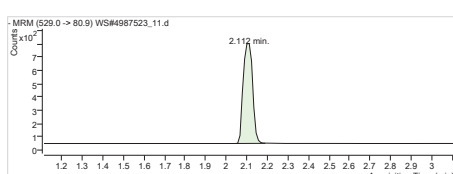
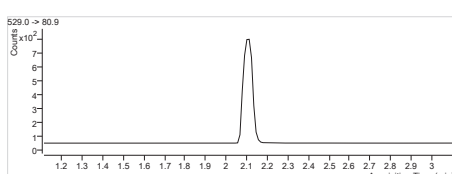
MPFDoA
 RT (Exp. RT): 2.311 (2.311)
 Concentration: 1 µg/L
 Sample type: Blank



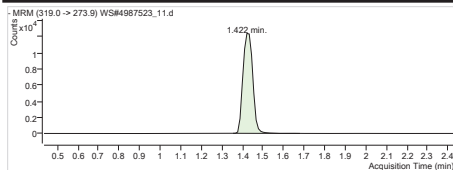
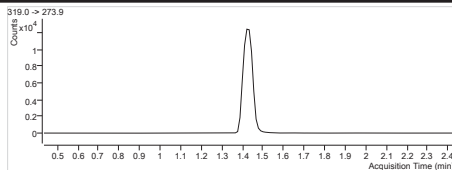
MPFTeDA
 RT (Exp. RT): 2.455 (2.455)
 Concentration: 1 µg/L
 Sample type: Blank



M2 6:2 FTS
 RT (Exp. RT): 1.835 (1.835)
 Concentration: 1 µg/L
 Sample type: Blank



M2 8:2 FTS
 RT (Exp. RT): 2.112 (2.112)
 Concentration: 1 µg/L
 Sample type: Blank

**13C6-PFHxA IS**

RT (Exp. RT):

Concentration:

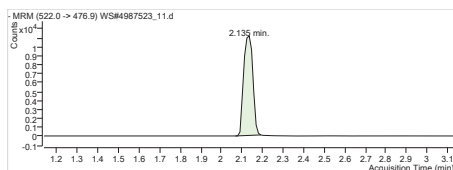
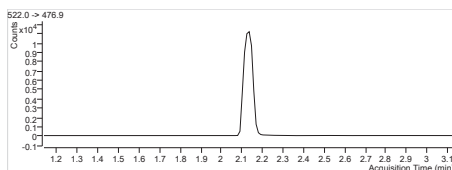
Sample type:

Internal Standard

1.422 (1.434)

1 µg/L

Blank

**13C9-PFDA IS**

RT (Exp. RT):

Concentration:

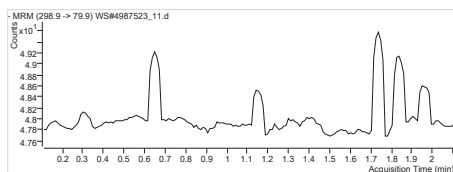
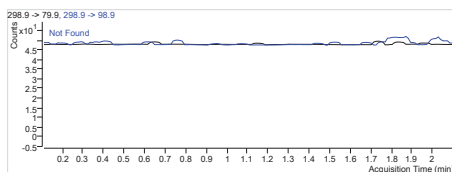
Sample type:

Internal Standard

2.135 (2.135)

1 µg/L

Blank

**PFBS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

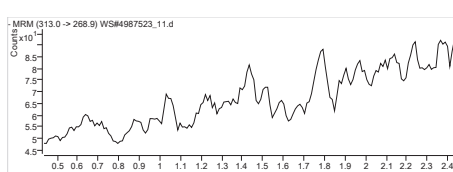
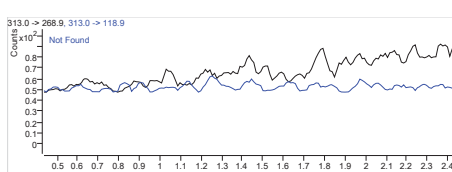
298.9 -> 79.9

0.000 (1.109)

N.D.

0

Blank

**PFHxA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

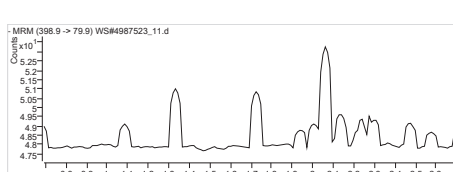
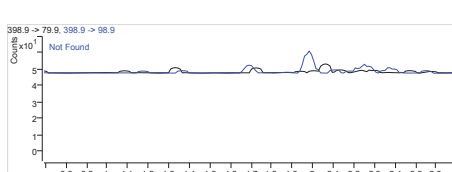
313.0 -> 268.9

0.000 (1.434)

N.D.

0

Blank

**PFHxS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

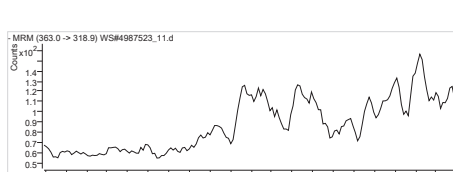
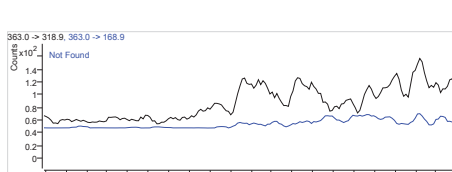
398.9 -> 79.9

0.000 (1.691)

N.D.

0

Blank

**PFHpA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

363.0 -> 318.9

0.000 (1.691)

N.D.

0

Blank

**PFOA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

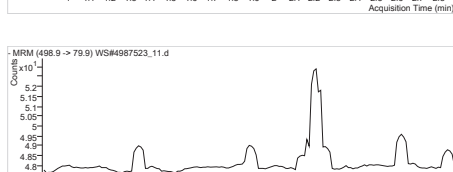
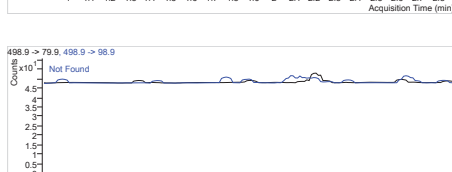
413.0 -> 368.9

0.000 (1.881)

N.D.

0

Blank

**PFOS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

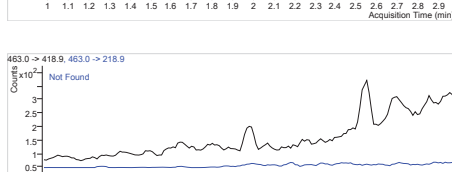
498.9 -> 79.9

0.000 (1.979)

N.D.

0

Blank

**PFNA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

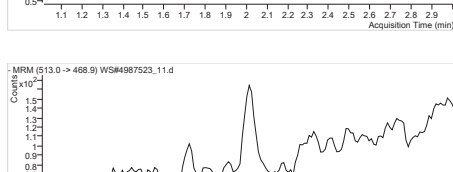
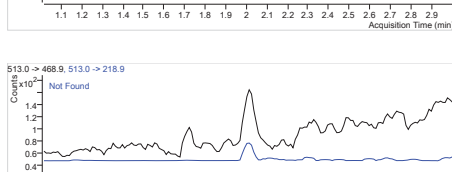
463.0 -> 418.9

0.000 (2.014)

N.D.

0

Blank

**PFDA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

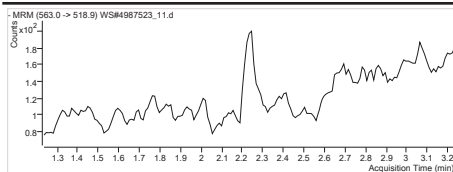
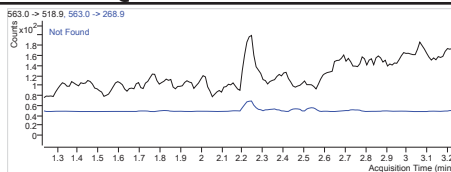
513.0 -> 468.9

0.000 (2.135)

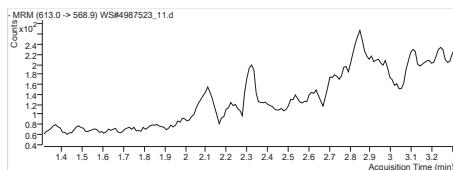
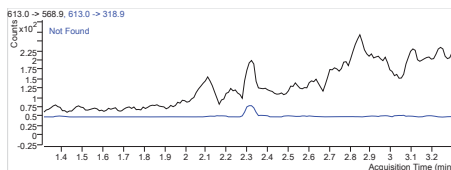
N.D.

0

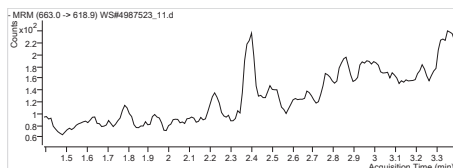
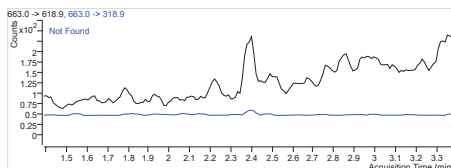
Blank



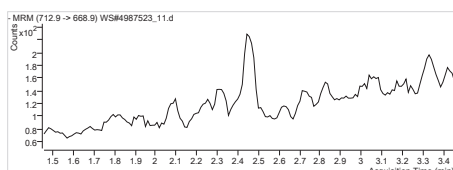
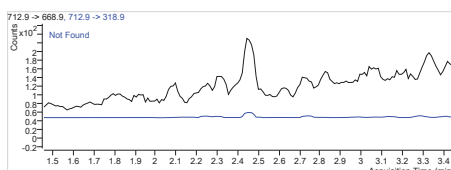
PFUnA 1
 RT (Exp. RT): 563.0 -> 518.9
 Calc. conc. 0.000 (2.234)
 Area ratio: N.D.
 Sample type: 0
 Blank



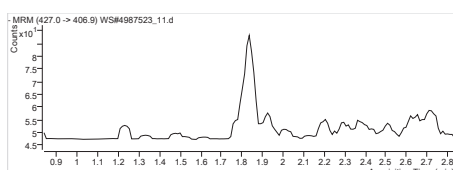
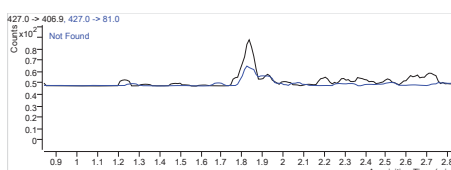
PFDaA 1
 RT (Exp. RT): 613.0 -> 568.9
 Calc. conc. 0.000 (2.311)
 Area ratio: N.D.
 Sample type: 0
 Blank



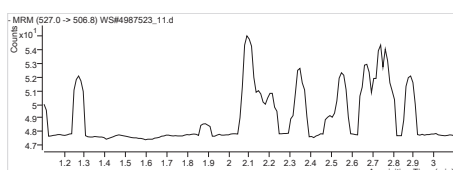
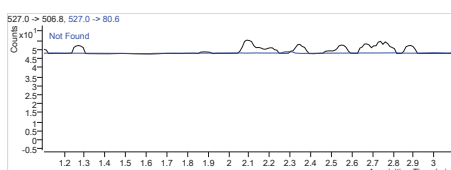
PFTraD 1
 RT (Exp. RT): 663.0 -> 618.9
 Calc. conc. 0.000 (2.389)
 Area ratio: N.D.
 Sample type: 0
 Blank



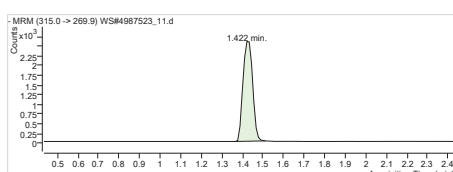
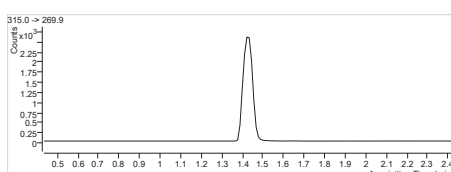
PFTeDa 1
 RT (Exp. RT): 712.9 -> 668.9
 Calc. conc. 0.000 (2.456)
 Area ratio: N.D.
 Sample type: 0
 Blank



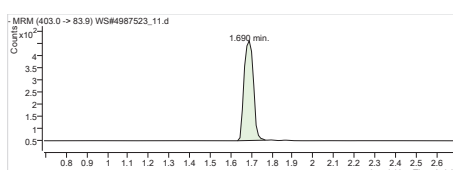
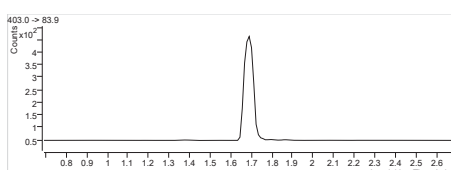
6:2-FTS 1
 RT (Exp. RT): 427.0 -> 406.9
 Calc. conc. 0.000 (1.835)
 Area ratio: N.D.
 Sample type: 0
 Blank



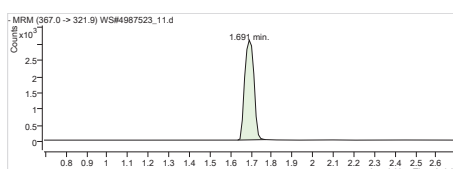
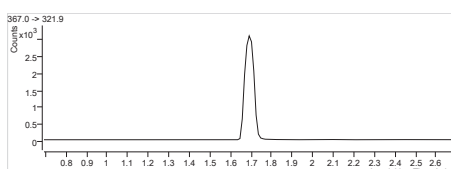
8:2-FTS 1
 RT (Exp. RT): 527.0 -> 506.8
 Calc. conc. 0.000 (2.101)
 Area ratio: N.D.
 Sample type: 0
 Blank



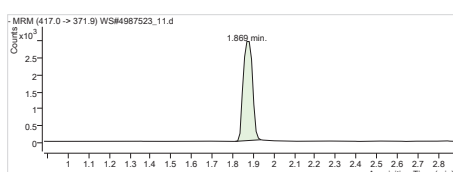
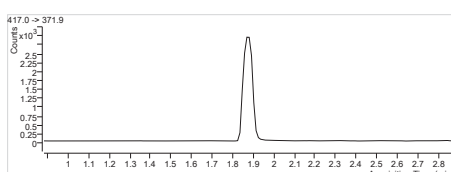
13C2-PFHxA
 RT (Exp. RT): 315.0 -> 269.9
 Calc. conc. 1.422 (1.434)
 Area ratio: 92.44 µg/L
 Sample type: 0.20561
 Blank



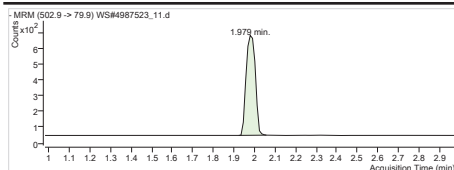
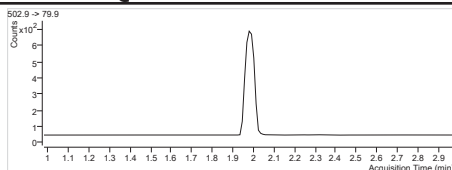
18O2-PFHxS
 RT (Exp. RT): 403.0 -> 83.9
 Calc. conc. 1.690 (1.690)
 Area ratio: 82.06 µg/L
 Sample type: 0.03208
 Blank



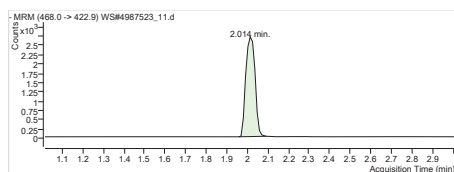
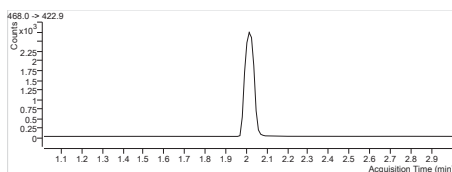
13C4-PFHpA
 RT (Exp. RT): 367.0 -> 321.9
 Calc. conc. 1.691 (1.691)
 Area ratio: 101.00 µg/L
 Sample type: 0.23509
 Blank



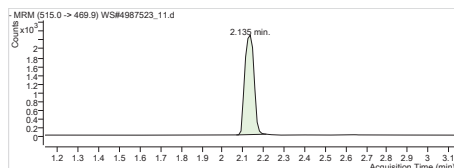
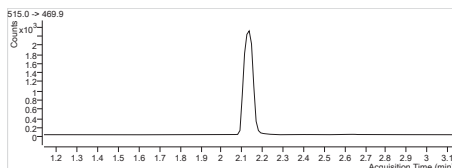
13C4-PFOA
 RT (Exp. RT): 417.0 -> 371.9
 Calc. conc. 1.869 (1.881)
 Area ratio: 98.43 µg/L
 Sample type: 0.22468
 Blank



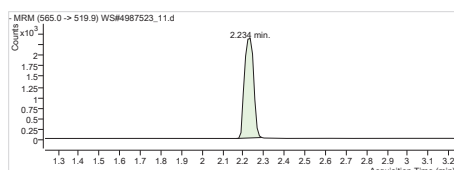
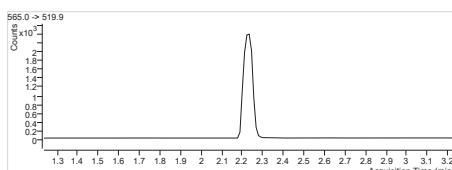
13C4-PFOS
RT (Exp. RT): 502.9 -> 79.9
Calc. conc. 1.979 (1.979)
Area ratio: 102.14 µg/L
Sample type: 0.04889
Blank



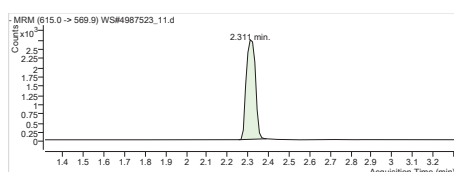
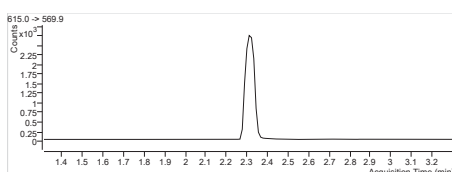
13C5-PFNA
RT (Exp. RT): 468.0 -> 422.9
Calc. conc. 2.014 (2.014)
Area ratio: 92.73 µg/L
Sample type: 0.20627
Blank



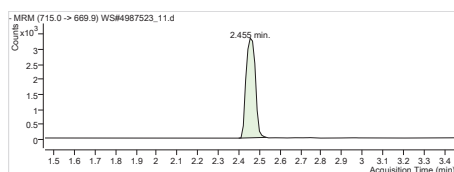
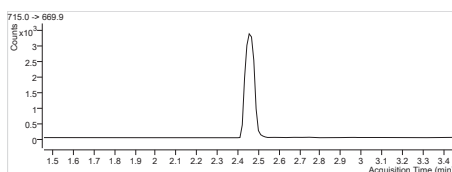
13C2-PFDA
RT (Exp. RT): 515.0 -> 469.9
Calc. conc. 2.135 (2.135)
Area ratio: 90.12 µg/L
Sample type: 0.20430
Blank



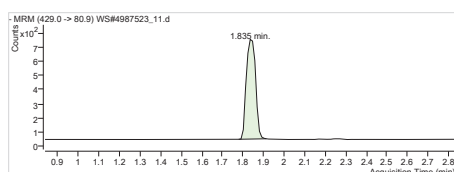
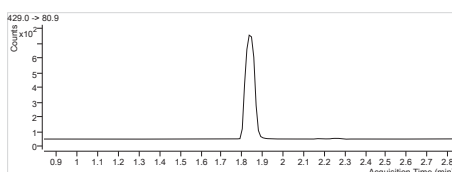
13C2-PFUnA
RT (Exp. RT): 565.0 -> 519.9
Calc. conc. 2.234 (2.234)
Area ratio: 86.17 µg/L
Sample type: 0.21107
Blank



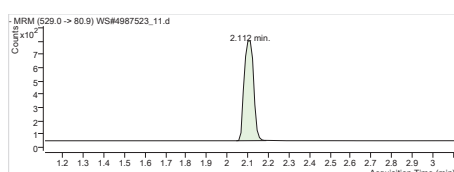
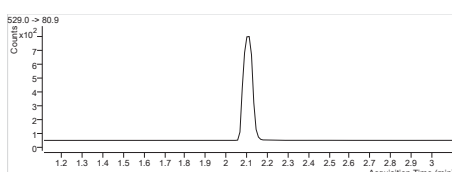
13C2-PFDoA
RT (Exp. RT): 615.0 -> 569.9
Calc. conc. 2.311 (2.311)
Area ratio: 88.00 µg/L
Sample type: 0.24253
Blank



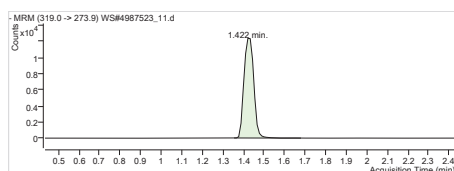
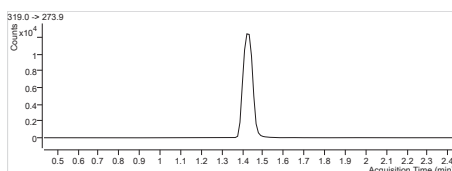
13C2-PFTeDA
RT (Exp. RT): 715.0 -> 669.9
Calc. conc. 2.455 (2.455)
Area ratio: 86.38 µg/L
Sample type: 0.30097
Blank



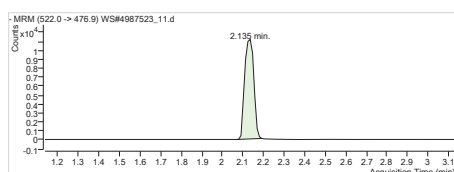
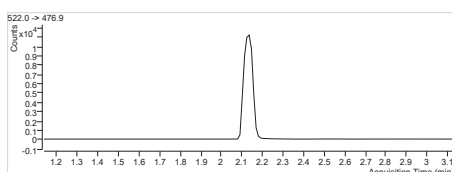
13C2-6:2-FTS
RT (Exp. RT): 429.0 -> 80.9
Calc. conc. 1.835 (1.835)
Area ratio: 98.15 µg/L
Sample type: 0.05435
Blank



13C2-8:2 FTS
RT (Exp. RT): 529.0 -> 80.9
Calc. conc. 2.112 (2.112)
Area ratio: 99.34 µg/L
Sample type: 0.05930
Blank



13C6-PFHxA
RT (Exp. RT): 319.0 -> 273.9
Calc. conc. 1.422 (1.434)
Area ratio: 2.51 µg/L
Sample type: 0
Blank



13C9-PFDA
RT (Exp. RT): 522.0 -> 476.9
Calc. conc. 2.135 (2.135)
Area ratio: 2.53 µg/L
Sample type: 0
Blank

Batch Path

T:\lcms4\PFC\20170523\WS#4987523\QuantResults\PFC_Water_Low_170523_WS#4987523_CT

Sample Name

4987523:MTRX SPK

Instrument

LCMS04

Data File

WS#4987523_12.d

Operator

AD

Sample Type

QC

Dilution

0.024

Acq. Method

PFC_Water_Low.m

Position

P1-B2

Acq. Date

2017/05/23 10:07:32 AM

Injection Volume

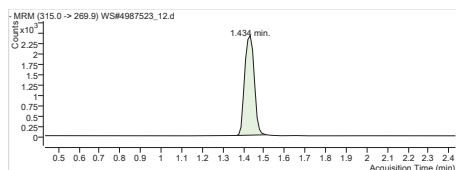
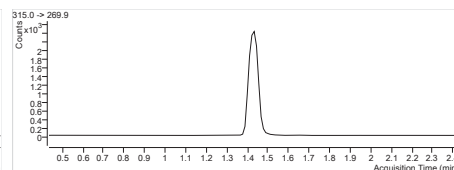
Per Method

Sample Annotation

EJK088, Re-injected to confirm surrogate recovery, reported

ISTD Compounds	Response	RT	Target conc.		
MPFHxA	7706	1.43	1 µg/L		
MPFHxS	1331	1.69	1 µg/L		
MPFHpA	8315	1.69	1 µg/L		
MPFOA	8300	1.87	1 µg/L		
MPFOS	1646	1.98	1 µg/L		
MPFNA	8407	2.01	1 µg/L		
MPFDA	7018	2.14	1 µg/L		
MPFUnA	6762	2.22	1 µg/L		
MPFDoA	6655	2.31	1 µg/L		
MPFTeDA	4670	2.46	1 µg/L		
M2 6:2 FTS	1998	1.84	1 µg/L		
M2 8:2 FTS	2084	2.10	1 µg/L		
13C6-PFHxA IS	32426	1.43	1 µg/L		
13C9-PFDA	31836	2.13	1 µg/L		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	54030	1.10	20.80	1.57 µg/L	314.33
PFHxA 1	443191	1.43	20.80	3.14 µg/L	629.49
PFHxS 1	47677	1.69	20.80	1.75 µg/L	349.75
PFHpA 1	113643	1.69	20.80	0.72 µg/L	143.49
PFOA 1	133253	1.87	20.80	0.89 µg/L	177.97
PFOS 1	19638	1.97	20.80	0.74 µg/L	148.91
PFNA 1	67771	2.01	20.80	0.48 µg/L	97.13
PFDA 1	63365	2.12	20.80	0.44 µg/L	87.71
PFUnA 1	60206	2.22	20.80	0.49 µg/L	98.25
PFDaA 1	56449	2.31	20.80	0.49 µg/L	99.09
PFTrDA 1	53943	2.39	20.80	0.69 µg/L	138.83
PFTeDA 1	34752	2.46	20.80	0.47 µg/L	94.80
6:2-FTS 1	45256	1.84	20.80	1.38 µg/L	276.21
8:2-FTS 1	16779	2.10	20.80	0.53 µg/L	106.08
13C2-PFHxA	7706	1.43	100.00	106.85 µg/L	106.85
18O2-PFHxS	1331	1.69	100.00	105.02 µg/L	105.02
13C4-PFHpA	8315	1.69	100.00	110.17 µg/L	110.17
13C4-PFOA	8300	1.87	100.00	112.14 µg/L	112.14
13C4-PFOS	1646	1.98	100.00	106.06 µg/L	106.06
13C5-PFNA	8407	2.01	100.00	116.55 µg/L	116.55
13C2-PFDA	7018	2.14	100.00	97.24 µg/L	97.24
13C2-PFUnA	6762	2.22	100.00	86.72 µg/L	86.72
13C2-PFDoA	6655	2.31	100.00	75.85 µg/L	75.85
13C2-PFTeDA	4670	2.46	100.00	42.10 µg/L	42.10
13C2-6:2-FTS	1998	1.84	100.00	111.28 µg/L	111.28
13C2-8:2 FTS	2084	2.10	100.00	107.67 µg/L	107.67
13C6-PFHxA	32426	1.43	100.00	1.99 µg/L	83.01
13C9-PFDA	31836	2.13	100.00	2.32 µg/L	96.50



MPFHxA

Internal Standard

RT (Exp. RT):

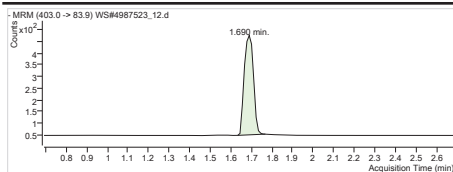
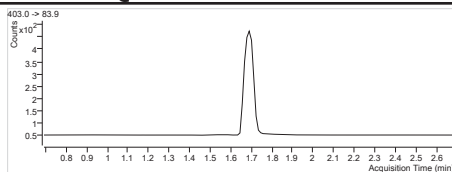
1.434 (1.434)

Concentration:

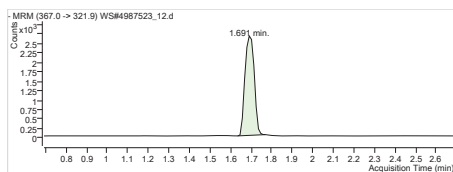
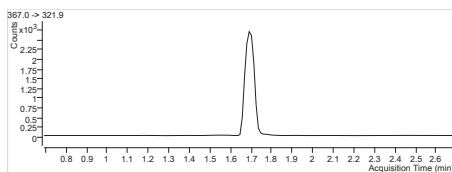
1 µg/L

Sample type:

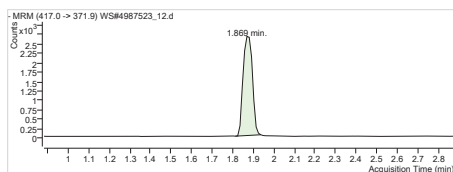
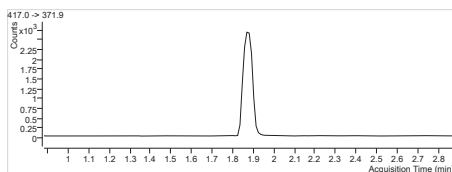
QC



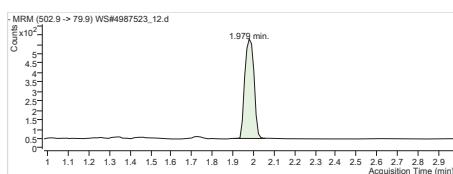
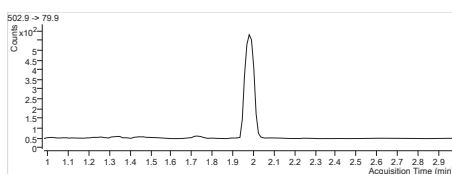
MPFHxS
 RT (Exp. RT): 1.690 (1.690)
 Concentration: 1 µg/L
 Sample type: QC



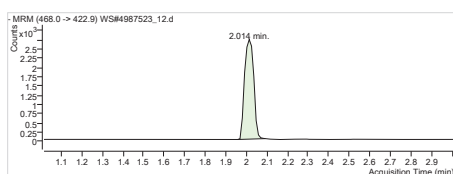
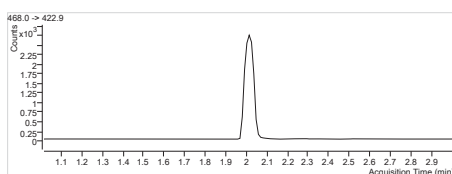
MPFHpA
 RT (Exp. RT): 1.691 (1.691)
 Concentration: 1 µg/L
 Sample type: QC



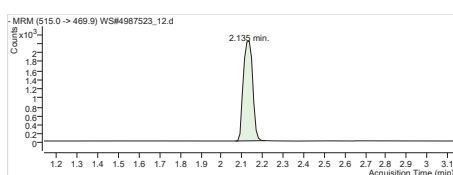
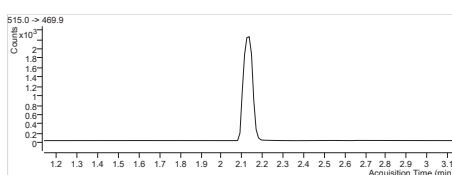
MPFOA
 RT (Exp. RT): 1.869 (1.881)
 Concentration: 1 µg/L
 Sample type: QC



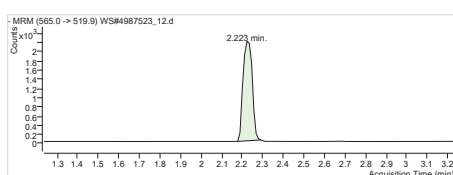
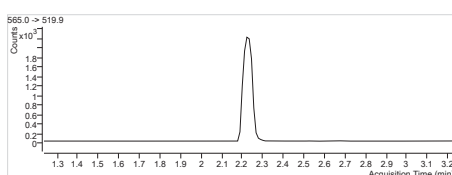
MPFOS
 RT (Exp. RT): 1.979 (1.979)
 Concentration: 1 µg/L
 Sample type: QC



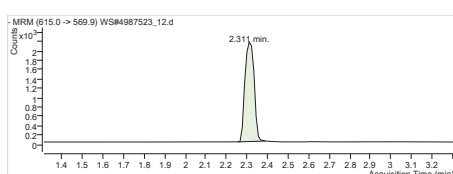
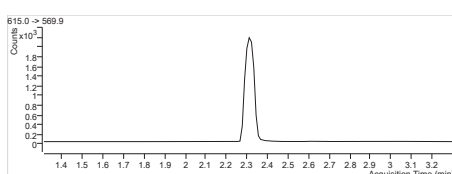
MPFNA
 RT (Exp. RT): 2.014 (2.014)
 Concentration: 1 µg/L
 Sample type: QC



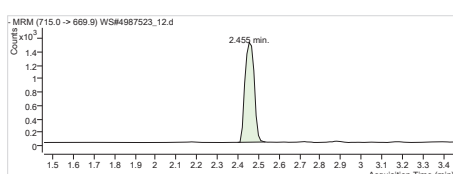
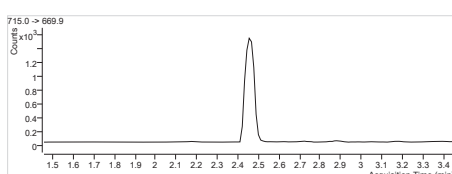
MPFDA
 RT (Exp. RT): 2.135 (2.135)
 Concentration: 1 µg/L
 Sample type: QC



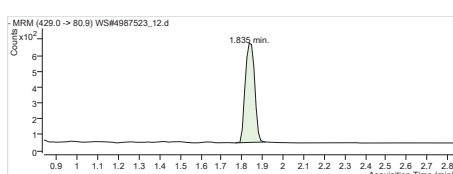
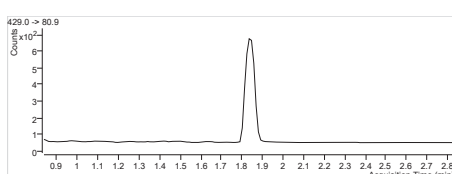
MPFUnA
 RT (Exp. RT): 2.223 (2.234)
 Concentration: 1 µg/L
 Sample type: QC



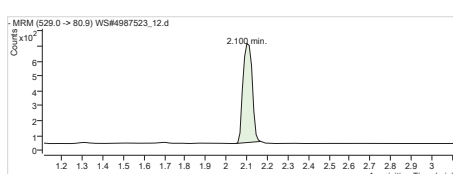
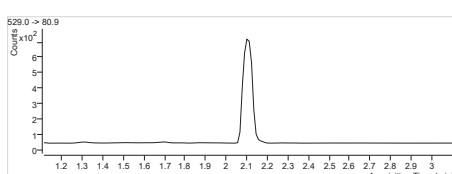
MPFDoA
 RT (Exp. RT): 2.311 (2.311)
 Concentration: 1 µg/L
 Sample type: QC



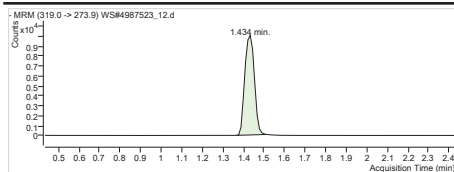
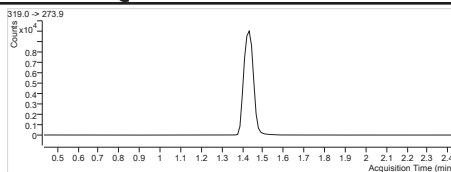
MPFTeDA
 RT (Exp. RT): 2.455 (2.455)
 Concentration: 1 µg/L
 Sample type: QC



M2 6:2 FTS
 RT (Exp. RT): 1.835 (1.835)
 Concentration: 1 µg/L
 Sample type: QC



M2 8:2 FTS
 RT (Exp. RT): 2.100 (2.112)
 Concentration: 1 µg/L
 Sample type: QC

**13C6-PFHxA IS**

RT (Exp. RT):

Concentration:

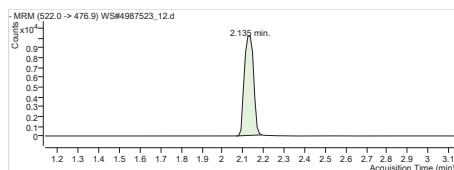
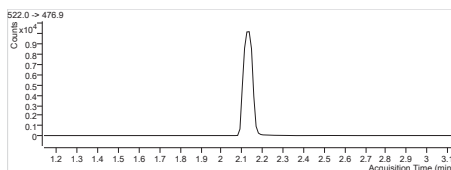
Sample type:

Internal Standard

1.434 (1.434)

1 µg/L

QC

**13C9-PFDA IS**

RT (Exp. RT):

Concentration:

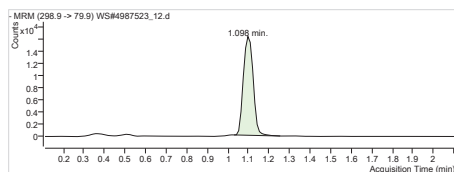
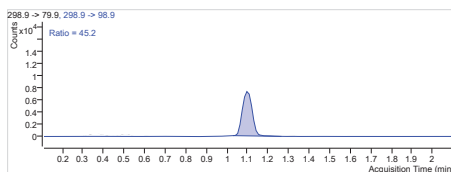
Sample type:

Internal Standard

2.135 (2.135)

1 µg/L

QC

**PFBS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

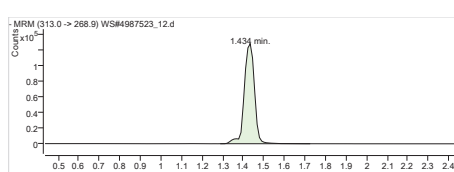
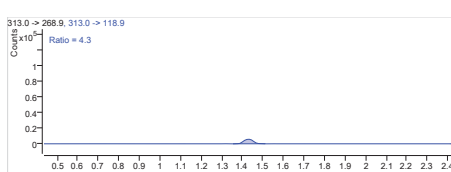
298.9 -> 79.9

1.098 (1.109)

1.57 µg/L

40.59354

QC

**PFHxA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

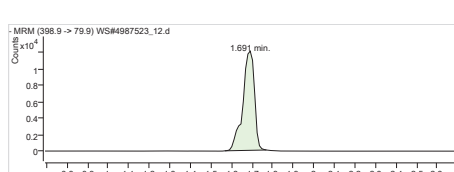
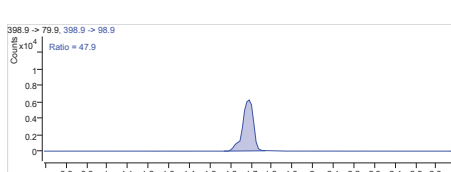
313.0 -> 268.9

1.434 (1.434)

3.14 µg/L

57.51246

QC

**PFHxS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

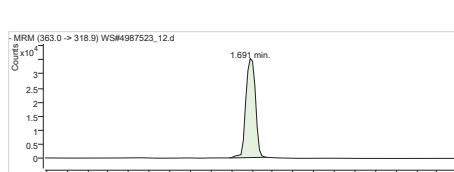
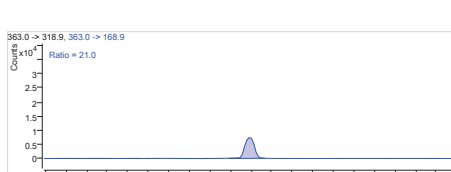
398.9 -> 79.9

1.691 (1.691)

1.75 µg/L

35.82044

QC

**PFHpA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

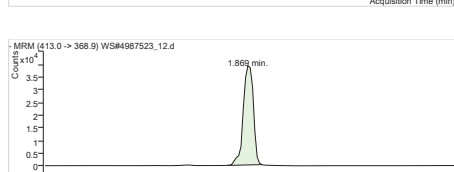
363.0 -> 318.9

1.691 (1.691)

0.72 µg/L

13.66723

QC

**PFOA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

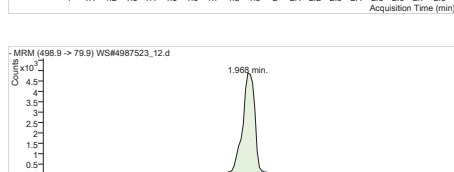
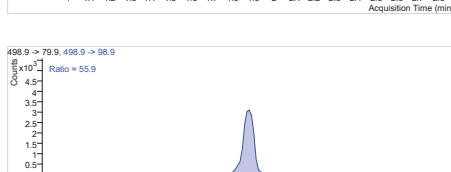
413.0 -> 368.9

1.869 (1.881)

0.89 µg/L

16.05458

QC

**PFOS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

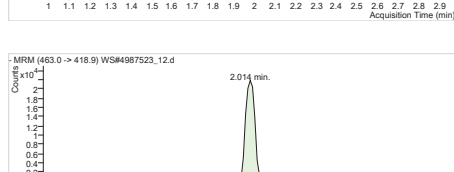
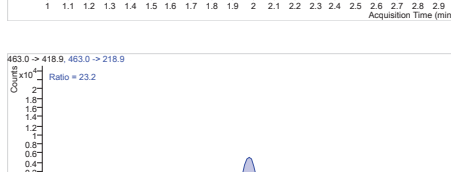
498.9 -> 79.9

1.968 (1.979)

0.74 µg/L

11.93074

QC

**PFNA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

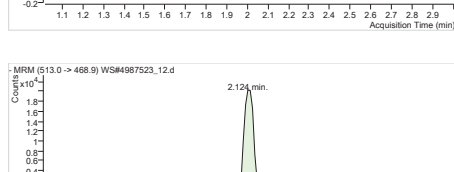
463.0 -> 418.9

2.014 (2.014)

0.48 µg/L

8.06126

QC

**PFDA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

513.0 -> 468.9

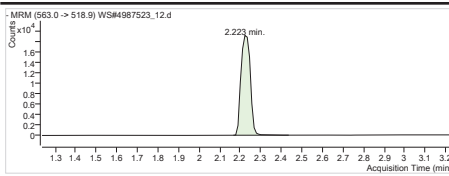
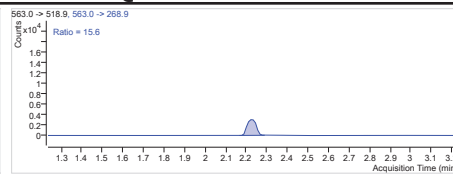
2.124 (2.135)

0.44 µg/L

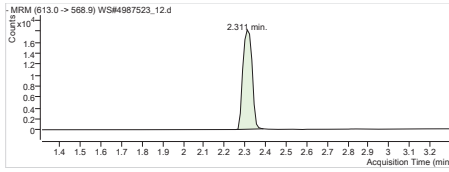
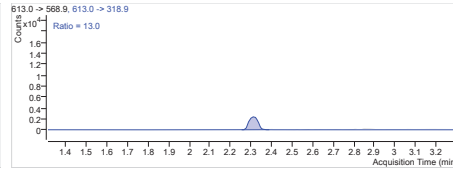
9.02893

QC

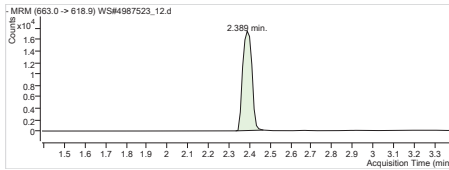
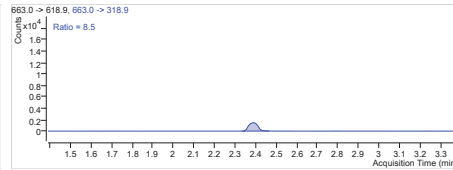
Quantitation Results



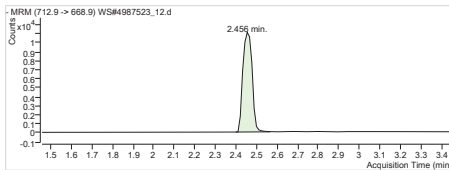
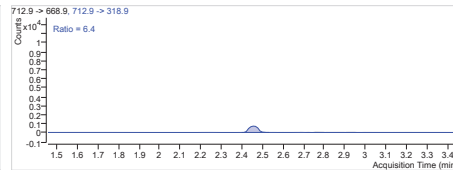
PFUnA 1
RT (Exp. RT): 2.223 (2.234)
Calc. conc. 0.49 µg/L
Area ratio: 8.90358
Sample type: QC



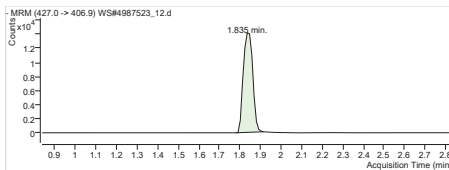
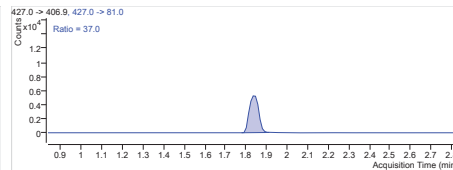
PFDaA 1
RT (Exp. RT): 2.311 (2.311)
Calc. conc. 0.49 µg/L
Area ratio: 8.48219
Sample type: QC



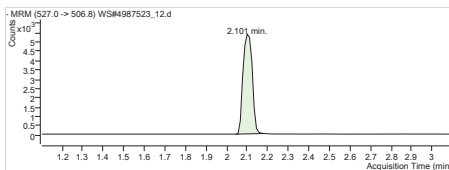
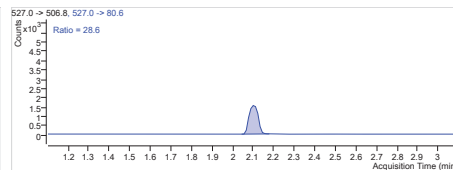
PFTrDa 1
RT (Exp. RT): 2.389 (2.389)
Calc. conc. 0.69 µg/L
Area ratio: 11.55096
Sample type: QC



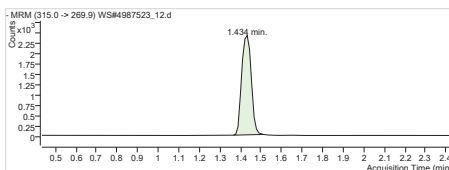
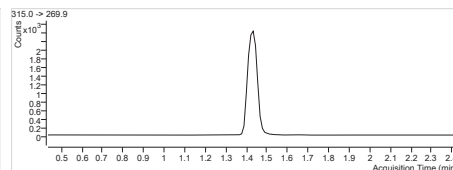
PFTeDa 1
RT (Exp. RT): 2.456 (2.456)
Calc. conc. 0.47 µg/L
Area ratio: 7.44154
Sample type: QC



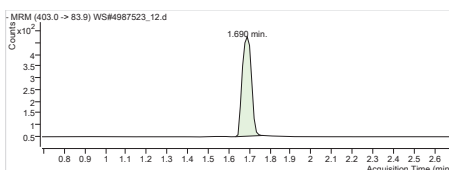
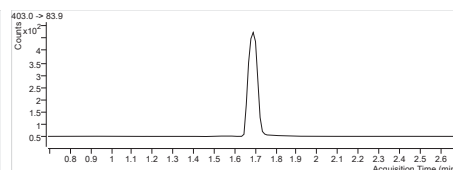
6:2-FTS 1
RT (Exp. RT): 1.835 (1.835)
Calc. conc. 1.38 µg/L
Area ratio: 22.65065
Sample type: QC



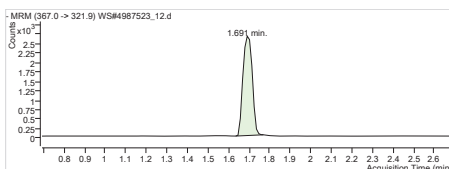
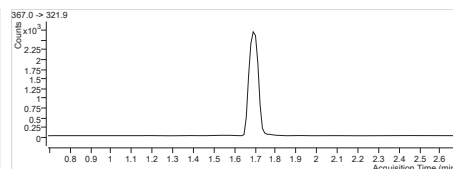
8:2-FTS 1
RT (Exp. RT): 2.101 (2.101)
Calc. conc. 0.53 µg/L
Area ratio: 8.05134
Sample type: QC



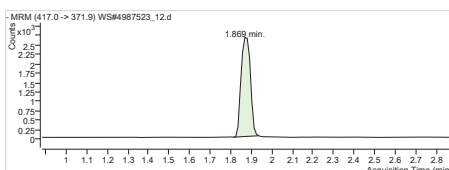
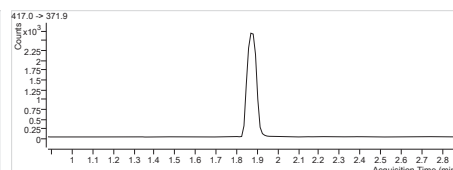
13C2-PFHxA
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 106.85 µg/L
Area ratio: 0.23765
Sample type: QC



18O2-PFHxS
RT (Exp. RT): 1.690 (1.690)
Calc. conc. 105.02 µg/L
Area ratio: 0.04105
Sample type: QC

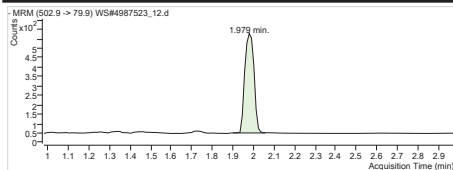
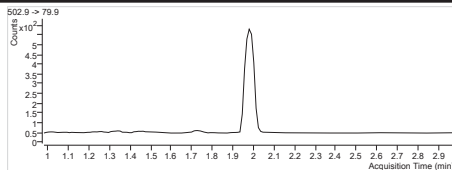


13C4-PFHpA
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 110.17 µg/L
Area ratio: 0.25643
Sample type: QC

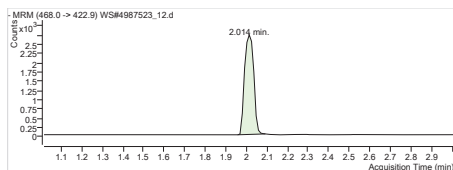
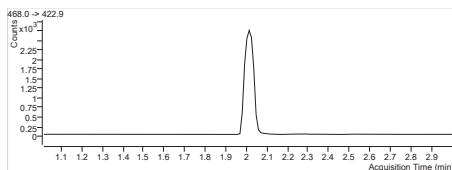


13C4-PFOA
RT (Exp. RT): 1.869 (1.881)
Calc. conc. 112.14 µg/L
Area ratio: 0.25597
Sample type: QC

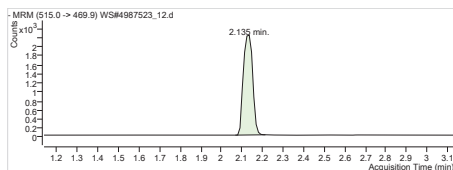
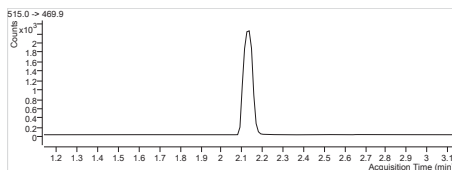
Quantitation Results



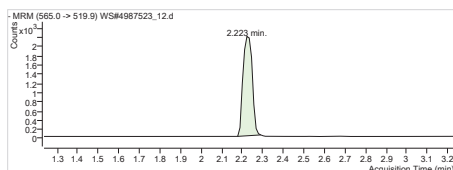
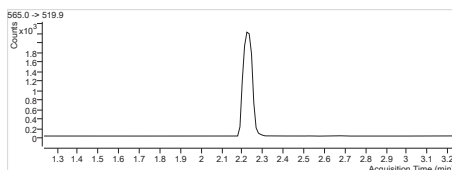
13C4-PFOS
RT (Exp. RT): 502.9 -> 79.9
Calc. conc. 1.979 (1.979)
Area ratio: 106.06 µg/L
Sample type: 0.05076
QC



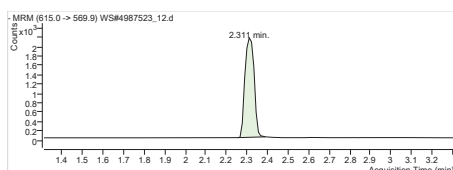
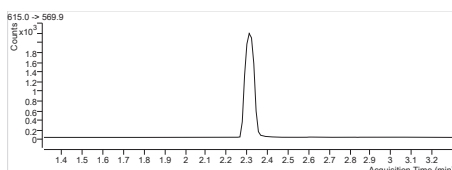
13C5-PFNA
RT (Exp. RT): 468.0 -> 422.9
Calc. conc. 2.014 (2.014)
Area ratio: 116.55 µg/L
Sample type: 0.25927
QC



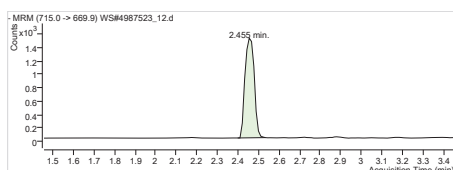
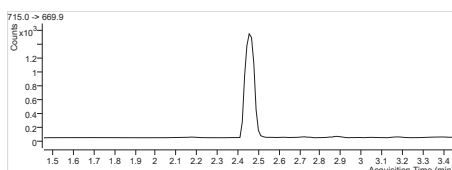
13C2-PFDA
RT (Exp. RT): 515.0 -> 469.9
Calc. conc. 2.135 (2.135)
Area ratio: 97.24 µg/L
Sample type: 0.22044
QC



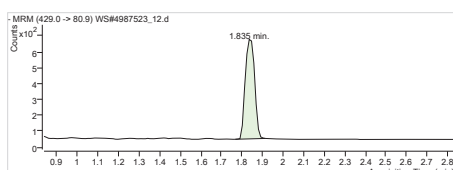
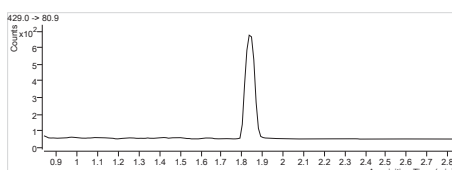
13C2-PFUnA
RT (Exp. RT): 565.0 -> 519.9
Calc. conc. 2.223 (2.234)
Area ratio: 86.72 µg/L
Sample type: 0.21240
QC



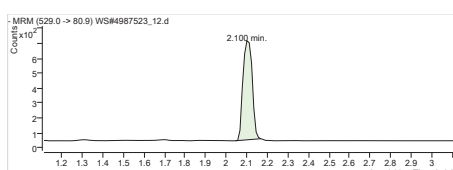
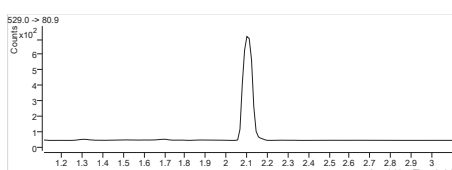
13C2-PFDoA
RT (Exp. RT): 615.0 -> 569.9
Calc. conc. 2.311 (2.311)
Area ratio: 75.85 µg/L
Sample type: 0.20904
QC



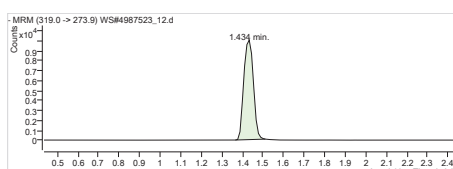
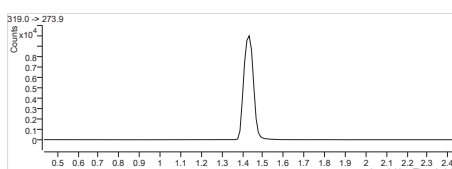
13C2-PFTeDA
RT (Exp. RT): 715.0 -> 669.9
Calc. conc. 2.455 (2.455)
Area ratio: 42.10 µg/L
Sample type: 0.14669
QC



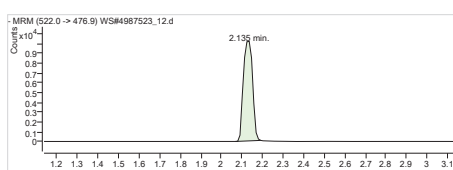
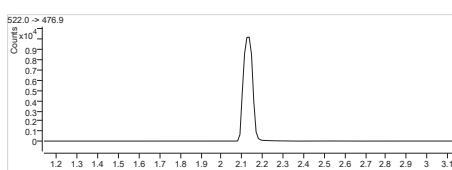
13C2-6:2-FTS
RT (Exp. RT): 429.0 -> 80.9
Calc. conc. 1.835 (1.835)
Area ratio: 111.28 µg/L
Sample type: 0.06162
QC



13C2-8:2 FTS
RT (Exp. RT): 529.0 -> 80.9
Calc. conc. 2.100 (2.112)
Area ratio: 107.67 µg/L
Sample type: 0.06427
QC



13C6-PFHxA
RT (Exp. RT): 319.0 -> 273.9
Calc. conc. 1.434 (1.434)
Area ratio: 1.99 µg/L
Sample type: 0
QC



13C9-PFDA
RT (Exp. RT): 522.0 -> 476.9
Calc. conc. 2.135 (2.135)
Area ratio: 2.32 µg/L
Sample type: 0
QC

Batch Path

T:\lcms4\PFC\20170523\WS#4987523\QuantResults\PFC_Water_Low_170523_WS#4987523_CT

Sample Name

4987523:MTRX SPK:R

Instrument

LCMS04

Data File

WS#4987523_12_.d

Operator

AD

Sample Type

QC

Dilution

0.024

Acq. Method

PFC_Water_Low.m

Position

P1-B2

Acq. Date

2017/05/23 1:31:00 PM

Injection Volume

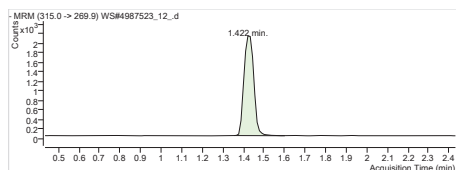
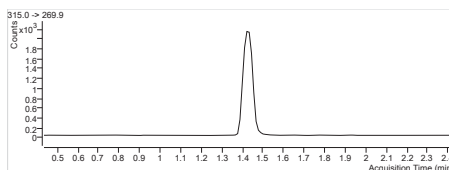
Per Method

Sample Annotation

EJK088, Re-injection, not reported

ISTD Compounds	Response	RT	Target conc.		
MPFHxA	7011	1.42	1 µg/L		
MPFHxS	1386	1.69	1 µg/L		
MPFHpA	8271	1.69	1 µg/L		
MPFOA	8607	1.87	1 µg/L		
MPFOS	1737	1.98	1 µg/L		
MPFNA	7816	2.01	1 µg/L		
MPFDA	6675	2.14	1 µg/L		
MPFUnA	7015	2.23	1 µg/L		
MPFDoA	6684	2.31	1 µg/L		
MPFTeDA	4337	2.46	1 µg/L		
M2 6:2 FTS	1648	1.84	1 µg/L		
M2 8:2 FTS	1995	2.11	1 µg/L		
13C6-PFHxA IS	33578	1.42	1 µg/L		
13C9-PFDA IS	31834	2.13	1 µg/L		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	53919	1.10	20.80	1.50 µg/L	301.23
PFHxA 1	422043	1.42	20.80	3.29 µg/L	658.88
PFHxS 1	47881	1.69	20.80	1.68 µg/L	337.29
PFHpA 1	105698	1.69	20.80	0.67 µg/L	134.15
PFOA 1	133185	1.87	20.80	0.86 µg/L	171.50
PFOS 1	19486	1.98	20.80	0.70 µg/L	140.02
PFNA 1	65248	2.01	20.80	0.50 µg/L	100.59
PFDA 1	64027	2.14	20.80	0.47 µg/L	93.19
PFUnA 1	61546	2.22	20.80	0.48 µg/L	96.81
PFDaA 1	56912	2.31	20.80	0.50 µg/L	99.47
PFTTrDA 1	52393	2.39	20.80	0.72 µg/L	145.21
PFTeDA 1	32027	2.46	20.80	0.47 µg/L	94.07
6:2-FTS 1	40925	1.84	20.80	1.51 µg/L	302.93
8:2-FTS 1	15027	2.10	20.80	0.50 µg/L	99.22
13C2-PFHxA	7011	1.42	100.00	93.88 µg/L	93.88
18O2-PFHxS	1386	1.69	100.00	105.60 µg/L	105.60
13C4-PFHpA	8271	1.69	100.00	105.83 µg/L	105.83
13C4-PFOA	8607	1.87	100.00	112.30 µg/L	112.30
13C4-PFOS	1737	1.98	100.00	108.08 µg/L	108.08
13C5-PFNA	7816	2.01	100.00	104.64 µg/L	104.64
13C2-PFDA	6675	2.14	100.00	92.49 µg/L	92.49
13C2-PFUnA	7015	2.23	100.00	89.97 µg/L	89.97
13C2-PFDoA	6684	2.31	100.00	76.18 µg/L	76.18
13C2-PFTeDA	4337	2.46	100.00	39.10 µg/L	39.10
13C2-6:2-FTS	1648	1.84	100.00	88.63 µg/L	88.63
13C2-8:2 FTS	1995	2.11	100.00	99.53 µg/L	99.53
13C6-PFHxA	33578	1.42	100.00	2.06 µg/L	85.96
13C9-PFDA	31834	2.13	100.00	2.32 µg/L	96.49



MPFHxA

Internal Standard

RT (Exp. RT):

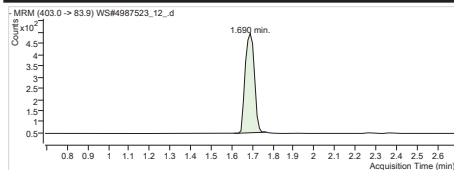
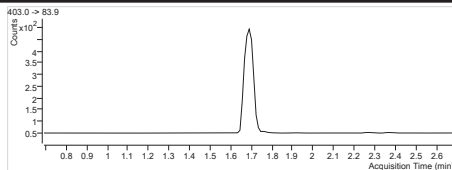
1.422 (1.434)

Concentration:

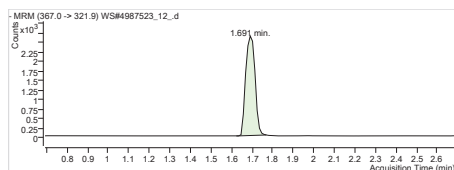
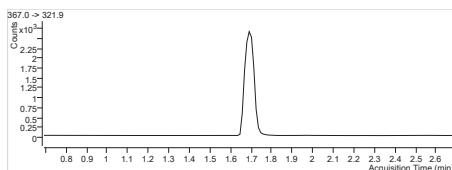
1 µg/L

Sample type:

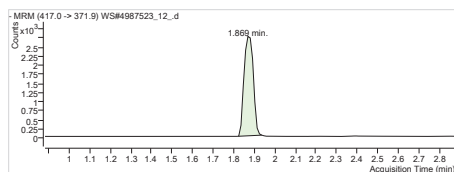
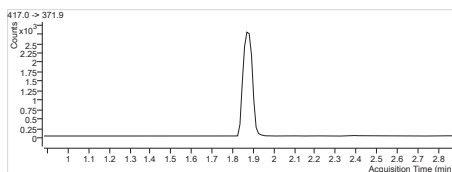
QC



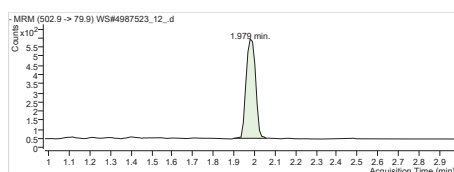
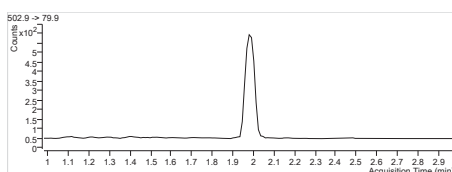
MPFHxS
 RT (Exp. RT): 1.690 (1.690)
 Concentration: 1 µg/L
 Sample type: QC



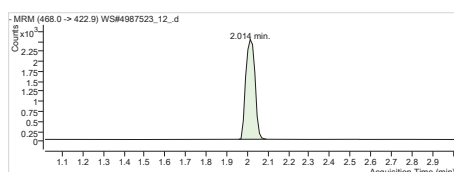
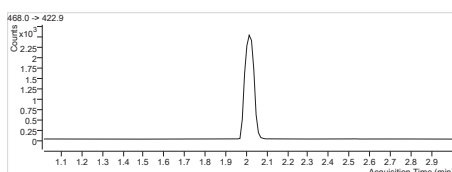
MPFHpA
 RT (Exp. RT): 1.691 (1.691)
 Concentration: 1 µg/L
 Sample type: QC



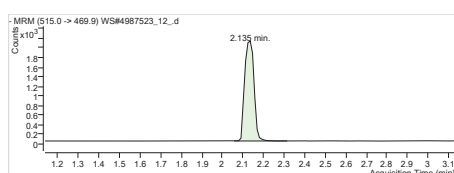
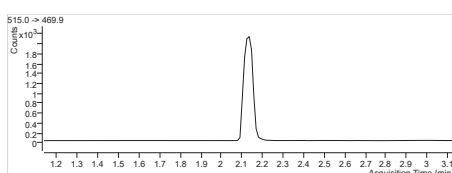
MPFOA
 RT (Exp. RT): 1.869 (1.881)
 Concentration: 1 µg/L
 Sample type: QC



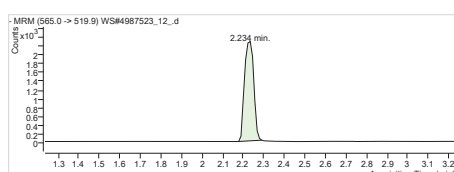
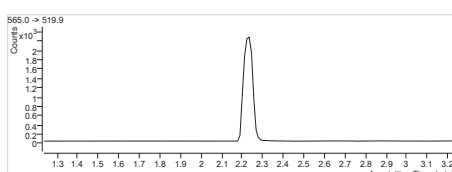
MPFOS
 RT (Exp. RT): 1.979 (1.979)
 Concentration: 1 µg/L
 Sample type: QC



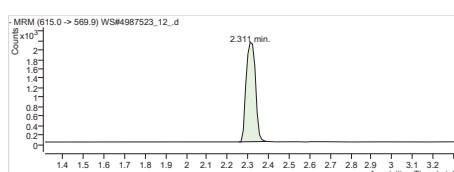
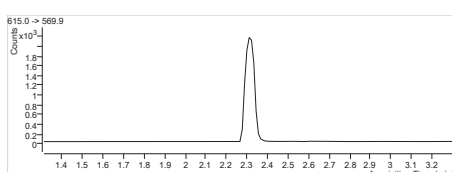
MPFNA
 RT (Exp. RT): 2.014 (2.014)
 Concentration: 1 µg/L
 Sample type: QC



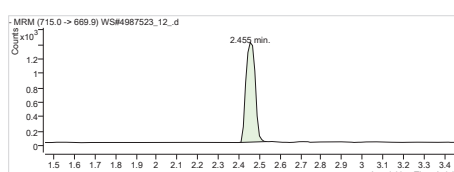
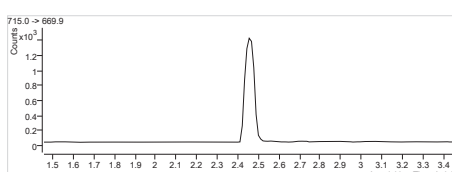
MPFDA
 RT (Exp. RT): 2.135 (2.135)
 Concentration: 1 µg/L
 Sample type: QC



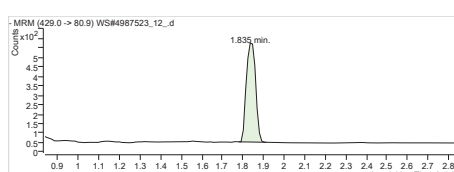
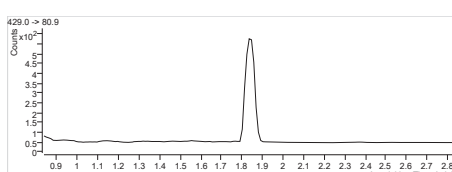
MPFUnA
 RT (Exp. RT): 2.234 (2.234)
 Concentration: 1 µg/L
 Sample type: QC



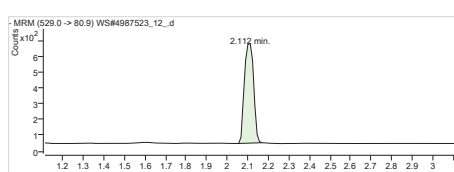
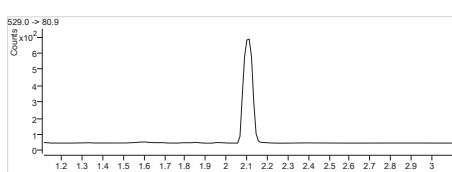
MPFDoA
 RT (Exp. RT): 2.311 (2.311)
 Concentration: 1 µg/L
 Sample type: QC



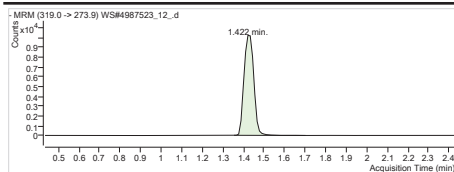
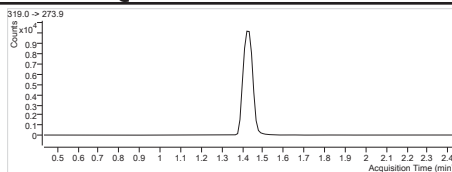
MPFTeDA
 RT (Exp. RT): 2.455 (2.455)
 Concentration: 1 µg/L
 Sample type: QC



M2 6:2 FTS
 RT (Exp. RT): 1.835 (1.835)
 Concentration: 1 µg/L
 Sample type: QC



M2 8:2 FTS
 RT (Exp. RT): 2.112 (2.112)
 Concentration: 1 µg/L
 Sample type: QC

**13C6-PFHxA IS**

RT (Exp. RT):

Concentration:

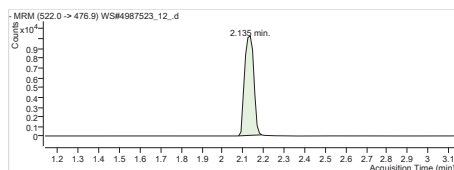
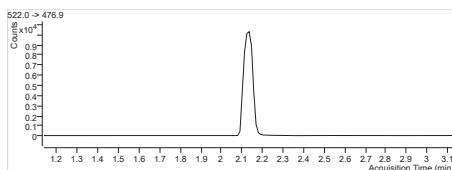
Sample type:

Internal Standard

1.422 (1.434)

1 µg/L

QC

**13C9-PFDA IS**

RT (Exp. RT):

Concentration:

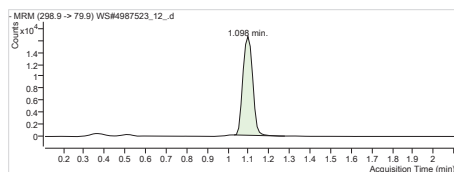
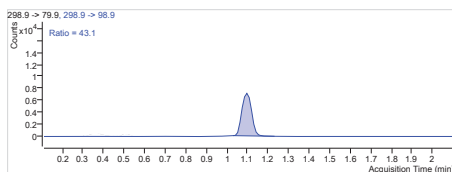
Sample type:

Internal Standard

2.135 (2.135)

1 µg/L

QC

**PFBS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

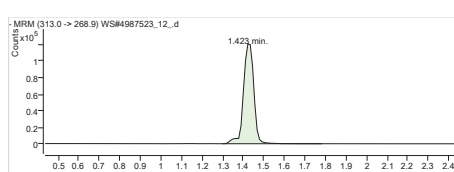
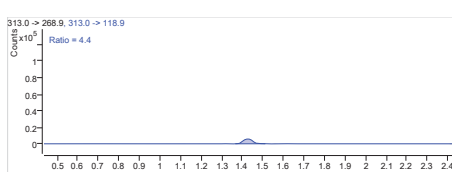
298.9 -> 79.9

1.098 (1.109)

1.50 µg/L

38.90260

QC

**PFHxA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

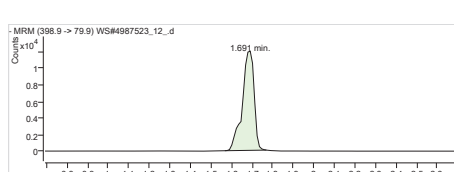
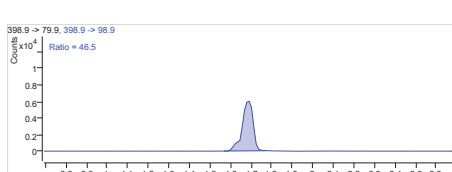
313.0 -> 268.9

1.423 (1.434)

3.29 µg/L

60.19726

QC

**PFHxS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

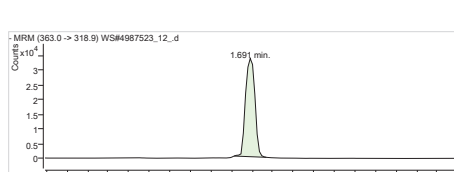
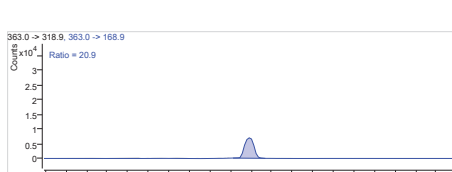
398.9 -> 79.9

1.691 (1.691)

1.68 µg/L

34.54618

QC

**PFHpA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

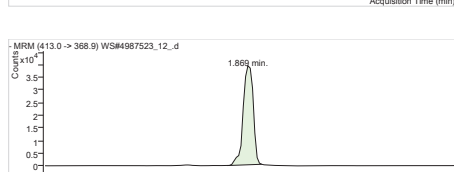
363.0 -> 318.9

1.691 (1.691)

0.67 µg/L

12.77935

QC

**PFOA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

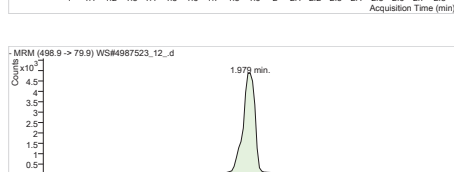
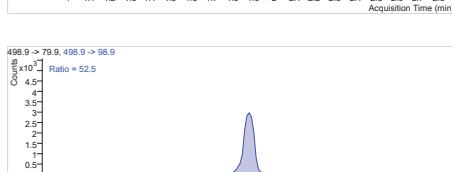
413.0 -> 368.9

1.869 (1.881)

0.86 µg/L

15.47403

QC

**PFOS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

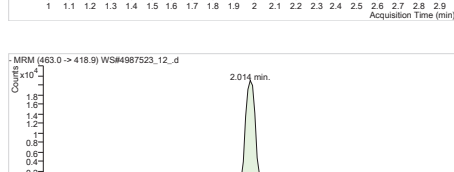
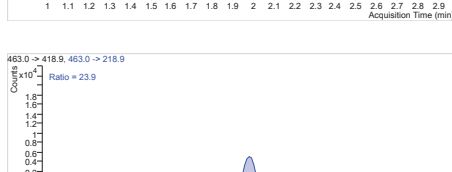
498.9 -> 79.9

1.979 (1.979)

0.70 µg/L

11.21819

QC

**PFNA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

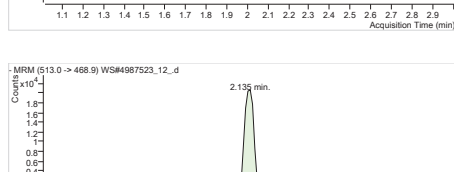
463.0 -> 418.9

2.014 (2.014)

0.50 µg/L

8.34800

QC

**PFDA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

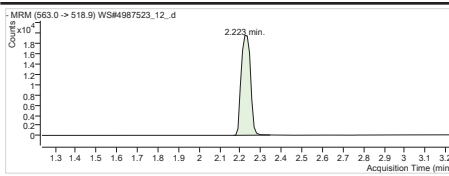
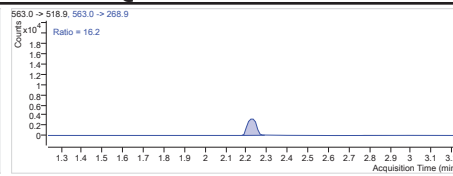
513.0 -> 468.9

2.135 (2.135)

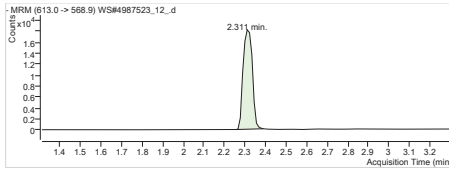
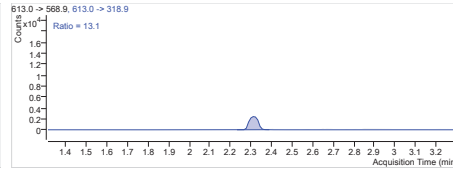
0.47 µg/L

9.59206

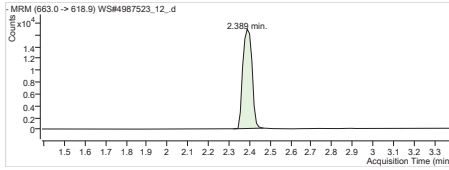
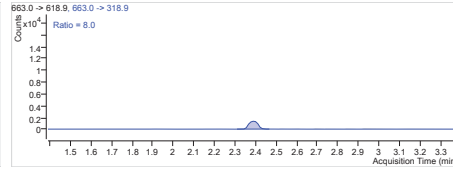
QC



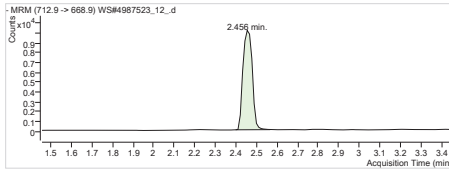
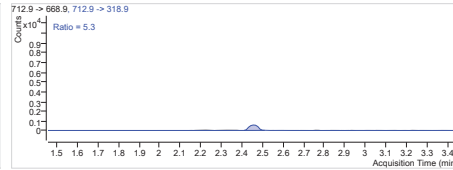
PFUnA 1
RT (Exp. RT): 563.0 -> 518.9
Calc. conc. 2.223 (2.234)
Area ratio: 0.48 µg/L
Sample type: 8.77349
QC



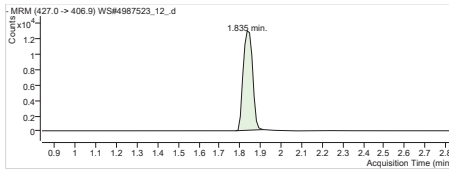
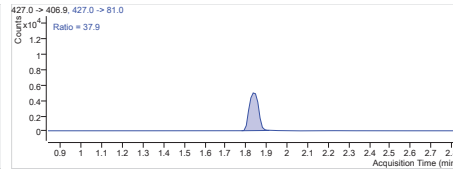
PFDa 1
RT (Exp. RT): 613.0 -> 568.9
Calc. conc. 2.311 (2.311)
Area ratio: 0.50 µg/L
Sample type: 8.51466
QC



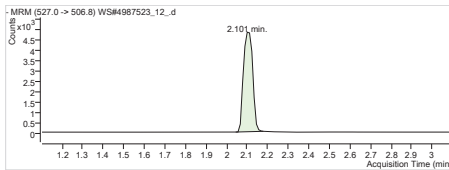
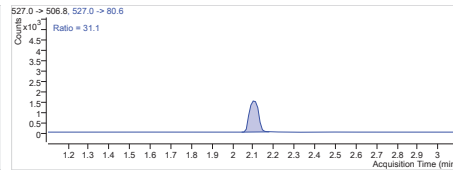
PFTraD 1
RT (Exp. RT): 663.0 -> 618.9
Calc. conc. 2.389 (2.389)
Area ratio: 0.72 µg/L
Sample type: 12.08047
QC



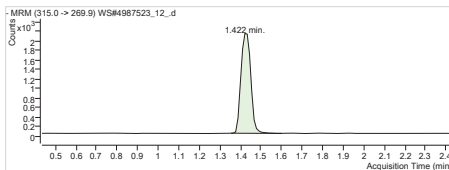
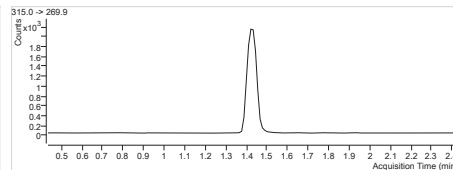
PFTeDa 1
RT (Exp. RT): 712.9 -> 668.9
Calc. conc. 2.456 (2.456)
Area ratio: 0.47 µg/L
Sample type: 7.38460
QC



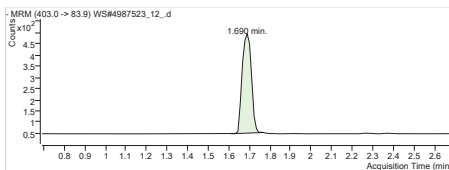
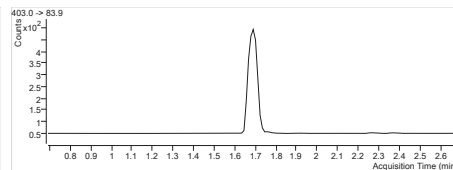
6:2-FTS 1
RT (Exp. RT): 427.0 -> 406.9
Calc. conc. 1.835 (1.835)
Area ratio: 1.51 µg/L
Sample type: 24.83313
QC



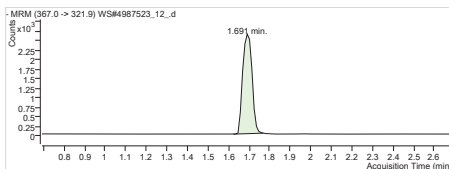
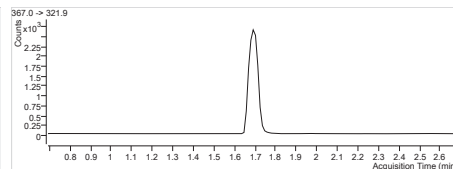
8:2-FTS 1
RT (Exp. RT): 527.0 -> 506.8
Calc. conc. 2.101 (2.101)
Area ratio: 0.50 µg/L
Sample type: 7.53233
QC



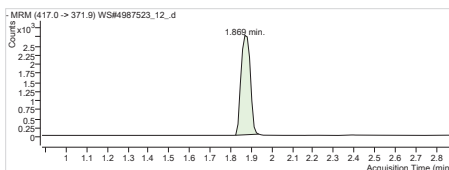
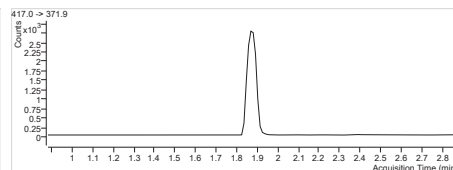
13C2-PFHxA
RT (Exp. RT): 315.0 -> 269.9
Calc. conc. 1.422 (1.434)
Area ratio: 93.88 µg/L
Sample type: 0.20880
QC



18O2-PFHxS
RT (Exp. RT): 403.0 -> 83.9
Calc. conc. 1.690 (1.690)
Area ratio: 105.60 µg/L
Sample type: 0.04128
QC

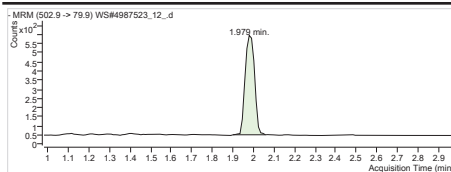
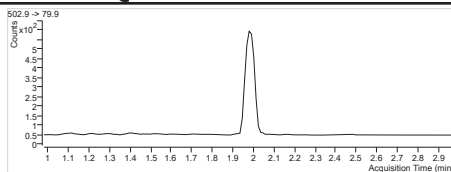


13C4-PFHpA
RT (Exp. RT): 367.0 -> 321.9
Calc. conc. 1.691 (1.691)
Area ratio: 105.83 µg/L
Sample type: 0.24632
QC

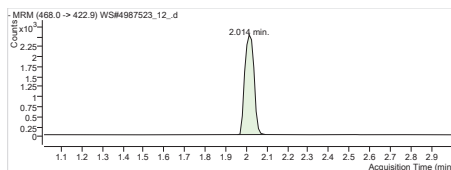
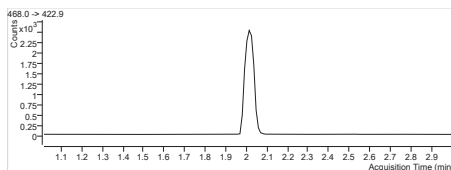


13C4-PFOA
RT (Exp. RT): 417.0 -> 371.9
Calc. conc. 1.869 (1.881)
Area ratio: 112.30 µg/L
Sample type: 0.25633
QC

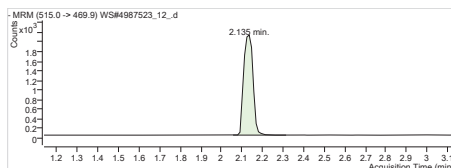
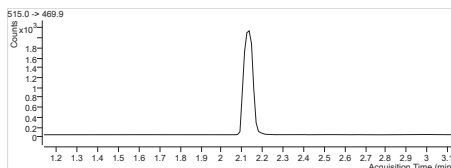
Quantitation Results



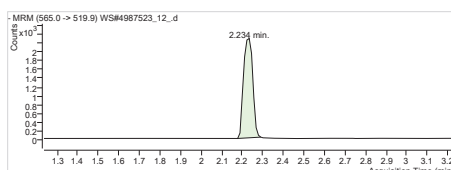
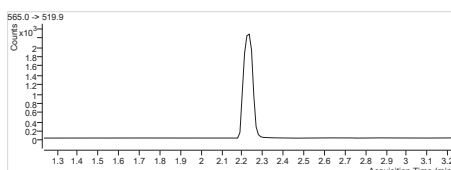
13C4-PFOS
RT (Exp. RT): 502.9 -> 79.9
Calc. conc. 1.979 (1.979)
Area ratio: 108.08 µg/L
Sample type: 0.05173
QC



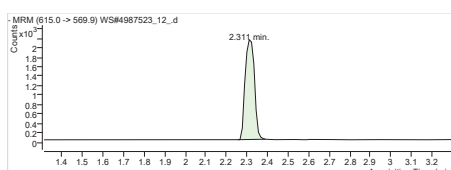
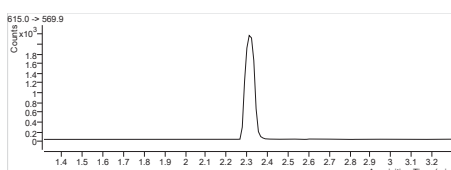
13C5-PFNA
RT (Exp. RT): 468.0 -> 422.9
Calc. conc. 2.014 (2.014)
Area ratio: 104.64 µg/L
Sample type: 0.23277
QC



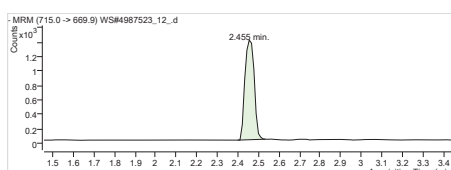
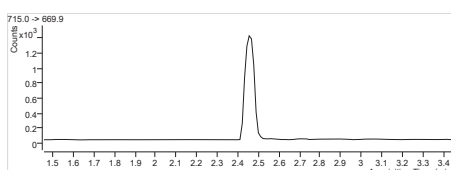
13C2-PFDA
RT (Exp. RT): 515.0 -> 469.9
Calc. conc. 2.135 (2.135)
Area ratio: 92.49 µg/L
Sample type: 0.20968
QC



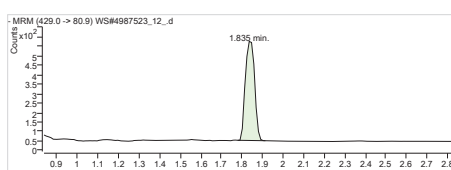
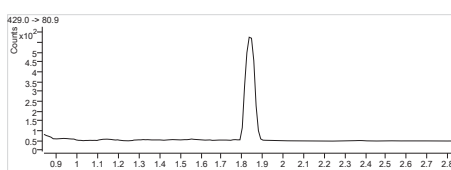
13C2-PFUnA
RT (Exp. RT): 565.0 -> 519.9
Calc. conc. 2.234 (2.234)
Area ratio: 89.97 µg/L
Sample type: 0.22036
QC



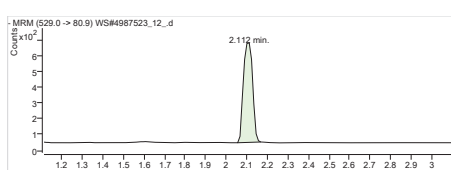
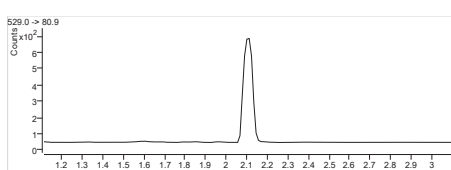
13C2-PFDoA
RT (Exp. RT): 615.0 -> 569.9
Calc. conc. 2.311 (2.311)
Area ratio: 76.18 µg/L
Sample type: 0.20996
QC



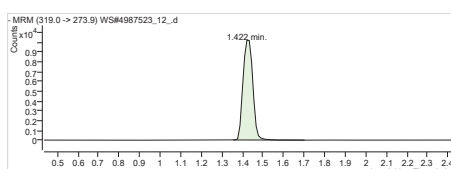
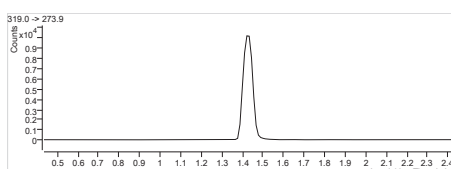
13C2-PFTeDA
RT (Exp. RT): 715.0 -> 669.9
Calc. conc. 2.455 (2.455)
Area ratio: 39.10 µg/L
Sample type: 0.13624
QC



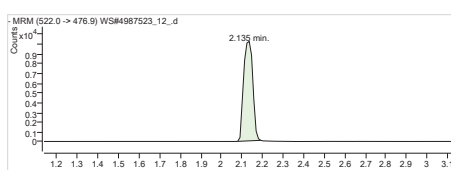
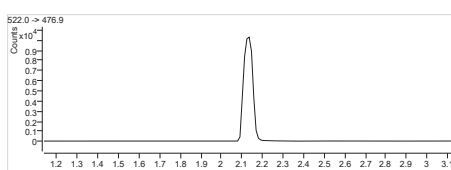
13C2-6:2-FTS
RT (Exp. RT): 429.0 -> 80.9
Calc. conc. 1.835 (1.835)
Area ratio: 88.63 µg/L
Sample type: 0.04908
QC



13C2-8:2 FTS
RT (Exp. RT): 529.0 -> 80.9
Calc. conc. 2.112 (2.112)
Area ratio: 99.53 µg/L
Sample type: 0.05941
QC



13C6-PFHxA
RT (Exp. RT): 319.0 -> 273.9
Calc. conc. 1.422 (1.434)
Area ratio: 2.06 µg/L
Sample type: 0
QC



13C9-PFDA
RT (Exp. RT): 522.0 -> 476.9
Calc. conc. 2.135 (2.135)
Area ratio: 2.32 µg/L
Sample type: 0
QC

Batch Path

T:\lcms4\PFC\20170523\WS#4987523\QuantResults\PFC_Water_Low_170523_WS#4987523_CT

Sample Name

4987523:MTRX SPK:D1

Instrument

LCMS04

Data File

WS#4987523_13.d

Operator

AD

Sample Type

QC

Dilution

0.024

Acq. Method

PFC_Water_Low.m

Position

P1-B3

Acq. Date

2017/05/23 10:12:26 AM

Injection Volume

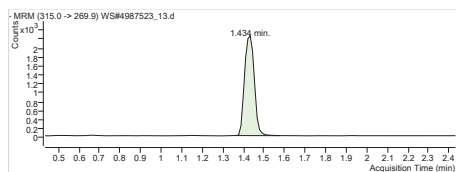
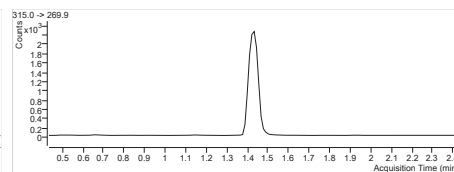
Per Method

Sample Annotation

EJK088, Re-injected to confirm surrogate recovery, reported

ISTD Compounds	Response	RT	Target conc.		
MPFHxA	7336	1.43	1 µg/L		
MPFHxS	1380	1.69	1 µg/L		
MPFHpA	8365	1.69	1 µg/L		
MPFOA	8756	1.88	1 µg/L		
MPFOS	1762	1.98	1 µg/L		
MPFNA	8339	2.01	1 µg/L		
MPFDA	6429	2.14	1 µg/L		
MPFUnA	6871	2.22	1 µg/L		
MPFDoA	6899	2.31	1 µg/L		
MPFTeDA	4450	2.46	1 µg/L		
M2 6:2 FTS	1830	1.85	1 µg/L		
M2 8:2 FTS	2194	2.10	1 µg/L		
13C6-PFHxA IS	33314	1.43	1 µg/L		
13C9-PFDA	31587	2.13	1 µg/L		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	54457	1.10	20.80	1.53 µg/L	305.57
PFHxA 1	428113	1.43	20.80	3.19 µg/L	638.75
PFHxS 1	47544	1.69	20.80	1.68 µg/L	336.38
PFHpA 1	112811	1.69	20.80	0.71 µg/L	141.58
PFOA 1	134077	1.87	20.80	0.85 µg/L	169.70
PFOS 1	19542	1.98	20.80	0.69 µg/L	138.43
PFNA 1	67147	2.01	20.80	0.48 µg/L	97.02
PFDA 1	63456	2.14	20.80	0.48 µg/L	95.89
PFUnA 1	63693	2.23	20.80	0.51 µg/L	102.31
PFDaA 1	57626	2.31	20.80	0.49 µg/L	97.57
PFTrDA 1	55388	2.39	20.80	0.75 µg/L	149.62
PFTeDA 1	34236	2.46	20.80	0.49 µg/L	98.02
6:2-FTS 1	45837	1.84	20.80	1.53 µg/L	305.55
8:2-FTS 1	16136	2.10	20.80	0.48 µg/L	96.86
13C2-PFHxA	7336	1.43	100.00	99.01 µg/L	99.01
18O2-PFHxS	1380	1.69	100.00	105.98 µg/L	105.98
13C4-PFHpA	8365	1.69	100.00	107.88 µg/L	107.88
13C4-PFOA	8756	1.88	100.00	115.15 µg/L	115.15
13C4-PFOS	1762	1.98	100.00	110.51 µg/L	110.51
13C5-PFNA	8339	2.01	100.00	112.53 µg/L	112.53
13C2-PFDA	6429	2.14	100.00	89.78 µg/L	89.78
13C2-PFUnA	6871	2.22	100.00	88.81 µg/L	88.81
13C2-PFDoA	6899	2.31	100.00	79.25 µg/L	79.25
13C2-PFTeDA	4450	2.46	100.00	40.44 µg/L	40.44
13C2-6:2-FTS	1830	1.85	100.00	99.20 µg/L	99.20
13C2-8:2 FTS	2194	2.10	100.00	110.33 µg/L	110.33
13C6-PFHxA	33314	1.43	100.00	2.05 µg/L	85.28
13C9-PFDA	31587	2.13	100.00	2.30 µg/L	95.74



MPFHxA

Internal Standard

RT (Exp. RT):

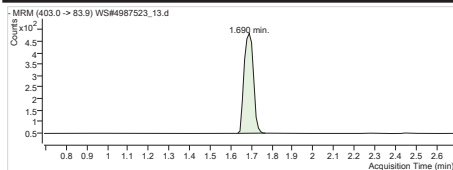
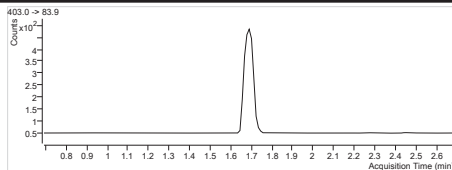
1.434 (1.434)

Concentration:

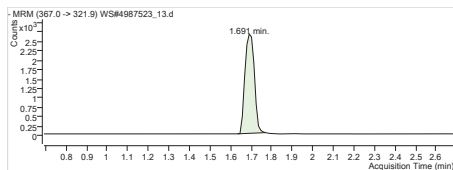
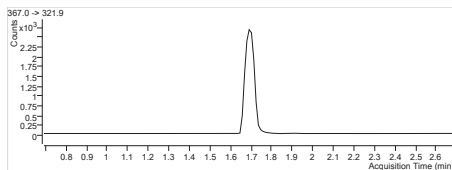
1 µg/L

Sample type:

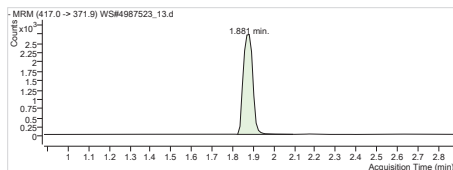
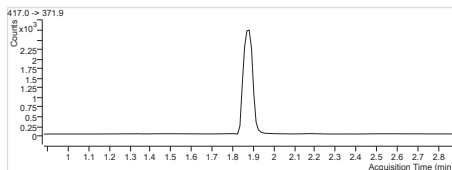
QC



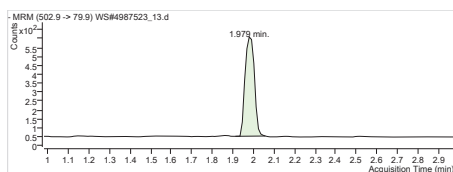
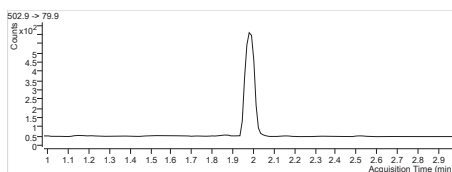
MPFHxS
 RT (Exp. RT): 1.690 (1.690)
 Concentration: 1 µg/L
 Sample type: QC



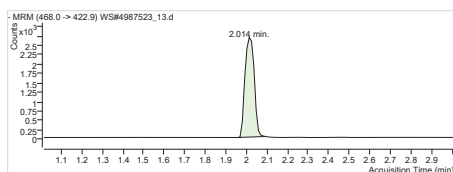
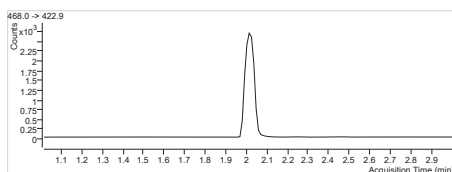
MPFHpA
 RT (Exp. RT): 1.691 (1.691)
 Concentration: 1 µg/L
 Sample type: QC



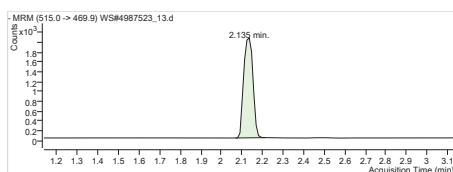
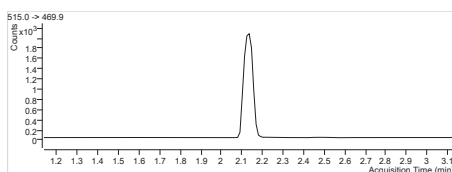
MPFOA
 RT (Exp. RT): 1.881 (1.881)
 Concentration: 1 µg/L
 Sample type: QC



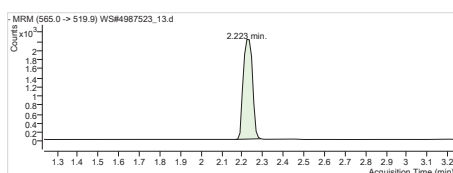
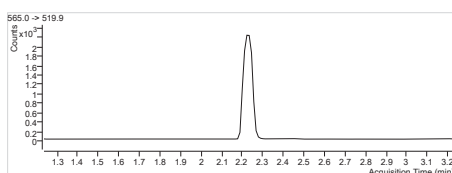
MPFOS
 RT (Exp. RT): 1.979 (1.979)
 Concentration: 1 µg/L
 Sample type: QC



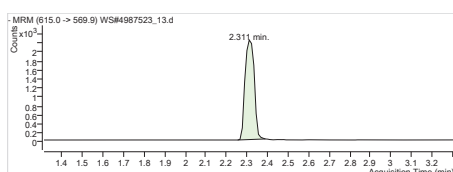
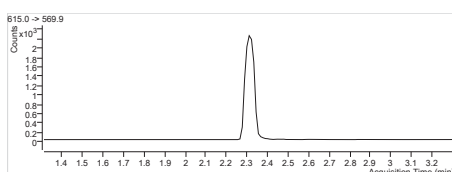
MPFNA
 RT (Exp. RT): 2.014 (2.014)
 Concentration: 1 µg/L
 Sample type: QC



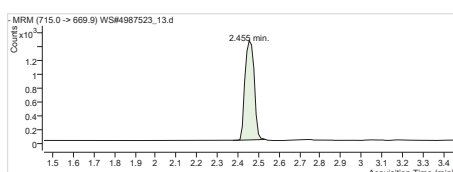
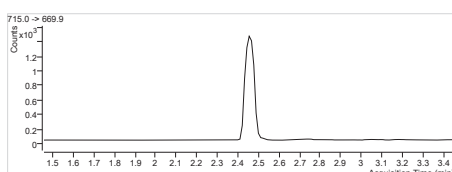
MPFDA
 RT (Exp. RT): 2.135 (2.135)
 Concentration: 1 µg/L
 Sample type: QC



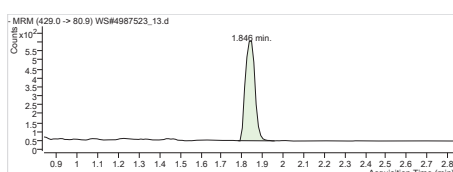
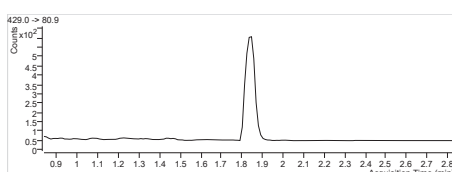
MPFUnA
 RT (Exp. RT): 2.223 (2.234)
 Concentration: 1 µg/L
 Sample type: QC



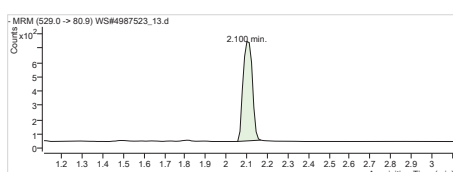
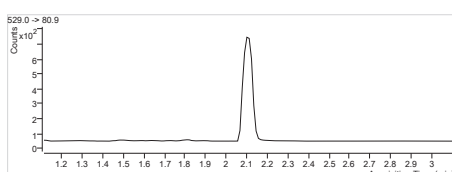
MPFDoA
 RT (Exp. RT): 2.311 (2.311)
 Concentration: 1 µg/L
 Sample type: QC



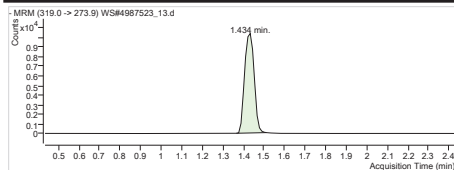
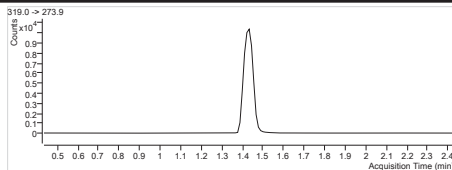
MPFTeDA
 RT (Exp. RT): 2.455 (2.455)
 Concentration: 1 µg/L
 Sample type: QC



M2 6:2 FTS
 RT (Exp. RT): 1.846 (1.835)
 Concentration: 1 µg/L
 Sample type: QC



M2 8:2 FTS
 RT (Exp. RT): 2.100 (2.112)
 Concentration: 1 µg/L
 Sample type: QC

**13C6-PFHxA IS**

RT (Exp. RT):

Concentration:

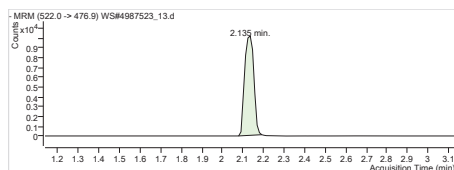
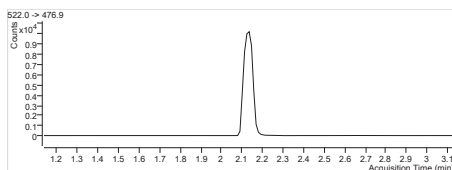
Sample type:

Internal Standard

1.434 (1.434)

1 μ g/L

QC

**13C9-PFDA IS**

RT (Exp. RT):

Concentration:

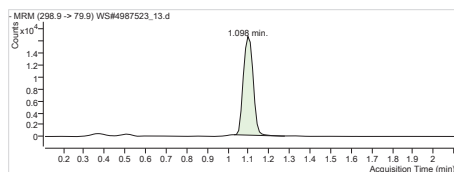
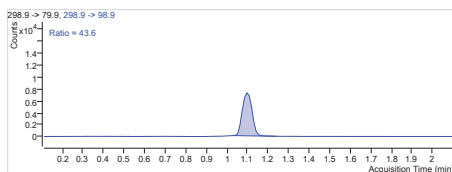
Sample type:

Internal Standard

2.135 (2.135)

1 μ g/L

QC

**PFBS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

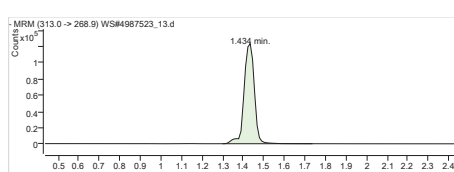
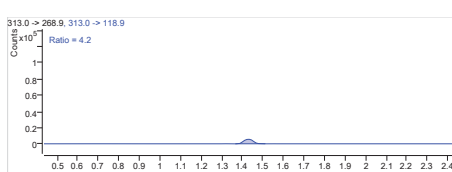
298.9 -> 79.9

1.098 (1.109)

1.53 μ g/L

39.46159

QC

**PFHxA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

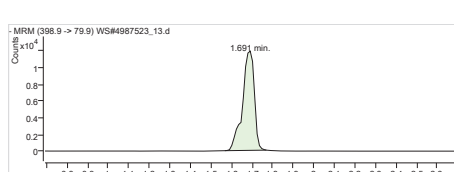
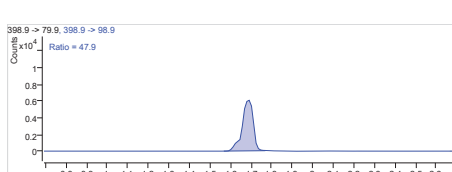
313.0 -> 268.9

1.434 (1.434)

3.19 μ g/L

58.35782

QC

**PFHxS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

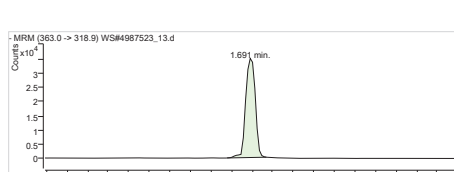
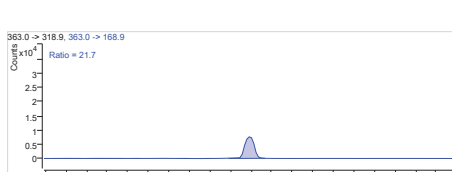
398.9 -> 79.9

1.691 (1.691)

1.68 μ g/L

34.45217

QC

**PFHpA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

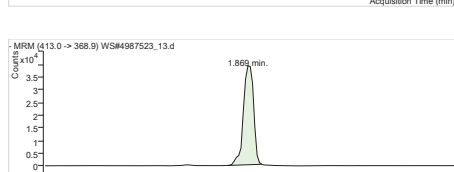
363.0 -> 318.9

1.691 (1.691)

0.71 μ g/L

13.48607

QC

**PFOA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

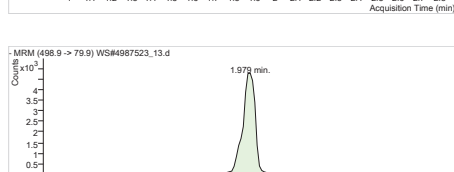
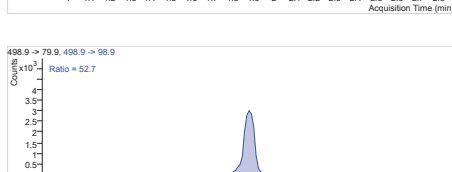
413.0 -> 368.9

1.869 (1.881)

0.85 μ g/L

15.31259

QC

**PFOS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

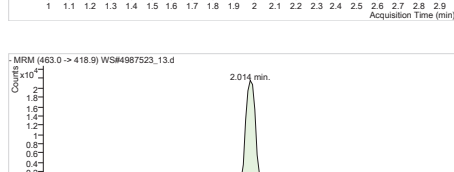
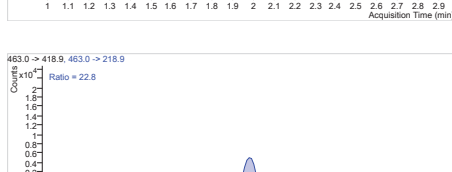
498.9 -> 79.9

1.979 (1.979)

0.69 μ g/L

11.09081

QC

**PFNA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

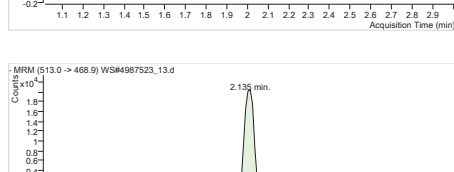
463.0 -> 418.9

2.014 (2.014)

0.48 μ g/L

8.05216

QC

**PFDA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

513.0 -> 468.9

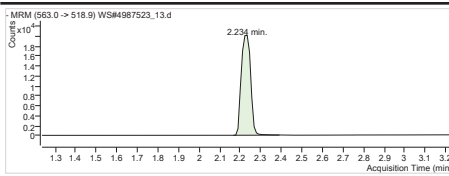
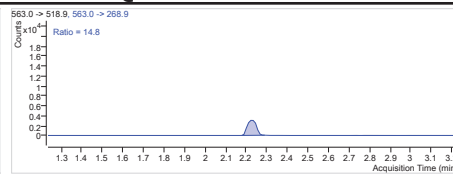
2.135 (2.135)

0.48 μ g/L

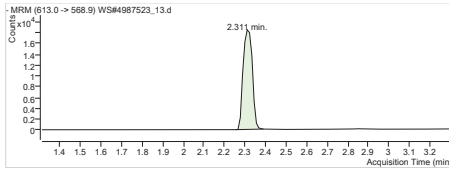
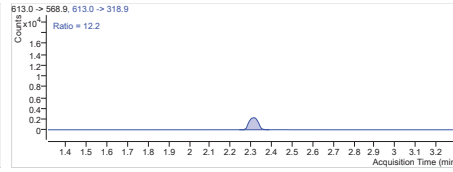
9.87028

QC

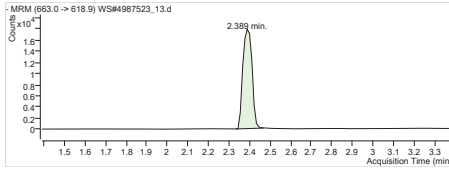
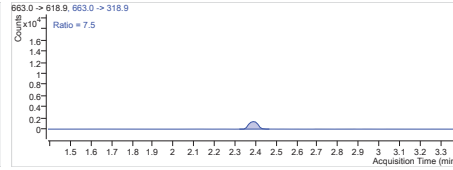
Quantitation Results



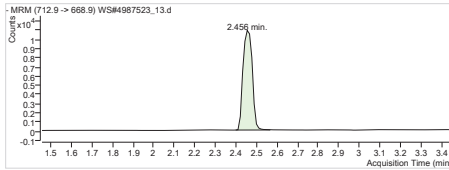
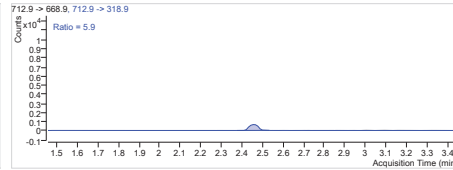
PFUnA 1
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 0.51 µg/L
Area ratio: 9.26983
Sample type: QC



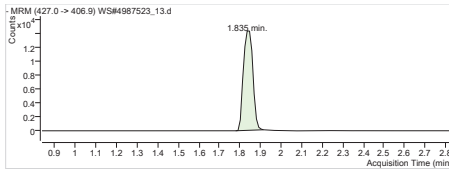
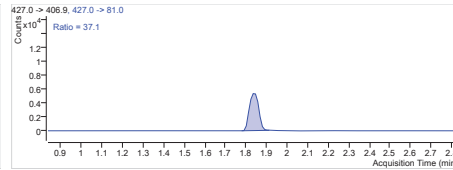
PFDaA 1
RT (Exp. RT): 2.311 (2.311)
Calc. conc. 0.49 µg/L
Area ratio: 8.35280
Sample type: QC



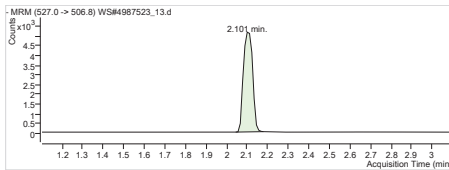
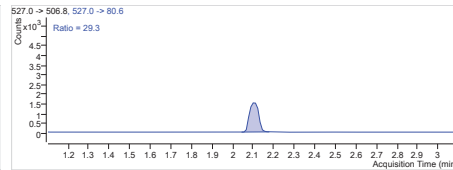
PFTrDA 1
RT (Exp. RT): 2.389 (2.389)
Calc. conc. 0.75 µg/L
Area ratio: 12.44674
Sample type: QC



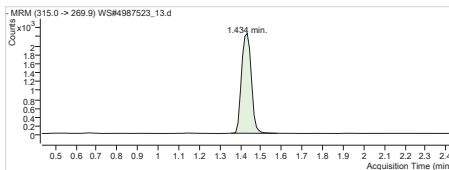
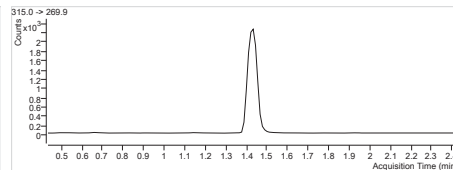
PFTeDA 1
RT (Exp. RT): 2.456 (2.456)
Calc. conc. 0.49 µg/L
Area ratio: 7.69348
Sample type: QC



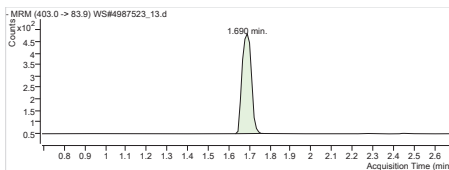
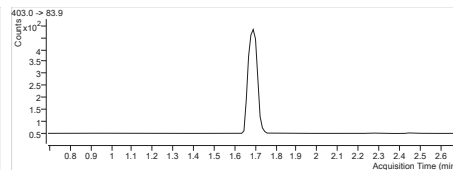
6:2-FTS 1
RT (Exp. RT): 1.835 (1.835)
Calc. conc. 1.53 µg/L
Area ratio: 25.04754
Sample type: QC



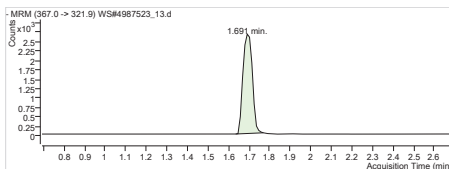
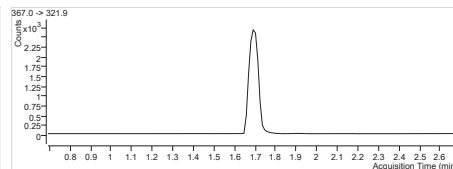
8:2-FTS 1
RT (Exp. RT): 2.101 (2.101)
Calc. conc. 0.48 µg/L
Area ratio: 7.35460
Sample type: QC



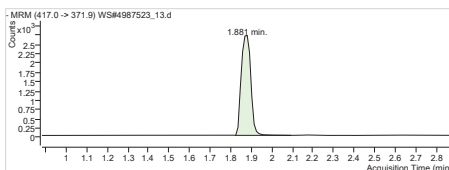
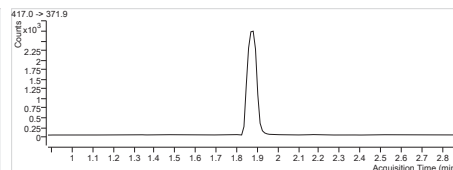
13C2-PFHxA
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 99.01 µg/L
Area ratio: 0.22021
Sample type: QC



18O2-PFHxS
RT (Exp. RT): 1.690 (1.690)
Calc. conc. 105.98 µg/L
Area ratio: 0.04142
Sample type: QC

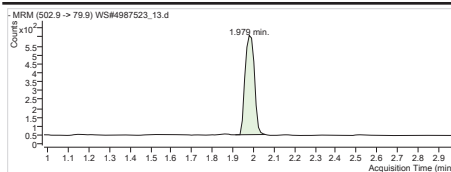
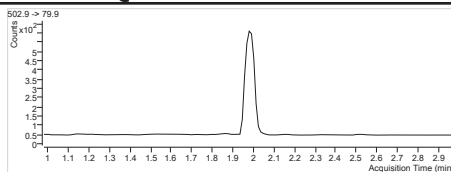


13C4-PFHpA
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 107.88 µg/L
Area ratio: 0.25110
Sample type: QC

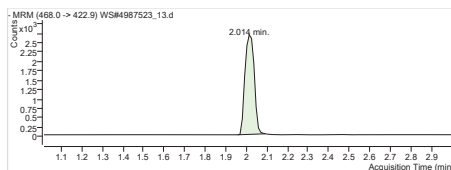
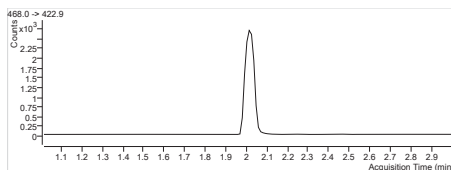


13C4-PFOA
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 115.15 µg/L
Area ratio: 0.26283
Sample type: QC

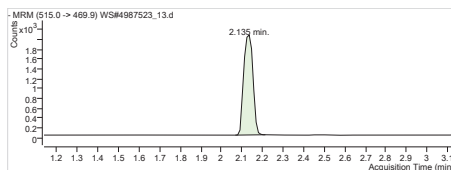
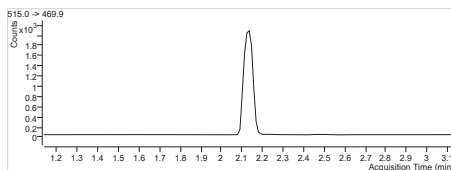
Quantitation Results



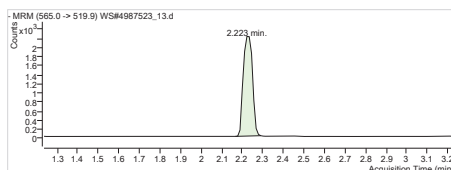
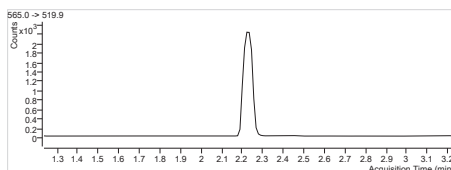
13C4-PFOS
RT (Exp. RT): 502.9 -> 79.9
Calc. conc. 1.979 (1.979)
Area ratio: 110.51 µg/L
Sample type: 0.05289
QC



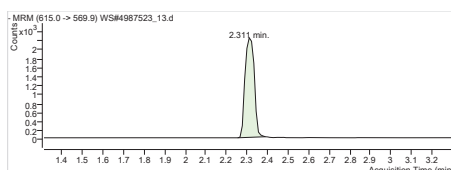
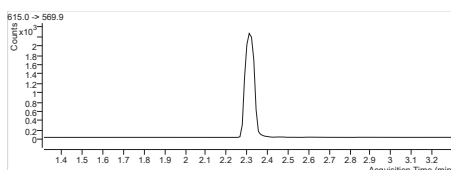
13C5-PFNA
RT (Exp. RT): 468.0 -> 422.9
Calc. conc. 2.014 (2.014)
Area ratio: 112.53 µg/L
Sample type: 0.25032
QC



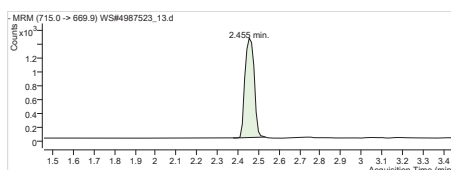
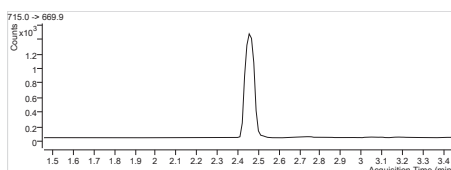
13C2-PFDA
RT (Exp. RT): 515.0 -> 469.9
Calc. conc. 2.135 (2.135)
Area ratio: 89.78 µg/L
Sample type: 0.20353
QC



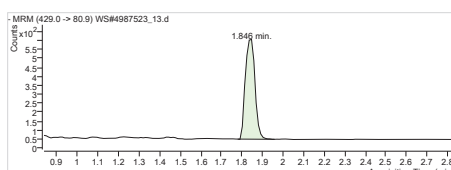
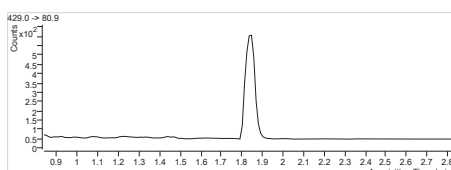
13C2-PFUnA
RT (Exp. RT): 565.0 -> 519.9
Calc. conc. 2.223 (2.234)
Area ratio: 88.81 µg/L
Sample type: 0.21753
QC



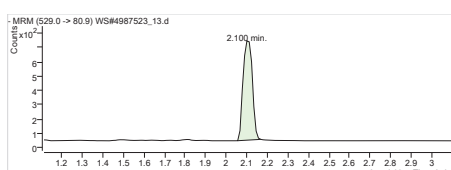
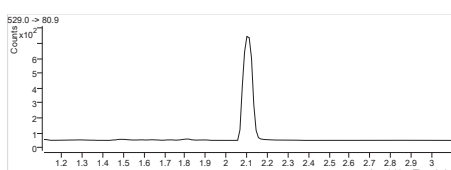
13C2-PFDoA
RT (Exp. RT): 615.0 -> 569.9
Calc. conc. 2.311 (2.311)
Area ratio: 79.25 µg/L
Sample type: 0.21841
QC



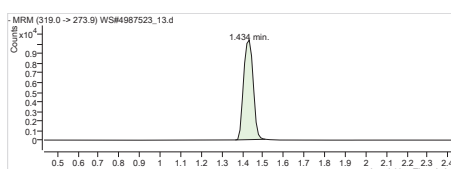
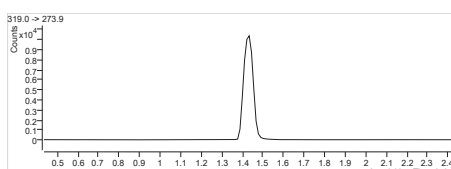
13C2-PFTeDA
RT (Exp. RT): 715.0 -> 669.9
Calc. conc. 2.455 (2.455)
Area ratio: 40.44 µg/L
Sample type: 0.14088
QC



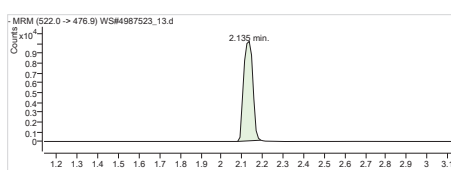
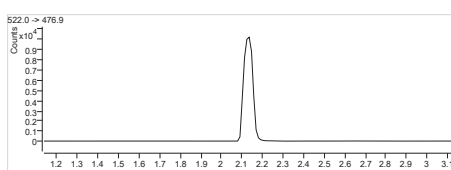
13C2-6:2-FTS
RT (Exp. RT): 429.0 -> 80.9
Calc. conc. 1.846 (1.835)
Area ratio: 99.20 µg/L
Sample type: 0.05493
QC



13C2-8:2 FTS
RT (Exp. RT): 529.0 -> 80.9
Calc. conc. 2.100 (2.112)
Area ratio: 110.33 µg/L
Sample type: 0.06586
QC



13C6-PFHxA
RT (Exp. RT): 319.0 -> 273.9
Calc. conc. 1.434 (1.434)
Area ratio: 2.05 µg/L
Sample type: 0
QC



13C9-PFDA
RT (Exp. RT): 522.0 -> 476.9
Calc. conc. 2.135 (2.135)
Area ratio: 2.30 µg/L
Sample type: 0
QC

Batch Path

T:\lcms4\PFC\20170523\WS#4987523\QuantResults\PFC_Water_Low_170523_WS#4987523_CT

Sample Name

4987523:MTRX SPK:D1:R

Instrument

LCMS04

Data File

WS#4987523_13_.d

Operator

AD

Sample Type

QC

Dilution

0.024

Acq. Method

PFC_Water_Low.m

Position

P1-B3

Acq. Date

2017/05/23 1:35:54 PM

Injection Volume

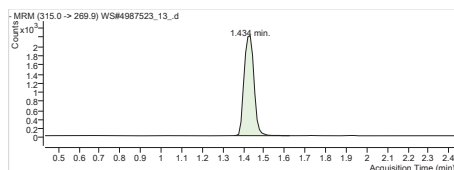
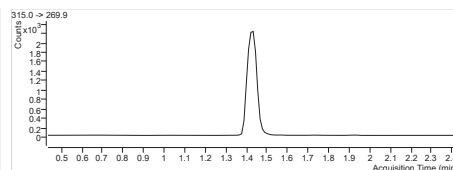
Per Method

Sample Annotation

EJK088, Re-injection, not reported

ISTD Compounds	Response	RT	Target conc.		
MPFHxA	7344	1.43	1 µg/L		
MPFHxS	1411	1.69	1 µg/L		
MPFHpA	7930	1.69	1 µg/L		
MPFOA	7829	1.87	1 µg/L		
MPFOS	1736	1.98	1 µg/L		
MPFNA	7692	2.01	1 µg/L		
MPFDA	6326	2.14	1 µg/L		
MPFUnA	6824	2.22	1 µg/L		
MPFDoA	6824	2.31	1 µg/L		
MPFTeDA	4411	2.46	1 µg/L		
M2 6:2 FTS	1774	1.84	1 µg/L		
M2 8:2 FTS	2053	2.10	1 µg/L		
13C6-PFHxA IS	34824	1.42	1 µg/L		
13C9-PFDA IS	31017	2.13	1 µg/L		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	53741	1.10	20.80	1.47 µg/L	294.92
PFHxA 1	421098	1.43	20.80	3.13 µg/L	627.60
PFHxS 1	48067	1.69	20.80	1.66 µg/L	332.60
PFHpA 1	111224	1.69	20.80	0.74 µg/L	147.26
PFOA 1	131336	1.87	20.80	0.93 µg/L	185.99
PFOS 1	18669	1.97	20.80	0.67 µg/L	134.22
PFNA 1	65520	2.01	20.80	0.51 µg/L	102.64
PFDA 1	63536	2.14	20.80	0.49 µg/L	97.58
PFUnA 1	61128	2.22	20.80	0.49 µg/L	98.85
PFDaA 1	56946	2.31	20.80	0.49 µg/L	97.48
PFTTrDA 1	53562	2.39	20.80	0.73 µg/L	145.96
PFTeDA 1	33390	2.46	20.80	0.48 µg/L	96.44
6:2-FTS 1	41868	1.84	20.80	1.44 µg/L	287.85
8:2-FTS 1	15835	2.10	20.80	0.51 µg/L	101.61
13C2-PFHxA	7344	1.43	100.00	94.82 µg/L	94.82
18O2-PFHxS	1411	1.69	100.00	103.66 µg/L	103.66
13C4-PFHpA	7930	1.69	100.00	97.83 µg/L	97.83
13C4-PFOA	7829	1.87	100.00	98.50 µg/L	98.50
13C4-PFOS	1736	1.98	100.00	104.16 µg/L	104.16
13C5-PFNA	7692	2.01	100.00	99.30 µg/L	99.30
13C2-PFDA	6326	2.14	100.00	89.96 µg/L	89.96
13C2-PFUnA	6824	2.22	100.00	89.82 µg/L	89.82
13C2-PFDoA	6824	2.31	100.00	79.83 µg/L	79.83
13C2-PFTeDA	4411	2.46	100.00	40.82 µg/L	40.82
13C2-6:2-FTS	1774	1.84	100.00	92.00 µg/L	92.00
13C2-8:2 FTS	2053	2.10	100.00	98.76 µg/L	98.76
13C6-PFHxA	34824	1.42	100.00	2.14 µg/L	89.15
13C9-PFDA	31017	2.13	100.00	2.26 µg/L	94.01



MPFHxA

Internal Standard

RT (Exp. RT):

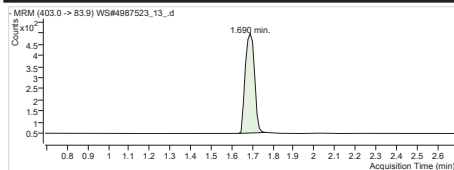
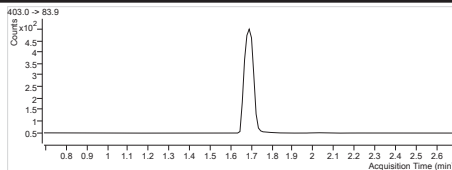
1.434 (1.434)

Concentration:

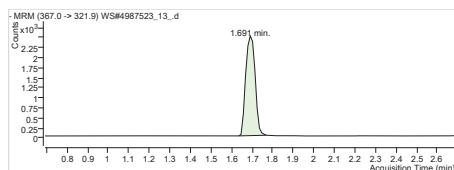
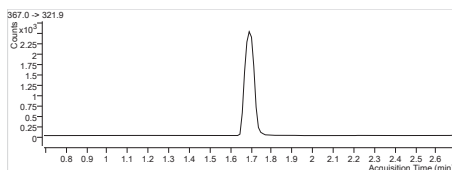
1 µg/L

Sample type:

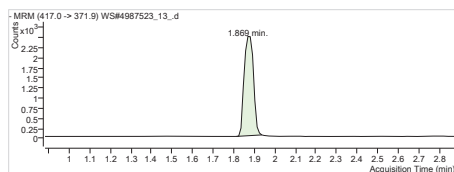
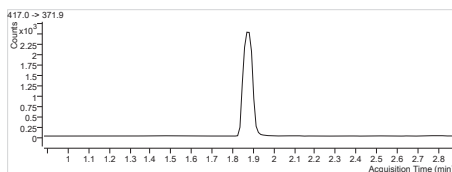
QC



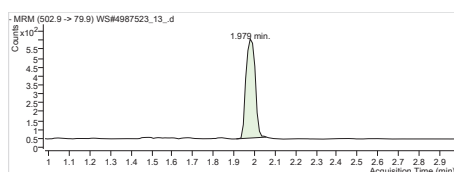
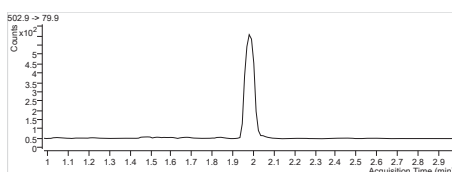
MPFHxS
RT (Exp. RT): 1.690 (1.690)
Concentration: 1 µg/L
Sample type: QC



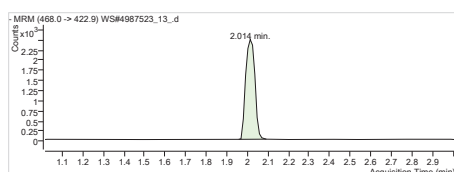
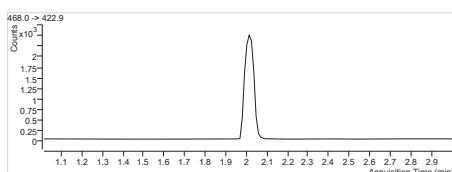
MPFHpA
RT (Exp. RT): 1.691 (1.691)
Concentration: 1 µg/L
Sample type: QC



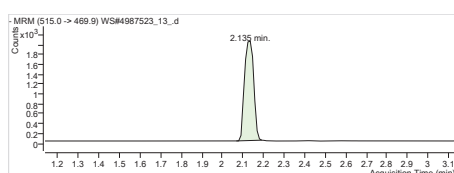
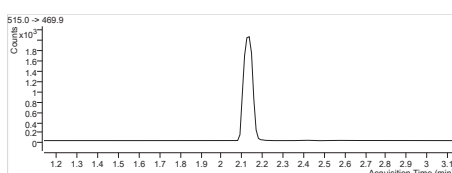
MPFOA
RT (Exp. RT): 1.869 (1.881)
Concentration: 1 µg/L
Sample type: QC



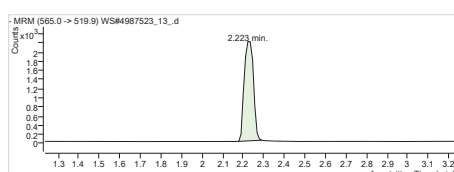
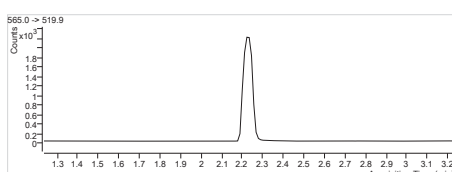
MPFOS
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: QC



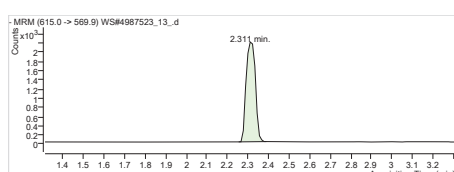
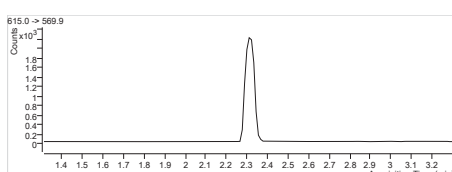
MPFNA
RT (Exp. RT): 2.014 (2.014)
Concentration: 1 µg/L
Sample type: QC



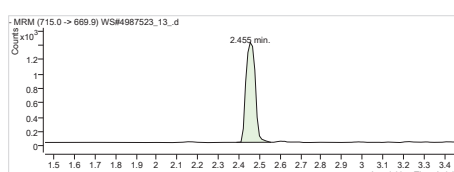
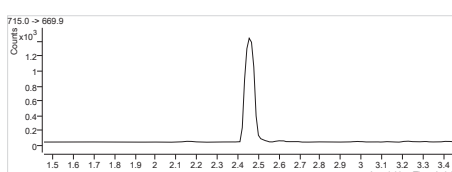
MPFDA
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: QC



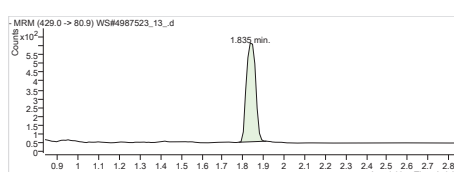
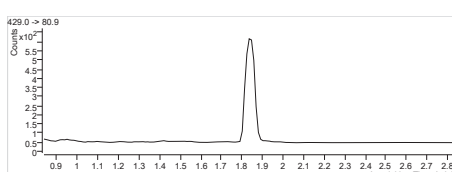
MPFUnA
RT (Exp. RT): 2.223 (2.234)
Concentration: 1 µg/L
Sample type: QC



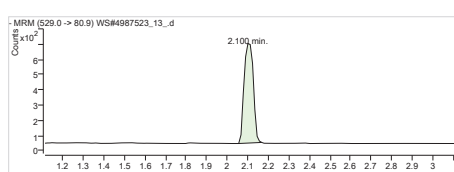
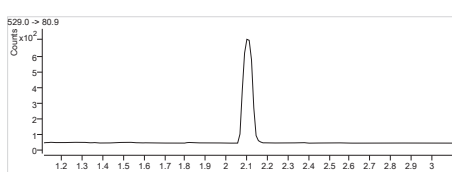
MPFDoA
RT (Exp. RT): 2.311 (2.311)
Concentration: 1 µg/L
Sample type: QC



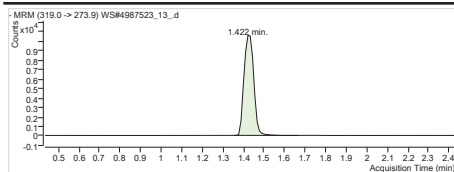
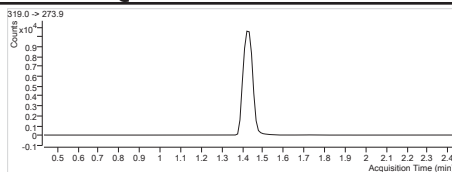
MPFTeDA
RT (Exp. RT): 2.455 (2.455)
Concentration: 1 µg/L
Sample type: QC



M2 6:2 FTS
RT (Exp. RT): 1.835 (1.835)
Concentration: 1 µg/L
Sample type: QC



M2 8:2 FTS
RT (Exp. RT): 2.100 (2.112)
Concentration: 1 µg/L
Sample type: QC

**13C6-PFHxA IS**

RT (Exp. RT):

Concentration:

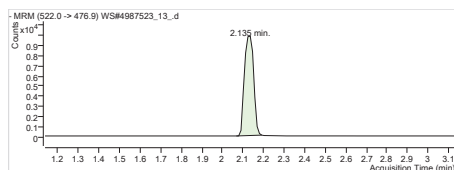
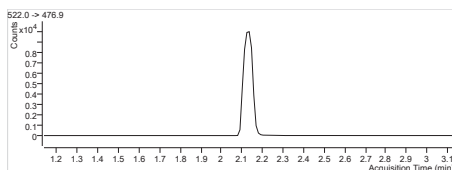
Sample type:

Internal Standard

1.422 (1.434)

1 $\mu\text{g/L}$

QC

**13C9-PFDA IS**

RT (Exp. RT):

Concentration:

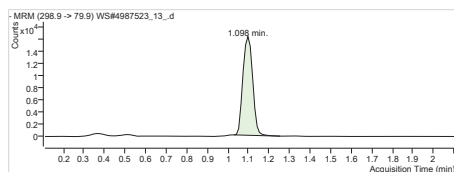
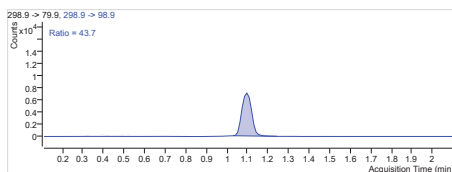
Sample type:

Internal Standard

2.135 (2.135)

1 $\mu\text{g/L}$

QC

**PFBS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

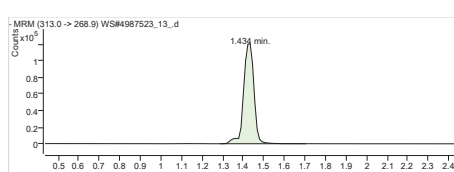
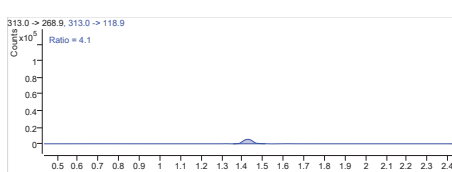
298.9 -> 79.9

1.098 (1.109)

1.47 $\mu\text{g/L}$

38.08717

QC

**PFHxA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

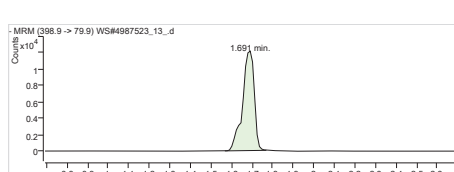
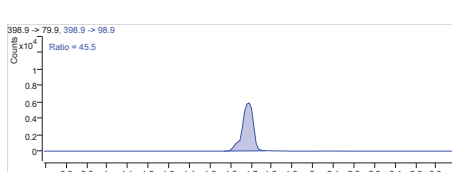
313.0 -> 268.9

1.434 (1.434)

3.13 $\mu\text{g/L}$

57.33905

QC

**PFHxS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

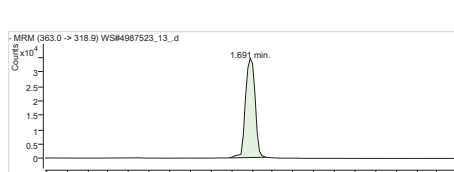
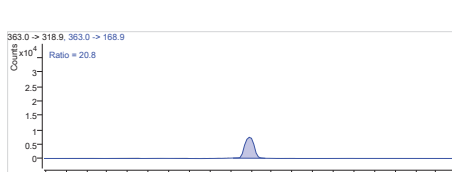
398.9 -> 79.9

1.691 (1.691)

1.66 $\mu\text{g/L}$

34.06591

QC

**PFHpA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

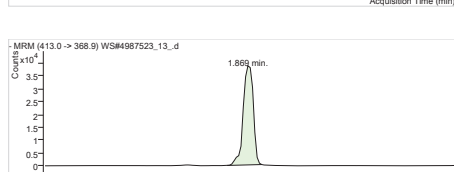
363.0 -> 318.9

1.691 (1.691)

0.74 $\mu\text{g/L}$

14.02573

QC

**PFOA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

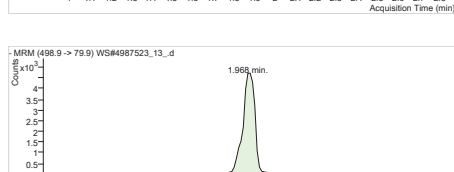
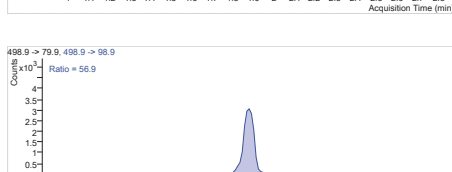
413.0 -> 368.9

1.869 (1.881)

0.93 $\mu\text{g/L}$

16.77558

QC

**PFOS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

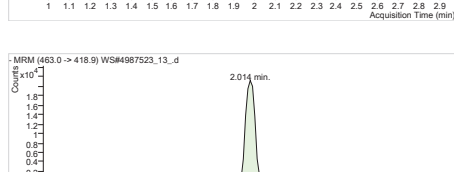
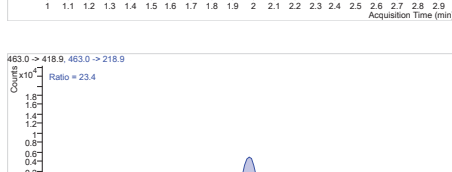
498.9 -> 79.9

1.968 (1.979)

0.67 $\mu\text{g/L}$

10.75403

QC

**PFNA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

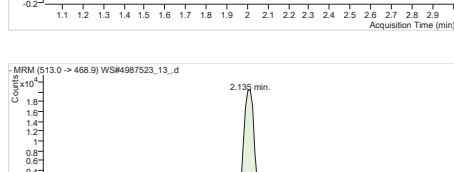
463.0 -> 418.9

2.014 (2.014)

0.51 $\mu\text{g/L}$

8.51794

QC

**PFDA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

513.0 -> 468.9

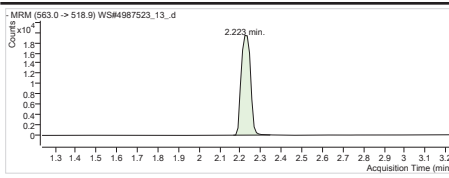
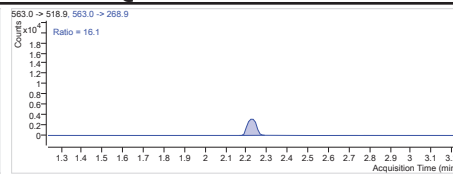
2.135 (2.135)

0.49 $\mu\text{g/L}$

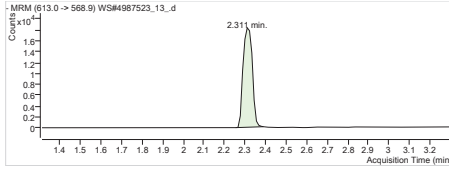
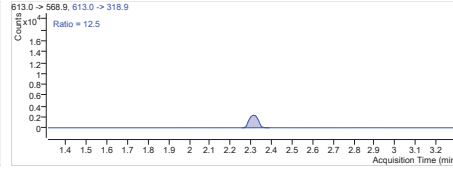
10.04363

QC

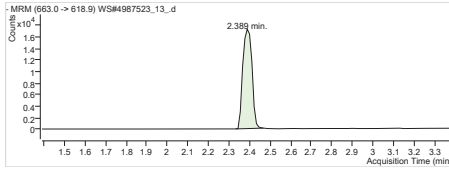
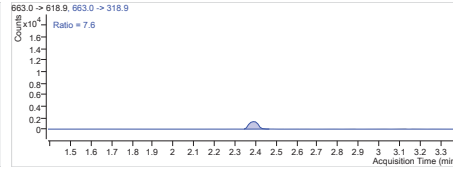
Quantitation Results



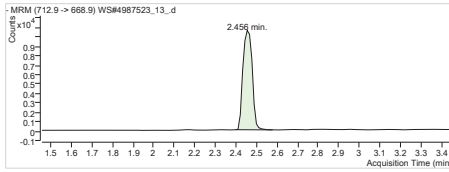
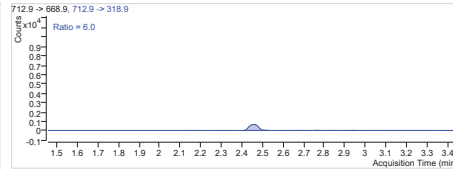
PFUnA 1
RT (Exp. RT): 563.0 -> 518.9
Calc. conc. 2.223 (2.234)
Area ratio: 0.49 µg/L
Sample type: 8.95780
QC



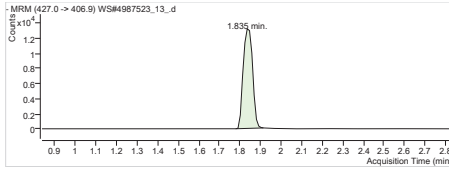
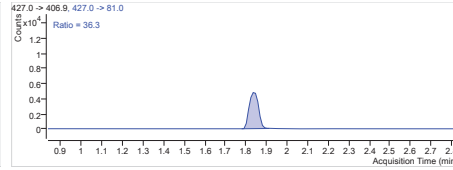
PFDaA 1
RT (Exp. RT): 613.0 -> 568.9
Calc. conc. 2.311 (2.311)
Area ratio: 0.49 µg/L
Sample type: 8.34496
QC



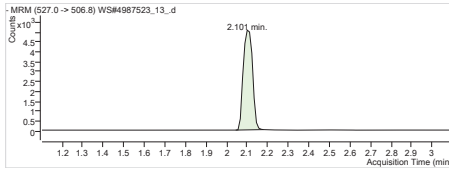
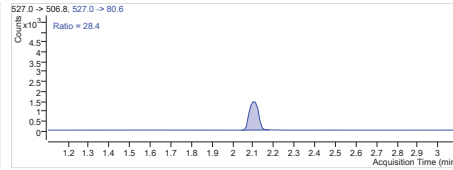
PFTraA 1
RT (Exp. RT): 663.0 -> 618.9
Calc. conc. 2.389 (2.389)
Area ratio: 0.73 µg/L
Sample type: 12.14282
QC



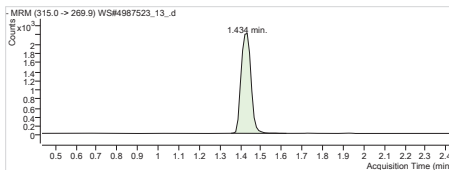
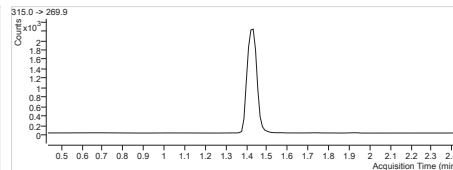
PFTeDa 1
RT (Exp. RT): 712.9 -> 668.9
Calc. conc. 2.456 (2.456)
Area ratio: 0.48 µg/L
Sample type: 7.56971
QC



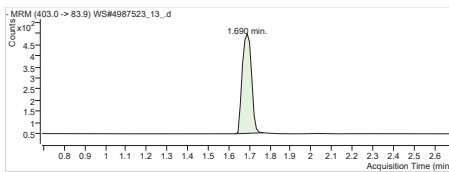
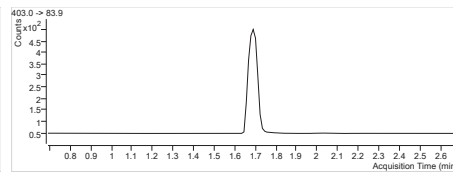
6:2-FTS 1
RT (Exp. RT): 427.0 -> 406.9
Calc. conc. 1.835 (1.835)
Area ratio: 1.44 µg/L
Sample type: 23.60090
QC



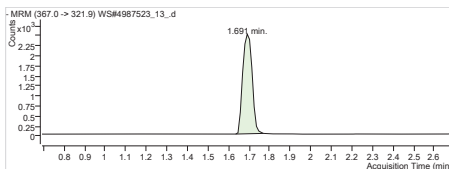
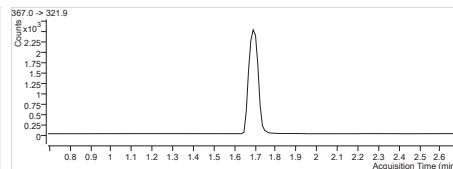
8:2-FTS 1
RT (Exp. RT): 527.0 -> 506.8
Calc. conc. 2.101 (2.101)
Area ratio: 0.51 µg/L
Sample type: 7.71310
QC



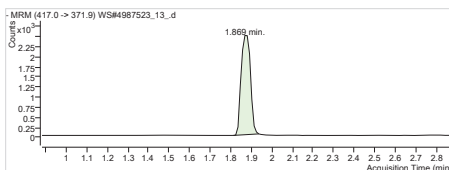
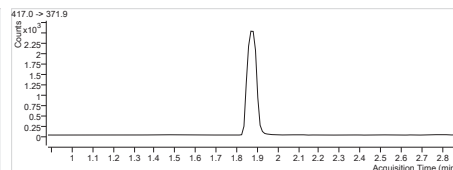
13C2-PFHxA
RT (Exp. RT): 315.0 -> 269.9
Calc. conc. 1.434 (1.434)
Area ratio: 94.82 µg/L
Sample type: 0.21089
QC



18O2-PFHxS
RT (Exp. RT): 403.0 -> 83.9
Calc. conc. 1.690 (1.690)
Area ratio: 103.66 µg/L
Sample type: 0.04052
QC

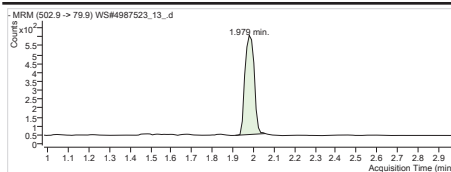
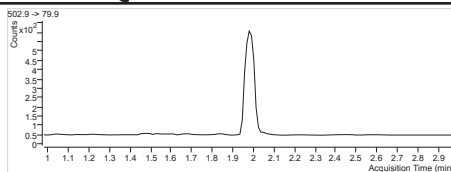


13C4-PFHpA
RT (Exp. RT): 367.0 -> 321.9
Calc. conc. 1.691 (1.691)
Area ratio: 97.83 µg/L
Sample type: 0.22772
QC

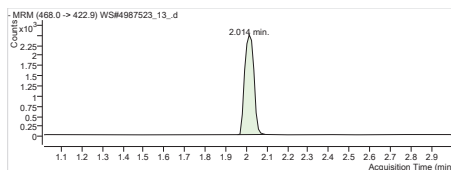
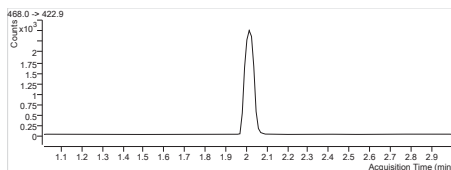


13C4-PFOA
RT (Exp. RT): 417.0 -> 371.9
Calc. conc. 1.869 (1.881)
Area ratio: 98.50 µg/L
Sample type: 0.22482
QC

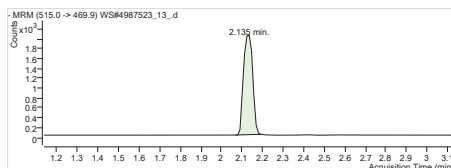
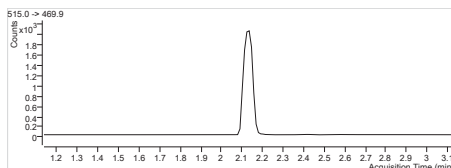
Quantitation Results



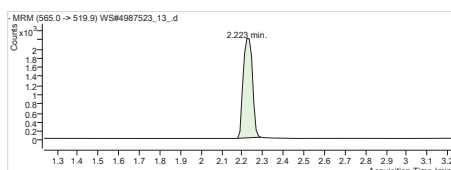
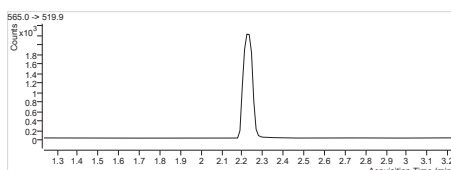
13C4-PFOS
 RT (Exp. RT): 1.979 (1.979)
 Calc. conc. 104.16 µg/L
 Area ratio: 0.04985
 Sample type: QC



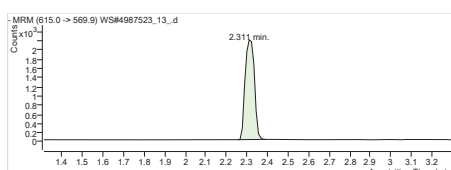
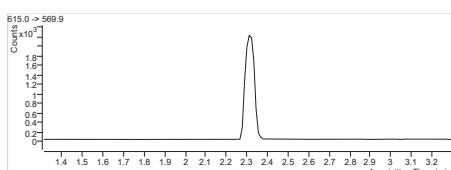
13C5-PFNA
 RT (Exp. RT): 2.014 (2.014)
 Calc. conc. 99.30 µg/L
 Area ratio: 0.22088
 Sample type: QC



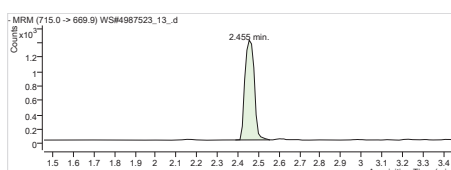
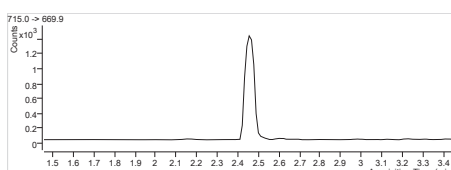
13C2-PFDA
 RT (Exp. RT): 2.135 (2.135)
 Calc. conc. 89.96 µg/L
 Area ratio: 0.20395
 Sample type: QC



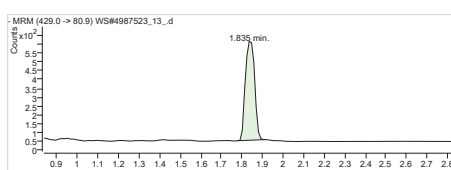
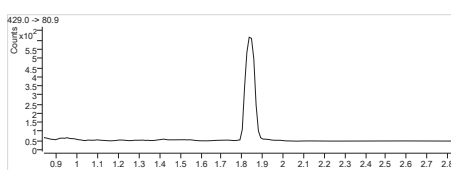
13C2-PFUnA
 RT (Exp. RT): 2.223 (2.234)
 Calc. conc. 89.82 µg/L
 Area ratio: 0.22001
 Sample type: QC



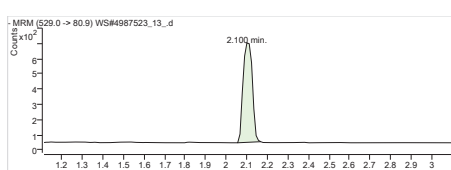
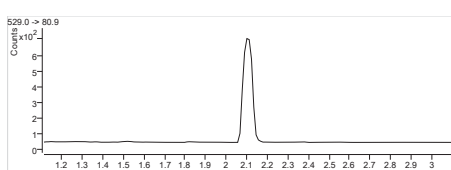
13C2-PFDoA
 RT (Exp. RT): 2.311 (2.311)
 Calc. conc. 79.83 µg/L
 Area ratio: 0.22001
 Sample type: QC



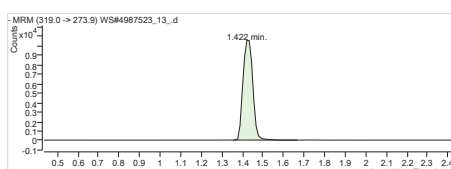
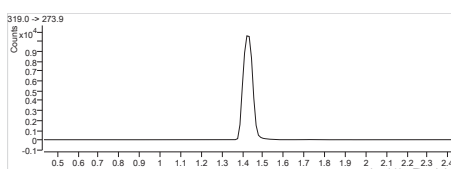
13C2-PFTeDA
 RT (Exp. RT): 2.455 (2.455)
 Calc. conc. 40.82 µg/L
 Area ratio: 0.14221
 Sample type: QC



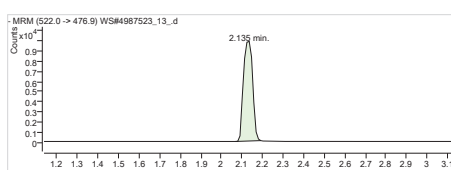
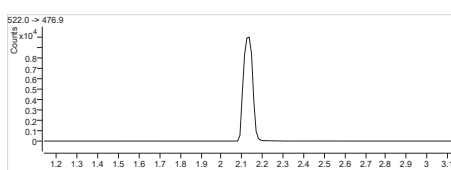
13C2-6:2-FTS
 RT (Exp. RT): 1.835 (1.835)
 Calc. conc. 92.00 µg/L
 Area ratio: 0.05094
 Sample type: QC



13C2-8:2 FTS
 RT (Exp. RT): 2.100 (2.112)
 Calc. conc. 98.76 µg/L
 Area ratio: 0.05895
 Sample type: QC



13C6-PFHxA
 RT (Exp. RT): 1.422 (1.434)
 Calc. conc. 2.14 µg/L
 Area ratio: 0
 Sample type: QC



13C9-PFDA
 RT (Exp. RT): 2.135 (2.135)
 Calc. conc. 2.26 µg/L
 Area ratio: 0
 Sample type: QC

Batch Path

T:\lcms4\PFC\20170523\WS#4987523\QuantResults\PFC_Water_Low_170523_WS#4987523_CT

Sample Name

4987523:SPIKE

Instrument

LCMS04

Data File

WS#4987523_15.d

Operator

AD

Sample Type

QC

Dilution

0.024

Acq. Method

PFC_Water_Low.m

Position

P1-B4

Acq. Date

2017/05/23 10:22:14 AM

Injection Volume

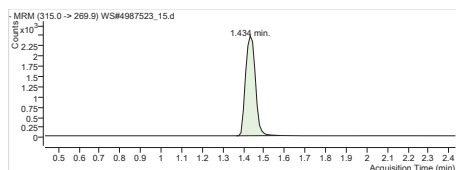
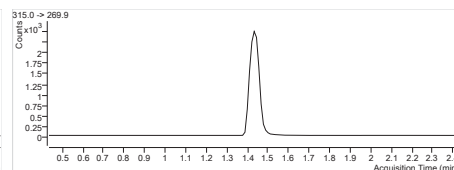
Per Method

Sample Annotation

-

ISTD Compounds	Response	RT	Target conc.		
MPFHxA	8124	1.43	1 µg/L		
MPFHxS	1512	1.69	1 µg/L		
MPFHpA	8495	1.70	1 µg/L		
MPFOA	7892	1.88	1 µg/L		
MPFOS	1876	1.98	1 µg/L		
MPFNA	7776	2.01	1 µg/L		
MPFDA	7120	2.14	1 µg/L		
MPFUnA	7387	2.23	1 µg/L		
MPFDoA	8143	2.31	1 µg/L		
MPFTeDA	10222	2.46	1 µg/L		
M2 6:2 FTS	2132	1.85	1 µg/L		
M2 8:2 FTS	2174	2.10	1 µg/L		
13C6-PFHxA IS	40753	1.43	1 µg/L		
13C9-PFDA IS	33969	2.13	1 µg/L		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	18446	1.10	20.80	0.47 µg/L	94.35
PFHxA 1	72264	1.43	20.80	0.49 µg/L	97.29
PFHxS 1	14566	1.69	20.80	0.47 µg/L	93.86
PFHpA 1	78933	1.70	20.80	0.49 µg/L	97.44
PFOA 1	75832	1.88	20.80	0.53 µg/L	106.20
PFOS 1	13303	1.98	20.80	0.44 µg/L	88.51
PFNA 1	65452	2.01	20.80	0.51 µg/L	101.42
PFDA 1	68480	2.14	20.80	0.47 µg/L	93.44
PFUnA 1	66844	2.23	20.80	0.50 µg/L	99.86
PFDaA 1	69594	2.31	20.80	0.50 µg/L	99.85
PFTTrDA 1	82132	2.39	20.80	0.48 µg/L	96.48
PFTeDA 1	74818	2.46	20.80	0.47 µg/L	93.24
6:2-FTS 1	16219	1.85	20.80	0.46 µg/L	92.10
8:2-FTS 1	15642	2.10	20.80	0.47 µg/L	94.75
13C2-PFHxA	8124	1.43	100.00	89.63 µg/L	89.63
18O2-PFHxS	1512	1.69	100.00	94.92 µg/L	94.92
13C4-PFHpA	8495	1.70	100.00	89.56 µg/L	89.56
13C4-PFOA	7892	1.88	100.00	84.84 µg/L	84.84
13C4-PFOS	1876	1.98	100.00	96.18 µg/L	96.18
13C5-PFNA	7776	2.01	100.00	85.78 µg/L	85.78
13C2-PFDA	7120	2.14	100.00	92.45 µg/L	92.45
13C2-PFUnA	7387	2.23	100.00	88.78 µg/L	88.78
13C2-PFDoA	8143	2.31	100.00	86.98 µg/L	86.98
13C2-PFTeDA	10222	2.46	100.00	86.37 µg/L	86.37
13C2-6:2-FTS	2132	1.85	100.00	94.48 µg/L	94.48
13C2-8:2 FTS	2174	2.10	100.00	89.37 µg/L	89.37
13C6-PFHxA	40753	1.43	100.00	2.50 µg/L	104.33
13C9-PFDA	33969	2.13	100.00	2.47 µg/L	102.96



MPFHxA

Internal Standard

RT (Exp. RT):

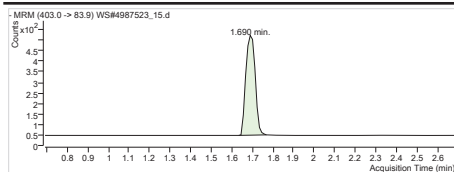
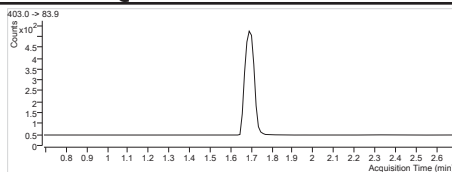
1.434 (1.434)

Concentration:

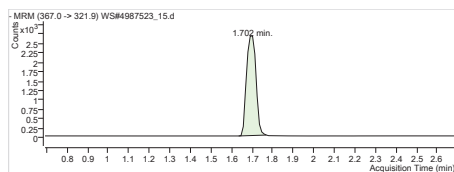
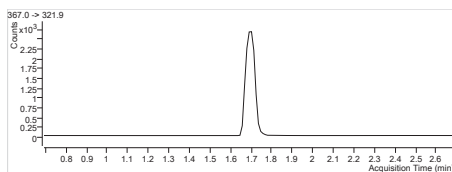
1 µg/L

Sample type:

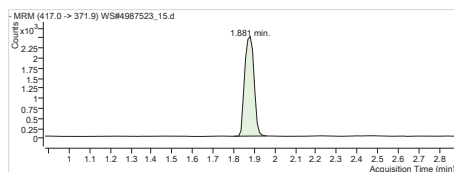
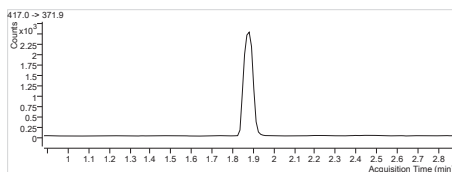
QC



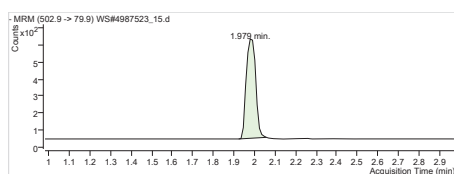
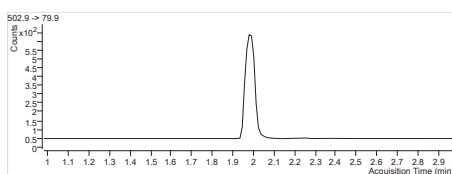
MPFHxS
 RT (Exp. RT): 1.690 (1.690)
 Concentration: 1 µg/L
 Sample type: QC



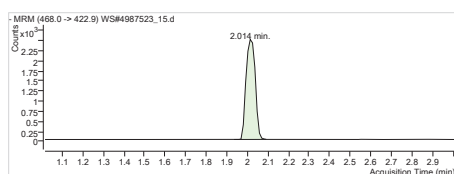
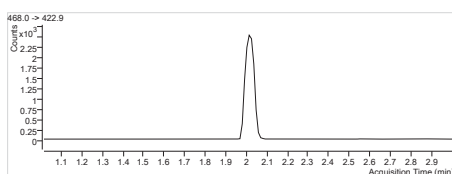
MPFHpA
 RT (Exp. RT): 1.702 (1.691)
 Concentration: 1 µg/L
 Sample type: QC



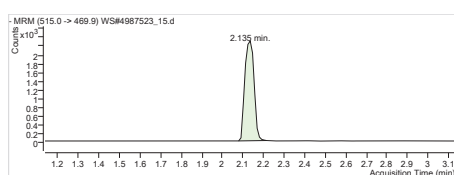
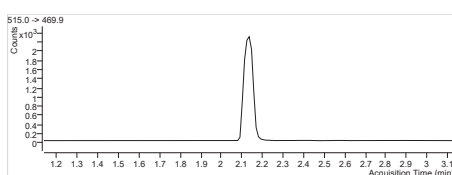
MPFOA
 RT (Exp. RT): 1.881 (1.881)
 Concentration: 1 µg/L
 Sample type: QC



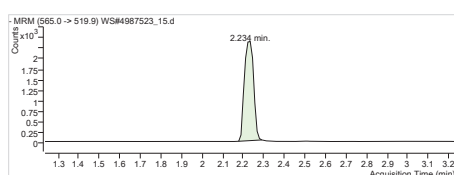
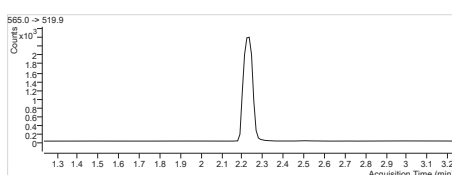
MPFOS
 RT (Exp. RT): 1.979 (1.979)
 Concentration: 1 µg/L
 Sample type: QC



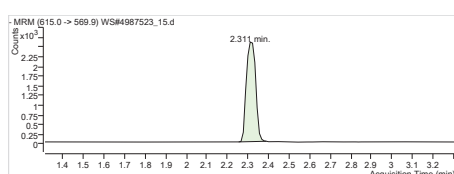
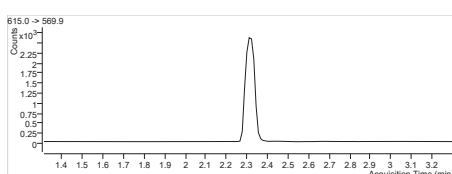
MPFNA
 RT (Exp. RT): 2.014 (2.014)
 Concentration: 1 µg/L
 Sample type: QC



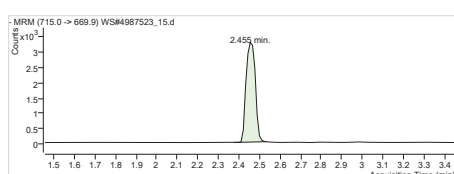
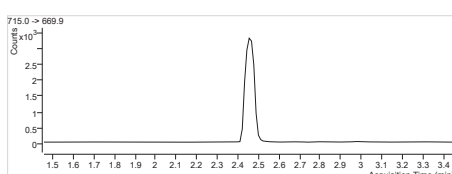
MPFDA
 RT (Exp. RT): 2.135 (2.135)
 Concentration: 1 µg/L
 Sample type: QC



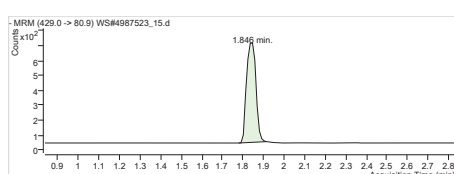
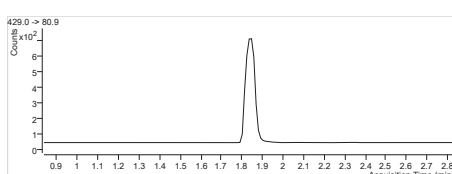
MPFUnA
 RT (Exp. RT): 2.234 (2.234)
 Concentration: 1 µg/L
 Sample type: QC



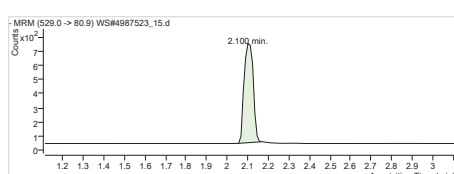
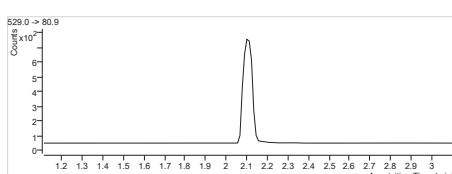
MPFDoA
 RT (Exp. RT): 2.311 (2.311)
 Concentration: 1 µg/L
 Sample type: QC



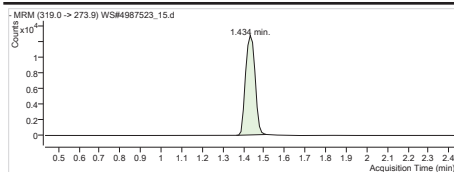
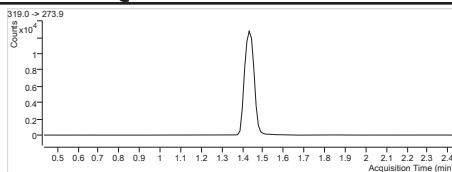
MPFTeDA
 RT (Exp. RT): 2.455 (2.455)
 Concentration: 1 µg/L
 Sample type: QC



M2 6:2 FTS
 RT (Exp. RT): 1.846 (1.835)
 Concentration: 1 µg/L
 Sample type: QC



M2 8:2 FTS
 RT (Exp. RT): 2.100 (2.112)
 Concentration: 1 µg/L
 Sample type: QC

**13C6-PFHxA IS**

RT (Exp. RT):

Concentration:

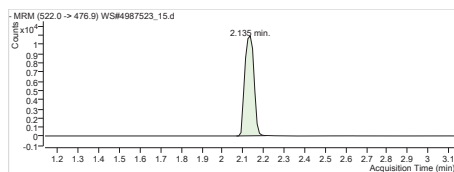
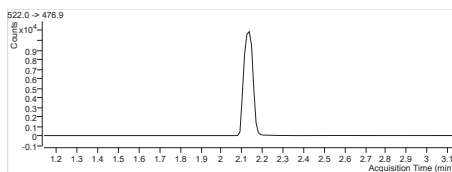
Sample type:

Internal Standard

1.434 (1.434)

1 µg/L

QC

**13C9-PFDA IS**

RT (Exp. RT):

Concentration:

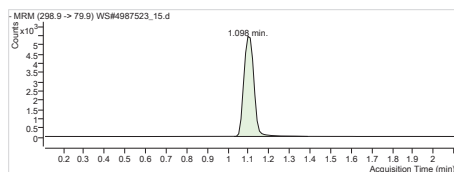
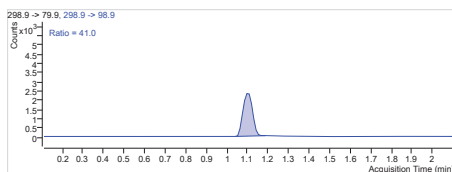
Sample type:

Internal Standard

2.135 (2.135)

1 µg/L

QC

**PFBS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

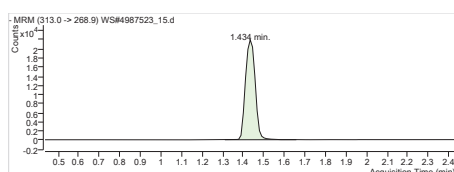
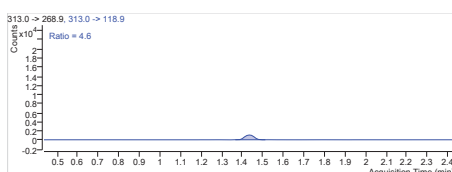
298.9 -> 79.9

1.098 (1.109)

0.47 µg/L

12.19974

QC

**PFHxA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

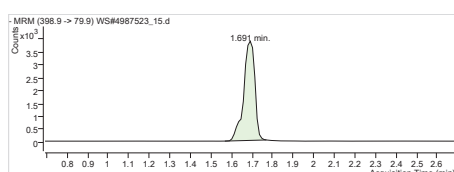
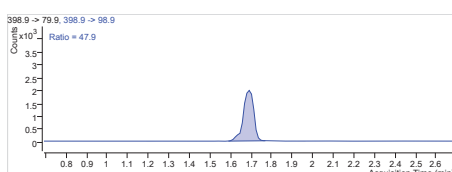
313.0 -> 268.9

1.434 (1.434)

0.49 µg/L

8.89513

QC

**PFHxS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

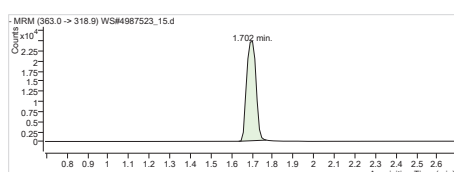
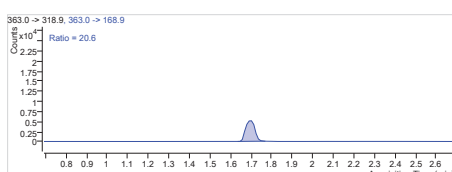
398.9 -> 79.9

1.691 (1.691)

0.47 µg/L

9.63360

QC

**PFHpA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

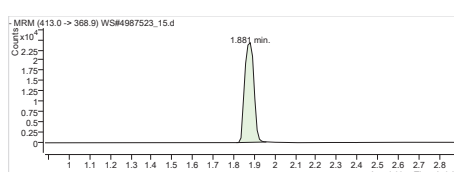
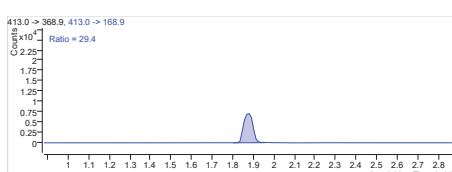
363.0 -> 318.9

1.702 (1.691)

0.49 µg/L

9.29170

QC

**PFOA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

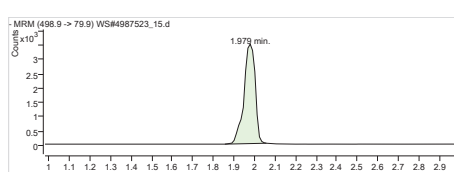
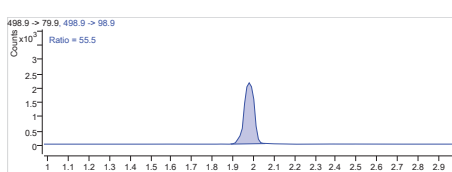
413.0 -> 368.9

1.881 (1.881)

0.53 µg/L

9.60872

QC

**PFOS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

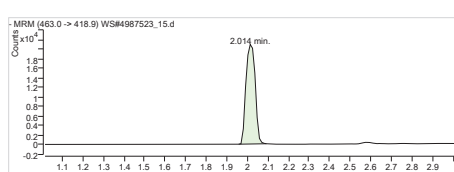
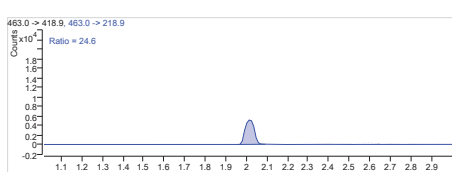
498.9 -> 79.9

1.979 (1.979)

0.44 µg/L

7.09115

QC

**PFNA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

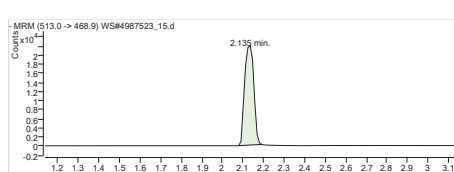
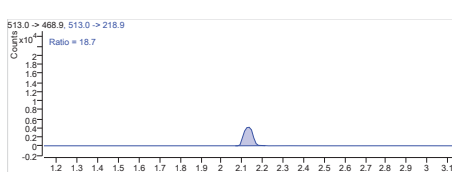
463.0 -> 418.9

2.014 (2.014)

0.51 µg/L

8.41718

QC

**PFDA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

513.0 -> 468.9

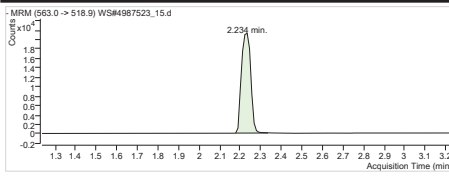
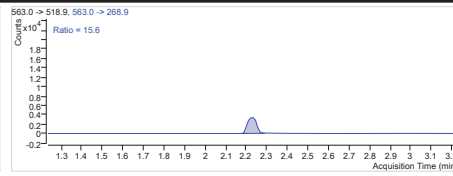
2.135 (2.135)

0.47 µg/L

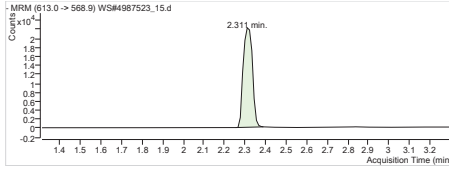
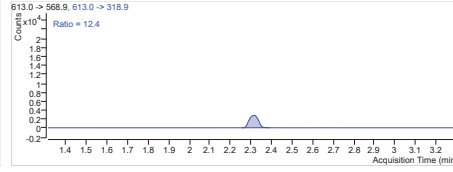
9.61798

QC

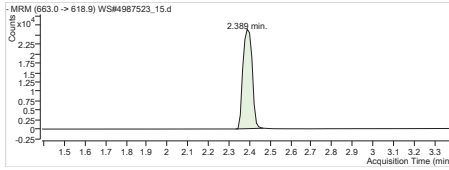
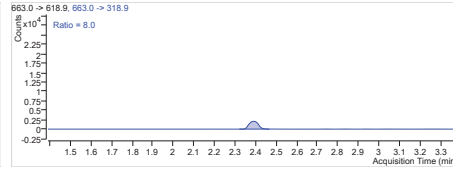
Quantitation Results



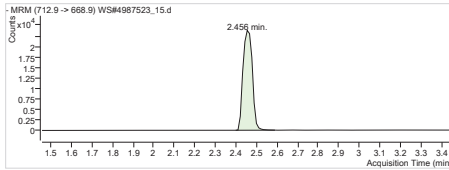
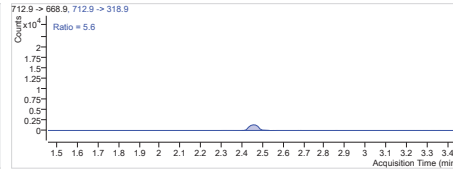
PFUnA 1
RT (Exp. RT): 563.0 -> 518.9
Calc. conc. 2.234 (2.234)
Area ratio: 0.50 µg/L
Sample type: 9.04887
QC



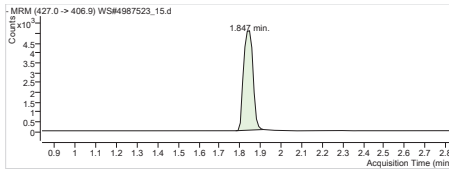
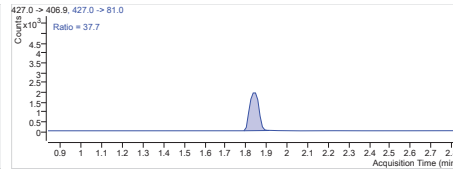
PFDaA 1
RT (Exp. RT): 613.0 -> 568.9
Calc. conc. 2.311 (2.311)
Area ratio: 0.50 µg/L
Sample type: 8.54648
QC



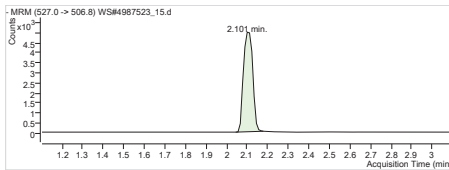
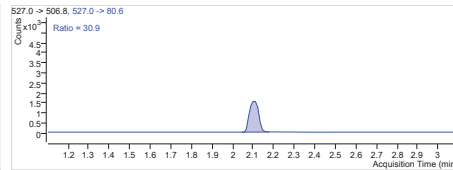
PFTrDA 1
RT (Exp. RT): 663.0 -> 618.9
Calc. conc. 2.389 (2.389)
Area ratio: 0.48 µg/L
Sample type: 8.03483
QC



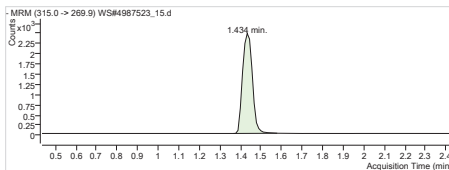
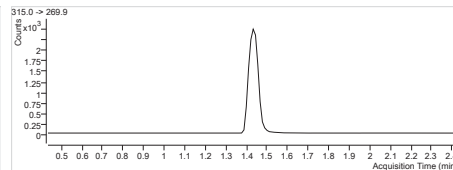
PFTeDA 1
RT (Exp. RT): 712.9 -> 668.9
Calc. conc. 2.456 (2.456)
Area ratio: 0.47 µg/L
Sample type: 7.31931
QC



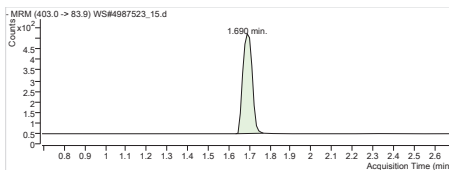
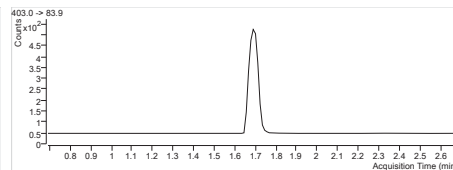
6:2-FTS 1
RT (Exp. RT): 427.0 -> 406.9
Calc. conc. 1.847 (1.835)
Area ratio: 0.46 µg/L
Sample type: 7.60741
QC



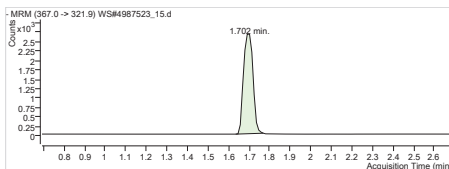
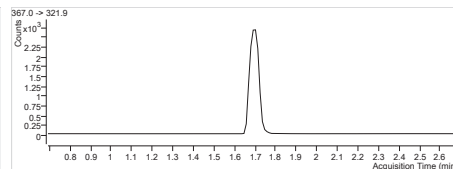
8:2-FTS 1
RT (Exp. RT): 527.0 -> 506.8
Calc. conc. 2.101 (2.101)
Area ratio: 0.47 µg/L
Sample type: 7.19503
QC



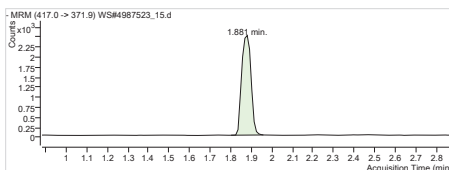
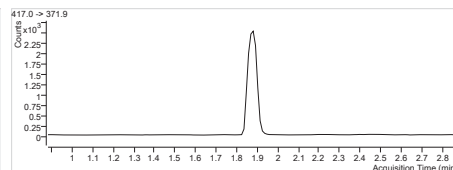
13C2-PFHxA
RT (Exp. RT): 315.0 -> 269.9
Calc. conc. 1.434 (1.434)
Area ratio: 89.63 µg/L
Sample type: 0.19935
QC



18O2-PFHxS
RT (Exp. RT): 403.0 -> 83.9
Calc. conc. 1.690 (1.690)
Area ratio: 94.92 µg/L
Sample type: 0.03710
QC

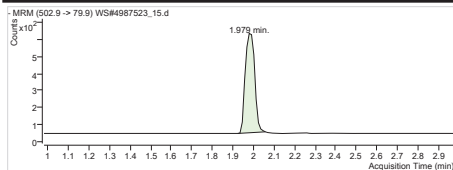
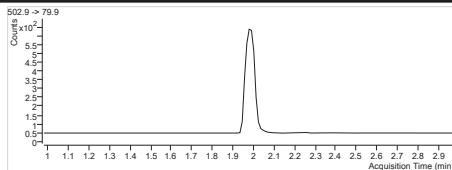


13C4-PFHpA
RT (Exp. RT): 367.0 -> 321.9
Calc. conc. 1.702 (1.691)
Area ratio: 89.56 µg/L
Sample type: 0.20845
QC

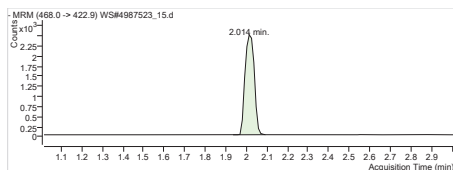
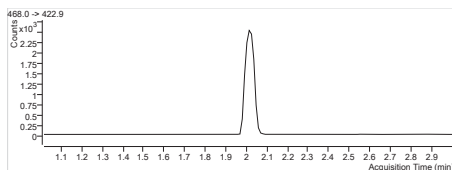


13C4-PFOA
RT (Exp. RT): 417.0 -> 371.9
Calc. conc. 1.881 (1.881)
Area ratio: 84.84 µg/L
Sample type: 0.19365
QC

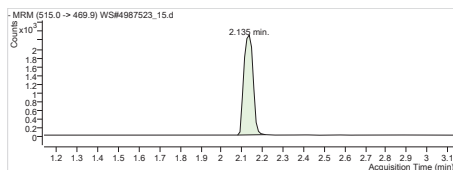
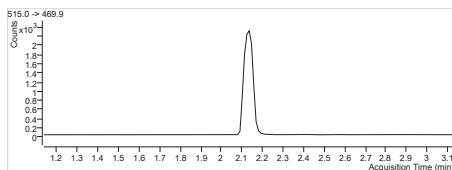
Quantitation Results



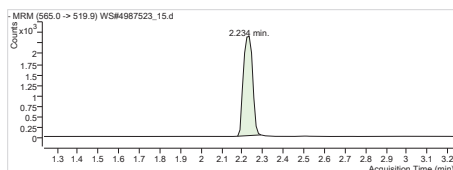
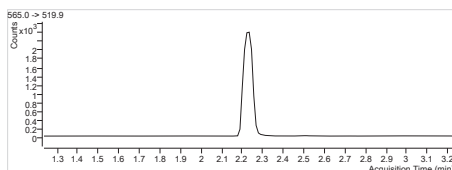
13C4-PFOS
 RT (Exp. RT): 502.9 -> 79.9
 Calc. conc. 1.979 (1.979)
 Area ratio: 96.18 µg/L
 Sample type: 0.04603
 QC



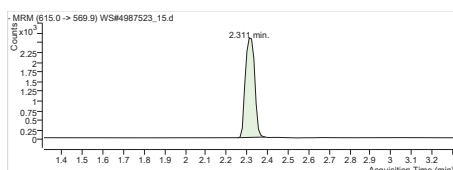
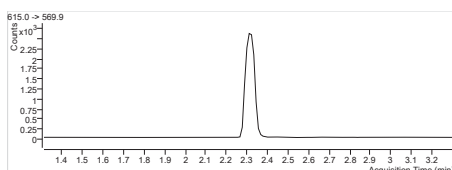
13C5-PFNA
 RT (Exp. RT): 468.0 -> 422.9
 Calc. conc. 2.014 (2.014)
 Area ratio: 85.78 µg/L
 Sample type: 0.19081
 QC



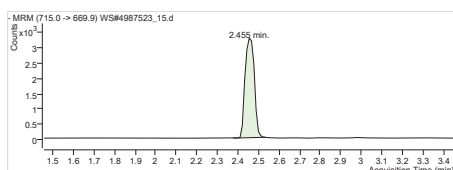
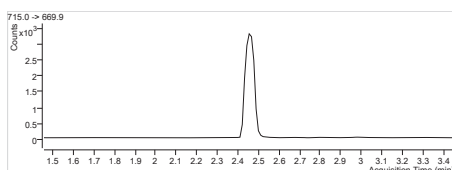
13C2-PFDA
 RT (Exp. RT): 515.0 -> 469.9
 Calc. conc. 2.135 (2.135)
 Area ratio: 92.45 µg/L
 Sample type: 0.20960
 QC



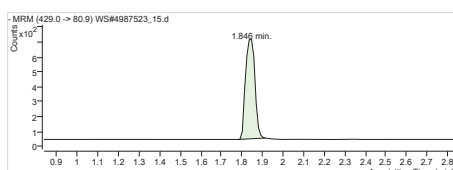
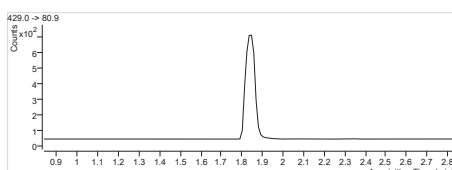
13C2-PFUnA
 RT (Exp. RT): 565.0 -> 519.9
 Calc. conc. 2.234 (2.234)
 Area ratio: 88.78 µg/L
 Sample type: 0.21746
 QC



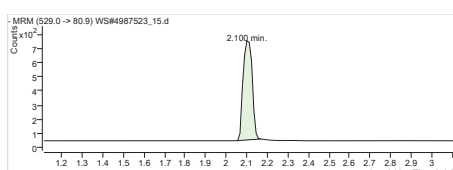
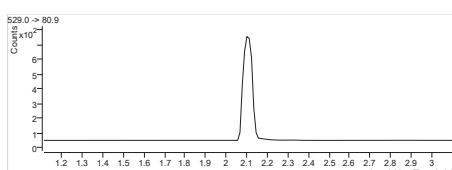
13C2-PFDoA
 RT (Exp. RT): 615.0 -> 569.9
 Calc. conc. 2.311 (2.311)
 Area ratio: 86.98 µg/L
 Sample type: 0.23972
 QC



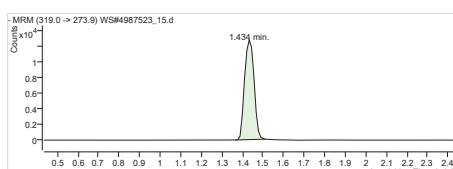
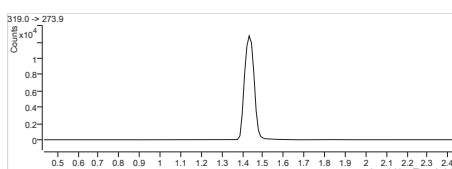
13C2-PFTeDA
 RT (Exp. RT): 715.0 -> 669.9
 Calc. conc. 2.455 (2.455)
 Area ratio: 86.37 µg/L
 Sample type: 0.30092
 QC



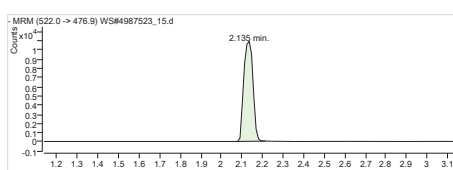
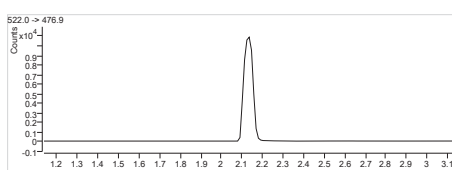
13C2-6:2-FTS
 RT (Exp. RT): 429.0 -> 80.9
 Calc. conc. 1.846 (1.835)
 Area ratio: 94.48 µg/L
 Sample type: 0.05232
 QC



13C2-8:2 FTS
 RT (Exp. RT): 529.0 -> 80.9
 Calc. conc. 2.100 (2.112)
 Area ratio: 89.37 µg/L
 Sample type: 0.05335
 QC



13C6-PFHxA
 RT (Exp. RT): 319.0 -> 273.9
 Calc. conc. 1.434 (1.434)
 Area ratio: 2.50 µg/L
 Sample type: 0
 QC



13C9-PFDA
 RT (Exp. RT): 522.0 -> 476.9
 Calc. conc. 2.135 (2.135)
 Area ratio: 2.47 µg/L
 Sample type: 0
 QC

Quantitation Results

Batch Path T:\lms4\PFC\20170523\WS#4987523_FOSAA\QuantResults\PFC_Water_Low_170523_WS#4987523_FOSAA

Sample Name IB1 Instrument LCMS04

Data File WS#4987523_FOSAA_16.d Operator AD

Sample Type Blank Dilution 0.024

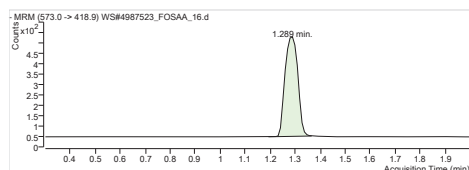
Acq. Method PFC_Water_Low_FOSAA.m Position P1-A8

Acq. Date 2017/05/23 6:37:19 PM Injection Volume Per Method

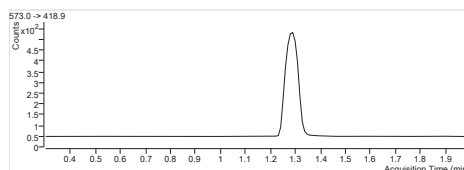
Sample Annotation -

ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1725	1.29	1 µg/L		
D5-EtFOSAA IS	1496	1.31	1 µg/L		
13C9-PFDA IS	28039	0.85	1 µg/L		

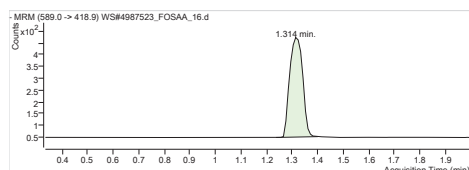
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1			-	ND	-
EtFOSAA 1			-	ND	-
D3-MeFOSAA	1752	1.29	-	108.76 µg/L	-
D5-EtFOSAA	1520	1.31	-	106.95 µg/L	-
13C9-PFDA	27515	0.85	-	2.42 µg/L	-



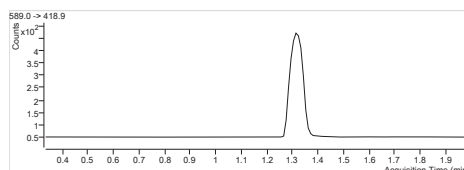
D3-MeFOSAA IS
 Internal Standard
 RT (Exp. RT): 1.289 (1.298)
 Concentration: 1 µg/L
 Sample type: Blank



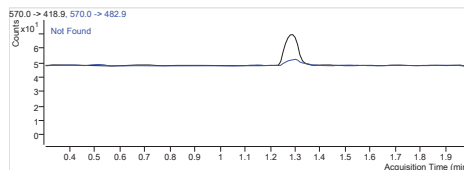
D5-EtFOSAA IS
 Internal Standard
 RT (Exp. RT): 1.314 (1.331)
 Concentration: 1 µg/L
 Sample type: Blank



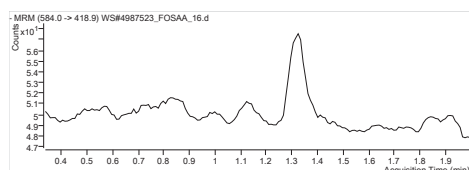
13C9-PFDA IS
 Internal Standard
 RT (Exp. RT): 0.852 (0.873)
 Concentration: 1 µg/L
 Sample type: Blank



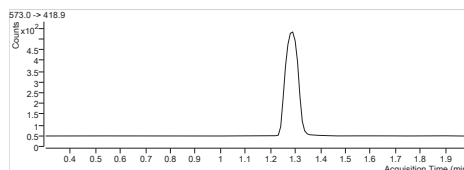
MeFOSAA 1
 RT (Exp. RT): 570.0 -> 418.9
 Calc. conc. 0.000 (1.300)
 Area ratio: N.D.
 Sample type: Blank



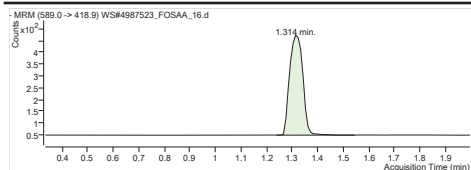
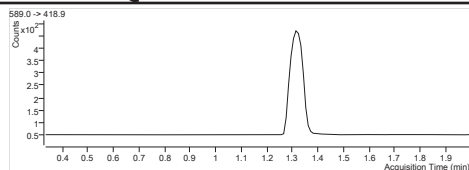
EtFOSAA 1
 RT (Exp. RT): 584.0 -> 418.9
 Calc. conc. 0.000 (1.333)
 Area ratio: N.D.
 Sample type: Blank



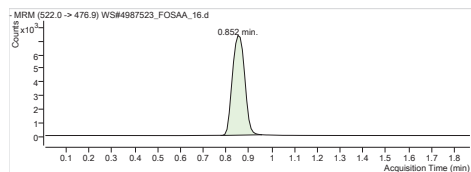
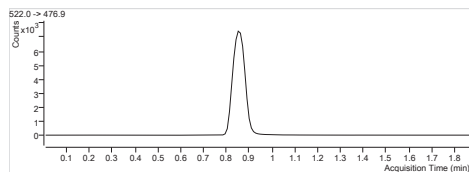
D3-MeFOSAA
 RT (Exp. RT): 573.0 -> 418.9
 Calc. conc. 1.289 (1.298)
 Area ratio: 108.76 µg/L
 Sample type: Blank



Quantitation Results



D5-EtFOSAA
 RT (Exp. RT): 1.314 (1.331)
 Calc. conc. 106.95 µg/L
 Area ratio: 0.05422
 Sample type: Blank



13C9-PFDA
 RT (Exp. RT): 0.852 (0.873)
 Calc. conc. 2.42 µg/L
 Area ratio: 0
 Sample type: Blank

Quantitation Results

Batch Path T:\lms4\PFC\20170523\WS#4987523_FOSAA\QuantResults\PFC_Water_Low_170523_WS#4987523_FOSAA

Sample Name IB1 Instrument LCMS04

Data File WS#4987523_FOSAA_22.d Operator AD

Sample Type Blank Dilution 0.024

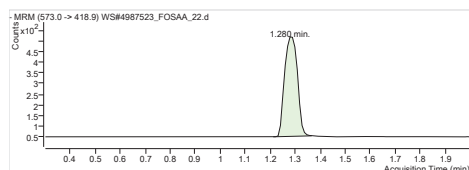
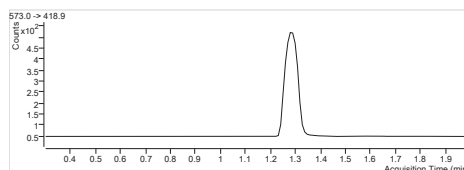
Acq. Method PFC_Water_Low_FOSAA.m Position P1-A8

Acq. Date 2017/05/23 6:51:41 PM Injection Volume Per Method

Sample Annotation -

ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1682	1.28	1 µg/L		
D5-EtFOSAA IS	1560	1.31	1 µg/L		
13C9-PFDA IS	27546	0.85	1 µg/L		

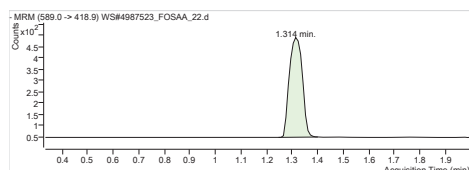
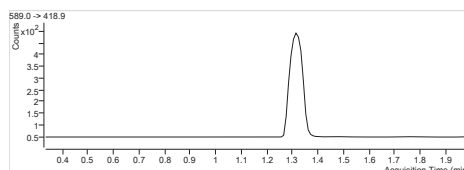
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1			-	ND	-
EtFOSAA 1			-	ND	-
D3-MeFOSAA	1712	1.28	-	108.20 µg/L	-
D5-EtFOSAA	1571	1.31	-	112.51 µg/L	-
13C9-PFDA	26993	0.85	-	2.38 µg/L	-



D3-MeFOSAA IS

RT (Exp. RT):
Concentration:
Sample type:

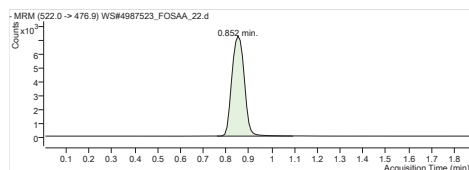
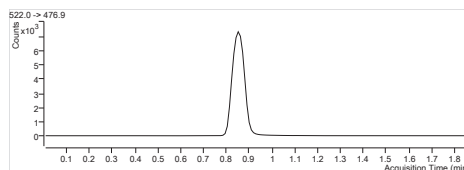
Internal Standard
1.280 (1.298)
1 µg/L
Blank



D5-EtFOSAA IS

RT (Exp. RT):
Concentration:
Sample type:

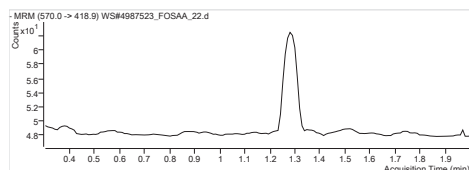
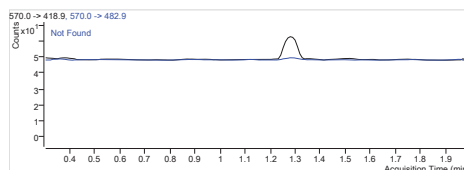
Internal Standard
1.314 (1.331)
1 µg/L
Blank



13C9-PFDA IS

RT (Exp. RT):
Concentration:
Sample type:

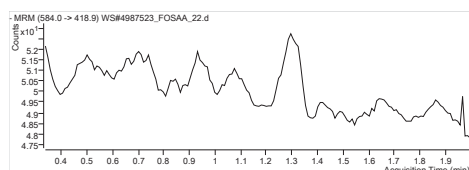
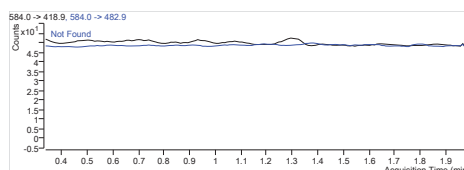
Internal Standard
0.852 (0.873)
1 µg/L
Blank



MeFOSAA 1

RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

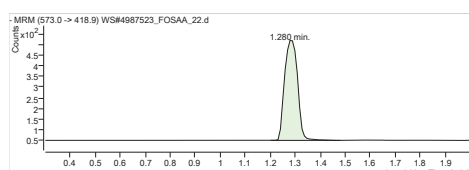
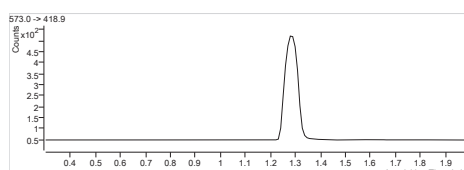
570.0 -> 418.9
0.000 (1.300)
N.D.
0
Blank



EtFOSAA 1

RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

584.0 -> 418.9
0.000 (1.333)
N.D.
0
Blank

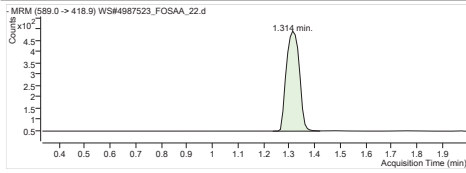
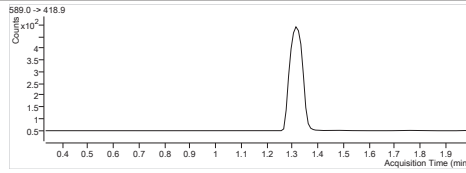


D3-MeFOSAA

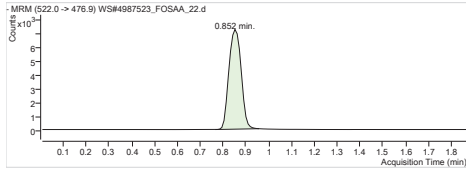
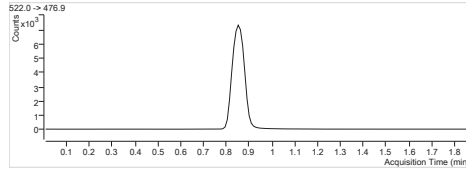
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

573.0 -> 418.9
1.280 (1.298)
108.20 µg/L
0.06215
Blank

Quantitation Results



D5-EtFOSAA
 RT (Exp. RT): 589.0 -> 418.9
 Calc. conc. 1.314 (1.331)
 Area ratio: 112.51 µg/L
 Sample type: 0.05704
 Blank



13C9-PFDA
 RT (Exp. RT): 522.0 -> 476.9
 Calc. conc. 0.852 (0.873)
 Area ratio: 2.38 µg/L
 Sample type: 0
 Blank

Quantitation Results

Batch Path T:\lms4\PFC\20170523\WS#4987523_FOSAA\QuantResults\PFC_Water_Low_170523_WS#4987523_FOSAA

Sample Name IB1 Instrument LCMS04

Data File WS#4987523_FOSAA_26.d Operator AD

Sample Type Blank Dilution 0.024

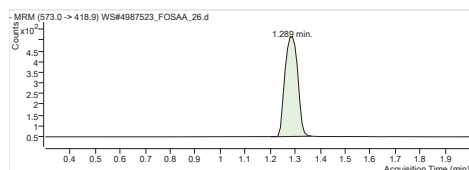
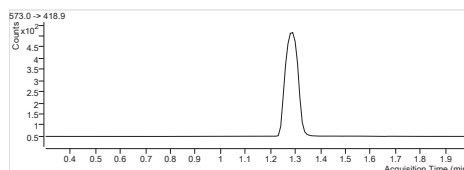
Acq. Method PFC_Water_Low_FOSAA.m Position P1-A8

Acq. Date 2017/05/23 7:01:15 PM Injection Volume Per Method

Sample Annotation -

ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1668	1.29	1 µg/L		
D5-EtFOSAA IS	1534	1.31	1 µg/L		
13C9-PFDA IS	27763	0.85	1 µg/L		

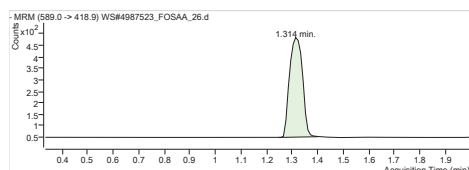
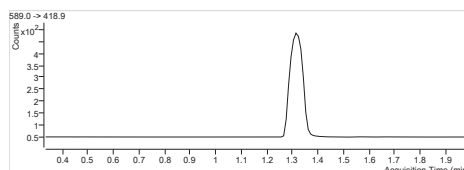
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1			-	ND	-
EtFOSAA 1			-	ND	-
D3-MeFOSAA	1674	1.29	-	104.96 µg/L	-
D5-EtFOSAA	1554	1.31	-	110.37 µg/L	-
13C9-PFDA	27104	0.85	-	2.39 µg/L	-



D3-MeFOSAA IS

RT (Exp. RT):
Concentration:
Sample type:

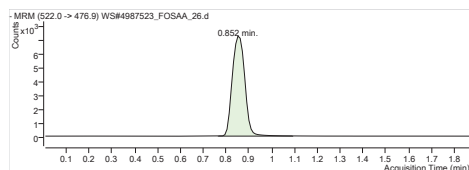
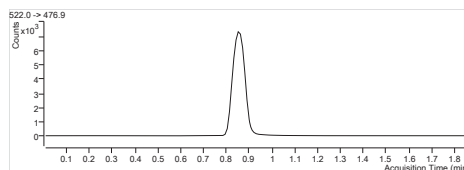
Internal Standard
1.289 (1.298)
1 µg/L
Blank



D5-EtFOSAA IS

RT (Exp. RT):
Concentration:
Sample type:

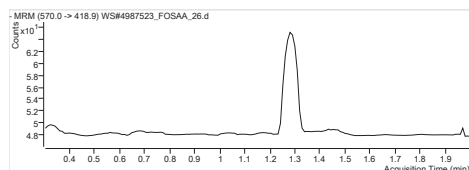
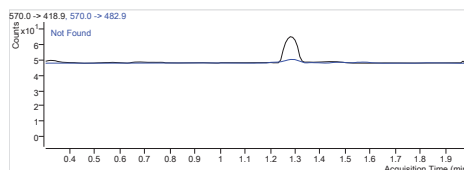
Internal Standard
1.314 (1.331)
1 µg/L
Blank



13C9-PFDA IS

RT (Exp. RT):
Concentration:
Sample type:

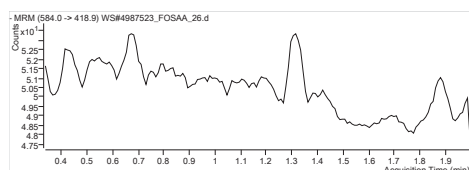
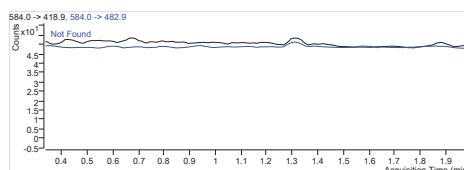
Internal Standard
0.852 (0.873)
1 µg/L
Blank



MeFOSAA 1

RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

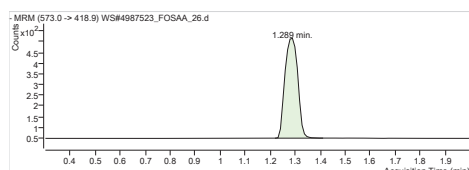
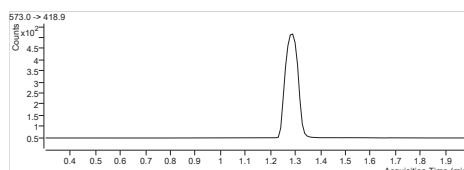
570.0 -> 418.9
0.000 (1.300)
N.D.
0
Blank



EtFOSAA 1

RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

584.0 -> 418.9
0.000 (1.333)
N.D.
0
Blank

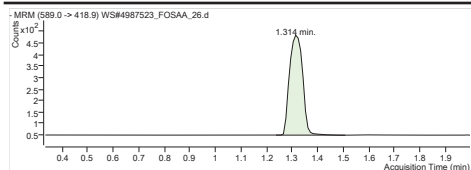
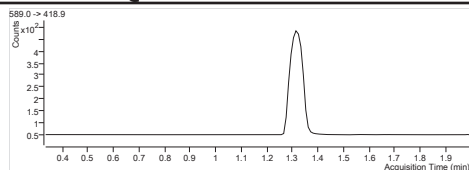


D3-MeFOSAA

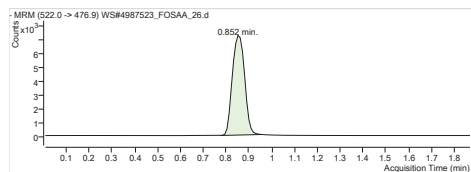
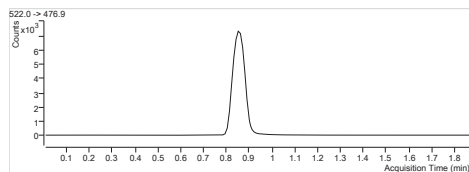
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

573.0 -> 418.9
1.289 (1.298)
104.96 µg/L
0.06029
Blank

Quantitation Results



D5-EtFOSAA
 RT (Exp. RT): 589.0 -> 418.9
 RT (Exp. RT): 1.314 (1.331)
 Calc. conc. 110.37 $\mu\text{g/L}$
 Area ratio: 0.05596
 Sample type: Blank



13C9-PFDA
 RT (Exp. RT): 522.0 -> 476.9
 RT (Exp. RT): 0.852 (0.873)
 Calc. conc. 2.39 $\mu\text{g/L}$
 Area ratio: 0
 Sample type: Blank

Quantitation Results

Batch Path T:\lms4\PFC\20170523\WS#4987523_FOSAA\QuantResults\PFC_Water_Low_170523_WS#4987523_FOSAA

Sample Name IB1 Instrument LCMS04

Data File WS#4987523_FOSAA_30.d Operator AD

Sample Type Blank Dilution 0.024

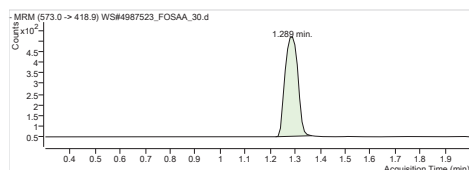
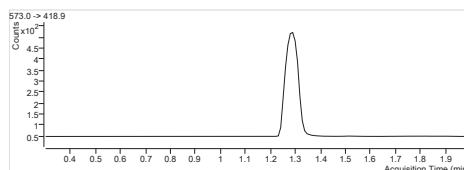
Acq. Method PFC_Water_Low_FOSAA.m Position P1-A8

Acq. Date 2017/05/23 7:10:47 PM Injection Volume Per Method

Sample Annotation -

ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1684	1.29	1 µg/L		
D5-EtFOSAA IS	1547	1.31	1 µg/L		
13C9-PFDA IS	28293	0.85	1 µg/L		

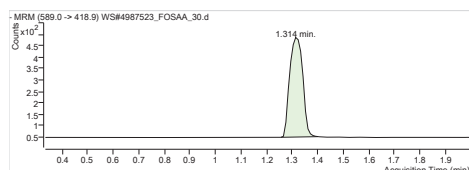
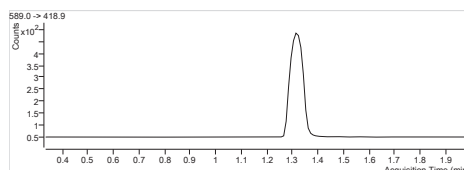
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1			-	ND	-
EtFOSAA 1			-	ND	-
D3-MeFOSAA	1712	1.29	-	105.35 µg/L	-
D5-EtFOSAA	1574	1.31	-	109.73 µg/L	-
13C9-PFDA	27476	0.85	-	2.42 µg/L	-



D3-MeFOSAA IS

RT (Exp. RT):
Concentration:
Sample type:

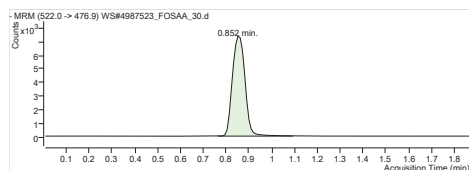
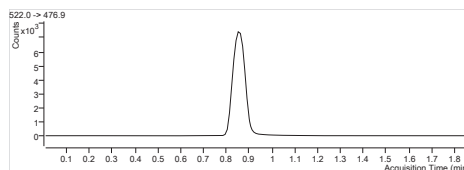
Internal Standard
1.289 (1.298)
1 µg/L
Blank



D5-EtFOSAA IS

RT (Exp. RT):
Concentration:
Sample type:

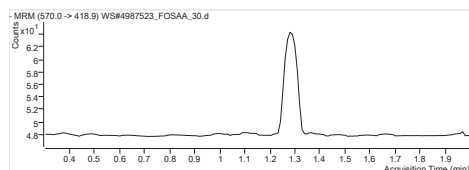
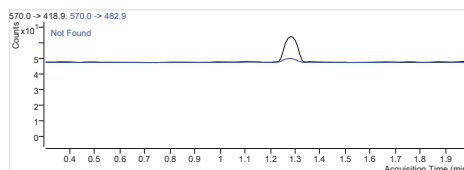
Internal Standard
1.314 (1.331)
1 µg/L
Blank



13C9-PFDA IS

RT (Exp. RT):
Concentration:
Sample type:

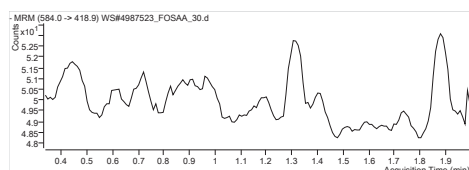
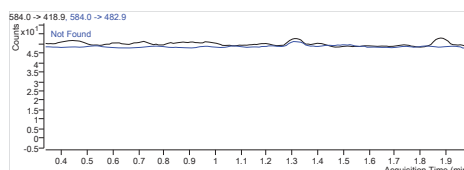
Internal Standard
0.852 (0.873)
1 µg/L
Blank



MeFOSAA 1

RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

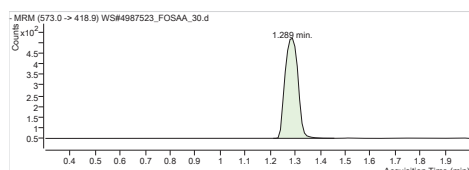
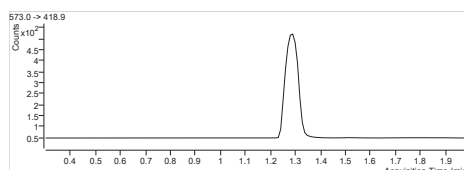
570.0 -> 418.9
0.000 (1.300)
N.D.
0
Blank



EtFOSAA 1

RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

584.0 -> 418.9
0.000 (1.333)
N.D.
0
Blank

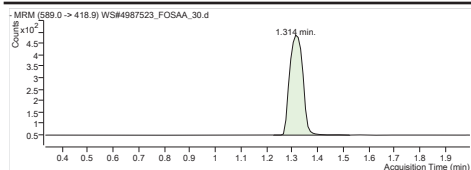
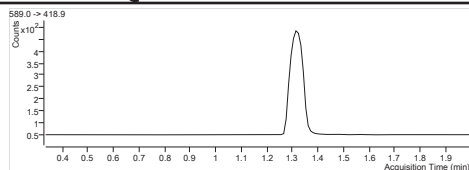


D3-MeFOSAA

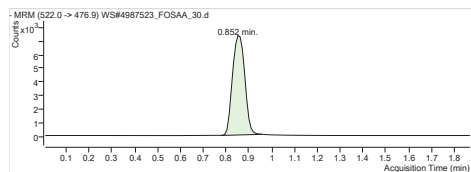
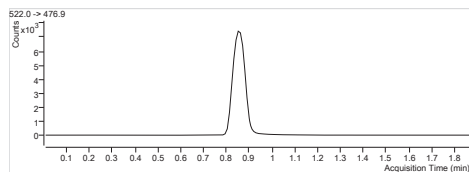
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

573.0 -> 418.9
1.289 (1.298)
105.35 µg/L
0.06051
Blank

Quantitation Results



D5-EtFOSAA
 RT (Exp. RT): 1.314 (1.331)
 Calc. conc. 109.73 $\mu\text{g/L}$
 Area ratio: 0.05563
 Sample type: Blank



13C9-PFDA
 RT (Exp. RT): 0.852 (0.873)
 Calc. conc. 2.42 $\mu\text{g/L}$
 Area ratio: 0
 Sample type: Blank

Quantitation Results

Batch Path T:\lms4\PFC\20170523\WS#4987523_FOSAA\QuantResults\PFC_Water_Low_170523_WS#4987523_FOSAA

Sample Name 4987523:BLANK Instrument LCMS04

Data File WS#4987523_FOSAA_19.d Operator AD

Sample Type Blank Dilution 0.024

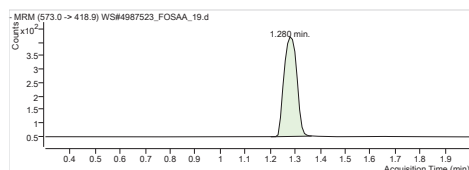
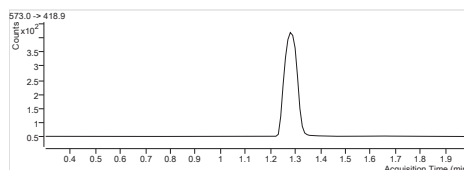
Acq. Method PFC_Water_Low_FOSAA.m Position P1-B1

Acq. Date 2017/05/23 6:44:31 PM Injection Volume Per Method

Sample Annotation -

ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1326	1.28	1 µg/L		
D5-EtFOSAA IS	1212	1.31	1 µg/L		
13C9-PFDA IS	29480	0.84	1 µg/L		

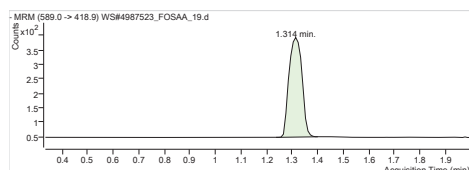
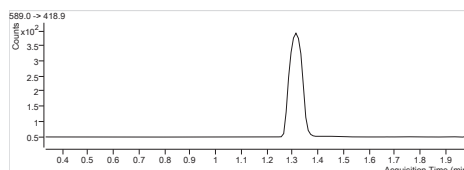
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1			-	ND	-
EtFOSAA 1			-	ND	-
D3-MeFOSAA	1343	1.28	-	79.31 µg/L	-
D5-EtFOSAA	1223	1.31	-	81.85 µg/L	-
13C9-PFDA	28799	0.84	-	2.54 µg/L	-



D3-MeFOSAA IS

RT (Exp. RT):
Concentration:
Sample type:

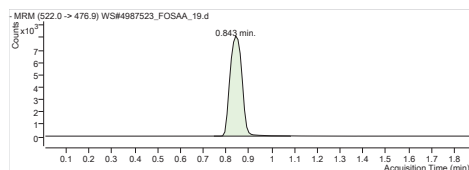
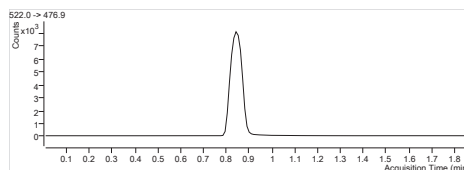
Internal Standard
1.280 (1.298)
1 µg/L
Blank



D5-EtFOSAA IS

RT (Exp. RT):
Concentration:
Sample type:

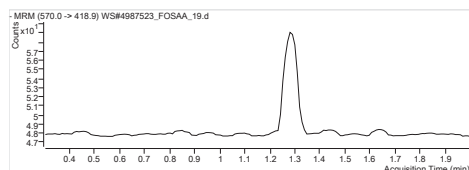
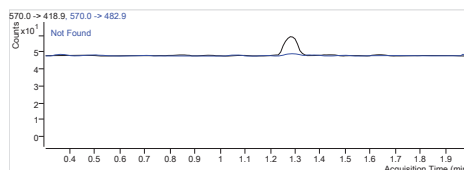
Internal Standard
1.314 (1.331)
1 µg/L
Blank



13C9-PFDA IS

RT (Exp. RT):
Concentration:
Sample type:

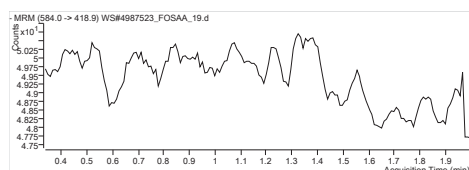
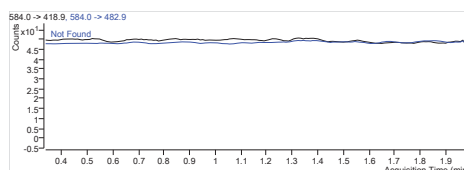
Internal Standard
0.843 (0.873)
1 µg/L
Blank



MeFOSAA 1

RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

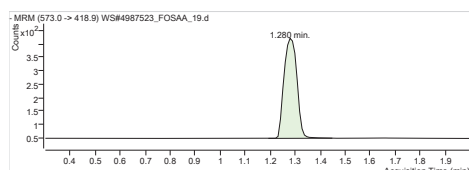
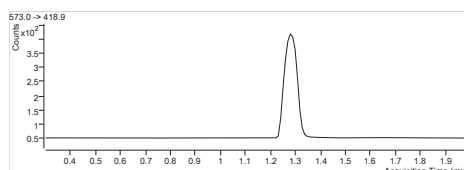
570.0 -> 418.9
0.000 (1.300)
N.D.
0
Blank



EtFOSAA 1

RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

584.0 -> 418.9
0.000 (1.333)
N.D.
0
Blank

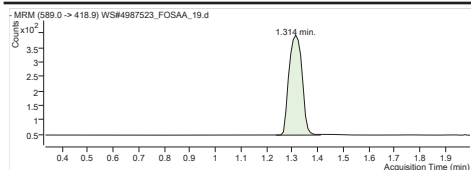
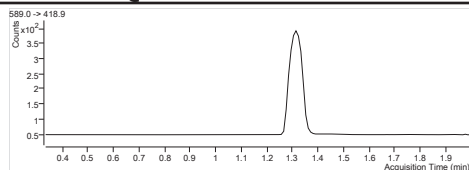


D3-MeFOSAA

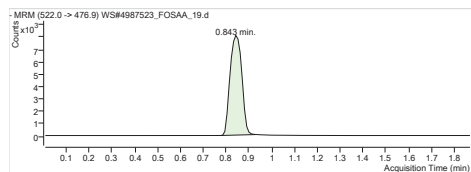
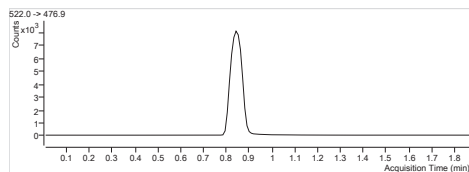
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

573.0 -> 418.9
1.280 (1.298)
79.31 µg/L
0.04556
Blank

Quantitation Results



D5-EtFOSAA
 RT (Exp. RT): 589.0 -> 418.9
 RT (Exp. RT): 1.314 (1.331)
 Calc. conc. 81.85 $\mu\text{g/L}$
 Area ratio: 0.04150
 Sample type: Blank



13C9-PFDA
 RT (Exp. RT): 522.0 -> 476.9
 RT (Exp. RT): 0.843 (0.873)
 Calc. conc. 2.54 $\mu\text{g/L}$
 Area ratio: 0
 Sample type: Blank

Quantitation Results

Batch Path T:\lms4\PFC\20170523\WS#4987523_FOSAA\QuantResults\PFC_Water_Low_170523_WS#4987523_FOSAA

Sample Name 4987523:MTRX SPK Instrument LCMS04

Data File WS#4987523_FOSAA_20.d Operator AD

Sample Type QC Dilution 0.024

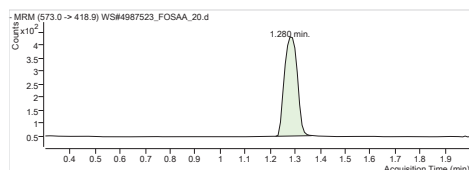
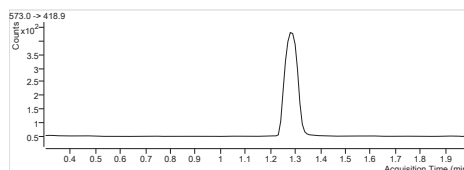
Acq. Method PFC_Water_Low_FOSAA.m Position P1-B2

Acq. Date 2017/05/23 6:46:54 PM Injection Volume Per Method

Sample Annotation EJK088

ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1361	1.28	1 µg/L		
D5-EtFOSAA IS	1199	1.31	1 µg/L		
13C9-PFDA IS	27614	0.84	1 µg/L		

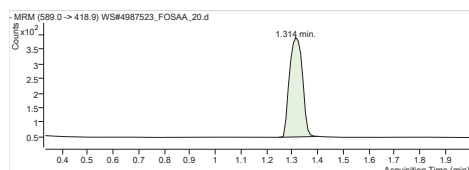
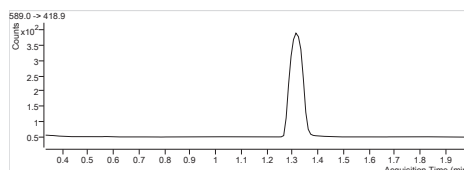
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	10255	1.28	20.80	0.47 µg/L	94.26
EtFOSAA 1	10183	1.32	20.80	0.46 µg/L	91.73
D3-MeFOSAA	1376	1.28	100.00	86.78 µg/L	86.78
D5-EtFOSAA	1219	1.31	100.00	87.08 µg/L	87.08
13C9-PFDA	26844	0.84	100.00	2.36 µg/L	98.54



D3-MeFOSAA IS

RT (Exp. RT):
Concentration:
Sample type:

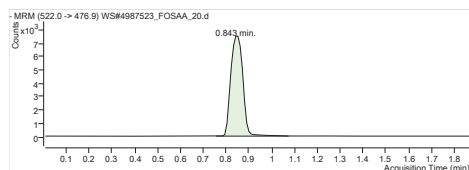
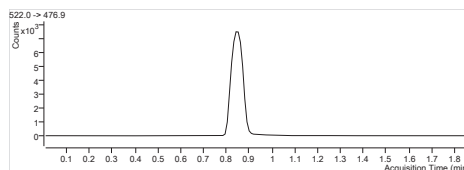
Internal Standard
1.280 (1.298)
1 µg/L
QC



D5-EtFOSAA IS

RT (Exp. RT):
Concentration:
Sample type:

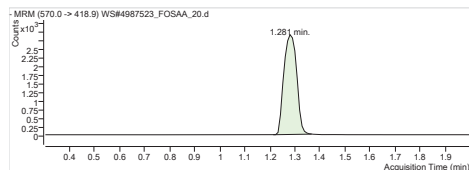
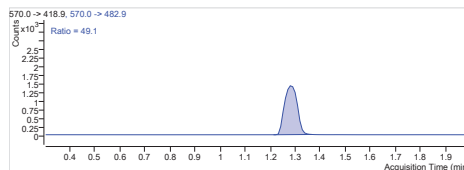
Internal Standard
1.314 (1.331)
1 µg/L
QC



13C9-PFDA IS

RT (Exp. RT):
Concentration:
Sample type:

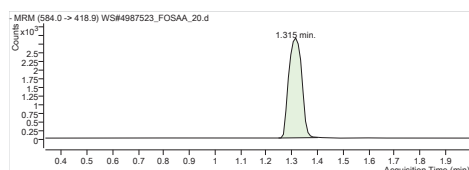
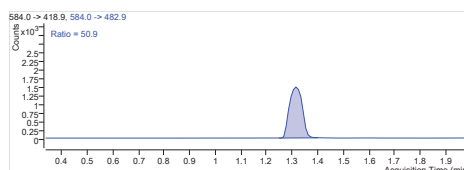
Internal Standard
0.843 (0.873)
1 µg/L
QC



MeFOSAA 1

RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

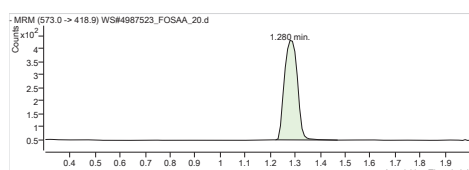
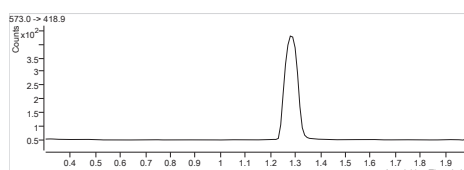
570.0 -> 418.9
1.281 (1.300)
0.47 µg/L
7.53490
QC



EtFOSAA 1

RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

584.0 -> 418.9
1.315 (1.333)
0.46 µg/L
8.49291
QC

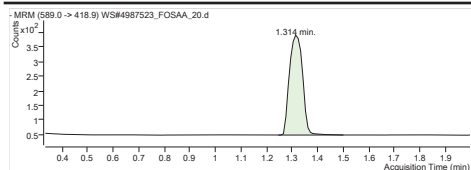
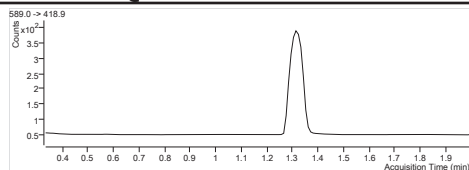


D3-MeFOSAA

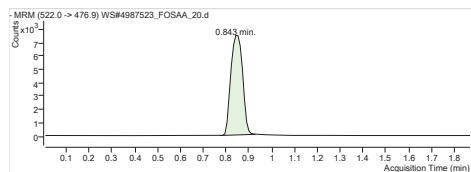
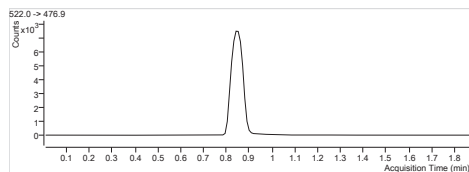
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

573.0 -> 418.9
1.280 (1.298)
86.78 µg/L
0.04985
QC

Quantitation Results



D5-EtFOSAA
 RT (Exp. RT): 1.314 (1.331)
 Calc. conc. 87.08 $\mu\text{g/L}$
 Area ratio: 0.04415
 Sample type: QC



13C9-PFDA
 RT (Exp. RT): 0.843 (0.873)
 Calc. conc. 2.36 $\mu\text{g/L}$
 Area ratio: 0
 Sample type: QC

Quantitation Results

Batch Path T:\lms4\PFC\20170523\WS#4987523_FOSAA\QuantResults\PFC_Water_Low_170523_WS#4987523_FOSAA

Sample Name 4987523:MTRX SPK:D1 Instrument LCMS04

Data File WS#4987523_FOSAA_21.d Operator AD

Sample Type QC Dilution 0.024

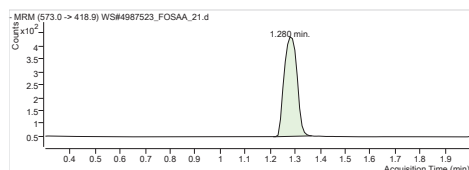
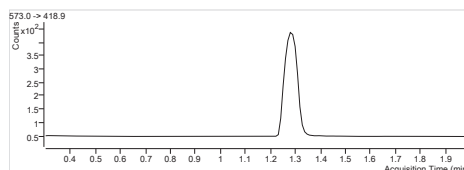
Acq. Method PFC_Water_Low_FOSAA.m Position P1-B3

Acq. Date 2017/05/23 6:49:17 PM Injection Volume Per Method

Sample Annotation EJK088

ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1385	1.28	1 µg/L		
D5-EtFOSAA IS	1191	1.31	1 µg/L		
13C9-PFDA IS	26723	0.84	1 µg/L		

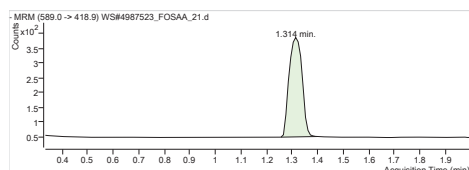
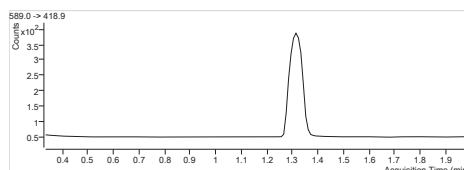
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	10313	1.28	20.80	0.46 µg/L	93.15
EtFOSAA 1	10114	1.32	20.80	0.46 µg/L	91.72
D3-MeFOSAA	1418	1.28	100.00	92.39 µg/L	92.39
D5-EtFOSAA	1211	1.31	100.00	89.40 µg/L	89.40
13C9-PFDA	25915	0.84	100.00	2.28 µg/L	95.13



D3-MeFOSAA IS

RT (Exp. RT):
Concentration:
Sample type:

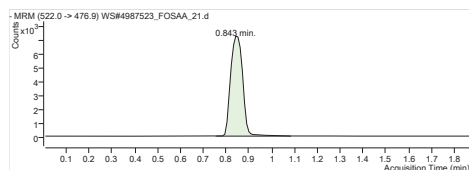
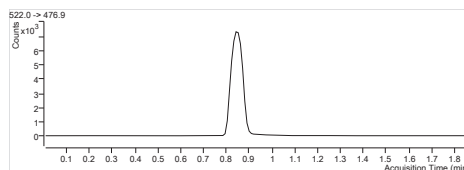
Internal Standard
1.280 (1.298)
1 µg/L
QC



D5-EtFOSAA IS

RT (Exp. RT):
Concentration:
Sample type:

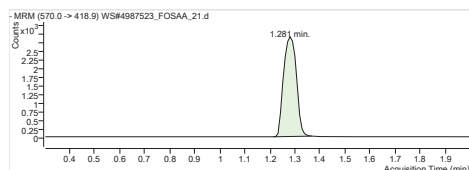
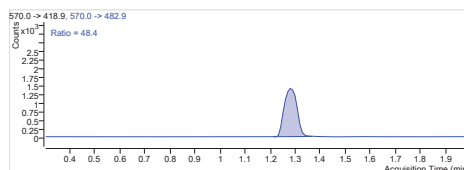
Internal Standard
1.314 (1.331)
1 µg/L
QC



13C9-PFDA IS

RT (Exp. RT):
Concentration:
Sample type:

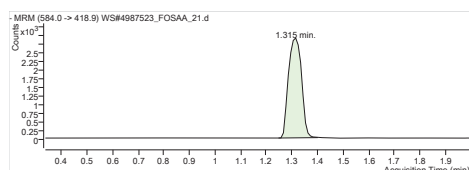
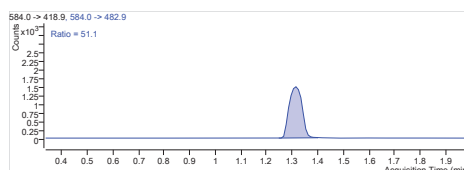
Internal Standard
0.843 (0.873)
1 µg/L
QC



MeFOSAA 1

RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

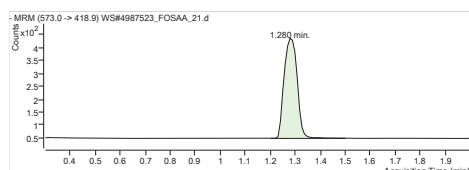
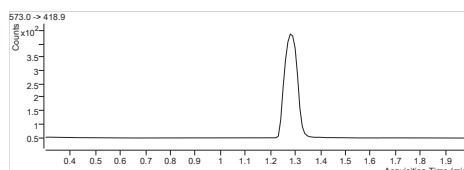
570.0 -> 418.9
1.281 (1.300)
0.46 µg/L
7.44621
QC



EtFOSAA 1

RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

584.0 -> 418.9
1.315 (1.333)
0.46 µg/L
8.49202
QC

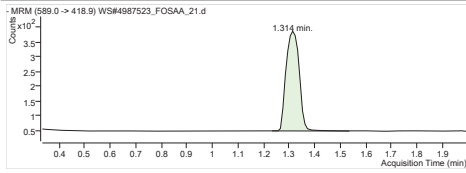
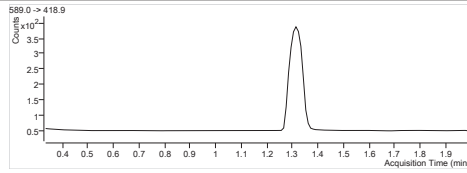


D3-MeFOSAA

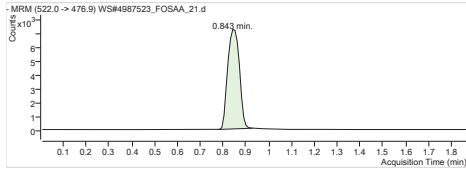
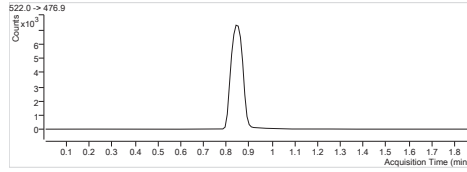
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

573.0 -> 418.9
1.280 (1.298)
92.39 µg/L
0.05307
QC

Quantitation Results



D5-EtFOSAA
 RT (Exp. RT): 1.314 (1.331)
 Calc. conc. 89.40 $\mu\text{g/L}$
 Area ratio: 0.04533
 Sample type: QC



13C9-PFDA
 RT (Exp. RT): 0.843 (0.873)
 Calc. conc. 2.28 $\mu\text{g/L}$
 Area ratio: 0
 Sample type: QC

Quantitation Results

Batch Path T:\cms4\PFC\20170523\WS#4987523_FOSAA\QuantResults\PFC_Water_Low_170523_WS#4987523_FOSAA

Sample Name 4987523:SPIKE Instrument LCMS04

Data File WS#4987523_FOSAA_23.d Operator AD

Sample Type QC Dilution 0.024

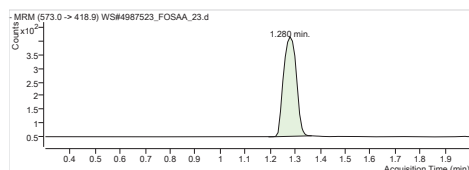
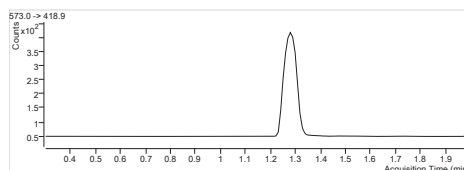
Acq. Method PFC_Water_Low_FOSAA.m Position P1-B4

Acq. Date 2017/05/23 6:54:06 PM Injection Volume Per Method

Sample Annotation -

ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1315	1.28	1 µg/L		
D5-EtFOSAA IS	1157	1.31	1 µg/L		
13C9-PFDA IS	28800	0.84	1 µg/L		

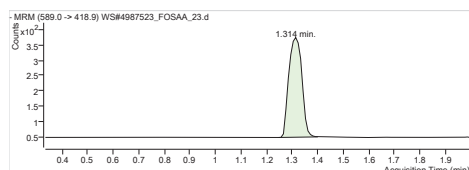
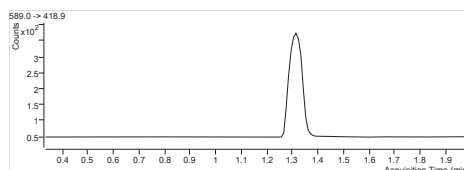
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	10148	1.28	20.80	0.48 µg/L	96.56
EtFOSAA 1	10213	1.32	20.80	0.48 µg/L	95.34
D3-MeFOSAA	1343	1.28	100.00	81.17 µg/L	81.17
D5-EtFOSAA	1162	1.31	100.00	79.55 µg/L	79.55
13C9-PFDA	27900	0.84	100.00	2.46 µg/L	102.41



D3-MeFOSAA IS

RT (Exp. RT):
Concentration:
Sample type:

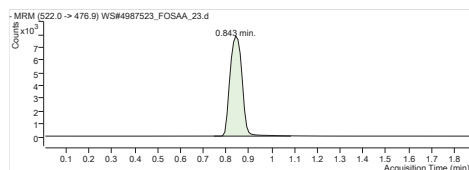
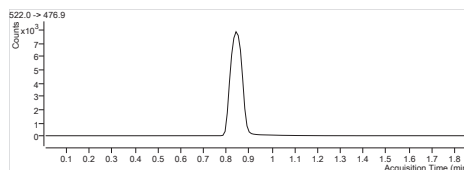
Internal Standard
1.280 (1.298)
1 µg/L
QC



D5-EtFOSAA IS

RT (Exp. RT):
Concentration:
Sample type:

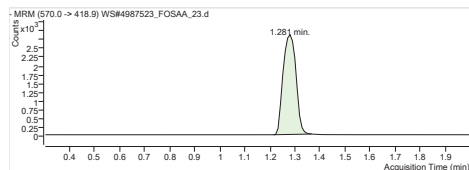
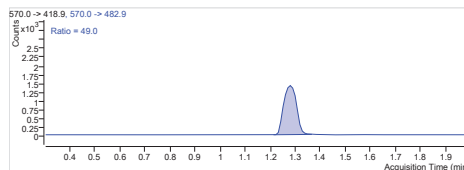
Internal Standard
1.314 (1.331)
1 µg/L
QC



13C9-PFDA IS

RT (Exp. RT):
Concentration:
Sample type:

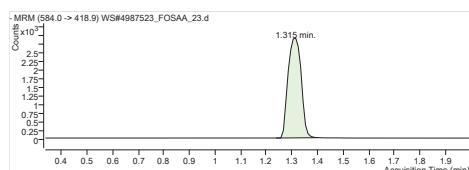
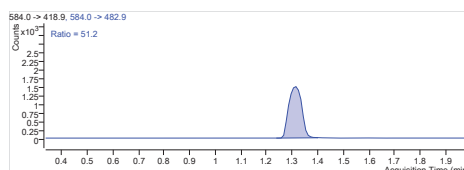
Internal Standard
0.843 (0.873)
1 µg/L
QC



MeFOSAA 1

RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

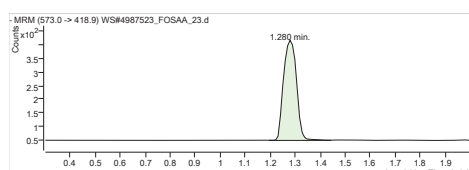
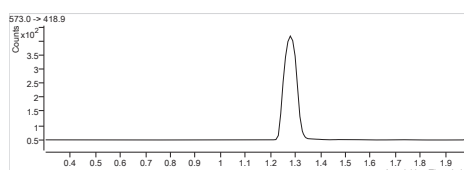
570.0 -> 418.9
1.281 (1.300)
0.48 µg/L
7.71711
QC



EtFOSAA 1

RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

584.0 -> 418.9
1.315 (1.333)
0.48 µg/L
8.82714
QC

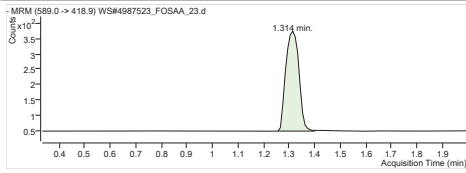
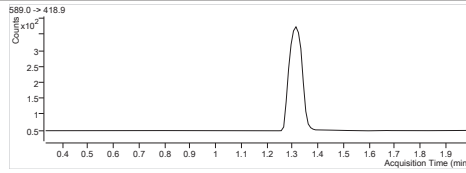


D3-MeFOSAA

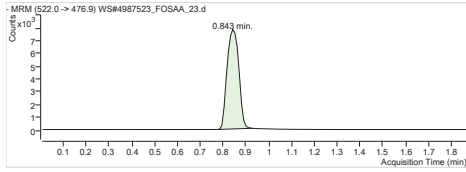
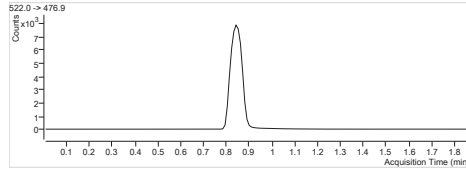
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

573.0 -> 418.9
1.280 (1.298)
81.17 µg/L
0.04662
QC

Quantitation Results



D5-EtFOSAA
 RT (Exp. RT): 589.0 -> 418.9
 Calc. conc. 1.314 (1.331)
 Area ratio: 79.55 µg/L
 Sample type: 0.04033
 QC



13C9-PFDA
 RT (Exp. RT): 522.0 -> 476.9
 Calc. conc. 0.843 (0.873)
 Area ratio: 2.46 µg/L
 Sample type: 0
 QC

DoD Projects - Internal Data Validation Checklist				
Run date: 2017/05/19				
Worksheet # (s): 4987381				
Analysis: PFOSALCM-S				
Primary review by the analyst - 1st 100 % analysis review				
		1st 100% review		2nd 100% review
		yes	no	n/a
1	Sample analyses meet hold time criteria	✓		✓
2	Analysis set-up meets method criteria	✓		✓
3	Tuning and correct calibration used - criteria meets method criteria	✓		✓
4	SQC/Control Charts updated, analysis in statistical/method control	✓		✓
5	Internal area counts checked (if applicable)	✓		✓
6	LCS, SRM are within acceptance criteria	✓		✓
7	Surrogate Recovery(s) is within acceptance criteria		✓	✓
8	Method Blank meets acceptance criteria	✓		✓
9	Matrix Spike recovery(s) meets acceptance criteria		✓	✓
10	Duplicate precision meets acceptance criteria	✓		✓
11	QC is documented on the run logs	✓		✓
12	Runs checked for carryover	✓		✓
13	Prep log / worksheet(s) are present, signed / dated by a prep / instrument analysts	✓		✓
14	Initial weights, splits, imprinter volumes (where applicable) are documented	✓		✓
15	Standards and reagents traceable to Certificates of Analysis	✓		✓
16	Samples above calibration range diluted and reanalyzed	✓		✓
17	Dilution factors (where justified) have been checked for correctness and entered	✓		✓
18	Analytical observations/anomalies documented in LIMS			✓
19	Random calculation checked and in correct units	✓		✓
20	If corrective actions were applied they are documented, initialed & dated			✓
21	Manual integration - before & after data with a reason included, initialed & dated			✓
22	Transferred data is validated in LIMS for correctness	✓		✓
23	Data package assembled (where required)	✓		✓
Reviewed by: AD Date: 2017/05/30				
Comments:				
Secondary Supervisor/Qualified Data Review Staff - 2nd 100% verification review				
		yes	no	n/a
1	Repeats documented and referenced	✓		
2	Method and sample deviations noted, anomalies described (if applicable)			✓
3	Data and QC validated in LIMS	✓		
4	Random calculation checked	✓		
5	Benchsheet (s) signed and dated	✓		
6	Data Package (if required) checked for completeness	✓		
Reviewed by: CM Date: 20170602				
Comments: ESK040, ESK047 & ESK048 remarked due to low surrogate recovery for PFOSALCM. A 20170603				

*Note: 2nd 100% verification review documented by secondary qualified data review
Primary and Secondary Internal Data Review Check must be performed by a different person

Worksheet Data Validation Checklist - Extractable Organics

Worksheet # **4987381**

Testcode: **PFOSALCM-S**

Sample Preparation

	yes	no	n/a
1 Samples extracted within hold time	✓		
2 Client sample ID verified against Lab ID (waters & oils)			✓
3 Parameter list and Client comments reviewed, (Spiking solutions matched to parameter list)	✓		
4 Height of sediment or if sample was decanted, recorded on worksheet			✓
5 Method required QC processed with samples, maximum batch size = 20 client samples.	✓		
6 Sample, duplicate, matrix spike appear similar, initial sample as well as final extract	✓		
7 Sample weight or initial volume and extract final volume, aliquot factor clearly recorded.	✓		
8 If performed any additional dilution clearly recorded			
9 Matrix spike / Duplicate performed on IOL samples if present			✓
10 Spiking solutions valid (haven't expired), ID and volume used clearly identified on worksheet	✓		
11 Spiking process witnessed and signed off	✓		
12 Extraction type recorded (N3A2B = neutral, 3 x acidic, 2 x basic)			✓
13 Sample prep deviations documented within CompliantPro as a Policy Deviation			✓
14 Job Remarks reviewed on 2nd page of worksheet.	✓		
15 Worksheet and reagent tracking record completed and authorized.	✓		

Reviewed by: **KPG**

Date: **2017/05/17**

Comments:

Worksheet Approval

	yes	no	n/a
1 Verified the position of the vials in autosampler against sequence list; signed off sequence list			
2 Calibration and CCV standards valid (haven't expired)			
3 Initial calibration curve and DFTPP tune (if applicable) acceptable			
4 Continuing and Final CCV and DFTPP tune (if applicable) acceptable			
5 System performance check acceptable (if applicable)			
6 Internal standard responses acceptable			
7 Method blank meets acceptance criteria			
8 Lab Control Samples recoveries meets acceptance criteria			
9 Duplicate RPD meets acceptance criteria			
10 Matrix spike recoveries meets acceptance criteria			
11 Surrogate recoveries meets acceptance criteria			
12 Appropriate control charts updated			
13 Samples above calibration range diluted and reanalyzed			
14 Dilutions clearly documented on tracking record, inst file and verified during data upload			
15 Samples following high level samples checked for carryover			
16 Mass spectra ion ratios acceptable for positive results, hardcopy in file.			
17 Analytical observations / anomalies documented			
18 DQW comments entered in LIMS, hardcopy in file			
19 Sample Prep section (above) reviewed and verified.			
20 WS Approval performed in LIMS			

Reviewed by:

Date:

Comments:

Worksheet Validation

	yes	no	n/a
1 Calibration, QC and sample results reviewed and determined acceptable			
2 Manual integrations verified			
3 Random calculation checked			
4 Data and QC validated in LIMS			
5 Comments reviewed for appropriateness			
6 Reworks / relogs documented in file			
7 Worksheet signed and dated,			
8 Worksheet approved and validated within LIMS			

Reviewed by:

Date:

Comments:



Assignment Date : Wednesday, May 17, 2017

Test Code : PFOSALCM-S

Instrument Id:

Test Description : Perfluorinated Compounds in Soil by LC-MS/MS

KP6 2017/05/18

Remarks: Call Stds 4 IB4 ICV Cross reference from WS# 4987343

Kevalkumar Patel

Date:

Date:

Date:

Test Description : Perfluorinated Compounds in Soil by LC-MS/MS

Remarks: For Moisture calculatⁿ only. AD 2017/05/30

Date: _____

Job No.	Rep	Client Name	Contact	Client Tier	National
	Remarks				
GB797189					
GB797628					
GB797636					

[illegible]

Sample	Preparation	Remarks
	<u>MeOH (ml)</u>	<u>Amount Spiked (μL)</u>
IB	1900	-
S1	1885	15
S2	1870	30
S3	1810	90
S4	1878	22.5
S5	1855	45
S6	1825	75
ICV	1863	37.5

[illegible]

ICAL + ICV info. 7/10/17/06/14

Worksheet Reagent Tracking Record

Worksheet # 4987381

Surrogate/Spike solutions	✓	Solution ID #	Conc.	Volume (µL)				Samples	
				Blk-Spk		MS		Solid	Liquid
				Solid	Liquid	Solid	Liquid	Solid	Liquid
DGT Spike			100 ug/mL	60	30	60	30	NA	NA
Diquat Dibromide			50 ug/mL	NA	350	NA	350	NA	NA
Explosives Spiking solution A			20 ug/mL	250	100	250	100	NA	NA
Explosives Spiking solution B			20/80 ug/mL	250	100	250	100	NA	NA
Formaldehyde Spike			100 ug/mL	25	25	25	25	NA	NA
Glyphosate Spike			25 ug/mL	500	20	500	20	NA	NA
Nonylphenol Ethoxylate Spike			100 ug/mL	100	100	100	100	NA	NA
Nonylphenol Spike			10 ug/mL	100	100	100	100	NA	NA
Paraquat Cl Tetrahydrate			20 ug/mL	NA	125	NA	125	NA	NA
Perchlorate Standard Spike			10 ng/mL	NA	100	NA	100	NA	NA
Perchlorate Standard Spike			500 ng/mL	40	NA	40	NA	NA	NA
Perchlorate O-18 Internal Standard			0.10 ng/µL	20	20	20	20	20	20
Morpholine Second Source Working Std			2500 ug/L	NA	80	NA	80	NA	NA
Morpholine-D8 Internal Standard			10 ug/mL	NA	50	NA	50	NA	50
Steril Second Source Spiking Solution			NA	20	NA	20	NA	NA	NA
Sterilants Comp. IS Working Solution			3 ug/mL	50	NA	50	NA	50	NA
Comp. PFC Working Solution A	✓	I-5015 -1	1ug/mL	(75)	21	62.5	(75)	21	62.5
PFC Internal Standard Solution	✓	SI-6439-2	50/125 ng/mL	(200)	100	150	(200)	100	150
PFC Injection IS	✓	SI-6423-2	400 ng/mL	(20)	20	(20)	20	(20)	20
ICV	✓	I-5015-1	1 µg/mL	37.5					
Solvent/Reagent	✓	Lot No.	Date Opened	Solvent/Reagent	✓	Lot No.	Date Opened/ Prepared	*Spiked by:	
DCM				50% NaOH				KPG	
Ottawa Sand				o-Phosphoric Acid				Spike Date	
Methanol	✓	SHB69002V	2017/05/17	Borax				2017/05/17	
2-Propanol (IPA)				Calcium Chloride				Spike Syringe/Pipette ID#	
Acetonitrile				EDTA				M23487B	
Sodium Sulfate				Phosphate Buffer				Int. Std Syringe/Pipette ID#	
70:30 Methanol: Water	✓	PRLRE-104-62		Sodium Thiosulphate				M1A485E	
60:40 Water: Methanol	✓	PRLRE-104-73		DNPH				*Spiking Witnessed by:	
DCM:Ethyl Ether (75:25)				FMOC				SSV	
Hexane:IPA (98:2)				5M Acetate Buffer				Final pH	
2% Formic Acid	✓	PRLRE-104-85		0.2% NH ₄ OH	✓	PRLRE-104-97		X	
0.2% Formic Acid				Leachate Fluid					
0.05M KOH				Reagent Water	✓	56218	2017/05/17		
0.05M HCl									
Equipment & ID	✓	Equipment	ID#	✓	Equipment	Lot #	Bottle Tracking		
Pipettor M23487B, N19320D M17485E K39876F	✓	SPE Cartridge	005137023A	✓	QC Balance ID		Bottle#		
	✓	Filter			Thermometer ID &Temp		Cap#		
Dispenser		Centrifuge	40740724	✓			Systems plus Lot#		
		Sonicator	8510 Branson	3:05 - 3:55 PM					

Comments:

* - SPIKING OF QC'S & SAMPLES MUST BE WITNESSED AT ALL TIMES.

PFOS and PFOA in soil by SPE/LCMS - Soil
ug/kg

Parameter Name	Units	MTRX SPK	MTRX SPK Dup1	SPIKE	BLANK	DL	B797633 EJK040
6:2 Fluorotelomer sulfonate	ug/kg	!! 19.24NC	!! -58.6NC	111.88519	0.11178153	1	57.2370627
8:2 Fluorotelomer sulfonate	ug/kg	89.70129	94.23068	100.57309	0	1	11.4804914
N-ethylperfluorooctane sulfonamide	ug/kg	86.10720	87.80686	N/A *****	N/A *****	1	N/A *****
EtFOSAA	ug/kg	98.38009	101.20356	99.10096	0	1	N/A *****
N-ethylperfluorooctane sulfonamido	ug/kg	98.39098	87.78069	N/A *****	N/A *****	1	N/A *****
N-methylperfluorooctane sulfonamide	ug/kg	85.93480	99.81442	N/A *****	N/A *****	1	N/A *****
MeFOSAA	ug/kg	102.11497	104.17070	99.96872	0.14241669	1	N/A *****
N-methylperfluorooctanesulfonamidol	ug/kg	82.46820	96.03808	N/A *****	N/A *****	1	N/A *****
Perfluorobutanoic acid	ug/kg	101.05795	105.14	107.37273	0	1	19.5520306
Perfluorobutane Sulfonate (PFBS)	ug/kg	105.81125	!! 136.857	120.69706	0	1	26.1570843
Perfluorodecanoic Acid (PFDA)	ug/kg	95.56106	90.63550	98.38538	0	1	0
Perfluorododecanoic Acid (PFDoA)	ug/kg	110.97329	101.18786	102.43311	0	1	0
Perfluorodecane Sulfonate	ug/kg	98.93908	91.66401	98.38616	0	1	0
Perfluoroheptane sulfonate	ug/kg	N/A *****	N/A *****	N/A *****	N/A *****	1	N/A *****
Perfluorononanoic Acid (PFNA)	ug/kg	103.04776	100.37734	113.65398	0	1	0.83900729
Perfluorooctane Sulfonamide (PFOSA)	ug/kg	96.67303	96.97377	99.94863	0	1	0.50561354
Perfluorotetradecanoic Acid	ug/kg	98.60000	102.70000	107.18981	0	1	0.00000
Perfluorotridecanoic Acid	ug/kg	115.60370	112.08810	106.71106	0	1	0.00000
Perfluoroundecanoic Acid (PFUnA)	ug/kg	106.70688	105.34663	106.85845	0	1	0
Perfluoroheptanoic Acid (PFHpA)	ug/kg	92.07136	103.66107	107.57327	0	1	21.5008909
Perfluorohexanoic Acid (PFHxA)	ug/kg	100.9010NC	107.8863NC	108.69982	0	1	69.4757870
Perfluorohexane Sulfonate (PFHxS)	ug/kg	!! -111.NC	109.0000NC	117.08190	0	1	103.327653
Perfluoro-n-Octanoic Acid (PFOA)	ug/kg	116.0632NC	100.7397NC	108.33061	0	1	6.41398393
Perfluorooctane Sulfonate (PFOS)	ug/kg	!! 204.9NC	!! 18.00NC	93.09717	0	1	256.040805
Perfluoropentanoic Acid (PFPeA)	ug/kg	114.27318	126.71298	108.46192	0	1	64.3946269
13C2-6:2 Fluorotelomer sulfonate	ug/kg	53.7718485	54.5544451	69.8075827	83.8312367		*NOT FOUND
13C2-8:2 Fluorotelomer sulfonate	ug/kg	97.8217350	79.6499548	74.3154225	88.5170910		*NOT FOUND
13C2-Perfluorodecanoic acid	ug/kg	82.8930619	85.2089820	72.0828537	79.9742675		*NOT FOUND
13C2-Perfluorododecanoic acid	ug/kg	70.7405062	77.0727855	66.5770907	74.8061778		*NOT FOUND
13C2-Perfluorohexanoic acid	ug/kg	86.0483716	79.4253965	75.2585896	87.3742690		*NOT FOUND
13C2-perfluorotetradecanoic acid	ug/kg	66.8690046	67.6335835	64.9219948	74.6213937		*NOT FOUND
13C2-Perfluoroundecanoic acid	ug/kg	81.7983583	77.2662607	71.2969881	73.6670308		*NOT FOUND
13C4-Perfluorobutanoic acid	ug/kg	89.8572135	84.0667921	75.7850488	87.8764254		*NOT FOUND
13C4-Perfluoroheptanoic acid	ug/kg	74.6085650	64.0929271	73.4140038	93.8966935		*NOT FOUND
13C5-Perfluorononanoic acid	ug/kg	86.6267831	81.1204015	68.6636483	86.9989219		*NOT FOUND
13C4-Perfluorooctanoic acid	ug/kg	80.2965459	77.5837022	74.4965445	83.5284207		81.7069464
13C4-Perfluorooctanesulfonate	ug/kg	73.2911663	79.1111005	80.9690263	84.8318717		104.308385
13C5-Perfluoropentanoic acid	ug/kg	83.9418271	75.6870493	76.9419237	92.0242469		*NOT FOUND
13C8-Perfluorooctane Sulfonamide	ug/kg	70.2484016	67.7904529	62.3029140	66.4311875		63.2041148
18O2-Perfluorohexanesulfonate	ug/kg	83.0520439	64.7212077	64.4873040	82.8989954		*NOT FOUND
N-methyl-d3-perfluorooctane sulfona	ug/kg	N/A *****	N/A *****	N/A *****	N/A *****		N/A *****
N-ethyl-d5-perfluorooctane sulfonam	ug/kg	N/A *****	N/A *****	N/A *****	N/A *****		N/A *****

PFOS and PFOA in soil by SPE/LCMS - Soil
ug/kg

Parameter Name	DL	B797633 EJK041	DL	B797633 EJK042	DL	B797633 EJK043	DL
6:2 Fluorotelomer sulfonate	9.8	294.506401	10.0	370.846355	9.9	0.16671962	0.86
8:2 Fluorotelomer sulfonate	0.98	0.65371124	1.0	0.65240757	0.99	0	0.86
N-ethylperfluorooctane sulfonamide	0.98	N/A *****	1.0	0.00000	0.99	N/A *****	0.86
EtFOSAA	0.98	N/A *****	1.0	N/A *****	0.99	N/A *****	0.86
N-ethylperfluorooctane sulfonamidoe	0.98	N/A *****	1.0	0.00000	0.99	N/A *****	0.86
N-methylperfluorooctane sulfonamide	0.98	N/A *****	1.0	0.00000	0.99	N/A *****	0.86
MeFOSAA	0.98	N/A *****	1.0	N/A *****	0.99	N/A *****	0.86
N-methylperfluorooctanesulfonamidol	0.98	N/A *****	1.0	0.00000	0.99	N/A *****	0.86
Perfluorobutanoic acid	0.98	2.91556970	1.0	3.79355859	0.99	0	0.86
Perfluorobutane Sulfonate (PFBS)	0.98	12.0386574	1.0	18.6136226	0.99	0	0.86
Perfluorodecanoic Acid (PFDA)	0.98	0	1.0	0	0.99	0	0.86
Perfluorododecanoic Acid (PFDoA)	0.98	0	1.0	0	0.99	0	0.86
Perfluorodecane Sulfonate	0.98	0	1.0	0	0.99	0	0.86
Perfluoroheptane sulfonate	0.98	N/A *****	1.0	29.8251840	0.99	N/A *****	0.86
Perfluorononanoic Acid (PFNA)	0.98	0	1.0	0.39086663	0.99	0	0.86
Perfluorooctane Sulfonamide (PFOSA)	0.98	0	1.0	0	0.99	0	0.86
Perfluorotetradecanoic Acid	0.98	0	1.0	0	0.99	0	0.86
Perfluorotridecanoic Acid	0.98	0	1.0	0	0.99	0	0.86
Perfluoroundecanoic Acid (PFUnA)	0.98	0	1.0	0	0.99	0	0.86
Perfluoroheptanoic Acid (PFHpA)	0.98	11.6616233	1.0	15.6299072	0.99	0	0.86
Perfluorohexanoic Acid (PFHxA)	9.8	24.8099433	1.0	31.5808601	0.99	0.51459062	0.86
Perfluorohexane Sulfonate (PFHxS)	9.8	296.341926	10.0	411.025693	9.9	0.71242443	0.86
Perfluoro-n-Octanoic Acid (PFOA)	0.98	20.6082359	1.0	26.6366391	0.99	0	0.86
Perfluorooctane Sulfonate (PFOS)	9.8	331.011521	10.0	457.006142	9.9	0.71679720	0.86
Perfluoropentanoic Acid (PFPeA)	9.8	8.52291857	1.0	11.1122401	0.99	0	0.86
13C2-6:2 Fluorotelomer sulfonate		*NOT FOUND		*NOT FOUND		*NOT FOUND	
13C2-8:2 Fluorotelomer sulfonate		*NOT FOUND		*NOT FOUND		*NOT FOUND	
13C2-Perfluorodecanoic acid		*NOT FOUND		*NOT FOUND		*NOT FOUND	
13C2-Perfluorododecanoic acid		*NOT FOUND		*NOT FOUND		*NOT FOUND	
13C2-Perfluorohexanoic acid		*NOT FOUND		*NOT FOUND		*NOT FOUND	
13C2-perfluorotetradecanoic acid		*NOT FOUND		*NOT FOUND		*NOT FOUND	
13C2-Perfluoroundecanoic acid		*NOT FOUND		*NOT FOUND		*NOT FOUND	
13C4-Perfluorobutanoic acid		*NOT FOUND		*NOT FOUND		*NOT FOUND	
13C4-Perfluoroheptanoic acid		*NOT FOUND		*NOT FOUND		*NOT FOUND	
13C5-Perfluorononanoic acid		*NOT FOUND		*NOT FOUND		*NOT FOUND	
13C4-Perfluorooctanoic acid		83.1258576		72.0698308		75.4809573	
13C4-Perfluorooctanesulfonate		90.1257784		87.2509131		75.2700071	
13C5-Perfluoropentanoic acid		*NOT FOUND		*NOT FOUND		*NOT FOUND	
13C8-Perfluorooctane Sulfonamide		70.6780161		59.2625331		54.4382255	
18O2-Perfluorohexanesulfonate		*NOT FOUND		*NOT FOUND		*NOT FOUND	
N-methyl-d3-perfluorooctane sulfona		N/A *****		N/A *****		N/A *****	
N-ethyl-d5-perfluorooctane sulfonam		N/A *****		N/A *****		N/A *****	

PFOS and PFOA in soil by SPE/LCMS - Soil
ug/kg

Parameter Name	B797633 EJK044	DL	B797633 EJK045	DL	B797633 EJK046	DL	B797633 EJK047
6:2 Fluorotelomer sulfonate	139.998327	10.0	27.8373970	0.89	0.42108723	0.81	20.4878336
8:2 Fluorotelomer sulfonate	9.01924465	1.0	0.94139258	0.89	0	0.81	16.8411750
N-ethylperfluorooctane sulfonamide	N/A *****	1.0	N/A *****	0.89	N/A *****	0.81	N/A *****
EtFOSAA	N/A *****	1.0	N/A *****	0.89	N/A *****	0.81	N/A *****
N-ethylperfluorooctane sulfonamido	N/A *****	1.0	N/A *****	0.89	N/A *****	0.81	N/A *****
N-methylperfluorooctane sulfonamide	N/A *****	1.0	N/A *****	0.89	N/A *****	0.81	N/A *****
MeFOSAA	N/A *****	1.0	N/A *****	0.89	N/A *****	0.81	N/A *****
N-methylperfluorooctanesulfonamidol	N/A *****	1.0	N/A *****	0.89	N/A *****	0.81	N/A *****
Perfluorobutanoic acid	48.3369690	1.0	9.02961810	0.89	0	0.81	12.4870025
Perfluorobutane Sulfonate (PFBS)	111.964058	10.0	49.1091939	8.9	0.99368795	0.81	39.7300929
Perfluorodecanoic Acid (PFDA)	0	1.0	0	0.89	0	0.81	0.78854568
Perfluorododecanoic Acid (PFDoA)	0	1.0	0	0.89	0	0.81	0.45291636
Perfluorodecane Sulfonate	1.75452065	1.0	0	0.89	0	0.81	2.83556477
Perfluoroheptane sulfonate	N/A *****	1.0	N/A *****	8.9	N/A *****	0.81	N/A *****
Perfluorononanoic Acid (PFNA)	1.28814604	1.0	0.42167869	0.89	0	0.81	1.50028044
Perfluorooctane Sulfonamide (PFOSA)	0.61119176	1.0	0	0.89	0	0.81	3.25060345
Perfluorotetradecanoic Acid	0	1.0	0	0.89	0	0.81	0.000000
Perfluorotridecanoic Acid	0	1.0	0	0.89	0	0.81	0.000000
Perfluoroundecanoic Acid (PFUnA)	0	1.0	0	0.89	0	0.81	0.66319692
Perfluoroheptanoic Acid (PFHpA)	31.8813375	1.0	18.5588427	0.89	0	0.81	11.7373120
Perfluorohexanoic Acid (PFHxA)	227.770032	10.0	50.3666350	8.9	0.77106622	0.81	116.389698
Perfluorohexane Sulfonate (PFHxS)	808.440123	100	484.666521	89	4.02976723	0.81	405.679154
Perfluoro-n-Octanoic Acid (PFOA)	41.1244110	1.0	32.3435438	0.89	0.37076813	0.81	13.3749493
Perfluorooctane Sulfonate (PFOS)	1789.13179	100	794.724588	89	2.94520597	0.81	2923.86460
Perfluoropentanoic Acid (PFPeA)	112.952343	10.0	13.0279644	0.89	0.44252804	0.81	31.5044339
13C2-6:2 Fluorotelomer sulfonate	*NOT FOUND		*NOT FOUND		*NOT FOUND		*NOT FOUND
13C2-8:2 Fluorotelomer sulfonate	*NOT FOUND		*NOT FOUND		*NOT FOUND		*NOT FOUND
13C2-Perfluorodecanoic acid	*NOT FOUND		*NOT FOUND		*NOT FOUND		*NOT FOUND
13C2-Perfluorododecanoic acid	*NOT FOUND		*NOT FOUND		*NOT FOUND		*NOT FOUND
13C2-Perfluorohexanoic acid	*NOT FOUND		*NOT FOUND		*NOT FOUND		*NOT FOUND
13C2-perfluorotetradecanoic acid	*NOT FOUND		*NOT FOUND		*NOT FOUND		*NOT FOUND
13C2-Perfluoroundecanoic acid	*NOT FOUND		*NOT FOUND		*NOT FOUND		*NOT FOUND
13C4-Perfluorobutanoic acid	*NOT FOUND		*NOT FOUND		*NOT FOUND		*NOT FOUND
13C4-Perfluoroheptanoic acid	*NOT FOUND		*NOT FOUND		*NOT FOUND		*NOT FOUND
13C5-Perfluorononanoic acid	*NOT FOUND		*NOT FOUND		*NOT FOUND		*NOT FOUND
13C4-Perfluorooctanoic acid	85.4065677		76.4104352		75.6864713		83.0547151
13C4-Perfluorooctanesulfonate	98.1746742		89.7240173		70.0871127		81.6247827
13C5-Perfluoropentanoic acid	*NOT FOUND		*NOT FOUND		*NOT FOUND		*NOT FOUND
13C8-Perfluorooctane Sulfonamide	53.7567043		63.0624484		66.1011025		68.3008890
18O2-Perfluorohexanesulfonate	*NOT FOUND		*NOT FOUND		*NOT FOUND		*NOT FOUND
N-methyl-d3-perfluorooctane sulfona	N/A *****		N/A *****		N/A *****		N/A *****
N-ethyl-d5-perfluorooctane sulfonam	N/A *****		N/A *****		N/A *****		N/A *****

PFOS and PFOA in soil by SPE/LCMS - Soil
ug/kg

Parameter Name	DL	B797633 EJK048	DL	B797633 EJK049	DL	B797635 EJK067	DL
6:2 Fluorotelomer sulfonate	0.90	23.5377379	0.92	0.20110730	0.98	25.1642695	0.88
8:2 Fluorotelomer sulfonate	0.90	5.50243942	0.92	0	0.98	2.73793540	0.88
N-ethylperfluorooctane sulfonamide	0.90	N/A *****	0.92	N/A *****	0.98	N/A *****	0.88
EtFOSAA	0.90	N/A *****	0.92	N/A *****	0.98	N/A *****	0.88
N-ethylperfluorooctane sulfonamide	0.90	N/A *****	0.92	N/A *****	0.98	N/A *****	0.88
N-methylperfluorooctane sulfonamide	0.90	N/A *****	0.92	N/A *****	0.98	N/A *****	0.88
MeFOSAA	0.90	N/A *****	0.92	N/A *****	0.98	N/A *****	0.88
N-methylperfluorooctanesulfonamidol	0.90	N/A *****	0.92	N/A *****	0.98	N/A *****	0.88
Perfluorobutanoic acid	0.90	4.57155606	0.92	0	0.98	0	0.88
Perfluorobutane Sulfonate (PFBS)	0.90	13.3701041	0.92	0	0.98	0.51336271	0.88
Perfluorodecanoic Acid (PFDA)	0.90	0	0.92	0	0.98	0.41829020	0.88
Perfluorododecanoic Acid (PFDoA)	0.90	0	0.92	0	0.98	3.19399677	0.88
Perfluorodecane Sulfonate	0.90	3.38076422	0.92	0	0.98	1.06831962	0.88
Perfluoroheptane sulfonate	0.90	N/A *****	0.92	N/A *****	0.98	N/A *****	0.88
Perfluorononanoic Acid (PFNA)	0.90	0.69670198	0.92	0	0.98	0	0.88
Perfluorooctane Sulfonamide (PFOSA)	0.90	0	0.92	0	0.98	0.88083476	0.88
Perfluorotetradecanoic Acid	0.90	0.00000	0.92	0	0.98	1.87355287	0.88
Perfluorotridecanoic Acid	0.90	0.00000	0.92	0	0.98	2.69915048	0.88
Perfluoroundecanoic Acid (PFUnA)	0.90	0	0.92	0	0.98	0.67562668	0.88
Perfluoroheptanoic Acid (PFHpA)	0.90	3.26348107	0.92	0	0.98	0	0.88
Perfluorohexanoic Acid (PFHxA)	9.0	29.3978759	0.92	0	0.98	2.97440504	0.88
Perfluorohexane Sulfonate (PFHxS)	9.0	133.083940	9.2	0.34744641	0.98	1.12769859	0.88
Perfluoro-n-Octanoic Acid (PFOA)	0.90	18.8629138	0.92	0	0.98	0.66670608	0.88
Perfluorooctane Sulfonate (PFOS)	90	2397.07677	92	1.88147748	0.98	6.46384012	0.88
Perfluoropentanoic Acid (PFPeA)	0.90	7.47484139	0.92	0	0.98	1.00607431	0.88
13C2-6:2 Fluorotelomer sulfonate		*NOT FOUND		*NOT FOUND		*NOT FOUND	
13C2-8:2 Fluorotelomer sulfonate		*NOT FOUND		*NOT FOUND		*NOT FOUND	
13C2-Perfluorodecanoic acid		*NOT FOUND		*NOT FOUND		*NOT FOUND	
13C2-Perfluorododecanoic acid		*NOT FOUND		*NOT FOUND		*NOT FOUND	
13C2-Perfluorohexanoic acid		*NOT FOUND		*NOT FOUND		*NOT FOUND	
13C2-perfluorotetradecanoic acid		*NOT FOUND		*NOT FOUND		*NOT FOUND	
13C2-Perfluoroundecanoic acid		*NOT FOUND		*NOT FOUND		*NOT FOUND	
13C4-Perfluorobutanoic acid		*NOT FOUND		*NOT FOUND		*NOT FOUND	
13C4-Perfluoroheptanoic acid		*NOT FOUND		*NOT FOUND		*NOT FOUND	
13C5-Perfluorononanoic acid		*NOT FOUND		*NOT FOUND		*NOT FOUND	
13C4-Perfluorooctanoic acid		69.8009611		74.0973959		93.4055052	
13C4-Perfluorooctanesulfonate		89.8507661		63.2250543		86.3977059	
13C5-Perfluoropentanoic acid		*NOT FOUND		*NOT FOUND		*NOT FOUND	
13C8-Perfluorooctane Sulfonamide		59.2252232		57.9976825		73.4616151	
18O2-Perfluorohexanesulfonate		*NOT FOUND		*NOT FOUND		*NOT FOUND	
N-methyl-d3-perfluorooctane sulfona		N/A *****		N/A *****		N/A *****	
N-ethyl-d5-perfluorooctane sulfonam		N/A *****		N/A *****		N/A *****	

PFOS and PFOA in soil by SPE/LCMS - Soil
ug/kg

Parameter Name	B797896 EJL629	DL	RDL	MDL	IDL		
6:2 Fluorotelomer sulfonate	0.27506483	1.1	1	0.23	0		
8:2 Fluorotelomer sulfonate	0	1.1	1	0.32	0		
N-ethylperfluorooctane sulfonamide	N/A *****	1.1	1	0.38	0		
EtFOSAA	0	1.1	1	0.16	0		
N-ethylperfluorooctane sulfonamido	N/A *****	1.1	1	0.28	0		
N-methylperfluorooctane sulfonamide	N/A *****	1.1	1	0.38	0		
MeFOSAA	0	1.1	1	0.16	0		
N-methylperfluorooctanesulfonamidol	N/A *****	1.1	1	0.35	0		
Perfluorobutanoic acid	N/A *****	1.1	1	0.23	0		
Perfluorobutane Sulfonate (PFBS)	0	1.1	1	0.17	0		
Perfluorodecanoic Acid (PFDA)	0	1.1	1	0.13	0		
Perfluorododecanoic Acid (PFDoA)	0	1.1	1	0.22	0		
Perfluorodecane Sulfonate	N/A *****	1.1	1	0.23	0		
Perfluoroheptane sulfonate	N/A *****	1.1	1	0.35	0		
Perfluorononanoic Acid (PFNA)	0	1.1	1	0.17	0		
Perfluorooctane Sulfonamide (PFOSA)	N/A *****	1.1	1	0.26	0		
Perfluorotetradecanoic Acid	0	1.1	1	0.11	0		
Perfluorotridecanoic Acid	0	1.1	1	0.12	0		
Perfluoroundecanoic Acid (PFUnA)	0	1.1	1	0.18	0		
Perfluoroheptanoic Acid (PFHpA)	0.65023551	1.1	1	0.17	0		
Perfluorohexanoic Acid (PFHxA)	0.96756649	1.1	1	0.19	0		
Perfluorohexane Sulfonate (PFHxS)	5.05798557	1.1	1	0.23	0		
Perfluoro-n-Octanoic Acid (PFOA)	0.79778897	1.1	1	0.26	0		
Perfluorooctane Sulfonate (PFOS)	5.54804393	1.1	1	0.21	0		
Perfluoropentanoic Acid (PFPeA)	N/A *****	1.1	1	0.18	0		
13C2-6:2 Fluorotelomer sulfonate	*NOT FOUND						
13C2-8:2 Fluorotelomer sulfonate	*NOT FOUND						
13C2-Perfluorodecanoic acid	*NOT FOUND						
13C2-Perfluorododecanoic acid	*NOT FOUND						
13C2-Perfluorohexanoic acid	*NOT FOUND						
13C2-perfluorotetradecanoic acid	*NOT FOUND						
13C2-Perfluoroundecanoic acid	*NOT FOUND						
13C4-Perfluorobutanoic acid	*NOT FOUND						
13C4-Perfluoroheptanoic acid	*NOT FOUND						
13C5-Perfluorononanoic acid	*NOT FOUND						
13C4-Perfluorooctanoic acid	71.1218164						
13C4-Perfluorooctanesulfonate	72.4604799						
13C5-Perfluoropentanoic acid	*NOT FOUND						
13C8-Perfluorooctane Sulfonamide	56.8476754						
18O2-Perfluorohexanesulfonate	*NOT FOUND						
N-methyl-d3-perfluorooctane sulfona	N/A *****						
N-ethyl-d5-perfluorooctane sulfonam	N/A *****						

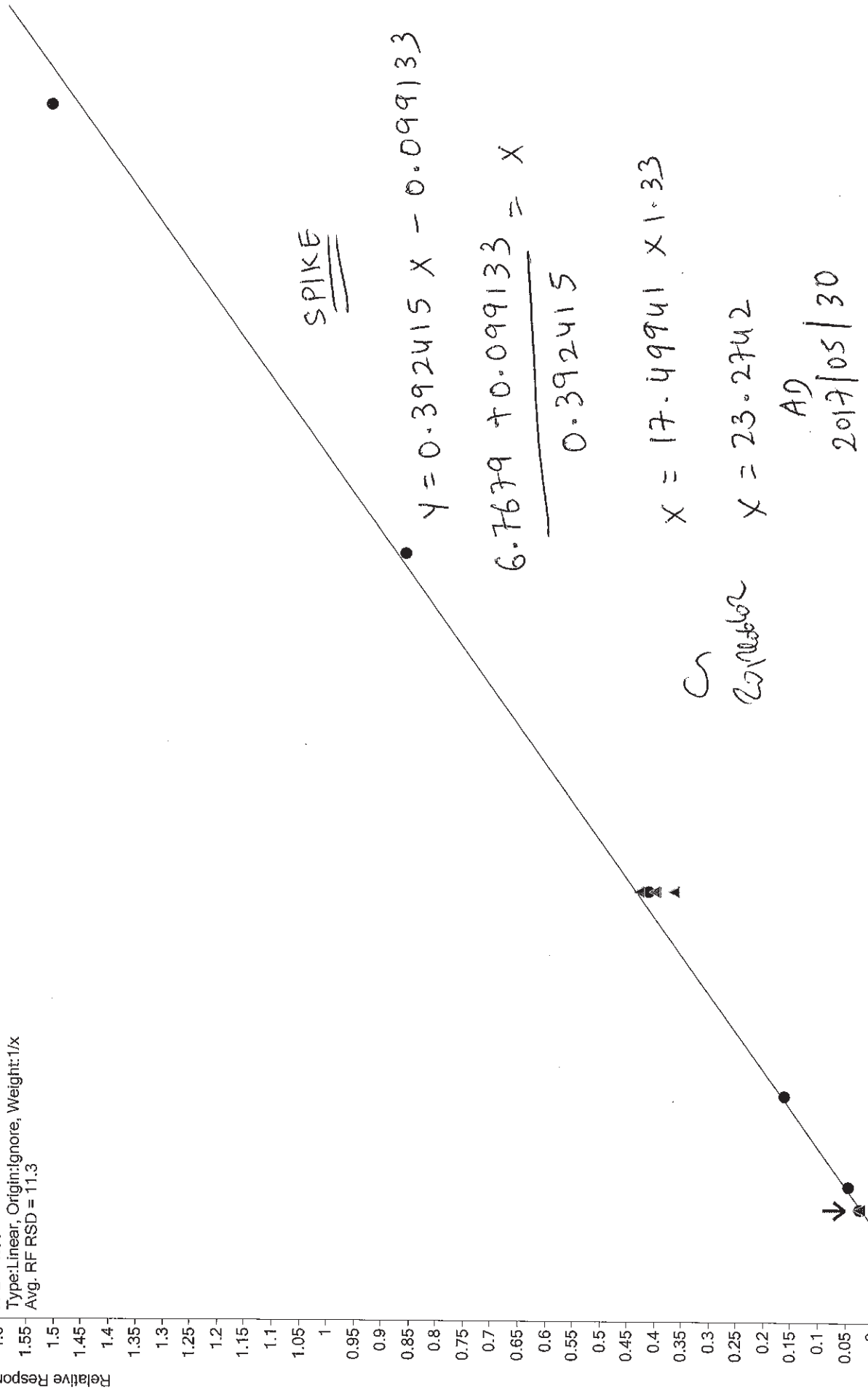
PFOS 1 - 6 Levels, 6 Levels Used, 6 Points, 6 Points Used, 4 QCs

$$y = 0.392415 \cdot x - 0.099133$$

$$R^2 = 1.00$$

Type: Linear, Origin: Ignore, Weight: 1/x

Avg. RF RSD = 11.3



-2 -1 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40
Relative Concentration

Counts
x10³

RT=0.964
Area=32062

$$h = 13.5 \text{ cm.}$$

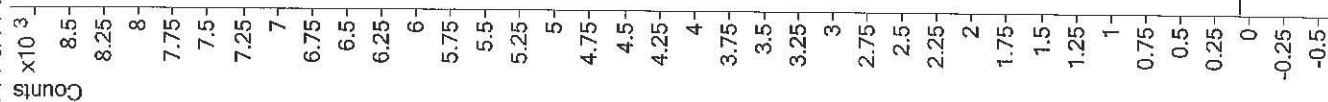
$$a = 5.4 \text{ cm}$$

$$b = 5.0 \text{ cm.}$$

$$b/a = 0.93$$

AD

2017/05/30



0.84 0.85 0.86 0.87 0.88 0.89 0.9 0.91 0.92 0.93 0.94 0.95 0.96 0.97 0.98 0.99 1 1.01 1.02 1.03 1.04 1.05 1.06 1.07 1.08 1.09 1.1
Acquisition Time (min)

Counts
x10³

RT=0.549
Area=33395

$$h = 13.5 \text{ cm}$$

$$a = 4.0 \text{ cm}$$

$$b = 3.9 \text{ cm}$$

$$b/a = 0.98$$

AD

2017/05/30

b

a

0.4 0.42 0.44 0.46 0.48 0.5 0.52 0.54 0.56 0.58 0.6 0.62 0.64 0.66 0.68 0.7 0.72 0.74
Acquisition Time (min)

Test Code: **PFOSALCM-S**Worksheet Number: **4987381**

<u>Sample Number</u>	<u>Parameter</u>	
EJK040-01	6:2 Fluorotelomer sulfonate	*
EJK041-01	8:2 Fluorotelomer sulfonate	*
EJK042-01	Perfluorobutanoic acid	
EJK043-01	Perfluorobutane Sulfonate (PFBS)	
EJK044-01	Perfluorodecanoic Acid (PFDA)	
EJK045-01	Perfluorododecanoic Acid (PFDoA)	
EJK046-01	Perfluorodecane Sulfonate	
EJK047-01	Perfluoroheptanoic Acid (PFHpA)	
EJK048-01	Perfluorohexanoic Acid (PFHxA)	
EJK049-01	Perfluorohexane Sulfonate (PFHxS)	
EJK067-01	Perfluorononanoic Acid (PFNA)	
	Perfluoro-n-Octanoic Acid (PFOA)	
	Perfluorooctane Sulfonate (PFOS)	
	Perfluorooctane Sulfonamide (PFOSA)	
	Perfluoropentanoic Acid (PFPeA)	
	Perfluorotetradecanoic Acid	
	Perfluorotridecanoic Acid	
	Perfluoroundecanoic Acid (PFUnA)	
EJL629-01	6:2 Fluorotelomer sulfonate	*
	8:2 Fluorotelomer sulfonate	*
	EtFOSAA	*
	MeFOSAA	*
	Perfluorobutane Sulfonate (PFBS)	
	Perfluorodecanoic Acid (PFDA)	
	Perfluorododecanoic Acid (PFDoA)	
	Perfluoroheptanoic Acid (PFHpA)	
	Perfluorohexanoic Acid (PFHxA)	
	Perfluorohexane Sulfonate (PFHxS)	
	Perfluorononanoic Acid (PFNA)	
	Perfluoro-n-Octanoic Acid (PFOA)	
	Perfluorooctane Sulfonate (PFOS)	
	Perfluorotetradecanoic Acid	
	Perfluorotridecanoic Acid	
	Perfluoroundecanoic Acid (PFUnA)	

* - This parameter is usually off, but will be reported for this group of samples!

1.		MTRX SPK
	4987381:MTRX SPK	
2.		MTRX SPK :D1
	4987381:MTRX SPK:D1	
3.		SPIKE
	4987381:SPIKE	
4.		BLANK
	4987381:BLANK	
5.		
	4987381:EJK040-01	
6.		
	4987381:EJK041-01	
7.		
	4987381:EJK042-01	
8.		
	4987381:EJK043-01	
9.		
	4987381:EJK044-01	
10.		
	4987381:EJK045-01	
11.		
	4987381:EJK046-01	
12.		
	4987381:EJK047-01	
13.		
	4987381:EJK048-01	
14.		
	4987381:EJK049-01	
15.		
	4987381:EJK067-01	
16.		FRCHD04-S0-006
	4987381:EJL629-01	

Worklist Report

Instrument Name: LCMS04

Worklist Path: D:\MassHunter\Worklists\PFCs\PFC_170519_Soil_B.wkl

Operator Name: M_G
 Run Type: Standard Start
 Part of Method to Run: Acquisition Only
 Execution of Acquisition-DA: Synchronous
 Acquisition Method Path: D:\MassHunter\Acquisition Method
 DA Method Path: D:\MassHunter\Methods
 Data File Path: D:\MassHunter\data\PFC\20170519\WS#4987381
 Pre-Worklist Script: ---
 Post-Worklist Script: SCP_InstrumentStandby()\{MH_Acq_Scripts.exe}
 Acquisition Clean Up Script: ---
 Overlapped Injection: Yes
 Clear Sample Selection After Run: Yes
 Wait Time for Ready(Min): 10
 Threshold Disk Value(GB): 10
 Comment: Column#171 ✓
 MP A1: Solution# 92 (FSRE18) ✓
 MP B1: Methanol Lo#SHBG9002V, Sigma ✓

20170519 WJG

Plate Barcode:

Plate	Barcode
P2	

Worklist Table

Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
1 Solvent	P2-A1	PFC_Soil.m	WS#4987381_01.d	Sample		As Method	-
2 STD 1	P2-A2	PFC_Soil.m	WS#4987381_02.d	Calibration	STD 1	As Method	-
3 STD 2	P2-A3	PFC_Soil.m	WS#4987381_03.d	Calibration	STD 2	As Method	-
4 STD 3	P2-A4	PFC_Soil.m	WS#4987381_04.d	Calibration	STD 3	As Method	-
5 STD 4	P2-A5	PFC_Soil.m	WS#4987381_05.d	Calibration	STD 4	As Method	-
6 STD 5	P2-A6	PFC_Soil.m	WS#4987381_06.d	Calibration	STD 5	As Method	-
7 STD 6	P2-A7	PFC_Soil.m	WS#4987381_07.d	Calibration	STD 6	As Method	-
8 IB	P2-A8	PFC_Soil.m	WS#4987381_08.d	Sample		As Method	-
9 ICV	P2-A9	PFC_Soil.m	WS#4987381_09.d	QC	ICV	As Method	-
10 ISC	P2-A2	PFC_Soil.m	WS#4987381_10.d	ConCal	STD 1	As Method	-
11 4987381:BLANK	P2-B1	PFC_Soil.m	WS#4987381_11.d	Blank		As Method	-
12 4987381:SPIKE	P2-B2	PFC_Soil.m	WS#4987381_12.d	QC	ICV	As Method	-
13 4987381:MTRX SPK	P2-B3	PFC_Soil.m	WS#4987381_13.d	Sample		As Method	-

Worklist Report

Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (ul)	Comment
4987381:MTX SPK.D1	P2-B4	PFC_Soil.m	WS#4987381_14.d	Sample		As Method	-
IB	P2-A8	PFC_Soil.m	WS#4987381_15.d	Sample		As Method	-
4987381:EJK040-01:10x	P2-B5	PFC_Soil.m	WS#4987381_16.d	Sample		As Method	-
4987381:EJK040-01	P2-B6	PFC_Soil.m	WS#4987381_17.d	Sample		As Method	-
IB	P2-A8	PFC_Soil.m	WS#4987381_18.d	Sample		As Method	-
4987381:EJK041-01:10x	P2-B7	PFC_Soil.m	WS#4987381_19.d	Sample		As Method	-
4987381:EJK041-01	P2-B8	PFC_Soil.m	WS#4987381_20.d	Sample		As Method	-
IB	P2-A8	PFC_Soil.m	WS#4987381_21.d	Sample		As Method	-
4987381:EJK042-01:100x	P2-B9	PFC_Soil.m	WS#4987381_22.d	Sample		As Method	-
4987381:EJK042-01:10x	P2-C1	PFC_Soil.m	WS#4987381_23.d	Sample		As Method	-
4987381:EJK042-01	P2-C2	PFC_Soil.m	WS#4987381_24.d	Sample		As Method	-
Solvent	P2-A1	PFC_Soil.m	WS#4987381_25.d	Sample		As Method	-
IB	P2-A8	PFC_Soil.m	WS#4987381_26.d	Sample		As Method	-
4987381:EJK043-01	P2-C3	PFC_Soil.m	WS#4987381_27.d	Sample		As Method	-
CCV	P2-A5	PFC_Soil.m	WS#4987381_28.d	ConCal	STD 4	As Method	-
4987381:EJK044-01:100x	P2-C4	PFC_Soil.m	WS#4987381_29.d	Sample		As Method	-
4987381:EJK044-01:10x	P2-C5	PFC_Soil.m	WS#4987381_30.d	Sample		As Method	-
4987381:EJK044-01	P2-C6	PFC_Soil.m	WS#4987381_31.d	Sample		As Method	-
Solvent	P2-A1	PFC_Soil.m	WS#4987381_32.d	Sample		As Method	-
IB	P2-A8	PFC_Soil.m	WS#4987381_33.d	Sample		As Method	-
4987381:EJK045-01:100x	P2-C7	PFC_Soil.m	WS#4987381_34.d	Sample		As Method	-
4987381:EJK045-01:10x	P2-C8	PFC_Soil.m	WS#4987381_35.d	Sample		As Method	-
4987381:EJK045-01	P2-C9	PFC_Soil.m	WS#4987381_36.d	Sample		As Method	-
Solvent	P2-A1	PFC_Soil.m	WS#4987381_37.d	Sample		As Method	-
IB	P2-A8	PFC_Soil.m	WS#4987381_38.d	Sample		As Method	-
4987381:EJK046-01	P2-D1	PFC_Soil.m	WS#4987381_39.d	Sample		As Method	-
4987381:EJK047-01:100x	P2-D2	PFC_Soil.m	WS#4987381_40.d	ConCal	STD 4	As Method	-
4987381:EJK047-01:10x	P2-D3	PFC_Soil.m	WS#4987381_41.d	Sample		As Method	-
4987381:EJK047-01	P2-D4	PFC_Soil.m	WS#4987381_42.d	Sample		As Method	-
Solvent	P2-A1	PFC_Soil.m	WS#4987381_43.d	Sample		As Method	-
IB	P2-A8	PFC_Soil.m	WS#4987381_44.d	Sample		As Method	-
CCV	P2-A5	PFC_Soil.m	WS#4987381_45.d	ConCal	STD 4	As Method	-
4987381:EJK048-01:100x	P2-D5	PFC_Soil.m	WS#4987381_46.d	Sample		As Method	-
4987381:EJK048-01:10x	P2-D6	PFC_Soil.m	WS#4987381_47.d	Sample		As Method	-

D:\MassHunter\Worklists\PFCs\170519_Soil_B.wkl

Report generation date: 19-May-2017 05:52:56 PM

Worklist Report

	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
48	4987381:EJK048-01	P2-D7	PFC_Soil.m	WS#4987381_48.d	Sample		As Method	-
49	Solvent	P2-A1	PFC_Soil.m	WS#4987381_49.d	Sample		As Method	-
50	IB	P2-A8	PFC_Soil.m	WS#4987381_50.d	Sample		As Method	-
51	4987381:EJK049-01	P2-D8	PFC_Soil.m	WS#4987381_51.d	Sample		As Method	-
52	4987381:EJK067-01	P2-D9	PFC_Soil.m	WS#4987381_52.d	Sample		As Method	-
53	4987381:EJL629-01	P2-E1	PFC_Soil.m	WS#4987381_53.d	Sample		As Method	-
54	CCV	P2-A5	PFC_Soil.m	WS#4987381_54.d	ConCal	STD 4	As Method	-

Worklist Report

Instrument Name: LCMS04 Worklist Path: D:\MassHunter\Worklists\PFCs\170519_Soil_B_FOSA
A.wkl

Operator Name: M_G

Run Type: Standard Start

Part of Method to Run: Acquisition Only

Execution of Acquisition-DA: Synchronous

Acquisition Method Path: D:\MassHunter\Acquisition Method

DA Method Path: D:\MassHunter\methods

Data File Path: D:\MassHunter\data\PFC\20170519\WS#4987381_FOSAA

Pre-Worklist Script: ---

Post-Worklist Script: SCP_InstrumentStandby()\{MH_Acq_Scripts.exe}

Acquisition Clean Up Script: ---

Overlapped Injection: Yes

Clear Sample Selection After Run: Yes

Wait Time for Ready(Min): 10

Threshold Disk Value(GB): 10

Comment:

Column#171 ✓

MP A1: Solution# 92 (FSRE18) ✓

MP B2: Solution# 83 (FSRE18) ✓

golfoslaw

Plate Barcode:

Plate	Barcode
P2	

Worklist Table

Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
1	Solvent	PFC_Soil_FOSAA.m	WS#4987381_FOSA A_01.d	Sample		As Method	-
2	STD 1	PFC_Soil_FOSAA.m	WS#4987381_FOSA A_02.d	Calibration	STD 1	As Method	-
3	STD 2	PFC_Soil_FOSAA.m	WS#4987381_FOSA A_03.d	Calibration	STD 2	As Method	-
4	STD 3	PFC_Soil_FOSAA.m	WS#4987381_FOSA A_04.d	Calibration	STD 3	As Method	-
5	STD 4	PFC_Soil_FOSAA.m	WS#4987381_FOSA A_05.d	Calibration	STD 4	As Method	-
6	STD 5	PFC_Soil_FOSAA.m	WS#4987381_FOSA A_06.d	Calibration	STD 5	As Method	-
7	STD 6	PFC_Soil_FOSAA.m	WS#4987381_FOSA A_07.d	Calibration	STD 6	As Method	-
8	IB	PFC_Soil_FOSAA.m	WS#4987381_FOSA A_08.d	Sample		As Method	-

Worklist Report

Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (ul)	Comment
9	ICV	PFC_Soil_FOSAA.m	WS#4987381_FOSA_A_09.d	QC	ICV	As Method	-
10	ISC	PFC_Soil_FOSAA.m	WS#4987381_FOSA_A_10.d	ConCal	STD 1	As Method	-
11	4987381:BLANK	PFC_Soil_FOSAA.m	WS#4987381_FOSA_A_11.d	Blank		As Method	-
12	4987381:SPIKE	PFC_Soil_FOSAA.m	WS#4987381_FOSA_A_12.d	QC	ICV	As Method	-
13	4987381:MTRX SPK	PFC_Soil_FOSAA.m	WS#4987381_FOSA_A_13.d	Sample		As Method	-
14	4987381:MTRX SPK:D1	PFC_Soil_FOSAA.m	WS#4987381_FOSA_A_14.d	Sample		As Method	-
15	IB	PFC_Soil_FOSAA.m	WS#4987381_FOSA_A_15.d	Sample		As Method	-
16	4987381:EJK042-01:100x	PFC_Soil_FOSAA.m	WS#4987381_FOSA_A_16.d	Sample		As Method	-
17	4987381:EJK042-01:10x	PFC_Soil_FOSAA.m	WS#4987381_FOSA_A_17.d	Sample		As Method	-
18	4987381:EJK042-01	PFC_Soil_FOSAA.m	WS#4987381_FOSA_A_18.d	Sample		As Method	-
19	Solvent	PFC_Soil_FOSAA.m	WS#4987381_FOSA_A_19.d	Sample		As Method	-
20	IB	PFC_Soil_FOSAA.m	WS#4987381_FOSA_A_20.d	Sample		As Method	-
21	4987381:EJL629-01	PFC_Soil_FOSAA.m	WS#4987381_FOSA_A_21.d	Sample		As Method	-
22	CCV	PFC_Soil_FOSAA.m	WS#4987381_FOSA_A_22.d	ConCal	STD 4	As Method	-

FINAL INJECTION SEQUENCE

Sample						
Name	Comment	Acq. Date-Time	Data File	Acq. Method File	Pos.	
STD 1	-	2017/05/20 3:10 AM	WS#4987381_02.d	PFC_Soil.m	P2-A2	
STD 2	-	2017/05/20 3:14 AM	WS#4987381_03.d	PFC_Soil.m	P2-A3	
STD 3	-	2017/05/20 3:19 AM	WS#4987381_04.d	PFC_Soil.m	P2-A4	
STD 4	-	2017/05/20 3:24 AM	WS#4987381_05.d	PFC_Soil.m	P2-A5	
STD 5	-	2017/05/20 3:29 AM	WS#4987381_06.d	PFC_Soil.m	P2-A6	
STD 6	-	2017/05/20 3:34 AM	WS#4987381_07.d	PFC_Soil.m	P2-A7	
IB	-	2017/05/20 3:39 AM	WS#4987381_08.d	PFC_Soil.m	P2-A8	
ICV	-	2017/05/20 3:44 AM	WS#4987381_09.d	PFC_Soil.m	P2-A9	
ISC	-	2017/05/20 3:49 AM	WS#4987381_10.d	PFC_Soil.m	P2-A2	
4987381:BLANK	-	2017/05/20 3:54 AM	WS#4987381_11.d	PFC_Soil.m	P2-B1	
4987381:SPIKE	-	2017/05/20 3:59 AM	WS#4987381_12.d	PFC_Soil.m	P2-B2	
4987381:MTRX SPK	-	2017/05/20 4:03 AM	WS#4987381_13.d	PFC_Soil.m	P2-B3	
4987381:MTRX SPK:D1	-	2017/05/20 4:08 AM	WS#4987381_14.d	PFC_Soil.m	P2-B4	
IB	-	2017/05/20 4:13 AM	WS#4987381_15.d	PFC_Soil.m	P2-A8	
4987381:EJK040-01:10x	Reported for PFPeA, PFOS, PFHxS, PFHxA, 6:2-FTS	2017/05/20 4:18 AM	WS#4987381_16.d	PFC_Soil.m	P2-B5	
4987381:EJK040-01	Re-injected to confirm surrogate recovery, reported for all except PFPeA, PFOS, PFHxS, PFHxA, 6:2-FTS	2017/05/20 4:23 AM	WS#4987381_17.d	PFC_Soil.m	P2-B6	
IB	-	2017/05/20 4:28 AM	WS#4987381_18.d	PFC_Soil.m	P2-A8	
4987381:EJK041-01:10x	Reported for PFOS, PFHxS, 6:2-FTS	2017/05/20 4:33 AM	WS#4987381_19.d	PFC_Soil.m	P2-B7	
4987381:EJK041-01	Reported for all except PFOS, PFHxS, 6:2-FTS	2017/05/20 4:38 AM	WS#4987381_20.d	PFC_Soil.m	P2-B8	
IB	-	2017/05/20 4:43 AM	WS#4987381_21.d	PFC_Soil.m	P2-A8	
4987381:EJK042-01:100x	Not used	2017/05/20 4:48 AM	WS#4987381_22.d	PFC_Soil.m	P2-B9	
4987381:EJK042-01:10x	Reported for PFOS, PFHxS, 6:2-FTS	2017/05/20 4:52 AM	WS#4987381_23.d	PFC_Soil.m	P2-C1	
4987381:EJK042-01	Reported for all except PFOS, PFHxS, 6:2-FTS	2017/05/20 4:57 AM	WS#4987381_24.d	PFC_Soil.m	P2-C2	
Solvent	-	2017/05/20 5:02 AM	WS#4987381_25.d	PFC_Soil.m	P2-A1	
IB	-	2017/05/20 5:07 AM	WS#4987381_26.d	PFC_Soil.m	P2-A8	
4987381:EJK043-01	-	2017/05/20 5:12 AM	WS#4987381_27.d	PFC_Soil.m	P2-C3	
CCV	-	2017/05/20 5:17 AM	WS#4987381_28.d	PFC_Soil.m	P2-A5	
4987381:EJK044-01:100x	Reported for PFOS, PFHxS	2017/05/20 5:22 AM	WS#4987381_29.d	PFC_Soil.m	P2-C4	
4987381:EJK044-01:10x	Reported for PFPeA, PFHxA, PFBS, 6:2-FTS	2017/05/20 5:27 AM	WS#4987381_30.d	PFC_Soil.m	P2-C5	
4987381:EJK044-01	Reported for all except PFPeA, PFOS, PFHxS, PFHxA, PFHS, 6:2-FTS	2017/05/20 5:32 AM	WS#4987381_31.d	PFC_Soil.m	P2-C6	
Solvent	-	2017/05/20 5:37 AM	WS#4987381_32.d	PFC_Soil.m	P2-A1	
IB	-	2017/05/20 5:41 AM	WS#4987381_33.d	PFC_Soil.m	P2-A8	
4987381:EJK045-01:100x	Reported for PFOS, PFHxS	2017/05/20 5:46 AM	WS#4987381_34.d	PFC_Soil.m	P2-C7	
4987381:EJK045-01:10x	Reported for PFHxA, PFHpS, PFBS	2017/05/20 5:51 AM	WS#4987381_35.d	PFC_Soil.m	P2-C8	
4987381:EJK045-01	Reported for all except PFOS, PFHxS, PFHxA, PFHpS, PFBS	2017/05/20 5:56 AM	WS#4987381_36.d	PFC_Soil.m	P2-C9	
Solvent	-	2017/05/20 6:01 AM	WS#4987381_37.d	PFC_Soil.m	P2-A1	
IB	-	2017/05/20 6:06 AM	WS#4987381_38.d	PFC_Soil.m	P2-A8	
4987381:EJK046-01	-	2017/05/20 6:11 AM	WS#4987381_39.d	PFC_Soil.m	P2-D1	
4987381:EJK047-01:100x	Reported for PFOS	2017/05/20 6:16 AM	WS#4987381_40.d	PFC_Soil.m	P2-D2	
4987381:EJK047-01:10x	Reported for PFHxS, PFHxA	2017/05/20 6:21 AM	WS#4987381_41.d	PFC_Soil.m	P2-D3	
4987381:EJK047-01	Re-injected to confirm surrogate recovery, reported for all except PFOS, PFHxS, PFHxA	2017/05/20 6:26 AM	WS#4987381_42.d	PFC_Soil.m	P2-D4	

LCMS04

FINAL INJECTION SEQUENCE

Sample					
Name	Comment	Acq. Date-Time	Data File	Acq. Method File	Pos.
Solvent	-	2017/05/20 6:30 AM	WS#4987381_43.d	PFC_Soil.m	P2-A1
IB	-	2017/05/20 6:35 AM	WS#4987381_44.d	PFC_Soil.m	P2-A8
CCV	-	2017/05/20 6:40 AM	WS#4987381_45.d	PFC_Soil.m	P2-A5
4987381:EJK048-01:100x	Reported for PFOS	2017/05/20 6:45 AM	WS#4987381_46.d	PFC_Soil.m	P2-D5
4987381:EJK048-01:10x	Reported for PFHxS	2017/05/20 6:50 AM	WS#4987381_47.d	PFC_Soil.m	P2-D6
4987381:EJK048-01	Re-injected to confirm surrogate recovery, reported for all except PFOS, PFHxS	2017/05/20 6:55 AM	WS#4987381_48.d	PFC_Soil.m	P2-D7
Solvent	-	2017/05/20 7:00 AM	WS#4987381_49.d	PFC_Soil.m	P2-A1
IB	-	2017/05/20 7:05 AM	WS#4987381_50.d	PFC_Soil.m	P2-A8
4987381:EJK049-01	-	2017/05/20 7:10 AM	WS#4987381_51.d	PFC_Soil.m	P2-D8
4987381:EJK067-01	-	2017/05/20 7:15 AM	WS#4987381_52.d	PFC_Soil.m	P2-D9
4987381:EJL629-01	Re-injected to confirm surrogate recovery, reported for all except PFOS	2017/05/20 7:19 AM	WS#4987381_53.d	PFC_Soil.m	P2-E1
CCV	-	2017/05/20 7:24 AM	WS#4987381_54.d	PFC_Soil.m	P2-A5
ISC	-	2017/05/23 2:10 PM	WS#4987381_55.d	PFC_Soil.m	P2-A2
4987381:EJL629-01	Re-injection, reported for PFOS only	2017/05/23 2:15 PM	WS#4987381_56.d	PFC_Soil.m	P2-E1
4987381:EJK040-01	Re-injection, reanalysed for PFTeDA & PFTrDA	2017/05/23 2:20 PM	WS#4987381_57.d	PFC_Soil.m	P2-B6
4987381:EJK047-01	Re-injection, reanalysed for PFTeDA & PFTrDA	2017/05/23 2:25 PM	WS#4987381_58.d	PFC_Soil.m	P2-D4
4987381:EJK048-01	Re-injection, reanalysed for PFTeDA & PFTrDA	2017/05/23 2:30 PM	WS#4987381_59.d	PFC_Soil.m	P2-D7
CCV	-	2017/05/23 2:35 PM	WS#4987381_60.d	PFC_Soil.m	P2-A5

FINAL INJECTION SEQUENCE

Sample					
Name	Comment	Acq. Date-Time	Data File	Acq. Method File	Pos.
STD 1	-	2017/05/20 11:33 AM	WS#4987381_FOSAA_02.d	PFC_Soil_FOSAA.m	P2-A2
STD 2	-	2017/05/20 11:35 AM	WS#4987381_FOSAA_03.d	PFC_Soil_FOSAA.m	P2-A3
STD 3	-	2017/05/20 11:38 AM	WS#4987381_FOSAA_04.d	PFC_Soil_FOSAA.m	P2-A4
STD 4	-	2017/05/20 11:40 AM	WS#4987381_FOSAA_05.d	PFC_Soil_FOSAA.m	P2-A5
STD 5	-	2017/05/20 11:42 AM	WS#4987381_FOSAA_06.d	PFC_Soil_FOSAA.m	P2-A6
STD 6	-	2017/05/20 11:45 AM	WS#4987381_FOSAA_07.d	PFC_Soil_FOSAA.m	P2-A7
IB	-	2017/05/20 11:47 AM	WS#4987381_FOSAA_08.d	PFC_Soil_FOSAA.m	P2-A8
ICV	-	2017/05/20 11:49 AM	WS#4987381_FOSAA_09.d	PFC_Soil_FOSAA.m	P2-A9
ISC	-	2017/05/20 11:52 AM	WS#4987381_FOSAA_10.d	PFC_Soil_FOSAA.m	P2-A2
4987381:BLANK	-	2017/05/20 11:54 AM	WS#4987381_FOSAA_11.d	PFC_Soil_FOSAA.m	P2-B1
4987381:SPIKE	-	2017/05/20 11:57 AM	WS#4987381_FOSAA_12.d	PFC_Soil_FOSAA.m	P2-B2
4987381:MTRX SPK	EJK042	2017/05/20 11:59 AM	WS#4987381_FOSAA_13.d	PFC_Soil_FOSAA.m	P2-B3
4987381:MTRX SPK:D1	EJK042	2017/05/20 12:01 PM	WS#4987381_FOSAA_14.d	PFC_Soil_FOSAA.m	P2-B4
IB	-	2017/05/20 12:04 PM	WS#4987381_FOSAA_15.d	PFC_Soil_FOSAA.m	P2-A8
4987381:EJK042-01:100x	-	2017/05/20 12:06 PM	WS#4987381_FOSAA_16.d	PFC_Soil_FOSAA.m	P2-B9
4987381:EJK042-01:10x	-	2017/05/20 12:09 PM	WS#4987381_FOSAA_17.d	PFC_Soil_FOSAA.m	P2-C1
4987381:EJK042-01	Reported for all	2017/05/20 12:11 PM	WS#4987381_FOSAA_18.d	PFC_Soil_FOSAA.m	P2-C2
Solvent	-	2017/05/20 12:13 PM	WS#4987381_FOSAA_19.d	PFC_Soil_FOSAA.m	P2-A1
IB	-	2017/05/20 12:16 PM	WS#4987381_FOSAA_20.d	PFC_Soil_FOSAA.m	P2-A8
4987381:EJL629-01	-	2017/05/20 12:18 PM	WS#4987381_FOSAA_21.d	PFC_Soil_FOSAA.m	P2-E1
CCV	-	2017/05/20 12:21 PM	WS#4987381_FOSAA_22.d	PFC_Soil_FOSAA.m	P2-A5

LCMS04

DoD Projects - Internal Data Validation Checklist					
Run date: 2017/05/23					
Worksheet # (s): 4987523					
Analysis: PFOSALCM-W					
Primary review by the analyst - 1st 100 % analysis review				1st 100% review	*2nd 100% review
		yes	no	n/a	
1	Sample analyses meet hold time criteria	✓			✓
2	Analysis set-up meets method criteria	✓			✓
3	Tuning and correct calibration used - criteria meets method criteria	✓			✓
4	SQC/Control Charts updated, analysis in statistical/method control	✓			✓
5	Internal area counts checked (if applicable)	✓			✓
6	LCS, SRM are within acceptance criteria	✓			✓
7	Surrogate Recovery(s) is within acceptance criteria		✓		✓
8	Method Blank meets acceptance criteria	✓			✓
9	Matrix Spike recovery(s) meets acceptance criteria		✓		✓
10	Duplicate precision meets acceptance criteria	✓			✓
11	QC is documented on the run logs	✓			✓
12	Runs checked for carryover	✓			✓
13	Prep log / worksheet(s) are present, signed / dated by a prep / instrument analysts	✓			✓
14	Initial weights, splits, imprinter volumes (where applicable) are documented	✓			✓
15	Standards and reagents traceable to Certificates of Analysis	✓			✓
16	Samples above calibration range diluted and reanalyzed	✓			✓
17	Dilution factors (where justified) have been checked for correctness and entered	✓			✓
18	Analytical observations/anomalies documented in LIMS			✓	✓
19	Random calculation checked and in correct units	✓			✓
20	If corrective actions were applied they are documented, initialed & dated			✓	✓
21	Manual integration - before & after data with a reason included, initialed & dated			✓	✓
22	Transferred data is validated in LIMS for correctness	✓			✓
23	Data package assembled (where required)	✓			✓
Reviewed by: AD					Date: 2017/05/24
Comments:					
Secondary Supervisor/Qualified Data Review Staff - 2nd 100% verification review					
		yes	no	n/a	
1	Repeats documented and referenced	✓			
2	Method and sample deviations noted, anomalies described (if applicable)				
3	Data and QC validated in LIMS				
4	Random calculation checked				
5	Benchsheet (s) signed and dated				
6	Data Package (if required) checked for completeness				
Reviewed by:					Date:
Comments: ESU768 reworked due to high surrogate recovery for 6:2-FTS. on 2017/06/01.					
ESH089 reworked for low surrogate recovery for PTRA, PTTEDA & PTTIDA.					
ESH091 reworked for low surrogate recovery for PTTIDA & PTTIDA. on 2017/06/02.					

*Note: 2nd 100% verification review documented by secondary qualified data review

Primary and Secondary Internal Data Review Check must be performed by a different person

Worksheet Data Validation Checklist - Extractable Organics

Worksheet # 4987523 Testcode: PFOSALCM-W

Sample Preparation		yes	no	n/a
1	Samples extracted within hold time	/		
2	Client sample ID verified against Lab ID (waters & oils)	/		
3	Parameter list and Client comments reviewed, (Spiking solutions matched to parameter list)	/		
4	Height of sediment or if sample was decanted, recorded on worksheet	/		
5	Method required QC processed with samples, maximum batch size = 20 client samples.	/		
6	Sample, duplicate, matrix spike appear similar, initial sample as well as final extract	/		
7	Sample weight or initial volume and extract final volume, aliquot factor clearly recorded.	/		
8	If performed any additional dilution clearly recorded			/
9	Matrix spike / Duplicate performed on IOL samples if present			/
10	Spiking solutions valid (haven't expired), ID and volume used clearly identified on worksheet	/		
11	Spiking process witnessed and signed off	/		
12	Extraction type recorded (N3A2B = neutral, 3 x acidic, 2 x basic)			/
13	Sample prep deviations documented within CompliantPro as a Policy Deviation			/
14	Job Remarks reviewed on 2nd page of worksheet.	/		
15	Worksheet and reagent tracking record completed and authorized.	/		

Reviewed by: GSZ Date: 2017/05/17

Comments:

Worksheet Approval		yes	no	n/a
1	Verified the position of the vials in autosampler against sequence list; signed off sequence list			
2	Calibration and CCV standards valid (haven't expired)			
3	Initial calibration curve and DFTPP tune (if applicable) acceptable			
4	Continuing and Final CCV and DFTPP tune (if applicable) acceptable			
5	System performance check acceptable (if applicable)			
6	Internal standard responses acceptable			
7	Method blank meets acceptance criteria			
8	Lab Control Samples recoveries meets acceptance criteria			
9	Duplicate RPD meets acceptance criteria			
10	Matrix spike recoveries meets acceptance criteria			
11	Surrogate recoveries meets acceptance criteria			
12	Appropriate control charts updated			
13	Samples above calibration range diluted and reanalyzed			
14	Dilutions clearly documented on tracking record, inst file and verified during data upload			
15	Samples following high level samples checked for carryover.			
16	Mass spectra ion ratios acceptable for positive results, hardcopy in file			
17	Analytical observations / anomalies documented			
18	DQW comments entered in LIMS, hardcopy in file			
19	Sample Prep section (above) reviewed and verified.			
20	WS Approval performed in LIMS			

Reviewed by: AD Date: 2017/05/17

Comments:

Worksheet Validation		yes	no	n/a
1	Calibration, QC and sample results reviewed and determined acceptable			
2	Manual integrations verified			
3	Random calculation checked			
4	Data and QC validated in LIMS			
5	Comments reviewed for appropriateness			
6	Reworks / relogs documented in file			
7	Worksheet signed and dated,			
8	Worksheet approved and validated within LIMS			

Reviewed by: _____ Date: _____

Comments:

Report Name : Worksheet - (Liquids and Solids)

Assignment Date : Wednesday, May 17, 2017

Assigned to : Geoffrey Sanchez

Test Code : PFOSALCM-W

Instrument Id:

Test Description : PFOS and PFOA in water by LC-MS/MS

Sediment
(cm) mL mL

Job Number	Sample Number	D	Sample ID	F	% Moisture	Wt (g) or Vol	Final Vol	DF or AF	# Cont	Expiry Date	Test DeadLine	Criteria	Extract Date
5-5	MTRX SPK	0	PFOS EJK088-01		<0.1	125	3	1X					2017/05/17
5-7	MTRX SPK	1	PFOS EJK088-01		<0.1	125	3	1X					2017/05/17
5-3	SPIKE		PFOS		0	125	3	1X					2017/05/17
5-1	BLANK				0	125	3	1X					2017/05/17
9-11	B796493		*EJE856-01R		0	125/2.5	3	1X	1	2017/05/24	2017/05/23 17:00		2017/05/17
14	B796493		*EJE857-01R		0	125	3	1X	1	2017/05/24	2017/05/23 17:00		2017/05/17
16	B797636		*EJK088-01R		<0.1	125/2.5	3	1X	3	2017/05/23	2017/05/29 18:00	DOD	2017/05/17
20	B797636		*EJK089-01R		<0.2	125/1.25	3	1X	1	2017/05/23	2017/05/29 18:00	DOD	2017/05/17
22	B797636		*EJK090-01R		0	125	3	1X	1	2017/05/23	2017/05/29 18:00	DOD	2017/05/17
24	B797636		*EJK091-01R		0	125	3	1X	1	2017/05/23	2017/05/29 18:00	DOD	2017/05/17
9	B797896		*EJL630-01R		<0.4	125/2.5	3	1X	1	2017/05/26	2017/05/30 18:00	DOD	2017/05/17
7	B799806		*EJU265-01R		0	125	3	1X	1	2017/05/29	2017/05/31 23:00		2017/05/17
9	B799806		*EJU266-01R		0	125	3	1X	1	2017/05/29	2017/05/31 23:00		2017/05/17
11	B799806		*EJU267-01R		0	125	3	1X	1	2017/05/29	2017/05/31 23:00		2017/05/17
14	B799806		*EJU268-01R		0	125	3	1X	1	2017/05/29	2017/05/31 23:00		2017/05/17
16	B799806		*EJU269-01R		0	125	3	1X	1	2017/05/29	2017/05/31 23:00		2017/05/17
18	B799806		*EJU270-01R		0	125	3	1X	1	2017/05/29	2017/05/31 23:00		2017/05/17
20	B799806		*EJU271-01R		0	125	3	1X	1	2017/05/29	2017/05/31 23:00		2017/05/17
22	B799806		*EJU272-01R		<0.1	125	3	1X	1	2017/05/29	2017/05/31 23:00		2017/05/17
24	B799806		*EJU273-01R		0	125	3	1X	1	2017/05/29	2017/05/31 23:00		2017/05/17

Remarks: Low level analysis

EJE856, EJK088, EJK089 & EJL630 - extracted at lower volumes (see above).

Samples extracted by:

Geoffrey Sanchez, GSZ 2017/05/17

Instrumentation performed by:

AD

Date: 2017/05/23

Calculations performed by:

AD

Date: 2017/05/24

Validated by:

CM

Date: 2017/05/24

Maxxam Analytics

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652, 2017/05/17

Job No.	Rep	Client Name	Contact	Client Tier	National
	Remarks				
GB796493					
GB797636					
GB797896	MDG CT Laboratories LLC		Fairchild AFB reportin		
	NREG PFOSALCM-S/W (537 plus telomers) Project #: 775303101				
GB799806					

Surrogates/Spikes	McOH	amt spiked	Method Spike	Spikes	Samples
Calib Std	ul	ul			
IB -	2850	+	-		
S1 -	2825	+	25		
S2 -	2800	+	50		
S3 -	2700	+	150		
S4 -	2813	+	37.5		
S5 -	2775	+	75		
S6 -	2725	+	125		
ICV -	2788	+	62.5		

[illegible][illegible]

Worksheet Reagent Tracking Record

Worksheet #

4987523

Surrogate/Spike solutions	✓	Solution ID #	Conc.	Blk-Spk		Volume (µL)		Samples	
				Solid	Liquid	Solid	Liquid	Solid	Liquid
DGT Spike			100 ug/mL	60	30	60	30	NA	NA
Diquat Dibromide			50 ug/mL	NA	350	NA	350	NA	NA
Explosives Spiking solution A			20 ug/mL	250	100	250	100	NA	NA
Explosives Spiking solution B			20/80 ug/mL	250	100	250	100	NA	NA
Formaldehyde Spike			100 ug/mL	25	25	25	25	NA	NA
Glyphosate Spike			25 ug/mL	500	20	500	20	NA	NA
Nonylphenol Ethoxylate Spike			100 ug/mL	100	100	100	100	NA	NA
Nonylphenol Spike			10 ug/mL	100	100	100	100	NA	NA
Paraquat Cl Tetrahydrate			20 ug/mL	NA	125	NA	125	NA	NA
Perchlorate Standard Spike			10 ng/mL	NA	100	NA	100	NA	NA
Perchlorate Standard Spike			500 ng/mL	40	NA	40	NA	NA	NA
Perchlorate O-18 Internal Standard			0.10 ug/µL	20	20	20	20	20	20
Morpholine Second Source Working Std			2500 ug/L	NA	80	NA	80	NA	NA
Morpholine-D8 Internal Standard			10 ug/mL	NA	50	NA	50	NA	50
Steril Second Source Spiking Solution			NA	20	NA	20	NA	NA	NA
Sterilants Comp. IS Working Solution			3 ug/mL	50	NA	50	NA	50	NA
Comp. PFC Working Solution A	/	I-5015-1	1ug/mL	75	21	62.5	75	21	62.5
PFC Internal Standard Solution	/	SI-6439-2	50/125 ng/mL	200	100	150	200	100	150
PFC Injection IS	/	SI-6423-2	100 400 ng/mL	20	20	20	20	20	20
ICV	/	I-5015-1	1ug/mL		62.5				
Solvent/Reagent	✓	Lot No.	Date Opened	Solvent/Reagent	✓	Lot No.	Date Opened/ Prepared	*Spiked by:	
DCM				50% NaOH				652	
Ottawa Sand				o-Phosphoric Acid				Spike Date	
Methanol	/	SHB690020	2017/05/17	Borax				2017/05/17	
2-Propanol (IPA)				Calcium Chloride				Spike Syringe/Pipette ID#	
Acetonitrile				EDTA				3575992	
Sodium Sulfate				Phosphate Buffer				Int. Std Syringe/Pipette ID#	
70:30 Methanol: Water				Sodium Thiosulphate					
60:40 Water: Methanol	/	PKLRE	104-73	DNPH				*Spiking Witnessed by:	
DCM:Ethyl Ether (75:25)				FMOC				SSV	
Hexane:IPA (98:2)				5M Acetate Buffer				Final pH	
2% Formic Acid	/	PKLRE	104-85	0.2% NH ₄ OH	/	PKLRE	104-97		
0.2% Formic Acid				Leachate Fluid					
0.05M KOH				Reagent Water	/	56218	2017/05/17		
0.05M HCl									
Equipment & ID	✓	Equipment	ID#	✓	Equipment	Lot #	Bottle Tracking		
Pipettor	/	SPE Cartridge	003137023A	/	QC Balance ID		Bottle#	17359	
	/	Filter			Thermometer ID &Temp		Cap#	17376	
Dispenser		Centrifuge					Systems plus Lot#		
		Sonicator					17-04-25		

Comments: 125ml Ref Bottle (HPLC)

Worksheet: 4987523 (PFOSALCM-W) Dilution and Column Cleanup Worksheet

Job Number	Sample ID	Sample: Initial Final Volume (uL)	Dilution Required	Sample added mL	Solvent Added mL	Int Stan Added uL	New Effective Final Volume (uL)	INITIAL DATE	Column Clean Up
B796493	EJE856-01R	1X	10X	12.5	112.5	-	125	2017/06/20	-
B796493	EJE856-01R	1X	50X	2.5	122.5	-	125	2017/06/20	-
B797636	EJK088-01R	1X	10X	12.5	112.5	-	125	2017/06/20	-
B797636	EJK089-01R	1X	10X	12.5	112.5	-	125	2017/06/20	-
B797636	EJK089-01R	1X	100X	1.25	123.75	-	125	2017/06/20	-
B797896	EJL630-01R	1X	10X	12.5	112.5	-	125	2017/06/20	-
B797896	EJL630-01R	1X	50X	2.5	122.5	-	125	2017/06/20	-
							652 2017/06/20		
			652 2017/06/20						

- Bottles were pre-calibrated by adding 125ml of reagent water from a class A measuring cylinder, and marking the liquid level on the side of the bottle.
- The appropriate volume of sample was pipetted into the bottle.
- Samples were topped up to the 125ml mark with reagent water.
- Extraction procedure was continued from Step 13.2-4 of the SOP.

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PFOS and PFOA in water - Water
ug/L

Parameter Name	Units	MTRX SPK	MTRX SPK Dup1	SPIKE	BLANK	DL	B796493 EJE856
6:2 Fluorotelomer sulfonate	ug/L	82.9205	112.2565	91.95045	0	0.02	3.70732296
8:2 Fluorotelomer sulfonate	ug/L	105.91397	96.70855	94.60028	0	0.02	0.82930528
N-ethylperfluorooctane sulfonamide	ug/L	86.32085	96.05811	94.74150	0	0.02	0
EtFOSAA	ug/L	91.7	91.7	95.18593	0	0.02	N/A*****
N-ethylperfluorooctane sulfonamido	ug/L	90.20230	105.01781	92.15418	0	0.02	0
N-methylperfluorooctane sulfonamide	ug/L	91.80763	93.51525	108.39591	0	0.02	0
MeFOSAA	ug/L	94.3	93.1	96.40165	0	0.02	N/A*****
N-methylperfluorooctanesulfonamidol	ug/L	79.00690	84.37437	86.35233	0	0.02	0
Perfluorobutanoic acid	ug/L	NC	NC	100.82444	0	0.02	0.32377487
Perfluorobutane Sulfonate (PFBS)	ug/L	1138.284	129.5146	94.20364	0	0.02	0.13305195
Perfluorodecane Sulfonate	ug/L	74.53989	80.33596	96.21354	0	0.02	0
Perfluoroheptanoic Acid (PFHpA)	ug/L	90.8388	88.9322	97.28250	0	0.02	0.57987352
Perfluoroheptane sulfonate	ug/L	92.13658	93.33935	95.20055	0	0.02	0.27507303
Perfluorohexanoic Acid (PFHxA)	ug/L	81.7513	91.0053	97.13902	0	0.02	1.67113740
Perfluorohexane Sulfonate (PFHxS)	ug/L	145.137	131.767	93.71163	0	0.02	4.09202646
Perfluorononanoic Acid (PFNA)	ug/L	96.97242	96.86290	101.25909	0	0.02	0.05561399
Perfluorooctane Sulfonamide (PFOSA)	ug/L	99.00866	95.02813	91.02049	0	0.02	0.04193522
Perfluoropentanoic Acid (PFPeA)	ug/L	106.3355	87.3448	94.20678	0	0.02	1.00966094
Perfluorotetradecanoic Acid	ug/L	94.8	98.0	93.08822	0	0.02	0
Perfluorotridecanoic Acid	ug/L	NC	NC	96.32076	0	0.02	0
Perfluoroundecanoic Acid (PFUnA)	ug/L	98.09233	102.14163	99.69867	0	0.02	0
Perfluorodecanoic Acid (PFDA)	ug/L	87.57085	95.74083	93.29087	0	0.02	0
Perfluorododecanoic Acid (PFDoA)	ug/L	98.93447	97.41703	99.68842	0	0.02	0
Perfluoro-n-Octanoic Acid (PFOA)	ug/L	99.3854	91.1246	106.03261	0	0.02	1.21164855
Perfluorooctane Sulfonate (PFOS)	ug/L	97.5496	87.0669	88.36752	0	0.02	12.7170996
13C2-6:2 Fluorotelomer sulfonate	ug/L	111.275195	99.2020322	94.4765176	98.1502043		97.4751029
13C2-8:2 Fluorotelomer sulfonate	ug/L	107.666054	110.327633	89.3664316	99.3397890		88.7318037
13C2-perfluorotetradecanoic acid	ug/L	42.1029	40.4357	86.3707796	86.3839287		79.8864228
13C4-Perfluorobutanoic acid	ug/L	10.3901	9.41681	92.2260532	93.9757661		89.5856352
13C6-Perfluorohexanoic Acid	ug/L	83.0084349	85.2816567	104.325009	104.470925		100.735981
13C9-Perfluorodecanoic Acid	ug/L	96.4961202	95.7413918	102.961323	105.292192		103.352327
N-methyl-d3-perfluorooctane sulfona	ug/L	86.3670583	81.2953476	90.0273253	95.4363714		134.617092
N-ethyl-d5-perfluorooctane sulfonam	ug/L	75.4072024	66.7218275	87.7577771	86.0682127		113.916843
13C2-Perfluorodecanoic acid	ug/L	97.2355928	89.7770734	92.4544097	90.1156859		83.3569997
13C2-Perfluorododecanoic acid	ug/L	75.8493087	79.2501016	86.9808678	88.0009098		85.2541752
13C2-Perfluorohexanoic acid	ug/L	106.847788	99.0062139	89.6272852	92.4436401		90.9206532
13C2-Perfluoroundecanoic acid	ug/L	86.7169733	88.8094149	88.7836055	86.1717844		91.3334149
13C4-Perfluoroheptanoic acid	ug/L	110.171212	107.879373	89.5577246	101.002557		99.4285748
13C5-Perfluorononanoic acid	ug/L	116.553873	112.529460	85.7779592	92.7302368		93.3762975
13C4-Perfluorooctanoic acid	ug/L	112.143418	115.151089	84.8431082	98.4338464		91.3029013
13C4-Perfluorooctanesulfonate	ug/L	106.059076	110.507183	96.1799699	102.138080		85.8019129
13C5-Perfluoropentanoic acid	ug/L	83.5556359	84.6689820	97.1169428	90.6860716		100.484279
13C8-Perfluorooctane Sulfonamide	ug/L	86.8569311	89.8264217	96.2750368	88.8537255		89.6101446
18O2-Perfluorohexanesulfonate	ug/L	105.016765	105.980574	94.9218445	82.0629290		96.0482185

PFOS and PFOA in water - Water
ug/L

Parameter Name	DL	B796493 EJE857	DL	B797636 EJK088	DL	B797636 EJK089	DL
6:2 Fluorotelomer sulfonate	0.2	0.23396822	0.02	0.96492604	0.02	4.79977325	0.2
8:2 Fluorotelomer sulfonate	0.2	0.01737440	0.02	0	0.02	0	0.2
N-ethylperfluorooctane sulfonamide	0.2	0	0.02	0.00000	0.02	0.00000	0.2
EtFOSAA	0.2	N/A*****	0.02	0.00000	0.02	N/A*****	0.2
N-ethylperfluorooctane sulfonamido	0.2	0	0.02	0.00000	0.02	0.00000	0.2
N-methylperfluorooctane sulfonamide	0.2	0	0.02	0.00000	0.02	0.00000	0.2
MeFOSAA	0.2	N/A*****	0.02	0.00000	0.02	N/A*****	0.2
N-methylperfluorooctanesulfonamidol	0.2	0	0.02	0.00000	0.02	0.00000	0.2
Perfluorobutanoic acid	0.2	0.29469452	0.02	0.00000	0.02	8.86289181	0.2
Perfluorobutane Sulfonate (PFBS)	0.2	0	0.02	0.87884504	0.02	3.90092241	0.2
Perfluorodecane Sulfonate	0.2	0	0.02	0	0.02	0	0.2
Perfluoroheptanoic Acid (PFHpA)	0.2	0.02471717	0.02	0.26283564	0.02	0.69161873	0.2
Perfluoroheptane sulfonate	0.2	0	0.02	0.00000	0.02	0.00000	0.2
Perfluorohexanoic Acid (PFHxA)	0.2	0.18795112	0.02	2.84077680	0.2	10.8051110	2
Perfluorohexane Sulfonate (PFHxS)	0.2	0.02138714	0.02	1.19146382	0.2	2.62812592	0.2
Perfluorononanoic Acid (PFNA)	0.2	0	0.02	0.00529826	0.02	0	0.2
Perfluorooctane Sulfonamide (PFOSA)	0.2	0	0.02	0	0.02	0	0.2
Perfluoropentanoic Acid (PFPeA)	0.2	0.42403221	0.02	2.38640289	0.2	11.3169786	2
Perfluorotetradecanoic Acid	0.2	0	0.02	0.00000	0.02	0	0.2
Perfluorotridecanoic Acid	0.2	0	0.02	0.00000	0.02	0	0.2
Perfluoroundecanoic Acid (PFUnA)	0.2	0	0.02	0	0.02	0	0.2
Perfluorodecanoic Acid (PFDA)	0.2	0	0.02	0	0.02	0	0.2
Perfluorododecanoic Acid (PFDaA)	0.2	0	0.02	0	0.02	0	0.2
Perfluoro-n-Octanoic Acid (PFOA)	0.2	0.02819161	0.02	0.39227122	0.02	0.50943667	0.2
Perfluorooctane Sulfonate (PFOS)	1	0.07081681	0.02	0.25638577	0.02	0.12202702	0.2
13C2-6:2 Fluorotelomer sulfonate		97.8412910		102.647115		96.0046561	
13C2-8:2 Fluorotelomer sulfonate		90.1123568		108.957647		105.781696	
13C2-perfluorotetradecanoic acid		76.2921768		!! 35.1203		81.8297155	
13C4-Perfluorobutanoic acid		95.4434886		!! 0		97.6649849	
13C6-Perfluorohexanoic Acid		105.745772		94.6945358		96.4788101	
13C9-Perfluorodecanoic Acid		108.820320		94.7047769		99.0482541	
N-methyl-d3-perfluorooctane sulfona		125.764882		135.605048		150.481246	
N-ethyl-d5-perfluorooctane sulfonam		102.300993		118.988071		121.495432	
13C2-Perfluorodecanoic acid		88.5454558		85.3176058		101.387727	
13C2-Perfluorododecanoic acid		81.6003771		73.0131376		93.8624506	
13C2-Perfluorohexanoic acid		92.5046518		95.8861311		93.1942366	
13C2-Perfluoroundecanoic acid		83.3324708		79.7181781		96.3562096	
13C4-Perfluoroheptanoic acid		97.4239209		99.4105771		108.291882	
13C5-Perfluorononanoic acid		91.9061403		103.697181		102.370202	
13C4-Perfluorooctanoic acid		91.2228964		103.816224		103.706281	
13C4-Perfluorooctanesulfonate		93.0162760		88.1648389		101.591606	
13C5-Perfluoropentanoic acid		87.3715905		95.3438405		89.7952400	
13C8-Perfluorooctane Sulfonamide		85.2470435		92.4579282		97.5003322	
18O2-Perfluorohexanesulfonate		87.3910198		92.4717970		114.760413	

PFOS and PFOA in water - Water
ug/L

Parameter Name	B797636 EJK090	B797636 EJK091	DL	B797896 EJL630	DL	B799806 EJU265	B799806 EJU266
6:2 Fluorotelomer sulfonate	0	0	0.02	0.62557980	0.2	0	0
8:2 Fluorotelomer sulfonate	0	0	0.02	0	0.2	0	0
N-ethylperfluorooctane sulfonamide	0	0	0.02	N/A *****	0.2	N/A *****	N/A *****
EtFOSAA	N/A *****	N/A *****	0.02	0	0.2	N/A *****	N/A *****
N-ethylperfluorooctane sulfonamido	0	0	0.02	N/A *****	0.2	N/A *****	N/A *****
N-methylperfluorooctane sulfonamide	0	0	0.02	N/A *****	0.2	N/A *****	N/A *****
MeFOSAA	N/A *****	N/A *****	0.02	0	0.2	N/A *****	N/A *****
N-methylperfluorooctanesulfonamidol	0	0	0.02	N/A *****	0.2	N/A *****	N/A *****
Perfluorobutanoic acid	0	0.01560141	0.02	N/A *****	0.2	0.00722523	0
Perfluorobutane Sulfonate (PFBS)	0	0	0.02	0.62425831	0.2	0	0
Perfluorodecane Sulfonate	0	0	0.02	N/A *****	0.2	N/A *****	N/A *****
Perfluoroheptanoic Acid (PFHpA)	0	0	0.02	1.04471329	0.2	0.00522968	0.00395514
Perfluoroheptane sulfonate	0	0	0.02	N/A *****	0.2	0	0
Perfluorohexanoic Acid (PFHxA)	0	0	0.02	2.07173913	0.2	0.01355623	0.00517948
Perfluorohexane Sulfonate (PFHxS)	0	0	0.02	16.3412962	1	0.03043376	0.02847472
Perfluorononanoic Acid (PFNA)	0	0	0.02	0.13196603	0.2	0	0
Perfluorooctane Sulfonamide (PFOSA)	0	0	0.02	N/A *****	0.2	0	0
Perfluoropentanoic Acid (PFPeA)	0	0	0.02	N/A *****	0.2	0.01539091	0.00753986
Perfluorotetradecanoic Acid	0	0	0.02	0	0.2	N/A *****	N/A *****
Perfluorotridecanoic Acid	0	0	0.02	0.03736455	0.2	N/A *****	N/A *****
Perfluoroundecanoic Acid (PFUnA)	0	0	0.02	0	0.2	N/A *****	N/A *****
Perfluorodecanoic Acid (PFDA)	0	0	0.02	0	0.2	N/A *****	N/A *****
Perfluorododecanoic Acid (PFDoA)	0	0	0.02	0	0.2	N/A *****	N/A *****
Perfluoro-n-Octanoic Acid (PFOA)	0	0.00157154	0.02	1.56789677	0.2	0.01363962	0.00484544
Perfluorooctane Sulfonate (PFOS)	0	0	0.02	6.26781146	0.2	0.01699929	0.01913228
13C2-6:2 Fluorotelomer sulfonate	96.5500621	123.025020		89.3760264		96.9681385	91.1353137
13C2-8:2 Fluorotelomer sulfonate	89.6472210	104.876986		92.9735634		88.7547604	89.2322933
13C2-perfluorotetradecanoic acid	70.1326680	!! 42.3741		82.2172522		75.0767538	78.3101184
13C4-Perfluorobutanoic acid	89.8489215	95.3863429		90.3045224		90.5590847	90.2565029
13C6-Perfluorohexanoic Acid	102.371779	91.8402088		103.132079		100.357110	96.8883996
13C9-Perfluorodecanoic Acid	104.149490	93.7227206		103.322017		99.2028370	99.9393792
N-methyl-d3-perfluorooctane sulfona	114.443169	141.367282		!! 156.922		78.6682440	74.1372536
N-ethyl-d5-perfluorooctane sulfonam	124.206122	127.880946		136.173101		85.6194788	75.9206649
13C2-Perfluorodecanoic acid	86.1493178	94.4639375		81.6377148		85.4046209	82.7016374
13C2-Perfluorododecanoic acid	86.1997617	75.8055583		86.2704175		86.3739004	86.9258380
13C2-Perfluorohexanoic acid	86.9975922	100.319932		87.1622315		94.9715211	91.4222774
13C2-Perfluoroundecanoic acid	82.9467328	93.2309526		86.7847252		89.2283639	80.6708382
13C4-Perfluoroheptanoic acid	97.4332636	106.809873		89.2410571		93.8000297	94.3089272
13C5-Perfluorononanoic acid	83.3900947	61.9767986		87.9989366		91.9445077	85.4370349
13C4-Perfluorooctanoic acid	96.2233686	106.121856		85.3032304		86.8230218	92.3738478
13C4-Perfluorooctanesulfonate	92.3724035	103.314430		90.0527265		88.5241402	98.9250908
13C5-Perfluoropentanoic acid	92.9156650	102.531060		90.7824081		93.4974701	97.3765528
13C8-Perfluorooctane Sulfonamide	92.1623212	96.0618010		90.3258342		94.1444833	88.6879288
18O2-Perfluorohexanesulfonate	94.7496505	115.598703		86.6210420		105.331480	85.9840977

PFOS and PFOA in water - Water
ug/L

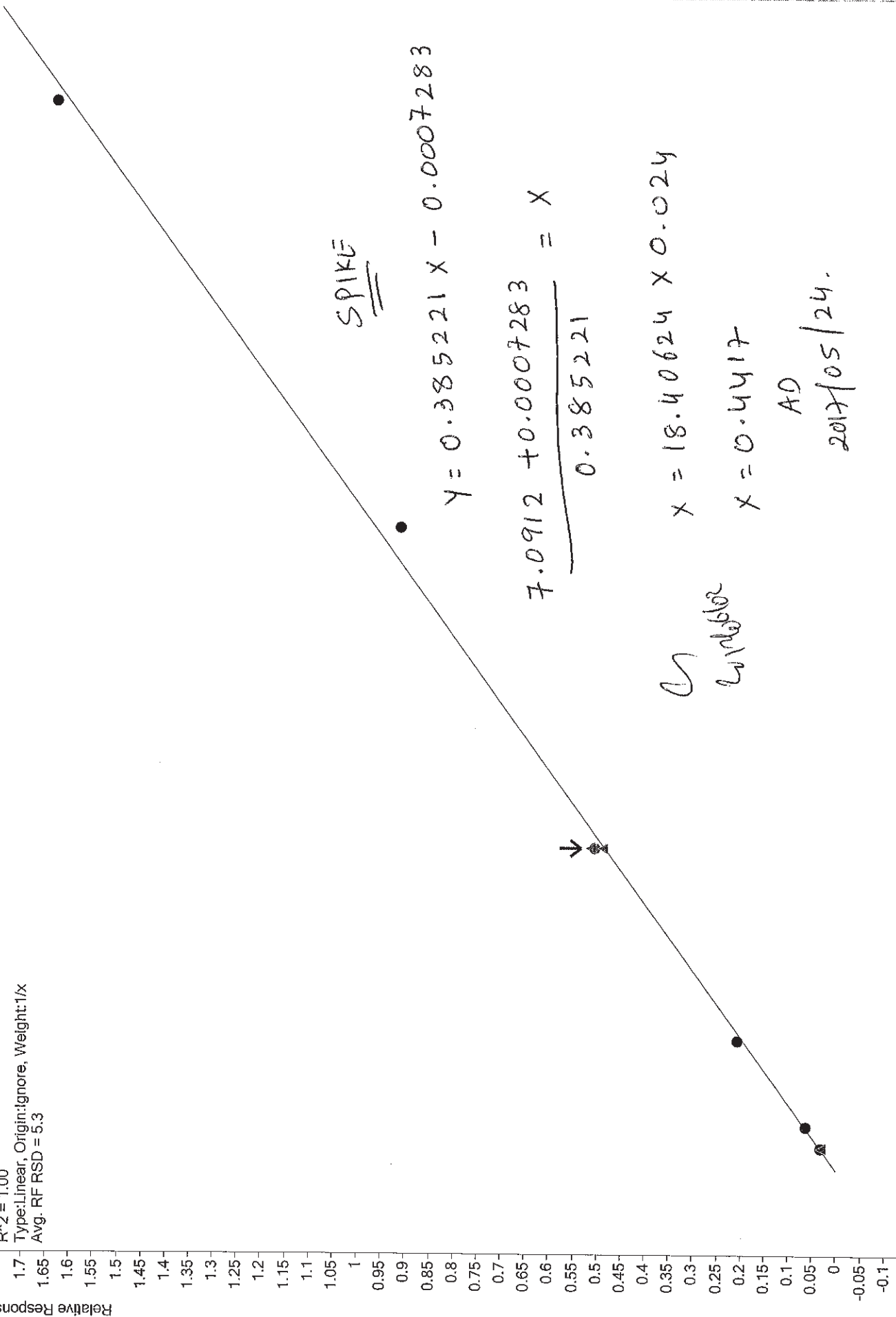
Parameter Name	B799806 EJU267	B799806 EJU268	B799806 EJU269	B799806 EJU270	B799806 EJU271	B799806 EJU272	B799806 EJU273
6:2 Fluorotelomer sulfonate	0	0	0	0	0	0.01111226	0
8:2 Fluorotelomer sulfonate	0	0	0	0	0	0	0
N-ethylperfluorooctane sulfonamide	N/A *****	N/A *****	N/A *****	N/A *****	N/A *****	N/A *****	N/A *****
EtFOSAA	N/A *****	N/A *****	N/A *****	N/A *****	N/A *****	N/A *****	N/A *****
N-ethylperfluorooctane sulfonamido	N/A *****	N/A *****	N/A *****	N/A *****	N/A *****	N/A *****	N/A *****
N-methylperfluorooctane sulfonamide	N/A *****	N/A *****	N/A *****	N/A *****	N/A *****	N/A *****	N/A *****
MeFOSAA	N/A *****	N/A *****	N/A *****	N/A *****	N/A *****	N/A *****	N/A *****
N-methylperfluorooctanesulfonamidol	N/A *****	N/A *****	N/A *****	N/A *****	N/A *****	N/A *****	N/A *****
Perfluorobutanoic acid	0.01224699	0	0	0	0.01178339	0.00546231	0
Perfluorobutane Sulfonate (PFBS)	0	0	0	0	0	0	0
Perfluorodecane Sulfonate	N/A *****	N/A *****	N/A *****	N/A *****	N/A *****	N/A *****	N/A *****
Perfluoroheptanoic Acid (PFHpA)	0.01735710	0	0	0	0.01133102	0.00461453	0
Perfluoroheptane sulfonate	0	0	0	0	0	0	0
Perfluorohexanoic Acid (PFHxA)	0.03024903	0	0	0	0.03368095	0.00999556	0
Perfluorohexane Sulfonate (PFHxS)	0.09680607	0	0	0	0.09228007	0.02963142	0
Perfluorononanoic Acid (PFNA)	0	0	0	0	0	0	0
Perfluorooctane Sulfonamide (PFOSA)	0	0	0	0	0	0	0
Perfluoropentanoic Acid (PFPeA)	0.04106624	0	0	0	0.03129939	0.01463429	0
Perfluorotetradecanoic Acid	N/A *****	N/A *****	N/A *****	N/A *****	N/A *****	N/A *****	N/A *****
Perfluorotridecanoic Acid	N/A *****	N/A *****	N/A *****	N/A *****	N/A *****	N/A *****	N/A *****
Perfluoroundecanoic Acid (PFUnA)	N/A *****	N/A *****	N/A *****	N/A *****	N/A *****	N/A *****	N/A *****
Perfluorodecanoic Acid (PFDA)	N/A *****	N/A *****	N/A *****	N/A *****	N/A *****	N/A *****	N/A *****
Perfluorododecanoic Acid (PFDoA)	N/A *****	N/A *****	N/A *****	N/A *****	N/A *****	N/A *****	N/A *****
Perfluoro-n-Octanoic Acid (PFOA)	0.01771073	0	0.00817022	0	0.02188125	0.00684668	0
Perfluorooctane Sulfonate (PFOS)	0.04054949	0	0.01218344	0	0.03958442	0.01023425	0.01186425
13C2-6:2 Fluorotelomer sulfonate	108.376995	!! 154.556	91.4848357	99.9129917	106.741523	102.846810	96.0444811
13C2-8:2 Fluorotelomer sulfonate	101.300949	104.121005	95.6425683	90.2091142	93.4546416	95.8863780	80.1001465
13C2-perfluorotetradecanoic acid	96.4768306	88.4155675	83.9011827	83.6057966	86.0782260	84.5013905	79.0478526
13C4-Perfluorobutanoic acid	102.571277	92.6650303	67.3757082	96.4003842	96.4533111	95.2433223	87.4320523
13C6-Perfluorohexanoic Acid	95.1246048	90.9007129	101.066212	97.0752748	92.5109117	97.9021337	101.081572
13C9-Perfluorodecanoic Acid	97.1265761	93.0528612	103.088627	95.3988845	92.9316197	97.5175800	101.251818
N-methyl-d3-perfluorooctane sulfona	96.1845293	97.8268312	92.6378283	100.540725	86.8842634	80.8802476	97.7052111
N-ethyl-d5-perfluorooctane sulfonam	99.7988303	82.2076435	83.4263762	97.7878240	92.8313151	71.0641338	89.8536873
13C2-Perfluorodecanoic acid	103.046560	91.1353224	93.1962011	101.072771	97.4260729	97.2316300	89.3674307
13C2-Perfluorododecanoic acid	94.8218222	91.0660147	86.6814229	92.3542434	94.2262887	89.4906032	91.0237253
13C2-Perfluorohexanoic acid	103.764946	106.168220	92.8702753	96.4512116	98.5226628	97.1413992	94.5982840
13C2-Perfluoroundecanoic acid	100.780660	100.830714	86.3571842	95.7048950	87.6728476	89.9836007	90.3925977
13C4-Perfluoroheptanoic acid	108.116826	101.852039	96.8854323	105.445775	105.619398	99.5897592	92.3987501
13C5-Perfluorononanoic acid	102.361518	104.244094	87.7125619	98.1233159	95.5504406	96.7538676	90.7959742
13C4-Perfluorooctanoic acid	105.358170	107.206331	99.8300712	100.133199	101.121402	98.9667350	87.8206923
13C4-Perfluorooctanesulfonate	111.048953	102.970066	96.1588300	87.6600644	106.496883	93.2024019	94.5568070
13C5-Perfluoropentanoic acid	107.895982	114.593319	99.1088713	99.5462376	100.100531	100.439069	87.0706289
13C8-Perfluorooctane Sulfonamide	94.2801520	102.608583	88.7489410	96.6032965	97.2500662	97.0592011	102.301437
18O2-Perfluorohexanesulfonate	104.928849	93.9535321	97.4640950	102.415561	97.8403261	101.818174	80.4734122

PFOS and PFOA in water - Water
ug/L

Parameter Name	DL	RDL	MDL	IDL			
6:2 Fluorotelomer sulfonate	0.02	0.02	0.0032	0			
8:2 Fluorotelomer sulfonate	0.02	0.02	0.0036	0			
N-ethylperfluorooctane sulfonamide	0.02	0.02	0.0058	0			
EtFOSAA	0.02	0.02	0.0036	0			
N-ethylperfluorooctane sulfonamido	0.02	0.02	0.0063	0			
N-methylperfluorooctane sulfonamide	0.02	0.02	0.0041	0			
MeFOSAA	0.02	0.02	0.0026	0			
N-methylperfluorooctanesulfonamidol	0.02	0.02	0.0043	0			
Perfluorobutanoic acid	0.02	0.02	0.0066	0			
Perfluorobutane Sulfonate (PFBS)	0.02	0.02	0.0048	0			
Perfluorodecane Sulfonate	0.02	0.02	0.0046	0			
Perfluoroheptanoic Acid (PFHpA)	0.02	0.02	0.0033	0			
Perfluoroheptane sulfonate	0.02	0.02	0.0048	0			
Perfluorohexanoic Acid (PFHxA)	0.02	0.02	0.0029	0			
Perfluorohexane Sulfonate (PFHxS)	0.02	0.02	0.0034	0			
Perfluorononanoic Acid (PFNA)	0.02	0.02	0.0046	0			
Perfluorooctane Sulfonamide (PFOSA)	0.02	0.02	0.0036	0			
Perfluoropentanoic Acid (PFPeA)	0.02	0.02	0.0027	0			
Perfluorotetradecanoic Acid	0.02	0.02	0.0038	0			
Perfluorotridecanoic Acid	0.02	0.02	0.0033	0			
Perfluoroundecanoic Acid (PFUnA)	0.02	0.02	0.0043	0			
Perfluorodecanoic Acid (PFDA)	0.02	0.02	0.004	0			
Perfluorododecanoic Acid (PFDoA)	0.02	0.02	0.0028	0			
Perfluoro-n-Octanoic Acid (PFOA)	0.02	0.02	0.0046	0			
Perfluorooctane Sulfonate (PFOS)	0.02	0.02	0.0026	0			
13C2-6:2 Fluorotelomer sulfonate							
13C2-8:2 Fluorotelomer sulfonate							
13C2-perfluorotetradecanoic acid							
13C4-Perfluorobutanoic acid							
13C6-Perfluorohexanoic Acid							
13C9-Perfluorodecanoic Acid							
N-methyl-d3-perfluorooctane sulfona							
N-ethyl-d5-perfluorooctane sulfonam							
13C2-Perfluorodecanoic acid							
13C2-Perfluorododecanoic acid							
13C2-Perfluorohexanoic acid							
13C2-Perfluoroundecanoic acid							
13C4-Perfluoroheptanoic acid							
13C5-Perfluorononanoic acid							
13C4-Perfluorooctanoic acid							
13C4-Perfluorooctanesulfonate							
13C5-Perfluoropentanoic acid							
13C8-Perfluorooctane Sulfonamide							
18O2-Perfluorohexanesulfonate							

PFOS 1 - 6 Levels Used, 6 Points, 6 Points Used, 6 QCs
 $y = 0.385221 * x - 7.283093E-004$
 $R^2 = 1.00$
 Type: Linear, Origin: Ignore, Weight: 1/x
 Avg. RF RSD = 5.3

WS 1# 4987523



SPIKE

$$y = 0.385221x - 0.0007283$$

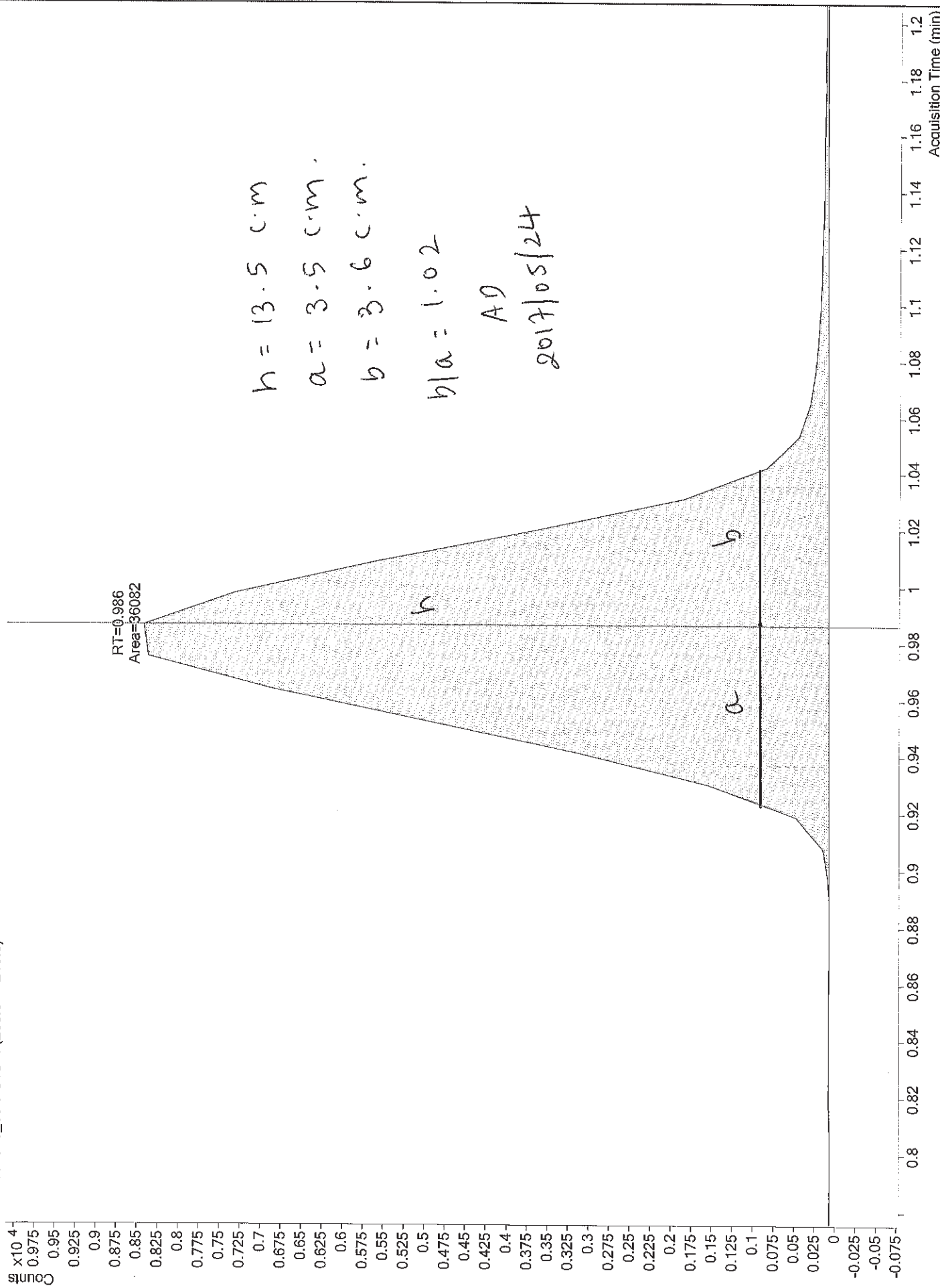
$$\frac{7.0912 + 0.0007283}{0.385221} = x$$

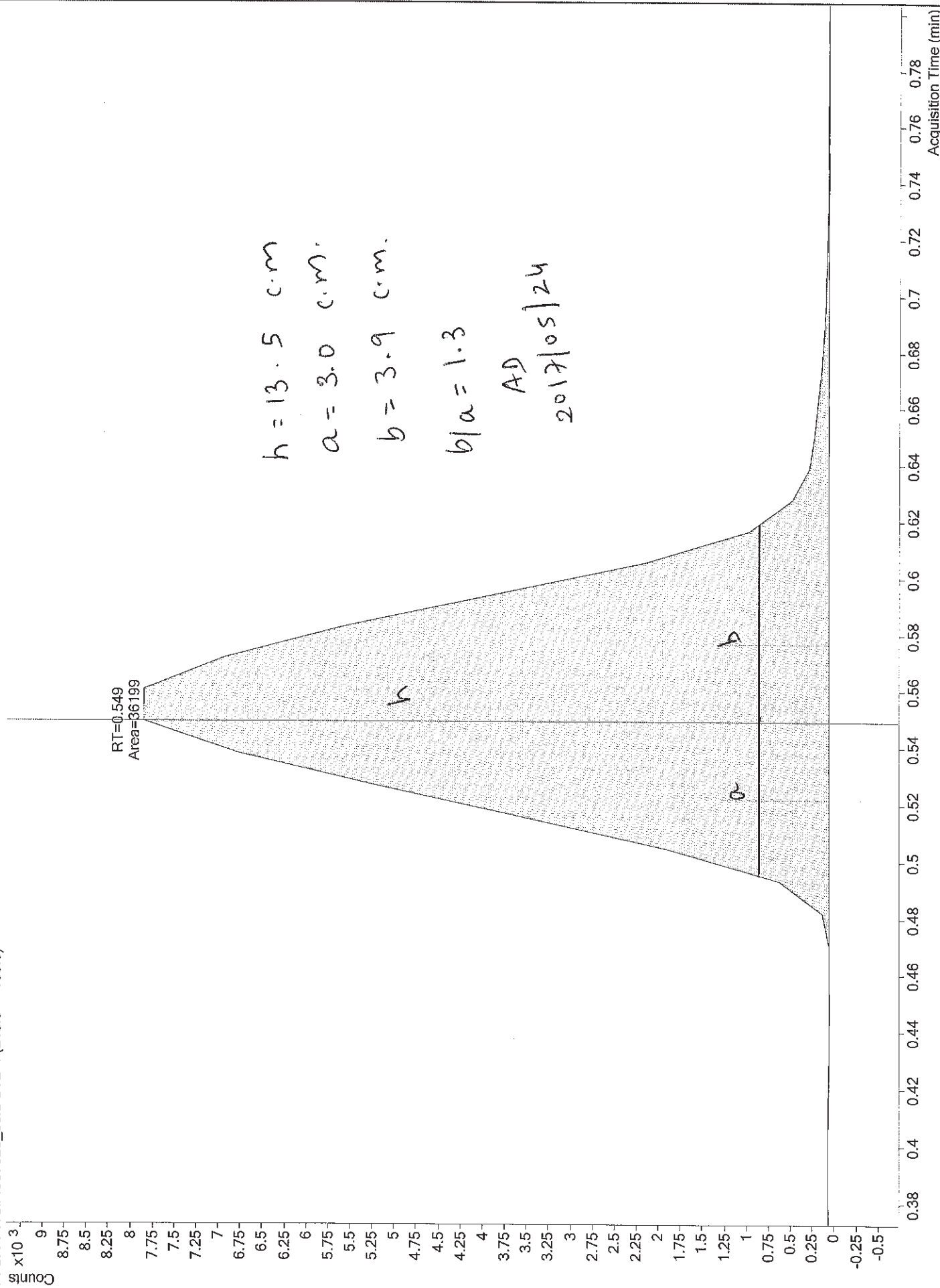
$$x = 18.40624 \times 0.024$$

$$x = 0.4417$$

AD
 2017/05/24.

✓
 21/06/02





<u>Sample Number</u>	<u>Parameter</u>	
EJE856-01	6:2 Fluorotelomer sulfonate	*
EJE857-01	8:2 Fluorotelomer sulfonate	*
	N-ethylperfluorooctane sulfonamide	*
	N-ethylperfluorooctane sulfonamido	*
	N-methylperfluorooctane sulfonamide	*
	N-methylperfluorooctanesulfonamidol	*
	Perfluorobutanoic acid	
	Perfluorobutane Sulfonate (PFBS)	
	Perfluorodecanoic Acid (PFDA)	
	Perfluorododecanoic Acid (PFDoA)	
	Perfluorodecane Sulfonate	
	Perfluoroheptanoic Acid (PFHpA)	
	Perfluoroheptane sulfonate	
	Perfluorohexanoic Acid (PFHxA)	
	Perfluorohexane Sulfonate (PFHxS)	
	Perfluorononanoic Acid (PFNA)	
	Perfluoro-n-Octanoic Acid (PFOA)	
	Perfluorooctane Sulfonate (PFOS)	
	Perfluorooctane Sulfonamide (PFOSA)	
	Perfluoropentanoic Acid (PFPeA)	
	Perfluorotetradecanoic Acid	
	Perfluorotridecanoic Acid	
	Perfluoroundecanoic Acid (PFUnA)	
EJK088-01	6:2 Fluorotelomer sulfonate	*
EJK089-01	8:2 Fluorotelomer sulfonate	*
EJK090-01	Perfluorobutanoic acid	
EJK091-01	Perfluorobutane Sulfonate (PFBS)	
	Perfluorodecanoic Acid (PFDA)	
	Perfluorododecanoic Acid (PFDoA)	
	Perfluorodecane Sulfonate	
	Perfluoroheptanoic Acid (PFHpA)	
	Perfluorohexanoic Acid (PFHxA)	
	Perfluorohexane Sulfonate (PFHxS)	
	Perfluorononanoic Acid (PFNA)	
	Perfluoro-n-Octanoic Acid (PFOA)	
	Perfluorooctane Sulfonate (PFOS)	
	Perfluorooctane Sulfonamide (PFOSA)	
	Perfluoropentanoic Acid (PFPeA)	
	Perfluorotetradecanoic Acid	

* - This parameter is usually off, but will be reported for this group of samples!

Test Code: PFOSALCM-W

Worksheet Number: 4987523

<u>Sample Number</u>	<u>Parameter</u>	
	Perfluorotridecanoic Acid	
	Perfluoroundecanoic Acid (PFUnA)	
EJL630-01	6:2 Fluorotelomer sulfonate	*
	8:2 Fluorotelomer sulfonate	*
	EtFOSAA	*
	MeFOSAA	*
	Perfluorobutane Sulfonate (PFBS)	
	Perfluorodecanoic Acid (PFDA)	
	Perfluorododecanoic Acid (PFDoA)	
	Perfluoroheptanoic Acid (PFHpA)	
	Perfluorohexanoic Acid (PFHxA)	
	Perfluorohexane Sulfonate (PFHxS)	
	Perfluorononanoic Acid (PFNA)	
	Perfluoro-n-Octanoic Acid (PFOA)	
	Perfluorooctane Sulfonate (PFOS)	
	Perfluorotetradecanoic Acid	
	Perfluorotridecanoic Acid	
	Perfluoroundecanoic Acid (PFUnA)	
EJU265-01	6:2 Fluorotelomer sulfonate	*
EJU266-01	8:2 Fluorotelomer sulfonate	*
EJU267-01	Perfluorobutanoic acid	
EJU268-01	Perfluorobutane Sulfonate (PFBS)	
EJU269-01	Perfluoroheptanoic Acid (PFHpA)	
EJU270-01	Perfluoroheptane sulfonate	
EJU271-01	Perfluorohexanoic Acid (PFHxA)	
EJU272-01	Perfluorohexane Sulfonate (PFHxS)	
EJU273-01	Perfluorononanoic Acid (PFNA)	
	Perfluoro-n-Octanoic Acid (PFOA)	
	Perfluorooctane Sulfonate (PFOS)	
	Perfluorooctane Sulfonamide (PFOSA)	
	Perfluoropentanoic Acid (PFPeA)	

* - This parameter is usually off, but will be reported for this group of samples!

1. 
4987523:MTRX SPK
2. 
4987523:MTRX SPK:D1
3. 
4987523:SPIKE
4. 
4987523:BLANK
5. 
4987523:EJE856-01
6. 
4987523:EJE857-01
7. 
4987523:EJK088-01
8. 
4987523:EJK089-01
9. 
4987523:EJK090-01
10. 
4987523:EJK091-01
11. 
4987523:EJL630-01
12. 
4987523:EJU265-01
13. 
4987523:EJU266-01
14. 
4987523:EJU267-01
15. 
4987523:EJU268-01
16. 
4987523:EJU269-01
17. 
4987523:EJU270-01
18. 
4987523:EJU271-01
19. 
4987523:EJU272-01
20. 
4987523:EJU273-01

MTRX SPK

MTRX SPK :D1

SPIKE

BLANK













FRCHD04-GW-002





















Worklist Report

Agilent Technologies

Instrument Name: LCMS04

Worklist Path: D:\MassHunter\Worklists\PFCs\PFC_170523_Low.wkl

Operator Name: AD
Run Type: Standard Start
Part of Method to Run: Acquisition Only
Execution of Acquisition-DA: Synchronous
Acquisition Method Path: D:\MassHunter\Acquisition Method
DA Method Path: D:\MassHunter\methods
Data File Path: D:\MassHunter\data\PFC\20170523\WS#4987523
Pre-Worklist Script: ---
Post-Worklist Script: SCP_InstrumentStandby()\{MH_Acq_Scripts.exe}
Acquisition Clean Up Script: ---
Overlapped Injection: Yes
Clear Sample Selection After Run: Yes
Wait Time for Ready(Min): 10
Threshold Disk Value(GB): 10
Comment: Column#171
MP A1: Solution# 92 (FSRE18)
MP B1: Methanol Lot#SHBG9002V, Sigma

Plate Barcode:

Plate	Barcode
P1	

Worklist Table

Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
1 Solvent	P1-A1	PFC_Water_Low. m	WS#4987523_01- r001.d	Sample		As Method	-
2 Solvent	P1-A1	PFC_Water_Low. m	WS#4987523_01- r002.d	Sample		As Method	-
3 Solvent	P1-A1	PFC_Water_Low. m	WS#4987523_01- r003.d	Sample		As Method	-
4 Solvent	P1-A1	PFC_Water_Low. m	WS#4987523_01- r004.d	Sample		As Method	-
5 Solvent	P1-A1	PFC_Water_Low. m	WS#4987523_01.d	Sample		As Method	-
6 STD 1	P1-A2	PFC_Water_Low. m	WS#4987523_02.d	Calibration	STD 1	As Method	-
7 STD 2	P1-A3	PFC_Water_Low. m	WS#4987523_03.d	Calibration	STD 2	As Method	-

2017/05/23
AD



Worklist Report

	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
8	STD 3	P1-A4	PFC_Water_Low. m	WS#4987523_04.d	Calibration	STD 3	As Method	-
9	STD 4	P1-A5	PFC_Water_Low. m	WS#4987523_05.d	Calibration	STD 4	As Method	-
10	STD 5	P1-A6	PFC_Water_Low. m	WS#4987523_06.d	Calibration	STD 5	As Method	-
11	STD 6	P1-A7	PFC_Water_Low. m	WS#4987523_07.d	Calibration	STD 6	As Method	-
12	IB1	P1-A8	PFC_Water_Low. m	WS#4987523_08.d	Blank		As Method	-
13	ICV	P1-A9	PFC_Water_Low. m	WS#4987523_09.d	QC	ICV	As Method	-
14	ISC	P1-A2	PFC_Water_Low. m	WS#4987523_10.d	ConCal	STD 1	As Method	-
15	4987523:BLANK	P1-B1	PFC_Water_Low. m	WS#4987523_11.d	Blank		As Method	-
16	4987523:MTRX SPK	P1-B2	PFC_Water_Low. m	WS#4987523_12.d	QC	ICV	As Method	-
17	4987523:MTRX SPK.D1	P1-B3	PFC_Water_Low. m	WS#4987523_13.d	QC	ICV	As Method	-
18	IB1	P1-A8	PFC_Water_Low. m	WS#4987523_14.d	Blank		As Method	-
19	4987523:SPIKE	P1-B4	PFC_Water_Low. m	WS#4987523_15.d	QC	ICV	As Method	-
20	4987523:EJE856-01:50x	P1-B5	PFC_Water_Low. m	WS#4987523_16.d	Sample		As Method	-
21	4987523:EJE856-01:10x	P1-B6	PFC_Water_Low. m	WS#4987523_17.d	Sample		As Method	-
22	Solvent	P1-A1	PFC_Water_Low. m	WS#4987523_18.d	Sample		As Method	-
23	IB1	P1-A8	PFC_Water_Low. m	WS#4987523_19.d	Blank		As Method	-
24	4987523:EJE857-01	P1-B7	PFC_Water_Low. m	WS#4987523_20.d	Sample		As Method	-
25	4987523:EJK088-01:10x	P1-B8	PFC_Water_Low. m	WS#4987523_21.d	Sample		As Method	-
26	4987523:EJK088-01	P1-B9	PFC_Water_Low. m	WS#4987523_22.d	Sample		As Method	-
27	IB1	P1-A8	PFC_Water_Low. m	WS#4987523_23.d	Blank		As Method	-
28	4987523:EJK089-01:100x	P1-C1	PFC_Water_Low. m	WS#4987523_24.d	Sample		As Method	-
29	4987523:EJK089-01:10x	P1-C2	PFC_Water_Low. m	WS#4987523_25.d	Sample		As Method	-
30	Solvent	P1-A1	PFC_Water_Low. m	WS#4987523_26.d	Sample		As Method	-

Maxxam Analytics

D:\MassHunter\Worklists\PFCs\PFC_170523_Low.wkl

Report generation date: 23-May-2017 08:47:08 AM

Worklist Report

	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
31	IB1	P1-A8	PFC_Water_Low. m	WS#4987523_27.d	Blank		As Method	-
32	4987523:EJK090-01	P1-C3	PFC_Water_Low. m	WS#4987523_28.d	Sample		As Method	-
33	4987523:EJK091-01	P1-C4	PFC_Water_Low. m	WS#4987523_29.d	Sample		As Method	-
34	CCV	P1-A5	PFC_Water_Low. m	WS#4987523_30.d	ConCal	STD 4	As Method	-
35	4987523:EJL630-01:50x	P1-C5	PFC_Water_Low. m	WS#4987523_31.d	Sample		As Method	-
36	4987523:EJL630-01:10x	P1-C6	PFC_Water_Low. m	WS#4987523_32.d	Sample		As Method	-
37	Solvent	P1-A1	PFC_Water_Low. m	WS#4987523_33.d	Sample		As Method	-
38	IB1	P1-A8	PFC_Water_Low. m	WS#4987523_34.d	Blank		As Method	-
39	4987523:EJU265-01	P1-C7	PFC_Water_Low. m	WS#4987523_35.d	Sample		As Method	-
40	4987523:EJU266-01	P1-C8	PFC_Water_Low. m	WS#4987523_36.d	Sample		As Method	-
41	4987523:EJU267-01	P1-C9	PFC_Water_Low. m	WS#4987523_37.d	Sample		As Method	-
42	4987523:EJU268-01	P1-D1	PFC_Water_Low. m	WS#4987523_38.d	Sample		As Method	-
43	4987523:EJU269-01	P1-D2	PFC_Water_Low. m	WS#4987523_39.d	Sample		As Method	-
44	4987523:EJU270-01	P1-D3	PFC_Water_Low. m	WS#4987523_40.d	Sample		As Method	-
45	4987523:EJU271-01	P1-D4	PFC_Water_Low. m	WS#4987523_41.d	Sample		As Method	-
46	CCV	P1-A5	PFC_Water_Low. m	WS#4987523_42.d	ConCal	STD 4	As Method	-
47	4987523:EJU272-01	P1-D5	PFC_Water_Low. m	WS#4987523_43.d	Sample		As Method	-
48	4987523:EJU273-01	P1-D6	PFC_Water_Low. m	WS#4987523_44.d	Sample		As Method	-
49	CCV	P1-A5	PFC_Water_Low. m	WS#4987523_45.d	ConCal	STD 4	As Method	-



Worklist Report

Agilent Technologies

Instrument Name: LCMS04

Worklist Path:

D:\MassHunter\Worklists\PFCs\170523_Low_FOSAA.wkl

Operator Name:

AD

Run Type:

Standard Start
Acquisition Only

Part of Method to Run:

2017/05/23

Execution of Acquisition-DA:

Synchronous

Acquisition Method Path:

D:\MassHunter\Acquisition Method

DA Method Path:

D:\MassHunter\methods

Data File Path:

D:\MassHunter\data\PFC\20170523\WS#4987523_FOSAA

Pre-Worklist Script:

--

Post-Worklist Script:

SCP_InstrumentStandby()\{MH_Acq_Scripts.exe}

Acquisition Clean Up Script:

--

Overlapped Injection:

Yes

Clear Sample Selection After Run:

Yes

Wait Time for Ready(Min):

10

Threshold Disk Value(GB):

10

Comment:

Column#171

MP A1: Solution# 92 (FSRE18)

MP B1: Solution# 83 (FSRE18)

Plate Barcode:

Plate

Barcode

P1

Worklist Table

Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
1 Solvent	P1-A1	PFC_Water_Low_FO SAA.m	WS#4987523_FOSA A_01.d	Sample		As Method	-
2 Solvent	P1-A1	PFC_Water_Low_FO SAA.m	WS#4987523_FOSA A_02.d	Sample		As Method	-
3 Solvent	P1-A1	PFC_Water_Low_FO SAA.m	WS#4987523_FOSA A_03.d	Sample		As Method	-
4 Solvent	P1-A1	PFC_Water_Low_FO SAA.m	WS#4987523_FOSA A_04.d	Sample		As Method	-
5 Solvent	P1-A1	PFC_Water_Low_FO SAA.m	WS#4987523_FOSA A_05.d	Sample		As Method	-
6 Solvent	P1-A1	PFC_Water_Low_FO SAA.m	WS#4987523_FOSA A_06.d	Sample		As Method	-
7 Solvent	P1-A1	PFC_Water_Low_FO SAA.m	WS#4987523_FOSA A_07.d	Sample		As Method	-
8 Solvent	P1-A1	PFC_Water_Low_FO SAA.m	WS#4987523_FOSA A_08.d	Sample		As Method	-



Worklist Report

Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
9 Solvent	P1-A1	PFC_Water_Low_FO SAA.m	WS#4987523_FOSA A_09.d	Sample		As Method	-
10 STD 1	P1-A2	PFC_Water_Low_FO SAA.m	WS#4987523_FOSA A_10.d	Calibration	STD 1	As Method	-
11 STD 2	P1-A3	PFC_Water_Low_FO SAA.m	WS#4987523_FOSA A_11.d	Calibration	STD 2	As Method	-
12 STD 3	P1-A4	PFC_Water_Low_FO SAA.m	WS#4987523_FOSA A_12.d	Calibration	STD 3	As Method	-
13 STD 4	P1-A5	PFC_Water_Low_FO SAA.m	WS#4987523_FOSA A_13.d	Calibration	STD 4	As Method	-
14 STD 5	P1-A6	PFC_Water_Low_FO SAA.m	WS#4987523_FOSA A_14.d	Calibration	STD 5	As Method	-
15 STD 6	P1-A7	PFC_Water_Low_FO SAA.m	WS#4987523_FOSA A_15.d	Calibration	STD 6	As Method	-
16 IB1	P1-A8	PFC_Water_Low_FO SAA.m	WS#4987523_FOSA A_16.d	Blank		As Method	-
17 ICV	P1-A9	PFC_Water_Low_FO SAA.m	WS#4987523_FOSA A_17.d	QC	ICV	As Method	-
18 ISC	P1-A2	PFC_Water_Low_FO SAA.m	WS#4987523_FOSA A_18.d	ConCal	STD 1	As Method	-
19 4987523:BLANK	P1-B1	PFC_Water_Low_FO SAA.m	WS#4987523_FOSA A_19.d	Blank		As Method	-
20 4987523:MTRX SPK	P1-B2	PFC_Water_Low_FO SAA.m	WS#4987523_FOSA A_20.d	QC	ICV	As Method	-
21 4987523:MTRX SPK:D1	P1-B3	PFC_Water_Low_FO SAA.m	WS#4987523_FOSA A_21.d	QC	ICV	As Method	-
22 IB1	P1-A8	PFC_Water_Low_FO SAA.m	WS#4987523_FOSA A_25.d	Blank		As Method	-
23 4987523:SPIKE	P1-B4	PFC_Water_Low_FO SAA.m	WS#4987523_FOSA A_22.d	QC	ICV	As Method	-
24 4987523:EJK088- 01:10x	P1-B8	PFC_Water_Low_FO SAA.m	WS#4987523_FOSA A_23.d	Sample		As Method	-
25 4987523:EJK088-01	P1-B9	PFC_Water_Low_FO SAA.m	WS#4987523_FOSA A_24.d	Sample		As Method	-
26 IB1	P1-A8	PFC_Water_Low_FO SAA.m	WS#4987523_FOSA A_25.d	Blank		As Method	-
27 4987523:EJL630- 01:50x	P1-C5	PFC_Water_Low_FO SAA.m	WS#4987523_FOSA A_26.d	Sample		As Method	-
28 4987523:EJL630- 01:10x	P1-C6	PFC_Water_Low_FO SAA.m	WS#4987523_FOSA A_27.d	Sample		As Method	-
29 Solvent	P1-A1	PFC_Water_Low_FO SAA.m	WS#4987523_FOSA A_28.d	Sample		As Method	-
30 IB1	P1-A8	PFC_Water_Low_FO SAA.m	WS#4987523_FOSA A_29.d	Blank		As Method	-
31 CCV	P1-A5	PFC_Water_Low_FO SAA.m	WS#4987523_FOSA A_30.d	ConCal	STD 4	As Method	-

Sample						Pos.
Name	Comment	Acq. Date-Time	Data File	Acq. Method	File	
STD 1	-	2017/05/23 9:18 AM	WS#4987523_02.d	PFC_Water	Low.m	P1-A2
STD 2	-	2017/05/23 9:23 AM	WS#4987523_03.d	PFC_Water	Low.m	P1-A3
STD 3	-	2017/05/23 9:28 AM	WS#4987523_04.d	PFC_Water	Low.m	P1-A4
STD 4	-	2017/05/23 9:33 AM	WS#4987523_05.d	PFC_Water	Low.m	P1-A5
STD 5	-	2017/05/23 9:38 AM	WS#4987523_06.d	PFC_Water	Low.m	P1-A6
STD 6	-	2017/05/23 9:43 AM	WS#4987523_07.d	PFC_Water	Low.m	P1-A7
IS1	-	2017/05/23 9:47 AM	WS#4987523_08.d	PFC_Water	Low.m	P1-A8
ICV	-	2017/05/23 9:52 AM	WS#4987523_09.d	PFC_Water	Low.m	P1-A9
ISC	-	2017/05/23 9:57 AM	WS#4987523_10.d	PFC_Water	Low.m	P1-A2
4987523:BLANK	-	2017/05/23 10:02 AM	WS#4987523_11.d	PFC_Water	Low.m	P1-B1
4987523:M.TRX SPK	Re-injected to confirm surrogate recovery, reported	2017/05/23 10:07 AM	WS#4987523_12.d	PFC_Water	Low.m	P1-B2
4987523:M.TRX SPK:D1	Re-injected to confirm surrogate recovery, reported	2017/05/23 10:12 AM	WS#4987523_13.d	PFC_Water	Low.m	P1-B3
IS1	-	2017/05/23 10:17 AM	WS#4987523_14.d	PFC_Water	Low.m	P1-A8
4987523:SPIKE	-	2017/05/23 10:22 AM	WS#4987523_15.d	PFC_Water	Low.m	P1-B4
4987523:EJES56-01:50x	Reported for PFOS	2017/05/23 10:27 AM	WS#4987523_16.d	PFC_Water	Low.m	P1-B5
4987523:EJES56-01:10x	Reported for all except PFOS	2017/05/23 10:32 AM	WS#4987523_17.d	PFC_Water	Low.m	P1-B6
Solvent	-	2017/05/23 10:38 AM	WS#4987523_18.d	PFC_Water	Low.m	P1-A1
IS1	-	2017/05/23 10:41 AM	WS#4987523_19.d	PFC_Water	Low.m	P1-A8
4987523:EJES57-01	-	2017/05/23 10:46 AM	WS#4987523_20.d	PFC_Water	Low.m	P1-B7
4987523:EJES58-01:10x	Reported for PFHxA, PFHxS, PFPeA	2017/05/23 10:51 AM	WS#4987523_21.d	PFC_Water	Low.m	P1-B8
4987523:EJES58-01	Re-injected to confirm surrogate recovery, reported for all except PFHxA, PFHxS, PFPeA	2017/05/23 10:56 AM	WS#4987523_22.d	PFC_Water	Low.m	P1-B9
IS1	-	2017/05/23 11:01 AM	WS#4987523_23.d	PFC_Water	Low.m	P1-A8
4987523:EJES59-01:100x	Reported for PFHxA, PFPeA	2017/05/23 11:06 AM	WS#4987523_24.d	PFC_Water	Low.m	P1-C1
4987523:EJES59-01:10x	Reported for all except PFHxA, PFPeA	2017/05/23 11:11 AM	WS#4987523_25.d	PFC_Water	Low.m	P1-C2
Solvent	-	2017/05/23 11:16 AM	WS#4987523_26.d	PFC_Water	Low.m	P1-A1
IS1	-	2017/05/23 11:21 AM	WS#4987523_27.d	PFC_Water	Low.m	P1-A8
4987523:EJES60-01	-	2017/05/23 11:26 AM	WS#4987523_28.d	PFC_Water	Low.m	P1-C3
4987523:EJES60-01	Re-injected to confirm surrogate recovery, reported	2017/05/23 11:30 AM	WS#4987523_29.d	PFC_Water	Low.m	P1-C4
CCV	-	2017/05/23 12:02 PM	WS#4987523_30.d	PFC_Water	Low.m	P1-A5
4987523:EJES60-01:50x	Reported for PFHxS	2017/05/23 12:07 PM	WS#4987523_31.d	PFC_Water	Low.m	P1-C5
4987523:EJES60-01:10x	Reported for all except PFHxS	2017/05/23 12:12 PM	WS#4987523_32.d	PFC_Water	Low.m	P1-C6
Solvent	-	2017/05/23 12:17 PM	WS#4987523_33.d	PFC_Water	Low.m	P1-A1
IS1	-	2017/05/23 12:22 PM	WS#4987523_34.d	PFC_Water	Low.m	P1-A8
4987523:EJES61-01	-	2017/05/23 12:27 PM	WS#4987523_35.d	PFC_Water	Low.m	P1-C7
4987523:EJES61-01	Re-injected to confirm surrogate recovery, reported	2017/05/23 12:32 PM	WS#4987523_36.d	PFC_Water	Low.m	P1-C8
4987523:EJES61-01	-	2017/05/23 12:37 PM	WS#4987523_37.d	PFC_Water	Low.m	P1-C9
4987523:EJES61-01	-	2017/05/23 12:42 PM	WS#4987523_38.d	PFC_Water	Low.m	P1-D1
4987523:EJES61-01	-	2017/05/23 12:46 PM	WS#4987523_39.d	PFC_Water	Low.m	P1-D2
4987523:EJES61-01	-	2017/05/23 12:51 PM	WS#4987523_40.d	PFC_Water	Low.m	P1-D3
4987523:EJES61-01	-	2017/05/23 12:56 PM	WS#4987523_41.d	PFC_Water	Low.m	P1-D4
4987523:EJES61-01	-	2017/05/23 1:01 PM	WS#4987523_42.d	PFC_Water	Low.m	P1-A5
CCV	-	2017/05/23 1:06 PM	WS#4987523_43.d	PFC_Water	Low.m	P1-D5
4987523:EJES62-01	-	2017/05/23 1:11 PM	WS#4987523_44.d	PFC_Water	Low.m	P1-D6
4987523:EJES62-01	-	2017/05/23 1:16 PM	WS#4987523_45.d	PFC_Water	Low.m	P1-B9
4987523:EJES62-01	Re-injection, not reported	2017/05/23 1:21 PM	WS#4987523_46.d	PFC_Water	Low.m	P1-A8
IS1R	-	2017/05/23 1:26 PM	WS#4987523_47.d	PFC_Water	Low.m	P1-C4
4987523:EJES62-01	Re-injection, not reported	2017/05/23 1:31 PM	WS#4987523_48.d	PFC_Water	Low.m	P1-B2

Sample					
Name	Comment	Acq. Date-Time	Data File	Acq. Method File	Pos.
4987523.MTRX.SP.K:D1:R	Re-injection, not reported	2017/05/23 1:35 PM	WS#4987523_13.d	PFC_Water_Low.m	P1-B3
CCV	-	2017/05/23 1:40 PM	WS#4987523_45.d	PFC_Water_Low.m	P1-A5

FINAL INJECTION SEQUENCE

Sample					
Name	Comment	Acq. Date-Time	Data File	Acq. Method File	Pos.
STD 1	-	2017/05/23 6:23 PM	WS#4987523_FOSAA_10.d	PFC_Water_Low_FOSAA.m	P1-A2
STD 2	-	2017/05/23 6:25 PM	WS#4987523_FOSAA_11.d	PFC_Water_Low_FOSAA.m	P1-A3
STD 3	-	2017/05/23 6:27 PM	WS#4987523_FOSAA_12.d	PFC_Water_Low_FOSAA.m	P1-A4
STD 4	-	2017/05/23 6:30 PM	WS#4987523_FOSAA_13.d	PFC_Water_Low_FOSAA.m	P1-A5
STD 5	-	2017/05/23 6:32 PM	WS#4987523_FOSAA_14.d	PFC_Water_Low_FOSAA.m	P1-A6
STD 6	-	2017/05/23 6:34 PM	WS#4987523_FOSAA_15.d	PFC_Water_Low_FOSAA.m	P1-A7
IB1	-	2017/05/23 6:37 PM	WS#4987523_FOSAA_16.d	PFC_Water_Low_FOSAA.m	P1-A8
ICV	-	2017/05/23 6:39 PM	WS#4987523_FOSAA_17.d	PFC_Water_Low_FOSAA.m	P1-A9
ISC	-	2017/05/23 6:42 PM	WS#4987523_FOSAA_18.d	PFC_Water_Low_FOSAA.m	P1-A2
4987523:BLANK	-	2017/05/23 6:44 PM	WS#4987523_FOSAA_19.d	PFC_Water_Low_FOSAA.m	P1-B1
4987523:MTRX SPK	EJK088	2017/05/23 6:46 PM	WS#4987523_FOSAA_20.d	PFC_Water_Low_FOSAA.m	P1-B2
4987523:MTRX SPK:D1	EJK088	2017/05/23 6:49 PM	WS#4987523_FOSAA_21.d	PFC_Water_Low_FOSAA.m	P1-B3
IB1	-	2017/05/23 6:51 PM	WS#4987523_FOSAA_22.d	PFC_Water_Low_FOSAA.m	P1-A8
4987523:SPIKE	-	2017/05/23 6:54 PM	WS#4987523_FOSAA_23.d	PFC_Water_Low_FOSAA.m	P1-B4
4987523:EJK088-01:10x	not used	2017/05/23 6:56 PM	WS#4987523_FOSAA_24.d	PFC_Water_Low_FOSAA.m	P1-B8
4987523:EJK088-01	Reported for all	2017/05/23 6:58 PM	WS#4987523_FOSAA_25.d	PFC_Water_Low_FOSAA.m	P1-B9
IB1	-	2017/05/23 7:01 PM	WS#4987523_FOSAA_26.d	PFC_Water_Low_FOSAA.m	P1-A8
4987523:EJL630-01:50x	not used	2017/05/23 7:03 PM	WS#4987523_FOSAA_27.d	PFC_Water_Low_FOSAA.m	P1-C5
4987523:EJL630-01:10x	Reported for all	2017/05/23 7:06 PM	WS#4987523_FOSAA_28.d	PFC_Water_Low_FOSAA.m	P1-C6
Solvent	-	2017/05/23 7:08 PM	WS#4987523_FOSAA_29.d	PFC_Water_Low_FOSAA.m	P1-A1
IB1	-	2017/05/23 7:10 PM	WS#4987523_FOSAA_30.d	PFC_Water_Low_FOSAA.m	P1-A8
CCV	-	2017/05/23 7:13 PM	WS#4987523_FOSAA_31.d	PFC_Water_Low_FOSAA.m	P1-A5

INJECTION INTERNAL STANDARD PEAK AREAS

Sample Name	Analyte	13C6-PFHxA	13C6-PFHxA	13C9-PFDA	13C9-PFDA
	Mass labeled IS	STD 4	ISC/CCV	STD 4	ISC/CCV
	IS Area	40649	52291	37274	45678
		IS Peak Area	IS Peak Area	IS Peak Area	IS Peak Area
STD 1		45750		43281	
STD 2		41311		36377	
STD 3		40933		39158	
STD 4		40649		37274	
STD 5		42121		37673	
STD 6		40519		36834	
IB		40927		38549	
ICV		39797		37126	
ISC		46701		44270	
4987381:BLANK		43210		40664	
4987381:SPIKE		42697		40197	
4987381:MTRX SPK		40140		38595	
4987381:MTRX SPK:D1		42432		38364	
IB		43433		39357	
4987381:EJK040-01:10x		41269		37197	
4987381:EJK040-01		43305		40083	
IB		41931		38034	
4987381:EJK041-01:10x		45014		41298	
4987381:EJK041-01		43749		38771	
IB		41757		39225	
4987381:EJK042-01:100x		46763		42973	
4987381:EJK042-01:10x		42305		37159	
4987381:EJK042-01		42110		39592	
Solvent					
IB		41698		36903	
4987381:EJK043-01		45355		42715	
CCV		41138		38042	
4987381:EJK044-01:100x		42946		39276	
4987381:EJK044-01:10x		49767		45231	
4987381:EJK044-01		40943		41637	
Solvent					
IB		41172		38761	
4987381:EJK045-01:100x		45895		41432	
4987381:EJK045-01:10x		45762		41948	
4987381:EJK045-01		42920		40222	
Solvent					
IB		43518		39387	
4987381:EJK046-01		54994		50890	
4987381:EJK047-01:100x		46281		42028	
4987381:EJK047-01:10x		50596		48154	
4987381:EJK047-01		42942		39361	
Solvent					
IB		42659		39465	
CCV		40743		38419	
4987381:EJK048-01:100x		44145		39357	
4987381:EJK048-01:10x		39281		38102	
4987381:EJK048-01		45448		42338	
Solvent				55	
IB		43536		39579	
4987381:EJK049-01		43607		39476	
4987381:EJK067-01		41653		38134	
4987381:EJL629-01		46939		42360	
CCV		41692		39372	
ISC			52291		45678
4987381:EJL629-01			55391		47642
4987381:EJK040-01			47419		41068
4987381:EJK047-01			44275		43032
4987381:EJK048-01			47898		42005
CCV			41318		35541

INJECTION INTERNAL STANDARD PEAK AREAS

Sample Name	Analyte	13C9-PFDA	13C9-PFDA
	Mass labeled IS	STD 4	ISC/CCV
	IS Area	30326	0
		IS Peak Area	IS Peak Area
STD 1		34910	
STD 2		30013	
STD 3		30408	
STD 4		30326	
STD 5		30382	
STD 6		30079	
IB		31030	
ICV		29337	
ISC		34716	
4987381:BLANK		32705	
4987381:SPIKE		31107	
4987381:MTRX SPK		31326	
4987381:MTRX SPK:D1		31181	
IB		31250	
4987381:EJK042-01:100x		33944	
4987381:EJK042-01:10x		30644	
4987381:EJK042-01		30860	
Solvent			
IB		31342	
4987381:EJL629-01		34475	
CCV		30050	

INJECTION INTERNAL STANDARD PEAK AREAS

Sample Name	Analyte	13C6-PFHxA	13C6-PFHxA	13C9-PFDA	13C9-PFDA
	Mass labeled IS	STD 4	ISC/CCV	STD 4	ISC/CCV
	IS Area	41209	0	34758	0
		IS Peak Area	IS Peak Area	IS Peak Area	IS Peak Area
STD 1		39675		32719	
STD 2		38322		32080	
STD 3		38750		32874	
STD 4		41209		34758	
STD 5		38631		34217	
STD 6		37794		31304	
IB1		38942		33090	
ICV		40193		32462	
ISC		39967		33451	
4987523:BLANK		40810		34738	
4987523:MTRX SPK		32426		31836	
4987523:MTRX SPK:D1		33314		31587	
IB1		37975		33240	
4987523:SPIKE		40753		33969	
4987523:EJE856-01:50x		39351		34098	
4987523:EJE856-01:10x		40648		34840	
Solvent					
IB1		38983		33629	
4987523:EJE857-01		41308		35902	
4987523:EJK088-01:10x		36991		31245	
4987523:EJK088-01		33533		32690	
IB1		38837		32992	
4987523:EJK089-01:100x		37688		32678	
4987523:EJK089-01:10x		36361		32329	
Solvent					
IB1		37115		32046	
4987523:EJK090-01		39990		34361	
4987523:EJK091-01		35876		30921	
CCV		39542		32524	
4987523:EJL630-01:50x		40287		34088	
4987523:EJL630-01:10x		39280		33580	
Solvent					
IB1		37552		32989	
4987523:EJU265-01		39203		32729	
4987523:EJU266-01		37848		32972	
4987523:EJU267-01		37159		32044	
4987523:EJU268-01		35509		30700	
4987523:EJU269-01		39480		34011	
4987523:EJU270-01		37921		31474	
4987523:EJU271-01		36138		30660	
CCV		40235		34266	
4987523:EJU272-01		38244		32173	
4987523:EJU273-01		39486		33405	
4987523:EJK088-01:R		35228		32453	
IB1:R		37656		32048	
4987523:EJK091-01:R		36016		30849	
4987523:MTRX SPK:R		33578		31834	
4987523:MTRX SPK:D1:R		34824		31017	
CCV		39559		33504	

INJECTION INTERNAL STANDARD PEAK AREAS

Sample Name	Analyte	13C9-PFDA	13C9-PFDA
	Mass labeled IS	STD 4	ISC/CCV
	IS Area	28523	0
		IS Peak Area	IS Peak Area
STD 1		27473	
STD 2		27168	
STD 3		26431	
STD 4		28523	
STD 5		27945	
STD 6		25916	
IB1		27515	
ICV		27217	
ISC		27268	
4987523:BLANK		28799	
4987523:MTRX SPK		26844	
4987523:MTRX SPK:D1		25915	
IB1		26993	
4987523:SPIKE		27900	
4987523:EJK088-01:10x		26916	
4987523:EJK088-01		26542	
IB1		27104	
4987523:EJL630-01:50x		28219	
4987523:EJL630-01:10x		29030	
Solvent			
IB1		27476	
CCV		28463	

Instrument Information

Project Name 20160717_62FTS
Instrument Name LCMS04
Instrument Model G6470A

Compound Name	Formula	Mass	Sample Position
62FTS	C8H5F13SO3	427.98	4

Method Name
D:\MassHunter\Methods\OPTMS2.m

Polarity Negative **Ion Source** AJS ESI

Precursor Ion	Fragmentor
426.97	166

Product Ion	Collision Energy	Abundance
406.9	24	7116
81	32	1280
259.4	28	57

Instrument Information

Project Name 20160717_82FTS
Instrument Name LCMS04
Instrument Model G6470A

Compound Name	Formula	Mass	Sample Position
82FTS	C10H5F17SO3	527.97	4

Method Name
D:\MassHunter\Methods\OPTMS2.m

Polarity Negative Ion Source AJS ESI

Precursor Ion	Fragmentor
526.96	99

Product Ion	Collision Energy	Abundance
506.8	28	3730
312.9	8	3719
268.9	20	3303
80.6	40	766
262.9	8	3602

Instrument Information

Project Name 20160717_EtFOSA
Instrument Name LCMS04
Instrument Model G6470A

Compound Name	Formula	Mass	Sample Position
EtFOSA	C10H6F17NO2S	526.98	4

Method Name
D:\MassHunter\Methods\OPTMS2.m

Polarity Negative Ion Source AJS ESI

Precursor Ion	Fragmentor
525.97	161

Product Ion	Collision Energy	Abundance
168.9	28	3632
218.9	28	3300
330.1	16	70

Instrument Information

Project Name 20160717_EtFOSAA
Instrument Name LCMS04
Instrument Model G6470A

Compound Name	Formula	Mass	Sample Position
EtFOSAA	C12H8F17NO4S	584.99	4

Method Name
D:\MassHunter\Methods\OPTMS2.m

Polarity Negative Ion Source AJS ESI

Precursor Ion	Fragmentor
583.98	129

Product Ion	Collision Energy	Abundance
525.9	20	3128
418.9	20	3851
482.9	16	2273
333.2	16	65

Instrument Information

Project Name PFC
Instrument Name LCMS04
Instrument Model G6470A

Compound Name	Formula	Mass	Sample Position
MeFOSE	C11H8F17NO3S	557	4

Method Name

D:\MassHunter\Methods\Training\TRAINING_OPTIMIZERMETHOD.m

Polarity Negative **Ion Source** AJS ESI

Precursor Ion	Fragmentor
616.01	105

Product Ion	Collision Energy	Abundance
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Compound Name	Formula	Mass	Sample Position
EtFOSE	C12H10F17NO3S	571.01	4

Method Name

D:\MassHunter\Methods\Training\TRAINING_OPTIMIZERMETHOD.m

Polarity Negative **Ion Source** AJS ESI

Precursor Ion	Fragmentor
630.02	110

Product Ion	Collision Energy	Abundance
59.1	12	1830

Instrument Information

Project Name 20160717_MeFOSA
Instrument Name LCMS04
Instrument Model G6470A

Compound Name	Formula	Mass	Sample Position
MeFOSA	C9H4F17NO2S	512.97	4

Method Name
D:\MassHunter\Methods\OPTMS2.m

Polarity Negative **Ion Source** AJS ESI

Precursor Ion	Fragmentor
511.96	161

Product Ion	Collision Energy	Abundance
168.9	28	4055
218.9	28	3101
320.1	36	59
323.7	28	60

Instrument Information

Project Name 20160717_MeFOSAA
Instrument Name LCMS04
Instrument Model G6470A

Compound Name	Formula	Mass	Sample Position
MeFOSAA	C11H6F17NO4S	570.97	4
Method Name			
D:\MassHunter\Methods\OPTMS2.m			
Polarity	Negative	Ion Source	AJS ESI
Precursor Ion		Fragmentor	
569.96		146	
Product Ion	Collision Energy	Abundance	
418.9	20	4256	
219	28	1643	
511.9	20	2047	
324.5	16	60	
482.9	16	2100	

Instrument Information

Project Name PFC
Instrument Name LCMS04
Instrument Model G6470A

Compound Name	Formula	Mass	Sample Position
MeFOSE	C11H8F17NO3S	557	4
Method Name			
D:\MassHunter\Methods\Training\TRAINING_OPTIMIZERMETHOD.m			
Polarity	Negative	Ion Source	AJS ESI
Precursor Ion	Fragmentor		
616	105		
Product Ion	Collision Energy	Abundance	
59	16	3078	

Instrument Information

Project Name 20160714_PFBA_2
Instrument Name LCMS04
Instrument Model G6470A

Compound Name	Formula	Mass	Sample Position
PFBA	C4HF7O2	213.99	5
Method Name			
D:\MassHunter\Methods\OPTMS2.m			
Polarity	Negative	Ion Source	AJS ESI
Precursor Ion	Fragmentor		
212.98	65		
Product Ion	Collision Energy	Abundance	
169	8	70944	

Instrument Information

Project Name 20160717_PFB
Instrument Name LCMS04
Instrument Model G6470A

Compound Name	Formula	Mass	Sample Position
PFBS	C4HF9SO3	299.95	4
Method Name			
D:\MassHunter\Methods\OPTMS2.m			
Polarity	Negative	Ion Source	AJS ESI
Precursor Ion		Fragmentor	
298.94		141	
Product Ion	Collision Energy	Abundance	
79.9	40	32590	
98.9	36	13823	
229.9	40	75	
283	20	1678	

Instrument Information

Project Name 20160715_PFDA
Instrument Name LCMS04
Instrument Model G6470A

Compound Name	Formula	Mass	Sample Position
PFDA	C10HF19O2	513.97	4

Method Name
D:\MassHunter\Methods\OPTMS2.m

Polarity Negative Ion Source AJS ESI

Precursor Ion	Fragmentor
512.96	92

Product Ion	Collision Energy	Abundance
468.9	8	35209
218.9	16	6600
268.9	20	6243
168.9	24	3104
310	28	61

Instrument Information

Project Name 20160715_PFD0A
Instrument Name LCMS04
Instrument Model G6470A

Compound Name	Formula	Mass	Sample Position
PFD0A	C12HF23O2	613.96	4
Method Name			
D:\MassHunter\Methods\OPTMS2.m			
Polarity	Negative	Ion Source	AJS ESI
Precursor Ion		Fragmentor	
612.95		102	
Product Ion	Collision Energy	Abundance	
568.9	8	32939	
168.9	28	3518	
268.9	20	3527	
318.9	20	4039	
219	24	2635	

Instrument Information

Project Name 20160717_PFDS
Instrument Name LCMS04
Instrument Model G6470A

Compound Name	Formula	Mass	Sample Position
PFDS	C10HF21SO3	599.93	4
Method Name			
D:\MassHunter\Methods\OPTMS2.m			
Polarity	Negative	Ion Source	AJS ESI
Precursor Ion		Fragmentor	
598.92		225	
Product Ion	Collision Energy	Abundance	
80	50	4590	
98.9	50	3531	

Instrument Information

Project Name 20160715_PFHpA
Instrument Name LCMS04
Instrument Model G6470A

Compound Name	Formula	Mass	Sample Position
PFHpA	C7HF13O2	363.98	4

Method Name
D:\MassHunter\Methods\OPTMS2.m

Polarity Negative Ion Source AJS ESI

Precursor Ion	Fragmentor
362.97	80

Product Ion	Collision Energy	Abundance
318.9	8	72791
169	16	15498
119	20	3782

Instrument Information

Project Name 20160714_PFHpS_2
Instrument Name LCMS04
Instrument Model G6470A

Compound Name	Formula	Mass	Sample Position
PFHpS	C7HF15O3S	449.94	5

Method Name
D:\MassHunter\Methods\OPTMS2.m

Polarity Negative Ion Source AJS ESI

Precursor Ion	Fragmentor
448.93	173

Product Ion	Collision Energy	Abundance
79.9	50	13175
98.9	40	6884
306.9	16	66

Instrument Information

Project Name 20160715_PFHxA
Instrument Name LCMS04
Instrument Model G6470A

Compound Name	Formula	Mass	Sample Position
PFHxA	C6HF11O2	313.98	5
Method Name			
D:\MassHunter\Methods\OPTMS2.m			
Polarity	Negative	Ion Source	AJS ESI
Precursor Ion		Fragmentor	
312.97		77	
Product Ion	Collision Energy	Abundance	
91	12	44111	
75	50	29361	
268.9	4	78533	
297	4	16687	
118.9	20	3423	

Instrument Information

Project Name 20160717_PFHxS
Instrument Name LCMS04
Instrument Model G6470A

Compound Name	Formula	Mass	Sample Position
PFHxS	C6HF13SO3	399.94	4

Method Name
D:\MassHunter\Methods\OPTMS2.m

Polarity Negative **Ion Source** AJS ESI

Precursor Ion	Fragmentor
398.93	166

Product Ion	Collision Energy	Abundance
79.9	48	17395
98.9	44	8734
294.6	32	65

Instrument Information

Project Name 20160715_PFNA
Instrument Name LCMS04
Instrument Model G6470A

Compound Name	Formula	Mass	Sample Position
PFNA	C9HF17O2	463.97	4

Method Name
D:\MassHunter\Methods\OPTMS2.m

Polarity Negative **Ion Source** AJS ESI

Precursor Ion	Fragmentor
462.96	87

Product Ion	Collision Energy	Abundance
418.9	8	40277
218.9	16	9116
169	20	6490
268.9	16	2351

Instrument Information

Project Name 20160714_PFOA_2
Instrument Name LCMS04
Instrument Model G6470A

Compound Name	Formula	Mass	Sample Position
PFOA	C8HF15O2	413.97	5
Method Name			
D:\MassHunter\Methods\OPTMS2.m			
Polarity	Negative	Ion Source	AJS ESI
Precursor Ion	Fragmentor		
412.96	77		
Product Ion	Collision Energy	Abundance	
368.9	8	58745	
169	16	15403	
219	16	6039	
259.4	28	70	

Instrument Information

Project Name 20160714_PFOS_2
Instrument Name LCMS04
Instrument Model G6470A

Compound Name	Formula	Mass	Sample Position
PFOS	C8F17SO3H	499.94	5
Method Name			
D:\MassHunter\Methods\OPTMS2.m			
Polarity	Negative	Ion Source	AJS ESI
Precursor Ion		Fragmentor	
498.93		193	
Product Ion	Collision Energy	Abundance	
79.9	50	10659	
98.9	50	5106	
330.9	24	71	
129.9	48	1468	
168.9	40	1576	

Instrument Information

Project Name 20160717_PFOA
Instrument Name LCMS04
Instrument Model G6470A

Compound Name	Formula	Mass	Sample Position
PFOA	C8H2F17NO2S	498.95	4
Method Name			
D:\MassHunter\Methods\OPTMS2.m			
Polarity	Negative	Ion Source	AJS ESI
Precursor Ion		Fragmentor	
497.94		166	
Product Ion	Collision Energy	Abundance	
77.9	36	20008	

Instrument Information

Project Name 20160715_PFPeA
Instrument Name LCMS04
Instrument Model G6470A

Compound Name	Formula	Mass	Sample Position
PFPeA	C5HF9O2	263.98	5

Method Name
D:\MassHunter\Methods\OPTMS2.m

Polarity Negative Ion Source AJS ESI

Precursor Ion	Fragmentor
262.97	70

Product Ion	Collision Energy	Abundance
219	4	62683

Instrument Information

Project Name 20160715_PFDTeDA
Instrument Name LCMS04
Instrument Model G6470A

Compound Name	Formula	Mass	Sample Position
PFTeDA	C14HF27O2	713.95	4

Method Name
D:\MassHunter\Methods\OPTMS2.m

Polarity Negative Ion Source AJS ESI

Precursor Ion	Fragmentor
712.94	109

Product Ion	Collision Energy	Abundance
668.9	12	31891
168.9	28	2814
218.9	24	1815
318.9	24	1931
269	24	1919

Instrument Information

Project Name 20160715_PFDTrDA
Instrument Name LCMS04
Instrument Model G6470A

Compound Name	Formula	Mass	Sample Position
PFDTrDA	C13HF25O2	663.96	4

Method Name
D:\MassHunter\Methods\OPTMS2.m

Polarity Negative Ion Source AJS ESI

Precursor Ion	Fragmentor
662.95	107

Product Ion	Collision Energy	Abundance
618.9	12	32499
168.9	28	3220
318.9	20	3010
218.9	24	2362
268.9	20	2405

Instrument Information

Project Name 20160715_PFUdA
Instrument Name LCMS04
Instrument Model G6470A

Compound Name	Formula	Mass	Sample Position
PFUdA	C11HF21O2	563.96	4

Method Name
D:\MassHunter\Methods\OPTMS2.m

Polarity Negative Ion Source AJS ESI

Precursor Ion	Fragmentor
562.95	97

Product Ion	Collision Energy	Abundance
518.9	8	33236
268.9	20	5518
318.9	20	3629
169	28	2971
218.9	20	3484

Instrument Information

Project Name PFC
Instrument Name LCMS04
Instrument Model G6470A

Compound Name	Formula	Mass	Sample Position
D7-MeFOSE	C11[2H]7HF17NO3S	564.04	5

Method Name

D:\MassHunter\Methods\Training\TRAINING_OPTIMIZERMETHOD.m

Polarity Negative **Ion Source** AJS ESI

Precursor Ion	Fragmentor
623.05	110

Product Ion	Collision Energy	Abundance
59	12	4186

Compound Name	Formula	Mass	Sample Position
D9-EtFOSE	C12[2H]H3F17NO3S	565.97	5

Method Name

D:\MassHunter\Methods\Training\TRAINING_OPTIMIZERMETHOD.m

Polarity Negative **Ion Source** AJS ESI

Precursor Ion	Fragmentor
564.96	100

Product Ion	Collision Energy	Abundance
519.9	8	25550
325.1	36	77

Instrument Information

Project Name PFC
Instrument Name LCMS04
Instrument Model G6470A

Compound Name	Formula	Mass	Sample Position
D9-EtFOSE	C12[2H]9HF17NO3S	580.07	5

Method Name
D:\MassHunter\Methods\Training\TRAINING_OPTIMIZERMETHOD.m

Polarity Negative Ion Source AJS ESI

Precursor Ion	Fragmentor
639.08	105

Product Ion	Collision Energy	Abundance
59.1	12	3498

Instrument Information

Project Name 20160717_MPFBA
Instrument Name LCMS04
Instrument Model G6470A

Compound Name	Formula	Mass	Sample Position
MPFBA		218	5
Method Name			
D:\MassHunter\Methods\OPTMS2.m			
Polarity	Negative	Ion Source	AJS ESI
Precursor Ion		Fragmentor	
216.99		65	
Product Ion	Collision Energy		Abundance
172	8		113906

Instrument Information

Project Name 20160717_MPFHpA
Instrument Name LCMS04
Instrument Model G6470A

Compound Name	Formula	Mass	Sample Position
MPFHpA		368	5
Method Name			
D:\MassHunter\Methods\OPTMS2.m			
Polarity	Negative	Ion Source	AJS ESI
Precursor Ion	Fragmentor		
366.99	72		
Product Ion	Collision Energy	Abundance	
321.9	8	81515	
168.9	16	8787	
172	16	8726	
120.9	24	1952	
119	24	2160	

Instrument Information

Project Name 20160717_MPFHxA
Instrument Name LCMS04
Instrument Model G6470A

Compound Name	Formula	Mass	Sample Position
MPFHxA		316	5
Method Name			
D:\MassHunter\Methods\OPTMS2.m			
Polarity	Negative	Ion Source	AJS ESI
Precursor Ion	Fragmentor		
314.99	75		
Product Ion	Collision Energy	Abundance	
269.9	4	108012	
119	20	2381	
120	20	2279	
181.4	32	59	

Instrument Information

Project Name 20160717_MPFHxS
Instrument Name LCMS04
Instrument Model G6470A

Compound Name	Formula	Mass	Sample Position
MPFHxS		404	5
Method Name			
D:\MassHunter\Methods\OPTMS2.m			
Polarity	Negative	Ion Source	AJS ESI
Precursor Ion	Fragmentor		
402.99	161		
Product Ion	Collision Energy	Abundance	
83.9	50	14262	
102.9	44	6640	
264	8	58	

Instrument Information

Project Name PFC
Instrument Name LCMS04
Instrument Model G6470A

Compound Name	Formula	Mass	Sample Position
MPFOA	[13C]4C4HF15O2	417.99	5

Method Name
D:\MassHunter\Methods\Training\TRAINING_OPTIMIZERMETHOD.m

Polarity Negative Ion Source AJS ESI

Precursor Ion	Fragmentor
416.98	80

Product Ion	Collision Energy	Abundance
371.9	8	32831
59.1	20	1849
214.7	52	59
172	20	5208



Instrument Information

Project Name PFC
Instrument Name LCMS04
Instrument Model G6470A

Compound Name	Formula	Mass	Sample Position
MPFOA	[13C]2C6HF15O2	415.98	5

Method Name

D:\MassHunter\Methods\Training\TRAINING_OPTIMIZERMETHOD.m

Polarity Negative Ion Source AJS ESI

Precursor Ion	Fragmentor
414.97	80

Product Ion	Collision Energy	Abundance
238.3	52	71

Compound Name	Formula	Mass	Sample Position
MPFOS	[13C]4C4HF17SO3	503.95	5

Method Name

D:\MassHunter\Methods\Training\TRAINING_OPTIMIZERMETHOD.m

Polarity Negative Ion Source AJS ESI

Precursor Ion	Fragmentor
502.94	180

Product Ion	Collision Energy	Abundance
79.9	52	11376
98.9	48	5944

Compound Name	Formula	Mass	Sample Position
MPFNA	[13C]5C4HF17O2	468.99	5

Method Name

D:\MassHunter\Methods\Training\TRAINING_OPTIMIZERMETHOD.m

Polarity Negative Ion Source AJS ESI

Precursor Ion	Fragmentor
467.98	85

Product Ion	Collision Energy	Abundance
422.9	8	31873
223	16	4309
172	20	3015
218.9	16	4034

Compound Name	Formula	Mass	Sample Position
MPFDA	[13C]2C8HF19O2	515.97	5

Method Name

D:\MassHunter\Methods\Training\TRAINING_OPTIMIZERMETHOD.m

Polarity Negative **Ion Source** AJS ESI

Precursor Ion	Fragmentor
514.96	105

Product Ion	Collision Energy	Abundance
469.9	8	25947
218.9	24	2642
168.9	32	3937
311.4	36	79

Instrument Information

Project Name 20160717_MPFPeA
Instrument Name LCMS04
Instrument Model G6470A

Compound Name	Formula	Mass	Sample Position
MPFPeA		269	5
Method Name			
D:\MassHunter\Methods\OPTMS2.m			
Polarity	Negative	Ion Source	AJS ESI
Precursor Ion		Fragmentor	
267.99		70	
Product Ion	Collision Energy		Abundance
223	4		78853



Instrument Information

Project Name PFC
Instrument Name LCMS04
Instrument Model G6470A

Compound Name	Formula	Mass	Sample Position
MPFUnA	[13C]2C9HF21O2	565.97	5

Method Name

D:\MassHunter\Methods\Training\TRAINING_OPTIMIZERMETHOD.m

Polarity Negative Ion Source AJS ESI

Precursor Ion	Fragmentor
564.96	95

Product Ion	Collision Energy	Abundance
519.9	8	25635
326.5	20	67
320	20	1575

Compound Name	Formula	Mass	Sample Position
MPFDoA	[13C]2C10HF23O2	615.97	5

Method Name

D:\MassHunter\Methods\Training\TRAINING_OPTIMIZERMETHOD.m

Polarity Negative Ion Source AJS ESI

Precursor Ion	Fragmentor
614.96	100

Product Ion	Collision Energy	Abundance
569.9	8	31775
356	60	64

Compound Name	Formula	Mass	Sample Position
MPFTeDA	[13C]2C12HF27O2	715.96	5

Method Name

D:\MassHunter\Methods\Training\TRAINING_OPTIMIZERMETHOD.m

Polarity Negative Ion Source AJS ESI

Precursor Ion	Fragmentor
714.95	105

Product Ion	Collision Energy	Abundance
669.9	12	25198
401.3	28	65

Compound Name	Formula	Mass	Sample Position
MPFOSA	[13C]8H2F17NO2S	506.98	5
Method Name			
D:\MassHunter\Methods\Training\TRAINING_OPTIMIZERMETHOD.m			
Polarity	Negative	Ion Source	AJS ESI
Precursor Ion		Fragmentor	
505.97		165	
Product Ion	Collision Energy		Abundance
77.9	36		17600

Compound Name	Formula	Mass	Sample Position
D3-MeFOSA	C9[2H]3HF17NO2S	515.99	5
Method Name			
D:\MassHunter\Methods\Training\TRAINING_OPTIMIZERMETHOD.m			
Polarity	Negative	Ion Source	AJS ESI
Precursor Ion		Fragmentor	
514.98		100	
Product Ion	Collision Energy		Abundance
469.9	8		23716
219	24		4049
168.9	28		3842
311.2	24		84

Compound Name	Formula	Mass	Sample Position
D5-EtFOSA	C10[2H]5HF17NO2S	532.02	5
Method Name			
D:\MassHunter\Methods\Training\TRAINING_OPTIMIZERMETHOD.m			
Polarity	Negative	Ion Source	AJS ESI
Precursor Ion		Fragmentor	
531.01		145	
Product Ion	Collision Energy		Abundance
169	32		3785
322.8	44		84

Compound Name	Formula	Mass	Sample Position
D3-MeFOSAA	C11[2H]3H3F17NO4S	573.99	5
Method Name			
D:\MassHunter\Methods\Training\TRAINING_OPTIMIZERMETHOD.m			
Polarity	Negative	Ion Source	AJS ESI
Precursor Ion		Fragmentor	
572.98		125	
Product Ion	Collision Energy	Abundance	
418.9	20	3483	
325.2	64	68	

Compound Name	Formula	Mass	Sample Position
D5-EtFOSAA	C12[2H]5H3F17NO4S	590.02	5
Method Name			
D:\MassHunter\Methods\Training\TRAINING_OPTIMIZERMETHOD.m			
Polarity	Negative	Ion Source	AJS ESI
Precursor Ion		Fragmentor	
589.01		135	
Product Ion	Collision Energy	Abundance	
418.9	20	3246	
531	20	2445	
334.3	36	62	

Compound Name	Formula	Mass	Sample Position
M2-6-2FTS	[13C]2C6H5F13SO3	429.98	5
Method Name			
D:\MassHunter\Methods\Training\TRAINING_OPTIMIZERMETHOD.m			
Polarity	Negative	Ion Source	AJS ESI
Precursor Ion		Fragmentor	
428.97		155	
Product Ion	Collision Energy	Abundance	
80.5	40	520	
248.6	20	67	

Compound Name	Formula	Mass	Sample Position
M2-8-2FTS	[13C]2C8H5F17SO3	529.98	5
Method Name			
D:\MassHunter\Methods\Training\TRAINING_OPTIMIZERMETHOD.m			
Polarity	Negative	Ion Source	AJS ESI
Precursor Ion		Fragmentor	
528.97		190	
Product Ion	Collision Energy	Abundance	
80.9	40	551	
508.9	32	2346	

Compound Name	Formula	Mass	Sample Position
13C6-PFHxA	[13C]6HF11O2	320	5
Method Name			
D:\MassHunter\Methods\Training\TRAINING_OPTIMIZERMETHOD.m			
Polarity	Negative	Ion Source	AJS ESI
Precursor Ion		Fragmentor	
318.99		75	
Product Ion	Collision Energy		Abundance
273.9	4		70123
121	24		2803

Compound Name	Formula	Mass	Sample Position
13C9-PFDA	[13C]9CHF19O2	523	5
Method Name			
D:\MassHunter\Methods\Training\TRAINING_OPTIMIZERMETHOD.m			
Polarity	Negative	Ion Source	AJS ESI
Precursor Ion		Fragmentor	
521.99		90	
Product Ion	Collision Energy		Abundance
476.9	8		20910
223	16		2036
273.4	16		885
221.9	16		2316

Date received: 2017/05/08
4x4L 5.3

3050 Spruce Street, Saint Louis, MO 63103, USA

Website: www.sigmaaldrich.com

Email USA: techserv@sial.com

Outside USA: eurtechserv@sial.com

Certificate of Analysis

Product Name:

Methanol - for HPLC, ≥99.9%



Product Number: 34860
Batch Number: SHBG9002V
Brand: SIGALD
CAS Number: 67-56-1
MDL Number: MFCD00004595
Formula: CH₄O
Formula Weight: 32.04 g/mol
Quality Release Date: 02 FEB 2016
Expiration Date: JAN 2021

Test	Specification	Result
Appearance (Color)	Colorless	Colorless
Appearance (Form)	Liquid	Liquid
UV Absorbance 400nm	≤ 0.01	< 0.01
UV Absorbance 280nm	≤ 0.01	< 0.01
UV Absorbance 260nm	≤ 0.04	< 0.01
UV Absorbance 240nm	≤ 0.10	0.03
UV Absorbance 235nm	≤ 0.10	0.05
UV Absorbance 230nm	≤ 0.20	0.09
UV Absorbance 220nm	≤ 0.30	0.19
UV Absorbance 210nm	≤ 0.60	0.39
UV Absorbance 205nm	≤ 1.00	0.66
Fluorescence 254nm	≤ 1.0 ppb	< 0.1 ppb
Fluorescence 365nm	≤ 1.0 ppb	< 0.1 ppb
Purity (GC)	≥ 99.90 %	99.93 %
Color Test	≤ 10 APHA	< 10 APHA
Water (by Karl Fischer)	≤ 0.03 %	< 0.01 %
Residue on Evaporation	≤ 0.0005 %	0.0001 %
Expiration Date Period 1800 Days	-----	-----

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.

3050 Spruce Street, Saint Louis, MO 63103, USA

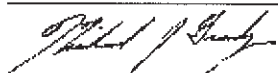
Website: www.sigmaaldrich.com

Email USA: techserv@sial.com

Outside USA: eurtechserv@sial.com

Certificate of Analysis

Product Number: 34860
Batch Number: SHBG9002V



Michael Grady, Manager
Quality Control
Sheboygan Falls, WI US

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REAGENT PREPARATION FORM

SOLUTION # 61 REPLACED SOLUTION # 57 REPLACED BY: 65 ANALYST LOV
REAGENT NAME: 0.2% NH₄OH TEST/ANALYSIS: PFCs DATE PREPARED: 2017/05/04
EXPIRY DATE Daily SOLVENT USED: See Below FINAL VOLUME 1L SUPPLIER Aldrich OVEN NO. & TEMP -
FINAL CONC.: 0.2:99.8 DATE SOLVENT OPENED: See Below STORAGE: - BALANCE ID: - PIPET/SYRINGE ID: N31477F

CHEMICAL NAME	VOLUME/WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
NH ₄ OH	2ml	2015/07/17	2016/05/03	Fisher	146981	2010/03/31
MeOH	998uL	2017/05/03	2017/05/04	Aldrich	SHBH 7061	2021/10/31

NOTES:

1L class A cylinder (3062)

SOLUTION # 62 REPLACED SOLUTION # PRLRE 92-389 REPLACED BY: 74 ANALYSTS LOV
REAGENT NAME: 70:30 (MeOH:H₂O) TEST/ANALYSIS: PFCs DATE PREPARED: 2017/05/04
EXPIRY DATE 2017/07/04 SOLVENT USED: H₂O/MeOH FINAL VOLUME: 1L SUPPLIER See Below OVEN NO. & TEMP -
FINAL CONC: 70:30 DATE SOLVENT OPENED: See Below STORAGE: shelf BALANCE ID: - PIPET/SYRINGE ID: -

CHEMICAL NAME	VOLUME/WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
Reagent H ₂ O	300ml	2017/05/02	2017/05/04	Omniv	56190	2017/07/31
MeOH	700ml	2017/05/03	2017/05/04	Aldrich	SHBH 7061	2021/10/31

NOTES:

1L class A cylinder (3062)

DO NOT WRITE BENEATH ANY INSERTS OR PLACE ANY INSERTS ON TOP OF ANY RAW DATA ENTERED ON THIS PAGE. INITIAL AND DATE ALL ENTRIES, CORRECTIONS AND INSERTS. INCLUDE ALL RELEVANT TRACEABLE REFERENCES ON ALL INSERTS. ONLY CLASS A GLASSWARE IS USED FOR THE PREPARATION OF REAGENTS WHEN APPLICABLE.

Certificate of Analysis



Date of Release: 7/5/2016
 Name: Water
 OmniSolv®, For LC/MS
 Item No: WX0001 all size codes
 Lot / Batch No: 56190
 Country of Origin: USA

Characteristic	Requirement		Results	Units
	Min.	Max.		
Expiration date			31-JUL-2017	
Filtered through 0.2 µm filter			Passes test	
Fluorescence as quinine at 254 nm		1	< 1	pob
Fluorescence as quinine at 365 nm		1	< 1	pob
Gradient at 210 nm		2	0.25	mAU
Gradient at 254 nm		0.5	0.06	mAU
LC/MS Purity (p-nitrophenol)		50	<50	pob
LC/MS Purity (reserpine)		50	<50	pob
Metals, suitable for LC/MS			Conforms	
Residue after evaporation		1	0.5	ppm
UV Abs. at 200 nm		0.01	< 0.001	AU
UV Abs. at 210 nm		0.01	< 0.001	AU
UV Abs. at 220 nm		0.01	< 0.001	AU
UV Abs. at 230 nm		0.01	< 0.001	AU
UV Abs. at 240 nm		0.01	< 0.001	AU
UV Abs. at 250 nm		0.005	< 0.001	AU
UV Abs. at 270 nm		0.005	< 0.001	AU
UV Abs. at 400-280 nm		0.005	< 0.001	AU
UV Cut-off		190	185.0	nm

Gene Desroselle

Quality Control Manager

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EMD Millipore is a division of Merck KGaA, Darmstadt, Germany
 EMD Millipore Corporation
 290 Concord Road
 Billerica, MA 01821
 U.S.A

1/1

Date received 2016/08/10 8x4L HPLC
 Date Received: 2016.09.12 1 x 4L - P4
 Date Received: 2017.01.10 - 2 bottles - HPLC
 Date Received: 2017/01/17-EH1-4x4L-HPLC
 Date Received 2017/02/13 -NTS 4 x 4L HPLC
 Date Received 2017/02/15 -NTS 8 x 4L HPLC
 Date Received: 2017.02.09 - 4 bottles - HPLC
 Date Received: 2017.02.21 - 4 bottles - HPLC
 Date Received: 2017.02.27 - 4 bottles - HPLC
 Date Received: 2017.03.09 - 4 bottles - HPLC
 Date Received: 2017.03.16 - 2 bottles - HPLC
 Date Received: 2017.04.22 - 4 bottles - HPLC
 Date Received: 2017.04.25 - 4 bottles - HPLC
 Date Received: 2017.05.02 - 8 bottles - HPLC

3050 Spruce Street, Saint Louis, MO 63103, USA

Website: www.sigmaaldrich.comEmail USA: techserv@sigmaaldrich.comOutside USA: eurtechserv@sigmaaldrich.com

Certificate of Analysis

Product Name:

Methanol - for HPLC, ≥99.9%

CH₃OH

Product Number:

34860

Batch Number:

SHBH7061

Brand:

SIGALD

CAS Number:

67-56-1

MDL Number:

MFC00004595

Formula:

CH₄O

Formula Weight:

32.04 g/mol

Quality Release Date:

15 NOV 2016

Expiration Date:

OCT 2021

Received
2016-12-15
BX42
P4 (HPLC)
shelf

Test	Specification	Result
Appearance (Color)	Colorless	Colorless
Appearance (Form)	Liquid	Liquid
UV Absorbance 400nm	≤ 0.01	< 0.01
UV Absorbance 280nm	≤ 0.01	< 0.01
UV Absorbance 260nm	≤ 0.04	< 0.01
UV Absorbance 240nm	≤ 0.10	0.03
UV Absorbance 235nm	≤ 0.10	0.05
UV Absorbance 230nm	≤ 0.20	0.07
UV Absorbance 220nm	≤ 0.30	0.15
UV Absorbance 210nm	≤ 0.80	0.35
UV Absorbance 205nm	≤ 1.00	0.70
Fluorescence 254nm	≤ 1.0 ppb	< 0.1 ppb
Fluorescence 365nm	≤ 1.0 ppb	< 0.1 ppb
Purity (GC)	≥ 99.90 %	100.00 %
Color Test	≤ 10 APHA	< 5 APHA
Water (by Karl Fischer)	≤ 0.03 %	< 0.01 %
Residue on Evaporation	≤ 0.0005 %	< 0.0001 %
Expiration Date Period		
1800 Days		

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.

Version Number: 1

Page 1 of 2

Date received: 2017/02/15 NTS - 8x4L (HPLC)

Date Received: 2017/01/05-EH1-4x4L-HPLC

Date Received 2017/01/19 -NTS 4 x 4L HPLC, JDA 8X4L-LC group

Date Received: 2017.02.01 - 4 x 4L - HPLC Main Lab

Date Received: 2017.03.09 - 8 x 4L - HPLC

Date Received: 2017.04.05 - 4 x 4L - HPLC

Date Received: 2017.05.03 - 4 x 4L -HPLC

Maxxam Analytics

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REAGENT PREPARATION FORM

SOLUTION # 73 REPLACED SOLUTION # 63 REPLACED BY: 102 ANALYST LEV
 REAGENT NAME: 60:40 H₂O: MeOH TEST/ANALYSIS: PFCs DATE PREPARED: 2017/05/09
 EXPIRY DATE 2017/07/09 SOLVENT USED: H₂O, MeOH FINAL VOLUME 1L SUPPLIER See Below OVEN NO. & TEMP -
 FINAL CONC.: 60:40 DATE SOLVENT OPENED: See Below STORAGE: Shelf BALANCE ID: - PIPET/SYRINGE ID: -

CHEMICAL NAME	VOLUME/WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
Reagent H ₂ O	600 ml	2017/05/02	2017/05/09	Omni	56190	2017/07/31
MeOH	400 ml	2017/04/27	2017/05/09	Aldrich	SHBH 9776	2022/02/28

NOTES:

1L Class A cylinder (3062)

SOLUTION # 74 REPLACED SOLUTION # 62 REPLACED BY: 100 ANALYSTS LEV
 REAGENT NAME: 70:30 MeOH:H₂O TEST/ANALYSIS: PFCs DATE PREPARED: 2017/05/09
 EXPIRY DATE 2017/07/09 SOLVENT USED: MeOH, H₂O FINAL VOLUME: 1L SUPPLIER See Below OVEN NO. & TEMP -
 FINAL CONC.: 70:30 DATE SOLVENT OPENED: See Below STORAGE: Shelf BALANCE ID: - PIPET/SYRINGE ID: -

CHEMICAL NAME	VOLUME/WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
MeOH	700 ml	2017/04/27	2017/05/09	Aldrich	SHBH 9776	2022/02/28
H ₂ O (Reagent)	300 ml	2017/05/02	2017/05/09	Omni	56190	2017/07/31

NOTES:

1L Class A cylinder (3062)

Certificate of Analysis



Date of Release: 7/8/2016
 Name: Water
 OmniSolv®, For LC/MS
 Item No: WX0001 all size codes
 Lot / Batch No: 56190
 Country of Origin: USA

Characteristic	Requirement		Results	Units
	Min.	Max.		
#Expiration date			31-JUL-2017	
Filtered through 0.2 µm filter			Passes test	
Fluorescence as quinine at 254 nm		1	< 1	pob
Fluorescence as quinine at 365 nm		1	< 1	pob
Gradient at 210 nm		2	0.25	mAU
Gradient at 254 nm		0.5	0.06	mAU
LC/MS Purity (p-nitrophenol)		50	<50	pob
LC/MS Purity (reserpine)		50	<50	pob
Metals, suitable for LC/MS			Conforms	
Residue after evaporation		1	0.5	ppm
UV Abs. at 200 nm		0.01	< 0.001	AU
UV Abs. at 210 nm		0.01	< 0.001	AU
UV Abs. at 220 nm		0.01	< 0.001	AU
UV Abs. at 230 nm		0.01	< 0.001	AU
UV Abs. at 240 nm		0.01	< 0.001	AU
UV Abs. at 250 nm		0.005	< 0.001	AU
UV Abs. at 270 nm		0.005	< 0.001	AU
UV Abs. at 400-280 nm		0.005	< 0.001	AU
UV Cut-off		190	185.0	nm

Gene Desotelle

Quality Control Manager

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EMD Millipore is a division of Merck KGaA, Darmstadt, Germany
 EMD Millipore Corporation
 290 Concord Road
 Billerica, MA 01821
 U.S.A

1/1

Date received 2016/08/10 8x4L HPLC
 Date Received: 2016.09.12 1 x 4L - P4
 Date Received: 2017.01.10 - 2 bottles - HPLC
 Date Received: 2017/01/17-EH1-4x4L-HPLC
 Date Received 2017/02/13 -NTS 4 x 4L HPLC
 Date Received 2017/02/15 -NTS 8 x 4L HPLC
 Date Received: 2017.02.09 - 4 bottles - HPLC
 Date Received: 2017.02.21 - 4 bottles - HPLC
 Date Received: 2017.02.27 - 4 bottles - HPLC
 Date Received: 2017.03.09 - 4 bottles - HPLC
 Date Received: 2017.03.16 - 2 bottles - HPLC
 Date Received: 2017.04.22 - 4 bottles - HPLC
 Date Received: 2017.04.25 - 4 bottles - HPLC
 Date Received: 2017.05.02 - 8 bottles - HPLC

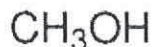
Maxxam Analytics

320 of 641

Certificate of Analysis

Product Name:

Methanol - for HPLC, ≥99.9%



Product Number:

34860

Batch Number:

SHBH9776

Brand:

SIGALD

CAS Number:

67-56-1

MDL Number:

MFCC00004595

Formula:

CH₄O

Formula Weight:

32.04 g/mol

Quality Release Date:

25 FEB 2017

Expiration Date:

FEB 2022

Received from
2017/02/17
8 x 4L - HPLC

Test	Specification	Result
Appearance (Color)	Colorless	Colorless
Appearance (Form)	Liquid	Liquid
UV Absorbance 400nm	≤ 0.01	< 0.01
UV Absorbance 290nm	≤ 0.01	< 0.01
UV Absorbance 260nm	≤ 0.04	0.01
UV Absorbance 240nm	≤ 0.10	0.03
UV Absorbance 235nm	≤ 0.10	0.05
UV Absorbance 230nm	≤ 0.20	0.08
UV Absorbance 220nm	≤ 0.30	0.16
UV Absorbance 210nm	≤ 0.60	0.35
UV Absorbance 205nm	≤ 1.00	0.64
Fluorescence 254nm	≤ 1.0 ppb	< 0.1 ppb
Fluorescence 365nm	≤ 1.0 ppb	< 0.1 ppb
Purity (GC)	≥ 99.90 %	100.00 %
Color Test	≤ 10 APHA	< 5 APHA
Water (by Karl Fischer)	≤ 0.03 %	< 0.01 %
Residue on Evaporation	≤ 0.0005 %	< 0.0001 %
Expiration Date Period		
1800 Days		

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.

Version Number: 1

Page 1 of 2

Date Received: 2017.04.05 - 4 x 4L - HPLC
 Date Received: 2017.04.22 - 4 x 4L - HPLC
 Date Received: 2017.04.27 - 8 x 4L - HPLC
 Date Received: 2017.05.30 - 4 x 4L - HPLC Main Lab
 Date Received: 2017.06.02 - 4 x 4L - HPLC Main Lab

REAGENT PREPARATION FORM

SOLUTION # 85 REPLACED SOLUTION # 42 REPLACED BY: 103 ANALYST RP7
 REAGENT NAME: 21 formic acid TEST/ANALYSIS: PFO5 DATE PREPARED: 2017/05/12
 EXPIRY DATE 2017/07/12 SOLVENT USED: Reagent H₂O FINAL VOLUME 1L SUPPLIER Omnisciv OVEN NO. & TEMP -
 FINAL CONC.: 2.98 v/v DATE SOLVENT OPENED: See below STORAGE: Shelf BALANCE ID: N19320D
 (PIPET/SYRINGE ID: _____)

CHEMICAL NAME	VOLUME/WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
Reagent H ₂ O	980 ml	2017/05/10	2017/05/12	Omnisciv	56218	2017/08/31
Formic acid	20 ml	2016/12/12	2017/01/09	Aktech	SHBH 4476V	2017/09/30
RP7 2017/05/12						

NOTES:

1 L class A cylinder (3062)

Certificate of Analysis



Date of Release: 8/4/2016

Name: Water
Omnisolv®, For LC/MS

Item No: WXX0001 all size codes

Lot / Batch No: 56218

Country of Origin: USA

Characteristic	Requirement		Results	Units
	Min.	Max.		
Expiration date			31-AUG-2017	
Evaporation residue		1	<0.1	ppm
Filtered through: 0.2 µm filter			Passes test	
Fluorescence as quinine at 254 nm		1	< 1	ppb
Fluorescence as quinine at 365 nm		1	< 1	ppb
Gradient at 210 nm		2	0.10	mAU
Gradient at 254 nm		0.5	0.07	mAU
LC/MS Purity (p-nitrophenol)		50	<50	ppb
LC/MS Purity (reserpine)		50	<50	ppb
Metals, suitable for LC/MS			Conforms	
UV Abs. at 200 nm		0.01	< 0.001	AU
UV Abs. at 210 nm		0.01	< 0.001	AU
UV Abs. at 220 nm		0.01	< 0.001	AU
UV Abs. at 230 nm		0.01	< 0.001	AU
UV Abs. at 240 nm		0.01	< 0.001	AU
UV Abs. at 250 nm		0.005	< 0.001	AU
UV Abs. at 270 nm		0.005	< 0.001	AU
UV Abs. at 400-280 nm		0.005	< 0.001	AU
UV Cut-off		190	<190	nm

Good Disposal

Quality Control Manager

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EMD Millipore is a division of Merck KGaA, Darmstadt, Germany
EMD Millipore Corporation
290 Concord Road
Billerica, MA 01821
U.S.A.

Received: 652

2017/01/19

4x4L

2017/02/08

3x4L mm

1/1

Date Received: 2016.12.01 - 4 bottles - P12

Date Received: 2017/01/19 - 4 bottles - JDA

Date Received: 2017.03.24 - 4 bottles - Main Lab-MG

Date Received: 2017.05.10 - 4 bottles - HPLC

Received 2017/05/25 8 bottles-HPLC

Date Received: 2017/05/29-JDA-1x4L

Date Received: 2017.06.06 - 8 bottles -HPLC

Certificate of Analysis

Product Name:

Formic acid - reagent grade, ≥95%

Product Number:

F0507

Batch Number:

SHBH4976V

Brand:

SIGALD

CAS Number:

64-18-6

MDL Number:

MFCD00003297

Formula:

CH₂O₂

Formula Weight:

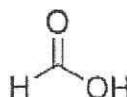
46.03 g/mol

Quality Release Date:

09 SEP 2016

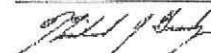
Expiration Date:

SEP 2017



Rec'd: 2
2016/11/22
1 X 500 mL
LC Group

Test	Specification	Result
Appearance (Turbidity)	Clear	Clear
Appearance (Color)	Colorless to Very Faint Yellow	Colorless
Appearance (Form)	Liquid	Liquid
Proton NMR Spectrum	Conforms to Structure	Conforms
Solvent Content	≤ 1.0 %	< 0.1 %
Acetic Acid by NMR		
Water (by Karl Fischer)	2.0 - 2.5 %	2.1 %
Titration with NaOH	≥ 95.0 %	97.2 %
Expiration Date Period		
1 Year		


Michael Grady, Manager
Quality Control
Sheboygan Falls, WI US

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.

REAGENT PREPARATION FORM

SOLUTION # 97 REPLACED SOLUTION # 94 REPLACED BY: _____ ANALYST la
REAGENT NAME: 0.2% NH₄OH TEST/ANALYSIS: PRUS DATE PREPARED: 247/05/17
EXPIRY DATE Daily SOLVENT USED: MeOH FINAL VOLUME 1L SUPPLIER Aldrich OVEN NO. & TEMP _____
FINAL CONC: 0.2% 99.8 DATE SOLVENT OPENED: See below STORAGE: _____ BALANCE ID: _____ PIPET/SYRINGE ID: 39732F

CHEMICAL NAME	VOLUME/ WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
NH ₄ OH	1 ml	2016/12/16	2017/04/03	Fisher	158310	2021/04/30
MeOH	499 ml	2017/05/12	2017/05/17	Aldrich	54133 0382	2022/02/29
<u>la 2017/05/17</u>						

NOTES:

2 X 500ml Class A Cylinder (3026)

SOLUTION # 98 REPLACED SOLUTION # 92 REPLACED BY: _____ ANALYSTS SSV
REAGENT NAME: FMOC TEST/ANALYSIS: GLYPHO DATE PREPARED: 2017/05/17
EXPIRY DATE Daily SOLVENT USED: ACN FINAL VOLUME: 100ml SUPPLIER Fisher OVEN NO. & TEMP _____
FINAL CONC: _____ DATE SOLVENT OPENED: _____ STORAGE: _____ BALANCE ID: FC-1 PIPET/SYRINGE ID: _____

CHEMICAL NAME	VOLUME/ WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
FMOC	0.150 g	2017/01/18	2017/01/18	Aldrich	WXB 1635V	2022/01/18
ACN	100 ml	2017/04/05	2017/04/17	Fisher	165746	2021/11/30
<u>2017/05/17 SSV</u>						

NOTES:

ACN (100ml cylinder) 0603

DO NOT WRITE BENEATH ANY INSERTS OR PLACE ANY INSERTS ON TOP OF ANY RAW DATA ENTERED ON THIS PAGE. INITIAL AND DATE ALL ENTRIES, CORRECTIONS AND INSERTS. INCLUDE ALL RELEVANT TRACEABLE REFERENCES ON ALL INSERTS. ONLY CLASS A GLASSWARE IS USED FOR THE PREPARATION OF REAGENTS WHEN APPLICABLE.



1 Reagent Lane
Fair Lawn, NJ 07410
201.798.7100 tel
201.798.1329 fax

Certificate of Analysis

Fisher Scientific's Quality System has been found to conform to Quality Management System
Standard ISO 9001:2008 as issued by SAI Global Certificate Number CERT - 0006618

This is to certify that units of the lot number below were tested and found to comply with the specifications of the grade listed. Certain data have been analyzed by third parties. Fisher Scientific expressly disclaims all warranties, expressed or implied, including the stated accuracy of merchantability and fitness for a particular purpose. Certain products (BPF-PCN-1000000000) are sold for use in food, drug, or medical device manufacturing. Fisher does not claim regulatory (FDA) or other 21 CFR nor market (FDA) for the FDA. The following are the actual analytical results obtained.

Catalog Number	A689	Quality Test / Release Date	4/8/2016
Lot Number	154319		
Description	AMMONIUM HYDROXIDE, CERTIFIED A.C.S. PLUS		
Country of Origin	United States	* Suggested Retest Date	Apr-2021
Chemical Origin	Inorganic-non animal		
BSE/TSE Comment	This product does not contain and is not manufactured with raw material ingredients derived from any animal products, including countries where Bovine Spongiform Encephalopathy (BSE) is known to exist.		
Chemical Comment	This product is free from genetically modified substrates and is gluten free.		

*Re lot: 2016/12/28
H bottles - B2B*

Result name	Units	Specifications	Test Value
APPEARANCE		REPORT	COLORLESS AND FREE FROM SUSPENDED MATTER
ALUMINUM	ppm	≤ 0.3	0.001
ARSENIC AND ANTIMONY	ppm	≤ 0.03	0.000
ASSAY	wt/wt %	Inclusive Between 28.0 - 30.0	29.8
BORON (B)	ppm	≤ 0.1	0.001
CALCIUM (Ca)	ppm	≤ 0.3	0.002
CARBON DIOXIDE	%	≤ 0.002	0.000
CHLORIDE	ppm	≤ 0.5	0.00
CHROMIUM (Cr)	ppm	≤ 0.2	0.001
COPPER (Cu)	ppm	≤ 0.1	0.001
GOLD (Au)	ppm	≤ 0.3	0.001
HEAVY METALS (as Pb)	ppm	≤ 0.5	0.00
IDENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST
IRON (Fe)	ppm	≤ 0.1	0.001
LEAD (Pb)	ppm	≤ 0.2	0.001
MAGNESIUM (Mg)	ppm	≤ 0.3	0.001
MANGANESE (Mn)	ppm	≤ 0.2	0.001
NICKEL (Ni)	ppm	≤ 0.1	0.001
NITRATE (NO3)	ppm	≤ 2	0.00
PHOSPHATE (PO4)	ppm	≤ 0.4	0.00
POTASSIUM (K)	ppm	≤ 0.3	0.001
RESIDUE AFTER IGNITION	ppm	≤ 3	0.00
SODIUM (Na)	ppm	= Report	0.003
SUBSTANCES REDUCING KMNC4	PASS/FAIL	= PASS TEST	PASS TEST
SULFATE (SO4)	ppm	≤ 2	0.00
TIN (Sn)	ppm	≤ 0.3	0.001
TITANIUM (Ti)	ppm	≤ 0.3	0.001
ZINC (Zn)	ppm	≤ 0.3	0.001



James Allan
Quality Control Manager BPP

Note: The data listed is valid for all packages sizes of this lot of this product, regardless of a sub-sample of this coming (error) listed above. If there are any questions with this certificate, please call Customer Service at (800) 227-4791.
*Based on suggested storage conditions.

Received: 2016/12/16 1x500mL MMN

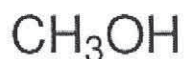
3050 Spruce Street, Saint Louis, MO 63103, USA

Website: www.sigmaaldrich.comEmail USA: techserv@sial.comOutside USA: eurtechserv@sial.com

Certificate of Analysis

Product Name:

Methanol - for HPLC, ≥99.9%



Product Number: 34860
Batch Number: SHBJ0382
Brand: SIGALD
CAS Number: 67-56-1
MDL Number: MFCD00004595
Formula: CH₄O
Formula Weight: 32.04 g/mol
Quality Release Date: 22 MAR 2017
Expiration Date: FEB 2022

Test	Specification	Result
Appearance (Color)	Colorless	Colorless
Appearance (Form)	Liquid	Liquid
UV Absorbance 400nm	≤ 0.01	< 0.01
UV Absorbance 280nm	≤ 0.01	< 0.01
UV Absorbance 260nm	≤ 0.04	0.01
UV Absorbance 240nm	≤ 0.10	0.03
UV Absorbance 235nm	≤ 0.10	0.05
UV Absorbance 230nm	≤ 0.20	0.08
UV Absorbance 220nm	≤ 0.30	0.16
UV Absorbance 210nm	≤ 0.60	0.37
UV Absorbance 205nm	≤ 1.00	0.69
Fluorescence 254nm	≤ 1.0 ppb	< 0.1 ppb
Fluorescence 365nm	≤ 1.0 ppb	< 0.1 ppb
Purity (GC)	≥ 99.90 %	100.00 %
Color Test	≤ 10 APHA	< 5 APHA
Water (by Karl Fischer)	≤ 0.03 %	< 0.01 %
Residue on Evaporation	≤ 0.0005 %	< 0.0001 %
Expiration Date Period		
1800 Days		

Received
4x42
2017/05/12

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.

REAGENT PREPARATION FORM

SOLUTION # 83 REAGENT NAME: (50:50) MeOH/ACN
ANALYST: AD DATE PREPARED: 2017/04/26 EXPIRY DATE: 2017/06/26
STORAGE: RT BALANCE ID: — PIPET/SYRINGE ID: —

CHEMICAL NAME	VOLUME/ WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
Methanol	500 ml	2017/04/07	2017/04/26	Sigma	SHBH7061	2017/10/31
Acetonitrile	500 ml	2017/04/26	2017/04/26	Amica	SZB6142CV	2018/05/11
AD 2017/06/26						

NOTES:

SOLUTION # 84 REAGENT NAME: 0.2% Formic Acid
ANALYST: j DATE PREPARED: 2017/05/01 EXPIRY DATE: 2017/07/01
STORAGE: RT BALANCE ID: — PIPET/SYRINGE ID: FE-P-68

CHEMICAL NAME	VOLUME/ WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
ROD: H ₂ O	998 ml	—	—	in-house	—	—
Formic Acid	2 ml	2016/11/22	2016/12/19	Sigma	SHBH4976U	2017/09/30
j 2017/05/01						

NOTES:

3050 Spruce Street, Saint Louis, MO 63103, USA

Website: www.sigmaaldrich.comEmail USA: techserv@sigmaaldrich.comOutside USA: eurtechserv@sigmaaldrich.com

Certificate of Analysis

Product Name:

Methanol - for HPLC, ≥99.9%

CH₃OH

Product Number:

34860

Batch Number:

SHB17061

Brand:

SIGALD

CAS Number:

67-58-1

MDL Number:

MFCD00004695

Formula:

CH₄O

Formula Weight:

32.04 g/mol

Quality Release Date:

15 NOV 2016

Expiration Date:

OCT 2021

Received
2016-12-15
8x4L
P4 (HPLC)
shelf

Test	Specification	Result
Appearance (Color)	Colorless	Colorless
Appearance (Form)	Liquid	Liquid
UV Absorbance 400nm	< 0.01	< 0.01
UV Absorbance 380nm	< 0.01	< 0.01
UV Absorbance 360nm	< 0.04	< 0.01
UV Absorbance 340nm	< 0.10	0.03
UV Absorbance 325nm	< 0.10	0.05
UV Absorbance 300nm	< 0.20	0.07
UV Absorbance 280nm	< 0.30	0.16
UV Absorbance 260nm	< 0.60	0.35
UV Absorbance 255nm	< 1.00	0.70
Fluorescence 284nm	< 1.0 ppb	< 0.1 ppb
Fluorescence 365nm	< 1.0 ppb	< 0.1 ppb
Purity (GC)	≥ 99.90 %	100.00 %
Color Test	< 10 APHA	< 6 APHA
Water (by Karl Fischer)	< 0.03 %	< 0.01 %
Residue on Evaporation	< 0.0005 %	< 0.0001 %
Expiration Date Period		
1800 Days		

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.

Version Number: 1

Page 1 of 2

Date received: 2017/02/15 NTS - 8x4L (HPLC)

Date Received: 2017/01/05-EH1-4x4L-HPLC

Date Received 2017/01/19 -NTS 4 x 4L HPLC, JDA 8X4L-LC group

Date Received: 2017.02.01 - 4 x 4L - HPLC Main Lab

Date Received: 2017.03.09 - 8 x 4L - HPLC

Date Received: 2017.04.05 - 4 x 4L - HPLC

Date Received: 2017.04.07 - 4 x 4L - JDA

Date Received: 2017.05.03 - 4 x 4L -HPLC

Honeywell

CERTIFICATE OF ANALYSIS

Honeywell Specialty Chemicals Seelze GmbH

Wunstorferstrasse 40
Seelze, 30926
Telefon: +49 5137 8238-0
www.lab-honeywell.com

Brand: Honeywell Riedel-de Haën™
Product: 34967
Lot No: SZBG142CV
Production date: 21.May.2016
Best before: 11.May.2018

Acetonitrile LC-MS CHROMASOLV

*Received
on 10/10/26*

Parameter	Specification	Units	Result	Units
assay (GC)	min. 99.9	%	99.99	%
propionitrile (GC)	max. 0.2	%	<0.2	%
non-volatile matter	max. 0.0002	%	<0.0002	%
water (Karl Fischer)	max. 0.01	%	0.001	%
free acid (as CH ₃ COOH)	max. 0.001	%	0.0008	%
free alkali (as NH ₃)	max. 0.0001	%	<0.0001	%
silver (Ag)	max. 0.1	ppm	<0.1	ppm
aluminium (Al)	max. 0.5	ppm	<0.5	ppm
barium (Ba)	max. 0.1	ppm	<0.1	ppm
bismuth (Bi)	max. 0.1	ppm	<0.1	ppm
calcium (Ca)	max. 0.05	ppm	<0.05	ppm
cadmium (Cd)	max. 0.05	ppm	<0.05	ppm
cobalt (Co)	max. 0.02	ppm	<0.02	ppm
chromium (Cr)	max. 0.02	ppm	<0.02	ppm
copper (Cu)	max. 0.02	ppm	<0.02	ppm
iron (Fe)	max. 0.02	ppm	<0.02	ppm
potassium (K)	max. 0.05	ppm	<0.05	ppm
lithium (Li)	max. 0.1	ppm	<0.1	ppm
magnesium (Mg)	max. 0.1	ppm	<0.1	ppm
manganese (Mn)	max. 0.02	ppm	<0.02	ppm
molybdenum (Mo)	max. 0.1	ppm	<0.1	ppm
sodium (Na)	max. 0.05	ppm	<0.05	ppm
nickel (Ni)	max. 0.02	ppm	<0.02	ppm
lead (Pb)	max. 0.02	ppm	<0.02	ppm
tin (Sn)	max. 0.1	ppm	<0.1	ppm
strontium (Sr)	max. 0.1	ppm	<0.1	ppm

The Honeywell logo is displayed in a bold, sans-serif font. In the top right corner of the page, there is a dark, curved, textured shape that resembles a corner of a document or a stylized graphic element.

Acetonitrile LC-MS CHROMASOLV

Parameter	Specification	Units	Result	Units
zinc (Zn)	max. 0.1	ppm	<0.1	ppm
HPLC-gradient at 210 nm	max. 1	mAU	<1	mAU
HPLC-gradient at 254 nm	max. 0.2	mAU	<0.2	mAU
baseline drift at 210 nm	max. 12	mAU	<12	mAU
suitability for the LC-MS	complying		complying	
fluorescence (chinin) at 254 nm	max. 0.5	ppb	<0.5	ppb
fluorescence (chinin) at 365 nm	max. 0.5	ppb	<0.5	ppb
absorbance at 195 nm	max. 0.097		<0.097	
absorbance at 200 nm	max. 0.022		<0.022	
absorbance at 230 nm	max. 0.004		<0.004	

Honeywell

QC Release Date: 01.Jun.2016

The minimum shelf life is based on the current knowledge and holds only for proper storage conditions in the originally closed flasks/ packages.

We herewith confirm that the delivery is effected according to the technical delivery conditions agreed.

Particular properties of the products or the suitability for a particular area of application are not assured.

We guarantee a proper quality within our General Conditions of Sales.

Honeywell

Quality Management

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333 of 641

3050 Spruce Street, Saint Louis, MO 63103, USA

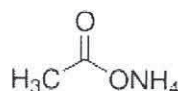
Website: www.sigmaaldrich.comEmail USA: techserv@sial.comOutside USA: eurtechserv@sial.com

Certificate of Analysis

Product Name:

Ammonium acetate – reagent grade, ≥98%

Product Number: A7262
Batch Number: SLBP1688V
Brand: SIAL
CAS Number: 631-61-8
MDL Number: MFCD00013066
Formula: C₂H₇NO₂
Formula Weight: 77.08 g/mol
Storage Temperature: Store at 2 - 8 °C
Quality Release Date: 03 SEP 2015
Recommended Retest Date: SEP 2017



Rec'd:
2017/03/02
1x 500g
LC group
Storage: FD

Test	Specification	Result
Appearance (Color)	White	White
Appearance (Form)	Powder	Powder
Solubility (Color)	Colorless	Colorless
Solubility (Turbidity)	Clear	Clear
1 g/ml, H ₂ O		
Titration with NaOH	≥ 98 %	99 %



Rodney Burbach, Manager
Analytical Services
St. Louis, Missouri US

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Certificate of Analysis



Date of Release: 8/4/2016
 Name: Water
 OmniSol[®], For LC/MS
 Item No: WX0001 all size codes
 Lot / Batch No: 5621B
 Country of Origin: USA

Characteristic	Requirement		Results	Units
	Min.	Max.		
Expiration date			31-AUG-2017	
Evaporation residue		1	<0.1	ppm
Filtered through 0.2 µm filter			Passes test	
Fluorescence as quinine at 254 nm		1	< 1	ppb
Fluorescence as quinine at 365 nm		1	< 1	ppb
Gradient at 210 nm		2	0.10	mAU
Gradient at 254 nm		0.5	0.07	mAU
LC/MS Purity (p-nitrophenol)		50	<50	ppb
LC/MS Purity (reserpine)		50	<50	ppb
Metals, suitable for LC/MS			Conforms	
UV Abs. at 200 nm		0.01	< 0.001	AU
UV Abs. at 210 nm		0.01	< 0.001	AU
UV Abs. at 220 nm		0.01	< 0.001	AU
UV Abs. at 230 nm		0.01	< 0.001	AU
UV Abs. at 240 nm		0.01	< 0.001	AU
UV Abs. at 250 nm		0.005	< 0.001	AU
UV Abs. at 270 nm		0.005	< 0.001	AU
UV Abs. at 400-280 nm		0.005	< 0.001	AU
UV Cut-off		190	<190	nm

Gene Dossette

Quality Control Manager

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EMD Millipore is a division of Merck KGaA, Darmstadt, Germany
 EMD Millipore Corporation
 290 Concord Road
 Billerica, MA 01821
 U.S.A

Received: 652

2017/01/19

4x4L

2017/02/08

3x4L mm

1/1

Date Received: 2016.12.01 - 4 bottles - P12
 Date Received: 2017/01/19 - 4 bottles - JDA
 Date Received: 2017.03.24 - 4 bottles - Main Lab-MG
 Date Received: 2017.05.10 - 4 bottles - HPLC

Received 2017/05/25 8 bottles-HPLC

Date Received: 2017/05/29-JDA-1x4L

Date Received: 2017.06.06 - 8 bottles -HPLC

335 of 641

Certificate of Analysis



Date of Release: 8/4/2016
 Name: Water
 OmniSolv®, For LC/MS
 Item No: WX0001 all size codes
 Lot / Batch No: 56218
 Country of Origin: USA

Characteristic	Requirement		Results	Units
	Min.	Max.		
#Expiration date			31-AUG-2017	
Evaporation residue		1	<0.1	ppm
Filtered through 0.2 µm filter			Passes test	
Fluorescence as quinine at 254 nm		1	< 1	ppb
Fluorescence as quinine at 365 nm		1	< 1	ppb
Gradient at 210 nm		2	0.10	mAU
Gradient at 254 nm		0.5	0.07	mAU
LC/MS Purity (p-nitrophenol)		50	<50	ppb
LC/MS Purity (reserpine)		50	<50	ppb
Metals, suitable for LC/MS			Conforms	
UV Abs. at 200 nm		0.01	< 0.001	AU
UV Abs. at 210 nm		0.01	< 0.001	AU
UV Abs. at 220 nm		0.01	< 0.001	AU
UV Abs. at 230 nm		0.01	< 0.001	AU
UV Abs. at 240 nm		0.01	< 0.001	AU
UV Abs. at 250 nm		0.005	< 0.001	AU
UV Abs. at 270 nm		0.005	< 0.001	AU
UV Abs. at 400-280 nm		0.005	< 0.001	AU
UV Cut-off		190	<190	nm

Geno Dosolite

Quality Control Manager

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EMD Millipore is a division of Merck KGaA, Darmstadt, Germany
 EMD Millipore Corporation
 290 Concord Road
 Billerica, MA 01821
 U.S.A

Received: 652

2017/01/19

4x4L

2017/02/08

3x4L mmr

1/1

Date Received: 2016.12.01 - 4 bottles - P12
 Date Received: 2017/01/19 - 4 bottles - JDA
 Date Received: 2017.03.24 - 4 bottles - Main Lab-MG
 Date Received: 2017.05.10 - 4 bottles - HPLC

Date Received: 2017.05.16 - 4 bottles - HPLC
 Date Received: 2017.05.24 - 4 bottles - HPLC
 Received 2017/05/25 8 bottles-HPLC
 Date Received: 2017/05/29-JDA-1x4L
 Date Received: 2017.06.06 - 8 bottles -HPLC

PREPARATION OF STANDARDS OF INTERMEDIARY CONCENTRATION

PRLST 126 PG. 232

Solution No.: I 4990 Date: 2017/02/04 Expiry Date: 2018/02/04 Discard Date: _____
 Replaces Solution No.: I 4972 Replaced by Solution: _____ Chemist: mmw
 Compound(s)/Solution Name: Comp. PFC working solution A
 Number of Parent Solution(s): see attached sheet
 Concentration of Parent Solution(s): see attached sheet (mg. ug)/mL
 Aliquot of Parent Solution(s): see attached sheet mL / uL
 Pipette/Syringe ID: P31477F
 Dilution Solvent: 0.3% NH₄OH in MeOH Dilution Volume: 25 mL
 Final Concentration(s): 1 (mg. ug)/mL
 Solution derivatized (as methyl ester): _____ As Other (specify): _____
 Solution Contains Surrogate Compounds: _____ For mix refer to table on page: _____
 Solution used for: PFC Volumetric Flask: 25 mL class. AT 5040
 (Identify by serial number or other unique ID)
 Solvent Supplier: ADRICH Lot No.: no MCR-92-968
 Date Opened: 5-2 PRLST 92-968
 Storage Location: F2-11 One time Use, Not Stored: _____
 Ampule Supplier: Wellington Date Opened: see below
 Mix Name: _____
 Catalogue No.: _____ Ampule expiry Date: see attached sheet
 Lot No.: see attached sheet
 Date Received: see attached sheet

I 4990 (PRLST 126 p. 232)

Compound Name	ID#	Conc. (ug/mL)	Vol., of Stock standard (uL)	Final Conc. (ug/mL)	Exp. date
PFBA	S4095-1	50	500	1	2021/05/27
L-PFBS	S4068-1	44.2	565	1	2021/03/15
PFPeA	S4095-2	50	500	1	2021/05/31
PFHxA	S4068-2	50	500	1	2020/12/22
br-PFHxSk	S4068-3	45.5	528	1	2020/07/03
PFHpA	S4068-4	50	500	1	2021/12/02
L-PFHpS	S4095-3	47.6	525	1	2021/10/18
PFOA	S4068-5	50	500	1	2021/08/02
brPFOSK	S4068-6	46.4	540	1	2020/10/14
PFNA	S4068-7	50	500	1	2020/09/30
PFDA	S4068-8	50	500	1	2021/05/31
L-PFDS	S4095-4	48.2	518	1	2021/05/24
PFuDA	S4068-9	50	500	1	2021/10/18
PFDoA	S4068-10	50	500	1	2021/05/31
PFTTrDA	S4068-11	50	500	1	2021/02/12
PFTeDA	S4068-12	50	500	1	2021/09/30
PFOSA (FOSA-I)	S4126	50	500	1	2021/09/30
N-MeFOSA-M	S4095-5	50	500	1	2021/05/24
N-EtFOSA-M	S4095-6	50	500	1	2021/05/24
N-MeFOSE-M	S4095-7	50	500	1	2020/11/10
N-EtFOSE-M	S4095-8	50	500	1	2020/11/10
N-MeFOSAA	S4068-13	50	500	1	2021/10/12
N-EtFOSAA	S4068-14	50	500	1	2021/09/30
6:2FTS	S4095-9	47.4	528	1	2021/06/25
8:2FTS	S4095-10	47.9	522	1	2021/08/22

Maxxam Analytics on bottom page.

2017 10/10/21 337 of 641

PRLST 133 PG 48

PREPARATION OF CONCENTRATED STOCK STANDARDS

Solution No.: 34095 Date: 2017/03/07 Expiry Date: _____ Discard Date: _____
Replaces Solution: _____ Replaced by Solution: _____ Chemist: mmw

133 P 48 (34095)

Solution ID#	Compound Name	Lot#	Received date	Exp. date	Replaces Solution	Replaced by Solution	Conc. (ug/mL)	Solvent	Storage
S4095-1	PFBA	PFBA0516	2016/12/23	2021/05/27	S4048-1		50	MeOH	FZ-11
S4095-2	PFPeA	PFPeA0516	2016/12/23	2021/05/31	S4048-3		50	MeOH	FZ-11
S4095-3	L-PFHpS	LPFHpS1016	2016/12/23	2021/10/18	S4048-6		47.6	MeOH	FZ-11
S4095-4	L-PFDS	LPFDS0516	2016/12/23	2021/05/24	S4048-10		48.2	MeOH	FZ-11
S4095-5	N-MeFOSA-M	NMeFOSA0516M	2016/12/23	2021/05/24	S4048-16		50	MeOH	FZ-11
S4095-6	N-EtFOSA-M	NEtFOSA0516M	2016/12/23	2021/05/24	S4048-17		50	MeOH	FZ-11
S4095-7	N-MeFOSE-M	NMeFOSE1115M	2016/12/23	2020/11/10	S4048-18		50	MeOH	FZ-11
S4095-8	N-EtFOSE-M	NEtFOSE1115M	2016/12/23	2020/11/10	S4048-19		50	MeOH	FZ-11
S4095-9	6:2FTS	62FTS0616	2016/12/23	2021/06/25	S4048-22		47.4	MeOH	FD-59
S4095-10	8:2FTS	82FTS0816	2016/12/23	2021/08/22	S4048-23		47.9	MeOH	FD-59
Date opened (All compounds): 2017/03/07			Supplier (All compounds) : Wellington			Chemist: mmw			
Note: All compounds were received as a solution in ampoule.									

no writing on bottom page

mmw 2017/03/07

Solution No.: 34096 Date: 2017/03/08 Expiry Date: 2021/09/30 Discard Date: _____
Replaces Solution: 34048-15 Replaced by Solution: 34126 Chemist: mmw

Compound: FOSA - I Purity: _____

Date Received: 2016/12/23 Expiry Date: 2021/09/30 Lot No.: FOSA 0916 I

Supplier: Wellington

Date Opened: 2017/03/08

Final Gross Weight: _____ g/mg Dilution Volume: _____ mL

Tare Weight*: _____ g/mg Volumetric Flask: _____

Net Weight: _____ g/mg Concentration: 50 ug/mL

Adjusted Net Weight**: _____ mg Solvent(s): IPA

Balance Used: _____

(specify model and serial no.)

Solvent Used: _____

Solvent Supplier: _____ Lot No(s): _____

Date Opened: _____

Storage Location / Conditions: FD-59

Notes/Comments

Maxxam Analytics

received as a solution in ampoule.

mmw 2017/03/08 338 of 641

PRLST PG 64

PREPARATION OF CONCENTRATED STOCK STANDARDS

Solution No.: 54127 Date: 2017/04/04 Expiry Date: 2021/12/02 Discard Date: _____
Replaces Solution: 94008-1 Replaced by Solution: _____ Chemist: mw
Compound: L-PFBS Purity: _____
Date Received: 2017/03/10 Expiry Date: 2021/12/02 Lot No.: L-PFBS1116
Supplier: Wellington
Date Opened: 2017/04/04
Final Gross Weight: _____ g/mg Dilution Volume: _____ mL
Tare Weight*: _____ g/mg Volumetric Flask: _____
Net Weight: _____ g/mg Concentration: 44.2 (ug/mL) mg/mL
Adjusted Net Weight**: _____ mg Solvent(s): MeOH
Balance Used: _____
(specify model and serial no.)

Solvent Used: _____
Solvent Supplier: _____ Lot No(s): _____
Date Opened: _____
Storage Location / Conditions: F2-11

Notes/Comments

Received as a solution in ampule.

Solution No.: 54128 Date: 2017/04/06 Expiry Date: 2021/12/12 Discard Date: _____
Replaces Solution: _____ Replaced by Solution: _____ Chemist: N
Compound: MPFCS Purity: _____
Date Received: 2017/04/07 Expiry Date: 2021/12/12 Lot No.: MPFCS1216
Supplier: Wellington
Date Opened: 2017/04/06
Final Gross Weight: _____ g/mg Dilution Volume: _____ mL
Tare Weight*: _____ g/mg Volumetric Flask: _____
Net Weight: _____ g/mg Concentration: 50 ug/mL
Adjusted Net Weight**: _____ mg Solvent(s): MeOH
Balance Used: _____
(specify model and serial no.)

Solvent Used: _____
Solvent Supplier: _____ Lot No(s): _____
Date Opened: _____
Storage Location / Conditions: F2-11

Notes/Comments

Maxxam Analytics

Received as a solution in ampule

N 2017/04/06

PREPARATION OF CONCENTRATED STOCK STANDARDS

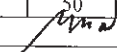
Solution No.: S4068 Date: 2017/01/18 Expiry Date: _____ Discard Date: _____
 Replaces Solution: - Replaced by Solution: _____ Chemist: mmw

S4068 (MLST 133 p.34)

Solution ID#	Compound Name	Lot#	Received date	Exp. date	Replaces Solution	Replaced by Solution	Conc. (ug/mL)	Solvent	Storage
S4068-1	L-PFBS	LPFBS0316	2016/12/16	2021/03/15	-		44.2	MeOH	FZ-11
S4068-2	PFHxA	PFHxA1215	2016/12/16	2020/12/22	-		50	MeOH	FZ-11
S4068-3	br-PFHxSk	brPFHxSK0615	2016/12/16	2020/07/03	-		45.5	MeOH	FZ-11
S4068-4	PFHpA	PFHpA1216	2016/12/16	2021/12/02	-		50	MeOH	FZ-11
S4068-5	PFOA	PFOA0716	2016/12/16	2021/08/02	-		50	MeOH	FZ-11
S4068-6	brPFOSK	brPFOSK1015	2016/12/16	2020/10/14	-		46.4	MeOH	FZ-11
S4068-7	PFNA	PFNA0916	2016/12/16	2021/09/30	-		50	MeOH	FZ-11
S4068-8	PFDA	PFDA0516	2016/12/16	2021/05/31	-		50	MeOH	FZ-11
S4068-9	PFuDA	PFuDA1016	2016/12/16	2021/10/18	-		50	MeOH	FZ-11
S4068-10	PFDaA	PFDaA0516	2016/12/16	2021/05/31	-		50	MeOH	FZ-11
S4068-11	PFTrDA	PFTrDA0216	2016/12/16	2021/02/12	-		50	MeOH	FZ-11
S4068-12	PFTeDA	PFTeDA0916	2016/12/16	2021/09/30	-		50	MeOH	FZ-11
S4068-13	N-MeFOSAA	NMeFOSAA0916	2016/12/16	2021/10/12	-		50	MeOH	FD-59
S4068-14	N-EtFOSAA	NEtFOSAA0916	2016/12/16	2021/09/30	-		50	MeOH	FD-59
Date opened (All compounds): 2017/01/18			Supplier (All compounds) : Wellington			Chemist: [Signature]			
* All compounds were received as a solution in ampule									

No writing on bottom page.

Solution No.: S4069 Date: 2017/01/18 Expiry Date: _____ Discard Date: _____
 Replaces Solution: - Replaced by Solution: _____ Chemist: mmw

Solution ID#	Compound Name	Lot#	Received date	Exp. date	Replaces Solution	Replaced by Solution	Conc (ug/mL)	Solvent	Storage
S4069-1	MPFHxA	MPFHxA0416	2016/12/12	2021/04/08			50	MeOH	FZ-11
S4069-2	MPFOA	MPFOA1016	2016/12/12	2021/10/18			50	MeOH	FZ-11
S4069-3	MPFOS	MPFOS0816	2016/12/12	2021/08/03			50	MeOH	FZ-11
S4069-4	MPFDA	MPFDA0916	2016/12/12	2021/09/30			50	MeOH	FZ-11
S4069-5	D3-N-MeFOSAA	d3nMeFOSAA0516	2016/12/12	2021/05/31			50	MeOH	FD-59
S4069-6	D5-N-EtFOSAA	d5NEtFOSAA1116	2016/12/16	2021/11/22			50	MeOH	FD-59
Date opened (All compounds):			2017/01/18			Supplier (All compounds) : Wellington		Chemist: 	
* All compounds were received as a solution in ampule									

No writing on bottom page.

Storage Location / Conditions: _____

Notes/Comments _____

PRLST 133 PG 63

PREPARATION OF CONCENTRATED STOCK STANDARDS

Solution No.: S-4125 Date: 2017/04/03 Expiry Date: 2021/09/30 Discard Date: _____
Replaces Solution: S-3959 Replaced by Solution: _____ Chemist: CSZ
Compound: PFOSA (FOSA-1) Purity: _____
Date Received: 2016/12/19 Expiry Date: 2021/09/30 Lot No.: FOSA 09161
Supplier: Wellington
Date Opened: 2017/04/03
Final Gross Weight: _____ g/mg Dilution Volume: _____ mL
Tare Weight*: _____ g/mg Volumetric Flask: _____
Net Weight: _____ g/mg Concentration: 50 ug/mL, mg/mL
Adjusted Net Weight**: _____ mg Solvent(s): IPA
Balance Used: _____
(specify model and serial no.) _____

Solvent Used: _____
Solvent Supplier: _____ Lot No(s): _____
Date Opened: _____
Storage Location / Conditions: FD 59

Notes/Comments

Received as solution in ampule.

Solution No.: S4126 Date: 2017/04/04 Expiry Date: 2021/09/30 Discard Date: _____
Replaces Solution: S 4096 Replaced by Solution: _____ Chemist: MW
Compound: mp 2017/04/04 FOSA-I Purity: _____
Date Received: 2017/04/02 Expiry Date: 2021/09/30 Lot No.: FOSA 09162
Supplier: 02122 Wellington
Date Opened: 2017/04/04
Final Gross Weight: _____ g/mg Dilution Volume: _____ mL
Tare Weight*: _____ g/mg Volumetric Flask: _____
Net Weight: _____ g/mg Concentration: 50 ug/mL
Adjusted Net Weight**: _____ mg Solvent(s): IPA
Balance Used: _____
(specify model and serial no.) _____

Solvent Used: _____
Solvent Supplier: _____ Lot No(s): _____
Date Opened: _____
Storage Location / Conditions: FD 59

Notes/Comments

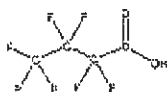
Received as a solution in ampule.



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: PFBA
COMPOUND: Perfluoro-n-butyric acid
LQI NUMBER: PFBA0616
STRUCTURE:
GAS #: 575-22-4



MOLECULAR FORMULA: $C_4H_5F_9O_2$
CONCENTRATION: $50 \pm 2.5 \text{ } \mu\text{g/ml}$
MOLECULAR WEIGHT: 214.04
SOLVENT(S): Methanol
Water (<1%)
CHEMICAL PURITY: >99%
LAST TESTED: (internal) 05/27/2016
EXPIRY DATE: (internal) 05/27/2021
RECOMMENDED STORAGE: Store ampoules in a cool, dark place

DOCUMENTATION DATA ATTACHED:

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

ADDITIONAL INFORMATION:

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

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:
B.G. Chittim

Date: 05/31/2016
(internal)

*Received from
complet
1 x 2 mL
FZ-35*

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M6 CANADA
519-822-2436 • Fax: 519-822-2848 • info@well-labs.com

Form 52, Rev 01/11-16
Rev 03/13, Revised 09/16-09/20

15 (4-01) (1 of 2)
15/08

Date Received: 2016.09.12 - HPLC -1 ampule
Received 2016/11/25 1 x 1.2mL MMN FZ-35
Received 2016/12/01 1 x 1.2mL MMN FZ-35
Received 2016/12/19 1 x 1.2mL MMN FZ-11
Received 2016/12/23 1 x 1.2mL MMN FZ-11
Received 2016/12/29 1 x 1.2mL MMN FZ-11
Date Received: 2017/03/10- 1 AMPULES - SSV
Date Received: 2017.04.06 - 2 ampules - HPLC



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

L-PFBS

LOT NUMBER:

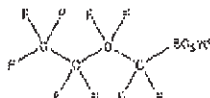
LPFBS0316

COMPOUND:

Potassium perfluoro-1-butanenesulfonate

STRUCTURE:**GAS #:**

29420-49-3

**MOLECULAR FORMULA:**C₄F₉SO₃K**MOLECULAR WEIGHT:**

338.19

CONCENTRATION:

50.0 ± 2.5 µg/ml (K salt)

SOLVENT(S):

Methanol

CHEMICAL PURITY:

>98%

LAST TESTED:

03/15/2016

EXPIRY DATE:

05/15/2021

RECOMMENDED STORAGE:

Store ampoule in a cool, dark place

① ampule
2.16 ± 0.17
SSD (HPLC)

DOCUMENTATION/ DATA ATTACHED:

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

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

ADDITIONAL INFORMATION:

- See page 2 for further details.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chittim

Date: 03/21/2016

Perkins

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

Form 07, Revised 05/04-11/12
Revised 07/12, Revised 07/12-01/14

LPFBS0316 (1 of 1)
10/0

Date Received: 2016.07.19 - 1 ampule - HPLC
Date Received: 2016.09.12 - 2 ampules - HPLC
Received 2016/10/05 1 x 1.2mL MMN FZ-35
Received 2016/11/25 1 x 1.2mL MMN FZ-35
Date Received: 2016.12.01 - 1 x 1.2mL - HPLC
Received 2016/12/16 2 x 1.2mL MMN FZ-11
Date Received: 2016.12.19 - 1 AMPULES - HPLC



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

PFPeA

LOT NUMBER:

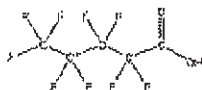
PFPeA0316

COMPOUND:

Perfluoro-n-pentanoic acid

STRUCTURE:**CAS #:**

2706-90-8

**MOLECULAR FORMULA:** $C_5H_2F_{10}O_2$ **MOLECULAR WEIGHT:**

264.05

CONCENTRATION: $60 \pm 2.5 \mu\text{g/ml}$ **SOLVENT(S):**

Methanol

Water (<1%)

CHEMICAL PURITY:

>98%

LAST TESTED: (YYYYMM)

05/31/2016

EXPIRY DATE: (YYYYMM)

05/31/2021

RECOMMENDED STORAGE:

Store ampoule in a cool, dark place

DOCUMENTATION DATA ATTACHED:

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

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

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to its methyl ester.
- Contains ~ 0.3% of Perfluoro-n-heptanoic acid (PFHpA) and ~ 0.2% of $C_4F_9CO_2^-$ (hydride - derivative) as measured by ^{19}F NMR.

FOR LABORATORY USE ONLY; NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. ChiltonDate: 06/02/2016
(signature)Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M8 CANADA
519-822-2436 • Fax: 519-822-2848 • info@well-labs.comForm 001, issued 06/16/16
Replaces 001, revised 10/14/14PFPeA0316 (1 of 2)
1000

Date Received: 2016.09.12 - 1 ampule - HPLC

Received 2016/10/05 1 x 1.2mL MMN FZ-35

Received 2016/11/25 1 x 1.2mL MMN FZ-11

Received 2016/12/01 1 x 1.2mL MMN FZ-35

Received 2016/12/19 1 x 1.2mL MMN FZ-11

Received 2016/12/23 1 x 1.2mL MMN FZ-11

Received 2016/12/29 1 x 1.2mL MMN FZ-11

Date Received: 2017/03/10 - 2 AMPULES - SSV



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

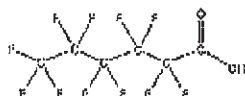
PRODUCT CODE:
COMPOUND:

PFHxA
Perfluoro-n-hexanoic acid

LOT NUMBER: PFHxA1215

STRUCTURE:

CAS #: 307-24-4



MOLECULAR FORMULA:
CONCENTRATION:

$C_6HF_{11}O_2$
 $80 \pm 2.5 \mu\text{g/ml}$

MOLECULAR WEIGHT: 314.05
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY:

>98%

LAST TESTED:

12/22/2015

EXPIRY DATE:

12/22/2020

RECOMMENDED STORAGE:

Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

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

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

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains a molar eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains ~ 0.2% of Perfluoro-n-pentanoic acid (PFPeA).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Orlini

Date: 12/23/2015

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M3 CANADA
519-822-2436 • Fax: 519-822-2848 • info@well-labs.com

Perfluoro-n-hexanoic acid 1215-16
Perfluoro-n-hexanoic acid 1215-16

Perfluoro-n-hexanoic acid 1215-16
1215-16

*received from
20.10.15
17.12.15
FZ-35*

Date Received: 2016.09.12 - 1 ampule- HPLC

Received 2016/10/05 1 x 1.2mL MMN FZ-35

Received 2016/11/25 1 x 1.2mL MMN FZ-35

Received 2016/12/12 2 x 1.2mL MMN FZ-11

Received 2016/12/16 2 x 1.2mL MMN FZ-11

Received 2016/12/23 1 x 1.2mL MMN FZ-11

Received 2016/12/29 1 x 1.2mL MMN FZ-11



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

br-PFHxSK

Potassium Perfluorohexanesulfonate
Solution/Mixture of Linear and
Branched Isomers

PRODUCT CODE: br-PFHxSK
LOT NUMBER: brPFHxSK0615
CONCENTRATION: 50.0 ± 2.5 µg/ml (total potassium salt);
45.5 ± 2.3 µg/ml (total PFHxS anion)
SOLVENT(S): Methanol
DATE PREPARED: 08/28/2015
LAST TESTED: 07/03/2015
EXPIRY DATE: 07/03/2020
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DESCRIPTION:

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

DOCUMENTATION DATA ATTACHED:

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

*2 ampoule (CF)
SCU
216/10/27
HPLC/MS*

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains ~ 0.5% of perfluoro-1-pentanesulfonate and ~ 0.2% of perfluoro-1-octanesulfonate.
- CAS#: 3671-99-6 (for linear isomer; potassium salt).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2435 • Fax: 519-822-2648 • Info@well-labs.com

Form 15, revised 2/14/11-10
Replaces: Form 15-03-21

br-PFHxSK0615 (1 of 1)
1/1

Received 2016/10/27 2 x 1.2mL MMN FZ-35
Received 2016/11/25 1 x 1.2mL MMN FZ-35
Received: 2016.12.01- 1 x 1.2ml - HPLC
Received 2016/12/16 2 x 1.2mL MMN FZ-11
Received 2016/12/19 1 x 1.2mL MMN FZ-11
Received 2016/12/23 1 x 1.2mL MMN FZ-11
Received 2016/12/29 1 x 1.2mL MMN FZ-11



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

PFHpA

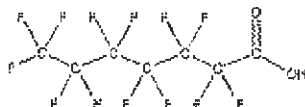
LOT NUMBER:

PFHpA1216

COMPOUND:

Perfluoro-n-heptanoic acid

STRUCTURE:



CAS #:

375-85-3

*Received
2016-12-16
2 x 1.2 mL
FZ-11*

MOLECULAR FORMULA:

C₇HFO₇

MOLECULAR WEIGHT:

364.06

CONCENTRATION:

50 ± 2.5 µg/mL

SOLVENT(S):

Methanol

Water (<1%)

CHEMICAL PURITY:

>98%

LAST TESTED:

12/02/2016

12/02/2016

EXPIRY DATE:

12/02/2021

12/02/2021

RECOMMENDED STORAGE:

Store ampoules in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

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

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

ADDITIONAL INFORMATION:

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

FOR LABORATORY USE ONLY; NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chellin

Date: 12/12/2016

(initials)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2848 • info@well-labs.com

PFHpA 2%, 12/02/2016
Revised: 12/02/2016

PFHpA 2%, 12/02/2016
Revised: 12/02/2016

Received 2016/12/23 1 x 1.2mL MMN FZ-11

Received 2016/12/29 1 x 1.2mL MMN FZ-11



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

L-PFH9S

LOT NUMBER:

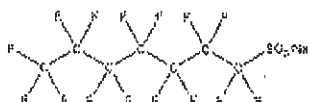
LPPH9S1018

COMPOUND:

Sodium perfluoro-1-heptanesulfonate

STRUCTURE:**CAS #:**

Not available

**MOLECULAR FORMULA:** $C_7F_{15}SO_3Na$ **MOLECULAR WEIGHT:**

472.10

CONCENTRATION:

50.0 ± 2.6 µg/ml (Na salt)

SOLVENT(S):

Methanol

47.6 ± 2.4 µg/ml (PFH9S anion)

CHEMICAL PURITY:

>99%

LAST TESTED:

10/18/2016

EXPIRY DATE:

10/18/2021

RECOMMENDED STORAGE:

Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

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

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

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains ~ 0.2% of L-PFH9S ($C_7F_{15}SO_3Na$) and ~ 0.1% of L-PFOS ($C_8F_{17}SO_3Na$).

FOR LABORATORY USE ONLY; NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chittim

Date:

10/20/2016
10/20/2016

Wellington Laboratories Inc., 349 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2439 • Fax: 519-822-2849 • Info@well-labs.com

Form 001, Rev 001 2004-01-15
Revised 01, November 2016-03-05

L-PFH9S1018 (1 of 1)
r/cv

Received: 2016.11.25 - 1 x 1.2ml - HPLC
Received: 2016.12.01 - 1 x 1.2ml - HPLC
Received 2016/12/19 1 x 1.2mL MMN FZ-11
Received 2016/12/23 1 x 1.2mL MMN FZ-11
Date Received: 2017/03/10 - 2 AMPULES - SSV



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

PFOA

LOT NUMBER:

PFOA0716

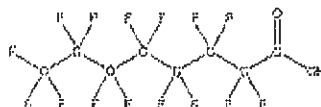
COMPOUND:

Perfluoro-n-octanoic acid

STRUCTURE:

CAS#:

335-07-1



MOLECULAR FORMULA:

$C_8H_7F_{17}O_2$

MOLECULAR WEIGHT:

414.07

CONCENTRATION:

$50 \pm 2.5 \mu\text{g/ml}$

SOLVENT(S):

Methanol

Water (<1%)

CHEMICAL PURITY:

>98%

LAST TESTED:

08/02/2016

EXPIRY DATE:

08/02/2021

RECOMMENDED STORAGE:

Store ampoule in a cool, dark place

*Received mm
2016/12/16
2x1.2mL
FZ-11*

DOCUMENTATION/ DATA ATTACHED:

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

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

ADDITIONAL INFORMATION:

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

FOR LABORATORY USE ONLY; NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chittim

Date:

08/05/2016

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M6 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

Form 37, issued 26/04/15
Amended 2016-09-24

PFOA0716 (1 of 4)
1/1/0

Received 2016/09/28 2 x 1.2mL MMN FZ-35
Received 2016/11/25 2 x 1.2mL MMN FZ-35
Received 2016/12/19 1 x 1.2mL MMN FZ-11
Received 2016/12/23 1 x 1.2mL MMN FZ-11
Received 2016/12/29 1 x 1.2mL MMN FZ-11



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

br-PFOSK

Potassium Perfluorooctanesulfonate
Solution/Mixture of Linear and
Branched Isomers

PRODUCT CODE: br-PFOSK
LOT NUMBER: brPFOSK1D15
CONCENTRATION: 50 ± 2.5 µg/ml (total potassium salt)
46.4 ± 2.3 µg/ml (total PFOS anion)
SOLVENT(S): Methanol
DATE PREPARED: 10/13/2015
LAST TESTED: 10/14/2015
EXPIRY DATE: 10/14/2020
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DESCRIPTION:

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

DOCUMENTATION/ DATA ATTACHED:

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

ADDITIONAL INFORMATION:

- See page 2 for further details.
- A 5-point calibration curve was generated using linear PFOS (potassium salt) and mass-labelled PFOS as an internal standard to enable quantitation of br-PFOSK using isotopic dilution.
- CAS# 2785-39-3 (for linear isomer; potassium salt).

*Received from
Vero Labs Inc.
2 x 1.2 mL*

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2435 • Fax: 519-822-2840 • info@well-labs.com

Form: F3, Rev: 01/2014
Revision 3, Version 2.0/5-10-21

br-PFOSK1015 15 of 15
10/2

Date Received: 2016.07.19 - 2 ampules - HPLC
Date Received: 2016.09.12 - 1 ampules - HPLC
Received 2016/09/28 1 x 1.2mL MMN FZ-35
Received 2016/11/25 1 x 1.2mL MMN FZ-35
Received 2016/12/16 2 x 1.2mL MMN FZ-11
Received 2016/12/19 1 x 1.2mL MMN FZ-11
Received 2016/12/23 1 x 1.2mL MMN FZ-11
Received 2016/12/29 1 x 1.2mL MMN FZ-11



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

PFNA

LOT NUMBER:

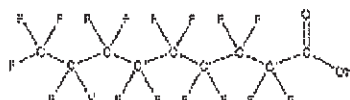
PFNA0016

COMPOUND:

Perfluoro-n-nonanoic acid

STRUCTURE:**CAS #:**

375-95-1

**MOLECULAR FORMULA:** $C_9H_5F_{19}O_2$ **MOLECULAR WEIGHT:**

464.08

CONCENTRATION:

50 ± 2.5 µg/ml

SOLVENT(S):

Methanol

Water (<1%)

CHEMICAL PURITY:

>95%

LAST TESTED:

09/30/2016

EXPIRY DATE:

09/30/2021

RECOMMENDED STORAGE:

Store ampoule in a cool, dark place

Received 2016-12-16
2x1.2 mL MMN
FZ-11

DOCUMENTATION/ DATA ATTACHED:

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

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

ADDITIONAL INFORMATION:

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

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chittim

Date: 10/11/2016

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2840 • info@well-labs.com

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

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

Received 2016/11/25 1 x 1.2mL MMN FZ-35
Received 2016/12/12 2 x 1.2mL MMN FZ-11
Received 2016/12/23 1 x 1.2mL MMN FZ-11
Received 2016/12/29 1 x 1.2mL MMN FZ-11
Received date: 2017/02/22 1x1.2 mL MZH



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

PFDA

LOT NUMBER:

PFDA0516

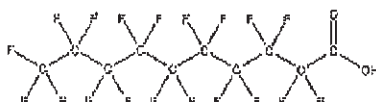
COMPOUND:

Perfluoro-n-decanoic acid

STRUCTURE:

CAS#:

336-76-2



MOLECULAR FORMULA:

$C_{10}H_2F_{18}O_2$

MOLECULAR WEIGHT:

514.08

CONCENTRATION:

50 ± 2.5 µg/ml

SOLVENT(S):

Methanol
Water (<1%)

CHEMICAL PURITY:

>99%

LAST TESTED: (month/year)

05/31/2018

EXPIRY DATE: (month/year)

05/31/2021

RECOMMENDED STORAGE:

Store ampoule in a cool, dark place

DOCUMENTATION DATA ATTACHED:

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

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

2 x 1.2 mL

Received 2016-09-12

MS (HPLC)

ADDITIONAL INFORMATION:

Storage: Freezer 35

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

FOR LABORATORY USE ONLY; NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chiriac

Date:

06/15/2018

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2438 • Fax: 519-822-2849 • info@well-labs.com

Form 027, Issue 2016-11-19
Revised 02, Revised 2016-09-24

PFDA0516 11 of 15
10/18

Received 2016/09/12 2 x 1.2mL MMN FZ-35
Received 2016/12/01 2 x 1.2mL MMN FZ-35
Received 2016/12/16 2 x 1.2mL MMN FZ-11
Received 2016/12/19 1 x 1.2mL MMN FZ-11
Received 2016/12/23 1 x 1.2mL MMN FZ-11
Received 2016/12/29 1 x 1.2mL MMN FZ-11



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

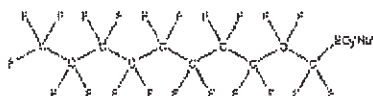
PRODUCT CODE:
COMPOUND:

L-PFDS
Sodium perfluoro-1-dodecanesulfonate

LOT NUMBER: LFFDS0516

STRUCTURE:

CAS #: 2806-19-7



MOLECULAR FORMULA:

C₁₂F₂₃SO₃Na

MOLECULAR WEIGHT:

622.13

CONCENTRATION:

50.0 ± 2.5 µg/ml (Na salt)
48.2 ± 2.4 µg/ml (PFDS anion)

SOLVENT(S):

Methanol

CHEMICAL PURITY:

>99%

LAST TESTED:

05/24/2016

EXPIRY DATE:

05/24/2021

RECOMMENDED STORAGE:

Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

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

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

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains ~ 0.0% of sodium perfluoro-1-dodecanesulfonate (L-PFDS).

FOR LABORATORY USE ONLY; NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chellam

Date: 05/26/2016

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2846 • info@well-labs.com

Product 21, Version 2/24/11, 18
Product 21, Version 2/24/11, 18

LFFDS0516-11 of 13
10/01

Received 2016/09/12 1 x 1.2mL MMN FZ-35
Date Received: 2016.10.05 - HPLC - 1 x 1.2mL
Received 2016/11/25 1 x 1.2mL MMN FZ-35
Received 2016/12/01 1 x 1.2mL MMN FZ-35
Date Received: 2016.12.19- 1 AMPULES - HPLC
Date Received 2016/12/23- -1 ampule HPLC
Date Received: 2016.12.29- 1 AMPULES - HPLC
Date Received: 2017/03/10- 1 AMPULES - SSV



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

PFUDA

LOT NUMBER:

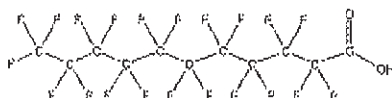
PFUDA1016

COMPOUND:

Perfluoro-n-undecanoic acid

STRUCTURE:**GAS #:**

205B-94-8

**MOLECULAR FORMULA:** $C_{11}H_2F_{21}O_2$ **MOLECULAR WEIGHT:**

564.09

CONCENTRATION:

50 ± 2.5 µg/ml

SOLVENT(S):Methanol
Water (<1%)**CHEMICAL PURITY:**

>98%

LAST TESTED: (mm/dd/yyyy)

10/18/2016

EXPIRY DATE: (mm/dd/yyyy)

10/18/2021

RECOMMENDED STORAGE:

Store ampoule in a cool, dark place

Received
2016-12-19
1 x 1.2 mL
FZ-35M
mm
12/19/19

DOCUMENTATION DATA ATTACHED:

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

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

ADDITIONAL INFORMATION:

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

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chittim

Date:

10/19/2016
10/19/2016

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2949 • info@well-labs.com

Form 017, Revised 2/04-11-19
Revised 12/20, Revised 2/15-03-21

PFUDA-1016 (1 of 1)
10-1

Received 2016/11/25 1 x 1.2mL MMN FZ-35
Received 2016/12/01 1 x 1.2mL MMN FZ-35M
Received 2016/12/16 2 x 1.2mL -HPLC FZ-11
Received 2016/12/19 1 x 1.2mL MMN FZ-11
Received 2016/12/29 1 x 1.2mL MMN FZ-11



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

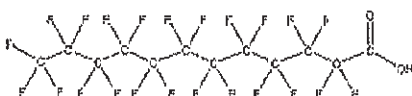
PFD0A

LGT NUMBER: PFD0A0516**COMPOUND:**

Perfluoro-n-dodecanoic acid

STRUCTURE:**CAS #:**

307-56-1

**MOLECULAR FORMULA:** $C_{12}F_{23}O_2$ **MOLECULAR WEIGHT:**

614.10

CONCENTRATION:

60 ± 2.6 µg/ml

SOLVENT(S):Methanol
Water (<1%)**CHEMICAL PURITY:**

>98%

LAST TESTED:

06/31/2016

EXPIRY DATE:

06/31/2021

RECOMMENDED STORAGE:

Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

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

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

1 x 1.2 mL
Received 201609-12
MS (HPLC)
Storage: Freezer 35

ADDITIONAL INFORMATION:

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

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Griffin

Date:

06/02/2018

Wellington Laboratories Inc., 346 Southgate Dr, Guelph ON N1G 3M5 CANADA
519-822-2438 • Fax: 519-822-2849 • info@well-labs.com

Form 27, Revised 2004-11-10
Rev 2/2013, Dated 2015-20-21

PF DoMS02 (1 of 4)
09/0

Received 2016/09/28 2 x 1.2mL MMN FZ-35
Received 2016/11/25 1 x 1.2mL MMN FZ-35
Received 2016/12/01 1 x 1.2mL MMN FZ-35
Received 2016/12/16 2 x 1.2mL MMN FZ-11
Received 2016/12/19 1 x 1.2mL MMN FZ-11
Received 2016/12/23 1 x 1.2mL MMN FZ-11
Received 2016/12/29 1 x 1.2mL MMN FZ-11



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

PFYrDA

LOT NUMBER:

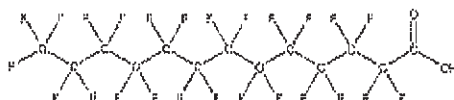
PFYrDA0215

COMPOUND:

Perfluoro-n-tridecanoic acid

STRUCTURE:**CAS #:**

72829-04-8

**MOLECULAR FORMULA:** $C_{13}H_5F_{27}O_2$ **MOLECULAR WEIGHT:**

684.11

CONCENTRATION: $50 \pm 2.5 \mu\text{g/ml}$ **SOLVENT(S):**Methanol
Water (<1%)**CHEMICAL PURITY:**

>98%

LAST TESTED:

02/12/2015

EXPIRY DATE:

02/12/2021

RECOMMENDED STORAGE:

Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

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

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

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mEq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains ~ 0.1% of PFUDA ($C_{12}H_5F_{26}O_2$), ~ 0.4% of PFDDA ($C_{12}H_5F_{26}O_2$), and ~ 0.1% of PFTDA ($C_{14}H_5F_{28}O_2$).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chisholm

Date: 02/18/2018

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1B 3M5 CANADA
519-822-2435 • Fax: 519-822-2849 • info@well-labs.comProduct: PFYrDA (100% pure)
Purity: >98% (HPLC)PFYrDA (100% pure)
Purity: >98% (HPLC)

Date Received: 2016.10.05 - HPLC - 1 x 1.2ml
Date Received: 2016.09.12 - HPLC - 1 x 1.2ml
Date Received: 2016.11.25 - HPLC - 1 x 1.2ml, 2ml
Received 2016/12/01 1 x 1.2mL MMN FZ-35
Received 2016/12/16 2 x 1.2mL MMN FZ-11
Received 2016/12/19 1 x 1.2mL MMN FZ-11
Received 2016/12/23 1 x 1.2mL MMN FZ-11
Received 2016/12/29 1 x 1.2mL MMN FZ-11



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

PFTeDA

LOT NUMBER:

PFTeDA0818

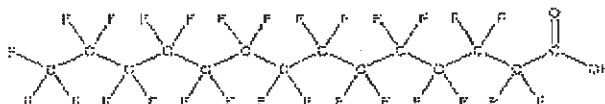
COMPOUND:

Perfluoro-n-tetradecanoic acid

STRUCTURE:

CAS #:

376-06-7



MOLECULAR FORMULA:

$C_{14}H_9F_{27}O_2$

MOLECULAR WEIGHT:

714.11

CONCENTRATION:

50 ± 2.6 µg/ml

SOLVENT(S):

Methanol

Water (<1%)

CHEMICAL PURITY:

>98%

LAST TESTED:

09/30/2016

EXPIRY DATE:

09/30/2021

RECOMMENDED STORAGE:

Store ampoules in a cool, dark place

*Received MMN
2016-12-16
2x1.2ml
FZ-11*

DOCUMENTATION/ DATA ATTACHED:

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

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

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains ~ 0.2% of PFDaA ($C_{14}H_9F_{25}O_2$) and ~ 0.2% of PFPeDA ($C_{15}H_9F_{27}O_2$).

FOR LABORATORY USE ONLY; NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Orlum

Date: 10/05/2018

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2840 • info@well-labs.com

Product: PFTeDA, Lot: PFTeDA0818, Rev: 01/15/2016, Revision: 01/15/2016

PFTeDA0818 11 of 41
rev0

Received: 2016.11.25 - 1 x 1.2mL- HPLC
Received: 2016.12.01 - 1 x 1.2mL - HPLC
Received 2016/12/19 1 x 1.2mL MMN FZ-11
Received 2016/12/23 1 x 1.2mL MMN FZ-11
Received 2016/12/29 1 x 1.2mL MMN FZ-11



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

FOSA-I

LOT NUMBER:

FOSA00101

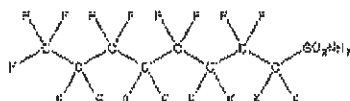
COMPOUND:

Perfluoro-1-octanesulfonamide

STRUCTURE:

CAS #:

754-01-6



MOLECULAR FORMULA:

$C_8H_5F_{17}NO_2S$

MOLECULAR WEIGHT:

490.14

CONCENTRATION:

$50 \pm 2.5 \mu\text{g/ml}$

SOLVENT(S):

Isopropanol

CHEMICAL PURITY:

>98%

LAST TESTED:

09/30/2016

EXPIRY DATE:

09/30/2021

RECOMMENDED STORAGE:

Refrigerate ampoule

DOCUMENTATION/DATA ATTACHED:

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

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

ADDITIONAL INFORMATION:

See page 2 for further details.

*Received from
2016/12/29
1x 1.2 mL
FD-59*

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Clifton

Date: 10/07/2016

perfluoro

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

Form 17, Rev 02/2014-1-15
Revised 3, 09/2011 0115-02-21

FOSA00101 1 of 4
1/03

Received: 2016.11.25 - 1x 1.2mL - HPLC
Received: 2016.12.01 - 1x 1.2mL - HPLC
Received: 2016/12/19 1 x 1.2mL MMN FD-59
Received: 2016/12/23 1 x 1.2mL MMN FD-59
Received date: 2017/02/22 1x1.2 mL MZH
Date Received: 2017.04.06 - 2 x 1.2mL - HPLC



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: N-MeFOSA-M **LOT NUMBER:** NMeFOSA0316M
COMPOUND: N-methylperfluoro-1-octanesulfonamide

STRUCTURE: **CAS #:** 31506-32-8



MOLECULAR FORMULA: C₉H₅F₁₇NO₃S
CONCENTRATION: 50 ± 2.5 µg/ml
CHEMICAL PURITY: >95%
LAST TESTED: 05/24/2016
EXPIRY DATE: 05/24/2021
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

MOLECULAR WEIGHT: 515.17
SOLVENT(S): Methanol

DOCUMENTATION/ DATA ATTACHED:

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

ADDITIONAL INFORMATION:

See page 2 for further details.

*1 ampoule
2/16/17 IS
SSV
HPLC*

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: [Signature] Date: 05/26/2016
S.G. Chinn

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

Form 27, Issues 25/11/17
Revised, Revised 7/15/18

ANALYST: [Signature] (1 of 1)
17/12

Received 2016/08/15 2 x 1.2mL MMN FZ-35
Date Received: 2016.11.25 - 1 x 1.2mL - HPLC
Received 2016/12/01 1 x 1.2mL MMN FZ-35
Date Received: 2016.12.19- 1 AMPULES - HPLC
Received 2016/12/23 1 x 1.2mL MMN FZ-11
Received 2016/12/29 1 x 1.2mL MMN FZ-11
Date Received: 2017/03/10- 2 AMPULES - SSV



WELLINGTON
LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

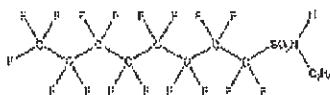
PRODUCT CODE:
COMPOUND:

N-EIFOSA-M
N-ethylperfluoro-1-octanesulfonamide

LOT NUMBER: NEIFOSA0516M

STRUCTURE:

CAS #: 4151-50-2



MOLECULAR FORMULA:

C₁₀H₂F₁₇NO₂S

MOLECULAR WEIGHT:

527.20

CONCENTRATION:

50 ± 2.5 µg/ml

SOLVENT(S):

Methanol

CHEMICAL PURITY:

>99%

LAST TESTED:

05/24/2016

EXPIRY DATE:

05/24/2021

RECOMMENDED STORAGE:

Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

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

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

ADDITIONAL INFORMATION:

See page 2 for further details.

1 ampule
2016/07/15
SSV
HPLC

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B. G. Chilton

Date: 05/27/2016

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Temp 07, rev 01 3/24/16
Rev 01/25/16

WEL-000001-01-01
REV 01

Date Received: 2016/07/19 1 ampule x 1.2 mL (HPLC)

Date Received: 2016.08.15- 2 ampules- HPLC

Date Received: 2016.11.25 - 1 x 1.2ml - HPLC

Received 2016/12/01 1 x 1.2mL MMN FZ-11

Received 2016/12/19- -1 ampule HPLC

Received 2016/12/23- -1 ampule HPLC

Received 2016/12/29 1 x 1.2mL MMN FZ-11

Received date: 2017/02/22 1x1.2 mL MZH

Date Received: 2017/03/10- 1 AMPULES - SSV

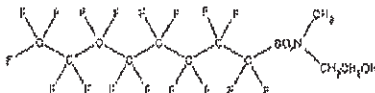


WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: N-MeFOSE-M **LOT NUMBER:** NMeFOSE1115M
COMPOUND: 2-(N-methylperfluoro-1-octanesulfonamido)ethanol

STRUCTURE: **CAS #:** 24448-09-7



MOLECULAR FORMULA: $C_{10}H_{19}F_{17}NO_4S$ **MOLECULAR WEIGHT:** 557.22
CONCENTRATION: $50 \pm 2.5 \mu\text{g/ml}$ **SOLVENT(S):** Methanol
CHEMICAL PURITY: >99%
LAST TESTED: 11/10/2015 (HPLC/LCMS) 11/08/2015 (LCMS)
EXPIRY DATE: 11/10/2020
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION DATA ATTACHED:

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

ADDITIONAL INFORMATION:

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

*Received mm
2016/08/15
1 x 1.2mL*

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:
B.G. Griffin

Date: 11/16/2015
Product

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Form 37, Weight 2100-17-16
Revised 08/2015

NMeFOSE1115M 11 of 11
rev0

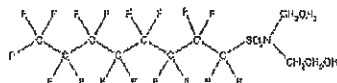
Received 2016/08/15 2 x 1.2mL MMN FZ-11
Date Received: 2016.07.19 - 2 ampoules - HPLC
Date Received: 2016.11.25 - 1 x 1.2mL -HPLC
Received 2016/12/01 1 x 1.2mL MMN FZ-11
Received 2016/12/19 1 x 1.2mL MMN FZ-11
Received 2016/12/23 1 x 1.2mL MMN FZ-11
Date Received: 2016.12.29 - 1 x 1.2mL- HPLC
Date Received: 2017/03/10- 2 AMPULES - SSV



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: NEI-FOSE-M **LOT NUMBER:** NEI-FOSE1115M
COMPOUND: 2-(N-ethylperfluoro-1-octenesulfonamido)-ethanol
STRUCTURE: **CAS #:** 1691-99-2



MOLECULAR FORMULA: $C_{14}H_{19}F_{17}NO_3S$ **MOLECULAR WEIGHT:** 571.25
CONCENTRATION: $50 \pm 2.5 \mu\text{g/ml}$ **SOLVENT(S):** Methanol
CHEMICAL PURITY: >98%
LAST TESTED: 11/10/2015 (HRGC/LRMS)
11/09/2015 (LC/MS)
EXPIRY DATE: 11/10/2020
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION DATA ATTACHED:

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

*Received from
N. G. Smith
1 x 1.2 mL*

ADDITIONAL INFORMATION:

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

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:
B.G. Smith Date: 11/11/2015
analyzed

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Form 001, Rev 004 2004-11-10
Revised 2015-09-24

NEI-FOSE1115M (1 of 2)
Page 1

Received 2016/08/15 2 x 1.2mL MMN FZ-11
Date Received: 2016.07.19- 2 AMPULES - HPLC
Date Received: 2016.11.25 - 1 x 1.2ML - HPLC
Received 2016/12/01 1 x 1.2mL MMN FZ-11
Date Received: 2016/12/19- 1 AMPULE - MMN HPLC
Received 2016/12/23 1 x 1.2mL MMN FZ-11
Received 2016/12/29 1 x 1.2mL MMN FZ-11
Date Received: 2017/03/10- 2 AMPULES - SSV



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

N-MeFOSAA

LOT NUMBER:

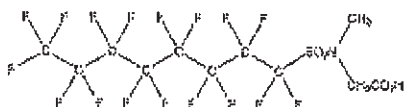
NM9FOSAA0916

COMPOUND:

N-methylparfluoro-1-octanesulfonamideacetic acid

STRUCTURE:**CAS #:**

2355-31-9

**MOLECULAR FORMULA:** $C_{11}H_{15}F_7NO_3S$ **MOLECULAR WEIGHT:**

571.21

CONCENTRATION: $50 \pm 2.5 \mu\text{g/ml}$ **SOLVENT(S):**

Methanol

Water (<1%)

CHEMICAL PURITY:

>98%

LAST TESTED:

10/12/2016

EXPIRY DATE:

10/12/2021

RECOMMENDED STORAGE:

Refrigerate ampoules

DOCUMENTATION DATA ATTACHED:

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

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

ADDITIONAL INFORMATION:

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

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Certified By:

E. G. Chilton

Date:

10/26/2016

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Form 027, Rev 01 2014-11-19
Personnel, Revised 2015-03-24

0916/CSA/0916 11 of 11
(rev)

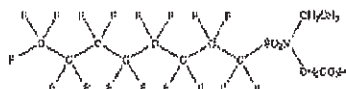
Received: 2016.11.25 - 1 x 1.2ml - HPLC
Received: 2016.12.01 - 1 x 1.2ml - HPLC
Received 2016/12/19 1 x 1.2mL MMN FD-59
Received 2016/12/23 1 x 1.2mL MMN FD-59
Received 2016/12/29 1 x 1.2mL MMN FD-59



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: NEFOSAA
COMPOUND: N-ethylperfluoro-1-octanesulfonamide/decetic acid
LOT NUMBER: NEFOSAA0916
STRUCTURE:
CAS #: 2991-50-6



MOLECULAR FORMULA: C₁₈H₁₇F₁₇NO₄S
CONCENTRATION: 50 ± 2.5 µg/ml
MOLECULAR WEIGHT: 665.23
SOLVENT(S): Methanol
Water (<1%)
CHEMICAL PURITY: >98%
LAST TESTED: 09/30/2016
EXPIRY DATE: 09/30/2021
RECOMMENDED STORAGE: Refrigerate ampoule

2016/10/27 2 ampule
p4 (NPL)
SSV

DOCUMENTATION/ DATA ATTACHED:

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

ADDITIONAL INFORMATION:

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

FOR LABORATORY USE ONLY; NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chittum

Date: 10/07/2016
09/05/2016

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

Form 22, April 2004/1-16
Revised, Revised 10/2014

NEFOSAA0916 (1 of 4)
100

Received: 2016.11.25 - 1 x 1.2ml- HPLC
Received 2016/12/01 1 x 1.2mL MMN FD-59
Received 2016/12/16 2 x 1.2mL MMN FD-59
Received 2016/12/19 1 x 1.2mL MMN FD-59
Received 2016/12/23 1 x 1.2mL MMN FD-59
Received 2016/12/29 1 x 1.2mL MMN FD-59



WELLINGTON LABORATORIES

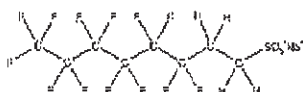
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: 02FTS
COMPOUND: Sodium 1H,1H,2H,2H-perfluorooctane sulfonate

LOT NUMBER: 02FTS0810

STRUCTURE:

CAS #: Not available



MOLECULAR FORMULA: C₈H₉F₁₇SO₃Na
CONCENTRATION: 50.0 ± 2.5 µg/ml (Na salt)
47.4 ± 2.4 µg/ml (0:2FTS anion)
CHEMICAL PURITY: >98%
LAST TESTED: 08/25/2018
EXPIRY DATE: 08/25/2021
RECOMMENDED STORAGE: Refrigerate ampoule

MOLECULAR WEIGHT: 450.16
SOLVENT(S): Methanol

DOCUMENTATION/ DATA ATTACHED:

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

ADDITIONAL INFORMATION:

See page 2 for further details.

*2 ampoules
8/16/17/19
SSV
MTC (py)*

FOR LABORATORY USE ONLY; NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittam
B.G. Chittam

Date: 08/29/2015
P. H. H.

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519-822-2436 • Fax: 519-822-2949 • info@well-labs.com

Form 027, Issue 0204-11-18
Previous 2, Revised 2016-03-24

02FTS0010:1 of 4
mqs

Received 2016/09/28 2 x 1.2mL MMN FD-59
Received 2016/10/05 1 x 1.2mL MMN FD-59
Received:2016.11.25- 1 x 1.2ml - HPLC
Received 2016/12/01 1 x 1.2mL MMN FD-59
Received 2016/12/19 1 x 1.2mL MMN FD-59<
e Received 2016/12/23- -1 ampule HPLC
Received 2016/12/29 1 x 1.2mL MMN FD-59
Date Received:2017/03/10- 2 AMPULES - SSV



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

82FTS

LOT NUMBER:

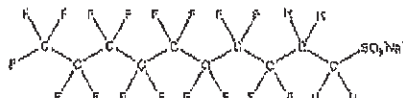
82FTS0816

COMPOUND:

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

STRUCTURE:**CAS #:**

Not available

**MOLECULAR FORMULA:** $C_{10}H_{17}F_{19}SO_3Na$ **MOLECULAR WEIGHT:**

580.16

CONCENTRATION:50.0 ± 2.6 µg/ml (Na salt)
47.9 ± 2.4 µg/ml (82FTS anion)**SOLVENT(S):**

Methanol

CHEMICAL PURITY:

≥ 98%

LAST TESTED:

08/22/2021

EXPIRY DATE:

08/22/2021

RECOMMENDED STORAGE:

Refrigerate ampoule

DOCUMENTATION DATA ATTACHED:

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

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

ADDITIONAL INFORMATION:

See page 2 for further details.

1 x 1.2 ml
Received 2016-09-12
NTS (HPLC)
Storage: Fridge 59

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chittim

Date: 08/25/2018

(mm/dd/yyyy)

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

Form 527, Issued 2016-11-10
Revision 6.2, Revised 2016-03-30

527YSD018 11 of 11
10/0

Received: 2016.11.25 - 1 x 1.2ml - HPLC
Received 2016/12/01 1 x 1.2mL MMN FD-59
Received 2016/12/19 1 x 1.2mL MMN FD-59
Received 2016/12/23 1 x 1.2mL MMN FD-59
Received 2016/12/29 1 x 1.2mL MMN FD-59
Received 2016/09/28 2 x 1.2mL MMN FD-59

PREPARATION OF STANDARDS OF INTERMEDIARY CONCENTRATION

PRLST PG. 13

Solution No.: I-5015 Date: 2017/05/11 Expiry Date: 2018/05/11 Discard Date: _____
Replaces Solution No.: I-4989 Replaced by Solution: _____ Chemist: GSZ
Compound(s)/Solution Name: PFC SECOND SOURCE SPIKING SOLUTION A
Number of Parent Solution(s): See attached sheet
Concentration of Parent Solution(s): See attached sheet (mg, ug)/mL
Aliquot of Parent Solution(s): See attached sheet mL / uL
Pipette/Syringe ID: P29746D, K19609D
Dilution Solvent: 0.3% NH₄OH in MeOH Dilution Volume: 50 mL
Final Concentration(s): 1 (mg, ug)/mL
Solution derivatized (as methyl ester): - As Other (specify): -
Solution Contains Surrogate Compounds: - For mix refer to table on page: -
Solution used for: PFC Volumetric Flask: 50ml class A (5640)
(Identify by serial number or other unique ID)
Solvent Supplier: See PRLRE 104-82 Lot No.: See PRLRE 104-82
Date Opened: See PRLRE 104-82
Storage Location: FZ 11 One time Use, Not Stored: -
Ampule Supplier: Wellington Date Opened: See attached sheet
Mix Name: -
Catalogue No.: - Ampule expiry Date: See attached sheet
Lot No.: See attached sheet
Date Received: See attached sheet

Notes/Comments:

I-5015 (PRLST 142 p.13)

Compound Name	ID#	Conc. (ug/mL)	Vol.. of Stock standard (uL)	Final Conc. (ug/mL)	Exp. date
PFBA	S4140-1	50	1000	1	2021/05/27
L-PFBS	S4140-2	44.2	1130	1	2021/12/02
PFPeA	S4140-3	50	1000	1	2021/05/31
PFHxA	S4140-4	50	1000	1	2020/12/22
br-PFHxSk	S4140-5	45.5	1056	1	2020/07/03
PFHpA	S4140-6	50	1000	1	2021/01/22
L-PFHpS	S4140-7	47.6	1050	1	2020/11/06
PFOA	S4140-8	50	1000	1	2021/08/02
brPFOSK	S4140-9	46.4	1080	1	2020/10/14
PFNA	S4140-10	50	1000	1	2020/10/23
PFDA	S4140-11	50	1000	1	2021/05/31
L-PFDS	S4140-12	48.2	1036	1	2022/02/17
PFuDA	S4140-13	50	1000	1	2020/08/19
PFDoA	S4140-14	50	1000	1	2021/05/31
PFTTrDA	S4140-15	50	1000	1	2021/02/12
PFTeDA	S4140-16	50	1000	1	2020/12/09
PFOSA (FOSA-I)	S4140-17	50	1000	1	2021/09/30
N-MeFOSA-M	S4140-18	50	1000	1	2021/05/24
N-EtFOSA-M	S4140-19	50	1000	1	2021/05/24
N-MeFOSE-M	S4140-20	50	1000	1	2020/11/10
N-EtFOSE-M	S4140-21	50	1000	1	2020/11/10
N-MeFOSAA	S4140-22	50	1000	1	2020/01/20
N-EtFOSAA	S4140-23	50	1000	1	2020/01/20
6:2FTS	S4140-24	47.4	1056	1	2021/06/25
8:2FTS	S4140-25	47.9	1044	1	2021/12/21

No writing on bottom page.

Maxxam Analytics

GSZ, 2017/05/11
05/11
GSZ 367 of 641

PRLST 133 PG 72

CSZ 2017/05/11

PREPARATION OF CONCENTRATED STOCK STANDARDS

Solution No.: SI-4140 Date: 2017/06/11 Expiry Date: See below Discard Date: _____Replaces Solution: _____ Replaced by Solution: _____ Chemist: CSZ

SI-4140 (PRLST 133 p. 72)

Solution ID#	Compound Name	Lot#	Received date	Exp. date	Replaces Solution	Replaced by Solution	Conc. (ug/mL)	Solvent	Storage
S4140-1	PFBA	PFBA0516	2017/03/10	2021/05/27	S4092-1		50	MeOH	FZ-35
S4140-2	L-PFBS	LPFBS1116	2016/12/23	2021/12/02	S4070-1		44.2	MeOH	FZ-35
S4140-3	PFPeA	PFPeA0516	2017/03/10	2021/05/31	S4092-2		50	MeOH	FZ-35
S4140-4	PFHxA	PFHxA1215	2016/12/29	2020/12/22	S4070-2		50	MeOH	FZ-35
S4140-5	br-PFHxSk	brPFHxSK0615	2016/12/19	2020/07/03	S4070-3		45.5	MeOH	FZ-35
S4140-6	PFHpA	PFHpA0116	2016/12/23	2021/01/22	S4070-4		50	MeOH	FZ-35
S4140-7	L-PFHpS	LPFHpS1115	2017/03/10	2020/11/06	S4092-3		47.6	MeOH	FZ-35
S4140-8	PFOA	PFOA0716	2016/12/19	2021/08/02	S4070-5		50	MeOH	FZ-35
S4140-9	brPFOSK	brPFOSK1015	2016/12/19	2020/10/14	S4070-6		46.4	MeOH	FZ-35
S4140-10	PFNA	PFNA1015	2016/12/29	2020/10/23	S4070-7		50	MeOH	FZ-35
S4140-11	PFDA	PFDA0516	2016/12/23	2021/05/31	S4070-8		50	MeOH	FZ-35
S4140-12	L-PFDS	LPFDS0217	2017/03/10	2022/02/17	S4092-4		48.2	MeOH	FZ-35
S4140-13	PFuDA	PFuDA0815	2016/12/23	2020/08/19	S4070-9		50	MeOH	FZ-35
S4140-14	PFDoA	PFDoA0516	2016/12/23	2021/05/31	S4070-10		50	MeOH	FZ-35
S4140-15	PFTTrDA	PFTTrDA0216	2016/12/23	2021/02/12	S4070-11		50	MeOH	FZ-35
S4140-16	PFTeDA	PFTeDA1215	2016/12/23	2020/12/09	S4070-12		50	MeOH	FZ-35
S4140-17	PFOSA (FOSA-I)	FOSA0815I	2017/04/06	2017/09/02	S4125		50	IPA	FD-59
S4140-18	N-MeFOSA-M	NMeFOSA0516M	2017/03/10	2021/05/24	S4092-5		50	MeOH	FZ-35
S4140-19	N-EtFOSA-M	NEtFOSA0516M	2017/03/10	2021/05/24	S4092-6		50	MeOH	FZ-35
S4140-20	N-MeFOSE-M	NMeFOSE1115M	2017/03/10	2020/11/10	S4092-7		50	MeOH	FZ-35
S4140-21	N-EtFOSE-M	NEtFOSE1115M	2017/03/10	2020/11/10	S4092-8		50	MeOH	FZ-35
S4140-22	N-MeFOSAA	NMeFOSAA0116	2016/12/23 ²⁰¹⁷	2020/01/20 ^{2017/06/19}	S4070-13		50	MeOH	FD-59
S4140-23	N-EtFOSAA	NEtFOSAA0116	2016/1125 ²⁰¹⁷	2020/01/20 ^{2017/06/19}	S4070-14		50	MeOH	FD-59
S4140-24	6:2FTS	62FTS0616	2017/03/10	2021/06/25	S4092-9		47.4	MeOH	FD-59
S4140-25	8:2FTS	82FTS1216	2017/03/10	2021/12/21 ²⁰¹⁷	S4092-10		47.9	MeOH	FD-59
Date opened (All compounds):			Supplier (All compounds) : Wellington			Chemist: <u>CSZ</u>			

No writing on bottom page

CSZ 2017/06/19

2017/05/11

Balance Used: _____
(specify model and serial no.)

Solvent Used: _____

Solvent Supplier: _____ Lot No(s): _____

Date Opened: _____

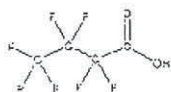
Storage Location / Conditions: _____



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: PFBA
COMPOUND: Perfluoro-n-butyric acid
LOT NUMBER: PFBA0516
STRUCTURE:
CAS #: 375-22-4



MOLECULAR FORMULA: $C_4H_5O_2$
CONCENTRATION: $50 \pm 2.5 \mu\text{g/ml}$
CHEMICAL PURITY: >98%
LAST TESTED: 05/27/2016
EXPIRY DATE: 05/27/2021
RECOMMENDED STORAGE: Store ampoules in a cool, dark place
MOLECULAR WEIGHT: 214.04
SOLVENT(S): Methanol
Water (<1%)

DOCUMENTATION DATA ATTACHED:

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

ADDITIONAL INFORMATION:

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

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:
B.G. Chillum
Date: 05/31/2016
17:53:27

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
319-822-2436 • Fax: 519-822-2848 • info@well-labs.com

Form 017, Revised 05/04/11-16
Perfluoro-n-butyric acid

17 N-0119 (1 of 4)
2011

Date Received: 2016.09.12 - HPLC -1 ampule
Received 2016/11/25 1 x 1.2mL MMN FZ-35
Received 2016/12/01 1 x 1.2mL MMN FZ-35
Received 2016/12/19 1 x 1.2mL MMN FZ-11
Received 2016/12/23 1 x 1.2mL MMN FZ-11
Received 2016/12/29 1 x 1.2mL MMN FZ-11
Date Received: 2017/03/10- 1 AMPULES - SSV
Date Received: 2017.04.06 - 2 ampoules - HPLC



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

L-PFBS

LOT NUMBER:

LPFBS1116

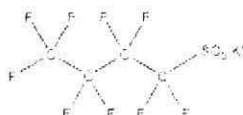
COMPOUND:

Potassium perfluorobutanesulfonate

STRUCTURE:

CAS #:

29420-49-3



MOLECULAR FORMULA:

C₄F₉SO₃K

MOLECULAR WEIGHT:

338.19

CONCENTRATION:

50.0 ± 2.5 µg/ml (K salt)

SOLVENT(S):

Methanol

44.2 ± 2.2 µg/ml (PFBS anion)

CHEMICAL PURITY:

>99%

LAST TESTED: (mm/dd/yyyy)

12/02/2016

EXPIRY DATE: (mm/dd/yyyy)

12/02/2021

RECOMMENDED STORAGE:

Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

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

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

ADDITIONAL INFORMATION:

See page 2 for further details.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chiklun

Date:

12/05/2016

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Form 21, revised 2006-11-10
Revision 2, revised 2015-03-24

LPFBS1116 (1 of 4)
rev0

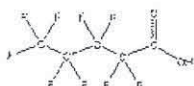
Received from
2016/12/29
1 x 1.2 mL
FZ-11



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: PFPaA
COMPOUND: Perfluoro-n-pentanoic acid
LOT NUMBER: PFPaA0516
STRUCTURE:
CAS #: 2706-90-3



MOLECULAR FORMULA: $C_5F_{11}O_2$
CONCENTRATION: $50 \pm 2.5 \mu\text{g/ml}$
CHEMICAL PURITY: >98%
LAST TESTED: 05/31/2016
EXPIRY DATE: 05/31/2021
RECOMMENDED STORAGE: Store ampoule in a cool, dark place
MOLECULAR WEIGHT: 264.05
SOLVENT(S): Methanol
Water (<1%)

DOCUMENTATION/ DATA ATTACHED:

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

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains ~0.3% of Perfluoro-n-heptanoic acid (PFPpA) and ~0.2% of $C_5F_{11}O_2$ (hydride - derivative) as measured by ^{19}F NMR.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:
B.G. Chillum

Date: 06/02/2016

*received from
2016/10/05
1 x, 2 mL
FZ-35*

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Form 007, revised 10/16/15
For QCPA, P02667 10/16/15

PFPaA0516 11 of 41
P02

Date Received: 2016.09.12 - 1 ampule - HPLC
Received 2016/10/05 1 x 1.2mL MMN FZ-35
Received 2016/11/25 1 x 1.2mL MMN FZ-11
Received 2016/12/01 1 x 1.2mL MMN FZ-35
Received 2016/12/19 1 x 1.2mL MMN FZ-11
Received 2016/12/23 1 x 1.2mL MMN FZ-11
Received 2016/12/29 1 x 1.2mL MMN FZ-11
Date Received: 2017/03/10 - 2 AMPULES - SSV
Received 2017/05/25 2 x 1.2mL MMN FZ-11
Received 2017/05/29 2 x 1.2mL MMN FZ-11



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CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

PFHxA

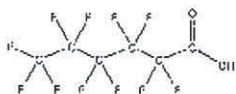
LOT NUMBER: PFHxA1215

COMPOUND:

Perfluoro-n-hexanoic acid

STRUCTURE:

CAS #: 307-24-4



MOLECULAR FORMULA:

C₆HF₁₁O₂

MOLECULAR WEIGHT: 314.06

CONCENTRATION:

80 ± 2.5 µg/ml

SOLVENT(S):

Methanol

Water (<1%)

CHEMICAL PURITY:

>98%

LAST TESTED: 12/22/2015

EXPIRY DATE: 12/22/2020

RECOMMENDED STORAGE:

Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

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

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

ADDITIONAL INFORMATION:

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

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chittim

Date: 12/23/2015

*received from
23.06.15
17.02.16
FZ-35*

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519-822-2436 • Fax: 519-822-2948 • info@well-labs.com

FORM 101, Revision 1506-21-16
Perfluoro-n-hexanoic acid

1506-21-16
12/23

Date Received: 2016.09.12 - 1 ampule- HPLC

Received 2016/10/05 1 x 1.2mL MMN FZ-35

Received 2016/11/25 1 x 1.2mL MMN FZ-35

Received 2016/12/12 2 x 1.2mL MMN FZ-11

Received 2016/12/16 2 x 1.2mL MMN FZ-11

Received 2016/12/23 1 x 1.2mL MMN FZ-11

Received 2016/12/29 1 x 1.2mL MMN FZ-11



WELLINGTON
LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

br-PFHxSK

Potassium Perfluorohexanesulfonate
Solution/Mixture of Linear and
Branched Isomers

PRODUCT CODE: br-PFHxSK
LOT NUMBER: brPFHxSK0615
CONCENTRATION: 50.0 ± 2.5 µg/ml (total potassium salt)
45.5 ± 2.3 µg/ml (total PFHxS anion)
SOLVENT(S): Methanol
DATE PREPARED: (YYYYMMDD) 06/29/2015
LAST TESTED: (YYYYMMDD) 07/03/2015
EXPIRY DATE: (YYYYMMDD) 07/03/2020
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DESCRIPTION:

The chemical purity has been determined to be ≥95% perfluorohexanesulfonate linear and branched isomers. The full name, structure and percent composition for each of the identified isomeric components are given in Table A.

DOCUMENTATION DATA ATTACHED:

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

2 ampoule (CF₂)
SSU
216/10/27
HPLC/PPY

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains ~ 0.5% of perfluoro-1-pentanesulfonate and ~ 0.2% of perfluoro-1-octanesulfonate.
- CAS#: 3571-99-8 (for linear isomer; potassium salt).

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Form 15, Issued 2004-11-10
Revised 3, Revised 2016-03-24

brPFHxSK0615 (1 of 5)
N=1

Received 2016/10/27 2 x 1.2mL MMN FZ-35
Received 2016/11/25 1 x 1.2mL MMN FZ-35
Received: 2016.12.01- 1 x 1.2ml - HPLC
Received 2016/12/16 2 x 1.2mL MMN FZ-11
Received 2016/12/19 1 x 1.2mL MMN FZ-11



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

PFHpA

LOT NUMBER:

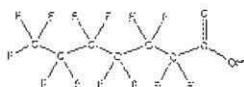
PFHpA0116

COMPOUND:

Perfluoro-n-heptanoic acid

STRUCTURE:**CAS #:**

375-85-6

**MOLECULAR FORMULA:**C₇H₁F₁₃O₂**MOLECULAR WEIGHT:**

364.06

CONCENTRATION:

50 ± 2.5 µg/ml

SOLVENT(S):Methanol
Water (<1%)**CHEMICAL PURITY:**

>98%

LAST TESTED:

01/22/2016

EXPIRY DATE:

01/22/2021

RECOMMENDED STORAGE:

Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

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

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

ADDITIONAL INFORMATION:

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

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chittim

Date: 02/02/2016

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2438 • Fax: 519-822-2849 • info@well-labs.comForm 177, Version 02/14-11-13
Printed on 02/02/2016 10:20Revised from
2016/10/05
1 x 1.2 mL
FZ-35

Received 2016/09/12 1 x 1.2mL MMN FZ-35
Received 2016/10/05 1 x 1.2mL MMN FZ-35
Received 2016/11/25 1 x 1.2mL MMN FZ-35
Received: 2016.12.01 - 1 x 1.2ml - HPLC
Received: 2016/12/23 1x1.2 ml- HPLC



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

L-PFHpS

LOT NUMBER:

LPFHpS1115

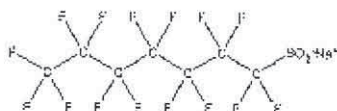
COMPOUND:

Sodium perfluoro-1-heptanesulfonate

STRUCTURE:

CAS #:

Not available



MOLECULAR FORMULA:

$C_7F_{15}SO_3Na$

MOLECULAR WEIGHT:

472.10

CONCENTRATION:

50.0 ± 2.5 µg/ml (Na salt)

SOLVENT(S):

Methanol

47.6 ± 2.4 µg/ml (PFHpS anion)

CHEMICAL PURITY:

>98%

LAST TESTED: *in-house*

11/06/2015

EXPIRY DATE: *in-house*

11/06/2020

RECOMMENDED STORAGE:

Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

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

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

ADDITIONAL INFORMATION:

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

2 x 1.2 mL

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chinn

Date: 11/09/2015

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519-822-2438 • Fax: 519-822-2849 • info@well-labs.com

Form 001 - Revised 06/01/15

Date Received: 2016.07.19 - 1 Ampule - HPLC
Date Received: 2016.09.12 - 1 Ampule - HPLC
Received 2016/10/05 1 x 1.2mL MMN FZ-35
Received: 2017/03/10 2x1.2 mL - HPLC



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

PFOA

LOT NUMBER:

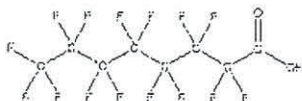
PFOA0716

COMPOUND:

Perfluoro-n-octanoic acid

STRUCTURE:**CAS #:**

335-67-1

**MOLECULAR FORMULA:** $C_8H_7F_{17}O_2$ **MOLECULAR WEIGHT:**

414.07

CONCENTRATION: $50 \pm 2.5 \mu\text{g/ml}$ **SOLVENT(S):**

Methanol

Water (<1%)

CHEMICAL PURITY:

>98%

LAST TESTED:

08/02/2016

EXPIRY DATE:

08/02/2021

RECOMMENDED STORAGE:

Store ampoule in a cool, dark place

Received
2016/12/16
2 x 1.2 mL
FZ-11

DOCUMENTATION/ DATA ATTACHED:

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

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

ADDITIONAL INFORMATION:

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

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chittim

Date:

08/05/2019
Initials

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519-822-2438 • Fax: 519-822-2849 • info@well-labs.com

Form 27, issued 2004-11-10
Amended 2015-03-24

FFC00218 11 of 43
1873

Received 2016/09/28 2 x 1.2mL MMN FZ-35
Received 2016/11/25 2 x 1.2mL MMN FZ-35
Received 2016/12/19 1 x 1.2mL MMN FZ-11
Received 2016/12/23 1 x 1.2mL MMN FZ-11
Received 2016/12/29 1 x 1.2mL MMN FZ-11
Received 2016/12/23 1 x 1.2mL MMN FZ-11
Received 2016/12/29 1 x 1.2mL MMN FZ-11



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

br-PFOSK

Potassium Perfluorooctanesulfonate
Solution/Mixture of Linear and
Branched Isomers

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

DESCRIPTION:

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

DOCUMENTATION/DATA ATTACHED:

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

ADDITIONAL INFORMATION:

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

*Received per
mm 10/29
2 x 1.2 mL*

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

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

Form# 10, Issued 2014-11-16
Revision# 3, Revised 2015-03-24

br-PFOSK1015 (1 of 5)
rev3

Date Received: 2016.07.19 - 2 ampules - HPLC
Date Received: 2016.09.12 - 1 ampule - HPLC
Received 2016/09/28 1 x 1.2mL MMN FZ-35
Received 2016/11/25 1 x 1.2mL MMN FZ-35
Received 2016/12/16 2 x 1.2mL MMN FZ-11
Received 2016/12/19 1 x 1.2mL MMN FZ-11
Received 2016/12/23 1 x 1.2mL MMN FZ-11
Received 2016/12/29 1 x 1.2mL MMN FZ-11



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

PFNA

LOT NUMBER:

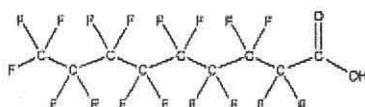
PFNA1015

COMPOUND:

Perfluoro-n-nonanoic acid

STRUCTURE:**CAS #:**

375-95-1

**MOLECULAR FORMULA:** $C_9HF_{17}O_2$ **MOLECULAR WEIGHT:**

464.08

CONCENTRATION: $50 \pm 2.5 \mu\text{g/ml}$ **SOLVENT(S):**Methanol
Water (<1%)**CHEMICAL PURITY:**

>98%

LAST TESTED: (mm/dd/yyyy)

10/23/2015

EXPIRY DATE: (mm/dd/yyyy)

10/23/2020

RECOMMENDED STORAGE:

Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

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

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

2 x 1.2 mL

ADDITIONAL INFORMATION:

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

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chittim

Date:

10/30/2015
(mm/dd/yyyy)Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • Info@well-labs.comForm# 27, Issued 2004-11-10
Revision# 3, Revised 2015-03-24PFNA1015 (1 of 4)
revD

Date Received: -2016/07/19 HPLC SSV 2 ampules
Date Received: 2016.09.12 - HPLC - 1 ampule
Received 2016/09/28 2 x 1.2mL MMN FZ-35
Received 2016/12/29 2x1.2 mL mmn



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

PFDA

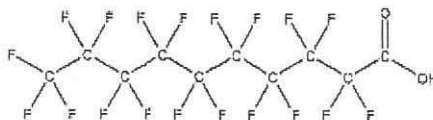
LOT NUMBER: PFDA0516

COMPOUND:

Perfluoro-n-decanoic acid

STRUCTURE:

CAS #: 335-76-2



MOLECULAR FORMULA:

$C_{10}H_8F_{18}O_2$

MOLECULAR WEIGHT: 514.08

CONCENTRATION:

50 ± 2.5 µg/ml

SOLVENT(S):

Methanol

Water (<1%)

CHEMICAL PURITY:

>99%

LAST TESTED: (mm/dd/yyyy)

05/31/2016

EXPIRY DATE: (mm/dd/yyyy)

05/31/2021

RECOMMENDED STORAGE:

Store ampoule in a cool, dark place

DOCUMENTATION DATA ATTACHED:

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

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

2 x 1.2 ml
Received 2016-09-12
MS (HPLC)

ADDITIONAL INFORMATION:

Storage: Freezer 35

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

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chittim

Date: 06/13/2016

(mm/dd/yyyy)

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Form 27, Issued 2004-11-10
Revision 3, Revised 2016-03-24

PFDA0516 1 of 4
rev3

Received 2016/09/12 2 x 1.2mL MMN FZ-35
Received 2016/12/01 2 x 1.2mL MMN FZ-35
Received 2016/12/16 2 x 1.2mL MMN FZ-11
Received 2016/12/19 1 x 1.2mL MMN FZ-11
Received 2016/12/23 1 x 1.2mL MMN FZ-11
Received 2016/12/29 1 x 1.2mL MMN FZ-11



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CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

L-PFDS

LOT NUMBER:

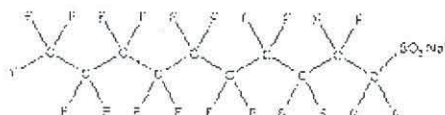
LPFDS0217

COMPOUND:

Sodium perfluoro-1-dodecanesulfonate

STRUCTURE:**CAS #:**

2806-15-7

**MOLECULAR FORMULA:** $C_{12}F_{27}SO_2Na$ **MOLECULAR WEIGHT:**

622.13

CONCENTRATION:

50.0 ± 2.5 µg/ml (Na salt)

SOLVENT(S):

Methanol

CHEMICAL PURITY:

>98%

LAST TESTED:

02/17/2017

EXPIRY DATE:

02/17/2022

RECOMMENDED STORAGE:

Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

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

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

ADDITIONAL INFORMATION:

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

Date received
26/12/03/10
2 Ampoules
HPLC
SSV

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chittim

Date: 02/22/2017

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

Form 021, Issued 06/04/11
Revised 03, Revised 2015-03-24

LPFDS0217 (1 of 1)
ms

Received 2017/05/25 2 x 1.2mL MMN FZ-11

Received 2017/05/29 2 x 1.2mL MMN FZ-11

O=C(F)(F)C(F)(F)C(F)(F)C(F)(F)C(F)(F)C(F)(F)C(F)(F)C(F)(F)C(F)(F)O

(FZ) Rev'd: 300

1x1.2ml

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

912 1142
[707/43/1/10/2]

date recieved-2015/10/30-mmn-1x1.2ml
Received 2016/10/05 1 x 1.2mL MMN FZ-11
date recieved-2016/07/19 HPLC SSV-2x1.2ml
Received:2016/12/23 1x1.2 ml- HPLC



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

PFD0A

LOT NUMBER:

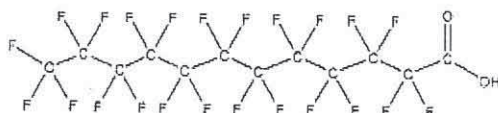
PFD0A0516

COMPOUND:

Perfluoro-n-dodecanoic acid

STRUCTURE:**CAS #:**

307-55-1

**MOLECULAR FORMULA:** $C_{12}H_2F_{22}O_2$ **MOLECULAR WEIGHT:**

614.10

CONCENTRATION:

50 ± 2.5 µg/ml

SOLVENT(S):

Methanol

Water (<1%)

CHEMICAL PURITY:

>98%

LAST TESTED:

05/31/2016

EXPIRY DATE:

05/31/2021

RECOMMENDED STORAGE:

Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

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

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

1 x 1.2 ml
Received 2016-09-12
MS (HPLC)
Storage: Freezer 35

ADDITIONAL INFORMATION:

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

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chittim

Date: 06/02/2016

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

Form# 27, Issued 2004-11-10
Revision# 3, Revised 2015-03-24

PFD0A0516 (1 of 4)
rev3

Received 2016/09/28 2 x 1.2mL MMN FZ-35

Received 2016/11/25 1 x 1.2mL MMN FZ-35

Received 2016/12/01 1 x 1.2mL MMN FZ-35

Received 2016/12/16 2 x 1.2mL MMN FZ-11

Received 2016/12/19 1 x 1.2mL MMN FZ-11

Received 2016/12/23 1 x 1.2mL MMN FZ-11

Received 2016/12/29 1 x 1.2mL MMN FZ-11



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

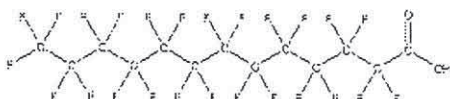
PFTDA

LOT NUMBER: PFTDA0216**COMPOUND:**

Perfluoro-n-tridecanoic acid

STRUCTURE:**CAS #:**

72629-04-8

**MOLECULAR FORMULA:** $C_{13}H_5F_{27}O_2$ **MOLECULAR WEIGHT:**

584.11

CONCENTRATION: $50 \pm 2.5 \mu\text{g/ml}$ **SOLVENT(S):**

Methanol

Water (<1%)

CHEMICAL PURITY:

>98%

LAST TESTED:

02/12/2018

EXPIRY DATE:

02/12/2021

RECOMMENDED STORAGE:

Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

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

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

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mEq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains ~0.1% of PFTDA ($C_{14}H_5F_{27}O_2$), ~0.4% of PFDCA ($C_{12}H_5F_{25}O_2$) and ~0.1% of PFTDA ($C_{14}H_5F_{27}O_2$).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chilton

Date:

02/16/2018

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
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Form: 22, Dec 11 10:11:10
Rev: 02.0, Dec 11 10:11:10

PFDA/MS/MS (1 of 4)
10/11

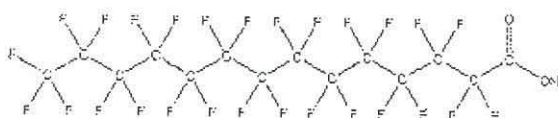
Date Received: 2016.10.05 - HPLC - 1 x 1.2ml
Date Received: 2016.09.12 - HPLC - 1 x 1.2ml
Date Received: 2016.11.25 - HPLC - 1 x 1.2ml.2ml
Received 2016/12/01 1 x 1.2mL MMN FZ-35
Received 2016/12/16 2 x 1.2mL MMN FZ-11
Received 2016/12/19 1 x 1.2mL MMN FZ-11
Received 2016/12/23 1 x 1.2mL MMN FZ-11
Received 2016/12/29 1 x 1.2mL MMN FZ-11



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CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: PFTeDA **LOT NUMBER:** PFTeDA1215
COMPOUND: Perfluoro-n-tetradecanoic acid
STRUCTURE: **CAS #:** 376-06-7



MOLECULAR FORMULA: $C_{14}F_{28}O_2$ **MOLECULAR WEIGHT:** 714.11
CONCENTRATION: $50 \pm 2.5 \mu\text{g/ml}$ **SOLVENT(S):** Methanol
Water (<1%)
CHEMICAL PURITY: >98%
LAST TESTED: 12/09/2015
EXPIRY DATE: 12/09/2020
RECOMMENDED STORAGE: Store ampoules in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

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

*received from 2016/03/29
2x1.2 ml*

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains ~ 0.2% of PFDa ($C_{14}F_{28}O_2$) and ~ 0.2% of PFPaDA ($C_{14}H_{26}O_2$).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chittim

Date: 12/09/2015
(12/09/2015)

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Form 9.01, Issued 2014-11-10
Revision 02, Revised 2016-03-24

PFTeDA1215 15 of 11
Rev2

Date Received : -2016/07/19 HPLC SSV 2 ampules
Date Received: 2016.09.12 - 1 ampule - HPLC
Received: 2016/12/23 2x1.2 ml- HPLC



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

FOSA-I

LOT NUMBER:

FOSA08151

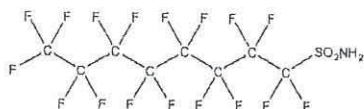
COMPOUND:

Perfluoro-1-octanesulfonamide

STRUCTURE:

CAS #:

754-91-6



MOLECULAR FORMULA:

C₈H₂F₁₇NO₂S

MOLECULAR WEIGHT:

499.14

CONCENTRATION:

50 ± 2.5 µg/ml

SOLVENT(S):

Isopropanol

CHEMICAL PURITY:

>98%

LAST TESTED: (mm/dd/yyyy)

09/02/2015

EXPIRY DATE: (mm/dd/yyyy)

09/02/2017

RECOMMENDED STORAGE:

Refrigerate ampoule

DOCUMENTATION/ DATA ATTACHED:

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

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

ADDITIONAL INFORMATION:

- See page 2 for further details.

*Received mmn
2015/10/30
2 x 1.2 ml
FPIV*

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chittim

Date:

09/11/2015
(mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
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Received: 2015/11/30 mmn 2x1.2ml
date recieved: 2015/10/30-mm-1x1.2ml
Received : 2016/06/07 SSV- (2x1.2mL)
Date Received: 2016.07.19 - 1 ampule - HPLC
Date Received: 2016.10.05 - 2 x 1.2ml - HPLC
Date Received: 2016.09.12 - 1 x 1.2ml - HPLC
Recieved: 2017/04/06 2x1.2 ml - HPLC

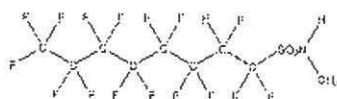
Date



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: N-MeFOSA-M
COMPOUND: N-methylperfluoro-1-octanesulfonamide
LOT NUMBER: NMeFOSA0516M
STRUCTURE:
CAS #: 31508-32-8



MOLECULAR FORMULA: C₉H₁₈F₁₇NO₂S
CONCENTRATION: 50 ± 2.5 µg/ml
CHEMICAL PURITY: >96%
LAST TESTED: 05/24/2016
EXPIRY DATE: 05/24/2021
RECOMMENDED STORAGE: Store ampoule in a cool, dark place
MOLECULAR WEIGHT: 513.17
SOLVENT(S): Methanol

DOCUMENTATION/ DATA ATTACHED:

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

ADDITIONAL INFORMATION:

See page 2 for further details.

*1 ampule
2016/07/15
SSV
mm*

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:
B.G. Chittim
Date: 05/26/2016

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Form 27, Issue 2014-11-19
Supersedes: Rev 02 2013-03-20

ANALOGOUS MATERIALS
1942

Received 2016/08/15 2 x 1.2mL MMN FZ-35
Date Received: 2016.11.25 - 1 x 1.2mL - HPLC
Received 2016/12/01 1 x 1.2mL MMN FZ-35
Date Received: 2016.12.19- 1 AMPULES - HPLC
Received 2016/12/23 1 x 1.2mL MMN FZ-11
Received 2016/12/29 1 x 1.2mL MMN FZ-11
Date Received: 2017/03/10- 2 AMPULES - SSV



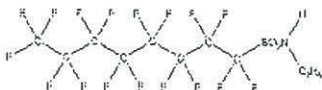
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: N-EIFOSA-M
COMPOUND: N-ethylperfluoro-1-octanesulfonamide

LOT NUMBER: NEIFCSA0516M

STRUCTURE: **CAS #:** 4151-50-2



MOLECULAR FORMULA: $C_{10}H_{11}F_{17}NO_2S$
CONCENTRATION: $50 \pm 2.5 \mu\text{g/ml}$
CHEMICAL PURITY: $>98\%$
LAST TESTED: 05/24/2016
EXPIRY DATE: 05/24/2021
RECOMMENDED STORAGE: Store ampoules in a cool, dark place

MOLECULAR WEIGHT: 527.20
SOLVENT(S): Methanol

DOCUMENTATION/ DATA ATTACHED:

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

ADDITIONAL INFORMATION:

• See page 2 for further details.

1 ampule
2016/07/19
SSV
HPLC

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:
B. G. Chirkin Date: 05/27/2016

Wellington Laboratories Inc., 345 Southgate Dr., Guelph ON N1G 3M3 CANADA
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Perfluoro-27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000

RECEIVED 11 01 11
HAC

Date Received: 2016/07/19 1 ampule x 1.2 mL (HPLC)
Date Received: 2016.08.15- 2 ampules- HPLC
Date Received: 2016.11.25 - 1 x 1.2ml - HPLC
Received 2016/12/01 1 x 1.2mL MMN FZ-11
Received 2016/12/19- -1 ampule HPLC
Received 2016/12/23- -1 ampule HPLC
Received 2016/12/29 1 x 1.2mL MMN FZ-11
Received date: 2017/02/22 1x1.2 mL MZH
Date Received:2017/03/10- 1 AMPULES - SSV



WELLINGTON LABORATORIES

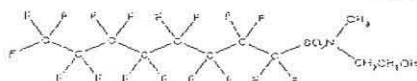
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: N-MeFOSE-M
COMPOUND: 2-(N-methylperfluoro-1-octanesulfonamido)-ethanol

LOT NUMBER: NMeFOSE1115M

STRUCTURE:

CAS #: 24448-09-7



MOLECULAR FORMULA: $C_{10}H_{19}F_{17}NO_4S$
CONCENTRATION: $50 \pm 2.5 \mu\text{g/ml}$
CHEMICAL PURITY: $>99\%$
LAST TESTED: 11/10/2015 (HRGC/LRMS)
11/09/2015 (LC/MS)
EXPIRY DATE: 11/10/2020
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

MOLECULAR WEIGHT: 557.22
SOLVENT(S): Methanol

DOCUMENTATION/ DATA ATTACHED:

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

ADDITIONAL INFORMATION:

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

*Received from
2016/03/29
1 x 1.2mL*

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:
B.G. Chilton

Date: 11/15/2015

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Form 027, updated 10/01/15
Revised 02/15, Version 2015-03-20

NMeFOSE1115M 11 of 21
revD

Received 2016/08/15 2 x 1.2mL MMN FZ-11
Date Recieved: 2016.07.19 - 2 ampules - HPLC
Date Received: 2016.11.25 - 1 x 1.2mL -HPLC
Received 2016/12/01 1 x 1.2mL MMN FZ-11
Received 2016/12/19 1 x 1.2mL MMN FZ-11
Received 2016/12/23 1 x 1.2mL MMN FZ-11
Date Received: 2016.12.29 - 1 x 1.2ml- HPLC
Date Received: 2017/03/10- 2 AMPULES - SSV

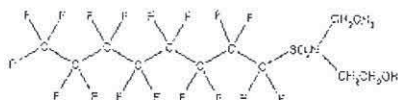


WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: NEI-FOSE-M **LOT NUMBER:** NEI-FOSE1115M
COMPOUND: 2-(N-ethylperfluoro-1-octanesulfonamido)-ethanol

STRUCTURE: **CAS #:** 1691-99-2



MOLECULAR FORMULA: $C_{10}H_{19}F_{17}NO_4S$ **MOLECULAR WEIGHT:** 571.25
CONCENTRATION: $50 \pm 2.5 \mu\text{g/ml}$ **SOLVENT(S):** Methanol
CHEMICAL PURITY: >98%
LAST TESTED: 11/10/2015 (HRGC/LRMS)
11/09/2015 (LC/MS)
EXPIRY DATE: 11/10/2020
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

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

*Received from
2016/07/29
1 x 1.2 mL*

ADDITIONAL INFORMATION:

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

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim Date: 11/11/2015

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Form 27, Revised 2004-11-09
Revised 2013, Revised 2015-09-26

NEI-FOSE1115M (1 of 6)
-000

Received 2016/08/15 2 x 1.2mL MMN FZ-11
Date Received: 2016.07.19- 2 AMPULES - HPLC
Date Received: 2016.11.25 - 1 x 1.2ML - HPLC
Received 2016/12/01 1 x 1.2mL MMN FZ-11
Date Received: 2016/12/19- 1 AMPULE - MMN HPLC
Received 2016/12/23 1 x 1.2mL MMN FZ-11
Received 2016/12/29 1 x 1.2mL MMN FZ-11
Date Received: 2017/03/10- 2 AMPULES - SSV



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

N-MeFOSAA

LOT NUMBER:

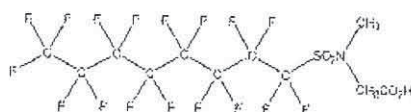
NMeFOSAA0116

COMPOUND:

N-methylperfluoro-1-octanesulfonamidoacetic acid

STRUCTURE:**CAS #:**

2355-31-9

**MOLECULAR FORMULA:** $C_{11}H_0F_{17}NO_4S$ **MOLECULAR WEIGHT:**

571.21

CONCENTRATION: $50 \pm 2.5 \mu\text{g/ml}$ **SOLVENT(S):**

Methanol

Water (<1%)

CHEMICAL PURITY:

>98%

LAST TESTED: (mm/dd/yyyy)

01/20/2016

EXPIRY DATE: (mm/dd/yyyy)

01/20/2021

RECOMMENDED STORAGE:

Refrigerate ampoule

DOCUMENTATION/ DATA ATTACHED:

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

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

ADDITIONAL INFORMATION:

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

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chittim

Date: 01/21/2016

(mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
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Form 01-27, Rev 01/25/04-11-16
Revision 4-9, Revised 2015-03-24

NMeFOSAA0116 (1 of 6)
REV

Date received: -2016/07/19 SSV HPLC 2 ampoules
Date Received: 2016.10.05 - HPLC - 1 x 1.2ml
Date Received: 2016.09.12 -HPLC - 1 x 1.2ml
Recieved: 2016.12.23 1x1.2 ml - HPLC



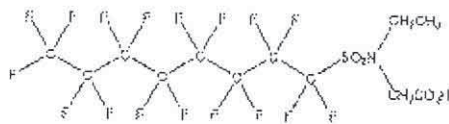
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: NEIFOSAA
COMPOUND: N-ethylperfluoro-1-octanesulfonamidoacetic acid

LOT NUMBER: NEIFOSAA0116

STRUCTURE:
CAS #: 2891-50-8



MOLECULAR FORMULA: $C_{10}H_6F_{16}NO_4S$
CONCENTRATION: $50 \pm 2.5 \mu\text{g/ml}$
CHEMICAL PURITY: >98%
LAST TESTED: 01/20/2016
EXPIRY DATE: 01/20/2021
RECOMMENDED STORAGE: Refrigerate ampoule

MOLECULAR WEIGHT: 585.23
SOLVENT(S): Methanol
Water (<1%)

DOCUMENTATION/ DATA ATTACHED:

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

*Received from
2016/3/29
1 x 1.2 ml*

ADDITIONAL INFORMATION:

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

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chittim

Date: 01/21/2016
(signature)

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

FORM 27, 36500 2006-11-10
REVISED: 2015-03-24

NEIFOSAA0116 (2 of 2)
new

Date received: -2016/07/19 HPLC 2 Ampules SSV
Received: 2016/11/25 1x1.2ml - HPLC

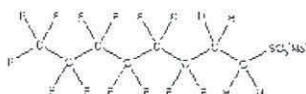


WELLINGTON
LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: 62FTS LOT NUMBER: 62FT92816
COMPOUND: Sodium 1H,1H,2H,2H-perfluorooctane sulfonate

STRUCTURE: CAS #: Not available



MOLECULAR FORMULA: $C_8H_9F_{17}SO_3Na$ MOLECULAR WEIGHT: 450.16
CONCENTRATION: 50.0 ± 2.5 µg/ml (Na salt)
47.4 ± 2.4 µg/ml (6:2PFS anion) SOLVENT(S): Methanol
CHEMICAL PURITY: >98%
LAST TESTED: 05/25/2018
EXPIRY DATE: 03/25/2021
RECOMMENDED STORAGE: Refrigerate ampoule

DOCUMENTATION/ DATA ATTACHED:

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

ADDITIONAL INFORMATION:

See page 2 for further details.

*2 ampoules
8/16/17/19
SSV
HPLC (py)*

FOR LABORATORY USE ONLY; NOT FOR HUMAN OR DRUG USE

Certified By:
B.G. Chilton

Date: 06/23/2015
1741206

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2438 • Fax: 519-822-2848 • info@well-labs.com

Form 027, Issues 2/04-11-11
Revised 12, New 07/12/12

07/15/2010: 11 of 43
m/c

Received 2016/09/28 2 x 1.2mL MMN FD-59
Received 2016/10/05 1 x 1.2mL MMN FD-59
Received: 2016.11.25- 1 x 1.2ml - HPLC
Received 2016/12/01 1 x 1.2mL MMN FD-59
Received 2016/12/19 1 x 1.2mL MMN FD-59<
e Received 2016/12/23- -1 ampule HPLC
Received 2016/12/29 1 x 1.2mL MMN FD-59
Date Received: 2017/03/10- 2 AMPULES - SSV



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

8.2FTS

LOT NUMBER:

82FTS1216

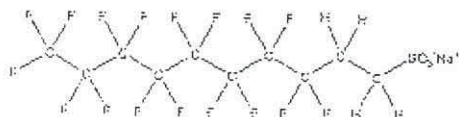
COMPOUND:

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

STRUCTURE:

CAS #:

Not available



MOLECULAR FORMULA:

C₁₀H₄F₁₈SO₃Na

MOLECULAR WEIGHT:

550.18

CONCENTRATION:

50.0 ± 2.6 µg/ml (Na salt)

SOLVENT(S):

Methanol

47.9 ± 2.4 µg/ml (8.2FTS anion)

CHEMICAL PURITY:

>98%

LAST TESTED:

12/12/2016

EXPIRY DATE:

12/12/2021

RECOMMENDED STORAGE:

Refrigerate ampoule

DOCUMENTATION/ DATA ATTACHED:

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

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

ADDITIONAL INFORMATION:

See page 2 for further details.

Date received
2017/03/10
2 Ampoules
HPLC
SSV

FOR LABORATORY USE ONLY; NOT FOR HUMAN OR DRUG USE

Certified By:

B. G. Chellam

Date: 12/21/2016

12/21/2016

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

File: 82FTS1216 (1 of 4)
Institution: Wellington Laboratories

82FTS1216 (1 of 4)
12/21/2016

Received 2017/05/25 2 x 1.2mL MMN FD-59

Received 2017/05/29 2 x 1.2mL MMN FD-59

PREPARATION OF SURROGATE / INTERNAL STANDARD SPIKING SOLUTION

Solution No.: SI-6423 Prep'n Date: 2017/05/03 Expiry Date: 2018/05/03 Discard Date: _____
 Replaces Solution No.: SI-6345 Replaced by Solution: SI-6460 Chemist: GSZ
 Sol'n. Name: IND. I.S.
 Solution Used As: Internal Std: ☒ Surrogate Spike: _____
 Spike Volume: 20 (uL) or mL (for I.S. uL per mL) For Instrument/Analysis: LC-MS-MS
 Solvent(s): 0.3% NH₄OH in MeOH Supplier(s): Su PRURE 104-60 Lot No(s): Su PRURE 104-60
 Date Solvent Opened: Su PRURE 104-60
 Volumetric Flask Used: 100 mL Class A (5640) Syringe ID: Pipette K19865F
 Storage Location and Conditions: FZ-11
 Ampule supplier; Mix Name; Catalogue No.; Lot No.; Date Rec'd.; Date Opened, Ampule Expiry Date:

Compound	Parent Solution No.	Parent Solution Conc'n. (ug/mL)	Aliquot Volume (mL) (uL)	Dilution Volume (mL)	Final Conc'n. ng/mL (ug/mL)	Absolute Amount Spiked (ug / ng)
¹³ C ₉ PFDA	S-4041	50	200	100	100	~
¹³ C ₉ PFHxA	S-4042	50	200	100	100	~
GSZ, 2017/05/03						

Notes:

Solution No.: SI-6424 Prep'n Date: 2017/05/04 Expiry Date: 2018/05/11 Discard Date: _____
 Replaces Solution No.: SI-6420 Replaced by Solution: SI-6425 Chemist: 1204
 Sol'n. Name: Acetone - o - taurphenyl
 Solution Used As: Internal Std: N/A Surrogate Spike: yes
 Spike Volume: 10.0 uL or mL (for I.S. uL per mL) For Instrument/Analysis: GC-FID
 Solvent(s): Acetone Supplier(s): Fisher Lot No(s): 168362
 Date Solvent Opened: 2017/05/04
 Volumetric Flask Used: Class A Syringe ID: 2016/10106
 Storage Location and Conditions: FD-65
 Ampule supplier; Mix Name; Catalogue No.; Lot No.; Date Rec'd.; Date Opened, Ampule Expiry Date:

Compound	Parent Solution No.	Parent Solution Conc'n. (ug/mL)	Aliquot Volume (mL) (uL)	Dilution Volume (mL)	Final Conc'n. (ug/mL)	Absolute Amount Spiked (ug / ng)
<u>o-taurphenyl</u>	<u>PHI-135</u>	<u>100</u>	<u>16</u>	<u>4000</u>	<u>400</u>	<u>N/A</u>
RDY 2017/05/04						

Notes:

PRLST 133 PG 18

PREPARATION OF CONCENTRATED STOCK STANDARDS

Solution No.: S4041 Date: 2016/11/23 Expiry Date: 2018/06/20 Discard Date: _____
Replaces Solution: S4041 Replaced by Solution: S4142 Chemist: mw
Compound: 13C9 - PFDA Purity: 99%
Date Received: 2016/11/22 Expiry Date: 2018/06/20 Lot No.: PC10-014
Supplier: CTL
Date Opened: 2016/11/23
Final Gross Weight: _____ g/mg
Tare Weight*: _____ g/mg
Net Weight: _____ g/mg
Adjusted Net Weight**: _____ mg
Balance Used: _____
(specify model and serial no.) _____

Dilution Volume: _____ mL
Volumetric Flask: _____
Concentration: 50 (ug/mL) mg/mL
Solvent(s): MeOH

Solvent Used: _____
Solvent Supplier: _____ Lot No(s): _____
Date Opened: _____
Storage Location / Conditions: F2-35

Notes/Comments

Received as a solution in ampule.

Solution No.: S4042 Date: 2016/11/23 Expiry Date: 2020/09/30 Discard Date: _____
Replaces Solution: S4009 Replaced by Solution: S4143 Chemist: mw
Compound: 13C9 - PFHxA Purity: 99%
Date Received: 2016/11/22 Expiry Date: 2020/09/30 Lot No.: SD1A-004
Supplier: CTL
Date Opened: 2016/11/23
Final Gross Weight: _____ g/mg
Tare Weight*: _____ g/mg
Net Weight: _____ g/mg
Adjusted Net Weight**: _____ mg
Balance Used: _____
(specify model and serial no.) _____

Dilution Volume: _____ mL
Volumetric Flask: _____
Concentration: 50 ug/mL
Solvent(s): MeOH

Solvent Used: _____
Solvent Supplier: _____ Lot No(s): _____
Date Opened: _____
Storage Location / Conditions: F2-35

Notes/Comments

Received as a solution in ampule.

Maxxam Analytics

395 of 641



Cambridge Isotope Laboratories, Inc.

Certificate of Analysis

Quality Standards:
ISO Guide 34 • ISO/IEC 17025 • ISO 13485 • cGMP

Product Name: PERFLUORODECANOIC ACID
(Isotopic Label & Enrichment Specification) (13C9, 99%) 50 UG/ML IN METHANOL

Lot Number: SCID-014

Catalog Number: CLM-8172-S

Product Information

Chemical Purity Specification: $\geq 98\%$
Labeled CAS Number: NA
Unlabeled CAS Number: 335-76-2
MW*: 523.02
Chemical Formula: $\text{CF}_3(\text{CF}_2)_8\text{CO}_2\text{H}$
Storage: Store at room temperature away from light and moisture.
Stability: See storage and expiration date.

Certification

Cambridge Isotope Laboratories, Inc. guarantees that this material meets or exceeds the specifications stated. Absolute identity as well as chemical and isotopic purity are assured by the use of unambiguous synthetic routes and multiple chemical analyses whenever possible. Results are representative of QC testing at time of release from Quality Control unless otherwise stated.

Volumetric measurements were made with Class A glassware. Gravimetry is traceable to the NIST through calibrated balances and certified, calibrated, standard weights. The calibrations are traceable to the NIST under Test No. 822770236-04. The calibrations also meet specifications outlined in ISO 9001, ISO/IEC 17025, ANSI/NCSL Z540-1:1994, NCR Document 30CFR30 Appendix B, and applicable subdocuments.

This COA references the bulk catalog number before packaging. The COA also applies to the CIL finished good storage number. Some possible packaging sizes and their corresponding suffixes are -1.2, -1, -0.5, -10, or -0.1.

* For isotopically labeled compounds, MW listed is for the fully enriched product.

Approved by: T. J. Ebersley

Timothy J. Ebersley, Ph.D., Quality Review

Quality Control Tests and Results

QC Release Date	06/20/2018
Expiration Date	06/20/2018
Concentration Based on Gravimetry	50.0 $\mu\text{g/mL}$
Chemical Purity of Next Material(s)	$\geq 98\%$
LC/MS for Concentration	$46.2 \pm 6.4 \mu\text{g/mL (1002)}$

*Received mm
25ml/1/15
1 x 1.2ml
RT*

50 Frontage Road, Andover, MA 01810-5413 USA • 1 800 322-1174 (North America) • 1 978 749-8000 (International) • isotope.com

Date Received: 2016.8.17 - 1 x 1.2mL - HPLC
Date Received: 2016.09.14 - HPLC - 1 x 1.2ml
Date Received: 2016/11/22 1x 1.2ml MMN HPLC
Date Received: 2017.02.15 - 1 x 1mL - HPLC (MMN)



Cambridge Isotope Laboratories, Inc.

Certificate of Analysis

Quality Standards:
ISO Guide 34 • ISO/IEC 17025 • ISO 13485 • cGMP

Product Name: PERFLUOROHXANOIC ACID, SODIUM SALT
(Isotopic Label & Enrichment Specifications) (13C6, 99%) 50 UG/ML IN METHANOL

Lot Number: SDAA-004

Catalog Number: CLM-8340-S

Product Information

Chemical Purity Specification: $\geq 98\%$

MW*: 320.00

*For high purity isotopic compounds, MW based on the fully enriched product.

Labeled CAS Number: NA

Unlabeled CAS Number: 307-24-4

Chemical Formula: $\text{C}_6\text{F}_{13}\text{O}_2$

Storage: Store at room temperature away from light and moisture.

Stability: See storage and expiration date.

*Received from
2016/05/20
1x 1.2ml
RT*

Certification

Cambridge Isotope Laboratories, Inc. guarantees that this material meets or exceeds the specifications stated. Absolute identity as well as chemical and isotopic purities are assured by the use of unambiguous synthetic routes and multiple chemical analyses whenever possible. Results are representative of QC testing at time of release from Quality Control unless otherwise stated.

Volumetric measurements were made with Class A glassware. Gravimetry is traceable to the NIST through calibrated balances and certified, calibrated, standard weights. The calibrations are traceable to the NIST under Test No. 823/270236-04. The calibrations also meet specifications outlined in ISO 9001, ISO/IEC 17025, ANSI/NCSL Z540-1-1994, NCR Document 10CFR50 Appendix B, and applicable subdocuments.

This COA references the bulk catalog number before packaging. The COA also applies to the CIL finished good catalog number. Some possible packaging sizes and their corresponding suffixes are -1, 2, -1, -0.5, -10, or -0.1.

Approved by: T. J. Eckersley

Timothy J. Eckersley, Ph.D., Quality Review

Quality Control Tests and Results

QC Release Date	9/30/2010
Expiration Date	9/30/2020
Concentration Based on Gravimetry	50.4 $\mu\text{g}/\text{mL}$
Chemical Purity of New Material(s)	99.2%
LC/MS for Concentration	47.1 $\pm$ 2.6 $\mu\text{g}/\text{mL}$ ($n=2$)

Date Received: 2016/08/17 1x 1.2mL MMN HPLC
Date Received: 2016/09/14 1x 1.2mL MMN HPLC
Date Received: 2016/11/22 1x 1.2mL MMN HPLC
Date Received: 2017.02.15 - 1 x 1mL - HPLC (MMN)

131 PG 147

PREPARATION OF SURROGATE / INTERNAL STANDARD SPIKING SOLUTION

Solution No.: SI 6439 Prep'n Date: 2017/05/11 Expiry Date: 2017/12/22 Discard Date: _____
 Replaces Solution No.: SI 6427 Replaced by Solution: SI 6427 Chemist: mmw
 Sol'n. Name: PFC Internal Std. Spiking Soln 2017/05/11
 Solution Used As: Internal Std: ✓ Surrogate Spike: _____
 Spike Volume: _____ uL or mL (for I.S. uL per mL) For Instrument/Analysis: LCMS - MS
 Solvent(s): 0.3% MTH/0.1 in meth Supplier(s): see PALKE 104-82 Lot No(s): see PALKE 104-82
 Date Solvent Opened: see PALKE 104-82
 Volumetric Flask Used: 200 ml class A (SI 48) Syringe ID: pipette W3.477F / MTH/0.1
 Storage Location and Conditions: F2-11
 Ampule supplier; Mix Name; Catalogue No.; Lot No.; Date Rec'd.; Date Opened, Ampule Expiry Date: see attached sheet

SI 6439 (PALST 131 P.147)

Compound Name	ID#	Conc. (ug/mL)	Vol. of Stock standard (uL)	Dilution volume (mL)	Final Conc. (ng/mL)	Exp. date
MPFBA	S4137-1	50	200	200	50	2021/05/24
M5PFPeA	S4137-2	50	200	200	50	2021/11/22
MPFHxA	S4131-1	50	200	200	50	2021/11/22
MPFHxS	S4137-3	50	200	200	50	2020/10/23
M4PFHpA	S4137-4	50	200	200	50	2021/05/27
MPFOA	S4137-5	50	200	200	50	2021/10/18
MPFOS	S4137-6	50	200	200	50	2021/12/12
MPFNA	S4137-7	50	200	200	50	2021/09/30
MPFDA	S4137-8	50	200	200	50	2021/09/30
MPFUDA	S4131-2	50	200	200	50	2021/11/22
MPFDoA	S4137-9	50	200	200	50	2021/04/08
M2PFTeDA	S4137-10	50	200	200	50	2020/12/07
MPFOSA	S4137-11	50	200	200	50	2017/12/22
D3-N-MeFOSAA	S4137-12	50	200	200	50	2021/11/22
D5-N-EtFOSAA	S4137-13	50	200	200	50	2021/11/22
D3-MeFOSA	S4131-3	50	500	200	125	2021/06/10
D5-EtFOSA	S4131-4	50	500	200	125	2021/06/10
D7-MeFOSE	S4131-5	50	500	200	125	2020/03/19
D9-EtFOSE	S4131-6	50	500	200	125	2022/03/23
M2-6:2FTS	S4131-7	50	500	200	125	2022/02/17
M2-8:2FTS	S4131-8	50	500	200	125	2021/08/22

No writing on bottom page.

mmw
2017/05/11

Notes:

PRLST 133 PG 70

PREPARATION OF CONCENTRATED STOCK STANDARDS

Solution No.: S 4137 Date: 2017/05/11 Expiry Date: See attached sheet Discard Date: _____
Replaces Solution: _____ Replaced by Solution: _____ Chemist: mm

SE 4137 - (PRLST 133 p. 70)

Solution ID#	Compound Name	Lot#	Received date	Exp. date	Replaces Solution	Replaced by Solution	Conc (ug/mL)	Solvent	Storage
S4137-1	MPFBA	MPFBA0516	2017/02/22	2021/05/24	S4089-1		50	MeOH	FZ-11
S4137-2	M5PFPeA	M5PFPeA1116	2017/02/22	2021/11/22	S4089-2		50	MeOH	FZ-11
S4137-3	MPFHxS	MPFHxS1015	2017/02/22	2020/10/23	S4089-4		50	MeOH	FZ-11
S4137-4	M4PFHpA	M4PFHpA0516	2017/02/22	2021/05/27	S4089-5		50	MeOH	FZ-11
S4137-5	MPFOA	MPFOA1016	2017/02/22	2021/10/18	S4089-6		50	MeOH	FZ-11
S4137-6	MPFOS	MPFOS1216	2017/02/22	2021/12/12	S4069-3		50	MeOH	FZ-11
S4137-7	MPFNA	MPFNA0916	2017/02/22	2021/09/30	S4089-7		50	MeOH	FZ-11
S4137-8	MPFDA	MPFDA0916	2017/02/22	2021/09/30	S4089-8		50	MeOH	FZ-11
S4137-9	MPFDoA	MPFDoA0416	2017/02/22	2021/04/08	S4089-10		50	MeOH	FZ-11
S4137-10	M2PFTeDA	M2PFTeDA1115	2017/02/22	2020/12/07	S4089-11		50	MeOH	FZ-11
S4137-11	MPFOA	M8FOA12151	2017/02/22	2017/12/22	S4089-12		50	IPA	FD-59
S4137-12	D3-N-MeFOSAA	d3nMeFOSAA1116	2017/02/22	2021/11/22	S4089-13	<u>S 4145-9</u>	50	MeOH	FD-59
S4137-13	D5-N-EtFOSAA	d5NEtFOSAA1116	2017/02/22	2021/11/22	S4089-14	<u>(4145-10)</u>	50	MeOH	FD-59

Date opened (All compounds): 2017/05/11

Chemist: mm

No writing on bottom page.

Notes/Comments

Solution No.: S 4138 Date: 2017/05/11 Expiry Date: See attached sheet Discard Date: _____
Replaces Solution: _____ Replaced by Solution: _____ Chemist: mm

S 4138 (PRLST 133 p. 70)

Solution ID#	Compound Name	Lot#	Received date	Exp. date	Replaces Solution	Replaced by Solution	Conc. (ug/mL)	Solvent	Storage
S4138-1	D3MeFOSA	dNMeFOSA0616M	2017/02/22	2021/06/10	S4131-3	<u>S 4145-1</u>	50	MeOH	FZ-11
S4138-2	D5-EtFOSA	dNEtFOSA0616M	2017/05/02	2021/06/10	S4131-4	<u>(4145-2)</u>	50	MeOH	FZ-11
S4138-3	D7-MeFOSE	d7NMeFOSE0217M	2017/05/02	2022/03/23	S4131-5	<u>S 4145-3</u>	50	MeOH	FZ-11
S4138-4	D9-EtFOSE	d9NEtFOSE0315M	2017/02/02	2020/03/19	S4131-6	<u>S 4145-4</u>	50	MeOH	FZ-11
S4138-5	M2-6:2FTS	M262FTS0217	2017/05/02	2022/02/17	S4131-7	<u>S 4145-5</u>	50	MeOH	FD-59
S4138-6	M2-8:2FTS	M282FTS0816	2017/05/02	2021/08/22	S4131-8	<u>S 4145-6</u>	50	MeOH	FD-59

Date opened (All compounds): 2017/05/11

Chemist: mm

Note: All compounds were received as a solution in ampule.

No writing on bottom page.

Storage Location / Conditions: _____

PRLST 133 PG 66

PREPARATION OF CONCENTRATED STOCK STANDARDS

Solution No.: 4130 Date: 2017/04/26 Expiry Date: 2018/04/30 Discard Date: —
Replaces Solution: — Replaced by Solution: — Chemist: clay
Compound: Formaldehyde, 2,4, DNPIf Purity: 99%
Date Received: 2017/04/26 Expiry Date: 2018/04/30 Lot No.: B2BR7763V
Supplier: Sigma
Date Opened: 2017/04/26
Final Gross Weight: — g/mg Dilution Volume: 10 mL
Tare Weight*: — g/mg Volumetric Flask: Class A
Net Weight: 0.046 @mg Concentration: 650.5714 (ug/mL) mg/mL
Adjusted Net Weight**: 45.54 mg Solvent(s): ACN
Balance Used: OHAUS H1360
(specify model and serial no.)

Solvent Used: ACN
Solvent Supplier: Fisher Lot No(s): 165746
Date Opened: 2017/04/10
Storage Location / Conditions: FR-59

Notes/Comments: 4554 ug/ml x $\frac{30}{210}$ = 650.5714 ug/ml
clay
2017/04/26

Solution No.: S-4131 Date: 2017/05/04 Expiry Date: — Discard Date: —
Replaces Solution: — Replaced by Solution: — Chemist: GSZ

S-4131 (PRLST 133, p. 66)

Solution ID#	Compound Name	Lot#	Received date	Exp. date	Replaces Solution	Replaced by Solution	Conc. (ug/mL)	Solvent	Storage
S4131-1	MPFHxA	MPFHxA1116	2017/02/02	2021/11/22	S4089-3	<u>S 4145-8</u>	50	MeOH	FZ-11
S4131-2	MPFUDA	MPFUDA1116	2017/02/22	2021/11/22	S4089-9	<u>S 4145-7</u>	50	MeOH	FZ-11
S4131-3	D3MeFOSA	dNMeFOSA0616M	2017/05/02	2021/06/10	S4097-1	<u>S 4138-1</u>	50	MeOH	FZ-11
S4131-4	D5-EtFOSA	dNEtFOSA0616M	2017/02/02	2021/06/10	S4097-2	<u>S 4138-2</u>	50	MeOH	FZ-11
S4131-5	D7-MeFOSE	d7NMeFOSE0315M	2017/02/02	2020/03/19	S4097-3	<u>S 4138-3</u>	50	MeOH	FZ-11
S4131-6	D9-EtFOSE	d9NEtFOSE0317M	2017/05/02	2022/03/23	S4097-4	<u>S 4138-4</u>	50	MeOH	FZ-11
S4131-7	M2-6:2FTS	M262FTS0217	2017/05/02	2022/02/17	S4097-5	<u>S 4138-5</u>	50	MeOH	FD-59
S4131-8	M2-8:2FTS	M282FTS0816	2017/05/02	2021/08/22	S4097-6	<u>S 4138-6</u>	50	MeOH	FD-59

Date opened (All compounds): 2017/05/04

Chemist: GSZ

Note: All compounds were received as a solution in ampule.

No writing on bottom page.

GSZ 2017/05/04



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

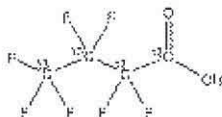
MPFBA

LOT NUMBER:

MPFBA0516

COMPOUND:Perfluoro-n-[1,2,3,4-¹³C₄]butanoic acid**STRUCTURE:****CAS #:**

Not available

**MOLECULAR FORMULA:**¹³C₄HF₉O₂**MOLECULAR WEIGHT:**

218.01

CONCENTRATION:

50 ± 2.5 µg/ml

SOLVENT(S):

Methanol

CHEMICAL PURITY:

≥98%

ISOTOPIC PURITY:≥99% ¹³C**LAST TESTED:** (mm/yyyy)

05/24/2016

(1,2,3,4-¹³C₄)**EXPIRY DATE:** (mm/yyyy)

05/24/2021

RECOMMENDED STORAGE:

Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

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

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

ADDITIONAL INFORMATION:

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

*received from
2016/12/15
1 x 1.2 mL
FZ-35*

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Date Received: 2016.10.24 -HPLC - 1 x1.2ml

Received 2016/12/12 1 x 1.2mL MMN FZ-11

Received date: 2017/02/22 2x1.2 mL MZH



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

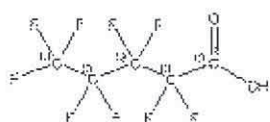
M5PFPaA

LOT NUMBER:

M5PFPaA1116

COMPOUND:Perfluoro-n-[¹³C₄]pentanoic acid**STRUCTURE:****CAS #:**

Not available

**MOLECULAR FORMULA:**¹³C₄HF₈O₂**MOLECULAR WEIGHT:**

269.01

CONCENTRATION:

50 ± 2.5 µg/ml

SOLVENT(S):

Methanol

CHEMICAL PURITY:

>98%

ISOTOPIC PURITY:≥99% ¹³C**LAST TESTED:**

11/22/2016

(‰C₄)**EXPIRY DATE:**

11/22/2021

RECOMMENDED STORAGE:

Store ampoules in a cool, dark place

Reserved
2x1.2 ml
with 11/22/21

DOCUMENTATION/ DATA ATTACHED:

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

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

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mols eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains < 0.1% of perfluoro-n-pentanoic acid.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chittim

Date:

12/09/2016
(mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2649 • info@well-labs.com

Form 27, Issued 2004-11-10
Revised 2015-03-26

M5PFPaA1116 (1 of 1)
revC

date recieved 2017/05/31 2x1.2



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

MPFHxA

LOT NUMBER: MPFHxA1115

COMPOUND:

Perfluoro-n-[1,2-¹³C]hexanoic acid

STRUCTURE:

CAS #: Not available



MOLECULAR FORMULA:

¹²C₂¹³C₂HF₁₁O₂

MOLECULAR WEIGHT: 316.04

CONCENTRATION:

50 ± 2.5 µg/mL

SOLVENT(S): Methanol

Water (<1%)

CHEMICAL PURITY:

>99%

ISOTOPIC PURITY: ≥99% ¹³C

(1,2-¹³C₂)

LAST TESTED: 11/22/2016

EXPIRY DATE: 11/22/2021

RECOMMENDED STORAGE:

Store ampoule in a cool, dark place (Freezer)

HPLC (1)
2017/02/02
SSV

DOCUMENTATION/ DATA ATTACHED:

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

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

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains < 0.1% of perfluoro-n-hexanoic acid and ~ 0.3% of perfluoro-n-octanoic acid.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chittim

Date: 12/13/2016

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Product 52, version 04/06/15-16
Perfluoro-n-[1,2-¹³C]hexanoic acid

MPFHxA: 116 (1 of 2)
10/16

Received date: 2017/02/14 1x1.2 mL MMN

Received date: 2017/02/02 2x1.2 mL MZH

Received date: 2017/05/31 2x1.2 mL ssv



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

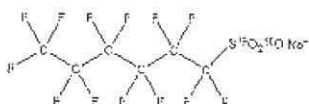
MPFHxS

LOT NUMBER:

MPFHxS1015

COMPOUND:Sodium perfluoro-1-hexand[$^{18}\text{O}_2$]sulfonate**STRUCTURE:****CAS #:**

Not available



2016/04/01
SSO
1x1.2ml

MOLECULAR FORMULA: $\text{C}_6\text{F}_{13}\text{S}^{18}\text{O}_2\text{Na}$ **MOLECULAR WEIGHT:**

426.10

CONCENTRATION: $50.0 \pm 2.5 \text{ } \mu\text{g/ml}$ (Na salt)**SOLVENT(S):**

Methanol

 $47.3 \pm 2.4 \text{ } \mu\text{g/ml}$ (MPFHxS anion)**CHEMICAL PURITY:**

>98%

ISOTOPIC PURITY:>94% ($^{18}\text{O}_2$)**LAST TESTED:** (in-house)

10/23/2015

EXPIRY DATE: (in-house)

10/23/2020

RECOMMENDED STORAGE:

Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

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

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

ADDITIONAL INFORMATION:

- See page 2 for further details.
- The response factor for MPFHxS ($\text{C}_6\text{F}_{13}\text{S}^{18}\text{O}_2\text{Na}$) has been observed to be up to 10% lower than for PFHxS ($\text{C}_6\text{F}_{13}\text{SO}_3\text{Na}$) when both compounds are injected together. This difference may vary between instruments.
- Due to the isotopic purity of the starting material ($^{18}\text{O}_2$ >94%), MPFHxS contains ~ 0.3% of PFHxS. This value agrees with the theoretical percent relative abundance that is expected based on the stated isotopic purity.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chittim

Date:

10/28/2015
6/28/2015

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Form 5.27, Issues 2/04-11-15
Revision 03, Revised 10/15-02-24

7/15/1531015 (1 of 4)
16-0

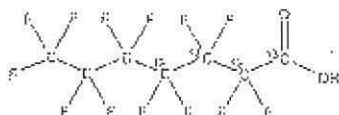
Date Received: 2016.10.24-HPLC- 1x1.2ml
Date Received: 2016.12.12-HPLC- 1x1.2ml
Received date: 2017/02/22 2x1.2 mL MZH



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: M4FFHpA **LOT NUMBER:** M4PFHpA0516
COMPOUND: Perfluoro-n-[1,2,3,4-¹³C]heptanoic acid
STRUCTURE: **CAS #:** Not available



MOLECULAR FORMULA: ¹³C₄¹²C₃HF₁₃O₂ **MOLECULAR WEIGHT:** 368.03
CONCENTRATION: 50 ± 2.5 µg/ml **SOLVENT(S):** Methanol
Water (<1%)
CHEMICAL PURITY: >98% **ISOTOPIC PURITY:** ≥99% ¹³C
(1,2,3,4-¹³C)
LAST TESTED: 05/27/2016
EXPIRY DATE: 05/27/2021
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

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

ADDITIONAL INFORMATION:

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

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Date Received: 2016.10.24 - HPLC - 1 x1.2mL
Received 2016/12/12 1 x 1.2mL MMN FZ-11
Received date: 2017/02/22 2x1.2 mL MZH

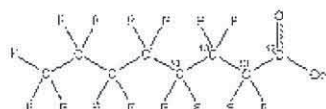
*received mmn
2016/12/12
1 x 1.2 mL
FZ-11*



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: MPFOA
COMPOUND: Perfluoro-n-(1,2,3,4-¹³C)₈octanoic acid
LOT NUMBER: MPFOA1016
STRUCTURE:
CAS #: Not available



MOLECULAR FORMULA: ¹³C₈¹⁸F₁₆HF₁₅O₂
CONCENTRATION: 50 ± 2.5 µg/ml
MOLECULAR WEIGHT: 418.04
SOLVENT(S): Methanol
Water (<1%)
CHEMICAL PURITY: >98%
ISOTOPIC PURITY: ≥99% ¹³C
(1,2,3,4-¹³C)
LAST TESTED: (method) 10/18/2016
EXPIRY DATE: (method) 10/18/2021
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

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

ADDITIONAL INFORMATION:

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

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:
B.G. Chisim

Date: 10/19/2016
Jared Coy

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Issued: 10/19/2016
Certificate Revised: 2015-2016

MPFOA1016 (1 of 1)
m/c

Date Received: 2017.02.02 - 1 x 1.2ml - HPLC
Received date: 2017/02/14 1x1.2 mL MMN
Received date: 2017/02/22 2x1.2 mL MZH



WELLINGTON LABORATORIES

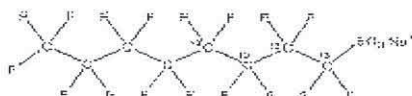
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

MPFOS

LOT NUMBER: MPFOS1218**COMPOUND:**Sodium perfluoro-1-[1,2,3,4-¹³C₄]octanesulfonate**STRUCTURE:****CAS #:**

Not available

**MOLECULAR FORMULA:**¹³C₄¹²C₄F₁₉SO₃Na**MOLECULAR WEIGHT:** 526.08**CONCENTRATION:**

50.0 ± 2.5 µg/ml (Na salt)

SOLVENT(S): Methanol

47.8 ± 2.4 µg/ml (MPFOS anion)

CHEMICAL PURITY:

>98%

ISOTOPIC PURITY: ≥99% ¹³C**LAST TESTED:** 12/12/2016

12/12/2016

(1,2,3,4-¹³C₄)**EXPIRY DATE:** 12/12/2021

12/12/2021

RECOMMENDED STORAGE:

Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

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

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

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains ~ 0.8% Sodium perfluoro-1-[1,2,3-¹³C₃]heptanesulfonate.

Received
2x1.2ml
M71 m70222

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USECertified By:
B.G. Chittim

Date: 12/14/2016

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
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Revised 2017-05-31
Revised 2017-05-31

MPFOS1218 (1 of 4)
10/0

date received 2017/05/31 2x1.2



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CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

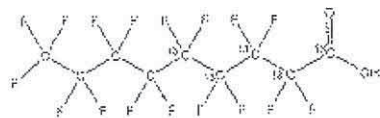
MPFNA

LOT NUMBER:

MPFNA0016

COMPOUND:Perfluoro-n-[1,2,3,4,5-¹³C₅]nonanoic acid**STRUCTURE:****CAS #:**

Not available

**MOLECULAR FORMULA:**¹³C₆¹²C₃HF₁₇O₂**MOLECULAR WEIGHT:**

469.04

CONCENTRATION:

50 ± 2.5 µg/ml

SOLVENT(S):

Methanol

CHEMICAL PURITY:

>98%

ISOTOPIC PURITY:≥99% ¹³C**LAST TESTED:**

09/30/2016

(1,2,3,4,5-¹³C₅)**EXPIRY DATE:**

09/30/2021

RECOMMENDED STORAGE:

Store ampoules in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

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

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

ADDITIONAL INFORMATION:

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

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

P.G. Chilton

Date: 10/11/2016

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Permethrin, Revised 2014-11-19
Revision 03, Replaced 2015-03-24

MPFNA0016 15 of 41
rev 0

Received date: 2017/02/22 2x1.2 mL MZ

Received date: 2017/05/31 2x1.2 mL ssv



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

MPFDA

LOT NUMBER:

MPFDA0016

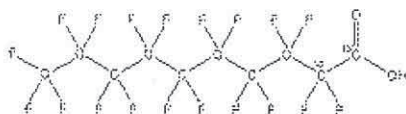
COMPOUND:

Perfluoro-n-[1,2-¹³C]₈decanoic acid

STRUCTURE:

CAS #:

Not available



MOLECULAR FORMULA:

¹³C₈¹²C₂HF₁₅O₂

MOLECULAR WEIGHT:

518.07

CONCENTRATION:

50 ± 2.5 µg/ml

SOLVENT(S):

Methanol

CHEMICAL PURITY:

>98%

ISOTOPIC PURITY:

≥99% ¹³C

LAST TESTED:

03/30/2016

(1,2-¹³C)

EXPIRY DATE:

03/30/2021

RECOMMENDED STORAGE:

Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

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

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

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains < 0.1% of ¹³C-PFNA.

FOR LABORATORY USE ONLY; NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chittim

Date:

10/07/2016
(date stamp)

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Form 02, Revised 2004-11-19
Product # 3, Revision 2015-03-04

Wellington Laboratories Inc.
4016

Date Received: 2017.02.02 - 1 x 1.2ml - HPLC

Received date: 2017/02/14 1x1.2 mL MMN

Date Received: 2017.02.22 - 2 x 1.2ml - HPLC,

Date Received: 2017.05.31 - 2 x 1.2ml - HPLC



WELLINGTON LABORATORIES

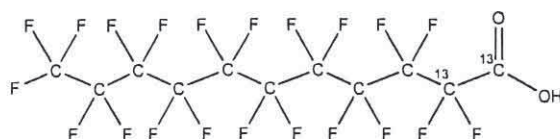
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: MPFUdA
COMPOUND: Perfluoro-n-[1,2-¹³C₂]undecanoic acid

LOT NUMBER: MPFUdA1116

STRUCTURE:

CAS #: Not available



MOLECULAR FORMULA: ¹³C₂¹²C₉HF₂₁O₂
CONCENTRATION: 50 ± 2.5 µg/ml

MOLECULAR WEIGHT: 566.08
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%

ISOTOPIC PURITY: ≥99% ¹³C
(1,2-¹³C₂)

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

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

RECOMMENDED STORAGE: Store ampoule in a cool, dark place

*Received mmw
2017/02/22
2 x 1.2 mL (F2-11)*

DOCUMENTATION/ DATA ATTACHED:

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

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

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Presence of 1-¹³C₁-PFUdA (~1%; see Figure 2), 2-¹³C₁-PFUdA (~1%), and PFUdA (~0.2%; see Figure 2) are due to the isotopic purity of the ¹³C-precursor.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chittim

Date: 12/07/2016
(mm/dd/yyyy)

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Maxxam Analytics

Form#: 27, Issued 2004-11-10
Revision#: 3, Revised 2015-03-24

410 of 641

MPFUdA1116 (1 of 4)
rev0



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

MPFD0A

LOT NUMBER: MPFD0A0416

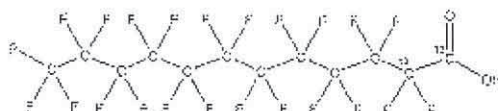
COMPOUND:

Perfluoro-n-{1,2-¹³C₂}dodecanoic acid

STRUCTURE:

CAS #:

Not available



MOLECULAR FORMULA:

¹³C₂¹²C₁₀HF₂₃O₂

MOLECULAR WEIGHT:

516.08

CONCENTRATION:

50 ± 2.5 µg/ml

SOLVENT(S):

Methanol

Water (<1%)

CHEMICAL PURITY:

>98%

ISOTOPIC PURITY:

≥99% ¹³C

(1,2-¹³C₂)

LAST TESTED:

04/08/2016

EXPIRY DATE:

04/08/2021

RECOMMENDED STORAGE:

Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

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

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

*Received from
1204010115
1 x 1.2 mL
FZ35*

ADDITIONAL INFORMATION:

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

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chittim

Date: 04/15/2016

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Date Received: 2016.10.24 -HPLC - 1 x1.2ml

Received 2016/12/12 1 x 1.2mL MMN FZ-11

Received date: 2017/02/22 2x1.2 mL MZ

HReceived date: 2017/05/31 2x1.2 mL ssv



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

M2PFTeDA

LOT NUMBER:

M2PFTeDA1115

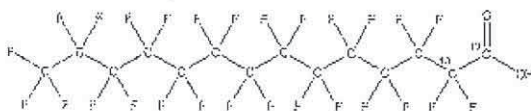
COMPOUND:

Perfluoro-n-[1,2-¹³C₂]tetradecanoic acid

STRUCTURE:

CAS #:

Not available



2016/4/6/1
SSW
1x1.2 mL

MOLECULAR FORMULA:

¹³C₂¹⁸O₂HF₂O₂

MOLECULAR WEIGHT:

716.16

CONCENTRATION:

50 ± 2.5 µg/mL

SOLVENT(S):

Methanol

CHEMICAL PURITY:

>98%

ISOTOPIC PURITY:

≥99% ¹³C

LAST TESTED: (in-house)

12/07/2015

(1,2-¹³C₂)

EXPIRY DATE: (in-house)

12/07/2020

RECOMMENDED STORAGE:

Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

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

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

ADDITIONAL INFORMATION:

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

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chittim

Date:

12/08/2015
2015/08/15

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Form 027, Issued 2015-11-16

M2PFTeDA1115 (1 of 4)

Date Received: 2016.11.29 - 2 x 1.2mL - HPLC

Date received: -2016/08/15 HPLC MMN

Received date: 2017/02/22 2x1.2 mL MZH



WELLINGTON LABORATORIES

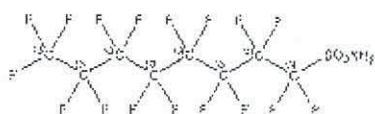
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

MBFOSA-I

LOT NUMBER: MBFOSA1215i**COMPOUND:**Perfluoro-1- $^{13}\text{C}_8$ octanesulfonamide**STRUCTURE:****CAS #:**

Not available

**MOLECULAR FORMULA:** $\text{C}_8\text{H}_7\text{F}_{17}\text{NO}_2\text{S}$ **MOLECULAR WEIGHT:**

507.09

CONCENTRATION: $50 \pm 2.5 \mu\text{g/ml}$ **SOLVENT(S):**

Isopropanol

CHEMICAL PURITY:

>98%

ISOTOPIC PURITY: $\geq 99\% \text{ } ^{13}\text{C}$ **LAST TESTED:**

12/22/2015

EXPIRY DATE:

12/22/2017

RECOMMENDED STORAGE:

Refrigerate ampoule

DOCUMENTATION/ DATA ATTACHED:

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

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

ADDITIONAL INFORMATION:

• See page 2 for further details.

Received from
2016/12/23
2 x 1.2 mL
FD-59

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chittim

Date: 01/14/2016

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Form 27, Issues 3&4, rev. 11/11
Printed 10/13, Rev'd 2015-03-24

MBFOSA1215i (1 of 1)
2015

Received 2016/12/12 1 x 1.2mL MMN FD-59
Received date: 2017/02/22 2x1.2 mL MZH

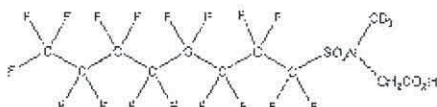


WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: d3-N-MeFOSAA **LOT NUMBER:** d3NMeFOSAA1110
COMPOUND: N-methyl-d3-perfluoro-1-octanesulfonamidoacetic acid

STRUCTURE: **CAS #:** Not available



MOLECULAR FORMULA: C₉D₃H₃F₁₇NO₃S
CONCENTRATION: 50 ± 2.5 µg/ml
CHEMICAL PURITY: >98%
LAST TESTED: 11/22/2016
EXPIRY DATE: 11/22/2021
RECOMMENDED STORAGE: Refrigerated ampoule

MOLECULAR WEIGHT: 574.23
SOLVENT(S): Methanol
Water (<1%)
ISOTOPIC PURITY: ≥98% ¹H₁

DOCUMENTATION/ DATA ATTACHED:

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

ADDITIONAL INFORMATION:

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

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

S.G. Griffin

Date: 12/07/2016

Received
2x1.2ml
2017-12-22
mtr

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

Form 27, Issue 2004-11-12
Revised 2015-02-24

d3NMeFOSAA1110 (1 of 1)
10/15

date recieved 2017/05/31 2x1~.2



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

d5-N-EtFOSAA

LOT NUMBER:

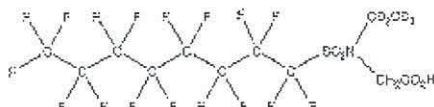
d5NEIFOSAA1118

COMPOUND:

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

STRUCTURE:**CAS #:**

Not available

**MOLECULAR FORMULA:** $C_{10}D_{15}H_{11}NO_4S$ **MOLECULAR WEIGHT:**

590.26

CONCENTRATION: $50 \pm 2.5 \mu\text{g/ml}$ **SOLVENT(S):**Methanol
Water (<1%)**CHEMICAL PURITY:**

>98%

ISOTOPIC PURITY: $\geq 98\% \text{ } ^2\text{H}_1$ **LAST TESTED:** in-house test

11/22/2016

EXPIRY DATE: in-house test

11/22/2021

RECOMMENDED STORAGE:

Refrigerate ampoule

received new
2017/12/16
17 1.2 mL
FD-59

DOCUMENTATION/ DATA ATTACHED:

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

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

ADDITIONAL INFORMATION:

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

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chittim

Date: 12/01/2016

(signature)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2438 • Fax: 519-822-2849 • Info@well-labs.com

Form WEL, issued 2014-11-10
Revised 2, Revised 2016-03-14

d5NEIFOSAA:1118 (1 of 1)
rev2

Received date: 2017/02/22 2x1.2 mL MZH

Received date: 2017/05/31 2x1.2 mL ssv

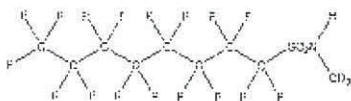


WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: d-N-MeFOSA-M **LOT NUMBER:** dNMeFOSA0816M
COMPOUND: N-methyl-d₈-perfluoro-1-octanesulfonamide

STRUCTURE: **CAS #:** Not available



MOLECULAR FORMULA: C₉D₈HF₁₇NO₂S **MOLECULAR WEIGHT:** 516.19
CONCENTRATION: 50 ± 2.5 µg/ml **SOLVENT(S):** Methanol
CHEMICAL PURITY: >98% **ISOTOPIC PURITY:** ≥98% ²H₁
LAST TESTED: 06/10/2015
EXPIRY DATE: 06/10/2021
RECOMMENDED STORAGE: Store ampoules in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

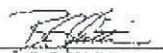
Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

• See page 2 for further details.

*received mm
2016/12/23
2 x 1.2ml
FZ-35*

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:  Date: 06/10/2015
B.G. Chikim

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-7049 • info@well-labs.com

Printed: 27, Sep 2014 11:50
Revised: 03, Dec 2015 01:50

USP41-05403152 (1 of 1)
2016

Date Received: 2016.10.24 - HPLC - 1x 1.2ml
Received 2016/12/12 1 x 1.2mL MMN FZ-11
Date Received: 2016.09.12 -HPLC - 1 x 1.2ml
Received 2016/11/29 1 x 1.2mL MMN FZ-11
Date Received: 2017.02.02 - 1 x 1.2ml - HPLC
Received date: 2017/02/22 2x1.2 mL MZH
Date Received: 2017.03.10 - 2 x 1.2ml - HPLC
Received: 2017.05.02- 1x1.2 ml- HPLC



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

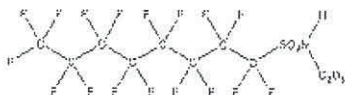
d-N-GIFOSA-M

LOT NUMBER:

dNEIFOSA0616M

COMPOUND:N-ethyl-d₈-perfluoro-1-octanesulfonamide**STRUCTURE:****CAS #:**

Not available

**MOLECULAR FORMULA:**C₁₀D₈H₁₁F₇NO₂S**MOLECULAR WEIGHT:**

532.23

CONCENTRATION:

50 ± 2.5 µg/ml

SOLVENT(S):

Methanol

CHEMICAL PURITY:

>98%

ISOTOPIC PURITY:>98% ¹³C**LAST TESTED:**

06/10/2016

EXPIRY DATE:

06/10/2021

RECOMMENDED STORAGE:

Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

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

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

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains ~0.5% of N-methyl-d₈-perfluoro-1-octanesulfonamide (d-N-MeFOSA).

Received mm
2016 10/23
2 x 1.2ml
FZ-11

FOR LABORATORY USE ONLY; NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chittim

Date: 07/14/2016

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M3 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

Printed: 01/24/2016 11:10
Revised: 03/20/2016 00:00

MSD-CHEM-115M (1 of 4)
10/11

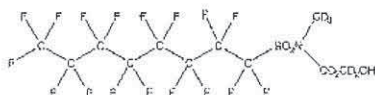
Date Received: 2016.10.24 -HPLC - 1 x 1.2ml
Received 2016/12/12 1 x 1.2mL MMN FZ-11
Date Received: 2016.09.12 -HPLC - 1 x 1.2ml
Received 2016/11/29 1 x 1.2mL MMN FZ-11
Date Received: 2017.02.02 - 1 x 1.2ml - HPLC
Received date: 2017/02/22 2x1.2 mL MZH



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: d7-N-MeFOSE-M **LOT NUMBER:** d7NMFOSE0315M
COMPOUND: 2-(N-methyl-d3-perfluoro-1-octanesulfonamido)ethan-d4-ol
STRUCTURE: **CAS #:** Not available



MOLECULAR FORMULA: C₁₁D₇HF₁₇NO₂S
CONCENTRATION: 50 ± 2.5 µg/ml
CHEMICAL PURITY: >98%
LAST TESTED: 03/19/2015
EXPIRY DATE: 03/19/2020
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

MOLECULAR WEIGHT: 564.27
SOLVENT(S): Methanol
ISOTOPIC PURITY: ≥98% ¹H,

DOCUMENTATION/ DATA ATTACHED:

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

ADDITIONAL INFORMATION:

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

*received mmn
2016/01/08
2 x 1.2 ml
FZ-35*

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chittem

Date: 03/24/2015

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

Form 27, (Rev) 8/2014
Replaces: 1015-02-24

97NMFOSE0315M (1 of 4)
rev0

Received : 2016/06/07 SSV- (2x1.2mL)
Received: 2016.09.23 -HPLC- (2x1.2mL)
Received: 2016.10.24 - HPLC - (1 x 1.2ml)
Received 2016/11/29 1 x 1.2mL MMN FZ-11
Received 2016/12/12 1 x 1.2mL MMN FZ-11
Date Received: 2016.09.12 -HPLC - 1 x 1.2ml
Received: 2017.02.02 1x1.2ml-HPLC
Date Received: 2017/02/22 HPLC 2X1.2ML

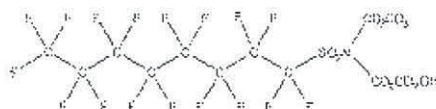


WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: d9-N-EtFOSE-M **LOT NUMBER:** d9NEtFOSE0317M
COMPOUND: 2-(N-ethyl-d5-perfluoro-1-octanesulfonamido)ethan-2-ol

STRUCTURE: **CAS #:** Not available



MOLECULAR FORMULA: C₁₀D₅HF₁₇NO₃S **MOLECULAR WEIGHT:** 580.31
CONCENTRATION: 50 ± 2.5 µg/ml **SOLVENT(S):** Methanol
CHEMICAL PURITY: >98% **ISOTOPIC PURITY:** ≥98%
LAST TESTED: 03/23/2017 (HRGC/LRMS)
03/02/2017 (LC/MS)
EXPIRY DATE: 03/23/2022
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

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

ADDITIONAL INFORMATION:

- See page 2 for further details.
- In order to see the molecular ion (adduct free), the LC mobile phase should be free of ammonium acetate buffer.
- Contains ~ 0.55% of N-ethyl-d5-perfluoro-1-octanesulfonamido.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:
B.G. Chidley, General Manager

Date: 04/06/2017
1111111111

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Form 22, Issued 2014-11-15
Rev 000001, Revised 2017-05-02

d9NEtFOSE0317M (6 of 6)
rev0

Date Recieved: 2017/05/02 2x1.2ml HPLC



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

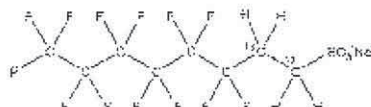
M2-6:2F7S

LOT NUMBER:

M262F7S0217

COMPOUND:Sodium 1H,1H,2H,2H-perfluoro-[1,2-¹³C]₆octane sulfonate**STRUCTURE:****CAS #:**

Not available

**MOLECULAR FORMULA:**¹³C₆¹³C₆H₂F₁₀SO₃Na**MOLECULAR WEIGHT:**

452.13

CONCENTRATION:

50.0 ± 2.5 µg/ml (Na salt)

SOLVENT(S):

Methanol

47.5 ± 2.4 µg/ml (M2-6:2F7S anion)

CHEMICAL PURITY:

>98%

ISOTOPIC PURITY:≥99% ¹³C**LAST TESTED:**

02/17/2017

(1,2-¹³C₆)**EXPIRY DATE:**

02/17/2022

RECOMMENDED STORAGE:

Refrigerate ampoule

DOCUMENTATION/ DATA ATTACHED:

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

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

HPLC
2017/05/31
2x1.2ml

ADDITIONAL INFORMATION:

- See page 2 for further details.
- The native 6:2F7S contains 4.22% of ¹³S (due to natural isotopic abundance) therefore both native 6:2F7S and M2-6:2F7S will produce signals in the m/z 429 to m/z 409 channel during SRM analysis. We recommend using the m/z 429 to m/z 81 transition to monitor for M2-6:2F7S during quantitative analysis as it will be free of any native contribution (see Figure 2).

FOR LABORATORY USE ONLY; NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Griffin

Date:

02/24/2017

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

Printed: 02/24/2017 11:10
Reported: 02/24/2017

M262F7S0217 (1 of 4)
15/0

Date Recieved: 2017/05/02 2x1.2ml HPLC



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

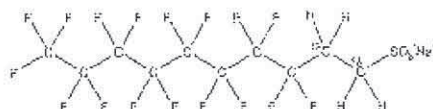
M2-8-2FTS

LOT NUMBER:

M282FTS0616

COMPOUND:Sodium 1H,1H,2H,2H-perfluoro-[1,2-¹³C]₈decane sulfonate**STRUCTURE:****CAS #:**

Not available

**MOLECULAR FORMULA:** $C_{10}H_{18}F_{17}SO_3Na$ **MOLECULAR WEIGHT:**

552.15

CONCENTRATION:

50.0 ± 2.5 µg/ml (Na salt)

SOLVENT(S):

Methanol

CHEMICAL PURITY:

>98%

ISOTOPIC PURITY:≥99% ¹³C**LAST TESTED:**

08/22/2016

(1,2-¹³C)**EXPIRY DATE:**

08/22/2021

RECOMMENDED STORAGE:

Refrigerate ampoule

DOCUMENTATION DATA ATTACHED:

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

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

ADDITIONAL INFORMATION:

- See page 2 for further details.
- The native 8-2FTS contains 4.22% of ¹³S (due to natural isotopic abundance) therefore both native 8-2FTS and M2-8-2FTS will produce signals in the m/z 529 to m/z 509 channel during SRM analysis. We recommend using the m/z 529 to m/z 81 transition to monitor for M2-8-2FTS during quantitative analysis as it will be free of any native contribution (see Figure 2).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chittum

Date: 09/02/2016

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

Method 01, Revised 2004-11-10
Revision 03, Revised 2015-10-21

M2SFT06016 15 of 51
12/20

received 2016/09/28 1x1.2 mL mmn FD-59

Received 2016/11/29 - 1 x 1.2mL - MMN FD-59

Date Received: 2017.02.02 - 1 x 1.2ml - HPLC

Received date: 2017/02/22 2x1.2 mL MZH

Recieved:2017.05.02 1x1.2 ml-HPLC Recieved:2017.05.31 2x1.2 ml-HPLC

PREPARATION OF SPIKING STANDARD SOLUTION

Solution No.: SK-6785 Prep'n Date: 2017/04/03 Expiry Date: 2018/04/03 Discard Date: _____
Replaces Solution No.: SK-6736 Replaced by Solution: _____ Chemist: GSZ
Solution Name: PFC ^{SECOND} SPIKING SOLUTION E Solvent(s): 0.3% NH₄OH in MeOH
Solvent Supplier(s): aldrich Solvent Lot No(s): PRLRE 92-467
Date Opened: 2017/04/03
Volumetric Flask Used: 5ml Class A (11216064) Volume: 5 mL Spike Volume: — uL / mL *
Syringe ID: Pipette N31477F
Storage Location and Conditions: F2-11
For extended mix of compounds, refer to table on: —

Compound	Parent Solution No.	Parent Solution Conc'n. (ug/mL)	Aliquot Volume (uL (mL) *)	Final Conc'n. (ug/mL)	Absolute Amount Spiked (ug ng) *
PFC SECOND SOURCE SPIKING SOLUTION C	SK-6784	100ug/mL	0.5	10ng/mL	—
GSZ, 2017/04/03					

Notes:

Solution No.: SK 6786 Prep'n Date: 2017/04/04 Expiry Date: 2018/04/04 Discard Date: _____
Replaces Solution No.: SK 6746 Replaced by Solution: _____ Chemist: mm
Solution Name: Comp. PFC Working Solution C Solvent(s): 0.3% NH₄OH in MeOH
Solvent Supplier(s): aldrich Solvent Lot No(s): see PRLRE 92-468
Date Opened: see PRLRE 92-468
Volumetric Flask Used: 25ml class A (15640) Volume: 25 mL Spike Volume: — uL / mL *
Syringe ID: pipette K 397 32 F
Storage Location and Conditions: F2-11
For extended mix of compounds, refer to table on: —

Compound	Parent Solution No.	Parent Solution Conc'n. (ug/mL)	Aliquot Volume (uL (mL) *)	Final Conc'n. (ug/mL)	Absolute Amount Spiked (ug ng) *
Comp. PFC Working Solution A	L 4990	1	2.5	100 ng/mL	—
mm 2017/04/04					

Notes:
Maxxam Analytics



5. Initial Calibration

Maxxam Analytics International
6740 Campobello Rd
Mississauga, Ontario, Canada
L5N 2L8
1-800-668-0639
www.maxxamanalytics.com

Batch Path

T:\lcms4\PFC\20170519\WS#4987381\QuantResults\PFC_Soil_170519_WS#4987381_CTLabs

Sample Name

STD 1

Instrument

LCMS04

Data File

WS#4987381_02.d

Operator

M_G

Sample Type

Cal

Dilution

1

Acq. Method

PFC_Soil.m

Position

P2-A2

Acq. Date

2017/05/20 3:10:01 AM

Injection Volume

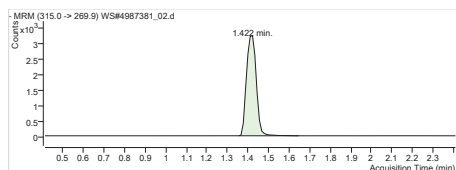
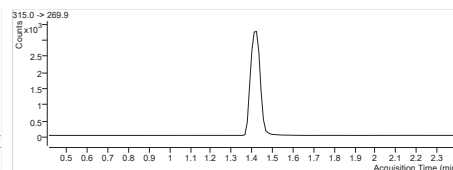
Per Method

Sample Annotation

-

ISTD Compounds	Response	RT	Target conc.		
MPFHxA	10738	1.42	1 µg/Kg		
MPFHxS	1966	1.68	1 µg/Kg		
MPFHpA	12506	1.68	1 µg/Kg		
MPFOA	11797	1.87	1 µg/Kg		
MPFOS	2397	1.98	1 µg/Kg		
MPFNA	10746	2.01	1 µg/Kg		
MPFDA	10670	2.12	1 µg/Kg		
MPFUnA	10931	2.22	1 µg/Kg		
MPFDoA	12968	2.31	1 µg/Kg		
MPFTeDA	16234	2.46	1 µg/Kg		
M2 6:2 FTS	3011	1.84	1 µg/Kg		
M2 8:2 FTS	3141	2.10	1 µg/Kg		
13C6-PFHxA IS	45750	1.42	1 µg/Kg		
13C9-PFDA IS	43281	2.12	1 µg/Kg		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	641	1.09	0.75	0.78 µg/Kg	103.65
PFHxA 1	2754	1.42	0.75	0.72 µg/Kg	96.56
PFHxS 1	562	1.68	0.75	0.72 µg/Kg	95.57
PFHpA 1	3457	1.68	0.75	0.80 µg/Kg	106.21
PFOA 1	3406	1.87	0.75	0.75 µg/Kg	99.40
PFOS 1	586	1.97	0.75	0.88 µg/Kg	116.75
PFNA 1	2701	2.01	0.75	0.75 µg/Kg	99.89
PFDA 1	3226	2.12	0.75	0.74 µg/Kg	99.00
PFUnA 1	2741	2.22	0.75	0.66 µg/Kg	87.86
PFDaA 1	3310	2.31	0.75	0.73 µg/Kg	97.75
PFTTrDA 1	3849	2.39	0.75	0.70 µg/Kg	93.87
PFTeDA 1	3694	2.46	0.75	0.69 µg/Kg	92.42
6:2-FTS 1	808	1.82	0.75	0.61 µg/Kg	81.93
8:2-FTS 1	728	2.10	0.75	0.70 µg/Kg	93.08
13C2-PFHxA	10738	1.42	100.00	100.87 µg/Kg	100.87
18O2-PFHxS	1966	1.68	100.00	102.62 µg/Kg	102.62
13C4-PFHpA	12506	1.68	100.00	107.93 µg/Kg	107.93
13C4-PFOA	11797	1.87	100.00	103.94 µg/Kg	103.94
13C4-PFOS	2397	1.98	100.00	103.03 µg/Kg	103.03
13C5-PFNA	10746	2.01	100.00	96.99 µg/Kg	96.99
13C2-PFDA	10670	2.12	100.00	106.73 µg/Kg	106.73
13C2-PFUnA	10931	2.22	100.00	97.76 µg/Kg	97.76
13C2-PFDoA	12968	2.31	100.00	101.18 µg/Kg	101.18
13C2-PFTeDA	16234	2.46	100.00	102.12 µg/Kg	102.12
13C2-6:2-FTS	3011	1.84	100.00	105.07 µg/Kg	105.07
13C2-8:2 FTS	3141	2.10	100.00	109.14 µg/Kg	109.14
13C6-PFHxA	45750	1.42	100.00	109.24 µg/Kg	109.24
13C9-PFDA	43281	2.12	100.00	112.61 µg/Kg	112.61



MPFHxA

Internal Standard

RT (Exp. RT):

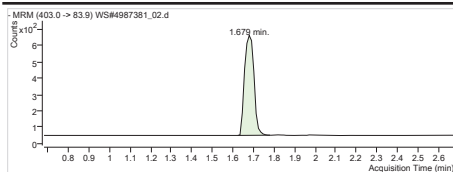
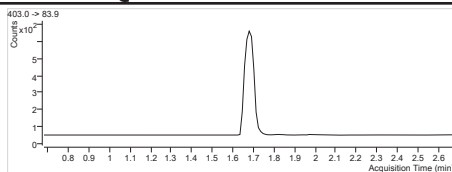
1.422 (1.411)

Concentration:

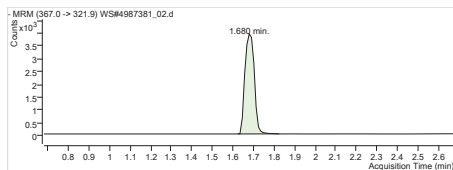
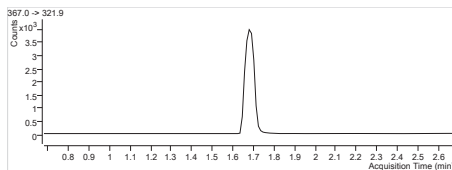
1 µg/Kg

Sample type:

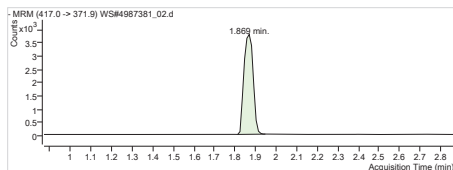
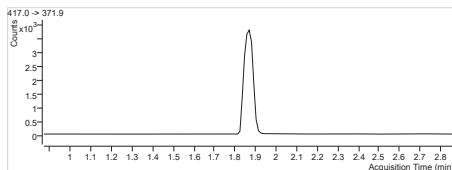
Calibration



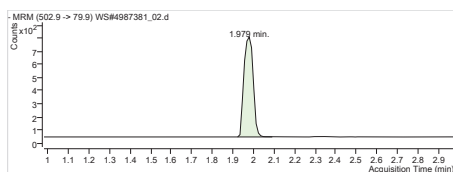
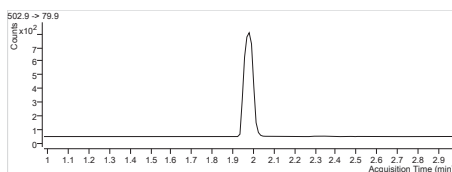
MPFHxS
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/Kg
Sample type: Calibration



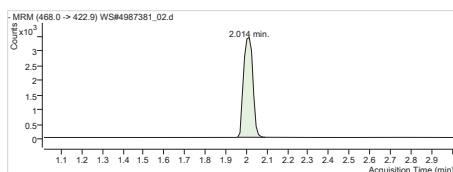
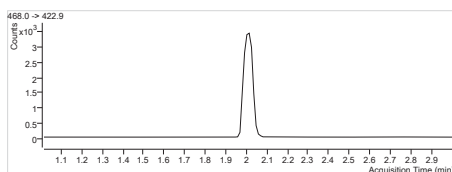
MPFHpA
RT (Exp. RT): 1.680 (1.680)
Concentration: 1 µg/Kg
Sample type: Calibration



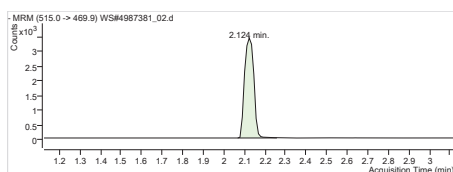
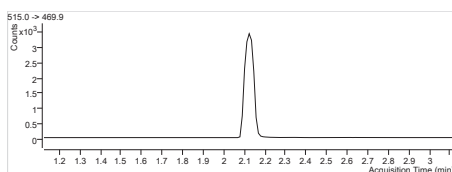
MPFOA
RT (Exp. RT): 1.869 (1.869)
Concentration: 1 µg/Kg
Sample type: Calibration



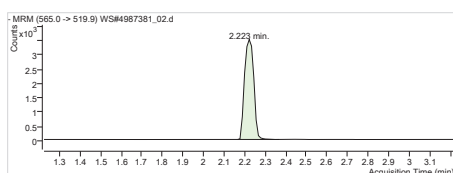
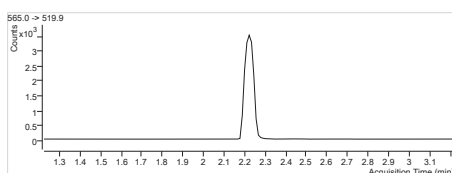
MPFOS
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/Kg
Sample type: Calibration



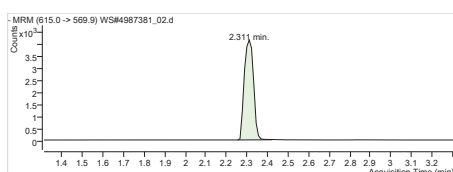
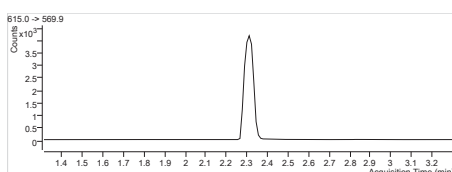
MPFNA
RT (Exp. RT): 2.014 (2.014)
Concentration: 1 µg/Kg
Sample type: Calibration



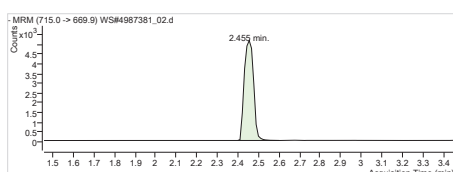
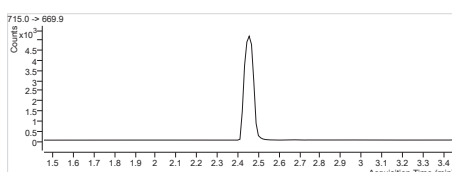
MPFDA
RT (Exp. RT): 2.124 (2.124)
Concentration: 1 µg/Kg
Sample type: Calibration



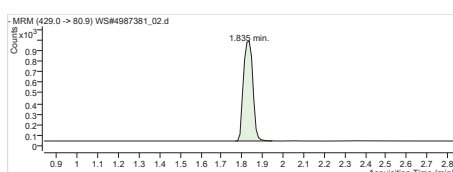
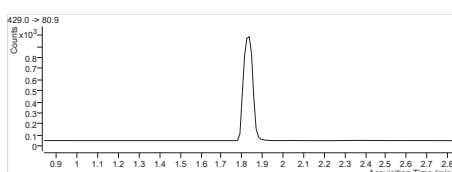
MPFUnA
RT (Exp. RT): 2.223 (2.223)
Concentration: 1 µg/Kg
Sample type: Calibration



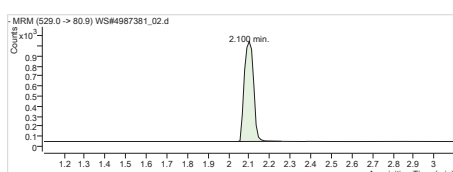
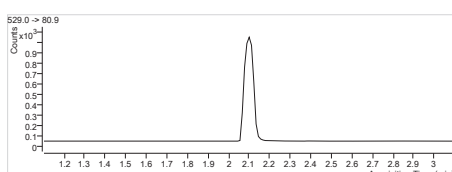
MPFDoA
RT (Exp. RT): 2.311 (2.311)
Concentration: 1 µg/Kg
Sample type: Calibration



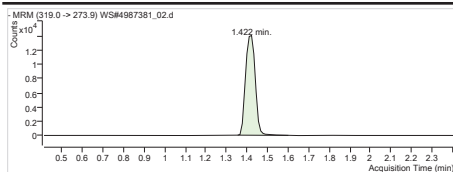
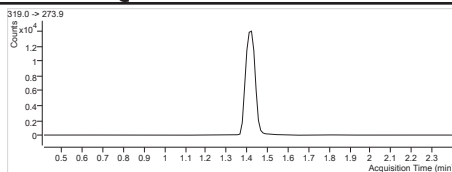
MPFTeDA
RT (Exp. RT): 2.455 (2.455)
Concentration: 1 µg/Kg
Sample type: Calibration



M2 6:2 FTS
RT (Exp. RT): 1.835 (1.835)
Concentration: 1 µg/Kg
Sample type: Calibration



M2 8:2 FTS
RT (Exp. RT): 2.100 (2.100)
Concentration: 1 µg/Kg
Sample type: Calibration

**13C6-PFHxA IS**

RT (Exp. RT):

Concentration:

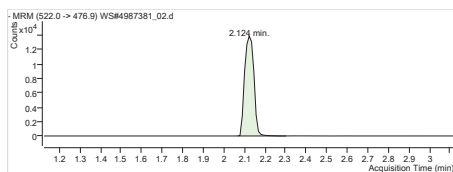
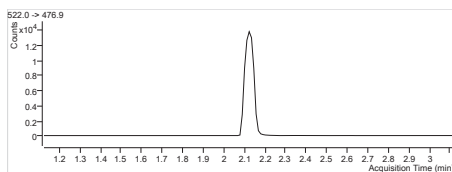
Sample type:

Internal Standard

1.422 (1.411)

1 µg/Kg

Calibration

**13C9-PFDA IS**

RT (Exp. RT):

Concentration:

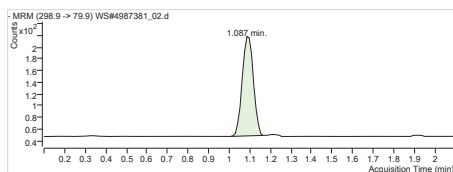
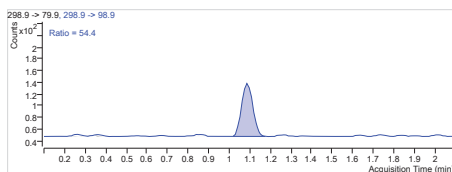
Sample type:

Internal Standard

2.124 (2.124)

1 µg/Kg

Calibration

**PFBS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

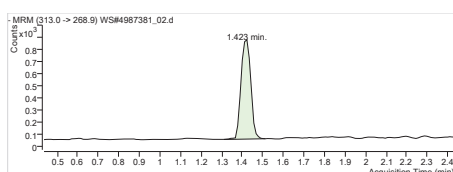
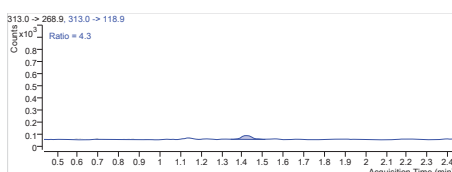
298.9 -> 79.9

1.087 (1.098)

0.78 µg/Kg

0.32604

Calibration

**PFHxA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

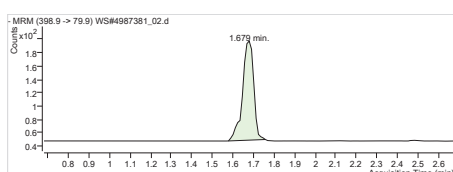
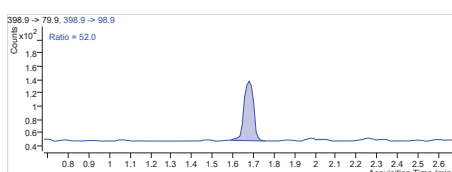
313.0 -> 268.9

1.423 (1.434)

0.72 µg/Kg

0.25647

Calibration

**PFHxS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

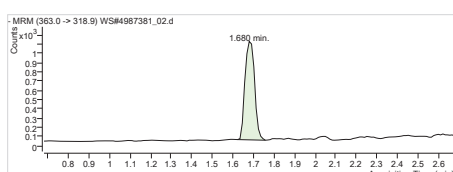
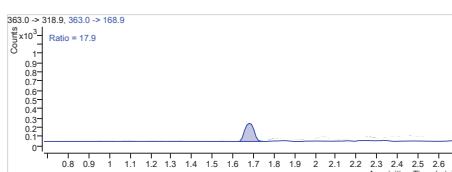
398.9 -> 79.9

1.679 (1.679)

0.72 µg/Kg

0.28586

Calibration

**PFHpA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

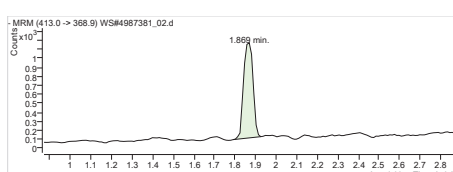
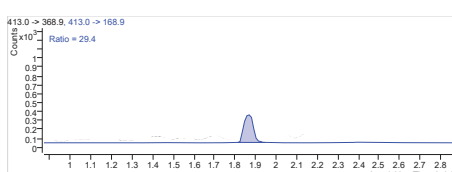
363.0 -> 318.9

1.680 (1.680)

0.80 µg/Kg

0.27643

Calibration

**PFOA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

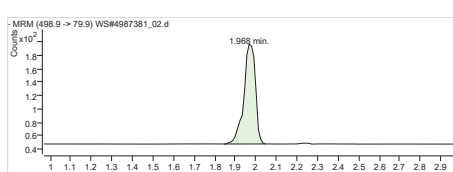
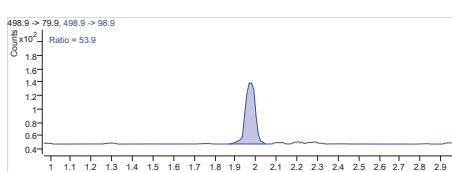
413.0 -> 368.9

1.869 (1.869)

0.75 µg/Kg

0.28872

Calibration

**PFOS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

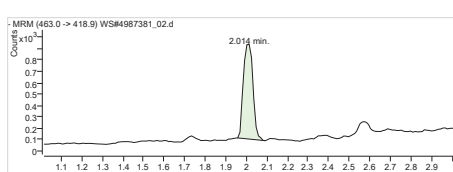
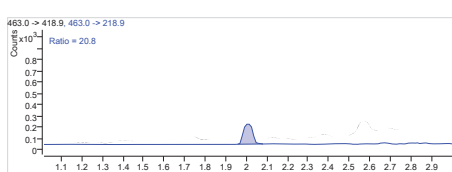
498.9 -> 79.9

1.968 (1.968)

0.88 µg/Kg

0.24447

Calibration

**PFNA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

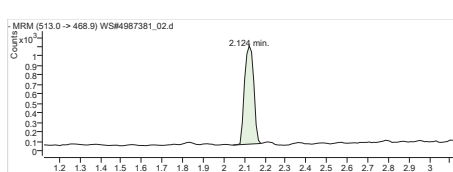
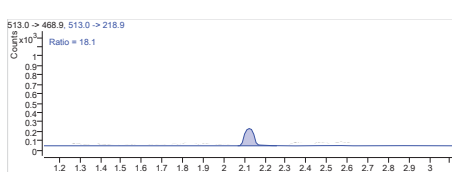
463.0 -> 418.9

2.014 (2.014)

0.75 µg/Kg

0.25135

Calibration

**PFDA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

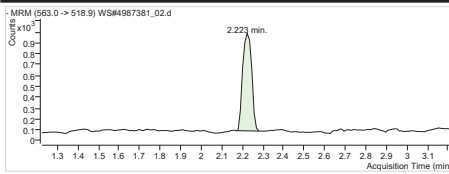
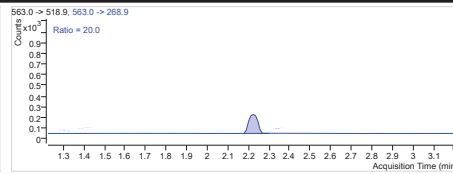
513.0 -> 468.9

2.124 (2.124)

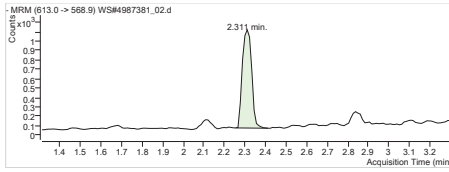
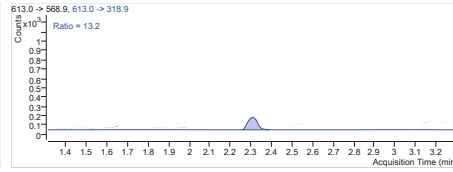
0.74 µg/Kg

0.30234

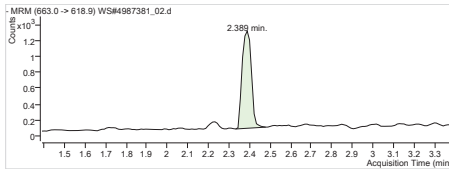
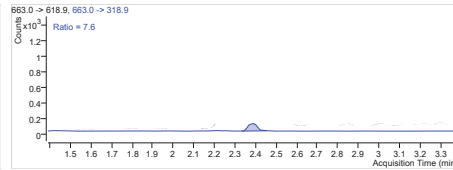
Calibration



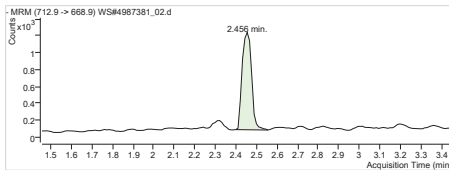
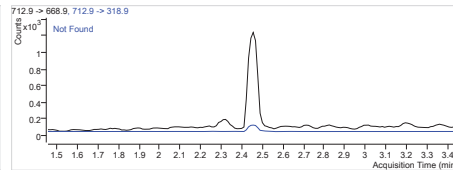
PFUnA 1
RT (Exp. RT): 563.0 -> 518.9
Calc. conc. 2.223 (2.223)
Area ratio: 0.66 µg/Kg
Sample type: 0.25075
Calibration



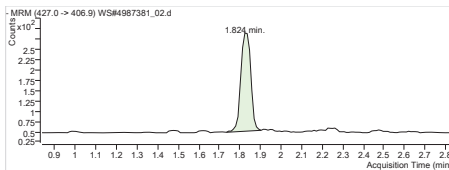
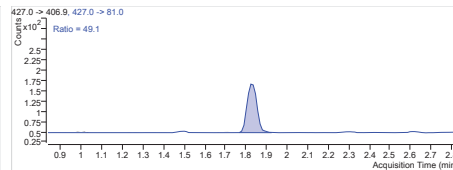
PFDaA 1
RT (Exp. RT): 613.0 -> 568.9
Calc. conc. 2.311 (2.311)
Area ratio: 0.73 µg/Kg
Sample type: 0.25524
Calibration



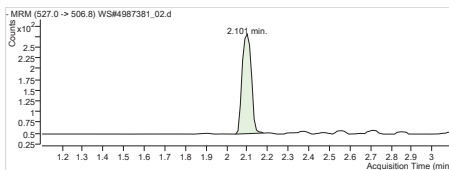
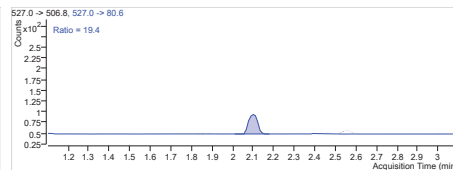
PFTraD 1
RT (Exp. RT): 663.0 -> 618.9
Calc. conc. 2.389 (2.389)
Area ratio: 0.70 µg/Kg
Sample type: 0.23709
Calibration



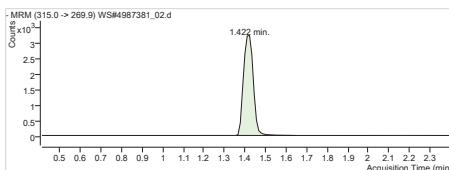
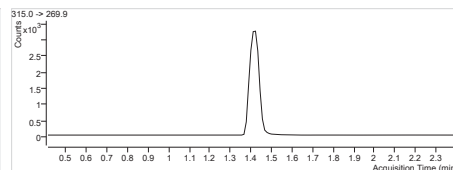
PFTeDa 1
RT (Exp. RT): 712.9 -> 668.9
Calc. conc. 2.456 (2.456)
Area ratio: 0.69 µg/Kg
Sample type: 0.22755
Calibration



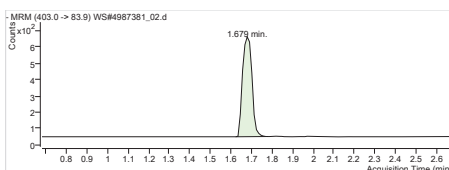
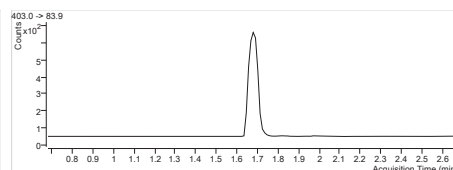
6:2-FTS 1
RT (Exp. RT): 427.0 -> 406.9
Calc. conc. 1.824 (1.835)
Area ratio: 0.61 µg/Kg
Sample type: 0.26835
Calibration



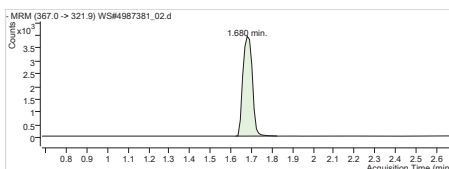
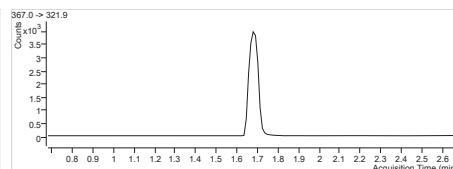
8:2-FTS 1
RT (Exp. RT): 527.0 -> 506.8
Calc. conc. 2.101 (2.101)
Area ratio: 0.70 µg/Kg
Sample type: 0.23177
Calibration



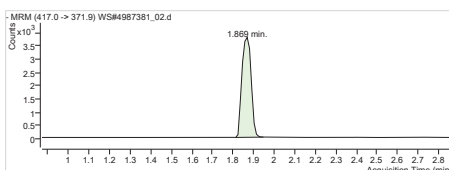
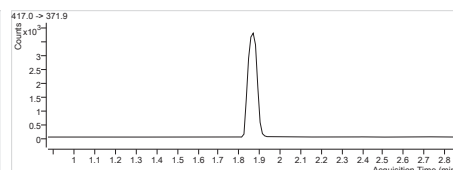
13C2-PFHxA
RT (Exp. RT): 315.0 -> 269.9
Calc. conc. 1.422 (1.411)
Area ratio: 100.87 µg/Kg
Sample type: 0.23471
Calibration



18O2-PFHxS
RT (Exp. RT): 403.0 -> 83.9
Calc. conc. 1.679 (1.679)
Area ratio: 102.62 µg/Kg
Sample type: 0.04297
Calibration

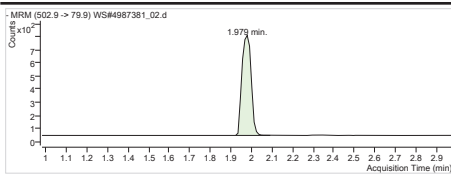
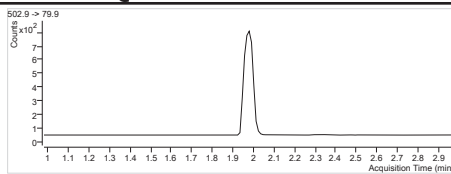


13C4-PFHpA
RT (Exp. RT): 367.0 -> 321.9
Calc. conc. 1.680 (1.680)
Area ratio: 107.93 µg/Kg
Sample type: 0.27336
Calibration

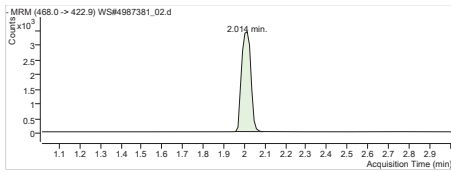
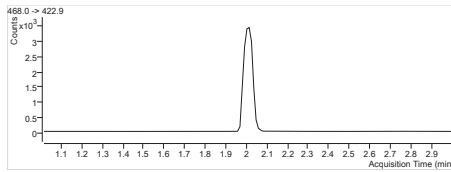


13C4-PFOA
RT (Exp. RT): 417.0 -> 371.9
Calc. conc. 1.869 (1.869)
Area ratio: 103.94 µg/Kg
Sample type: 0.25786
Calibration

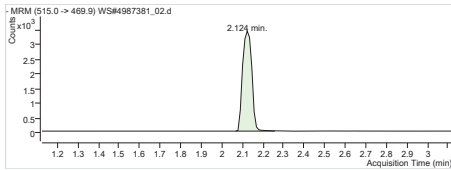
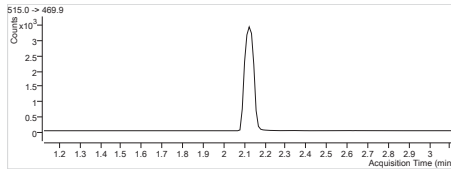
Quantitation Results



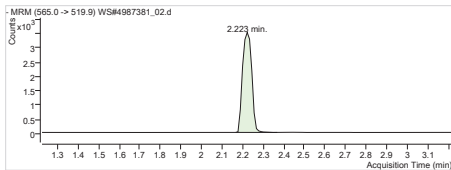
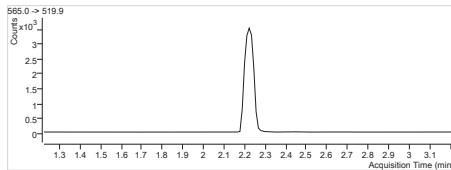
13C4-PFOS
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 103.03 µg/Kg
Area ratio: 0.05239
Sample type: Calibration



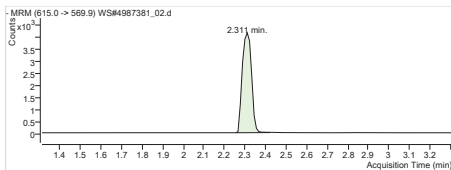
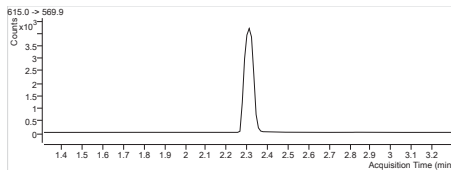
13C5-PFNA
RT (Exp. RT): 2.014 (2.014)
Calc. conc. 96.99 µg/Kg
Area ratio: 0.23489
Sample type: Calibration



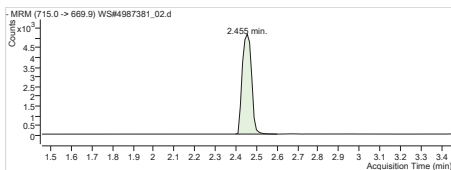
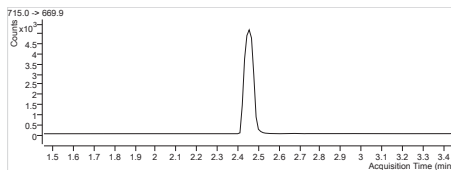
13C2-PFDA
RT (Exp. RT): 2.124 (2.124)
Calc. conc. 106.73 µg/Kg
Area ratio: 0.24653
Sample type: Calibration



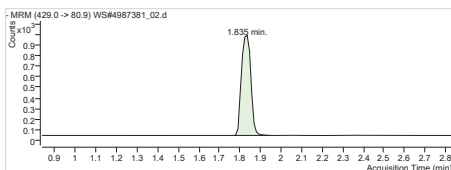
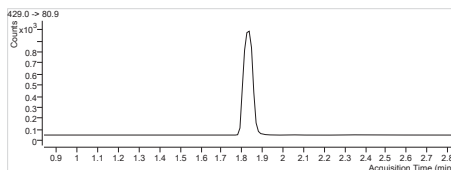
13C2-PFUnA
RT (Exp. RT): 2.223 (2.223)
Calc. conc. 97.76 µg/Kg
Area ratio: 0.25256
Sample type: Calibration



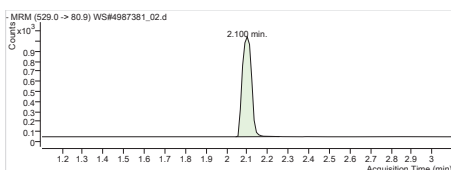
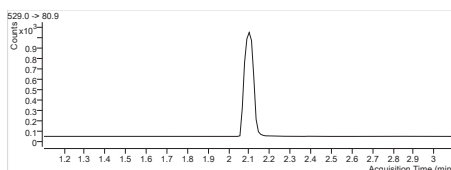
13C2-PFDoA
RT (Exp. RT): 2.311 (2.311)
Calc. conc. 101.18 µg/Kg
Area ratio: 0.29962
Sample type: Calibration



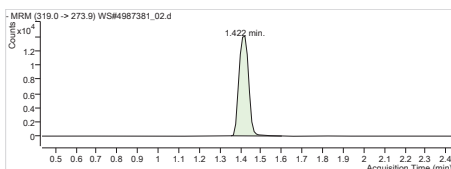
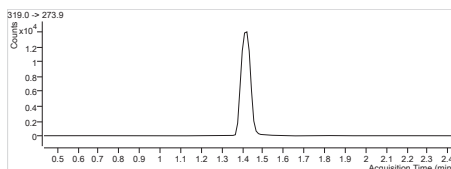
13C2-PFTeDA
RT (Exp. RT): 2.455 (2.455)
Calc. conc. 102.12 µg/Kg
Area ratio: 0.37508
Sample type: Calibration



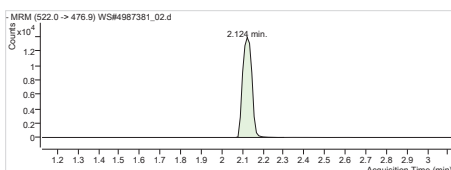
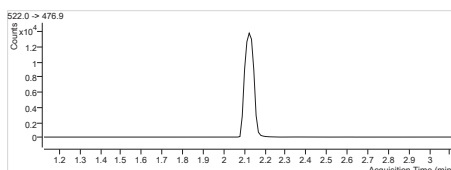
13C2-6:2-FTS
RT (Exp. RT): 1.835 (1.835)
Calc. conc. 105.07 µg/Kg
Area ratio: 0.06581
Sample type: Calibration



13C2-8:2 FTS
RT (Exp. RT): 2.100 (2.100)
Calc. conc. 109.14 µg/Kg
Area ratio: 0.06866
Sample type: Calibration



13C6-PFHxA
RT (Exp. RT): 1.422 (1.434)
Calc. conc. 109.24 µg/Kg
Area ratio: 0
Sample type: Calibration

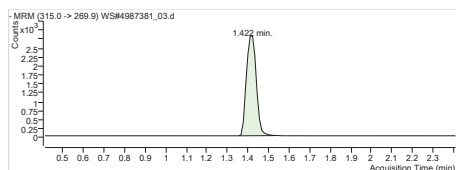
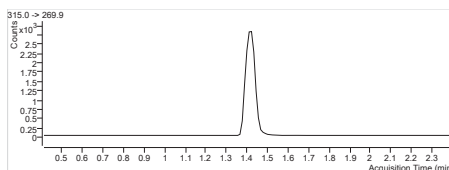


13C9-PFDA
RT (Exp. RT): 2.124 (2.124)
Calc. conc. 112.61 µg/Kg
Area ratio: 0
Sample type: Calibration

Batch Path	T:\lcms4\PFC\20170519\WS#4987381\QuantResults\PFC_Soil_170519_WS#4987381_CTLabs		
Sample Name	STD 2	Instrument	LCMS04
Data File	WS#4987381_03.d	Operator	M_G
Sample Type	Cal	Dilution	1
Acq. Method	PFC_Soil.m	Position	P2-A3
Acq. Date	2017/05/20 3:14:55 AM	Injection Volume	Per Method
Sample Annotation	-		

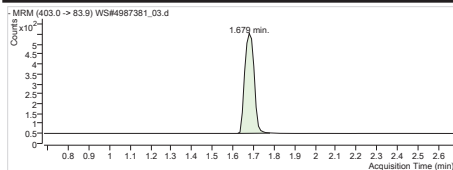
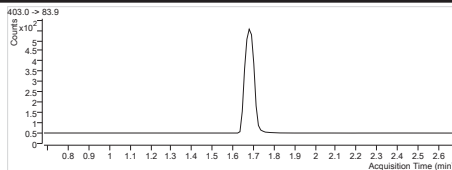
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	9343	1.42	1 µg/Kg		
MPFHxS	1622	1.68	1 µg/Kg		
MPFHpA	10039	1.68	1 µg/Kg		
MPFOA	10182	1.87	1 µg/Kg		
MPFOS	2237	1.98	1 µg/Kg		
MPFNA	10447	2.01	1 µg/Kg		
MPFDA	7941	2.12	1 µg/Kg		
MPFUnA	9120	2.22	1 µg/Kg		
MPFDoA	10961	2.31	1 µg/Kg		
MPFTeDA	13299	2.46	1 µg/Kg		
M2 6:2 FTS	2685	1.84	1 µg/Kg		
M2 8:2 FTS	2616	2.10	1 µg/Kg		
13C6-PFHxA IS	41311	1.42	1 µg/Kg		
13C9-PFDA IS	36377	2.12	1 µg/Kg		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	1305	1.09	1.50	1.58 µg/Kg	105.45
PFHxA 1	5377	1.42	1.50	1.50 µg/Kg	99.69
PFHxS 1	1223	1.68	1.50	1.71 µg/Kg	114.14
PFHpA 1	5991	1.68	1.50	1.51 µg/Kg	100.97
PFOA 1	5984	1.87	1.50	1.44 µg/Kg	95.96
PFOS 1	975	1.97	1.50	1.36 µg/Kg	90.89
PFNA 1	5489	2.01	1.50	1.44 µg/Kg	96.33
PFDA 1	6044	2.12	1.50	1.66 µg/Kg	110.60
PFUnA 1	5831	2.22	1.50	1.60 µg/Kg	106.38
PFDaA 1	6277	2.31	1.50	1.50 µg/Kg	100.24
PFTTrDA 1	7640	2.39	1.50	1.56 µg/Kg	104.24
PFTeDA 1	6818	2.46	1.50	1.48 µg/Kg	98.75
6:2-FTS 1	1737	1.84	1.50	1.62 µg/Kg	107.89
8:2-FTS 1	1561	2.10	1.50	1.66 µg/Kg	110.66
13C2-PFHxA	9343	1.42	100.00	97.20 µg/Kg	97.20
18O2-PFHxS	1622	1.68	100.00	93.76 µg/Kg	93.76
13C4-PFHpA	10039	1.68	100.00	95.95 µg/Kg	95.95
13C4-PFOA	10182	1.87	100.00	99.35 µg/Kg	99.35
13C4-PFOS	2237	1.98	100.00	106.49 µg/Kg	106.49
13C5-PFNA	10447	2.01	100.00	104.42 µg/Kg	104.42
13C2-PFDA	7941	2.12	100.00	94.50 µg/Kg	94.50
13C2-PFUnA	9120	2.22	100.00	97.04 µg/Kg	97.04
13C2-PFDoA	10961	2.31	100.00	101.75 µg/Kg	101.75
13C2-PFTeDA	13299	2.46	100.00	99.54 µg/Kg	99.54
13C2-6:2-FTS	2685	1.84	100.00	103.76 µg/Kg	103.76
13C2-8:2 FTS	2616	2.10	100.00	100.67 µg/Kg	100.67
13C6-PFHxA	41311	1.42	100.00	98.64 µg/Kg	98.64
13C9-PFDA	36377	2.12	100.00	94.65 µg/Kg	94.65

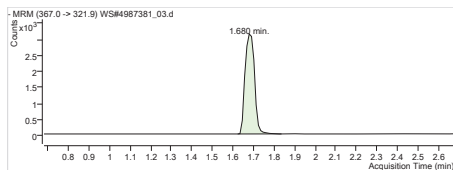
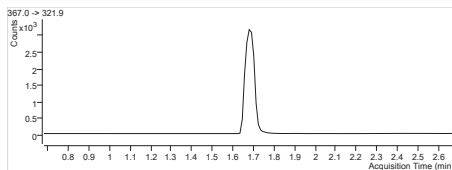


MPFHxA
 RT (Exp. RT): 1.422 (1.411)
 Concentration: 1 µg/Kg
 Sample type: Calibration

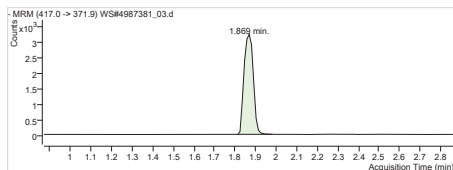
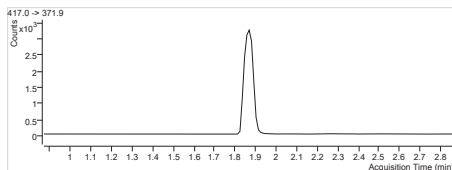
Quantitation Results



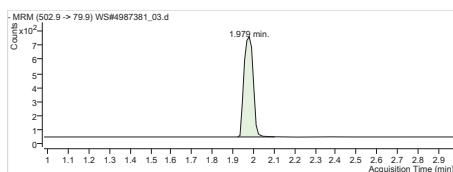
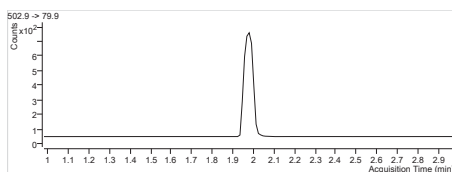
MPFHxS
 RT (Exp. RT): 1.679 (1.679)
 Concentration: 1 µg/Kg
 Sample type: Calibration



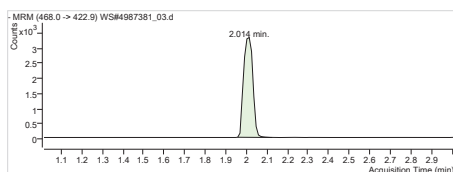
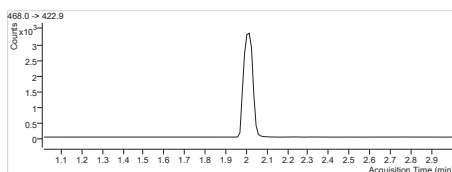
MPFHpA
 RT (Exp. RT): 1.680 (1.680)
 Concentration: 1 µg/Kg
 Sample type: Calibration



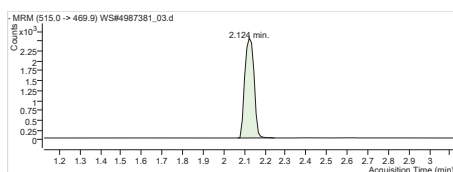
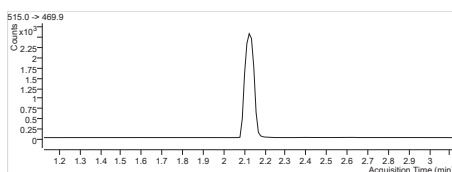
MPFOA
 RT (Exp. RT): 1.869 (1.869)
 Concentration: 1 µg/Kg
 Sample type: Calibration



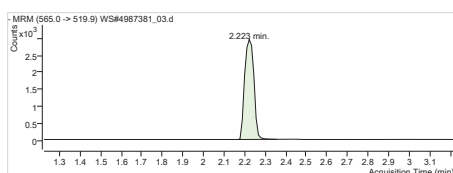
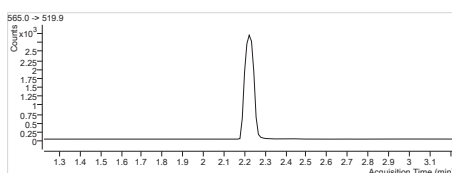
MPFOS
 RT (Exp. RT): 1.979 (1.979)
 Concentration: 1 µg/Kg
 Sample type: Calibration



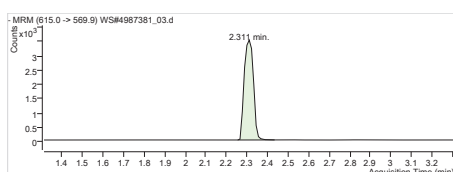
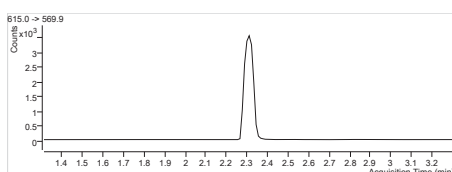
MPFNA
 RT (Exp. RT): 2.014 (2.014)
 Concentration: 1 µg/Kg
 Sample type: Calibration



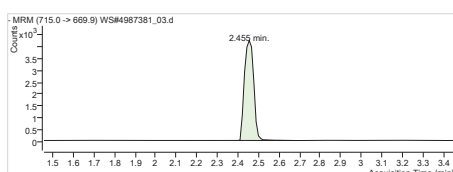
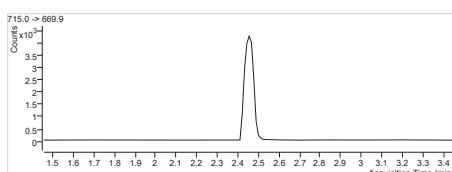
MPFDA
 RT (Exp. RT): 2.124 (2.124)
 Concentration: 1 µg/Kg
 Sample type: Calibration



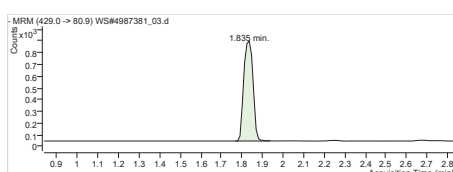
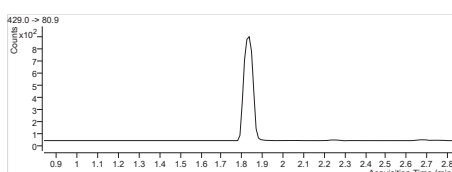
MPFUnA
 RT (Exp. RT): 2.223 (2.223)
 Concentration: 1 µg/Kg
 Sample type: Calibration



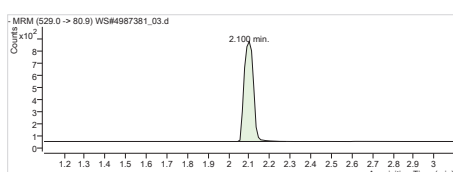
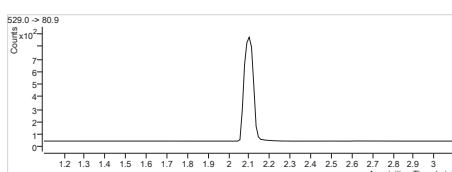
MPFDoA
 RT (Exp. RT): 2.311 (2.311)
 Concentration: 1 µg/Kg
 Sample type: Calibration



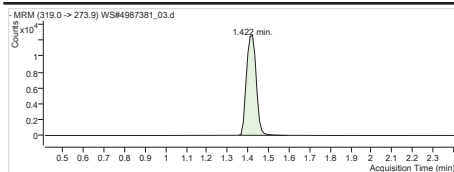
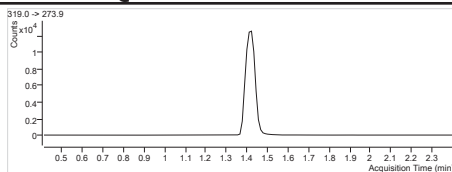
MPFTeDA
 RT (Exp. RT): 2.455 (2.455)
 Concentration: 1 µg/Kg
 Sample type: Calibration



M2 6:2 FTS
 RT (Exp. RT): 1.835 (1.835)
 Concentration: 1 µg/Kg
 Sample type: Calibration



M2 8:2 FTS
 RT (Exp. RT): 2.100 (2.100)
 Concentration: 1 µg/Kg
 Sample type: Calibration

**13C6-PFHxA IS**

RT (Exp. RT):

Concentration:

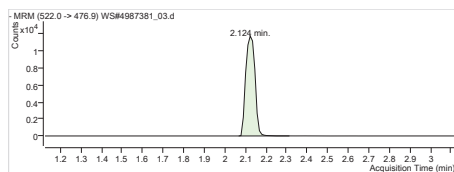
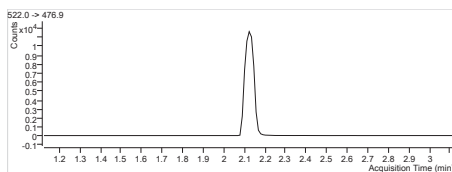
Sample type:

Internal Standard

1.422 (1.411)

1 µg/Kg

Calibration

**13C9-PFDA IS**

RT (Exp. RT):

Concentration:

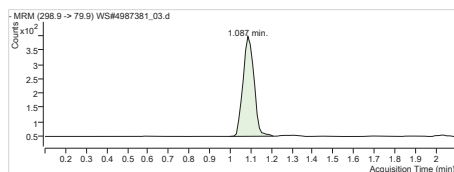
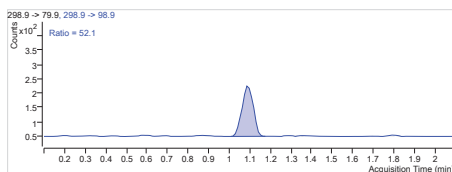
Sample type:

Internal Standard

2.124 (2.124)

1 µg/Kg

Calibration

**PFBS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

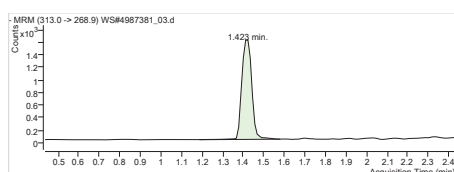
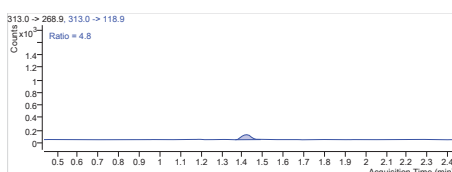
298.9 -> 79.9

1.087 (1.098)

1.58 µg/Kg

0.80456

Calibration

**PFHxA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

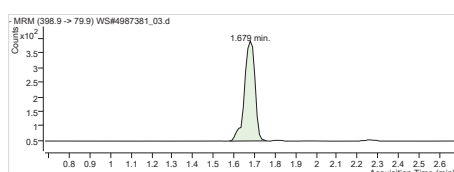
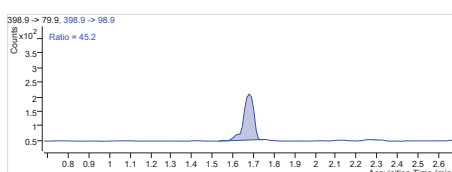
313.0 -> 268.9

1.423 (1.434)

1.50 µg/Kg

0.57551

Calibration

**PFHxS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

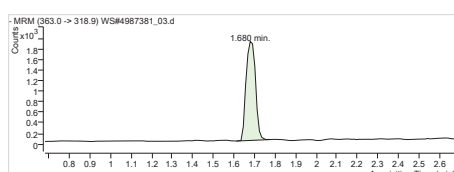
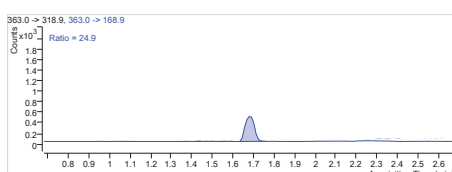
398.9 -> 79.9

1.679 (1.679)

1.71 µg/Kg

0.75401

Calibration

**PFHpA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

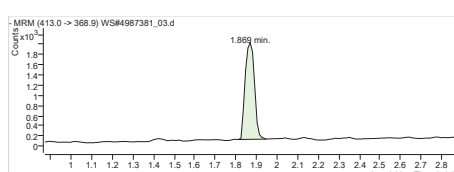
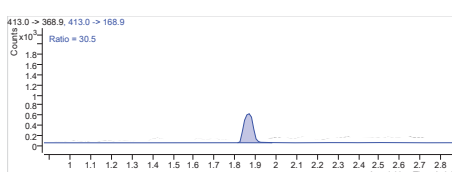
363.0 -> 318.9

1.680 (1.680)

1.51 µg/Kg

0.59677

Calibration

**PFOA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

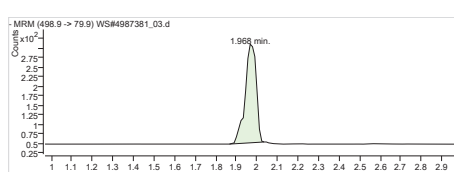
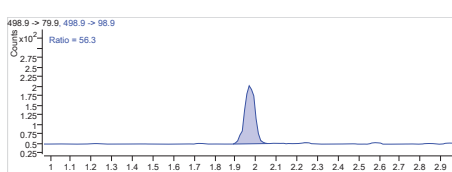
413.0 -> 368.9

1.869 (1.869)

1.44 µg/Kg

0.58770

Calibration

**PFOS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

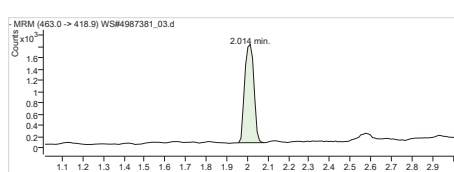
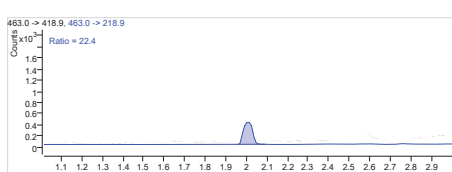
498.9 -> 79.9

1.968 (1.968)

1.36 µg/Kg

0.43585

Calibration

**PFNA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

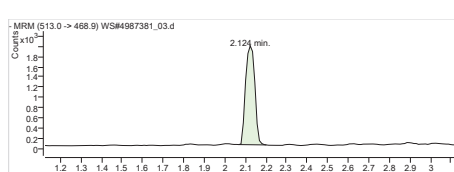
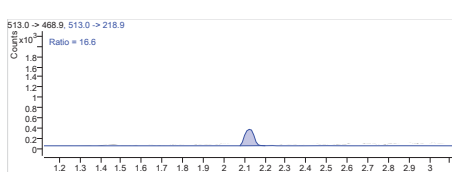
463.0 -> 418.9

2.014 (2.014)

1.44 µg/Kg

0.52541

Calibration

**PFDA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

513.0 -> 468.9

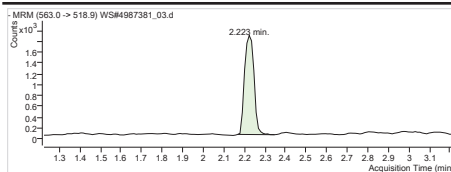
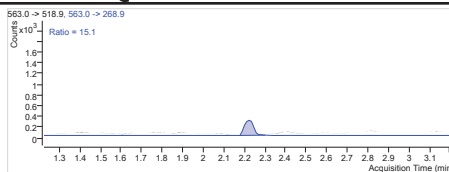
2.124 (2.124)

1.66 µg/Kg

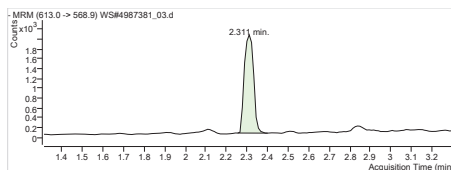
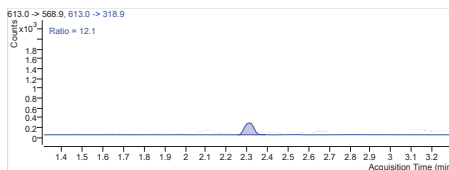
0.76111

Calibration

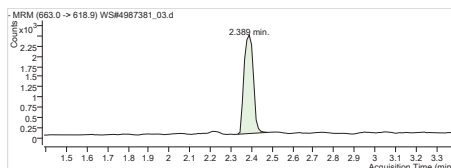
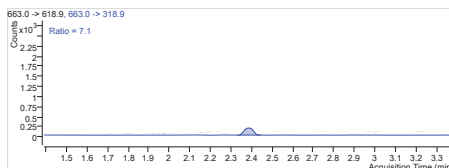
Quantitation Results



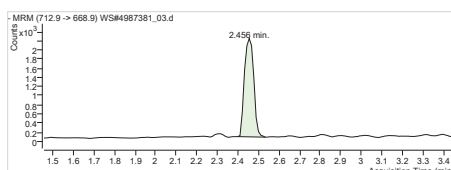
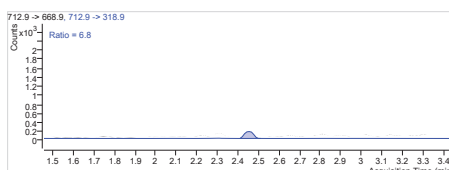
PFUnA 1
RT (Exp. RT): 563.0 -> 518.9
Calc. conc. 2.223 (2.223)
Area ratio: 1.60 µg/Kg
Sample type: 0.63936
Calibration



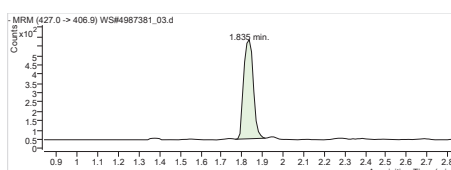
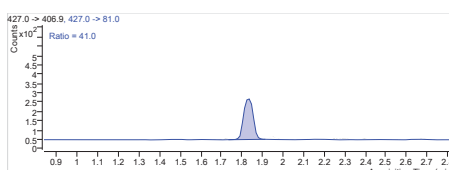
PFDa 1
RT (Exp. RT): 613.0 -> 568.9
Calc. conc. 2.311 (2.311)
Area ratio: 1.50 µg/Kg
Sample type: 0.57267
Calibration



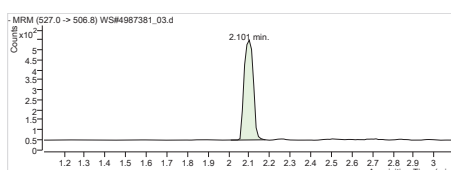
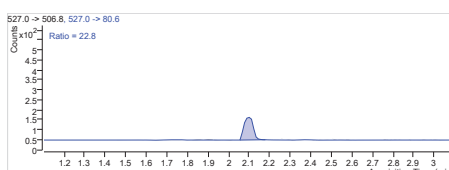
PFTraD 1
RT (Exp. RT): 663.0 -> 618.9
Calc. conc. 2.389 (2.389)
Area ratio: 1.56 µg/Kg
Sample type: 0.57448
Calibration



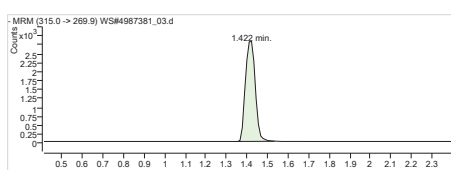
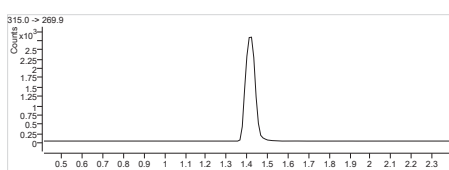
PFTeDa 1
RT (Exp. RT): 712.9 -> 668.9
Calc. conc. 2.456 (2.456)
Area ratio: 1.48 µg/Kg
Sample type: 0.51267
Calibration



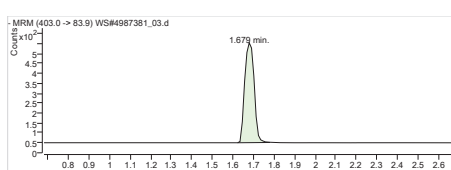
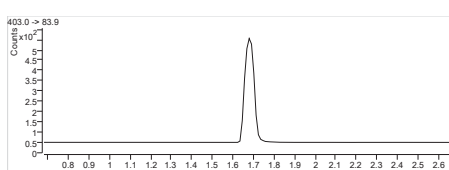
6:2-FTS 1
RT (Exp. RT): 427.0 -> 406.9
Calc. conc. 1.835 (1.835)
Area ratio: 1.62 µg/Kg
Sample type: 0.64693
Calibration



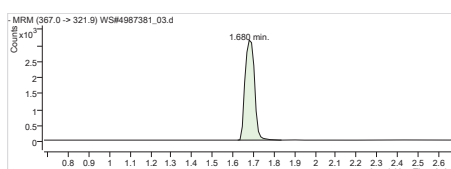
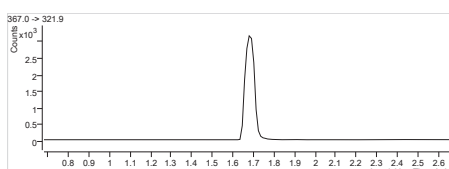
8:2-FTS 1
RT (Exp. RT): 527.0 -> 506.8
Calc. conc. 2.101 (2.101)
Area ratio: 1.66 µg/Kg
Sample type: 0.59671
Calibration



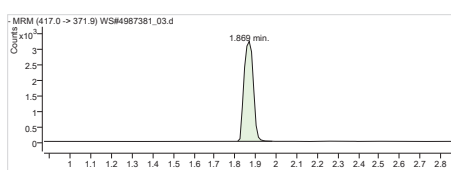
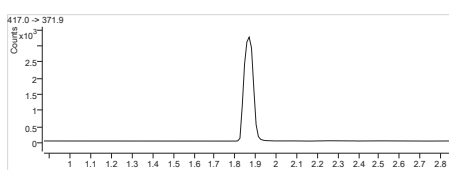
13C2-PFHxA
RT (Exp. RT): 315.0 -> 269.9
Calc. conc. 1.422 (1.411)
Area ratio: 97.20 µg/Kg
Sample type: 0.22616
Calibration



18O2-PFHxS
RT (Exp. RT): 403.0 -> 83.9
Calc. conc. 1.679 (1.679)
Area ratio: 93.76 µg/Kg
Sample type: 0.03926
Calibration

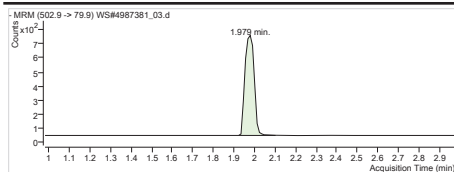
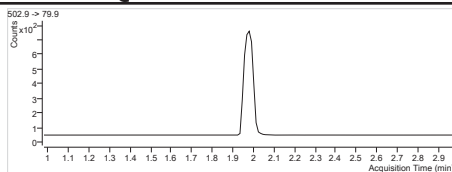


13C4-PFHpA
RT (Exp. RT): 367.0 -> 321.9
Calc. conc. 1.680 (1.680)
Area ratio: 95.95 µg/Kg
Sample type: 0.24301
Calibration

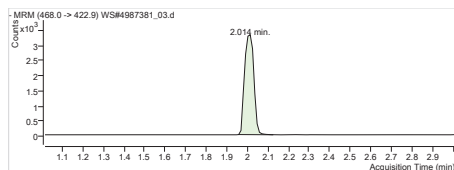
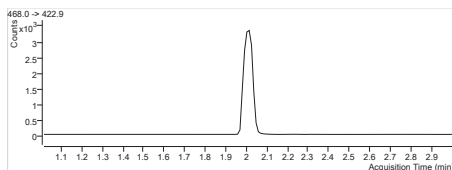


13C4-PFOA
RT (Exp. RT): 417.0 -> 371.9
Calc. conc. 1.869 (1.869)
Area ratio: 99.35 µg/Kg
Sample type: 0.24647
Calibration

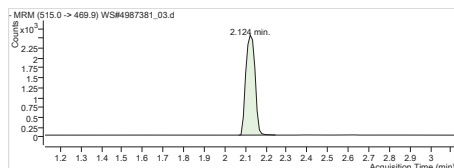
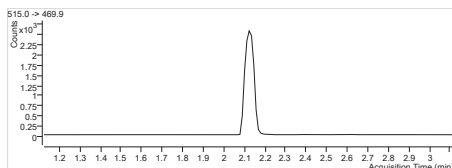
Quantitation Results



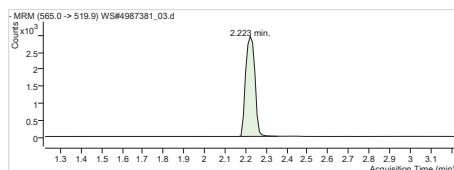
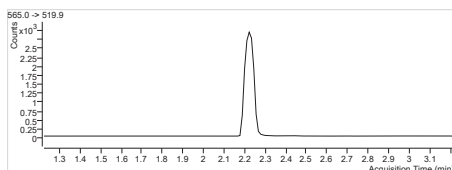
13C4-PFOS
RT (Exp. RT): 502.9 -> 79.9
Calc. conc. 1.979 (1.979)
106.49 µg/Kg
Area ratio: 0.05415
Sample type: Calibration



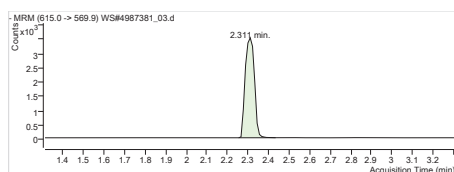
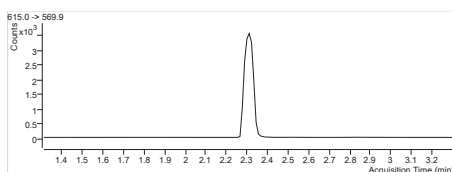
13C5-PFNA
RT (Exp. RT): 468.0 -> 422.9
Calc. conc. 2.014 (2.014)
104.42 µg/Kg
Area ratio: 0.25289
Sample type: Calibration



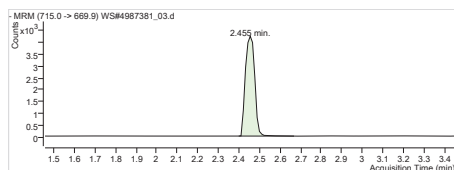
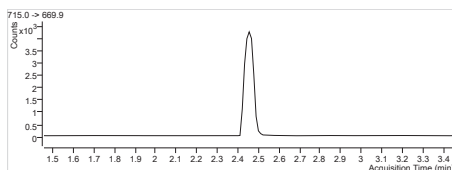
13C2-PFDA
RT (Exp. RT): 515.0 -> 469.9
Calc. conc. 2.124 (2.124)
94.50 µg/Kg
Area ratio: 0.21830
Sample type: Calibration



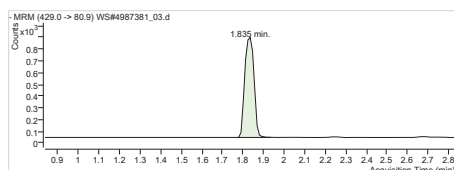
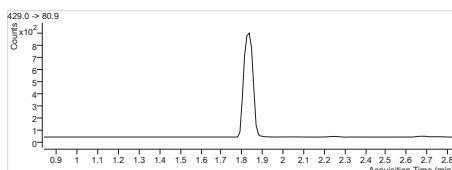
13C2-PFUnA
RT (Exp. RT): 565.0 -> 519.9
Calc. conc. 2.223 (2.223)
97.04 µg/Kg
Area ratio: 0.25071
Sample type: Calibration



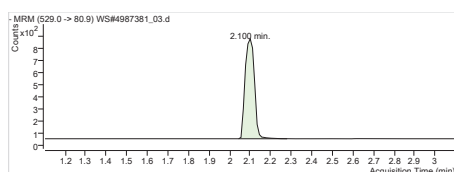
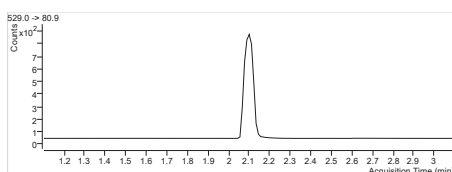
13C2-PFDoA
RT (Exp. RT): 615.0 -> 569.9
Calc. conc. 2.311 (2.311)
101.75 µg/Kg
Area ratio: 0.30132
Sample type: Calibration



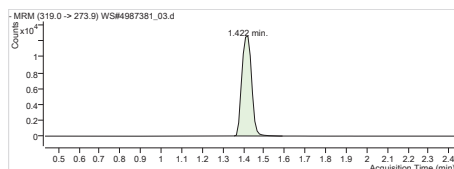
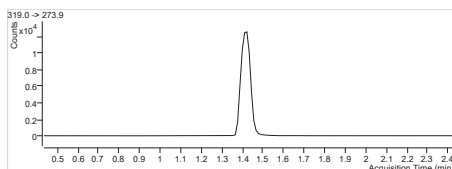
13C2-PFTeDA
RT (Exp. RT): 715.0 -> 669.9
Calc. conc. 2.455 (2.455)
99.54 µg/Kg
Area ratio: 0.36559
Sample type: Calibration



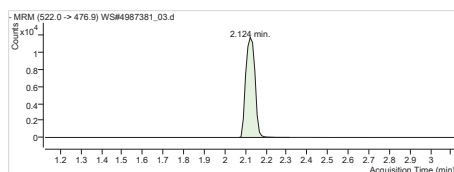
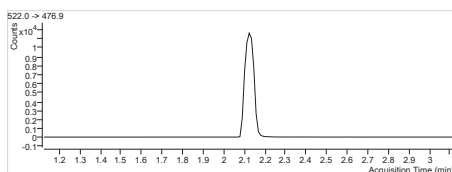
13C2-6:2-FTS
RT (Exp. RT): 429.0 -> 80.9
Calc. conc. 1.835 (1.835)
103.76 µg/Kg
Area ratio: 0.06499
Sample type: Calibration



13C2-8:2 FTS
RT (Exp. RT): 529.0 -> 80.9
Calc. conc. 2.100 (2.100)
100.67 µg/Kg
Area ratio: 0.06332
Sample type: Calibration



13C6-PFHxA
RT (Exp. RT): 319.0 -> 273.9
Calc. conc. 1.422 (1.434)
98.64 µg/Kg
Area ratio: 0
Sample type: Calibration



13C9-PFDA
RT (Exp. RT): 522.0 -> 476.9
Calc. conc. 2.124 (2.124)
94.65 µg/Kg
Area ratio: 0
Sample type: Calibration

Batch Path

T:\lcms4\PFC\20170519\WS#4987381\QuantResults\PFC_Soil_170519_WS#4987381_CTLabs

Sample Name

STD 3

Instrument

LCMS04

Data File

WS#4987381_04.d

Operator

M_G

Sample Type

Cal

Dilution

1

Acq. Method

PFC_Soil.m

Position

P2-A4

Acq. Date

2017/05/20 3:19:49 AM

Injection Volume

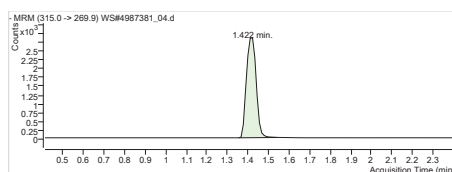
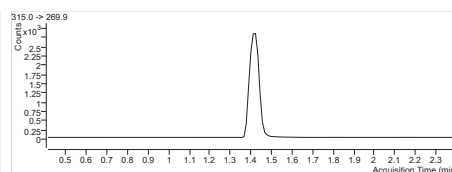
Per Method

Sample Annotation

-

ISTD Compounds	Response	RT	Target conc.		
MPFHxA	9293	1.42	1 µg/Kg		
MPFHxS	1852	1.68	1 µg/Kg		
MPFHpA	10263	1.68	1 µg/Kg		
MPFOA	10160	1.87	1 µg/Kg		
MPFOS	1996	1.98	1 µg/Kg		
MPFNA	10041	2.01	1 µg/Kg		
MPFDA	9289	2.12	1 µg/Kg		
MPFUnA	9496	2.22	1 µg/Kg		
MPFDoA	11134	2.31	1 µg/Kg		
MPFTeDA	13487	2.46	1 µg/Kg		
M2 6:2 FTS	2556	1.84	1 µg/Kg		
M2 8:2 FTS	2775	2.10	1 µg/Kg		
13C6-PFHxA IS	40933	1.42	1 µg/Kg		
13C9-PFDA IS	39158	2.12	1 µg/Kg		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	4407	1.09	4.50	4.23 µg/Kg	93.99
PFHxA 1	17035	1.41	4.50	4.53 µg/Kg	100.77
PFHxS 1	3476	1.68	4.50	4.10 µg/Kg	91.10
PFHpA 1	19388	1.68	4.50	4.41 µg/Kg	98.03
PFOA 1	19153	1.87	4.50	4.45 µg/Kg	98.90
PFOS 1	3205	1.97	4.50	4.34 µg/Kg	96.54
PFNA 1	17689	2.01	4.50	4.58 µg/Kg	101.85
PFDA 1	18539	2.12	4.50	4.13 µg/Kg	91.68
PFUnA 1	18360	2.22	4.50	4.71 µg/Kg	104.78
PFDaA 1	19889	2.31	4.50	4.45 µg/Kg	98.89
PFTTrDA 1	23740	2.39	4.50	4.58 µg/Kg	101.87
PFTeDA 1	23559	2.46	4.50	4.89 µg/Kg	108.73
6:2-FTS 1	4859	1.84	4.50	4.94 µg/Kg	109.86
8:2-FTS 1	4455	2.10	4.50	4.32 µg/Kg	95.96
13C2-PFHxA	9293	1.42	100.00	97.57 µg/Kg	97.57
18O2-PFHxS	1852	1.68	100.00	108.05 µg/Kg	108.05
13C4-PFHpA	10263	1.68	100.00	98.99 µg/Kg	98.99
13C4-PFOA	10160	1.87	100.00	100.05 µg/Kg	100.05
13C4-PFOS	1996	1.98	100.00	95.89 µg/Kg	95.89
13C5-PFNA	10041	2.01	100.00	101.29 µg/Kg	101.29
13C2-PFDA	9289	2.12	100.00	102.70 µg/Kg	102.70
13C2-PFUnA	9496	2.22	100.00	93.87 µg/Kg	93.87
13C2-PFDoA	11134	2.31	100.00	96.02 µg/Kg	96.02
13C2-PFTeDA	13487	2.46	100.00	93.78 µg/Kg	93.78
13C2-6:2-FTS	2556	1.84	100.00	99.69 µg/Kg	99.69
13C2-8:2 FTS	2775	2.10	100.00	107.77 µg/Kg	107.77
13C6-PFHxA	40933	1.42	100.00	97.74 µg/Kg	97.74
13C9-PFDA	39158	2.12	100.00	101.89 µg/Kg	101.89



MPFHxA

Internal Standard

RT (Exp. RT):

1.422 (1.411)

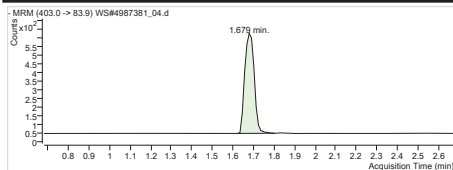
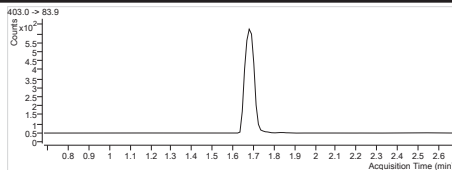
Concentration:

1 µg/Kg

Sample type:

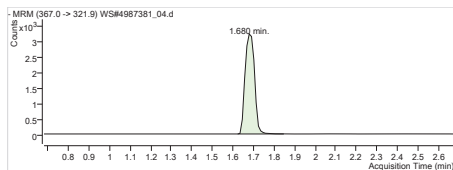
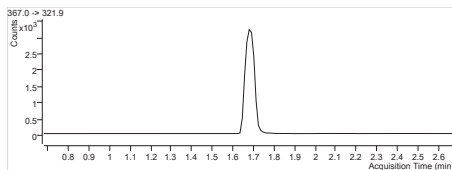
Calibration

Quantitation Results



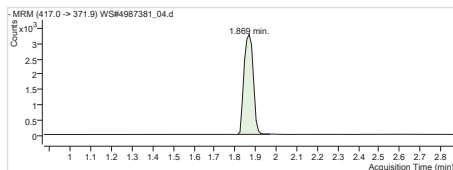
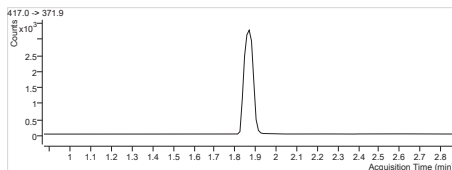
MPFHxS
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
1.679 (1.679)
1 µg/Kg
Calibration



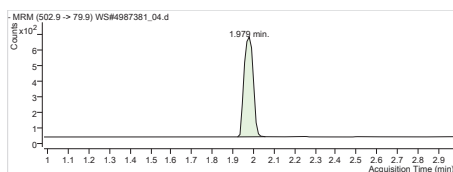
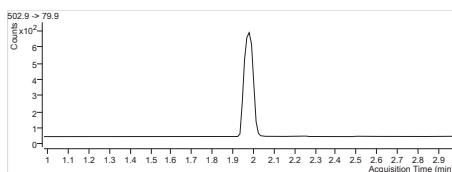
MPFHpA
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
1.680 (1.680)
1 µg/Kg
Calibration



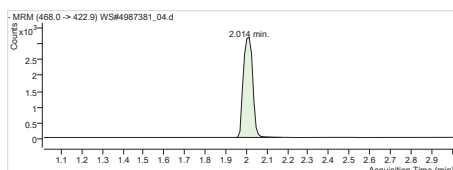
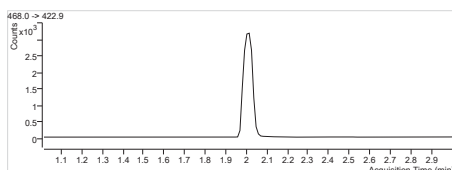
MPFOA
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
1.869 (1.869)
1 µg/Kg
Calibration



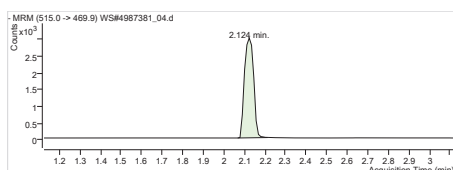
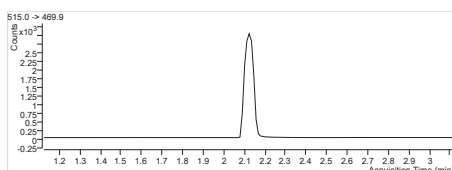
MPFOS
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
1.979 (1.979)
1 µg/Kg
Calibration



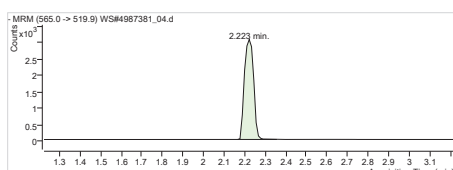
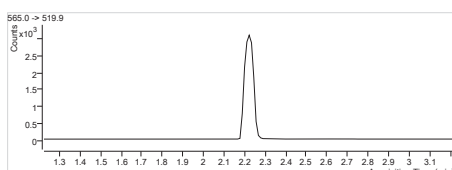
MPFNA
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
2.014 (2.014)
1 µg/Kg
Calibration



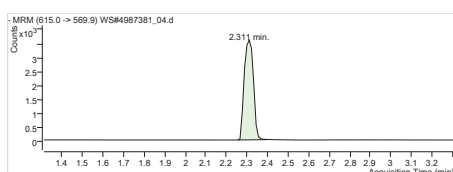
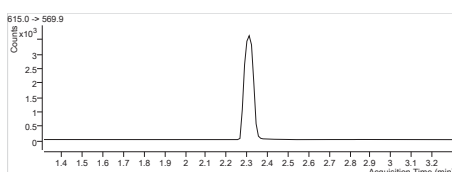
MPFDA
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
2.124 (2.124)
1 µg/Kg
Calibration



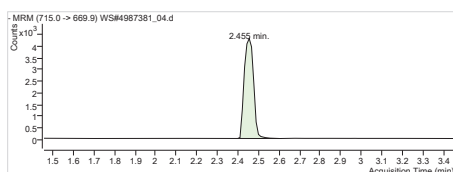
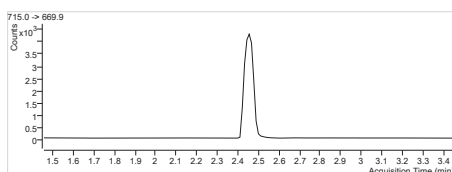
MPFUnA
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
2.223 (2.223)
1 µg/Kg
Calibration



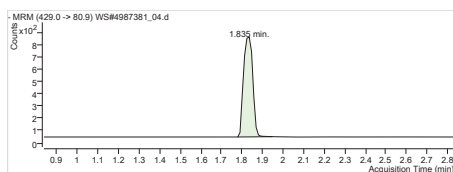
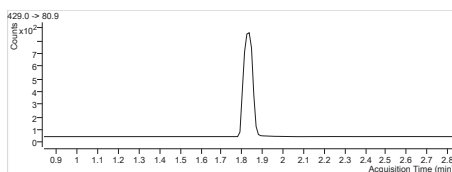
MPFDoA
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
2.311 (2.311)
1 µg/Kg
Calibration



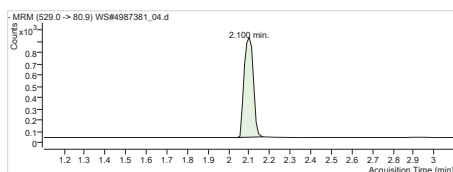
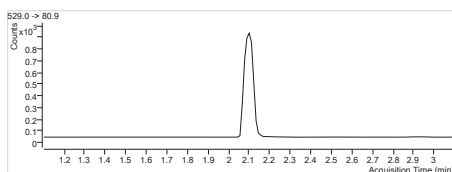
MPFTeDA
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
2.455 (2.455)
1 µg/Kg
Calibration



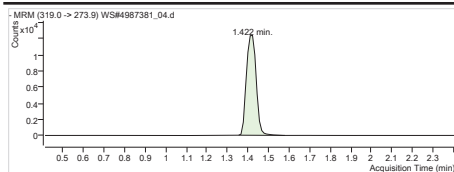
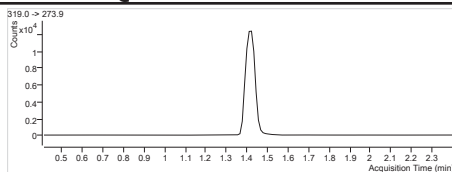
M2 6:2 FTS
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
1.835 (1.835)
1 µg/Kg
Calibration



M2 8:2 FTS
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
2.100 (2.100)
1 µg/Kg
Calibration

**13C6-PFHxA IS**

RT (Exp. RT):

Concentration:

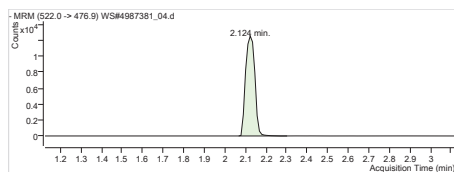
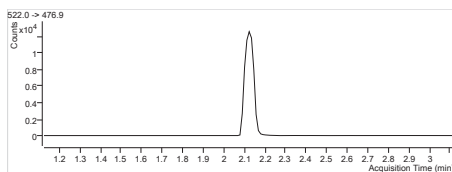
Sample type:

Internal Standard

1.422 (1.411)

1 µg/Kg

Calibration

**13C9-PFDA IS**

RT (Exp. RT):

Concentration:

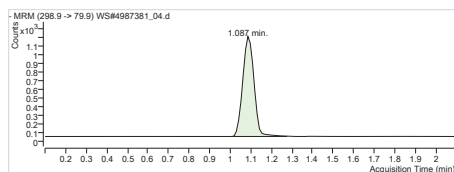
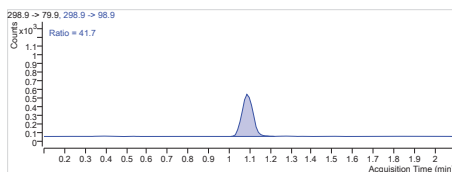
Sample type:

Internal Standard

2.124 (2.124)

1 µg/Kg

Calibration

**PFBS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

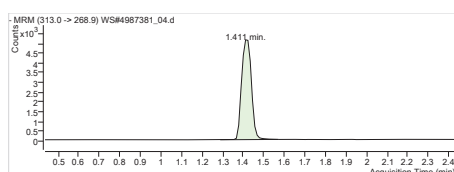
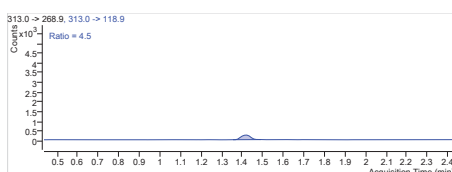
298.9 -> 79.9

1.087 (1.098)

4.23 µg/Kg

2.37959

Calibration

**PFHxA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

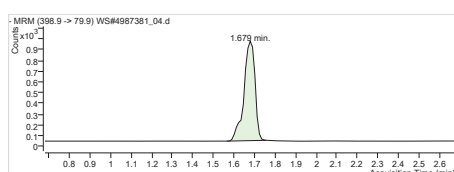
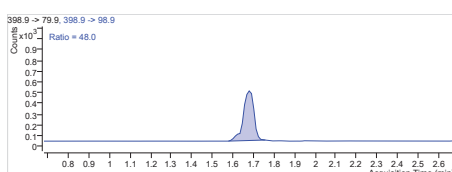
313.0 -> 268.9

1.411 (1.434)

4.53 µg/Kg

1.83310

Calibration

**PFHxS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

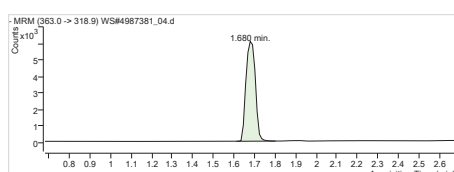
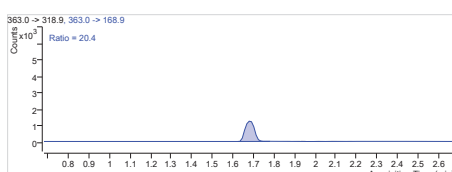
398.9 -> 79.9

1.679 (1.679)

4.10 µg/Kg

1.87689

Calibration

**PFHpA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

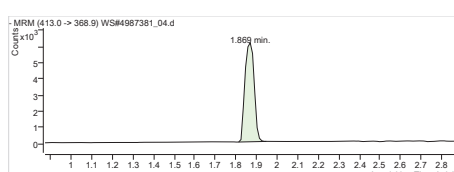
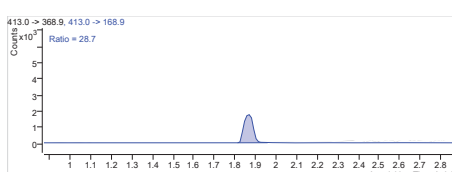
363.0 -> 318.9

1.680 (1.680)

4.41 µg/Kg

1.88912

Calibration

**PFOA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

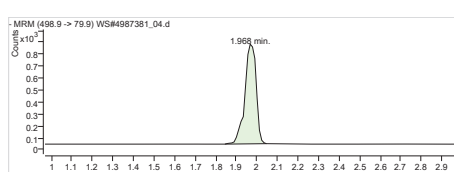
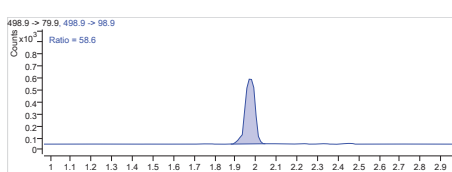
413.0 -> 368.9

1.869 (1.869)

4.45 µg/Kg

1.88514

Calibration

**PFOS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

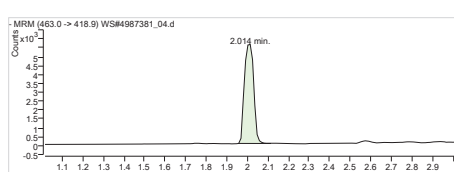
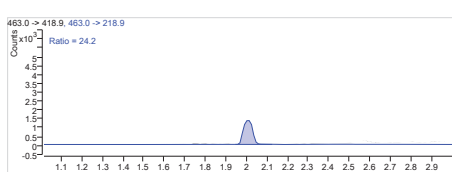
498.9 -> 79.9

1.968 (1.968)

4.34 µg/Kg

1.60571

Calibration

**PFNA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

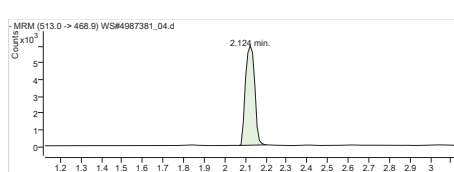
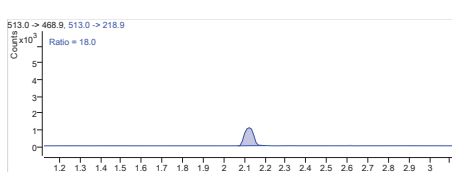
463.0 -> 418.9

2.014 (2.014)

4.58 µg/Kg

1.76168

Calibration

**PFDA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

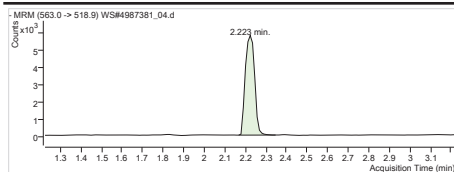
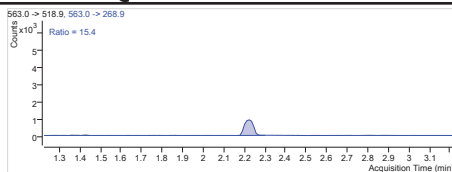
513.0 -> 468.9

2.124 (2.124)

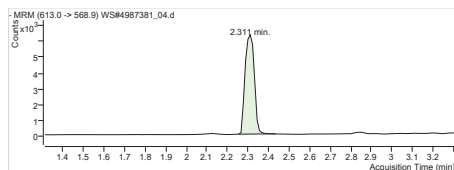
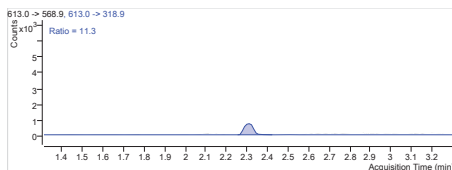
4.13 µg/Kg

1.99580

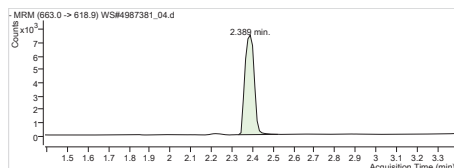
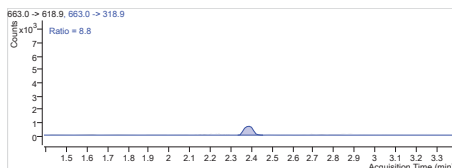
Calibration



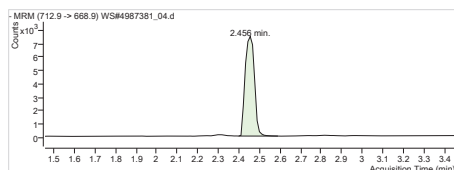
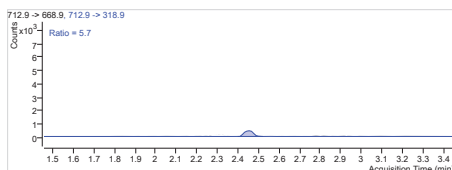
PFUnA 1
RT (Exp. RT): 563.0 -> 518.9
Calc. conc. 2.223 (2.223)
Area ratio: 4.71 µg/Kg
Sample type: 1.93345
Calibration



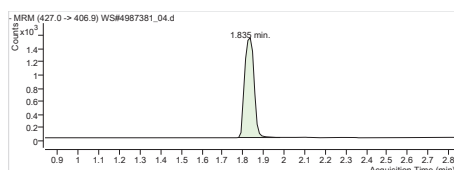
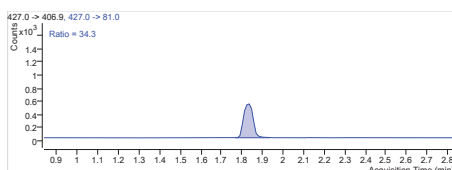
PFDa 1
RT (Exp. RT): 613.0 -> 568.9
Calc. conc. 2.311 (2.311)
Area ratio: 4.45 µg/Kg
Sample type: 1.78633
Calibration



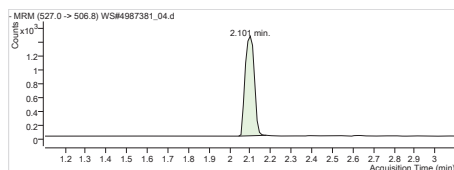
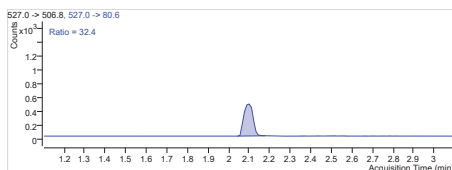
PFTrDa 1
RT (Exp. RT): 663.0 -> 618.9
Calc. conc. 2.389 (2.389)
Area ratio: 4.58 µg/Kg
Sample type: 1.76021
Calibration



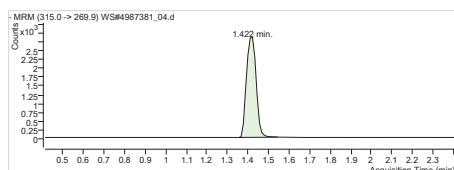
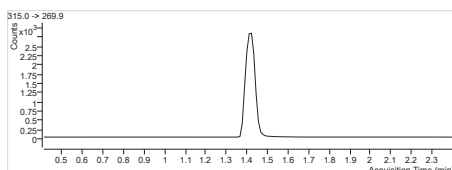
PFTeDa 1
RT (Exp. RT): 712.9 -> 668.9
Calc. conc. 2.456 (2.456)
Area ratio: 4.89 µg/Kg
Sample type: 1.74679
Calibration



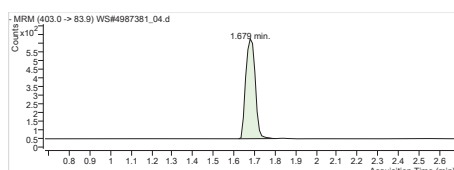
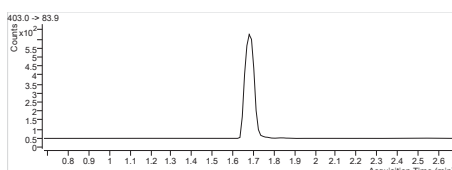
6:2-FTS 1
RT (Exp. RT): 427.0 -> 406.9
Calc. conc. 1.835 (1.835)
Area ratio: 4.94 µg/Kg
Sample type: 1.90102
Calibration



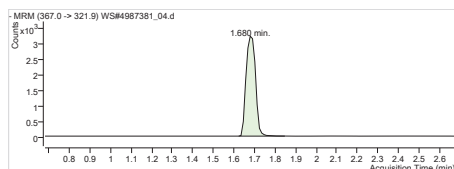
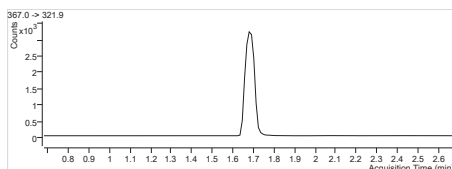
8:2-FTS 1
RT (Exp. RT): 527.0 -> 506.8
Calc. conc. 2.101 (2.101)
Area ratio: 4.32 µg/Kg
Sample type: 1.60541
Calibration



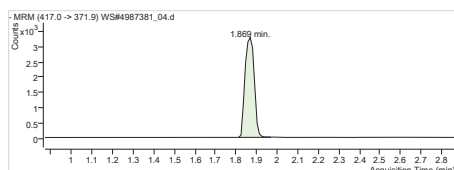
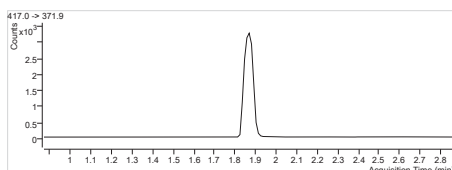
13C2-PFHxA
RT (Exp. RT): 315.0 -> 269.9
Calc. conc. 1.422 (1.411)
Area ratio: 97.57 µg/Kg
Sample type: 0.22703
Calibration



18O2-PFHxS
RT (Exp. RT): 403.0 -> 83.9
Calc. conc. 1.679 (1.679)
Area ratio: 108.05 µg/Kg
Sample type: 0.04524
Calibration

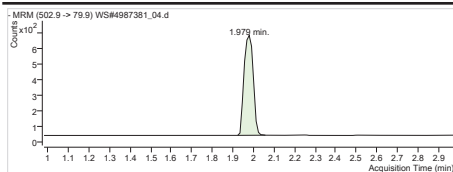
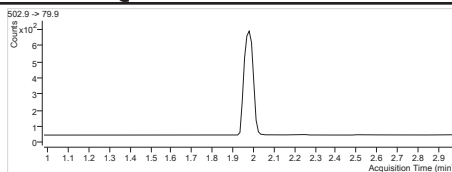


13C4-PFHpA
RT (Exp. RT): 367.0 -> 321.9
Calc. conc. 1.680 (1.680)
Area ratio: 98.99 µg/Kg
Sample type: 0.25073
Calibration

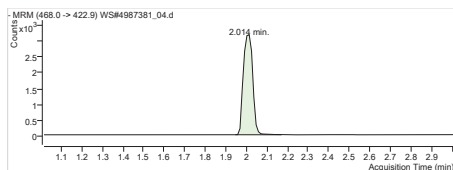
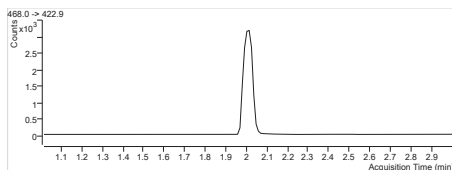


13C4-PFOA
RT (Exp. RT): 417.0 -> 371.9
Calc. conc. 1.869 (1.869)
Area ratio: 100.05 µg/Kg
Sample type: 0.24821
Calibration

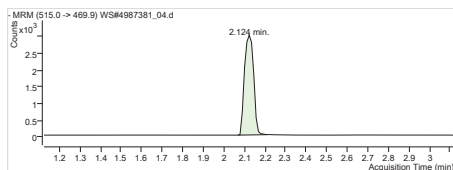
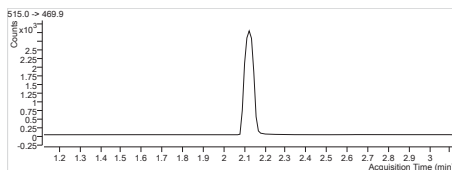
Quantitation Results



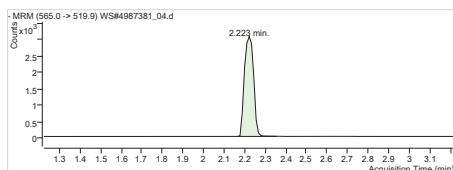
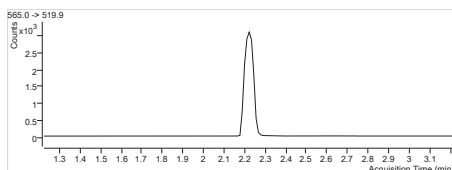
13C4-PFOS
RT (Exp. RT): 502.9 -> 79.9
Calc. conc. 1.979 (1.979)
Area ratio: 95.89 µg/Kg
Sample type: 0.04876 Calibration



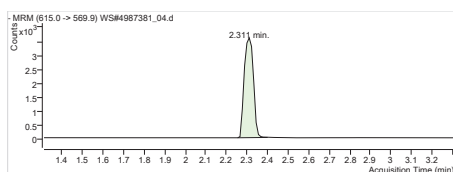
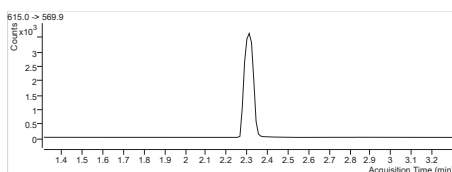
13C5-PFNA
RT (Exp. RT): 468.0 -> 422.9
Calc. conc. 2.014 (2.014)
Area ratio: 101.29 µg/Kg
Sample type: 0.24530 Calibration



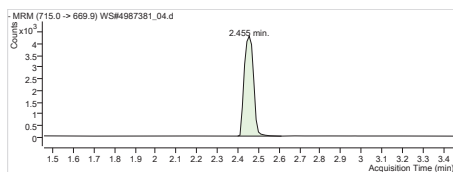
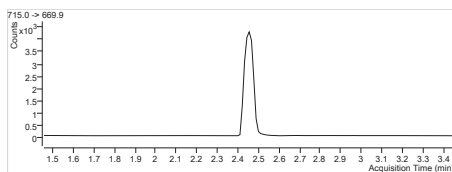
13C2-PFDA
RT (Exp. RT): 515.0 -> 469.9
Calc. conc. 2.124 (2.124)
Area ratio: 102.70 µg/Kg
Sample type: 0.23722 Calibration



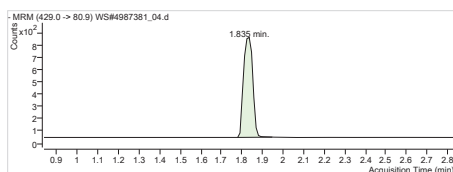
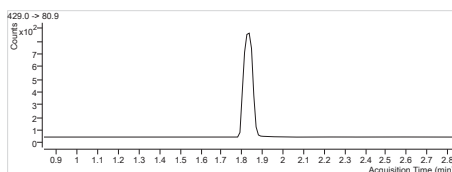
13C2-PFUnA
RT (Exp. RT): 565.0 -> 519.9
Calc. conc. 2.223 (2.223)
Area ratio: 93.87 µg/Kg
Sample type: 0.24250 Calibration



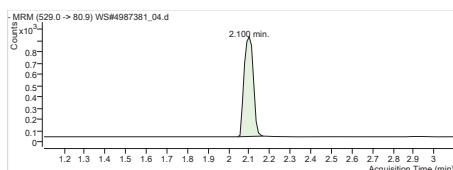
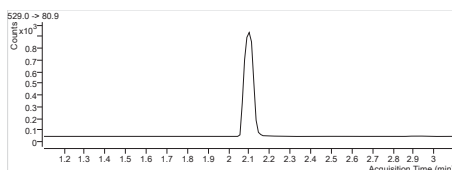
13C2-PFDoA
RT (Exp. RT): 615.0 -> 569.9
Calc. conc. 2.311 (2.311)
Area ratio: 96.02 µg/Kg
Sample type: 0.28434 Calibration



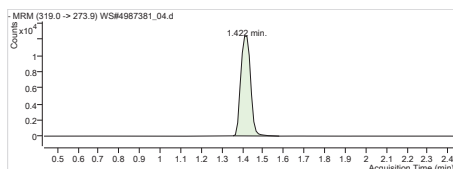
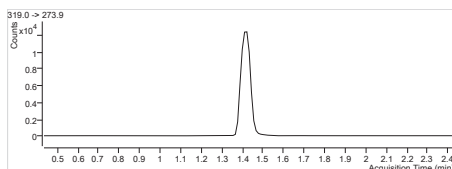
13C2-PFTeDA
RT (Exp. RT): 715.0 -> 669.9
Calc. conc. 2.455 (2.455)
Area ratio: 93.78 µg/Kg
Sample type: 0.34443 Calibration



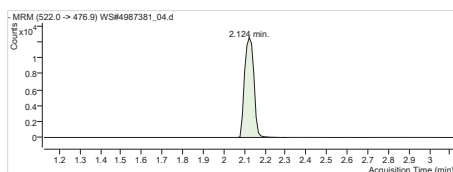
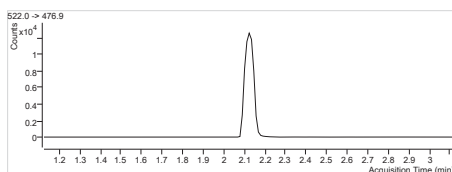
13C2-6:2-FTS
RT (Exp. RT): 429.0 -> 80.9
Calc. conc. 1.835 (1.835)
Area ratio: 99.69 µg/Kg
Sample type: 0.06244 Calibration



13C2-8:2 FTS
RT (Exp. RT): 529.0 -> 80.9
Calc. conc. 2.100 (2.100)
Area ratio: 107.77 µg/Kg
Sample type: 0.06779 Calibration



13C6-PFHxA
RT (Exp. RT): 319.0 -> 273.9
Calc. conc. 1.422 (1.434)
Area ratio: 97.74 µg/Kg
Sample type: 0 Calibration

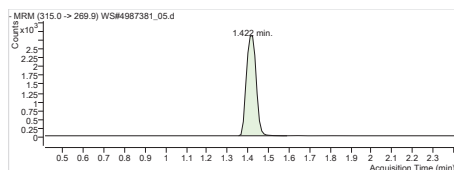
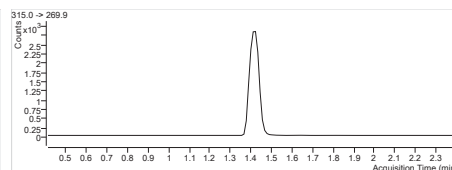


13C9-PFDA
RT (Exp. RT): 522.0 -> 476.9
Calc. conc. 2.124 (2.124)
Area ratio: 101.89 µg/Kg
Sample type: 0 Calibration

Batch Path	T:\lcms4\PFC\20170519\WS#4987381\QuantResults\PFC_Soil_170519_WS#4987381_CTLabs		
Sample Name	STD 4	Instrument	LCMS04
Data File	WS#4987381_05.d	Operator	M_G
Sample Type	Cal	Dilution	1
Acq. Method	PFC_Soil.m	Position	P2-A5
Acq. Date	2017/05/20 3:24:43 AM	Injection Volume	Per Method
Sample Annotation	-		

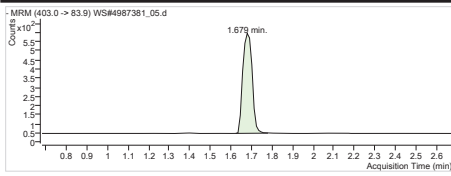
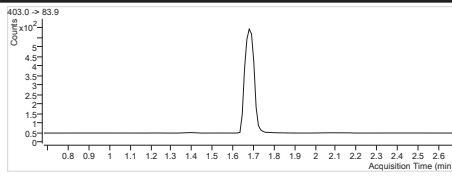
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	9341	1.42	1 µg/Kg		
MPFHxS	1736	1.68	1 µg/Kg		
MPFHpA	10682	1.68	1 µg/Kg		
MPFOA	9751	1.87	1 µg/Kg		
MPFOS	2047	1.98	1 µg/Kg		
MPFNA	9548	2.01	1 µg/Kg		
MPFDA	8498	2.12	1 µg/Kg		
MPFUnA	9387	2.22	1 µg/Kg		
MPFDoA	10304	2.31	1 µg/Kg		
MPFTeDA	13584	2.46	1 µg/Kg		
M2 6:2 FTS	2466	1.84	1 µg/Kg		
M2 8:2 FTS	2403	2.10	1 µg/Kg		
13C6-PFHxA IS	40649	1.41	1 µg/Kg		
13C9-PFDA IS	37274	2.12	1 µg/Kg		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	10845	1.09	11.30	10.73 µg/Kg	94.97
PFHxA 1	45387	1.41	11.30	11.85 µg/Kg	104.85
PFHxS 1	8765	1.68	11.30	10.84 µg/Kg	95.96
PFHpA 1	50120	1.68	11.30	10.69 µg/Kg	94.63
PFOA 1	48769	1.87	11.30	11.68 µg/Kg	103.39
PFOS 1	8367	1.97	11.30	10.67 µg/Kg	94.41
PFNA 1	43009	2.01	11.30	11.55 µg/Kg	102.18
PFDA 1	47737	2.12	11.30	11.36 µg/Kg	100.54
PFUnA 1	45077	2.22	11.30	11.63 µg/Kg	102.92
PFDaA 1	50957	2.31	11.30	12.12 µg/Kg	107.24
PFTTrDA 1	59658	2.39	11.30	11.29 µg/Kg	99.90
PFTeDA 1	55909	2.46	11.30	11.44 µg/Kg	101.25
6:2-FTS 1	10713	1.84	11.30	11.42 µg/Kg	101.08
8:2-FTS 1	10268	2.10	11.30	11.35 µg/Kg	100.43
13C2-PFHxA	9341	1.42	100.00	98.76 µg/Kg	98.76
18O2-PFHxS	1736	1.68	100.00	101.99 µg/Kg	101.99
13C4-PFHpA	10682	1.68	100.00	103.76 µg/Kg	103.76
13C4-PFOA	9751	1.87	100.00	96.69 µg/Kg	96.69
13C4-PFOS	2047	1.98	100.00	99.03 µg/Kg	99.03
13C5-PFNA	9548	2.01	100.00	96.99 µg/Kg	96.99
13C2-PFDA	8498	2.12	100.00	98.70 µg/Kg	98.70
13C2-PFUnA	9387	2.22	100.00	97.48 µg/Kg	97.48
13C2-PFDoA	10304	2.31	100.00	93.35 µg/Kg	93.35
13C2-PFTeDA	13584	2.46	100.00	99.22 µg/Kg	99.22
13C2-6:2-FTS	2466	1.84	100.00	96.85 µg/Kg	96.85
13C2-8:2 FTS	2403	2.10	100.00	93.98 µg/Kg	93.98
13C6-PFHxA	40649	1.41	100.00	97.06 µg/Kg	97.06
13C9-PFDA	37274	2.12	100.00	96.98 µg/Kg	96.98

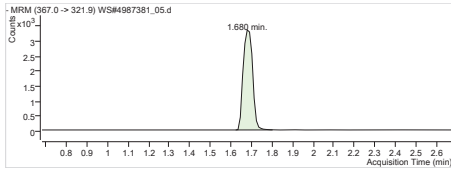
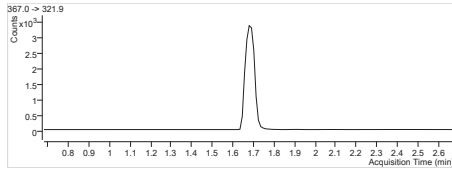


MPFHxA
 RT (Exp. RT): 1.422 (1.411)
 Concentration: 1 µg/Kg
 Sample type: Calibration

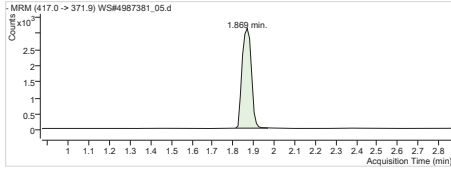
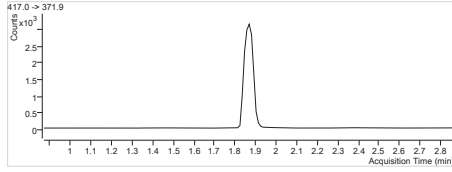
Quantitation Results



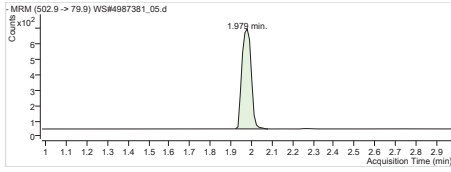
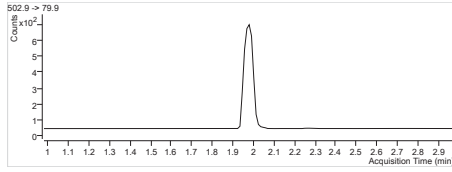
MPFHxS
 RT (Exp. RT): 1.679 (1.679)
 Concentration: 1 µg/Kg
 Sample type: Calibration



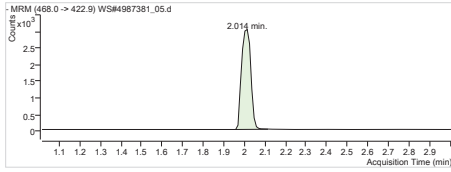
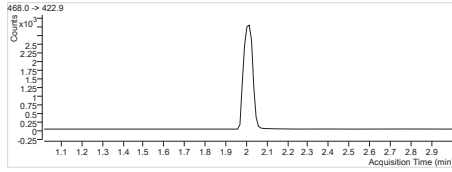
MPFHhpA
 RT (Exp. RT): 1.680 (1.680)
 Concentration: 1 µg/Kg
 Sample type: Calibration



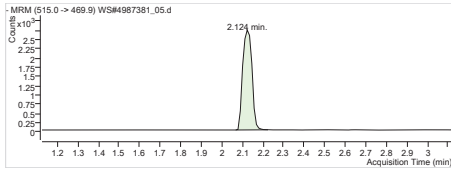
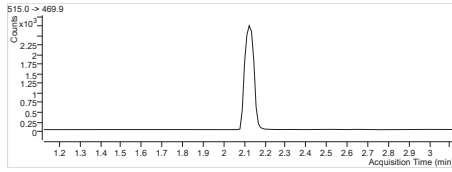
MPFOA
 RT (Exp. RT): 1.869 (1.869)
 Concentration: 1 µg/Kg
 Sample type: Calibration



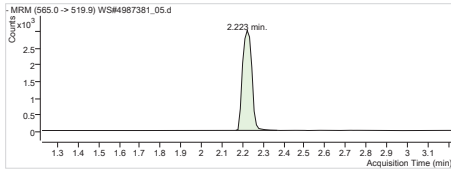
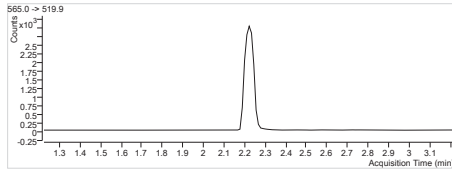
MPFOS
 RT (Exp. RT): 1.979 (1.979)
 Concentration: 1 µg/Kg
 Sample type: Calibration



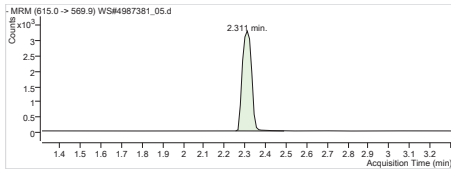
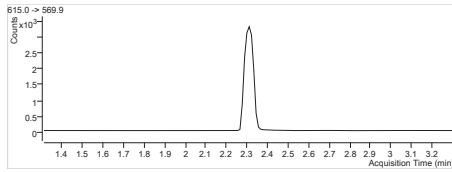
MPFNA
 RT (Exp. RT): 2.014 (2.014)
 Concentration: 1 µg/Kg
 Sample type: Calibration



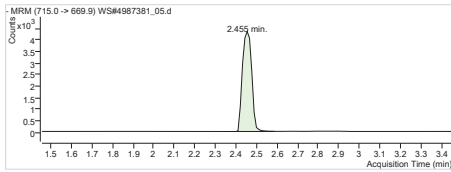
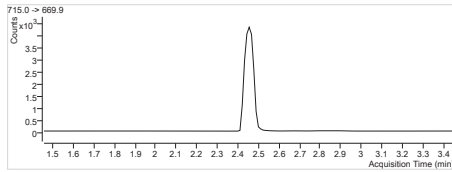
MPFDA
 RT (Exp. RT): 2.124 (2.124)
 Concentration: 1 µg/Kg
 Sample type: Calibration



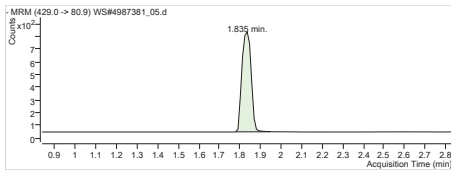
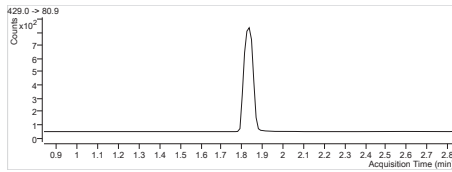
MPFUnA
 RT (Exp. RT): 2.223 (2.223)
 Concentration: 1 µg/Kg
 Sample type: Calibration



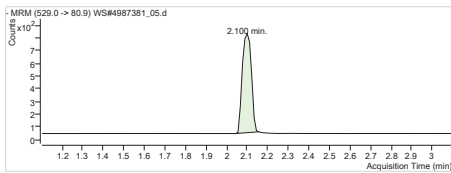
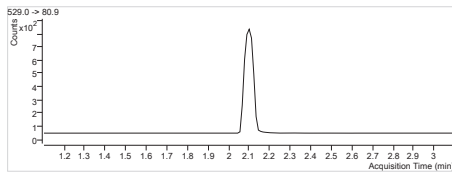
MPFDoA
 RT (Exp. RT): 2.311 (2.311)
 Concentration: 1 µg/Kg
 Sample type: Calibration



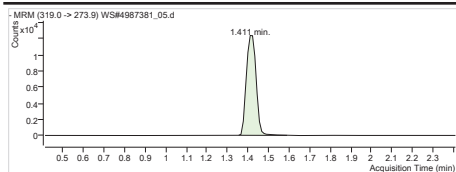
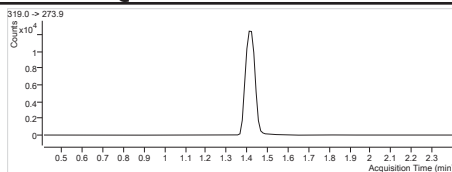
MPFTeDA
 RT (Exp. RT): 2.455 (2.455)
 Concentration: 1 µg/Kg
 Sample type: Calibration



M2 6:2 FTS
 RT (Exp. RT): 1.835 (1.835)
 Concentration: 1 µg/Kg
 Sample type: Calibration



M2 8:2 FTS
 RT (Exp. RT): 2.100 (2.100)
 Concentration: 1 µg/Kg
 Sample type: Calibration

**13C6-PFHxA IS**

RT (Exp. RT):

Concentration:

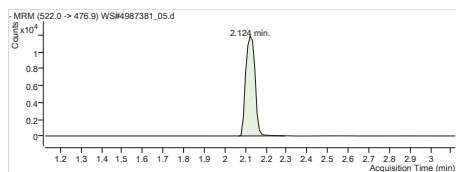
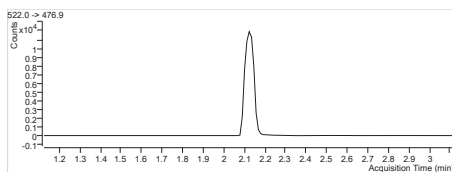
Sample type:

Internal Standard

1.411 (1.411)

1 µg/Kg

Calibration

**13C9-PFDA IS**

RT (Exp. RT):

Concentration:

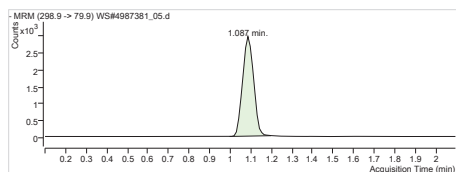
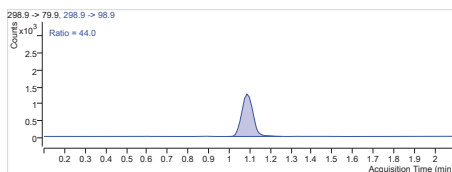
Sample type:

Internal Standard

2.124 (2.124)

1 µg/Kg

Calibration

**PFBS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

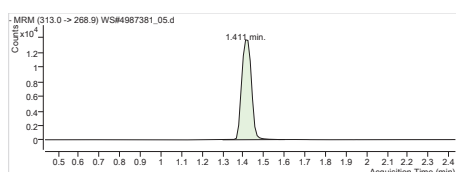
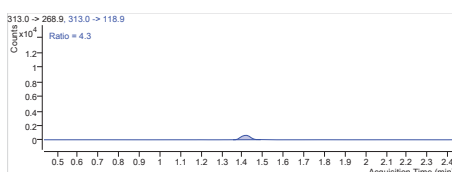
298.9 -> 79.9

1.087 (1.098)

10.73 µg/Kg

6.24712

Calibration

**PFHxA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

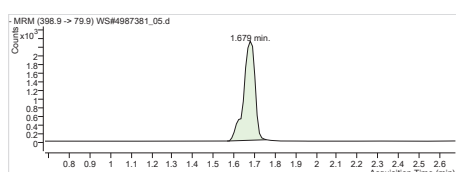
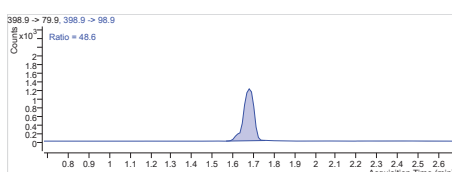
313.0 -> 268.9

1.411 (1.434)

11.85 µg/Kg

4.85890

Calibration

**PFHxS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

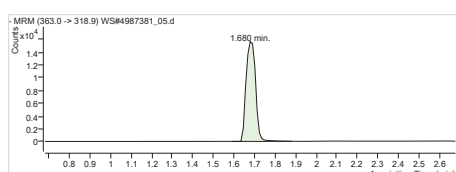
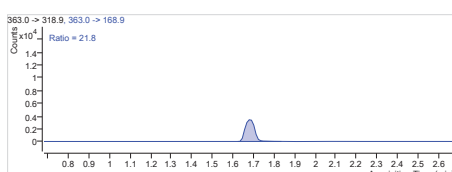
398.9 -> 79.9

1.679 (1.679)

10.84 µg/Kg

5.04896

Calibration

**PFHpA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

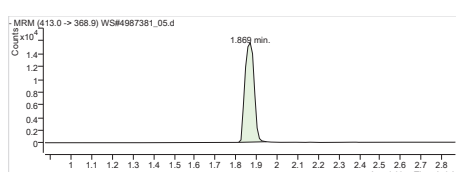
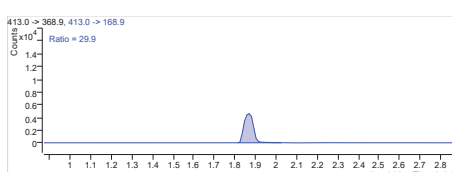
363.0 -> 318.9

1.680 (1.680)

10.69 µg/Kg

4.69201

Calibration

**PFOA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

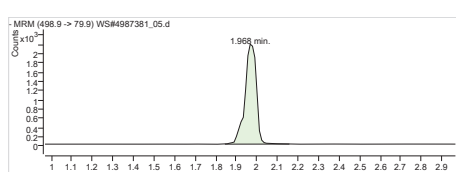
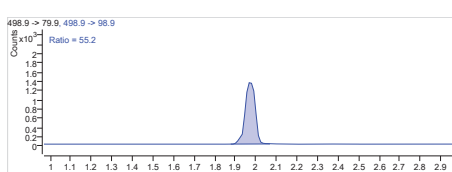
413.0 -> 368.9

1.869 (1.869)

11.68 µg/Kg

5.00144

Calibration

**PFOS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

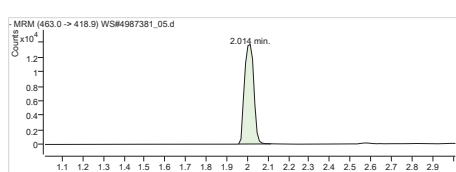
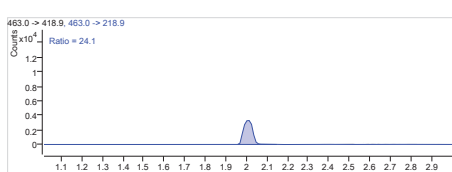
498.9 -> 79.9

1.968 (1.968)

10.67 µg/Kg

4.08745

Calibration

**PFNA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

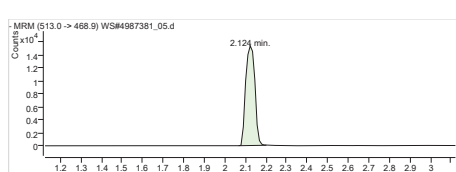
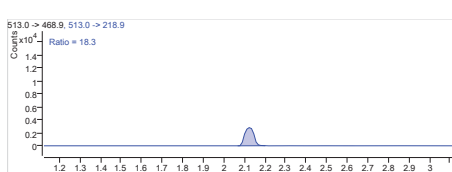
463.0 -> 418.9

2.014 (2.014)

11.55 µg/Kg

4.50450

Calibration

**PFDA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

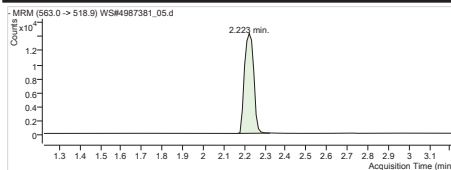
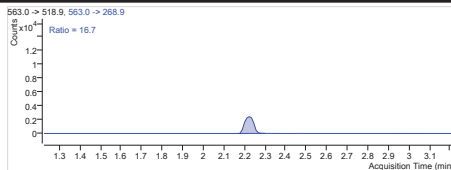
513.0 -> 468.9

2.124 (2.124)

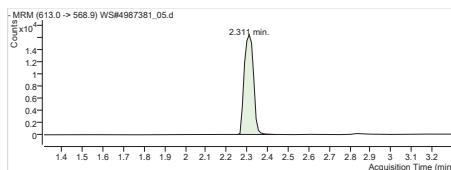
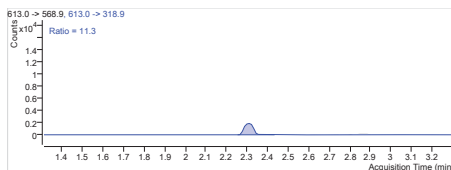
11.36 µg/Kg

5.61744

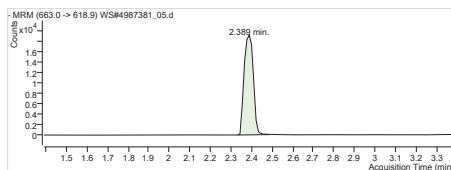
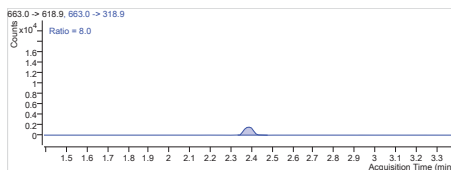
Calibration



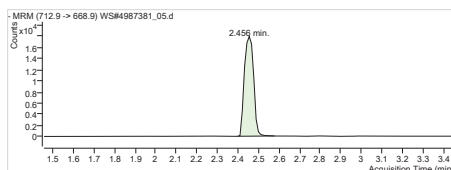
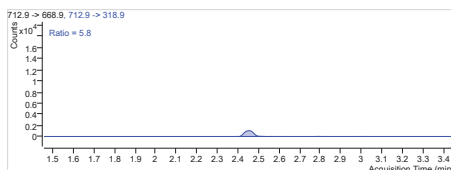
PFUnA 1
RT (Exp. RT): 563.0 -> 518.9
Calc. conc. 2.223 (2.223)
Area ratio: 11.63 µg/Kg
Sample type: 4.80207
Calibration



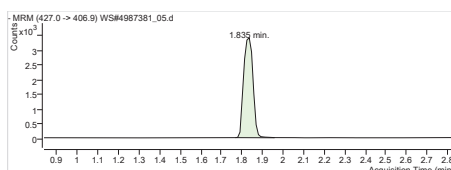
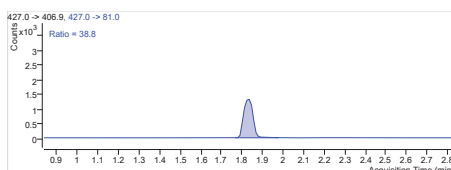
PFDa 1
RT (Exp. RT): 613.0 -> 568.9
Calc. conc. 2.311 (2.311)
Area ratio: 12.12 µg/Kg
Sample type: 4.94536
Calibration



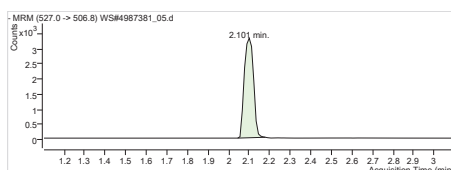
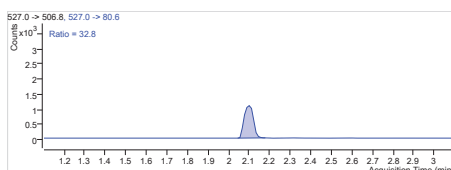
PFTraD 1
RT (Exp. RT): 663.0 -> 618.9
Calc. conc. 2.389 (2.389)
Area ratio: 11.29 µg/Kg
Sample type: 4.39178
Calibration



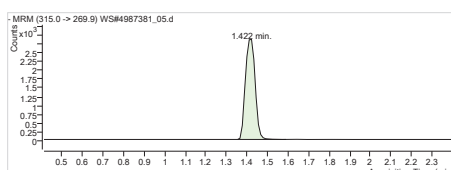
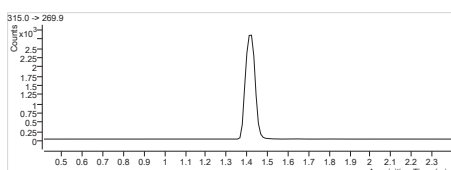
PFTeDa 1
RT (Exp. RT): 712.9 -> 668.9
Calc. conc. 2.456 (2.456)
Area ratio: 11.44 µg/Kg
Sample type: 4.11580
Calibration



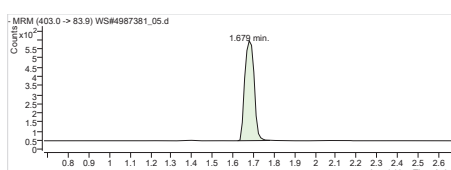
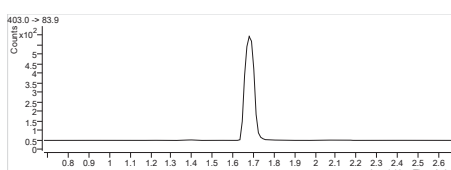
6:2-FTS 1
RT (Exp. RT): 427.0 -> 406.9
Calc. conc. 1.835 (1.835)
Area ratio: 11.42 µg/Kg
Sample type: 4.34428
Calibration



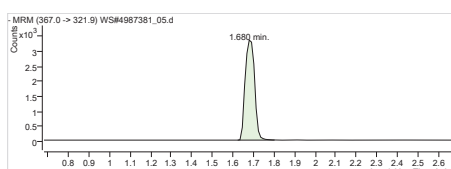
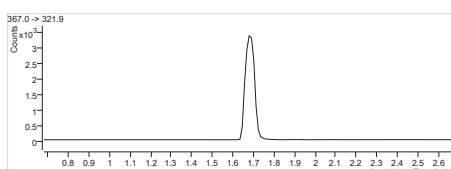
8:2-FTS 1
RT (Exp. RT): 527.0 -> 506.8
Calc. conc. 2.101 (2.101)
Area ratio: 11.35 µg/Kg
Sample type: 4.27299
Calibration



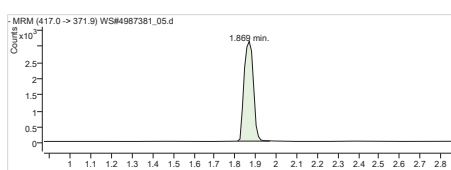
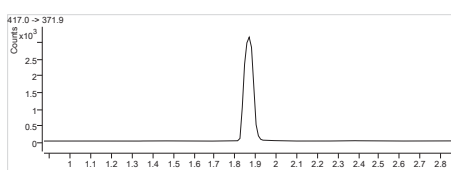
13C2-PFHxA
RT (Exp. RT): 315.0 -> 269.9
Calc. conc. 1.422 (1.411)
Area ratio: 98.76 µg/Kg
Sample type: 0.22980
Calibration



18O2-PFHxS
RT (Exp. RT): 403.0 -> 83.9
Calc. conc. 1.679 (1.679)
Area ratio: 101.99 µg/Kg
Sample type: 0.04271
Calibration

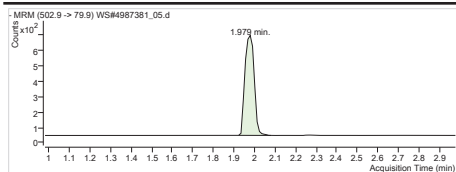
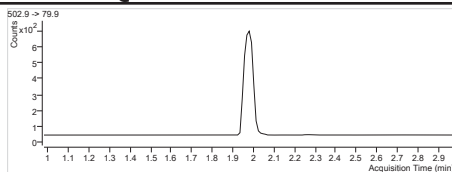


13C4-PFHpA
RT (Exp. RT): 367.0 -> 321.9
Calc. conc. 1.680 (1.680)
Area ratio: 103.76 µg/Kg
Sample type: 0.26279
Calibration

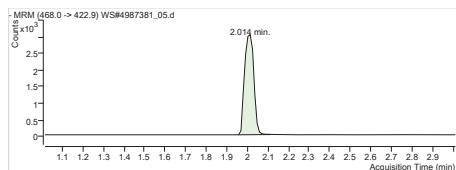
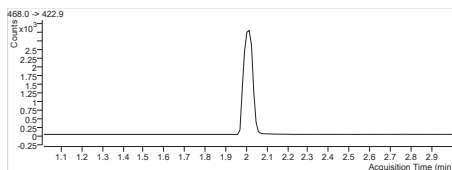


13C4-PFOA
RT (Exp. RT): 417.0 -> 371.9
Calc. conc. 1.869 (1.869)
Area ratio: 96.69 µg/Kg
Sample type: 0.23988
Calibration

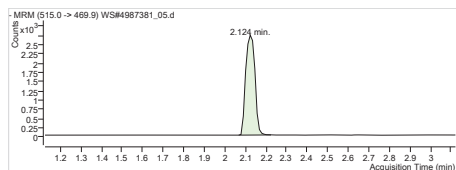
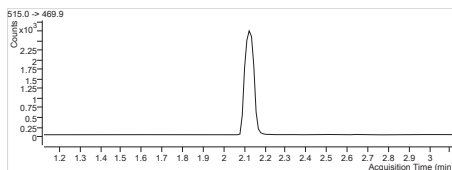
Quantitation Results



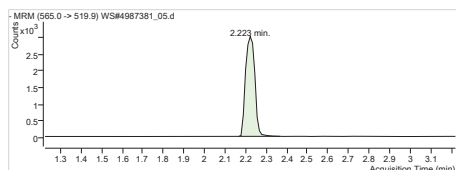
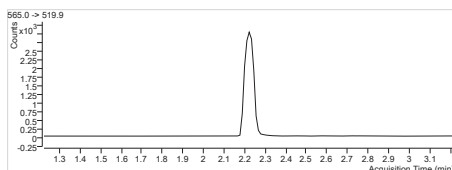
13C4-PFOS
 RT (Exp. RT): 502.9 -> 79.9
 Calc. conc. 1.979 (1.979)
 Area ratio: 99.03 µg/Kg
 Sample type: 0.05036 Calibration



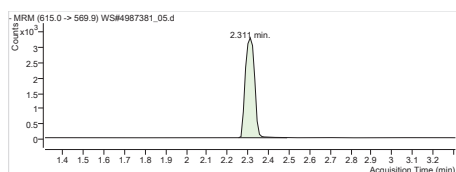
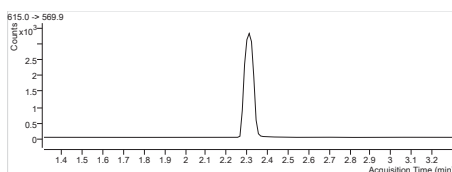
13C5-PFNA
 RT (Exp. RT): 468.0 -> 422.9
 Calc. conc. 2.014 (2.014)
 Area ratio: 96.99 µg/Kg
 Sample type: 0.23489 Calibration



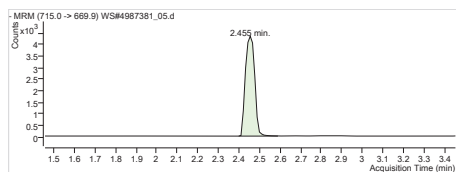
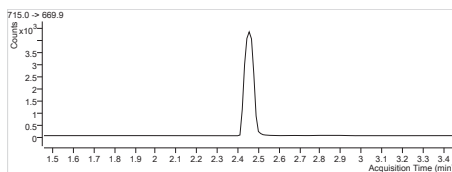
13C2-PFDA
 RT (Exp. RT): 515.0 -> 469.9
 Calc. conc. 2.124 (2.124)
 Area ratio: 98.70 µg/Kg
 Sample type: 0.22799 Calibration



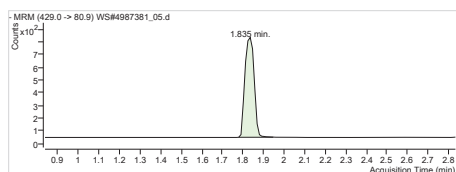
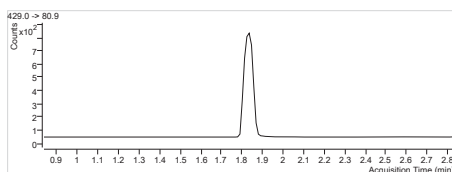
13C2-PFUnA
 RT (Exp. RT): 565.0 -> 519.9
 Calc. conc. 2.223 (2.223)
 Area ratio: 97.48 µg/Kg
 Sample type: 0.25184 Calibration



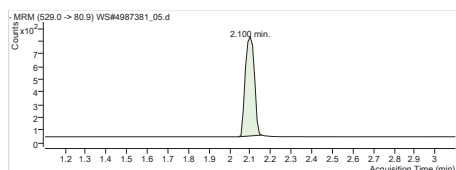
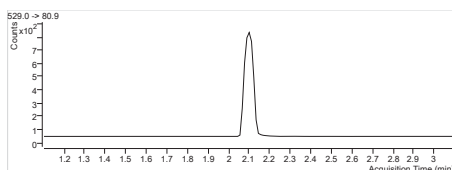
13C2-PFDoA
 RT (Exp. RT): 615.0 -> 569.9
 Calc. conc. 2.311 (2.311)
 Area ratio: 93.35 µg/Kg
 Sample type: 0.27644 Calibration



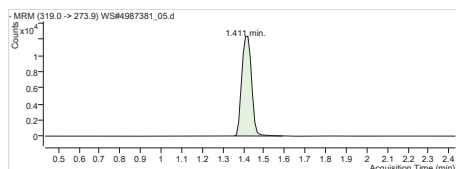
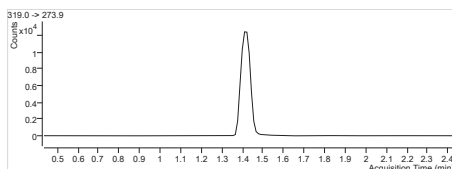
13C2-PFTeDA
 RT (Exp. RT): 715.0 -> 669.9
 Calc. conc. 2.455 (2.455)
 Area ratio: 99.22 µg/Kg
 Sample type: 0.36444 Calibration



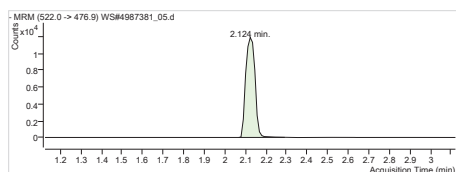
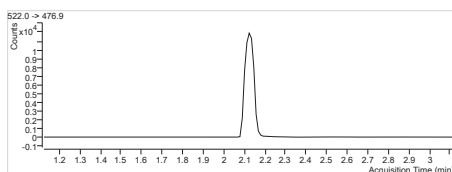
13C2-6:2-FTS
 RT (Exp. RT): 429.0 -> 80.9
 Calc. conc. 1.835 (1.835)
 Area ratio: 96.85 µg/Kg
 Sample type: 0.06067 Calibration



13C2-8:2 FTS
 RT (Exp. RT): 529.0 -> 80.9
 Calc. conc. 2.100 (2.100)
 Area ratio: 93.98 µg/Kg
 Sample type: 0.05912 Calibration



13C6-PFHxA
 RT (Exp. RT): 319.0 -> 273.9
 Calc. conc. 1.411 (1.434)
 Area ratio: 97.06 µg/Kg
 Sample type: 0 Calibration

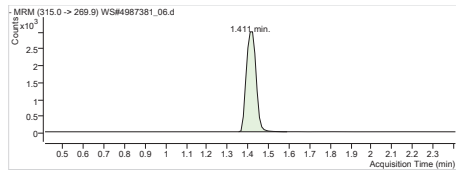
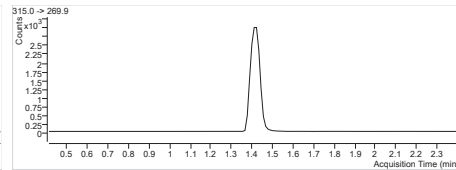


13C9-PFDA
 RT (Exp. RT): 522.0 -> 476.9
 Calc. conc. 2.124 (2.124)
 Area ratio: 96.98 µg/Kg
 Sample type: 0 Calibration

Batch Path	T:\lcms4\PFC\20170519\WS#4987381\QuantResults\PFC_Soil_170519_WS#4987381_CTLabs		
Sample Name	STD 5	Instrument	LCMS04
Data File	WS#4987381_06.d	Operator	M_G
Sample Type	Cal	Dilution	1
Acq. Method	PFC_Soil.m	Position	P2-A6
Acq. Date	2017/05/20 3:29:37 AM	Injection Volume	Per Method
Sample Annotation	-		

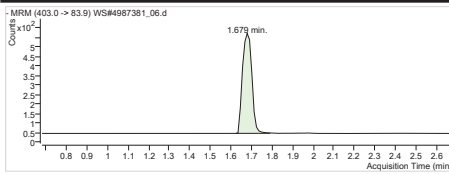
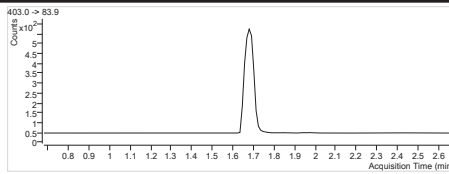
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	9874	1.41	1 µg/Kg		
MPFHxS	1666	1.68	1 µg/Kg		
MPFHpA	10500	1.68	1 µg/Kg		
MPFOA	9737	1.87	1 µg/Kg		
MPFOS	2120	1.98	1 µg/Kg		
MPFNA	9969	2.01	1 µg/Kg		
MPFDA	8883	2.12	1 µg/Kg		
MPFUnA	10393	2.22	1 µg/Kg		
MPFDoA	11806	2.31	1 µg/Kg		
MPFTeDA	13696	2.46	1 µg/Kg		
M2 6:2 FTS	2527	1.84	1 µg/Kg		
M2 8:2 FTS	2469	2.10	1 µg/Kg		
13C6-PFHxA IS	42121	1.41	1 µg/Kg		
13C9-PFDA IS	37673	2.12	1 µg/Kg		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	22066	1.09	22.50	22.50 µg/Kg	99.98
PFHxA 1	90575	1.41	22.50	22.27 µg/Kg	99.00
PFHxS 1	18172	1.68	22.50	23.30 µg/Kg	103.55
PFHpA 1	100518	1.68	22.50	21.63 µg/Kg	96.15
PFOA 1	101334	1.87	22.50	24.23 µg/Kg	107.68
PFOS 1	18170	1.97	22.50	22.09 µg/Kg	98.19
PFNA 1	88982	2.01	22.50	22.77 µg/Kg	101.20
PFDA 1	93803	2.12	22.50	21.23 µg/Kg	94.38
PFUnA 1	95637	2.22	22.50	22.24 µg/Kg	98.82
PFDaA 1	103107	2.31	22.50	21.31 µg/Kg	94.73
PFTTrDA 1	121503	2.39	22.50	22.70 µg/Kg	100.89
PFTeDA 1	111381	2.46	22.50	22.54 µg/Kg	100.19
6:2-FTS 1	21909	1.84	22.50	22.89 µg/Kg	101.75
8:2-FTS 1	20894	2.10	22.50	22.39 µg/Kg	99.51
13C2-PFHxA	9874	1.41	100.00	100.74 µg/Kg	100.74
18O2-PFHxS	1666	1.68	100.00	94.45 µg/Kg	94.45
13C4-PFHpA	10500	1.68	100.00	98.42 µg/Kg	98.42
13C4-PFOA	9737	1.87	100.00	93.18 µg/Kg	93.18
13C4-PFOS	2120	1.98	100.00	98.98 µg/Kg	98.98
13C5-PFNA	9969	2.01	100.00	97.73 µg/Kg	97.73
13C2-PFDA	8883	2.12	100.00	102.08 µg/Kg	102.08
13C2-PFUnA	10393	2.22	100.00	106.78 µg/Kg	106.78
13C2-PFDoA	11806	2.31	100.00	105.83 µg/Kg	105.83
13C2-PFTeDA	13696	2.46	100.00	98.98 µg/Kg	98.98
13C2-6:2-FTS	2527	1.84	100.00	95.78 µg/Kg	95.78
13C2-8:2 FTS	2469	2.10	100.00	93.18 µg/Kg	93.18
13C6-PFHxA	42121	1.41	100.00	100.57 µg/Kg	100.57
13C9-PFDA	37673	2.12	100.00	98.02 µg/Kg	98.02

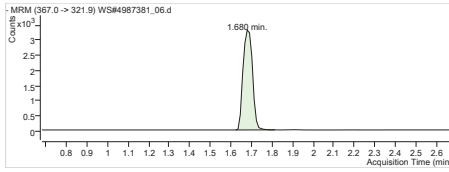
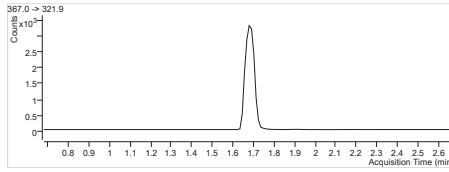


MPFHxA	Internal Standard
RT (Exp. RT):	1.411 (1.411)
Concentration:	1 µg/Kg
Sample type:	Calibration

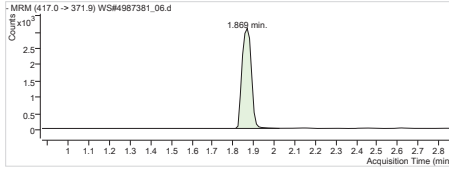
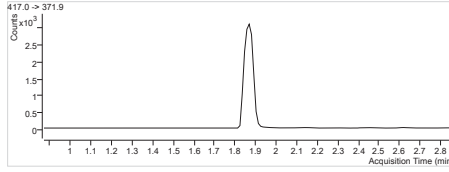
Quantitation Results



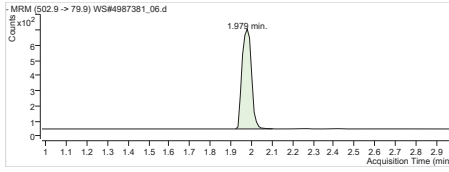
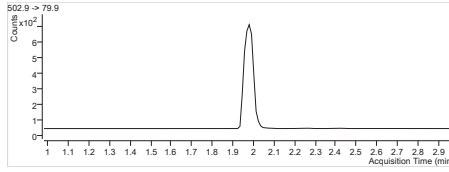
MPFHxS
 RT (Exp. RT): 1.679 (1.679)
 Concentration: 1 µg/Kg
 Sample type: Calibration



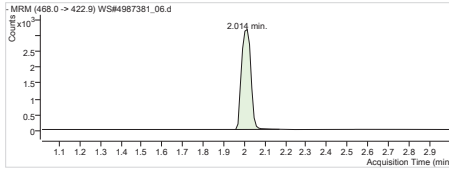
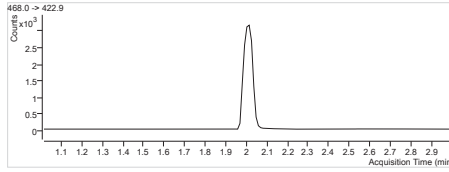
MPFHpA
 RT (Exp. RT): 1.680 (1.680)
 Concentration: 1 µg/Kg
 Sample type: Calibration



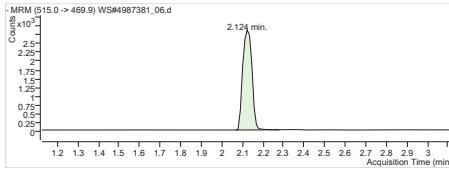
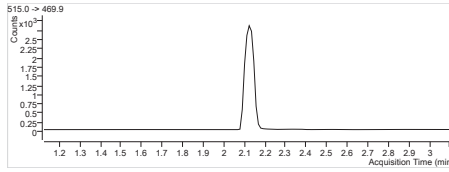
MPFOA
 RT (Exp. RT): 1.869 (1.869)
 Concentration: 1 µg/Kg
 Sample type: Calibration



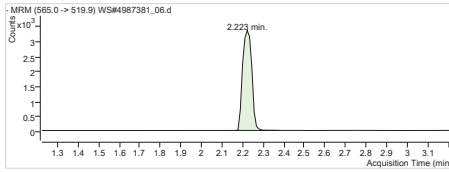
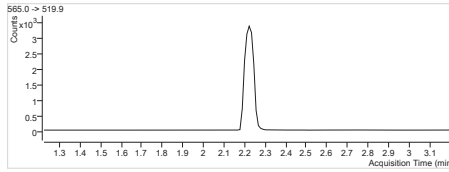
MPFOS
 RT (Exp. RT): 1.979 (1.979)
 Concentration: 1 µg/Kg
 Sample type: Calibration



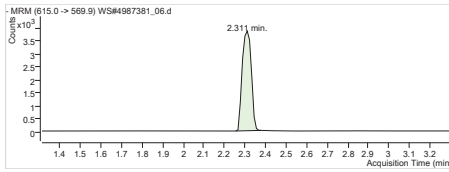
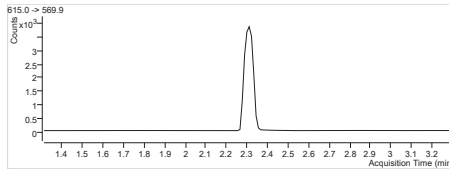
MPFNA
 RT (Exp. RT): 2.014 (2.014)
 Concentration: 1 µg/Kg
 Sample type: Calibration



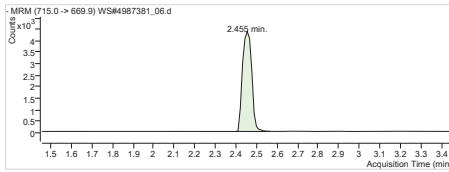
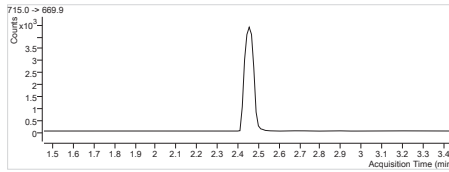
MPFDA
 RT (Exp. RT): 2.124 (2.124)
 Concentration: 1 µg/Kg
 Sample type: Calibration



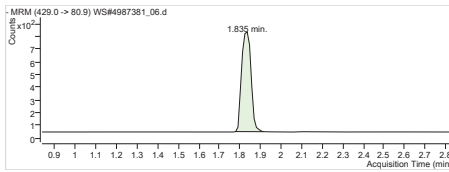
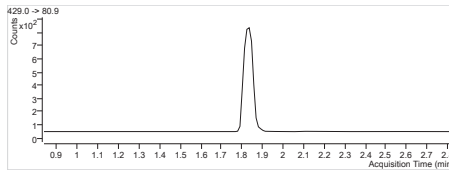
MPFUnA
 RT (Exp. RT): 2.223 (2.223)
 Concentration: 1 µg/Kg
 Sample type: Calibration



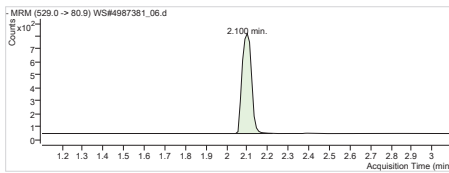
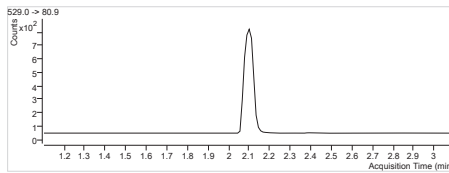
MPFDoA
 RT (Exp. RT): 2.311 (2.311)
 Concentration: 1 µg/Kg
 Sample type: Calibration



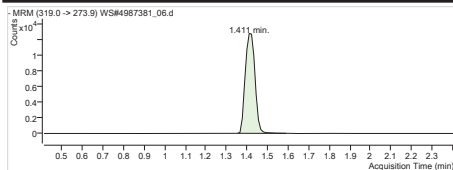
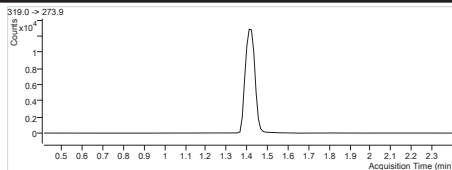
MPFTeDA
 RT (Exp. RT): 2.455 (2.455)
 Concentration: 1 µg/Kg
 Sample type: Calibration



M2 6:2 FTS
 RT (Exp. RT): 1.835 (1.835)
 Concentration: 1 µg/Kg
 Sample type: Calibration



M2 8:2 FTS
 RT (Exp. RT): 2.100 (2.100)
 Concentration: 1 µg/Kg
 Sample type: Calibration

**13C6-PFHxA IS**

RT (Exp. RT):

Concentration:

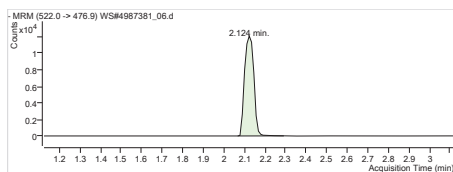
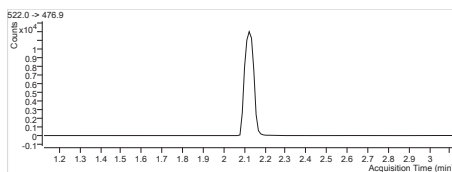
Sample type:

Internal Standard

1.411 (1.411)

1 µg/Kg

Calibration

**13C9-PFDA IS**

RT (Exp. RT):

Concentration:

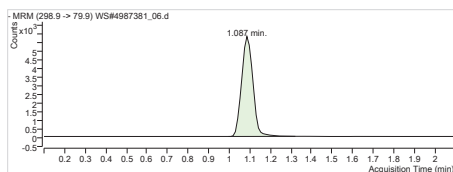
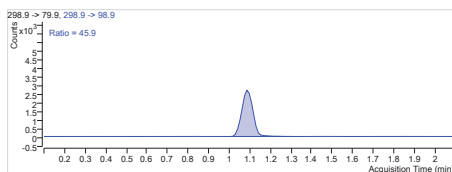
Sample type:

Internal Standard

2.124 (2.124)

1 µg/Kg

Calibration

**PFBS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

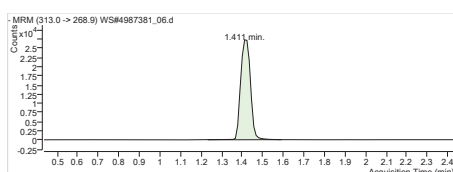
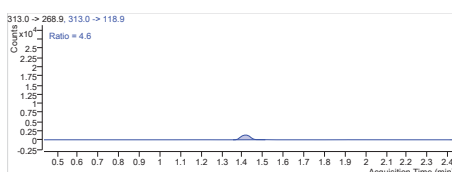
298.9 -> 79.9

1.087 (1.098)

22.50 µg/Kg

13.24490

Calibration

**PFHxA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

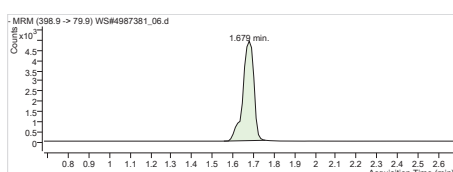
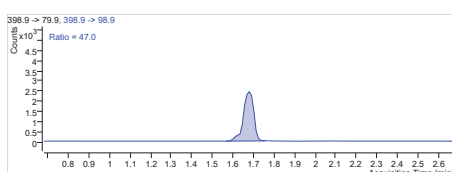
313.0 -> 268.9

1.411 (1.434)

22.27 µg/Kg

9.17308

Calibration

**PFHxS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

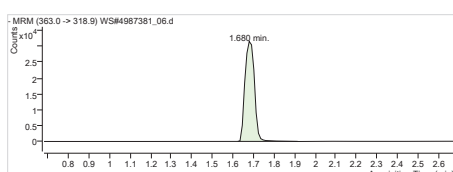
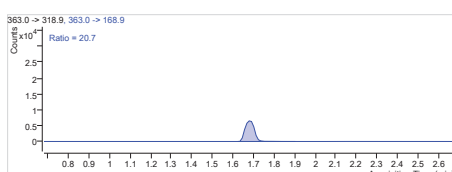
398.9 -> 79.9

1.679 (1.679)

23.30 µg/Kg

10.90756

Calibration

**PFHpA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

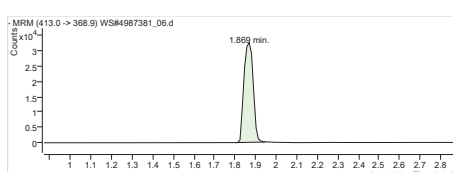
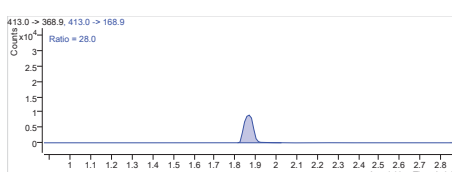
363.0 -> 318.9

1.680 (1.680)

21.63 µg/Kg

9.57314

Calibration

**PFOA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

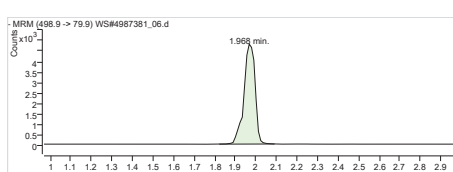
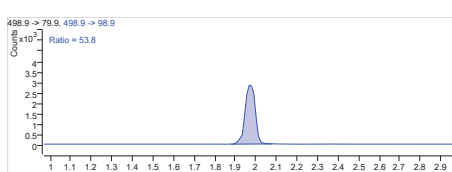
413.0 -> 368.9

1.869 (1.869)

24.23 µg/Kg

10.40711

Calibration

**PFOS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

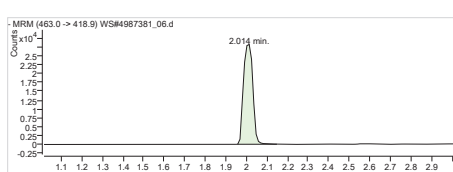
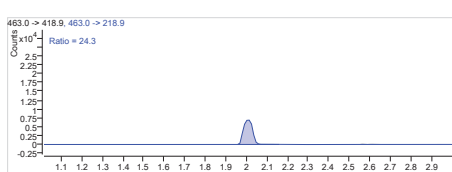
498.9 -> 79.9

1.968 (1.968)

22.09 µg/Kg

8.57075

Calibration

**PFNA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

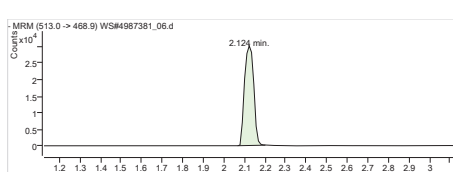
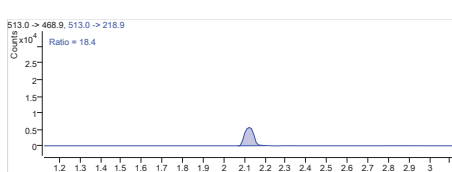
463.0 -> 418.9

2.014 (2.014)

22.77 µg/Kg

8.92587

Calibration

**PFDA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

513.0 -> 468.9

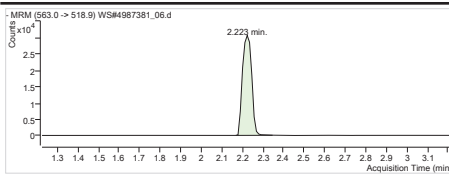
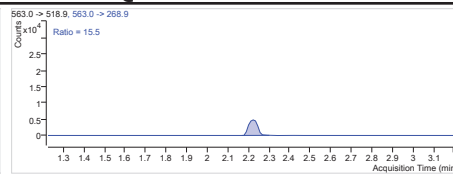
2.124 (2.124)

21.23 µg/Kg

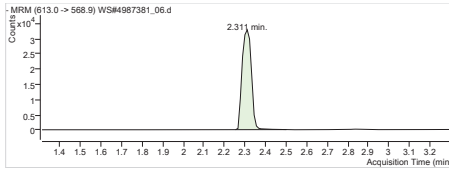
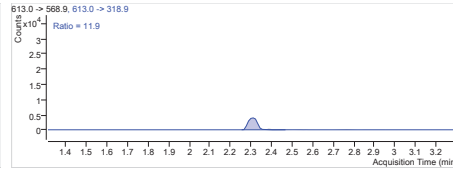
10.55983

Calibration

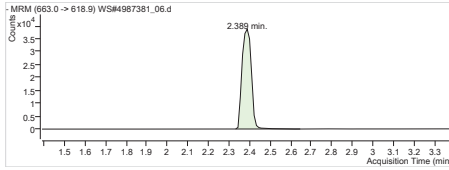
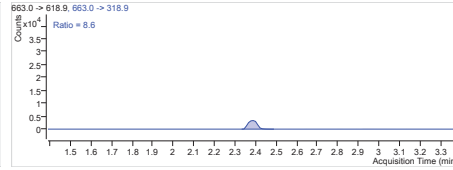
Quantitation Results



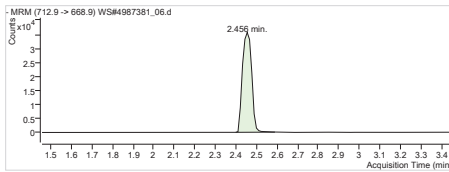
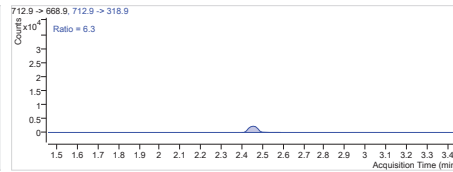
PFUnA 1
RT (Exp. RT): 563.0 -> 518.9
Calc. conc. 2.223 (2.223)
Area ratio: 22.24 µg/Kg
Sample type: 9.20206 Calibration



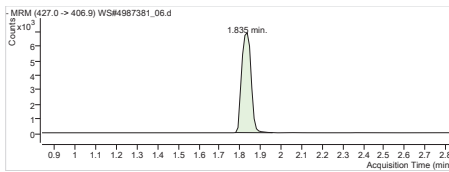
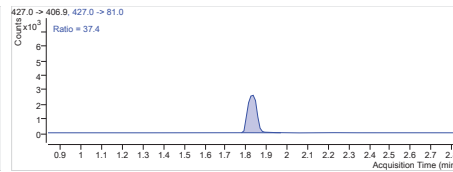
PFDaA 1
RT (Exp. RT): 613.0 -> 568.9
Calc. conc. 2.311 (2.311)
Area ratio: 21.31 µg/Kg
Sample type: 8.73344 Calibration



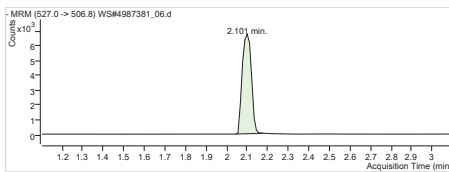
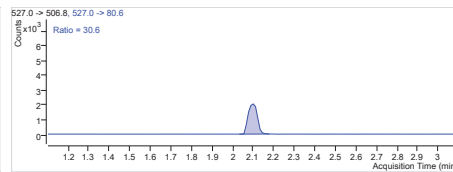
PFTraD 1
RT (Exp. RT): 663.0 -> 618.9
Calc. conc. 2.389 (2.389)
Area ratio: 22.70 µg/Kg
Sample type: 8.87142 Calibration



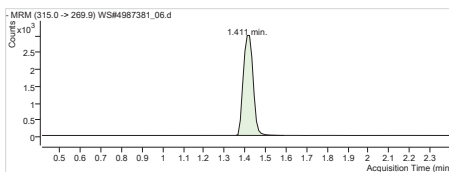
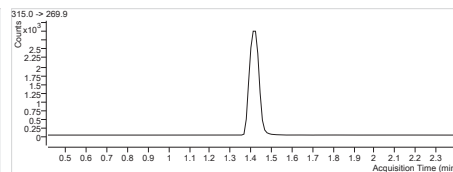
PFTeDa 1
RT (Exp. RT): 712.9 -> 668.9
Calc. conc. 2.456 (2.456)
Area ratio: 22.54 µg/Kg
Sample type: 8.13237 Calibration



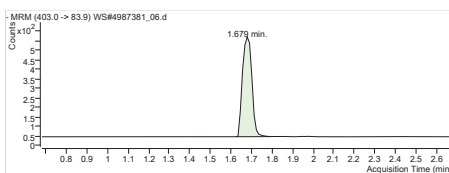
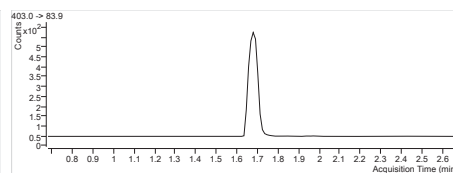
6:2-FTS 1
RT (Exp. RT): 427.0 -> 406.9
Calc. conc. 1.835 (1.835)
Area ratio: 22.89 µg/Kg
Sample type: 8.66996 Calibration



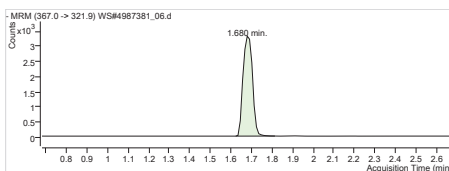
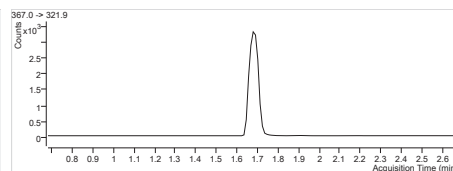
8:2-FTS 1
RT (Exp. RT): 527.0 -> 506.8
Calc. conc. 2.101 (2.101)
Area ratio: 22.39 µg/Kg
Sample type: 8.46254 Calibration



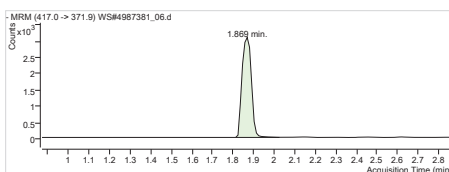
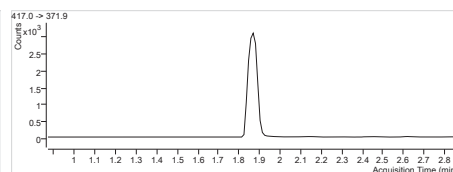
13C2-PFHxA
RT (Exp. RT): 315.0 -> 269.9
Calc. conc. 1.411 (1.411)
Area ratio: 100.74 µg/Kg
Sample type: 0.23442 Calibration



18O2-PFHxS
RT (Exp. RT): 403.0 -> 83.9
Calc. conc. 1.679 (1.679)
Area ratio: 94.45 µg/Kg
Sample type: 0.03955 Calibration

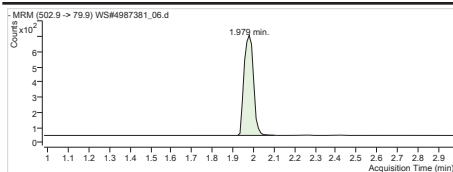
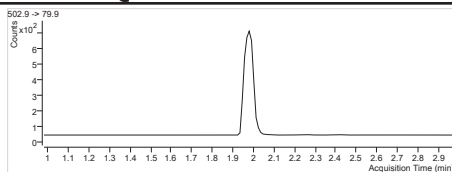


13C4-PFHpA
RT (Exp. RT): 367.0 -> 321.9
Calc. conc. 1.680 (1.680)
Area ratio: 98.42 µg/Kg
Sample type: 0.24928 Calibration

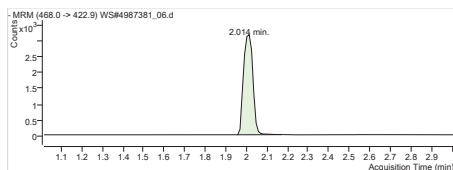
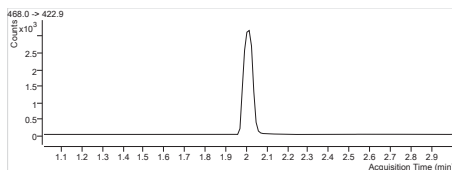


13C4-PFOA
RT (Exp. RT): 417.0 -> 371.9
Calc. conc. 1.869 (1.869)
Area ratio: 93.18 µg/Kg
Sample type: 0.23117 Calibration

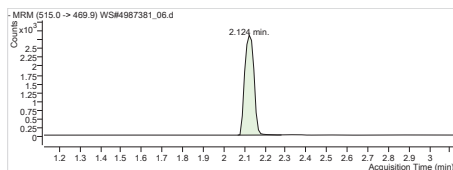
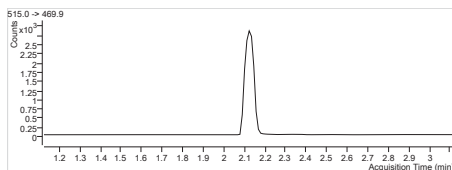
Quantitation Results



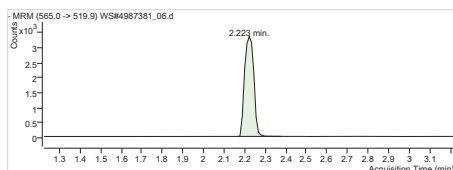
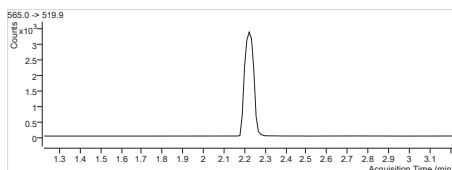
13C4-PFOS
RT (Exp. RT): 502.9 -> 79.9
Calc. conc. 1.979 (1.979)
Area ratio: 98.98 µg/Kg
Sample type: 0.05033 Calibration



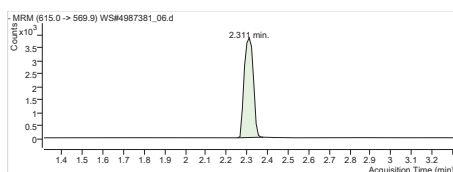
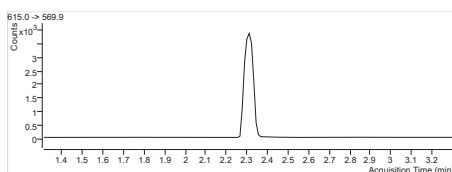
13C5-PFNA
RT (Exp. RT): 468.0 -> 422.9
Calc. conc. 2.014 (2.014)
Area ratio: 97.73 µg/Kg
Sample type: 0.23668 Calibration



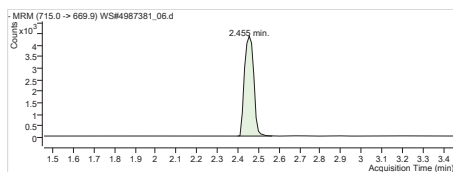
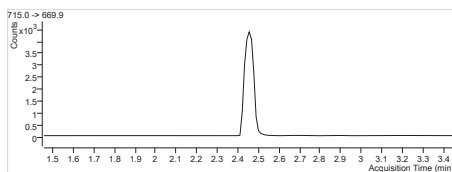
13C2-PFDA
RT (Exp. RT): 515.0 -> 469.9
Calc. conc. 2.124 (2.124)
Area ratio: 102.08 µg/Kg
Sample type: 0.23579 Calibration



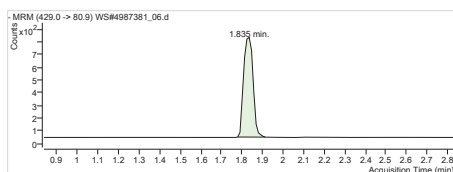
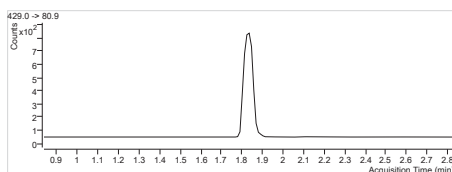
13C2-PFUnA
RT (Exp. RT): 565.0 -> 519.9
Calc. conc. 2.223 (2.223)
Area ratio: 106.78 µg/Kg
Sample type: 0.27587 Calibration



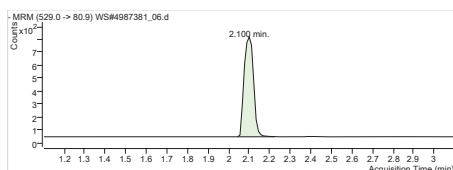
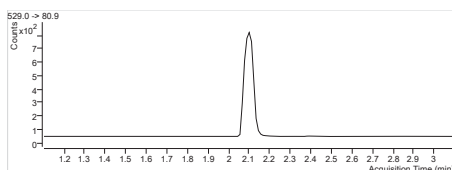
13C2-PFDoA
RT (Exp. RT): 615.0 -> 569.9
Calc. conc. 2.311 (2.311)
Area ratio: 105.83 µg/Kg
Sample type: 0.31338 Calibration



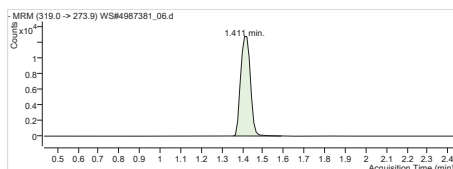
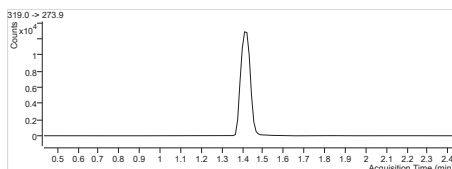
13C2-PFTeDA
RT (Exp. RT): 715.0 -> 669.9
Calc. conc. 2.455 (2.455)
Area ratio: 98.98 µg/Kg
Sample type: 0.36355 Calibration



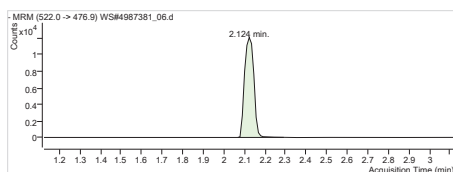
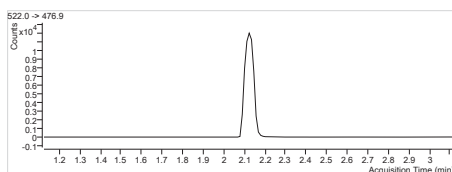
13C2-6:2-FTS
RT (Exp. RT): 429.0 -> 80.9
Calc. conc. 1.835 (1.835)
Area ratio: 95.78 µg/Kg
Sample type: 0.05999 Calibration



13C2-8:2 FTS
RT (Exp. RT): 529.0 -> 80.9
Calc. conc. 2.100 (2.100)
Area ratio: 93.18 µg/Kg
Sample type: 0.05862 Calibration



13C6-PFHxA
RT (Exp. RT): 319.0 -> 273.9
Calc. conc. 1.411 (1.434)
Area ratio: 100.57 µg/Kg
Sample type: 0 Calibration



13C9-PFDA
RT (Exp. RT): 522.0 -> 476.9
Calc. conc. 2.124 (2.124)
Area ratio: 98.02 µg/Kg
Sample type: 0 Calibration

Batch Path

T:\lcms4\PFC\20170519\WS#4987381\QuantResults\PFC_Soil_170519_WS#4987381_CTLabs

Sample Name

STD 6

Instrument

LCMS04

Data File

WS#4987381_07.d

Operator

M_G

Sample Type

Cal

Dilution

1

Acq. Method

PFC_Soil.m

Position

P2-A7

Acq. Date

2017/05/20 3:34:31 AM

Injection Volume

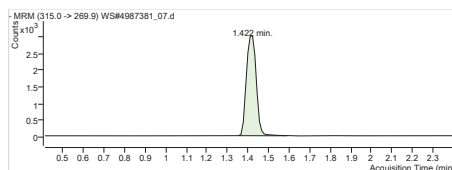
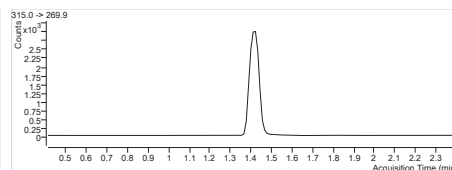
Per Method

Sample Annotation

-

ISTD Compounds	Response	RT	Target conc.		
MPFHxA	9887	1.42	1 µg/Kg		
MPFHxS	1682	1.68	1 µg/Kg		
MPFHpA	9744	1.68	1 µg/Kg		
MPFOA	10734	1.87	1 µg/Kg		
MPFOS	1990	1.98	1 µg/Kg		
MPFNA	10066	2.01	1 µg/Kg		
MPFDA	8108	2.12	1 µg/Kg		
MPFUnA	10188	2.22	1 µg/Kg		
MPFDoA	11112	2.31	1 µg/Kg		
MPFTeDA	14389	2.46	1 µg/Kg		
M2 6:2 FTS	2509	1.84	1 µg/Kg		
M2 8:2 FTS	2428	2.10	1 µg/Kg		
13C6-PFHxA IS	40519	1.41	1 µg/Kg		
13C9-PFDA IS	36834	2.12	1 µg/Kg		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	38025	1.09	37.50	38.23 µg/Kg	101.96
PFHxA 1	151639	1.41	37.50	37.17 µg/Kg	99.13
PFHxS 1	29485	1.68	37.50	37.38 µg/Kg	99.68
PFHpA 1	168778	1.68	37.50	39.00 µg/Kg	104.00
PFOA 1	163866	1.87	37.50	35.50 µg/Kg	94.68
PFOS 1	30027	1.97	37.50	38.70 µg/Kg	103.21
PFNA 1	146096	2.01	37.50	36.96 µg/Kg	98.55
PFDA 1	157423	2.12	37.50	38.93 µg/Kg	103.81
PFUnA 1	157064	2.22	37.50	37.22 µg/Kg	99.24
PFDaA 1	173103	2.31	37.50	37.93 µg/Kg	101.15
PFTTrDA 1	209592	2.39	37.50	37.21 µg/Kg	99.22
PFTeDA 1	192258	2.46	37.50	37.00 µg/Kg	98.66
6:2-FTS 1	34683	1.84	37.50	36.56 µg/Kg	97.49
8:2-FTS 1	34594	2.10	37.50	37.64 µg/Kg	100.36
13C2-PFHxA	9887	1.42	100.00	104.87 µg/Kg	104.87
18O2-PFHxS	1682	1.68	100.00	99.13 µg/Kg	99.13
13C4-PFHpA	9744	1.68	100.00	94.95 µg/Kg	94.95
13C4-PFOA	10734	1.87	100.00	106.78 µg/Kg	106.78
13C4-PFOS	1990	1.98	100.00	96.58 µg/Kg	96.58
13C5-PFNA	10066	2.01	100.00	102.58 µg/Kg	102.58
13C2-PFDA	8108	2.12	100.00	95.29 µg/Kg	95.29
13C2-PFUnA	10188	2.22	100.00	107.06 µg/Kg	107.06
13C2-PFDoA	11112	2.31	100.00	101.87 µg/Kg	101.87
13C2-PFTeDA	14389	2.46	100.00	106.36 µg/Kg	106.36
13C2-6:2-FTS	2509	1.84	100.00	98.85 µg/Kg	98.85
13C2-8:2 FTS	2428	2.10	100.00	95.26 µg/Kg	95.26
13C6-PFHxA	40519	1.41	100.00	96.75 µg/Kg	96.75
13C9-PFDA	36834	2.12	100.00	95.84 µg/Kg	95.84



MPFHxA

Internal Standard

RT (Exp. RT):

1.422 (1.411)

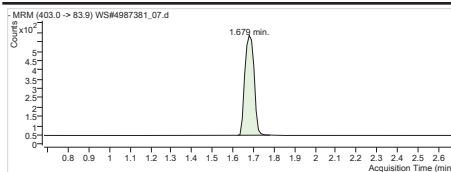
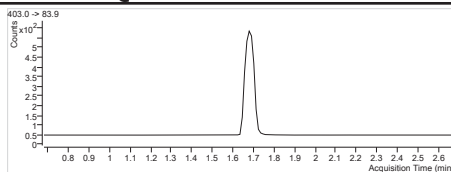
Concentration:

1 µg/Kg

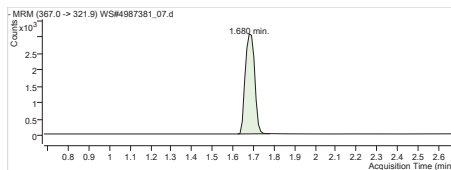
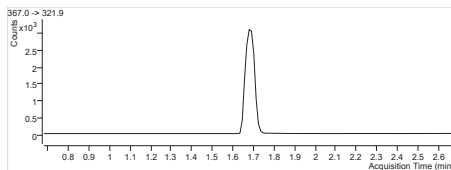
Sample type:

Calibration

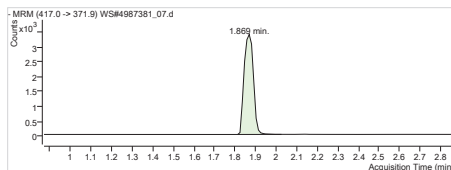
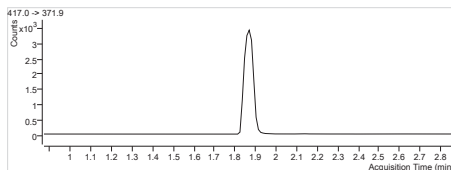
Quantitation Results



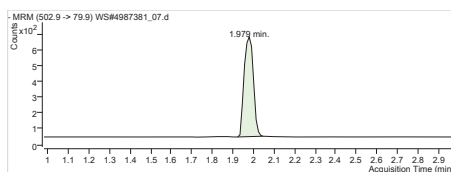
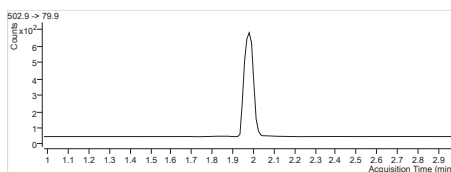
MPFHxS
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/Kg
Sample type: Calibration



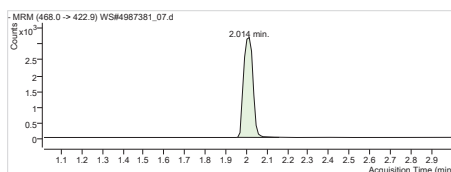
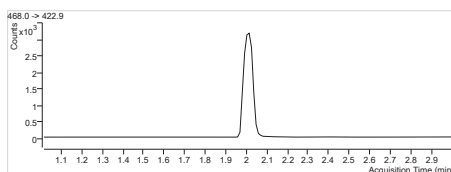
MPFHpA
RT (Exp. RT): 1.680 (1.680)
Concentration: 1 µg/Kg
Sample type: Calibration



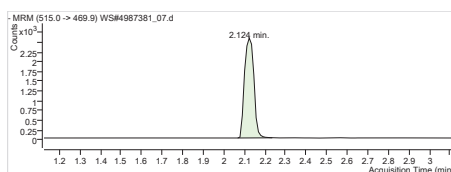
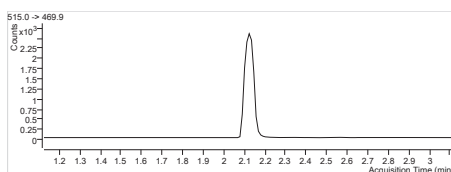
MPFOA
RT (Exp. RT): 1.869 (1.869)
Concentration: 1 µg/Kg
Sample type: Calibration



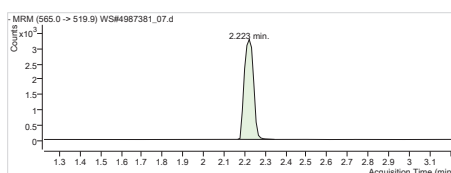
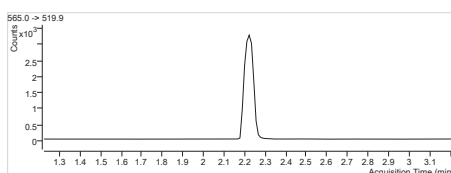
MPFOS
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/Kg
Sample type: Calibration



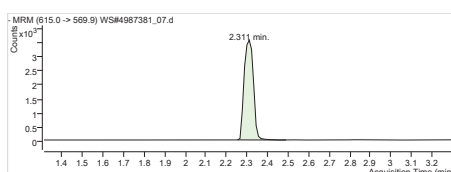
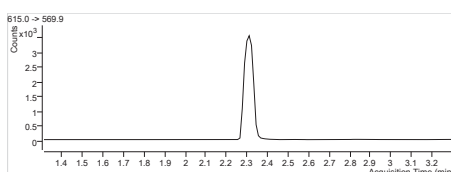
MPFNA
RT (Exp. RT): 2.014 (2.014)
Concentration: 1 µg/Kg
Sample type: Calibration



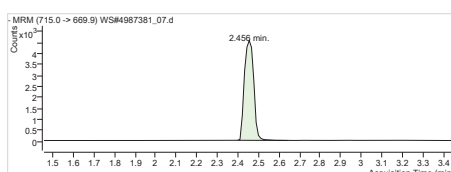
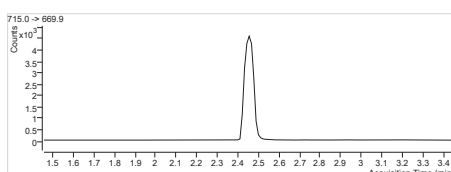
MPFDA
RT (Exp. RT): 2.124 (2.124)
Concentration: 1 µg/Kg
Sample type: Calibration



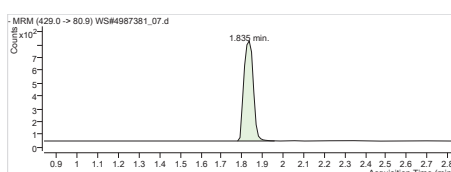
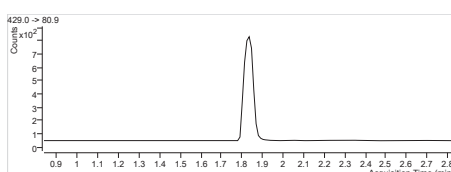
MPFUnA
RT (Exp. RT): 2.223 (2.223)
Concentration: 1 µg/Kg
Sample type: Calibration



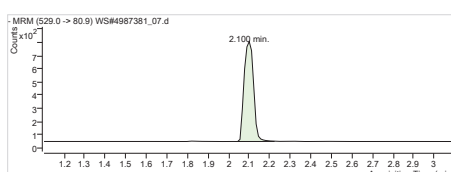
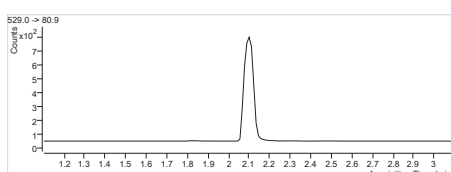
MPFDoA
RT (Exp. RT): 2.311 (2.311)
Concentration: 1 µg/Kg
Sample type: Calibration



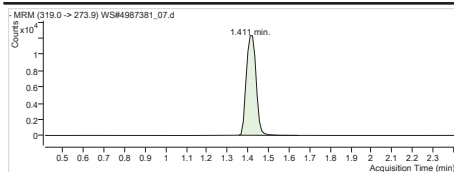
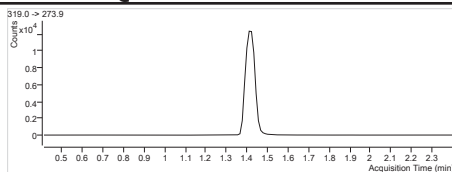
MPFTeDA
RT (Exp. RT): 2.456 (2.455)
Concentration: 1 µg/Kg
Sample type: Calibration



M2 6:2 FTS
RT (Exp. RT): 1.835 (1.835)
Concentration: 1 µg/Kg
Sample type: Calibration



M2 8:2 FTS
RT (Exp. RT): 2.100 (2.100)
Concentration: 1 µg/Kg
Sample type: Calibration

**13C6-PFHxA IS**

RT (Exp. RT):

Concentration:

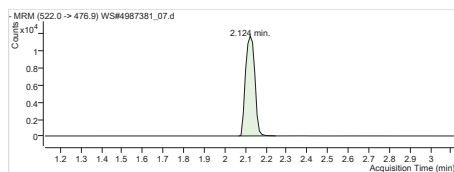
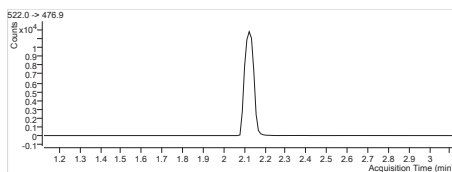
Sample type:

Internal Standard

1.411 (1.411)

1 µg/Kg

Calibration

**13C9-PFDA IS**

RT (Exp. RT):

Concentration:

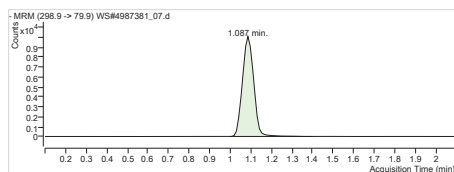
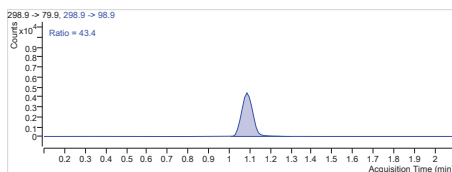
Sample type:

Internal Standard

2.124 (2.124)

1 µg/Kg

Calibration

**PFBS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

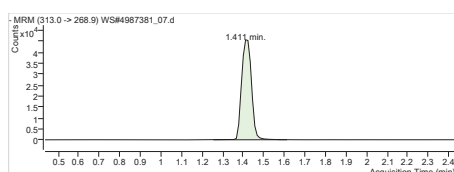
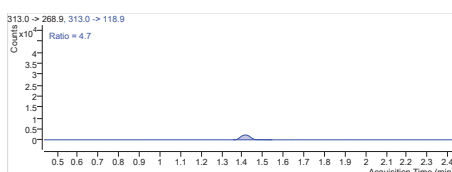
298.9 -> 79.9

1.087 (1.098)

38.23 µg/Kg

22.60702

Calibration

**PFHxA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

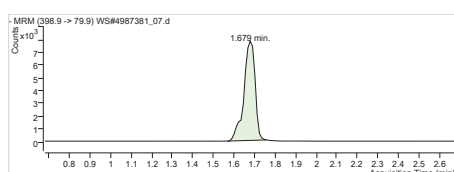
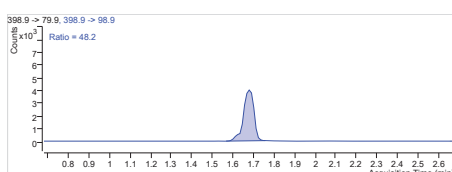
313.0 -> 268.9

1.411 (1.434)

37.17 µg/Kg

15.33721

Calibration

**PFHxS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

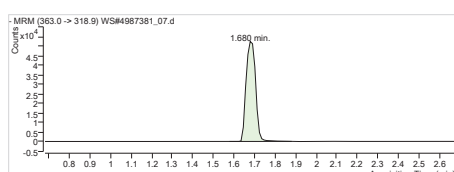
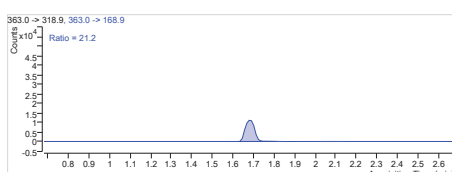
398.9 -> 79.9

1.679 (1.679)

37.38 µg/Kg

17.52973

Calibration

**PFHpA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

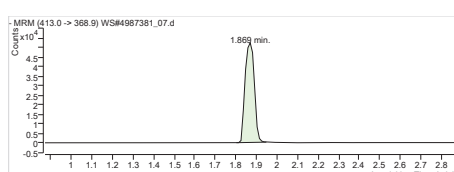
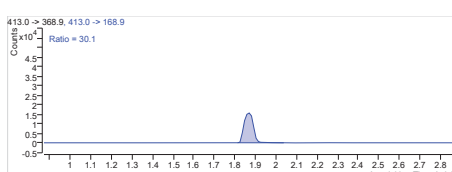
363.0 -> 318.9

1.680 (1.680)

39.00 µg/Kg

17.32122

Calibration

**PFOA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

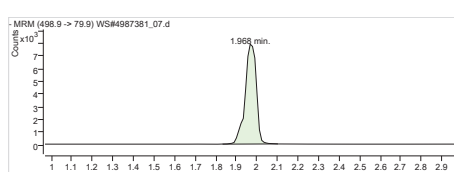
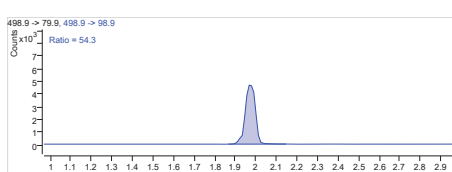
413.0 -> 368.9

1.869 (1.869)

35.50 µg/Kg

15.26607

Calibration

**PFOS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

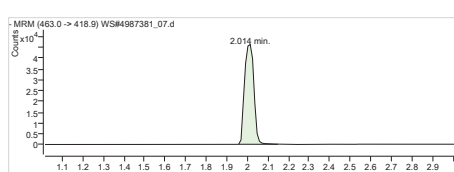
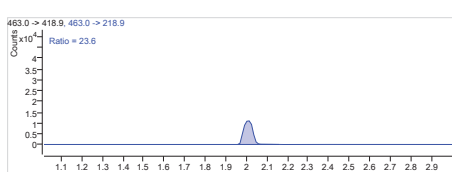
498.9 -> 79.9

1.968 (1.968)

38.70 µg/Kg

15.08894

Calibration

**PFNA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

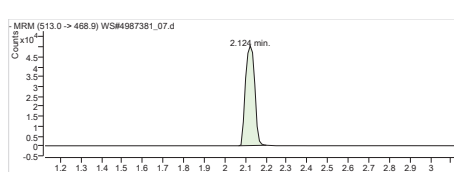
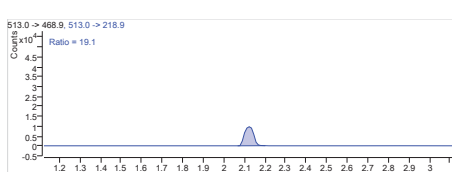
463.0 -> 418.9

2.014 (2.014)

36.96 µg/Kg

14.51381

Calibration

**PFDA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

513.0 -> 468.9

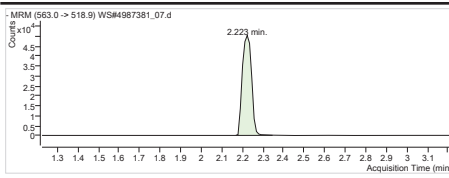
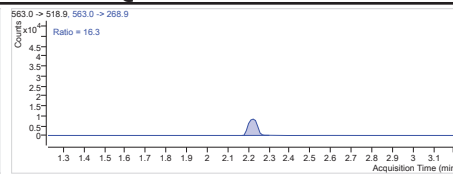
2.124 (2.124)

38.93 µg/Kg

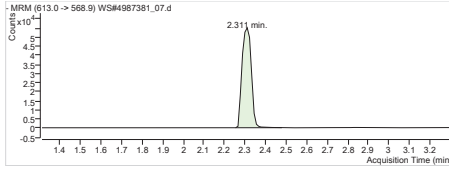
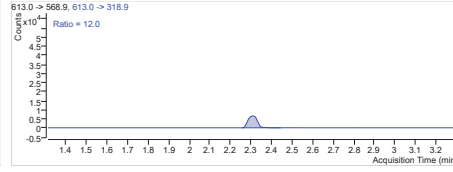
19.41576

Calibration

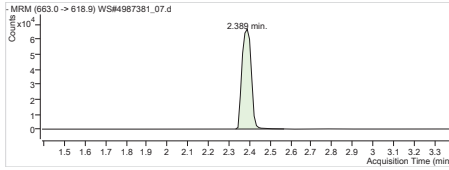
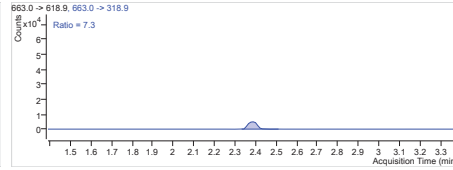
Quantitation Results



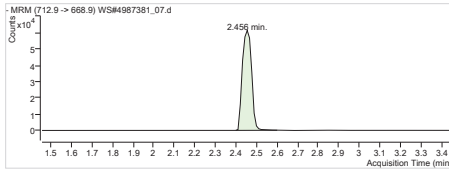
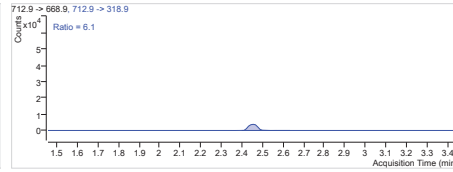
PFUnA 1
RT (Exp. RT): 563.0 -> 518.9
Calc. conc. 2.223 (2.223)
Area ratio: 37.22 µg/Kg
Sample type: 15.41657 Calibration



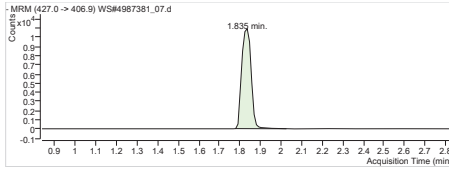
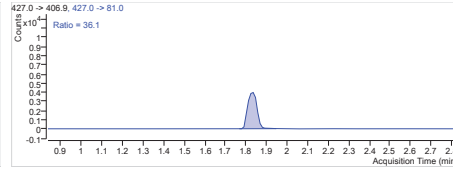
PFDaA 1
RT (Exp. RT): 613.0 -> 568.9
Calc. conc. 2.311 (2.311)
Area ratio: 37.93 µg/Kg
Sample type: 15.57802 Calibration



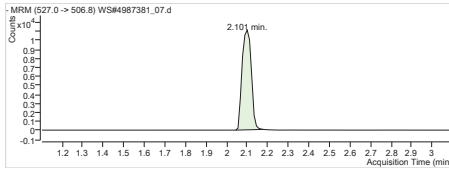
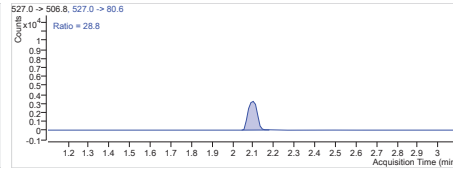
PFTraD 1
RT (Exp. RT): 663.0 -> 618.9
Calc. conc. 2.389 (2.389)
Area ratio: 37.21 µg/Kg
Sample type: 14.56613 Calibration



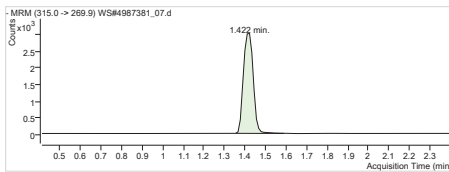
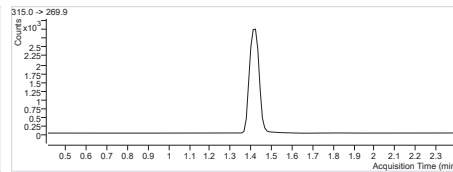
PFTeDa 1
RT (Exp. RT): 712.9 -> 668.9
Calc. conc. 2.456 (2.456)
Area ratio: 37.00 µg/Kg
Sample type: 13.36146 Calibration



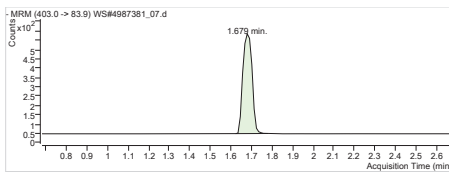
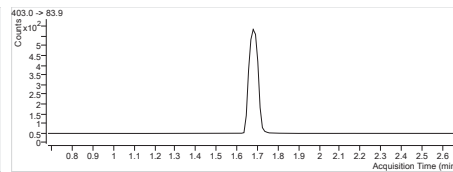
6:2-FTS 1
RT (Exp. RT): 427.0 -> 406.9
Calc. conc. 1.835 (1.835)
Area ratio: 36.56 µg/Kg
Sample type: 13.82344 Calibration



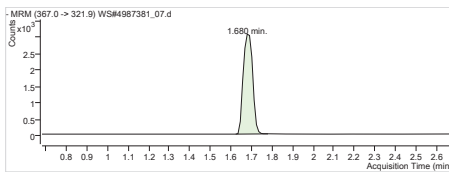
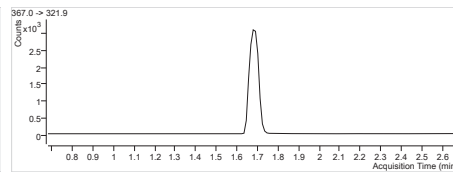
8:2-FTS 1
RT (Exp. RT): 527.0 -> 506.8
Calc. conc. 2.101 (2.101)
Area ratio: 37.64 µg/Kg
Sample type: 14.24794 Calibration



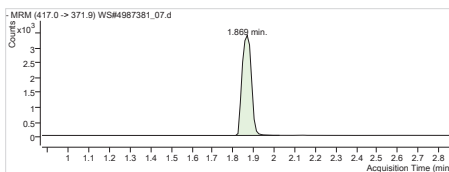
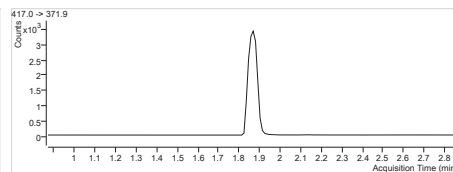
13C2-PFHxA
RT (Exp. RT): 315.0 -> 269.9
Calc. conc. 1.422 (1.411)
Area ratio: 104.87 µg/Kg
Sample type: 0.24401 Calibration



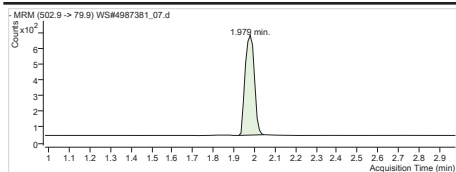
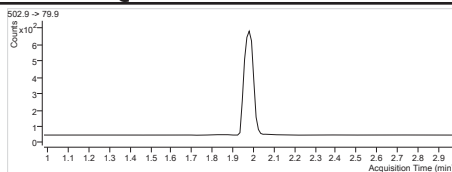
18O2-PFHxS
RT (Exp. RT): 403.0 -> 83.9
Calc. conc. 1.679 (1.679)
Area ratio: 99.13 µg/Kg
Sample type: 0.04151 Calibration



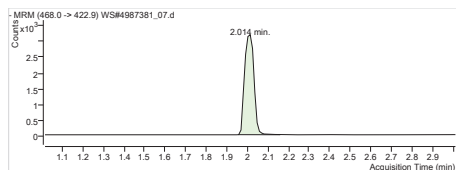
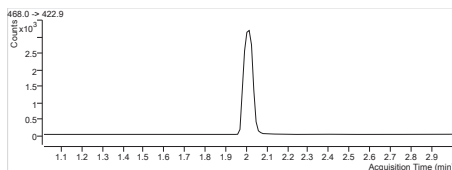
13C4-PFHpA
RT (Exp. RT): 367.0 -> 321.9
Calc. conc. 1.680 (1.680)
Area ratio: 94.95 µg/Kg
Sample type: 0.24048 Calibration



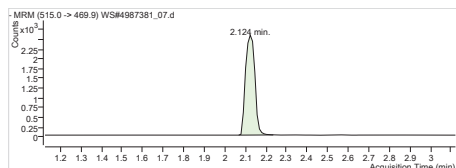
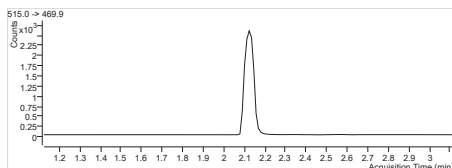
13C4-PFOA
RT (Exp. RT): 417.0 -> 371.9
Calc. conc. 1.869 (1.869)
Area ratio: 106.78 µg/Kg
Sample type: 0.26491 Calibration



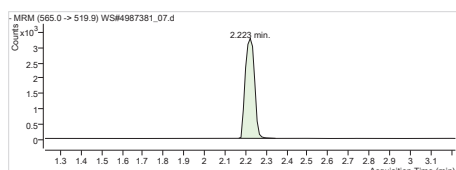
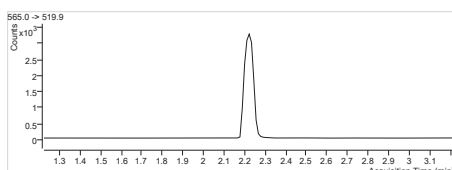
13C4-PFOS
RT (Exp. RT): 502.9 -> 79.9
Calc. conc. 1.979 (1.979)
Area ratio: 96.58 µg/Kg
Sample type: 0.04911 Calibration



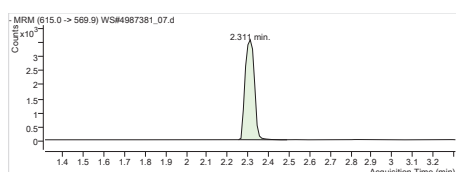
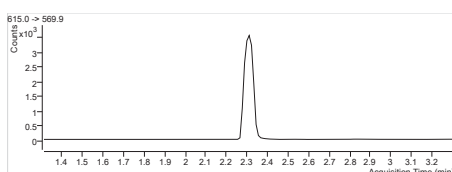
13C5-PFNA
RT (Exp. RT): 468.0 -> 422.9
Calc. conc. 2.014 (2.014)
Area ratio: 102.58 µg/Kg
Sample type: 0.24843 Calibration



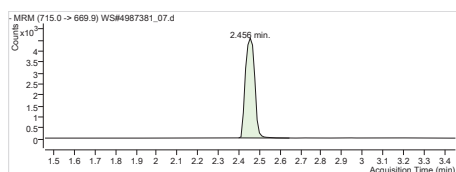
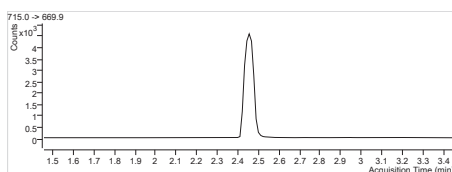
13C2-PFDA
RT (Exp. RT): 515.0 -> 469.9
Calc. conc. 2.124 (2.124)
Area ratio: 95.29 µg/Kg
Sample type: 0.22012 Calibration



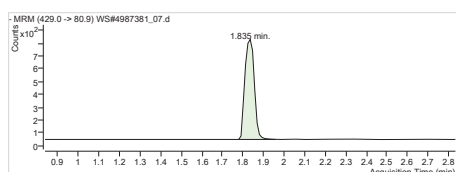
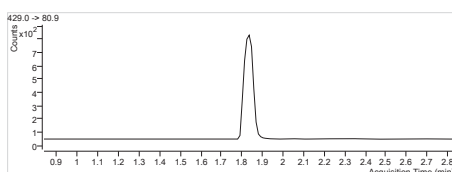
13C2-PFUnA
RT (Exp. RT): 565.0 -> 519.9
Calc. conc. 2.223 (2.223)
Area ratio: 107.06 µg/Kg
Sample type: 0.27659 Calibration



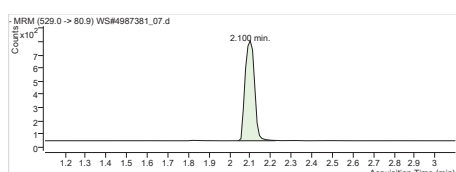
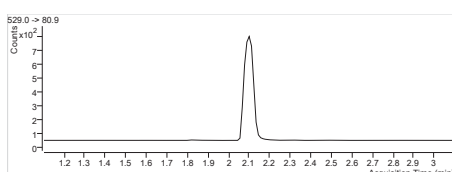
13C2-PFDoA
RT (Exp. RT): 615.0 -> 569.9
Calc. conc. 2.311 (2.311)
Area ratio: 101.87 µg/Kg
Sample type: 0.30168 Calibration



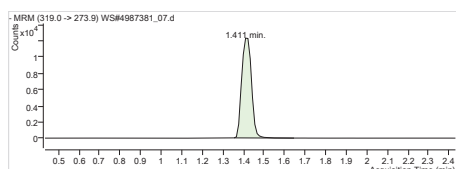
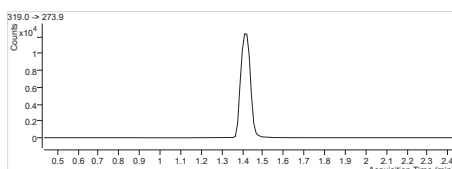
13C2-PFTeDA
RT (Exp. RT): 715.0 -> 669.9
Calc. conc. 2.456 (2.455)
Area ratio: 106.36 µg/Kg
Sample type: 0.39064 Calibration



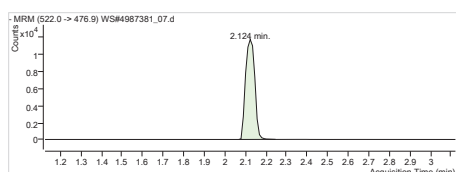
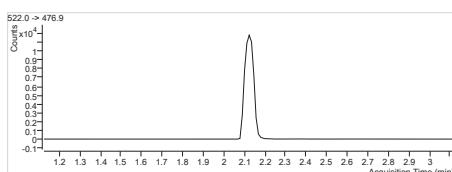
13C2-6:2-FTS
RT (Exp. RT): 429.0 -> 80.9
Calc. conc. 1.835 (1.835)
Area ratio: 98.85 µg/Kg
Sample type: 0.06192 Calibration



13C2-8:2 FTS
RT (Exp. RT): 529.0 -> 80.9
Calc. conc. 2.100 (2.100)
Area ratio: 95.26 µg/Kg
Sample type: 0.05992 Calibration



13C6-PFHxA
RT (Exp. RT): 319.0 -> 273.9
Calc. conc. 1.411 (1.434)
Area ratio: 96.75 µg/Kg
Sample type: 0 Calibration



13C9-PFDA
RT (Exp. RT): 522.0 -> 476.9
Calc. conc. 2.124 (2.124)
Area ratio: 95.84 µg/Kg
Sample type: 0 Calibration

Sample Name

STD 1

Instrument

LCMS04

Data File

WS#4987381_FOSAA_02.d

Operator

M_G

Sample Type

Cal

Dilution

1

Acq. Method

PFC_Soil_FOSAA.m

Position

P2-A2

Acq. Date

2017/05/20 11:33:17 AM

Injection Volume

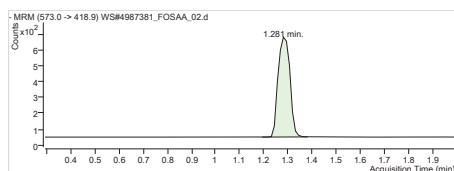
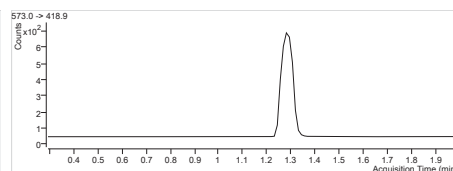
Per Method

Sample Annotation

-

ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	2183	1.28	1 µg/Kg		
D5-EtFOSAA IS	1889	1.31	1 µg/Kg		
13C9-PFDA IS	35826	0.85	1 µg/Kg		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	564	1.28	0.75	0.71 µg/Kg	94.05
EtFOSAA 1	513	1.32	0.75	0.77 µg/Kg	102.60
D3-MeFOSAA	2189	1.28	100.00	107.61 µg/Kg	107.61
D5-EtFOSAA	1902	1.31	100.00	103.39 µg/Kg	103.39
13C9-PFDA	34910	0.85	100.00	112.54 µg/Kg	112.54

**D3-MeFOSAA IS**

RT (Exp. RT):

Internal Standard

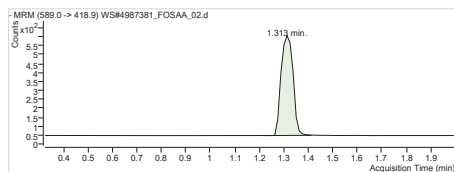
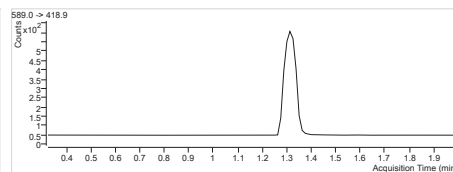
Concentration:

1.281 (1.281)

Sample type:

1 µg/Kg

Calibration

**D5-EtFOSAA IS**

RT (Exp. RT):

Internal Standard

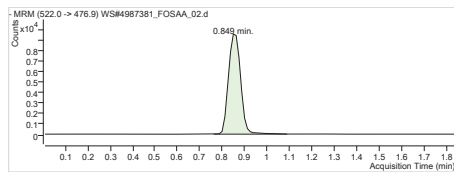
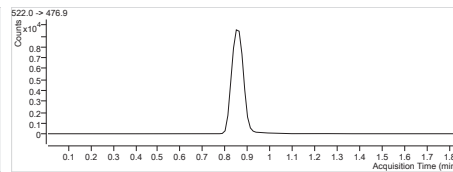
Concentration:

1.313 (1.313)

Sample type:

1 µg/Kg

Calibration

**13C9-PFDA IS**

RT (Exp. RT):

Internal Standard

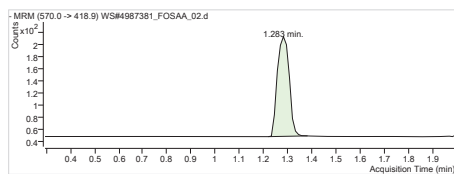
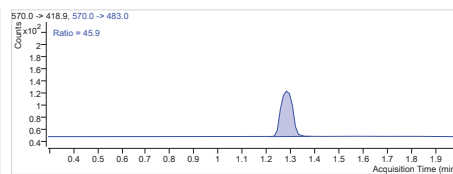
Concentration:

0.849 (0.849)

Sample type:

1 µg/Kg

Calibration

**MeFOSAA 1**

RT (Exp. RT):

570.0 -> 418.9

Calc. conc.

1.283 (1.283)

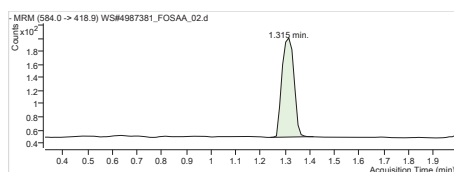
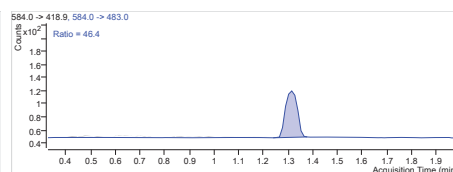
Area ratio:

0.71 µg/Kg

Sample type:

0.25836

Calibration

**EtFOSAA 1**

RT (Exp. RT):

584.0 -> 418.9

Calc. conc.

1.315 (1.315)

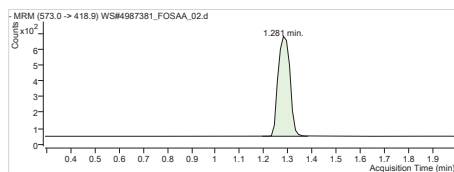
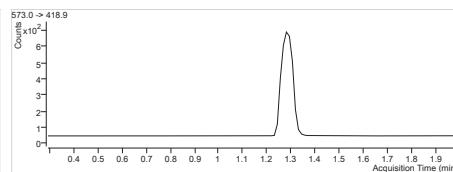
Area ratio:

0.77 µg/Kg

Sample type:

0.27157

Calibration

**D3-MeFOSAA**

RT (Exp. RT):

573.0 -> 418.9

Calc. conc.

1.281 (1.281)

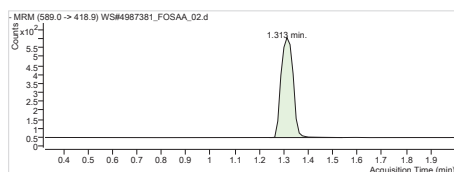
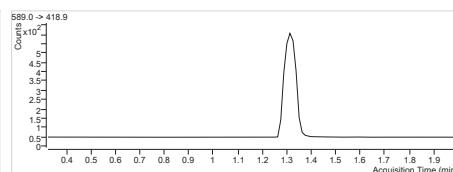
Area ratio:

107.61 µg/Kg

Sample type:

0.06111

Calibration

**D5-EtFOSAA**

RT (Exp. RT):

589.0 -> 418.9

Calc. conc.

1.313 (1.313)

Area ratio:

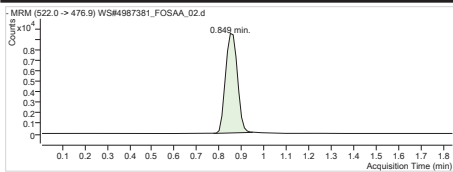
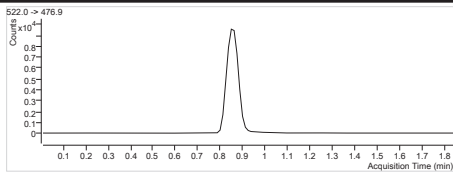
103.39 µg/Kg

Sample type:

0.05309

Calibration

Quantitation Results



13C9-PFDA
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

522.0 -> 476.9
0.849 (0.849)
112.54 µg/Kg
0
Calibration

Sample Name

STD 2

Instrument

LCMS04

Data File

WS#4987381_FOSAA_03.d

Operator

M_G

Sample Type

Cal

Dilution

1

Acq. Method

PFC_Soil_FOSAA.m

Position

P2-A3

Acq. Date

2017/05/20 11:35:40 AM

Injection Volume

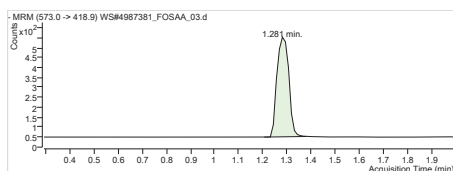
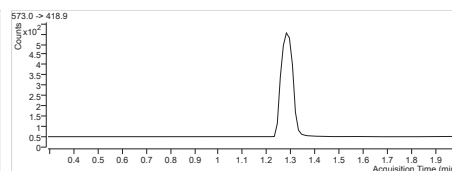
Per Method

Sample Annotation

-

ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1730	1.28	1 µg/Kg		
D5-EtFOSAA IS	1572	1.31	1 µg/Kg		
13C9-PFDA IS	30765	0.85	1 µg/Kg		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	1031	1.28	1.50	1.57 µg/Kg	104.71
EtFOSAA 1	990	1.32	1.50	1.59 µg/Kg	105.70
D3-MeFOSAA	1753	1.28	100.00	100.36 µg/Kg	100.36
D5-EtFOSAA	1591	1.31	100.00	100.69 µg/Kg	100.69
13C9-PFDA	30013	0.85	100.00	96.75 µg/Kg	96.75

**D3-MeFOSAA IS**

RT (Exp. RT):

Internal Standard

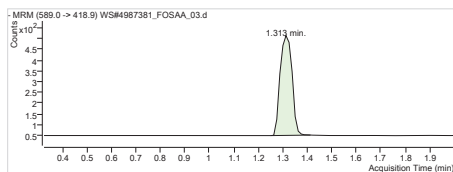
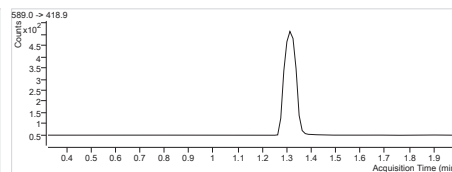
Concentration:

1.281 (1.281)

Sample type:

1 µg/Kg

Calibration

**D5-EtFOSAA IS**

RT (Exp. RT):

Internal Standard

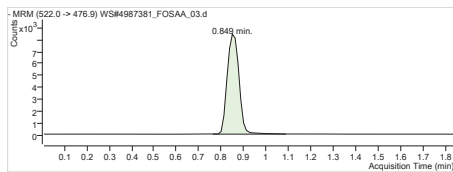
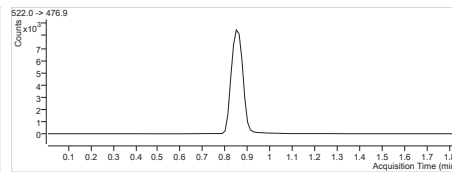
Concentration:

1.313 (1.313)

Sample type:

1 µg/Kg

Calibration

**13C9-PFDA IS**

RT (Exp. RT):

Internal Standard

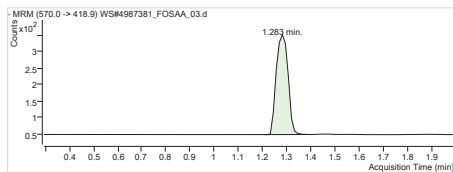
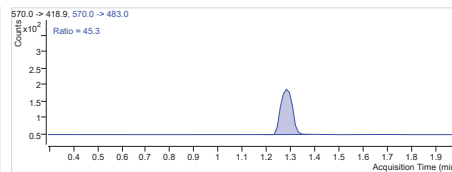
Concentration:

0.849 (0.849)

Sample type:

1 µg/Kg

Calibration

**MeFOSAA 1**

RT (Exp. RT):

570.0 -> 418.9

Calc. conc.

1.283 (1.283)

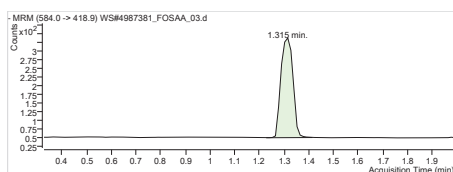
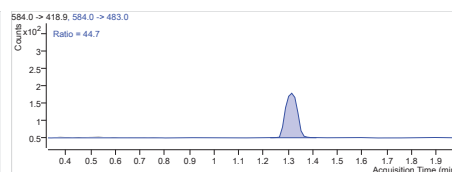
Area ratio:

1.57 µg/Kg

Sample type:

0.59595

Calibration

**EtFOSAA 1**

RT (Exp. RT):

584.0 -> 418.9

Calc. conc.

1.315 (1.315)

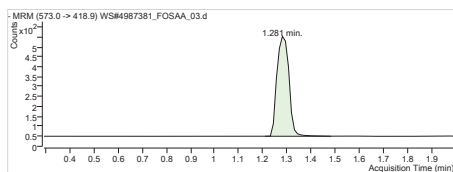
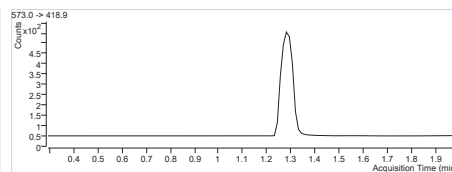
Area ratio:

1.59 µg/Kg

Sample type:

0.62977

Calibration

**D3-MeFOSAA**

RT (Exp. RT):

573.0 -> 418.9

Calc. conc.

1.281 (1.281)

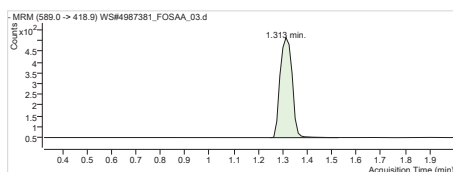
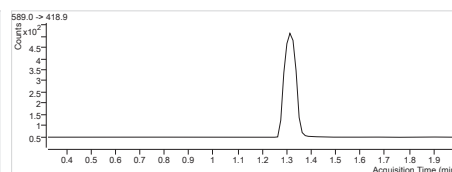
Area ratio:

100.36 µg/Kg

Sample type:

0.05699

Calibration

**D5-EtFOSAA**

RT (Exp. RT):

589.0 -> 418.9

Calc. conc.

1.313 (1.313)

Area ratio:

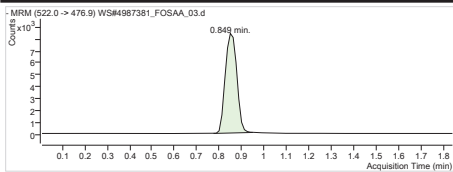
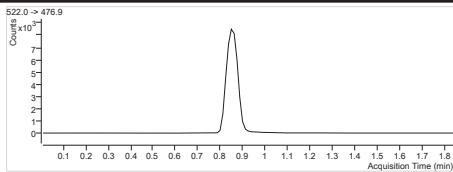
100.69 µg/Kg

Sample type:

0.05170

Calibration

Quantitation Results



13C9-PFDA
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

522.0 -> 476.9
0.849 (0.849)
96.75 µg/Kg
0
Calibration

Batch Path

T:\cms4\PFC\20170519\WS#4987381_FOSAA\QuantResults\PFC_Soil_170519_WS#4987381_FOSAA

Sample Name

STD 3

Instrument

LCMS04

Data File

WS#4987381_FOSAA_04.d

Operator

M_G

Sample Type

Cal

Dilution

1

Acq. Method

PFC_Soil_FOSAA.m

Position

P2-A4

Acq. Date

2017/05/20 11:38:03 AM

Injection Volume

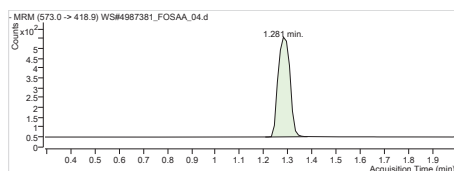
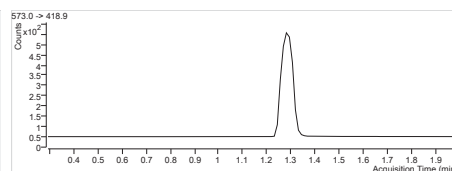
Per Method

Sample Annotation

-

ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1738	1.28	1 µg/Kg		
D5-EtFOSAA IS	1652	1.31	1 µg/Kg		
13C9-PFDA IS	31201	0.85	1 µg/Kg		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	3040	1.28	4.50	4.53 µg/Kg	100.59
EtFOSAA 1	2917	1.32	4.50	4.17 µg/Kg	92.74
D3-MeFOSAA	1749	1.28	100.00	98.71 µg/Kg	98.71
D5-EtFOSAA	1670	1.31	100.00	104.26 µg/Kg	104.26
13C9-PFDA	30408	0.85	100.00	98.03 µg/Kg	98.03

**D3-MeFOSAA IS**

Internal Standard

RT (Exp. RT):

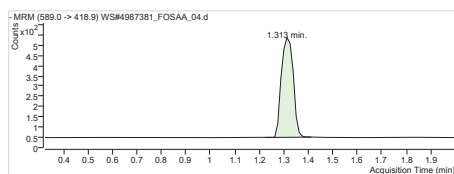
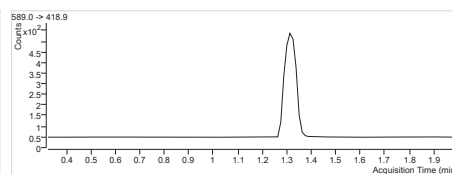
1.281 (1.281)

Concentration:

1 µg/Kg

Sample type:

Calibration

**D5-EtFOSAA IS**

Internal Standard

RT (Exp. RT):

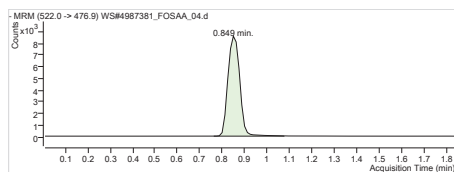
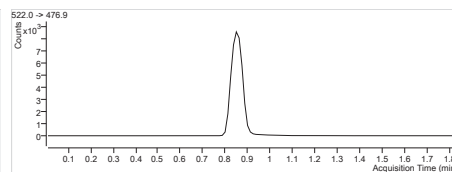
1.313 (1.313)

Concentration:

1 µg/Kg

Sample type:

Calibration

**13C9-PFDA IS**

Internal Standard

RT (Exp. RT):

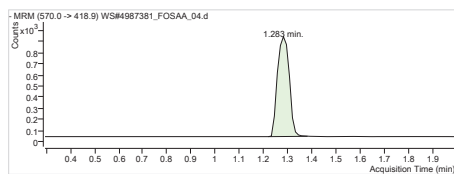
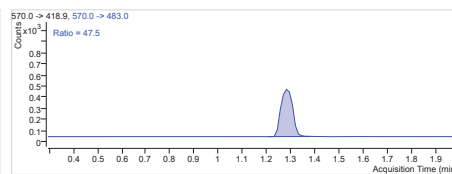
0.849 (0.849)

Concentration:

1 µg/Kg

Sample type:

Calibration

**MeFOSAA 1**

570.0 -> 418.9

RT (Exp. RT):

1.283 (1.283)

Calc. conc.

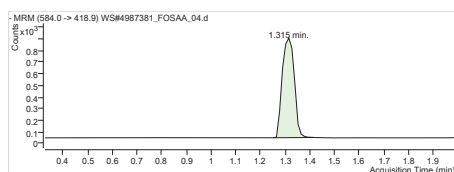
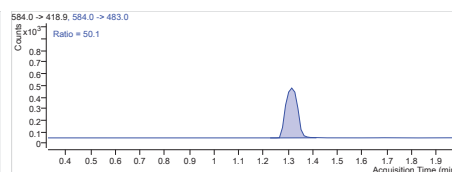
4.53 µg/Kg

Area ratio:

1.74914

Sample type:

Calibration

**EtFOSAA 1**

584.0 -> 418.9

RT (Exp. RT):

1.315 (1.315)

Calc. conc.

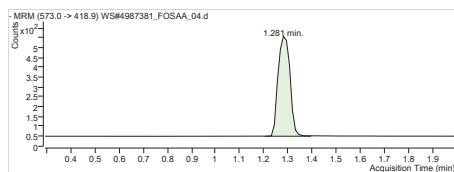
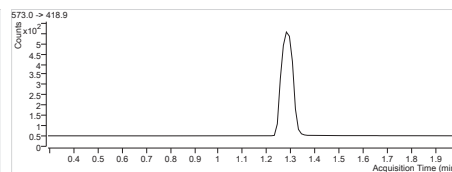
4.17 µg/Kg

Area ratio:

1.76574

Sample type:

Calibration

**D3-MeFOSAA**

573.0 -> 418.9

RT (Exp. RT):

1.281 (1.281)

Calc. conc.

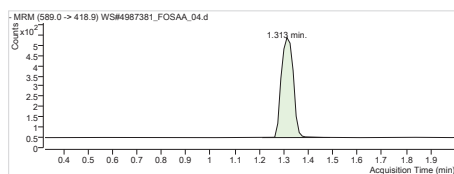
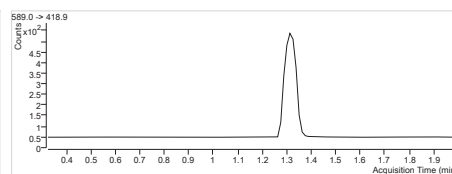
98.71 µg/Kg

Area ratio:

0.05605

Sample type:

Calibration

**D5-EtFOSAA**

589.0 -> 418.9

RT (Exp. RT):

1.313 (1.313)

Calc. conc.

104.26 µg/Kg

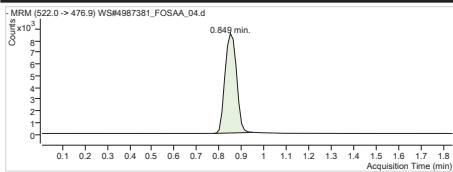
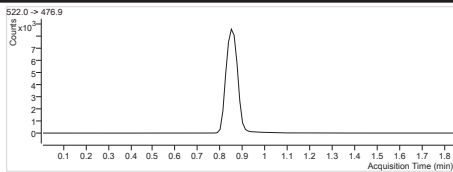
Area ratio:

0.05354

Sample type:

Calibration

Quantitation Results



13C9-PFDA
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

522.0 -> 476.9
0.849 (0.849)
98.03 µg/Kg
0
Calibration

Sample Name

STD 4

Instrument

LCMS04

Data File

WS#4987381_FOSAA_05.d

Operator

M_G

Sample Type

Cal

Dilution

1

Acq. Method

PFCA_Soil_FOSAA.m

Position

P2-A5

Acq. Date

2017/05/20 11:40:26 AM

Injection Volume

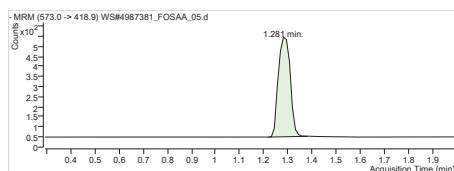
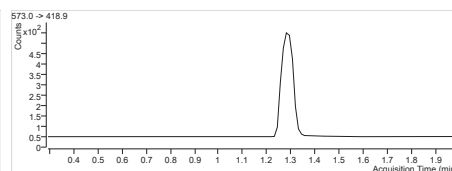
Per Method

Sample Annotation

-

ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1711	1.28	1 µg/Kg		
D5-EtFOSAA IS	1567	1.31	1 µg/Kg		
13C9-PFDA IS	31139	0.85	1 µg/Kg		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	7700	1.28	11.30	11.58 µg/Kg	102.46
EtFOSAA 1	7615	1.32	11.30	11.22 µg/Kg	99.31
D3-MeFOSAA	1741	1.28	100.00	98.48 µg/Kg	98.48
D5-EtFOSAA	1584	1.31	100.00	99.08 µg/Kg	99.08
13C9-PFDA	30326	0.85	100.00	97.76 µg/Kg	97.76

**D3-MeFOSAA IS**

Internal Standard

RT (Exp. RT):

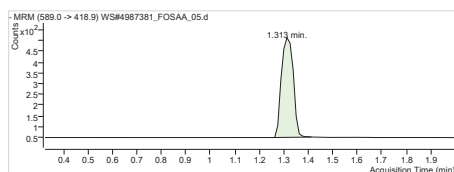
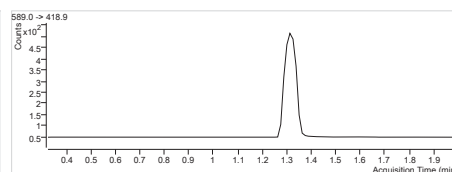
1.281 (1.281)

Concentration:

1 µg/Kg

Sample type:

Calibration

**D5-EtFOSAA IS**

Internal Standard

RT (Exp. RT):

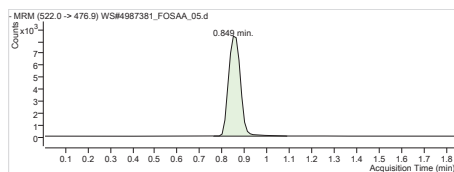
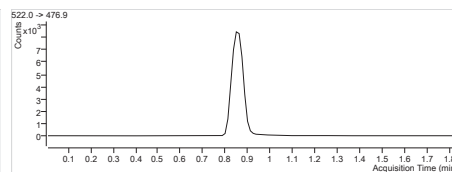
1.313 (1.313)

Concentration:

1 µg/Kg

Sample type:

Calibration

**13C9-PFDA IS**

Internal Standard

RT (Exp. RT):

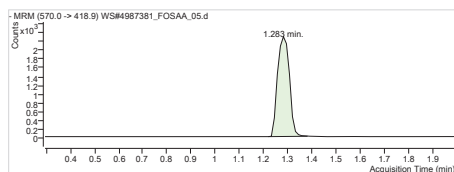
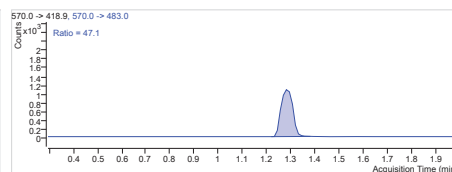
0.849 (0.849)

Concentration:

1 µg/Kg

Sample type:

Calibration

**MeFOSAA 1**

570.0 -> 418.9

RT (Exp. RT):

1.283 (1.283)

Calc. conc.

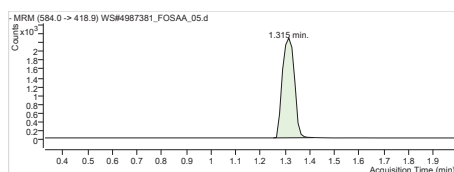
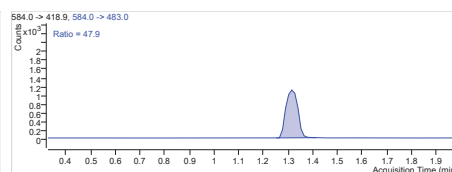
11.58 µg/Kg

Area ratio:

4.50029

Sample type:

Calibration

**EtFOSAA 1**

584.0 -> 418.9

RT (Exp. RT):

1.315 (1.315)

Calc. conc.

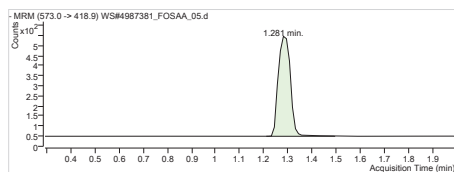
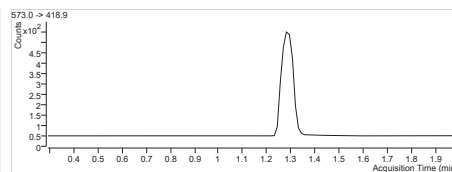
11.22 µg/Kg

Area ratio:

4.85960

Sample type:

Calibration

**D3-MeFOSAA**

573.0 -> 418.9

RT (Exp. RT):

1.281 (1.281)

Calc. conc.

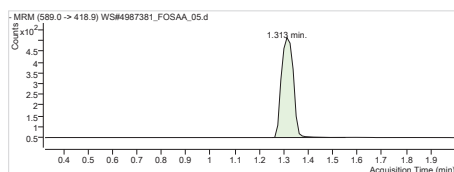
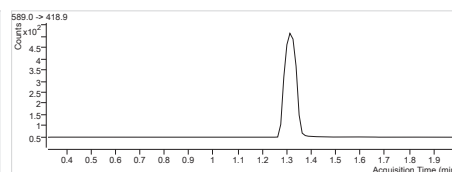
98.48 µg/Kg

Area ratio:

0.05592

Sample type:

Calibration

**D5-EtFOSAA**

589.0 -> 418.9

RT (Exp. RT):

1.313 (1.313)

Calc. conc.

99.08 µg/Kg

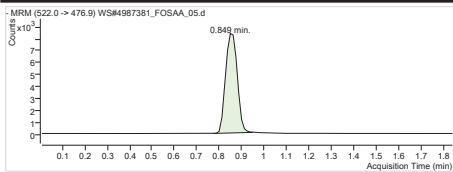
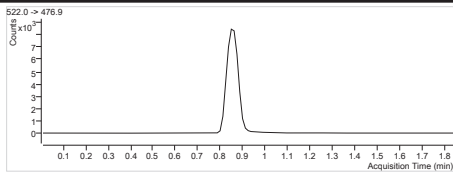
Area ratio:

0.05087

Sample type:

Calibration

Quantitation Results



13C9-PFDA
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

522.0 -> 476.9
0.849 (0.849)
97.76 µg/Kg
0
Calibration

Sample Name

STD 5

Instrument

LCMS04

Data File

WS#4987381_FOSAA_06.d

Operator

M_G

Sample Type

Cal

Dilution

1

Acq. Method

PFCA_Soil_FOSAA.m

Position

P2-A6

Acq. Date

2017/05/20 11:42:49 AM

Injection Volume

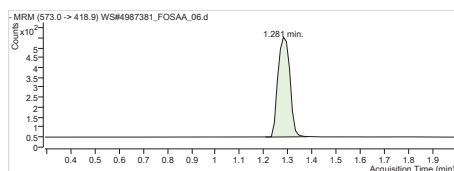
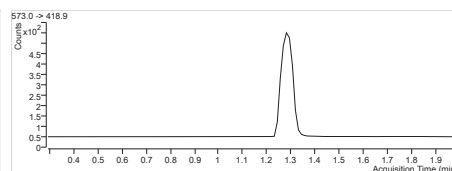
Per Method

Sample Annotation

-

ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1736	1.28	1 µg/Kg		
D5-EtFOSAA IS	1597	1.31	1 µg/Kg		
13C9-PFDA IS	31193	0.85	1 µg/Kg		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	14859	1.28	22.50	21.98 µg/Kg	97.70
EtFOSAA 1	15212	1.32	22.50	21.85 µg/Kg	97.12
D3-MeFOSAA	1744	1.28	100.00	98.48 µg/Kg	98.48
D5-EtFOSAA	1552	1.31	100.00	96.88 µg/Kg	96.88
13C9-PFDA	30382	0.85	100.00	97.94 µg/Kg	97.94

**D3-MeFOSAA IS**

RT (Exp. RT):

Internal Standard

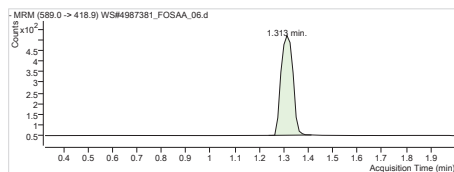
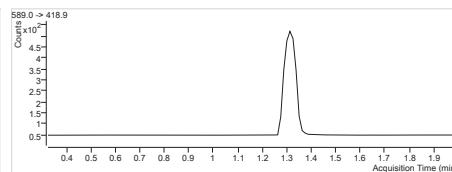
Concentration:

1.281 (1.281)

Sample type:

1 µg/Kg

Calibration

**D5-EtFOSAA IS**

RT (Exp. RT):

Internal Standard

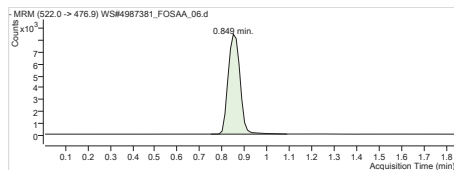
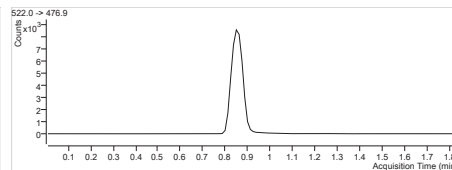
Concentration:

1.313 (1.313)

Sample type:

1 µg/Kg

Calibration

**13C9-PFDA IS**

RT (Exp. RT):

Internal Standard

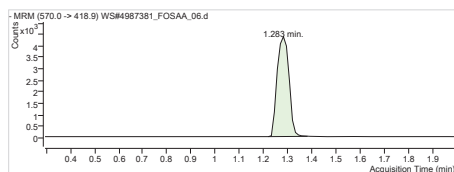
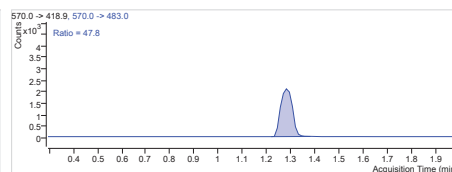
Concentration:

0.849 (0.849)

Sample type:

1 µg/Kg

Calibration

**MeFOSAA 1**

RT (Exp. RT):

570.0 -> 418.9

Calc. conc.

1.283 (1.283)

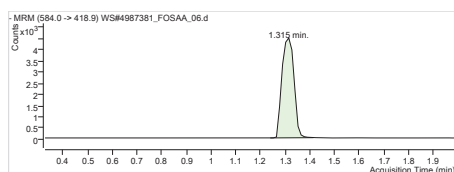
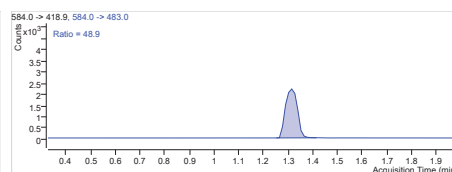
Area ratio:

21.98 µg/Kg

Sample type:

8.55933

Calibration

**EtFOSAA 1**

RT (Exp. RT):

584.0 -> 418.9

Calc. conc.

1.315 (1.315)

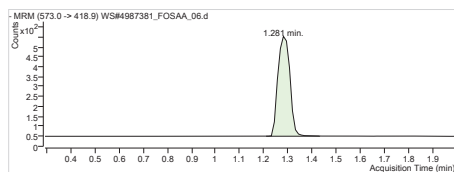
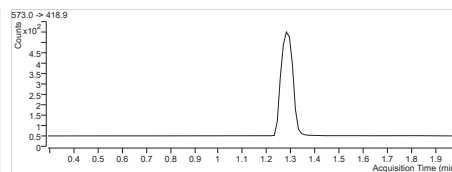
Area ratio:

21.85 µg/Kg

Sample type:

9.52536

Calibration

**D3-MeFOSAA**

RT (Exp. RT):

573.0 -> 418.9

Calc. conc.

1.281 (1.281)

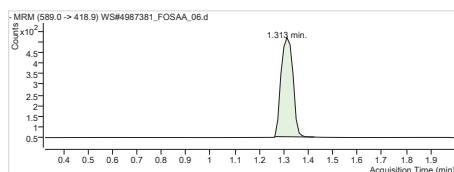
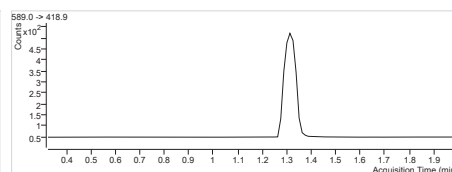
Area ratio:

98.48 µg/Kg

Sample type:

0.05592

Calibration

**D5-EtFOSAA**

RT (Exp. RT):

589.0 -> 418.9

Calc. conc.

1.313 (1.313)

Area ratio:

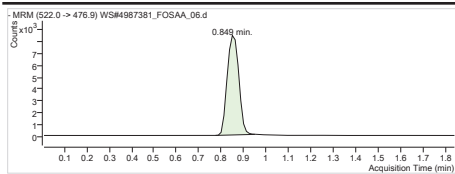
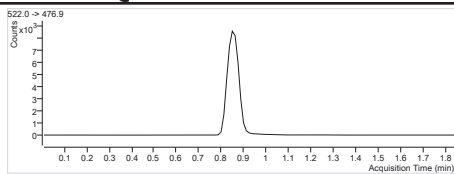
96.88 µg/Kg

Sample type:

0.04974

Calibration

Quantitation Results



13C9-PFDA
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

522.0 -> 476.9
0.849 (0.849)
97.94 µg/Kg
0
Calibration

Sample Name

STD 6

Instrument

LCMS04

Data File

WS#4987381_FOSAA_07.d

Operator

M_G

Sample Type

Cal

Dilution

1

Acq. Method

PFCA_Soil_FOSAA.m

Position

P2-A7

Acq. Date

2017/05/20 11:45:12 AM

Injection Volume

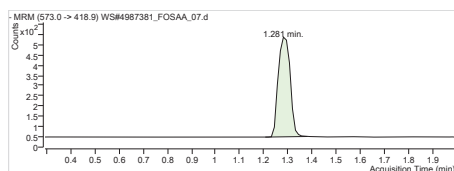
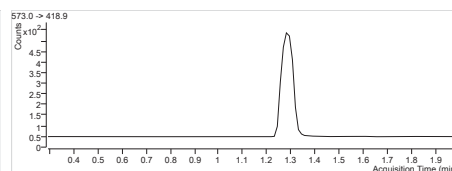
Per Method

Sample Annotation

-

ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1677	1.28	1 µg/Kg		
D5-EtFOSAA IS	1512	1.31	1 µg/Kg		
13C9-PFDA IS	30884	0.85	1 µg/Kg		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	24630	1.28	37.50	37.69 µg/Kg	100.50
EtFOSAA 1	25417	1.32	37.50	38.45 µg/Kg	102.53
D3-MeFOSAA	1690	1.28	100.00	96.35 µg/Kg	96.35
D5-EtFOSAA	1518	1.31	100.00	95.70 µg/Kg	95.70
13C9-PFDA	30079	0.85	100.00	96.97 µg/Kg	96.97

**D3-MeFOSAA IS**

RT (Exp. RT):

Internal Standard

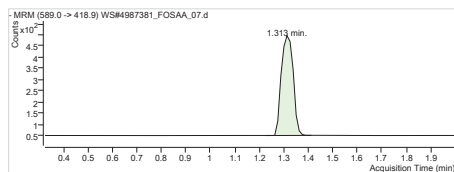
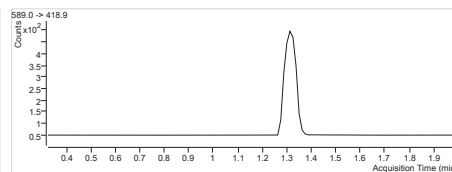
Concentration:

1.281 (1.281)

Sample type:

1 µg/Kg

Calibration

**D5-EtFOSAA IS**

RT (Exp. RT):

Internal Standard

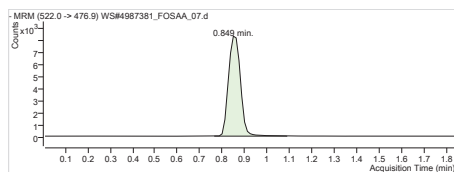
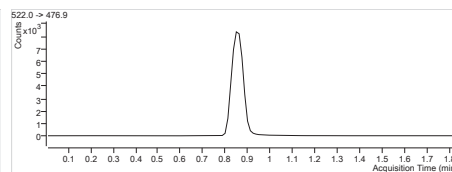
Concentration:

1.313 (1.313)

Sample type:

1 µg/Kg

Calibration

**13C9-PFDA IS**

RT (Exp. RT):

Internal Standard

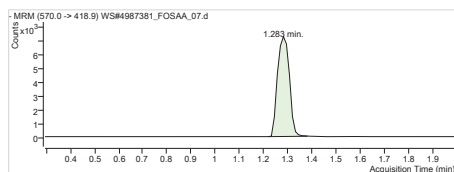
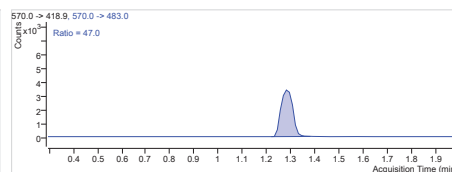
Concentration:

0.849 (0.849)

Sample type:

1 µg/Kg

Calibration

**MeFOSAA 1**

RT (Exp. RT):

570.0 -> 418.9

Calc. conc.

1.283 (1.283)

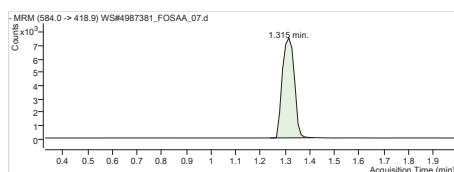
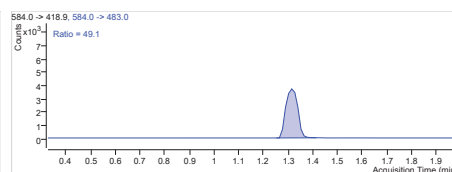
Area ratio:

37.69 µg/Kg

Sample type:

14.68694

Calibration

**EtFOSAA 1**

RT (Exp. RT):

584.0 -> 418.9

Calc. conc.

1.315 (1.315)

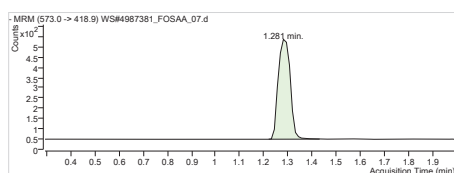
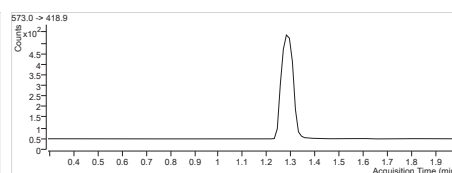
Area ratio:

38.45 µg/Kg

Sample type:

16.81019

Calibration

**D3-MeFOSAA**

RT (Exp. RT):

573.0 -> 418.9

Calc. conc.

1.281 (1.281)

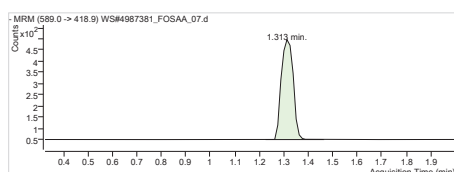
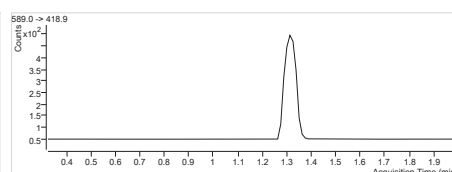
Area ratio:

96.35 µg/Kg

Sample type:

0.05471

Calibration

**D5-EtFOSAA**

RT (Exp. RT):

589.0 -> 418.9

Calc. conc.

1.313 (1.313)

Area ratio:

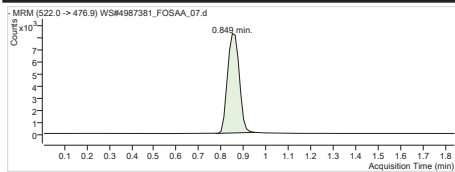
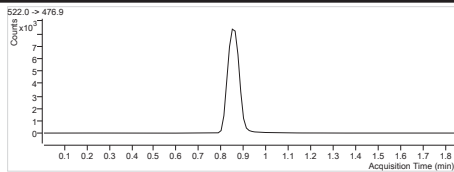
95.70 µg/Kg

Sample type:

0.04914

Calibration

Quantitation Results



13C9-PFDA
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

522.0 -> 476.9
0.849 (0.849)
96.97 µg/Kg
0
Calibration

Batch Path

T:\lcms4\PFC\20170523\WS#4987523\QuantResults\PFC_Water_Low_170523_WS#4987523_CT

Sample Name

STD 1

Instrument

LCMS04

Data File

WS#4987523_02.d

Operator

AD

Sample Type

Cal

Dilution

1

Acq. Method

PFC_Water_Low.m

Position

P1-A2

Acq. Date

2017/05/23 9:18:32 AM

Injection Volume

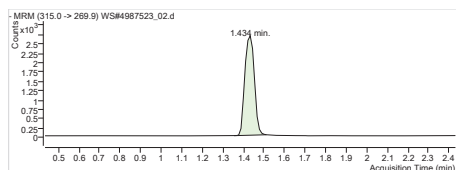
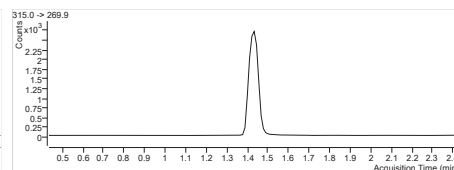
Per Method

Sample Annotation

-

ISTD Compounds	Response	RT	Target conc.		
MPFHxA	8602	1.43	1 µg/L		
MPFHxS	1584	1.69	1 µg/L		
MPFHpA	8901	1.69	1 µg/L		
MPFOA	8990	1.88	1 µg/L		
MPFOS	2051	1.98	1 µg/L		
MPFNA	8694	2.01	1 µg/L		
MPFDA	7905	2.14	1 µg/L		
MPFUnA	7901	2.23	1 µg/L		
MPFDoA	9280	2.31	1 µg/L		
MPFTeDA	11321	2.46	1 µg/L		
M2 6:2 FTS	2080	1.85	1 µg/L		
M2 8:2 FTS	2430	2.11	1 µg/L		
13C6-PFHxA IS	39675	1.43	1 µg/L		
13C9-PFDA IS	32719	2.13	1 µg/L		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	848	1.10	0.83	0.83 µg/L	99.87
PFHxA 1	3498	1.43	0.83	0.91 µg/L	109.61
PFHxS 1	695	1.69	0.83	0.84 µg/L	100.61
PFHpA 1	3927	1.69	0.83	0.89 µg/L	107.46
PFOA 1	3804	1.88	0.83	0.82 µg/L	98.69
PFOS 1	648	1.98	0.83	0.82 µg/L	99.04
PFNA 1	3271	2.01	0.83	0.92 µg/L	110.83
PFDA 1	3292	2.14	0.83	0.82 µg/L	98.87
PFUnA 1	3253	2.23	0.83	0.88 µg/L	105.56
PFDaA 1	3485	2.31	0.83	0.80 µg/L	96.94
PFTDA 1	4320	2.39	0.83	0.89 µg/L	107.52
PFTeDA 1	4321	2.46	0.83	0.94 µg/L	112.90
6:2-FTS 1	996	1.85	0.83	1.01 µg/L	121.54
8:2-FTS 1	863	2.10	0.83	0.88 µg/L	106.19
13C2-PFHxA	8602	1.43	100.00	97.48 µg/L	97.48
18O2-PFHxS	1584	1.69	100.00	102.14 µg/L	102.14
13C4-PFHpA	8901	1.69	100.00	96.39 µg/L	96.39
13C4-PFOA	8990	1.88	100.00	99.27 µg/L	99.27
13C4-PFOS	2051	1.98	100.00	108.01 µg/L	108.01
13C5-PFNA	8694	2.01	100.00	98.51 µg/L	98.51
13C2-PFDA	7905	2.14	100.00	106.57 µg/L	106.57
13C2-PFUnA	7901	2.23	100.00	98.59 µg/L	98.59
13C2-PFDoA	9280	2.31	100.00	102.91 µg/L	102.91
13C2-PFTeDA	11321	2.46	100.00	99.31 µg/L	99.31
13C2-6:2-FTS	2080	1.85	100.00	94.68 µg/L	94.68
13C2-8:2 FTS	2430	2.11	100.00	102.60 µg/L	102.60
13C6-PFHxA	39675	1.43	100.00	101.57 µg/L	101.57
13C9-PFDA	32719	2.13	100.00	99.17 µg/L	99.17



MPFHxA

Internal Standard

RT (Exp. RT):

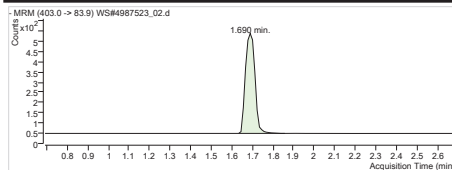
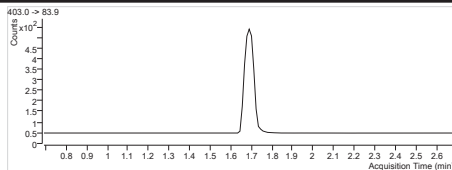
1.434 (1.434)

Concentration:

1 µg/L

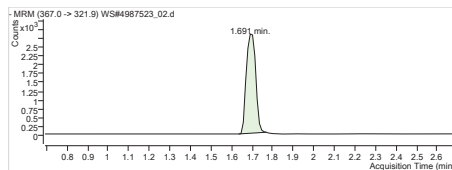
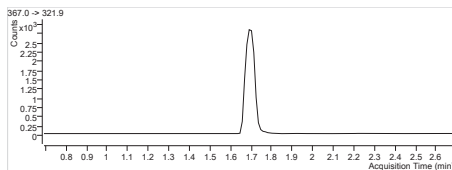
Sample type:

Calibration



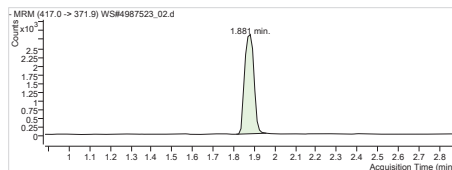
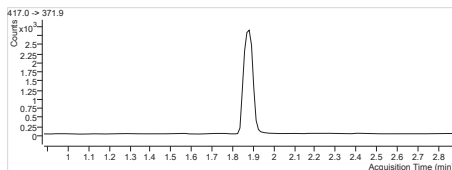
MPFHxS
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
1.690 (1.690)
1 µg/L
Calibration



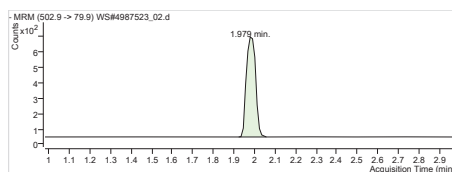
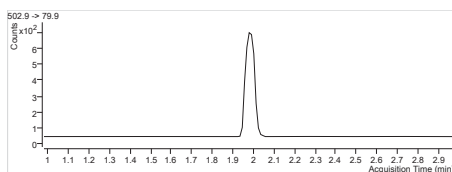
MPFHpA
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
1.691 (1.691)
1 µg/L
Calibration



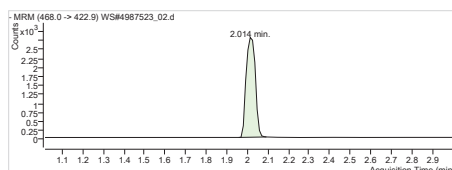
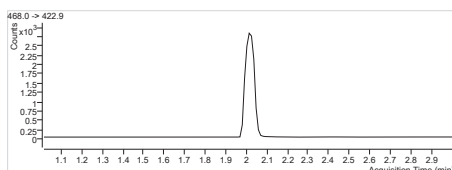
MPFOA
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
1.881 (1.881)
1 µg/L
Calibration



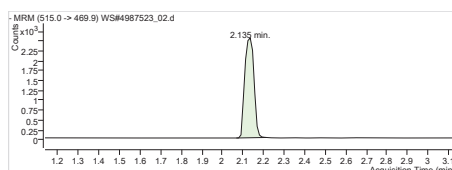
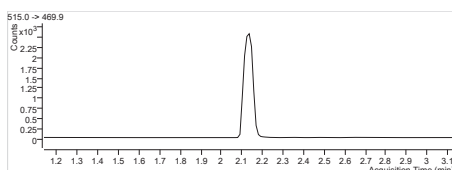
MPFOS
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
1.979 (1.979)
1 µg/L
Calibration



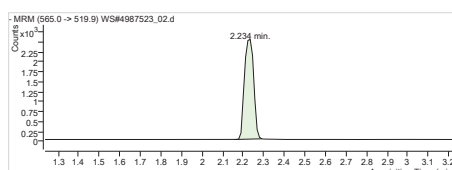
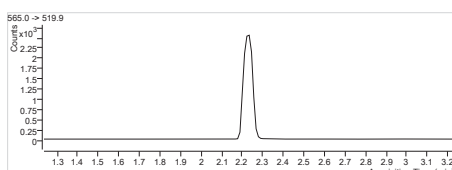
MPFNA
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
2.014 (2.014)
1 µg/L
Calibration



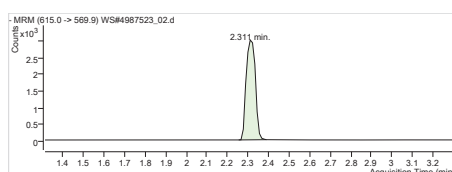
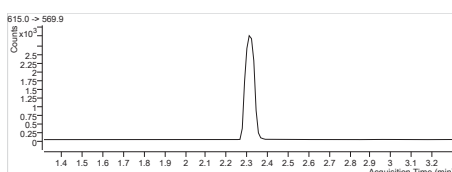
MPFDA
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
2.135 (2.135)
1 µg/L
Calibration



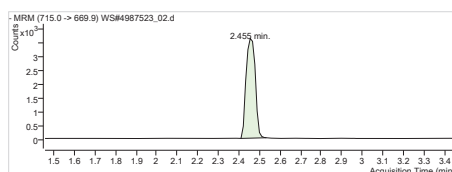
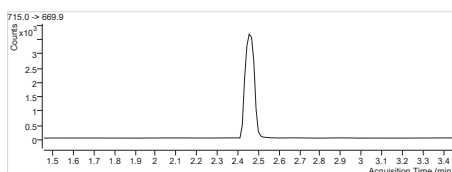
MPFUnA
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
2.234 (2.234)
1 µg/L
Calibration



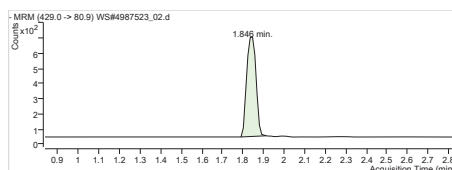
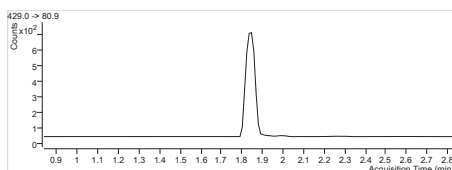
MPFDoA
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
2.311 (2.311)
1 µg/L
Calibration



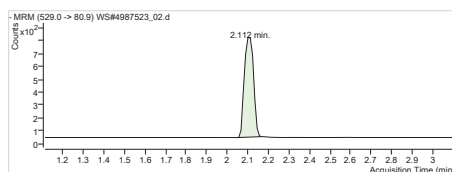
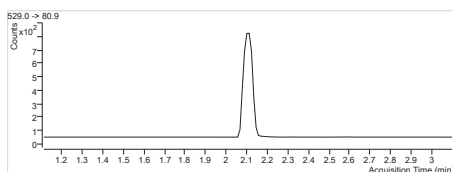
MPFTeDA
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
2.455 (2.455)
1 µg/L
Calibration



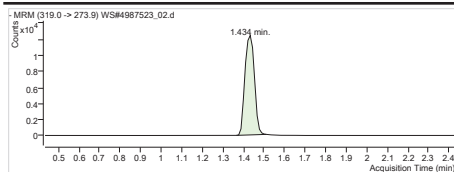
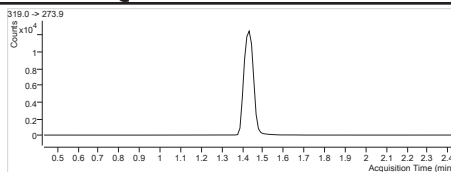
M2 6:2 FTS
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
1.846 (1.835)
1 µg/L
Calibration



M2 8:2 FTS
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
2.112 (2.112)
1 µg/L
Calibration

**13C6-PFHxA IS**

RT (Exp. RT):

Concentration:

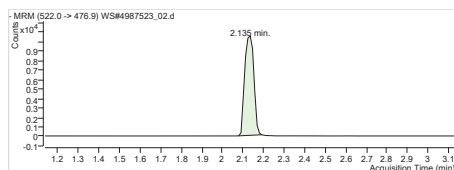
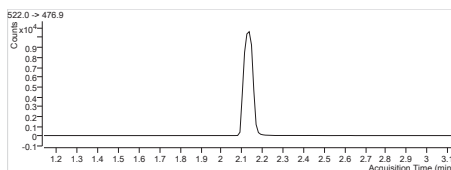
Sample type:

Internal Standard

1.434 (1.434)

1 µg/L

Calibration

**13C9-PFDA IS**

RT (Exp. RT):

Concentration:

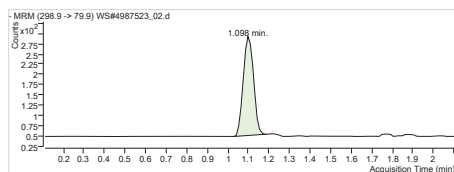
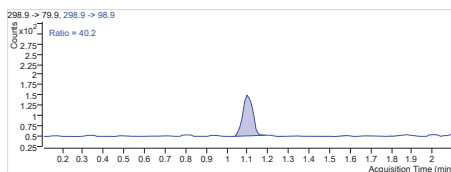
Sample type:

Internal Standard

2.135 (2.135)

1 µg/L

Calibration

**PFBS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

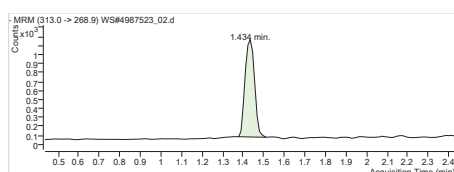
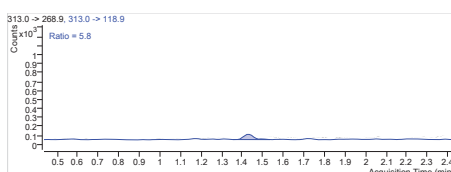
298.9 -> 79.9

1.098 (1.109)

0.83 µg/L

0.53535

Calibration

**PFHxA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

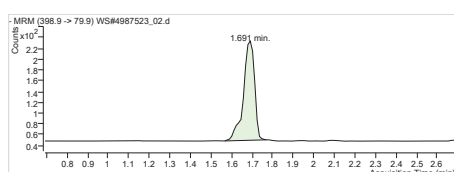
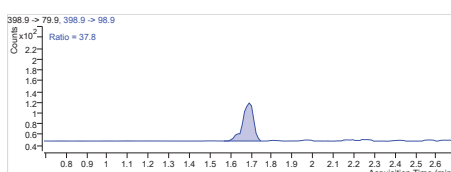
313.0 -> 268.9

1.434 (1.434)

0.91 µg/L

0.40665

Calibration

**PFHxS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

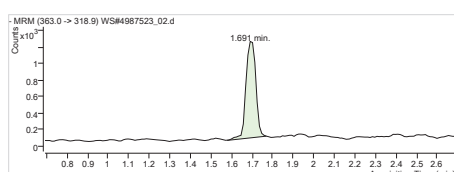
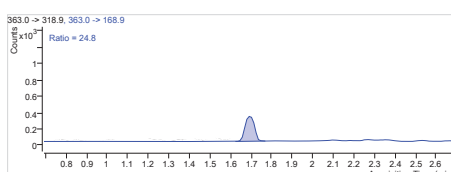
398.9 -> 79.9

1.691 (1.691)

0.84 µg/L

0.43876

Calibration

**PFHpA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

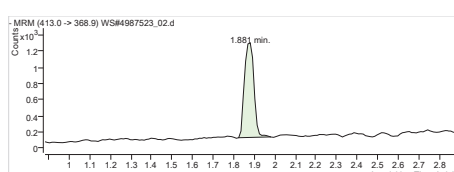
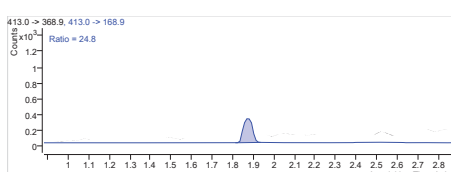
363.0 -> 318.9

1.691 (1.691)

0.89 µg/L

0.44119

Calibration

**PFOA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

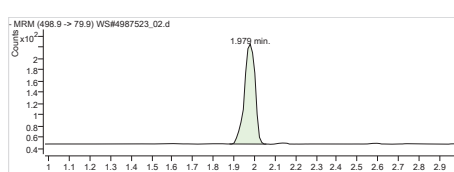
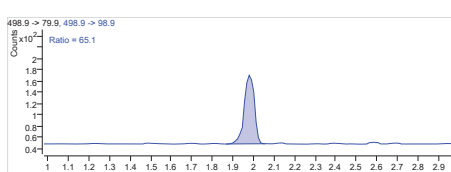
413.0 -> 368.9

1.881 (1.881)

0.82 µg/L

0.42314

Calibration

**PFOS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

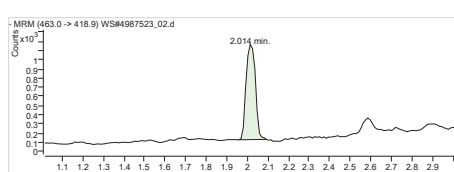
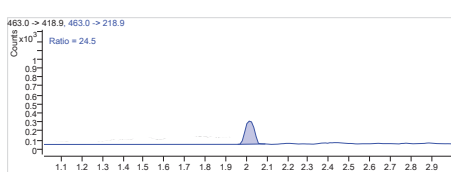
498.9 -> 79.9

1.979 (1.979)

0.82 µg/L

0.31594

Calibration

**PFNA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

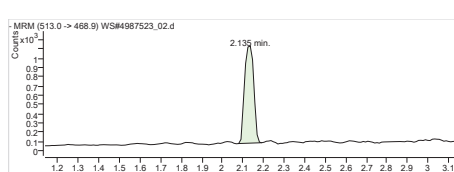
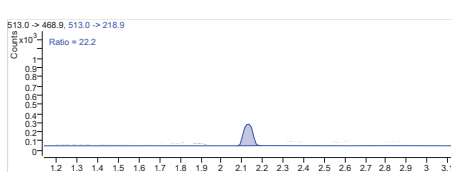
463.0 -> 418.9

2.014 (2.014)

0.92 µg/L

0.37624

Calibration

**PFDA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

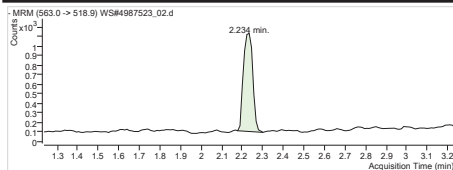
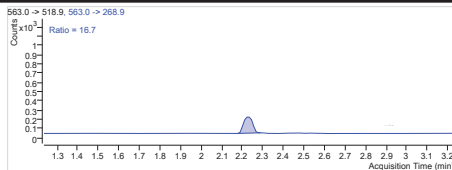
513.0 -> 468.9

2.135 (2.135)

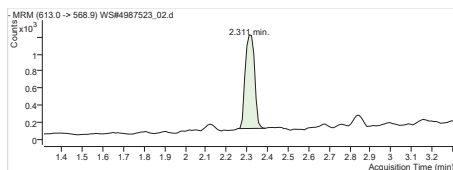
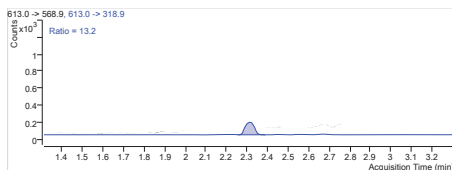
0.82 µg/L

0.41645

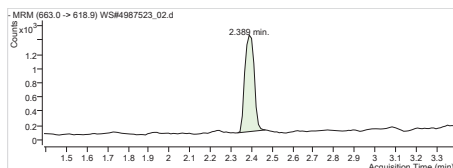
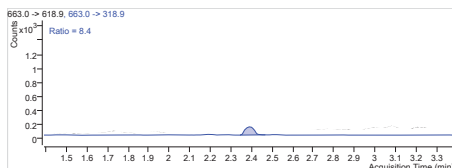
Calibration



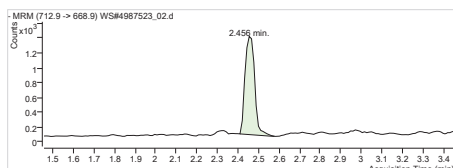
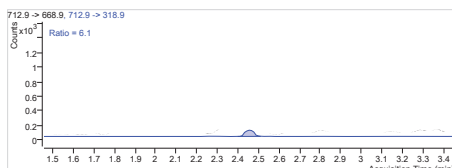
PFUnA 1
RT (Exp. RT): 563.0 -> 518.9
Calc. conc. 2.234 (2.234)
Area ratio: 0.88 µg/L
Sample type: 0.41172
Calibration



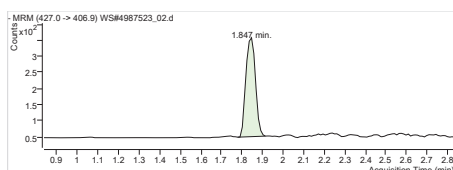
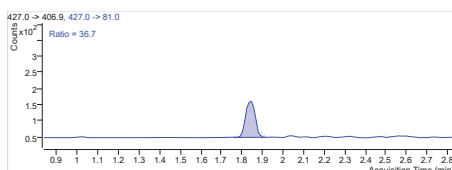
PFDa 1
RT (Exp. RT): 613.0 -> 568.9
Calc. conc. 2.311 (2.311)
Area ratio: 0.80 µg/L
Sample type: 0.37554
Calibration



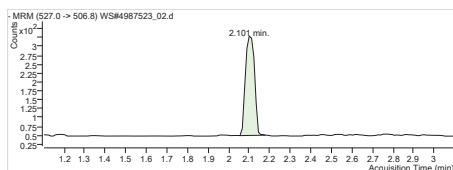
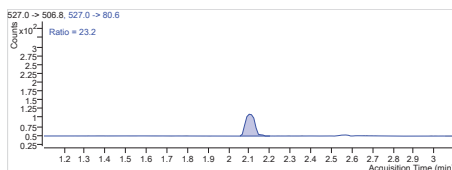
PFTraD 1
RT (Exp. RT): 663.0 -> 618.9
Calc. conc. 2.389 (2.389)
Area ratio: 0.89 µg/L
Sample type: 0.38159
Calibration



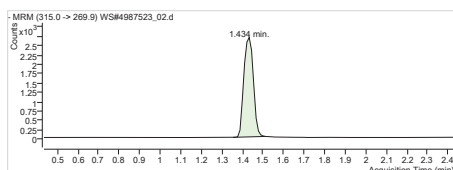
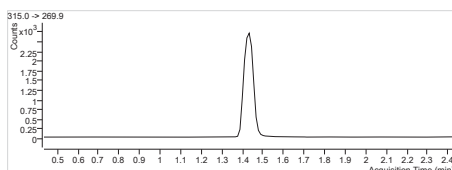
PFTeDa 1
RT (Exp. RT): 712.9 -> 668.9
Calc. conc. 2.456 (2.456)
Area ratio: 0.94 µg/L
Sample type: 0.38168
Calibration



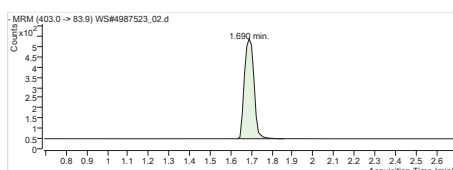
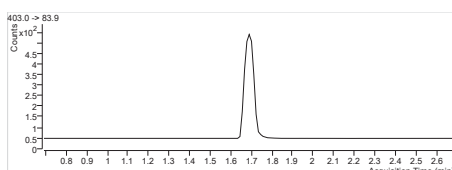
6:2-FTS 1
RT (Exp. RT): 427.0 -> 406.9
Calc. conc. 1.847 (1.835)
Area ratio: 1.01 µg/L
Sample type: 0.47885
Calibration



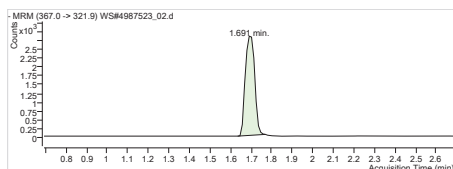
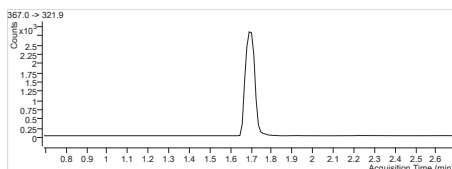
8:2-FTS 1
RT (Exp. RT): 527.0 -> 506.8
Calc. conc. 2.101 (2.101)
Area ratio: 0.88 µg/L
Sample type: 0.35514
Calibration



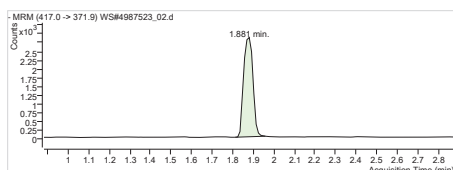
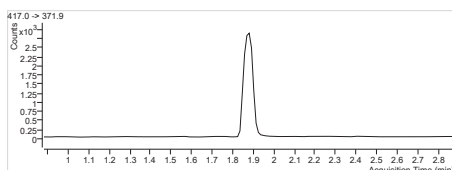
13C2-PFHxA
RT (Exp. RT): 315.0 -> 269.9
Calc. conc. 1.434 (1.434)
Area ratio: 97.48 µg/L
Sample type: 0.21681
Calibration



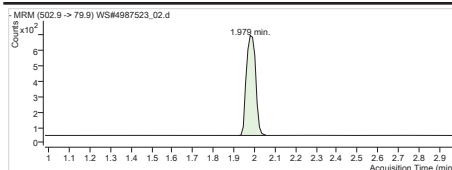
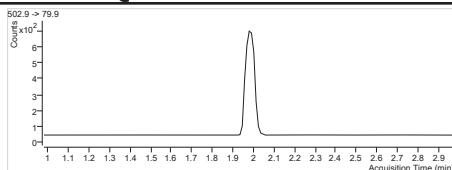
18O2-PFHxS
RT (Exp. RT): 403.0 -> 83.9
Calc. conc. 1.690 (1.690)
Area ratio: 102.14 µg/L
Sample type: 0.03992
Calibration



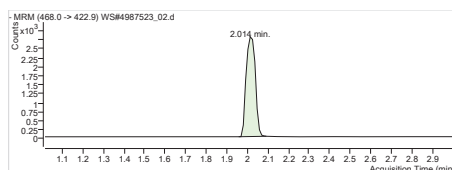
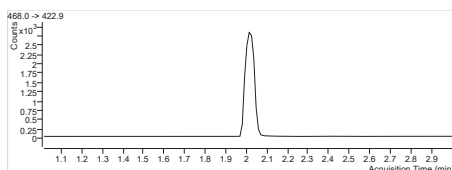
13C4-PFHpA
RT (Exp. RT): 367.0 -> 321.9
Calc. conc. 1.691 (1.691)
Area ratio: 96.39 µg/L
Sample type: 0.22435
Calibration



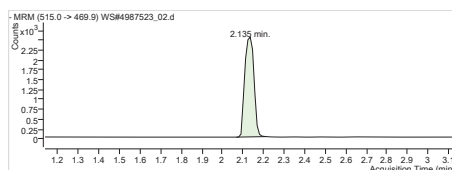
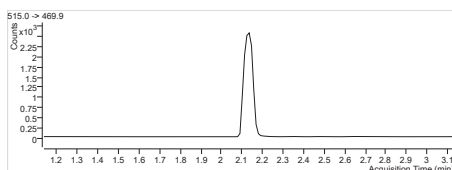
13C4-PFOA
RT (Exp. RT): 417.0 -> 371.9
Calc. conc. 1.881 (1.881)
Area ratio: 99.27 µg/L
Sample type: 0.22659
Calibration



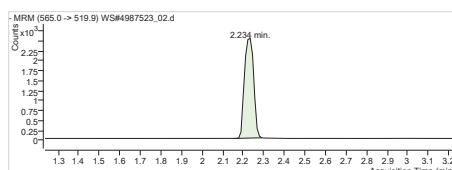
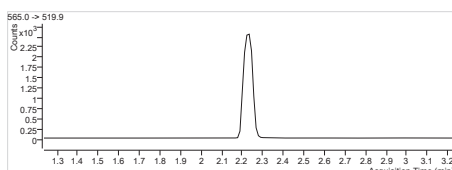
13C4-PFOS
 RT (Exp. RT): 502.9 -> 79.9
 Calc. conc. 1.979 (1.979)
 Area ratio: 108.01 µg/L
 Sample type: 0.05170 Calibration



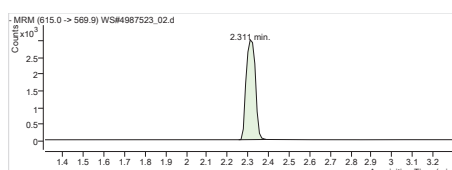
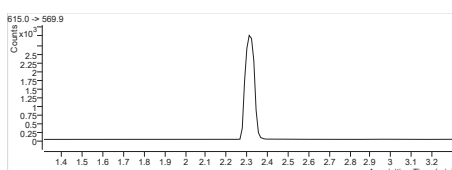
13C5-PFNA
 RT (Exp. RT): 468.0 -> 422.9
 Calc. conc. 2.014 (2.014)
 Area ratio: 98.51 µg/L
 Sample type: 0.21913 Calibration



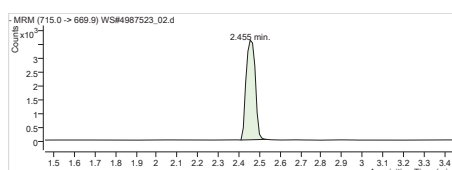
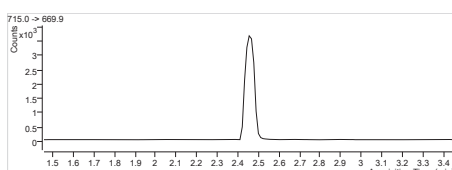
13C2-PFDA
 RT (Exp. RT): 515.0 -> 469.9
 Calc. conc. 2.135 (2.135)
 Area ratio: 106.57 µg/L
 Sample type: 0.24160 Calibration



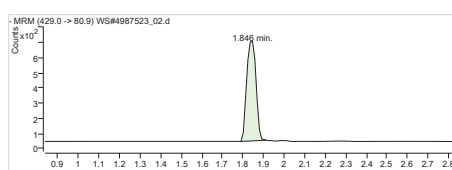
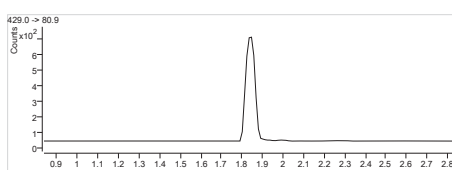
13C2-PFUnA
 RT (Exp. RT): 565.0 -> 519.9
 Calc. conc. 2.234 (2.234)
 Area ratio: 98.59 µg/L
 Sample type: 0.24148 Calibration



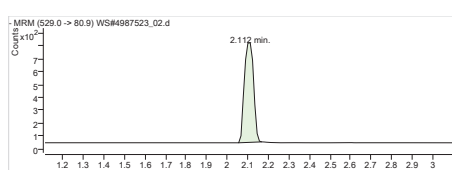
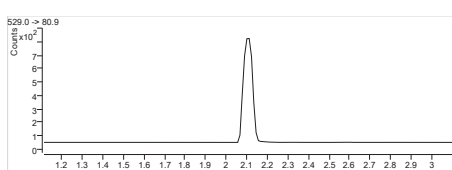
13C2-PFDoA
 RT (Exp. RT): 615.0 -> 569.9
 Calc. conc. 2.311 (2.311)
 Area ratio: 102.91 µg/L
 Sample type: 0.28363 Calibration



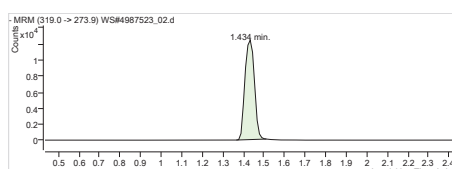
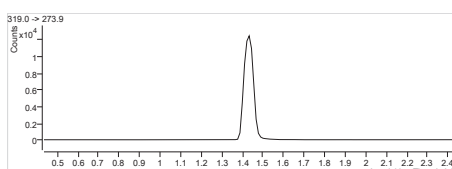
13C2-PFTeDA
 RT (Exp. RT): 715.0 -> 669.9
 Calc. conc. 2.455 (2.455)
 Area ratio: 99.31 µg/L
 Sample type: 0.34601 Calibration



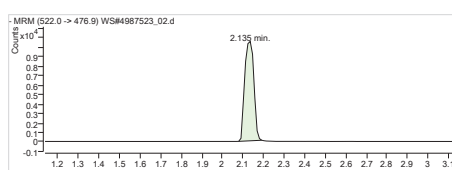
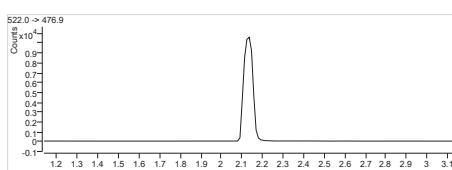
13C2-6:2-FTS
 RT (Exp. RT): 429.0 -> 80.9
 Calc. conc. 1.846 (1.835)
 Area ratio: 94.68 µg/L
 Sample type: 0.05243 Calibration



13C2-8:2 FTS
 RT (Exp. RT): 529.0 -> 80.9
 Calc. conc. 2.112 (2.112)
 Area ratio: 102.60 µg/L
 Sample type: 0.06125 Calibration



13C6-PFHxA
 RT (Exp. RT): 319.0 -> 273.9
 Calc. conc. 1.434 (1.434)
 Area ratio: 101.57 µg/L
 Sample type: 0 Calibration



13C9-PFDA
 RT (Exp. RT): 522.0 -> 476.9
 Calc. conc. 2.135 (2.135)
 Area ratio: 99.17 µg/L
 Sample type: 0 Calibration

Batch Path

T:\lcms4\PFC\20170523\WS#4987523\QuantResults\PFC_Water_Low_170523_WS#4987523_CT

Sample Name

STD 2

Instrument

LCMS04

Data File

WS#4987523_03.d

Operator

AD

Sample Type

Cal

Dilution

1

Acq. Method

PFC_Water_Low.m

Position

P1-A3

Acq. Date

2017/05/23 9:23:26 AM

Injection Volume

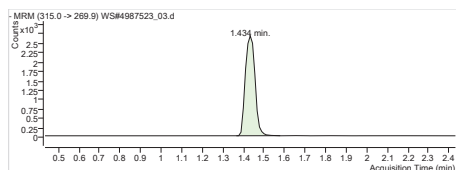
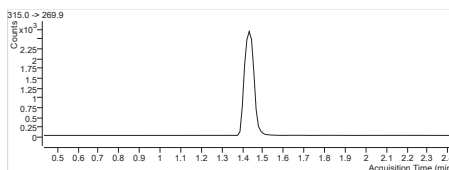
Per Method

Sample Annotation

-

ISTD Compounds	Response	RT	Target conc.		
MPFHxA	8674	1.43	1 µg/L		
MPFHxS	1500	1.69	1 µg/L		
MPFHpA	9588	1.69	1 µg/L		
MPFOA	8857	1.88	1 µg/L		
MPFOS	1796	1.98	1 µg/L		
MPFNA	8435	2.01	1 µg/L		
MPFDA	7593	2.14	1 µg/L		
MPFUnA	8048	2.22	1 µg/L		
MPFDoA	8360	2.31	1 µg/L		
MPFTeDA	11301	2.46	1 µg/L		
M2 6:2 FTS	1971	1.85	1 µg/L		
M2 8:2 FTS	2216	2.10	1 µg/L		
13C6-PFHxA IS	38322	1.43	1 µg/L		
13C9-PFDA IS	32080	2.13	1 µg/L		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	1614	1.10	1.70	1.70 µg/L	100.01
PFHxA 1	5915	1.43	1.70	1.54 µg/L	90.38
PFHxS 1	1259	1.69	1.70	1.65 µg/L	97.01
PFHpA 1	7138	1.69	1.70	1.56 µg/L	91.52
PFOA 1	6476	1.88	1.70	1.53 µg/L	90.14
PFOS 1	1103	1.98	1.70	1.60 µg/L	93.89
PFNA 1	5442	2.01	1.70	1.59 µg/L	93.80
PFDA 1	6221	2.14	1.70	1.64 µg/L	96.21
PFUnA 1	5620	2.22	1.70	1.54 µg/L	90.37
PFDaA 1	6548	2.31	1.70	1.80 µg/L	105.93
PFTeDA 1	7589	2.39	1.70	1.62 µg/L	95.23
PFTeDA 1	6715	2.46	1.70	1.50 µg/L	88.38
6:2-FTS 1	1290	1.85	1.70	1.46 µg/L	85.64
8:2-FTS 1	1243	2.10	1.70	1.45 µg/L	85.17
13C2-PFHxA	8674	1.43	100.00	101.77 µg/L	101.77
18O2-PFHxS	1500	1.69	100.00	100.14 µg/L	100.14
13C4-PFHpA	9588	1.69	100.00	107.49 µg/L	107.49
13C4-PFOA	8857	1.88	100.00	101.26 µg/L	101.26
13C4-PFOS	1796	1.98	100.00	97.92 µg/L	97.92
13C5-PFNA	8435	2.01	100.00	98.95 µg/L	98.95
13C2-PFDA	7593	2.14	100.00	104.40 µg/L	104.40
13C2-PFUnA	8048	2.22	100.00	102.42 µg/L	102.42
13C2-PFDoA	8360	2.31	100.00	94.56 µg/L	94.56
13C2-PFTeDA	11301	2.46	100.00	101.11 µg/L	101.11
13C2-6:2-FTS	1971	1.85	100.00	92.88 µg/L	92.88
13C2-8:2 FTS	2216	2.10	100.00	96.87 µg/L	96.87
13C6-PFHxA	38322	1.43	100.00	98.10 µg/L	98.10
13C9-PFDA	32080	2.13	100.00	97.24 µg/L	97.24



MPFHxA

Internal Standard

RT (Exp. RT):

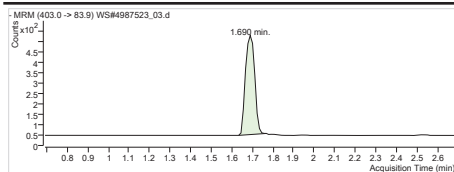
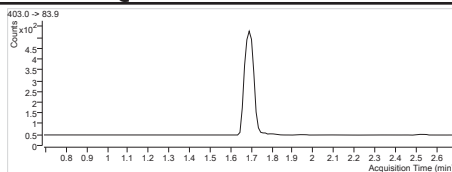
1.434 (1.434)

Concentration:

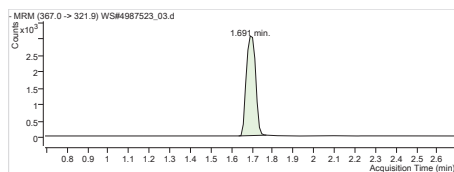
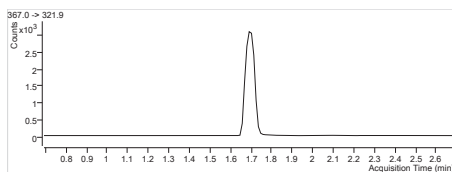
1 µg/L

Sample type:

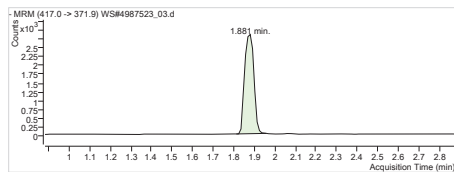
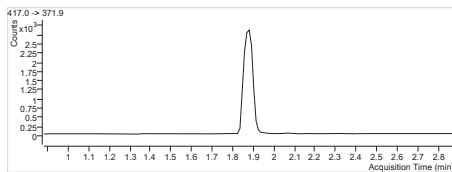
Calibration



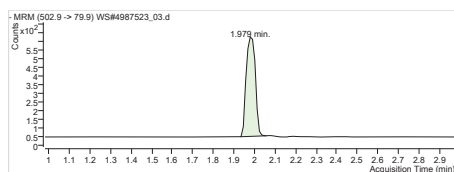
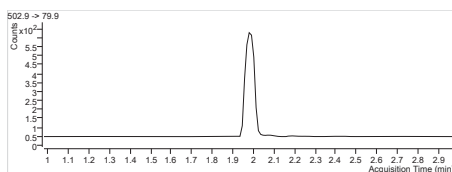
MPFHxS
 RT (Exp. RT): 1.690 (1.690)
 Concentration: 1 µg/L
 Sample type: Calibration



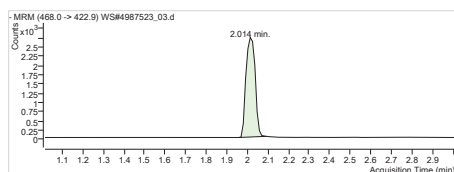
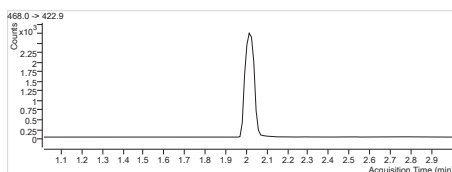
MPFHpA
 RT (Exp. RT): 1.691 (1.691)
 Concentration: 1 µg/L
 Sample type: Calibration



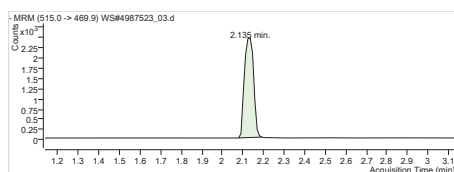
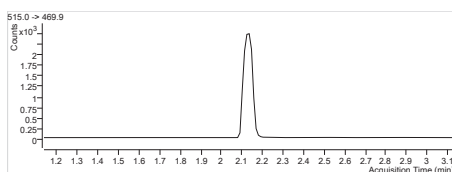
MPFOA
 RT (Exp. RT): 1.881 (1.881)
 Concentration: 1 µg/L
 Sample type: Calibration



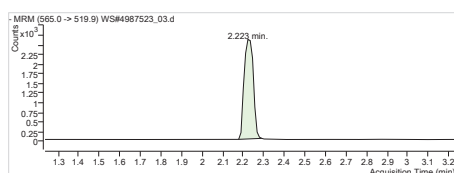
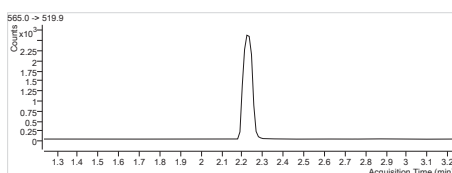
MPFOS
 RT (Exp. RT): 1.979 (1.979)
 Concentration: 1 µg/L
 Sample type: Calibration



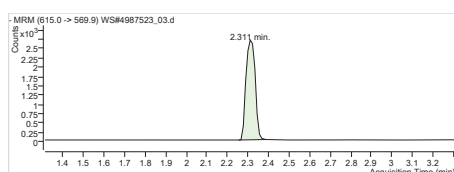
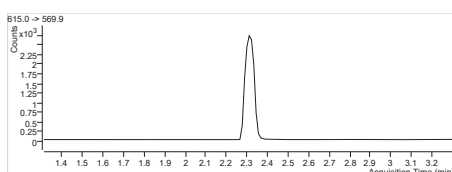
MPFNA
 RT (Exp. RT): 2.014 (2.014)
 Concentration: 1 µg/L
 Sample type: Calibration



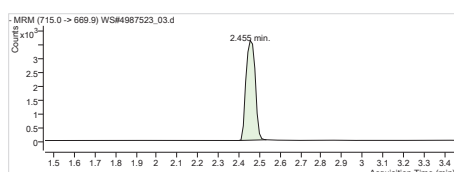
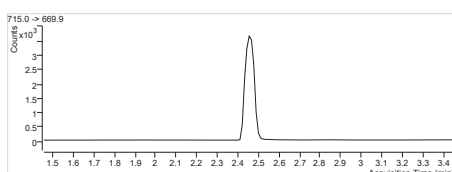
MPFDA
 RT (Exp. RT): 2.135 (2.135)
 Concentration: 1 µg/L
 Sample type: Calibration



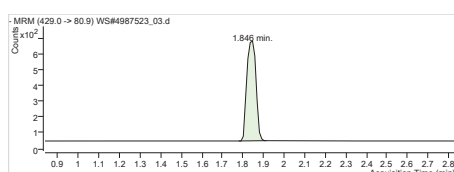
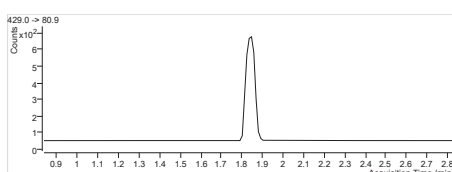
MPFUnA
 RT (Exp. RT): 2.223 (2.234)
 Concentration: 1 µg/L
 Sample type: Calibration



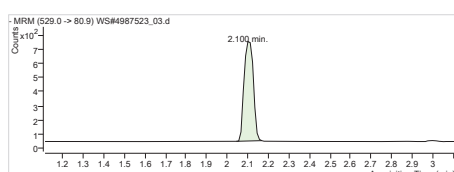
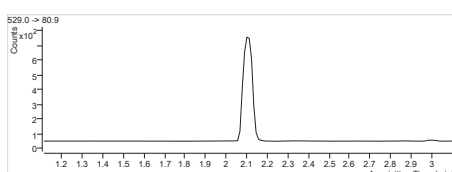
MPFDoA
 RT (Exp. RT): 2.311 (2.311)
 Concentration: 1 µg/L
 Sample type: Calibration



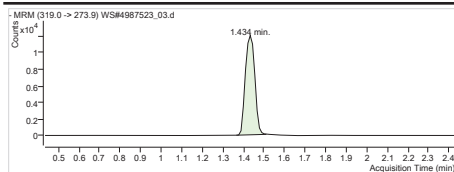
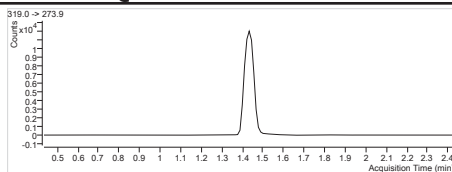
MPFTeDA
 RT (Exp. RT): 2.455 (2.455)
 Concentration: 1 µg/L
 Sample type: Calibration



M2 6:2 FTS
 RT (Exp. RT): 1.846 (1.835)
 Concentration: 1 µg/L
 Sample type: Calibration



M2 8:2 FTS
 RT (Exp. RT): 2.100 (2.112)
 Concentration: 1 µg/L
 Sample type: Calibration

**13C6-PFHxA IS**

RT (Exp. RT):

Concentration:

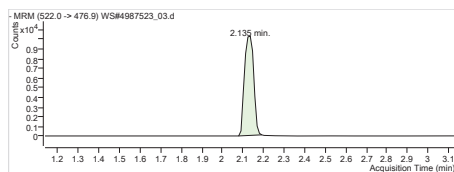
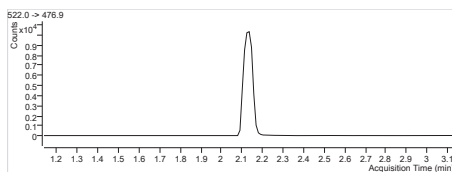
Sample type:

Internal Standard

1.434 (1.434)

1 µg/L

Calibration

**13C9-PFDA IS**

RT (Exp. RT):

Concentration:

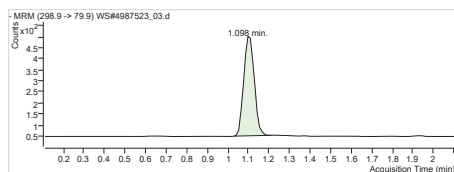
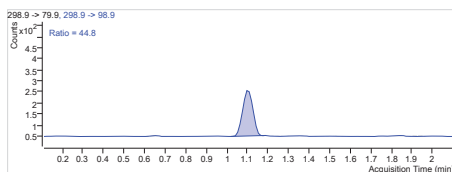
Sample type:

Internal Standard

2.135 (2.135)

1 µg/L

Calibration

**PFBS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

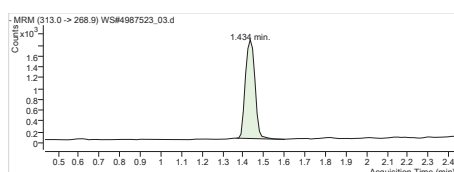
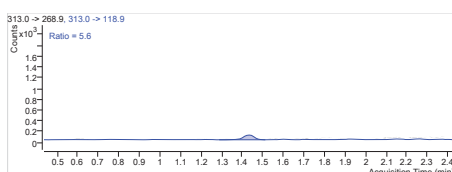
298.9 -> 79.9

1.098 (1.109)

1.70 µg/L

1.07600

Calibration

**PFHxA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

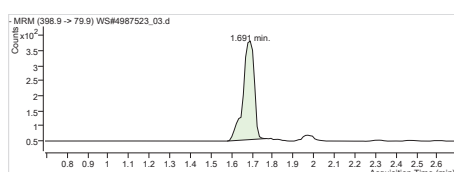
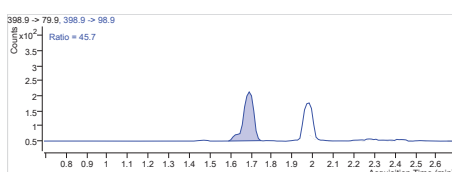
313.0 -> 268.9

1.434 (1.434)

1.54 µg/L

0.68192

Calibration

**PFHxS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

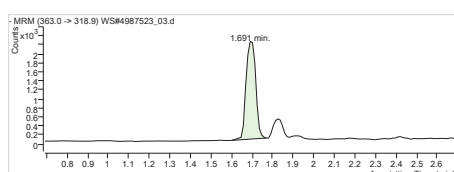
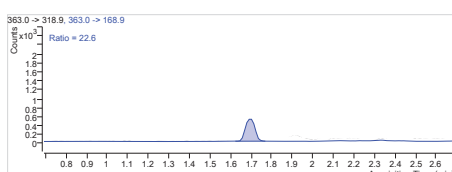
398.9 -> 79.9

1.691 (1.691)

1.65 µg/L

0.83933

Calibration

**PFHpA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

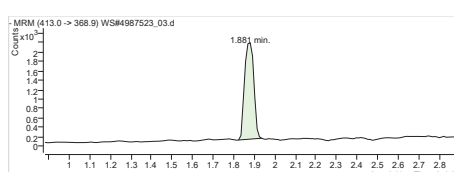
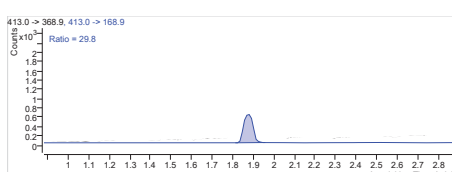
363.0 -> 318.9

1.691 (1.691)

1.56 µg/L

0.74447

Calibration

**PFOA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

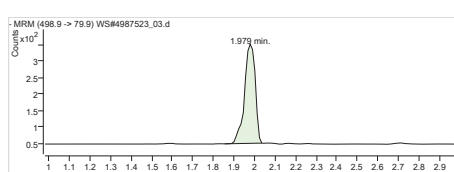
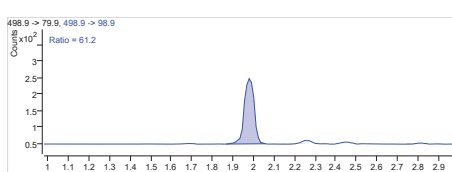
413.0 -> 368.9

1.881 (1.881)

1.53 µg/L

0.73117

Calibration

**PFOS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

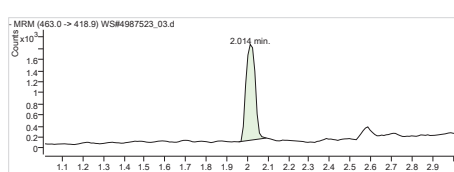
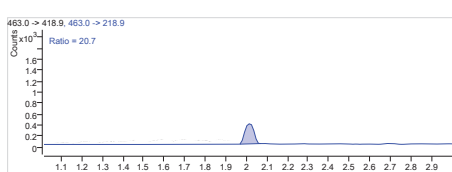
498.9 -> 79.9

1.979 (1.979)

1.60 µg/L

0.61414

Calibration

**PFNA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

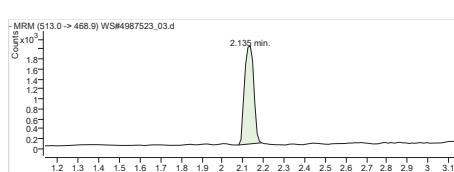
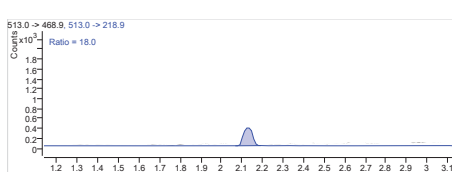
463.0 -> 418.9

2.014 (2.014)

1.59 µg/L

0.64517

Calibration

**PFDA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

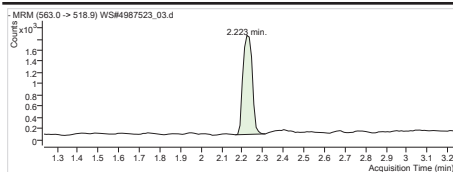
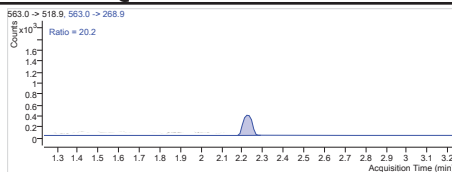
513.0 -> 468.9

2.135 (2.135)

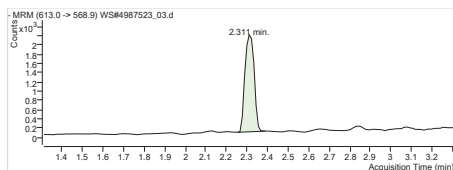
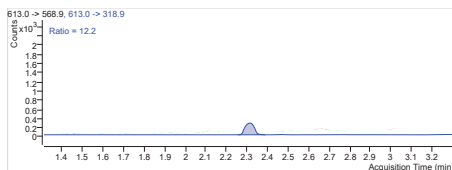
1.64 µg/L

0.81931

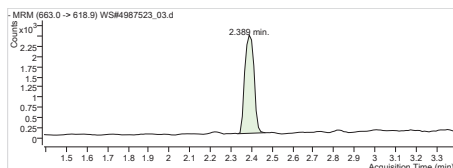
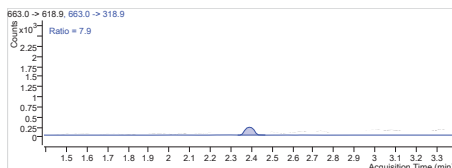
Calibration



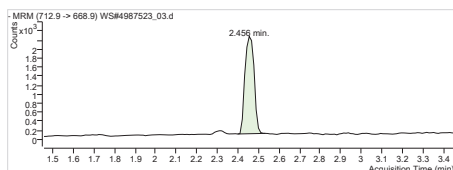
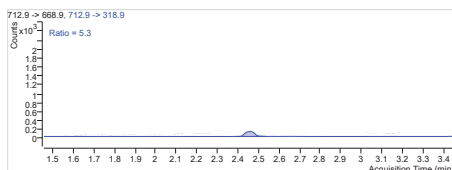
PFUnA 1
RT (Exp. RT): 2.223 (2.234)
Calc. conc. 1.54 µg/L
Area ratio: 0.69831
Sample type: Calibration



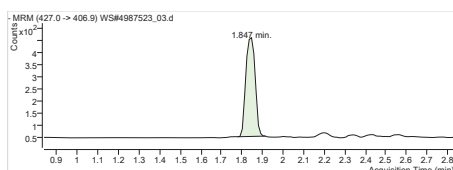
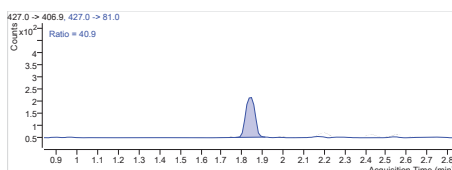
PFDaA 1
RT (Exp. RT): 2.311 (2.311)
Calc. conc. 1.80 µg/L
Area ratio: 0.78325
Sample type: Calibration



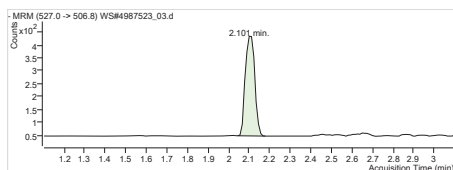
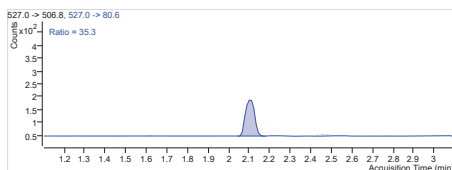
PFTraD 1
RT (Exp. RT): 2.389 (2.389)
Calc. conc. 1.62 µg/L
Area ratio: 0.67153
Sample type: Calibration



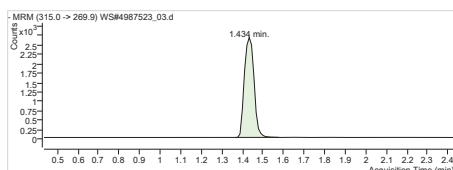
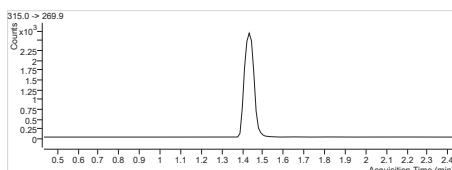
PFTeDa 1
RT (Exp. RT): 2.456 (2.456)
Calc. conc. 1.50 µg/L
Area ratio: 0.59420
Sample type: Calibration



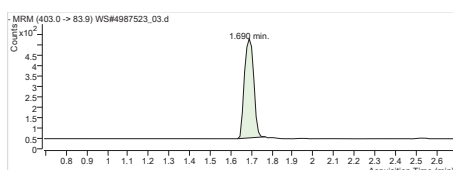
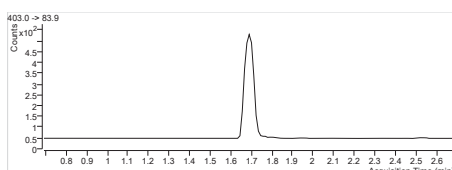
6:2-FTS 1
RT (Exp. RT): 1.847 (1.835)
Calc. conc. 1.46 µg/L
Area ratio: 0.65449
Sample type: Calibration



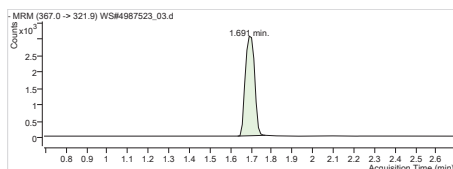
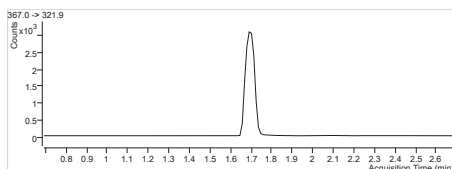
8:2-FTS 1
RT (Exp. RT): 2.101 (2.101)
Calc. conc. 1.45 µg/L
Area ratio: 0.56092
Sample type: Calibration



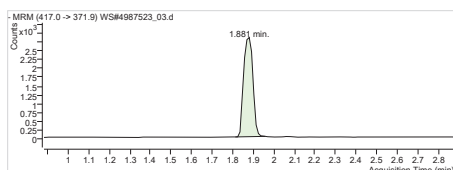
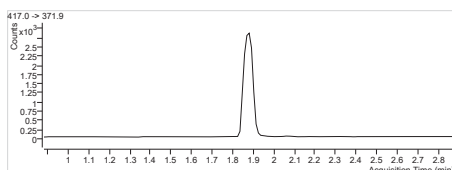
13C2-PFHxA
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 101.77 µg/L
Area ratio: 0.22635
Sample type: Calibration



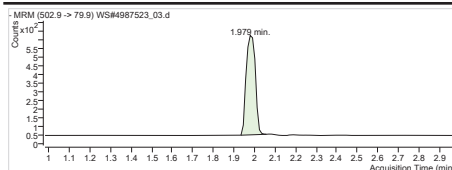
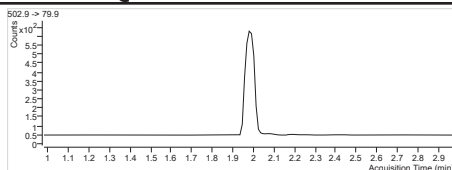
18O2-PFHxS
RT (Exp. RT): 1.690 (1.690)
Calc. conc. 100.14 µg/L
Area ratio: 0.03914
Sample type: Calibration



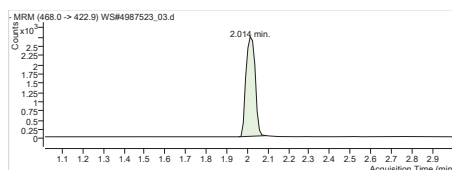
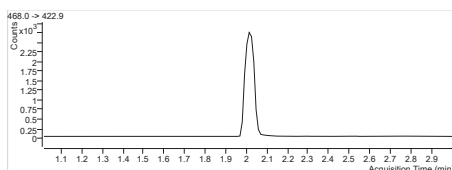
13C4-PFHpA
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 107.49 µg/L
Area ratio: 0.25020
Sample type: Calibration



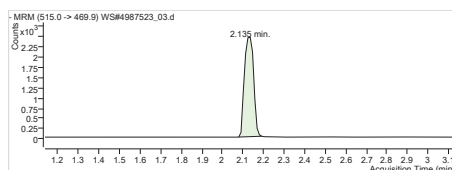
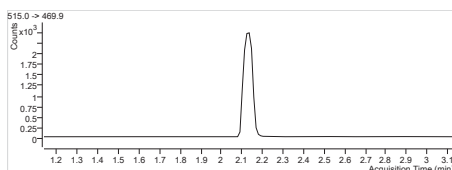
13C4-PFOA
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 101.26 µg/L
Area ratio: 0.23112
Sample type: Calibration



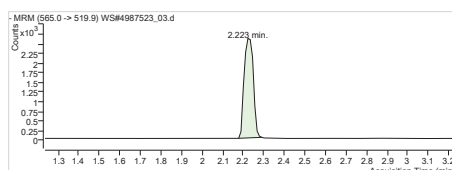
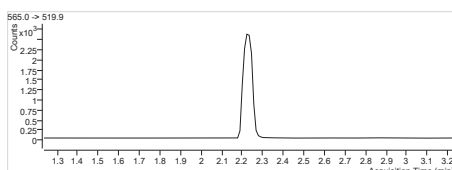
13C4-PFOS
 RT (Exp. RT): 502.9 -> 79.9
 Calc. conc. 1.979 (1.979)
 Area ratio: 97.92 µg/L
 Sample type: 0.04687 Calibration



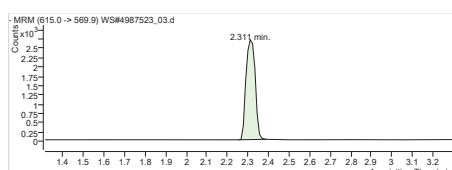
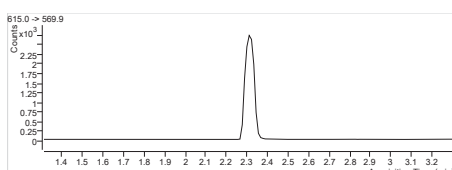
13C5-PFNA
 RT (Exp. RT): 468.0 -> 422.9
 Calc. conc. 2.014 (2.014)
 Area ratio: 98.95 µg/L
 Sample type: 0.22011 Calibration



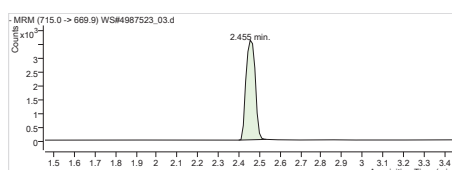
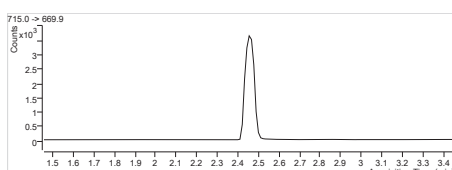
13C2-PFDA
 RT (Exp. RT): 515.0 -> 469.9
 Calc. conc. 2.135 (2.135)
 Area ratio: 104.40 µg/L
 Sample type: 0.23669 Calibration



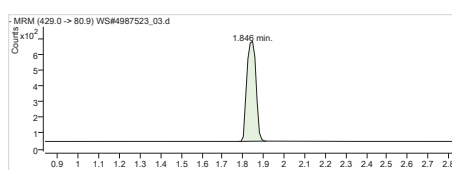
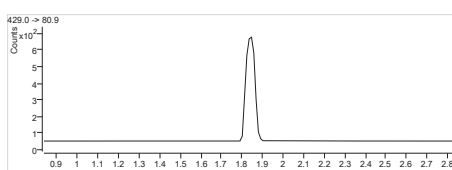
13C2-PFUnA
 RT (Exp. RT): 565.0 -> 519.9
 Calc. conc. 2.223 (2.234)
 Area ratio: 102.42 µg/L
 Sample type: 0.25087 Calibration



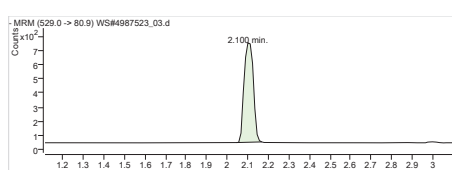
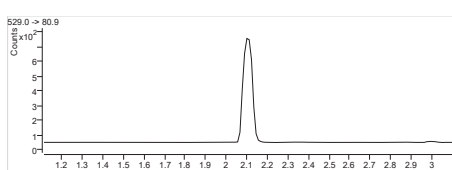
13C2-PFDoA
 RT (Exp. RT): 615.0 -> 569.9
 Calc. conc. 2.311 (2.311)
 Area ratio: 94.56 µg/L
 Sample type: 0.26060 Calibration



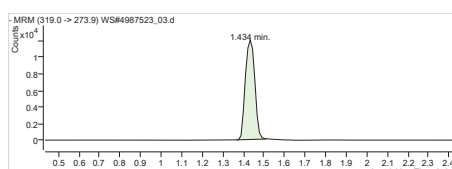
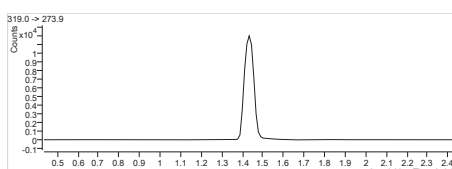
13C2-PFTeDA
 RT (Exp. RT): 715.0 -> 669.9
 Calc. conc. 2.455 (2.455)
 Area ratio: 101.11 µg/L
 Sample type: 0.35228 Calibration



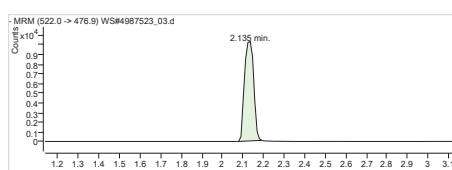
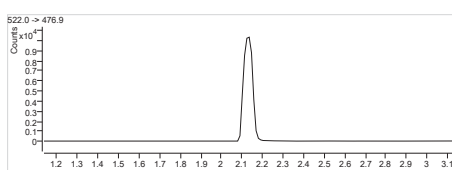
13C2-6:2-FTS
 RT (Exp. RT): 429.0 -> 80.9
 Calc. conc. 1.846 (1.835)
 Area ratio: 92.88 µg/L
 Sample type: 0.05143 Calibration



13C2-8:2 FTS
 RT (Exp. RT): 529.0 -> 80.9
 Calc. conc. 2.100 (2.112)
 Area ratio: 96.87 µg/L
 Sample type: 0.05783 Calibration



13C6-PFHxA
 RT (Exp. RT): 319.0 -> 273.9
 Calc. conc. 1.434 (1.434)
 Area ratio: 98.10 µg/L
 Sample type: 0 Calibration



13C9-PFDA
 RT (Exp. RT): 522.0 -> 476.9
 Calc. conc. 2.135 (2.135)
 Area ratio: 97.24 µg/L
 Sample type: 0 Calibration

Batch Path

T:\lcms4\PFC\20170523\WS#4987523\QuantResults\PFC_Water_Low_170523_WS#4987523_CT

Sample Name

STD 3

Instrument

LCMS04

Data File

WS#4987523_04.d

Operator

AD

Sample Type

Cal

Dilution

1

Acq. Method

PFC_Water_Low.m

Position

P1-A4

Acq. Date

2017/05/23 9:28:20 AM

Injection Volume

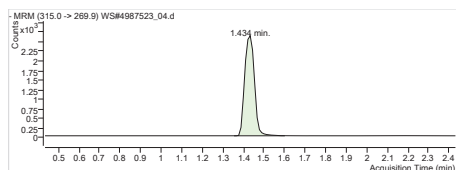
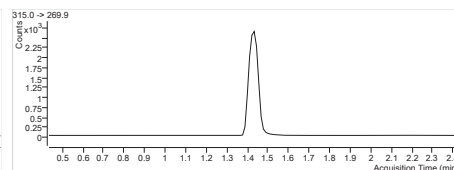
Per Method

Sample Annotation

-

ISTD Compounds	Response	RT	Target conc.		
MPFHxA	8604	1.43	1 µg/L		
MPFHxS	1484	1.69	1 µg/L		
MPFHpA	8962	1.69	1 µg/L		
MPFOA	8744	1.87	1 µg/L		
MPFOS	1715	1.98	1 µg/L		
MPFNA	8393	2.01	1 µg/L		
MPFDA	7246	2.14	1 µg/L		
MPFUnA	8068	2.23	1 µg/L		
MPFDoA	9016	2.31	1 µg/L		
MPFTeDA	11127	2.46	1 µg/L		
M2 6:2 FTS	2409	1.84	1 µg/L		
M2 8:2 FTS	2285	2.11	1 µg/L		
13C6-PFHxA IS	38750	1.43	1 µg/L		
13C9-PFDA IS	32874	2.13	1 µg/L		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	4624	1.10	5.00	4.99 µg/L	99.75
PFHxA 1	18400	1.43	5.00	4.85 µg/L	97.06
PFHxS 1	3747	1.69	5.00	5.08 µg/L	101.50
PFHpA 1	20958	1.69	5.00	5.05 µg/L	100.91
PFOA 1	20026	1.87	5.00	5.14 µg/L	102.86
PFOS 1	3524	1.98	5.00	5.34 µg/L	106.72
PFNA 1	16763	2.01	5.00	4.99 µg/L	99.74
PFDA 1	17688	2.14	5.00	4.92 µg/L	98.33
PFUnA 1	17441	2.23	5.00	4.91 µg/L	98.14
PFDaA 1	19083	2.31	5.00	5.06 µg/L	101.17
PFTTrDA 1	21895	2.39	5.00	4.87 µg/L	97.33
PFTeDA 1	20977	2.46	5.00	4.94 µg/L	98.74
6:2-FTS 1	4519	1.84	5.00	4.57 µg/L	91.31
8:2-FTS 1	4384	2.10	5.00	5.18 µg/L	103.70
13C2-PFHxA	8604	1.43	100.00	99.83 µg/L	99.83
18O2-PFHxS	1484	1.69	100.00	97.98 µg/L	97.98
13C4-PFHpA	8962	1.69	100.00	99.36 µg/L	99.36
13C4-PFOA	8744	1.87	100.00	98.86 µg/L	98.86
13C4-PFOS	1715	1.98	100.00	92.47 µg/L	92.47
13C5-PFNA	8393	2.01	100.00	97.37 µg/L	97.37
13C2-PFDA	7246	2.14	100.00	97.22 µg/L	97.22
13C2-PFUnA	8068	2.23	100.00	100.20 µg/L	100.20
13C2-PFDoA	9016	2.31	100.00	99.51 µg/L	99.51
13C2-PFTeDA	11127	2.46	100.00	97.15 µg/L	97.15
13C2-6:2-FTS	2409	1.84	100.00	112.27 µg/L	112.27
13C2-8:2 FTS	2285	2.11	100.00	98.78 µg/L	98.78
13C6-PFHxA	38750	1.43	100.00	99.20 µg/L	99.20
13C9-PFDA	32874	2.13	100.00	99.64 µg/L	99.64



MPFHxA

Internal Standard

RT (Exp. RT):

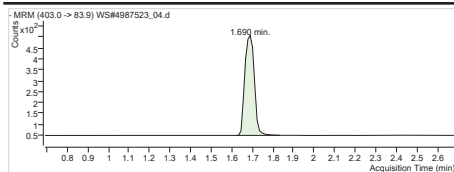
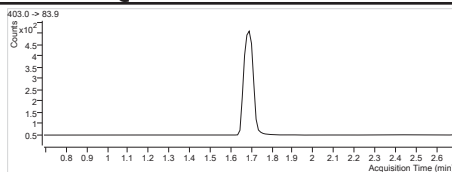
1.434 (1.434)

Concentration:

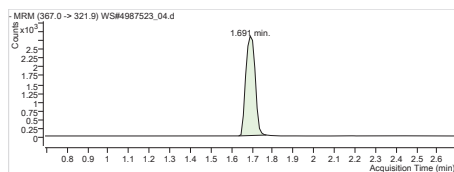
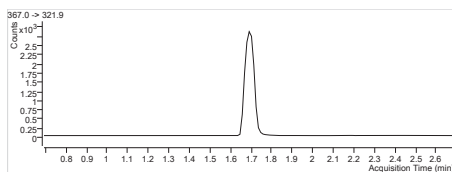
1 µg/L

Sample type:

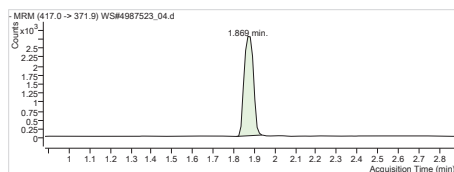
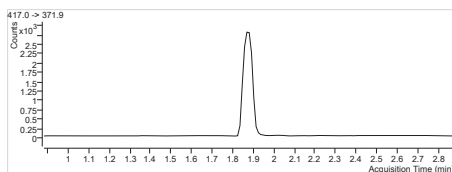
Calibration



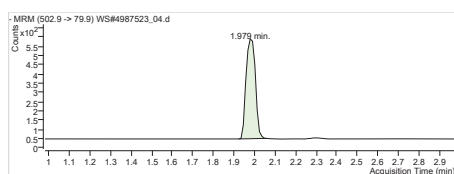
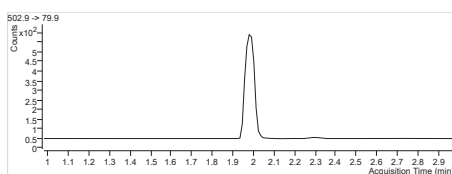
MPFHxS
 RT (Exp. RT): 1.690 (1.690)
 Concentration: 1 µg/L
 Sample type: Calibration



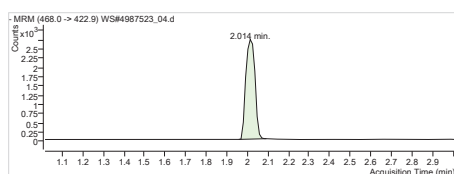
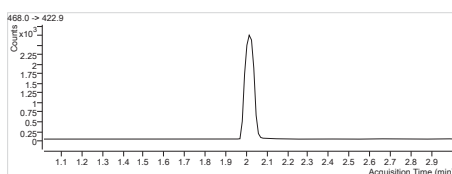
MPFHpA
 RT (Exp. RT): 1.691 (1.691)
 Concentration: 1 µg/L
 Sample type: Calibration



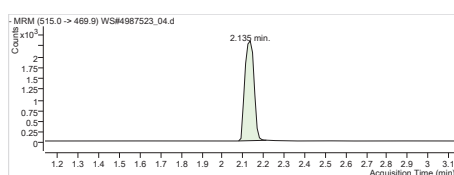
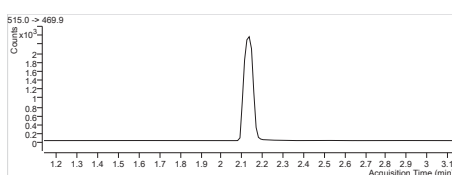
MPFOA
 RT (Exp. RT): 1.869 (1.881)
 Concentration: 1 µg/L
 Sample type: Calibration



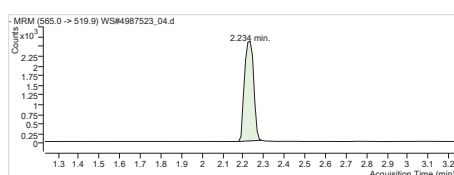
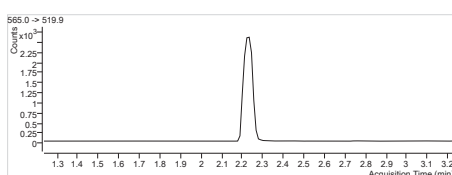
MPFOS
 RT (Exp. RT): 1.979 (1.979)
 Concentration: 1 µg/L
 Sample type: Calibration



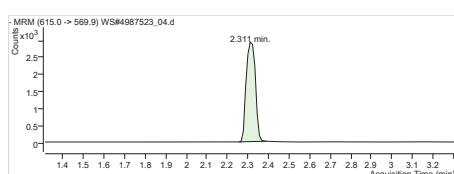
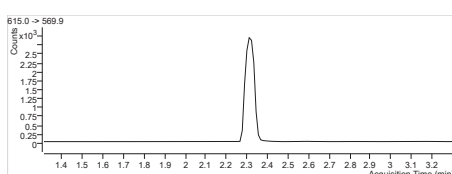
MPFNA
 RT (Exp. RT): 2.014 (2.014)
 Concentration: 1 µg/L
 Sample type: Calibration



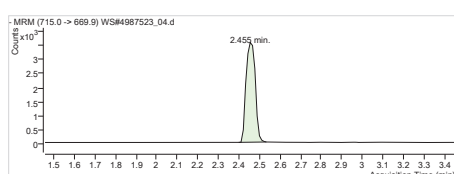
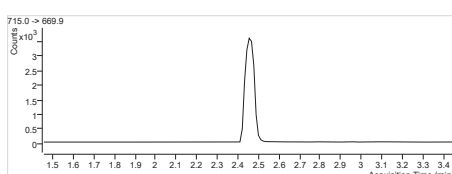
MPFDA
 RT (Exp. RT): 2.135 (2.135)
 Concentration: 1 µg/L
 Sample type: Calibration



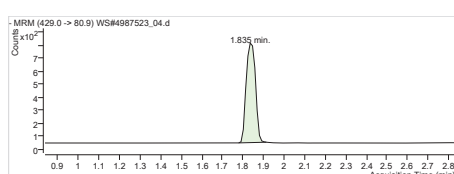
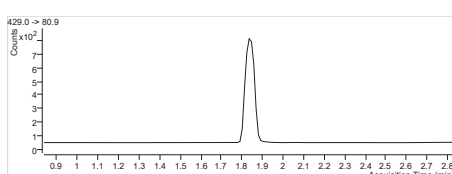
MPFUnA
 RT (Exp. RT): 2.234 (2.234)
 Concentration: 1 µg/L
 Sample type: Calibration



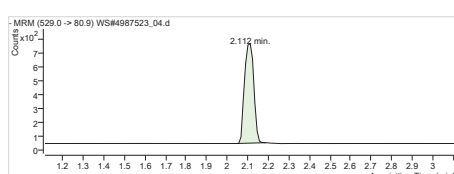
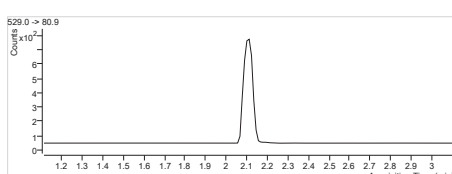
MPFDoA
 RT (Exp. RT): 2.311 (2.311)
 Concentration: 1 µg/L
 Sample type: Calibration



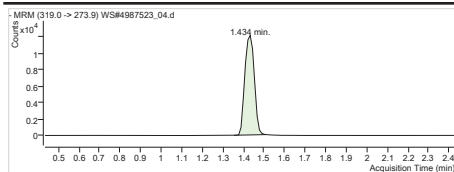
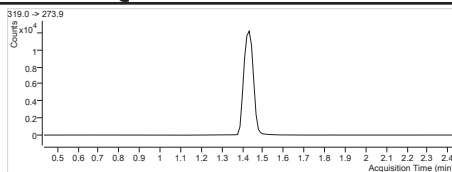
MPFTeDA
 RT (Exp. RT): 2.455 (2.455)
 Concentration: 1 µg/L
 Sample type: Calibration



M2 6:2 FTS
 RT (Exp. RT): 1.835 (1.835)
 Concentration: 1 µg/L
 Sample type: Calibration



M2 8:2 FTS
 RT (Exp. RT): 2.112 (2.112)
 Concentration: 1 µg/L
 Sample type: Calibration

**13C6-PFHxA IS**

RT (Exp. RT):

Concentration:

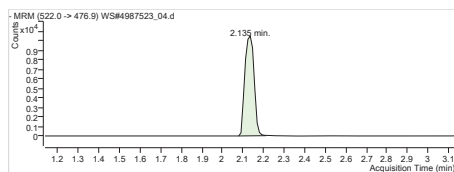
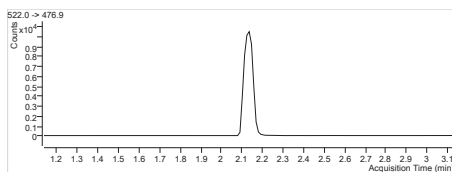
Sample type:

Internal Standard

1.434 (1.434)

1 µg/L

Calibration

**13C9-PFDA IS**

RT (Exp. RT):

Concentration:

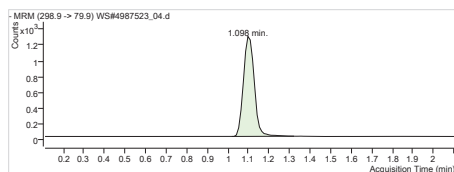
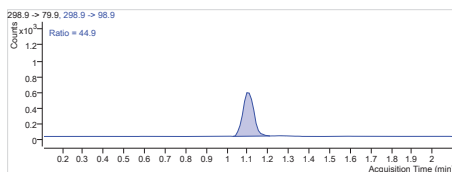
Sample type:

Internal Standard

2.135 (2.135)

1 µg/L

Calibration

**PFBS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

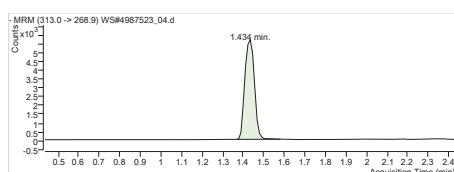
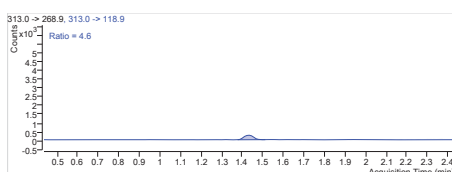
298.9 -> 79.9

1.098 (1.109)

4.99 µg/L

3.11590

Calibration

**PFHxA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

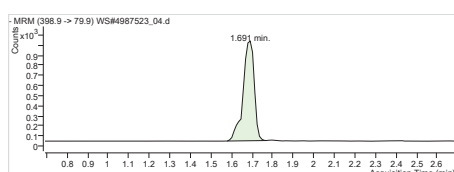
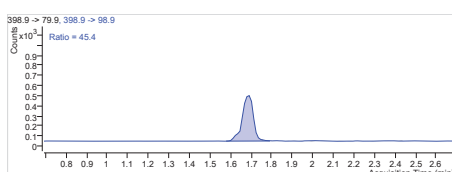
313.0 -> 268.9

1.434 (1.434)

4.85 µg/L

2.13854

Calibration

**PFHxS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

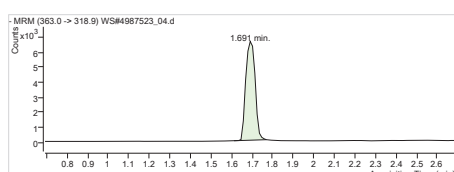
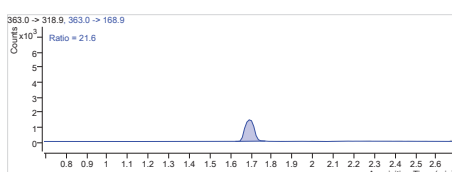
398.9 -> 79.9

1.691 (1.691)

5.08 µg/L

2.52493

Calibration

**PFHpA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

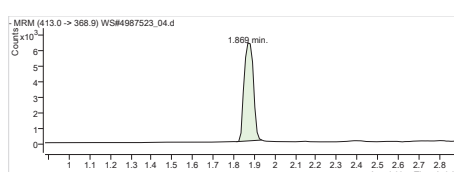
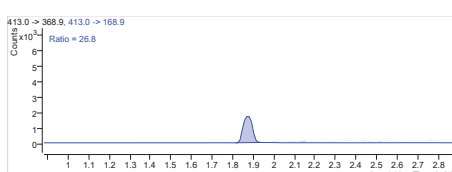
363.0 -> 318.9

1.691 (1.691)

5.05 µg/L

2.33854

Calibration

**PFOA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

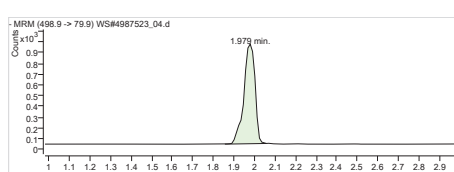
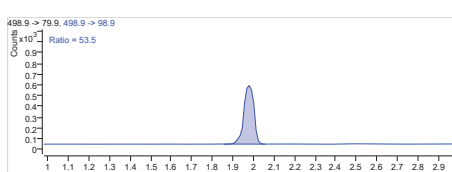
413.0 -> 368.9

1.869 (1.881)

5.14 µg/L

2.29026

Calibration

**PFOS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

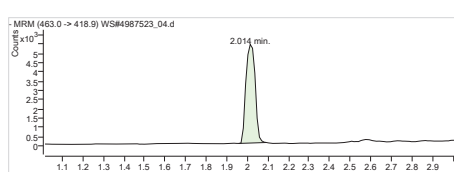
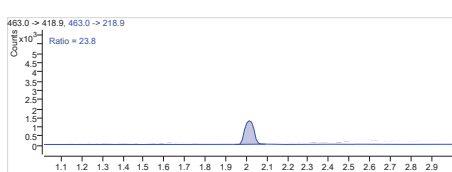
498.9 -> 79.9

1.979 (1.979)

5.34 µg/L

2.05481

Calibration

**PFNA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

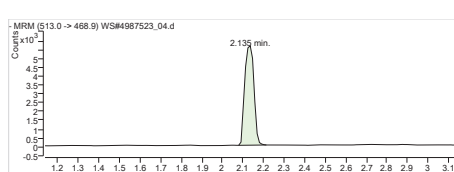
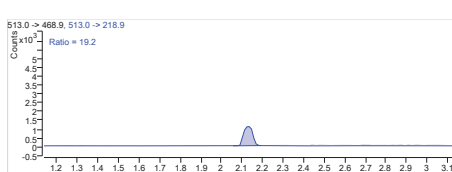
463.0 -> 418.9

2.014 (2.014)

4.99 µg/L

1.99726

Calibration

**PFDA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

513.0 -> 468.9

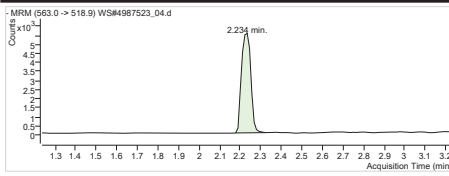
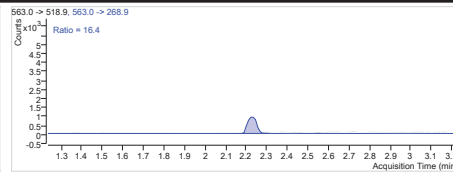
2.135 (2.135)

4.92 µg/L

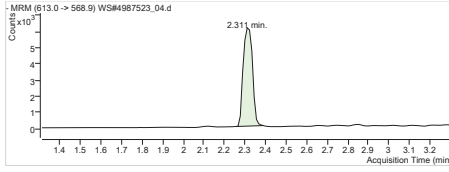
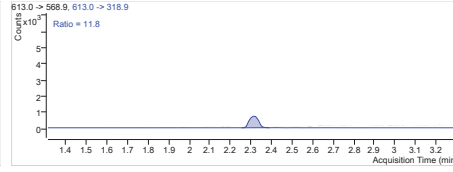
2.44107

Calibration

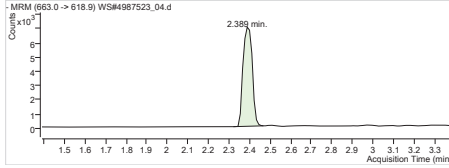
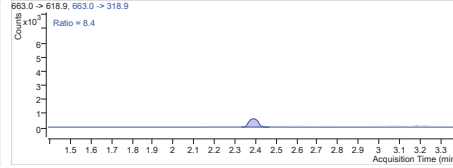
Quantitation Results



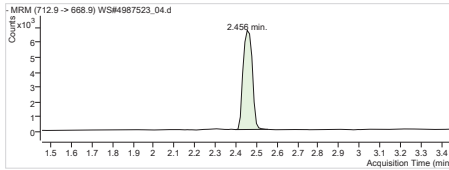
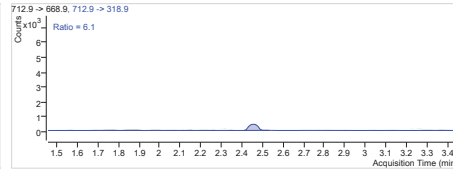
PFUnA 1
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 4.91 µg/L
Area ratio: 2.16175
Sample type: Calibration



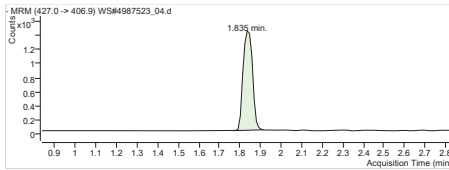
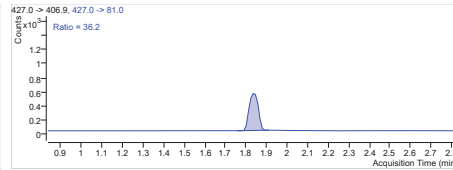
PFDaA 1
RT (Exp. RT): 2.311 (2.311)
Calc. conc. 5.06 µg/L
Area ratio: 2.11657
Sample type: Calibration



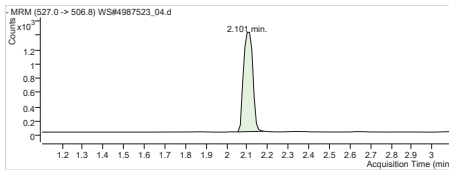
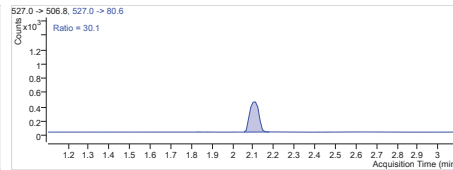
PFTrDA 1
RT (Exp. RT): 2.389 (2.389)
Calc. conc. 4.87 µg/L
Area ratio: 1.96774
Sample type: Calibration



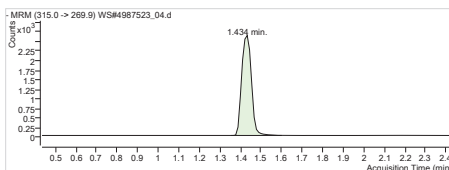
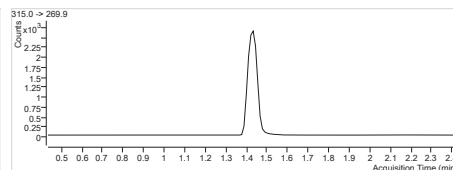
PFTeDA 1
RT (Exp. RT): 2.456 (2.456)
Calc. conc. 4.94 µg/L
Area ratio: 1.88523
Sample type: Calibration



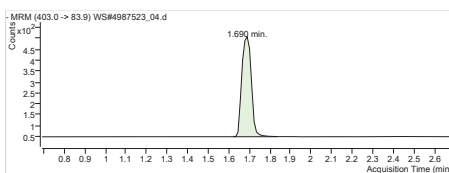
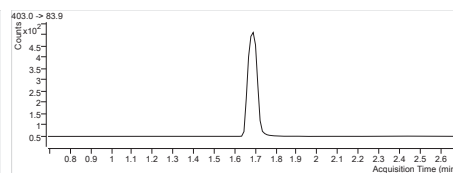
6:2-FTS 1
RT (Exp. RT): 1.835 (1.835)
Calc. conc. 4.57 µg/L
Area ratio: 1.87588
Sample type: Calibration



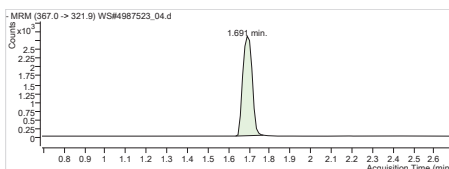
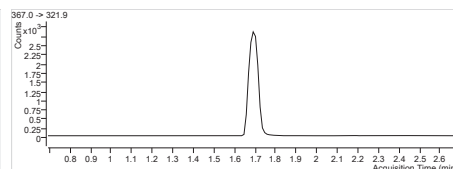
8:2-FTS 1
RT (Exp. RT): 2.101 (2.101)
Calc. conc. 5.18 µg/L
Area ratio: 1.91860
Sample type: Calibration



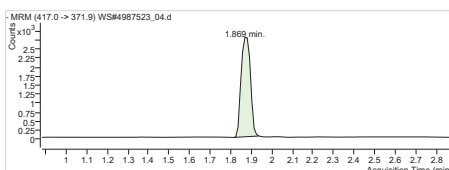
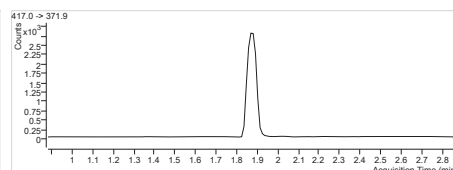
13C2-PFHxA
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 99.83 µg/L
Area ratio: 0.22204
Sample type: Calibration



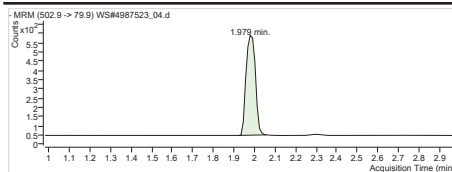
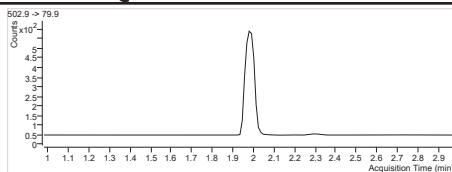
18O2-PFHxS
RT (Exp. RT): 1.690 (1.690)
Calc. conc. 97.98 µg/L
Area ratio: 0.03830
Sample type: Calibration



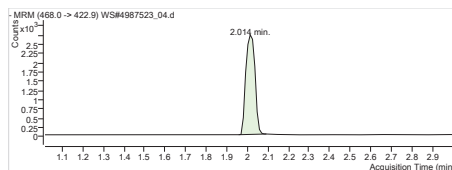
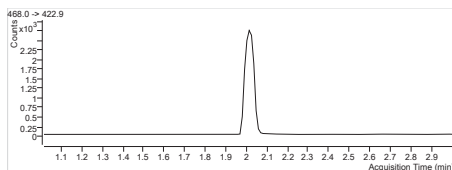
13C4-PFHpA
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 99.36 µg/L
Area ratio: 0.23128
Sample type: Calibration



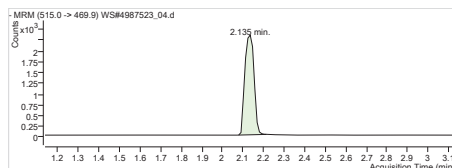
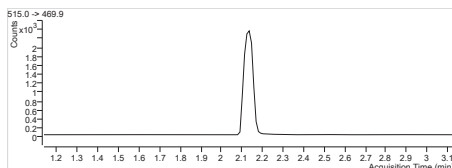
13C4-PFOA
RT (Exp. RT): 1.869 (1.881)
Calc. conc. 98.86 µg/L
Area ratio: 0.22565
Sample type: Calibration



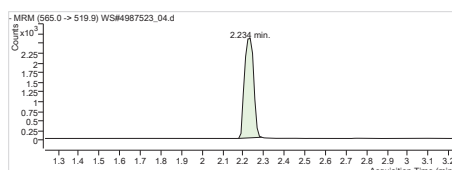
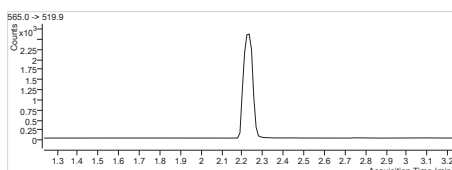
13C4-PFOS
RT (Exp. RT): 502.9 -> 79.9
Calc. conc. 1.979 (1.979)
Area ratio: 92.47 µg/L
Sample type: 0.04426 Calibration



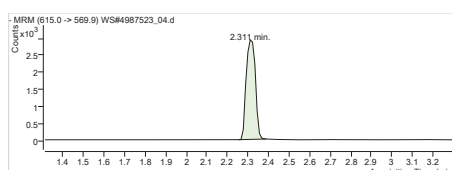
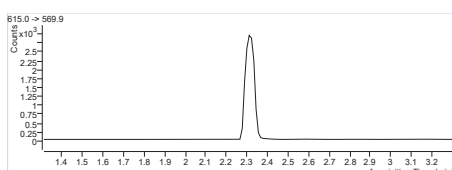
13C5-PFNA
RT (Exp. RT): 468.0 -> 422.9
Calc. conc. 2.014 (2.014)
Area ratio: 97.37 µg/L
Sample type: 0.21659 Calibration



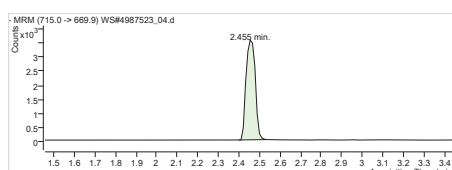
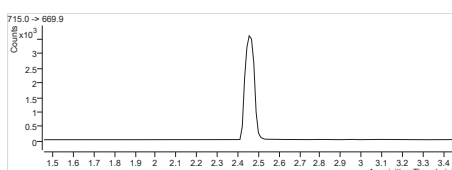
13C2-PFDA
RT (Exp. RT): 515.0 -> 469.9
Calc. conc. 2.135 (2.135)
Area ratio: 97.22 µg/L
Sample type: 0.22042 Calibration



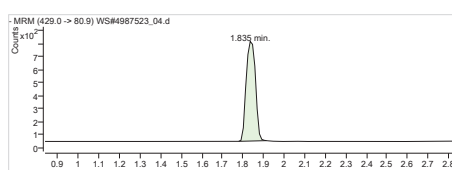
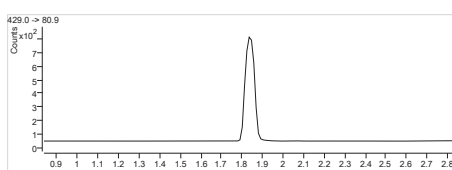
13C2-PFUnA
RT (Exp. RT): 565.0 -> 519.9
Calc. conc. 2.234 (2.234)
Area ratio: 100.20 µg/L
Sample type: 0.24542 Calibration



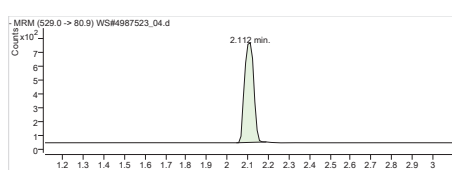
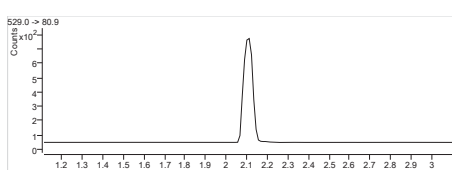
13C2-PFDoA
RT (Exp. RT): 615.0 -> 569.9
Calc. conc. 2.311 (2.311)
Area ratio: 99.51 µg/L
Sample type: 0.27426 Calibration



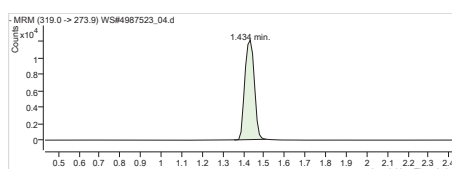
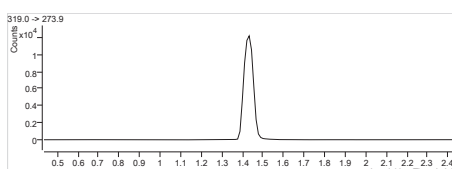
13C2-PFTeDA
RT (Exp. RT): 715.0 -> 669.9
Calc. conc. 2.455 (2.455)
Area ratio: 97.15 µg/L
Sample type: 0.33847 Calibration



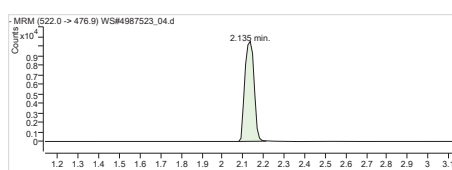
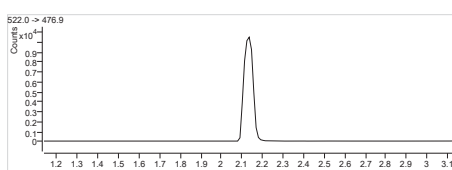
13C2-6:2-FTS
RT (Exp. RT): 429.0 -> 80.9
Calc. conc. 1.835 (1.835)
Area ratio: 112.27 µg/L
Sample type: 0.06217 Calibration



13C2-8:2 FTS
RT (Exp. RT): 529.0 -> 80.9
Calc. conc. 2.112 (2.112)
Area ratio: 98.78 µg/L
Sample type: 0.05897 Calibration



13C6-PFHxA
RT (Exp. RT): 319.0 -> 273.9
Calc. conc. 1.434 (1.434)
Area ratio: 99.20 µg/L
Sample type: 0 Calibration



13C9-PFDA
RT (Exp. RT): 522.0 -> 476.9
Calc. conc. 2.135 (2.135)
Area ratio: 99.64 µg/L
Sample type: 0 Calibration

Batch Path

T:\lcms4\PFC\20170523\WS#4987523\QuantResults\PFC_Water_Low_170523_WS#4987523_CT

Sample Name

STD 4

Instrument

LCMS04

Data File

WS#4987523_05.d

Operator

AD

Sample Type

Cal

Dilution

1

Acq. Method

PFC_Water_Low.m

Position

P1-A5

Acq. Date

2017/05/23 9:33:14 AM

Injection Volume

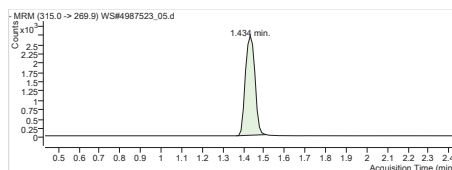
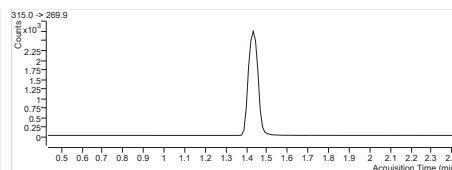
Per Method

Sample Annotation

-

ISTD Compounds	Response	RT	Target conc.		
MPFHxA	8647	1.43	1 µg/L		
MPFHxS	1545	1.69	1 µg/L		
MPFHpA	9458	1.69	1 µg/L		
MPFOA	8696	1.88	1 µg/L		
MPFOS	1872	1.98	1 µg/L		
MPFNA	9211	2.01	1 µg/L		
MPFDA	7071	2.14	1 µg/L		
MPFUnA	8125	2.23	1 µg/L		
MPFDoA	9375	2.31	1 µg/L		
MPFTeDA	12058	2.46	1 µg/L		
M2 6:2 FTS	2251	1.84	1 µg/L		
M2 8:2 FTS	2404	2.11	1 µg/L		
13C6-PFHxA IS	41209	1.43	1 µg/L		
13C9-PFDA IS	34758	2.13	1 µg/L		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	12268	1.11	12.50	12.76 µg/L	102.10
PFHxA 1	49726	1.43	12.50	13.08 µg/L	104.62
PFHxS 1	9906	1.69	12.50	12.97 µg/L	103.80
PFHpA 1	55029	1.69	12.50	12.66 µg/L	101.31
PFOA 1	52439	1.88	12.50	13.80 µg/L	110.43
PFOS 1	9419	1.98	12.50	13.06 µg/L	104.51
PFNA 1	44978	2.01	12.50	12.23 µg/L	97.82
PFDA 1	47718	2.14	12.50	13.63 µg/L	109.04
PFUnA 1	46100	2.23	12.50	13.00 µg/L	103.97
PFDaA 1	48148	2.31	12.50	12.44 µg/L	99.48
PFTTrDA 1	59182	2.39	12.50	12.23 µg/L	97.87
PFTeDA 1	56535	2.46	12.50	12.39 µg/L	99.16
6:2-FTS 1	11363	1.84	12.50	12.64 µg/L	101.13
8:2-FTS 1	11546	2.10	12.50	13.12 µg/L	104.99
13C2-PFHxA	8647	1.43	100.00	94.34 µg/L	94.34
18O2-PFHxS	1545	1.69	100.00	95.92 µg/L	95.92
13C4-PFHpA	9458	1.69	100.00	98.61 µg/L	98.61
13C4-PFOA	8696	1.88	100.00	92.45 µg/L	92.45
13C4-PFOS	1872	1.98	100.00	94.91 µg/L	94.91
13C5-PFNA	9211	2.01	100.00	100.48 µg/L	100.48
13C2-PFDA	7071	2.14	100.00	89.73 µg/L	89.73
13C2-PFUnA	8125	2.23	100.00	95.44 µg/L	95.44
13C2-PFDoA	9375	2.31	100.00	97.87 µg/L	97.87
13C2-PFTeDA	12058	2.46	100.00	99.57 µg/L	99.57
13C2-6:2-FTS	2251	1.84	100.00	98.65 µg/L	98.65
13C2-8:2 FTS	2404	2.11	100.00	97.73 µg/L	97.73
13C6-PFHxA	41209	1.43	100.00	105.49 µg/L	105.49
13C9-PFDA	34758	2.13	100.00	105.35 µg/L	105.35



MPFHxA

Internal Standard

RT (Exp. RT):

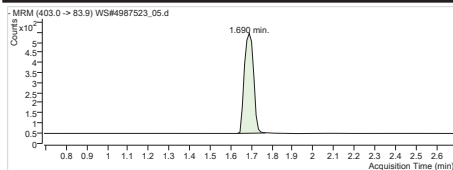
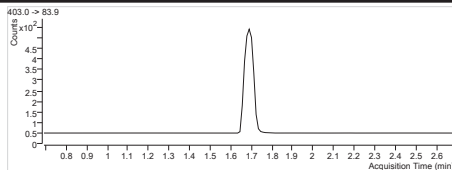
1.434 (1.434)

Concentration:

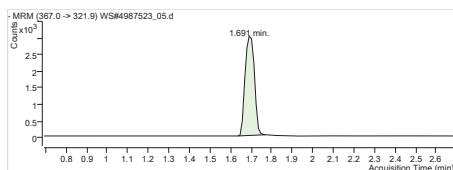
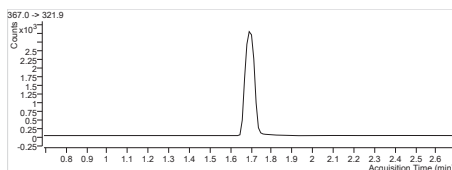
1 µg/L

Sample type:

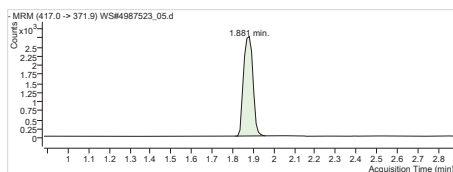
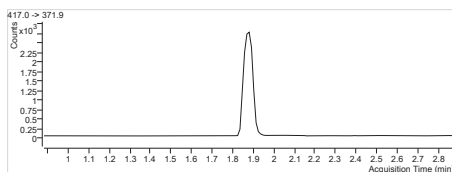
Calibration



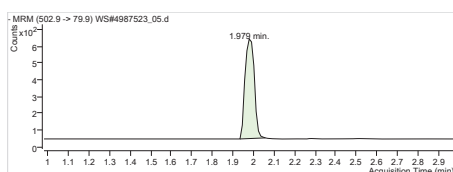
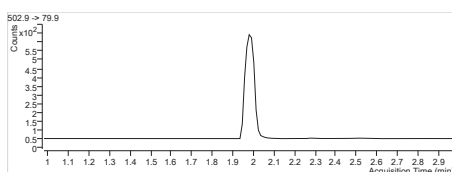
MPFHxS
 RT (Exp. RT): 1.690 (1.690)
 Concentration: 1 µg/L
 Sample type: Calibration



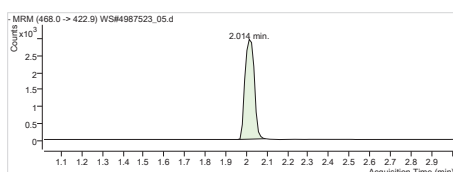
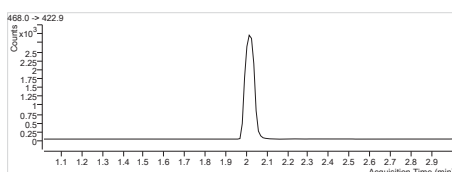
MPFHpA
 RT (Exp. RT): 1.691 (1.691)
 Concentration: 1 µg/L
 Sample type: Calibration



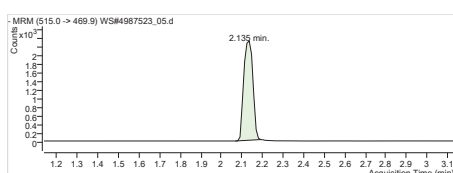
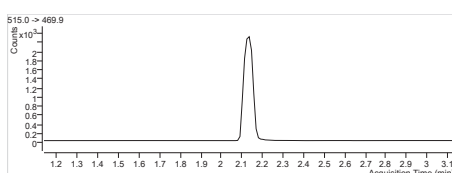
MPFOA
 RT (Exp. RT): 1.881 (1.881)
 Concentration: 1 µg/L
 Sample type: Calibration



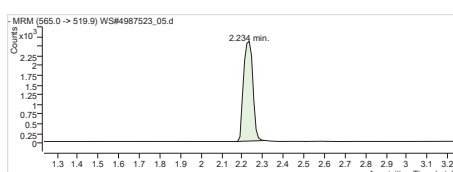
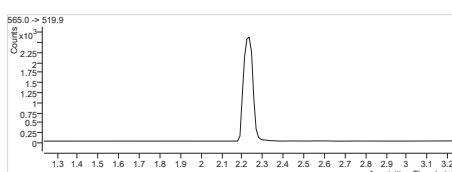
MPFOS
 RT (Exp. RT): 1.979 (1.979)
 Concentration: 1 µg/L
 Sample type: Calibration



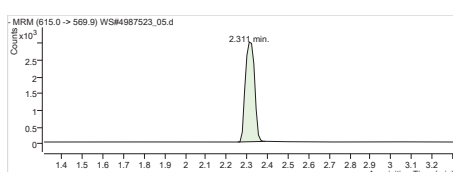
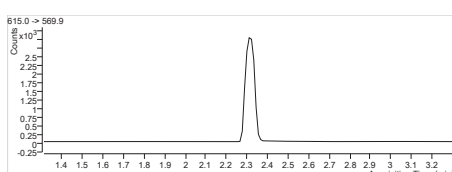
MPFNA
 RT (Exp. RT): 2.014 (2.014)
 Concentration: 1 µg/L
 Sample type: Calibration



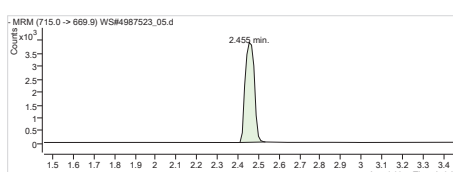
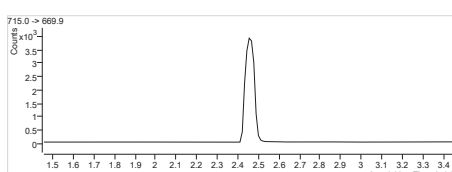
MPFDA
 RT (Exp. RT): 2.135 (2.135)
 Concentration: 1 µg/L
 Sample type: Calibration



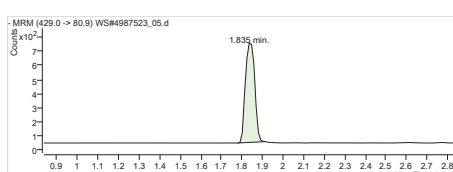
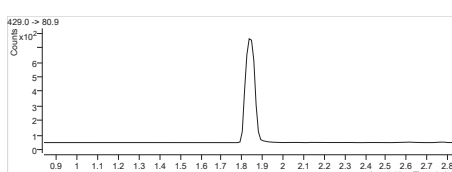
MPFUnA
 RT (Exp. RT): 2.234 (2.234)
 Concentration: 1 µg/L
 Sample type: Calibration



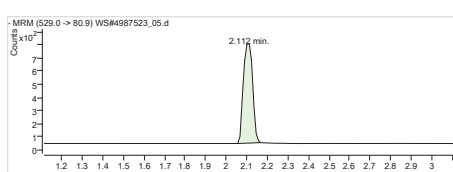
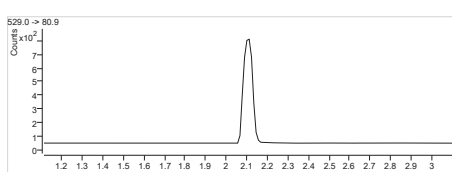
MPFDoA
 RT (Exp. RT): 2.311 (2.311)
 Concentration: 1 µg/L
 Sample type: Calibration



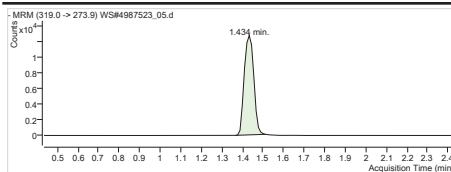
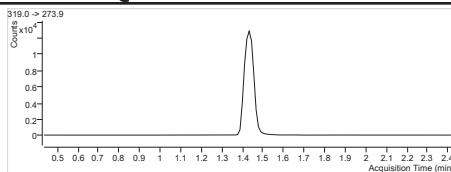
MPFTeDA
 RT (Exp. RT): 2.455 (2.455)
 Concentration: 1 µg/L
 Sample type: Calibration



M2 6:2 FTS
 RT (Exp. RT): 1.835 (1.835)
 Concentration: 1 µg/L
 Sample type: Calibration



M2 8:2 FTS
 RT (Exp. RT): 2.112 (2.112)
 Concentration: 1 µg/L
 Sample type: Calibration

**13C6-PFHxA IS**

RT (Exp. RT):

Concentration:

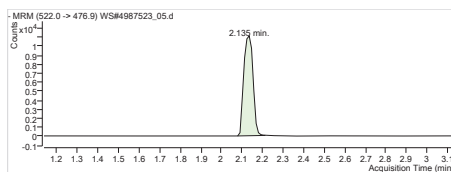
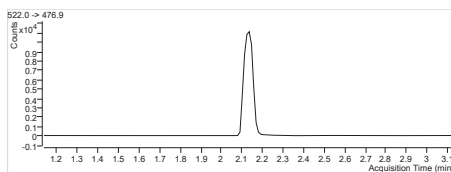
Sample type:

Internal Standard

1.434 (1.434)

1 µg/L

Calibration

**13C9-PFDA IS**

RT (Exp. RT):

Concentration:

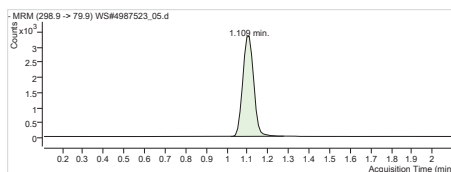
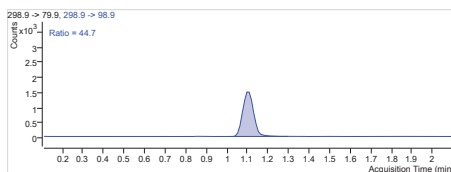
Sample type:

Internal Standard

2.135 (2.135)

1 µg/L

Calibration

**PFBS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

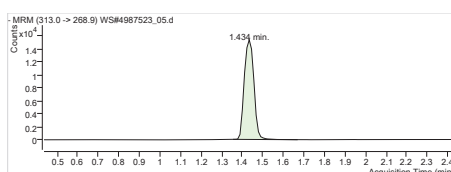
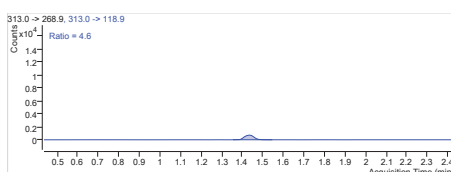
298.9 -> 79.9

1.109 (1.109)

12.76 µg/L

7.94045

Calibration

**PFHxA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

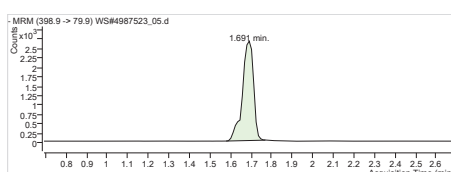
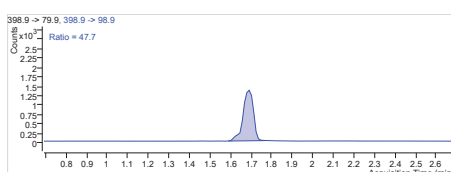
313.0 -> 268.9

1.434 (1.434)

13.08 µg/L

5.75066

Calibration

**PFHxS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

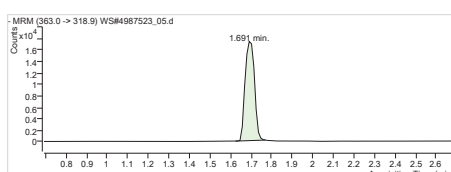
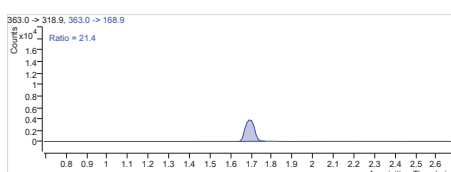
398.9 -> 79.9

1.691 (1.691)

12.97 µg/L

6.41165

Calibration

**PFHpA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

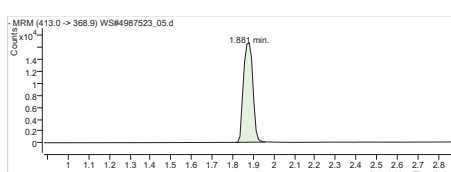
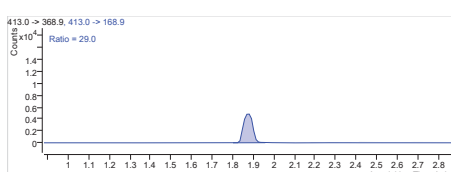
363.0 -> 318.9

1.691 (1.691)

12.66 µg/L

5.81825

Calibration

**PFOA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

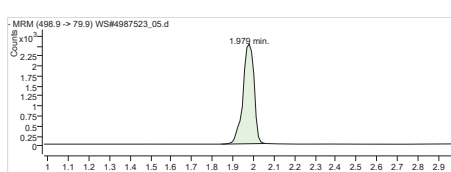
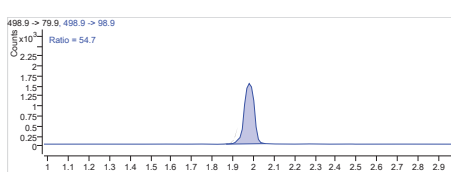
413.0 -> 368.9

1.881 (1.881)

13.80 µg/L

6.03024

Calibration

**PFOS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

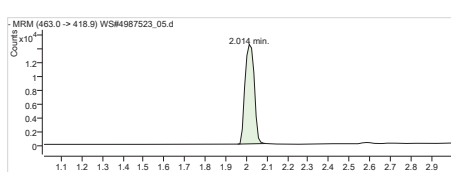
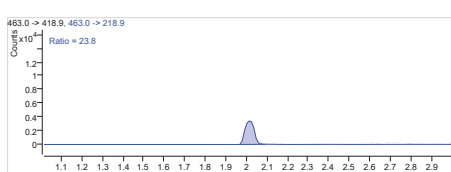
498.9 -> 79.9

1.979 (1.979)

13.06 µg/L

5.03152

Calibration

**PFNA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

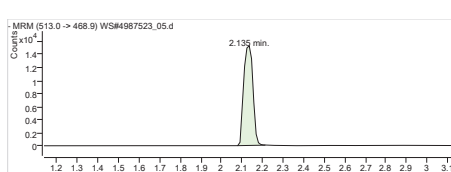
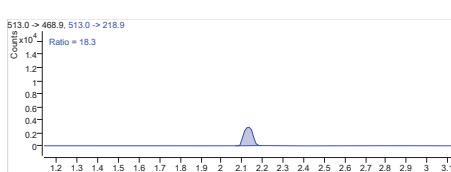
463.0 -> 418.9

2.014 (2.014)

12.23 µg/L

4.88307

Calibration

**PFDA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

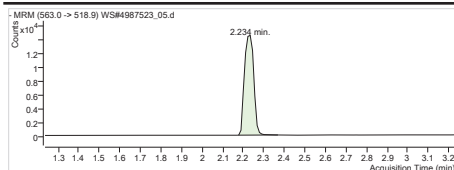
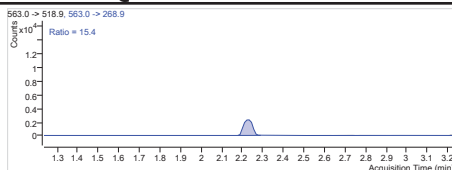
513.0 -> 468.9

2.135 (2.135)

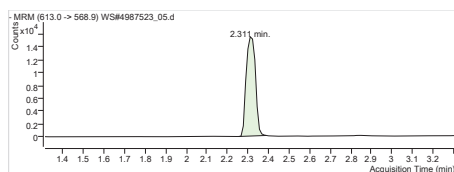
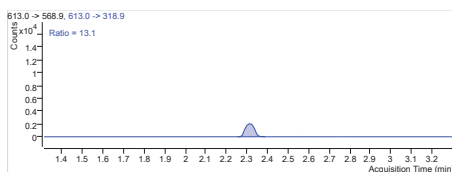
13.63 µg/L

6.74841

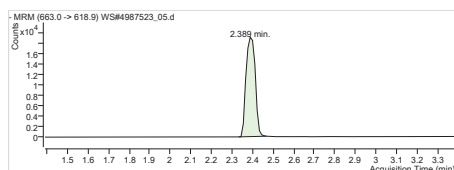
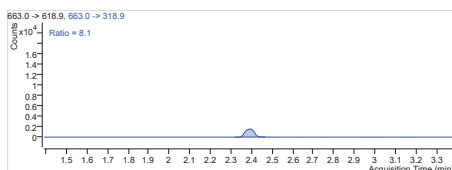
Calibration



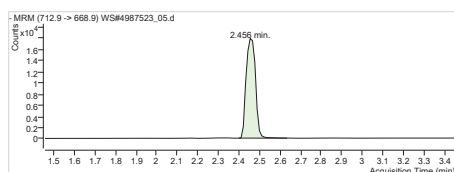
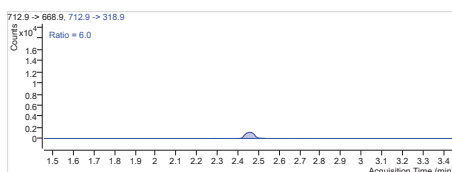
PFUnA 1
RT (Exp. RT): 563.0 -> 518.9
Calc. conc. 2.234 (2.234)
Area ratio: 13.00 µg/L
Sample type: 5.67385
Calibration



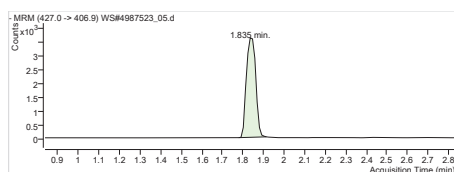
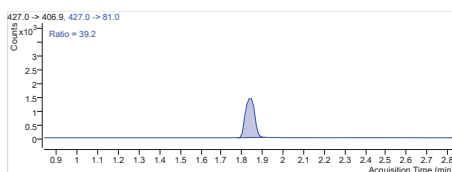
PFDa 1
RT (Exp. RT): 613.0 -> 568.9
Calc. conc. 2.311 (2.311)
Area ratio: 12.44 µg/L
Sample type: 5.13579
Calibration



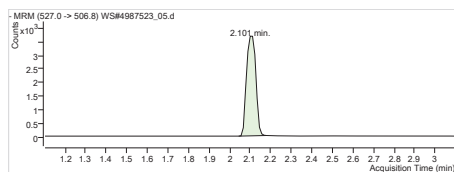
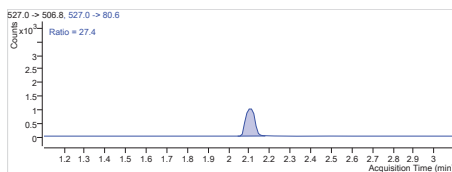
PFTraD 1
RT (Exp. RT): 663.0 -> 618.9
Calc. conc. 2.389 (2.389)
Area ratio: 12.23 µg/L
Sample type: 4.90811
Calibration



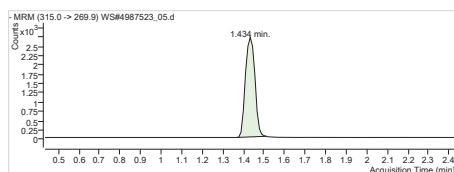
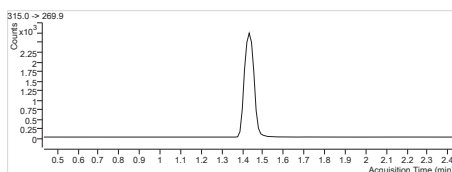
PFTeDa 1
RT (Exp. RT): 712.9 -> 668.9
Calc. conc. 2.456 (2.456)
Area ratio: 12.39 µg/L
Sample type: 4.68859
Calibration



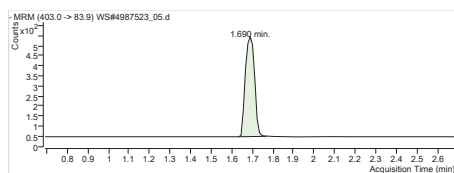
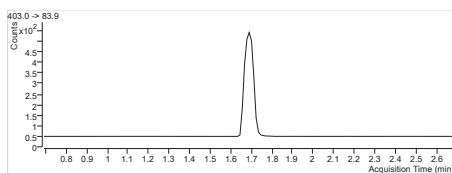
6:2-FTS 1
RT (Exp. RT): 427.0 -> 406.9
Calc. conc. 1.835 (1.835)
Area ratio: 12.64 µg/L
Sample type: 5.04798
Calibration



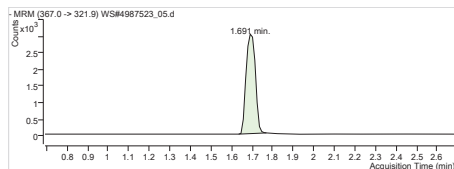
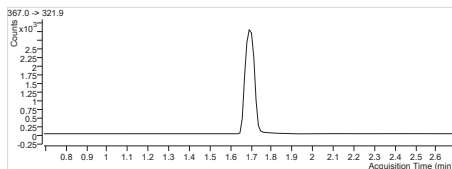
8:2-FTS 1
RT (Exp. RT): 527.0 -> 506.8
Calc. conc. 2.101 (2.101)
Area ratio: 13.12 µg/L
Sample type: 4.80283
Calibration



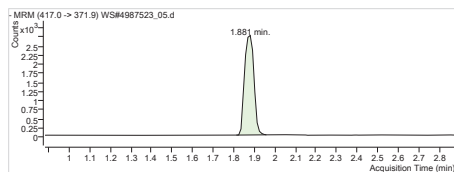
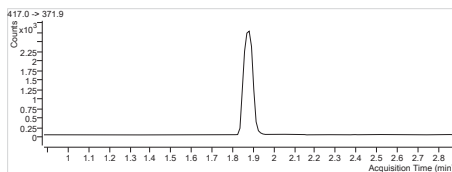
13C2-PFHxA
RT (Exp. RT): 315.0 -> 269.9
Calc. conc. 1.434 (1.434)
Area ratio: 94.34 µg/L
Sample type: 0.20983
Calibration



18O2-PFHxS
RT (Exp. RT): 403.0 -> 83.9
Calc. conc. 1.690 (1.690)
Area ratio: 95.92 µg/L
Sample type: 0.03749
Calibration

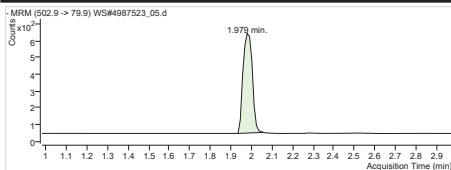
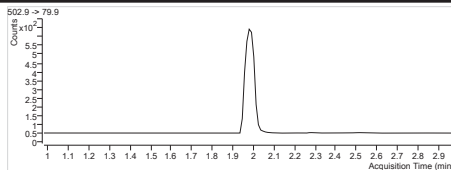


13C4-PFHpA
RT (Exp. RT): 367.0 -> 321.9
Calc. conc. 1.691 (1.691)
Area ratio: 98.61 µg/L
Sample type: 0.22951
Calibration

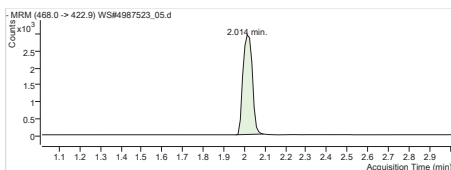
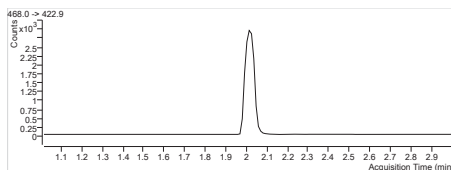


13C4-PFOA
RT (Exp. RT): 417.0 -> 371.9
Calc. conc. 1.881 (1.881)
Area ratio: 92.45 µg/L
Sample type: 0.21102
Calibration

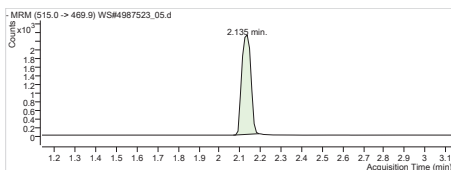
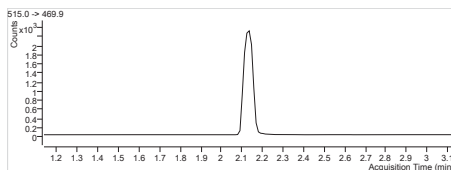
Quantitation Results



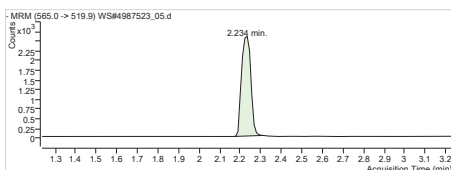
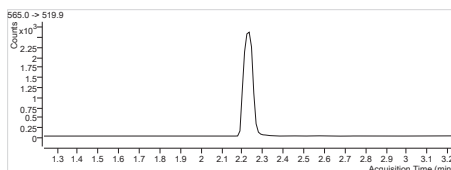
13C4-PFOS
RT (Exp. RT): 502.9 -> 79.9
Calc. conc. 1.979 (1.979)
Area ratio: 94.91 µg/L
Sample type: 0.04543
Calibration



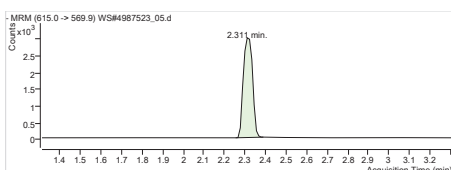
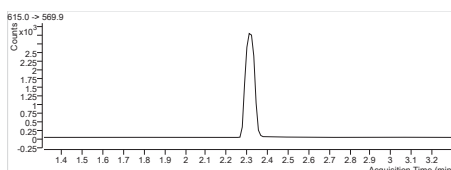
13C5-PFNA
RT (Exp. RT): 468.0 -> 422.9
Calc. conc. 2.014 (2.014)
Area ratio: 100.48 µg/L
Sample type: 0.22352
Calibration



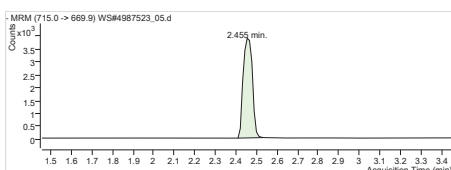
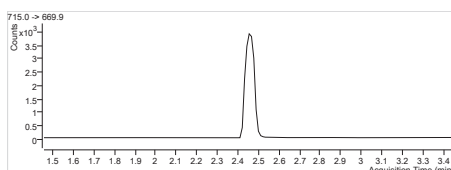
13C2-PFDA
RT (Exp. RT): 515.0 -> 469.9
Calc. conc. 2.135 (2.135)
Area ratio: 89.73 µg/L
Sample type: 0.20344
Calibration



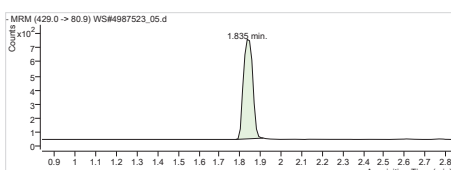
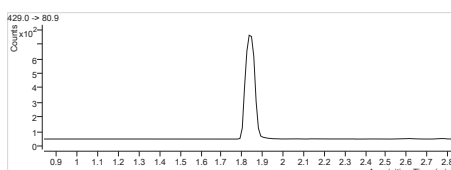
13C2-PFUnA
RT (Exp. RT): 565.0 -> 519.9
Calc. conc. 2.234 (2.234)
Area ratio: 95.44 µg/L
Sample type: 0.23376
Calibration



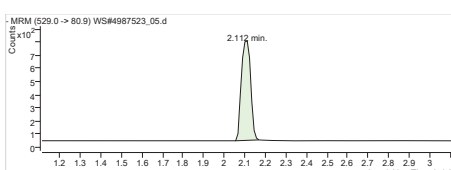
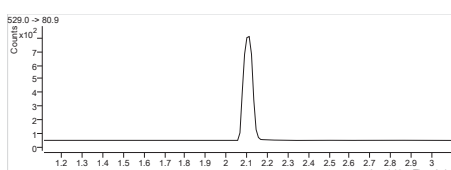
13C2-PFDoA
RT (Exp. RT): 615.0 -> 569.9
Calc. conc. 2.311 (2.311)
Area ratio: 97.87 µg/L
Sample type: 0.26972
Calibration



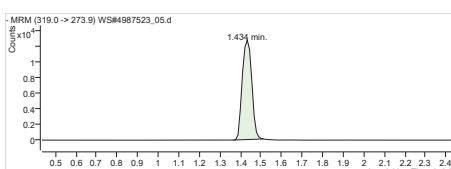
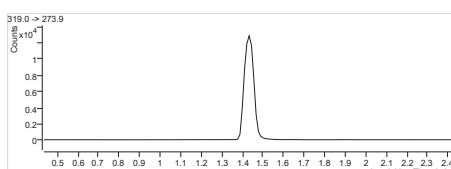
13C2-PFTeDA
RT (Exp. RT): 715.0 -> 669.9
Calc. conc. 2.455 (2.455)
Area ratio: 99.57 µg/L
Sample type: 0.34691
Calibration



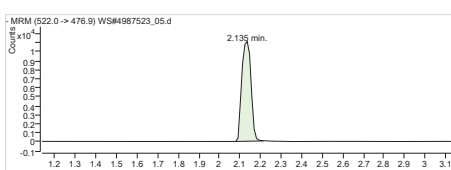
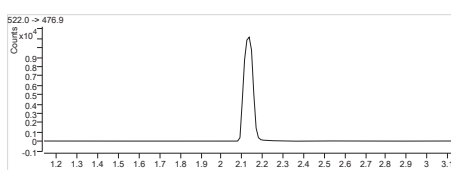
13C2-6:2-FTS
RT (Exp. RT): 429.0 -> 80.9
Calc. conc. 1.835 (1.835)
Area ratio: 98.65 µg/L
Sample type: 0.05462
Calibration



13C2-8:2 FTS
RT (Exp. RT): 529.0 -> 80.9
Calc. conc. 2.112 (2.112)
Area ratio: 97.73 µg/L
Sample type: 0.05834
Calibration



13C6-PFHxA
RT (Exp. RT): 319.0 -> 273.9
Calc. conc. 1.434 (1.434)
Area ratio: 105.49 µg/L
Sample type: 0
Calibration



13C9-PFDA
RT (Exp. RT): 522.0 -> 476.9
Calc. conc. 2.135 (2.135)
Area ratio: 105.35 µg/L
Sample type: 0
Calibration

Batch Path

T:\lcms4\PFC\20170523\WS#4987523\QuantResults\PFC_Water_Low_170523_WS#4987523_CT

Sample Name

STD 5

Instrument

LCMS04

Data File

WS#4987523_06.d

Operator

AD

Sample Type

Cal

Dilution

1

Acq. Method

PFC_Water_Low.m

Position

P1-A6

Acq. Date

2017/05/23 9:38:08 AM

Injection Volume

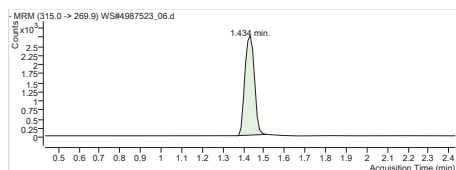
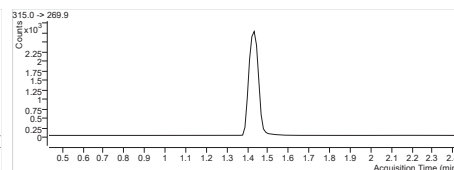
Per Method

Sample Annotation

-

ISTD Compounds	Response	RT	Target conc.		
MPFHxA	8788	1.43	1 µg/L		
MPFHxS	1532	1.69	1 µg/L		
MPFHpA	9016	1.69	1 µg/L		
MPFOA	8838	1.88	1 µg/L		
MPFOS	1950	1.98	1 µg/L		
MPFNA	9226	2.01	1 µg/L		
MPFDA	7603	2.14	1 µg/L		
MPFUnA	7765	2.23	1 µg/L		
MPFDoA	9868	2.31	1 µg/L		
MPFTeDA	11503	2.46	1 µg/L		
M2 6:2 FTS	2238	1.84	1 µg/L		
M2 8:2 FTS	2279	2.11	1 µg/L		
13C6-PFHxA IS	38631	1.43	1 µg/L		
13C9-PFDA IS	34217	2.13	1 µg/L		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	23133	1.10	25.00	24.30 µg/L	97.20
PFHxA 1	94513	1.43	25.00	24.47 µg/L	97.89
PFHxS 1	18078	1.69	25.00	23.93 µg/L	95.71
PFHpA 1	100976	1.69	25.00	24.44 µg/L	97.78
PFOA 1	98239	1.88	25.00	25.58 µg/L	102.32
PFOS 1	17713	1.98	25.00	23.58 µg/L	94.33
PFNA 1	85308	2.01	25.00	23.18 µg/L	92.71
PFDA 1	93766	2.14	25.00	24.93 µg/L	99.71
PFUnA 1	90075	2.23	25.00	26.65 µg/L	106.59
PFDaA 1	92992	2.31	25.00	22.91 µg/L	91.65
PFTTrDA 1	118104	2.39	25.00	25.66 µg/L	102.64
PFTeDA 1	108974	2.46	25.00	25.12 µg/L	100.50
6:2-FTS 1	21902	1.84	25.00	24.70 µg/L	98.81
8:2-FTS 1	22389	2.10	25.00	26.94 µg/L	107.78
13C2-PFHxA	8788	1.43	100.00	102.28 µg/L	102.28
18O2-PFHxS	1532	1.69	100.00	101.46 µg/L	101.46
13C4-PFHpA	9016	1.69	100.00	100.27 µg/L	100.27
13C4-PFOA	8838	1.88	100.00	100.23 µg/L	100.23
13C4-PFOS	1950	1.98	100.00	105.47 µg/L	105.47
13C5-PFNA	9226	2.01	100.00	107.36 µg/L	107.36
13C2-PFDA	7603	2.14	100.00	98.01 µg/L	98.01
13C2-PFUnA	7765	2.23	100.00	92.65 µg/L	92.65
13C2-PFDoA	9868	2.31	100.00	104.64 µg/L	104.64
13C2-PFTeDA	11503	2.46	100.00	96.49 µg/L	96.49
13C2-6:2-FTS	2238	1.84	100.00	104.62 µg/L	104.62
13C2-8:2 FTS	2279	2.11	100.00	98.83 µg/L	98.83
13C6-PFHxA	38631	1.43	100.00	98.89 µg/L	98.89
13C9-PFDA	34217	2.13	100.00	103.71 µg/L	103.71



MPFHxA

Internal Standard

RT (Exp. RT):

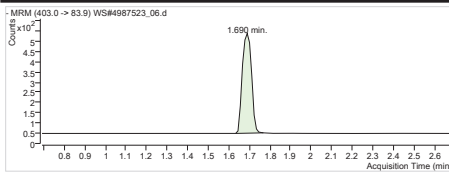
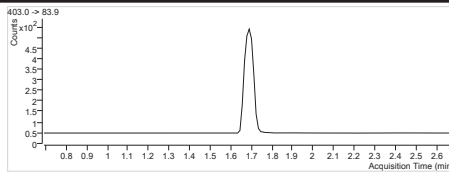
1.434 (1.434)

Concentration:

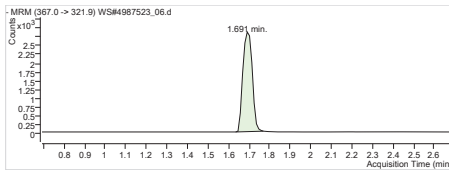
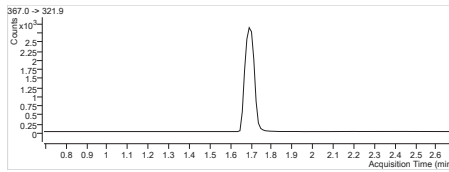
1 µg/L

Sample type:

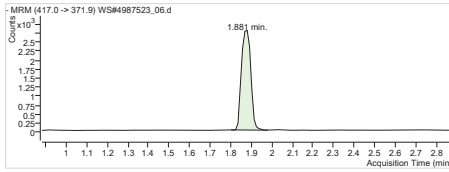
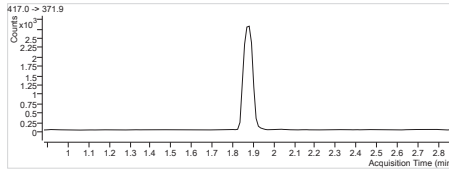
Calibration



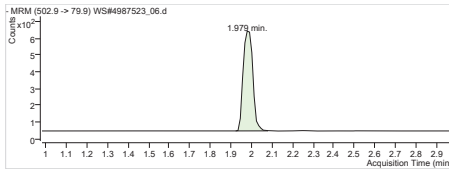
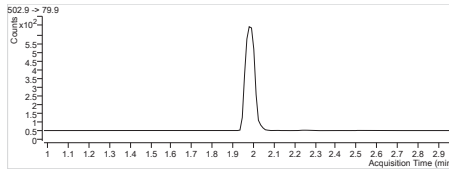
MPFHxS
 RT (Exp. RT): 1.690 (1.690)
 Concentration: 1 µg/L
 Sample type: Calibration



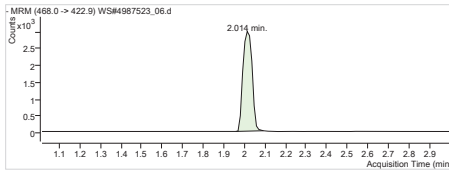
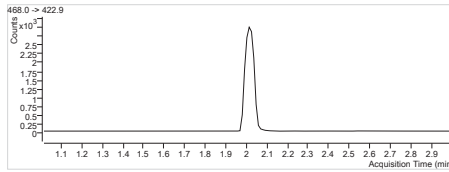
MPFHpA
 RT (Exp. RT): 1.691 (1.691)
 Concentration: 1 µg/L
 Sample type: Calibration



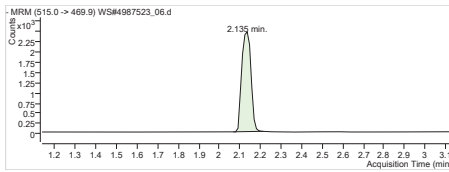
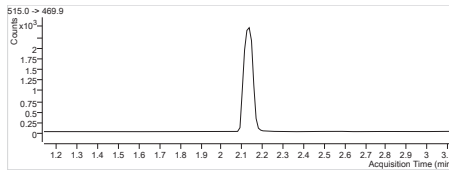
MPFOA
 RT (Exp. RT): 1.881 (1.881)
 Concentration: 1 µg/L
 Sample type: Calibration



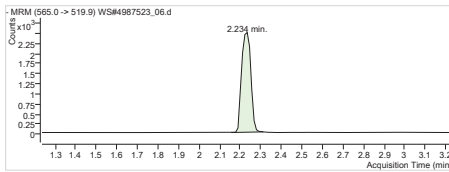
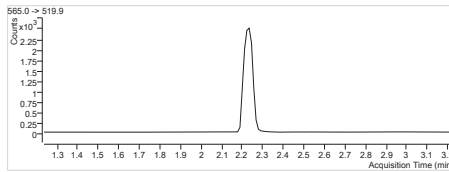
MPFOS
 RT (Exp. RT): 1.979 (1.979)
 Concentration: 1 µg/L
 Sample type: Calibration



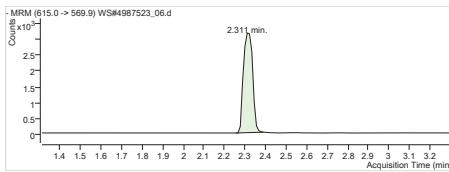
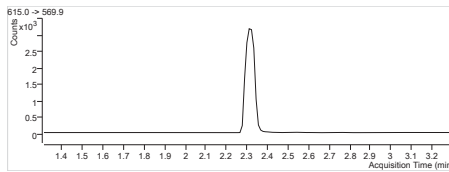
MPFNA
 RT (Exp. RT): 2.014 (2.014)
 Concentration: 1 µg/L
 Sample type: Calibration



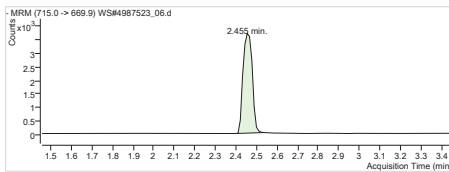
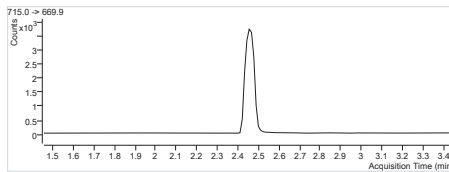
MPFDA
 RT (Exp. RT): 2.135 (2.135)
 Concentration: 1 µg/L
 Sample type: Calibration



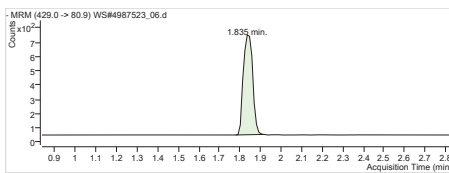
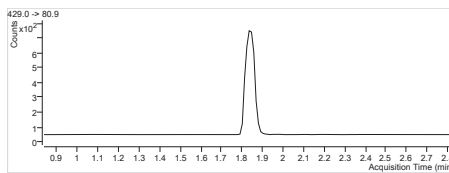
MPFUnA
 RT (Exp. RT): 2.234 (2.234)
 Concentration: 1 µg/L
 Sample type: Calibration



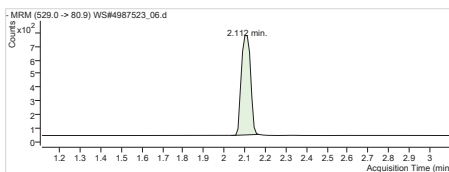
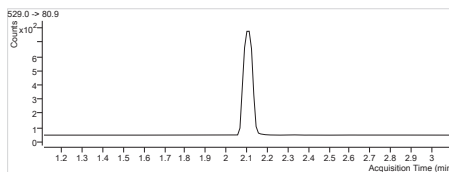
MPFDoA
 RT (Exp. RT): 2.311 (2.311)
 Concentration: 1 µg/L
 Sample type: Calibration



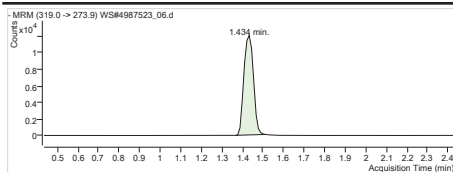
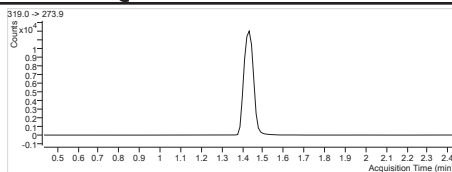
MPFTeDA
 RT (Exp. RT): 2.455 (2.455)
 Concentration: 1 µg/L
 Sample type: Calibration



M2 6:2 FTS
 RT (Exp. RT): 1.835 (1.835)
 Concentration: 1 µg/L
 Sample type: Calibration



M2 8:2 FTS
 RT (Exp. RT): 2.112 (2.112)
 Concentration: 1 µg/L
 Sample type: Calibration

**13C6-PFHxA IS**

RT (Exp. RT):

Concentration:

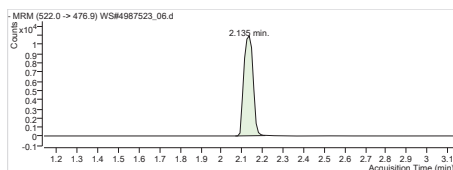
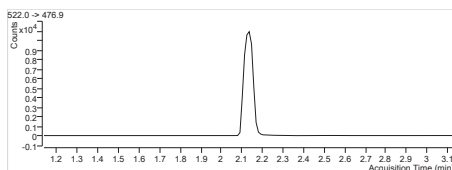
Sample type:

Internal Standard

1.434 (1.434)

1 µg/L

Calibration

**13C9-PFDA IS**

RT (Exp. RT):

Concentration:

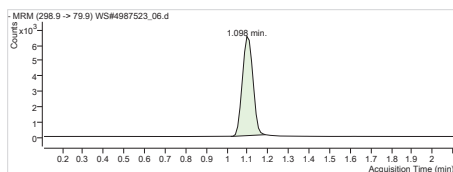
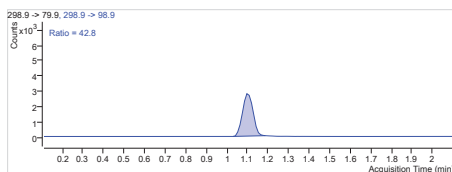
Sample type:

Internal Standard

2.135 (2.135)

1 µg/L

Calibration

**PFBS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

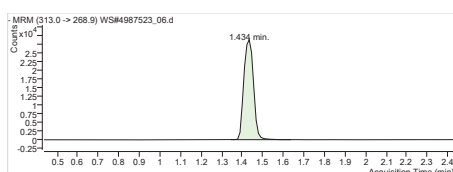
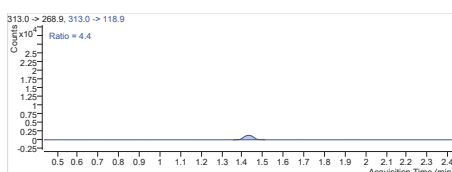
298.9 -> 79.9

1.098 (1.109)

24.30 µg/L

15.09987

Calibration

**PFHxA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

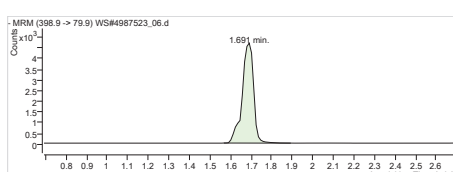
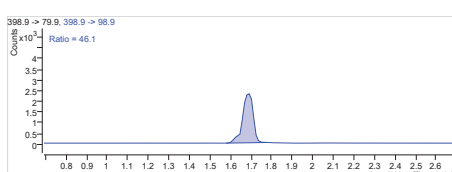
313.0 -> 268.9

1.434 (1.434)

24.47 µg/L

10.75478

Calibration

**PFHxS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

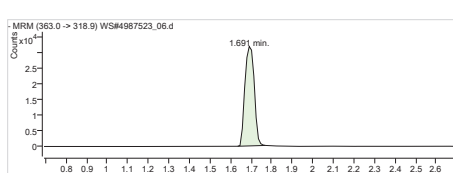
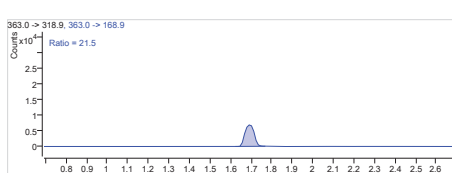
398.9 -> 79.9

1.691 (1.691)

23.93 µg/L

11.80026

Calibration

**PFHpA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

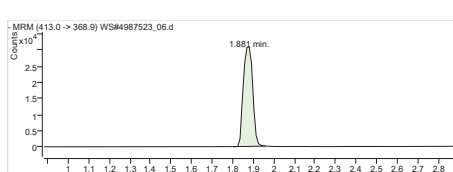
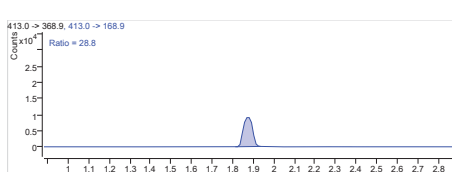
363.0 -> 318.9

1.691 (1.691)

24.44 µg/L

11.19965

Calibration

**PFOA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

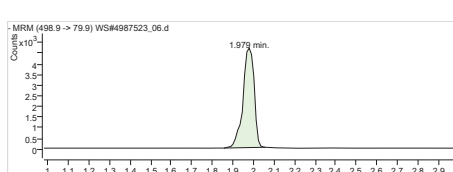
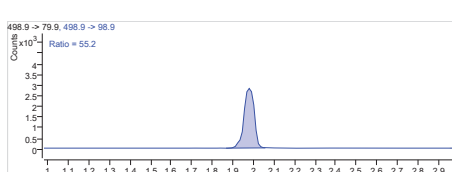
413.0 -> 368.9

1.881 (1.881)

25.58 µg/L

11.11552

Calibration

**PFOS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

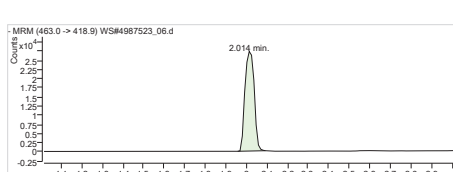
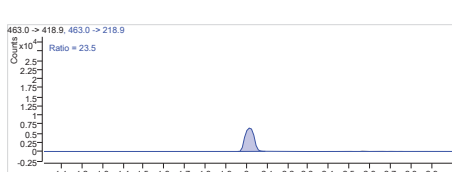
498.9 -> 79.9

1.979 (1.979)

23.58 µg/L

9.08359

Calibration

**PFNA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

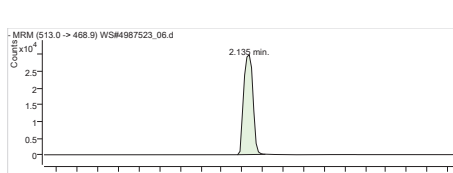
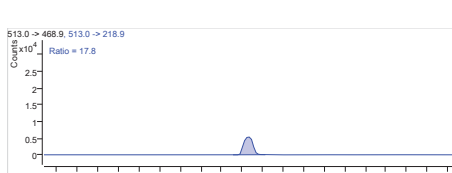
463.0 -> 418.9

2.014 (2.014)

23.18 µg/L

9.24648

Calibration

**PFDA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

513.0 -> 468.9

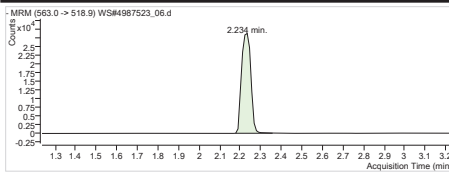
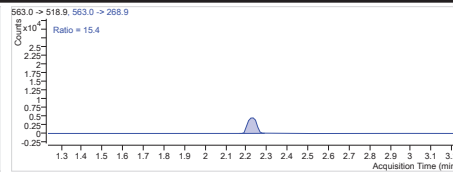
2.135 (2.135)

24.93 µg/L

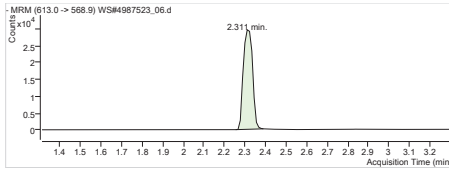
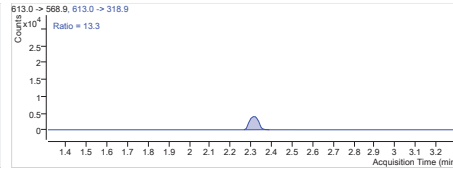
12.33276

Calibration

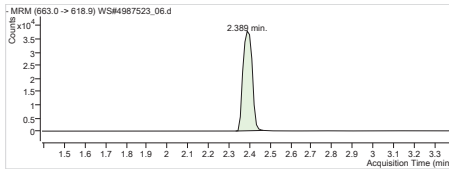
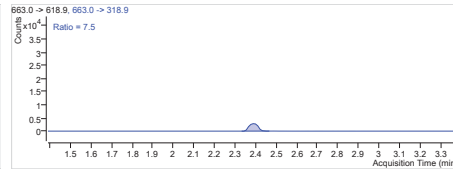
Quantitation Results



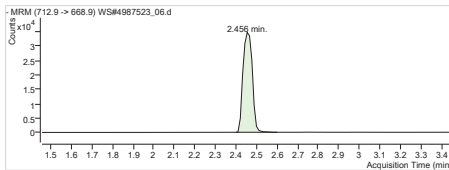
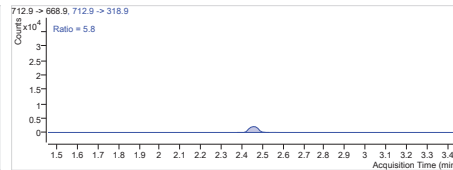
PFUnA 1
RT (Exp. RT): 563.0 -> 518.9
Calc. conc. 2.234 (2.234)
Area ratio: 26.65 µg/L
Sample type: 11.60013
Calibration



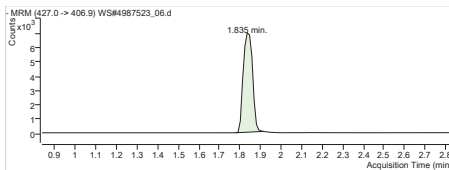
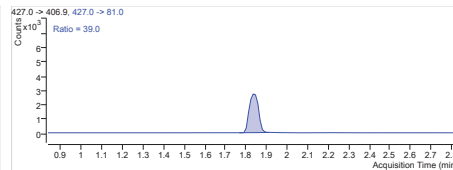
PFDaA 1
RT (Exp. RT): 613.0 -> 568.9
Calc. conc. 2.311 (2.311)
Area ratio: 22.91 µg/L
Sample type: 9.42359
Calibration



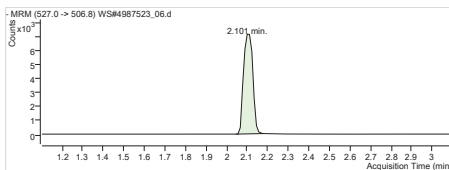
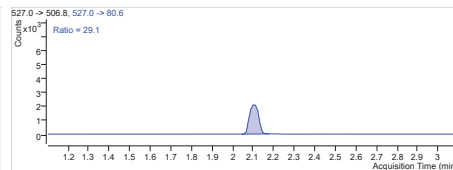
PFTrDA 1
RT (Exp. RT): 663.0 -> 618.9
Calc. conc. 2.389 (2.389)
Area ratio: 25.66 µg/L
Sample type: 10.26723
Calibration



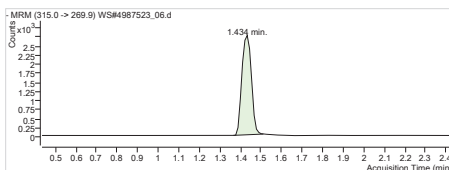
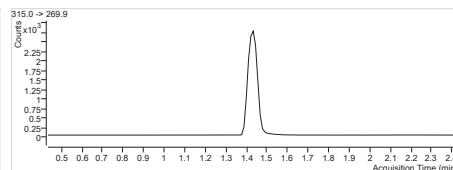
PFTeDA 1
RT (Exp. RT): 712.9 -> 668.9
Calc. conc. 2.456 (2.456)
Area ratio: 25.12 µg/L
Sample type: 9.47353
Calibration



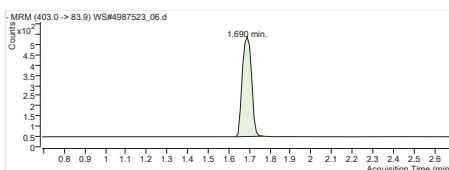
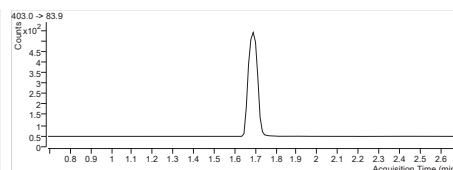
6:2-FTS 1
RT (Exp. RT): 427.0 -> 406.9
Calc. conc. 1.835 (1.835)
Area ratio: 24.70 µg/L
Sample type: 9.78642
Calibration



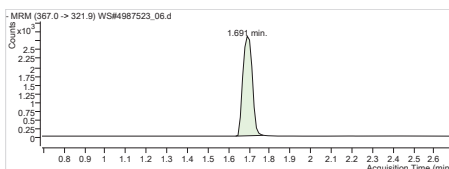
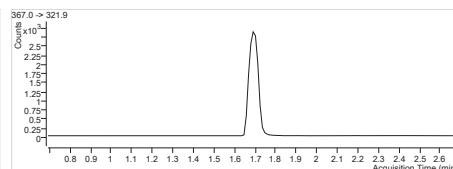
8:2-FTS 1
RT (Exp. RT): 527.0 -> 506.8
Calc. conc. 2.101 (2.101)
Area ratio: 26.94 µg/L
Sample type: 9.82405
Calibration



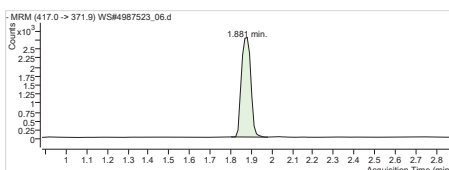
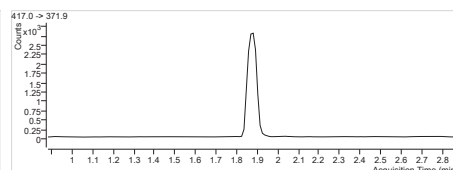
13C2-PFHxA
RT (Exp. RT): 315.0 -> 269.9
Calc. conc. 1.434 (1.434)
Area ratio: 102.28 µg/L
Sample type: 0.22749
Calibration



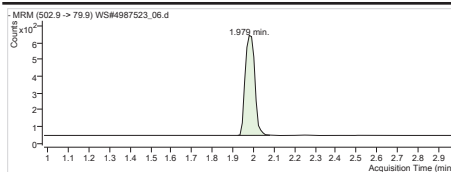
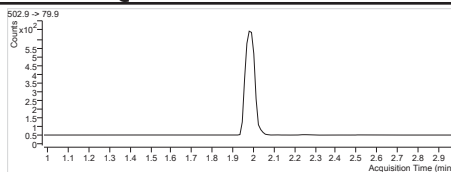
18O2-PFHxS
RT (Exp. RT): 403.0 -> 83.9
Calc. conc. 1.690 (1.690)
Area ratio: 101.46 µg/L
Sample type: 0.03966
Calibration



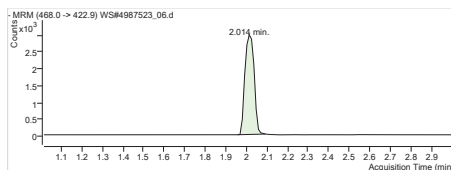
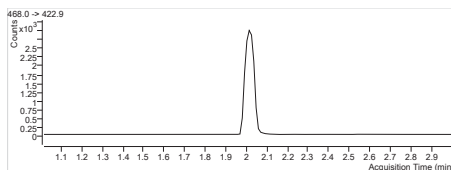
13C4-PFHpA
RT (Exp. RT): 367.0 -> 321.9
Calc. conc. 1.691 (1.691)
Area ratio: 100.27 µg/L
Sample type: 0.23339
Calibration



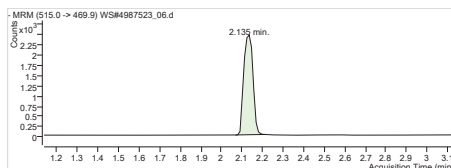
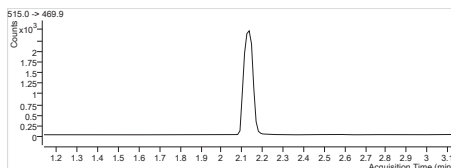
13C4-PFOA
RT (Exp. RT): 417.0 -> 371.9
Calc. conc. 1.881 (1.881)
Area ratio: 100.23 µg/L
Sample type: 0.22878
Calibration



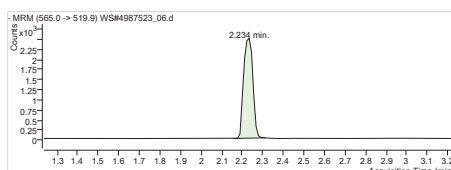
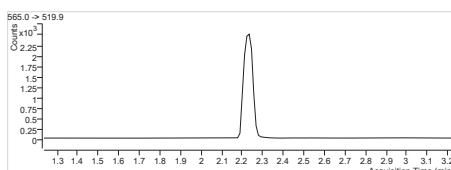
13C4-PFOS
RT (Exp. RT): 502.9 -> 79.9
Calc. conc. 1.979 (1.979)
Area ratio: 105.47 µg/L
Sample type: 0.05048 Calibration



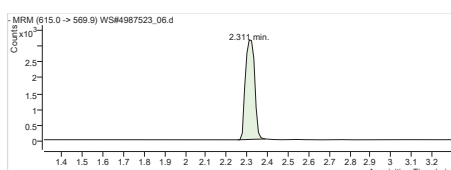
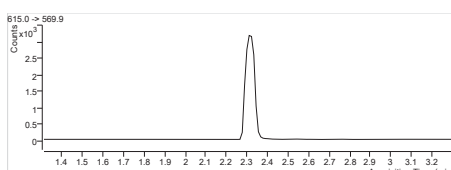
13C5-PFNA
RT (Exp. RT): 468.0 -> 422.9
Calc. conc. 2.014 (2.014)
Area ratio: 107.36 µg/L
Sample type: 0.23882 Calibration



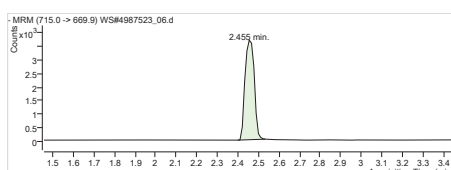
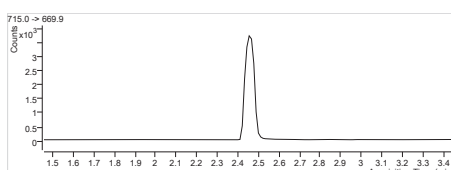
13C2-PFDA
RT (Exp. RT): 515.0 -> 469.9
Calc. conc. 2.135 (2.135)
Area ratio: 98.01 µg/L
Sample type: 0.22220 Calibration



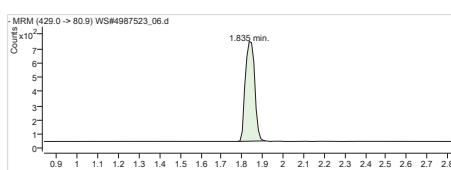
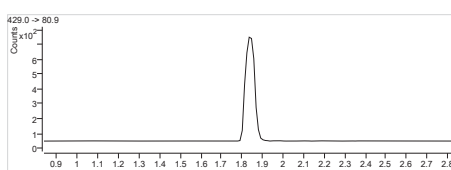
13C2-PFUnA
RT (Exp. RT): 565.0 -> 519.9
Calc. conc. 2.234 (2.234)
Area ratio: 92.65 µg/L
Sample type: 0.22693 Calibration



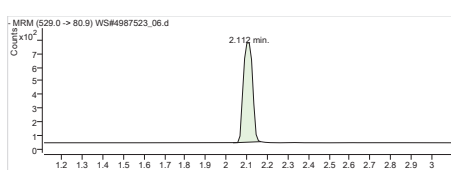
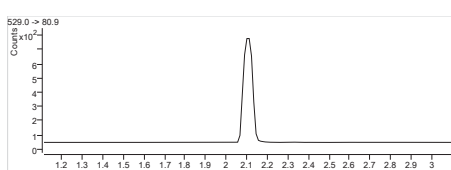
13C2-PFDoA
RT (Exp. RT): 615.0 -> 569.9
Calc. conc. 2.311 (2.311)
Area ratio: 104.64 µg/L
Sample type: 0.28839 Calibration



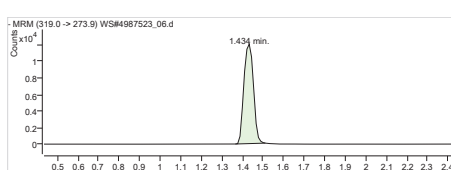
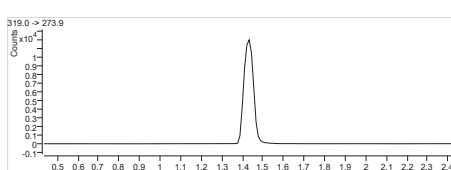
13C2-PFTeDA
RT (Exp. RT): 715.0 -> 669.9
Calc. conc. 2.455 (2.455)
Area ratio: 96.49 µg/L
Sample type: 0.33618 Calibration



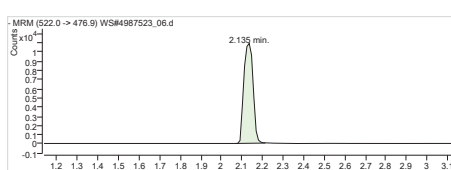
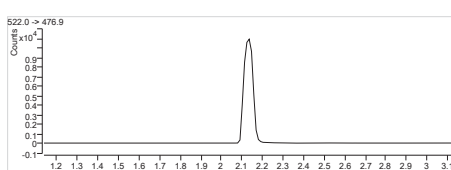
13C2-6:2-FTS
RT (Exp. RT): 429.0 -> 80.9
Calc. conc. 1.835 (1.835)
Area ratio: 104.62 µg/L
Sample type: 0.05793 Calibration



13C2-8:2 FTS
RT (Exp. RT): 529.0 -> 80.9
Calc. conc. 2.112 (2.112)
Area ratio: 98.83 µg/L
Sample type: 0.05899 Calibration



13C6-PFHxA
RT (Exp. RT): 319.0 -> 273.9
Calc. conc. 1.434 (1.434)
Area ratio: 98.89 µg/L
Sample type: 0 Calibration



13C9-PFDA
RT (Exp. RT): 522.0 -> 476.9
Calc. conc. 2.135 (2.135)
Area ratio: 103.71 µg/L
Sample type: 0 Calibration

Batch Path

T:\lcms4\PFC\20170523\WS#4987523\QuantResults\PFC_Water_Low_170523_WS#4987523_CT

Sample Name

STD 6

Instrument

LCMS04

Data File

WS#4987523_07.d

Operator

AD

Sample Type

Cal

Dilution

1

Acq. Method

PFC_Water_Low.m

Position

P1-A7

Acq. Date

2017/05/23 9:43:02 AM

Injection Volume

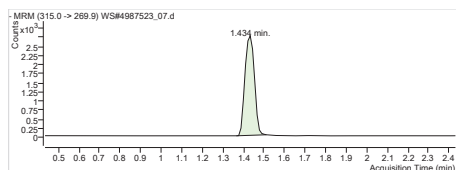
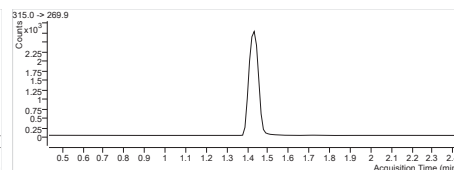
Per Method

Sample Annotation

-

ISTD Compounds	Response	RT	Target conc.		
MPFHxA	8768	1.43	1 µg/L		
MPFHxS	1512	1.69	1 µg/L		
MPFHpA	8610	1.69	1 µg/L		
MPFOA	9310	1.88	1 µg/L		
MPFOS	1831	1.98	1 µg/L		
MPFNA	8182	2.01	1 µg/L		
MPFDA	7385	2.14	1 µg/L		
MPFUnA	8488	2.23	1 µg/L		
MPFDoA	8671	2.31	1 µg/L		
MPFTeDA	11601	2.46	1 µg/L		
M2 6:2 FTS	2028	1.84	1 µg/L		
M2 8:2 FTS	2373	2.10	1 µg/L		
13C6-PFHxA IS	37794	1.43	1 µg/L		
13C9-PFDA IS	31304	2.13	1 µg/L		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	39582	1.10	41.70	42.15 µg/L	101.08
PFHxA 1	161340	1.43	41.70	41.88 µg/L	100.43
PFHxS 1	31487	1.69	41.70	42.27 µg/L	101.36
PFHpA 1	165986	1.69	41.70	42.13 µg/L	101.03
PFOA 1	160870	1.88	41.70	39.85 µg/L	95.57
PFOS 1	29856	1.98	41.70	42.33 µg/L	101.51
PFNA 1	142983	2.01	41.70	43.82 µg/L	105.09
PFDA 1	149016	2.14	41.70	40.80 µg/L	97.84
PFUnA 1	146809	2.22	41.70	39.77 µg/L	95.36
PFDaA 1	155559	2.31	41.70	43.72 µg/L	104.84
PFTTrDA 1	192268	2.39	41.70	41.46 µg/L	99.42
PFTeDA 1	182771	2.46	41.70	41.83 µg/L	100.32
6:2-FTS 1	33909	1.84	41.70	42.36 µg/L	101.57
8:2-FTS 1	33219	2.10	41.70	38.44 µg/L	92.17
13C2-PFHxA	8768	1.43	100.00	104.31 µg/L	104.31
18O2-PFHxS	1512	1.69	100.00	102.35 µg/L	102.35
13C4-PFHpA	8610	1.69	100.00	97.88 µg/L	97.88
13C4-PFOA	9310	1.88	100.00	107.92 µg/L	107.92
13C4-PFOS	1831	1.98	100.00	101.22 µg/L	101.22
13C5-PFNA	8182	2.01	100.00	97.32 µg/L	97.32
13C2-PFDA	7385	2.14	100.00	104.06 µg/L	104.06
13C2-PFUnA	8488	2.23	100.00	110.70 µg/L	110.70
13C2-PFDoA	8671	2.31	100.00	100.51 µg/L	100.51
13C2-PFTeDA	11601	2.46	100.00	106.37 µg/L	106.37
13C2-6:2-FTS	2028	1.84	100.00	96.90 µg/L	96.90
13C2-8:2 FTS	2373	2.10	100.00	105.18 µg/L	105.18
13C6-PFHxA	37794	1.43	100.00	96.75 µg/L	96.75
13C9-PFDA	31304	2.13	100.00	94.88 µg/L	94.88



MPFHxA

Internal Standard

RT (Exp. RT):

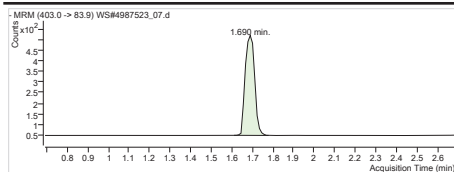
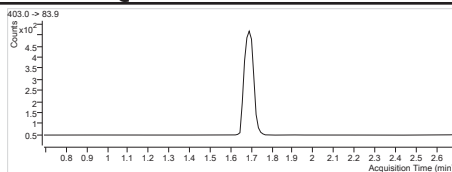
1.434 (1.434)

Concentration:

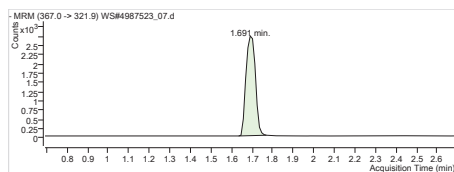
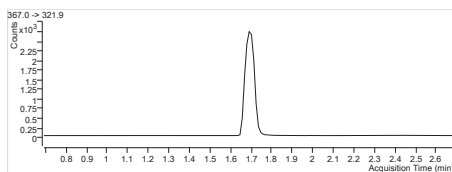
1 µg/L

Sample type:

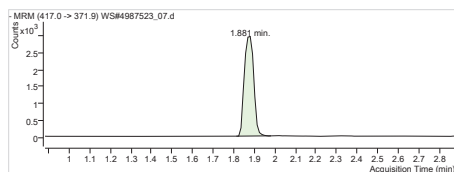
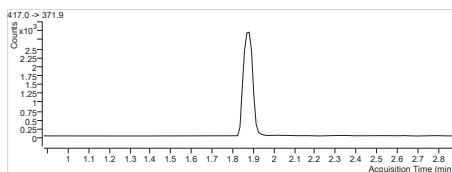
Calibration



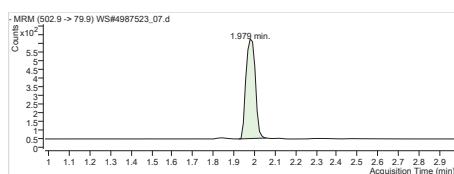
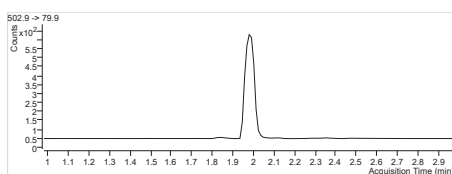
MPMHxS
 RT (Exp. RT): 1.690 (1.690)
 Concentration: 1 µg/L
 Sample type: Calibration



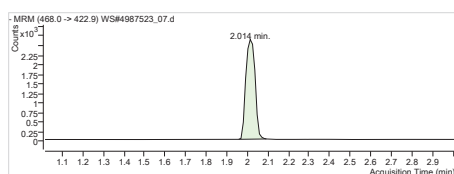
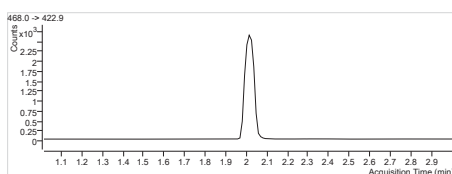
MPMHpa
 RT (Exp. RT): 1.691 (1.691)
 Concentration: 1 µg/L
 Sample type: Calibration



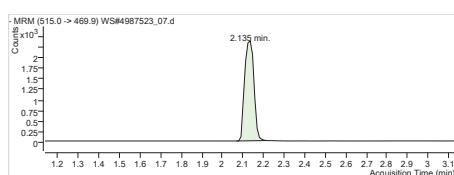
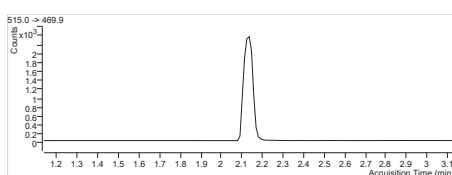
MPFOA
 RT (Exp. RT): 1.881 (1.881)
 Concentration: 1 µg/L
 Sample type: Calibration



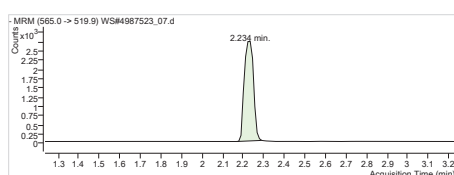
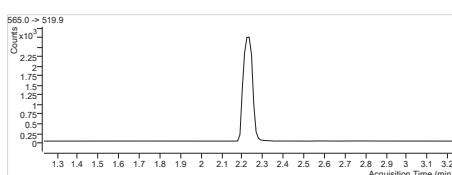
MPFOS
 RT (Exp. RT): 1.979 (1.979)
 Concentration: 1 µg/L
 Sample type: Calibration



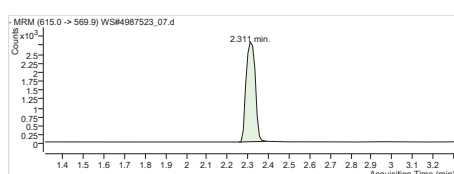
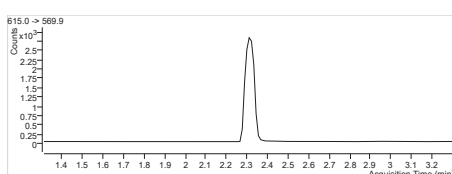
MPFNA
 RT (Exp. RT): 2.014 (2.014)
 Concentration: 1 µg/L
 Sample type: Calibration



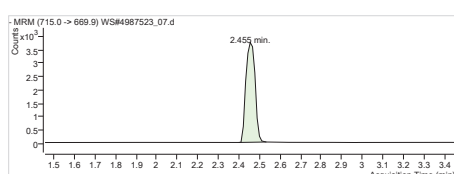
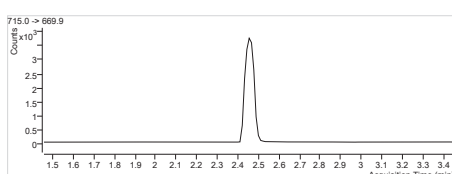
MPFDA
 RT (Exp. RT): 2.135 (2.135)
 Concentration: 1 µg/L
 Sample type: Calibration



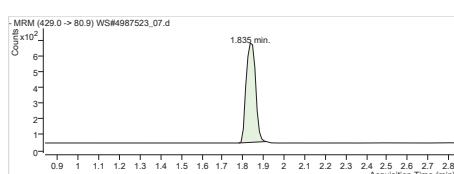
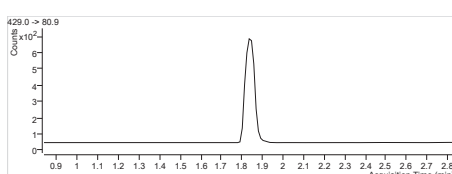
MPFUnA
 RT (Exp. RT): 2.234 (2.234)
 Concentration: 1 µg/L
 Sample type: Calibration



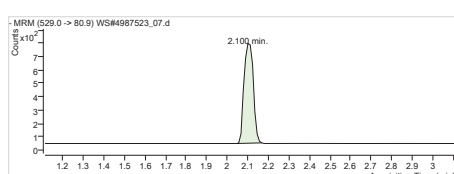
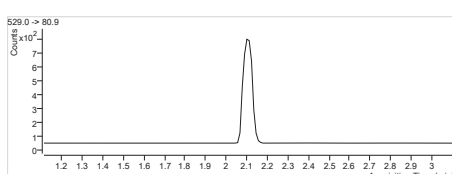
MPFDoA
 RT (Exp. RT): 2.311 (2.311)
 Concentration: 1 µg/L
 Sample type: Calibration



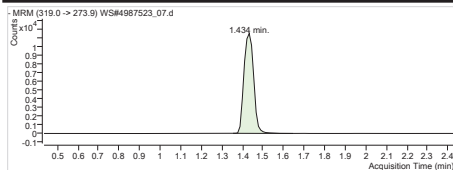
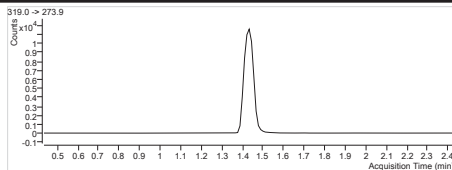
MPFTeDA
 RT (Exp. RT): 2.455 (2.455)
 Concentration: 1 µg/L
 Sample type: Calibration



M2 6:2 FTS
 RT (Exp. RT): 1.835 (1.835)
 Concentration: 1 µg/L
 Sample type: Calibration



M2 8:2 FTS
 RT (Exp. RT): 2.100 (2.112)
 Concentration: 1 µg/L
 Sample type: Calibration

**13C6-PFHxA IS**

RT (Exp. RT):

Concentration:

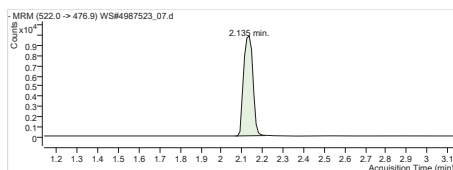
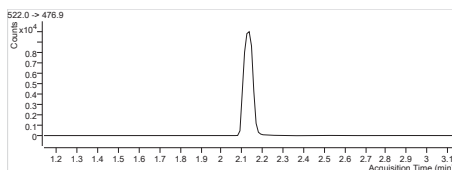
Sample type:

Internal Standard

1.434 (1.434)

1 µg/L

Calibration

**13C9-PFDA IS**

RT (Exp. RT):

Concentration:

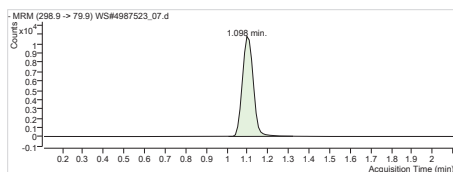
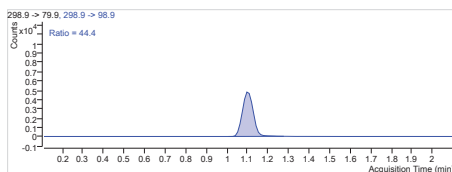
Sample type:

Internal Standard

2.135 (2.135)

1 µg/L

Calibration

**PFBS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

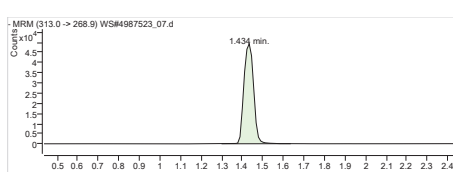
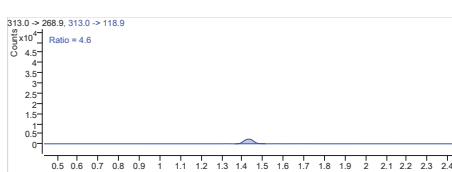
298.9 → 79.9

1.098 (1.109)

42.15 µg/L

26.17857

Calibration

**PFHxA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

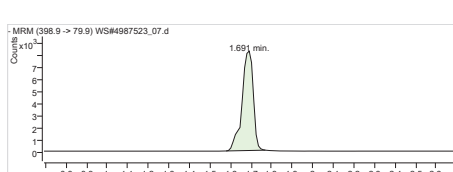
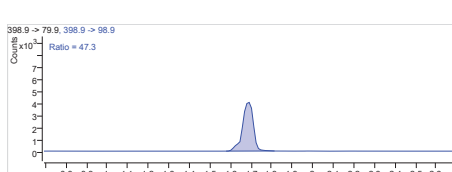
313.0 → 268.9

1.434 (1.434)

41.88 µg/L

18.40100

Calibration

**PFHxS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

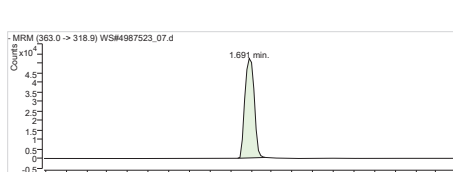
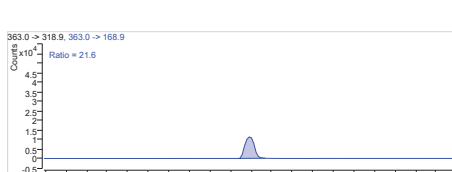
398.9 → 79.9

1.691 (1.691)

42.27 µg/L

20.82474

Calibration

**PFHpA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

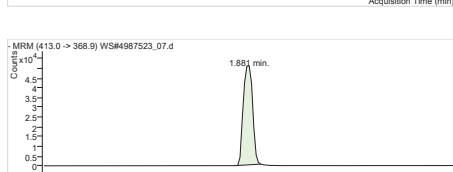
363.0 → 318.9

1.691 (1.691)

42.13 µg/L

19.27828

Calibration

**PFOA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

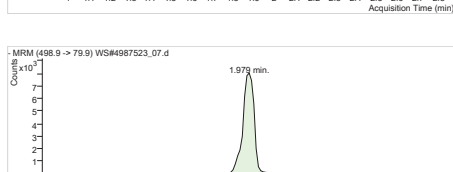
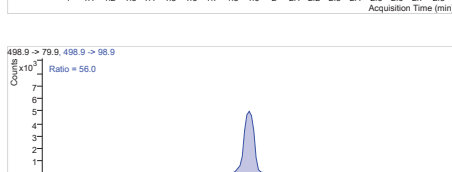
413.0 → 368.9

1.881 (1.881)

39.85 µg/L

17.27927

Calibration

**PFOS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

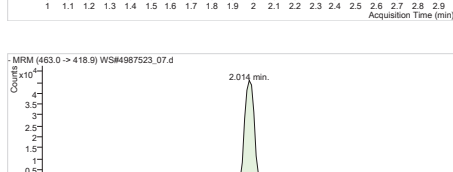
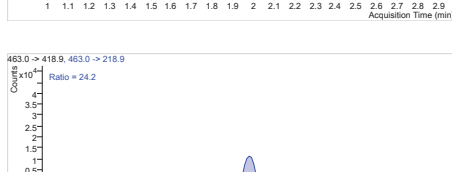
498.9 → 79.9

1.979 (1.979)

42.33 µg/L

16.30584

Calibration

**PFNA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

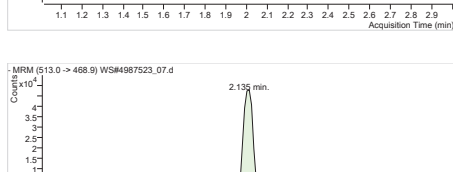
463.0 → 418.9

2.014 (2.014)

43.82 µg/L

17.47531

Calibration

**PFDA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

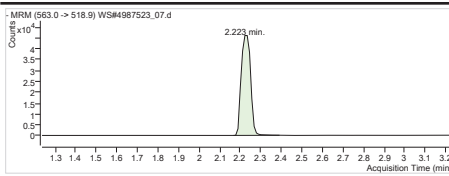
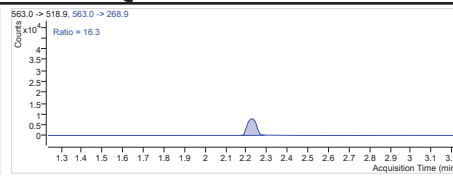
513.0 → 468.9

2.135 (2.135)

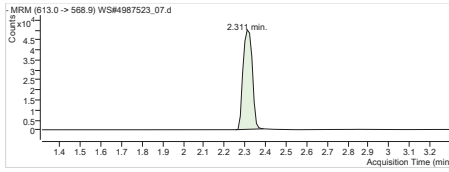
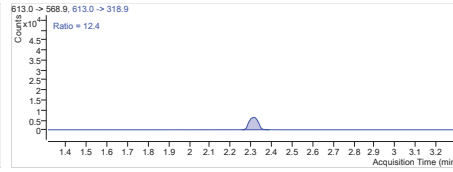
40.80 µg/L

20.17820

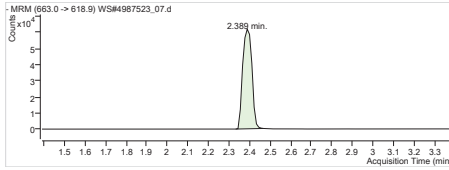
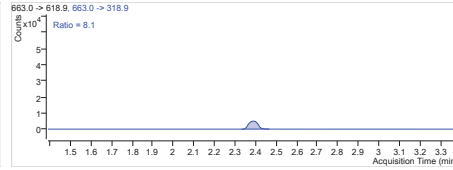
Calibration



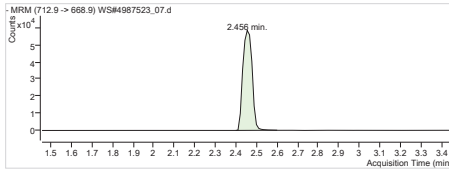
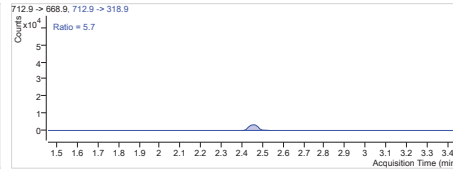
PFUnA 1
RT (Exp. RT): 563.0 -> 518.9
Calc. conc. 2.223 (2.234)
Area ratio: 39.77 µg/L
Sample type: 17.29607
Calibration



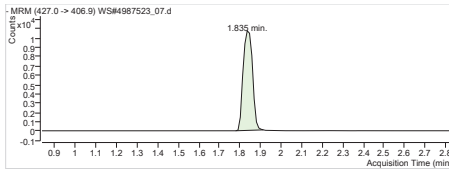
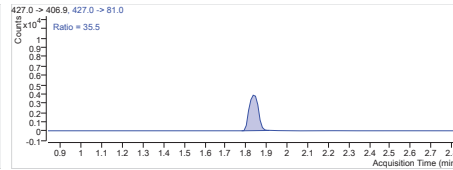
PFDa 1
RT (Exp. RT): 613.0 -> 568.9
Calc. conc. 2.311 (2.311)
Area ratio: 43.72 µg/L
Sample type: 17.94015
Calibration



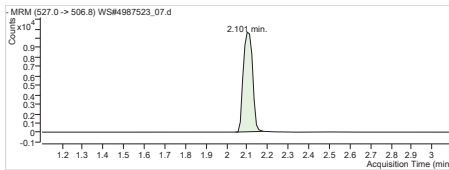
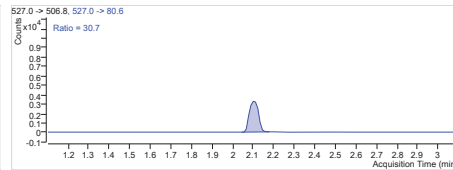
PFTraD 1
RT (Exp. RT): 663.0 -> 618.9
Calc. conc. 2.389 (2.389)
Area ratio: 41.46 µg/L
Sample type: 16.57340
Calibration



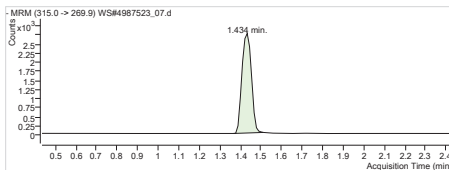
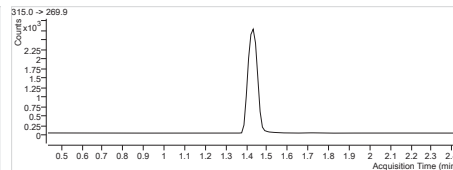
PFTeDa 1
RT (Exp. RT): 712.9 -> 668.9
Calc. conc. 2.456 (2.456)
Area ratio: 41.83 µg/L
Sample type: 15.75476
Calibration



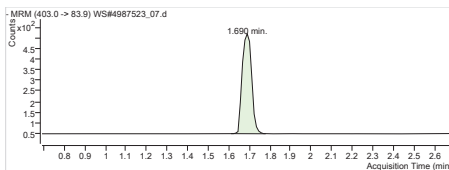
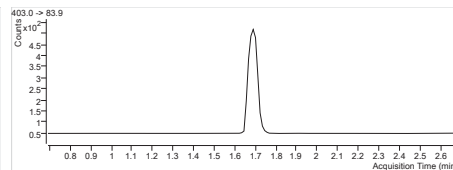
6:2-FTS 1
RT (Exp. RT): 427.0 -> 406.9
Calc. conc. 1.835 (1.835)
Area ratio: 42.36 µg/L
Sample type: 16.72041
Calibration



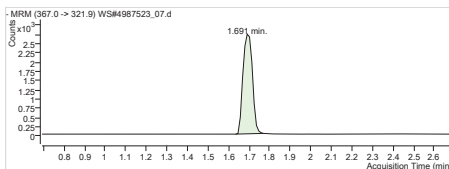
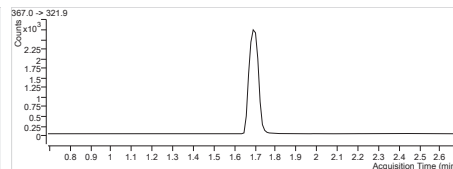
8:2-FTS 1
RT (Exp. RT): 527.0 -> 506.8
Calc. conc. 2.101 (2.101)
Area ratio: 38.44 µg/L
Sample type: 13.99874
Calibration



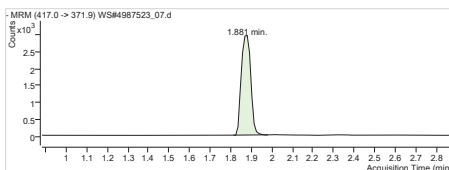
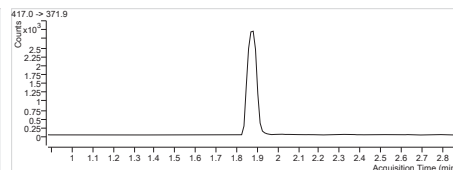
13C2-PFHxA
RT (Exp. RT): 315.0 -> 269.9
Calc. conc. 1.434 (1.434)
Area ratio: 104.31 µg/L
Sample type: 0.23199
Calibration



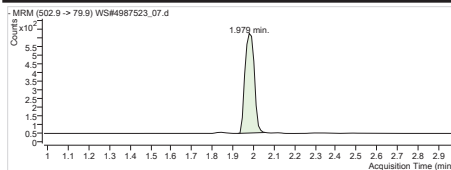
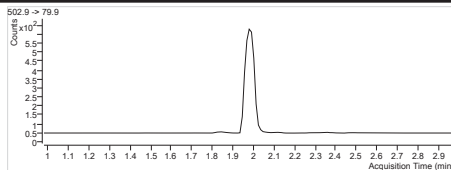
18O2-PFHxS
RT (Exp. RT): 403.0 -> 83.9
Calc. conc. 1.690 (1.690)
Area ratio: 102.35 µg/L
Sample type: 0.04001
Calibration



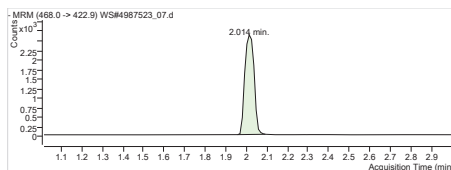
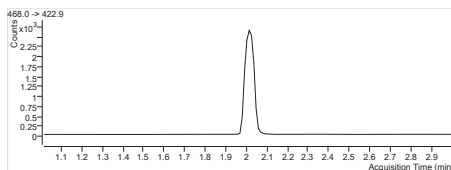
13C4-PFHpA
RT (Exp. RT): 367.0 -> 321.9
Calc. conc. 1.691 (1.691)
Area ratio: 97.88 µg/L
Sample type: 0.22781
Calibration



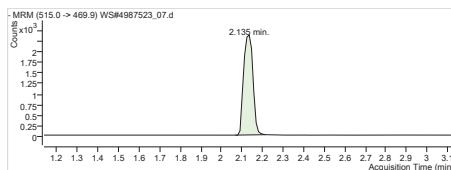
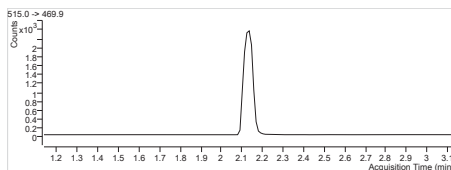
13C4-PFOA
RT (Exp. RT): 417.0 -> 371.9
Calc. conc. 1.881 (1.881)
Area ratio: 107.92 µg/L
Sample type: 0.24634
Calibration



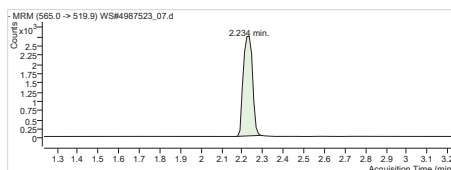
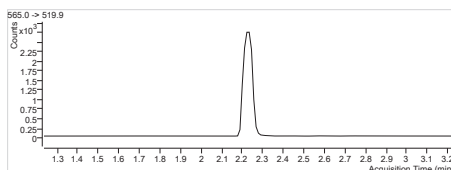
13C4-PFOS
 RT (Exp. RT): 502.9 -> 79.9
 Calc. conc. 1.979 (1.979)
 Area ratio: 101.22 µg/L
 Sample type: 0.04845 Calibration



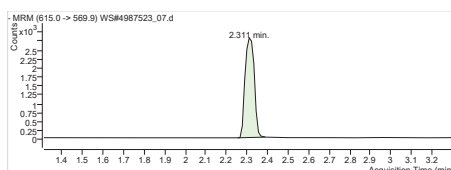
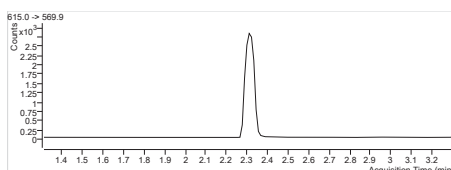
13C5-PFNA
 RT (Exp. RT): 468.0 -> 422.9
 Calc. conc. 2.014 (2.014)
 Area ratio: 97.32 µg/L
 Sample type: 0.21649 Calibration



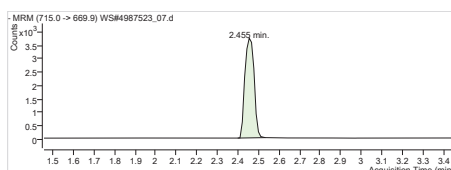
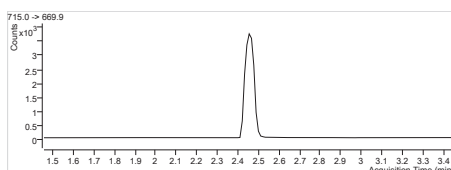
13C2-PFDA
 RT (Exp. RT): 515.0 -> 469.9
 Calc. conc. 2.135 (2.135)
 Area ratio: 104.06 µg/L
 Sample type: 0.23591 Calibration



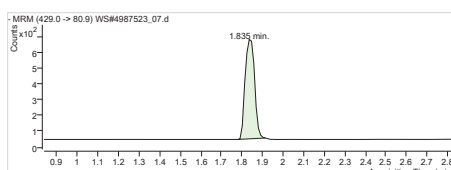
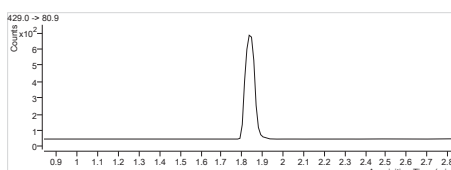
13C2-PFUnA
 RT (Exp. RT): 565.0 -> 519.9
 Calc. conc. 2.234 (2.234)
 Area ratio: 110.70 µg/L
 Sample type: 0.27115 Calibration



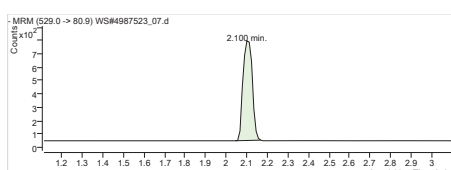
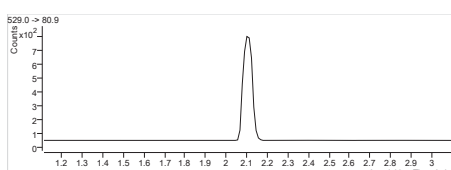
13C2-PFDoA
 RT (Exp. RT): 615.0 -> 569.9
 Calc. conc. 2.311 (2.311)
 Area ratio: 100.51 µg/L
 Sample type: 0.27699 Calibration



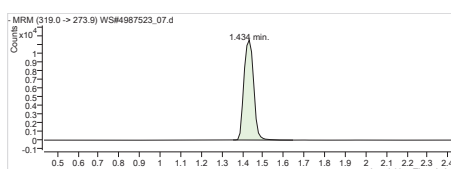
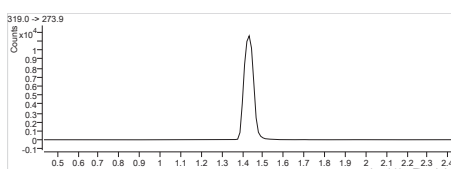
13C2-PFTeDA
 RT (Exp. RT): 715.0 -> 669.9
 Calc. conc. 2.455 (2.455)
 Area ratio: 106.37 µg/L
 Sample type: 0.37059 Calibration



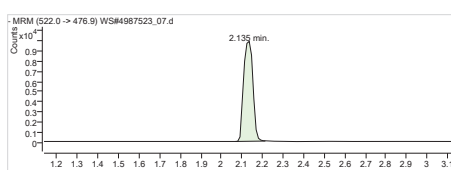
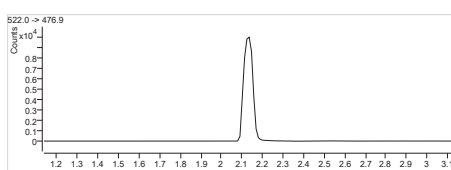
13C2-6:2-FTS
 RT (Exp. RT): 429.0 -> 80.9
 Calc. conc. 1.835 (1.835)
 Area ratio: 96.90 µg/L
 Sample type: 0.05366 Calibration



13C2-8:2 FTS
 RT (Exp. RT): 529.0 -> 80.9
 Calc. conc. 2.100 (2.112)
 Area ratio: 105.18 µg/L
 Sample type: 0.06279 Calibration



13C6-PFHxA
 RT (Exp. RT): 319.0 -> 273.9
 Calc. conc. 1.434 (1.434)
 Area ratio: 96.75 µg/L
 Sample type: 0 Calibration

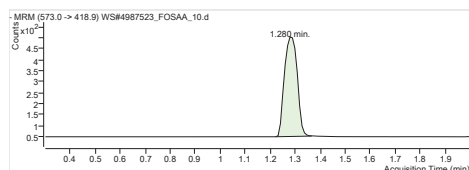
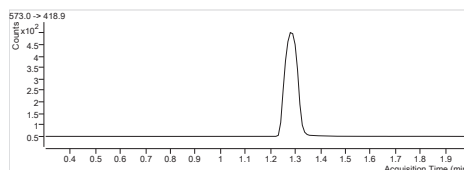


13C9-PFDA
 RT (Exp. RT): 522.0 -> 476.9
 Calc. conc. 2.135 (2.135)
 Area ratio: 94.88 µg/L
 Sample type: 0 Calibration

Batch Path T:\lms4\PFC\20170523\WS#4987523_FOSAA\QuantResults\PFC_Water_Low_170523_WS#4987523_FOSAA
Sample Name STD 1 **Instrument** LCMS04
Data File WS#4987523_FOSAA_10.d **Operator** AD
Sample Type Cal **Dilution** 1
Acq. Method PFC_Water_Low_FOSAA.m **Position** P1-A2
Acq. Date 2017/05/23 6:23:00 PM **Injection Volume** Per Method
Sample Annotation -

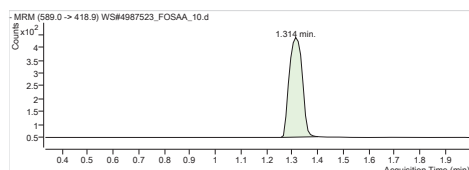
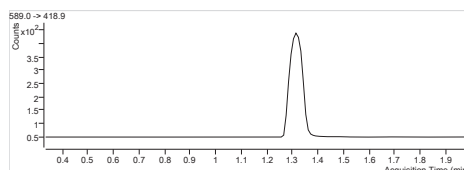
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1620	1.28	1 µg/L		
D5-EtFOSAA IS	1379	1.31	1 µg/L		
13C9-PFDA IS	28075	0.85	1 µg/L		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	585	1.28	0.83	0.84 µg/L	101.05
EtFOSAA 1	545	1.32	0.83	0.90 µg/L	107.91
D3-MeFOSAA	1648	1.28	100.00	102.21 µg/L	102.21
D5-EtFOSAA	1403	1.31	100.00	98.57 µg/L	98.57
13C9-PFDA	27473	0.85	100.00	100.85 µg/L	100.85

**D3-MeFOSAA IS**

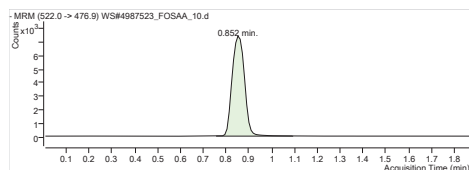
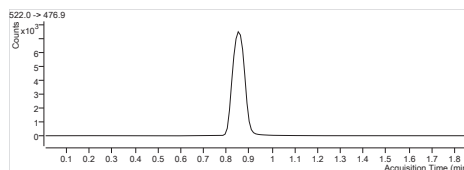
RT (Exp. RT):
 Concentration:
 Sample type:

Internal Standard
 1.280 (1.298)
 1 µg/L
 Calibration

**D5-EtFOSAA IS**

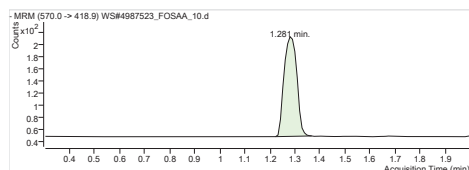
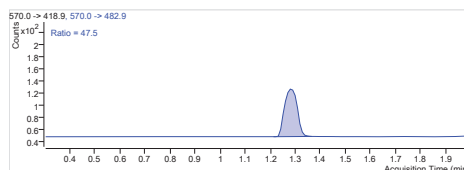
RT (Exp. RT):
 Concentration:
 Sample type:

Internal Standard
 1.314 (1.331)
 1 µg/L
 Calibration

**13C9-PFDA IS**

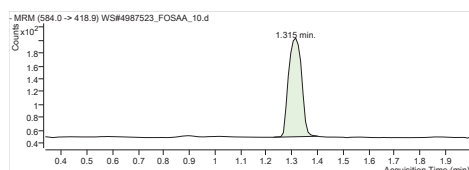
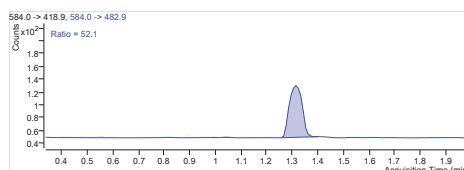
RT (Exp. RT):
 Concentration:
 Sample type:

Internal Standard
 0.852 (0.873)
 1 µg/L
 Calibration

**MeFOSAA 1**

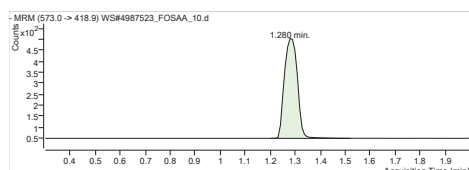
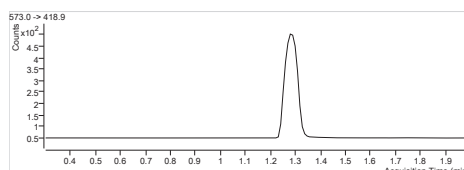
RT (Exp. RT):
 Calc. conc.
 Area ratio:
 Sample type:

570.0 -> 418.9
 1.281 (1.300)
 0.84 µg/L
 0.36111
 Calibration

**EtFOSAA 1**

RT (Exp. RT):
 Calc. conc.
 Area ratio:
 Sample type:

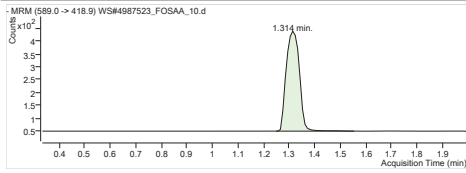
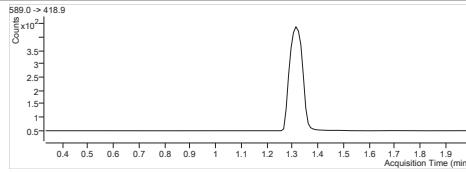
584.0 -> 418.9
 1.315 (1.333)
 0.90 µg/L
 0.39521
 Calibration

**D3-MeFOSAA**

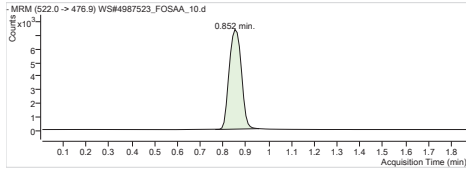
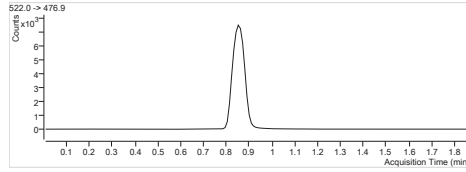
RT (Exp. RT):
 Calc. conc.
 Area ratio:
 Sample type:

573.0 -> 418.9
 1.280 (1.298)
 102.21 µg/L
 0.05871
 Calibration

Quantitation Results



D5-EtFOSAA
 RT (Exp. RT): 589.0 -> 418.9
 Calc. conc. 1.314 (1.331)
 Area ratio: 98.57 µg/L
 Sample type: 0.04997
 Calibration

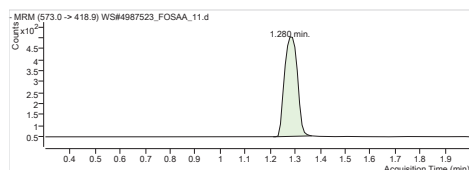
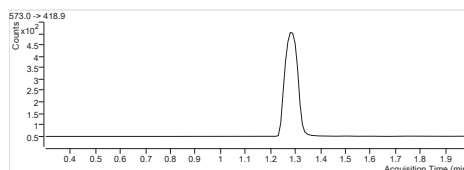


13C9-PFDA
 RT (Exp. RT): 522.0 -> 476.9
 Calc. conc. 0.852 (0.873)
 Area ratio: 100.85 µg/L
 Sample type: 0
 Calibration

Batch Path	T:\lms4\PFC\20170523\WS#4987523_FOSAA\QuantResults\PFC_Water_Low_170523_WS#4987523_FOSAA		
Sample Name	STD 2	Instrument	LCMS04
Data File	WS#4987523_FOSAA_11.d	Operator	AD
Sample Type	Cal	Dilution	1
Acq. Method	PFC_Water_Low_FOSAA.m	Position	P1-A3
Acq. Date	2017/05/23 6:25:23 PM	Injection Volume	Per Method
Sample Annotation	-		

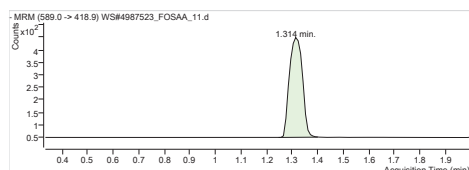
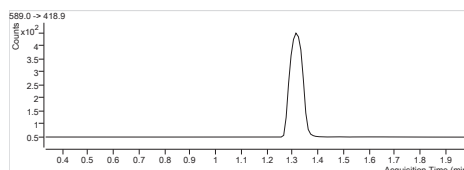
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1633	1.28	1 µg/L		
D5-EtFOSAA IS	1420	1.31	1 µg/L		
13C9-PFDA IS	27711	0.85	1 µg/L		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	1053	1.28	1.70	1.58 µg/L	93.00
EtFOSAA 1	1004	1.32	1.70	1.60 µg/L	93.88
D3-MeFOSAA	1665	1.28	100.00	104.61 µg/L	104.61
D5-EtFOSAA	1427	1.31	100.00	101.56 µg/L	101.56
13C9-PFDA	27168	0.85	100.00	99.73 µg/L	99.73

**D3-MeFOSAA IS**

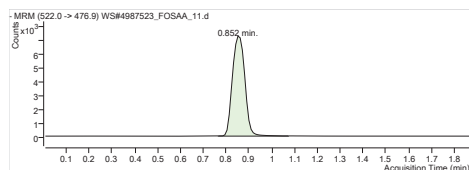
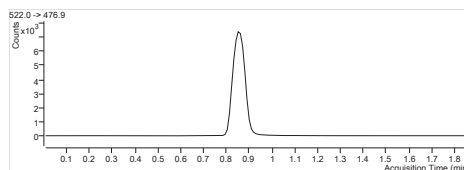
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
1.280 (1.298)
1 µg/L
Calibration

**D5-EtFOSAA IS**

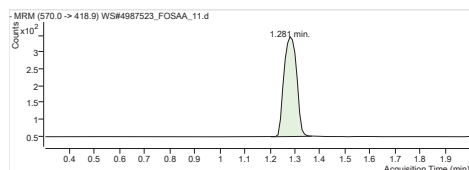
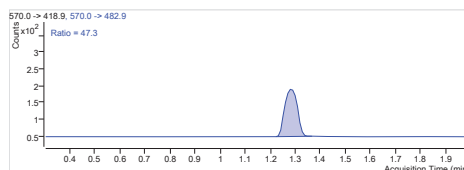
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
1.314 (1.331)
1 µg/L
Calibration

**13C9-PFDA IS**

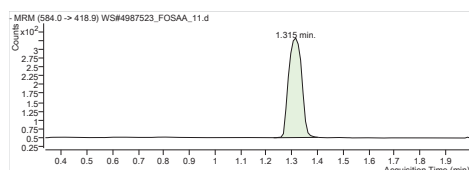
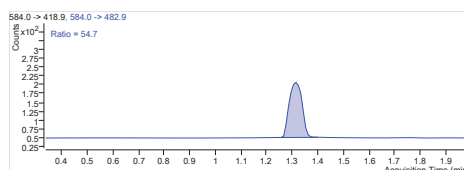
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
0.852 (0.873)
1 µg/L
Calibration

**MeFOSAA 1**

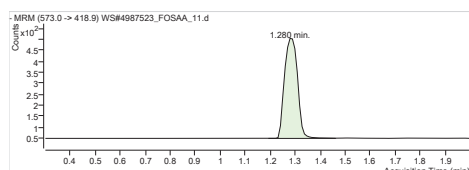
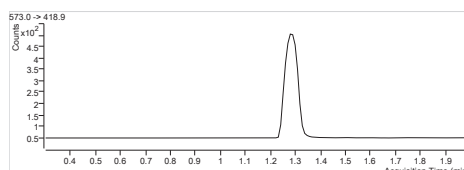
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

570.0 -> 418.9
1.281 (1.300)
1.58 µg/L
0.64483
Calibration

**EtFOSAA 1**

RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

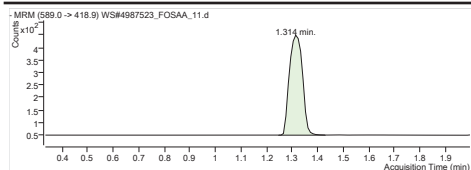
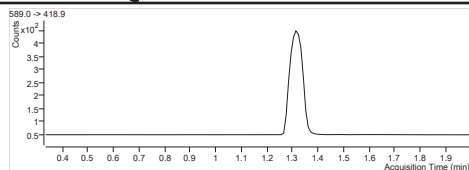
584.0 -> 418.9
1.315 (1.333)
1.60 µg/L
0.70704
Calibration

**D3-MeFOSAA**

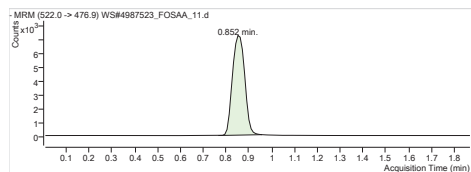
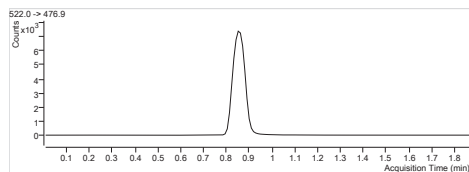
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

573.0 -> 418.9
1.280 (1.298)
104.61 µg/L
0.06009
Calibration

Quantitation Results



D5-EtFOSAA
 RT (Exp. RT): 1.314 (1.331)
 Calc. conc. 101.56 $\mu\text{g/L}$
 Area ratio: 0.05149
 Sample type: Calibration

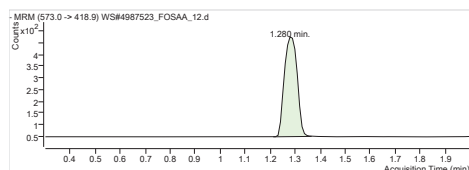
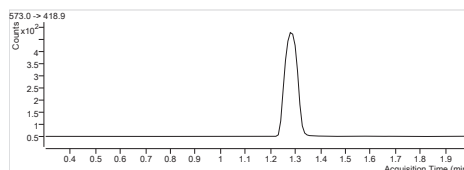


13C9-PFDA
 RT (Exp. RT): 0.852 (0.873)
 Calc. conc. 99.73 $\mu\text{g/L}$
 Area ratio: 0
 Sample type: Calibration

Batch Path	T:\lms4\PFC\20170523\WS#4987523_FOSAA\QuantResults\PFC_Water_Low_170523_WS#4987523_FOSAA		
Sample Name	STD 3	Instrument	LCMS04
Data File	WS#4987523_FOSAA_12.d	Operator	AD
Sample Type	Cal	Dilution	1
Acq. Method	PFC_Water_Low_FOSAA.m	Position	P1-A4
Acq. Date	2017/05/23 6:27:46 PM	Injection Volume	Per Method
Sample Annotation	-		

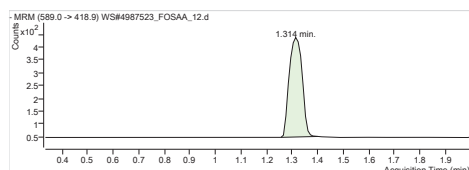
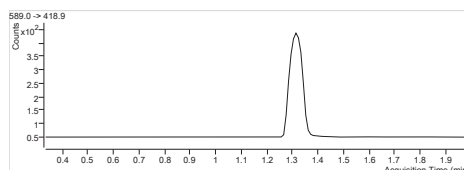
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1522	1.28	1 µg/L		
D5-EtFOSAA IS	1360	1.31	1 µg/L		
13C9-PFDA IS	26987	0.85	1 µg/L		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	3060	1.28	5.00	5.15 µg/L	103.08
EtFOSAA 1	2988	1.32	5.00	4.94 µg/L	98.84
D3-MeFOSAA	1532	1.28	100.00	98.80 µg/L	98.80
D5-EtFOSAA	1380	1.31	100.00	100.89 µg/L	100.89
13C9-PFDA	26431	0.85	100.00	97.02 µg/L	97.02

**D3-MeFOSAA IS**

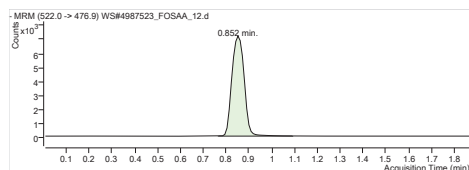
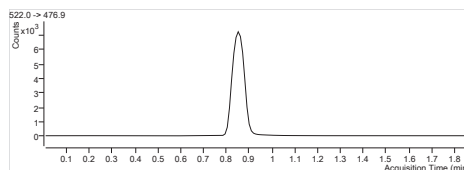
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
1.280 (1.298)
1 µg/L
Calibration

**D5-EtFOSAA IS**

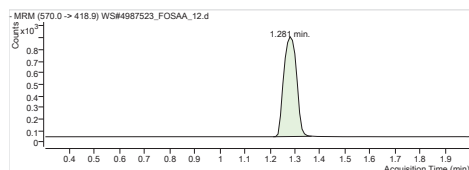
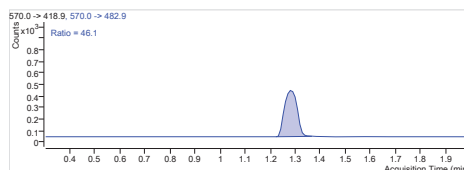
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
1.314 (1.331)
1 µg/L
Calibration

**13C9-PFDA IS**

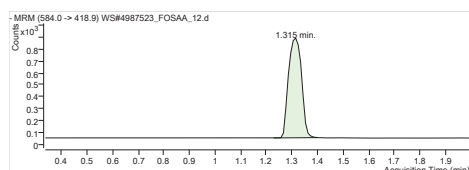
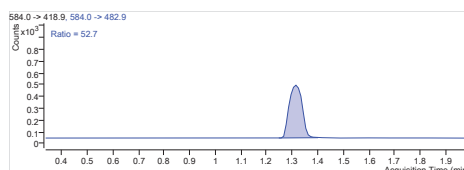
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
0.852 (0.873)
1 µg/L
Calibration

**MeFOSAA 1**

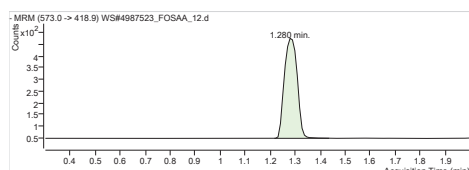
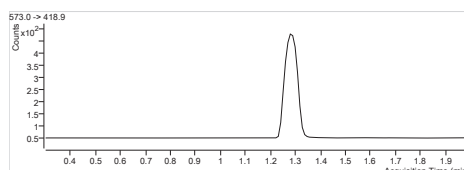
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

570.0 -> 418.9
1.281 (1.300)
5.15 µg/L
2.01051
Calibration

**EtFOSAA 1**

RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

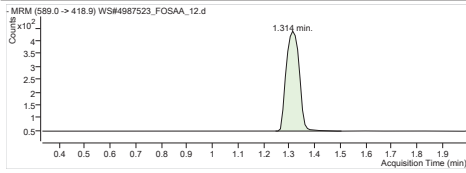
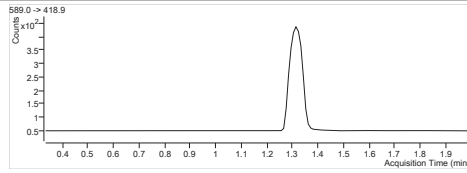
584.0 -> 418.9
1.315 (1.333)
4.94 µg/L
2.19706
Calibration

**D3-MeFOSAA**

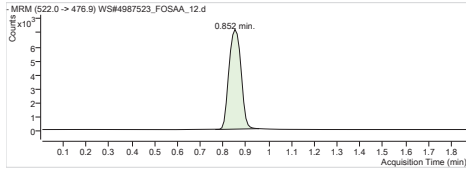
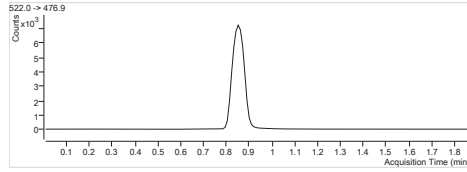
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

573.0 -> 418.9
1.280 (1.298)
98.80 µg/L
0.05675
Calibration

Quantitation Results



D5-EtFOSAA
 RT (Exp. RT): 589.0 -> 418.9
 Calc. conc. 1.314 (1.331)
 Area ratio: 100.89 µg/L
 Sample type: 0.05115
 Calibration

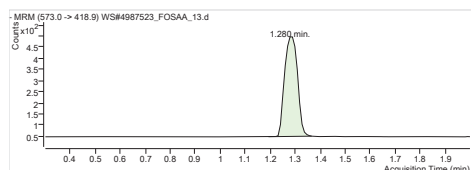
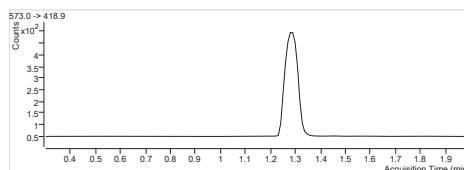


13C9-PFDA
 RT (Exp. RT): 522.0 -> 476.9
 Calc. conc. 0.852 (0.873)
 Area ratio: 97.02 µg/L
 Sample type: 0
 Calibration

Batch Path	T:\lms4\PFC\20170523\WS#4987523_FOSAA\QuantResults\PFC_Water_Low_170523_WS#4987523_FOSAA		
Sample Name	STD 4	Instrument	LCMS04
Data File	WS#4987523_FOSAA_13.d	Operator	AD
Sample Type	Cal	Dilution	1
Acq. Method	PFC_Water_Low_FOSAA.m	Position	P1-A5
Acq. Date	2017/05/23 6:30:10 PM	Injection Volume	Per Method
Sample Annotation	-		

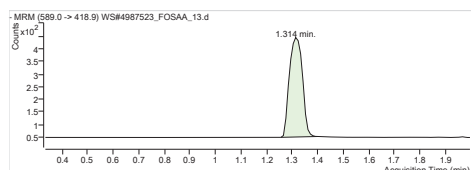
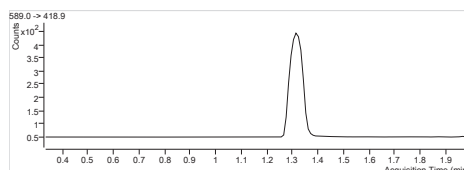
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1609	1.28	1 µg/L		
D5-EtFOSAA IS	1398	1.31	1 µg/L		
13C9-PFDA IS	29356	0.85	1 µg/L		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	8004	1.28	12.50	12.91 µg/L	103.27
EtFOSAA 1	7822	1.32	12.50	12.57 µg/L	100.58
D3-MeFOSAA	1626	1.28	100.00	96.40 µg/L	96.40
D5-EtFOSAA	1423	1.31	100.00	95.60 µg/L	95.60
13C9-PFDA	28523	0.85	100.00	104.70 µg/L	104.70

**D3-MeFOSAA IS**

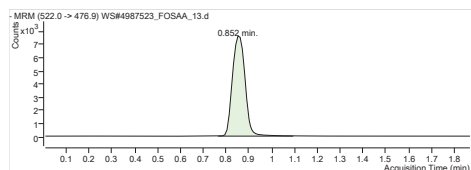
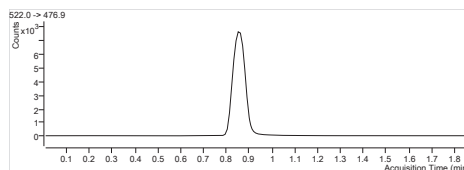
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
1.280 (1.298)
1 µg/L
Calibration

**D5-EtFOSAA IS**

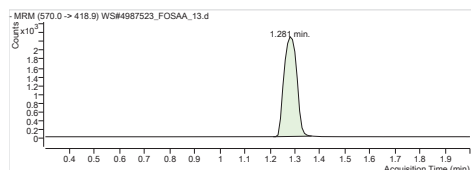
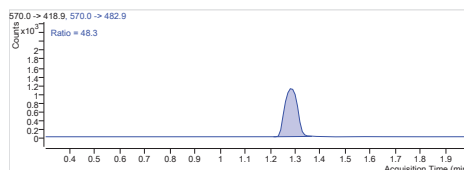
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
1.314 (1.331)
1 µg/L
Calibration

**13C9-PFDA IS**

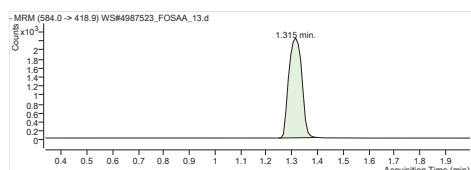
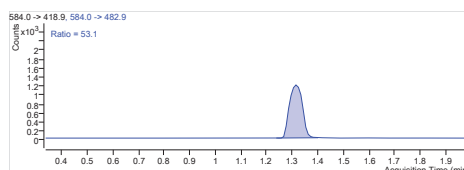
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
0.852 (0.873)
1 µg/L
Calibration

**MeFOSAA 1**

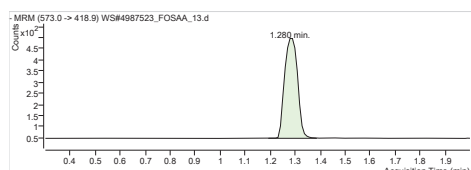
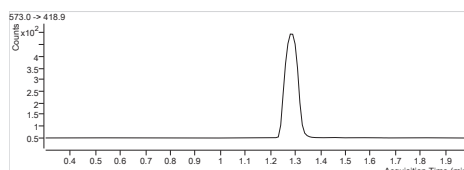
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

570.0 -> 418.9
1.281 (1.300)
12.91 µg/L
4.97452
Calibration

**EtFOSAA 1**

RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

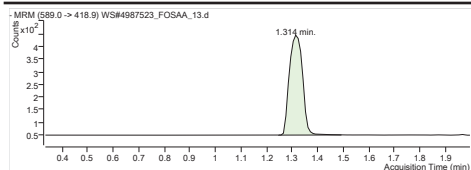
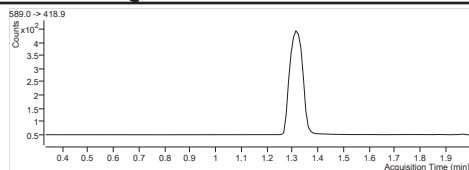
584.0 -> 418.9
1.315 (1.333)
12.57 µg/L
5.59514
Calibration

**D3-MeFOSAA**

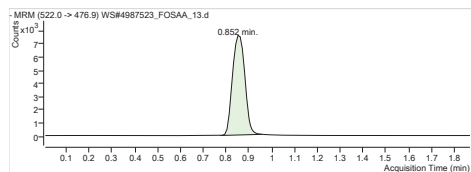
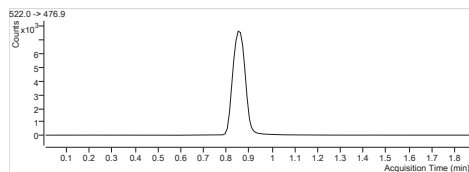
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

573.0 -> 418.9
1.280 (1.298)
96.40 µg/L
0.05537
Calibration

Quantitation Results



D5-EtFOSAA
 RT (Exp. RT): 589.0 -> 418.9
 Calc. conc. 1.314 (1.331)
 Area ratio: 95.60 µg/L
 Sample type: 0.04847
 Calibration

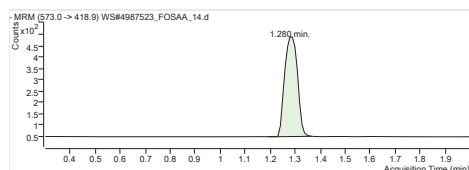
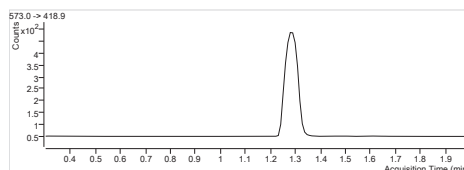


13C9-PFDA
 RT (Exp. RT): 522.0 -> 476.9
 Calc. conc. 0.852 (0.873)
 Area ratio: 104.70 µg/L
 Sample type: 0
 Calibration

Batch Path	T:\lms4\PFC\20170523\WS#4987523_FOSAA\QuantResults\PFC_Water_Low_170523_WS#4987523_FOSAA		
Sample Name	STD 5	Instrument	LCMS04
Data File	WS#4987523_FOSAA_14.d	Operator	AD
Sample Type	Cal	Dilution	1
Acq. Method	PFC_Water_Low_FOSAA.m	Position	P1-A6
Acq. Date	2017/05/23 6:32:32 PM	Injection Volume	Per Method
Sample Annotation	-		

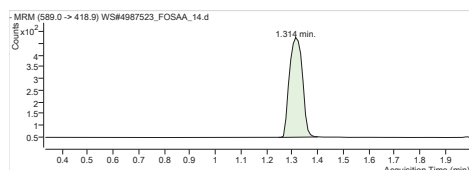
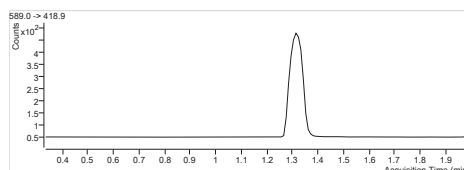
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1576	1.28	1 µg/L		
D5-EtFOSAA IS	1507	1.31	1 µg/L		
13C9-PFDA IS	28574	0.85	1 µg/L		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	15381	1.28	25.00	25.43 µg/L	101.71
EtFOSAA 1	16241	1.32	25.00	24.21 µg/L	96.84
D3-MeFOSAA	1589	1.28	100.00	96.82 µg/L	96.82
D5-EtFOSAA	1520	1.31	100.00	104.92 µg/L	104.92
13C9-PFDA	27945	0.85	100.00	102.58 µg/L	102.58

**D3-MeFOSAA IS**

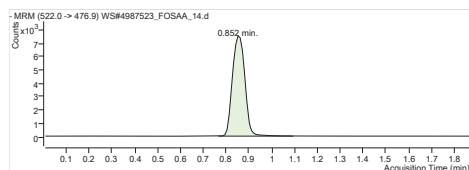
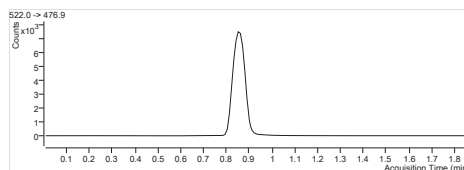
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
1.280 (1.298)
1 µg/L
Calibration

**D5-EtFOSAA IS**

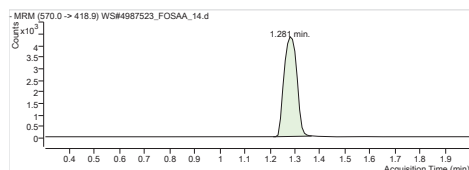
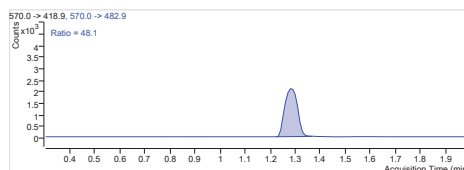
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
1.314 (1.331)
1 µg/L
Calibration

**13C9-PFDA IS**

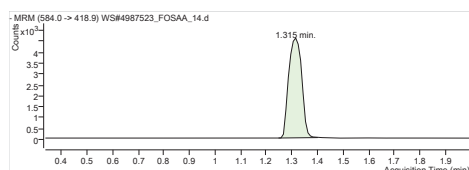
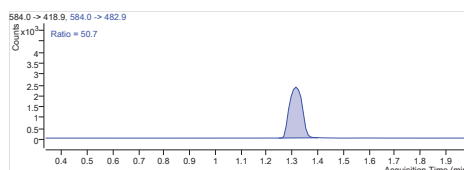
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
0.852 (0.873)
1 µg/L
Calibration

**MeFOSAA 1**

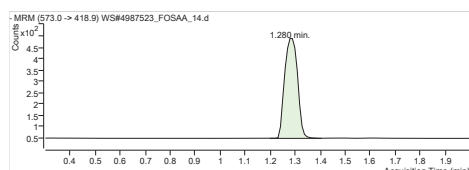
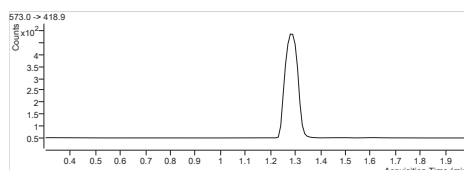
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

570.0 -> 418.9
1.281 (1.300)
25.43 µg/L
9.75952
Calibration

**EtFOSAA 1**

RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

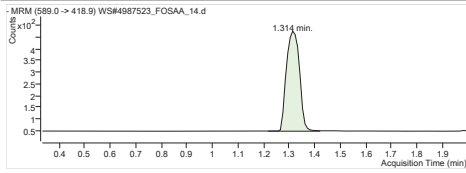
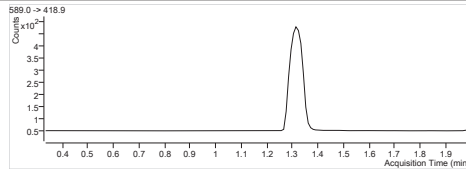
584.0 -> 418.9
1.315 (1.333)
24.21 µg/L
10.77704
Calibration

**D3-MeFOSAA**

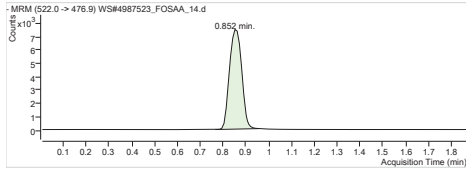
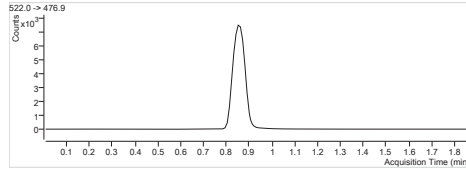
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

573.0 -> 418.9
1.280 (1.298)
96.82 µg/L
0.05561
Calibration

Quantitation Results



D5-EtFOSAA
 RT (Exp. RT): 589.0 -> 418.9
 Calc. conc. 1.314 (1.331)
 Area ratio: 104.92 $\mu\text{g/L}$
 Sample type: 0.05319
 Calibration

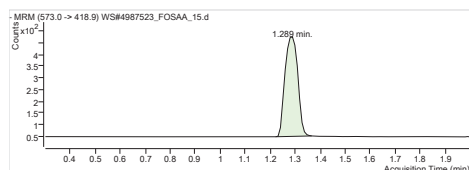
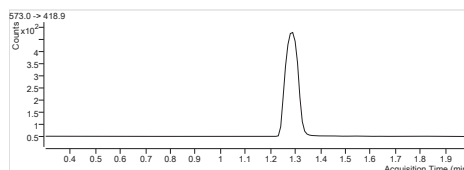


13C9-PFDA
 RT (Exp. RT): 522.0 -> 476.9
 Calc. conc. 0.852 (0.873)
 Area ratio: 102.58 $\mu\text{g/L}$
 Sample type: 0
 Calibration

Batch Path	T:\lms4\PFC\20170523\WS#4987523_FOSAA\QuantResults\PFC_Water_Low_170523_WS#4987523_FOSAA		
Sample Name	STD 6	Instrument	LCMS04
Data File	WS#4987523_FOSAA_15.d	Operator	AD
Sample Type	Cal	Dilution	1
Acq. Method	PFC_Water_Low_FOSAA.m	Position	P1-A7
Acq. Date	2017/05/23 6:34:56 PM	Injection Volume	Per Method
Sample Annotation	-		

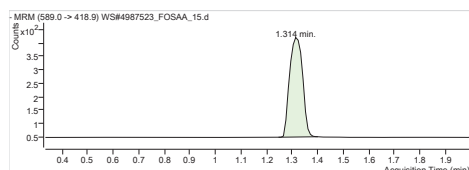
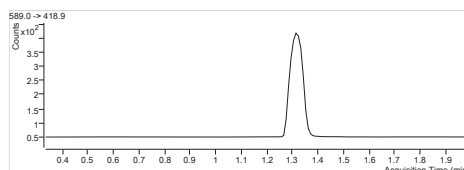
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1523	1.29	1 µg/L		
D5-EtFOSAA IS	1307	1.31	1 µg/L		
13C9-PFDA IS	26550	0.85	1 µg/L		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	23825	1.28	41.70	40.82 µg/L	97.89
EtFOSAA 1	24740	1.32	41.70	42.51 µg/L	101.95
D3-MeFOSAA	1543	1.29	100.00	101.16 µg/L	101.16
D5-EtFOSAA	1325	1.31	100.00	98.46 µg/L	98.46
13C9-PFDA	25916	0.85	100.00	95.13 µg/L	95.13

**D3-MeFOSAA IS**

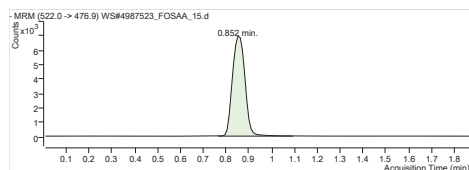
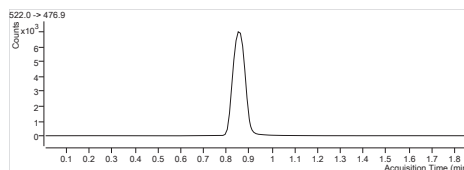
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
1.289 (1.298)
1 µg/L
Calibration

**D5-EtFOSAA IS**

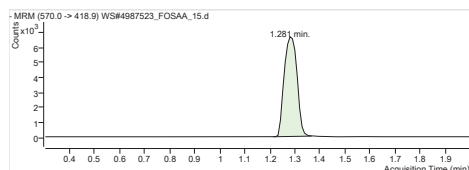
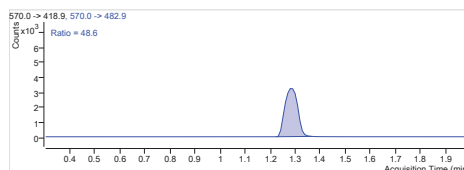
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
1.314 (1.331)
1 µg/L
Calibration

**13C9-PFDA IS**

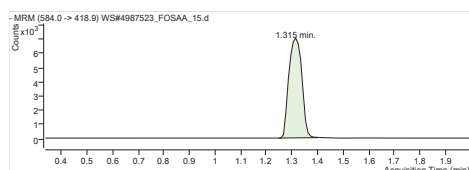
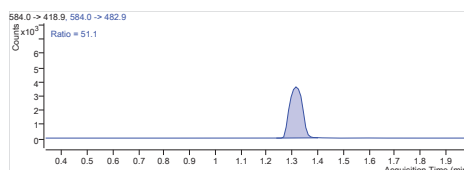
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
0.852 (0.873)
1 µg/L
Calibration

**MeFOSAA 1**

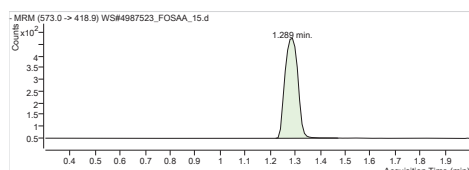
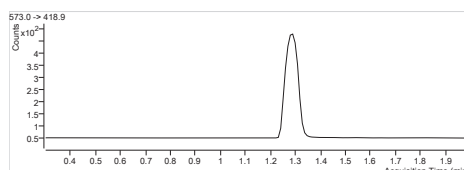
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

570.0 → 418.9
1.281 (1.300)
40.82 µg/L
15.64347
Calibration

**EtFOSAA 1**

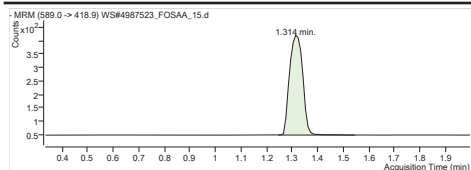
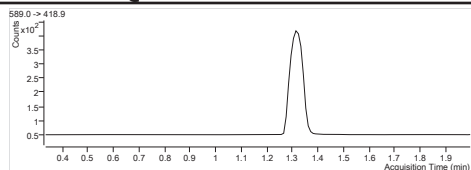
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

584.0 → 418.9
1.315 (1.333)
42.51 µg/L
18.92884
Calibration

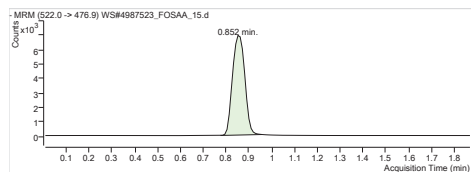
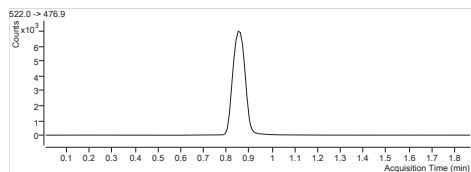
**D3-MeFOSAA**

RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

573.0 → 418.9
1.289 (1.298)
101.16 µg/L
0.05811
Calibration



D5-EtFOSAA
RT (Exp. RT): 589.0 -> 418.9
1.314 (1.331)
Calc. conc. 98.46 $\mu\text{g/L}$
Area ratio: 0.04992
Sample type: Calibration

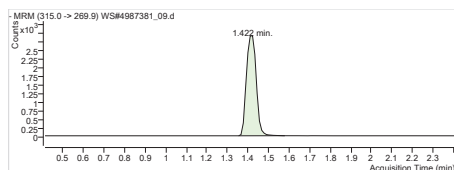
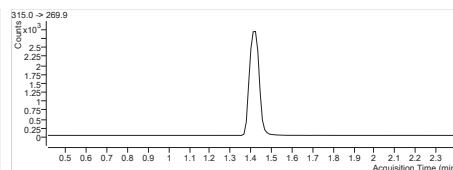


13C9-PFDA
RT (Exp. RT): 522.0 -> 476.9
0.852 (0.873)
Calc. conc. 95.13 $\mu\text{g/L}$
Area ratio: 0
Sample type: Calibration

Batch Path	T:\lcms4\PFC\20170519\WS#4987381\QuantResults\PFC_Soil_170519_WS#4987381_CTLabs		
Sample Name	ICV	Instrument	LCMS04
Data File	WS#4987381_09.d	Operator	M_G
Sample Type	QC	Dilution	1
Acq. Method	PFC_Soil.m	Position	P2-A9
Acq. Date	2017/05/20 3:44:20 AM	Injection Volume	Per Method
Sample Annotation	-		

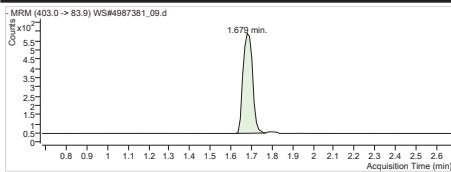
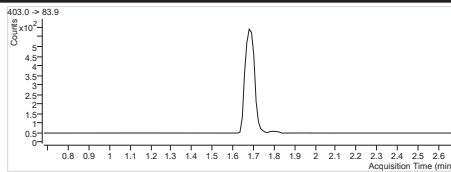
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	9659	1.42	1 µg/Kg		
MPFHxS	1751	1.68	1 µg/Kg		
MPFHpA	10847	1.68	1 µg/Kg		
MPFOA	10514	1.87	1 µg/Kg		
MPFOS	2110	1.98	1 µg/Kg		
MPFNA	10344	2.01	1 µg/Kg		
MPFDA	8793	2.12	1 µg/Kg		
MPFUnA	9913	2.22	1 µg/Kg		
MPFDoA	11504	2.31	1 µg/Kg		
MPFTeDA	14724	2.46	1 µg/Kg		
M2 6:2 FTS	2394	1.84	1 µg/Kg		
M2 8:2 FTS	2609	2.10	1 µg/Kg		
13C6-PFHxA IS	39797	1.42	1 µg/Kg		
13C9-PFDA IS	37126	2.12	1 µg/Kg		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	16662	1.09	18.80	16.23 µg/Kg	86.31
PFHxA 1	67859	1.42	18.80	17.08 µg/Kg	90.87
PFHxS 1	13222	1.68	18.80	16.16 µg/Kg	85.98
PFHpA 1	76735	1.68	18.80	16.03 µg/Kg	85.28
PFOA 1	72412	1.87	18.80	16.06 µg/Kg	85.42
PFOS 1	13824	1.97	18.80	16.95 µg/Kg	90.15
PFNA 1	64494	2.01	18.80	15.94 µg/Kg	84.78
PFDA 1	71421	2.12	18.80	16.37 µg/Kg	87.05
PFUnA 1	71678	2.22	18.80	17.48 µg/Kg	93.00
PFDaA 1	76361	2.31	18.80	16.23 µg/Kg	86.31
PFTTrDA 1	94227	2.39	18.80	16.40 µg/Kg	87.25
PFTeDA 1	84974	2.46	18.80	16.02 µg/Kg	85.20
6:2-FTS 1	16062	1.84	18.80	17.69 µg/Kg	94.12
8:2-FTS 1	16809	2.10	18.80	17.07 µg/Kg	90.78
13C2-PFHxA	9659	1.42	100.00	104.31 µg/Kg	104.31
18O2-PFHxS	1751	1.68	100.00	105.07 µg/Kg	105.07
13C4-PFHpA	10847	1.68	100.00	107.61 µg/Kg	107.61
13C4-PFOA	10514	1.87	100.00	106.49 µg/Kg	106.49
13C4-PFOS	2110	1.98	100.00	104.26 µg/Kg	104.26
13C5-PFNA	10344	2.01	100.00	107.33 µg/Kg	107.33
13C2-PFDA	8793	2.12	100.00	102.53 µg/Kg	102.53
13C2-PFUnA	9913	2.22	100.00	103.35 µg/Kg	103.35
13C2-PFDoA	11504	2.31	100.00	104.64 µg/Kg	104.64
13C2-PFTeDA	14724	2.46	100.00	107.98 µg/Kg	107.98
13C2-6:2-FTS	2394	1.84	100.00	96.03 µg/Kg	96.03
13C2-8:2 FTS	2609	2.10	100.00	104.22 µg/Kg	104.22
13C6-PFHxA	39797	1.42	100.00	95.03 µg/Kg	95.03
13C9-PFDA	37126	2.12	100.00	96.60 µg/Kg	96.60

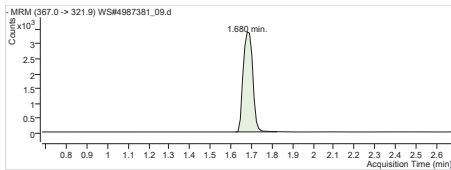
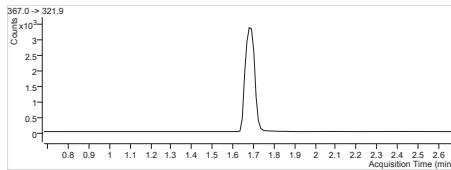


MPFHxA
 RT (Exp. RT): 1.422 (1.411)
 Concentration: 1 µg/Kg
 Sample type: QC

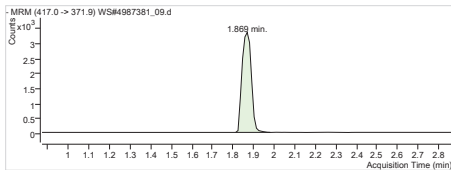
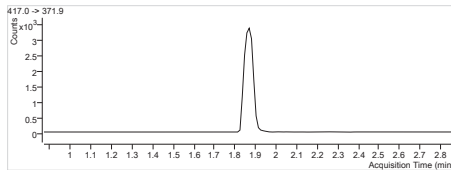
Quantitation Results



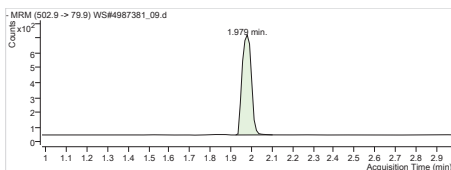
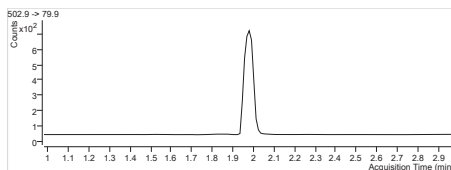
MPFHxS
 RT (Exp. RT): 1.679 (1.679)
 Concentration: 1 µg/Kg
 Sample type: QC



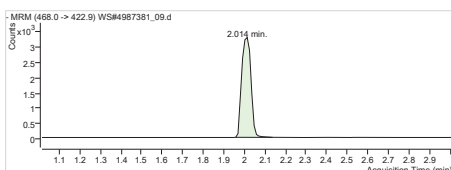
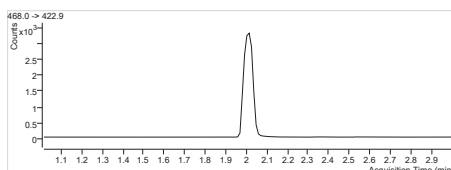
MPFHpA
 RT (Exp. RT): 1.680 (1.680)
 Concentration: 1 µg/Kg
 Sample type: QC



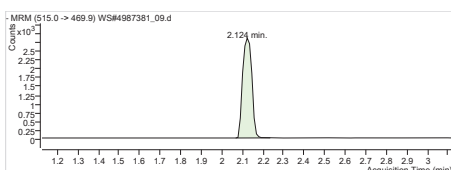
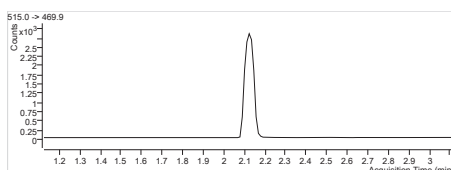
MPFOA
 RT (Exp. RT): 1.869 (1.869)
 Concentration: 1 µg/Kg
 Sample type: QC



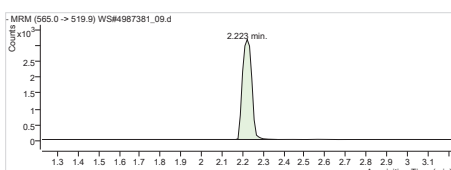
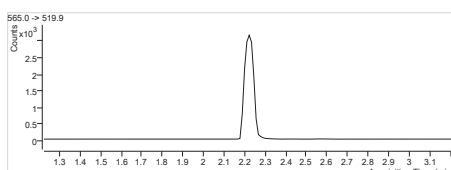
MPFOS
 RT (Exp. RT): 1.979 (1.979)
 Concentration: 1 µg/Kg
 Sample type: QC



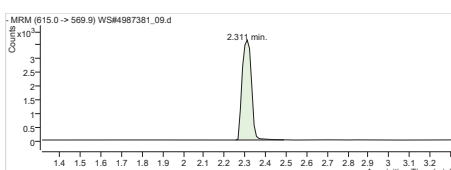
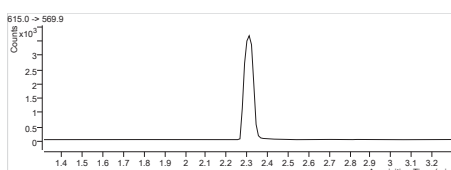
MPFNA
 RT (Exp. RT): 2.014 (2.014)
 Concentration: 1 µg/Kg
 Sample type: QC



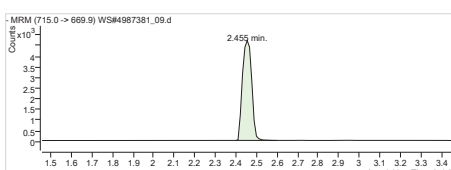
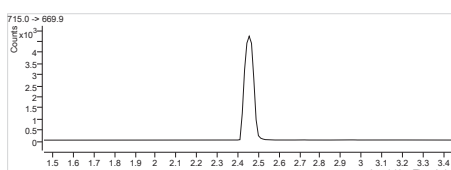
MPFDA
 RT (Exp. RT): 2.124 (2.124)
 Concentration: 1 µg/Kg
 Sample type: QC



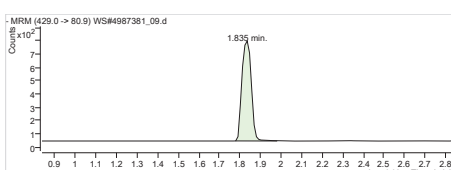
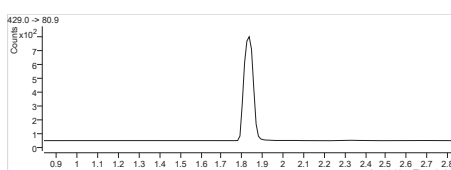
MPFUnA
 RT (Exp. RT): 2.223 (2.223)
 Concentration: 1 µg/Kg
 Sample type: QC



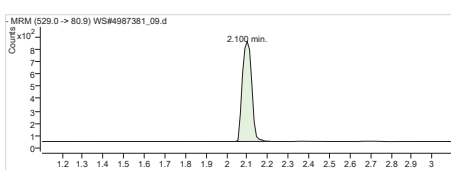
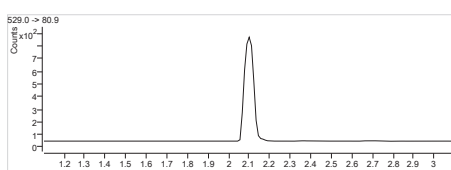
MPFDoA
 RT (Exp. RT): 2.311 (2.311)
 Concentration: 1 µg/Kg
 Sample type: QC



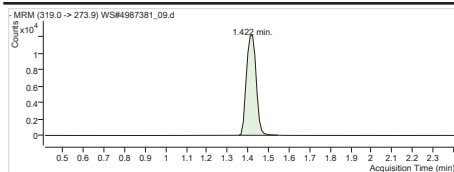
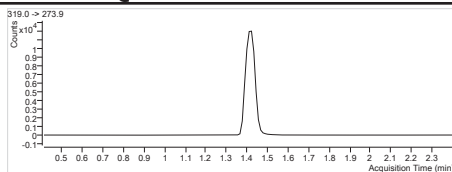
MPFTeDA
 RT (Exp. RT): 2.455 (2.455)
 Concentration: 1 µg/Kg
 Sample type: QC



M2 6:2 FTS
 RT (Exp. RT): 1.835 (1.835)
 Concentration: 1 µg/Kg
 Sample type: QC



M2 8:2 FTS
 RT (Exp. RT): 2.100 (2.100)
 Concentration: 1 µg/Kg
 Sample type: QC

**13C6-PFHxA IS**

RT (Exp. RT):

Concentration:

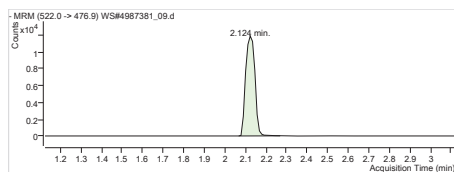
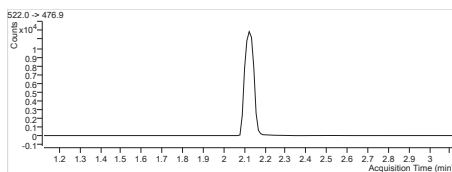
Sample type:

Internal Standard

1.422 (1.411)

1 µg/Kg

QC

**13C9-PFDA IS**

RT (Exp. RT):

Concentration:

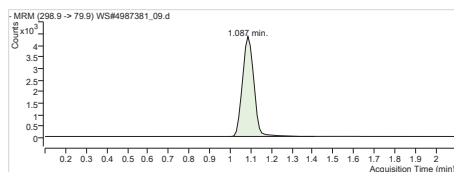
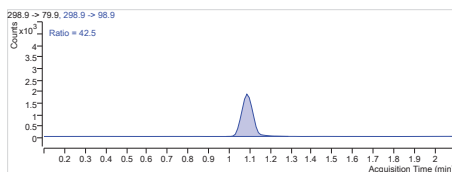
Sample type:

Internal Standard

2.124 (2.124)

1 µg/Kg

QC

**PFBS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

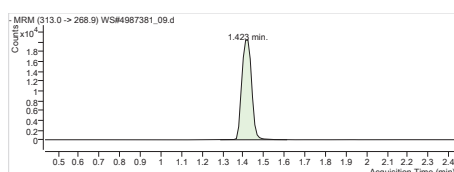
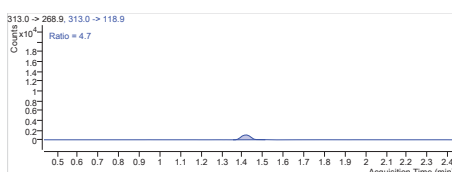
298.9 -> 79.9

1.087 (1.098)

16.23 µg/Kg

9.51571

QC

**PFHxA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

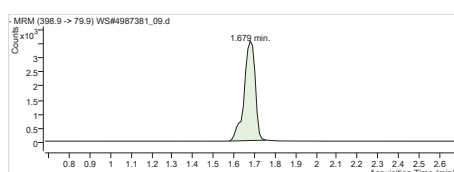
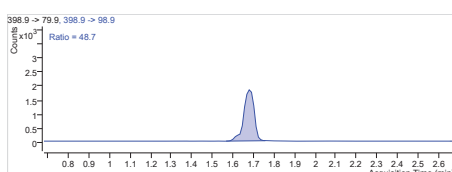
313.0 -> 268.9

1.423 (1.434)

17.08 µg/Kg

7.02547

QC

**PFHxS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

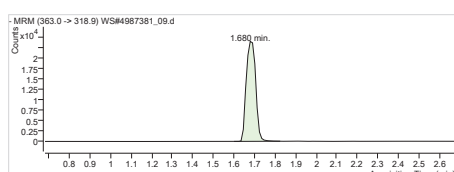
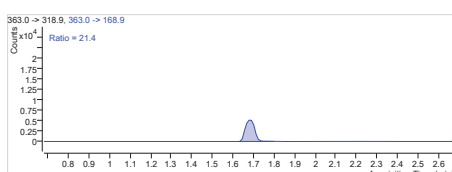
398.9 -> 79.9

1.679 (1.679)

16.16 µg/Kg

7.55111

QC

**PFHpA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

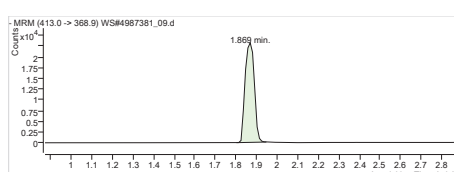
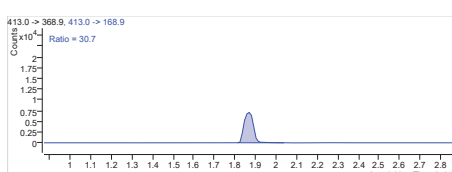
363.0 -> 318.9

1.680 (1.680)

16.03 µg/Kg

7.07431

QC

**PFOA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

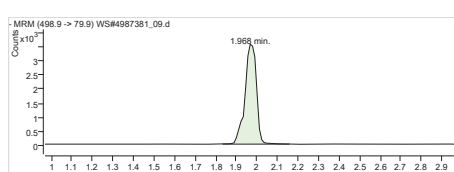
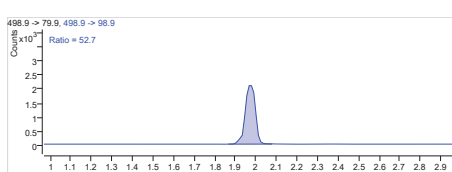
413.0 -> 368.9

1.869 (1.869)

16.06 µg/Kg

6.88720

QC

**PFOS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

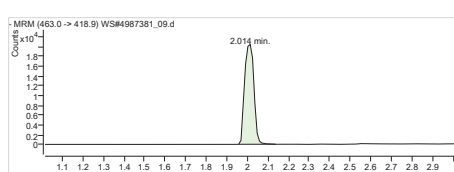
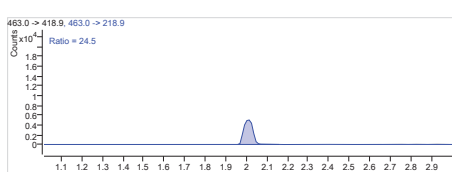
498.9 -> 79.9

1.968 (1.968)

16.95 µg/Kg

6.55166

QC

**PFNA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

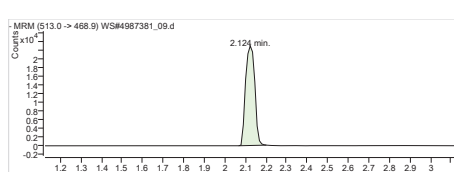
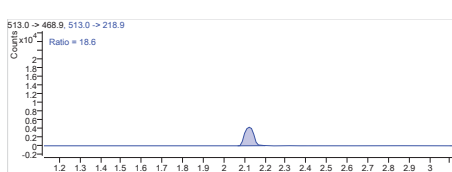
463.0 -> 418.9

2.014 (2.014)

15.94 µg/Kg

6.23492

QC

**PFDA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

513.0 -> 468.9

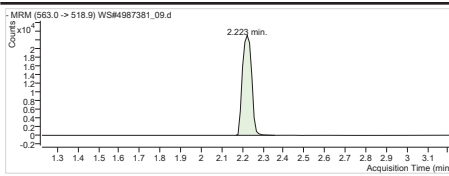
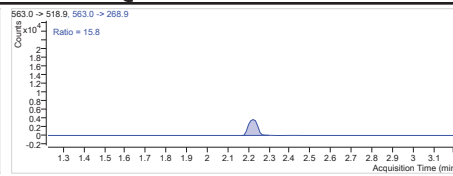
2.124 (2.124)

16.37 µg/Kg

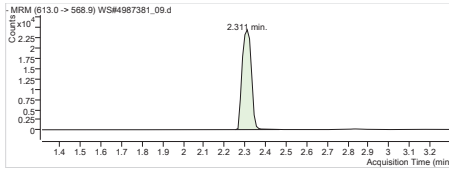
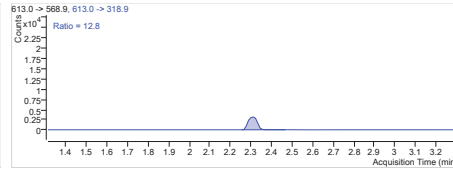
8.12248

QC

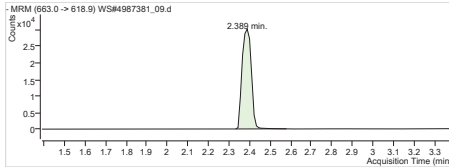
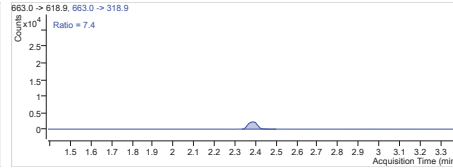
Quantitation Results



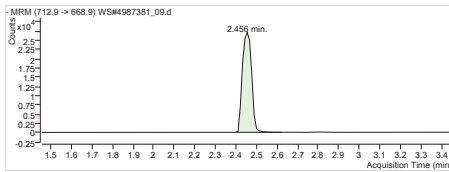
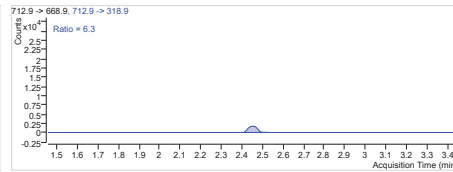
PFUnA 1
RT (Exp. RT): 563.0 -> 518.9
Calc. conc. 2.223 (2.223)
Area ratio: 17.48 µg/Kg
Sample type: 7.23071
QC



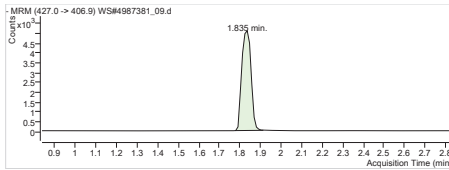
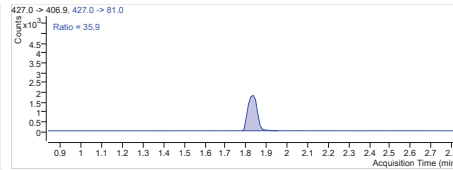
PFDa 1
RT (Exp. RT): 613.0 -> 568.9
Calc. conc. 2.311 (2.311)
Area ratio: 16.23 µg/Kg
Sample type: 6.63778
QC



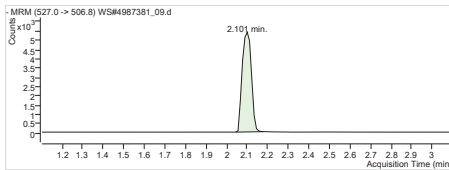
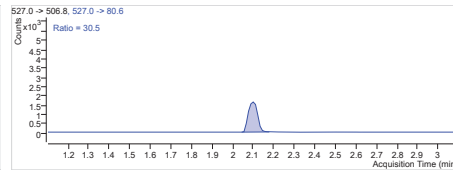
PFTraD 1
RT (Exp. RT): 663.0 -> 618.9
Calc. conc. 2.389 (2.389)
Area ratio: 16.40 µg/Kg
Sample type: 6.39955
QC



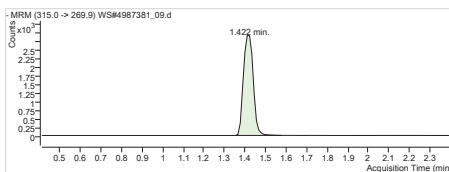
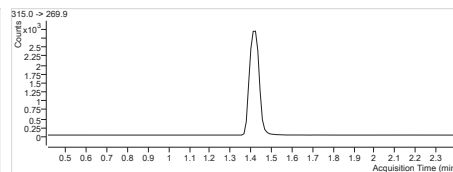
PFTeDa 1
RT (Exp. RT): 712.9 -> 668.9
Calc. conc. 2.456 (2.456)
Area ratio: 16.02 µg/Kg
Sample type: 5.77112
QC



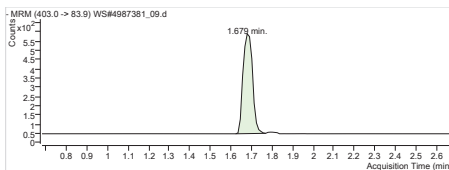
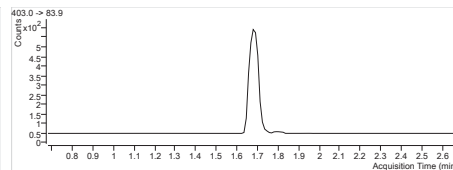
6:2-FTS 1
RT (Exp. RT): 427.0 -> 406.9
Calc. conc. 1.835 (1.835)
Area ratio: 17.69 µg/Kg
Sample type: 6.70927
QC



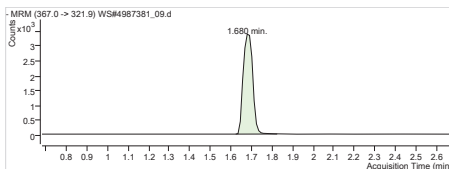
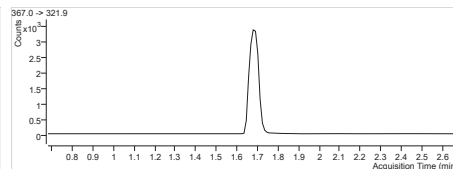
8:2-FTS 1
RT (Exp. RT): 527.0 -> 506.8
Calc. conc. 2.101 (2.101)
Area ratio: 17.07 µg/Kg
Sample type: 6.44270
QC



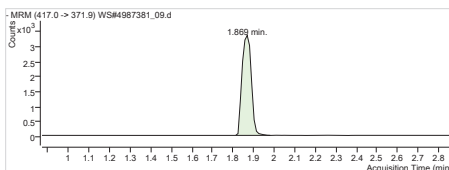
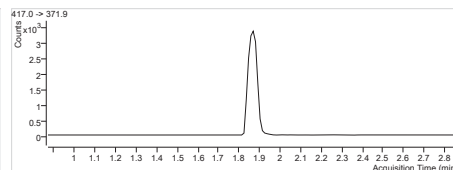
13C2-PFHxA
RT (Exp. RT): 315.0 -> 269.9
Calc. conc. 1.422 (1.411)
Area ratio: 104.31 µg/Kg
Sample type: 0.24271
QC



18O2-PFHxS
RT (Exp. RT): 403.0 -> 83.9
Calc. conc. 1.679 (1.679)
Area ratio: 105.07 µg/Kg
Sample type: 0.04400
QC

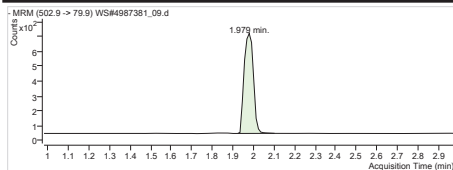
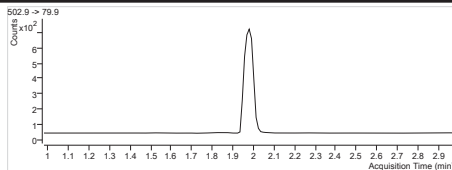


13C4-PFHpA
RT (Exp. RT): 367.0 -> 321.9
Calc. conc. 1.680 (1.680)
Area ratio: 107.61 µg/Kg
Sample type: 0.27256
QC

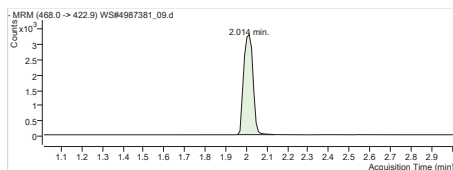
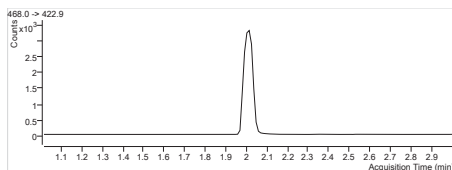


13C4-PFOA
RT (Exp. RT): 417.0 -> 371.9
Calc. conc. 1.869 (1.869)
Area ratio: 106.49 µg/Kg
Sample type: 0.26419
QC

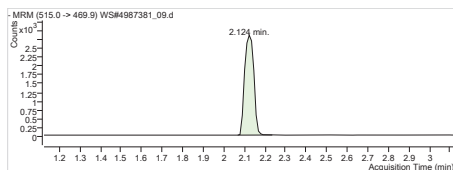
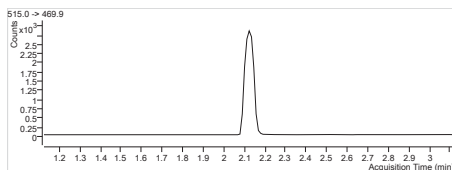
Quantitation Results



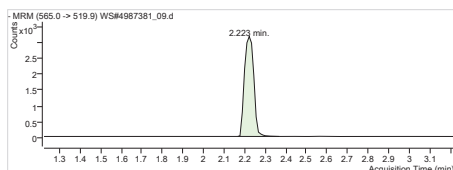
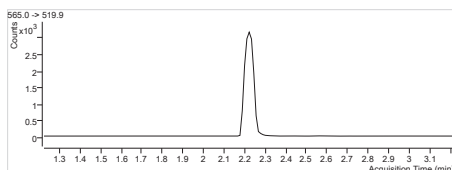
13C4-PFOS
RT (Exp. RT): 502.9 -> 79.9
Calc. conc. 1.979 (1.979)
Area ratio: 104.26 µg/Kg
Sample type: 0.05302
QC



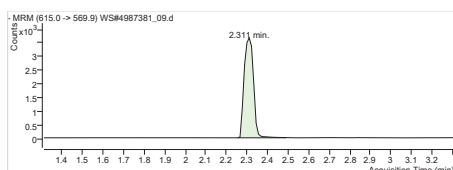
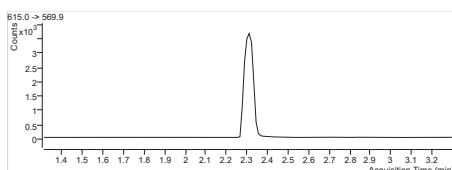
13C5-PFNA
RT (Exp. RT): 468.0 -> 422.9
Calc. conc. 2.014 (2.014)
Area ratio: 107.33 µg/Kg
Sample type: 0.25992
QC



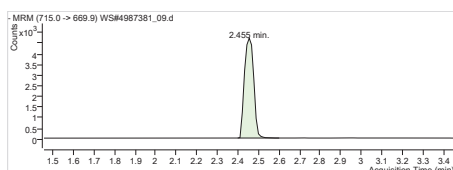
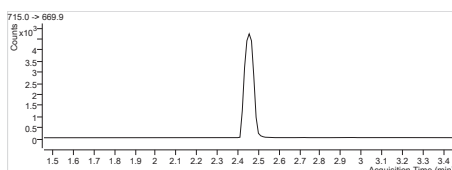
13C2-PFDA
RT (Exp. RT): 515.0 -> 469.9
Calc. conc. 2.124 (2.124)
Area ratio: 102.53 µg/Kg
Sample type: 0.23684
QC



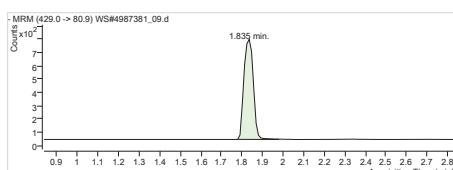
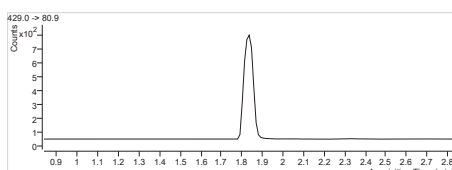
13C2-PFUnA
RT (Exp. RT): 565.0 -> 519.9
Calc. conc. 2.223 (2.223)
Area ratio: 103.35 µg/Kg
Sample type: 0.26701
QC



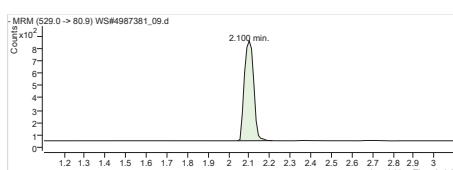
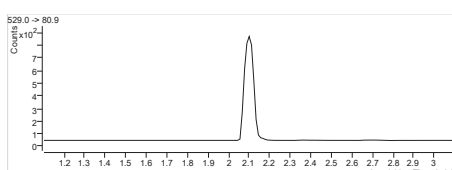
13C2-PFDoA
RT (Exp. RT): 615.0 -> 569.9
Calc. conc. 2.311 (2.311)
Area ratio: 104.64 µg/Kg
Sample type: 0.30986
QC



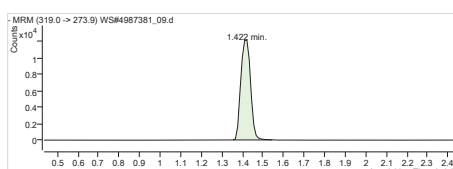
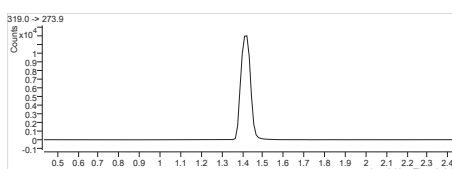
13C2-PFTeDA
RT (Exp. RT): 715.0 -> 669.9
Calc. conc. 2.455 (2.455)
Area ratio: 107.98 µg/Kg
Sample type: 0.39660
QC



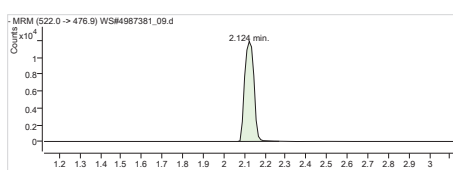
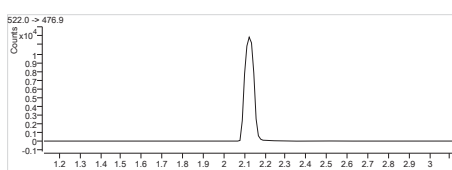
13C2-6:2-FTS
RT (Exp. RT): 429.0 -> 80.9
Calc. conc. 1.835 (1.835)
Area ratio: 96.03 µg/Kg
Sample type: 0.06016
QC



13C2-8:2 FTS
RT (Exp. RT): 529.0 -> 80.9
Calc. conc. 2.100 (2.100)
Area ratio: 104.22 µg/Kg
Sample type: 0.06556
QC



13C6-PFHxA
RT (Exp. RT): 319.0 -> 273.9
Calc. conc. 1.422 (1.434)
Area ratio: 95.03 µg/Kg
Sample type: 0
QC



13C9-PFDA
RT (Exp. RT): 522.0 -> 476.9
Calc. conc. 2.124 (2.124)
Area ratio: 96.60 µg/Kg
Sample type: 0
QC

Sample Name

ICV

Instrument

LCMS04

Data File

WS#4987381_FOSAA_09.d

Operator

M_G

Sample Type

QC

Dilution

1

Acq. Method

PFC_Soil_FOSAA.m

Position

P2-A9

Acq. Date

2017/05/20 11:49:58 AM

Injection Volume

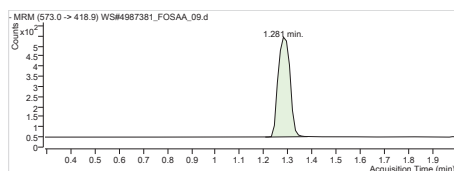
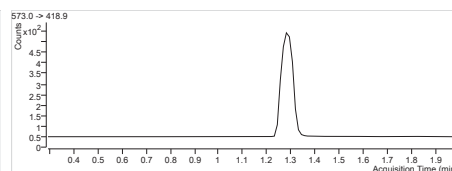
Per Method

Sample Annotation

-

ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1699	1.28	1 µg/Kg		
D5-EtFOSAA IS	1546	1.31	1 µg/Kg		
13C9-PFDA IS	30172	0.85	1 µg/Kg		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	11049	1.28	18.80	16.71 µg/Kg	88.89
EtFOSAA 1	11249	1.32	18.80	16.73 µg/Kg	88.98
D3-MeFOSAA	1716	1.28	100.00	100.16 µg/Kg	100.16
D5-EtFOSAA	1554	1.31	100.00	100.33 µg/Kg	100.33
13C9-PFDA	29337	0.85	100.00	94.58 µg/Kg	94.58

**D3-MeFOSAA IS**

RT (Exp. RT):

Internal Standard

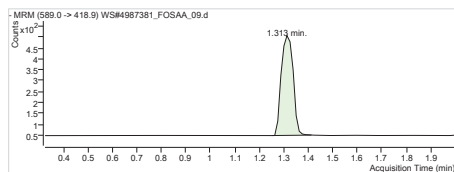
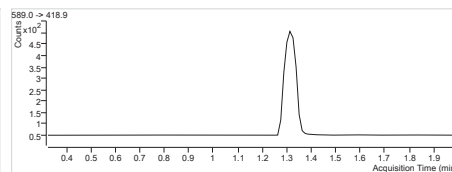
Concentration:

1.281 (1.281)

Sample type:

1 µg/Kg

QC

**D5-EtFOSAA IS**

RT (Exp. RT):

Internal Standard

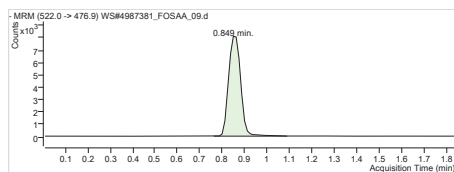
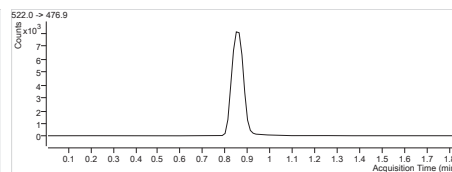
Concentration:

1.313 (1.313)

Sample type:

1 µg/Kg

QC

**13C9-PFDA IS**

RT (Exp. RT):

Internal Standard

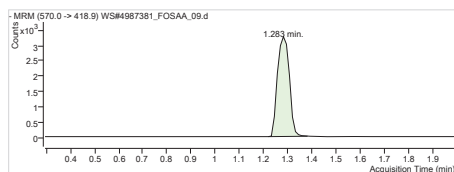
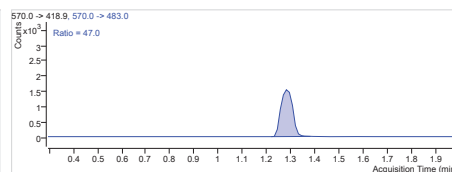
Concentration:

0.849 (0.849)

Sample type:

1 µg/Kg

QC

**MeFOSAA 1**

RT (Exp. RT):

570.0 -> 418.9

Calc. conc.

1.283 (1.283)

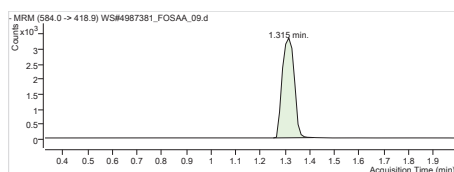
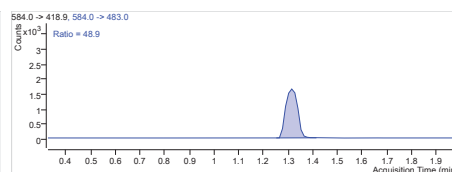
Area ratio:

16.71 µg/Kg

Sample type:

6.50324

QC

**EtFOSAA 1**

RT (Exp. RT):

584.0 -> 418.9

Calc. conc.

1.315 (1.315)

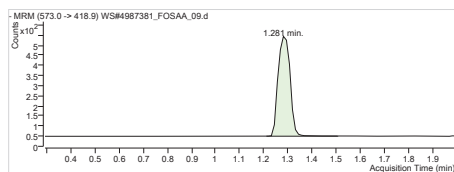
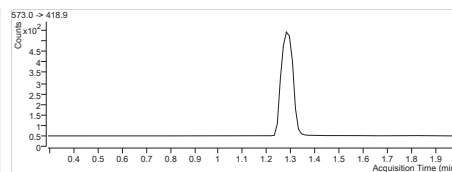
Area ratio:

16.73 µg/Kg

Sample type:

7.27620

QC

**D3-MeFOSAA**

RT (Exp. RT):

573.0 -> 418.9

Calc. conc.

1.281 (1.281)

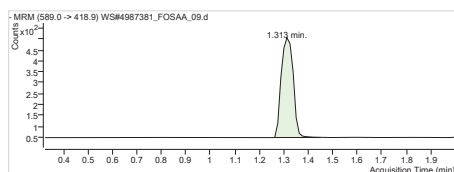
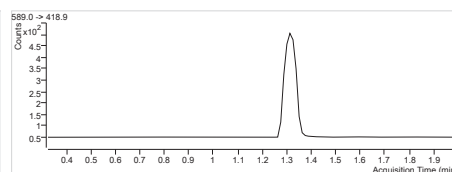
Area ratio:

100.16 µg/Kg

Sample type:

0.05687

QC

**D5-EtFOSAA**

RT (Exp. RT):

589.0 -> 418.9

Calc. conc.

1.313 (1.313)

Area ratio:

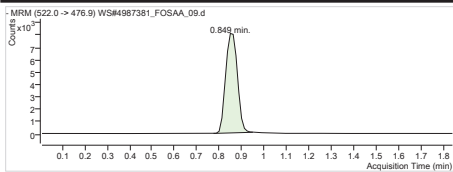
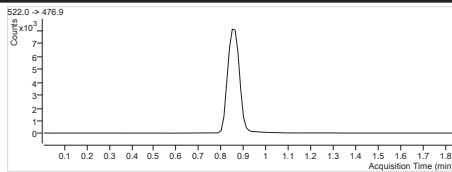
100.33 µg/Kg

Sample type:

0.05152

QC

Quantitation Results



13C9-PFDA
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

522.0 -> 476.9
0.849 (0.849)
94.58 µg/Kg
0
QC

Batch Path

T:\lcms4\PFC\20170523\WS#4987523\QuantResults\PFC_Water_Low_170523_WS#4987523_CT

Sample Name

ICV

Instrument

LCMS04

Data File

WS#4987523_09.d

Operator

AD

Sample Type

QC

Dilution

1

Acq. Method

PFC_Water_Low.m

Position

P1-A9

Acq. Date

2017/05/23 9:52:50 AM

Injection Volume

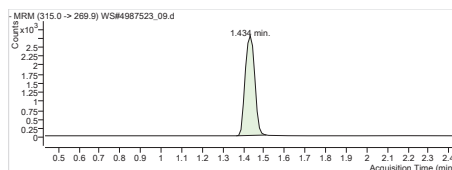
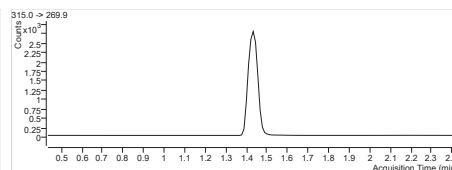
Per Method

Sample Annotation

-

ISTD Compounds	Response	RT	Target conc.		
MPFHxA	8931	1.43	1 µg/L		
MPFHxS	1602	1.69	1 µg/L		
MPFHpA	9735	1.69	1 µg/L		
MPFOA	8493	1.87	1 µg/L		
MPFOS	1962	1.98	1 µg/L		
MPFNA	8891	2.01	1 µg/L		
MPFDA	8005	2.14	1 µg/L		
MPFUnA	7993	2.23	1 µg/L		
MPFDoA	9356	2.31	1 µg/L		
MPFTeDA	12116	2.46	1 µg/L		
M2 6:2 FTS	2251	1.84	1 µg/L		
M2 8:2 FTS	2470	2.10	1 µg/L		
13C6-PFHxA IS	40193	1.43	1 µg/L		
13C9-PFDA IS	32462	2.13	1 µg/L		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	19147	1.11	20.80	19.23 µg/L	92.43
PFHxA 1	77322	1.43	20.80	19.70 µg/L	94.70
PFHxS 1	14648	1.69	20.80	18.53 µg/L	89.07
PFHpA 1	81571	1.69	20.80	18.27 µg/L	87.83
PFOA 1	76116	1.88	20.80	20.59 µg/L	99.00
PFOS 1	14726	1.98	20.80	19.49 µg/L	93.68
PFNA 1	67749	2.01	20.80	19.10 µg/L	91.80
PFDA 1	70916	2.14	20.80	17.90 µg/L	86.06
PFUnA 1	72985	2.22	20.80	20.96 µg/L	100.77
PFDaA 1	75864	2.31	20.80	19.70 µg/L	94.70
PFTTrDA 1	90330	2.39	20.80	18.62 µg/L	89.50
PFTeDA 1	87563	2.46	20.80	19.15 µg/L	92.06
6:2-FTS 1	16855	1.84	20.80	18.85 µg/L	90.63
8:2-FTS 1	17196	2.10	20.80	19.07 µg/L	91.67
13C2-PFHxA	8931	1.43	100.00	99.90 µg/L	99.90
18O2-PFHxS	1602	1.69	100.00	101.97 µg/L	101.97
13C4-PFHpA	9735	1.69	100.00	104.06 µg/L	104.06
13C4-PFOA	8493	1.87	100.00	92.58 µg/L	92.58
13C4-PFOS	1962	1.98	100.00	101.99 µg/L	101.99
13C5-PFNA	8891	2.01	100.00	99.44 µg/L	99.44
13C2-PFDA	8005	2.14	100.00	108.77 µg/L	108.77
13C2-PFUnA	7993	2.23	100.00	100.53 µg/L	100.53
13C2-PFDoA	9356	2.31	100.00	104.58 µg/L	104.58
13C2-PFTeDA	12116	2.46	100.00	107.13 µg/L	107.13
13C2-6:2-FTS	2251	1.84	100.00	101.14 µg/L	101.14
13C2-8:2 FTS	2470	2.10	100.00	102.95 µg/L	102.95
13C6-PFHxA	40193	1.43	100.00	102.89 µg/L	102.89
13C9-PFDA	32462	2.13	100.00	98.39 µg/L	98.39



MPFHxA

Internal Standard

RT (Exp. RT):

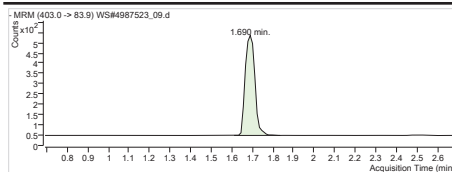
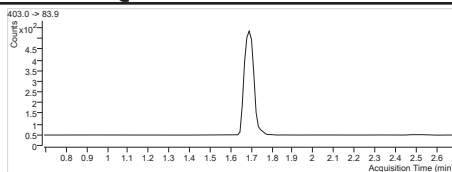
1.434 (1.434)

Concentration:

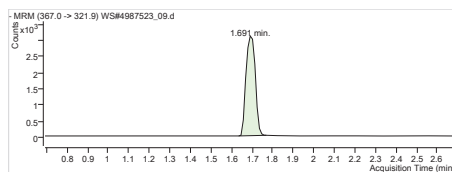
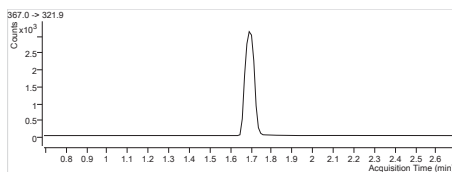
1 µg/L

Sample type:

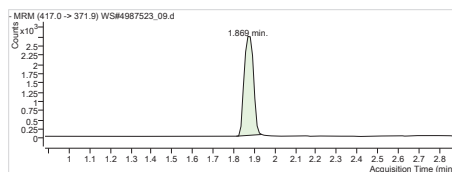
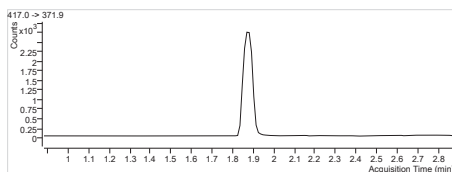
QC



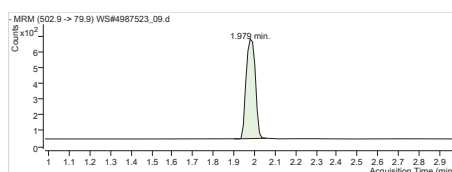
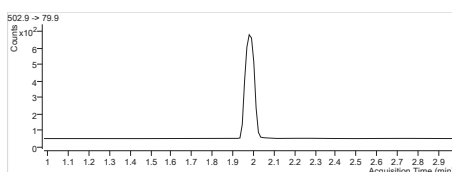
MPFHxS
 RT (Exp. RT): 1.690 (1.690)
 Concentration: 1 µg/L
 Sample type: QC



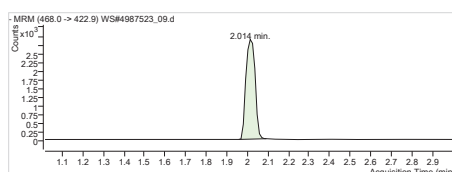
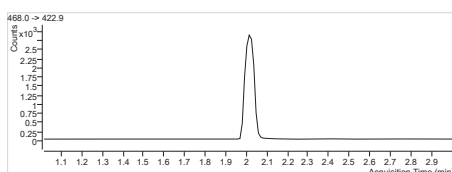
MPFHpA
 RT (Exp. RT): 1.691 (1.691)
 Concentration: 1 µg/L
 Sample type: QC



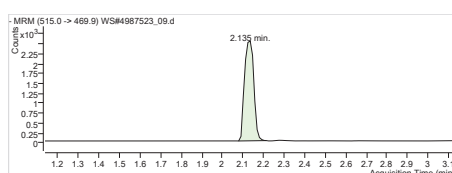
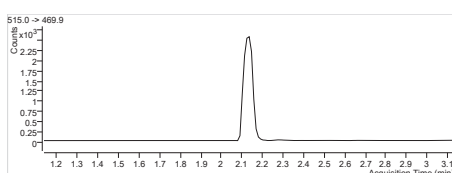
MPFOA
 RT (Exp. RT): 1.869 (1.881)
 Concentration: 1 µg/L
 Sample type: QC



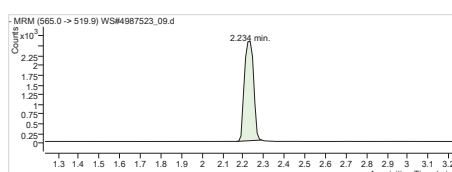
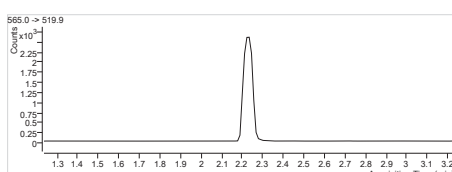
MPFOS
 RT (Exp. RT): 1.979 (1.979)
 Concentration: 1 µg/L
 Sample type: QC



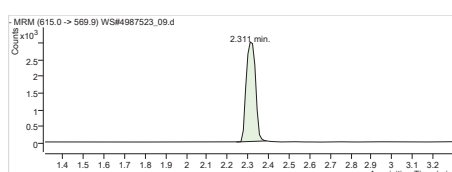
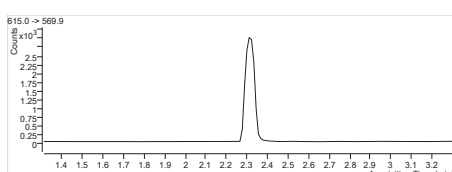
MPFNA
 RT (Exp. RT): 2.014 (2.014)
 Concentration: 1 µg/L
 Sample type: QC



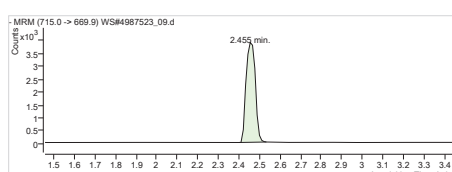
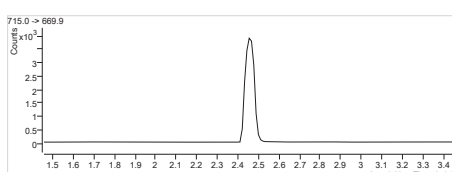
MPFDA
 RT (Exp. RT): 2.135 (2.135)
 Concentration: 1 µg/L
 Sample type: QC



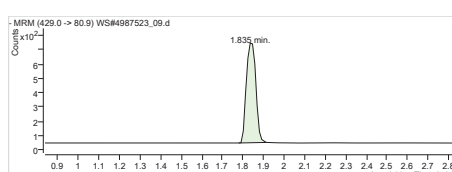
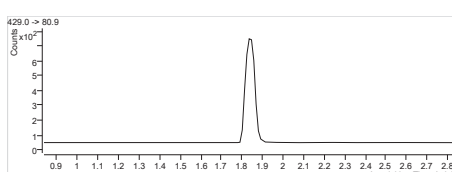
MPFUnA
 RT (Exp. RT): 2.234 (2.234)
 Concentration: 1 µg/L
 Sample type: QC



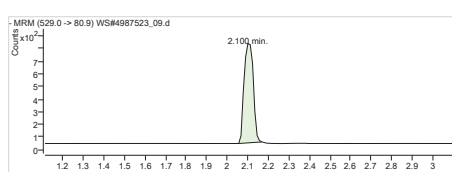
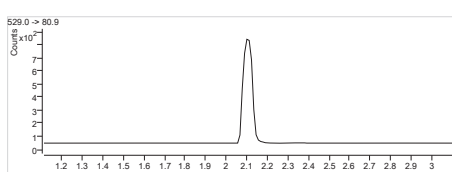
MPFDoA
 RT (Exp. RT): 2.311 (2.311)
 Concentration: 1 µg/L
 Sample type: QC



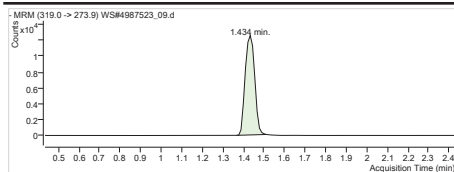
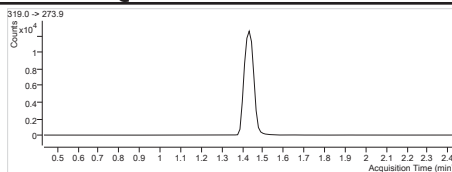
MPFTeDA
 RT (Exp. RT): 2.455 (2.455)
 Concentration: 1 µg/L
 Sample type: QC



M2 6:2 FTS
 RT (Exp. RT): 1.835 (1.835)
 Concentration: 1 µg/L
 Sample type: QC



M2 8:2 FTS
 RT (Exp. RT): 2.100 (2.112)
 Concentration: 1 µg/L
 Sample type: QC

**13C6-PFHxA IS**

RT (Exp. RT):

Concentration:

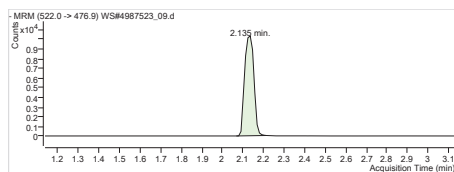
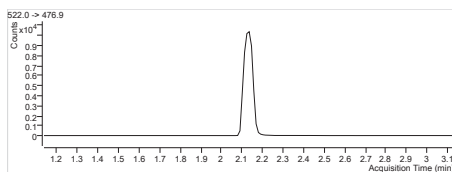
Sample type:

Internal Standard

1.434 (1.434)

1 µg/L

QC

**13C9-PFDA IS**

RT (Exp. RT):

Concentration:

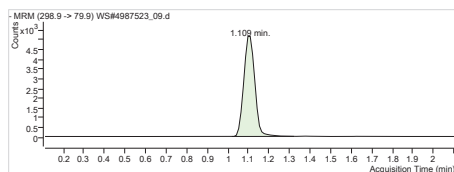
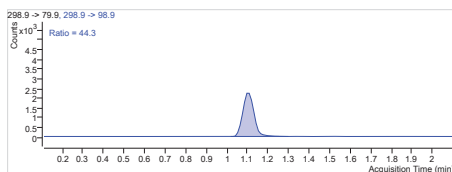
Sample type:

Internal Standard

2.135 (2.135)

1 µg/L

QC

**PFBS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

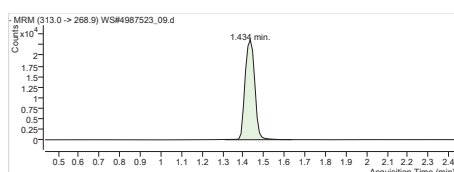
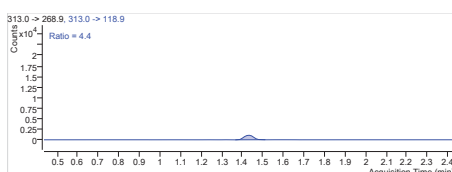
298.9 -> 79.9

1.109 (1.109)

19.23 µg/L

11.95194

QC

**PFHxA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

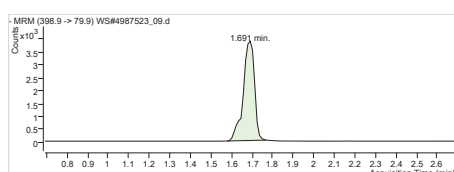
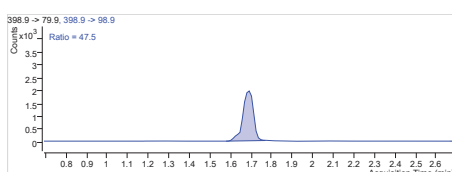
313.0 -> 268.9

1.434 (1.434)

19.70 µg/L

8.65771

QC

**PFHxS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

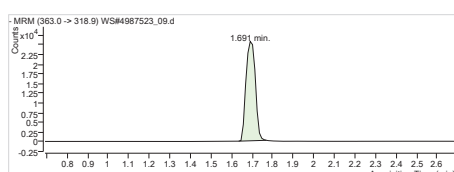
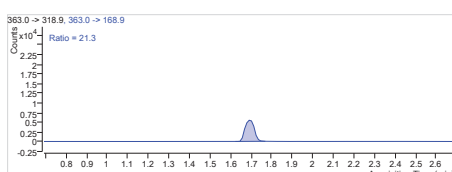
398.9 -> 79.9

1.691 (1.691)

18.53 µg/L

9.14357

QC

**PFHpA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

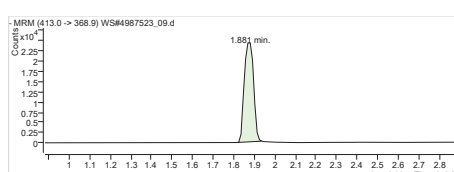
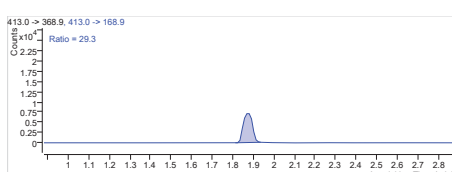
363.0 -> 318.9

1.691 (1.691)

18.27 µg/L

8.37915

QC

**PFOA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

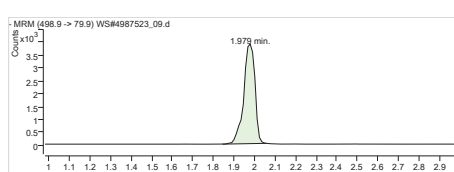
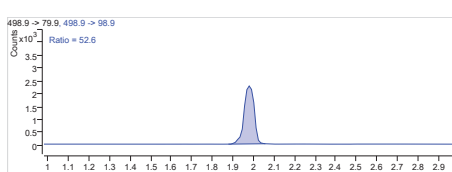
413.0 -> 368.9

1.881 (1.881)

20.59 µg/L

8.96220

QC

**PFOS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

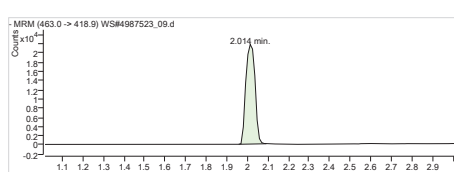
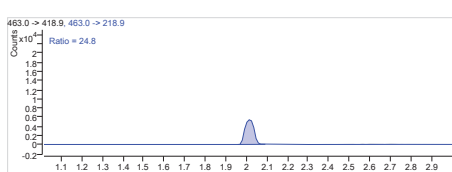
498.9 -> 79.9

1.979 (1.979)

19.49 µg/L

7.50561

QC

**PFNA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

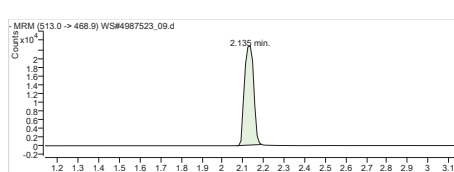
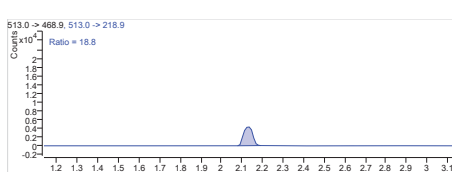
463.0 -> 418.9

2.014 (2.014)

19.10 µg/L

7.61995

QC

**PFDA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

513.0 -> 468.9

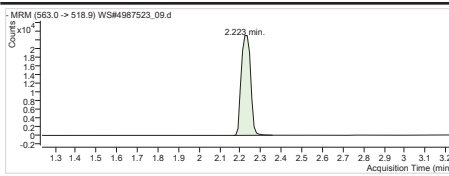
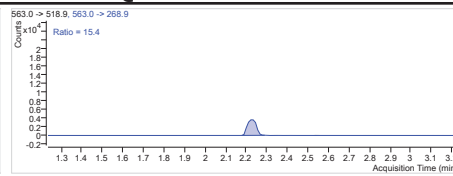
2.135 (2.135)

17.90 µg/L

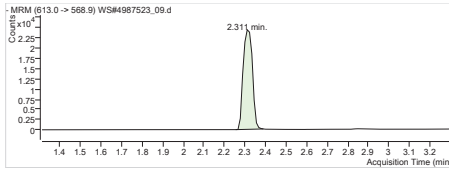
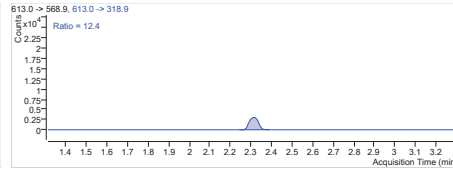
8.85896

QC

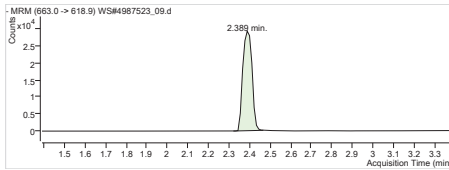
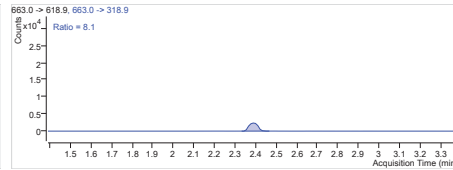
Quantitation Results



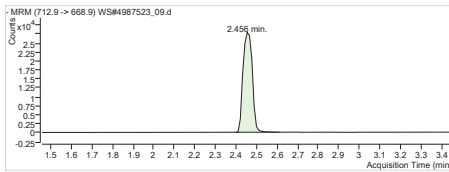
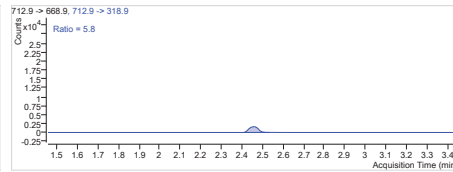
PFUnA 1
 RT (Exp. RT): 563.0 -> 518.9
 Calc. conc. 2.223 (2.234)
 Area ratio: 20.96 µg/L
 Sample type: 9.13111
 QC



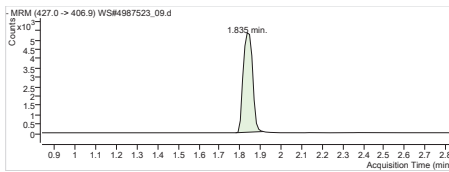
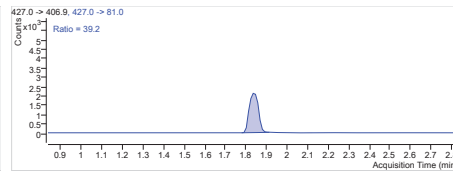
PFDa 1
 RT (Exp. RT): 613.0 -> 568.9
 Calc. conc. 2.311 (2.311)
 Area ratio: 19.70 µg/L
 Sample type: 8.10859
 QC



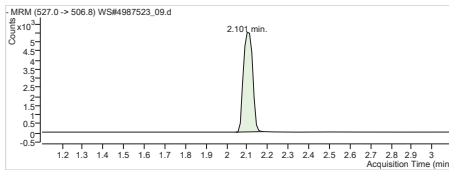
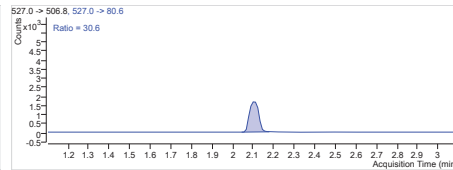
PFTraD 1
 RT (Exp. RT): 663.0 -> 618.9
 Calc. conc. 2.389 (2.389)
 Area ratio: 18.62 µg/L
 Sample type: 7.45543
 QC



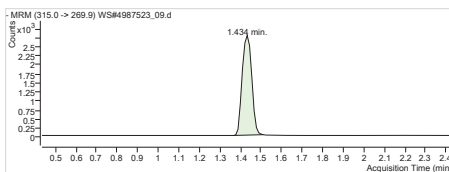
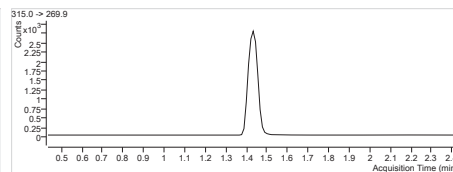
PFTeDa 1
 RT (Exp. RT): 712.9 -> 668.9
 Calc. conc. 2.456 (2.456)
 Area ratio: 19.15 µg/L
 Sample type: 7.22706
 QC



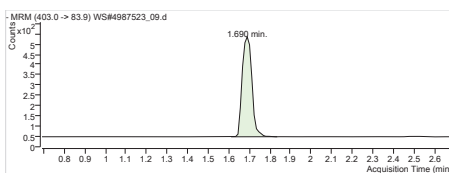
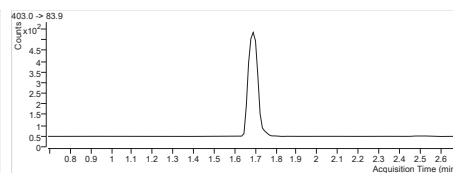
6:2-FTS 1
 RT (Exp. RT): 427.0 -> 406.9
 Calc. conc. 1.835 (1.835)
 Area ratio: 18.85 µg/L
 Sample type: 7.48778
 QC



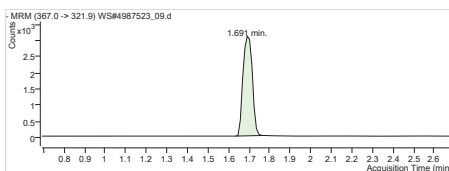
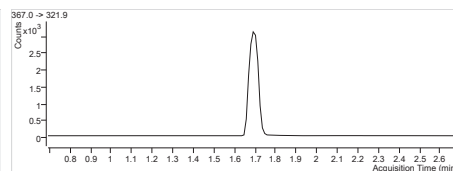
8:2-FTS 1
 RT (Exp. RT): 527.0 -> 506.8
 Calc. conc. 2.101 (2.101)
 Area ratio: 19.07 µg/L
 Sample type: 6.96194
 QC



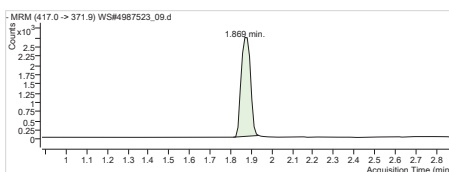
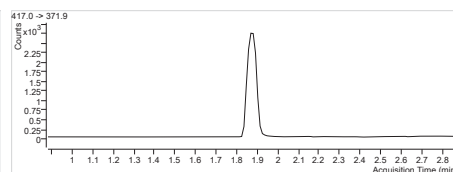
13C2-PFHxA
 RT (Exp. RT): 315.0 -> 269.9
 Calc. conc. 1.434 (1.434)
 Area ratio: 99.90 µg/L
 Sample type: 0.22220
 QC



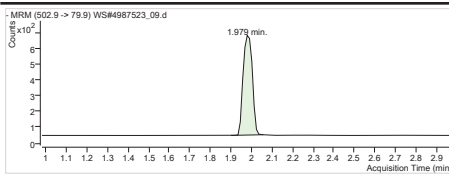
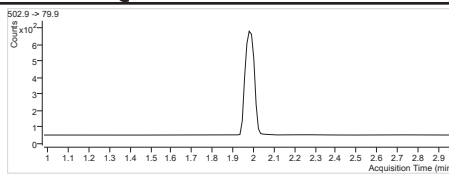
18O2-PFHxS
 RT (Exp. RT): 403.0 -> 83.9
 Calc. conc. 1.690 (1.690)
 Area ratio: 101.97 µg/L
 Sample type: 0.03986
 QC



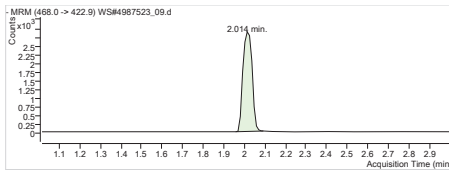
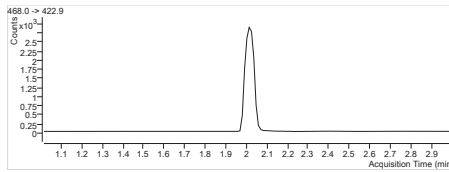
13C4-PFHpA
 RT (Exp. RT): 367.0 -> 321.9
 Calc. conc. 1.691 (1.691)
 Area ratio: 104.06 µg/L
 Sample type: 0.24221
 QC



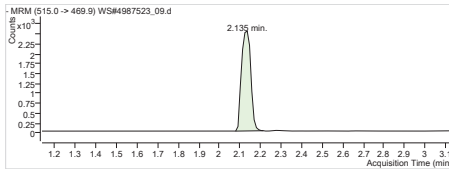
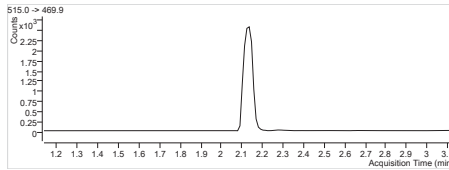
13C4-PFOA
 RT (Exp. RT): 417.0 -> 371.9
 Calc. conc. 1.869 (1.881)
 Area ratio: 92.58 µg/L
 Sample type: 0.21131
 QC



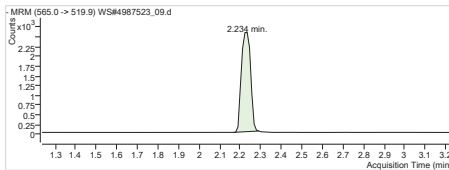
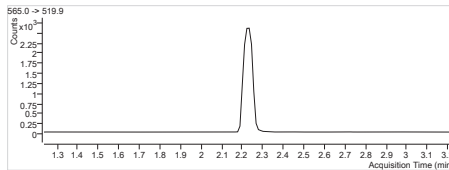
13C4-PFOS
RT (Exp. RT): 502.9 -> 79.9
Calc. conc. 1.979 (1.979)
Area ratio: 101.99 µg/L
Sample type: 0.04881
QC



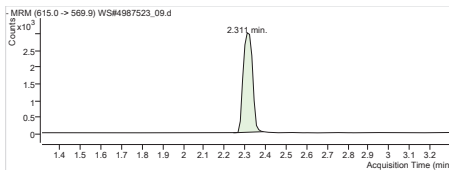
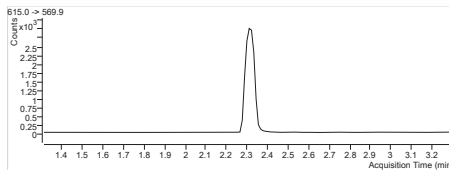
13C5-PFNA
RT (Exp. RT): 468.0 -> 422.9
Calc. conc. 2.014 (2.014)
Area ratio: 99.44 µg/L
Sample type: 0.22121
QC



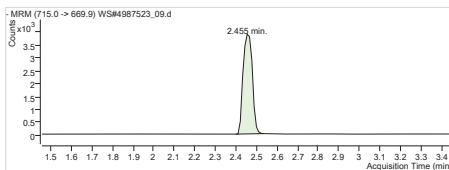
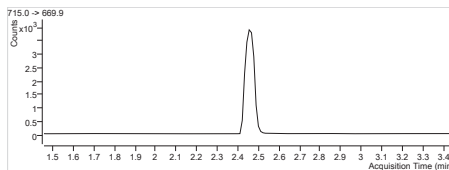
13C2-PFDA
RT (Exp. RT): 515.0 -> 469.9
Calc. conc. 2.135 (2.135)
Area ratio: 108.77 µg/L
Sample type: 0.24660
QC



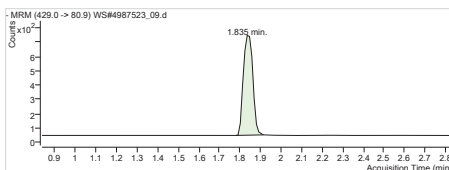
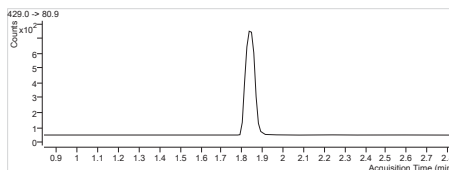
13C2-PFUnA
RT (Exp. RT): 565.0 -> 519.9
Calc. conc. 2.234 (2.234)
Area ratio: 100.53 µg/L
Sample type: 0.24623
QC



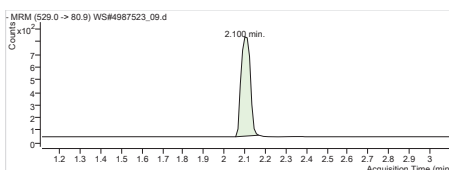
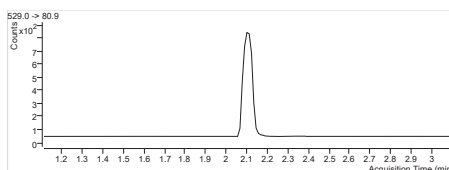
13C2-PFDoA
RT (Exp. RT): 615.0 -> 569.9
Calc. conc. 2.311 (2.311)
Area ratio: 104.58 µg/L
Sample type: 0.28821
QC



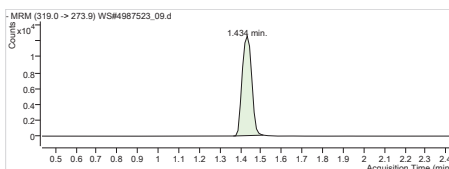
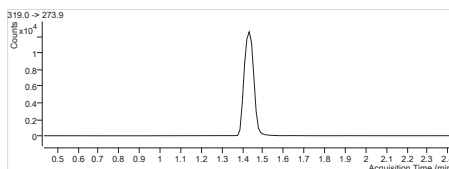
13C2-PFTeDA
RT (Exp. RT): 715.0 -> 669.9
Calc. conc. 2.455 (2.455)
Area ratio: 107.13 µg/L
Sample type: 0.37324
QC



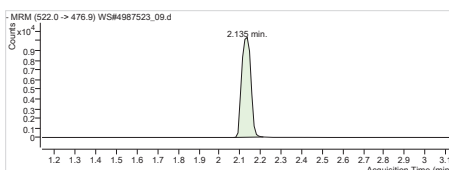
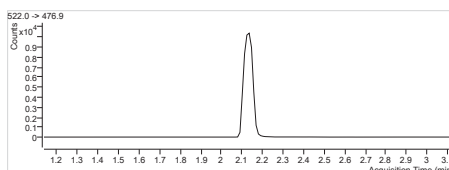
13C2-6:2-FTS
RT (Exp. RT): 429.0 -> 80.9
Calc. conc. 1.835 (1.835)
Area ratio: 101.14 µg/L
Sample type: 0.05600
QC



13C2-8:2 FTS
RT (Exp. RT): 529.0 -> 80.9
Calc. conc. 2.100 (2.112)
Area ratio: 102.95 µg/L
Sample type: 0.06145
QC



13C6-PFHxA
RT (Exp. RT): 319.0 -> 273.9
Calc. conc. 1.434 (1.434)
Area ratio: 102.89 µg/L
Sample type: 0
QC



13C9-PFDA
RT (Exp. RT): 522.0 -> 476.9
Calc. conc. 2.135 (2.135)
Area ratio: 98.39 µg/L
Sample type: 0
QC

Quantitation Results

Batch Path T:\lms4\PFC\20170523\WS#4987523_FOSAA\QuantResults\PFC_Water_Low_170523_WS#4987523_FOSAA

Sample Name ICV Instrument LCMS04

Data File WS#4987523_FOSAA_17.d Operator AD

Sample Type QC Dilution 1

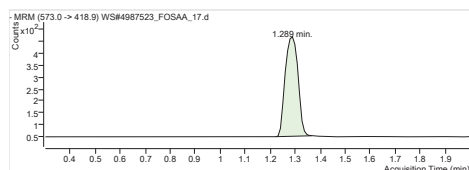
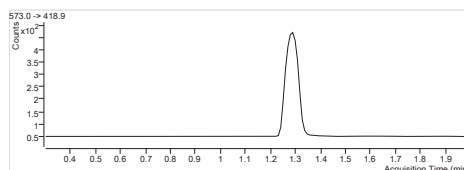
Acq. Method PFC_Water_Low_FOSAA.m Position P1-A9

Acq. Date 2017/05/23 6:39:44 PM Injection Volume Per Method

Sample Annotation -

ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1501	1.29	1 µg/L		
D5-EtFOSAA IS	1465	1.31	1 µg/L		
13C9-PFDA IS	27969	0.86	1 µg/L		

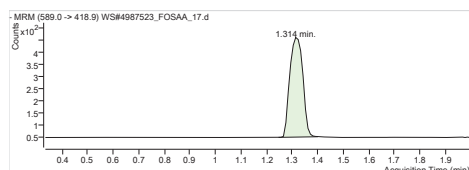
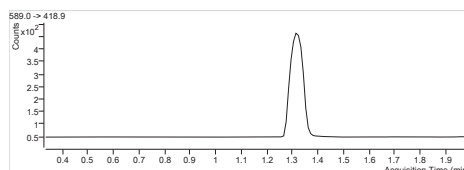
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	11647	1.28	20.80	20.19 µg/L	97.09
EtFOSAA 1	12010	1.32	20.80	18.42 µg/L	88.55
D3-MeFOSAA	1528	1.29	100.00	95.08 µg/L	95.08
D5-EtFOSAA	1484	1.31	100.00	104.65 µg/L	104.65
13C9-PFDA	27217	0.86	100.00	99.91 µg/L	99.91



D3-MeFOSAA IS

RT (Exp. RT):
Concentration:
Sample type:

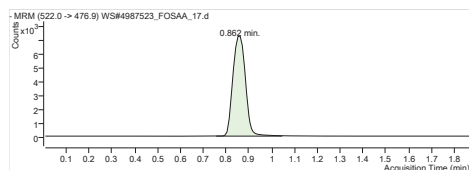
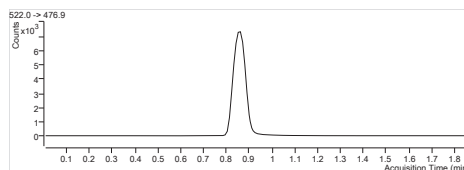
Internal Standard
1.289 (1.298)
1 µg/L
QC



D5-EtFOSAA IS

RT (Exp. RT):
Concentration:
Sample type:

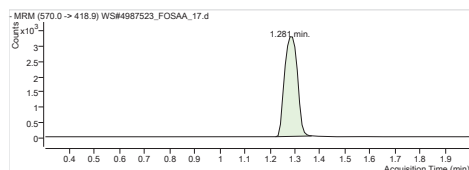
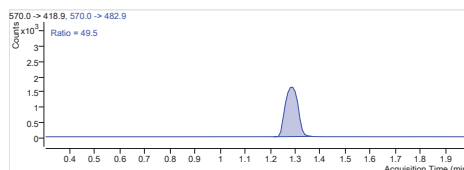
Internal Standard
1.314 (1.331)
1 µg/L
QC



13C9-PFDA IS

RT (Exp. RT):
Concentration:
Sample type:

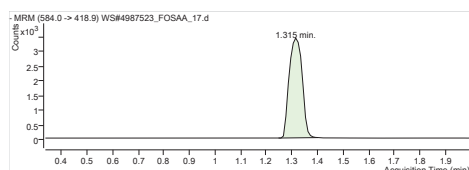
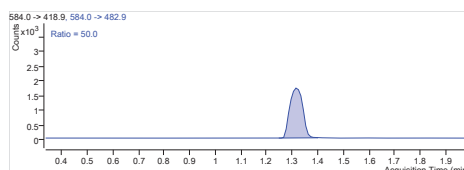
Internal Standard
0.862 (0.873)
1 µg/L
QC



MeFOSAA 1

RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

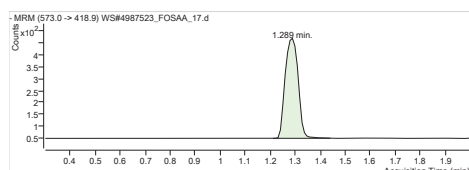
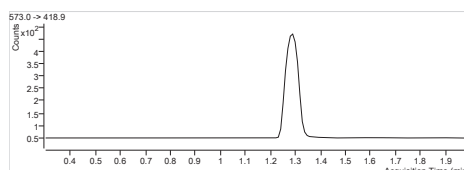
570.0 -> 418.9
1.281 (1.300)
20.19 µg/L
7.75949
QC



EtFOSAA 1

RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

584.0 -> 418.9
1.315 (1.333)
18.42 µg/L
8.19795
QC

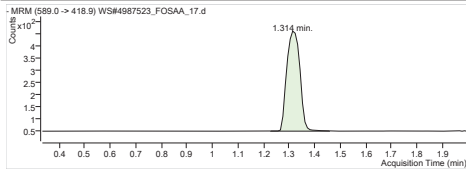
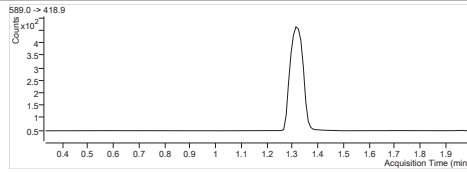


D3-MeFOSAA

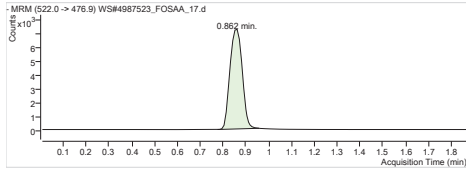
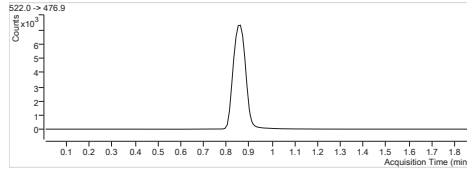
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

573.0 -> 418.9
1.289 (1.298)
95.08 µg/L
0.05462
QC

Quantitation Results



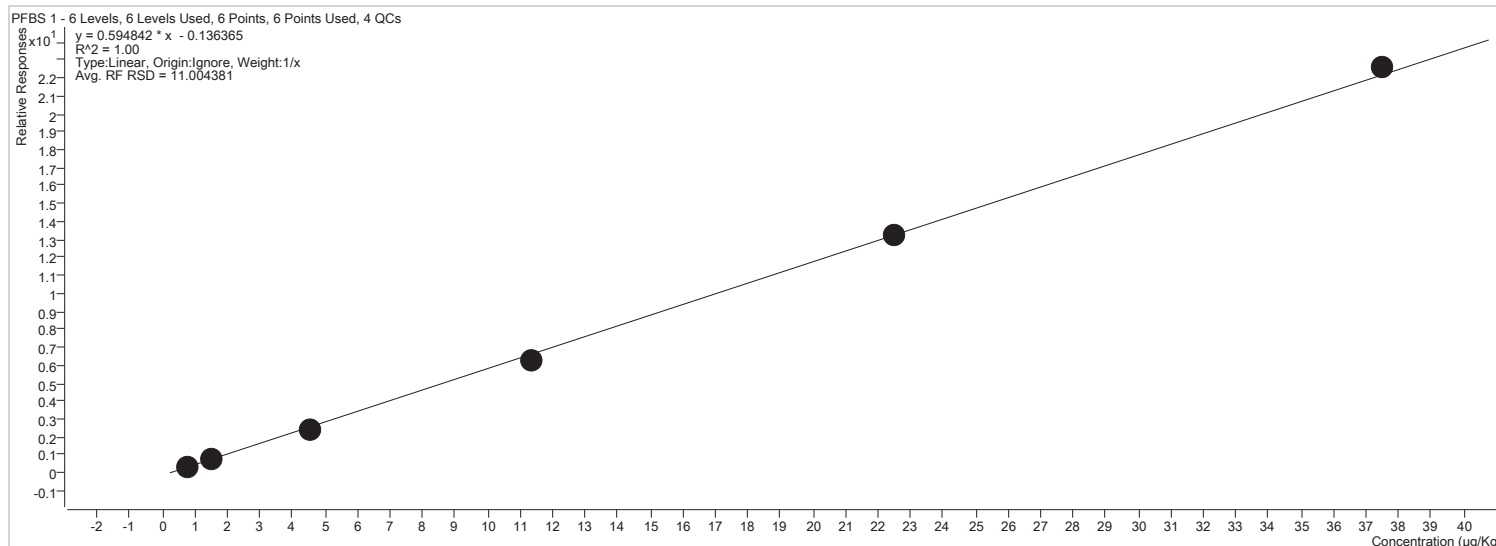
D5-EtFOSAA
 RT (Exp. RT): 1.314 (1.331)
 Calc. conc. 104.65 $\mu\text{g/L}$
 Area ratio: 0.05306
 Sample type: QC



13C9-PFDA
 RT (Exp. RT): 0.862 (0.873)
 Calc. conc. 99.91 $\mu\text{g/L}$
 Area ratio: 0
 Sample type: QC

By Compound Report

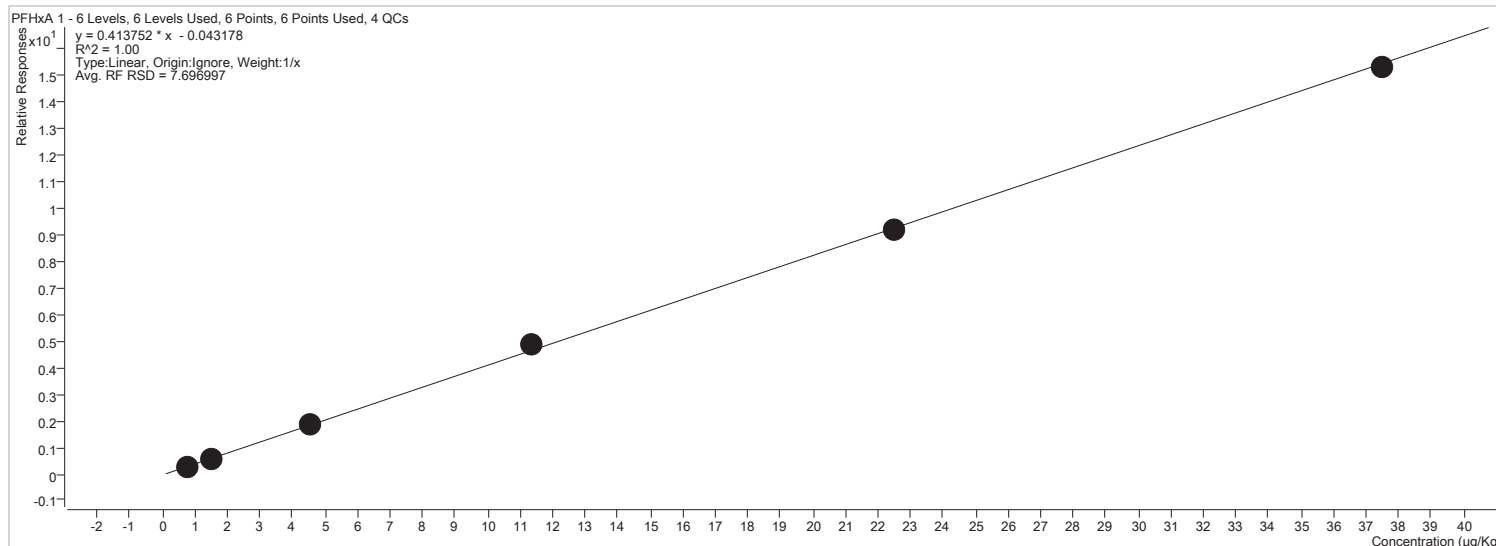
Batch Path T:\cms4\PFC\20170519\WS#4987381\QuantResults\PFC_Soil_170519_WS#4987381_CTLabs.batch.bin
 Last Calib Update 2017/06/16 8:11:53 AM
 Instrument: LCMS04
 Analyte: PFBS 1
 Internal Standard: MPFHxS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2017/05/20 3:10:01 AM	0.75	0.78	641	0.4347	73	103.6
STD 2	STD 2	x	2017/05/20 3:14:55 AM	1.50	1.58	1305	0.5364	110	105.5
STD 3	STD 3	x	2017/05/20 3:19:49 AM	4.50	4.23	4407	0.5288	611	94.0
STD 4	STD 4	x	2017/05/20 3:24:43 AM	11.30	10.73	10845	0.5528	257	95.0
STD 5	STD 5	x	2017/05/20 3:29:37 AM	22.50	22.50	22066	0.5887	1125	100.0
STD 6	STD 6	x	2017/05/20 3:34:31 AM	37.50	38.23	38025	0.6029	1494	102.0

By Compound Report

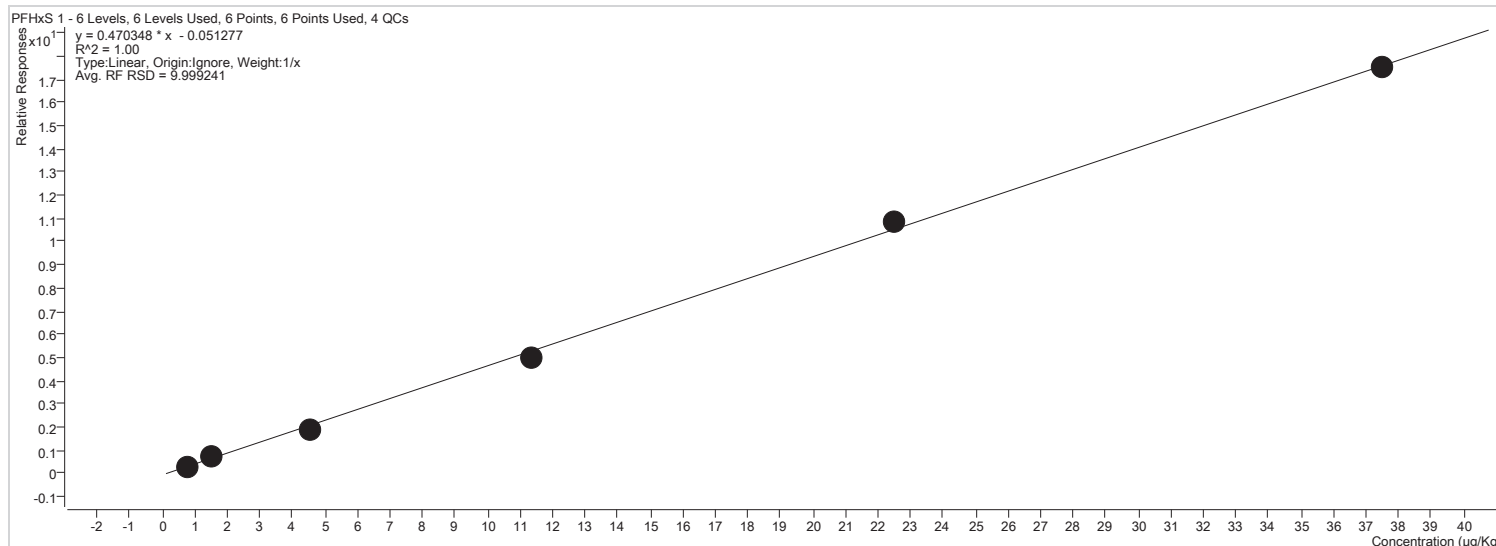
Batch Path T:\lcms4\PFC\20170519\WS#4987381\QuantResults\PFC_Soil_170519_WS#4987381_CTLabs.batch.bin
 Last Calib Update 2017/06/16 8:11:53 AM
 Instrument: LCMS04
 Analyte: PFHxA 1
 Internal Standard: MPFHxA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2017/05/20 3:10:01 AM	0.75	0.72	2754	0.3420	148	96.6
STD 2	STD 2	x	2017/05/20 3:14:55 AM	1.50	1.50	5377	0.3837	211	99.7
STD 3	STD 3	x	2017/05/20 3:19:49 AM	4.50	4.53	17035	0.4074	812	100.8
STD 4	STD 4	x	2017/05/20 3:24:43 AM	11.30	11.85	45387	0.4300	3900	104.8
STD 5	STD 5	x	2017/05/20 3:29:37 AM	22.50	22.27	90575	0.4077	6676	99.0
STD 6	STD 6	x	2017/05/20 3:34:31 AM	37.50	37.17	151639	0.4090	7860	99.1

By Compound Report

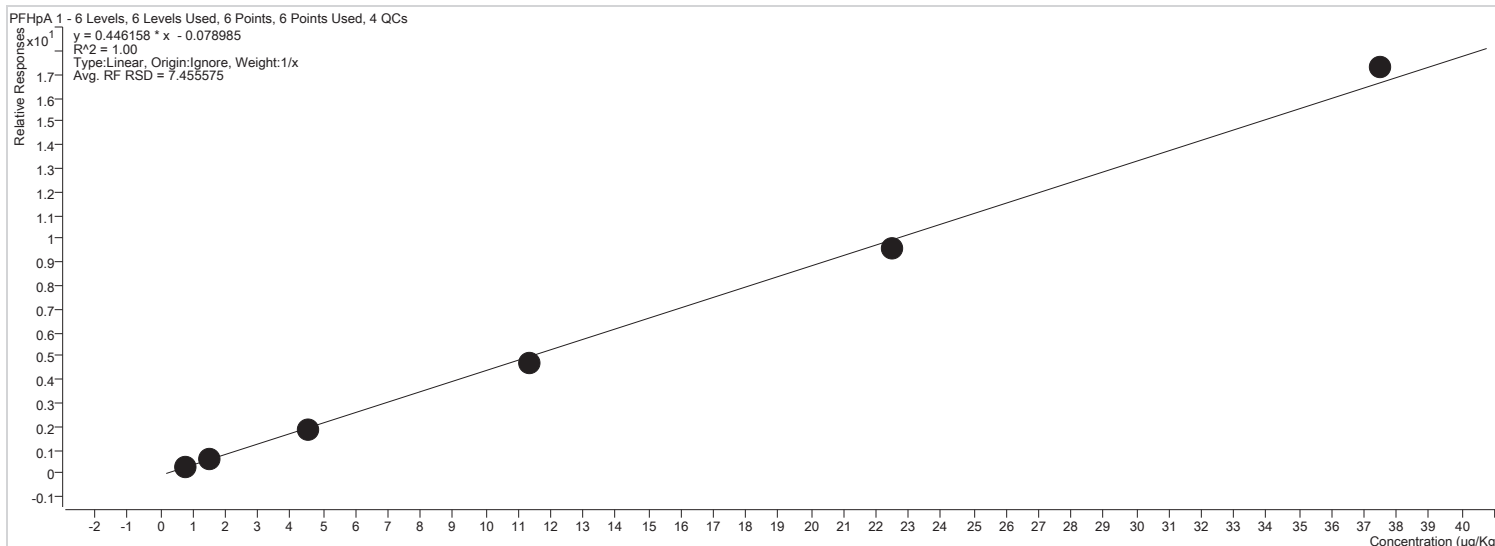
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 Last Calib Update 2017/06/16 8:11:53 AM
 Instrument: LCMS04
 Analyte: PFHxS 1
 Internal Standard: MPFHxS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2017/05/20 3:10:01 AM	0.75	0.72	562	0.3811	117	95.6
STD 2	STD 2	x	2017/05/20 3:14:55 AM	1.50	1.71	1223	0.5027	136	114.1
STD 3	STD 3	x	2017/05/20 3:19:49 AM	4.50	4.10	3476	0.4171	232	91.1
STD 4	STD 4	x	2017/05/20 3:24:43 AM	11.30	10.84	8765	0.4468	137	96.0
STD 5	STD 5	x	2017/05/20 3:29:37 AM	22.50	23.30	18172	0.4848	233	103.6
STD 6	STD 6	x	2017/05/20 3:34:31 AM	37.50	37.38	29485	0.4675	169	99.7

By Compound Report

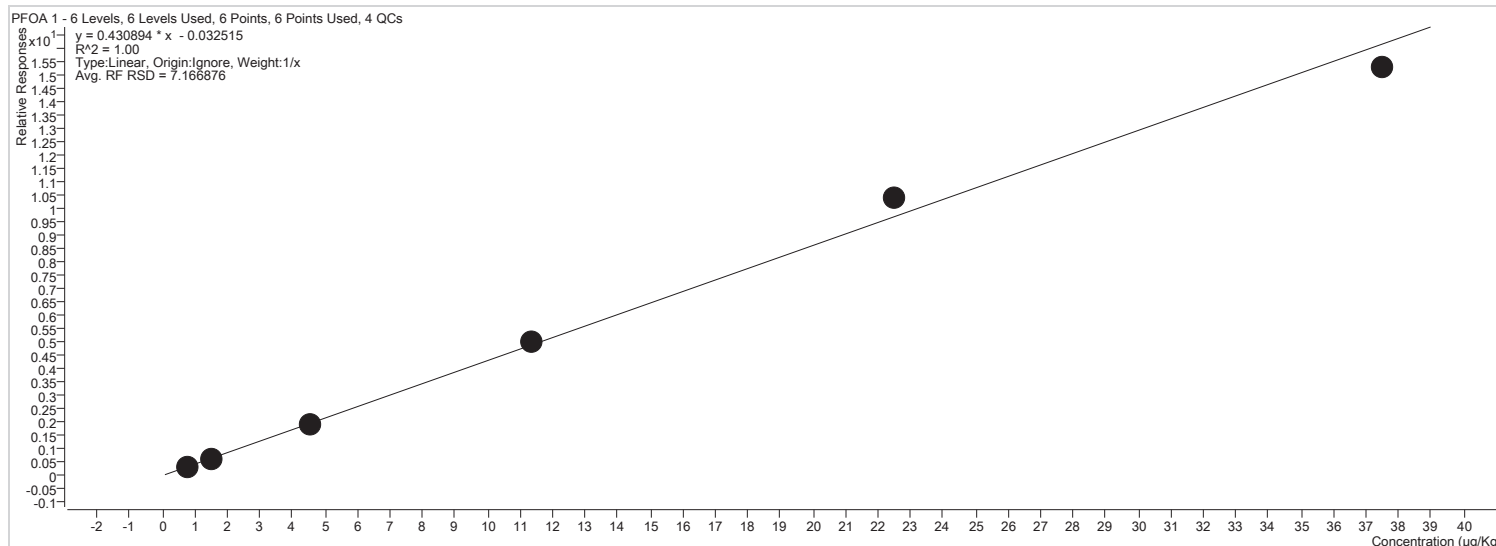
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 Last Calib Update 2017/06/16 8:11:53 AM
 Instrument: LCMS04
 Analyte: PFHpA 1
 Internal Standard: MPFHpA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2017/05/20 3:10:01 AM	0.75	0.80	3457	0.3686	36	106.2
STD 2	STD 2	x	2017/05/20 3:14:55 AM	1.50	1.51	5991	0.3978	71	101.0
STD 3	STD 3	x	2017/05/20 3:19:49 AM	4.50	4.41	19388	0.4198	196	98.0
STD 4	STD 4	x	2017/05/20 3:24:43 AM	11.30	10.69	50120	0.4152	379	94.6
STD 5	STD 5	x	2017/05/20 3:29:37 AM	22.50	21.63	100518	0.4255	1190	96.2
STD 6	STD 6	x	2017/05/20 3:34:31 AM	37.50	39.00	168778	0.4619	1624	104.0

By Compound Report

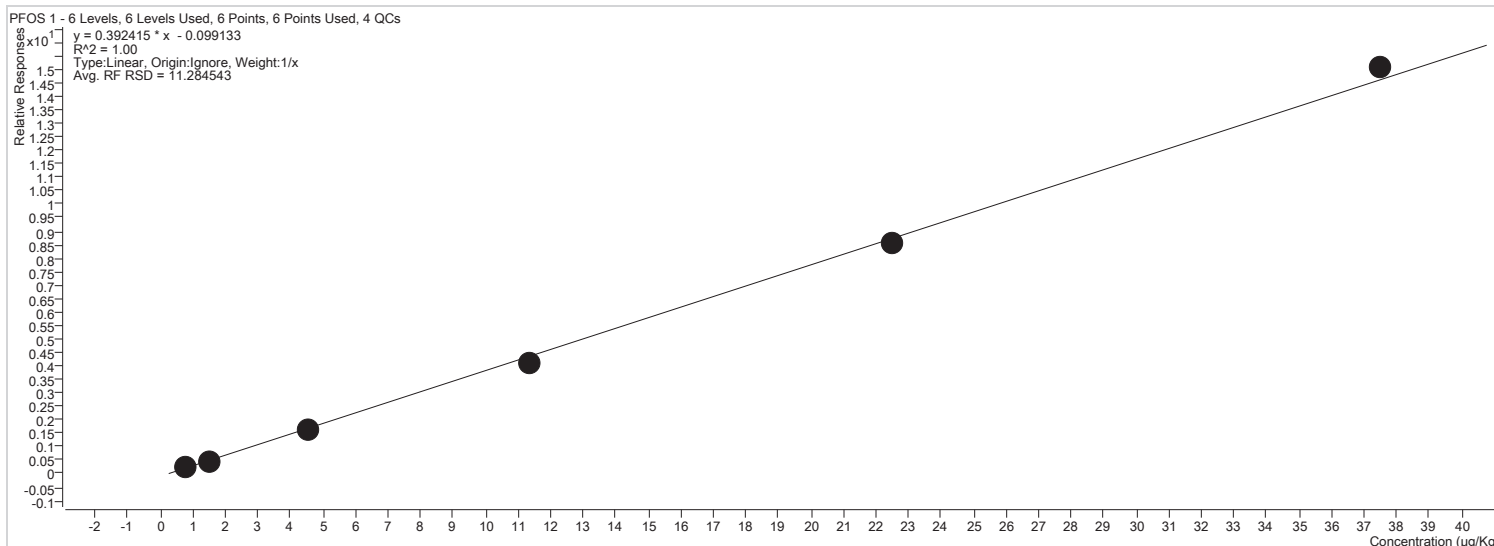
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 Last Calib Update 2017/06/16 8:11:53 AM
 Instrument: LCMS04
 Analyte: PFOA 1
 Internal Standard: MPFOA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2017/05/20 3:10:01 AM	0.75	0.75	3406	0.3850	20	99.4
STD 2	STD 2	x	2017/05/20 3:14:55 AM	1.50	1.44	5984	0.3918	34	96.0
STD 3	STD 3	x	2017/05/20 3:19:49 AM	4.50	4.45	19153	0.4189	140	98.9
STD 4	STD 4	x	2017/05/20 3:24:43 AM	11.30	11.68	48769	0.4426	179	103.4
STD 5	STD 5	x	2017/05/20 3:29:37 AM	22.50	24.23	101334	0.4625	291	107.7
STD 6	STD 6	x	2017/05/20 3:34:31 AM	37.50	35.50	163866	0.4071	326	94.7

By Compound Report

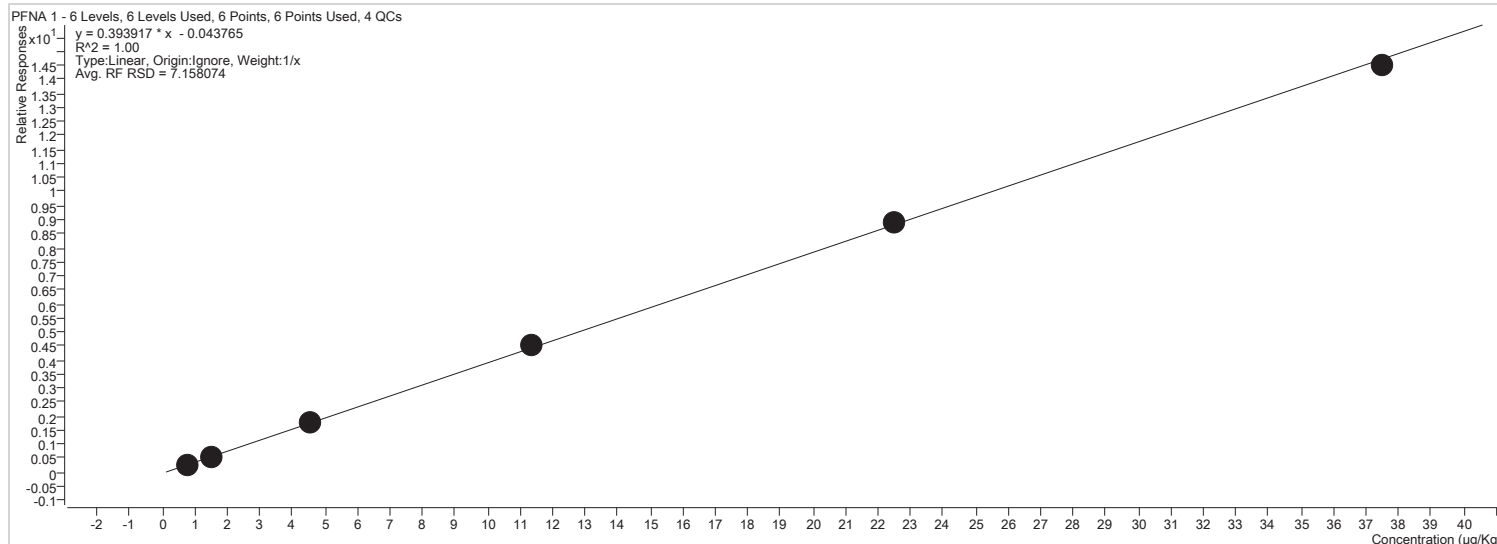
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 Last Calib Update 2017/06/16 8:11:53 AM
 Instrument: LCMS04
 Analyte: PFOS 1
 Internal Standard: MPFOS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2017/05/20 3:10:01 AM	0.75	0.88	586	0.3260	173	116.7
STD 2	STD 2	x	2017/05/20 3:14:55 AM	1.50	1.36	975	0.2906	89	90.9
STD 3	STD 3	x	2017/05/20 3:19:49 AM	4.50	4.34	3205	0.3568	352	96.5
STD 4	STD 4	x	2017/05/20 3:24:43 AM	11.30	10.67	8367	0.3617	800	94.4
STD 5	STD 5	x	2017/05/20 3:29:37 AM	22.50	22.09	18170	0.3809	1214	98.2
STD 6	STD 6	x	2017/05/20 3:34:31 AM	37.50	38.70	30027	0.4024	907	103.2

By Compound Report

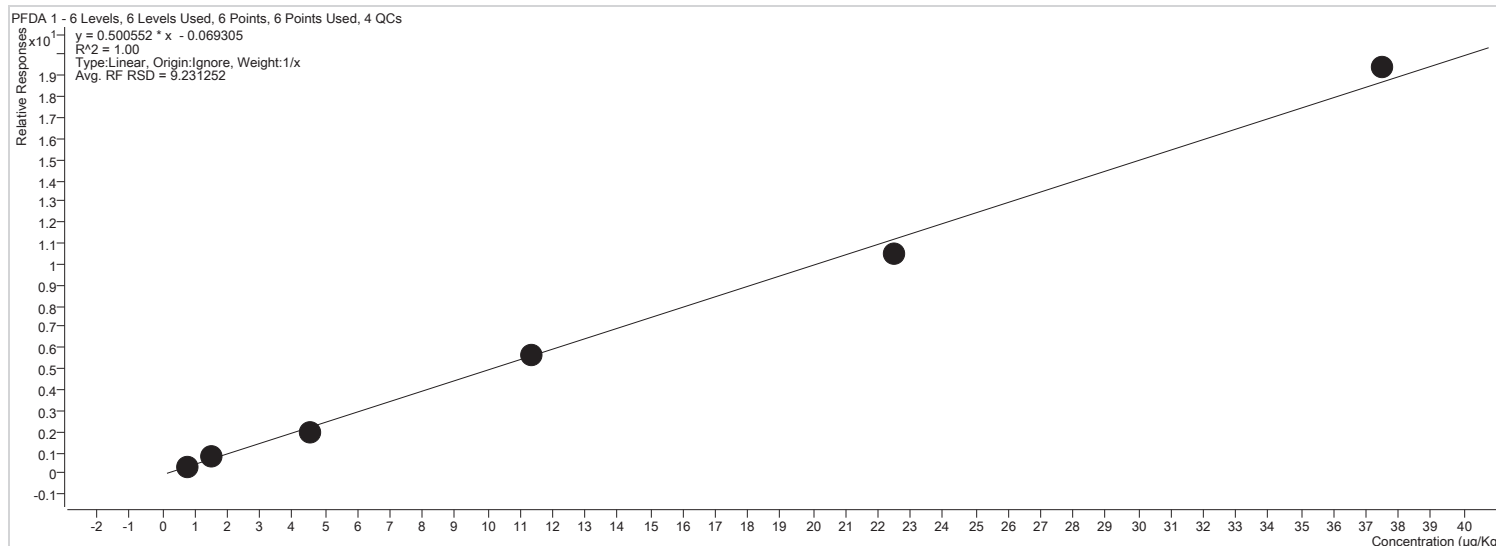
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 Last Calib Update 2017/06/16 8:11:53 AM
 Instrument: LCMS04
 Analyte: PFNA 1
 Internal Standard: MPFNA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2017/05/20 3:10:01 AM	0.75	0.75	2701	0.3351	54	99.9
STD 2	STD 2	x	2017/05/20 3:14:55 AM	1.50	1.44	5489	0.3503	69	96.3
STD 3	STD 3	x	2017/05/20 3:19:49 AM	4.50	4.58	17689	0.3915	283	101.9
STD 4	STD 4	x	2017/05/20 3:24:43 AM	11.30	11.55	43009	0.3986	409	102.2
STD 5	STD 5	x	2017/05/20 3:29:37 AM	22.50	22.77	88982	0.3967	2109	101.2
STD 6	STD 6	x	2017/05/20 3:34:31 AM	37.50	36.96	146096	0.3870	1571	98.5

By Compound Report

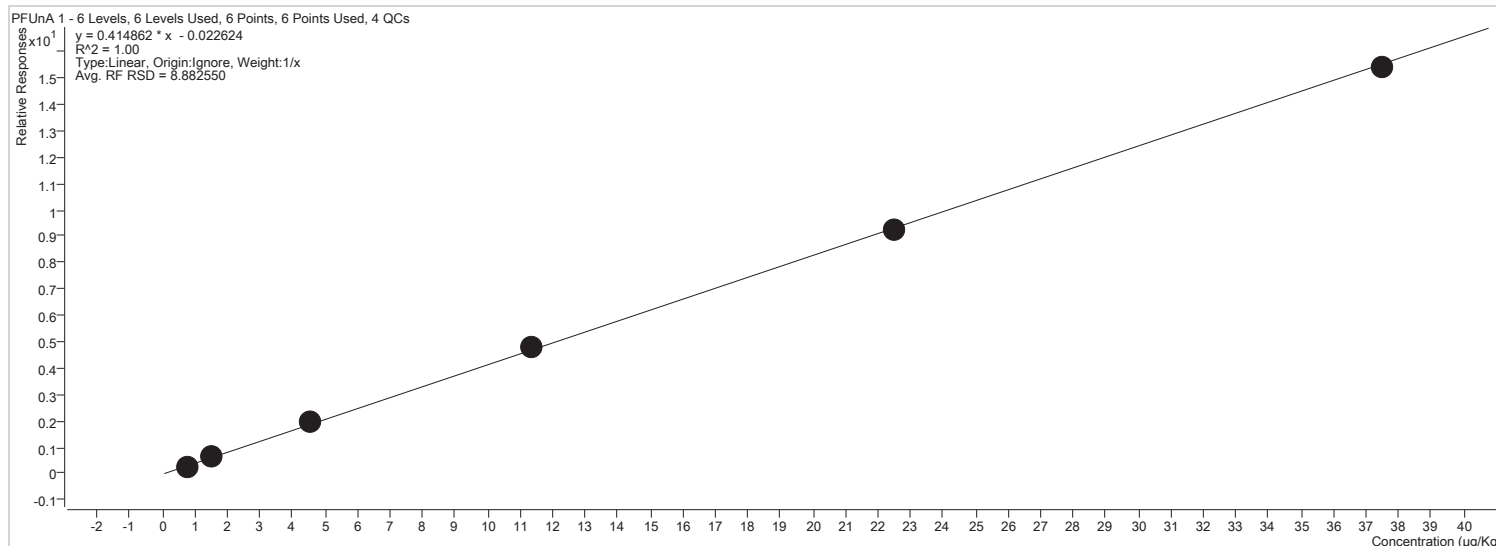
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 Last Calib Update 2017/06/16 8:11:53 AM
 Instrument: LCMS04
 Analyte: PFDA 1
 Internal Standard: MPFDA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2017/05/20 3:10:01 AM	0.75	0.74	3226	0.4031	28	99.0
STD 2	STD 2	x	2017/05/20 3:14:55 AM	1.50	1.66	6044	0.5074	46	110.6
STD 3	STD 3	x	2017/05/20 3:19:49 AM	4.50	4.13	18539	0.4435	124	91.7
STD 4	STD 4	x	2017/05/20 3:24:43 AM	11.30	11.36	47737	0.4971	270	100.5
STD 5	STD 5	x	2017/05/20 3:29:37 AM	22.50	21.23	93803	0.4693	304	94.4
STD 6	STD 6	x	2017/05/20 3:34:31 AM	37.50	38.93	157423	0.5178	338	103.8

By Compound Report

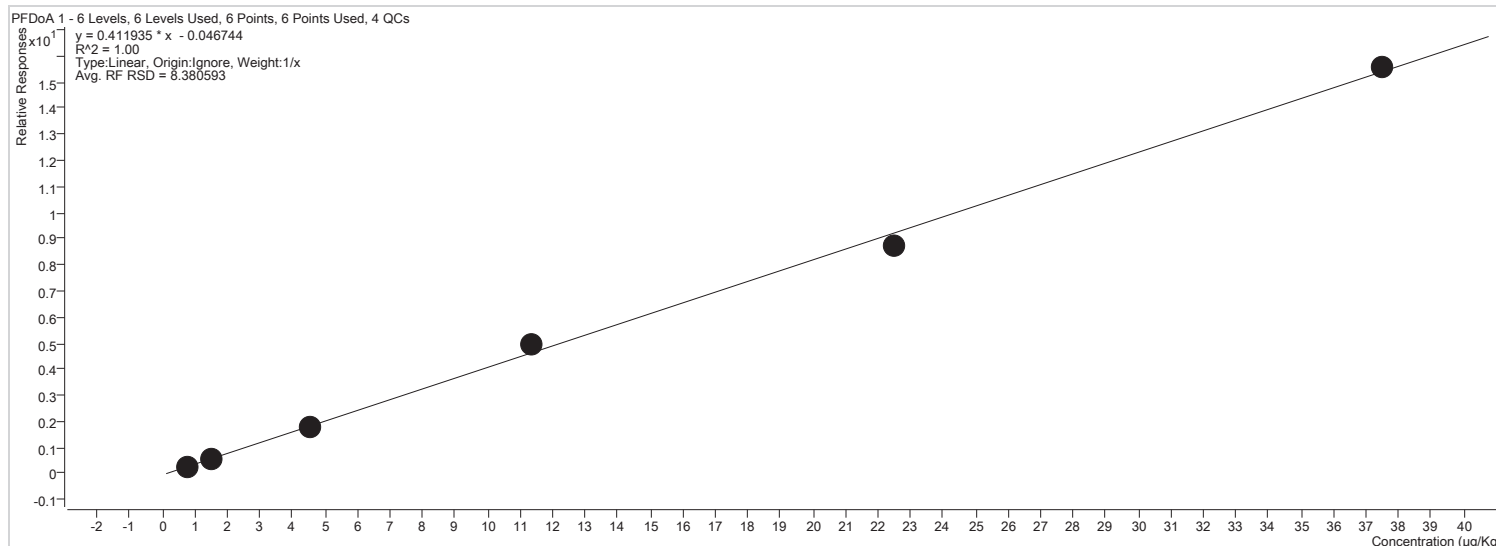
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 Last Calib Update 2017/06/16 8:11:53 AM
 Instrument: LCMS04
 Analyte: PFUnA 1
 Internal Standard: MPFUnA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2017/05/20 3:10:01 AM	0.75	0.66	2741	0.3343	22	87.9
STD 2	STD 2	x	2017/05/20 3:14:55 AM	1.50	1.60	5831	0.4262	34	106.4
STD 3	STD 3	x	2017/05/20 3:19:49 AM	4.50	4.71	18360	0.4297	114	104.8
STD 4	STD 4	x	2017/05/20 3:24:43 AM	11.30	11.63	45077	0.4250	260	102.9
STD 5	STD 5	x	2017/05/20 3:29:37 AM	22.50	22.24	95637	0.4090	649	98.8
STD 6	STD 6	x	2017/05/20 3:34:31 AM	37.50	37.22	157064	0.4111	909	99.2

By Compound Report

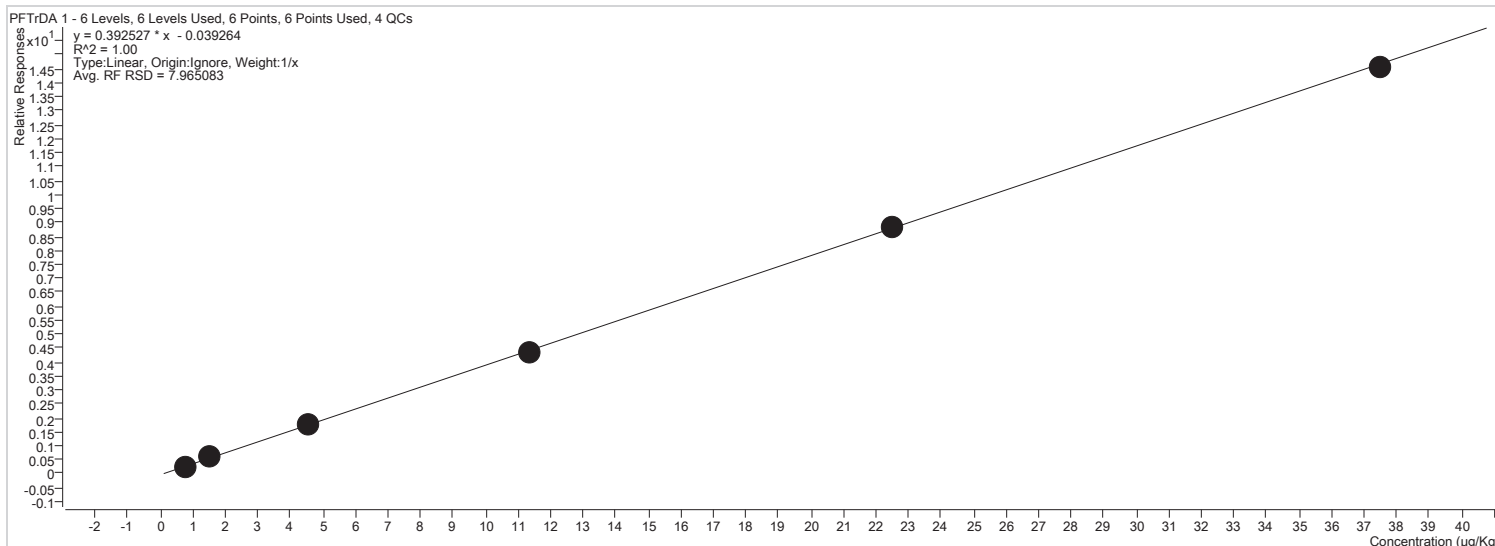
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 Last Calib Update 2017/06/16 8:11:53 AM
 Instrument: LCMS04
 Analyte: PFDa 1
 Internal Standard: MPFDoA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2017/05/20 3:10:01 AM	0.75	0.73	3310	0.3403	24	97.7
STD 2	STD 2	x	2017/05/20 3:14:55 AM	1.50	1.50	6277	0.3818	84	100.2
STD 3	STD 3	x	2017/05/20 3:19:49 AM	4.50	4.45	19889	0.3970	519	98.9
STD 4	STD 4	x	2017/05/20 3:24:43 AM	11.30	12.12	50957	0.4376	440	107.2
STD 5	STD 5	x	2017/05/20 3:29:37 AM	22.50	21.31	103107	0.3882	1665	94.7
STD 6	STD 6	x	2017/05/20 3:34:31 AM	37.50	37.93	173103	0.4154	2458	101.1

By Compound Report

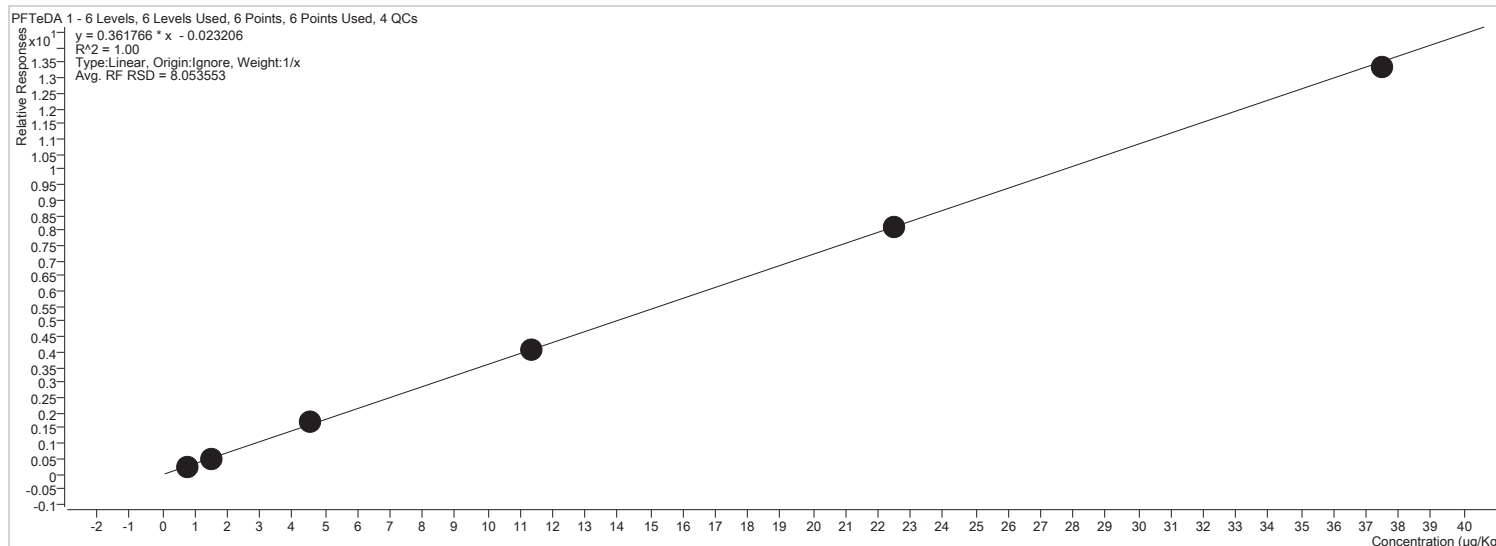
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 Last Calib Update 2017/06/16 8:11:53 AM
 Instrument: LCMS04
 Analyte: PFTTrDA 1
 Internal Standard: MPFTeDA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2017/05/20 3:10:01 AM	0.75	0.70	3849	0.3161	15	93.9
STD 2	STD 2	x	2017/05/20 3:14:55 AM	1.50	1.56	7640	0.3830	36	104.2
STD 3	STD 3	x	2017/05/20 3:19:49 AM	4.50	4.58	23740	0.3912	95	101.9
STD 4	STD 4	x	2017/05/20 3:24:43 AM	11.30	11.29	59658	0.3887	245	99.9
STD 5	STD 5	x	2017/05/20 3:29:37 AM	22.50	22.70	121503	0.3943	589	100.9
STD 6	STD 6	x	2017/05/20 3:34:31 AM	37.50	37.21	209592	0.3884	901	99.2

By Compound Report

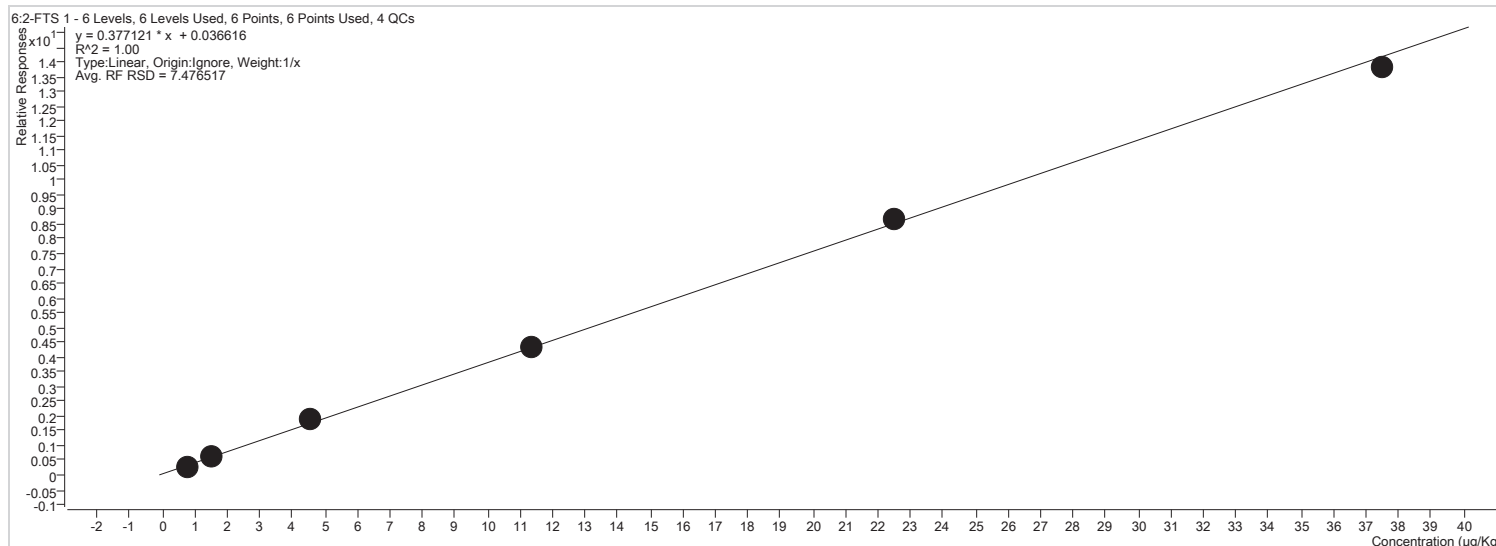
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 Last Calib Update 2017/06/16 8:11:53 AM
 Instrument: LCMS04
 Analyte: PFTeDA 1
 Internal Standard: MPFTeDA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2017/05/20 3:10:01 AM	0.75	0.69	3694	0.3034	12	92.4
STD 2	STD 2	x	2017/05/20 3:14:55 AM	1.50	1.48	6818	0.3418	28	98.8
STD 3	STD 3	x	2017/05/20 3:19:49 AM	4.50	4.89	23559	0.3882	91	108.7
STD 4	STD 4	x	2017/05/20 3:24:43 AM	11.30	11.44	55909	0.3642	249	101.2
STD 5	STD 5	x	2017/05/20 3:29:37 AM	22.50	22.54	111381	0.3614	334	100.2
STD 6	STD 6	x	2017/05/20 3:34:31 AM	37.50	37.00	192258	0.3563	644	98.7

By Compound Report

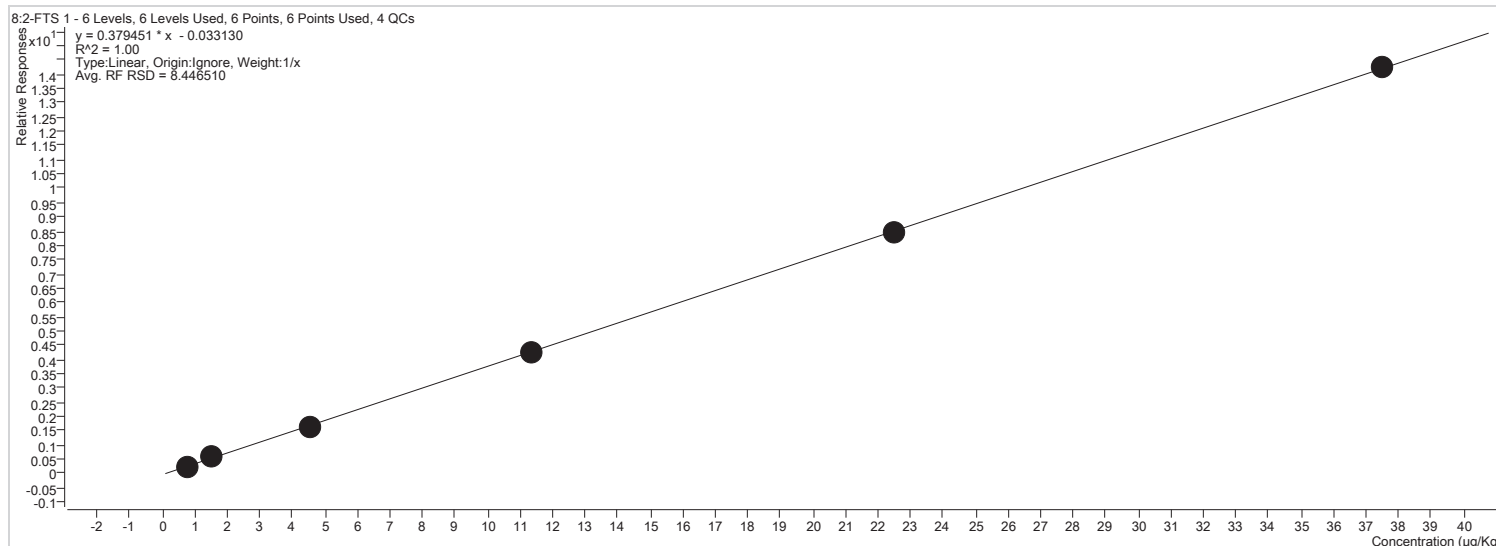
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 Last Calib Update 2017/06/16 8:11:53 AM
 Instrument: LCMS04
 Analyte: 6:2-FTS 1
 Internal Standard: M2 6:2 FTS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2017/05/20 3:10:01 AM	0.75	0.61	808	0.3578	28	81.9
STD 2	STD 2	x	2017/05/20 3:14:55 AM	1.50	1.62	1737	0.4313	44	107.9
STD 3	STD 3	x	2017/05/20 3:19:49 AM	4.50	4.94	4859	0.4224	246	109.9
STD 4	STD 4	x	2017/05/20 3:24:43 AM	11.30	11.42	10713	0.3844	438	101.1
STD 5	STD 5	x	2017/05/20 3:29:37 AM	22.50	22.89	21909	0.3853	632	101.7
STD 6	STD 6	x	2017/05/20 3:34:31 AM	37.50	36.56	34683	0.3686	674	97.5

By Compound Report

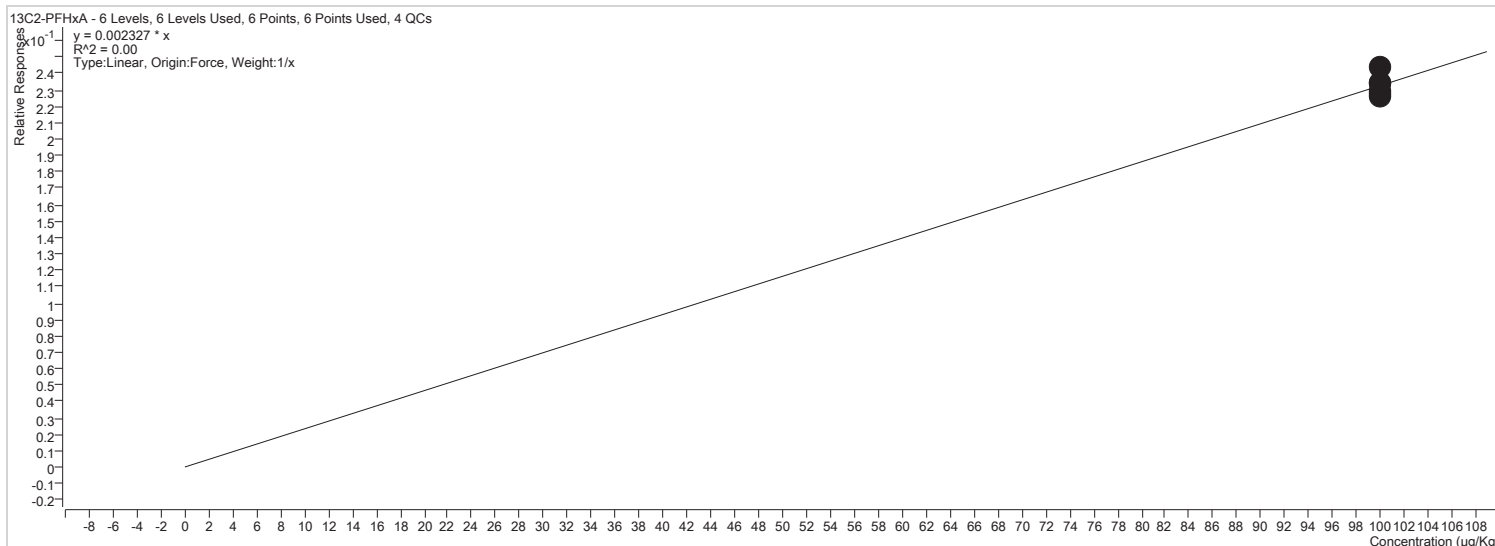
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 Last Calib Update 2017/06/16 8:11:53 AM
 Instrument: LCMS04
 Analyte: 8:2-FTS 1
 Internal Standard: M2 8:2 FTS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2017/05/20 3:10:01 AM	0.75	0.70	728	0.3090	43	93.1
STD 2	STD 2	x	2017/05/20 3:14:55 AM	1.50	1.66	1561	0.3978	103	110.7
STD 3	STD 3	x	2017/05/20 3:19:49 AM	4.50	4.32	4455	0.3568	167	96.0
STD 4	STD 4	x	2017/05/20 3:24:43 AM	11.30	11.35	10268	0.3781	228	100.4
STD 5	STD 5	x	2017/05/20 3:29:37 AM	22.50	22.39	20894	0.3761	253	99.5
STD 6	STD 6	x	2017/05/20 3:34:31 AM	37.50	37.64	34594	0.3799	280	100.4

By Compound Report

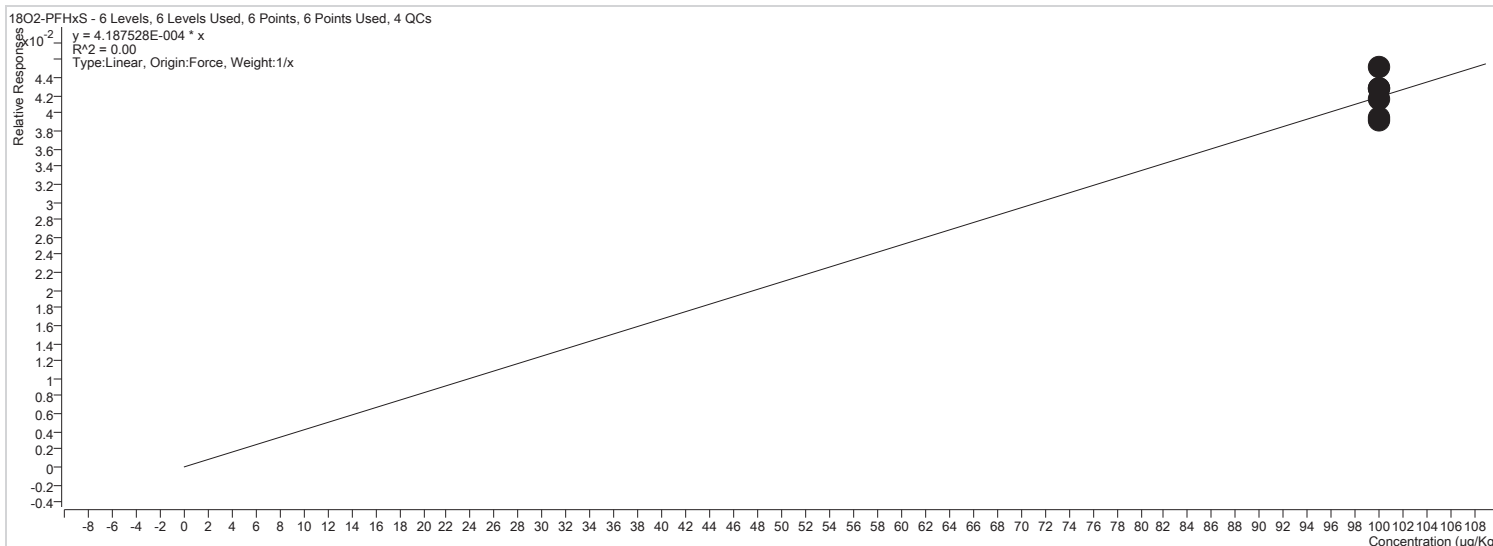
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 Last Calib Update 2017/06/16 8:11:53 AM
 Instrument: LCMS04
 Analyte: 13C2-PFHxA
 Internal Standard: 13C6-PFHxA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2017/05/20 3:10:01 AM	100.00	100.87	10738	0.0023	1024	100.9
STD 2	STD 2	x	2017/05/20 3:14:55 AM	100.00	97.20	9343	0.0023	793	97.2
STD 3	STD 3	x	2017/05/20 3:19:49 AM	100.00	97.57	9293	0.0023	402	97.6
STD 4	STD 4	x	2017/05/20 3:24:43 AM	100.00	98.76	9341	0.0023	640	98.8
STD 5	STD 5	x	2017/05/20 3:29:37 AM	100.00	100.74	9874	0.0023	1013	100.7
STD 6	STD 6	x	2017/05/20 3:34:31 AM	100.00	104.87	9887	0.0024	674	104.9

By Compound Report

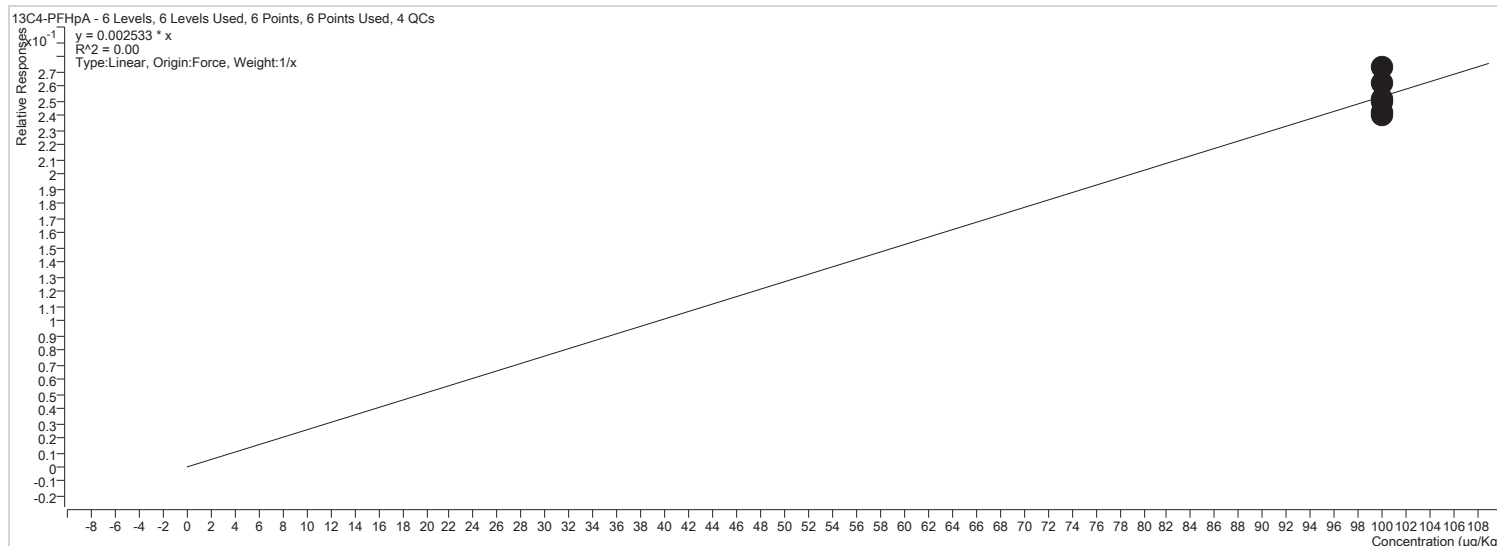
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 Last Calib Update 2017/06/16 8:11:53 AM
 Instrument: LCMS04
 Analyte: 18O2-PFHxS
 Internal Standard: 13C6-PFHxA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2017/05/20 3:10:01 AM	100.00	102.62	1966	0.0004	226	102.6
STD 2	STD 2	x	2017/05/20 3:14:55 AM	100.00	93.76	1622	0.0004	359	93.8
STD 3	STD 3	x	2017/05/20 3:19:49 AM	100.00	108.05	1852	0.0005	248	108.0
STD 4	STD 4	x	2017/05/20 3:24:43 AM	100.00	101.99	1736	0.0004	224	102.0
STD 5	STD 5	x	2017/05/20 3:29:37 AM	100.00	94.45	1666	0.0004	282	94.5
STD 6	STD 6	x	2017/05/20 3:34:31 AM	100.00	99.13	1682	0.0004	448	99.1

By Compound Report

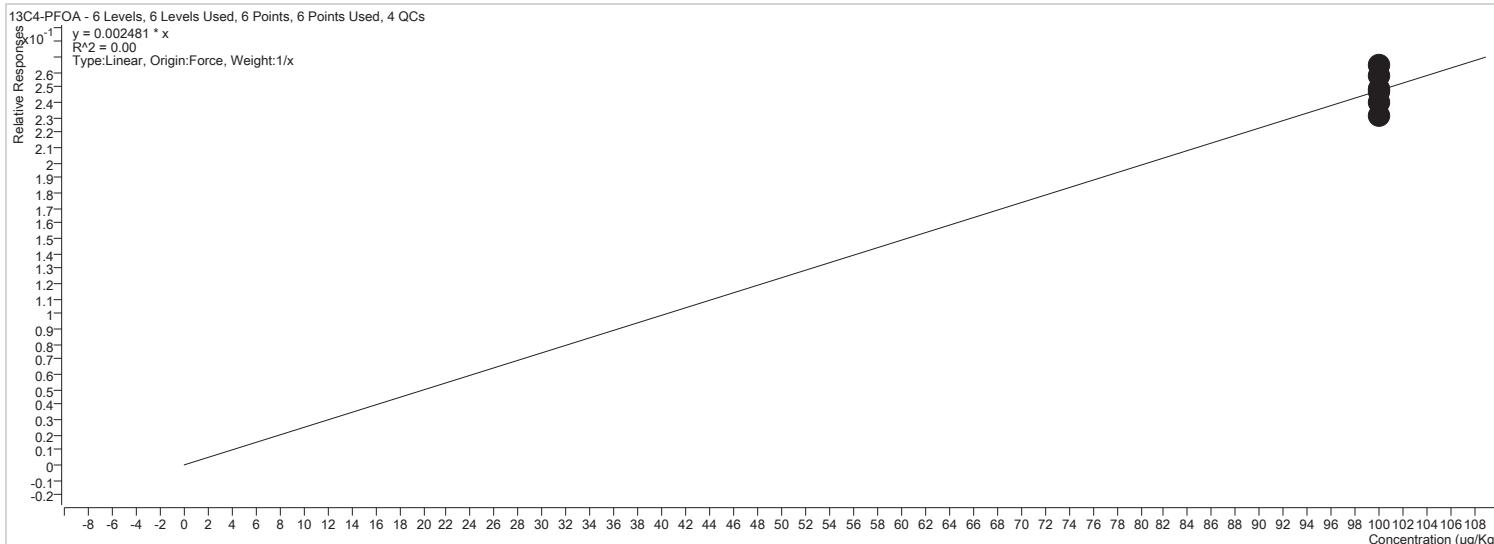
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 Last Calib Update 2017/06/16 8:11:53 AM
 Instrument: LCMS04
 Analyte: 13C4-PFHpA
 Internal Standard: 13C6-PFHxA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2017/05/20 3:10:01 AM	100.00	107.93	12506	0.0027	702	107.9
STD 2	STD 2	x	2017/05/20 3:14:55 AM	100.00	95.95	10039	0.0024	522	95.9
STD 3	STD 3	x	2017/05/20 3:19:49 AM	100.00	98.99	10263	0.0025	619	99.0
STD 4	STD 4	x	2017/05/20 3:24:43 AM	100.00	103.76	10682	0.0026	918	103.8
STD 5	STD 5	x	2017/05/20 3:29:37 AM	100.00	98.42	10500	0.0025	658	98.4
STD 6	STD 6	x	2017/05/20 3:34:31 AM	100.00	94.95	9744	0.0024	439	94.9

By Compound Report

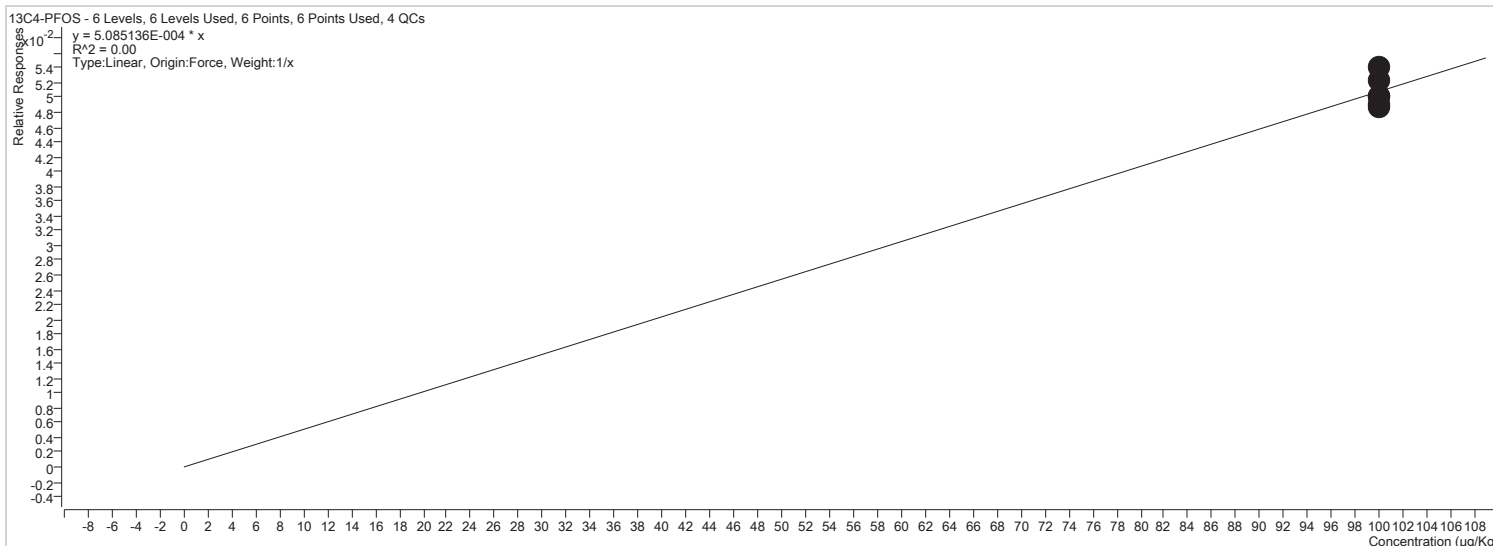
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 Last Calib Update 2017/06/16 8:11:53 AM
 Instrument: LCMS04
 Analyte: 13C4-PFOA
 Internal Standard: 13C6-PFHxA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2017/05/20 3:10:01 AM	100.00	103.94	11797	0.0026	435	103.9
STD 2	STD 2	x	2017/05/20 3:14:55 AM	100.00	99.35	10182	0.0025	269	99.4
STD 3	STD 3	x	2017/05/20 3:19:49 AM	100.00	100.05	10160	0.0025	422	100.1
STD 4	STD 4	x	2017/05/20 3:24:43 AM	100.00	96.69	9751	0.0024	268	96.7
STD 5	STD 5	x	2017/05/20 3:29:37 AM	100.00	93.18	9737	0.0023	353	93.2
STD 6	STD 6	x	2017/05/20 3:34:31 AM	100.00	106.78	10734	0.0026	538	106.8

By Compound Report

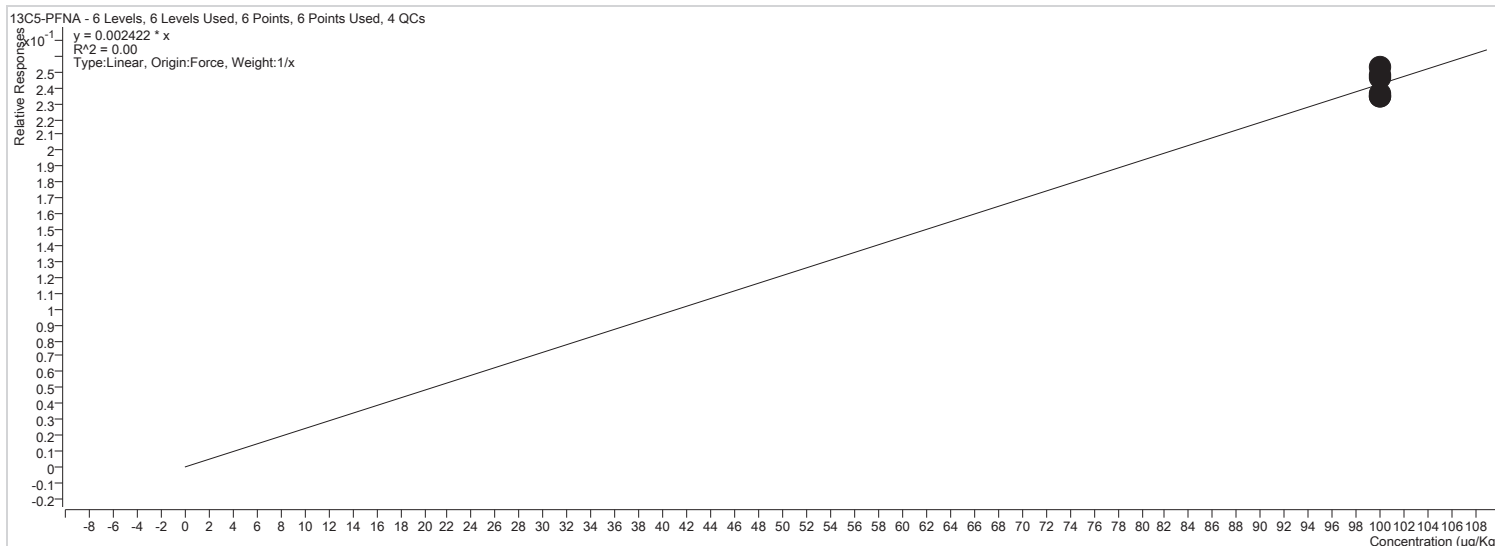
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 Last Calib Update 2017/06/16 8:11:53 AM
 Instrument: LCMS04
 Analyte: 13C4-PFOS
 Internal Standard: 13C6-PFHxA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2017/05/20 3:10:01 AM	100.00	103.03	2397	0.0005	306	103.0
STD 2	STD 2	x	2017/05/20 3:14:55 AM	100.00	106.49	2237	0.0005	2193	106.5
STD 3	STD 3	x	2017/05/20 3:19:49 AM	100.00	95.89	1996	0.0005	370	95.9
STD 4	STD 4	x	2017/05/20 3:24:43 AM	100.00	99.03	2047	0.0005	340	99.0
STD 5	STD 5	x	2017/05/20 3:29:37 AM	100.00	98.98	2120	0.0005	393	99.0
STD 6	STD 6	x	2017/05/20 3:34:31 AM	100.00	96.58	1990	0.0005	147	96.6

By Compound Report

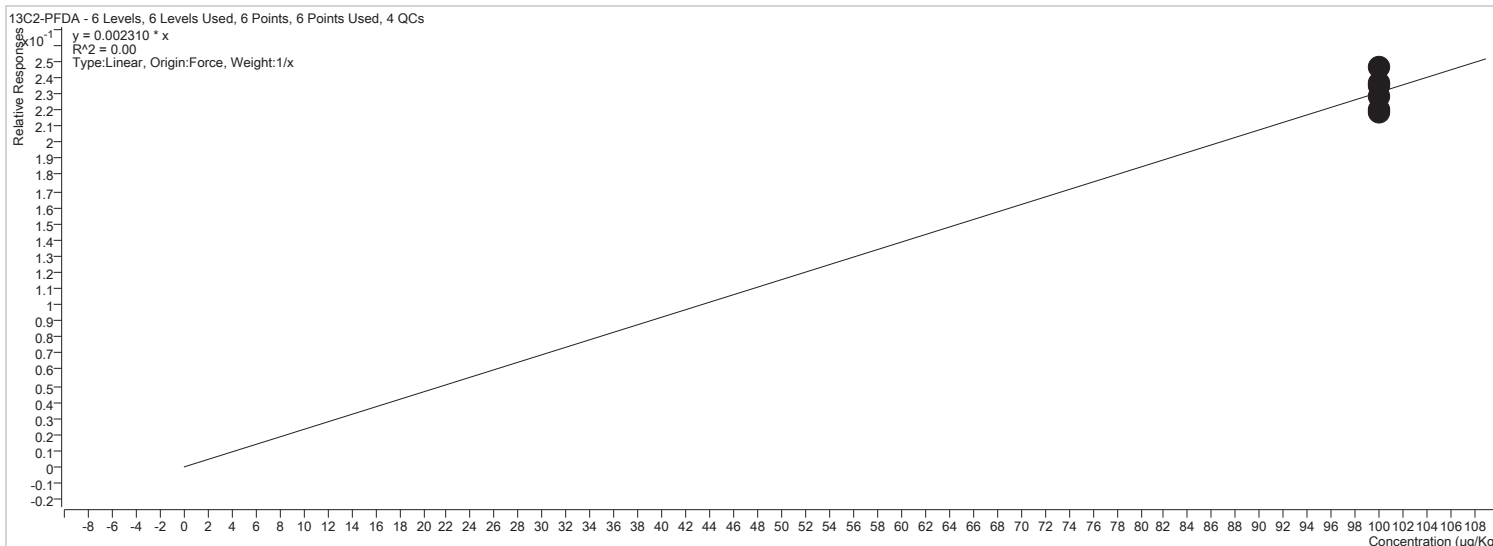
Batch Path T:\lcms4\PFC\20170519\WS#4987381\QuantResults\PFC_Soil_170519_WS#4987381_CTLabs.batch.bin
 Last Calib Update 2017/06/16 8:11:53 AM
 Instrument: LCMS04
 Analyte: 13C5-PFNA
 Internal Standard: 13C6-PFHxA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2017/05/20 3:10:01 AM	100.00	96.99	10746	0.0023	385	97.0
STD 2	STD 2	x	2017/05/20 3:14:55 AM	100.00	104.42	10447	0.0025	546	104.4
STD 3	STD 3	x	2017/05/20 3:19:49 AM	100.00	101.29	10041	0.0025	489	101.3
STD 4	STD 4	x	2017/05/20 3:24:43 AM	100.00	96.99	9548	0.0023	434	97.0
STD 5	STD 5	x	2017/05/20 3:29:37 AM	100.00	97.73	9969	0.0024	452	97.7
STD 6	STD 6	x	2017/05/20 3:34:31 AM	100.00	102.58	10066	0.0025	573	102.6

By Compound Report

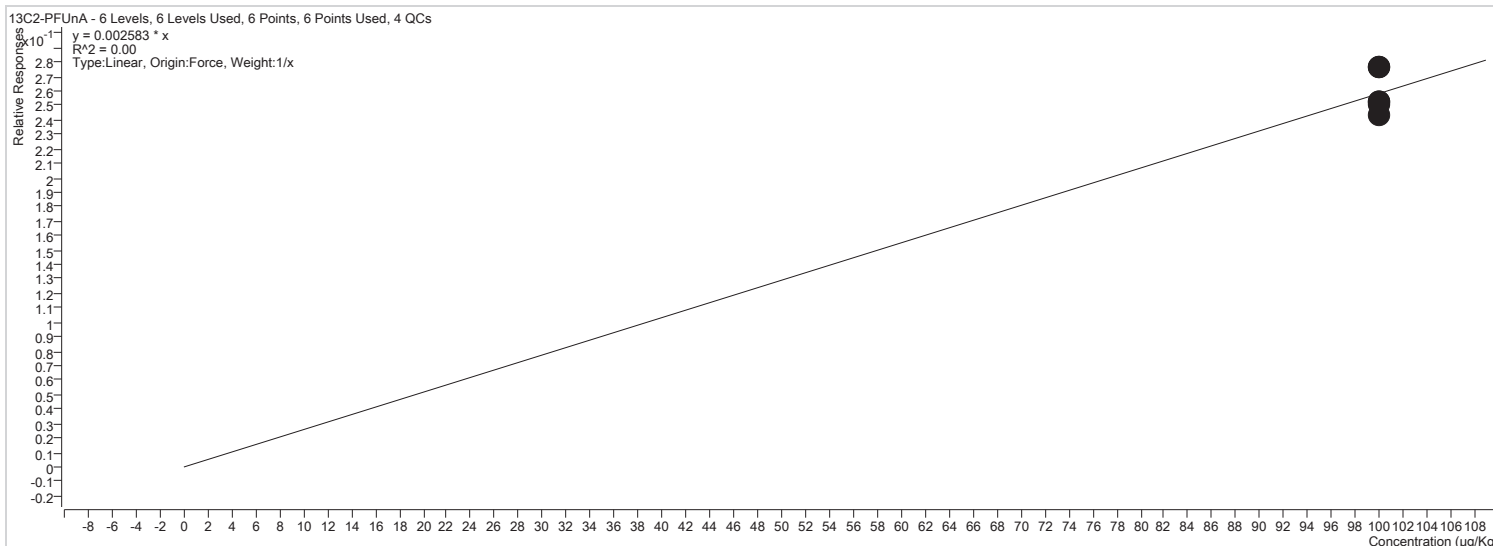
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 Last Calib Update 2017/06/16 8:11:53 AM
 Instrument: LCMS04
 Analyte: 13C2-PFDA
 Internal Standard: 13C9-PFDA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2017/05/20 3:10:01 AM	100.00	106.73	10670	0.0025	675	106.7
STD 2	STD 2	x	2017/05/20 3:14:55 AM	100.00	94.50	7941	0.0022	461	94.5
STD 3	STD 3	x	2017/05/20 3:19:49 AM	100.00	102.70	9289	0.0024	291	102.7
STD 4	STD 4	x	2017/05/20 3:24:43 AM	100.00	98.70	8498	0.0023	352	98.7
STD 5	STD 5	x	2017/05/20 3:29:37 AM	100.00	102.08	8883	0.0024	270	102.1
STD 6	STD 6	x	2017/05/20 3:34:31 AM	100.00	95.29	8108	0.0022	432	95.3

By Compound Report

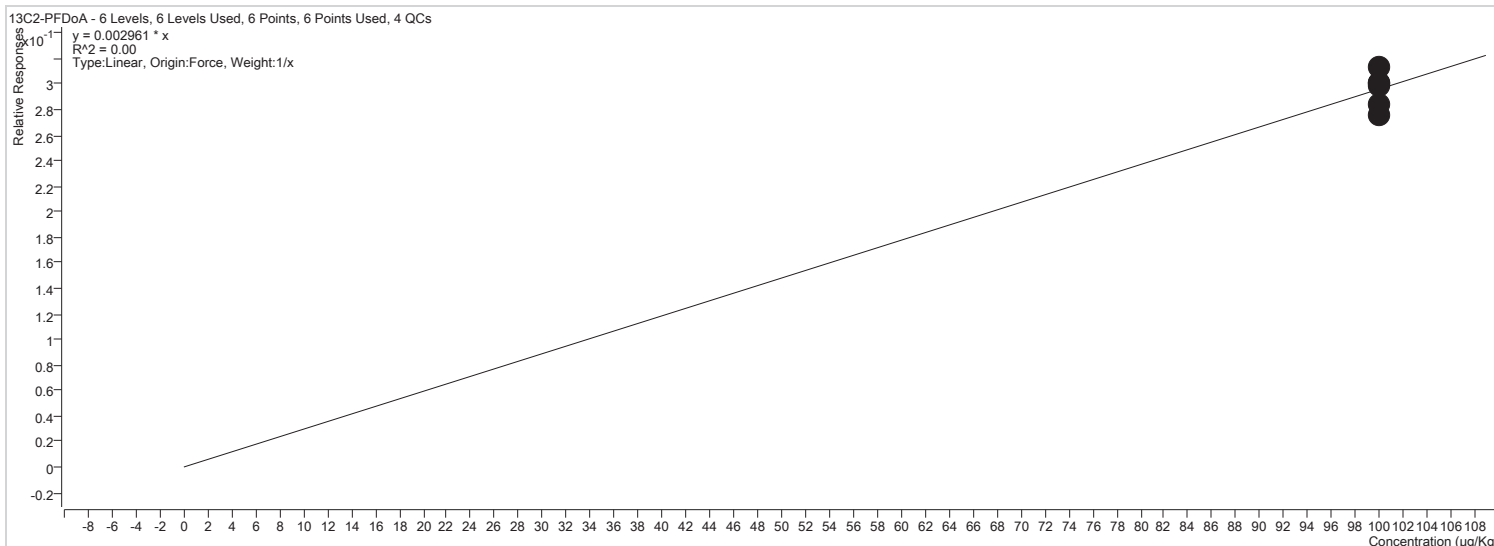
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 Last Calib Update 2017/06/16 8:11:53 AM
 Instrument: LCMS04
 Analyte: 13C2-PFUnA
 Internal Standard: 13C9-PFDA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2017/05/20 3:10:01 AM	100.00	97.76	10931	0.0025	727	97.8
STD 2	STD 2	x	2017/05/20 3:14:55 AM	100.00	97.04	9120	0.0025	517	97.0
STD 3	STD 3	x	2017/05/20 3:19:49 AM	100.00	93.87	9496	0.0024	398	93.9
STD 4	STD 4	x	2017/05/20 3:24:43 AM	100.00	97.48	9387	0.0025	542	97.5
STD 5	STD 5	x	2017/05/20 3:29:37 AM	100.00	106.78	10393	0.0028	898	106.8
STD 6	STD 6	x	2017/05/20 3:34:31 AM	100.00	107.06	10188	0.0028	693	107.1

By Compound Report

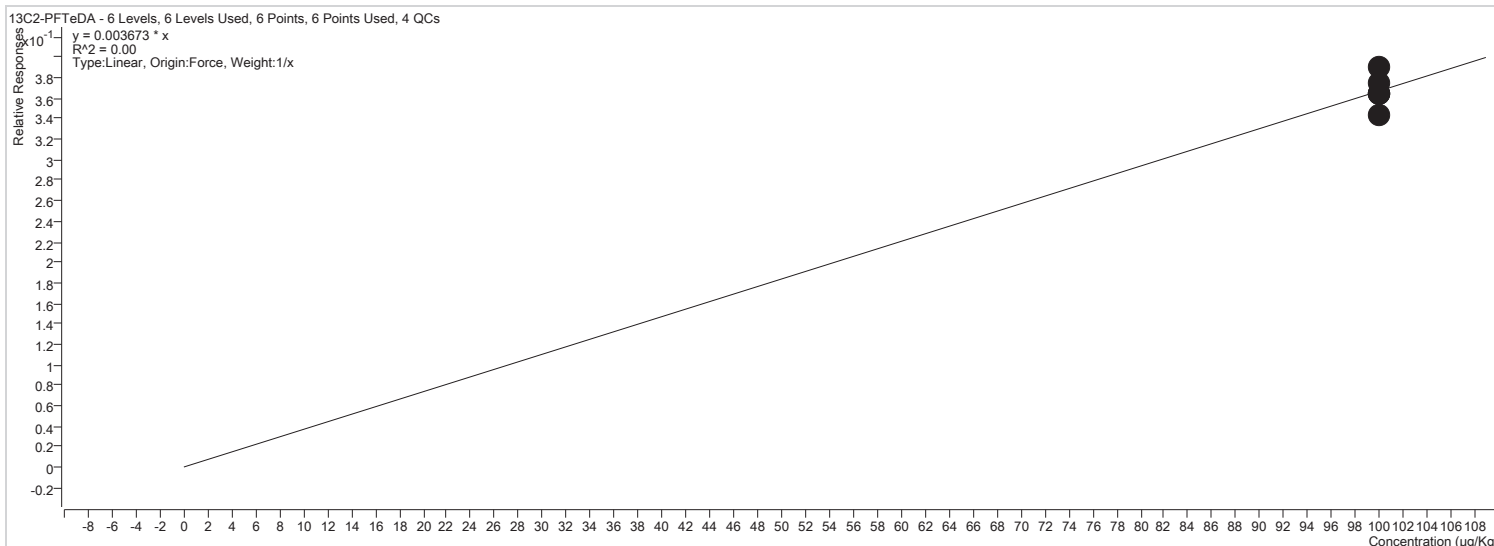
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 Last Calib Update 2017/06/16 8:11:53 AM
 Instrument: LCMS04
 Analyte: 13C2-PFDoA
 Internal Standard: 13C9-PFDA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2017/05/20 3:10:01 AM	100.00	101.18	12968	0.0030	331	101.2
STD 2	STD 2	x	2017/05/20 3:14:55 AM	100.00	101.75	10961	0.0030	497	101.8
STD 3	STD 3	x	2017/05/20 3:19:49 AM	100.00	96.02	11134	0.0028	331	96.0
STD 4	STD 4	x	2017/05/20 3:24:43 AM	100.00	93.35	10304	0.0028	353	93.4
STD 5	STD 5	x	2017/05/20 3:29:37 AM	100.00	105.83	11806	0.0031	238	105.8
STD 6	STD 6	x	2017/05/20 3:34:31 AM	100.00	101.87	11112	0.0030	342	101.9

By Compound Report

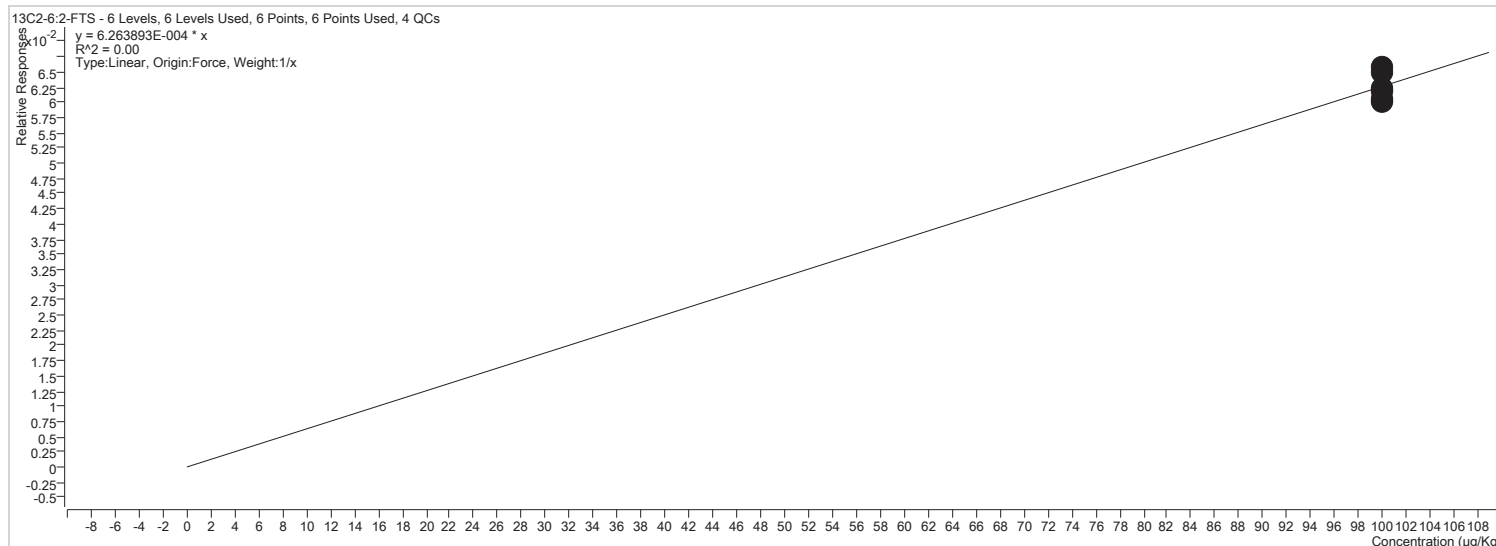
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 Last Calib Update 2017/06/16 8:11:53 AM
 Instrument: LCMS04
 Analyte: 13C2-PFTeDA
 Internal Standard: 13C9-PFDA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2017/05/20 3:10:01 AM	100.00	102.12	16234	0.0038	476	102.1
STD 2	STD 2	x	2017/05/20 3:14:55 AM	100.00	99.54	13299	0.0037	453	99.5
STD 3	STD 3	x	2017/05/20 3:19:49 AM	100.00	93.78	13487	0.0034	313	93.8
STD 4	STD 4	x	2017/05/20 3:24:43 AM	100.00	99.22	13584	0.0036	209	99.2
STD 5	STD 5	x	2017/05/20 3:29:37 AM	100.00	98.98	13696	0.0036	313	99.0
STD 6	STD 6	x	2017/05/20 3:34:31 AM	100.00	106.36	14389	0.0039	349	106.4

By Compound Report

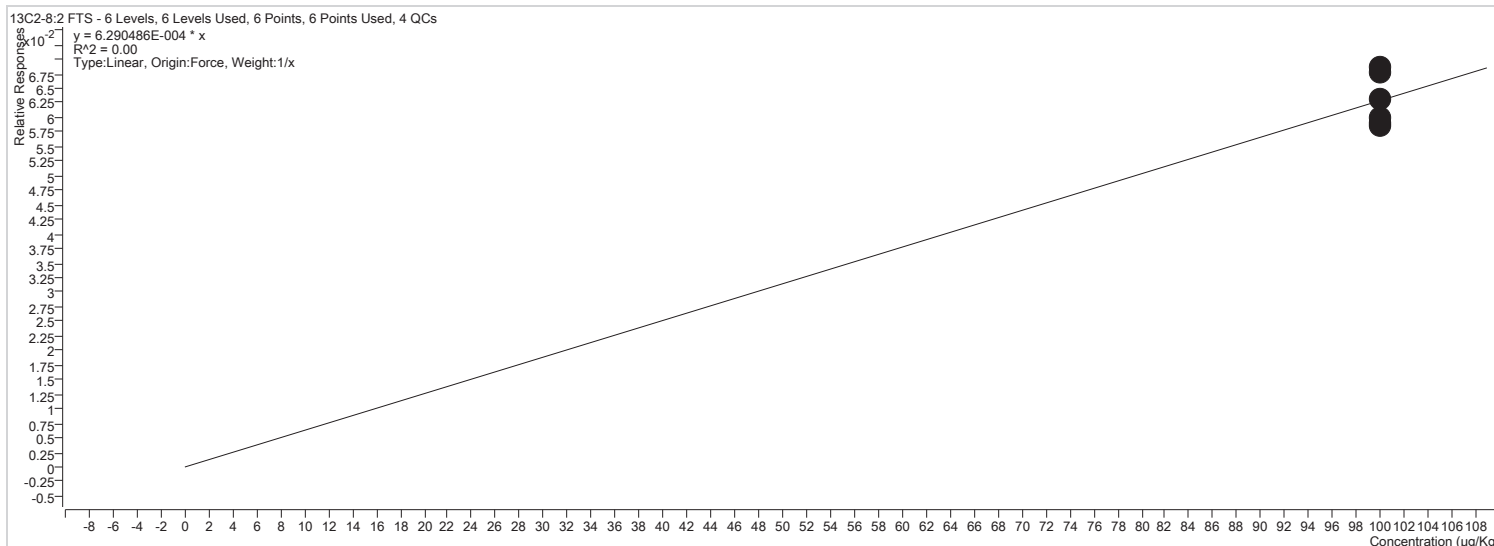
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 Last Calib Update 2017/06/16 8:11:53 AM
 Instrument: LCMS04
 Analyte: 13C2-6:2-FTS
 Internal Standard: 13C6-PFHxA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2017/05/20 3:10:01 AM	100.00	105.07	3011	0.0007	795	105.1
STD 2	STD 2	x	2017/05/20 3:14:55 AM	100.00	103.76	2685	0.0006	216	103.8
STD 3	STD 3	x	2017/05/20 3:19:49 AM	100.00	99.69	2556	0.0006	594	99.7
STD 4	STD 4	x	2017/05/20 3:24:43 AM	100.00	96.85	2466	0.0006	416	96.8
STD 5	STD 5	x	2017/05/20 3:29:37 AM	100.00	95.78	2527	0.0006	258	95.8
STD 6	STD 6	x	2017/05/20 3:34:31 AM	100.00	98.85	2509	0.0006	362	98.9

By Compound Report

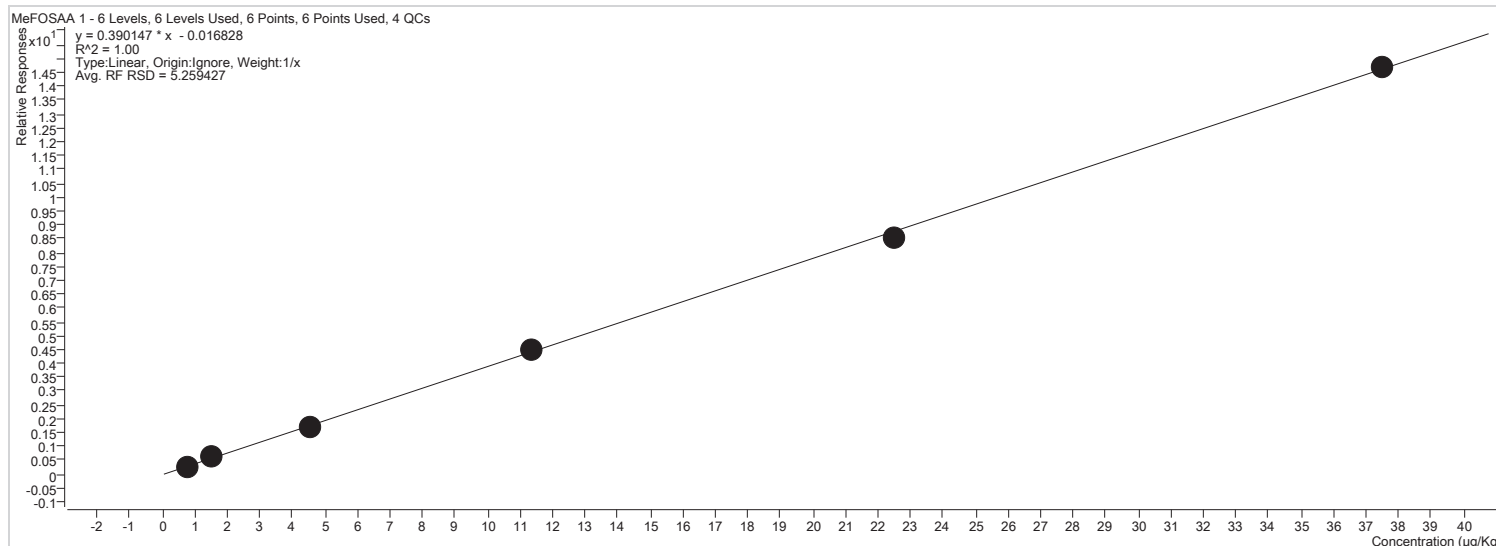
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 Last Calib Update 2017/06/16 8:11:53 AM
 Instrument: LCMS04
 Analyte: 13C2-8:2 FTS
 Internal Standard: 13C6-PFHxA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2017/05/20 3:10:01 AM	100.00	109.14	3141	0.0007	630	109.1
STD 2	STD 2	x	2017/05/20 3:14:55 AM	100.00	100.67	2616	0.0006	440	100.7
STD 3	STD 3	x	2017/05/20 3:19:49 AM	100.00	107.77	2775	0.0007	253	107.8
STD 4	STD 4	x	2017/05/20 3:24:43 AM	100.00	93.98	2403	0.0006	118	94.0
STD 5	STD 5	x	2017/05/20 3:29:37 AM	100.00	93.18	2469	0.0006	499	93.2
STD 6	STD 6	x	2017/05/20 3:34:31 AM	100.00	95.26	2428	0.0006	263	95.3

By Compound Report

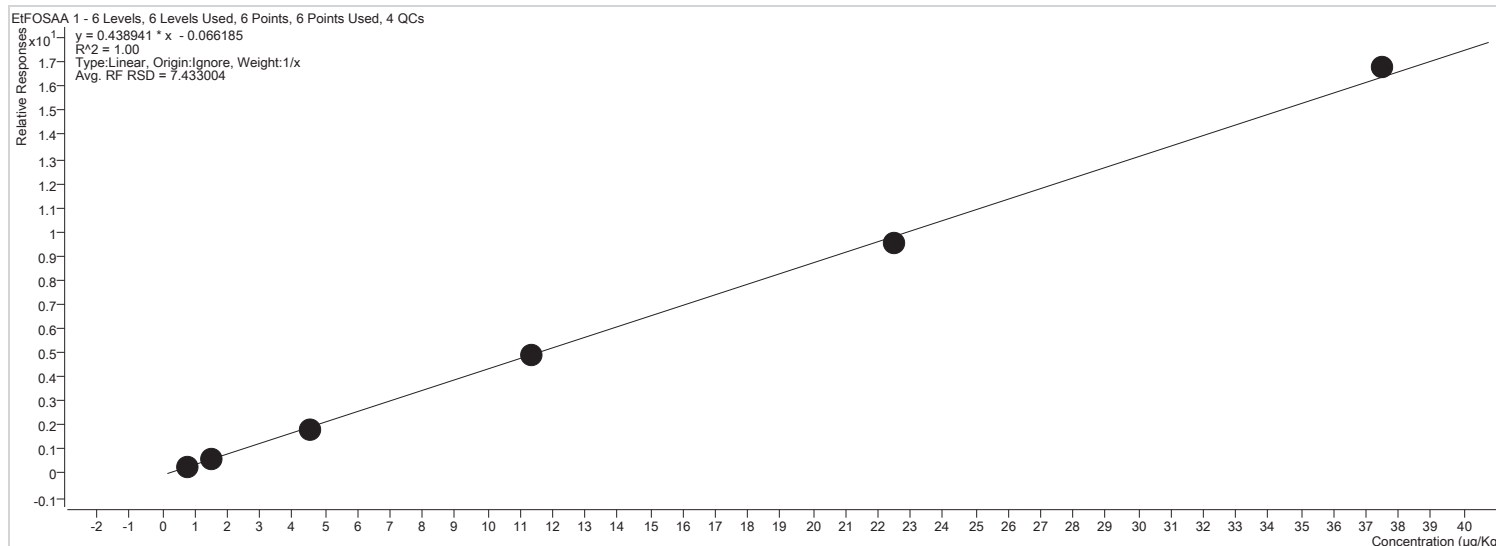
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 Last Calib Update 2017/06/21 11:34:05 AM
 Instrument: LCMS04
 Analyte: MeFOSAA 1
 Internal Standard: D3-MeFOSAA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2017/05/20 11:33:17 AM	0.75	0.71	564	0.3445	105	94.0
STD 2	STD 2	x	2017/05/20 11:35:40 AM	1.50	1.57	1031	0.3973	266	104.7
STD 3	STD 3	x	2017/05/20 11:38:03 AM	4.50	4.53	3040	0.3887	586	100.6
STD 4	STD 4	x	2017/05/20 11:40:26 AM	11.30	11.58	7700	0.3983	559	102.5
STD 5	STD 5	x	2017/05/20 11:42:49 AM	22.50	21.98	14859	0.3804	727	97.7
STD 6	STD 6	x	2017/05/20 11:45:12 AM	37.50	37.69	24630	0.3917	608	100.5

By Compound Report

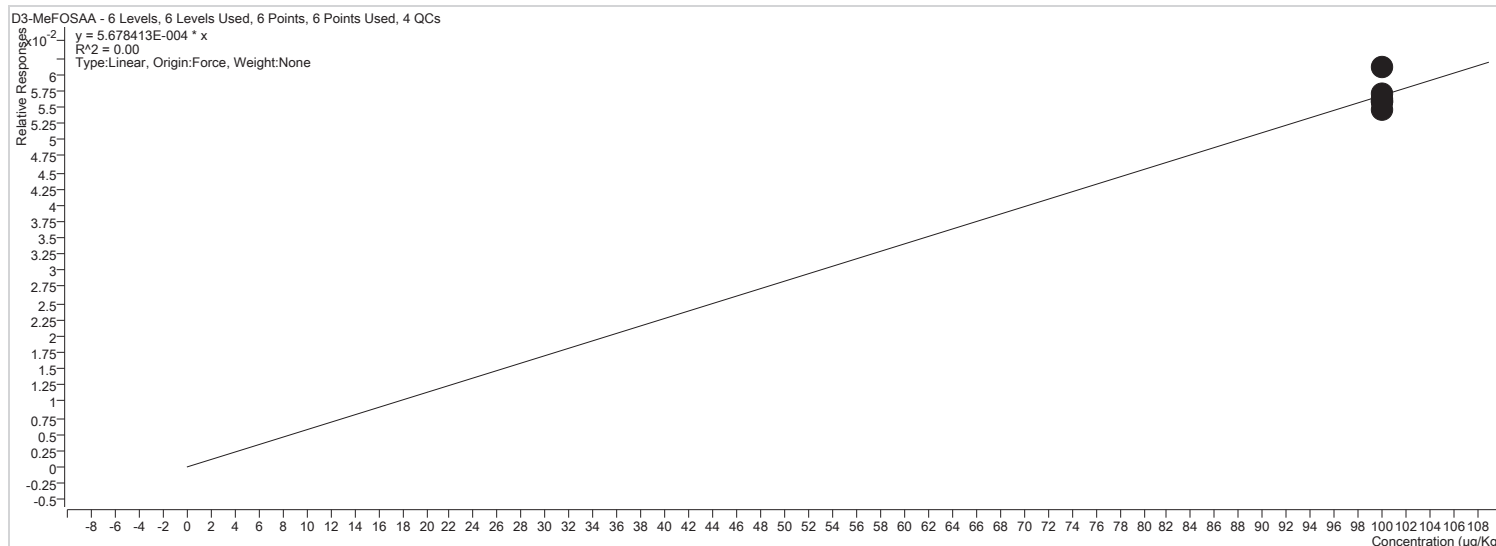
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 Last Calib Update 2017/06/21 11:34:05 AM
 Instrument: LCMS04
 Analyte: EtFOSAA 1
 Internal Standard: D5-EtFOSAA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2017/05/20 11:33:17 AM	0.75	0.77	513	0.3621	43	102.6
STD 2	STD 2	x	2017/05/20 11:35:40 AM	1.50	1.59	990	0.4198	122	105.7
STD 3	STD 3	x	2017/05/20 11:38:03 AM	4.50	4.17	2917	0.3924	281	92.7
STD 4	STD 4	x	2017/05/20 11:40:26 AM	11.30	11.22	7615	0.4301	596	99.3
STD 5	STD 5	x	2017/05/20 11:42:49 AM	22.50	21.85	15212	0.4233	662	97.1
STD 6	STD 6	x	2017/05/20 11:45:12 AM	37.50	38.45	25417	0.4483	733	102.5

By Compound Report

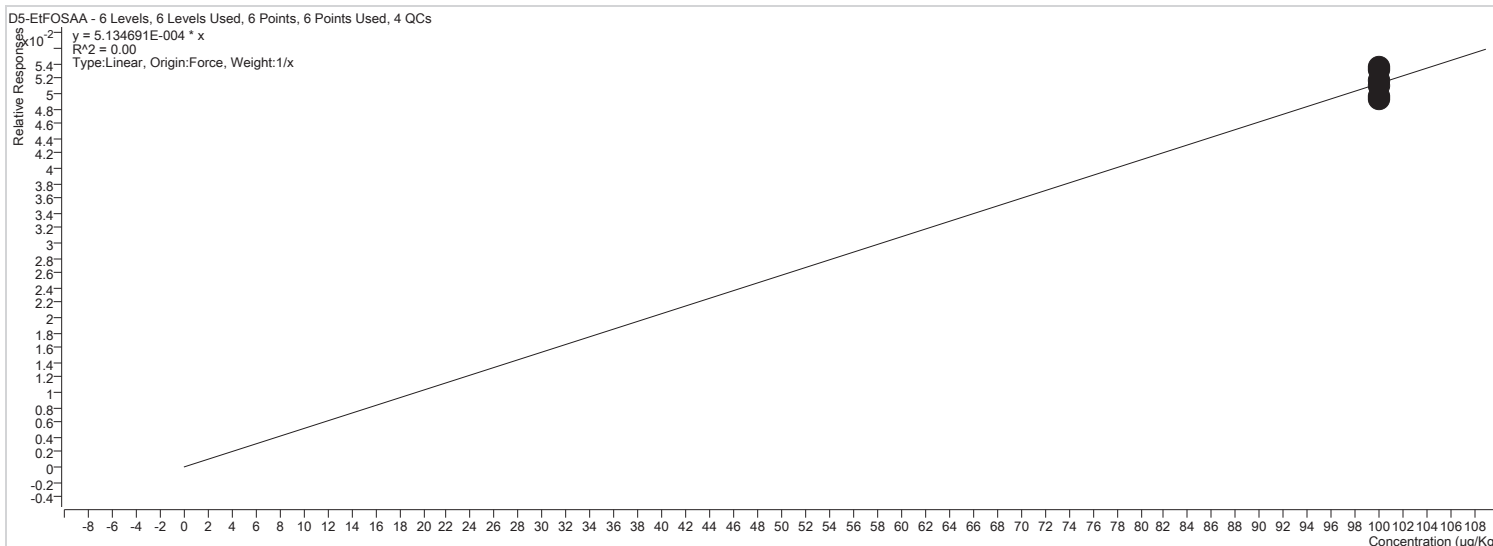
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 Last Calib Update 2017/06/21 11:34:05 AM
 Instrument: LCMS04
 Analyte: D3-MeFOSAA
 Internal Standard: 13C9-PFDA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2017/05/20 11:33:17 AM	100.00	107.61	2189	0.0006	1006	107.6
STD 2	STD 2	x	2017/05/20 11:35:40 AM	100.00	100.36	1753	0.0006	667	100.4
STD 3	STD 3	x	2017/05/20 11:38:03 AM	100.00	98.71	1749	0.0006	621	98.7
STD 4	STD 4	x	2017/05/20 11:40:26 AM	100.00	98.48	1741	0.0006	1691	98.5
STD 5	STD 5	x	2017/05/20 11:42:49 AM	100.00	98.48	1744	0.0006	783	98.5
STD 6	STD 6	x	2017/05/20 11:45:12 AM	100.00	96.35	1690	0.0005	2443	96.4

By Compound Report

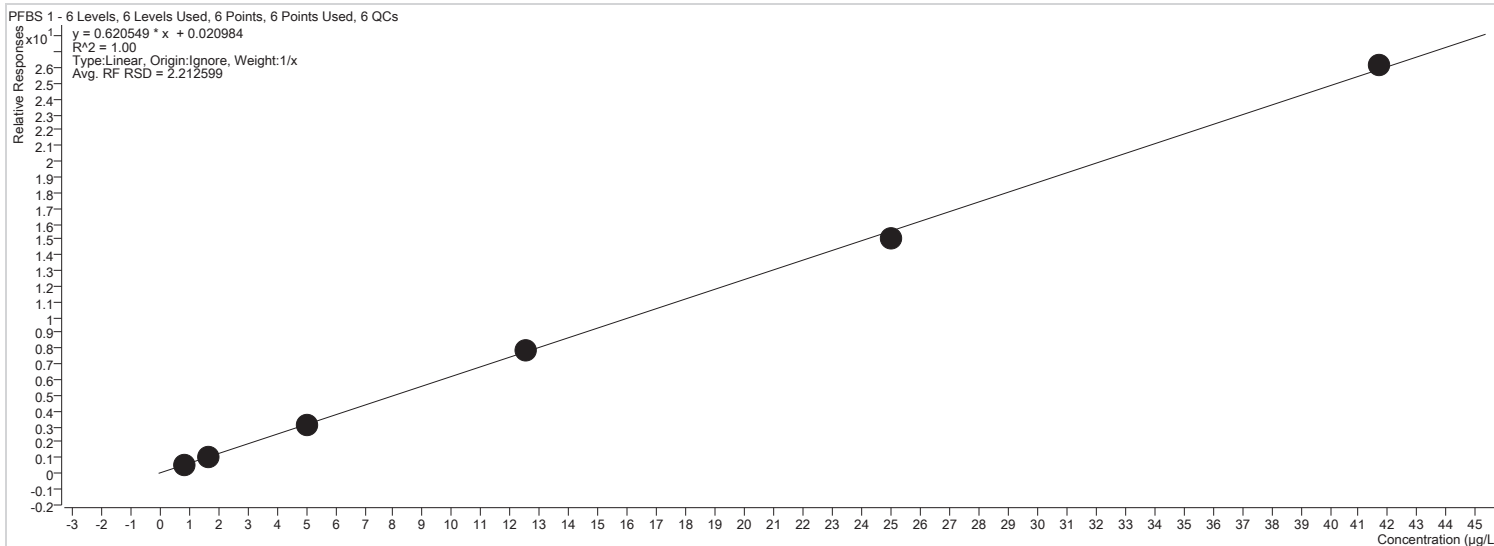
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Last Calib Update 2017/06/21 11:34:05 AM
Instrument: LCMS04
Analyte: D5-EtFOSAA
Internal Standard: 13C9-PFDA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2017/05/20 11:33:17 AM	100.00	103.39	1902	0.0005	1653	103.4
STD 2	STD 2	x	2017/05/20 11:35:40 AM	100.00	100.69	1591	0.0005	4656	100.7
STD 3	STD 3	x	2017/05/20 11:38:03 AM	100.00	104.26	1670	0.0005	949	104.3
STD 4	STD 4	x	2017/05/20 11:40:26 AM	100.00	99.08	1584	0.0005	807	99.1
STD 5	STD 5	x	2017/05/20 11:42:49 AM	100.00	96.88	1552	0.0005	1253	96.9
STD 6	STD 6	x	2017/05/20 11:45:12 AM	100.00	95.70	1518	0.0005	358	95.7

By Compound Report

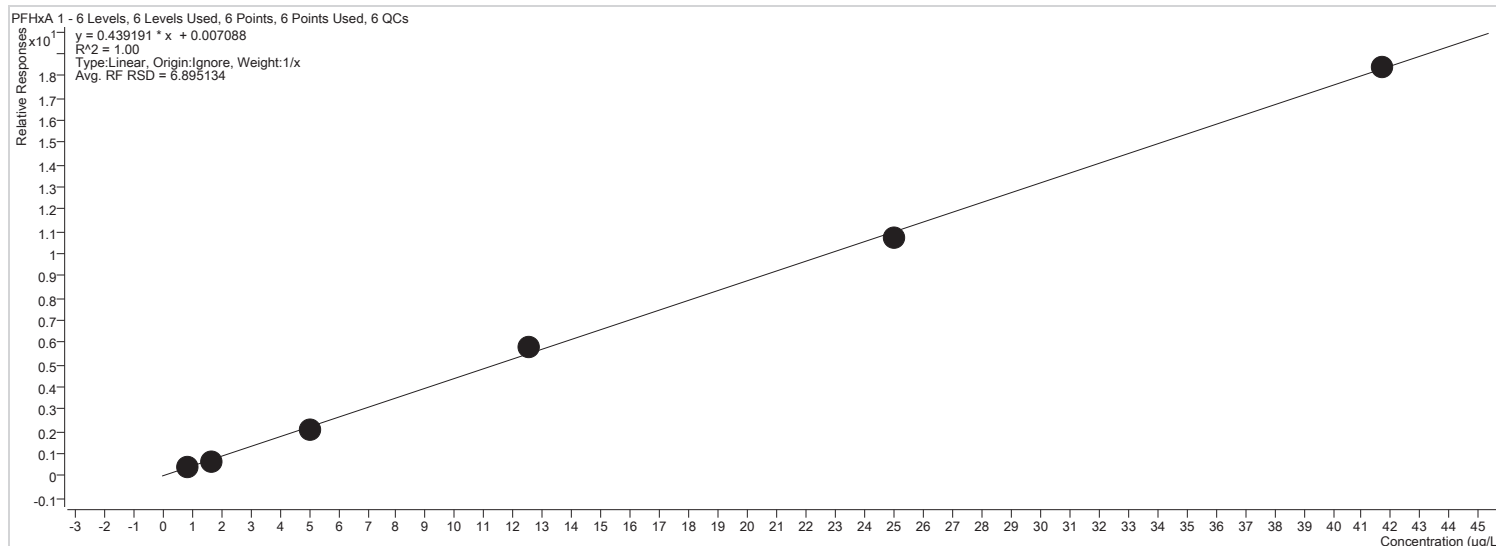
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 Last Calib Update 2017/06/16 2:31:08 PM
 Instrument: LCMS04
 Analyte: PFBS 1
 Internal Standard: MPFHxS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2017/05/23 9:18:32 AM	0.83	0.83	848	0.6450	66	99.9
STD 2	STD 2	x	2017/05/23 9:23:26 AM	1.70	1.70	1614	0.6329	114	100.0
STD 3	STD 3	x	2017/05/23 9:28:20 AM	5.00	4.99	4624	0.6232	549	99.7
STD 4	STD 4	x	2017/05/23 9:33:14 AM	12.50	12.76	12268	0.6352	470	102.1
STD 5	STD 5	x	2017/05/23 9:38:08 AM	25.00	24.30	23133	0.6040	128	97.2
STD 6	STD 6	x	2017/05/23 9:43:02 AM	41.70	42.15	39582	0.6278	984	101.1

By Compound Report

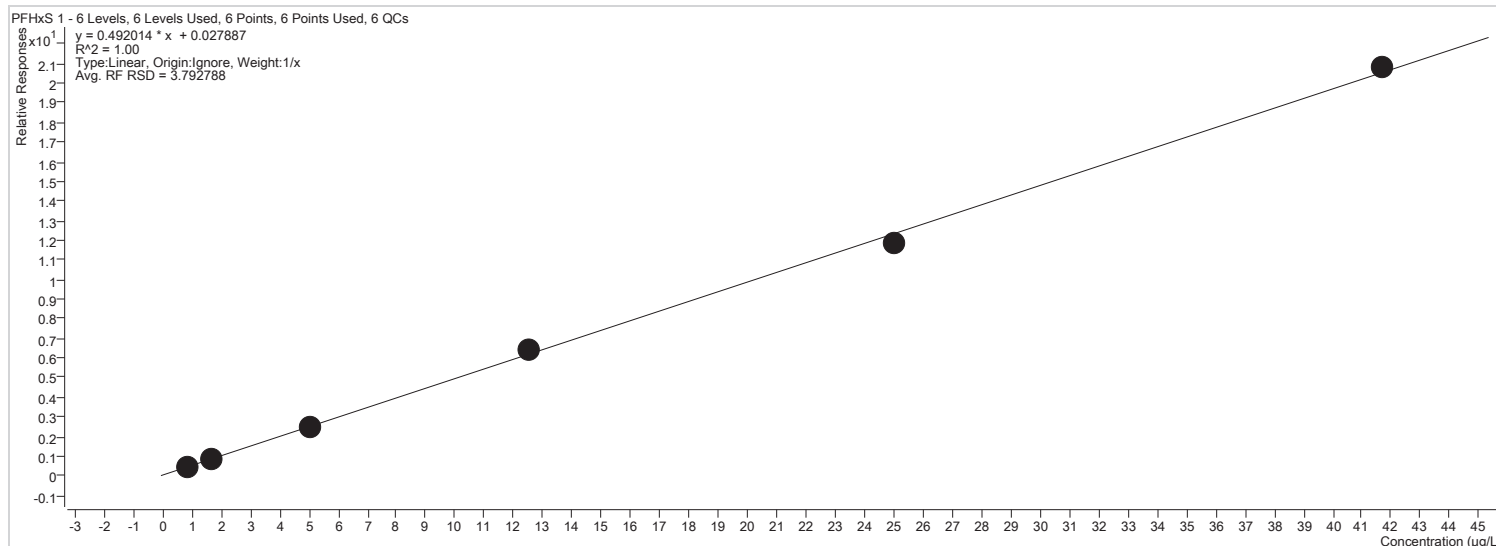
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 Last Calib Update 2017/06/16 2:31:08 PM
 Instrument: LCMS04
 Analyte: PFHxA 1
 Internal Standard: MPFHxA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2017/05/23 9:18:32 AM	0.83	0.91	3498	0.4899	146	109.6
STD 2	STD 2	x	2017/05/23 9:23:26 AM	1.70	1.54	5915	0.4011	229	90.4
STD 3	STD 3	x	2017/05/23 9:28:20 AM	5.00	4.85	18400	0.4277	757	97.1
STD 4	STD 4	x	2017/05/23 9:33:14 AM	12.50	13.08	49726	0.4601	1883	104.6
STD 5	STD 5	x	2017/05/23 9:38:08 AM	25.00	24.47	94513	0.4302	3485	97.9
STD 6	STD 6	x	2017/05/23 9:43:02 AM	41.70	41.88	161340	0.4413	5752	100.4

By Compound Report

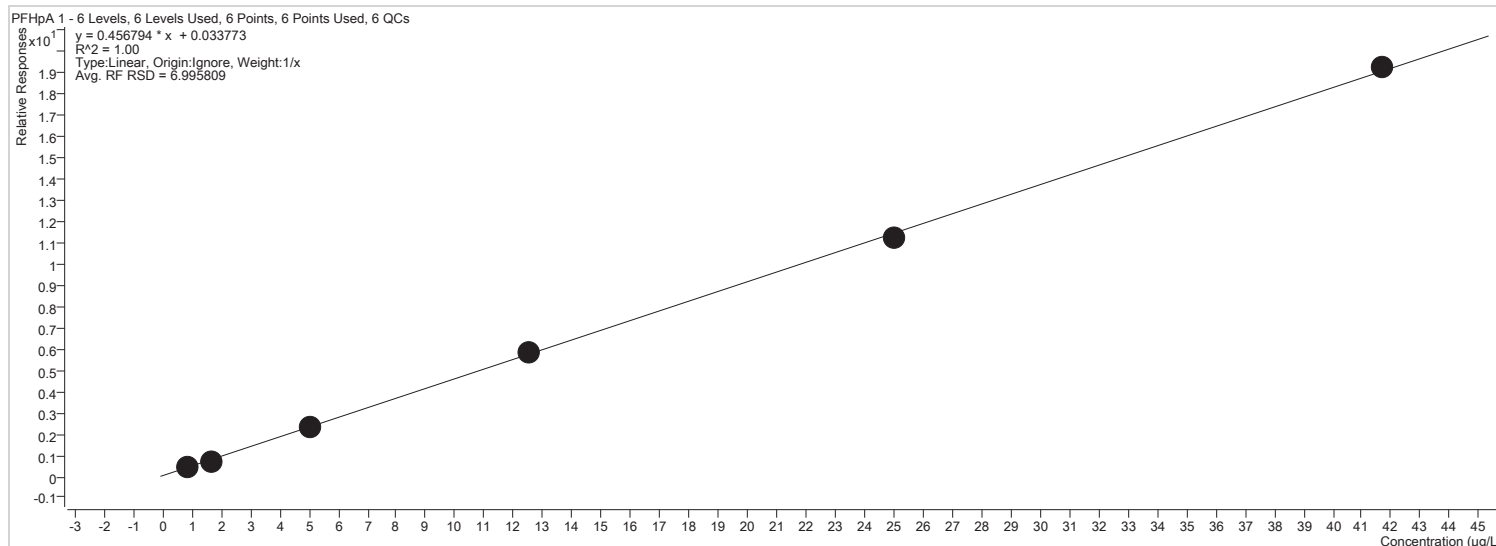
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 Last Calib Update 2017/06/16 2:31:08 PM
 Instrument: LCMS04
 Analyte: PFHxS 1
 Internal Standard: MPFHxS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2017/05/23 9:18:32 AM	0.83	0.84	695	0.5286	112	100.6
STD 2	STD 2	x	2017/05/23 9:23:26 AM	1.70	1.65	1259	0.4937	31	97.0
STD 3	STD 3	x	2017/05/23 9:28:20 AM	5.00	5.08	3747	0.5050	181	101.5
STD 4	STD 4	x	2017/05/23 9:33:14 AM	12.50	12.97	9906	0.5129	189	103.8
STD 5	STD 5	x	2017/05/23 9:38:08 AM	25.00	23.93	18078	0.4720	844	95.7
STD 6	STD 6	x	2017/05/23 9:43:02 AM	41.70	42.27	31487	0.4994	186	101.4

By Compound Report

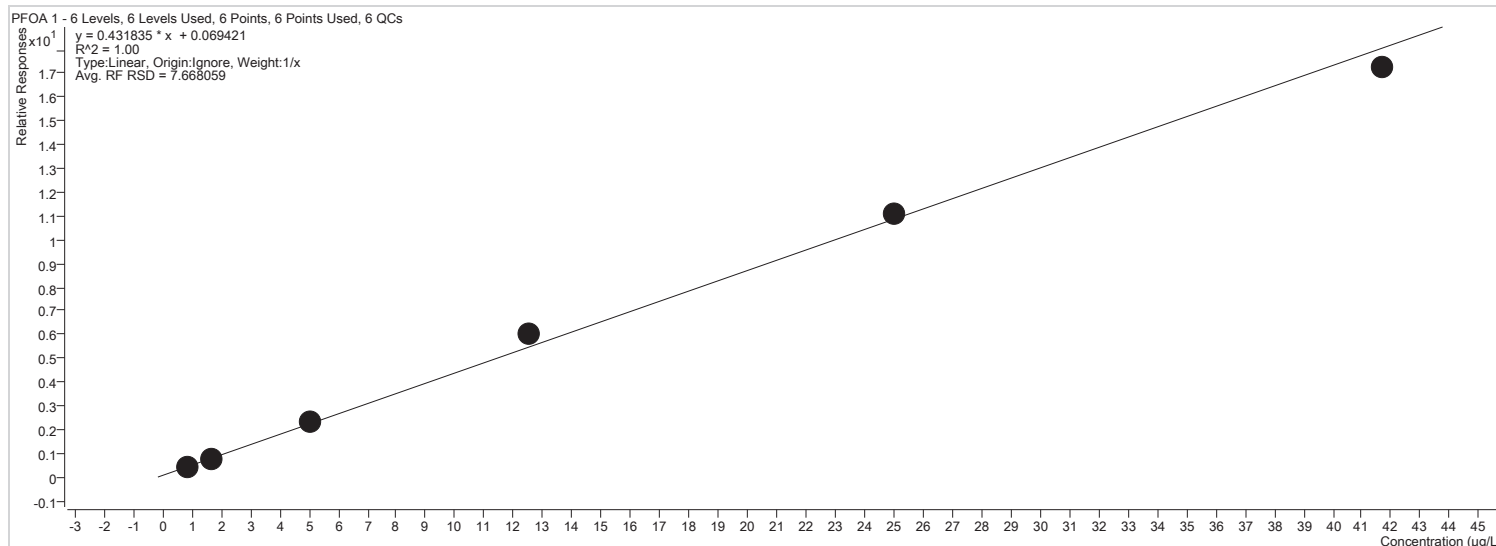
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 Last Calib Update 2017/06/16 2:31:08 PM
 Instrument: LCMS04
 Analyte: PFHpA 1
 Internal Standard: MPFHpA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2017/05/23 9:18:32 AM	0.83	0.89	3927	0.5315	24	107.5
STD 2	STD 2	x	2017/05/23 9:23:26 AM	1.70	1.56	7138	0.4379	41	91.5
STD 3	STD 3	x	2017/05/23 9:28:20 AM	5.00	5.05	20958	0.4677	96	100.9
STD 4	STD 4	x	2017/05/23 9:33:14 AM	12.50	12.66	55029	0.4655	131	101.3
STD 5	STD 5	x	2017/05/23 9:38:08 AM	25.00	24.44	100976	0.4480	194	97.8
STD 6	STD 6	x	2017/05/23 9:43:02 AM	41.70	42.13	165986	0.4623	184	101.0

By Compound Report

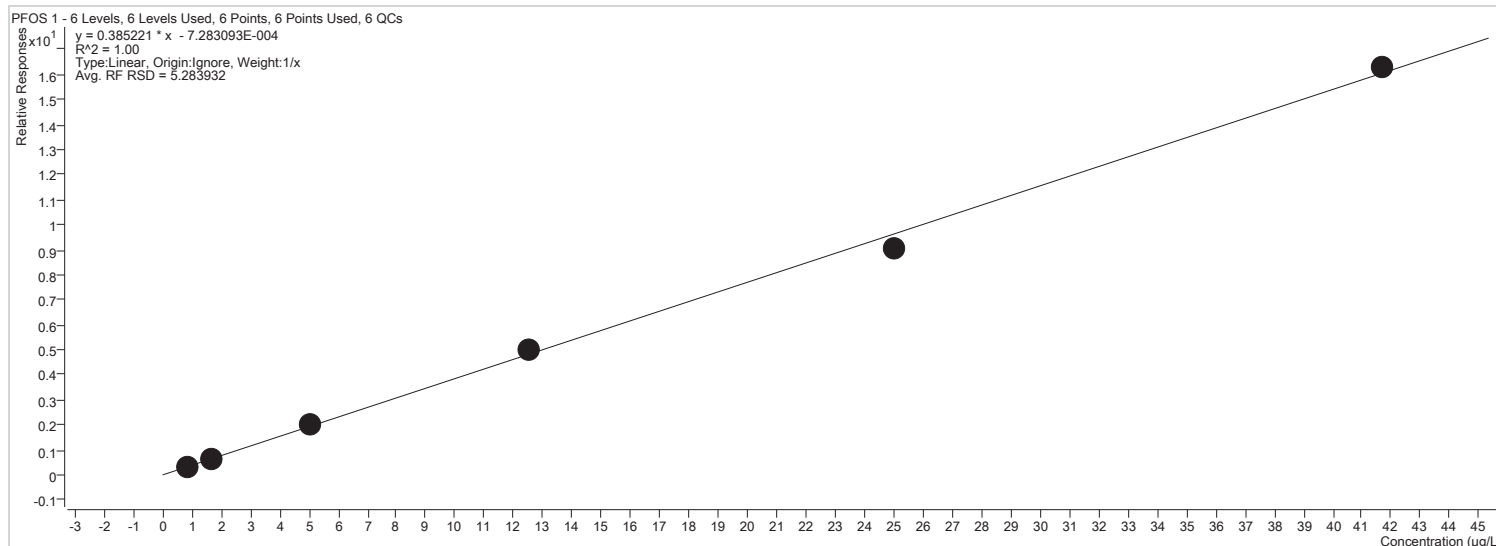
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 Last Calib Update 2017/06/16 2:31:08 PM
 Instrument: LCMS04
 Analyte: PFOA 1
 Internal Standard: MPFOA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2017/05/23 9:18:32 AM	0.83	0.82	3804	0.5098	22	98.7
STD 2	STD 2	x	2017/05/23 9:23:26 AM	1.70	1.53	6476	0.4301	34	90.1
STD 3	STD 3	x	2017/05/23 9:28:20 AM	5.00	5.14	20026	0.4581	69	102.9
STD 4	STD 4	x	2017/05/23 9:33:14 AM	12.50	13.80	52439	0.4824	235	110.4
STD 5	STD 5	x	2017/05/23 9:38:08 AM	25.00	25.58	98239	0.4446	253	102.3
STD 6	STD 6	x	2017/05/23 9:43:02 AM	41.70	39.85	160870	0.4144	124	95.6

By Compound Report

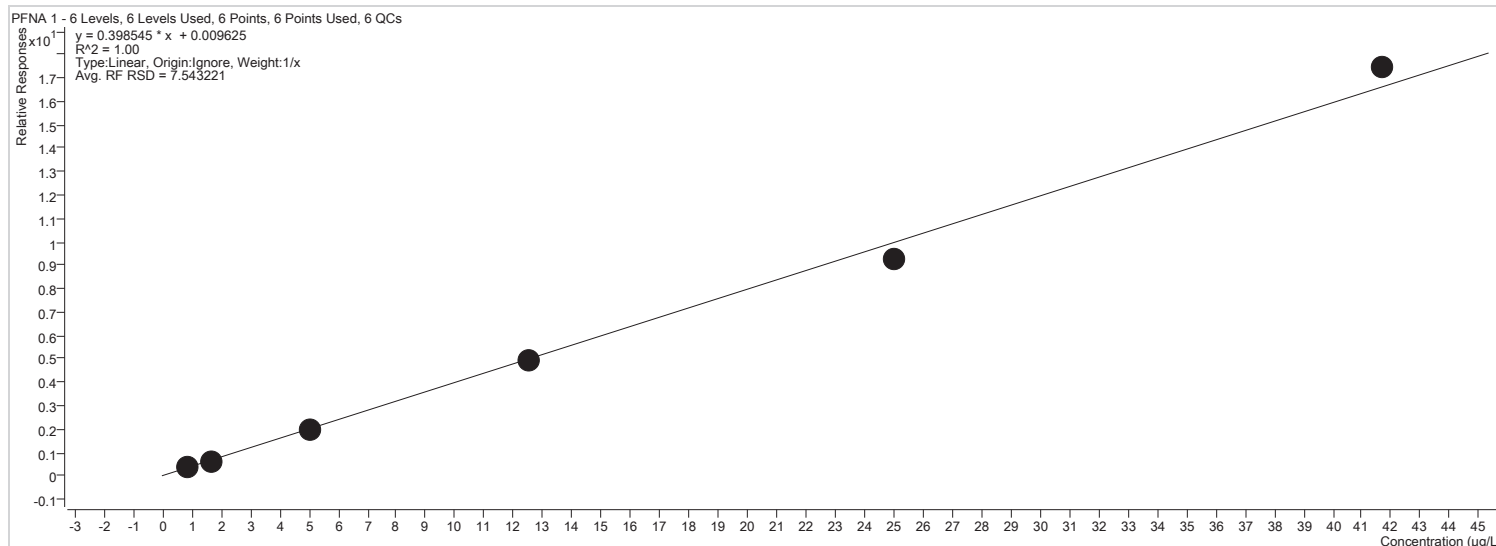
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 Last Calib Update 2017/06/16 2:31:08 PM
 Instrument: LCMS04
 Analyte: PFOS 1
 Internal Standard: MPFOS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2017/05/23 9:18:32 AM	0.83	0.82	648	0.3807	119	99.0
STD 2	STD 2	x	2017/05/23 9:23:26 AM	1.70	1.60	1103	0.3613	95	93.9
STD 3	STD 3	x	2017/05/23 9:28:20 AM	5.00	5.34	3524	0.4110	182	106.7
STD 4	STD 4	x	2017/05/23 9:33:14 AM	12.50	13.06	9419	0.4025	320	104.5
STD 5	STD 5	x	2017/05/23 9:38:08 AM	25.00	23.58	17713	0.3633	208	94.3
STD 6	STD 6	x	2017/05/23 9:43:02 AM	41.70	42.33	29856	0.3910	264	101.5

By Compound Report

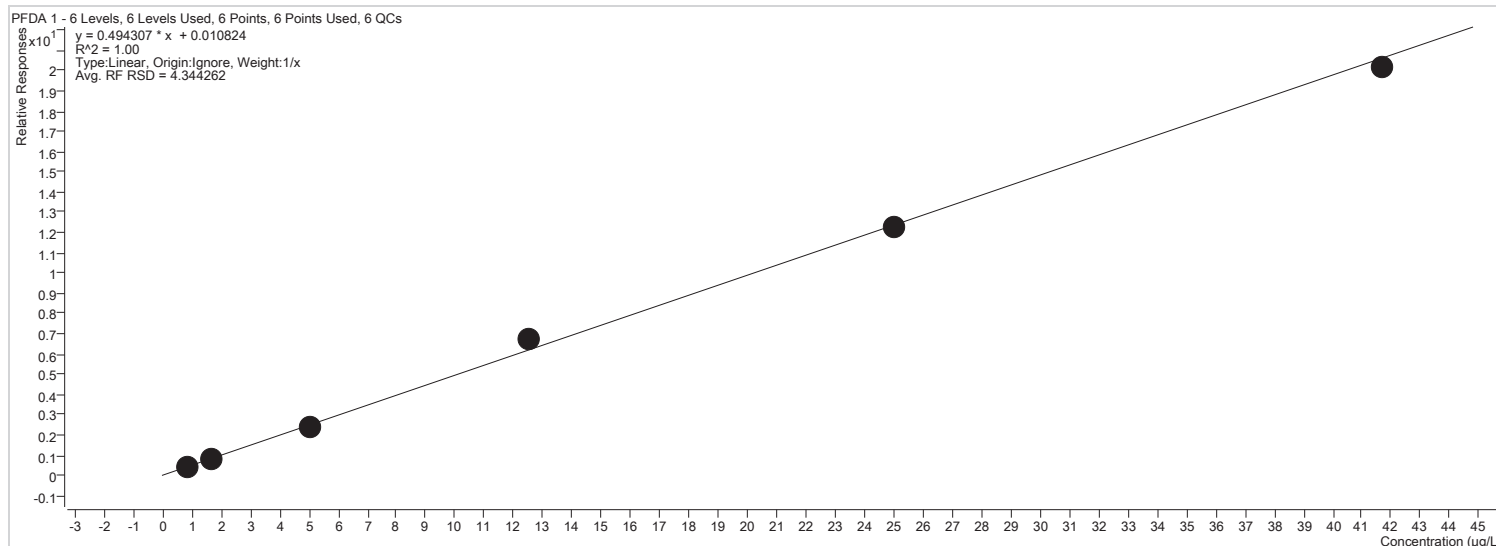
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 Last Calib Update 2017/06/16 2:31:08 PM
 Instrument: LCMS04
 Analyte: PFNA 1
 Internal Standard: MPFNA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2017/05/23 9:18:32 AM	0.83	0.92	3271	0.4533	32	110.8
STD 2	STD 2	x	2017/05/23 9:23:26 AM	1.70	1.59	5442	0.3795	56	93.8
STD 3	STD 3	x	2017/05/23 9:28:20 AM	5.00	4.99	16763	0.3995	158	99.7
STD 4	STD 4	x	2017/05/23 9:33:14 AM	12.50	12.23	44978	0.3906	660	97.8
STD 5	STD 5	x	2017/05/23 9:38:08 AM	25.00	23.18	85308	0.3699	959	92.7
STD 6	STD 6	x	2017/05/23 9:43:02 AM	41.70	43.82	142983	0.4191	2166	105.1

By Compound Report

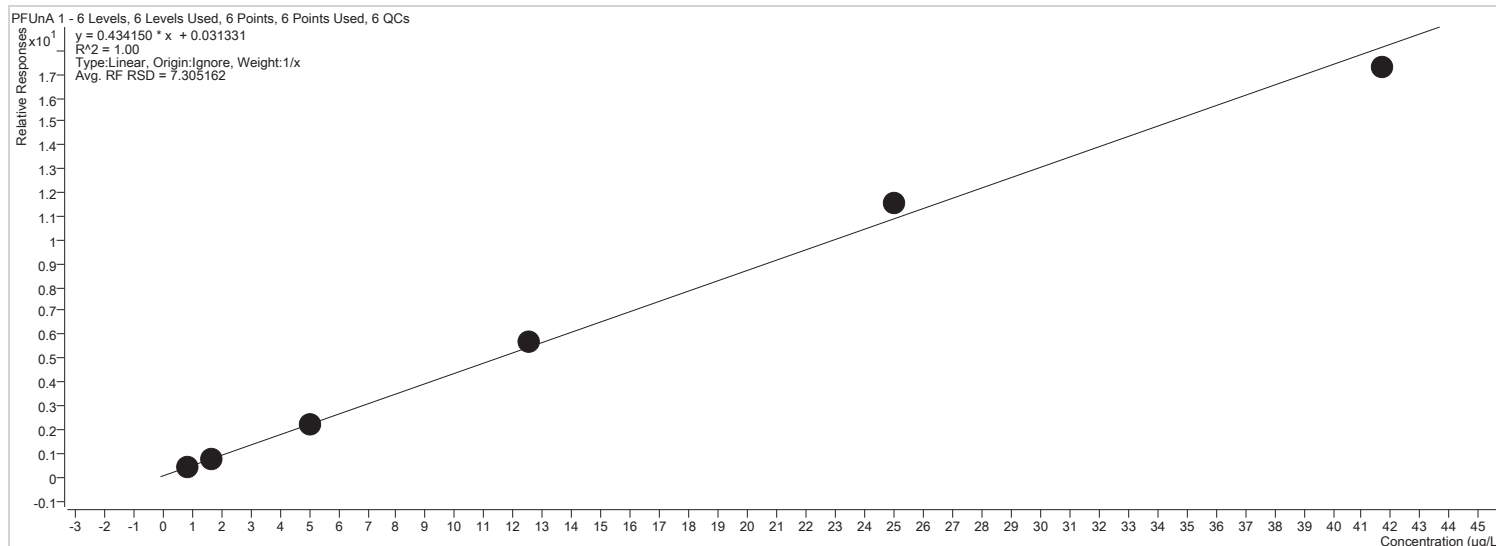
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 Last Calib Update 2017/06/16 2:31:08 PM
 Instrument: LCMS04
 Analyte: PFDA 1
 Internal Standard: MPFDA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2017/05/23 9:18:32 AM	0.83	0.82	3292	0.5017	29	98.9
STD 2	STD 2	x	2017/05/23 9:23:26 AM	1.70	1.64	6221	0.4819	48	96.2
STD 3	STD 3	x	2017/05/23 9:28:20 AM	5.00	4.92	17688	0.4882	130	98.3
STD 4	STD 4	x	2017/05/23 9:33:14 AM	12.50	13.63	47718	0.5399	271	109.0
STD 5	STD 5	x	2017/05/23 9:38:08 AM	25.00	24.93	93766	0.4933	424	99.7
STD 6	STD 6	x	2017/05/23 9:43:02 AM	41.70	40.80	149016	0.4839	135	97.8

By Compound Report

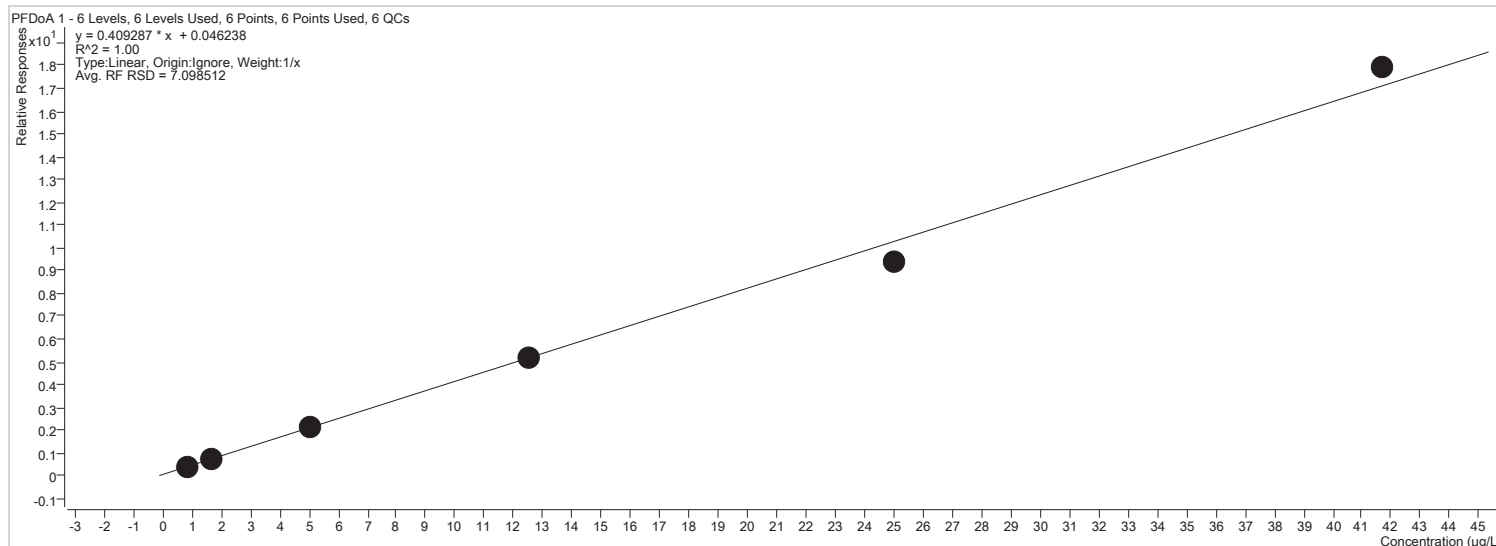
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 Last Calib Update 2017/06/16 2:31:08 PM
 Instrument: LCMS04
 Analyte: PFUnA 1
 Internal Standard: MPFUnA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2017/05/23 9:18:32 AM	0.83	0.88	3253	0.4960	24	105.6
STD 2	STD 2	x	2017/05/23 9:23:26 AM	1.70	1.54	5620	0.4108	29	90.4
STD 3	STD 3	x	2017/05/23 9:28:20 AM	5.00	4.91	17441	0.4324	98	98.1
STD 4	STD 4	x	2017/05/23 9:33:14 AM	12.50	13.00	46100	0.4539	254	104.0
STD 5	STD 5	x	2017/05/23 9:38:08 AM	25.00	26.65	90075	0.4640	429	106.6
STD 6	STD 6	x	2017/05/23 9:43:02 AM	41.70	39.77	146809	0.4148	671	95.4

By Compound Report

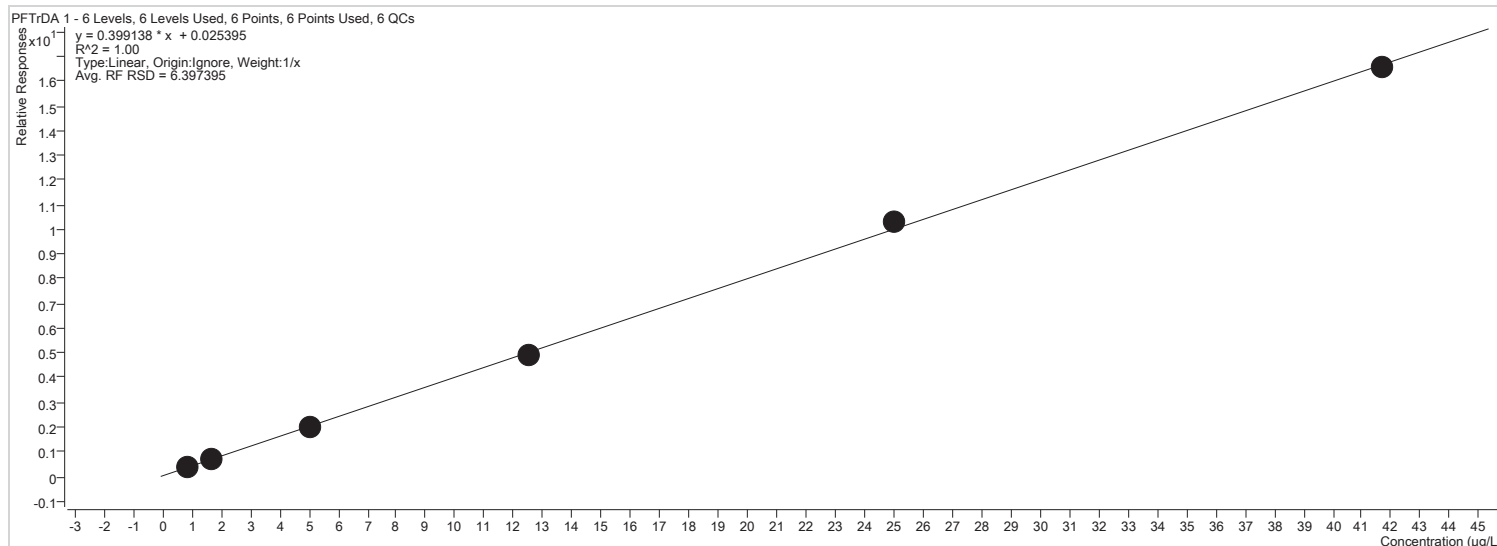
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 Last Calib Update 2017/06/16 2:31:08 PM
 Instrument: LCMS04
 Analyte: PFDa 1
 Internal Standard: MPFDa



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2017/05/23 9:18:32 AM	0.83	0.80	3485	0.4525	38	96.9
STD 2	STD 2	x	2017/05/23 9:23:26 AM	1.70	1.80	6548	0.4607	68	105.9
STD 3	STD 3	x	2017/05/23 9:28:20 AM	5.00	5.06	19083	0.4233	407	101.2
STD 4	STD 4	x	2017/05/23 9:33:14 AM	12.50	12.44	48148	0.4109	1257	99.5
STD 5	STD 5	x	2017/05/23 9:38:08 AM	25.00	22.91	92992	0.3769	2578	91.6
STD 6	STD 6	x	2017/05/23 9:43:02 AM	41.70	43.72	155559	0.4302	2691	104.8

By Compound Report

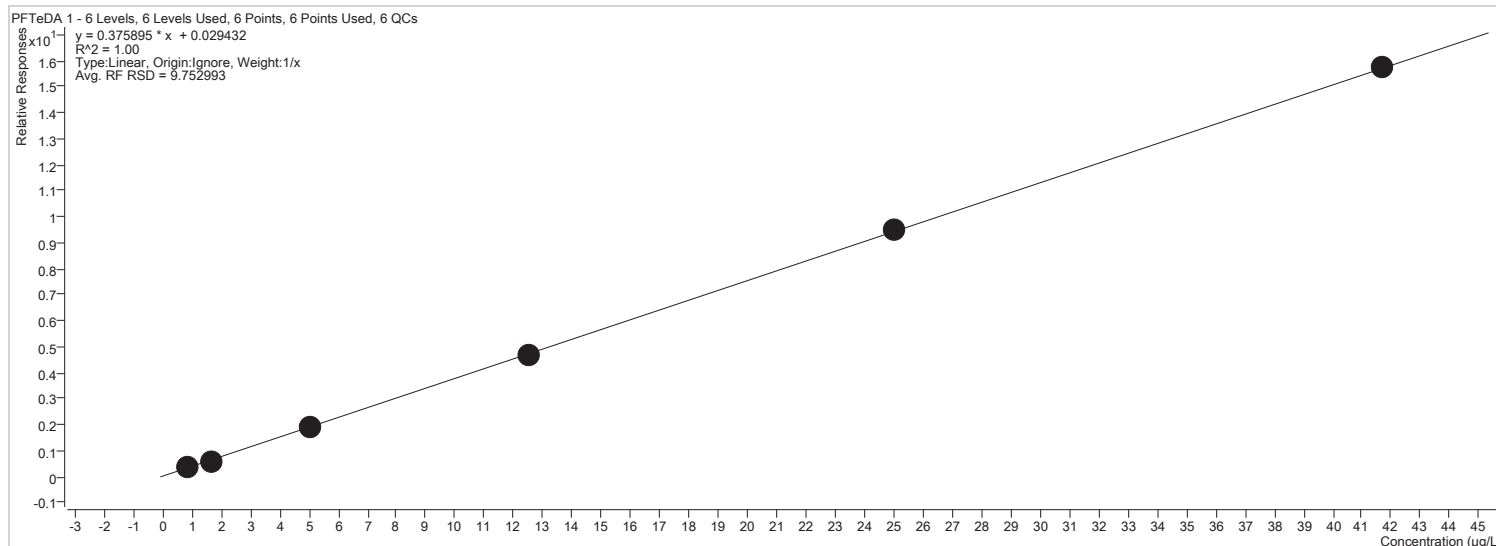
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 Last Calib Update 2017/06/16 2:31:08 PM
 Instrument: LCMS04
 Analyte: PFTTrDA 1
 Internal Standard: MPFTeDA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2017/05/23 9:18:32 AM	0.83	0.89	4320	0.4597	22	107.5
STD 2	STD 2	x	2017/05/23 9:23:26 AM	1.70	1.62	7589	0.3950	32	95.2
STD 3	STD 3	x	2017/05/23 9:28:20 AM	5.00	4.87	21895	0.3935	119	97.3
STD 4	STD 4	x	2017/05/23 9:33:14 AM	12.50	12.23	59182	0.3926	191	97.9
STD 5	STD 5	x	2017/05/23 9:38:08 AM	25.00	25.66	118104	0.4107	300	102.6
STD 6	STD 6	x	2017/05/23 9:43:02 AM	41.70	41.46	192268	0.3974	301	99.4

By Compound Report

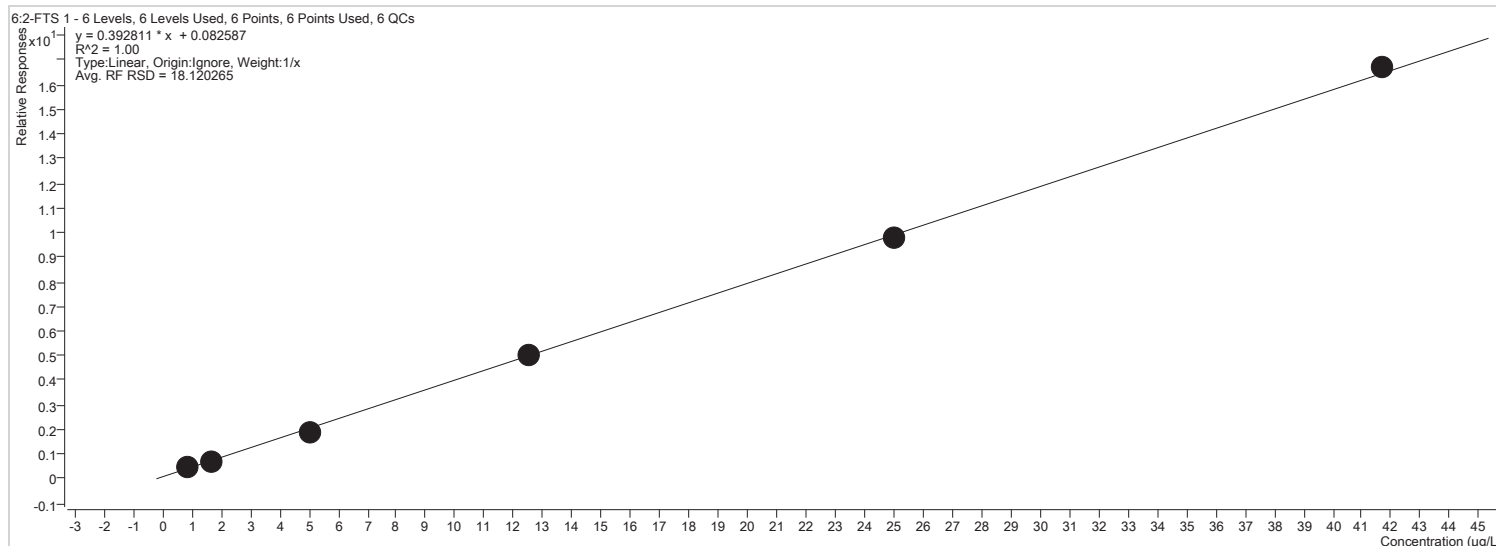
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 Last Calib Update 2017/06/16 2:31:08 PM
 Instrument: LCMS04
 Analyte: PFTeDA 1
 Internal Standard: MPFTeDA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2017/05/23 9:18:32 AM	0.83	0.94	4321	0.4599	18	112.9
STD 2	STD 2	x	2017/05/23 9:23:26 AM	1.70	1.50	6715	0.3495	34	88.4
STD 3	STD 3	x	2017/05/23 9:28:20 AM	5.00	4.94	20977	0.3770	108	98.7
STD 4	STD 4	x	2017/05/23 9:33:14 AM	12.50	12.39	56535	0.3751	224	99.2
STD 5	STD 5	x	2017/05/23 9:38:08 AM	25.00	25.12	108974	0.3789	609	100.5
STD 6	STD 6	x	2017/05/23 9:43:02 AM	41.70	41.83	182771	0.3778	614	100.3

By Compound Report

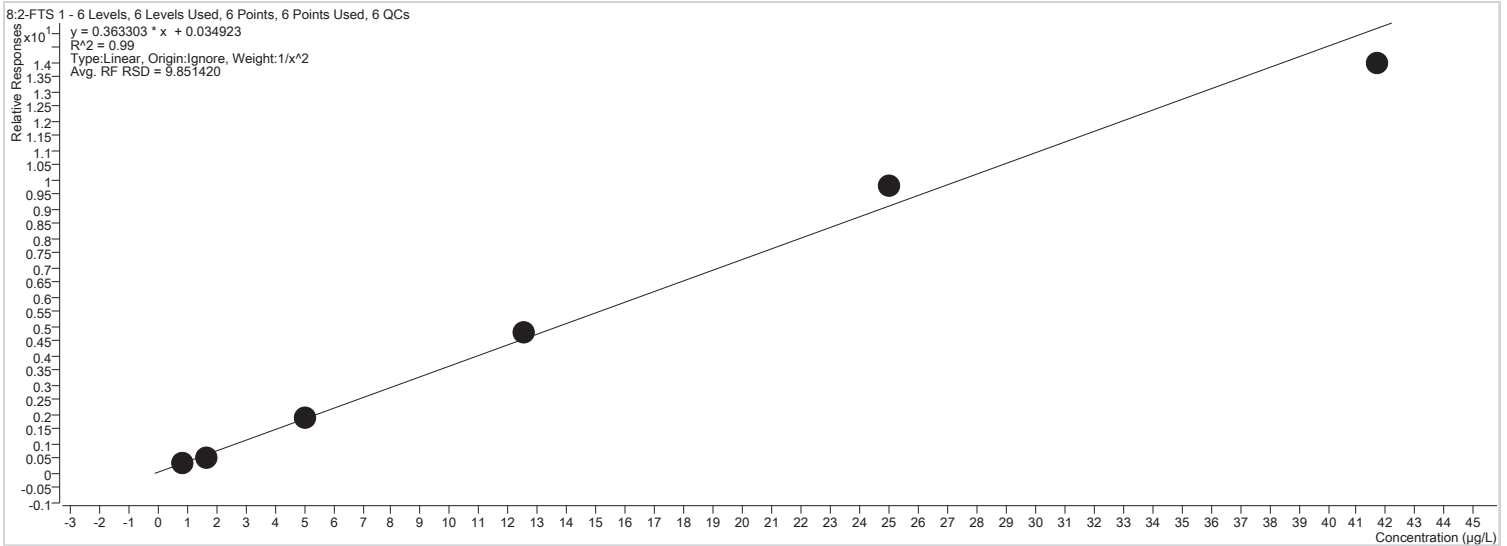
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 Last Calib Update 2017/06/16 2:31:08 PM
 Instrument: LCMS04
 Analyte: 6:2-FTS 1
 Internal Standard: M2 6:2 FTS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2017/05/23 9:18:32 AM	0.83	1.01	996	0.5769	32	121.5
STD 2	STD 2	x	2017/05/23 9:23:26 AM	1.70	1.46	1290	0.3850	33	85.6
STD 3	STD 3	x	2017/05/23 9:28:20 AM	5.00	4.57	4519	0.3752	155	91.3
STD 4	STD 4	x	2017/05/23 9:33:14 AM	12.50	12.64	11363	0.4038	198	101.1
STD 5	STD 5	x	2017/05/23 9:38:08 AM	25.00	24.70	21902	0.3915	144	98.8
STD 6	STD 6	x	2017/05/23 9:43:02 AM	41.70	42.36	33909	0.4010	228	101.6

By Compound Report

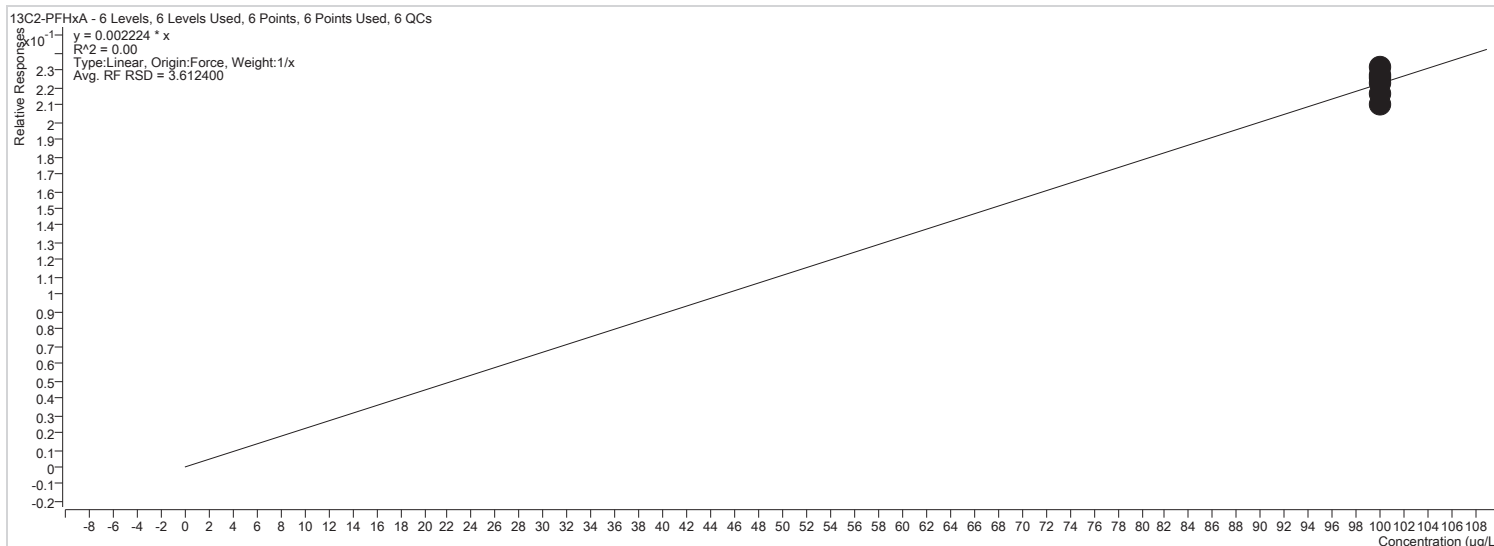
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 Last Calib Update 2017/06/16 2:31:08 PM
 Instrument: LCMS04
 Analyte: 8:2-FTS 1
 Internal Standard: M2 8:2 FTS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2017/05/23 9:18:32 AM	0.83	0.88	863	0.4279	52	106.2
STD 2	STD 2	x	2017/05/23 9:23:26 AM	1.70	1.45	1243	0.3300	50	85.2
STD 3	STD 3	x	2017/05/23 9:28:20 AM	5.00	5.18	4384	0.3837	153	103.7
STD 4	STD 4	x	2017/05/23 9:33:14 AM	12.50	13.12	11546	0.3842	314	105.0
STD 5	STD 5	x	2017/05/23 9:38:08 AM	25.00	26.94	22389	0.3930	352	107.8
STD 6	STD 6	x	2017/05/23 9:43:02 AM	41.70	38.44	33219	0.3357	252	92.2

By Compound Report

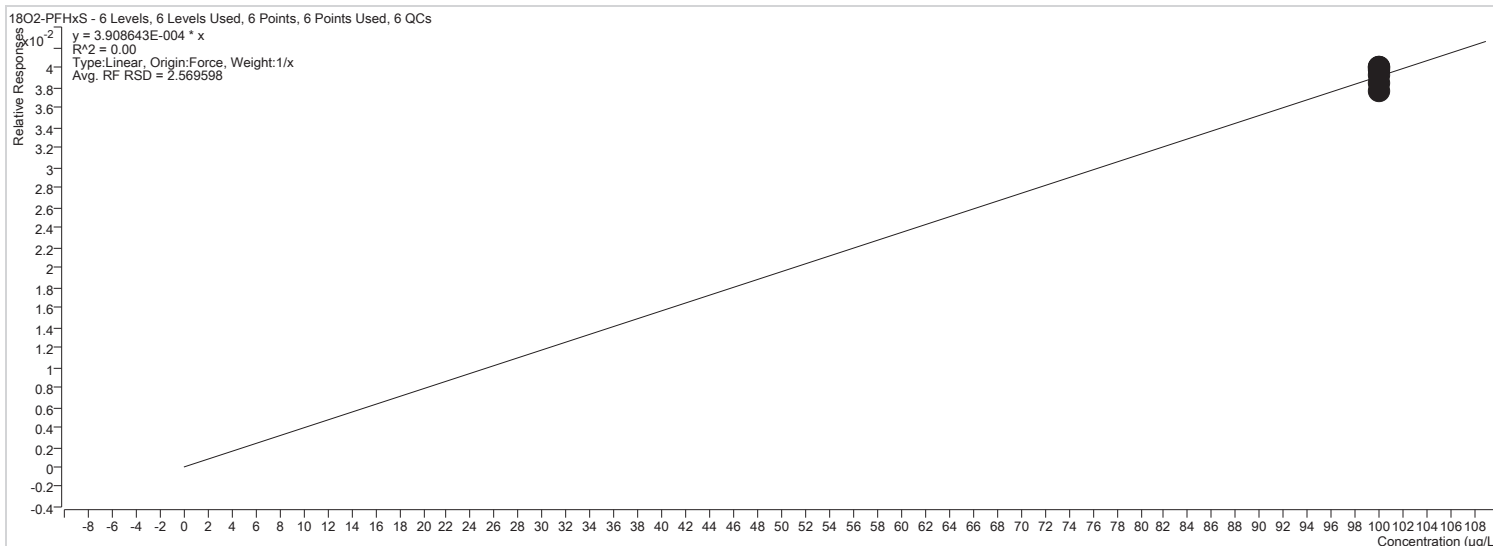
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 Last Calib Update 2017/06/16 2:31:08 PM
 Instrument: LCMS04
 Analyte: 13C2-PFHxA
 Internal Standard: 13C6-PFHxA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2017/05/23 9:18:32 AM	100.00	97.48	8602	0.0022	180	97.5
STD 2	STD 2	x	2017/05/23 9:23:26 AM	100.00	101.77	8674	0.0023	606	101.8
STD 3	STD 3	x	2017/05/23 9:28:20 AM	100.00	99.83	8604	0.0022	673	99.8
STD 4	STD 4	x	2017/05/23 9:33:14 AM	100.00	94.34	8647	0.0021	170	94.3
STD 5	STD 5	x	2017/05/23 9:38:08 AM	100.00	102.28	8788	0.0023	134	102.3
STD 6	STD 6	x	2017/05/23 9:43:02 AM	100.00	104.31	8768	0.0023	183	104.3

By Compound Report

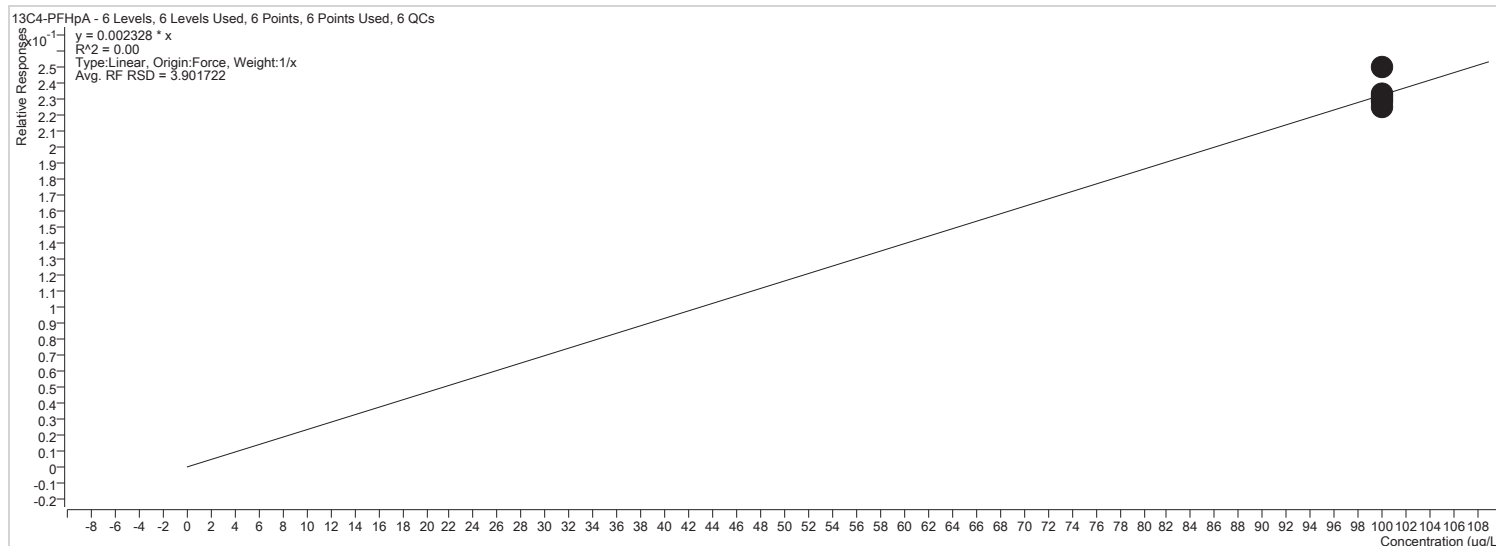
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 Last Calib Update 2017/06/16 2:31:08 PM
 Instrument: LCMS04
 Analyte: 18O2-PFHxS
 Internal Standard: 13C6-PFHxA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2017/05/23 9:18:32 AM	100.00	102.14	1584	0.0004	1359	102.1
STD 2	STD 2	x	2017/05/23 9:23:26 AM	100.00	100.14	1500	0.0004	88	100.1
STD 3	STD 3	x	2017/05/23 9:28:20 AM	100.00	97.98	1484	0.0004	463	98.0
STD 4	STD 4	x	2017/05/23 9:33:14 AM	100.00	95.92	1545	0.0004	341	95.9
STD 5	STD 5	x	2017/05/23 9:38:08 AM	100.00	101.46	1532	0.0004	311	101.5
STD 6	STD 6	x	2017/05/23 9:43:02 AM	100.00	102.35	1512	0.0004	451	102.4

By Compound Report

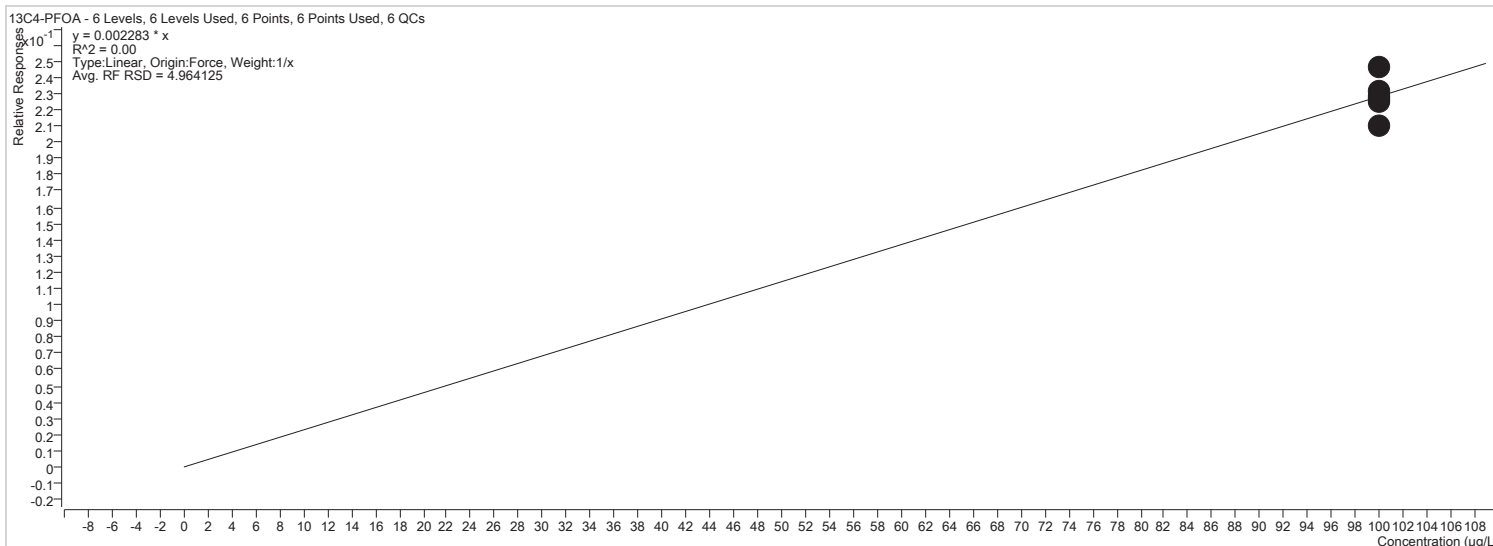
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 Last Calib Update 2017/06/16 2:31:08 PM
 Instrument: LCMS04
 Analyte: 13C4-PFHpA
 Internal Standard: 13C6-PFHxA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2017/05/23 9:18:32 AM	100.00	96.39	8901	0.0022	113	96.4
STD 2	STD 2	x	2017/05/23 9:23:26 AM	100.00	107.49	9588	0.0025	236	107.5
STD 3	STD 3	x	2017/05/23 9:28:20 AM	100.00	99.36	8962	0.0023	201	99.4
STD 4	STD 4	x	2017/05/23 9:33:14 AM	100.00	98.61	9458	0.0023	164	98.6
STD 5	STD 5	x	2017/05/23 9:38:08 AM	100.00	100.27	9016	0.0023	244	100.3
STD 6	STD 6	x	2017/05/23 9:43:02 AM	100.00	97.88	8610	0.0023	219	97.9

By Compound Report

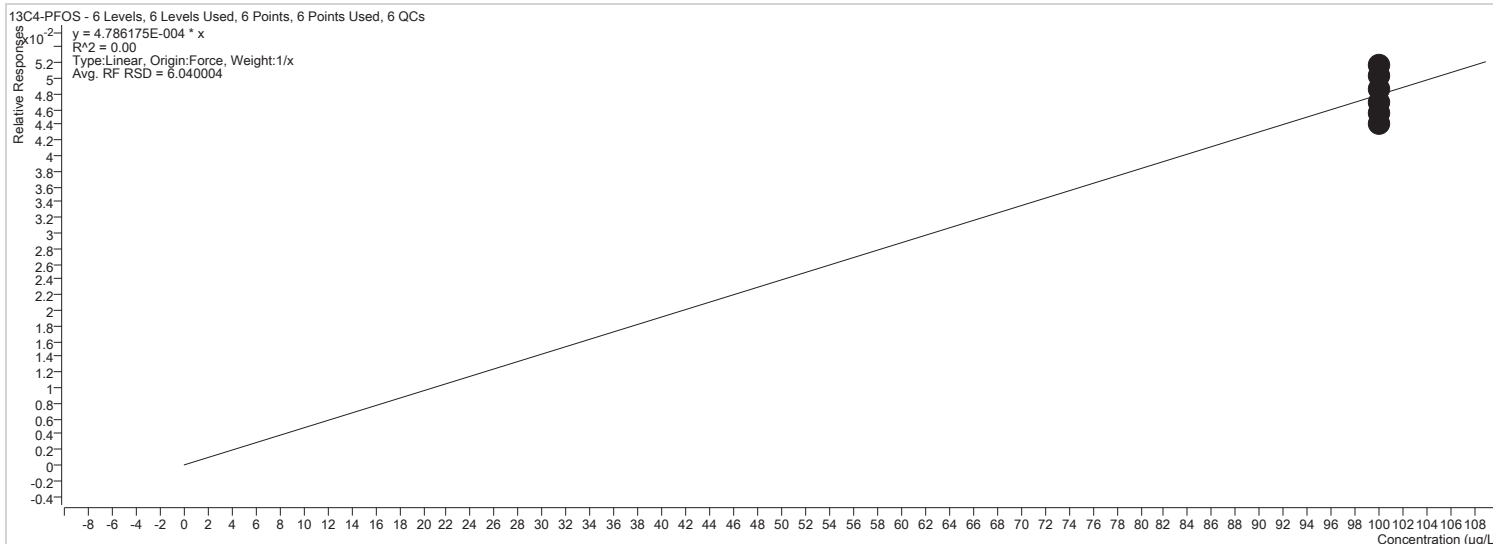
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 Last Calib Update 2017/06/16 2:31:08 PM
 Instrument: LCMS04
 Analyte: 13C4-PFOA
 Internal Standard: 13C6-PFHxA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2017/05/23 9:18:32 AM	100.00	99.27	8990	0.0023	144	99.3
STD 2	STD 2	x	2017/05/23 9:23:26 AM	100.00	101.26	8857	0.0023	140	101.3
STD 3	STD 3	x	2017/05/23 9:28:20 AM	100.00	98.86	8744	0.0023	104	98.9
STD 4	STD 4	x	2017/05/23 9:33:14 AM	100.00	92.45	8696	0.0021	158	92.5
STD 5	STD 5	x	2017/05/23 9:38:08 AM	100.00	100.23	8838	0.0023	151	100.2
STD 6	STD 6	x	2017/05/23 9:43:02 AM	100.00	107.92	9310	0.0025	194	107.9

By Compound Report

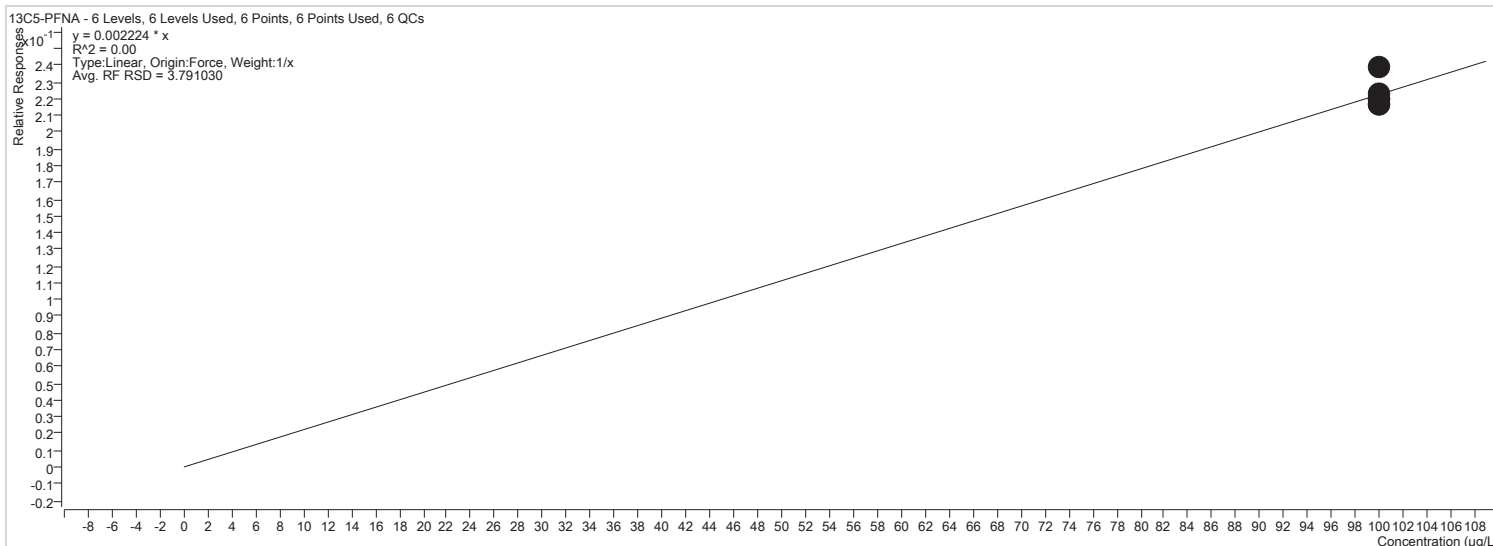
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 Last Calib Update 2017/06/16 2:31:08 PM
 Instrument: LCMS04
 Analyte: 13C4-PFOS
 Internal Standard: 13C6-PFHxA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2017/05/23 9:18:32 AM	100.00	108.01	2051	0.0005	316	108.0
STD 2	STD 2	x	2017/05/23 9:23:26 AM	100.00	97.92	1796	0.0005	117	97.9
STD 3	STD 3	x	2017/05/23 9:28:20 AM	100.00	92.47	1715	0.0004	153	92.5
STD 4	STD 4	x	2017/05/23 9:33:14 AM	100.00	94.91	1872	0.0005	165	94.9
STD 5	STD 5	x	2017/05/23 9:38:08 AM	100.00	105.47	1950	0.0005	320	105.5
STD 6	STD 6	x	2017/05/23 9:43:02 AM	100.00	101.22	1831	0.0005	97	101.2

By Compound Report

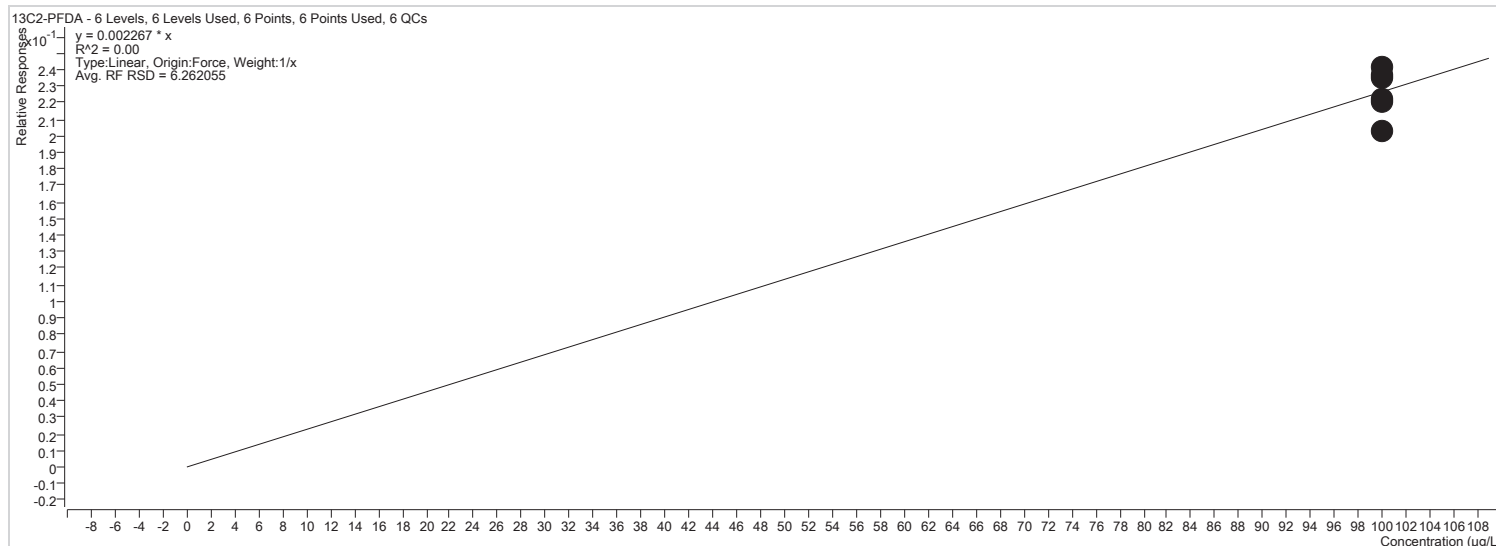
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 Last Calib Update 2017/06/16 2:31:08 PM
 Instrument: LCMS04
 Analyte: 13C5-PFNA
 Internal Standard: 13C6-PFHxA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2017/05/23 9:18:32 AM	100.00	98.51	8694	0.0022	313	98.5
STD 2	STD 2	x	2017/05/23 9:23:26 AM	100.00	98.95	8435	0.0022	158	99.0
STD 3	STD 3	x	2017/05/23 9:28:20 AM	100.00	97.37	8393	0.0022	190	97.4
STD 4	STD 4	x	2017/05/23 9:33:14 AM	100.00	100.48	9211	0.0022	231	100.5
STD 5	STD 5	x	2017/05/23 9:38:08 AM	100.00	107.36	9226	0.0024	197	107.4
STD 6	STD 6	x	2017/05/23 9:43:02 AM	100.00	97.32	8182	0.0022	321	97.3

By Compound Report

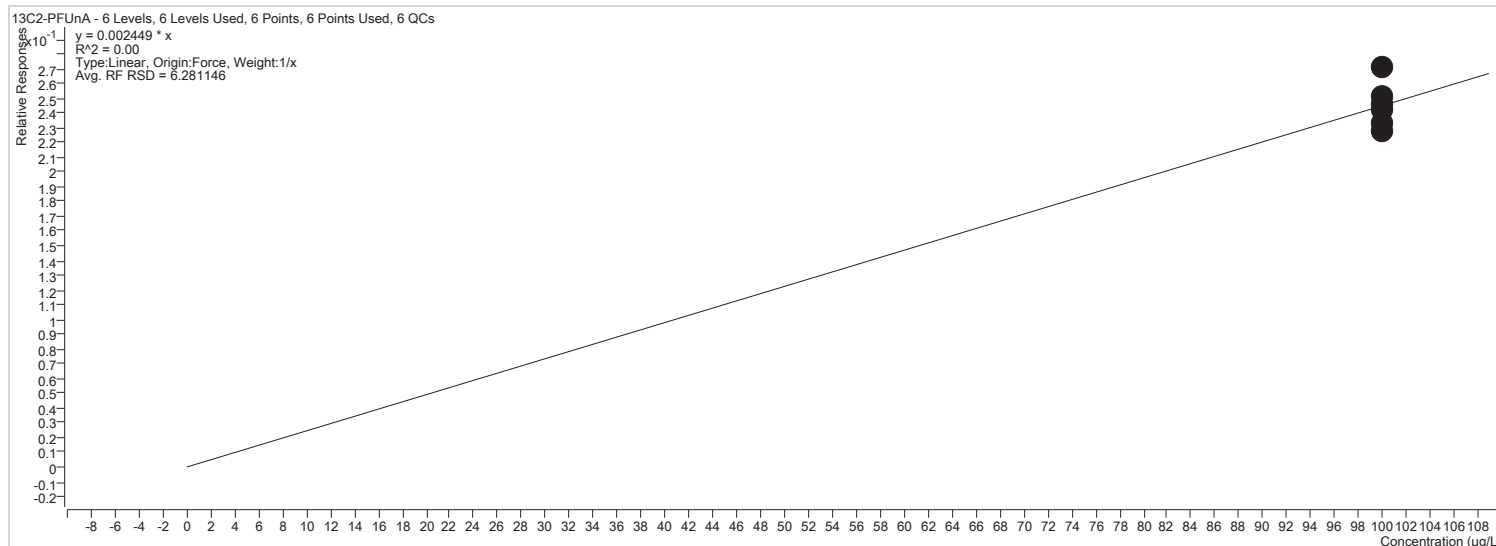
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 Last Calib Update 2017/06/16 2:31:08 PM
 Instrument: LCMS04
 Analyte: 13C2-PFDA
 Internal Standard: 13C9-PFDA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2017/05/23 9:18:32 AM	100.00	106.57	7905	0.0024	272	106.6
STD 2	STD 2	x	2017/05/23 9:23:26 AM	100.00	104.40	7593	0.0024	201	104.4
STD 3	STD 3	x	2017/05/23 9:28:20 AM	100.00	97.22	7246	0.0022	218	97.2
STD 4	STD 4	x	2017/05/23 9:33:14 AM	100.00	89.73	7071	0.0020	136	89.7
STD 5	STD 5	x	2017/05/23 9:38:08 AM	100.00	98.01	7603	0.0022	232	98.0
STD 6	STD 6	x	2017/05/23 9:43:02 AM	100.00	104.06	7385	0.0024	359	104.1

By Compound Report

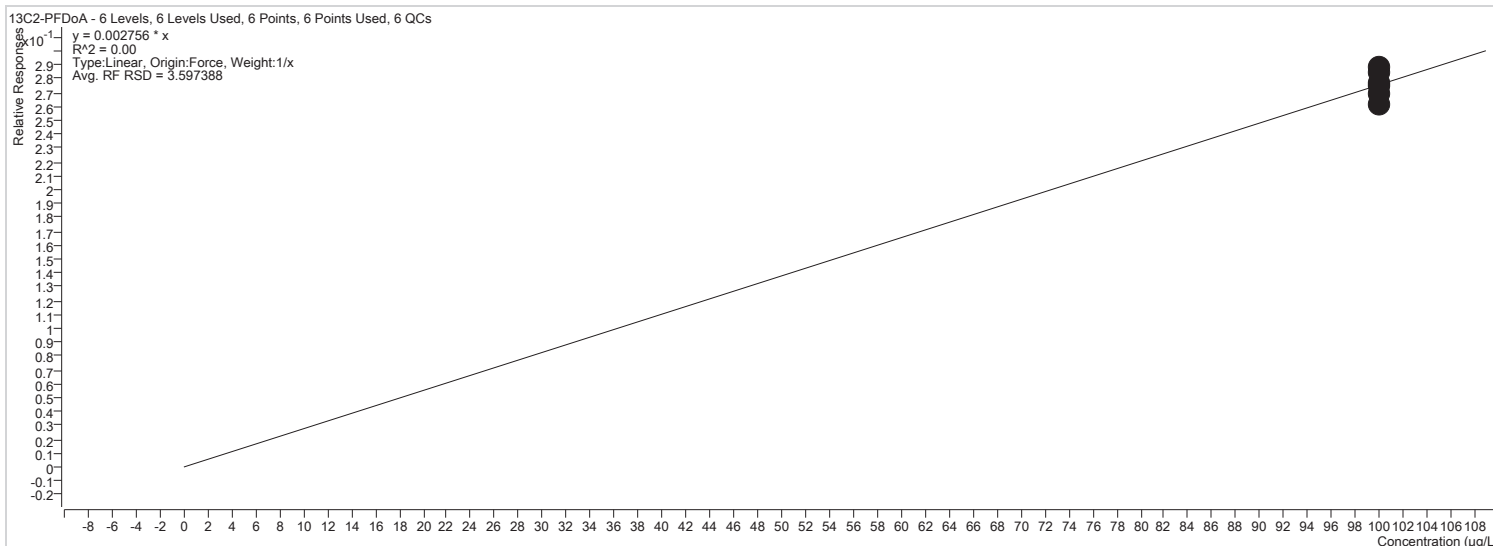
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 Last Calib Update 2017/06/16 2:31:08 PM
 Instrument: LCMS04
 Analyte: 13C2-PFUnA
 Internal Standard: 13C9-PFDA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2017/05/23 9:18:32 AM	100.00	98.59	7901	0.0024	246	98.6
STD 2	STD 2	x	2017/05/23 9:23:26 AM	100.00	102.42	8048	0.0025	144	102.4
STD 3	STD 3	x	2017/05/23 9:28:20 AM	100.00	100.20	8068	0.0025	149	100.2
STD 4	STD 4	x	2017/05/23 9:33:14 AM	100.00	95.44	8125	0.0023	177	95.4
STD 5	STD 5	x	2017/05/23 9:38:08 AM	100.00	92.65	7765	0.0023	278	92.7
STD 6	STD 6	x	2017/05/23 9:43:02 AM	100.00	110.70	8488	0.0027	154	110.7

By Compound Report

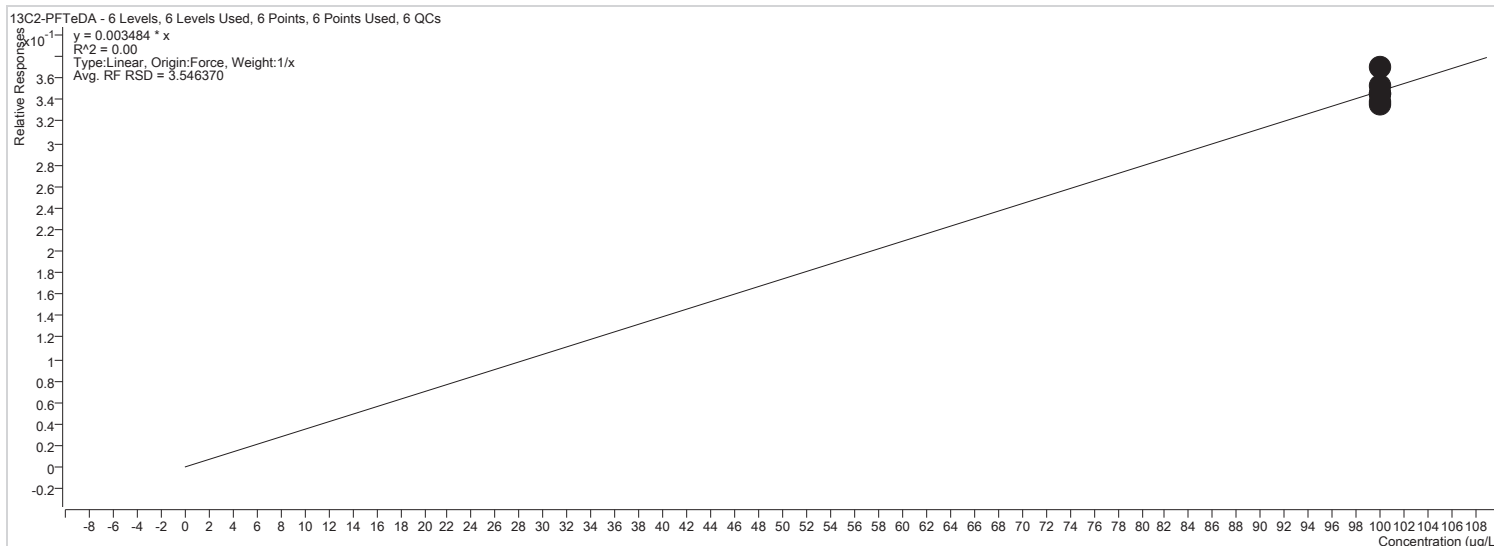
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 Last Calib Update 2017/06/16 2:31:08 PM
 Instrument: LCMS04
 Analyte: 13C2-PFDoA
 Internal Standard: 13C9-PFDA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2017/05/23 9:18:32 AM	100.00	102.91	9280	0.0028	304	102.9
STD 2	STD 2	x	2017/05/23 9:23:26 AM	100.00	94.56	8360	0.0026	321	94.6
STD 3	STD 3	x	2017/05/23 9:28:20 AM	100.00	99.51	9016	0.0027	200	99.5
STD 4	STD 4	x	2017/05/23 9:33:14 AM	100.00	97.87	9375	0.0027	277	97.9
STD 5	STD 5	x	2017/05/23 9:38:08 AM	100.00	104.64	9868	0.0029	196	104.6
STD 6	STD 6	x	2017/05/23 9:43:02 AM	100.00	100.51	8671	0.0028	241	100.5

By Compound Report

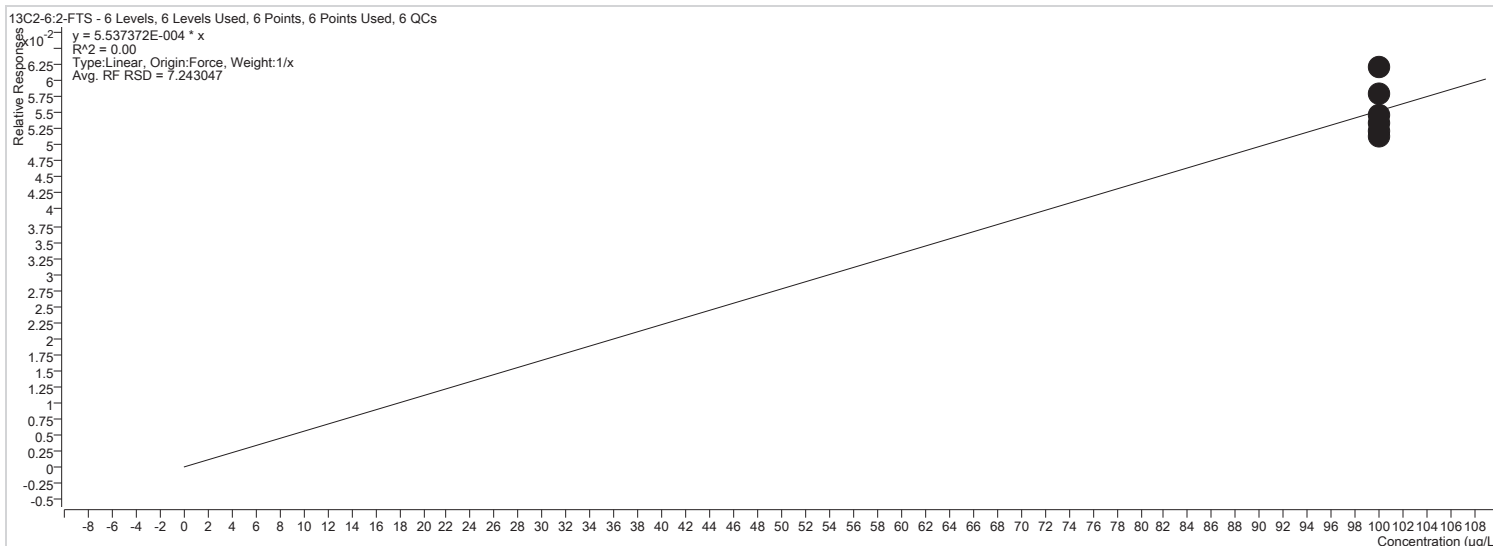
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 Last Calib Update 2017/06/16 2:31:08 PM
 Instrument: LCMS04
 Analyte: 13C2-PFTeDA
 Internal Standard: 13C9-PFDA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2017/05/23 9:18:32 AM	100.00	99.31	11321	0.0035	174	99.3
STD 2	STD 2	x	2017/05/23 9:23:26 AM	100.00	101.11	11301	0.0035	229	101.1
STD 3	STD 3	x	2017/05/23 9:28:20 AM	100.00	97.15	11127	0.0034	267	97.1
STD 4	STD 4	x	2017/05/23 9:33:14 AM	100.00	99.57	12058	0.0035	264	99.6
STD 5	STD 5	x	2017/05/23 9:38:08 AM	100.00	96.49	11503	0.0034	165	96.5
STD 6	STD 6	x	2017/05/23 9:43:02 AM	100.00	106.37	11601	0.0037	277	106.4

By Compound Report

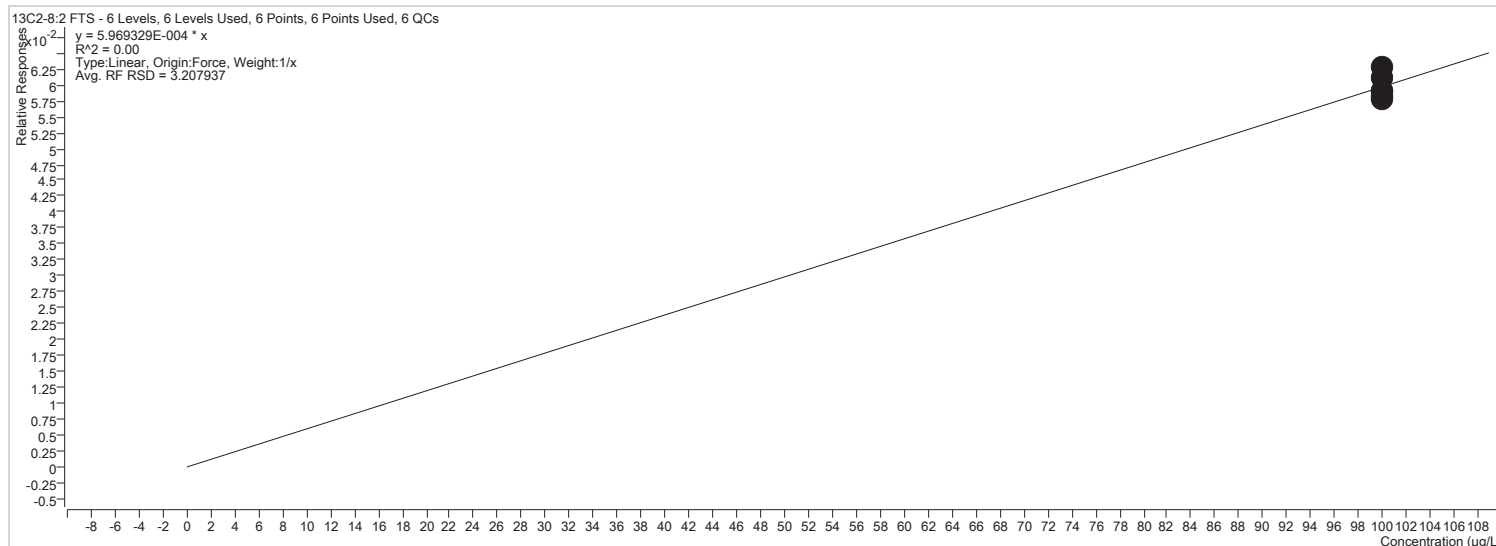
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 Last Calib Update 2017/06/16 2:31:08 PM
 Instrument: LCMS04
 Analyte: 13C2-6:2-FTS
 Internal Standard: 13C6-PFHxA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2017/05/23 9:18:32 AM	100.00	94.68	2080	0.0005	142	94.7
STD 2	STD 2	x	2017/05/23 9:23:26 AM	100.00	92.88	1971	0.0005	429	92.9
STD 3	STD 3	x	2017/05/23 9:28:20 AM	100.00	112.27	2409	0.0006	216	112.3
STD 4	STD 4	x	2017/05/23 9:33:14 AM	100.00	98.65	2251	0.0005	121	98.6
STD 5	STD 5	x	2017/05/23 9:38:08 AM	100.00	104.62	2238	0.0006	211	104.6
STD 6	STD 6	x	2017/05/23 9:43:02 AM	100.00	96.90	2028	0.0005	133	96.9

By Compound Report

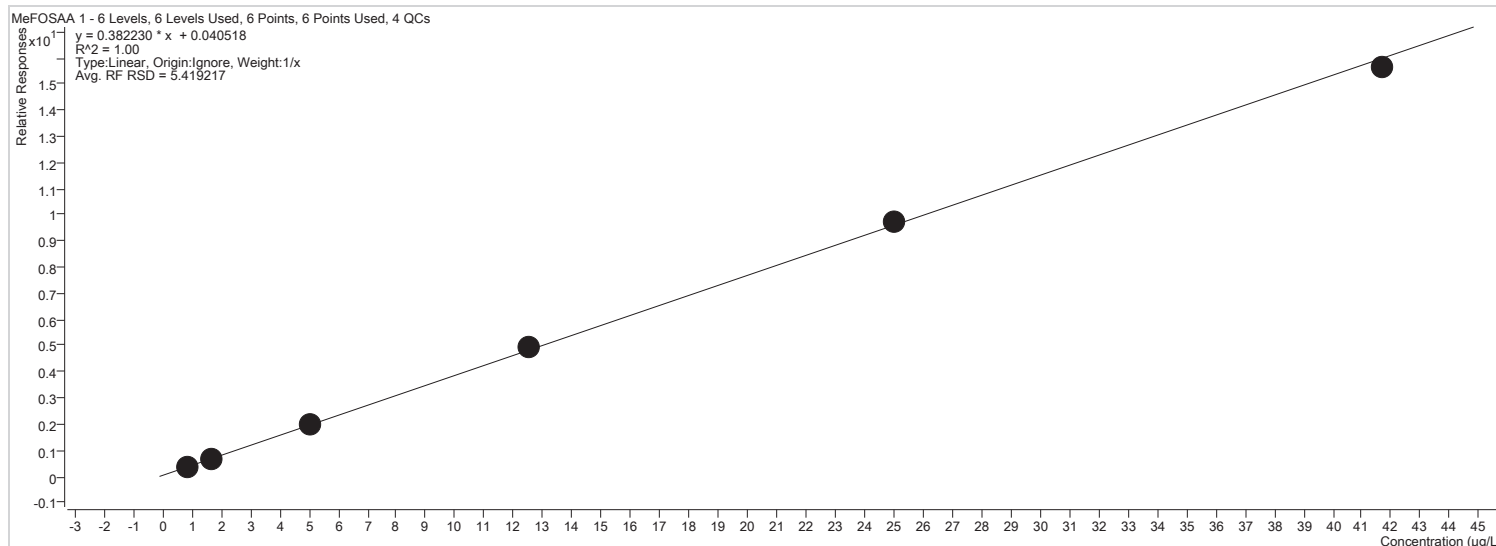
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 Last Calib Update 2017/06/16 2:31:08 PM
 Instrument: LCMS04
 Analyte: 13C2-8:2 FTS
 Internal Standard: 13C6-PFHxA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2017/05/23 9:18:32 AM	100.00	102.60	2430	0.0006	209	102.6
STD 2	STD 2	x	2017/05/23 9:23:26 AM	100.00	96.87	2216	0.0006	172	96.9
STD 3	STD 3	x	2017/05/23 9:28:20 AM	100.00	98.78	2285	0.0006	172	98.8
STD 4	STD 4	x	2017/05/23 9:33:14 AM	100.00	97.73	2404	0.0006	222	97.7
STD 5	STD 5	x	2017/05/23 9:38:08 AM	100.00	98.83	2279	0.0006	151	98.8
STD 6	STD 6	x	2017/05/23 9:43:02 AM	100.00	105.18	2373	0.0006	294	105.2

By Compound Report

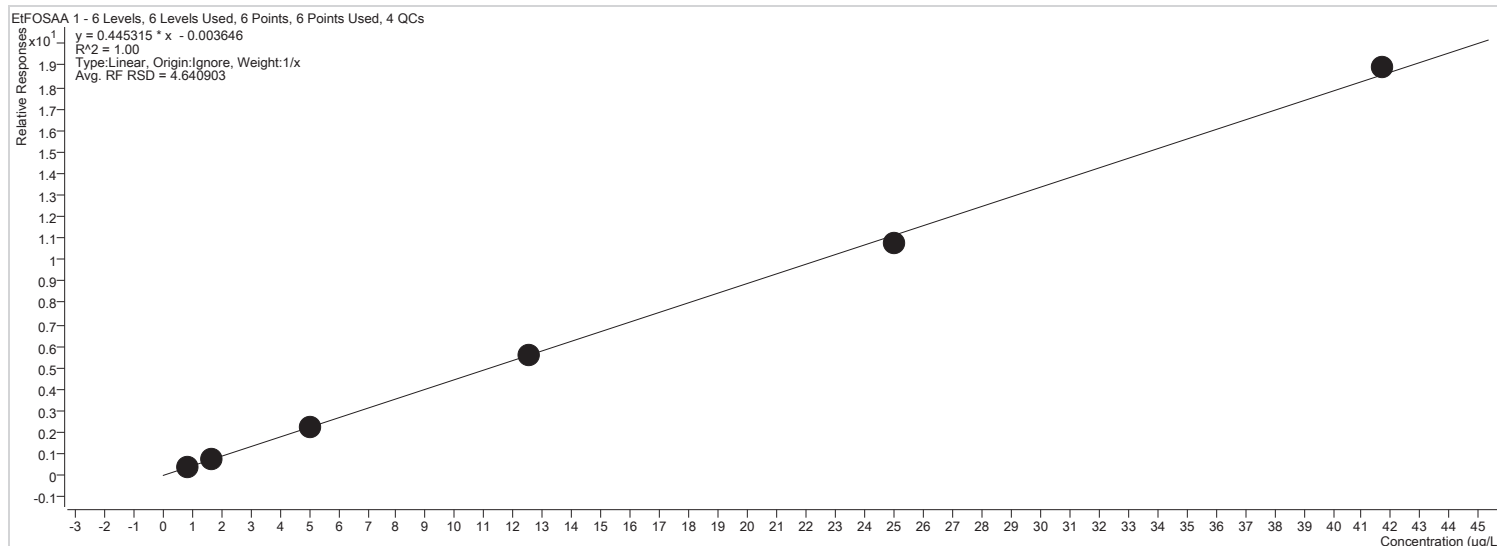
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 Last Calib Update 2017/06/21 11:18:38 AM
 Instrument: LCMS04
 Analyte: MeFOSAA 1
 Internal Standard: D3-MeFOSAA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2017/05/23 6:23:00 PM	0.83	0.84	585	0.4351	134	101.1
STD 2	STD 2	x	2017/05/23 6:25:23 PM	1.70	1.58	1053	0.3793	321	93.0
STD 3	STD 3	x	2017/05/23 6:27:46 PM	5.00	5.15	3060	0.4021	394	103.1
STD 4	STD 4	x	2017/05/23 6:30:10 PM	12.50	12.91	8004	0.3980	325	103.3
STD 5	STD 5	x	2017/05/23 6:32:32 PM	25.00	25.43	15381	0.3904	325	101.7
STD 6	STD 6	x	2017/05/23 6:34:56 PM	41.70	40.82	23825	0.3751	350	97.9

By Compound Report

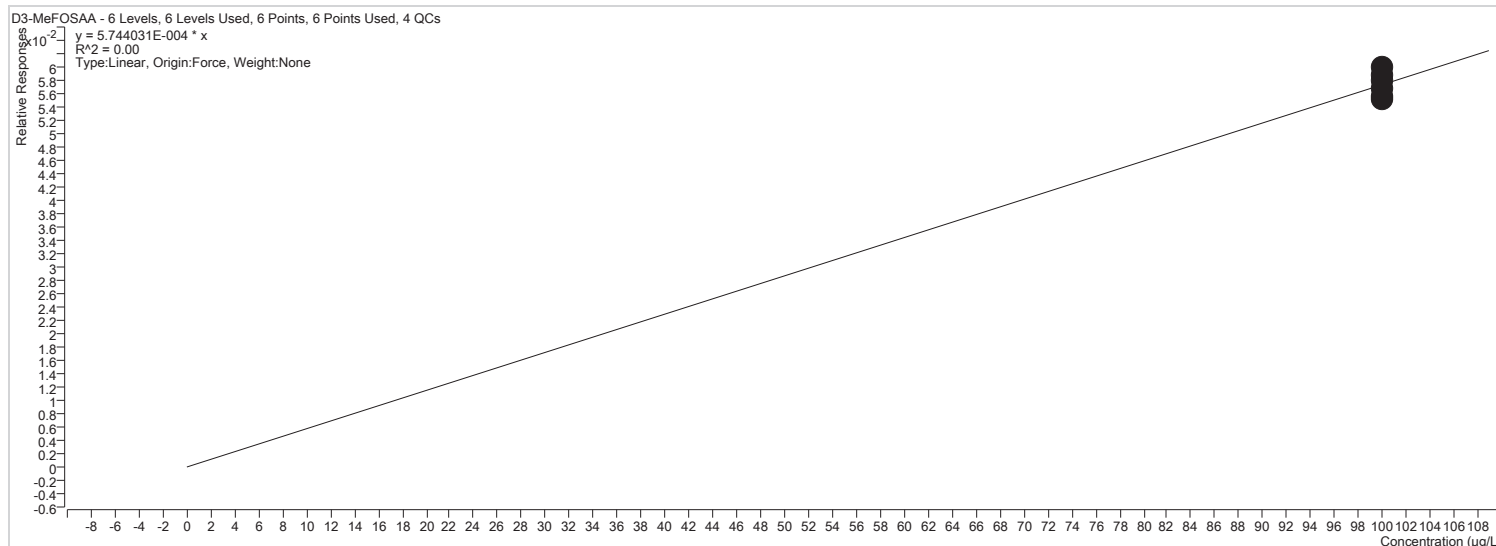
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 Last Calib Update 2017/06/21 11:18:38 AM
 Instrument: LCMS04
 Analyte: EtFOSAA 1
 Internal Standard: D5-EtFOSAA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2017/05/23 6:23:00 PM	0.83	0.90	545	0.4762	56	107.9
STD 2	STD 2	x	2017/05/23 6:25:23 PM	1.70	1.60	1004	0.4159	113	93.9
STD 3	STD 3	x	2017/05/23 6:27:46 PM	5.00	4.94	2988	0.4394	343	98.8
STD 4	STD 4	x	2017/05/23 6:30:10 PM	12.50	12.57	7822	0.4476	346	100.6
STD 5	STD 5	x	2017/05/23 6:32:32 PM	25.00	24.21	16241	0.4311	414	96.8
STD 6	STD 6	x	2017/05/23 6:34:56 PM	41.70	42.51	24740	0.4539	474	102.0

By Compound Report

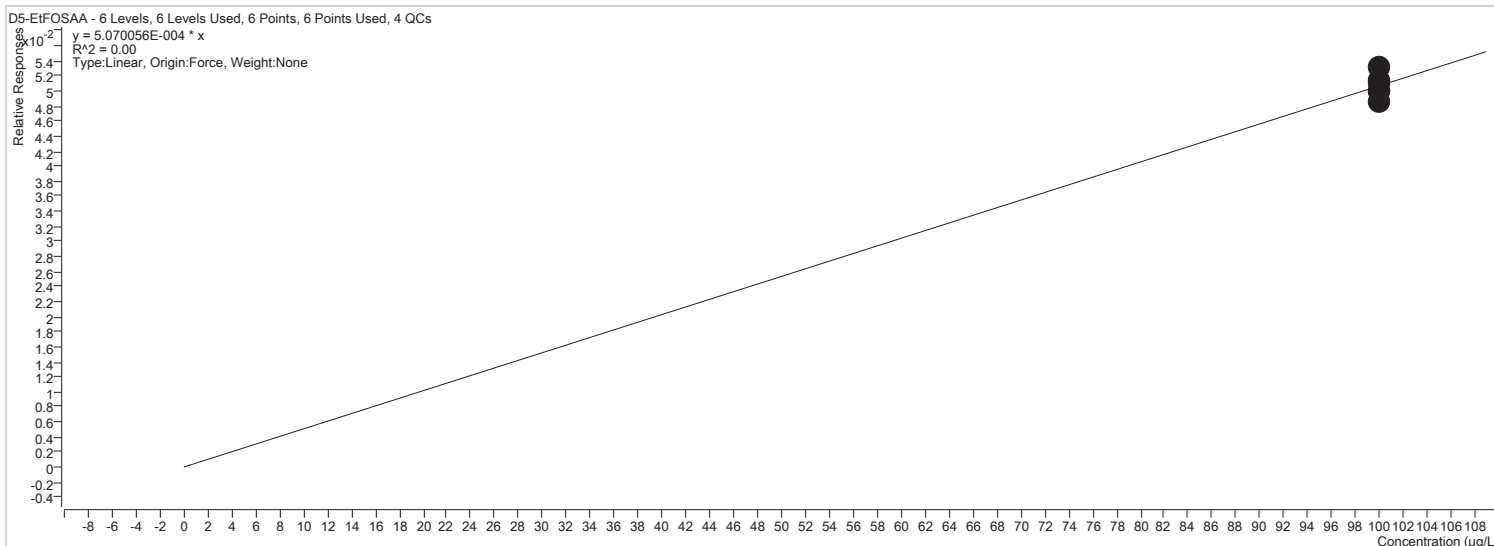
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 Last Calib Update 2017/06/21 11:18:38 AM
 Instrument: LCMS04
 Analyte: D3-MeFOSAA
 Internal Standard: 13C9-PFDA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2017/05/23 6:23:00 PM	100.00	102.21	1648	0.0006	620	102.2
STD 2	STD 2	x	2017/05/23 6:25:23 PM	100.00	104.61	1665	0.0006	1131	104.6
STD 3	STD 3	x	2017/05/23 6:27:46 PM	100.00	98.80	1532	0.0006	599	98.8
STD 4	STD 4	x	2017/05/23 6:30:10 PM	100.00	96.40	1626	0.0006	1791	96.4
STD 5	STD 5	x	2017/05/23 6:32:32 PM	100.00	96.82	1589	0.0006	571	96.8
STD 6	STD 6	x	2017/05/23 6:34:56 PM	100.00	101.16	1543	0.0006	1127	101.2

By Compound Report

Batch Path T:\lcms4\PFC\20170523\WS#4987523_FOSAA\QuantResults\PFC_Water_Low_170523_WS#4987523_FOSAA.batch.bin
 Last Calib Update 2017/06/21 11:18:38 AM
 Instrument: LCMS04
 Analyte: D5-EtFOSAA
 Internal Standard: 13C9-PFDA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2017/05/23 6:23:00 PM	100.00	98.57	1403	0.0005	969	98.6
STD 2	STD 2	x	2017/05/23 6:25:23 PM	100.00	101.56	1427	0.0005	837	101.6
STD 3	STD 3	x	2017/05/23 6:27:46 PM	100.00	100.89	1380	0.0005	762	100.9
STD 4	STD 4	x	2017/05/23 6:30:10 PM	100.00	95.60	1423	0.0005	1200	95.6
STD 5	STD 5	x	2017/05/23 6:32:32 PM	100.00	104.92	1520	0.0005	4278	104.9
STD 6	STD 6	x	2017/05/23 6:34:56 PM	100.00	98.46	1325	0.0005	786	98.5



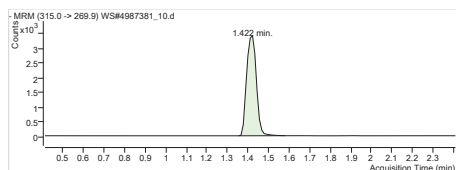
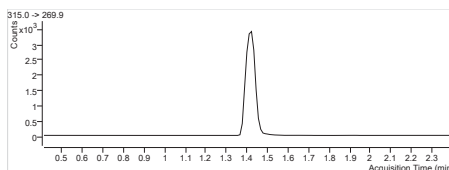
6. Continuing Calibration

Maxxam Analytics International
6740 Campobello Rd
Mississauga, Ontario, Canada
L5N 2L8
1-800-668-0639
www.maxxamanalytics.com

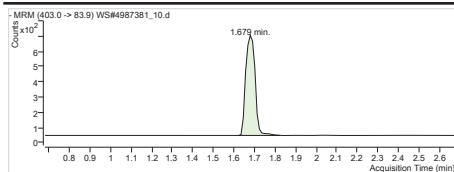
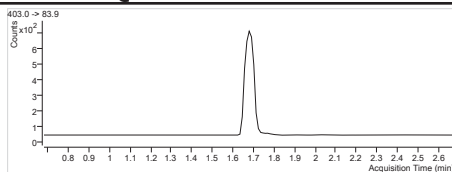
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Sample Name	ISC	Instrument	LCMS04
Data File	WS#4987381_10.d	Operator	M_G
Sample Type	CC	Dilution	1
Acq. Method	PFC_Soil.m	Position	P2-A2
Acq. Date	2017/05/20 3:49:13 AM	Injection Volume	Per Method
Sample Annotation	-		

ISTD Compounds	Response	RT	Target conc.		
MPFHxA	11178	1.42	1 µg/Kg		
MPFHxS	2094	1.68	1 µg/Kg		
MPFHpA	12178	1.68	1 µg/Kg		
MPFOA	11434	1.87	1 µg/Kg		
MPFOS	2233	1.98	1 µg/Kg		
MPFNA	11701	2.01	1 µg/Kg		
MPFDA	10262	2.12	1 µg/Kg		
MPFUnA	11362	2.22	1 µg/Kg		
MPFDoA	12625	2.31	1 µg/Kg		
MPFTeDA	16286	2.46	1 µg/Kg		
M2 6:2 FTS	3065	1.84	1 µg/Kg		
M2 8:2 FTS	3007	2.10	1 µg/Kg		
13C6-PFHxA IS	46701	1.42	1 µg/Kg		
13C9-PFDA IS	44270	2.12	1 µg/Kg		

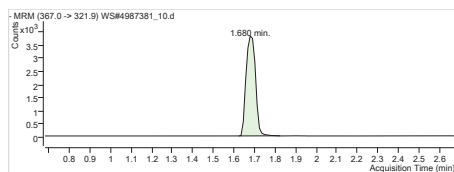
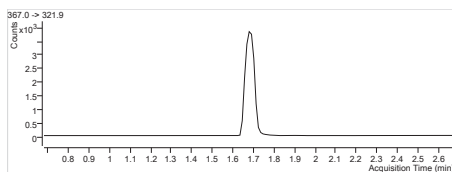
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	692	1.09	0.75	0.78 µg/Kg	104.64
PFHxA 1	2805	1.42	0.75	0.71 µg/Kg	94.78
PFHxS 1	592	1.68	0.75	0.71 µg/Kg	94.68
PFHpA 1	3271	1.68	0.75	0.78 µg/Kg	103.87
PFOA 1	2950	1.87	0.75	0.67 µg/Kg	89.90
PFOS 1	527	1.97	0.75	0.85 µg/Kg	113.87
PFNA 1	2849	2.01	0.75	0.73 µg/Kg	97.23
PFDA 1	3246	2.12	0.75	0.77 µg/Kg	102.72
PFUnA 1	3092	2.22	0.75	0.71 µg/Kg	94.73
PFDaA 1	3417	2.31	0.75	0.77 µg/Kg	102.73
PFTTrDA 1	3955	2.39	0.75	0.72 µg/Kg	95.83
PFTeDA 1	4065	2.46	0.75	0.75 µg/Kg	100.55
6:2-FTS 1	969	1.84	0.75	0.74 µg/Kg	98.83
8:2-FTS 1	737	2.10	0.75	0.73 µg/Kg	97.76
13C2-PFHxA	11178	1.42	100.00	102.86 µg/Kg	102.86
18O2-PFHxS	2094	1.68	100.00	107.08 µg/Kg	107.08
13C4-PFHpA	12178	1.68	100.00	102.96 µg/Kg	102.96
13C4-PFOA	11434	1.87	100.00	98.69 µg/Kg	98.69
13C4-PFOS	2233	1.98	100.00	94.03 µg/Kg	94.03
13C5-PFNA	11701	2.01	100.00	103.46 µg/Kg	103.46
13C2-PFDA	10262	2.12	100.00	100.35 µg/Kg	100.35
13C2-PFUnA	11362	2.22	100.00	99.34 µg/Kg	99.34
13C2-PFDoA	12625	2.31	100.00	96.30 µg/Kg	96.30
13C2-PFTeDA	16286	2.46	100.00	100.16 µg/Kg	100.16
13C2-6:2-FTS	3065	1.84	100.00	104.78 µg/Kg	104.78
13C2-8:2 FTS	3007	2.10	100.00	102.36 µg/Kg	102.36
13C6-PFHxA	46701	1.42	100.00	111.51 µg/Kg	111.51
13C9-PFDA	44270	2.12	100.00	115.19 µg/Kg	115.19



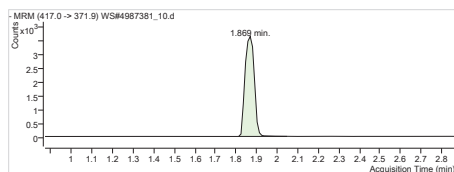
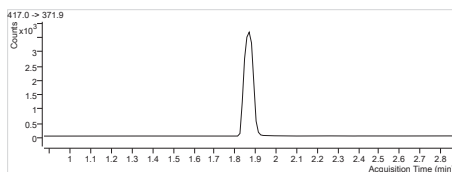
MPFHxA
 RT (Exp. RT): 1.422 (1.411)
 Concentration: 1 µg/Kg
 Sample type: CC



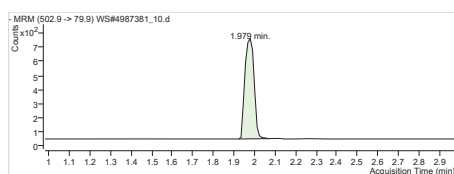
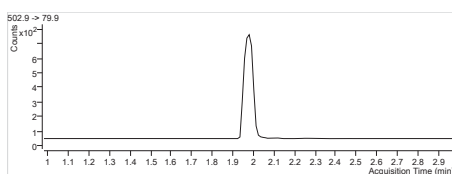
MPFHxS
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/Kg
Sample type: CC



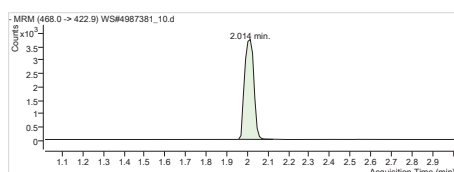
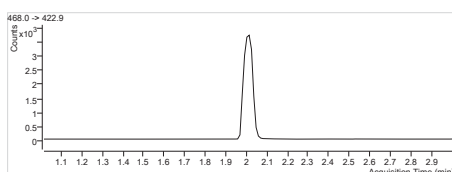
MPFHpA
RT (Exp. RT): 1.680 (1.680)
Concentration: 1 µg/Kg
Sample type: CC



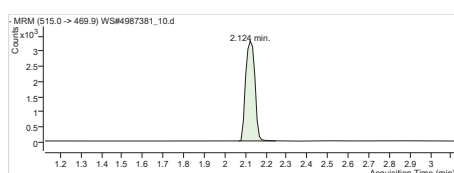
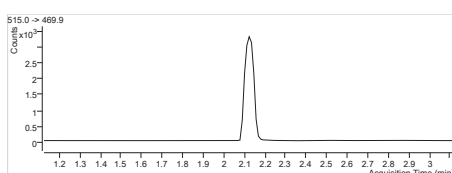
MPFOA
RT (Exp. RT): 1.869 (1.869)
Concentration: 1 µg/Kg
Sample type: CC



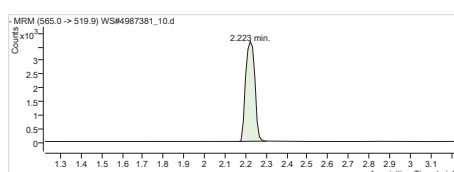
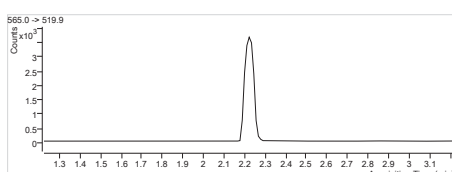
MPFOS
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/Kg
Sample type: CC



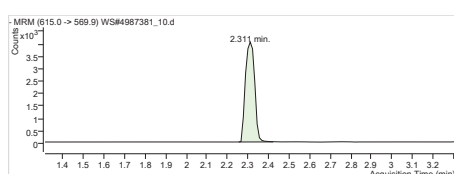
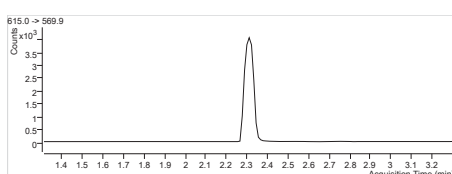
MPFNA
RT (Exp. RT): 2.014 (2.014)
Concentration: 1 µg/Kg
Sample type: CC



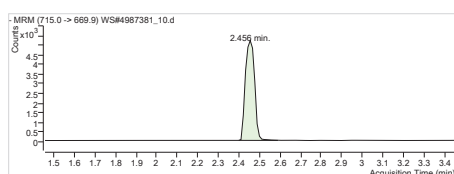
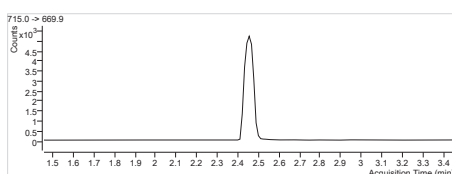
MPFDA
RT (Exp. RT): 2.124 (2.124)
Concentration: 1 µg/Kg
Sample type: CC



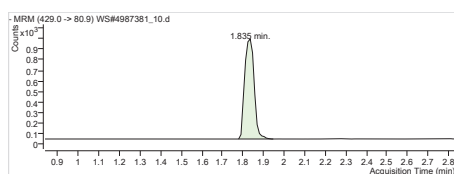
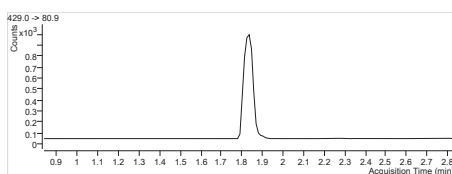
MPFUnA
RT (Exp. RT): 2.223 (2.223)
Concentration: 1 µg/Kg
Sample type: CC



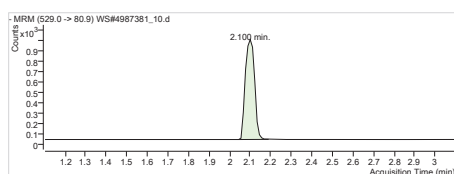
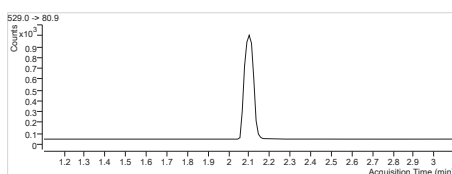
MPFDoA
RT (Exp. RT): 2.311 (2.311)
Concentration: 1 µg/Kg
Sample type: CC



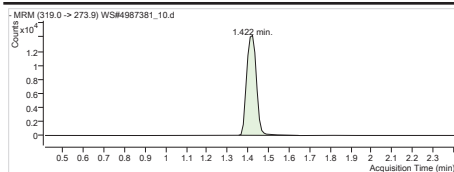
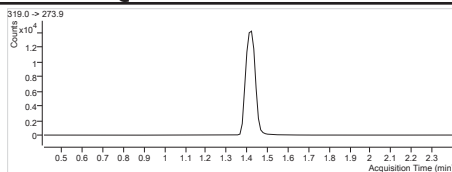
MPFTeDA
RT (Exp. RT): 2.456 (2.455)
Concentration: 1 µg/Kg
Sample type: CC



M2 6:2 FTS
RT (Exp. RT): 1.835 (1.835)
Concentration: 1 µg/Kg
Sample type: CC

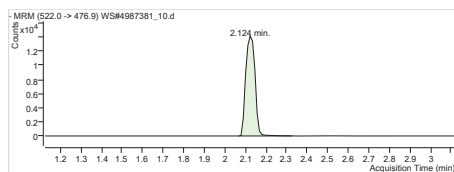
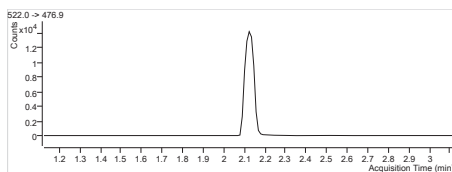


M2 8:2 FTS
RT (Exp. RT): 2.100 (2.100)
Concentration: 1 µg/Kg
Sample type: CC

**13C6-PFHxA IS**

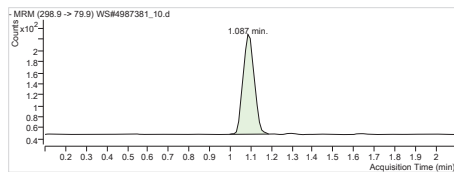
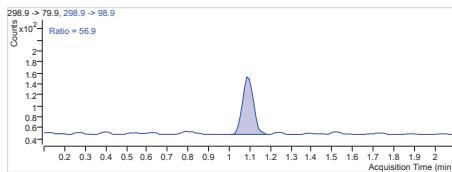
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
1.422 (1.411)
1 µg/Kg
CC

**13C9-PFDA IS**

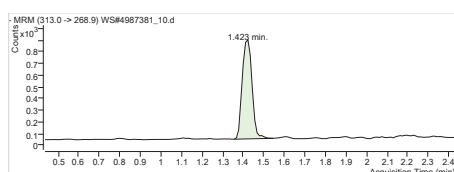
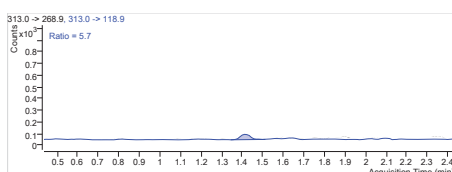
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
2.124 (2.124)
1 µg/Kg
CC

**PFBS 1**

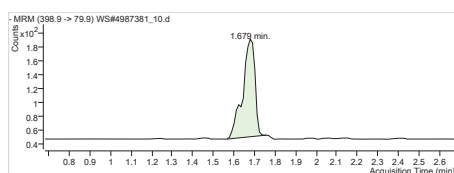
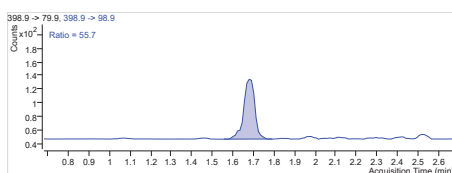
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

298.9 -> 79.9
1.087 (1.098)
0.78 µg/Kg
0.33047
CC

**PFHxA 1**

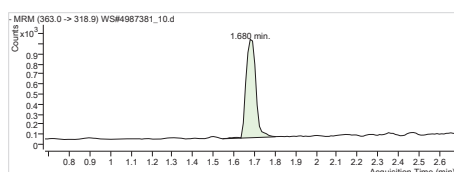
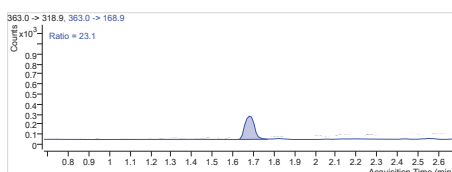
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

313.0 -> 268.9
1.423 (1.434)
0.71 µg/Kg
0.25094
CC

**PFHxS 1**

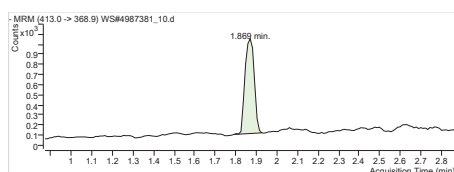
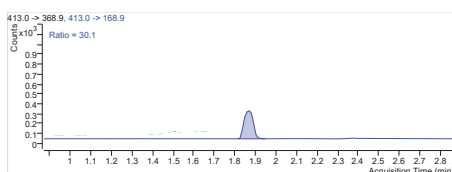
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

398.9 -> 79.9
1.679 (1.679)
0.71 µg/Kg
0.28271
CC

**PFHpA 1**

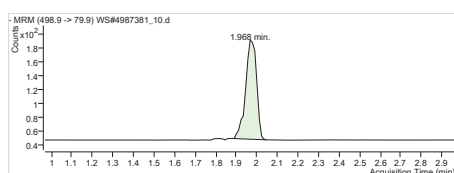
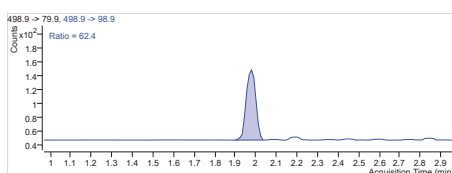
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

363.0 -> 318.9
1.680 (1.680)
0.78 µg/Kg
0.26860
CC

**PFOA 1**

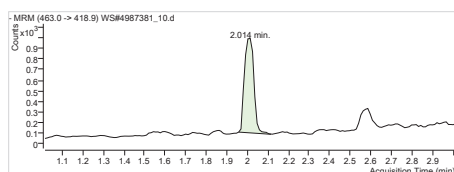
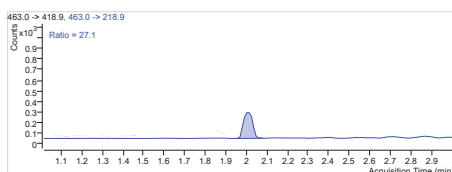
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

413.0 -> 368.9
1.869 (1.869)
0.67 µg/Kg
0.25800
CC

**PFOS 1**

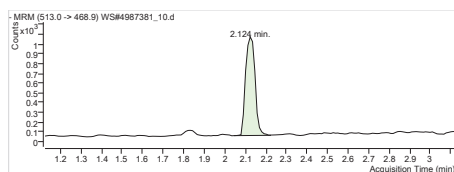
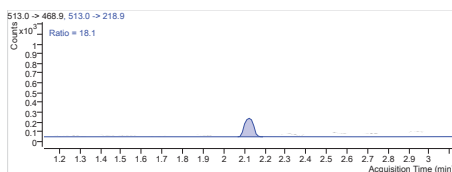
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

498.9 -> 79.9
1.968 (1.968)
0.85 µg/Kg
0.23601
CC

**PFNA 1**

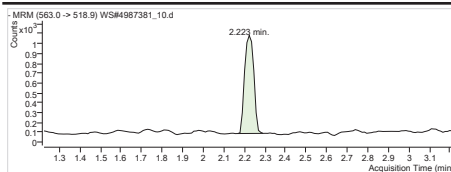
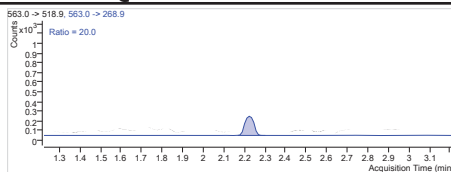
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

463.0 -> 418.9
2.014 (2.014)
0.73 µg/Kg
0.24348
CC

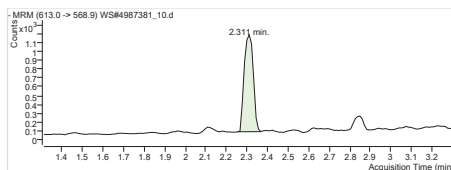
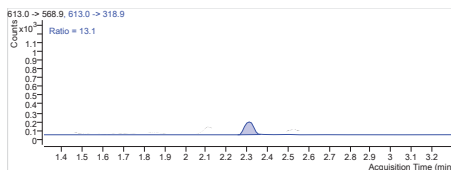
**PFDA 1**

RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

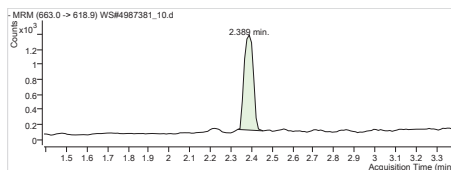
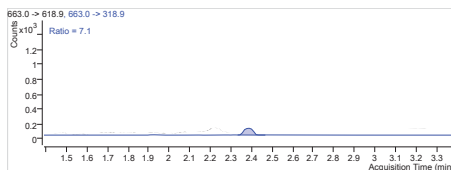
513.0 -> 468.9
2.124 (2.124)
0.77 µg/Kg
0.31631
CC



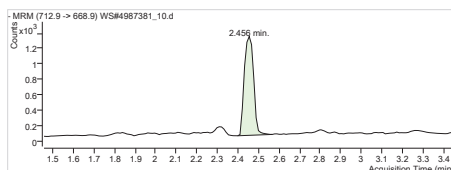
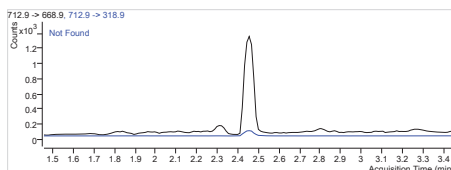
PFUnA 1
RT (Exp. RT): 2.223 (2.223)
Calc. conc. 0.71 µg/Kg
Area ratio: 0.27214
Sample type: CC



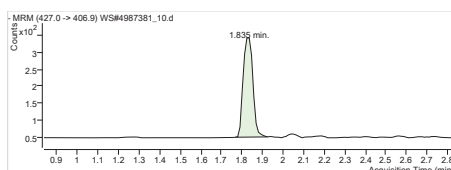
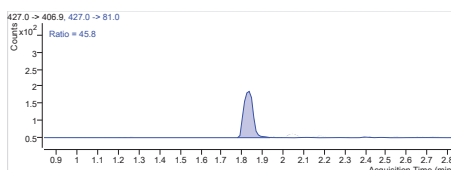
PFDaA 1
RT (Exp. RT): 2.311 (2.311)
Calc. conc. 0.77 µg/Kg
Area ratio: 0.27065
Sample type: CC



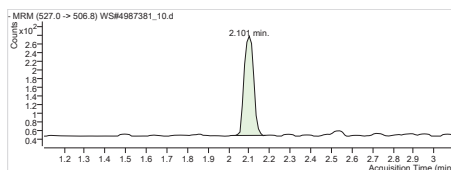
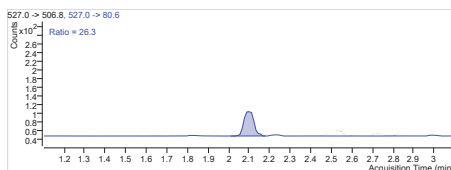
PFTrDa 1
RT (Exp. RT): 2.389 (2.389)
Calc. conc. 0.72 µg/Kg
Area ratio: 0.24285
Sample type: CC



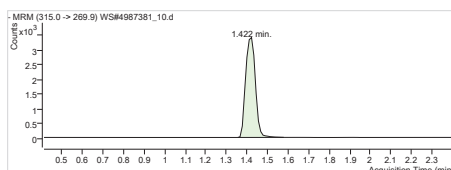
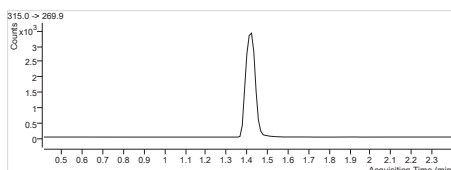
PFTeDa 1
RT (Exp. RT): 2.456 (2.456)
Calc. conc. 0.75 µg/Kg
Area ratio: 0.24960
Sample type: CC



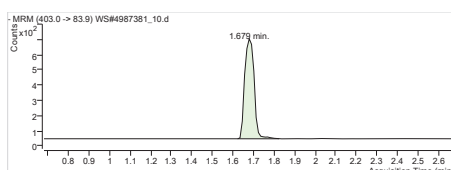
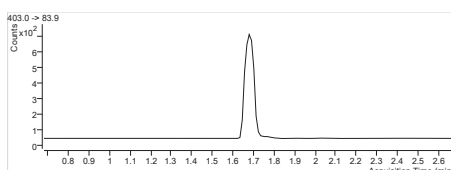
6:2-FTS 1
RT (Exp. RT): 1.835 (1.835)
Calc. conc. 0.74 µg/Kg
Area ratio: 0.31615
Sample type: CC



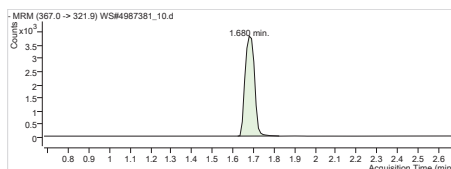
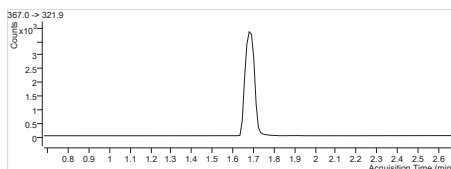
8:2-FTS 1
RT (Exp. RT): 2.101 (2.101)
Calc. conc. 0.73 µg/Kg
Area ratio: 0.24509
Sample type: CC



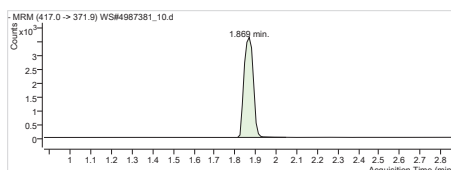
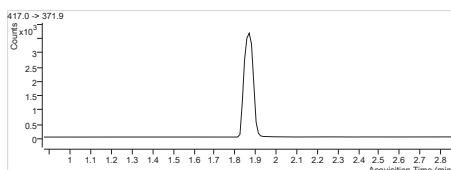
13C2-PFHxA
RT (Exp. RT): 1.422 (1.411)
Calc. conc. 102.86 µg/Kg
Area ratio: 0.23935
Sample type: CC



18O2-PFHxS
RT (Exp. RT): 1.679 (1.679)
Calc. conc. 107.08 µg/Kg
Area ratio: 0.04484
Sample type: CC

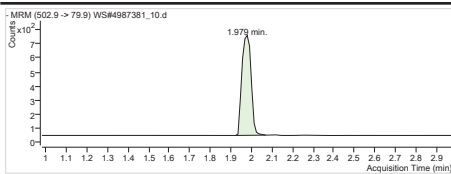
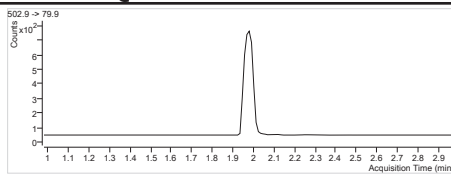


13C4-PFHpA
RT (Exp. RT): 1.680 (1.680)
Calc. conc. 102.96 µg/Kg
Area ratio: 0.26077
Sample type: CC

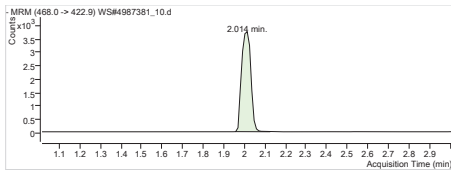
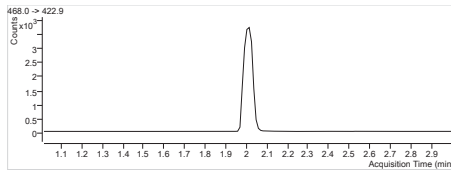


13C4-PFOA
RT (Exp. RT): 1.869 (1.869)
Calc. conc. 98.69 µg/Kg
Area ratio: 0.24483
Sample type: CC

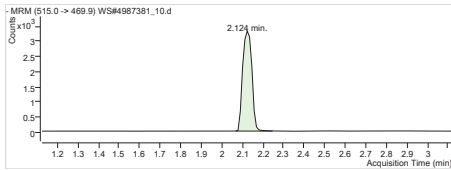
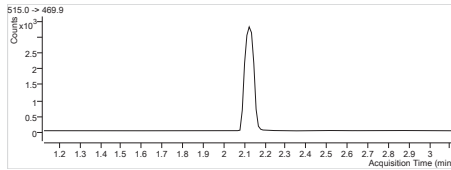
Quantitation Results



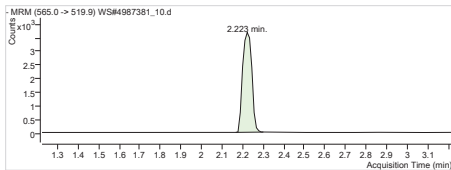
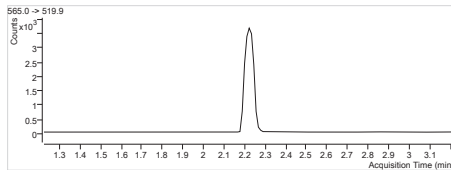
13C4-PFOS
RT (Exp. RT): 502.9 -> 79.9
Calc. conc. 1.979 (1.979)
Area ratio: 94.03 µg/Kg
Sample type: 0.04781
CC



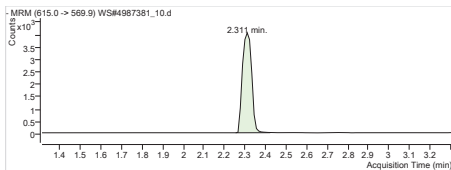
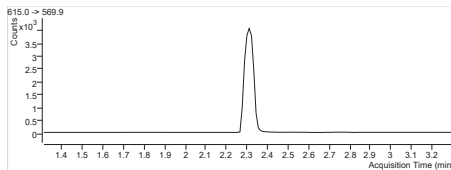
13C5-PFNA
RT (Exp. RT): 468.0 -> 422.9
Calc. conc. 2.014 (2.014)
Area ratio: 103.46 µg/Kg
Sample type: 0.25055
CC



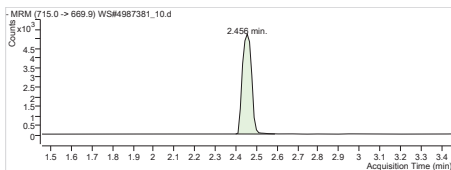
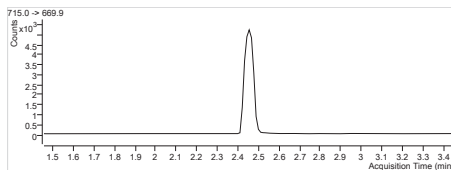
13C2-PFDA
RT (Exp. RT): 515.0 -> 469.9
Calc. conc. 2.124 (2.124)
Area ratio: 100.35 µg/Kg
Sample type: 0.23180
CC



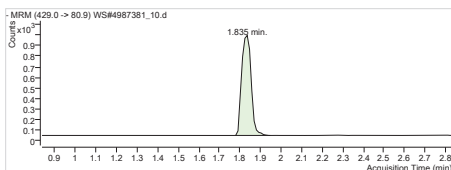
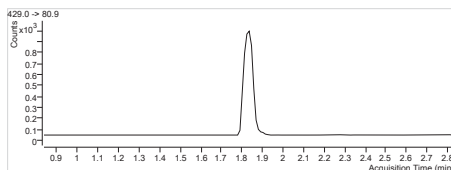
13C2-PFUnA
RT (Exp. RT): 565.0 -> 519.9
Calc. conc. 2.223 (2.223)
Area ratio: 99.34 µg/Kg
Sample type: 0.25665
CC



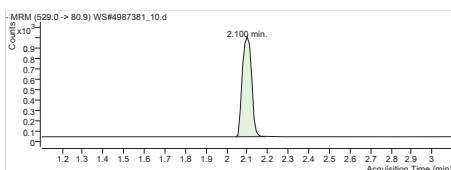
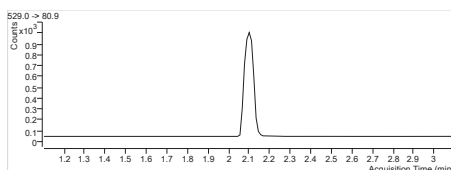
13C2-PFDoA
RT (Exp. RT): 615.0 -> 569.9
Calc. conc. 2.311 (2.311)
Area ratio: 96.30 µg/Kg
Sample type: 0.28518
CC



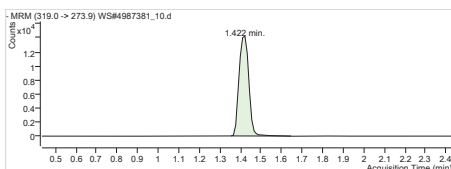
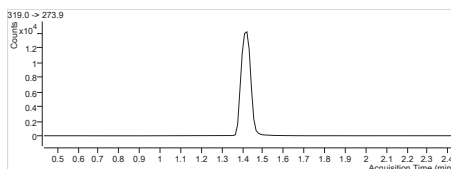
13C2-PFTeDA
RT (Exp. RT): 715.0 -> 669.9
Calc. conc. 2.456 (2.455)
Area ratio: 100.16 µg/Kg
Sample type: 0.36788
CC



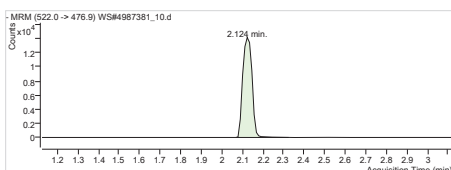
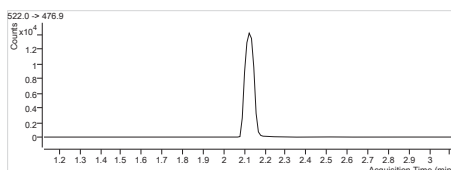
13C2-6:2-FTS
RT (Exp. RT): 429.0 -> 80.9
Calc. conc. 1.835 (1.835)
Area ratio: 104.78 µg/Kg
Sample type: 0.06563
CC



13C2-8:2 FTS
RT (Exp. RT): 529.0 -> 80.9
Calc. conc. 2.100 (2.100)
Area ratio: 102.36 µg/Kg
Sample type: 0.06439
CC



13C6-PFHxA
RT (Exp. RT): 319.0 -> 273.9
Calc. conc. 1.422 (1.434)
Area ratio: 111.51 µg/Kg
Sample type: 0
CC

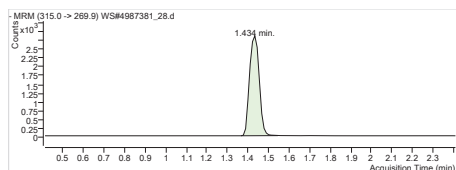
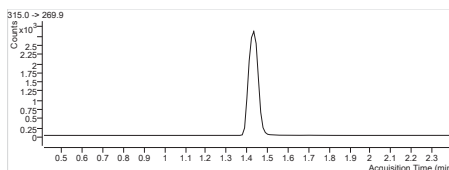


13C9-PFDA
RT (Exp. RT): 522.0 -> 476.9
Calc. conc. 2.124 (2.124)
Area ratio: 115.19 µg/Kg
Sample type: 0
CC

Sample Name	CCV	Instrument	LCMS04
Data File	WS#4987381_28.d	Operator	M_G
Sample Type	CC	Dilution	1.33
Acq. Method	PFC_Soil.m	Position	P2-A5
Acq. Date	2017/05/20 5:17:25 AM	Injection Volume	Per Method
Sample Annotation	-		

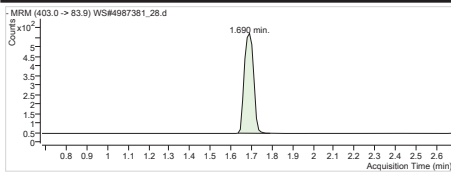
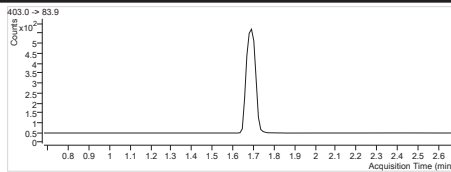
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	9245	1.43	1 µg/Kg		
MPFHxS	1651	1.69	1 µg/Kg		
MPFHpA	10623	1.69	1 µg/Kg		
MPFOA	10833	1.88	1 µg/Kg		
MPFOS	2112	1.98	1 µg/Kg		
MPFNA	9745	2.01	1 µg/Kg		
MPFDA	8678	2.14	1 µg/Kg		
MPFUnA	10272	2.22	1 µg/Kg		
MPFDoA	11187	2.31	1 µg/Kg		
MPFTeDA	12985	2.46	1 µg/Kg		
M2 6:2 FTS	2378	1.84	1 µg/Kg		
M2 8:2 FTS	2724	2.10	1 µg/Kg		
13C6-PFHxA IS	41138	1.43	1 µg/Kg		
13C9-PFDA IS	38042	2.13	1 µg/Kg		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	10987	1.10	11.30	15.18 µg/Kg	101.03
PFHxA 1	43985	1.43	11.30	15.43 µg/Kg	102.68
PFHxS 1	9153	1.69	11.30	15.82 µg/Kg	105.27
PFHpA 1	51236	1.69	11.30	14.61 µg/Kg	97.23
PFOA 1	50822	1.88	11.30	14.58 µg/Kg	97.02
PFOS 1	9043	1.98	11.30	14.85 µg/Kg	98.80
PFNA 1	44323	2.01	11.30	15.50 µg/Kg	103.16
PFDA 1	47252	2.14	11.30	14.65 µg/Kg	97.49
PFUnA 1	45658	2.22	11.30	14.32 µg/Kg	95.30
PFDaA 1	51427	2.31	11.30	14.99 µg/Kg	99.76
PFTTrDA 1	60539	2.39	11.30	15.93 µg/Kg	106.00
PFTeDA 1	58203	2.46	11.30	16.56 µg/Kg	110.21
6:2-FTS 1	11185	1.84	11.30	16.46 µg/Kg	109.51
8:2-FTS 1	10658	2.10	11.30	13.83 µg/Kg	92.02
13C2-PFHxA	9245	1.43	100.00	96.58 µg/Kg	96.58
18O2-PFHxS	1651	1.69	100.00	95.84 µg/Kg	95.84
13C4-PFHpA	10623	1.69	100.00	101.96 µg/Kg	101.96
13C4-PFOA	10833	1.88	100.00	106.15 µg/Kg	106.15
13C4-PFOS	2112	1.98	100.00	100.96 µg/Kg	100.96
13C5-PFNA	9745	2.01	100.00	97.81 µg/Kg	97.81
13C2-PFDA	8678	2.14	100.00	98.76 µg/Kg	98.76
13C2-PFUnA	10272	2.22	100.00	104.52 µg/Kg	104.52
13C2-PFDoA	11187	2.31	100.00	99.30 µg/Kg	99.30
13C2-PFTeDA	12985	2.46	100.00	92.93 µg/Kg	92.93
13C2-6:2-FTS	2378	1.84	100.00	92.28 µg/Kg	92.28
13C2-8:2 FTS	2724	2.10	100.00	105.26 µg/Kg	105.26
13C6-PFHxA	41138	1.43	100.00	130.64 µg/Kg	98.23
13C9-PFDA	38042	2.13	100.00	131.65 µg/Kg	98.98

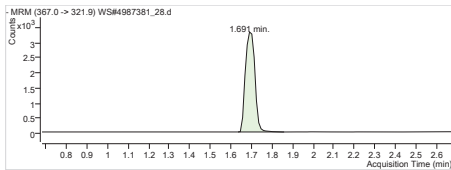
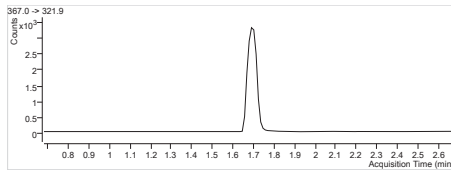


MPFHxA
 RT (Exp. RT): 1.434 (1.411)
 Concentration: 1 µg/Kg
 Sample type: CC

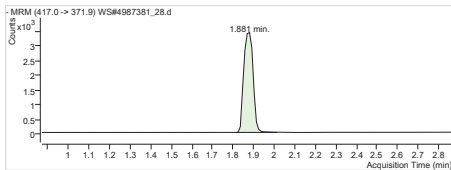
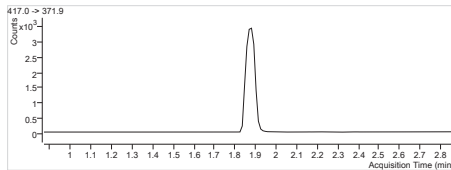
Quantitation Results



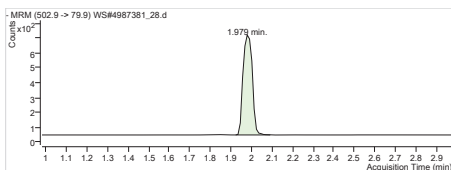
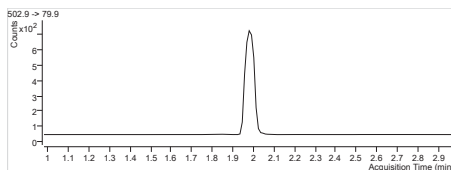
MPFHxS
RT (Exp. RT): 1.690 (1.679)
Concentration: 1 µg/Kg
Sample type: CC



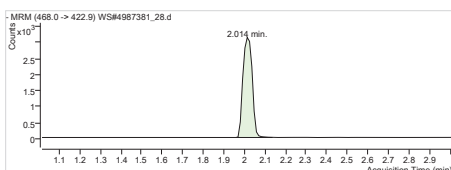
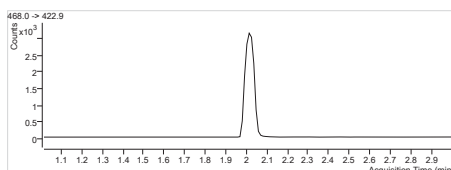
MPFHhPa
RT (Exp. RT): 1.691 (1.680)
Concentration: 1 µg/Kg
Sample type: CC



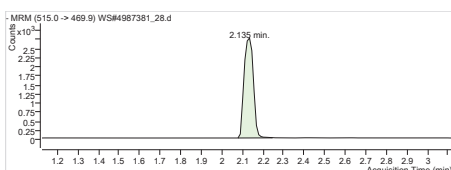
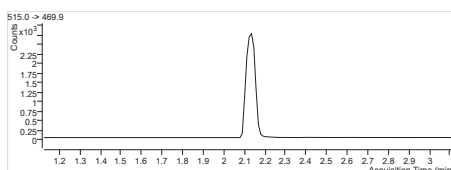
MPFOA
RT (Exp. RT): 1.881 (1.869)
Concentration: 1 µg/Kg
Sample type: CC



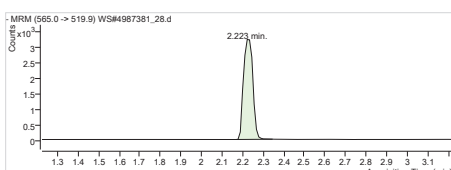
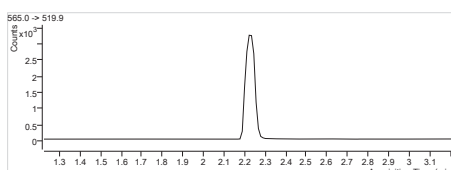
MPFOS
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/Kg
Sample type: CC



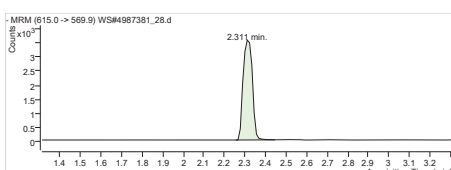
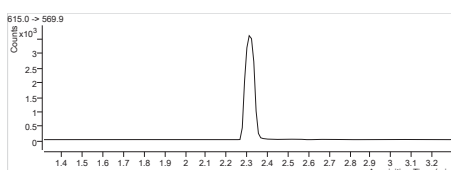
MPFNA
RT (Exp. RT): 2.014 (2.014)
Concentration: 1 µg/Kg
Sample type: CC



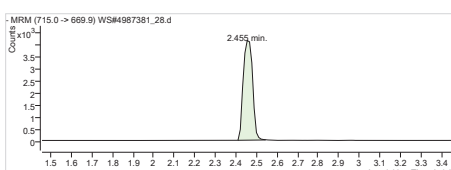
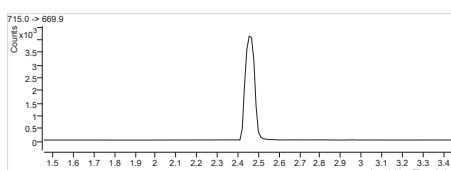
MPFDA
RT (Exp. RT): 2.135 (2.124)
Concentration: 1 µg/Kg
Sample type: CC



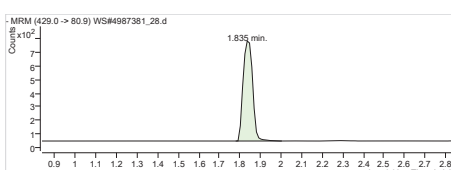
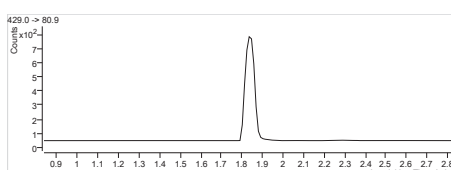
MPFUnA
RT (Exp. RT): 2.223 (2.223)
Concentration: 1 µg/Kg
Sample type: CC



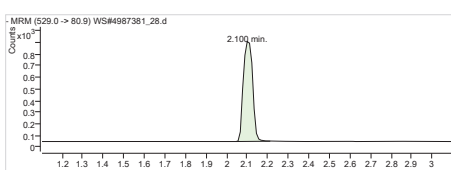
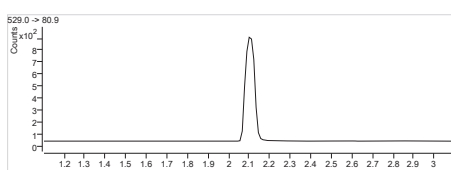
MPFDoA
RT (Exp. RT): 2.311 (2.311)
Concentration: 1 µg/Kg
Sample type: CC



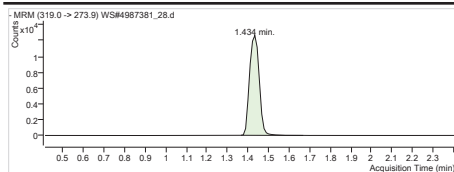
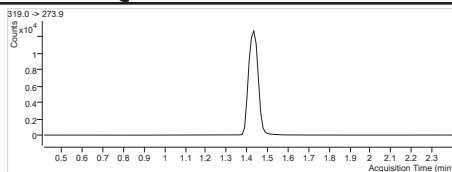
MPFTeDA
RT (Exp. RT): 2.455 (2.455)
Concentration: 1 µg/Kg
Sample type: CC



M2 6:2 FTS
RT (Exp. RT): 1.835 (1.835)
Concentration: 1 µg/Kg
Sample type: CC



M2 8:2 FTS
RT (Exp. RT): 2.100 (2.100)
Concentration: 1 µg/Kg
Sample type: CC

**13C6-PFHxA IS**

RT (Exp. RT):

Concentration:

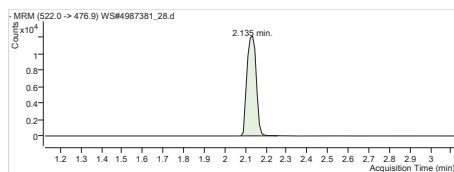
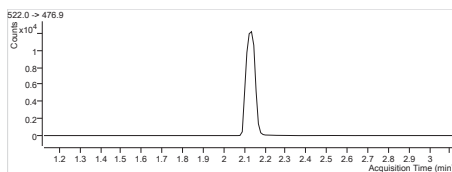
Sample type:

Internal Standard

1.434 (1.411)

1 µg/Kg

CC

**13C9-PFDA IS**

RT (Exp. RT):

Concentration:

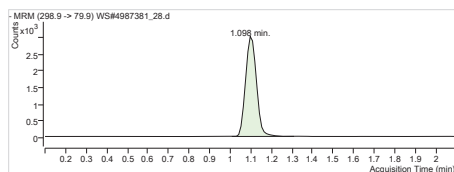
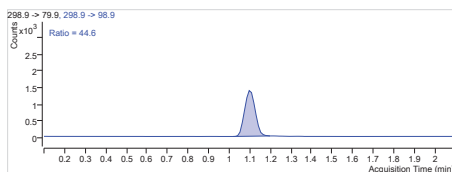
Sample type:

Internal Standard

2.135 (2.124)

1 µg/Kg

CC

**PFBS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

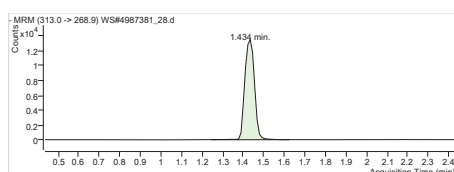
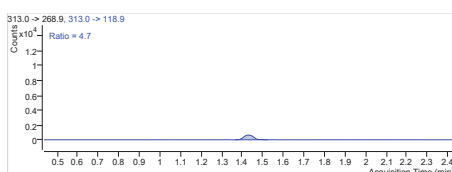
298.9 -> 79.9

1.098 (1.098)

15.18 µg/Kg

6.65475

CC

**PFHxA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

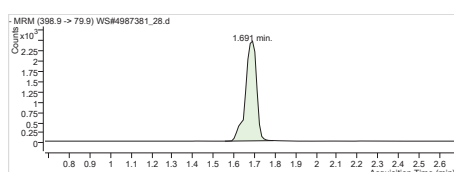
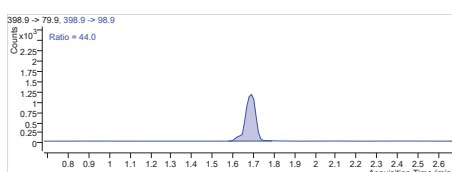
313.0 -> 268.9

1.434 (1.434)

15.43 µg/Kg

4.75771

CC

**PFHxS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

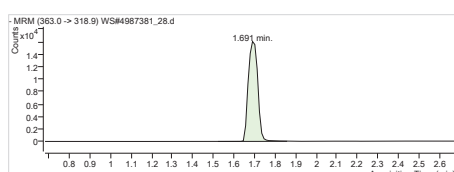
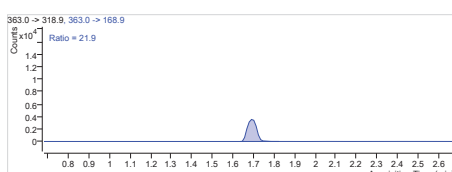
398.9 -> 79.9

1.691 (1.679)

15.82 µg/Kg

5.54391

CC

**PFHpA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

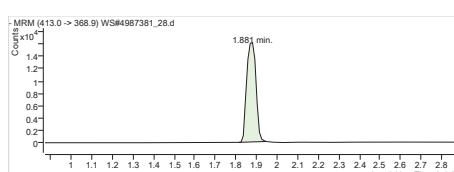
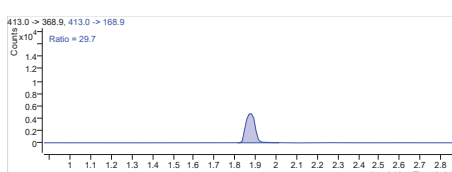
363.0 -> 318.9

1.691 (1.680)

14.61 µg/Kg

4.82312

CC

**PFOA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

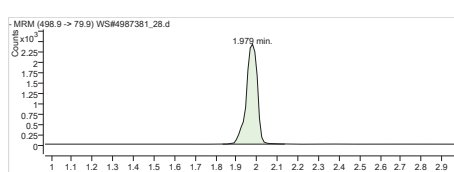
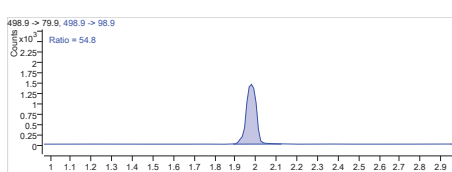
413.0 -> 368.9

1.881 (1.869)

14.58 µg/Kg

4.69141

CC

**PFOS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

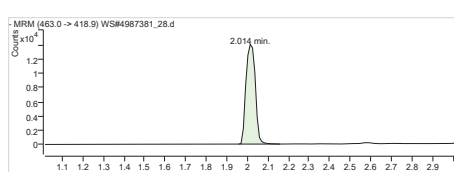
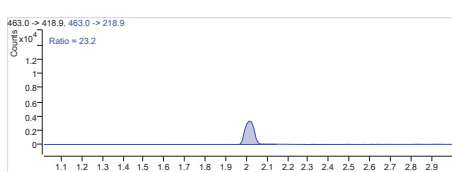
498.9 -> 79.9

1.979 (1.968)

14.85 µg/Kg

4.28172

CC

**PFNA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

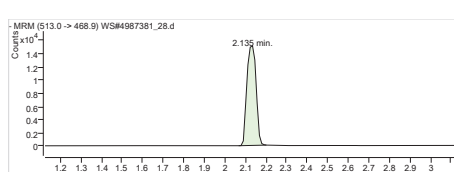
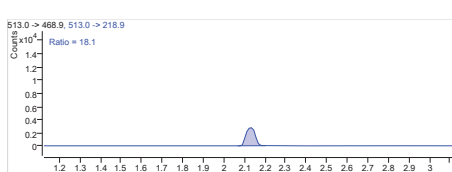
463.0 -> 418.9

2.014 (2.014)

15.50 µg/Kg

4.54828

CC

**PFDA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

513.0 -> 468.9

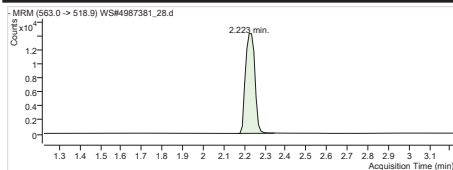
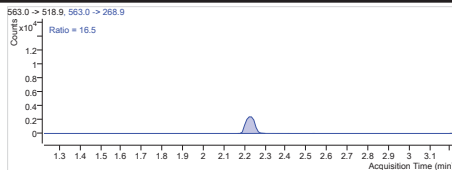
2.135 (2.124)

14.65 µg/Kg

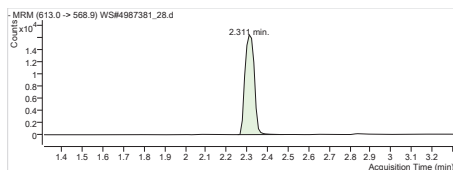
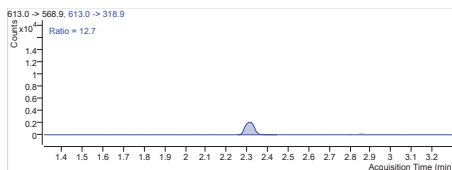
5.44503

CC

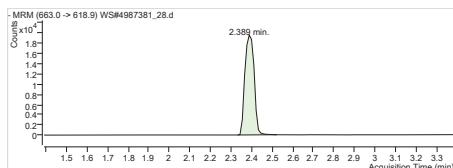
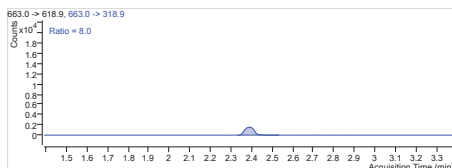
Quantitation Results



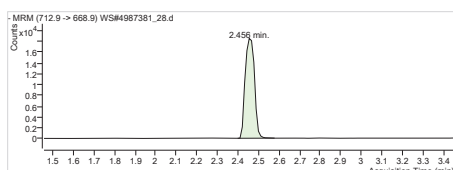
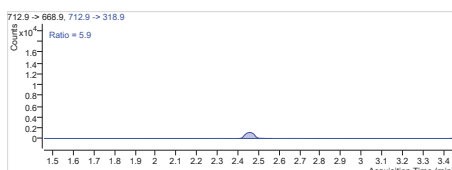
PFUnA 1
RT (Exp. RT): 563.0 -> 518.9
Calc. conc. 2.223 (2.223)
Area ratio: 14.32 µg/Kg
Sample type: 4.44490
CC



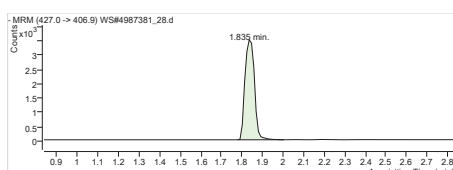
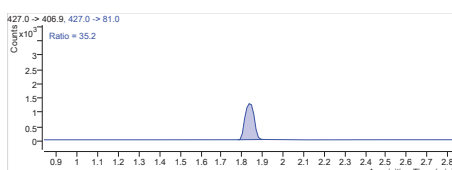
PFDa 1
RT (Exp. RT): 613.0 -> 568.9
Calc. conc. 2.311 (2.311)
Area ratio: 14.99 µg/Kg
Sample type: 4.59703
CC



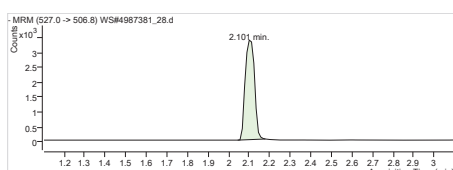
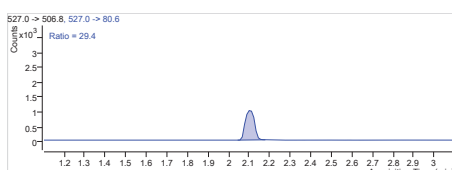
PFTraD 1
RT (Exp. RT): 663.0 -> 618.9
Calc. conc. 2.389 (2.389)
Area ratio: 15.93 µg/Kg
Sample type: 4.66223
CC



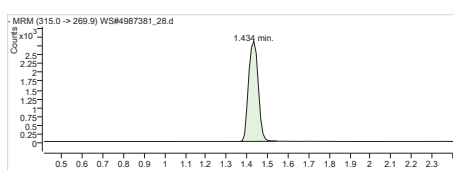
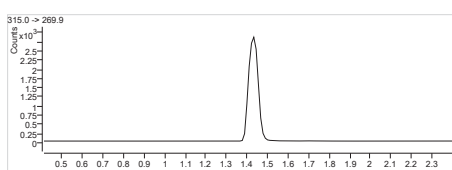
PFTeDa 1
RT (Exp. RT): 712.9 -> 668.9
Calc. conc. 2.456 (2.456)
Area ratio: 16.56 µg/Kg
Sample type: 4.48233
CC



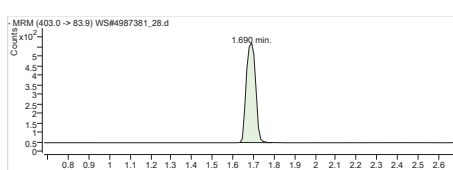
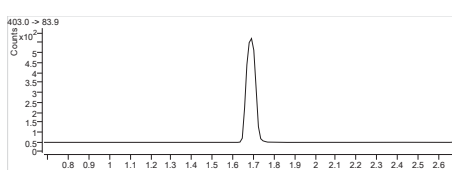
6:2-FTS 1
RT (Exp. RT): 427.0 -> 406.9
Calc. conc. 1.835 (1.835)
Area ratio: 16.46 µg/Kg
Sample type: 4.70353
CC



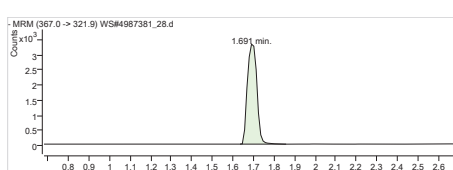
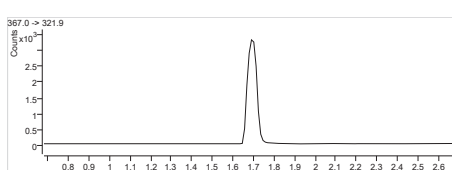
8:2-FTS 1
RT (Exp. RT): 527.0 -> 506.8
Calc. conc. 2.101 (2.101)
Area ratio: 13.83 µg/Kg
Sample type: 3.91263
CC



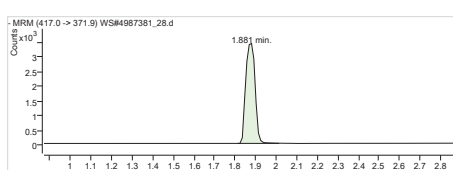
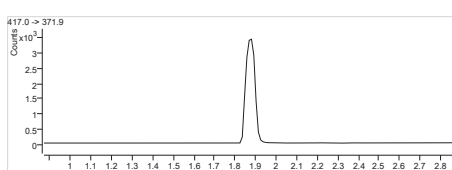
13C2-PFHxA
RT (Exp. RT): 315.0 -> 269.9
Calc. conc. 1.434 (1.411)
Area ratio: 96.58 µg/Kg
Sample type: 0.22473
CC



18O2-PFHxS
RT (Exp. RT): 403.0 -> 83.9
Calc. conc. 1.690 (1.679)
Area ratio: 95.84 µg/Kg
Sample type: 0.04013
CC

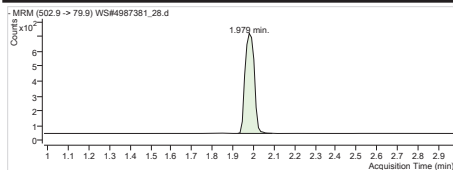
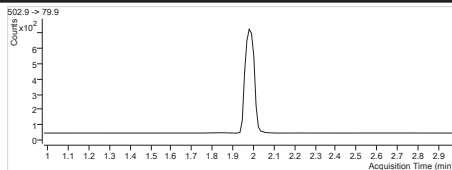


13C4-PFHpA
RT (Exp. RT): 367.0 -> 321.9
Calc. conc. 1.691 (1.680)
Area ratio: 101.96 µg/Kg
Sample type: 0.25823
CC

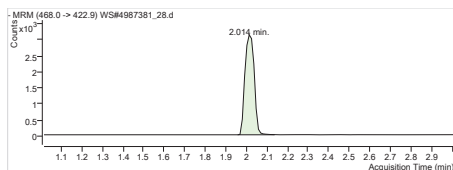
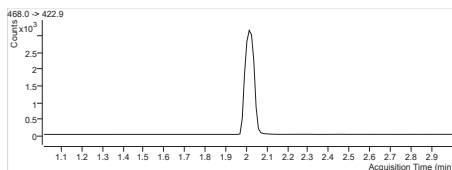


13C4-PFOA
RT (Exp. RT): 417.0 -> 371.9
Calc. conc. 1.881 (1.869)
Area ratio: 106.15 µg/Kg
Sample type: 0.26333
CC

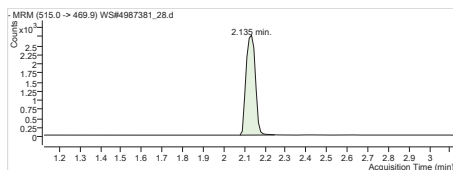
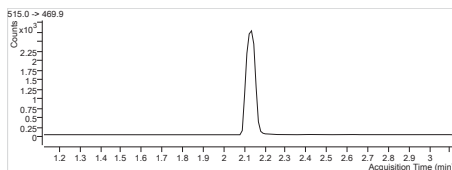
Quantitation Results



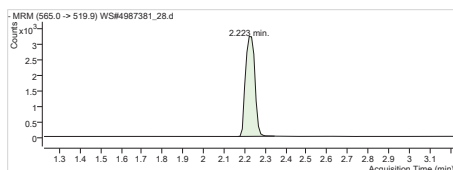
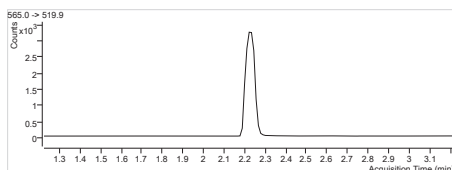
13C4-PFOS
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 100.96 µg/Kg
Area ratio: 0.05134
Sample type: CC



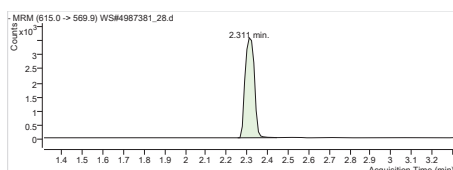
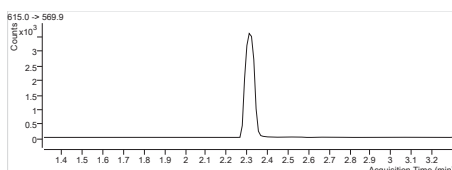
13C5-PFNA
RT (Exp. RT): 2.014 (2.014)
Calc. conc. 97.81 µg/Kg
Area ratio: 0.23689
Sample type: CC



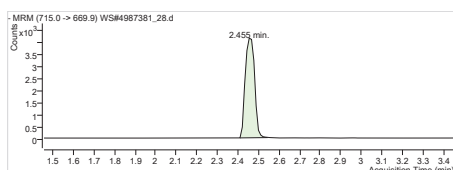
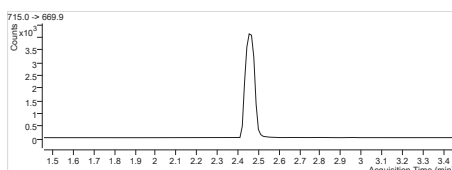
13C2-PFDA
RT (Exp. RT): 2.135 (2.124)
Calc. conc. 98.76 µg/Kg
Area ratio: 0.22812
Sample type: CC



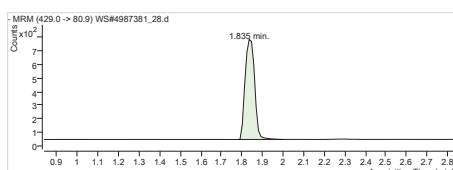
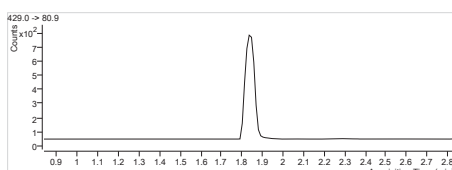
13C2-PFUnA
RT (Exp. RT): 2.223 (2.223)
Calc. conc. 104.52 µg/Kg
Area ratio: 0.27002
Sample type: CC



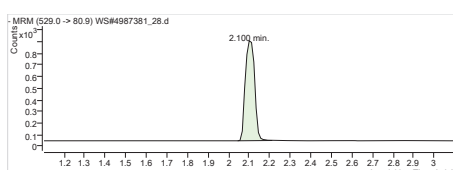
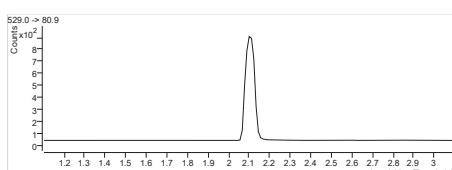
13C2-PFDoA
RT (Exp. RT): 2.311 (2.311)
Calc. conc. 99.30 µg/Kg
Area ratio: 0.29407
Sample type: CC



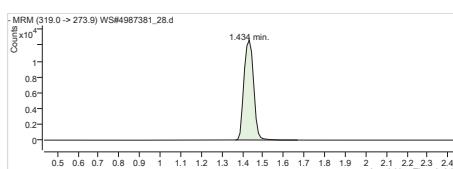
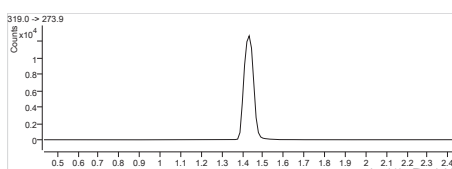
13C2-PFTeDA
RT (Exp. RT): 2.455 (2.455)
Calc. conc. 92.93 µg/Kg
Area ratio: 0.34133
Sample type: CC



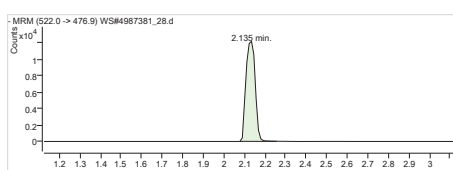
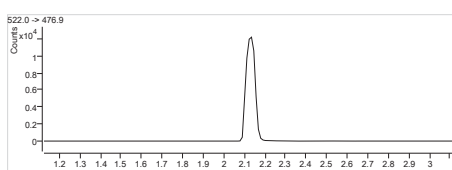
13C2-6:2-FTS
RT (Exp. RT): 1.835 (1.835)
Calc. conc. 92.28 µg/Kg
Area ratio: 0.05781
Sample type: CC



13C2-8:2 FTS
RT (Exp. RT): 2.100 (2.100)
Calc. conc. 105.26 µg/Kg
Area ratio: 0.06622
Sample type: CC



13C6-PFHxA
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 130.64 µg/Kg
Area ratio: 0
Sample type: CC



13C9-PFDA
RT (Exp. RT): 2.135 (2.124)
Calc. conc. 131.65 µg/Kg
Area ratio: 0
Sample type: CC

Batch Path

T:\lcms4\PFC\20170519\WS#4987381\QuantResults\PFC_Soil_170519_WS#4987381_CTLabs

Sample Name

CCV

Instrument

LCMS04

Data File

WS#4987381_45.d

Operator

M_G

Sample Type

CC

Dilution

1.33

Acq. Method

PFC_Soil.m

Position

P2-A5

Acq. Date

2017/05/20 6:40:45 AM

Injection Volume

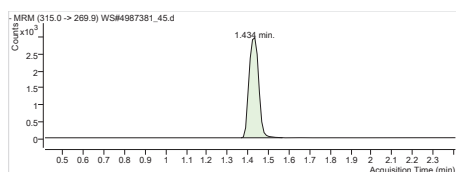
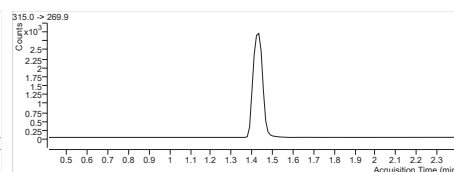
Per Method

Sample Annotation

-

ISTD Compounds	Response	RT	Target conc.		
MPFHxA	9570	1.43	1 µg/Kg		
MPFHxS	1659	1.69	1 µg/Kg		
MPFHpA	10318	1.69	1 µg/Kg		
MPFOA	9578	1.87	1 µg/Kg		
MPFOS	2429	1.98	1 µg/Kg		
MPFNA	9708	2.01	1 µg/Kg		
MPFDA	8545	2.14	1 µg/Kg		
MPFUnA	9274	2.23	1 µg/Kg		
MPFDoA	11586	2.31	1 µg/Kg		
MPFTeDA	13632	2.46	1 µg/Kg		
M2 6:2 FTS	2402	1.84	1 µg/Kg		
M2 8:2 FTS	2468	2.10	1 µg/Kg		
13C6-PFHxA IS	40743	1.43	1 µg/Kg		
13C9-PFDA IS	38419	2.13	1 µg/Kg		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	10988	1.10	11.30	15.11 µg/Kg	100.56
PFHxA 1	44527	1.43	11.30	15.10 µg/Kg	100.44
PFHxS 1	9438	1.69	11.30	16.23 µg/Kg	108.00
PFHpA 1	52193	1.69	11.30	15.31 µg/Kg	101.90
PFOA 1	48287	1.87	11.30	15.66 µg/Kg	104.21
PFOS 1	8858	1.98	11.30	12.70 µg/Kg	84.48
PFNA 1	43716	2.01	11.30	15.35 µg/Kg	102.15
PFDA 1	46952	2.14	11.30	14.78 µg/Kg	98.37
PFUnA 1	46702	2.22	11.30	16.22 µg/Kg	107.90
PFDaA 1	49548	2.31	11.30	13.96 µg/Kg	92.88
PFTTrDA 1	60425	2.39	11.30	15.15 µg/Kg	100.82
PFTeDA 1	56497	2.46	11.30	15.32 µg/Kg	101.95
6:2-FTS 1	11188	1.84	11.30	16.30 µg/Kg	108.44
8:2-FTS 1	11567	2.10	11.30	16.54 µg/Kg	110.08
13C2-PFHxA	9570	1.43	100.00	100.95 µg/Kg	100.95
18O2-PFHxS	1659	1.69	100.00	97.24 µg/Kg	97.24
13C4-PFHpA	10318	1.69	100.00	99.99 µg/Kg	99.99
13C4-PFOA	9578	1.87	100.00	94.76 µg/Kg	94.76
13C4-PFOS	2429	1.98	100.00	117.24 µg/Kg	117.24
13C5-PFNA	9708	2.01	100.00	98.39 µg/Kg	98.39
13C2-PFDA	8545	2.14	100.00	96.29 µg/Kg	96.29
13C2-PFUnA	9274	2.23	100.00	93.44 µg/Kg	93.44
13C2-PFDoA	11586	2.31	100.00	101.84 µg/Kg	101.84
13C2-PFTeDA	13632	2.46	100.00	96.61 µg/Kg	96.61
13C2-6:2-FTS	2402	1.84	100.00	94.12 µg/Kg	94.12
13C2-8:2 FTS	2468	2.10	100.00	96.30 µg/Kg	96.30
13C6-PFHxA	40743	1.43	100.00	129.39 µg/Kg	97.28
13C9-PFDA	38419	2.13	100.00	132.95 µg/Kg	99.96



MPFHxA

Internal Standard

RT (Exp. RT):

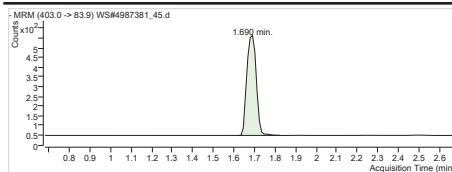
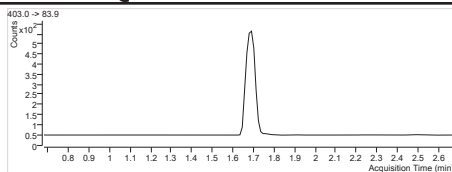
1.434 (1.411)

Concentration:

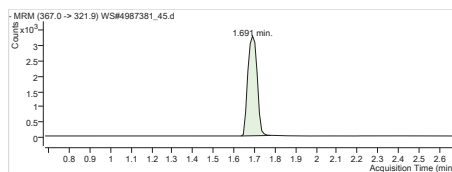
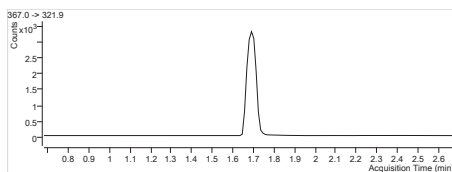
1 µg/Kg

Sample type:

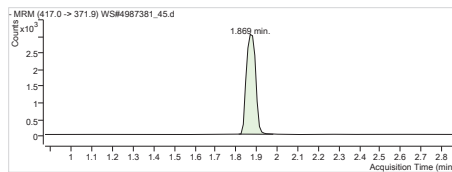
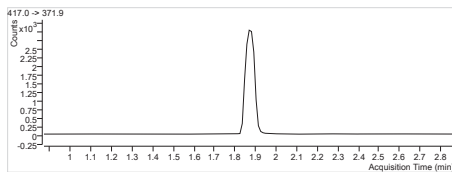
CC



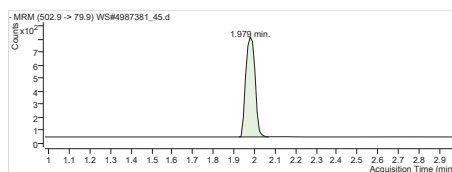
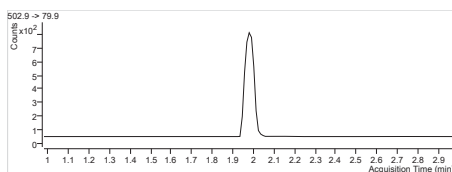
MPFHxS
RT (Exp. RT): 1.690 (1.679)
Concentration: 1 µg/Kg
Sample type: CC



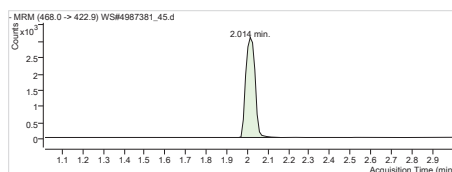
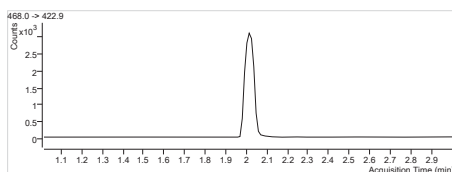
MPFHpa
RT (Exp. RT): 1.691 (1.680)
Concentration: 1 µg/Kg
Sample type: CC



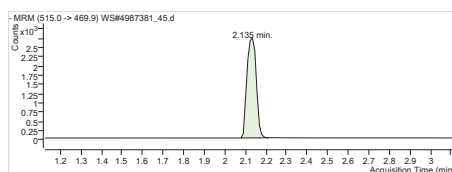
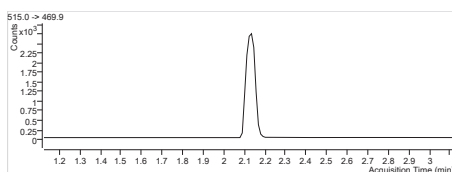
MPFOA
RT (Exp. RT): 1.869 (1.869)
Concentration: 1 µg/Kg
Sample type: CC



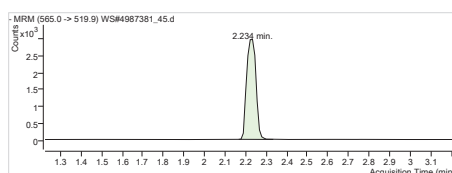
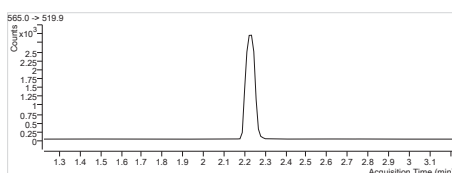
MPFOS
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/Kg
Sample type: CC



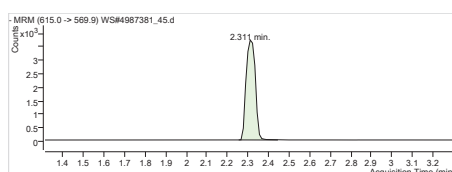
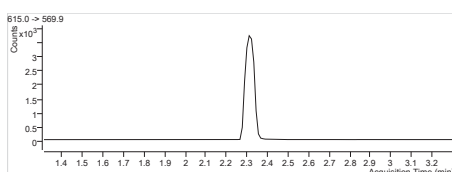
MPFNA
RT (Exp. RT): 2.014 (2.014)
Concentration: 1 µg/Kg
Sample type: CC



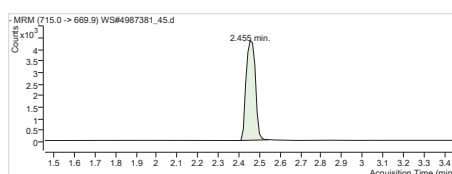
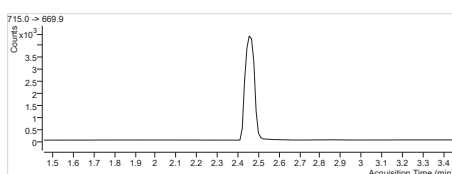
MPFDA
RT (Exp. RT): 2.135 (2.124)
Concentration: 1 µg/Kg
Sample type: CC



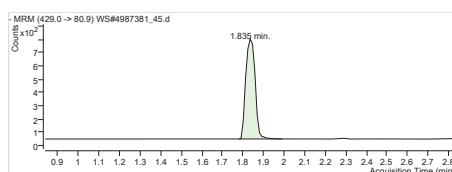
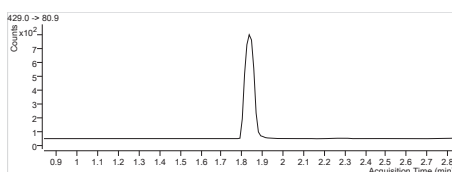
MPFUnA
RT (Exp. RT): 2.234 (2.223)
Concentration: 1 µg/Kg
Sample type: CC



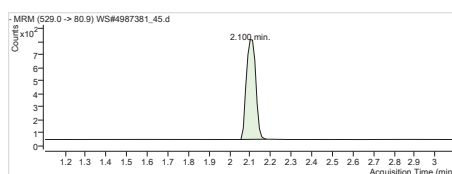
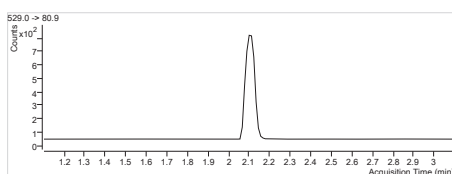
MPFDoA
RT (Exp. RT): 2.311 (2.311)
Concentration: 1 µg/Kg
Sample type: CC



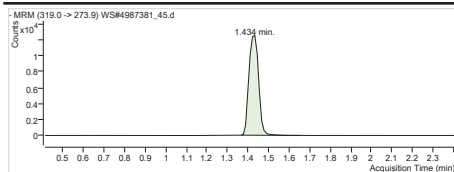
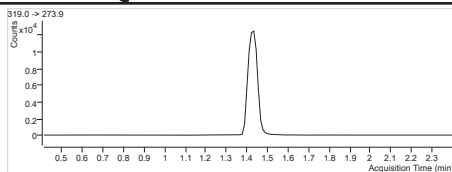
MPFTeDA
RT (Exp. RT): 2.455 (2.455)
Concentration: 1 µg/Kg
Sample type: CC



M2 6:2 FTS
RT (Exp. RT): 1.835 (1.835)
Concentration: 1 µg/Kg
Sample type: CC



M2 8:2 FTS
RT (Exp. RT): 2.100 (2.100)
Concentration: 1 µg/Kg
Sample type: CC

**13C6-PFHxA IS**

RT (Exp. RT):

Concentration:

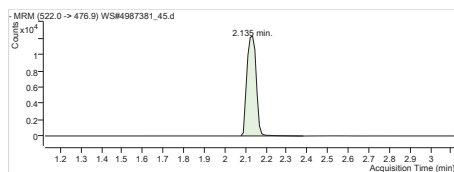
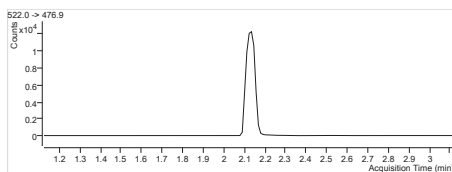
Sample type:

Internal Standard

1.434 (1.411)

1 µg/Kg

CC

**13C9-PFDA IS**

RT (Exp. RT):

Concentration:

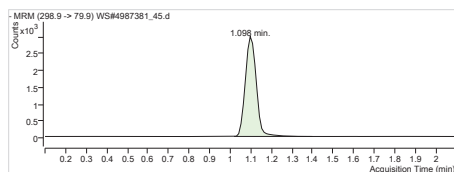
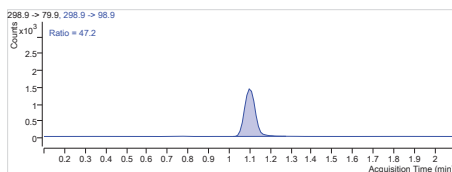
Sample type:

Internal Standard

2.135 (2.124)

1 µg/Kg

CC

**PFBS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

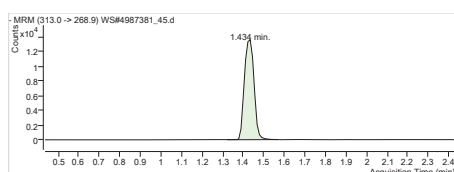
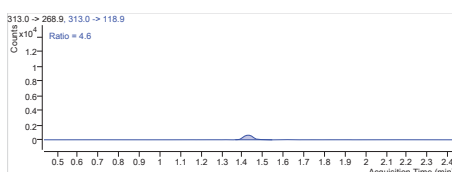
298.9 -> 79.9

1.098 (1.098)

15.11 µg/Kg

6.62327

CC

**PFHxA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

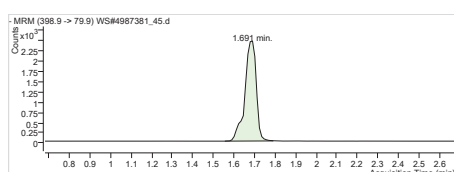
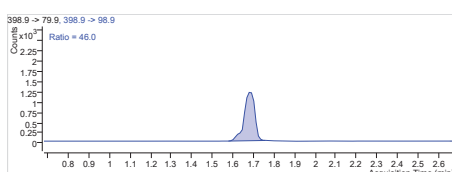
313.0 -> 268.9

1.434 (1.434)

15.10 µg/Kg

4.65277

CC

**PFHxS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

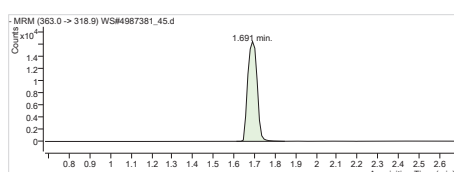
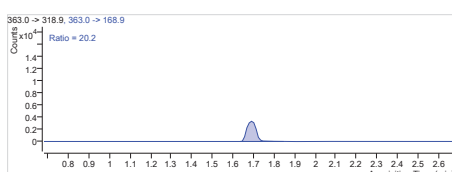
398.9 -> 79.9

1.691 (1.679)

16.23 µg/Kg

5.68897

CC

**PFHpA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

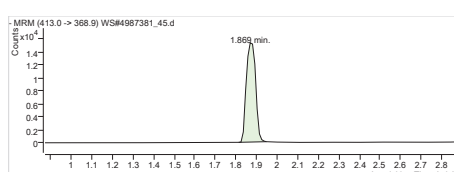
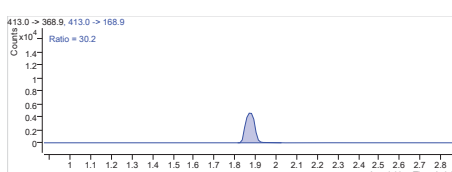
363.0 -> 318.9

1.691 (1.680)

15.31 µg/Kg

5.05844

CC

**PFOA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

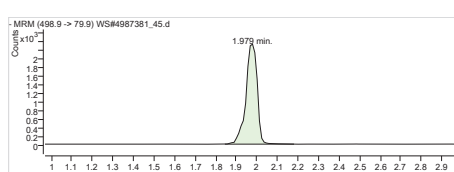
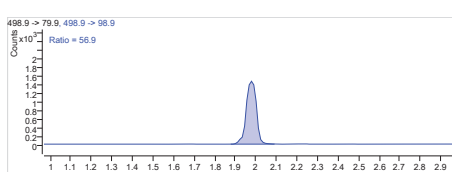
413.0 -> 368.9

1.869 (1.869)

15.66 µg/Kg

5.04145

CC

**PFOS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

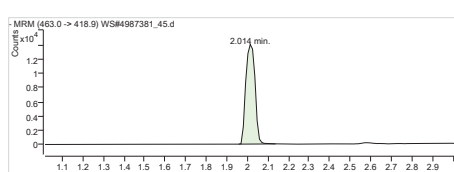
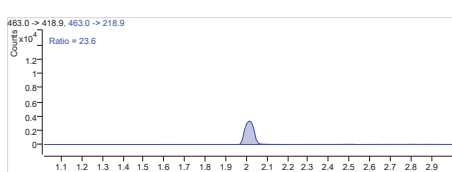
498.9 -> 79.9

1.979 (1.968)

12.70 µg/Kg

3.64677

CC

**PFNA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

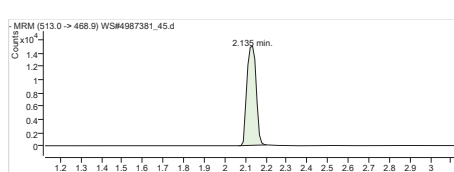
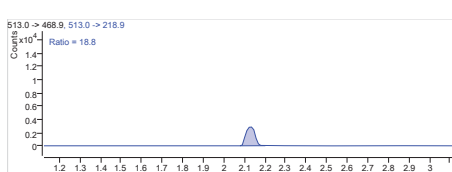
463.0 -> 418.9

2.014 (2.014)

15.35 µg/Kg

4.50309

CC

**PFDA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

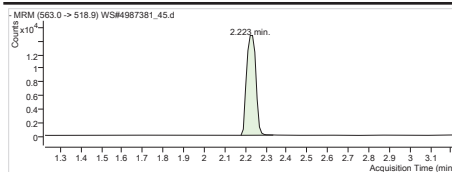
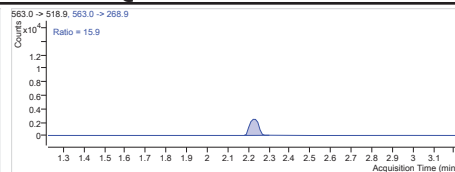
513.0 -> 468.9

2.135 (2.124)

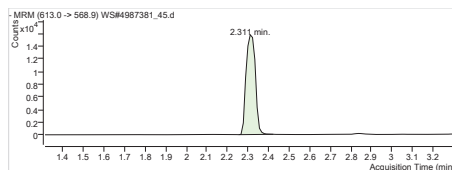
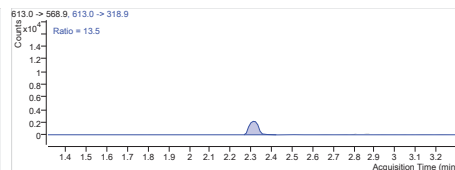
14.78 µg/Kg

5.49468

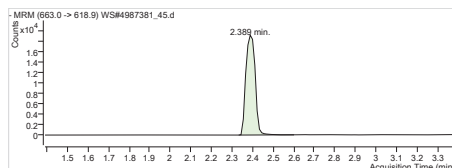
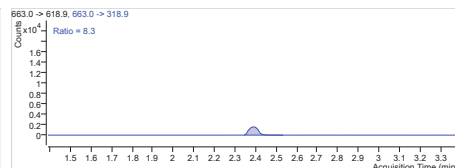
CC



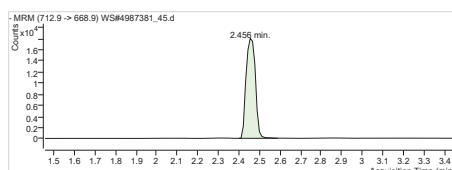
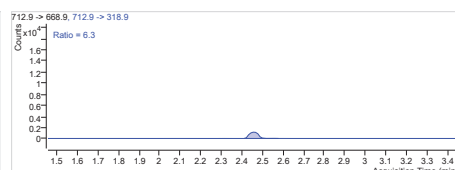
PFUnA 1
RT (Exp. RT): 563.0 -> 518.9
Calc. conc. 2.223 (2.223)
Area ratio: 16.22 µg/Kg
Sample type: 5.03580
CC



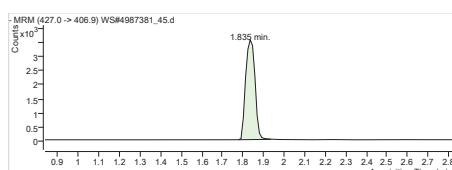
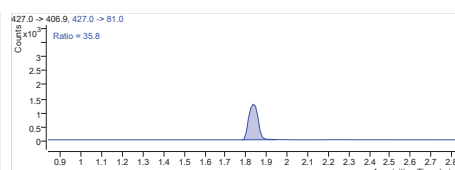
PFDa 1
RT (Exp. RT): 613.0 -> 568.9
Calc. conc. 2.311 (2.311)
Area ratio: 13.96 µg/Kg
Sample type: 4.27654
CC



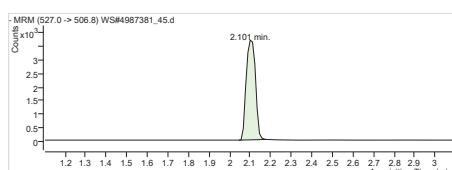
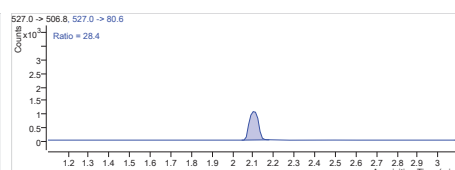
PFTraD 1
RT (Exp. RT): 663.0 -> 618.9
Calc. conc. 2.389 (2.389)
Area ratio: 15.15 µg/Kg
Sample type: 4.43259
CC



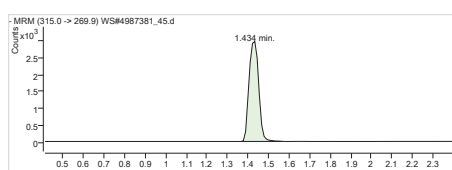
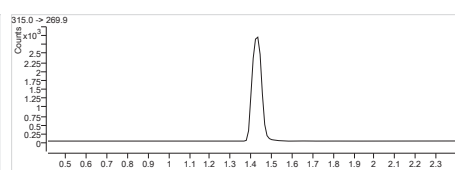
PFTeDa 1
RT (Exp. RT): 712.9 -> 668.9
Calc. conc. 2.456 (2.456)
Area ratio: 15.32 µg/Kg
Sample type: 4.14444
CC



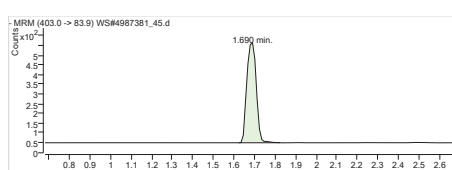
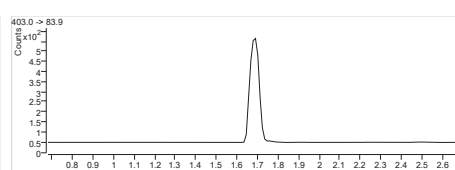
6:2-FTS 1
RT (Exp. RT): 427.0 -> 406.9
Calc. conc. 1.835 (1.835)
Area ratio: 16.30 µg/Kg
Sample type: 4.65779
CC



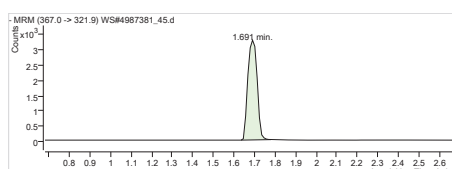
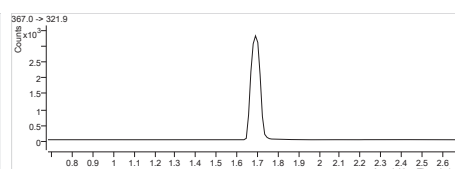
8:2-FTS 1
RT (Exp. RT): 527.0 -> 506.8
Calc. conc. 2.101 (2.101)
Area ratio: 16.54 µg/Kg
Sample type: 4.68679
CC



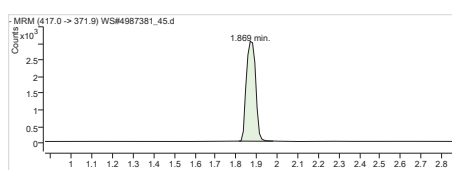
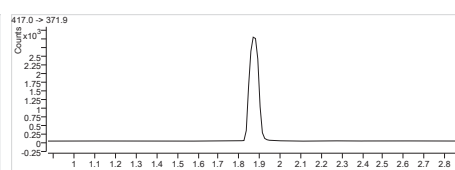
13C2-PFHxA
RT (Exp. RT): 315.0 -> 269.9
Calc. conc. 1.434 (1.411)
Area ratio: 100.95 µg/Kg
Sample type: 0.23489
CC



18O2-PFHxS
RT (Exp. RT): 403.0 -> 83.9
Calc. conc. 1.690 (1.679)
Area ratio: 97.24 µg/Kg
Sample type: 0.04072
CC

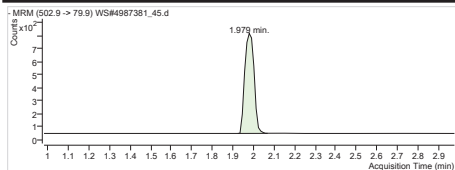
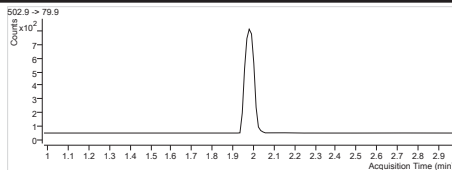


13C4-PFHpA
RT (Exp. RT): 367.0 -> 321.9
Calc. conc. 1.691 (1.680)
Area ratio: 99.99 µg/Kg
Sample type: 0.25325
CC

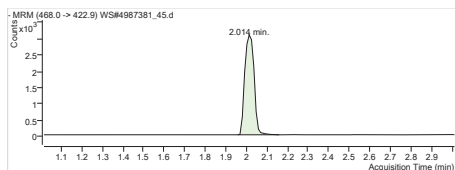
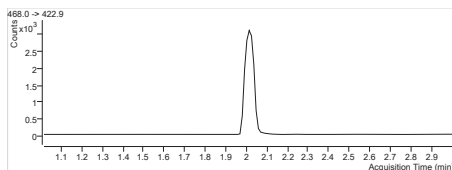


13C4-PFOA
RT (Exp. RT): 417.0 -> 371.9
Calc. conc. 1.869 (1.869)
Area ratio: 94.76 µg/Kg
Sample type: 0.23508
CC

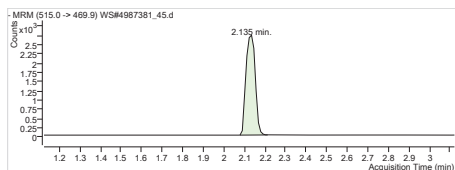
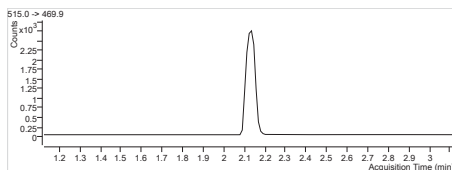
Quantitation Results



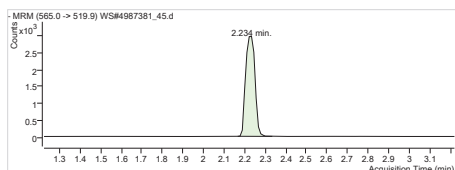
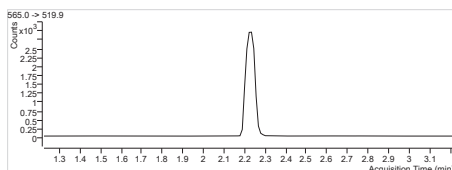
13C4-PFOS
RT (Exp. RT): 502.9 -> 79.9
Calc. conc. 1.979 (1.979)
Area ratio: 117.24 µg/Kg
Sample type: 0.05962
CC



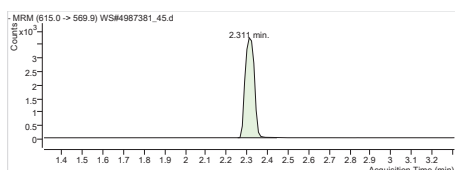
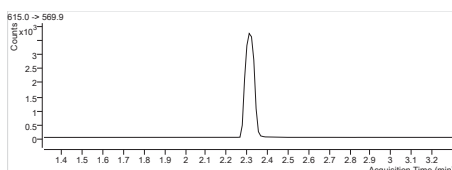
13C5-PFNA
RT (Exp. RT): 468.0 -> 422.9
Calc. conc. 2.014 (2.014)
Area ratio: 98.39 µg/Kg
Sample type: 0.23827
CC



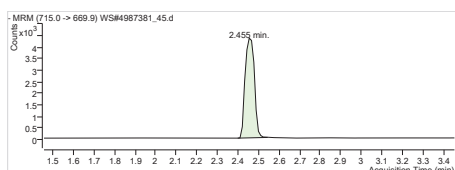
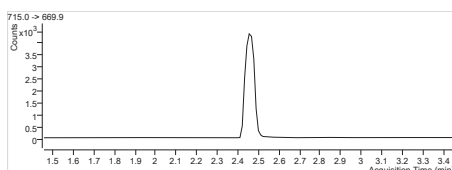
13C2-PFDA
RT (Exp. RT): 515.0 -> 469.9
Calc. conc. 2.135 (2.124)
Area ratio: 96.29 µg/Kg
Sample type: 0.22242
CC



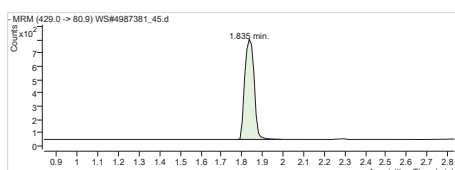
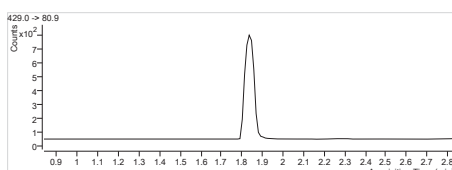
13C2-PFUnA
RT (Exp. RT): 565.0 -> 519.9
Calc. conc. 2.234 (2.223)
Area ratio: 93.44 µg/Kg
Sample type: 0.24139
CC



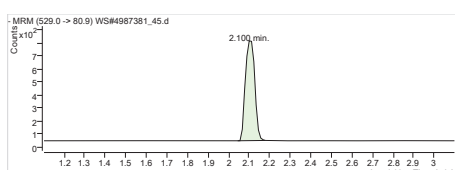
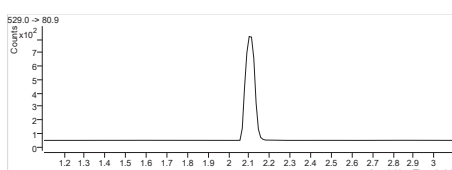
13C2-PFDoA
RT (Exp. RT): 615.0 -> 569.9
Calc. conc. 2.311 (2.311)
Area ratio: 101.84 µg/Kg
Sample type: 0.30157
CC



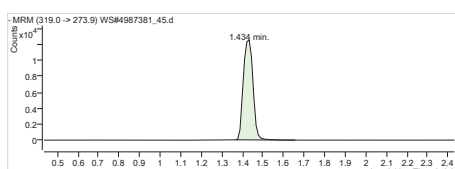
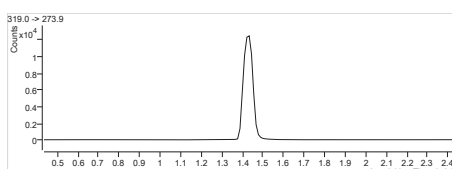
13C2-PFTeDA
RT (Exp. RT): 715.0 -> 669.9
Calc. conc. 2.455 (2.455)
Area ratio: 96.61 µg/Kg
Sample type: 0.35482
CC



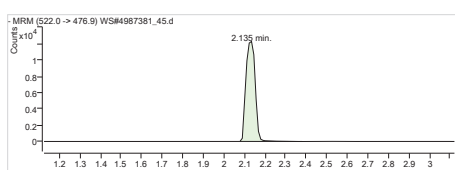
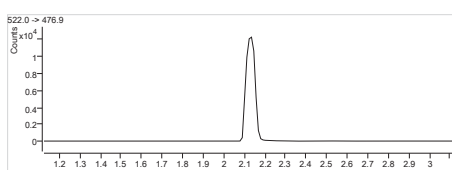
13C2-6:2-FTS
RT (Exp. RT): 429.0 -> 80.9
Calc. conc. 1.835 (1.835)
Area ratio: 94.12 µg/Kg
Sample type: 0.05895
CC



13C2-8:2 FTS
RT (Exp. RT): 529.0 -> 80.9
Calc. conc. 2.100 (2.100)
Area ratio: 96.30 µg/Kg
Sample type: 0.06057
CC



13C6-PFHxA
RT (Exp. RT): 319.0 -> 273.9
Calc. conc. 1.434 (1.434)
Area ratio: 129.39 µg/Kg
Sample type: 0
CC

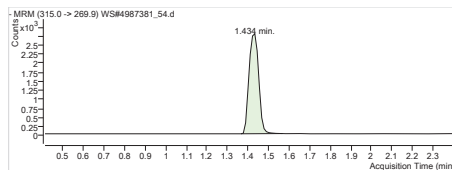
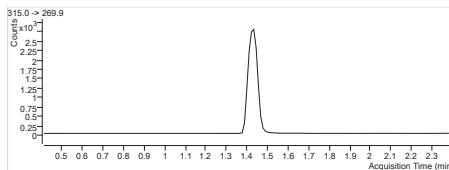


13C9-PFDA
RT (Exp. RT): 522.0 -> 476.9
Calc. conc. 2.135 (2.124)
Area ratio: 132.95 µg/Kg
Sample type: 0
CC

Sample Name	CCV	Instrument	LCMS04
Data File	WS#4987381_54.d	Operator	M_G
Sample Type	CC	Dilution	1.33
Acq. Method	PFC_Soil.m	Position	P2-A5
Acq. Date	2017/05/20 7:24:50 AM	Injection Volume	Per Method
Sample Annotation	-		

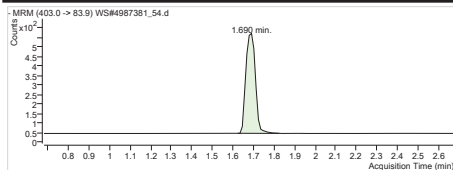
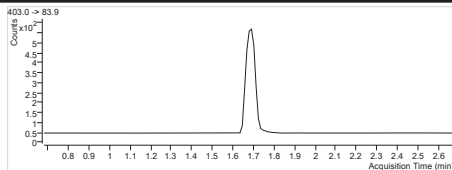
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	9064	1.43	1 µg/Kg		
MPFHxS	1689	1.69	1 µg/Kg		
MPFHpA	10638	1.69	1 µg/Kg		
MPFOA	10044	1.87	1 µg/Kg		
MPFOS	2285	1.98	1 µg/Kg		
MPFNA	10558	2.01	1 µg/Kg		
MPFDA	9010	2.12	1 µg/Kg		
MPFUnA	10002	2.22	1 µg/Kg		
MPFDoA	10917	2.31	1 µg/Kg		
MPFTeDA	13907	2.46	1 µg/Kg		
M2 6:2 FTS	2447	1.84	1 µg/Kg		
M2 8:2 FTS	2611	2.10	1 µg/Kg		
13C6-PFHxA IS	41692	1.43	1 µg/Kg		
13C9-PFDA IS	39372	2.12	1 µg/Kg		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	11042	1.10	11.30	14.92 µg/Kg	99.29
PFHxA 1	45049	1.43	11.30	16.12 µg/Kg	107.23
PFHxS 1	9036	1.68	11.30	15.27 µg/Kg	101.62
PFHpA 1	51464	1.69	11.30	14.66 µg/Kg	97.52
PFOA 1	50507	1.87	11.30	15.62 µg/Kg	103.94
PFOS 1	9070	1.98	11.30	13.79 µg/Kg	91.75
PFNA 1	44277	2.01	11.30	14.31 µg/Kg	95.20
PFDA 1	46188	2.12	11.30	13.81 µg/Kg	91.86
PFUnA 1	47641	2.22	11.30	15.34 µg/Kg	102.09
PFDaA 1	53067	2.31	11.30	15.85 µg/Kg	105.43
PFTTrDA 1	62546	2.39	11.30	15.37 µg/Kg	102.28
PFTeDA 1	58654	2.46	11.30	15.59 µg/Kg	103.74
6:2-FTS 1	11045	1.84	11.30	15.79 µg/Kg	105.06
8:2-FTS 1	10787	2.10	11.30	14.60 µg/Kg	97.12
13C2-PFHxA	9064	1.43	100.00	93.43 µg/Kg	93.43
18O2-PFHxS	1689	1.69	100.00	96.74 µg/Kg	96.74
13C4-PFHpA	10638	1.69	100.00	100.74 µg/Kg	100.74
13C4-PFOA	10044	1.87	100.00	97.11 µg/Kg	97.11
13C4-PFOS	2285	1.98	100.00	107.78 µg/Kg	107.78
13C5-PFNA	10558	2.01	100.00	104.57 µg/Kg	104.57
13C2-PFDA	9010	2.12	100.00	99.07 µg/Kg	99.07
13C2-PFUnA	10002	2.22	100.00	98.33 µg/Kg	98.33
13C2-PFDoA	10917	2.31	100.00	93.63 µg/Kg	93.63
13C2-PFTeDA	13907	2.46	100.00	96.17 µg/Kg	96.17
13C2-6:2-FTS	2447	1.84	100.00	93.70 µg/Kg	93.70
13C2-8:2 FTS	2611	2.10	100.00	99.56 µg/Kg	99.56
13C6-PFHxA	41692	1.43	100.00	132.40 µg/Kg	99.55
13C9-PFDA	39372	2.12	100.00	136.25 µg/Kg	102.44



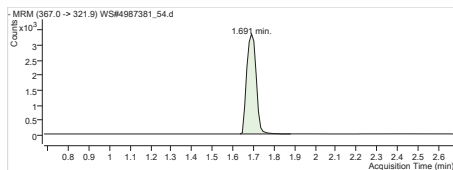
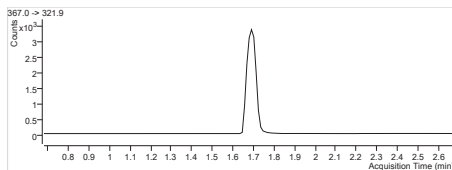
MPFHxA
RT (Exp. RT): 1.434 (1.411)
Concentration: 1 µg/Kg
Sample type: CC

Quantitation Results



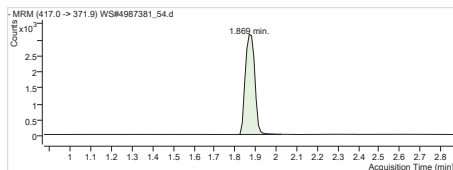
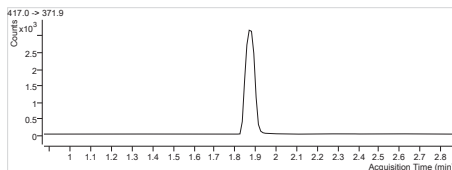
MPFHxS
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
1.690 (1.679)
1 µg/Kg
CC



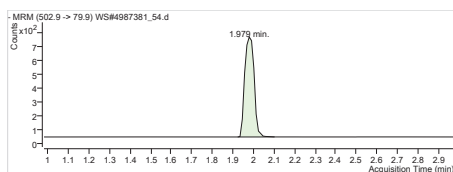
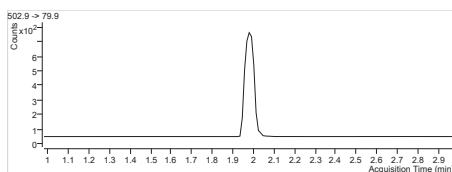
MPFHpA
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
1.691 (1.680)
1 µg/Kg
CC



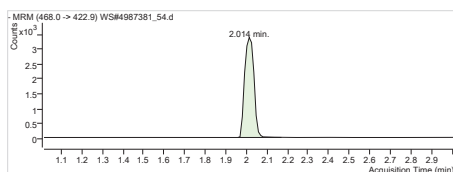
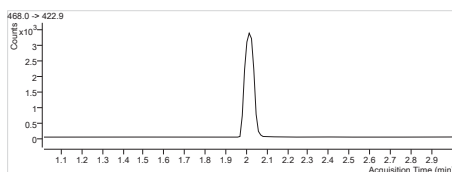
MPFOA
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
1.869 (1.869)
1 µg/Kg
CC



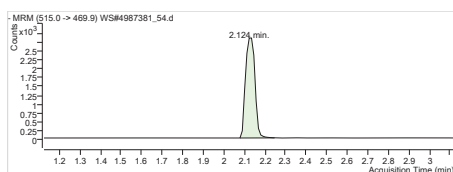
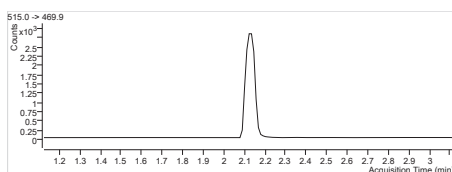
MPFOS
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
1.979 (1.979)
1 µg/Kg
CC



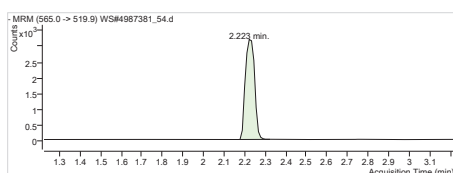
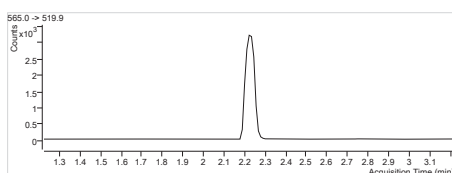
MPFNA
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
2.014 (2.014)
1 µg/Kg
CC



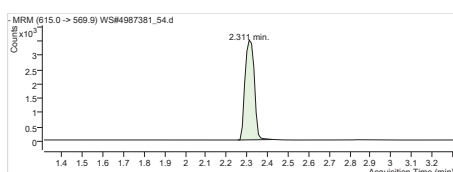
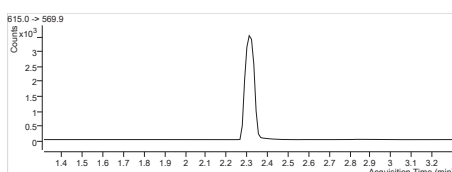
MPFDA
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
2.124 (2.124)
1 µg/Kg
CC



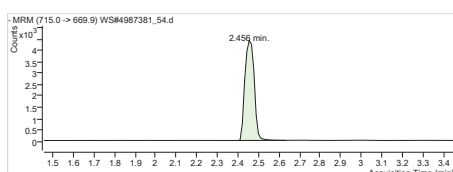
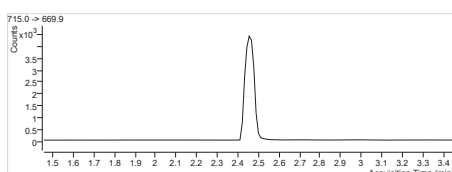
MPFUnA
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
2.223 (2.223)
1 µg/Kg
CC



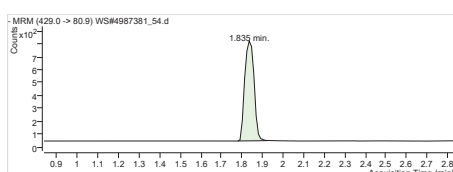
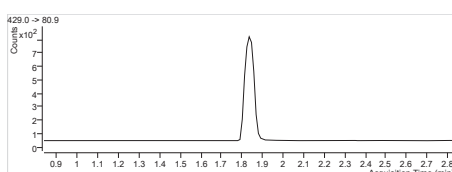
MPFDoA
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
2.311 (2.311)
1 µg/Kg
CC



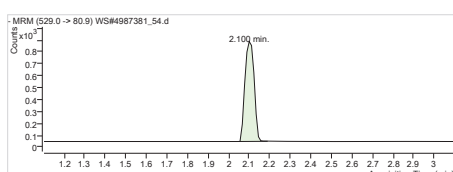
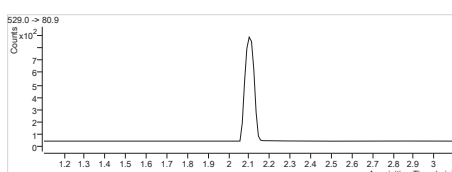
MPFTeDA
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
2.456 (2.455)
1 µg/Kg
CC



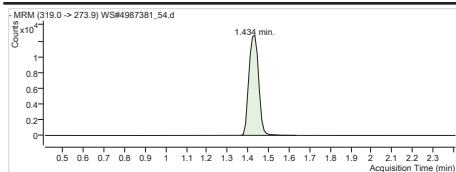
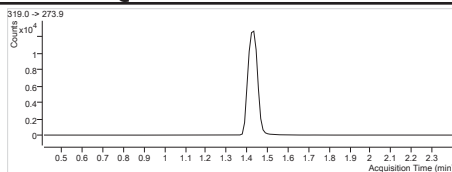
M2 6:2 FTS
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
1.835 (1.835)
1 µg/Kg
CC



M2 8:2 FTS
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
2.100 (2.100)
1 µg/Kg
CC

**13C6-PFHxA IS**

RT (Exp. RT):

Concentration:

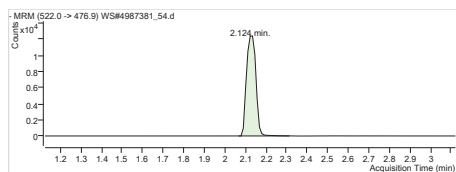
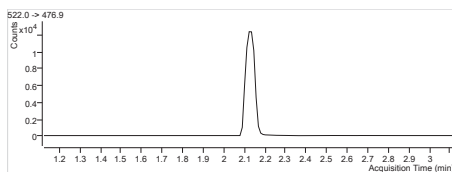
Sample type:

Internal Standard

1.434 (1.411)

1 µg/Kg

CC

**13C9-PFDA IS**

RT (Exp. RT):

Concentration:

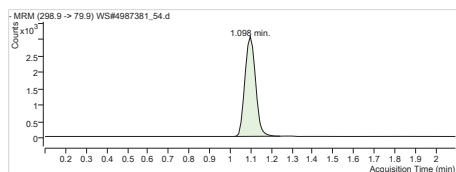
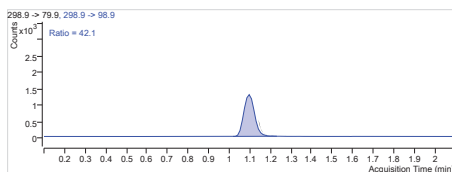
Sample type:

Internal Standard

2.124 (2.124)

1 µg/Kg

CC

**PFBS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

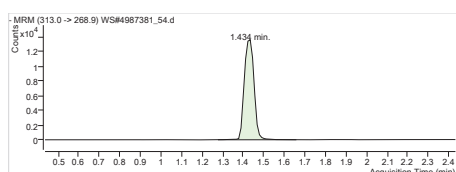
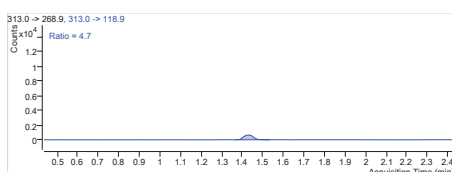
298.9 -> 79.9

1.098 (1.098)

14.92 µg/Kg

6.53760

CC

**PFHxA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

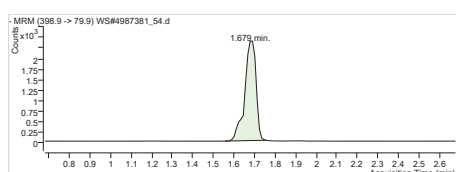
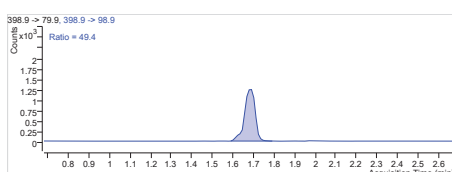
313.0 -> 268.9

1.434 (1.434)

16.12 µg/Kg

4.97010

CC

**PFHxS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

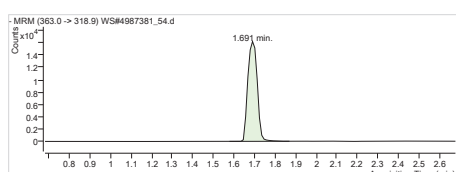
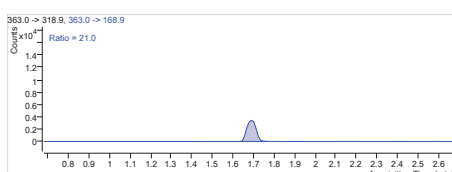
398.9 -> 79.9

1.679 (1.679)

15.27 µg/Kg

5.34991

CC

**PFHpA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

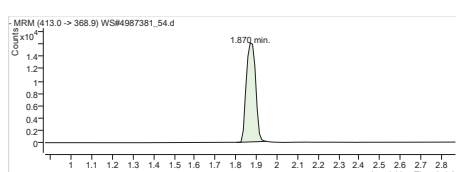
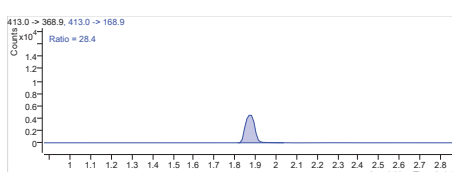
363.0 -> 318.9

1.691 (1.680)

14.66 µg/Kg

4.83775

CC

**PFOA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

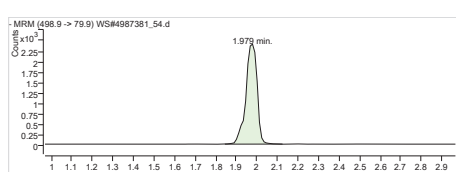
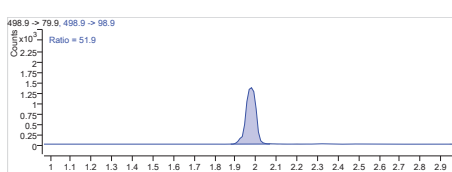
413.0 -> 368.9

1.870 (1.869)

15.62 µg/Kg

5.02857

CC

**PFOS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

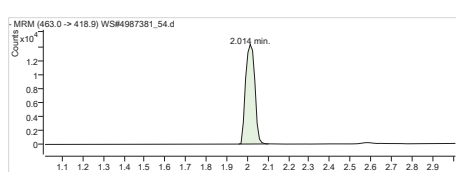
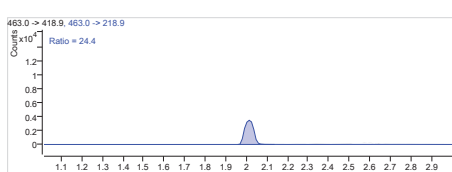
498.9 -> 79.9

1.979 (1.968)

13.79 µg/Kg

3.96937

CC

**PFNA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

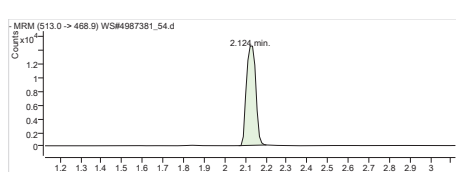
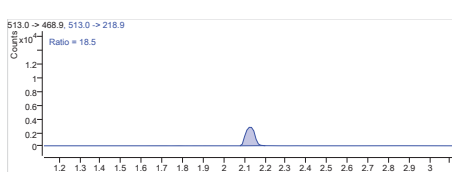
463.0 -> 418.9

2.014 (2.014)

14.31 µg/Kg

4.19369

CC

**PFDA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

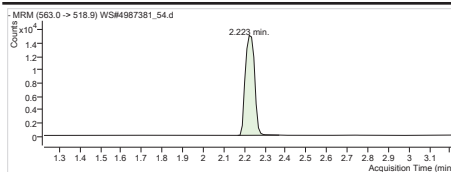
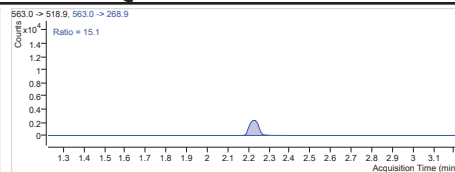
513.0 -> 468.9

2.124 (2.124)

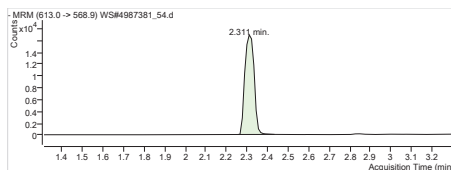
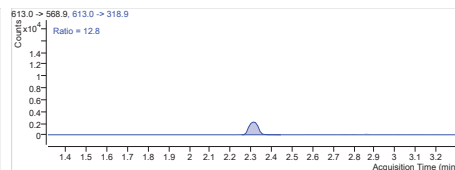
13.81 µg/Kg

5.12630

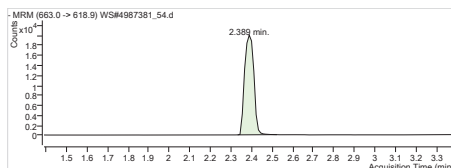
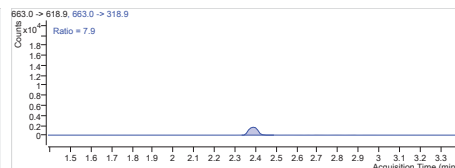
CC



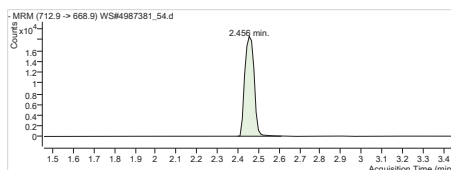
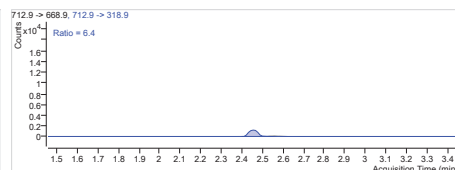
PFUnA 1
RT (Exp. RT): 563.0 -> 518.9
Calc. conc. 2.223 (2.223)
Area ratio: 15.34 µg/Kg
Sample type: 4.76315
CC



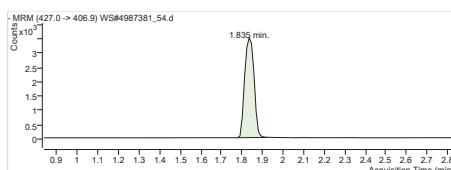
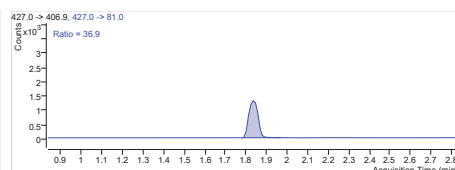
PFDaA 1
RT (Exp. RT): 613.0 -> 568.9
Calc. conc. 2.311 (2.311)
Area ratio: 15.85 µg/Kg
Sample type: 4.86095
CC



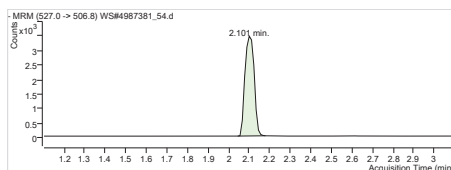
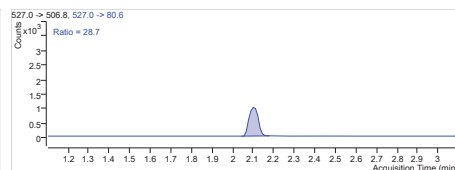
PFTrDa 1
RT (Exp. RT): 663.0 -> 618.9
Calc. conc. 2.389 (2.389)
Area ratio: 15.37 µg/Kg
Sample type: 4.49745
CC



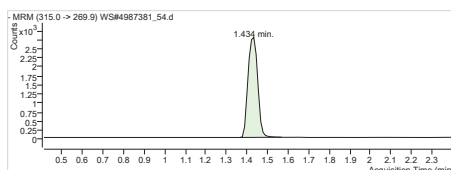
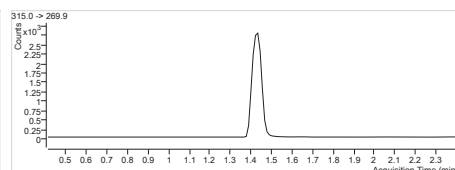
PFTeDa 1
RT (Exp. RT): 712.9 -> 668.9
Calc. conc. 2.456 (2.456)
Area ratio: 15.59 µg/Kg
Sample type: 4.21759
CC



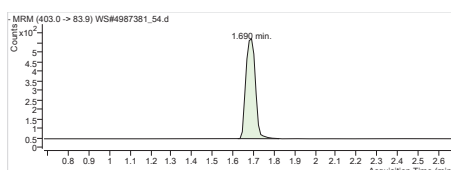
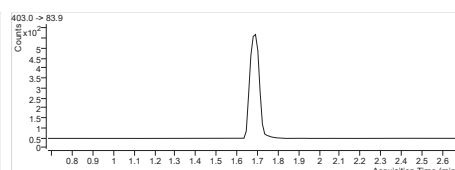
6:2-FTS 1
RT (Exp. RT): 427.0 -> 406.9
Calc. conc. 1.835 (1.835)
Area ratio: 15.79 µg/Kg
Sample type: 4.51369
CC



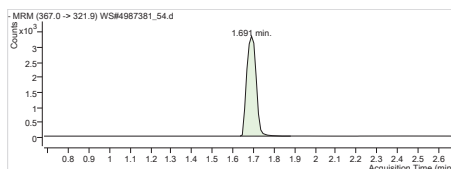
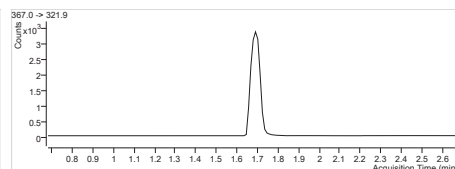
8:2-FTS 1
RT (Exp. RT): 527.0 -> 506.8
Calc. conc. 2.101 (2.101)
Area ratio: 14.60 µg/Kg
Sample type: 4.13137
CC



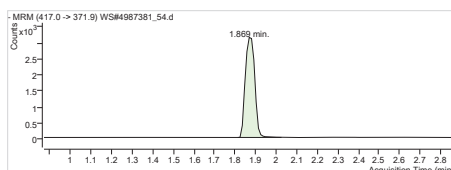
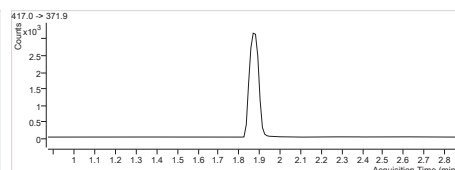
13C2-PFHxA
RT (Exp. RT): 315.0 -> 269.9
Calc. conc. 1.434 (1.411)
Area ratio: 93.43 µg/Kg
Sample type: 0.21740
CC



18O2-PFHxS
RT (Exp. RT): 403.0 -> 83.9
Calc. conc. 1.690 (1.679)
Area ratio: 96.74 µg/Kg
Sample type: 0.04051
CC

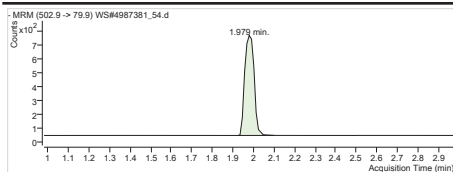
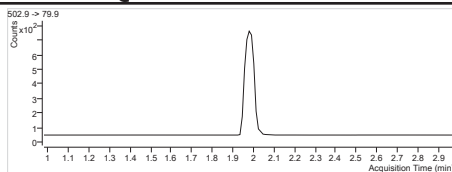


13C4-PFHpA
RT (Exp. RT): 367.0 -> 321.9
Calc. conc. 1.691 (1.680)
Area ratio: 100.74 µg/Kg
Sample type: 0.25516
CC

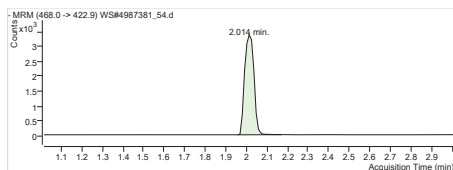
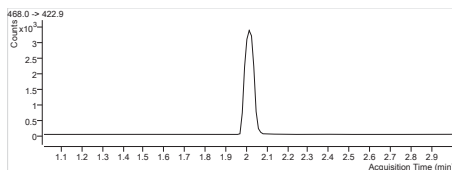


13C4-PFOA
RT (Exp. RT): 417.0 -> 371.9
Calc. conc. 1.869 (1.869)
Area ratio: 97.11 µg/Kg
Sample type: 0.24091
CC

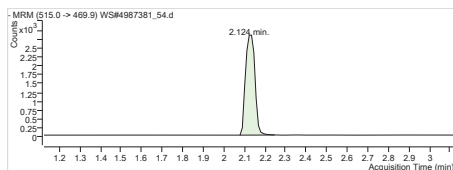
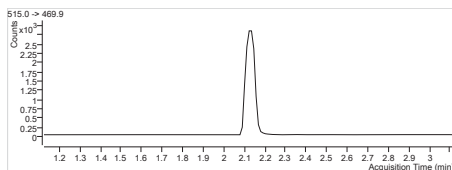
Quantitation Results



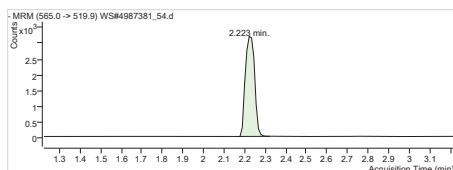
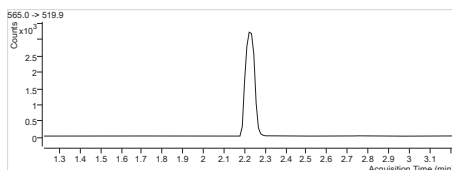
13C4-PFOS
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 107.78 µg/Kg
Area ratio: 0.05481
Sample type: CC



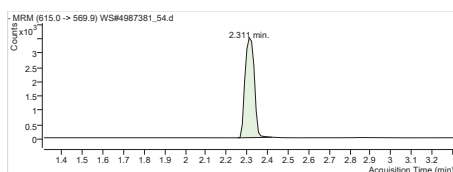
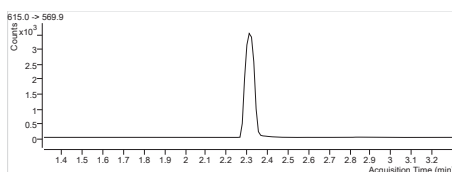
13C5-PFNA
RT (Exp. RT): 2.014 (2.014)
Calc. conc. 104.57 µg/Kg
Area ratio: 0.25324
Sample type: CC



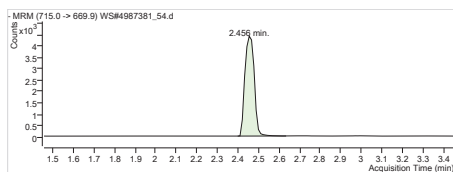
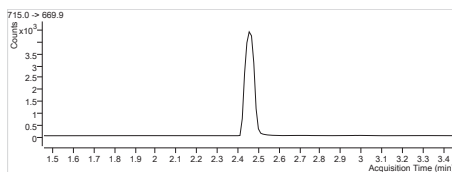
13C2-PFDA
RT (Exp. RT): 2.124 (2.124)
Calc. conc. 99.07 µg/Kg
Area ratio: 0.22884
Sample type: CC



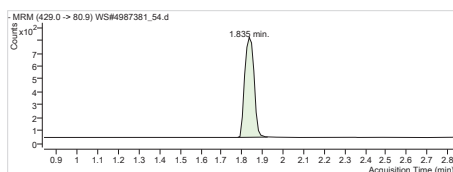
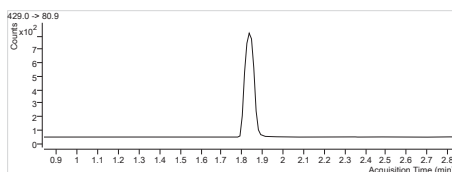
13C2-PFUnA
RT (Exp. RT): 2.223 (2.223)
Calc. conc. 98.33 µg/Kg
Area ratio: 0.25404
Sample type: CC



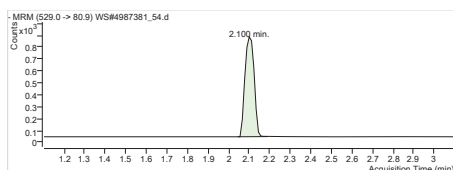
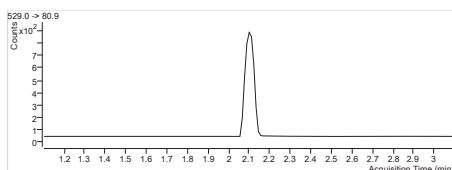
13C2-PFDoA
RT (Exp. RT): 2.311 (2.311)
Calc. conc. 93.63 µg/Kg
Area ratio: 0.27728
Sample type: CC



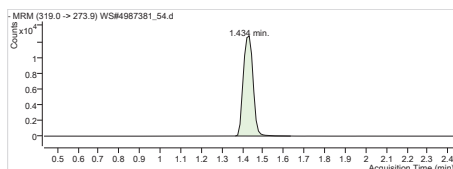
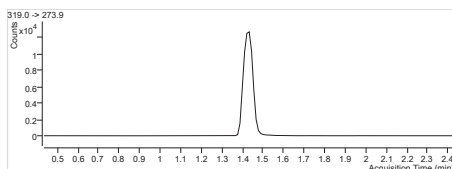
13C2-PFTeDA
RT (Exp. RT): 2.456 (2.455)
Calc. conc. 96.17 µg/Kg
Area ratio: 0.35322
Sample type: CC



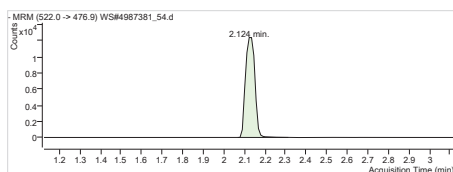
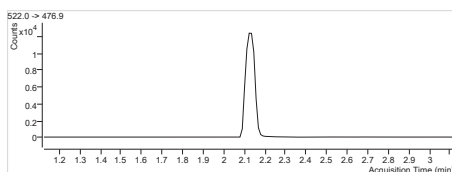
13C2-6:2-FTS
RT (Exp. RT): 1.835 (1.835)
Calc. conc. 93.70 µg/Kg
Area ratio: 0.05869
Sample type: CC



13C2-8:2 FTS
RT (Exp. RT): 2.100 (2.100)
Calc. conc. 99.56 µg/Kg
Area ratio: 0.06263
Sample type: CC



13C6-PFHxA
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 132.40 µg/Kg
Area ratio: 0
Sample type: CC

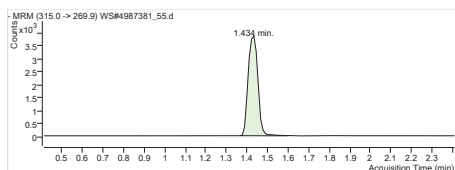
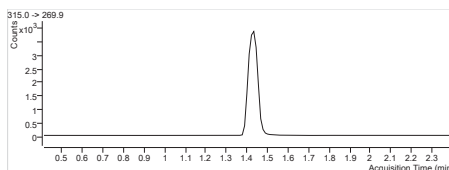


13C9-PFDA
RT (Exp. RT): 2.124 (2.124)
Calc. conc. 136.25 µg/Kg
Area ratio: 0
Sample type: CC

Batch Path	T:\lcms4\PFC\20170519\WS#4987381\QuantResults\PFC_Soil_170519_WS#4987381_CTLabs		
Sample Name	ISC	Instrument	LCMS04
Data File	WS#4987381_55.d	Operator	AD
Sample Type	CC	Dilution	1.33
Acq. Method	PFC_Soil.m	Position	P2-A2
Acq. Date	2017/05/23 2:10:45 PM	Injection Volume	Per Method
Sample Annotation	-		

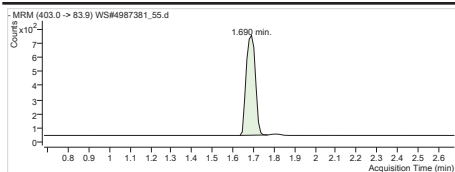
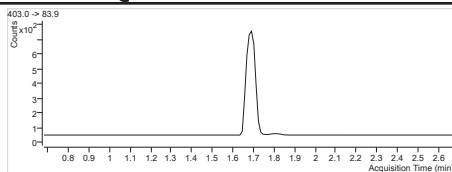
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	12528	1.43	1 µg/Kg		
MPFHxS	2210	1.69	1 µg/Kg		
MPFHpA	13595	1.69	1 µg/Kg		
MPFOA	12469	1.87	1 µg/Kg		
MPFOS	2623	1.98	1 µg/Kg		
MPFNA	12611	2.01	1 µg/Kg		
MPFDA	9958	2.14	1 µg/Kg		
MPFUnA	11790	2.23	1 µg/Kg		
MPFDoA	13447	2.31	1 µg/Kg		
MPFTeDA	16223	2.46	1 µg/Kg		
M2 6:2 FTS	3212	1.84	1 µg/Kg		
M2 8:2 FTS	3105	2.10	1 µg/Kg		
13C6-PFHxA IS	52291	1.43	1 µg/Kg		
13C9-PFDA IS	45678	2.13	1 µg/Kg		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	818	1.10	0.75	1.13 µg/Kg	113.53
PFHxA 1	3583	1.43	0.75	1.06 µg/Kg	106.08
PFHxS 1	604	1.68	0.75	0.92 µg/Kg	92.01
PFHpA 1	3448	1.69	0.75	0.99 µg/Kg	99.40
PFOA 1	3819	1.87	0.75	1.05 µg/Kg	104.83
PFOS 1	664	1.98	0.75	1.19 µg/Kg	119.70
PFNA 1	3381	2.01	0.75	1.05 µg/Kg	105.56
PFDA 1	3517	2.14	0.75	1.12 µg/Kg	112.54
PFUnA 1	3188	2.23	0.75	0.94 µg/Kg	94.18
PFDaA 1	3882	2.31	0.75	1.08 µg/Kg	108.57
PFTrDA 1	4655	2.39	0.75	1.11 µg/Kg	110.80
PFTeDA 1	4115	2.46	0.75	1.02 µg/Kg	102.04
6:2-FTS 1	878	1.84	0.75	0.83 µg/Kg	83.70
8:2-FTS 1	685	2.10	0.75	0.89 µg/Kg	89.16
13C2-PFHxA	12528	1.43	100.00	102.96 µg/Kg	102.96
18O2-PFHxS	2210	1.69	100.00	100.93 µg/Kg	100.93
13C4-PFHpA	13595	1.69	100.00	102.65 µg/Kg	102.65
13C4-PFOA	12469	1.87	100.00	96.12 µg/Kg	96.12
13C4-PFOS	2623	1.98	100.00	98.64 µg/Kg	98.64
13C5-PFNA	12611	2.01	100.00	99.58 µg/Kg	99.58
13C2-PFDA	9958	2.14	100.00	94.38 µg/Kg	94.38
13C2-PFUnA	11790	2.23	100.00	99.91 µg/Kg	99.91
13C2-PFDoA	13447	2.31	100.00	99.41 µg/Kg	99.41
13C2-PFTeDA	16223	2.46	100.00	96.70 µg/Kg	96.70
13C2-6:2-FTS	3212	1.84	100.00	98.06 µg/Kg	98.06
13C2-8:2 FTS	3105	2.10	100.00	94.40 µg/Kg	94.40
13C6-PFHxA	52291	1.43	100.00	166.06 µg/Kg	124.86
13C9-PFDA	45678	2.13	100.00	158.07 µg/Kg	118.85

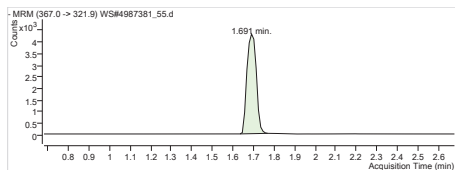
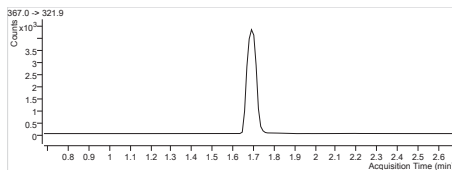


MPFHxA
 RT (Exp. RT): 1.434 (1.411)
 Concentration: 1 µg/Kg
 Sample type: CC

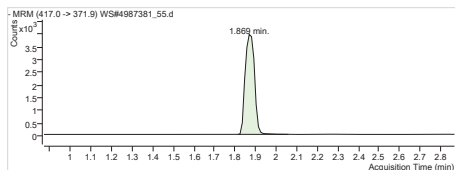
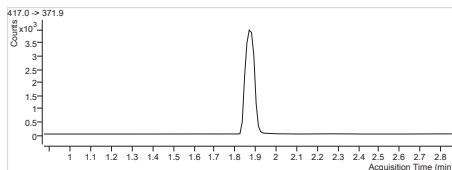
Quantitation Results



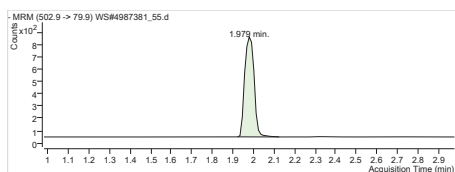
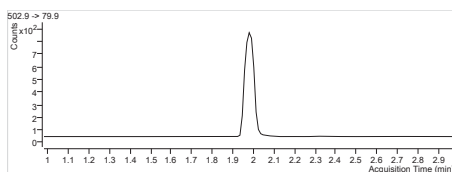
MPFHxS
RT (Exp. RT): 1.690 (1.679)
Concentration: 1 µg/Kg
Sample type: CC



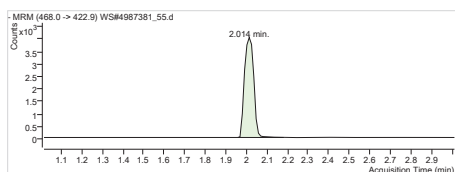
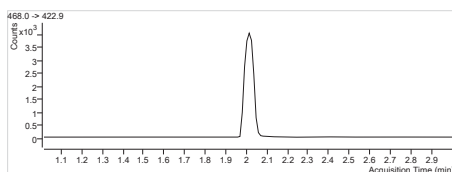
MPFHhPA
RT (Exp. RT): 1.691 (1.680)
Concentration: 1 µg/Kg
Sample type: CC



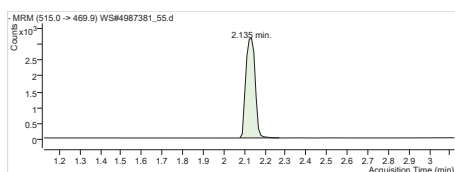
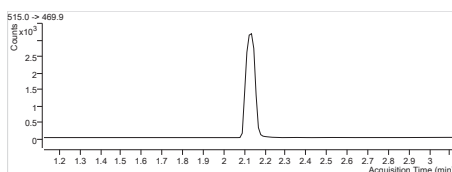
MPFOA
RT (Exp. RT): 1.869 (1.869)
Concentration: 1 µg/Kg
Sample type: CC



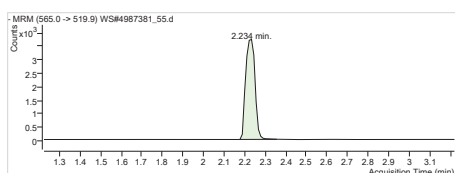
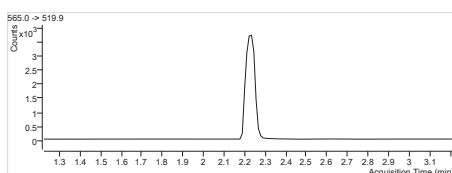
MPFOS
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/Kg
Sample type: CC



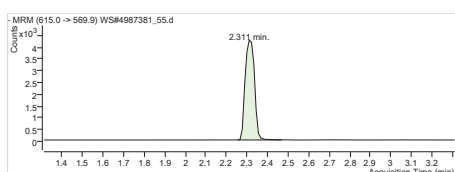
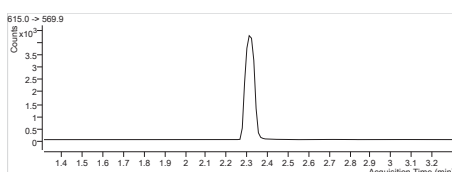
MPFNA
RT (Exp. RT): 2.014 (2.014)
Concentration: 1 µg/Kg
Sample type: CC



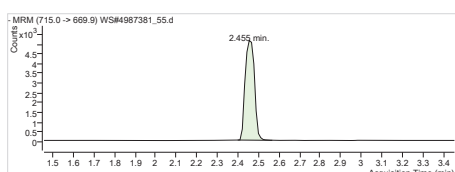
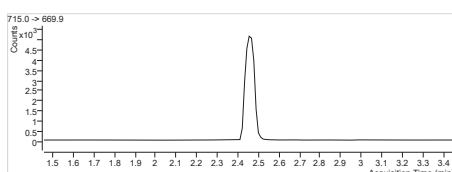
MPFDA
RT (Exp. RT): 2.135 (2.124)
Concentration: 1 µg/Kg
Sample type: CC



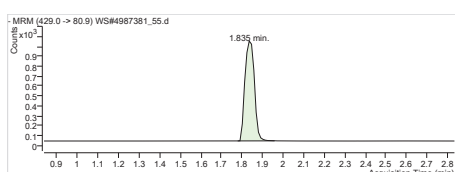
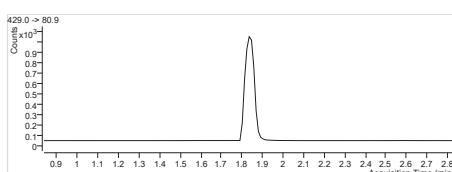
MPFUnA
RT (Exp. RT): 2.234 (2.223)
Concentration: 1 µg/Kg
Sample type: CC



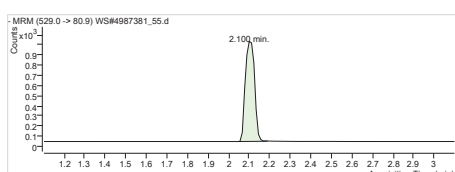
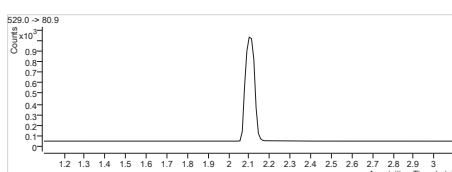
MPFDoA
RT (Exp. RT): 2.311 (2.311)
Concentration: 1 µg/Kg
Sample type: CC



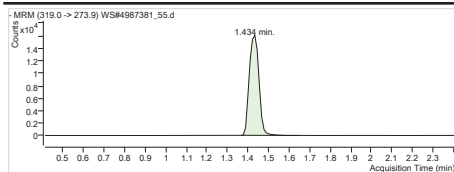
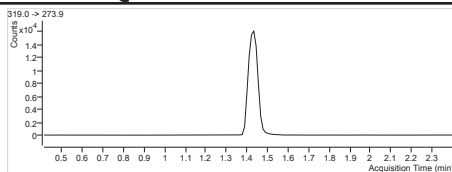
MPFTeDA
RT (Exp. RT): 2.455 (2.455)
Concentration: 1 µg/Kg
Sample type: CC



M2 6:2 FTS
RT (Exp. RT): 1.835 (1.835)
Concentration: 1 µg/Kg
Sample type: CC

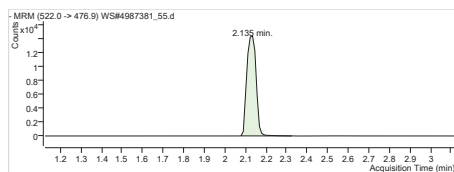
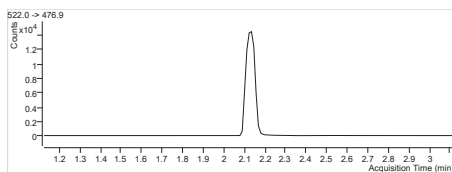


M2 8:2 FTS
RT (Exp. RT): 2.100 (2.100)
Concentration: 1 µg/Kg
Sample type: CC

**13C6-PFHxA IS**

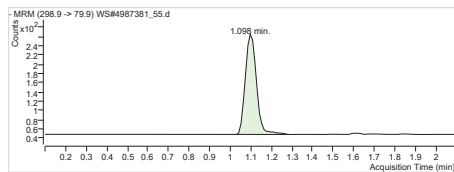
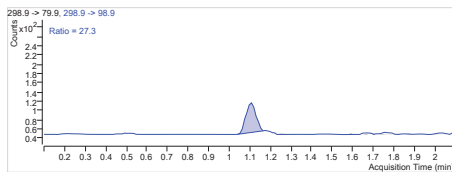
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
1.434 (1.411)
1 µg/Kg
CC

**13C9-PFDA IS**

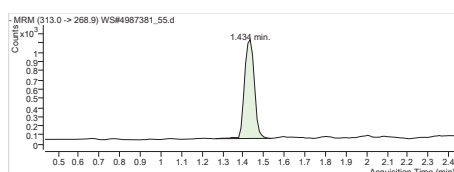
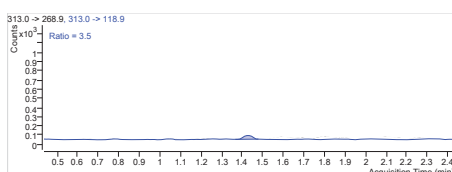
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
2.135 (2.124)
1 µg/Kg
CC

**PFBS 1**

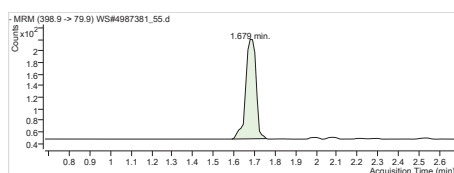
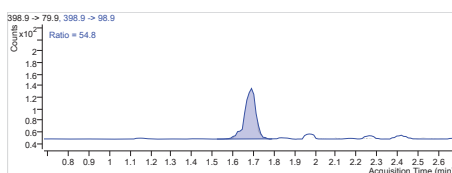
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

298.9 -> 79.9
1.098 (1.098)
1.13 µg/Kg
0.37014
CC

**PFHxA 1**

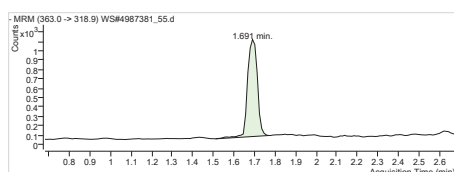
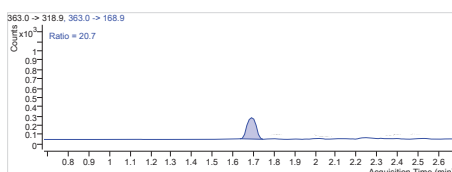
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

313.0 -> 268.9
1.434 (1.434)
1.06 µg/Kg
0.28600
CC

**PFHxS 1**

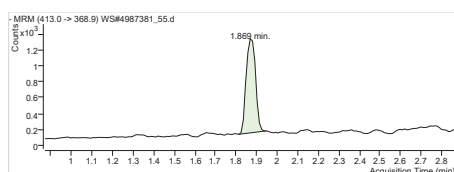
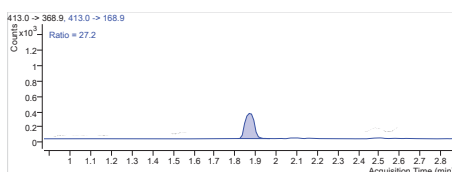
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

398.9 -> 79.9
1.679 (1.679)
0.92 µg/Kg
0.27330
CC

**PFHpA 1**

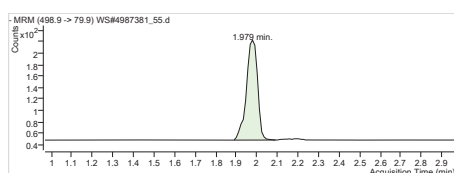
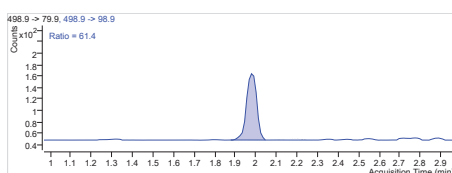
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

363.0 -> 318.9
1.691 (1.680)
0.99 µg/Kg
0.25362
CC

**PFOA 1**

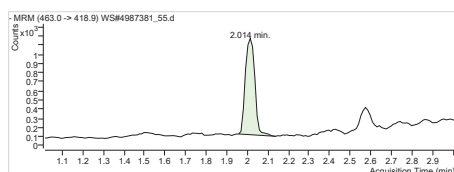
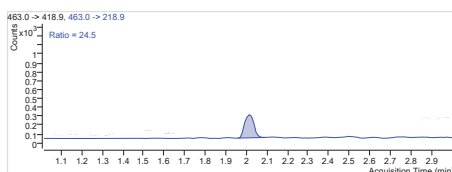
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

413.0 -> 368.9
1.869 (1.869)
1.05 µg/Kg
0.30628
CC

**PFOS 1**

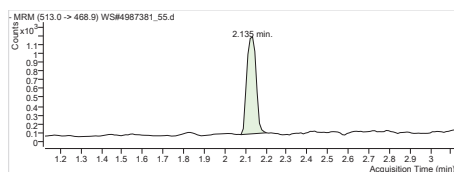
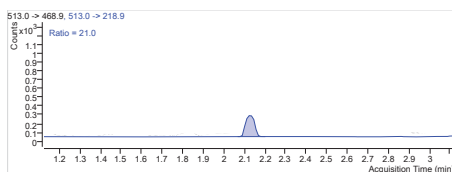
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

498.9 -> 79.9
1.979 (1.968)
1.19 µg/Kg
0.25315
CC

**PFNA 1**

RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

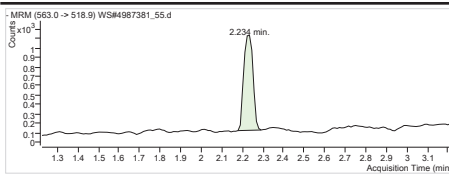
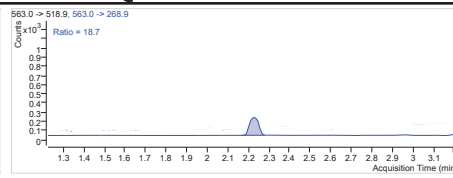
463.0 -> 418.9
2.014 (2.014)
1.05 µg/Kg
0.26810
CC

**PFDA 1**

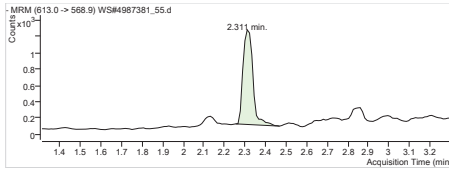
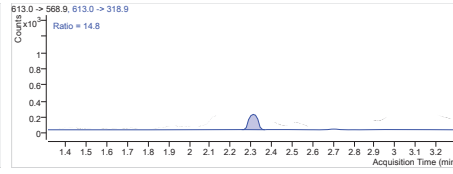
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

513.0 -> 468.9
2.135 (2.124)
1.12 µg/Kg
0.35318
CC

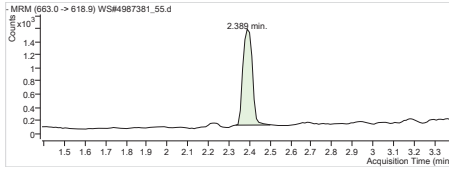
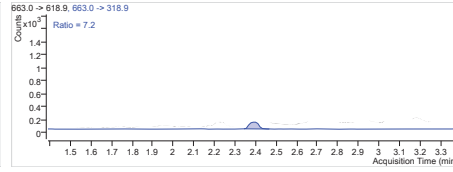
Quantitation Results



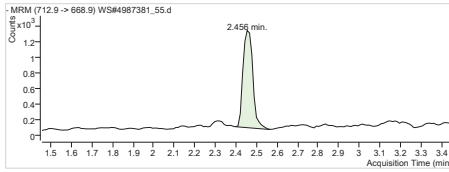
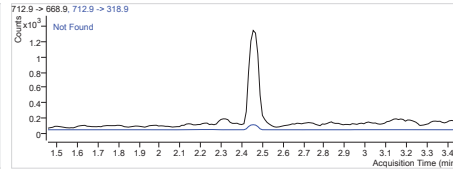
PFUnA 1
 RT (Exp. RT): 563.0 -> 518.9
 Calc. conc. 2.234 (2.223)
 Area ratio: 0.94 µg/Kg
 Sample type: 0.27040
 CC



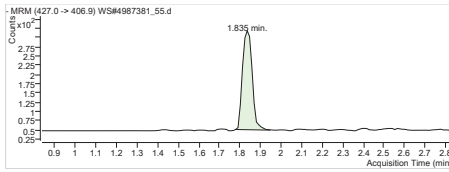
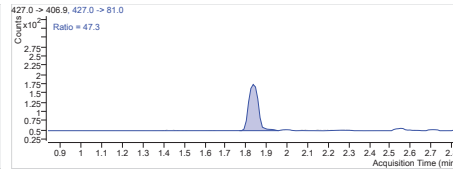
PFDa 1
 RT (Exp. RT): 613.0 -> 568.9
 Calc. conc. 2.311 (2.311)
 Area ratio: 1.08 µg/Kg
 Sample type: 0.28869
 CC



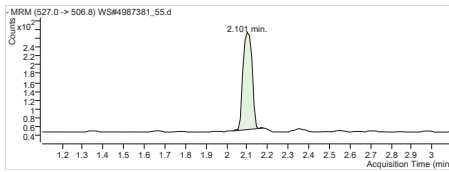
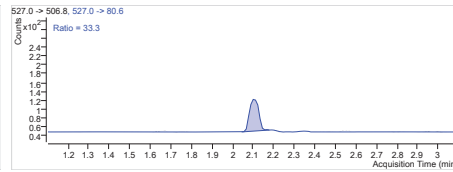
PFTraD 1
 RT (Exp. RT): 663.0 -> 618.9
 Calc. conc. 2.389 (2.389)
 Area ratio: 1.11 µg/Kg
 Sample type: 0.28694
 CC



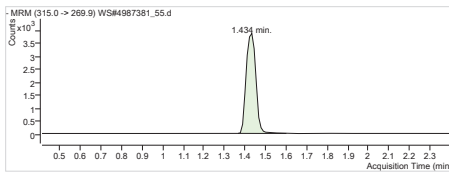
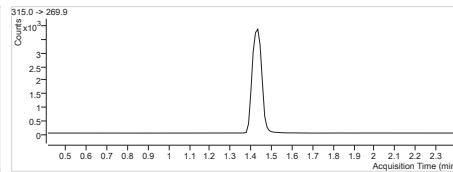
PFTeDa 1
 RT (Exp. RT): 712.9 -> 668.9
 Calc. conc. 2.456 (2.456)
 Area ratio: 1.02 µg/Kg
 Sample type: 0.25365
 CC



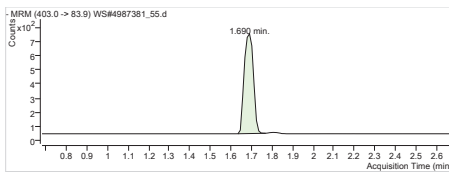
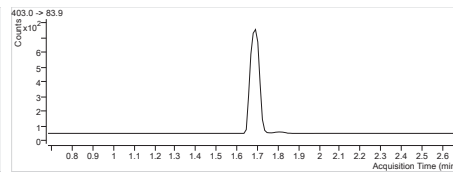
6:2-FTS 1
 RT (Exp. RT): 427.0 -> 406.9
 Calc. conc. 1.835 (1.835)
 Area ratio: 0.83 µg/Kg
 Sample type: 0.27335
 CC



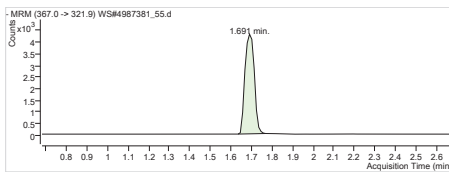
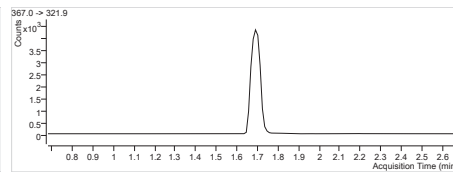
8:2-FTS 1
 RT (Exp. RT): 527.0 -> 506.8
 Calc. conc. 2.101 (2.101)
 Area ratio: 0.89 µg/Kg
 Sample type: 0.22061
 CC



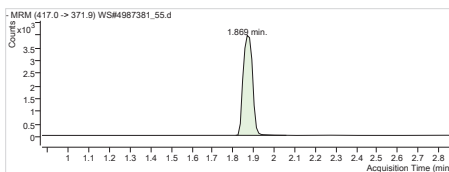
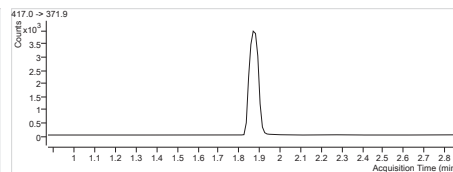
13C2-PFHxA
 RT (Exp. RT): 315.0 -> 269.9
 Calc. conc. 1.434 (1.411)
 Area ratio: 102.96 µg/Kg
 Sample type: 0.23958
 CC



18O2-PFHxS
 RT (Exp. RT): 403.0 -> 83.9
 Calc. conc. 1.690 (1.679)
 Area ratio: 100.93 µg/Kg
 Sample type: 0.04226
 CC

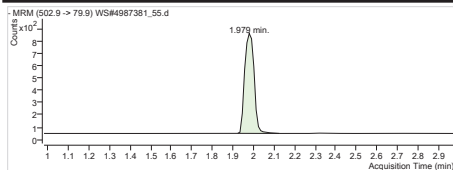
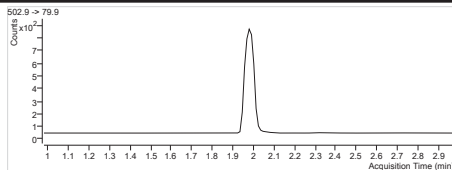


13C4-PFHpA
 RT (Exp. RT): 367.0 -> 321.9
 Calc. conc. 1.691 (1.680)
 Area ratio: 102.65 µg/Kg
 Sample type: 0.25999
 CC

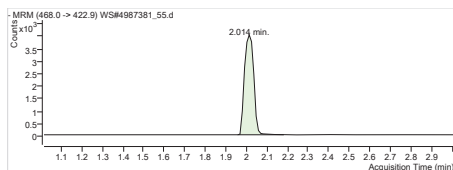
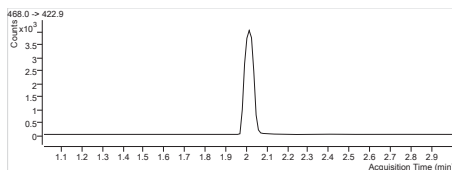


13C4-PFOA
 RT (Exp. RT): 417.0 -> 371.9
 Calc. conc. 1.869 (1.869)
 Area ratio: 96.12 µg/Kg
 Sample type: 0.23845
 CC

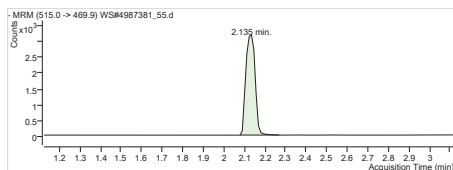
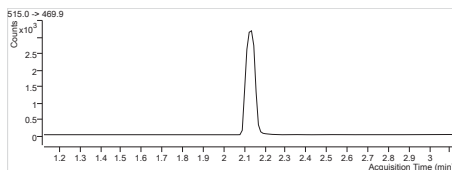
Quantitation Results



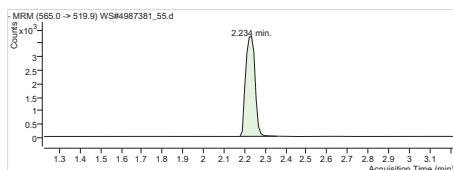
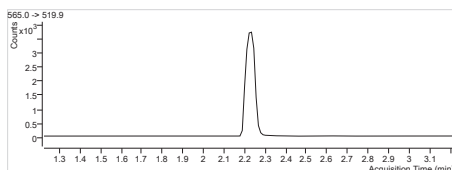
13C4-PFOS
RT (Exp. RT): 502.9 -> 79.9
Calc. conc. 1.979 (1.979)
Area ratio: 98.64 µg/Kg
Sample type: 0.05016
CC



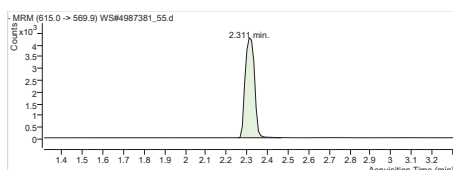
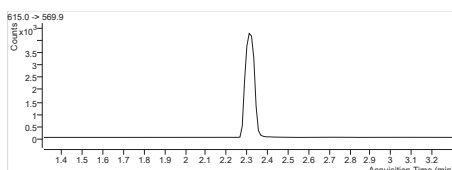
13C5-PFNA
RT (Exp. RT): 468.0 -> 422.9
Calc. conc. 2.014 (2.014)
Area ratio: 99.58 µg/Kg
Sample type: 0.24117
CC



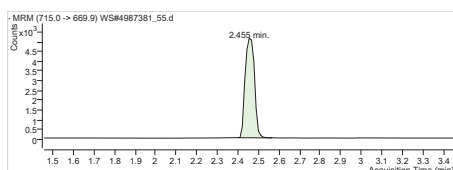
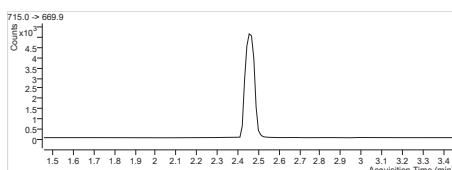
13C2-PFDA
RT (Exp. RT): 515.0 -> 469.9
Calc. conc. 2.135 (2.124)
Area ratio: 94.38 µg/Kg
Sample type: 0.21800
CC



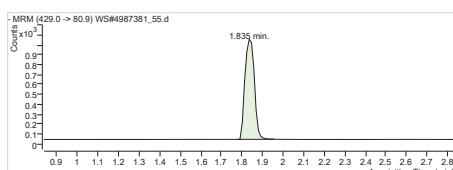
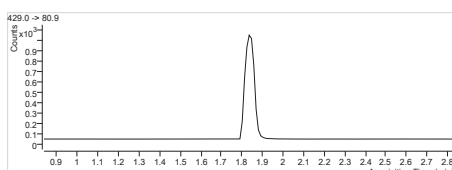
13C2-PFUnA
RT (Exp. RT): 565.0 -> 519.9
Calc. conc. 2.234 (2.223)
Area ratio: 99.91 µg/Kg
Sample type: 0.25811
CC



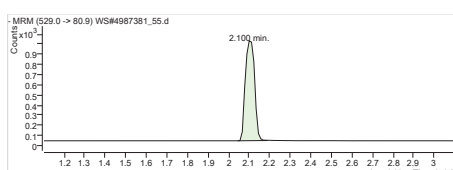
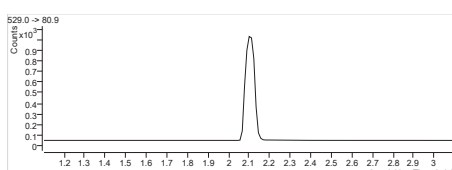
13C2-PFDoA
RT (Exp. RT): 615.0 -> 569.9
Calc. conc. 2.311 (2.311)
Area ratio: 99.41 µg/Kg
Sample type: 0.29439
CC



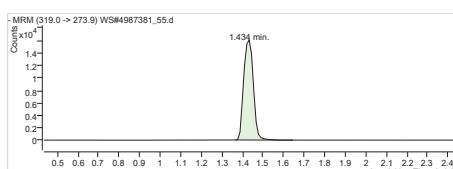
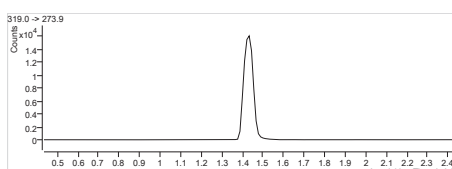
13C2-PFTeDA
RT (Exp. RT): 715.0 -> 669.9
Calc. conc. 2.455 (2.455)
Area ratio: 96.70 µg/Kg
Sample type: 0.35516
CC



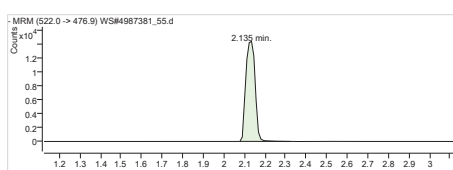
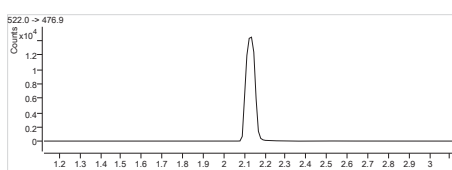
13C2-6:2-FTS
RT (Exp. RT): 429.0 -> 80.9
Calc. conc. 1.835 (1.835)
Area ratio: 98.06 µg/Kg
Sample type: 0.06143
CC



13C2-8:2 FTS
RT (Exp. RT): 529.0 -> 80.9
Calc. conc. 2.100 (2.100)
Area ratio: 94.40 µg/Kg
Sample type: 0.05938
CC



13C6-PFHxA
RT (Exp. RT): 319.0 -> 273.9
Calc. conc. 1.434 (1.434)
Area ratio: 166.06 µg/Kg
Sample type: 0
CC



13C9-PFDA
RT (Exp. RT): 522.0 -> 476.9
Calc. conc. 2.135 (2.124)
Area ratio: 158.07 µg/Kg
Sample type: 0
CC

Batch Path

T:\lcms4\PFC\20170519\WS#4987381\QuantResults\PFC_Soil_170519_WS#4987381_CTLabs

Sample Name

CCV

Instrument

LCMS04

Data File

WS#4987381_60.d

Operator

AD

Sample Type

CC

Dilution

1.33

Acq. Method

PFC_Soil.m

Position

P2-A5

Acq. Date

2017/05/23 2:35:14 PM

Injection Volume

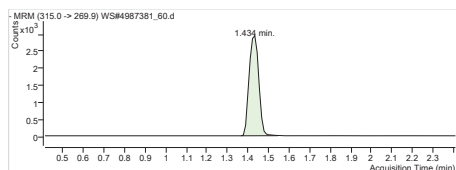
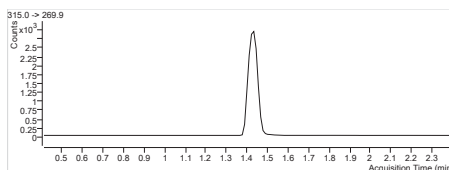
Per Method

Sample Annotation

-

ISTD Compounds	Response	RT	Target conc.		
MPFHxA	9493	1.43	1 µg/Kg		
MPFHxS	1707	1.69	1 µg/Kg		
MPFHpA	10212	1.69	1 µg/Kg		
MPFOA	9422	1.87	1 µg/Kg		
MPFOS	2240	1.98	1 µg/Kg		
MPFNA	9305	2.01	1 µg/Kg		
MPFDA	8198	2.12	1 µg/Kg		
MPFUnA	8871	2.22	1 µg/Kg		
MPFDoA	10146	2.31	1 µg/Kg		
MPFTeDA	12908	2.46	1 µg/Kg		
M2 6:2 FTS	2239	1.84	1 µg/Kg		
M2 8:2 FTS	2540	2.10	1 µg/Kg		
13C6-PFHxA IS	41318	1.43	1 µg/Kg		
13C9-PFDA IS	35541	2.12	1 µg/Kg		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	11926	1.10	11.30	15.93 µg/Kg	105.97
PFHxA 1	46801	1.43	11.30	15.99 µg/Kg	106.37
PFHxS 1	9563	1.69	11.30	15.99 µg/Kg	106.37
PFHpA 1	51941	1.69	11.30	15.40 µg/Kg	102.45
PFOA 1	49087	1.87	11.30	16.18 µg/Kg	107.67
PFOS 1	8927	1.98	11.30	13.84 µg/Kg	92.11
PFNA 1	43471	2.01	11.30	15.92 µg/Kg	105.94
PFDA 1	44666	2.12	11.30	14.66 µg/Kg	97.55
PFUnA 1	43912	2.22	11.30	15.94 µg/Kg	106.07
PFDaA 1	47343	2.31	11.30	15.22 µg/Kg	101.25
PFTTrDA 1	57046	2.39	11.30	15.11 µg/Kg	100.52
PFTeDA 1	52490	2.46	11.30	15.04 µg/Kg	100.04
6:2-FTS 1	10882	1.84	11.30	17.01 µg/Kg	113.19
8:2-FTS 1	9963	2.10	11.30	13.86 µg/Kg	92.25
13C2-PFHxA	9493	1.43	100.00	98.74 µg/Kg	98.74
18O2-PFHxS	1707	1.69	100.00	98.66 µg/Kg	98.66
13C4-PFHpA	10212	1.69	100.00	97.58 µg/Kg	97.58
13C4-PFOA	9422	1.87	100.00	91.92 µg/Kg	91.92
13C4-PFOS	2240	1.98	100.00	106.61 µg/Kg	106.61
13C5-PFNA	9305	2.01	100.00	92.99 µg/Kg	92.99
13C2-PFDA	8198	2.12	100.00	99.86 µg/Kg	99.86
13C2-PFUnA	8871	2.22	100.00	96.61 µg/Kg	96.61
13C2-PFDoA	10146	2.31	100.00	96.40 µg/Kg	96.40
13C2-PFTeDA	12908	2.46	100.00	98.88 µg/Kg	98.88
13C2-6:2-FTS	2239	1.84	100.00	86.51 µg/Kg	86.51
13C2-8:2 FTS	2540	2.10	100.00	97.73 µg/Kg	97.73
13C6-PFHxA	41318	1.43	100.00	131.21 µg/Kg	98.66
13C9-PFDA	35541	2.12	100.00	122.99 µg/Kg	92.48



MPFHxA

RT (Exp. RT):

Internal Standard

1.434 (1.411)

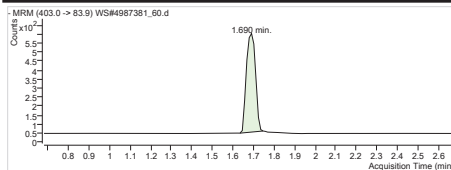
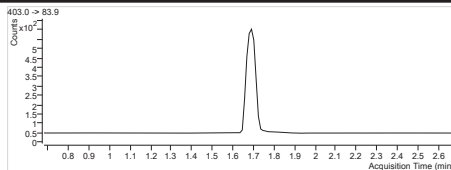
Concentration:

1 µg/Kg

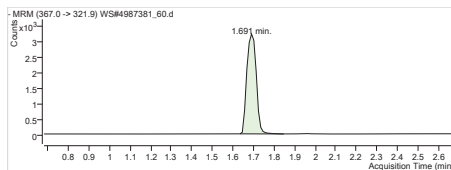
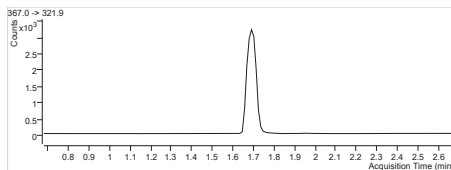
Sample type:

CC

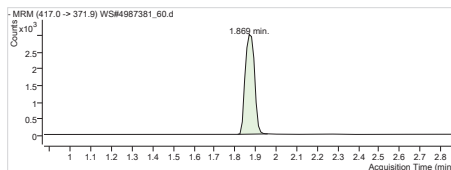
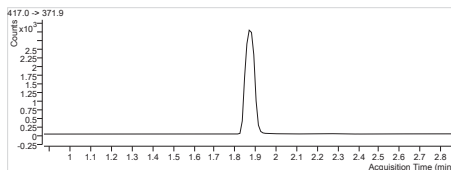
Quantitation Results



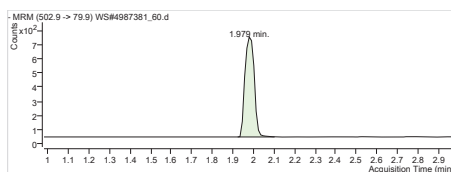
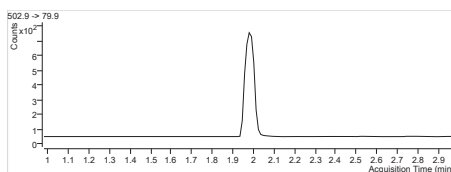
MPFHxS
 RT (Exp. RT): 1.690 (1.679)
 Concentration: 1 µg/Kg
 Sample type: CC



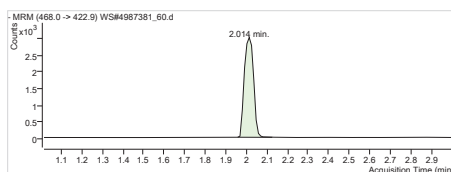
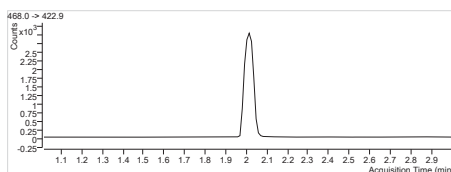
MPFHpA
 RT (Exp. RT): 1.691 (1.680)
 Concentration: 1 µg/Kg
 Sample type: CC



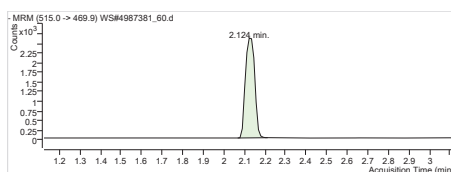
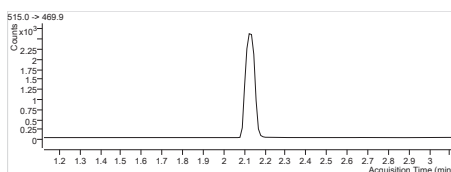
MPFOA
 RT (Exp. RT): 1.869 (1.869)
 Concentration: 1 µg/Kg
 Sample type: CC



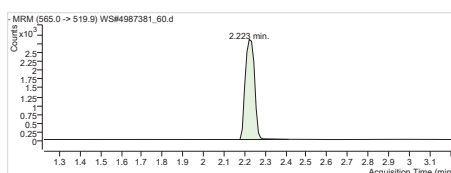
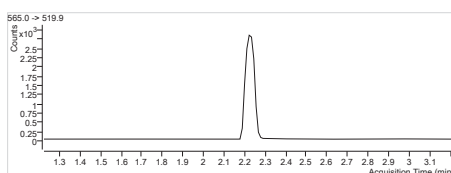
MPFOS
 RT (Exp. RT): 1.979 (1.979)
 Concentration: 1 µg/Kg
 Sample type: CC



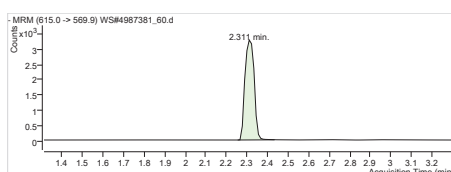
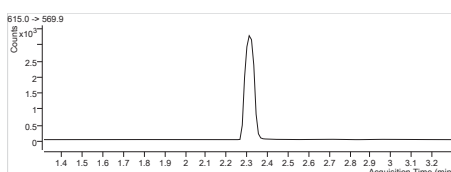
MPFNA
 RT (Exp. RT): 2.014 (2.014)
 Concentration: 1 µg/Kg
 Sample type: CC



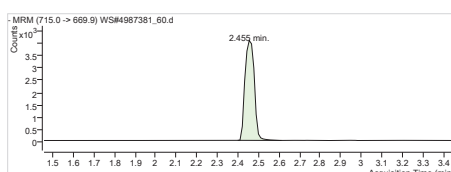
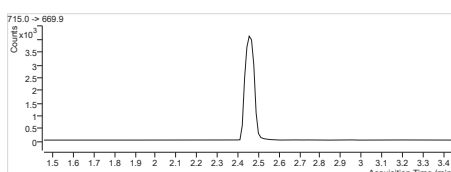
MPFDA
 RT (Exp. RT): 2.124 (2.124)
 Concentration: 1 µg/Kg
 Sample type: CC



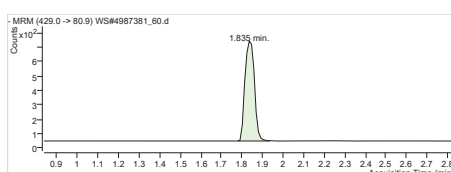
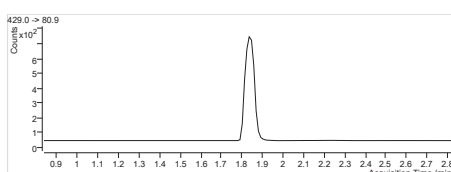
MPFUnA
 RT (Exp. RT): 2.223 (2.223)
 Concentration: 1 µg/Kg
 Sample type: CC



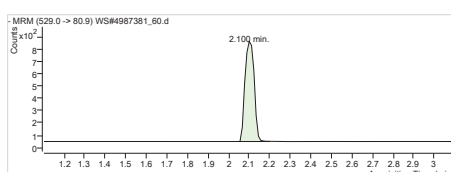
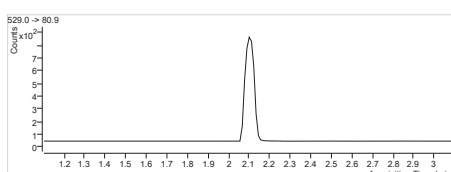
MPFDoA
 RT (Exp. RT): 2.311 (2.311)
 Concentration: 1 µg/Kg
 Sample type: CC



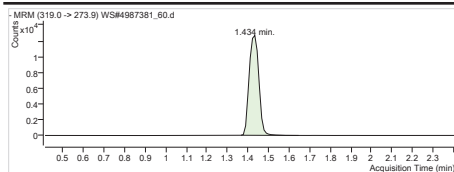
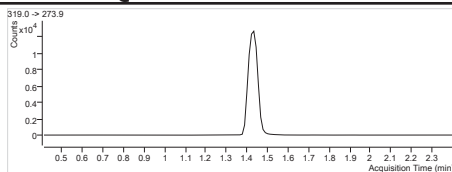
MPFTeDA
 RT (Exp. RT): 2.455 (2.455)
 Concentration: 1 µg/Kg
 Sample type: CC



M2 6:2 FTS
 RT (Exp. RT): 1.835 (1.835)
 Concentration: 1 µg/Kg
 Sample type: CC

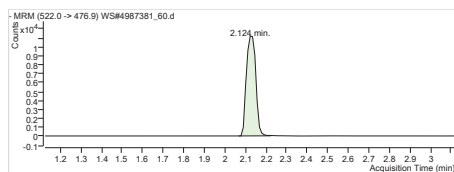
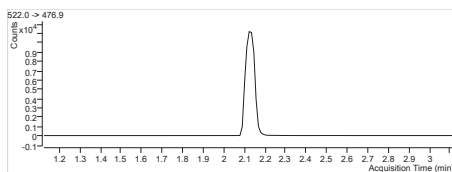


M2 8:2 FTS
 RT (Exp. RT): 2.100 (2.100)
 Concentration: 1 µg/Kg
 Sample type: CC

**13C6-PFHxA IS**

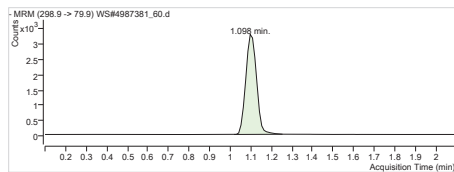
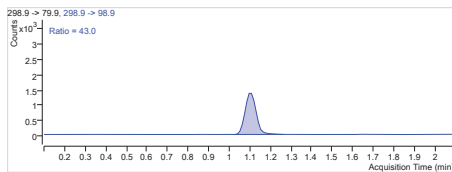
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
1.434 (1.411)
1 µg/Kg
CC

**13C9-PFDA IS**

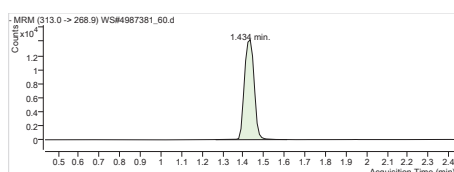
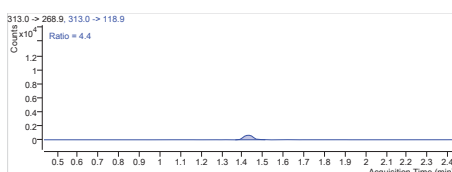
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
2.124 (2.124)
1 µg/Kg
CC

**PFBS 1**

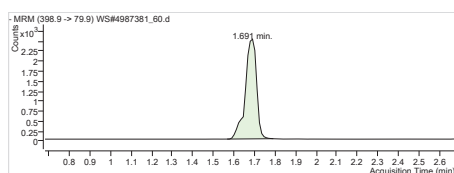
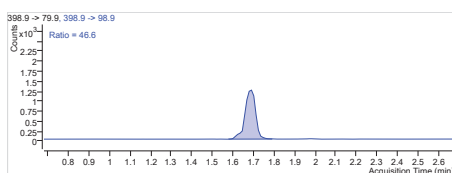
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

298.9 -> 79.9
1.098 (1.098)
15.93 µg/Kg
6.98653
CC

**PFHxA 1**

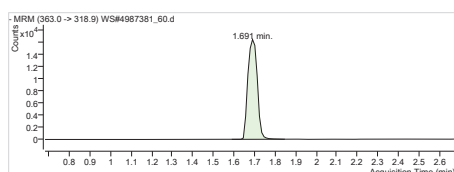
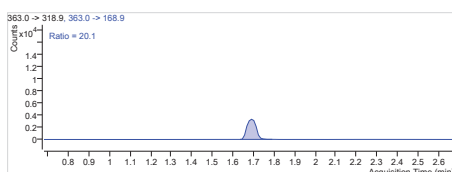
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

313.0 -> 268.9
1.434 (1.434)
15.99 µg/Kg
4.93005
CC

**PFHxS 1**

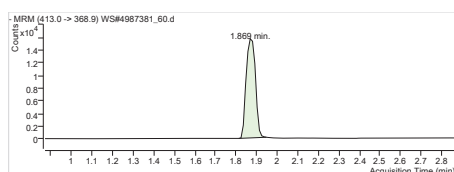
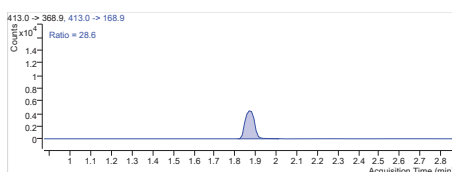
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

398.9 -> 79.9
1.691 (1.679)
15.99 µg/Kg
5.60223
CC

**PFHpA 1**

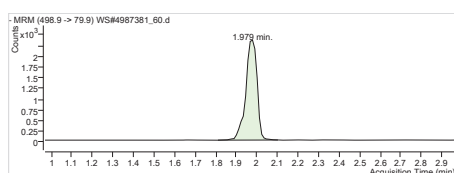
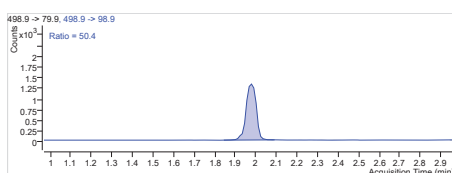
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

363.0 -> 318.9
1.691 (1.680)
15.40 µg/Kg
5.08627
CC

**PFOA 1**

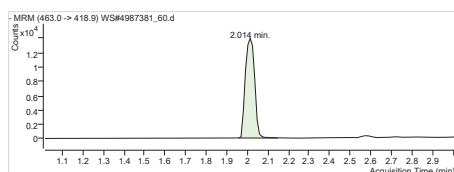
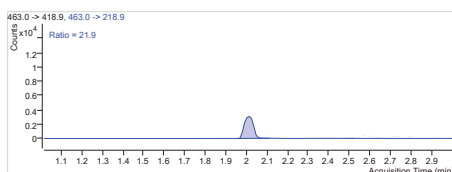
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

413.0 -> 368.9
1.869 (1.869)
16.18 µg/Kg
5.20983
CC

**PFOS 1**

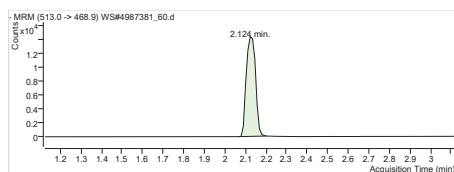
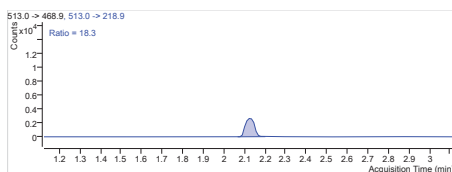
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

498.9 -> 79.9
1.979 (1.968)
13.84 µg/Kg
3.98527
CC

**PFNA 1**

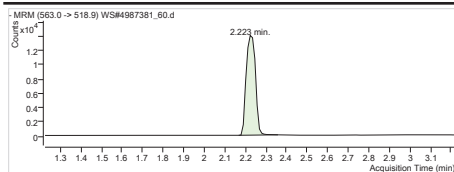
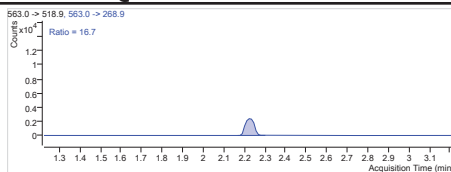
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

463.0 -> 418.9
2.014 (2.014)
15.92 µg/Kg
4.67179
CC

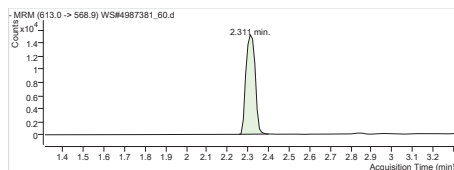
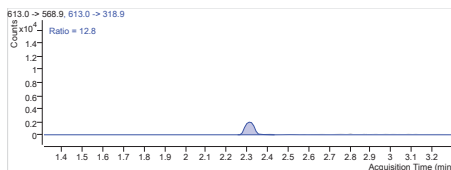
**PFDA 1**

RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

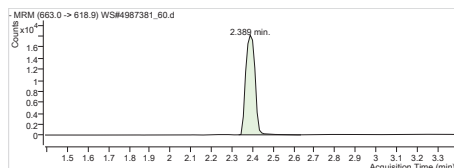
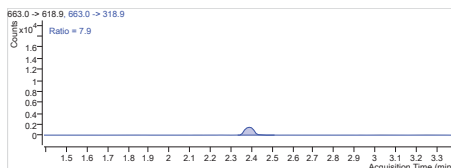
513.0 -> 468.9
2.124 (2.124)
14.66 µg/Kg
5.44840
CC



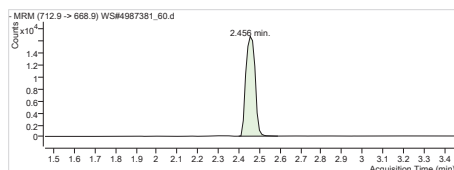
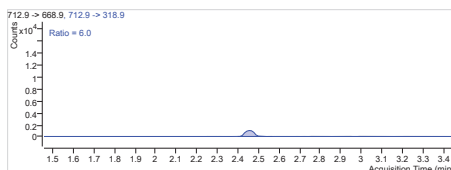
PFUnA 1
RT (Exp. RT): 563.0 -> 518.9
Calc. conc. 2.223 (2.223)
Area ratio: 15.94 µg/Kg
Sample type: 4.95006
CC



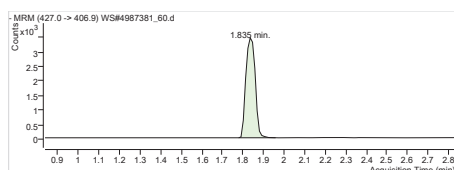
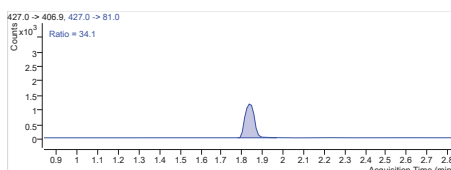
PFDa 1
RT (Exp. RT): 613.0 -> 568.9
Calc. conc. 2.311 (2.311)
Area ratio: 15.22 µg/Kg
Sample type: 4.66617
CC



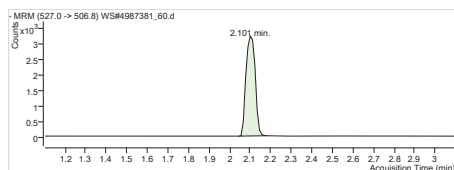
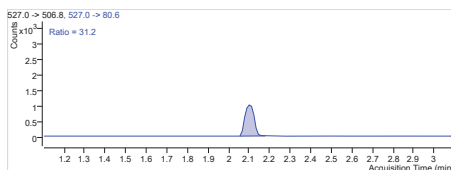
PFTraD 1
RT (Exp. RT): 663.0 -> 618.9
Calc. conc. 2.389 (2.389)
Area ratio: 15.11 µg/Kg
Sample type: 4.41943
CC



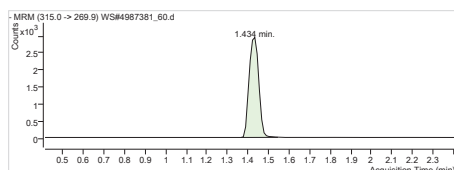
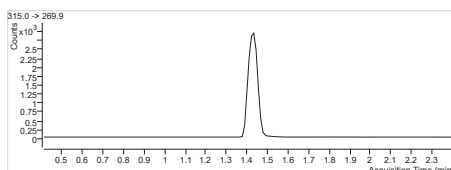
PFTeDa 1
RT (Exp. RT): 712.9 -> 668.9
Calc. conc. 2.456 (2.456)
Area ratio: 15.04 µg/Kg
Sample type: 4.06647
CC



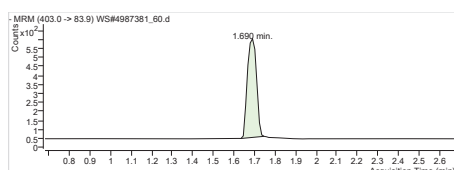
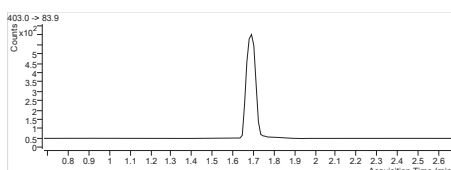
6:2-FTS 1
RT (Exp. RT): 427.0 -> 406.9
Calc. conc. 1.835 (1.835)
Area ratio: 17.01 µg/Kg
Sample type: 4.86021
CC



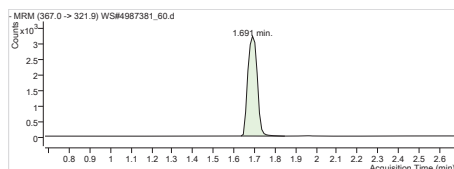
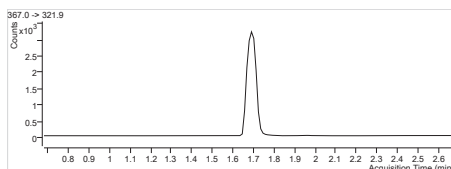
8:2-FTS 1
RT (Exp. RT): 527.0 -> 506.8
Calc. conc. 2.101 (2.101)
Area ratio: 13.86 µg/Kg
Sample type: 3.92244
CC



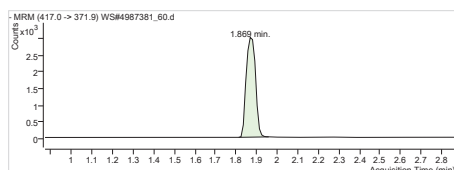
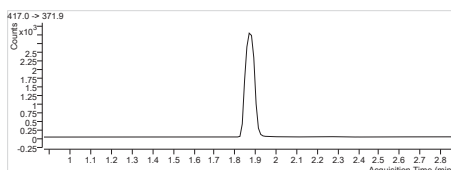
13C2-PFHxA
RT (Exp. RT): 315.0 -> 269.9
Calc. conc. 1.434 (1.411)
Area ratio: 98.74 µg/Kg
Sample type: 0.22975
CC



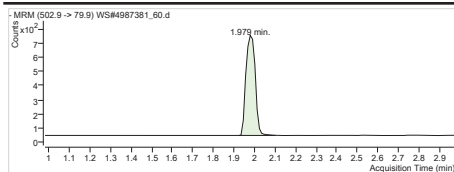
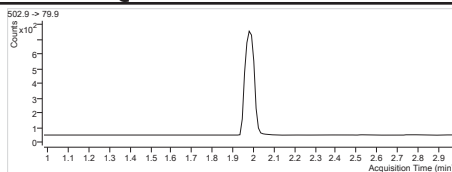
18O2-PFHxS
RT (Exp. RT): 403.0 -> 83.9
Calc. conc. 1.690 (1.679)
Area ratio: 98.66 µg/Kg
Sample type: 0.04131
CC



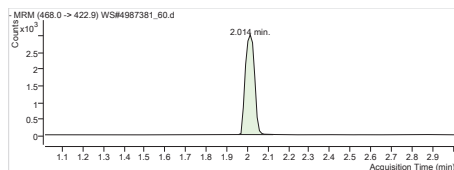
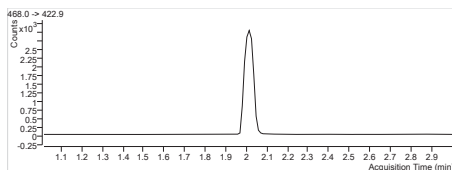
13C4-PFHpA
RT (Exp. RT): 367.0 -> 321.9
Calc. conc. 1.691 (1.680)
Area ratio: 97.58 µg/Kg
Sample type: 0.24716
CC



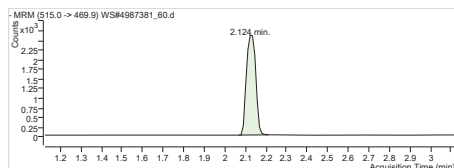
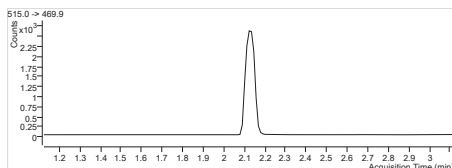
13C4-PFOA
RT (Exp. RT): 417.0 -> 371.9
Calc. conc. 1.869 (1.869)
Area ratio: 91.92 µg/Kg
Sample type: 0.22804
CC



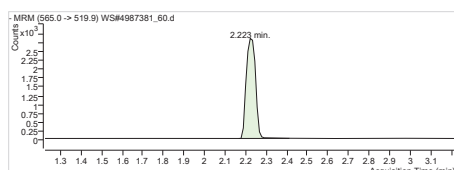
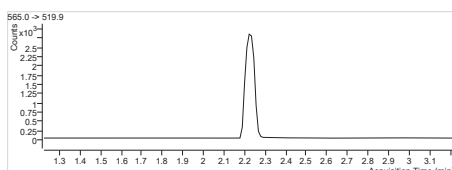
13C4-PFOS
RT (Exp. RT): 502.9 -> 79.9
Calc. conc. 1.979 (1.979)
Area ratio: 106.61 µg/Kg
Sample type: 0.05421
CC



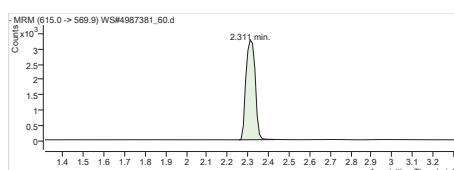
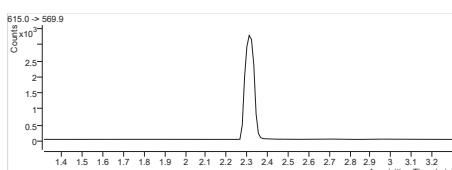
13C5-PFNA
RT (Exp. RT): 468.0 -> 422.9
Calc. conc. 2.014 (2.014)
Area ratio: 92.99 µg/Kg
Sample type: 0.22520
CC



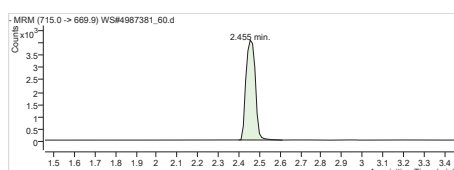
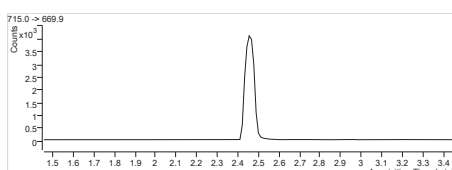
13C2-PFDA
RT (Exp. RT): 515.0 -> 469.9
Calc. conc. 2.124 (2.124)
Area ratio: 99.86 µg/Kg
Sample type: 0.23066
CC



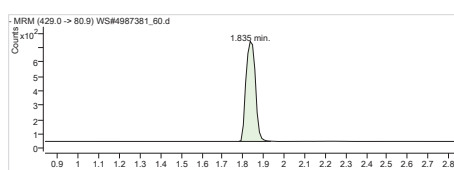
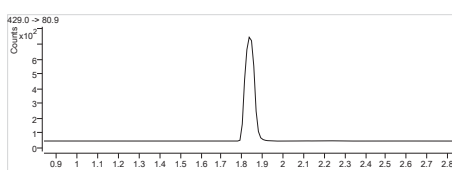
13C2-PFUnA
RT (Exp. RT): 565.0 -> 519.9
Calc. conc. 2.223 (2.223)
Area ratio: 96.61 µg/Kg
Sample type: 0.24960
CC



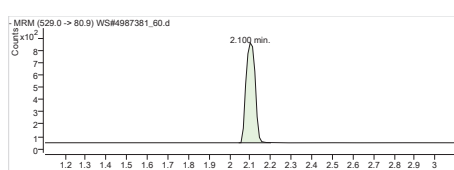
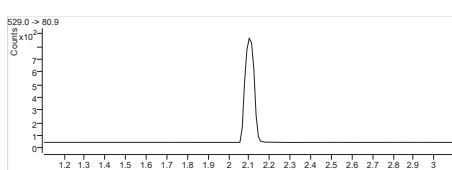
13C2-PFDoA
RT (Exp. RT): 615.0 -> 569.9
Calc. conc. 2.311 (2.311)
Area ratio: 96.40 µg/Kg
Sample type: 0.28547
CC



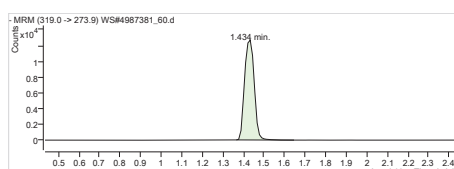
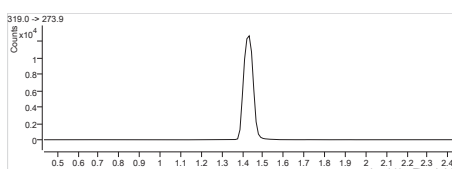
13C2-PFTeDA
RT (Exp. RT): 715.0 -> 669.9
Calc. conc. 2.455 (2.455)
Area ratio: 98.88 µg/Kg
Sample type: 0.36319
CC



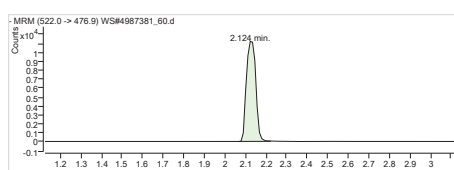
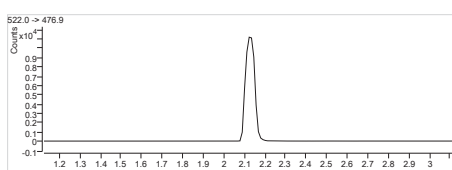
13C2-6:2-FTS
RT (Exp. RT): 429.0 -> 80.9
Calc. conc. 1.835 (1.835)
Area ratio: 86.51 µg/Kg
Sample type: 0.05419
CC



13C2-8:2 FTS
RT (Exp. RT): 529.0 -> 80.9
Calc. conc. 2.100 (2.100)
Area ratio: 97.73 µg/Kg
Sample type: 0.06147
CC



13C6-PFHxA
RT (Exp. RT): 319.0 -> 273.9
Calc. conc. 1.434 (1.434)
Area ratio: 131.21 µg/Kg
Sample type: 0
CC



13C9-PFDA
RT (Exp. RT): 522.0 -> 476.9
Calc. conc. 2.124 (2.124)
Area ratio: 122.99 µg/Kg
Sample type: 0
CC

Sample Name

ISC

Instrument

LCMS04

Data File

WS#4987381_FOSAA_10.d

Operator

M_G

Sample Type

CC

Dilution

1

Acq. Method

PFC_Soil_FOSAA.m

Position

P2-A2

Acq. Date

2017/05/20 11:52:23 AM

Injection Volume

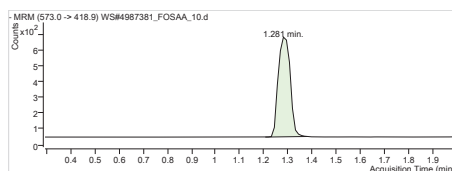
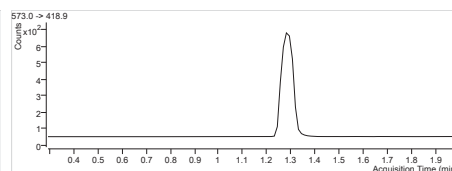
Per Method

Sample Annotation

-

ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	2174	1.28	1 µg/Kg		
D5-EtFOSAA IS	1886	1.31	1 µg/Kg		
13C9-PFDA IS	35731	0.86	1 µg/Kg		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	574	1.28	0.75	0.72 µg/Kg	95.98
EtFOSAA 1	508	1.32	0.75	0.76 µg/Kg	101.92
D3-MeFOSAA	2201	1.28	100.00	108.49 µg/Kg	108.49
D5-EtFOSAA	1908	1.31	100.00	104.02 µg/Kg	104.02
13C9-PFDA	34716	0.86	100.00	111.92 µg/Kg	111.92

**D3-MeFOSAA IS**

Internal Standard

RT (Exp. RT):

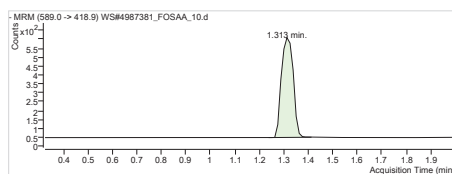
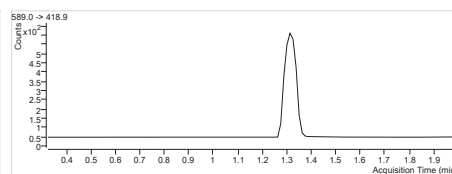
1.281 (1.281)

Concentration:

1 µg/Kg

Sample type:

CC

**D5-EtFOSAA IS**

Internal Standard

RT (Exp. RT):

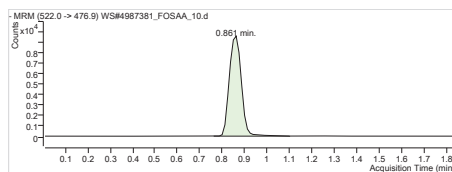
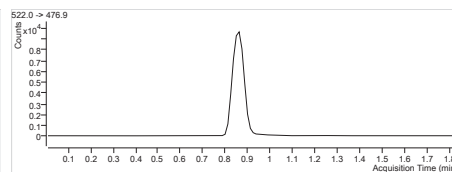
1.313 (1.313)

Concentration:

1 µg/Kg

Sample type:

CC

**13C9-PFDA IS**

Internal Standard

RT (Exp. RT):

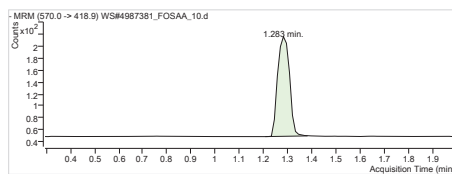
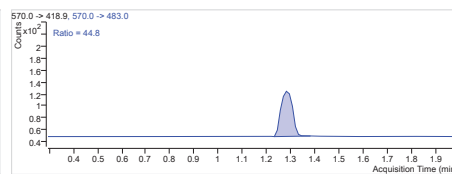
0.861 (0.849)

Concentration:

1 µg/Kg

Sample type:

CC

**MeFOSAA 1**

570.0 -> 418.9

RT (Exp. RT):

1.283 (1.283)

Calc. conc.

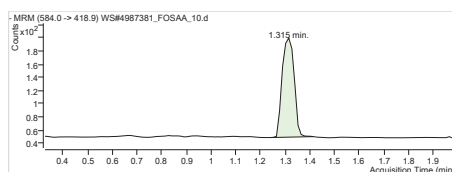
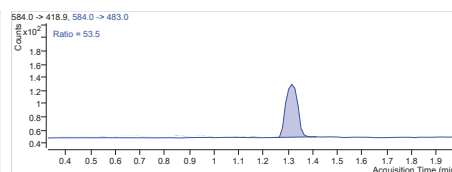
0.72 µg/Kg

Area ratio:

0.26403

Sample type:

CC

**EtFOSAA 1**

584.0 -> 418.9

RT (Exp. RT):

1.315 (1.315)

Calc. conc.

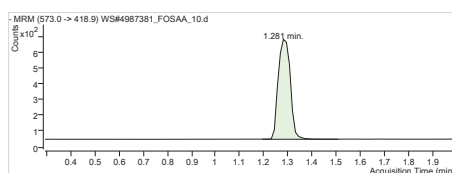
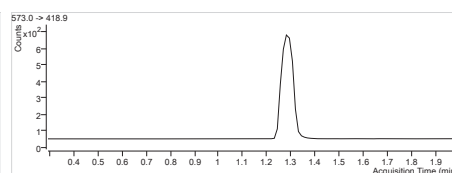
0.76 µg/Kg

Area ratio:

0.26935

Sample type:

CC

**D3-MeFOSAA**

573.0 -> 418.9

RT (Exp. RT):

1.281 (1.281)

Calc. conc.

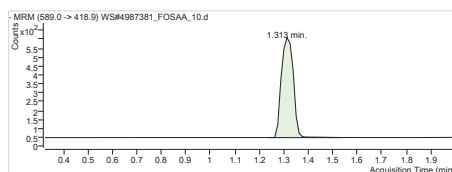
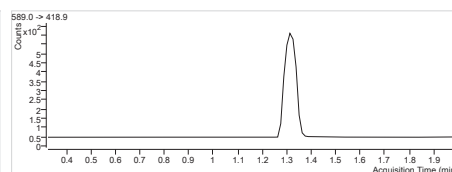
108.49 µg/Kg

Area ratio:

0.06161

Sample type:

CC

**D5-EtFOSAA**

589.0 -> 418.9

RT (Exp. RT):

1.313 (1.313)

Calc. conc.

104.02 µg/Kg

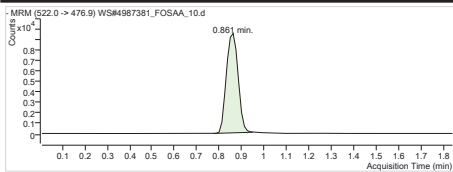
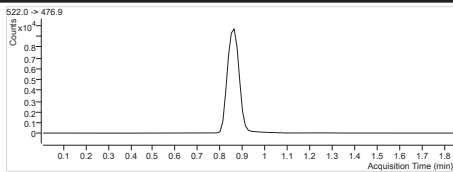
Area ratio:

0.05341

Sample type:

CC

Quantitation Results



13C9-PFDA
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

522.0 -> 476.9
0.861 (0.849)
111.92 µg/Kg
0
CC

Sample Name

CCV

Instrument

LCMS04

Data File

WS#4987381_FOSAA_22.d

Operator

M_G

Sample Type

CC

Dilution

1

Acq. Method

PFC_Soil_FOSAA.m

Position

P2-A5

Acq. Date

2017/05/20 12:21:01 PM

Injection Volume

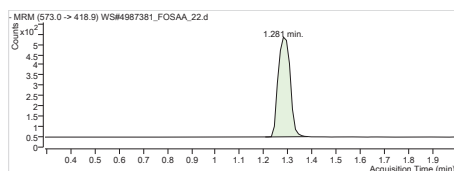
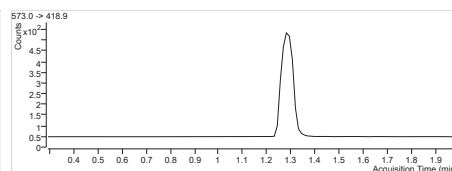
Per Method

Sample Annotation

-

ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1682	1.28	1 µg/Kg		
D5-EtFOSAA IS	1532	1.31	1 µg/Kg		
13C9-PFDA IS	30875	0.85	1 µg/Kg		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	7539	1.28	11.30	11.53 µg/Kg	102.05
EtFOSAA 1	7452	1.32	11.30	11.23 µg/Kg	99.40
D3-MeFOSAA	1693	1.28	100.00	96.59 µg/Kg	96.59
D5-EtFOSAA	1550	1.31	100.00	97.75 µg/Kg	97.75
13C9-PFDA	30050	0.85	100.00	96.87 µg/Kg	96.87

**D3-MeFOSAA IS**

Internal Standard

RT (Exp. RT):

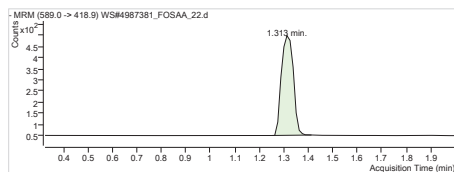
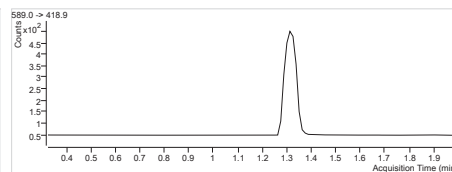
1.281 (1.281)

Concentration:

1 µg/Kg

Sample type:

CC

**D5-EtFOSAA IS**

Internal Standard

RT (Exp. RT):

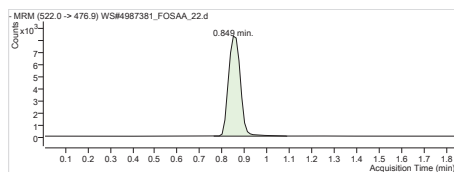
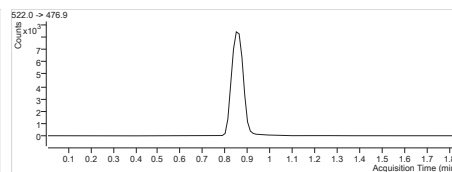
1.313 (1.313)

Concentration:

1 µg/Kg

Sample type:

CC

**13C9-PFDA IS**

Internal Standard

RT (Exp. RT):

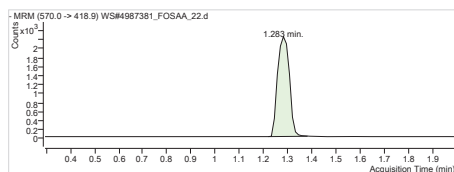
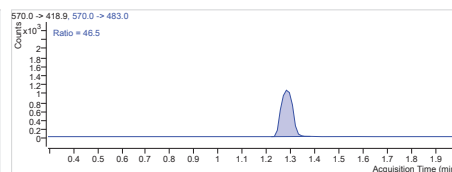
0.849 (0.849)

Concentration:

1 µg/Kg

Sample type:

CC

**MeFOSAA 1**

570.0 -> 418.9

RT (Exp. RT):

1.283 (1.283)

Calc. conc.

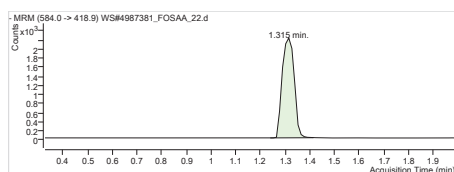
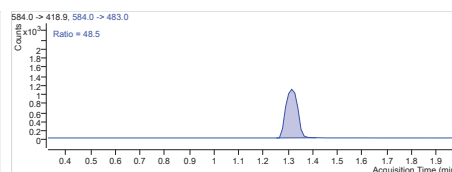
11.53 µg/Kg

Area ratio:

4.48216

Sample type:

CC

**EtFOSAA 1**

584.0 -> 418.9

RT (Exp. RT):

1.315 (1.315)

Calc. conc.

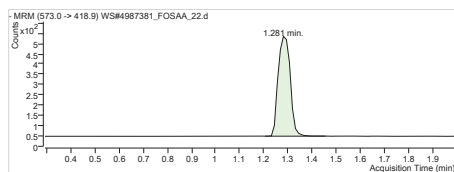
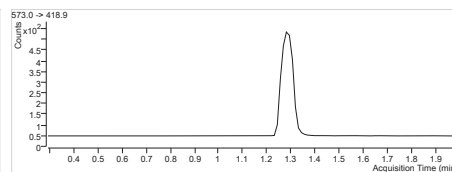
11.23 µg/Kg

Area ratio:

4.86423

Sample type:

CC

**D3-MeFOSAA**

573.0 -> 418.9

RT (Exp. RT):

1.281 (1.281)

Calc. conc.

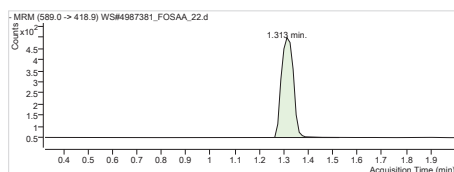
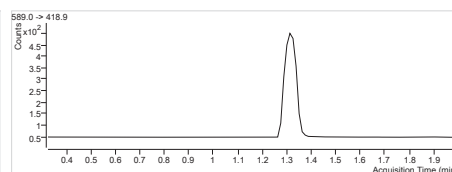
96.59 µg/Kg

Area ratio:

0.05485

Sample type:

CC

**D5-EtFOSAA**

589.0 -> 418.9

RT (Exp. RT):

1.313 (1.313)

Calc. conc.

97.75 µg/Kg

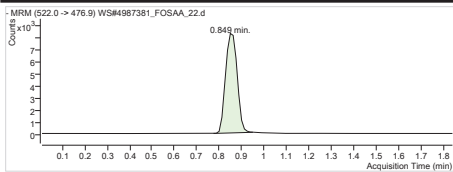
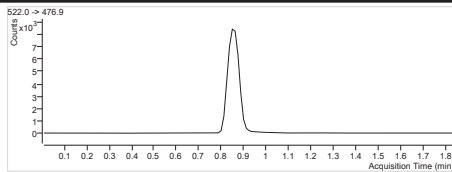
Area ratio:

0.05019

Sample type:

CC

Quantitation Results



13C9-PFDA
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

522.0 -> 476.9
0.849 (0.849)
96.87 µg/Kg
0
CC

Batch Path

T:\lcms4\PFC\20170523\WS#4987523\QuantResults\PFC_Water_Low_170523_WS#4987523_CT

Sample Name

ISC

Instrument

LCMS04

Data File

WS#4987523_10.d

Operator

AD

Sample Type

CC

Dilution

1

Acq. Method

PFC_Water_Low.m

Position

P1-A2

Acq. Date

2017/05/23 9:57:44 AM

Injection Volume

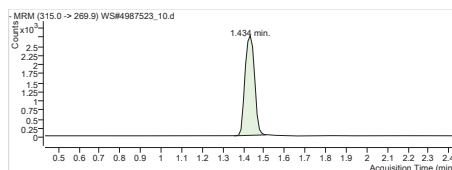
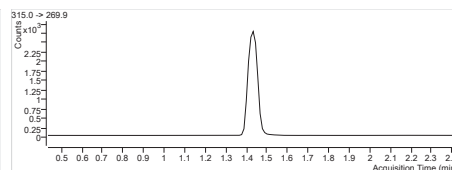
Per Method

Sample Annotation

-

ISTD Compounds	Response	RT	Target conc.		
MPFHxA	8840	1.43	1 µg/L		
MPFHxS	1508	1.69	1 µg/L		
MPFHpA	9476	1.69	1 µg/L		
MPFOA	8879	1.87	1 µg/L		
MPFOS	1875	1.98	1 µg/L		
MPFNA	9090	2.01	1 µg/L		
MPFDA	7419	2.14	1 µg/L		
MPFUnA	8033	2.23	1 µg/L		
MPFDoA	9235	2.31	1 µg/L		
MPFTeDA	11659	2.46	1 µg/L		
M2 6:2 FTS	2271	1.84	1 µg/L		
M2 8:2 FTS	2438	2.10	1 µg/L		
13C6-PFHxA IS	39967	1.43	1 µg/L		
13C9-PFDA IS	33451	2.13	1 µg/L		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	690	1.10	0.83	0.70 µg/L	84.76
PFHxA 1	3509	1.43	0.83	0.89 µg/L	106.95
PFHxS 1	579	1.69	0.83	0.72 µg/L	87.19
PFHpA 1	4125	1.69	0.83	0.88 µg/L	105.91
PFOA 1	3785	1.87	0.83	0.83 µg/L	99.57
PFOS 1	597	1.98	0.83	0.83 µg/L	99.81
PFNA 1	3242	2.01	0.83	0.87 µg/L	104.91
PFDA 1	3746	2.14	0.83	1.00 µg/L	120.43
PFUnA 1	3330	2.23	0.83	0.88 µg/L	106.35
PFDa 1	3945	2.31	0.83	0.93 µg/L	112.14
PFTrDA 1	3800	2.39	0.83	0.75 µg/L	90.72
PFTeDA 1	4110	2.46	0.83	0.86 µg/L	103.56
6:2-FTS 1	1125	1.84	0.83	1.05 µg/L	126.61
8:2-FTS 1	856	2.10	0.83	0.87 µg/L	104.86
13C2-PFHxA	8840	1.43	100.00	99.44 µg/L	99.44
18O2-PFHxS	1508	1.69	100.00	96.53 µg/L	96.53
13C4-PFHpA	9476	1.69	100.00	101.86 µg/L	101.86
13C4-PFOA	8879	1.87	100.00	97.33 µg/L	97.33
13C4-PFOS	1875	1.98	100.00	98.02 µg/L	98.02
13C5-PFNA	9090	2.01	100.00	102.24 µg/L	102.24
13C2-PFDA	7419	2.14	100.00	97.83 µg/L	97.83
13C2-PFUnA	8033	2.23	100.00	98.04 µg/L	98.04
13C2-PFDoA	9235	2.31	100.00	100.17 µg/L	100.17
13C2-PFTeDA	11659	2.46	100.00	100.04 µg/L	100.04
13C2-6:2-FTS	2271	1.84	100.00	102.62 µg/L	102.62
13C2-8:2 FTS	2438	2.10	100.00	102.19 µg/L	102.19
13C6-PFHxA	39967	1.43	100.00	102.31 µg/L	102.31
13C9-PFDA	33451	2.13	100.00	101.39 µg/L	101.39



MPFHxA

Internal Standard

RT (Exp. RT):

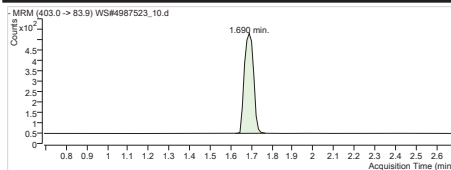
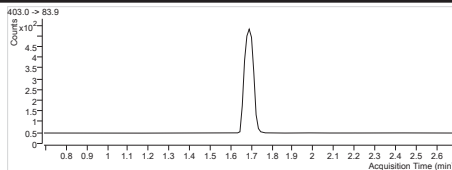
1.434 (1.434)

Concentration:

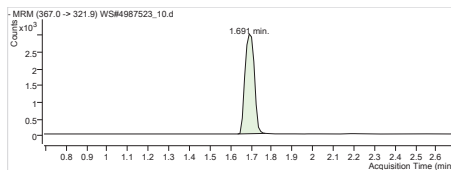
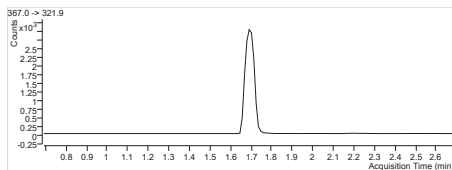
1 µg/L

Sample type:

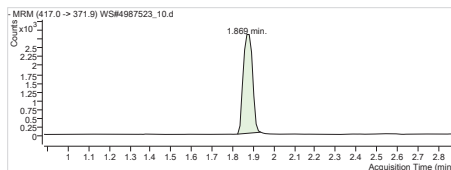
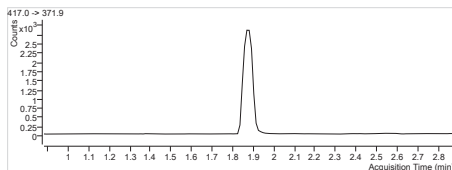
CC



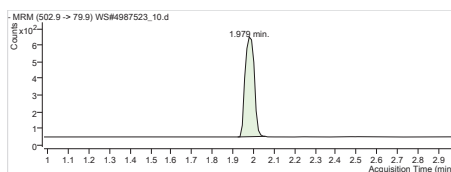
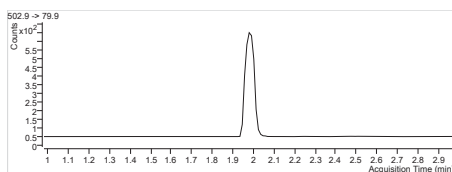
MPFHxS
RT (Exp. RT): 1.690 (1.690)
Concentration: 1 µg/L
Sample type: CC



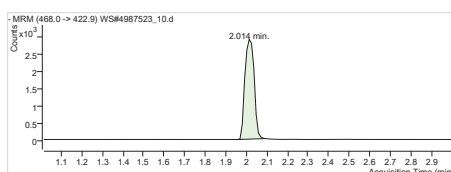
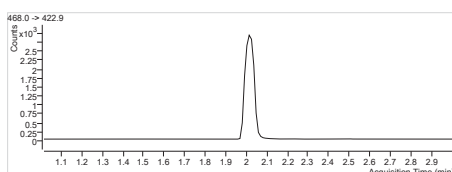
MPFHpA
RT (Exp. RT): 1.691 (1.691)
Concentration: 1 µg/L
Sample type: CC



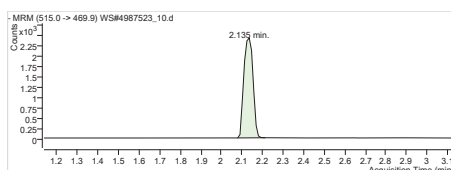
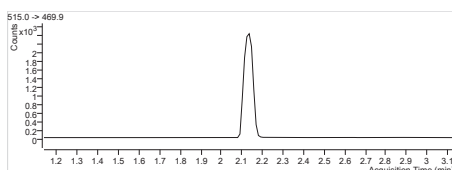
MPFOA
RT (Exp. RT): 1.869 (1.881)
Concentration: 1 µg/L
Sample type: CC



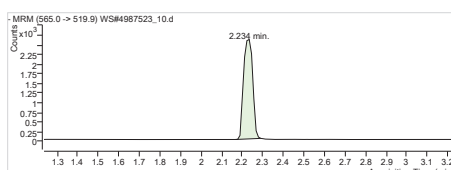
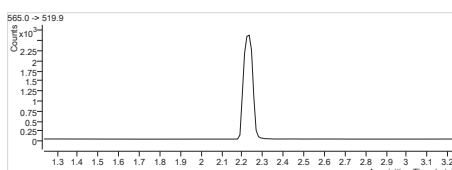
MPFOS
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: CC



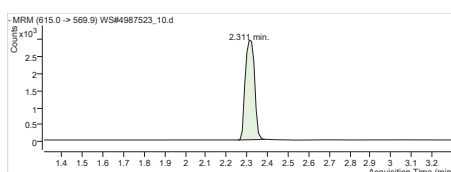
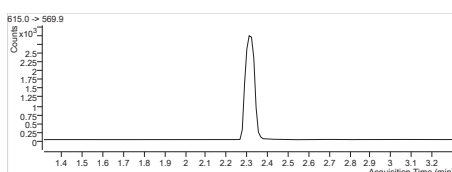
MPFNA
RT (Exp. RT): 2.014 (2.014)
Concentration: 1 µg/L
Sample type: CC



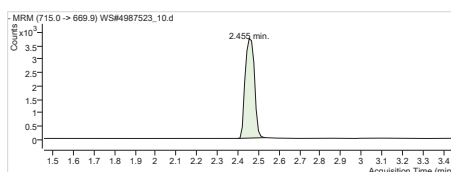
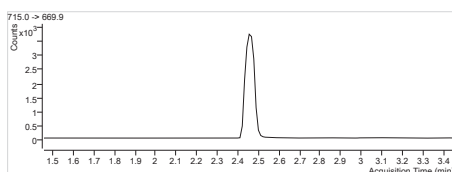
MPFDA
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: CC



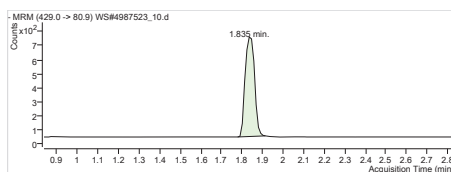
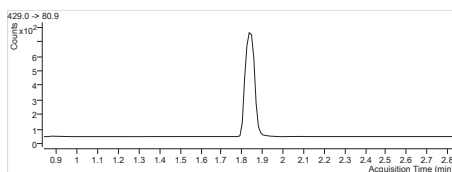
MPFUnA
RT (Exp. RT): 2.234 (2.234)
Concentration: 1 µg/L
Sample type: CC



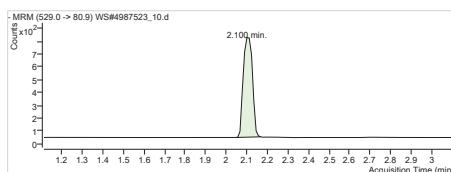
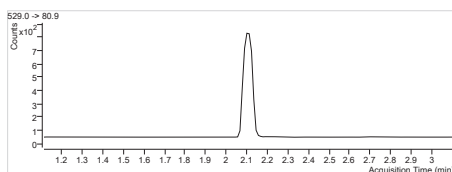
MPFDoA
RT (Exp. RT): 2.311 (2.311)
Concentration: 1 µg/L
Sample type: CC



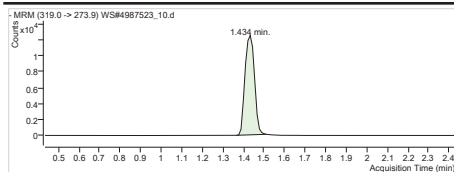
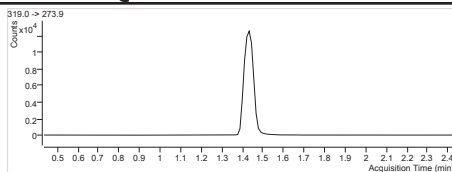
MPFTeDA
RT (Exp. RT): 2.455 (2.455)
Concentration: 1 µg/L
Sample type: CC



M2 6:2 FTS
RT (Exp. RT): 1.835 (1.835)
Concentration: 1 µg/L
Sample type: CC



M2 8:2 FTS
RT (Exp. RT): 2.100 (2.112)
Concentration: 1 µg/L
Sample type: CC

**13C6-PFHxA IS**

RT (Exp. RT):

Concentration:

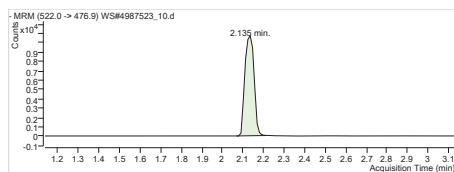
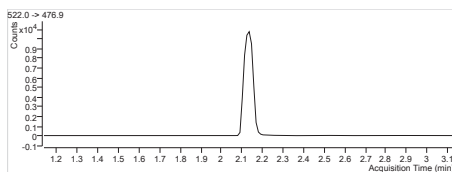
Sample type:

Internal Standard

1.434 (1.434)

1 µg/L

CC

**13C9-PFDA IS**

RT (Exp. RT):

Concentration:

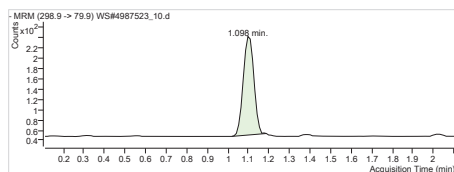
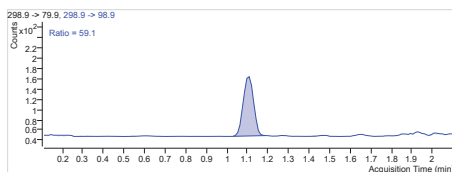
Sample type:

Internal Standard

2.135 (2.135)

1 µg/L

CC

**PFBS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

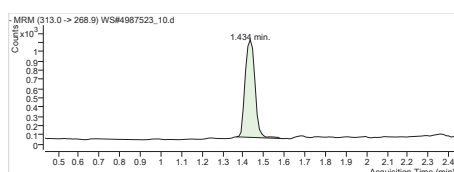
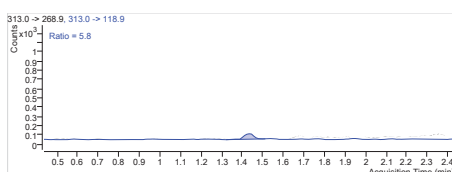
298.9 -> 79.9

1.098 (1.109)

0.70 µg/L

0.45756

CC

**PFHxA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

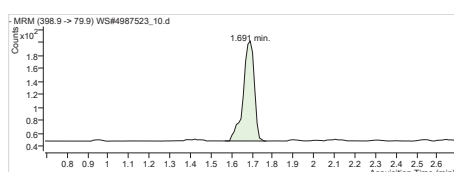
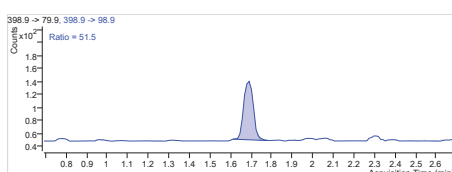
313.0 -> 268.9

1.434 (1.434)

0.89 µg/L

0.39695

CC

**PFHxS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

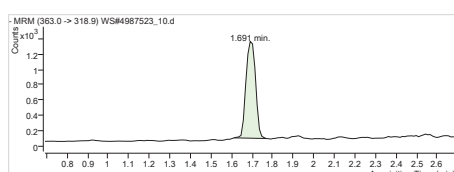
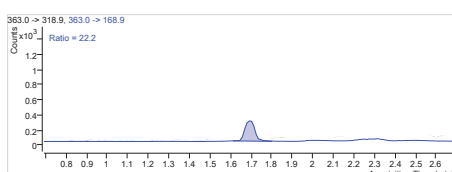
398.9 -> 79.9

1.691 (1.691)

0.72 µg/L

0.38395

CC

**PFHpA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

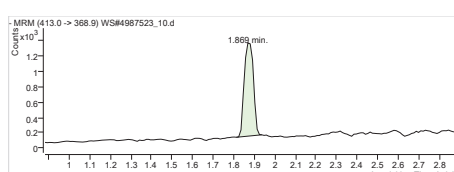
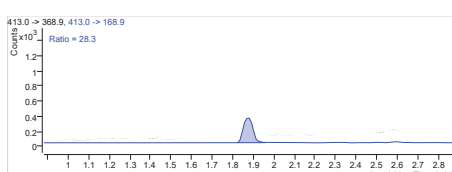
363.0 -> 318.9

1.691 (1.691)

0.88 µg/L

0.43531

CC

**PFOA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

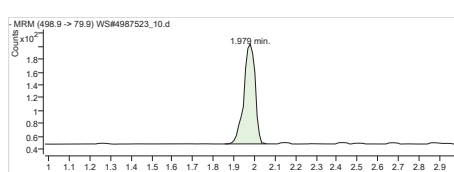
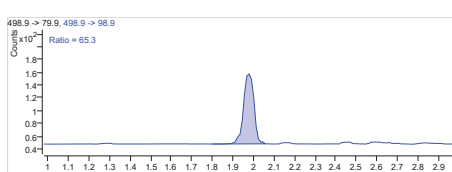
413.0 -> 368.9

1.869 (1.881)

0.83 µg/L

0.42629

CC

**PFOS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

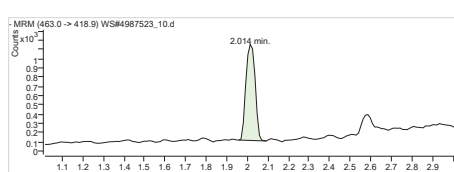
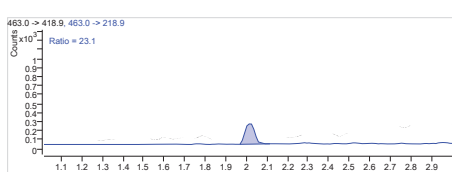
498.9 -> 79.9

1.979 (1.979)

0.83 µg/L

0.31840

CC

**PFNA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

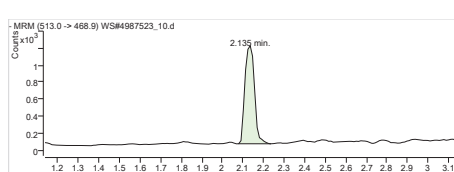
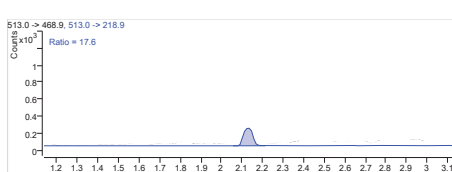
463.0 -> 418.9

2.014 (2.014)

0.87 µg/L

0.35666

CC

**PFDA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

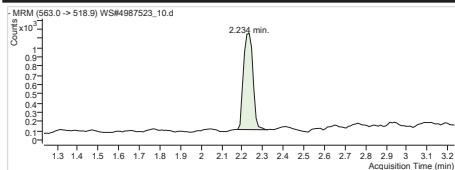
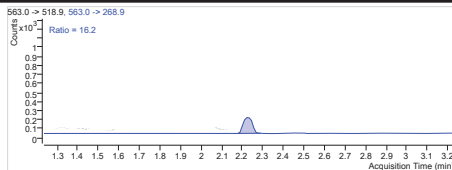
513.0 -> 468.9

2.135 (2.135)

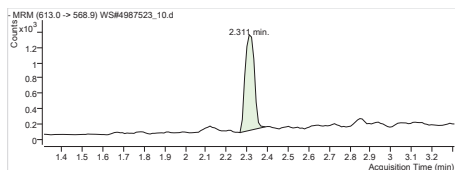
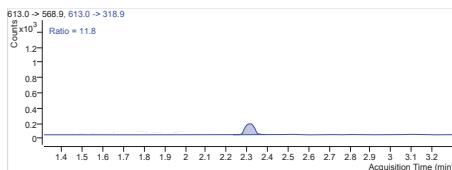
1.00 µg/L

0.50492

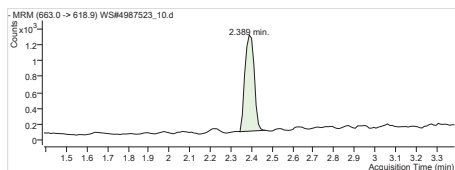
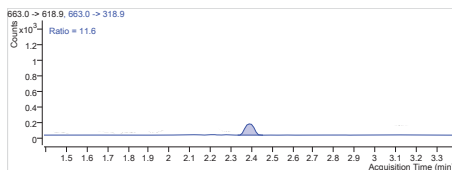
CC



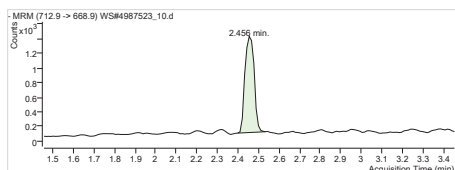
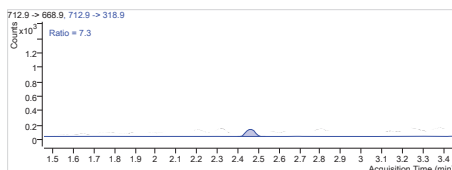
PFUnA 1
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 0.88 µg/L
Area ratio: 0.41454
Sample type: CC



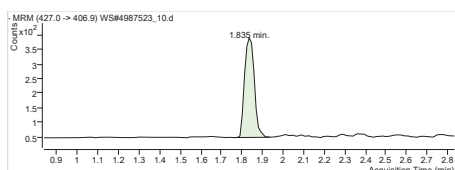
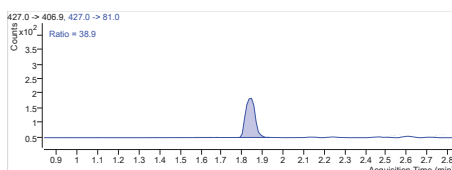
PFDaA 1
RT (Exp. RT): 2.311 (2.311)
Calc. conc. 0.93 µg/L
Area ratio: 0.42718
Sample type: CC



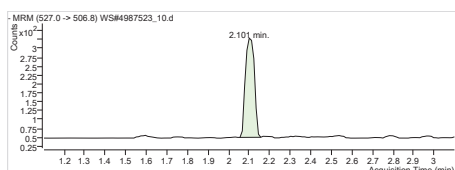
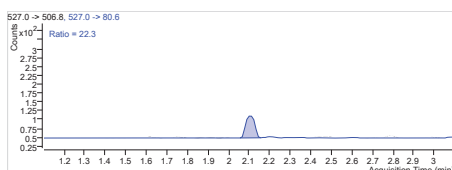
PFTrDA 1
RT (Exp. RT): 2.389 (2.389)
Calc. conc. 0.75 µg/L
Area ratio: 0.32593
Sample type: CC



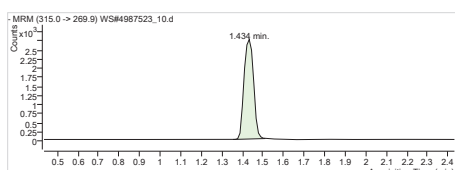
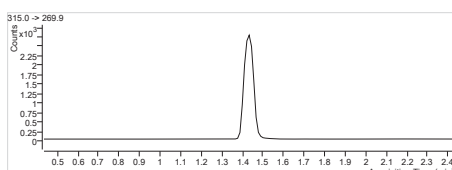
PFTeDA 1
RT (Exp. RT): 2.456 (2.456)
Calc. conc. 0.86 µg/L
Area ratio: 0.35252
Sample type: CC



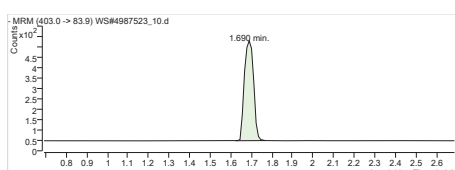
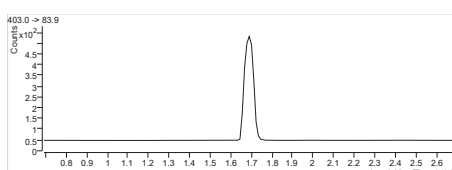
6:2-FTS 1
RT (Exp. RT): 1.835 (1.835)
Calc. conc. 1.05 µg/L
Area ratio: 0.49538
Sample type: CC



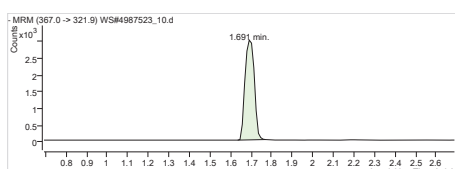
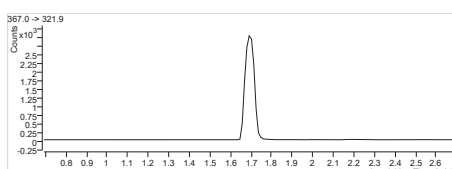
8:2-FTS 1
RT (Exp. RT): 2.101 (2.101)
Calc. conc. 0.87 µg/L
Area ratio: 0.35111
Sample type: CC



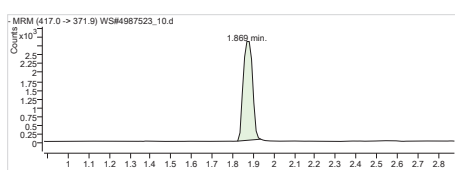
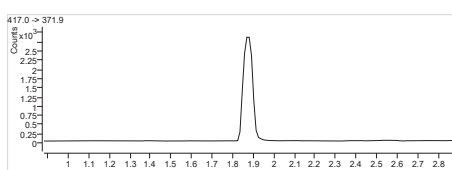
13C2-PFHxA
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 99.44 µg/L
Area ratio: 0.22118
Sample type: CC



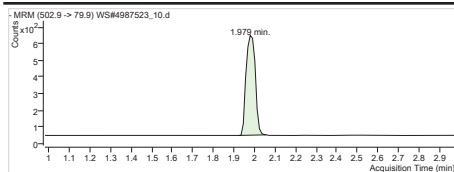
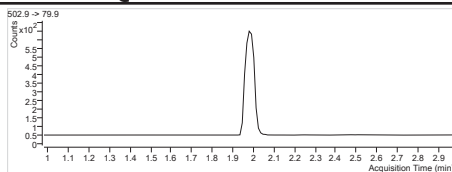
18O2-PFHxS
RT (Exp. RT): 1.690 (1.690)
Calc. conc. 96.53 µg/L
Area ratio: 0.03773
Sample type: CC



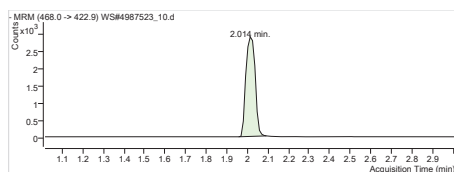
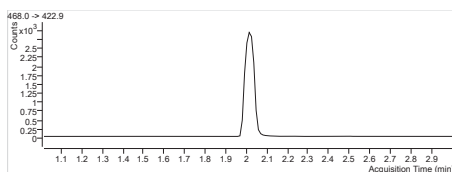
13C4-PFHpA
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 101.86 µg/L
Area ratio: 0.23710
Sample type: CC



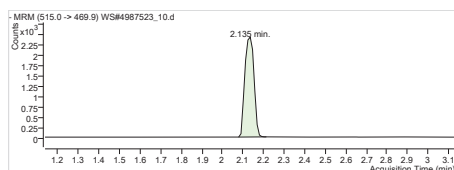
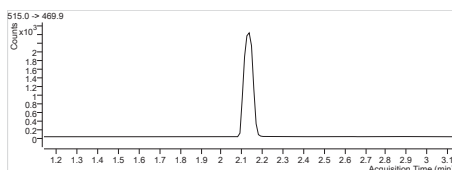
13C4-PFOA
RT (Exp. RT): 1.869 (1.881)
Calc. conc. 97.33 µg/L
Area ratio: 0.22216
Sample type: CC



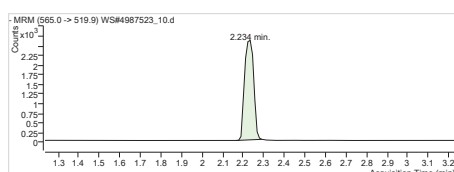
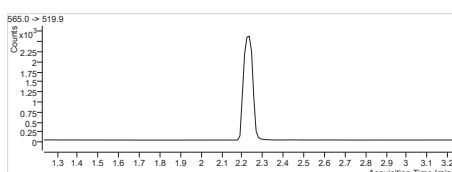
13C4-PFOS
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 98.02 µg/L
Area ratio: 0.04691
Sample type: CC



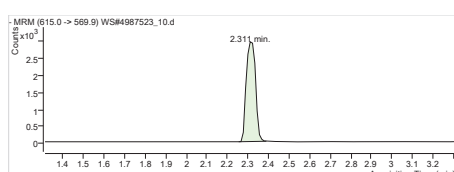
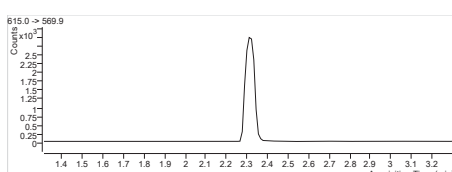
13C5-PFNA
RT (Exp. RT): 2.014 (2.014)
Calc. conc. 102.24 µg/L
Area ratio: 0.22744
Sample type: CC



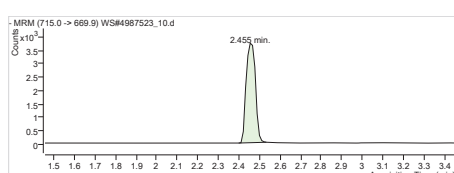
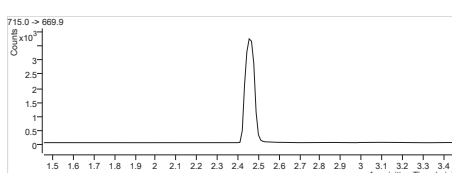
13C2-PFDA
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 97.83 µg/L
Area ratio: 0.22179
Sample type: CC



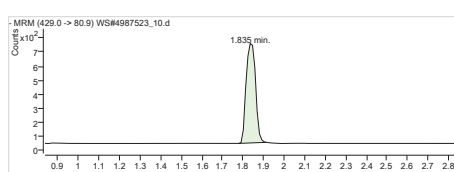
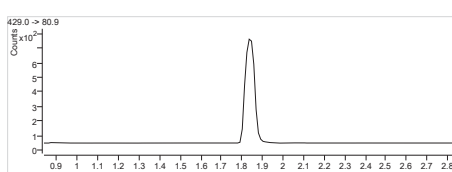
13C2-PFUnA
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 98.04 µg/L
Area ratio: 0.24014
Sample type: CC



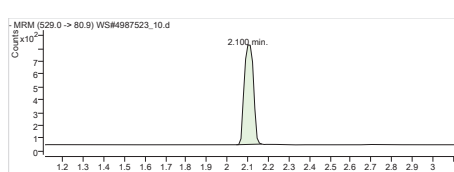
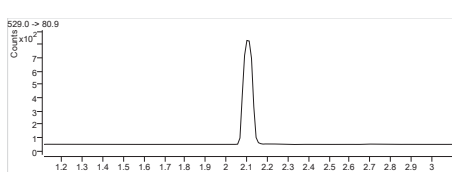
13C2-PFDoA
RT (Exp. RT): 2.311 (2.311)
Calc. conc. 100.17 µg/L
Area ratio: 0.27608
Sample type: CC



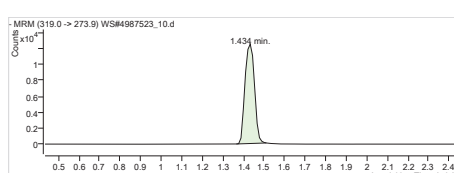
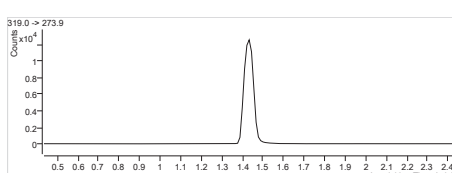
13C2-PFTeDA
RT (Exp. RT): 2.455 (2.455)
Calc. conc. 100.04 µg/L
Area ratio: 0.34854
Sample type: CC



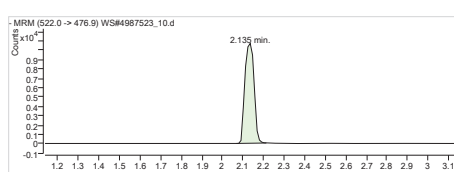
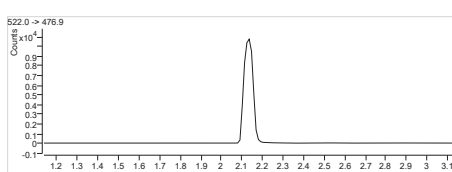
13C2-6:2-FTS
RT (Exp. RT): 1.835 (1.835)
Calc. conc. 102.62 µg/L
Area ratio: 0.05682
Sample type: CC



13C2-8:2 FTS
RT (Exp. RT): 2.100 (2.112)
Calc. conc. 102.19 µg/L
Area ratio: 0.06100
Sample type: CC



13C6-PFHxA
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 102.31 µg/L
Area ratio: 0
Sample type: CC



13C9-PFDA
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 101.39 µg/L
Area ratio: 0
Sample type: CC

Batch Path

T:\lcms4\PFC\20170523\WS#4987523\QuantResults\PFC_Water_Low_170523_WS#4987523_CT

Sample Name

CCV

Instrument

LCMS04

Data File

WS#4987523_30.d

Operator

AD

Sample Type

CC

Dilution

1

Acq. Method

PFC_Water_Low.m

Position

P1-A5

Acq. Date

2017/05/23 12:02:48 PM

Injection Volume

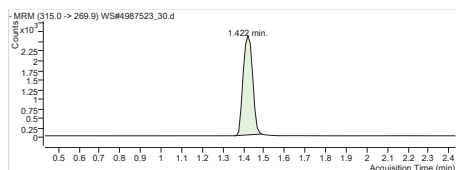
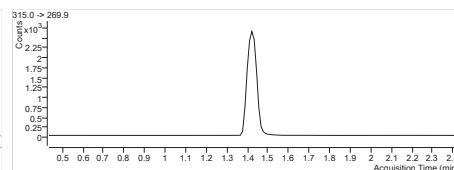
Per Method

Sample Annotation

-

ISTD Compounds	Response	RT	Target conc.		
MPFHxA	8292	1.42	1 µg/L		
MPFHxS	1302	1.68	1 µg/L		
MPFHpA	9238	1.69	1 µg/L		
MPFOA	9517	1.87	1 µg/L		
MPFOS	1838	1.98	1 µg/L		
MPFNA	8530	2.01	1 µg/L		
MPFDA	7469	2.12	1 µg/L		
MPFUnA	8260	2.22	1 µg/L		
MPFDoA	8751	2.31	1 µg/L		
MPFTeDA	12423	2.46	1 µg/L		
M2 6:2 FTS	2154	1.84	1 µg/L		
M2 8:2 FTS	2361	2.10	1 µg/L		
13C6-PFHxA IS	39542	1.42	1 µg/L		
13C9-PFDA IS	32524	2.12	1 µg/L		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	12103	1.10	12.50	14.95 µg/L	119.57
PFHxA 1	48949	1.42	12.50	13.42 µg/L	107.40
PFHxS 1	9562	1.68	12.50	14.87 µg/L	118.96
PFHpA 1	54601	1.69	12.50	12.87 µg/L	102.92
PFOA 1	51364	1.87	12.50	12.34 µg/L	98.70
PFOS 1	9377	1.98	12.50	13.25 µg/L	105.96
PFNA 1	43764	2.01	12.50	12.85 µg/L	102.79
PFDA 1	46619	2.12	12.50	12.61 µg/L	100.84
PFUnA 1	49079	2.22	12.50	13.61 µg/L	108.91
PFDaA 1	51916	2.31	12.50	14.38 µg/L	115.06
PFTTrDA 1	61309	2.39	12.50	12.30 µg/L	98.41
PFTeDA 1	57298	2.46	12.50	12.19 µg/L	97.53
6:2-FTS 1	10810	1.84	12.50	12.57 µg/L	100.53
8:2-FTS 1	10408	2.10	12.50	12.04 µg/L	96.30
13C2-PFHxA	8292	1.42	100.00	94.28 µg/L	94.28
18O2-PFHxS	1302	1.68	100.00	84.24 µg/L	84.24
13C4-PFHpA	9238	1.69	100.00	100.37 µg/L	100.37
13C4-PFOA	9517	1.87	100.00	105.45 µg/L	105.45
13C4-PFOS	1838	1.98	100.00	97.12 µg/L	97.12
13C5-PFNA	8530	2.01	100.00	96.98 µg/L	96.98
13C2-PFDA	7469	2.12	100.00	101.30 µg/L	101.30
13C2-PFUnA	8260	2.22	100.00	103.69 µg/L	103.69
13C2-PFDoA	8751	2.31	100.00	97.63 µg/L	97.63
13C2-PFTeDA	12423	2.46	100.00	109.63 µg/L	109.63
13C2-6:2-FTS	2154	1.84	100.00	98.37 µg/L	98.37
13C2-8:2 FTS	2361	2.10	100.00	100.03 µg/L	100.03
13C6-PFHxA	39542	1.42	100.00	101.22 µg/L	101.22
13C9-PFDA	32524	2.12	100.00	98.58 µg/L	98.58



MPFHxA

Internal Standard

RT (Exp. RT):

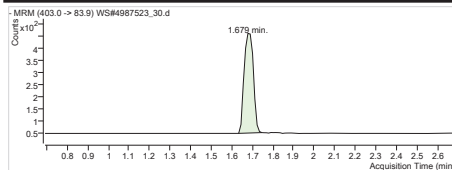
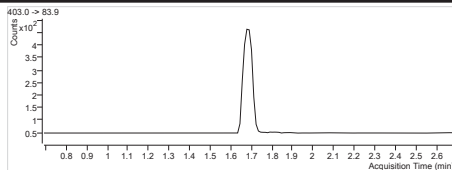
1.422 (1.434)

Concentration:

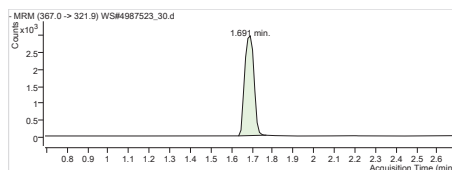
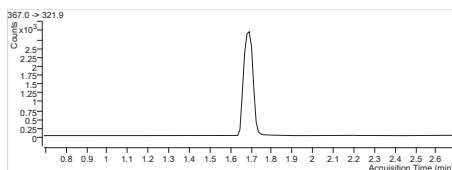
1 µg/L

Sample type:

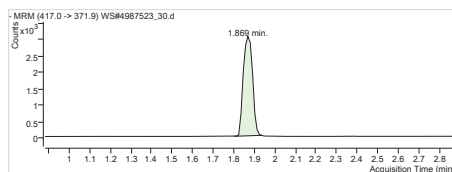
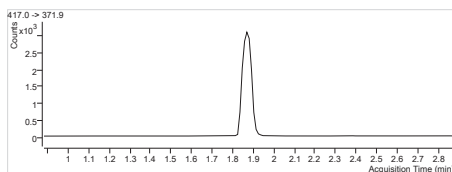
CC



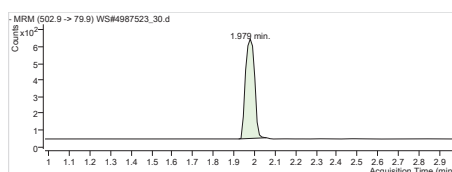
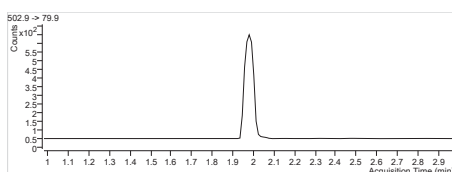
MPFHxS
RT (Exp. RT): 1.679 (1.690)
Concentration: 1 µg/L
Sample type: CC



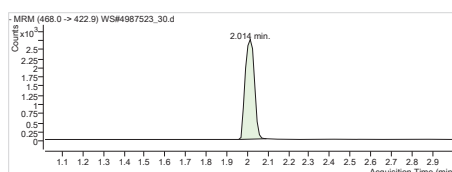
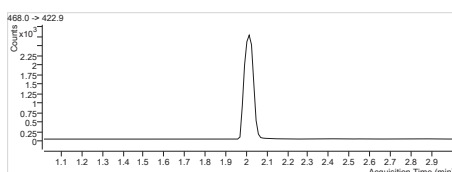
MPFHpA
RT (Exp. RT): 1.691 (1.691)
Concentration: 1 µg/L
Sample type: CC



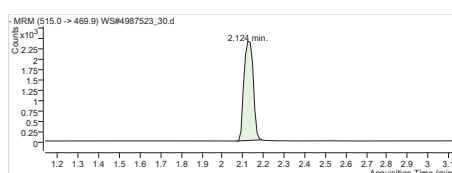
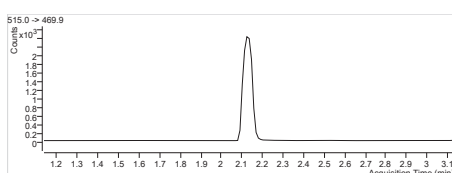
MPFOA
RT (Exp. RT): 1.869 (1.881)
Concentration: 1 µg/L
Sample type: CC



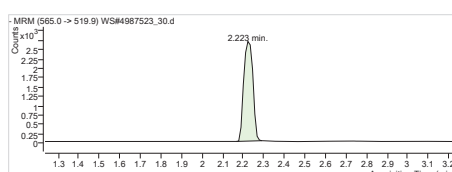
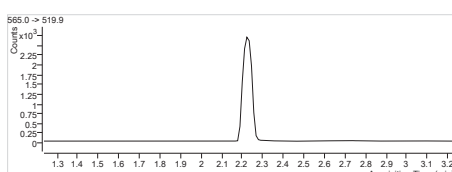
MPFOS
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: CC



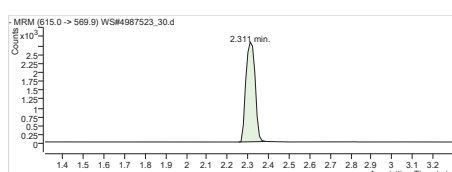
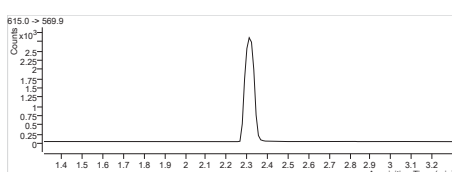
MPFNA
RT (Exp. RT): 2.014 (2.014)
Concentration: 1 µg/L
Sample type: CC



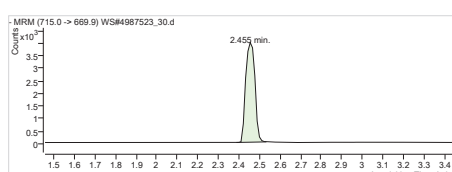
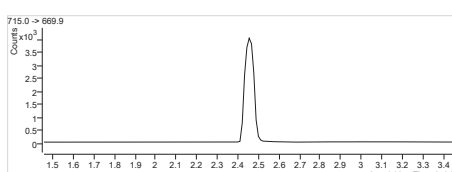
MPFDA
RT (Exp. RT): 2.124 (2.135)
Concentration: 1 µg/L
Sample type: CC



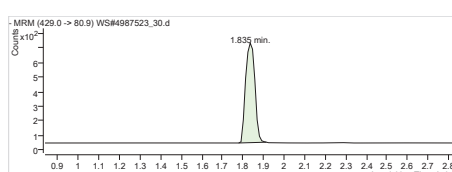
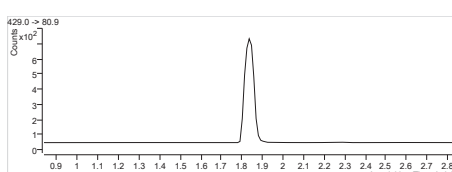
MPFUnA
RT (Exp. RT): 2.223 (2.234)
Concentration: 1 µg/L
Sample type: CC



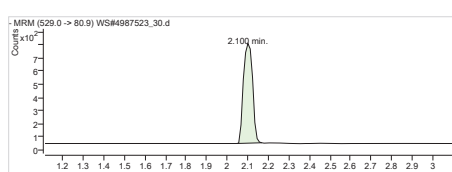
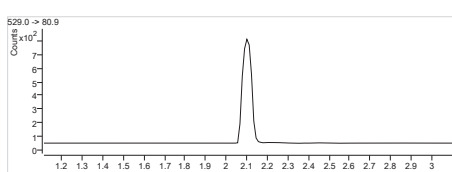
MPFDoA
RT (Exp. RT): 2.311 (2.311)
Concentration: 1 µg/L
Sample type: CC



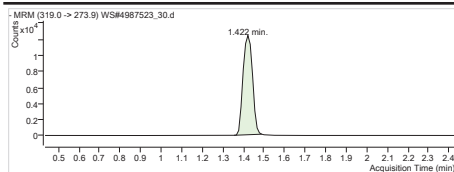
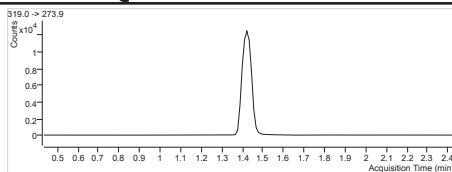
MPFTeDA
RT (Exp. RT): 2.455 (2.455)
Concentration: 1 µg/L
Sample type: CC



M2 6:2 FTS
RT (Exp. RT): 1.835 (1.835)
Concentration: 1 µg/L
Sample type: CC



M2 8:2 FTS
RT (Exp. RT): 2.100 (2.112)
Concentration: 1 µg/L
Sample type: CC

**13C6-PFHxA IS**

RT (Exp. RT):

Concentration:

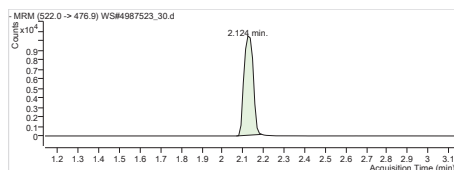
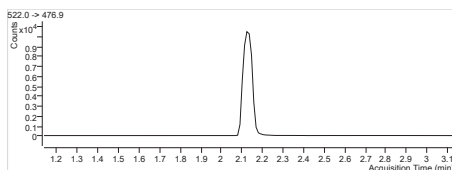
Sample type:

Internal Standard

1.422 (1.434)

1 µg/L

CC

**13C9-PFDA IS**

RT (Exp. RT):

Concentration:

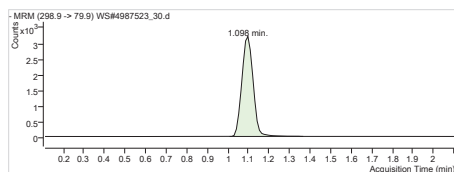
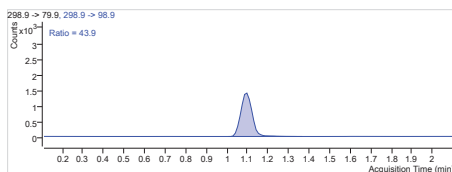
Sample type:

Internal Standard

2.124 (2.135)

1 µg/L

CC

**PFBS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

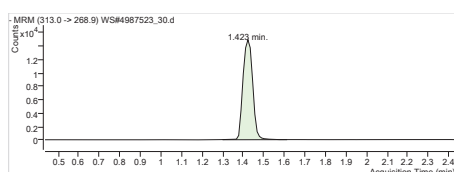
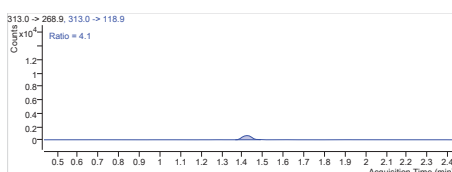
298.9 -> 79.9

1.098 (1.109)

14.95 µg/L

9.29570

CC

**PFHxA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

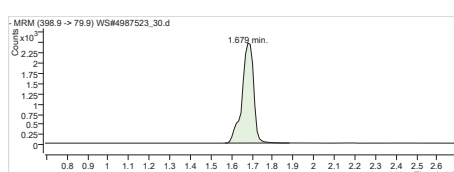
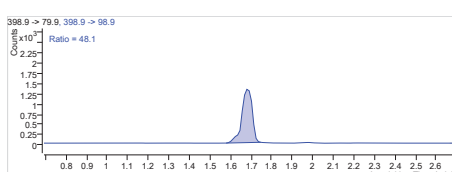
313.0 -> 268.9

1.423 (1.434)

13.42 µg/L

5.90316

CC

**PFHxS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

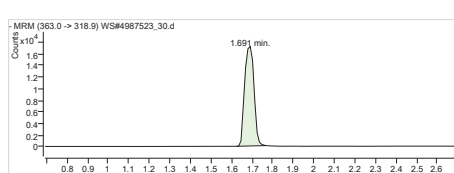
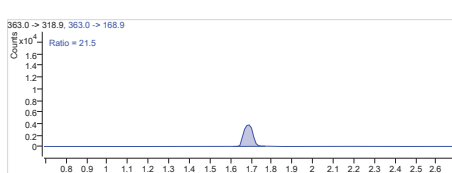
398.9 -> 79.9

1.679 (1.691)

14.87 µg/L

7.34409

CC

**PFHpA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

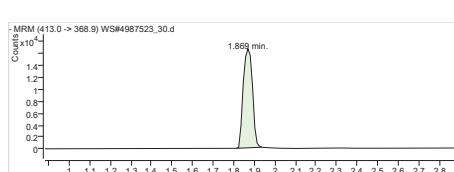
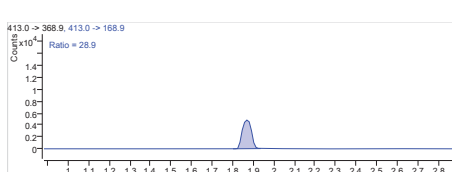
363.0 -> 318.9

1.691 (1.691)

12.87 µg/L

5.91048

CC

**PFOA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

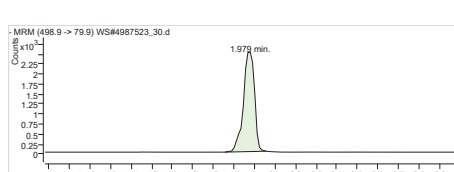
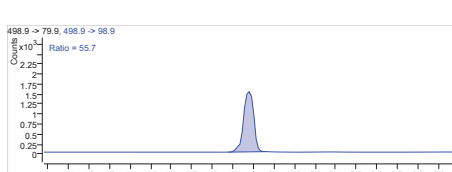
413.0 -> 368.9

1.869 (1.881)

12.34 µg/L

5.39708

CC

**PFOS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

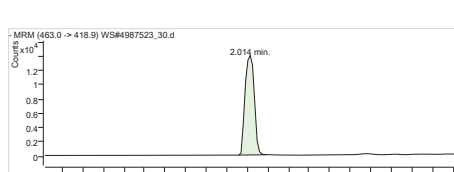
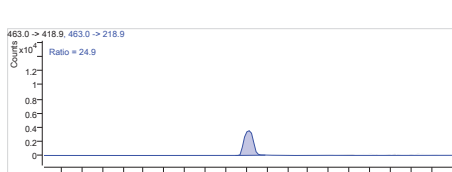
498.9 -> 79.9

1.979 (1.979)

13.25 µg/L

5.10174

CC

**PFNA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

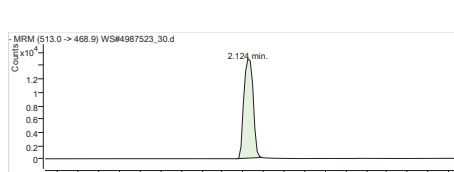
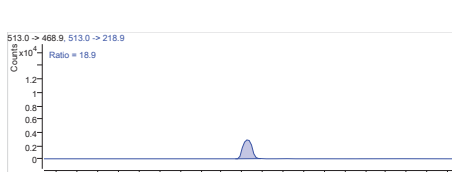
463.0 -> 418.9

2.014 (2.014)

12.85 µg/L

5.13060

CC

**PFDA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

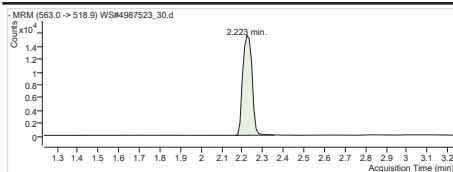
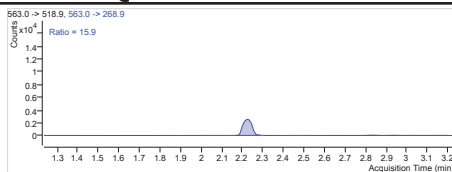
513.0 -> 468.9

2.124 (2.135)

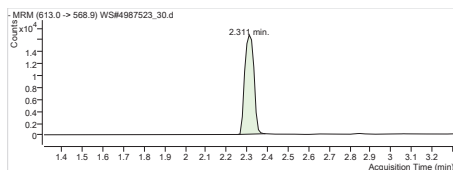
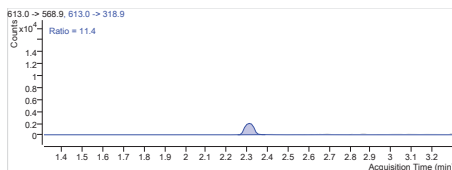
12.61 µg/L

6.24167

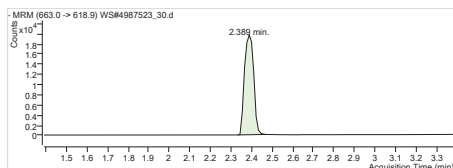
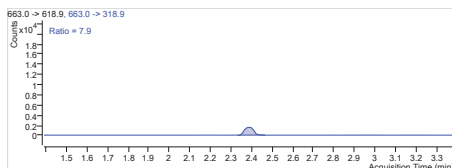
CC



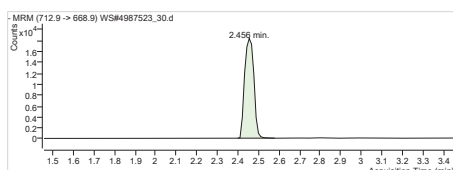
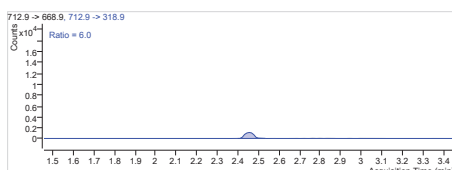
PFUnA 1
 RT (Exp. RT): 563.0 -> 518.9
 Calc. conc. 2.223 (2.234)
 Area ratio: 13.61 $\mu\text{g/L}$
 Sample type: 5.94177
 CC



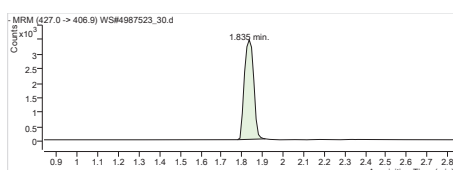
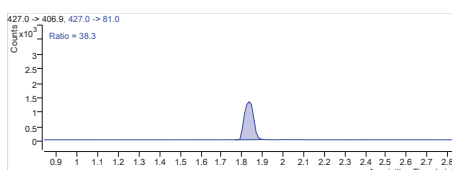
PFDa 1
 RT (Exp. RT): 613.0 -> 568.9
 Calc. conc. 2.311 (2.311)
 Area ratio: 14.38 $\mu\text{g/L}$
 Sample type: 5.93258
 CC



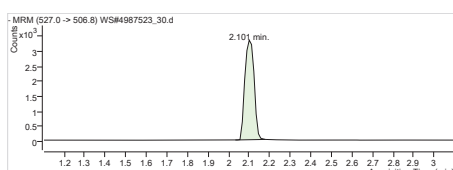
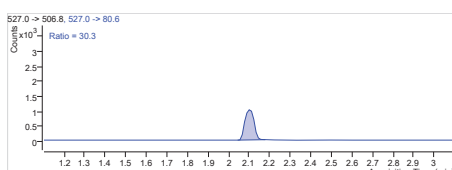
PFTraD 1
 RT (Exp. RT): 663.0 -> 618.9
 Calc. conc. 2.389 (2.389)
 Area ratio: 12.30 $\mu\text{g/L}$
 Sample type: 4.93512
 CC



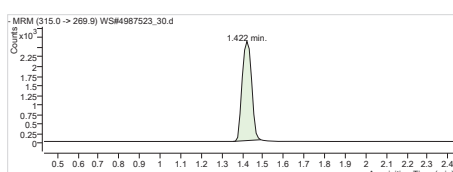
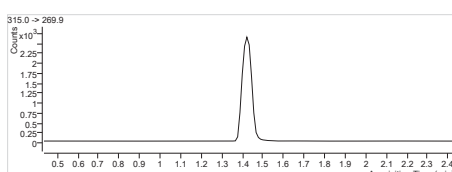
PFTeDa 1
 RT (Exp. RT): 712.9 -> 668.9
 Calc. conc. 2.456 (2.456)
 Area ratio: 12.19 $\mu\text{g/L}$
 Sample type: 4.61225
 CC



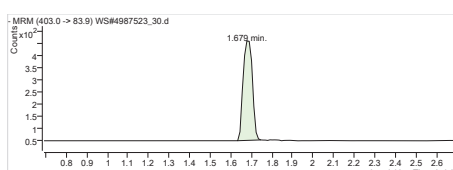
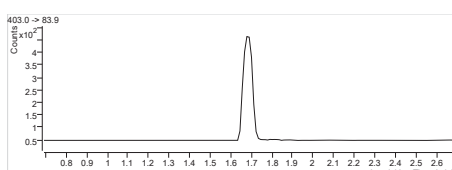
6:2-FTS 1
 RT (Exp. RT): 427.0 -> 406.9
 Calc. conc. 1.835 (1.835)
 Area ratio: 12.57 $\mu\text{g/L}$
 Sample type: 5.01857
 CC



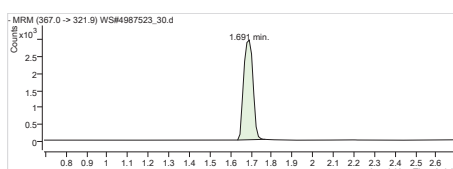
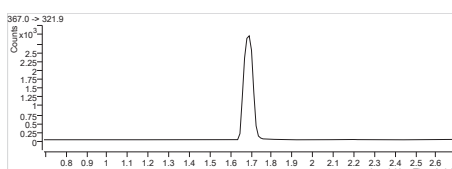
8:2-FTS 1
 RT (Exp. RT): 527.0 -> 506.8
 Calc. conc. 2.101 (2.101)
 Area ratio: 12.04 $\mu\text{g/L}$
 Sample type: 4.40830
 CC



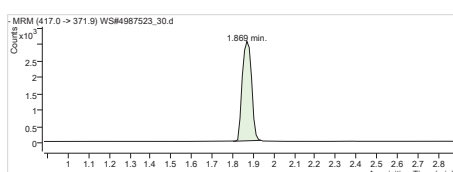
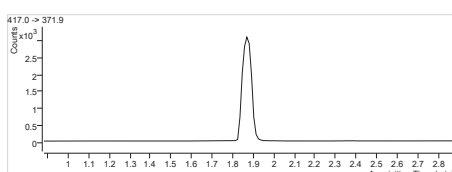
13C2-PFHxA
 RT (Exp. RT): 315.0 -> 269.9
 Calc. conc. 1.422 (1.434)
 Area ratio: 94.28 $\mu\text{g/L}$
 Sample type: 0.20970
 CC



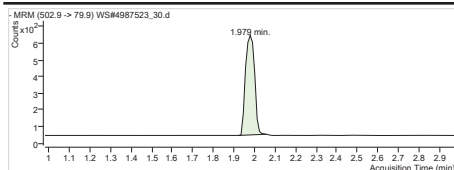
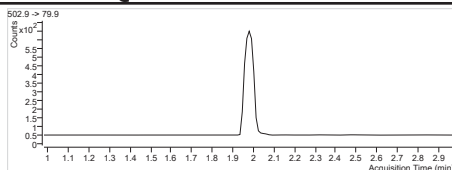
18O2-PFHxS
 RT (Exp. RT): 403.0 -> 83.9
 Calc. conc. 1.679 (1.690)
 Area ratio: 84.24 $\mu\text{g/L}$
 Sample type: 0.03293
 CC



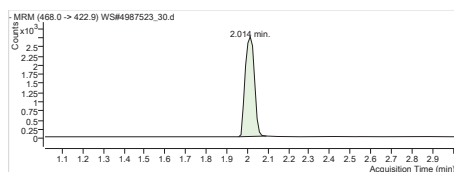
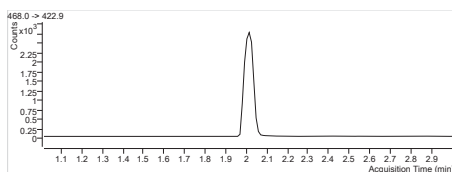
13C4-PFHpA
 RT (Exp. RT): 367.0 -> 321.9
 Calc. conc. 1.691 (1.691)
 Area ratio: 100.37 $\mu\text{g/L}$
 Sample type: 0.23363
 CC



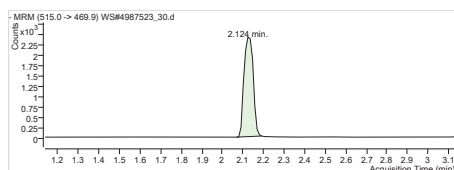
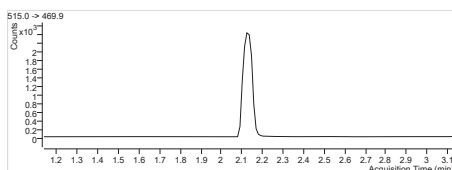
13C4-PFOA
 RT (Exp. RT): 417.0 -> 371.9
 Calc. conc. 1.869 (1.881)
 Area ratio: 105.45 $\mu\text{g/L}$
 Sample type: 0.24068
 CC



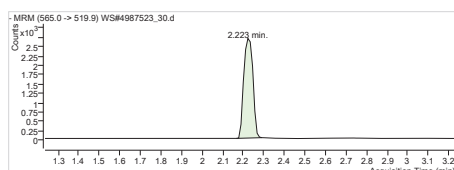
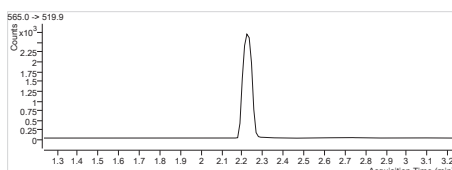
13C4-PFOS
RT (Exp. RT): 502.9 -> 79.9
Calc. conc. 1.979 (1.979)
Area ratio: 97.12 µg/L
Sample type: 0.04648
CC



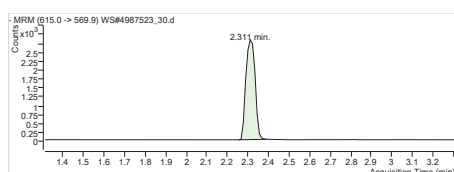
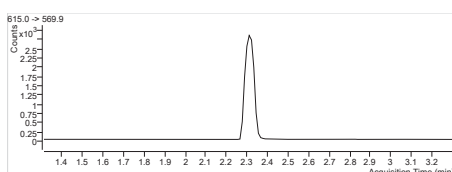
13C5-PFNA
RT (Exp. RT): 468.0 -> 422.9
Calc. conc. 2.014 (2.014)
Area ratio: 96.98 µg/L
Sample type: 0.21572
CC



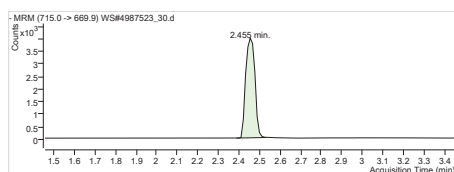
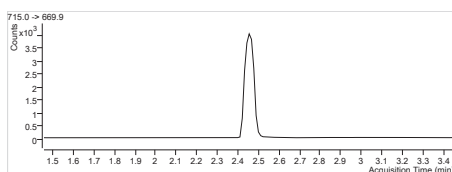
13C2-PFDA
RT (Exp. RT): 515.0 -> 469.9
Calc. conc. 2.124 (2.135)
Area ratio: 101.30 µg/L
Sample type: 0.22965
CC



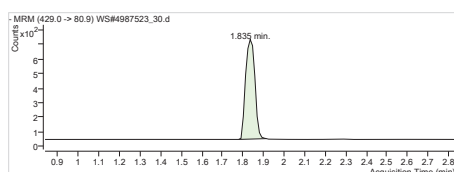
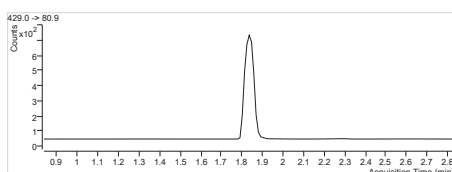
13C2-PFUnA
RT (Exp. RT): 565.0 -> 519.9
Calc. conc. 2.223 (2.234)
Area ratio: 103.69 µg/L
Sample type: 0.25397
CC



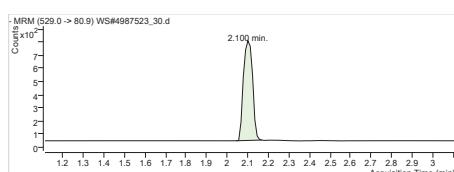
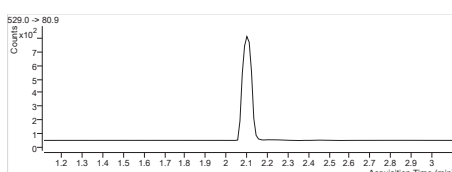
13C2-PFDoA
RT (Exp. RT): 615.0 -> 569.9
Calc. conc. 2.311 (2.311)
Area ratio: 97.63 µg/L
Sample type: 0.26906
CC



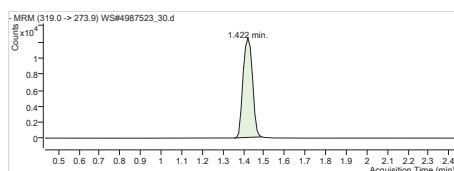
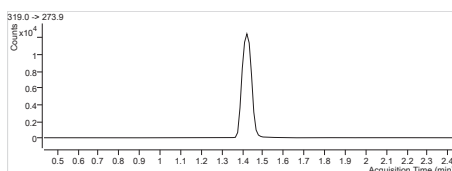
13C2-PFTeDA
RT (Exp. RT): 715.0 -> 669.9
Calc. conc. 2.455 (2.455)
Area ratio: 109.63 µg/L
Sample type: 0.38196
CC



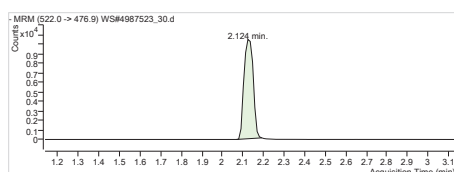
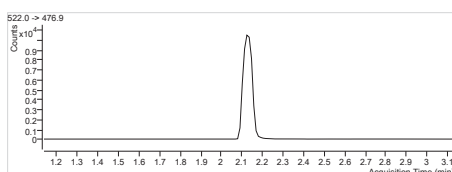
13C2-6:2-FTS
RT (Exp. RT): 429.0 -> 80.9
Calc. conc. 1.835 (1.835)
Area ratio: 98.37 µg/L
Sample type: 0.05447
CC



13C2-8:2 FTS
RT (Exp. RT): 529.0 -> 80.9
Calc. conc. 2.100 (2.112)
Area ratio: 100.03 µg/L
Sample type: 0.05971
CC



13C6-PFHxA
RT (Exp. RT): 319.0 -> 273.9
Calc. conc. 1.422 (1.434)
Area ratio: 101.22 µg/L
Sample type: 0
CC



13C9-PFDA
RT (Exp. RT): 522.0 -> 476.9
Calc. conc. 2.124 (2.135)
Area ratio: 98.58 µg/L
Sample type: 0
CC

Batch Path

T:\lcms4\PFC\20170523\WS#4987523\QuantResults\PFC_Water_Low_170523_WS#4987523_CT

Sample Name

CCV

Instrument

LCMS04

Data File

WS#4987523_42.d

Operator

AD

Sample Type

CC

Dilution

1

Acq. Method

PFC_Water_Low.m

Position

P1-A5

Acq. Date

2017/05/23 1:01:36 PM

Injection Volume

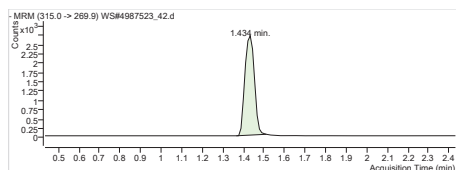
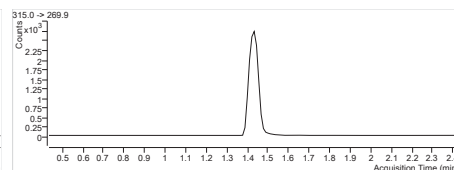
Per Method

Sample Annotation

-

ISTD Compounds	Response	RT	Target conc.		
MPFHxA	8631	1.43	1 µg/L		
MPFHxS	1437	1.69	1 µg/L		
MPFHpA	8654	1.69	1 µg/L		
MPFOA	8631	1.88	1 µg/L		
MPFOS	1851	1.98	1 µg/L		
MPFNA	8751	2.01	1 µg/L		
MPFDA	7702	2.14	1 µg/L		
MPFUnA	7652	2.22	1 µg/L		
MPFDoA	8915	2.31	1 µg/L		
MPFTeDA	11403	2.46	1 µg/L		
M2 6:2 FTS	2060	1.84	1 µg/L		
M2 8:2 FTS	2125	2.10	1 µg/L		
13C6-PFHxA IS	40235	1.43	1 µg/L		
13C9-PFDA IS	34266	2.13	1 µg/L		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	12526	1.10	12.50	14.01 µg/L	112.10
PFHxA 1	48278	1.43	12.50	12.72 µg/L	101.76
PFHxS 1	9763	1.69	12.50	13.75 µg/L	110.02
PFHpA 1	52544	1.69	12.50	13.22 µg/L	105.74
PFOA 1	49790	1.87	12.50	13.20 µg/L	105.58
PFOS 1	9371	1.98	12.50	13.14 µg/L	105.15
PFNA 1	45781	2.01	12.50	13.10 µg/L	104.82
PFDA 1	47094	2.14	12.50	12.35 µg/L	98.78
PFUnA 1	47910	2.22	12.50	14.35 µg/L	114.79
PFDaA 1	49651	2.31	12.50	13.49 µg/L	107.96
PFTeDA 1	61842	2.39	12.50	13.52 µg/L	108.19
PFTeDA 1	56873	2.46	12.50	13.19 µg/L	105.52
6:2-FTS 1	10851	1.84	12.50	13.20 µg/L	105.60
8:2-FTS 1	10883	2.10	12.50	14.00 µg/L	112.01
13C2-PFHxA	8631	1.43	100.00	96.45 µg/L	96.45
18O2-PFHxS	1437	1.69	100.00	91.37 µg/L	91.37
13C4-PFHpA	8654	1.69	100.00	92.41 µg/L	92.41
13C4-PFOA	8631	1.88	100.00	93.98 µg/L	93.98
13C4-PFOS	1851	1.98	100.00	96.12 µg/L	96.12
13C5-PFNA	8751	2.01	100.00	97.78 µg/L	97.78
13C2-PFDA	7702	2.14	100.00	99.14 µg/L	99.14
13C2-PFUnA	7652	2.22	100.00	91.17 µg/L	91.17
13C2-PFDoA	8915	2.31	100.00	94.40 µg/L	94.40
13C2-PFTeDA	11403	2.46	100.00	95.51 µg/L	95.51
13C2-6:2-FTS	2060	1.84	100.00	92.46 µg/L	92.46
13C2-8:2 FTS	2125	2.10	100.00	88.48 µg/L	88.48
13C6-PFHxA	40235	1.43	100.00	103.00 µg/L	103.00
13C9-PFDA	34266	2.13	100.00	103.86 µg/L	103.86



MPFHxA

Internal Standard

RT (Exp. RT):

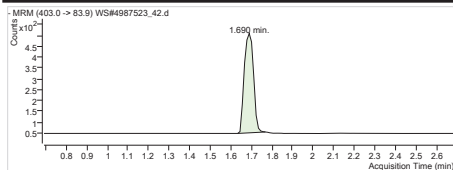
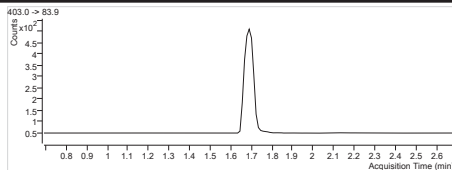
1.434 (1.434)

Concentration:

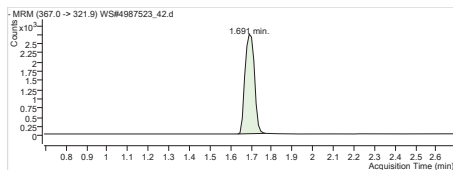
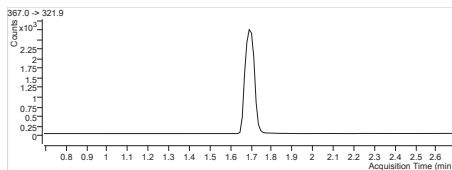
1 µg/L

Sample type:

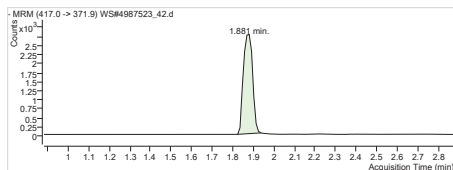
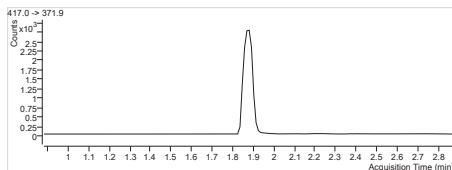
CC



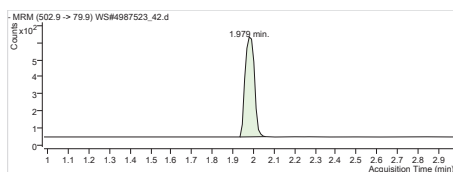
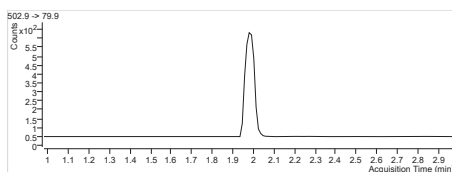
MPFHxS
 RT (Exp. RT): 1.690 (1.690)
 Concentration: 1 µg/L
 Sample type: CC



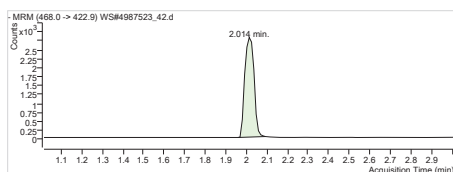
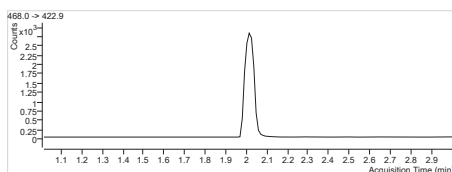
MPFHpA
 RT (Exp. RT): 1.691 (1.691)
 Concentration: 1 µg/L
 Sample type: CC



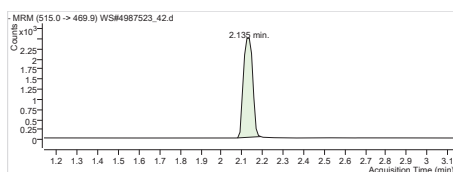
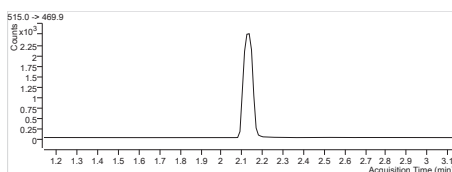
MPFOA
 RT (Exp. RT): 1.881 (1.881)
 Concentration: 1 µg/L
 Sample type: CC



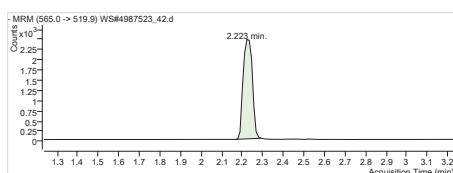
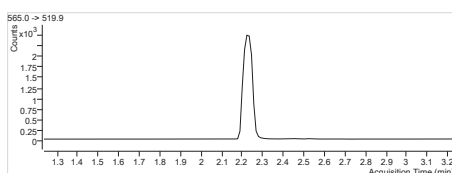
MPFOS
 RT (Exp. RT): 1.979 (1.979)
 Concentration: 1 µg/L
 Sample type: CC



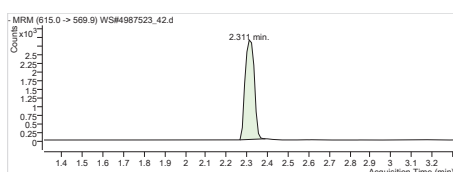
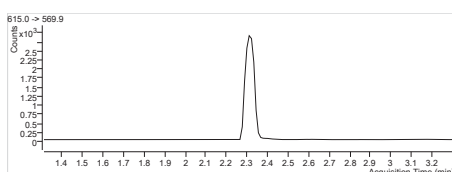
MPFNA
 RT (Exp. RT): 2.014 (2.014)
 Concentration: 1 µg/L
 Sample type: CC



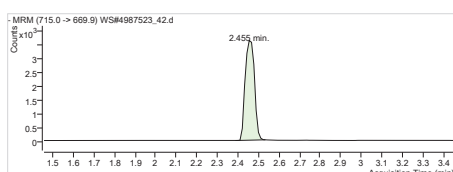
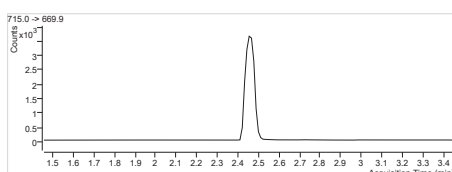
MPFDA
 RT (Exp. RT): 2.135 (2.135)
 Concentration: 1 µg/L
 Sample type: CC



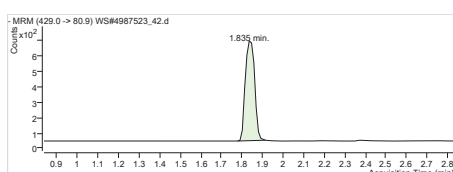
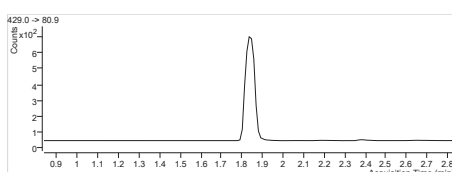
MPFUnA
 RT (Exp. RT): 2.223 (2.234)
 Concentration: 1 µg/L
 Sample type: CC



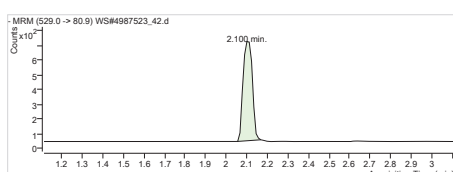
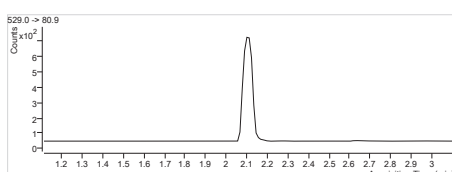
MPFDoA
 RT (Exp. RT): 2.311 (2.311)
 Concentration: 1 µg/L
 Sample type: CC



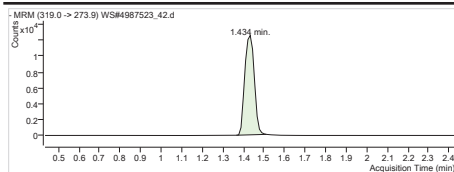
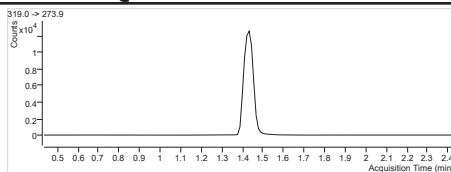
MPFTeDA
 RT (Exp. RT): 2.455 (2.455)
 Concentration: 1 µg/L
 Sample type: CC



M2 6:2 FTS
 RT (Exp. RT): 1.835 (1.835)
 Concentration: 1 µg/L
 Sample type: CC

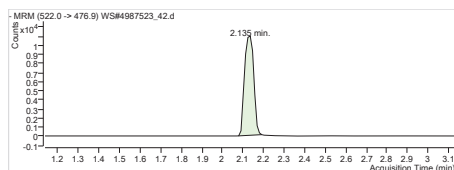
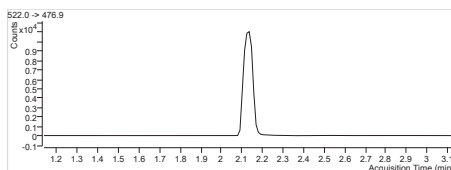


M2 8:2 FTS
 RT (Exp. RT): 2.100 (2.112)
 Concentration: 1 µg/L
 Sample type: CC

**13C6-PFHxA IS**

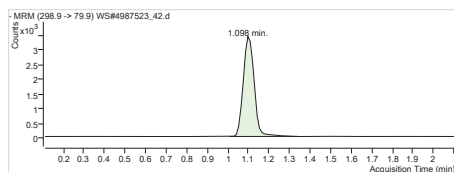
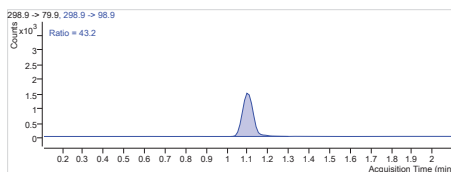
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
1.434 (1.434)
1 µg/L
CC

**13C9-PFDA IS**

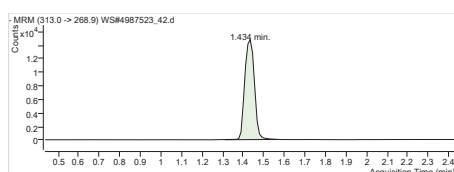
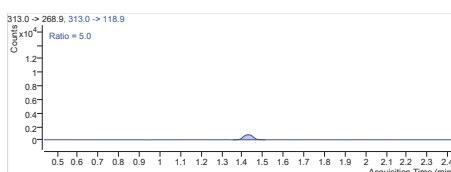
RT (Exp. RT):
Concentration:
Sample type:

Internal Standard
2.135 (2.135)
1 µg/L
CC

**PFBS 1**

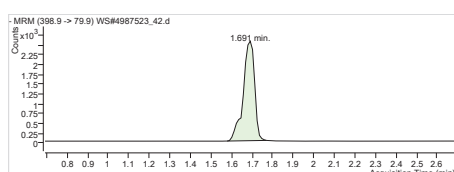
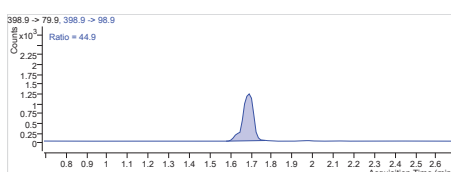
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

298.9 -> 79.9
1.098 (1.109)
14.01 µg/L
8.71677
CC

**PFHxA 1**

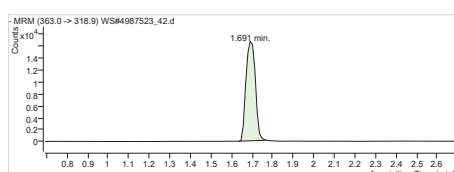
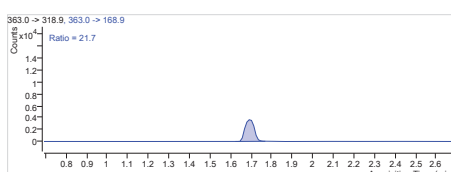
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

313.0 -> 268.9
1.434 (1.434)
12.72 µg/L
5.59356
CC

**PFHxS 1**

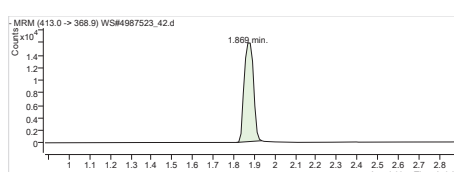
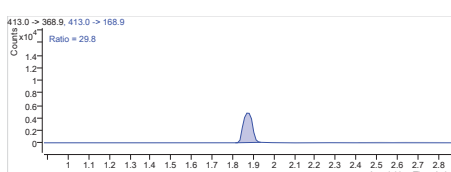
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

398.9 -> 79.9
1.691 (1.691)
13.75 µg/L
6.79402
CC

**PFHpA 1**

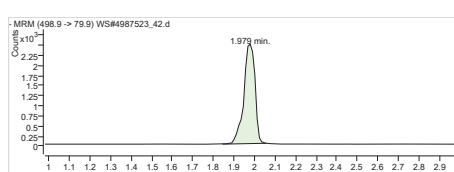
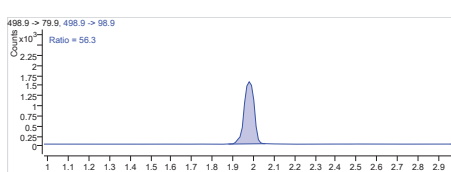
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

363.0 -> 318.9
1.691 (1.691)
13.22 µg/L
6.07164
CC

**PFOA 1**

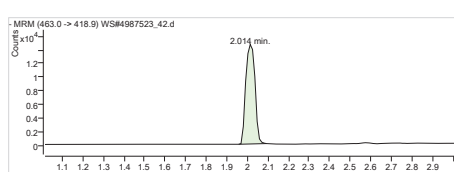
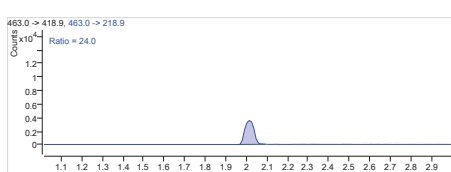
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

413.0 -> 368.9
1.869 (1.881)
13.20 µg/L
5.76874
CC

**PFOS 1**

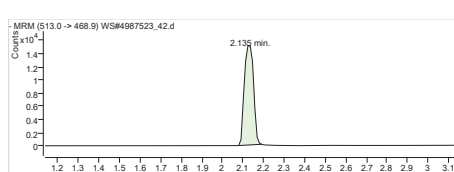
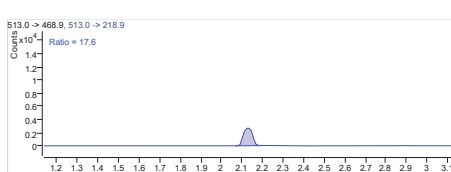
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

498.9 -> 79.9
1.979 (1.979)
13.14 µg/L
5.06267
CC

**PFNA 1**

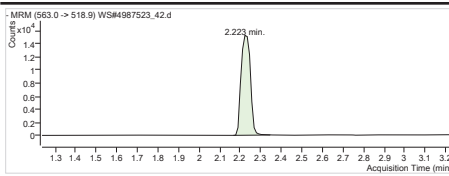
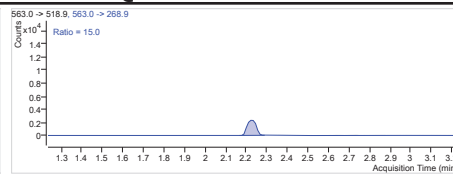
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

463.0 -> 418.9
2.014 (2.014)
13.10 µg/L
5.23152
CC

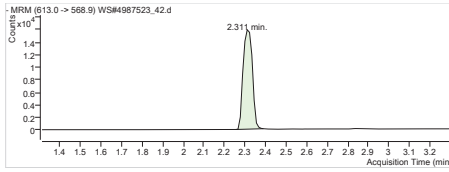
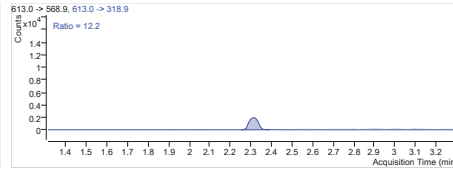
**PFDA 1**

RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

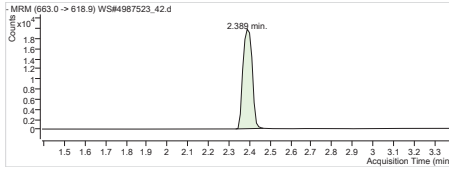
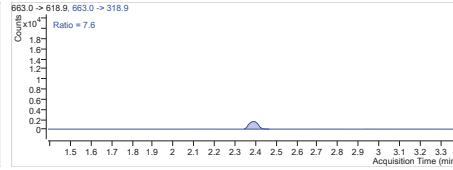
513.0 -> 468.9
2.135 (2.135)
12.35 µg/L
6.11452
CC



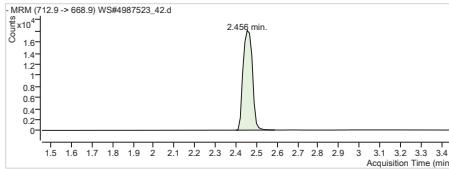
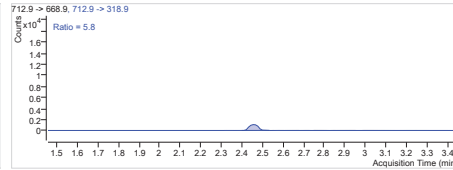
PFUnA 1
 RT (Exp. RT): 563.0 -> 518.9
 Calc. conc. 2.223 (2.234)
 Area ratio: 14.35 µg/L
 Sample type: 6.26111
 CC



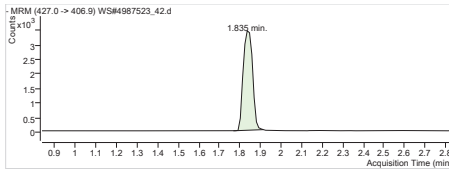
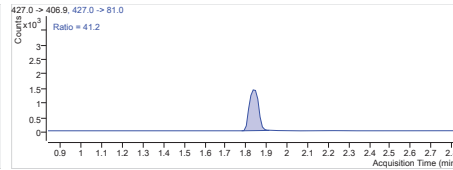
PFDa 1
 RT (Exp. RT): 613.0 -> 568.9
 Calc. conc. 2.311 (2.311)
 Area ratio: 13.49 µg/L
 Sample type: 5.56938
 CC



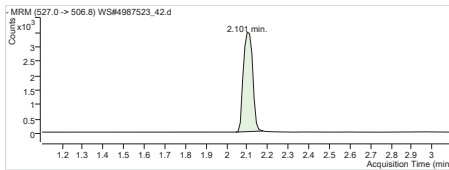
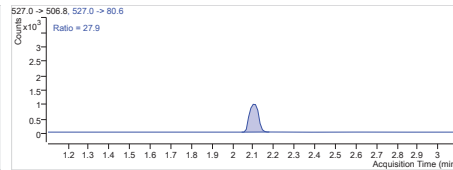
PFTrDa 1
 RT (Exp. RT): 663.0 -> 618.9
 Calc. conc. 2.389 (2.389)
 Area ratio: 13.52 µg/L
 Sample type: 5.42331
 CC



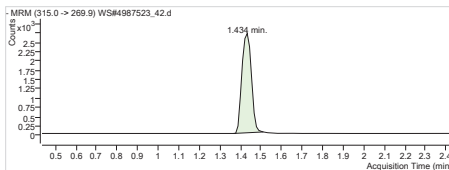
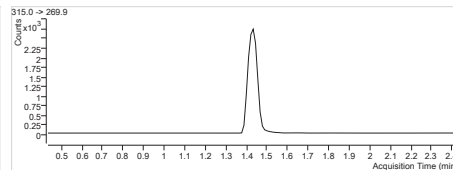
PFTeDa 1
 RT (Exp. RT): 712.9 -> 668.9
 Calc. conc. 2.456 (2.456)
 Area ratio: 13.19 µg/L
 Sample type: 4.98755
 CC



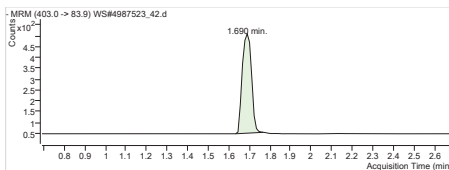
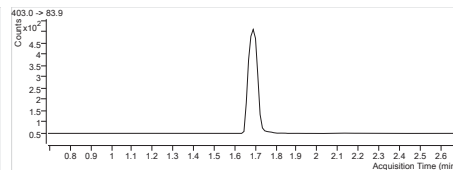
6:2-FTS 1
 RT (Exp. RT): 427.0 -> 406.9
 Calc. conc. 1.835 (1.835)
 Area ratio: 13.20 µg/L
 Sample type: 5.26748
 CC



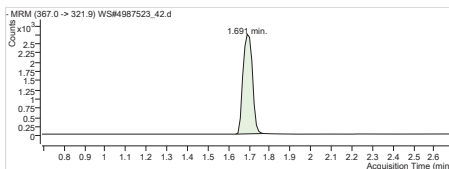
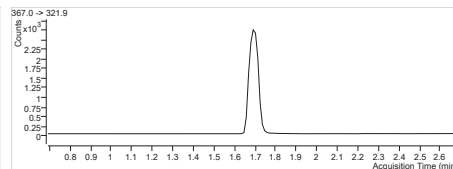
8:2-FTS 1
 RT (Exp. RT): 527.0 -> 506.8
 Calc. conc. 2.101 (2.101)
 Area ratio: 14.00 µg/L
 Sample type: 5.12141
 CC



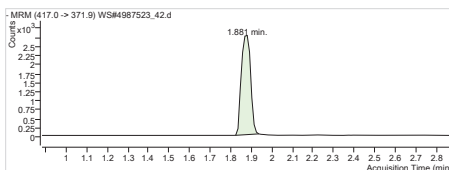
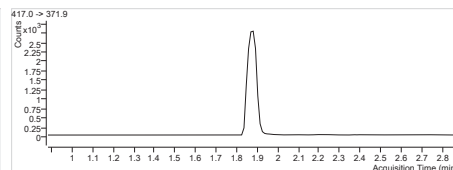
13C2-PFHxA
 RT (Exp. RT): 315.0 -> 269.9
 Calc. conc. 1.434 (1.434)
 Area ratio: 96.45 µg/L
 Sample type: 0.21451
 CC



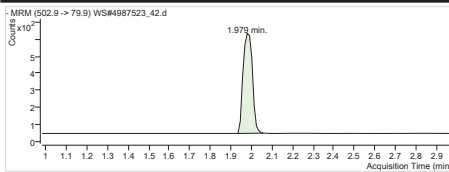
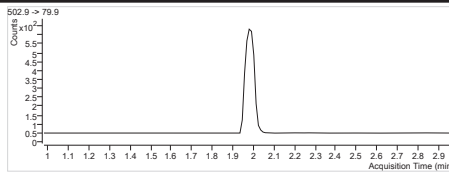
18O2-PFHxS
 RT (Exp. RT): 403.0 -> 83.9
 Calc. conc. 1.690 (1.690)
 Area ratio: 91.37 µg/L
 Sample type: 0.03572
 CC



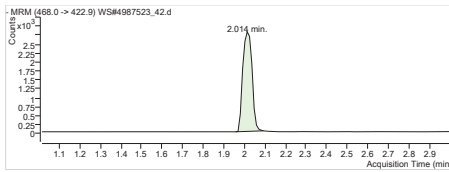
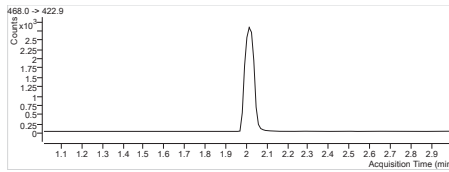
13C4-PFHpA
 RT (Exp. RT): 367.0 -> 321.9
 Calc. conc. 1.691 (1.691)
 Area ratio: 92.41 µg/L
 Sample type: 0.21509
 CC



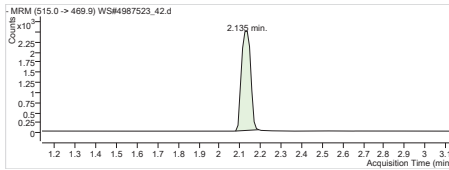
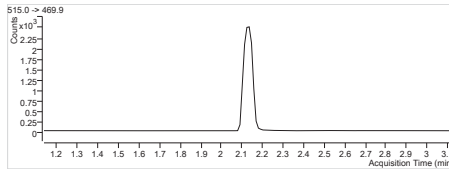
13C4-PFOA
 RT (Exp. RT): 417.0 -> 371.9
 Calc. conc. 1.881 (1.881)
 Area ratio: 93.98 µg/L
 Sample type: 0.21451
 CC



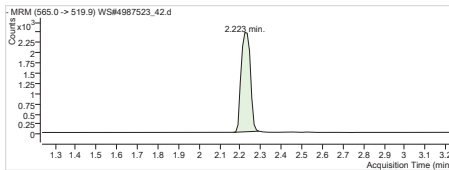
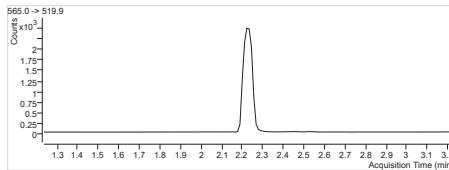
13C4-PFOS
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 96.12 µg/L
Area ratio: 0.04600
Sample type: CC



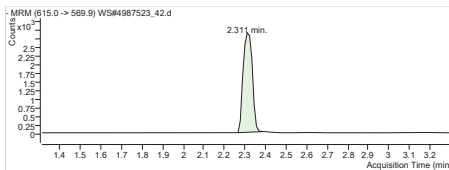
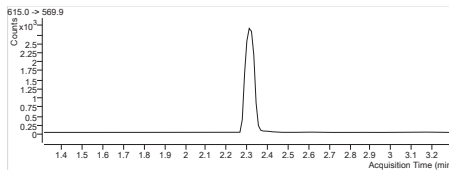
13C5-PFNA
RT (Exp. RT): 2.014 (2.014)
Calc. conc. 97.78 µg/L
Area ratio: 0.21750
Sample type: CC



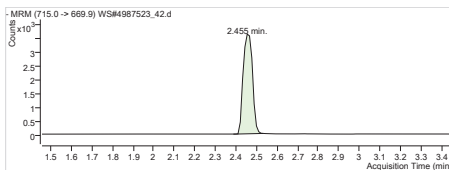
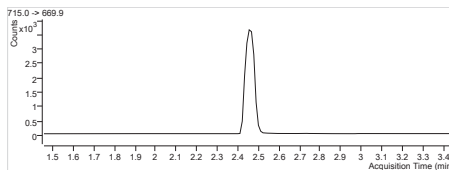
13C2-PFDA
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 99.14 µg/L
Area ratio: 0.22477
Sample type: CC



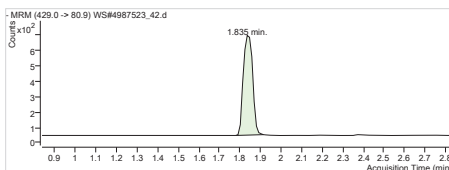
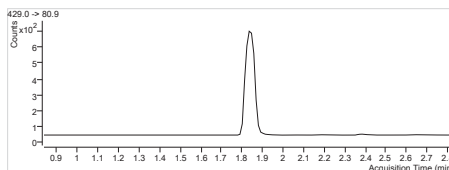
13C2-PFUnA
RT (Exp. RT): 2.223 (2.234)
Calc. conc. 91.17 µg/L
Area ratio: 0.22331
Sample type: CC



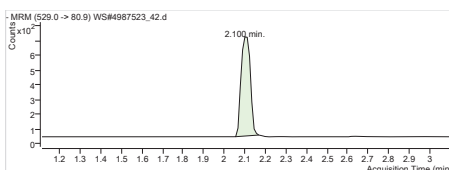
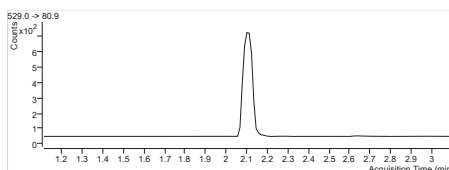
13C2-PFDoA
RT (Exp. RT): 2.311 (2.311)
Calc. conc. 94.40 µg/L
Area ratio: 0.26017
Sample type: CC



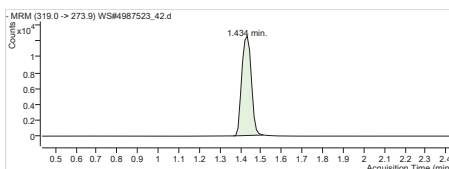
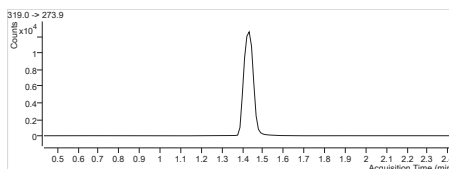
13C2-PFTeDA
RT (Exp. RT): 2.455 (2.455)
Calc. conc. 95.51 µg/L
Area ratio: 0.33278
Sample type: CC



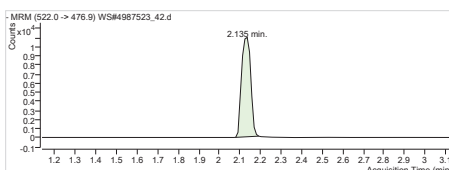
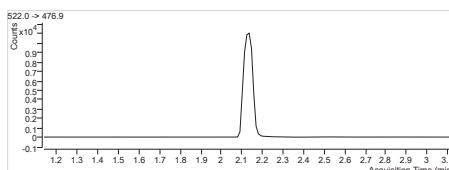
13C2-6:2-FTS
RT (Exp. RT): 1.835 (1.835)
Calc. conc. 92.46 µg/L
Area ratio: 0.05120
Sample type: CC



13C2-8:2 FTS
RT (Exp. RT): 2.100 (2.112)
Calc. conc. 88.48 µg/L
Area ratio: 0.05281
Sample type: CC



13C6-PFHxA
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 103.00 µg/L
Area ratio: 0
Sample type: CC



13C9-PFDA
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 103.86 µg/L
Area ratio: 0
Sample type: CC

Batch Path

T:\lcms4\PFC\20170523\WS#4987523\QuantResults\PFC_Water_Low_170523_WS#4987523_CT

Sample Name

CCV

Instrument

LCMS04

Data File

WS#4987523_45.d

Operator

AD

Sample Type

CC

Dilution

1

Acq. Method

PFC_Water_Low.m

Position

P1-A5

Acq. Date

2017/05/23 1:40:48 PM

Injection Volume

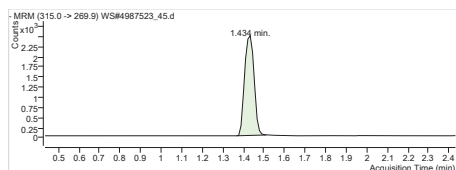
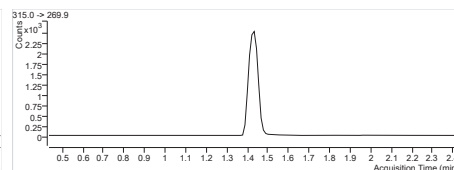
Per Method

Sample Annotation

-

ISTD Compounds	Response	RT	Target conc.		
MPFHxA	7958	1.43	1 µg/L		
MPFHxS	1529	1.69	1 µg/L		
MPFHpA	9363	1.69	1 µg/L		
MPFOA	9041	1.87	1 µg/L		
MPFOS	1836	1.98	1 µg/L		
MPFNA	8396	2.01	1 µg/L		
MPFDA	7070	2.14	1 µg/L		
MPFUnA	8530	2.22	1 µg/L		
MPFDoA	9164	2.31	1 µg/L		
MPFTeDA	11782	2.46	1 µg/L		
M2 6:2 FTS	2124	1.84	1 µg/L		
M2 8:2 FTS	2293	2.10	1 µg/L		
13C6-PFHxA IS	39559	1.43	1 µg/L		
13C9-PFDA IS	33504	2.13	1 µg/L		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	11748	1.10	12.50	12.35 µg/L	98.78
PFHxA 1	48341	1.43	12.50	13.82 µg/L	110.52
PFHxS 1	9863	1.69	12.50	13.05 µg/L	104.43
PFHpA 1	52007	1.69	12.50	12.09 µg/L	96.69
PFOA 1	49978	1.87	12.50	12.64 µg/L	101.12
PFOS 1	8892	1.98	12.50	12.57 µg/L	100.59
PFNA 1	42959	2.01	12.50	12.81 µg/L	102.51
PFDA 1	47027	2.12	12.50	13.43 µg/L	107.48
PFUnA 1	46307	2.22	12.50	12.43 µg/L	99.46
PFDaA 1	48779	2.31	12.50	12.89 µg/L	103.14
PFTTrDA 1	61015	2.39	12.50	12.91 µg/L	103.29
PFTeDA 1	55536	2.46	12.50	12.46 µg/L	99.69
6:2-FTS 1	10665	1.84	12.50	12.57 µg/L	100.58
8:2-FTS 1	10148	2.10	12.50	12.09 µg/L	96.68
13C2-PFHxA	7958	1.43	100.00	90.45 µg/L	90.45
18O2-PFHxS	1529	1.69	100.00	98.89 µg/L	98.89
13C4-PFHpA	9363	1.69	100.00	101.69 µg/L	101.69
13C4-PFOA	9041	1.87	100.00	100.13 µg/L	100.13
13C4-PFOS	1836	1.98	100.00	96.97 µg/L	96.97
13C5-PFNA	8396	2.01	100.00	95.41 µg/L	95.41
13C2-PFDA	7070	2.14	100.00	93.08 µg/L	93.08
13C2-PFUnA	8530	2.22	100.00	103.94 µg/L	103.94
13C2-PFDoA	9164	2.31	100.00	99.25 µg/L	99.25
13C2-PFTeDA	11782	2.46	100.00	100.93 µg/L	100.93
13C2-6:2-FTS	2124	1.84	100.00	96.96 µg/L	96.96
13C2-8:2 FTS	2293	2.10	100.00	97.10 µg/L	97.10
13C6-PFHxA	39559	1.43	100.00	101.27 µg/L	101.27
13C9-PFDA	33504	2.13	100.00	101.55 µg/L	101.55



MPFHxA

Internal Standard

RT (Exp. RT):

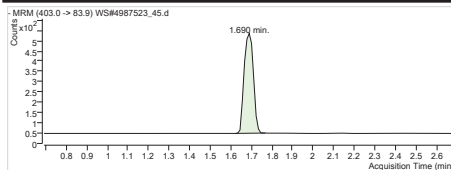
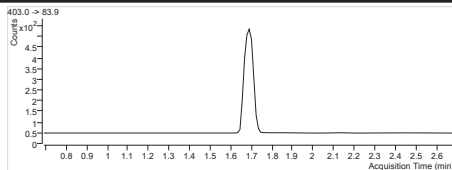
1.434 (1.434)

Concentration:

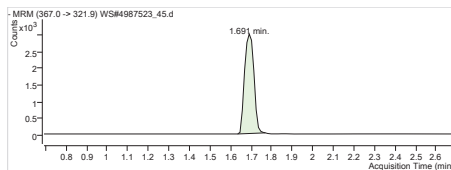
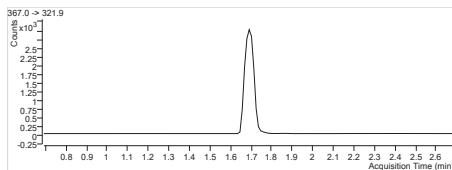
1 µg/L

Sample type:

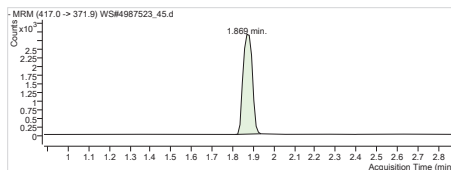
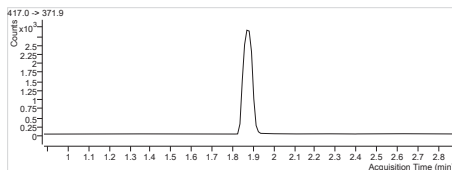
CC



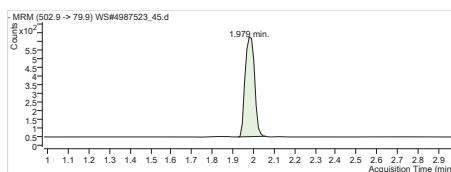
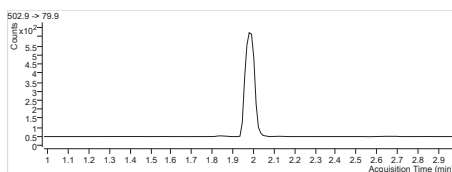
MPFHxS
RT (Exp. RT): 1.690 (1.690)
Concentration: 1 µg/L
Sample type: CC



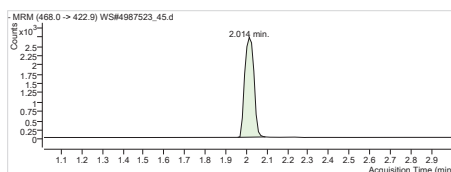
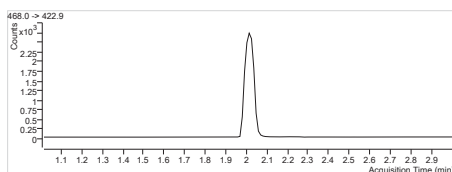
MPFHpA
RT (Exp. RT): 1.691 (1.691)
Concentration: 1 µg/L
Sample type: CC



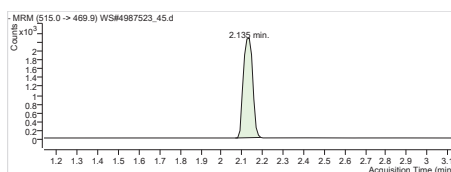
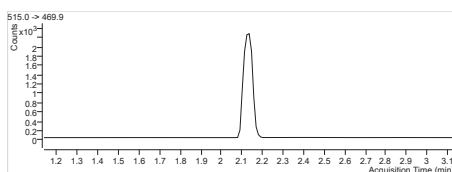
MPFOA
RT (Exp. RT): 1.869 (1.881)
Concentration: 1 µg/L
Sample type: CC



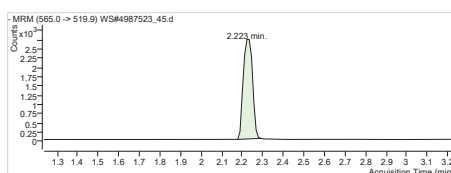
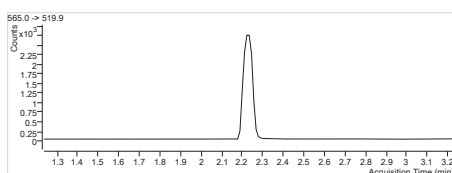
MPFOS
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: CC



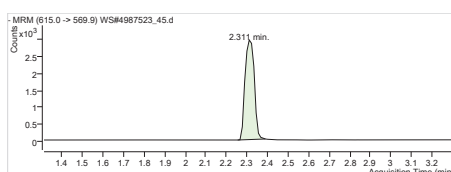
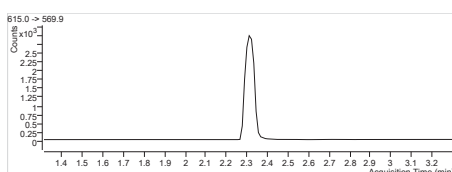
MPFNA
RT (Exp. RT): 2.014 (2.014)
Concentration: 1 µg/L
Sample type: CC



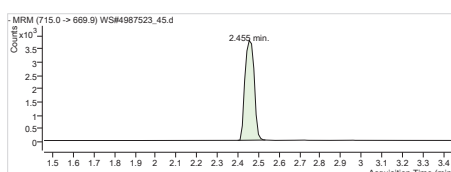
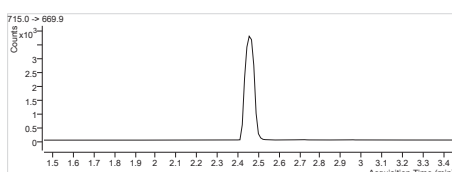
MPFDA
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: CC



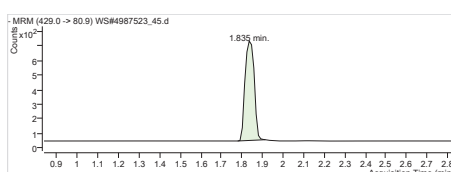
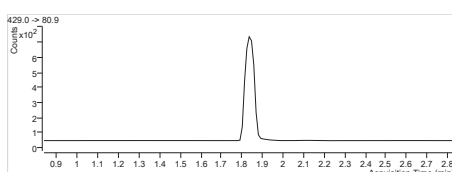
MPFUnA
RT (Exp. RT): 2.223 (2.234)
Concentration: 1 µg/L
Sample type: CC



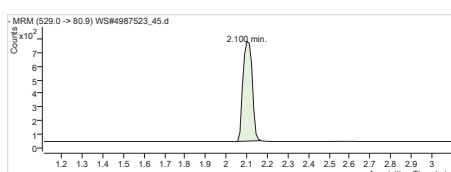
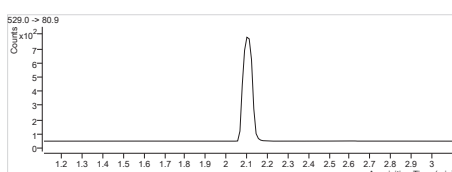
MPFDoA
RT (Exp. RT): 2.311 (2.311)
Concentration: 1 µg/L
Sample type: CC



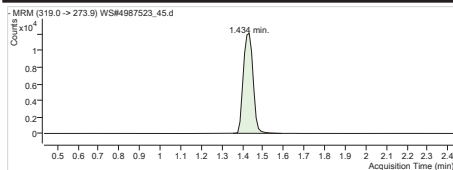
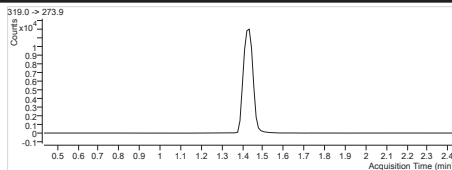
MPFTeDA
RT (Exp. RT): 2.455 (2.455)
Concentration: 1 µg/L
Sample type: CC



M2 6:2 FTS
RT (Exp. RT): 1.835 (1.835)
Concentration: 1 µg/L
Sample type: CC



M2 8:2 FTS
RT (Exp. RT): 2.100 (2.112)
Concentration: 1 µg/L
Sample type: CC

**13C6-PFHxA IS**

RT (Exp. RT):

Concentration:

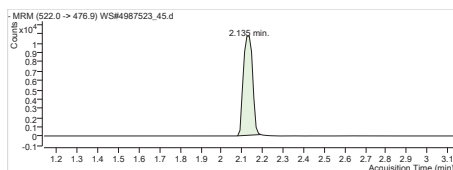
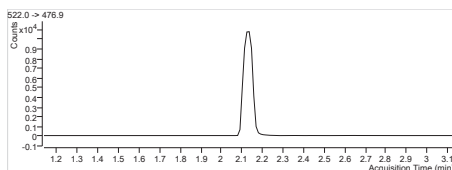
Sample type:

Internal Standard

1.434 (1.434)

1 µg/L

CC

**13C9-PFDA IS**

RT (Exp. RT):

Concentration:

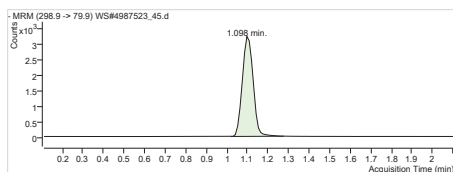
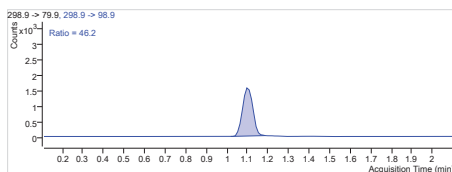
Sample type:

Internal Standard

2.135 (2.135)

1 µg/L

CC

**PFBS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

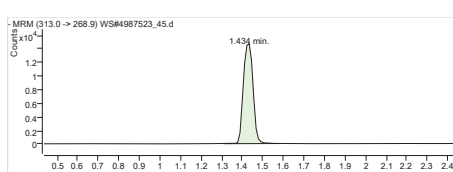
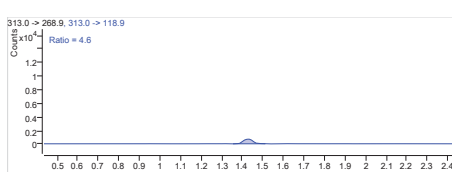
298.9 -> 79.9

1.098 (1.109)

12.35 µg/L

7.68345

CC

**PFHxA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

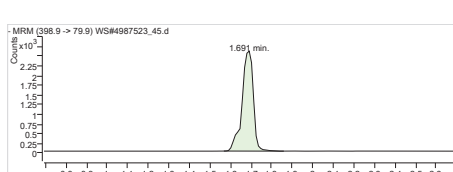
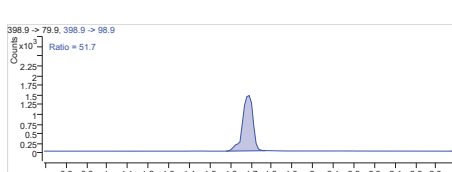
313.0 -> 268.9

1.434 (1.434)

13.82 µg/L

6.07452

CC

**PFHxS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

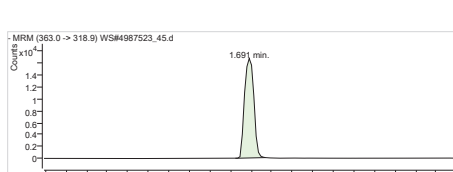
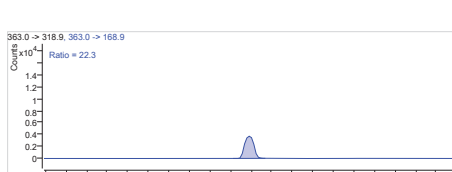
398.9 -> 79.9

1.691 (1.691)

13.05 µg/L

6.45062

CC

**PFHpA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

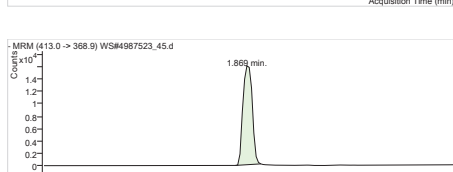
363.0 -> 318.9

1.691 (1.691)

12.09 µg/L

5.55452

CC

**PFOA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

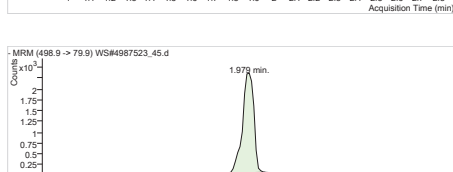
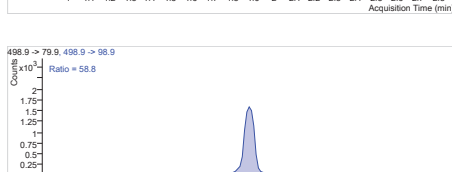
413.0 -> 368.9

1.869 (1.881)

12.64 µg/L

5.52793

CC

**PFOS 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

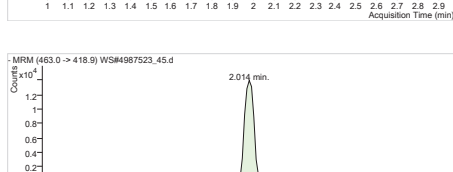
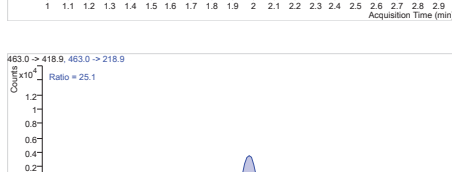
498.9 -> 79.9

1.979 (1.979)

12.57 µg/L

4.84314

CC

**PFNA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

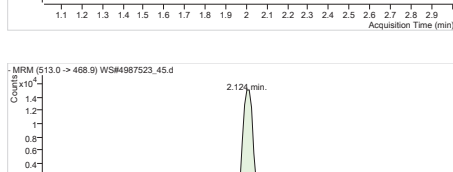
463.0 -> 418.9

2.014 (2.014)

12.81 µg/L

5.11660

CC

**PFDA 1**

RT (Exp. RT):

Calc. conc.

Area ratio:

Sample type:

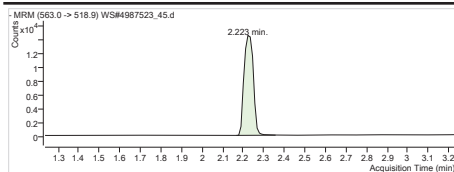
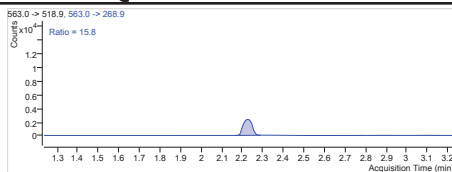
513.0 -> 468.9

2.124 (2.135)

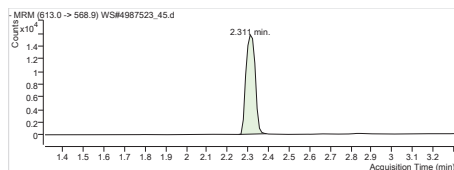
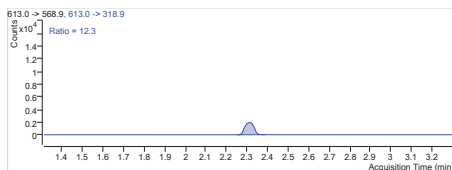
13.43 µg/L

6.65163

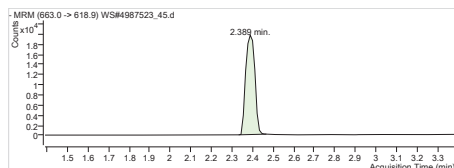
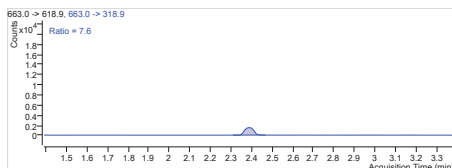
CC



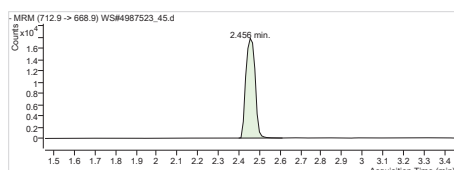
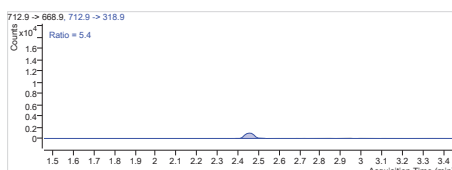
PFUnA 1
RT (Exp. RT): 563.0 -> 518.9
Calc. conc. 2.223 (2.234)
Area ratio: 12.43 µg/L
Sample type: 5.42872
CC



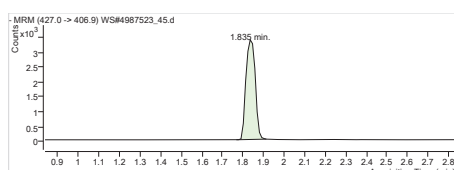
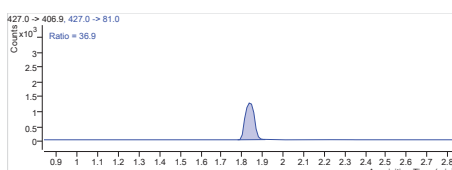
PFDa 1
RT (Exp. RT): 613.0 -> 568.9
Calc. conc. 2.311 (2.311)
Area ratio: 12.89 µg/L
Sample type: 5.32289
CC



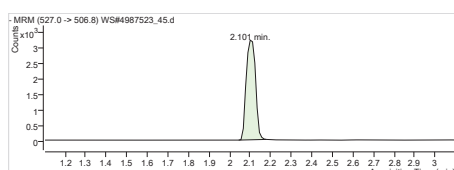
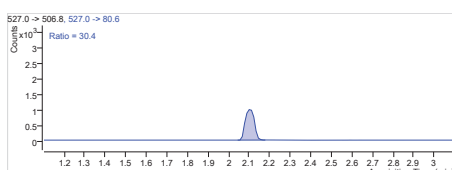
PFTrDA 1
RT (Exp. RT): 663.0 -> 618.9
Calc. conc. 2.389 (2.389)
Area ratio: 12.91 µg/L
Sample type: 5.17866
CC



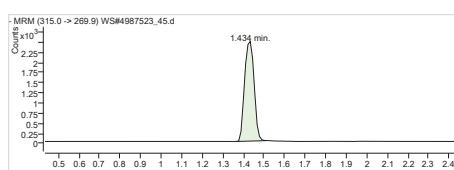
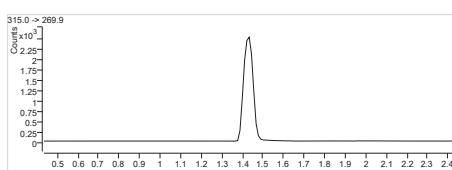
PFTeDA 1
RT (Exp. RT): 712.9 -> 668.9
Calc. conc. 2.456 (2.456)
Area ratio: 12.46 µg/L
Sample type: 4.71363
CC



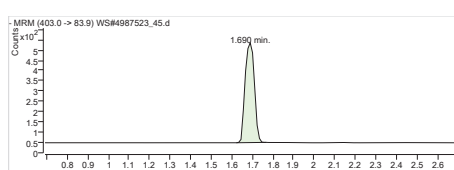
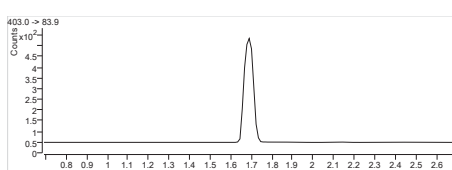
6:2-FTS 1
RT (Exp. RT): 427.0 -> 406.9
Calc. conc. 1.835 (1.835)
Area ratio: 12.57 µg/L
Sample type: 5.02119
CC



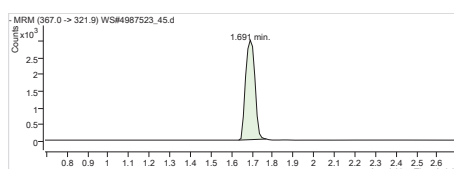
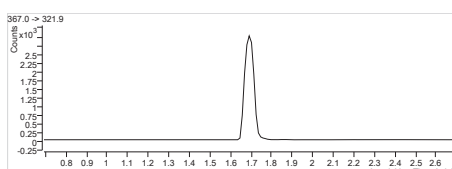
8:2-FTS 1
RT (Exp. RT): 527.0 -> 506.8
Calc. conc. 2.101 (2.101)
Area ratio: 12.09 µg/L
Sample type: 4.42564
CC



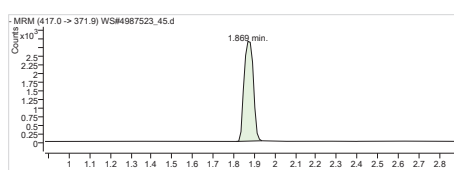
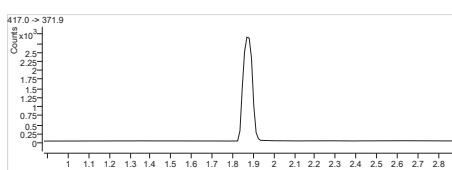
13C2-PFHxA
RT (Exp. RT): 315.0 -> 269.9
Calc. conc. 1.434 (1.434)
Area ratio: 90.45 µg/L
Sample type: 0.20117
CC



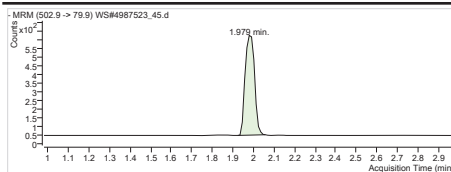
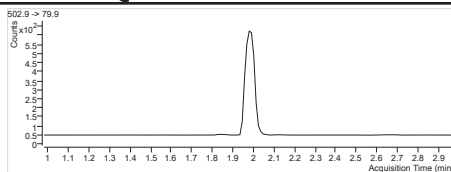
18O2-PFHxS
RT (Exp. RT): 403.0 -> 83.9
Calc. conc. 1.690 (1.690)
Area ratio: 98.89 µg/L
Sample type: 0.03865
CC



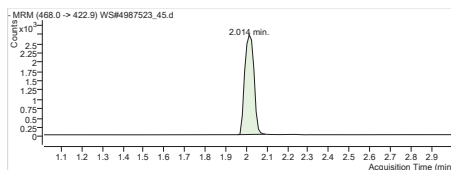
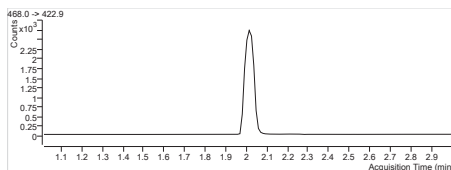
13C4-PFHpA
RT (Exp. RT): 367.0 -> 321.9
Calc. conc. 1.691 (1.691)
Area ratio: 101.69 µg/L
Sample type: 0.23668
CC



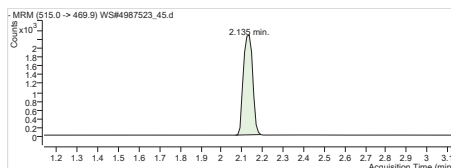
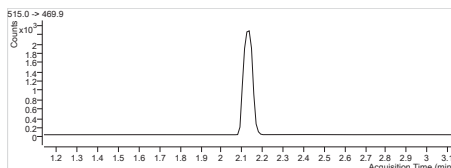
13C4-PFOA
RT (Exp. RT): 417.0 -> 371.9
Calc. conc. 1.869 (1.881)
Area ratio: 100.13 µg/L
Sample type: 0.22854
CC



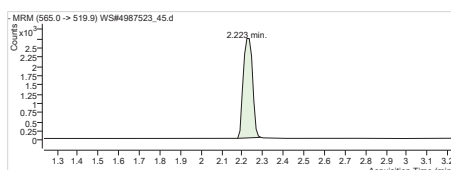
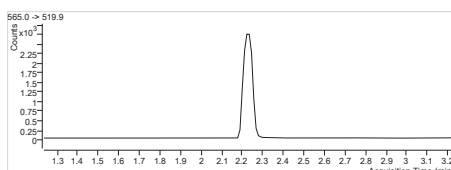
13C4-PFOS
RT (Exp. RT): 502.9 -> 79.9
Calc. conc. 1.979 (1.979)
Area ratio: 96.97 µg/L
Sample type: 0.04641
CC



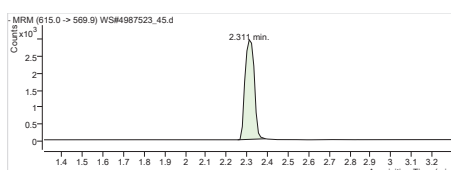
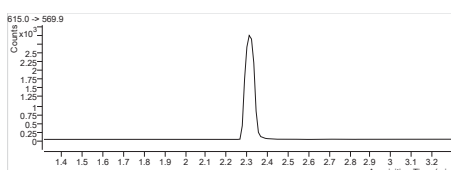
13C5-PFNA
RT (Exp. RT): 468.0 -> 422.9
Calc. conc. 2.014 (2.014)
Area ratio: 95.41 µg/L
Sample type: 0.21224
CC



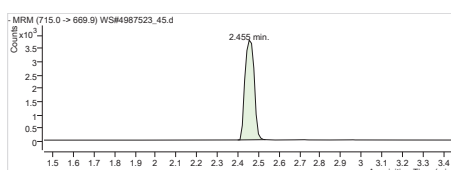
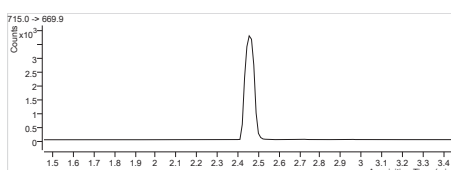
13C2-PFDA
RT (Exp. RT): 515.0 -> 469.9
Calc. conc. 2.135 (2.135)
Area ratio: 93.08 µg/L
Sample type: 0.21102
CC



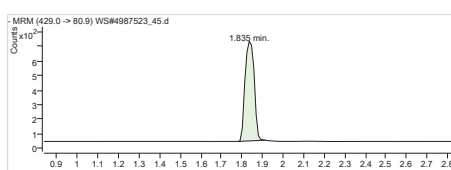
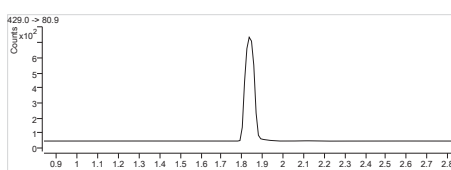
13C2-PFUnA
RT (Exp. RT): 565.0 -> 519.9
Calc. conc. 2.223 (2.234)
Area ratio: 103.94 µg/L
Sample type: 0.25460
CC



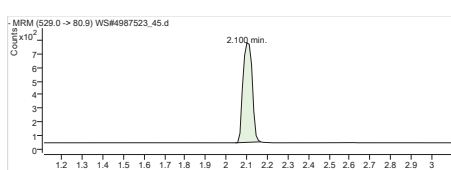
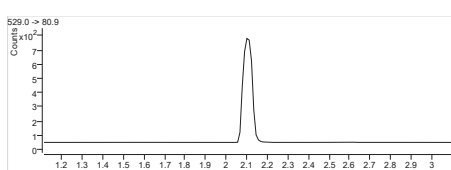
13C2-PFDoA
RT (Exp. RT): 615.0 -> 569.9
Calc. conc. 2.311 (2.311)
Area ratio: 99.25 µg/L
Sample type: 0.27352
CC



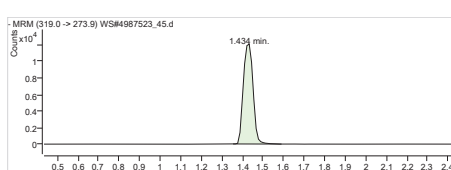
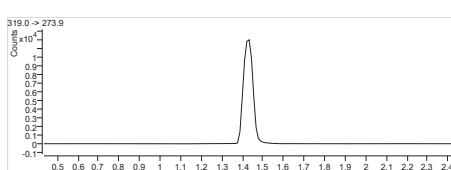
13C2-PFTeDA
RT (Exp. RT): 715.0 -> 669.9
Calc. conc. 2.455 (2.455)
Area ratio: 100.93 µg/L
Sample type: 0.35166
CC



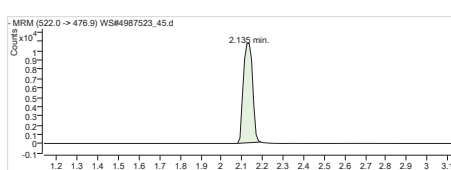
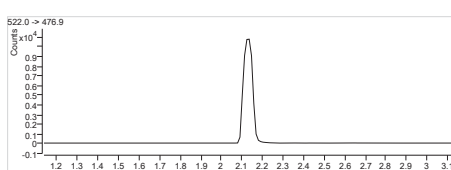
13C2-6:2-FTS
RT (Exp. RT): 429.0 -> 80.9
Calc. conc. 1.835 (1.835)
Area ratio: 96.96 µg/L
Sample type: 0.05369
CC



13C2-8:2 FTS
RT (Exp. RT): 529.0 -> 80.9
Calc. conc. 2.100 (2.112)
Area ratio: 97.10 µg/L
Sample type: 0.05796
CC



13C6-PFHxA
RT (Exp. RT): 319.0 -> 273.9
Calc. conc. 1.434 (1.434)
Area ratio: 101.27 µg/L
Sample type: 0
CC

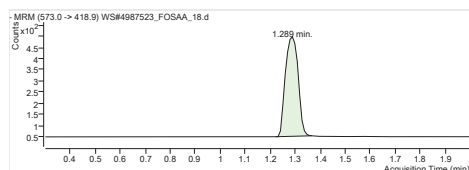
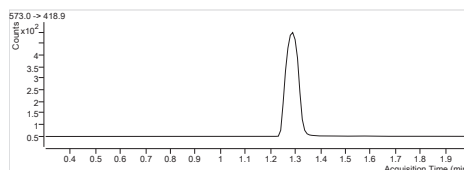


13C9-PFDA
RT (Exp. RT): 522.0 -> 476.9
Calc. conc. 2.135 (2.135)
Area ratio: 101.55 µg/L
Sample type: 0
CC

Batch Path T:\lms4\PFC\20170523\WS#4987523_FOSAA\QuantResults\PFC_Water_Low_170523_WS#4987523_FOSAA
Sample Name ISC **Instrument** LCMS04
Data File WS#4987523_FOSAA_18.d **Operator** AD
Sample Type CC **Dilution** 1
Acq. Method PFC_Water_Low_FOSAA.m **Position** P1-A2
Acq. Date 2017/05/23 6:42:08 PM **Injection Volume** Per Method
Sample Annotation -

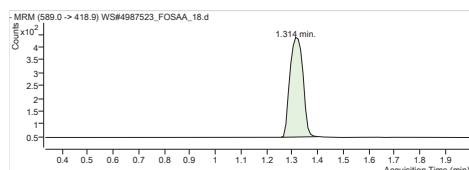
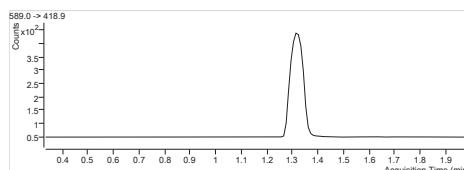
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1587	1.29	1 µg/L		
D5-EtFOSAA IS	1377	1.31	1 µg/L		
13C9-PFDA IS	27754	0.86	1 µg/L		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	610	1.28	0.83	0.90 µg/L	108.39
EtFOSAA 1	559	1.32	0.83	0.92 µg/L	110.82
D3-MeFOSAA	1607	1.29	100.00	100.79 µg/L	100.79
D5-EtFOSAA	1393	1.31	100.00	98.97 µg/L	98.97
13C9-PFDA	27268	0.86	100.00	100.09 µg/L	100.09

**D3-MeFOSAA IS**

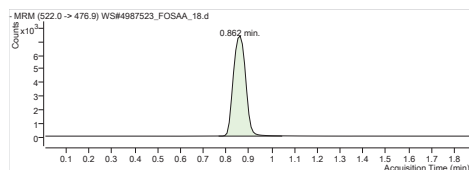
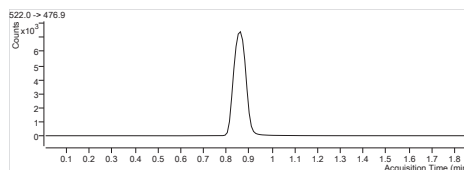
RT (Exp. RT):
 Concentration:
 Sample type:

Internal Standard
 1.289 (1.298)
 1 µg/L
 CC

**D5-EtFOSAA IS**

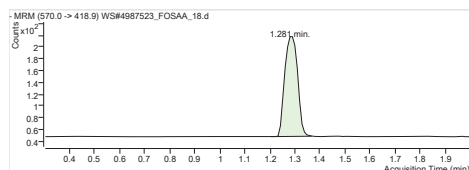
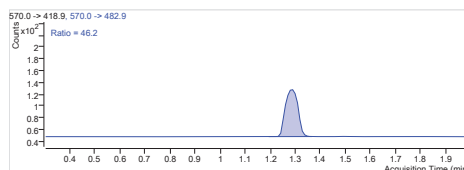
RT (Exp. RT):
 Concentration:
 Sample type:

Internal Standard
 1.314 (1.331)
 1 µg/L
 CC

**13C9-PFDA IS**

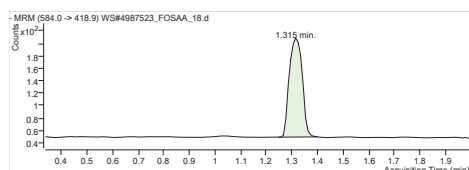
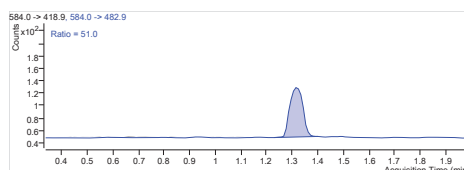
RT (Exp. RT):
 Concentration:
 Sample type:

Internal Standard
 0.862 (0.873)
 1 µg/L
 CC

**MeFOSAA 1**

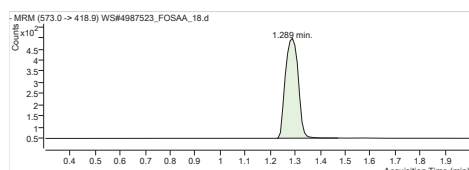
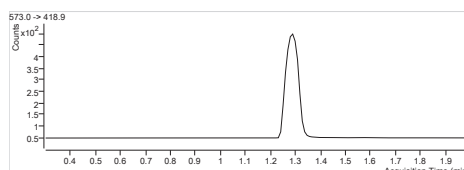
RT (Exp. RT):
 Calc. conc.
 Area ratio:
 Sample type:

570.0 -> 418.9
 1.281 (1.300)
 0.90 µg/L
 0.38437
 CC

**EtFOSAA 1**

RT (Exp. RT):
 Calc. conc.
 Area ratio:
 Sample type:

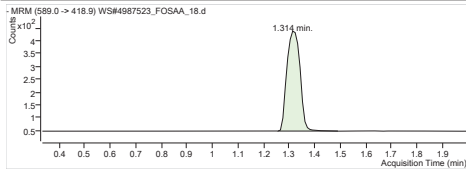
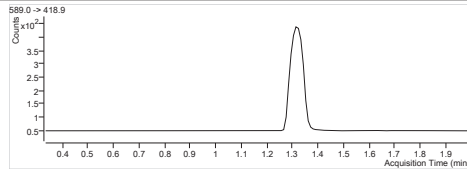
584.0 -> 418.9
 1.315 (1.333)
 0.92 µg/L
 0.40595
 CC

**D3-MeFOSAA**

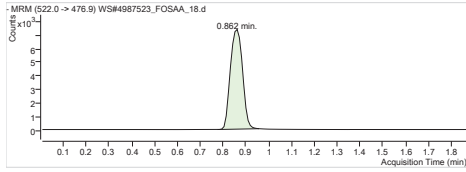
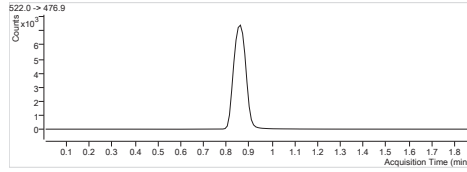
RT (Exp. RT):
 Calc. conc.
 Area ratio:
 Sample type:

573.0 -> 418.9
 1.289 (1.298)
 100.79 µg/L
 0.05789
 CC

Quantitation Results



D5-EtFOSAA
 RT (Exp. RT): 589.0 -> 418.9
 RT (Exp. RT): 1.314 (1.331)
 Calc. conc. 98.97 $\mu\text{g/L}$
 Area ratio: 0.05018
 Sample type: CC



13C9-PFDA
 RT (Exp. RT): 522.0 -> 476.9
 RT (Exp. RT): 0.862 (0.873)
 Calc. conc. 100.09 $\mu\text{g/L}$
 Area ratio: 0
 Sample type: CC

Quantitation Results

Batch Path T:\cms4\PFC\20170523\WS#4987523_FOSAA\QuantResults\PFC_Water_Low_170523_WS#4987523_FOSAA

Sample Name CCV Instrument LCMS04

Data File WS#4987523_FOSAA_31.d Operator AD

Sample Type CC Dilution 1

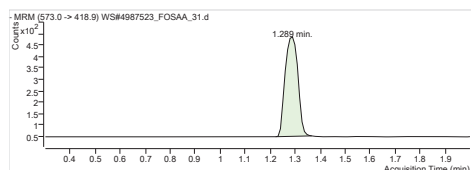
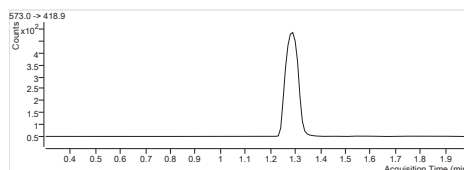
Acq. Method PFC_Water_Low_FOSAA.m Position P1-A5

Acq. Date 2017/05/23 7:13:12 PM Injection Volume Per Method

Sample Annotation -

ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1557	1.29	1 µg/L		
D5-EtFOSAA IS	1438	1.31	1 µg/L		
13C9-PFDA IS	29303	0.85	1 µg/L		

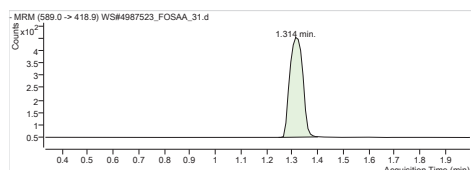
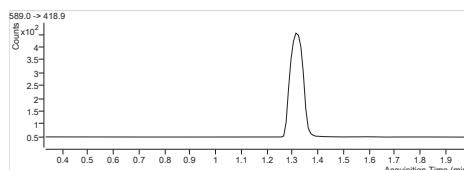
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	7925	1.28	12.50	13.21 µg/L	105.68
EtFOSAA 1	7885	1.32	12.50	12.32 µg/L	98.57
D3-MeFOSAA	1583	1.29	100.00	94.08 µg/L	94.08
D5-EtFOSAA	1452	1.31	100.00	97.70 µg/L	97.70
13C9-PFDA	28463	0.85	100.00	104.48 µg/L	104.48



D3-MeFOSAA IS

RT (Exp. RT):
Concentration:
Sample type:

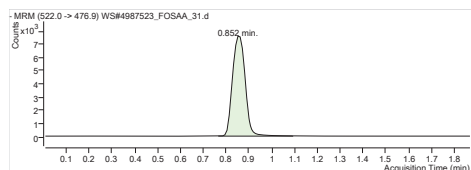
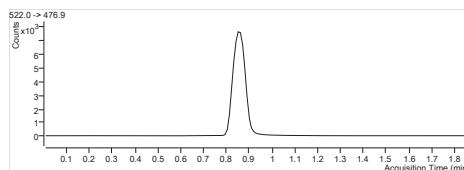
Internal Standard
1.289 (1.298)
1 µg/L
CC



D5-EtFOSAA IS

RT (Exp. RT):
Concentration:
Sample type:

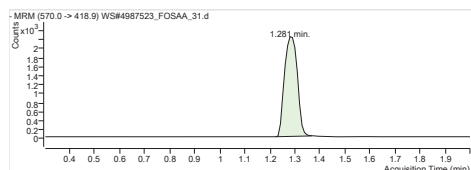
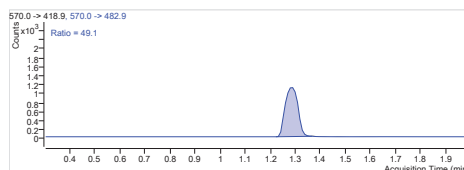
Internal Standard
1.314 (1.331)
1 µg/L
CC



13C9-PFDA IS

RT (Exp. RT):
Concentration:
Sample type:

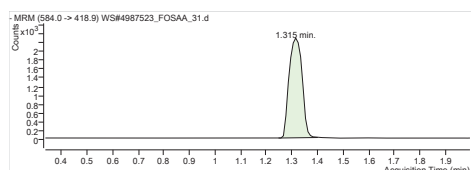
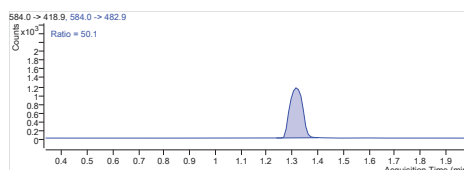
Internal Standard
0.852 (0.873)
1 µg/L
CC



MeFOSAA 1

RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

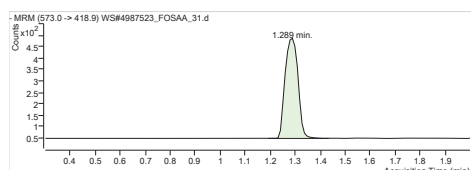
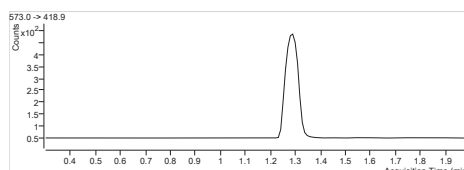
570.0 -> 418.9
1.281 (1.300)
13.21 µg/L
5.08992
CC



EtFOSAA 1

RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

584.0 -> 418.9
1.315 (1.333)
12.32 µg/L
5.48331
CC

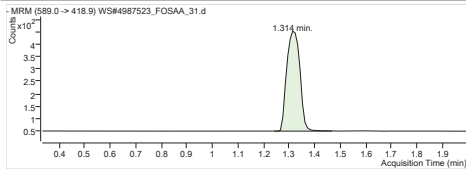
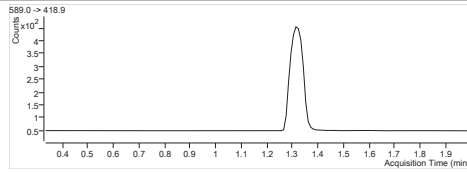


D3-MeFOSAA

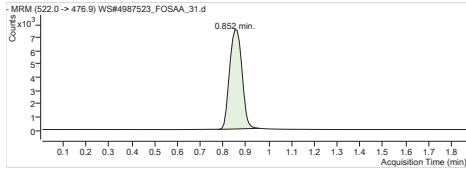
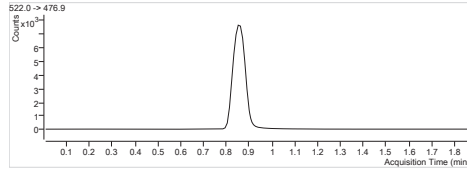
RT (Exp. RT):
Calc. conc.
Area ratio:
Sample type:

573.0 -> 418.9
1.289 (1.298)
94.08 µg/L
0.05404
CC

Quantitation Results



D5-EtFOSAA
 RT (Exp. RT): 589.0 -> 418.9
 RT (Exp. RT): 1.314 (1.331)
 Calc. conc. 97.70 $\mu\text{g/L}$
 Area ratio: 0.04954
 Sample type: CC



13C9-PFDA
 RT (Exp. RT): 522.0 -> 476.9
 RT (Exp. RT): 0.852 (0.873)
 Calc. conc. 104.48 $\mu\text{g/L}$
 Area ratio: 0
 Sample type: CC



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ANALYTICAL RESULTS FOR:

**MELISSA HELTON
AMEC FOSTER WHEELER
10670 WHITE ROCK ROAD
SUITE 100
RANCHO CORDOVA, CA 95670**

PROJECT SITE: FAIRCHILD AFB; WA
DOD CONTRACT #: F013900869
PROJECT #: 775303101.0012.0300
SDG: 127352 (Folders 127352 & 127358)
PREPARED: May 26, 2017
TOTAL # OF PAGES IN THIS DOCUMENT: 85

The data contained in the following report have been reviewed by the appropriate CT Laboratories' LLC staff members. In addition, CT Laboratories LLC certifies that to the best of our knowledge that the analyses reported herein are true, complete and correct within the limits of the methods employed and that they follow the applicable requirements as specified by the project plan, state-specific, NELAC or DOD QSM requirements. The estimated uncertainty of measurement is only available upon request. The reported results relate only to the tested samples. This report shall not be reproduced, except in full, without written approval of CT Laboratories LLC.

APPROVED BY:



PROJECT MANAGER

Certifications: IL (NELAP 200073), KS (NELAP E-10368), WI (157066030), DOD ELAP (A2LA 3806.01), VA (NELAP 4602038), MD (WI 00061), LA (NELAP ACC20160002), ISO17025 (A2LA 3806.01), GA EDP Stipulation (Accreditor: LA NELAP, ACC#: ACC20160002, Scope: Non-potable water solid and chemical materials, biological tissue, Effective: 12/10/2014, Expires: annually)

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www.ctlaboratories.com
• 608-356-2760



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Case Narrative

Client: AMEC Foster Wheeler

Project: Fairchild AFB; WA

Sample Receipt Date: 05/15/2017

SDG #: 127352 (Folders 127352 & 127358)

Ten soil samples were received and analyzed for pH, TOC, and particle size analysis. The particle size analyses were subcontracted to Mi-Tech Services in Weston, WI. The assigned sample ID number, date sampled, and date received are indicated in the attached Project Summary. The samples were received intact and at a temperature within method specified acceptance limits unless specifically stated otherwise in the Sample Condition Report located in the last section of the data package. The analyses were performed following DOD QSM 5.

Sample Analysis and Quality Control

Inorganic Analysis:

The samples were analyzed using Methods EPA 9045D (pH) and Lloyd Kahn/9060A (TOC). All samples were analyzed within the holding time unless specifically mentioned otherwise below. The following summaries of quality control procedures are included:

- Duplicate Analysis Data
- Laboratory Control Spike Data
- Method Blank Data
- Initial Calibration Summary
- Calibration Check Summary
- Analysis Run Log
- Prep Log

All analysis results met the method specified quality control criteria with the following exceptions:

pH (9045D) Analysis

Analytical Run # 138099

All analytical results for this run met the method/project specified quality control criteria.

Total Organic Carbon (Lloyd Kahn/9060A) Analysis

Analytical Run # 138169

All analytical results for this run met the method/project specified quality control criteria.

Data Qualifiers

Code	Description
A	Analyte averaged calibration criteria within acceptable limits.
B	Analyte detected in associated Method Blank.
C	Toxicity present in BOD sample.
D	Diluted Out.
E	Safe, No Total Coliform detected.
F	Unsafe, Total Coliform detected, no E. Coli detected.
G	Unsafe, Total Coliform detected and E. Coli detected.
H	Holding time exceeded.
J	Estimated value.
L	Significant peaks were detected outside the chromatographic window.
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.
N	Insufficient BOD oxygen depletion.
O	Complete BOD oxygen depletion.
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.
Q	Laboratory Control Sample outside acceptance limits.
R	See Narrative at end of report.
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.
T	Sample received with improper preservation or temperature.
U	Analyte concentration was not above the detection level.
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.
W	Sample amount received was below program minimum.
X	Analyte exceeded calibration range.
Y	Replicate/Duplicate precision outside acceptance limits.
Z	Calibration criteria exceeded.

MANUAL INTEGRATION REASON CODES

CTLaboratories has identified four general cases with valid reasons supporting the use of manual integration techniques. These codes are used on chromatograms in this data package to document the reasons for manual integrations per CTLaboratories' SOP SS-10 current revision.

#1: Data system failed to select the correct peak or missed the peak entirely.

In some cases the chromatography system selects and integrates the "wrong peak". In this case the analyst must correct the selection and force the system to integrate the proper peak. In other instances the system may miss the peak completely. In this case the analyst manually integrated the peak

#2: Data System Splits the Peak Incorrectly or Integrates a False Peak as a Rider Peak.

This phenomenon is common at low concentrations where the signal to noise ratio is low. A single compound (peak) is incorrectly split into multiple peaks or integrated as a main peak with one or more rider peaks resulting in low or high area counts for the target compound.

#3: Improperly Integrated Isomers and/or coeluting compounds.

For when the system fails to distinguish coeluting compounds and or isomers. The integration areas and concentrations may be inaccurate, and they must be corrected by manual integration. Prime examples are compounds that are unresolved and integrated improperly when present at low concentrations in standards or samples.

#4: System Established Incorrect Baseline.

There are numerous situations in chromatography where the system establishes the baseline incorrectly. Some baseline errors will be obvious to the analyst and may be corrected via manual procedures.

#5: Miscellaneous.

Some situations involving integration errors may require in-depth review and technical judgment. These cases should be brought to the attention of the group supervisor. If the form of manual integration is not clearly covered by these four cases, then review and approval by the group supervisor or the QA/QC Supervisor will be required.

Sample Delivery Group
127352

AMEC FOSTER WHEELER
 MELISSA HELTON
 10670 WHITE ROCK ROAD
 SUITE 100
 RANCHO CORDOVA, CA 95670

Project Name: FAIRCHILD AFB
 Project #: 775303101.0012.0300

CT Sample #	Folder #	Client Sample #	Sample Description	Matrix	Date Sampled	Date Received
867205	127352		FRCHD04-C-2	SOIL	05/12/2017	05/13/2017
867557	127358		FRCHD05-C-1	SOIL	05/08/2017	05/15/2017
867570	127358		FRCHD05-C-2	SOIL	05/11/2017	05/15/2017
867571	127358		FRCHD03-C-1	SOIL	05/11/2017	05/15/2017
867572	127358		FRCHD03-C-2	SOIL	05/11/2017	05/15/2017
867573	127358		FRCHD02-C-1	SOIL	05/09/2017	05/15/2017
867574	127358		FRCHD04-C-1	SOIL	05/08/2017	05/15/2017
867581	127358		FRCHD01-C-1	SOIL	05/10/2017	05/15/2017
867582	127358		FRCHD01-C-2	SOIL	05/10/2017	05/15/2017
867583	127358		FRCHD02-C-2	SOIL	05/10/2017	05/15/2017

QC Batch Cross Reference Summary

Page 1 of 2

AMEC FOSTER WHEELER
 MELISSA HELTON
 10670 WHITE ROCK ROAD
 SUITE 100
 RANCHO CORDOVA, CA 95670

Project Name: FAIRCHILD AFB
 Project #: 775303101.0012.0300
 Report Date: 05/26/2017
 Date Received: 05/15/2017
 SDG #: 127352

Inorganic Parameters

CTI LAB#:	Parameter	Method	Matrix	Prep Batch #	Analytical Run #
867205	Solids, Percent	EPA 8000C	SOIL		137959
867557	Solids, Percent	EPA 8000C	SOIL		137959
867570	Solids, Percent	EPA 8000C	SOIL		137959
867571	Solids, Percent	EPA 8000C	SOIL		137959
867572	Solids, Percent	EPA 8000C	SOIL		137959
867573	Solids, Percent	EPA 8000C	SOIL		137959
867574	Solids, Percent	EPA 8000C	SOIL		137959
867581	Solids, Percent	EPA 8000C	SOIL		137959
867582	Solids, Percent	EPA 8000C	SOIL		137959
867583	Solids, Percent	EPA 8000C	SOIL		137959
CTI LAB#:	Parameter	Method	Matrix	Prep Batch #	Analytical Run #
867205	pH	EPA 9045D	SOIL		138099
867557	pH	EPA 9045D	SOIL		138099
867570	pH	EPA 9045D	SOIL		138099
867571	pH	EPA 9045D	SOIL		138099
867572	pH	EPA 9045D	SOIL		138099
867573	pH	EPA 9045D	SOIL		138099
867574	pH	EPA 9045D	SOIL		138099
867581	pH	EPA 9045D	SOIL		138099
867582	pH	EPA 9045D	SOIL		138099
867583	pH	EPA 9045D	SOIL		138099
CTI LAB#:	Parameter	Method	Matrix	Prep Batch #	Analytical Run #
867205	Organic Carbon, Total QSM 5.0	L-Kahn/9060A	SOIL		138169
867557	Organic Carbon, Total QSM 5.0	L-Kahn/9060A	SOIL		138169
867570	Organic Carbon, Total QSM 5.0	L-Kahn/9060A	SOIL		138169
867571	Organic Carbon, Total QSM 5.0	L-Kahn/9060A	SOIL		138169



Project Name: FAIRCHILD AFB
Project #: 775303101.0012.0300
SDG #: 127352

CTI LAB#:	Parameter	Method	Matrix	Prep Batch #	Analytical Run #
867572	Organic Carbon, Total QSM 5.0	L-Kahn/9060A	SOIL		138169
867573	Organic Carbon, Total QSM 5.0	L-Kahn/9060A	SOIL		138169
867574	Organic Carbon, Total QSM 5.0	L-Kahn/9060A	SOIL		138169
867581	Organic Carbon, Total QSM 5.0	L-Kahn/9060A	SOIL		138169
867582	Organic Carbon, Total QSM 5.0	L-Kahn/9060A	SOIL		138169
867583	Organic Carbon, Total QSM 5.0	L-Kahn/9060A	SOIL		138169

**INORGANIC
CLP FORMS
DOCUMENTS**

INORGANIC ANALYSIS DATA SHEET

Sample Description

FRCHD01-C-1

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>AMEC FOSTER WHEELER-FAIRCHILD AFB</u>	
Matrix (soil/water):	<u>SOIL</u>	SDG No.:	<u>127352</u>	
% Solids:	<u>97.4</u>	Lab Sample ID:	<u>867581</u>	
Analytical Method:	<u>EPA 9045D</u>	Date Received:	<u>05/15/2017</u>	
Dilution Factor:	<u>1</u>	TCLP/SPLP Extraction Date/time:		
Analytical Run #:	<u>138099</u>	Analysis Date/Time	<u>05/19/2017</u>	<u>10:00</u>
Analytical Prep Batch #:		Prep. Date/Time:		
ICAL Calibration #:		Concentration Units:	<u>S.U.</u>	

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
PH	pH	8.14		0.1	0.1	0.1	0.1

INORGANIC ANALYSIS DATA SHEET

Sample Description

FRCHD01-C-1

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>AMEC FOSTER WHEELER-FAIRCHILD AFB</u>	
Matrix (soil/water):	<u>SOIL</u>	SDG No.:	<u>127352</u>	
% Solids:	<u>97.4</u>	Lab Sample ID:	<u>867581</u>	
Analytical Method:	<u>L-Kahn/9060A</u>	Date Received:	<u>05/15/2017</u>	
Dilution Factor:	<u>1.00</u>	TCLP/SPLP Extraction Date/time:		
Analytical Run #:	<u>138169</u>	Analysis Date/Time	<u>05/24/2017</u>	<u>11:09</u>
Analytical Prep Batch #:		Prep. Date/Time:		
ICAL Calibration #:	<u>INSTRUMENT =</u>	Concentration Units:	<u>mg/kg</u>	

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	26400		37	77	150	150

INORGANIC ANALYSIS DATA SHEET

Sample Description

FRCHD01-C-1

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>AMEC FOSTER WHEELER-FAIRCHILD AFB</u>
Matrix (soil/water):	<u>SOIL</u>	SDG No.:	<u>127352</u>
% Solids:	<u>97.4</u>	Lab Sample ID:	<u>867581</u>
Analytical Method:	<u>EPA 8000C</u>	Date Received:	<u>05/15/2017</u>
Dilution Factor:	<u>1.00</u>	TCLP/SPLP Extraction Date/time:	<u></u>
Analytical Run #:	<u>137959</u>	Analysis Date/Time	<u>05/16/2017 12:40</u>
Analytical Prep Batch #:	<u></u>	Prep. Date/Time:	<u></u>
ICAL Calibration #:	<u></u>	Concentration Units:	<u>%</u>

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
SOLID	Solids, Percent	97.4		0.1	0.1	0.1	0.1

INORGANIC ANALYSIS DATA SHEET

Sample Description

FRCHD01-C-2

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>AMEC FOSTER WHEELER-FAIRCHILD AFB</u>	
Matrix (soil/water):	<u>SOIL</u>	SDG No.:	<u>127352</u>	
% Solids:	<u>84.7</u>	Lab Sample ID:	<u>867582</u>	
Analytical Method:	<u>EPA 9045D</u>	Date Received:	<u>05/15/2017</u>	
Dilution Factor:	<u>1</u>	TCLP/SPLP Extraction Date/time:		
Analytical Run #:	<u>138099</u>	Analysis Date/Time	<u>05/19/2017</u>	<u>10:00</u>
Analytical Prep Batch #:		Prep. Date/Time:		
ICAL Calibration #:		Concentration Units:	<u>S.U.</u>	

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
PH	pH	7.90		0.1	0.1	0.1	0.1

INORGANIC ANALYSIS DATA SHEET

Sample Description

FRCHD01-C-2

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>AMEC FOSTER WHEELER-FAIRCHILD AFB</u>	
Matrix (soil/water):	<u>SOIL</u>	SDG No.:	<u>127352</u>	
% Solids:	<u>84.7</u>	Lab Sample ID:	<u>867582</u>	
Analytical Method:	<u>L-Kahn/9060A</u>	Date Received:	<u>05/15/2017</u>	
Dilution Factor:	<u>1.00</u>	TCLP/SPLP Extraction Date/time:	<u></u>	
Analytical Run #:	<u>138169</u>	Analysis Date/Time	<u>05/24/2017</u>	<u>11:14</u>
Analytical Prep Batch #:	<u></u>	Prep. Date/Time:	<u></u>	
ICAL Calibration #:	<u>INSTRUMENT =</u>	Concentration Units:	<u>mg/kg</u>	

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	5380		43	89	180	180

INORGANIC ANALYSIS DATA SHEET

Sample Description

FRCHD01-C-2

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>AMEC FOSTER WHEELER-FAIRCHILD AFB</u>	
Matrix (soil/water):	<u>SOIL</u>	SDG No.:	<u>127352</u>	
% Solids:	<u>84.7</u>	Lab Sample ID:	<u>867582</u>	
Analytical Method:	<u>EPA 8000C</u>	Date Received:	<u>05/15/2017</u>	
Dilution Factor:	<u>1.00</u>	TCLP/SPLP Extraction Date/time:	<u></u>	
Analytical Run #:	<u>137959</u>	Analysis Date/Time	<u>05/16/2017</u>	<u>12:40</u>
Analytical Prep Batch #:	<u></u>	Prep. Date/Time:	<u></u>	
ICAL Calibration #:	<u></u>	Concentration Units:	<u>%</u>	

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
SOLID	Solids, Percent	84.7		0.1	0.1	0.1	0.1

INORGANIC ANALYSIS DATA SHEET

Sample Description

FRCHD02-C-1

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>AMEC FOSTER WHEELER-FAIRCHILD AFB</u>	
Matrix (soil/water):	<u>SOIL</u>	SDG No.:	<u>127352</u>	
% Solids:	<u>90.5</u>	Lab Sample ID:	<u>867573</u>	
Analytical Method:	<u>EPA 9045D</u>	Date Received:	<u>05/15/2017</u>	
Dilution Factor:	<u>1</u>	TCLP/SPLP Extraction Date/time:	<u></u>	
Analytical Run #:	<u>138099</u>	Analysis Date/Time	<u>05/19/2017</u>	<u>10:00</u>
Analytical Prep Batch #:	<u></u>	Prep. Date/Time:	<u></u>	
ICAL Calibration #:	<u></u>	Concentration Units:	<u>S.U.</u>	

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
PH	pH	7.99		0.1	0.1	0.1	0.1

INORGANIC ANALYSIS DATA SHEET

Sample Description

FRCHD02-C-1

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>AMEC FOSTER WHEELER-FAIRCHILD AFB</u>	
Matrix (soil/water):	<u>SOIL</u>	SDG No.:	<u>127352</u>	
% Solids:	<u>90.5</u>	Lab Sample ID:	<u>867573</u>	
Analytical Method:	<u>L-Kahn/9060A</u>	Date Received:	<u>05/15/2017</u>	
Dilution Factor:	<u>1.00</u>	TCLP/SPLP Extraction Date/time:		
Analytical Run #:	<u>138169</u>	Analysis Date/Time	<u>05/24/2017</u>	<u>10:39</u>
Analytical Prep Batch #:		Prep. Date/Time:		
ICAL Calibration #:	<u>INSTRUMENT =</u>	Concentration Units:	<u>mg/kg</u>	

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	8900		40	83	170	170

INORGANIC ANALYSIS DATA SHEET

Sample Description

FRCHD02-C-1

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>AMEC FOSTER WHEELER-FAIRCHILD AFB</u>
Matrix (soil/water):	<u>SOIL</u>	SDG No.:	<u>127352</u>
% Solids:	<u>90.5</u>	Lab Sample ID:	<u>867573</u>
Analytical Method:	<u>EPA 8000C</u>	Date Received:	<u>05/15/2017</u>
Dilution Factor:	<u>1.00</u>	TCLP/SPLP Extraction Date/time:	<u> </u>
Analytical Run #:	<u>137959</u>	Analysis Date/Time	<u>05/16/2017 12:40</u>
Analytical Prep Batch #:	<u> </u>	Prep. Date/Time:	<u> </u>
ICAL Calibration #:	<u> </u>	Concentration Units:	<u>%</u>

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
SOLID	Solids, Percent	90.5		0.1	0.1	0.1	0.1

INORGANIC ANALYSIS DATA SHEET

Sample Description

FRCHD02-C-2

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>AMEC FOSTER WHEELER-FAIRCHILD AFB</u>	
Matrix (soil/water):	<u>SOIL</u>	SDG No.:	<u>127352</u>	
% Solids:	<u>81.4</u>	Lab Sample ID:	<u>867583</u>	
Analytical Method:	<u>EPA 9045D</u>	Date Received:	<u>05/15/2017</u>	
Dilution Factor:	<u>1</u>	TCLP/SPLP Extraction Date/time:		
Analytical Run #:	<u>138099</u>	Analysis Date/Time	<u>05/19/2017</u>	<u>10:00</u>
Analytical Prep Batch #:		Prep. Date/Time:		
ICAL Calibration #:		Concentration Units:	<u>S.U.</u>	

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
PH	pH	8.19		0.1	0.1	0.1	0.1

INORGANIC ANALYSIS DATA SHEET

Sample Description

FRCHD02-C-2

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>AMEC FOSTER WHEELER-FAIRCHILD AFB</u>	
Matrix (soil/water):	<u>SOIL</u>	SDG No.:	<u>127352</u>	
% Solids:	<u>81.4</u>	Lab Sample ID:	<u>867583</u>	
Analytical Method:	<u>L-Kahn/9060A</u>	Date Received:	<u>05/15/2017</u>	
Dilution Factor:	<u>1.00</u>	TCLP/SPLP Extraction Date/time:		
Analytical Run #:	<u>138169</u>	Analysis Date/Time	<u>05/24/2017</u>	<u>11:20</u>
Analytical Prep Batch #:		Prep. Date/Time:		
ICAL Calibration #:	<u>INSTRUMENT =</u>	Concentration Units:	<u>mg/kg</u>	

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1890		44	92	180	180

INORGANIC ANALYSIS DATA SHEET

Sample Description

FRCHD02-C-2

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>AMEC FOSTER WHEELER-FAIRCHILD AFB</u>
Matrix (soil/water):	<u>SOIL</u>	SDG No.:	<u>127352</u>
% Solids:	<u>81.4</u>	Lab Sample ID:	<u>867583</u>
Analytical Method:	<u>EPA 8000C</u>	Date Received:	<u>05/15/2017</u>
Dilution Factor:	<u>1.00</u>	TCLP/SPLP Extraction Date/time:	<u></u>
Analytical Run #:	<u>137959</u>	Analysis Date/Time	<u>05/16/2017 12:40</u>
Analytical Prep Batch #:	<u></u>	Prep. Date/Time:	<u></u>
ICAL Calibration #:	<u></u>	Concentration Units:	<u>%</u>

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
SOLID	Solids, Percent	81.4	Y	0.1	0.1	0.1	0.1

INORGANIC ANALYSIS DATA SHEET

Sample Description

FRCHD03-C-1

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>AMEC FOSTER WHEELER-FAIRCHILD AFB</u>	
Matrix (soil/water):	<u>SOIL</u>	SDG No.:	<u>127352</u>	
% Solids:	<u>93.0</u>	Lab Sample ID:	<u>867571</u>	
Analytical Method:	<u>EPA 9045D</u>	Date Received:	<u>05/15/2017</u>	
Dilution Factor:	<u>1</u>	TCLP/SPLP Extraction Date/time:	<u></u>	
Analytical Run #:	<u>138099</u>	Analysis Date/Time	<u>05/19/2017</u>	<u>10:00</u>
Analytical Prep Batch #:	<u></u>	Prep. Date/Time:	<u></u>	
ICAL Calibration #:	<u></u>	Concentration Units:	<u>S.U.</u>	

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
PH	pH	7.89		0.1	0.1	0.1	0.1

INORGANIC ANALYSIS DATA SHEET

Sample Description

FRCHD03-C-1

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>AMEC FOSTER WHEELER-FAIRCHILD AFB</u>	
Matrix (soil/water):	<u>SOIL</u>	SDG No.:	<u>127352</u>	
% Solids:	<u>93.0</u>	Lab Sample ID:	<u>867571</u>	
Analytical Method:	<u>L-Kahn/9060A</u>	Date Received:	<u>05/15/2017</u>	
Dilution Factor:	<u>1.00</u>	TCLP/SPLP Extraction Date/time:		
Analytical Run #:	<u>138169</u>	Analysis Date/Time	<u>05/24/2017</u>	<u>10:10</u>
Analytical Prep Batch #:		Prep. Date/Time:		
ICAL Calibration #:	<u>INSTRUMENT =</u>	Concentration Units:	<u>mg/kg</u>	

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	8360		39	81	160	160

INORGANIC ANALYSIS DATA SHEET

Sample Description

FRCHD03-C-1

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>AMEC FOSTER WHEELER-FAIRCHILD AFB</u>	
Matrix (soil/water):	<u>SOIL</u>	SDG No.:	<u>127352</u>	
% Solids:	<u>93.0</u>	Lab Sample ID:	<u>867571</u>	
Analytical Method:	<u>EPA 8000C</u>	Date Received:	<u>05/15/2017</u>	
Dilution Factor:	<u>1.00</u>	TCLP/SPLP Extraction Date/time:	<u></u>	
Analytical Run #:	<u>137959</u>	Analysis Date/Time	<u>05/16/2017</u>	<u>12:40</u>
Analytical Prep Batch #:	<u></u>	Prep. Date/Time:	<u></u>	
ICAL Calibration #:	<u></u>	Concentration Units:	<u>%</u>	

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
SOLID	Solids, Percent	93.0		0.1	0.1	0.1	0.1

INORGANIC ANALYSIS DATA SHEET

Sample Description

FRCHD03-C-2

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>AMEC FOSTER WHEELER-FAIRCHILD AFB</u>	
Matrix (soil/water):	<u>SOIL</u>	SDG No.:	<u>127352</u>	
% Solids:	<u>87.2</u>	Lab Sample ID:	<u>867572</u>	
Analytical Method:	<u>EPA 9045D</u>	Date Received:	<u>05/15/2017</u>	
Dilution Factor:	<u>1</u>	TCLP/SPLP Extraction Date/time:	<u></u>	
Analytical Run #:	<u>138099</u>	Analysis Date/Time	<u>05/19/2017</u>	<u>10:00</u>
Analytical Prep Batch #:	<u></u>	Prep. Date/Time:	<u></u>	
ICAL Calibration #:	<u></u>	Concentration Units:	<u>S.U.</u>	

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
PH	pH	8.18		0.1	0.1	0.1	0.1

INORGANIC ANALYSIS DATA SHEET

Sample Description

FRCHD03-C-2

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>AMEC FOSTER WHEELER-FAIRCHILD AFB</u>	
Matrix (soil/water):	<u>SOIL</u>	SDG No.:	<u>127352</u>	
% Solids:	<u>87.2</u>	Lab Sample ID:	<u>867572</u>	
Analytical Method:	<u>L-Kahn/9060A</u>	Date Received:	<u>05/15/2017</u>	
Dilution Factor:	<u>1.00</u>	TCLP/SPLP Extraction Date/time:	<u></u>	
Analytical Run #:	<u>138169</u>	Analysis Date/Time	<u>05/24/2017</u>	<u>10:33</u>
Analytical Prep Batch #:	<u></u>	Prep. Date/Time:	<u></u>	
ICAL Calibration #:	<u>INSTRUMENT =</u>	Concentration Units:	<u>mg/kg</u>	

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1480		41	86	170	170

INORGANIC ANALYSIS DATA SHEET

Sample Description

FRCHD03-C-2

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>AMEC FOSTER WHEELER-FAIRCHILD AFB</u>
Matrix (soil/water):	<u>SOIL</u>	SDG No.:	<u>127352</u>
% Solids:	<u>87.2</u>	Lab Sample ID:	<u>867572</u>
Analytical Method:	<u>EPA 8000C</u>	Date Received:	<u>05/15/2017</u>
Dilution Factor:	<u>1.00</u>	TCLP/SPLP Extraction Date/time:	<u></u>
Analytical Run #:	<u>137959</u>	Analysis Date/Time	<u>05/16/2017 12:40</u>
Analytical Prep Batch #:	<u></u>	Prep. Date/Time:	<u></u>
ICAL Calibration #:	<u></u>	Concentration Units:	<u>%</u>

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
SOLID	Solids, Percent	87.2		0.1	0.1	0.1	0.1

INORGANIC ANALYSIS DATA SHEET

Sample Description

FRCHD04-C-1

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>AMEC FOSTER WHEELER-FAIRCHILD AFB</u>	
Matrix (soil/water):	<u>SOIL</u>	SDG No.:	<u>127352</u>	
% Solids:	<u>73.1</u>	Lab Sample ID:	<u>867574</u>	
Analytical Method:	<u>EPA 9045D</u>	Date Received:	<u>05/15/2017</u>	
Dilution Factor:	<u>1</u>	TCLP/SPLP Extraction Date/time:	<u></u>	
Analytical Run #:	<u>138099</u>	Analysis Date/Time	<u>05/19/2017</u>	<u>10:00</u>
Analytical Prep Batch #:	<u></u>	Prep. Date/Time:	<u></u>	
ICAL Calibration #:	<u></u>	Concentration Units:	<u>S.U.</u>	

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
PH	pH	7.85		0.1	0.1	0.1	0.1

INORGANIC ANALYSIS DATA SHEET

Sample Description

FRCHD04-C-1

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>AMEC FOSTER WHEELER-FAIRCHILD AFB</u>	
Matrix (soil/water):	<u>SOIL</u>	SDG No.:	<u>127352</u>	
% Solids:	<u>73.1</u>	Lab Sample ID:	<u>867574</u>	
Analytical Method:	<u>L-Kahn/9060A</u>	Date Received:	<u>05/15/2017</u>	
Dilution Factor:	<u>1.00</u>	TCLP/SPLP Extraction Date/time:	<u></u>	
Analytical Run #:	<u>138169</u>	Analysis Date/Time	<u>05/24/2017</u>	<u>10:45</u>
Analytical Prep Batch #:	<u></u>	Prep. Date/Time:	<u></u>	
ICAL Calibration #:	<u>INSTRUMENT =</u>	Concentration Units:	<u>mg/kg</u>	

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	20500		49	100	210	210

INORGANIC ANALYSIS DATA SHEET

Sample Description

FRCHD04-C-1

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>AMEC FOSTER WHEELER-FAIRCHILD AFB</u>
Matrix (soil/water):	<u>SOIL</u>	SDG No.:	<u>127352</u>
% Solids:	<u>73.1</u>	Lab Sample ID:	<u>867574</u>
Analytical Method:	<u>EPA 8000C</u>	Date Received:	<u>05/15/2017</u>
Dilution Factor:	<u>1.00</u>	TCLP/SPLP Extraction Date/time:	<u></u>
Analytical Run #:	<u>137959</u>	Analysis Date/Time	<u>05/16/2017 12:40</u>
Analytical Prep Batch #:	<u></u>	Prep. Date/Time:	<u></u>
ICAL Calibration #:	<u></u>	Concentration Units:	<u>%</u>

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
SOLID	Solids, Percent	73.1		0.1	0.1	0.1	0.1

INORGANIC ANALYSIS DATA SHEET

Sample Description

FRCHD04-C-2

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>AMEC FOSTER WHEELER-FAIRCHILD AFB</u>	
Matrix (soil/water):	<u>SOIL</u>	SDG No.:	<u>127352</u>	
% Solids:	<u>87.9</u>	Lab Sample ID:	<u>867205</u>	
Analytical Method:	<u>L-Kahn/9060A</u>	Date Received:	<u>05/13/2017</u>	
Dilution Factor:	<u>1.00</u>	TCLP/SPLP Extraction Date/time:	<u></u>	
Analytical Run #:	<u>138169</u>	Analysis Date/Time	<u>05/24/2017</u>	<u>09:53</u>
Analytical Prep Batch #:	<u></u>	Prep. Date/Time:	<u></u>	
ICAL Calibration #:	<u>INSTRUMENT =</u>	Concentration Units:	<u>mg/kg</u>	

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	209		41	85	170	170



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INORGANIC ANALYSIS DATA SHEET

Sample Description

FRCHD04-C-2

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>AMEC FOSTER WHEELER-FAIRCHILD AFB</u>	
Matrix (soil/water):	<u>SOIL</u>	SDG No.:	<u>127352</u>	
% Solids:	<u>87.9</u>	Lab Sample ID:	<u>867205</u>	
Analytical Method:	<u>EPA 9045D</u>	Date Received:	<u>05/13/2017</u>	
Dilution Factor:	<u>1</u>	TCLP/SPLP Extraction Date/time:	<u></u>	
Analytical Run #:	<u>138099</u>	Analysis Date/Time	<u>05/19/2017</u>	<u>10:00</u>
Analytical Prep Batch #:	<u></u>	Prep. Date/Time:	<u></u>	
ICAL Calibration #:	<u></u>	Concentration Units:	<u>S.U.</u>	

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
PH	pH	6.91		0.1	0.1	0.1	0.1

INORGANIC ANALYSIS DATA SHEET

Sample Description

FRCHD04-C-2

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>AMEC FOSTER WHEELER-FAIRCHILD AFB</u>	
Matrix (soil/water):	<u>SOIL</u>	SDG No.:	<u>127352</u>	
% Solids:	<u>87.9</u>	Lab Sample ID:	<u>867205</u>	
Analytical Method:	<u>EPA 8000C</u>	Date Received:	<u>05/13/2017</u>	
Dilution Factor:	<u>1.00</u>	TCLP/SPLP Extraction Date/time:	<u></u>	
Analytical Run #:	<u>137959</u>	Analysis Date/Time	<u>05/16/2017</u>	<u>12:40</u>
Analytical Prep Batch #:	<u></u>	Prep. Date/Time:	<u></u>	
ICAL Calibration #:	<u></u>	Concentration Units:	<u>%</u>	

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
SOLID	Solids, Percent	87.9		0.1	0.1	0.1	0.1

INORGANIC ANALYSIS DATA SHEET

Sample Description

FRCHD05-C-1

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>AMEC FOSTER WHEELER-FAIRCHILD AFB</u>		
Matrix (soil/water):	<u>SOIL</u>	SDG No.:	<u>127352</u>		
% Solids:	<u>79.9</u>	Lab Sample ID:	<u>867557</u>		
Analytical Method:	<u>L-Kahn/9060A</u>	Date Received:	<u>05/15/2017</u>		
Dilution Factor:	<u>1.00</u>	TCLP/SPLP Extraction Date/time:	<u></u>		
Analytical Run #:	<u>138169</u>	Analysis Date/Time	<u>05/24/2017</u>	<u>09:58</u>	
Analytical Prep Batch #:	<u></u>	Prep. Date/Time:	<u></u>		
ICAL Calibration #:	<u></u>	Concentration Units:	<u>mg/kg</u>		

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	30100		45	94	190	190

INORGANIC ANALYSIS DATA SHEET

Sample Description

FRCHD05-C-1

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>AMEC FOSTER WHEELER-FAIRCHILD AFB</u>
Matrix (soil/water):	<u>SOIL</u>	SDG No.:	<u>127352</u>
% Solids:	<u>79.9</u>	Lab Sample ID:	<u>867557</u>
Analytical Method:	<u>EPA 9045D</u>	Date Received:	<u>05/15/2017</u>
Dilution Factor:	<u>1</u>	TCLP/SPLP Extraction Date/time:	<u></u>
Analytical Run #:	<u>138099</u>	Analysis Date/Time	<u>05/19/2017 10:00</u>
Analytical Prep Batch #:	<u></u>	Prep. Date/Time:	<u></u>
ICAL Calibration #:	<u></u>	Concentration Units:	<u>S.U.</u>

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
PH	pH	7.94		0.1	0.1	0.1	0.1

INORGANIC ANALYSIS DATA SHEET

Sample Description

FRCHD05-C-1

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>AMEC FOSTER WHEELER-FAIRCHILD AFB</u>	
Matrix (soil/water):	<u>SOIL</u>	SDG No.:	<u>127352</u>	
% Solids:	<u>79.9</u>	Lab Sample ID:	<u>867557</u>	
Analytical Method:	<u>EPA 8000C</u>	Date Received:	<u>05/15/2017</u>	
Dilution Factor:	<u>1.00</u>	TCLP/SPLP Extraction Date/time:	<u></u>	
Analytical Run #:	<u>137959</u>	Analysis Date/Time	<u>05/16/2017</u>	<u>12:40</u>
Analytical Prep Batch #:	<u></u>	Prep. Date/Time:	<u></u>	
ICAL Calibration #:	<u></u>	Concentration Units:	<u>%</u>	

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
SOLID	Solids, Percent	79.9		0.1	0.1	0.1	0.1

INORGANIC ANALYSIS DATA SHEET

Sample Description

FRCHD05-C-2

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>AMEC FOSTER WHEELER-FAIRCHILD AFB</u>	
Matrix (soil/water):	<u>SOIL</u>	SDG No.:	<u>127352</u>	
% Solids:	<u>82.4</u>	Lab Sample ID:	<u>867570</u>	
Analytical Method:	<u>EPA 9045D</u>	Date Received:	<u>05/15/2017</u>	
Dilution Factor:	<u>1</u>	TCLP/SPLP Extraction Date/time:		
Analytical Run #:	<u>138099</u>	Analysis Date/Time	<u>05/19/2017</u>	<u>10:00</u>
Analytical Prep Batch #:		Prep. Date/Time:		
ICAL Calibration #:		Concentration Units:	<u>S.U.</u>	

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
PH	pH	7.94		0.1	0.1	0.1	0.1

INORGANIC ANALYSIS DATA SHEET

Sample Description

FRCHD05-C-2

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>AMEC FOSTER WHEELER-FAIRCHILD AFB</u>	
Matrix (soil/water):	<u>SOIL</u>	SDG No.:	<u>127352</u>	
% Solids:	<u>82.4</u>	Lab Sample ID:	<u>867570</u>	
Analytical Method:	<u>L-Kahn/9060A</u>	Date Received:	<u>05/15/2017</u>	
Dilution Factor:	<u>1.00</u>	TCLP/SPLP Extraction Date/time:	<u></u>	
Analytical Run #:	<u>138169</u>	Analysis Date/Time	<u>05/24/2017</u>	<u>10:04</u>
Analytical Prep Batch #:	<u></u>	Prep. Date/Time:	<u></u>	
ICAL Calibration #:	<u>INSTRUMENT =</u>	Concentration Units:	<u>mg/kg</u>	

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	5430		44	91	180	180

INORGANIC ANALYSIS DATA SHEET

Sample Description

FRCHD05-C-2

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>AMEC FOSTER WHEELER-FAIRCHILD AFB</u>
Matrix (soil/water):	<u>SOIL</u>	SDG No.:	<u>127352</u>
% Solids:	<u>82.4</u>	Lab Sample ID:	<u>867570</u>
Analytical Method:	<u>EPA 8000C</u>	Date Received:	<u>05/15/2017</u>
Dilution Factor:	<u>1.00</u>	TCLP/SPLP Extraction Date/time:	<u> </u>
Analytical Run #:	<u>137959</u>	Analysis Date/Time	<u>05/16/2017 12:40</u>
Analytical Prep Batch #:	<u> </u>	Prep. Date/Time:	<u> </u>
ICAL Calibration #:	<u> </u>	Concentration Units:	<u>%</u>

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
SOLID	Solids, Percent	82.4		0.1	0.1	0.1	0.1



2A-1

INITIAL CALIBRATION VERIFICATION

Sample No.

ICV

Lab Name: CT Laboratories

Contract: AMEC FOSTER WHEELER-FAIRCHILD AFB

SDG No.: 127352

Analytical Run #: 138169

Lab Sample ID: 872818

ICAL Calibration #: _____

Concentration Units: mg/kg

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Total Organic Carbon	6/9/16	16:29	400000	419600	105	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115



2A-2

CONTINUING CALIBRATION VERIFICATION

Sample No.

CCV

Lab Name: CT Laboratories

Contract: AMEC FOSTER WHEELER-FAIRCHILD AFB

SDG No.: 127352

Analytical Run #: 138169

Lab Sample ID: 871887

ICAL Calibration #: INSTRUMENT =

Concentration Units: mg/kg

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Total Organic Carbon	5/24/17	09:33	400000	372300	93	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115



2A-2

CONTINUING CALIBRATION VERIFICATION

Sample No.

CCV

Lab Name: CT Laboratories

Contract: AMEC FOSTER WHEELER-FAIRCHILD AFB

SDG No.: 127352

Analytical Run #: 138169

Lab Sample ID: 871893

ICAL Calibration #: INSTRUMENT =

Concentration Units: mg/kg

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Total Organic Carbon	5/24/17	10:51	400000	379800	95	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115



2A-2

CONTINUING CALIBRATION VERIFICATION

Sample No.

CCV

Lab Name: CT Laboratories

Contract: AMEC FOSTER WHEELER-FAIRCHILD AFB

SDG No.: 127352

Analytical Run #: 138169

Lab Sample ID: 871896

ICAL Calibration #: INSTRUMENT =

Concentration Units: mg/kg

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Total Organic Carbon	5/24/17	12:17	400000	378700	95	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

ICB

Lab Name: CT Laboratories

Contract: AMEC FOSTER WHEELER-FAIRCHILD AFB

SDG No.: 127352

Analytical Run #: 138169

Lab Sample ID: 872819

Analytical Prep Batch #

Preparation Date/Time:

ICAL Calibration #:

Concentration Units: mg/kg

Analyte

Analysis
Date/Time

Measured
Concentration

C***

Detection
Limit**Control
Limit

Total Organic Carbon

06/09/2016 16:37

0

U

36

75

***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CONTINUING CALIBRATION BLANKS

Sample No

CCB

Lab Name: CT Laboratories

Contract: AMEC FOSTER WHEELER-FAIRCHILD AFB

SDG No.: 127352

Analytical Run #: 138169

Lab Sample ID: 871895

Analytical Prep Batch # 0

Preparation Date/Time: _____

ICAL Calibration #: INSTRUMENT =

Concentration Units: mg/kg

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Total Organic Carbon	05/24/2017 11:02	0	U	36	75

** Detection Limit only reported if value was less than the control limit.

***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CONTINUING CALIBRATION BLANKS

CCB

Lab Name: CT Laboratories Contract: AMEC FOSTER WHEELER-FAIRCHILD AFB

SDG No.: 127352

Analytical Run #: 138169 Lab Sample ID: 871897

Analytical Prep Batch # 0 Preparation Date/Time: _____

ICAL Calibration #: INSTRUMENT = Concentration Units: mg/kg

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Total Organic Carbon	05/24/2017 12:24	0	U	36	75

** Detection Limit only reported if value was less than the control limit.

***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

Lab Name: CT Laboratories Contract: AMEC FOSTER WHEELER-FAIRCHILD AFB

SDG No.: 127352

Analytical Run #: 138169 Lab Sample ID: 871889

Analytical Prep Batch # 0 Preparation Date/Time: _____

ICAL Calibration #: INSTRUMENT = Concentration Units: mg/kg

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Total Organic Carbon	05/24/2017 09:46	0	U	36	75

** Detection Limit only reported if value was less than the control limit.

***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

6

Sample Description

DUPLICATES

FRCHD02-C-2

Lab Name: CT Laboratories

Contract: AMEC FOSTER WHEELER-FAIRCHILD AFB

Matrix: SOLID

SDG No.: 127352

% Solid for Sample: 81.4

Concentration Units: %

Analytical Prep Batch # 1

Analytical Preparation Date/Time 0

Analytical Run #: 137959

ICAL Calibration #:

Sample #: 868570

Parent Sample #: 867583

Analysis Type *Initial Analysis*

Analyte	Analysis Date/Tim	RPD Limit	Original Parent Conc. (S)	C	Duplicate Conc. (D)	C	RPD	Q	M
Solids, Percent	05/16/2017 12:40	8	81.4		92.3		13		GRA <i>FAIL</i>

6

Sample Description

DUPLICATES

FRCHD02-C-2

Lab Name: CT Laboratories

Contract: AMEC FOSTER WHEELER-FAIRCHILD AFB

Matrix: SOLID

SDG No.: 127352

% Solid for Sample: 81.4

Concentration Units: S.U.

Analytical Prep Batch # 1

Analytical Preparation Date/Time _____

Analytical Run #: 138099

ICAL Calibration #: _____

Sample #: 870099

Parent Sample #: 867583

Analysis Type *Initial Analysis*

Analyte	Analysis Date/Tim	RPD Limit	Original Parent Conc. (S)	C	Duplicate Conc. (D)	C	RPD	Q	M
pH	05/19/2017 10:00	1	8.19		8.23		0		ELEC

6

Sample Description

DUPLICATES

FRCHD03-C-1

Lab Name: CT Laboratories

Contract: AMEC FOSTER WHEELER-FAIRCHILD AFB

Matrix: SOLID

SDG No.: 127352

% Solid for Sample: 93.0

Concentration Units: mg/kg

Analytical Prep Batch # 1

Analytical Preparation Date/Time 0

Analytical Run #: 138169

ICAL Calibration #: INSTRUMENT =

Sample #: 871890

Parent Sample #: 867571

Analysis Type *Initial Analysis*

Analyte	Analysis Date/Tim	RPD Limit	Original Parent Conc. (S)	C	Duplicate Conc. (D)	C	RPD	Q	M
Total Organic Carbon	05/24/2017 10:16	30	8360		7590		10		TOC

6

Sample Description

DUPLICATES

FRCHD03-C-1

Lab Name: CT Laboratories

Contract: AMEC FOSTER WHEELER-FAIRCHILD AFB

Matrix: SOLID

SDG No.: 127352

% Solid for Sample: 93.0

Concentration Units: mg/kg

Analytical Prep Batch # 1

Analytical Preparation Date/Time 0

Analytical Run #: 138169

ICAL Calibration #: INSTRUMENT =

Sample #: 871891

Parent Sample #: 867571

Analysis Type *Initial Analysis*

Analyte	Analysis Date/Tim	RPD Limit	Original Parent Conc. (S)	C	Duplicate Conc. (D)	C	RPD	Q	M
Total Organic Carbon	05/24/2017 10:22	30	8360		7190		15		TOC

6

Sample Description

DUPLICATES

FRCHD03-C-1

Lab Name: CT Laboratories

Contract: AMEC FOSTER WHEELER-FAIRCHILD AFB

Matrix: SOLID

SDG No.: 127352

% Solid for Sample: 93.0

Concentration Units: mg/kg

Analytical Prep Batch # 1

Analytical Preparation Date/Time 0

Analytical Run #: 138169

ICAL Calibration #: INSTRUMENT =

Sample #: 871892

Parent Sample #: 867571

Analysis Type *Initial Analysis*

Analyte	Analysis Date/Tim	RPD Limit	Original Parent Conc. (S)	C	Duplicate Conc. (D)	C	RPD	Q	M
Total Organic Carbon	05/24/2017 10:28	30	8360		6990		18		TOC

LABORATORY CONTROL SAMPLE - SOLID

LCS

Lab Name: CT Laboratories Contract AMEC FOSTER WHEELER-FAIRCHILD AFB

LCS Source: SPEX and Ultra SDG No.: 127352

Concentration Units: mg/kg

Analytical Run #: 138169 Sample No.:# 871888

Analytical Prep Batch #: 0 Preparation Date/Time: _____

ICAL Calibration #: INSTRUMENT =

Analysis Type -----

Initial Analysis

Analyte	Analysis Date/Time		Control Limit (%R)	Spike Result	C	Spike Amount	%R	Q	M
Total Organic Carbon	05/24/2017	09:41	84-113	377000		400000	94		TOC

**SUBCONTRACTED ANALYSIS
DOCUMENTS**

ANALYTICAL REPORT

CT Laboratories
Attn: Mr. Brett Szymanski
1230 Lange Court
Baraboo, WI 53913
bszymanski@ctlaboratories.com

PROJECT NAME: FAIRCHILD AFB, WA.			
REPORT DATE:	May 24, 2017	CT LABS PO #	127352 MITECH
ANALYSIS:	HYDROMETER	MI-TECH #	10680
METHOD:	ASTM D422	DATE RECEIVED:	05/16/2017

Dear Mr. Szymanski:

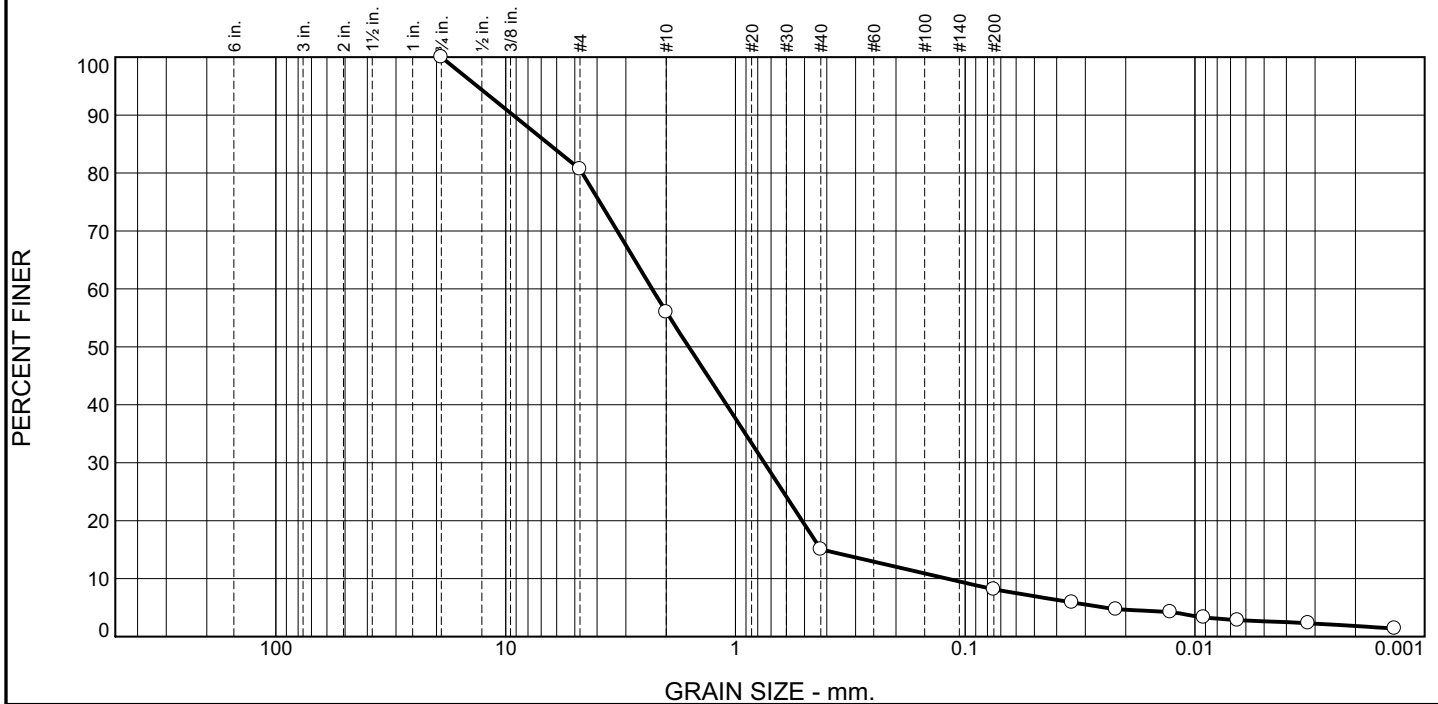
Analytical results for the above referenced project are enclosed. Thank you for your business.

Sincerely,
Mi-Tech Services, Inc.



Stephanie M. Finamore, M.S., P.G.
Environmental Director

Particle Size Distribution Report - Hydrometer Method



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	19.3	24.7	41.0	6.9	5.5	2.6

Test Results (ASTM D 422-63 & ASTM D 2217)			
Opening Size	Percent Finer	Spec.* (Percent)	Pass? (X=Fail)
.75	100.0		
#4	80.7		
#10	56.0		
#40	15.0		
#200	8.1		
0.0343 mm.	5.9		
0.0220 mm.	4.7		
0.0128 mm.	4.2		
0.0092 mm.	3.3		
0.0065 mm.	2.8		
0.0032 mm.	2.3		
0.0014 mm.	1.4		

* (no specification provided)

Client Sample Description

FRCHD04-C-2

Atterberg Limits (ASTM D 4318)

PL= NP

LL= NV

PI= NP

Classification

USCS (D 2487)= SW-SM AASHTO (M 145)= A-1-b

Coefficients

D₉₀= 9.2890

D₈₅= 6.4865

D₆₀= 2.3025

D₅₀= 1.5951

D₃₀= 0.7486

D₁₅= 0.4212

D₁₀= 0.1199

C_u= 19.20

C_c= 2.03

Remarks

Date Received: 5-16-2017

Date Tested: 5-24-17

Tested By: DWB

Checked By: SMF

Title: ENVIRO. DIRECTOR

Sample Number: 867205

Date Sampled: 5-12-2017

Mi-Tech Services, Inc.

Weston, WI

Client: CT LABORATORIES

Project: FAIRCHILD AFB, WA.
PO 127352 MI-TECH

Project No: 10680

Figure 10

Sub-Contract Laboratory Chain-of-Custody and Purchase Order

PURCHASE ORDER # 127352 MITECH

The PO# must appear on all invoice and reports!

Upon Receipt of Samples, please verify that samples were received in acceptable condition then sign this form and fax to (608)356-2766 or email to the project manager. Sample temperature, upon receipt, must be recorded on this document unless thermal preservation is not a method requirement.

Ship to: **Mi-Tech**
5707 SCHOFIELD AVE
WESTON, WI 54476

Return Invoice and Results to: **bszymanski@ctlaboratories.com**

Government UPS Shipping Acct ? Y ☐ N ☒

CTLaboratories
Brett M Szymanski
1230 Lange Court
Baraboo WI 53913

Ship by: Speedee ☒ UPS Grnd ☐ UPS 2nd ☐ UPS NDA ☐

Date Due: 2 Weeks **RUSH TURNAROUND NEEDED?** Y ☐ or **N** ☒ (Circle One)

Project Name: FAIRCHILD AFB **Project State:** WA

Analytical/QC Criteria: NONE INDICATED STATE DOD QSM NELAP (Circle one) OTHER _____

Report results as EDD? **N** ☒ Y ☐ (Circle one and indicate type: _____) Data Deliverable Package LEVEL: Standard

CTLabs ID#	Sample Date/Time	Matrix	Sample Description	Analyses / Method	Cost
867205	05/12/2017 0850	SOIL	FRCHD04-C-2	Particle Size Analysis (GSA + Hydrometer)	

Relinquished by: Brett Szymanski Date/Time: 05/15/2017 13:25
Received by: [Signature] Date/Time: 5/16/2017 15:00 Receipt Temperature (C) _____

COMMENTS:

REPORT ALL SOLIDS ON A DRY WEIGHT BASIS UNLESS OTHERWISE INDICATED

Form #: FPM1-01
Effective Date: 02/15/14

ANALYTICAL REPORT

CT Laboratories
Attn: Mr. Brett Szymanski
1230 Lange Court
Baraboo, WI 53913
bszymanski@ctlaboratories.com

PROJECT NAME: FAIRCHILD AFB, WA.			
REPORT DATE:	May 24, 2017	CT LABS PO #	127358 MITECH
ANALYSIS:	HYDROMETER	MI-TECH #	10679
METHOD:	ASTM D422	DATE RECEIVED:	05/16/2017

Dear Mr. Szymanski:

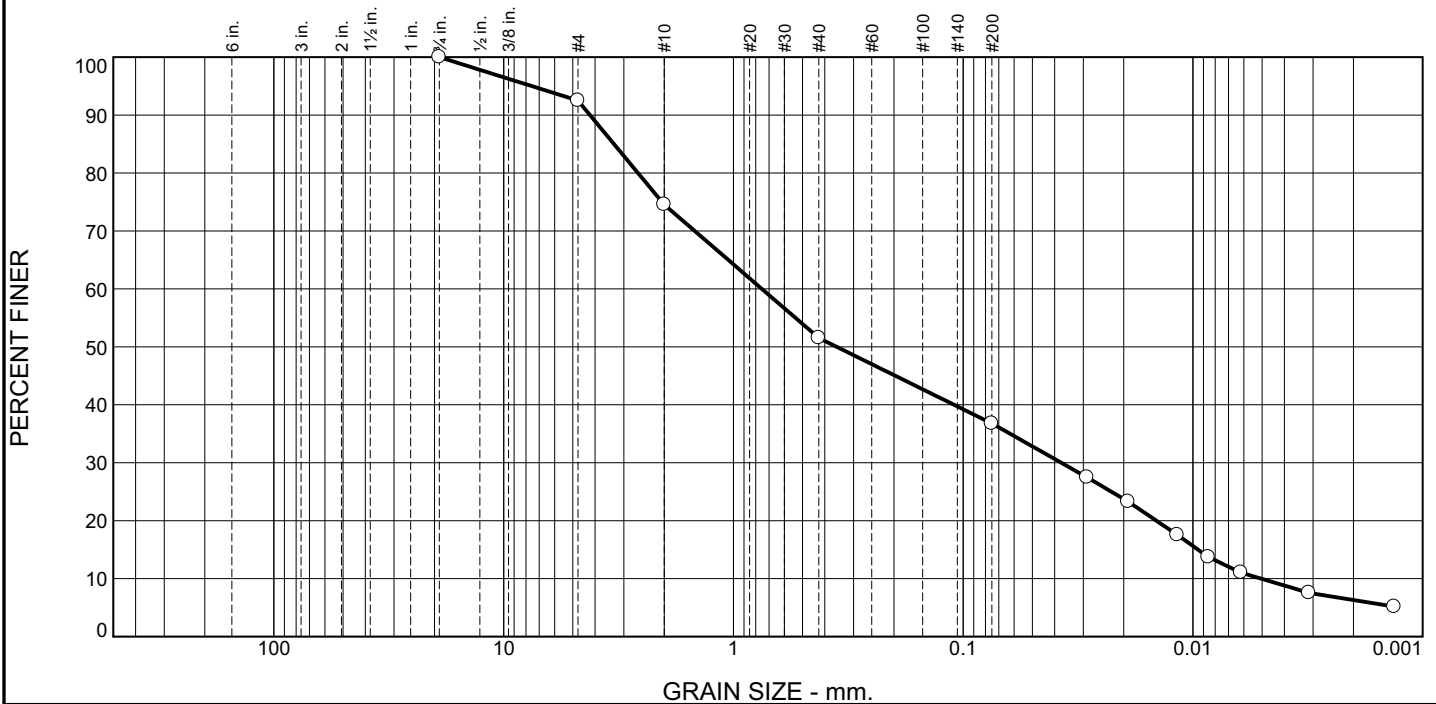
Analytical results for the above referenced project are enclosed. Thank you for your business.

Sincerely,
Mi-Tech Services, Inc.



Stephanie M. Finamore, M.S., P.G.
Environmental Director

Particle Size Distribution Report - Hydrometer Method



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	7.5	18.0	23.0	14.7	26.9	9.9

Test Results (ASTM D 422-63 & ASTM D 2217)			
Opening Size	Percent Finer	Spec.* (Percent)	Pass? (X=Fail)
.75	100.0		
#4	92.5		
#10	74.5		
#40	51.5		
#200	36.8		
0.0289 mm.	27.5		
0.0191 mm.	23.3		
0.0117 mm.	17.5		
0.0086 mm.	13.7		
0.0062 mm.	11.0		
0.0031 mm.	7.5		
0.0013 mm.	5.2		

* (no specification provided)

Client Sample Description

FRCHD05-C-1

Atterberg Limits (ASTM D 4318)

PL= NP

LL= NV

PI= NP

Classification

USCS (D 2487)= SM

AASHTO (M 145)= A-4(0)

Coefficients

D₉₀= 4.2098

D₈₅= 3.3091

D₆₀= 0.7516

D₅₀= 0.3551

D₃₀= 0.0374

D₁₅= 0.0095

D₁₀= 0.0050

C_u= 148.86

C_c= 0.37

Remarks

Date Received: 5-16-2017

Date Tested: 5-22-17

Tested By: DWB

Checked By: SMF

Title: ENVIRO. DIRECTOR

Sample Number: 867557

Date Sampled: 5-8-2017

Mi-Tech Services, Inc.

Weston, WI

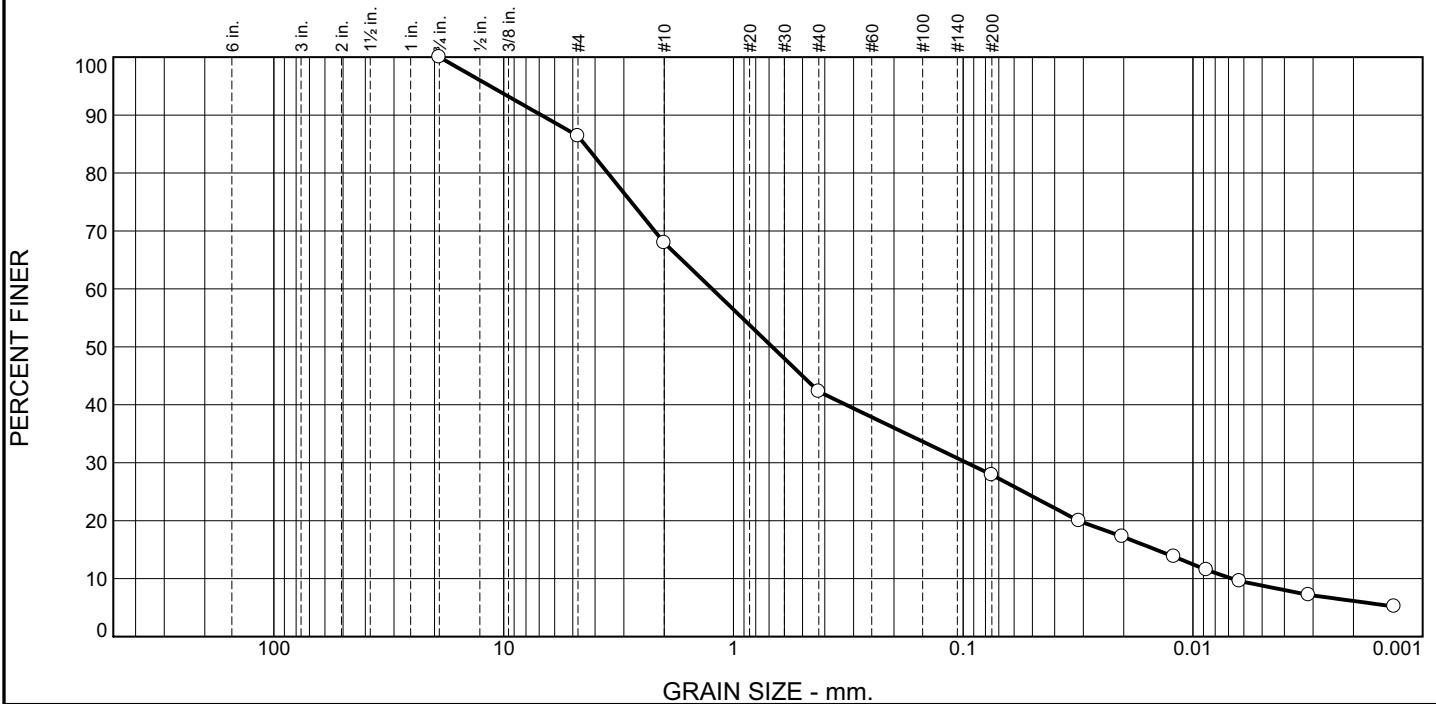
Client: CT Laboratories

Project: Fairchild AFB, WA.
(PO 127358 MI-TECH)

Project No: 10679

Figure 1

Particle Size Distribution Report - Hydrometer Method



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	13.6	18.5	25.6	14.4	19.1	8.8

Test Results (ASTM D 422-63 & ASTM D 2217)			
Opening Size	Percent Finer	Spec.* (Percent)	Pass? (X=Fail)
.75	100.0		
#4	86.4		
#10	67.9		
#40	42.3		
#200	27.9		
0.0313 mm.	19.9		
0.0203 mm.	17.3		
0.0121 mm.	13.8		
0.0087 mm.	11.5		
0.0063 mm.	9.6		
0.0031 mm.	7.2		
0.0013 mm.	5.2		

* (no specification provided)

Client Sample Description

FRCHD05-C-2

Atterberg Limits (ASTM D 4318)

PL= NP

LL= NV

PI= NP

Classification

USCS (D 2487)= SM

AASHTO (M 145)= A-2-4(0)

Coefficients

D₉₀= 6.8632

D₈₅= 4.4492

D₆₀= 1.2382

D₅₀= 0.6773

D₃₀= 0.0966

D₁₅= 0.0145

D₁₀= 0.0067

C_u= 183.47

C_c= 1.12

Remarks

Date Received: 5-16-2017

Date Tested: 5-22-17

Tested By: DWB

Checked By: SMF

Title: ENVIRO. DIRECTOR

Sample Number: 867570

Date Sampled: 5-11-2017

Mi-Tech Services, Inc.

Weston, WI

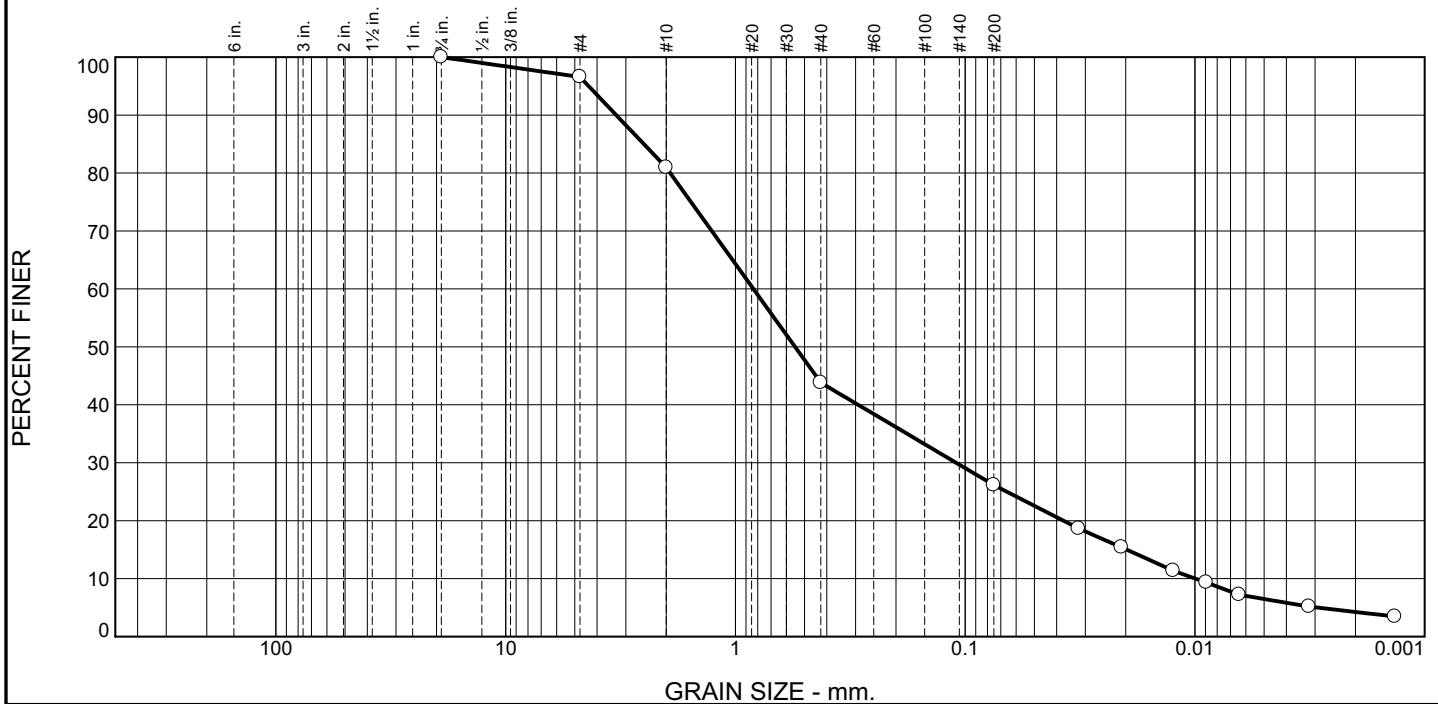
Client: CT Laboratories

Project: Fairchild AFB, WA.
(PO 127358 MI-TECH)

Project No: 10679

Figure 2

Particle Size Distribution Report - Hydrometer Method



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	3.4	15.7	37.1	17.7	19.6	6.5

Test Results (ASTM D 422-63 & ASTM D 2217)			
Opening Size	Percent Finer	Spec.* (Percent)	Pass? (X=Fail)
.75	100.0		
#4	96.6		
#10	80.9		
#40	43.8		
#200	26.1		
0.0321 mm.	18.6		
0.0208 mm.	15.4		
0.0124 mm.	11.4		
0.0089 mm.	9.3		
0.0064 mm.	7.2		
0.0032 mm.	5.2		
0.0013 mm.	3.5		

* (no specification provided)

Client Sample Description

FRCHD03-C-1

Atterberg Limits (ASTM D 4318)

PL= NP

LL= NV

PI= NP

Classification

USCS (D 2487)= SM

AASHTO (M 145)= A-2-4(0)

Coefficients

D₉₀= 3.3007

D₈₅= 2.5030

D₆₀= 0.8349

D₅₀= 0.5502

D₃₀= 0.1096

D₁₅= 0.0198

D₁₀= 0.0100

C_u= 83.89

C_c= 1.44

Remarks

Date Received: 5-16-2017

Date Tested: 5-22-17

Tested By: DWB

Checked By: SMF

Title: ENVIRO.DIRECTOR

Sample Number: 867571

Date Sampled: 5-11-17

Mi-Tech Services, Inc.

Weston, WI

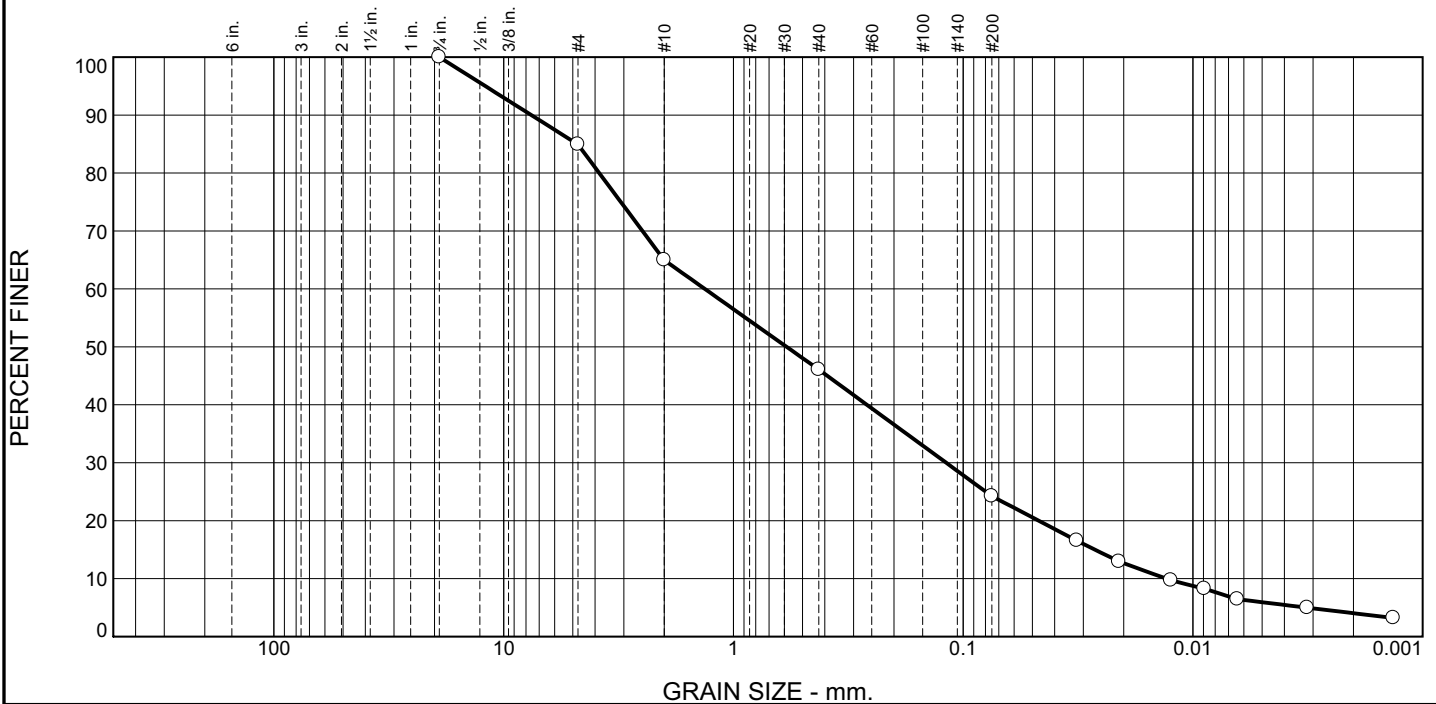
Client: CT Laboratories

Project: Fairchild AFB, WA.
(PO 127358 MI-TECH)

Project No: 10679

Figure 3

Particle Size Distribution Report - Hydrometer Method



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	15.1	19.9	18.9	21.9	18.3	5.9

Test Results (ASTM D 422-63 & ASTM D 2217)			
Opening Size	Percent Finer	Spec.* (Percent)	Pass? (X=Fail)
.75	100.0		
#4	84.9		
#10	65.0		
#40	46.1		
#200	24.2		
0.0320 mm.	16.5		
0.0210 mm.	12.9		
0.0125 mm.	9.7		
0.0089 mm.	8.3		
0.0064 mm.	6.5		
0.0032 mm.	5.0		
0.0013 mm.	3.2		

* (no specification provided)

Client Sample Description

FRCHD03-C-2

Atterberg Limits (ASTM D 4318)

PL= NP

LL= NV

PI= NP

Classification

USCS (D 2487)= SM

AASHTO (M 145)= A-1-b

Coefficients

D₉₀= 7.5786

D₈₅= 4.7801

D₆₀= 1.3317

D₅₀= 0.5866

D₃₀= 0.1186

D₁₅= 0.0267

D₁₀= 0.0131

C_u= 101.85

C_c= 0.81

Remarks

Date Received: 5-16-2017

Date Tested: 5-22-17

Tested By: DWB

Checked By: SMF

Title: ENVIRO. DIRECTOR

Sample Number: 867572

Date Sampled: 5-11-2017

Mi-Tech Services, Inc.

Weston, WI

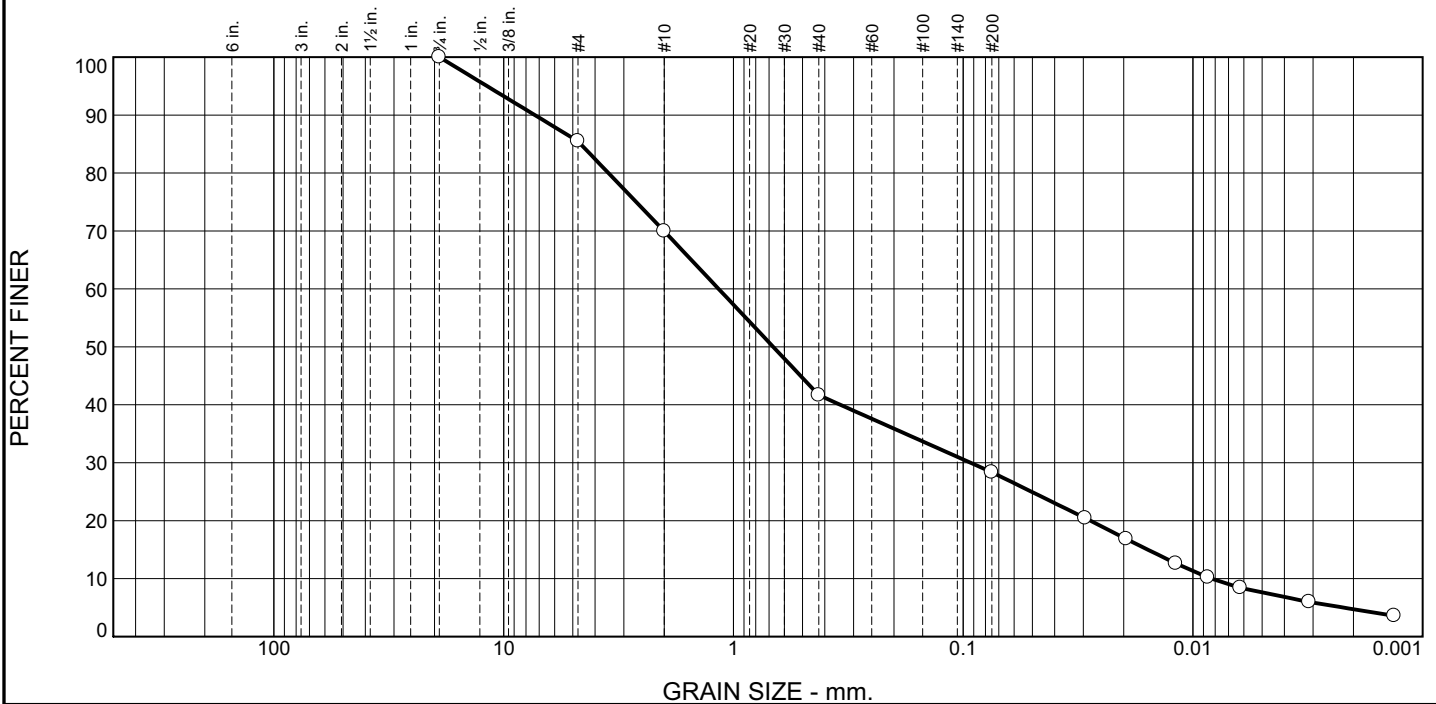
Client: CT Laboratories

Project: Fairchild AFB, WA.
(PO 127358 MI-TECH)

Project No: 10679

Figure 4

Particle Size Distribution Report - Hydrometer Method



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	14.5	15.5	28.3	13.3	20.8	7.6

Test Results (ASTM D 422-63 & ASTM D 2217)			
Opening Size	Percent Finer	Spec.* (Percent)	Pass? (X=Fail)
.75	100.0		
#4	85.5		
#10	70.0		
#40	41.7		
#200	28.4		
0.0294 mm.	20.4		
0.0195 mm.	16.8		
0.0119 mm.	12.6		
0.0086 mm.	10.2		
0.0062 mm.	8.4		
0.0031 mm.	6.0		
0.0013 mm.	3.6		

* (no specification provided)

Client Sample Description

FRCHD02-C-1

Atterberg Limits (ASTM D 4318)

PL= NP

LL= NV

PI= NP

Classification

USCS (D 2487)= SM

AASHTO (M 145)= A-2-4(0)

Coefficients

D₉₀= 7.3141

D₈₅= 4.6220

D₆₀= 1.1596

D₅₀= 0.6708

D₃₀= 0.0929

D₁₅= 0.0157

D₁₀= 0.0083

C_u= 139.74

C_c= 0.90

Remarks

Date Received: 5-16-2017

Date Tested: 5-22-17

Tested By: DWB

Checked By: SMF

Title: ENVIRO. DIRECTOR

Sample Number: 867573

Date Sampled: 5-9-2017

Mi-Tech Services, Inc.

Weston, WI

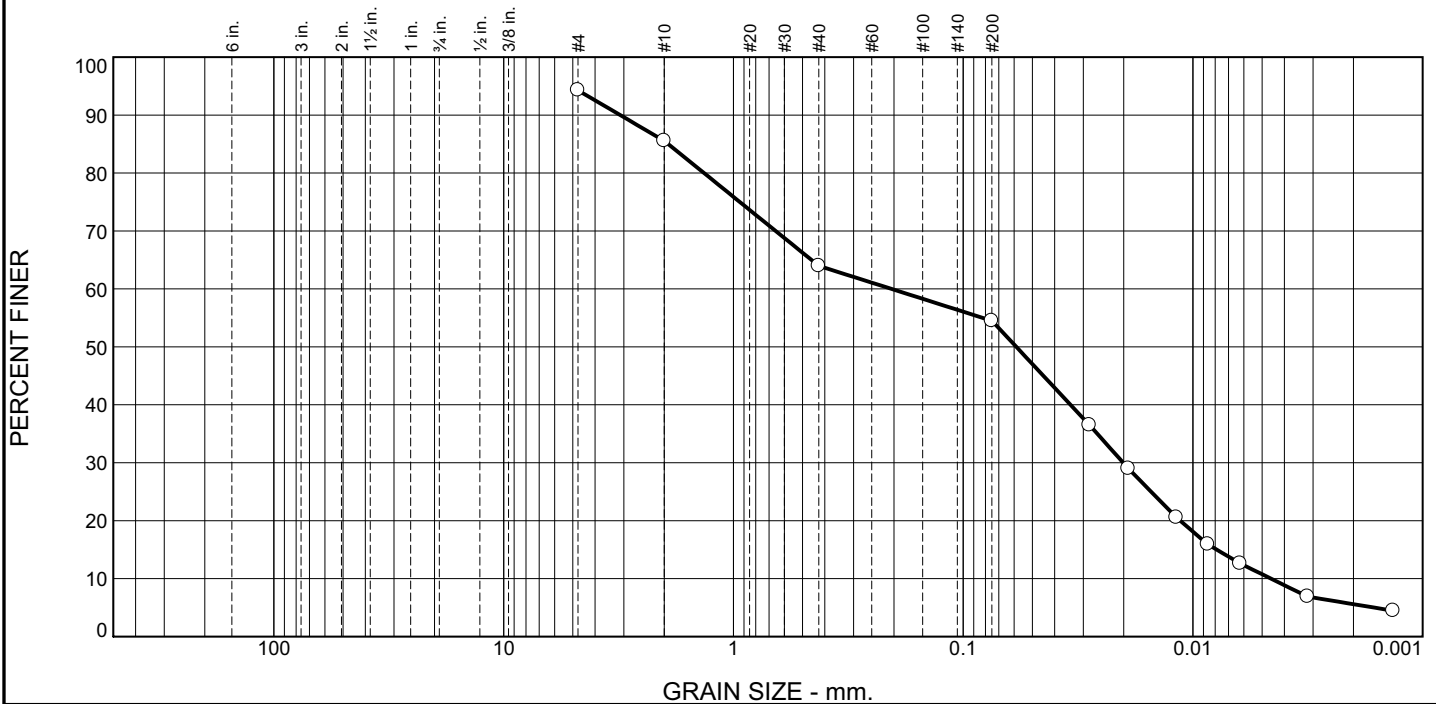
Client: CT Laboratories

Project: Fairchild AFB, WA.
(PO 127358 MI-TECH)

Project No: 10679

Figure 5

Particle Size Distribution Report - Hydrometer Method



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
			8.7	21.6	9.5	43.7	10.8

Test Results (ASTM D 422-63 & ASTM D 2217)			
Opening Size	Percent Finer	Spec.* (Percent)	Pass? (X=Fail)
#4	94.3		
#10	85.6		
#40	64.0		
#200	54.5		
0.0282 mm.	36.5		
0.0191 mm.	29.0		
0.0118 mm.	20.5		
0.0086 mm.	15.9		
0.0062 mm.	12.6		
0.0032 mm.	6.9		
0.0013 mm.	4.5		

* (no specification provided)

Client Sample Description

FRCHD04-C-1

Atterberg Limits (ASTM D 4318)

PL= NP

LL= NV

PI= NP

Classification

USCS (D 2487)= ML

AASHTO (M 145)= A-4(0)

Coefficients

D₉₀= 3.1081

D₈₅= 1.9221

D₆₀= 0.2052

D₅₀= 0.0587

D₃₀= 0.0201

D₁₅= 0.0079

D₁₀= 0.0046

C_u= 44.86

C_c= 0.43

Remarks

Date Received: 5-16-2017

Date Tested: 5-22-17

Tested By: DWB

Checked By: SMF

Title: ENVIRO. DIRECTOR

Sample Number: 867574

Date Sampled: 5-8-2017

Mi-Tech Services, Inc.

Weston, WI

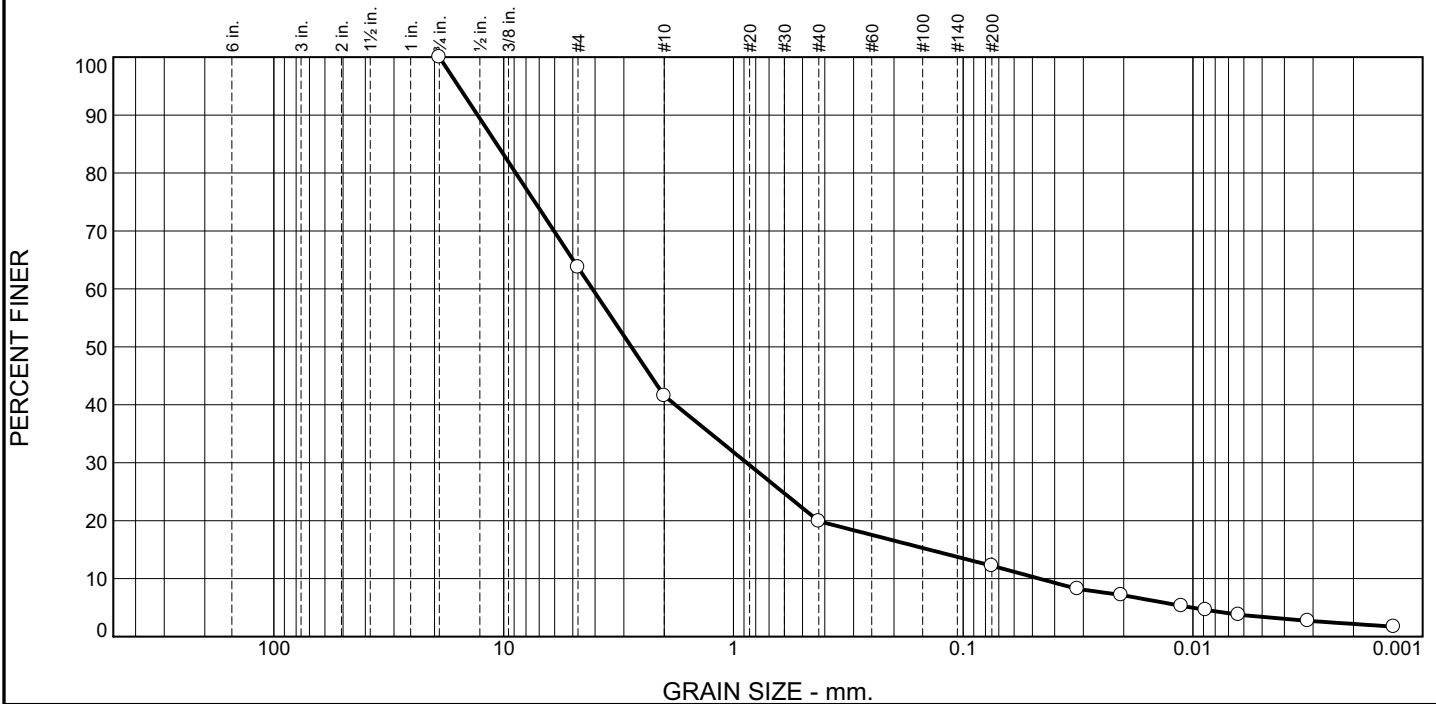
Client: CT Laboratories

Project: Fairchild AFB, WA.
(PO 127358 MI-TECH)

Project No: 10679

Figure 6

Particle Size Distribution Report - Hydrometer Method



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	36.3	22.2	21.6	7.7	8.8	3.4

Test Results (ASTM D 422-63 & ASTM D 2217)			
Opening Size	Percent Finer	Spec.* (Percent)	Pass? (X=Fail)
.75	100.0		
#4	63.7		
#10	41.5		
#40	19.9		
#200	12.2		
0.0318 mm.	8.2		
0.0205 mm.	7.2		
0.0112 mm.	5.3		
0.0088 mm.	4.6		
0.0063 mm.	3.8		
0.0032 mm.	2.7		
0.0013 mm.	1.7		

* (no specification provided)

Client Sample Description

FRCHD01-C-1

Atterberg Limits (ASTM D 4318)

PL= NP

LL= NV

PI= NP

Classification

USCS (D 2487)= SM

AASHTO (M 145)= A-1-a

Coefficients

D₉₀= 12.9880

D₈₅= 10.7243

D₆₀= 4.1059

D₅₀= 2.7807

D₃₀= 0.8756

D₁₅= 0.1407

D₁₀= 0.0466

C_u= 88.05

C_c= 4.00

Remarks

Date Received: 5-16-2017

Date Tested: 5-22-17

Tested By: DWB

Checked By: SMF

Title: ENVIRO. DIRECTOR

Sample Number: 867581

Date Sampled: 5-10-2017

Mi-Tech Services, Inc.

Weston, WI

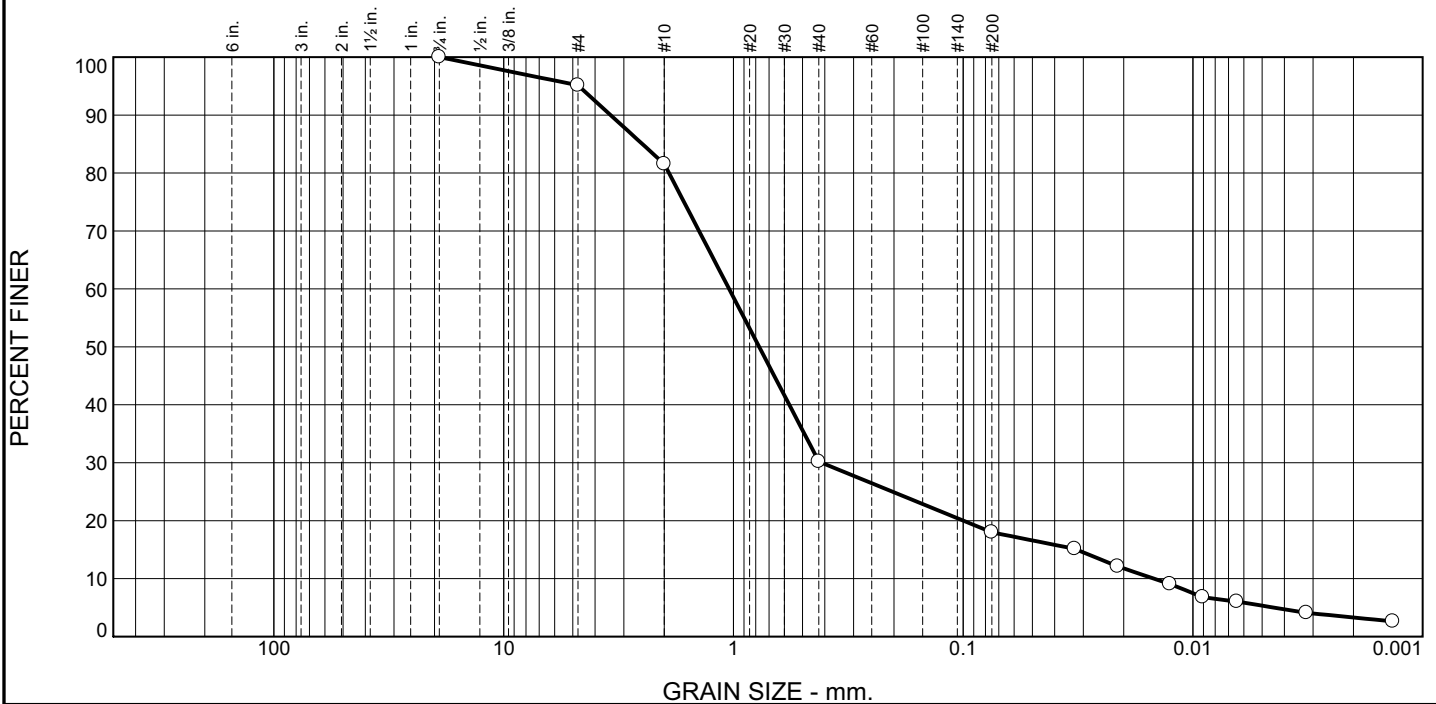
Client: CT Laboratories

Project: Fairchild AFB, WA.
(PO 127358 MI-TECH)

Project No: 10679

Figure 7

Particle Size Distribution Report - Hydrometer Method



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	4.9	13.5	51.4	12.2	12.7	5.3

Test Results (ASTM D 422-63 & ASTM D 2217)			
Opening Size	Percent Finer	Spec.* (Percent)	Pass? (X=Fail)
.75	100.0		
#4	95.1		
#10	81.6		
#40	30.2		
#200	18.0		
0.0327 mm.	15.1		
0.0212 mm.	12.1		
0.0126 mm.	9.1		
0.0091 mm.	6.8		
0.0064 mm.	6.0		
0.0032 mm.	4.1		
0.0013 mm.	2.6		

* (no specification provided)

Client Sample Description

FECHD01-C-2

Atterberg Limits (ASTM D 4318)

PL= NP

LL= NV

PI= NP

Classification

USCS (D 2487)= SM

AASHTO (M 145)= A-1-b

Coefficients

D₉₀= 3.4230

D₈₅= 2.4894

D₆₀= 1.0439

D₅₀= 0.7722

D₃₀= 0.4133

D₁₅= 0.0321

D₁₀= 0.0148

C_u= 70.68

C_c= 11.08

Remarks

Date Received: 5-16-2017

Date Tested: 5-22-17

Tested By: DWB

Checked By: SMF

Title: ENVIRO. DIRECTOR

Sample Number: 867582

Date Sampled: 5-10-2017

Mi-Tech Services, Inc.

Weston, WI

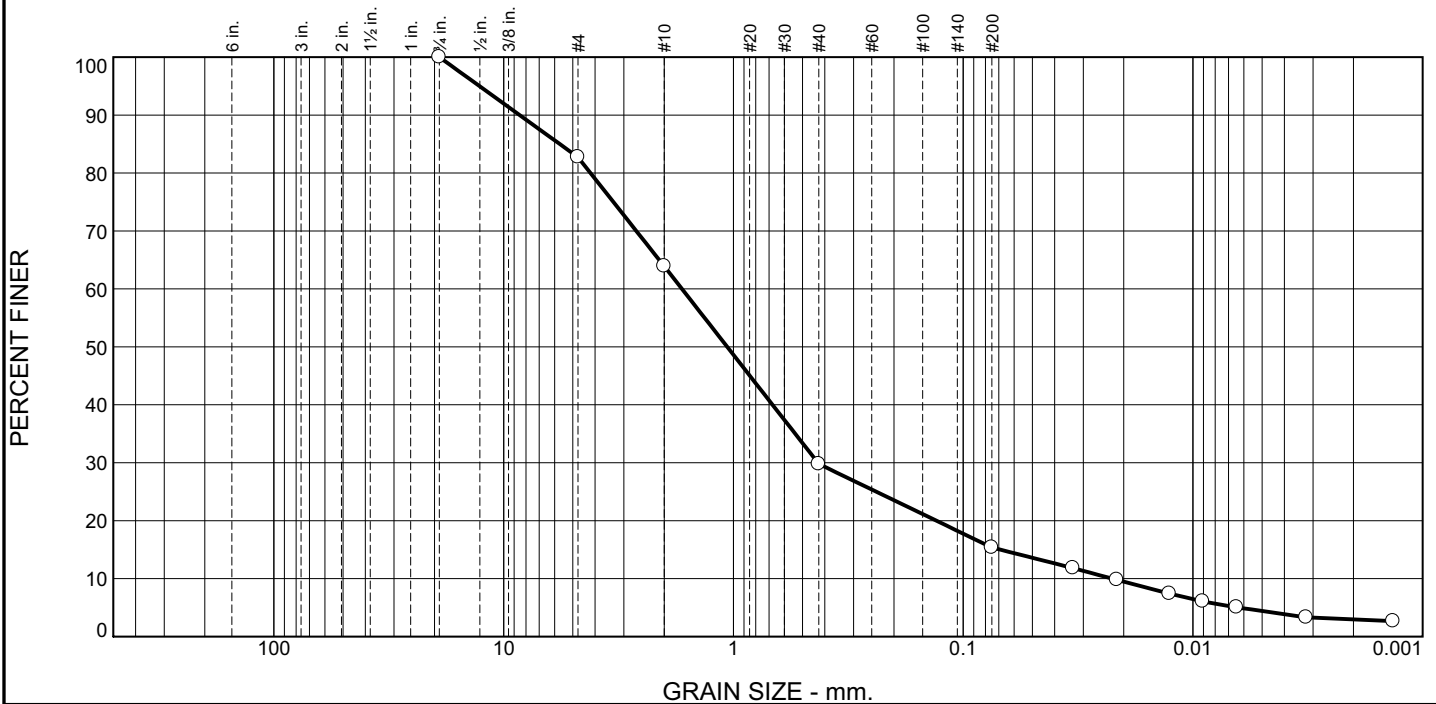
Client: CT Laboratories

Project: Fairchild AFB, WA.
(PO 127358 MI-TECH)

Project No: 10679

Figure 8

Particle Size Distribution Report - Hydrometer Method



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	17.3	18.8	34.1	14.4	11.0	4.4

Test Results (ASTM D 422-63 & ASTM D 2217)			
Opening Size	Percent Finer	Spec.* (Percent)	Pass? (X=Fail)
.75	100.0		
#4	82.7		
#10	63.9		
#40	29.8		
#200	15.4		
0.0332 mm.	11.8		
0.0214 mm.	9.8		
0.0126 mm.	7.4		
0.0091 mm.	6.1		
0.0065 mm.	5.0		
0.0032 mm.	3.3		
0.0013 mm.	2.7		

* (no specification provided)

Client Sample Description

FRCHD02-C-2

Atterberg Limits (ASTM D 4318)

PL= NP

LL= NV

PI= NP

Classification

USCS (D 2487)= SM

AASHTO (M 145)= A-1-b

Coefficients

D₉₀= 8.5214

D₈₅= 5.6993

D₆₀= 1.6745

D₅₀= 1.0636

D₃₀= 0.4291

D₁₅= 0.0689

D₁₀= 0.0225

C_u= 74.54

C_c= 4.89

Remarks

Date Received: 5-16-2017

Date Tested: 5-22-17

Tested By: DWB

Checked By: SMF

Title: ENVIRO. DIRECTOR

Sample Number: 867583

Date Sampled: 5-10-2017

Mi-Tech Services, Inc.

Weston, WI

Client: CT Laboratories

Project: Fairchild AFB, WA.
(PO 127358 MI-TECH)

Project No: 10679

Figure 9

Sub-Contract Laboratory Chain-of-Custody and Purchase Order

PURCHASE ORDER # 127358 MITECH

The PO# must appear on all invoice and reports!

Upon Receipt of Samples, please verify that samples were received in acceptable condition then sign this form and fax to (608)356-2766 or email to the project manager. Sample temperature, upon receipt, must be recorded on this document unless thermal preservation is not a method requirement.

Ship to: **Mi-Tech**
5707 SCHOFIELD AVE
WESTON, WI 54476

Return Invoice and Results to: **bszymanski@ctlaboratories.com**

Government UPS Shipping Acct ? ☒ Y ☐ N

CTLaboratories
Brett M Szymanski
1230 Lange Court
Baraboo WI 53913

Ship by: Speedee ☐ UPS Grnd ☒ UPS 2nd ☐ UPS NDA ☐

Date Due: 2 Weeks **RUSH TURNAROUND NEEDED?** Y or ☒ N (Circle One)

Project Name: FAIRCHILD AFB **Project State:** WA

Analytical/QC Criteria: NONE INDICATED STATE ☒ DOD QSM NELAP (Circle one) OTHER _____

Report results as EDD? ☒ N ☐ Y (Circle one and indicate type: _____) Data Deliverable Package LEVEL: Standard

CTLabs ID#	Sample Date/Time	Matrix	Sample Description	Analyses / Method	Cost
867557	05/08/2017 1315	SOIL	FRCHD05-C-1	Particle Size Analysis (GSA + Hydrometer)	
867570	05/11/2017 0950	SOIL	FRCHD05-C-2	Particle Size Analysis (GSA + Hydrometer)	
867571	05/11/2017 1030	SOIL	FRCHD03-C-1	Particle Size Analysis (GSA + Hydrometer)	
867572	05/11/2017 1450	SOIL	FRCHD03-C-2	Particle Size Analysis (GSA + Hydrometer)	
867573	05/09/2017 1217	SOIL	FRCHD02-C-1	Particle Size Analysis (GSA + Hydrometer)	
867574	05/08/2017 1450	SOIL	FRCHD04-C-1	Particle Size Analysis (GSA + Hydrometer)	
867581	05/10/2017 1400	SOIL	FRCHD01-C-1	Particle Size Analysis (GSA + Hydrometer)	
867582	05/10/2017 1430	SOIL	FRCHD01-C-2	Particle Size Analysis (GSA + Hydrometer)	
867583	05/10/2017 1245	SOIL	FRCHD02-C-2	Particle Size Analysis (GSA + Hydrometer)	

Relinquished by: Brett Szymanski Date/Time: 05/15/2017 14:45

Received by: [Signature] Date/Time: 5/16/2017 15:00 Receipt Temperature (C) _____

COMMENTS:

**CHAIN OF CUSTODY,
PM CONFIRMATION
AND
SAMPLE CONDITION FORMS
DOCUMENTS**



Amec Foster Wheeler Environment & Infrastructure
7376 SW Durham Road
Portland, OR 97224
(503) 639-3400

SHIP TO:
CT Laboratories
1230 Lange Court
Baraboo, WI 53913
Attn: Brett Szymanski
Lab Phone# 608-356-2760

CHAIN OF CUSTODY

DATE: 5/12/17

COC #: CT Lab 01

PAGE: 1 OF 1

Project Name:	Fairchild AFB	Project Contact:	Joe Fasso	Bill To:	Amec Foster Wheeler Environment & Infrastructure, Inc.	Disposal Instructions:	LAB
Project Number:	775303101	Phone Number:	(503) 639-3400			Shipment Method:	FEDEX
Project Manager:	Melissa Helton	Project Phase:	.0012.0300			Waybill Number:	N/A

Sample Information						Methods for Analysis																RUSH																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
No.	Sample ID	Date & Time Sampled	Matrix	Sample Type	MS/MSD	pH	TOC	Particle Size																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						

Folder #: 127352

Company: AMEC FOSTER WHEEL

Project: AFFF RELEASE AREAS

Logged By: RNA PM RM

Sampler's Signature:	<u>Joe Fasso</u>	Date:	<u>5/12/17</u>	Time:	<u>1200</u>	For Lab Use		Comments: X=Analyze H=Hold Analysis Request NUMBER OF COOLERS SENT: <u>1</u>
Relinquished By/Affiliation:	<u>Joe Fasso</u>	Date:	<u>5/12/17</u>	Time:	<u>1200</u>	Does COC match samples:	<u>Y</u> or N	
Received By:	<u>Brian G</u>	Date:	<u>5-15-17</u>	Time:	<u>1011</u>	Broken Container:	<u>Y</u> or N	
Relinquished By/Affiliation:	<u>Brian G</u>	Date:	<u>5/13/17</u>	Time:	<u>1330</u>	COC seal intact:	<u>Y</u> or N	
Received By:	<u>Brian G</u>	Date:	<u>5/13/17</u>	Time:	<u>1330</u>	Other problems:	<u>Y</u> or N	
Relinquished By/Affiliation:		Date:		Time:		WSDOT contacted:	<u>Y</u> or N	
Received By (LAB):		Date:		Time:		Date contacted:		
						Cooler Temperature at receipt:	<u>2.9</u> °C	

Ice Present: ☒ Yes ☐ No
Temperature 2.9 °C
Initials B
Date 5/13/17 Time 1330

Ice Present YES NO

Temperature 2:9

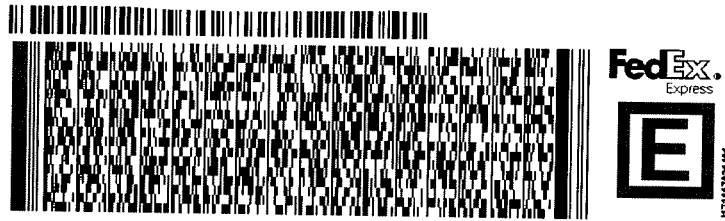
IR Gun # 20

Initials R

Date 5/13/17 Time 1330

Cooler #: XXXX

Cooler Receipt Form



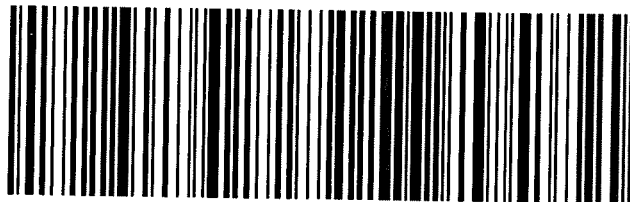
TRK# 7791 3386 8040
0201

SATURDAY 12:00P
PRIORITY OVERNIGHT

DSR

X0 MSNA

53913
WI-US MSN



Folder #: 127352

Company: AMEC FOSTER WHEELER

Project: FAIRCHILD AFB

Folder #: 127352**PM LOGIN CONFIRMATION**

Contract #: 3035

Company: AMEC FOSTER WHEELER

Project: FAIRCHILD AFB

Proj #: 775303101.0012.0300

Project Phase: AFFF RELEASE AREAS

PO Number: WO# F013900869

Invoice #: 127898

Project Manager: BMS

Date Received: 05/13/17

Log Date: 05/15/2017

Report To: MELISSA HELTON

CC:

Invoice To :TINA MARIE HEBERT

CC:

10670 WHITE ROCK ROAD

QUORUM OFFICE PARK

SUITE 100

271 MILL ROAD

RANCHO CORDOVA, CA 95670

CHELMSFORD, MA 01824

Phone: :

Fax:

Phone:

Fax:

Rep. E-Mail

EMail:

Collected By:

Arrival Temperature: 2.9 oC

Collector's Phone:

SAMPLE #: 867205 DESCR: FRCHD04-C-2

PRIMARY / DETAILED MATRIX: SOLID / SOIL

SAMPLED: 05/12/2017 Time: 0850

CLIENT SAMPLE #:

DETAILED SITE/POINT ID INFORMATION:

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
8	SOLIDS,PERCENT	(EPA 8000C)				05/26/2017	05/26/2017		Logged
203	PH	(EPA 9045D)					05/26/2017		Logged
266	SUB HYDROMETER						05/26/2017		Logged
1231	ORGANIC CARBON QSM 5.0	(L-Kahn/9060A)				06/09/2017	05/26/2017		Logged

Invoice Number: 127898

Preliminary Invoice Estimate: \$ 193.00

Item	Matrix	Quantity	Price	Expedited TAT Surcharge	Total
ORGANIC CARBON QSM 5.0	SOIL	1	\$ 35.00	0.00	\$ 35.00
PH	SOIL	1	\$ 8.00	0.00	\$ 8.00
SOLIDS,PERCENT	SOIL	1	\$ 0.00	0.00	\$ 0.00
SUB HYDROMETER	SOIL	1	\$ 150.00	0.00	\$ 150.00
Temporary Fuel Surcharge on lab supplies and services (if applicable):					\$ 0.00

Folder #: 127352

Company: AMEC FOSTER WHEELER

Project: FAIRCHILD AFB

Bottle Information

Container	# Containers	Tests
MISC	1	SUB HYDRO
SOLIDS	1	%SOL,pH,TOC

Sample Condition Report

Folder #: 127352	Print Date / Time: 05/15/2017 10:12
Client: AMEC FOSTER WHEELER	Received Date / Time / By: 05/13/2017 13:30 DRT
Project Name: FAIRCHILD AFB	Log-In Date / Time / By: 05/15/2017 10:11 BNA
Project Phase: AFFF RELEASE AREAS	Project #: 775303101.0012.0300 PM: BMS
Coolers: XXXX	Temperature: 2.9 C On Ice: Y
Custody Seals Present : N	COC Present: Y Complete? Y
Seal Intact?	Numbers: NOT PRESENT
Ship Method: FEDEX	Tracking Number: 779133868040
Adequate Packaging: Y	Temp Blank Enclosed? Y

Notes: THE SAMPLE WAS RECEIVED IN GOOD CONDITION ON ICE.

NO CUSTODY SEALS WERE PRESENT UPON RECEIPT - TAPE WAS INTACT.

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
867205 FRCHD04-C-2	SOLIDS	1	/	%SOL,pH,TOC
Total # of Containers of Type (SOLIDS) = 1				
867205 FRCHD04-C-2	MISC	1	/	SUB HYDRO
Total # of Containers of Type (MISC) = 1				

<u>Condition Code</u>	<u>Condition Description</u>
1	Sample Received OK



Amec Foster Wheeler Environment & Infrastructure
7376 SW Durham Road
Portland, OR 97224
(503) 639-3400

SHIP TO:
CT Laboratories
1230 Lange Court
Baraboo, WI 53913
Attn: Brett Szymanski
Lab Phone# (608) 356-2760

CHAIN OF CUSTODY

DATE: 5/11/2017

COC #: FRCHD170510A

PAGE: 1 OF 3

Project Name:	Fairchild AFB	Project Contact:	Joe Fassio	Bill To:	Amec Foster Wheeler Environment & Infrastructure, Inc.	Disposal Instructions:	LAB
Project Number:	775303101	Phone Number:	(503) 639-3400			Shipment Method:	FEDEX
Project Manager:	Melissa Helton	Project Phase:	FAFO01.0300			Waybill Number:	N/A

Sample Information						Folder # 127358										RUSH						
						Company: AMEC FOSTER WHEELER																
						Project: LFFF RELEASE AREAS																
						Logged By: PNA PMF RMI																

No.	Sample ID	Date & Time Sampled	Matrix	Sample Type	MS/MSD	pH	TOC	Part														
1	FRCHD05-C-1	05/08/17 13:15	SO	N	N	X	X	X														
2	FRCHD05-C-2	5/11/17 9:50	SO	N	N	X	X	X														
3	FRCHD03-C-1	5/11/17 10:30	SO	N	N	X	X	X														
4	FRCHD03-C-2	5/11/17 14:50	SO	N	N	X	X	X														
5																						
6																						
7																						
8																						
9																						
10																						
11																						
12																						

867557

867576

867571

867572

24 Hour	48 Hour	72 Hour	5 Days	TOTAL BOTTLES	QC/PA Analyst
				2	
				2	
				2	
				2	

Sampler's Signature: <i>Joe Fain</i>		Date: <i>5/11/17</i>	Time: <i>9am</i>	For Lab Use		Comments: X=Analyze H=Hold Analysis Request NUMBER OF COOLERS SENT: <i>1</i>
Relinquished By/Affiliation: <i>Joe Fain</i>		Date: <i>5/11/17</i>	Time: <i>9am</i>	Does COC match samples:	Y or N	
Received By: <i>Brian G</i>		Date: <i>5-15-17</i>	Time: <i>1347</i>	Broken Container:	Y or ☒ N	
Relinquished By/Affiliation:		Date:	Time:	COC seal intact:	Y or ☒ N	
Received By:		Date:	Time:	Other problems:	☒ Y or N	
Relinquished By/Affiliation:		Date:	Time:	WSDOT contacted:	Y or ☒ N	
Received By:		Date:	Time:	Date contacted:	_____	
Relinquished By/Affiliation:		Date:	Time:	Cooler Temperature at receipt:	<i>10.3</i> °C	
Received By (LAB):		Date:	Time:	<i>Melt water only - no ice over temp</i>		
		Date:	Time:	<i>5/15/17 0950 JLD</i>		



Amec Foster Wheeler Environment & Infrastructure
7376 SW Durham Road
Portland, OR 97224
(503) 639-3400

SHIP TO:
CT Laboratories
1230 Lange Court
Baraboo, WI 53913
Attn: Brett Szymanski
Lab Phone# (608) 356-2760

CHAIN OF CUSTODY

DATE: 5/11/2017

COC #: FRCHD170510A

PAGE: 2 OF 3

Project Name:	Fairchild AFB	Project Contact:	Joe Fassio	Bill To:	Amec Foster Wheeler Environment & Infrastructure, Inc.	Disposal Instructions:	LAB
Project Number:	775303101	Phone Number:	(503) 639-3400			Shipment Method:	FEDEX
Project Manager:	Melissa Helton	Project Phase:	.FAFO01.0300			Waybill Number:	N/A

Sample Information						Methods for Analysis											RUSH																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
No.	Sample ID	Date & Time Sampled	Matrix	Sample Type	MS/MSD	pH	TOC	Particle Size																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					

Sampler's Signature:	Date: 5/11/17	Time: 1700	For Lab Use	<div>Comments: X=Analyze H=Hold Analysis Request ***** NUMBE Folder # 127358 Company: AMEC FOSTER WHEELER Project: OFF RELEASE AREAS Logged By: TNA PM RM *****</div>
Relinquished By/Affiliation:	Date: 5/11/17	Time: 1700	Does COC match samples: ☒ or ☐	
Received By:	Date: 5-15-17	Time: 1347	Broken Container: ☐ or ☒	
Relinquished By/Affiliation:	Date:	Time:	COC seal intact: ☒ or ☐	
Received By:	Date:	Time:	Other problems: ☐ or ☒	
Relinquished By/Affiliation:	Date:	Time:	WSDOT contacted: ☐ or ☒	
Received By:	Date:	Time:	Date contacted:	
Relinquished By/Affiliation:	Date:	Time:	Cooler Temperature at receipt: 10.3 °C	
Received By (LAB):	Date:	Time:		



Amec Foster Wheeler Environment & Infrastructure
7376 SW Durham Road
Portland, OR 97224
(503) 639-3400

SHIP TO:
CT Laboratories
1230 Lange Court
Baraboo, WI 53913
Atten: Brett Szymanski
Lab Phone# (608) 356-2760

CHAIN OF CUSTODY

DATE: 5/11/2017

COC #: FRCHD170510A

PAGE: 3 OF 3

Project Name:	Fairchild AFB	Project Contact:	Joe Fassio	Bill To:	Amec Foster Wheeler Environment & Infrastructure, Inc.	Disposal Instructions:	LAB
Project Number:	775303101	Phone Number:	(503) 639-3400			Shipment Method:	FEDEX
Project Manager:	Melissa Helton	Project Phase:	FAFO01.0300			Waybill Number:	N/A

Sample Information						Methods for Analysis										RUSH										
No.	Sample ID	Date & Time Sampled	Matrix	Sample Type	MS/MSD	pH	TOC	Particle Size													24 Hour	48 Hour	72 Hour	5 Days	TOTAL BOTTLES	HOLD All Analyses
1	FRCHD01-C-1	05/10/17 14:00	SO	N	N	X	X	X																	2	
2	FRCHD01-C-2	05/10/17 14:30	SO	N	N	X	X	X																	2	
3	FRCHD02-C-2	05/10/17 12:45	SO	N	N	X	X	X																	2	
4																										
5																										
6																										
7																										
8																										
9																										
10																										
11																										
12																										

Sampler's Signature:		Date: 5/11/17	Time: 1700	For Lab Use		Comments: X=Analyze H=Hold Analysis Request NUMBER OF COOLERS SENT: 1
Relinquished By/Affiliation:		Date: 5/11/17	Time: 1700	Does COC match samples: or N		
Received By:		Date: 5/15/17	Time: 1347	Broken Container: or N		
Relinquished By/Affiliation:		Date:	Time:	COC seal intact: or N		
Received By:		Date:	Time:	Other problems: or N		
Relinquished By/Affiliation:		Date:	Time:	WSDOT contacted: Y or N		
Received By:		Date:	Time:	Date contacted:		
Relinquished By/Affiliation:		Date:	Time:	Cooler Temperature at receipt: 10.3 C		
Received By (LAB):		Date:	Time:			

Cooler Receipt Form

Ice Present YES NO
Temperature 10.3 *meHwater*
IR Gun # 19
Initials js
Date 5/15/17 Time 0950
Cooler #: 5960

*NO custody seals
tape intact*

ORIGIN ID: GEGA (503) 781-0266
JOE FASSIO

SHIP DATE: 11MAY17
ACTWGT: 61.00 LB
CAD: 006994163/SSFE1801
DIMS: 20x13x16 IN
BILL THIRD PARTY

GOVT ACCT
7376 SW DURHAM RD
PORTLAND, OR 97224
UNITED STATES US

TO **BRETT SZYMNANSKI**
CT LABORATORIES
1230 LANGE CT

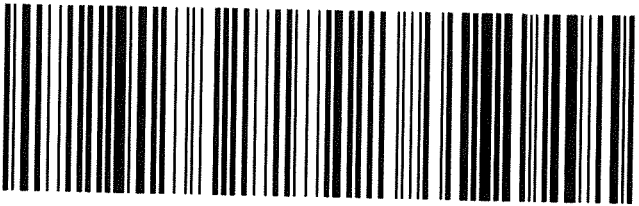
BARABOO WI 53913
(608) 366-2760 REF: DEPT:

1NU: PO: 546JJ/8734/5363-162061-6182

FedEx Express
E
J110140101771702140101

TRK# **7865 4390 5913** **FRI - 12 MAY 10:30A**
0201 **PRIORITY OVERNIGHT**

XH MSNA **53913**
WI-US MSN



Folder #: 127358

Company: AMEC FOSTER WHEELER

Project: FAIRCHILD AFB

Folder #: 127358**PM LOGIN CONFIRMATION**

Contract #: 3035

Company: AMEC FOSTER WHEELER

Project: FAIRCHILD AFB

Proj #: 775303101.0012.0300

Project Phase: AFFF RELEASE AREAS

PO Number: WO# F013900869

Invoice #: 127906

Project Manager: BMS Date Received: 05/15/17

Log Date: 05/15/2017

Report To: MELISSA HELTON
10670 WHITE ROCK ROAD
SUITE 100
RANCHO CORDOVA, CA 95670
Phone: :
Rep. E-Mail

CC:

Fax:

Invoice To :TINA MARIE HEBERT CC:
QUORUM OFFICE PARK
271 MILL ROAD
CHELMSFORD, MA 01824
Phone:
Email:

Fax:

Collected By:

Arrival Temperature: 10.3 oC

Collector's Phone:

SAMPLE #: 867557 DESCR: FRCHD05-C-1 PRIMARY / DETAILED MATRIX: SOLID / SOIL SAMPLED: 05/08/2017 Time: 1315**CLIENT SAMPLE #:****DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
8	SOLIDS,PERCENT	(EPA 8000C)				05/22/2017	05/27/2017		Logged
203	PH	(EPA 9045D)					05/27/2017		Logged
266	SUB HYDROMETER						05/27/2017		Logged
1231	ORGANIC CARBON QSM 5.0	(L-Kahn/9060A)				06/05/2017	05/27/2017		Logged

SAMPLE #: 867570 DESCR: FRCHD05-C-2 PRIMARY / DETAILED MATRIX: SOLID / SOIL SAMPLED: 05/11/2017 Time: 0950**CLIENT SAMPLE #:****DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
8	SOLIDS,PERCENT	(EPA 8000C)				05/25/2017	05/27/2017		Logged
203	PH	(EPA 9045D)					05/27/2017		Logged
266	SUB HYDROMETER						05/27/2017		Logged
1231	ORGANIC CARBON QSM 5.0	(L-Kahn/9060A)				06/08/2017	05/27/2017		Logged

Folder #: 127358

Company: AMEC FOSTER WHEELER

Project: FAIRCHILD AFB

SAMPLE #: 867571		DESCR: FRCHD03-C-1		PRIMARY / DETAILED MATRIX: SOLID / SOIL			SAMPLED: 05/11/2017		Time: 1030	
CLIENT SAMPLE #:				DETAILED SITE/POINT ID INFORMATION:						
TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS		HOLD DATE	ANALYSIS DUE	RUSH	STATUS

8	SOLIDS,PERCENT	(EPA 8000C)				05/25/2017	05/27/2017		Logged
203	PH	(EPA 9045D)					05/27/2017		Logged
266	SUB HYDROMETER						05/27/2017		Logged
1231	ORGANIC CARBON QSM 5,0-L-Kahn/9060A)					06/08/2017	05/27/2017		Logged

SAMPLE #: 867572		DESCR: FRCHD03-C-2		PRIMARY / DETAILED MATRIX: SOLID / SOIL			SAMPLED: 05/11/2017		Time: 1450	
CLIENT SAMPLE #:				DETAILED SITE/POINT ID INFORMATION:						
TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS		HOLD DATE	ANALYSIS DUE	RUSH	STATUS

8	SOLIDS,PERCENT	(EPA 8000C)				05/25/2017	05/27/2017		Logged
203	PH	(EPA 9045D)					05/27/2017		Logged
266	SUB HYDROMETER						05/27/2017		Logged
1231	ORGANIC CARBON QSM 5,0-L-Kahn/9060A)					06/08/2017	05/27/2017		Logged

SAMPLE #: 867573				DESCR: FRCHD02-C-1				PRIMARY / DETAILED MATRIX: SOLID / SOIL				SAMPLED: 05/09/2017		Time: 1217	
CLIENT SAMPLE #:				DETAILED SITE/POINT ID INFORMATION:											
TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS				HOLD DATE	ANALYSIS DUE	RUSH	STATUS			

8	SOLIDS,PERCENT	(EPA 8000C)				05/23/2017	05/27/2017		Logged
203	PH	(EPA 9045D)					05/27/2017		Logged
266	SUB HYDROMETER						05/27/2017		Logged
1231	ORGANIC CARBON QSM 5,0-L-Kahn/9060A)					06/06/2017	05/27/2017		Logged

SAMPLE #: 867574		DESCR: FRCHD04-C-1		PRIMARY / DETAILED MATRIX: SOLID / SOIL			SAMPLED: 05/08/2017		Time: 1450	
CLIENT SAMPLE #:				DETAILED SITE/POINT ID INFORMATION:						
TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS		HOLD DATE	ANALYSIS DUE	RUSH	STATUS

8	SOLIDS,PERCENT	(EPA 8000C)				05/22/2017	05/27/2017		Logged
203	PH	(EPA 9045D)					05/27/2017		Logged
266	SUB HYDROMETER						05/27/2017		Logged

Folder #: 127358

Company: AMEC FOSTER WHEELER

Project: FAIRCHILD AFB

SAMPLE #: 867574		DESCR: FRCHD04-C-1		PRIMARY / DETAILED MATRIX: SOLID / SOIL			SAMPLED: 05/08/2017		Time: 1450	
CLIENT SAMPLE #:				DETAILED SITE/POINT ID INFORMATION:						
TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS		HOLD DATE	ANALYSIS DUE	RUSH	STATUS

1231 ORGANIC CARBON QSM 5.0-Kahn/9060A)

06/05/2017

05/27/2017

Logged

SAMPLE #: 867581		DESCR: FRCHD01-C-1		PRIMARY / DETAILED MATRIX: SOLID / SOIL			SAMPLED: 05/10/2017		Time: 1400	
CLIENT SAMPLE #:				DETAILED SITE/POINT ID INFORMATION:						
TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS		HOLD DATE	ANALYSIS DUE	RUSH	STATUS

8 SOLIDS,PERCENT (EPA 8000C)

05/24/2017

05/27/2017

Logged

203 PH (EPA 9045D)

05/27/2017

Logged

266 SUB HYDROMETER

05/27/2017

Logged

1231 ORGANIC CARBON QSM 5.0-Kahn/9060A)

06/07/2017

05/27/2017

Logged

SAMPLE #: 867582		DESCR: FRCHD01-C-2		PRIMARY / DETAILED MATRIX: SOLID / SOIL			SAMPLED: 05/10/2017		Time: 1430	
CLIENT SAMPLE #:				DETAILED SITE/POINT ID INFORMATION:						
TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS		HOLD DATE	ANALYSIS DUE	RUSH	STATUS

8 SOLIDS,PERCENT (EPA 8000C)

05/24/2017

05/27/2017

Logged

203 PH (EPA 9045D)

05/27/2017

Logged

266 SUB HYDROMETER

05/27/2017

Logged

1231 ORGANIC CARBON QSM 5.0-Kahn/9060A)

06/07/2017

05/27/2017

Logged

SAMPLE #: 867583		DESCR: FRCHD02-C-2		PRIMARY / DETAILED MATRIX: SOLID / SOIL			SAMPLED: 05/10/2017		Time: 1245	
CLIENT SAMPLE #:				DETAILED SITE/POINT ID INFORMATION:						
TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS		HOLD DATE	ANALYSIS DUE	RUSH	STATUS

8 SOLIDS,PERCENT (EPA 8000C)

05/24/2017

05/27/2017

Logged

203 PH (EPA 9045D)

05/27/2017

Logged

266 SUB HYDROMETER

05/27/2017

Logged

1231 ORGANIC CARBON QSM 5.0-Kahn/9060A)

06/07/2017

05/27/2017

Logged

Folder #: 127358

Company: AMEC FOSTER WHEELER

Project: FAIRCHILD AFB

Invoice Number: 127906 Preliminary Invoice Estimate: \$ 1,737.00

Item	Matrix	Quantity	Price	Expedited TAT Surcharge	Total
ORGANIC CARBON QSM 5.0	SOIL	9	\$ 35.00	0.00	\$ 315.00
PH	SOIL	9	\$ 8.00	0.00	\$ 72.00
SOLIDS,PERCENT	SOIL	9	\$ 0.00	0.00	\$ 0.00
SUB HYDROMETER	SOIL	9	\$ 150.00	0.00	\$ 1350.00
Temporary Fuel Surcharge on lab supplies and services (if applicable):					\$ 0.00

Bottle Information

Container	# Containers	Tests
LABEL ONLY	9	SUB
SOLIDS	9	%SOL,pH,TOC

Sample Condition Report

Folder #: 127358	Print Date / Time: 05/15/2017 13:49
Client: AMEC FOSTER WHEELER	Received Date / Time / By: 05/15/2017 09:50 JLS
Project Name: FAIRCHILD AFB	Log-In Date / Time / By: 05/15/2017 13:47 BNA
Project Phase: AFFF RELEASE AREAS	Project #: 775303101.0012.0300 PM: BMS
Coolers: 5690	Temperature: 10.3 C
Custody Seals Present :	COC Present?: Y Complete? Y On Ice:
Seal Intact?	Numbers: NOT PRESENT
Ship Method: FEDEX	Tracking Number: 786543905913
Adequate Packaging: Y	Temp Blank Enclosed? Y

Notes: THE SAMPLES WERE RECEIVED OVER-TEMPERATURE WITH ONLY MELT-WATER PRESENT IN THE COOLER. THE CLIENT INSTRUCTED THE LAB TO PROCEED WITH THE ANALYSIS OF THE SAMPLES.

NO CUSTODY SEALS WERE PRESENT UPON RECEIPT - THE TAPE WAS INTACT.

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
867557 FRCHD05-C-1	SOLIDS	1	/	%SOL,pH,TOC
Total # of Containers of Type (SOLIDS) = 1				
867557 FRCHD05-C-1	LABEL ONLY	1	/	SUB
Total # of Containers of Type (LABEL ONLY) = 1				
Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
867570 FRCHD05-C-2	SOLIDS	1	/	%SOL,pH,TOC
Total # of Containers of Type (SOLIDS) = 1				
867570 FRCHD05-C-2	LABEL ONLY	1	/	SUB
Total # of Containers of Type (LABEL ONLY) = 1				
Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
867571 FRCHD03-C-1	SOLIDS	1	/	%SOL,pH,TOC
Total # of Containers of Type (SOLIDS) = 1				
867571 FRCHD03-C-1	LABEL ONLY	1	/	SUB
Total # of Containers of Type (LABEL ONLY) = 1				

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
867572 FRCHD03-C-2	SOLIDS Total # of Containers of Type	1 1	/ (SOLIDS) = 1	%SOL,pH,TOC
867572 FRCHD03-C-2	LABEL ONLY Total # of Containers of Type	1 1	/ (LABEL ONLY) = 1	SUB
Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
867573 FRCHD02-C-1	SOLIDS Total # of Containers of Type	1 1	/ (SOLIDS) = 1	%SOL,pH,TOC
867573 FRCHD02-C-1	LABEL ONLY Total # of Containers of Type	1 1	/ (LABEL ONLY) = 1	SUB
Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
867574 FRCHD04-C-1	SOLIDS Total # of Containers of Type	1 1	/ (SOLIDS) = 1	%SOL,pH,TOC
867574 FRCHD04-C-1	LABEL ONLY Total # of Containers of Type	1 1	/ (LABEL ONLY) = 1	SUB
Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
867581 FRCHD01-C-1	SOLIDS Total # of Containers of Type	1 1	/ (SOLIDS) = 1	%SOL,pH,TOC
867581 FRCHD01-C-1	LABEL ONLY Total # of Containers of Type	1 1	/ (LABEL ONLY) = 1	SUB
Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
867582 FRCHD01-C-2	SOLIDS Total # of Containers of Type	1 1	/ (SOLIDS) = 1	%SOL,pH,TOC
867582 FRCHD01-C-2	LABEL ONLY Total # of Containers of Type	1 1	/ (LABEL ONLY) = 1	SUB

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
867583	FRCHD02-C-2	SOLIDS	1 /	%SOL,pH,TOC
		Total # of Containers of Type (SOLIDS) = 1		
867583	FRCHD02-C-2	LABEL ONLY	1 /	SUB
		Total # of Containers of Type (LABEL ONLY) = 1		
<u>Condition Code</u>	<u>Condition Description</u>			
1	Sample Received OK			

ANALYTICAL SUMMARY REPORT

This report at a minimum contains the following information:

- Analytical Report of Test Results
- Description of QC Qualifiers
- Chain of Custody (copy)
- Quality Control Summary (if applicable)
- Case Narrative (if applicable)
- Correspondence with Client (if applicable)

This report has been specifically prepared to satisfy project or program requirements. These results are in compliance with NELAC requirements for parameters where accreditation is required or available, unless otherwise noted in the case narrative.

ANALYTICAL SAMPLE DATA

AMEC FOSTER WHEELER
 MELISSA HELTON
 10670 WHITE ROCK ROAD
 SUITE 100
 RANCHO CORDOVA, CA 95670

Project Name: FAIRCHILD AFB
 Project Phase: AFFF RELEASE AREAS
 Project #: 775303101.0012.0300
 Folder #: 127352
 Purchase Order #: WO# F013900869
 Contract #: 3035

Arrival Temperature: 2.9
 Report Date: 05/26/2017
 Date Received: 05/13/2017
 Reprint Date: 05/26/2017

CT LAB#: 867205

Sample Description: FRCHD04-C-2

Client Sample #:

Sampled: 05/12/2017 0850

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Inorganic Results												
Solids, Percent	87.9	%	0.1	0.1	0.1	0.1	1.00			5/16/17 12:40 BMM	EPA 8000C	
pH	6.91	S.U.	0.1	0.1	0.1	0.1	1.00			5/19/17 10:00 BKB	EPA 9045D	^
Total Organic Carbon	209	mg/kg	41	85	170	170	1.00			5/24/17 09:53 AGK	L-Kahn/9060A	
Sub Lab Results												
Hydrometer	ATTACHED						1.00			5/25/17 00:00 SUB		

Notes:

^ Indicates the laboratory is NELAP accredited for this analyte by the indicated matrix and method. DL (detection limit), LOD (limit of detection), loq (limit of quantitation) as defined by most recent DOD QSM version.

All samples were received intact and properly preserved unless otherwise noted. The results reported relate only to the samples tested. This report shall not be reproduced, except in full, without written approval of this laboratory. The Chain of Custody is attached.

This report has been specifically prepared to satisfy project or program requirements. These results are in compliance with NELAC requirements for the parameters where accreditation is required or available, unless noted in the case narrative.

Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

Current CT Laboratories Certifications

Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
Louisiana NELAP (primary) ID# ACC20160002
Illinois NELAP Lab ID# 200073
Kansas NELAP Lab ID# E-10368
Virginia NELAP Lab ID# 460203
Maryland Lab ID# WI00061
ISO/IEC 17025-2005 A2LA Cert # 3806.01
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID ACC20160002
Pennsylvania NELAP Lab ID# 68-04201, # 008

QC SUMMARY REPORT

AMEC FOSTER WHEELER

Project Name: FAIRCHILD AFB

SDG #: 0

Folder #: 127352

Project Number: 775303101.0012.0300

Lab Control Spike Soil

Analytical Run #:	138169	Analysis Date:	05/24/2017	Prep Batch #:	Matrix:	SOLID
CTLab #:	871888	Analysis Time:	09:41	Prep Date/Time:	Method:	LYDKHN
Parent Sample #:		Analyst:	AGK	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Total Organic Carbon	377000	mg/kg			400000	94	84 --- 113		

AMEC FOSTER WHEELER

Project Name: FAIRCHILD AFB

SDG #: 0

Folder #: 127352

Project Number: 775303101.0012.0300

Method Blank Soil

Analytical Run #:	138169	Analysis Date:	05/24/2017	Prep Batch #:	Matrix:	SOLID
CTLab #:	871889	Analysis Time:	09:46	Prep Date/Time:	Method:	LYDKHN
Parent Sample #:		Analyst:	AGK	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Total Organic Carbon	36	mg/kg		U	0		75		

Sample Condition Report

Folder #: 127352	Print Date / Time: 05/15/2017 10:12
Client: AMEC FOSTER WHEELER	Received Date / Time / By: 05/13/2017 13:30 DRT
Project Name: FAIRCHILD AFB	Log-In Date / Time / By: 05/15/2017 10:11 BNA
Project Phase: AFFF RELEASE AREAS	Project #: 775303101.0012.0300 PM: BMS
Coolers: XXXX	Temperature: 2.9C On Ice: Y
Custody Seals Present : N	COC Present: Y Complete? Y
Seal Intact?	Numbers: NOT PRESENT
Ship Method: FEDEX	Tracking Number: 779133868040
Adequate Packaging: Y	Temp Blank Enclosed? Y

Notes: THE SAMPLE WAS RECEIVED IN GOOD CONDITION ON ICE.

NO CUSTODY SEALS WERE PRESENT UPON RECEIPT - TAPE WAS INTACT.

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
867205 FRCHD04-C-2	SOLIDS	1	/	%SOL,pH,TOC
	Total # of Containers of Type (SOLIDS) = 1			
867205 FRCHD04-C-2	MISC	1	/	SUB HYDRO
	Total # of Containers of Type (MISC) = 1			

<u>Condition Code</u>	<u>Condition Description</u>
1	Sample Received OK



Amec Foster Wheeler Environment & Infrastructure
7376 SW Durham Road
Portland, OR 97224
(503) 639-3400

SHIP TO:
CT Laboratories
1230 Lange Court
Baraboo, WI 53913
Attn: Brett Szymanski
Lab Phone# 608-356-2760

CHAIN OF CUSTODY

DATE: 5/12/17
COC #: CT Lab 01
PAGE: 1 OF 1

Project Name:	Fairchild AFB	Project Contact:	Joe Fasso <i>Marie Saville</i>	Bill To:	Amec Foster Wheeler Environment & Infrastructure, Inc.	Disposal Instructions:	LAB
Project Number:	775303101	Phone Number:	(503) 639-3400			Shipment Method:	FEDEX
Project Manager:	Melissa Helton	Project Phase:	.0012.0300			Waybill Number:	N/A

Sample Information						Methods for Analysis												RUSH																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
No.	Sample ID	Date & Time Sampled	Matrix	Sample Type	MS/MSD	pH	TOC	Particle Size																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										

Sampler's Signature: <i>Joe Fasso</i>	Date: 5/12/17	Time: 1200	For Lab Use	Comments:
Relinquished By/Affiliation: <i>Joe Fasso</i>	Date: 5/12/17	Time: 1200	Does COC match samples: <i>Y</i> or N	X=Analyze H=Hold Analysis Request
Received By: <i>Brundage</i>	Date: 5-15-17	Time: 1011	Broken Container: <i>Y</i> or N	
Relinquished By/Affiliation: <i>Brundage</i>	Date: 5/13/17	Time: 1330	COC seal intact: <i>Y</i> or N	NUMBER OF COOLERS SENT: <u>1</u>
Received By: <i>Brundage</i>	Date: 5/13/17	Time: 1330	Other problems: <i>Y</i> or N	
Relinquished By/Affiliation:	Date:	Time:	WSDOT contacted: <i>Y</i> or N	
Received By (LAB):	Date:	Time:	Date contacted:	
			Cooler Temperature at receipt: <u>2.9</u> °C	

Ice Present: ☒ Yes ☐ No
Temperature 2.9 °C
Initials *Brundage*
Date 5/13/17 Time 1330

Cooler Receipt Form

Ice Present YES NO

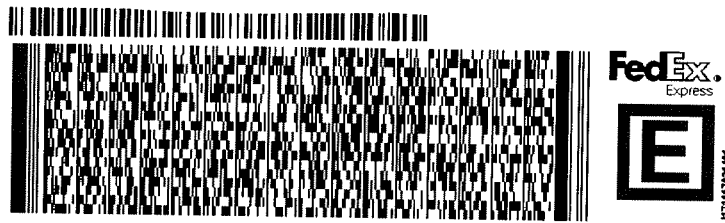
Temperature 2:9

IR Gun # 20

Initials RA

Date 5/13/17 Time 1330

Cooler #: XXXX



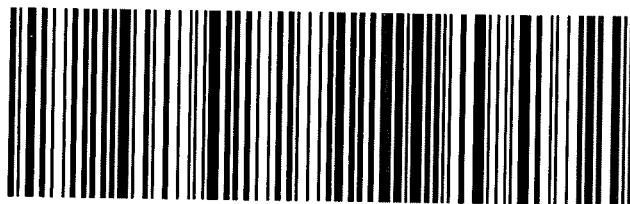
TRK# 7791 3386 8040
0201

SATURDAY 12:00P
PRIORITY OVERNIGHT

DSR

X0 MSNA

53913
WI-US MSN



ANALYTICAL REPORT

CT Laboratories
Attn: Mr. Brett Szymanski
1230 Lange Court
Baraboo, WI 53913
bszymanski@ctlaboratories.com

PROJECT NAME: FAIRCHILD AFB, WA.			
REPORT DATE:	May 24, 2017	CT LABS PO #	127352 MITECH
ANALYSIS:	HYDROMETER	MI-TECH #	10680
METHOD:	ASTM D422	DATE RECEIVED:	05/16/2017

Dear Mr. Szymanski:

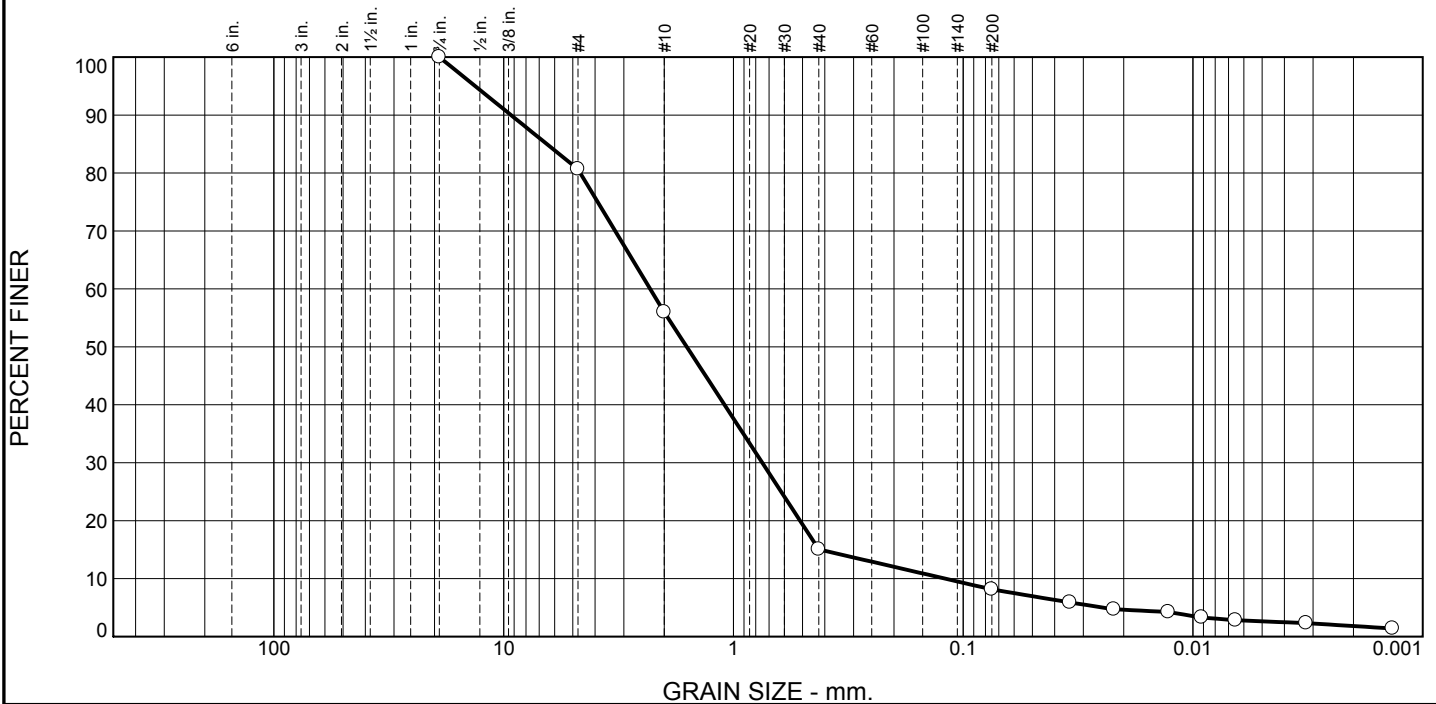
Analytical results for the above referenced project are enclosed. Thank you for your business.

Sincerely,
Mi-Tech Services, Inc.

A handwritten signature in blue ink that reads 'Stephanie M. Finamore'.

Stephanie M. Finamore, M.S., P.G.
Environmental Director

Particle Size Distribution Report - Hydrometer Method



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	19.3	24.7	41.0	6.9	5.5	2.6

Test Results (ASTM D 422-63 & ASTM D 2217)			
Opening Size	Percent Finer	Spec.* (Percent)	Pass? (X=Fail)
.75	100.0		
#4	80.7		
#10	56.0		
#40	15.0		
#200	8.1		
0.0343 mm.	5.9		
0.0220 mm.	4.7		
0.0128 mm.	4.2		
0.0092 mm.	3.3		
0.0065 mm.	2.8		
0.0032 mm.	2.3		
0.0014 mm.	1.4		

* (no specification provided)

Client Sample Description

FRCHD04-C-2

Atterberg Limits (ASTM D 4318)

PL= NP

LL= NV

PI= NP

Classification

USCS (D 2487)= SW-SM AASHTO (M 145)= A-1-b

Coefficients

D₉₀= 9.2890

D₈₅= 6.4865

D₆₀= 2.3025

D₅₀= 1.5951

D₃₀= 0.7486

D₁₅= 0.4212

D₁₀= 0.1199

C_u= 19.20

C_c= 2.03

Remarks

Date Received: 5-16-2017

Date Tested: 5-24-17

Tested By: DWB

Checked By: SMF

Title: ENVIRO. DIRECTOR

Sample Number: 867205

Date Sampled: 5-12-2017

Mi-Tech Services, Inc.

Weston, WI

Client: CT LABORATORIES

Project: FAIRCHILD AFB, WA.
PO 127352 MI-TECH

Project No: 10680

Figure 10

Sub-Contract Laboratory Chain-of-Custody and Purchase Order

PURCHASE ORDER # 127352 MITECH

The PO# must appear on all invoice and reports!

Upon Receipt of Samples, please verify that samples were received in acceptable condition then sign this form and fax to (608)356-2766 or email to the project manager. Sample temperature, upon receipt, must be recorded on this document unless thermal preservation is not a method requirement.

Ship to: **Mi-Tech**
5707 SCHOFIELD AVE
WESTON, WI 54476

Return Invoice and Results to: **bszymanski@ctlaboratories.com**

Government UPS Shipping Acct ? Y N

CTLaboratories
Brett M Szymanski
1230 Lange Court
Baraboo WI 53913

Ship by: Speedee ☒ UPS Grnd ☐ UPS 2nd ☐ UPS NDA ☐

Date Due: 2 Weeks **RUSH TURNAROUND NEEDED?** Y or (N) (Circle One)

Project Name: FAIRCHILD AFB **Project State:** WA

Analytical/QC Criteria: NONE INDICATED STATE (DOD QSM) NELAP (Circle one) OTHER _____

Report results as EDD? (N) Y (Circle one and indicate type: _____) Data Deliverable Package LEVEL: Standard

CTLabs ID#	Sample Date/Time	Matrix	Sample Description	Analyses / Method	Cost
867205	05/12/2017 0850	SOIL	FRCHD04-C-2	Particle Size Analysis (GSA + Hydrometer)	

Relinquished by: Brett Szymanski Date/Time: 05/15/2017 13:25

Received by: [Signature] Date/Time: 5/16/2017 15:00 Receipt Temperature (C) _____

COMMENTS:

REPORT ALL SOLIDS ON A DRY WEIGHT BASIS UNLESS OTHERWISE INDICATED

Form #: FPM1-01
Effective Date: 02/15/14

APPENDIX D
DATA VALIDATION REPORTS