ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18NOV08DCCV1-3 11/8/2018 5:00:30 PM
Acquisition Method: 18AUG13_3uL.dam

Sample Name:	INBLK			**Data File:**		18NOV08D-06.wiff
Sample ID:	methanol+labels			**Acquis Date:**		2018-11-08T12:33:40
Sample Type:	Unknown			**Instrument:**		LM27631
Vial Position:	1			**Acquis Method:**		18AUG13_3uL.dam
Injection Vol:	3.00			**Result Table:**		18NOV08DCCV1-3
QMethod File:	MQ4-18AUG13			**ICAL Name:**		18NOV07DCAL
Batch Number:	N/A			**Operator:**		JPT12262
Sample Wt.:	1.00000			**Dilution Factor:**		1.00
Sample Vol.:	1.000			**Prep Factor:**		1.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV08D-05

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Rreference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	762381.1	728839.7	5	50	
13C2-PFOA	5.0	518497.3	491983.1	5	50	
13C4-PFOS	4.8	299698.4	255568.1	17	50	
13C2-PFDA	5.0	319995.1	315407.5	1	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	833101.6	13C3-PFBA	762381.1	1.093	5.000	5.057	101	70-130	
E13C5-PFPeA	855177.9	13C3-PFBA	762381.1	1.122	5.000	4.887	98	70-130	
E13C3-PFBS	470351.2	13C3-PFBA	762381.1	0.617	4.650	4.528	97	70-130	
E13C2-4:2-FTS	60069.6	13C2-PFOA	518497.3	0.116	4.670	5.228	112	70-130	
E13C5-PFHxA	733289.5	13C2-PFOA	518497.3	1.414	5.000	5.202	104	70-130	
E13C3-PFHxS	361564.7	13C2-PFOA	518497.3	0.697	4.730	5.006	106	70-130	
E13C4-PFHpA	576861.3	13C2-PFOA	518497.3	1.113	5.000	5.061	101	70-130	
E13C2-6:2-FTS	42684.4	13C2-PFOA	518497.3	0.082	4.750	5.490	116	70-130	
E13C8-PFOA	1008040.9	13C2-PFOA	518497.3	1.944	5.000	5.422	108	70-130	
E13C8-PFOS	315952.3	13C4-PFOS	299698.4	1.054	4.780	4.662	98	70-130	
E13C9-PFNA	515145.7	13C4-PFOS	299698.4	1.719	5.000	4.695	94	70-130	
E13C6-PFDA	695304.3	13C2-PFDA	319995.1	2.173	5.000	5.464	109	70-130	
E13C2-8:2-FTS	28113.9	13C2-PFDA	319995.1	0.088	4.790	4.649	97	70-130	
E13C8-PFOSA	721168.7	13C2-PFDA	319995.1	2.254	5.000	4.918	98	70-130	
Ed3-NMeFOSAA	88068.2	13C2-PFDA	319995.1	0.275	5.000	5.118	102	70-130	
E13C7-PFUnDA	312553.5	13C2-PFDA	319995.1	0.977	5.000	5.635	113	70-130	
Ed5-NEtFOSAA	70219.9	13C2-PFDA	319995.1	0.219	5.000	5.078	102	70-130	
E13C2-PFDoDA	613302.5	13C2-PFDA	319995.1	1.917	5.000	5.167	103	70-130	
Ed7-NMePFOSAE	356044.2	13C2-PFDA	319995.1	1.113	5.000	5.174	103	70-130	
Ed3-NMePFOSA	81885.6	13C2-PFDA	319995.1	0.256	5.000	4.685	94	70-130	
Ed9-NEtPFOSAE	290570.6	13C2-PFDA	319995.1	0.908	5.000	5.186	104	70-130	
Ed5-NEtPFOSA	68097.6	13C2-PFDA	319995.1	0.213	5.000	4.927	99	70-130	
E13C2-PFTeDA	436421.1	13C2-PFDA	319995.1	1.364	5.000	4.910	98	70-130	

APPROVED
By JPT at 5:07 pm, 11/8/18

REVIEWED
By umar at 12:13 pm, 11/12/18

ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV1-3 11/8/2018 5:00:30 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

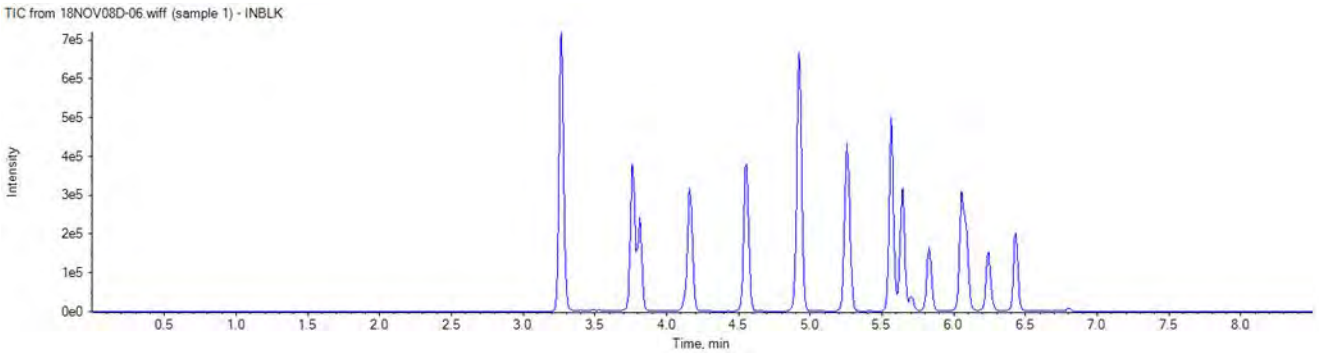
Analyte Quantitation Peak Table

Sample Name: INBLK **Instrument Name:** LM27631 **File Name:** 18NOV08D-06.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	1.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	N/A	N/A	N/A		A	13C4-PFBA	3.26	833101.6	N/A	
PFPeA	N/A	N/A	N/A		A	13C5-PFPeA	3.76	855177.9	N/A	
PFBS	N/A	N/A	N/A		A	13C3-PFBS	3.81	470351.2	N/A	
4:2-FTS	N/A	N/A	N/A		A	13C2-4:2-FTS	4.13	60069.6	N/A	
PFHxA	N/A	N/A	N/A		A	13C5-PFHxA	4.16	733289.5	N/A	
PFPeS	N/A	N/A	N/A		A	13C3-PFBS	3.81	470351.2	N/A	
PFHxS	N/A	N/A	N/A		A	13C3-PFHxS	4.55	361564.7	N/A	
PFHpA	N/A	N/A	N/A		A	13C4-PFHpA	4.55	576861.3	N/A	
6:2-FTS	N/A	N/A	N/A		A	13C2-6:2-FTS	4.91	42684.4	N/A	
PFHpS	N/A	N/A	N/A		A	13C3-PFHxS	4.55	361564.7	N/A	
PFOA	N/A	N/A	N/A		A	13C8-PFOA	4.92	1008040.9	N/A	
PFOS	N/A	N/A	N/A		A	13C8-PFOS	5.25	315952.3	N/A	
PFNA	N/A	N/A	N/A		A	13C9-PFNA	5.27	515145.7	N/A	
PFNS	N/A	N/A	N/A		A	13C8-PFOS	5.25	315952.3	N/A	
PFDA	N/A	N/A	N/A		A	13C6-PFDA	5.57	695304.3	N/A	
8:2-FTS	N/A	N/A	N/A		A	13C2-8:2-FTS	5.57	28113.9	N/A	
PFOSA	N/A	N/A	N/A		A	13C8-PFOSA	5.64	721168.7	N/A	
NMeFOSAA	N/A	N/A	N/A		A	d3-NMeFOSAA	5.71	88068.2	N/A	
PFDS	N/A	N/A	N/A		A	13C8-PFOS	5.25	315952.3	N/A	
PFUnDA	N/A	N/A	N/A		A	13C7-PFUnDA	5.83	312553.5	N/A	
NEtFOSAA	N/A	N/A	N/A		A	d5-NEtFOSAA	5.84	70219.9	N/A	
PFDoDA	N/A	N/A	N/A		A	13C2-PFDoDA	6.05	613302.5	N/A	
10:2-FTS	N/A	N/A	N/A		A	13C2-8:2-FTS	5.57	28113.9	N/A	
NMePFOSAE	N/A	N/A	N/A		A	d7-NMePFOSAE	6.09	356044.2	N/A	
NMePFOSA	N/A	N/A	N/A		A	d3-NMePFOSA	6.10	81885.6	N/A	
PFDoS	N/A	N/A	N/A		A	13C8-PFOS	5.25	315952.3	N/A	
NEtPFOSAE	N/A	N/A	N/A		A	d9-NEtPFOSAE	6.24	290570.6	N/A	
NEtPFOSA	N/A	N/A	N/A		A	d5-NEtPFOSA	6.26	68097.6	N/A	
PFTrDA	N/A	N/A	N/A		A	13C2-PFDoDA	6.05	613302.5	N/A	
PFTeDA	N/A	N/A	N/A		A	13C2-PFTeDA	6.43	436421.1	N/A	
PFHxDA	N/A	N/A	N/A		A	13C2-PFTeDA	6.43	436421.1	N/A	
PFODA	N/A	N/A	N/A		A	13C2-PFTeDA	6.43	436421.1	N/A	

Total Ion Chromatogram

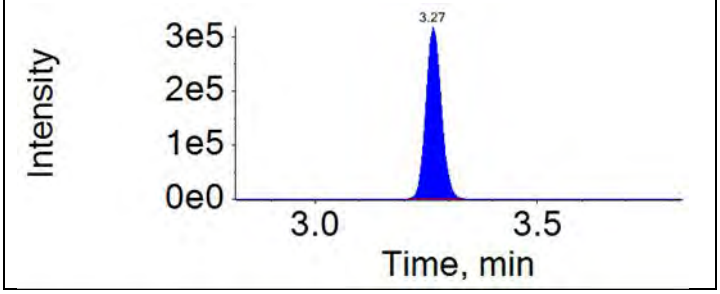


APPROVED
By JPT at 5:07 pm, 11/8/18

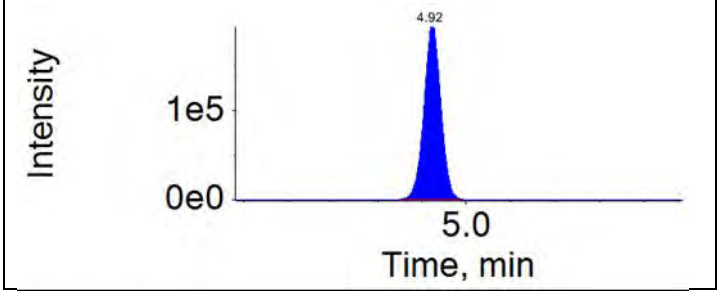
REVIEWED
By umar at 12:13 pm, 11/12/18

ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV1-3 11/8/2018 5:00:30 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

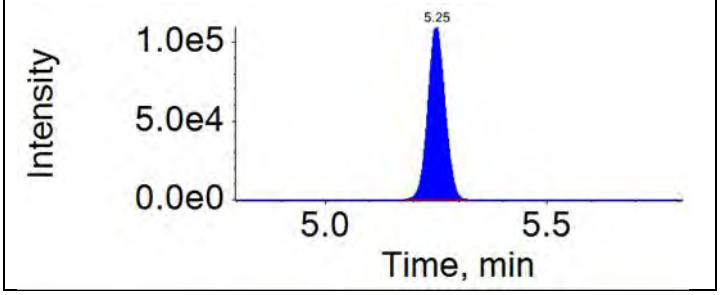
Injection Standard: 13C3-PFBA
216.0 / 172.0



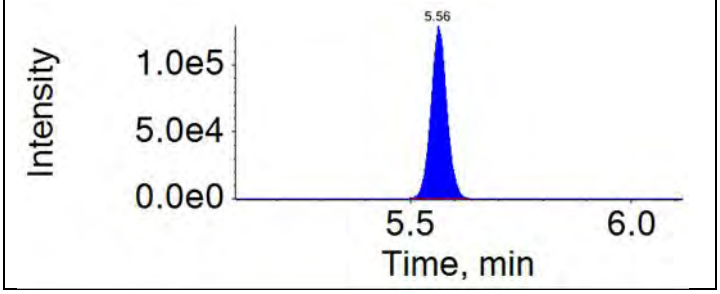
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0



Injection Standard: 13C2-PFDA
515.0 / 470.0

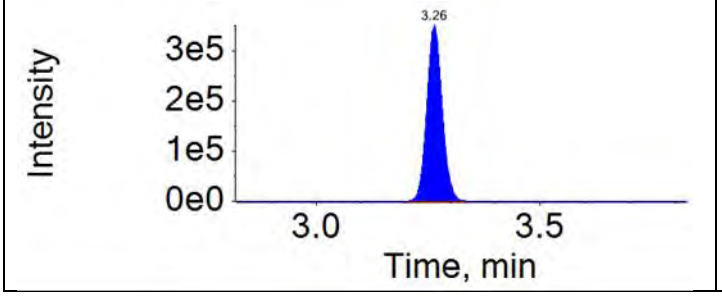


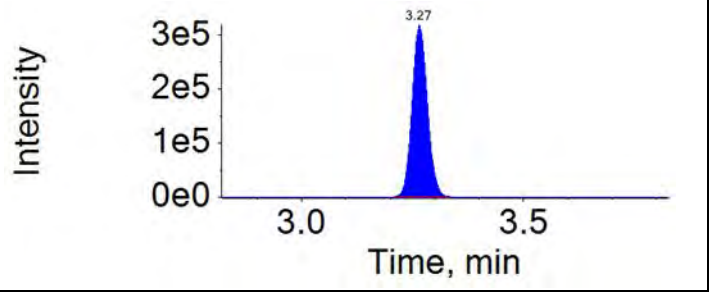
APPROVED
By JPT at 5:07 pm, 11/8/18

REVIEWED
By umar at 12:13 pm, 11/12/18

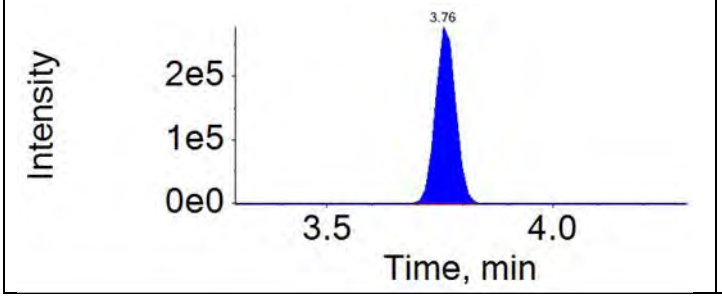
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV1-3 11/8/2018 5:00:30 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

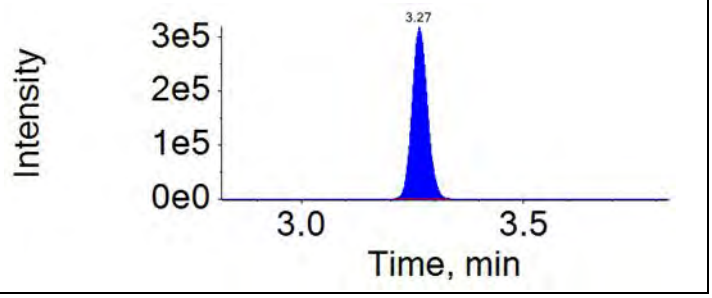
Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0



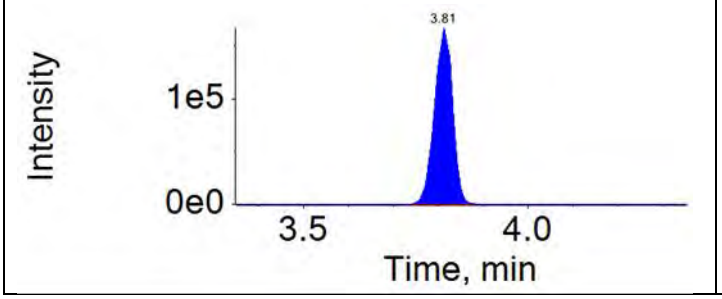


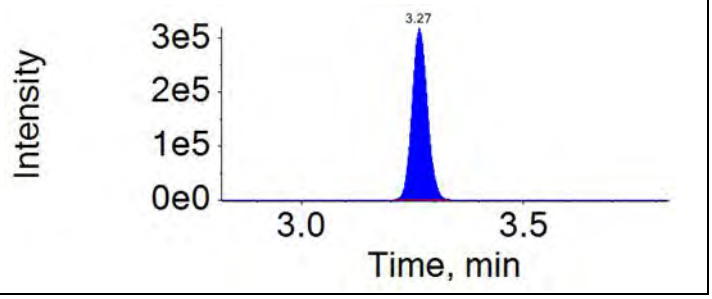
Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0



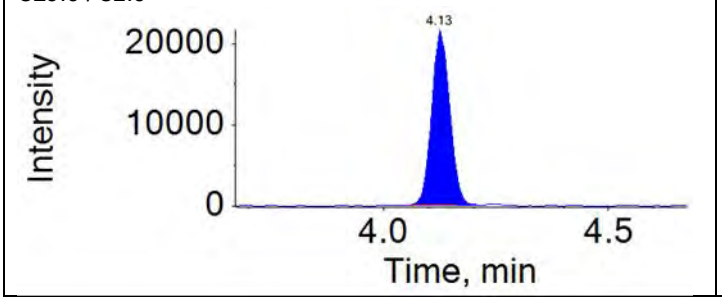


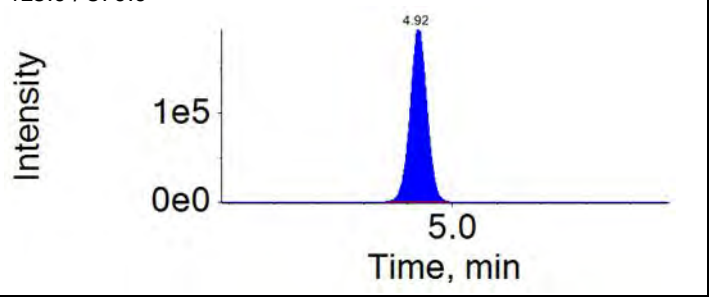
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0





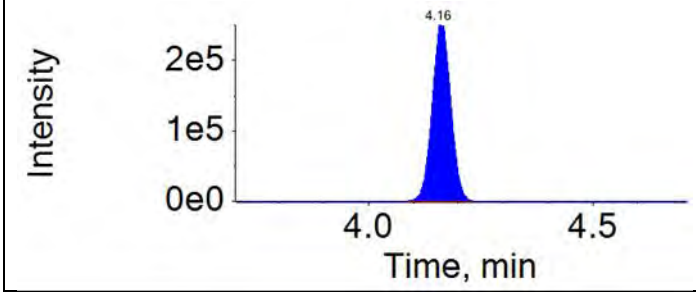
Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0

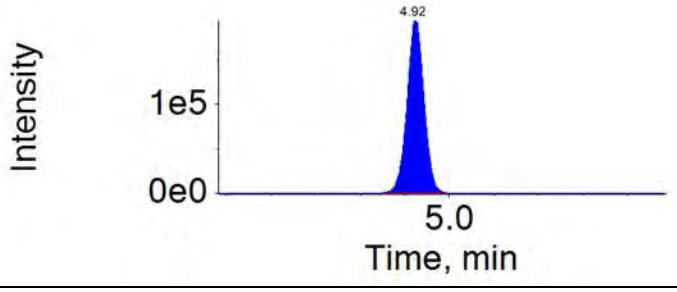




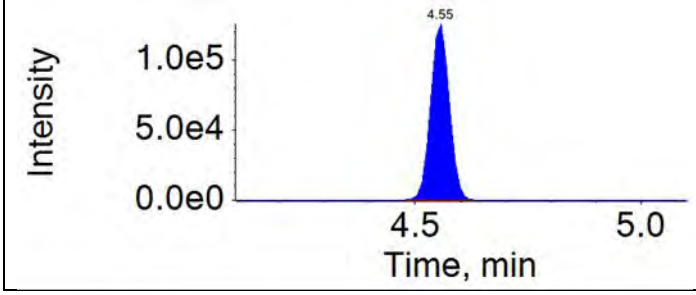
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV1-3 11/8/2018 5:00:30 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

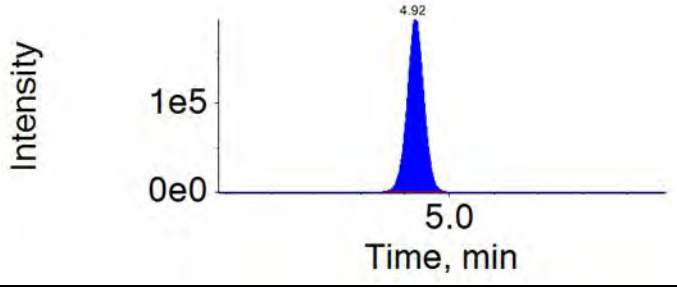
Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0



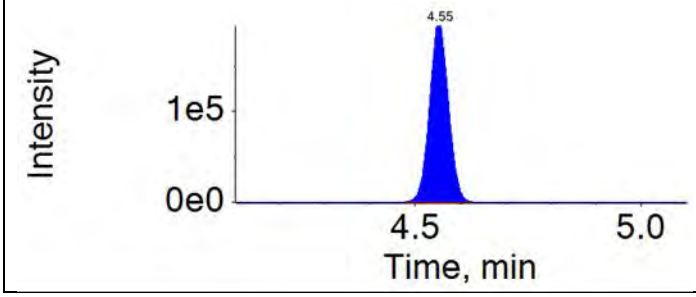


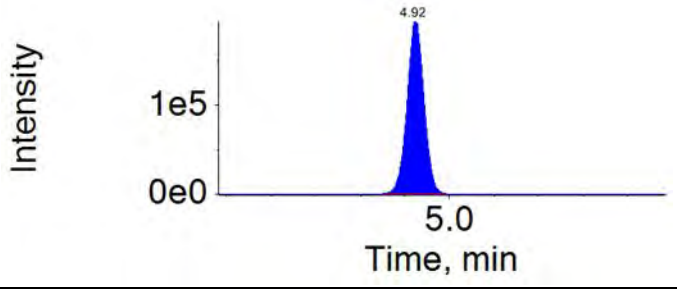
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0



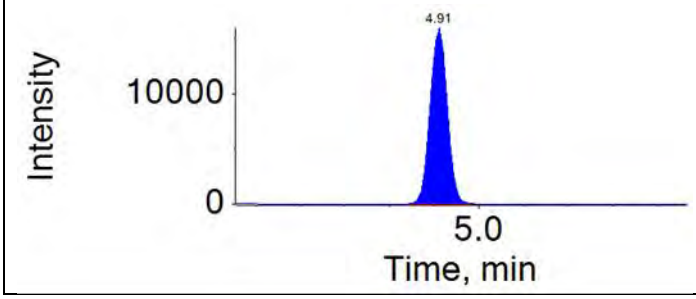


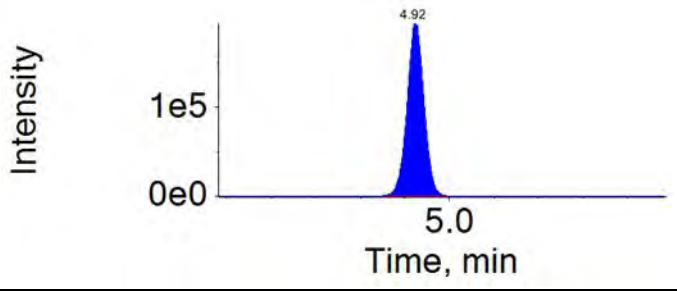
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0





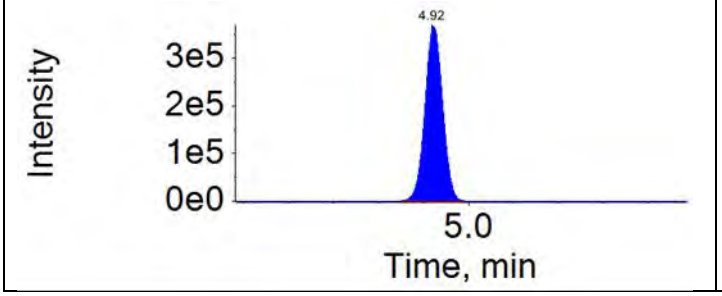
Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0

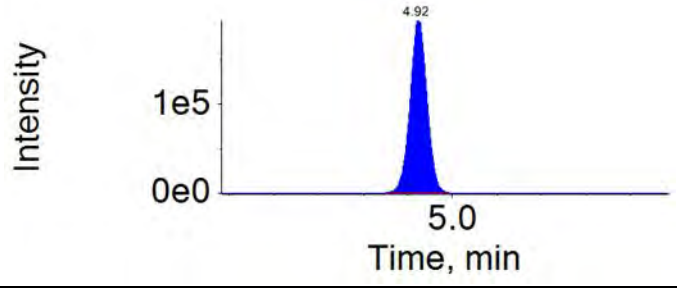




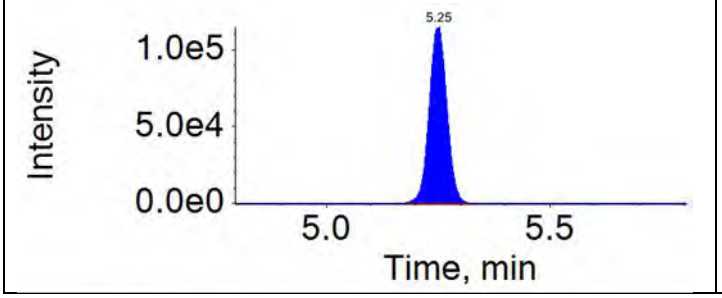
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV1-3 11/8/2018 5:00:30 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

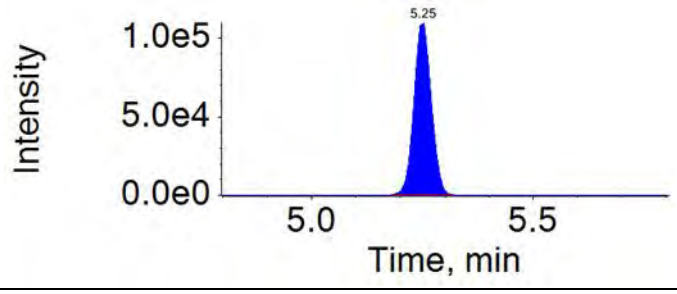
Extraction Standard: E13C8-PFOA	Injection Standard: 13C2-PFOA
421.0 / 376.0	415.0 / 370.0



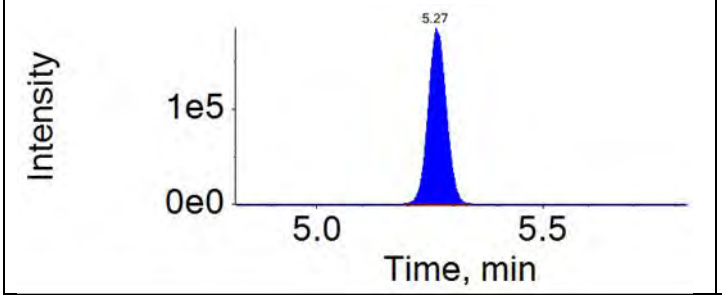


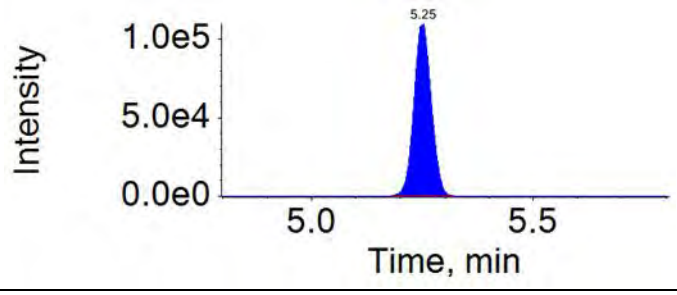
Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0



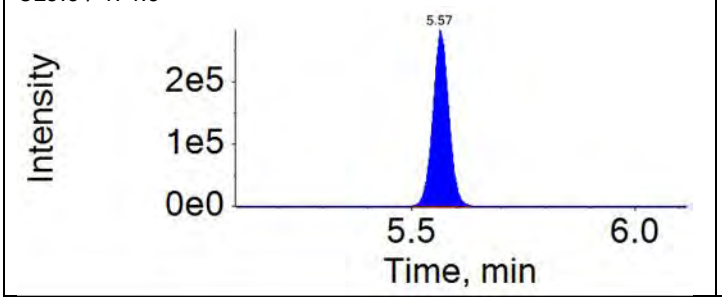


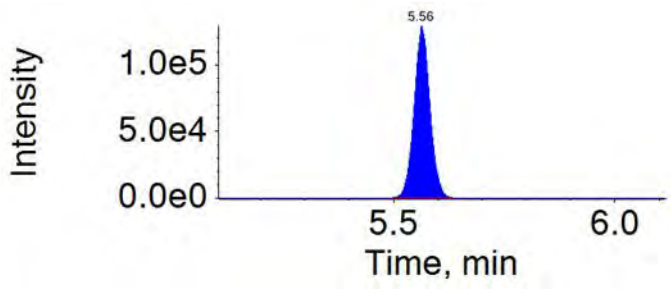
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0





Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0



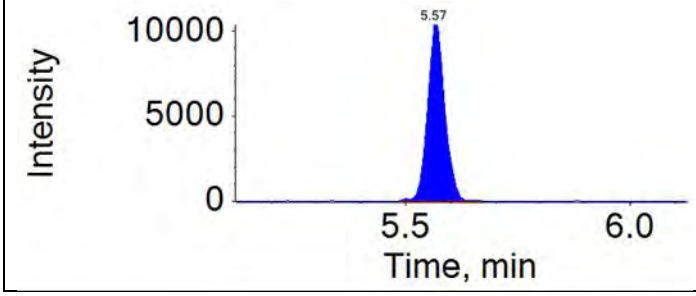


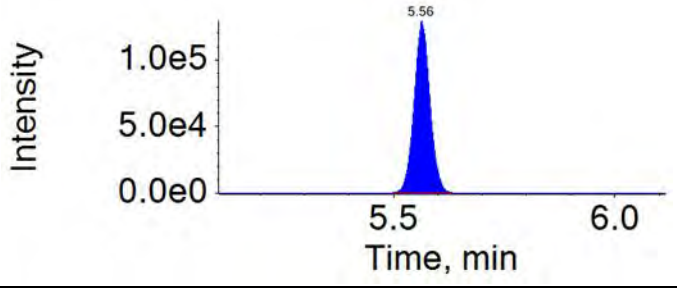
APPROVED
By JPT at 5:07 pm, 11/8/18

REVIEWED
By umar at 12:13 pm, 11/12/18

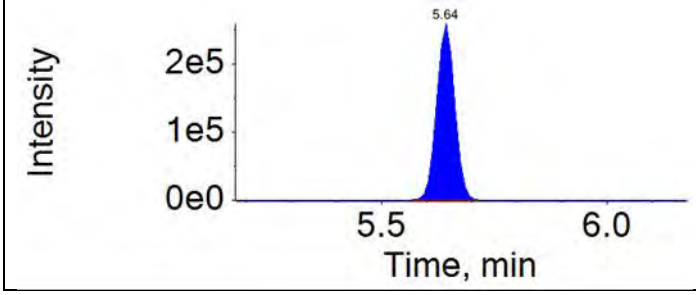
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV1-3 11/8/2018 5:00:30 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

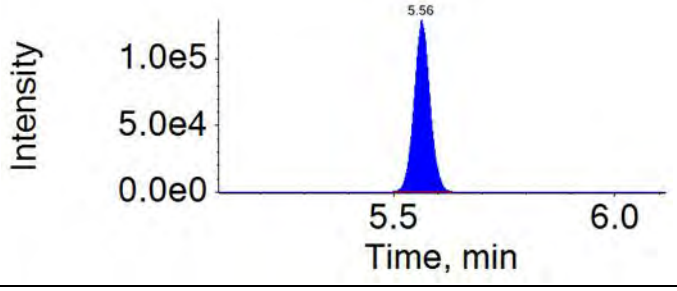
Extraction Standard: E13C2-8:2-FTS	Injection Standard: 13C2-PFDA
529.0 / 81.0	515.0 / 470.0



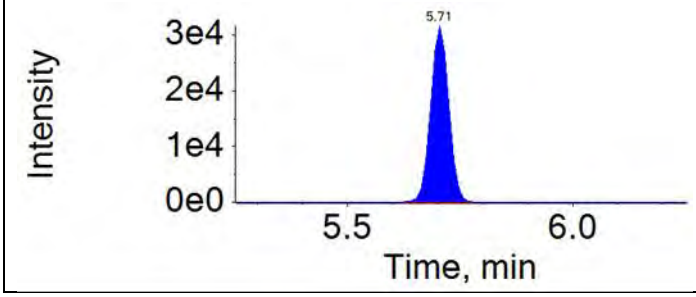


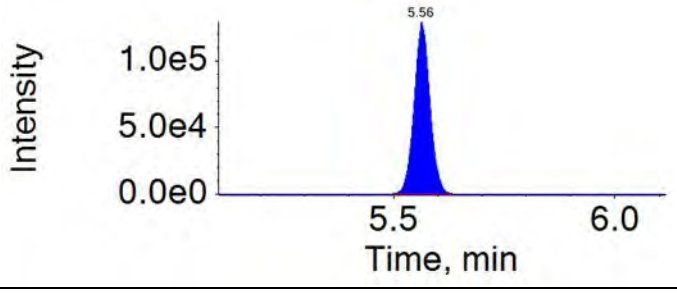
Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0



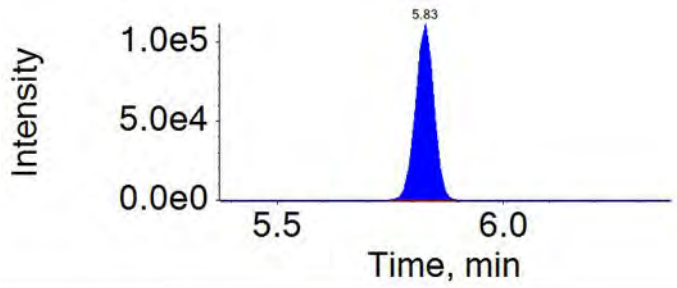


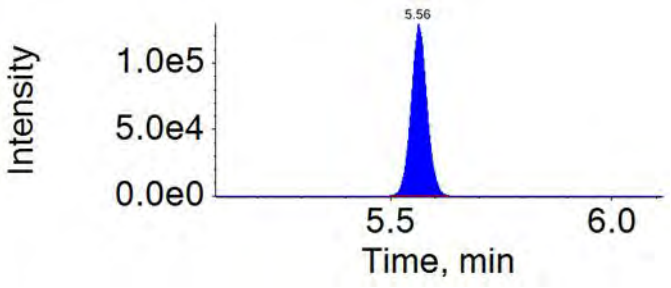
Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0





Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0



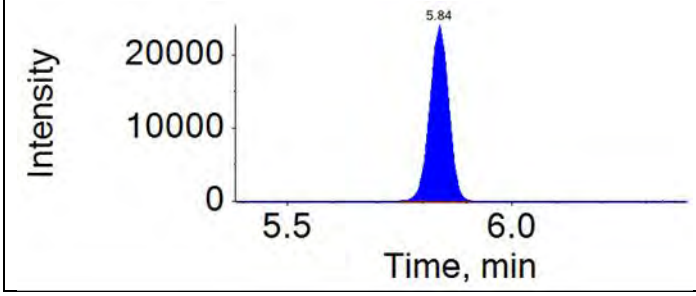


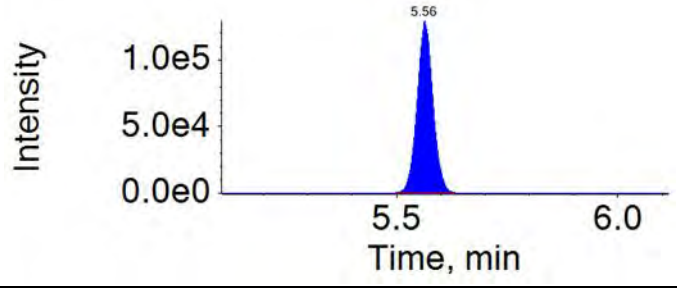
APPROVED
By JPT at 5:07 pm, 11/8/18

REVIEWED
By umar at 12:13 pm, 11/12/18

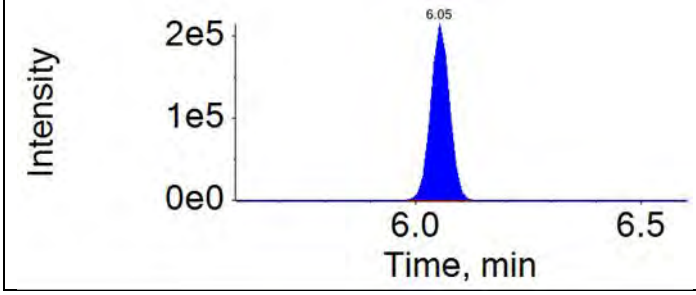
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV1-3 11/8/2018 5:00:30 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

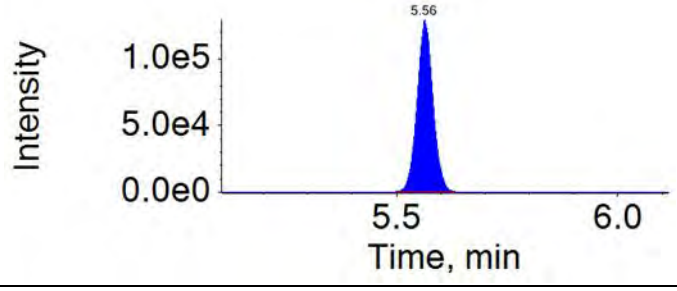
Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0



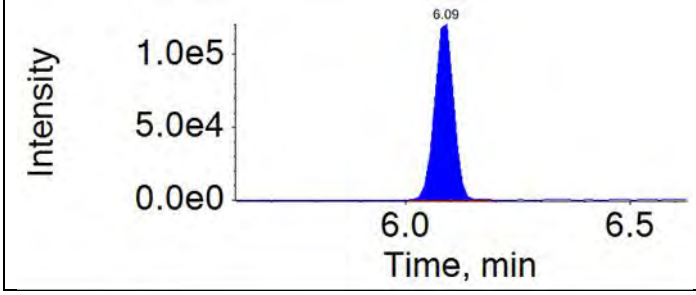


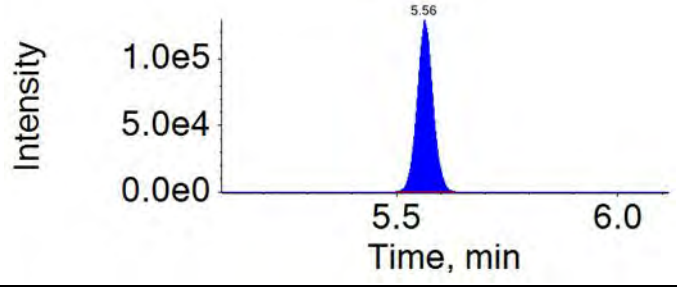
Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0



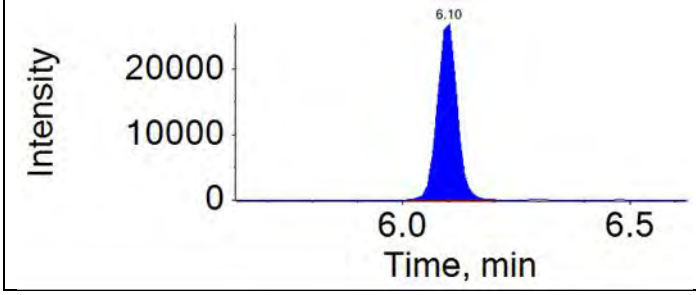


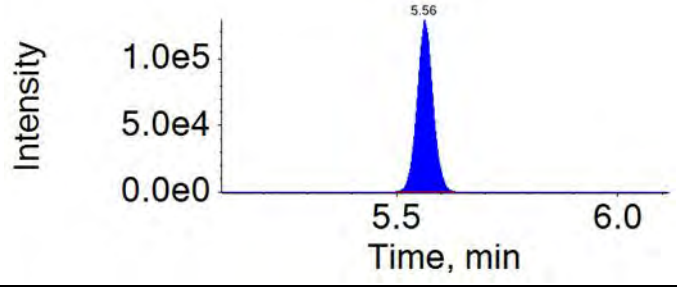
Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0





Extraction Standard: Ed3-NMePFOSA	Injection Standard: 13C2-PFDA
515.0 / 169.0	515.0 / 470.0



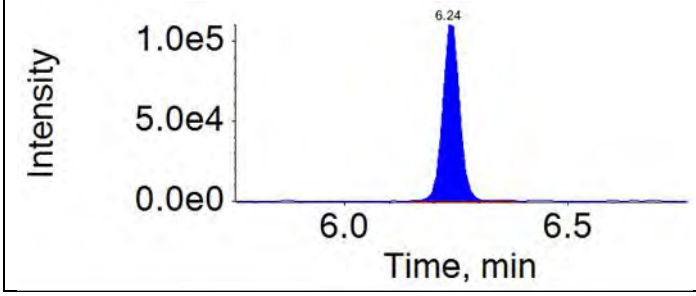


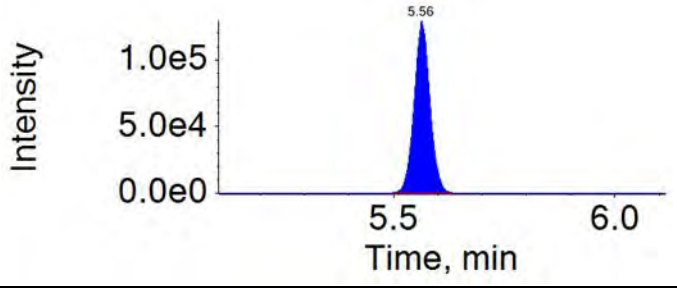
APPROVED
By JPT at 5:07 pm, 11/8/18

REVIEWED
By umar at 12:13 pm, 11/12/18

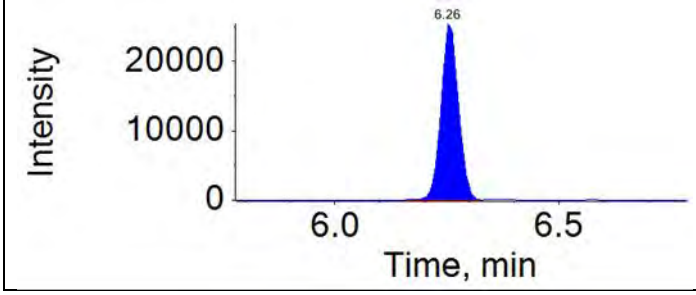
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV1-3 11/8/2018 5:00:30 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

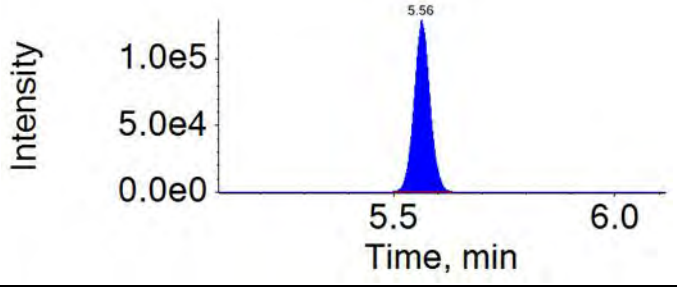
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



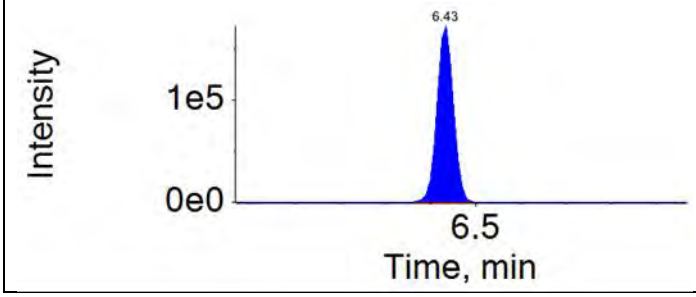


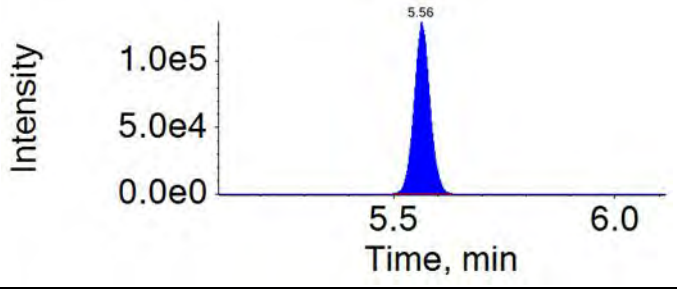
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





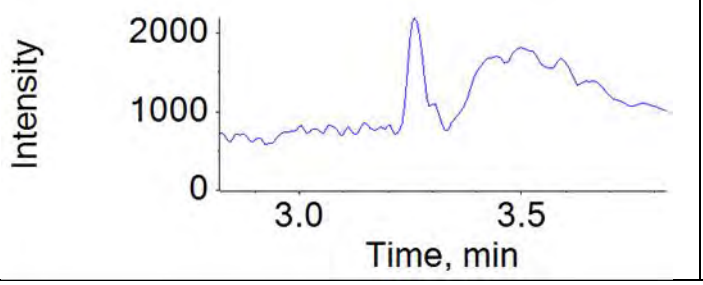
Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0

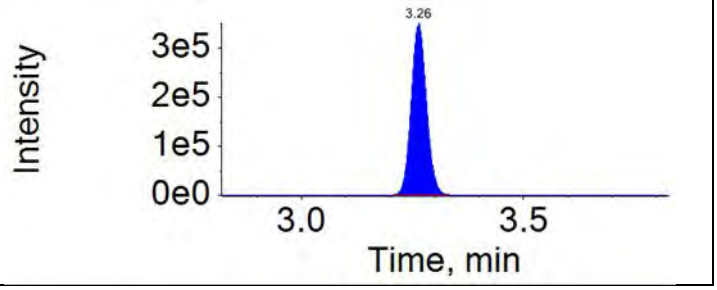




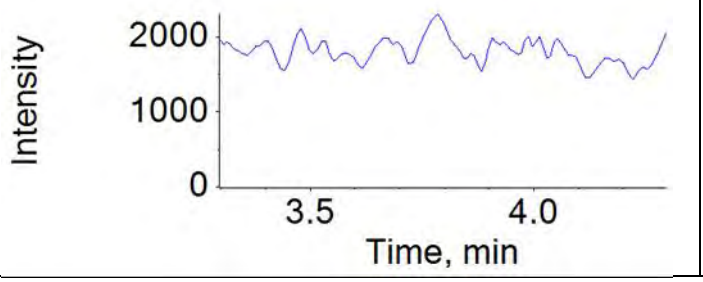
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV1-3 11/8/2018 5:00:30 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

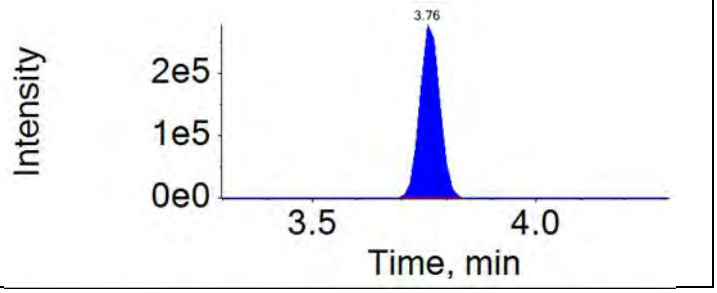
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



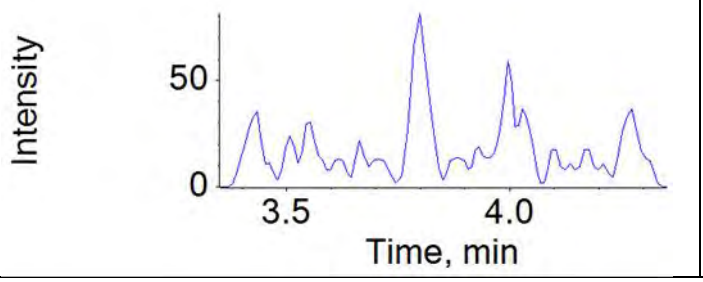


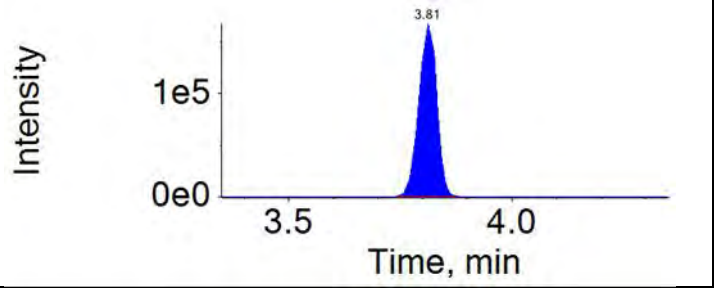
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



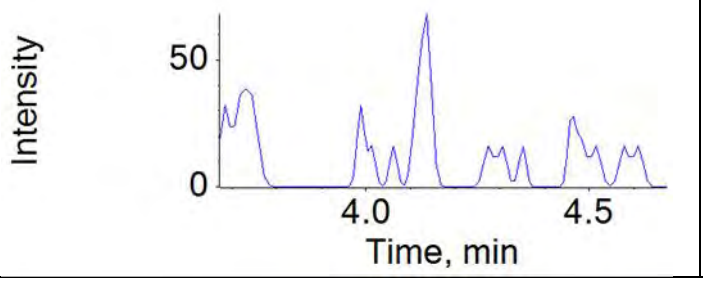


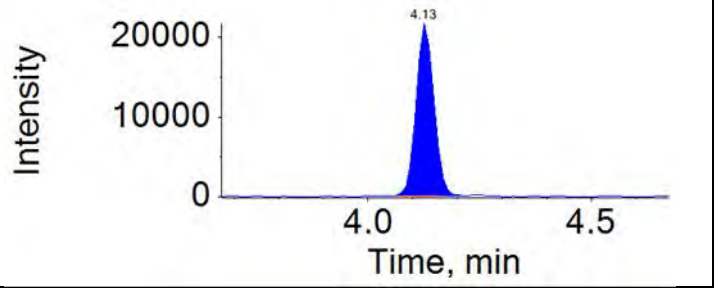
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





Analyte: 4:2-FTS	Extraction Standard: 13C2-4:2-FTS
327.0 / 307.0	329.0 / 81.0



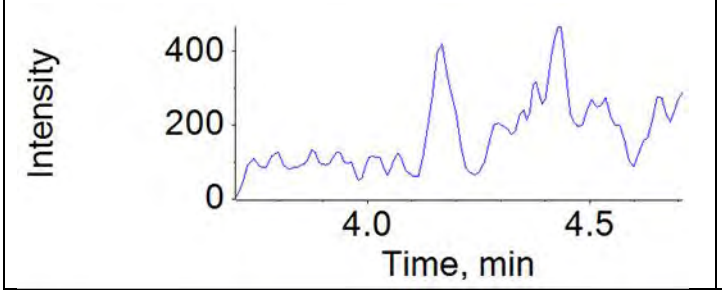


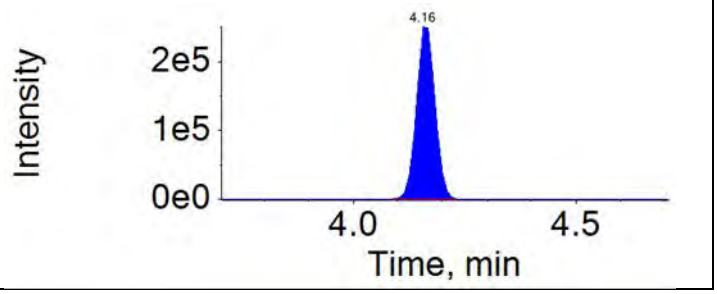
APPROVED
By JPT at 5:07 pm, 11/8/18

REVIEWED
By umar at 12:13 pm, 11/12/18

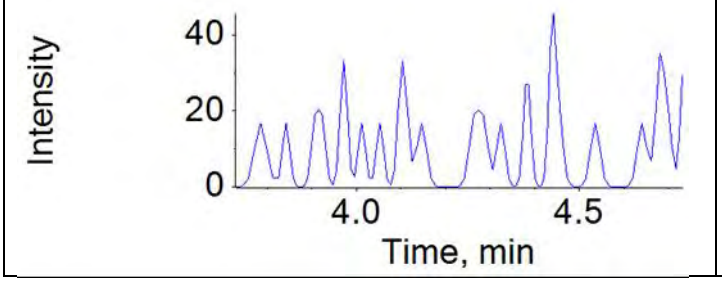
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV1-3 11/8/2018 5:00:30 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

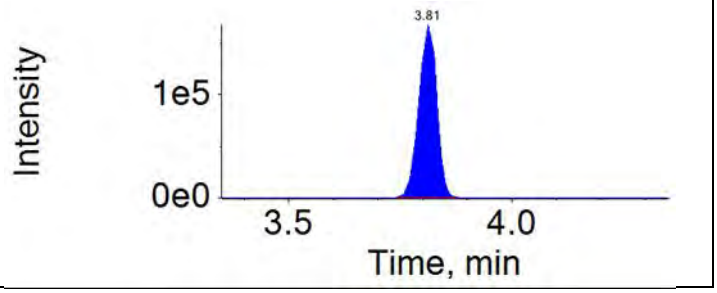
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



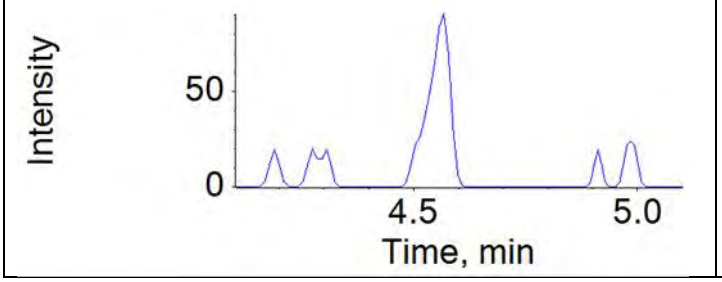


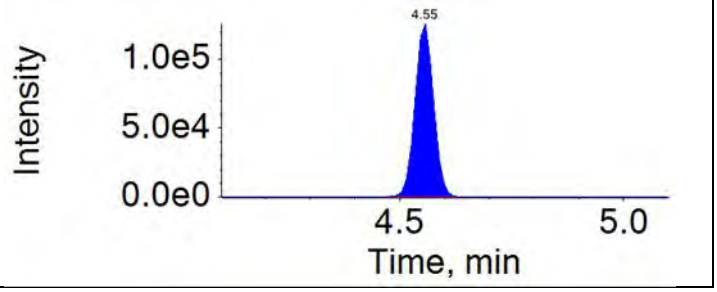
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



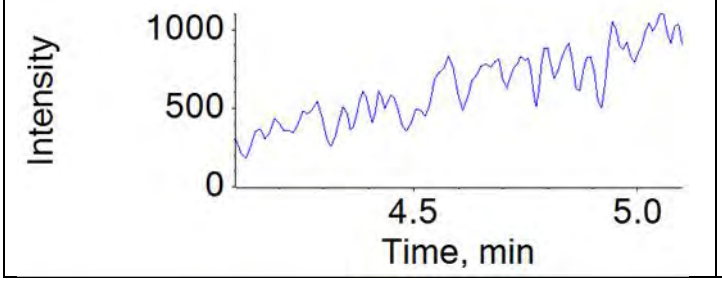


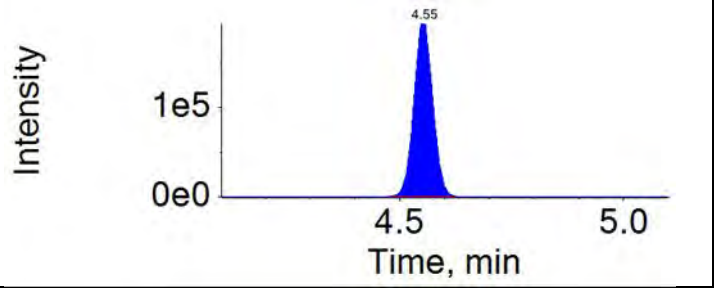
Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0





Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0



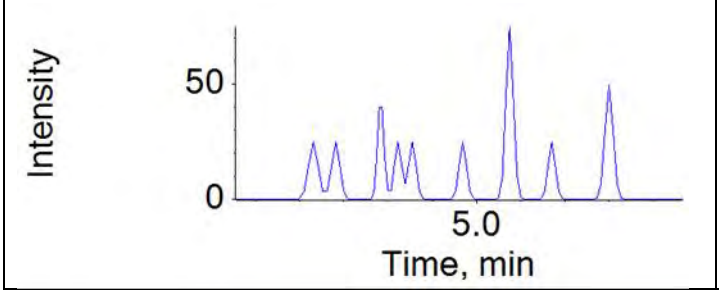


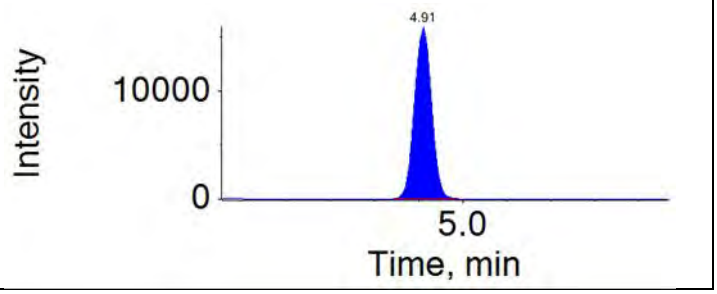
APPROVED
By JPT at 5:07 pm, 11/8/18

REVIEWED
By umar at 12:13 pm, 11/12/18

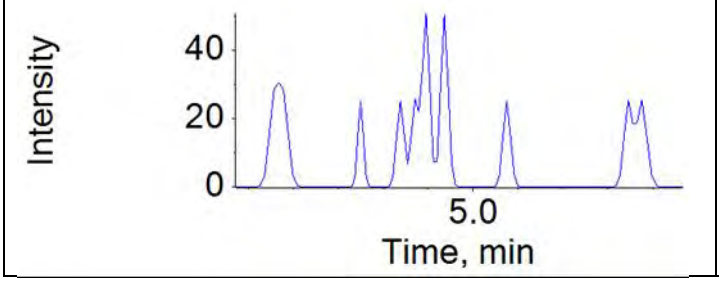
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV1-3 11/8/2018 5:00:30 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

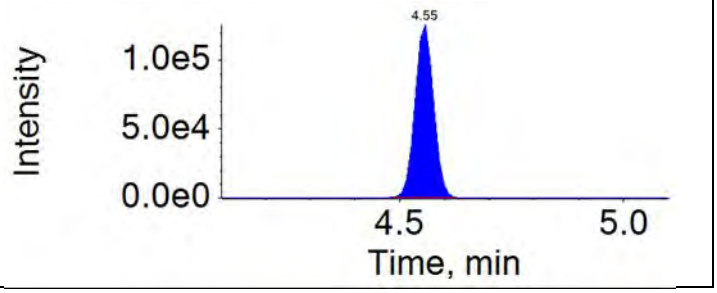
Analyte: 6:2-FTS	Extraction Standard: 13C2-6:2-FTS
427.0 / 407.0	429.0 / 81.0



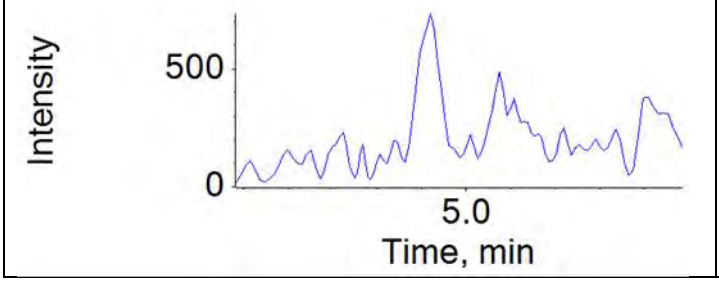


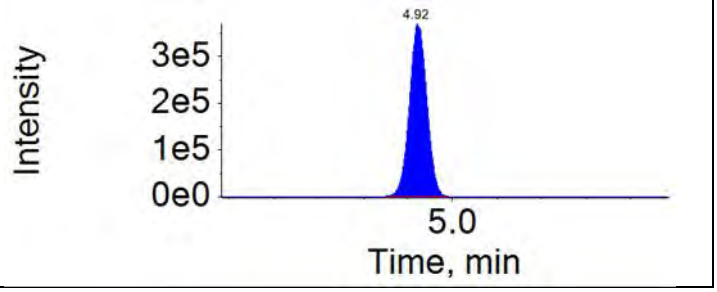
Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0



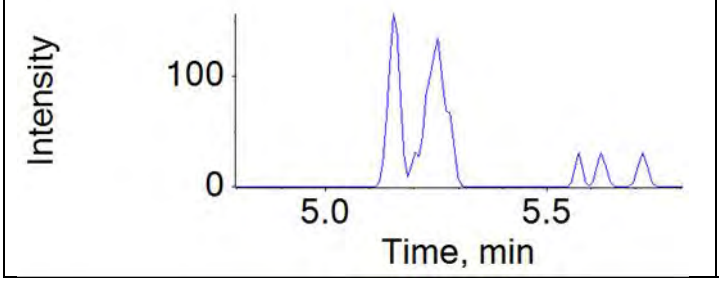


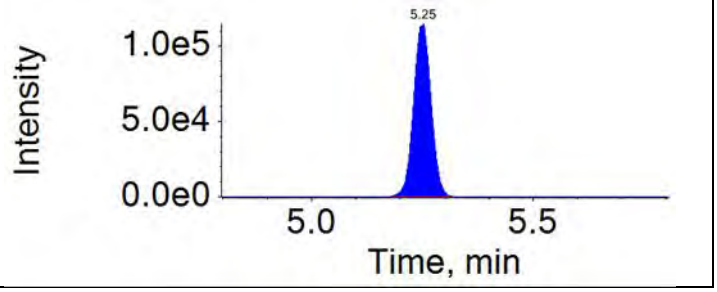
Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0





Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0



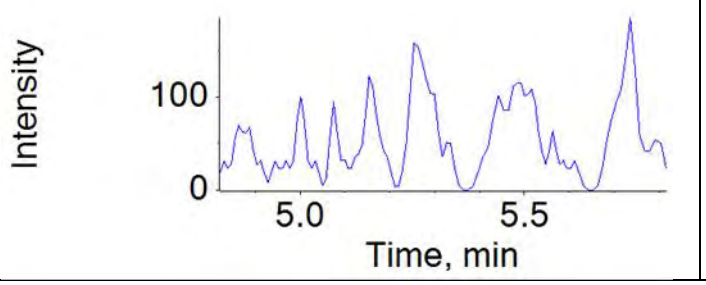


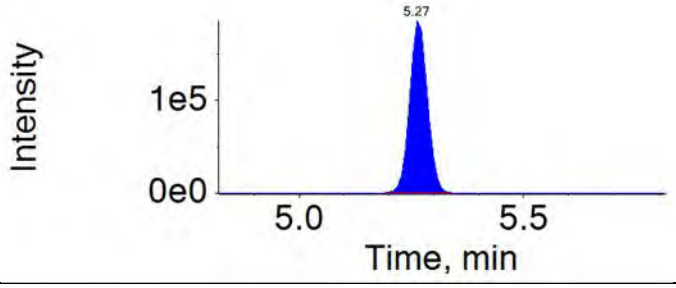
APPROVED
By JPT at 5:07 pm, 11/8/18

REVIEWED
By umar at 12:13 pm, 11/12/18

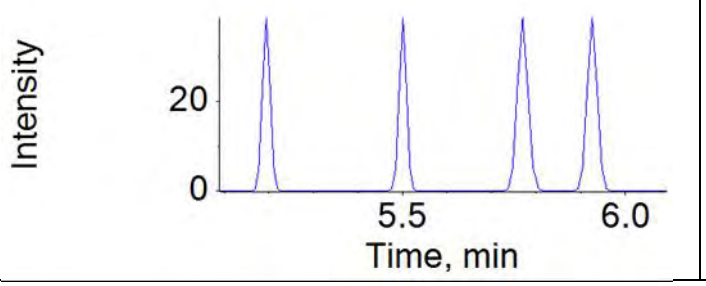
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV1-3 11/8/2018 5:00:30 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

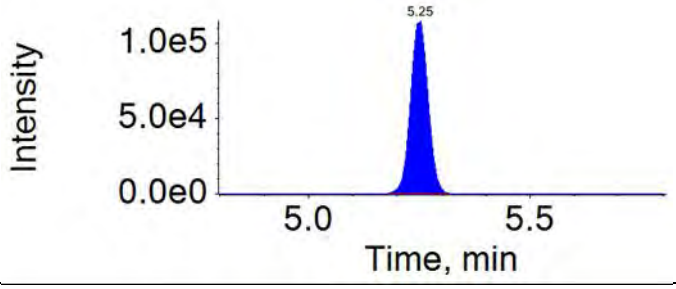
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



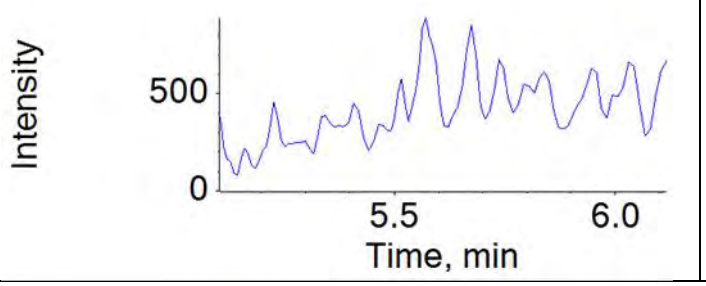


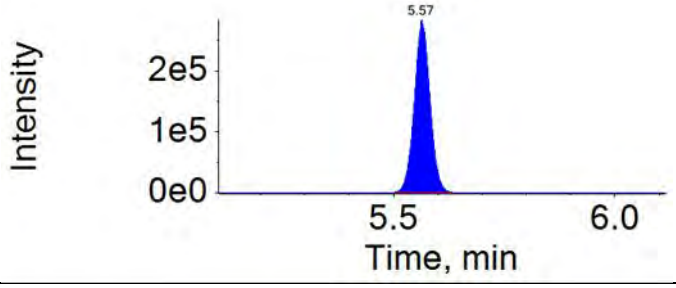
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



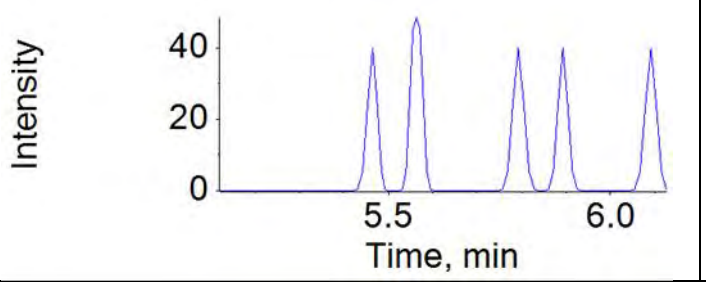


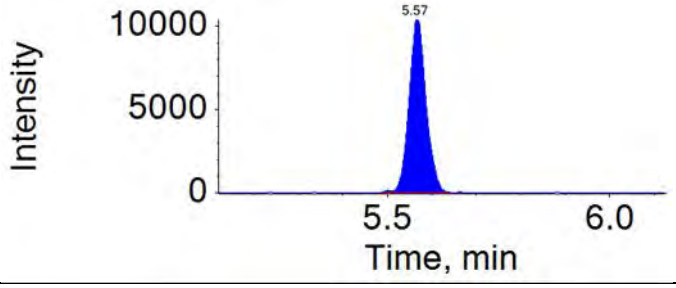
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





Analyte: 8:2-FTS	Extraction Standard: 13C2-8:2-FTS
527.0 / 507.0	529.0 / 81.0



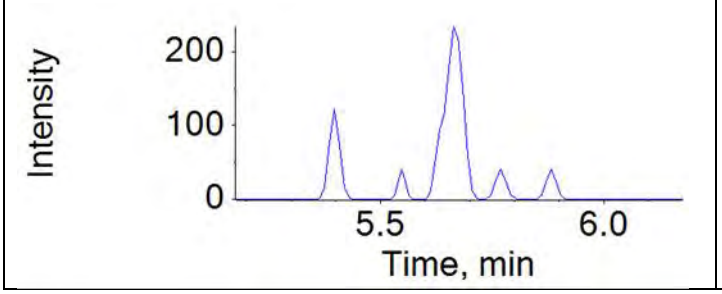


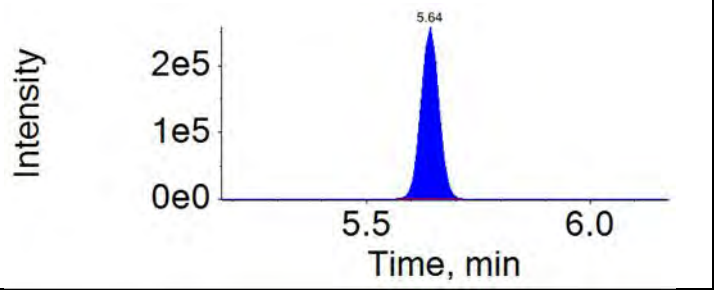
APPROVED
By JPT at 5:07 pm, 11/8/18

REVIEWED
By umar at 12:13 pm, 11/12/18

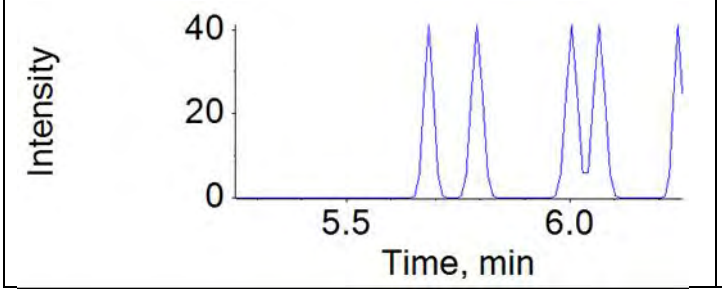
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV1-3 11/8/2018 5:00:30 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

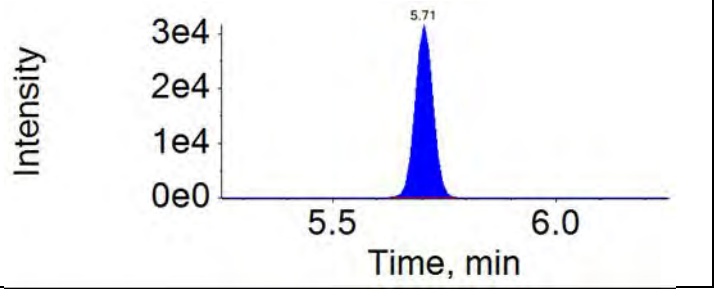
Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0



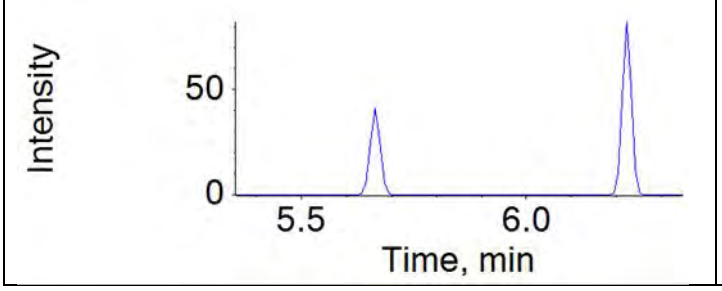


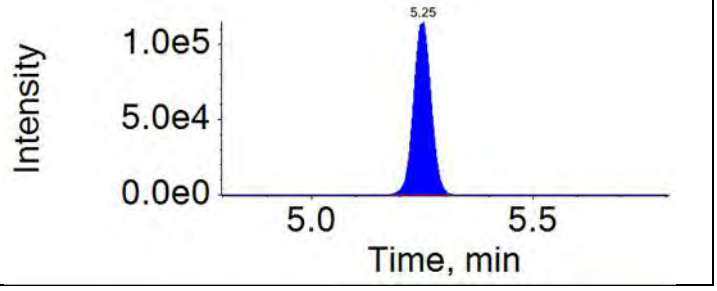
Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0



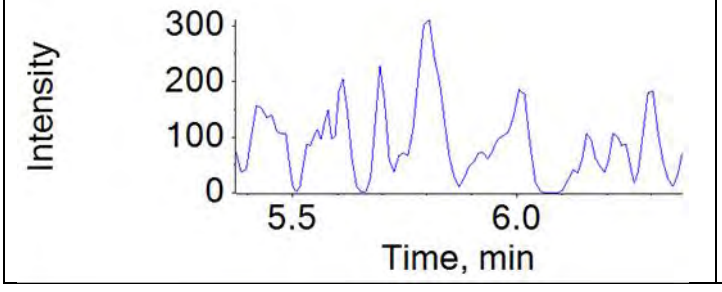


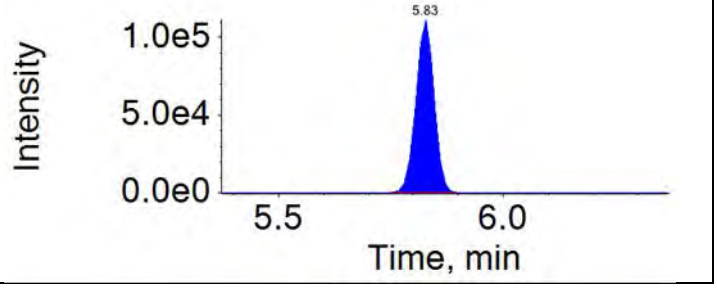
Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0





Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0



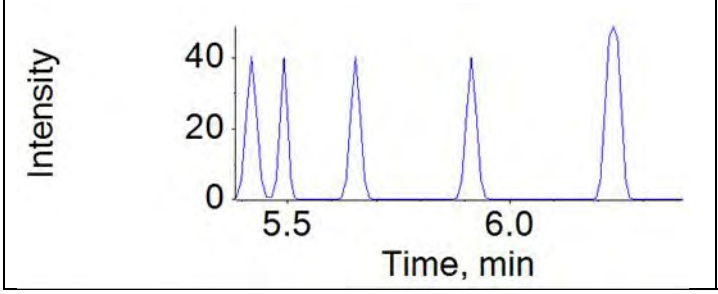


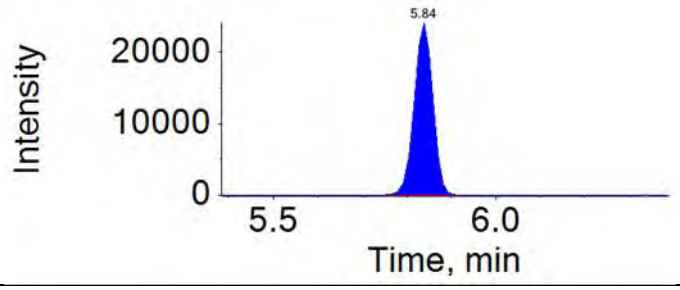
APPROVED
By JPT at 5:07 pm, 11/8/18

REVIEWED
By umar at 12:13 pm, 11/12/18

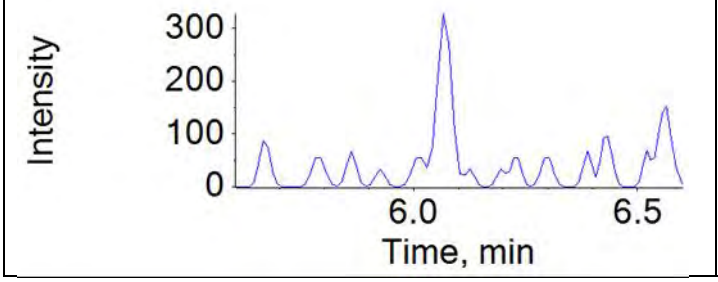
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV1-3 11/8/2018 5:00:30 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

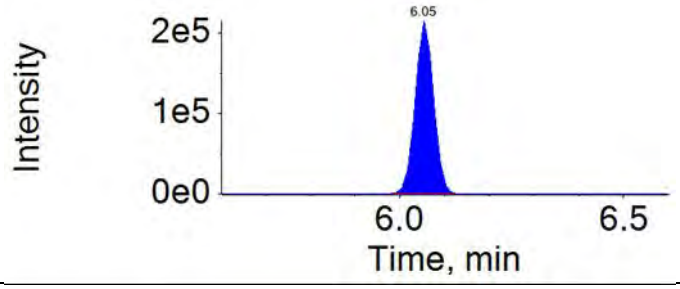
Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0



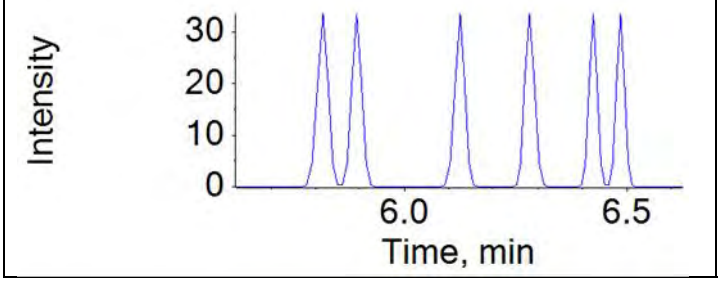


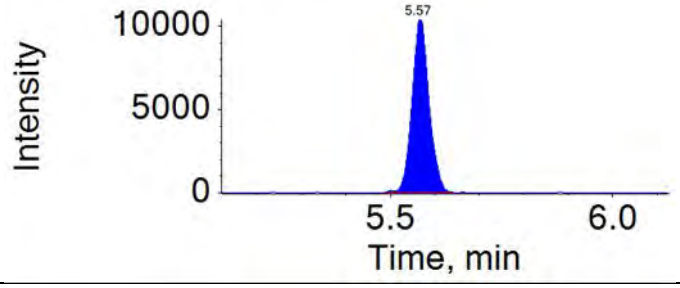
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0



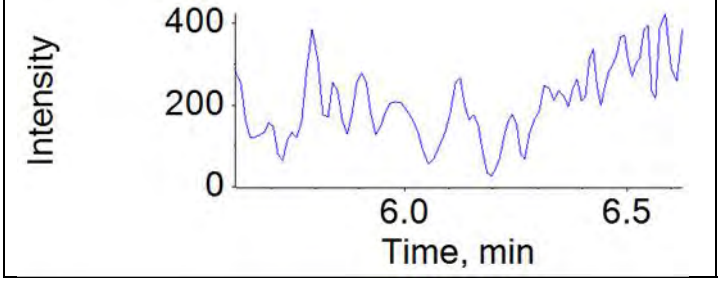


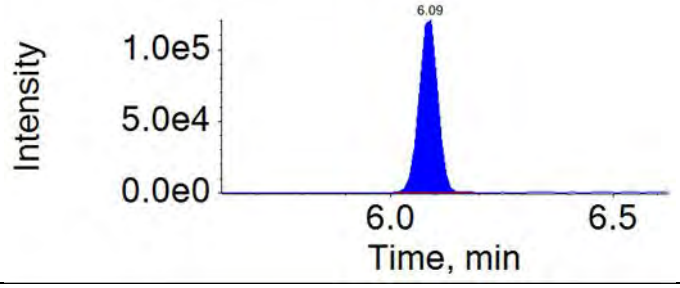
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0





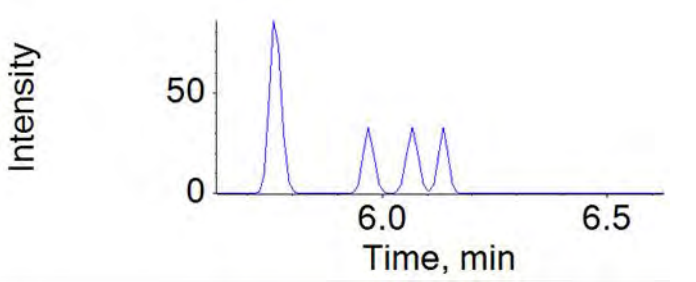
Analyte: NMePFOSAE	Extraction Standard: d7-NMePFOSAE
616.0 / 59.0	623.0 / 59.0

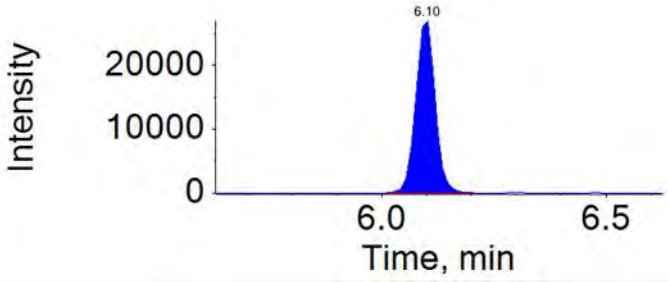




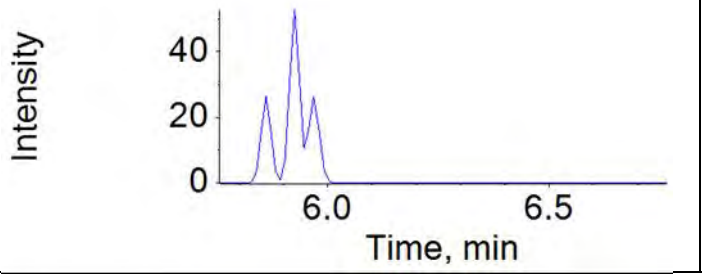
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV1-3 11/8/2018 5:00:30 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

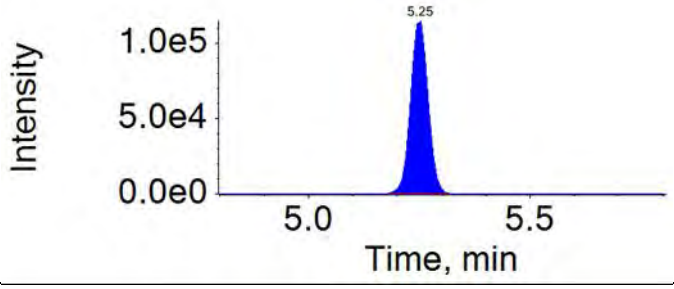
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



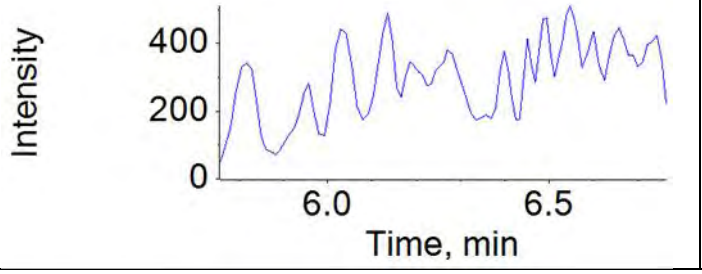


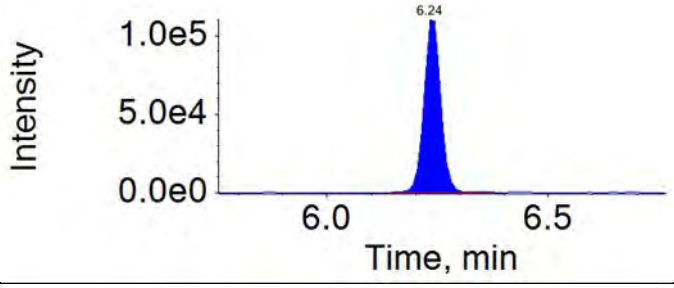
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



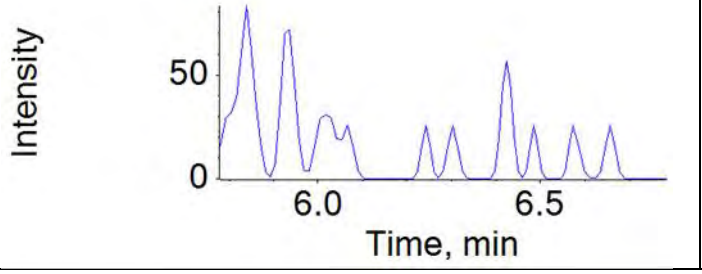


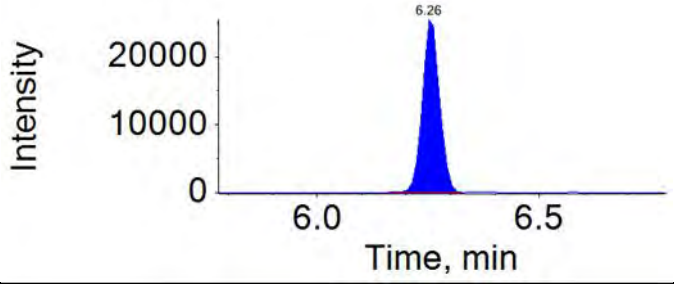
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





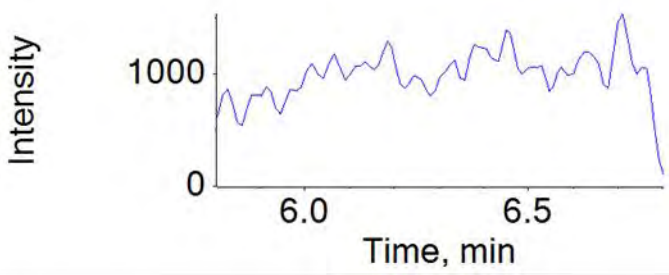
Analyte: NEtPFOSA	Extraction Standard: d5-NEtPFOSA
526.0 / 169.0	531.0 / 169.0

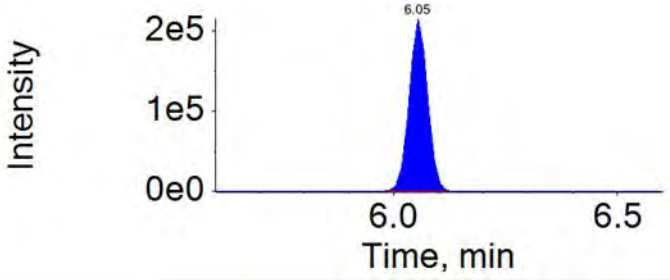




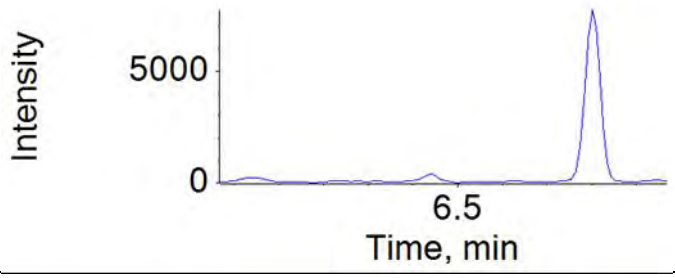
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV1-3 11/8/2018 5:00:30 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

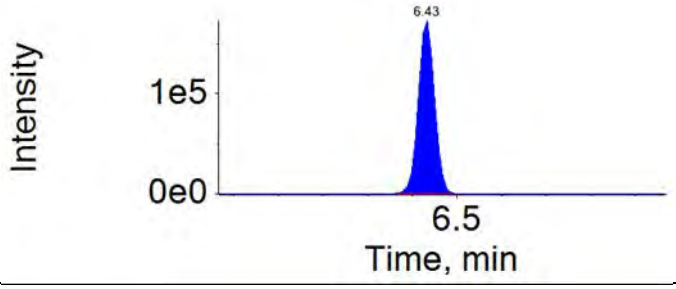
Analyte: PFTrDA	Extraction Standard: 13C2-PFDoDA
663.0 / 619.0	615.0 / 570.0



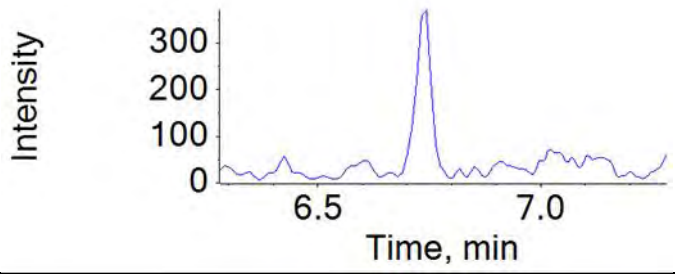


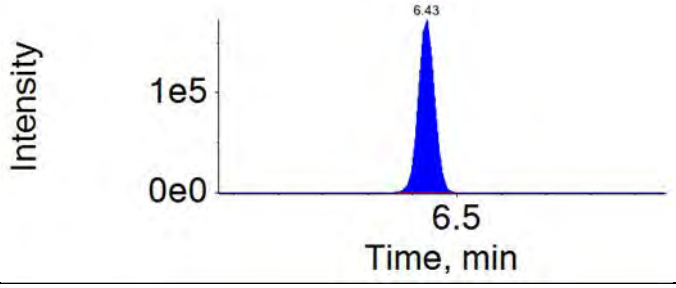
Analyte: PFTeDA	Extraction Standard: 13C2-PFTeDA
713.0 / 669.0	715.0 / 670.0



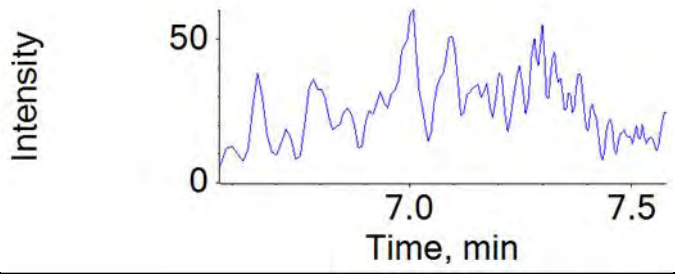


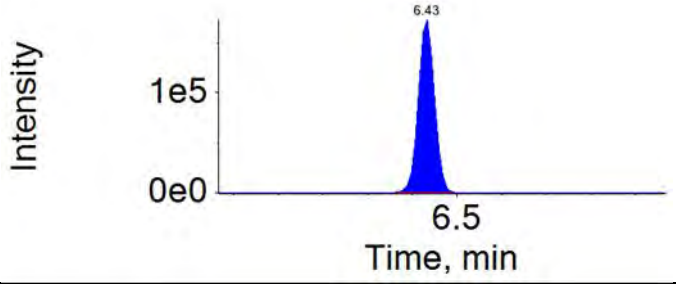
Analyte: PFHxDA	Extraction Standard: 13C2-PFTeDA
813.0 / 769.0	715.0 / 670.0





Analyte: PFODA	Extraction Standard: 13C2-PFTeDA
913.0 / 869.0	715.0 / 670.0





APPROVED
By JPT at 5:07 pm, 11/8/18

REVIEWED
By umar at 12:13 pm, 11/12/18

Ion Ratio Report

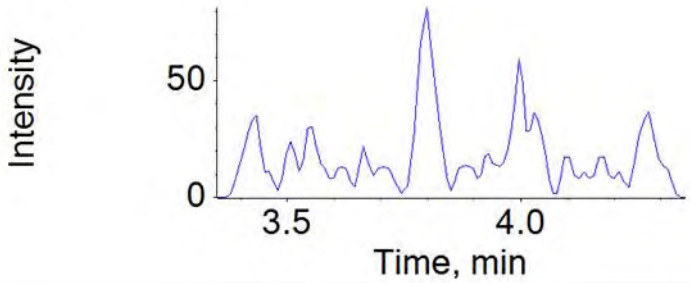
Sample Name: INBLK **Instrument Name:** LM27631 **File Name:** 18NOV08D-06.wiff

Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	N/A	N/A	N/A	A	N/A	N/A			
PFBS_2	N/A	N/A	N/A	A	N/A	N/A		50	
4:2-FTS	N/A	N/A	N/A	A	N/A	N/A			
4:2-FTS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFHxA	N/A	N/A	N/A	A	N/A	N/A			
PFHxA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFPeS	N/A	N/A	N/A	A	N/A	N/A			
PFPeS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFHxS	N/A	N/A	N/A	A	N/A	N/A			
PFHxS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFHpA	N/A	N/A	N/A	A	N/A	N/A			
PFHpA_2	N/A	N/A	N/A	A	N/A	N/A		50	
6:2-FTS	N/A	N/A	N/A	A	N/A	N/A			
6:2-FTS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFHpS	N/A	N/A	N/A	A	N/A	N/A			
PFHpS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFOA	N/A	N/A	N/A	A	N/A	N/A			
PFOA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFOS	N/A	N/A	N/A	A	N/A	N/A			
PFOS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFNA	N/A	N/A	N/A	A	N/A	N/A			
PFNA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFNS	N/A	N/A	N/A	A	N/A	N/A			
PFNS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFDA	N/A	N/A	N/A	A	N/A	N/A			
PFDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
8:2-FTS	N/A	N/A	N/A	A	N/A	N/A			
8:2-FTS_2	N/A	N/A	N/A	A	N/A	N/A		50	
NMeFOSAA	N/A	N/A	N/A	A	N/A	N/A			
NMeFOSAA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFDS	N/A	N/A	N/A	A	N/A	N/A			
PFDS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFUnDA	N/A	N/A	N/A	A	N/A	N/A			
PFUnDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
NEtFOSAA	N/A	N/A	N/A	A	N/A	N/A			
NEtFOSAA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFDoDA	N/A	N/A	N/A	A	N/A	N/A			
PFDoDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
10:2-FTS	N/A	N/A	N/A	A	N/A	N/A			
10:2-FTS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFTrDA	N/A	N/A	N/A	A	N/A	N/A			
PFTrDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFTeDA	N/A	N/A	N/A	A	N/A	N/A			
PFTeDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFHxDA	N/A	N/A	N/A	A	N/A	N/A			
PFHxDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFODA	N/A	N/A	N/A	A	N/A	N/A			
PFODA_2	N/A	N/A	N/A	A	N/A	N/A		50	

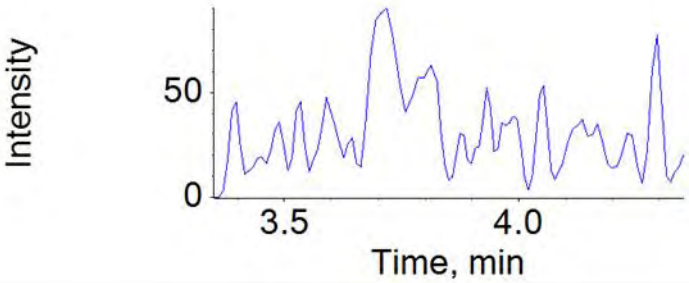
APPROVED
By JPT at 5:07 pm, 11/8/18

REVIEWED
By umar at 12:13 pm, 11/12/18

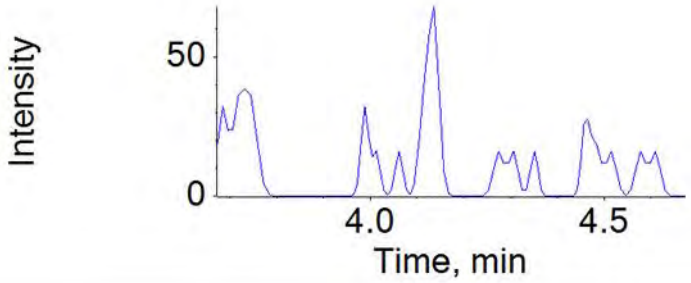
Component: PFBS
Primary Mass: 299.0 / 80.0



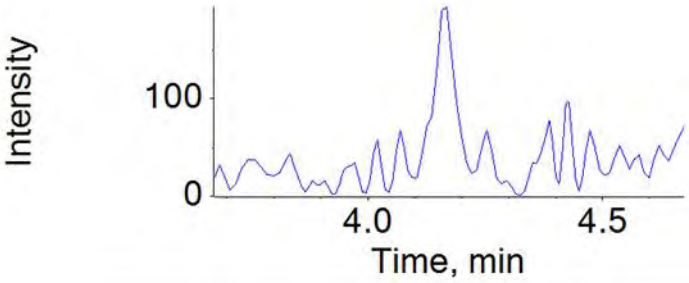
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



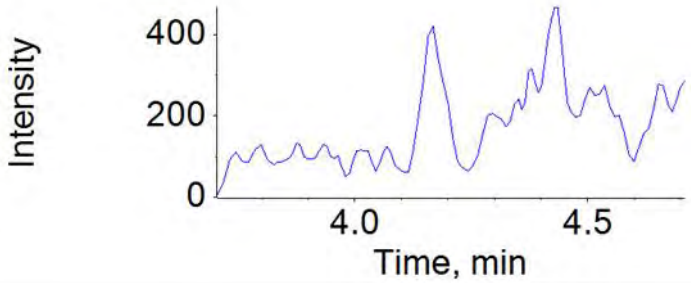
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



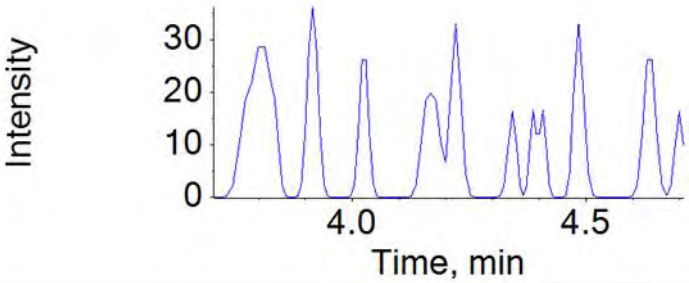
Component: 4:2-FTS_2
Secondary Mass: 327.0 / 81.0



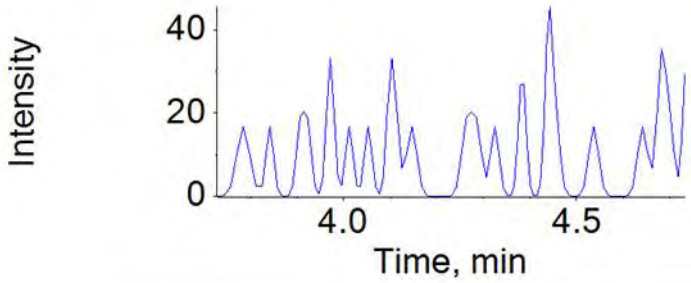
Component: PFHxA
Primary Mass: 313.0 / 269.0



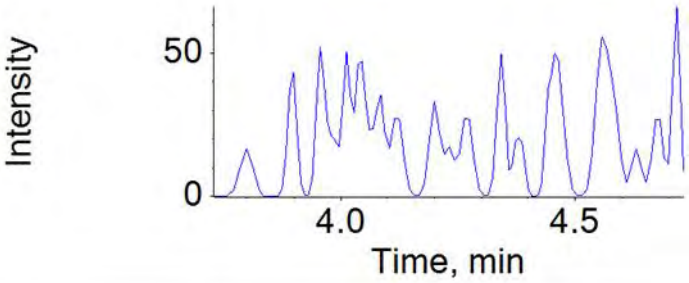
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



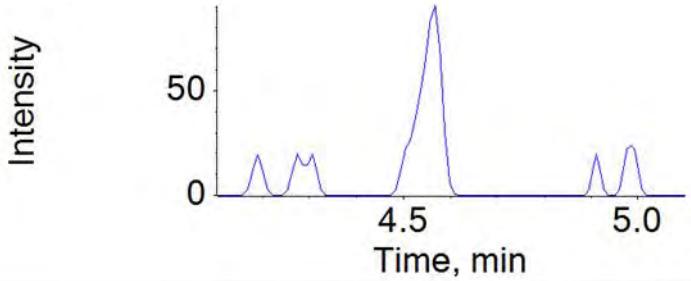
Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



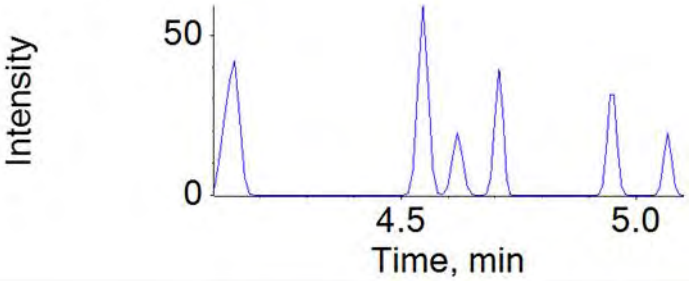
APPROVED
By JPT at 5:07 pm, 11/8/18

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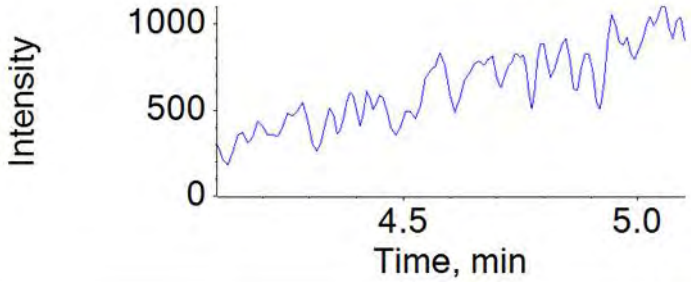
Component: PFHxS
Primary Mass: 399.0 / 80.0



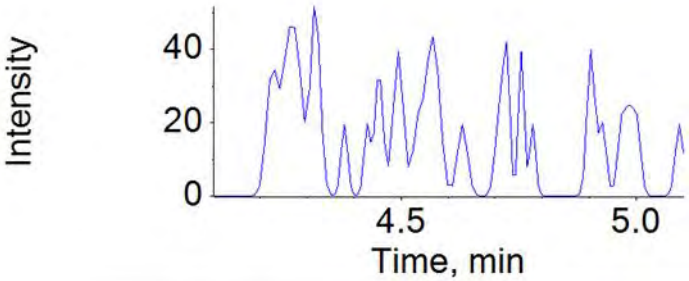
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



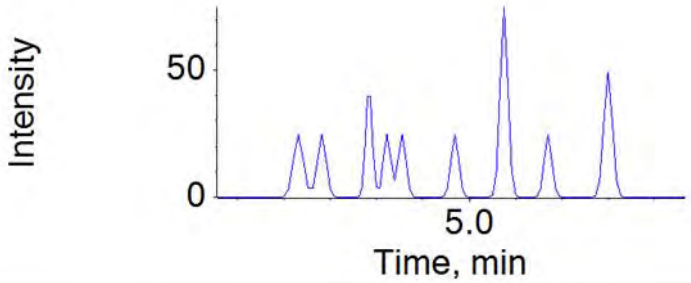
Component: PFHpA
Primary Mass: 363.0 / 319.0



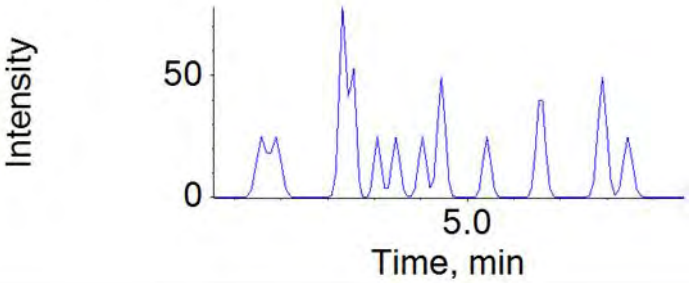
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



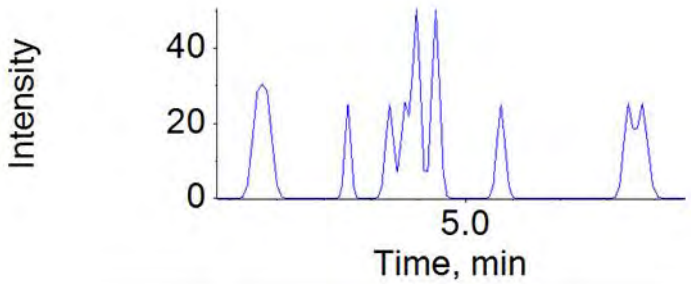
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



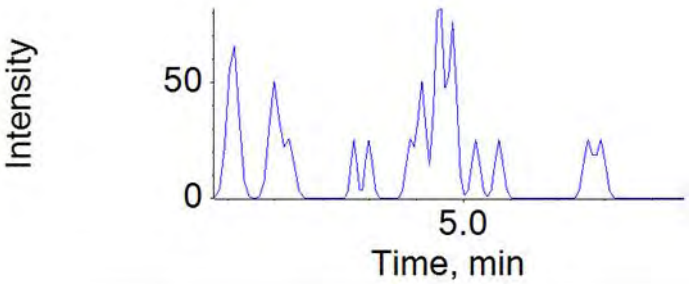
Component: 6:2-FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



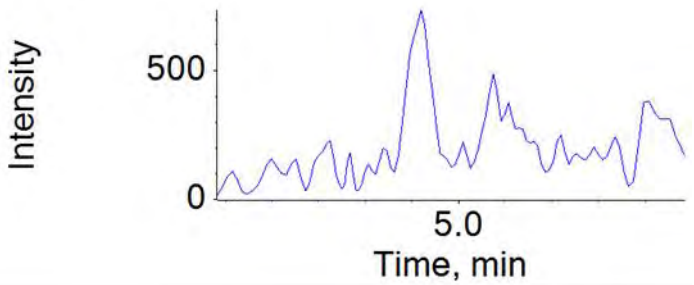
Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



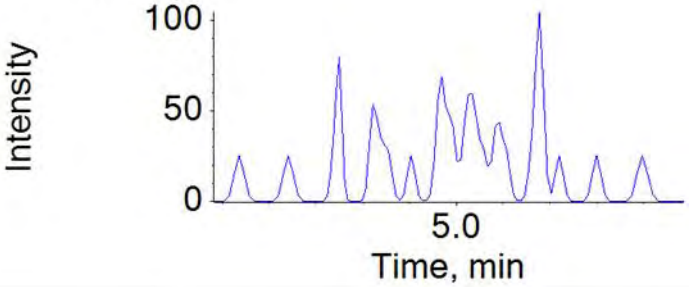
APPROVED
By JPT at 5:07 pm, 11/8/18

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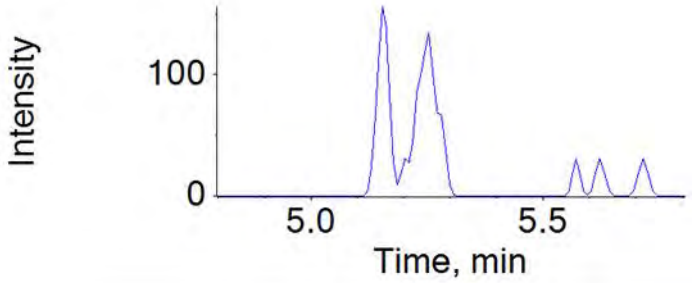
Component: PFOA
Primary Mass: 413.0 / 369.0



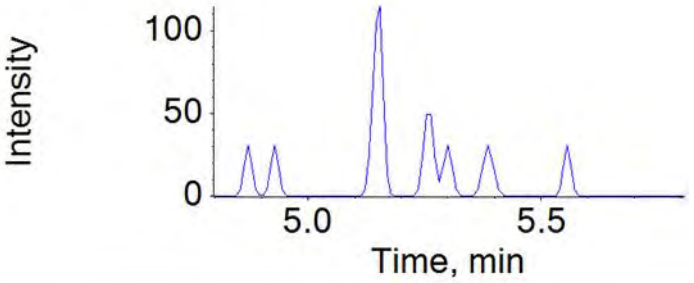
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



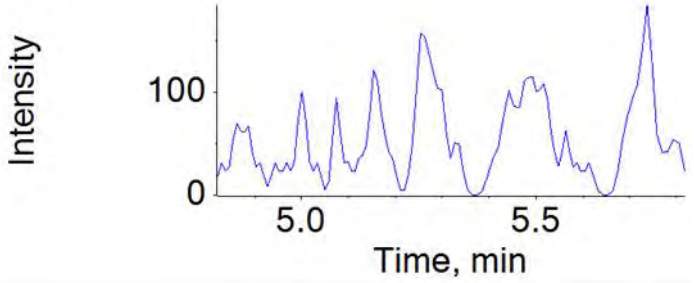
Component: PFOS
Primary Mass: 499.0 / 80.0



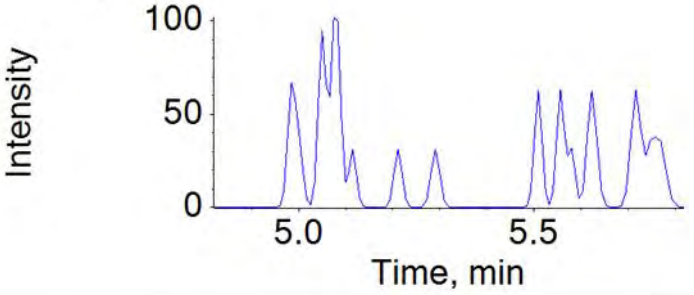
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



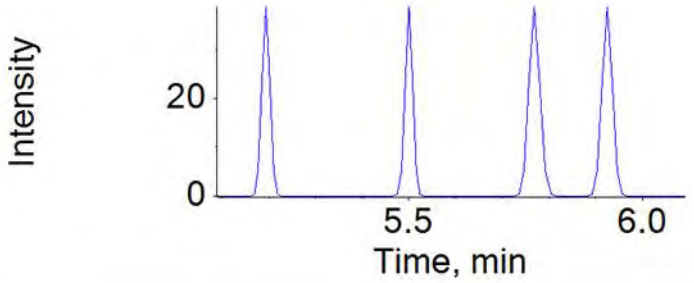
Component: PFNA
Primary Mass: 463.0 / 419.0



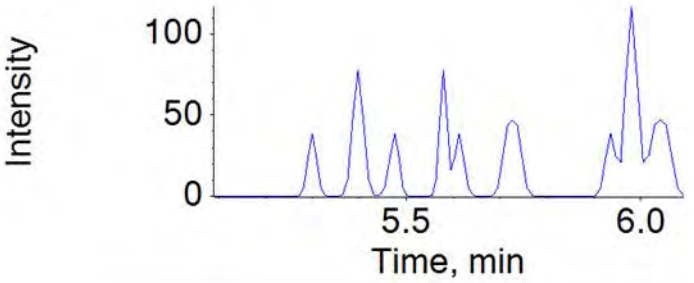
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



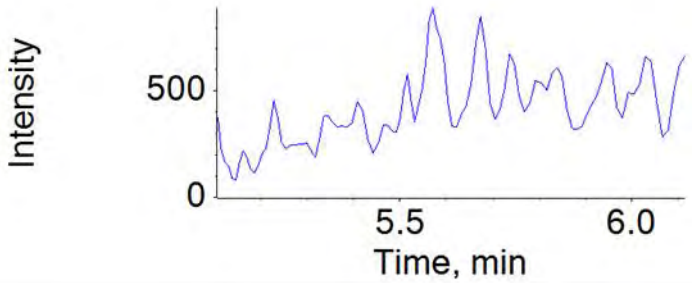
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



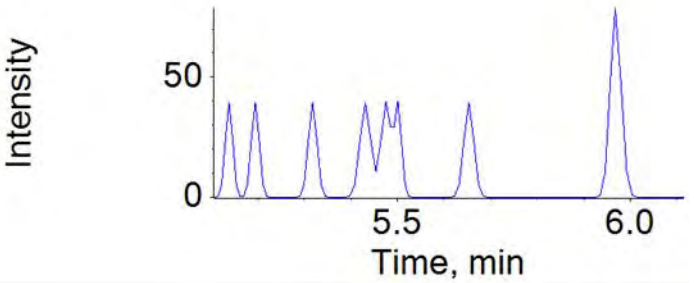
APPROVED
By JPT at 5:07 pm, 11/8/18

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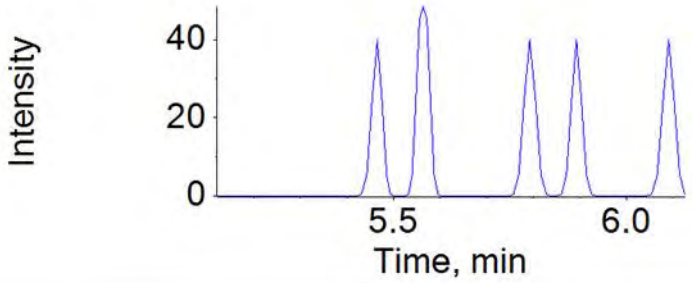
Component: PFDA
Primary Mass: 513.0 / 469.0



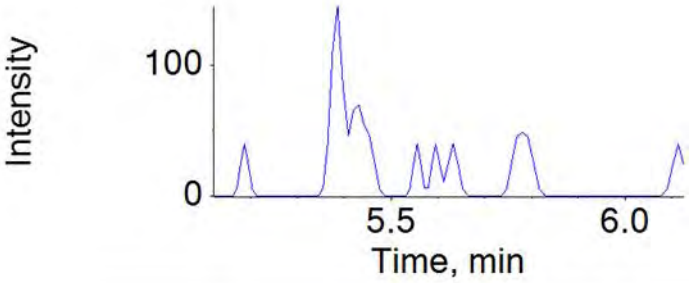
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



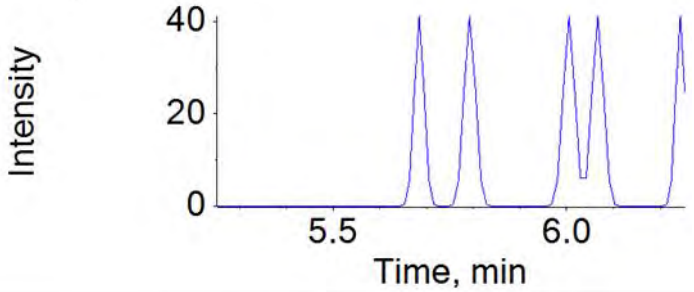
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



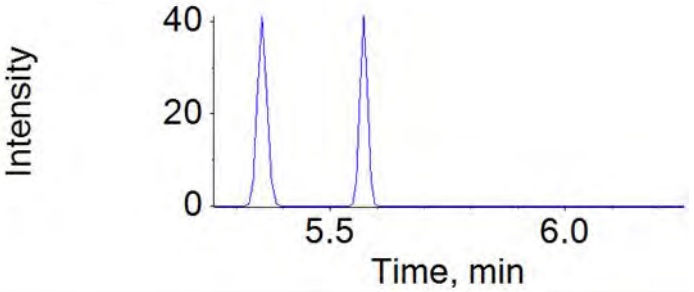
Component: 8:2-FTS_2
Secondary Mass: 527.0 / 81.0



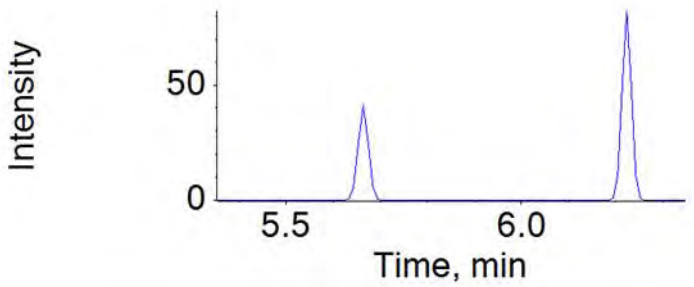
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



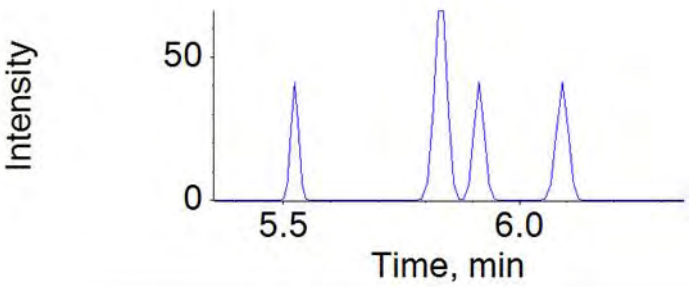
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



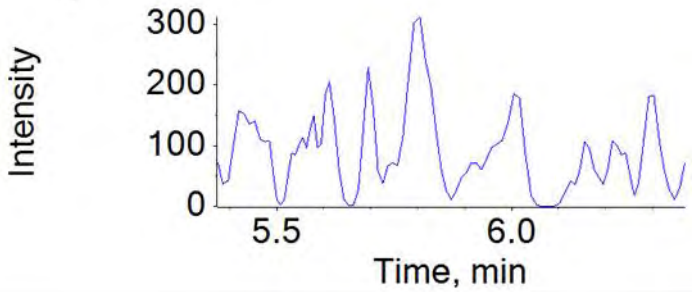
Component: PFDS_2
Secondary Mass: 599.0 / 99.0



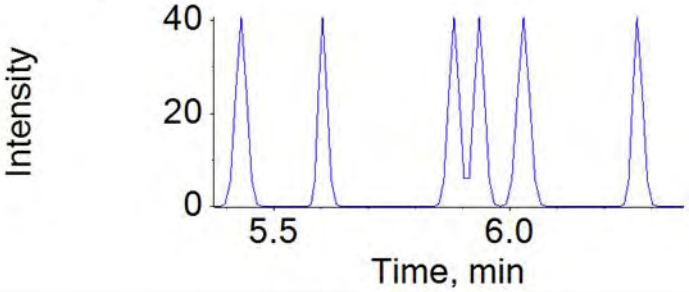
APPROVED
By JPT at 5:07 pm, 11/8/18

REVIEWED
By umar at 12:13 pm, 11/12/18

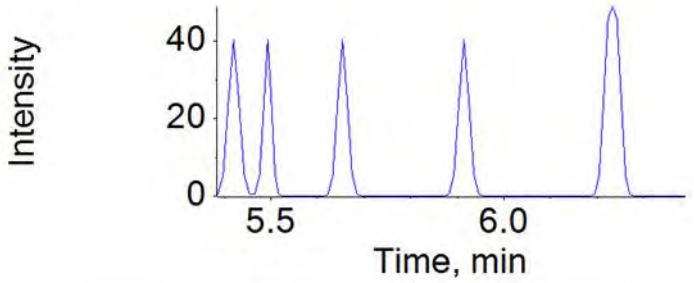
Component: PFUnDA
Primary Mass: 563.0 / 519.0



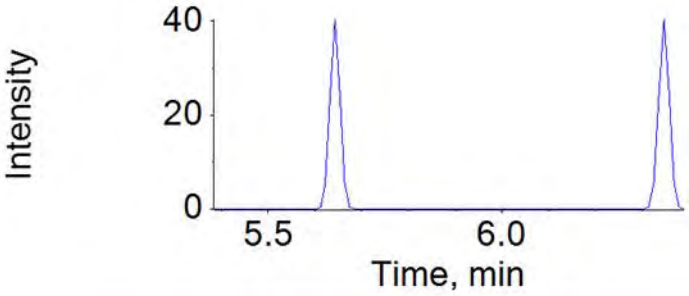
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



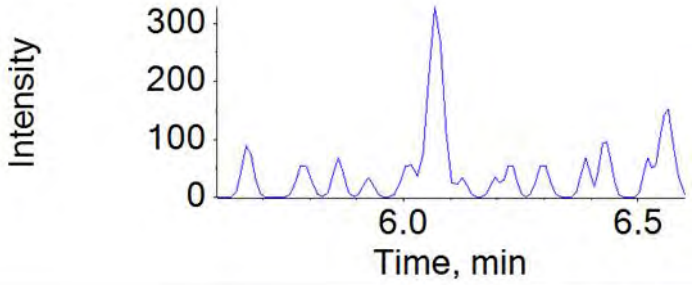
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



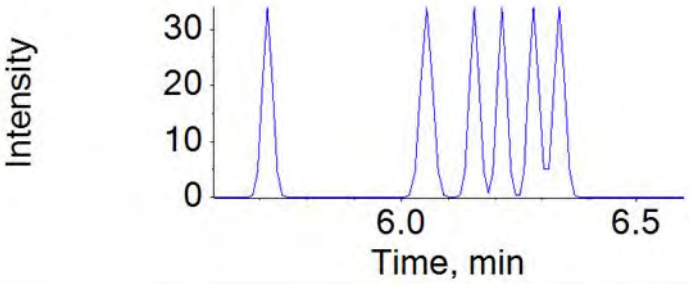
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



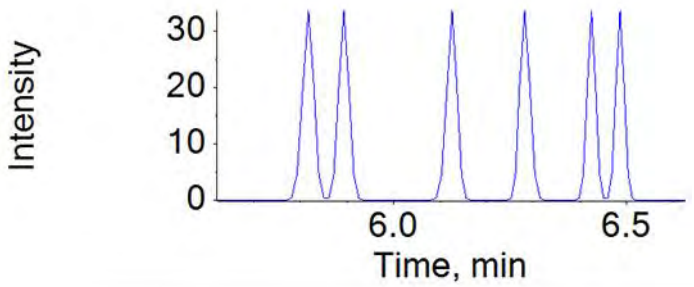
Component: PFDoDA
Primary Mass: 613.0 / 569.0



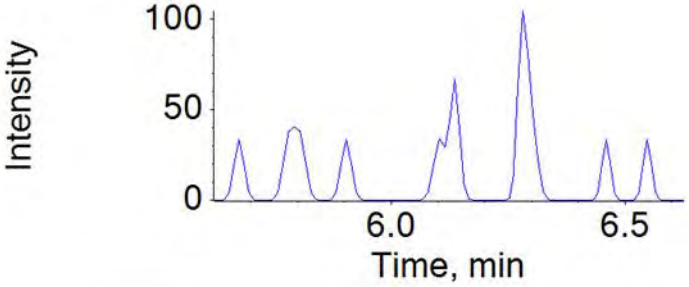
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



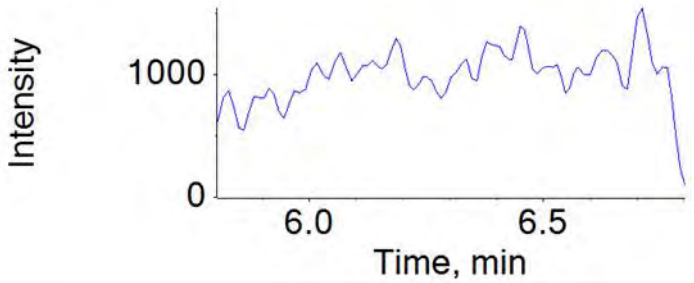
Component: 10:2-FTS_2
Secondary Mass: 627.0 / 81.0



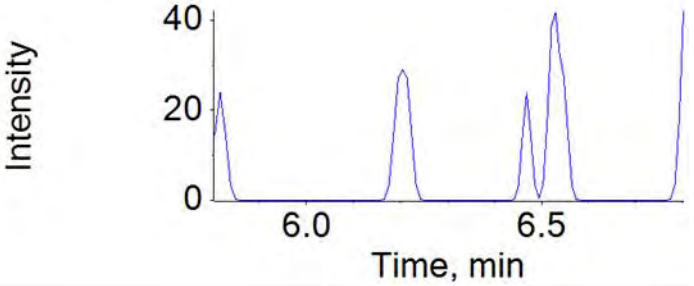
APPROVED
By JPT at 5:08 pm, 11/8/18

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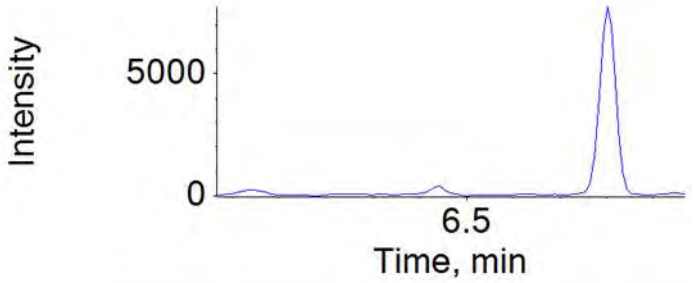
Component: PFTrDA
Primary Mass: 663.0 / 619.0



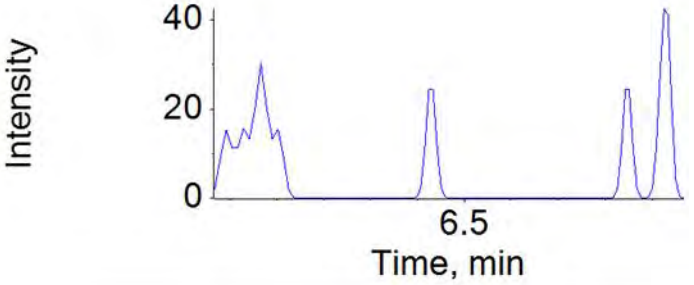
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



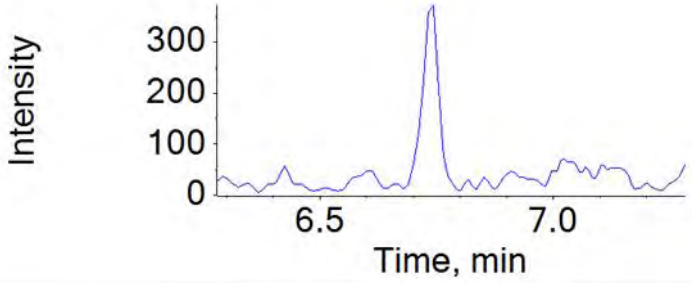
Component: PFTeDA
Primary Mass: 713.0 / 669.0



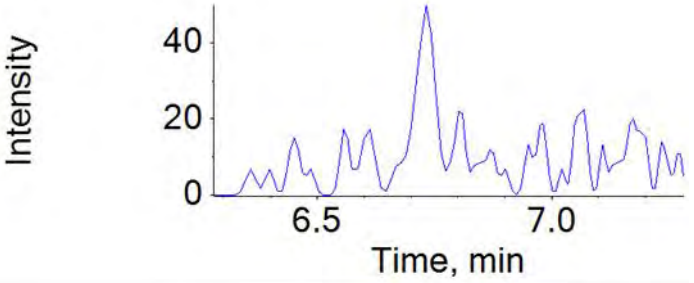
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



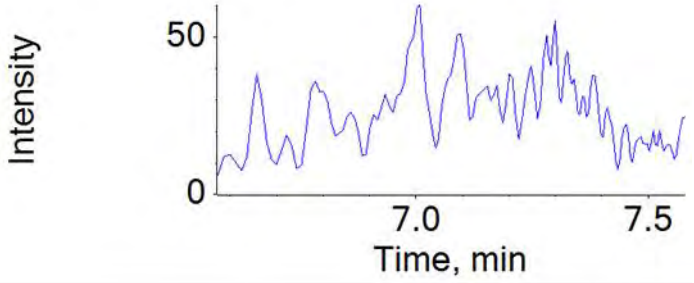
Component: PFHxDA
Primary Mass: 813.0 / 769.0



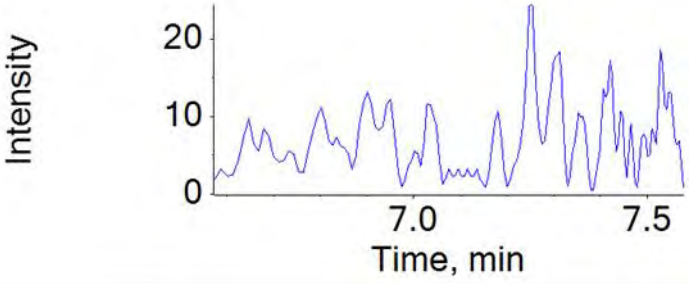
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



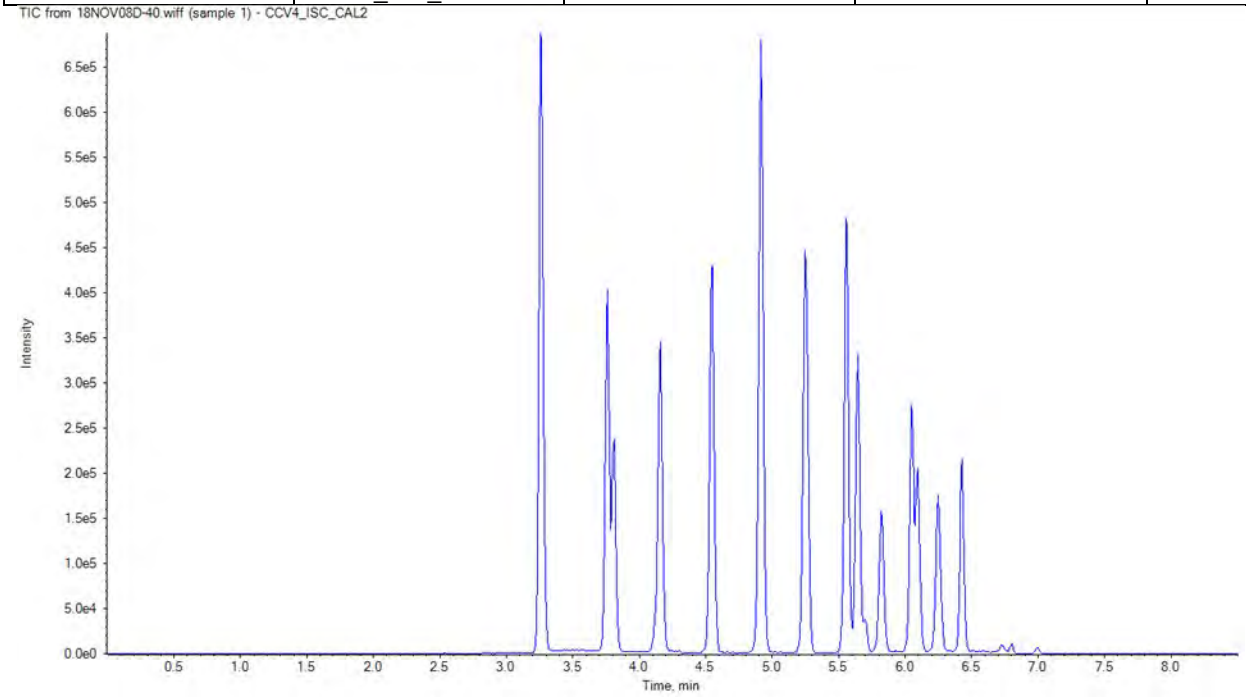
APPROVED
By JPT at 5:08 pm, 11/8/18

REVIEWED
By umar at 12:13 pm, 11/12/18

Instrument Sensitivity Check/ Continuing Calibration Verfication

ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV4-5 11/8/2018 8:11:42 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	CCV4_ISC_CAL2	CALMOD21833F	18NOV08D-40.wiff	2018-11-08T17:40:25



Injection Standard Area Reference File: 18NOV08D-05

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Reference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	710410.4	728839.7	-3	50	
13C2-PFOA	5.0	503275.9	491983.1	2	50	
13C4-PFOS	4.8	281882.8	255568.1	10	50	
13C2-PFDA	5.0	326769.5	315407.5	4	50	

APPROVED
By MCD at 8:17 pm, 11/8/18

REVIEWED
By HMK at 9:19 am, 11/13/18

Instrument Sensitivity Check/ Continuing Calibration Verfication

ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV4-5 11/8/2018 8:11:42 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	CCV4_ISC_CAL2	CALMOD21833F	18NOV08D-40.wiff	2018-11-08T17:40:25

Analyte Name	Analyte Area	Sc /pk	Ext Std Name	Ext Std Area	Ext Std con	Area Ratio	RT (min)	RRT	Spec Amt	Calc Amt	% Diff	% Diff Lim	% Diff OOS
PFBA	71135.9	10	13C4-PFBA	758490.2	5.0	0.094	3.26	1.000	0.500	0.549	10	30	
PFPeA	72338.3	12	13C5-PFPeA	796178.3	5.0	0.091	3.76	1.000	0.500	0.540	8	30	
PFBS	38962.2	11	13C3-PFBS	439687.2	4.7	0.089	3.81	1.000	0.440	0.447	2	30	
4:2-FTS	7935.5	11	13C2-4:2-FTS	45130.9	4.7	0.176	4.12	1.000	0.467	0.473	1	30	
PFHxA	86823.7	12	13C5-PFHxA	658118.0	5.0	0.132	4.16	1.000	0.500	0.566	13	30	
PFPeS	18225.4	12	13C3-PFBS	439687.2	4.7	0.041	4.18	1.100	0.469	0.409	-13	30	
PFHxS	30436.8	11	13C3-PFHxS	335388.2	4.7	0.091	4.55	1.000	0.473	0.460	-3	30	
PFHpA	87048.0	12	13C4-PFHpA	554579.1	5.0	0.157	4.54	1.000	0.500	0.528	6	30	
6:2-FTS	7451.7	11	13C2-6:2-FTS	34720.1	4.8	0.215	4.90	1.000	0.474	0.535	13	30	
PFHpS	29558.5	11	13C3-PFHxS	335388.2	4.7	0.088	4.91	1.080	0.476	0.461	-3	30	
PFOA	94273.4	11	13C8-PFOA	894014.9	5.0	0.105	4.92	1.000	0.500	0.594	19	30	
PFOS	26920.7	12	13C8-PFOS	292041.8	4.8	0.092	5.24	1.000	0.478	0.478	0	30	
PFNA	73513.8	11	13C9-PFNA	499993.8	5.0	0.147	5.26	1.000	0.500	0.549	10	30	
PFNS	18753.7	10	13C8-PFOS	292041.8	4.8	0.064	5.54	1.060	0.480	0.509	6	30	
PFDA	59956.3	11	13C6-PFDA	629306.4	5.0	0.095	5.56	1.000	0.500	0.524	5	30	
8:2-FTS	5739.8	10	13C2-8:2-FTS	27668.8	4.8	0.207	5.56	1.000	0.479	0.468	-2	30	
PFOSA	70019.5	11	13C8-PFOSA	689669.8	5.0	0.102	5.64	1.000	0.500	0.549	10	30	
NMeFOSAA	6769.4	11	d3-NMeFOSAA	77700.3	5.0	0.087	5.70	1.000	0.500	0.448	-10	30	
PFDS	13804.3	12	13C8-PFOS	292041.8	4.8	0.047	5.80	1.110	0.482	0.452	-6	30	
PFUnDA	45417.9	12	13C7-PFUnDA	257619.3	5.0	0.176	5.82	1.000	0.500	0.506	1	30	
NEtFOSAA	6695.2	11	d5-NEtFOSAA	62135.1	5.0	0.108	5.84	1.000	0.500	0.463	-7	30	
PFDoDA	52122.1	12	13C2-PFDoDA	537706.0	5.0	0.097	6.05	1.000	0.500	0.525	5	30	
10:2-FTS	3386.5	10	13C2-8:2-FTS	27668.8	4.8	0.122	6.06	1.090	0.482	0.381	-21	30	
NMePFOSAE	40293.3	12	d7-NMePFOSAE	323049.0	5.0	0.125	6.10	1.000	0.500	0.559	12	30	
NMePFOSA	8778.3	13	d3-NMePFOSA	84426.7	5.0	0.104	6.11	1.000	0.500	0.582	16	30	
PFDoS	6600.7	10	13C8-PFOS	292041.8	4.8	0.023	6.22	1.190	0.484	0.436	-10	30	
NEtPFOSAE	47947.6	12	d9-NEtPFOSAE	266850.4	5.0	0.180	6.26	1.000	0.500	0.576	15	30	
NEtPFOSA	7258.7	12	d5-NEtPFOSA	69004.1	5.0	0.105	6.27	1.000	0.500	0.463	-7	30	
PFTrDA	42986.2	11	13C2-PFDoDA	537706.0	5.0	0.080	6.25	1.030	0.500	0.504	1	30	
PFTeDA	37173.2	10	13C2-PFTeDA	403628.3	5.0	0.092	6.43	1.000	0.500	0.541	8	30	
PFHxDA	16835.8	11	13C2-PFTeDA	403628.3	5.0	0.042	6.73	1.050	0.500	0.518	4	30	
PFODA	14724.1	10	13C2-PFTeDA	403628.3	5.0	0.036	6.99	1.090	0.500	0.523	5	30	

APPROVED
By MCD at 8:17 pm, 11/8/18

REVIEWED
By HMK at 9:19 am, 11/13/18

Instrument Sensitivity Check/ Continuing Calibration Verfication

ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV4-5 11/8/2018 8:11:42 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

APPROVED
By MCD at 8:17 pm, 11/8/18

REVIEWED
By HMK at 9:19 am, 11/13/18

ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18NOV08DCCV4-5 11/8/2018 8:13:38 PM
Acquisition Method: 18AUG13_3uL.dam

Sample Name:	CCV4_ISC_CAL2			**Data File:**		18NOV08D-40.wiff
Sample ID:	CALMOD21833F			**Acquis Date:**		2018-11-08T17:40:25
Sample Type:	Quality Control			**Instrument:**		LM27631
Vial Position:	4			**Acquis Method:**		18AUG13_3uL.dam
Injection Vol:	3.00			**Result Table:**		18NOV08DCCV4-5
QMethod File:	MQ4-18AUG13			**ICAL Name:**		18NOV07DCAL
Batch Number:	N/A			**Operator:**		MCD7824
Sample Wt.:	1.00000			**Dilution Factor:**		1.00
Sample Vol.:	1.000			**Prep Factor:**		1.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV08D-05

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Rreference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	710410.4	728839.7	-3	50	
13C2-PFOA	5.0	503275.9	491983.1	2	50	
13C4-PFOS	4.8	281882.8	255568.1	10	50	
13C2-PFDA	5.0	326769.5	315407.5	4	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	758490.2	13C3-PFBA	710410.4	1.068	5.000	4.941	99	70-130	
E13C5-PFPeA	796178.3	13C3-PFBA	710410.4	1.121	5.000	4.882	98	70-130	
E13C3-PFBS	439687.1	13C3-PFBA	710410.4	0.619	4.650	4.542	98	70-130	
E13C2-4:2-FTS	45130.9	13C2-PFOA	503275.9	0.090	4.670	4.046	87	70-130	
E13C5-PFHxA	658118.0	13C2-PFOA	503275.9	1.308	5.000	4.810	96	70-130	
E13C3-PFHxS	335388.2	13C2-PFOA	503275.9	0.666	4.730	4.784	101	70-130	
E13C4-PFHpA	554579.1	13C2-PFOA	503275.9	1.102	5.000	5.013	100	70-130	
E13C2-6:2-FTS	34720.1	13C2-PFOA	503275.9	0.069	4.750	4.600	97	70-130	
E13C8-PFOA	894014.9	13C2-PFOA	503275.9	1.776	5.000	4.954	99	70-130	
E13C8-PFOS	292041.8	13C4-PFOS	281882.8	1.036	4.780	4.581	96	70-130	
E13C9-PFNA	499993.8	13C4-PFOS	281882.8	1.774	5.000	4.845	97	70-130	
E13C6-PFDA	629306.4	13C2-PFDA	326769.5	1.926	5.000	4.843	97	70-130	
E13C2-8:2-FTS	27668.8	13C2-PFDA	326769.5	0.085	4.790	4.480	94	70-130	
E13C8-PFOSA	689669.8	13C2-PFDA	326769.5	2.111	5.000	4.606	92	70-130	
Ed3-NMeFOSAA	77700.3	13C2-PFDA	326769.5	0.238	5.000	4.422	88	70-130	
E13C7-PFUnDA	257619.3	13C2-PFDA	326769.5	0.788	5.000	4.548	91	70-130	
Ed5-NEtFOSAA	62135.1	13C2-PFDA	326769.5	0.190	5.000	4.400	88	70-130	
E13C2-PFDoDA	537706.0	13C2-PFDA	326769.5	1.646	5.000	4.436	89	70-130	
Ed7-NMePFOSAE	323049.0	13C2-PFDA	326769.5	0.989	5.000	4.597	92	70-130	
Ed3-NMePFOSA	84426.7	13C2-PFDA	326769.5	0.258	5.000	4.730	95	70-130	
Ed9-NEtPFOSAE	266850.4	13C2-PFDA	326769.5	0.817	5.000	4.664	93	70-130	
Ed5-NEtPFOSA	69004.1	13C2-PFDA	326769.5	0.211	5.000	4.890	98	70-130	
E13C2-PFTeDA	403628.3	13C2-PFDA	326769.5	1.235	5.000	4.447	89	70-130	

APPROVED
By MCD at 8:17 pm, 11/8/18

REVIEWED
By HMK at 9:19 am, 11/13/18

ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV4-5 11/8/2018 8:13:38 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

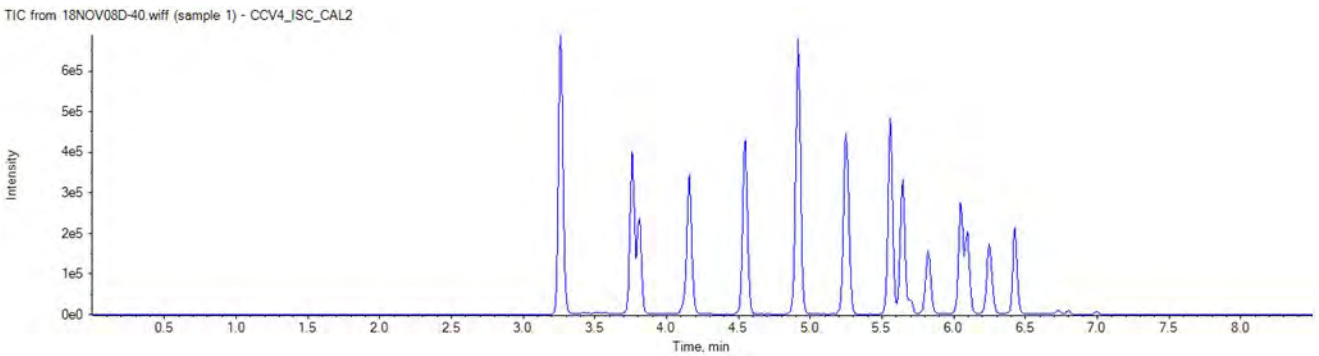
Analyte Quantitation Peak Table

Sample Name: CCV4_ISC_CAL2 **Instrument Name:** LM27631 **File Name:** 18NOV08D-40.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	1.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	3.26	1.000	71135.9		A	13C4-PFBA	3.26	758490.2	0.094	0.549
PFPeA	3.76	1.000	72338.3		A	13C5-PFPeA	3.76	796178.3	0.091	0.540
PFBS	3.81	1.000	38962.2		A	13C3-PFBS	3.81	439687.2	0.089	0.447
4:2-FTS	4.12	1.000	7935.5		A	13C2-4:2-FTS	4.12	45130.9	0.176	0.473
PFHxA	4.16	1.000	86823.7		A	13C5-PFHxA	4.16	658118.0	0.132	0.566
PFPeS	4.18	1.100	18225.4		A	13C3-PFBS	3.81	439687.2	0.041	0.409
PFHxS	4.55	1.000	30436.8		A	13C3-PFHxS	4.55	335388.2	0.091	0.460
PFHpA	4.54	1.000	87048.0		A	13C4-PFHpA	4.54	554579.1	0.157	0.528
6:2-FTS	4.90	1.000	7451.7		A	13C2-6:2-FTS	4.90	34720.1	0.215	0.535
PFHpS	4.91	1.080	29558.5		A	13C3-PFHxS	4.55	335388.2	0.088	0.461
PFOA	4.92	1.000	94273.4		M	13C8-PFOA	4.92	894014.9	0.105	0.594
PFOS	5.24	1.000	26920.7		A	13C8-PFOS	5.24	292041.8	0.092	0.478
PFNA	5.26	1.000	73513.8		A	13C9-PFNA	5.26	499993.8	0.147	0.549
PFNS	5.54	1.060	18753.7		A	13C8-PFOS	5.24	292041.8	0.064	0.509
PFDA	5.56	1.000	59956.3		A	13C6-PFDA	5.56	629306.4	0.095	0.524
8:2-FTS	5.56	1.000	5739.8		A	13C2-8:2-FTS	5.56	27668.8	0.207	0.468
PFOSA	5.64	1.000	70019.5		A	13C8-PFOSA	5.64	689669.8	0.102	0.549
NMeFOSAA	5.70	1.000	6769.4		A	d3-NMeFOSAA	5.70	77700.3	0.087	0.448
PFDS	5.80	1.110	13804.3		A	13C8-PFOS	5.24	292041.8	0.047	0.452
PFUnDA	5.82	1.000	45417.9		A	13C7-PFUnDA	5.82	257619.3	0.176	0.506
NEtFOSAA	5.84	1.000	6695.2		M	d5-NEtFOSAA	5.83	62135.1	0.108	0.463
PFDoDA	6.05	1.000	52122.1		A	13C2-PFDoDA	6.05	537706.0	0.097	0.525
10:2-FTS	6.06	1.090	3386.5		A	13C2-8:2-FTS	5.56	27668.8	0.122	0.381
NMePFOSAE	6.10	1.000	40293.3		A	d7-NMePFOSAE	6.09	323049.0	0.125	0.559
NMePFOSA	6.11	1.000	8778.3		A	d3-NMePFOSA	6.10	84426.7	0.104	0.582
PFDoS	6.22	1.190	6600.7		A	13C8-PFOS	5.24	292041.8	0.023	0.436
NEtPFOSAE	6.26	1.000	47947.6		A	d9-NEtPFOSAE	6.24	266850.4	0.180	0.576
NEtPFOSA	6.27	1.000	7258.7		A	d5-NEtPFOSA	6.26	69004.1	0.105	0.463
PFTrDA	6.25	1.030	42986.2		A	13C2-PFDoDA	6.05	537706.0	0.080	0.504
PFTeDA	6.43	1.000	37173.2		A	13C2-PFTeDA	6.43	403628.3	0.092	0.541
PFHxDA	6.73	1.050	16835.8		A	13C2-PFTeDA	6.43	403628.3	0.042	0.518
PFODA	6.99	1.090	14724.1		A	13C2-PFTeDA	6.43	403628.3	0.036	0.523

Total Ion Chromatogram

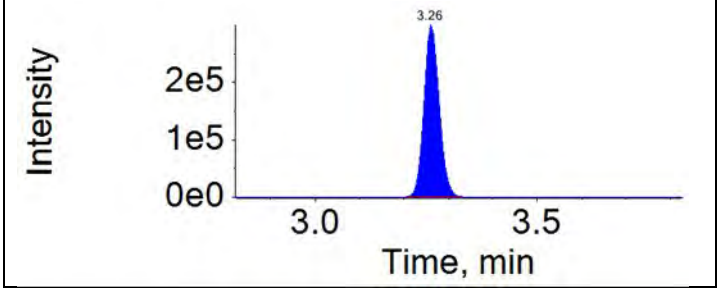


APPROVED
By MCD at 8:17 pm, 11/8/18

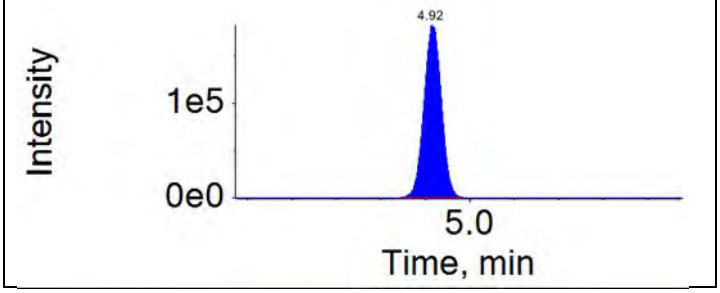
REVIEWED
By HMK at 9:19 am, 11/13/18

ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV4-5 11/8/2018 8:13:38 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

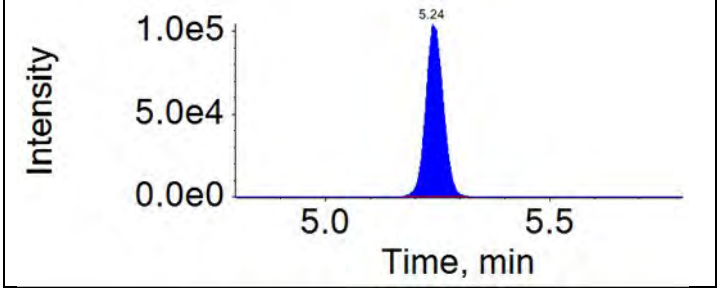
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216.0 / 172.0



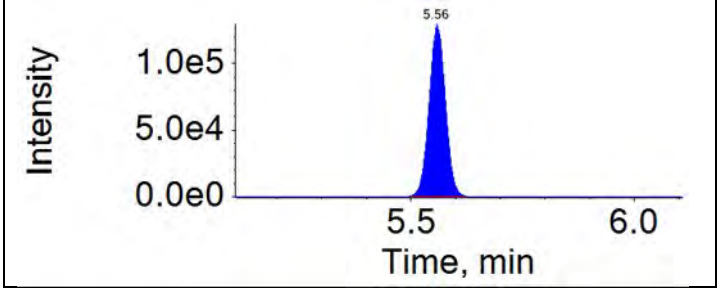
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0



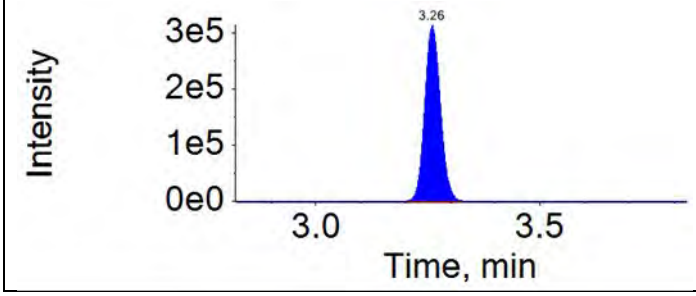
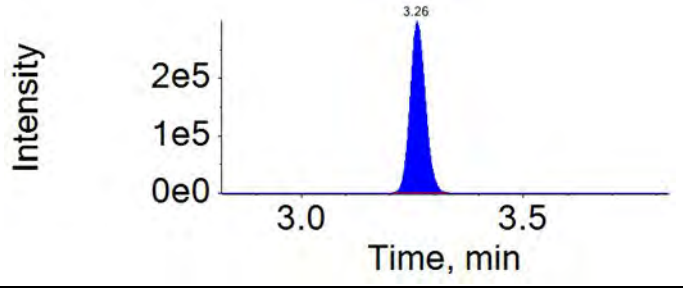
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515.0 / 470.0

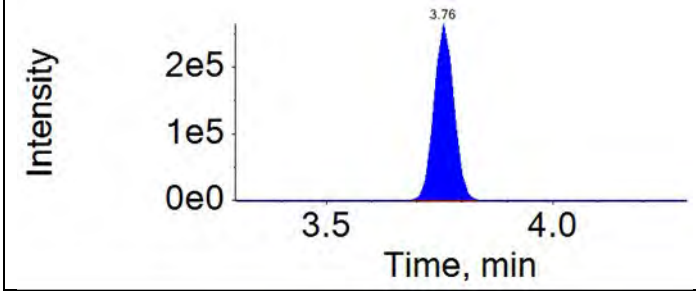
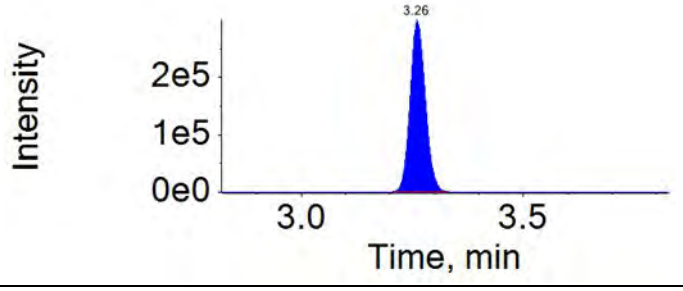


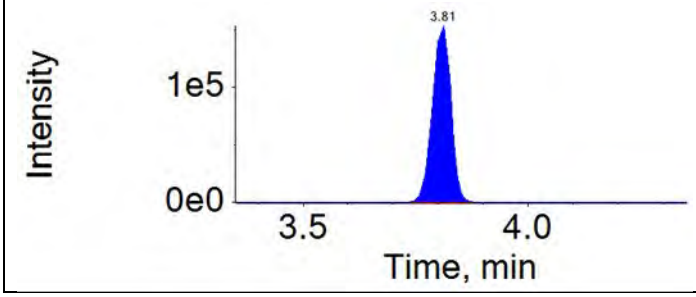
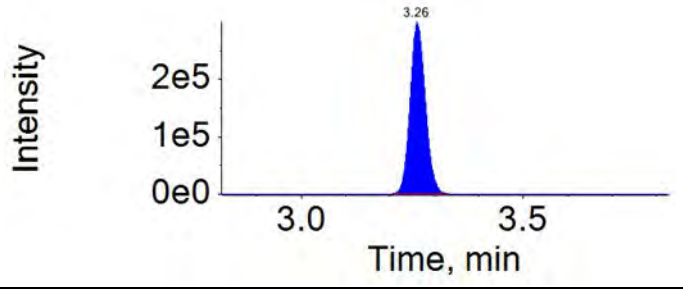
APPROVED
By MCD at 8:17 pm, 11/8/18

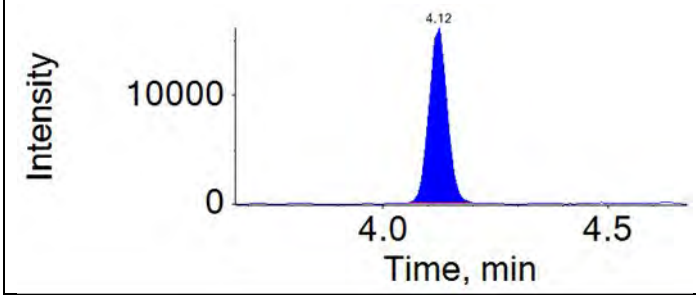
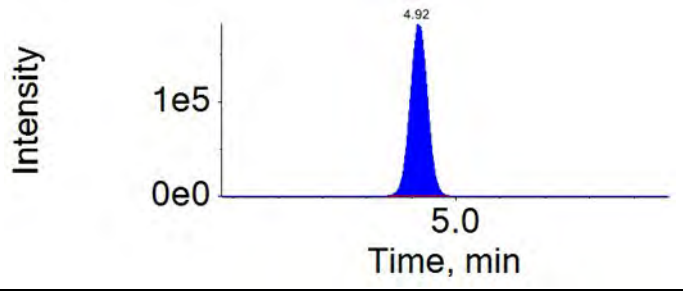
REVIEWED
By HMK at 9:19 am, 11/13/18

ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV4-5 11/8/2018 8:13:38 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0
	

Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0
	

Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0
	

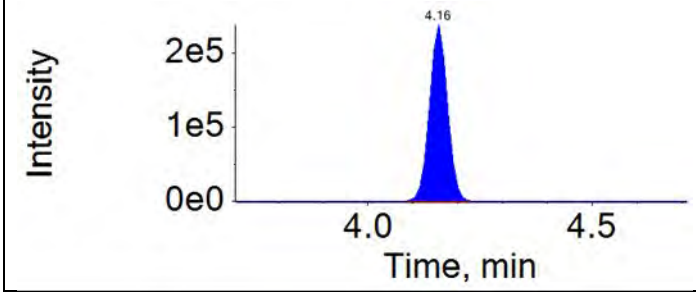
Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0
	

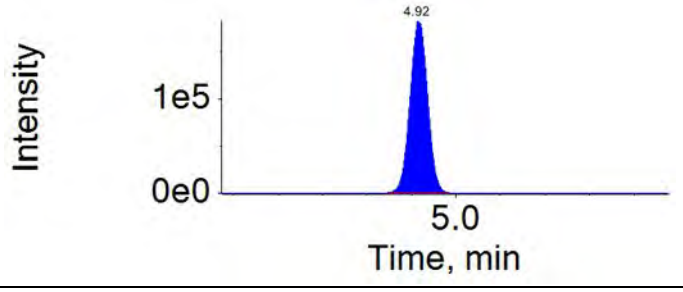
APPROVED
By MCD at 8:17 pm, 11/8/18

REVIEWED
By HMK at 9:19 am, 11/13/18

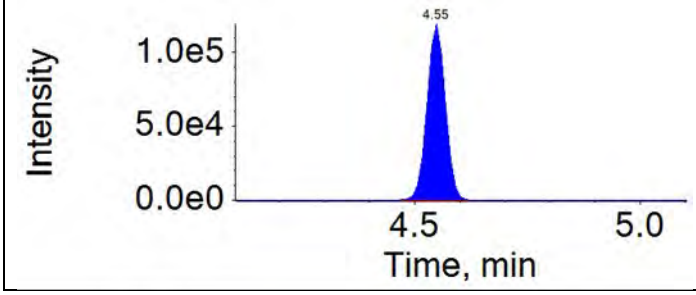
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV4-5 11/8/2018 8:13:38 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

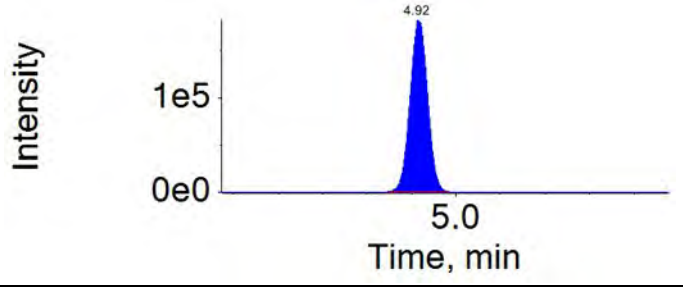
Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0



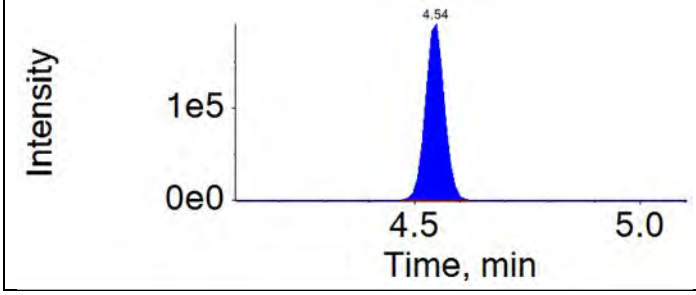


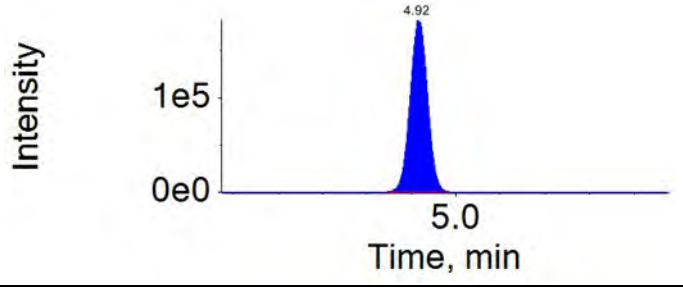
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0



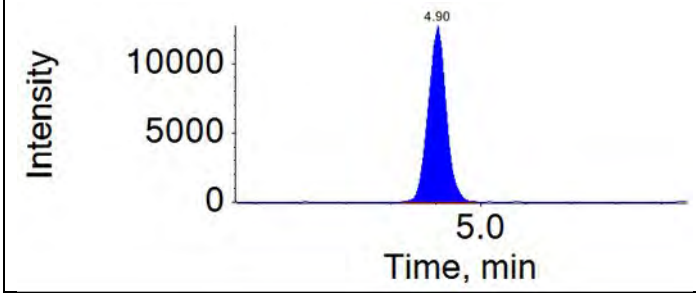


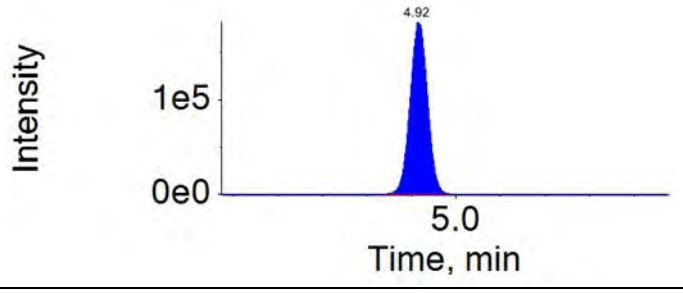
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0





Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0

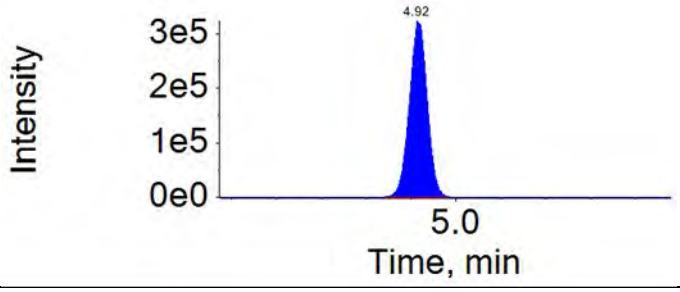
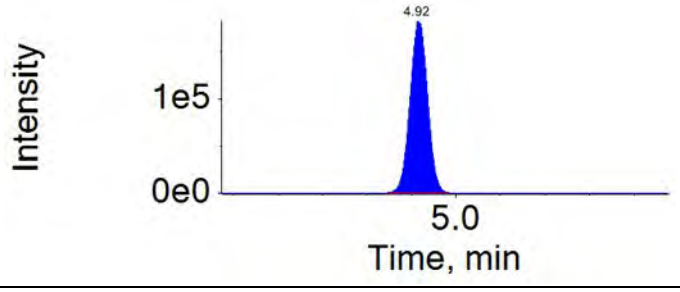


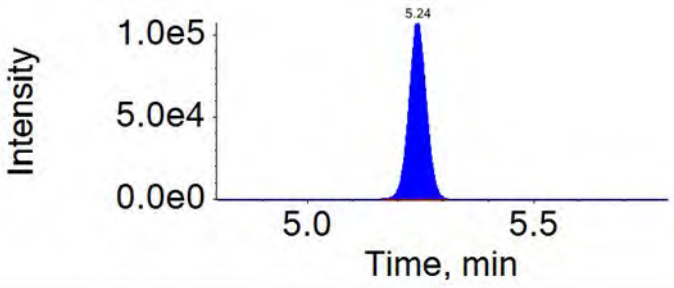
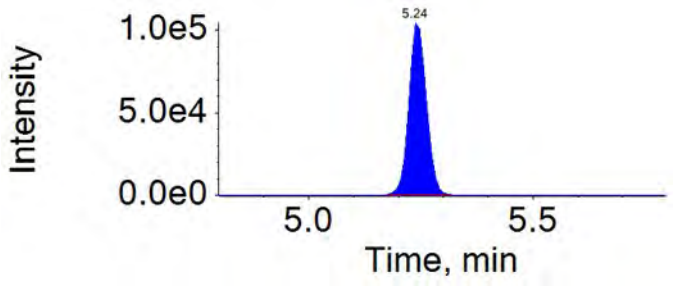


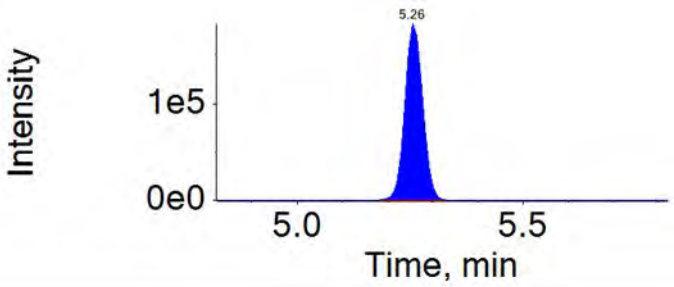
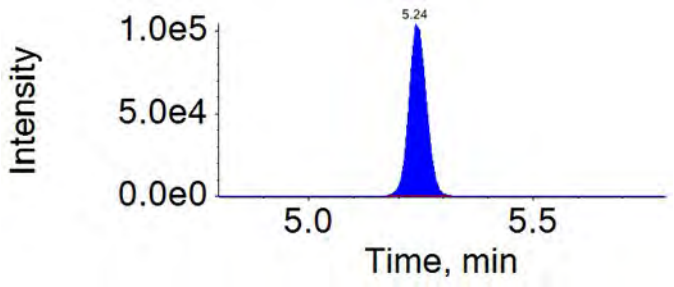
APPROVED
By MCD at 8:17 pm, 11/8/18

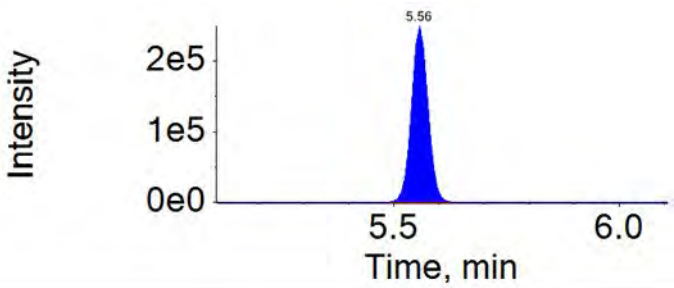
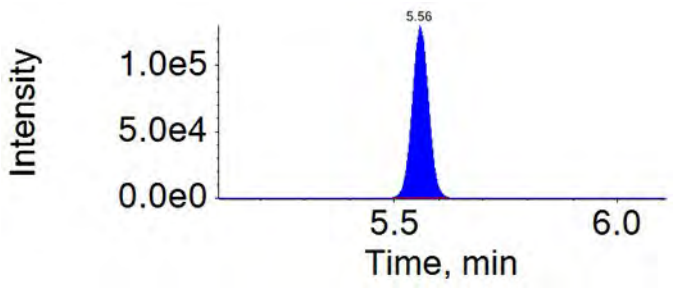
REVIEWED
By HMK at 9:19 am, 11/13/18

ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV4-5 11/8/2018 8:13:38 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

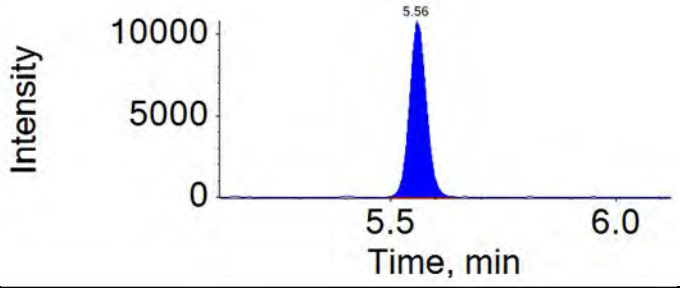
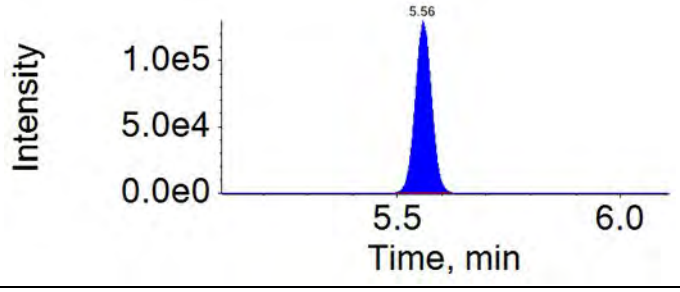
Extraction Standard: E13C8-PFOA	Injection Standard: 13C2-PFOA
421.0 / 376.0	415.0 / 370.0
	

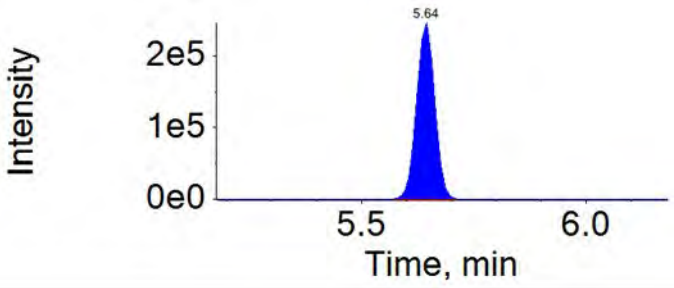
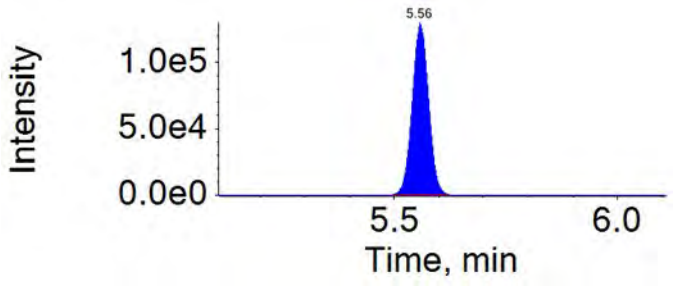
Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0
	

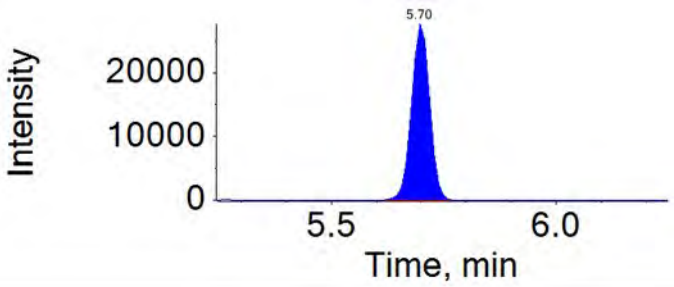
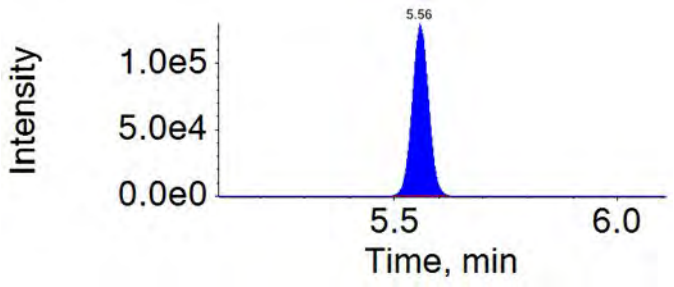
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0
	

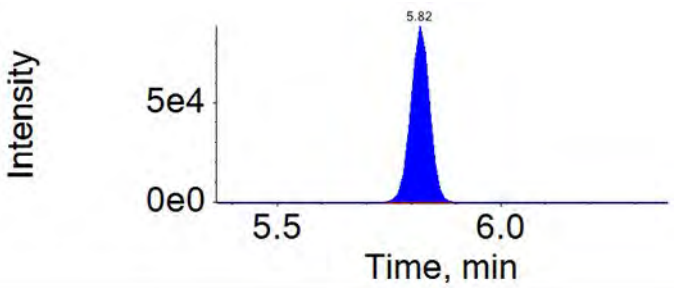
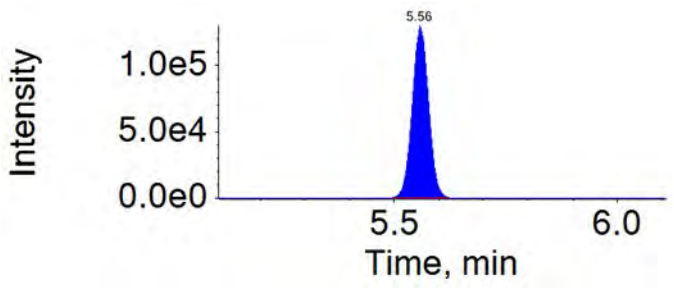
Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0
	

ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV4-5 11/8/2018 8:13:38 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: E13C2-8:2-FTS	Injection Standard: 13C2-PFDA
529.0 / 81.0	515.0 / 470.0
	

Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0
	

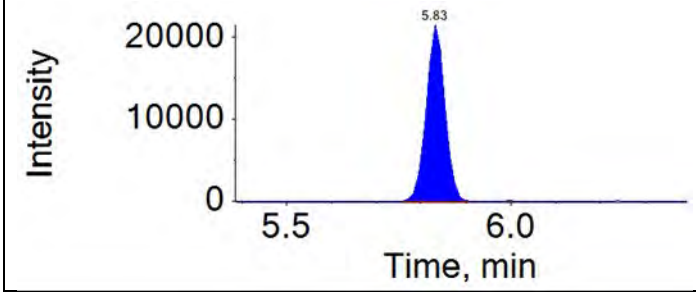
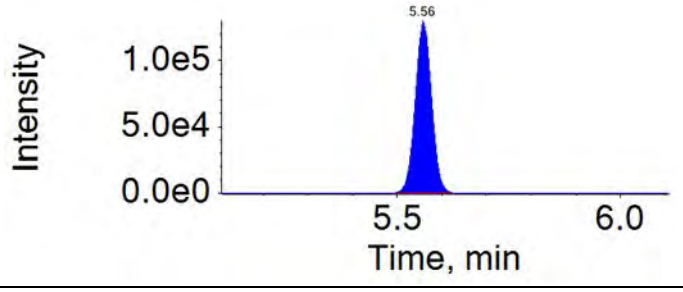
Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0
	

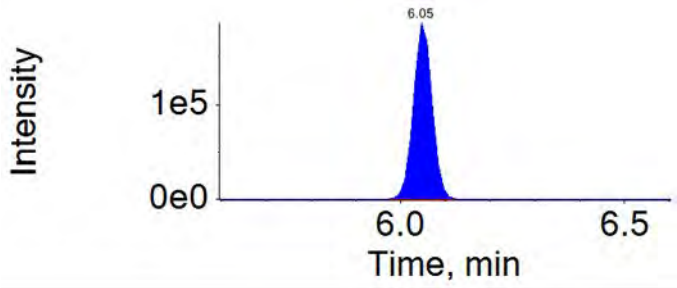
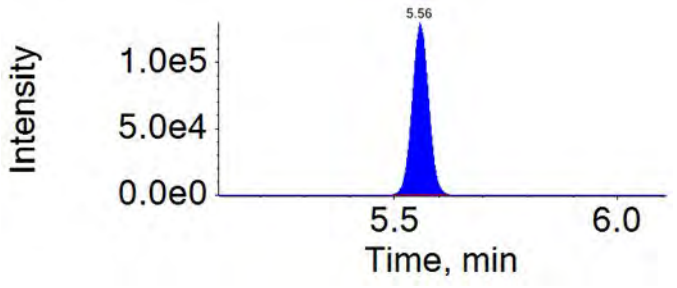
Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0
	

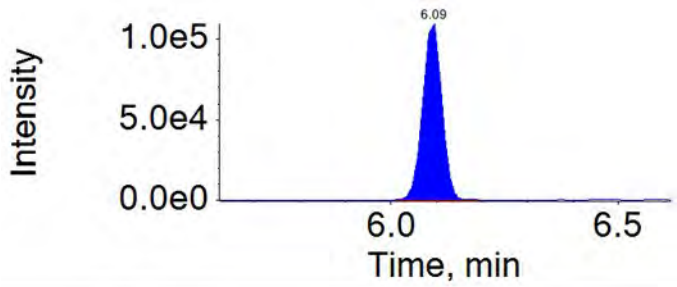
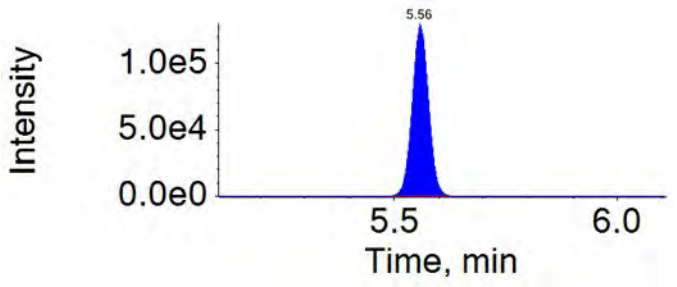
APPROVED
By MCD at 8:17 pm, 11/8/18

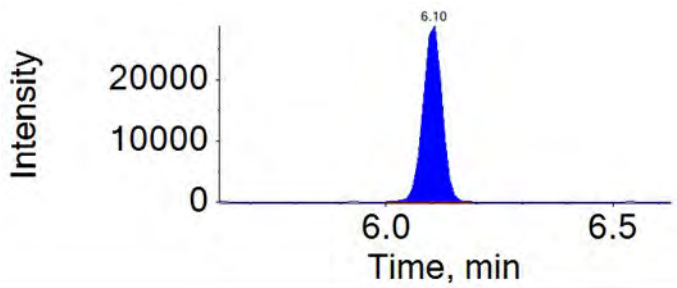
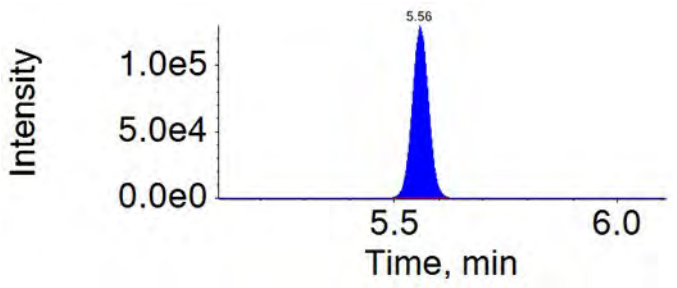
REVIEWED
By HMK at 9:19 am, 11/13/18

ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV4-5 11/8/2018 8:13:38 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0
	

Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0
	

Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0
	

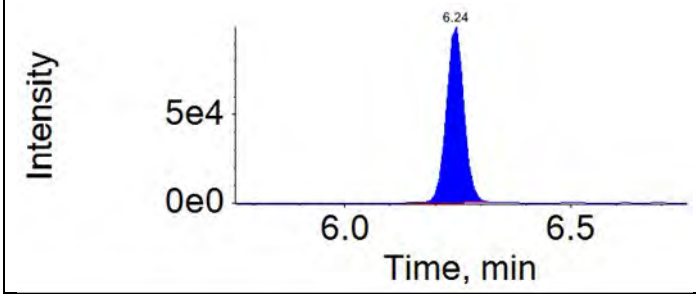
Extraction Standard: Ed3-NMePFOSA	Injection Standard: 13C2-PFDA
515.0 / 169.0	515.0 / 470.0
	

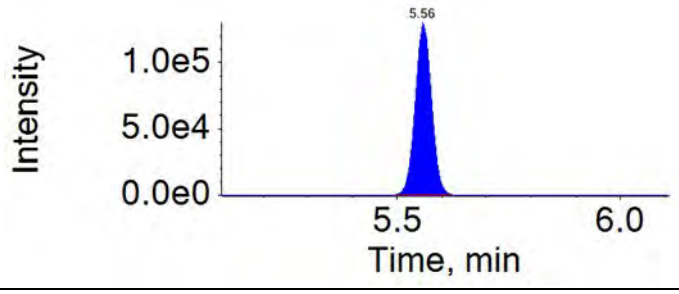
APPROVED
By MCD at 8:17 pm, 11/8/18

REVIEWED
By HMK at 9:19 am, 11/13/18

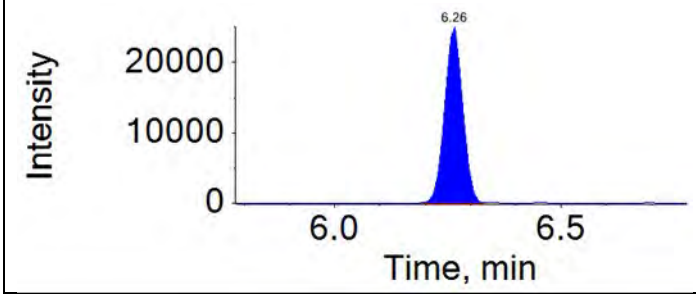
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV4-5 11/8/2018 8:13:38 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

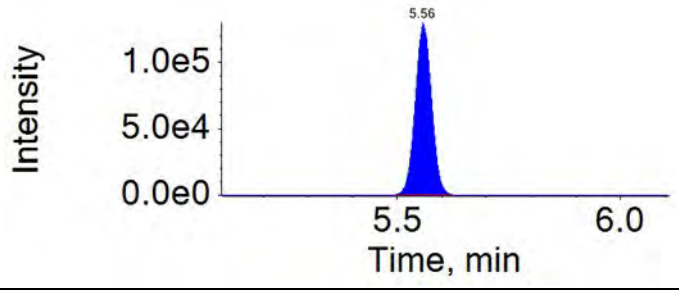
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



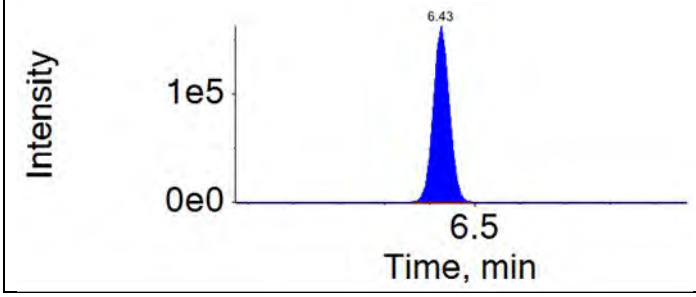


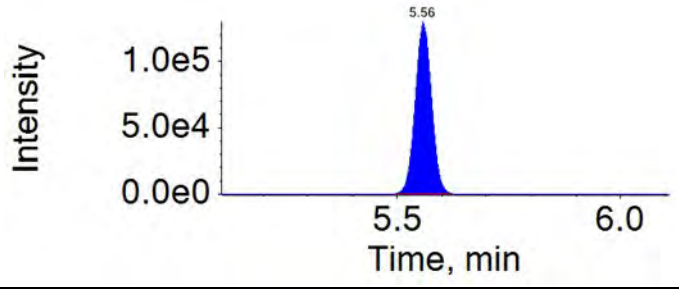
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0



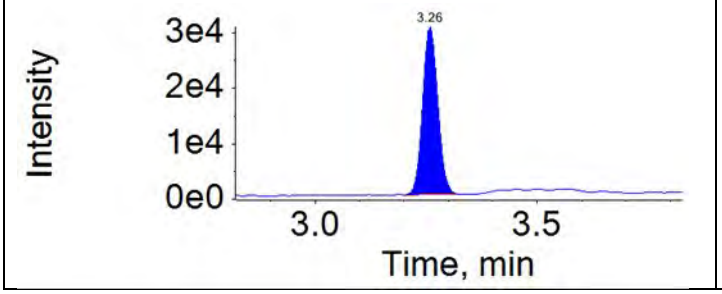


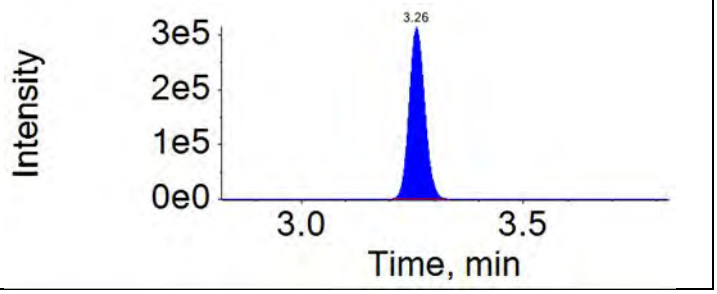
APPROVED
By MCD at 8:17 pm, 11/8/18

REVIEWED
By HMK at 9:19 am, 11/13/18

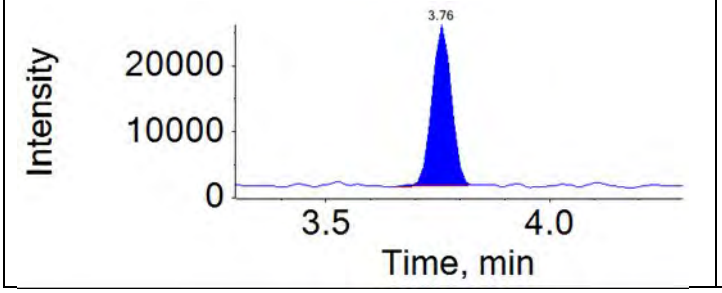
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV4-5 11/8/2018 8:13:38 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

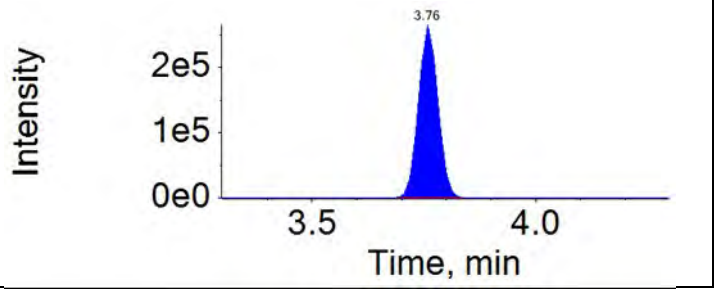
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



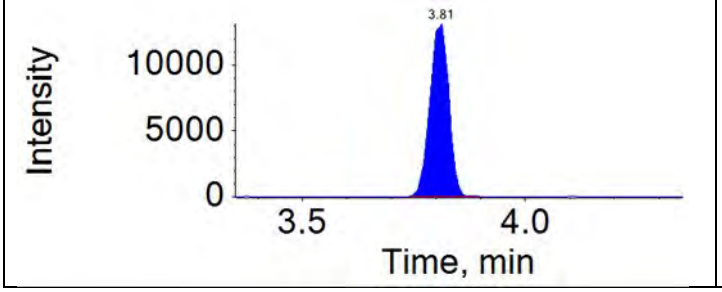


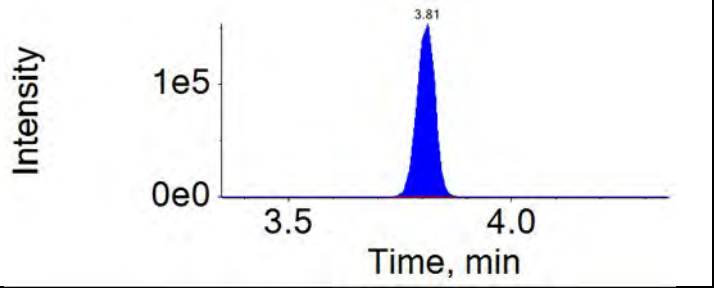
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



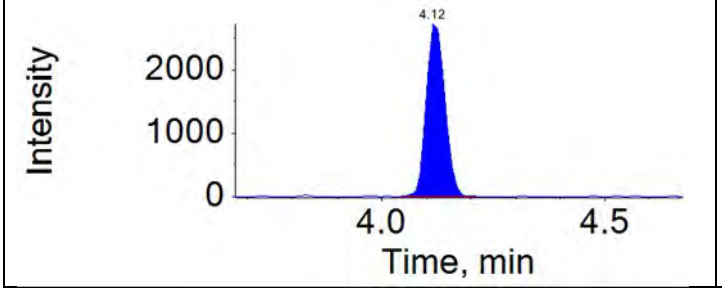


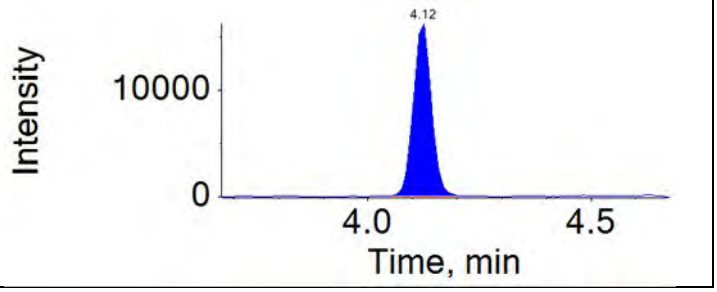
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





Analyte: 4:2-FTS	Extraction Standard: 13C2-4:2-FTS
327.0 / 307.0	329.0 / 81.0



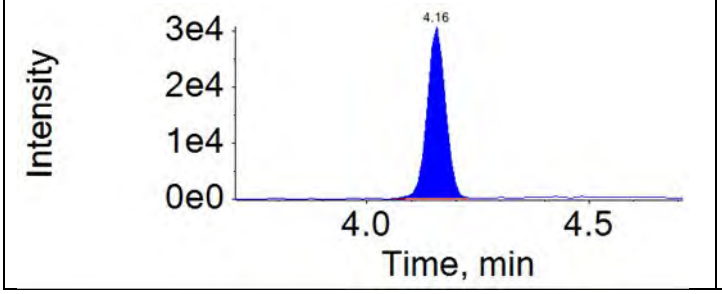


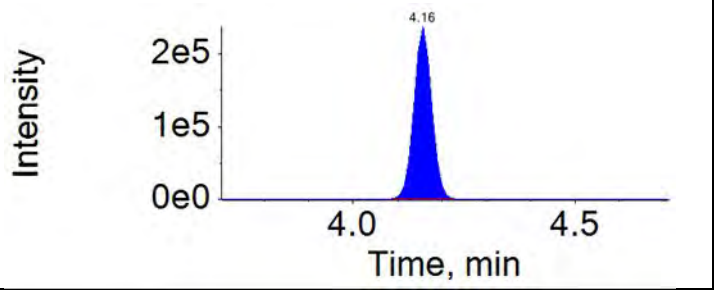
APPROVED
By MCD at 8:17 pm, 11/8/18

REVIEWED
By HMK at 9:19 am, 11/13/18

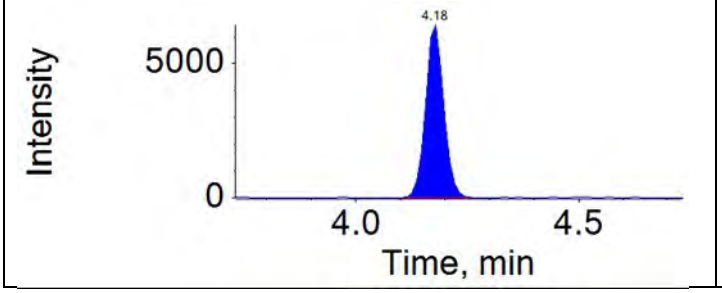
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV4-5 11/8/2018 8:13:38 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

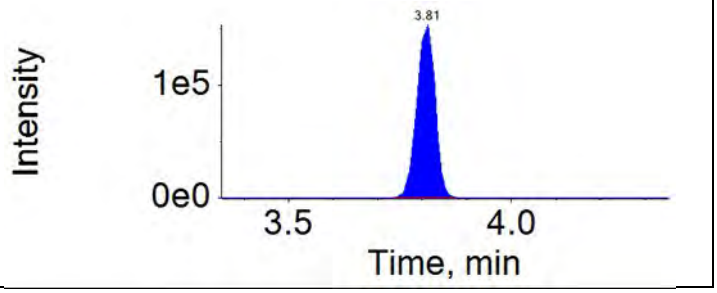
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



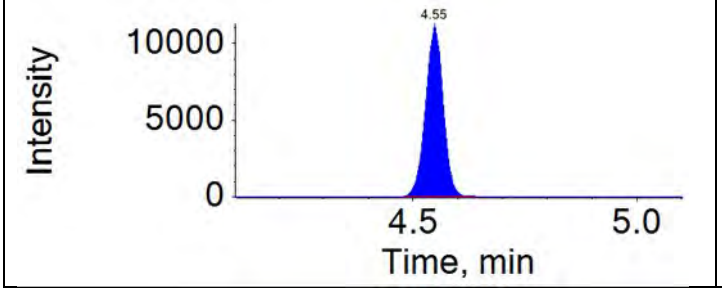


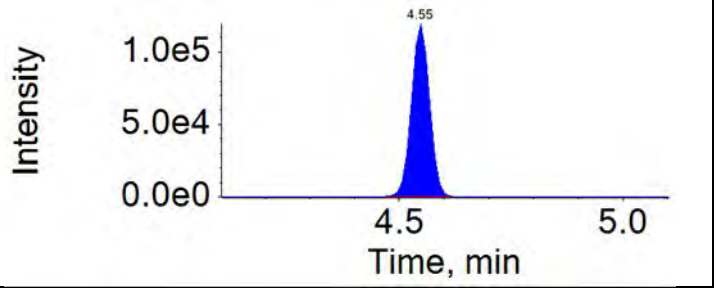
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



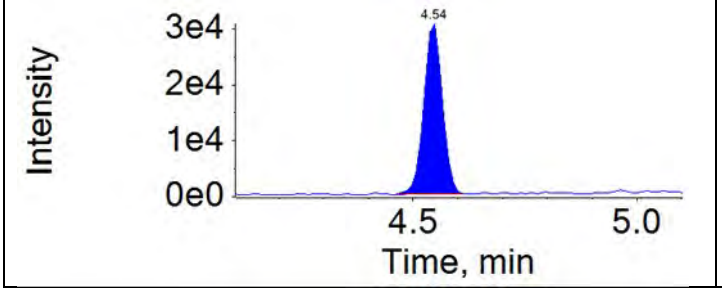


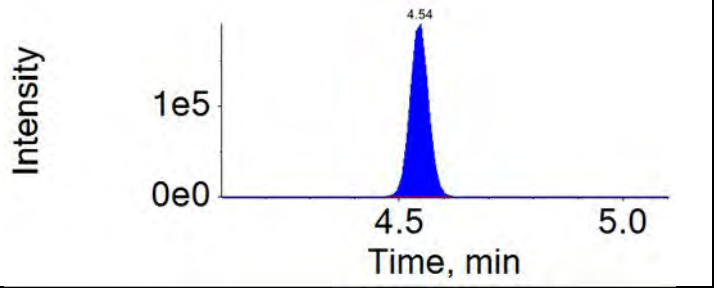
Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0





Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0



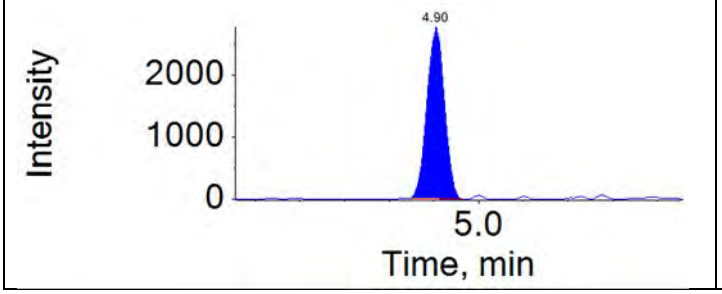


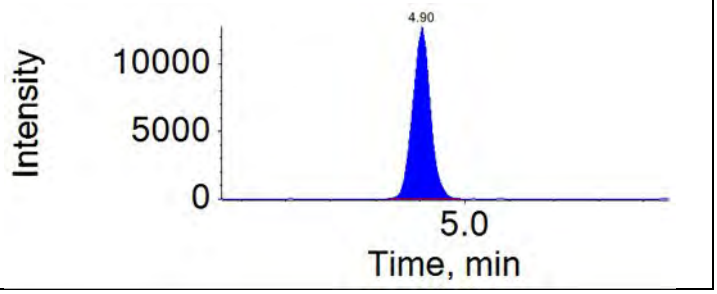
APPROVED
By MCD at 8:17 pm, 11/8/18

REVIEWED
By HMK at 9:19 am, 11/13/18

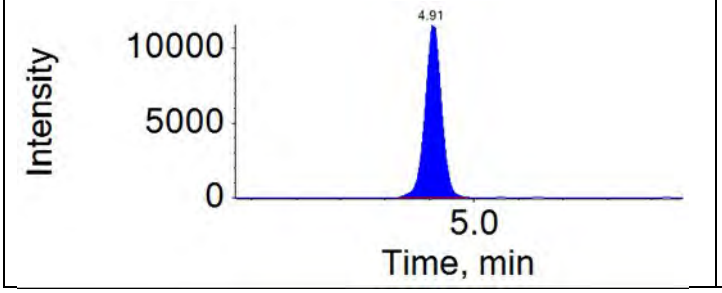
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV4-5 11/8/2018 8:13:38 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

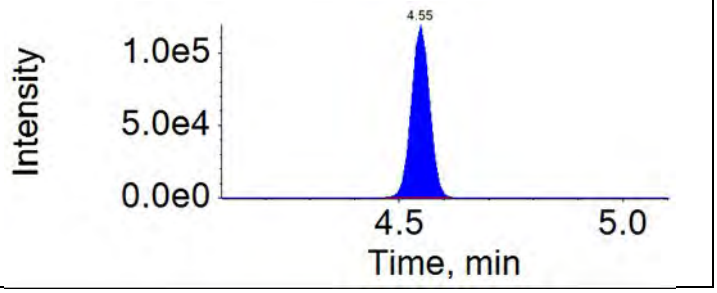
Analyte: 6:2-FTS	Extraction Standard: 13C2-6:2-FTS
427.0 / 407.0	429.0 / 81.0



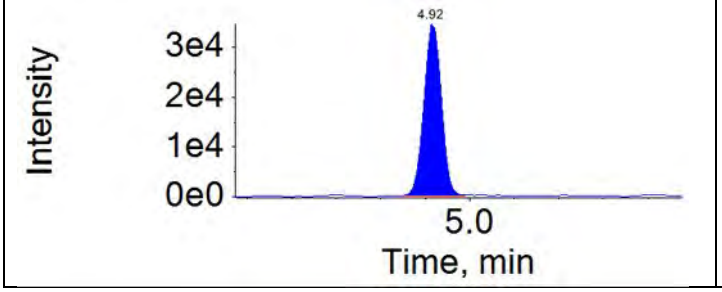


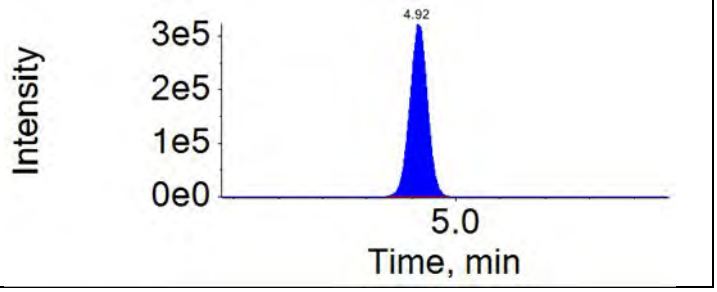
Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0



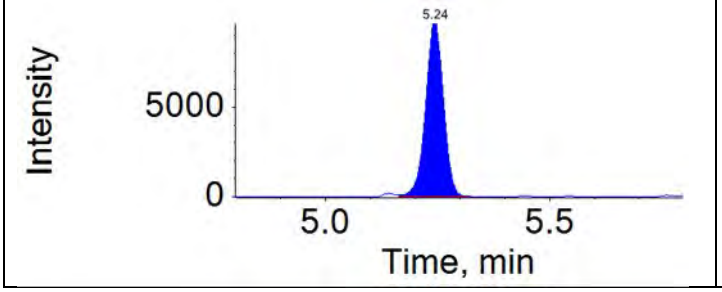


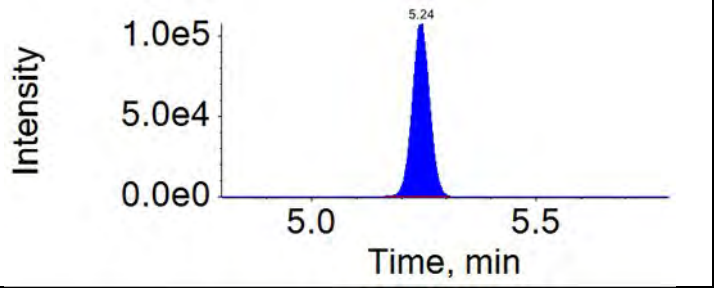
Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0





Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0



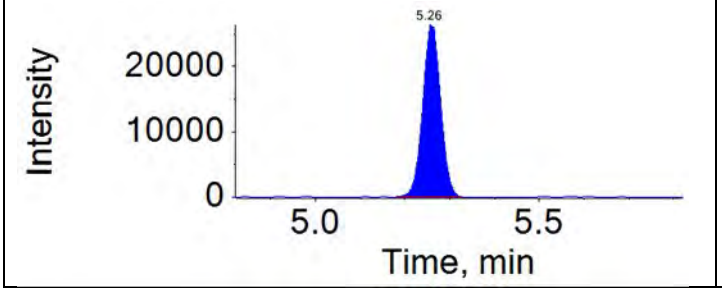


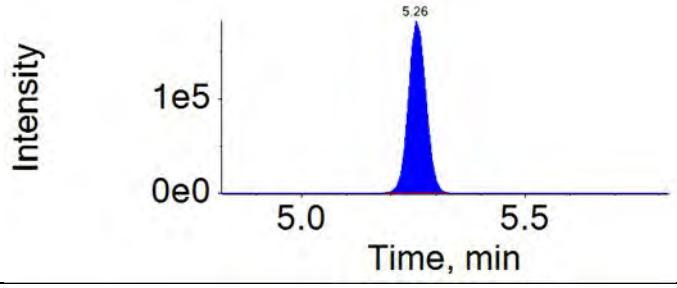
APPROVED
By MCD at 8:17 pm, 11/8/18

REVIEWED
By HMK at 9:19 am, 11/13/18

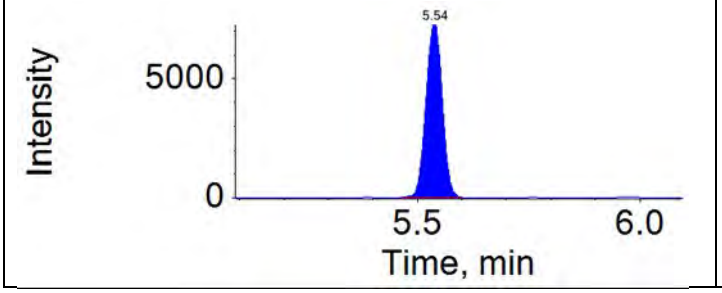
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV4-5 11/8/2018 8:13:38 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

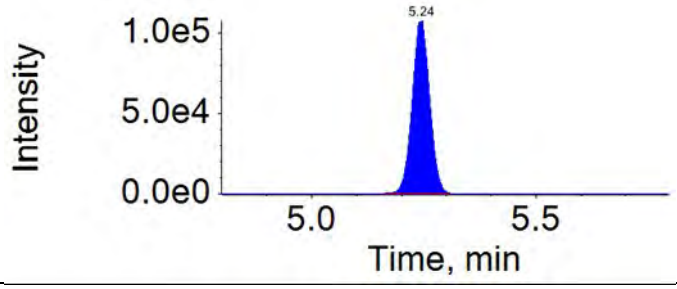
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



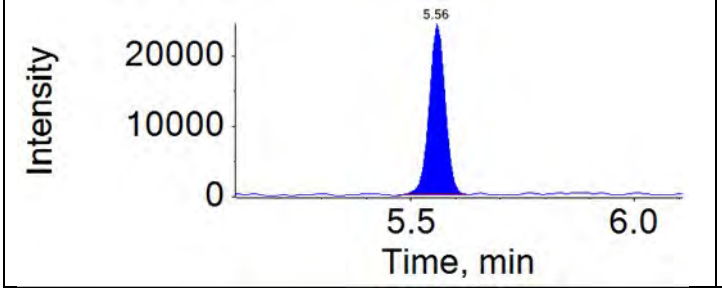


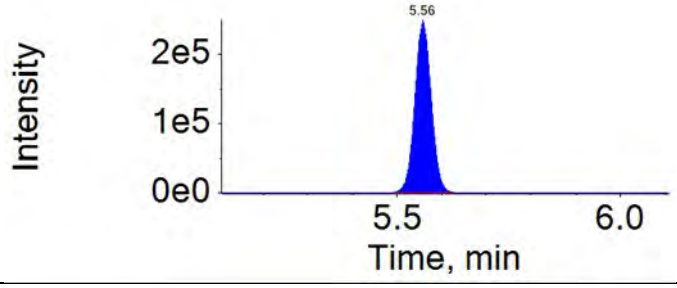
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



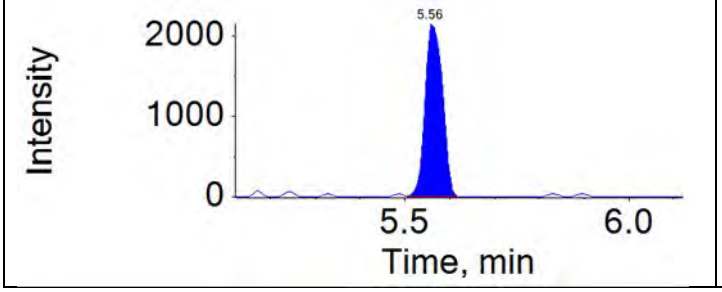


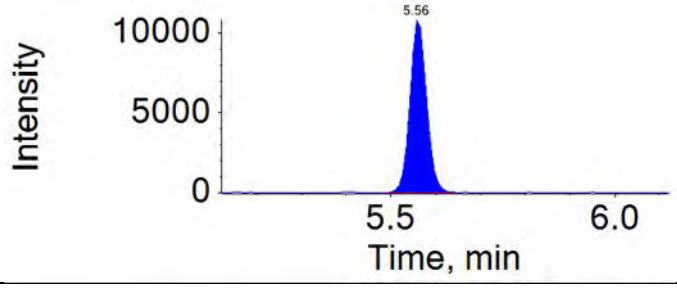
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





Analyte: 8:2-FTS	Extraction Standard: 13C2-8:2-FTS
527.0 / 507.0	529.0 / 81.0



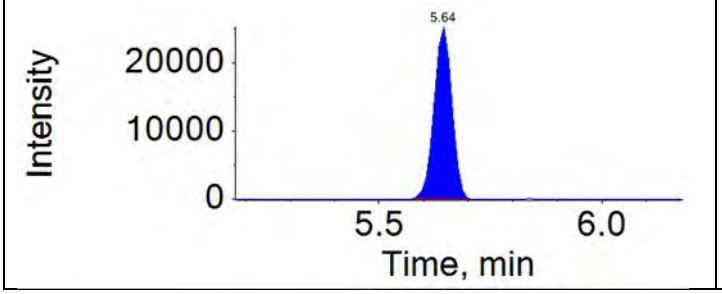


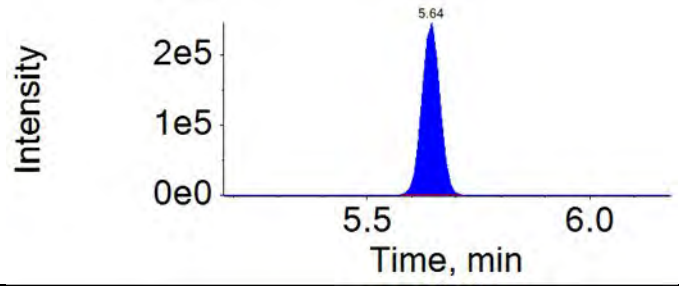
APPROVED
By MCD at 8:17 pm, 11/8/18

REVIEWED
By HMK at 9:19 am, 11/13/18

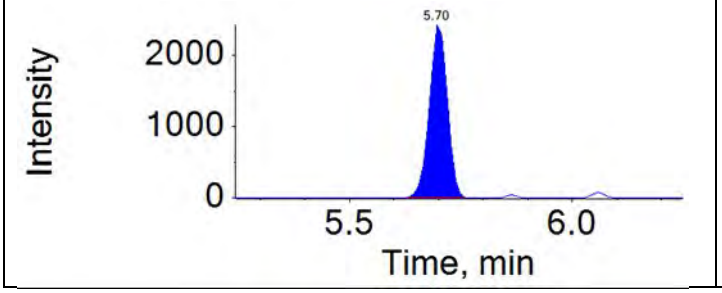
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV4-5 11/8/2018 8:13:38 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

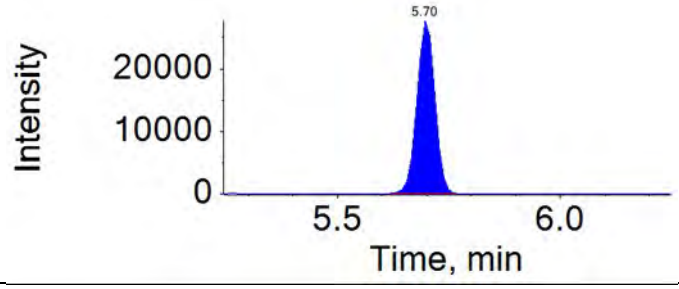
Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0



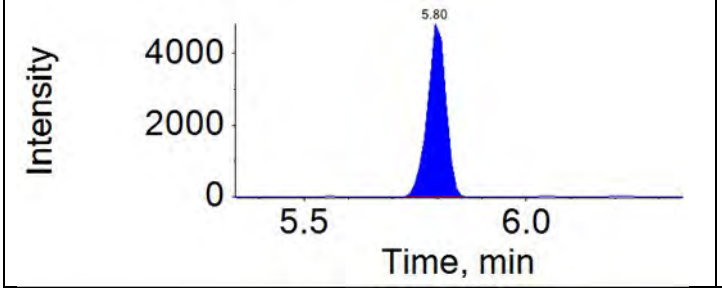


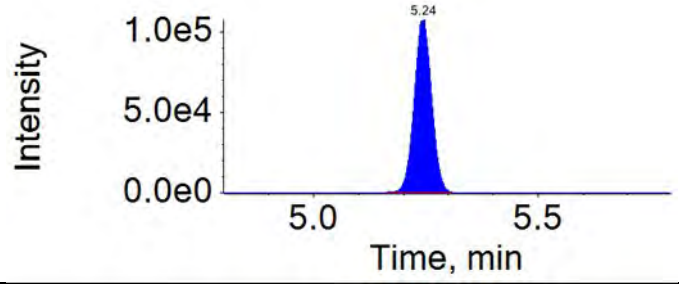
Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0



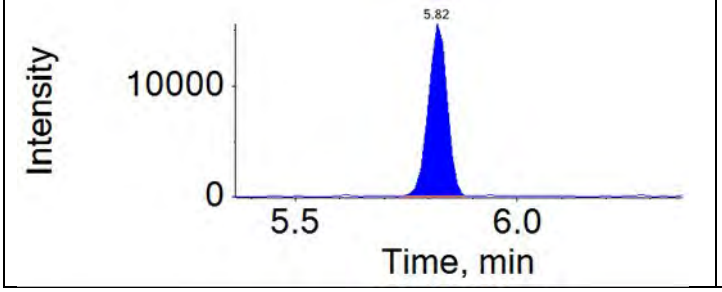


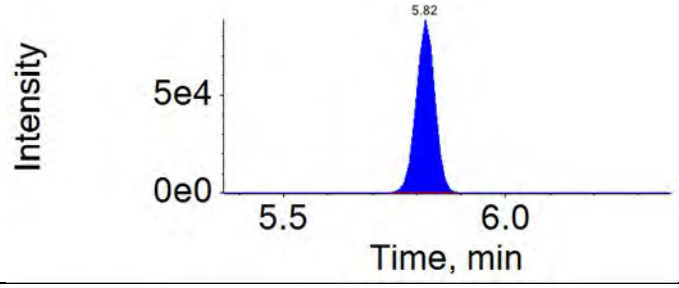
Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0





Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0



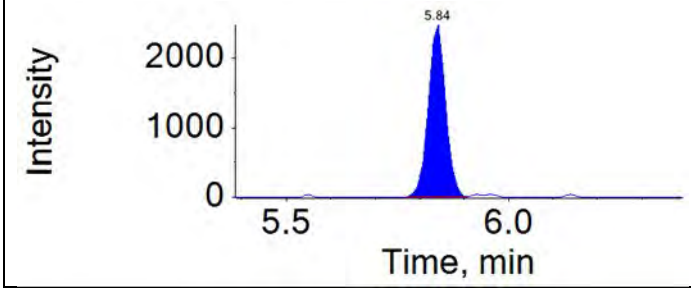


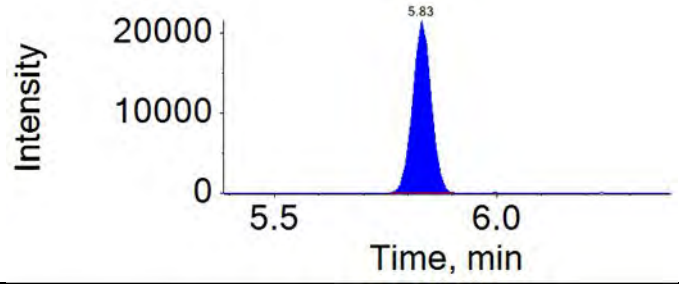
APPROVED
By MCD at 8:17 pm, 11/8/18

REVIEWED
By HMK at 9:19 am, 11/13/18

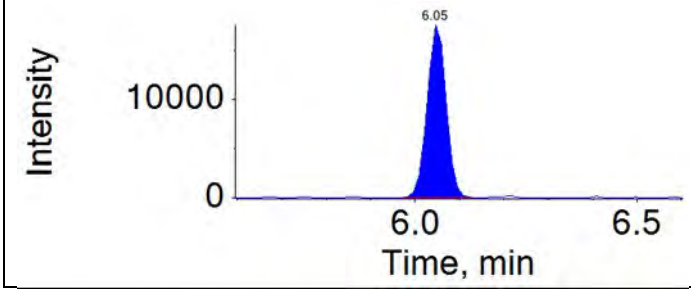
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV4-5 11/8/2018 8:13:38 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

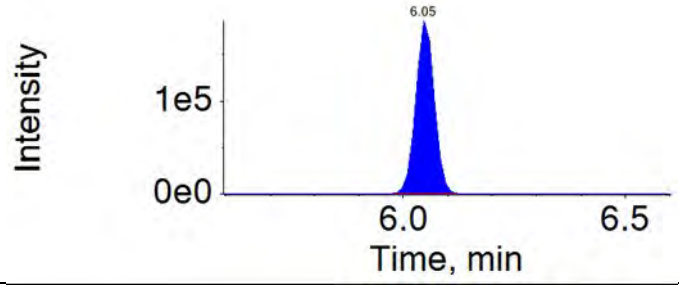
Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0



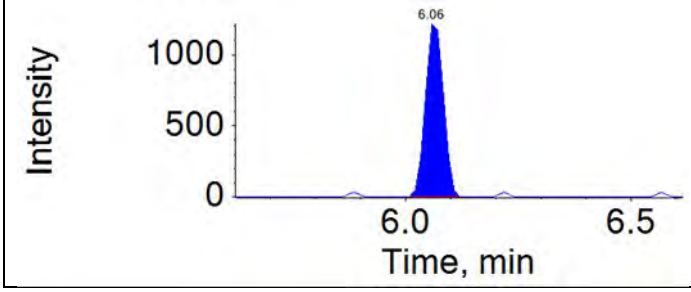


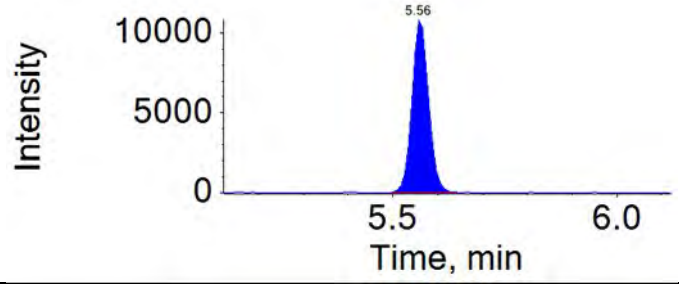
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0



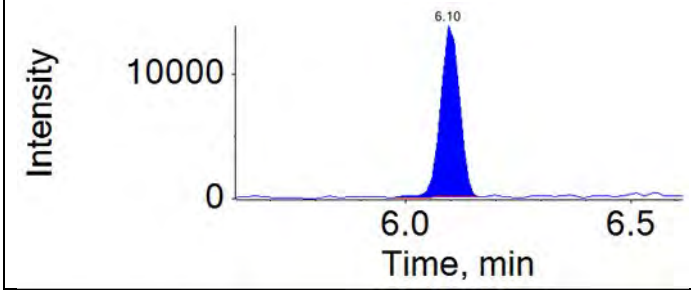


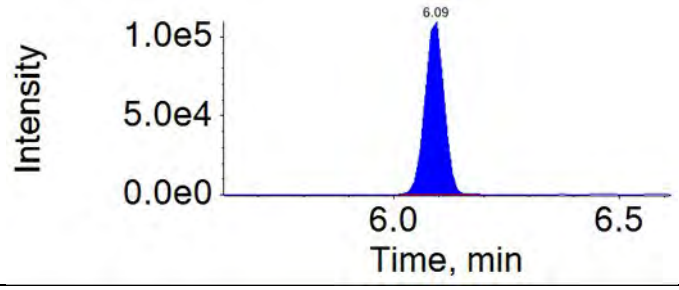
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0





Analyte: NMePFOSAE	Extraction Standard: d7-NMePFOSAE
616.0 / 59.0	623.0 / 59.0



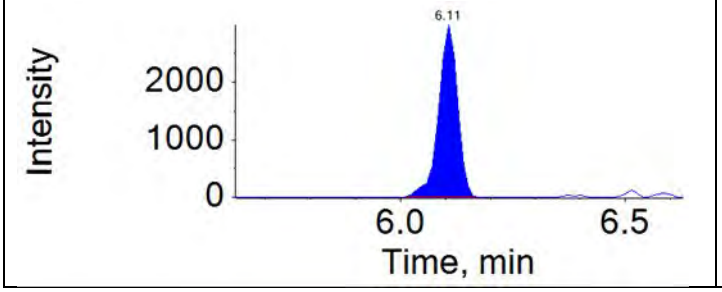


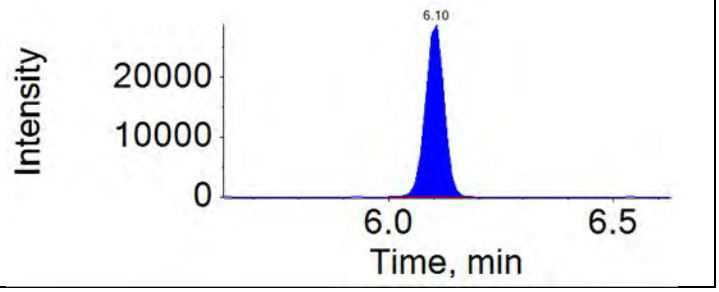
APPROVED
By MCD at 8:17 pm, 11/8/18

REVIEWED
By HMK at 9:19 am, 11/13/18

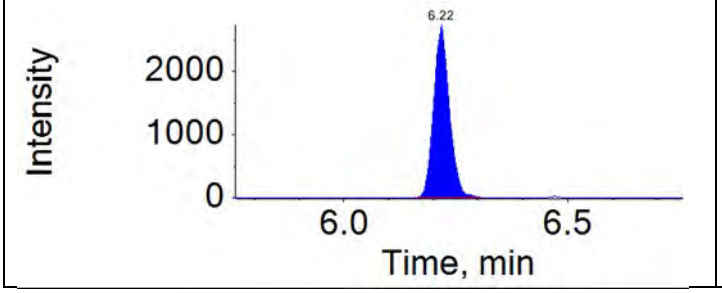
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV4-5 11/8/2018 8:13:38 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

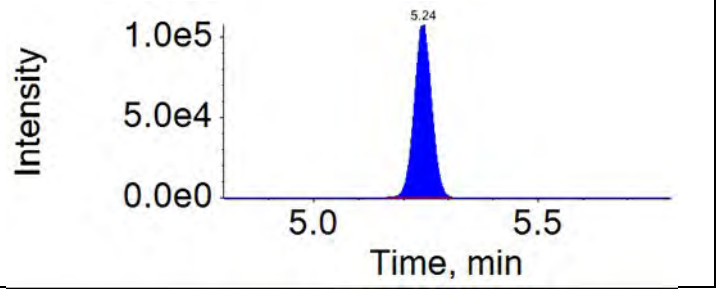
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



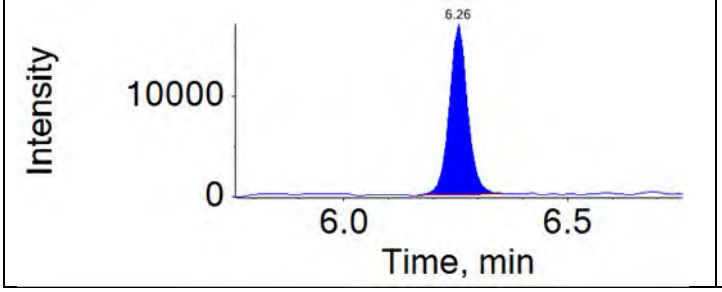


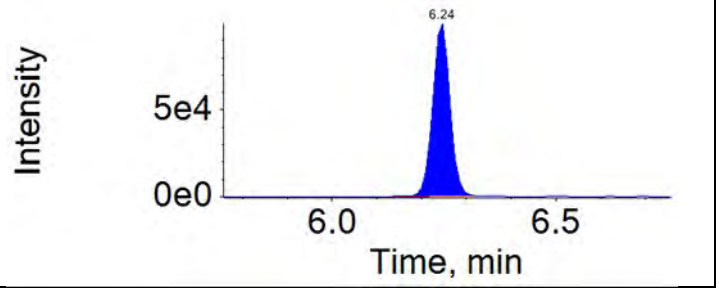
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



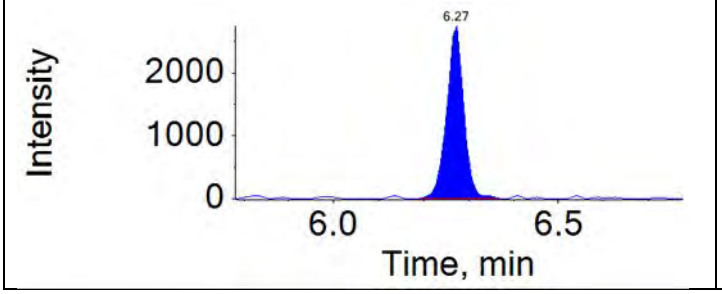


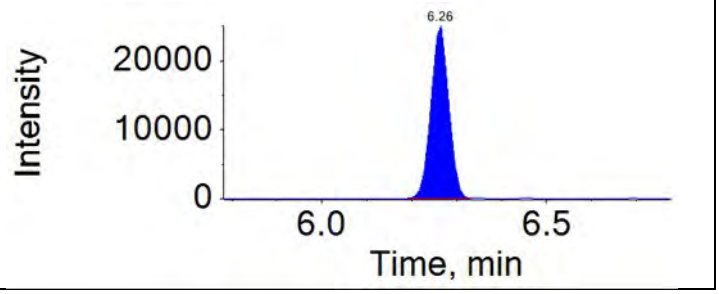
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





Analyte: NEtPFOSA	Extraction Standard: d5-NEtPFOSA
526.0 / 169.0	531.0 / 169.0



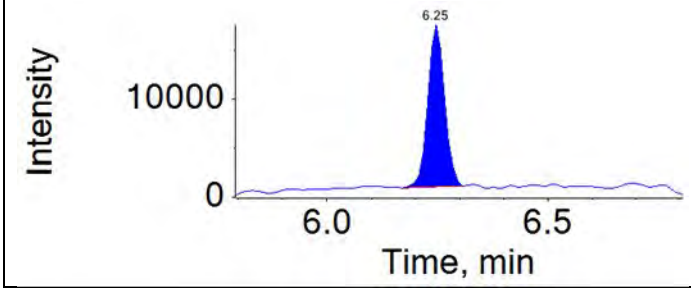


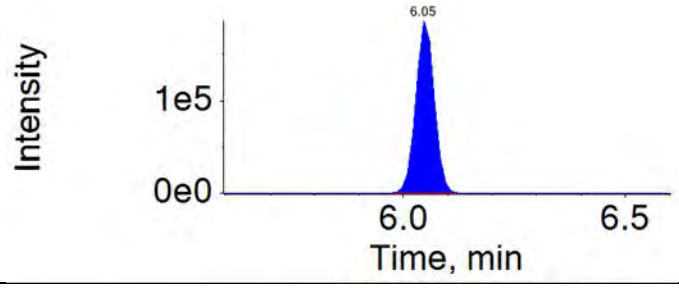
APPROVED
By MCD at 8:17 pm, 11/8/18

REVIEWED
By HMK at 9:19 am, 11/13/18

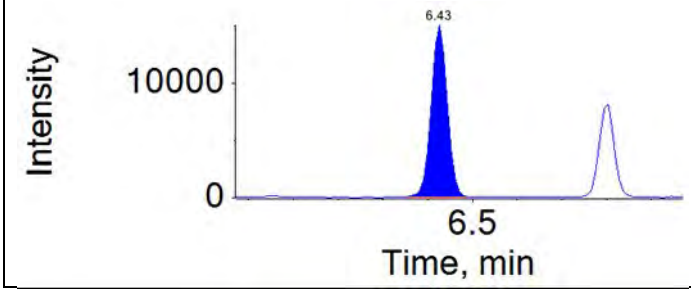
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV4-5 11/8/2018 8:13:38 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

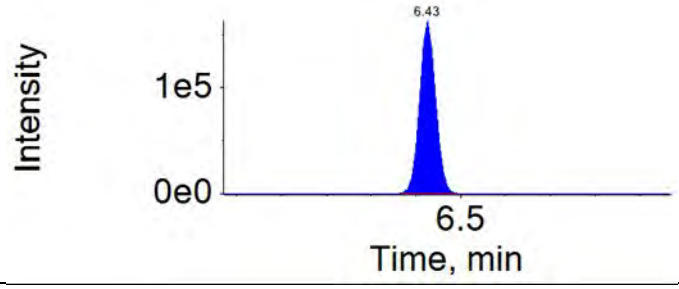
Analyte: PFTrDA	Extraction Standard: 13C2-PFDoDA
663.0 / 619.0	615.0 / 570.0



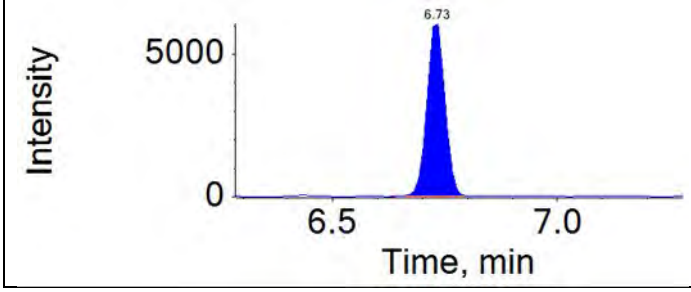


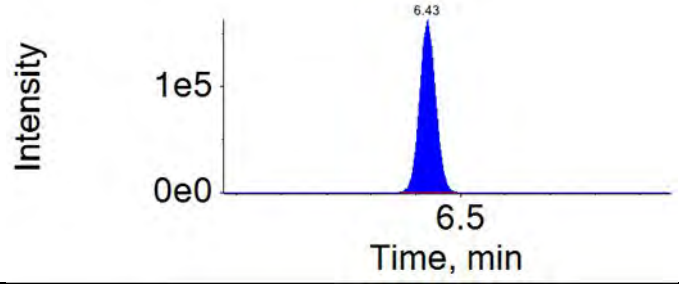
Analyte: PFTeDA	Extraction Standard: 13C2-PFTeDA
713.0 / 669.0	715.0 / 670.0



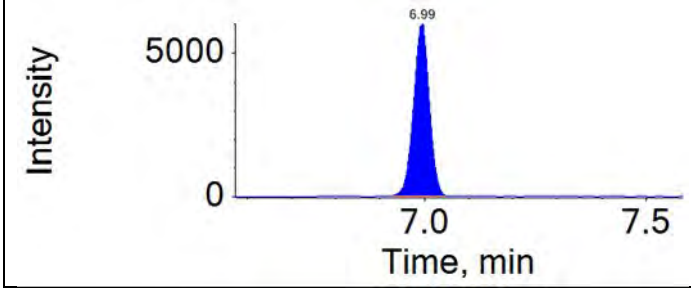


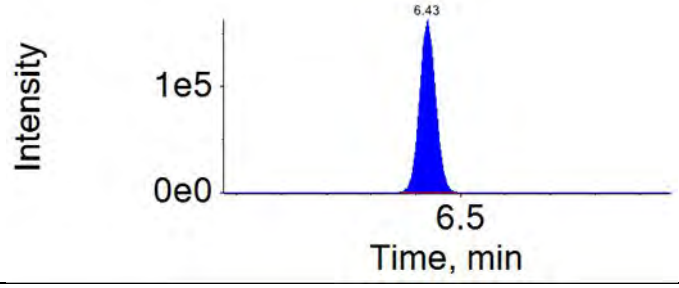
Analyte: PFHxDA	Extraction Standard: 13C2-PFTeDA
813.0 / 769.0	715.0 / 670.0





Analyte: PFODA	Extraction Standard: 13C2-PFTeDA
913.0 / 869.0	715.0 / 670.0





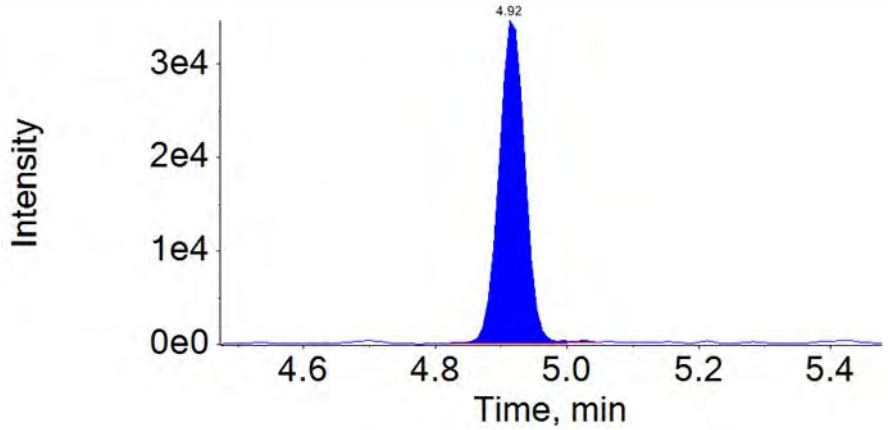
APPROVED
By MCD at 8:17 pm, 11/8/18

REVIEWED
By HMK at 9:19 am, 11/13/18

Results Table Name: 18NOV08DCCV4-5
Results Table Date: 11/8/2018 8:13:38 PM

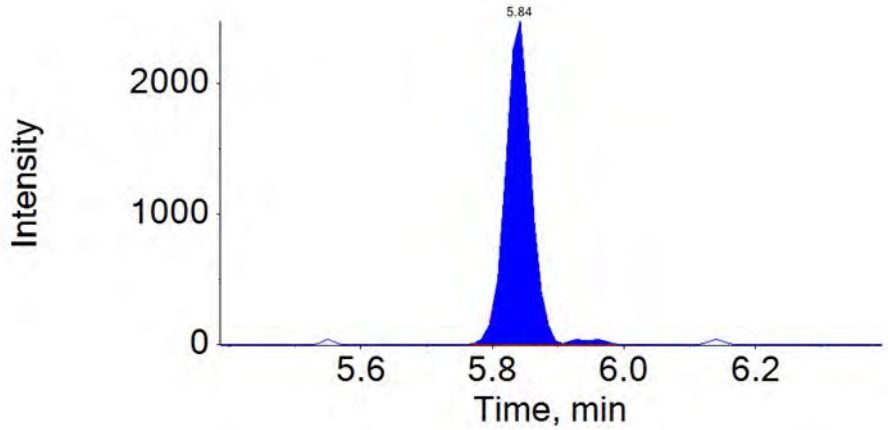
Acquisition Method: 18AUG13_3uL.dam
QMethod File: MQ4-18AUG13

Component Name:
PFOA
RT (min.):
4.92
Peak Area:
94789.4
Mass Range:
413.0 / 369.0
File Name:
18NOV08D-40.wiff
Sample Name:
CCV4_ISC_CAL2



Integration Comment: incorrect integration

Component Name:
NEtFOSAA
RT (min.):
5.84
Peak Area:
6828.5
Mass Range:
584.0 / 419.0
File Name:
18NOV08D-40.wiff
Sample Name:
CCV4_ISC_CAL2



Integration Comment: incorrect integration

APPROVED
By MCD at 8:17 pm, 11/8/18

REVIEWED
By HMK at 9:19 am, 11/13/18

Results Table Name: 18NOV08DCCV4-5
Results Table Date: 11/8/2018 8:13:38 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: MQ4-18AUG13

Ion Ratio Report

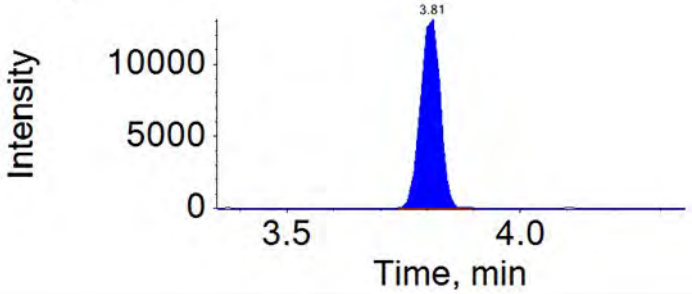
Sample Name: CCV4_ISC_CAL2 **Instrument Name:** LM27631 **File Name:** 18NOV08D-40.wiff

Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	3.81	1.00	38962.2	A	N/A	0.3865			
PFBS_2	3.81	1.00	15057.9	A	N/A	0.3865	9	50	
4:2-FTS	4.12	1.00	7935.5	A	N/A	0.7540			
4:2-FTS_2	4.12	1.00	5983.0	A	N/A	0.7540	17	50	
PFHxA	4.16	1.00	86823.7	A	N/A	0.0115			
PFHxA_2	4.16	1.00	1000.6	A	N/A	0.0115	2	50	
PFPeS	4.18	1.10	18225.4	A	N/A	0.5724			
PFPeS_2	4.17	1.10	10431.8	A	N/A	0.5724	6	50	
PFHxS	4.55	1.00	30436.8	A	N/A	0.3508			
PFHxS_2	4.55	1.00	10678.4	A	N/A	0.3508	-2	50	
PFHpA	4.54	1.00	87048.0	A	N/A	0.0574			
PFHpA_2	4.54	1.00	4997.0	A	N/A	0.0574	0	50	
6:2-FTS	4.90	1.00	7451.7	A	N/A	0.6540			
6:2-FTS_2	4.90	1.00	4873.7	A	N/A	0.6540	-4	50	
PFHpS	4.91	1.08	29558.5	A	N/A	0.4009			
PFHpS_2	4.91	1.08	11849.5	A	N/A	0.4009	2	50	
PFOA	4.92	1.00	94273.4	M	N/A	0.0598			
PFOA_2	4.92	1.00	5640.9	A	N/A	0.0598	-6	50	
PFOS	5.24	1.00	26920.7	A	N/A	0.3765			
PFOS_2	5.24	1.00	10135.9	A	N/A	0.3765	7	50	
PFNA	5.26	1.00	73513.8	A	N/A	0.0147			
PFNA_2	5.26	1.00	1077.0	A	N/A	0.0147	-29	50	
PFNS	5.54	1.06	18753.7	A	N/A	0.4493			
PFNS_2	5.54	1.06	8426.1	A	N/A	0.4493	-8	50	
PFDA	5.56	1.00	59956.3	A	N/A	0.0054			
PFDA_2	5.55	1.00	326.0	A	N/A	0.0054	0	50	
8:2-FTS	5.56	1.00	5739.8	A	N/A	0.6700			
8:2-FTS_2	5.56	1.00	3845.6	A	N/A	0.6700	8	50	
NMeFOSAA	5.70	1.00	6769.4	A	N/A	0.2191			
NMeFOSAA_2	5.69	1.00	1483.5	A	N/A	0.2191	1	50	
PFDS	5.80	1.11	13804.3	A	N/A	0.4089			
PFDS_2	5.80	1.11	5644.8	A	N/A	0.4089	-11	50	
PFUnDA	5.82	1.00	45417.9	A	N/A	0.0015			
PFUnDA_2	5.84	1.00	66.7	A	N/A	0.0015	-52	50	OOS
NEtFOSAA	5.84	1.00	6695.2	M	N/A	0.6531			
NEtFOSAA_2	5.84	1.00	4372.4	A	N/A	0.6531	8	50	
PFDoDA	6.05	1.00	52122.1	A	N/A	0.0072			
PFDoDA_2	6.04	1.00	376.9	A	N/A	0.0072	-31	50	
10:2-FTS	6.06	1.09	3386.5	A	N/A	1.0519			
10:2-FTS_2	6.07	1.09	3562.2	A	N/A	1.0519	48	50	
PFTrDA	6.25	1.03	42986.2	A	N/A	0.0110			
PFTrDA_2	6.24	1.03	472.9	A	N/A	0.0110	15	50	
PFTeDA	6.43	1.00	37173.2	A	N/A	0.0101			
PFTeDA_2	6.43	1.00	375.6	A	N/A	0.0101	87	50	OOS
PFHxDA	6.73	1.05	16835.8	A	N/A	0.0595			
PFHxDA_2	6.73	1.05	1002.1	A	N/A	0.0595	1	50	
PFODA	6.99	1.09	14724.1	A	N/A	0.0229			
PFODA_2	6.99	1.09	337.3	A	N/A	0.0229	-10	50	

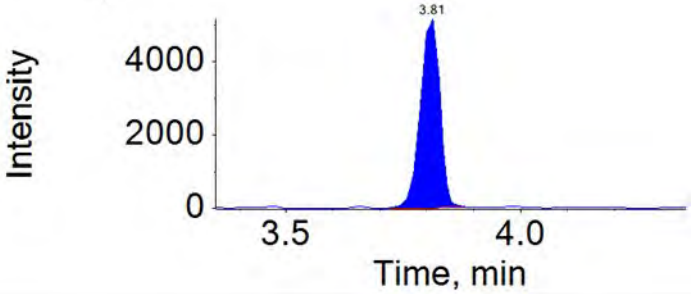
APPROVED
By MCD at 8:17 pm, 11/8/18

REVIEWED
By HMK at 9:19 am, 11/13/18

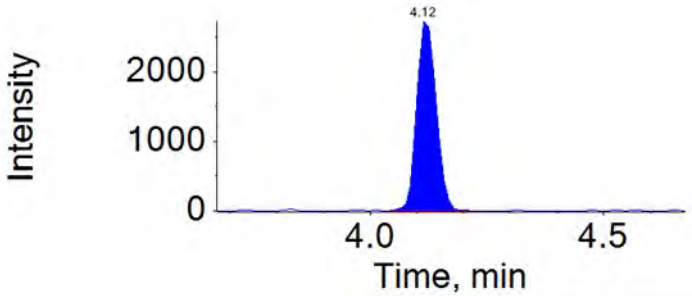
Component: PFBS
Primary Mass: 299.0 / 80.0



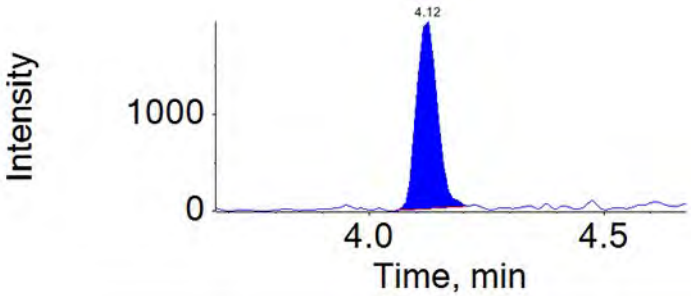
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



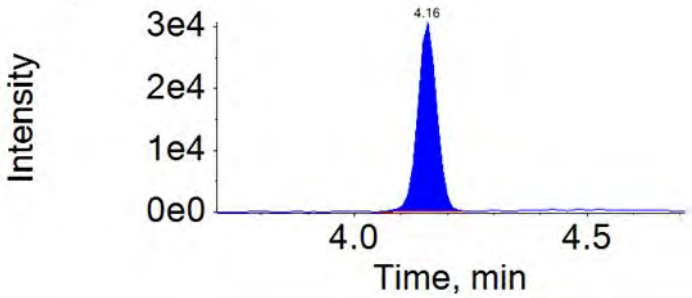
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



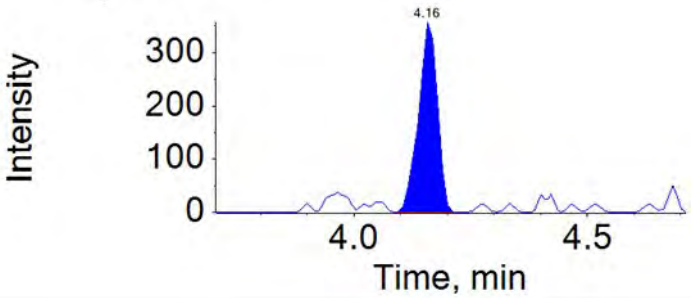
Component: 4:2-FTS_2
Secondary Mass: 327.0 / 81.0



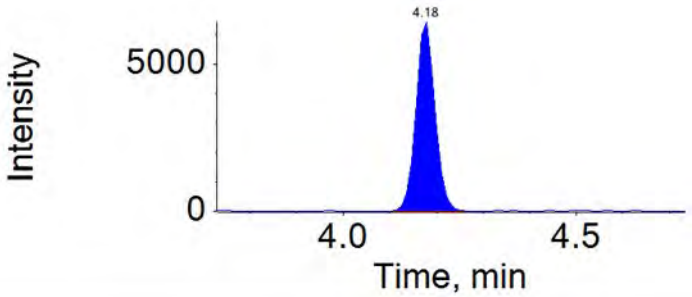
Component: PFHxA
Primary Mass: 313.0 / 269.0



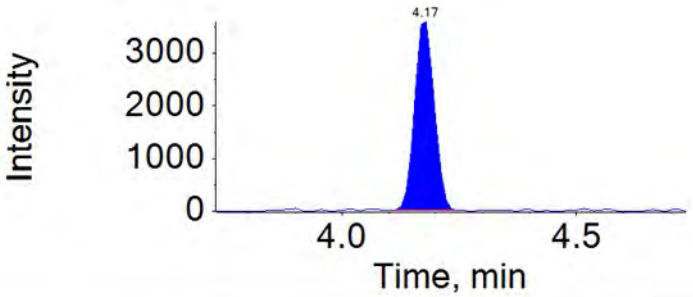
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



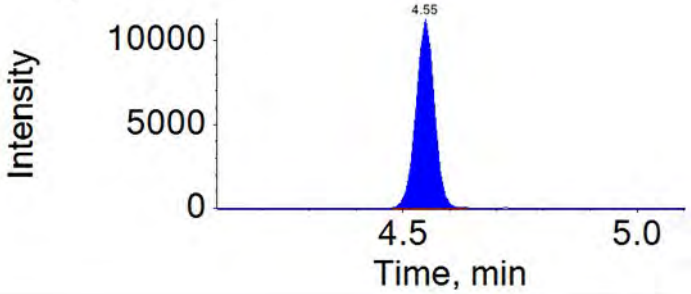
Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



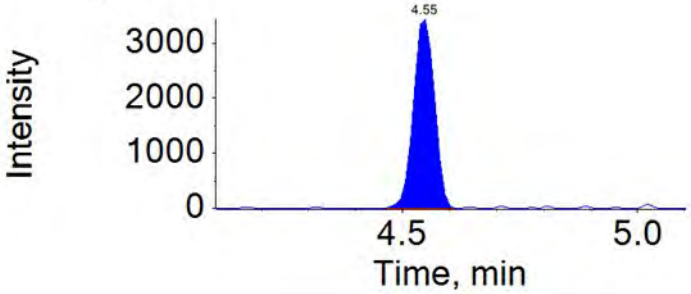
APPROVED
By MCD at 8:17 pm, 11/8/18

REVIEWED
By HMK at 9:19 am, 11/13/18

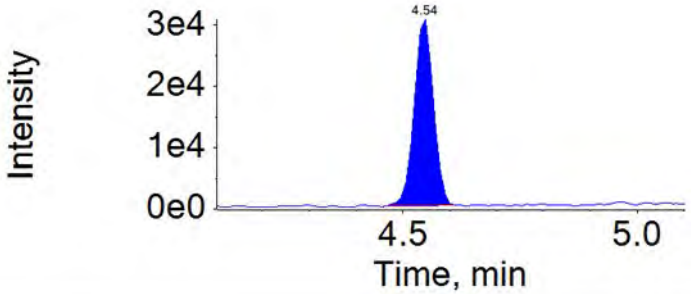
Component: PFHxS
Primary Mass: 399.0 / 80.0



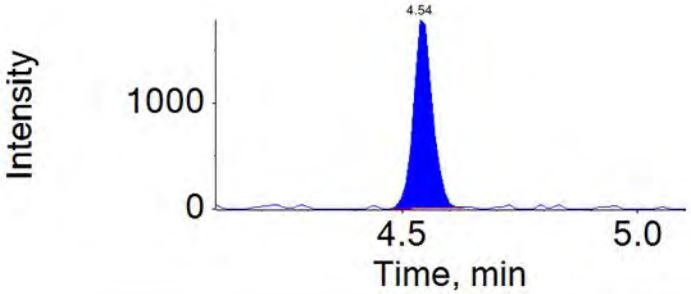
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Secondary Mass: 399.0 / 99.0



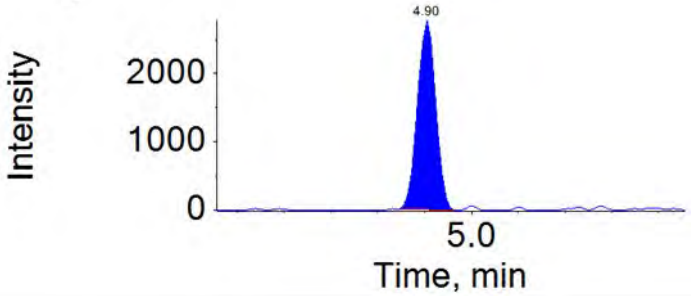
Component: PFHpA
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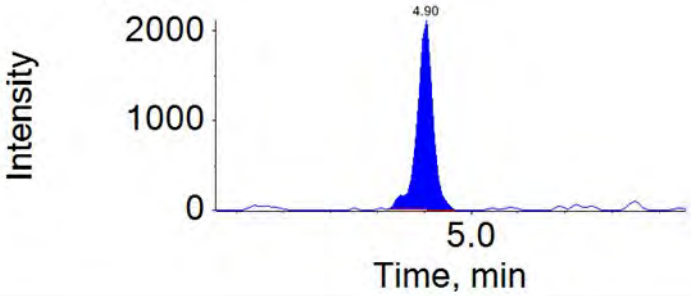
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



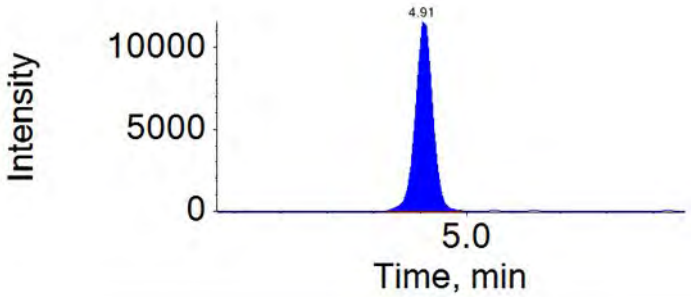
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



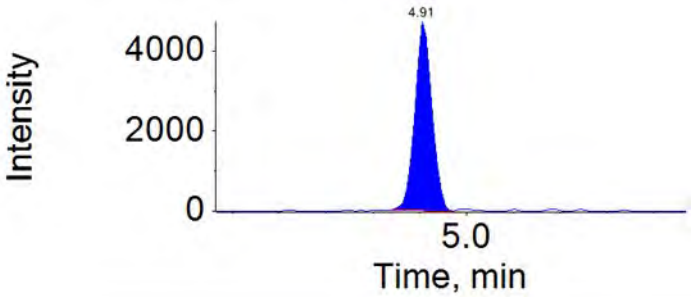
Component: 6:2-FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



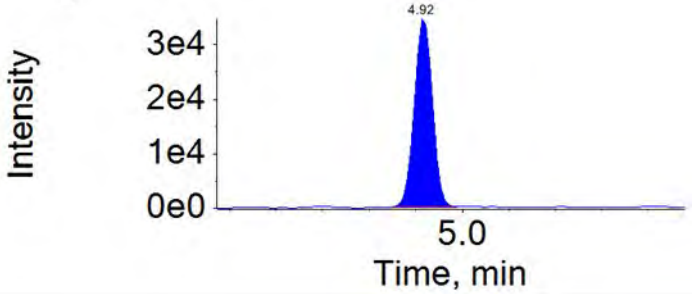
Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



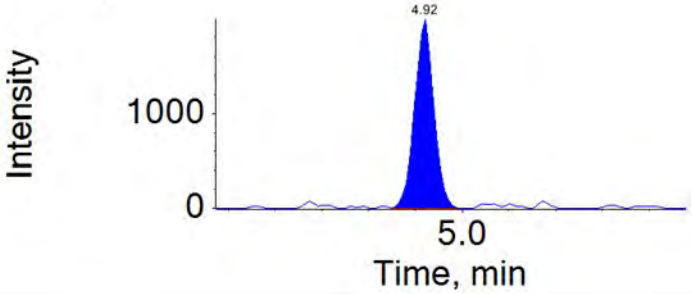
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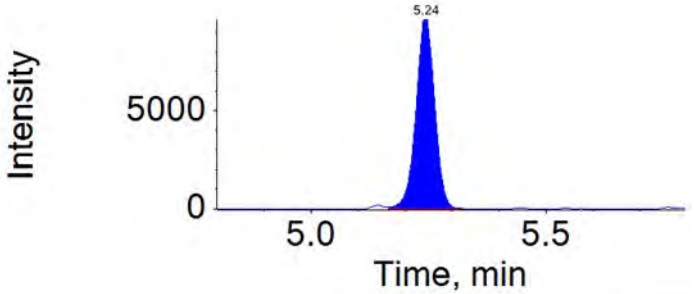
Component: PFOA
Primary Mass: 413.0 / 369.0



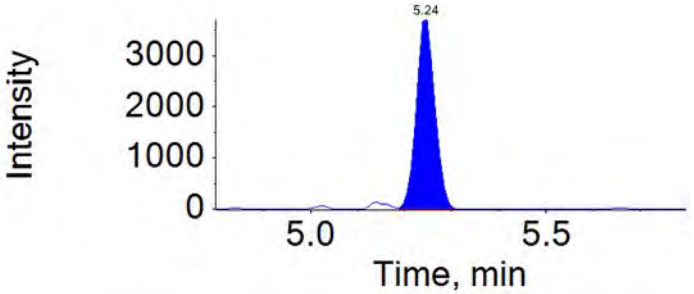
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



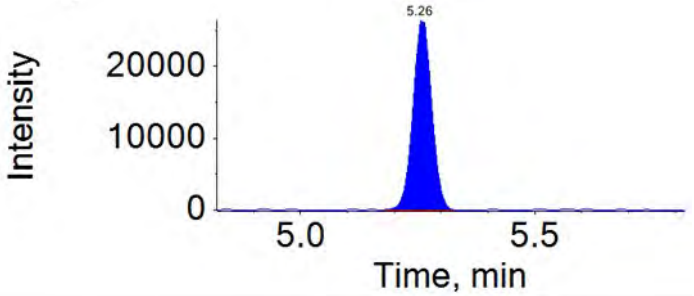
Component: PFOS
Primary Mass: 499.0 / 80.0



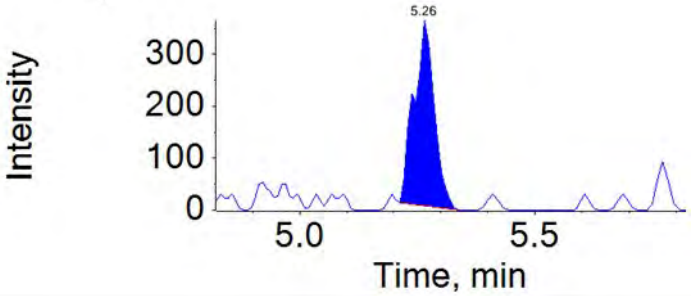
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



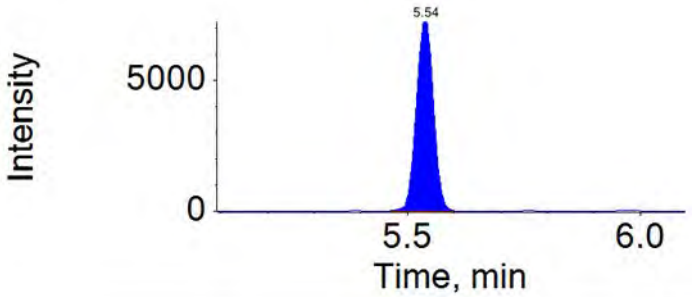
Component: PFNA
Primary Mass: 463.0 / 419.0



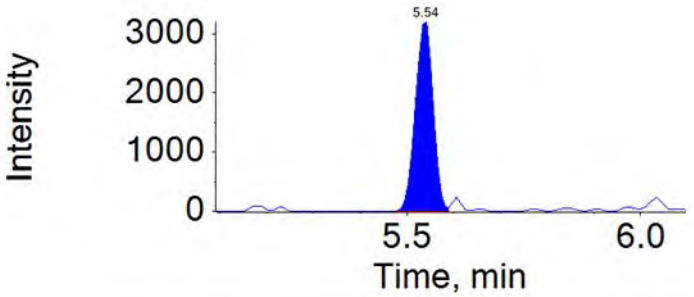
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



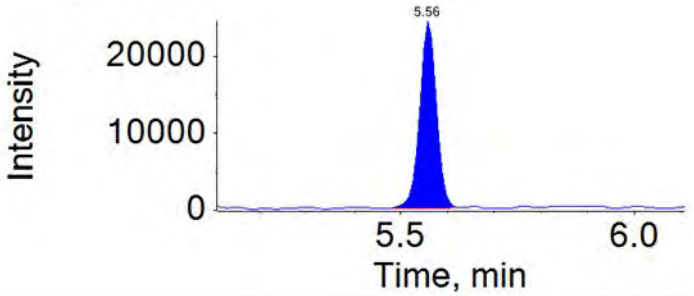
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



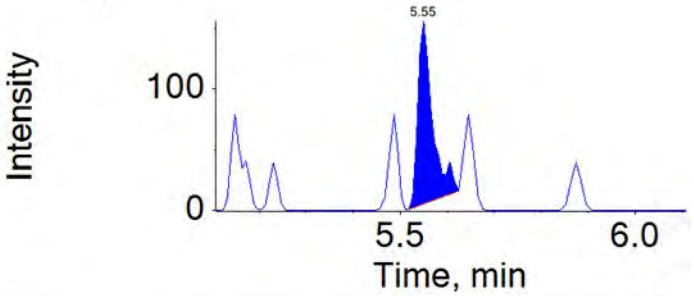
APPROVED
By MCD at 8:17 pm, 11/8/18

REVIEWED
By HMK at 9:19 am, 11/13/18

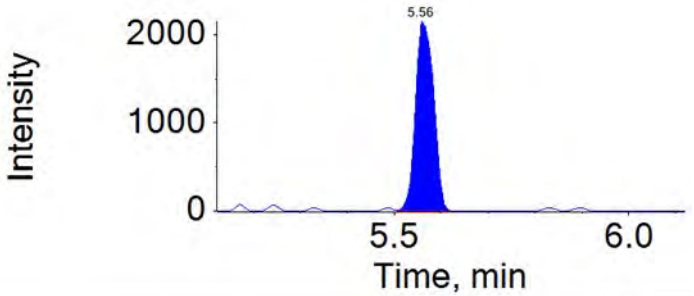
Component: PFDA
Primary Mass: 513.0 / 469.0



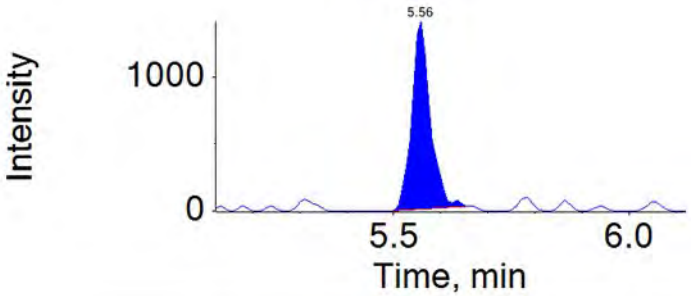
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



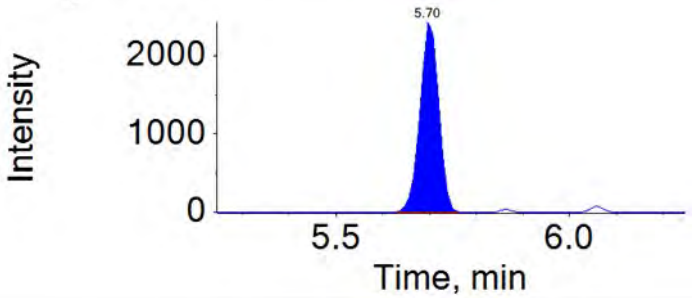
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



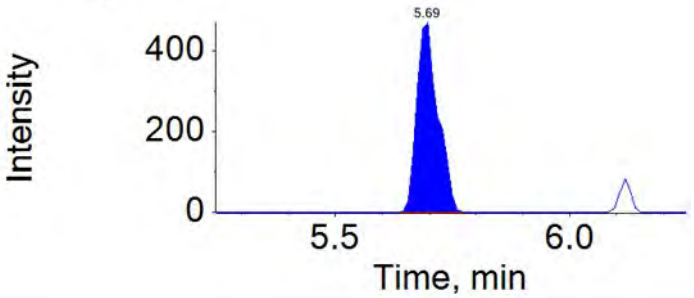
Component: 8:2-FTS_2
Secondary Mass: 527.0 / 81.0



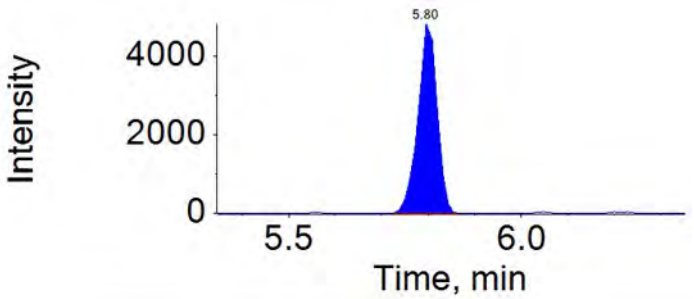
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



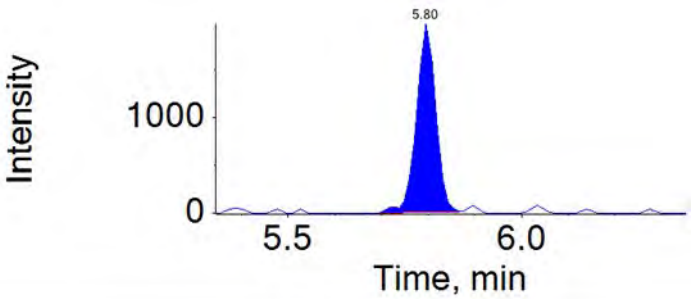
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



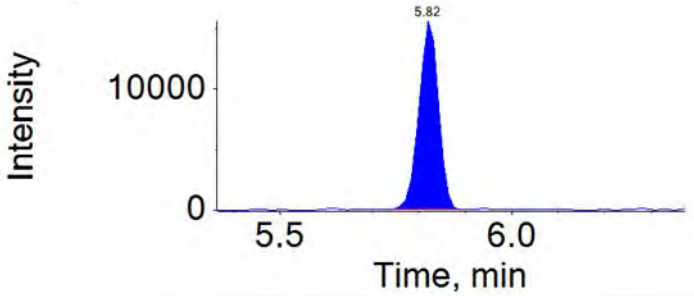
Component: PFDS_2
Secondary Mass: 599.0 / 99.0



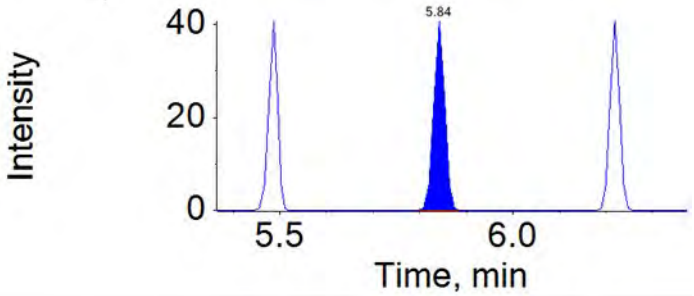
APPROVED
By MCD at 8:17 pm, 11/8/18

REVIEWED
By HMK at 9:19 am, 11/13/18

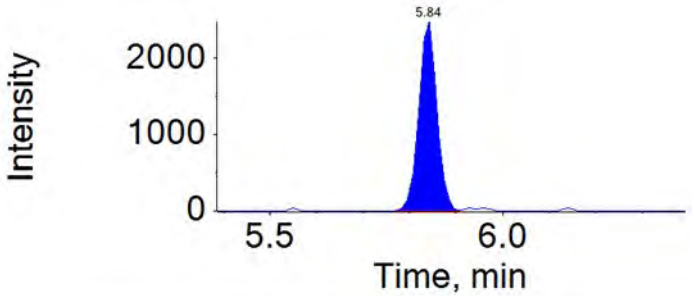
Component: PFUnDA
Primary Mass: 563.0 / 519.0



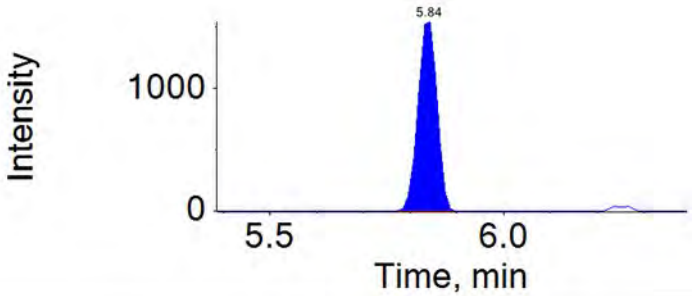
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



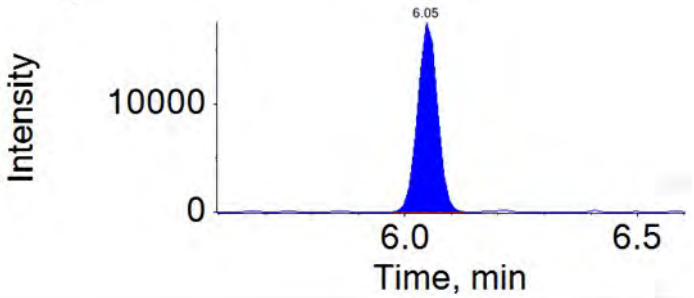
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



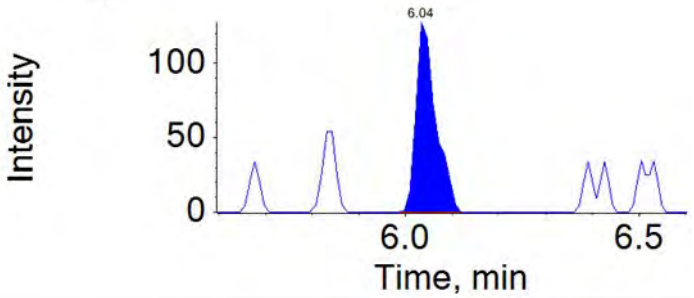
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



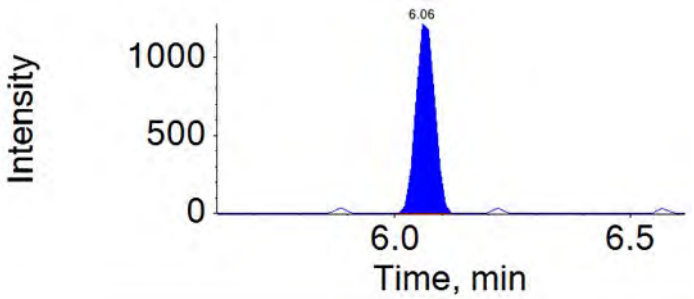
Component: PFDoDA
Primary Mass: 613.0 / 569.0



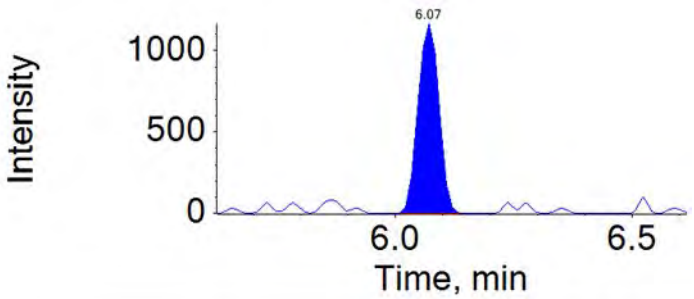
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



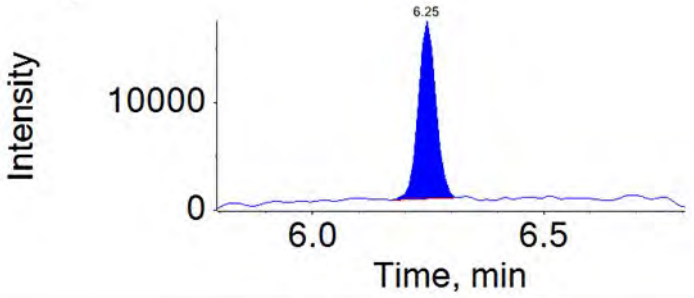
Component: 10:2-FTS_2
Secondary Mass: 627.0 / 81.0



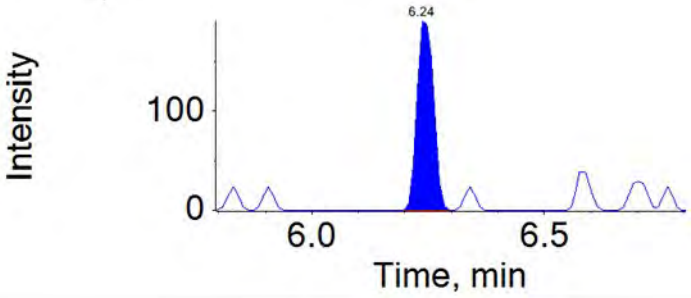
APPROVED
By MCD at 8:17 pm, 11/8/18

REVIEWED
By HMK at 9:19 am, 11/13/18

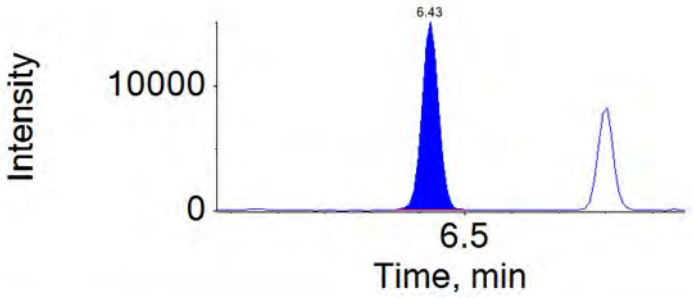
Component: PFTrDA
Primary Mass: 663.0 / 619.0



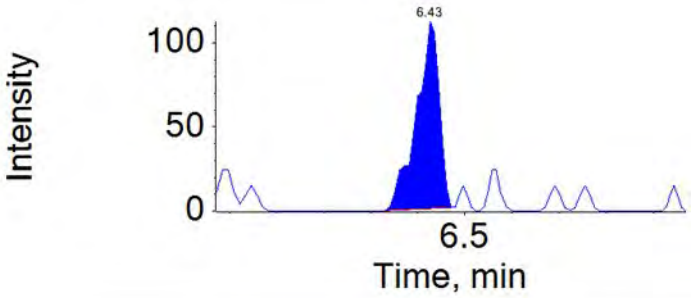
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



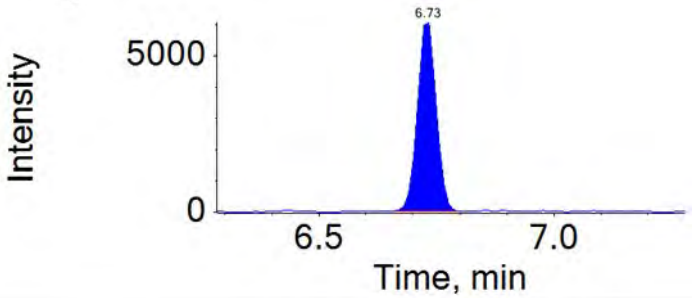
Component: PFTeDA
Primary Mass: 713.0 / 669.0



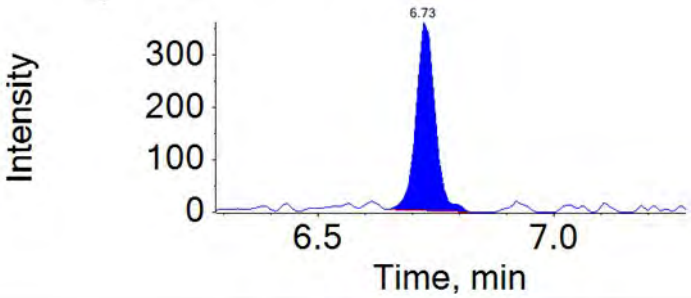
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



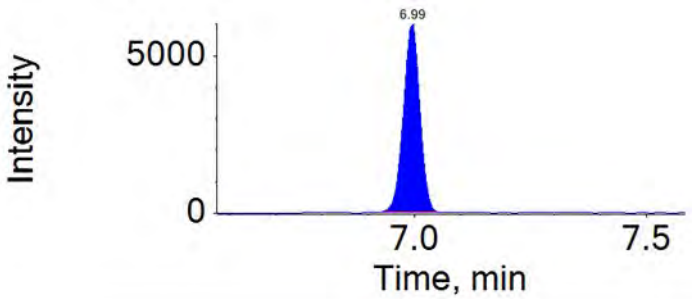
Component: PFHxDA
Primary Mass: 813.0 / 769.0



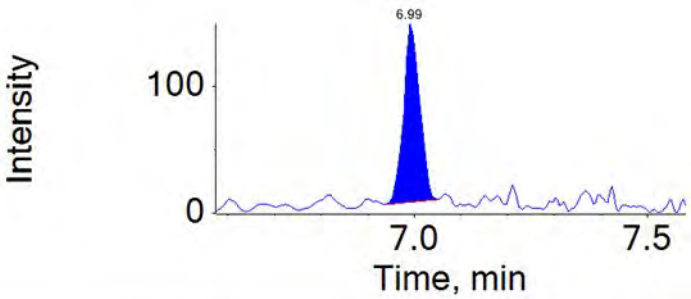
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



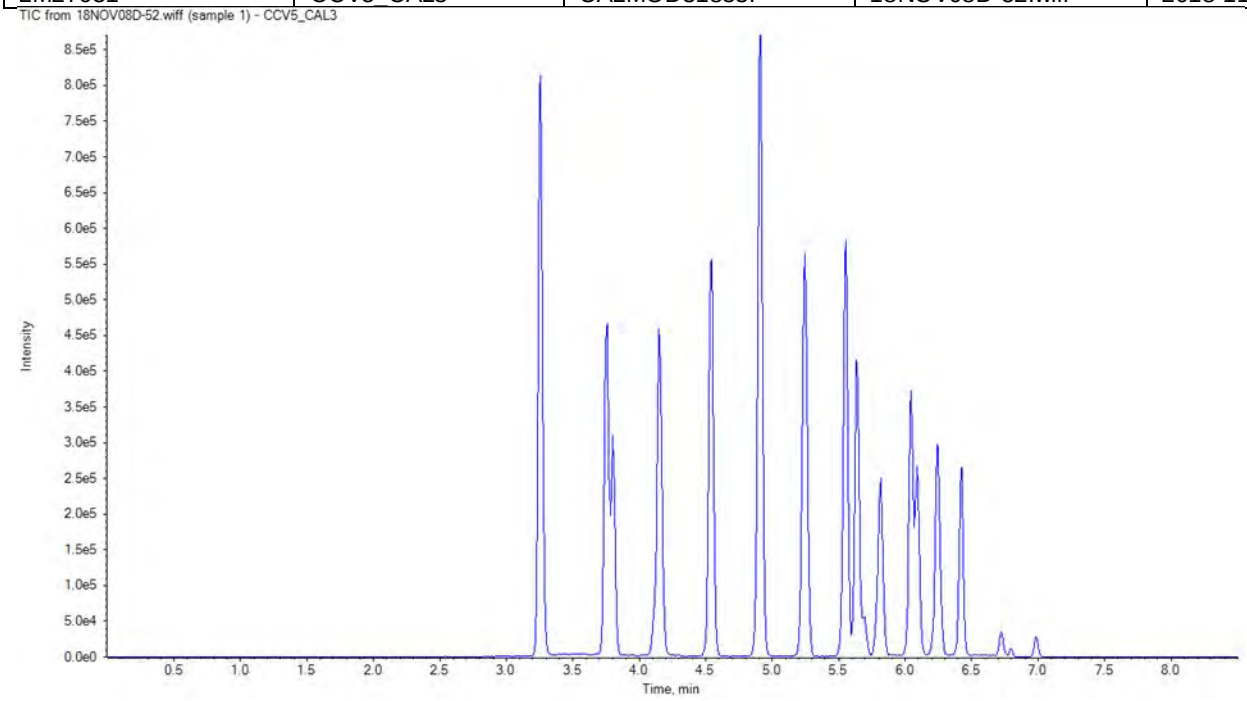
APPROVED
By MCD at 8:17 pm, 11/8/18

REVIEWED
By HMK at 9:19 am, 11/13/18

Continuing Calibration Verfication

ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV4-5 11/8/2018 8:11:42 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	CCV5_CAL3	CALMOD31833F	18NOV08D-52.wiff	2018-11-08T19:28:37



Injection Standard Area Reference File: 18NOV08D-05

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Reference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	725507.0	728839.7	0	50	
13C2-PFOA	5.0	493929.9	491983.1	0	50	
13C4-PFOS	4.8	277015.3	255568.1	8	50	
13C2-PFDA	5.0	325676.5	315407.5	3	50	

APPROVED
By MCD at 8:17 pm, 11/8/18

REVIEWED
By HMK at 9:19 am, 11/13/18

Continuing Calibration Verfication

ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV4-5 11/8/2018 8:11:42 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	CCV5_CAL3	CALMOD31833F	18NOV08D-52.wiff	2018-11-08T19:28:37

Analyte Name	Analyte Area	Sc /pk	Ext Std Name	Ext Std Area	Ext Std con	Area Ratio	RT (min)	RRT	Spec Amt	Calc Amt	% Diff	% Diff Lim	% Diff OOS
PFBA	285736.2	10	13C4-PFBA	786281.3	5.0	0.363	3.25	1.000	2.000	2.127	6	30	
PFPeA	288982.3	12	13C5-PFPeA	819875.2	5.0	0.352	3.75	1.000	2.000	2.095	5	30	
PFBS	151512.2	12	13C3-PFBS	424634.9	4.7	0.357	3.80	1.000	1.770	1.799	2	30	
4:2-FTS	32489.7	11	13C2-4:2-FTS	53665.9	4.7	0.605	4.11	1.000	1.868	1.628	-13	30	
PFHxA	336950.0	12	13C5-PFHxA	674423.7	5.0	0.500	4.15	1.000	2.000	2.143	7	30	
PFPeS	77127.5	11	13C3-PFBS	424634.9	4.7	0.182	4.17	1.100	1.880	1.791	-5	30	
PFHxS	126629.5	11	13C3-PFHxS	336687.0	4.7	0.376	4.54	1.000	1.890	1.906	1	30	
PFHpA	350420.1	12	13C4-PFHpA	521245.2	5.0	0.672	4.54	1.000	2.000	2.261	13	30	
6:2-FTS	28202.3	11	13C2-6:2-FTS	36571.9	4.8	0.771	4.90	1.000	1.896	1.924	1	30	
PFHpS	120255.9	11	13C3-PFHxS	336687.0	4.7	0.357	4.90	1.080	1.900	1.869	-2	30	
PFOA	373627.2	11	13C8-PFOA	960319.2	5.0	0.389	4.91	1.000	2.000	2.191	10	30	
PFOS	110601.7	11	13C8-PFOS	290032.6	4.8	0.381	5.24	1.000	1.910	1.977	4	30	
PFNA	283947.1	11	13C9-PFNA	516439.1	5.0	0.550	5.25	1.000	2.000	2.055	3	30	
PFNS	65719.3	11	13C8-PFOS	290032.6	4.8	0.227	5.53	1.060	1.920	1.797	-6	30	
PFDA	228635.9	11	13C6-PFDA	646703.7	5.0	0.354	5.55	1.000	2.000	1.945	-3	30	
8:2-FTS	22729.1	11	13C2-8:2-FTS	26138.7	4.8	0.870	5.56	1.000	1.916	1.960	2	30	
PFOSA	272396.6	12	13C8-PFOSA	720319.0	5.0	0.378	5.64	1.000	2.000	2.044	2	30	
NMeFOSAA	32150.0	11	d3-NMeFOSAA	85226.2	5.0	0.377	5.70	1.000	2.000	1.941	-3	30	
PFDS	63563.6	12	13C8-PFOS	290032.6	4.8	0.219	5.79	1.110	1.930	2.094	8	30	
PFUnDA	205299.6	12	13C7-PFUnDA	266822.8	5.0	0.769	5.81	1.000	2.000	2.207	10	30	
NEtFOSAA	24646.5	12	d5-NEtFOSAA	62265.4	5.0	0.396	5.83	1.000	2.000	1.701	-15	30	
PFDoDA	209465.1	12	13C2-PFDoDA	585236.8	5.0	0.358	6.04	1.000	2.000	1.940	-3	30	
10:2-FTS	17021.7	12	13C2-8:2-FTS	26138.7	4.8	0.651	6.06	1.090	1.928	2.028	5	30	
NMePFOSAE	162649.4	12	d7-NMePFOSAE	333462.0	5.0	0.488	6.10	1.000	2.000	2.186	9	30	
NMePFOSA	31628.2	12	d3-NMePFOSA	82058.2	5.0	0.385	6.10	1.000	2.000	2.157	8	30	
PFDoS	30539.1	11	13C8-PFOS	290032.6	4.8	0.105	6.21	1.190	1.940	2.032	5	30	
NEtPFOSAE	172599.3	11	d9-NEtPFOSAE	273144.6	5.0	0.632	6.25	1.000	2.000	2.026	1	30	
NEtPFOSA	27404.0	11	d5-NEtPFOSA	71790.2	5.0	0.382	6.26	1.000	2.000	1.681	-16	30	
PFTrDA	182026.4	11	13C2-PFDoDA	585236.8	5.0	0.311	6.24	1.030	2.000	1.961	-2	30	
PFTeDA	149055.1	11	13C2-PFTeDA	406334.1	5.0	0.367	6.42	1.000	2.000	2.154	8	30	
PFHxDA	67077.6	11	13C2-PFTeDA	406334.1	5.0	0.165	6.72	1.050	2.000	2.049	2	30	
PFODA	59421.3	10	13C2-PFTeDA	406334.1	5.0	0.146	6.99	1.090	2.000	2.095	5	30	

APPROVED
By MCD at 8:17 pm, 11/8/18

REVIEWED
By HMK at 9:19 am, 11/13/18

Continuing Calibration Verfication

ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13
Result Table: 18NOV08DCCV4-5 11/8/2018 8:11:42 PM
Acquisition Method: 18AUG13_3uL.dam

APPROVED
By MCD at 8:17 pm, 11/8/18

REVIEWED
By HMK at 9:19 am, 11/13/18

ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18NOV08DCCV4-5 11/8/2018 8:13:38 PM
Acquisition Method: 18AUG13_3uL.dam

Sample Name:	CCV5_CAL3			**Data File:**		18NOV08D-52.wiff
Sample ID:	CALMOD31833F			**Acquis Date:**		2018-11-08T19:28:37
Sample Type:	Quality Control			**Instrument:**		LM27631
Vial Position:	5			**Acquis Method:**		18AUG13_3uL.dam
Injection Vol:	3.00			**Result Table:**		18NOV08DCCV4-5
QMethod File:	MQ4-18AUG13			**ICAL Name:**		18NOV07DCAL
Batch Number:	N/A			**Operator:**		MCD7824
Sample Wt.:	1.00000			**Dilution Factor:**		1.00
Sample Vol.:	1.000			**Prep Factor:**		1.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV08D-05

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Rreference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	725507.0	728839.7	0	50	
13C2-PFOA	5.0	493929.9	491983.1	0	50	
13C4-PFOS	4.8	277015.3	255568.1	8	50	
13C2-PFDA	5.0	325676.5	315407.5	3	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	786281.3	13C3-PFBA	725507.0	1.084	5.000	5.015	100	70-130	
E13C5-PFPeA	819875.2	13C3-PFBA	725507.0	1.130	5.000	4.923	98	70-130	
E13C3-PFBS	424634.9	13C3-PFBA	725507.0	0.585	4.650	4.296	92	70-130	
E13C2-4:2-FTS	53665.9	13C2-PFOA	493929.9	0.109	4.670	4.903	105	70-130	
E13C5-PFHxA	674423.7	13C2-PFOA	493929.9	1.365	5.000	5.023	100	70-130	
E13C3-PFHxS	336687.0	13C2-PFOA	493929.9	0.682	4.730	4.893	103	70-130	
E13C4-PFHpA	521245.2	13C2-PFOA	493929.9	1.055	5.000	4.801	96	70-130	
E13C2-6:2-FTS	36571.9	13C2-PFOA	493929.9	0.074	4.750	4.937	104	70-130	
E13C8-PFOA	960319.2	13C2-PFOA	493929.9	1.944	5.000	5.422	108	70-130	
E13C8-PFOS	290032.6	13C4-PFOS	277015.3	1.047	4.780	4.630	97	70-130	
E13C9-PFNA	516439.1	13C4-PFOS	277015.3	1.864	5.000	5.092	102	70-130	
E13C6-PFDA	646703.7	13C2-PFDA	325676.5	1.986	5.000	4.994	100	70-130	
E13C2-8:2-FTS	26138.7	13C2-PFDA	325676.5	0.080	4.790	4.247	89	70-130	
E13C8-PFOSA	720319.0	13C2-PFDA	325676.5	2.212	5.000	4.826	97	70-130	
Ed3-NMeFOSAA	85226.2	13C2-PFDA	325676.5	0.262	5.000	4.866	97	70-130	
E13C7-PFUnDA	266822.8	13C2-PFDA	325676.5	0.819	5.000	4.726	95	70-130	
Ed5-NEtFOSAA	62265.4	13C2-PFDA	325676.5	0.191	5.000	4.424	88	70-130	
E13C2-PFDoDA	585236.8	13C2-PFDA	325676.5	1.797	5.000	4.844	97	70-130	
Ed7-NMePFOSAE	333462.0	13C2-PFDA	325676.5	1.024	5.000	4.761	95	70-130	
Ed3-NMePFOSA	82058.2	13C2-PFDA	325676.5	0.252	5.000	4.613	92	70-130	
Ed9-NEtPFOSAE	273144.6	13C2-PFDA	325676.5	0.839	5.000	4.790	96	70-130	
Ed5-NEtPFOSA	71790.2	13C2-PFDA	325676.5	0.220	5.000	5.104	102	70-130	
E13C2-PFTeDA	406334.1	13C2-PFDA	325676.5	1.248	5.000	4.492	90	70-130	

APPROVED
By MCD at 8:17 pm, 11/8/18

REVIEWED
By HMK at 9:19 am, 11/13/18

ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV4-5 11/8/2018 8:13:38 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

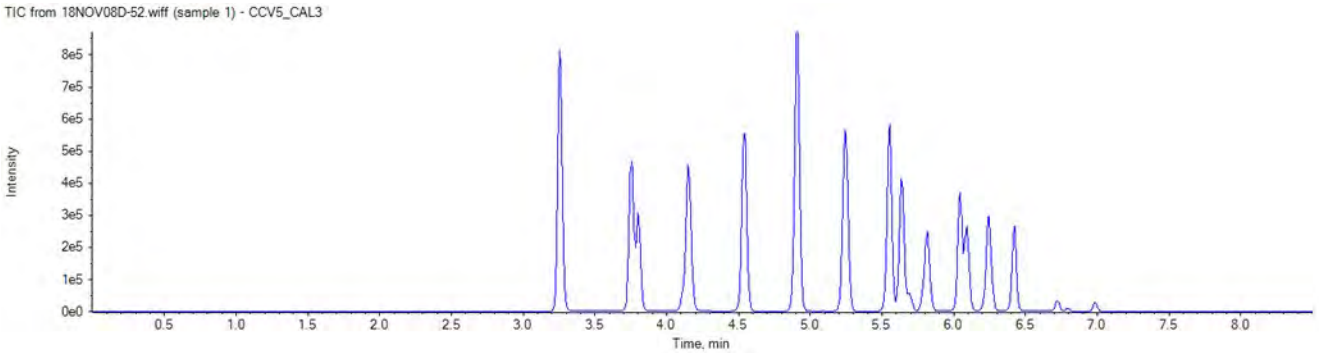
Analyte Quantitation Peak Table

Sample Name: CCV5_CAL3 **Instrument Name:** LM27631 **File Name:** 18NOV08D-52.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	1.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	3.25	1.000	285736.2		A	13C4-PFBA	3.25	786281.3	0.363	2.127
PFPeA	3.75	1.000	288982.3		A	13C5-PFPeA	3.75	819875.2	0.352	2.095
PFBS	3.80	1.000	151512.2		A	13C3-PFBS	3.80	424634.9	0.357	1.799
4:2-FTS	4.11	1.000	32489.7		A	13C2-4:2-FTS	4.11	53665.9	0.605	1.628
PFHxA	4.15	1.000	336950.0		A	13C5-PFHxA	4.15	674423.7	0.500	2.143
PFPeS	4.17	1.100	77127.5		A	13C3-PFBS	3.80	424634.9	0.182	1.791
PFHxS	4.54	1.000	126629.5		A	13C3-PFHxS	4.54	336687.0	0.376	1.906
PFHpA	4.54	1.000	350420.1		A	13C4-PFHpA	4.54	521245.2	0.672	2.261
6:2-FTS	4.90	1.000	28202.3		A	13C2-6:2-FTS	4.90	36571.9	0.771	1.924
PFHpS	4.90	1.080	120255.9		A	13C3-PFHxS	4.54	336687.0	0.357	1.869
PFOA	4.91	1.000	373627.2		M	13C8-PFOA	4.91	960319.2	0.389	2.191
PFOS	5.24	1.000	110601.7		A	13C8-PFOS	5.24	290032.6	0.381	1.977
PFNA	5.25	1.000	283947.1		A	13C9-PFNA	5.25	516439.1	0.550	2.055
PFNS	5.53	1.060	65719.3		A	13C8-PFOS	5.24	290032.6	0.227	1.797
PFDA	5.55	1.000	228635.9		A	13C6-PFDA	5.55	646703.7	0.354	1.945
8:2-FTS	5.56	1.000	22729.1		A	13C2-8:2-FTS	5.56	26138.7	0.870	1.960
PFOSA	5.64	1.000	272396.6		A	13C8-PFOSA	5.64	720319.0	0.378	2.044
NMeFOSAA	5.70	1.000	32150.0		A	d3-NMeFOSAA	5.69	85226.2	0.377	1.941
PFDS	5.79	1.110	63563.6		A	13C8-PFOS	5.24	290032.6	0.219	2.094
PFUnDA	5.81	1.000	205299.6		A	13C7-PFUnDA	5.81	266822.8	0.769	2.207
NEtFOSAA	5.83	1.000	24646.5		A	d5-NEtFOSAA	5.83	62265.4	0.396	1.701
PFDoDA	6.04	1.000	209465.1		A	13C2-PFDoDA	6.04	585236.8	0.358	1.940
10:2-FTS	6.06	1.090	17021.7		A	13C2-8:2-FTS	5.56	26138.7	0.651	2.028
NMePFOSAE	6.10	1.000	162649.4		A	d7-NMePFOSAE	6.09	333462.0	0.488	2.186
NMePFOSA	6.10	1.000	31628.2		A	d3-NMePFOSA	6.10	82058.2	0.385	2.157
PFDoS	6.21	1.190	30539.1		A	13C8-PFOS	5.24	290032.6	0.105	2.032
NEtPFOSAE	6.25	1.000	172599.3		A	d9-NEtPFOSAE	6.24	273144.6	0.632	2.026
NEtPFOSA	6.26	1.000	27404.0		A	d5-NEtPFOSA	6.26	71790.2	0.382	1.681
PFTrDA	6.24	1.030	182026.4		A	13C2-PFDoDA	6.04	585236.8	0.311	1.961
PFTeDA	6.42	1.000	149055.1		A	13C2-PFTeDA	6.42	406334.1	0.367	2.154
PFHxDA	6.72	1.050	67077.6		A	13C2-PFTeDA	6.42	406334.1	0.165	2.049
PFODA	6.99	1.090	59421.3		A	13C2-PFTeDA	6.42	406334.1	0.146	2.095

Total Ion Chromatogram

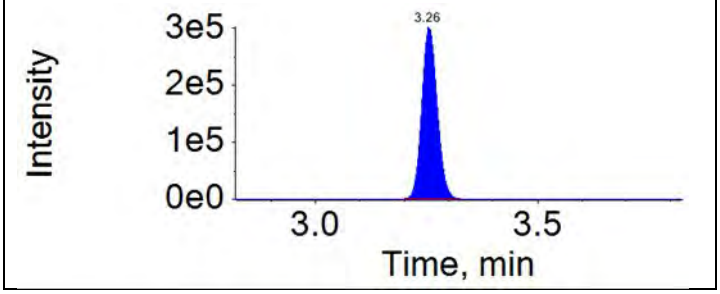


APPROVED
By MCD at 8:17 pm, 11/8/18

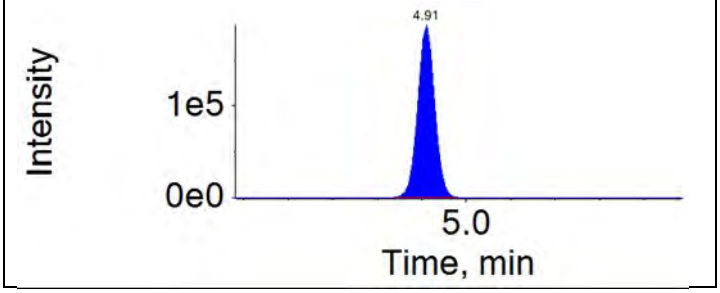
REVIEWED
By HMK at 9:19 am, 11/13/18

ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV4-5 11/8/2018 8:13:38 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

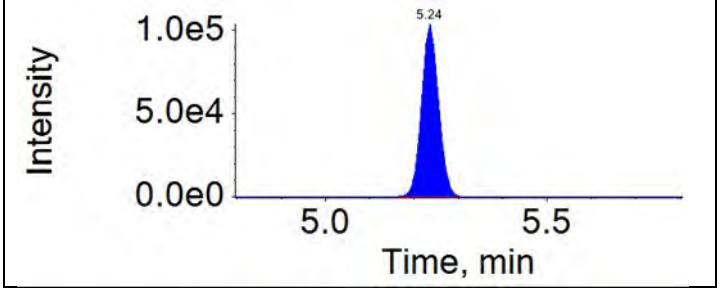
Injection Standard: 13C3-PFBA
216.0 / 172.0



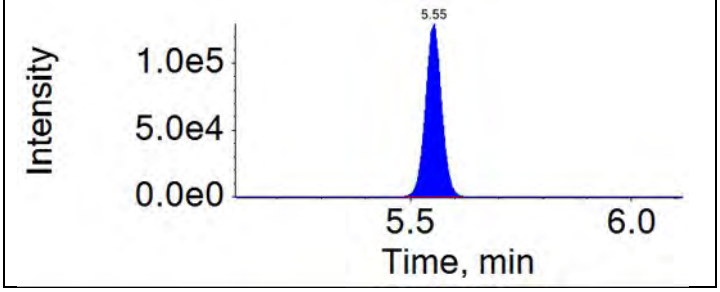
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0



Injection Standard: 13C2-PFDA
515.0 / 470.0

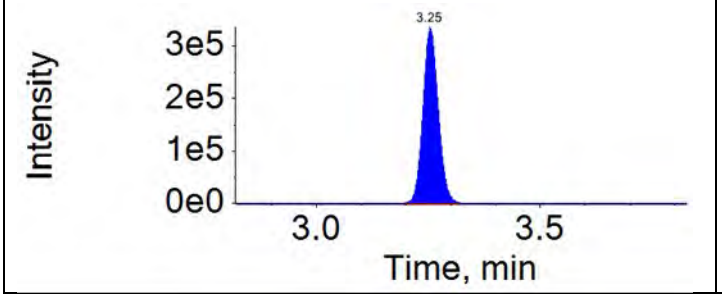


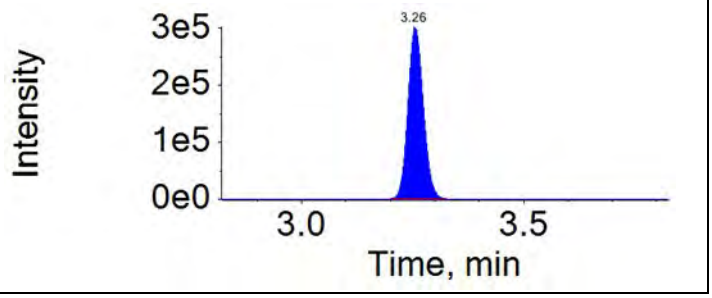
APPROVED
By MCD at 8:17 pm, 11/8/18

REVIEWED
By HMK at 9:19 am, 11/13/18

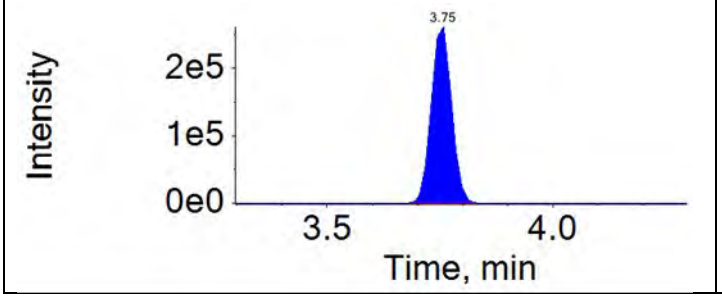
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV4-5 11/8/2018 8:13:38 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

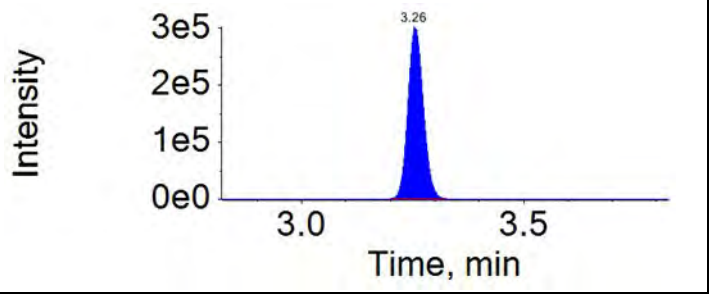
Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0



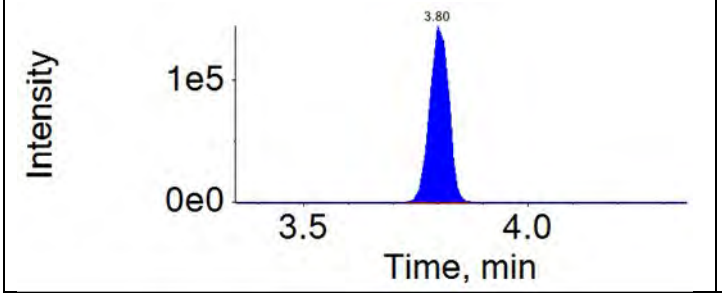


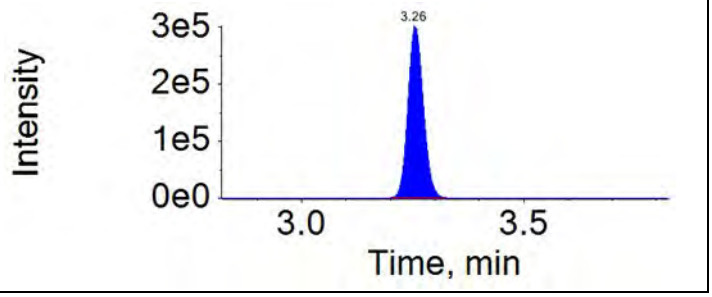
Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0



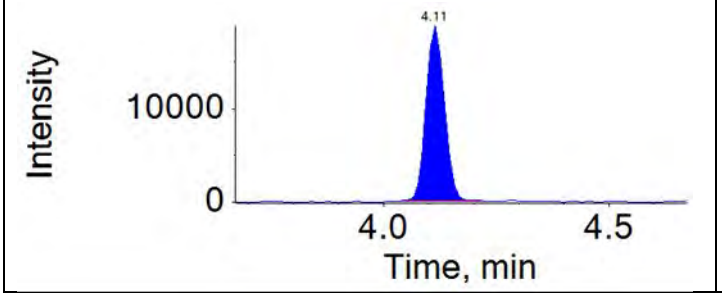


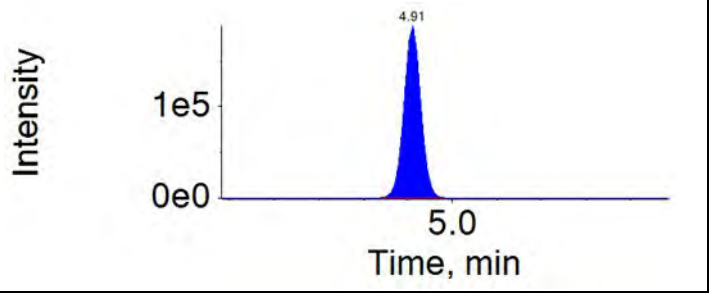
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0





Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0



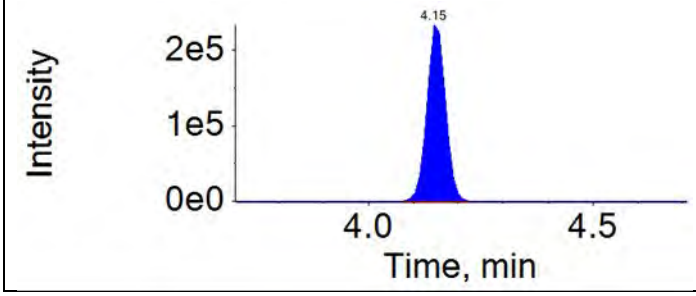


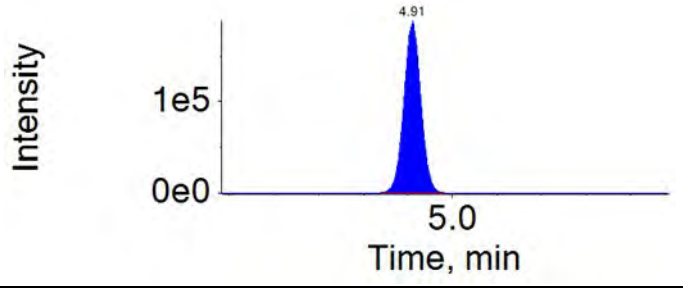
APPROVED
By MCD at 8:17 pm, 11/8/18

REVIEWED
By HMK at 9:19 am, 11/13/18

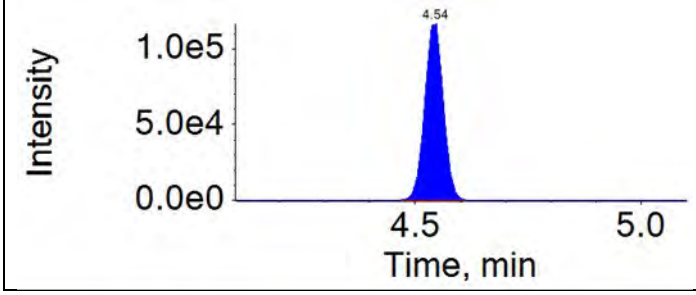
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV4-5 11/8/2018 8:13:38 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

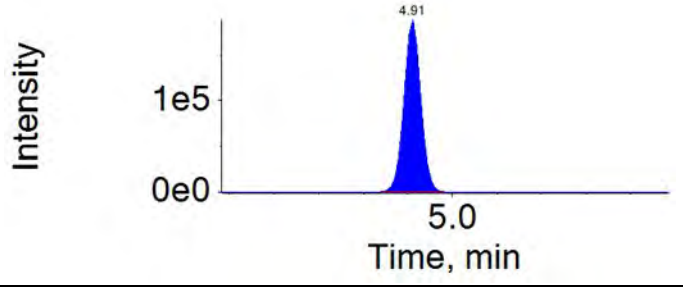
Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0



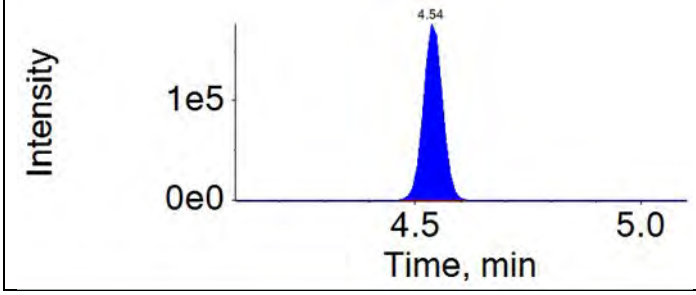


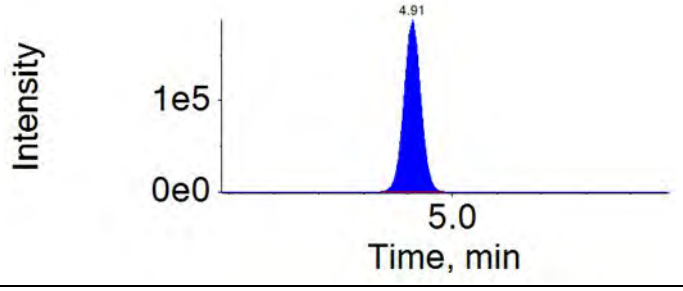
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0



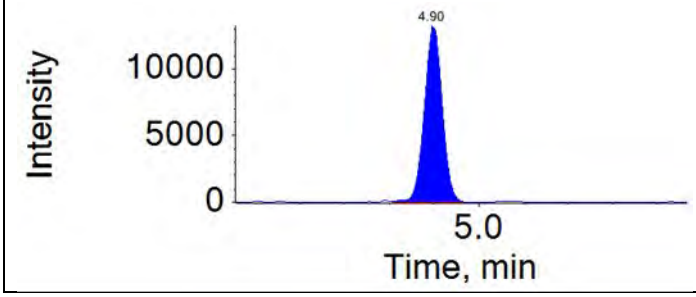


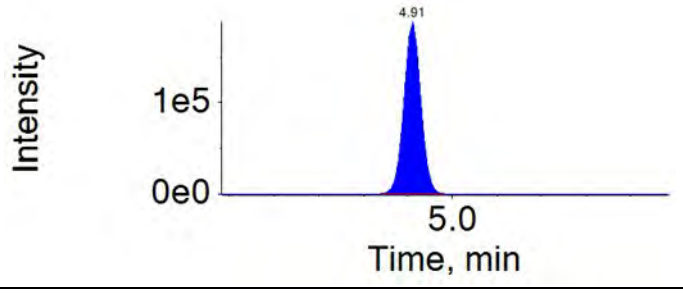
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0





Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0

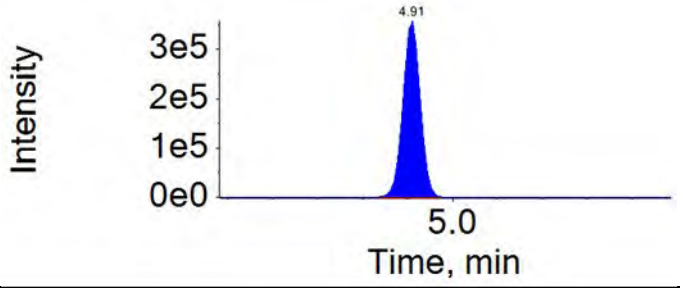
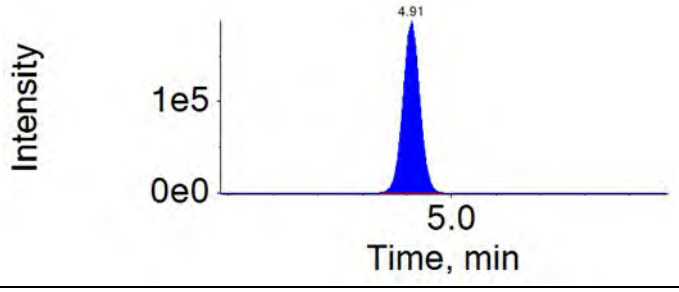


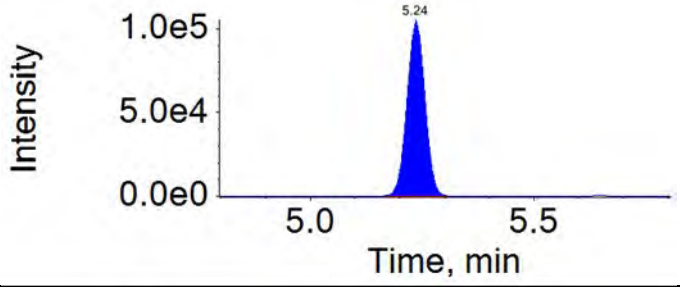
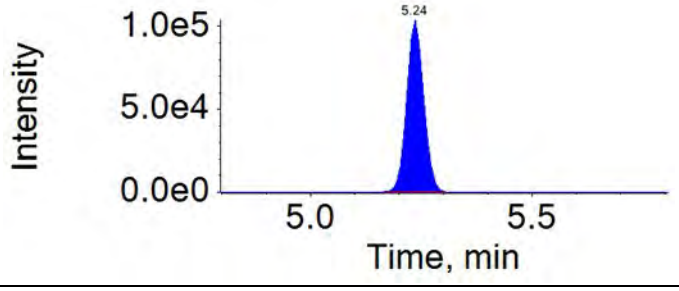


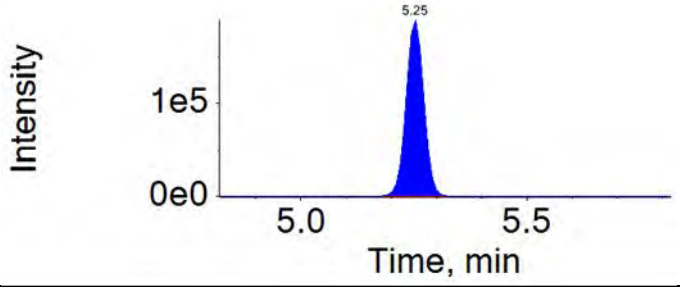
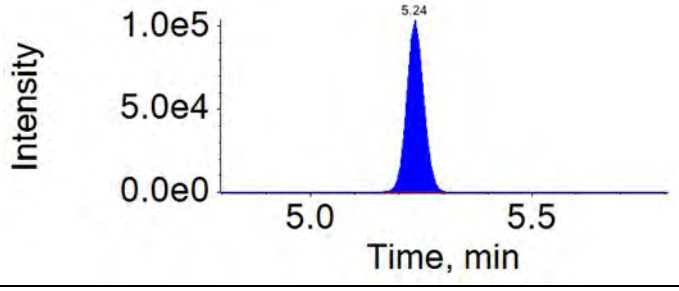
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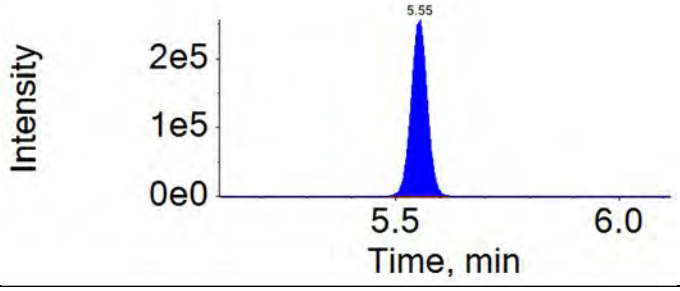
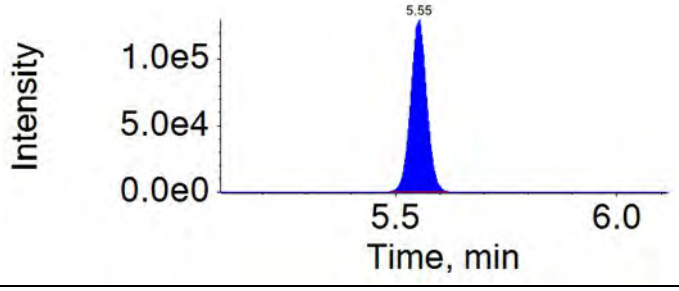
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By HMK at 9:19 am, 11/13/18

ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV4-5 11/8/2018 8:13:38 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: E13C8-PFOA	Injection Standard: 13C2-PFOA
421.0 / 376.0	415.0 / 370.0
	

Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0
	

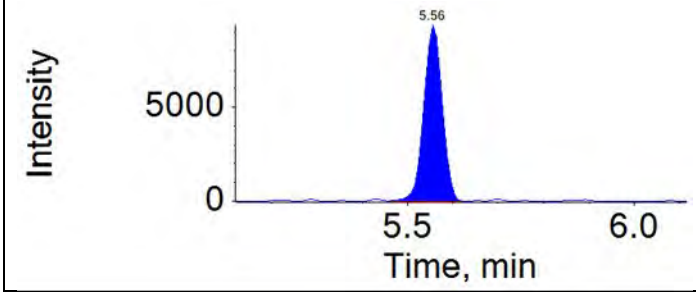
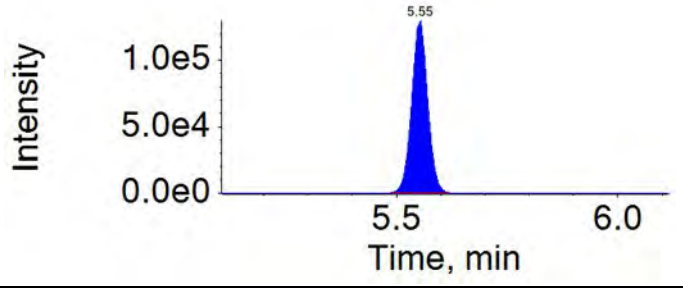
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472.0 / 427.0	503.0 / 80.0
	

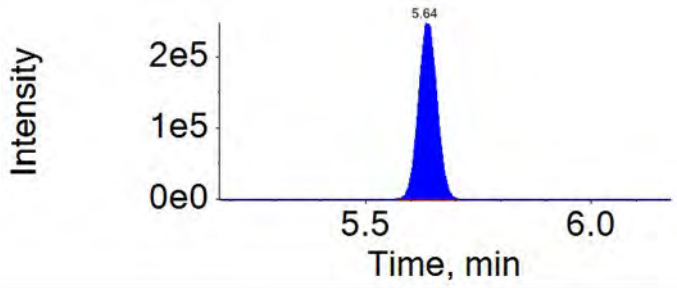
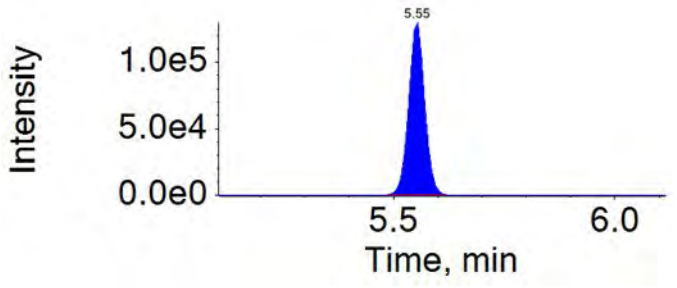
Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0
	

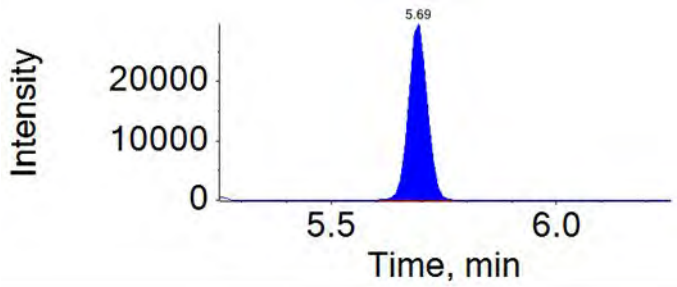
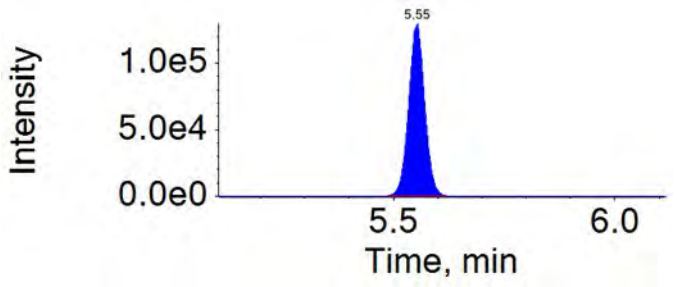
APPROVED
By MCD at 8:17 pm, 11/8/18

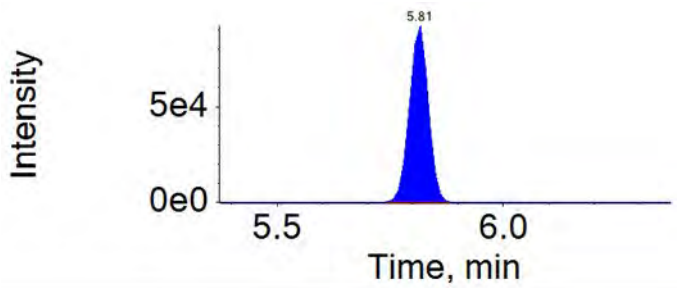
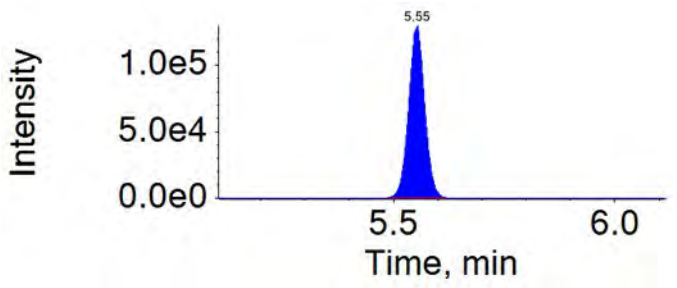
REVIEWED
By HMK at 9:19 am, 11/13/18

ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV4-5 11/8/2018 8:13:38 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

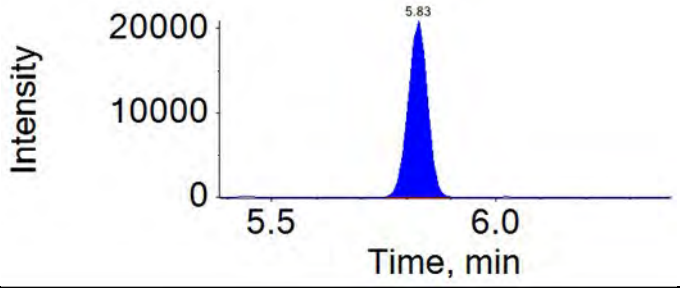
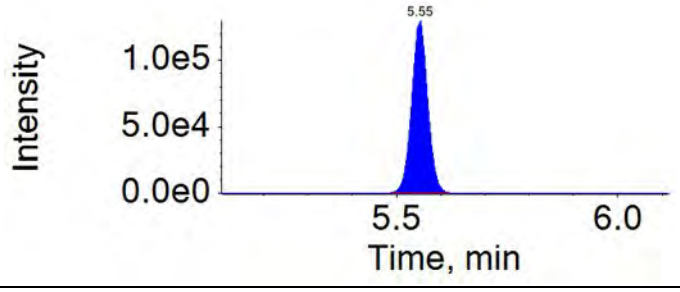
Extraction Standard: E13C2-8:2-FTS	Injection Standard: 13C2-PFDA
529.0 / 81.0	515.0 / 470.0
	

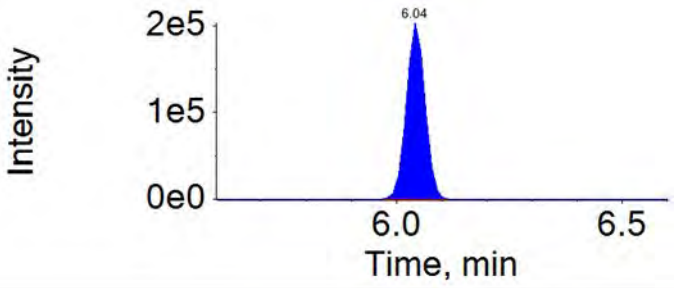
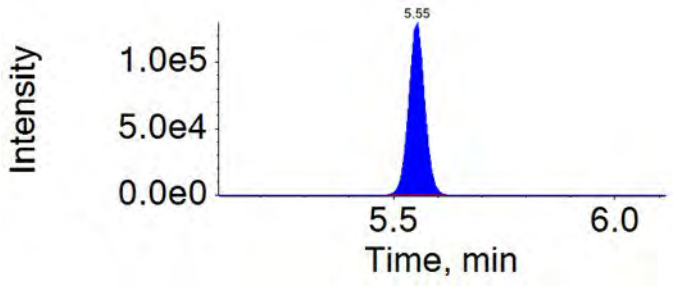
Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0
	

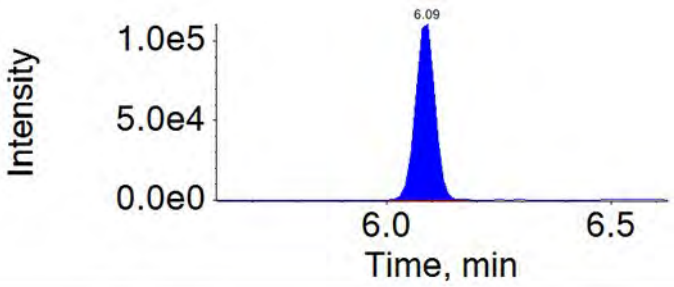
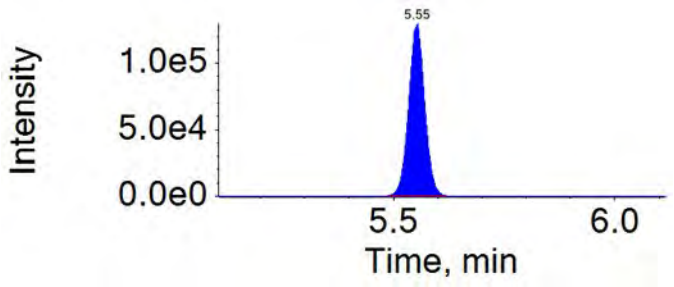
Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0
	

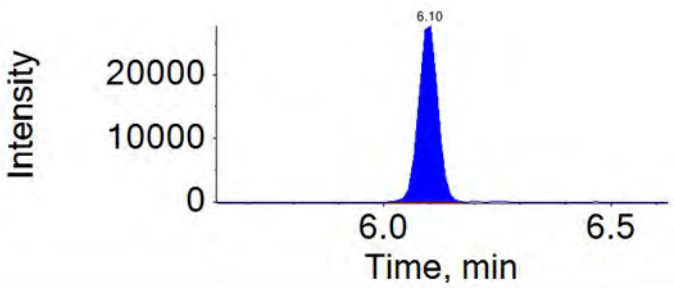
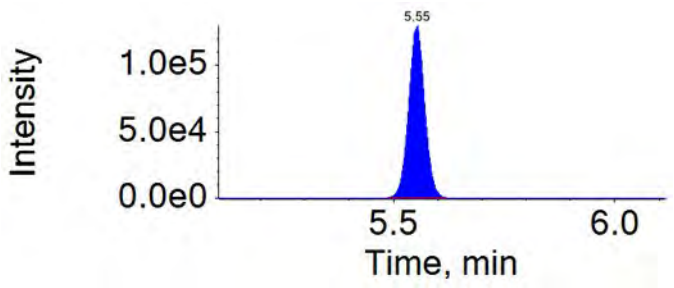
Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0
	

ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV4-5 11/8/2018 8:13:38 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0
	

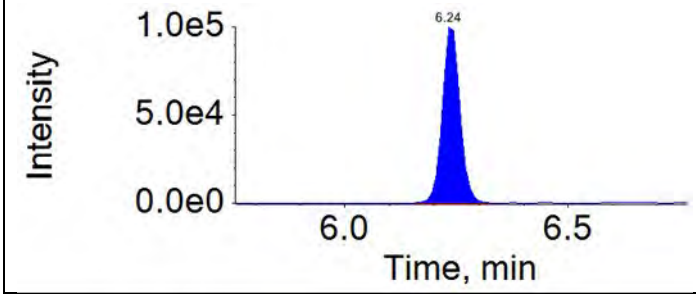
Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0
	

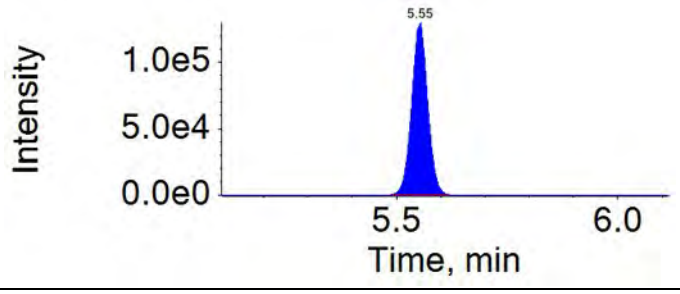
Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0
	

Extraction Standard: Ed3-NMePFOSA	Injection Standard: 13C2-PFDA
515.0 / 169.0	515.0 / 470.0
	

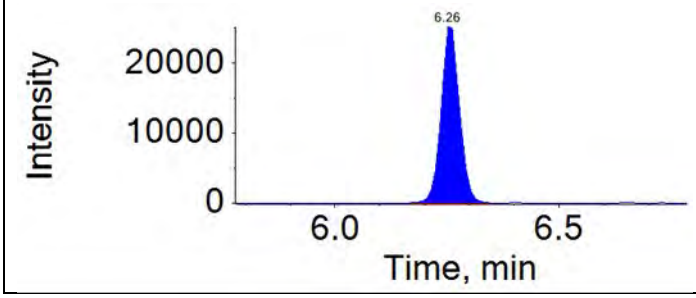
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV4-5 11/8/2018 8:13:38 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

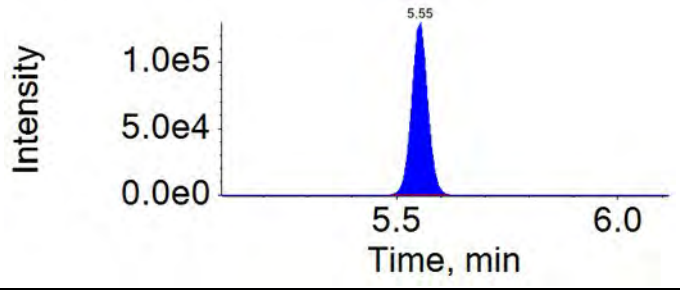
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



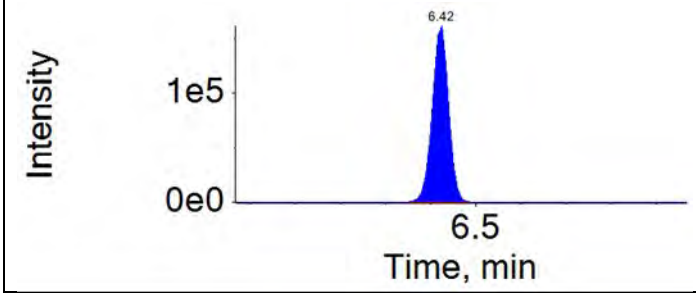


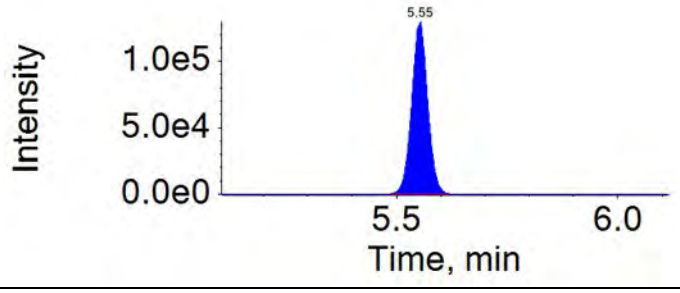
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0



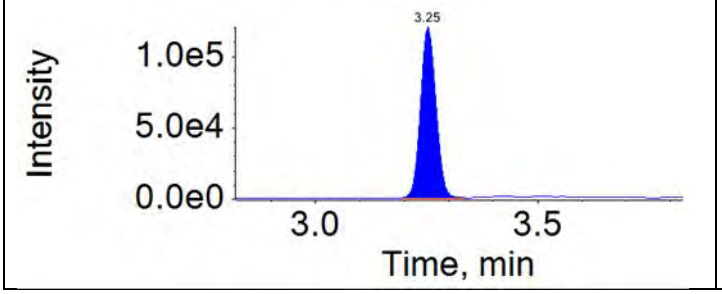


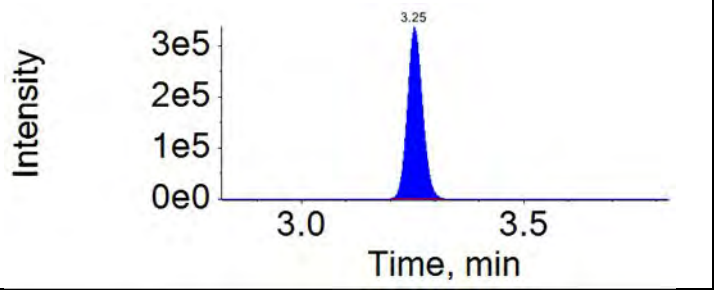
APPROVED
By MCD at 8:17 pm, 11/8/18

REVIEWED
By HMK at 9:19 am, 11/13/18

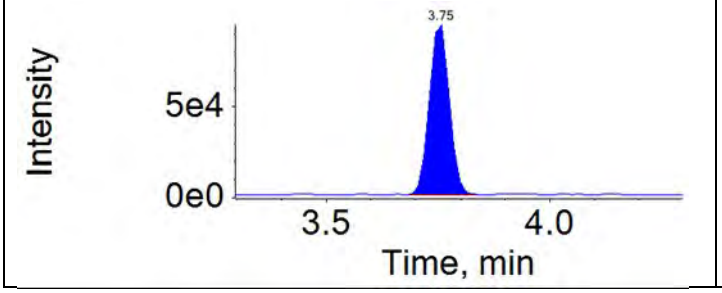
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV4-5 11/8/2018 8:13:38 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

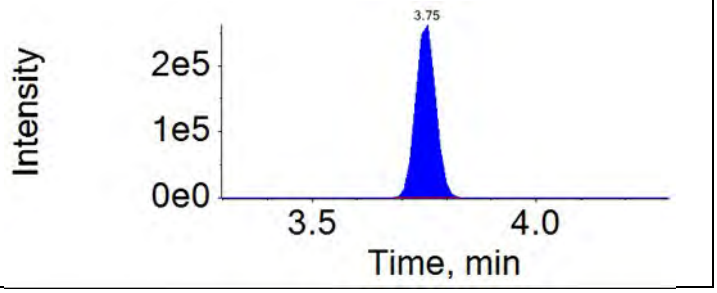
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



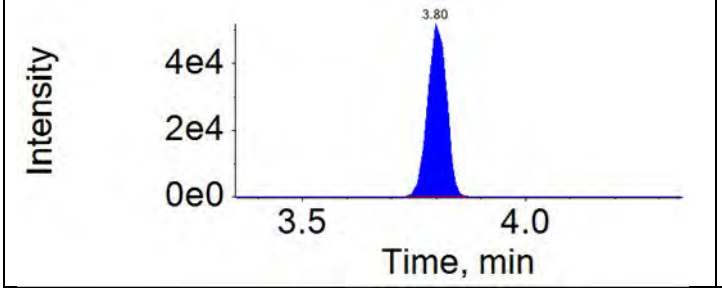


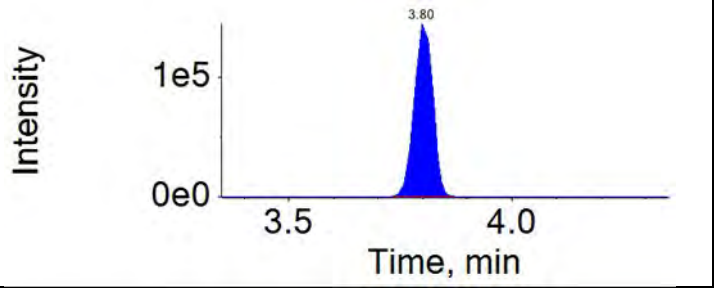
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



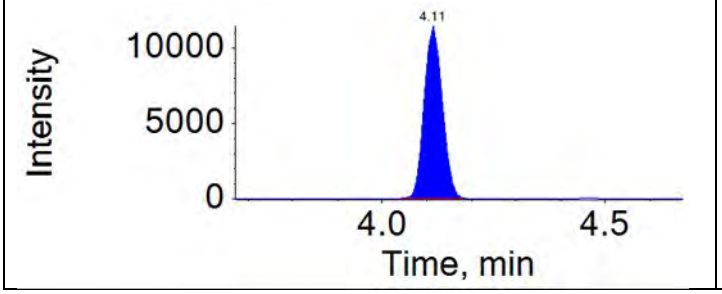


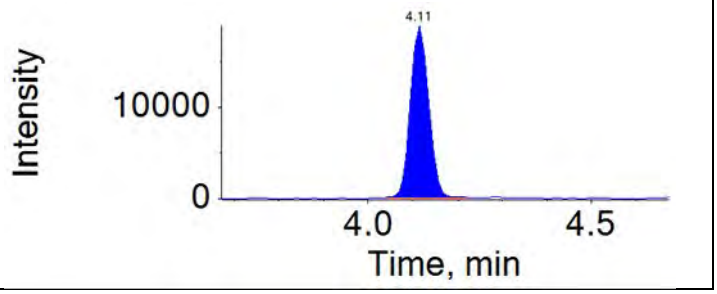
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





Analyte: 4:2-FTS	Extraction Standard: 13C2-4:2-FTS
327.0 / 307.0	329.0 / 81.0



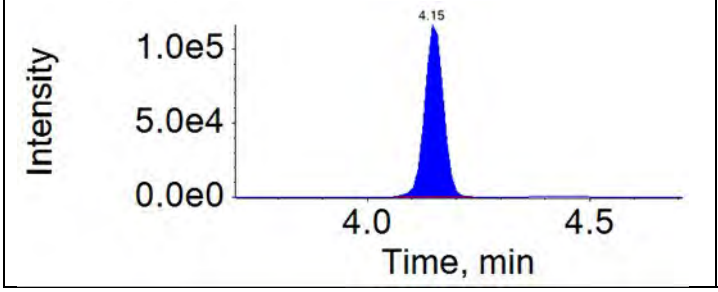


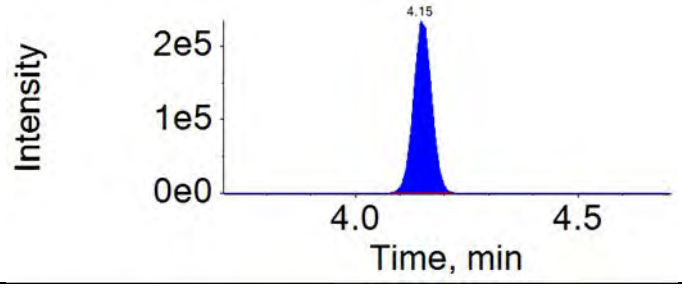
APPROVED
By MCD at 8:17 pm, 11/8/18

REVIEWED
By HMK at 9:19 am, 11/13/18

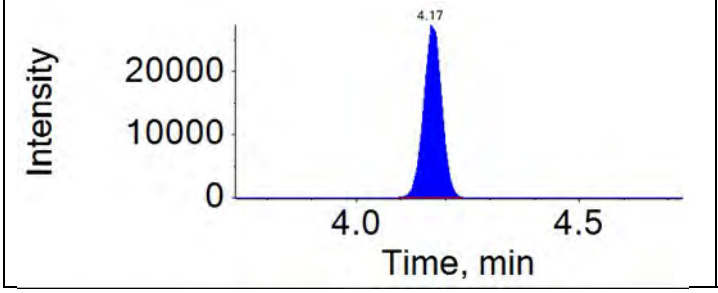
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV4-5 11/8/2018 8:13:38 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

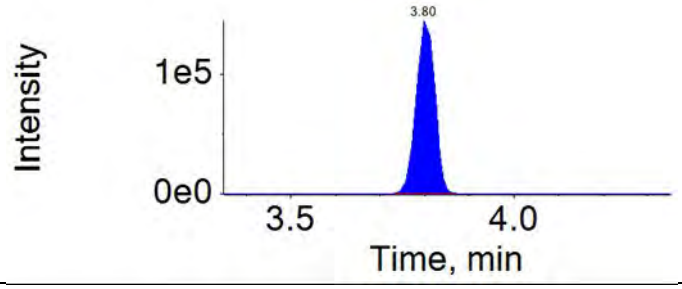
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



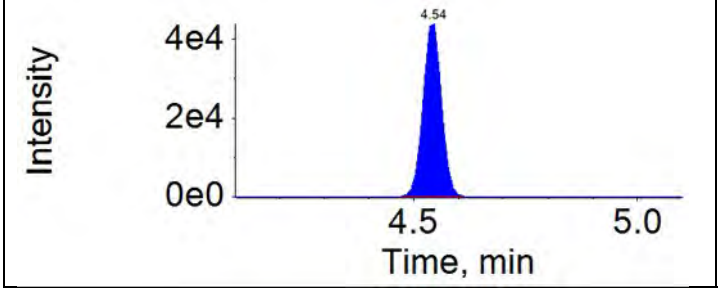


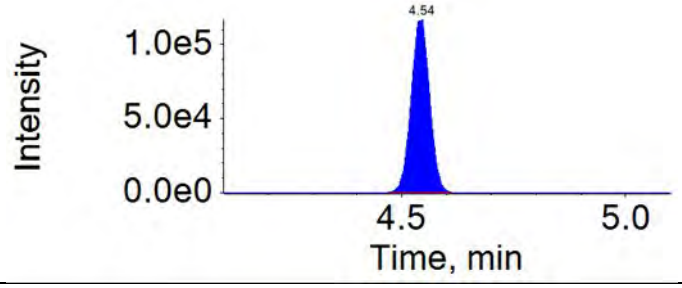
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



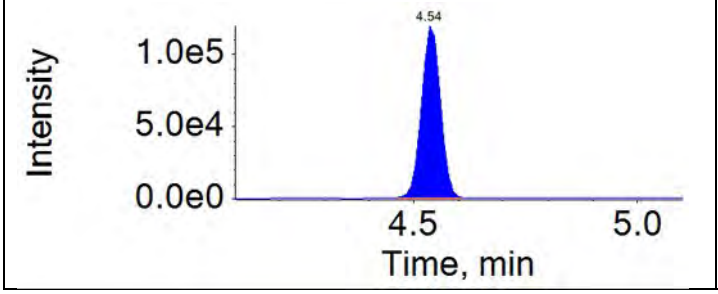


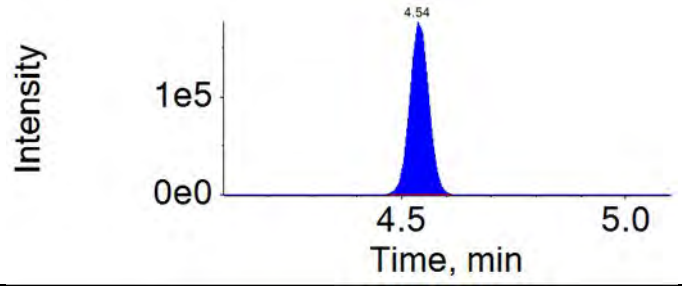
Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0





Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0



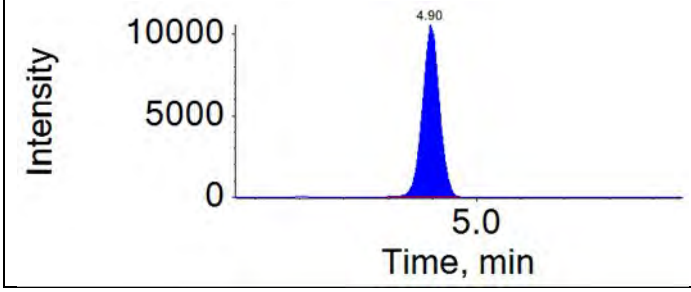


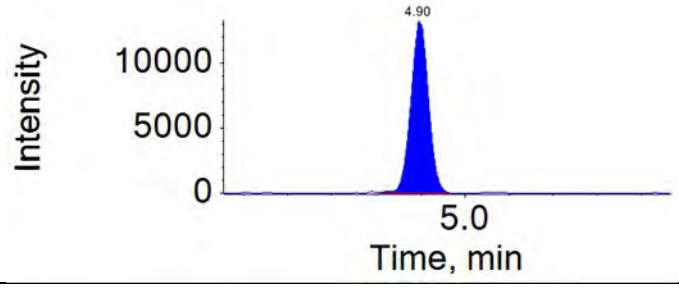
APPROVED
By MCD at 8:17 pm, 11/8/18

REVIEWED
By HMK at 9:19 am, 11/13/18

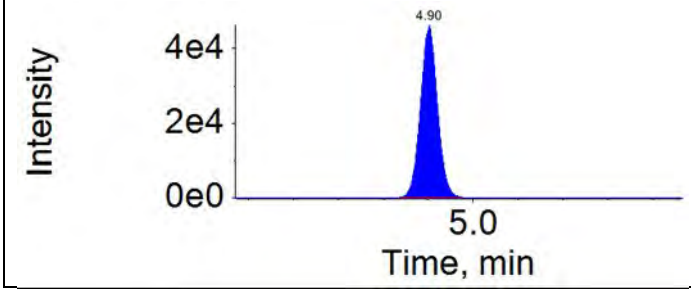
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV4-5 11/8/2018 8:13:38 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

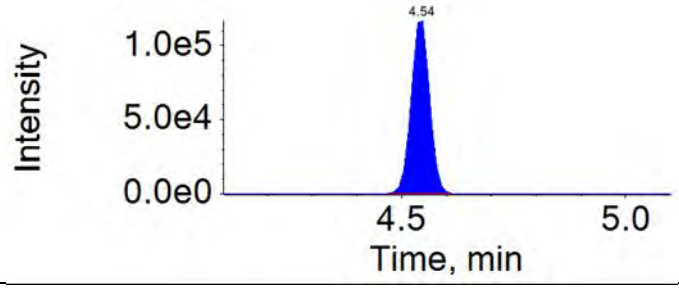
Analyte: 6:2-FTS	Extraction Standard: 13C2-6:2-FTS
427.0 / 407.0	429.0 / 81.0



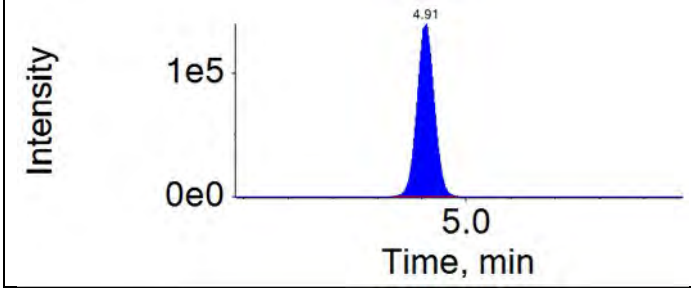


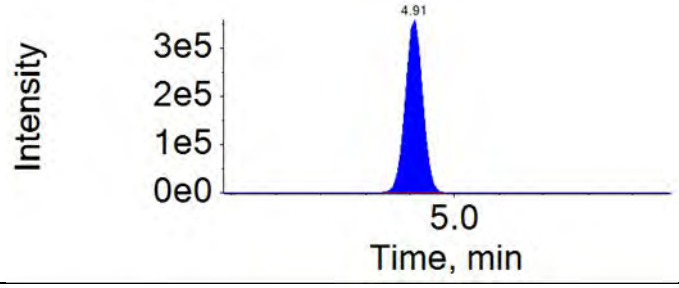
Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0



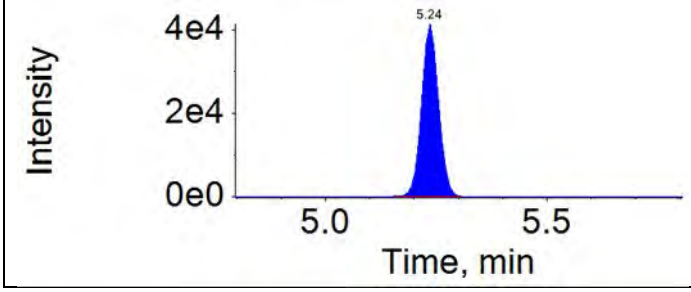


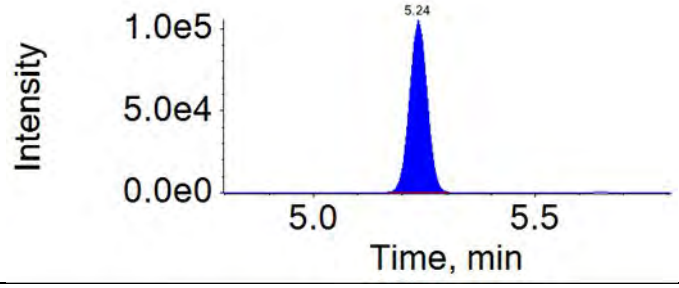
Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0





Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0



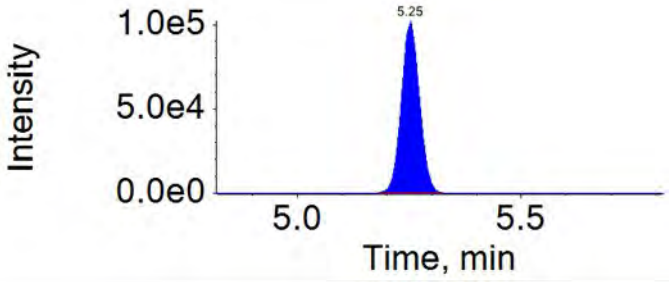


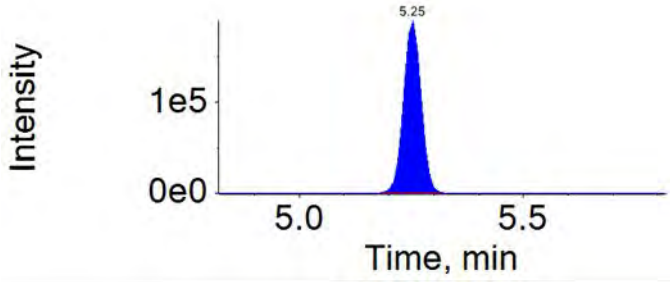
APPROVED
By MCD at 8:17 pm, 11/8/18

REVIEWED
By HMK at 9:19 am, 11/13/18

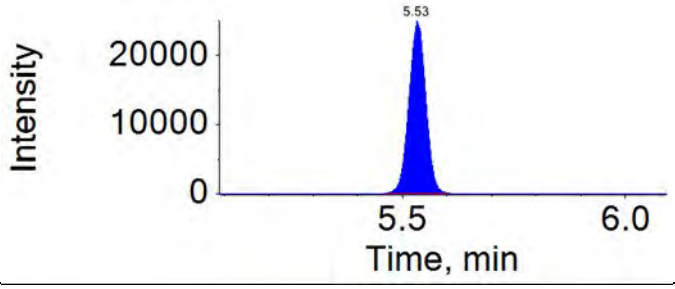
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV4-5 11/8/2018 8:13:38 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

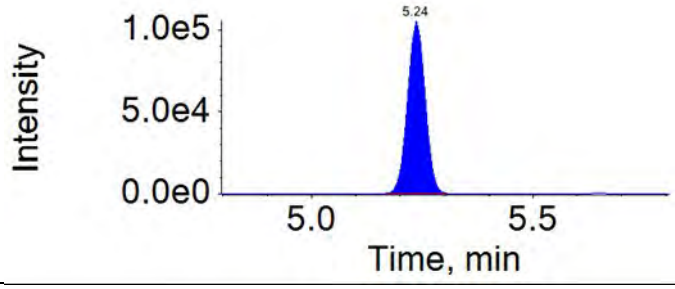
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



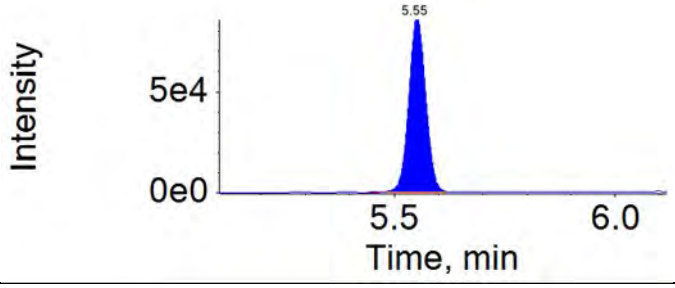


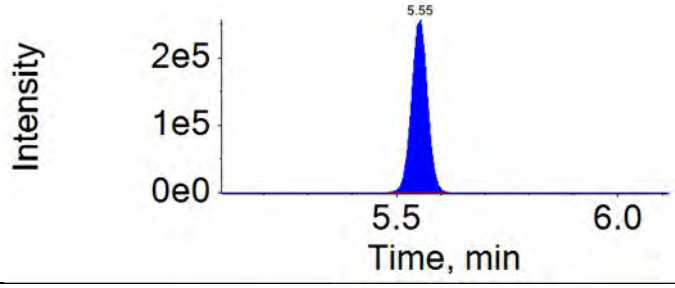
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



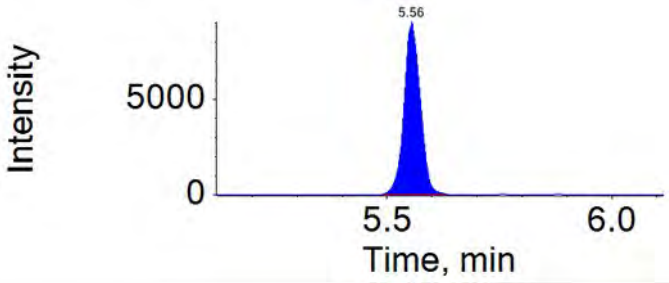


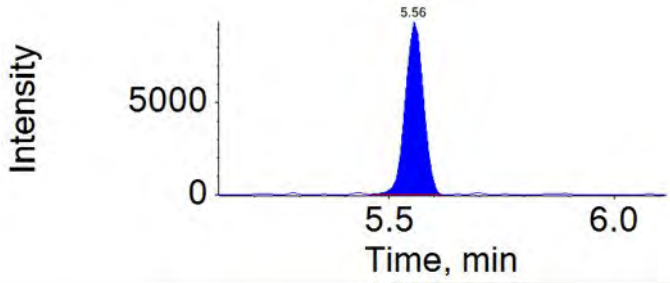
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





Analyte: 8:2-FTS	Extraction Standard: 13C2-8:2-FTS
527.0 / 507.0	529.0 / 81.0



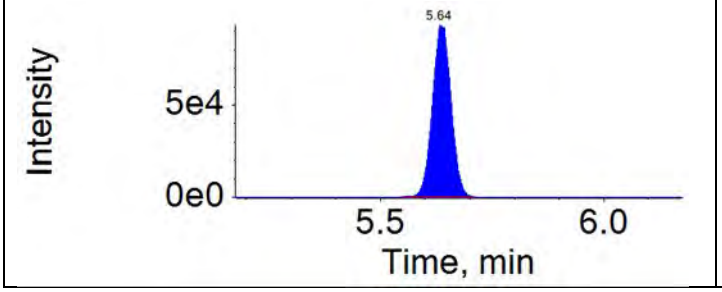


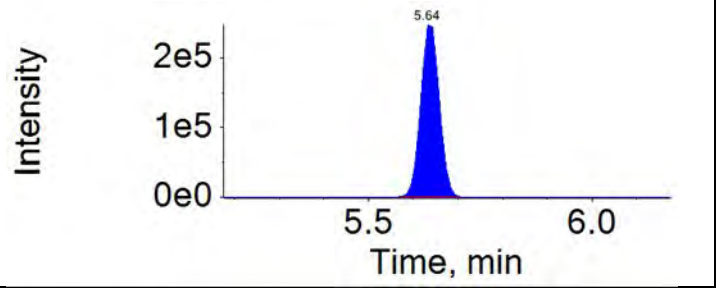
APPROVED
By MCD at 8:17 pm, 11/8/18

REVIEWED
By HMK at 9:19 am, 11/13/18

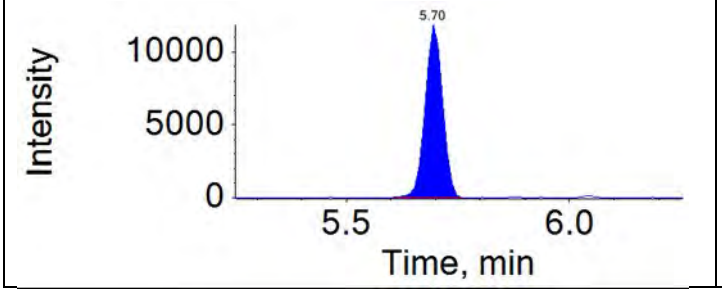
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV4-5 11/8/2018 8:13:38 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

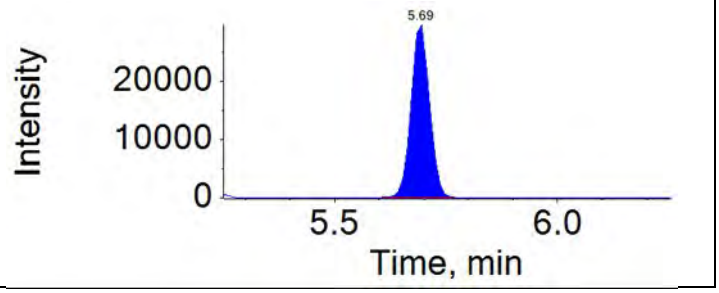
Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0



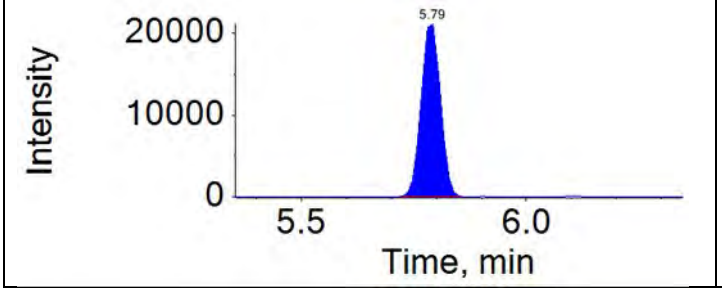


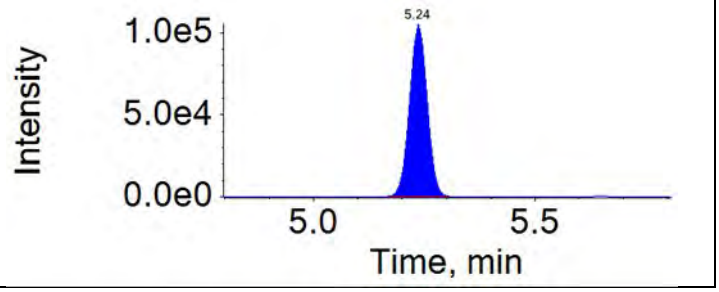
Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0



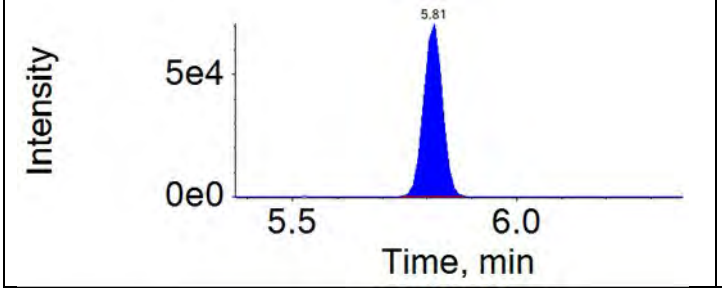


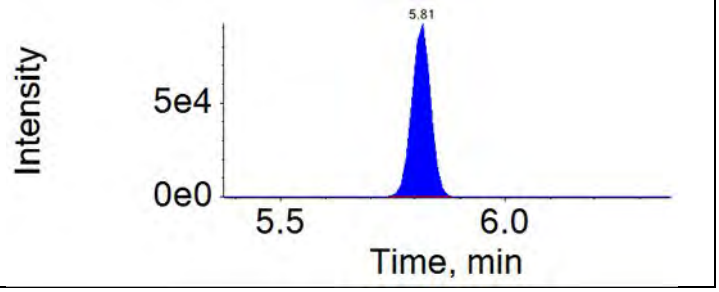
Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0





Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0



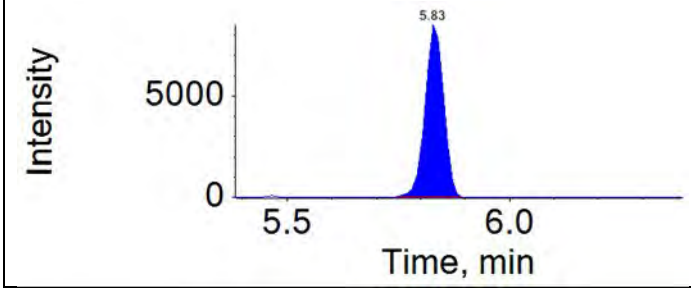


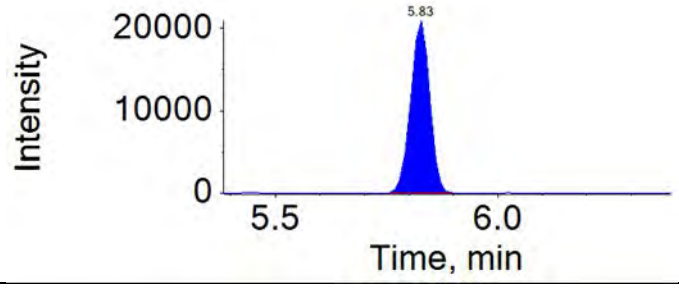
APPROVED
By MCD at 8:17 pm, 11/8/18

REVIEWED
By HMK at 9:19 am, 11/13/18

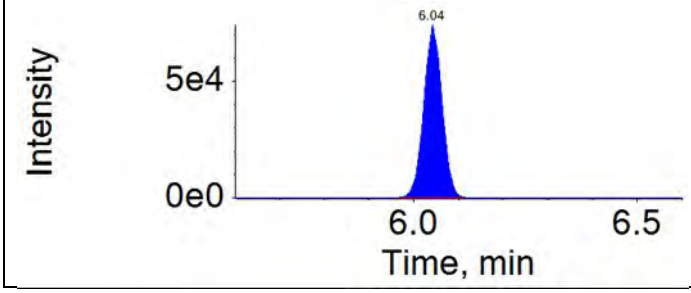
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV4-5 11/8/2018 8:13:38 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

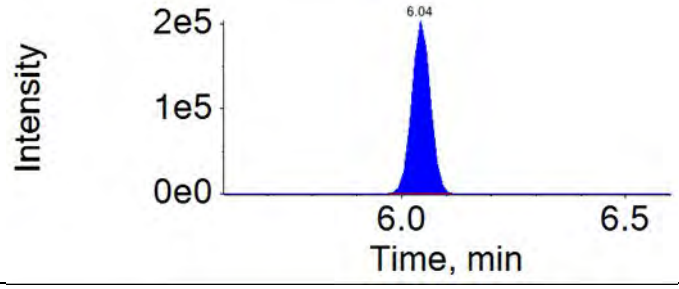
Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0



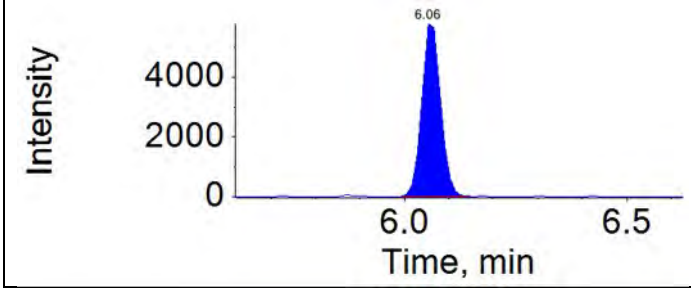


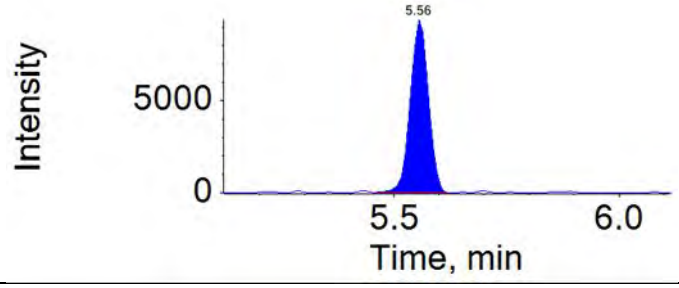
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0



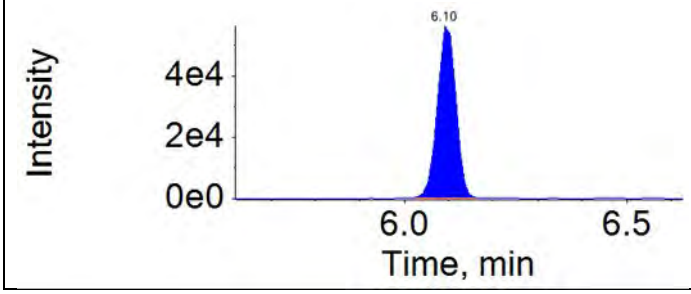


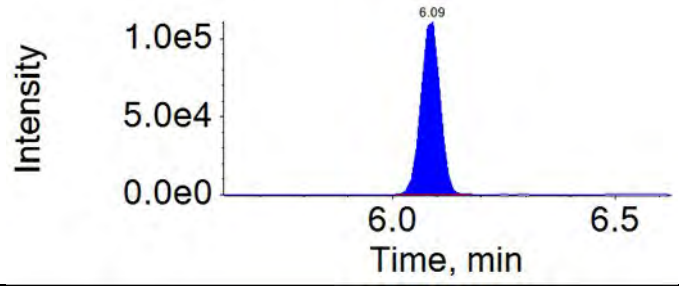
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0





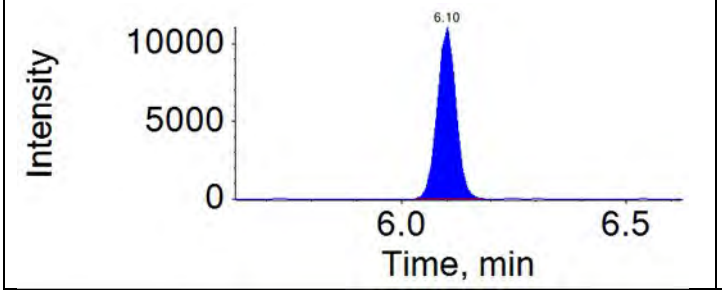
Analyte: NMePFOSAE	Extraction Standard: d7-NMePFOSAE
616.0 / 59.0	623.0 / 59.0

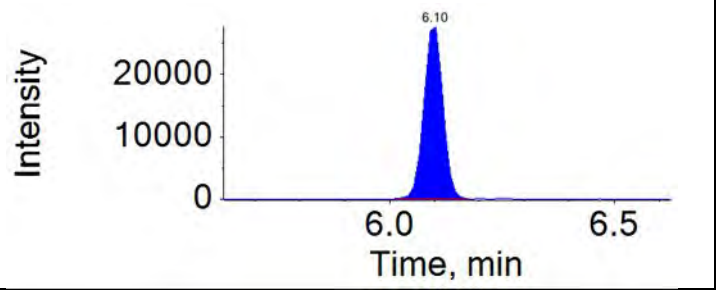




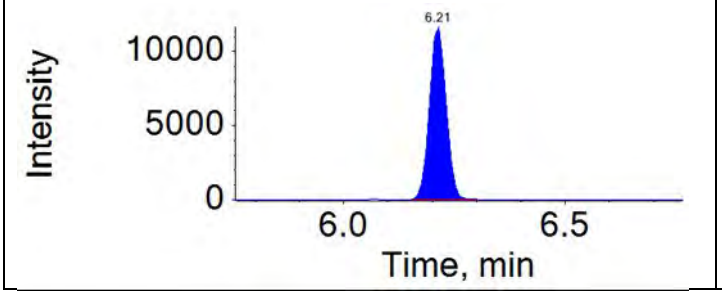
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV4-5 11/8/2018 8:13:38 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

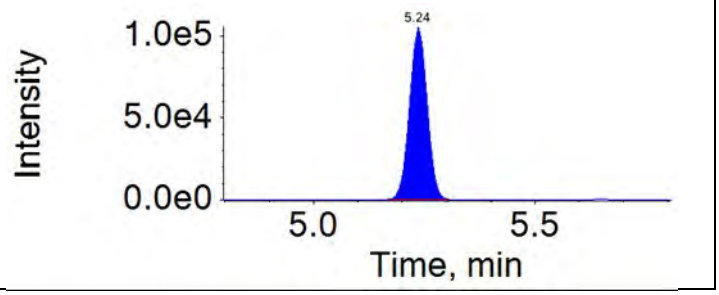
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



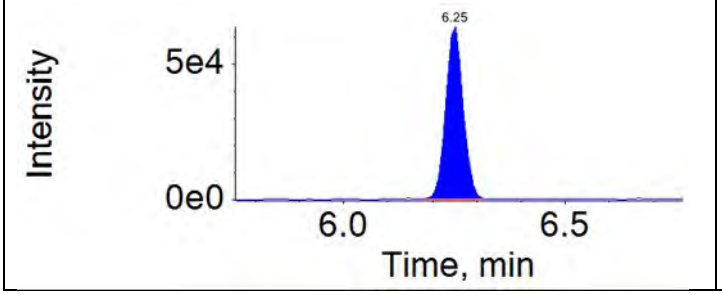


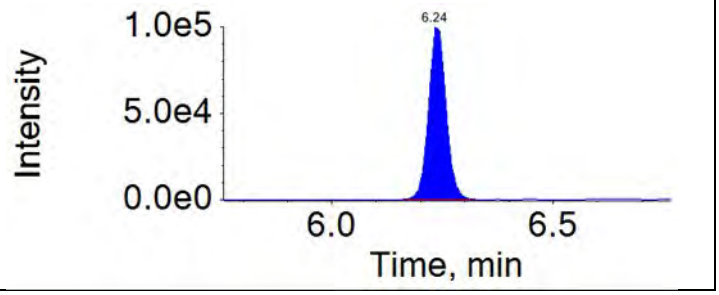
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



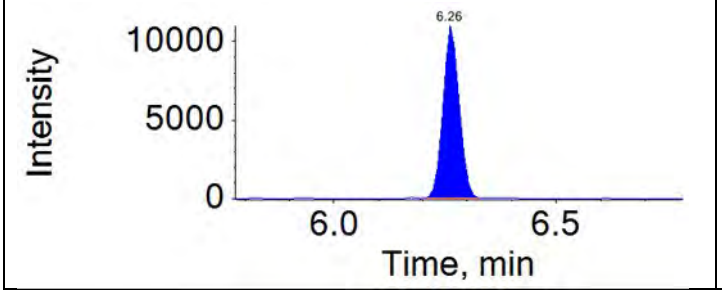


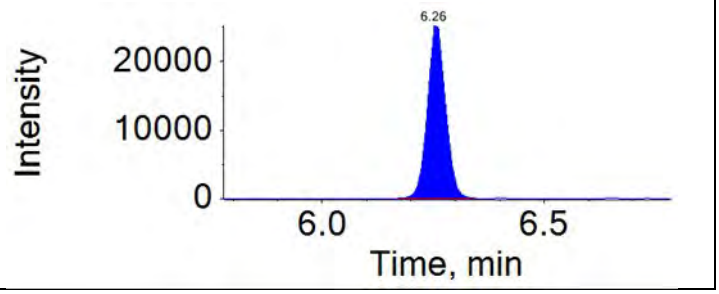
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





Analyte: NEtPFOSA	Extraction Standard: d5-NEtPFOSA
526.0 / 169.0	531.0 / 169.0



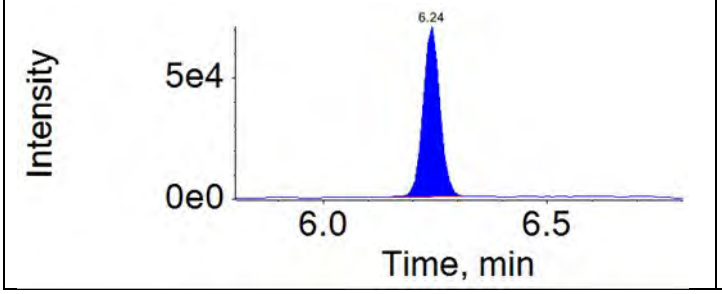


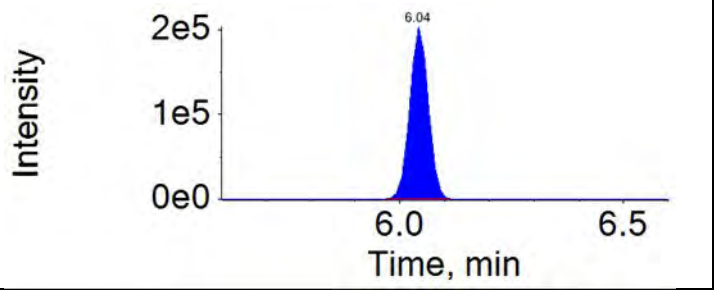
APPROVED
By MCD at 8:17 pm, 11/8/18

REVIEWED
By HMK at 9:19 am, 11/13/18

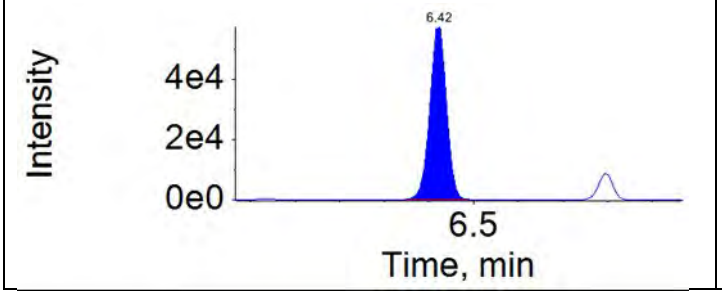
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV4-5 11/8/2018 8:13:38 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

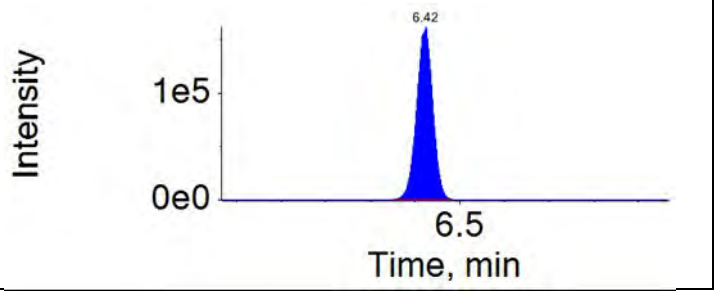
Analyte: PFTrDA	Extraction Standard: 13C2-PFDoDA
663.0 / 619.0	615.0 / 570.0



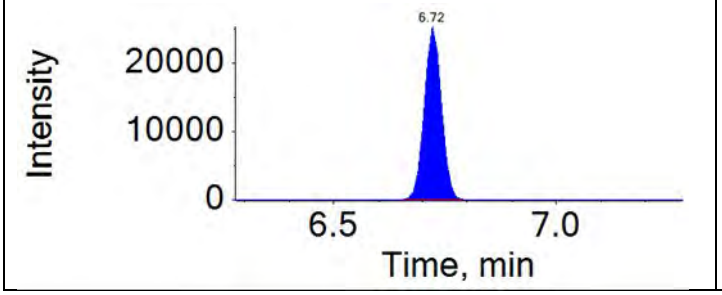


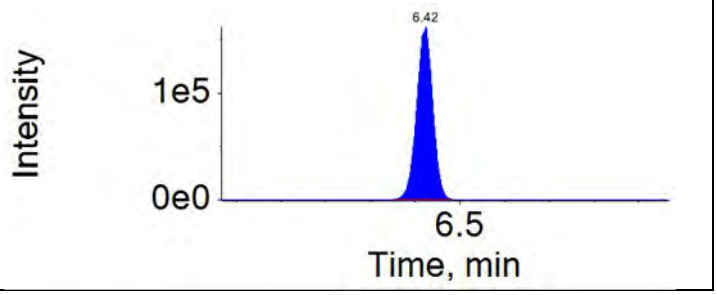
Analyte: PFTeDA	Extraction Standard: 13C2-PFTeDA
713.0 / 669.0	715.0 / 670.0



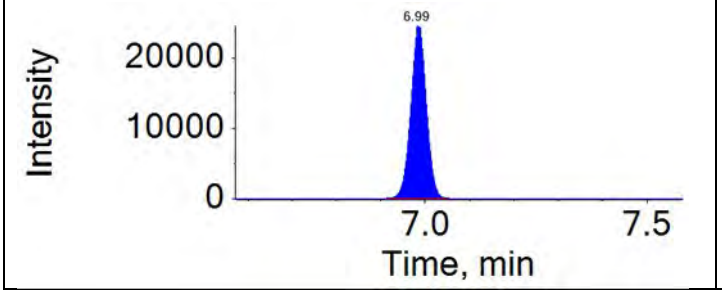


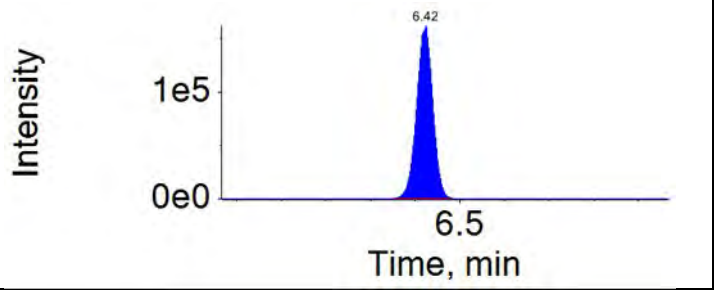
Analyte: PFHxDA	Extraction Standard: 13C2-PFTeDA
813.0 / 769.0	715.0 / 670.0





Analyte: PFODA	Extraction Standard: 13C2-PFTeDA
913.0 / 869.0	715.0 / 670.0





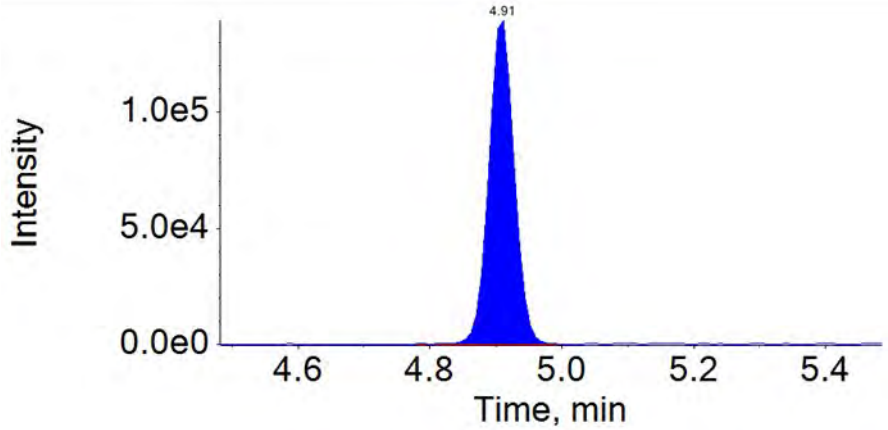
APPROVED
By MCD at 8:17 pm, 11/8/18

REVIEWED
By HMK at 9:19 am, 11/13/18

Results Table Name: 18NOV08DCCV4-5
Results Table Date: 11/8/2018 8:13:38 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: MQ4-18AUG13

Component Name:
PFOA
RT (min.):
4.91
Peak Area:
374190.4
Mass Range:
413.0 / 369.0
File Name:
18NOV08D-52.wiff
Sample Name:
CCV5_CAL3



Integration Comment: incorrect integration

APPROVED
By MCD at 8:17 pm, 11/8/18

REVIEWED
By HMK at 9:19 am, 11/13/18

Results Table Name:	18NOV08DCCV4-5	**Acquisition Method:**	18AUG13_3uL.dam
Results Table Date:	11/8/2018 8:13:38 PM	**QMethod File:**	MQ4-18AUG13

Ion Ratio Report

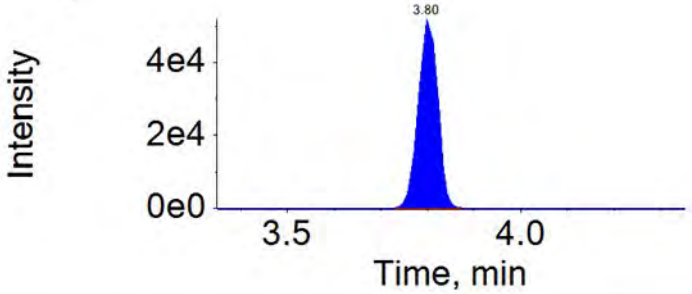
Sample Name: CCV5_CAL3 **Instrument Name:** LM27631 **File Name:** 18NOV08D-52.wiff

Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	3.80	1.00	151512.2	A	N/A	0.3787			
PFBS_2	3.80	1.00	57377.2	A	N/A	0.3787	6	50	
4:2-FTS	4.11	1.00	32489.7	A	N/A	0.6497			
4:2-FTS_2	4.11	1.00	21107.3	A	N/A	0.6497	1	50	
PFHxA	4.15	1.00	336950.0	A	N/A	0.0103			
PFHxA_2	4.15	1.00	3461.6	A	N/A	0.0103	-9	50	
PFPeS	4.17	1.10	77127.5	A	N/A	0.5451			
PFPeS_2	4.17	1.10	42040.3	A	N/A	0.5451	0	50	
PFHxS	4.54	1.00	126629.5	A	N/A	0.3601			
PFHxS_2	4.54	1.00	45601.3	A	N/A	0.3601	1	50	
PFHpA	4.54	1.00	350420.1	A	N/A	0.0548			
PFHpA_2	4.54	1.00	19196.6	A	N/A	0.0548	-5	50	
6:2-FTS	4.90	1.00	28202.3	A	N/A	0.6739			
6:2-FTS_2	4.90	1.00	19006.8	A	N/A	0.6739	-1	50	
PFHpS	4.90	1.08	120255.9	A	N/A	0.4001			
PFHpS_2	4.90	1.08	48114.9	A	N/A	0.4001	1	50	
PFOA	4.91	1.00	373627.2	M	N/A	0.0518			
PFOA_2	4.91	1.00	19342.2	A	N/A	0.0518	-19	50	
PFOS	5.24	1.00	110601.7	A	N/A	0.3352			
PFOS_2	5.24	1.00	37068.8	A	N/A	0.3352	-5	50	
PFNA	5.25	1.00	283947.1	A	N/A	0.0207			
PFNA_2	5.25	1.00	5867.4	A	N/A	0.0207	0	50	
PFNS	5.53	1.06	65719.3	A	N/A	0.4898			
PFNS_2	5.53	1.06	32189.8	A	N/A	0.4898	0	50	
PFDA	5.55	1.00	228635.9	A	N/A	0.0061			
PFDA_2	5.55	1.00	1397.9	A	N/A	0.0061	12	50	
8:2-FTS	5.56	1.00	22729.1	A	N/A	0.6624			
8:2-FTS_2	5.55	1.00	15056.3	A	N/A	0.6624	6	50	
NMeFOSAA	5.70	1.00	32150.0	A	N/A	0.2425			
NMeFOSAA_2	5.70	1.00	7795.8	A	N/A	0.2425	12	50	
PFDS	5.79	1.11	63563.6	A	N/A	0.4872			
PFDS_2	5.79	1.11	30968.3	A	N/A	0.4872	6	50	
PFUnDA	5.81	1.00	205299.6	A	N/A	0.0031			
PFUnDA_2	5.82	1.00	639.3	A	N/A	0.0031	2	50	
NEtFOSAA	5.83	1.00	24646.5	A	N/A	0.7382			
NEtFOSAA_2	5.83	1.00	18194.0	A	N/A	0.7382	22	50	
PFDoDA	6.04	1.00	209465.1	A	N/A	0.0102			
PFDoDA_2	6.04	1.00	2139.4	A	N/A	0.0102	-3	50	
10:2-FTS	6.06	1.09	17021.7	A	N/A	0.6625			
10:2-FTS_2	6.06	1.09	11277.7	A	N/A	0.6625	-7	50	
PFTrDA	6.24	1.03	182026.4	A	N/A	0.0061			
PFTrDA_2	6.24	1.03	1117.1	A	N/A	0.0061	-36	50	
PFTeDA	6.42	1.00	149055.1	A	N/A	0.0065			
PFTeDA_2	6.42	1.00	971.8	A	N/A	0.0065	21	50	
PFHxDA	6.72	1.05	67077.6	A	N/A	0.0665			
PFHxDA_2	6.72	1.05	4461.5	A	N/A	0.0665	13	50	
PFODA	6.99	1.09	59421.3	A	N/A	0.0258			
PFODA_2	6.98	1.09	1534.8	A	N/A	0.0258	1	50	

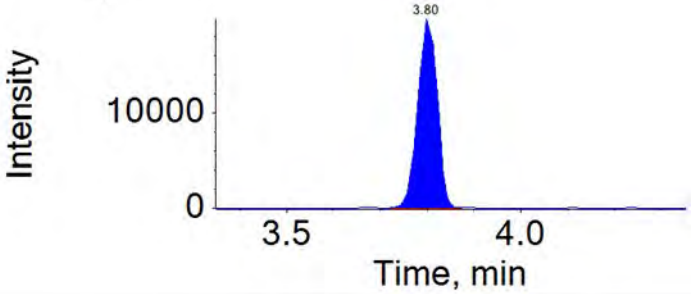
APPROVED
By MCD at 8:17 pm, 11/8/18

REVIEWED
By HMK at 9:19 am, 11/13/18

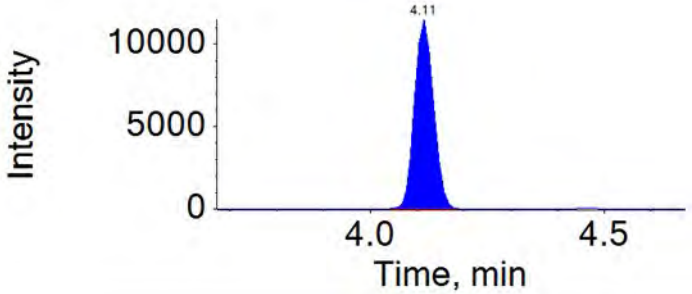
Component: PFBS
Primary Mass: 299.0 / 80.0



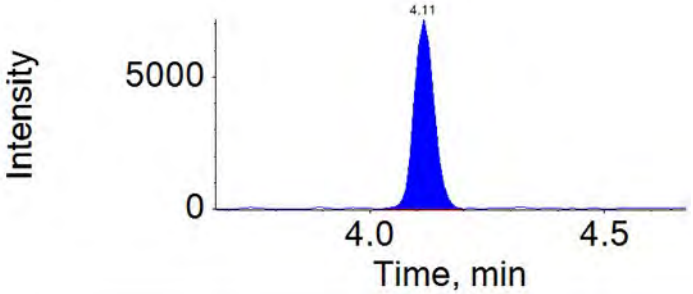
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



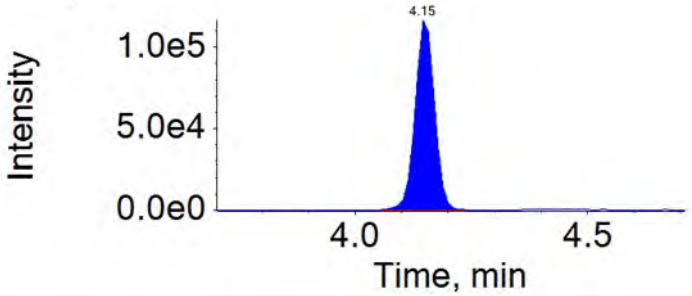
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



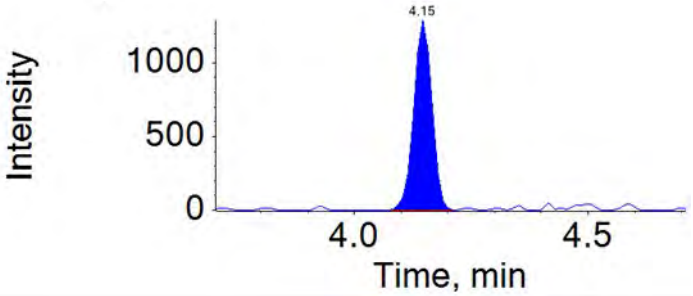
Component: 4:2-FTS_2
Secondary Mass: 327.0 / 81.0



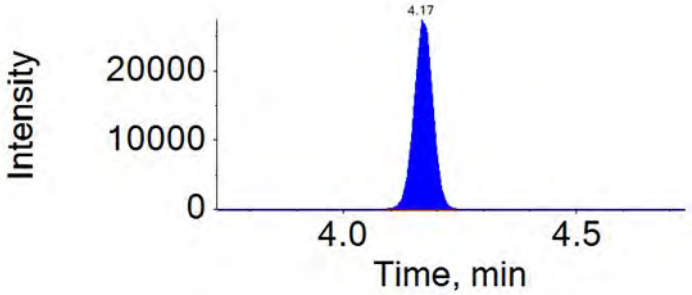
Component: PFHxA
Primary Mass: 313.0 / 269.0



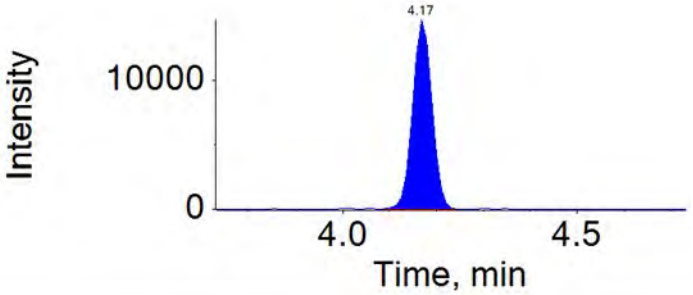
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



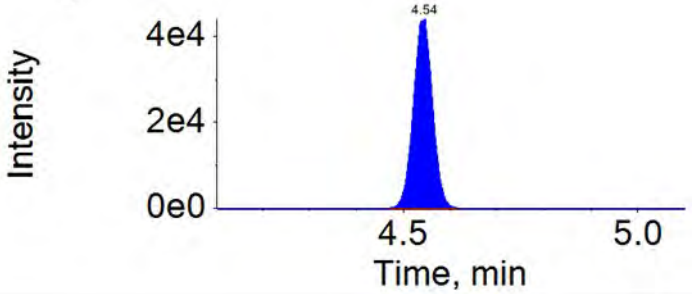
Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



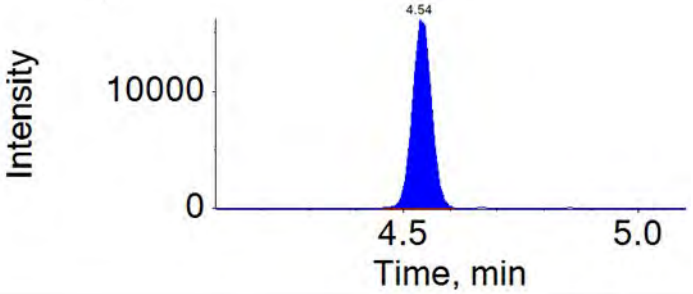
APPROVED
By MCD at 8:17 pm, 11/8/18

REVIEWED
By HMK at 9:19 am, 11/13/18

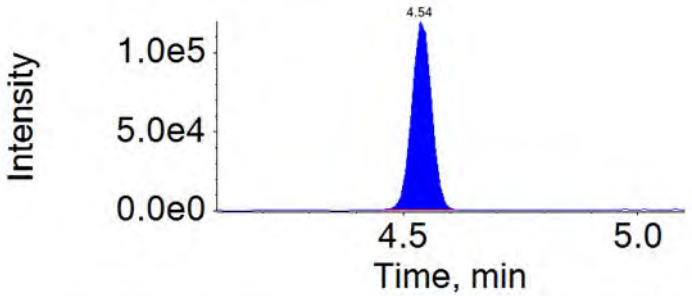
Component: PFHxS
Primary Mass: 399.0 / 80.0



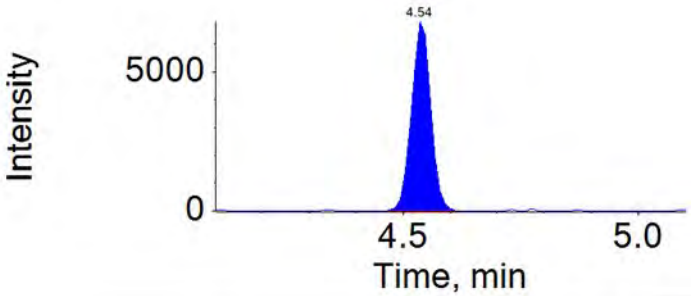
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



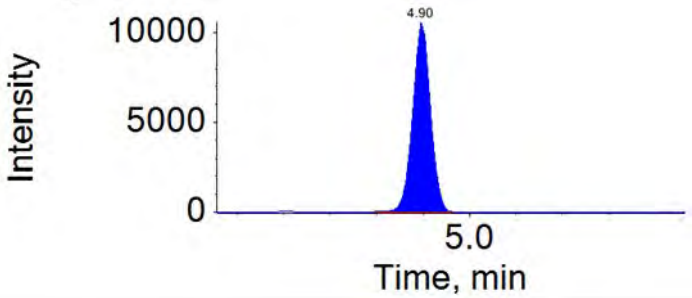
Component: PFHpA
Primary Mass: 363.0 / 319.0



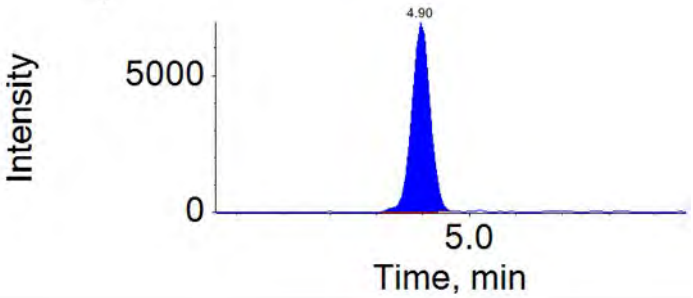
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



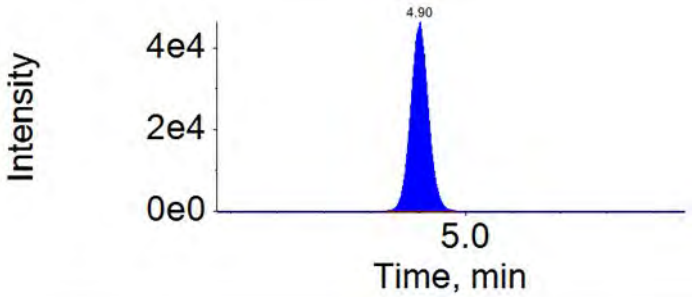
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



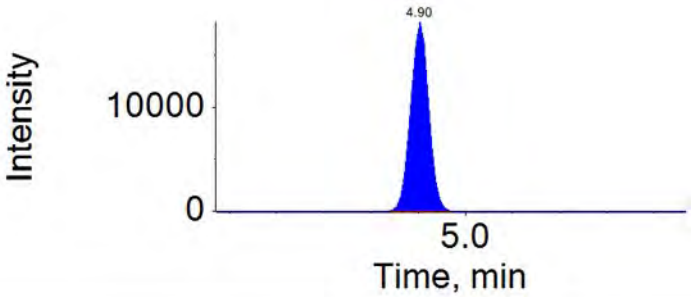
Component: 6:2-FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



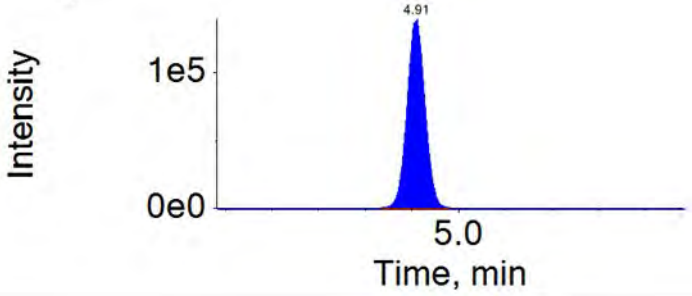
Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



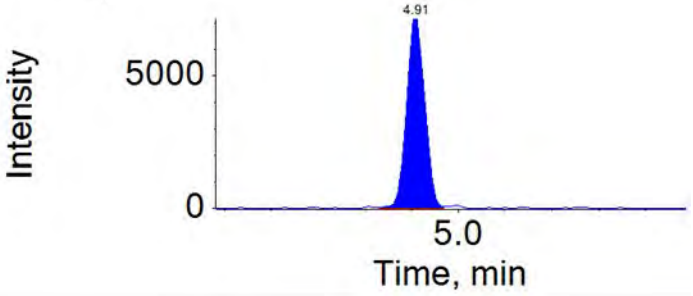
APPROVED
By MCD at 8:17 pm, 11/8/18

REVIEWED
By HMK at 9:19 am, 11/13/18

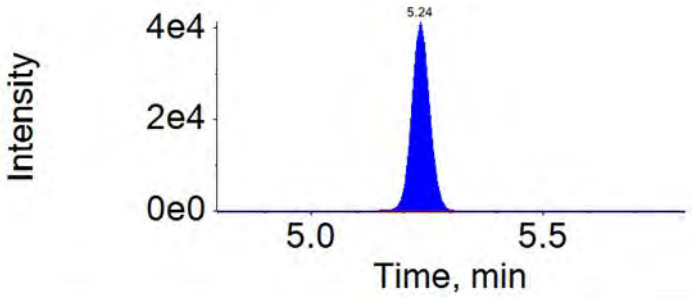
Component: PFOA
Primary Mass: 413.0 / 369.0



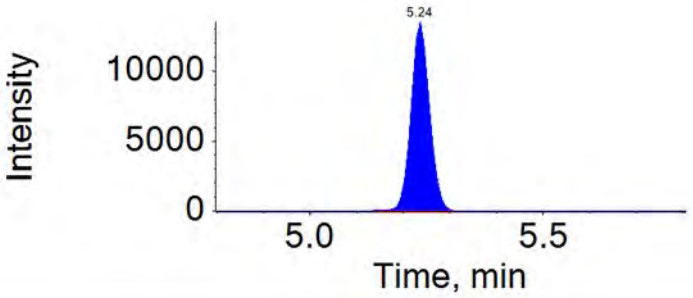
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



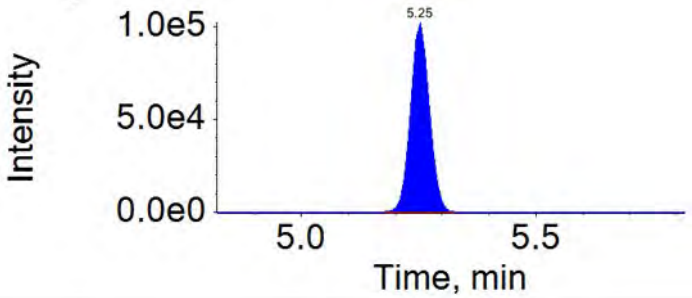
Component: PFOS
Primary Mass: 499.0 / 80.0



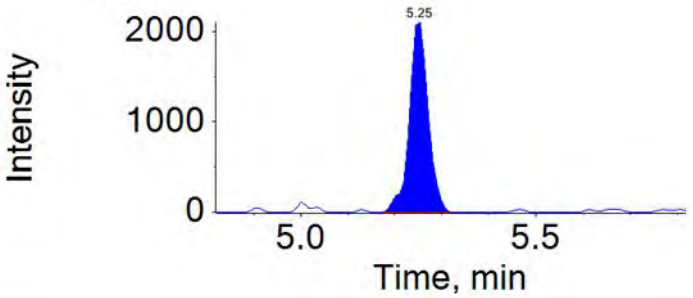
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



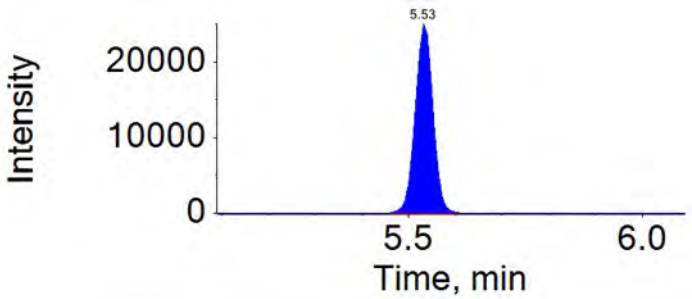
Component: PFNA
Primary Mass: 463.0 / 419.0



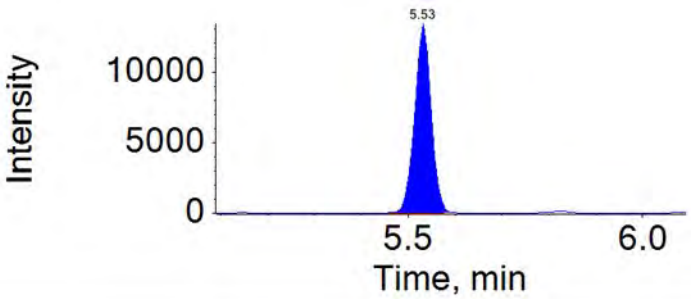
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



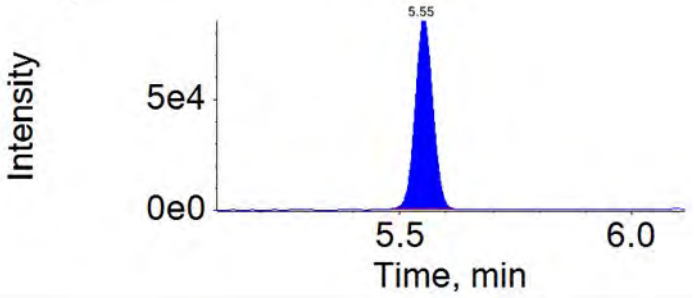
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



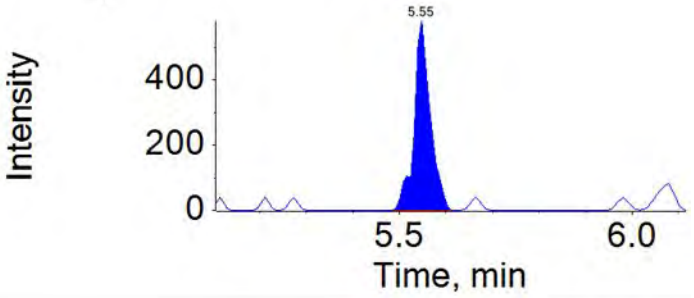
APPROVED
By MCD at 8:17 pm, 11/8/18

REVIEWED
By HMK at 9:19 am, 11/13/18

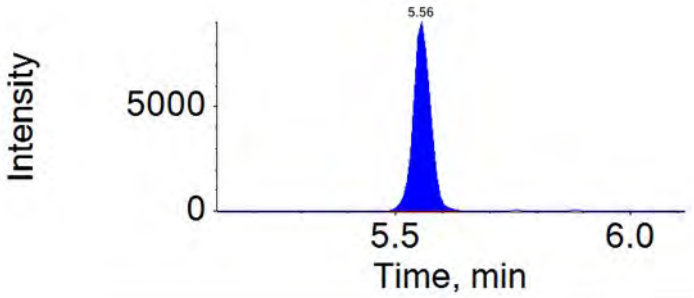
Component: PFDA
Primary Mass: 513.0 / 469.0



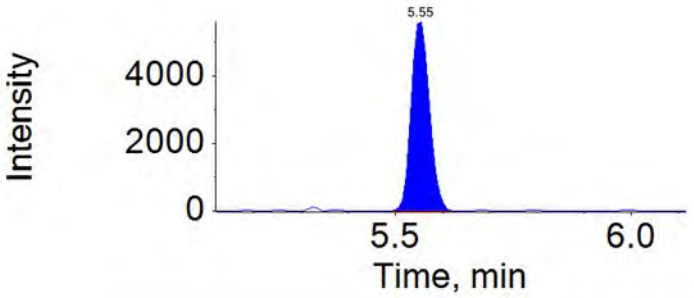
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



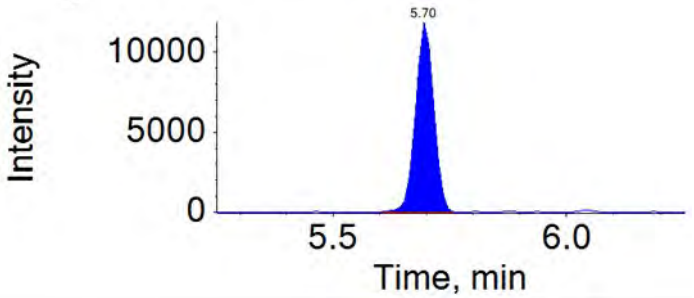
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



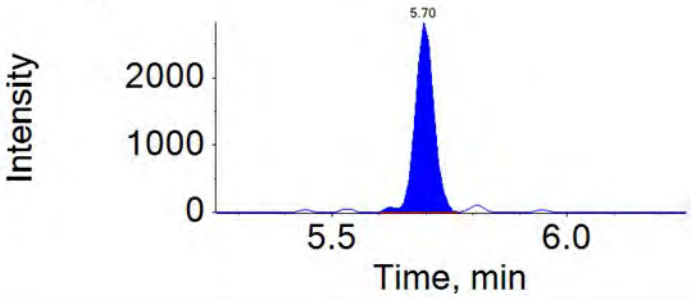
Component: 8:2-FTS_2
Secondary Mass: 527.0 / 81.0



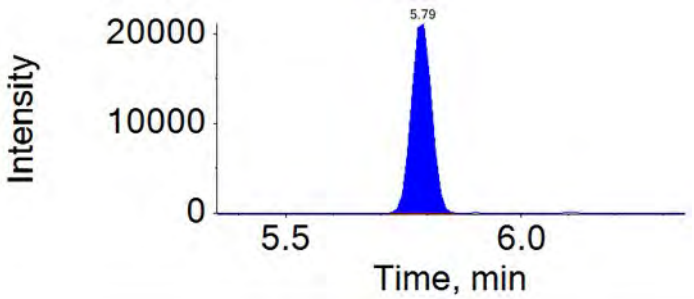
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



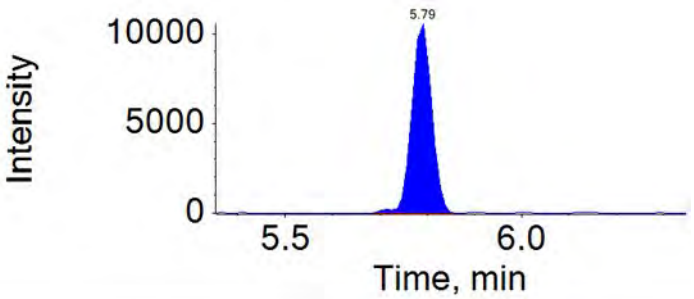
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



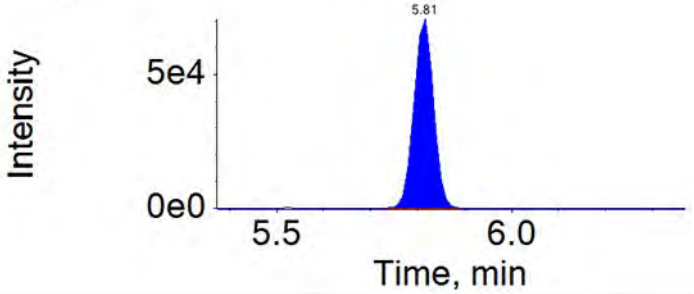
Component: PFDS_2
Secondary Mass: 599.0 / 99.0



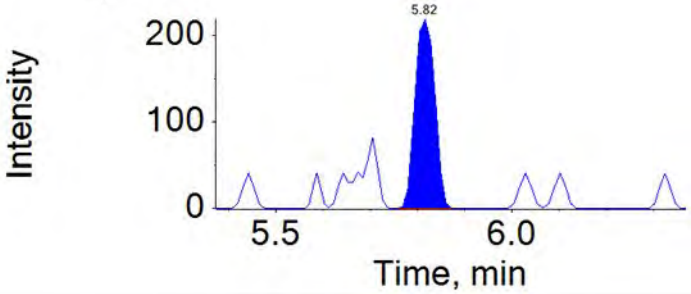
APPROVED
By MCD at 8:17 pm, 11/8/18

REVIEWED
By HMK at 9:19 am, 11/13/18

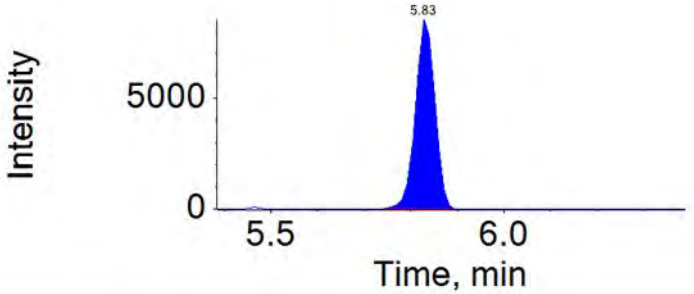
Component: PFUnDA
Primary Mass: 563.0 / 519.0



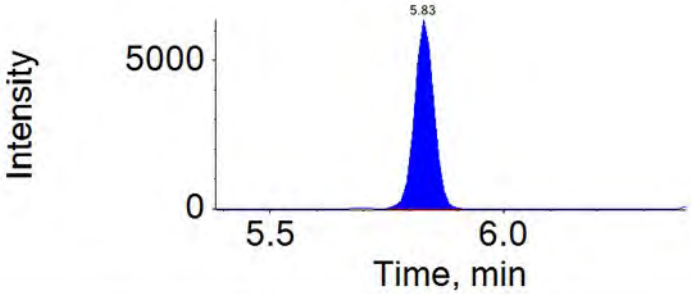
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



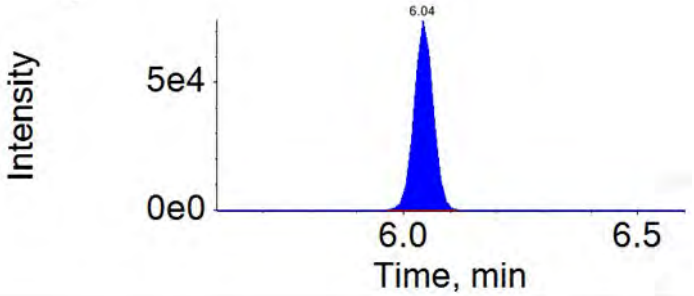
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



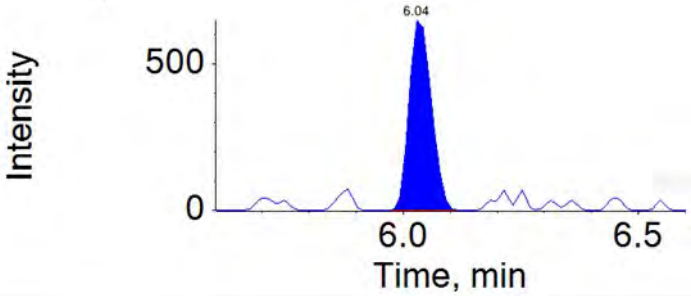
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



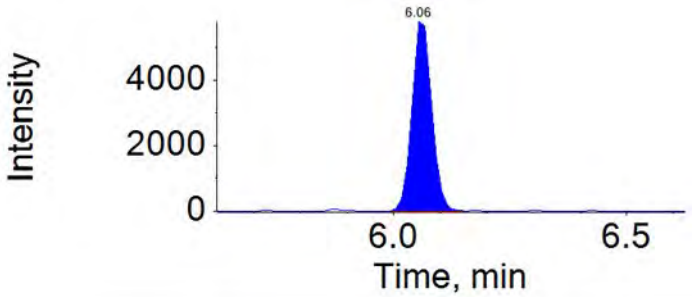
Component: PFDoDA
Primary Mass: 613.0 / 569.0



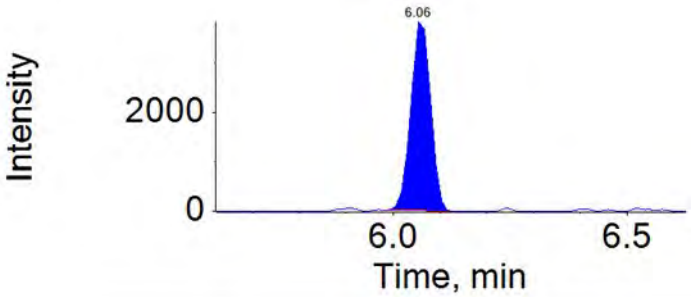
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



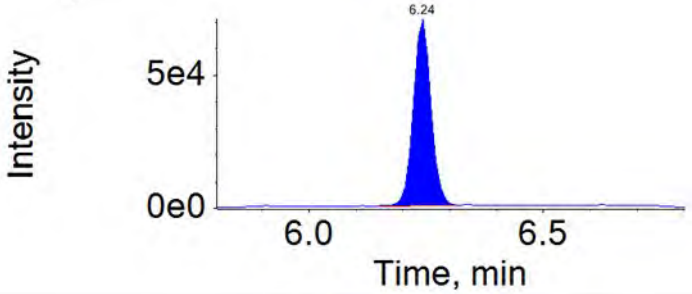
Component: 10:2-FTS_2
Secondary Mass: 627.0 / 81.0



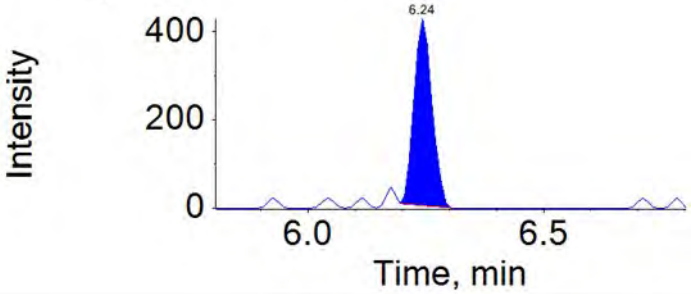
APPROVED
By MCD at 8:17 pm, 11/8/18

REVIEWED
By HMK at 9:19 am, 11/13/18

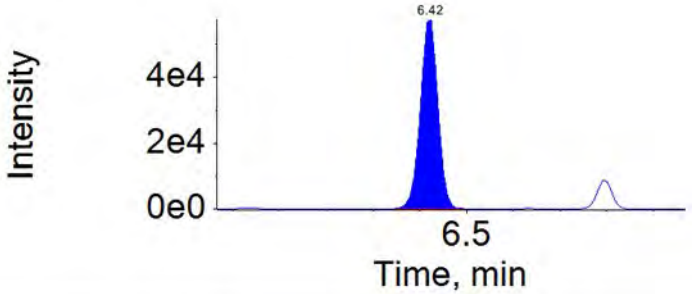
Component: PFTrDA
Primary Mass: 663.0 / 619.0



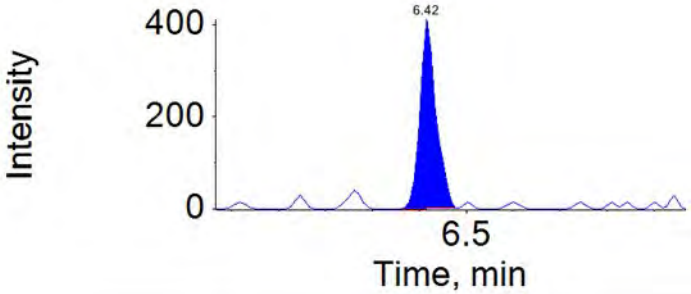
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



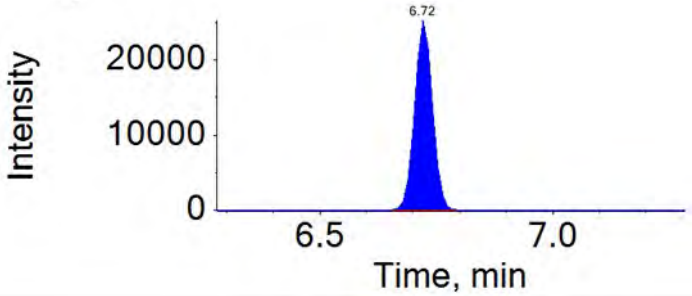
Component: PFTeDA
Primary Mass: 713.0 / 669.0



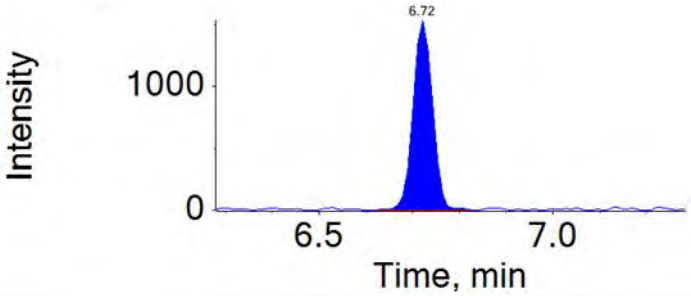
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



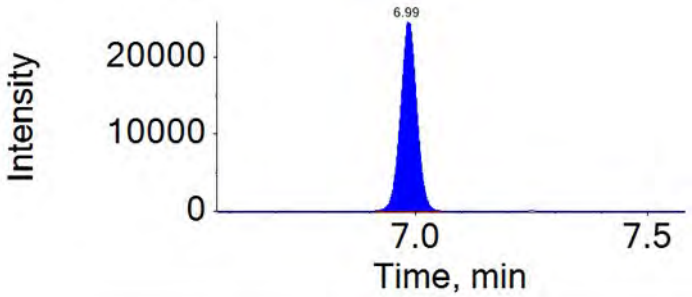
Component: PFHxDA
Primary Mass: 813.0 / 769.0



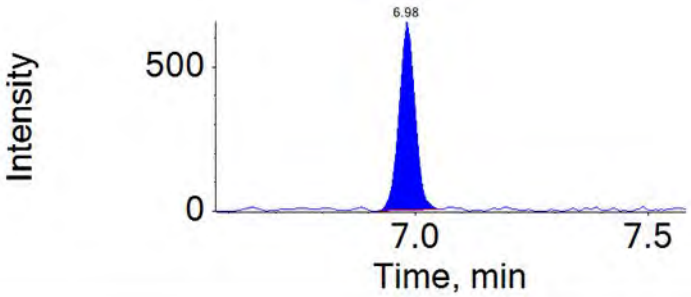
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



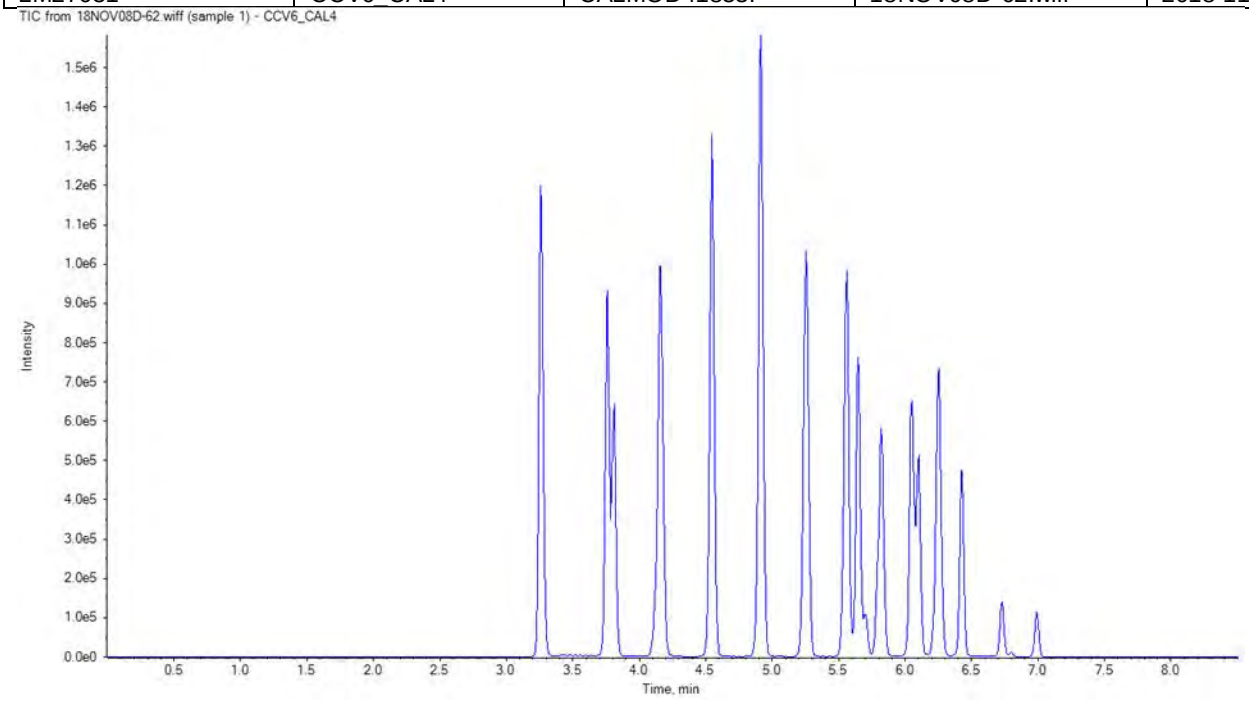
APPROVED
By MCD at 8:17 pm, 11/8/18

REVIEWED
By HMK at 9:19 am, 11/13/18

Continuing Calibration Verfication

ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	CCV6_CAL4	CALMOD41833F	18NOV08D-62.wiff	2018-11-08T20:58:46



Injection Standard Area Reference File: 18NOV08D-05

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Reference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	720767.6	728839.7	-1	50	
13C2-PFOA	5.0	506864.5	491983.1	3	50	
13C4-PFOS	4.8	283392.2	255568.1	11	50	
13C2-PFDA	5.0	307626.3	315407.5	-2	50	

APPROVED
By JPT at 10:55 am, 11/9/18

REVIEWED
By HMK at 2:58 pm, 11/11/18

Continuing Calibration Verfication

ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	CCV6_CAL4	CALMOD41833F	18NOV08D-62.wiff	2018-11-08T20:58:46

Analyte Name	Analyte Area	Sc /pk	Ext Std Name	Ext Std Area	Ext Std con	Area Ratio	RT (min)	RRT	Spec Amt	Calc Amt	% Diff	% Diff Lim	% Diff OOS
PFBA	1157894.2	10	13C4-PFBA	783981.8	5.0	1.477	3.26	1.000	8.000	8.644	8	30	
PFPeA	1183681.0	12	13C5-PFPeA	830578.2	5.0	1.425	3.76	1.000	8.000	8.469	6	30	
PFBS	657287.0	11	13C3-PFBS	432655.4	4.7	1.519	3.81	1.000	7.080	7.659	8	30	
4:2-FTS	146243.7	11	13C2-4:2-FTS	51120.1	4.7	2.861	4.12	1.000	7.472	7.691	3	30	
PFHxA	1346936.2	12	13C5-PFHxA	688614.9	5.0	1.956	4.16	1.000	8.000	8.388	5	30	
PFPeS	336126.3	11	13C3-PFBS	432655.4	4.7	0.777	4.18	1.100	7.500	7.662	2	30	
PFHxS	517560.2	12	13C3-PFHxS	337057.5	4.7	1.536	4.55	1.000	7.560	7.783	3	30	
PFHpA	1397451.3	12	13C4-PFHpA	556010.0	5.0	2.513	4.55	1.000	8.000	8.453	6	30	
6:2-FTS	117232.5	11	13C2-6:2-FTS	37244.0	4.8	3.148	4.91	1.000	7.584	7.852	4	30	
PFHpS	506255.7	11	13C3-PFHxS	337057.5	4.7	1.502	4.91	1.080	7.610	7.858	3	30	
PFOA	1391831.6	11	13C8-PFOA	907073.1	5.0	1.534	4.92	1.000	8.000	8.640	8	30	
PFOS	463209.5	11	13C8-PFOS	303123.7	4.8	1.528	5.24	1.000	7.650	7.924	4	30	
PFNA	1122647.7	11	13C9-PFNA	478762.9	5.0	2.345	5.26	1.000	8.000	8.763	10	30	
PFNS	294830.9	11	13C8-PFOS	303123.7	4.8	0.973	5.54	1.060	7.680	7.712	0	30	
PFDA	960254.8	11	13C6-PFDA	629995.5	5.0	1.524	5.56	1.000	8.000	8.386	5	30	
8:2-FTS	95318.5	11	13C2-8:2-FTS	26813.4	4.8	3.555	5.56	1.000	7.664	8.013	5	30	
PFOSA	1067434.0	11	13C8-PFOSA	691392.1	5.0	1.544	5.65	1.000	8.000	8.346	4	30	
NMeFOSAA	130282.1	11	d3-NMeFOSAA	79601.1	5.0	1.637	5.70	1.000	8.000	8.422	5	30	
PFDS	246351.8	11	13C8-PFOS	303123.7	4.8	0.813	5.79	1.100	7.700	7.763	1	30	
PFUnDA	759410.0	12	13C7-PFUnDA	267039.4	5.0	2.844	5.82	1.000	8.000	8.155	2	30	
NEtFOSAA	118906.4	12	d5-NEtFOSAA	67502.4	5.0	1.762	5.84	1.000	8.000	7.570	-5	30	
PFDoDA	888527.8	12	13C2-PFDoDA	558553.6	5.0	1.591	6.05	1.000	8.000	8.621	8	30	
10:2-FTS	72975.2	12	13C2-8:2-FTS	26813.4	4.8	2.722	6.07	1.090	7.712	8.475	10	30	
NMePFOSAE	630908.8	11	d7-NMePFOSAE	342444.1	5.0	1.842	6.10	1.000	8.000	8.256	3	30	
NMePFOSA	129083.8	12	d3-NMePFOSA	83322.8	5.0	1.549	6.11	1.000	8.000	8.671	8	30	
PFDoS	120202.8	10	13C8-PFOS	303123.7	4.8	0.397	6.22	1.190	7.740	7.654	-1	30	
NEtPFOSAE	735100.2	11	d9-NEtPFOSAE	263337.5	5.0	2.791	6.26	1.000	8.000	8.949	12	30	
NEtPFOSA	118507.2	11	d5-NEtPFOSA	71551.9	5.0	1.656	6.27	1.000	8.000	7.294	-9	30	
PFTrDA	692553.1	11	13C2-PFDoDA	558553.6	5.0	1.240	6.25	1.030	8.000	7.819	-2	30	
PFTeDA	598497.1	10	13C2-PFTeDA	410264.7	5.0	1.459	6.43	1.000	8.000	8.567	7	30	
PFHxDA	283375.4	11	13C2-PFTeDA	410264.7	5.0	0.691	6.73	1.050	8.000	8.574	7	30	
PFODA	242797.3	10	13C2-PFTeDA	410264.7	5.0	0.592	6.99	1.090	8.000	8.479	6	30	

APPROVED
By JPT at 10:55 am, 11/9/18

REVIEWED
By HMK at 2:58 pm, 11/11/18

Continuing Calibration Verfication

ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13
Result Table: 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
Acquisition Method: 18AUG13_3uL.dam

APPROVED
By JPT at 10:55 am, 11/9/18

REVIEWED
By HMK at 2:58 pm, 11/11/18

ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
Acquisition Method: 18AUG13_3uL.dam

Sample Name:	CCV6_CAL4			**Data File:**		18NOV08D-62.wiff
Sample ID:	CALMOD41833F			**Acquis Date:**		2018-11-08T20:58:46
Sample Type:	Quality Control			**Instrument:**		LM27631
Vial Position:	6			**Acquis Method:**		18AUG13_3uL.dam
Injection Vol:	3.00			**Result Table:**		18NOV08DCCV6-12
QMethod File:	MQ4-18AUG13			**ICAL Name:**		18NOV07DCAL
Batch Number:	N/A			**Operator:**		JPT12262
Sample Wt.:	1.00000			**Dilution Factor:**		1.00
Sample Vol.:	1.000			**Prep Factor:**		1.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV08D-05

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Rreference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	720767.6	728839.7	-1	50	
13C2-PFOA	5.0	506864.5	491983.1	3	50	
13C4-PFOS	4.8	283392.2	255568.1	11	50	
13C2-PFDA	5.0	307626.3	315407.5	-2	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	783981.8	13C3-PFBA	720767.6	1.088	5.000	5.034	101	70-130	
E13C5-PFPeA	830578.2	13C3-PFBA	720767.6	1.152	5.000	5.020	100	70-130	
E13C3-PFBS	432655.4	13C3-PFBA	720767.6	0.600	4.650	4.405	95	70-130	
E13C2-4:2-FTS	51120.1	13C2-PFOA	506864.5	0.101	4.670	4.551	97	70-130	
E13C5-PFHxA	688614.9	13C2-PFOA	506864.5	1.359	5.000	4.997	100	70-130	
E13C3-PFHxS	337057.5	13C2-PFOA	506864.5	0.665	4.730	4.774	101	70-130	
E13C4-PFHpA	556010.0	13C2-PFOA	506864.5	1.097	5.000	4.990	100	70-130	
E13C2-6:2-FTS	37244.0	13C2-PFOA	506864.5	0.073	4.750	4.900	103	70-130	
E13C8-PFOA	907073.1	13C2-PFOA	506864.5	1.790	5.000	4.990	100	70-130	
E13C8-PFOS	303123.7	13C4-PFOS	283392.2	1.070	4.780	4.730	99	70-130	
E13C9-PFNA	478762.9	13C4-PFOS	283392.2	1.689	5.000	4.615	92	70-130	
E13C6-PFDA	629995.5	13C2-PFDA	307626.3	2.048	5.000	5.150	103	70-130	
E13C2-8:2-FTS	26813.4	13C2-PFDA	307626.3	0.087	4.790	4.612	96	70-130	
E13C8-PFOSA	691392.1	13C2-PFDA	307626.3	2.248	5.000	4.904	98	70-130	
Ed3-NMeFOSAA	79601.1	13C2-PFDA	307626.3	0.259	5.000	4.812	96	70-130	
E13C7-PFUnDA	267039.4	13C2-PFDA	307626.3	0.868	5.000	5.008	100	70-130	
Ed5-NEtFOSAA	67502.4	13C2-PFDA	307626.3	0.219	5.000	5.078	102	70-130	
E13C2-PFDoDA	558553.6	13C2-PFDA	307626.3	1.816	5.000	4.895	98	70-130	
Ed7-NMePFOSAE	342444.1	13C2-PFDA	307626.3	1.113	5.000	5.177	104	70-130	
Ed3-NMePFOSA	83322.8	13C2-PFDA	307626.3	0.271	5.000	4.959	99	70-130	
Ed9-NEtPFOSAE	263337.5	13C2-PFDA	307626.3	0.856	5.000	4.889	98	70-130	
Ed5-NEtPFOSA	71551.9	13C2-PFDA	307626.3	0.233	5.000	5.386	108	70-130	
E13C2-PFTeDA	410264.7	13C2-PFDA	307626.3	1.334	5.000	4.801	96	70-130	

APPROVED
By JPT at 10:55 am, 11/9/18

REVIEWED
By HMK at 2:58 pm, 11/11/18

ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

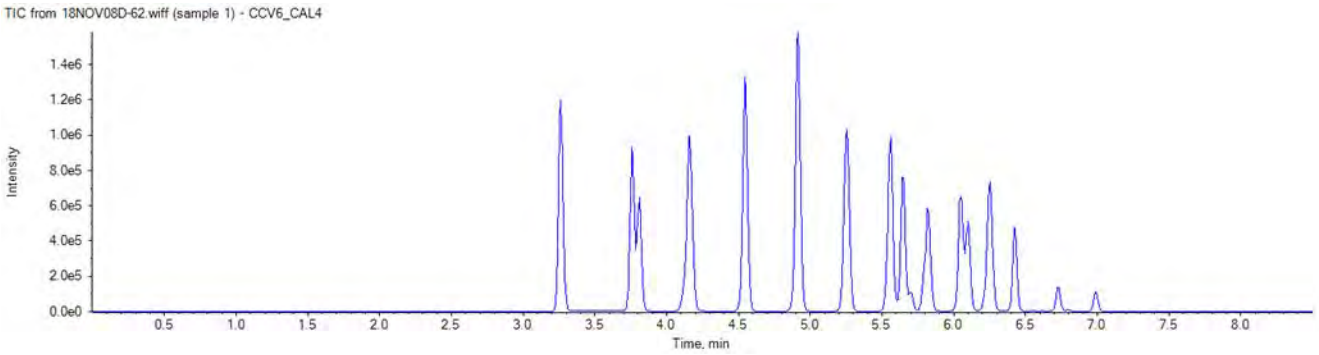
Analyte Quantitation Peak Table

Sample Name: CCV6_CAL4 **Instrument Name:** LM27631 **File Name:** 18NOV08D-62.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	1.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	3.26	1.000	1157894.2		A	13C4-PFBA	3.26	783981.8	1.477	8.644
PFPeA	3.76	1.000	1183681.0		A	13C5-PFPeA	3.76	830578.2	1.425	8.469
PFBS	3.81	1.000	657287.0		A	13C3-PFBS	3.81	432655.4	1.519	7.659
4:2-FTS	4.12	1.000	146243.7		A	13C2-4:2-FTS	4.12	51120.1	2.861	7.691
PFHxA	4.16	1.000	1346936.2		A	13C5-PFHxA	4.16	688614.9	1.956	8.388
PFPeS	4.18	1.100	336126.3		A	13C3-PFBS	3.81	432655.4	0.777	7.662
PFHxS	4.55	1.000	517560.2		A	13C3-PFHxS	4.55	337057.5	1.536	7.783
PFHpA	4.55	1.000	1397451.3		A	13C4-PFHpA	4.55	556010.0	2.513	8.453
6:2-FTS	4.91	1.000	117232.5		A	13C2-6:2-FTS	4.90	37244.0	3.148	7.852
PFHpS	4.91	1.080	506255.7		A	13C3-PFHxS	4.55	337057.5	1.502	7.858
PFOA	4.92	1.000	1391831.6		A	13C8-PFOA	4.92	907073.1	1.534	8.640
PFOS	5.24	1.000	463209.5		A	13C8-PFOS	5.24	303123.7	1.528	7.924
PFNA	5.26	1.000	1122647.7		A	13C9-PFNA	5.26	478762.9	2.345	8.763
PFNS	5.54	1.060	294830.9		A	13C8-PFOS	5.24	303123.7	0.973	7.712
PFDA	5.56	1.000	960254.8		A	13C6-PFDA	5.56	629995.5	1.524	8.386
8:2-FTS	5.56	1.000	95318.5		A	13C2-8:2-FTS	5.56	26813.4	3.555	8.013
PFOSA	5.65	1.000	1067434.0		A	13C8-PFOSA	5.65	691392.1	1.544	8.346
NMeFOSAA	5.70	1.000	130282.1		A	d3-NMeFOSAA	5.70	79601.1	1.637	8.422
PFDS	5.79	1.100	246351.8		A	13C8-PFOS	5.24	303123.7	0.813	7.763
PFUnDA	5.82	1.000	759410.0		A	13C7-PFUnDA	5.82	267039.4	2.844	8.155
NEtFOSAA	5.84	1.000	118906.4		A	d5-NEtFOSAA	5.83	67502.4	1.762	7.570
PFDoDA	6.05	1.000	888527.8		A	13C2-PFDoDA	6.05	558553.6	1.591	8.621
10:2-FTS	6.07	1.090	72975.2		A	13C2-8:2-FTS	5.56	26813.4	2.722	8.475
NMePFOSAE	6.10	1.000	630908.8		A	d7-NMePFOSAE	6.09	342444.1	1.842	8.256
NMePFOSA	6.11	1.000	129083.8		A	d3-NMePFOSA	6.11	83322.8	1.549	8.671
PFDoS	6.22	1.190	120202.8		A	13C8-PFOS	5.24	303123.7	0.397	7.654
NEtPFOSAE	6.26	1.000	735100.2		A	d9-NEtPFOSAE	6.25	263337.5	2.791	8.949
NEtPFOSA	6.27	1.000	118507.2		A	d5-NEtPFOSA	6.26	71551.9	1.656	7.294
PFTrDA	6.25	1.030	692553.1		A	13C2-PFDoDA	6.05	558553.6	1.240	7.819
PFTeDA	6.43	1.000	598497.1		A	13C2-PFTeDA	6.43	410264.7	1.459	8.567
PFHxDA	6.73	1.050	283375.4		A	13C2-PFTeDA	6.43	410264.7	0.691	8.574
PFODA	6.99	1.090	242797.3		A	13C2-PFTeDA	6.43	410264.7	0.592	8.479

Total Ion Chromatogram

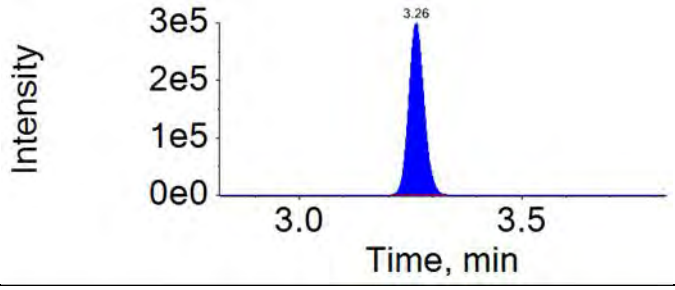


APPROVED
By JPT at 10:55 am, 11/9/18

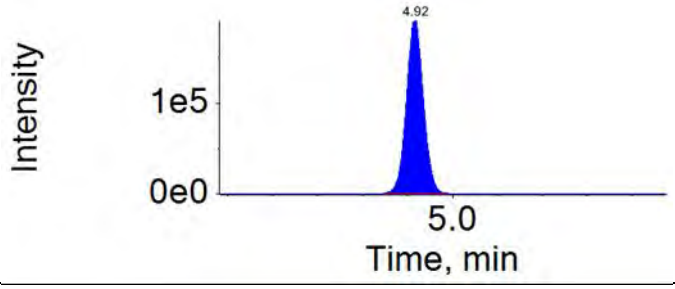
REVIEWED
By HMK at 2:58 pm, 11/11/18

ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

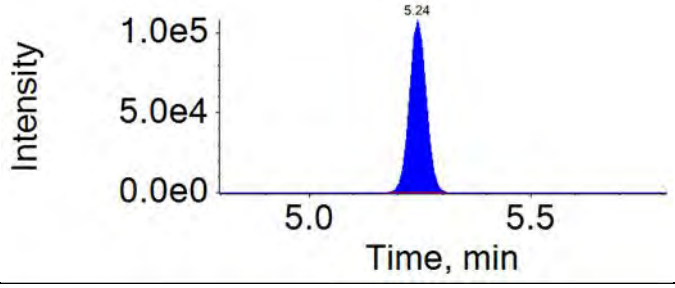
Injection Standard: 13C3-PFBA
216.0 / 172.0



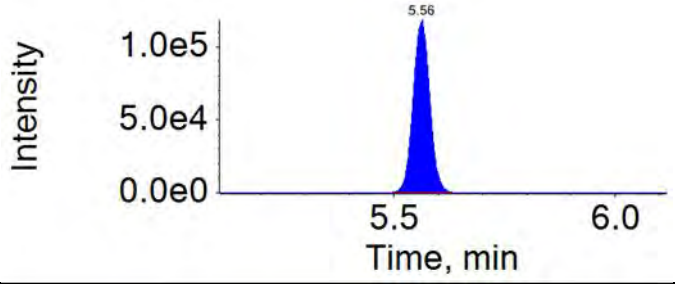
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0



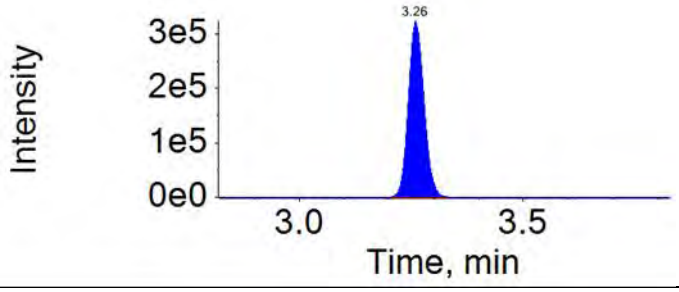
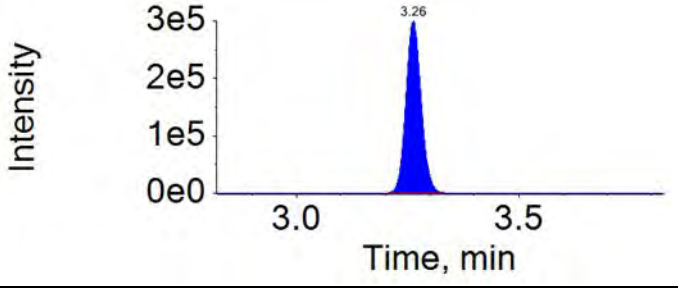
Injection Standard: 13C2-PFDA
515.0 / 470.0

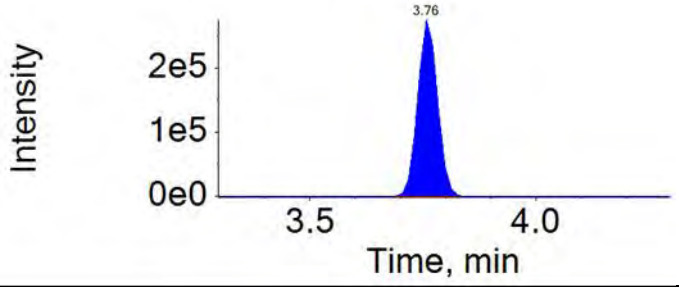
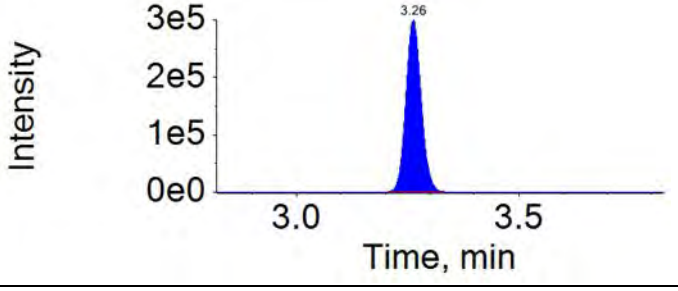


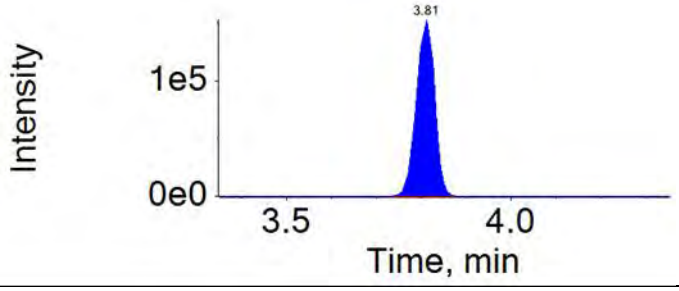
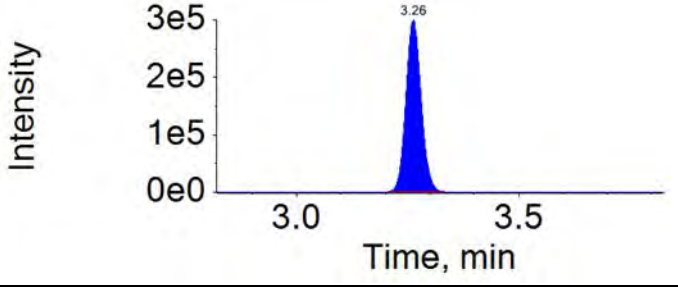
APPROVED
By JPT at 10:55 am, 11/9/18

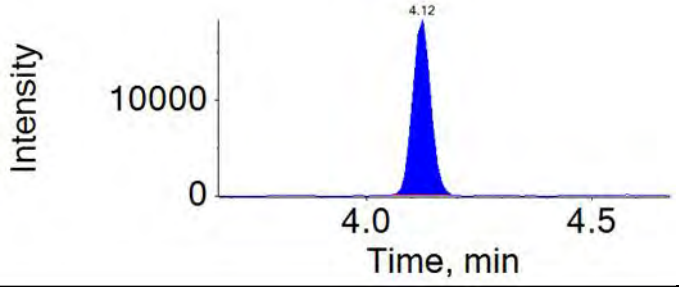
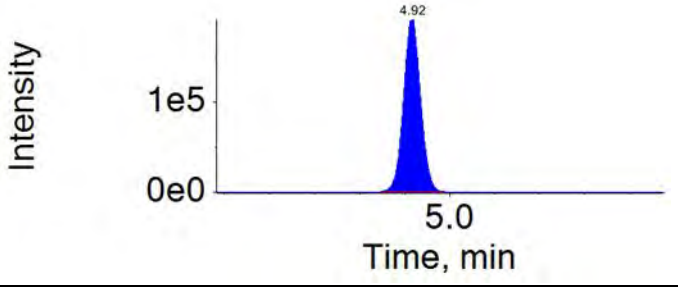
REVIEWED
By HMK at 2:58 pm, 11/11/18

ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0
	

Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0
	

Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0
	

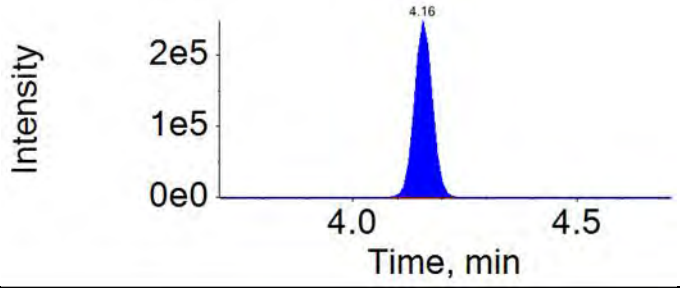
Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0
	

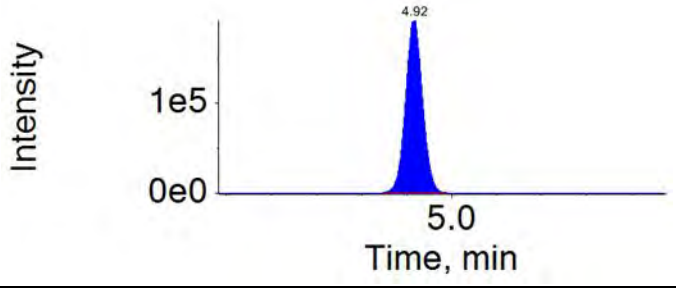
APPROVED
By JPT at 10:55 am, 11/9/18

REVIEWED
By HMK at 2:58 pm, 11/11/18

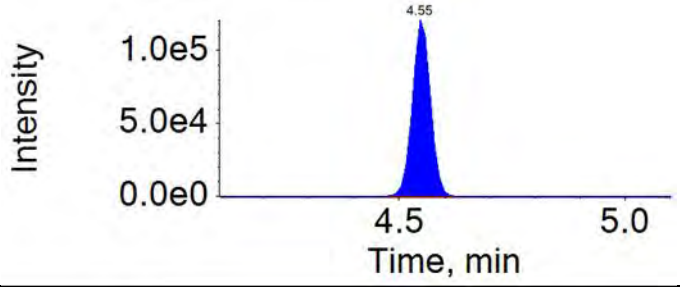
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

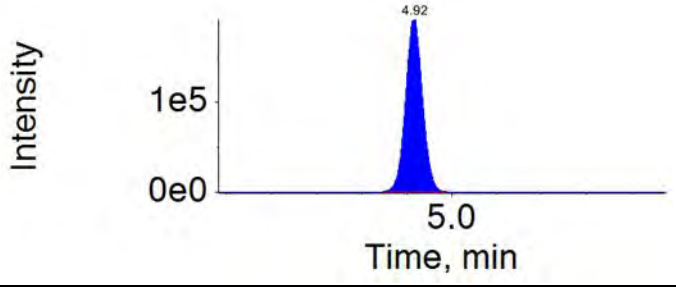
Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0



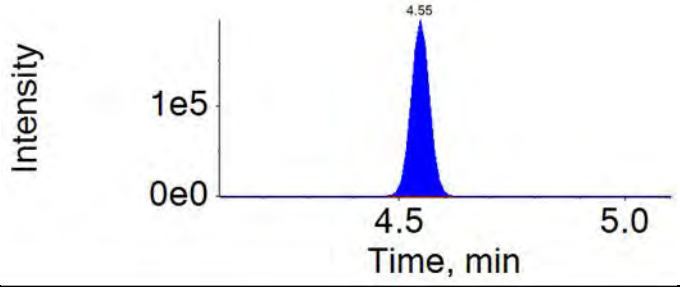


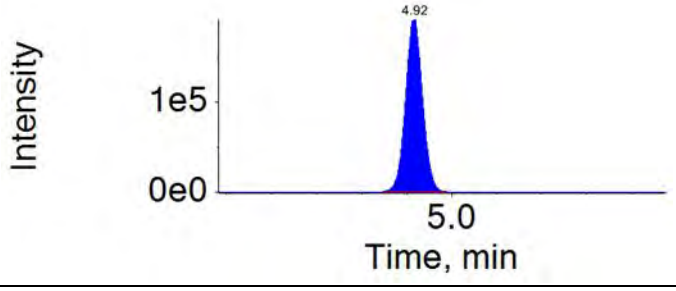
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0



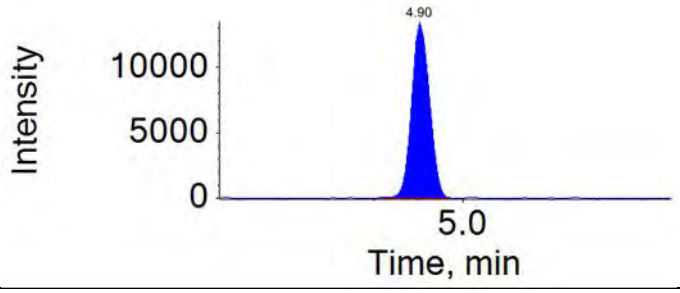


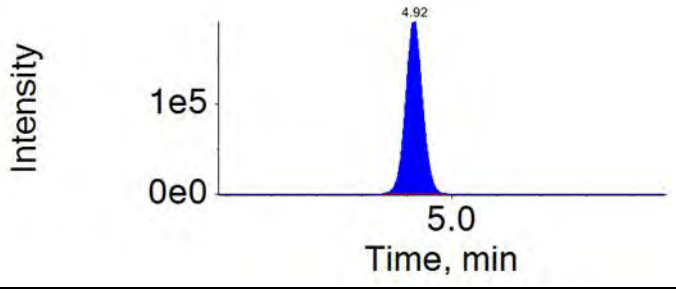
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0





Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0



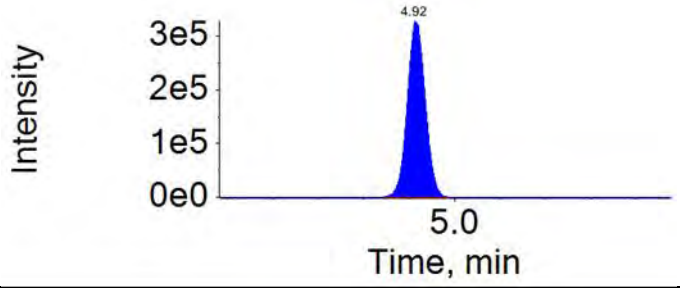


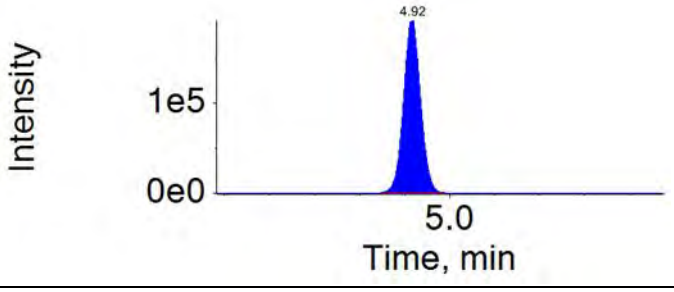
APPROVED
By JPT at 10:55 am, 11/9/18

REVIEWED
By HMK at 2:58 pm, 11/11/18

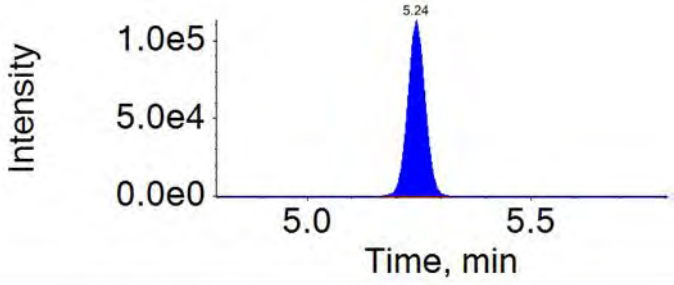
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

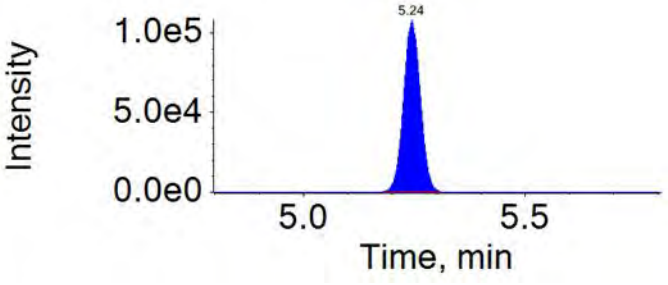
Extraction Standard: E13C8-PFOA	Injection Standard: 13C2-PFOA
421.0 / 376.0	415.0 / 370.0



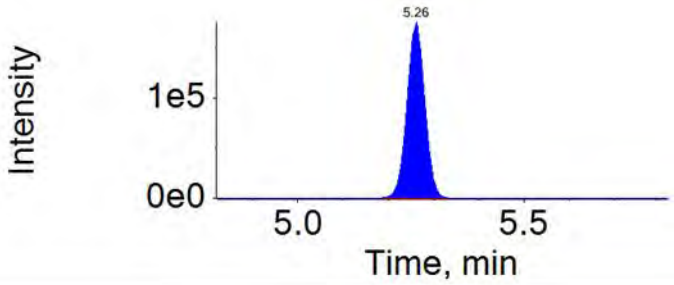


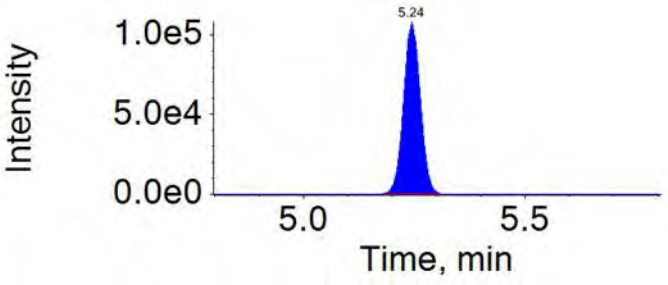
Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0



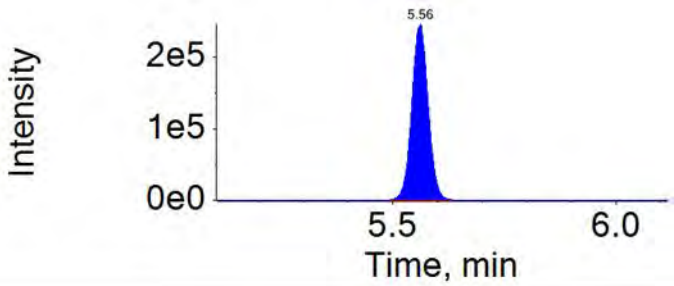


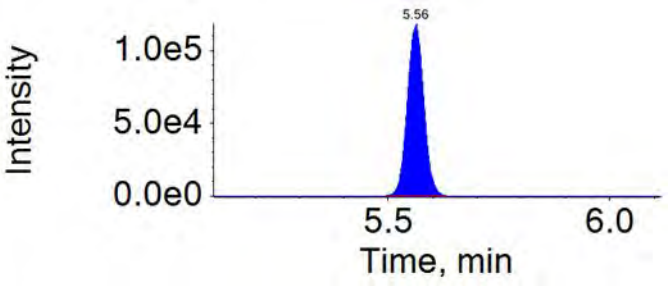
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0





Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0

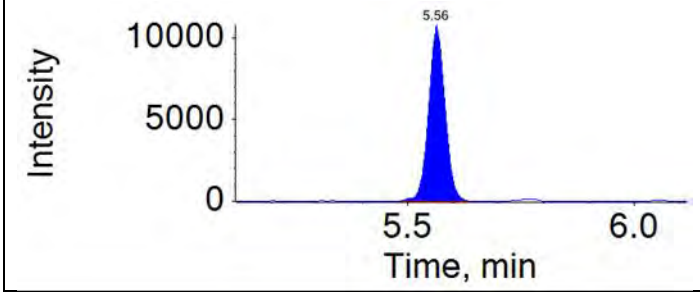
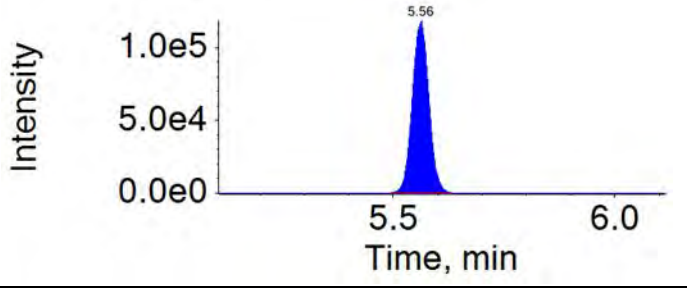


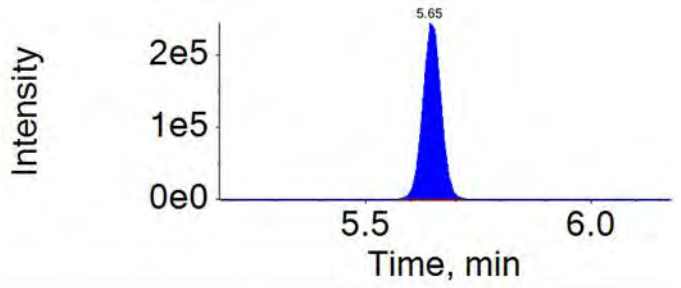
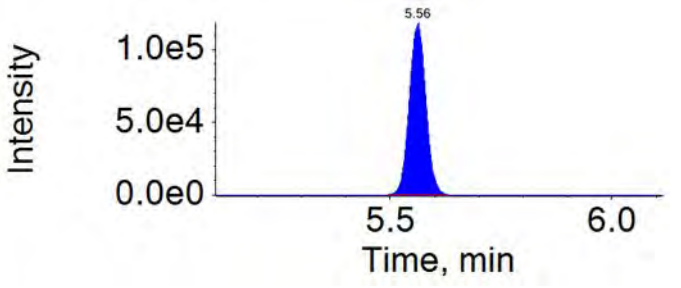


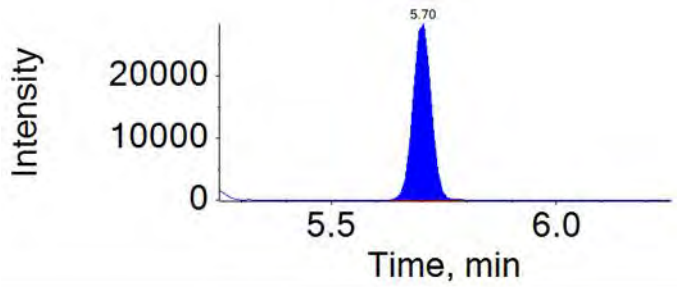
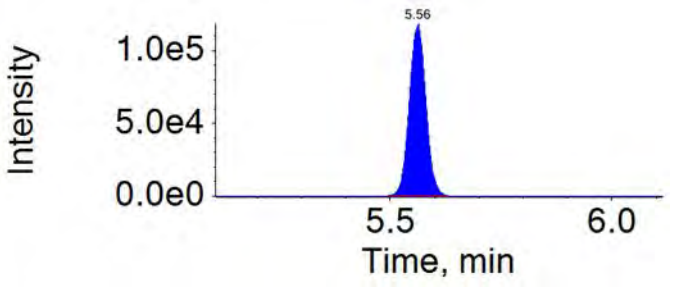
APPROVED
By JPT at 10:55 am, 11/9/18

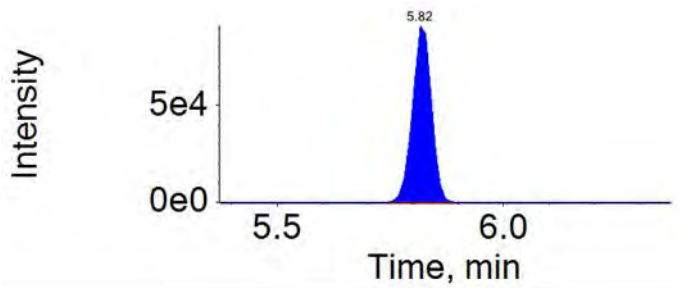
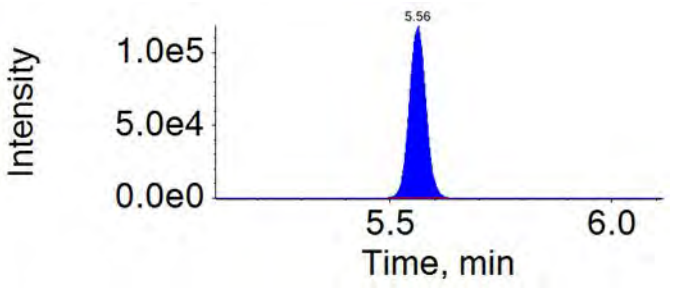
REVIEWED
By HMK at 2:58 pm, 11/11/18

ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: E13C2-8:2-FTS	Injection Standard: 13C2-PFDA
529.0 / 81.0	515.0 / 470.0
	

Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0
	

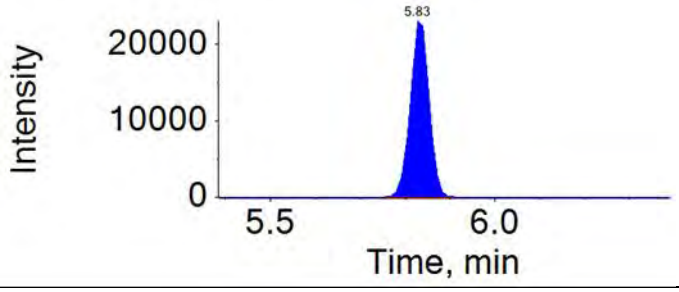
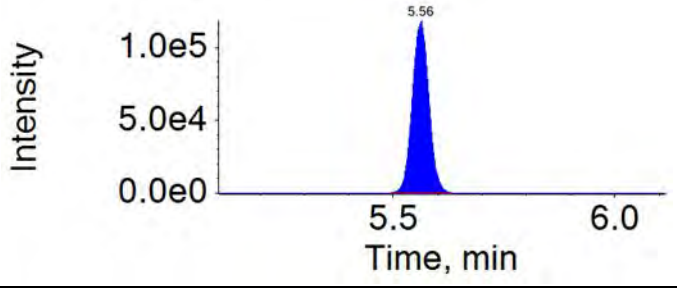
Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0
	

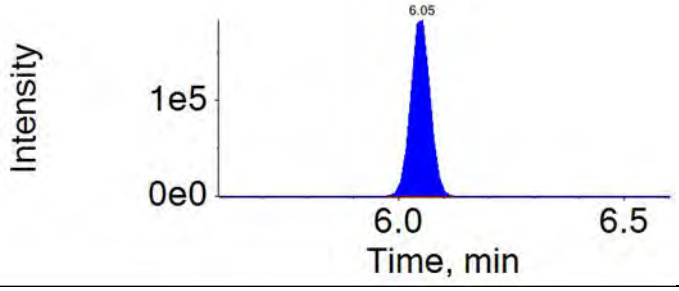
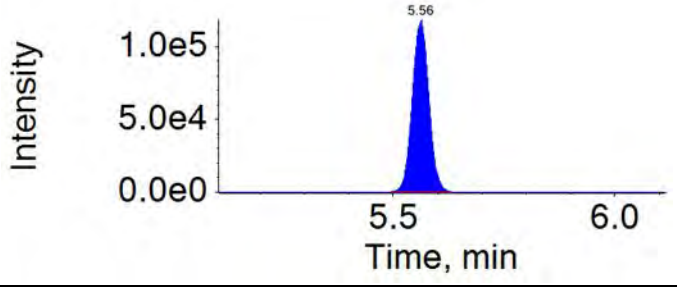
Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0
	

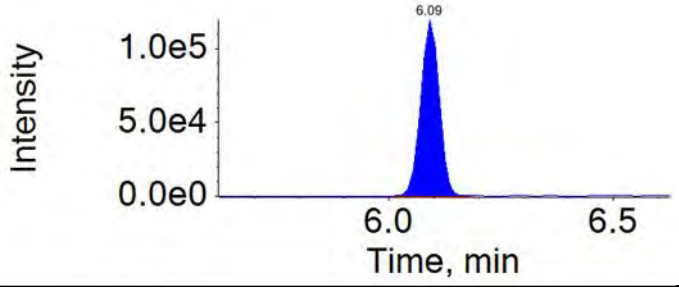
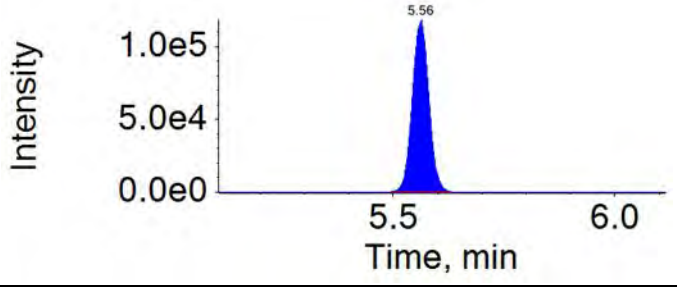
APPROVED
By JPT at 10:55 am, 11/9/18

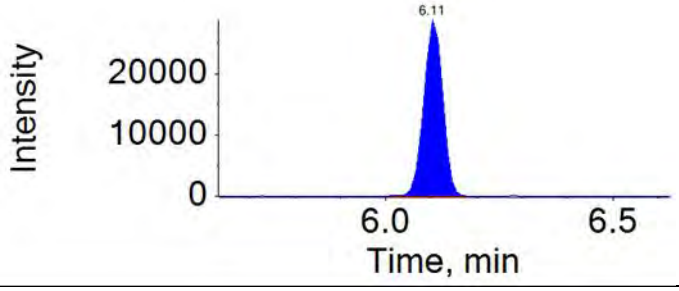
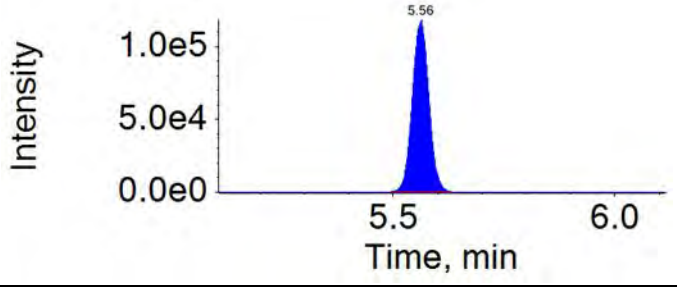
REVIEWED
By HMK at 2:58 pm, 11/11/18

ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0
	

Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0
	

Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0
	

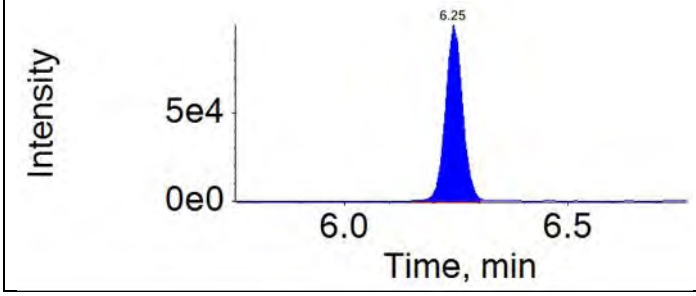
Extraction Standard: Ed3-NMePFOSA	Injection Standard: 13C2-PFDA
515.0 / 169.0	515.0 / 470.0
	

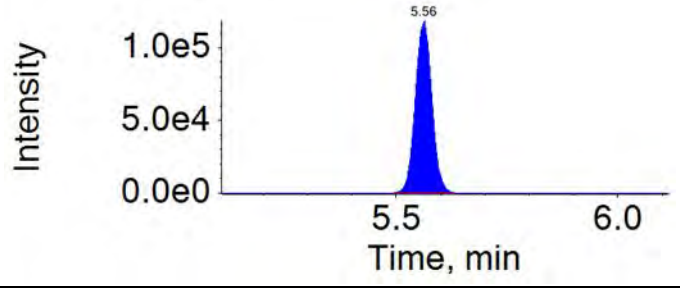
APPROVED
By JPT at 10:55 am, 11/9/18

REVIEWED
By HMK at 2:58 pm, 11/11/18

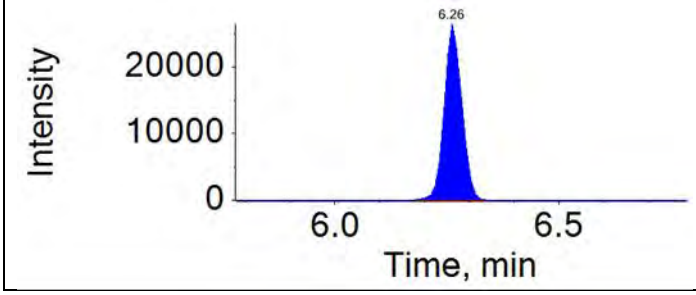
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

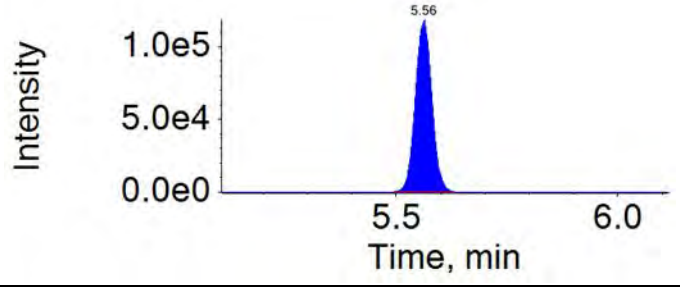
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



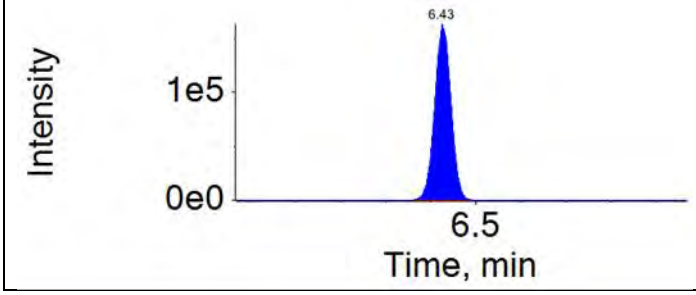


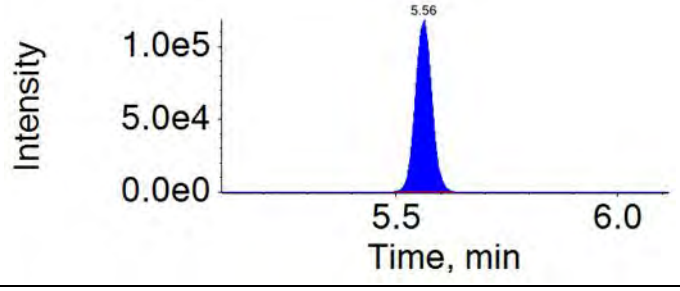
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0



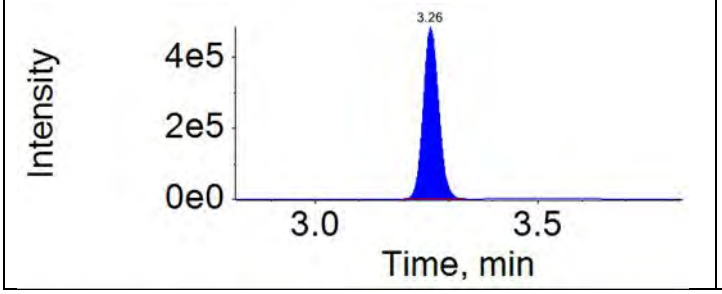


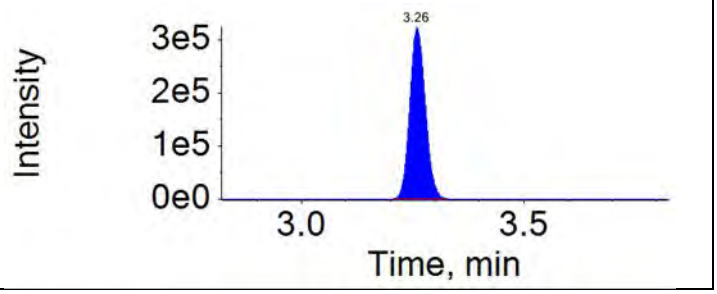
APPROVED
By JPT at 10:55 am, 11/9/18

REVIEWED
By HMK at 2:58 pm, 11/11/18

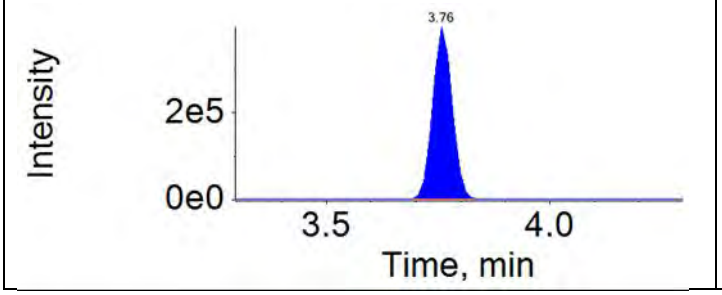
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

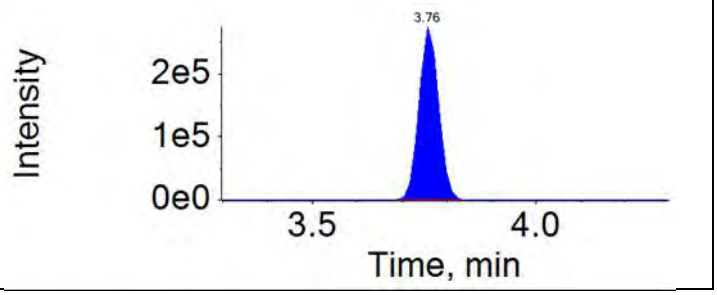
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



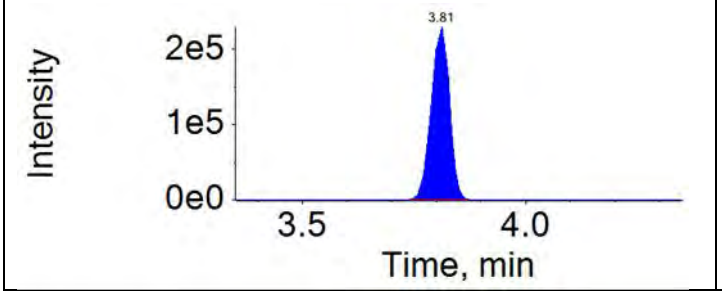


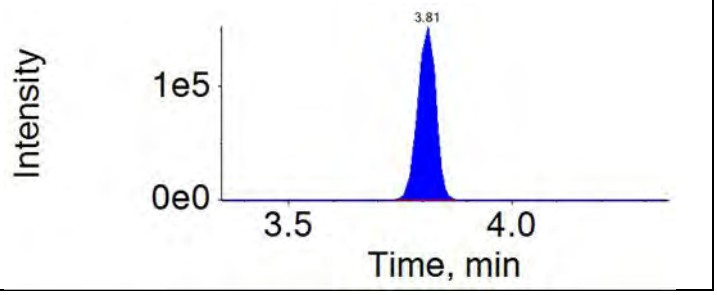
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



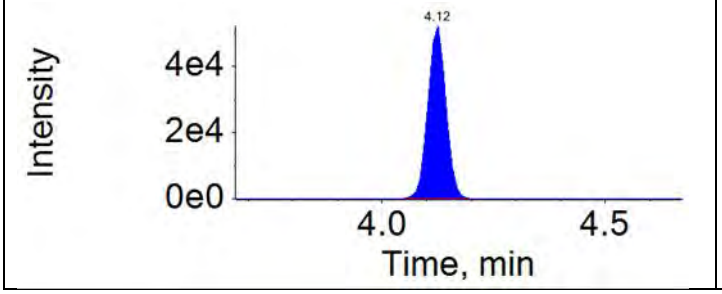


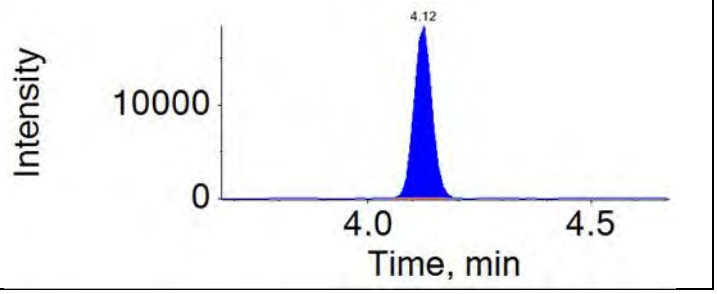
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





Analyte: 4:2-FTS	Extraction Standard: 13C2-4:2-FTS
327.0 / 307.0	329.0 / 81.0



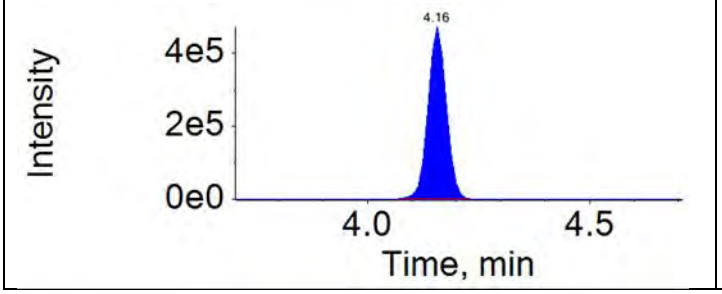


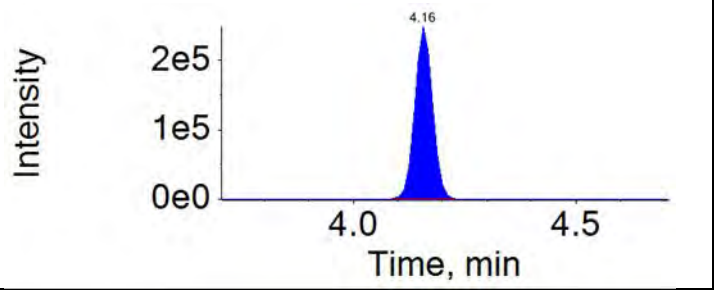
APPROVED
By JPT at 10:55 am, 11/9/18

REVIEWED
By HMK at 2:58 pm, 11/11/18

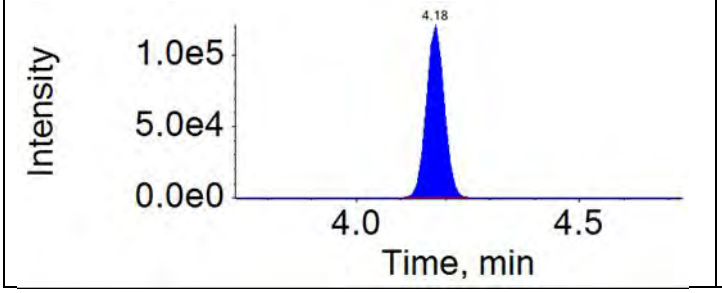
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

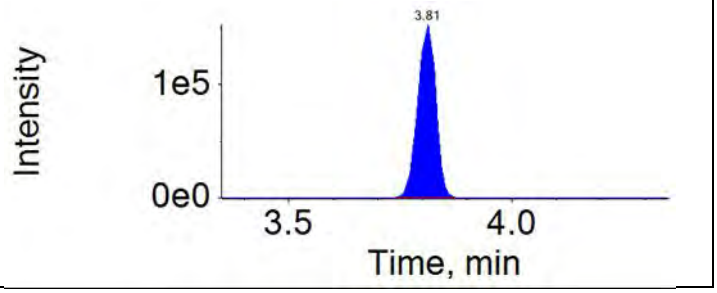
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



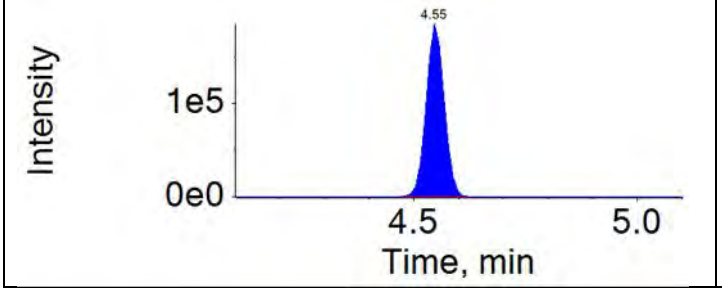


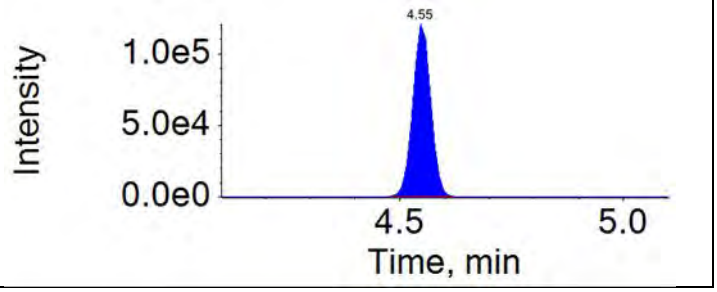
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



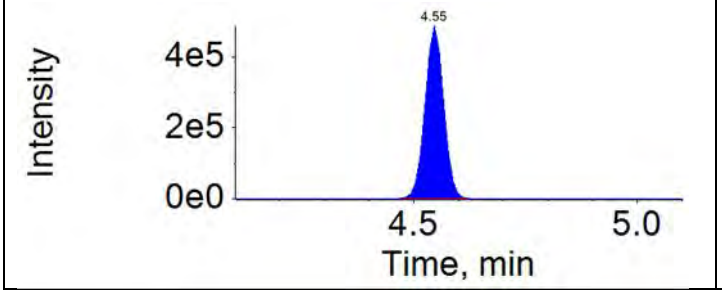


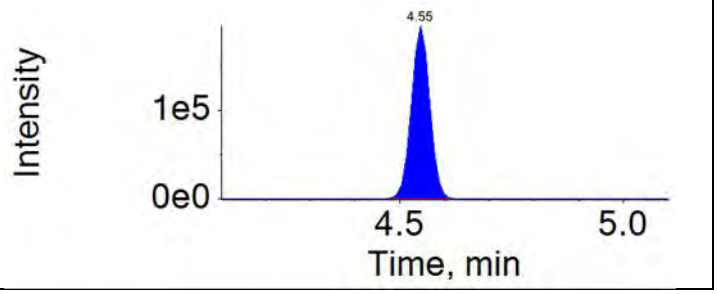
Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0





Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0



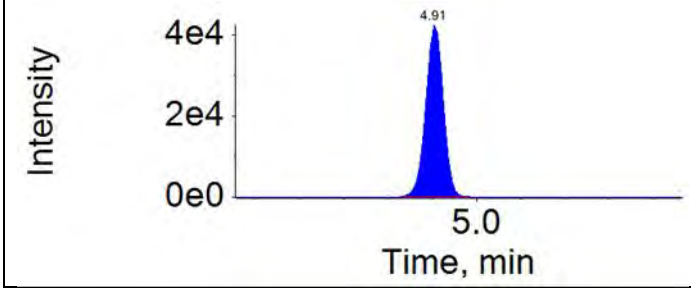


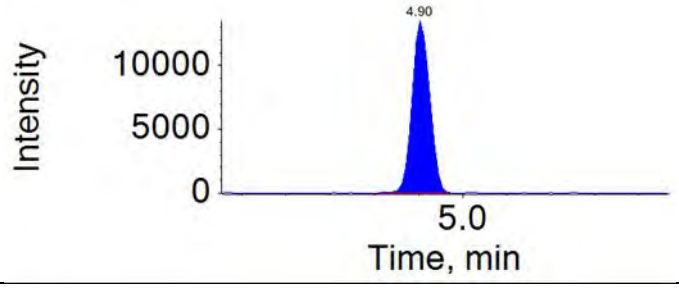
APPROVED
By JPT at 10:55 am, 11/9/18

REVIEWED
By HMK at 2:58 pm, 11/11/18

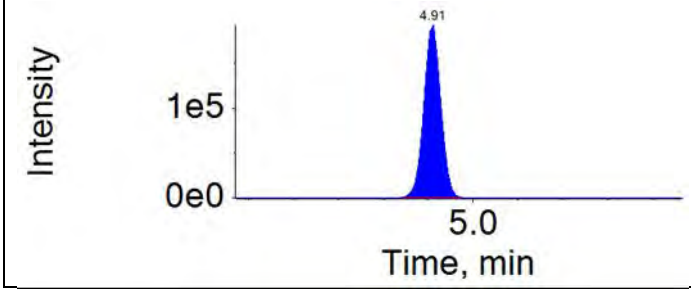
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

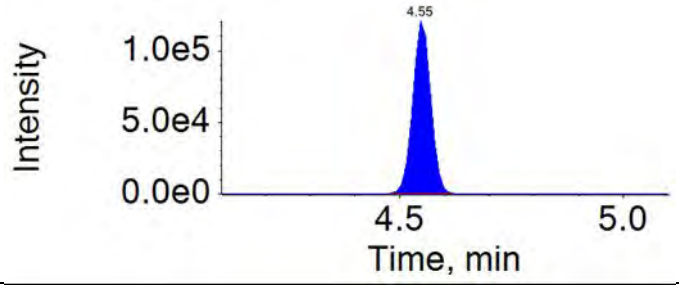
Analyte: 6:2-FTS	Extraction Standard: 13C2-6:2-FTS
427.0 / 407.0	429.0 / 81.0



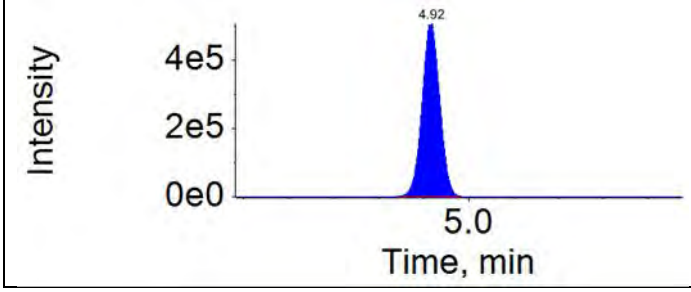


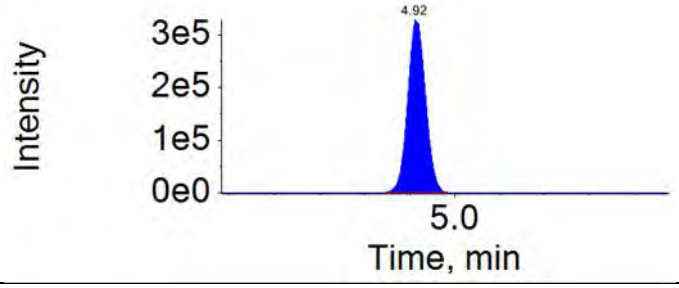
Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0



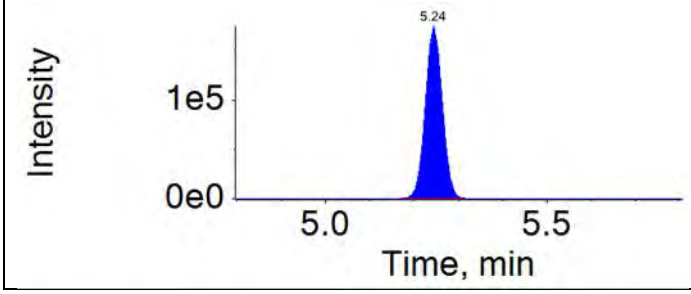


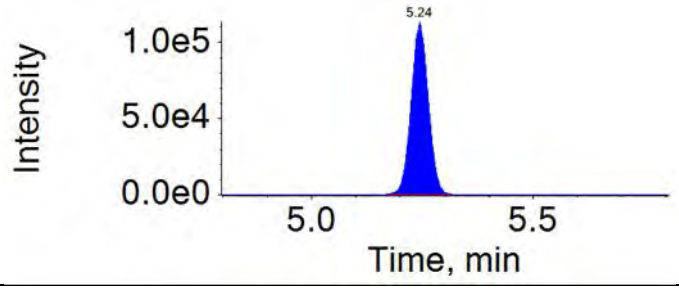
Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0





Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0



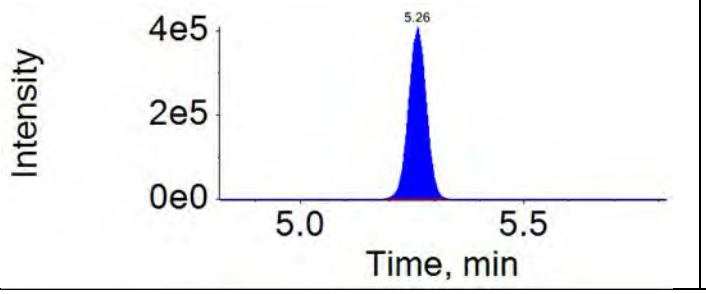


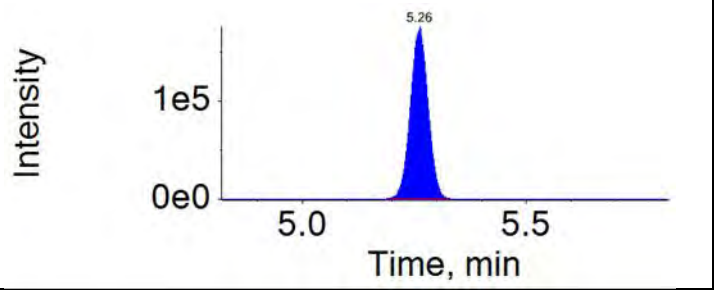
APPROVED
By JPT at 10:55 am, 11/9/18

REVIEWED
By HMK at 2:58 pm, 11/11/18

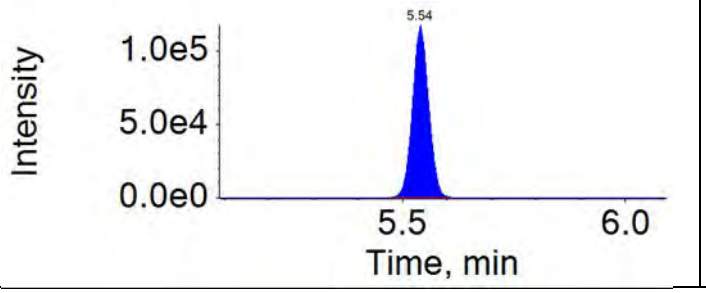
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

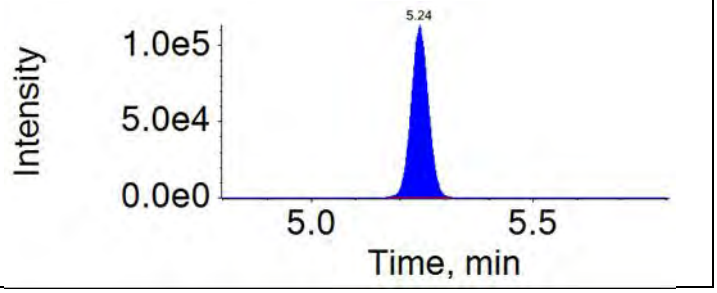
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



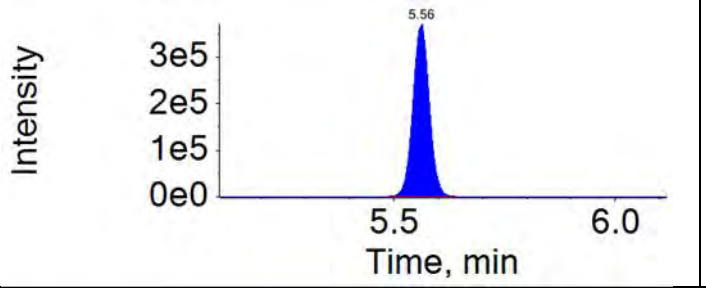


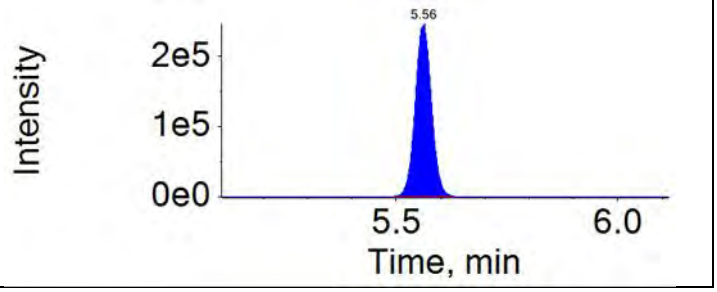
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



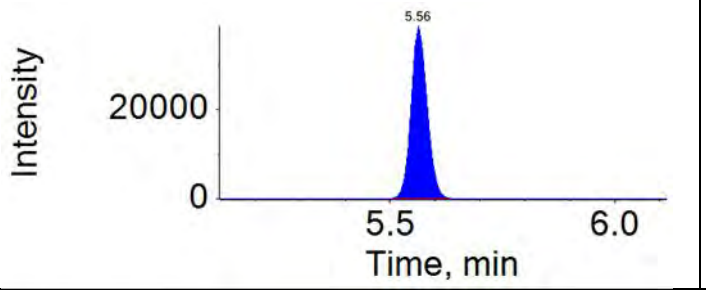


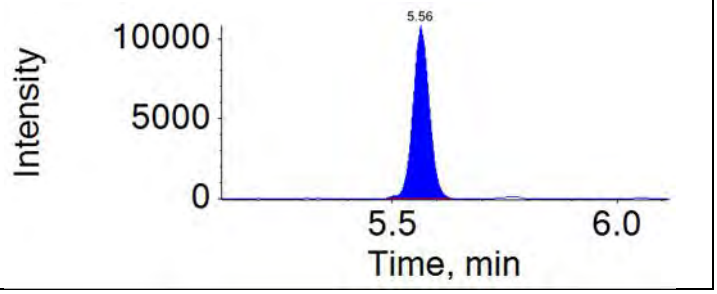
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





Analyte: 8:2-FTS	Extraction Standard: 13C2-8:2-FTS
527.0 / 507.0	529.0 / 81.0



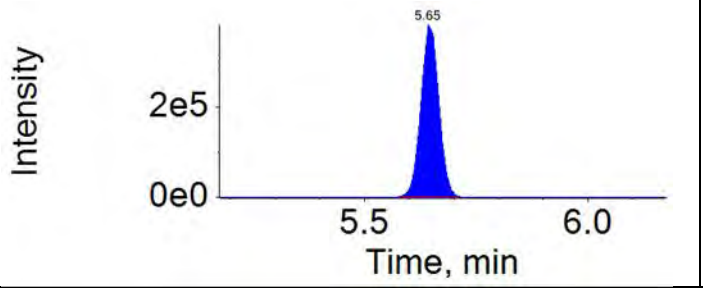


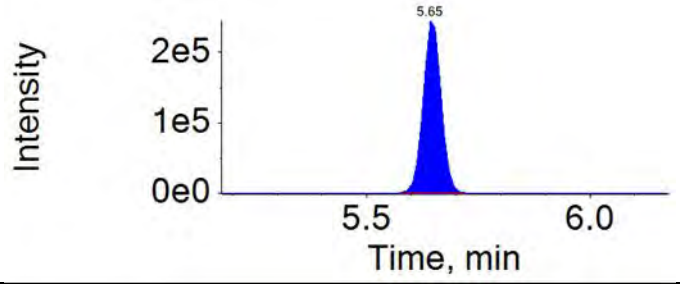
APPROVED
By JPT at 10:55 am, 11/9/18

REVIEWED
By HMK at 2:58 pm, 11/11/18

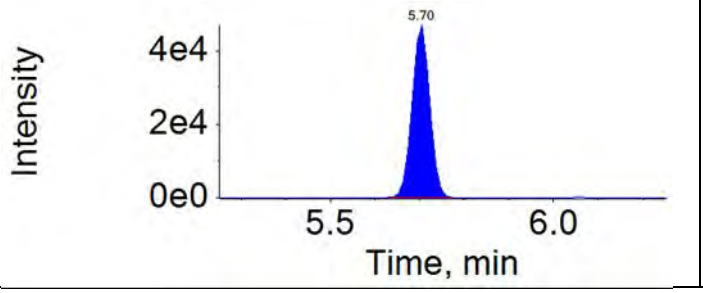
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

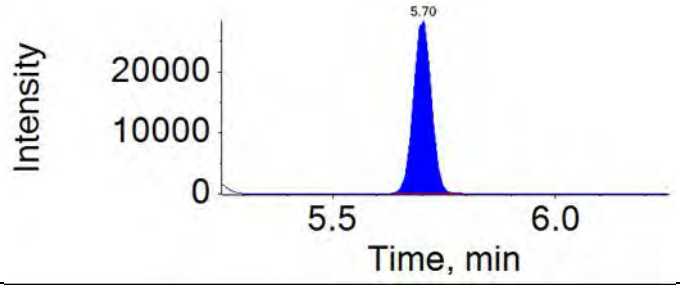
Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0



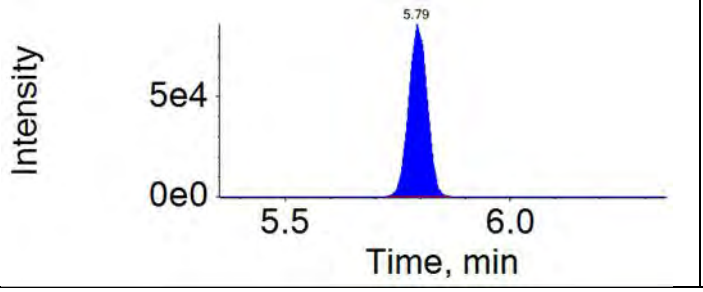


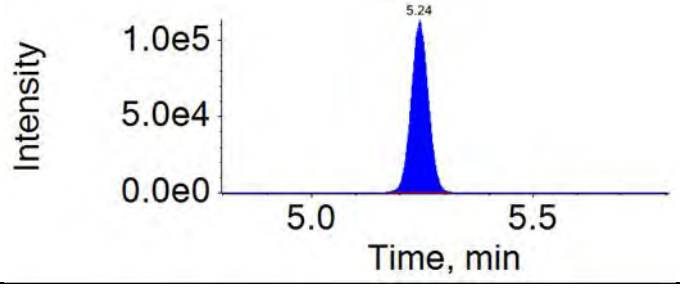
Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0



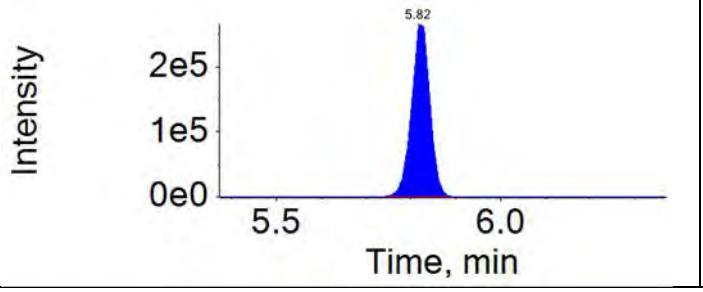


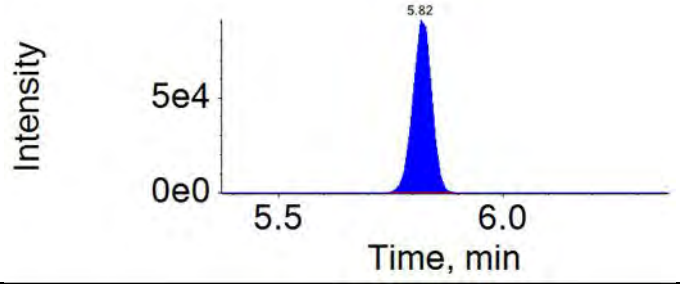
Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0





Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0



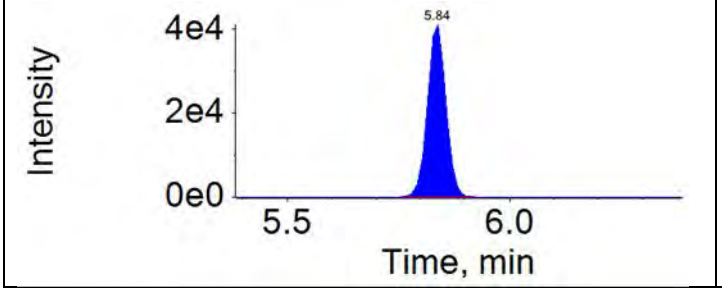


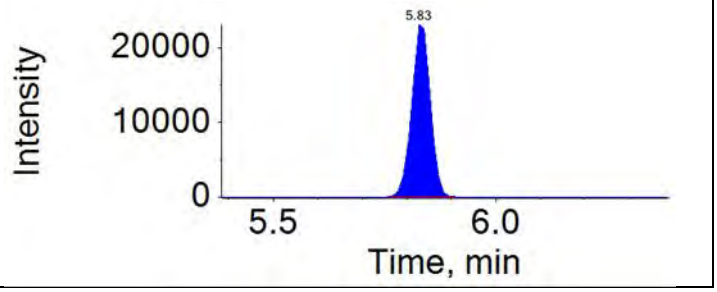
APPROVED
By JPT at 10:55 am, 11/9/18

REVIEWED
By HMK at 2:58 pm, 11/11/18

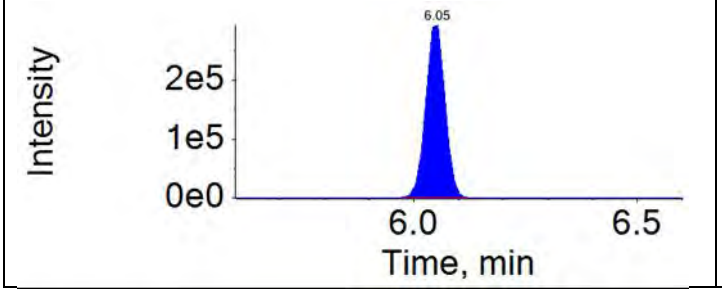
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

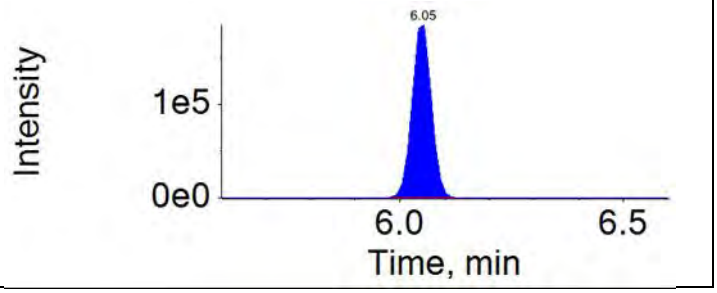
Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0



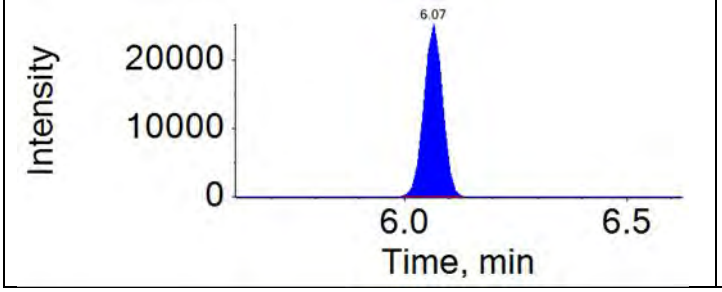


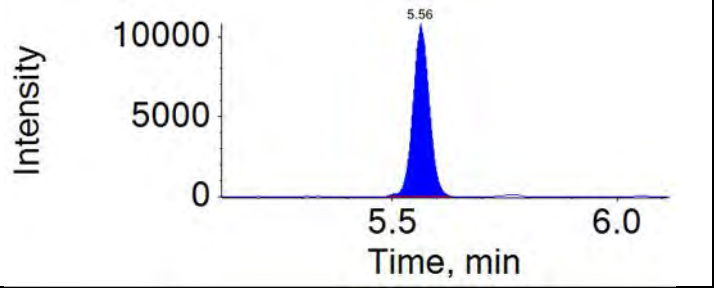
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0



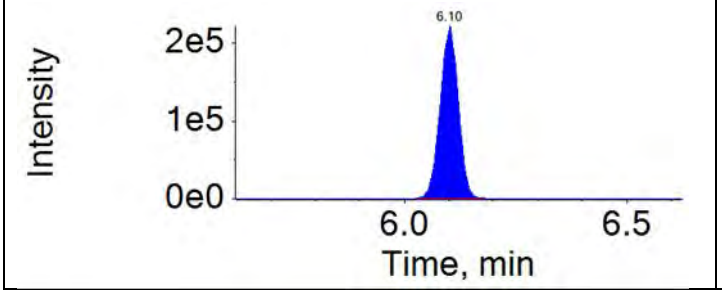


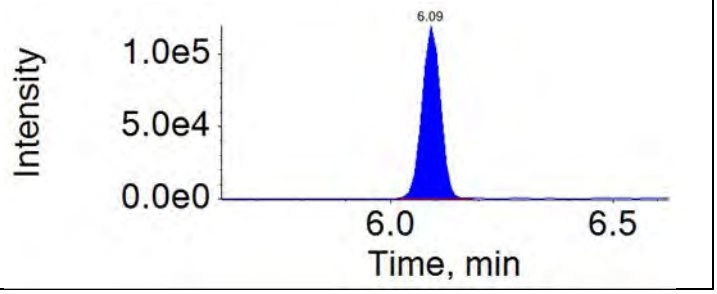
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0





Analyte: NMePFOSAE	Extraction Standard: d7-NMePFOSAE
616.0 / 59.0	623.0 / 59.0



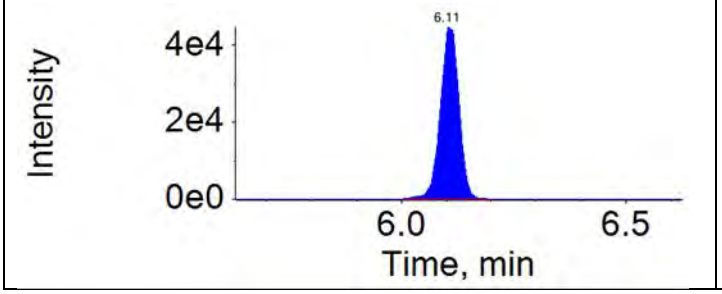


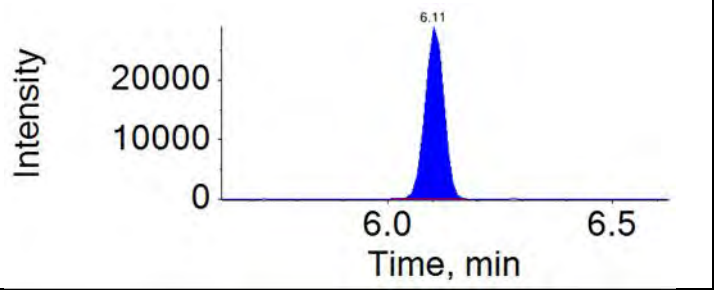
APPROVED
By JPT at 10:55 am, 11/9/18

REVIEWED
By HMK at 2:58 pm, 11/11/18

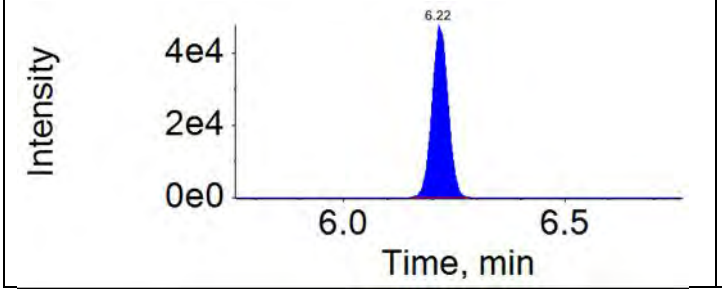
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

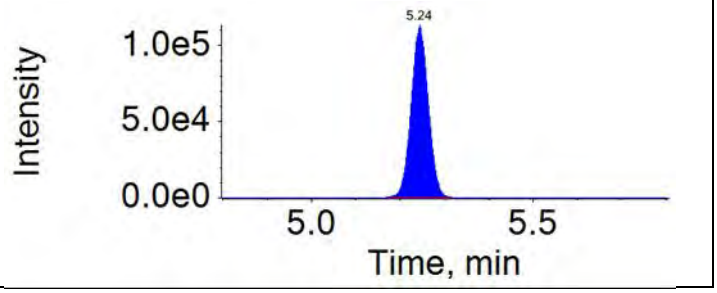
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



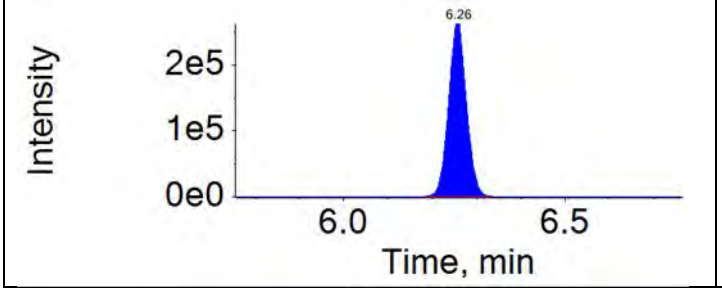


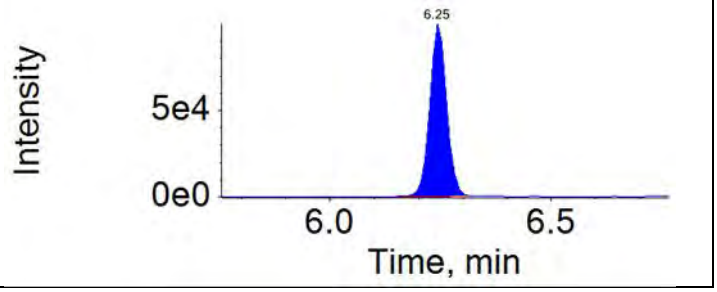
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



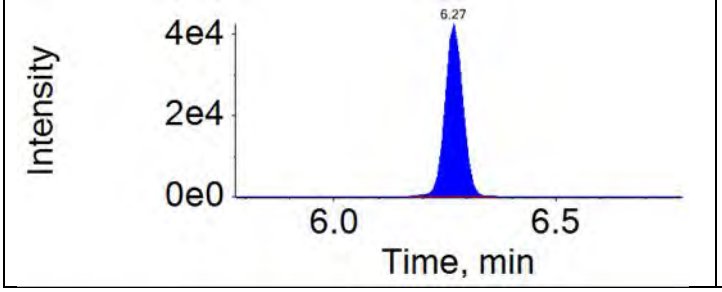


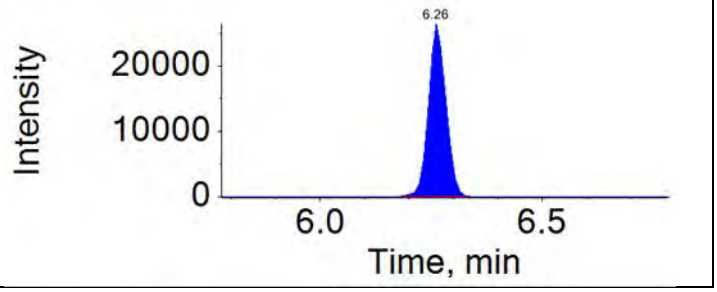
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





Analyte: NEtPFOSA	Extraction Standard: d5-NEtPFOSA
526.0 / 169.0	531.0 / 169.0



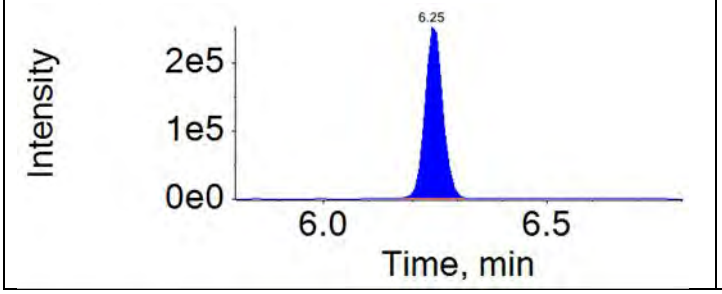


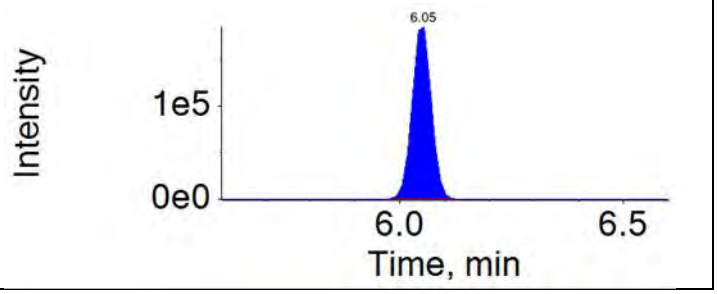
APPROVED
By JPT at 10:55 am, 11/9/18

REVIEWED
By HMK at 2:58 pm, 11/11/18

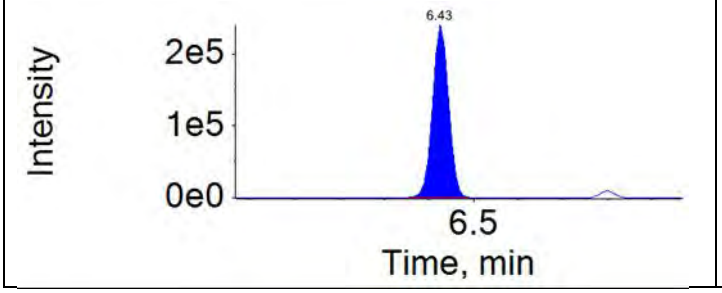
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

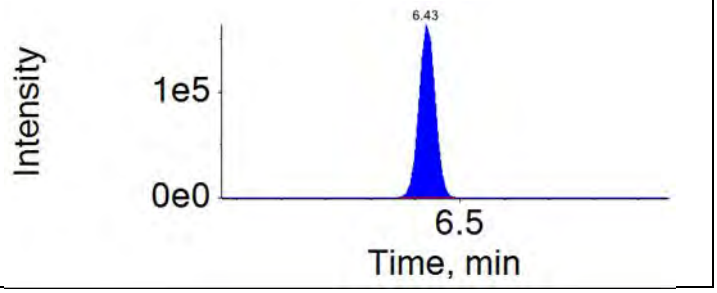
Analyte: PFTrDA	Extraction Standard: 13C2-PFDoDA
663.0 / 619.0	615.0 / 570.0



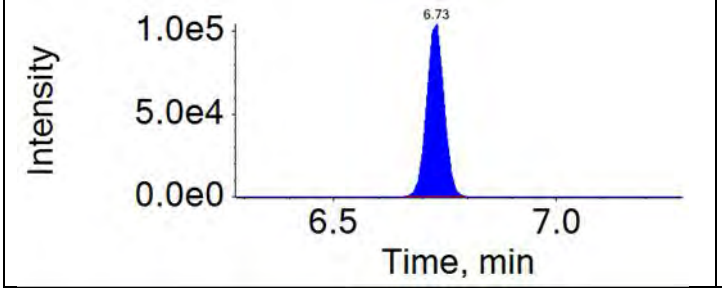


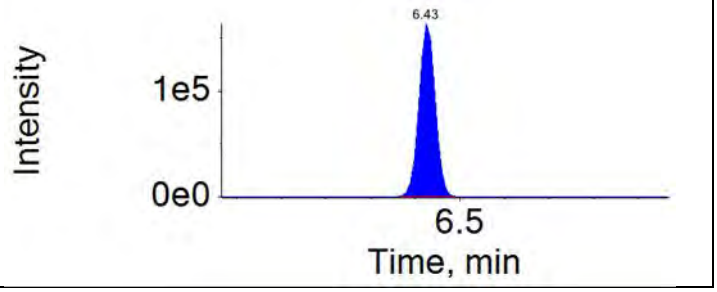
Analyte: PFTeDA	Extraction Standard: 13C2-PFTeDA
713.0 / 669.0	715.0 / 670.0



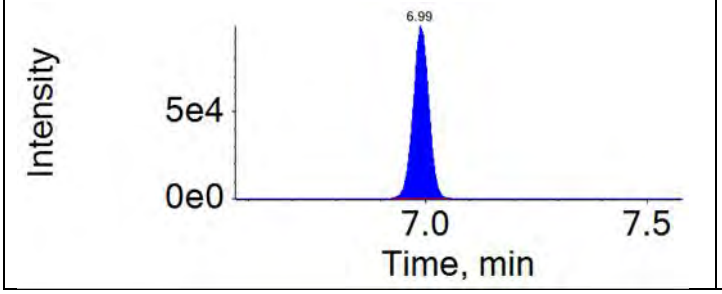


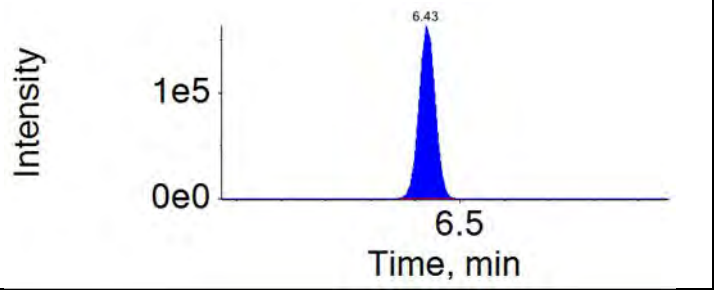
Analyte: PFHxDA	Extraction Standard: 13C2-PFTeDA
813.0 / 769.0	715.0 / 670.0





Analyte: PFODA	Extraction Standard: 13C2-PFTeDA
913.0 / 869.0	715.0 / 670.0





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By JPT at 10:55 am, 11/9/18

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Ion Ratio Report

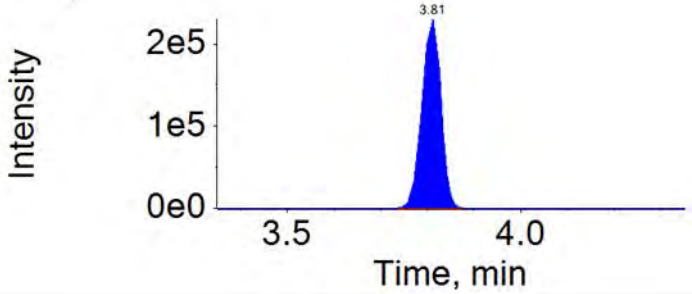
Sample Name: CCV6_CAL4 **Instrument Name:** LM27631 **File Name:** 18NOV08D-62.wiff

Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	3.81	1.00	657287.0	A	N/A	1.0000			
PFBS_2	3.81	1.00	235760.5	A	N/A	0.3587	0	50	
4:2-FTS	4.12	1.00	146243.7	A	N/A	1.0000			
4:2-FTS_2	4.12	1.00	89867.5	A	N/A	0.6145	-3	50	
PFHxA	4.16	1.00	1346936.2	A	N/A	1.0000			
PFHxA_2	4.16	1.00	16333.6	A	N/A	0.0121	6	50	
PFPeS	4.18	1.10	336126.3	A	N/A	1.0000			
PFPeS_2	4.18	1.10	180418.9	A	N/A	0.5368	0	50	
PFHxS	4.55	1.00	517560.2	A	N/A	1.0000			
PFHxS_2	4.55	1.00	187334.5	A	N/A	0.3620	1	50	
PFHpA	4.55	1.00	1397451.3	A	N/A	1.0000			
PFHpA_2	4.55	1.00	77052.1	A	N/A	0.0551	-4	50	
6:2-FTS	4.91	1.00	117232.5	A	N/A	1.0000			
6:2-FTS_2	4.90	1.00	78768.8	A	N/A	0.6719	0	50	
PFHpS	4.91	1.08	506255.7	A	N/A	1.0000			
PFHpS_2	4.91	1.08	201216.9	A	N/A	0.3975	1	50	
PFOA	4.92	1.00	1391831.6	A	N/A	1.0000			
PFOA_2	4.92	1.00	79996.8	A	N/A	0.0575	-9	50	
PFOS	5.24	1.00	463209.5	A	N/A	1.0000			
PFOS_2	5.24	1.00	149684.2	A	N/A	0.3231	-8	50	
PFNA	5.26	1.00	1122647.7	A	N/A	1.0000			
PFNA_2	5.26	1.00	21280.3	A	N/A	0.0190	-8	50	
PFNS	5.54	1.06	294830.9	A	N/A	1.0000			
PFNS_2	5.54	1.06	135895.0	A	N/A	0.4609	-6	50	
PFDA	5.56	1.00	960254.8	A	N/A	1.0000			
PFDA_2	5.56	1.00	6461.2	A	N/A	0.0067	19	50	
8:2-FTS	5.56	1.00	95318.5	A	N/A	1.0000			
8:2-FTS_2	5.56	1.00	58496.7	A	N/A	0.6137	-1	50	
NMeFOSAA	5.70	1.00	130282.1	A	N/A	1.0000			
NMeFOSAA_2	5.70	1.00	31272.2	A	N/A	0.2400	9	50	
PFDS	5.79	1.10	246351.8	A	N/A	1.0000			
PFDS_2	5.79	1.10	118536.2	A	N/A	0.4812	4	50	
PFUnDA	5.82	1.00	759410.0	A	N/A	1.0000			
PFUnDA_2	5.83	1.00	3198.3	A	N/A	0.0042	34	50	
NEtFOSAA	5.84	1.00	118906.4	A	N/A	1.0000			
NEtFOSAA_2	5.84	1.00	71233.7	A	N/A	0.5991	-2	50	
PFDoDA	6.05	1.00	888527.8	A	N/A	1.0000			
PFDoDA_2	6.05	1.00	10620.8	A	N/A	0.0120	9	50	
10:2-FTS	6.07	1.09	72975.2	A	N/A	1.0000			
10:2-FTS_2	6.07	1.09	46721.9	A	N/A	0.6402	-10	50	
PFTrDA	6.25	1.03	692553.1	A	N/A	1.0000			
PFTrDA_2	6.25	1.03	6515.8	A	N/A	0.0094	-2	50	
PFTeDA	6.43	1.00	598497.1	A	N/A	1.0000			
PFTeDA_2	6.42	1.00	4043.3	A	N/A	0.0068	22	50	
PFHxDA	6.73	1.05	283375.4	A	N/A	1.0000			
PFHxDA_2	6.73	1.05	16881.1	A	N/A	0.0596	0	50	
PFODA	6.99	1.09	242797.3	A	N/A	1.0000			
PFODA_2	6.99	1.09	6415.0	A	N/A	0.0264	3	50	

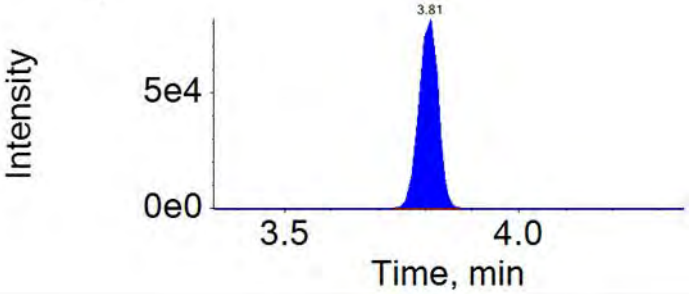
APPROVED
By JPT at 10:55 am, 11/9/18

REVIEWED
By HMK at 2:58 pm, 11/11/18

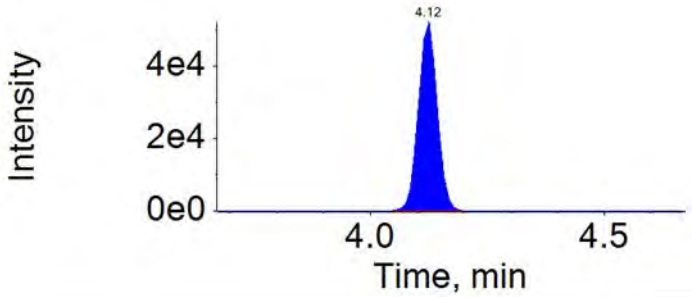
Component: PFBS
Primary Mass: 299.0 / 80.0



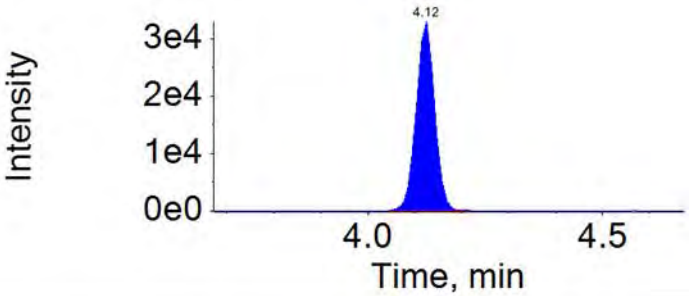
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



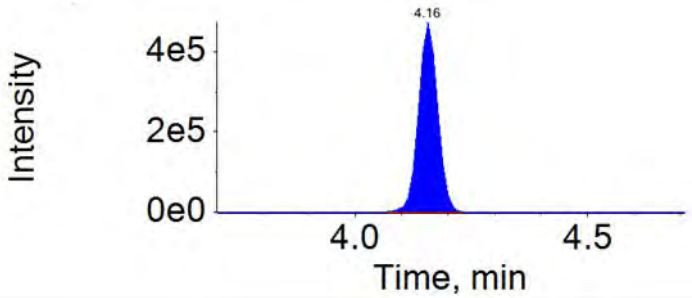
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



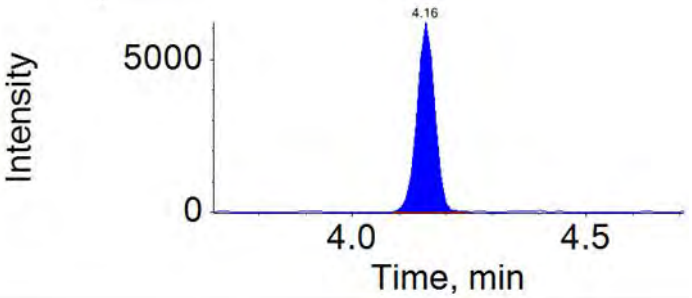
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Secondary Mass: 327.0 / 81.0



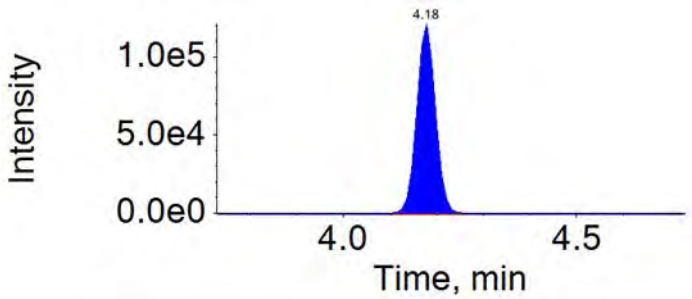
Component: PFHxA
Primary Mass: 313.0 / 269.0



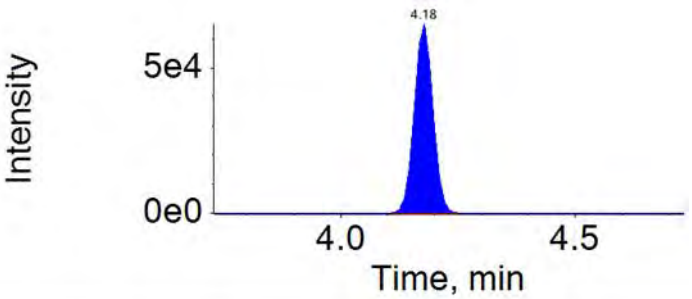
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



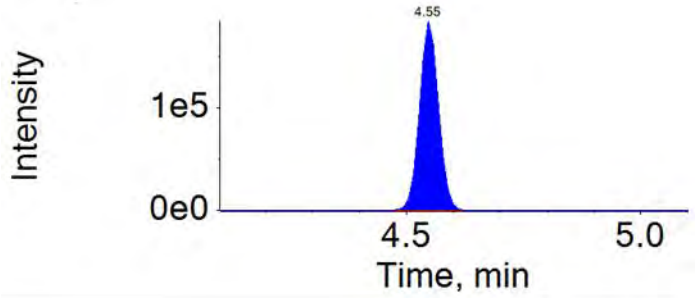
Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



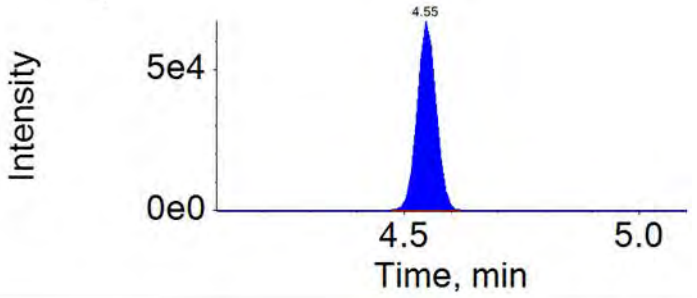
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By HMK at 2:58 pm, 11/11/18

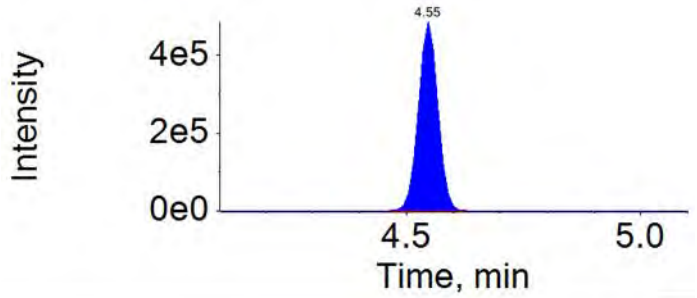
Component: PFHxS
Primary Mass: 399.0 / 80.0



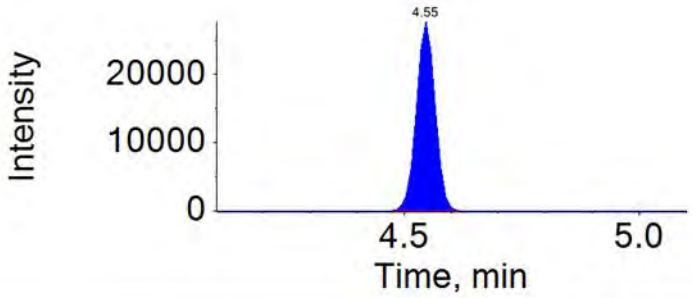
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



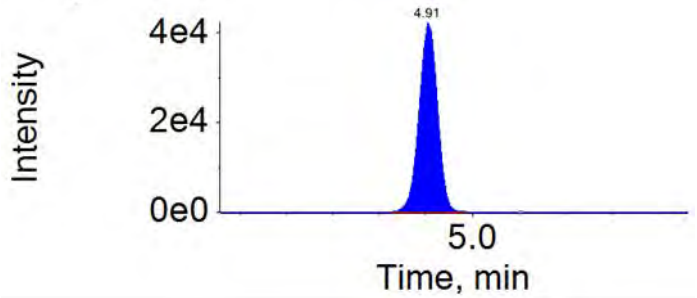
Component: PFHpA
Primary Mass: 363.0 / 319.0



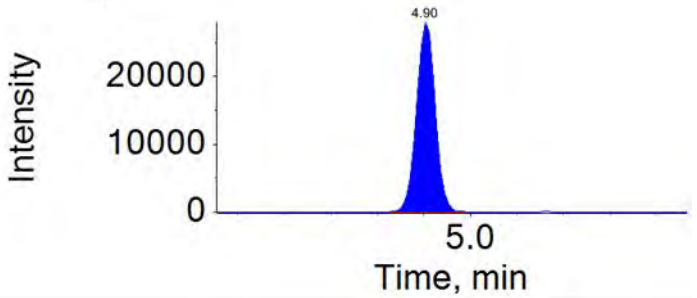
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



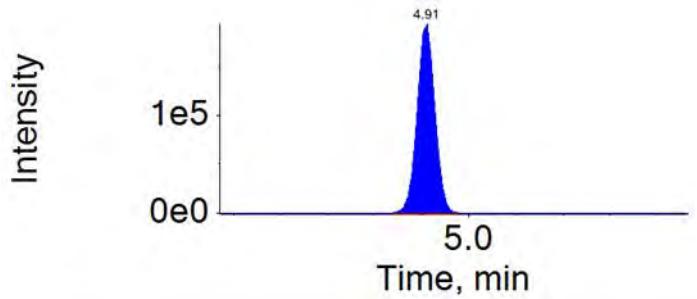
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



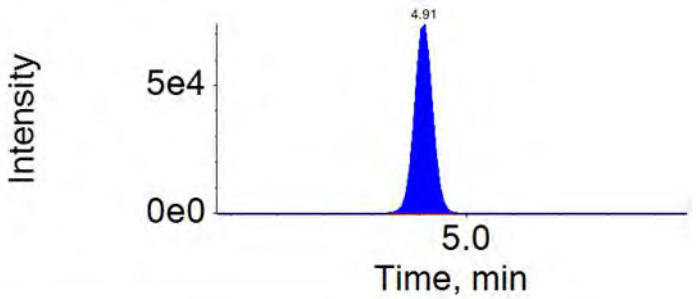
Component: 6:2-FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



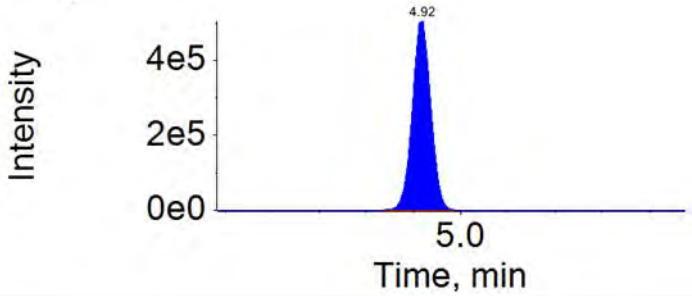
Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



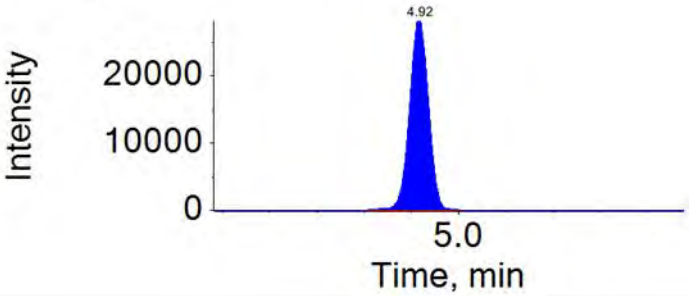
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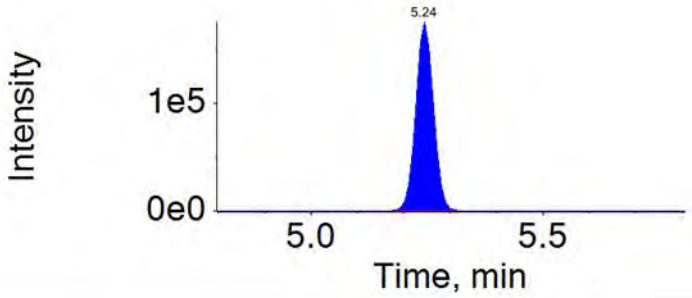
Component: PFOA
Primary Mass: 413.0 / 369.0



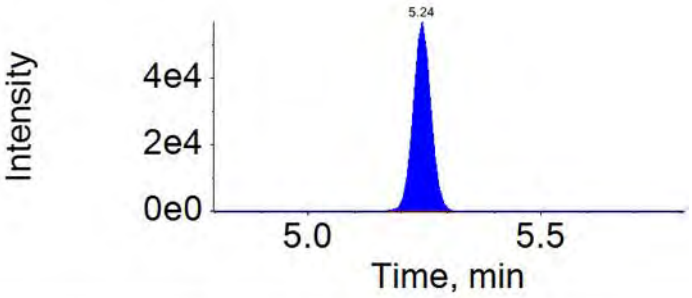
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



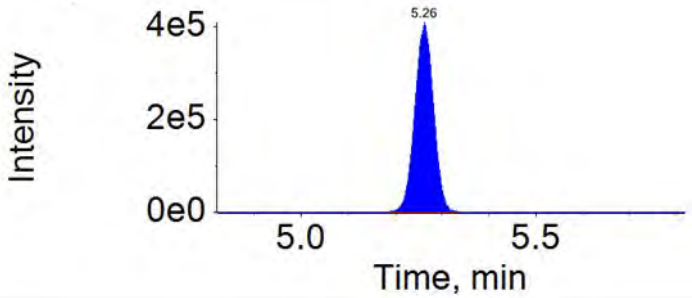
Component: PFOS
Primary Mass: 499.0 / 80.0



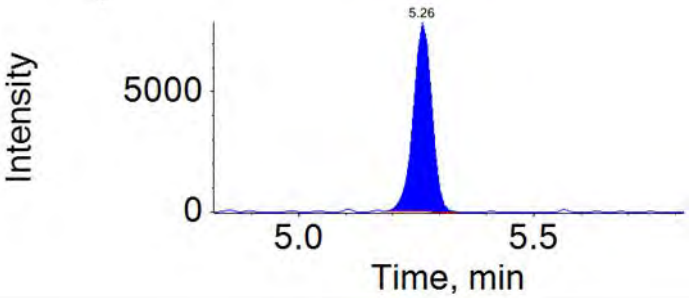
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



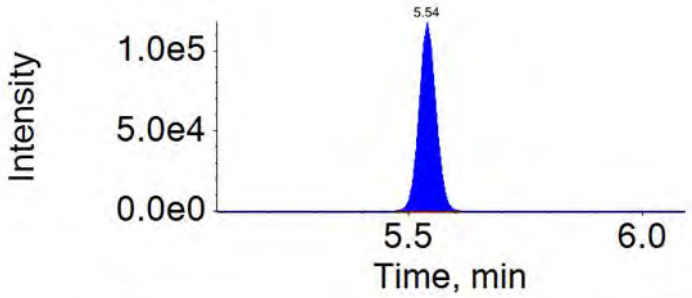
Component: PFNA
Primary Mass: 463.0 / 419.0



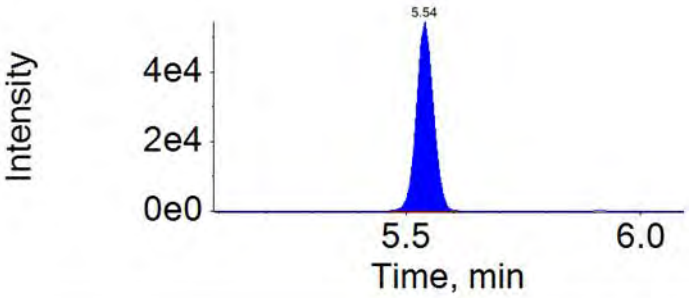
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



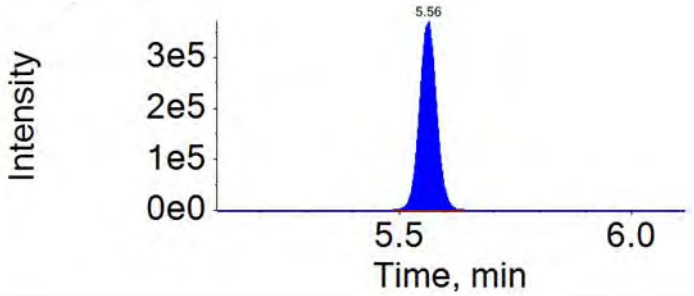
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



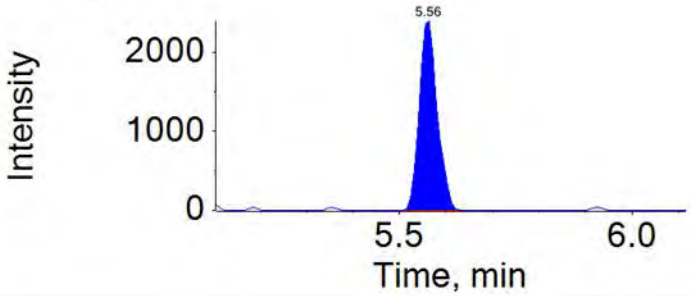
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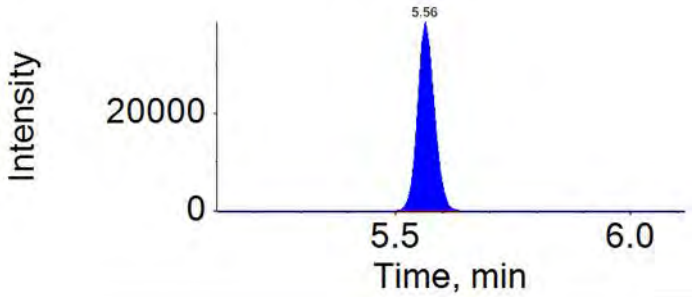
Component: PFDA
Primary Mass: 513.0 / 469.0



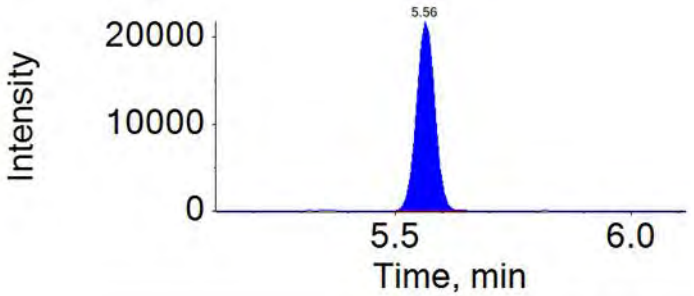
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



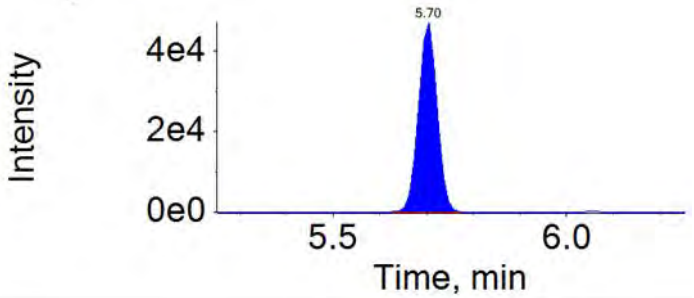
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



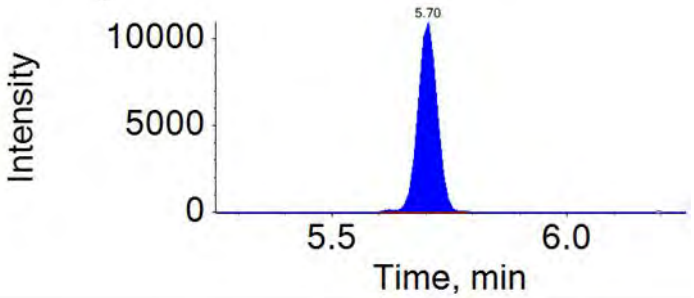
Component: 8:2-FTS_2
Secondary Mass: 527.0 / 81.0



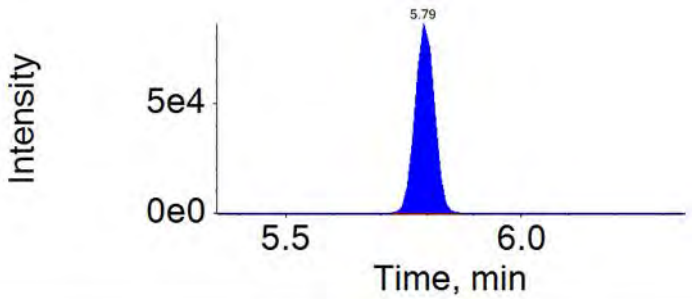
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



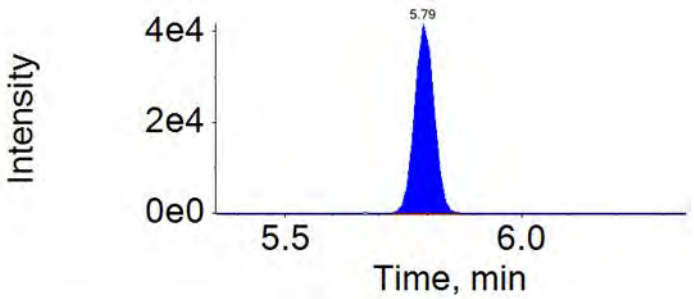
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



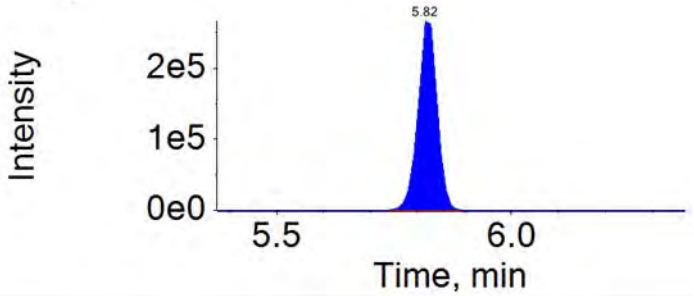
Component: PFDS_2
Secondary Mass: 599.0 / 99.0



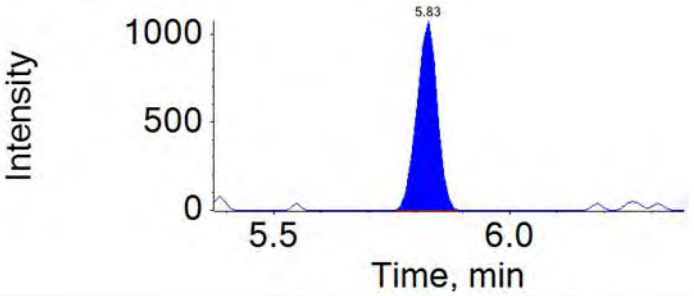
APPROVED
By JPT at 10:55 am, 11/9/18

REVIEWED
By HMK at 2:58 pm, 11/11/18

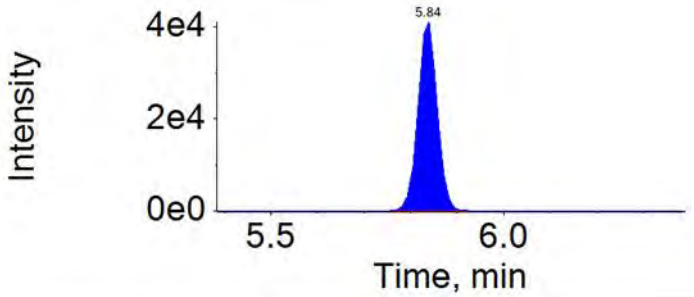
Component: PFUnDA
Primary Mass: 563.0 / 519.0



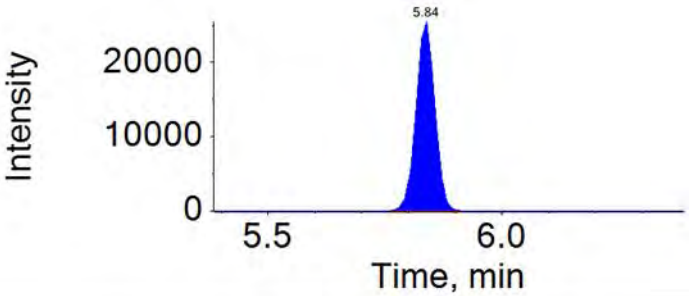
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



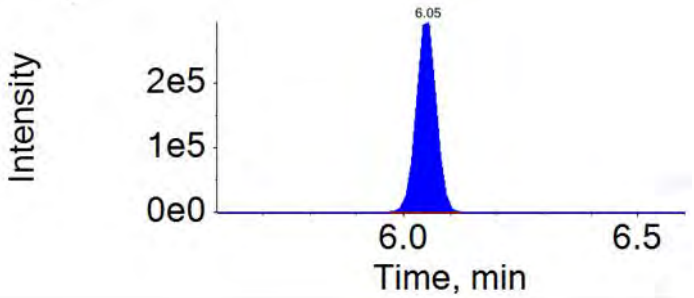
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



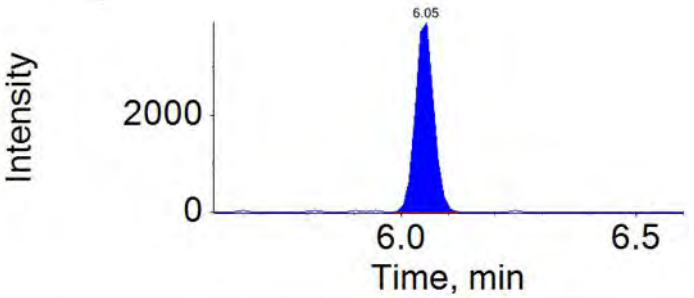
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



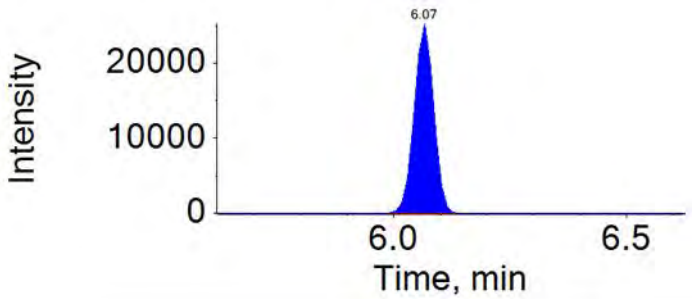
Component: PFDoDA
Primary Mass: 613.0 / 569.0



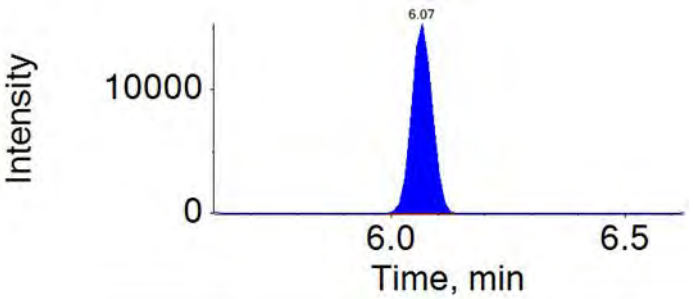
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



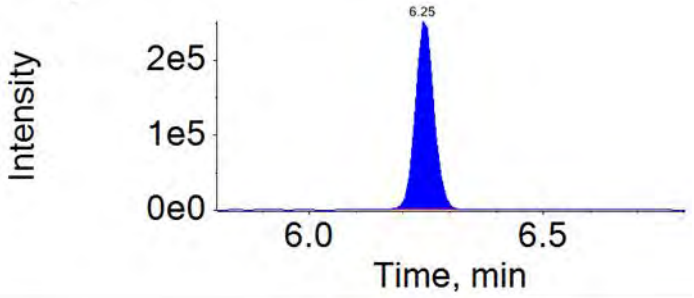
Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



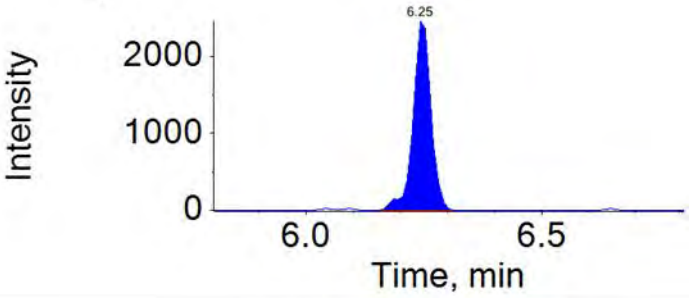
Component: 10:2-FTS_2
Secondary Mass: 627.0 / 81.0



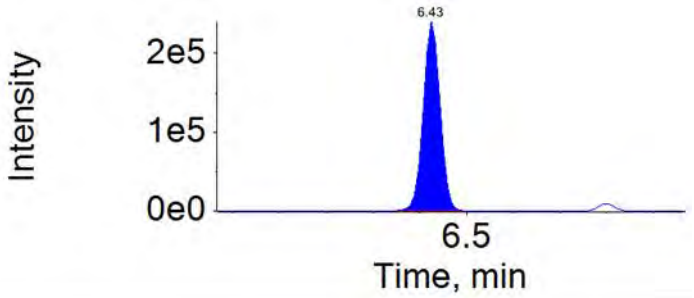
Component: PFTrDA
Primary Mass: 663.0 / 619.0



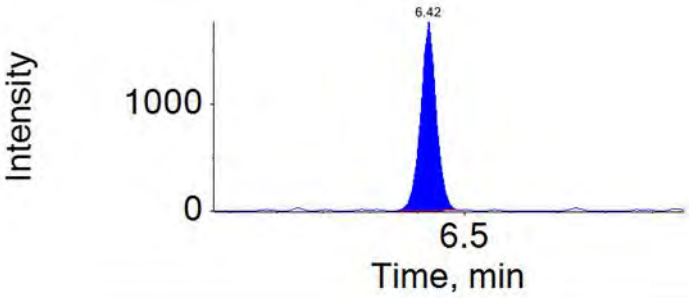
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



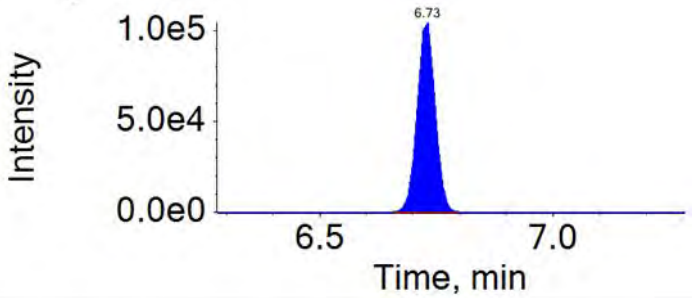
Component: PFTeDA
Primary Mass: 713.0 / 669.0



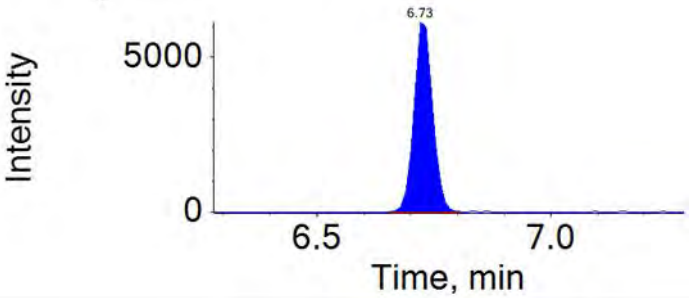
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



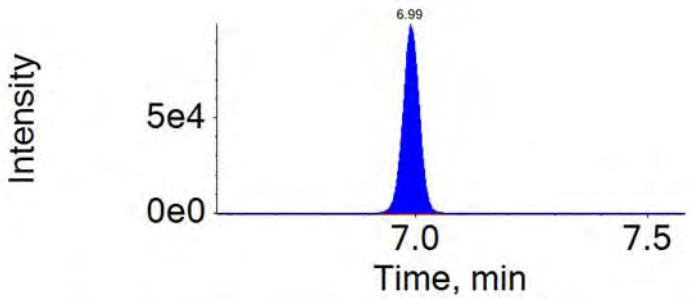
Component: PFHxDA
Primary Mass: 813.0 / 769.0



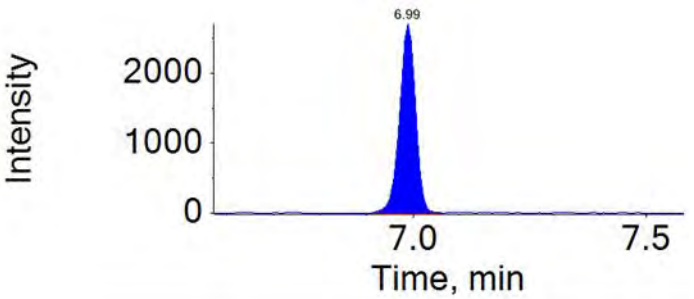
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



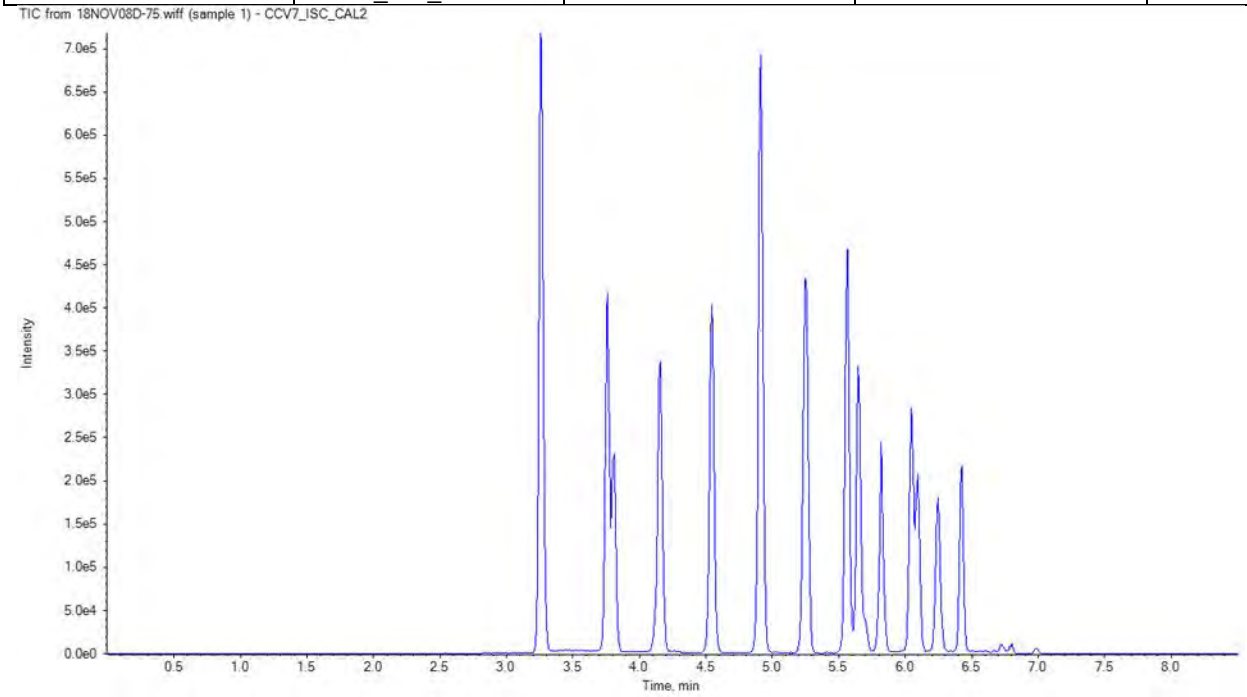
APPROVED
By JPT at 10:55 am, 11/9/18

REVIEWED
By HMK at 2:58 pm, 11/11/18

Instrument Sensitivity Check/ Continuing Calibration Verfication

ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	CCV7_ISC_CAL2	CALMOD21833F	18NOV08D-75.wiff	2018-11-08T22:56:07



Injection Standard Area Reference File: 18NOV08D-05

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Reference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	726487.9	728839.7	0	50	
13C2-PFOA	5.0	507332.3	491983.1	3	50	
13C4-PFOS	4.8	284533.0	255568.1	11	50	
13C2-PFDA	5.0	302232.2	315407.5	-4	50	

APPROVED
By JPT at 10:55 am, 11/9/18

REVIEWED
By HMK at 2:58 pm, 11/11/18

Instrument Sensitivity Check/ Continuing Calibration Verfication

ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	CCV7_ISC_CAL2	CALMOD21833F	18NOV08D-75.wiff	2018-11-08T22:56:07

Analyte Name	Analyte Area	Sc /pk	Ext Std Name	Ext Std Area	Ext Std con	Area Ratio	RT (min)	RRT	Spec Amt	Calc Amt	% Diff	% Diff Lim	% Diff OOS
PFBA	74057.5	10	13C4-PFBA	791764.8	5.0	0.094	3.26	1.000	0.500	0.547	9	30	
PFPeA	74030.9	12	13C5-PFPeA	820050.2	5.0	0.090	3.76	1.000	0.500	0.537	7	30	
PFBS	39832.5	11	13C3-PFBS	440110.2	4.7	0.091	3.81	1.000	0.440	0.456	4	30	
4:2-FTS	10606.0	12	13C2-4:2-FTS	52818.0	4.7	0.201	4.12	1.000	0.467	0.540	16	30	
PFHxA	83198.1	11	13C5-PFHxA	677901.1	5.0	0.123	4.16	1.000	0.500	0.526	5	30	
PFPeS	21062.1	11	13C3-PFBS	440110.2	4.7	0.048	4.18	1.100	0.469	0.472	1	30	
PFHxS	31930.8	11	13C3-PFHxS	332263.0	4.7	0.096	4.55	1.000	0.473	0.487	3	30	
PFHpA	90113.5	12	13C4-PFHpA	506540.8	5.0	0.178	4.54	1.000	0.500	0.598	20	30	
6:2-FTS	7571.0	12	13C2-6:2-FTS	37265.3	4.8	0.203	4.90	1.000	0.474	0.507	7	30	
PFHpS	28658.3	11	13C3-PFHxS	332263.0	4.7	0.086	4.91	1.080	0.476	0.451	-5	30	
PFOA	89452.0	11	13C8-PFOA	942604.8	5.0	0.095	4.91	1.000	0.500	0.534	7	30	
PFOS	27768.1	11	13C8-PFOS	289413.6	4.8	0.096	5.24	1.000	0.478	0.498	4	30	
PFNA	72707.1	11	13C9-PFNA	505277.1	5.0	0.144	5.26	1.000	0.500	0.538	8	30	
PFNS	17926.4	10	13C8-PFOS	289413.6	4.8	0.062	5.54	1.060	0.480	0.491	2	30	
PFDA	61927.2	11	13C6-PFDA	630364.9	5.0	0.098	5.56	1.000	0.500	0.540	8	30	
8:2-FTS	6846.3	10	13C2-8:2-FTS	28148.0	4.8	0.243	5.57	1.000	0.479	0.548	14	30	
PFOSA	68586.5	11	13C8-PFOSA	690901.4	5.0	0.099	5.65	1.000	0.500	0.537	7	30	
NMeFOSAA	6968.7	12	d3-NMeFOSAA	72881.0	5.0	0.096	5.71	1.000	0.500	0.492	-2	30	
PFDS	15279.2	11	13C8-PFOS	289413.6	4.8	0.053	5.79	1.110	0.482	0.504	5	30	
PFUnDA	48246.0	12	13C7-PFUnDA	326462.6	5.0	0.148	5.82	1.000	0.500	0.424	-15	30	
NEtFOSAA	7757.6	13	d5-NEtFOSAA	70713.2	5.0	0.110	5.84	1.000	0.500	0.471	-6	30	
PFDoDA	54056.4	12	13C2-PFDoDA	568370.6	5.0	0.095	6.05	1.000	0.500	0.515	3	30	
10:2-FTS	3682.3	13	13C2-8:2-FTS	28148.0	4.8	0.131	6.06	1.090	0.482	0.407	-15	30	
NMePFOSAE	40670.4	12	d7-NMePFOSAE	343224.1	5.0	0.118	6.10	1.000	0.500	0.531	6	30	
NMePFOSA	9113.3	11	d3-NMePFOSA	80017.6	5.0	0.114	6.11	1.000	0.500	0.637	27	30	
PFDoS	6684.0	10	13C8-PFOS	289413.6	4.8	0.023	6.22	1.190	0.484	0.446	-8	30	
NEtPFOSAE	47180.7	11	d9-NEtPFOSAE	270452.0	5.0	0.174	6.25	1.000	0.500	0.559	12	30	
NEtPFOSA	7229.9	11	d5-NEtPFOSA	67424.7	5.0	0.107	6.27	1.000	0.500	0.472	-6	30	
PFTrDA	49062.7	12	13C2-PFDoDA	568370.6	5.0	0.086	6.24	1.030	0.500	0.544	9	30	
PFTeDA	35545.8	11	13C2-PFTeDA	410346.0	5.0	0.087	6.42	1.000	0.500	0.509	2	30	
PFHxDA	17512.1	11	13C2-PFTeDA	410346.0	5.0	0.043	6.72	1.050	0.500	0.530	6	30	
PFODA	14402.6	10	13C2-PFTeDA	410346.0	5.0	0.035	6.99	1.090	0.500	0.503	1	30	

APPROVED
By JPT at 10:55 am, 11/9/18

REVIEWED
By HMK at 2:58 pm, 11/11/18

Instrument Sensitivity Check/ Continuing Calibration Verfication

ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13
Result Table: 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
Acquisition Method: 18AUG13_3uL.dam

APPROVED
By JPT at 10:55 am, 11/9/18

REVIEWED
By HMK at 2:58 pm, 11/11/18

ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
Acquisition Method: 18AUG13_3uL.dam

Sample Name:	CCV7_ISC_CAL2			**Data File:**		18NOV08D-75.wiff
Sample ID:	CALMOD21833F			**Acquis Date:**		2018-11-08T22:56:07
Sample Type:	Quality Control			**Instrument:**		LM27631
Vial Position:	4			**Acquis Method:**		18AUG13_3uL.dam
Injection Vol:	3.00			**Result Table:**		18NOV08DCCV6-12
QMethod File:	MQ4-18AUG13			**ICAL Name:**		18NOV07DCAL
Batch Number:	N/A			**Operator:**		JPT12262
Sample Wt.:	1.00000			**Dilution Factor:**		1.00
Sample Vol.:	1.000			**Prep Factor:**		1.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV08D-05

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Rreference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	726487.9	728839.7	0	50	
13C2-PFOA	5.0	507332.3	491983.1	3	50	
13C4-PFOS	4.8	284533.0	255568.1	11	50	
13C2-PFDA	5.0	302232.2	315407.5	-4	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	791764.8	13C3-PFBA	726487.9	1.090	5.000	5.044	101	70-130	
E13C5-PFPeA	820050.2	13C3-PFBA	726487.9	1.129	5.000	4.917	98	70-130	
E13C3-PFBS	440110.2	13C3-PFBA	726487.9	0.606	4.650	4.446	96	70-130	
E13C2-4:2-FTS	52818.0	13C2-PFOA	507332.3	0.104	4.670	4.698	101	70-130	
E13C5-PFHxA	677901.1	13C2-PFOA	507332.3	1.336	5.000	4.915	98	70-130	
E13C3-PFHxS	332263.0	13C2-PFOA	507332.3	0.655	4.730	4.702	99	70-130	
E13C4-PFHpA	506540.8	13C2-PFOA	507332.3	0.998	5.000	4.542	91	70-130	
E13C2-6:2-FTS	37265.3	13C2-PFOA	507332.3	0.073	4.750	4.898	103	70-130	
E13C8-PFOA	942604.8	13C2-PFOA	507332.3	1.858	5.000	5.181	104	70-130	
E13C8-PFOS	289413.6	13C4-PFOS	284533.0	1.017	4.780	4.498	94	70-130	
E13C9-PFNA	505277.1	13C4-PFOS	284533.0	1.776	5.000	4.851	97	70-130	
E13C6-PFDA	630364.9	13C2-PFDA	302232.2	2.086	5.000	5.245	105	70-130	
E13C2-8:2-FTS	28148.0	13C2-PFDA	302232.2	0.093	4.790	4.928	103	70-130	
E13C8-PFOSA	690901.4	13C2-PFDA	302232.2	2.286	5.000	4.988	100	70-130	
Ed3-NMeFOSAA	72881.0	13C2-PFDA	302232.2	0.241	5.000	4.484	90	70-130	
E13C7-PFUnDA	326462.6	13C2-PFDA	302232.2	1.080	5.000	6.231	125	70-130	
Ed5-NEtFOSAA	70713.2	13C2-PFDA	302232.2	0.234	5.000	5.415	108	70-130	
E13C2-PFDoDA	568370.6	13C2-PFDA	302232.2	1.881	5.000	5.070	101	70-130	
Ed7-NMePFOSAE	343224.1	13C2-PFDA	302232.2	1.136	5.000	5.281	106	70-130	
Ed3-NMePFOSA	80017.6	13C2-PFDA	302232.2	0.265	5.000	4.847	97	70-130	
Ed9-NEtPFOSAE	270452.0	13C2-PFDA	302232.2	0.895	5.000	5.110	102	70-130	
Ed5-NEtPFOSA	67424.7	13C2-PFDA	302232.2	0.223	5.000	5.166	103	70-130	
E13C2-PFTeDA	410346.0	13C2-PFDA	302232.2	1.358	5.000	4.888	98	70-130	

APPROVED
By JPT at 10:55 am, 11/9/18

REVIEWED
By HMK at 2:58 pm, 11/11/18

ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

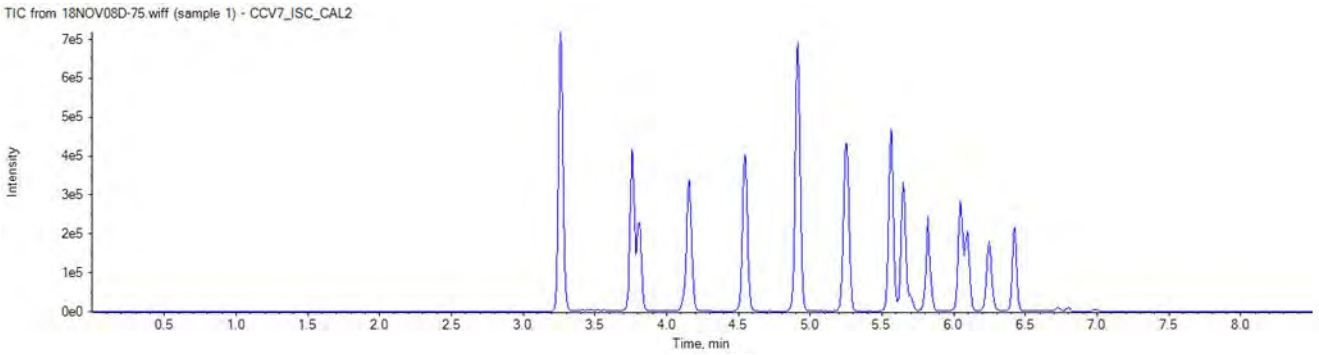
Analyte Quantitation Peak Table

Sample Name: CCV7_ISC_CAL2 **Instrument Name:** LM27631 **File Name:** 18NOV08D-75.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	1.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	3.26	1.000	74057.5		A	13C4-PFBA	3.26	791764.8	0.094	0.547
PFPeA	3.76	1.000	74030.9		A	13C5-PFPeA	3.76	820050.2	0.090	0.537
PFBS	3.81	1.000	39832.5		A	13C3-PFBS	3.81	440110.2	0.091	0.456
4:2-FTS	4.12	1.000	10606.0		A	13C2-4:2-FTS	4.12	52818.0	0.201	0.540
PFHxA	4.16	1.000	83198.1		A	13C5-PFHxA	4.16	677901.1	0.123	0.526
PFPeS	4.18	1.100	21062.1		A	13C3-PFBS	3.81	440110.2	0.048	0.472
PFHxS	4.55	1.000	31930.8		A	13C3-PFHxS	4.55	332263.0	0.096	0.487
PFHpA	4.54	1.000	90113.5		A	13C4-PFHpA	4.54	506540.8	0.178	0.598
6:2-FTS	4.90	1.000	7571.0		A	13C2-6:2-FTS	4.90	37265.3	0.203	0.507
PFHpS	4.91	1.080	28658.3		A	13C3-PFHxS	4.55	332263.0	0.086	0.451
PFOA	4.91	1.000	89452.0		A	13C8-PFOA	4.91	942604.8	0.095	0.534
PFOS	5.24	1.000	27768.1		A	13C8-PFOS	5.24	289413.6	0.096	0.498
PFNA	5.26	1.000	72707.1		A	13C9-PFNA	5.26	505277.1	0.144	0.538
PFNS	5.54	1.060	17926.4		A	13C8-PFOS	5.24	289413.6	0.062	0.491
PFDA	5.56	1.000	61927.2		A	13C6-PFDA	5.56	630364.9	0.098	0.540
8:2-FTS	5.57	1.000	6846.3		A	13C2-8:2-FTS	5.57	28148.0	0.243	0.548
PFOSA	5.65	1.000	68586.5		A	13C8-PFOSA	5.65	690901.4	0.099	0.537
NMeFOSAA	5.71	1.000	6968.7		A	d3-NMeFOSAA	5.70	72881.0	0.096	0.492
PFDS	5.79	1.110	15279.2		A	13C8-PFOS	5.24	289413.6	0.053	0.504
PFUnDA	5.82	1.000	48246.0		A	13C7-PFUnDA	5.82	326462.6	0.148	0.424
NEtFOSAA	5.84	1.000	7757.6		M	d5-NEtFOSAA	5.83	70713.2	0.110	0.471
PFDoDA	6.05	1.000	54056.4		A	13C2-PFDoDA	6.05	568370.6	0.095	0.515
10:2-FTS	6.06	1.090	3682.3		A	13C2-8:2-FTS	5.57	28148.0	0.131	0.407
NMePFOSAE	6.10	1.000	40670.4		A	d7-NMePFOSAE	6.09	343224.1	0.118	0.531
NMePFOSA	6.11	1.000	9113.3		A	d3-NMePFOSA	6.10	80017.6	0.114	0.637
PFDoS	6.22	1.190	6684.0		A	13C8-PFOS	5.24	289413.6	0.023	0.446
NEtPFOSAE	6.25	1.000	47180.7		A	d9-NEtPFOSAE	6.24	270452.0	0.174	0.559
NEtPFOSA	6.27	1.000	7229.9		M	d5-NEtPFOSA	6.26	67424.7	0.107	0.472
PFTrDA	6.24	1.030	49062.7		A	13C2-PFDoDA	6.05	568370.6	0.086	0.544
PFTeDA	6.42	1.000	35545.8		A	13C2-PFTeDA	6.42	410346.0	0.087	0.509
PFHxDA	6.72	1.050	17512.1		A	13C2-PFTeDA	6.42	410346.0	0.043	0.530
PFODA	6.99	1.090	14402.6		A	13C2-PFTeDA	6.42	410346.0	0.035	0.503

Total Ion Chromatogram

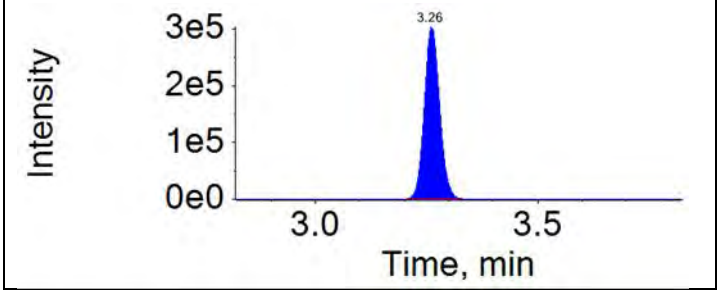


APPROVED
By JPT at 10:55 am, 11/9/18

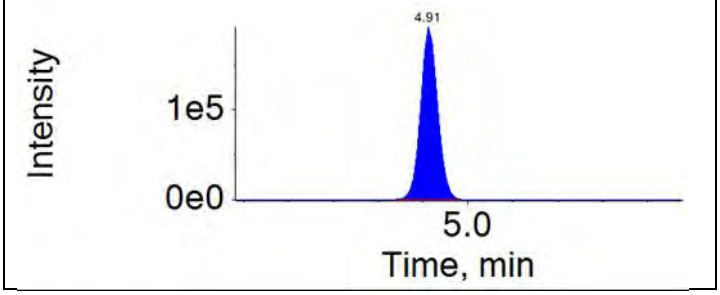
REVIEWED
By HMK at 2:58 pm, 11/11/18

ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

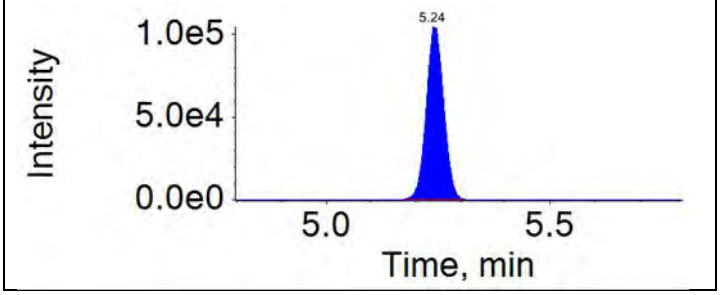
Injection Standard: 13C3-PFBA
216.0 / 172.0



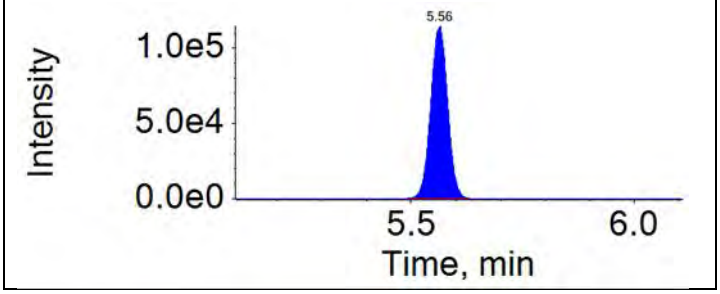
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0



Injection Standard: 13C2-PFDA
515.0 / 470.0

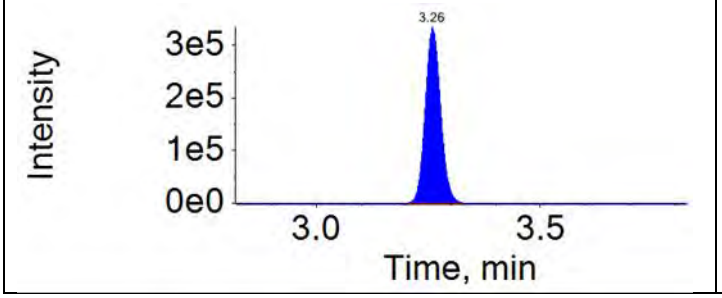


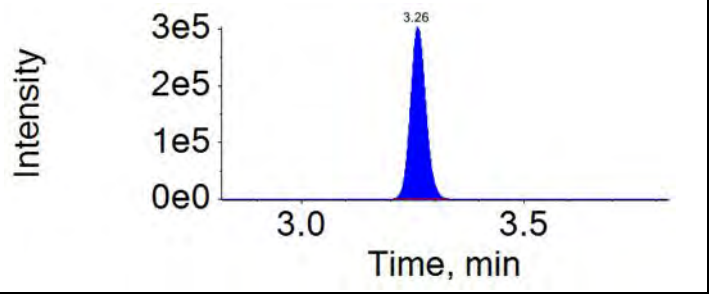
APPROVED
By JPT at 10:55 am, 11/9/18

REVIEWED
By HMK at 2:58 pm, 11/11/18

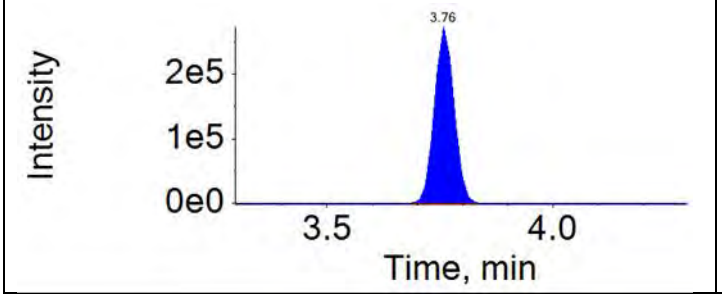
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

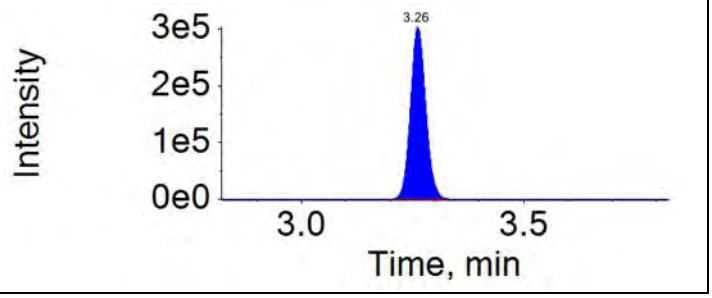
Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0



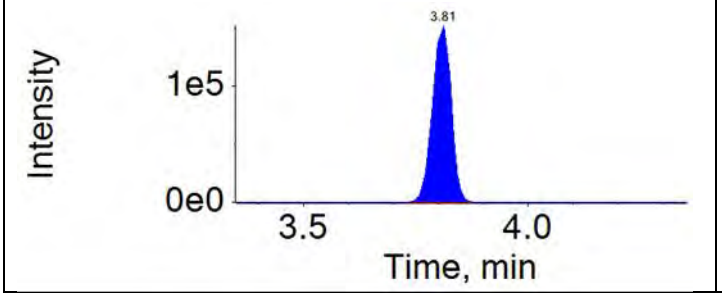


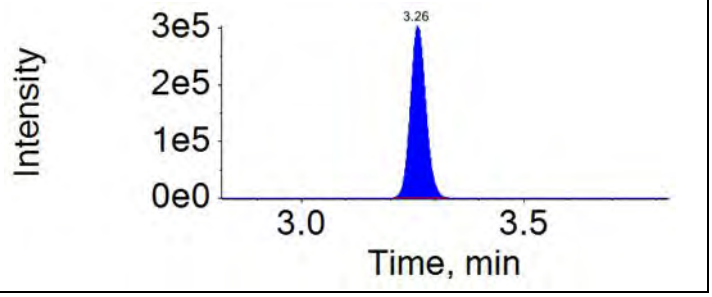
Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0



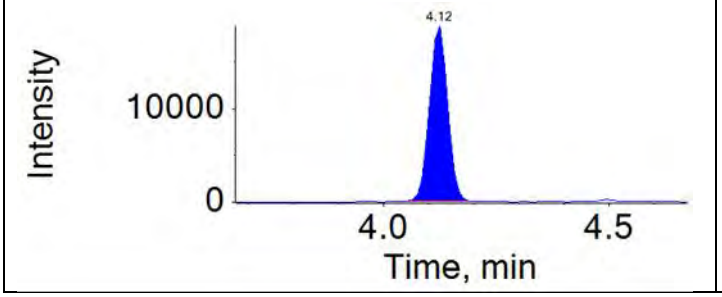


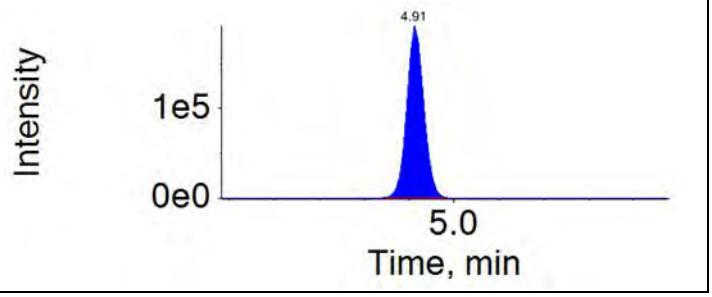
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0





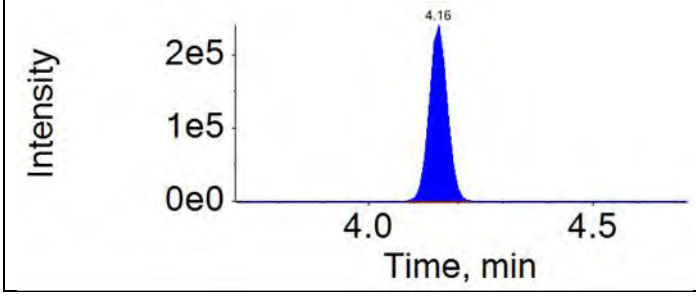
Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0

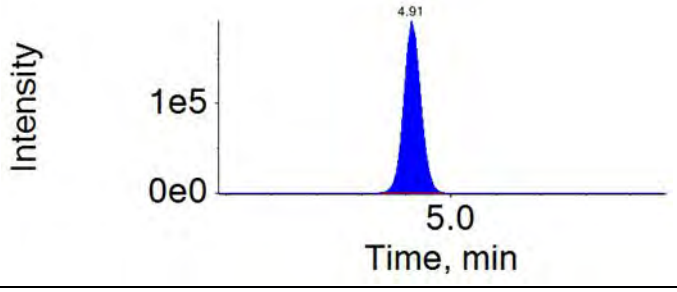




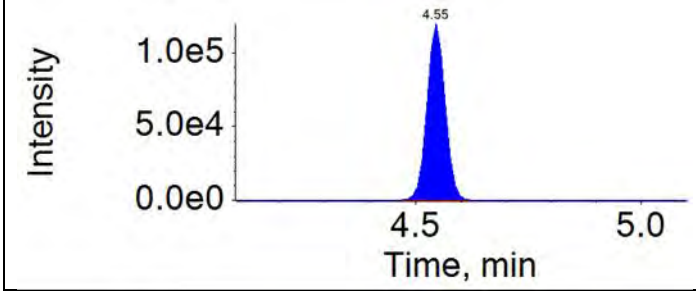
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

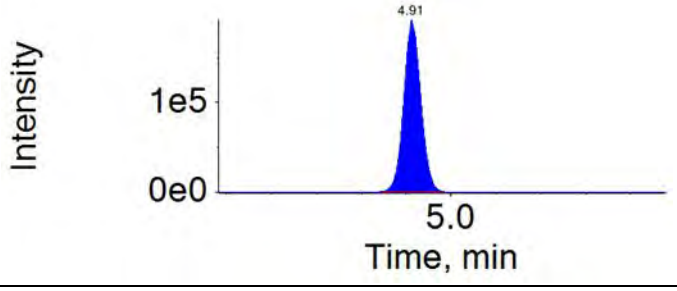
Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0



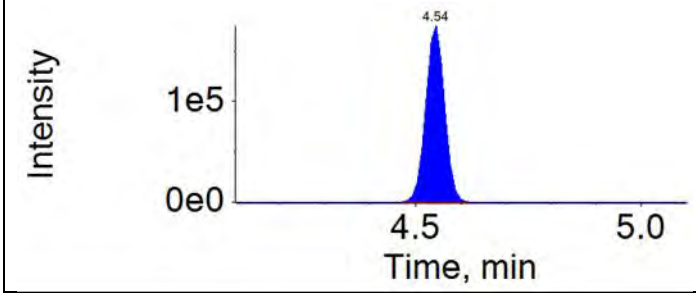


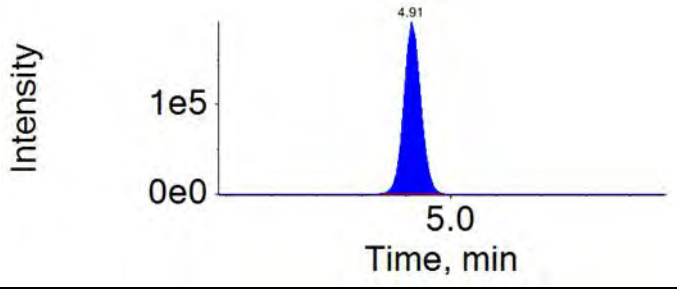
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0



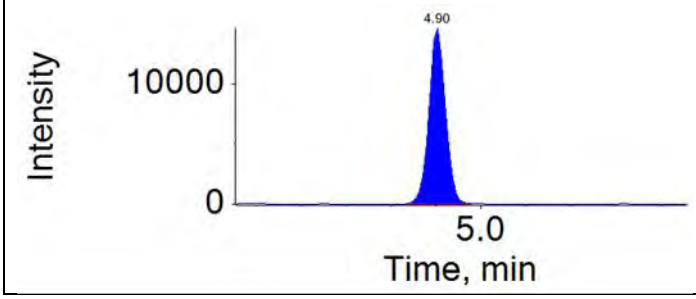


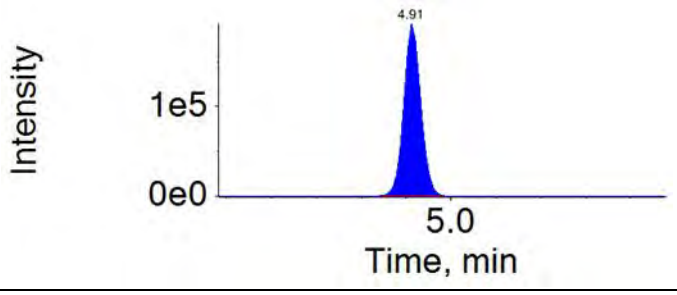
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0





Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0

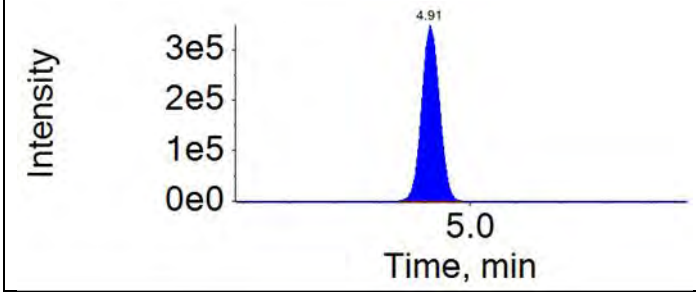
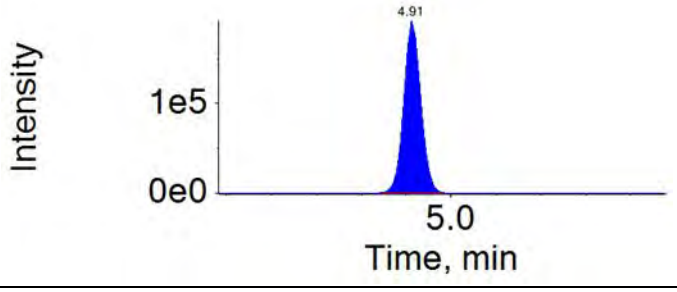


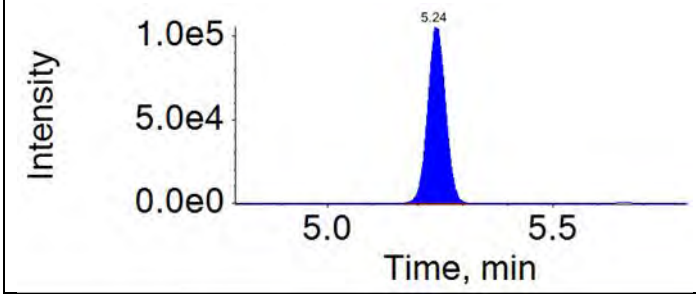
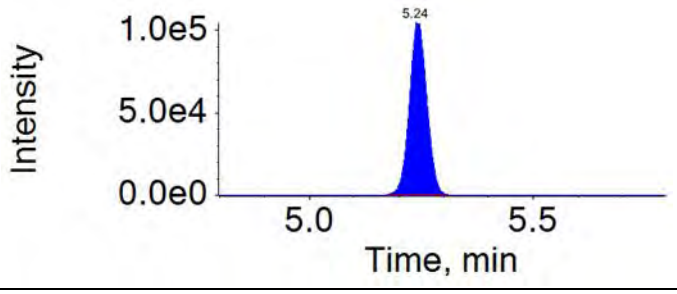


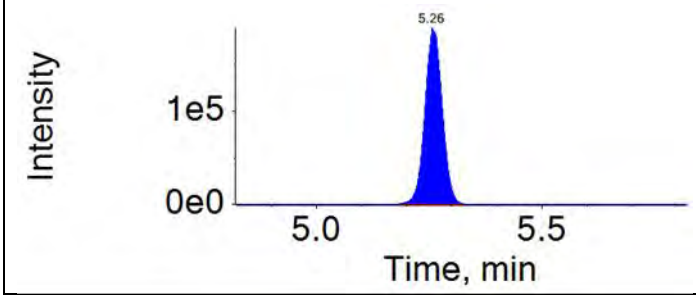
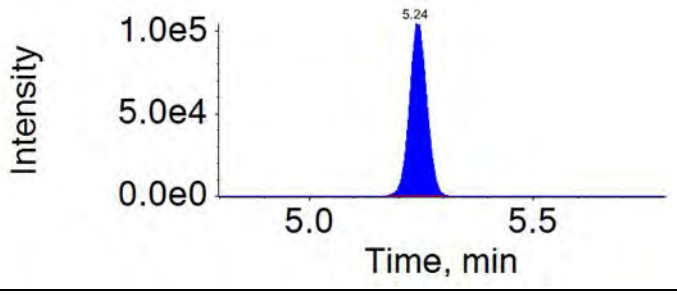
APPROVED
By JPT at 10:55 am, 11/9/18

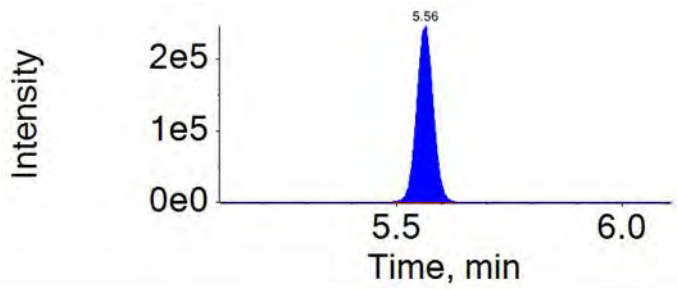
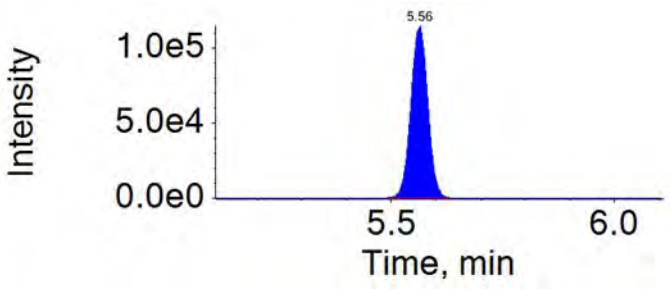
REVIEWED
By HMK at 2:58 pm, 11/11/18

ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: E13C8-PFOA	Injection Standard: 13C2-PFOA
421.0 / 376.0	415.0 / 370.0
	

Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0
	

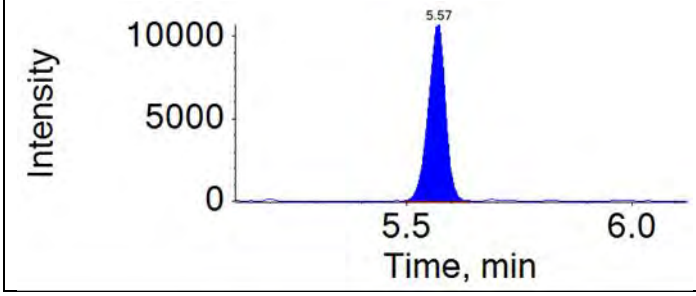
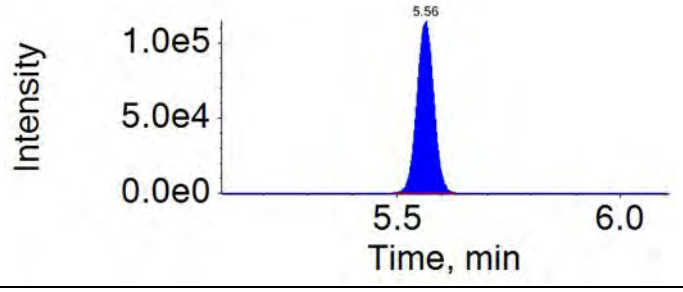
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0
	

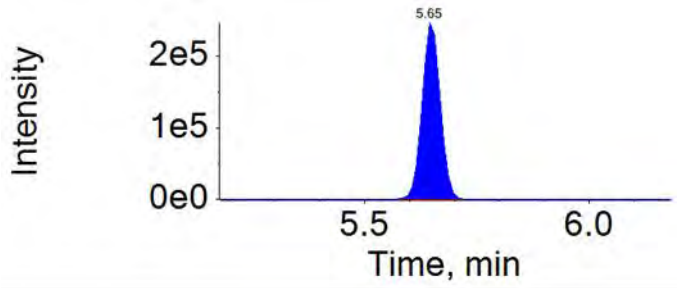
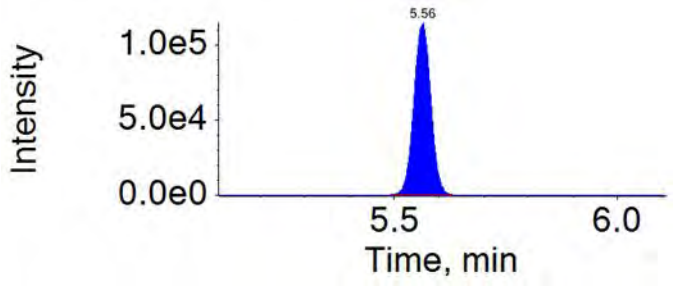
Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0
	

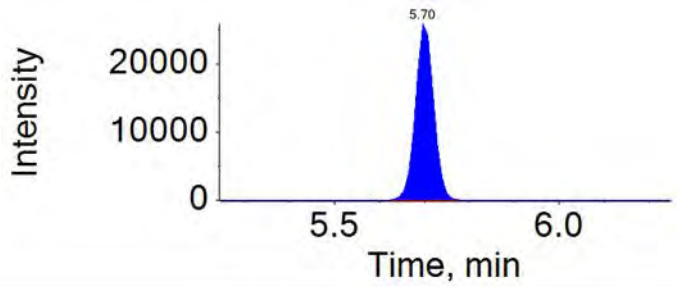
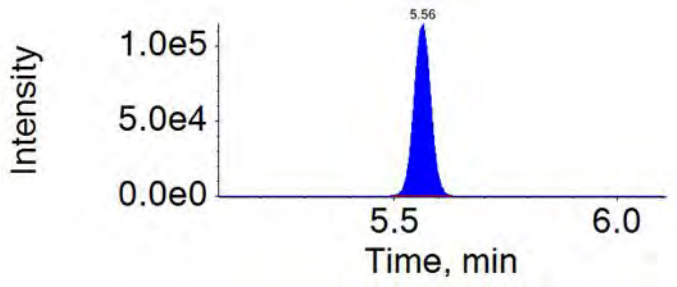
APPROVED
By JPT at 10:55 am, 11/9/18

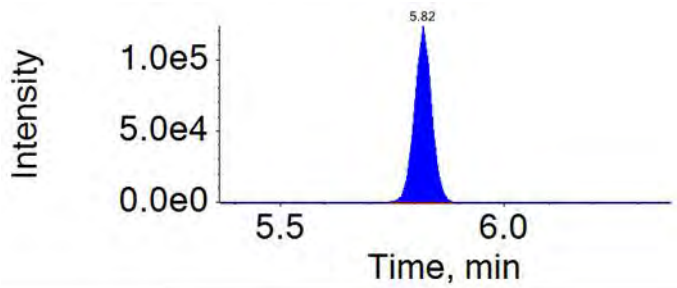
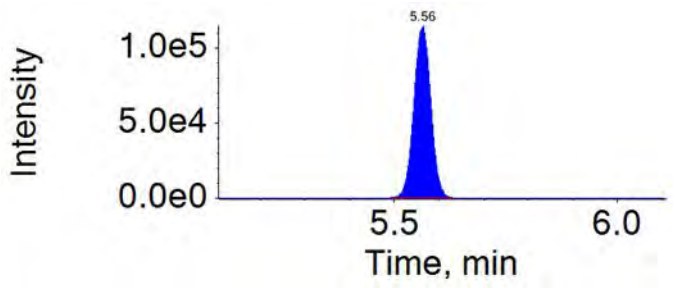
REVIEWED
By HMK at 2:58 pm, 11/11/18

ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: E13C2-8:2-FTS	Injection Standard: 13C2-PFDA
529.0 / 81.0	515.0 / 470.0
	

Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0
	

Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0
	

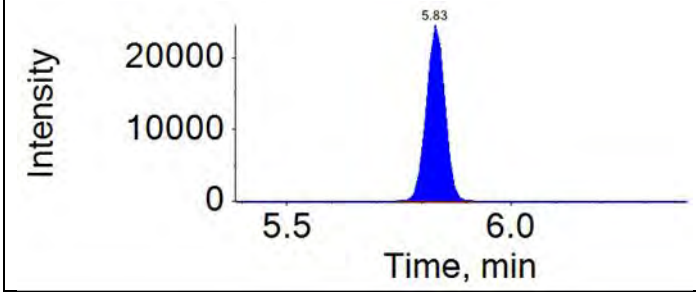
Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0
	

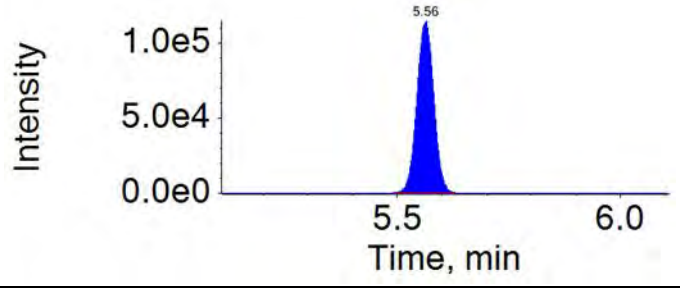
APPROVED
By JPT at 10:55 am, 11/9/18

REVIEWED
By HMK at 2:58 pm, 11/11/18

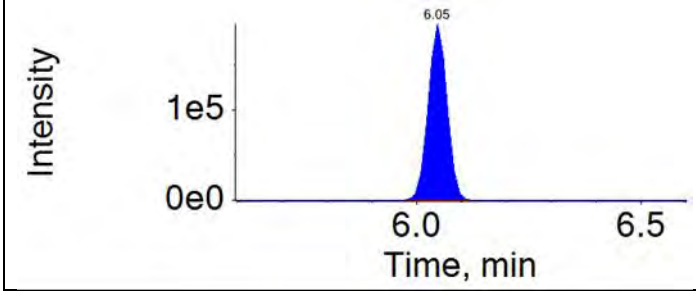
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

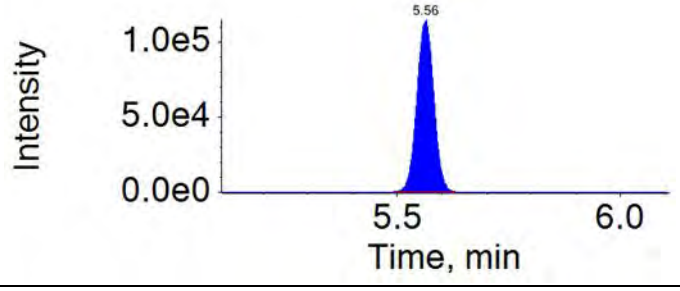
Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0



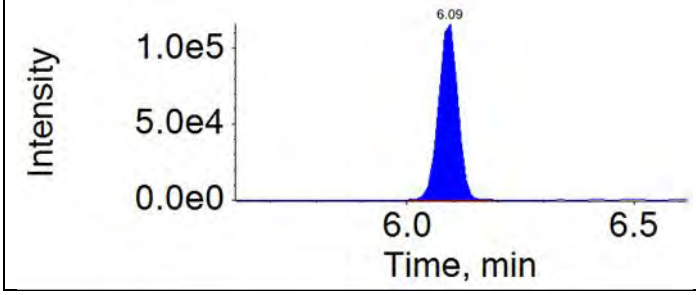


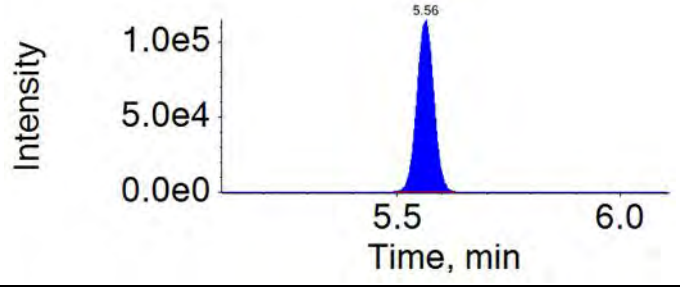
Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0



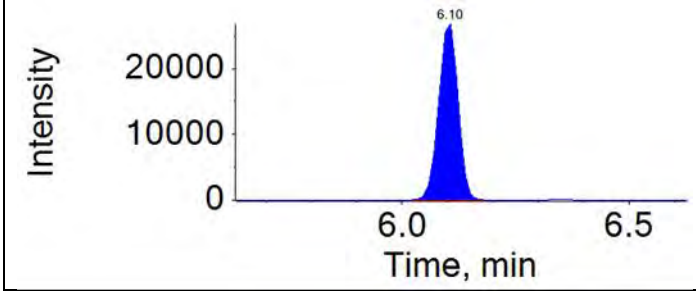


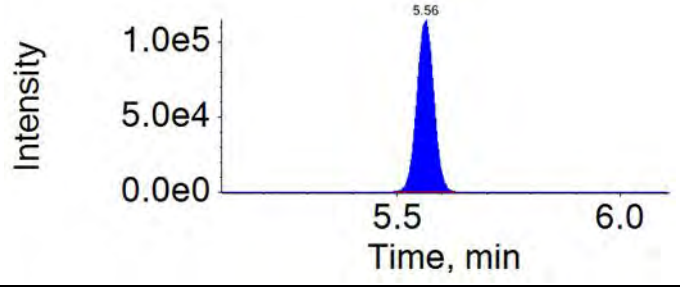
Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0





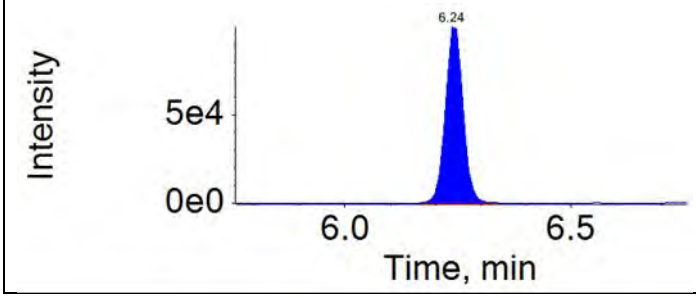
Extraction Standard: Ed3-NMePFOSA	Injection Standard: 13C2-PFDA
515.0 / 169.0	515.0 / 470.0

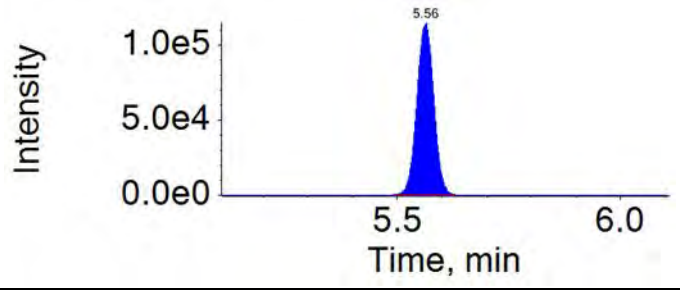




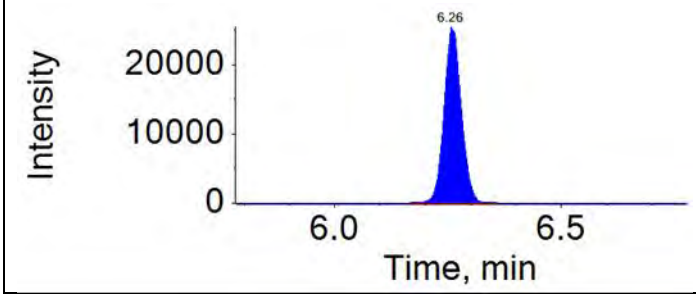
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

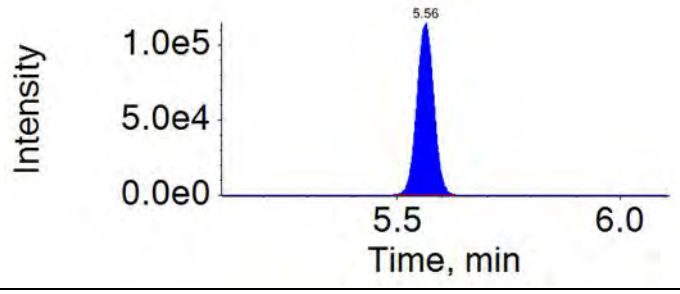
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



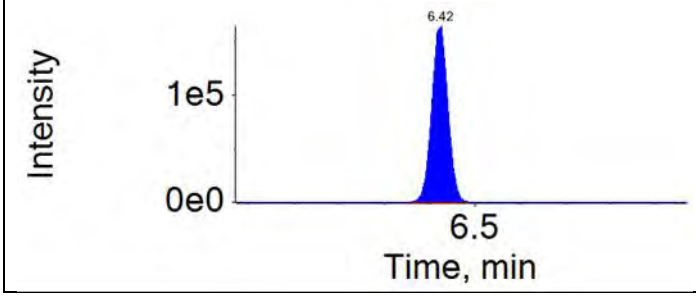


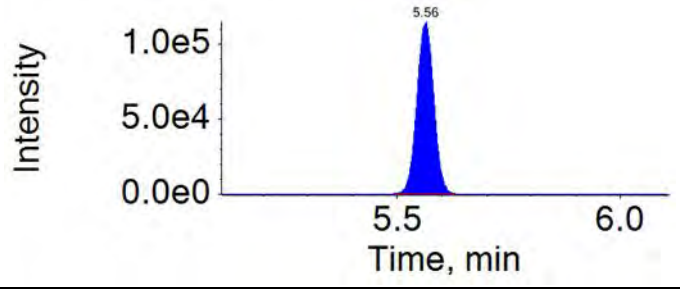
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0



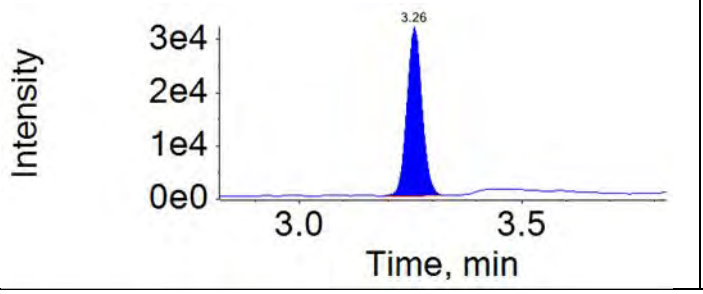


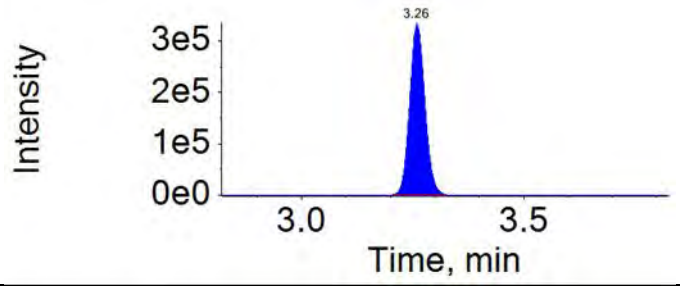
APPROVED
By JPT at 10:55 am, 11/9/18

REVIEWED
By HMK at 2:58 pm, 11/11/18

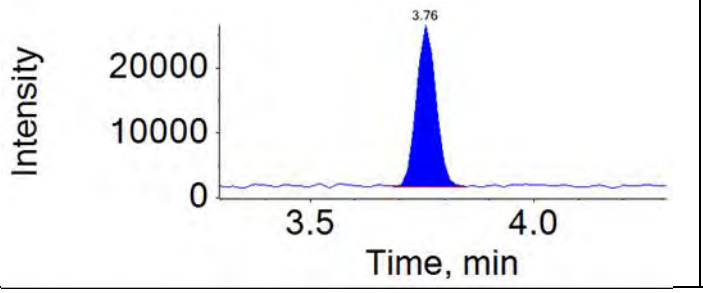
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

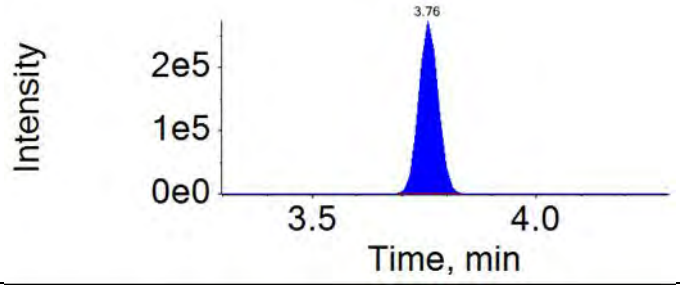
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



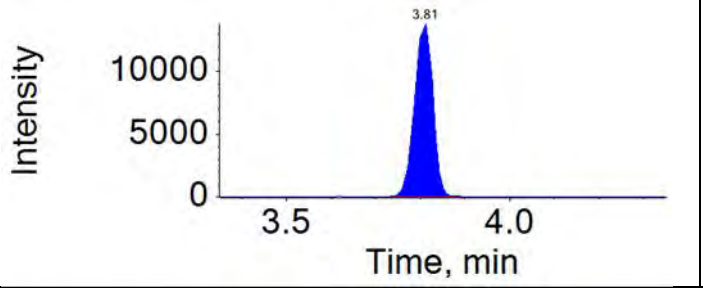


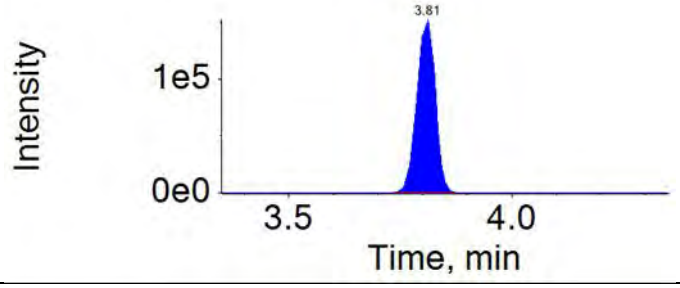
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



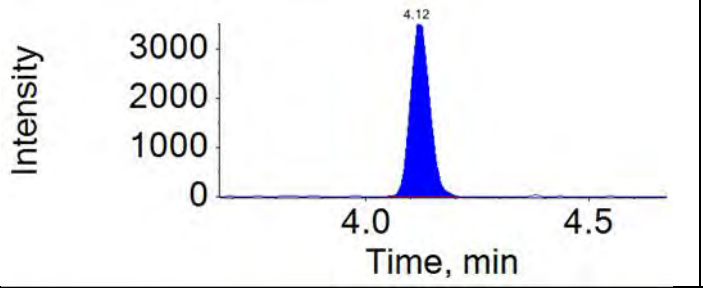


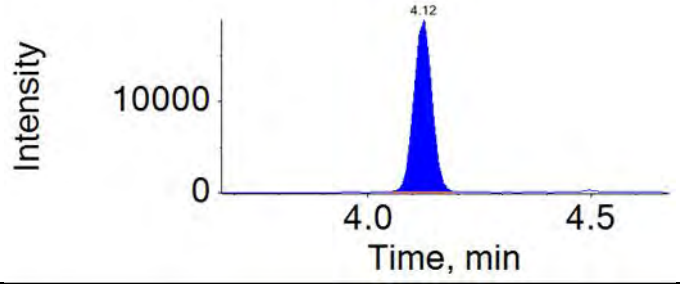
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





Analyte: 4:2-FTS	Extraction Standard: 13C2-4:2-FTS
327.0 / 307.0	329.0 / 81.0



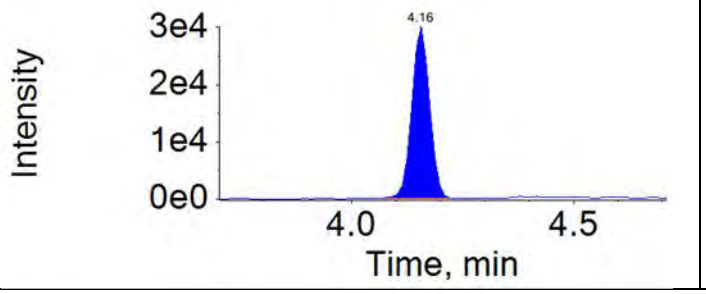


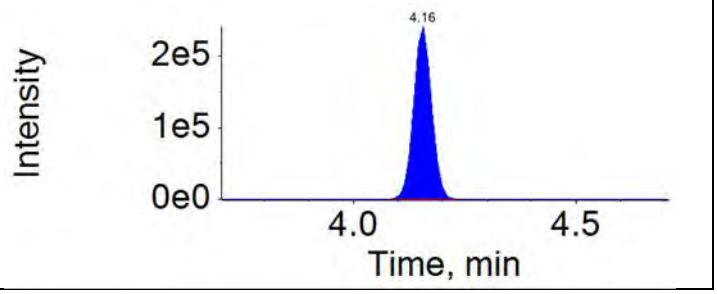
APPROVED
By JPT at 10:55 am, 11/9/18

REVIEWED
By HMK at 2:58 pm, 11/11/18

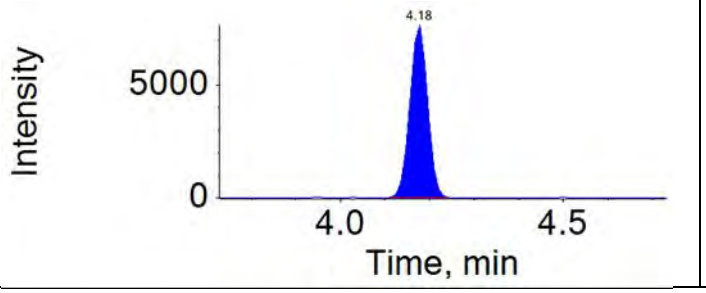
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

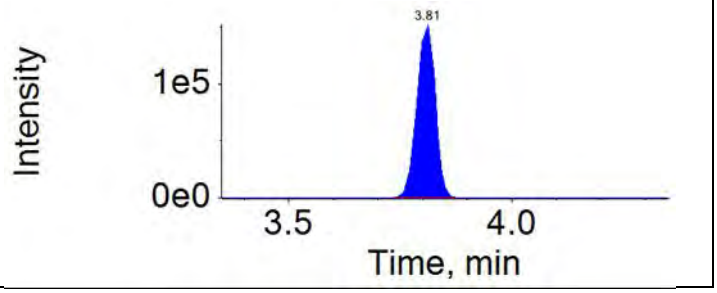
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



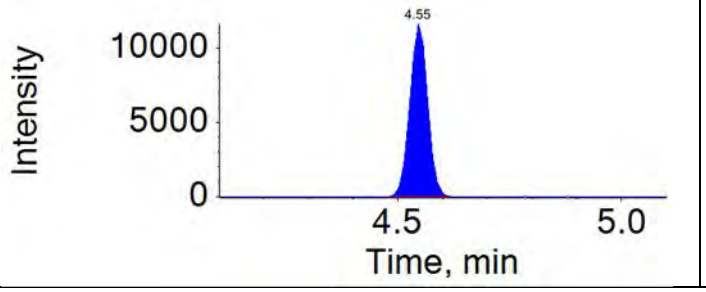


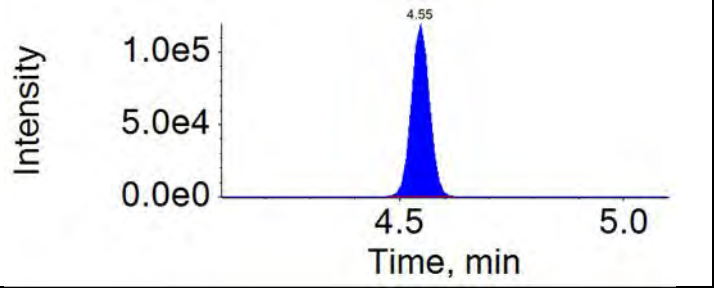
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



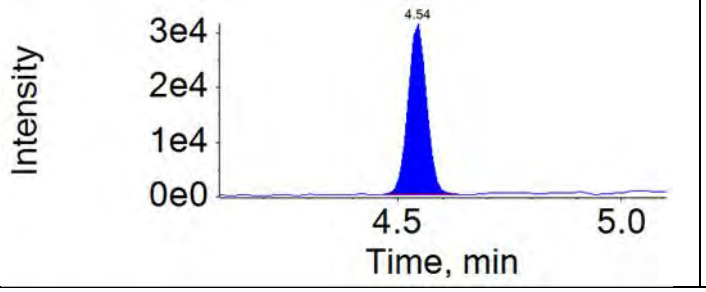


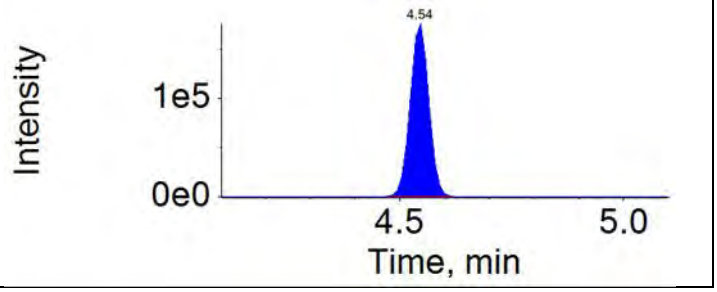
Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0





Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0

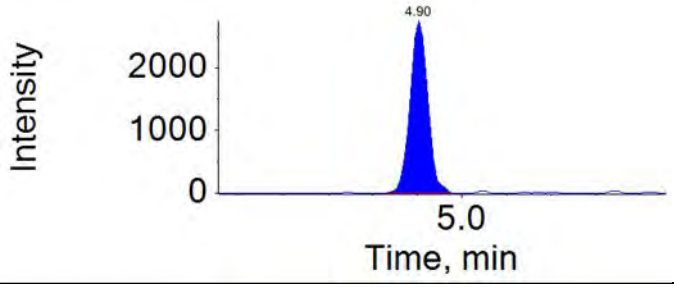
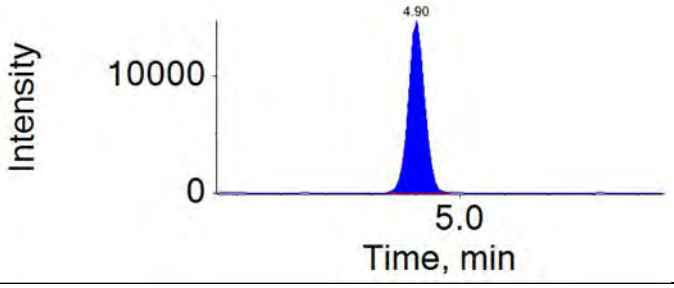


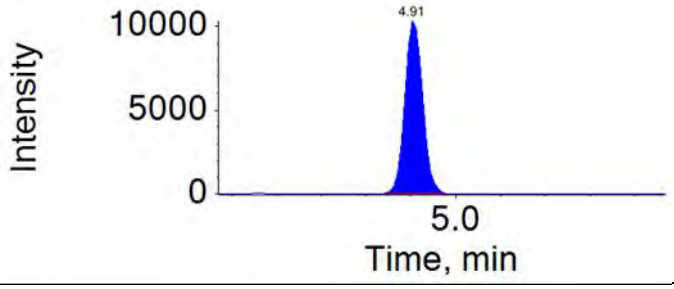
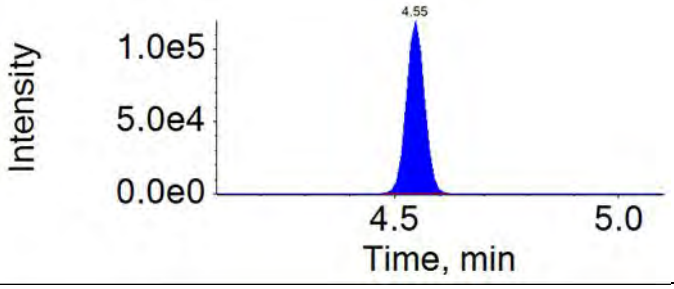


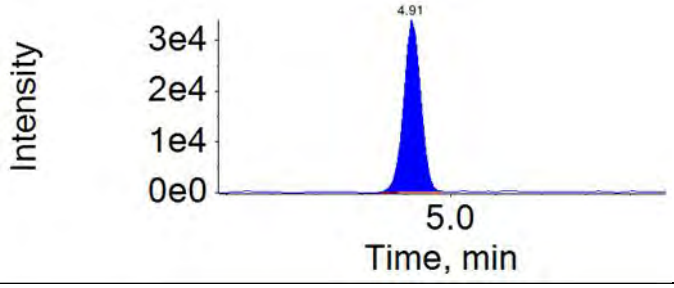
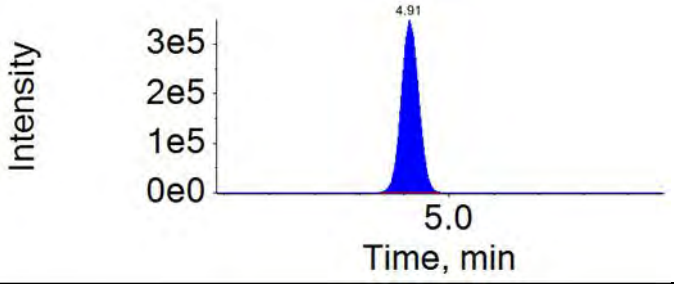
APPROVED
By JPT at 10:55 am, 11/9/18

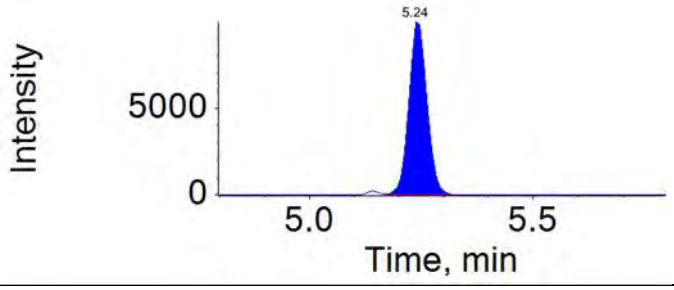
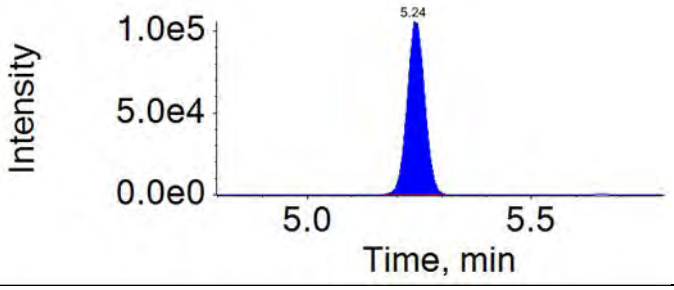
REVIEWED
By HMK at 2:58 pm, 11/11/18

ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Analyte: 6:2-FTS	Extraction Standard: 13C2-6:2-FTS
427.0 / 407.0	429.0 / 81.0
	

Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0
	

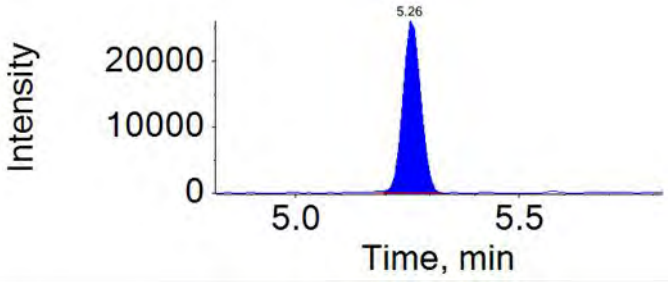
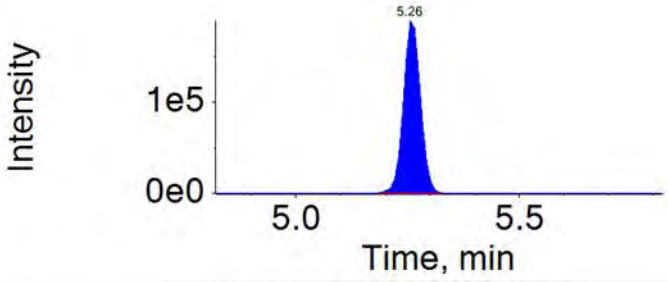
Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0
	

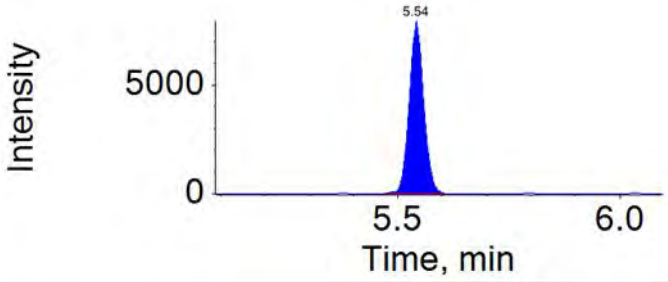
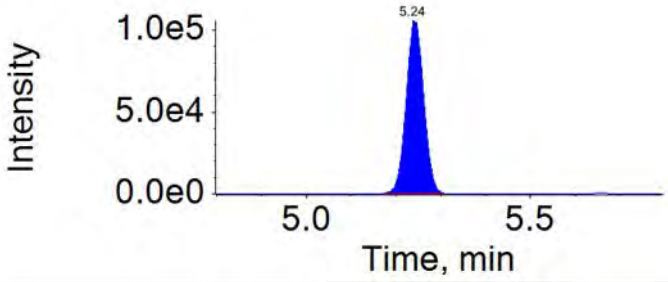
Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0
	

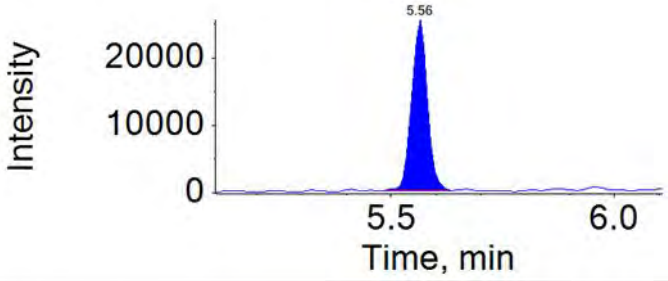
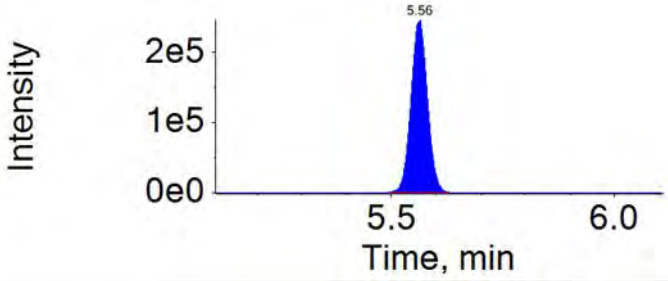
APPROVED
By JPT at 10:55 am, 11/9/18

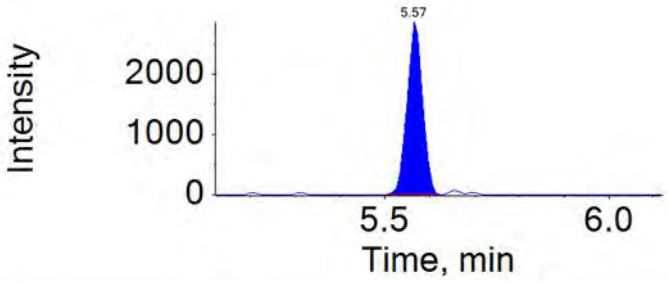
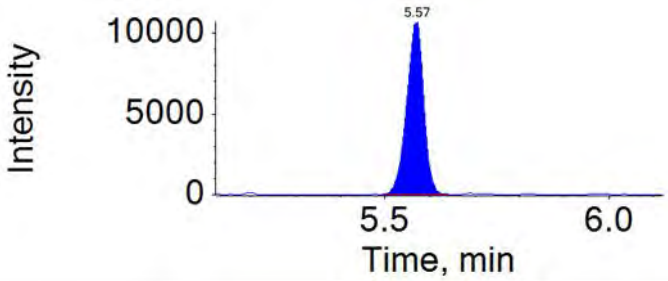
REVIEWED
By HMK at 2:58 pm, 11/11/18

ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0
	

Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0
	

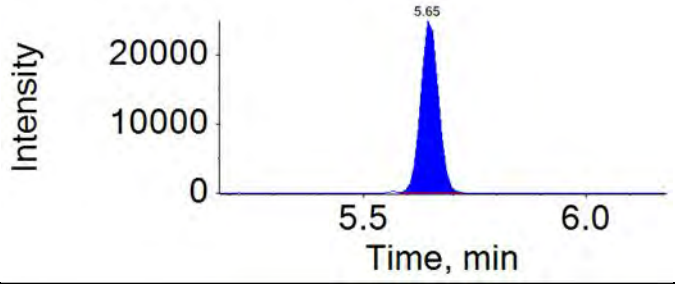
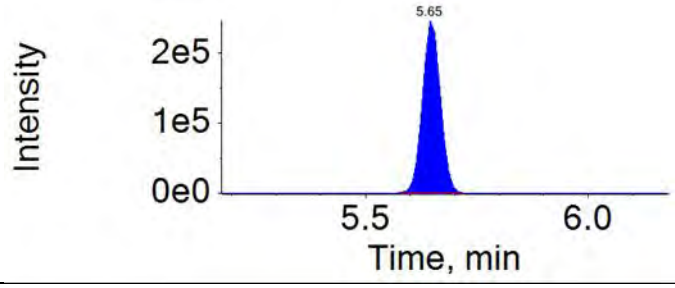
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0
	

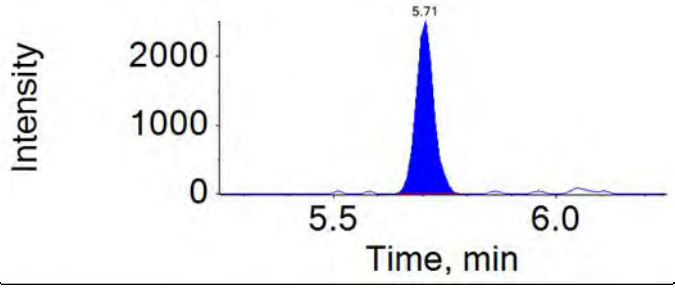
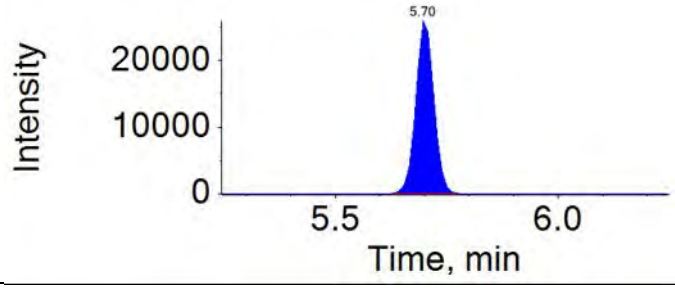
Analyte: 8:2-FTS	Extraction Standard: 13C2-8:2-FTS
527.0 / 507.0	529.0 / 81.0
	

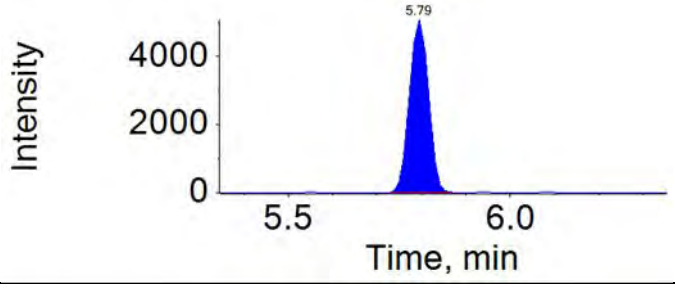
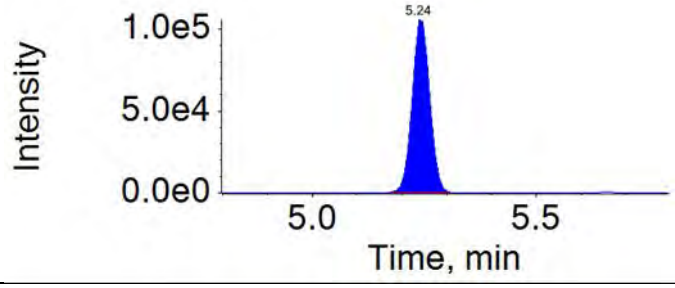
APPROVED
By JPT at 10:55 am, 11/9/18

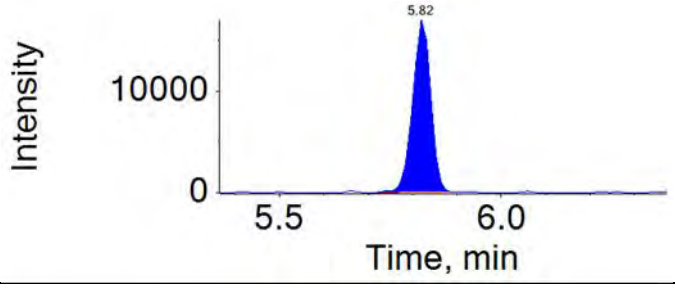
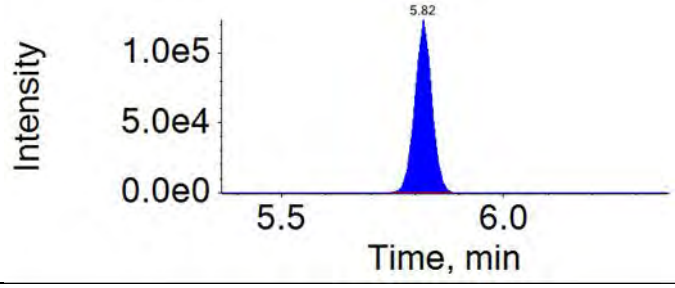
REVIEWED
By HMK at 2:58 pm, 11/11/18

ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0
	

Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0
	

Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0
	

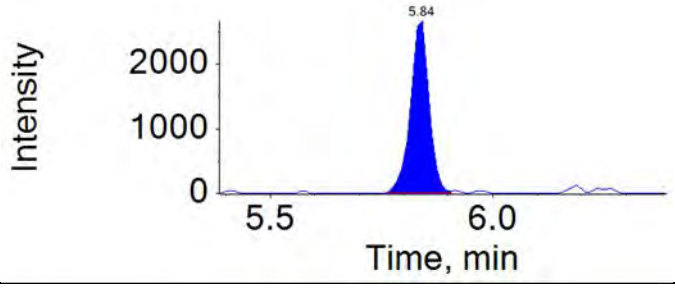
Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0
	

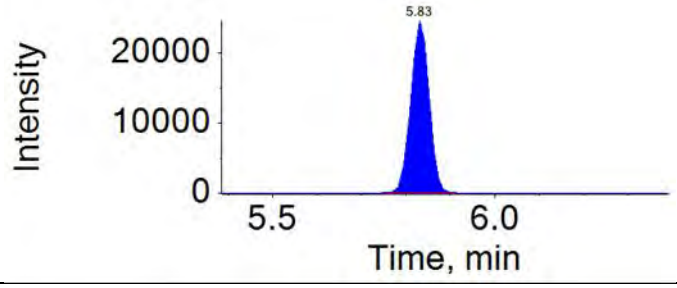
APPROVED
By JPT at 10:55 am, 11/9/18

REVIEWED
By HMK at 2:58 pm, 11/11/18

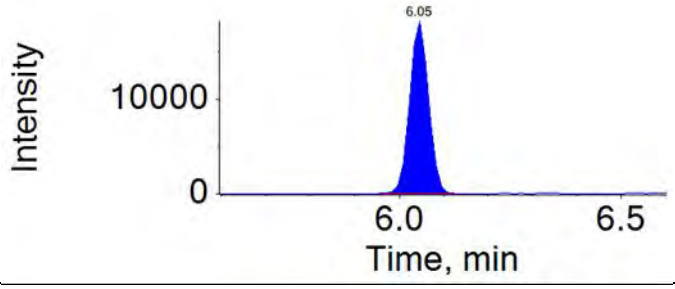
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

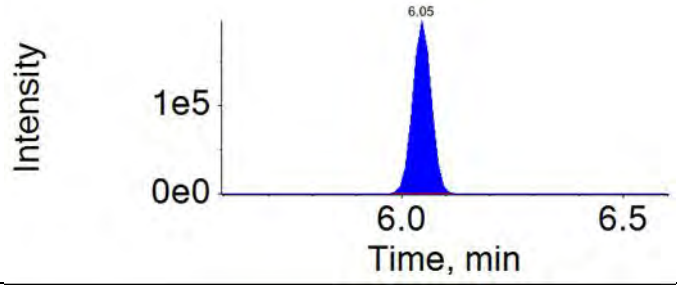
Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0



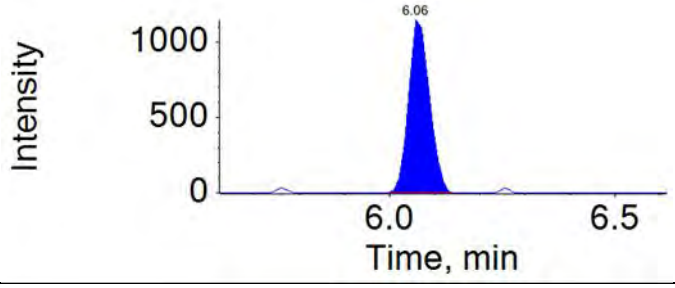


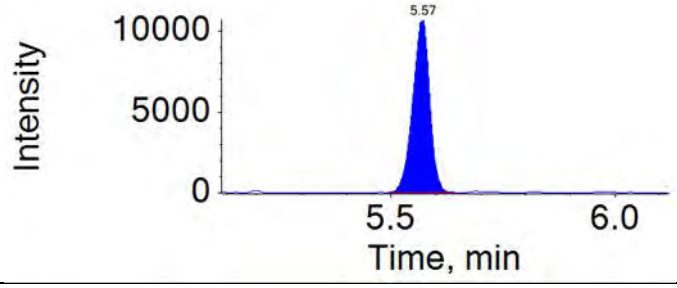
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0



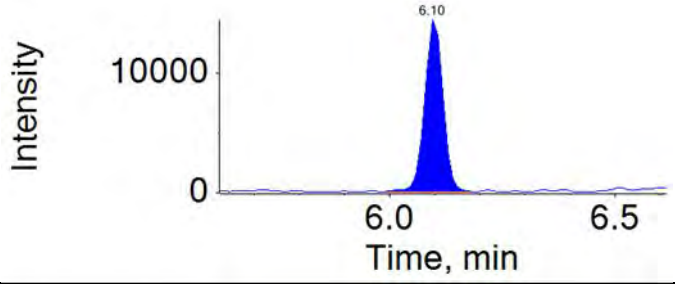


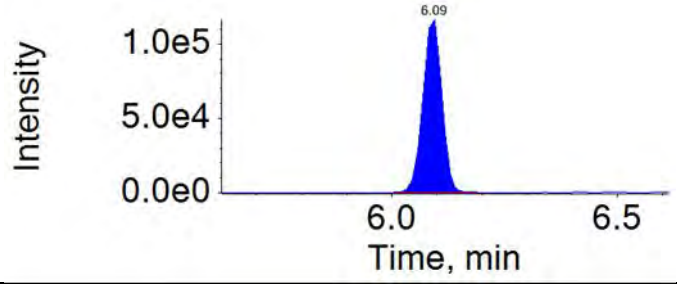
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0





Analyte: NMePFOSAE	Extraction Standard: d7-NMePFOSAE
616.0 / 59.0	623.0 / 59.0



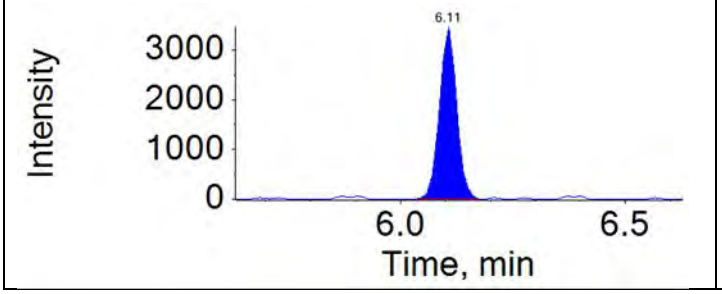


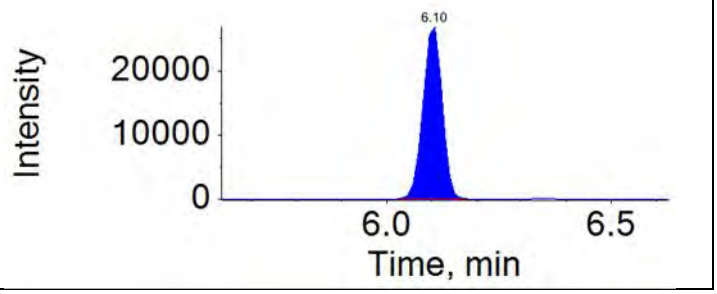
APPROVED
By JPT at 10:55 am, 11/9/18

REVIEWED
By HMK at 2:58 pm, 11/11/18

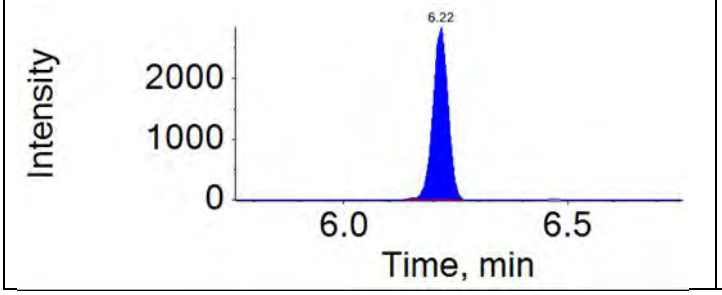
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

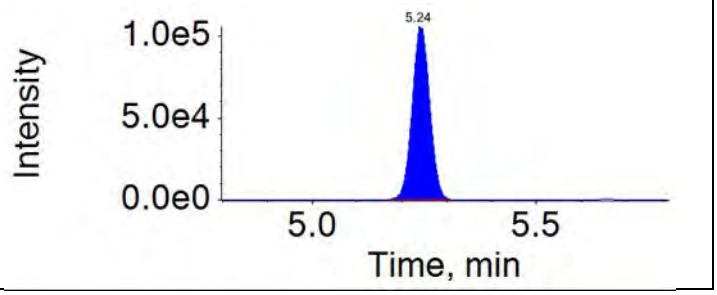
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



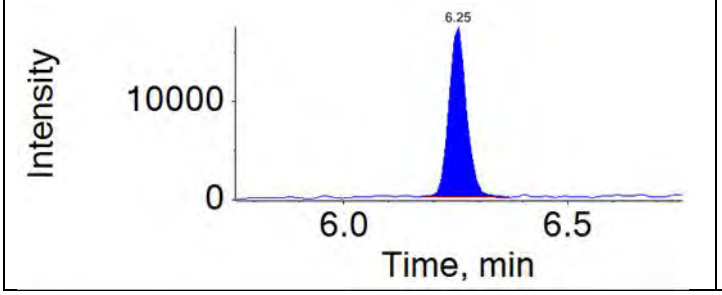


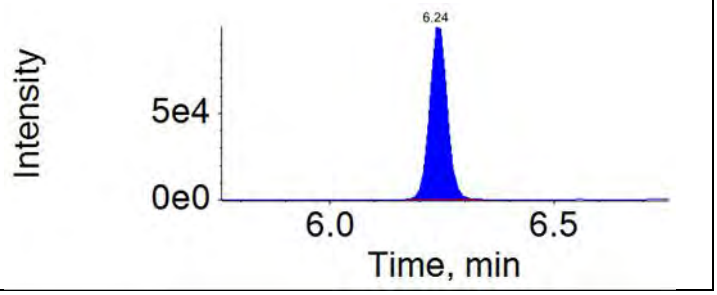
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



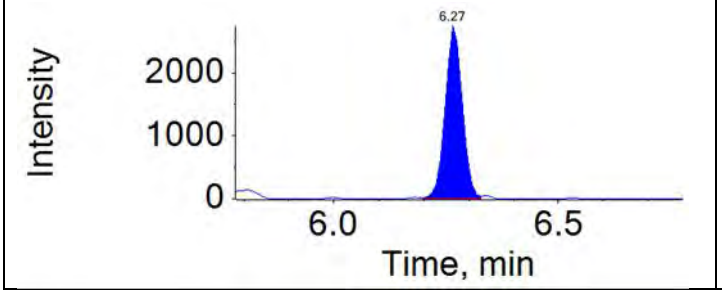


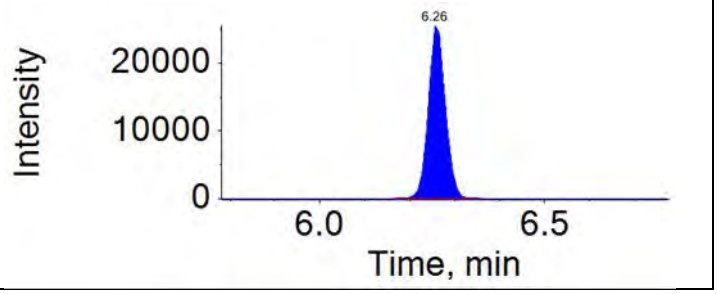
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





Analyte: NEtPFOSA	Extraction Standard: d5-NEtPFOSA
526.0 / 169.0	531.0 / 169.0

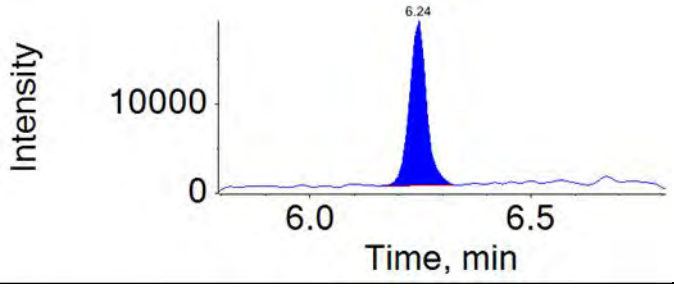
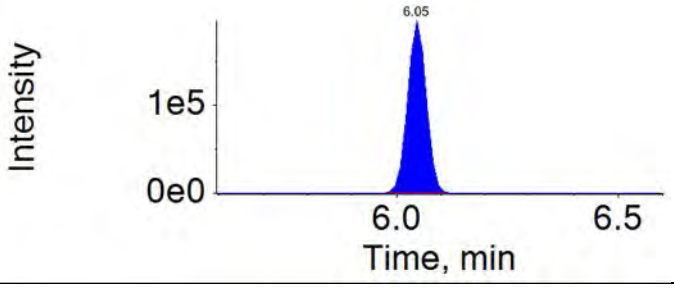


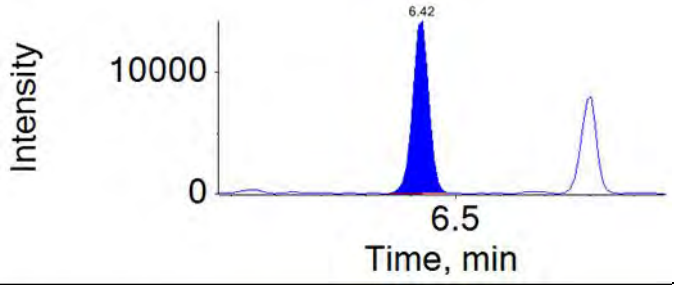
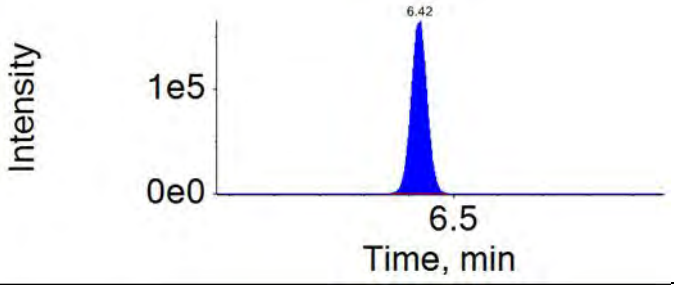


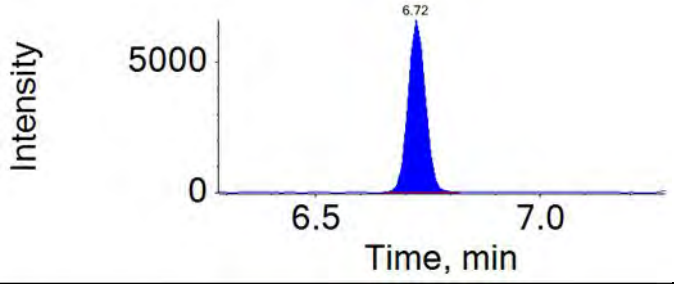
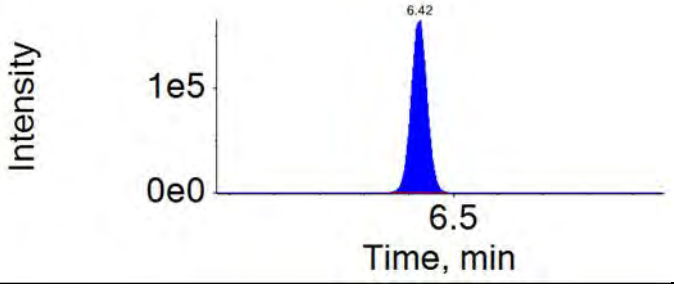
APPROVED
By JPT at 10:55 am, 11/9/18

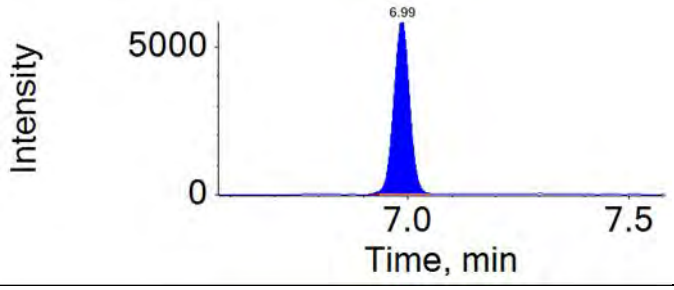
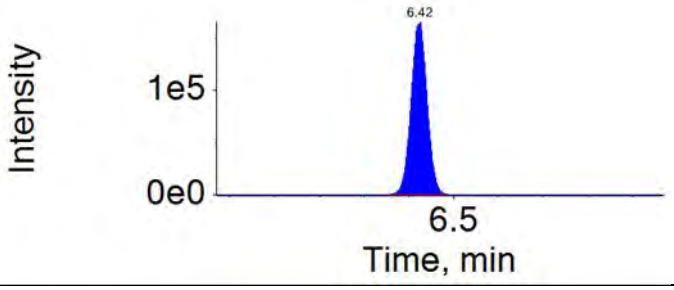
REVIEWED
By HMK at 2:58 pm, 11/11/18

ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Analyte: PFTrDA	Extraction Standard: 13C2-PFDoDA
663.0 / 619.0	615.0 / 570.0
	

Analyte: PFTeDA	Extraction Standard: 13C2-PFTeDA
713.0 / 669.0	715.0 / 670.0
	

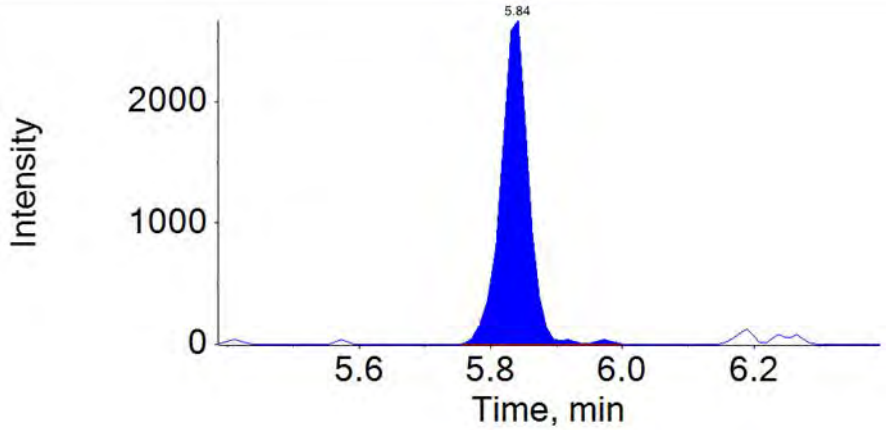
Analyte: PFHxDA	Extraction Standard: 13C2-PFTeDA
813.0 / 769.0	715.0 / 670.0
	

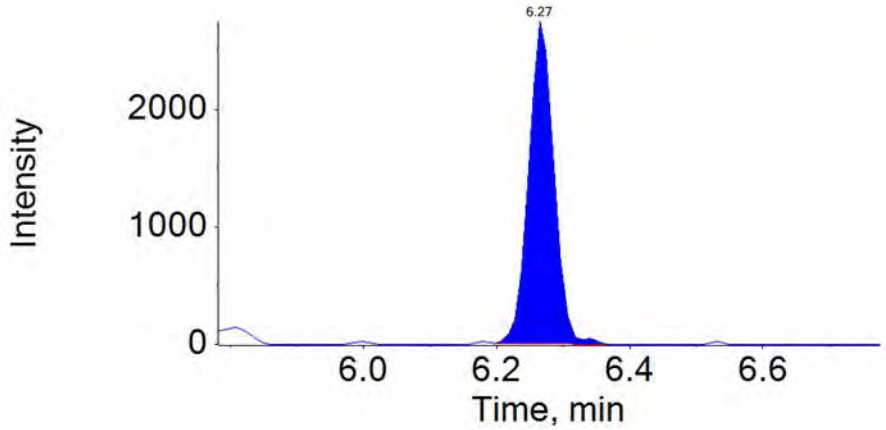
Analyte: PFODA	Extraction Standard: 13C2-PFTeDA
913.0 / 869.0	715.0 / 670.0
	

APPROVED
By JPT at 10:55 am, 11/9/18

REVIEWED
By HMK at 2:58 pm, 11/11/18

Results Table Name: 18NOV08DCCV6-12
Results Table Date: 11/9/2018 9:21:41 AM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: MQ4-18AUG13

Component Name: NEtFOSAA **RT (min.):** 5.84 **Peak Area:** 7889.8 **Mass Range:** 584.0 / 419.0 **File Name:** 18NOV08D-75.wiff **Sample Name:** CCV7_ISC_CAL2	 **Integration Comment:** incorrect integration

Component Name: NEtPFOSA **RT (min.):** 6.27 **Peak Area:** 7245.9 **Mass Range:** 526.0 / 169.0 **File Name:** 18NOV08D-75.wiff **Sample Name:** CCV7_ISC_CAL2	 **Integration Comment:** incorrect integration

APPROVED
By JPT at 10:55 am, 11/9/18

REVIEWED
By HMK at 2:58 pm, 11/11/18

Results Table Name: 18NOV08DCCV6-12
Results Table Date: 11/9/2018 9:21:41 AM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: MQ4-18AUG13

APPROVED
By JPT at 10:55 am, 11/9/18

REVIEWED
By HMK at 2:58 pm, 11/11/18

Ion Ratio Report

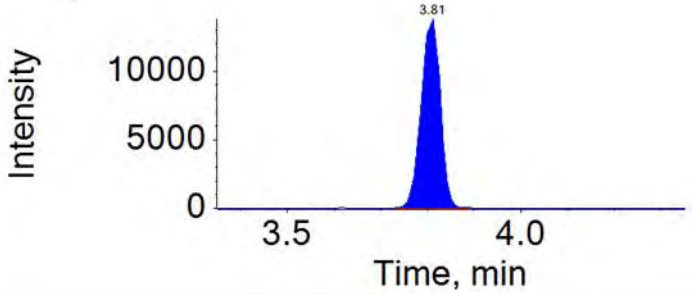
Sample Name: CCV7_ISC_CAL2 **Instrument Name:** LM27631 **File Name:** 18NOV08D-75.wiff

Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	3.81	1.00	39832.5	A	N/A	1.0000			
PFBS_2	3.81	1.00	14699.7	A	N/A	0.3690	3	50	
4:2-FTS	4.12	1.00	10606.0	A	N/A	1.0000			
4:2-FTS_2	4.12	1.00	5571.2	A	N/A	0.5253	-17	50	
PFHxA	4.16	1.00	83198.1	A	N/A	1.0000			
PFHxA_2	4.15	1.00	909.7	A	N/A	0.0109	-5	50	
PFPeS	4.18	1.10	21062.1	A	N/A	1.0000			
PFPeS_2	4.18	1.10	12093.9	A	N/A	0.5742	7	50	
PFHxS	4.55	1.00	31930.8	A	N/A	1.0000			
PFHxS_2	4.55	1.00	11803.8	A	N/A	0.3697	4	50	
PFHpA	4.54	1.00	90113.5	A	N/A	1.0000			
PFHpA_2	4.54	1.00	6135.2	A	N/A	0.0681	18	50	
6:2-FTS	4.90	1.00	7571.0	A	N/A	1.0000			
6:2-FTS_2	4.90	1.00	5503.5	A	N/A	0.7269	8	50	
PFHpS	4.91	1.08	28658.3	A	N/A	1.0000			
PFHpS_2	4.90	1.08	11500.5	A	N/A	0.4013	2	50	
PFOA	4.91	1.00	89452.0	A	N/A	1.0000			
PFOA_2	4.91	1.00	5458.3	A	N/A	0.0610	-4	50	
PFOS	5.24	1.00	27768.1	A	N/A	1.0000			
PFOS_2	5.24	1.00	8739.6	A	N/A	0.3147	-10	50	
PFNA	5.26	1.00	72707.1	A	N/A	1.0000			
PFNA_2	5.26	1.00	1248.7	A	N/A	0.0172	-17	50	
PFNS	5.54	1.06	17926.4	A	N/A	1.0000			
PFNS_2	5.54	1.06	7594.2	A	N/A	0.4236	-13	50	
PFDA	5.56	1.00	61927.2	A	N/A	1.0000			
PFDA_2	5.56	1.00	406.6	A	N/A	0.0066	16	50	
8:2-FTS	5.57	1.00	6846.3	A	N/A	1.0000			
8:2-FTS_2	5.57	1.00	3867.3	A	N/A	0.5649	-8	50	
NMeFOSAA	5.71	1.00	6968.7	A	N/A	1.0000			
NMeFOSAA_2	5.71	1.00	2199.5	A	N/A	0.3156	43	50	
PFDS	5.79	1.11	15279.2	A	N/A	1.0000			
PFDS_2	5.80	1.11	7453.8	A	N/A	0.4878	5	50	
PFUnDA	5.82	1.00	48246.0	A	N/A	1.0000			
PFUnDA_2	5.83	1.00	137.4	A	N/A	0.0028	-10	50	
NEtFOSAA	5.84	1.00	7757.6	M	N/A	1.0000			
NEtFOSAA_2	5.83	1.00	3638.8	A	N/A	0.4691	-23	50	
PFDoDA	6.05	1.00	54056.4	A	N/A	1.0000			
PFDoDA_2	6.04	1.00	376.6	A	N/A	0.0070	-36	50	
10:2-FTS	6.06	1.09	3682.3	A	N/A	1.0000			
10:2-FTS_2	6.06	1.09	3280.9	A	N/A	0.8910	26	50	
PFTrDA	6.24	1.03	49062.7	A	N/A	1.0000			
PFTrDA_2	6.23	1.03	515.7	A	N/A	0.0105	9	50	
PFTeDA	6.42	1.00	35545.8	A	N/A	1.0000			
PFTeDA_2	6.42	1.00	297.8	A	N/A	0.0084	51	50	OOS
PFHxDA	6.72	1.05	17512.1	A	N/A	1.0000			
PFHxDA_2	6.73	1.05	1183.0	A	N/A	0.0676	13	50	
PFODA	6.99	1.09	14402.6	A	N/A	1.0000			
PFODA_2	6.99	1.09	477.9	A	N/A	0.0332	29	50	

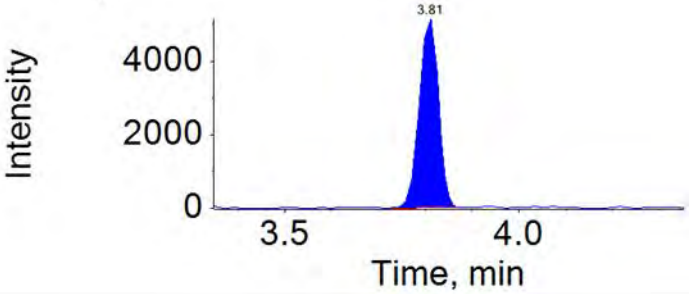
APPROVED
By JPT at 10:55 am, 11/9/18

REVIEWED
By HMK at 2:58 pm, 11/11/18

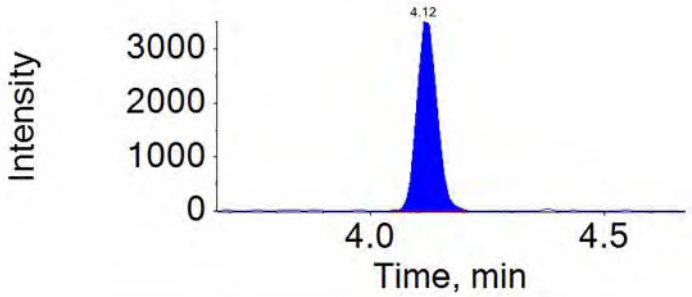
Component: PFBS
Primary Mass: 299.0 / 80.0



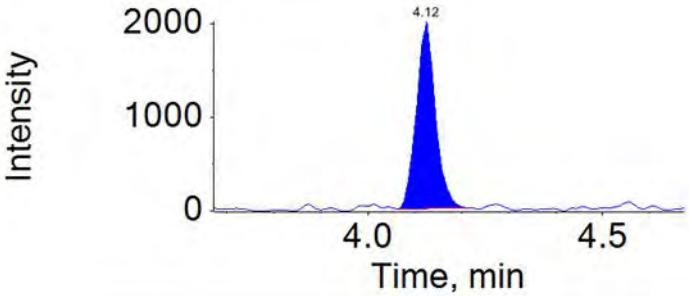
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



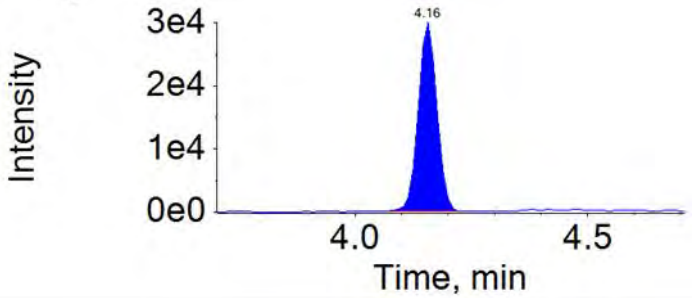
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



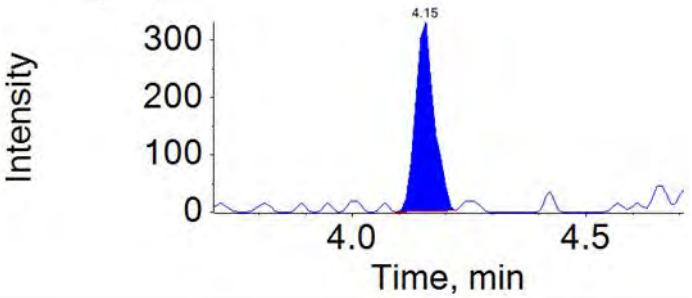
Component: 4:2-FTS_2
Secondary Mass: 327.0 / 81.0



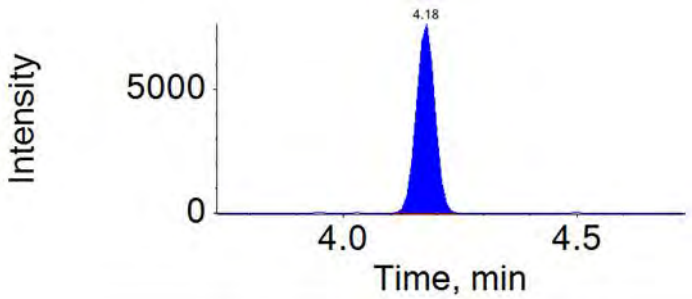
Component: PFHxA
Primary Mass: 313.0 / 269.0



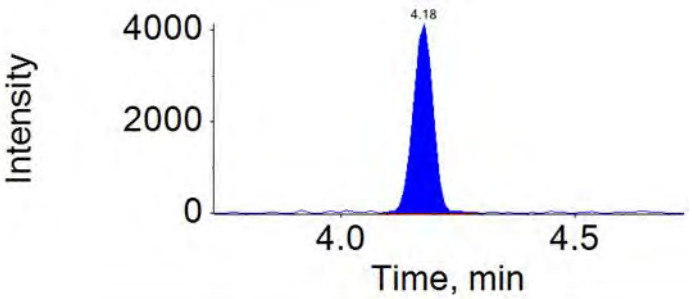
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



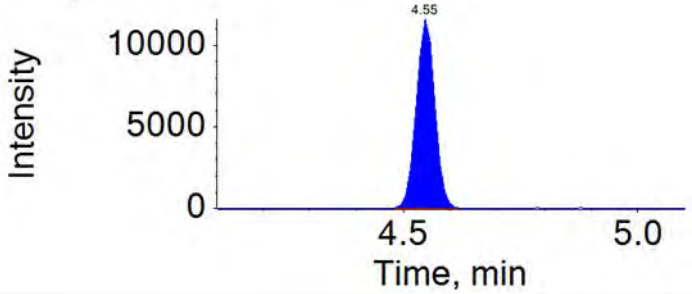
Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



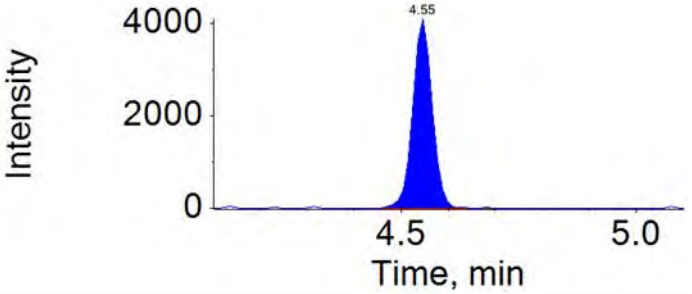
APPROVED
By JPT at 10:55 am, 11/9/18

REVIEWED
By HMK at 2:58 pm, 11/11/18

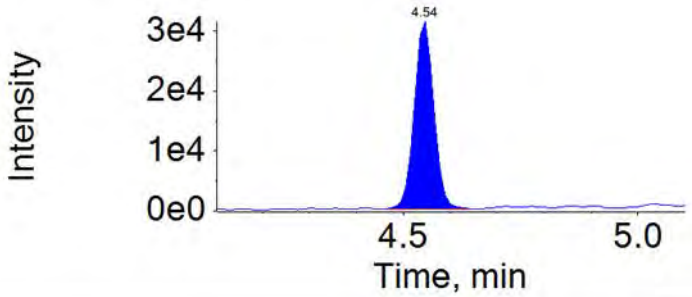
Component: PFHxS
Primary Mass: 399.0 / 80.0



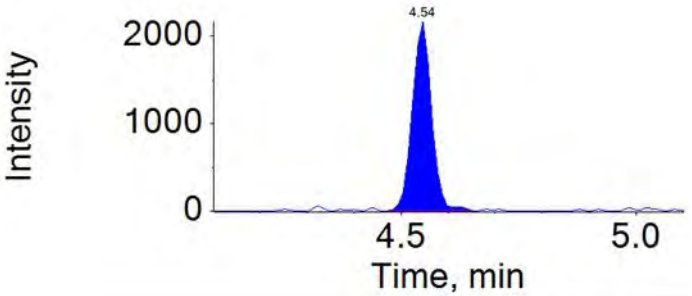
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



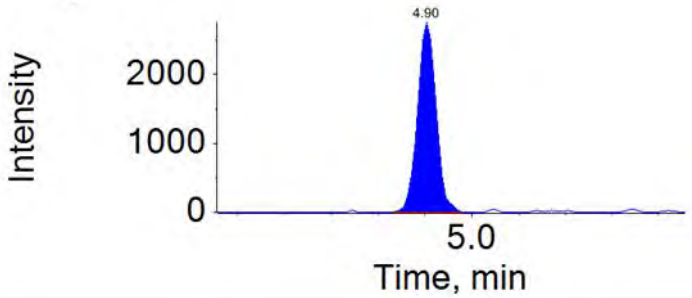
Component: PFHpA
Primary Mass: 363.0 / 319.0



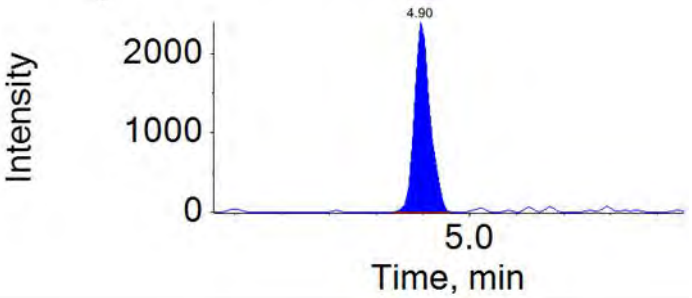
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



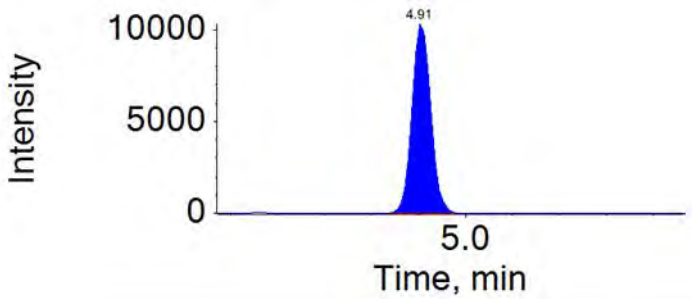
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



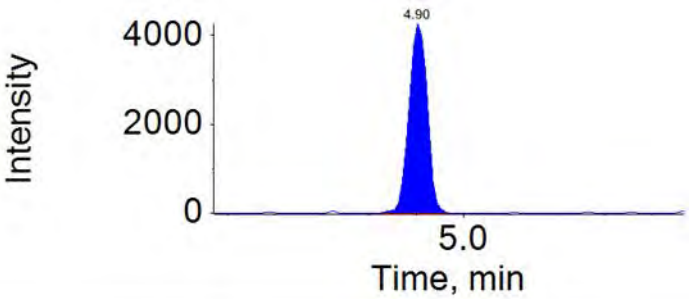
Component: 6:2-FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



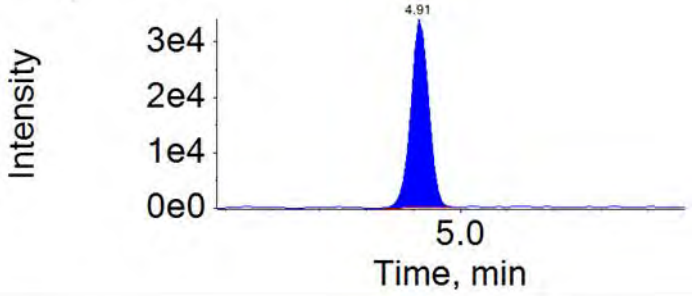
Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



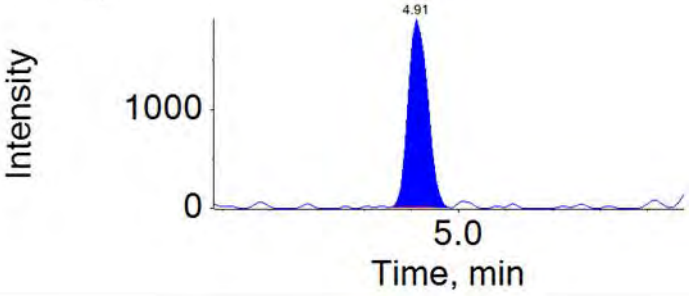
APPROVED
By JPT at 10:55 am, 11/9/18

REVIEWED
By HMK at 2:58 pm, 11/11/18

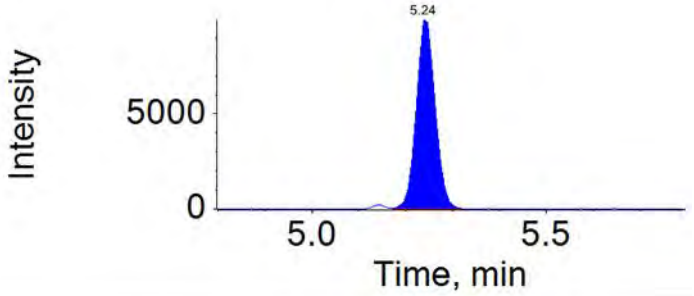
Component: PFOA
Primary Mass: 413.0 / 369.0



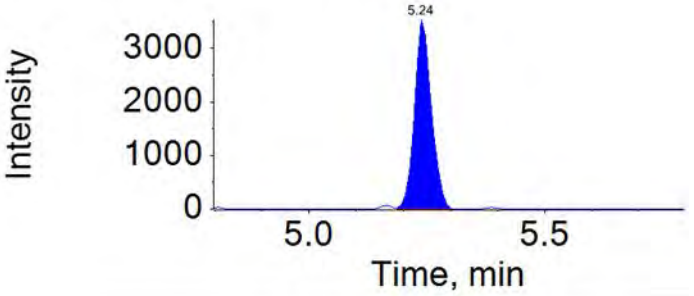
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



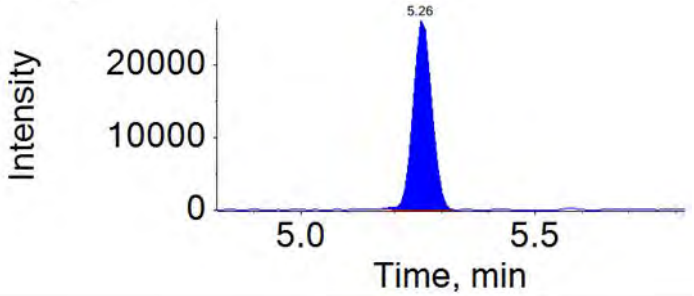
Component: PFOS
Primary Mass: 499.0 / 80.0



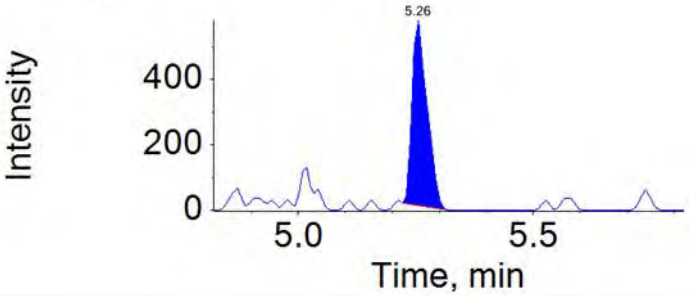
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



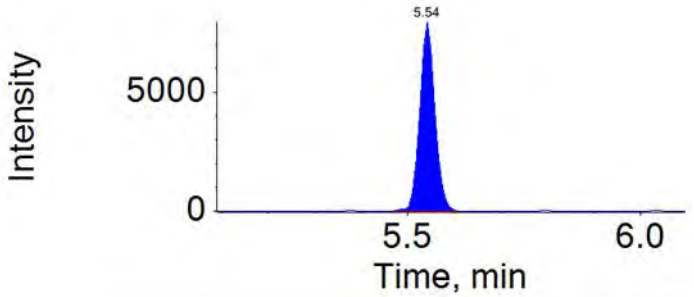
Component: PFNA
Primary Mass: 463.0 / 419.0



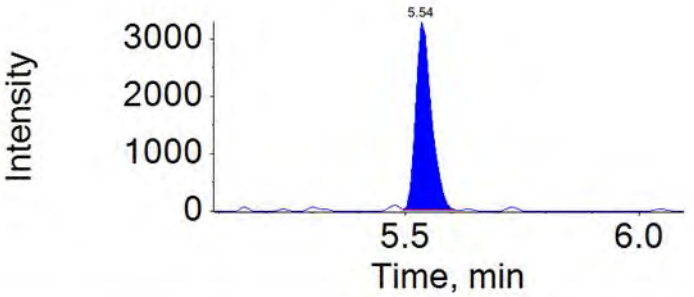
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



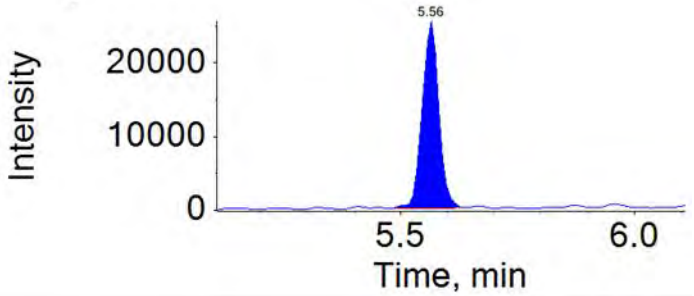
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



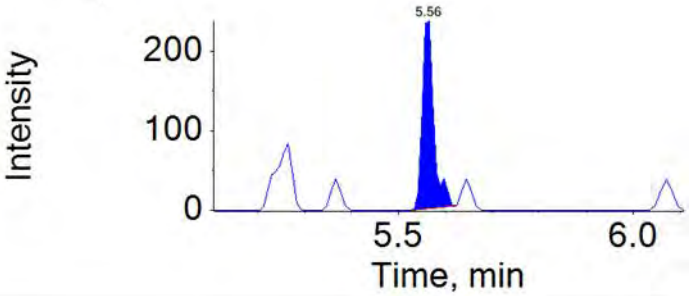
APPROVED
By JPT at 10:55 am, 11/9/18

REVIEWED
By HMK at 2:58 pm, 11/11/18

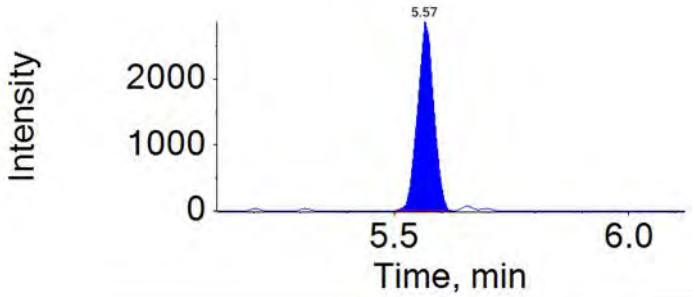
Component: PFDA
Primary Mass: 513.0 / 469.0



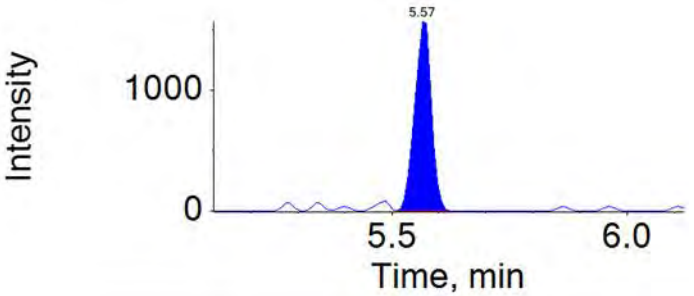
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



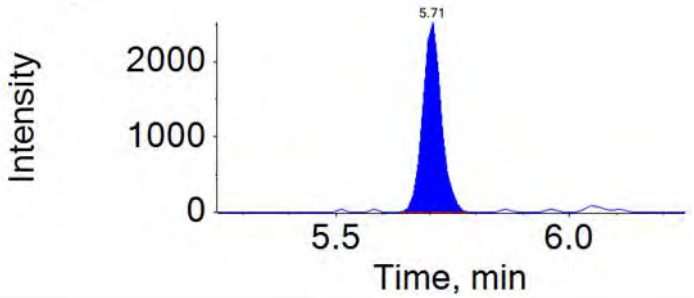
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



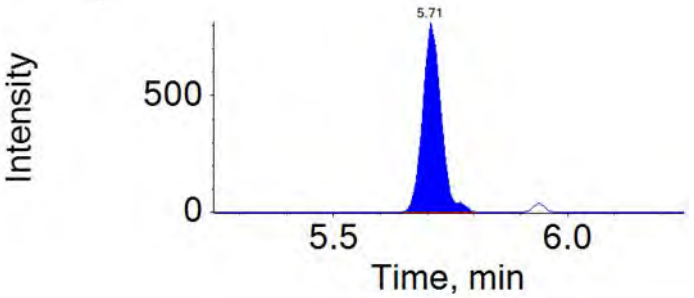
Component: 8:2-FTS_2
Secondary Mass: 527.0 / 81.0



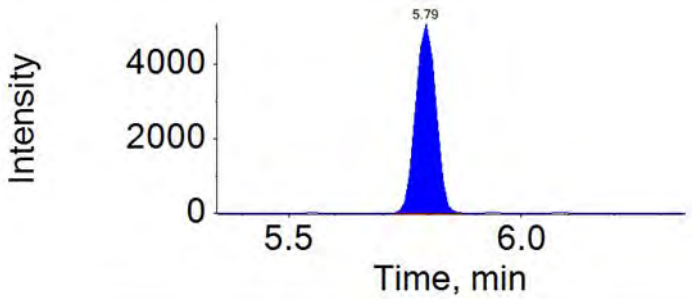
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



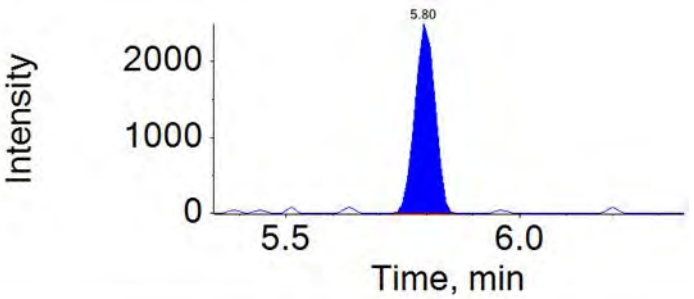
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



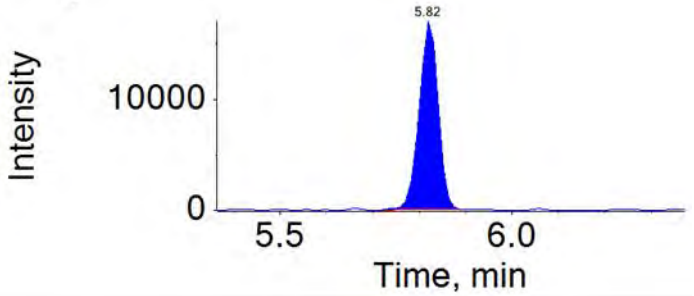
Component: PFDS_2
Secondary Mass: 599.0 / 99.0



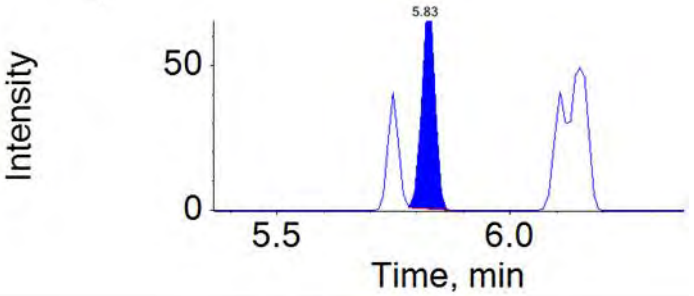
APPROVED
By JPT at 10:55 am, 11/9/18

REVIEWED
By HMK at 2:58 pm, 11/11/18

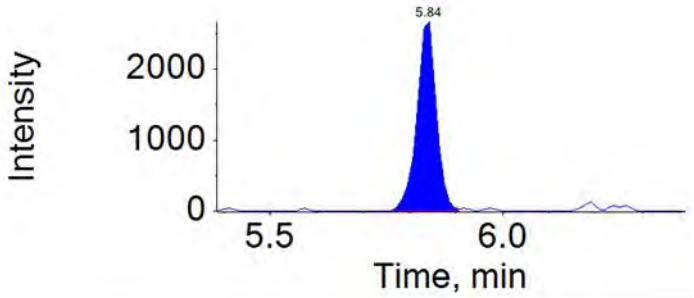
Component: PFUnDA
Primary Mass: 563.0 / 519.0



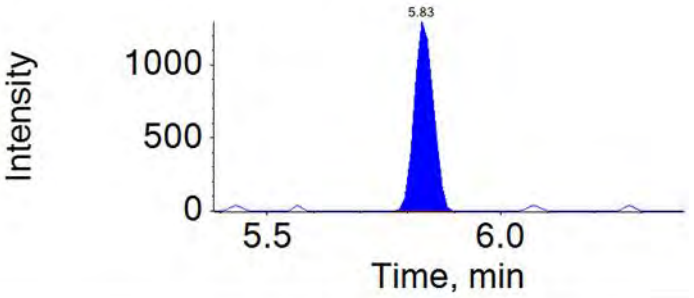
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



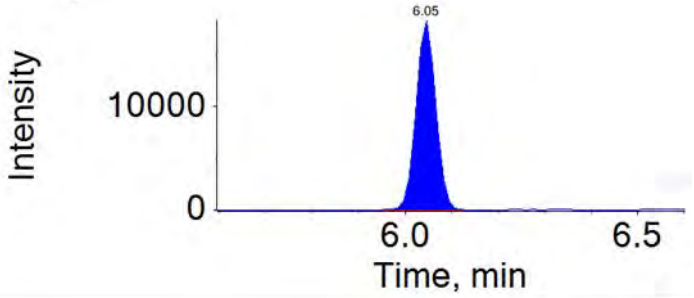
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



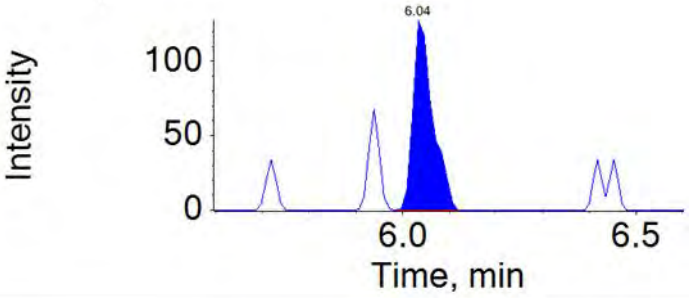
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



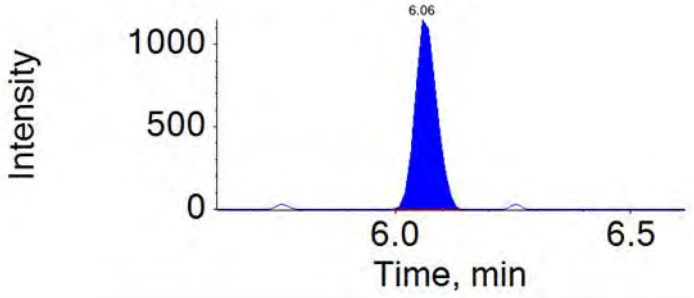
Component: PFDoDA
Primary Mass: 613.0 / 569.0



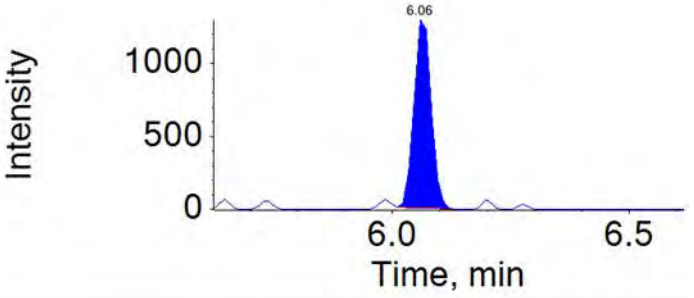
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



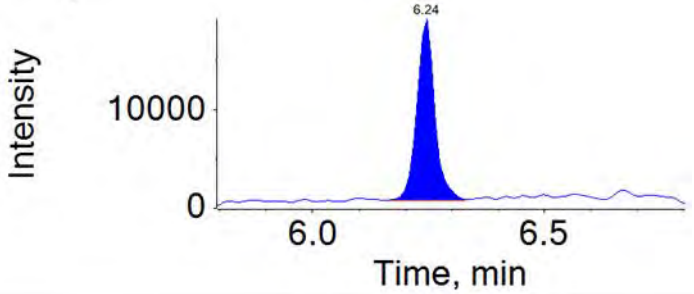
Component: 10:2-FTS_2
Secondary Mass: 627.0 / 81.0



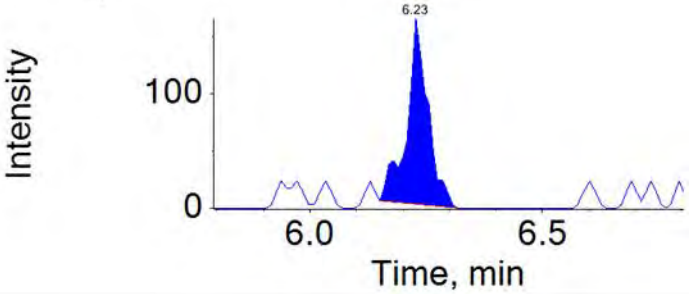
APPROVED
By JPT at 10:55 am, 11/9/18

REVIEWED
By HMK at 2:58 pm, 11/11/18

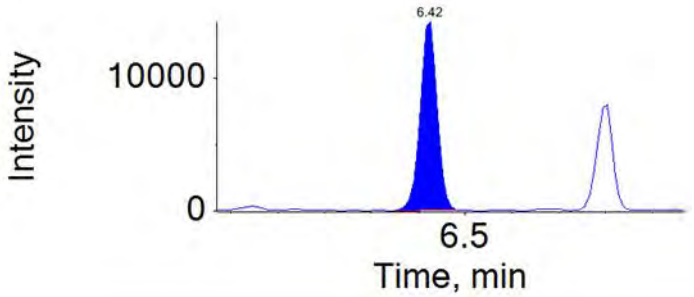
Component: PFTrDA
Primary Mass: 663.0 / 619.0



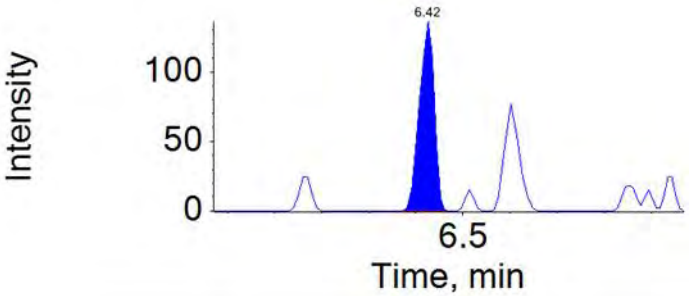
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



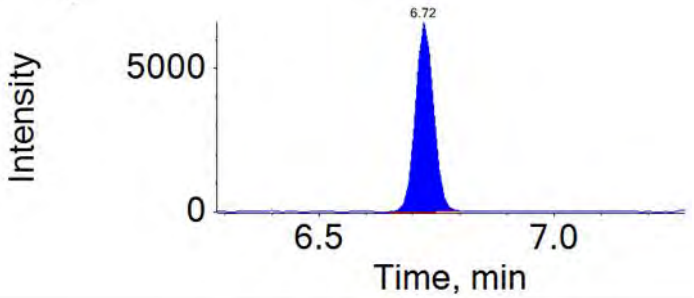
Component: PFTeDA
Primary Mass: 713.0 / 669.0



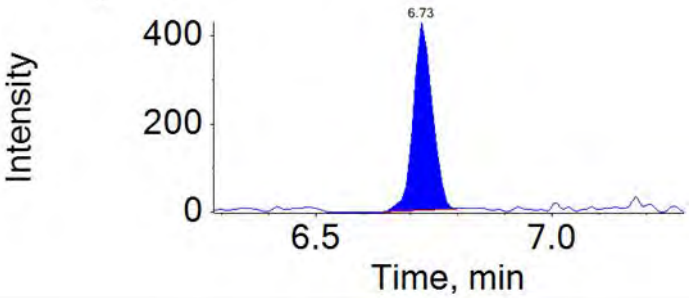
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



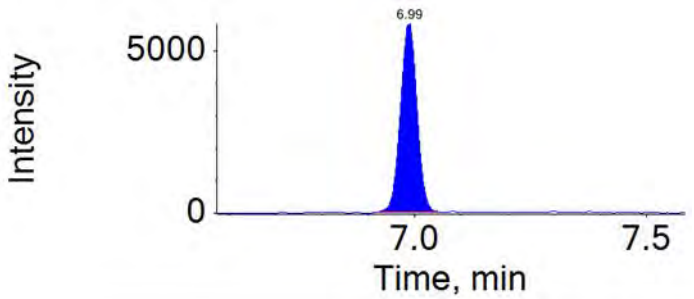
Component: PFHxDA
Primary Mass: 813.0 / 769.0



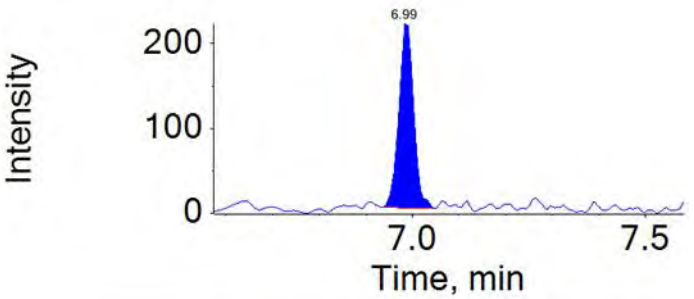
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



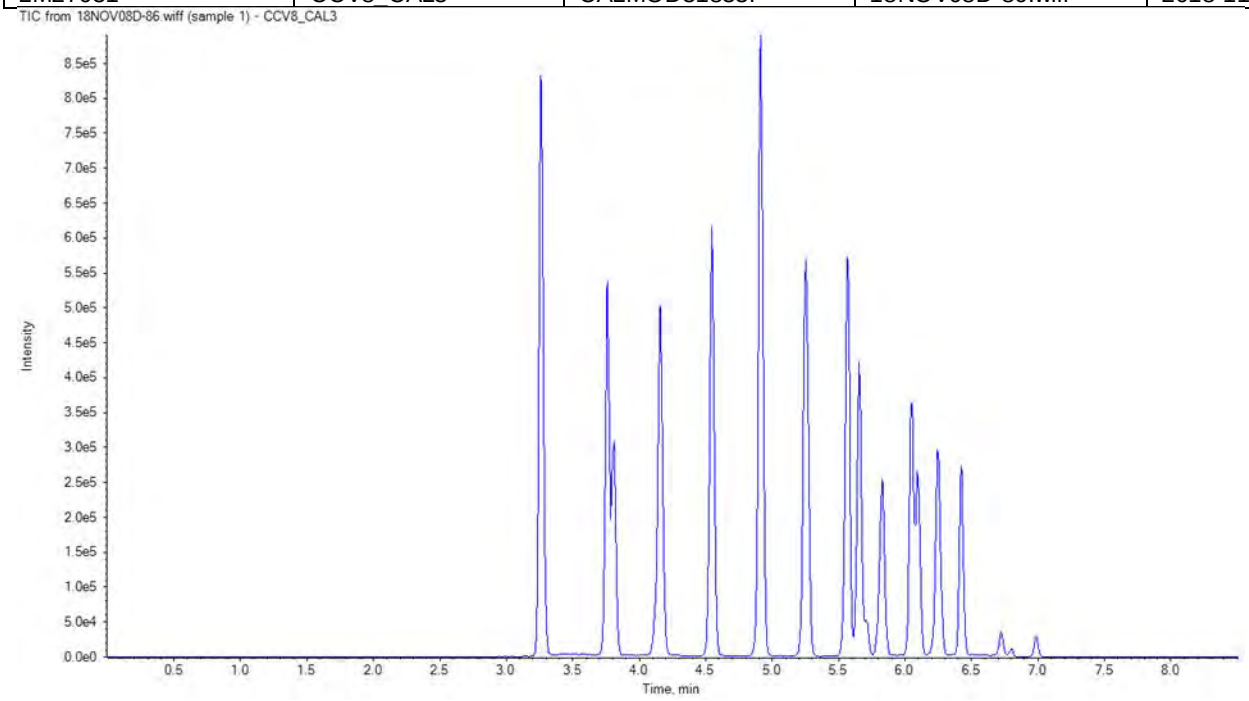
APPROVED
By JPT at 10:55 am, 11/9/18

REVIEWED
By HMK at 2:58 pm, 11/11/18

Continuing Calibration Verfication

ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	CCV8_CAL3	CALMOD31833F	18NOV08D-86.wiff	2018-11-09T00:35:31



Injection Standard Area Reference File: 18NOV08D-05

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Reference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	751206.1	728839.7	3	50	
13C2-PFOA	5.0	508106.7	491983.1	3	50	
13C4-PFOS	4.8	287472.1	255568.1	12	50	
13C2-PFDA	5.0	314412.8	315407.5	0	50	

APPROVED
By JPT at 10:55 am, 11/9/18

REVIEWED
By umar at 3:41 pm, 11/12/18

Continuing Calibration Verfication

ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	CCV8_CAL3	CALMOD31833F	18NOV08D-86.wiff	2018-11-09T00:35:31

Analyte Name	Analyte Area	Sc /pk	Ext Std Name	Ext Std Area	Ext Std con	Area Ratio	RT (min)	RRT	Spec Amt	Calc Amt	% Diff	% Diff Lim	% Diff OOS
PFBA	298572.4	10	13C4-PFBA	813706.7	5.0	0.367	3.26	1.000	2.000	2.147	7	30	
PFPeA	288388.1	12	13C5-PFPeA	841505.1	5.0	0.343	3.76	1.000	2.000	2.037	2	30	
PFBS	159879.7	11	13C3-PFBS	443220.4	4.7	0.361	3.81	1.000	1.770	1.819	3	30	
4:2-FTS	34586.7	11	13C2-4:2-FTS	52920.0	4.7	0.654	4.12	1.000	1.868	1.757	-6	30	
PFHxA	348142.4	12	13C5-PFHxA	707751.9	5.0	0.492	4.16	1.000	2.000	2.110	5	30	
PFPeS	87376.5	11	13C3-PFBS	443220.4	4.7	0.197	4.18	1.100	1.880	1.944	3	30	
PFHxS	127903.2	12	13C3-PFHxS	346520.9	4.7	0.369	4.55	1.000	1.890	1.871	-1	30	
PFHpA	347897.1	12	13C4-PFHpA	546876.4	5.0	0.636	4.55	1.000	2.000	2.139	7	30	
6:2-FTS	34236.6	11	13C2-6:2-FTS	38229.6	4.8	0.896	4.90	1.000	1.896	2.234	18	30	
PFHpS	124721.2	11	13C3-PFHxS	346520.9	4.7	0.360	4.91	1.080	1.900	1.883	-1	30	
PFOA	353117.0	11	13C8-PFOA	942505.5	5.0	0.375	4.91	1.000	2.000	2.110	5	30	
PFOS	117262.9	11	13C8-PFOS	305093.3	4.8	0.384	5.25	1.000	1.910	1.993	4	30	
PFNA	289246.3	11	13C9-PFNA	512619.2	5.0	0.564	5.26	1.000	2.000	2.109	5	30	
PFNS	73898.6	11	13C8-PFOS	305093.3	4.8	0.242	5.55	1.060	1.920	1.920	0	30	
PFDA	227693.9	11	13C6-PFDA	673033.2	5.0	0.338	5.57	1.000	2.000	1.861	-7	30	
8:2-FTS	24122.7	11	13C2-8:2-FTS	30874.6	4.8	0.781	5.57	1.000	1.916	1.761	-8	30	
PFOSA	270238.8	11	13C8-PFOSA	698750.6	5.0	0.387	5.66	1.000	2.000	2.091	5	30	
NMeFOSAA	32027.6	12	d3-NMeFOSAA	78995.7	5.0	0.405	5.71	1.000	2.000	2.086	4	30	
PFDS	61957.5	12	13C8-PFOS	305093.3	4.8	0.203	5.80	1.110	1.930	1.940	1	30	
PFUnDA	194783.4	11	13C7-PFUnDA	279486.4	5.0	0.697	5.83	1.000	2.000	1.999	0	30	
NEtFOSAA	27638.0	12	d5-NEtFOSAA	65484.9	5.0	0.422	5.84	1.000	2.000	1.814	-9	30	
PFDoDA	219631.8	12	13C2-PFDoDA	585802.0	5.0	0.375	6.05	1.000	2.000	2.032	2	30	
10:2-FTS	16888.7	11	13C2-8:2-FTS	30874.6	4.8	0.547	6.07	1.090	1.928	1.703	-12	30	
NMePFOSAE	162327.5	11	d7-NMePFOSAE	353934.1	5.0	0.459	6.10	1.000	2.000	2.055	3	30	
NMePFOSA	30602.5	12	d3-NMePFOSA	78061.1	5.0	0.392	6.11	1.000	2.000	2.194	10	30	
PFDoS	28862.1	11	13C8-PFOS	305093.3	4.8	0.095	6.21	1.190	1.940	1.826	-6	30	
NEtPFOSAE	185331.3	11	d9-NEtPFOSAE	279379.9	5.0	0.663	6.25	1.000	2.000	2.127	6	30	
NEtPFOSA	27529.0	12	d5-NEtPFOSA	71581.8	5.0	0.385	6.27	1.000	2.000	1.694	-15	30	
PFTrDA	182645.5	11	13C2-PFDoDA	585802.0	5.0	0.312	6.24	1.030	2.000	1.966	-2	30	
PFTeDA	155169.1	10	13C2-PFTeDA	416875.0	5.0	0.372	6.42	1.000	2.000	2.186	9	30	
PFHxDA	68909.8	11	13C2-PFTeDA	416875.0	5.0	0.165	6.72	1.050	2.000	2.052	3	30	
PFODA	63043.0	10	13C2-PFTeDA	416875.0	5.0	0.151	6.99	1.090	2.000	2.167	8	30	

APPROVED
By JPT at 10:55 am, 11/9/18

REVIEWED
By umar at 3:41 pm, 11/12/18

Continuing Calibration Verfication

ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13
Result Table: 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
Acquisition Method: 18AUG13_3uL.dam

APPROVED
By JPT at 10:55 am, 11/9/18

REVIEWED
By umar at 3:41 pm, 11/12/18

ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13
Result Table: 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
Acquisition Method: 18AUG13_3uL.dam

Sample Name:	CCV8_CAL3			**Data File:**		18NOV08D-86.wiff
Sample ID:	CALMOD31833F			**Acquis Date:**		2018-11-09T00:35:31
Sample Type:	Quality Control			**Instrument:**		LM27631
Vial Position:	5			**Acquis Method:**		18AUG13_3uL.dam
Injection Vol:	3.00			**Result Table:**		18NOV08DCCV6-12
QMethod File:	MQ4-18AUG13			**ICAL Name:**		18NOV07DCAL
Batch Number:	N/A			**Operator:**		JPT12262
Sample Wt.:	1.00000			**Dilution Factor:**		1.00
Sample Vol.:	1.000			**Prep Factor:**		1.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV08D-05

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Rreference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	751206.1	728839.7	3	50	
13C2-PFOA	5.0	508106.7	491983.1	3	50	
13C4-PFOS	4.8	287472.1	255568.1	12	50	
13C2-PFDA	5.0	314412.8	315407.5	0	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	813706.7	13C3-PFBA	751206.1	1.083	5.000	5.013	100	70-130	
E13C5-PFPeA	841505.1	13C3-PFBA	751206.1	1.120	5.000	4.880	98	70-130	
E13C3-PFBS	443220.4	13C3-PFBA	751206.1	0.590	4.650	4.330	93	70-130	
E13C2-4:2-FTS	52920.0	13C2-PFOA	508106.7	0.104	4.670	4.700	101	70-130	
E13C5-PFHxA	707751.9	13C2-PFOA	508106.7	1.393	5.000	5.124	102	70-130	
E13C3-PFHxS	346520.9	13C2-PFOA	508106.7	0.682	4.730	4.896	104	70-130	
E13C4-PFHpA	546876.4	13C2-PFOA	508106.7	1.076	5.000	4.896	98	70-130	
E13C2-6:2-FTS	38229.6	13C2-PFOA	508106.7	0.075	4.750	5.017	106	70-130	
E13C8-PFOA	942505.5	13C2-PFOA	508106.7	1.855	5.000	5.173	103	70-130	
E13C8-PFOS	305093.3	13C4-PFOS	287472.1	1.061	4.780	4.693	98	70-130	
E13C9-PFNA	512619.2	13C4-PFOS	287472.1	1.783	5.000	4.871	97	70-130	
E13C6-PFDA	673033.2	13C2-PFDA	314412.8	2.141	5.000	5.383	108	70-130	
E13C2-8:2-FTS	30874.6	13C2-PFDA	314412.8	0.098	4.790	5.196	108	70-130	
E13C8-PFOSA	698750.6	13C2-PFDA	314412.8	2.222	5.000	4.850	97	70-130	
Ed3-NMeFOSAA	78995.7	13C2-PFDA	314412.8	0.251	5.000	4.672	93	70-130	
E13C7-PFUnDA	279486.4	13C2-PFDA	314412.8	0.889	5.000	5.128	103	70-130	
Ed5-NEtFOSAA	65484.9	13C2-PFDA	314412.8	0.208	5.000	4.820	96	70-130	
E13C2-PFDoDA	585802.0	13C2-PFDA	314412.8	1.863	5.000	5.023	100	70-130	
Ed7-NMePFOSAE	353934.1	13C2-PFDA	314412.8	1.126	5.000	5.235	105	70-130	
Ed3-NMePFOSA	78061.1	13C2-PFDA	314412.8	0.248	5.000	4.545	91	70-130	
Ed9-NEtPFOSAE	279379.9	13C2-PFDA	314412.8	0.889	5.000	5.075	101	70-130	
Ed5-NEtPFOSA	71581.8	13C2-PFDA	314412.8	0.228	5.000	5.272	105	70-130	
E13C2-PFTeDA	416875.0	13C2-PFDA	314412.8	1.326	5.000	4.773	95	70-130	

APPROVED
By JPT at 10:55 am, 11/9/18

REVIEWED
By umar at 3:41 pm, 11/12/18

ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

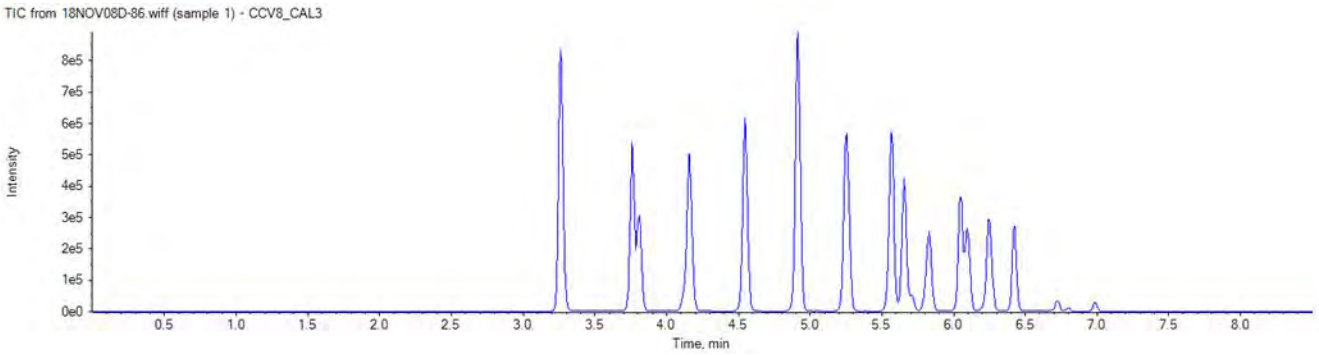
Analyte Quantitation Peak Table

Sample Name: CCV8_CAL3 **Instrument Name:** LM27631 **File Name:** 18NOV08D-86.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	1.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	3.26	1.000	298572.4		A	13C4-PFBA	3.26	813706.7	0.367	2.147
PFPeA	3.76	1.000	288388.1		A	13C5-PFPeA	3.76	841505.1	0.343	2.037
PFBS	3.81	1.000	159879.7		A	13C3-PFBS	3.81	443220.4	0.361	1.819
4:2-FTS	4.12	1.000	34586.7		A	13C2-4:2-FTS	4.12	52920.0	0.654	1.757
PFHxA	4.16	1.000	348142.4		A	13C5-PFHxA	4.16	707751.9	0.492	2.110
PFPeS	4.18	1.100	87376.5		A	13C3-PFBS	3.81	443220.4	0.197	1.944
PFHxS	4.55	1.000	127903.2		A	13C3-PFHxS	4.55	346520.9	0.369	1.871
PFHpA	4.55	1.000	347897.1		A	13C4-PFHpA	4.55	546876.4	0.636	2.139
6:2-FTS	4.90	1.000	34236.6		A	13C2-6:2-FTS	4.91	38229.6	0.896	2.234
PFHpS	4.91	1.080	124721.2		A	13C3-PFHxS	4.55	346520.9	0.360	1.883
PFOA	4.91	1.000	353117.0		A	13C8-PFOA	4.92	942505.5	0.375	2.110
PFOS	5.25	1.000	117262.9		A	13C8-PFOS	5.24	305093.3	0.384	1.993
PFNA	5.26	1.000	289246.3		A	13C9-PFNA	5.26	512619.2	0.564	2.109
PFNS	5.55	1.060	73898.6		A	13C8-PFOS	5.24	305093.3	0.242	1.920
PFDA	5.57	1.000	227693.9		A	13C6-PFDA	5.57	673033.2	0.338	1.861
8:2-FTS	5.57	1.000	24122.7		A	13C2-8:2-FTS	5.57	30874.6	0.781	1.761
PFOSA	5.66	1.000	270238.8		A	13C8-PFOSA	5.66	698750.6	0.387	2.091
NMeFOSAA	5.71	1.000	32027.6		A	d3-NMeFOSAA	5.71	78995.7	0.405	2.086
PFDS	5.80	1.110	61957.5		A	13C8-PFOS	5.24	305093.3	0.203	1.940
PFUnDA	5.83	1.000	194783.4		A	13C7-PFUnDA	5.83	279486.4	0.697	1.999
NEtFOSAA	5.84	1.000	27638.0		A	d5-NEtFOSAA	5.84	65484.9	0.422	1.814
PFDoDA	6.05	1.000	219631.8		A	13C2-PFDoDA	6.05	585802.0	0.375	2.032
10:2-FTS	6.07	1.090	16888.7		A	13C2-8:2-FTS	5.57	30874.6	0.547	1.703
NMePFOSAE	6.10	1.000	162327.5		A	d7-NMePFOSAE	6.09	353934.1	0.459	2.055
NMePFOSA	6.11	1.000	30602.5		A	d3-NMePFOSA	6.10	78061.1	0.392	2.194
PFDoS	6.21	1.190	28862.1		A	13C8-PFOS	5.24	305093.3	0.095	1.826
NEtPFOSAE	6.25	1.000	185331.3		A	d9-NEtPFOSAE	6.24	279379.9	0.663	2.127
NEtPFOSA	6.27	1.000	27529.0		A	d5-NEtPFOSA	6.26	71581.8	0.385	1.694
PFTrDA	6.24	1.030	182645.5		A	13C2-PFDoDA	6.05	585802.0	0.312	1.966
PFTeDA	6.42	1.000	155169.1		A	13C2-PFTeDA	6.42	416875.0	0.372	2.186
PFHxDA	6.72	1.050	68909.8		A	13C2-PFTeDA	6.42	416875.0	0.165	2.052
PFODA	6.99	1.090	63043.0		A	13C2-PFTeDA	6.42	416875.0	0.151	2.167

Total Ion Chromatogram

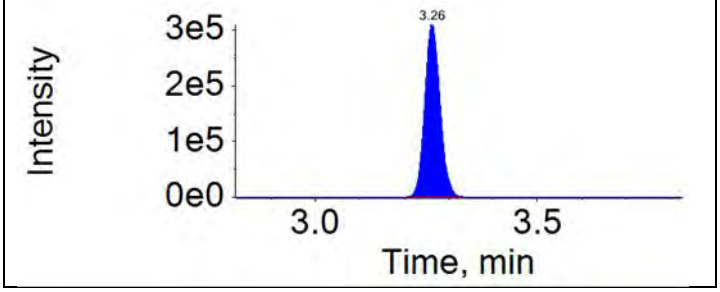


APPROVED
By JPT at 10:55 am, 11/9/18

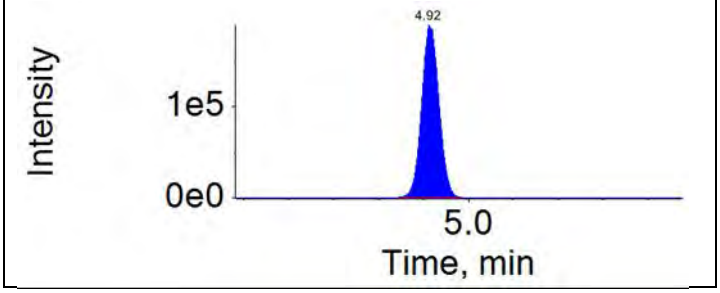
REVIEWED
By umar at 3:41 pm, 11/12/18

ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

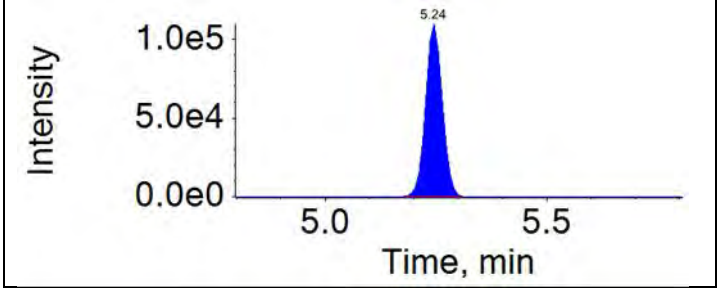
Injection Standard: 13C3-PFBA
216.0 / 172.0



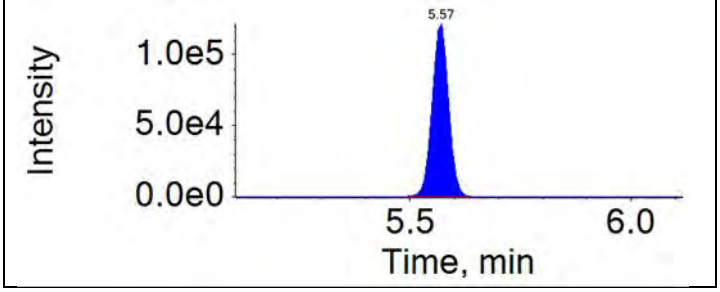
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0



Injection Standard: 13C2-PFDA
515.0 / 470.0

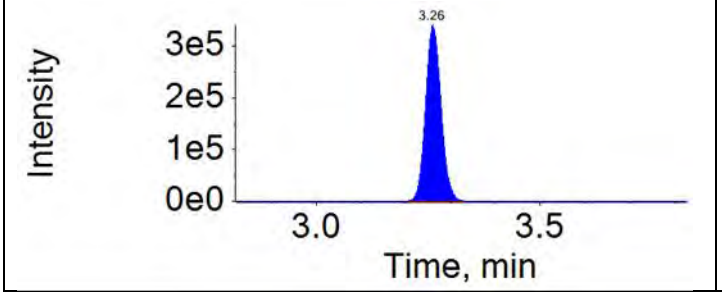


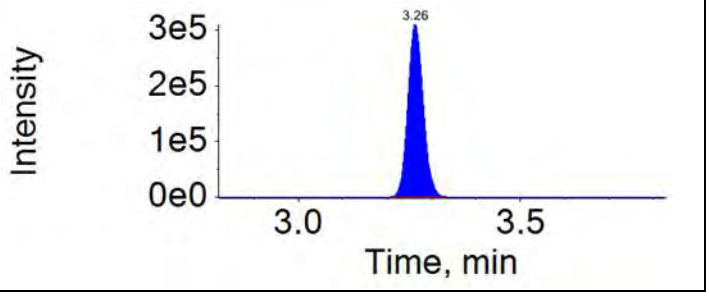
APPROVED
By JPT at 10:55 am, 11/9/18

REVIEWED
By umar at 3:41 pm, 11/12/18

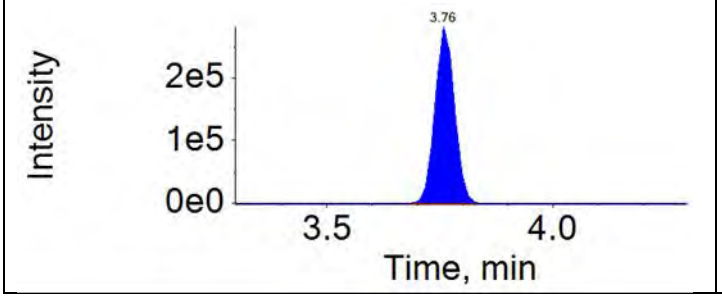
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

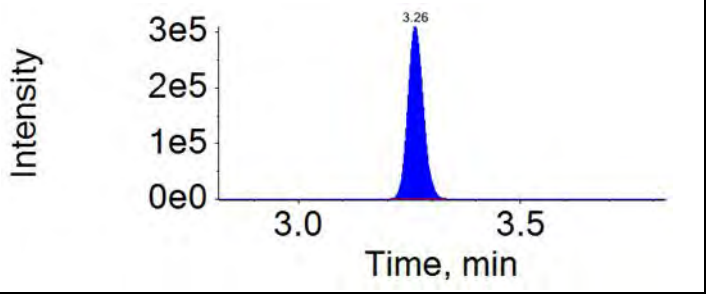
Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0



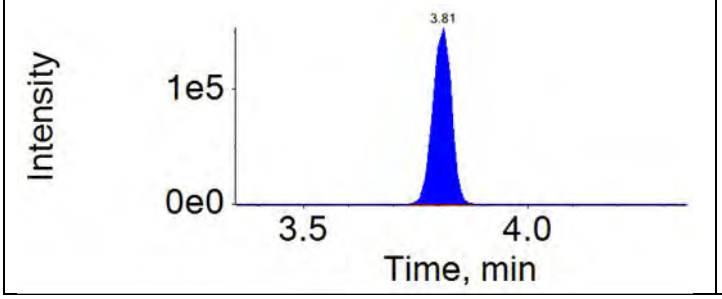


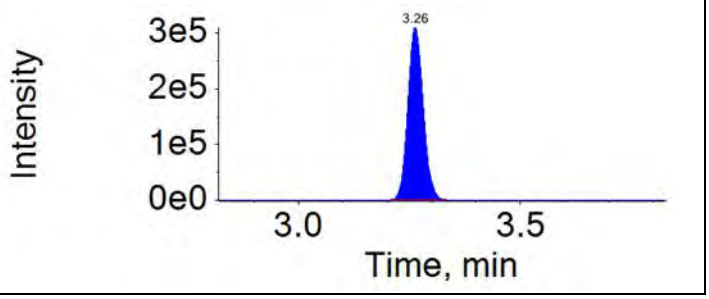
Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0



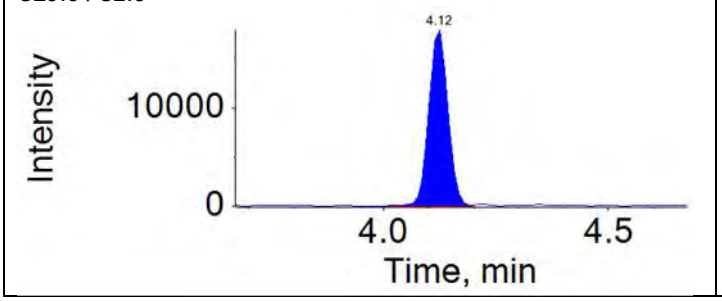


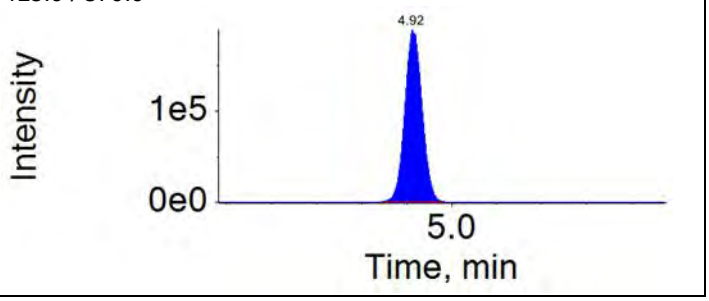
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0





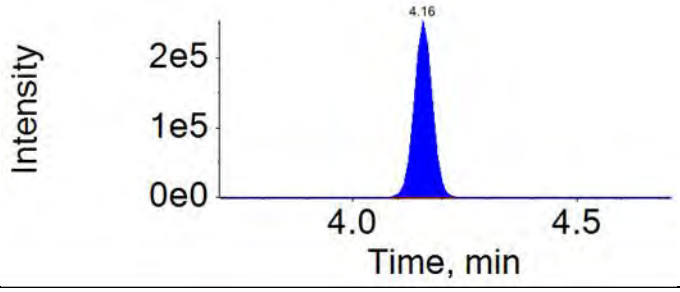
Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0

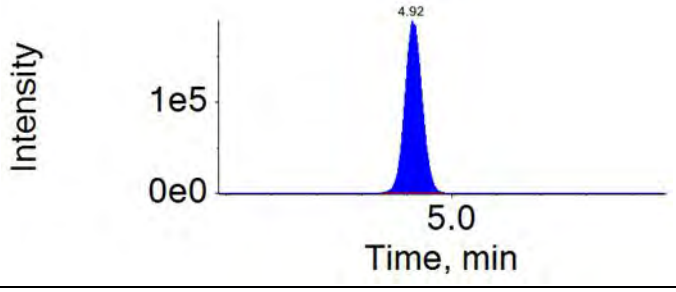




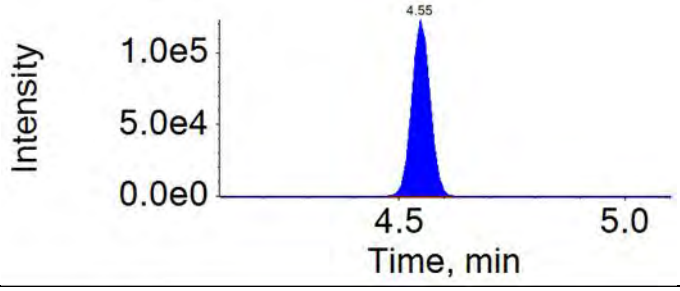
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

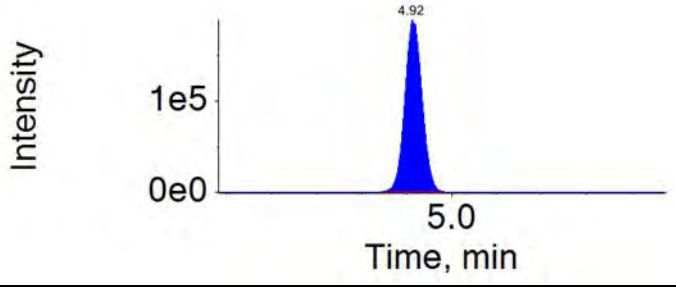
Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0



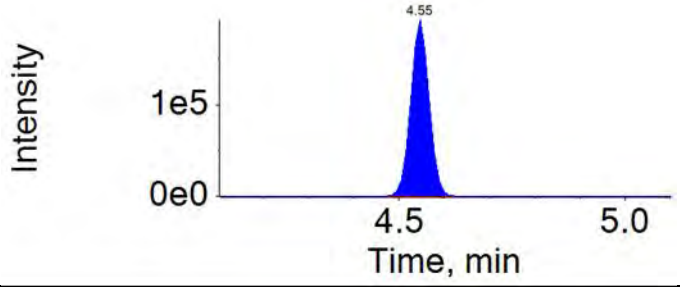


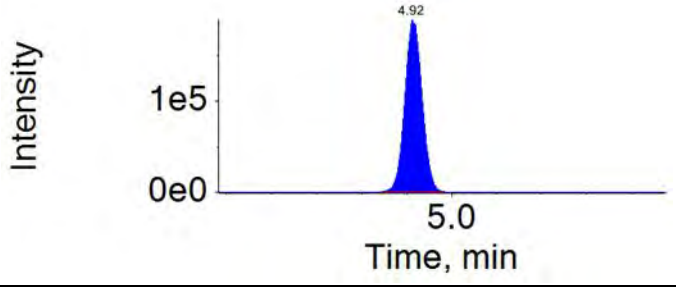
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402.0 / 80.0	415.0 / 370.0



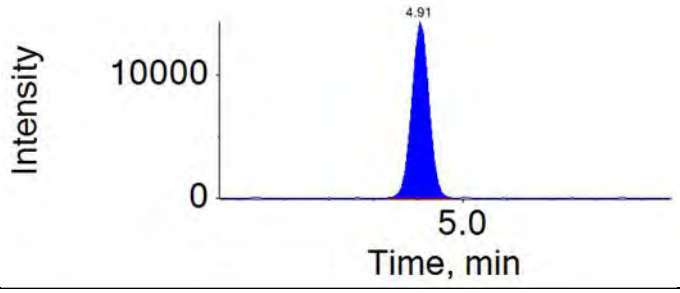


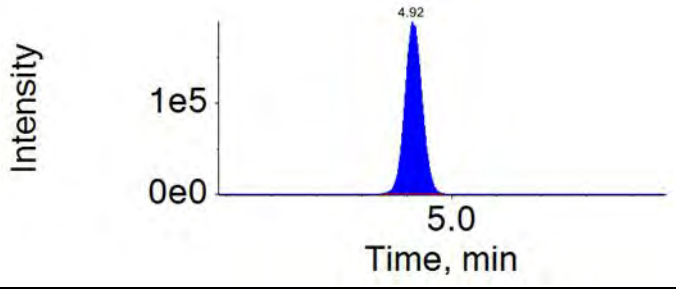
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0



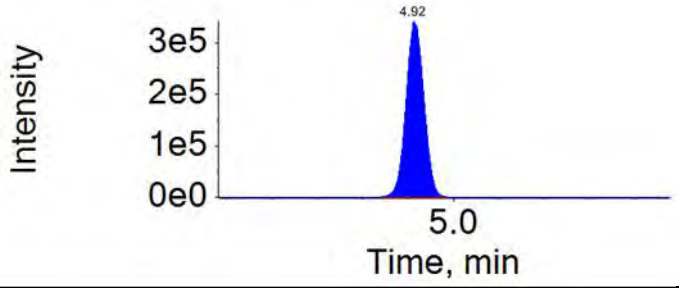
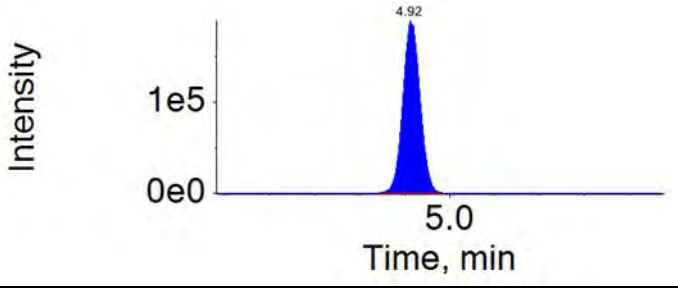


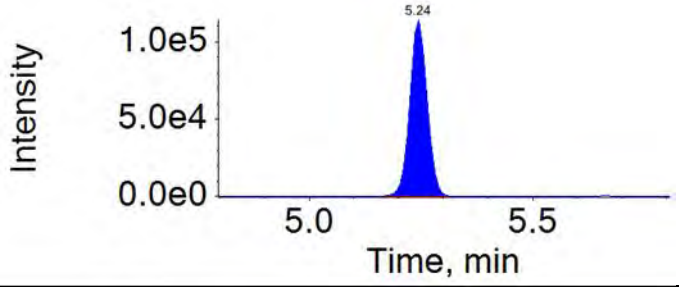
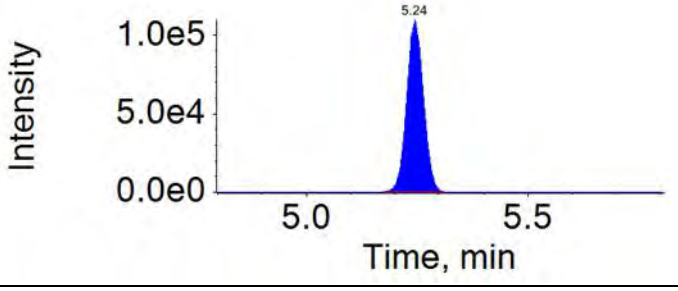
Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0

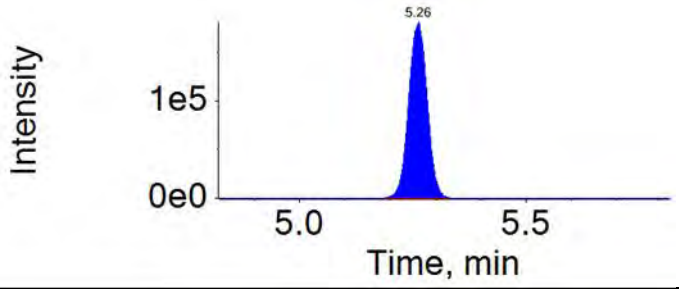
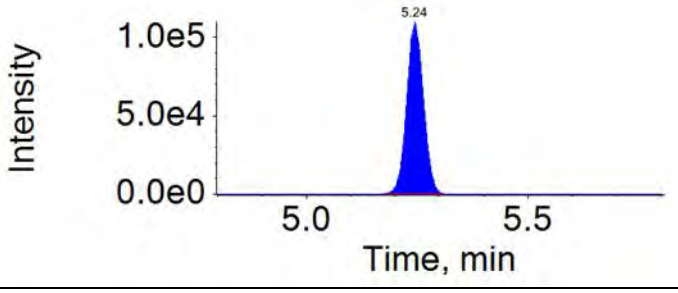


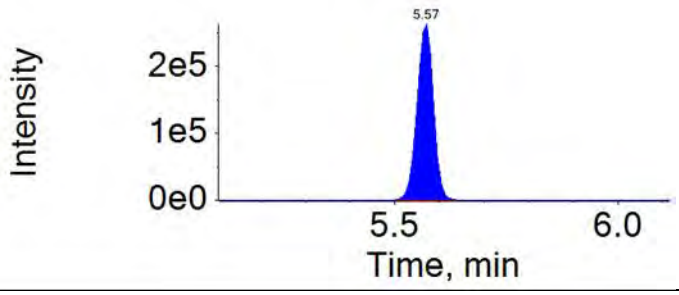
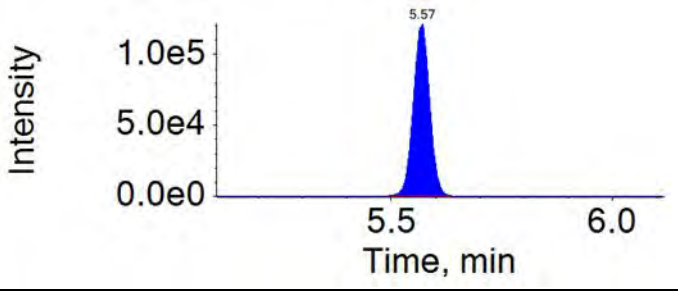


ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: E13C8-PFOA	Injection Standard: 13C2-PFOA
421.0 / 376.0	415.0 / 370.0
	

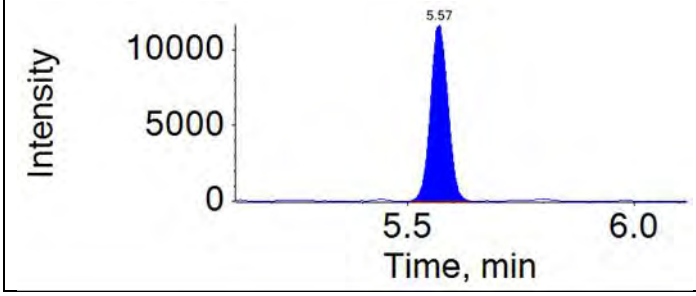
Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0
	

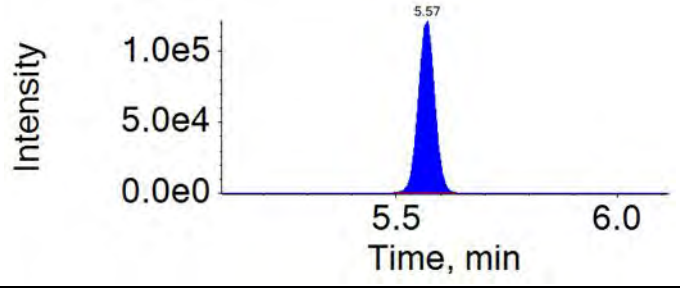
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0
	

Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0
	

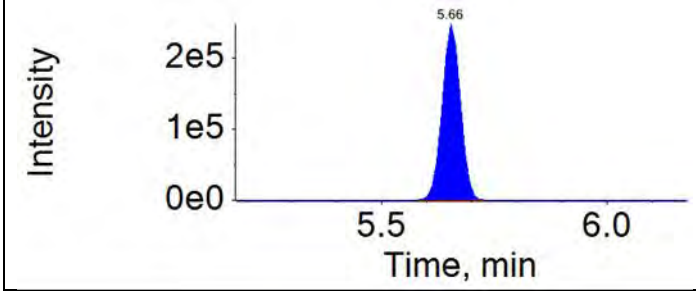
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

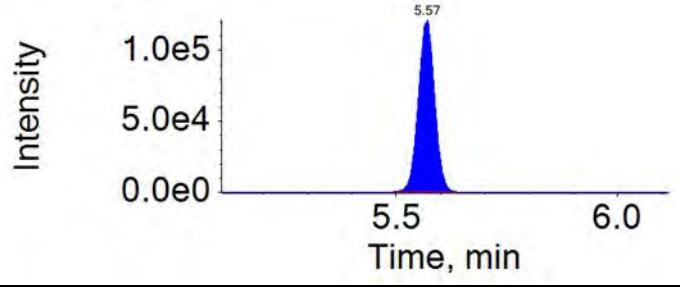
Extraction Standard: E13C2-8:2-FTS	Injection Standard: 13C2-PFDA
529.0 / 81.0	515.0 / 470.0



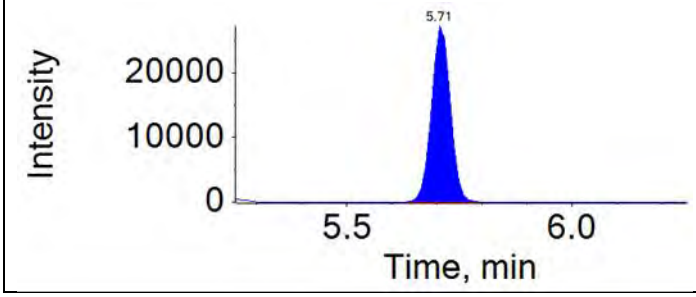


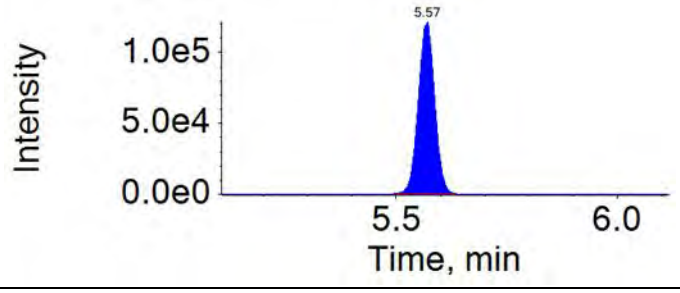
Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0



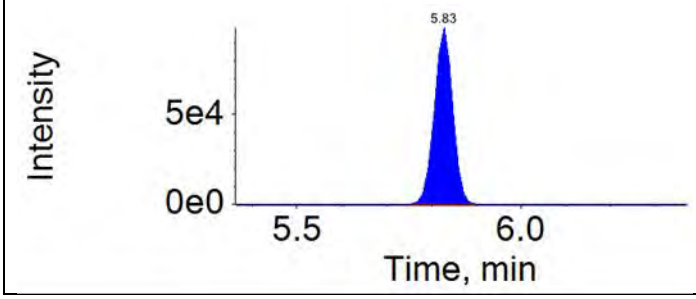


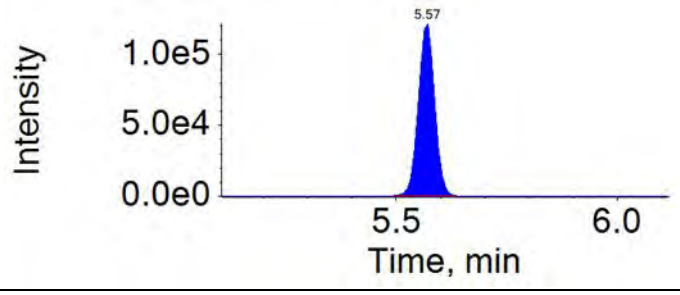
Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0





Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0

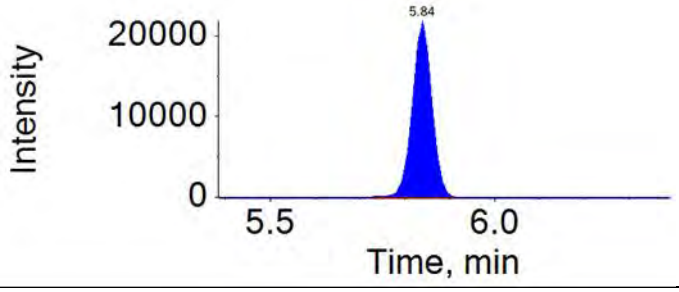
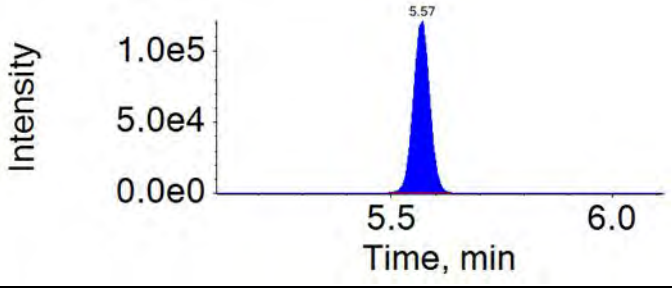


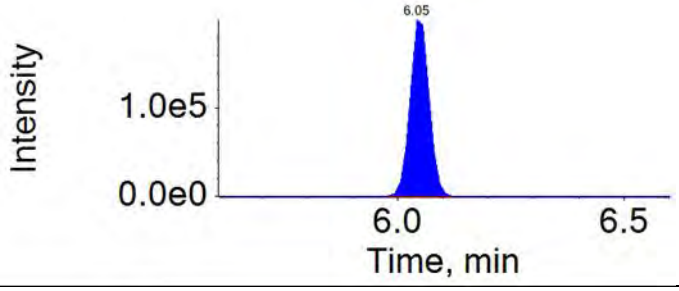
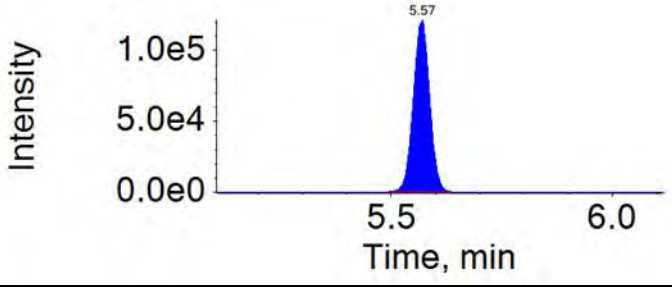


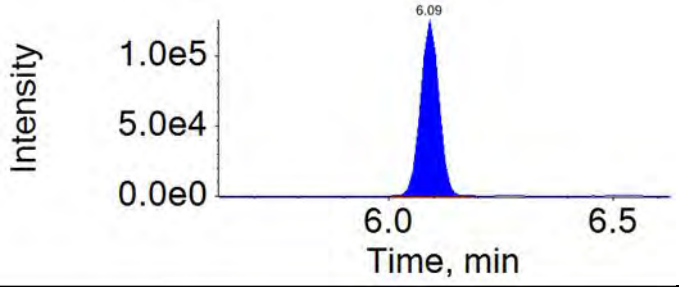
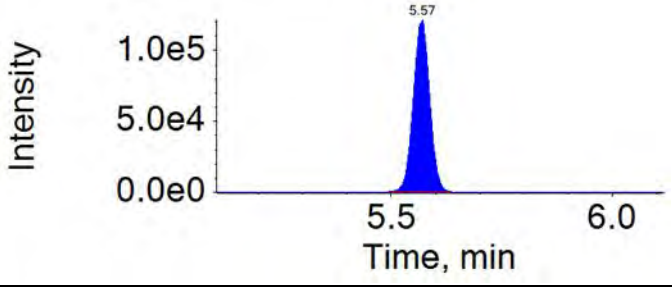
APPROVED
By JPT at 10:55 am, 11/9/18

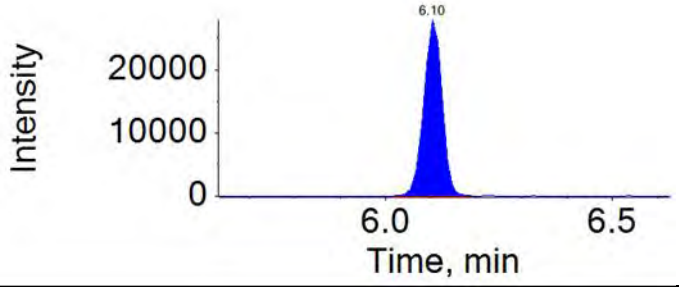
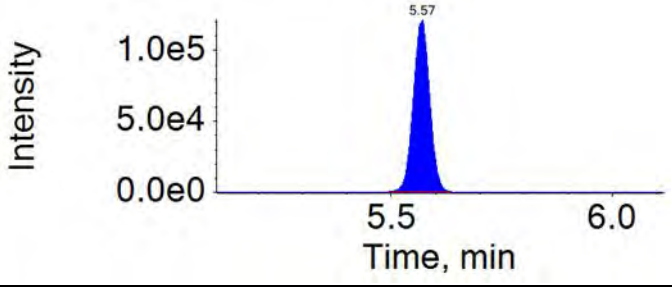
REVIEWED
By umar at 3:41 pm, 11/12/18

ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0
	

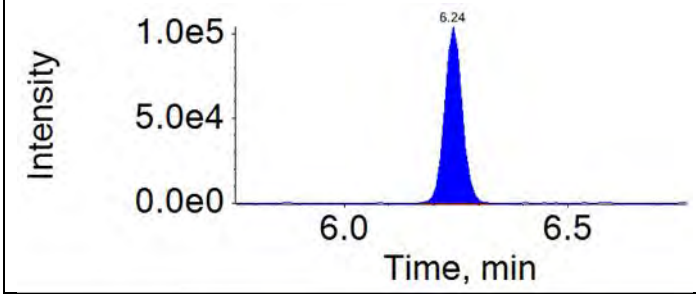
Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0
	

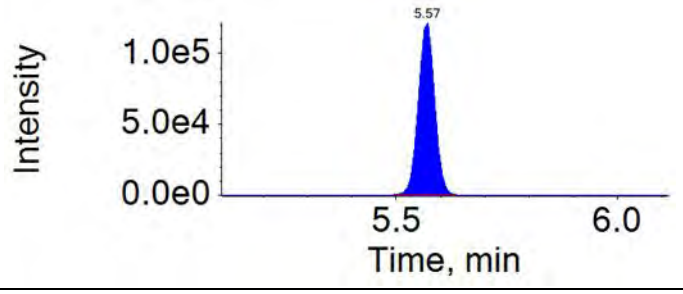
Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0
	

Extraction Standard: Ed3-NMePFOSA	Injection Standard: 13C2-PFDA
515.0 / 169.0	515.0 / 470.0
	

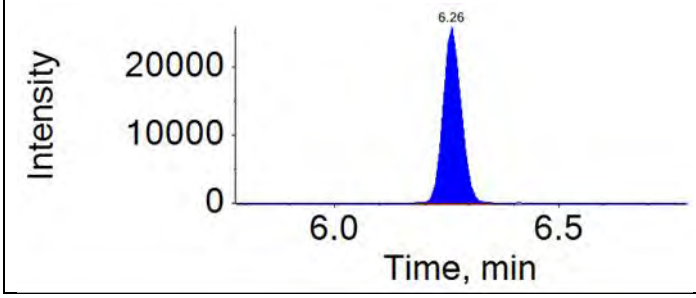
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

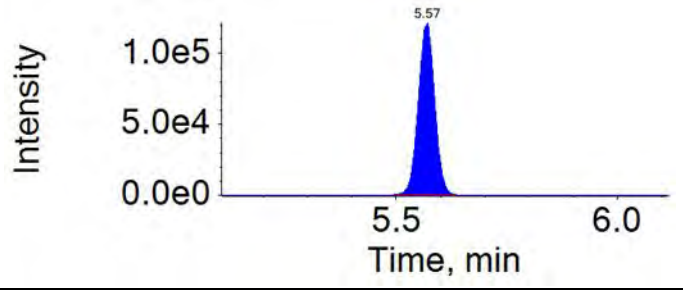
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



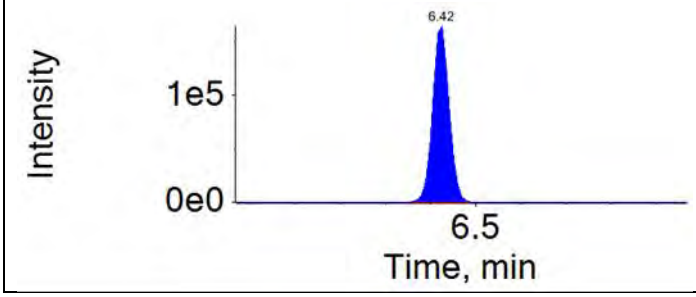


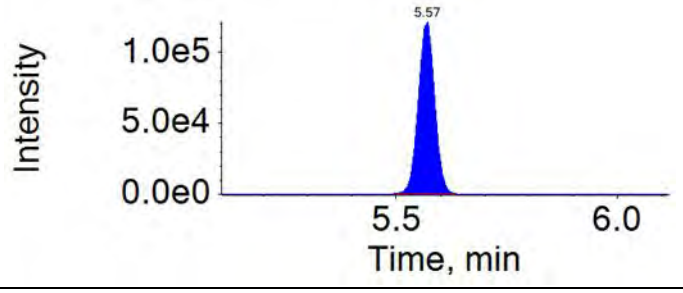
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0



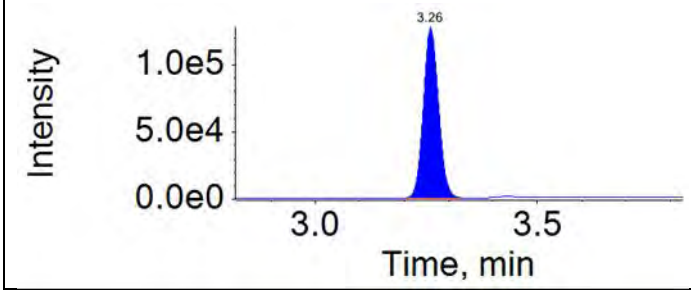


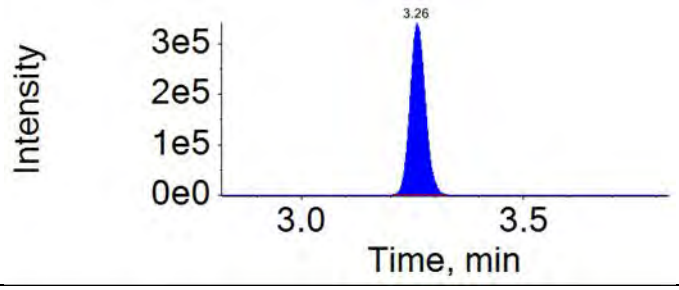
APPROVED
By JPT at 10:55 am, 11/9/18

REVIEWED
By umar at 3:41 pm, 11/12/18

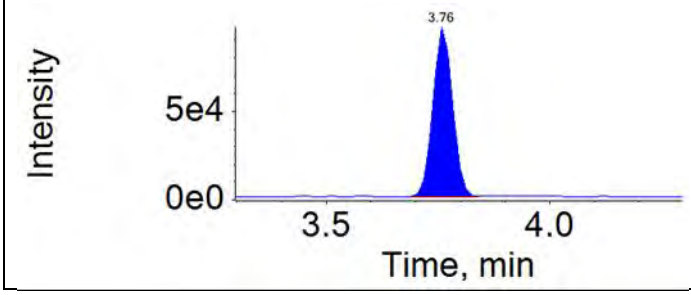
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

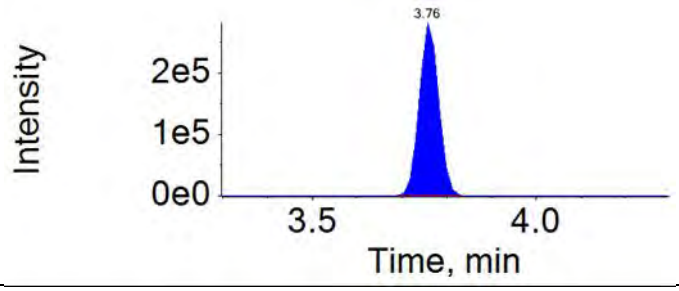
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



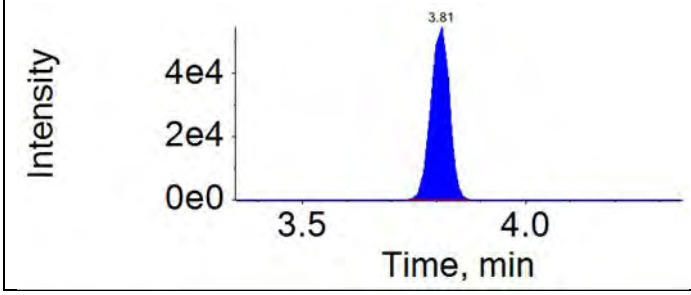


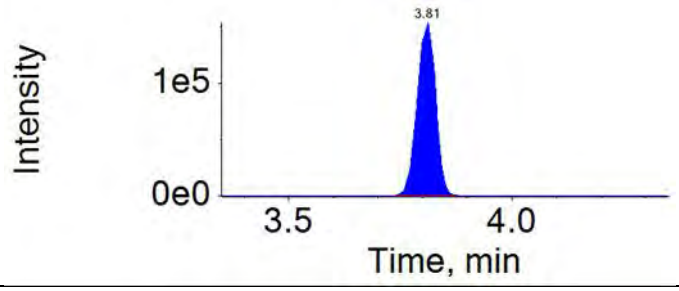
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



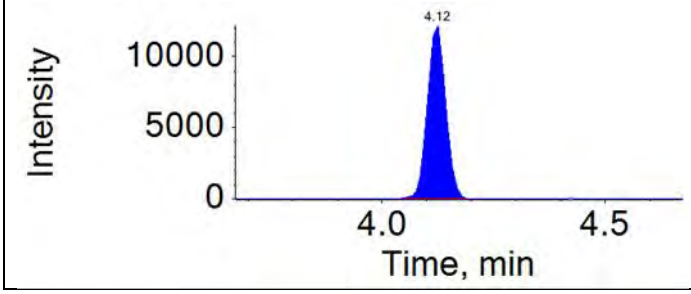


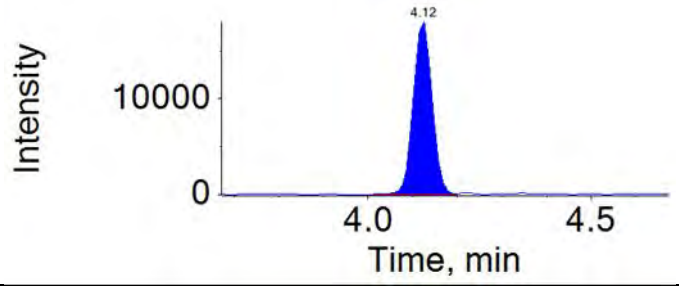
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





Analyte: 4:2-FTS	Extraction Standard: 13C2-4:2-FTS
327.0 / 307.0	329.0 / 81.0



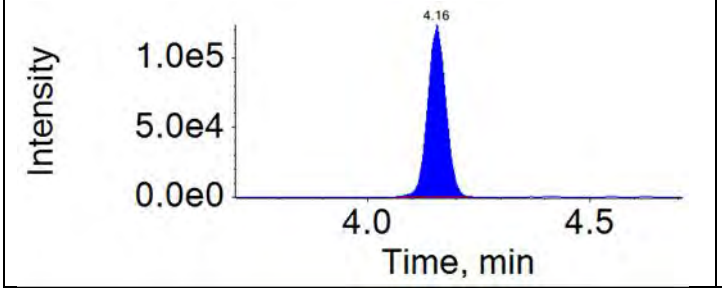


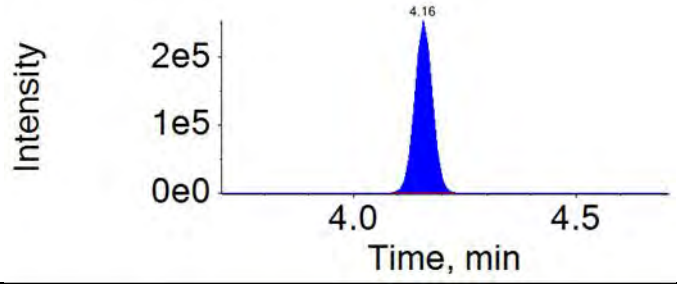
APPROVED
By JPT at 10:55 am, 11/9/18

REVIEWED
By umar at 3:41 pm, 11/12/18

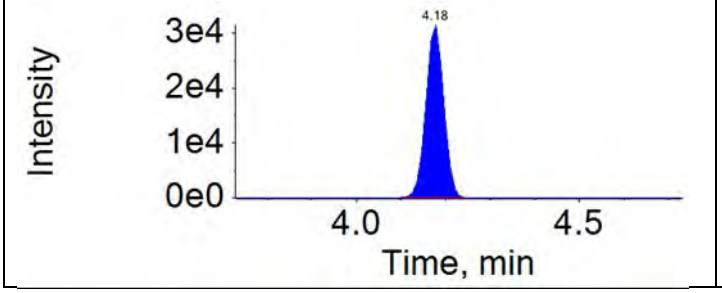
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

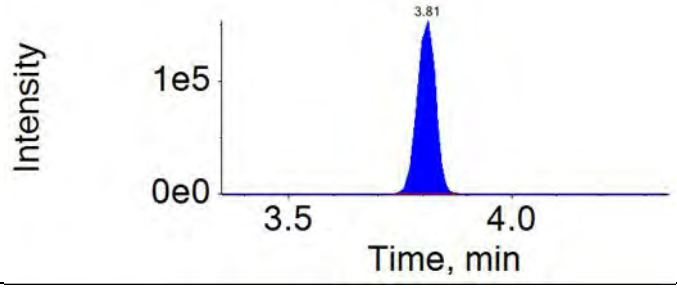
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



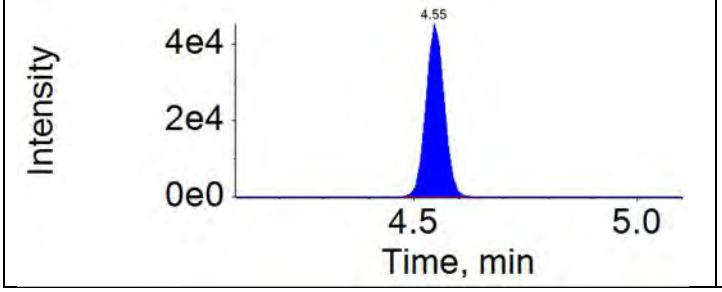


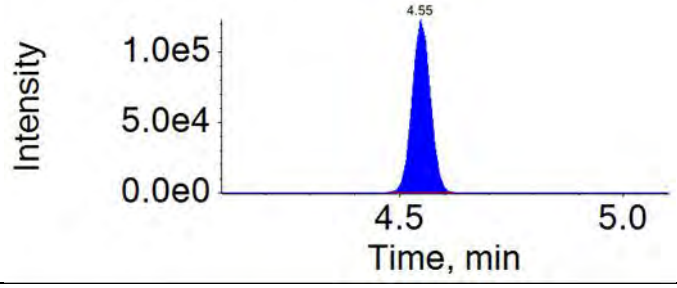
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



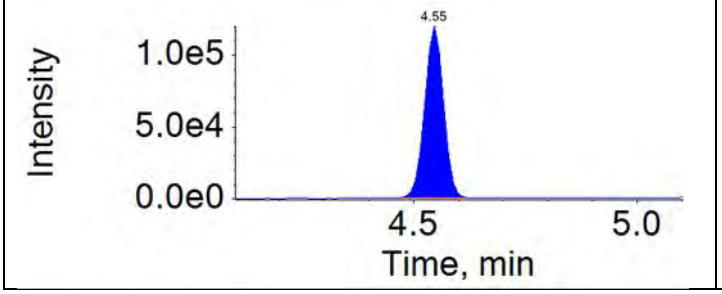


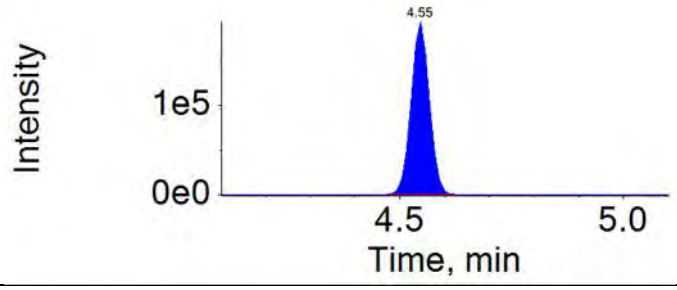
Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0





Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0

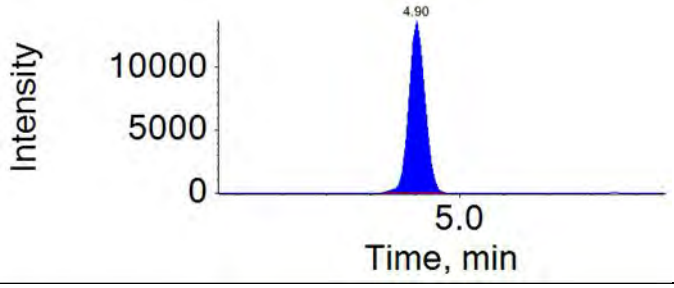
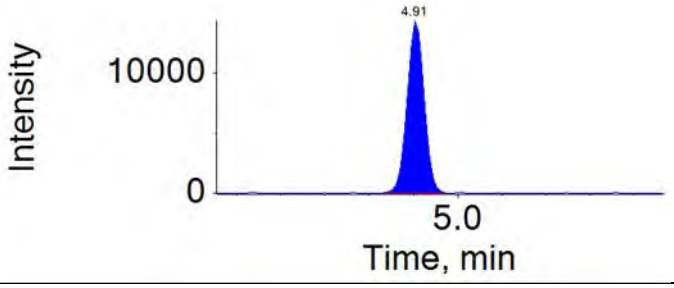


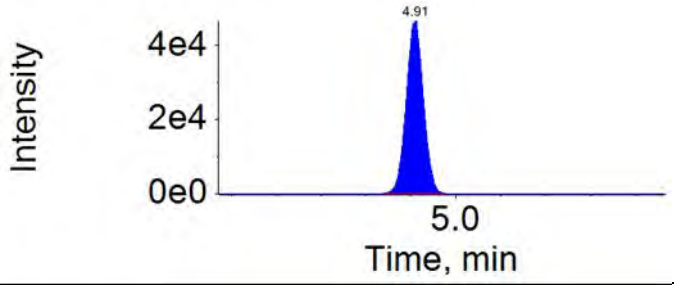
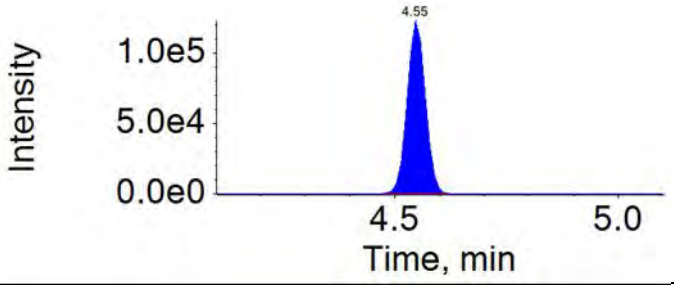


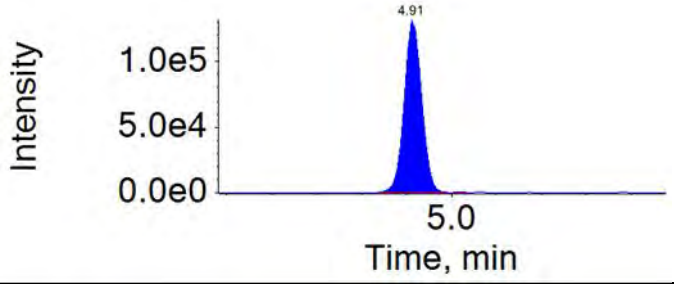
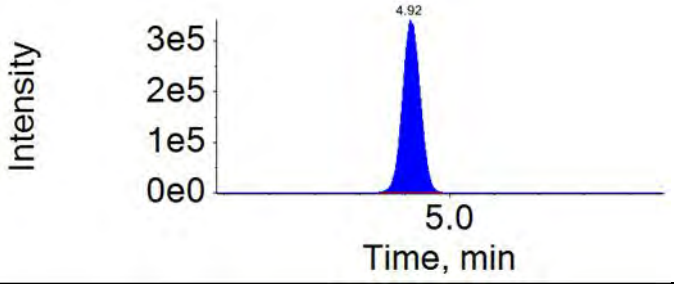
APPROVED
By JPT at 10:55 am, 11/9/18

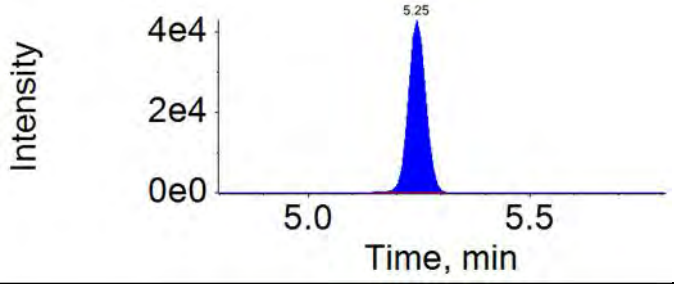
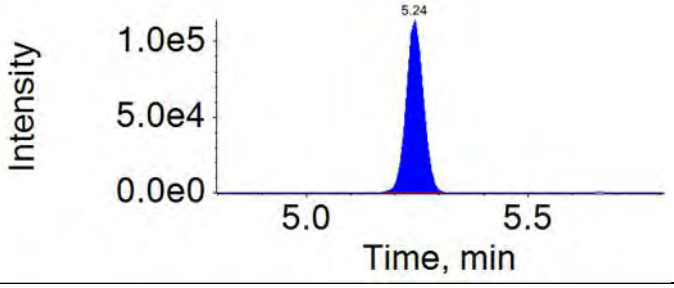
REVIEWED
By umar at 3:41 pm, 11/12/18

ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Analyte: 6:2-FTS	Extraction Standard: 13C2-6:2-FTS
427.0 / 407.0	429.0 / 81.0
	

Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0
	

Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0
	

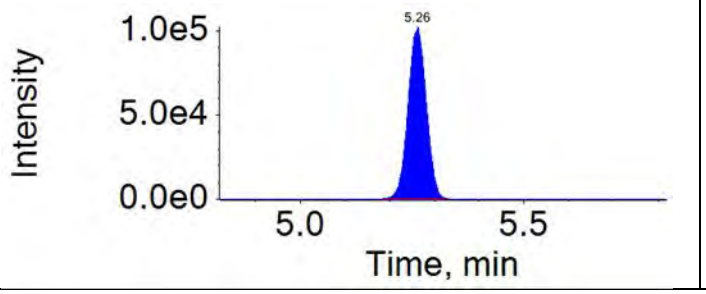
Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0
	

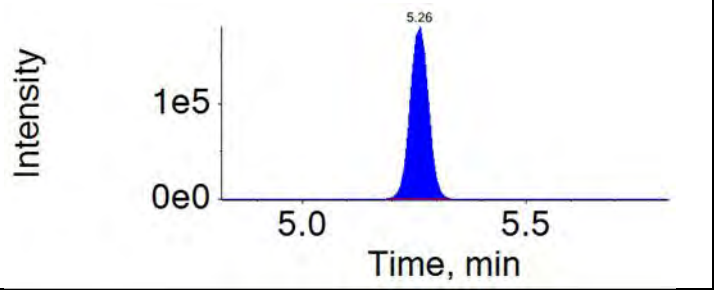
APPROVED
By JPT at 10:55 am, 11/9/18

REVIEWED
By umar at 3:41 pm, 11/12/18

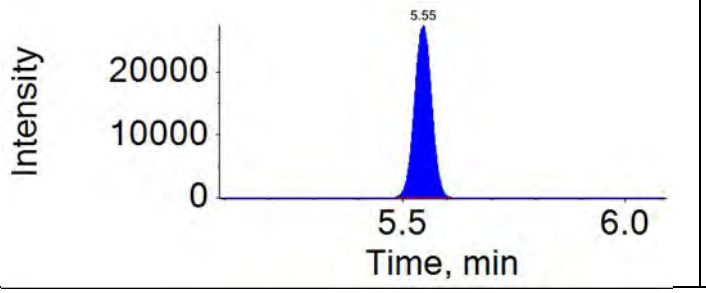
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

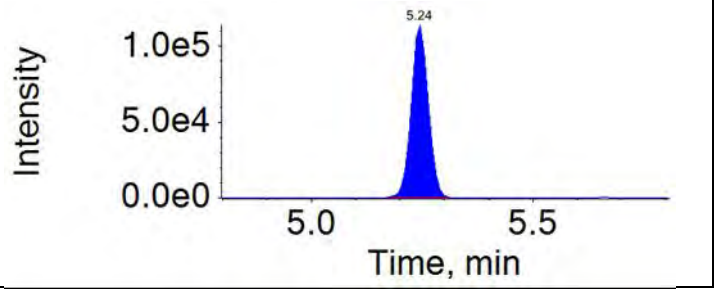
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



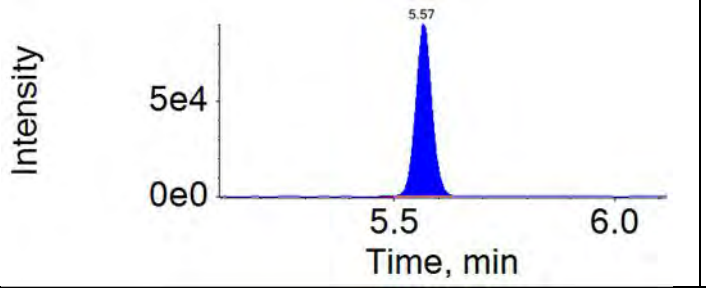


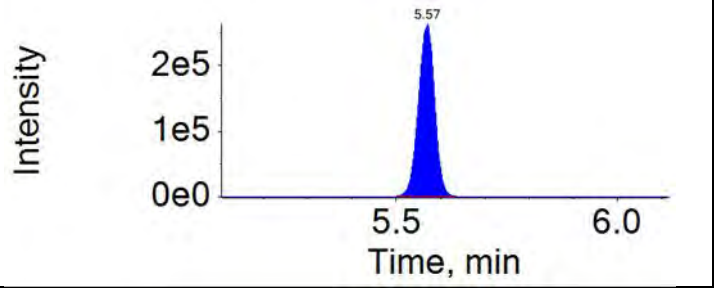
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



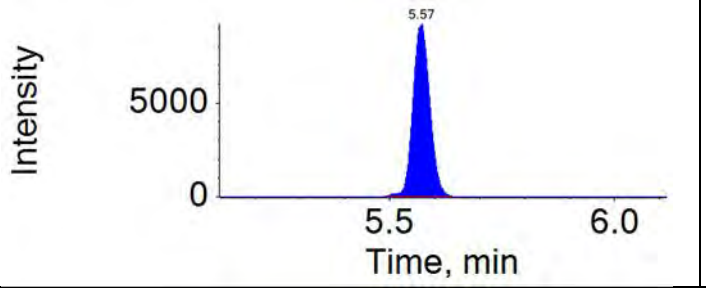


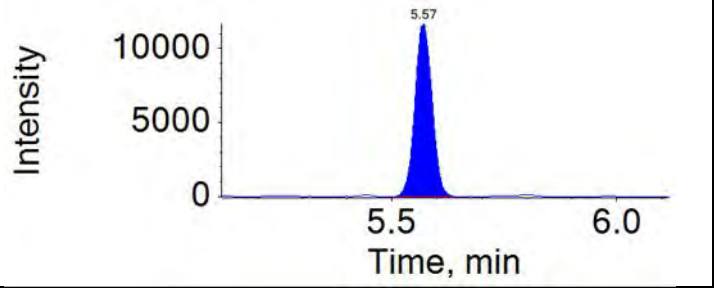
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





Analyte: 8:2-FTS	Extraction Standard: 13C2-8:2-FTS
527.0 / 507.0	529.0 / 81.0



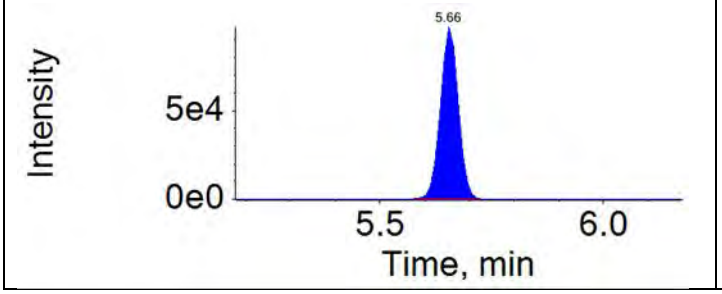


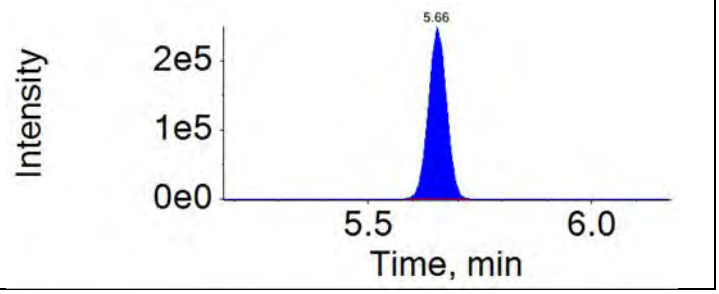
APPROVED
By JPT at 10:55 am, 11/9/18

REVIEWED
By umar at 3:41 pm, 11/12/18

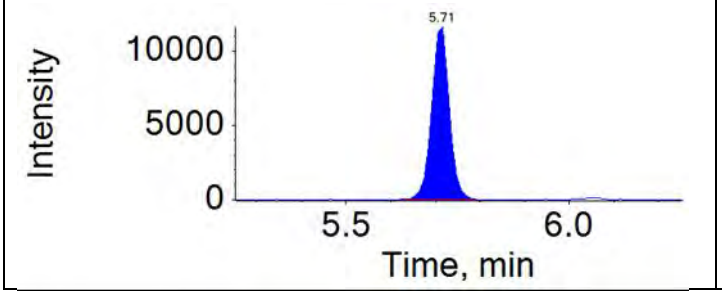
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

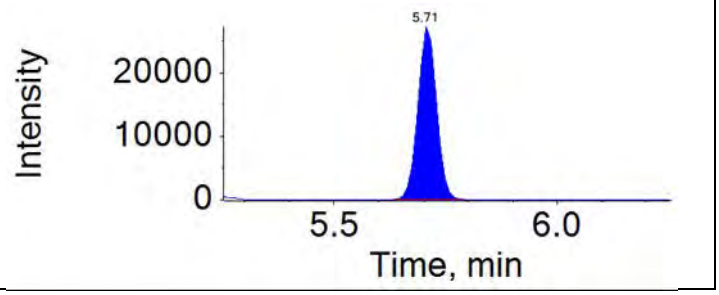
Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0



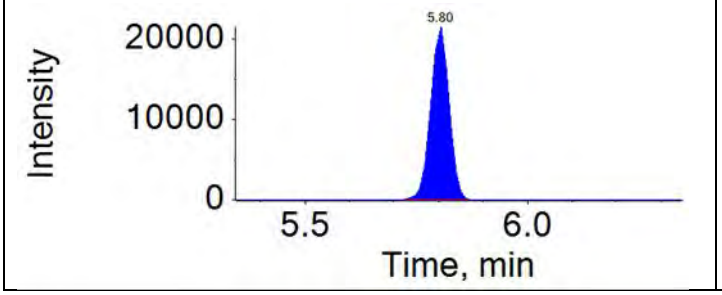


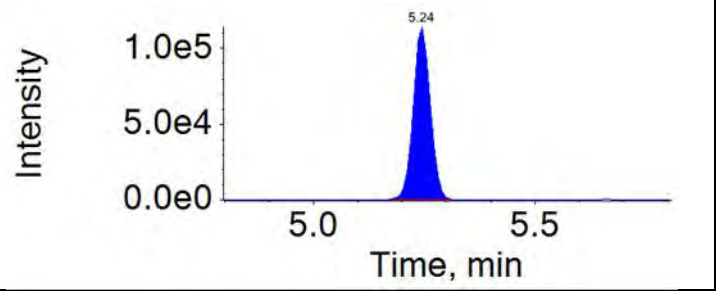
Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0



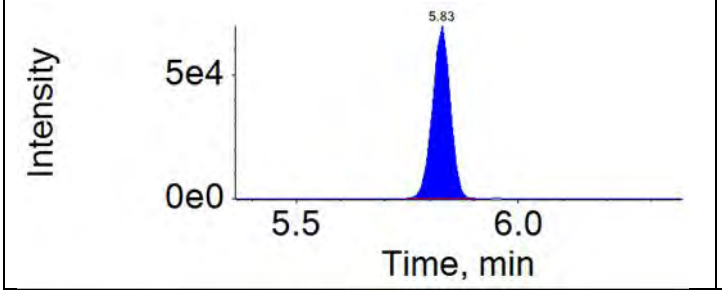


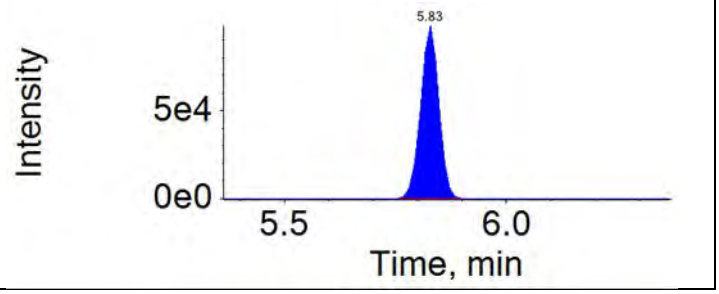
Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0





Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0

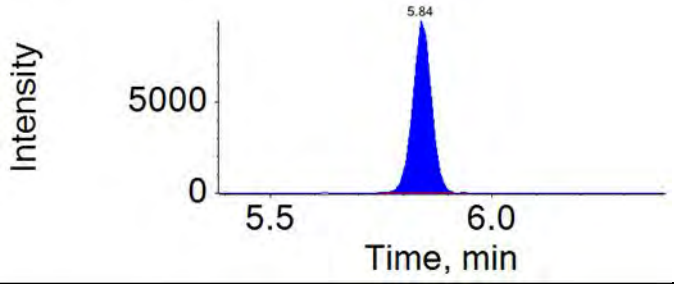
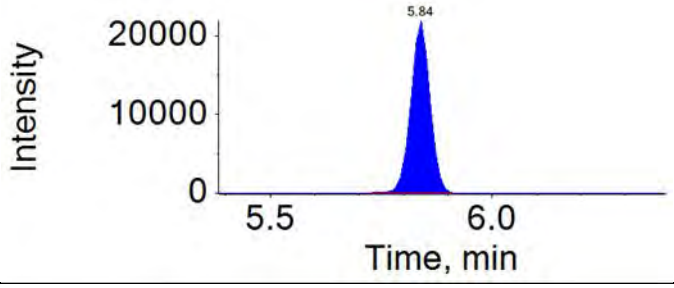


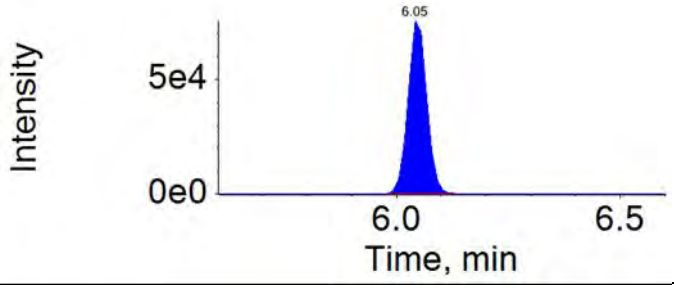
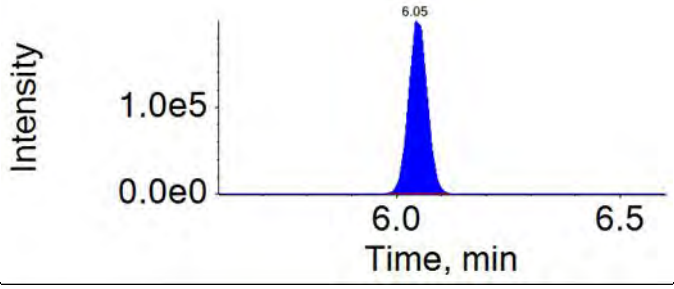


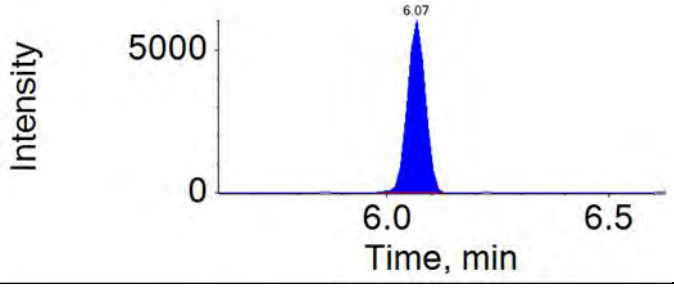
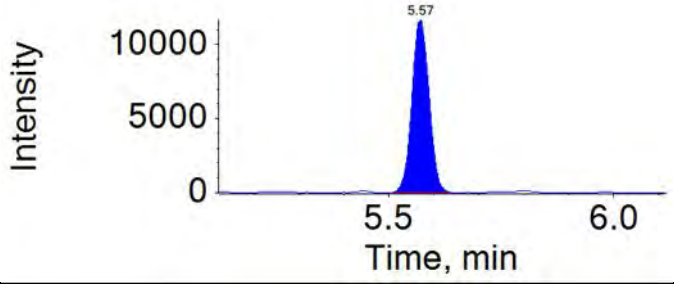
APPROVED
By JPT at 10:55 am, 11/9/18

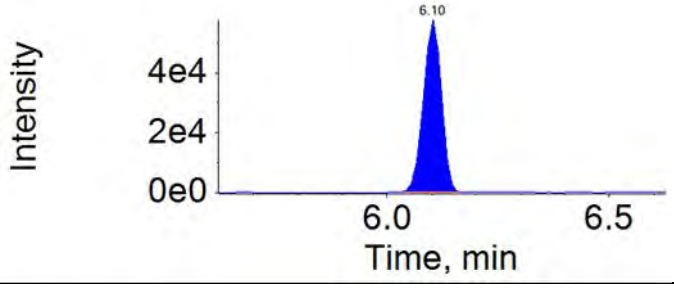
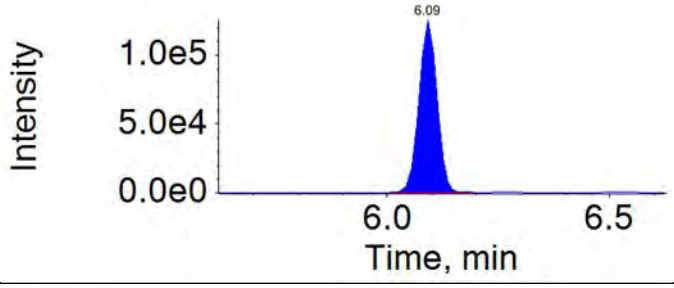
REVIEWED
By umar at 3:41 pm, 11/12/18

ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0
	

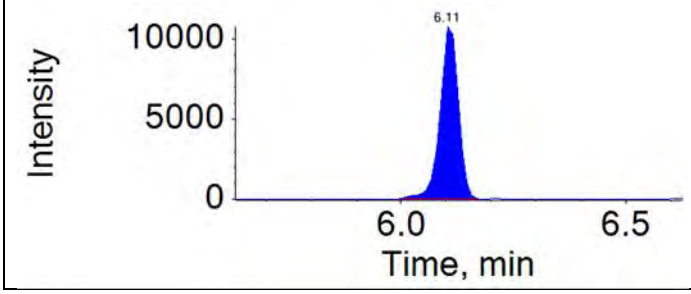
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0
	

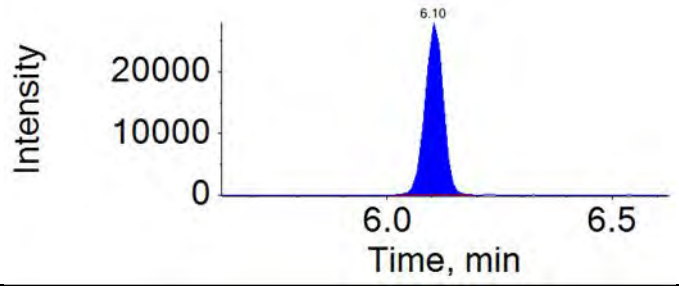
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0
	

Analyte: NMePFOSAE	Extraction Standard: d7-NMePFOSAE
616.0 / 59.0	623.0 / 59.0
	

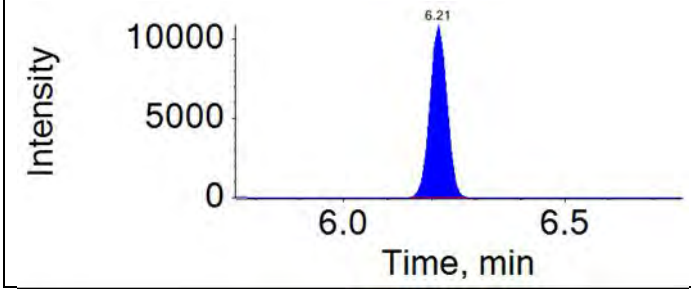
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

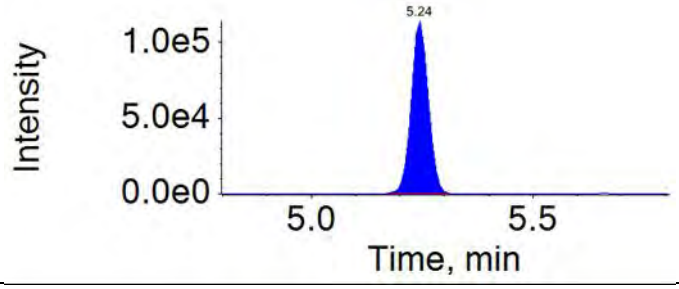
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



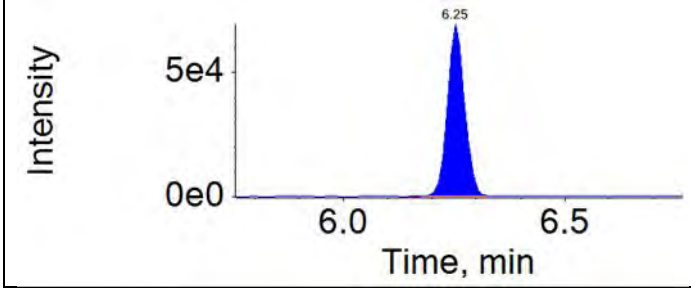


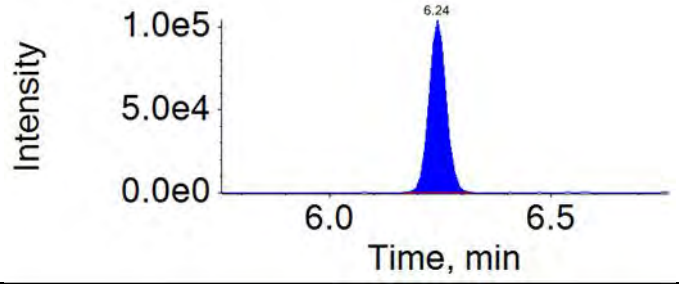
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



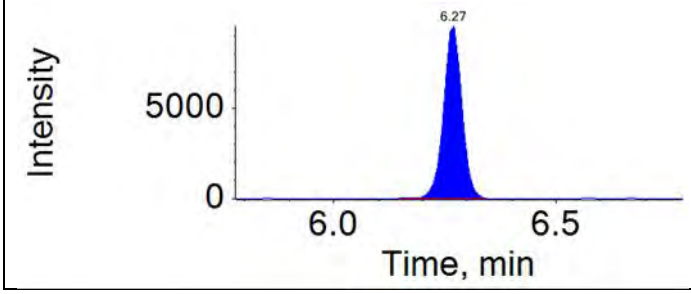


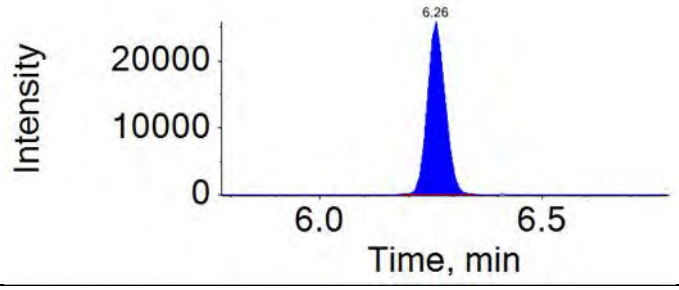
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





Analyte: NEtPFOSA	Extraction Standard: d5-NEtPFOSA
526.0 / 169.0	531.0 / 169.0



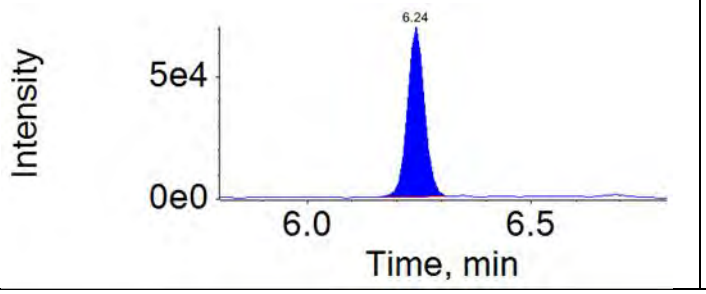


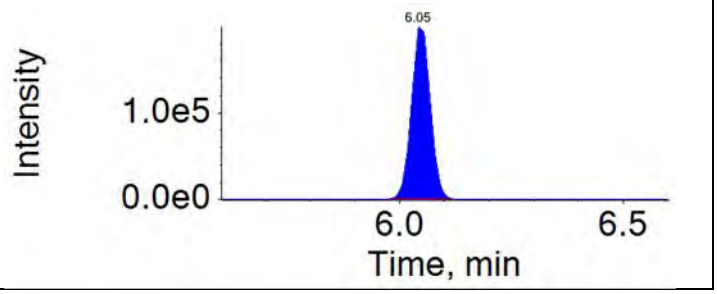
APPROVED
By JPT at 10:55 am, 11/9/18

REVIEWED
By umar at 3:41 pm, 11/12/18

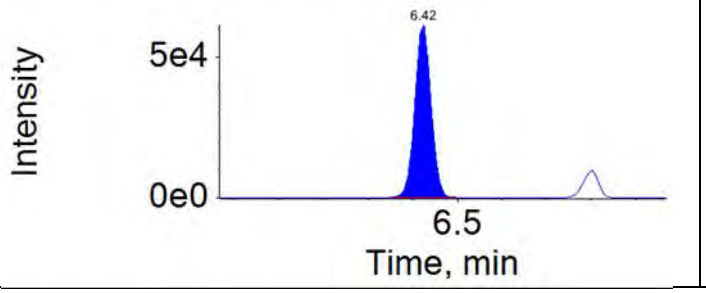
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

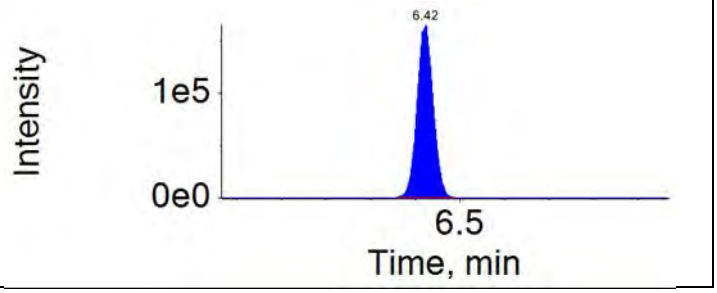
Analyte: PFTrDA	Extraction Standard: 13C2-PFDoDA
663.0 / 619.0	615.0 / 570.0



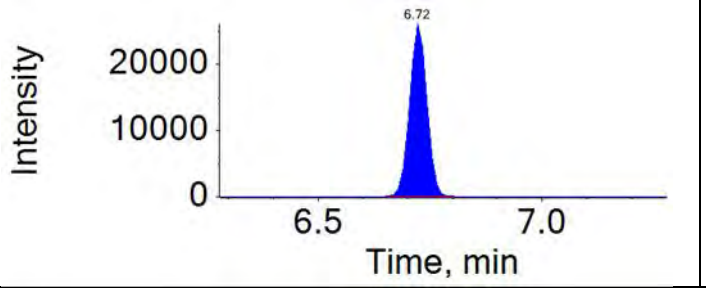


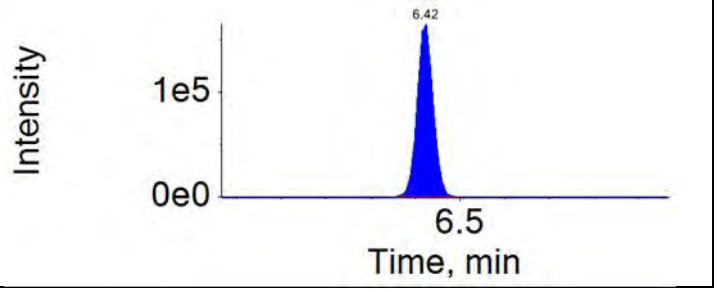
Analyte: PFTeDA	Extraction Standard: 13C2-PFTeDA
713.0 / 669.0	715.0 / 670.0



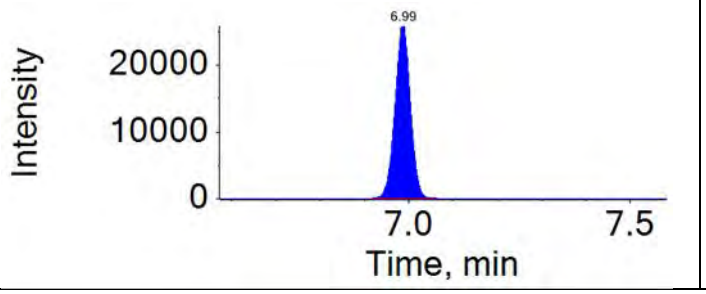


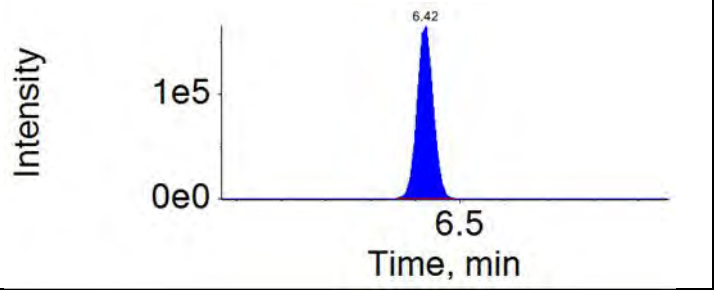
Analyte: PFHxDA	Extraction Standard: 13C2-PFTeDA
813.0 / 769.0	715.0 / 670.0





Analyte: PFODA	Extraction Standard: 13C2-PFTeDA
913.0 / 869.0	715.0 / 670.0





APPROVED
By JPT at 10:55 am, 11/9/18

REVIEWED
By umar at 3:41 pm, 11/12/18

Ion Ratio Report

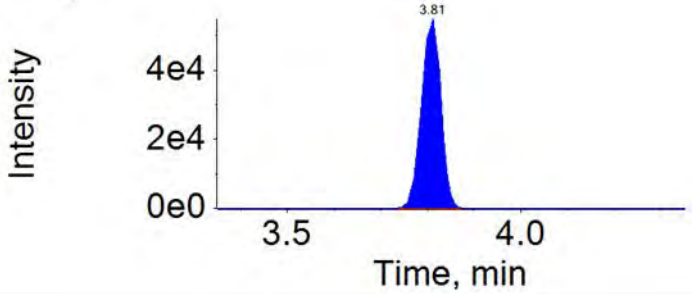
Sample Name: CCV8_CAL3 **Instrument Name:** LM27631 **File Name:** 18NOV08D-86.wiff

Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	3.81	1.00	159879.7	A	N/A	1.0000			
PFBS_2	3.81	1.00	59535.3	A	N/A	0.3724	4	50	
4:2-FTS	4.12	1.00	34586.7	A	N/A	1.0000			
4:2-FTS_2	4.12	1.00	24784.2	A	N/A	0.7166	13	50	
PFHxA	4.16	1.00	348142.4	A	N/A	1.0000			
PFHxA_2	4.16	1.00	3920.7	A	N/A	0.0113	-2	50	
PFPeS	4.18	1.10	87376.5	A	N/A	1.0000			
PFPeS_2	4.18	1.10	45455.6	A	N/A	0.5202	-3	50	
PFHxS	4.55	1.00	127903.2	A	N/A	1.0000			
PFHxS_2	4.55	1.00	47229.7	A	N/A	0.3693	3	50	
PFHpA	4.55	1.00	347897.1	A	N/A	1.0000			
PFHpA_2	4.55	1.00	16467.9	A	N/A	0.0473	-18	50	
6:2-FTS	4.90	1.00	34236.6	A	N/A	1.0000			
6:2-FTS_2	4.90	1.00	19800.2	A	N/A	0.5783	-14	50	
PFHpS	4.91	1.08	124721.2	A	N/A	1.0000			
PFHpS_2	4.91	1.08	50643.4	A	N/A	0.4061	3	50	
PFOA	4.91	1.00	353117.0	A	N/A	1.0000			
PFOA_2	4.91	1.00	21107.6	A	N/A	0.0598	-6	50	
PFOS	5.25	1.00	117262.9	A	N/A	1.0000			
PFOS_2	5.24	1.00	40359.8	A	N/A	0.3442	-1	50	
PFNA	5.26	1.00	289246.3	A	N/A	1.0000			
PFNA_2	5.26	1.00	5770.2	A	N/A	0.0199	-4	50	
PFNS	5.55	1.06	73898.6	A	N/A	1.0000			
PFNS_2	5.54	1.06	33943.4	A	N/A	0.4593	-6	50	
PFDA	5.57	1.00	227693.9	A	N/A	1.0000			
PFDA_2	5.57	1.00	1567.7	A	N/A	0.0069	22	50	
8:2-FTS	5.57	1.00	24122.7	A	N/A	1.0000			
8:2-FTS_2	5.57	1.00	15132.4	A	N/A	0.6273	2	50	
NMeFOSAA	5.71	1.00	32027.6	A	N/A	1.0000			
NMeFOSAA_2	5.71	1.00	6127.0	A	N/A	0.1913	-13	50	
PFDS	5.80	1.11	61957.5	A	N/A	1.0000			
PFDS_2	5.80	1.11	33673.2	A	N/A	0.5435	17	50	
PFUnDA	5.83	1.00	194783.4	A	N/A	1.0000			
PFUnDA_2	5.82	1.00	698.0	A	N/A	0.0036	14	50	
NEtFOSAA	5.84	1.00	27638.0	A	N/A	1.0000			
NEtFOSAA_2	5.84	1.00	18561.3	A	N/A	0.6716	10	50	
PFDoDA	6.05	1.00	219631.8	A	N/A	1.0000			
PFDoDA_2	6.04	1.00	3482.0	A	N/A	0.0159	45	50	
10:2-FTS	6.07	1.09	16888.7	A	N/A	1.0000			
10:2-FTS_2	6.06	1.09	12656.7	A	N/A	0.7494	6	50	
PFTrDA	6.24	1.03	182645.5	A	N/A	1.0000			
PFTrDA_2	6.24	1.03	1461.5	A	N/A	0.0080	-17	50	
PFTeDA	6.42	1.00	155169.1	A	N/A	1.0000			
PFTeDA_2	6.42	1.00	1132.9	A	N/A	0.0073	32	50	
PFHxDA	6.72	1.05	68909.8	A	N/A	1.0000			
PFHxDA_2	6.72	1.05	4318.5	A	N/A	0.0627	5	50	
PFODA	6.99	1.09	63043.0	A	N/A	1.0000			
PFODA_2	6.99	1.09	1467.7	A	N/A	0.0233	-9	50	

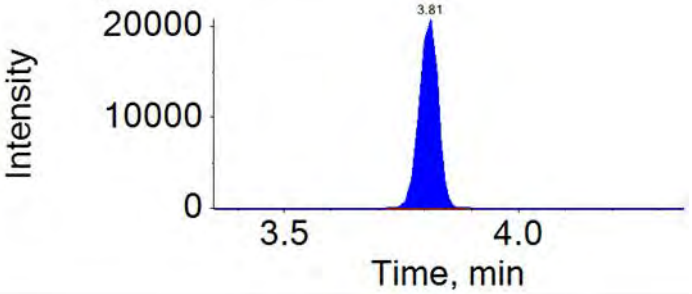
APPROVED
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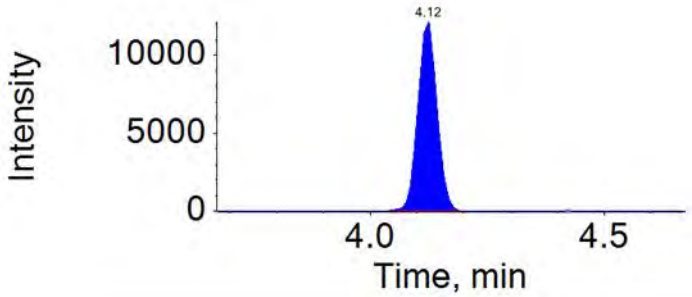
Component: PFBS
Primary Mass: 299.0 / 80.0



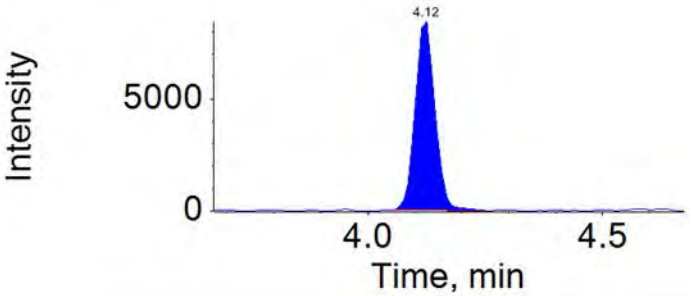
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



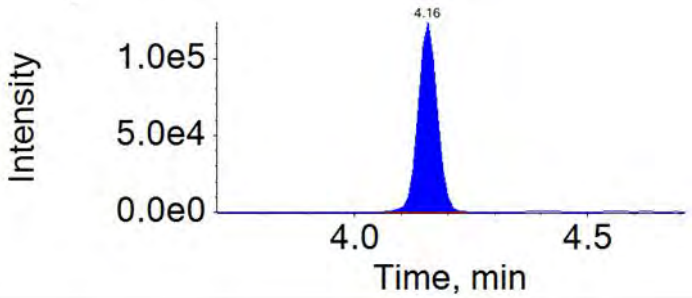
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



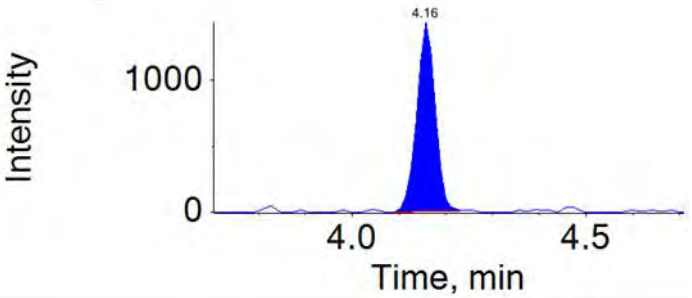
Component: 4:2-FTS_2
Secondary Mass: 327.0 / 81.0



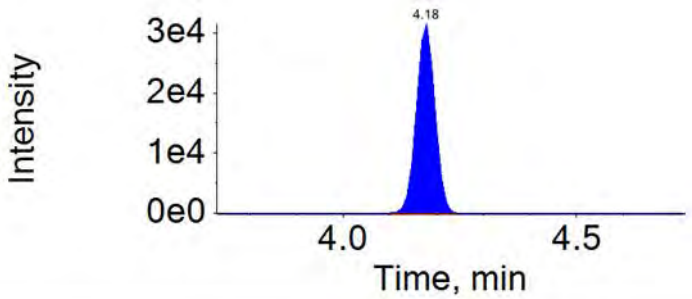
Component: PFHxA
Primary Mass: 313.0 / 269.0



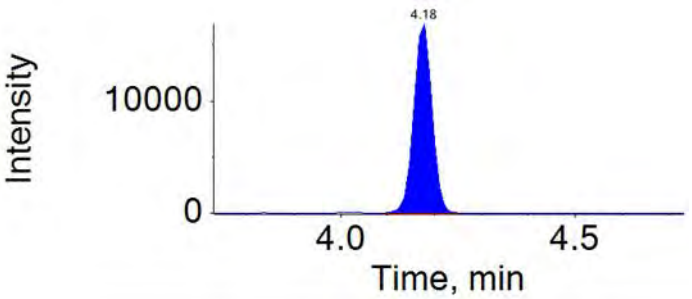
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



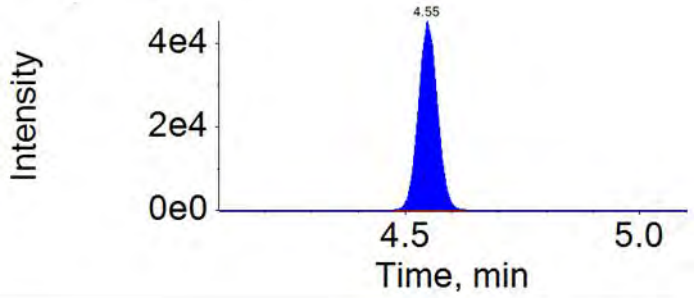
Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



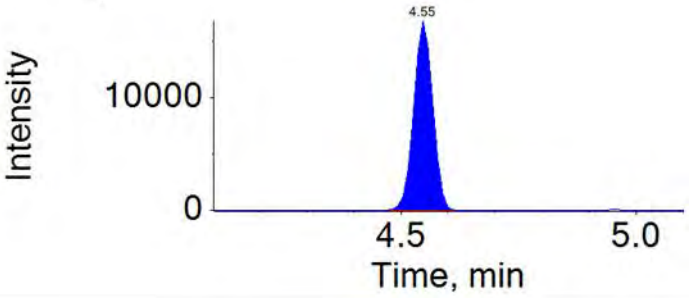
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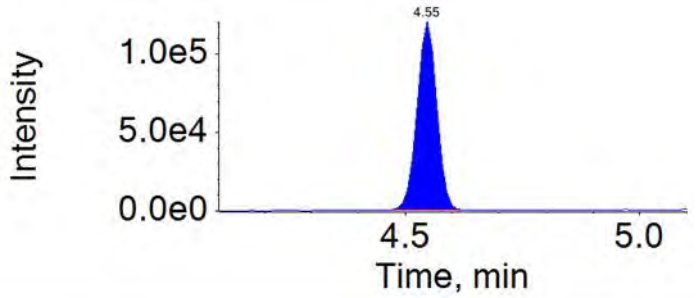
Component: PFHxS
Primary Mass: 399.0 / 80.0



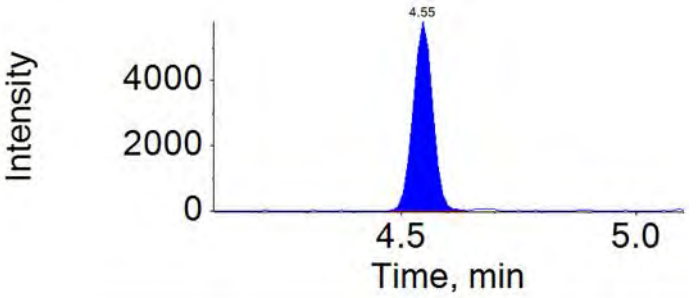
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Secondary Mass: 399.0 / 99.0



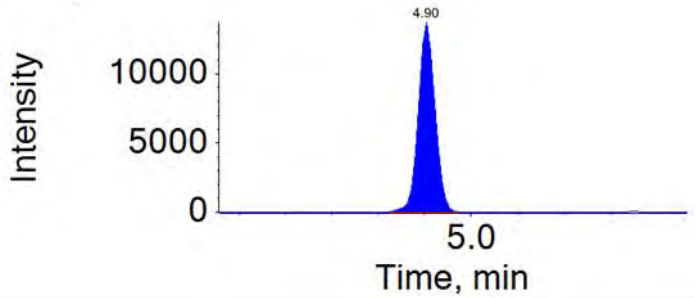
Component: PFHpA
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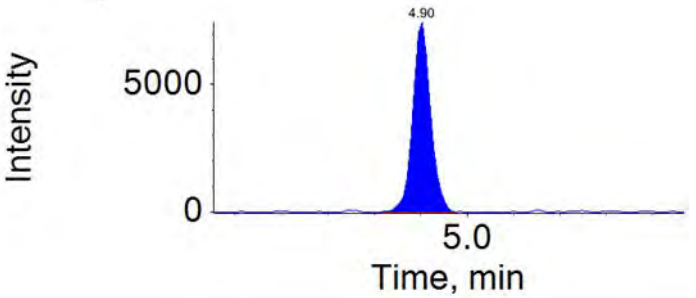
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



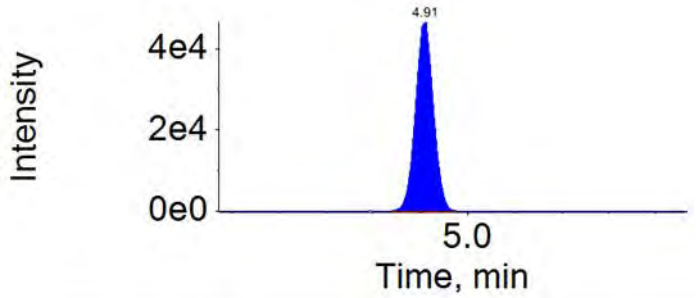
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



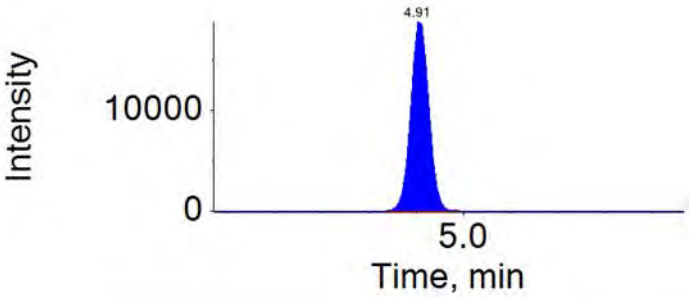
Component: 6:2-FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



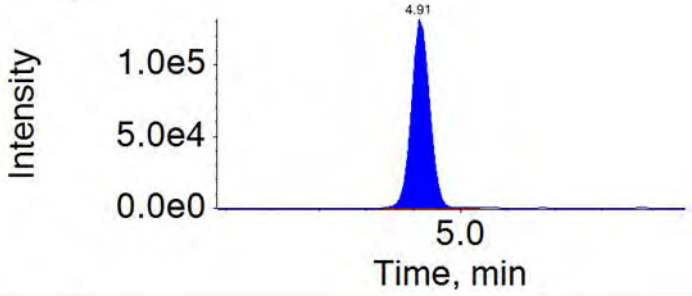
Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



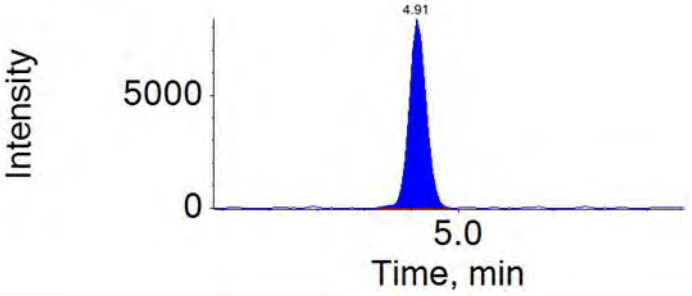
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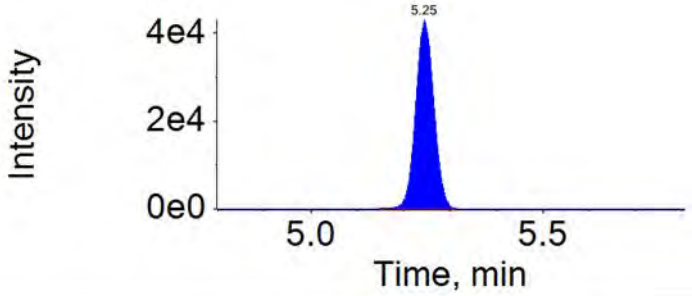
Component: PFOA
Primary Mass: 413.0 / 369.0



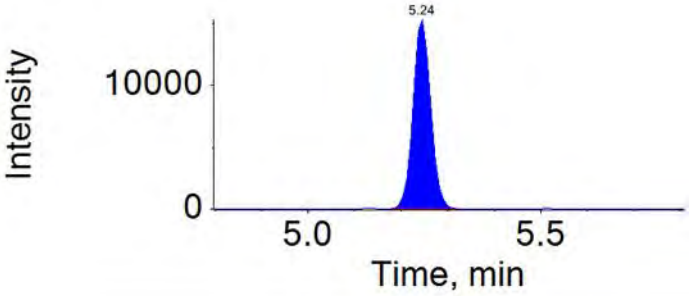
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



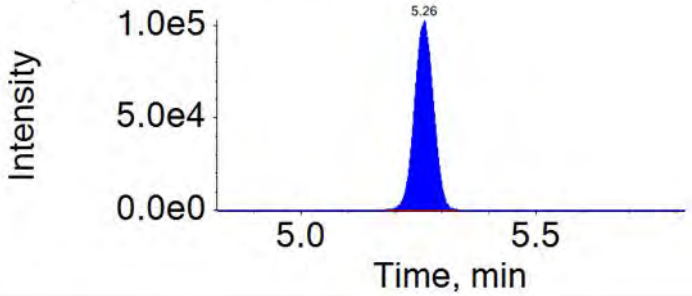
Component: PFOS
Primary Mass: 499.0 / 80.0



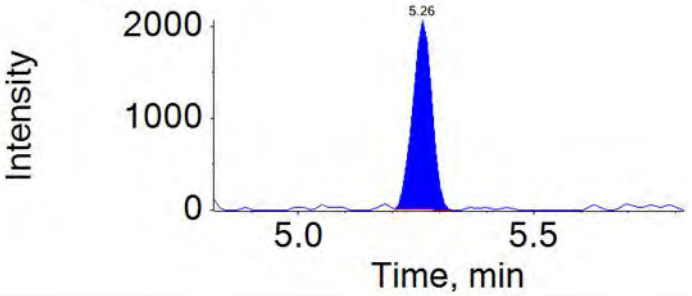
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Secondary Mass: 499.0 / 99.0



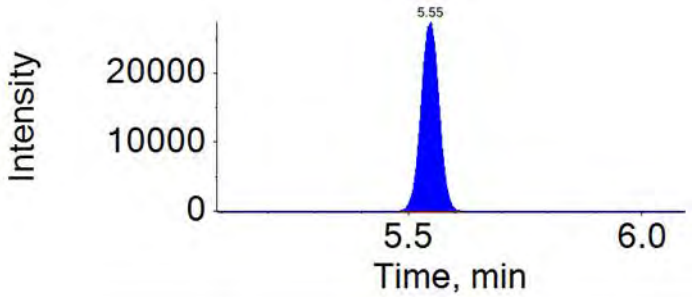
Component: PFNA
Primary Mass: 463.0 / 419.0



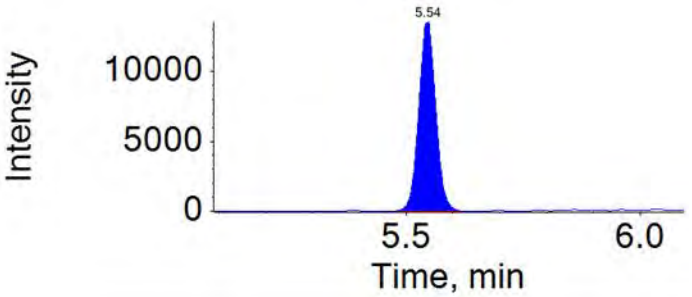
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



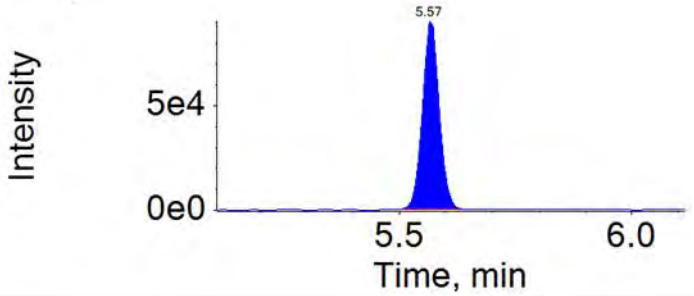
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Secondary Mass: 549.0 / 99.0



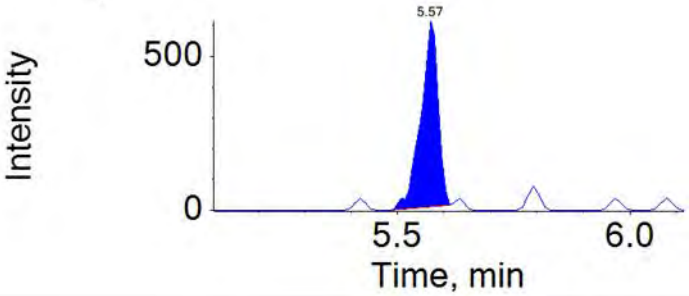
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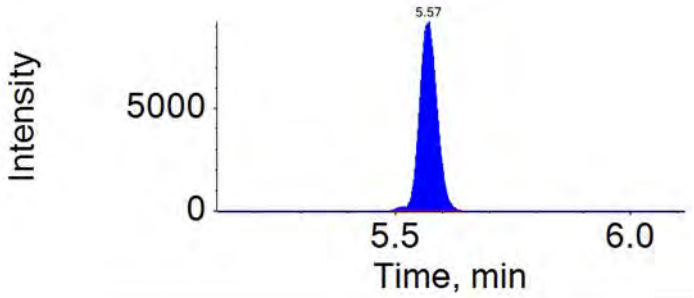
Component: PFDA
Primary Mass: 513.0 / 469.0



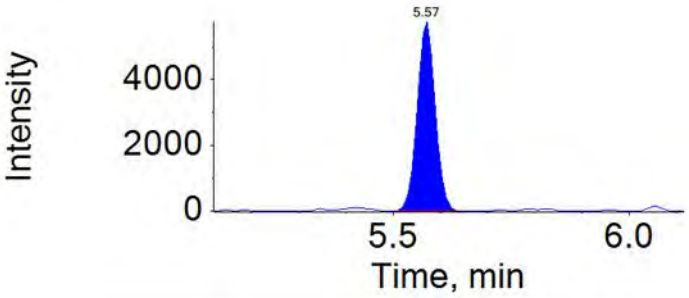
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Secondary Mass: 513.0 / 169.0



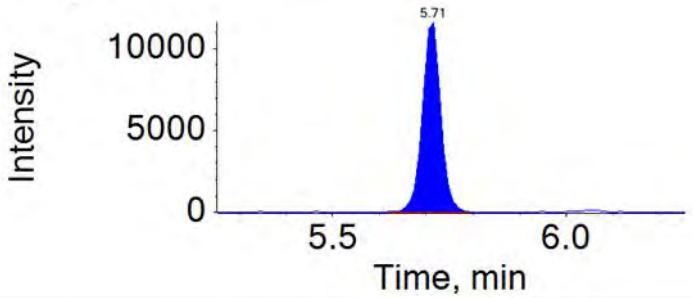
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



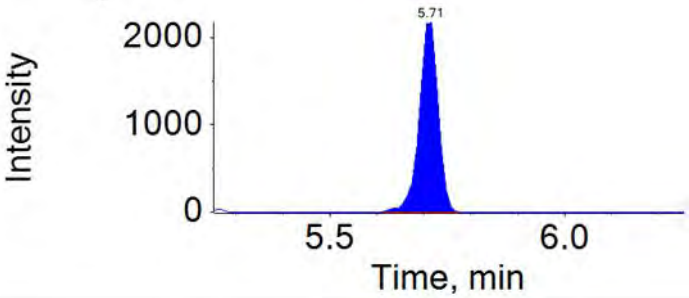
Component: 8:2-FTS_2
Secondary Mass: 527.0 / 81.0



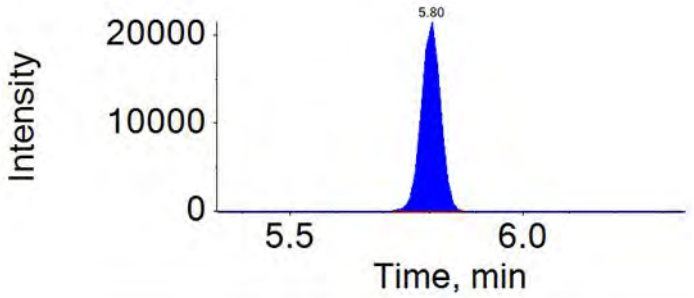
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



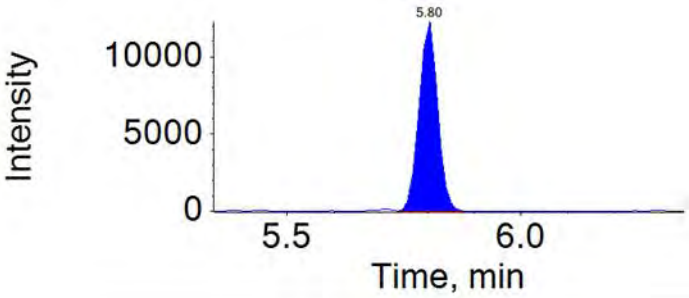
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



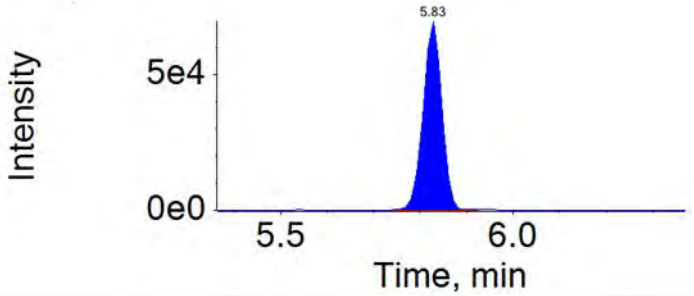
Component: PFDS_2
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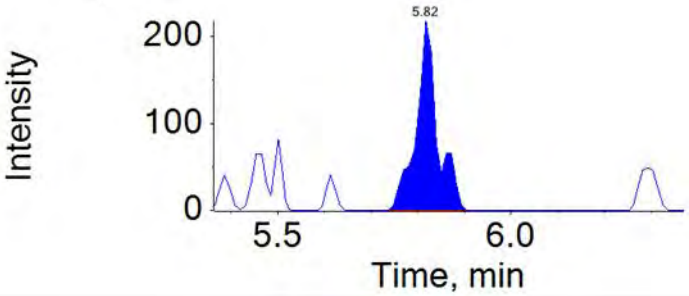
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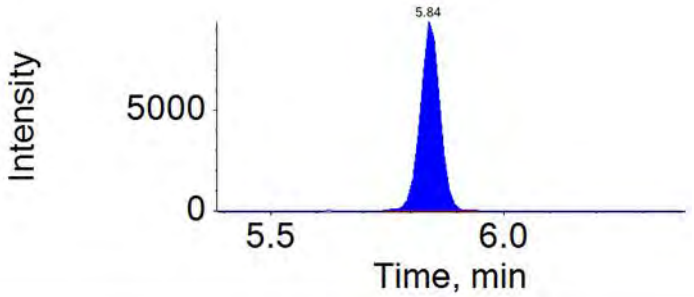
Component: PFUnDA
Primary Mass: 563.0 / 519.0



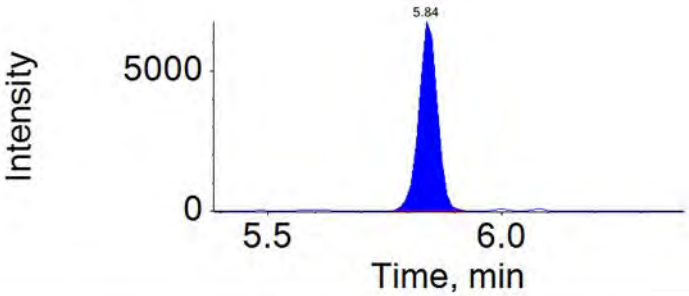
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Secondary Mass: 563.0 / 169.0



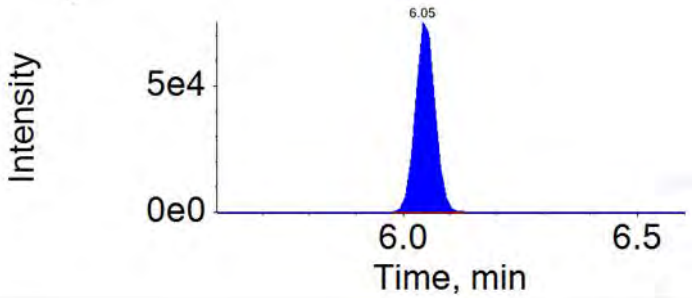
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



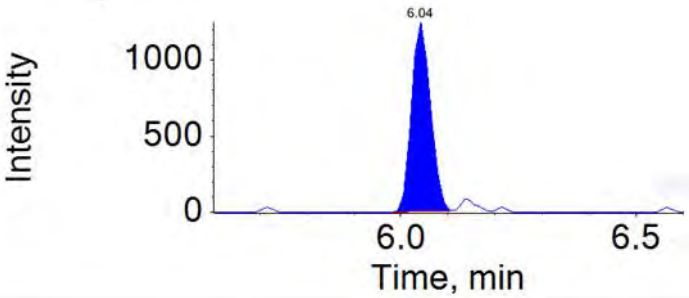
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



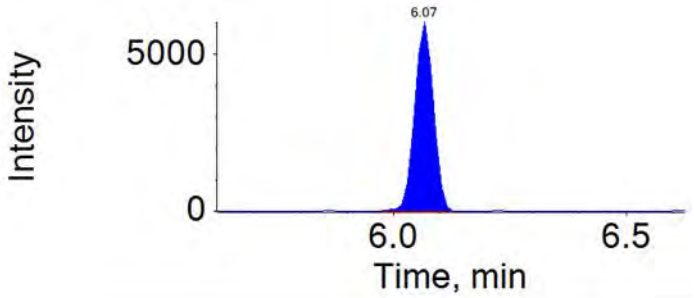
Component: PFDoDA
Primary Mass: 613.0 / 569.0



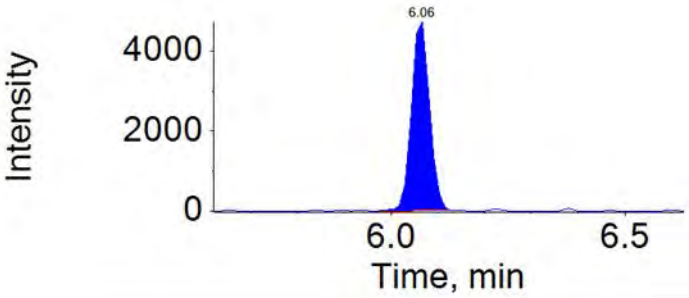
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



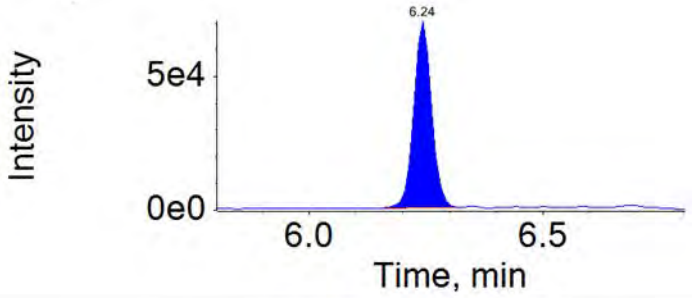
Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



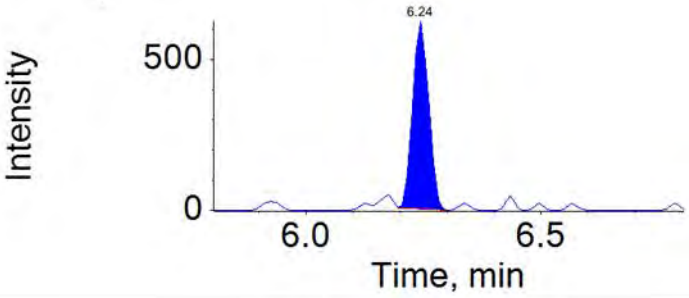
Component: 10:2-FTS_2
Secondary Mass: 627.0 / 81.0



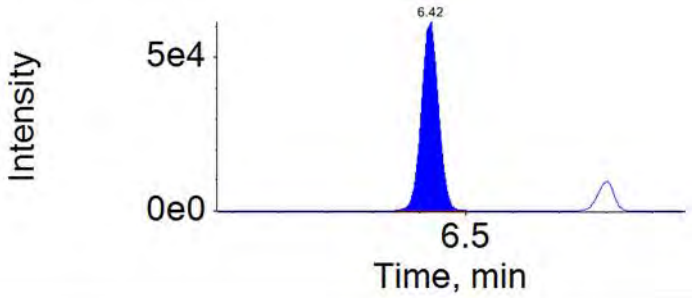
Component: PFTrDA
Primary Mass: 663.0 / 619.0



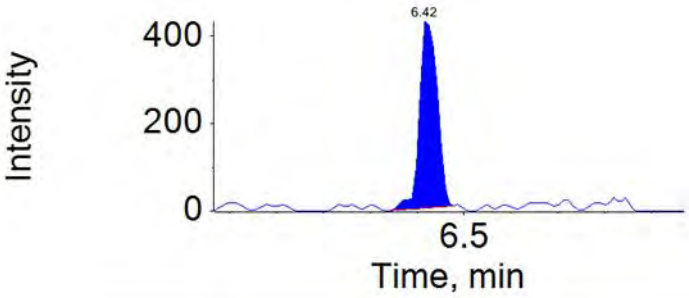
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



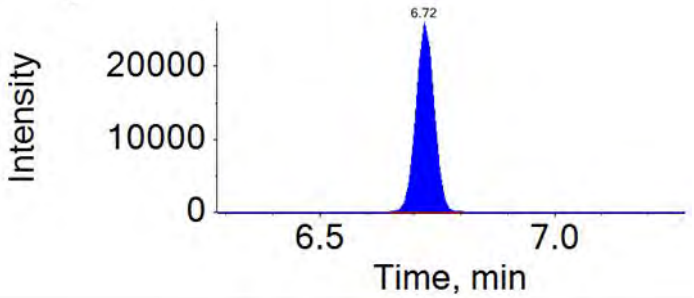
Component: PFTeDA
Primary Mass: 713.0 / 669.0



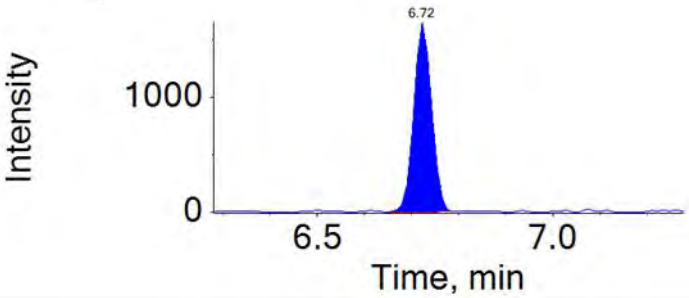
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



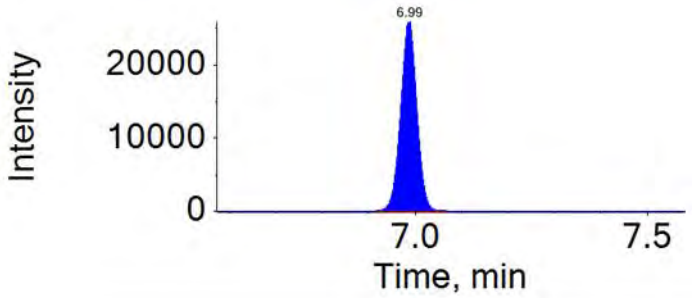
Component: PFHxDA
Primary Mass: 813.0 / 769.0



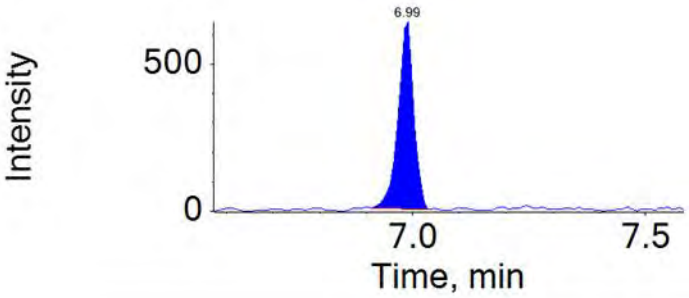
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



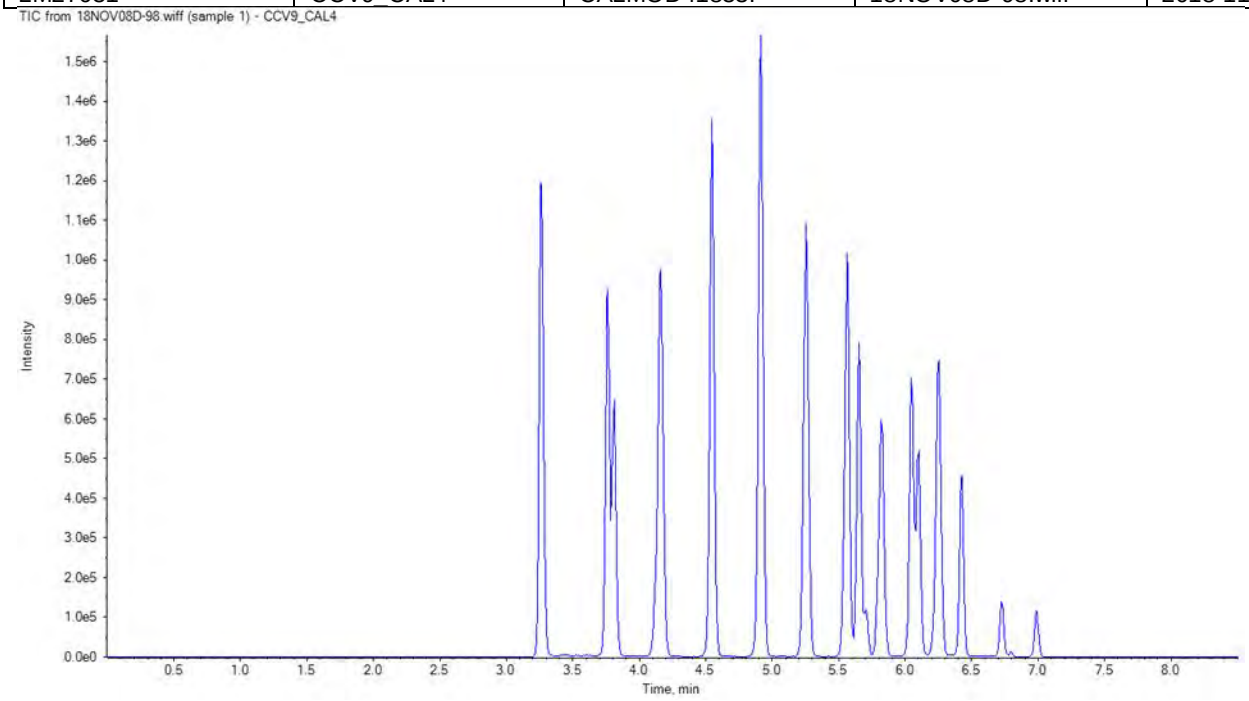
APPROVED
By JPT at 10:55 am, 11/9/18

REVIEWED
By umar at 3:41 pm, 11/12/18

Continuing Calibration Verfication

ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	CCV9_CAL4	CALMOD41833F	18NOV08D-98.wiff	2018-11-09T02:23:41



Injection Standard Area Reference File: 18NOV08D-05

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Reference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	741455.5	728839.7	2	50	
13C2-PFOA	5.0	497621.3	491983.1	1	50	
13C4-PFOS	4.8	277463.4	255568.1	9	50	
13C2-PFDA	5.0	310374.5	315407.5	-2	50	

APPROVED
By JPT at 10:55 am, 11/9/18

REVIEWED
By umar at 3:41 pm, 11/12/18

Continuing Calibration Verfication

ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	CCV9_CAL4	CALMOD41833F	18NOV08D-98.wiff	2018-11-09T02:23:41

Analyte Name	Analyte Area	Sc /pk	Ext Std Name	Ext Std Area	Ext Std con	Area Ratio	RT (min)	RRT	Spec Amt	Calc Amt	% Diff	% Diff Lim	% Diff OOS
PFBA	1177367.2	10	13C4-PFBA	805036.9	5.0	1.463	3.26	1.000	8.000	8.559	7	30	
PFPeA	1199606.7	12	13C5-PFPeA	816254.5	5.0	1.470	3.76	1.000	8.000	8.734	9	30	
PFBS	655034.7	11	13C3-PFBS	436095.9	4.7	1.502	3.81	1.000	7.080	7.573	7	30	
4:2-FTS	163905.4	11	13C2-4:2-FTS	56112.6	4.7	2.921	4.12	1.000	7.472	7.853	5	30	
PFHxA	1345026.8	12	13C5-PFHxA	698833.5	5.0	1.925	4.16	1.000	8.000	8.254	3	30	
PFPeS	340112.7	11	13C3-PFBS	436095.9	4.7	0.780	4.18	1.100	7.500	7.692	3	30	
PFHxS	509899.0	12	13C3-PFHxS	344016.0	4.7	1.482	4.55	1.000	7.560	7.513	-1	30	
PFHpA	1445409.9	12	13C4-PFHpA	558538.5	5.0	2.588	4.55	1.000	8.000	8.703	9	30	
6:2-FTS	127621.2	11	13C2-6:2-FTS	34576.4	4.8	3.691	4.90	1.000	7.584	9.208	21	30	
PFHpS	497691.3	11	13C3-PFHxS	344016.0	4.7	1.447	4.91	1.080	7.610	7.569	-1	30	
PFOA	1388094.5	11	13C8-PFOA	917664.7	5.0	1.513	4.92	1.000	8.000	8.517	6	30	
PFOS	470028.6	11	13C8-PFOS	297760.9	4.8	1.579	5.24	1.000	7.650	8.185	7	30	
PFNA	1129680.1	11	13C9-PFNA	514586.5	5.0	2.195	5.26	1.000	8.000	8.204	3	30	
PFNS	309702.8	10	13C8-PFOS	297760.9	4.8	1.040	5.54	1.060	7.680	8.247	7	30	
PFDA	941307.1	11	13C6-PFDA	626037.4	5.0	1.504	5.57	1.000	8.000	8.272	3	30	
8:2-FTS	103270.8	11	13C2-8:2-FTS	30324.3	4.8	3.406	5.57	1.000	7.664	7.676	0	30	
PFOSA	1111869.6	11	13C8-PFOSA	678033.1	5.0	1.640	5.65	1.000	8.000	8.864	11	30	
NMeFOSAA	134156.5	11	d3-NMeFOSAA	82369.0	5.0	1.629	5.71	1.000	8.000	8.381	5	30	
PFDS	241813.5	12	13C8-PFOS	297760.9	4.8	0.812	5.80	1.110	7.700	7.758	1	30	
PFUnDA	803352.1	12	13C7-PFUnDA	275136.7	5.0	2.920	5.82	1.000	8.000	8.373	5	30	
NEtFOSAA	123087.8	12	d5-NEtFOSAA	63104.8	5.0	1.951	5.84	1.000	8.000	8.383	5	30	
PFDoDA	882612.8	12	13C2-PFDoDA	591800.0	5.0	1.491	6.05	1.000	8.000	8.083	1	30	
10:2-FTS	74557.5	12	13C2-8:2-FTS	30324.3	4.8	2.459	6.06	1.090	7.712	7.656	-1	30	
NMePFOSAE	663960.0	11	d7-NMePFOSAE	346078.5	5.0	1.919	6.10	1.000	8.000	8.597	7	30	
NMePFOSA	133693.8	12	d3-NMePFOSA	82571.1	5.0	1.619	6.11	1.000	8.000	9.063	13	30	
PFDoS	115072.4	11	13C8-PFOS	297760.9	4.8	0.386	6.22	1.190	7.740	7.459	-4	30	
NEtPFOSAE	771582.3	11	d9-NEtPFOSAE	277641.9	5.0	2.779	6.26	1.000	8.000	8.909	11	30	
NEtPFOSA	120921.0	11	d5-NEtPFOSA	71632.1	5.0	1.688	6.27	1.000	8.000	7.435	-7	30	
PFTrDA	702504.0	11	13C2-PFDoDA	591800.0	5.0	1.187	6.25	1.030	8.000	7.486	-6	30	
PFTeDA	585138.5	11	13C2-PFTeDA	393961.7	5.0	1.485	6.42	1.000	8.000	8.722	9	30	
PFHxDA	280180.8	11	13C2-PFTeDA	393961.7	5.0	0.711	6.73	1.050	8.000	8.828	10	30	
PFODA	241980.2	10	13C2-PFTeDA	393961.7	5.0	0.614	6.99	1.090	8.000	8.800	10	30	

APPROVED
By JPT at 10:55 am, 11/9/18

REVIEWED
By umar at 3:41 pm, 11/12/18

Continuing Calibration Verfication

ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13
Result Table: 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
Acquisition Method: 18AUG13_3uL.dam

APPROVED
By JPT at 10:55 am, 11/9/18

REVIEWED
By umar at 3:41 pm, 11/12/18

ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13
Result Table: 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
Acquisition Method: 18AUG13_3uL.dam

Sample Name:	CCV9_CAL4			**Data File:**		18NOV08D-98.wiff
Sample ID:	CALMOD41833F			**Acquis Date:**		2018-11-09T02:23:41
Sample Type:	Quality Control			**Instrument:**		LM27631
Vial Position:	6			**Acquis Method:**		18AUG13_3uL.dam
Injection Vol:	3.00			**Result Table:**		18NOV08DCCV6-12
QMethod File:	MQ4-18AUG13			**ICAL Name:**		18NOV07DCAL
Batch Number:	N/A			**Operator:**		JPT12262
Sample Wt.:	1.00000			**Dilution Factor:**		1.00
Sample Vol.:	1.000			**Prep Factor:**		1.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV08D-05

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Rreference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	741455.5	728839.7	2	50	
13C2-PFOA	5.0	497621.3	491983.1	1	50	
13C4-PFOS	4.8	277463.4	255568.1	9	50	
13C2-PFDA	5.0	310374.5	315407.5	-2	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	805036.9	13C3-PFBA	741455.5	1.086	5.000	5.025	100	70-130	
E13C5-PFPeA	816254.5	13C3-PFBA	741455.5	1.101	5.000	4.796	96	70-130	
E13C3-PFBS	436095.9	13C3-PFBA	741455.5	0.588	4.650	4.317	93	70-130	
E13C2-4:2-FTS	56112.6	13C2-PFOA	497621.3	0.113	4.670	5.088	109	70-130	
E13C5-PFHxA	698833.5	13C2-PFOA	497621.3	1.404	5.000	5.166	103	70-130	
E13C3-PFHxS	344016.0	13C2-PFOA	497621.3	0.691	4.730	4.963	105	70-130	
E13C4-PFHpA	558538.5	13C2-PFOA	497621.3	1.122	5.000	5.106	102	70-130	
E13C2-6:2-FTS	34576.4	13C2-PFOA	497621.3	0.069	4.750	4.633	98	70-130	
E13C8-PFOA	917664.7	13C2-PFOA	497621.3	1.844	5.000	5.143	103	70-130	
E13C8-PFOS	297760.9	13C4-PFOS	277463.4	1.073	4.780	4.745	99	70-130	
E13C9-PFNA	514586.5	13C4-PFOS	277463.4	1.855	5.000	5.066	101	70-130	
E13C6-PFDA	626037.4	13C2-PFDA	310374.5	2.017	5.000	5.072	101	70-130	
E13C2-8:2-FTS	30324.3	13C2-PFDA	310374.5	0.098	4.790	5.170	108	70-130	
E13C8-PFOSA	678033.1	13C2-PFDA	310374.5	2.185	5.000	4.767	95	70-130	
Ed3-NMeFOSAA	82369.0	13C2-PFDA	310374.5	0.265	5.000	4.935	99	70-130	
E13C7-PFUnDA	275136.7	13C2-PFDA	310374.5	0.886	5.000	5.114	102	70-130	
Ed5-NEtFOSAA	63104.8	13C2-PFDA	310374.5	0.203	5.000	4.705	94	70-130	
E13C2-PFDoDA	591800.0	13C2-PFDA	310374.5	1.907	5.000	5.140	103	70-130	
Ed7-NMePFOSAE	346078.5	13C2-PFDA	310374.5	1.115	5.000	5.185	104	70-130	
Ed3-NMePFOSA	82571.1	13C2-PFDA	310374.5	0.266	5.000	4.870	97	70-130	
Ed9-NEtPFOSAE	277641.9	13C2-PFDA	310374.5	0.895	5.000	5.109	102	70-130	
Ed5-NEtPFOSA	71632.1	13C2-PFDA	310374.5	0.231	5.000	5.344	107	70-130	
E13C2-PFTeDA	393961.7	13C2-PFDA	310374.5	1.269	5.000	4.569	91	70-130	

APPROVED
By JPT at 10:55 am, 11/9/18

REVIEWED
By umar at 3:41 pm, 11/12/18

ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

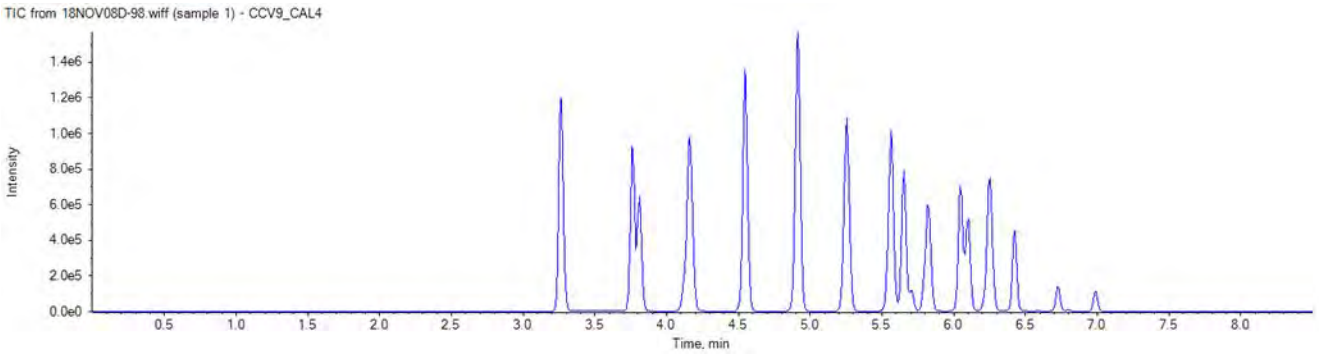
Analyte Quantitation Peak Table

Sample Name: CCV9_CAL4 **Instrument Name:** LM27631 **File Name:** 18NOV08D-98.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	1.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	3.26	1.000	1177367.2		A	13C4-PFBA	3.26	805036.9	1.463	8.559
PFPeA	3.76	1.000	1199606.7		A	13C5-PFPeA	3.76	816254.5	1.470	8.734
PFBS	3.81	1.000	655034.7		A	13C3-PFBS	3.81	436095.9	1.502	7.573
4:2-FTS	4.12	1.000	163905.4		A	13C2-4:2-FTS	4.12	56112.6	2.921	7.853
PFHxA	4.16	1.000	1345026.8		A	13C5-PFHxA	4.16	698833.5	1.925	8.254
PFPeS	4.18	1.100	340112.7		A	13C3-PFBS	3.81	436095.9	0.780	7.692
PFHxS	4.55	1.000	509899.0		A	13C3-PFHxS	4.55	344016.0	1.482	7.513
PFHpA	4.55	1.000	1445409.9		A	13C4-PFHpA	4.55	558538.5	2.588	8.703
6:2-FTS	4.90	1.000	127621.2		A	13C2-6:2-FTS	4.90	34576.4	3.691	9.208
PFHpS	4.91	1.080	497691.3		A	13C3-PFHxS	4.55	344016.0	1.447	7.569
PFOA	4.92	1.000	1388094.5		A	13C8-PFOA	4.91	917664.7	1.513	8.517
PFOS	5.24	1.000	470028.6		A	13C8-PFOS	5.24	297760.9	1.579	8.185
PFNA	5.26	1.000	1129680.1		A	13C9-PFNA	5.26	514586.5	2.195	8.204
PFNS	5.54	1.060	309702.8		A	13C8-PFOS	5.24	297760.9	1.040	8.247
PFDA	5.57	1.000	941307.1		A	13C6-PFDA	5.57	626037.4	1.504	8.272
8:2-FTS	5.57	1.000	103270.8		A	13C2-8:2-FTS	5.57	30324.3	3.406	7.676
PFOSA	5.65	1.000	1111869.6		A	13C8-PFOSA	5.65	678033.1	1.640	8.864
NMeFOSAA	5.71	1.000	134156.5		A	d3-NMeFOSAA	5.70	82369.0	1.629	8.381
PFDS	5.80	1.110	241813.5		A	13C8-PFOS	5.24	297760.9	0.812	7.758
PFUnDA	5.82	1.000	803352.1		A	13C7-PFUnDA	5.82	275136.7	2.920	8.373
NEtFOSAA	5.84	1.000	123087.8		A	d5-NEtFOSAA	5.83	63104.8	1.951	8.383
PFDoDA	6.05	1.000	882612.8		A	13C2-PFDoDA	6.05	591800.0	1.491	8.083
10:2-FTS	6.06	1.090	74557.5		A	13C2-8:2-FTS	5.57	30324.3	2.459	7.656
NMePFOSAE	6.10	1.000	663960.0		A	d7-NMePFOSAE	6.09	346078.5	1.919	8.597
NMePFOSA	6.11	1.000	133693.8		A	d3-NMePFOSA	6.10	82571.1	1.619	9.063
PFDoS	6.22	1.190	115072.4		A	13C8-PFOS	5.24	297760.9	0.386	7.459
NEtPFOSAE	6.26	1.000	771582.3		A	d9-NEtPFOSAE	6.24	277641.9	2.779	8.909
NEtPFOSA	6.27	1.000	120921.0		A	d5-NEtPFOSA	6.26	71632.1	1.688	7.435
PFTrDA	6.25	1.030	702504.0		A	13C2-PFDoDA	6.05	591800.0	1.187	7.486
PFTeDA	6.42	1.000	585138.5		A	13C2-PFTeDA	6.42	393961.7	1.485	8.722
PFHxDA	6.73	1.050	280180.8		A	13C2-PFTeDA	6.42	393961.7	0.711	8.828
PFODA	6.99	1.090	241980.2		A	13C2-PFTeDA	6.42	393961.7	0.614	8.800

Total Ion Chromatogram

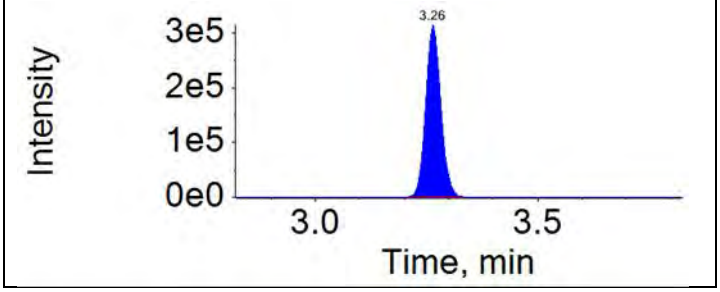


APPROVED
By JPT at 10:55 am, 11/9/18

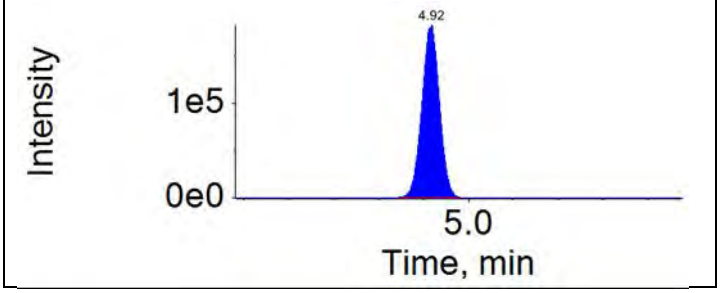
REVIEWED
By umar at 3:41 pm, 11/12/18

ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

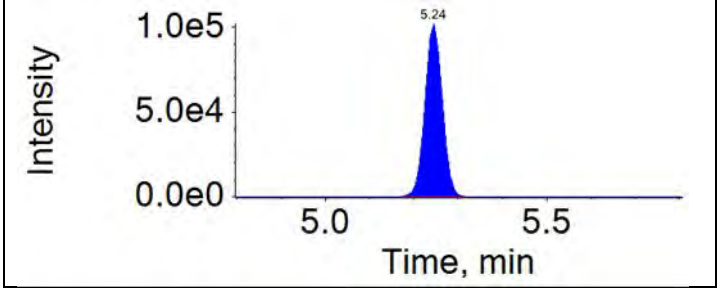
Injection Standard: 13C3-PFBA
216.0 / 172.0



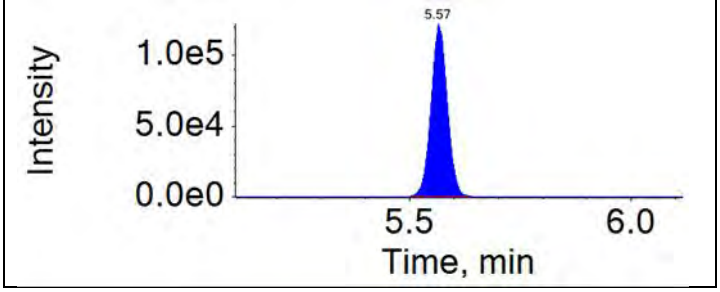
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0



Injection Standard: 13C2-PFDA
515.0 / 470.0

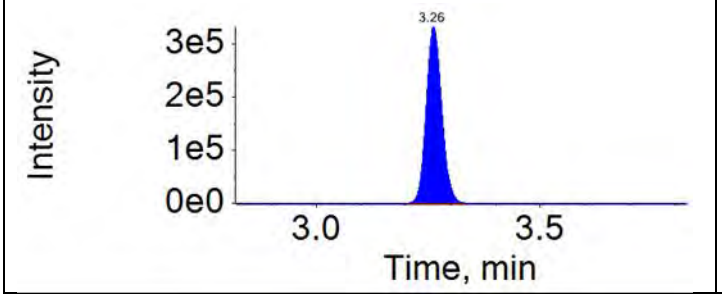


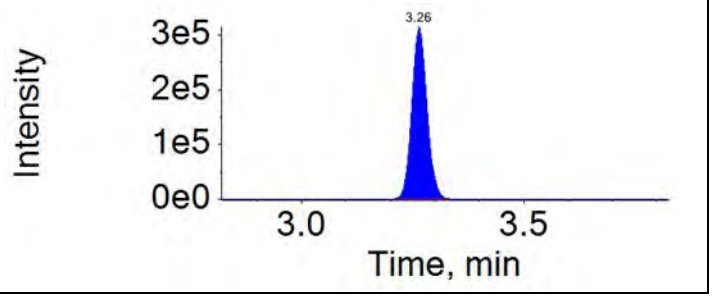
APPROVED
By JPT at 10:55 am, 11/9/18

REVIEWED
By umar at 3:41 pm, 11/12/18

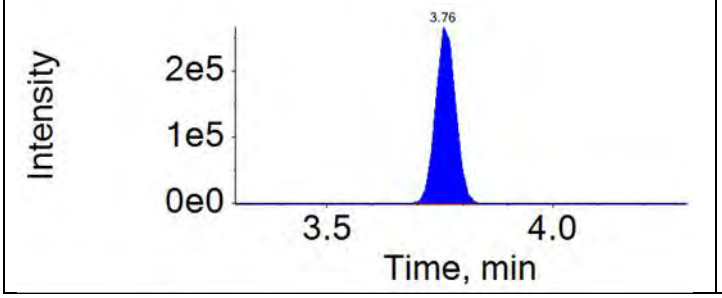
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

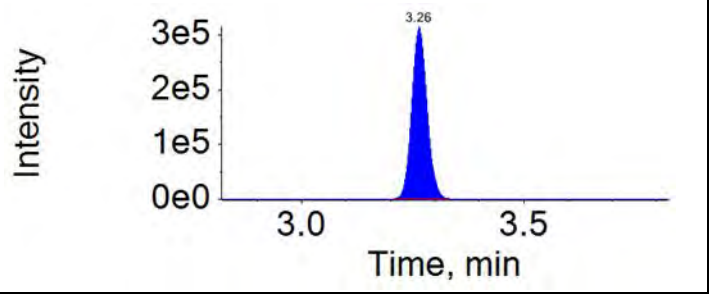
Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0



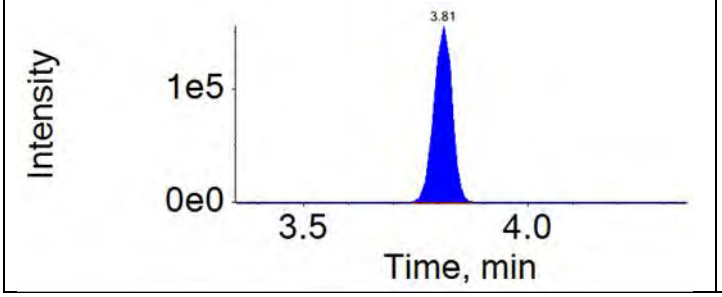


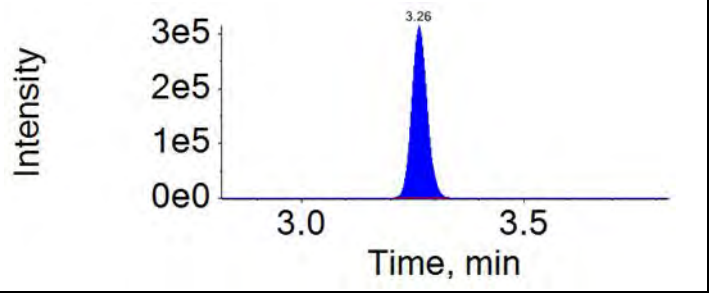
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268.0 / 223.0	216.0 / 172.0



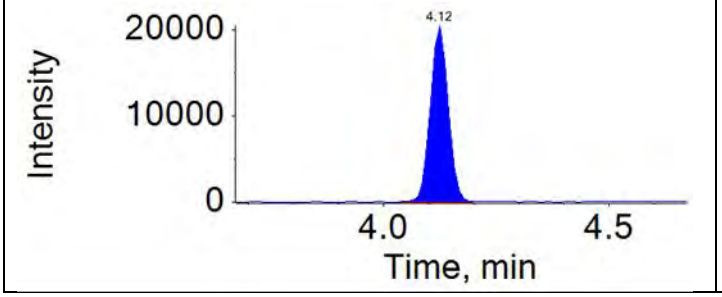


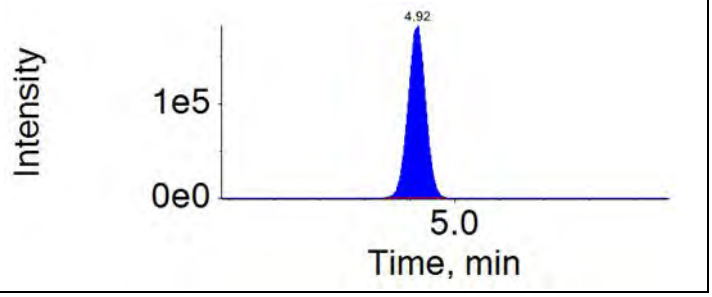
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0





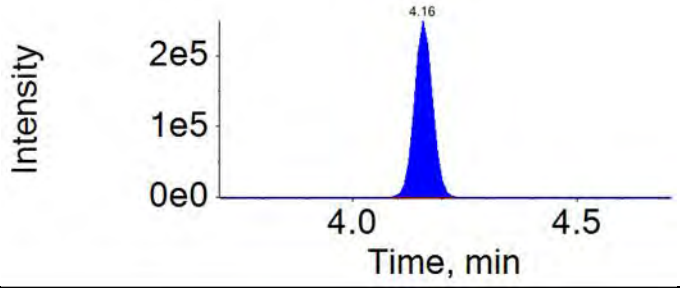
Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0

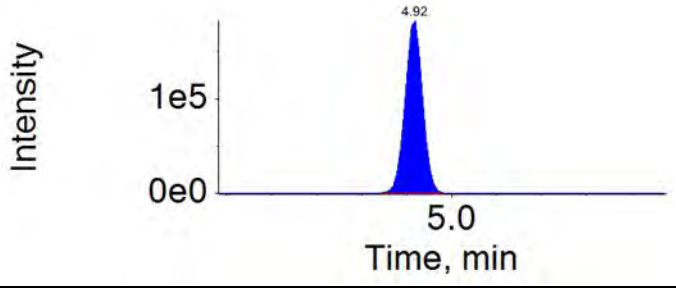




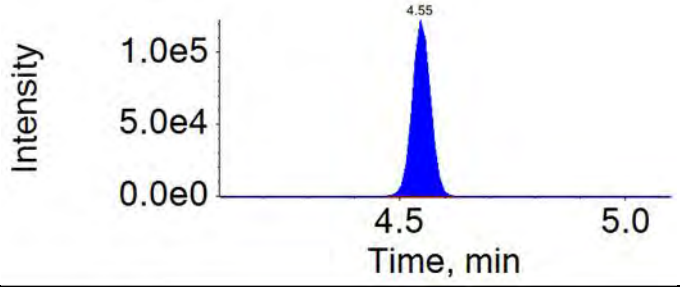
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

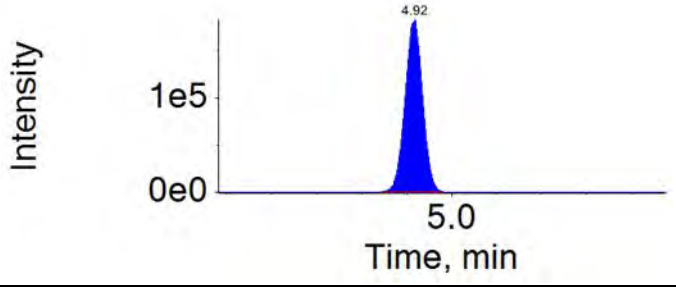
Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0



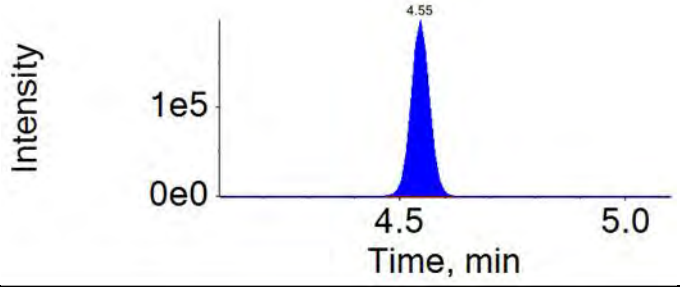


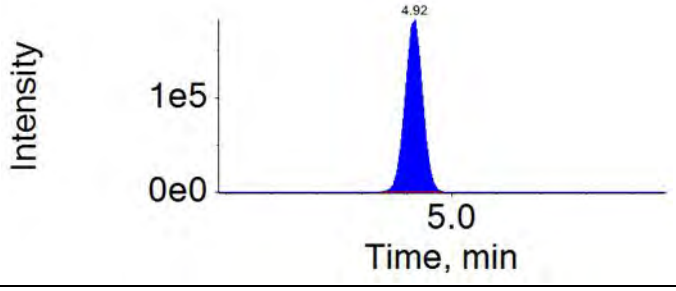
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0



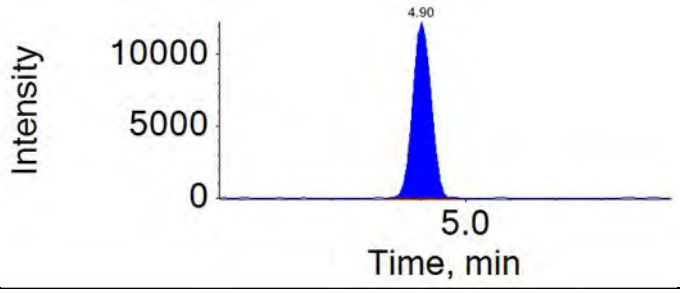


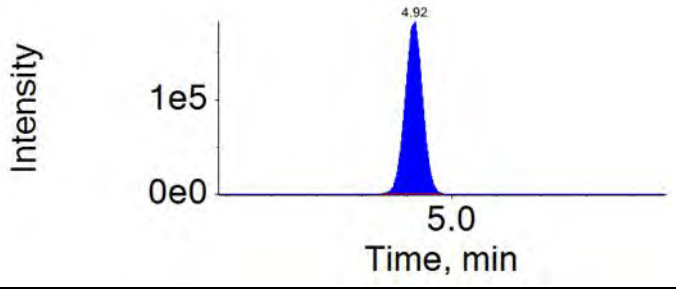
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0





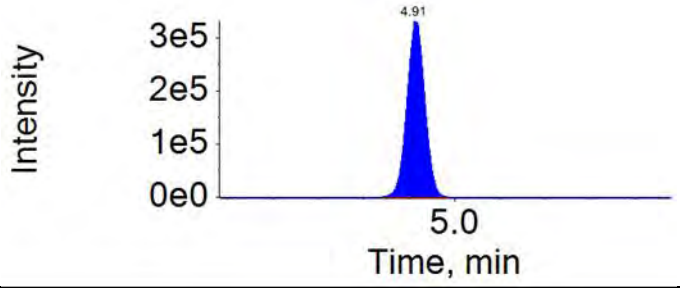
Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0

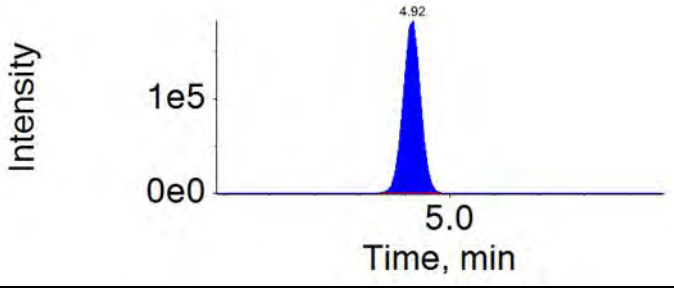




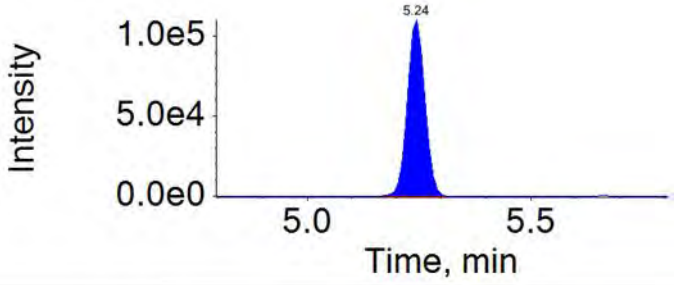
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

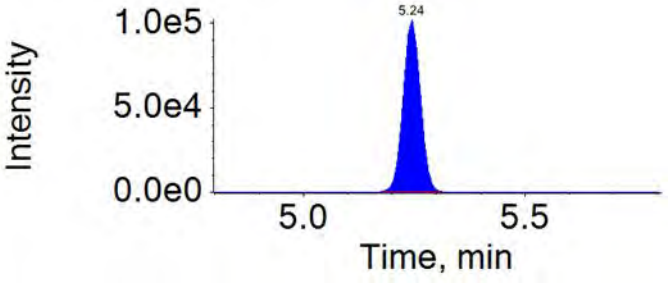
Extraction Standard: E13C8-PFOA	Injection Standard: 13C2-PFOA
421.0 / 376.0	415.0 / 370.0



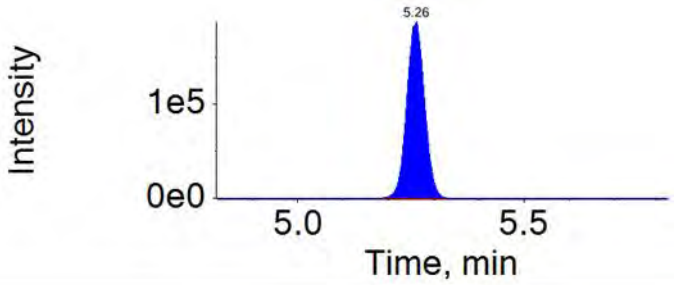


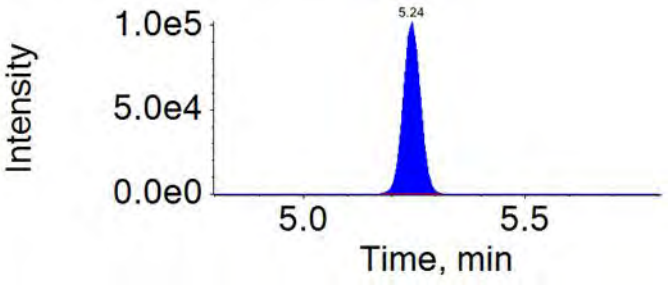
Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0



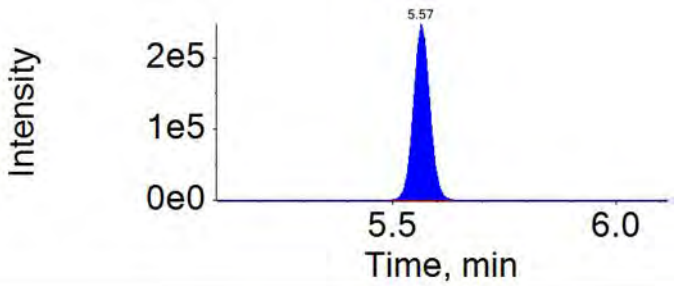


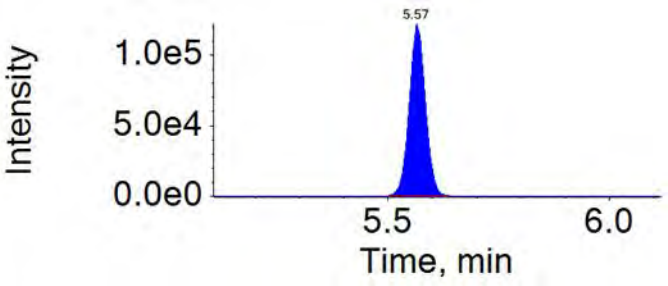
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0





Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0



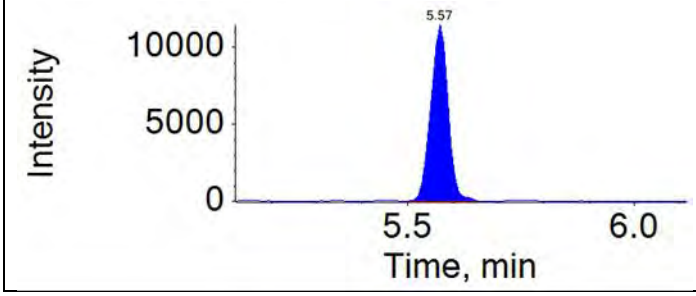


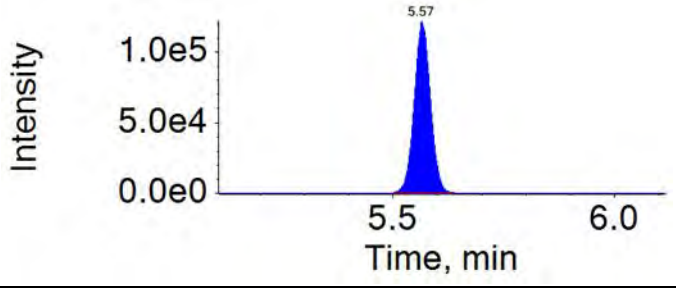
APPROVED
By JPT at 10:55 am, 11/9/18

REVIEWED
By umar at 3:41 pm, 11/12/18

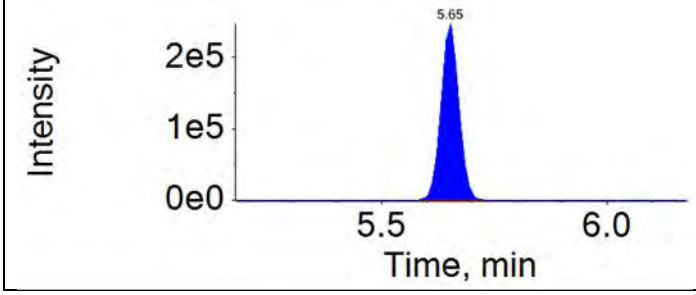
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

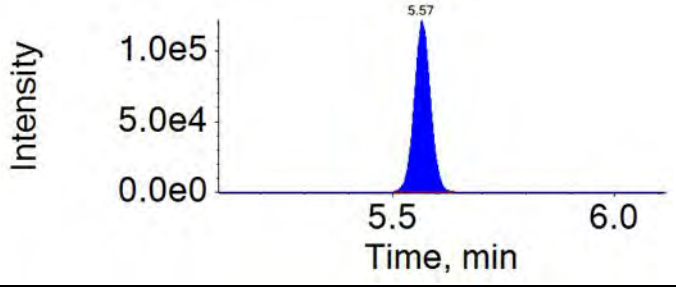
Extraction Standard: E13C2-8:2-FTS	Injection Standard: 13C2-PFDA
529.0 / 81.0	515.0 / 470.0



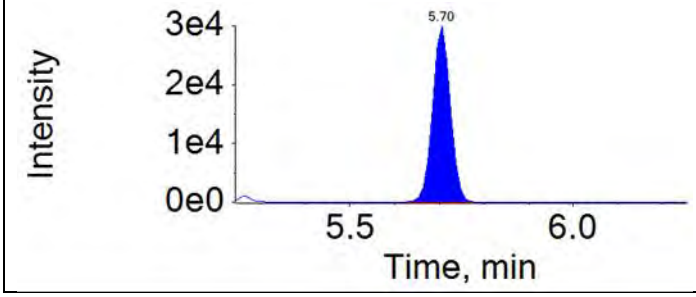


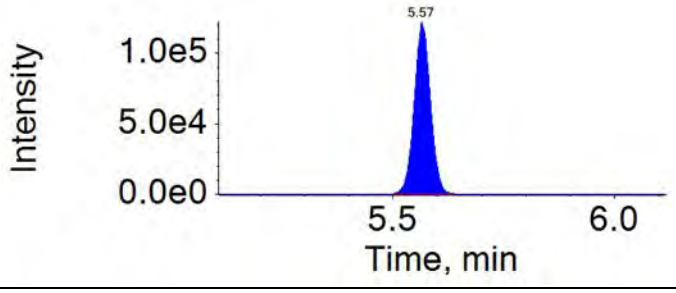
Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0



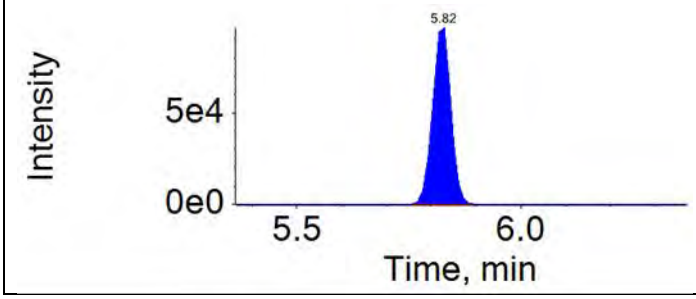


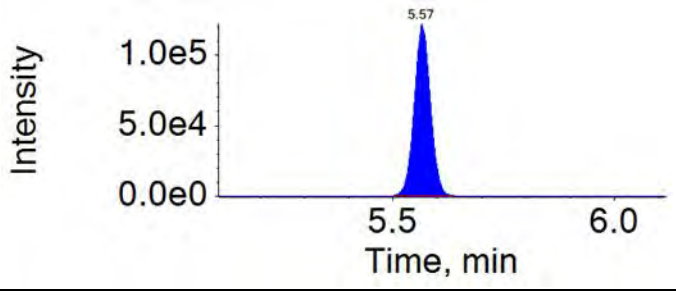
Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0





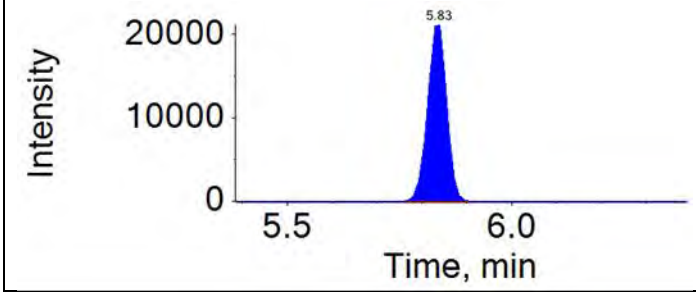
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570.0 / 525.0	515.0 / 470.0

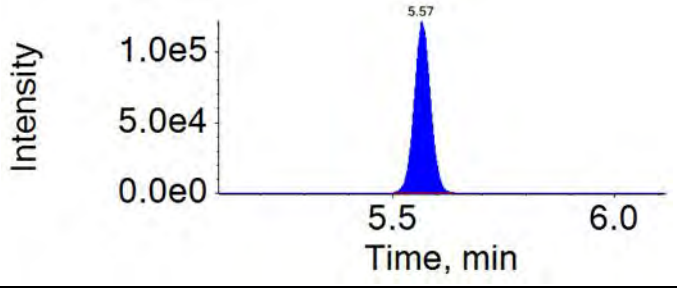




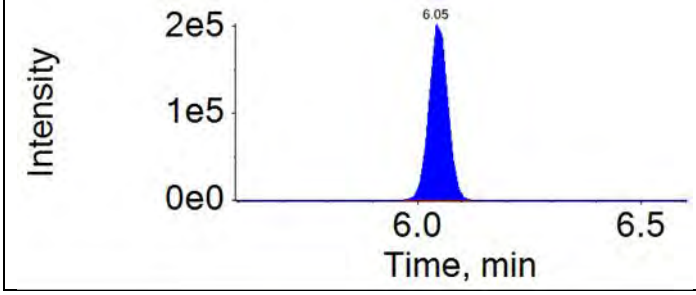
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

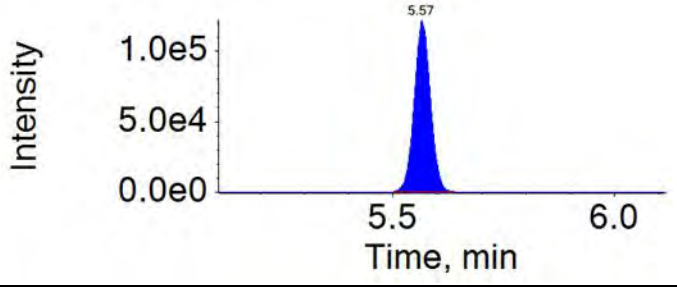
Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0



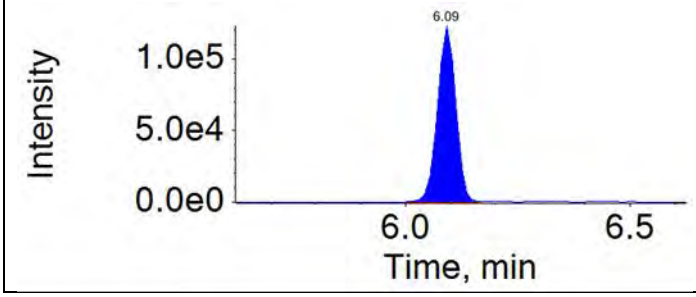


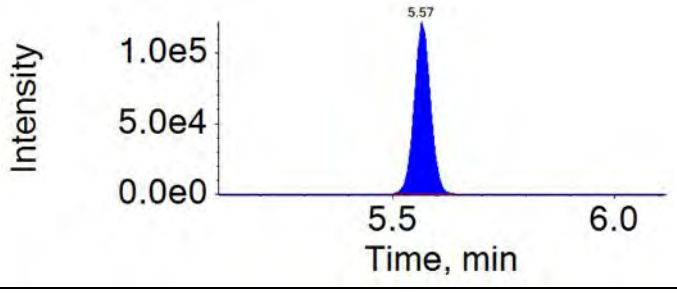
Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0



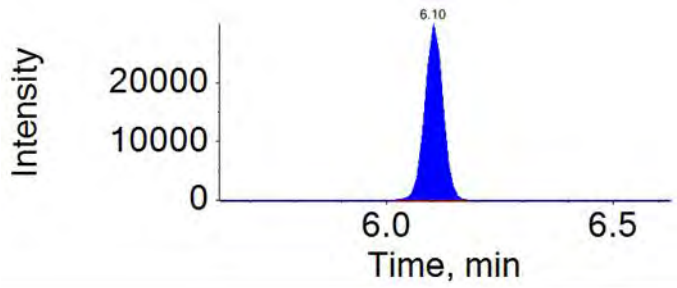


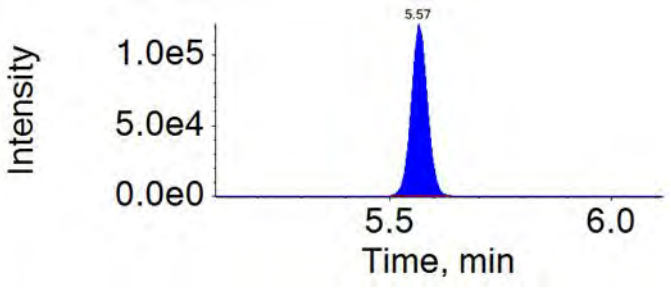
Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0





Extraction Standard: Ed3-NMePFOSA	Injection Standard: 13C2-PFDA
515.0 / 169.0	515.0 / 470.0



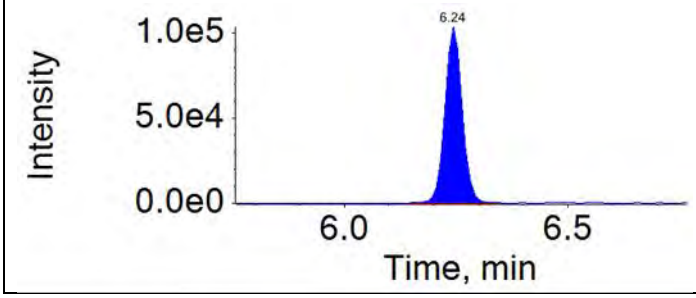


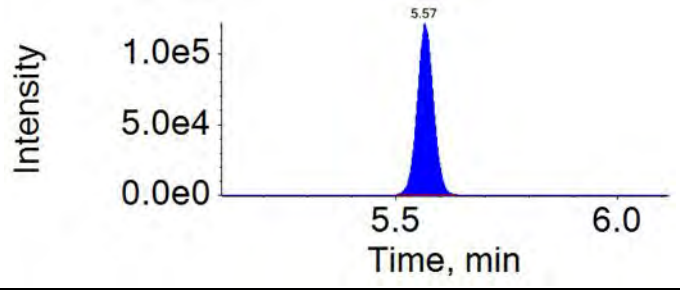
APPROVED
By JPT at 10:55 am, 11/9/18

REVIEWED
By umar at 3:41 pm, 11/12/18

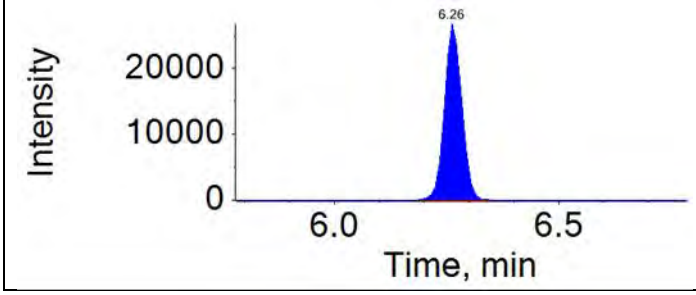
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

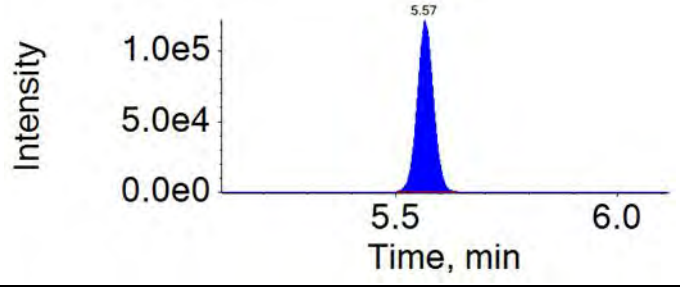
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



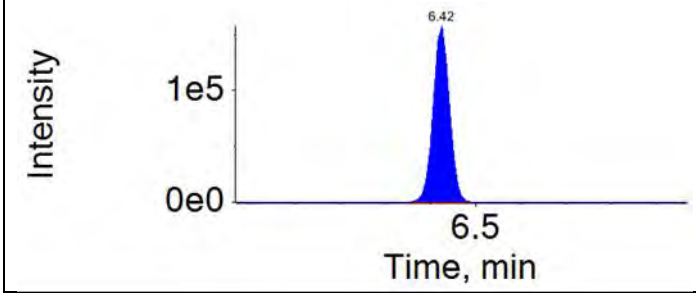


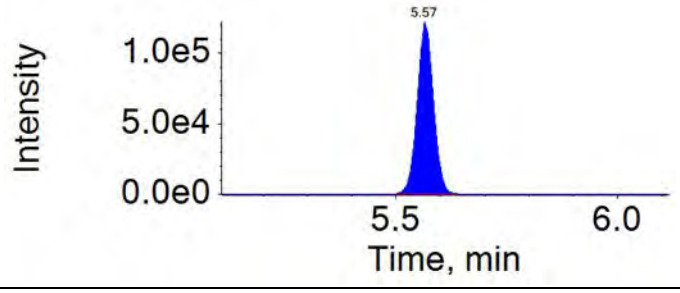
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0



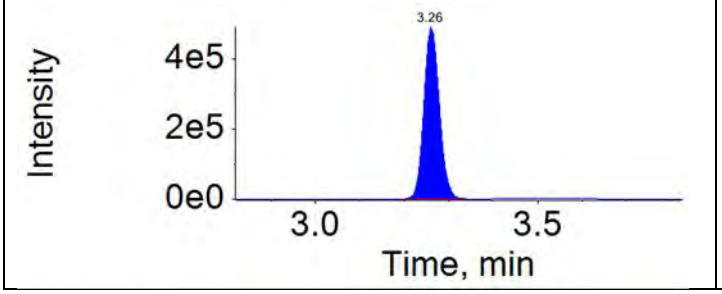


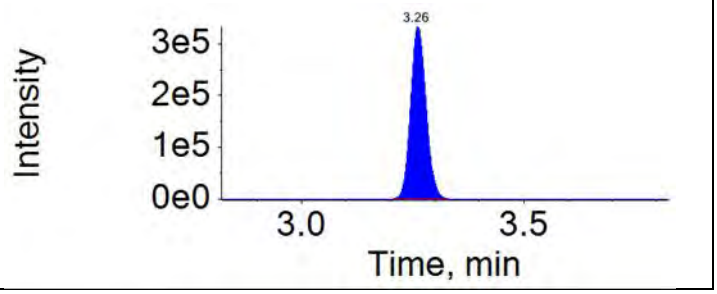
APPROVED
By JPT at 10:55 am, 11/9/18

REVIEWED
By umar at 3:41 pm, 11/12/18

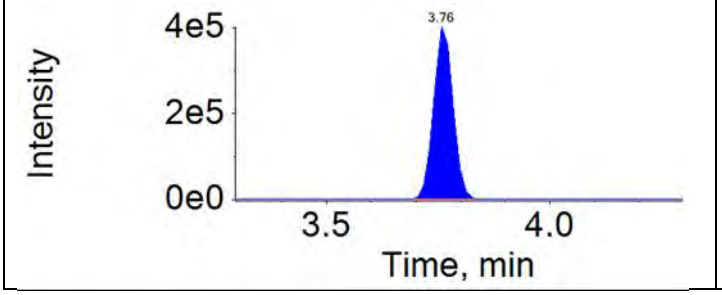
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

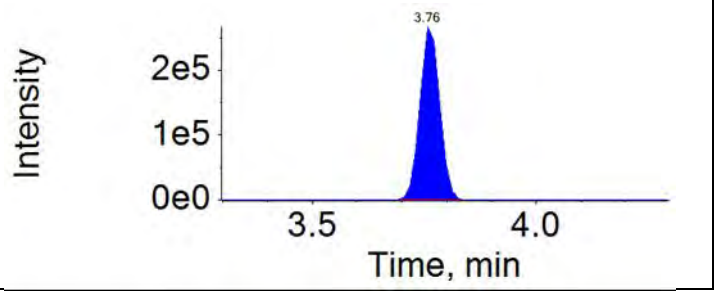
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



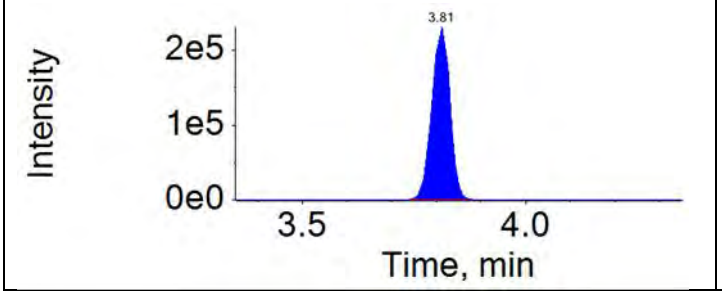


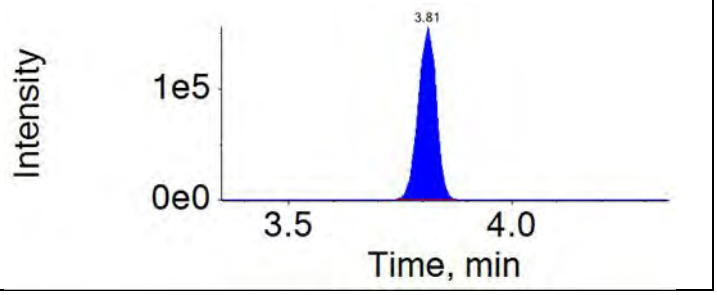
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



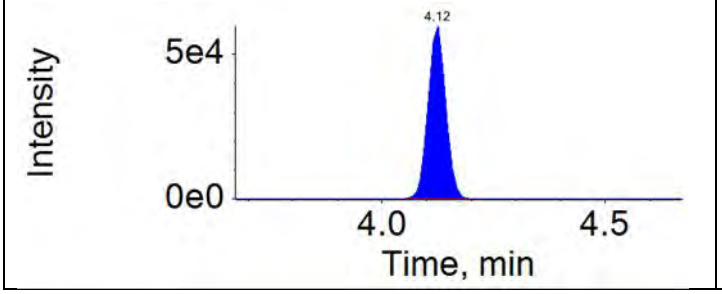


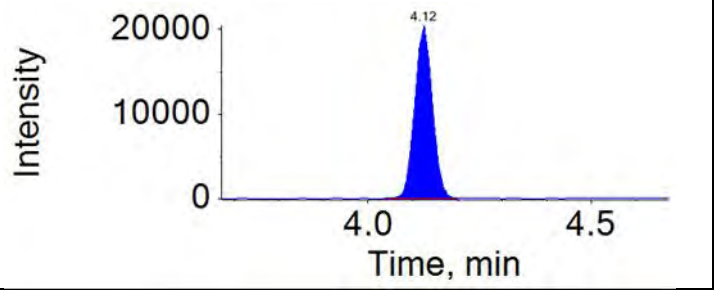
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





Analyte: 4:2-FTS	Extraction Standard: 13C2-4:2-FTS
327.0 / 307.0	329.0 / 81.0



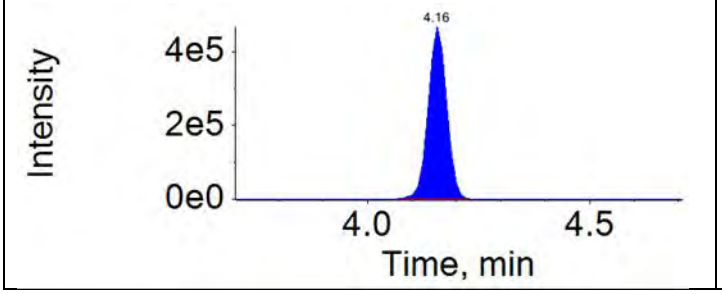


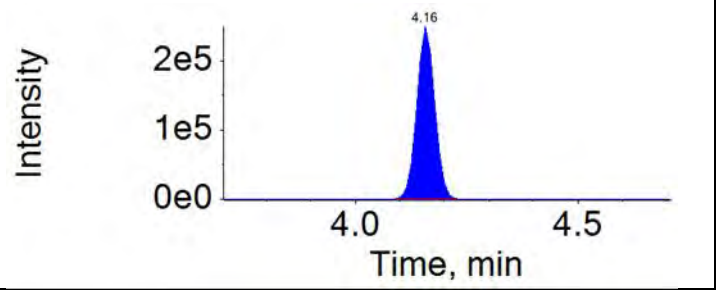
APPROVED
By JPT at 10:55 am, 11/9/18

REVIEWED
By umar at 3:41 pm, 11/12/18

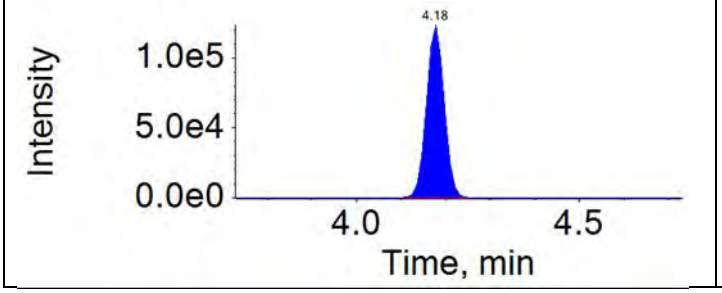
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

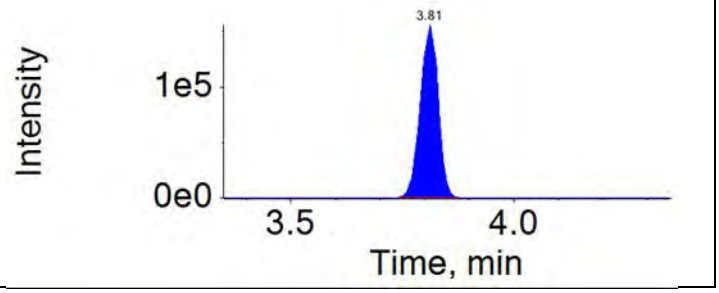
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



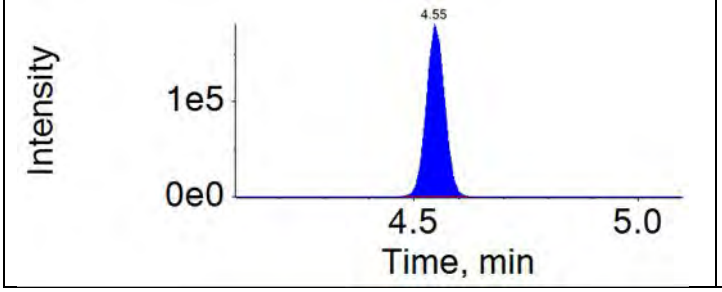


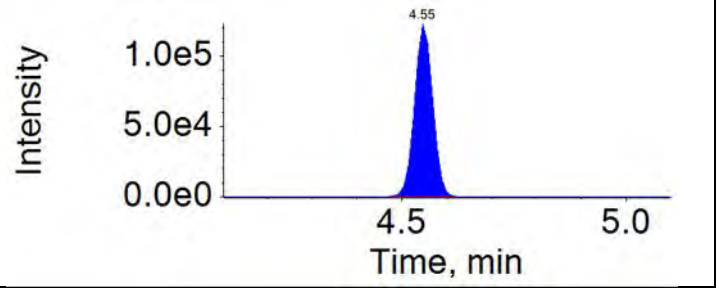
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



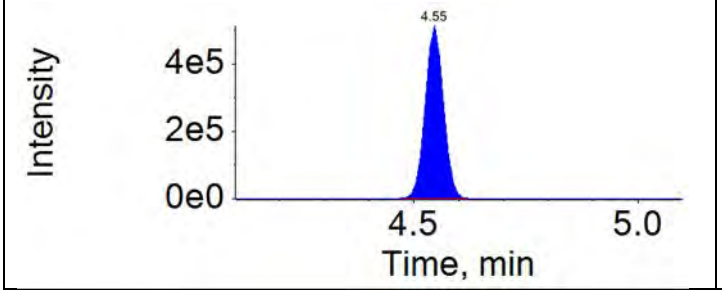


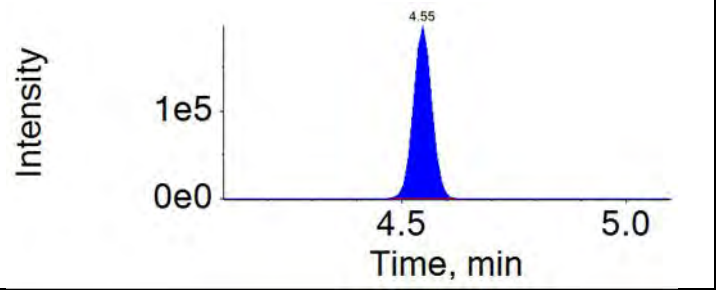
Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0





Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0



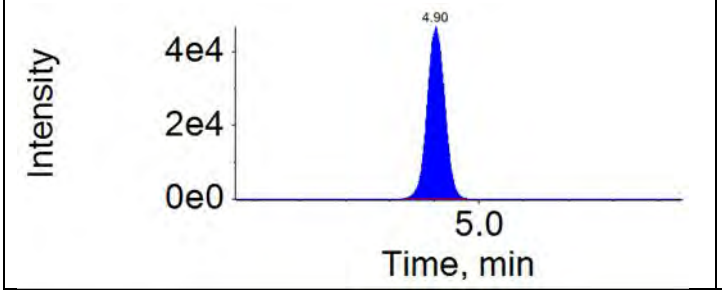


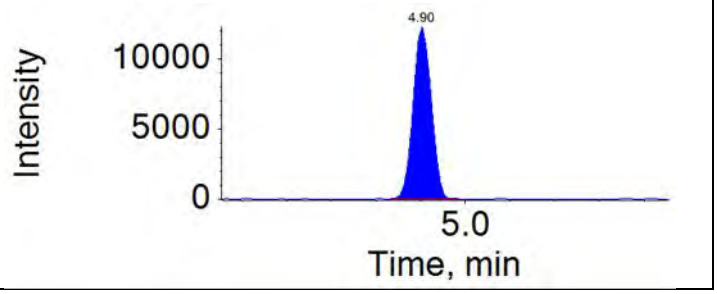
APPROVED
By JPT at 10:55 am, 11/9/18

REVIEWED
By umar at 3:41 pm, 11/12/18

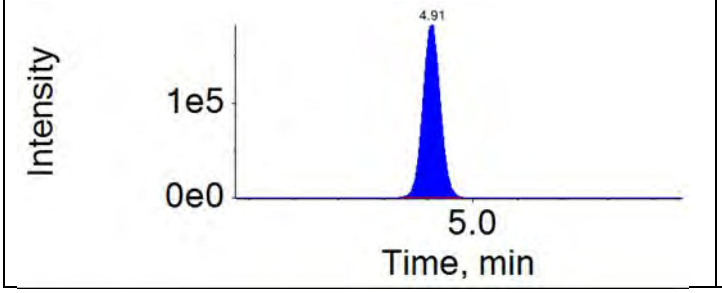
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

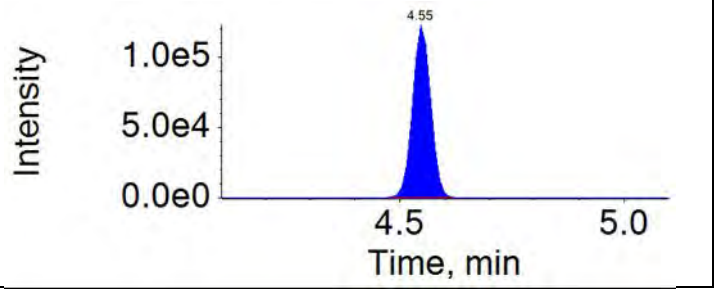
Analyte: 6:2-FTS	Extraction Standard: 13C2-6:2-FTS
427.0 / 407.0	429.0 / 81.0



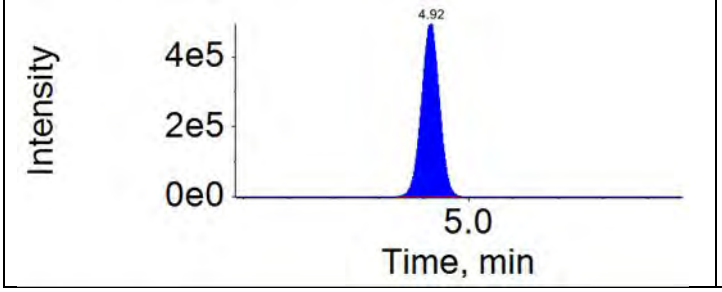


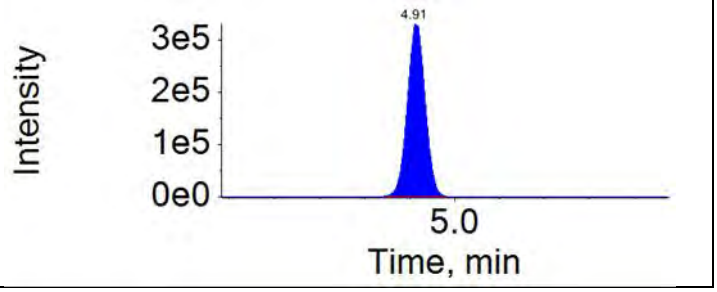
Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0



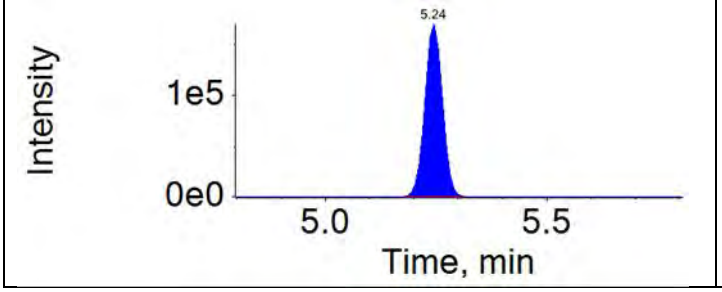


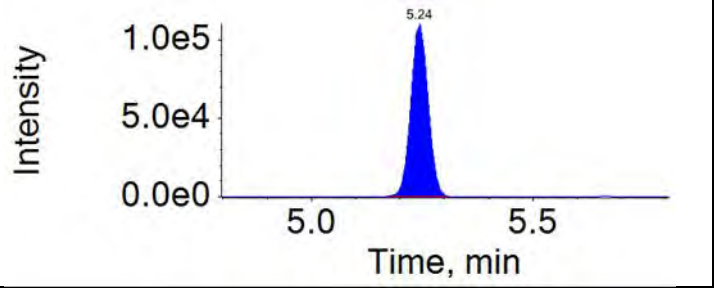
Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0





Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0



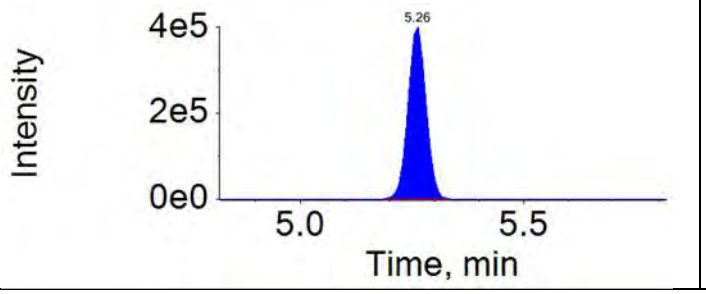


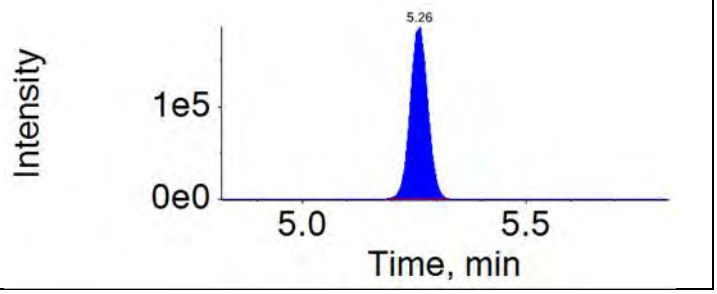
APPROVED
By JPT at 10:55 am, 11/9/18

REVIEWED
By umar at 3:41 pm, 11/12/18

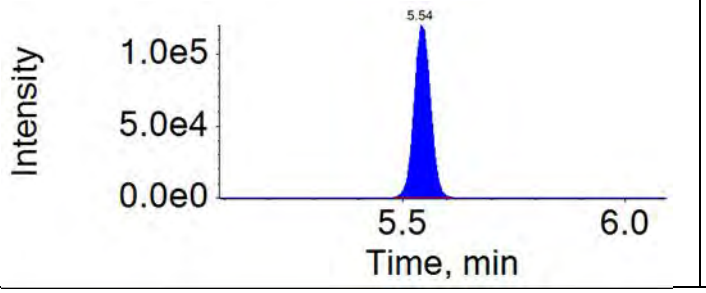
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

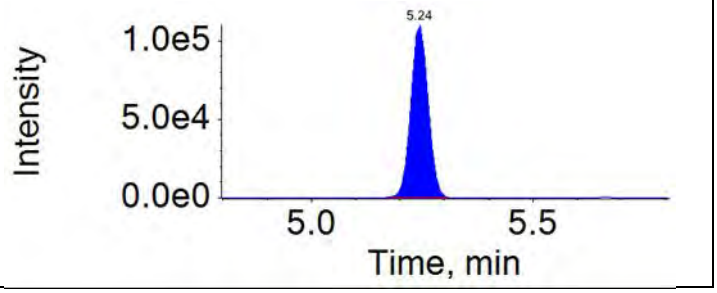
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



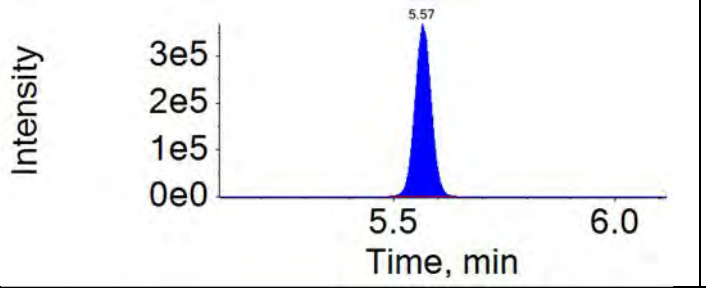


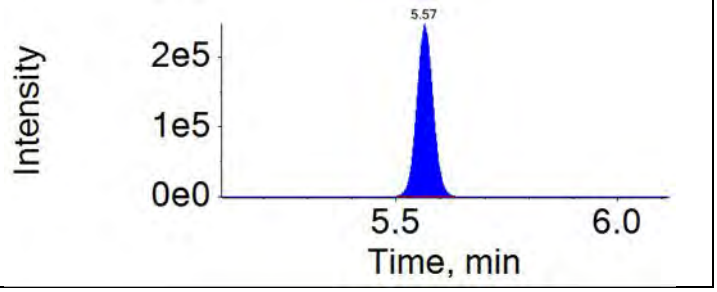
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



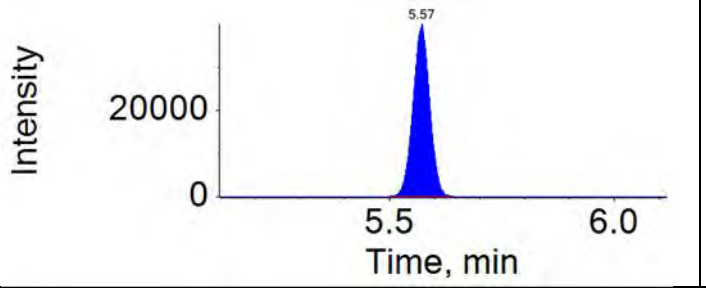


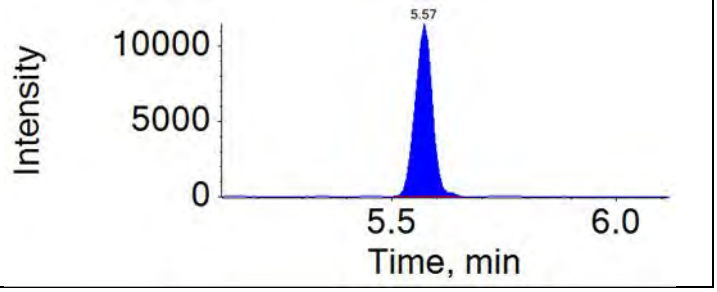
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





Analyte: 8:2-FTS	Extraction Standard: 13C2-8:2-FTS
527.0 / 507.0	529.0 / 81.0

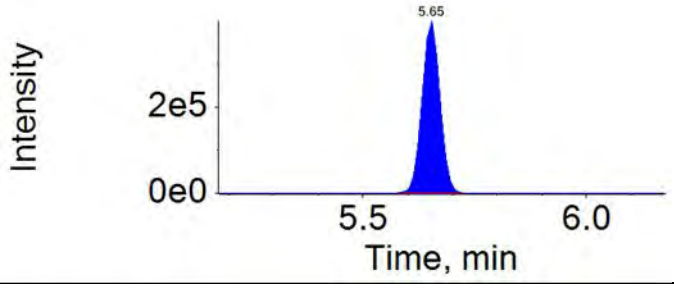
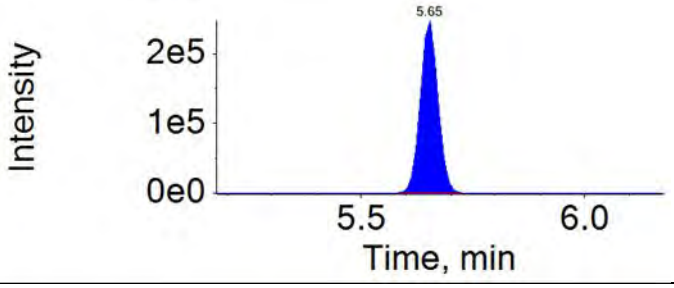


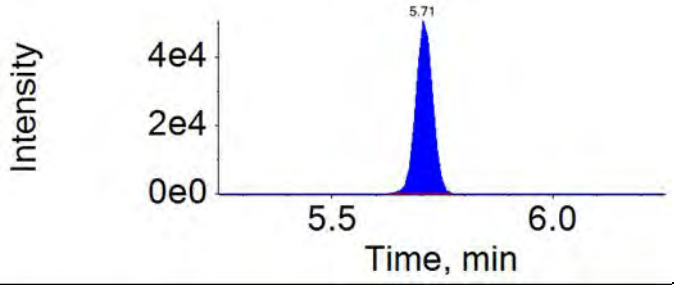
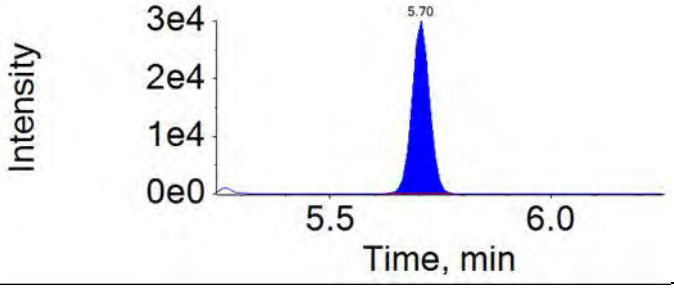


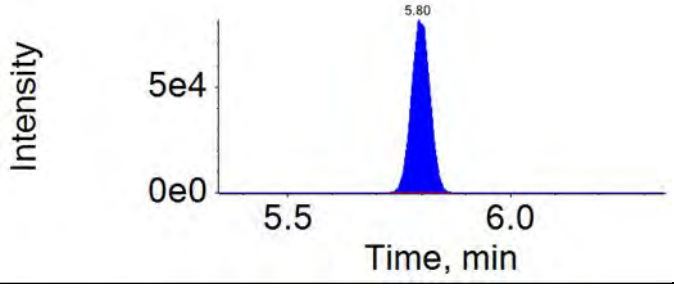
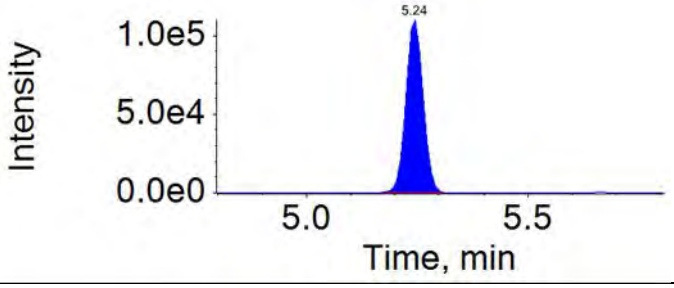
APPROVED
By JPT at 10:55 am, 11/9/18

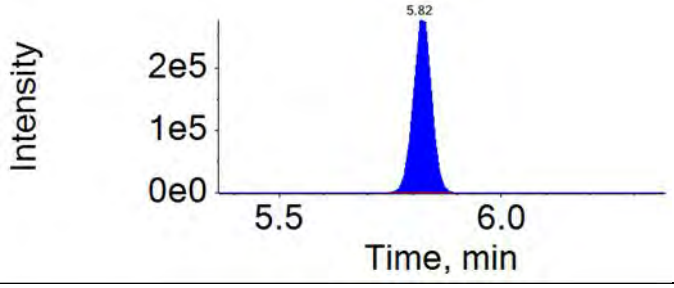
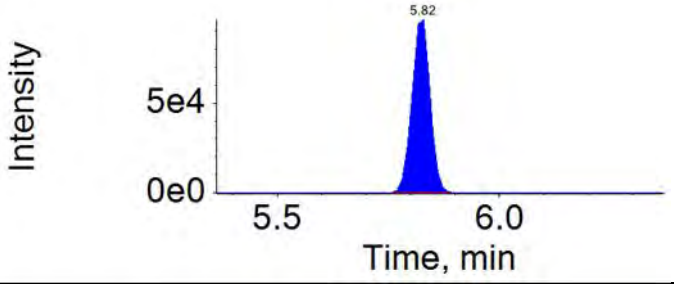
REVIEWED
By umar at 3:41 pm, 11/12/18

ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0
	

Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0
	

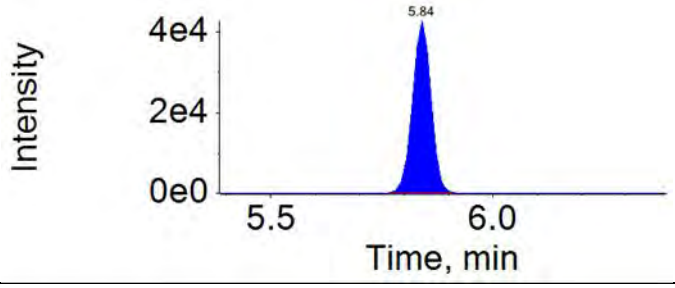
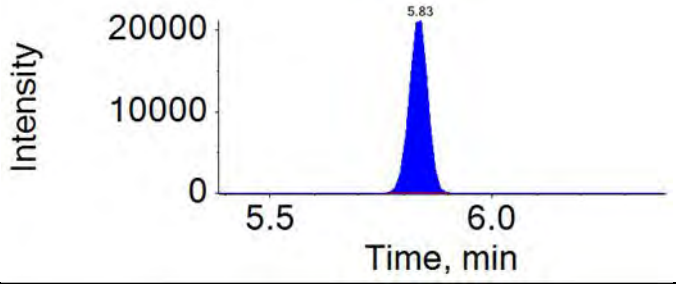
Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0
	

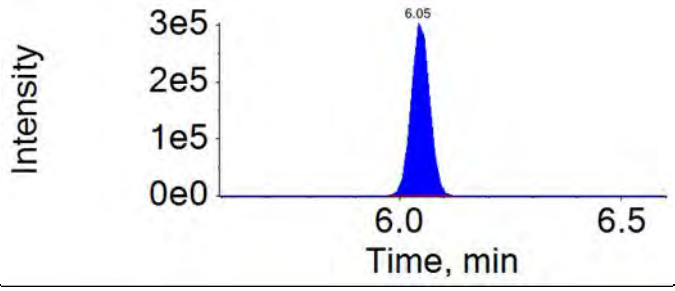
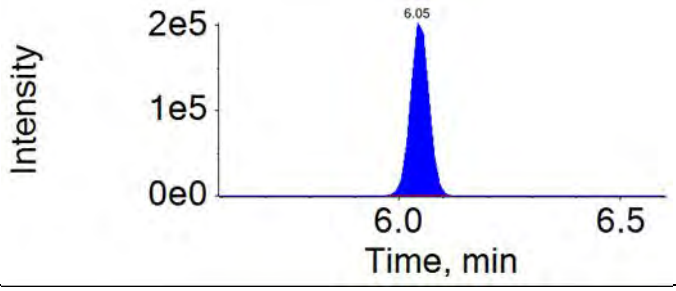
Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0
	

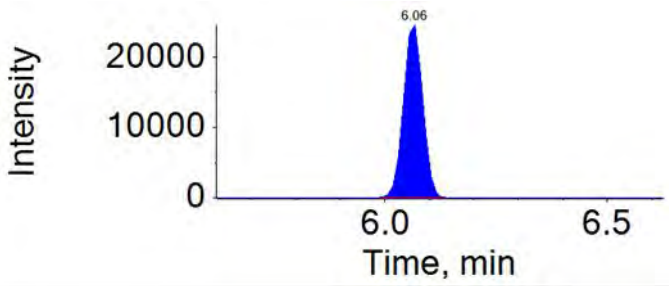
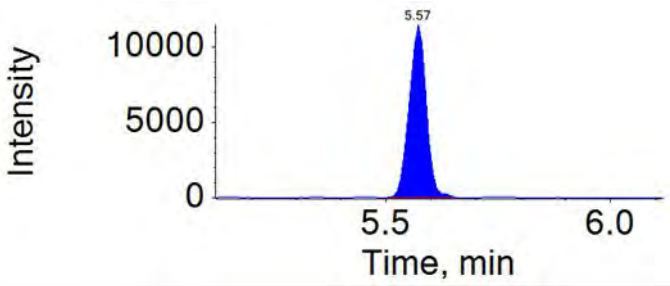
APPROVED
By JPT at 10:55 am, 11/9/18

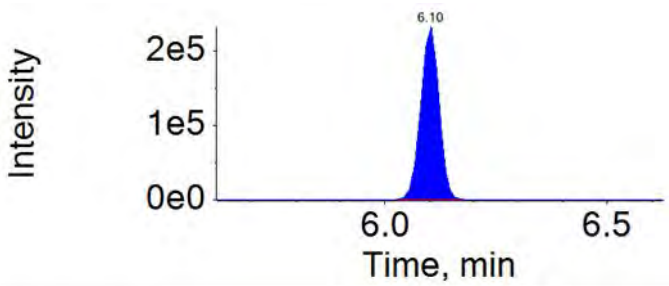
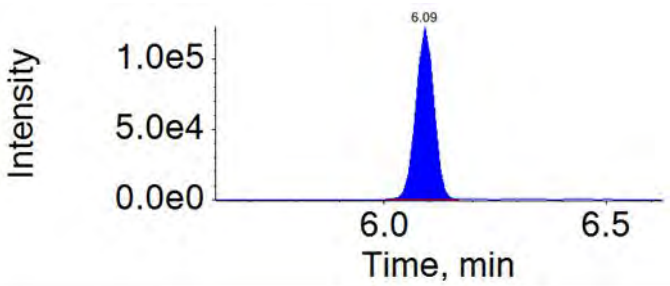
REVIEWED
By umar at 3:41 pm, 11/12/18

ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0
	

Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0
	

Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0
	

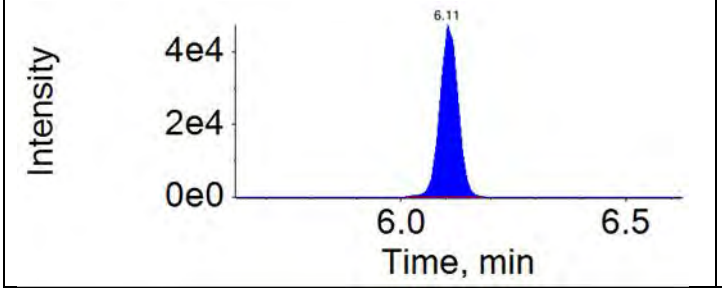
Analyte: NMePFOSAE	Extraction Standard: d7-NMePFOSAE
616.0 / 59.0	623.0 / 59.0
	

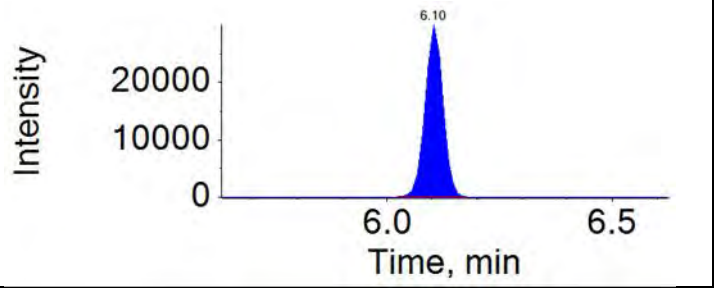
APPROVED
By JPT at 10:55 am, 11/9/18

REVIEWED
By umar at 3:41 pm, 11/12/18

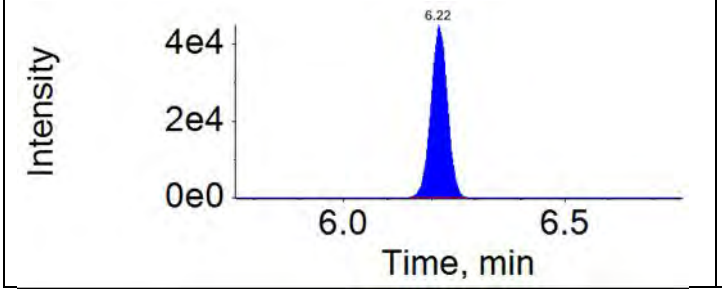
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

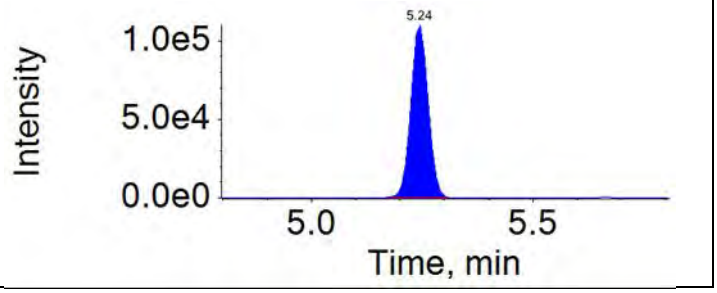
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



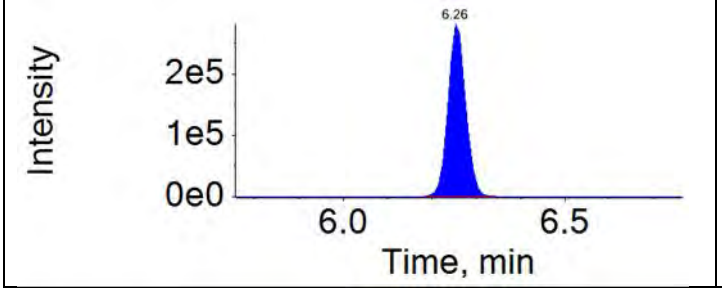


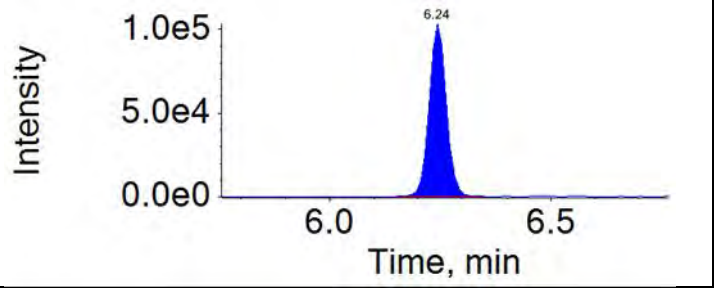
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



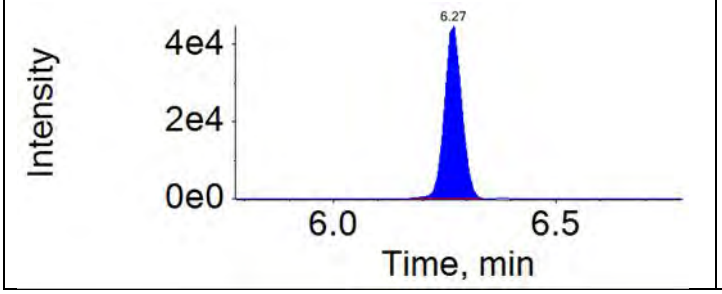


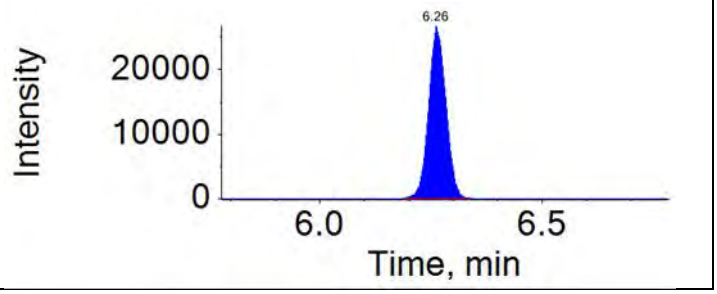
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





Analyte: NEtPFOSA	Extraction Standard: d5-NEtPFOSA
526.0 / 169.0	531.0 / 169.0



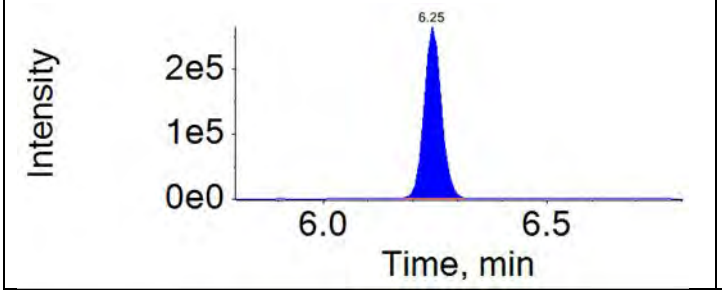


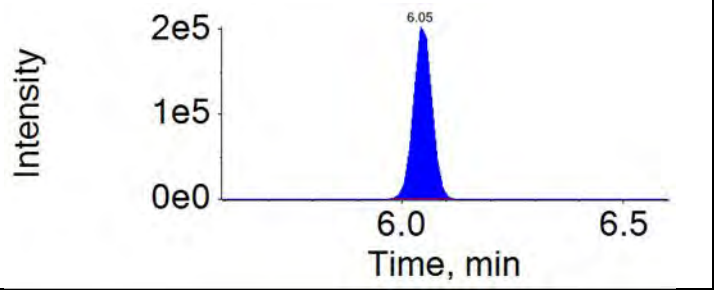
APPROVED
By JPT at 10:55 am, 11/9/18

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By umar at 3:41 pm, 11/12/18

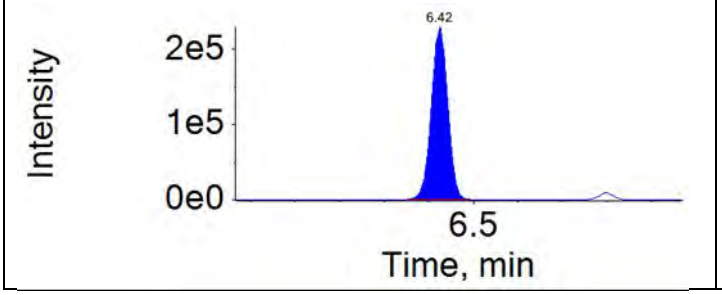
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

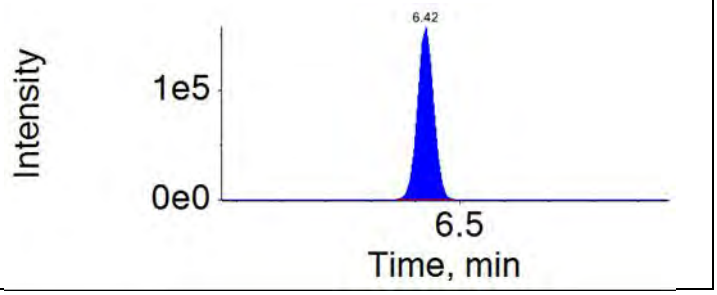
Analyte: PFTrDA	Extraction Standard: 13C2-PFDoDA
663.0 / 619.0	615.0 / 570.0



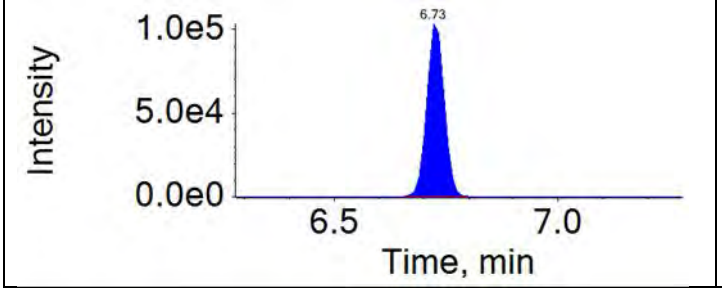


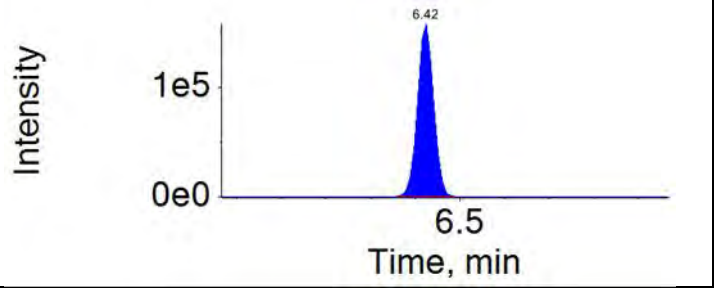
Analyte: PFTeDA	Extraction Standard: 13C2-PFTeDA
713.0 / 669.0	715.0 / 670.0



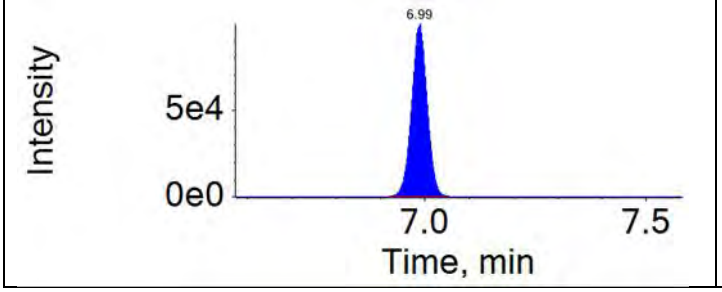


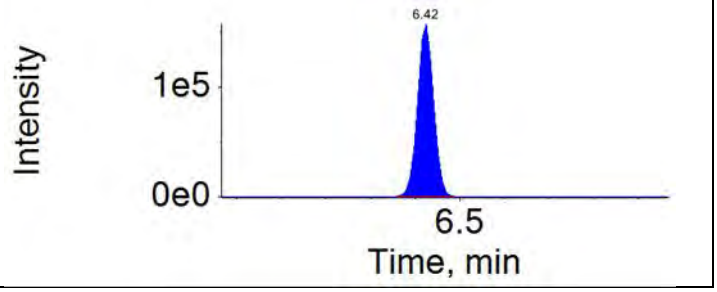
Analyte: PFHxDA	Extraction Standard: 13C2-PFTeDA
813.0 / 769.0	715.0 / 670.0





Analyte: PFODA	Extraction Standard: 13C2-PFTeDA
913.0 / 869.0	715.0 / 670.0





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Ion Ratio Report

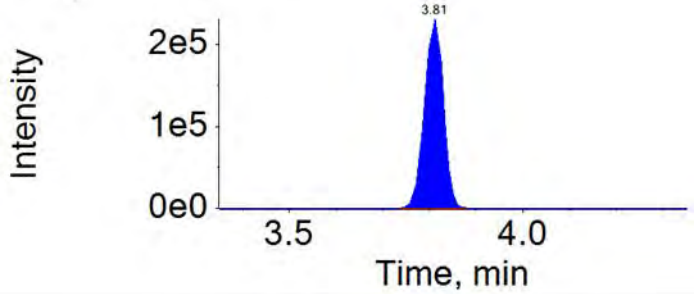
Sample Name: CCV9_CAL4 **Instrument Name:** LM27631 **File Name:** 18NOV08D-98.wiff

Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	3.81	1.00	655034.7	A	N/A	1.0000			
PFBS_2	3.81	1.00	231149.3	A	N/A	0.3529	-1	50	
4:2-FTS	4.12	1.00	163905.4	A	N/A	1.0000			
4:2-FTS_2	4.12	1.00	102343.5	A	N/A	0.6244	-2	50	
PFHxA	4.16	1.00	1345026.8	A	N/A	1.0000			
PFHxA_2	4.16	1.00	14743.1	A	N/A	0.0110	-4	50	
PFPeS	4.18	1.10	340112.7	A	N/A	1.0000			
PFPeS_2	4.18	1.10	176556.3	A	N/A	0.5191	-4	50	
PFHxS	4.55	1.00	509899.0	A	N/A	1.0000			
PFHxS_2	4.55	1.00	176303.9	A	N/A	0.3458	-3	50	
PFHpA	4.55	1.00	1445409.9	A	N/A	1.0000			
PFHpA_2	4.55	1.00	79392.8	A	N/A	0.0549	-5	50	
6:2-FTS	4.90	1.00	127621.2	A	N/A	1.0000			
6:2-FTS_2	4.90	1.00	84468.6	A	N/A	0.6619	-2	50	
PFHpS	4.91	1.08	497691.3	A	N/A	1.0000			
PFHpS_2	4.91	1.08	198484.5	A	N/A	0.3988	1	50	
PFOA	4.92	1.00	1388094.5	A	N/A	1.0000			
PFOA_2	4.91	1.00	78095.2	A	N/A	0.0563	-11	50	
PFOS	5.24	1.00	470028.6	A	N/A	1.0000			
PFOS_2	5.24	1.00	147984.6	A	N/A	0.3148	-10	50	
PFNA	5.26	1.00	1129680.1	A	N/A	1.0000			
PFNA_2	5.26	1.00	20629.8	A	N/A	0.0183	-12	50	
PFNS	5.54	1.06	309702.8	A	N/A	1.0000			
PFNS_2	5.54	1.06	144613.1	A	N/A	0.4669	-5	50	
PFDA	5.57	1.00	941307.1	A	N/A	1.0000			
PFDA_2	5.57	1.00	7437.0	A	N/A	0.0079	40	50	
8:2-FTS	5.57	1.00	103270.8	A	N/A	1.0000			
8:2-FTS_2	5.57	1.00	59922.2	A	N/A	0.5802	-6	50	
NMeFOSAA	5.71	1.00	134156.5	A	N/A	1.0000			
NMeFOSAA_2	5.71	1.00	30521.7	A	N/A	0.2275	3	50	
PFDS	5.80	1.11	241813.5	A	N/A	1.0000			
PFDS_2	5.80	1.11	118758.7	A	N/A	0.4911	6	50	
PFUnDA	5.82	1.00	803352.1	A	N/A	1.0000			
PFUnDA_2	5.83	1.00	2580.7	A	N/A	0.0032	2	50	
NEtFOSAA	5.84	1.00	123087.8	A	N/A	1.0000			
NEtFOSAA_2	5.84	1.00	74779.9	A	N/A	0.6075	0	50	
PFDoDA	6.05	1.00	882612.8	A	N/A	1.0000			
PFDoDA_2	6.05	1.00	12360.0	A	N/A	0.0140	28	50	
10:2-FTS	6.06	1.09	74557.5	A	N/A	1.0000			
10:2-FTS_2	6.06	1.09	49497.1	A	N/A	0.6639	-6	50	
PFTrDA	6.25	1.03	702504.0	A	N/A	1.0000			
PFTrDA_2	6.25	1.03	7191.3	A	N/A	0.0102	6	50	
PFTeDA	6.42	1.00	585138.5	A	N/A	1.0000			
PFTeDA_2	6.42	1.00	3516.5	A	N/A	0.0060	8	50	
PFHxDA	6.73	1.05	280180.8	A	N/A	1.0000			
PFHxDA_2	6.73	1.05	17791.9	A	N/A	0.0635	7	50	
PFODA	6.99	1.09	241980.2	A	N/A	1.0000			
PFODA_2	6.99	1.09	6103.4	A	N/A	0.0252	-2	50	

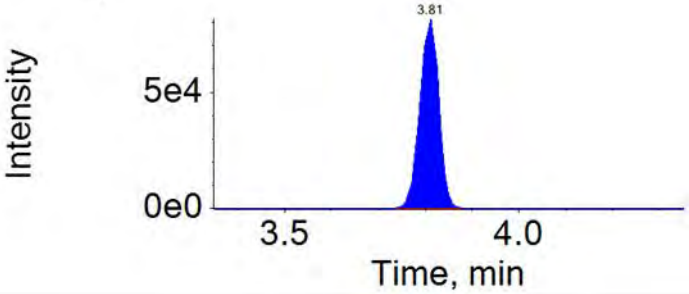
APPROVED
By JPT at 10:55 am, 11/9/18

REVIEWED
By umar at 3:41 pm, 11/12/18

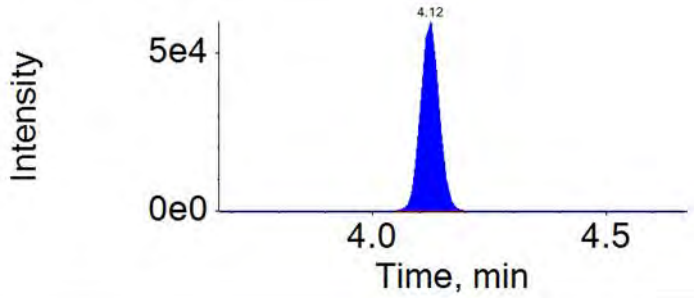
Component: PFBS
Primary Mass: 299.0 / 80.0



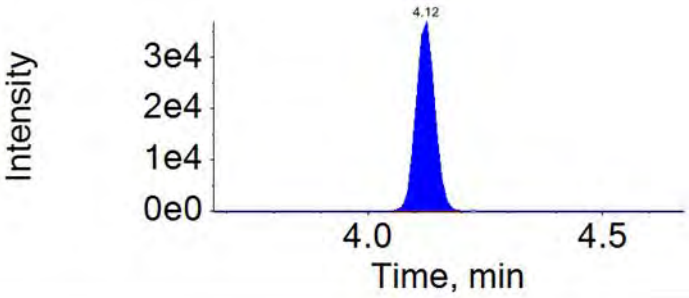
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



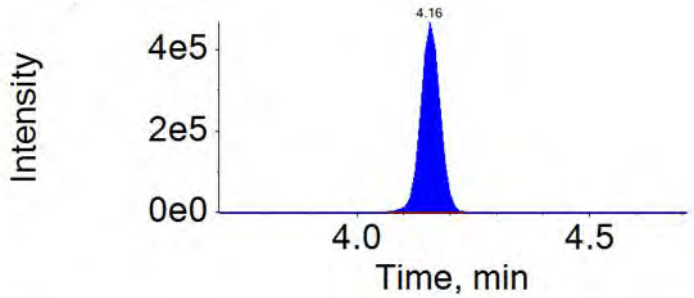
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



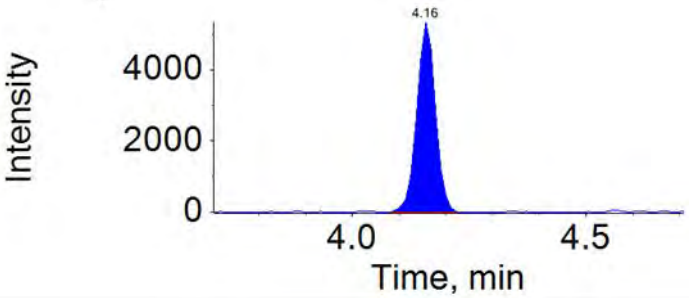
Component: 4:2-FTS_2
Secondary Mass: 327.0 / 81.0



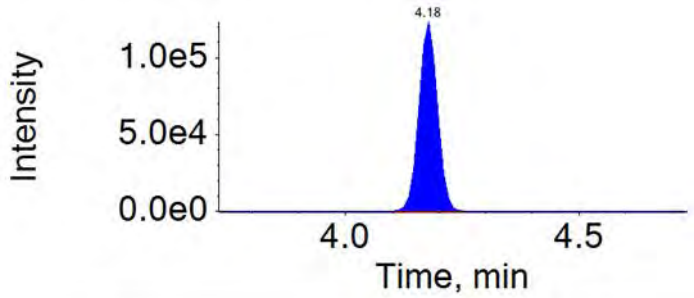
Component: PFHxA
Primary Mass: 313.0 / 269.0



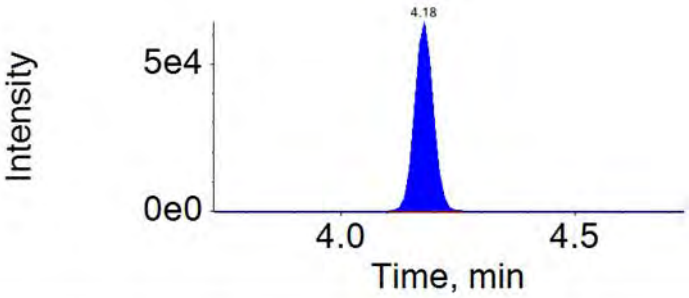
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Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



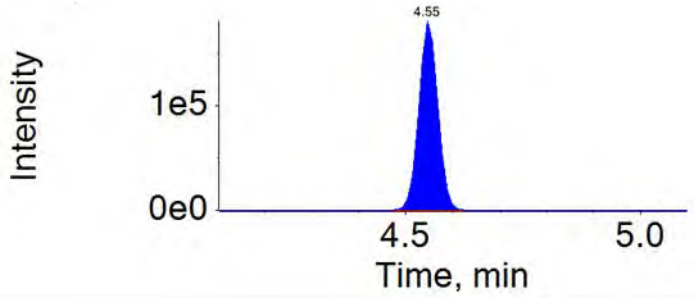
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Secondary Mass: 349.0 / 99.0



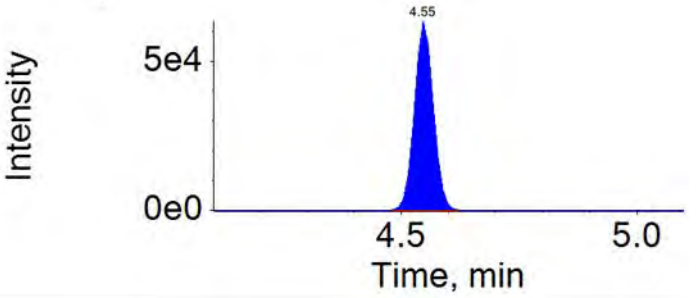
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By umar at 3:41 pm, 11/12/18

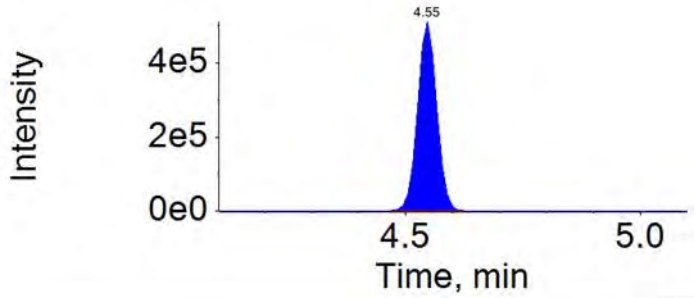
Component: PFHxS
Primary Mass: 399.0 / 80.0



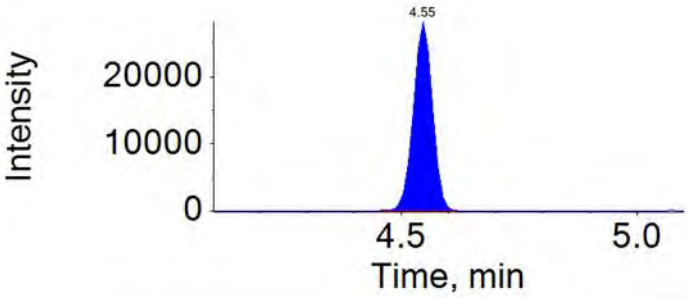
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



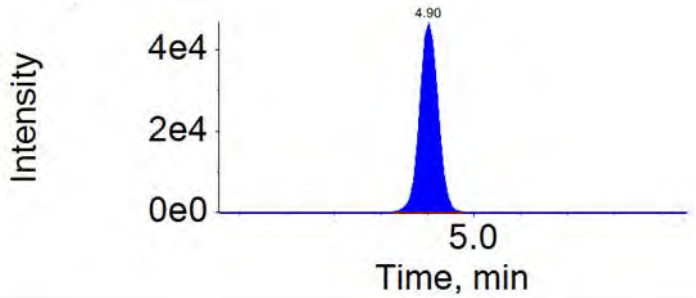
Component: PFHpA
Primary Mass: 363.0 / 319.0



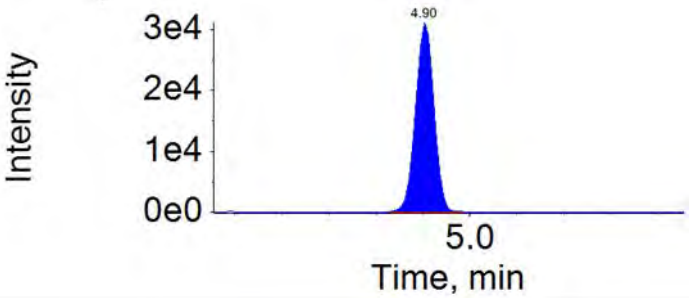
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



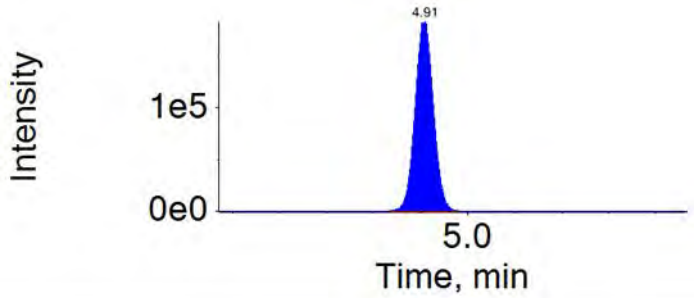
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



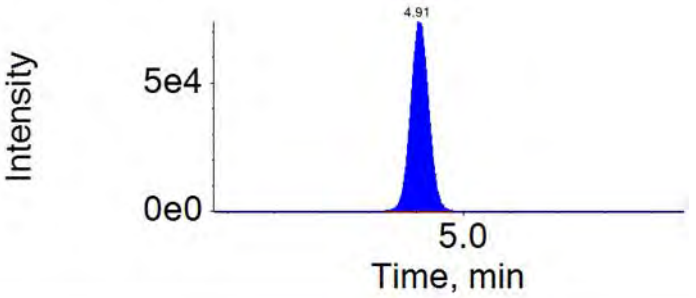
Component: 6:2-FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



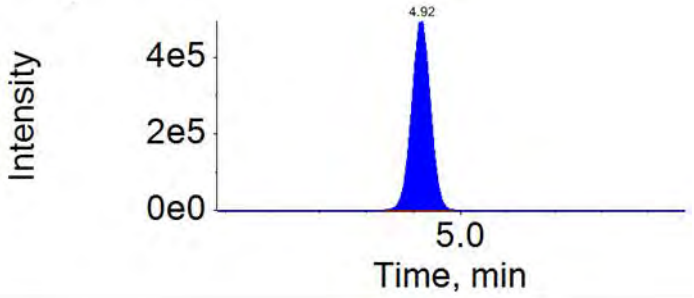
Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



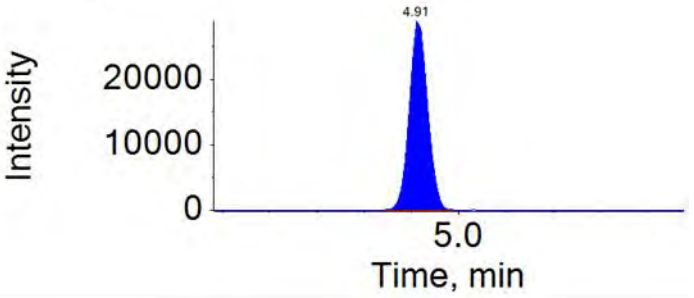
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By umar at 3:41 pm, 11/12/18

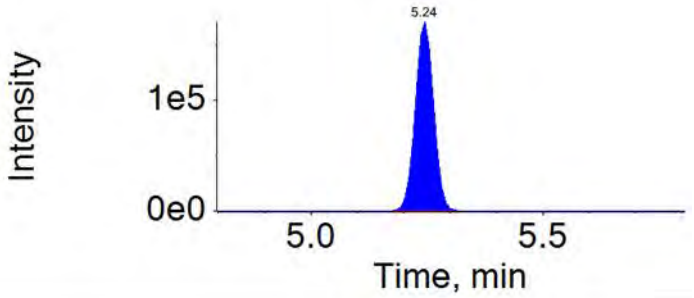
Component: PFOA
Primary Mass: 413.0 / 369.0



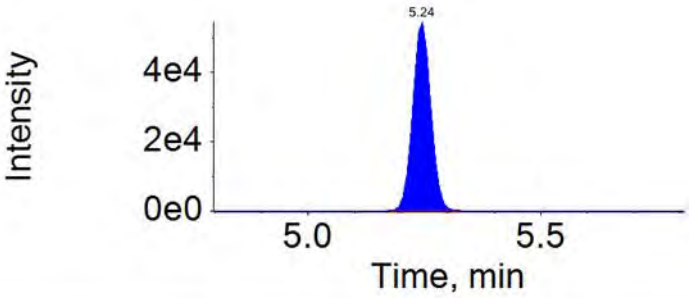
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



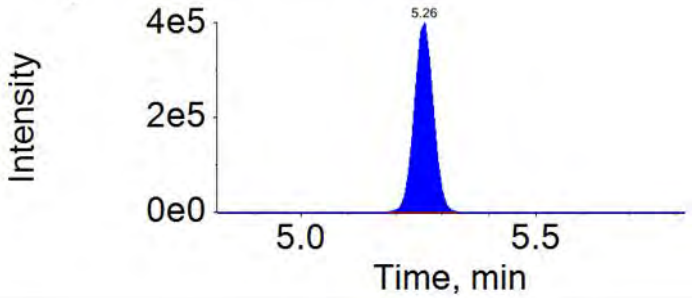
Component: PFOS
Primary Mass: 499.0 / 80.0



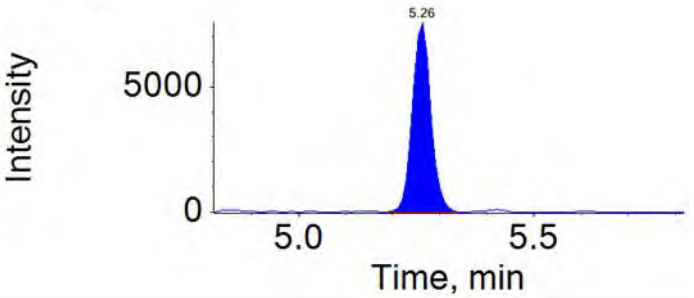
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



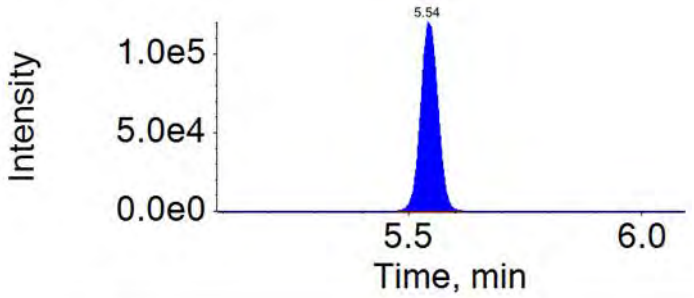
Component: PFNA
Primary Mass: 463.0 / 419.0



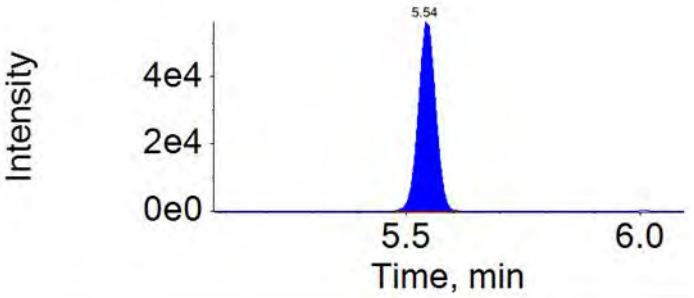
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



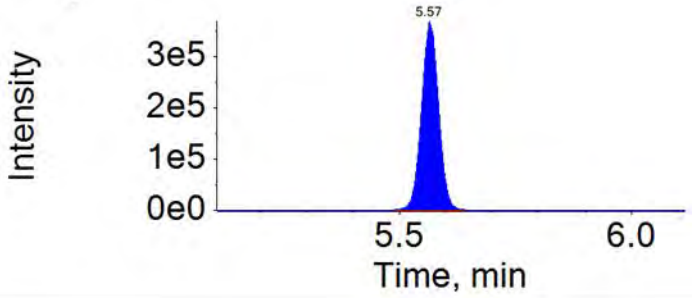
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



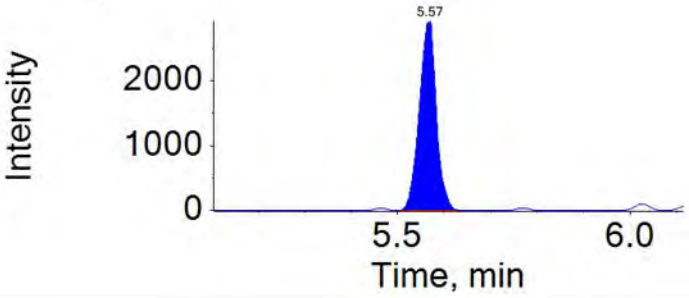
APPROVED
By JPT at 10:55 am, 11/9/18

REVIEWED
By umar at 3:41 pm, 11/12/18

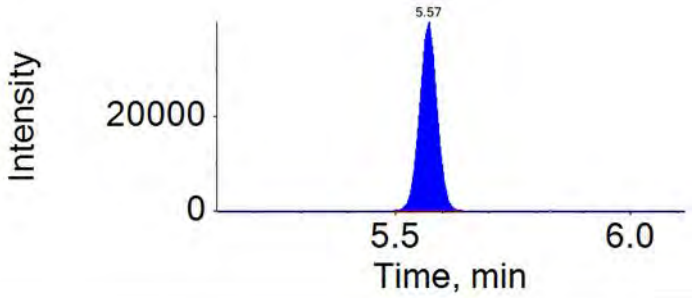
Component: PFDA
Primary Mass: 513.0 / 469.0



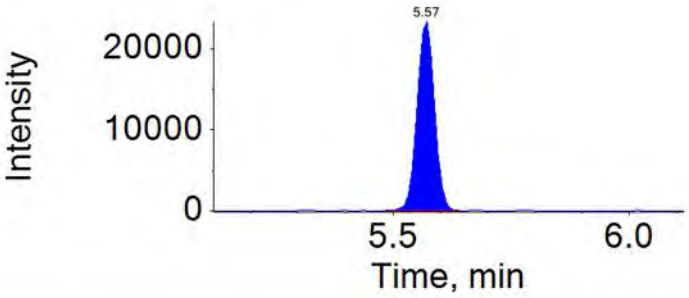
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



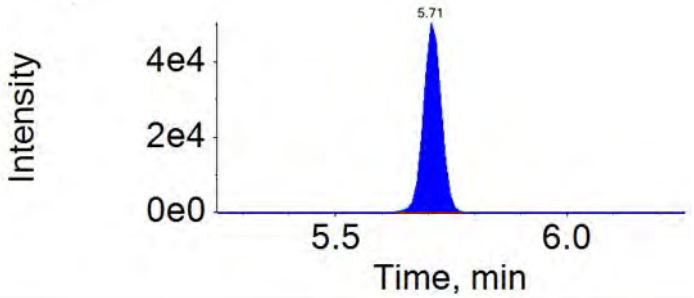
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



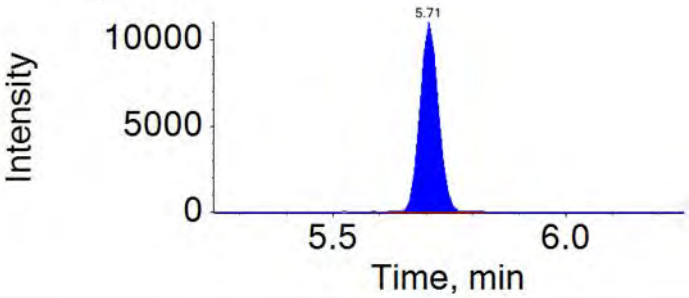
Component: 8:2-FTS_2
Secondary Mass: 527.0 / 81.0



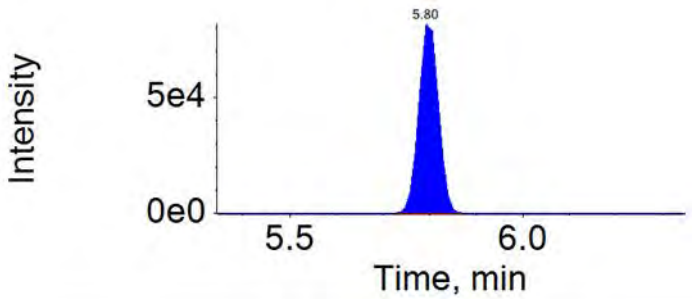
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



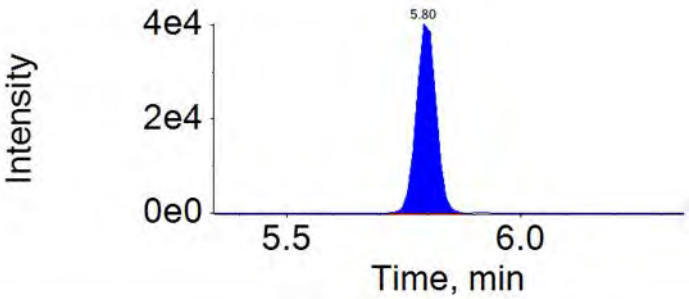
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



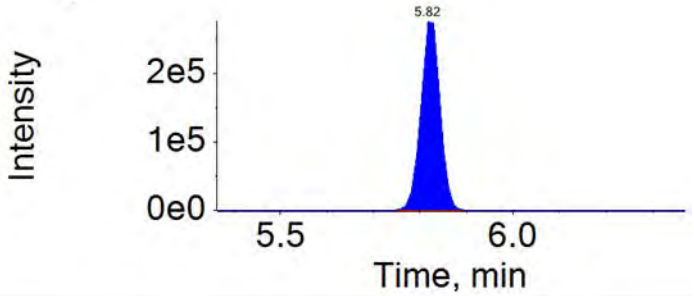
Component: PFDS_2
Secondary Mass: 599.0 / 99.0



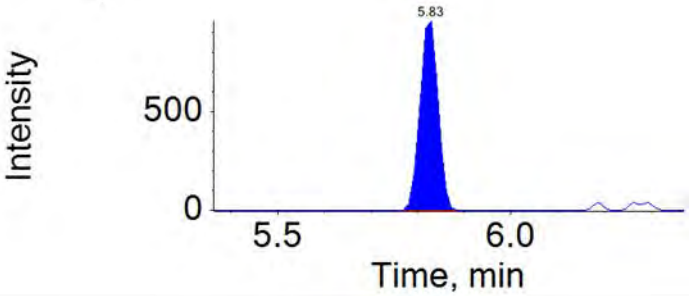
APPROVED
By JPT at 10:55 am, 11/9/18

REVIEWED
By umar at 3:41 pm, 11/12/18

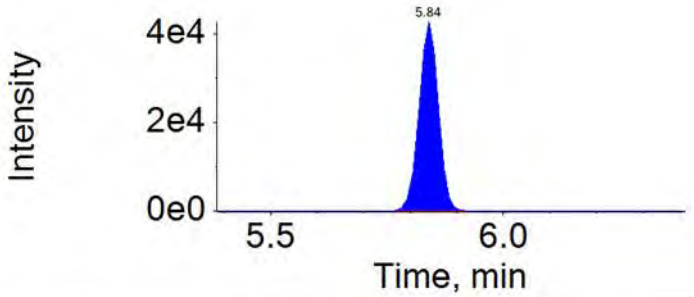
Component: PFUnDA
Primary Mass: 563.0 / 519.0



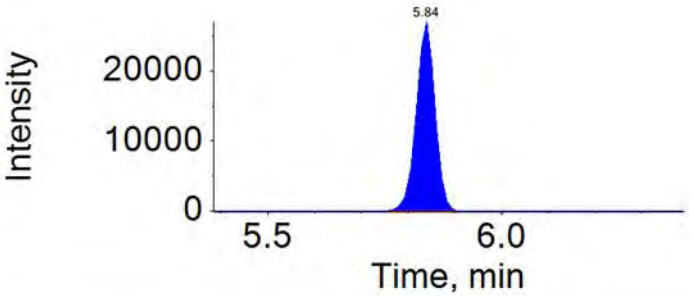
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



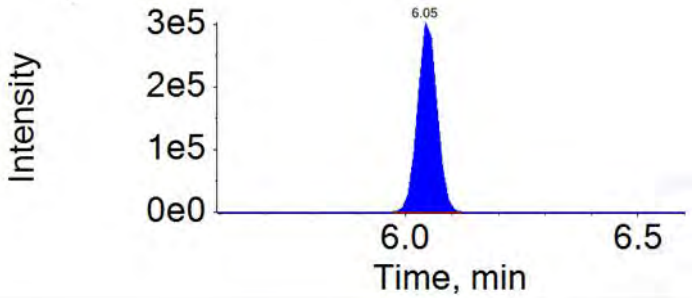
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



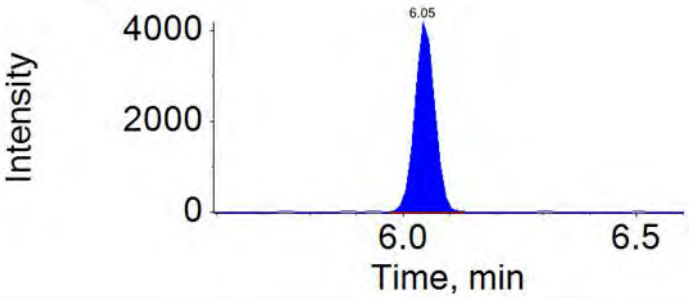
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



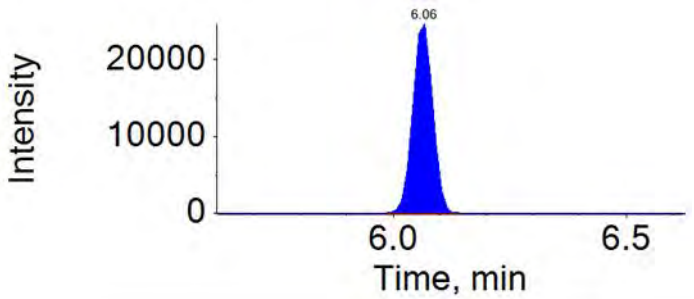
Component: PFDoDA
Primary Mass: 613.0 / 569.0



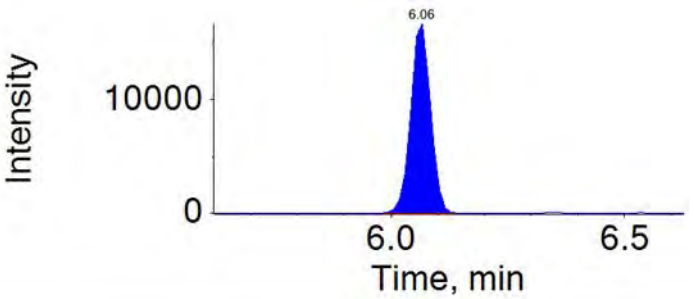
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



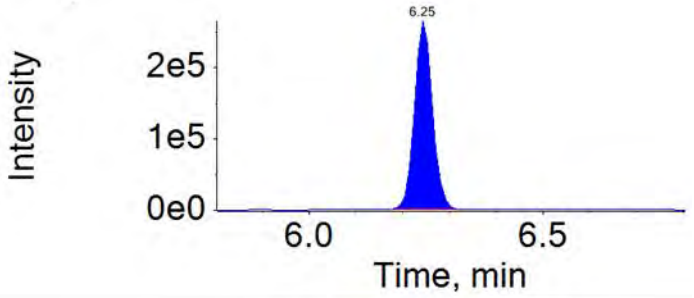
Component: 10:2-FTS_2
Secondary Mass: 627.0 / 81.0



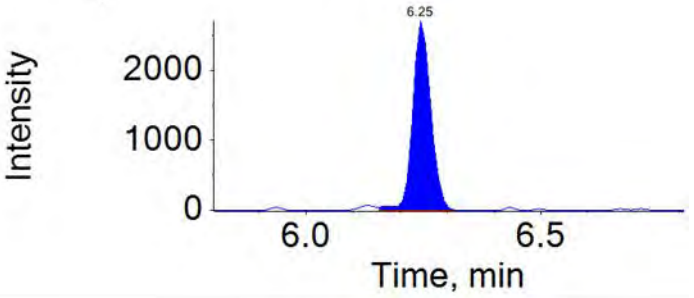
APPROVED
By JPT at 10:55 am, 11/9/18

REVIEWED
By umar at 3:41 pm, 11/12/18

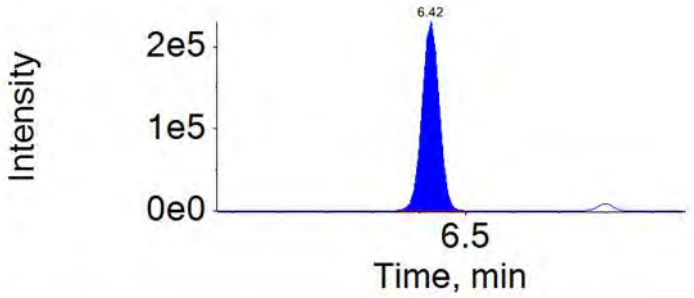
Component: PFTrDA
Primary Mass: 663.0 / 619.0



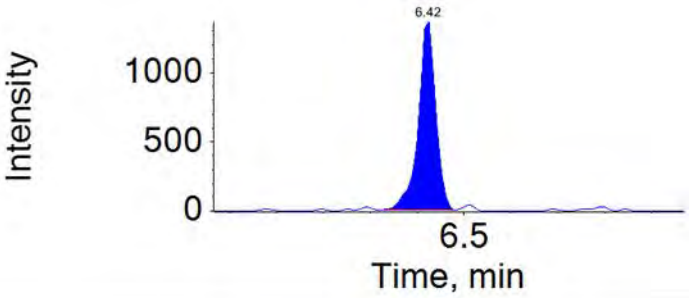
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



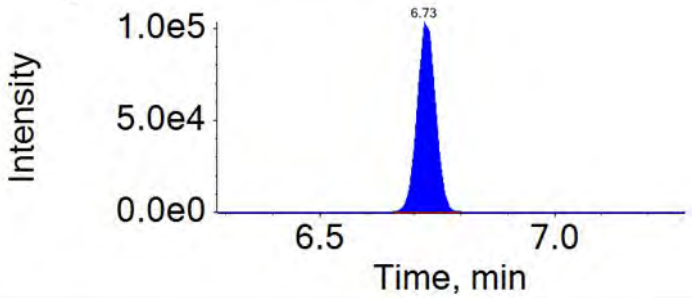
Component: PFTeDA
Primary Mass: 713.0 / 669.0



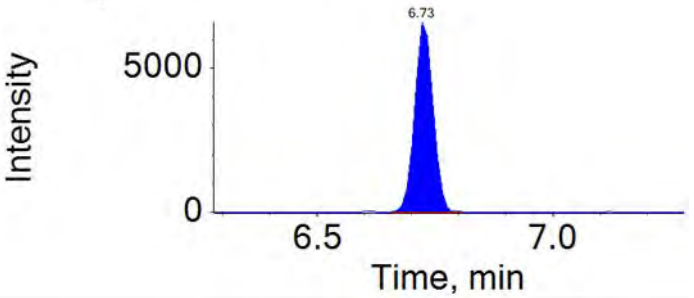
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



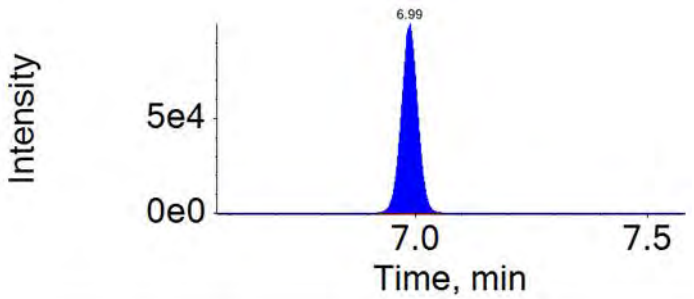
Component: PFHxDA
Primary Mass: 813.0 / 769.0



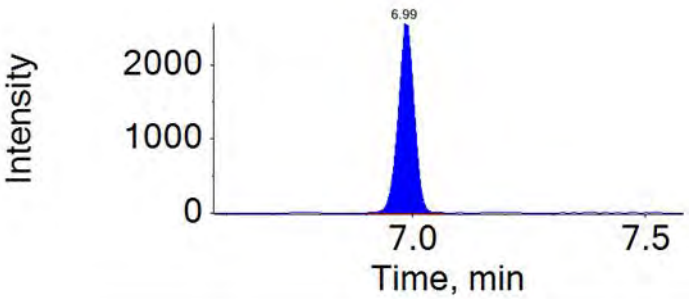
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



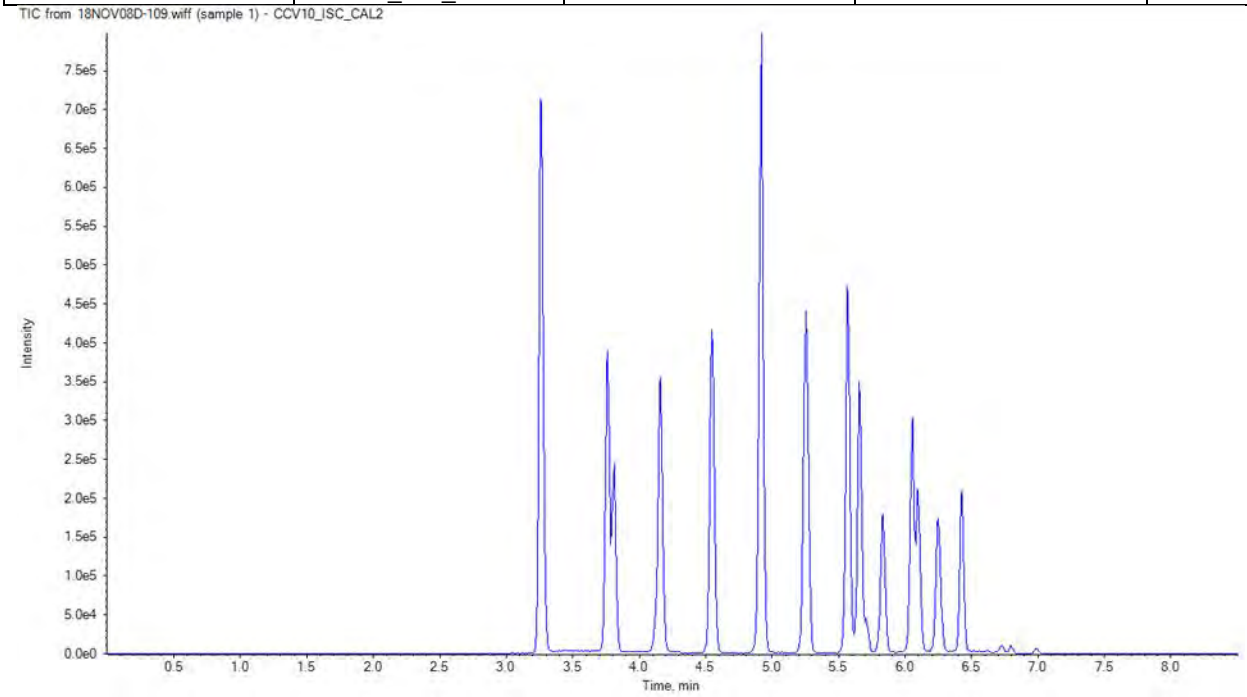
Component: PFODA_2
Secondary Mass: 913.0 / 169.0



Instrument Sensitivity Check/ Continuing Calibration Verfication

ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	CCV10_ISC_CAL2	CALMOD21833F	18NOV08D-109.wiff	2018-11-09T04:02:59



Injection Standard Area Reference File: 18NOV08D-05

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Reference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	733658.7	728839.7	1	50	
13C2-PFOA	5.0	495133.6	491983.1	1	50	
13C4-PFOS	4.8	272420.3	255568.1	7	50	
13C2-PFDA	5.0	314619.9	315407.5	0	50	

APPROVED
By JPT at 10:55 am, 11/9/18

REVIEWED
By umar at 3:41 pm, 11/12/18

Instrument Sensitivity Check/ Continuing Calibration Verfication

ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	CCV10_ISC_CAL2	CALMOD21833F	18NOV08D-109.wiff	2018-11-09T04:02:59

Analyte Name	Analyte Area	Sc /pk	Ext Std Name	Ext Std Area	Ext Std con	Area Ratio	RT (min)	RRT	Spec Amt	Calc Amt	% Diff	% Diff Lim	% Diff OOS
PFBA	74074.0	10	13C4-PFBA	795676.8	5.0	0.093	3.26	1.000	0.500	0.545	9	30	
PFPeA	74402.5	13	13C5-PFPeA	790007.7	5.0	0.094	3.76	1.000	0.500	0.560	12	30	
PFBS	41078.3	11	13C3-PFBS	424111.0	4.7	0.097	3.81	1.000	0.440	0.488	11	30	
4:2-FTS	9663.4	12	13C2-4:2-FTS	51605.1	4.7	0.187	4.12	1.000	0.467	0.503	8	30	
PFHxA	88198.5	12	13C5-PFHxA	680008.6	5.0	0.130	4.16	1.000	0.500	0.556	11	30	
PFPeS	19380.9	11	13C3-PFBS	424111.0	4.7	0.046	4.18	1.100	0.469	0.451	-4	30	
PFHxS	30924.8	11	13C3-PFHxS	331329.1	4.7	0.093	4.55	1.000	0.473	0.473	0	30	
PFHpA	93415.3	12	13C4-PFHpA	544363.7	5.0	0.172	4.55	1.000	0.500	0.577	15	30	
6:2-FTS	7777.7	11	13C2-6:2-FTS	41279.5	4.8	0.188	4.90	1.000	0.474	0.470	-1	30	
PFHpS	28597.4	11	13C3-PFHxS	331329.1	4.7	0.086	4.91	1.080	0.476	0.452	-5	30	
PFOA	91880.3	11	13C8-PFOA	988039.5	5.0	0.093	4.92	1.000	0.500	0.524	5	30	
PFOS	26455.5	11	13C8-PFOS	286296.5	4.8	0.092	5.25	1.000	0.478	0.479	0	30	
PFNA	74897.5	11	13C9-PFNA	495082.0	5.0	0.151	5.26	1.000	0.500	0.565	13	30	
PFNS	18460.5	11	13C8-PFOS	286296.5	4.8	0.064	5.55	1.060	0.480	0.511	7	30	
PFDA	57162.3	11	13C6-PFDA	605588.9	5.0	0.094	5.57	1.000	0.500	0.519	4	30	
8:2-FTS	6386.5	11	13C2-8:2-FTS	26022.2	4.8	0.245	5.57	1.000	0.479	0.553	15	30	
PFOSA	67053.7	11	13C8-PFOSA	697991.6	5.0	0.096	5.66	1.000	0.500	0.519	4	30	
NMeFOSAA	8840.9	13	d3-NMeFOSAA	75506.5	5.0	0.117	5.72	1.000	0.500	0.602	20	30	
PFDS	16096.0	10	13C8-PFOS	286296.5	4.8	0.056	5.81	1.110	0.482	0.537	11	30	
PFUnDA	45466.7	12	13C7-PFUnDA	286916.7	5.0	0.158	5.83	1.000	0.500	0.454	-9	30	
NEtFOSAA	6910.6	11	d5-NEtFOSAA	62453.9	5.0	0.111	5.85	1.000	0.500	0.476	-5	30	
PFDoDA	51308.0	12	13C2-PFDoDA	553597.5	5.0	0.093	6.05	1.000	0.500	0.502	0	30	
10:2-FTS	4668.0	12	13C2-8:2-FTS	26022.2	4.8	0.179	6.07	1.090	0.482	0.559	16	30	
NMePFOSAE	42033.1	11	d7-NMePFOSAE	331032.5	5.0	0.127	6.11	1.000	0.500	0.569	14	30	
NMePFOSA	8433.8	12	d3-NMePFOSA	81277.7	5.0	0.104	6.11	1.000	0.500	0.581	16	30	
PFDoS	6640.2	10	13C8-PFOS	286296.5	4.8	0.023	6.22	1.190	0.484	0.448	-8	30	
NEtPFOSAE	46142.2	12	d9-NEtPFOSAE	277972.1	5.0	0.166	6.26	1.000	0.500	0.532	6	30	
NEtPFOSA	7121.6	13	d5-NEtPFOSA	64284.9	5.0	0.111	6.27	1.000	0.500	0.488	-2	30	
PFTrDA	45642.7	12	13C2-PFDoDA	553597.5	5.0	0.082	6.25	1.030	0.500	0.520	4	30	
PFTeDA	36443.3	11	13C2-PFTeDA	392742.2	5.0	0.093	6.43	1.000	0.500	0.545	9	30	
PFHxDA	17348.7	11	13C2-PFTeDA	392742.2	5.0	0.044	6.73	1.050	0.500	0.548	10	30	
PFODA	14871.1	10	13C2-PFTeDA	392742.2	5.0	0.038	6.99	1.090	0.500	0.542	8	30	

APPROVED
By JPT at 10:55 am, 11/9/18

REVIEWED
By umar at 3:41 pm, 11/12/18

Instrument Sensitivity Check/ Continuing Calibration Verfication

ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13
Result Table: 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
Acquisition Method: 18AUG13_3uL.dam

APPROVED
By JPT at 10:55 am, 11/9/18

REVIEWED
By umar at 3:41 pm, 11/12/18

ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
Acquisition Method: 18AUG13_3uL.dam

Sample Name:	CCV10_ISC_CAL2			**Data File:**		18NOV08D-109.wiff
Sample ID:	CALMOD21833F			**Acquis Date:**		2018-11-09T04:02:59
Sample Type:	Quality Control			**Instrument:**		LM27631
Vial Position:	4			**Acquis Method:**		18AUG13_3uL.dam
Injection Vol:	3.00			**Result Table:**		18NOV08DCCV6-12
QMethod File:	MQ4-18AUG13			**ICAL Name:**		18NOV07DCAL
Batch Number:	N/A			**Operator:**		JPT12262
Sample Wt.:	1.00000			**Dilution Factor:**		1.00
Sample Vol.:	1.000			**Prep Factor:**		1.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV08D-05

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Rreference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	733658.7	728839.7	1	50	
13C2-PFOA	5.0	495133.6	491983.1	1	50	
13C4-PFOS	4.8	272420.3	255568.1	7	50	
13C2-PFDA	5.0	314619.9	315407.5	0	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	795676.8	13C3-PFBA	733658.7	1.085	5.000	5.019	100	70-130	
E13C5-PFPeA	790007.7	13C3-PFBA	733658.7	1.077	5.000	4.691	94	70-130	
E13C3-PFBS	424111.0	13C3-PFBA	733658.7	0.578	4.650	4.243	91	70-130	
E13C2-4:2-FTS	51605.1	13C2-PFOA	495133.6	0.104	4.670	4.703	101	70-130	
E13C5-PFHxA	680008.6	13C2-PFOA	495133.6	1.373	5.000	5.052	101	70-130	
E13C3-PFHxS	331329.1	13C2-PFOA	495133.6	0.669	4.730	4.804	102	70-130	
E13C4-PFHpA	544363.7	13C2-PFOA	495133.6	1.099	5.000	5.001	100	70-130	
E13C2-6:2-FTS	41279.5	13C2-PFOA	495133.6	0.083	4.750	5.559	117	70-130	
E13C8-PFOA	988039.5	13C2-PFOA	495133.6	1.996	5.000	5.565	111	70-130	
E13C8-PFOS	286296.5	13C4-PFOS	272420.3	1.051	4.780	4.647	97	70-130	
E13C9-PFNA	495082.0	13C4-PFOS	272420.3	1.817	5.000	4.964	99	70-130	
E13C6-PFDA	605588.9	13C2-PFDA	314619.9	1.925	5.000	4.841	97	70-130	
E13C2-8:2-FTS	26022.2	13C2-PFDA	314619.9	0.083	4.790	4.377	91	70-130	
E13C8-PFOSA	697991.6	13C2-PFDA	314619.9	2.219	5.000	4.841	97	70-130	
Ed3-NMeFOSAA	75506.5	13C2-PFDA	314619.9	0.240	5.000	4.463	89	70-130	
E13C7-PFUnDA	286916.7	13C2-PFDA	314619.9	0.912	5.000	5.261	105	70-130	
Ed5-NEtFOSAA	62453.9	13C2-PFDA	314619.9	0.199	5.000	4.594	92	70-130	
E13C2-PFDoDA	553597.5	13C2-PFDA	314619.9	1.760	5.000	4.744	95	70-130	
Ed7-NMePFOSAE	331032.4	13C2-PFDA	314619.9	1.052	5.000	4.893	98	70-130	
Ed3-NMePFOSA	81277.7	13C2-PFDA	314619.9	0.258	5.000	4.729	95	70-130	
Ed9-NEtPFOSAE	277972.1	13C2-PFDA	314619.9	0.884	5.000	5.046	101	70-130	
Ed5-NEtPFOSA	64284.9	13C2-PFDA	314619.9	0.204	5.000	4.731	95	70-130	
E13C2-PFTeDA	392742.2	13C2-PFDA	314619.9	1.248	5.000	4.494	90	70-130	

APPROVED
By JPT at 10:55 am, 11/9/18

REVIEWED
By umar at 3:41 pm, 11/12/18

ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

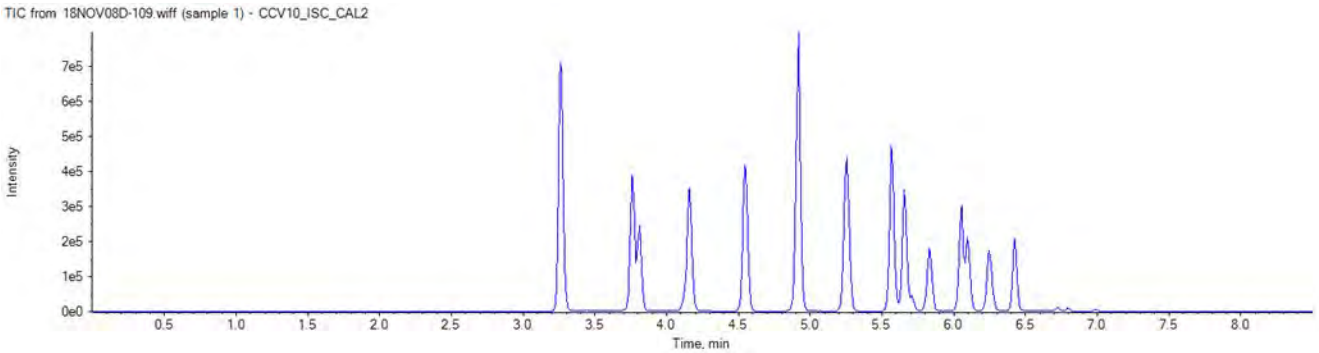
Analyte Quantitation Peak Table

Sample Name: CCV10_ISC_CAL2 **Instrument Name:** LM27631 **File Name:** 18NOV08D-109.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	1.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	3.26	1.000	74074.0		A	13C4-PFBA	3.26	795676.8	0.093	0.545
PFPeA	3.76	1.000	74402.5		A	13C5-PFPeA	3.76	790007.7	0.094	0.560
PFBS	3.81	1.000	41078.3		A	13C3-PFBS	3.81	424111.0	0.097	0.488
4:2-FTS	4.12	1.000	9663.4		A	13C2-4:2-FTS	4.12	51605.1	0.187	0.503
PFHxA	4.16	1.000	88198.5		A	13C5-PFHxA	4.16	680008.6	0.130	0.556
PFPeS	4.18	1.100	19380.9		A	13C3-PFBS	3.81	424111.0	0.046	0.451
PFHxS	4.55	1.000	30924.8		A	13C3-PFHxS	4.55	331329.1	0.093	0.473
PFHpA	4.55	1.000	93415.3		A	13C4-PFHpA	4.55	544363.7	0.172	0.577
6:2-FTS	4.90	1.000	7777.7		A	13C2-6:2-FTS	4.91	41279.5	0.188	0.470
PFHpS	4.91	1.080	28597.4		A	13C3-PFHxS	4.55	331329.1	0.086	0.452
PFOA	4.92	1.000	91880.3		A	13C8-PFOA	4.92	988039.5	0.093	0.524
PFOS	5.25	1.000	26455.5		A	13C8-PFOS	5.24	286296.5	0.092	0.479
PFNA	5.26	1.000	74897.5		A	13C9-PFNA	5.26	495082.0	0.151	0.565
PFNS	5.55	1.060	18460.5		A	13C8-PFOS	5.24	286296.5	0.064	0.511
PFDA	5.57	1.000	57162.3		A	13C6-PFDA	5.57	605588.9	0.094	0.519
8:2-FTS	5.57	1.000	6386.5		A	13C2-8:2-FTS	5.57	26022.2	0.245	0.553
PFOSA	5.66	1.000	67053.7		A	13C8-PFOSA	5.66	697991.6	0.096	0.519
NMeFOSAA	5.72	1.000	8840.9		A	d3-NMeFOSAA	5.71	75506.5	0.117	0.602
PFDS	5.81	1.110	16096.0		A	13C8-PFOS	5.24	286296.5	0.056	0.537
PFUnDA	5.83	1.000	45466.7		A	13C7-PFUnDA	5.83	286916.7	0.158	0.454
NEtFOSAA	5.85	1.000	6910.6		A	d5-NEtFOSAA	5.84	62453.9	0.111	0.476
PFDoDA	6.05	1.000	51308.0		A	13C2-PFDoDA	6.05	553597.5	0.093	0.502
10:2-FTS	6.07	1.090	4668.0		A	13C2-8:2-FTS	5.57	26022.2	0.179	0.559
NMePFOSAE	6.11	1.000	42033.1		A	d7-NMePFOSAE	6.09	331032.5	0.127	0.569
NMePFOSA	6.11	1.000	8433.8		A	d3-NMePFOSA	6.11	81277.7	0.104	0.581
PFDoS	6.22	1.190	6640.2		A	13C8-PFOS	5.24	286296.5	0.023	0.448
NEtPFOSAE	6.26	1.000	46142.2		M	d9-NEtPFOSAE	6.25	277972.1	0.166	0.532
NEtPFOSA	6.27	1.000	7121.6		A	d5-NEtPFOSA	6.26	64284.9	0.111	0.488
PFTrDA	6.25	1.030	45642.7		A	13C2-PFDoDA	6.05	553597.5	0.082	0.520
PFTeDA	6.43	1.000	36443.3		A	13C2-PFTeDA	6.43	392742.2	0.093	0.545
PFHxDA	6.73	1.050	17348.7		A	13C2-PFTeDA	6.43	392742.2	0.044	0.548
PFODA	6.99	1.090	14871.1		A	13C2-PFTeDA	6.43	392742.2	0.038	0.542

Total Ion Chromatogram

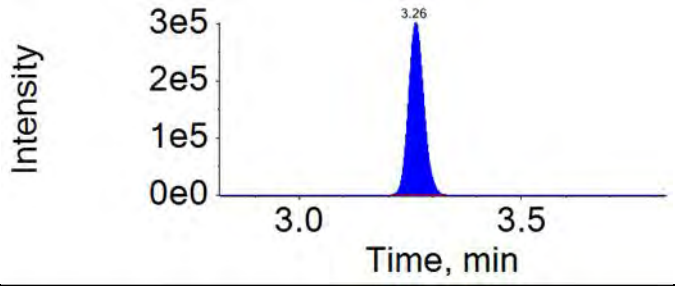


APPROVED
By JPT at 10:55 am, 11/9/18

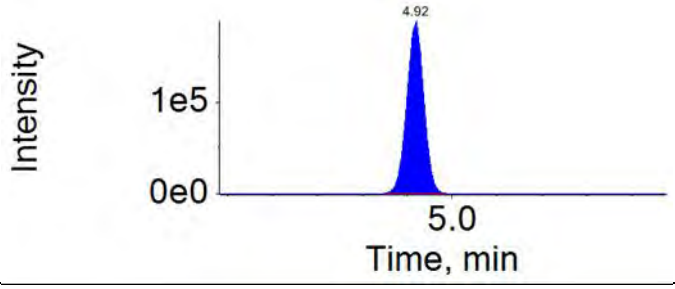
REVIEWED
By umar at 3:41 pm, 11/12/18

ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

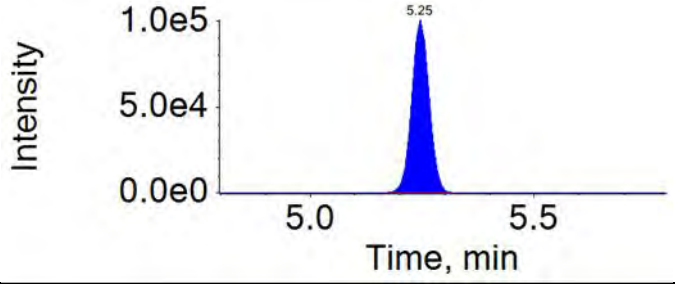
Injection Standard: 13C3-PFBA
216.0 / 172.0



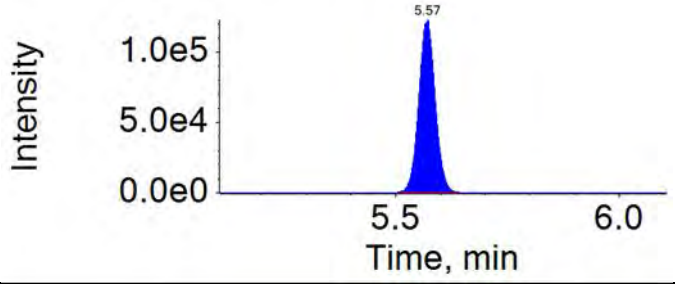
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0



Injection Standard: 13C2-PFDA
515.0 / 470.0

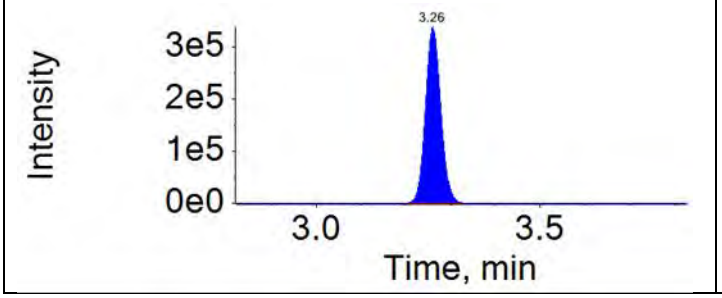


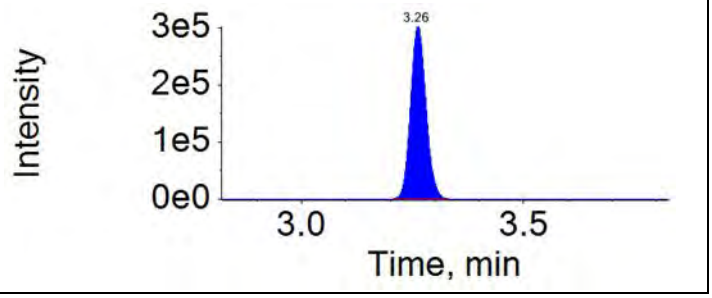
APPROVED
By JPT at 10:55 am, 11/9/18

REVIEWED
By umar at 3:41 pm, 11/12/18

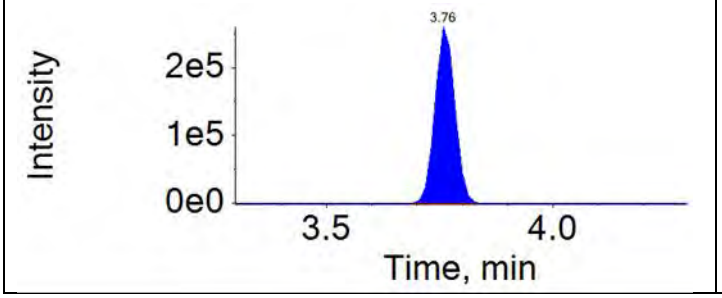
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

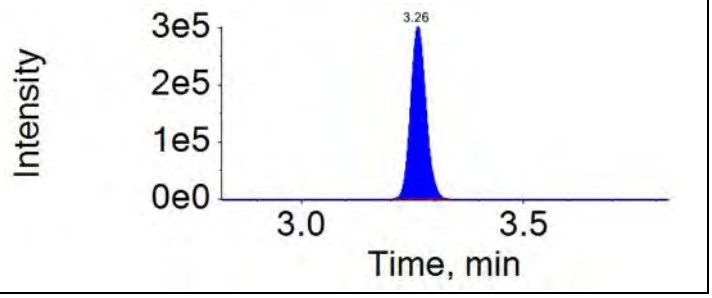
Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0



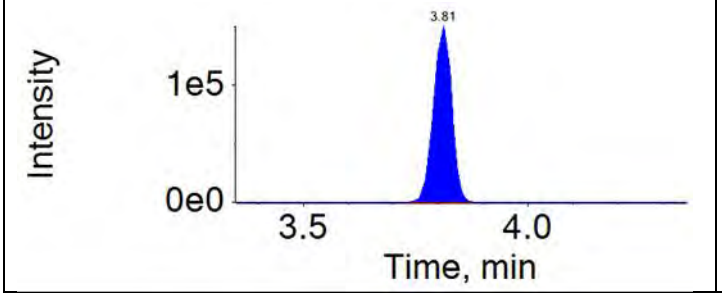


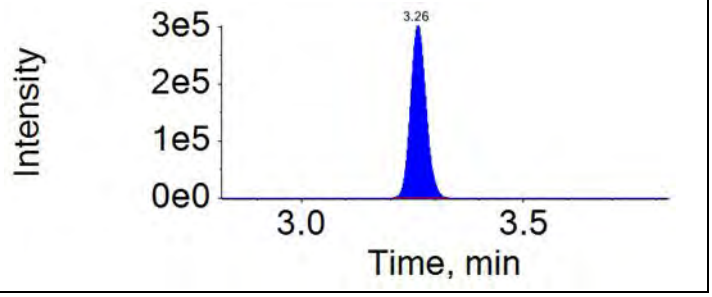
Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0



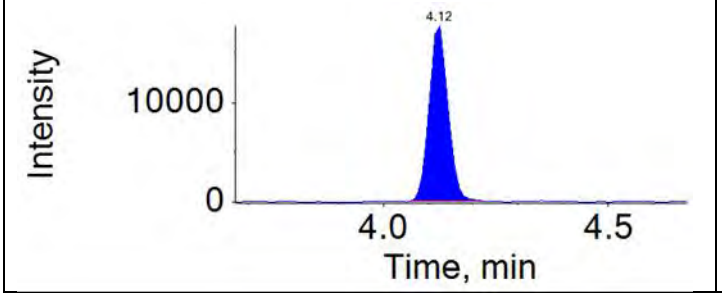


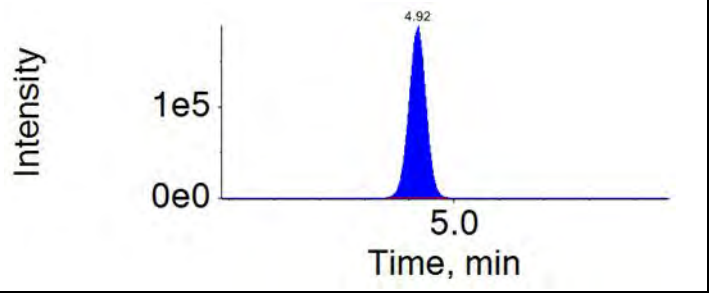
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0





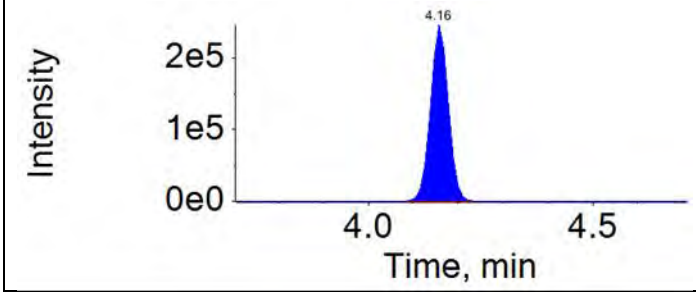
Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0

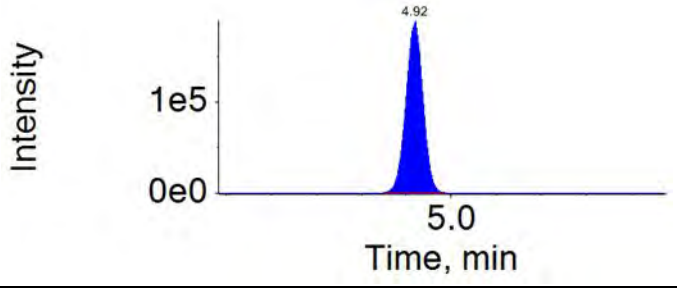




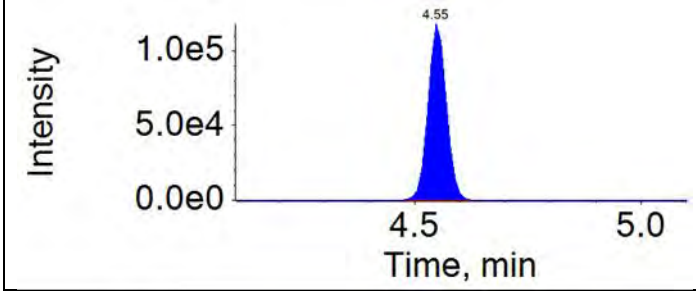
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

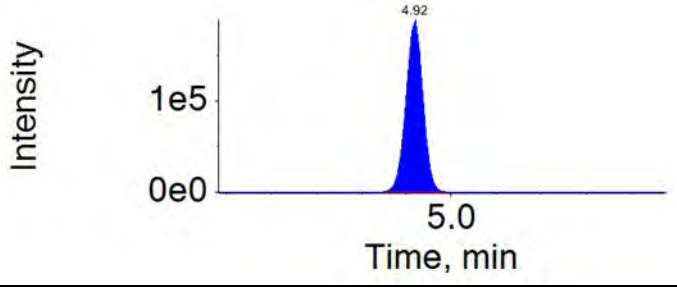
Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0



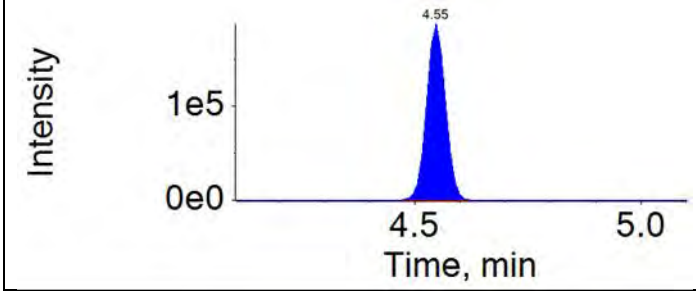


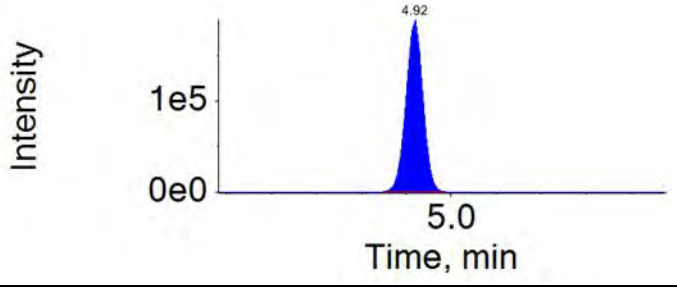
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0



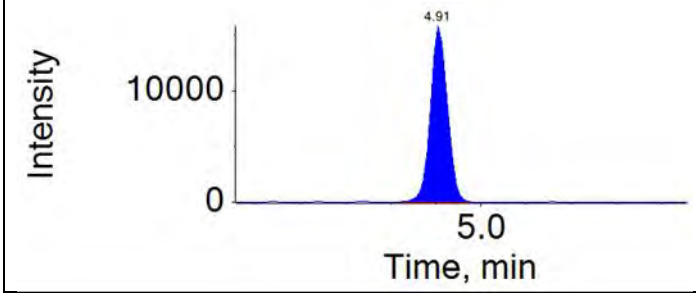


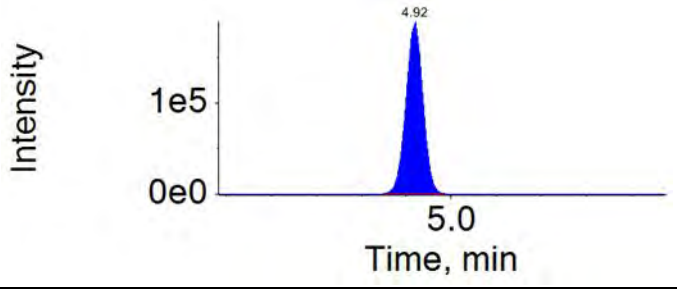
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0





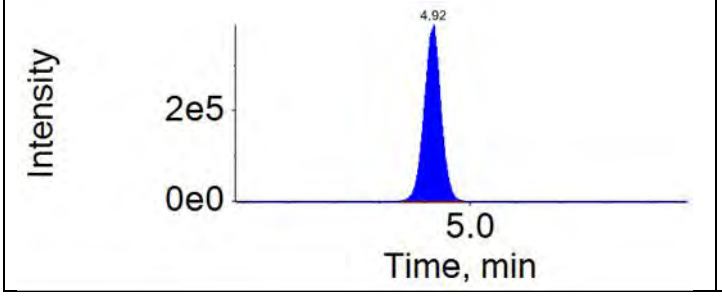
Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0

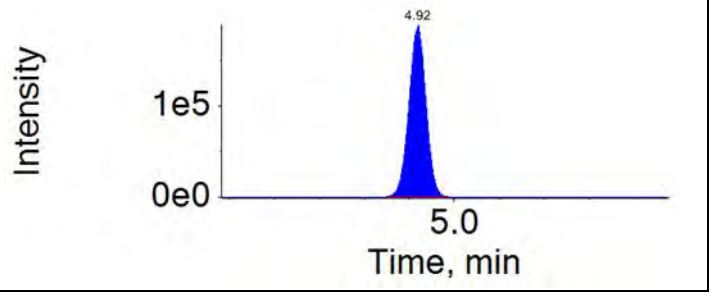




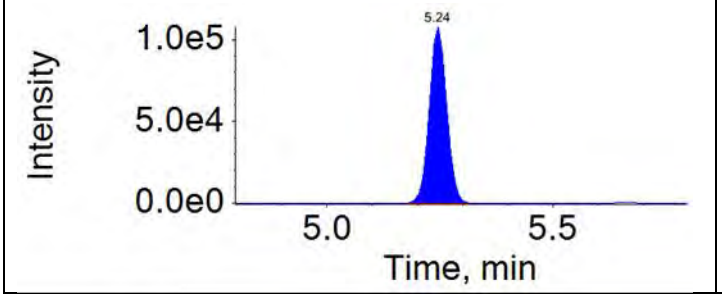
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

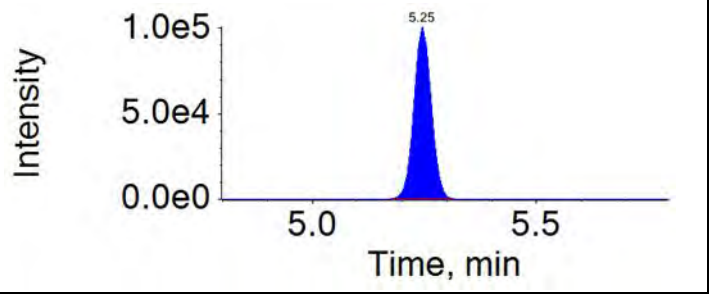
Extraction Standard: E13C8-PFOA	Injection Standard: 13C2-PFOA
421.0 / 376.0	415.0 / 370.0



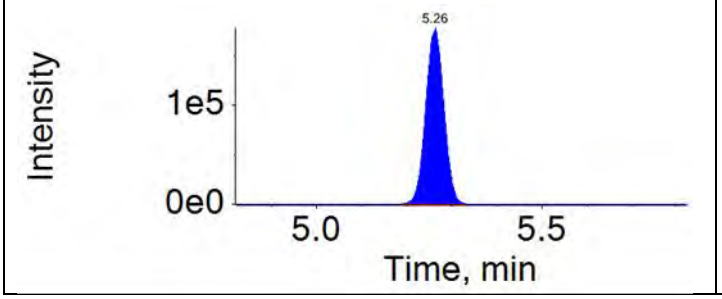


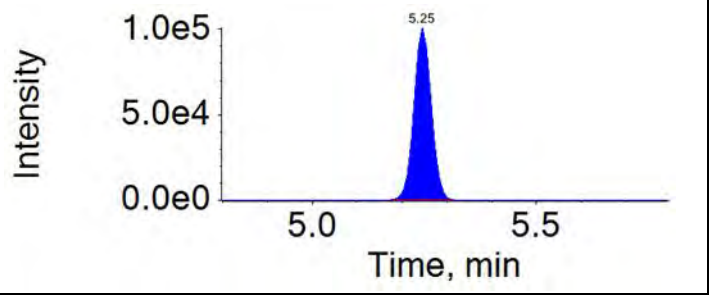
Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0



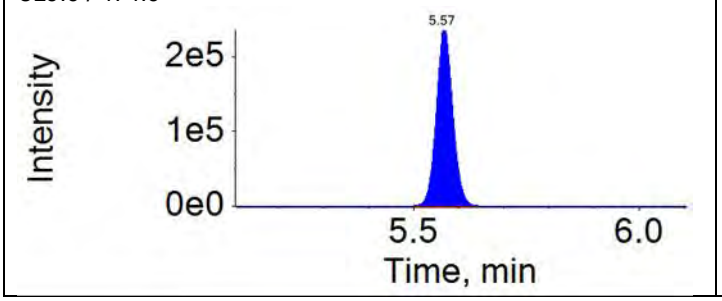


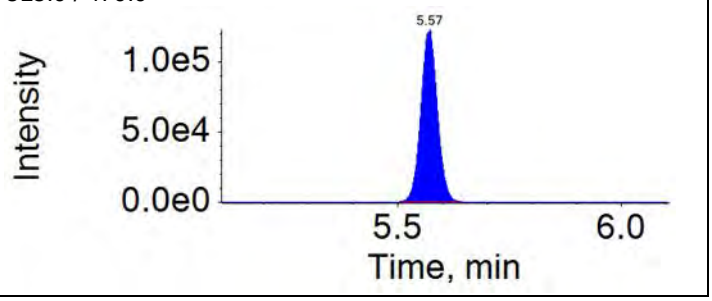
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0





Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0

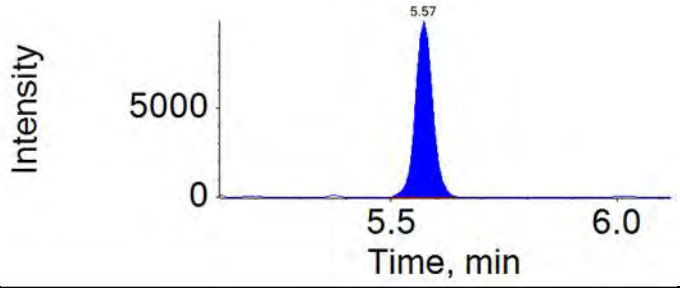
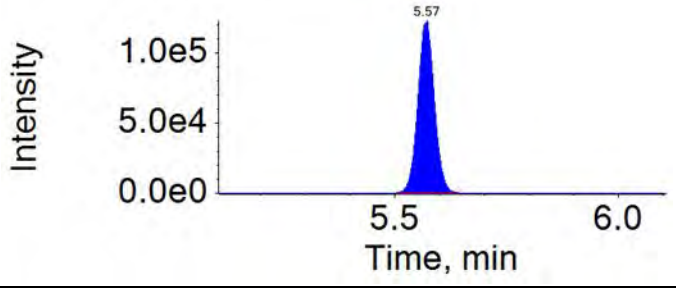


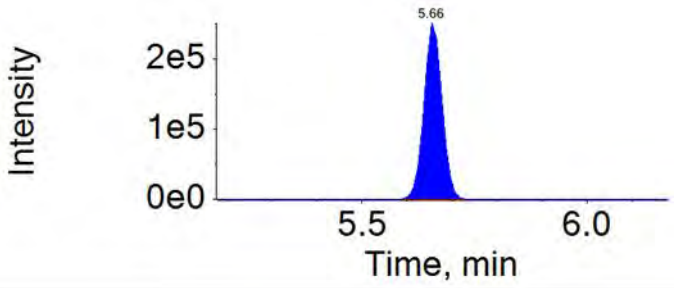
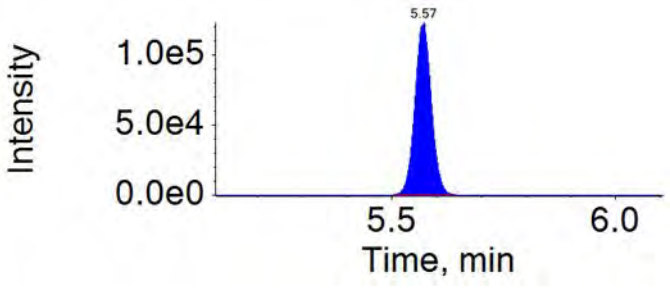


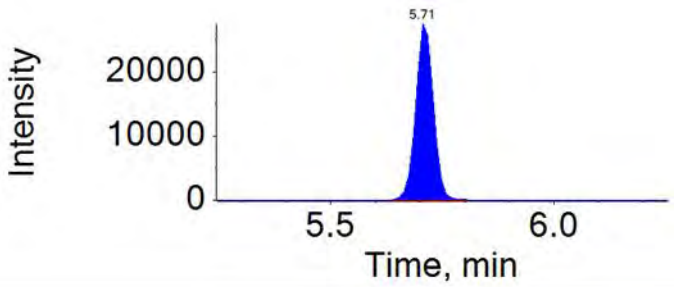
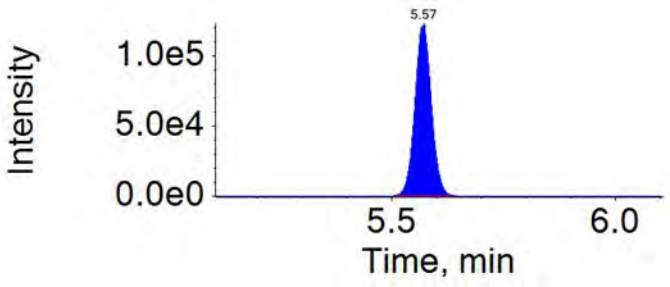
APPROVED
By JPT at 10:55 am, 11/9/18

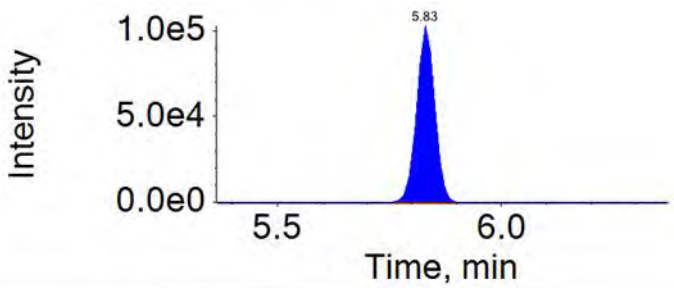
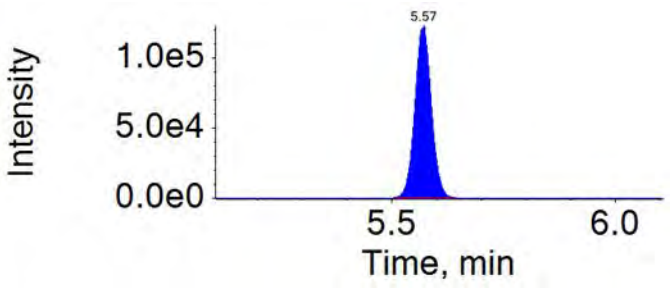
REVIEWED
By umar at 3:41 pm, 11/12/18

ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: E13C2-8:2-FTS	Injection Standard: 13C2-PFDA
529.0 / 81.0	515.0 / 470.0
	

Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0
	

Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0
	

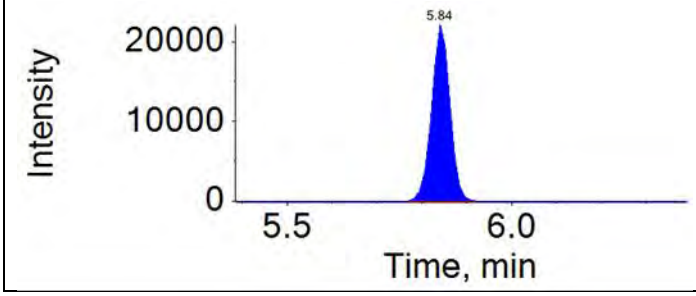
Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0
	

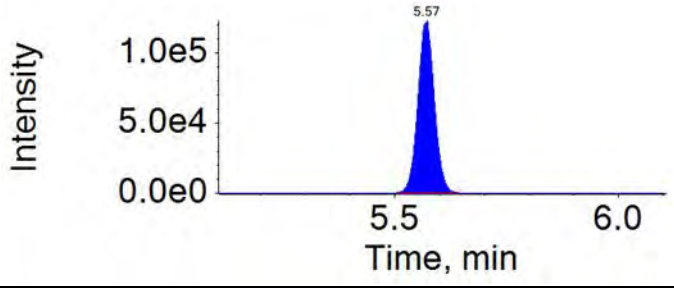
APPROVED
By JPT at 10:55 am, 11/9/18

REVIEWED
By umar at 3:41 pm, 11/12/18

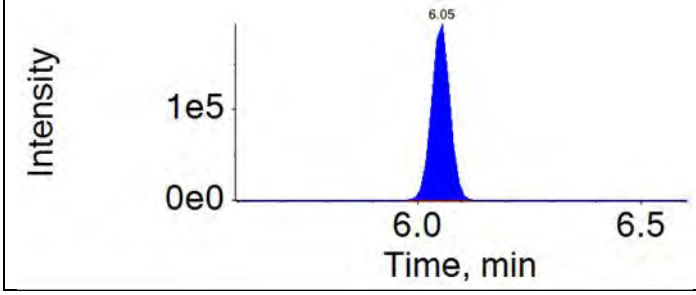
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

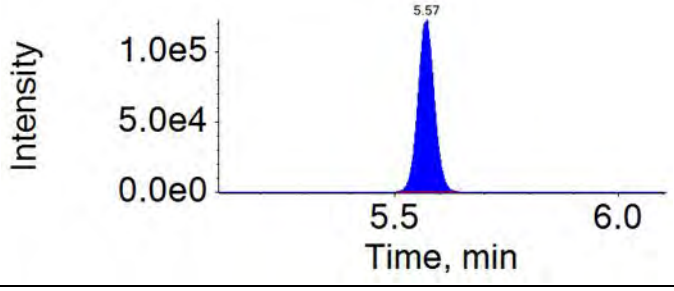
Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0



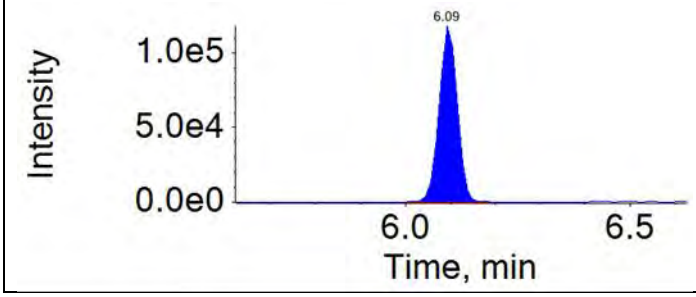


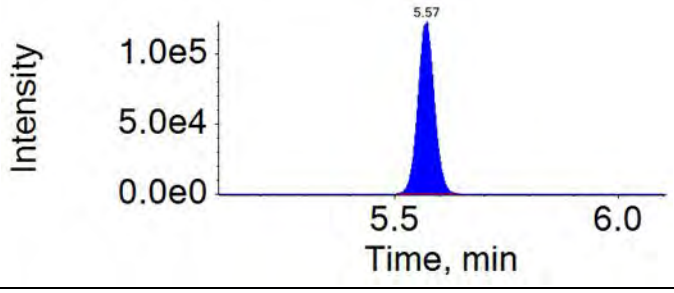
Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0



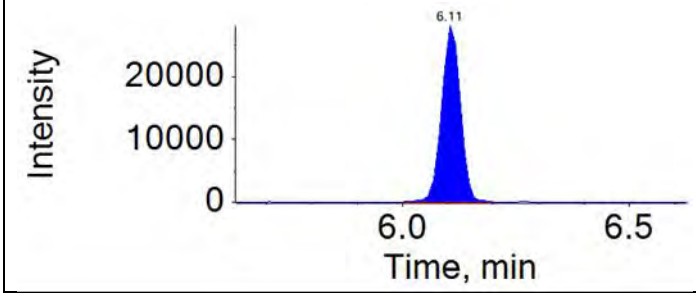


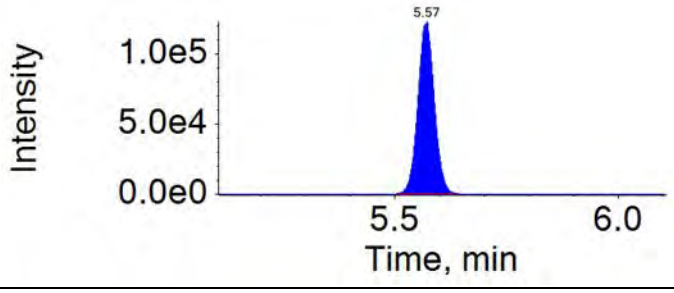
Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0





Extraction Standard: Ed3-NMePFOSA	Injection Standard: 13C2-PFDA
515.0 / 169.0	515.0 / 470.0



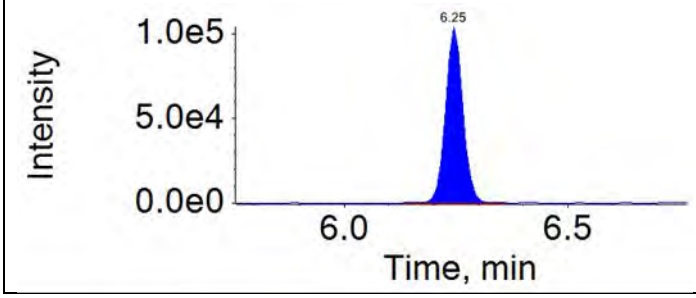


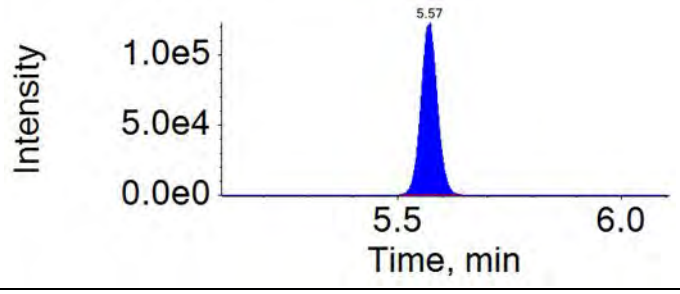
APPROVED
By JPT at 10:55 am, 11/9/18

REVIEWED
By umar at 3:41 pm, 11/12/18

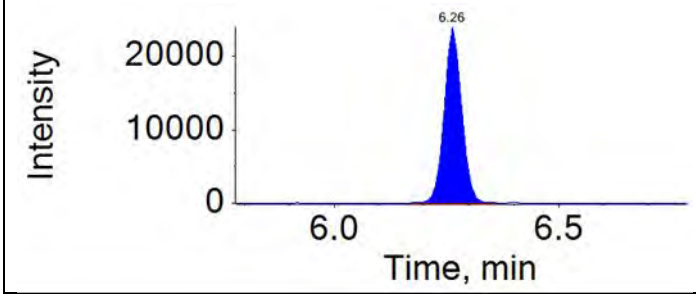
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

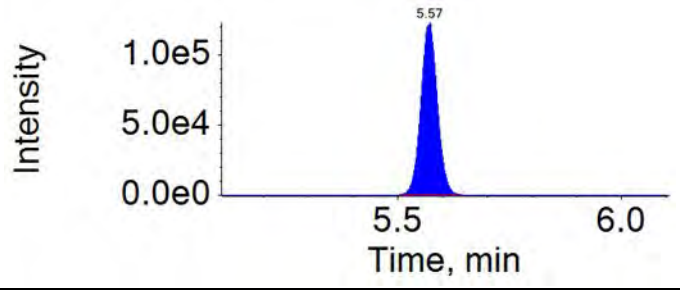
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



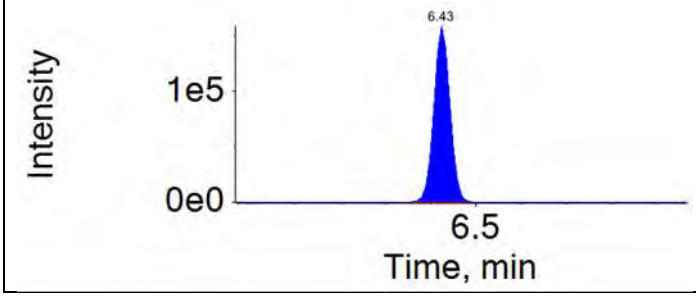


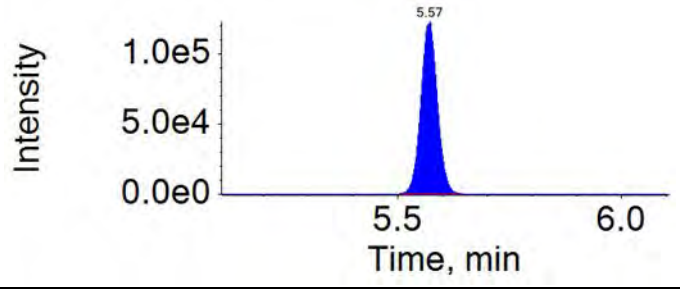
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0

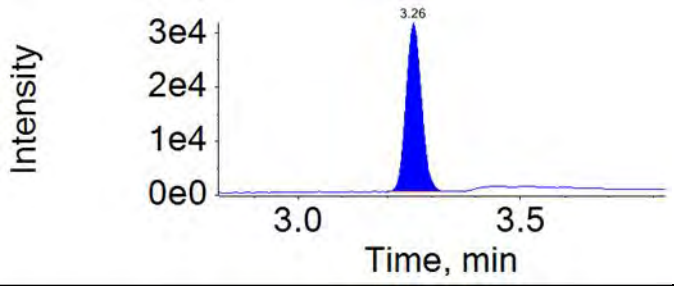
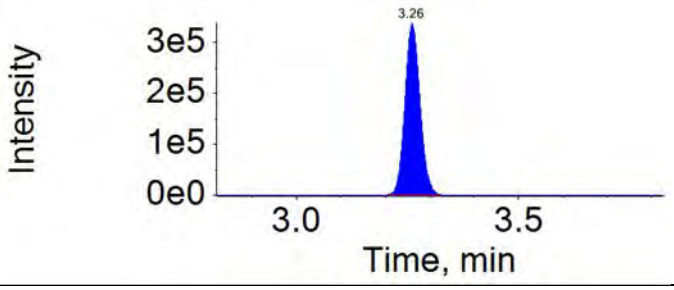


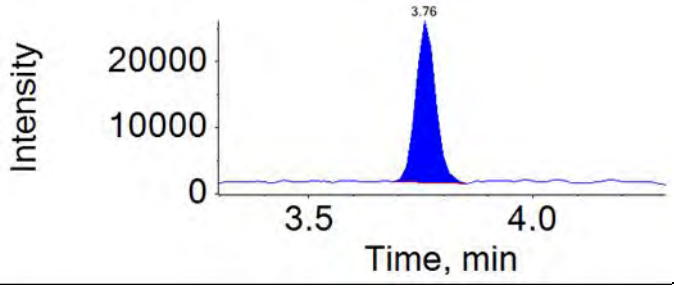
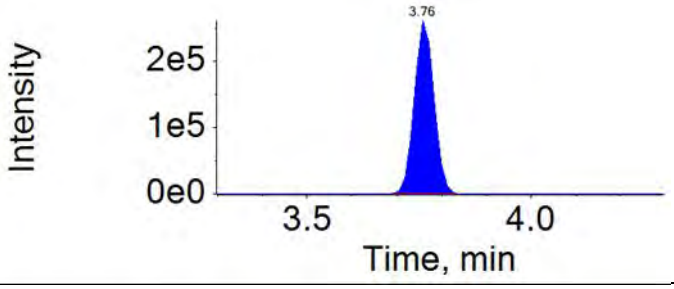


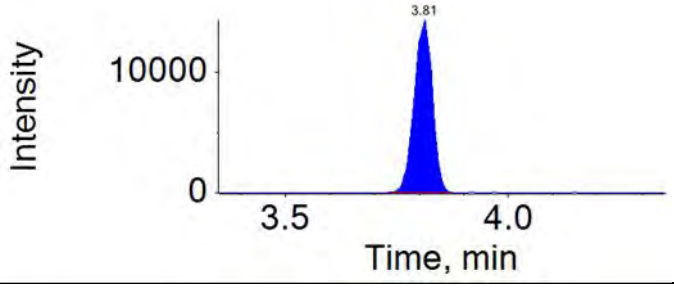
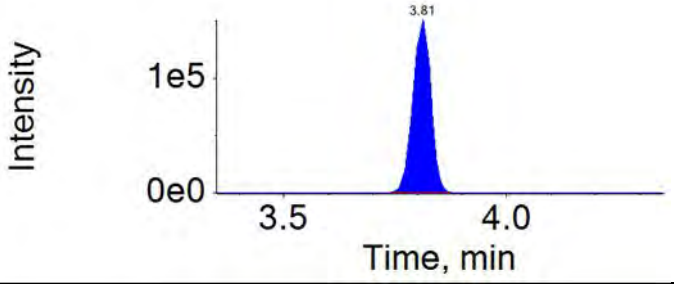
APPROVED
By JPT at 10:55 am, 11/9/18

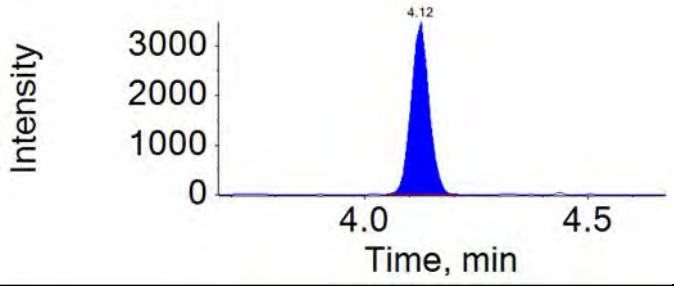
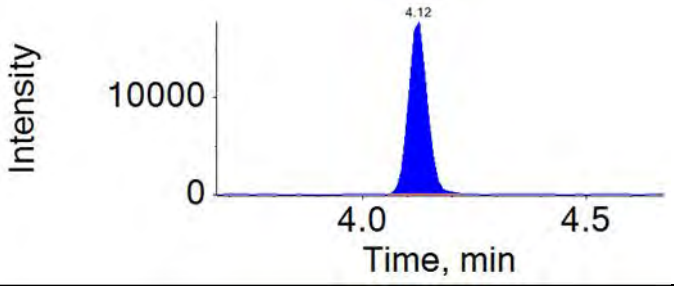
REVIEWED
By umar at 3:41 pm, 11/12/18

ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0
	

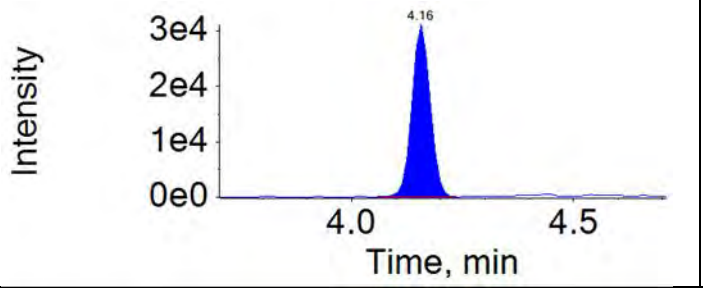
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0
	

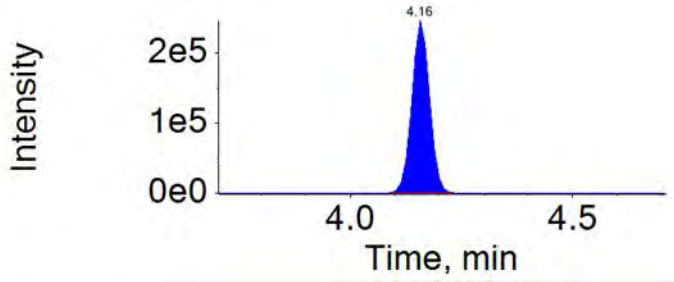
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0
	

Analyte: 4:2-FTS	Extraction Standard: 13C2-4:2-FTS
327.0 / 307.0	329.0 / 81.0
	

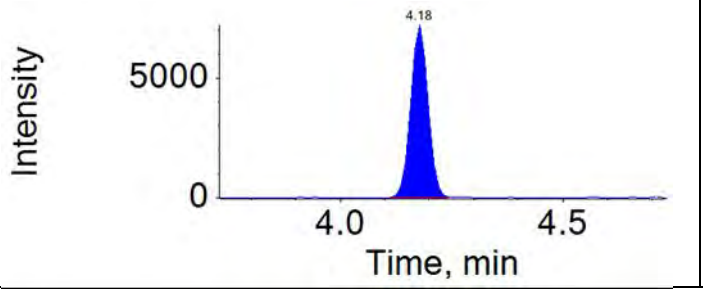
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

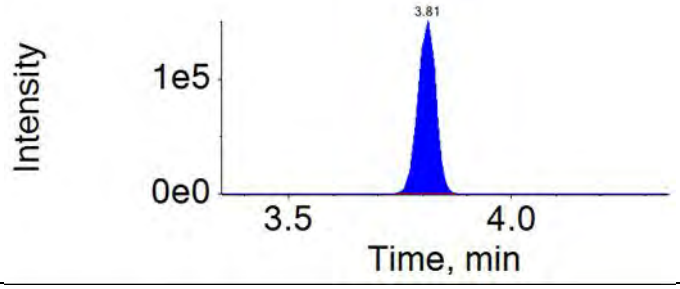
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



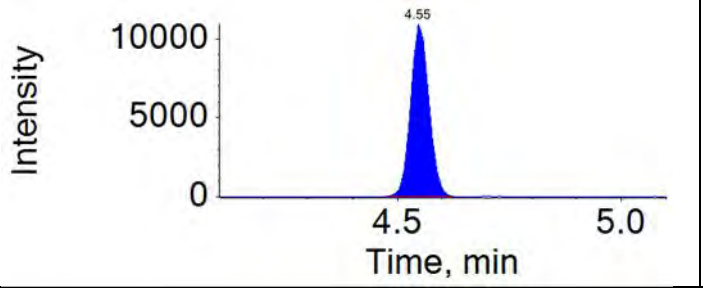


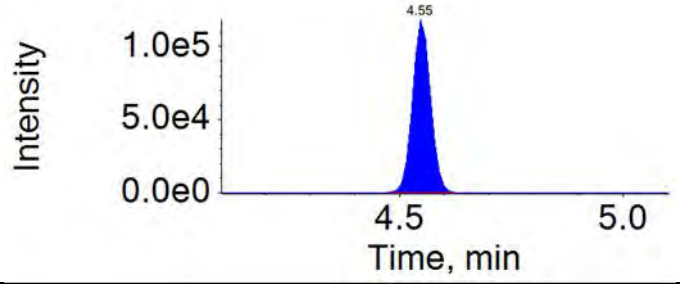
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



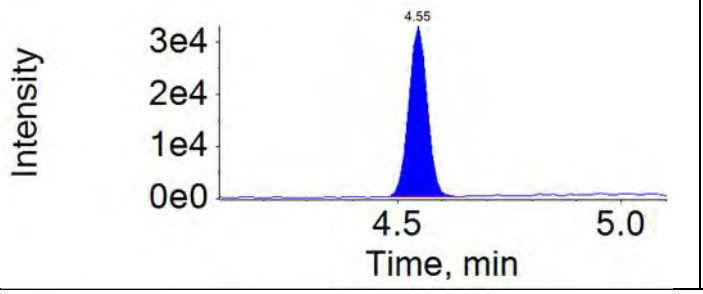


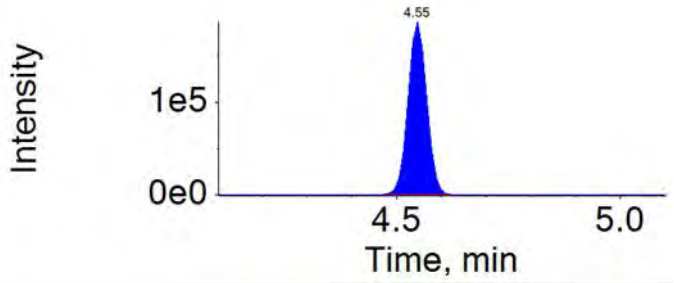
Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0





Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0

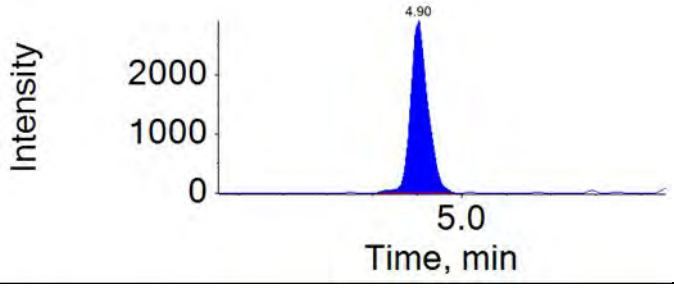
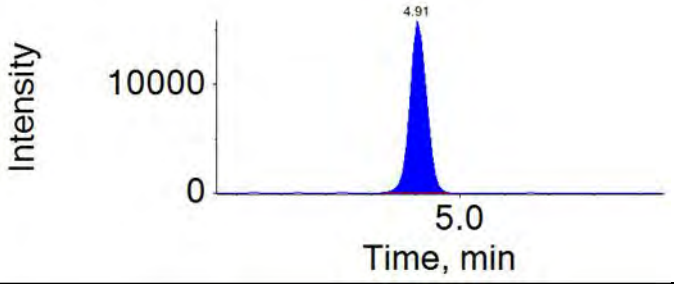


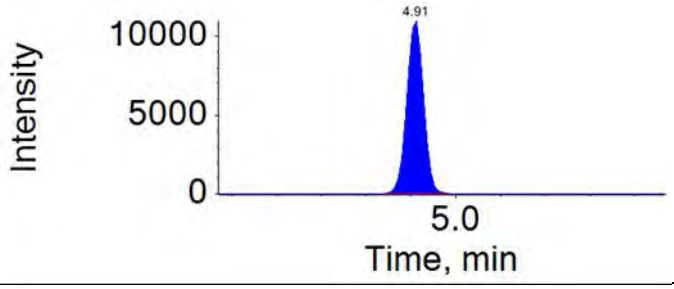
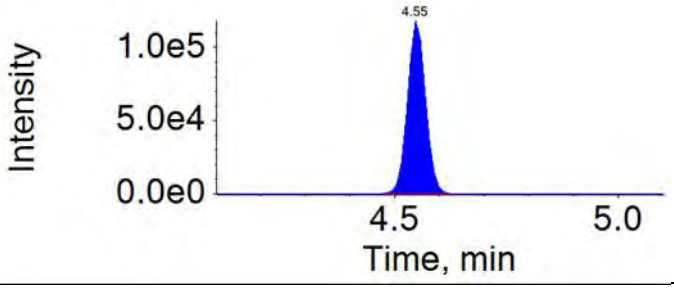


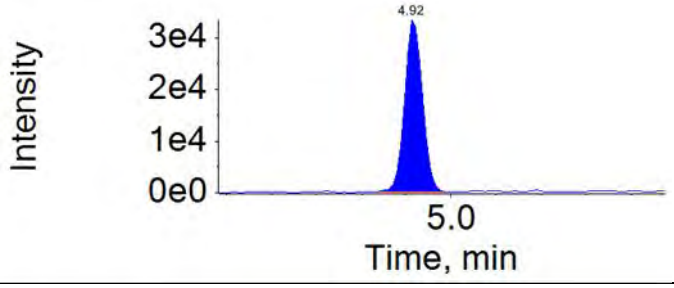
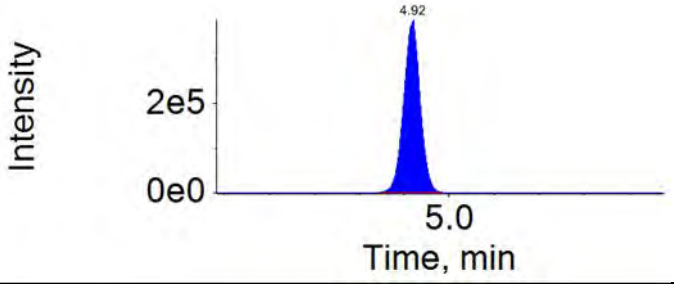
APPROVED
By JPT at 10:55 am, 11/9/18

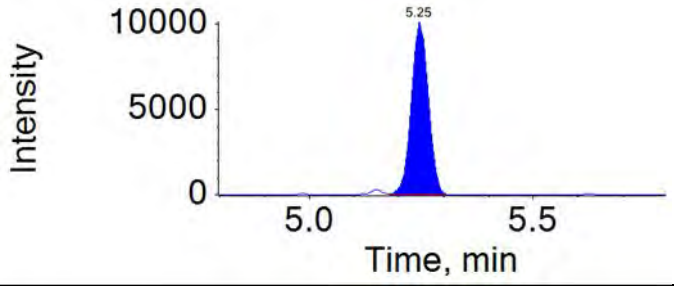
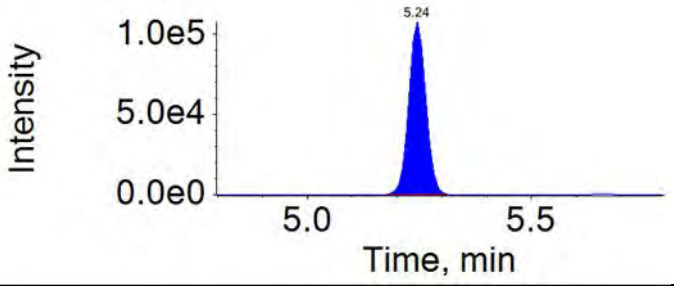
REVIEWED
By umar at 3:41 pm, 11/12/18

ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Analyte: 6:2-FTS	Extraction Standard: 13C2-6:2-FTS
427.0 / 407.0	429.0 / 81.0
	

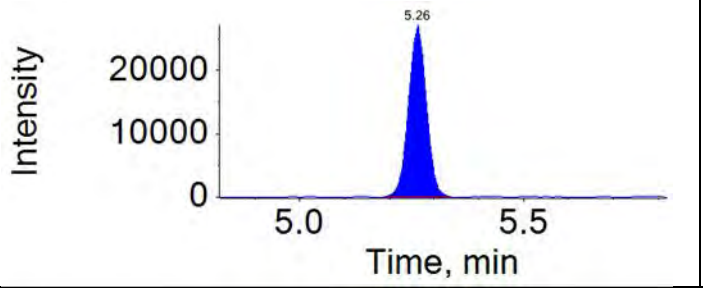
Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0
	

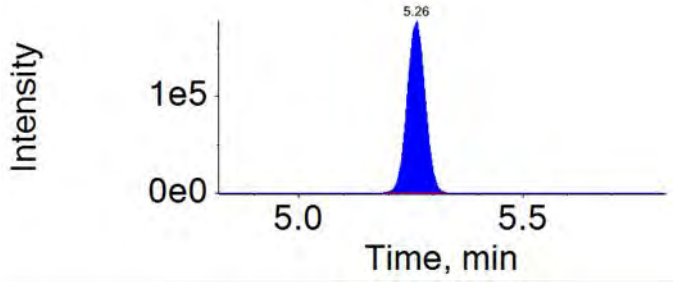
Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0
	

Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0
	

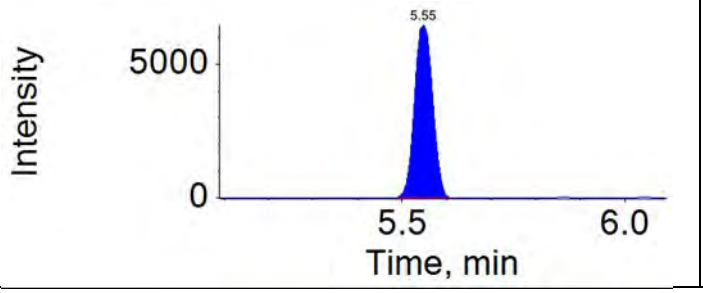
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

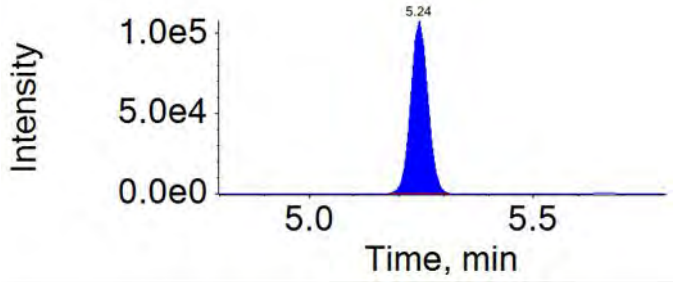
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



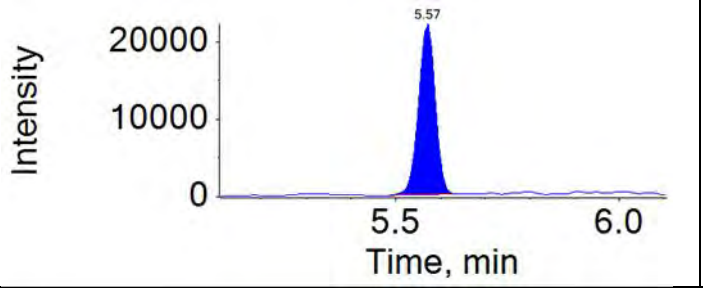


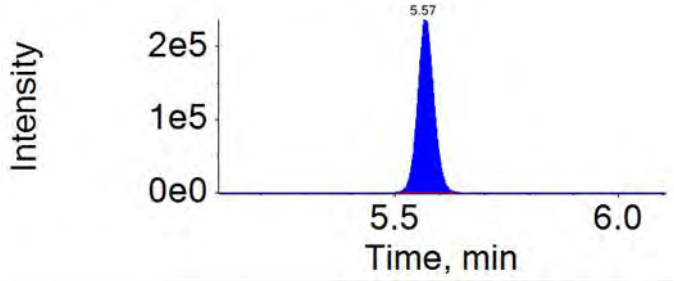
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



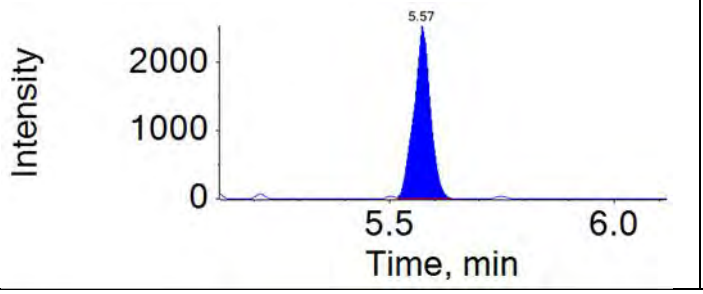


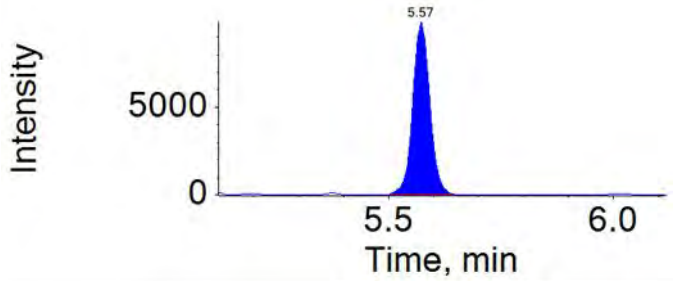
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





Analyte: 8:2-FTS	Extraction Standard: 13C2-8:2-FTS
527.0 / 507.0	529.0 / 81.0



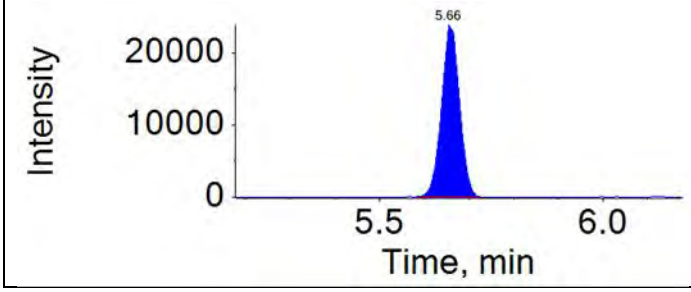


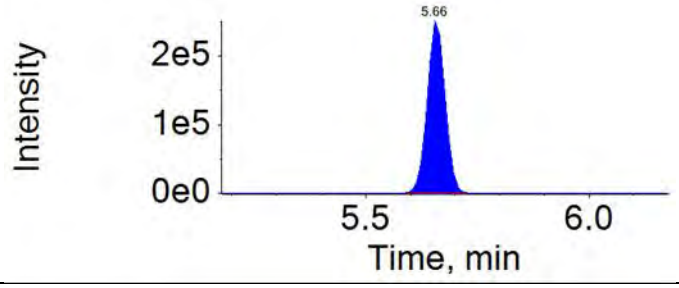
APPROVED
By JPT at 10:55 am, 11/9/18

REVIEWED
By umar at 3:41 pm, 11/12/18

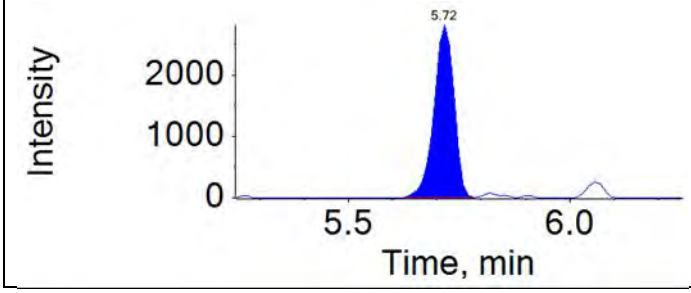
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

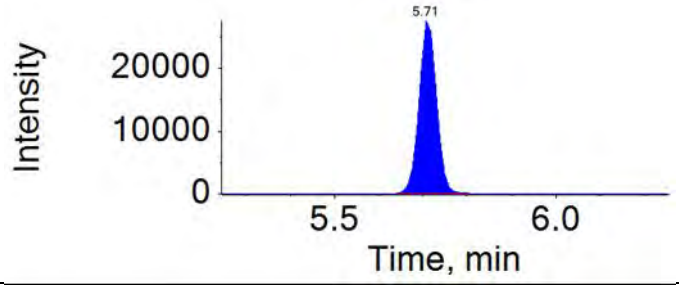
Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0



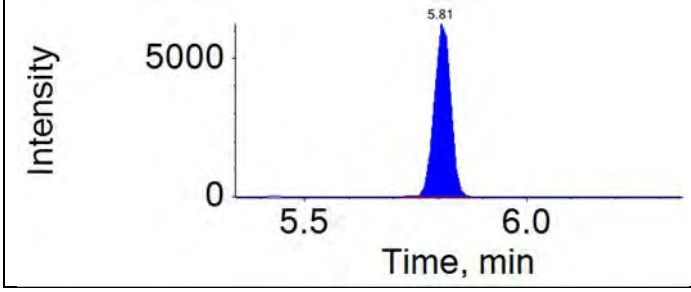


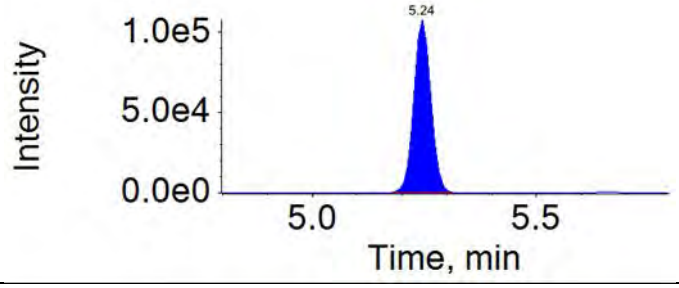
Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0



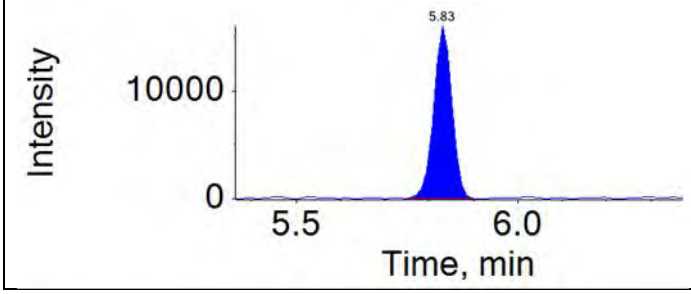


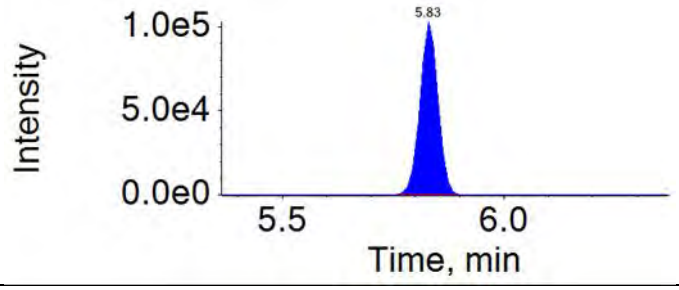
Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0





Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0

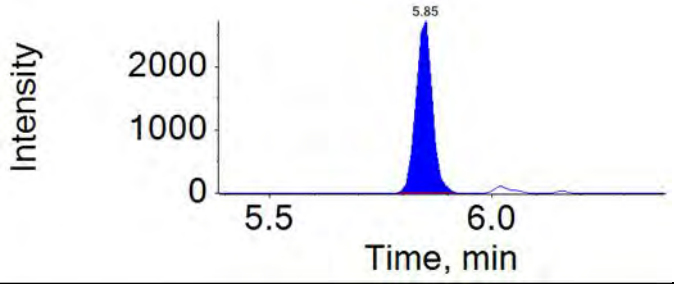
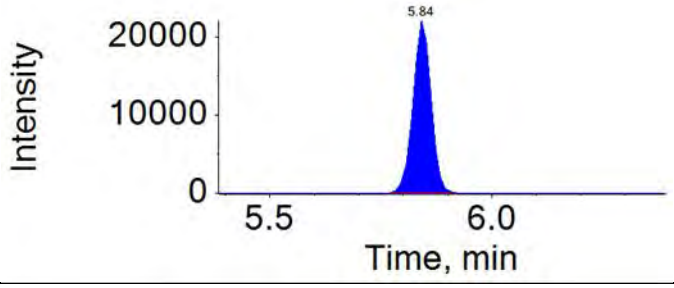


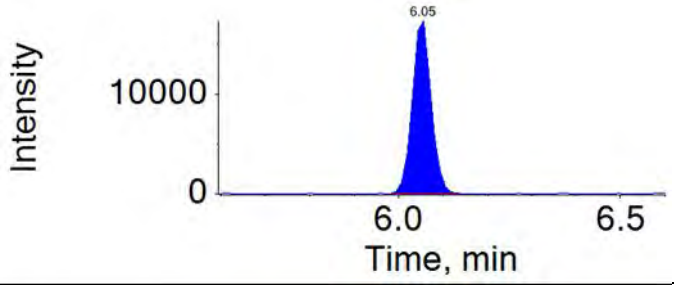
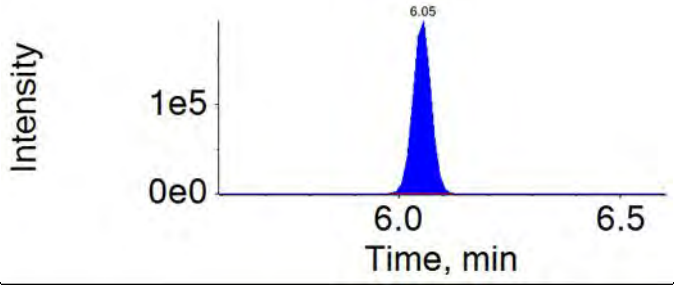


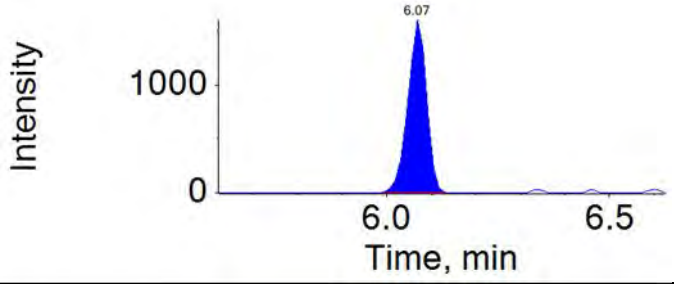
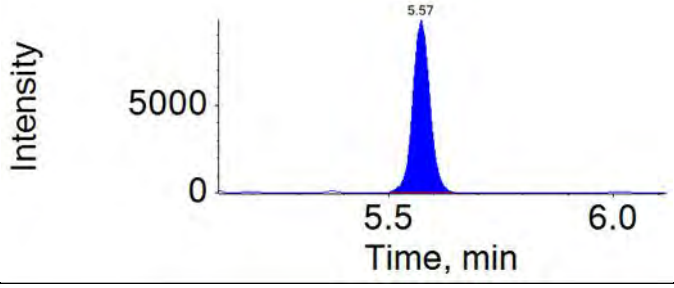
APPROVED
By JPT at 10:55 am, 11/9/18

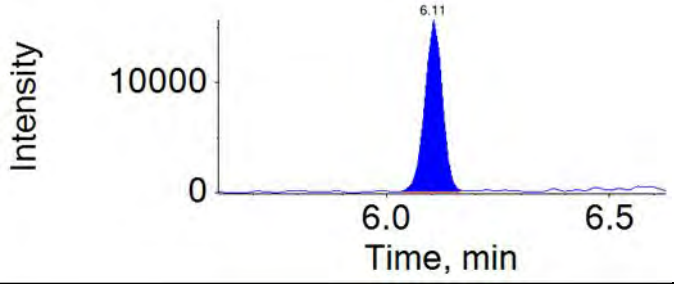
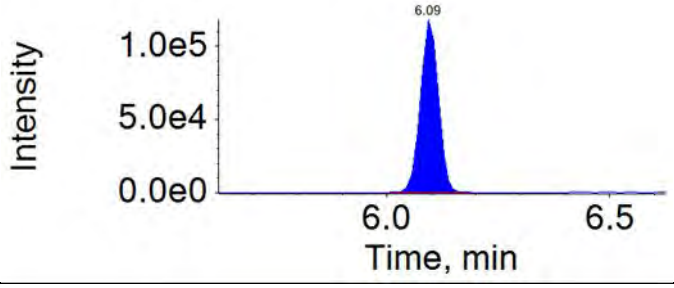
REVIEWED
By umar at 3:41 pm, 11/12/18

ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0
	

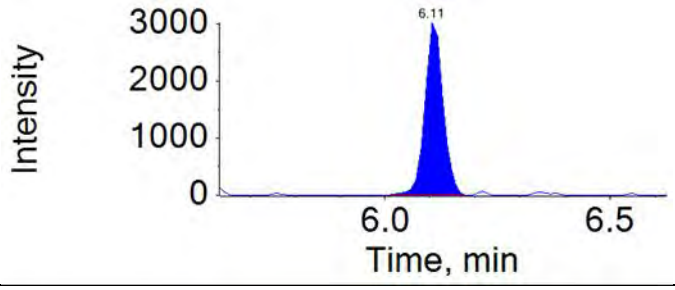
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0
	

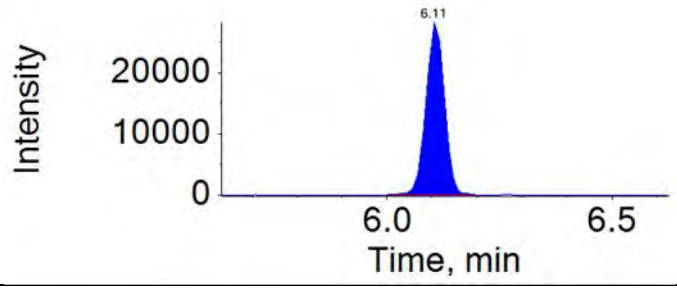
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0
	

Analyte: NMePFOSAE	Extraction Standard: d7-NMePFOSAE
616.0 / 59.0	623.0 / 59.0
	

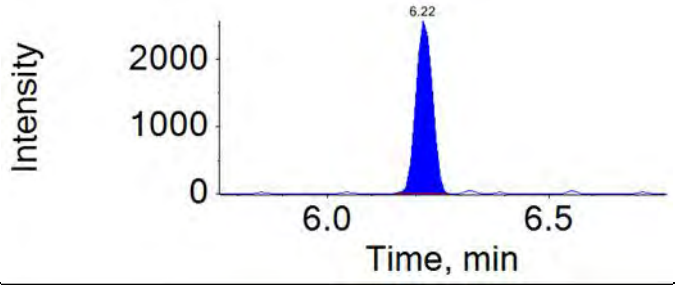
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

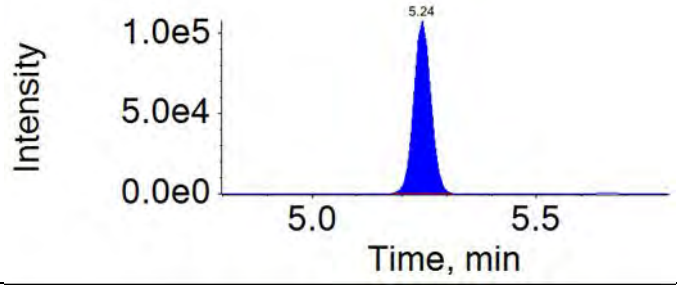
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



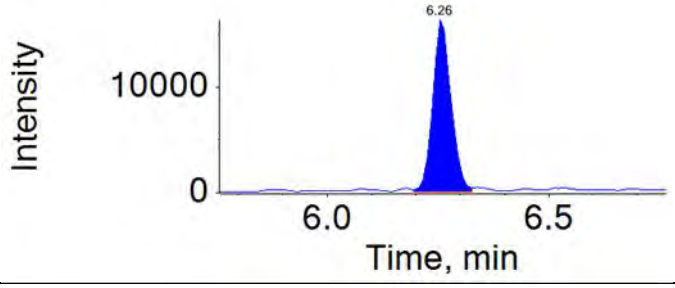


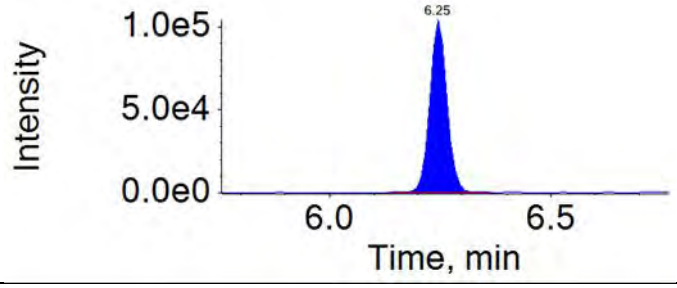
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



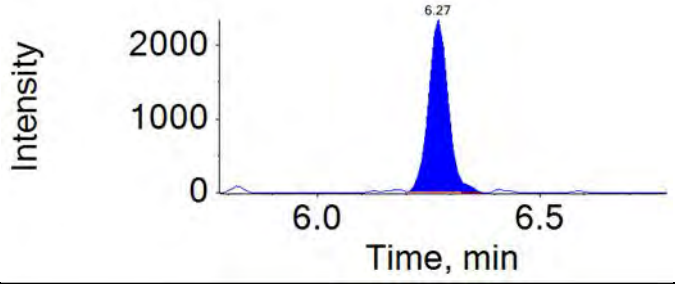


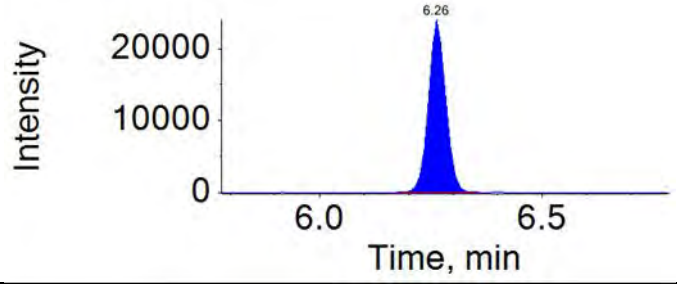
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





Analyte: NEtPFOSA	Extraction Standard: d5-NEtPFOSA
526.0 / 169.0	531.0 / 169.0

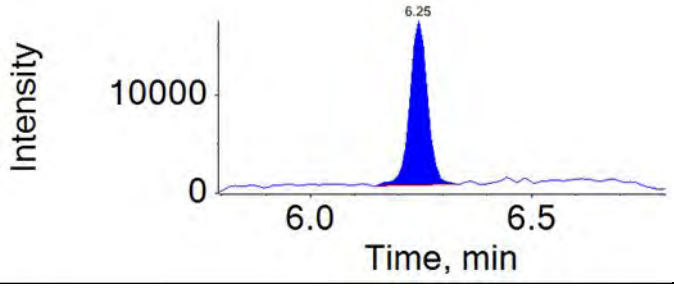
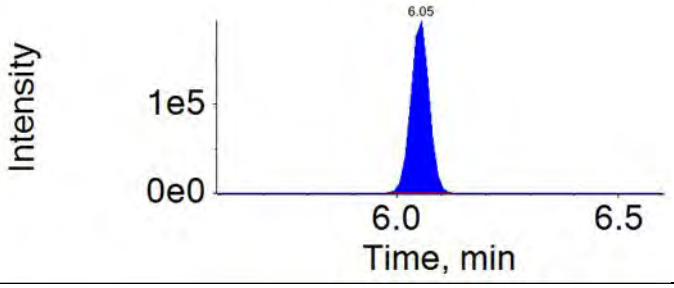


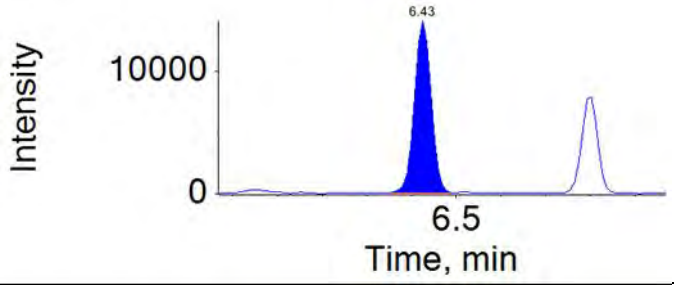
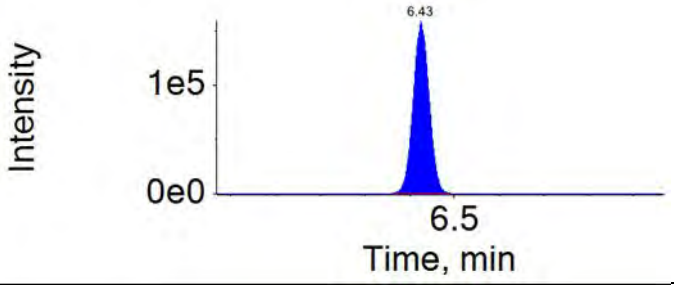


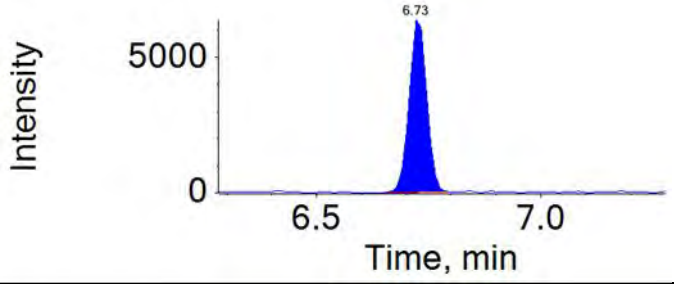
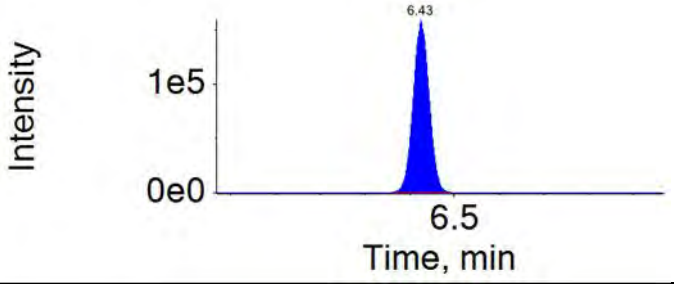
APPROVED
By JPT at 10:55 am, 11/9/18

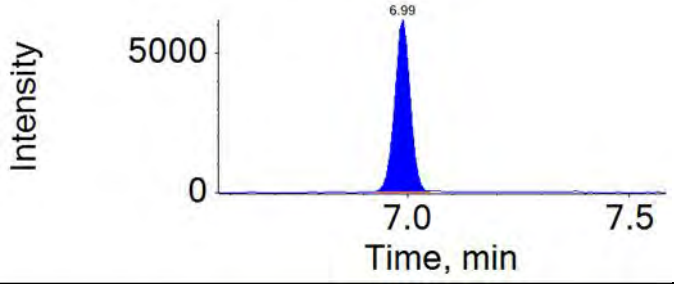
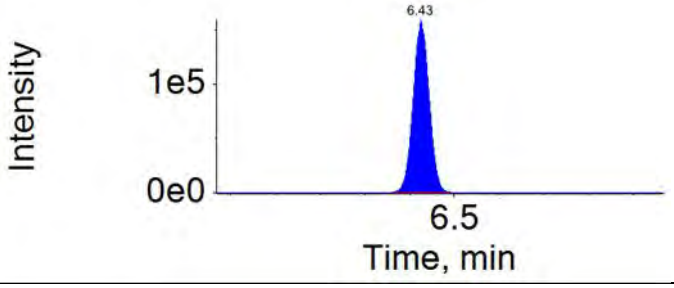
REVIEWED
By umar at 3:41 pm, 11/12/18

ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Analyte: PFTrDA	Extraction Standard: 13C2-PFDoDA
663.0 / 619.0	615.0 / 570.0
	

Analyte: PFTeDA	Extraction Standard: 13C2-PFTeDA
713.0 / 669.0	715.0 / 670.0
	

Analyte: PFHxDA	Extraction Standard: 13C2-PFTeDA
813.0 / 769.0	715.0 / 670.0
	

Analyte: PFODA	Extraction Standard: 13C2-PFTeDA
913.0 / 869.0	715.0 / 670.0
	

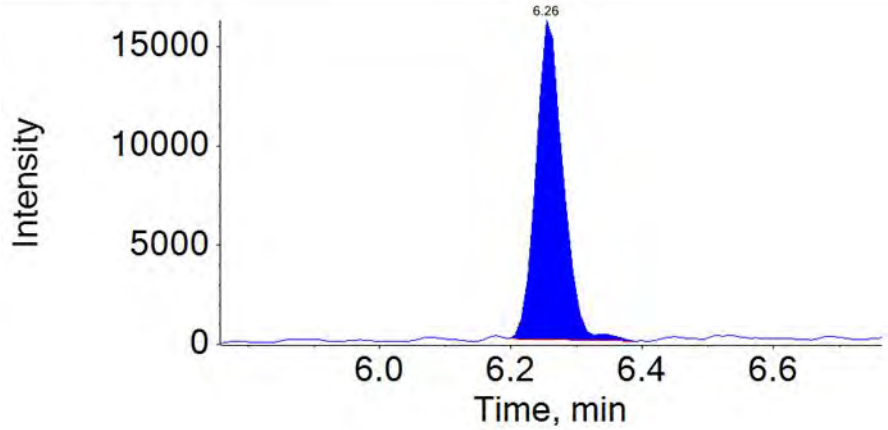
APPROVED
By JPT at 10:55 am, 11/9/18

REVIEWED
By umar at 3:41 pm, 11/12/18

Results Table Name: 18NOV08DCCV6-12
Results Table Date: 11/9/2018 9:21:41 AM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: MQ4-18AUG13

Component Name:
NEtPFOSAE
RT (min.):
6.26
Peak Area:
45995.1
Mass Range:
630.0 / 59.0
File Name:
18NOV08D-109.wiff
Sample Name:
CCV10_ISC_CAL2



Integration Comment: incorrect integration

APPROVED
By JPT at 10:55 am, 11/9/18

REVIEWED
By umar at 3:41 pm, 11/12/18

Results Table Name: 18NOV08DCCV6-12
Results Table Date: 11/9/2018 9:21:41 AM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: MQ4-18AUG13

APPROVED
By JPT at 10:55 am, 11/9/18

REVIEWED
By umar at 3:41 pm, 11/12/18

Ion Ratio Report

Sample Name: CCV10_ISC_CAL2 **Instrument Name:** LM27631 **File Name:** 18NOV08D-109.wiff

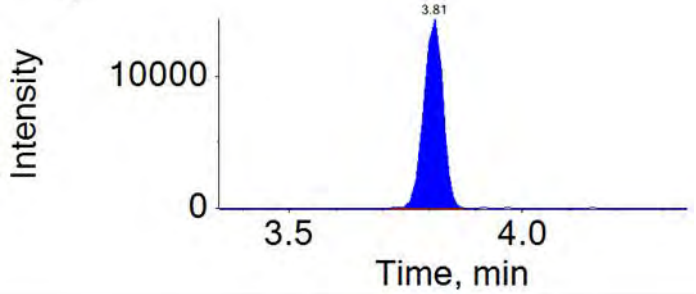
Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	3.81	1.00	41078.3	A	N/A	1.0000			
PFBS_2	3.81	1.00	14172.1	A	N/A	0.3450	-4	50	
4:2-FTS	4.12	1.00	9663.4	A	N/A	1.0000			
4:2-FTS_2	4.12	1.00	5879.1	A	N/A	0.6084	-4	50	
PFHxA	4.16	1.00	88198.5	A	N/A	1.0000			
PFHxA_2	4.16	1.00	882.8	A	N/A	0.0100	-13	50	
PFPeS	4.18	1.10	19380.9	A	N/A	1.0000			
PFPeS_2	4.18	1.10	11547.4	A	N/A	0.5958	11	50	
PFHxS	4.55	1.00	30924.8	A	N/A	1.0000			
PFHxS_2	4.55	1.00	10071.6	A	N/A	0.3257	-9	50	
PFHpA	4.55	1.00	93415.3	A	N/A	1.0000			
PFHpA_2	4.55	1.00	5086.8	A	N/A	0.0545	-6	50	
6:2-FTS	4.90	1.00	7777.7	A	N/A	1.0000			
6:2-FTS_2	4.90	1.00	4441.7	A	N/A	0.5711	-15	50	
PFHpS	4.91	1.08	28597.4	A	N/A	1.0000			
PFHpS_2	4.91	1.08	13806.2	A	N/A	0.4828	22	50	
PFOA	4.92	1.00	91880.3	A	N/A	1.0000			
PFOA_2	4.92	1.00	4946.8	A	N/A	0.0538	-15	50	
PFOS	5.25	1.00	26455.5	A	N/A	1.0000			
PFOS_2	5.24	1.00	10305.2	A	N/A	0.3895	11	50	
PFNA	5.26	1.00	74897.5	A	N/A	1.0000			
PFNA_2	5.27	1.00	1358.8	A	N/A	0.0181	-12	50	
PFNS	5.55	1.06	18460.5	A	N/A	1.0000			
PFNS_2	5.55	1.06	10198.9	A	N/A	0.5525	13	50	
PFDA	5.57	1.00	57162.3	A	N/A	1.0000			
PFDA_2	5.57	1.00	333.7	A	N/A	0.0058	3	50	
8:2-FTS	5.57	1.00	6386.5	A	N/A	1.0000			
8:2-FTS_2	5.57	1.00	4529.4	A	N/A	0.7092	15	50	
NMeFOSAA	5.72	1.00	8840.9	A	N/A	1.0000			
NMeFOSAA_2	5.72	1.00	1870.4	A	N/A	0.2116	-4	50	
PFDS	5.81	1.11	16096.0	A	N/A	1.0000			
PFDS_2	5.81	1.11	8090.4	A	N/A	0.5026	8	50	
PFUnDA	5.83	1.00	45466.7	A	N/A	1.0000			
PFUnDA_2	5.82	1.00	71.4	A	N/A	0.0016	-50	50	
NEtFOSAA	5.85	1.00	6910.6	A	N/A	1.0000			
NEtFOSAA_2	5.85	1.00	4213.5	A	N/A	0.6097	0	50	
PFDoDA	6.05	1.00	51308.0	A	N/A	1.0000			
PFDoDA_2	6.06	1.00	545.8	A	N/A	0.0106	-3	50	
10:2-FTS	6.07	1.09	4668.0	A	N/A	1.0000			
10:2-FTS_2	6.07	1.09	3114.5	A	N/A	0.6672	-6	50	
PFTrDA	6.25	1.03	45642.7	A	N/A	1.0000			
PFTrDA_2	6.25	1.03	503.2	A	N/A	0.0110	15	50	
PFTeDA	6.43	1.00	36443.3	A	N/A	1.0000			
PFTeDA_2	6.42	1.00	218.1	A	N/A	0.0060	8	50	
PFHxDA	6.73	1.05	17348.7	A	N/A	1.0000			
PFHxDA_2	6.73	1.05	1167.5	A	N/A	0.0673	13	50	

APPROVED
By JPT at 10:55 am, 11/9/18

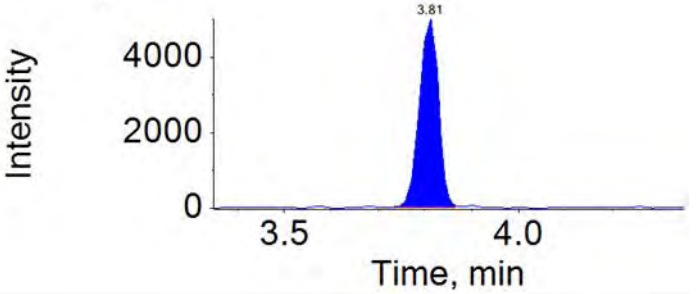
REVIEWED
By umar at 3:41 pm, 11/12/18

PFODA	6.99	1.09	14871.1	A	N/A	1.0000			
PFODA_2	6.99	1.09	320.0	A	N/A	0.0215	-16	50	

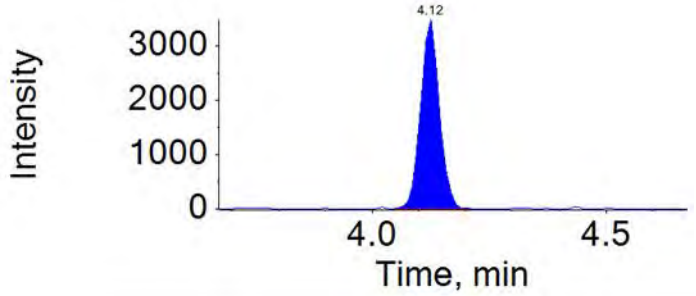
Component: PFBS
Primary Mass: 299.0 / 80.0



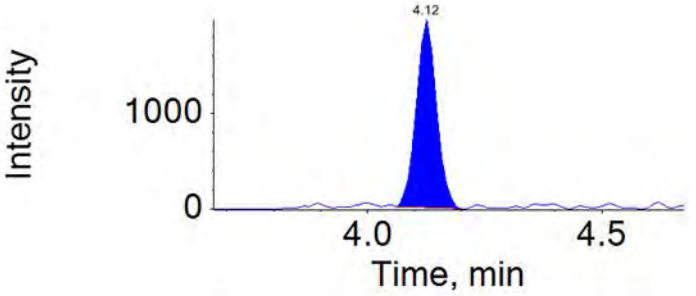
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



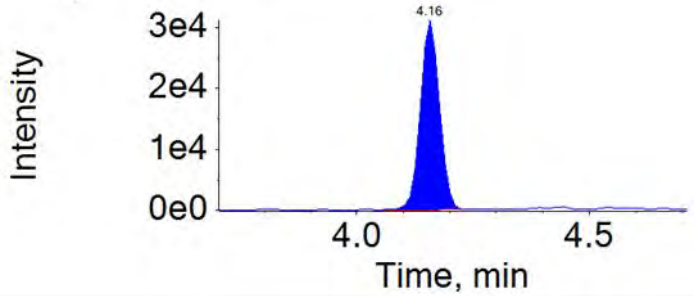
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



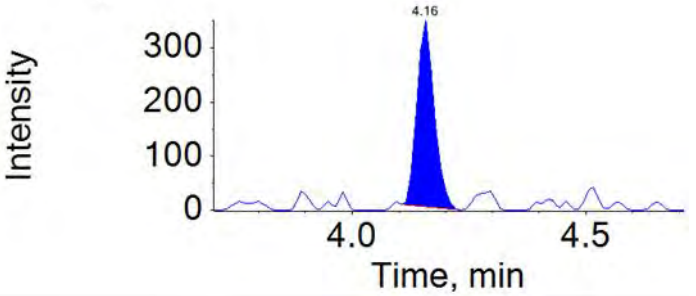
Component: 4:2-FTS_2
Secondary Mass: 327.0 / 81.0



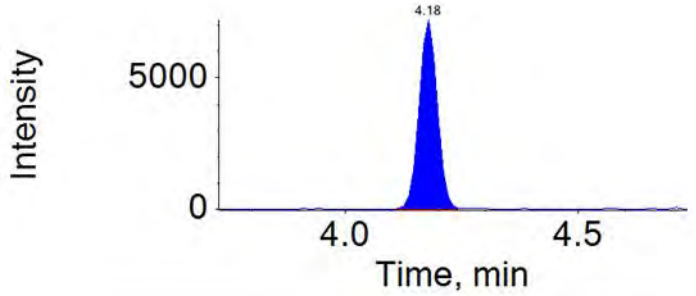
Component: PFHxA
Primary Mass: 313.0 / 269.0



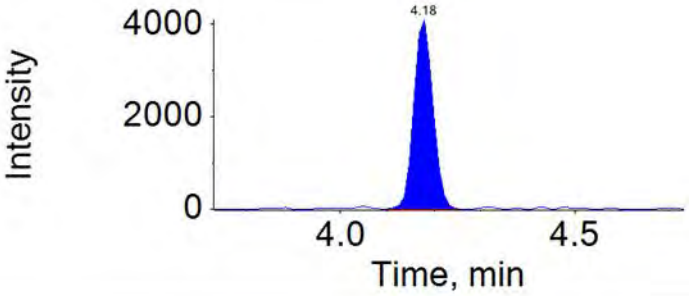
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



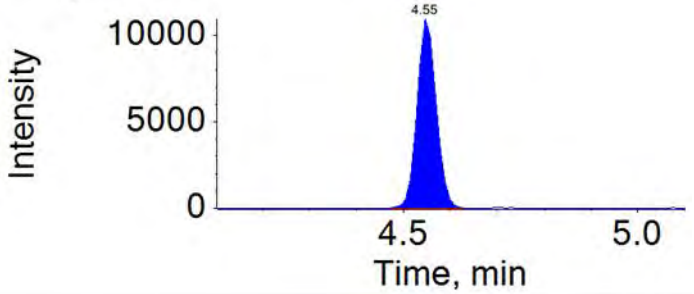
Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



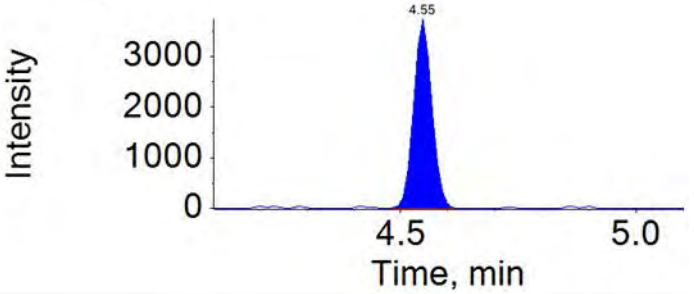
APPROVED
By JPT at 10:55 am, 11/9/18

REVIEWED
By umar at 3:41 pm, 11/12/18

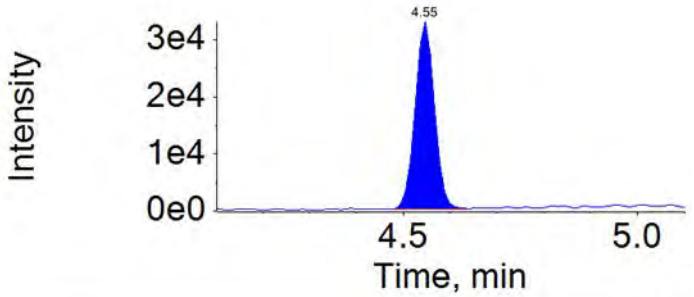
Component: PFHxS
Primary Mass: 399.0 / 80.0



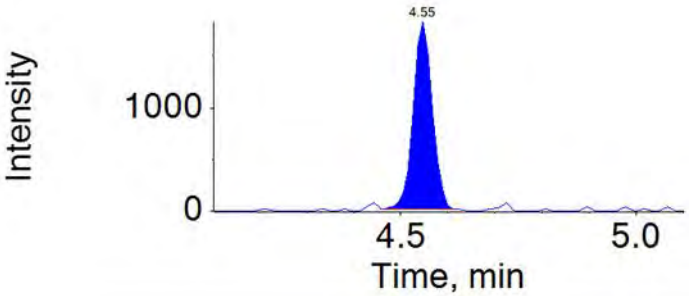
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



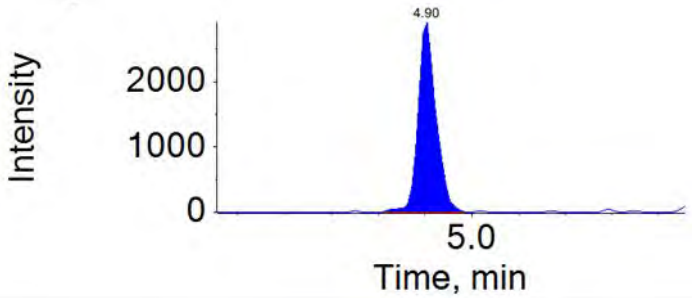
Component: PFHpA
Primary Mass: 363.0 / 319.0



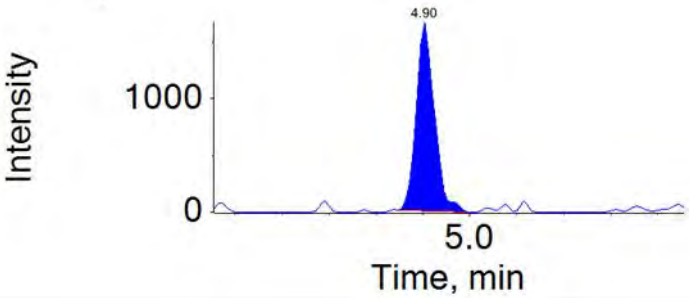
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



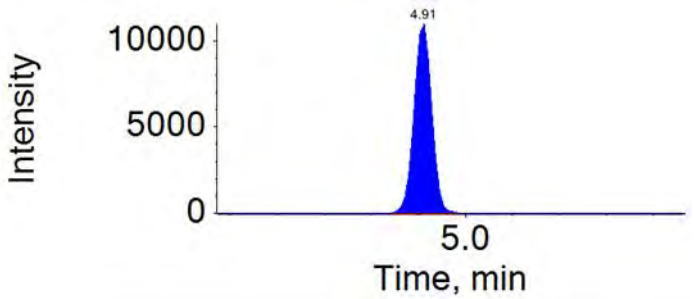
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



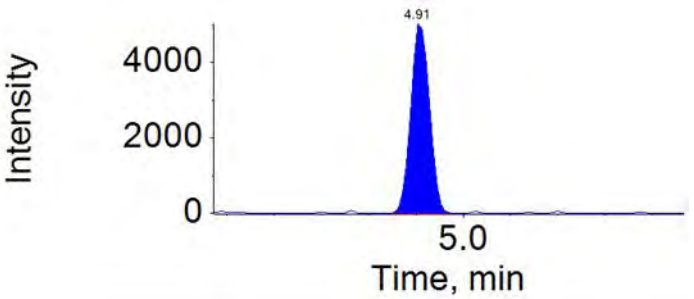
Component: 6:2-FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



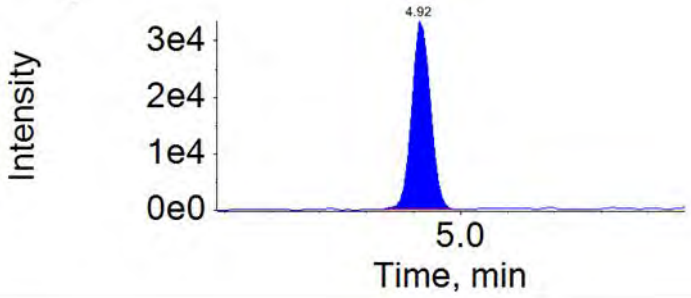
Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



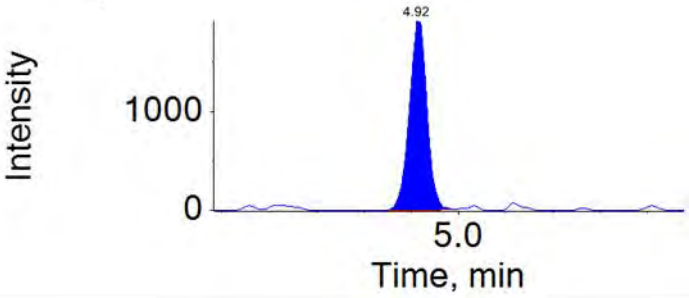
APPROVED
By JPT at 10:55 am, 11/9/18

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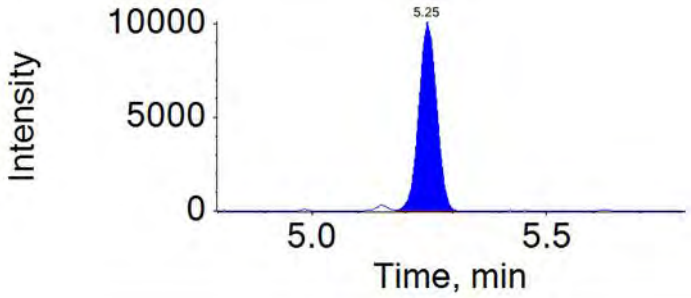
Component: PFOA
Primary Mass: 413.0 / 369.0



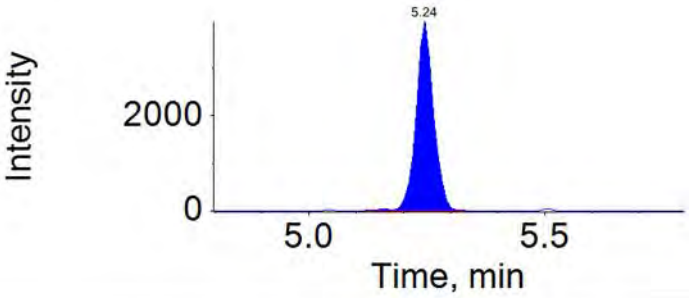
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



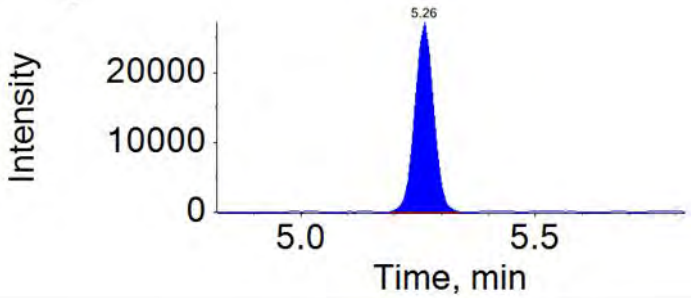
Component: PFOS
Primary Mass: 499.0 / 80.0



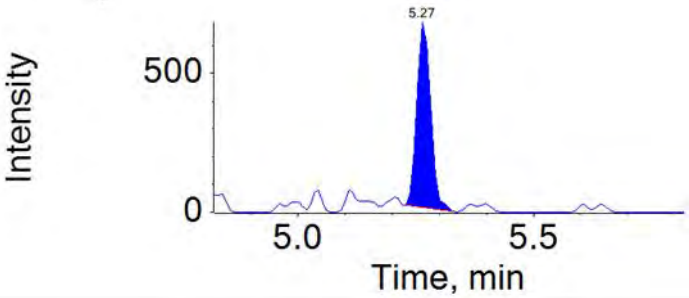
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



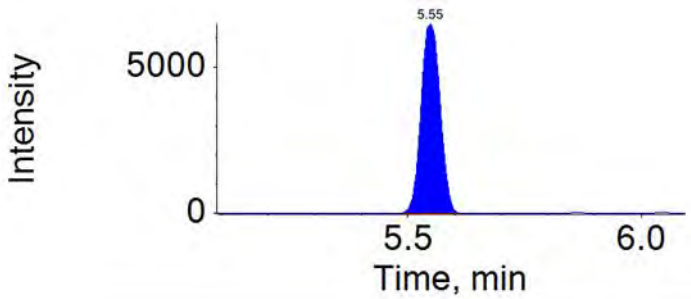
Component: PFNA
Primary Mass: 463.0 / 419.0



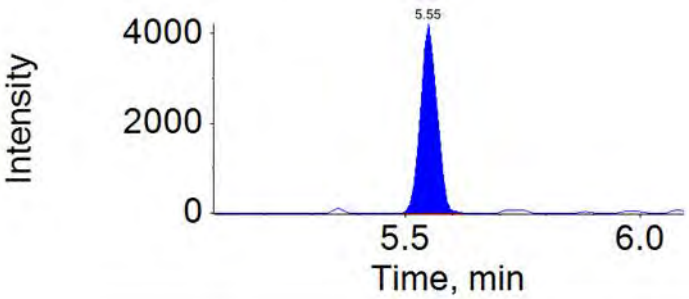
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



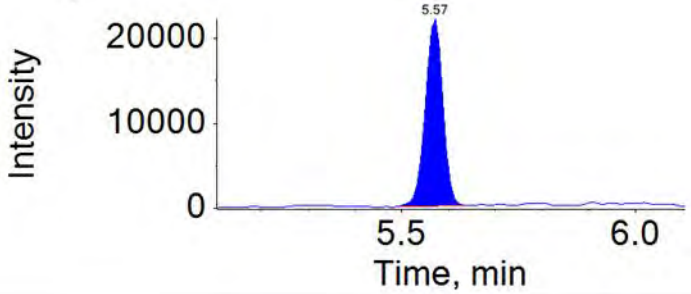
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



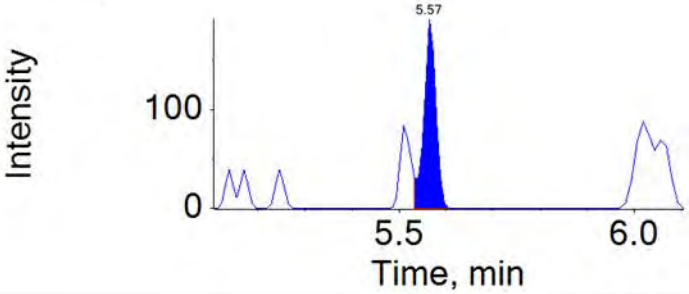
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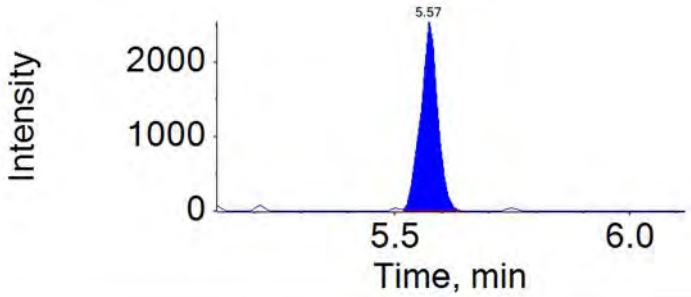
Component: PFDA
Primary Mass: 513.0 / 469.0



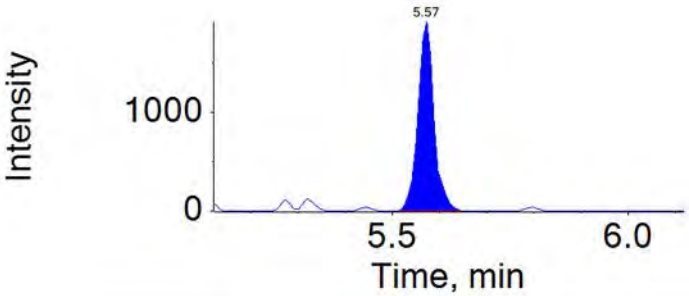
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



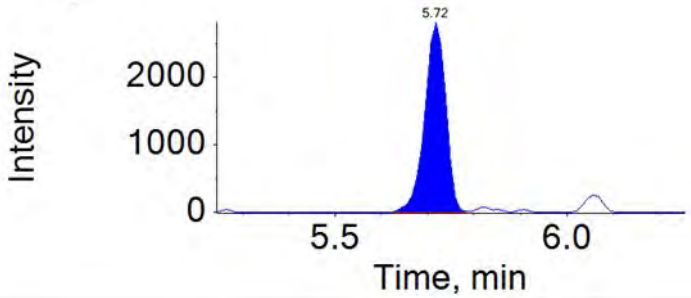
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



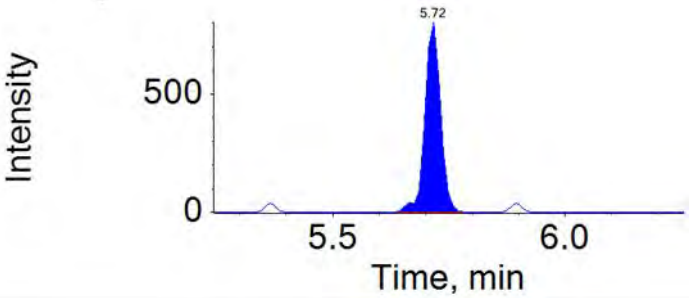
Component: 8:2-FTS_2
Secondary Mass: 527.0 / 81.0



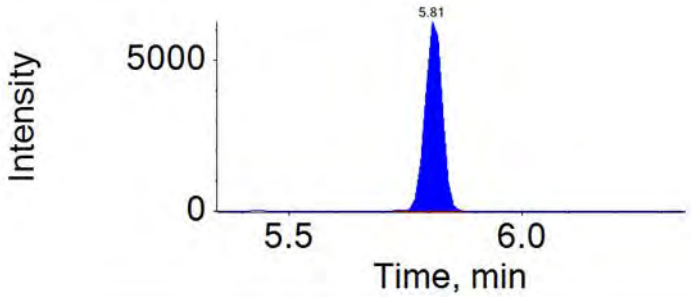
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



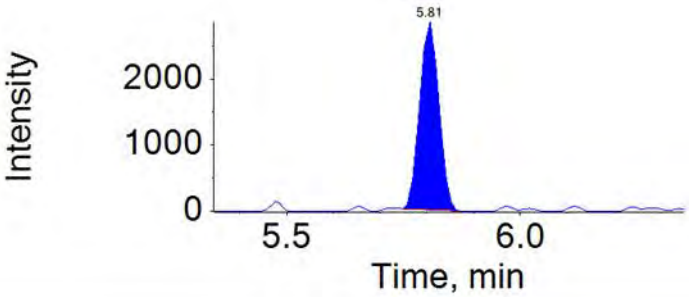
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



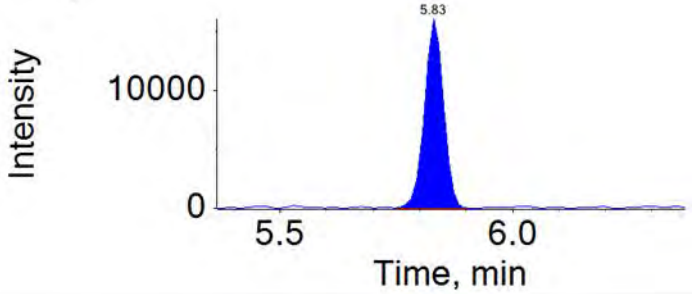
Component: PFDS_2
Secondary Mass: 599.0 / 99.0



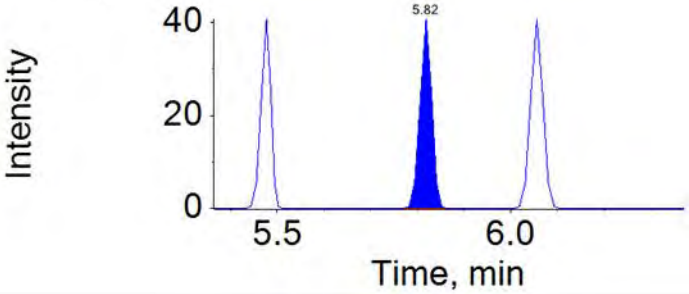
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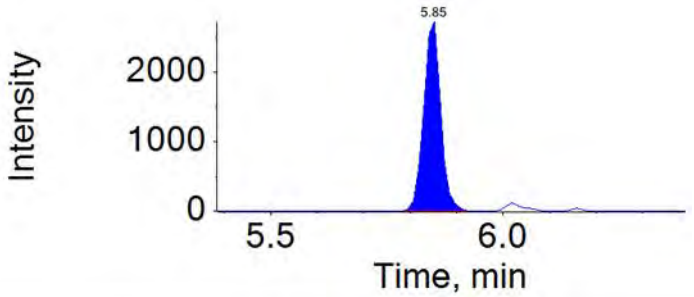
Component: PFUnDA
Primary Mass: 563.0 / 519.0



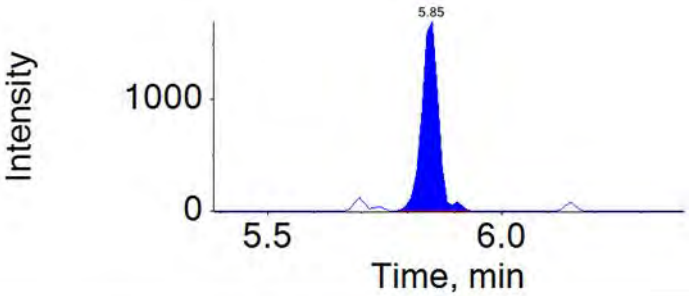
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



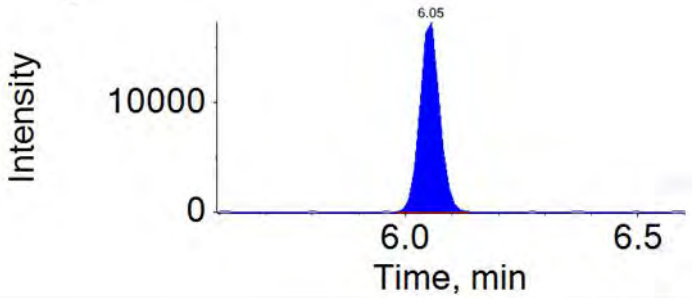
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



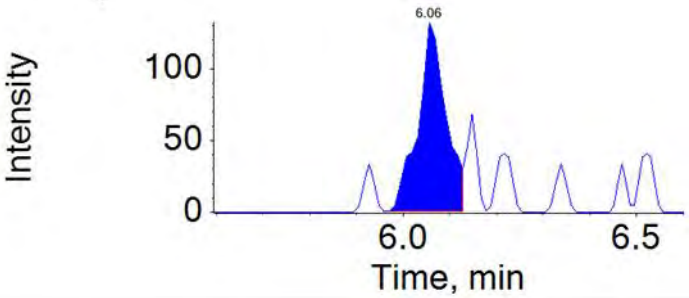
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



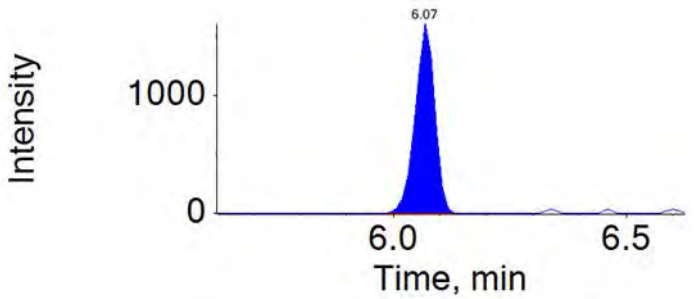
Component: PFDoDA
Primary Mass: 613.0 / 569.0



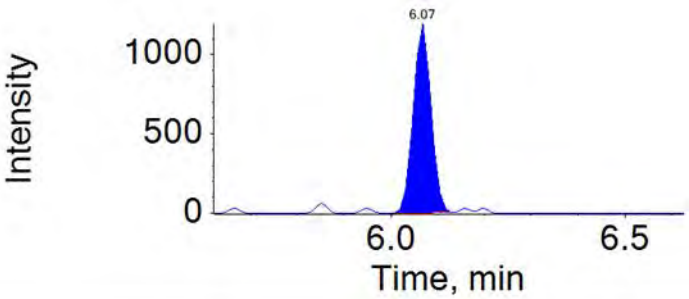
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



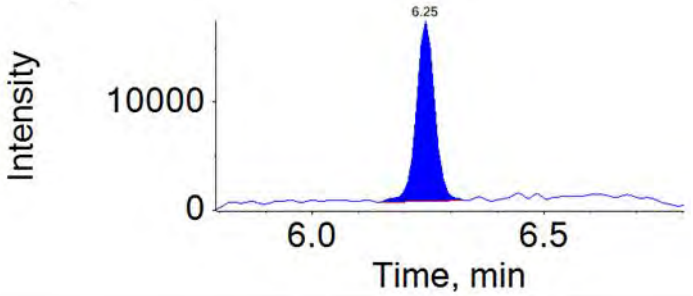
Component: 10:2-FTS_2
Secondary Mass: 627.0 / 81.0



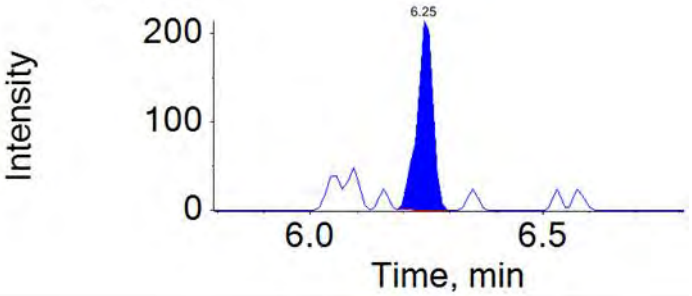
APPROVED
By JPT at 10:55 am, 11/9/18

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By umar at 3:41 pm, 11/12/18

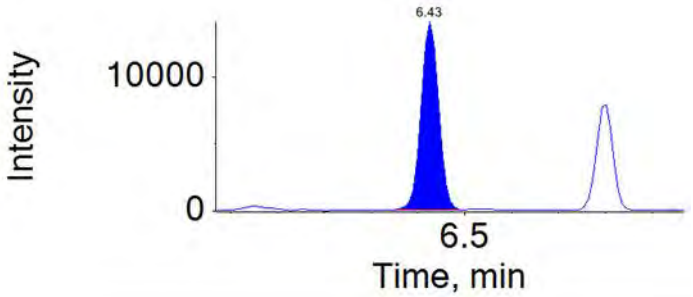
Component: PFTrDA
Primary Mass: 663.0 / 619.0



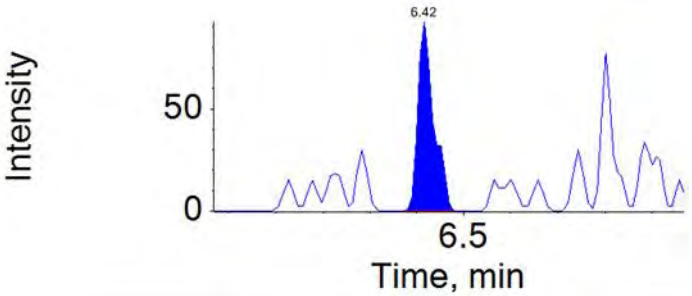
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



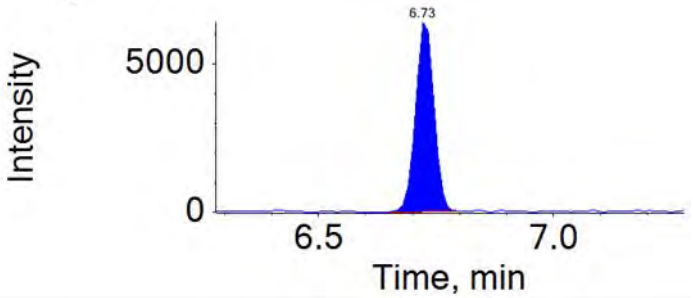
Component: PFTeDA
Primary Mass: 713.0 / 669.0



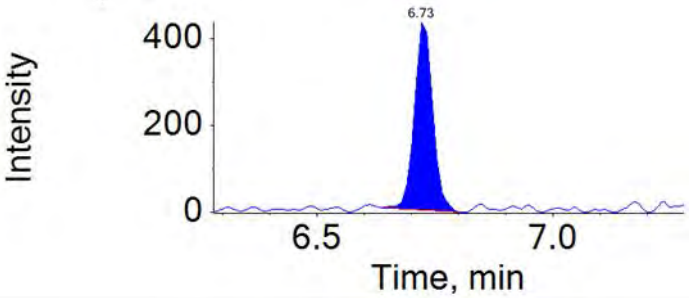
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



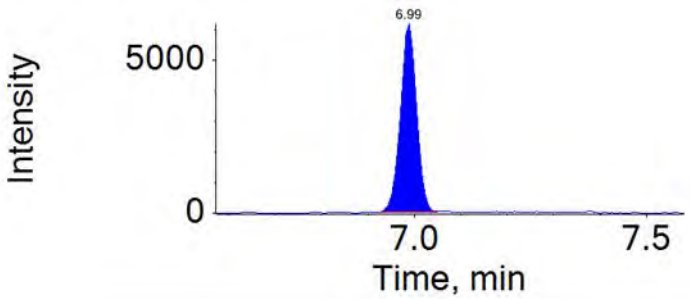
Component: PFHxDA
Primary Mass: 813.0 / 769.0



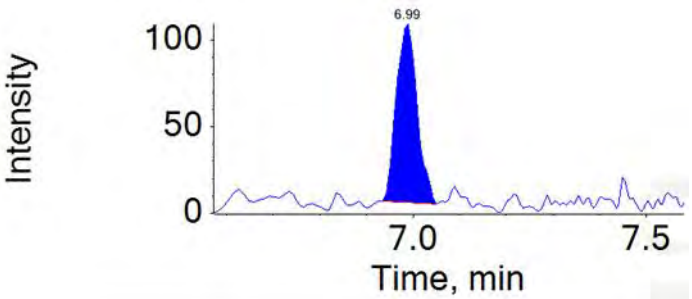
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



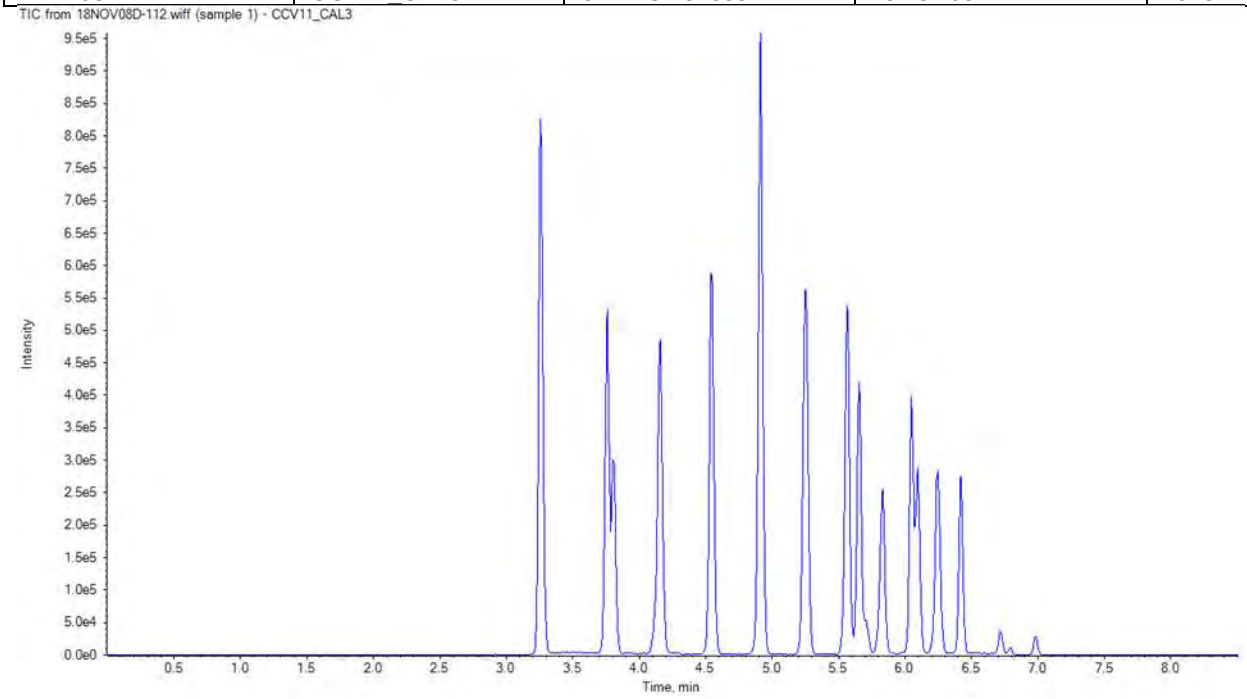
APPROVED
By JPT at 10:55 am, 11/9/18

REVIEWED
By umar at 3:41 pm, 11/12/18

Continuing Calibration Verfication

ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	CCV11_CAL3	CALMOD31833F	18NOV08D-112.wiff	2018-11-09T04:29:59



Injection Standard Area Reference File: 18NOV08D-05

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Reference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	735167.3	728839.7	1	50	
13C2-PFOA	5.0	537685.2	491983.1	9	50	
13C4-PFOS	4.8	282392.4	255568.1	10	50	
13C2-PFDA	5.0	307781.5	315407.5	-2	50	

APPROVED
By JPT at 10:55 am, 11/9/18

REVIEWED
By umar at 3:41 pm, 11/12/18

Continuing Calibration Verfication

ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	CCV11_CAL3	CALMOD31833F	18NOV08D-112.wiff	2018-11-09T04:29:59

Analyte Name	Analyte Area	Sc /pk	Ext Std Name	Ext Std Area	Ext Std con	Area Ratio	RT (min)	RRT	Spec Amt	Calc Amt	% Diff	% Diff Lim	% Diff OOS
PFBA	289133.8	10	13C4-PFBA	811374.4	5.0	0.356	3.26	1.000	2.000	2.086	4	30	
PFPeA	305933.0	12	13C5-PFPeA	837362.2	5.0	0.365	3.76	1.000	2.000	2.171	9	30	
PFBS	158917.3	11	13C3-PFBS	436467.6	4.7	0.364	3.81	1.000	1.770	1.836	4	30	
4:2-FTS	39793.6	11	13C2-4:2-FTS	50505.7	4.7	0.788	4.12	1.000	1.868	2.118	13	30	
PFHxA	351665.4	12	13C5-PFHxA	693206.6	5.0	0.507	4.16	1.000	2.000	2.176	9	30	
PFPeS	80706.7	11	13C3-PFBS	436467.6	4.7	0.185	4.17	1.100	1.880	1.824	-3	30	
PFHxS	125867.3	12	13C3-PFHxS	328207.9	4.7	0.383	4.55	1.000	1.890	1.944	3	30	
PFHpA	352421.0	12	13C4-PFHpA	543762.8	5.0	0.648	4.54	1.000	2.000	2.180	9	30	
6:2-FTS	30043.0	12	13C2-6:2-FTS	37677.3	4.8	0.797	4.90	1.000	1.896	1.989	5	30	
PFHpS	118676.2	11	13C3-PFHxS	328207.9	4.7	0.362	4.91	1.080	1.900	1.892	0	30	
PFOA	361115.0	11	13C8-PFOA	934884.0	5.0	0.386	4.91	1.000	2.000	2.175	9	30	
PFOS	116945.3	11	13C8-PFOS	296350.6	4.8	0.395	5.24	1.000	1.910	2.046	7	30	
PFNA	282556.0	11	13C9-PFNA	522312.2	5.0	0.541	5.26	1.000	2.000	2.022	1	30	
PFNS	73432.2	10	13C8-PFOS	296350.6	4.8	0.248	5.54	1.060	1.920	1.965	2	30	
PFDA	235481.5	11	13C6-PFDA	599155.2	5.0	0.393	5.57	1.000	2.000	2.162	8	30	
8:2-FTS	26165.8	11	13C2-8:2-FTS	28762.2	4.8	0.910	5.57	1.000	1.916	2.051	7	30	
PFOSA	270686.0	11	13C8-PFOSA	693859.2	5.0	0.390	5.65	1.000	2.000	2.109	5	30	
NMeFOSAA	30983.2	12	d3-NMeFOSAA	79999.5	5.0	0.387	5.71	1.000	2.000	1.993	0	30	
PFDS	57397.4	11	13C8-PFOS	296350.6	4.8	0.194	5.81	1.110	1.930	1.850	-4	30	
PFUnDA	191328.1	11	13C7-PFUnDA	271794.8	5.0	0.704	5.83	1.000	2.000	2.019	1	30	
NEtFOSAA	27086.3	12	d5-NEtFOSAA	66571.1	5.0	0.407	5.85	1.000	2.000	1.749	-13	30	
PFDoDA	218161.6	12	13C2-PFDoDA	604255.7	5.0	0.361	6.05	1.000	2.000	1.957	-2	30	
10:2-FTS	16417.1	12	13C2-8:2-FTS	28762.2	4.8	0.571	6.07	1.090	1.928	1.777	-8	30	
NMePFOSAE	158458.9	12	d7-NMePFOSAE	354186.1	5.0	0.447	6.10	1.000	2.000	2.005	0	30	
NMePFOSA	31105.8	11	d3-NMePFOSA	84218.3	5.0	0.369	6.11	1.000	2.000	2.067	3	30	
PFDoS	26969.8	11	13C8-PFOS	296350.6	4.8	0.091	6.21	1.180	1.940	1.756	-9	30	
NEtPFOSAE	180027.7	11	d9-NEtPFOSAE	275295.5	5.0	0.654	6.25	1.000	2.000	2.096	5	30	
NEtPFOSA	28456.1	11	d5-NEtPFOSA	68642.6	5.0	0.415	6.26	1.000	2.000	1.826	-9	30	
PFTrDA	178943.0	11	13C2-PFDoDA	604255.7	5.0	0.296	6.24	1.030	2.000	1.867	-7	30	
PFTeDA	145296.8	10	13C2-PFTeDA	414258.7	5.0	0.351	6.42	1.000	2.000	2.060	3	30	
PFHxDA	70843.5	11	13C2-PFTeDA	414258.7	5.0	0.171	6.72	1.050	2.000	2.123	6	30	
PFODA	60584.9	10	13C2-PFTeDA	414258.7	5.0	0.146	6.98	1.090	2.000	2.095	5	30	

APPROVED
By JPT at 10:55 am, 11/9/18

REVIEWED
By umar at 3:41 pm, 11/12/18

Continuing Calibration Verfication

ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13
Result Table: 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
Acquisition Method: 18AUG13_3uL.dam

APPROVED
By JPT at 10:55 am, 11/9/18

REVIEWED
By umar at 3:41 pm, 11/12/18

ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
Acquisition Method: 18AUG13_3uL.dam

Sample Name:	CCV11_CAL3			**Data File:**		18NOV08D-112.wiff
Sample ID:	CALMOD31833F			**Acquis Date:**		2018-11-09T04:29:59
Sample Type:	Quality Control			**Instrument:**		LM27631
Vial Position:	5			**Acquis Method:**		18AUG13_3uL.dam
Injection Vol:	3.00			**Result Table:**		18NOV08DCCV6-12
QMethod File:	MQ4-18AUG13			**ICAL Name:**		18NOV07DCAL
Batch Number:	N/A			**Operator:**		JPT12262
Sample Wt.:	1.00000			**Dilution Factor:**		1.00
Sample Vol.:	1.000			**Prep Factor:**		1.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV08D-05

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Rreference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	735167.3	728839.7	1	50	
13C2-PFOA	5.0	537685.2	491983.1	9	50	
13C4-PFOS	4.8	282392.4	255568.1	10	50	
13C2-PFDA	5.0	307781.5	315407.5	-2	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	811374.4	13C3-PFBA	735167.3	1.104	5.000	5.107	102	70-130	
E13C5-PFPeA	837362.2	13C3-PFBA	735167.3	1.139	5.000	4.962	99	70-130	
E13C3-PFBS	436467.6	13C3-PFBA	735167.3	0.594	4.650	4.357	94	70-130	
E13C2-4:2-FTS	50505.7	13C2-PFOA	537685.2	0.094	4.670	4.238	91	70-130	
E13C5-PFHxA	693206.6	13C2-PFOA	537685.2	1.289	5.000	4.742	95	70-130	
E13C3-PFHxS	328207.9	13C2-PFOA	537685.2	0.610	4.730	4.382	93	70-130	
E13C4-PFHpA	543762.8	13C2-PFOA	537685.2	1.011	5.000	4.601	92	70-130	
E13C2-6:2-FTS	37677.3	13C2-PFOA	537685.2	0.070	4.750	4.673	98	70-130	
E13C8-PFOA	934884.0	13C2-PFOA	537685.2	1.739	5.000	4.849	97	70-130	
E13C8-PFOS	296350.6	13C4-PFOS	282392.4	1.049	4.780	4.640	97	70-130	
E13C9-PFNA	522312.2	13C4-PFOS	282392.4	1.850	5.000	5.052	101	70-130	
E13C6-PFDA	599155.2	13C2-PFDA	307781.5	1.947	5.000	4.896	98	70-130	
E13C2-8:2-FTS	28762.2	13C2-PFDA	307781.5	0.093	4.790	4.945	103	70-130	
E13C8-PFOSA	693859.2	13C2-PFDA	307781.5	2.254	5.000	4.919	98	70-130	
Ed3-NMeFOSAA	79999.5	13C2-PFDA	307781.5	0.260	5.000	4.833	97	70-130	
E13C7-PFUnDA	271794.8	13C2-PFDA	307781.5	0.883	5.000	5.094	102	70-130	
Ed5-NEtFOSAA	66571.1	13C2-PFDA	307781.5	0.216	5.000	5.005	100	70-130	
E13C2-PFDoDA	604255.7	13C2-PFDA	307781.5	1.963	5.000	5.293	106	70-130	
Ed7-NMePFOSAE	354186.1	13C2-PFDA	307781.5	1.151	5.000	5.351	107	70-130	
Ed3-NMePFOSA	84218.3	13C2-PFDA	307781.5	0.274	5.000	5.009	100	70-130	
Ed9-NEtPFOSAE	275295.5	13C2-PFDA	307781.5	0.894	5.000	5.108	102	70-130	
Ed5-NEtPFOSA	68642.6	13C2-PFDA	307781.5	0.223	5.000	5.164	103	70-130	
E13C2-PFTeDA	414258.7	13C2-PFDA	307781.5	1.346	5.000	4.845	97	70-130	

APPROVED
By JPT at 10:55 am, 11/9/18

REVIEWED
By umar at 3:41 pm, 11/12/18

ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

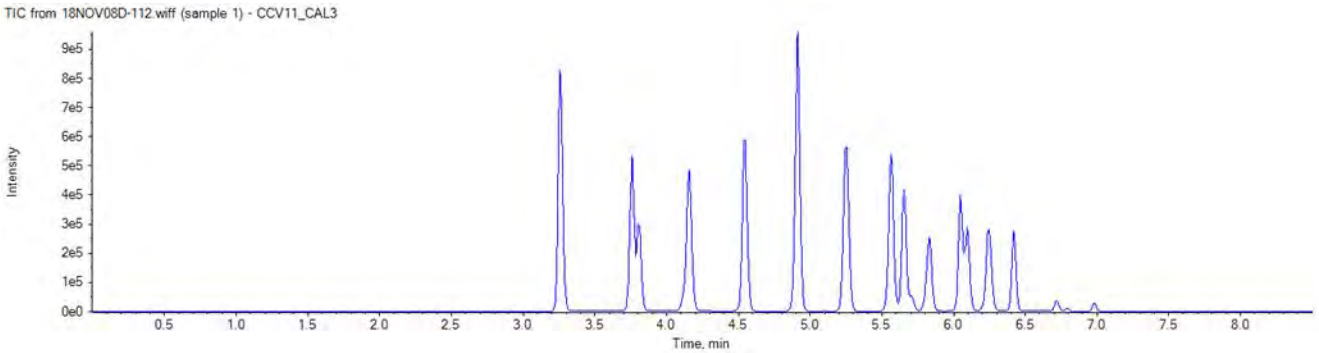
Analyte Quantitation Peak Table

Sample Name: CCV11_CAL3 **Instrument Name:** LM27631 **File Name:** 18NOV08D-112.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	1.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	3.26	1.000	289133.8		A	13C4-PFBA	3.26	811374.4	0.356	2.086
PFPeA	3.76	1.000	305933.0		A	13C5-PFPeA	3.76	837362.2	0.365	2.171
PFBS	3.81	1.000	158917.3		A	13C3-PFBS	3.81	436467.6	0.364	1.836
4:2-FTS	4.12	1.000	39793.6		A	13C2-4:2-FTS	4.12	50505.7	0.788	2.118
PFHxA	4.16	1.000	351665.4		A	13C5-PFHxA	4.16	693206.6	0.507	2.176
PFPeS	4.17	1.100	80706.7		A	13C3-PFBS	3.81	436467.6	0.185	1.824
PFHxS	4.55	1.000	125867.3		A	13C3-PFHxS	4.55	328207.9	0.383	1.944
PFHpA	4.54	1.000	352421.0		A	13C4-PFHpA	4.54	543762.8	0.648	2.180
6:2-FTS	4.90	1.000	30043.0		A	13C2-6:2-FTS	4.90	37677.3	0.797	1.989
PFHpS	4.91	1.080	118676.2		A	13C3-PFHxS	4.55	328207.9	0.362	1.892
PFOA	4.91	1.000	361115.0		A	13C8-PFOA	4.91	934884.0	0.386	2.175
PFOS	5.24	1.000	116945.3		A	13C8-PFOS	5.24	296350.6	0.395	2.046
PFNA	5.26	1.000	282556.0		A	13C9-PFNA	5.26	522312.2	0.541	2.022
PFNS	5.54	1.060	73432.2		A	13C8-PFOS	5.24	296350.6	0.248	1.965
PFDA	5.57	1.000	235481.5		A	13C6-PFDA	5.57	599155.2	0.393	2.162
8:2-FTS	5.57	1.000	26165.8		A	13C2-8:2-FTS	5.57	28762.2	0.910	2.051
PFOSA	5.65	1.000	270686.0		A	13C8-PFOSA	5.65	693859.2	0.390	2.109
NMeFOSAA	5.71	1.000	30983.2		A	d3-NMeFOSAA	5.71	79999.5	0.387	1.993
PFDS	5.81	1.110	57397.4		A	13C8-PFOS	5.24	296350.6	0.194	1.850
PFUnDA	5.83	1.000	191328.1		A	13C7-PFUnDA	5.83	271794.8	0.704	2.019
NEtFOSAA	5.85	1.000	27086.3		A	d5-NEtFOSAA	5.84	66571.1	0.407	1.749
PFDoDA	6.05	1.000	218161.6		A	13C2-PFDoDA	6.05	604255.7	0.361	1.957
10:2-FTS	6.07	1.090	16417.1		A	13C2-8:2-FTS	5.57	28762.2	0.571	1.777
NMePFOSAE	6.10	1.000	158458.9		A	d7-NMePFOSAE	6.09	354186.1	0.447	2.005
NMePFOSA	6.11	1.000	31105.8		A	d3-NMePFOSA	6.10	84218.3	0.369	2.067
PFDoS	6.21	1.180	26969.8		A	13C8-PFOS	5.24	296350.6	0.091	1.756
NEtPFOSAE	6.25	1.000	180027.7		A	d9-NEtPFOSAE	6.24	275295.5	0.654	2.096
NEtPFOSA	6.26	1.000	28456.1		A	d5-NEtPFOSA	6.26	68642.6	0.415	1.826
PFTrDA	6.24	1.030	178943.0		A	13C2-PFDoDA	6.05	604255.7	0.296	1.867
PFTeDA	6.42	1.000	145296.8		A	13C2-PFTeDA	6.42	414258.7	0.351	2.060
PFHxDA	6.72	1.050	70843.5		A	13C2-PFTeDA	6.42	414258.7	0.171	2.123
PFODA	6.98	1.090	60584.9		A	13C2-PFTeDA	6.42	414258.7	0.146	2.095

Total Ion Chromatogram

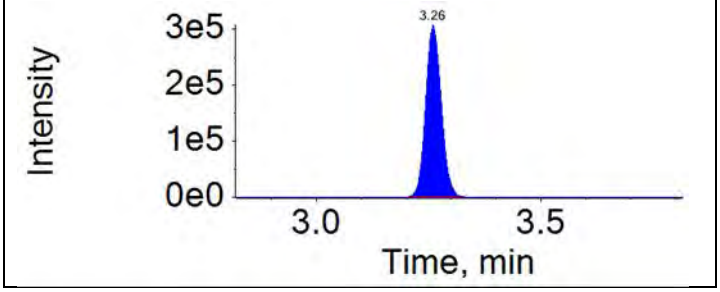


APPROVED
By JPT at 10:55 am, 11/9/18

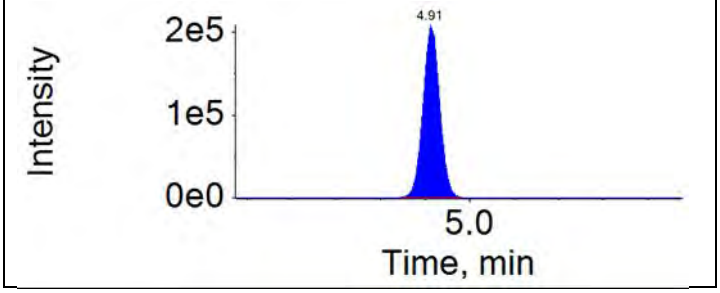
REVIEWED
By umar at 3:41 pm, 11/12/18

ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

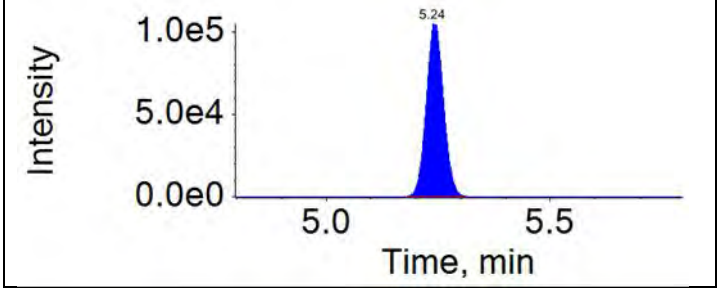
Injection Standard: 13C3-PFBA
216.0 / 172.0



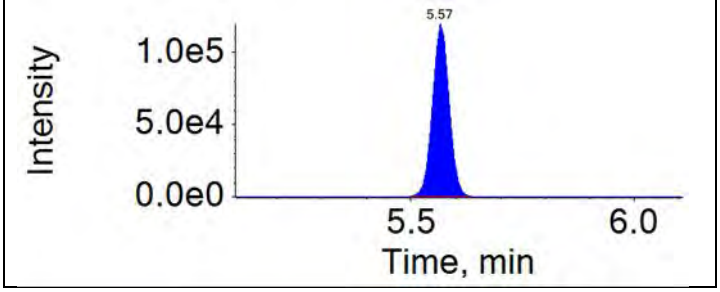
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0



Injection Standard: 13C2-PFDA
515.0 / 470.0

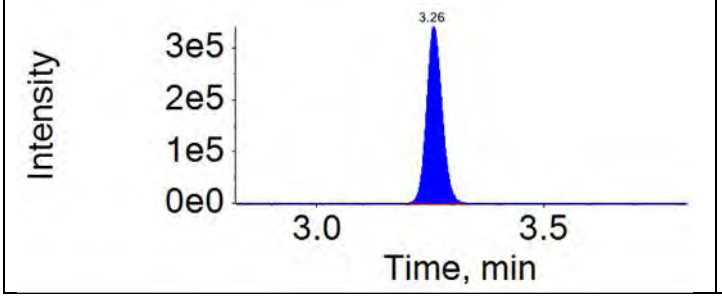


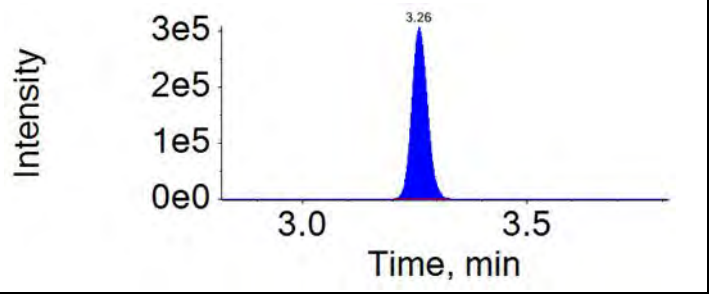
APPROVED
By JPT at 10:55 am, 11/9/18

REVIEWED
By umar at 3:41 pm, 11/12/18

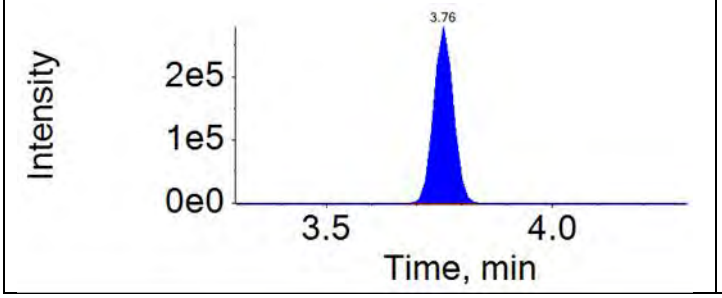
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

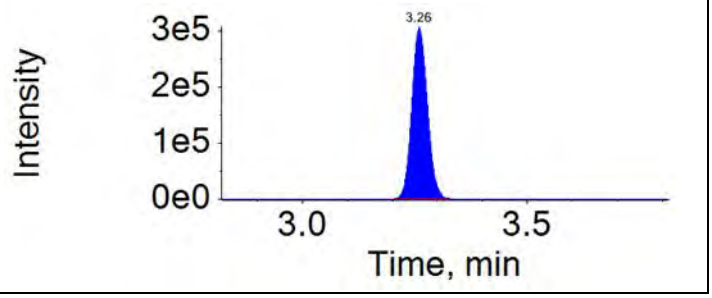
Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0



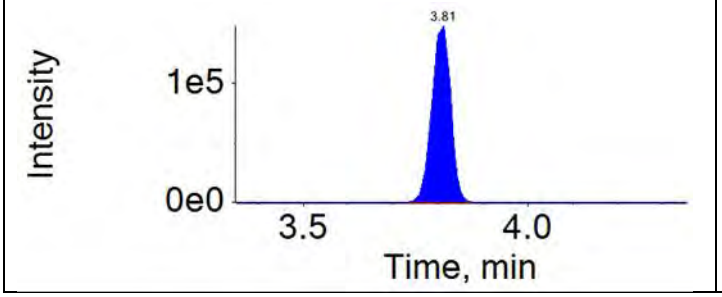


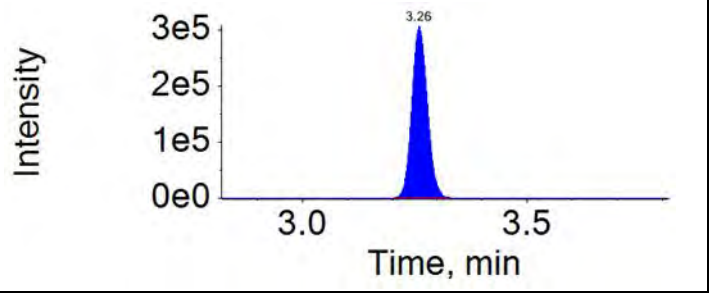
Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0



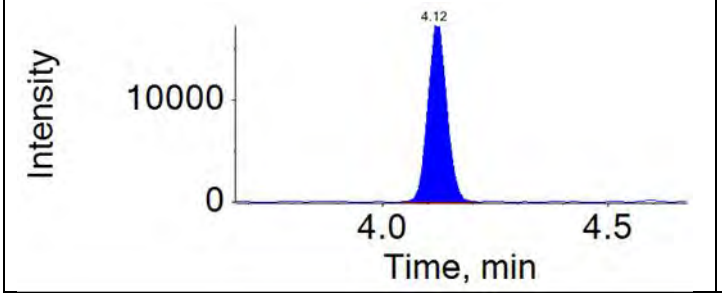


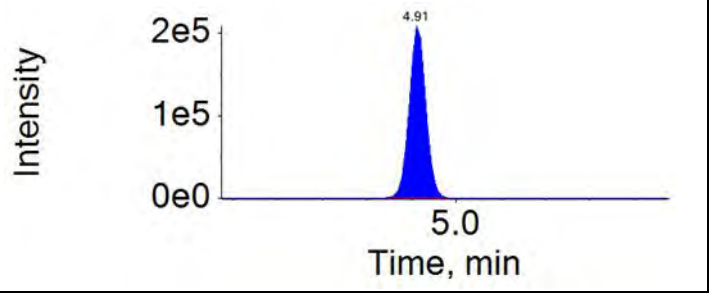
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0





Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0



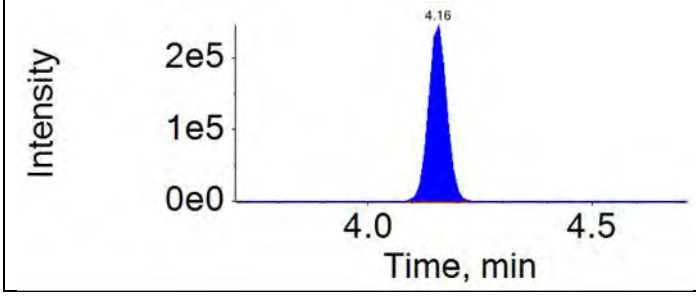


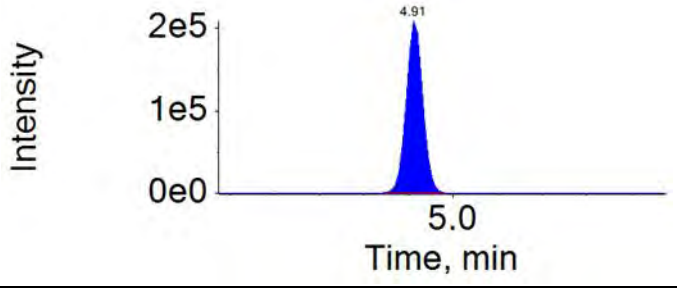
APPROVED
By JPT at 10:55 am, 11/9/18

REVIEWED
By umar at 3:41 pm, 11/12/18

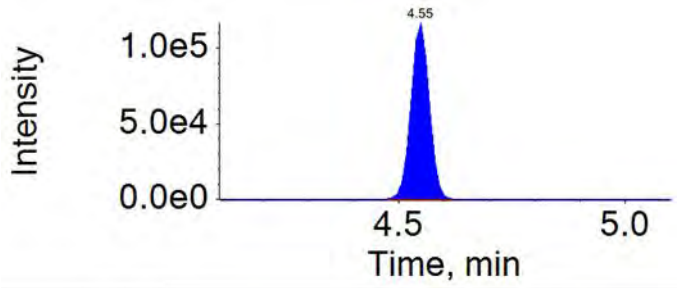
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

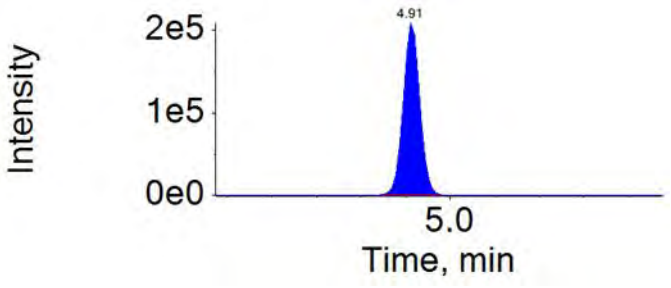
Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0



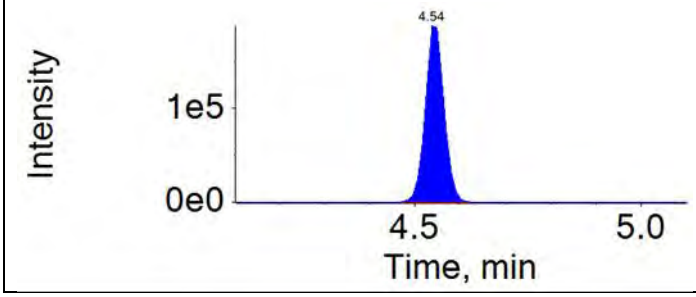


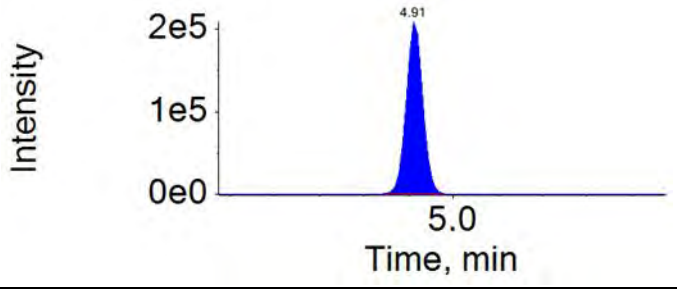
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0



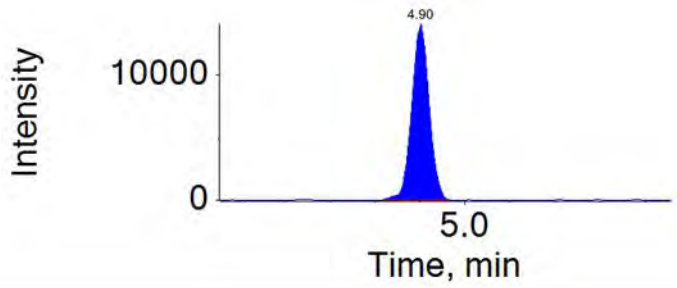


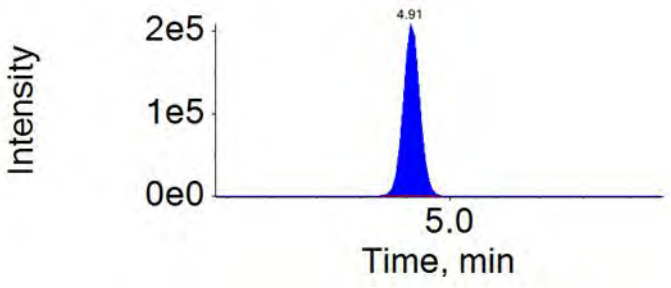
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0





Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0

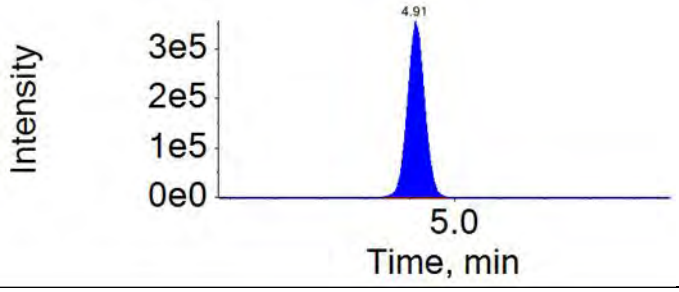
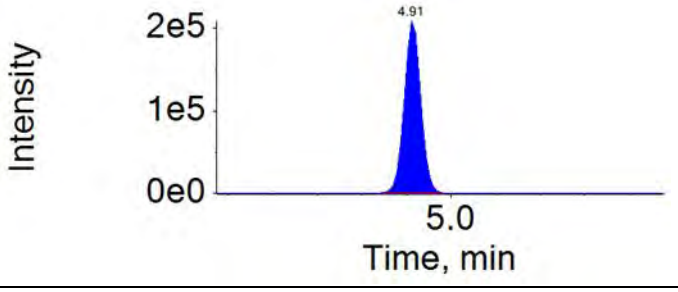


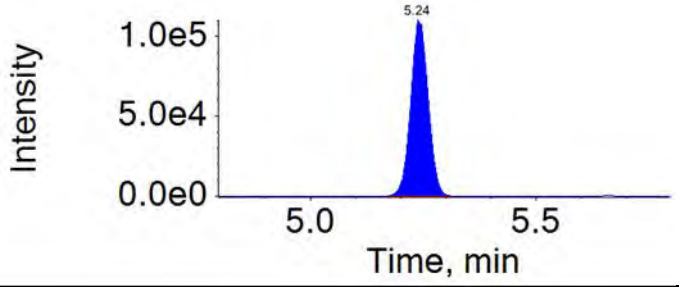
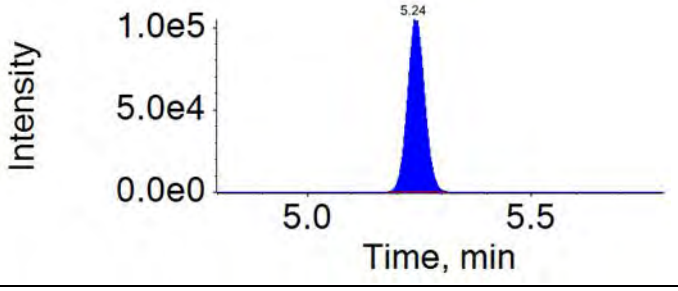


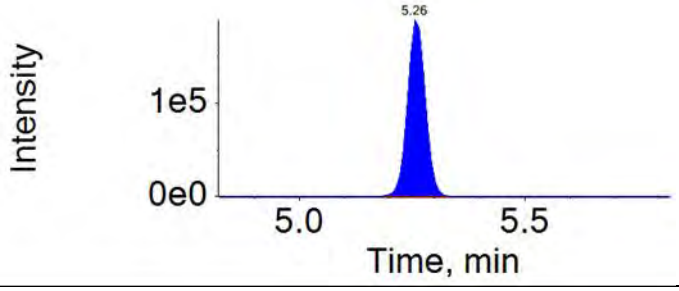
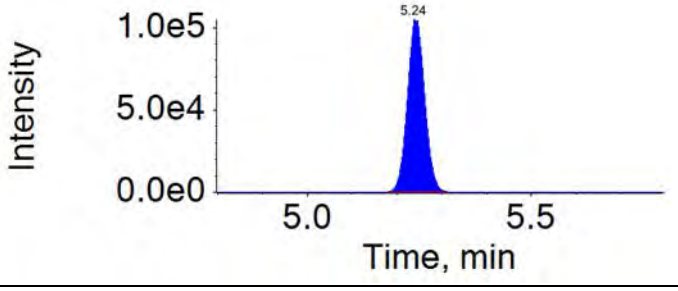
APPROVED
By JPT at 10:55 am, 11/9/18

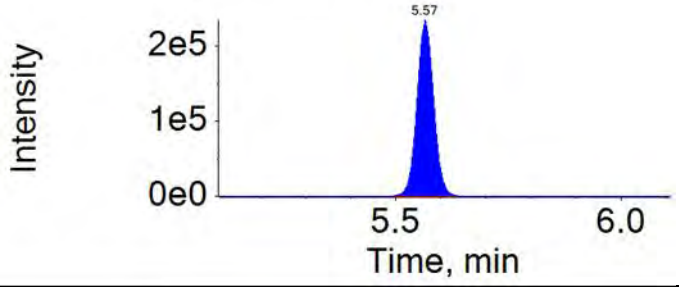
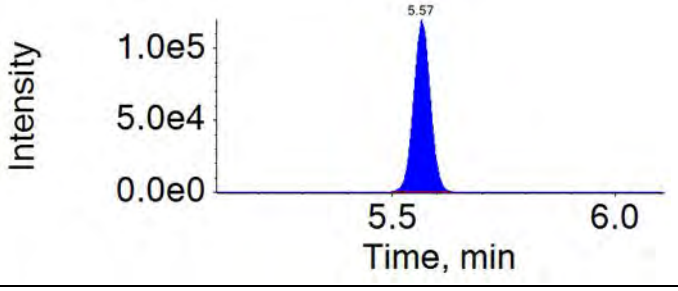
REVIEWED
By umar at 3:41 pm, 11/12/18

ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: E13C8-PFOA	Injection Standard: 13C2-PFOA
421.0 / 376.0	415.0 / 370.0
	

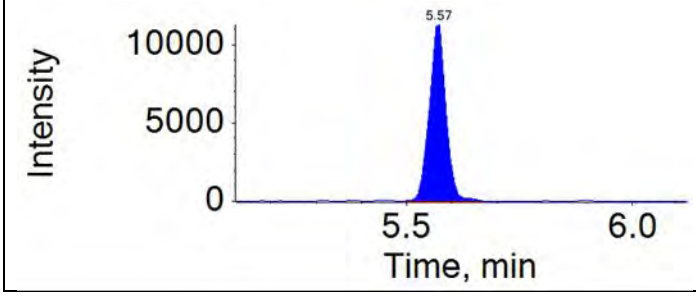
Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0
	

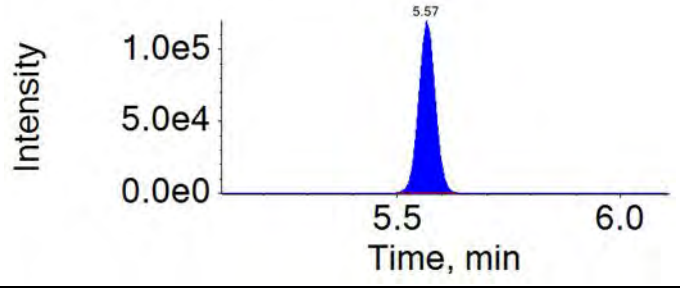
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0
	

Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0
	

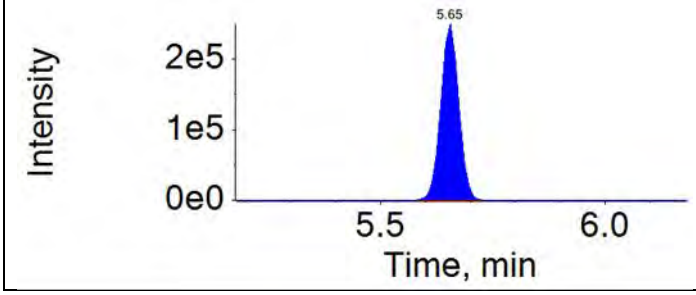
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

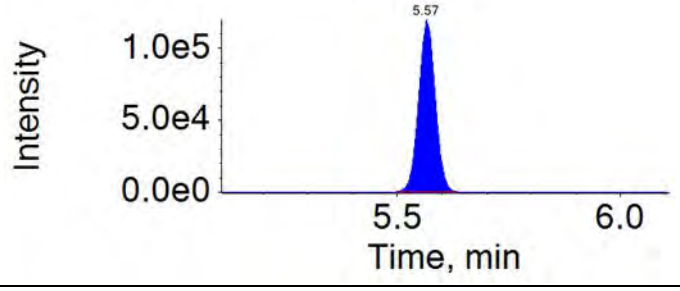
Extraction Standard: E13C2-8:2-FTS	Injection Standard: 13C2-PFDA
529.0 / 81.0	515.0 / 470.0



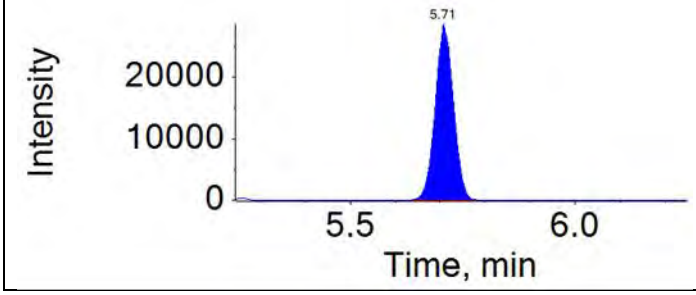


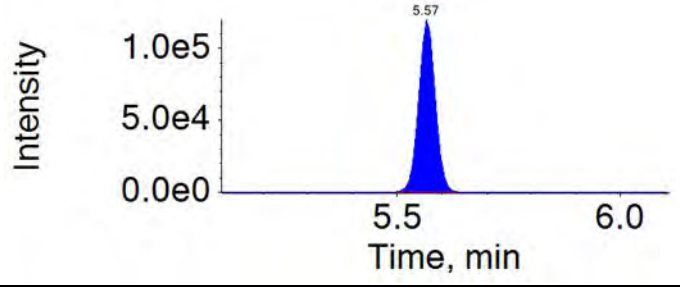
Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0



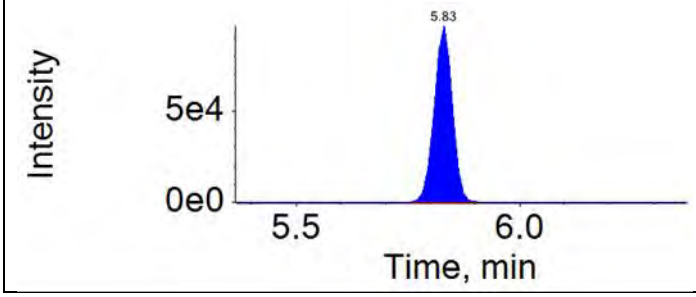


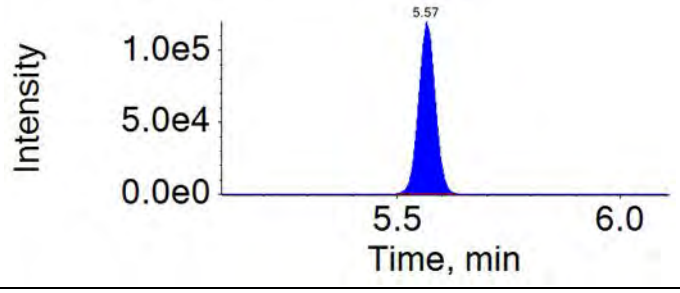
Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0





Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0



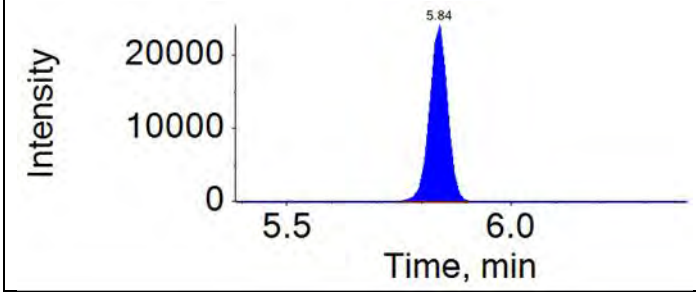


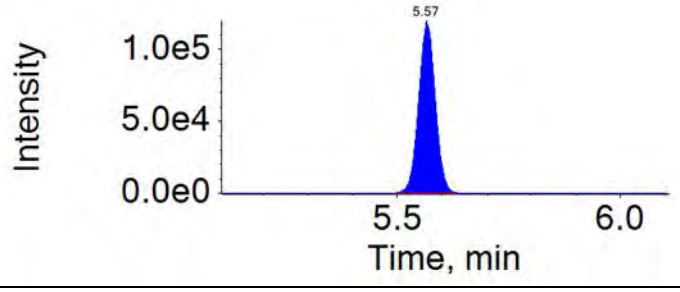
APPROVED
By JPT at 10:55 am, 11/9/18

REVIEWED
By umar at 3:41 pm, 11/12/18

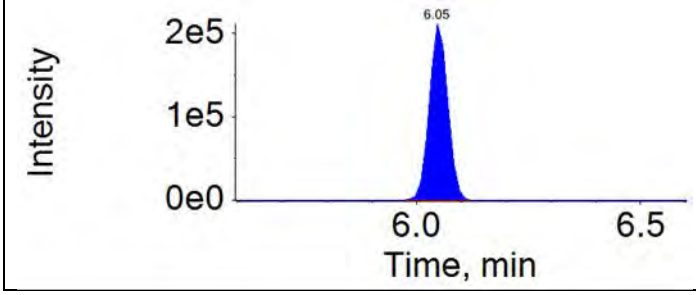
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

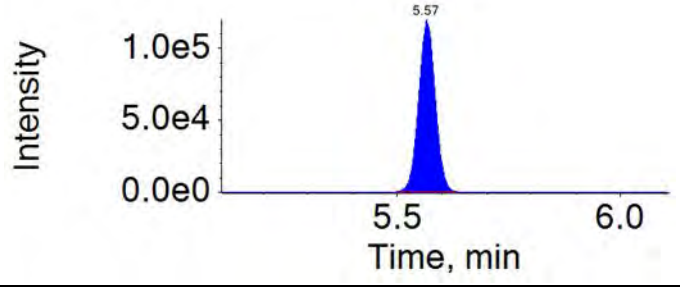
Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0



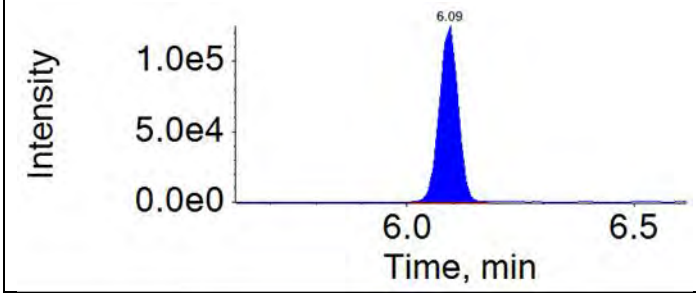


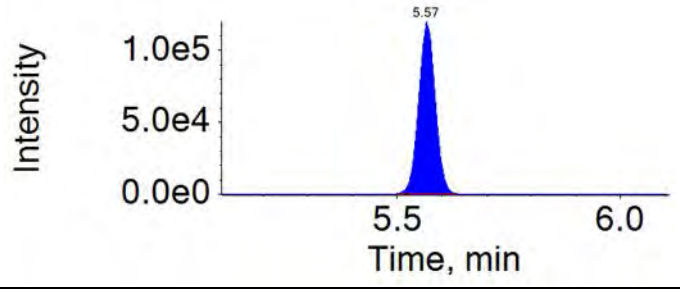
Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0



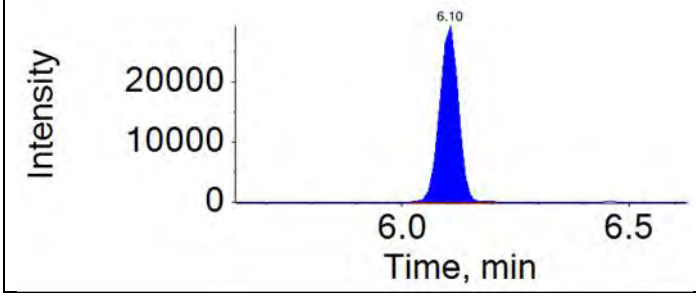


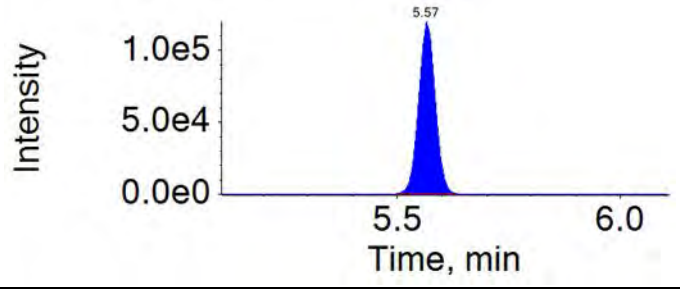
Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0





Extraction Standard: Ed3-NMePFOSA	Injection Standard: 13C2-PFDA
515.0 / 169.0	515.0 / 470.0



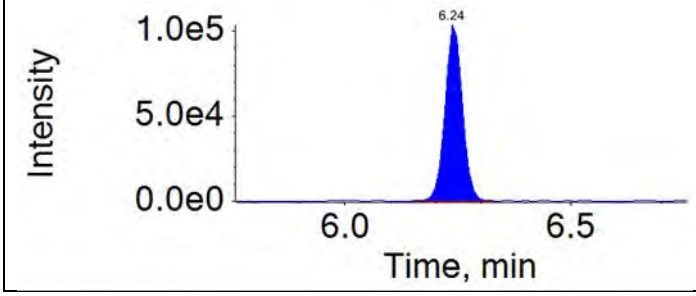


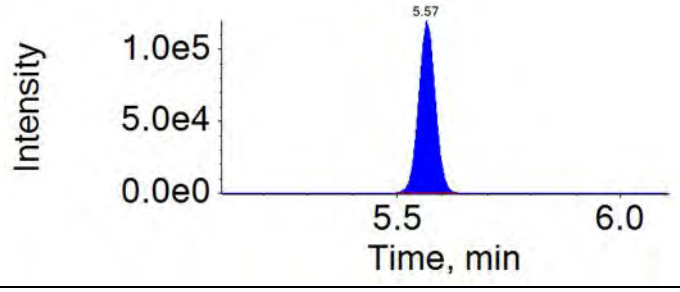
APPROVED
By JPT at 10:55 am, 11/9/18

REVIEWED
By umar at 3:41 pm, 11/12/18

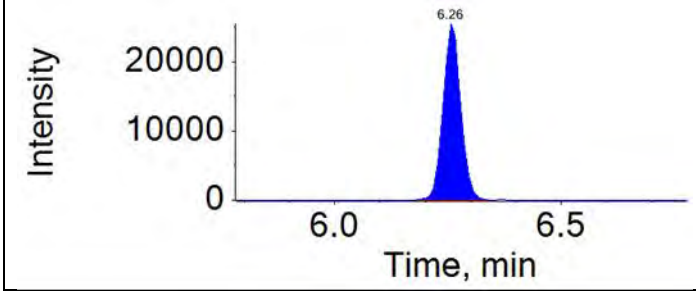
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

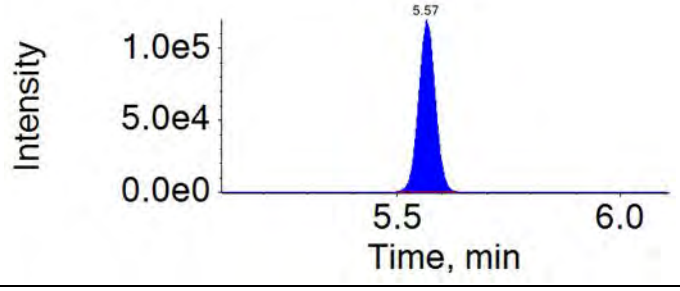
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



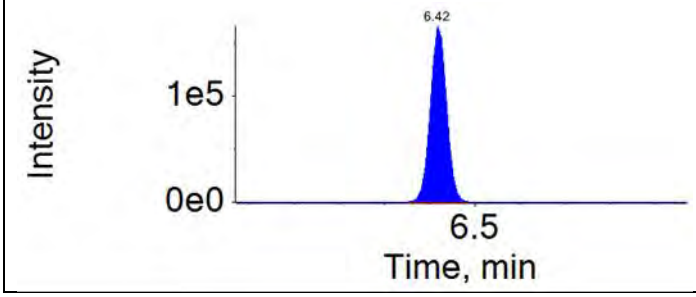


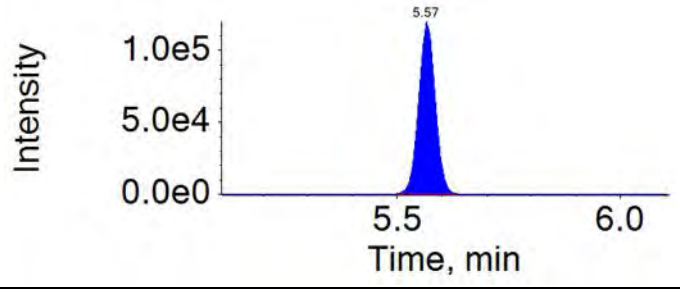
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0



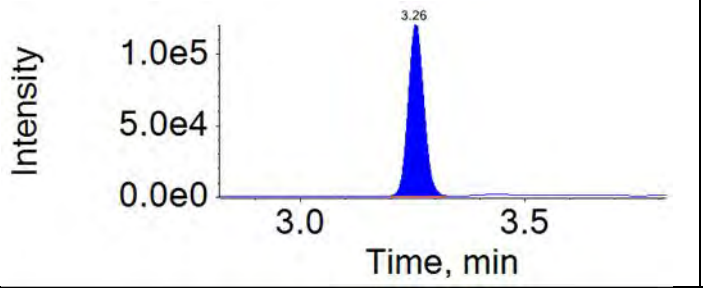


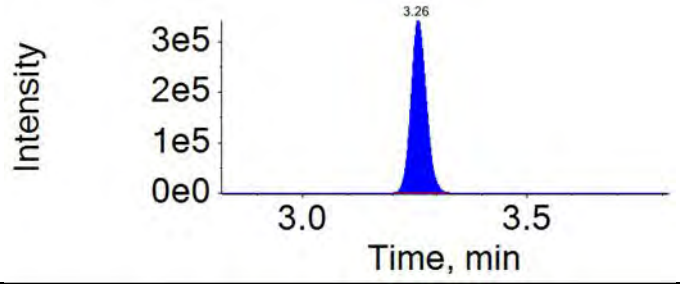
APPROVED
By JPT at 10:55 am, 11/9/18

REVIEWED
By umar at 3:41 pm, 11/12/18

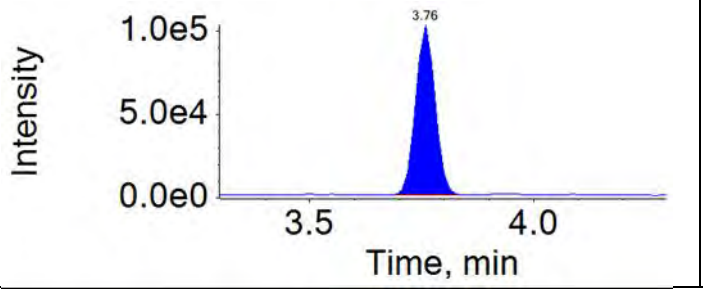
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

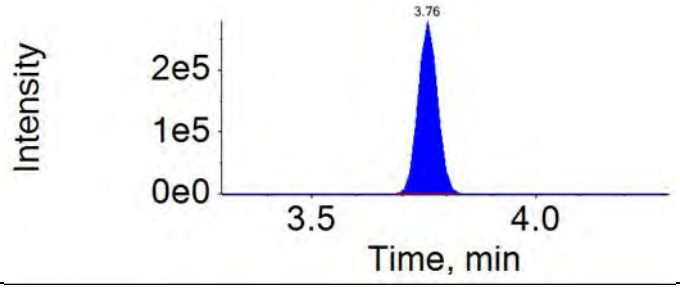
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



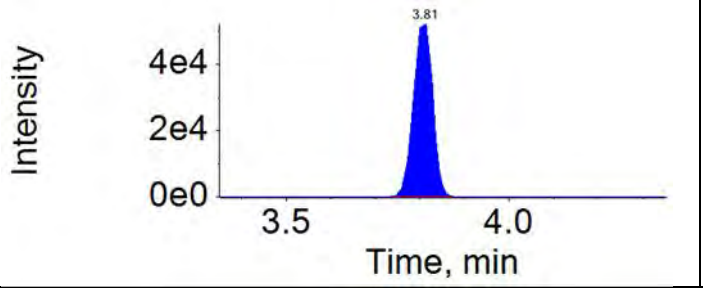


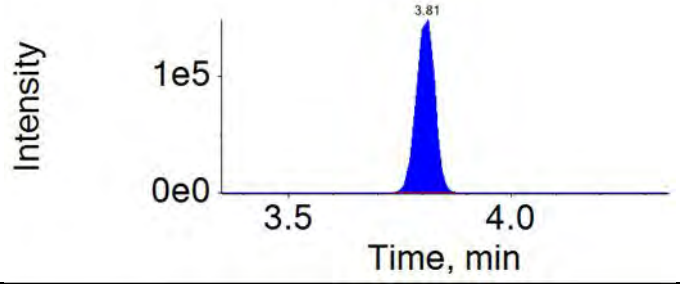
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



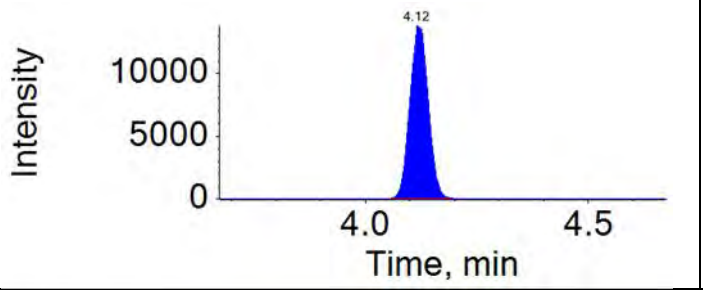


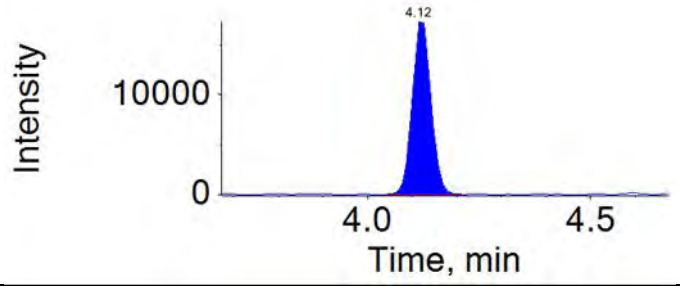
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





Analyte: 4:2-FTS	Extraction Standard: 13C2-4:2-FTS
327.0 / 307.0	329.0 / 81.0



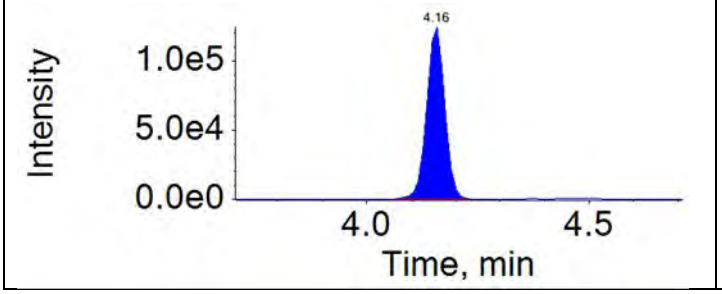


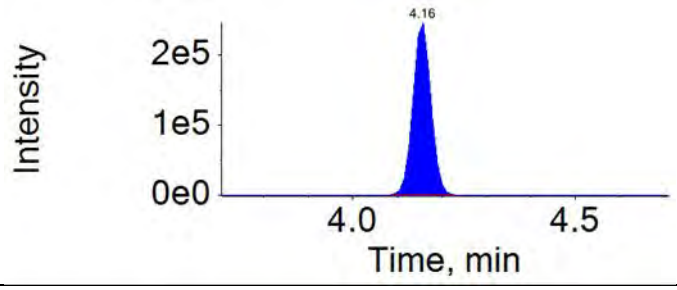
APPROVED
By JPT at 10:55 am, 11/9/18

REVIEWED
By umar at 3:41 pm, 11/12/18

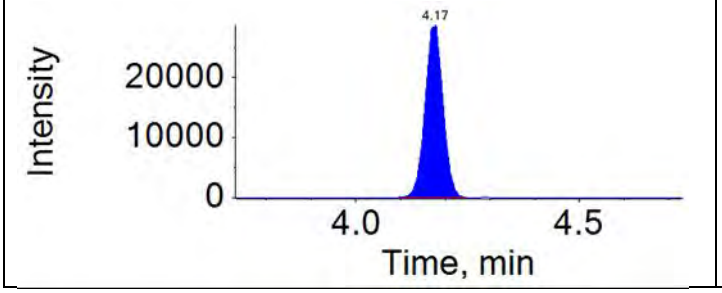
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

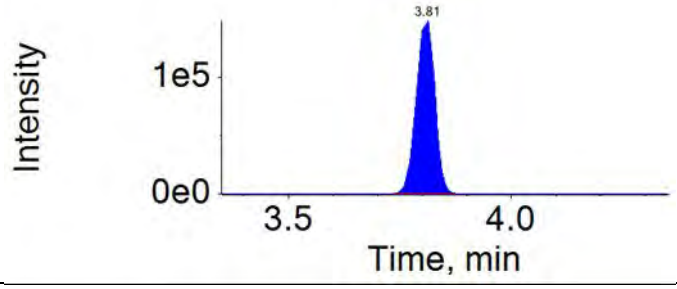
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



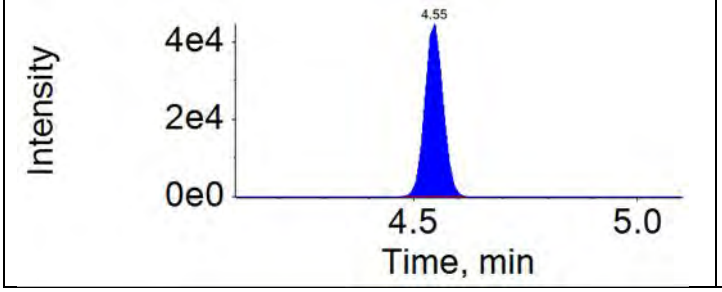


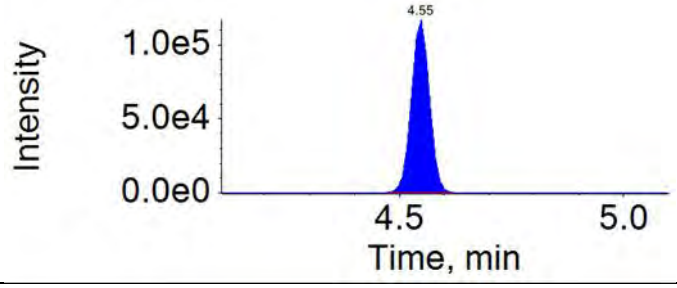
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



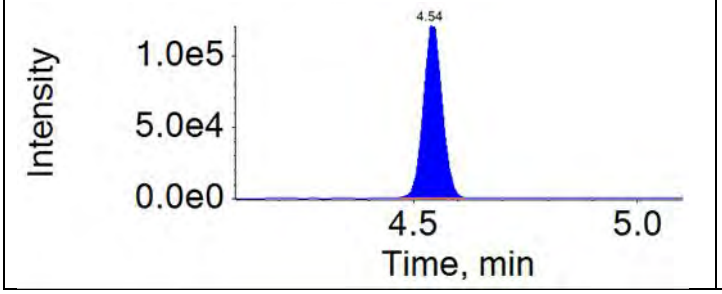


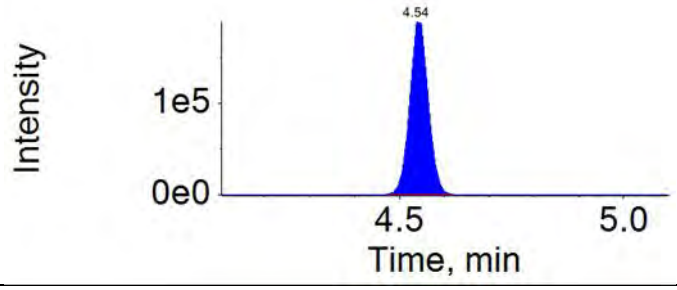
Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0





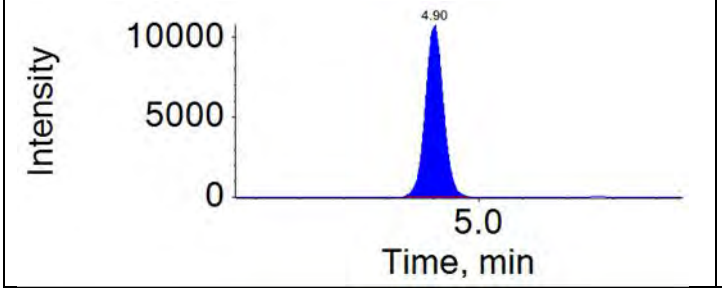
Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0

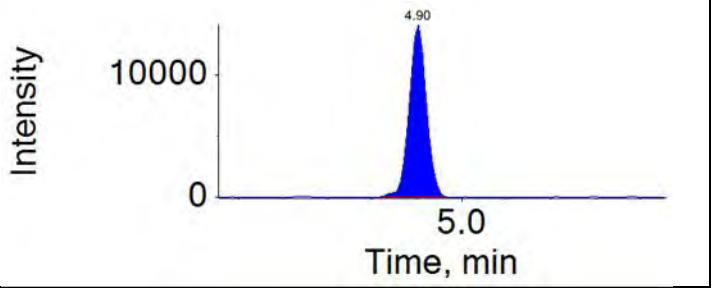




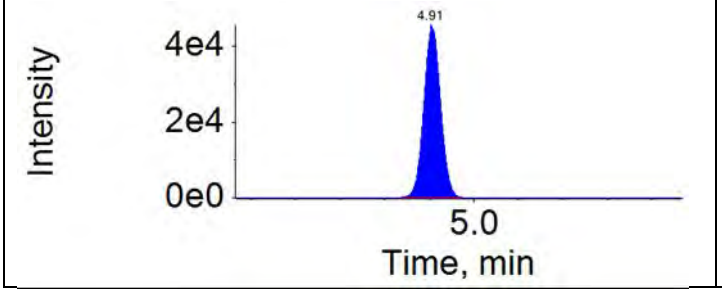
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

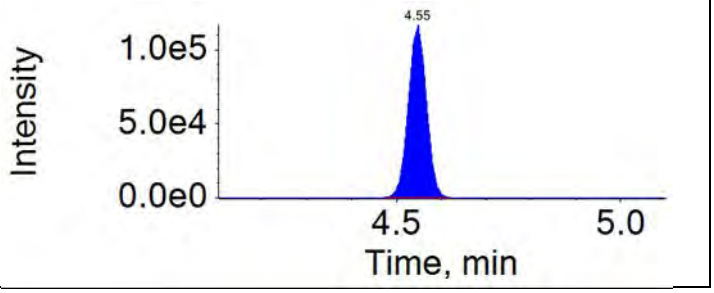
Analyte: 6:2-FTS	Extraction Standard: 13C2-6:2-FTS
427.0 / 407.0	429.0 / 81.0



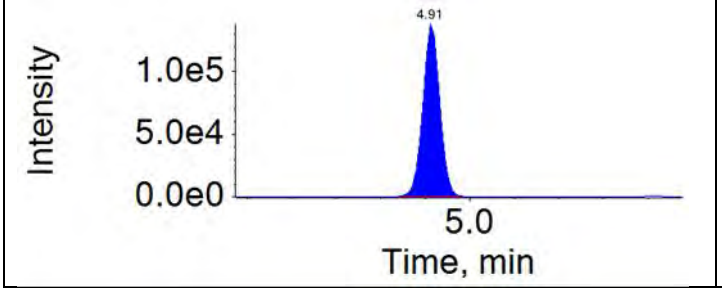


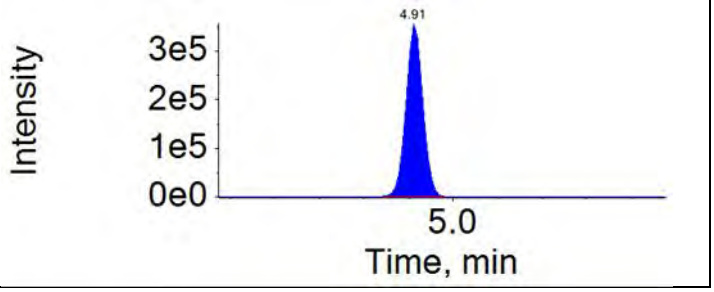
Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0



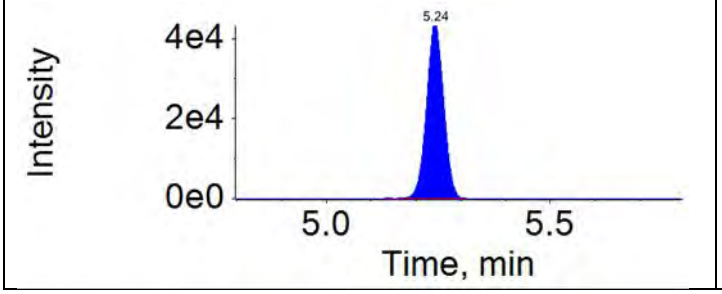


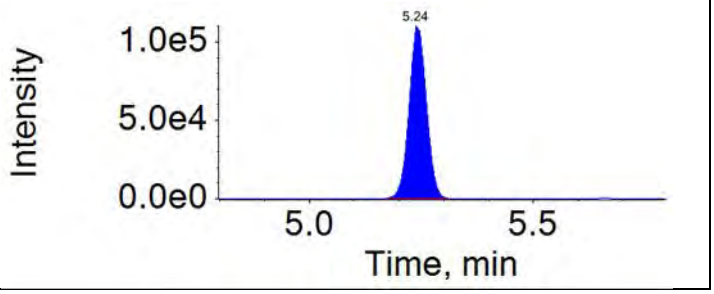
Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0





Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0



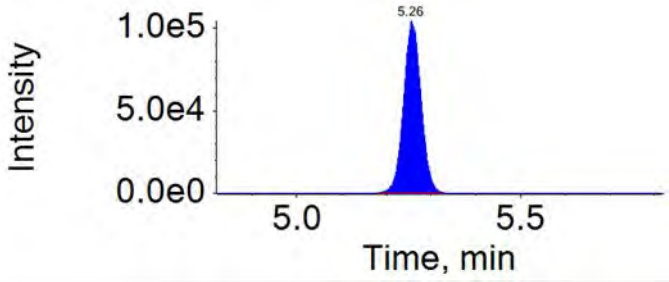


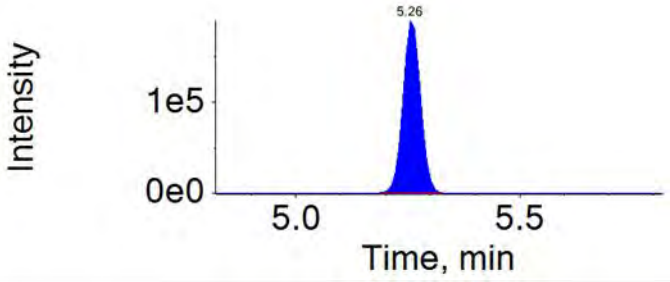
APPROVED
By JPT at 10:55 am, 11/9/18

REVIEWED
By umar at 3:41 pm, 11/12/18

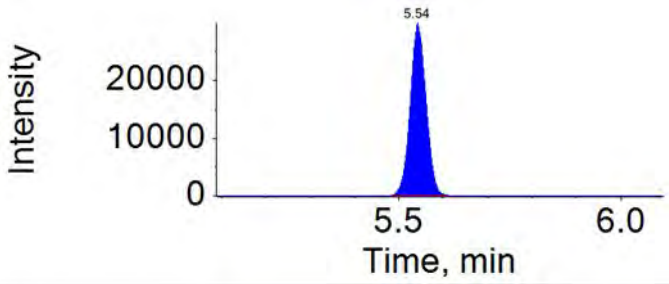
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

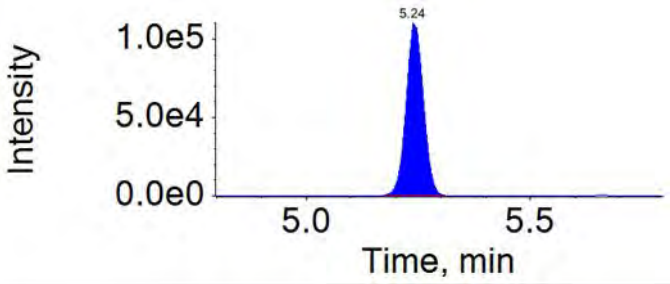
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



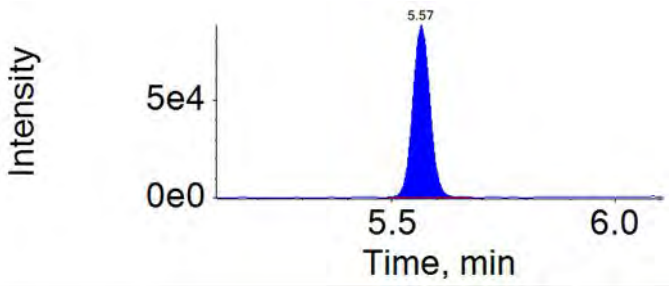


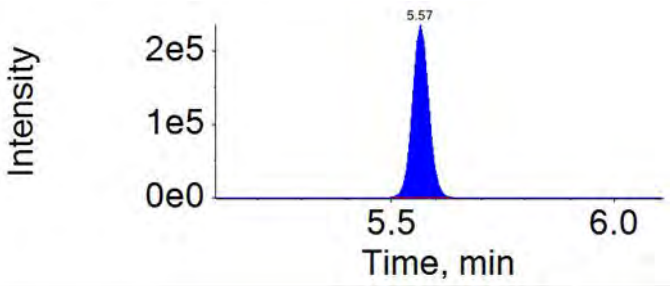
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



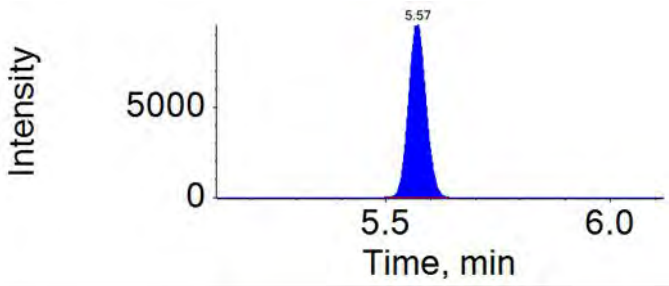


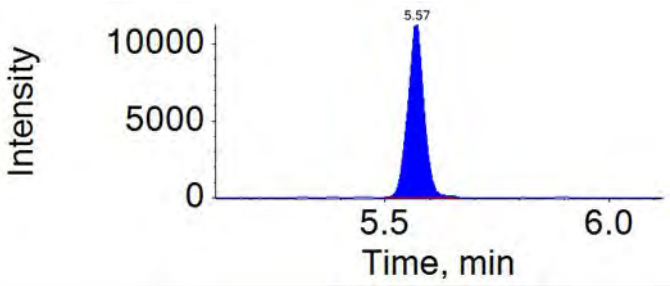
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





Analyte: 8:2-FTS	Extraction Standard: 13C2-8:2-FTS
527.0 / 507.0	529.0 / 81.0

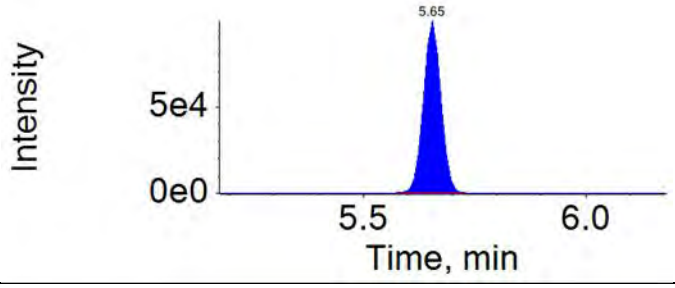
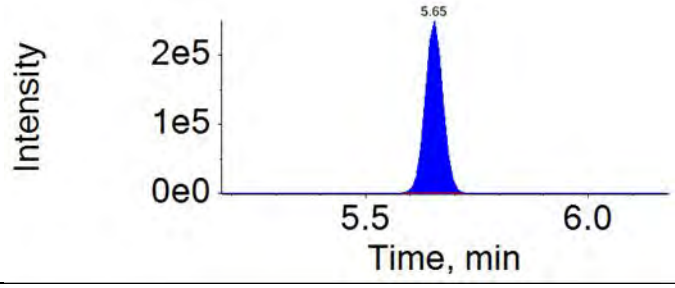


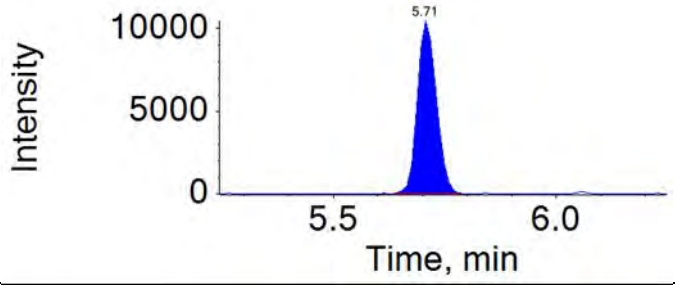
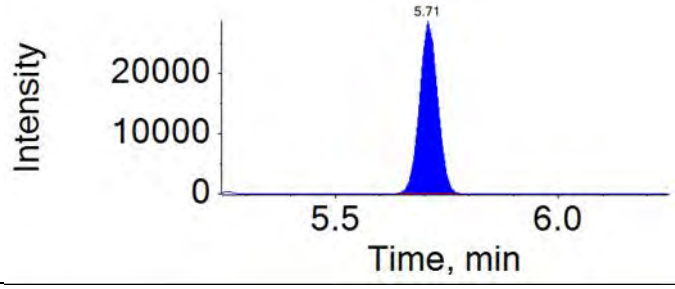


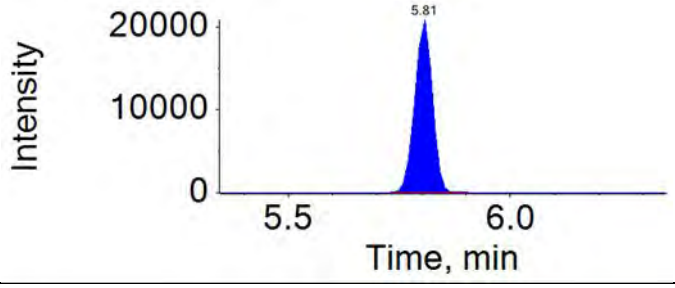
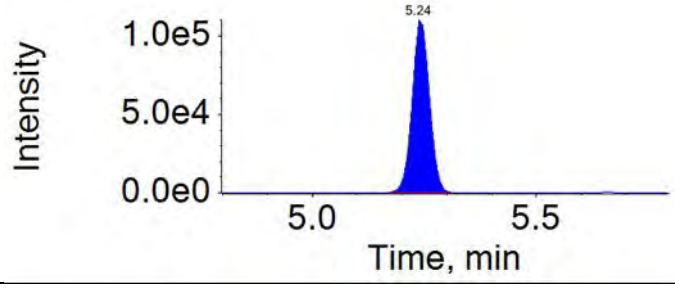
APPROVED
By JPT at 10:55 am, 11/9/18

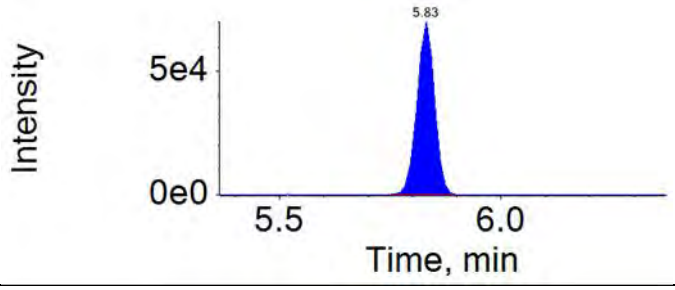
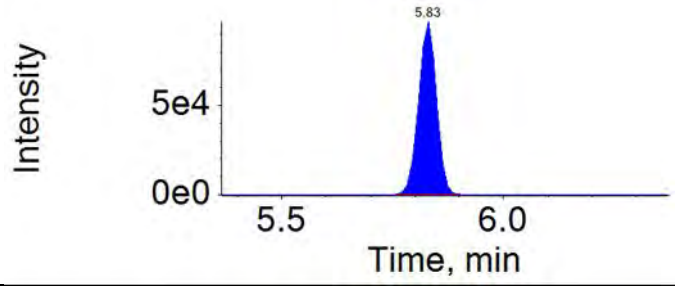
REVIEWED
By umar at 3:41 pm, 11/12/18

ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0
	

Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0
	

Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0
	

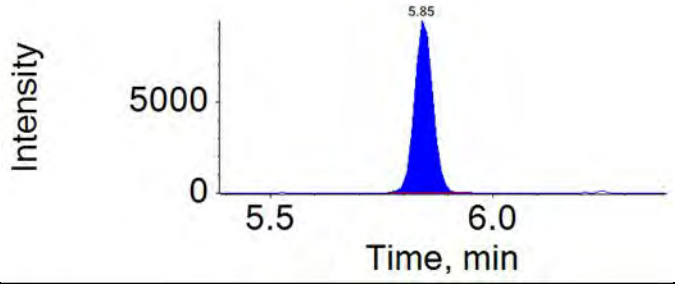
Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0
	

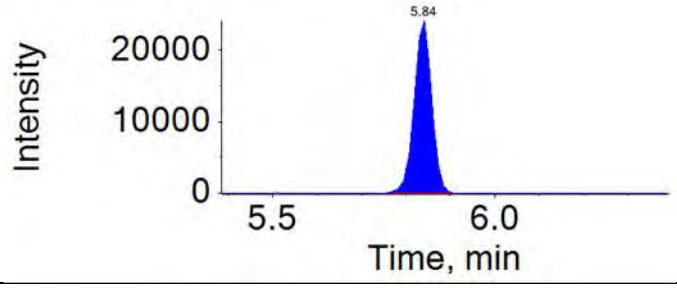
APPROVED
By JPT at 10:55 am, 11/9/18

REVIEWED
By umar at 3:41 pm, 11/12/18

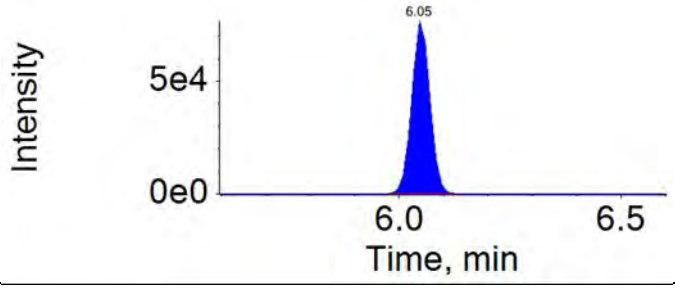
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

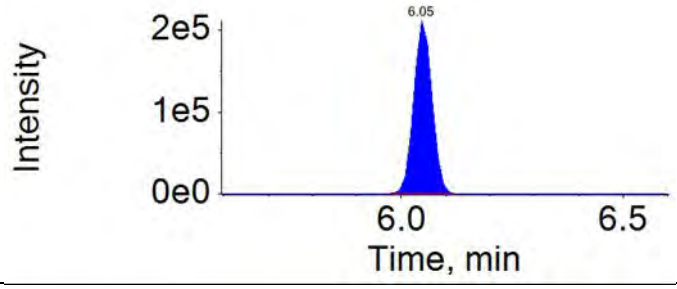
Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0



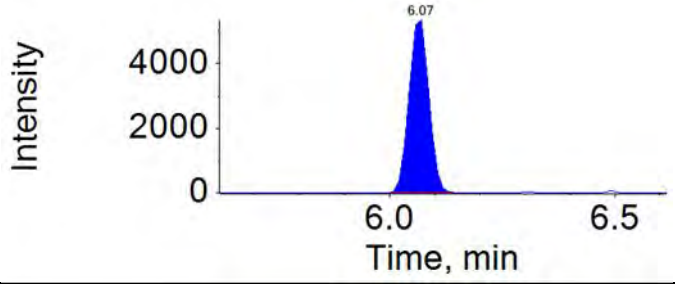


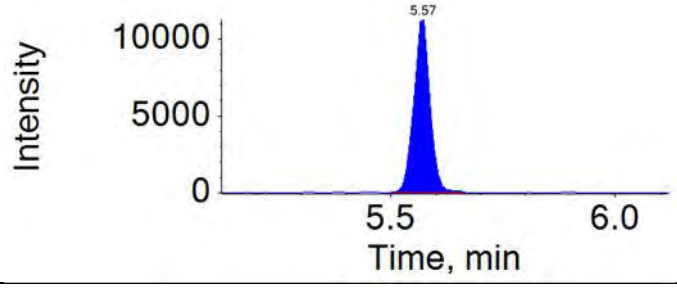
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0



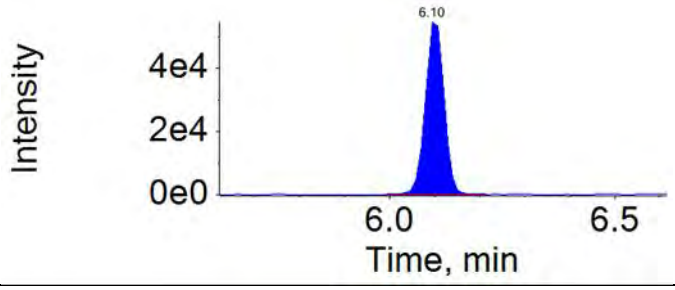


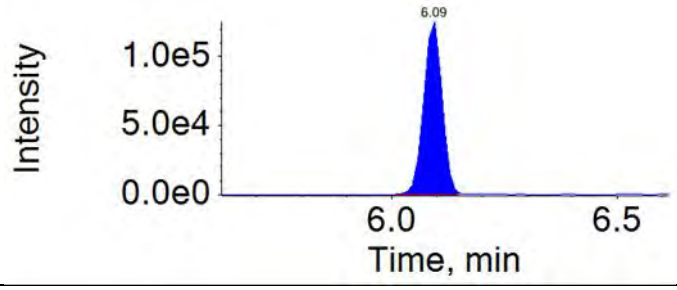
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0





Analyte: NMePFOSAE	Extraction Standard: d7-NMePFOSAE
616.0 / 59.0	623.0 / 59.0



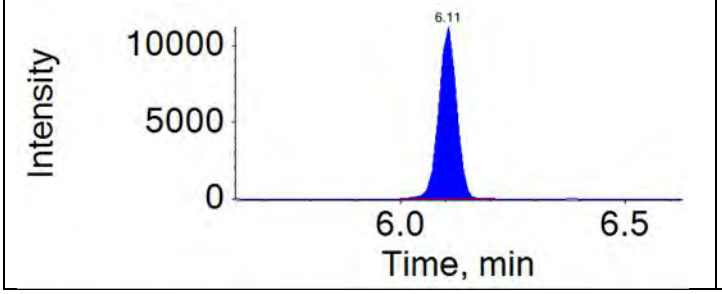


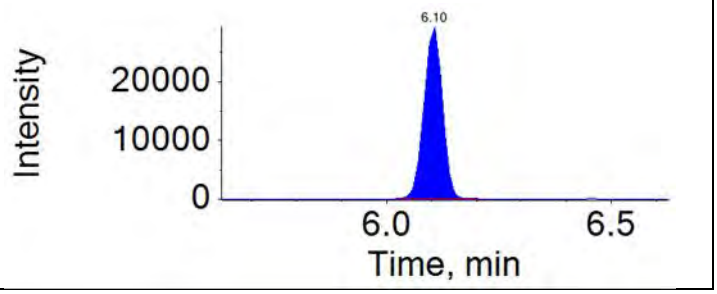
APPROVED
By JPT at 10:55 am, 11/9/18

REVIEWED
By umar at 3:41 pm, 11/12/18

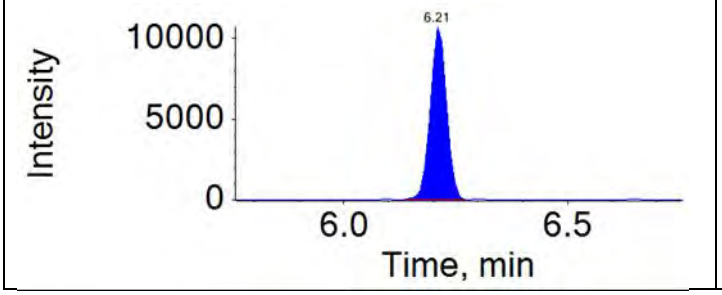
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

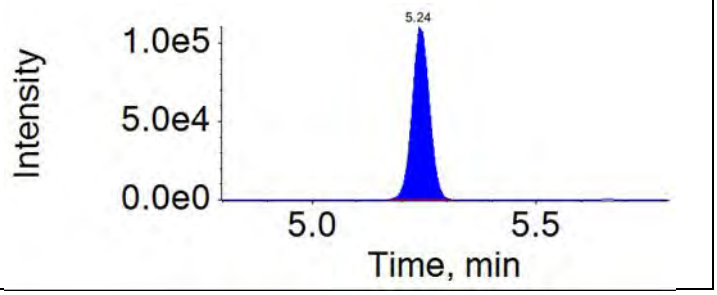
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



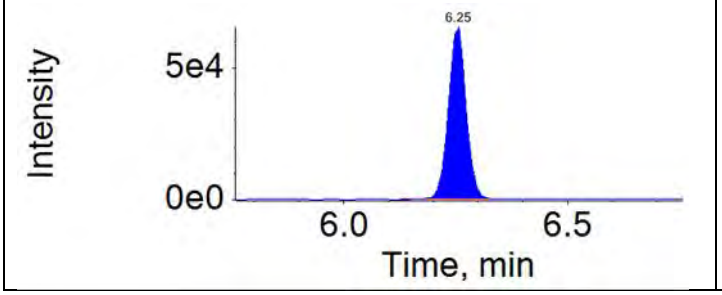


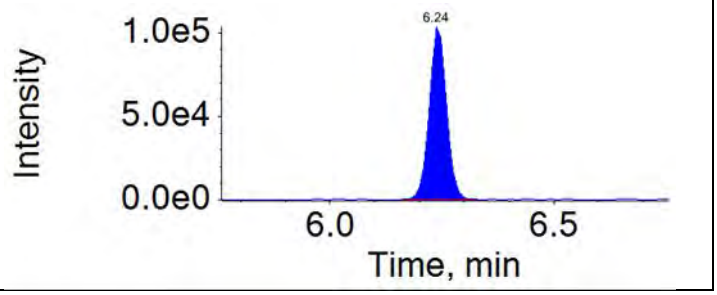
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



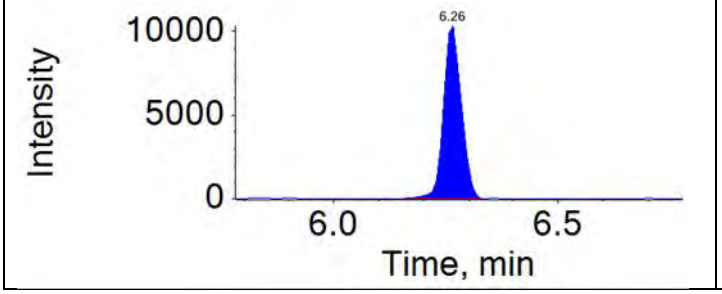


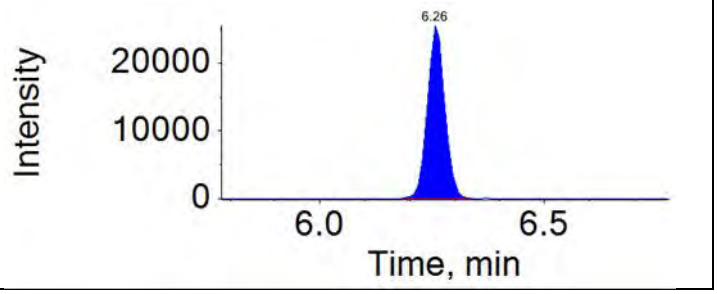
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





Analyte: NEtPFOSA	Extraction Standard: d5-NEtPFOSA
526.0 / 169.0	531.0 / 169.0

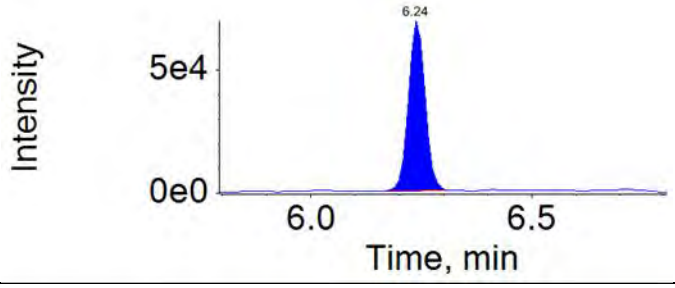
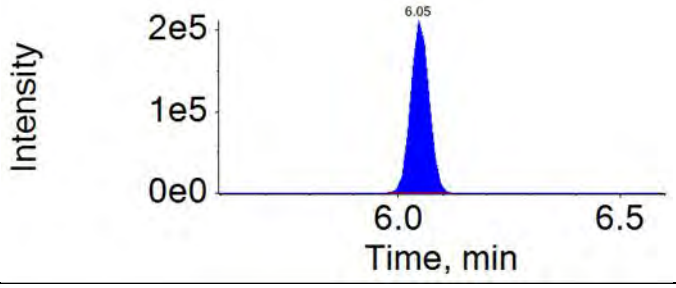


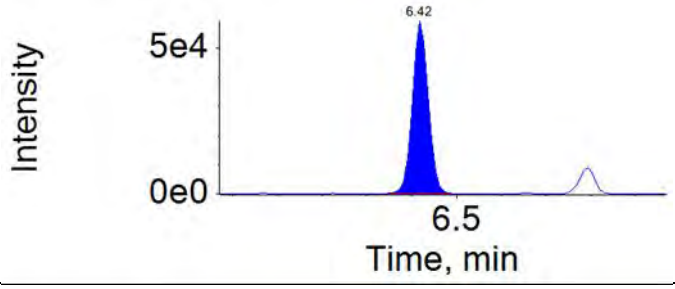
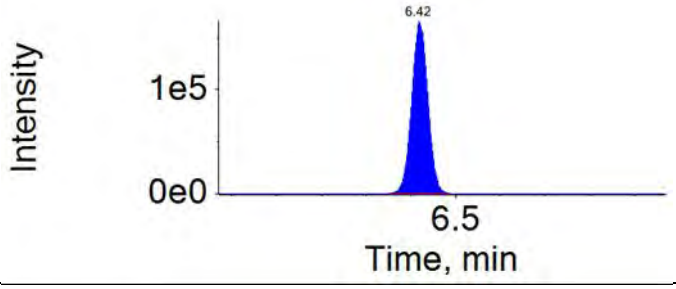


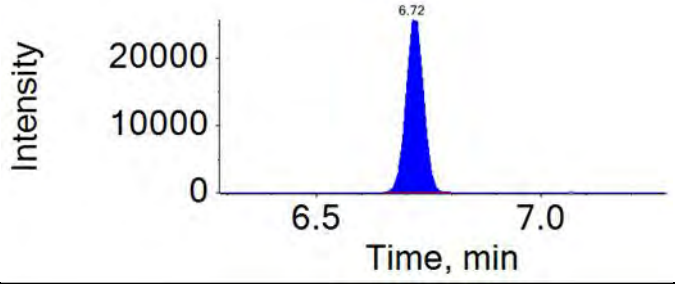
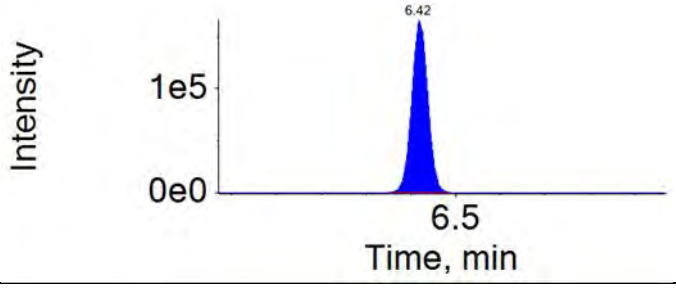
APPROVED
By JPT at 10:55 am, 11/9/18

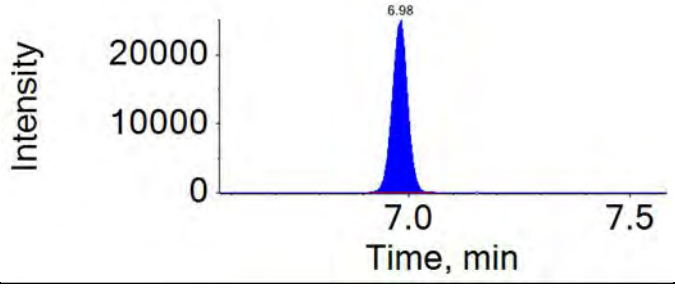
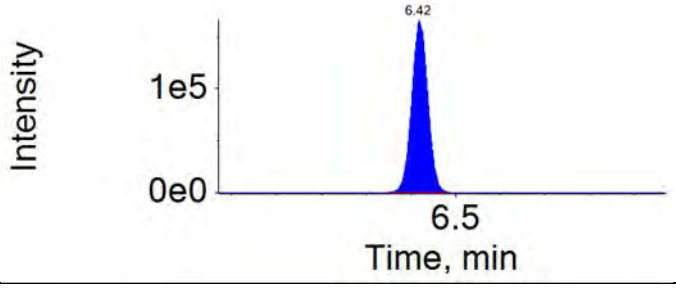
REVIEWED
By umar at 3:41 pm, 11/12/18

ICAL Name: 18NOV07DCAL **Result Table:** 18NOV08DCCV6-12 11/9/2018 9:21:41 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Analyte: PFTrDA	Extraction Standard: 13C2-PFDoDA
663.0 / 619.0	615.0 / 570.0
	

Analyte: PFTeDA	Extraction Standard: 13C2-PFTeDA
713.0 / 669.0	715.0 / 670.0
	

Analyte: PFHxDA	Extraction Standard: 13C2-PFTeDA
813.0 / 769.0	715.0 / 670.0
	

Analyte: PFODA	Extraction Standard: 13C2-PFTeDA
913.0 / 869.0	715.0 / 670.0
	

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By JPT at 10:55 am, 11/9/18

REVIEWED
By umar at 3:41 pm, 11/12/18

Ion Ratio Report

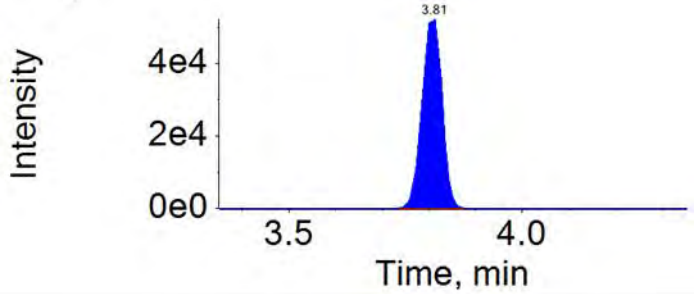
Sample Name: CCV11_CAL3 **Instrument Name:** LM27631 **File Name:** 18NOV08D-112.wiff

Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	3.81	1.00	158917.3	A	N/A	1.0000			
PFBS_2	3.81	1.00	56956.0	A	N/A	0.3584	0	50	
4:2-FTS	4.12	1.00	39793.6	A	N/A	1.0000			
4:2-FTS_2	4.12	1.00	22470.4	A	N/A	0.5647	-11	50	
PFHxA	4.16	1.00	351665.4	A	N/A	1.0000			
PFHxA_2	4.15	1.00	4761.4	A	N/A	0.0135	18	50	
PFPeS	4.17	1.10	80706.7	A	N/A	1.0000			
PFPeS_2	4.18	1.10	44287.4	A	N/A	0.5487	2	50	
PFHxS	4.55	1.00	125867.3	A	N/A	1.0000			
PFHxS_2	4.55	1.00	43443.1	A	N/A	0.3452	-3	50	
PFHpA	4.54	1.00	352421.0	A	N/A	1.0000			
PFHpA_2	4.54	1.00	18435.2	A	N/A	0.0523	-9	50	
6:2-FTS	4.90	1.00	30043.0	A	N/A	1.0000			
6:2-FTS_2	4.90	1.00	20367.7	A	N/A	0.6780	0	50	
PFHpS	4.91	1.08	118676.2	A	N/A	1.0000			
PFHpS_2	4.91	1.08	50126.2	A	N/A	0.4224	7	50	
PFOA	4.91	1.00	361115.0	A	N/A	1.0000			
PFOA_2	4.91	1.00	20562.3	A	N/A	0.0569	-10	50	
PFOS	5.24	1.00	116945.3	A	N/A	1.0000			
PFOS_2	5.24	1.00	40953.2	A	N/A	0.3502	0	50	
PFNA	5.26	1.00	282556.0	A	N/A	1.0000			
PFNA_2	5.26	1.00	5245.0	A	N/A	0.0186	-10	50	
PFNS	5.54	1.06	73432.2	A	N/A	1.0000			
PFNS_2	5.54	1.06	35444.9	A	N/A	0.4827	-1	50	
PFDA	5.57	1.00	235481.5	A	N/A	1.0000			
PFDA_2	5.57	1.00	1678.2	A	N/A	0.0071	26	50	
8:2-FTS	5.57	1.00	26165.8	A	N/A	1.0000			
8:2-FTS_2	5.57	1.00	15054.0	A	N/A	0.5753	-7	50	
NMeFOSAA	5.71	1.00	30983.2	A	N/A	1.0000			
NMeFOSAA_2	5.71	1.00	7103.6	A	N/A	0.2293	4	50	
PFDS	5.81	1.11	57397.4	A	N/A	1.0000			
PFDS_2	5.80	1.11	26862.4	A	N/A	0.4680	1	50	
PFUnDA	5.83	1.00	191328.1	A	N/A	1.0000			
PFUnDA_2	5.83	1.00	416.6	A	N/A	0.0022	-31	50	
NEtFOSAA	5.85	1.00	27086.3	A	N/A	1.0000			
NEtFOSAA_2	5.85	1.00	17469.4	A	N/A	0.6450	6	50	
PFDoDA	6.05	1.00	218161.6	A	N/A	1.0000			
PFDoDA_2	6.05	1.00	2453.6	A	N/A	0.0112	3	50	
10:2-FTS	6.07	1.09	16417.1	A	N/A	1.0000			
10:2-FTS_2	6.06	1.09	12237.1	A	N/A	0.7454	5	50	
PFTrDA	6.24	1.03	178943.0	A	N/A	1.0000			
PFTrDA_2	6.24	1.03	1626.8	A	N/A	0.0091	-5	50	
PFTeDA	6.42	1.00	145296.8	A	N/A	1.0000			
PFTeDA_2	6.42	1.00	796.6	A	N/A	0.0055	-1	50	
PFHxDA	6.72	1.05	70843.5	A	N/A	1.0000			
PFHxDA_2	6.72	1.05	4503.9	A	N/A	0.0636	7	50	
PFODA	6.98	1.09	60584.9	A	N/A	1.0000			
PFODA_2	6.98	1.09	1708.8	A	N/A	0.0282	10	50	

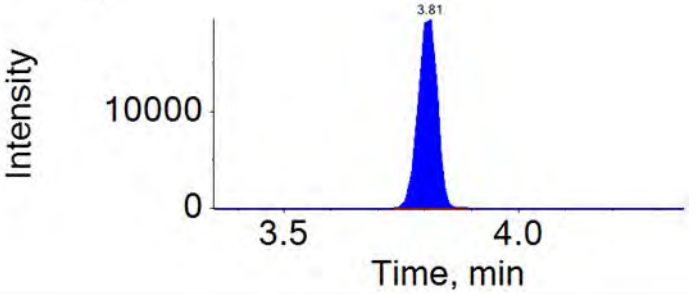
APPROVED
By JPT at 10:55 am, 11/9/18

REVIEWED
By umar at 3:41 pm, 11/12/18

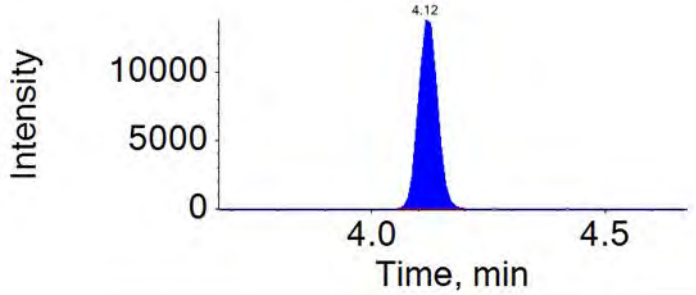
Component: PFBS
Primary Mass: 299.0 / 80.0



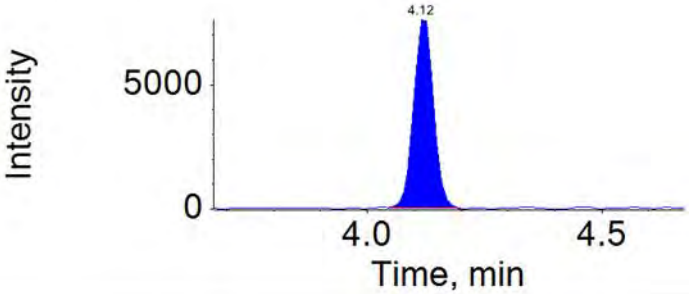
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



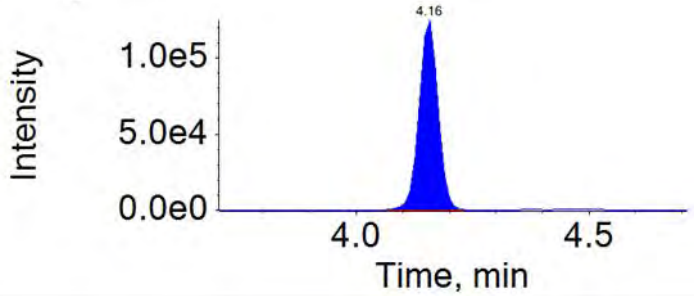
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



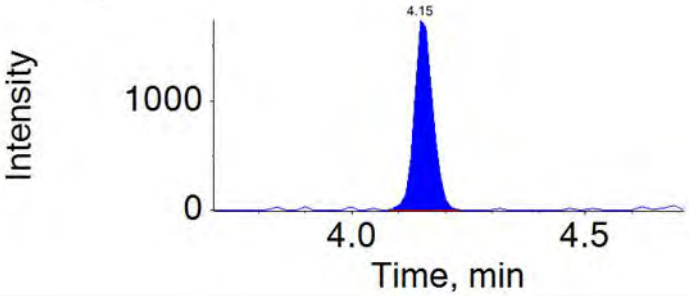
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Secondary Mass: 327.0 / 81.0



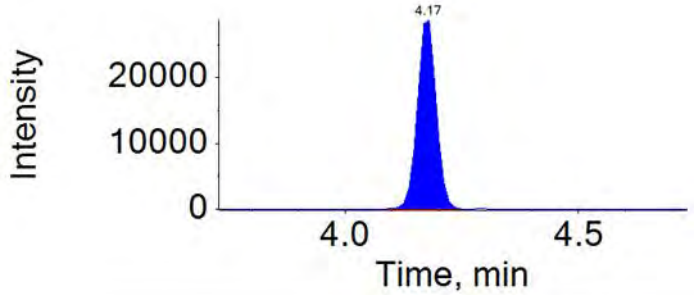
Component: PFHxA
Primary Mass: 313.0 / 269.0



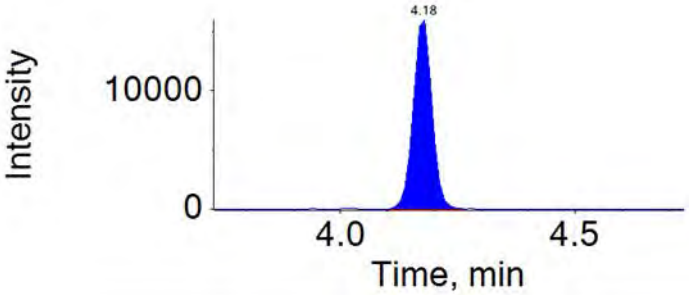
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



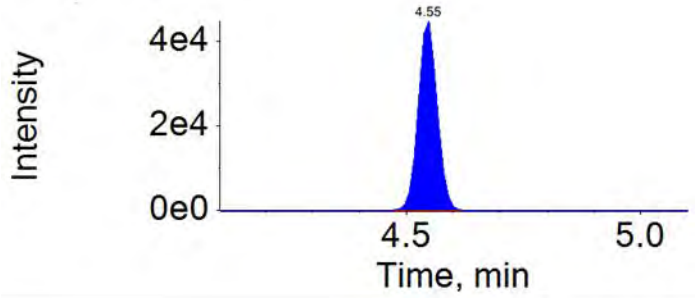
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Secondary Mass: 349.0 / 99.0



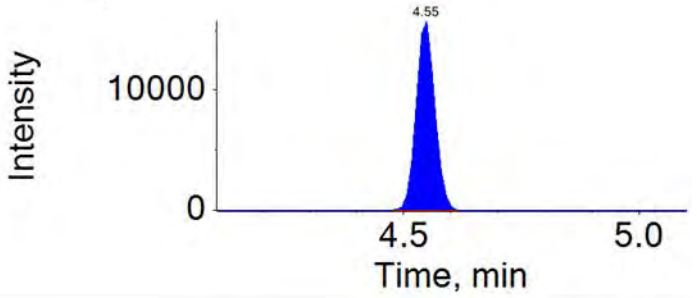
APPROVED
By JPT at 10:55 am, 11/9/18

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By umar at 3:41 pm, 11/12/18

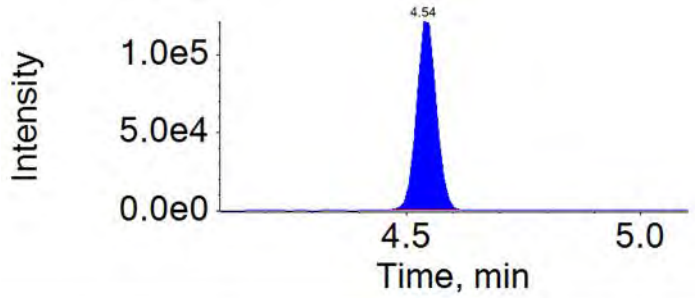
Component: PFHxS
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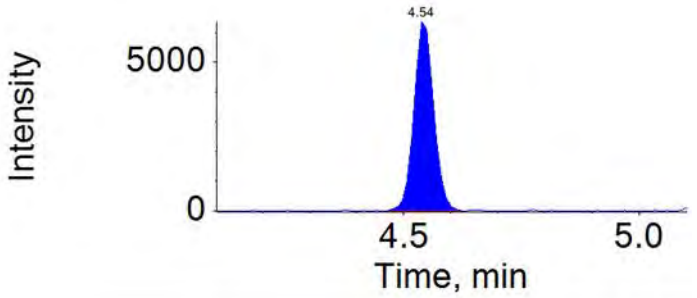
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Secondary Mass: 399.0 / 99.0



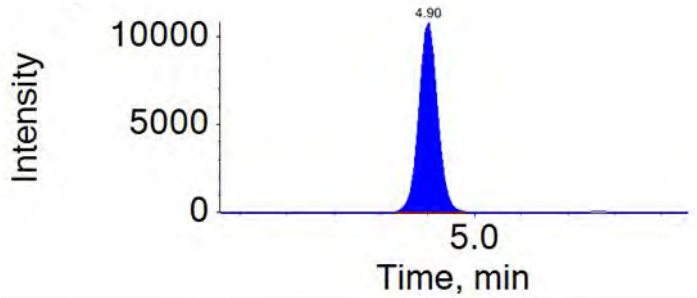
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Primary Mass: 363.0 / 319.0



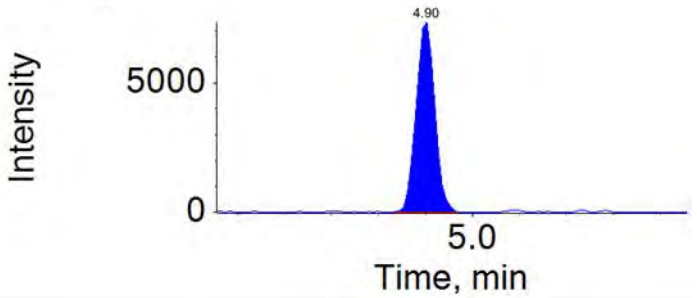
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Secondary Mass: 363.0 / 169.0



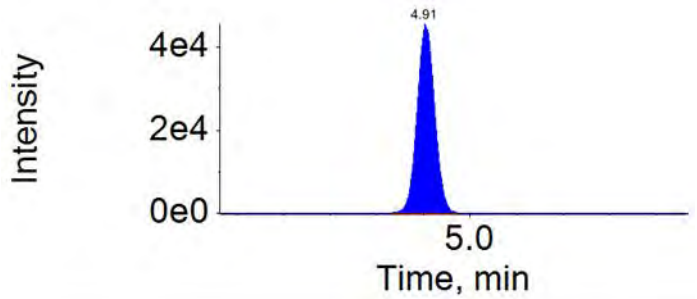
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



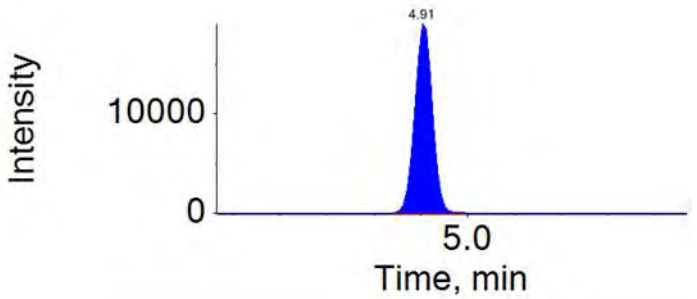
Component: 6:2-FTS_2
Secondary Mass: 427.0 / 81.0



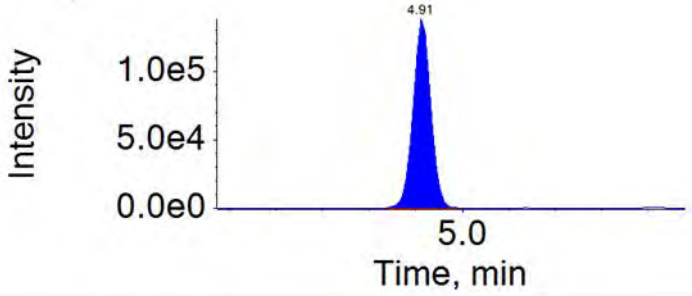
Component: PFHpS
Primary Mass: 449.0 / 80.0



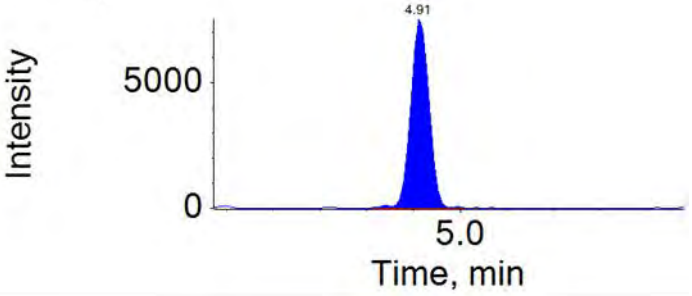
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Secondary Mass: 449.0 / 99.0



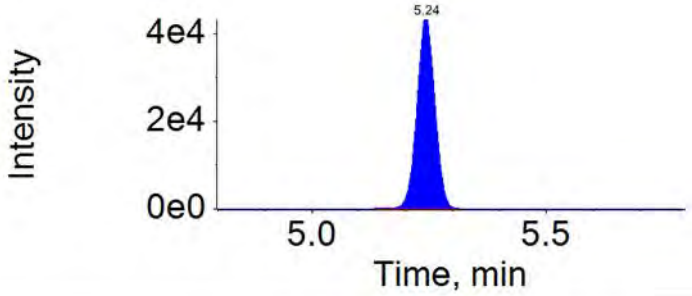
Component: PFOA
Primary Mass: 413.0 / 369.0



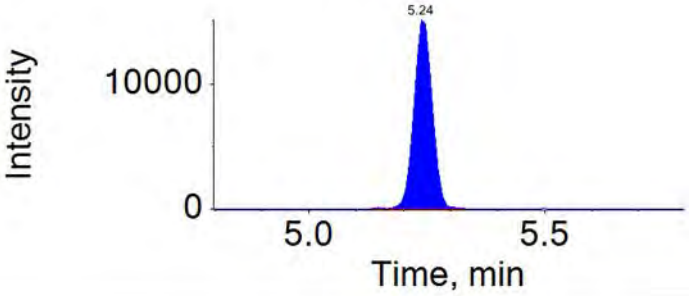
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



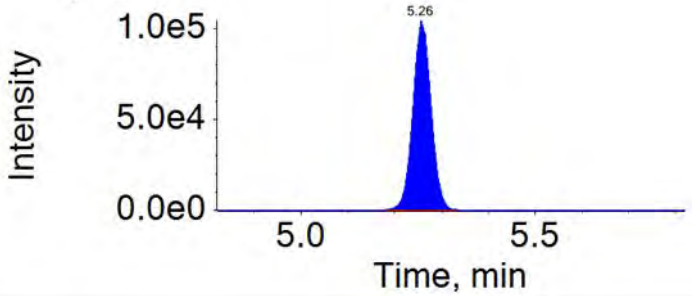
Component: PFOS
Primary Mass: 499.0 / 80.0



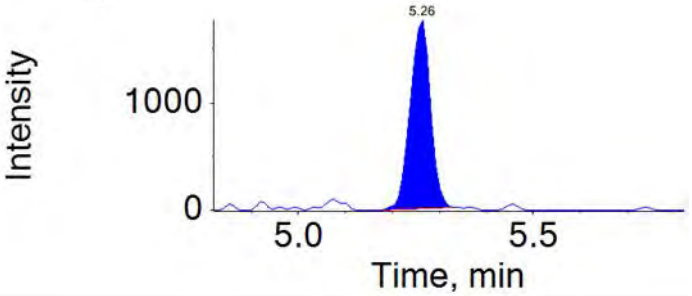
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Secondary Mass: 499.0 / 99.0



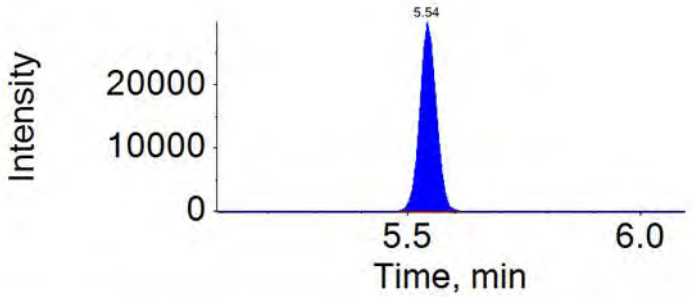
Component: PFNA
Primary Mass: 463.0 / 419.0



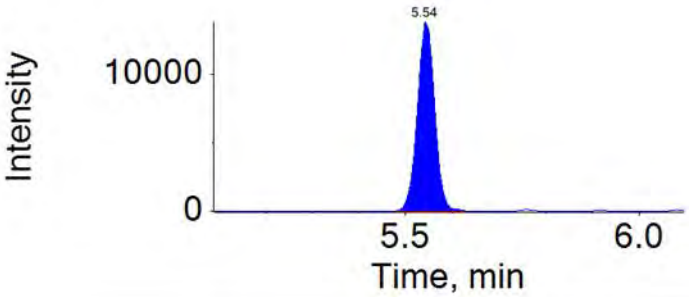
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



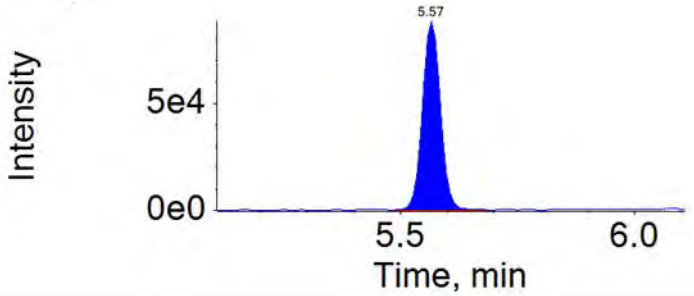
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



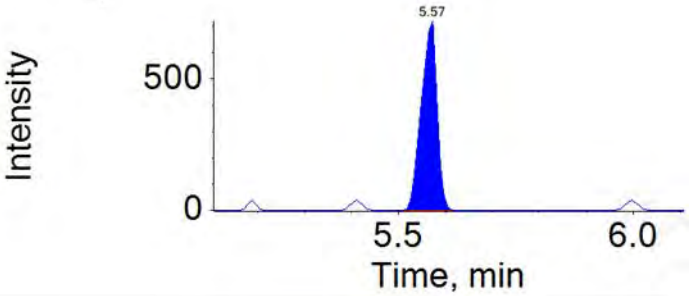
APPROVED
By JPT at 10:55 am, 11/9/18

REVIEWED
By umar at 3:41 pm, 11/12/18

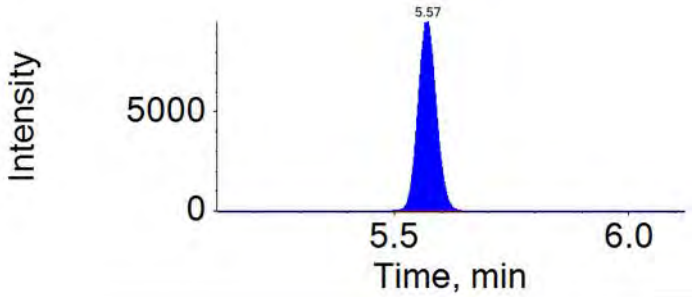
Component: PFDA
Primary Mass: 513.0 / 469.0



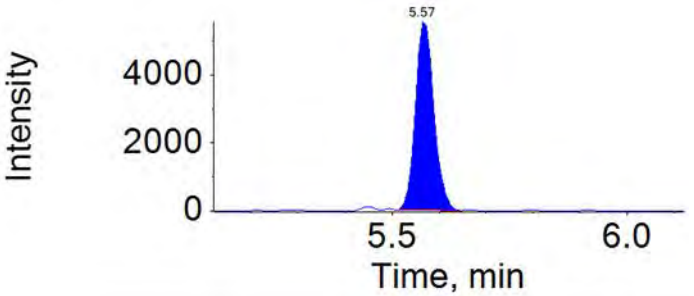
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



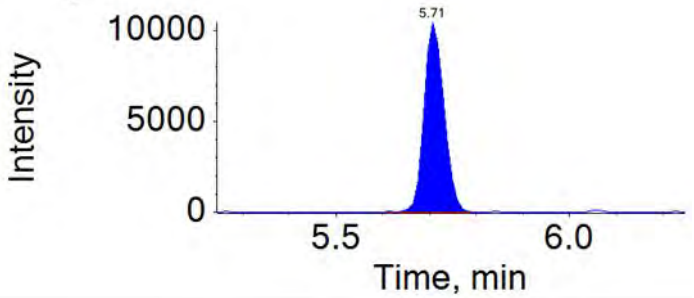
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



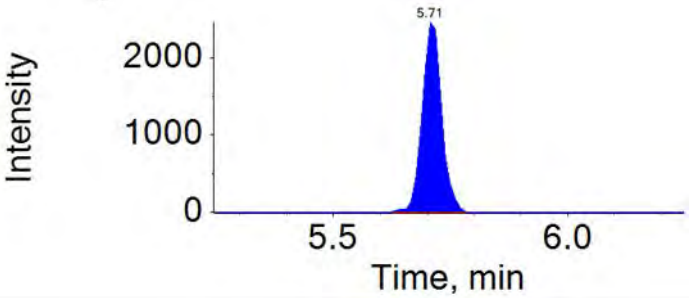
Component: 8:2-FTS_2
Secondary Mass: 527.0 / 81.0



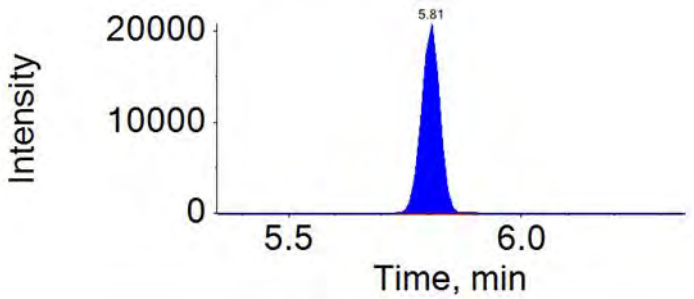
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



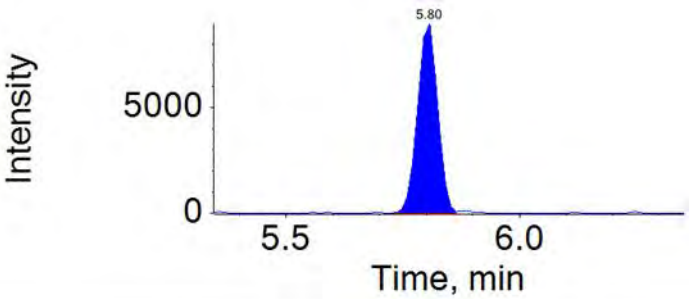
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



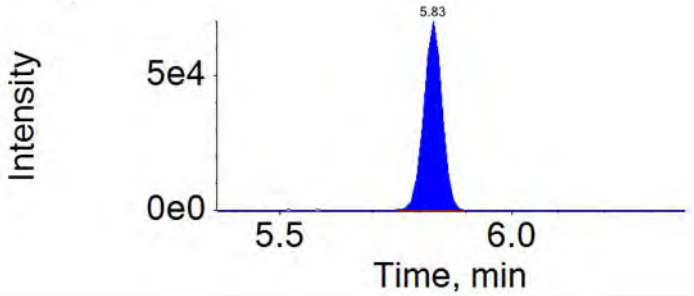
Component: PFDS_2
Secondary Mass: 599.0 / 99.0



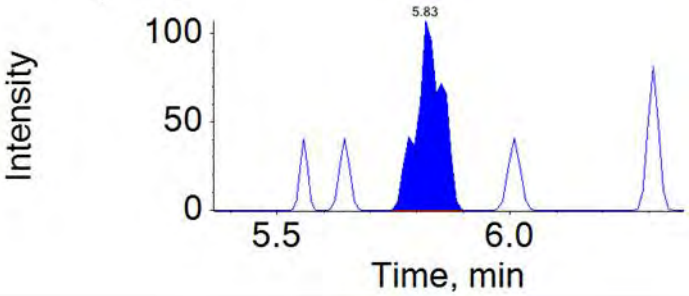
APPROVED
By JPT at 10:55 am, 11/9/18

REVIEWED
By umar at 3:41 pm, 11/12/18

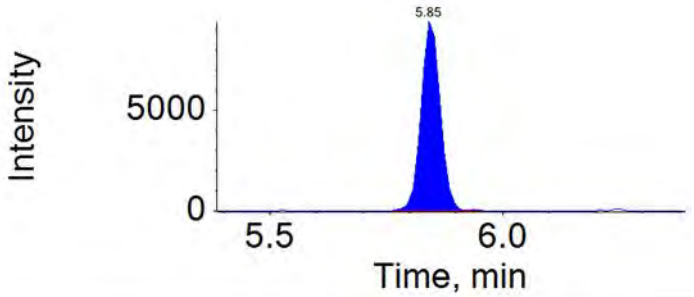
Component: PFUnDA
Primary Mass: 563.0 / 519.0



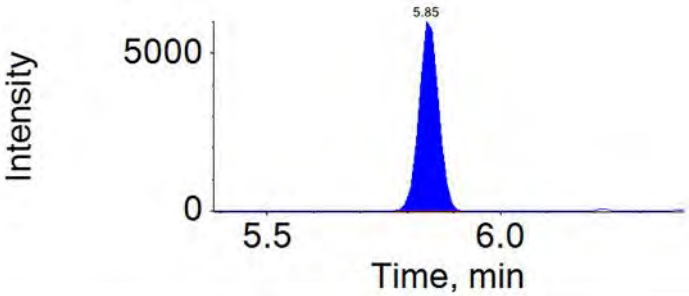
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



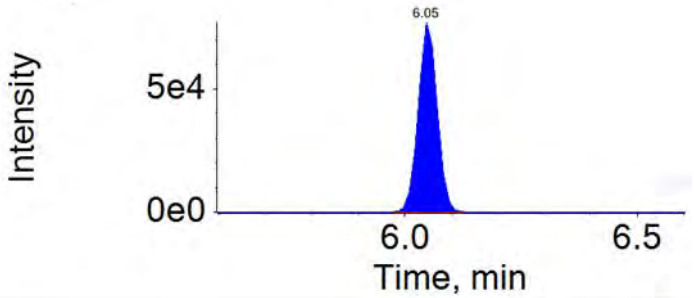
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



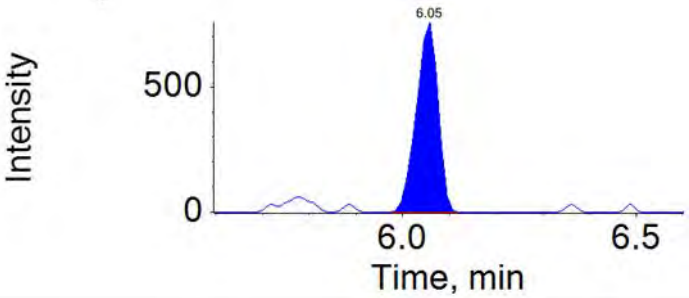
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



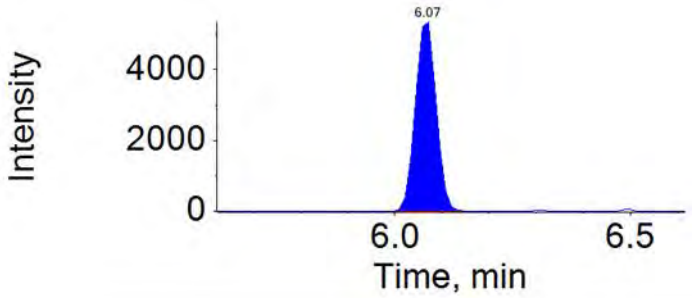
Component: PFDoDA
Primary Mass: 613.0 / 569.0



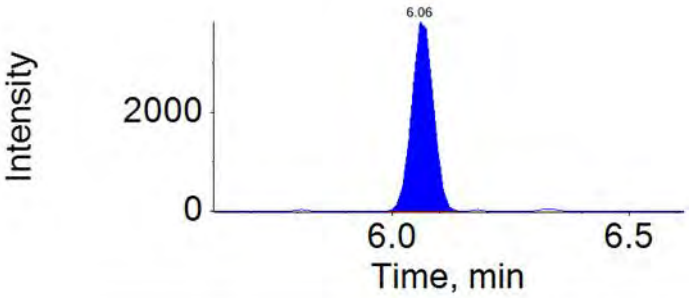
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



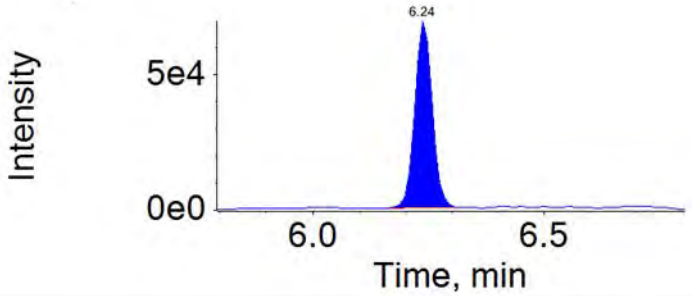
Component: 10:2-FTS_2
Secondary Mass: 627.0 / 81.0



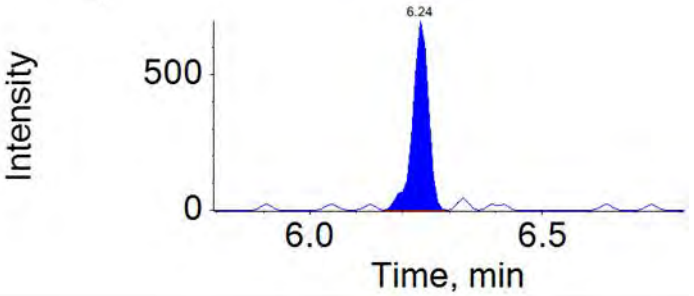
APPROVED
By JPT at 10:55 am, 11/9/18

REVIEWED
By umar at 3:41 pm, 11/12/18

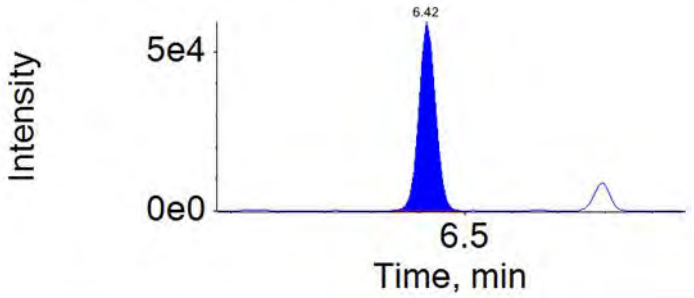
Component: PFTrDA
Primary Mass: 663.0 / 619.0



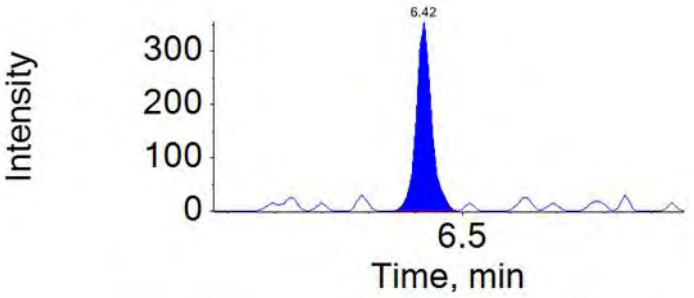
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



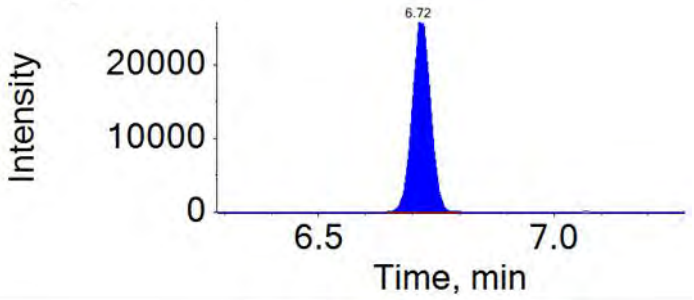
Component: PFTeDA
Primary Mass: 713.0 / 669.0



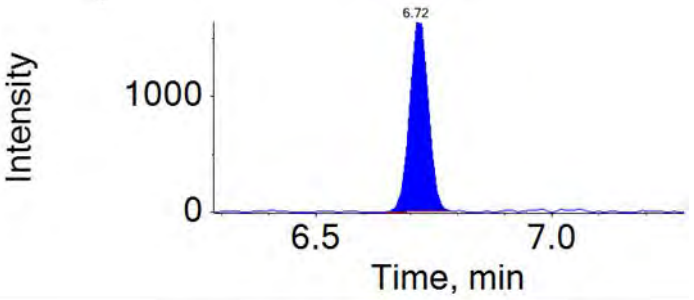
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



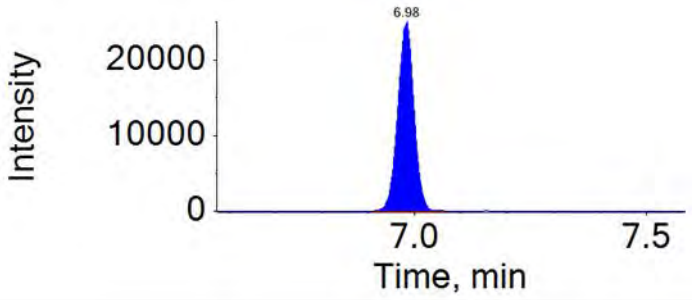
Component: PFHxDA
Primary Mass: 813.0 / 769.0



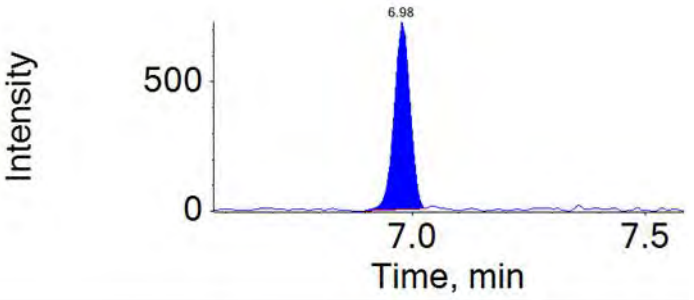
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



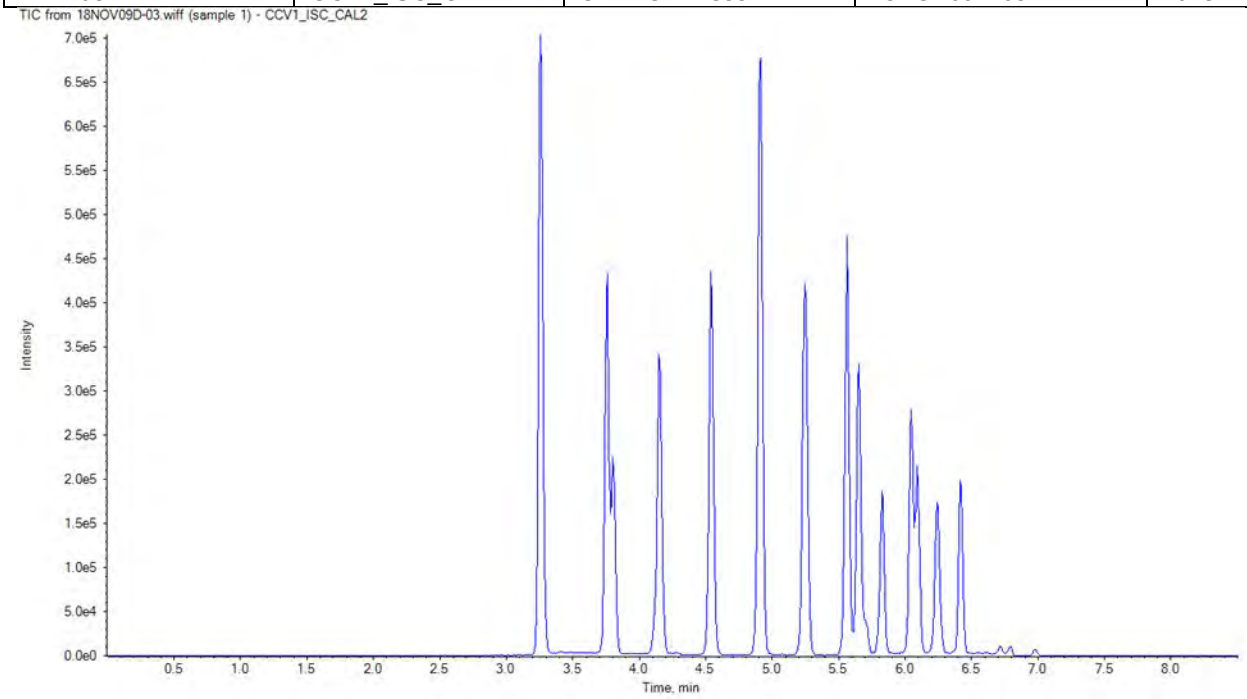
APPROVED
By JPT at 10:55 am, 11/9/18

REVIEWED
By umar at 3:41 pm, 11/12/18

Instrument Sensitivity Check/ Continuing Calibration Verfication

ICAL Name: 18NOV07DCAL **Result Table:** 18NOV09DCCV1-4 11/9/2018 5:07:16 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	CCV1_ISC_CAL2	CALMOD21833F	18NOV09D-03.wiff	2018-11-09T04:56:59



Injection Standard Area Reference File: 18NOV08D-05

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Reference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	725974.7	728839.7	0	50	
13C2-PFOA	5.0	506876.7	491983.1	3	50	
13C4-PFOS	4.8	274910.1	255568.1	8	50	
13C2-PFDA	5.0	307276.7	315407.5	-3	50	

APPROVED
By MCD at 5:19 pm, 11/9/18

REVIEWED
By HMK at 7:21 am, 11/15/18

Instrument Sensitivity Check/ Continuing Calibration Verfication

ICAL Name: 18NOV07DCAL **Result Table:** 18NOV09DCCV1-4 11/9/2018 5:07:16 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	CCV1_ISC_CAL2	CALMOD21833F	18NOV09D-03.wiff	2018-11-09T04:56:59

Analyte Name	Analyte Area	Sc /pk	Ext Std Name	Ext Std Area	Ext Std con	Area Ratio	RT (min)	RRT	Spec Amt	Calc Amt	% Diff	% Diff Lim	% Diff OOS
PFBA	73764.0	10	13C4-PFBA	800377.3	5.0	0.092	3.26	1.000	0.500	0.539	8	30	
PFPeA	77931.3	12	13C5-PFPeA	839674.3	5.0	0.093	3.76	1.000	0.500	0.552	10	30	
PFBS	38056.3	11	13C3-PFBS	423450.1	4.7	0.090	3.81	1.000	0.440	0.453	3	30	
4:2-FTS	10464.9	11	13C2-4:2-FTS	54500.3	4.7	0.192	4.12	1.000	0.467	0.516	11	30	
PFHxA	90851.7	12	13C5-PFHxA	669530.0	5.0	0.136	4.15	1.000	0.500	0.582	16	30	
PFPeS	19983.2	12	13C3-PFBS	423450.1	4.7	0.047	4.17	1.100	0.469	0.465	-1	30	
PFHxS	30875.8	12	13C3-PFHxS	331033.8	4.7	0.093	4.54	1.000	0.473	0.473	0	30	
PFHpA	88972.9	12	13C4-PFHpA	550877.2	5.0	0.162	4.54	1.000	0.500	0.543	9	30	
6:2-FTS	8270.7	11	13C2-6:2-FTS	38224.4	4.8	0.216	4.90	1.000	0.474	0.540	14	30	
PFHpS	29792.4	11	13C3-PFHxS	331033.8	4.7	0.090	4.90	1.080	0.476	0.471	-1	30	
PFOA	90972.8	11	13C8-PFOA	936961.2	5.0	0.097	4.91	1.000	0.500	0.547	9	30	
PFOS	30918.1	11	13C8-PFOS	292185.4	4.8	0.106	5.24	1.000	0.478	0.549	15	30	
PFNA	67838.6	12	13C9-PFNA	481186.0	5.0	0.141	5.26	1.000	0.500	0.527	5	30	
PFNS	18602.5	11	13C8-PFOS	292185.4	4.8	0.064	5.54	1.060	0.480	0.505	5	30	
PFDA	59070.3	11	13C6-PFDA	595472.3	5.0	0.099	5.56	1.000	0.500	0.546	9	30	
8:2-FTS	5888.6	11	13C2-8:2-FTS	28276.3	4.8	0.208	5.57	1.000	0.479	0.469	-2	30	
PFOSA	72507.1	11	13C8-PFOSA	705892.2	5.0	0.103	5.65	1.000	0.500	0.555	11	30	
NMeFOSAA	7292.3	12	d3-NMeFOSAA	80042.2	5.0	0.091	5.71	1.000	0.500	0.469	-6	30	
PFDS	15015.9	11	13C8-PFOS	292185.4	4.8	0.051	5.80	1.110	0.482	0.491	2	30	
PFUnDA	49727.2	11	13C7-PFUnDA	268743.7	5.0	0.185	5.83	1.000	0.500	0.531	6	30	
NEtFOSAA	8237.3	12	d5-NEtFOSAA	66145.9	5.0	0.125	5.84	1.000	0.500	0.535	7	30	
PFDoDA	50985.1	12	13C2-PFDoDA	553881.6	5.0	0.092	6.05	1.000	0.500	0.499	0	30	
10:2-FTS	4050.9	13	13C2-8:2-FTS	28276.3	4.8	0.143	6.06	1.090	0.482	0.446	-7	30	
NMePFOSAE	41657.7	12	d7-NMePFOSAE	336547.8	5.0	0.124	6.10	1.000	0.500	0.555	11	30	
NMePFOSA	8675.0	12	d3-NMePFOSA	86754.9	5.0	0.100	6.10	1.000	0.500	0.560	12	30	
PFDoS	8991.3	11	13C8-PFOS	292185.4	4.8	0.031	6.21	1.190	0.484	0.594	23	30	
NEtPFOSAE	46678.1	12	d9-NEtPFOSAE	266431.2	5.0	0.175	6.25	1.000	0.500	0.562	12	30	
NEtPFOSA	6621.6	13	d5-NEtPFOSA	70353.4	5.0	0.094	6.26	1.000	0.500	0.415	-17	30	
PFTrDA	43214.6	11	13C2-PFDoDA	553881.6	5.0	0.078	6.24	1.030	0.500	0.492	-2	30	
PFTeDA	34793.1	10	13C2-PFTeDA	390810.1	5.0	0.089	6.42	1.000	0.500	0.523	5	30	
PFHxDA	16891.1	11	13C2-PFTeDA	390810.1	5.0	0.043	6.72	1.050	0.500	0.537	7	30	
PFODA	15170.8	10	13C2-PFTeDA	390810.1	5.0	0.039	6.98	1.090	0.500	0.556	11	30	

APPROVED
By MCD at 5:19 pm, 11/9/18

REVIEWED
By HMK at 7:21 am, 11/15/18

Instrument Sensitivity Check/ Continuing Calibration Verfication

ICAL Name: 18NOV07DCAL **Result Table:** 18NOV09DCCV1-4 11/9/2018 5:07:16 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18NOV09DCCV1-4 11/9/2018 5:13:22 PM
Acquisition Method: 18AUG13_3uL.dam

Sample Name:	CCV1_ISC_CAL2			**Data File:**		18NOV09D-03.wiff
Sample ID:	CALMOD21833F			**Acquis Date:**		2018-11-09T04:56:59
Sample Type:	Quality Control			**Instrument:**		LM27631
Vial Position:	4			**Acquis Method:**		18AUG13_3uL.dam
Injection Vol:	3.00			**Result Table:**		18NOV09DCCV1-4
QMethod File:	MQ4-18AUG13			**ICAL Name:**		18NOV07DCAL
Batch Number:	N/A			**Operator:**		MCD7824
Sample Wt.:	1.00000			**Dilution Factor:**		1.00
Sample Vol.:	1.000			**Prep Factor:**		1.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV08D-05

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Rreference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	725974.7	728839.7	0	50	
13C2-PFOA	5.0	506876.7	491983.1	3	50	
13C4-PFOS	4.8	274910.1	255568.1	8	50	
13C2-PFDA	5.0	307276.7	315407.5	-3	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	800377.3	13C3-PFBA	725974.7	1.102	5.000	5.102	102	70-130	
E13C5-PFPeA	839674.3	13C3-PFBA	725974.7	1.157	5.000	5.039	101	70-130	
E13C3-PFBS	423450.1	13C3-PFBA	725974.7	0.583	4.650	4.281	92	70-130	
E13C2-4:2-FTS	54500.3	13C2-PFOA	506876.7	0.108	4.670	4.852	104	70-130	
E13C5-PFHxA	669530.0	13C2-PFOA	506876.7	1.321	5.000	4.859	97	70-130	
E13C3-PFHxS	331033.8	13C2-PFOA	506876.7	0.653	4.730	4.688	99	70-130	
E13C4-PFHpA	550877.2	13C2-PFOA	506876.7	1.087	5.000	4.944	99	70-130	
E13C2-6:2-FTS	38224.4	13C2-PFOA	506876.7	0.075	4.750	5.029	106	70-130	
E13C8-PFOA	936961.2	13C2-PFOA	506876.7	1.848	5.000	5.155	103	70-130	
E13C8-PFOS	292185.4	13C4-PFOS	274910.1	1.063	4.780	4.700	98	70-130	
E13C9-PFNA	481186.0	13C4-PFOS	274910.1	1.750	5.000	4.781	96	70-130	
E13C6-PFDA	595472.3	13C2-PFDA	307276.7	1.938	5.000	4.873	97	70-130	
E13C2-8:2-FTS	28276.3	13C2-PFDA	307276.7	0.092	4.790	4.869	102	70-130	
E13C8-PFOSA	705892.2	13C2-PFDA	307276.7	2.297	5.000	5.013	100	70-130	
Ed3-NMeFOSAA	80042.2	13C2-PFDA	307276.7	0.260	5.000	4.844	97	70-130	
E13C7-PFUnDA	268743.7	13C2-PFDA	307276.7	0.875	5.000	5.045	101	70-130	
Ed5-NEtFOSAA	66145.9	13C2-PFDA	307276.7	0.215	5.000	4.982	100	70-130	
E13C2-PFDoDA	553881.6	13C2-PFDA	307276.7	1.803	5.000	4.859	97	70-130	
Ed7-NMePFOSAE	336547.8	13C2-PFDA	307276.7	1.095	5.000	5.093	102	70-130	
Ed3-NMePFOSA	86754.9	13C2-PFDA	307276.7	0.282	5.000	5.169	103	70-130	
Ed9-NEtPFOSAE	266431.2	13C2-PFDA	307276.7	0.867	5.000	4.952	99	70-130	
Ed5-NEtPFOSA	70353.4	13C2-PFDA	307276.7	0.229	5.000	5.301	106	70-130	
E13C2-PFTeDA	390810.1	13C2-PFDA	307276.7	1.272	5.000	4.579	92	70-130	

APPROVED
By MCD at 5:19 pm, 11/9/18

REVIEWED
By HMK at 7:21 am, 11/15/18

ICAL Name: 18NOV07DCAL **Result Table:** 18NOV09DCCV1-4 11/9/2018 5:13:22 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

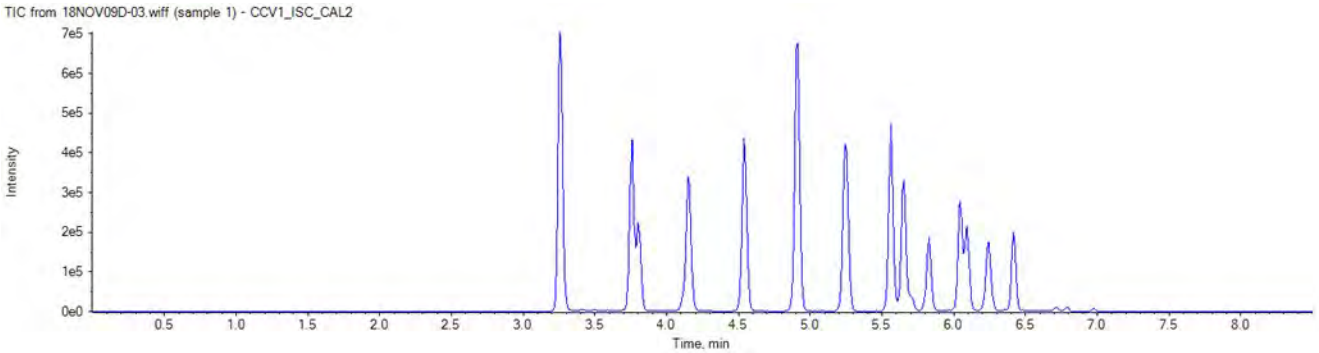
Analyte Quantitation Peak Table

Sample Name: CCV1_ISC_CAL2 **Instrument Name:** LM27631 **File Name:** 18NOV09D-03.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	1.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	3.26	1.000	73764.0		A	13C4-PFBA	3.26	800377.3	0.092	0.539
PFPeA	3.76	1.000	77931.3		A	13C5-PFPeA	3.76	839674.3	0.093	0.552
PFBS	3.81	1.000	38056.3		A	13C3-PFBS	3.81	423450.1	0.090	0.453
4:2-FTS	4.12	1.000	10464.9		A	13C2-4:2-FTS	4.12	54500.3	0.192	0.516
PFHxA	4.15	1.000	90851.7		A	13C5-PFHxA	4.15	669530.0	0.136	0.582
PFPeS	4.17	1.100	19983.2		A	13C3-PFBS	3.81	423450.1	0.047	0.465
PFHxS	4.54	1.000	30875.8		A	13C3-PFHxS	4.54	331033.8	0.093	0.473
PFHpA	4.54	1.000	88972.9		A	13C4-PFHpA	4.54	550877.2	0.162	0.543
6:2-FTS	4.90	1.000	8270.7		A	13C2-6:2-FTS	4.90	38224.4	0.216	0.540
PFHpS	4.90	1.080	29792.4		A	13C3-PFHxS	4.54	331033.8	0.090	0.471
PFOA	4.91	1.000	90972.8		A	13C8-PFOA	4.91	936961.2	0.097	0.547
PFOS	5.24	1.000	30918.1		A	13C8-PFOS	5.24	292185.4	0.106	0.549
PFNA	5.26	1.000	67838.6		A	13C9-PFNA	5.26	481186.0	0.141	0.527
PFNS	5.54	1.060	18602.5		A	13C8-PFOS	5.24	292185.4	0.064	0.505
PFDA	5.56	1.000	59070.3		A	13C6-PFDA	5.56	595472.3	0.099	0.546
8:2-FTS	5.57	1.000	5888.6		A	13C2-8:2-FTS	5.57	28276.3	0.208	0.469
PFOSA	5.65	1.000	72507.1		A	13C8-PFOSA	5.65	705892.2	0.103	0.555
NMeFOSAA	5.71	1.000	7292.3		A	d3-NMeFOSAA	5.71	80042.2	0.091	0.469
PFDS	5.80	1.110	15015.9		M	13C8-PFOS	5.24	292185.4	0.051	0.491
PFUnDA	5.83	1.000	49727.2		A	13C7-PFUnDA	5.83	268743.7	0.185	0.531
NEtFOSAA	5.84	1.000	8237.3		M	d5-NEtFOSAA	5.84	66145.9	0.125	0.535
PFDoDA	6.05	1.000	50985.1		A	13C2-PFDoDA	6.05	553881.6	0.092	0.499
10:2-FTS	6.06	1.090	4050.9		A	13C2-8:2-FTS	5.57	28276.3	0.143	0.446
NMePFOSAE	6.10	1.000	41657.7		A	d7-NMePFOSAE	6.09	336547.8	0.124	0.555
NMePFOSA	6.10	1.000	8675.0		A	d3-NMePFOSA	6.10	86754.9	0.100	0.560
PFDoS	6.21	1.190	8991.3		A	13C8-PFOS	5.24	292185.4	0.031	0.594
NEtPFOSAE	6.25	1.000	46678.1		A	d9-NEtPFOSAE	6.24	266431.2	0.175	0.562
NEtPFOSA	6.26	1.000	6621.6		A	d5-NEtPFOSA	6.26	70353.4	0.094	0.415
PFTrDA	6.24	1.030	43214.6		A	13C2-PFDoDA	6.05	553881.6	0.078	0.492
PFTeDA	6.42	1.000	34793.1		A	13C2-PFTeDA	6.42	390810.1	0.089	0.523
PFHxDA	6.72	1.050	16891.1		A	13C2-PFTeDA	6.42	390810.1	0.043	0.537
PFODA	6.98	1.090	15170.8		A	13C2-PFTeDA	6.42	390810.1	0.039	0.556

Total Ion Chromatogram

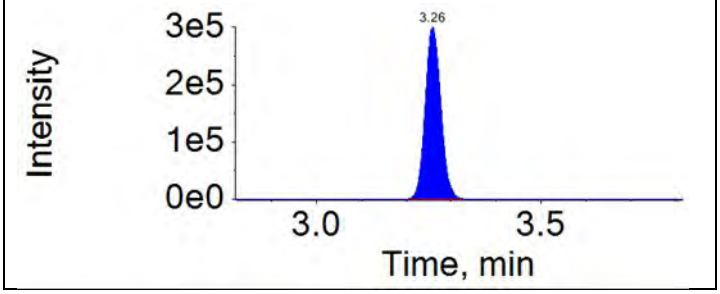


APPROVED
By MCD at 5:19 pm, 11/9/18

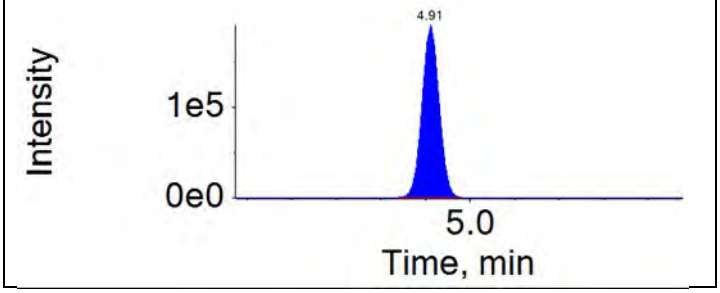
REVIEWED
By HMK at 7:21 am, 11/15/18

ICAL Name: 18NOV07DCAL **Result Table:** 18NOV09DCCV1-4 11/9/2018 5:13:22 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

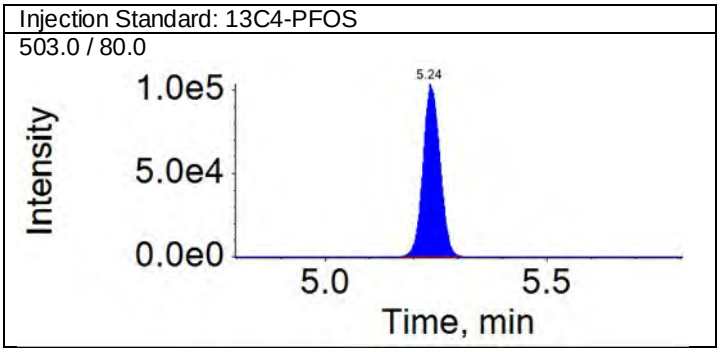
Injection Standard: 13C3-PFBA
216.0 / 172.0



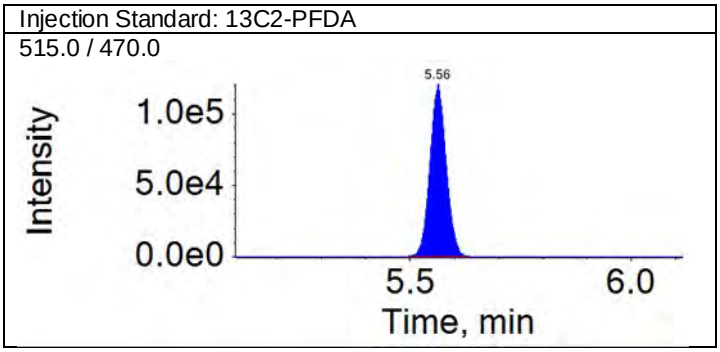
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0



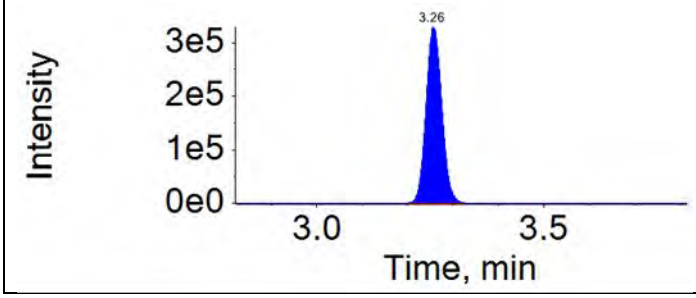
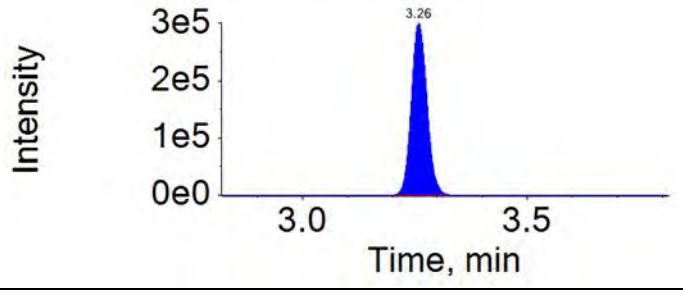
Injection Standard: 13C2-PFDA
515.0 / 470.0

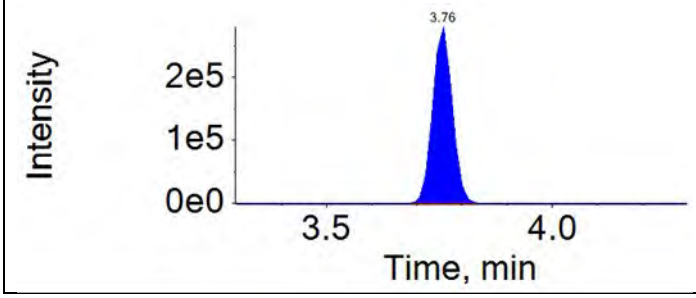
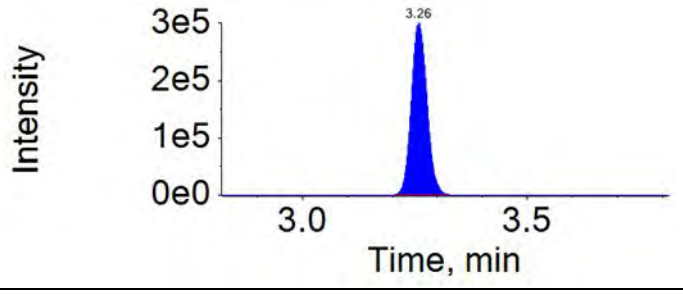


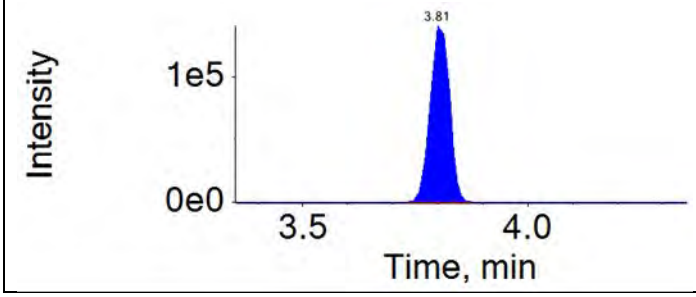
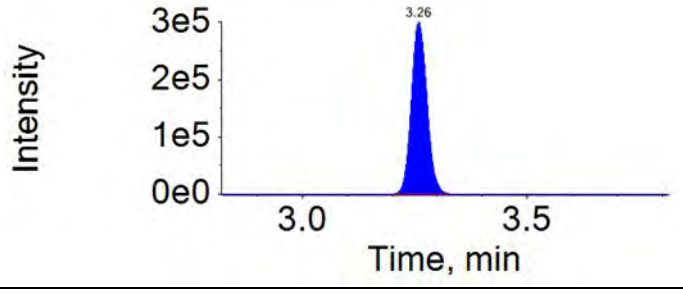
APPROVED
By MCD at 5:19 pm, 11/9/18

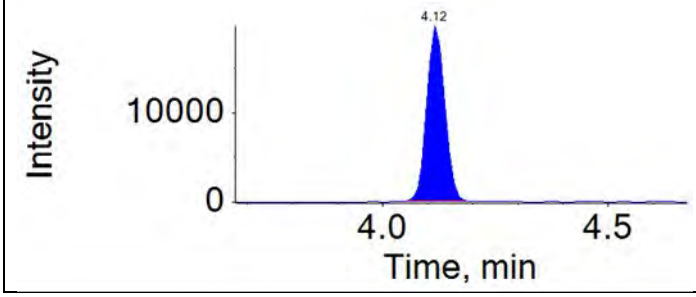
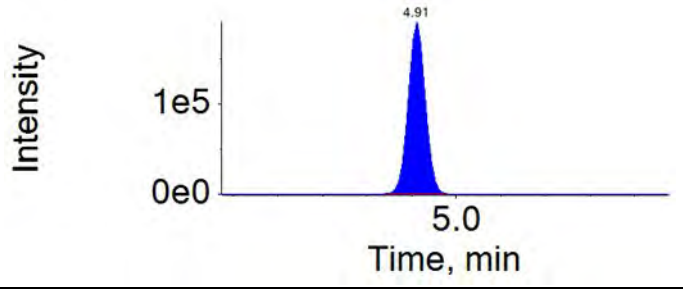
REVIEWED
By HMK at 7:21 am, 11/15/18

ICAL Name: 18NOV07DCAL **Result Table:** 18NOV09DCCV1-4 11/9/2018 5:13:22 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0
	

Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0
	

Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0
	

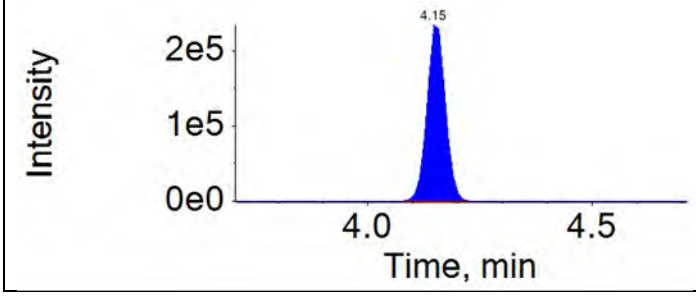
Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0
	

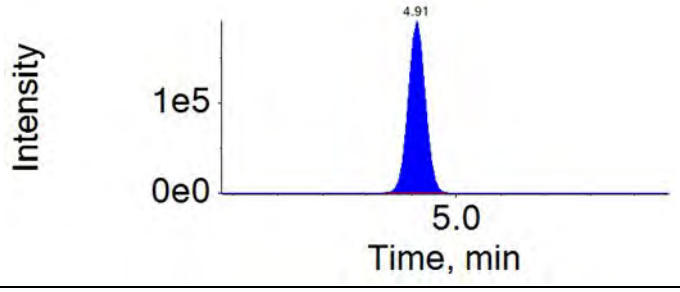
APPROVED
By MCD at 5:19 pm, 11/9/18

REVIEWED
By HMK at 7:21 am, 11/15/18

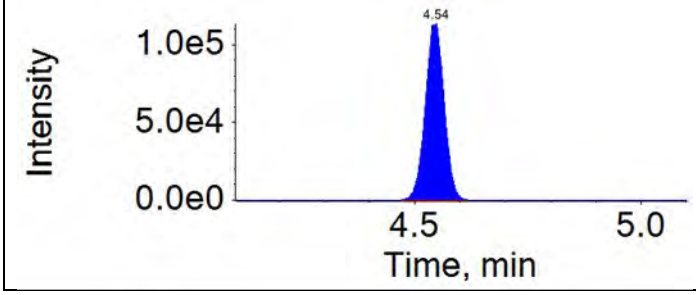
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV09DCCV1-4 11/9/2018 5:13:22 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

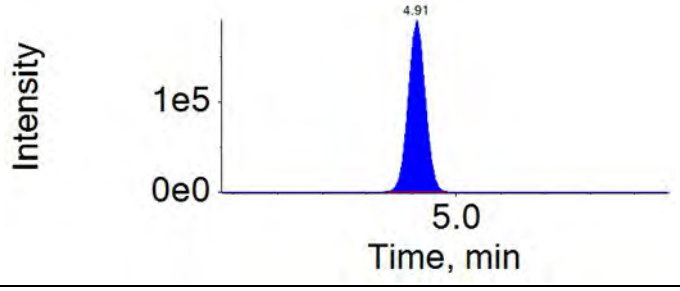
Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0



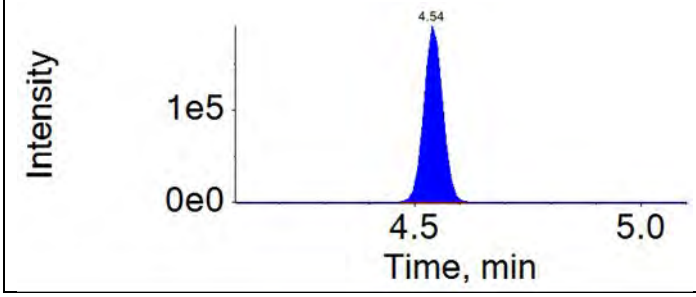


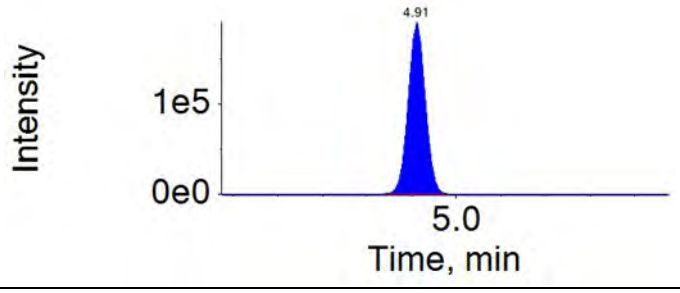
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0



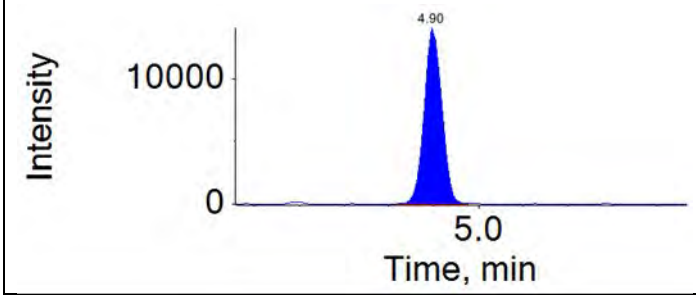


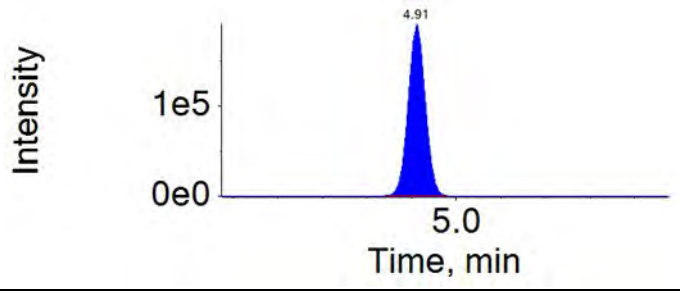
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0





Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0



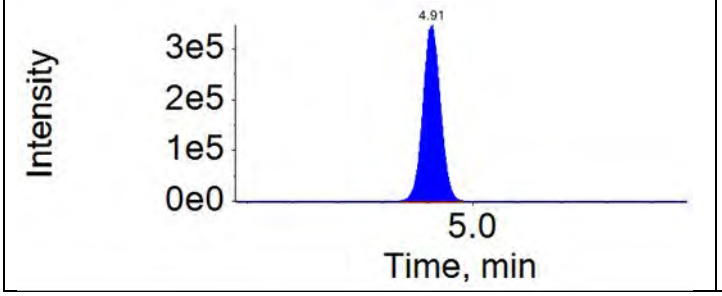


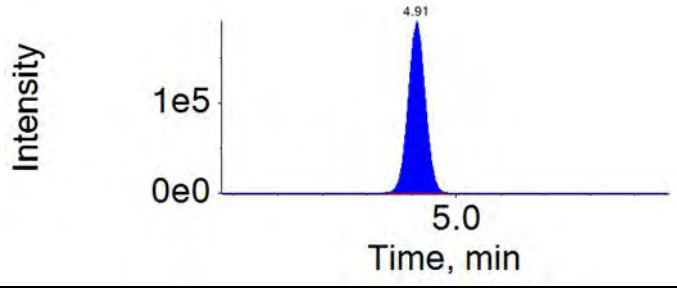
APPROVED
By MCD at 5:19 pm, 11/9/18

REVIEWED
By HMK at 7:21 am, 11/15/18

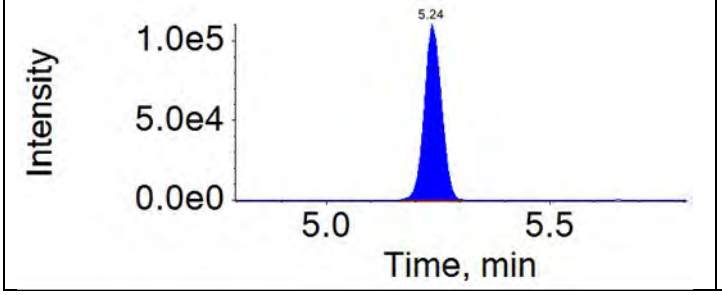
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV09DCCV1-4 11/9/2018 5:13:22 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

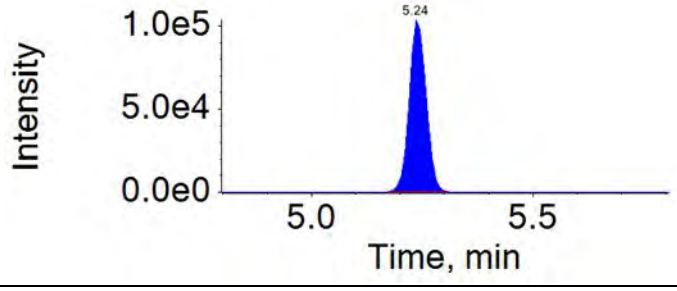
Extraction Standard: E13C8-PFOA	Injection Standard: 13C2-PFOA
421.0 / 376.0	415.0 / 370.0



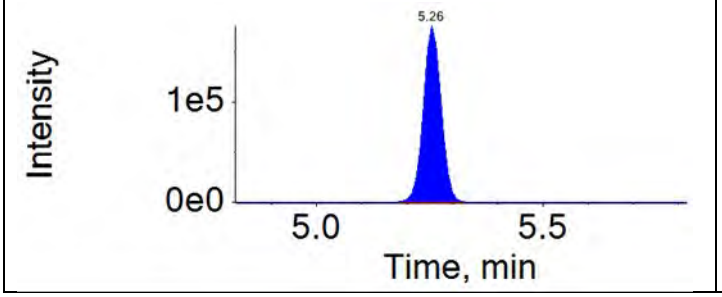


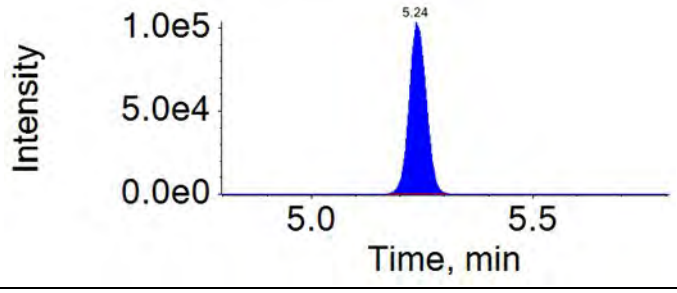
Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0



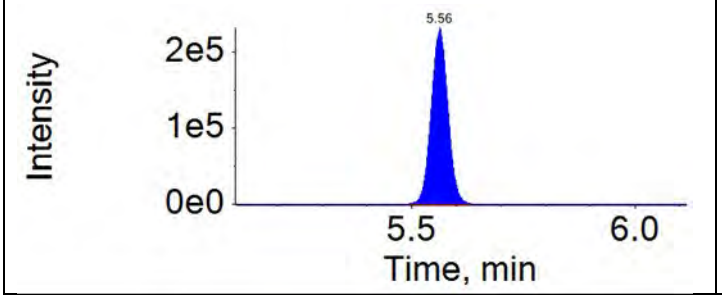


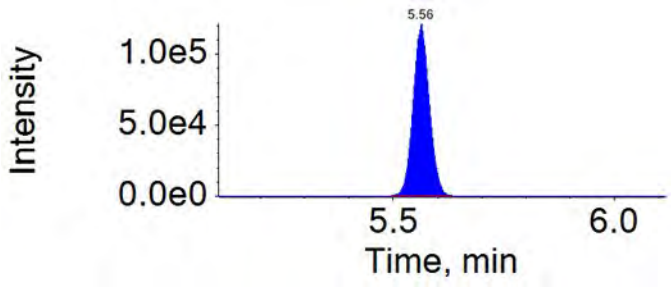
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0





Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0



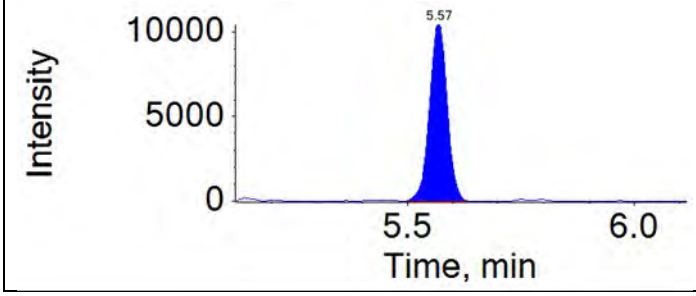


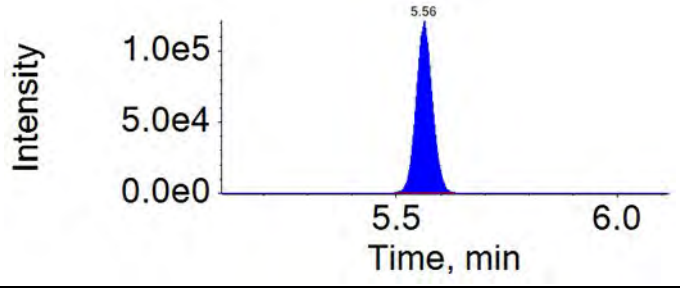
APPROVED
By MCD at 5:19 pm, 11/9/18

REVIEWED
By HMK at 7:21 am, 11/15/18

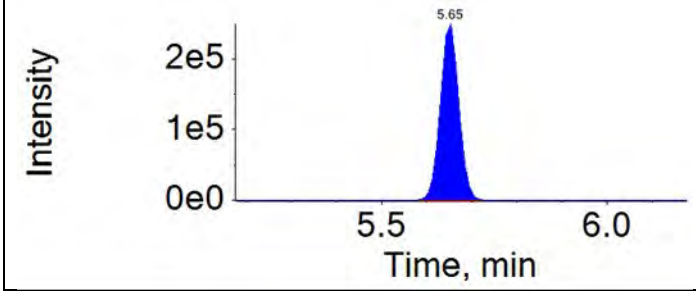
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV09DCCV1-4 11/9/2018 5:13:22 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

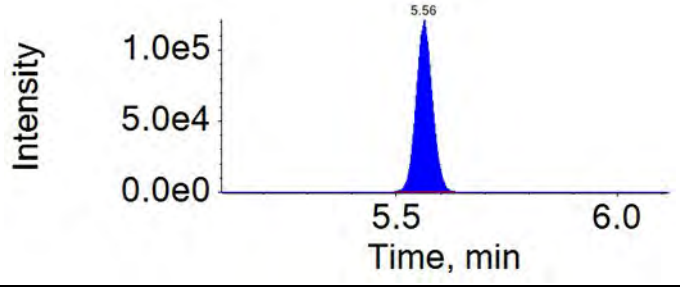
Extraction Standard: E13C2-8:2-FTS	Injection Standard: 13C2-PFDA
529.0 / 81.0	515.0 / 470.0



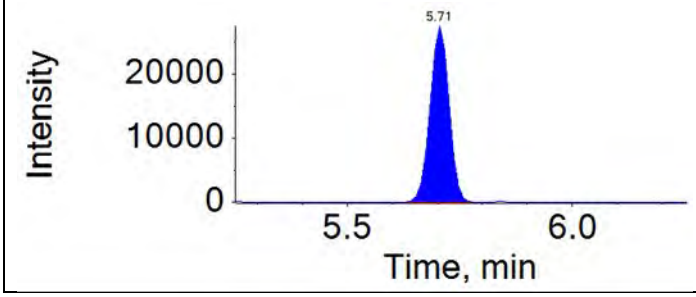


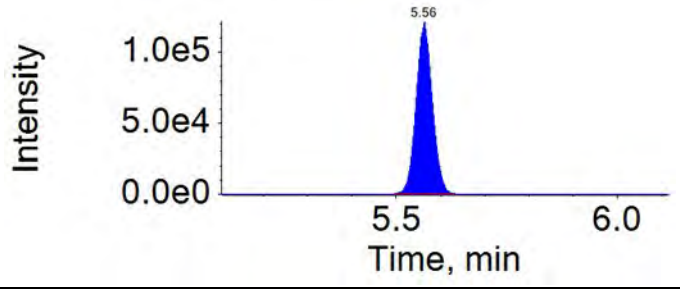
Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0



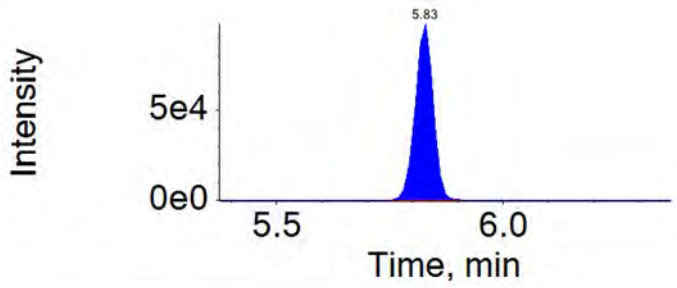


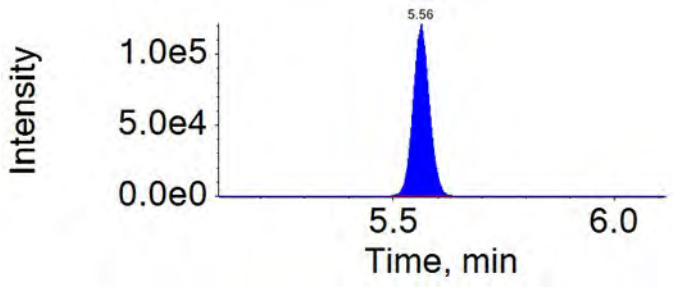
Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0





Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0



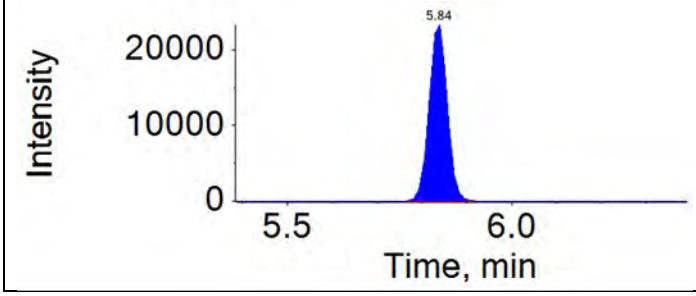


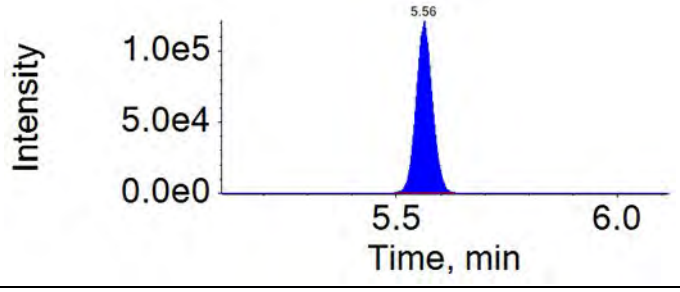
APPROVED
By MCD at 5:19 pm, 11/9/18

REVIEWED
By HMK at 7:21 am, 11/15/18

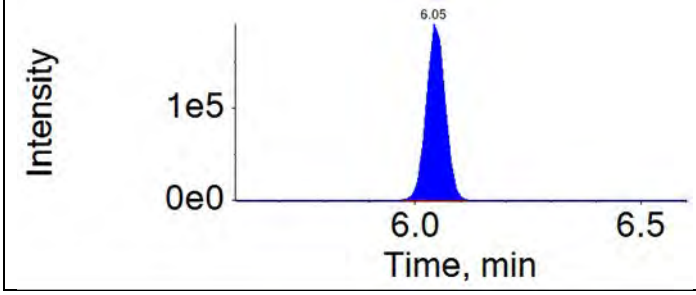
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV09DCCV1-4 11/9/2018 5:13:22 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

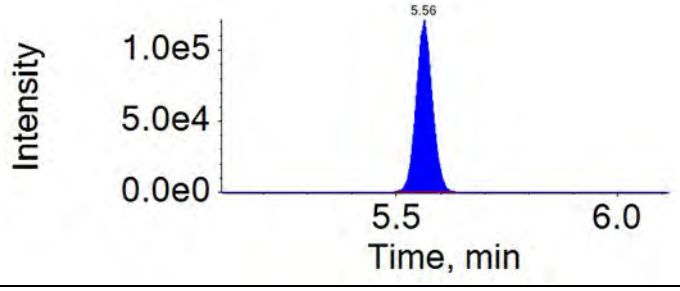
Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0



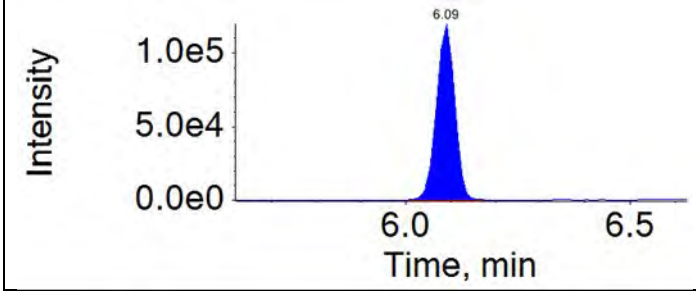


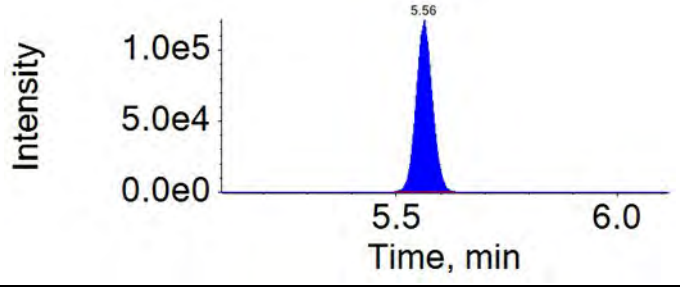
Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0



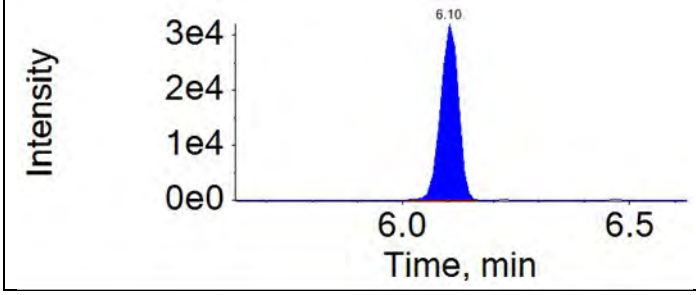


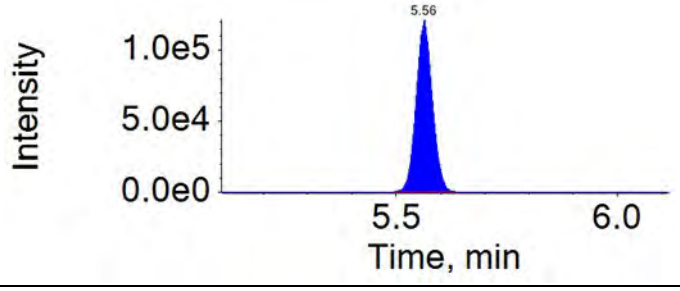
Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0





Extraction Standard: Ed3-NMePFOSA	Injection Standard: 13C2-PFDA
515.0 / 169.0	515.0 / 470.0



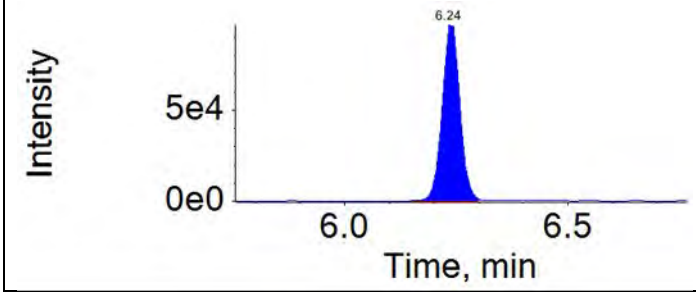


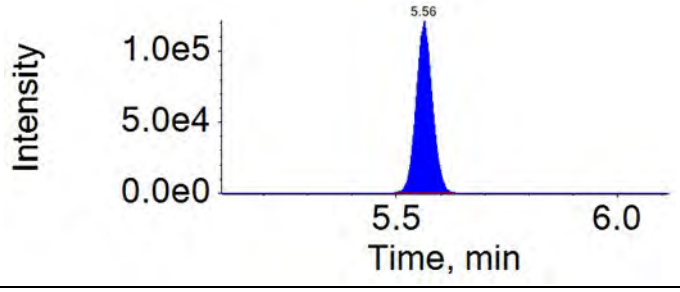
APPROVED
By MCD at 5:19 pm, 11/9/18

REVIEWED
By HMK at 7:21 am, 11/15/18

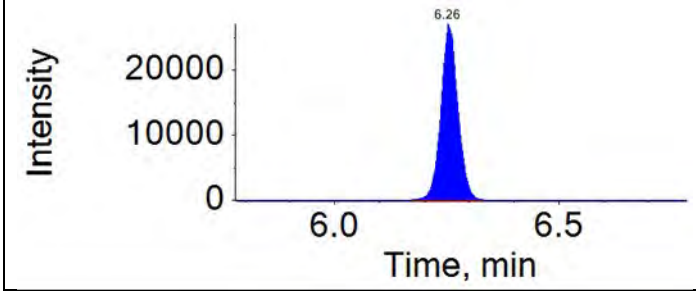
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV09DCCV1-4 11/9/2018 5:13:22 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

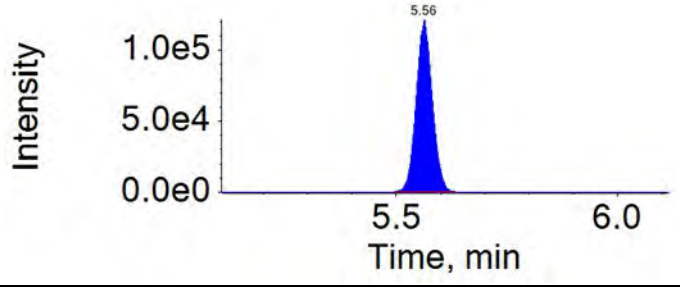
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



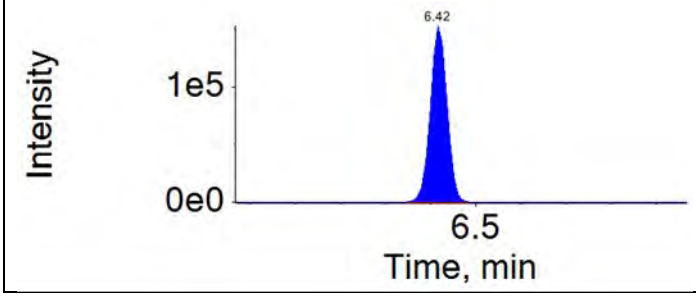


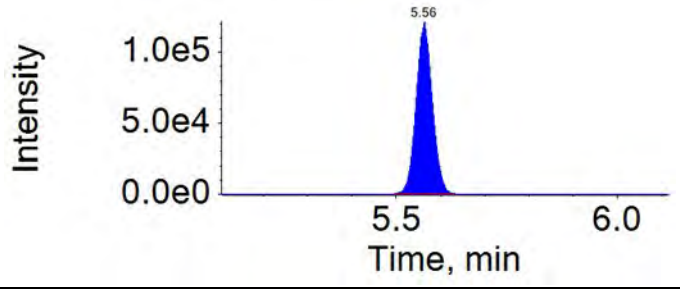
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0

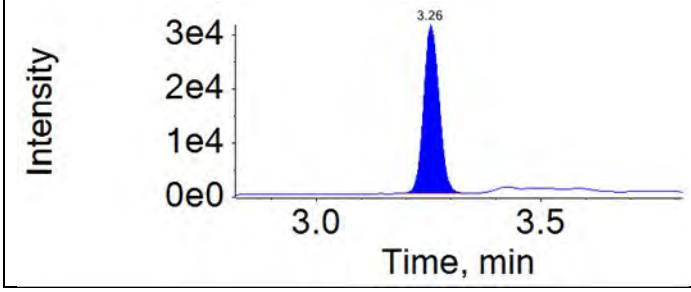
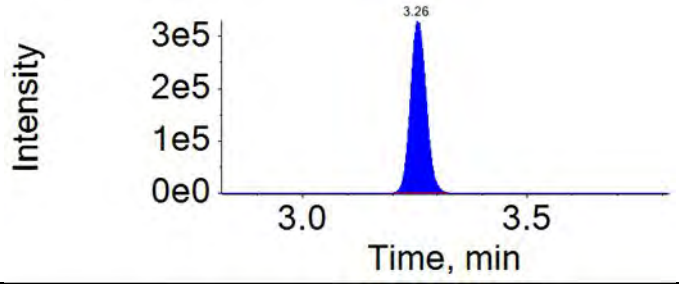


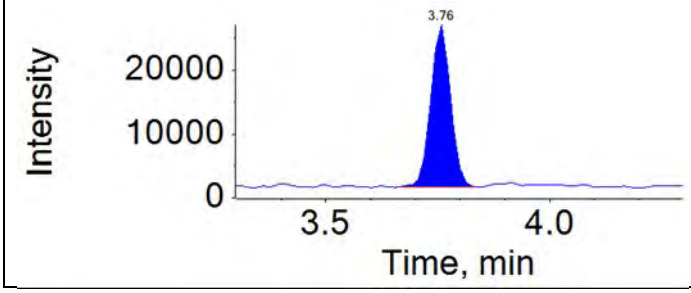
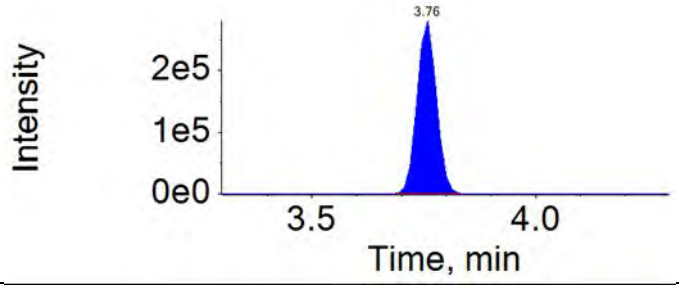


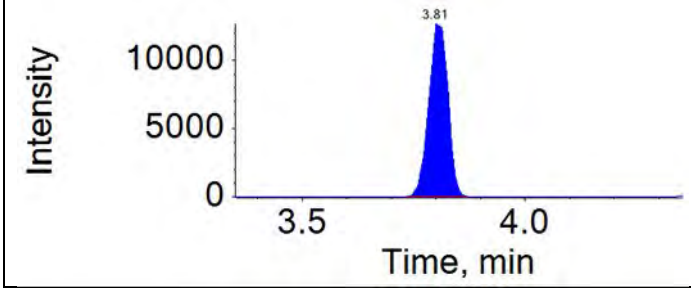
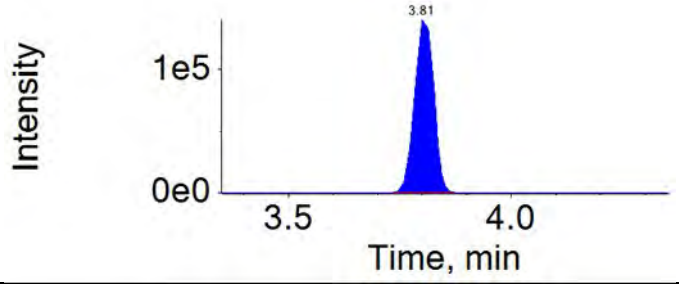
APPROVED
By MCD at 5:19 pm, 11/9/18

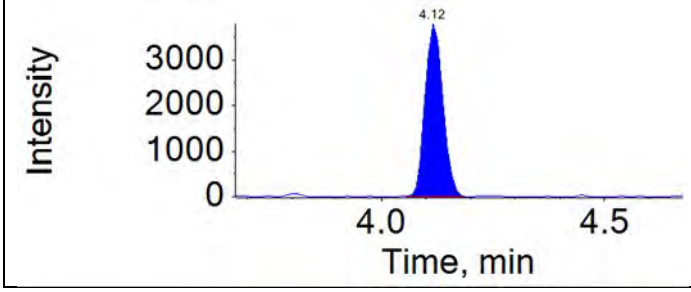
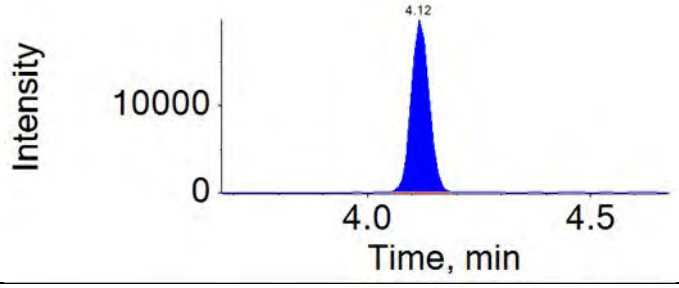
REVIEWED
By HMK at 7:21 am, 11/15/18

ICAL Name: 18NOV07DCAL **Result Table:** 18NOV09DCCV1-4 11/9/2018 5:13:22 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0
	

Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0
	

Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0
	

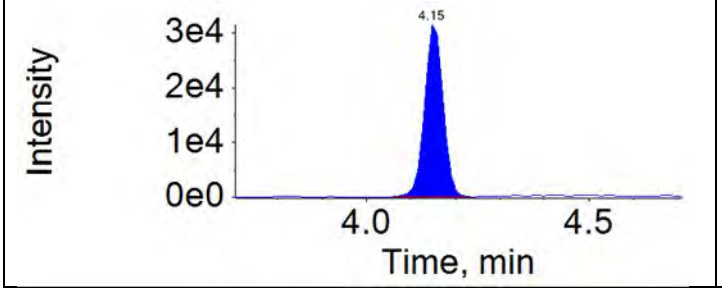
Analyte: 4:2-FTS	Extraction Standard: 13C2-4:2-FTS
327.0 / 307.0	329.0 / 81.0
	

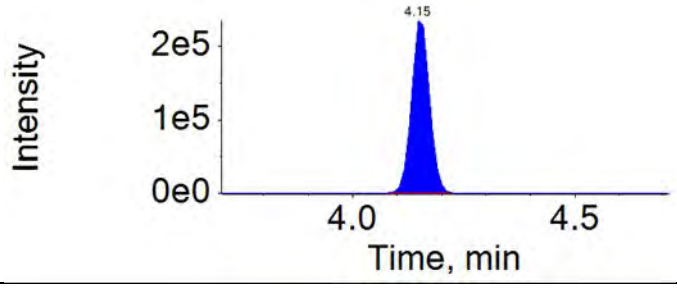
APPROVED
By MCD at 5:19 pm, 11/9/18

REVIEWED
By HMK at 7:21 am, 11/15/18

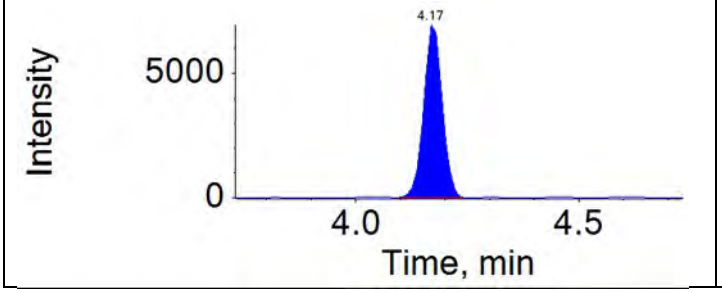
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV09DCCV1-4 11/9/2018 5:13:22 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

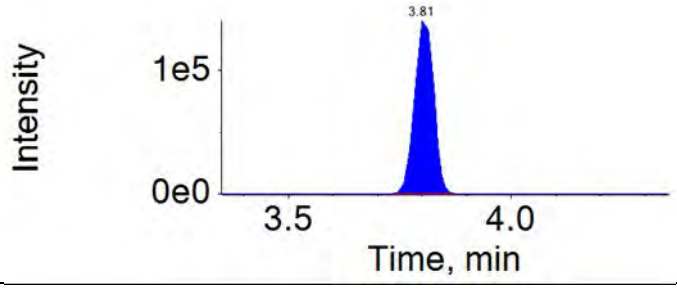
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



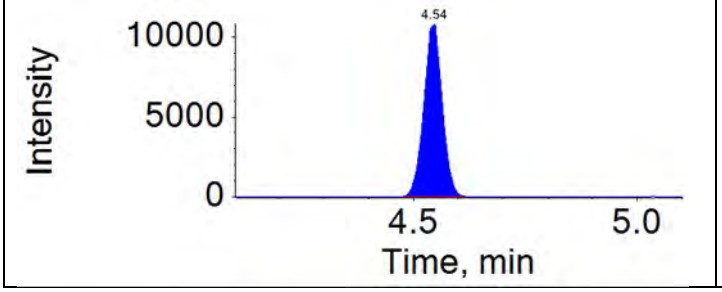


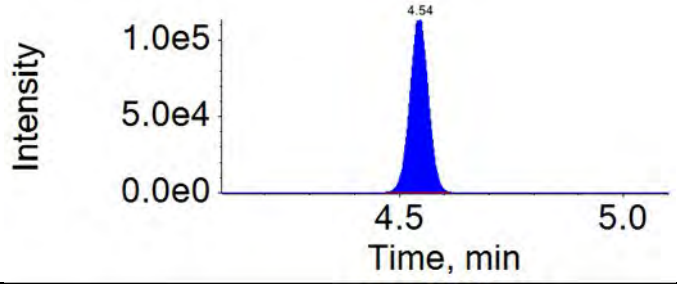
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



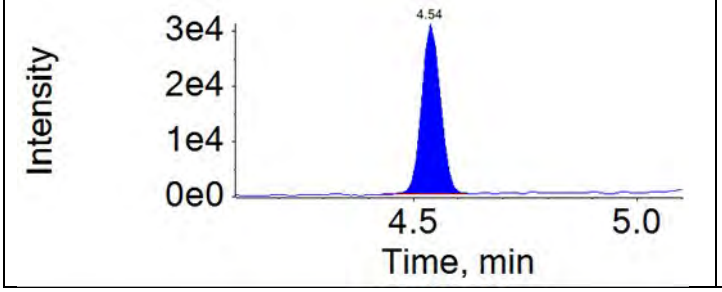


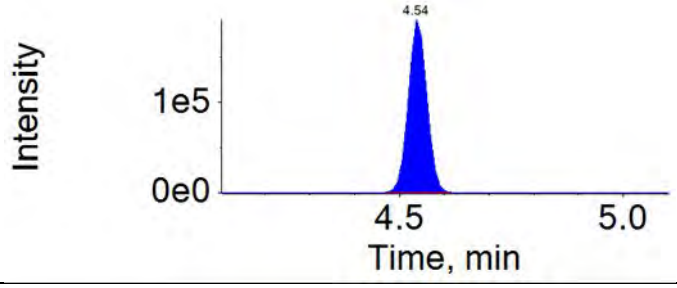
Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0





Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0

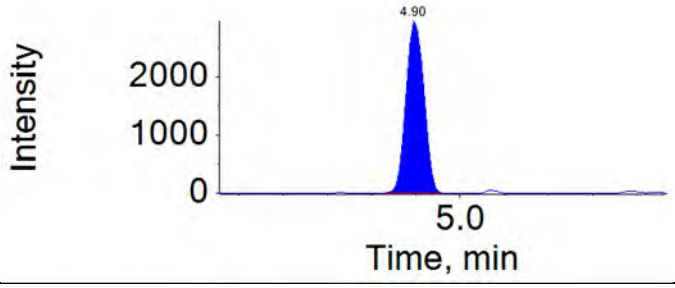
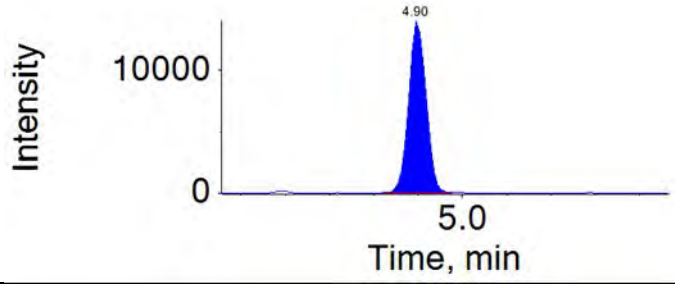


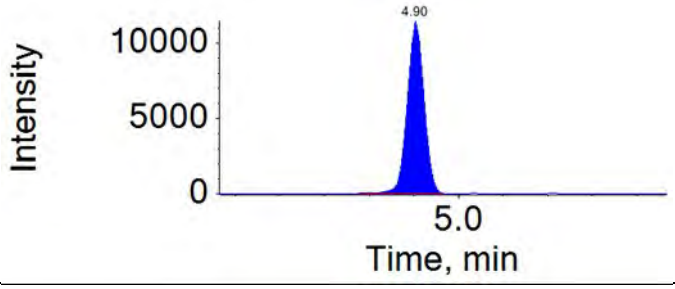
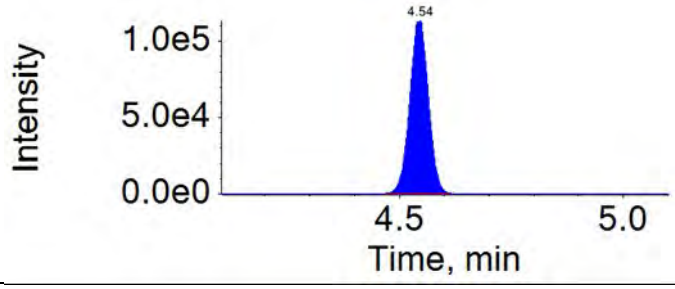


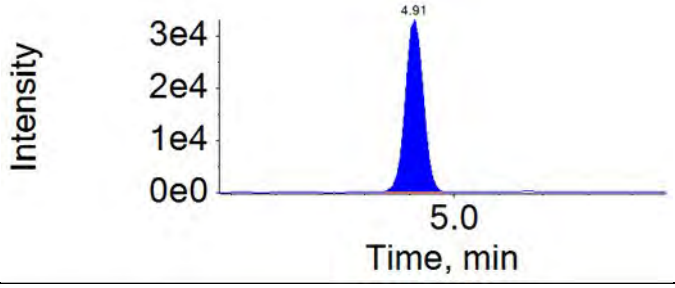
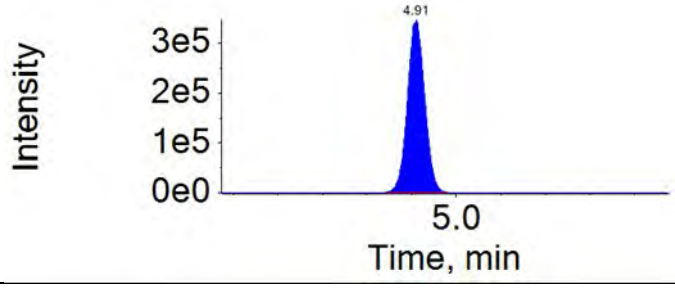
APPROVED
By MCD at 5:19 pm, 11/9/18

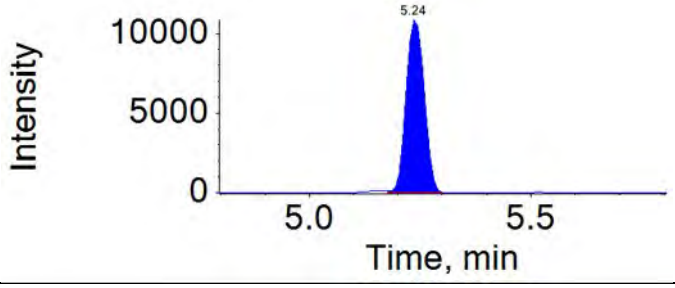
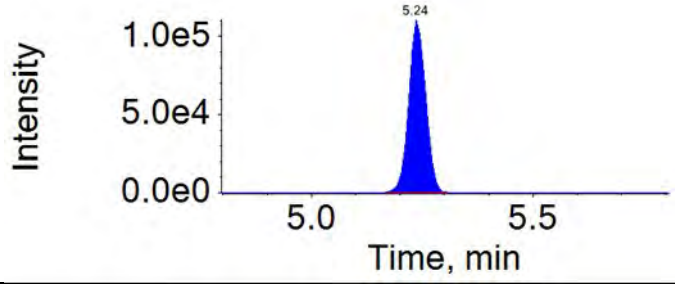
REVIEWED
By HMK at 7:21 am, 11/15/18

ICAL Name: 18NOV07DCAL **Result Table:** 18NOV09DCCV1-4 11/9/2018 5:13:22 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Analyte: 6:2-FTS	Extraction Standard: 13C2-6:2-FTS
427.0 / 407.0	429.0 / 81.0
	

Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0
	

Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0
	

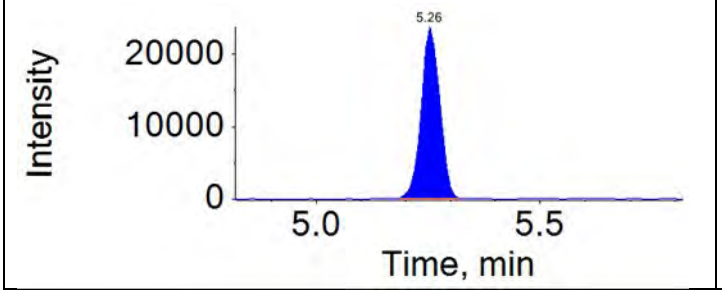
Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0
	

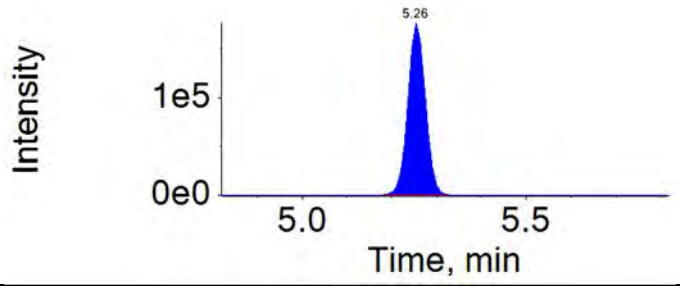
APPROVED
By MCD at 5:19 pm, 11/9/18

REVIEWED
By HMK at 7:21 am, 11/15/18

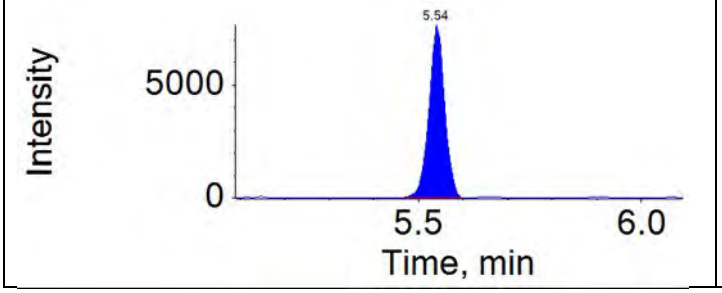
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV09DCCV1-4 11/9/2018 5:13:22 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

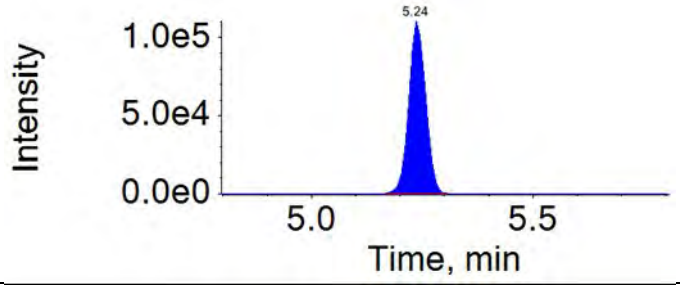
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



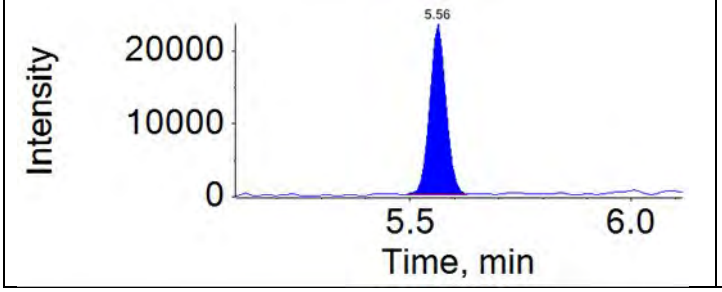


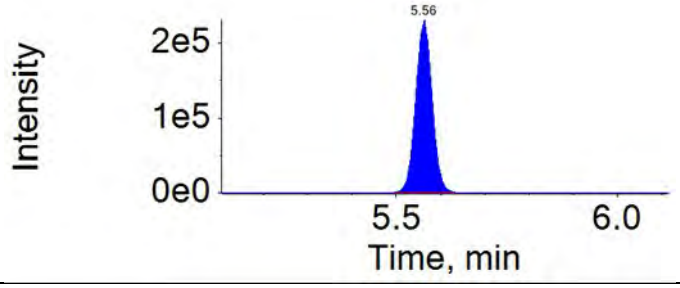
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



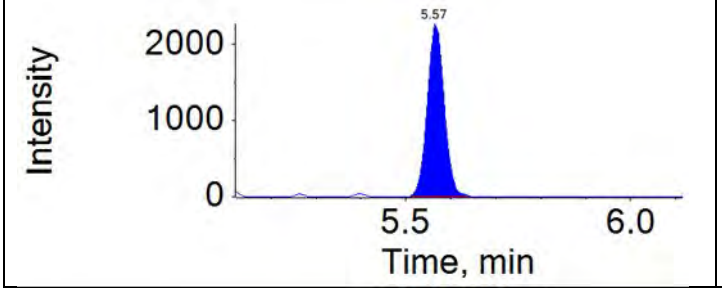


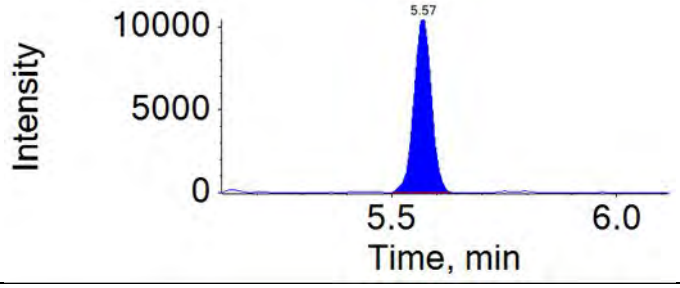
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





Analyte: 8:2-FTS	Extraction Standard: 13C2-8:2-FTS
527.0 / 507.0	529.0 / 81.0



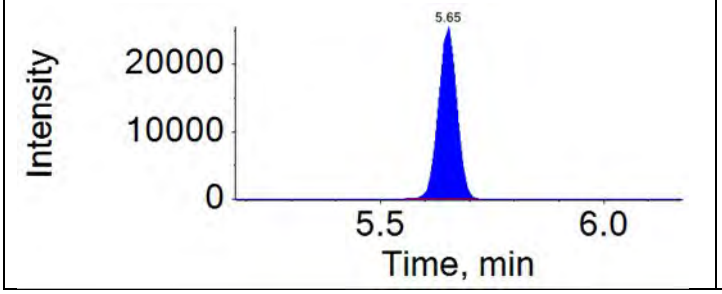


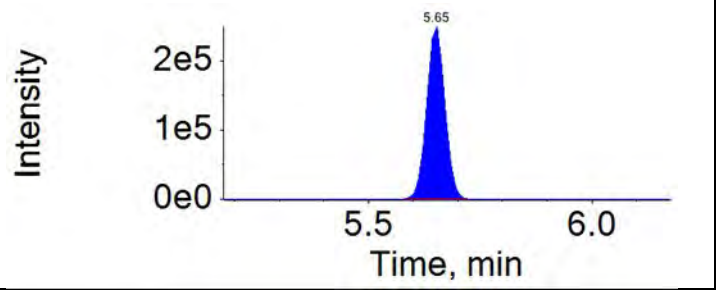
APPROVED
By MCD at 5:19 pm, 11/9/18

REVIEWED
By HMK at 7:21 am, 11/15/18

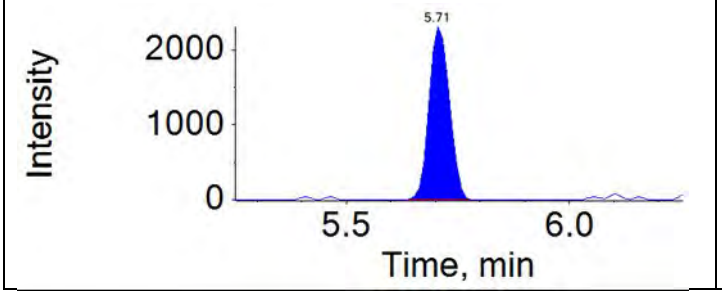
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV09DCCV1-4 11/9/2018 5:13:22 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

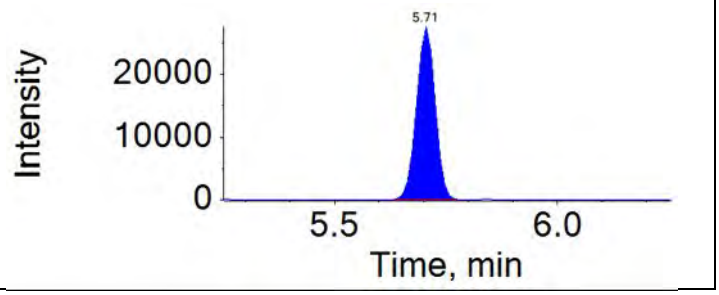
Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0



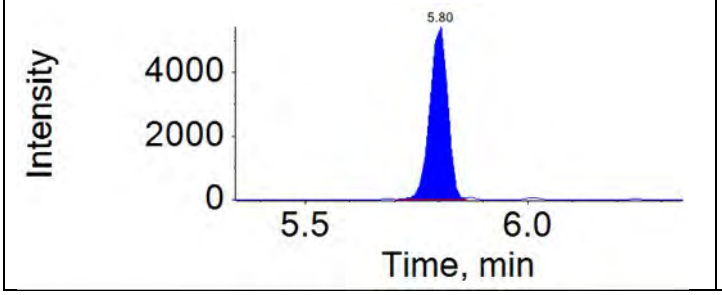


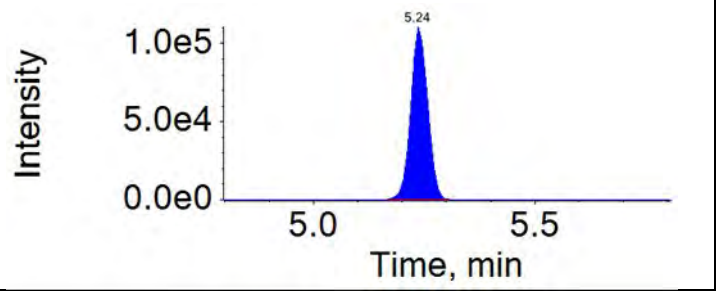
Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0



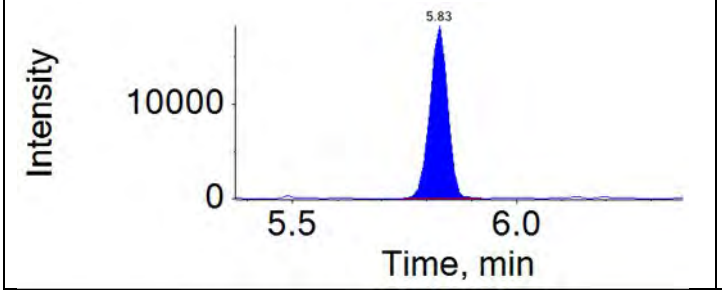


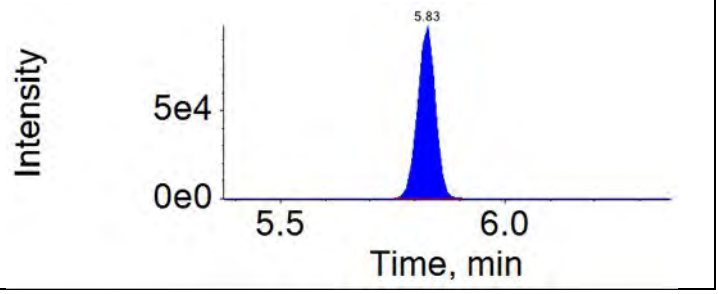
Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0





Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0



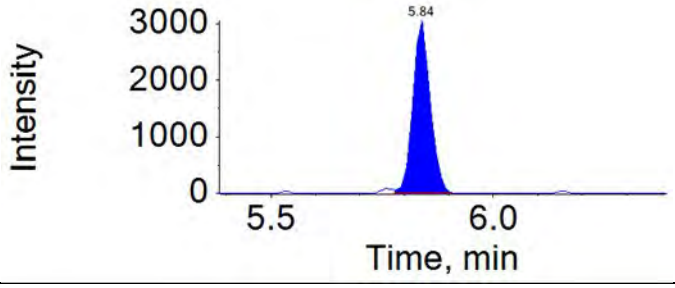


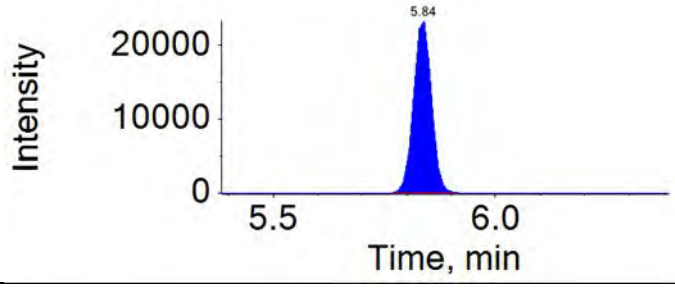
APPROVED
By MCD at 5:19 pm, 11/9/18

REVIEWED
By HMK at 7:21 am, 11/15/18

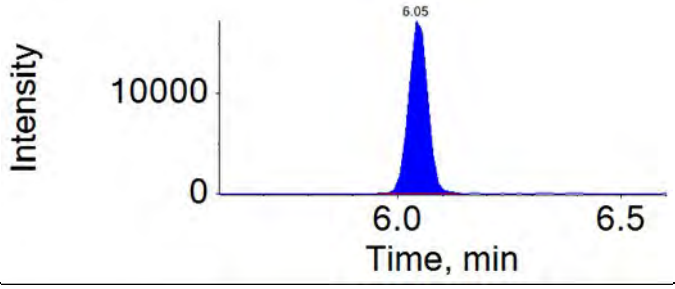
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV09DCCV1-4 11/9/2018 5:13:22 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

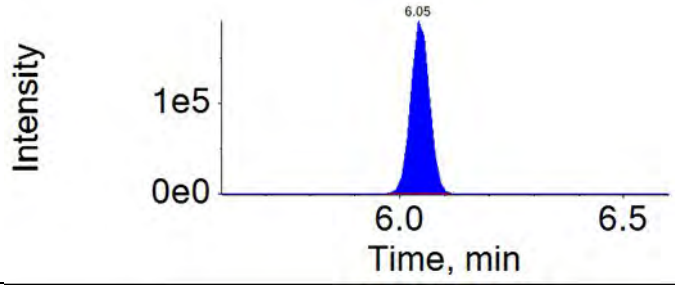
Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0



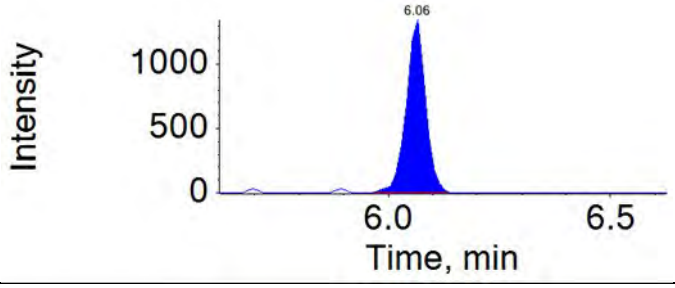


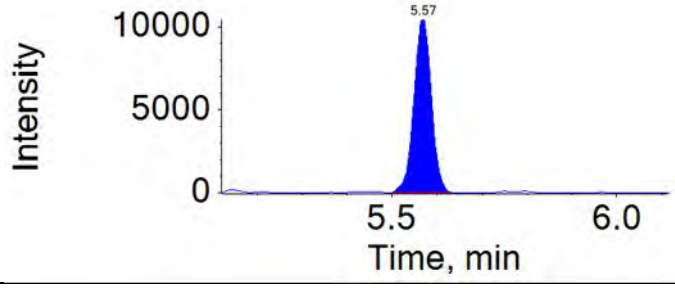
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0



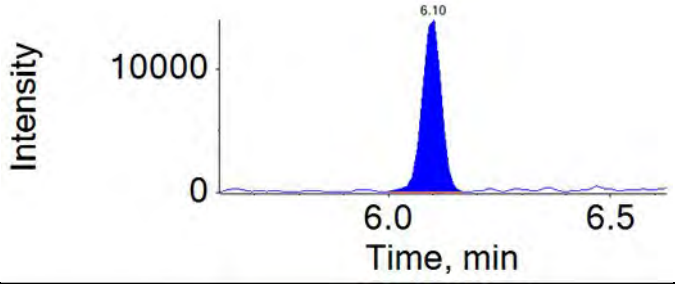


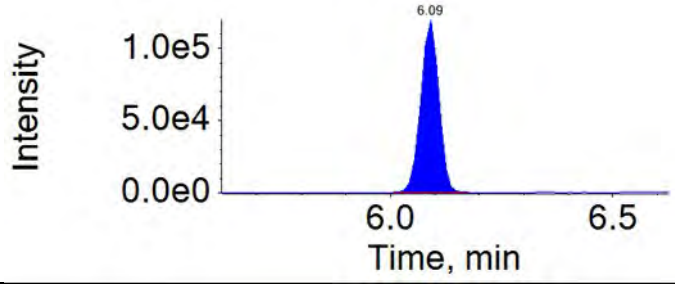
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0





Analyte: NMePFOSAE	Extraction Standard: d7-NMePFOSAE
616.0 / 59.0	623.0 / 59.0



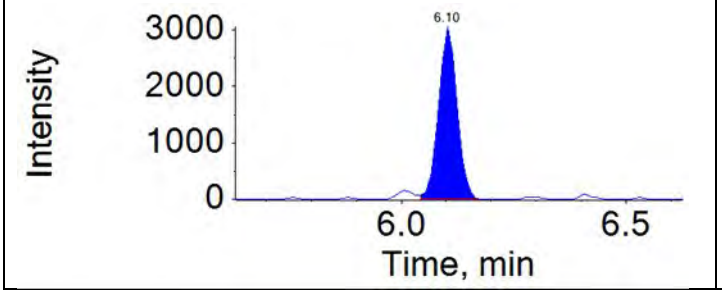


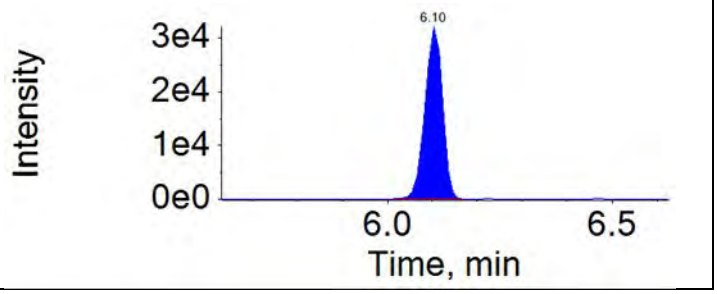
APPROVED
By MCD at 5:19 pm, 11/9/18

REVIEWED
By HMK at 7:21 am, 11/15/18

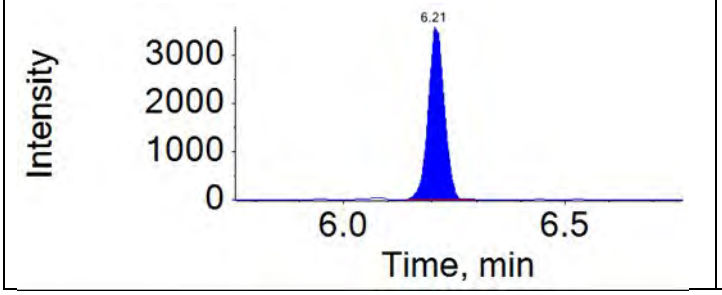
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV09DCCV1-4 11/9/2018 5:13:22 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

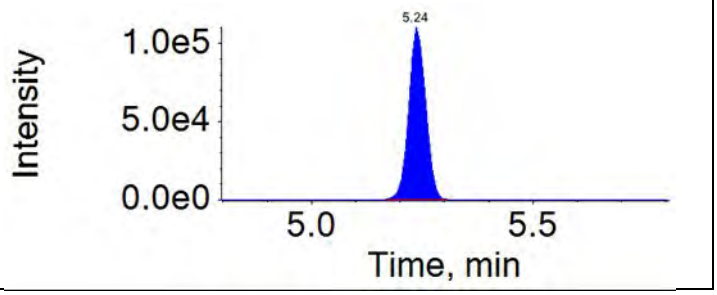
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



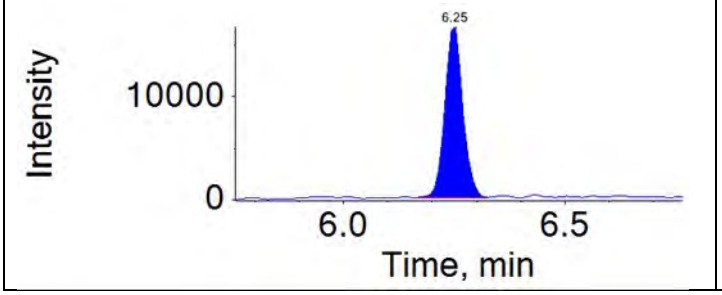


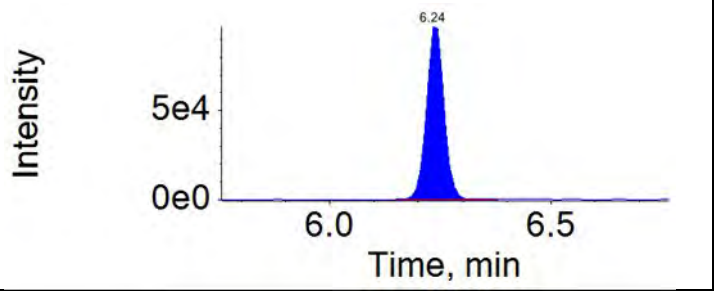
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



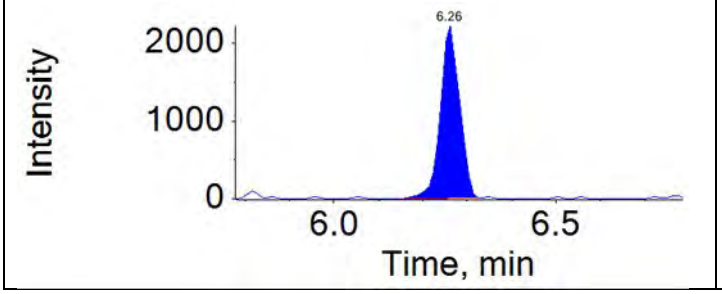


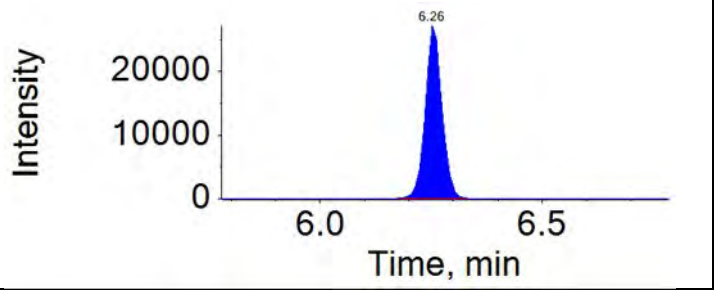
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





Analyte: NEtPFOSA	Extraction Standard: d5-NEtPFOSA
526.0 / 169.0	531.0 / 169.0



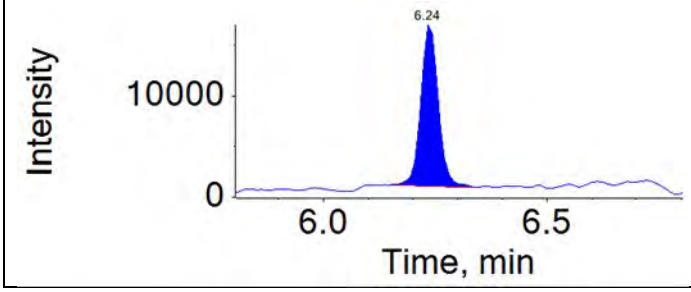


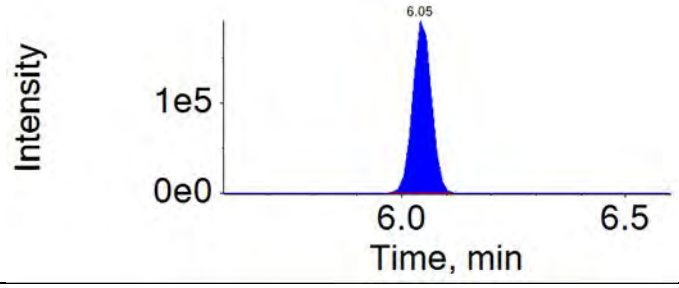
APPROVED
By MCD at 5:19 pm, 11/9/18

REVIEWED
By HMK at 7:21 am, 11/15/18

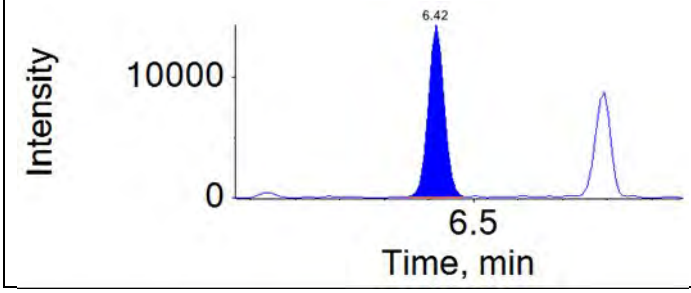
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV09DCCV1-4 11/9/2018 5:13:22 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

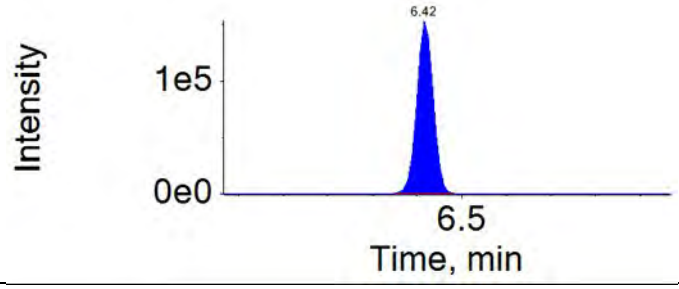
Analyte: PFTrDA	Extraction Standard: 13C2-PFDoDA
663.0 / 619.0	615.0 / 570.0



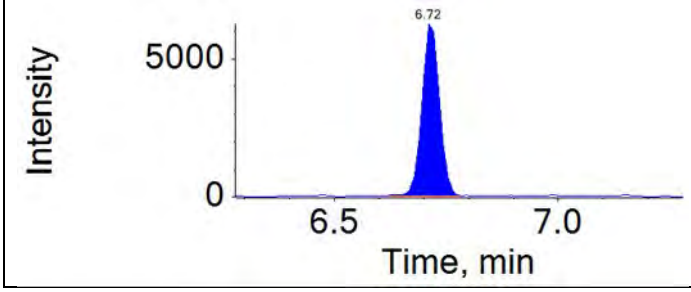


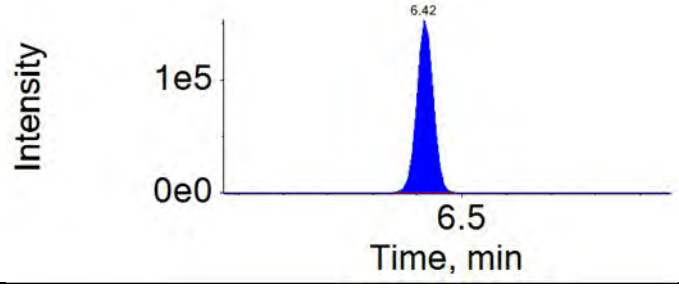
Analyte: PFTeDA	Extraction Standard: 13C2-PFTeDA
713.0 / 669.0	715.0 / 670.0



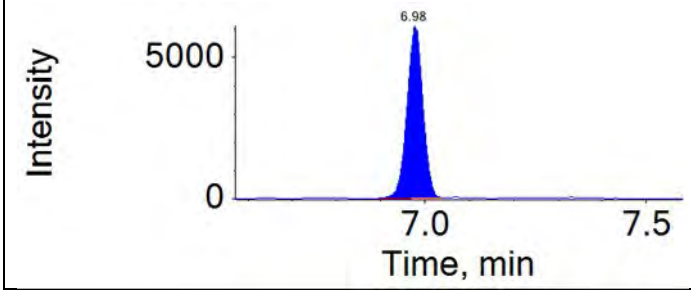


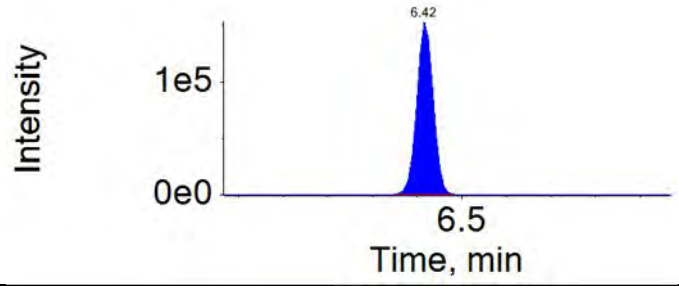
Analyte: PFHxDA	Extraction Standard: 13C2-PFTeDA
813.0 / 769.0	715.0 / 670.0





Analyte: PFODA	Extraction Standard: 13C2-PFTeDA
913.0 / 869.0	715.0 / 670.0



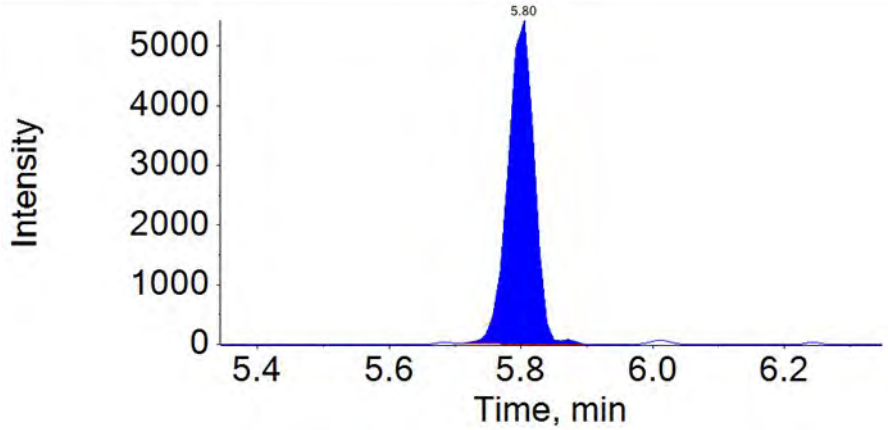


APPROVED
By MCD at 5:19 pm, 11/9/18

REVIEWED
By HMK at 7:21 am, 11/15/18

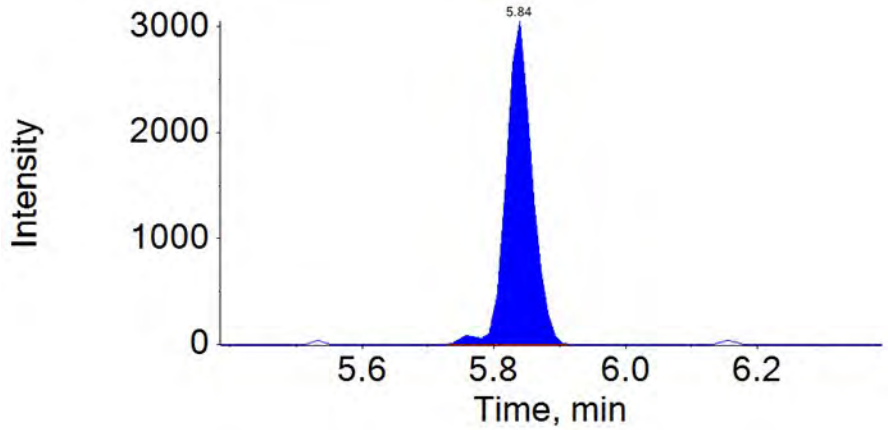
Results Table Name: 18NOV09DCCV1-4
Results Table Date: 11/9/2018 5:13:22 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: MQ4-18AUG13

Component Name:
PFDS
RT (min.):
5.80
Peak Area:
15115.6
Mass Range:
599.0 / 80.0
File Name:
18NOV09D-03.wiff
Sample Name:
CCV1_ISC_CAL2



Integration Comment: incorrect integration

Component Name:
NEtFOSAA
RT (min.):
5.84
Peak Area:
8390.6
Mass Range:
584.0 / 419.0
File Name:
18NOV09D-03.wiff
Sample Name:
CCV1_ISC_CAL2



Integration Comment: incorrect integration

APPROVED
By MCD at 5:19 pm, 11/9/18

REVIEWED
By HMK at 7:21 am, 11/15/18

Results Table Name: 18NOV09DCCV1-4
Results Table Date: 11/9/2018 5:13:22 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: MQ4-18AUG13

APPROVED
By MCD at 5:19 pm, 11/9/18

REVIEWED
By HMK at 7:21 am, 11/15/18

Ion Ratio Report

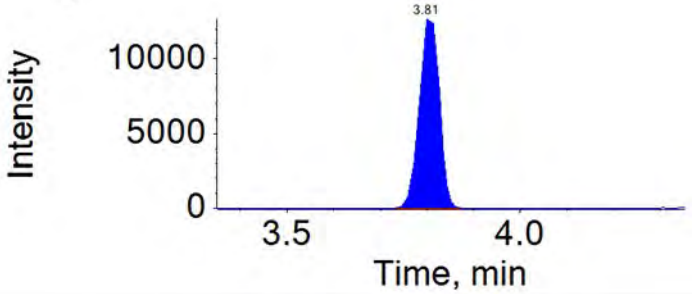
Sample Name: CCV1_ISC_CAL2 **Instrument Name:** LM27631 **File Name:** 18NOV09D-03.wiff

Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	3.81	1.00	38056.3	A	N/A	0.3416			
PFBS_2	3.80	1.00	12999.2	A	N/A	0.3416	-4	50	
4:2-FTS	4.12	1.00	10464.9	A	N/A	0.6139			
4:2-FTS_2	4.12	1.00	6424.2	A	N/A	0.6139	-4	50	
PFHxA	4.15	1.00	90851.7	A	N/A	0.0107			
PFHxA_2	4.15	1.00	973.9	A	N/A	0.0107	-5	50	
PFPeS	4.17	1.10	19983.2	A	N/A	0.5512			
PFPeS_2	4.17	1.10	11014.0	A	N/A	0.5512	2	50	
PFHxS	4.54	1.00	30875.8	A	N/A	0.3786			
PFHxS_2	4.54	1.00	11688.9	A	N/A	0.3786	6	50	
PFHpA	4.54	1.00	88972.9	A	N/A	0.0568			
PFHpA_2	4.54	1.00	5056.5	A	N/A	0.0568	-1	50	
6:2-FTS	4.90	1.00	8270.7	A	N/A	0.5178			
6:2-FTS_2	4.90	1.00	4282.7	A	N/A	0.5178	-24	50	
PFHpS	4.90	1.08	29792.4	A	N/A	0.4193			
PFHpS_2	4.90	1.08	12492.6	A	N/A	0.4193	6	50	
PFOA	4.91	1.00	90972.8	A	N/A	0.0624			
PFOA_2	4.91	1.00	5680.4	A	N/A	0.0624	-2	50	
PFOS	5.24	1.00	30918.1	A	N/A	0.2929			
PFOS_2	5.24	1.00	9056.8	A	N/A	0.2929	-17	50	
PFNA	5.26	1.00	67838.6	A	N/A	0.0232			
PFNA_2	5.25	1.00	1573.8	A	N/A	0.0232	13	50	
PFNS	5.54	1.06	18602.5	A	N/A	0.4748			
PFNS_2	5.54	1.06	8831.6	A	N/A	0.4748	-3	50	
PFDA	5.56	1.00	59070.3	A	N/A	0.0071			
PFDA_2	5.55	1.00	421.8	A	N/A	0.0071	31	50	
8:2-FTS	5.57	1.00	5888.6	A	N/A	0.6440			
8:2-FTS_2	5.57	1.00	3792.2	A	N/A	0.6440	3	50	
NMeFOSAA	5.71	1.00	7292.3	A	N/A	0.2035			
NMeFOSAA_2	5.70	1.00	1483.9	A	N/A	0.2035	-6	50	
PFDS	5.80	1.11	15015.9	M	N/A	0.5101			
PFDS_2	5.80	1.11	7659.0	A	N/A	0.5101	11	50	
PFUnDA	5.83	1.00	49727.2	A	N/A	0.0030			
PFUnDA_2	6.01	1.03	150.6	A	N/A	0.0030	-1	50	
NEtFOSAA	5.84	1.00	8237.3	M	N/A	0.6183			
NEtFOSAA_2	5.84	1.00	5093.5	A	N/A	0.6183	2	50	
PFDoDA	6.05	1.00	50985.1	A	N/A	0.0173			
PFDoDA_2	6.04	1.00	880.8	A	N/A	0.0173	65	50	OOS
10:2-FTS	6.06	1.09	4050.9	A	N/A	0.7139			
10:2-FTS_2	6.06	1.09	2891.8	A	N/A	0.7139	0	50	
PFTrDA	6.24	1.03	43214.6	A	N/A	0.0125			
PFTrDA_2	6.24	1.03	541.7	A	N/A	0.0125	31	50	
PFTeDA	6.42	1.00	34793.1	A	N/A	0.0070			
PFTeDA_2	6.41	1.00	242.9	A	N/A	0.0070	29	50	
PFHxDA	6.72	1.05	16891.1	A	N/A	0.0572			
PFHxDA_2	6.71	1.05	966.5	A	N/A	0.0572	-3	50	
PFODA	6.98	1.09	15170.8	A	N/A	0.0206			
PFODA_2	6.98	1.09	313.0	A	N/A	0.0206	-19	50	

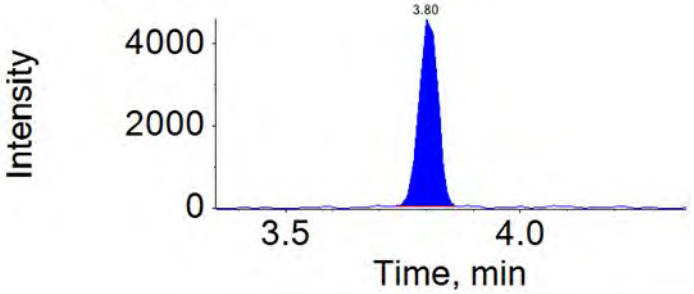
APPROVED
By MCD at 5:19 pm, 11/9/18

REVIEWED
By HMK at 7:21 am, 11/15/18

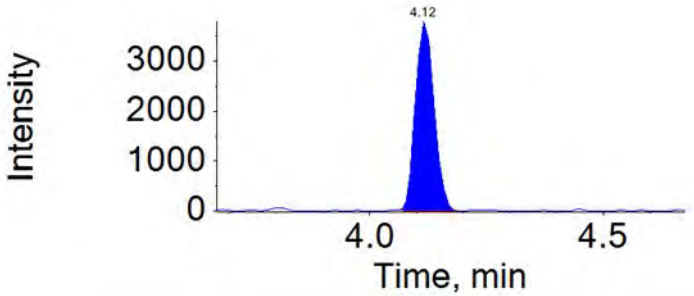
Component: PFBS
Primary Mass: 299.0 / 80.0



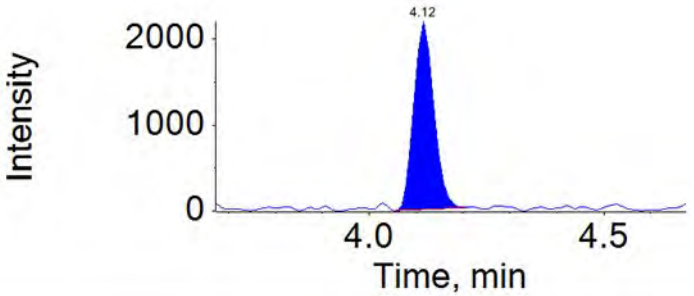
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



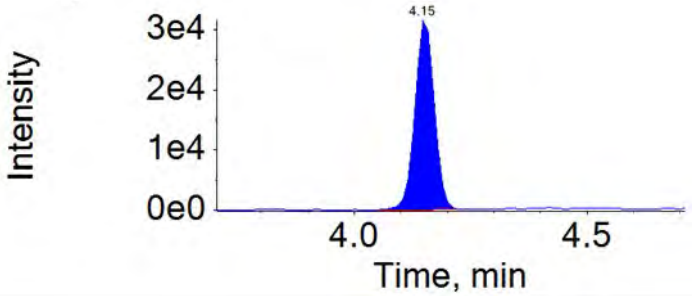
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



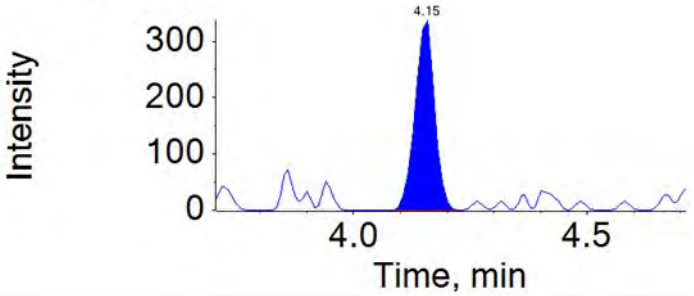
Component: 4:2-FTS_2
Secondary Mass: 327.0 / 81.0



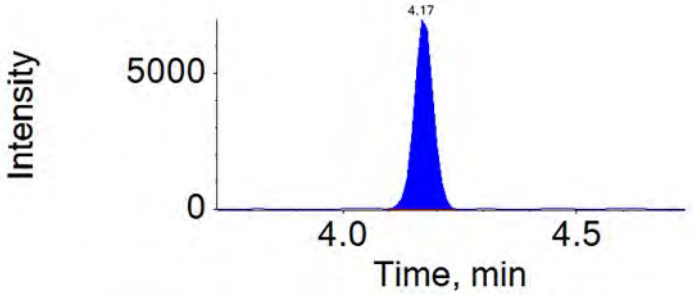
Component: PFHxA
Primary Mass: 313.0 / 269.0



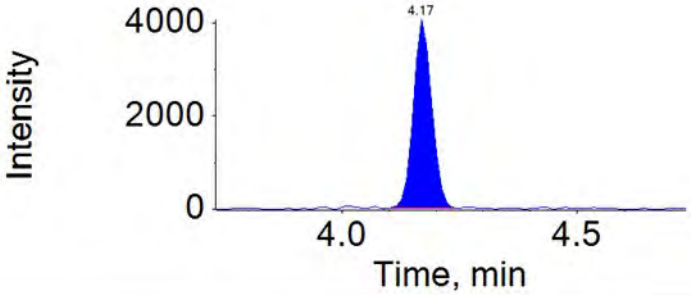
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



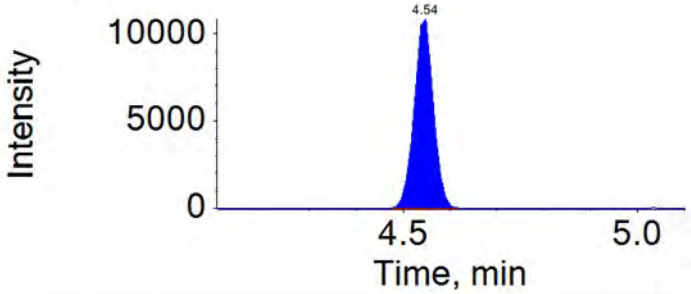
Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



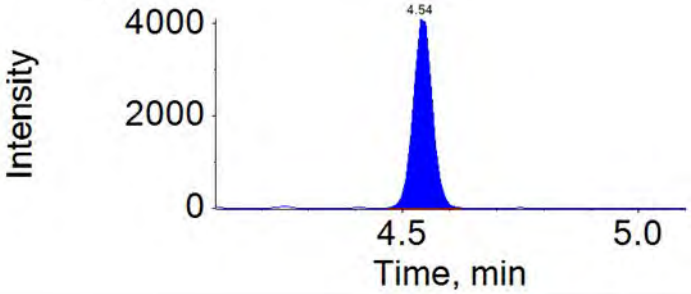
APPROVED
By MCD at 5:19 pm, 11/9/18

REVIEWED
By HMK at 7:21 am, 11/15/18

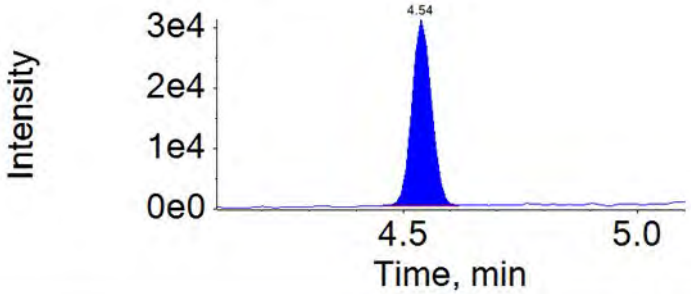
Component: PFHxS
Primary Mass: 399.0 / 80.0



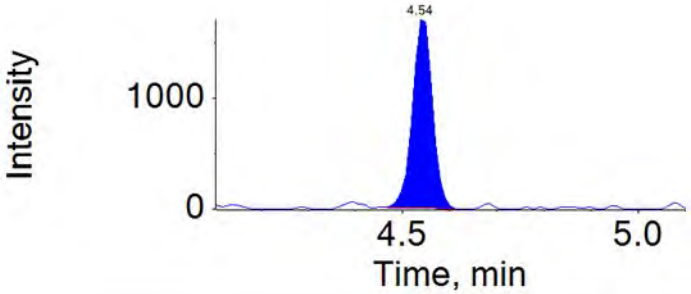
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



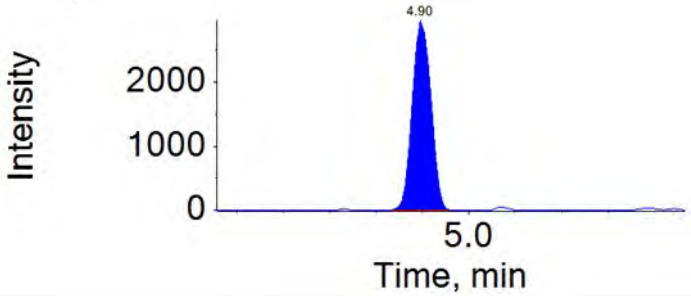
Component: PFHpA
Primary Mass: 363.0 / 319.0



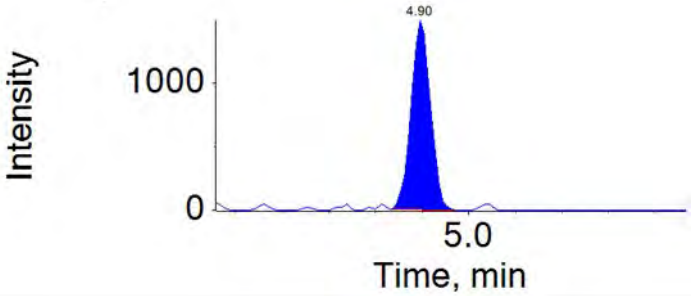
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



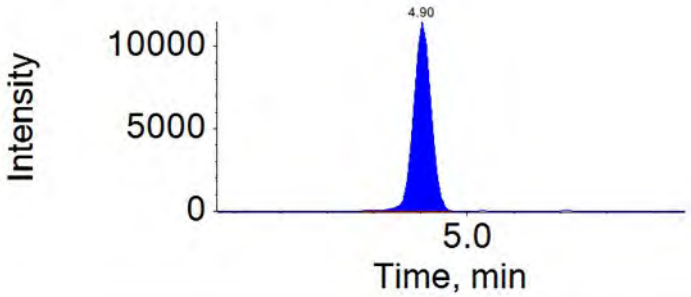
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



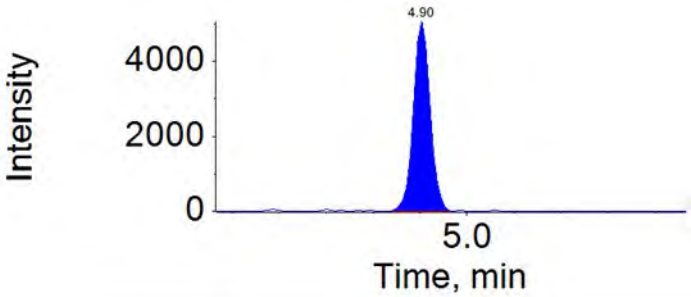
Component: 6:2-FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



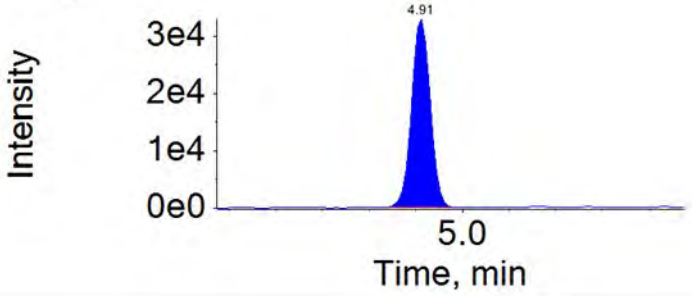
Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



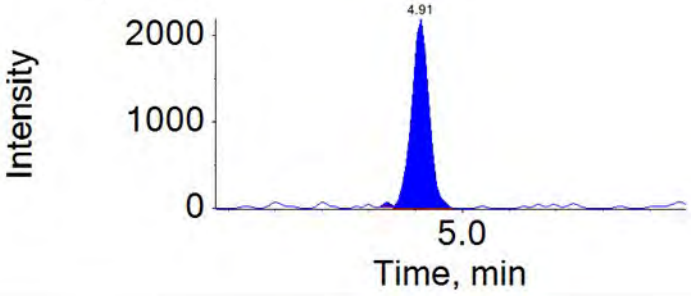
APPROVED
By MCD at 5:19 pm, 11/9/18

REVIEWED
By HMK at 7:21 am, 11/15/18

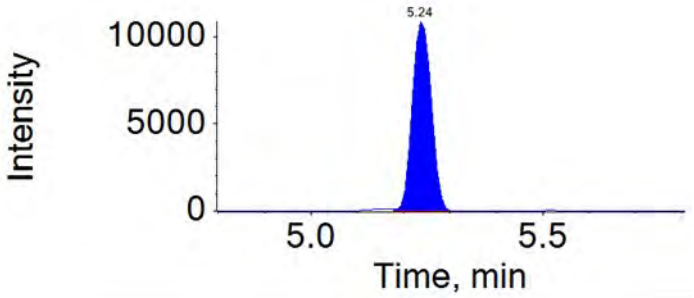
Component: PFOA
Primary Mass: 413.0 / 369.0



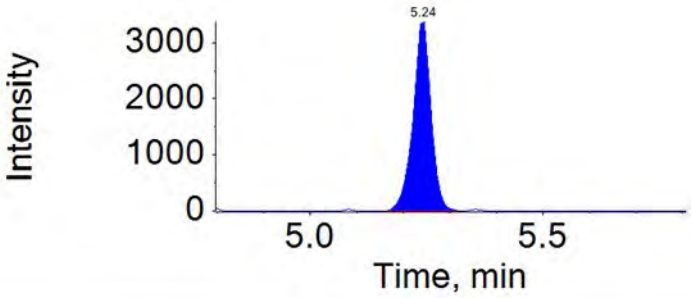
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



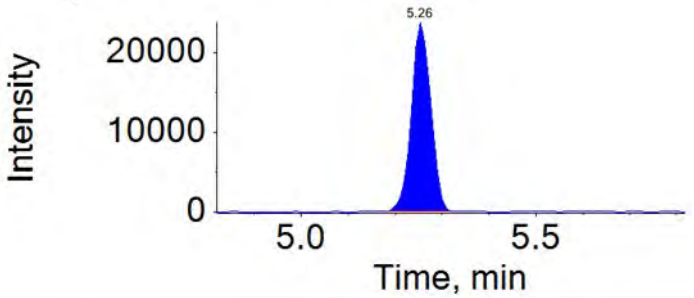
Component: PFOS
Primary Mass: 499.0 / 80.0



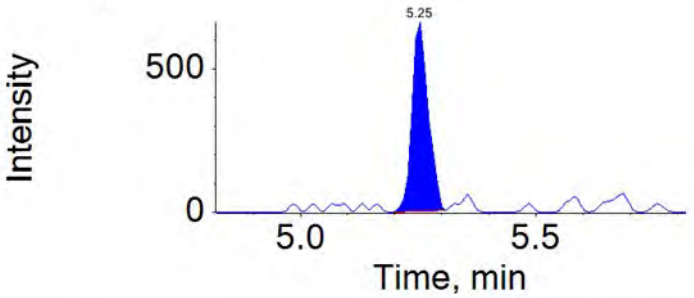
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



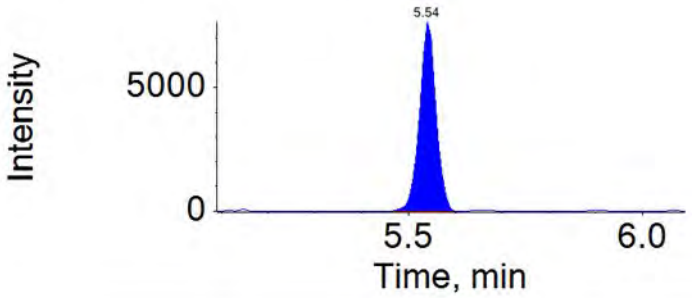
Component: PFNA
Primary Mass: 463.0 / 419.0



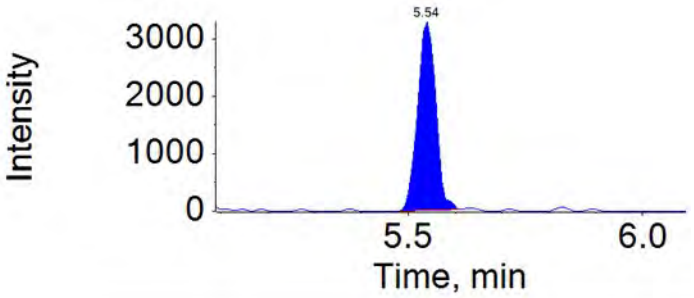
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



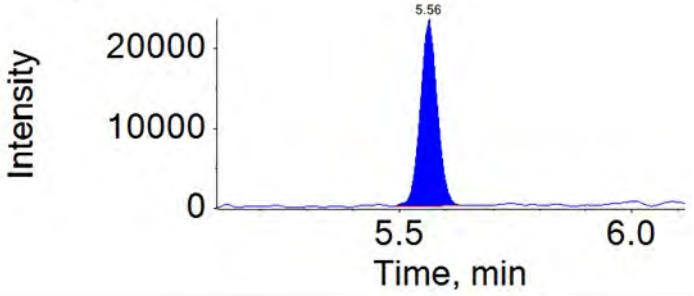
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



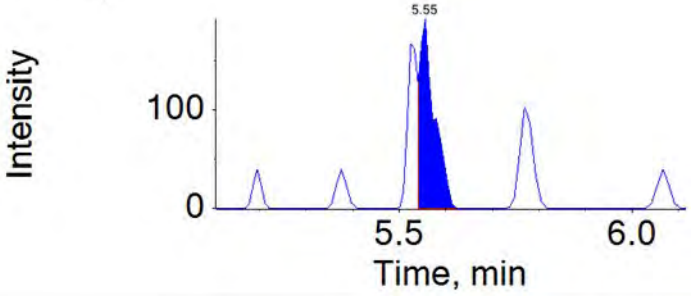
APPROVED
By MCD at 5:19 pm, 11/9/18

REVIEWED
By HMK at 7:21 am, 11/15/18

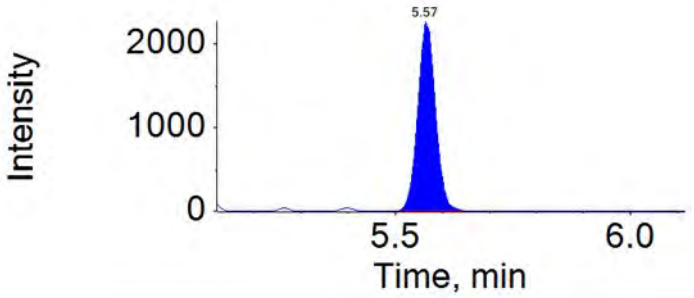
Component: PFDA
Primary Mass: 513.0 / 469.0



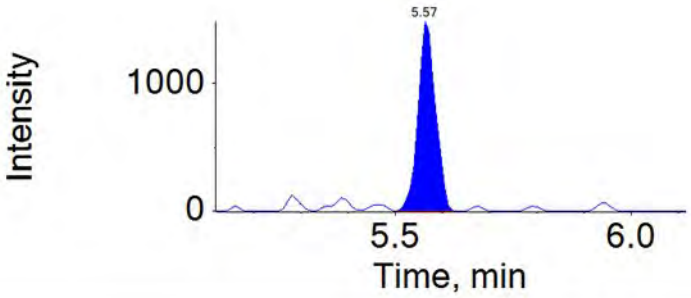
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



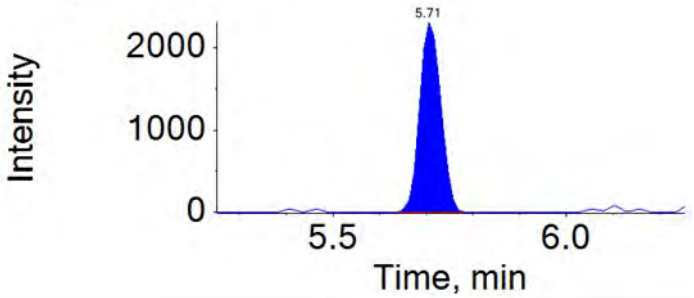
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



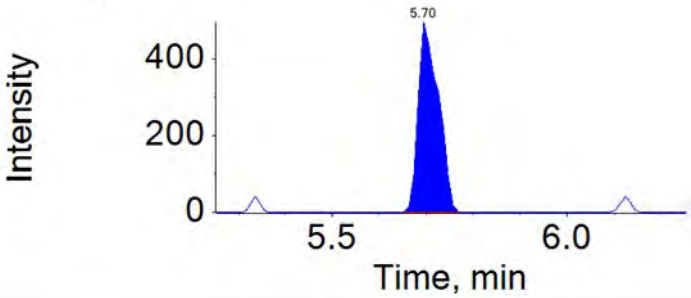
Component: 8:2-FTS_2
Secondary Mass: 527.0 / 81.0



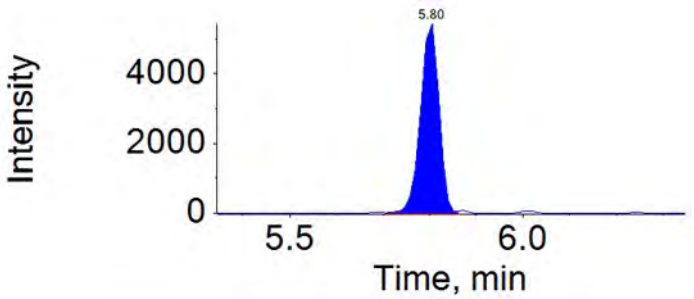
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



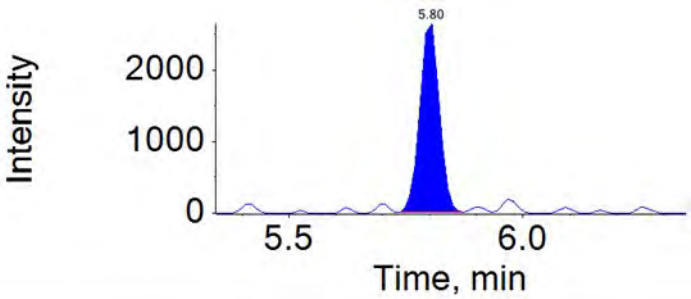
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



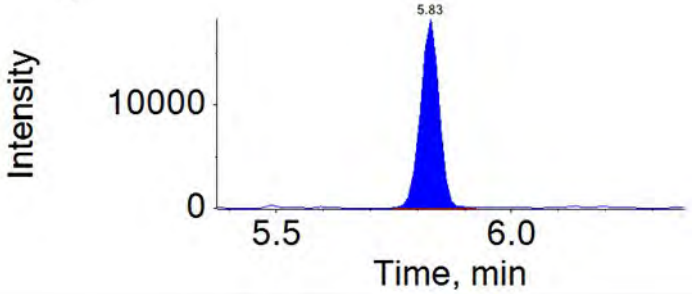
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Secondary Mass: 599.0 / 99.0



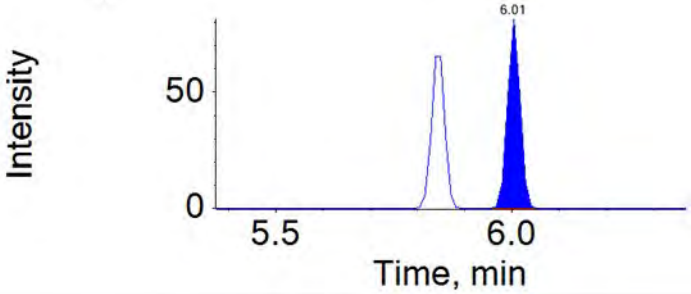
APPROVED
By MCD at 5:19 pm, 11/9/18

REVIEWED
By HMK at 7:21 am, 11/15/18

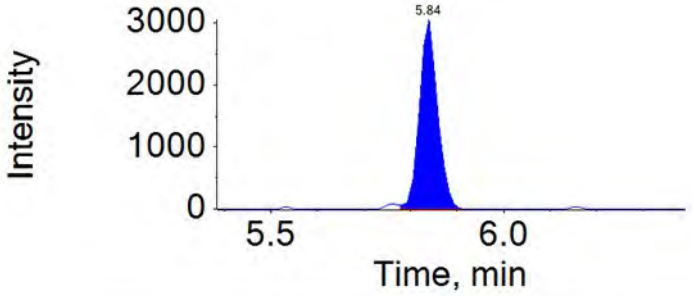
Component: PFUnDA
Primary Mass: 563.0 / 519.0



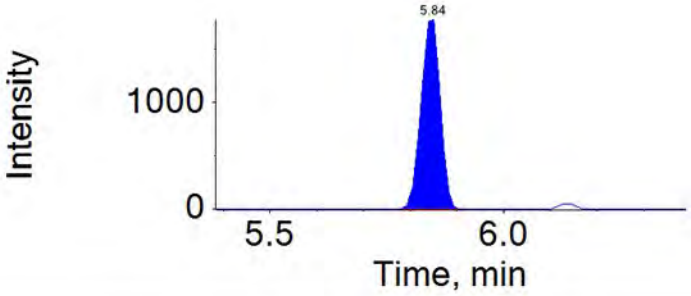
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



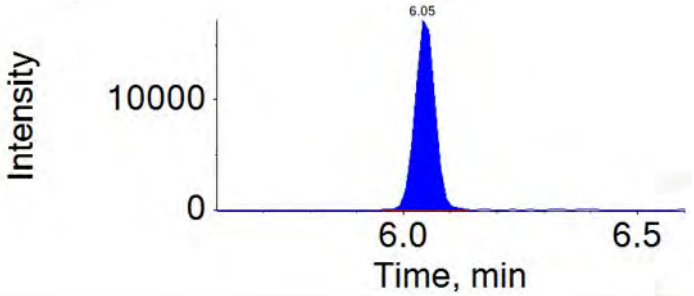
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



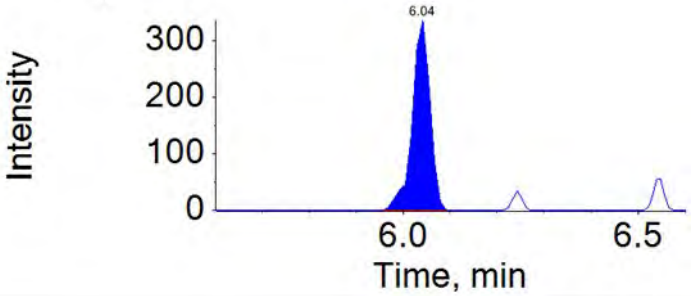
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



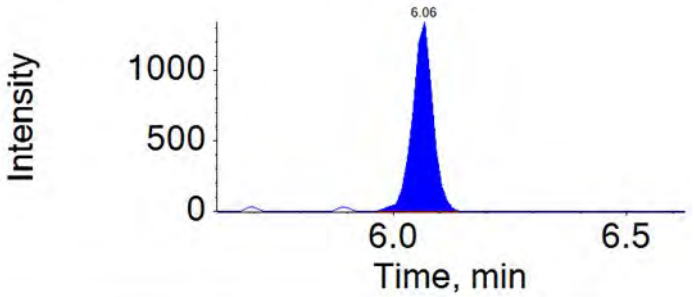
Component: PFDoDA
Primary Mass: 613.0 / 569.0



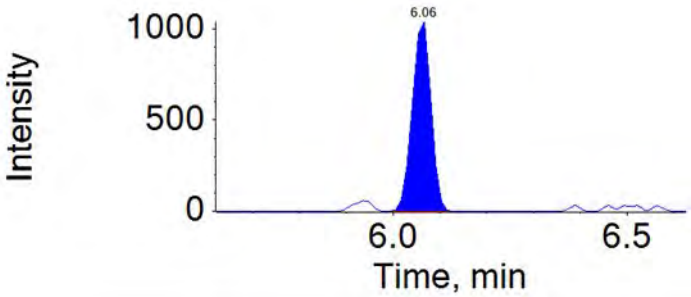
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



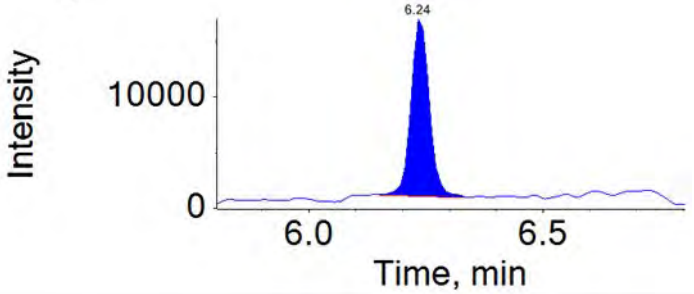
Component: 10:2-FTS_2
Secondary Mass: 627.0 / 81.0



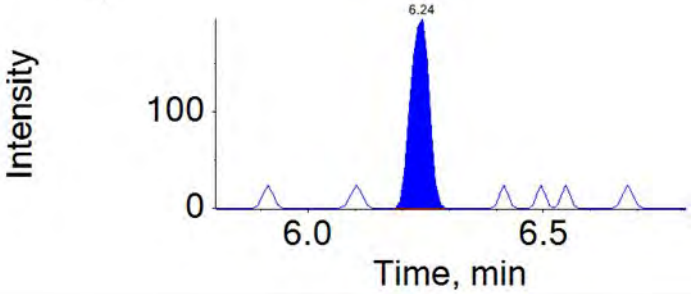
APPROVED
By MCD at 5:19 pm, 11/9/18

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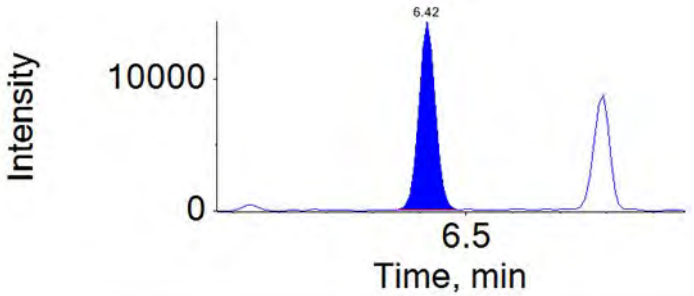
Component: PFTrDA
Primary Mass: 663.0 / 619.0



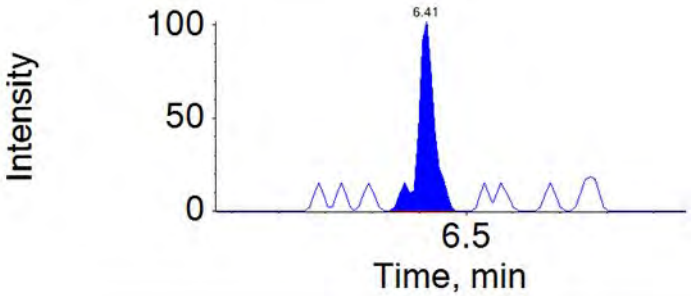
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



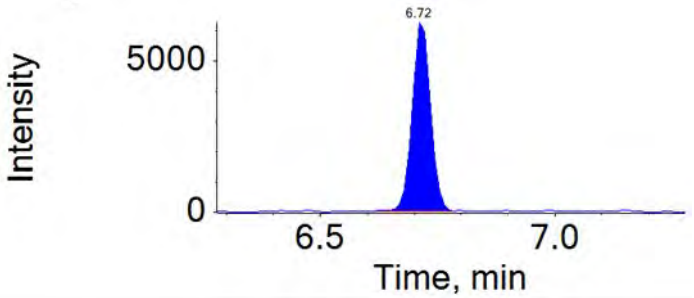
Component: PFTeDA
Primary Mass: 713.0 / 669.0



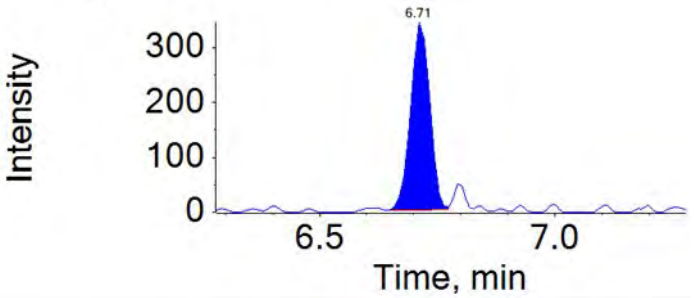
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



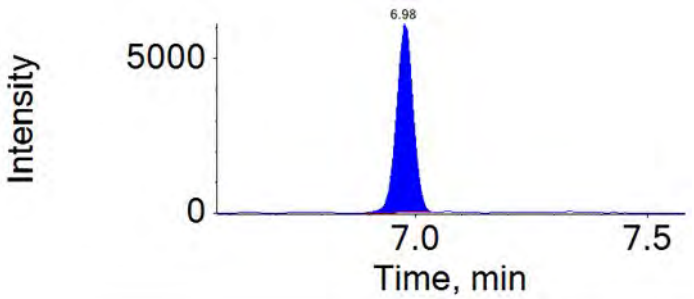
Component: PFHxDA
Primary Mass: 813.0 / 769.0



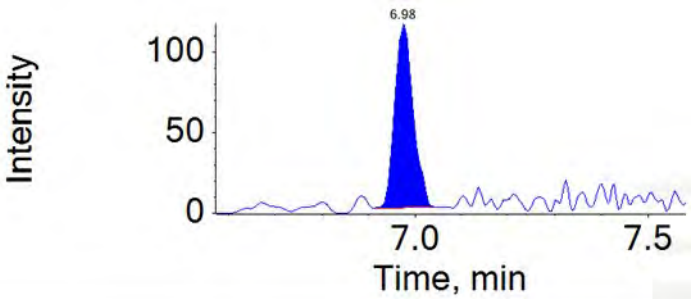
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



APPROVED
By MCD at 5:19 pm, 11/9/18

REVIEWED
By HMK at 7:21 am, 11/15/18

ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18NOV09DCCV1-4 11/9/2018 5:13:22 PM
Acquisition Method: 18AUG13_3uL.dam

Sample Name:	Instrument Blank			**Data File:**		18NOV09D-04.wiff
Sample ID:	methanol+labels			**Acquis Date:**		2018-11-09T05:05:59
Sample Type:	Unknown			**Instrument:**		LM27631
Vial Position:	1			**Acquis Method:**		18AUG13_3uL.dam
Injection Vol:	3.00			**Result Table:**		18NOV09DCCV1-4
QMethod File:	MQ4-18AUG13			**ICAL Name:**		18NOV07DCAL
Batch Number:	N/A			**Operator:**		MCD7824
Sample Wt.:	1.00000			**Dilution Factor:**		1.00
Sample Vol.:	1.000			**Prep Factor:**		1.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV09D-03

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Rreference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	743259.9	725974.7	2	50	
13C2-PFOA	5.0	542173.4	506876.7	7	50	
13C4-PFOS	4.8	295887.7	274910.1	8	50	
13C2-PFDA	5.0	314166.8	307276.7	2	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	832189.3	13C3-PFBA	743259.9	1.120	5.000	5.181	104	70-130	
E13C5-PFPeA	862825.7	13C3-PFBA	743259.9	1.161	5.000	5.057	101	70-130	
E13C3-PFBS	441161.9	13C3-PFBA	743259.9	0.594	4.650	4.356	94	70-130	
E13C2-4:2-FTS	59353.4	13C2-PFOA	542173.4	0.109	4.670	4.940	106	70-130	
E13C5-PFHxA	709747.5	13C2-PFOA	542173.4	1.309	5.000	4.815	96	70-130	
E13C3-PFHxS	362240.4	13C2-PFOA	542173.4	0.668	4.730	4.796	101	70-130	
E13C4-PFHpA	579992.5	13C2-PFOA	542173.4	1.070	5.000	4.866	97	70-130	
E13C2-6:2-FTS	42878.4	13C2-PFOA	542173.4	0.079	4.750	5.274	111	70-130	
E13C8-PFOA	994623.7	13C2-PFOA	542173.4	1.835	5.000	5.116	102	70-130	
E13C8-PFOS	319153.3	13C4-PFOS	295887.7	1.079	4.780	4.770	100	70-130	
E13C9-PFNA	532102.7	13C4-PFOS	295887.7	1.798	5.000	4.912	98	70-130	
E13C6-PFDA	600987.7	13C2-PFDA	314166.8	1.913	5.000	4.811	96	70-130	
E13C2-8:2-FTS	32034.9	13C2-PFDA	314166.8	0.102	4.790	5.396	113	70-130	
E13C8-PFOSA	737435.1	13C2-PFDA	314166.8	2.347	5.000	5.122	102	70-130	
Ed3-NMeFOSAA	82623.8	13C2-PFDA	314166.8	0.263	5.000	4.891	98	70-130	
E13C7-PFUnDA	294757.9	13C2-PFDA	314166.8	0.938	5.000	5.412	108	70-130	
Ed5-NEtFOSAA	67342.5	13C2-PFDA	314166.8	0.214	5.000	4.961	99	70-130	
E13C2-PFDoDA	592309.0	13C2-PFDA	314166.8	1.885	5.000	5.083	102	70-130	
Ed7-NMePFOSAE	351711.5	13C2-PFDA	314166.8	1.120	5.000	5.206	104	70-130	
Ed3-NMePFOSA	82414.6	13C2-PFDA	314166.8	0.262	5.000	4.803	96	70-130	
Ed9-NEtPFOSAE	295665.4	13C2-PFDA	314166.8	0.941	5.000	5.375	107	70-130	
Ed5-NEtPFOSA	63875.0	13C2-PFDA	314166.8	0.203	5.000	4.708	94	70-130	
E13C2-PFTeDA	422273.5	13C2-PFDA	314166.8	1.344	5.000	4.839	97	70-130	

APPROVED
By MCD at 5:19 pm, 11/9/18

REVIEWED
By HMK at 8:09 am, 11/15/18

ICAL Name: 18NOV07DCAL **Result Table:** 18NOV09DCCV1-4 11/9/2018 5:13:22 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

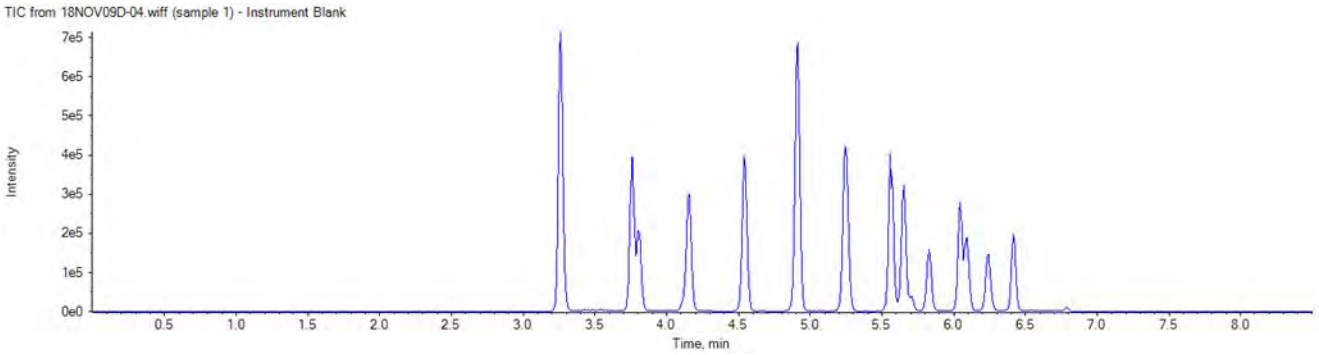
Analyte Quantitation Peak Table

Sample Name: Instrument Blank **Instrument Name:** LM27631 **File Name:** 18NOV09D-04.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	1.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	N/A	N/A	N/A		A	13C4-PFBA	3.26	832189.3	N/A	
PFPeA	N/A	N/A	N/A		A	13C5-PFPeA	3.76	862825.7	N/A	
PFBS	N/A	N/A	N/A		A	13C3-PFBS	3.81	441161.9	N/A	
4:2-FTS	N/A	N/A	N/A		A	13C2-4:2-FTS	4.12	59353.4	N/A	
PFHxA	N/A	N/A	N/A		A	13C5-PFHxA	4.15	709747.5	N/A	
PFPeS	N/A	N/A	N/A		A	13C3-PFBS	3.81	441161.9	N/A	
PFHxS	N/A	N/A	N/A		A	13C3-PFHxS	4.54	362240.4	N/A	
PFHpA	N/A	N/A	N/A		A	13C4-PFHpA	4.54	579992.5	N/A	
6:2-FTS	N/A	N/A	N/A		A	13C2-6:2-FTS	4.90	42878.4	N/A	
PFHpS	N/A	N/A	N/A		A	13C3-PFHxS	4.54	362240.4	N/A	
PFOA	N/A	N/A	N/A		A	13C8-PFOA	4.91	994623.7	N/A	
PFOS	N/A	N/A	N/A		A	13C8-PFOS	5.24	319153.3	N/A	
PFNA	N/A	N/A	N/A		A	13C9-PFNA	5.26	532102.7	N/A	
PFNS	N/A	N/A	N/A		A	13C8-PFOS	5.24	319153.3	N/A	
PFDA	N/A	N/A	N/A		A	13C6-PFDA	5.56	600987.7	N/A	
8:2-FTS	N/A	N/A	N/A		A	13C2-8:2-FTS	5.57	32034.9	N/A	
PFOSA	N/A	N/A	N/A		A	13C8-PFOSA	5.65	737435.1	N/A	
NMeFOSAA	N/A	N/A	N/A		A	d3-NMeFOSAA	5.70	82623.8	N/A	
PFDS	N/A	N/A	N/A		A	13C8-PFOS	5.24	319153.3	N/A	
PFUnDA	N/A	N/A	N/A		A	13C7-PFUnDA	5.83	294757.9	N/A	
NEtFOSAA	N/A	N/A	N/A		A	d5-NEtFOSAA	5.84	67342.5	N/A	
PFDoDA	N/A	N/A	N/A		A	13C2-PFDoDA	6.04	592309.0	N/A	
10:2-FTS	N/A	N/A	N/A		A	13C2-8:2-FTS	5.57	32034.9	N/A	
NMePFOSAE	N/A	N/A	N/A		A	d7-NMePFOSAE	6.09	351711.5	N/A	
NMePFOSA	N/A	N/A	N/A		A	d3-NMePFOSA	6.10	82414.6	N/A	
PFDoS	N/A	N/A	N/A		A	13C8-PFOS	5.24	319153.3	N/A	
NEtPFOSAE	N/A	N/A	N/A		A	d9-NEtPFOSAE	6.24	295665.4	N/A	
NEtPFOSA	N/A	N/A	N/A		A	d5-NEtPFOSA	6.26	63875.0	N/A	
PFTrDA	N/A	N/A	N/A		A	13C2-PFDoDA	6.04	592309.0	N/A	
PFTeDA	N/A	N/A	N/A		A	13C2-PFTeDA	6.42	422273.5	N/A	
PFHxDA	N/A	N/A	N/A		A	13C2-PFTeDA	6.42	422273.5	N/A	
PFODA	N/A	N/A	N/A		A	13C2-PFTeDA	6.42	422273.5	N/A	

Total Ion Chromatogram

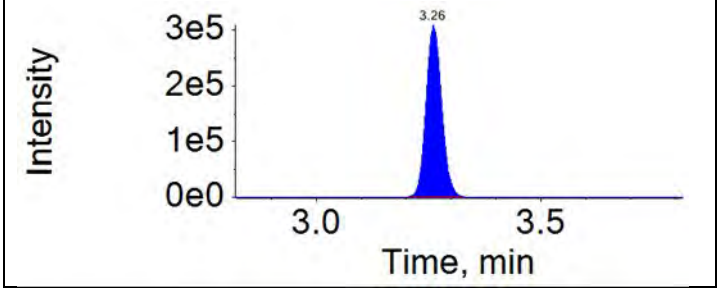


APPROVED
By MCD at 5:19 pm, 11/9/18

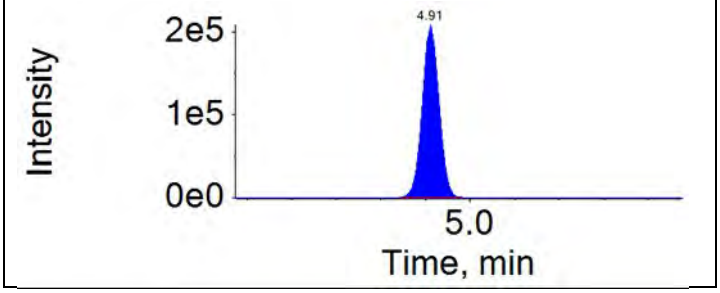
REVIEWED
By HMK at 8:09 am, 11/15/18

ICAL Name: 18NOV07DCAL **Result Table:** 18NOV09DCCV1-4 11/9/2018 5:13:22 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

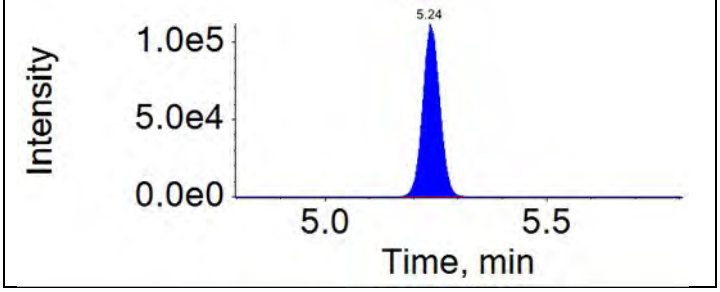
Injection Standard: 13C3-PFBA
216.0 / 172.0



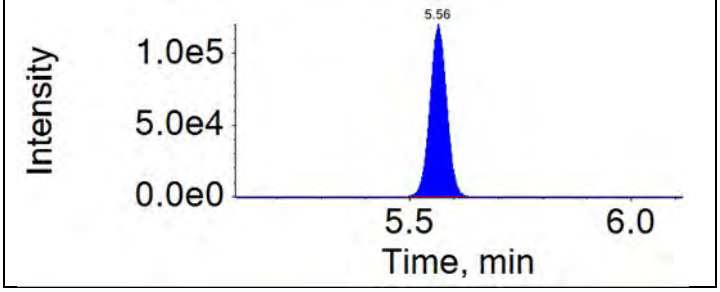
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0



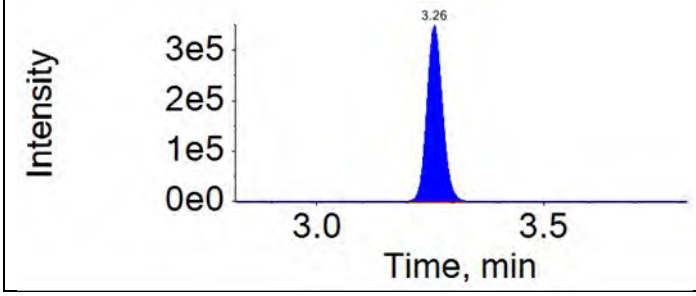
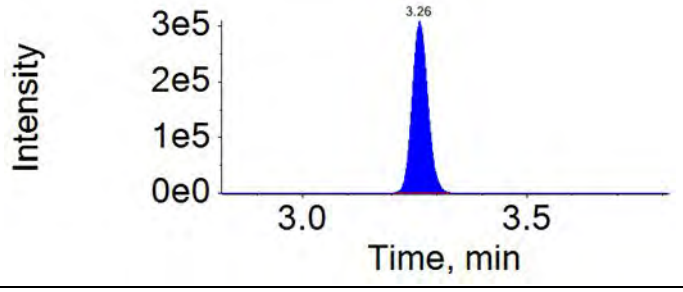
Injection Standard: 13C2-PFDA
515.0 / 470.0

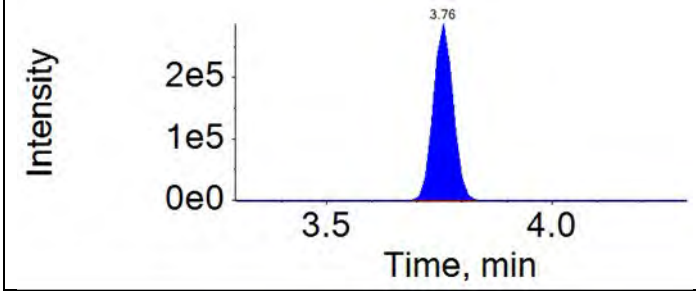
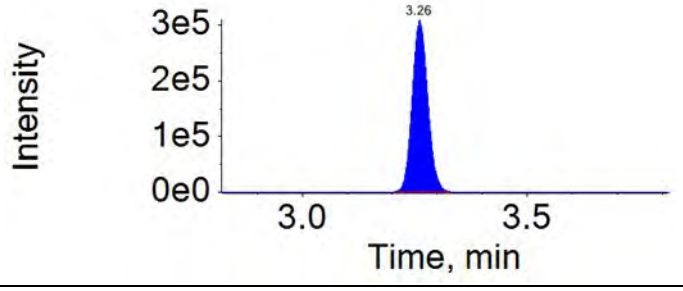


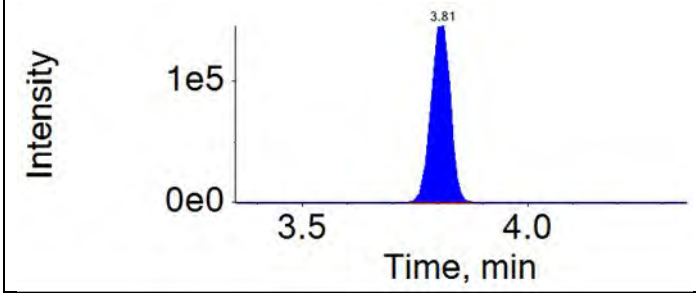
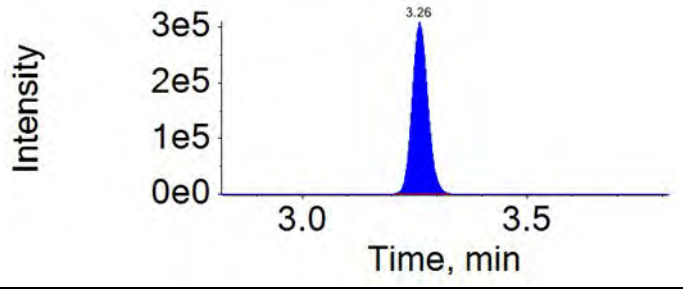
APPROVED
By MCD at 5:19 pm, 11/9/18

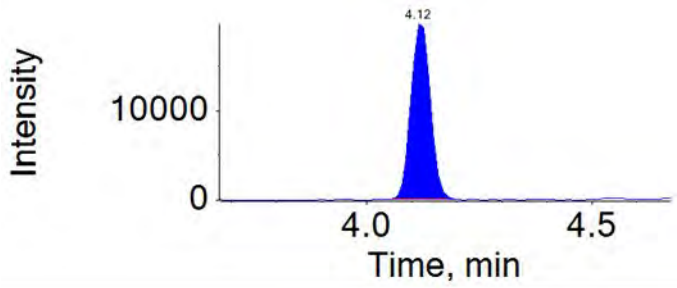
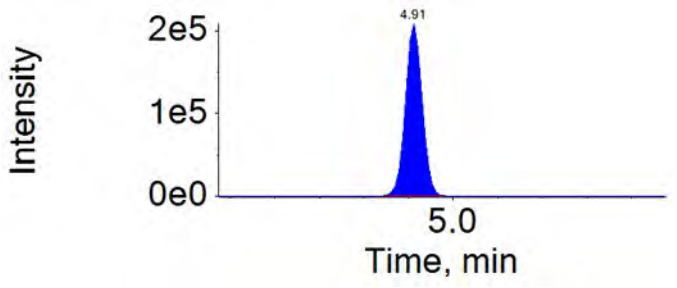
REVIEWED
By HMK at 8:09 am, 11/15/18

ICAL Name: 18NOV07DCAL **Result Table:** 18NOV09DCCV1-4 11/9/2018 5:13:22 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0
	

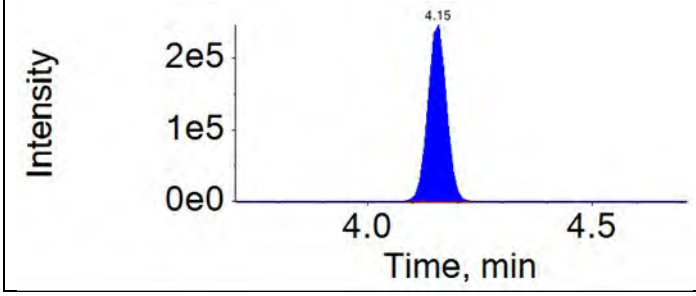
Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0
	

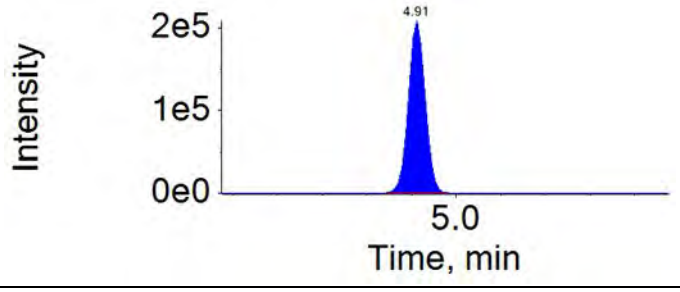
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0
	

Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0
	

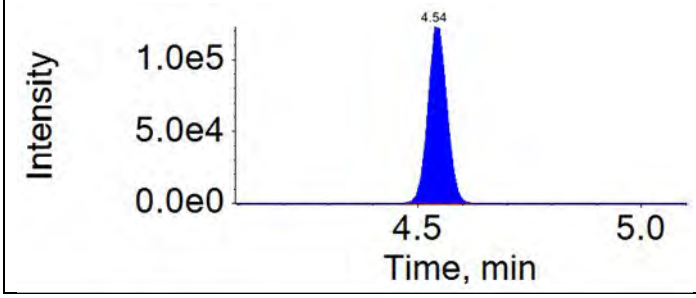
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV09DCCV1-4 11/9/2018 5:13:22 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

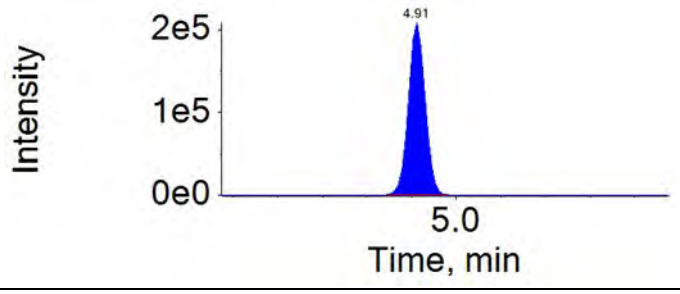
Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0



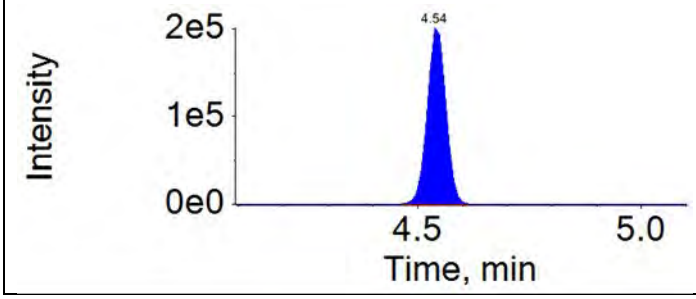


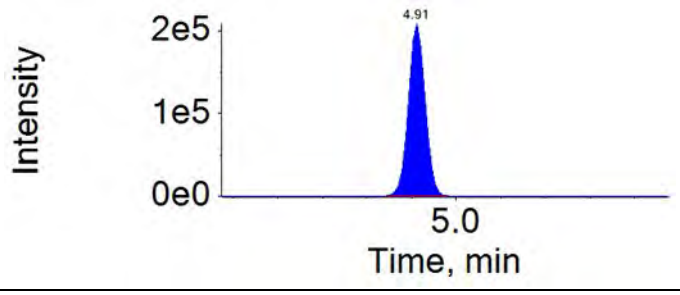
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0



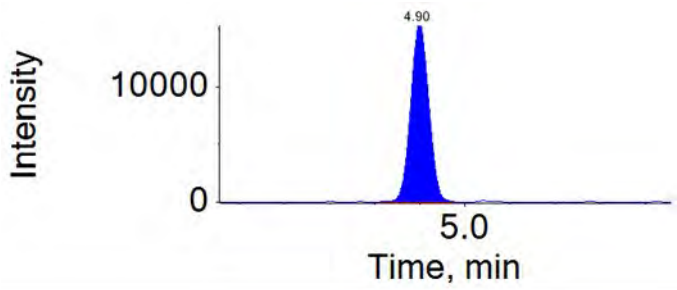


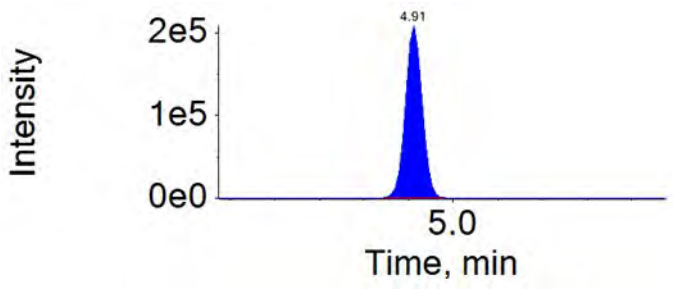
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0





Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0



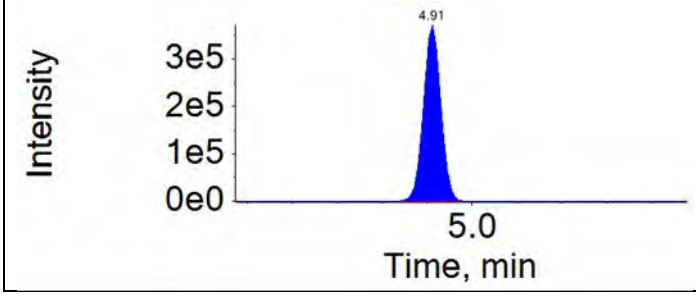


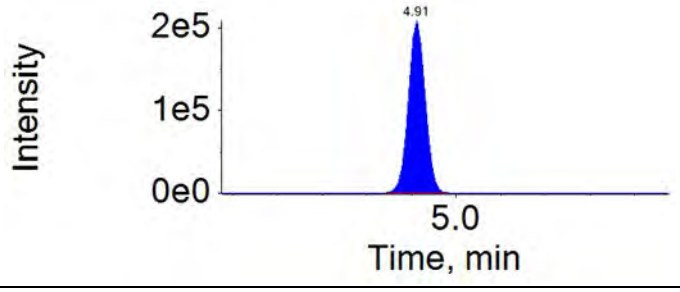
APPROVED
By MCD at 5:19 pm, 11/9/18

REVIEWED
By HMK at 8:09 am, 11/15/18

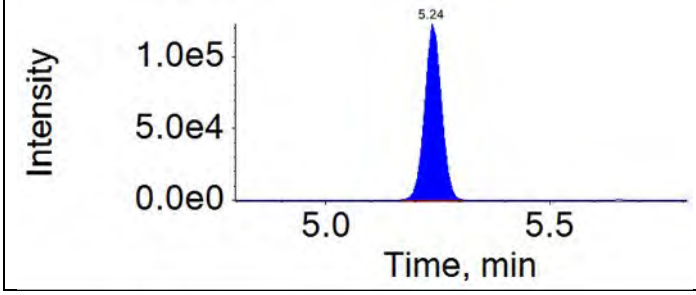
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV09DCCV1-4 11/9/2018 5:13:22 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

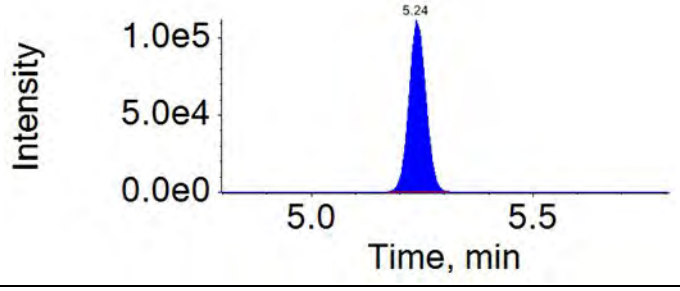
Extraction Standard: E13C8-PFOA	Injection Standard: 13C2-PFOA
421.0 / 376.0	415.0 / 370.0



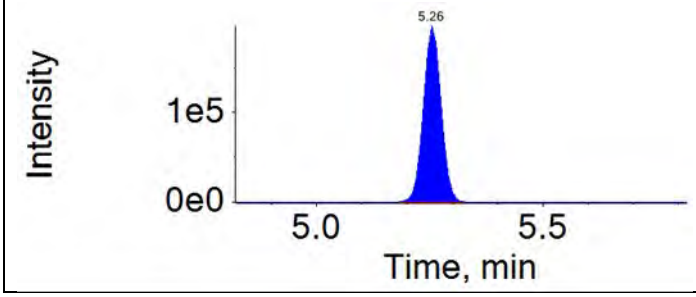


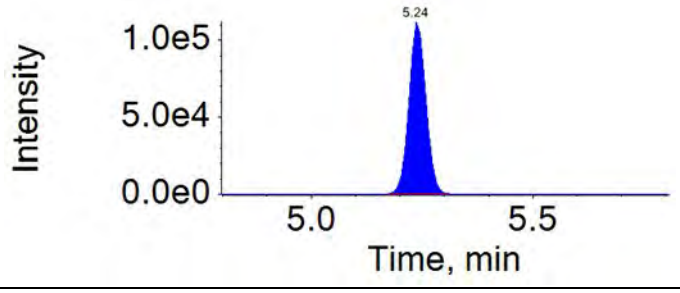
Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0



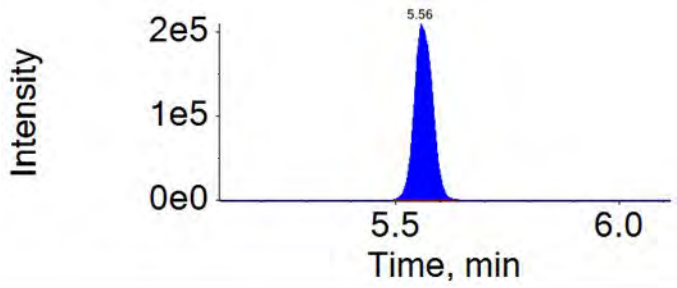


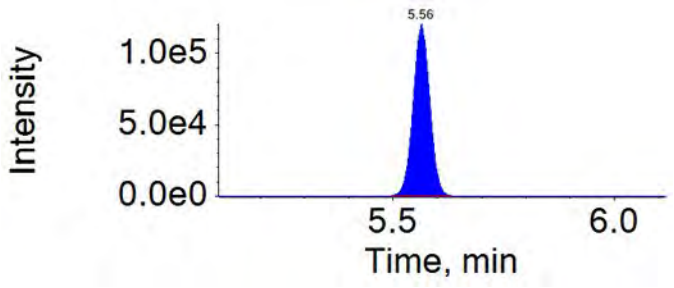
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0





Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0

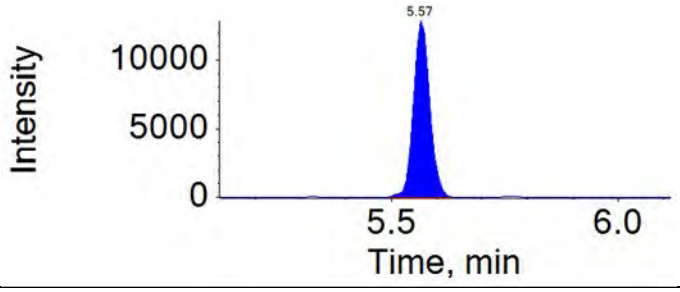
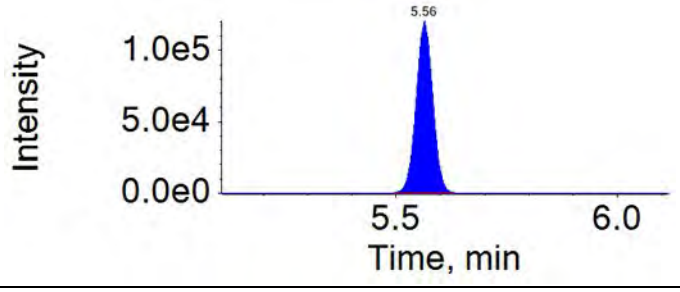


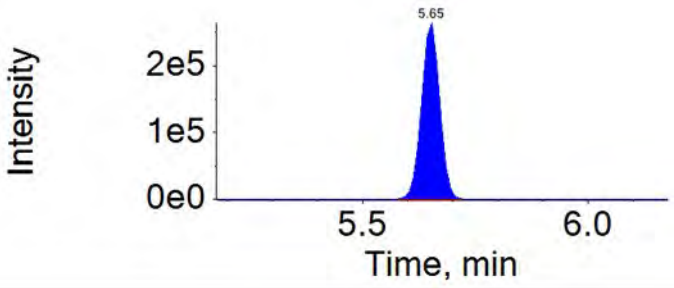
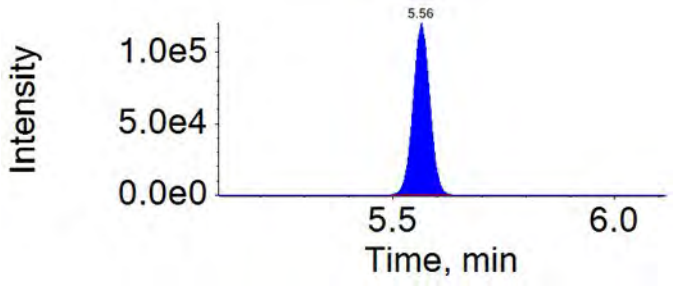


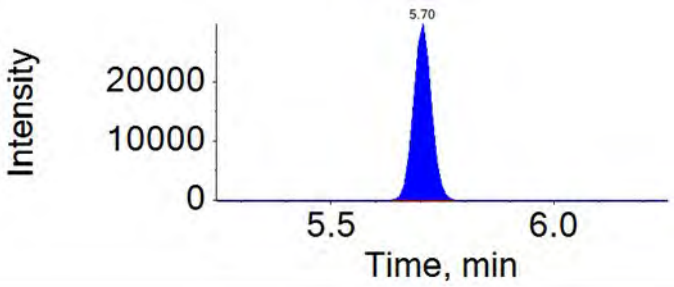
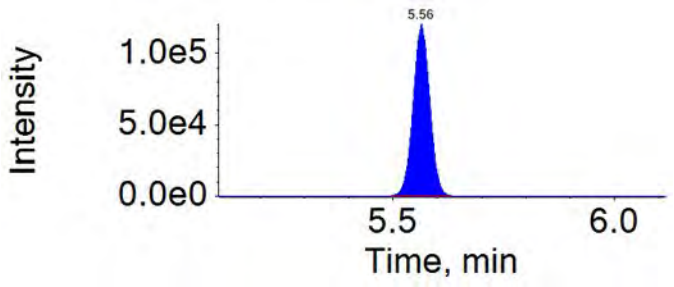
APPROVED
By MCD at 5:19 pm, 11/9/18

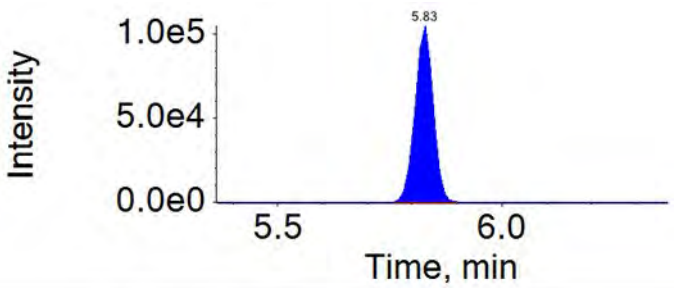
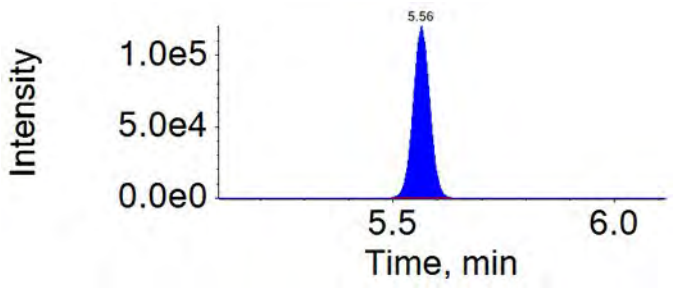
REVIEWED
By HMK at 8:09 am, 11/15/18

ICAL Name: 18NOV07DCAL **Result Table:** 18NOV09DCCV1-4 11/9/2018 5:13:22 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: E13C2-8:2-FTS	Injection Standard: 13C2-PFDA
529.0 / 81.0	515.0 / 470.0
	

Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0
	

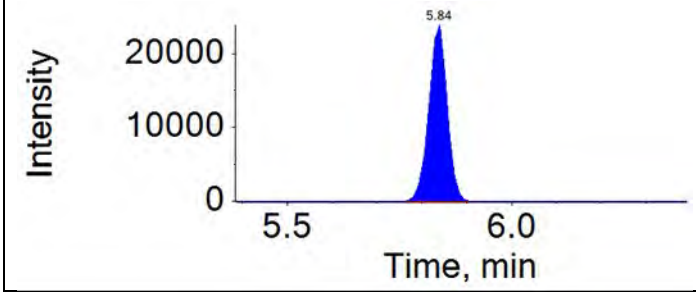
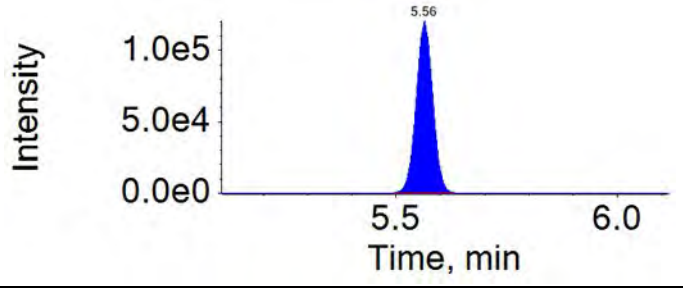
Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0
	

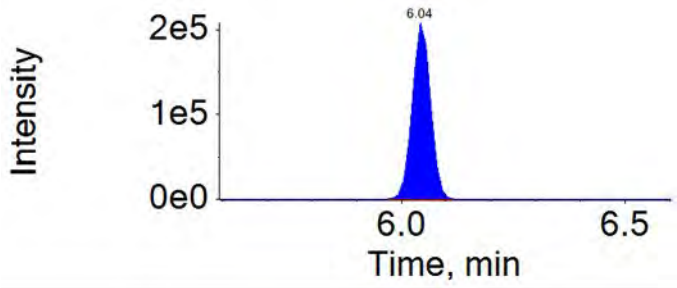
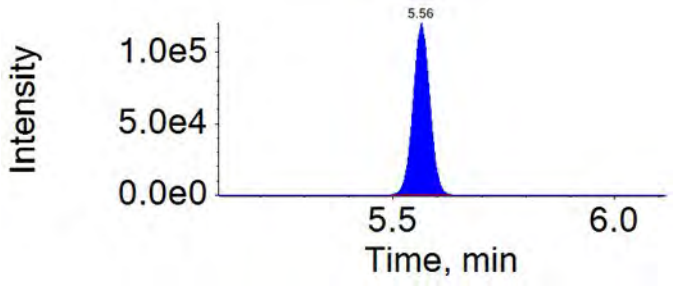
Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0
	

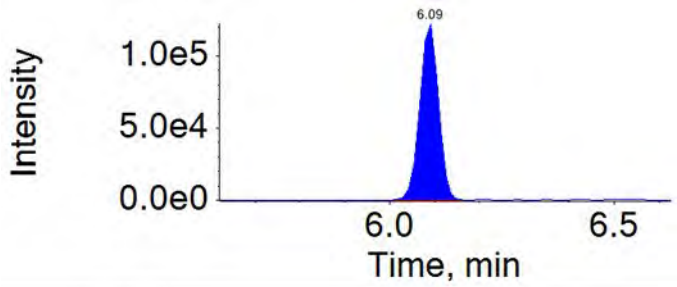
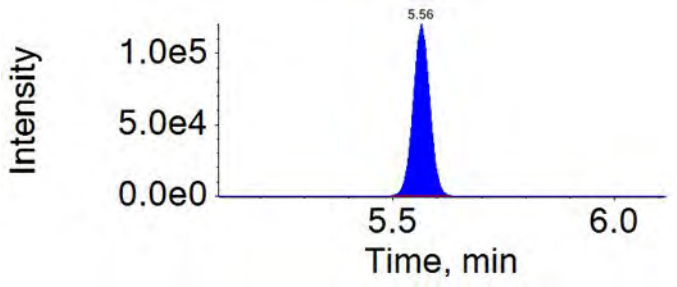
APPROVED
By MCD at 5:19 pm, 11/9/18

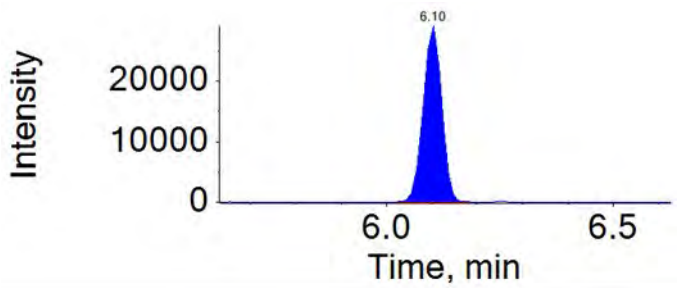
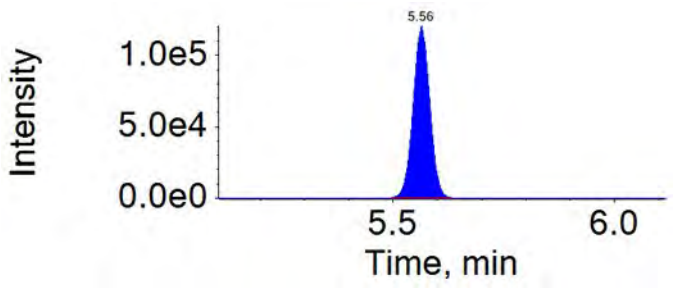
REVIEWED
By HMK at 8:09 am, 11/15/18

ICAL Name: 18NOV07DCAL **Result Table:** 18NOV09DCCV1-4 11/9/2018 5:13:22 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0
	

Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0
	

Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0
	

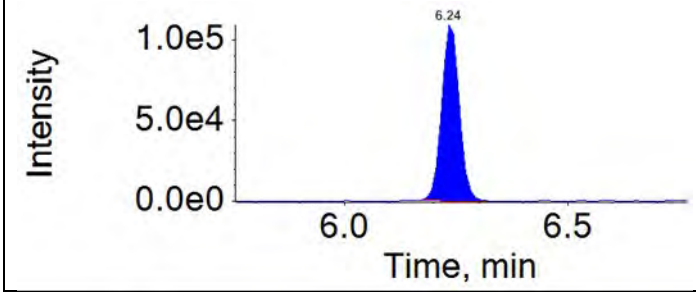
Extraction Standard: Ed3-NMePFOSA	Injection Standard: 13C2-PFDA
515.0 / 169.0	515.0 / 470.0
	

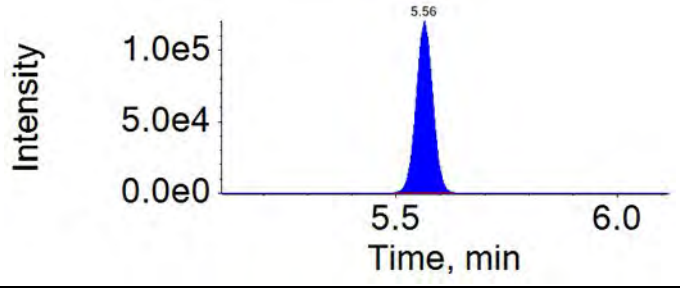
APPROVED
By MCD at 5:19 pm, 11/9/18

REVIEWED
By HMK at 8:09 am, 11/15/18

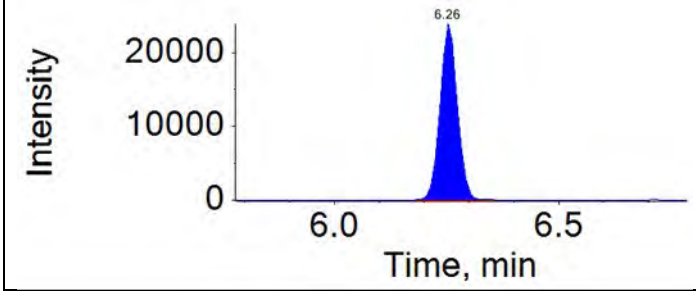
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV09DCCV1-4 11/9/2018 5:13:22 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

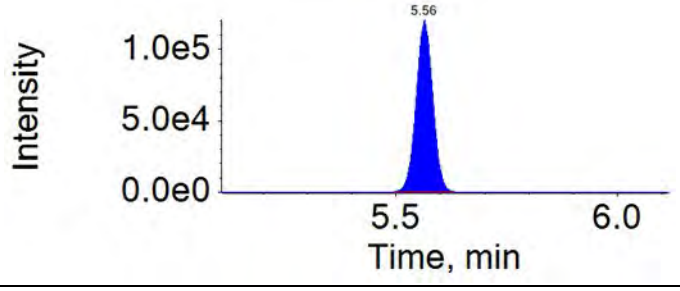
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



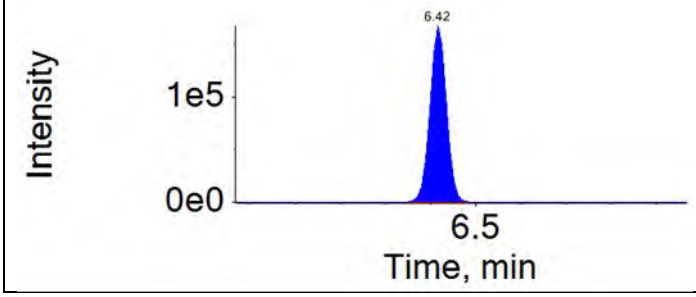


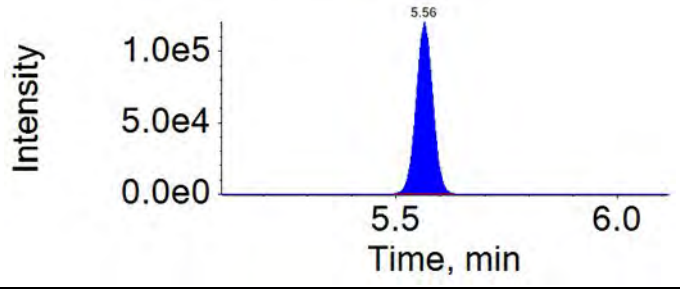
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0



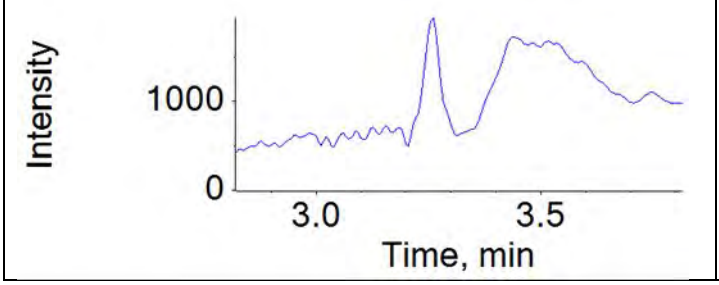


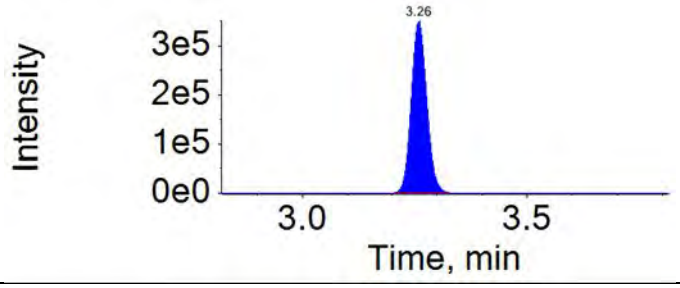
APPROVED
By MCD at 5:19 pm, 11/9/18

REVIEWED
By HMK at 8:09 am, 11/15/18

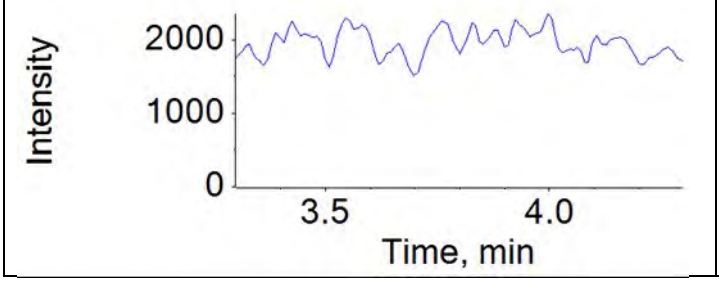
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV09DCCV1-4 11/9/2018 5:13:22 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

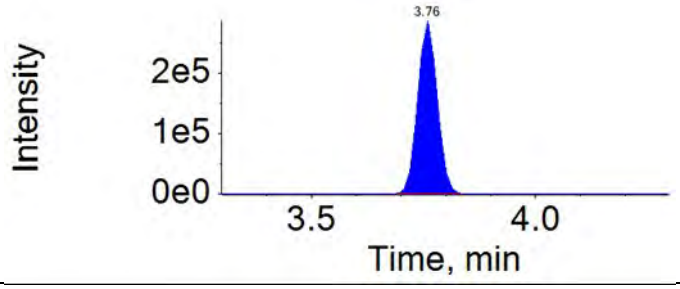
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



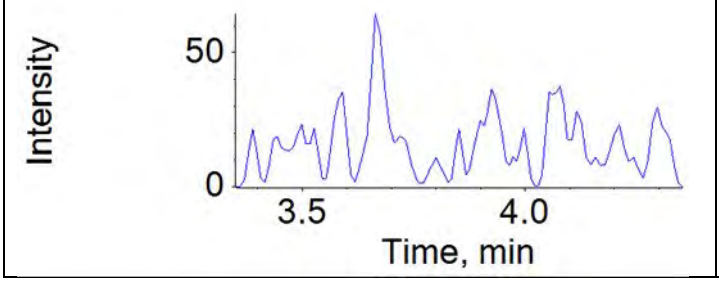


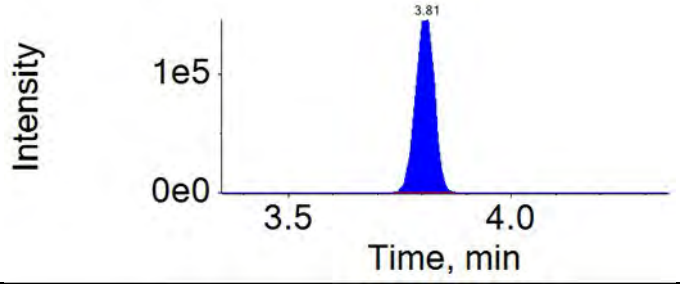
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



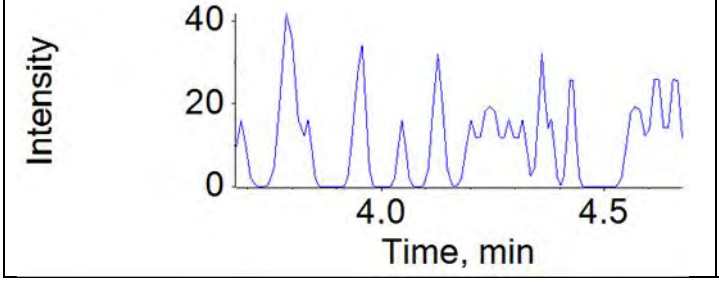


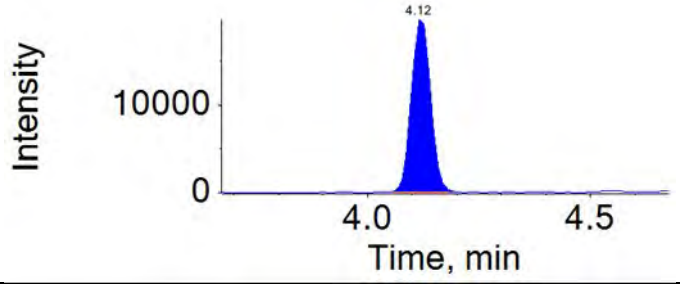
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





Analyte: 4:2-FTS	Extraction Standard: 13C2-4:2-FTS
327.0 / 307.0	329.0 / 81.0



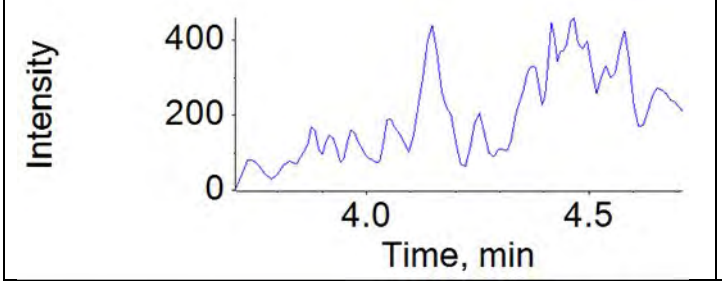


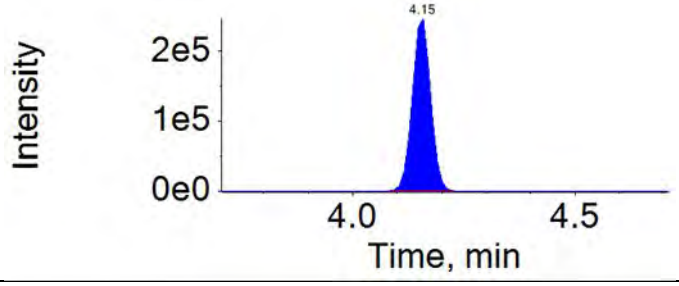
APPROVED
By MCD at 5:19 pm, 11/9/18

REVIEWED
By HMK at 8:09 am, 11/15/18

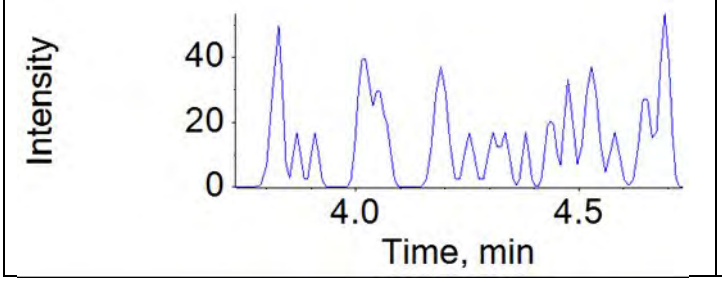
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV09DCCV1-4 11/9/2018 5:13:22 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

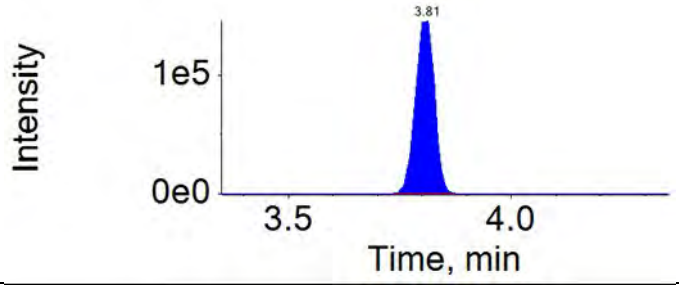
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



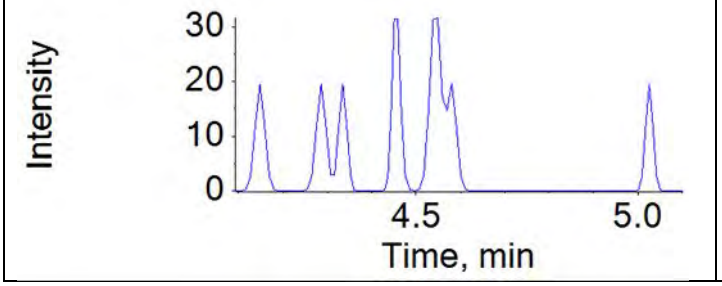


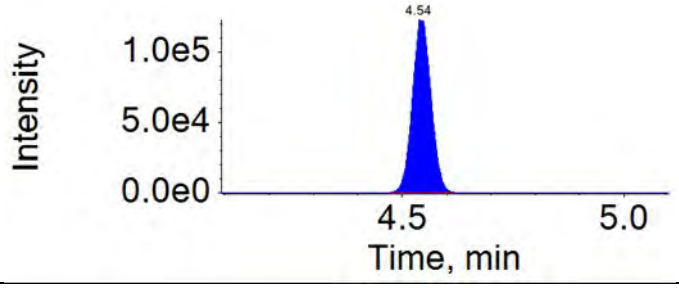
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



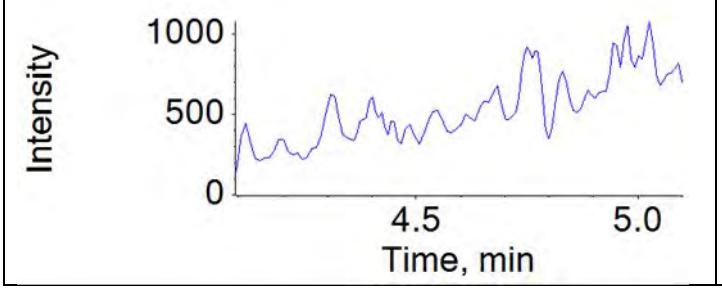


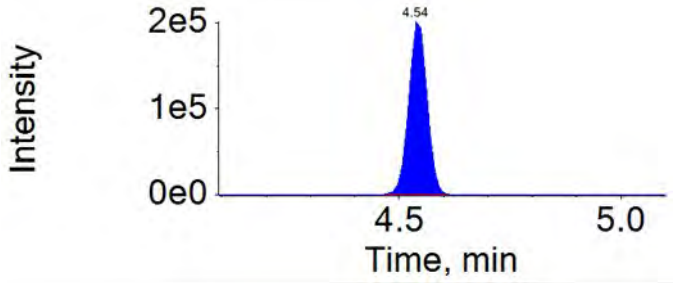
Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0





Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0



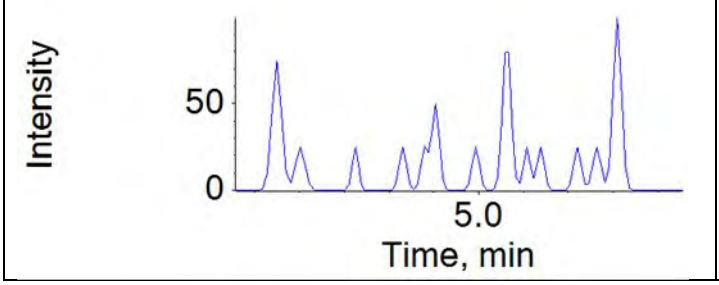


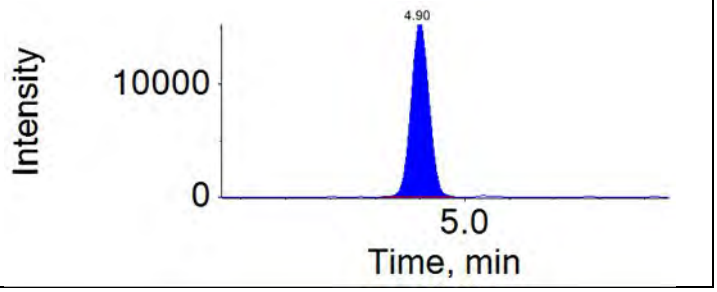
APPROVED
By MCD at 5:19 pm, 11/9/18

REVIEWED
By HMK at 8:09 am, 11/15/18

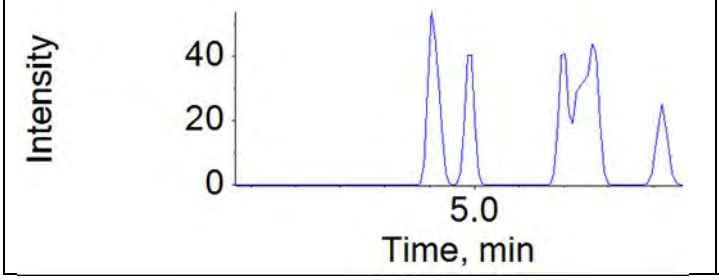
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV09DCCV1-4 11/9/2018 5:13:22 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

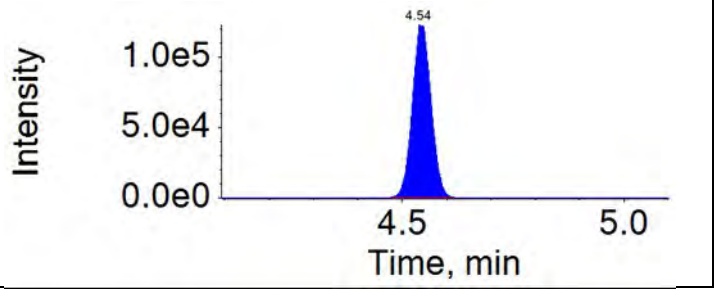
Analyte: 6:2-FTS	Extraction Standard: 13C2-6:2-FTS
427.0 / 407.0	429.0 / 81.0



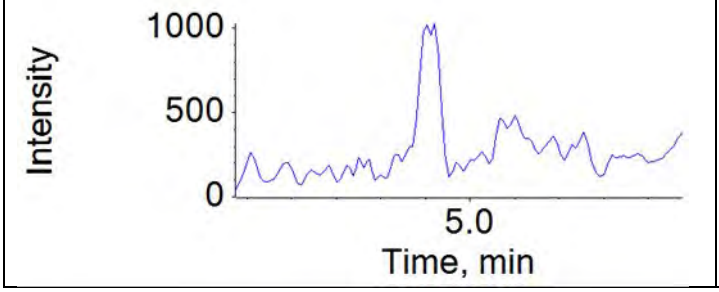


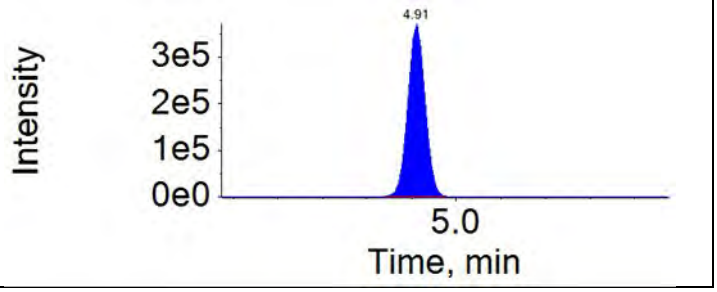
Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0



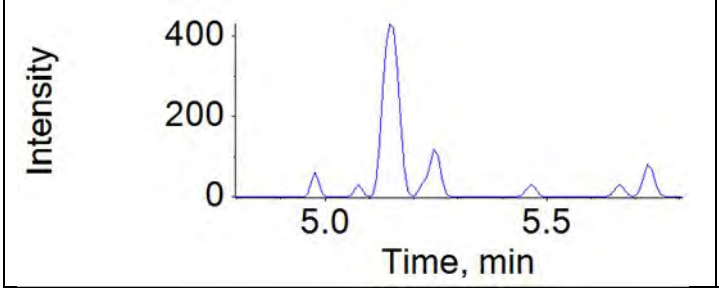


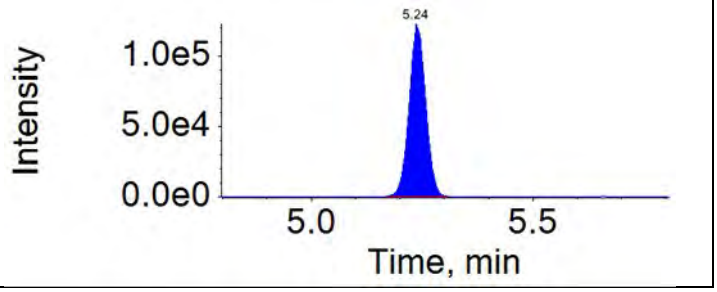
Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0





Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0



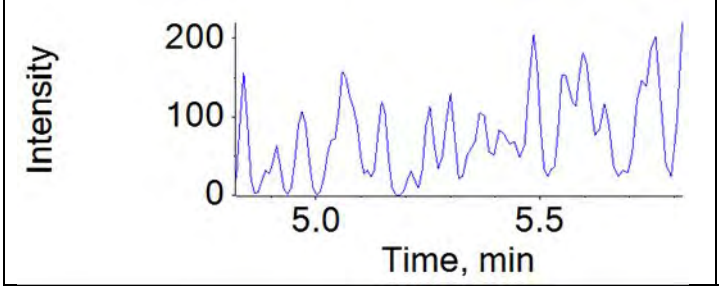


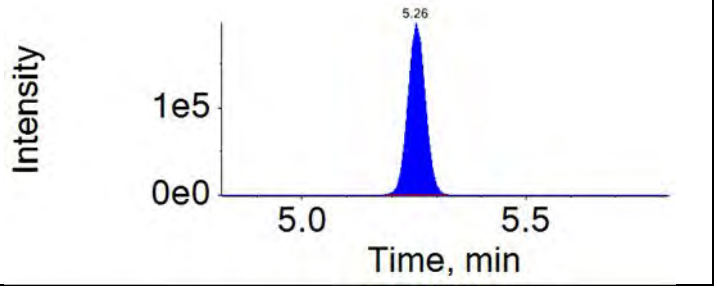
APPROVED
By MCD at 5:19 pm, 11/9/18

REVIEWED
By HMK at 8:09 am, 11/15/18

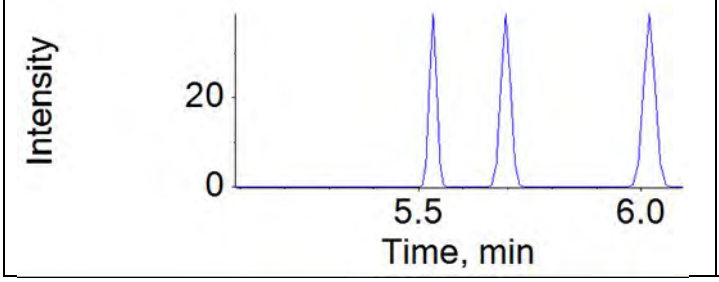
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV09DCCV1-4 11/9/2018 5:13:22 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

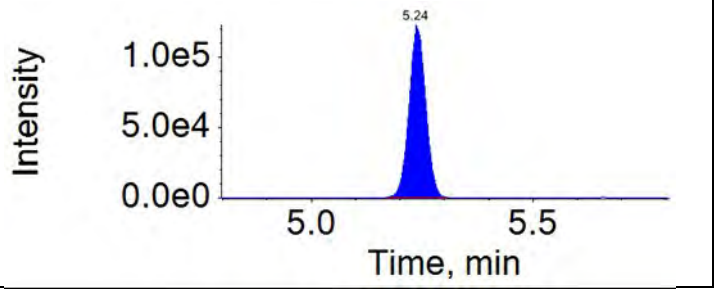
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



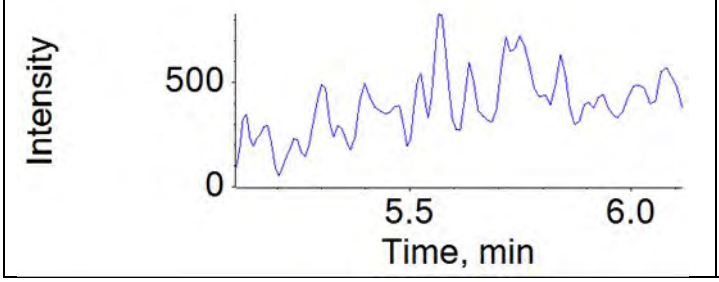


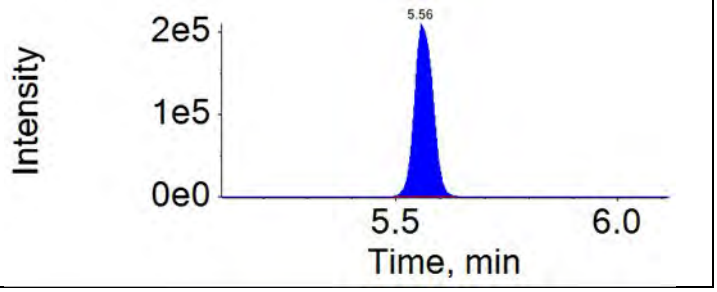
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



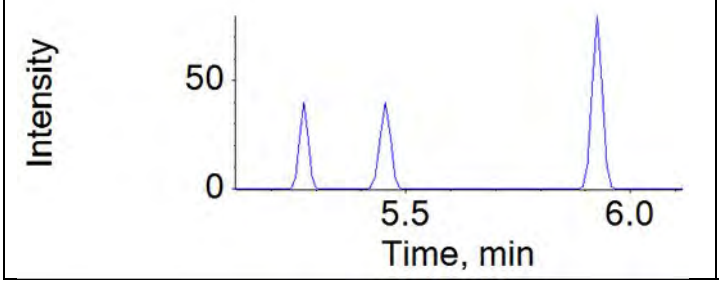


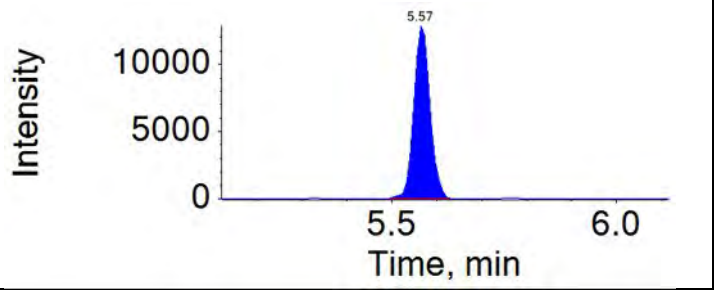
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





Analyte: 8:2-FTS	Extraction Standard: 13C2-8:2-FTS
527.0 / 507.0	529.0 / 81.0



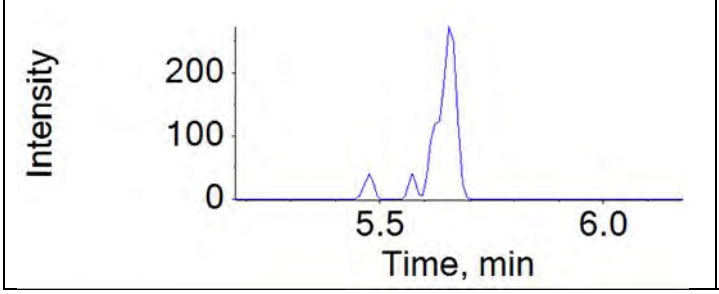


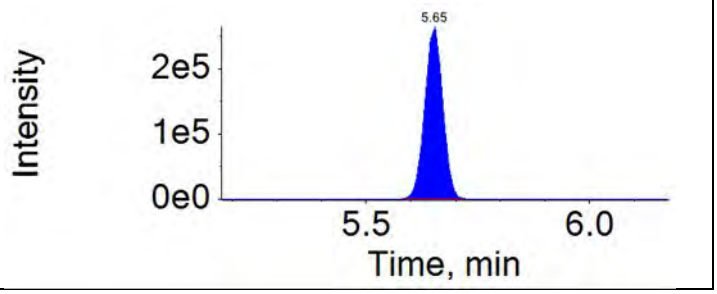
APPROVED
By MCD at 5:19 pm, 11/9/18

REVIEWED
By HMK at 8:09 am, 11/15/18

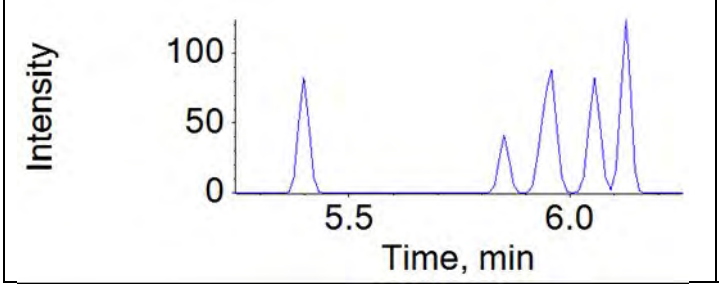
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV09DCCV1-4 11/9/2018 5:13:22 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

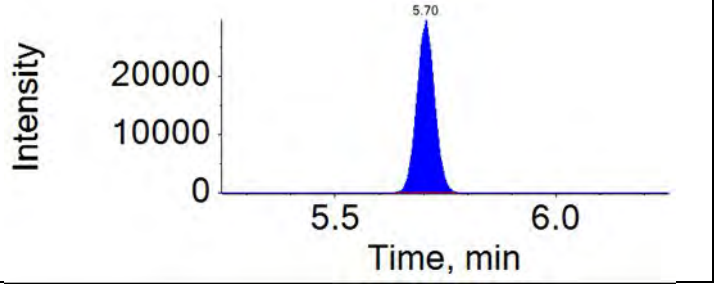
Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0



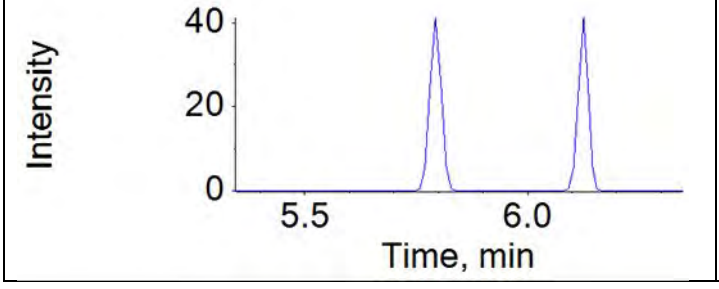


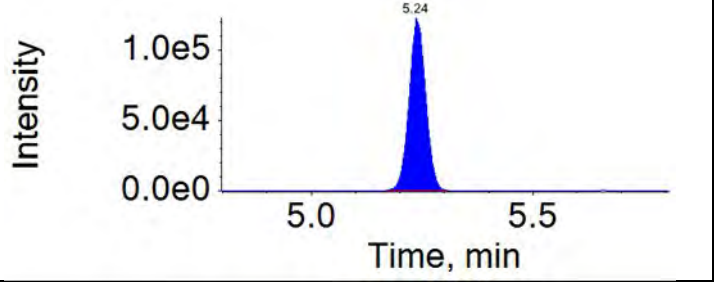
Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0



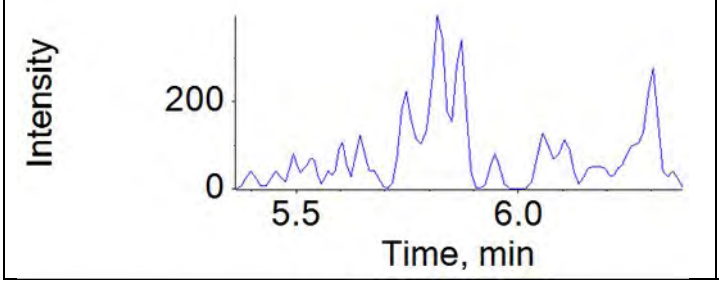


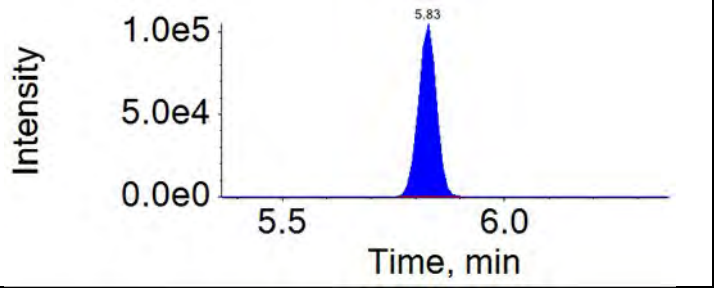
Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0





Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0



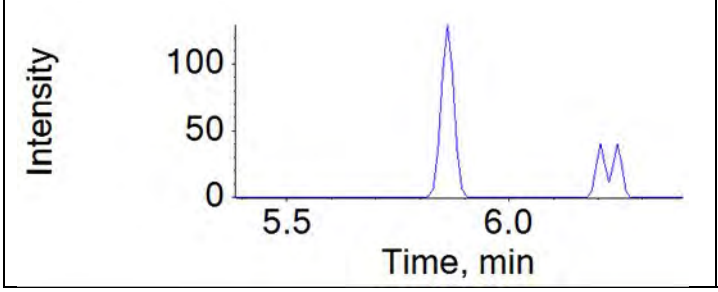


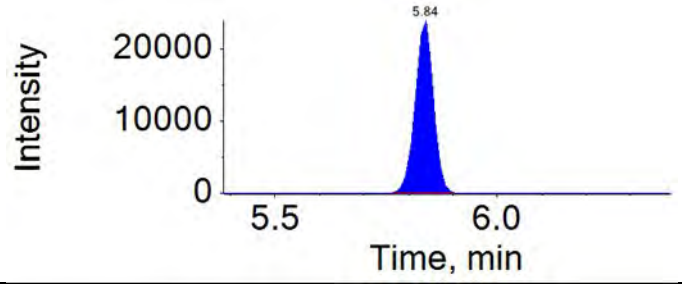
APPROVED
By MCD at 5:19 pm, 11/9/18

REVIEWED
By HMK at 8:09 am, 11/15/18

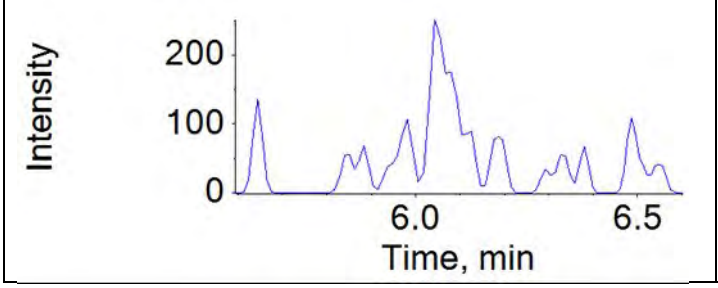
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV09DCCV1-4 11/9/2018 5:13:22 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

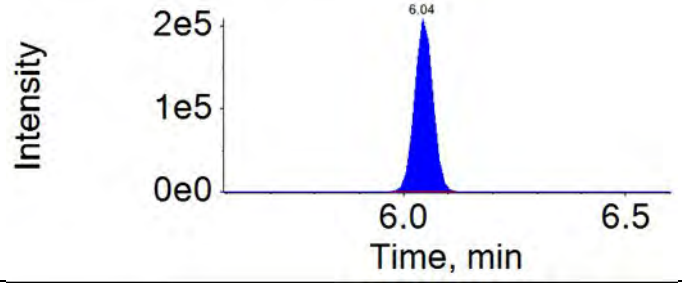
Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0



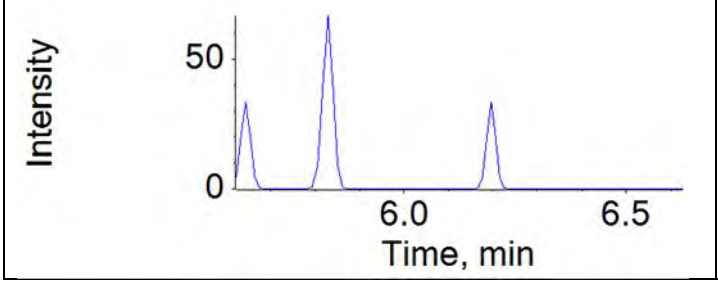


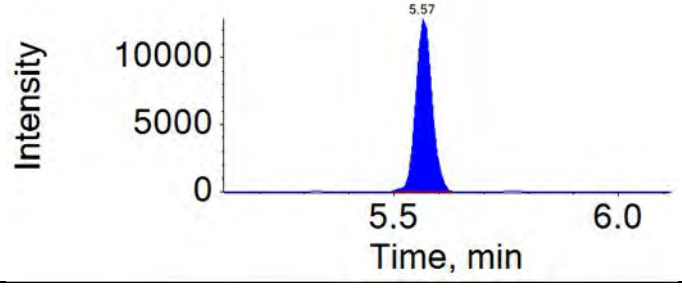
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0



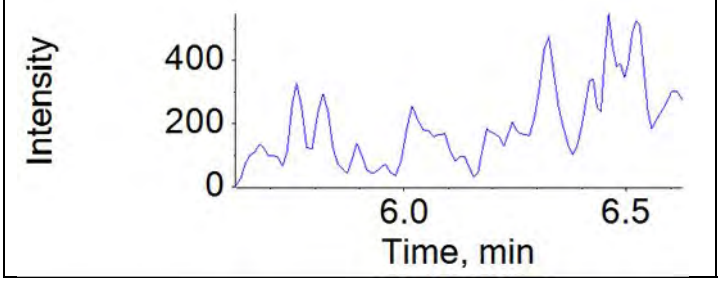


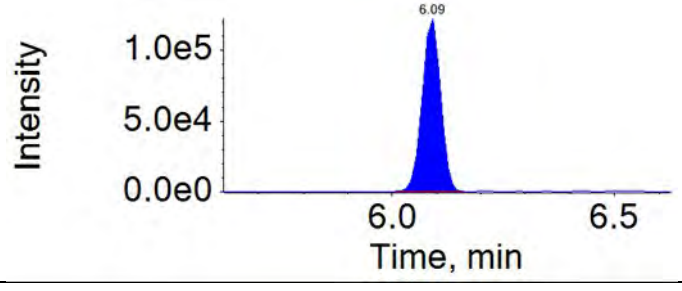
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0





Analyte: NMePFOSAE	Extraction Standard: d7-NMePFOSAE
616.0 / 59.0	623.0 / 59.0



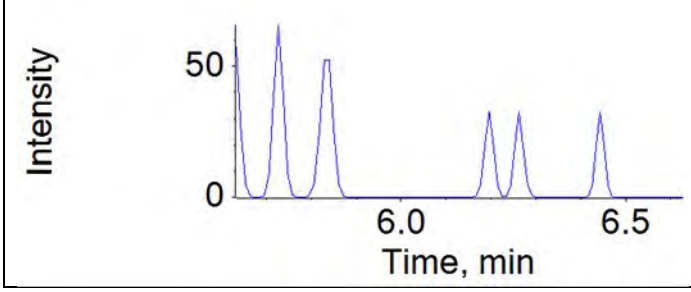


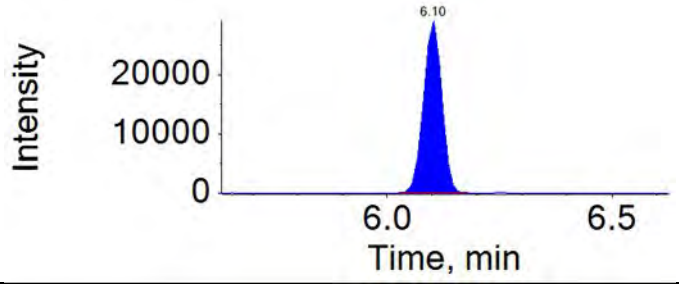
APPROVED
By MCD at 5:19 pm, 11/9/18

REVIEWED
By HMK at 8:09 am, 11/15/18

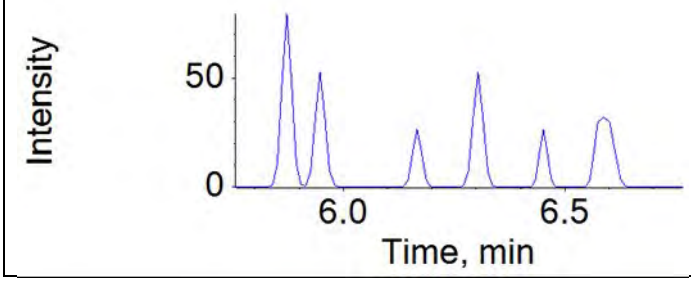
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV09DCCV1-4 11/9/2018 5:13:22 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

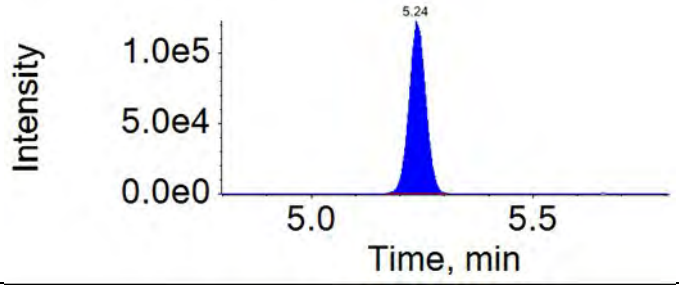
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



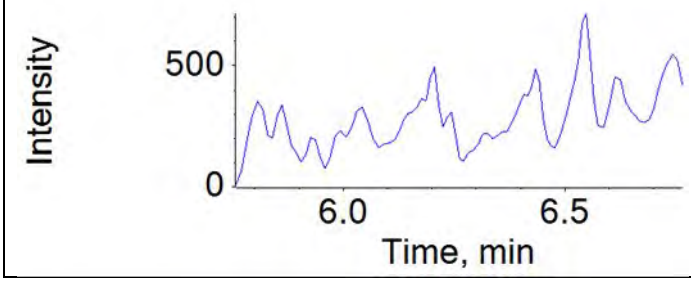


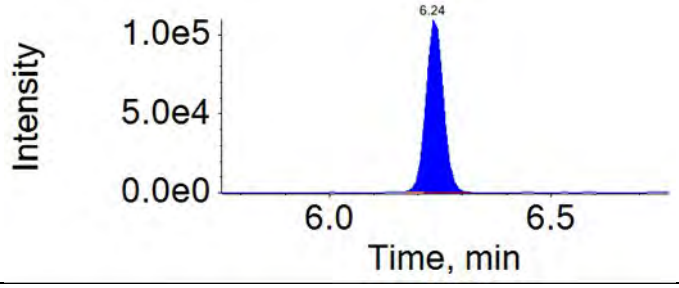
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



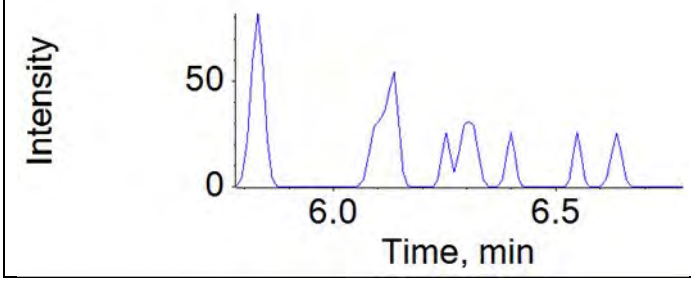


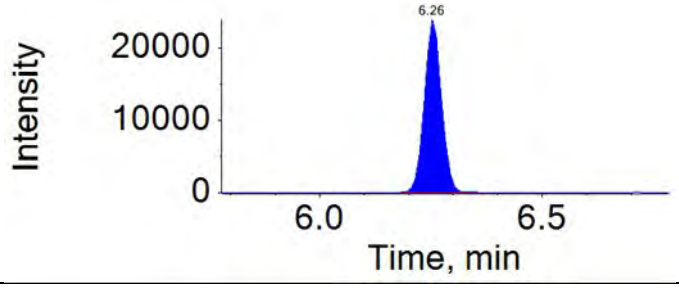
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





Analyte: NEtPFOSA	Extraction Standard: d5-NEtPFOSA
526.0 / 169.0	531.0 / 169.0



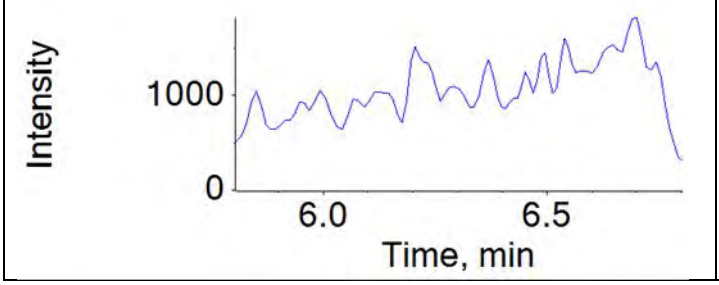


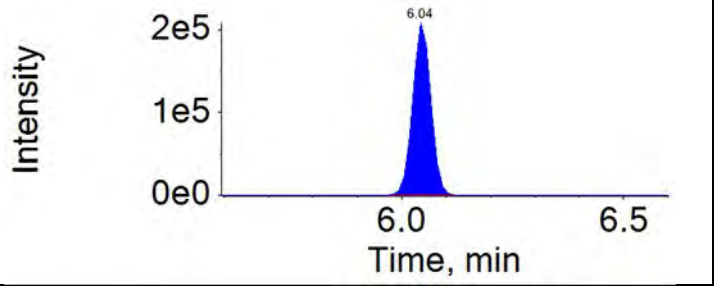
APPROVED
By MCD at 5:19 pm, 11/9/18

REVIEWED
By HMK at 8:09 am, 11/15/18

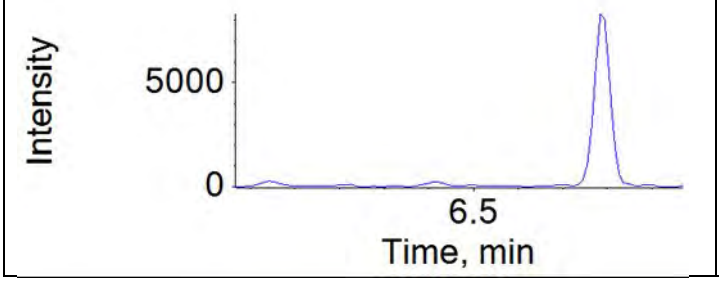
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV09DCCV1-4 11/9/2018 5:13:22 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

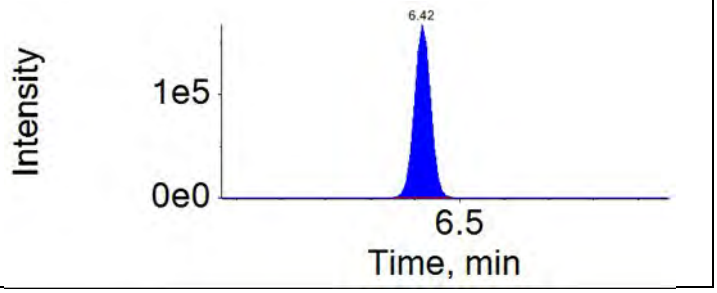
Analyte: PFTrDA	Extraction Standard: 13C2-PFDoDA
663.0 / 619.0	615.0 / 570.0



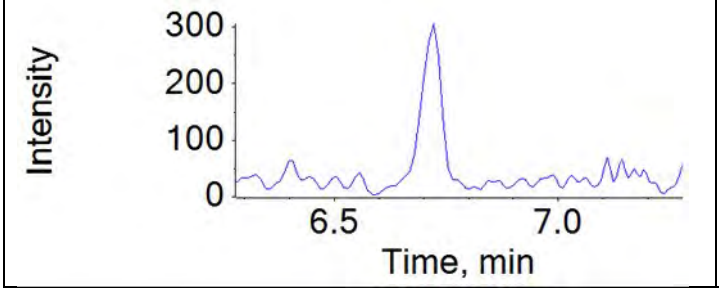


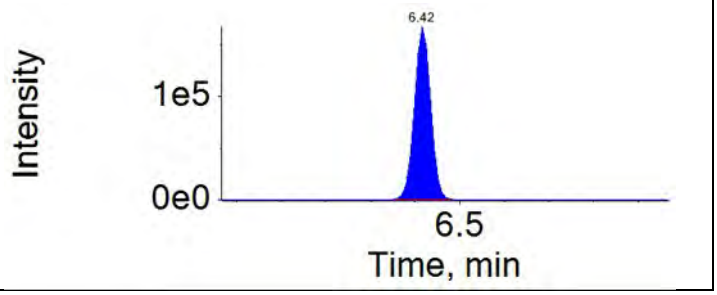
Analyte: PFTeDA	Extraction Standard: 13C2-PFTeDA
713.0 / 669.0	715.0 / 670.0



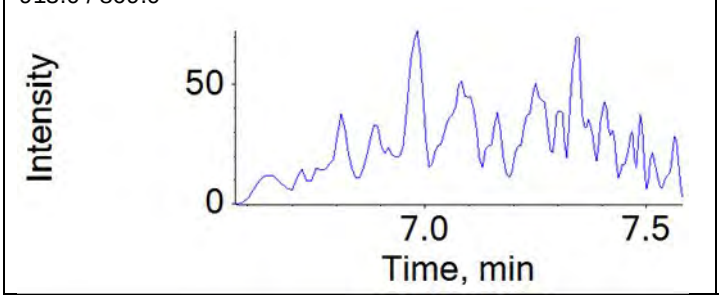


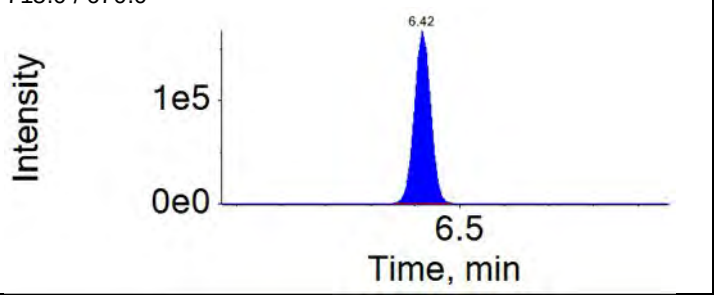
Analyte: PFHxDA	Extraction Standard: 13C2-PFTeDA
813.0 / 769.0	715.0 / 670.0





Analyte: PFODA	Extraction Standard: 13C2-PFTeDA
913.0 / 869.0	715.0 / 670.0





APPROVED
By MCD at 5:19 pm, 11/9/18

REVIEWED
By HMK at 8:09 am, 11/15/18

Ion Ratio Report

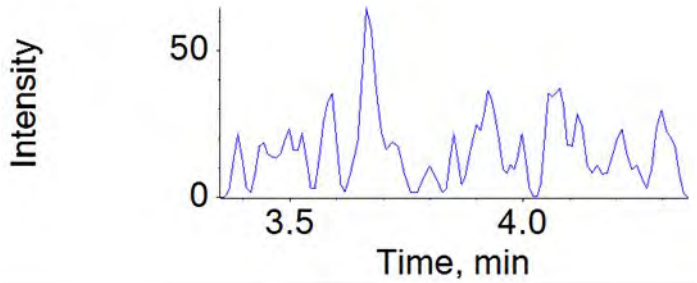
Sample Name: Instrument Blank **Instrument Name:** LM27631 **File Name:** 18NOV09D-04.wiff

Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	N/A	N/A	N/A	A	N/A	N/A			
PFBS_2	N/A	N/A	N/A	A	N/A	N/A		50	
4:2-FTS	N/A	N/A	N/A	A	N/A	N/A			
4:2-FTS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFHxA	N/A	N/A	N/A	A	N/A	N/A			
PFHxA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFPeS	N/A	N/A	N/A	A	N/A	N/A			
PFPeS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFHxS	N/A	N/A	N/A	A	N/A	N/A			
PFHxS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFHpA	N/A	N/A	N/A	A	N/A	N/A			
PFHpA_2	N/A	N/A	N/A	A	N/A	N/A		50	
6:2-FTS	N/A	N/A	N/A	A	N/A	N/A			
6:2-FTS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFHpS	N/A	N/A	N/A	A	N/A	N/A			
PFHpS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFOA	N/A	N/A	N/A	A	N/A	N/A			
PFOA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFOS	N/A	N/A	N/A	A	N/A	N/A			
PFOS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFNA	N/A	N/A	N/A	A	N/A	N/A			
PFNA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFNS	N/A	N/A	N/A	A	N/A	N/A			
PFNS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFDA	N/A	N/A	N/A	A	N/A	N/A			
PFDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
8:2-FTS	N/A	N/A	N/A	A	N/A	N/A			
8:2-FTS_2	N/A	N/A	N/A	A	N/A	N/A		50	
NMeFOSAA	N/A	N/A	N/A	A	N/A	N/A			
NMeFOSAA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFDS	N/A	N/A	N/A	A	N/A	N/A			
PFDS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFUnDA	N/A	N/A	N/A	A	N/A	N/A			
PFUnDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
NEtFOSAA	N/A	N/A	N/A	A	N/A	N/A			
NEtFOSAA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFDoDA	N/A	N/A	N/A	A	N/A	N/A			
PFDoDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
10:2-FTS	N/A	N/A	N/A	A	N/A	N/A			
10:2-FTS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFTrDA	N/A	N/A	N/A	A	N/A	N/A			
PFTrDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFTeDA	N/A	N/A	N/A	A	N/A	N/A			
PFTeDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFHxDA	N/A	N/A	N/A	A	N/A	N/A			
PFHxDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFODA	N/A	N/A	N/A	A	N/A	N/A			
PFODA_2	N/A	N/A	N/A	A	N/A	N/A		50	

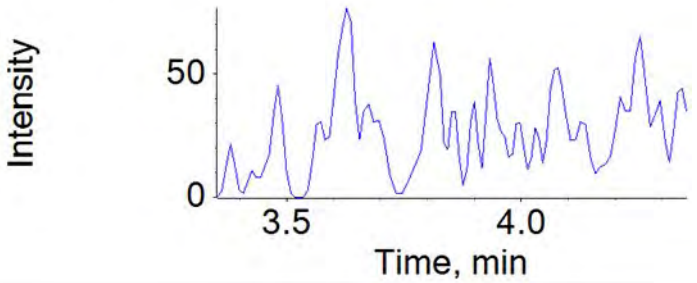
APPROVED
By MCD at 5:19 pm, 11/9/18

REVIEWED
By HMK at 8:09 am, 11/15/18

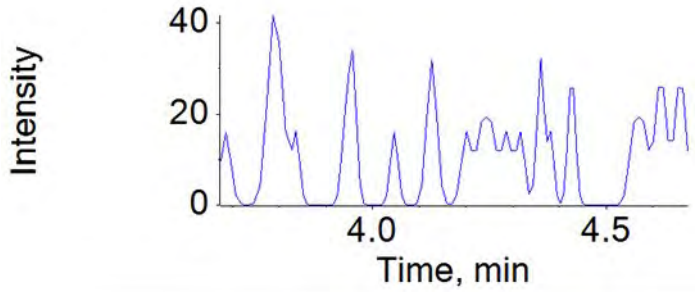
Component: PFBS
Primary Mass: 299.0 / 80.0



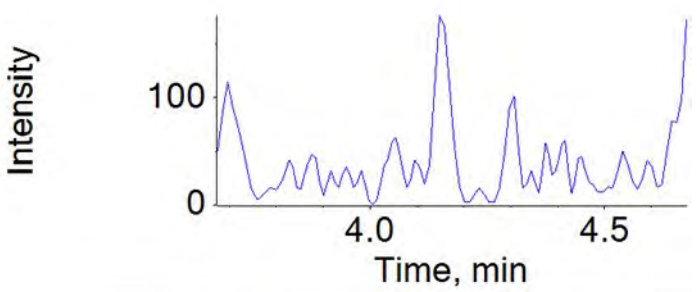
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



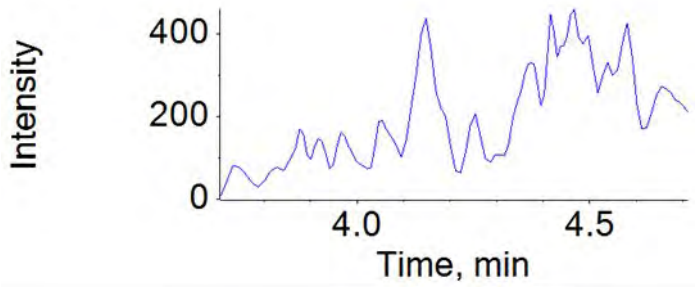
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



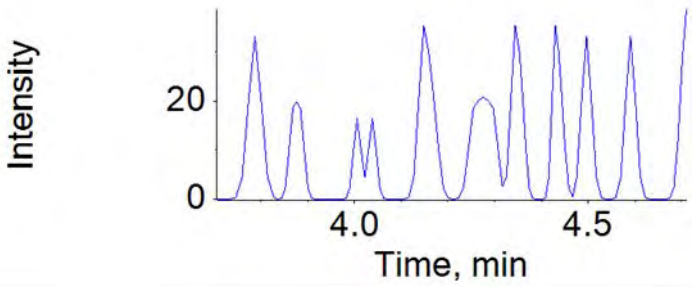
Component: 4:2-FTS_2
Secondary Mass: 327.0 / 81.0



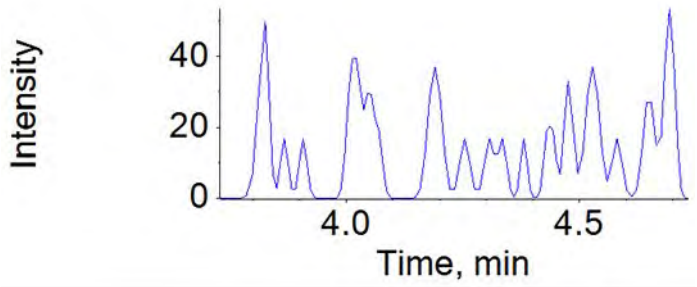
Component: PFHxA
Primary Mass: 313.0 / 269.0



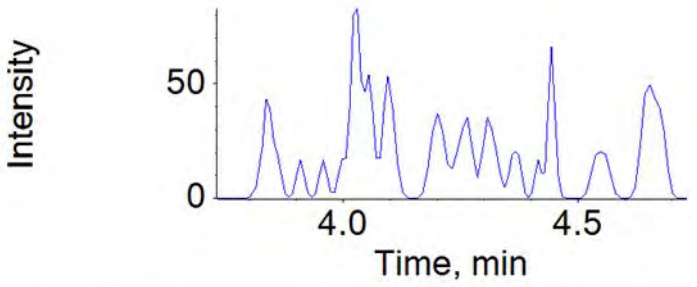
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



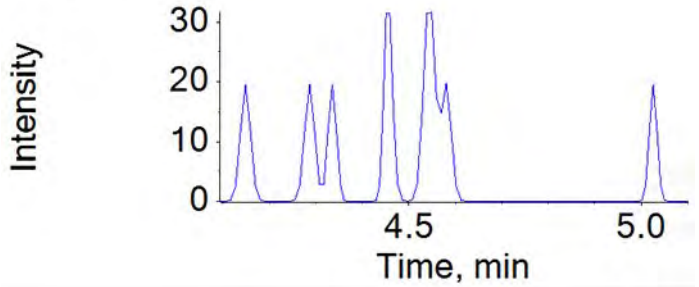
Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



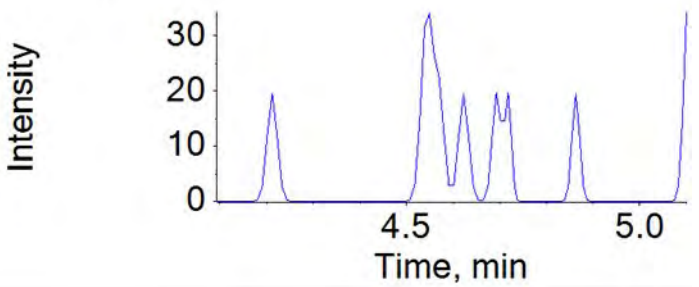
APPROVED
By MCD at 5:19 pm, 11/9/18

REVIEWED
By HMK at 8:09 am, 11/15/18

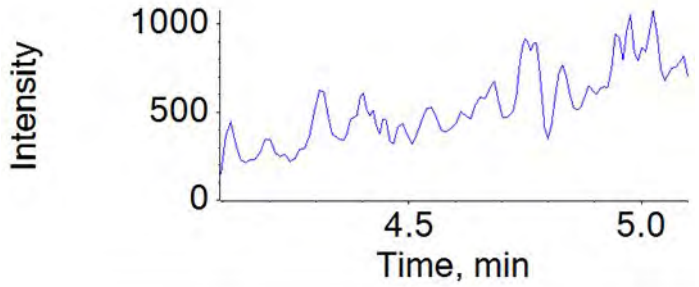
Component: PFHxS
Primary Mass: 399.0 / 80.0



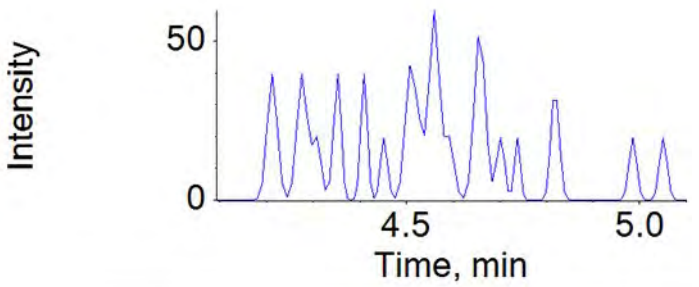
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



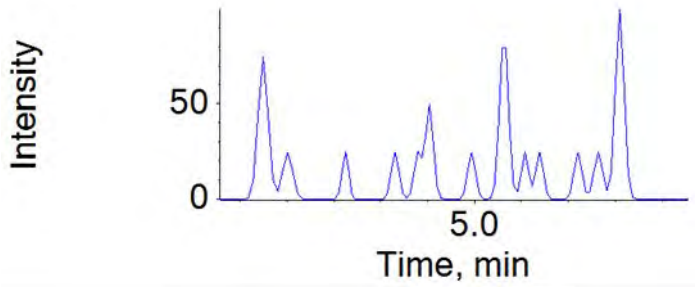
Component: PFHpA
Primary Mass: 363.0 / 319.0



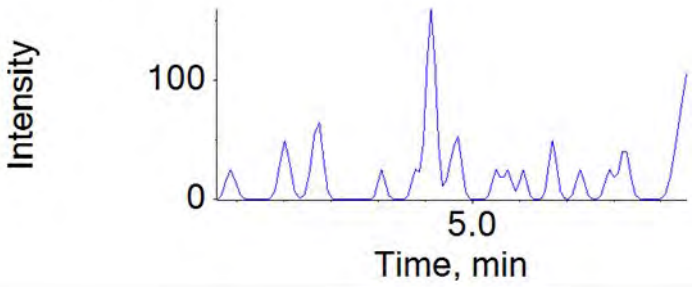
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



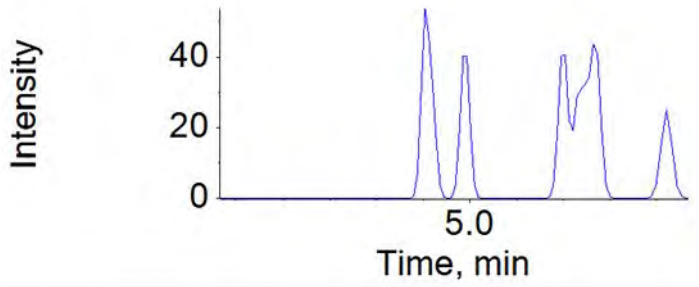
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



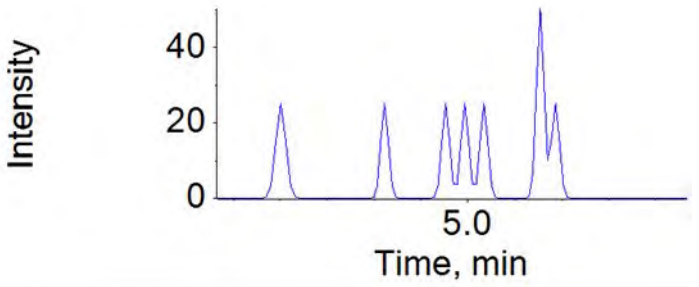
Component: 6:2-FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



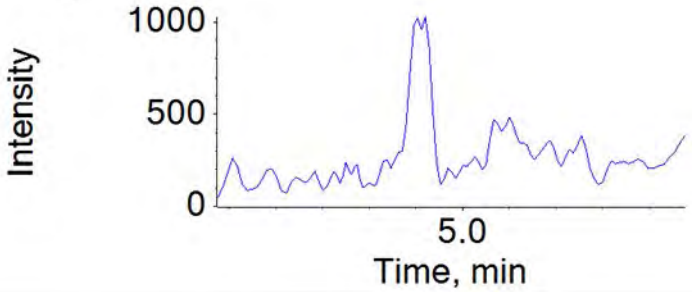
Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



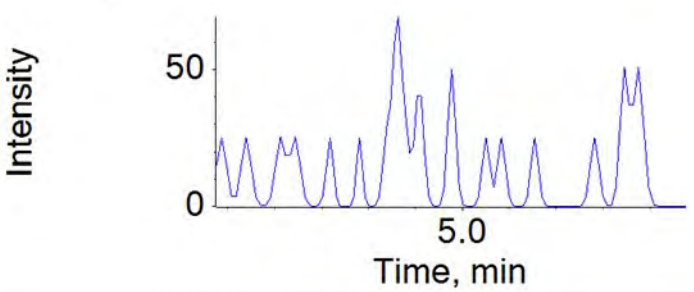
APPROVED
By MCD at 5:19 pm, 11/9/18

REVIEWED
By HMK at 8:09 am, 11/15/18

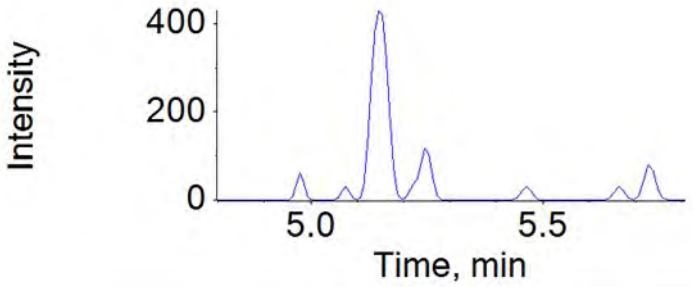
Component: PFOA
Primary Mass: 413.0 / 369.0



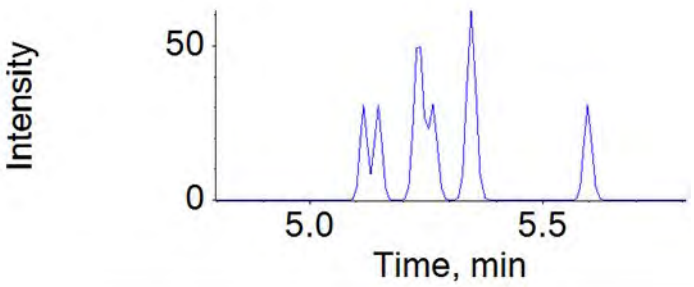
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



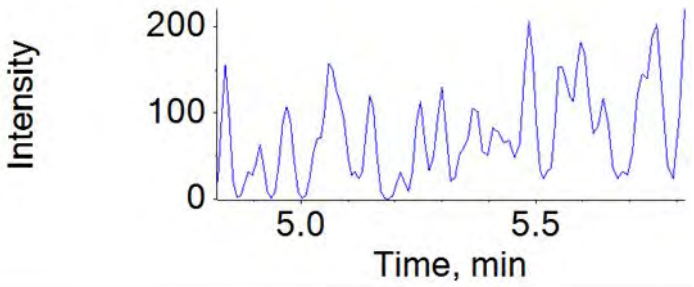
Component: PFOS
Primary Mass: 499.0 / 80.0



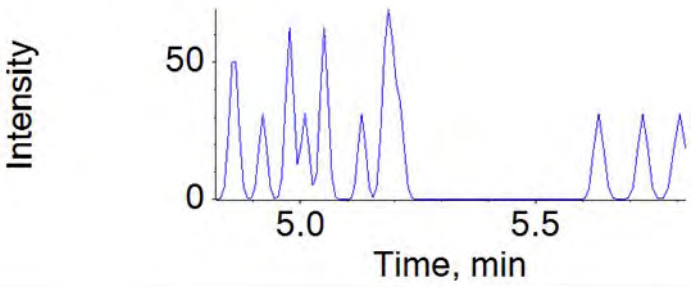
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



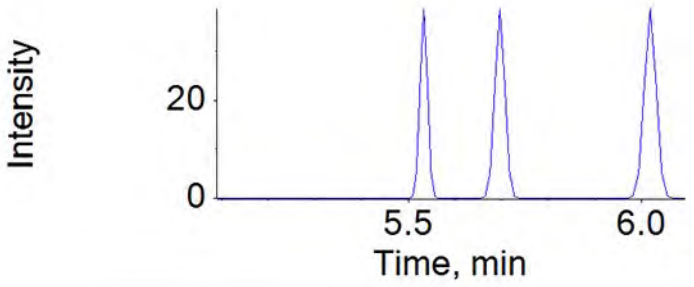
Component: PFNA
Primary Mass: 463.0 / 419.0



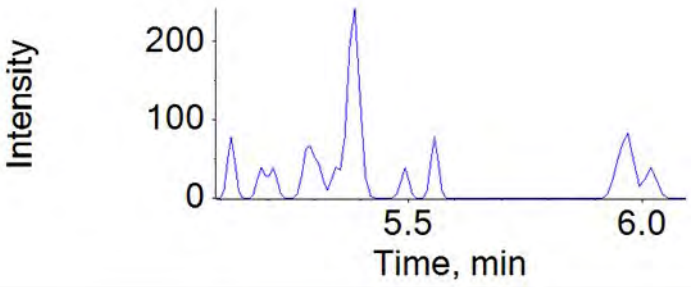
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



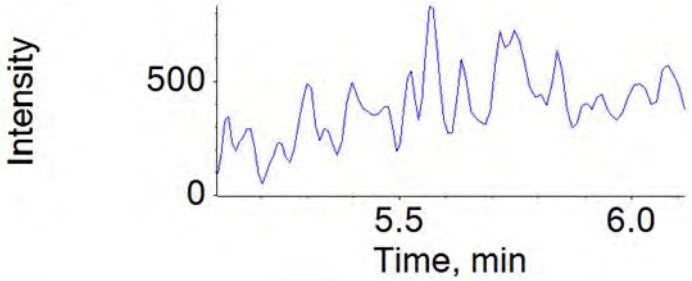
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



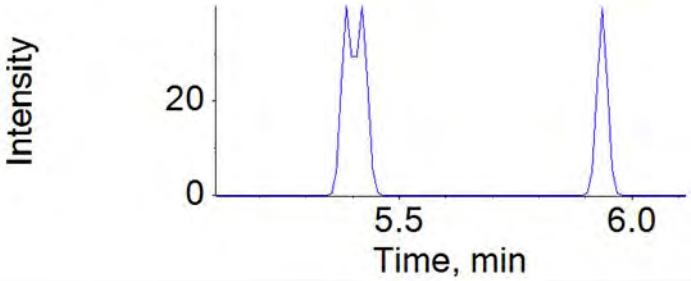
APPROVED
By MCD at 5:19 pm, 11/9/18

REVIEWED
By HMK at 8:09 am, 11/15/18

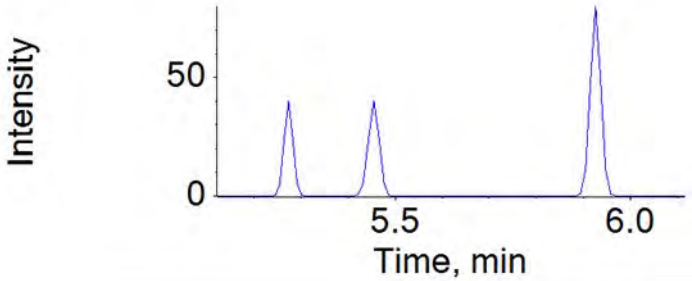
Component: PFDA
Primary Mass: 513.0 / 469.0



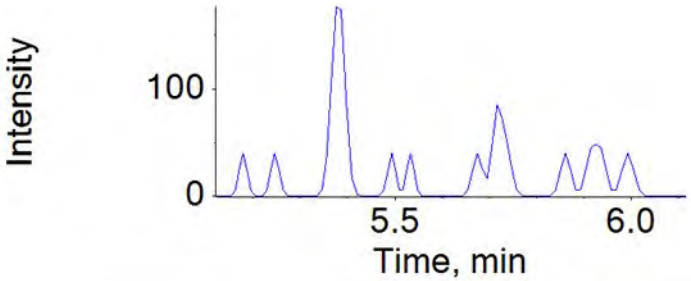
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Secondary Mass: 513.0 / 169.0



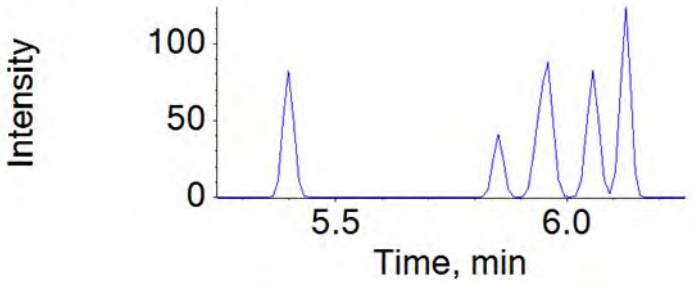
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



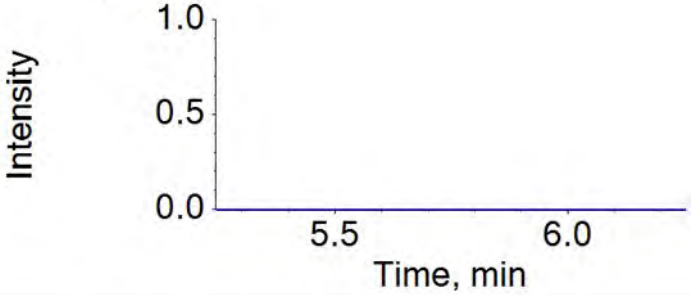
Component: 8:2-FTS_2
Secondary Mass: 527.0 / 81.0



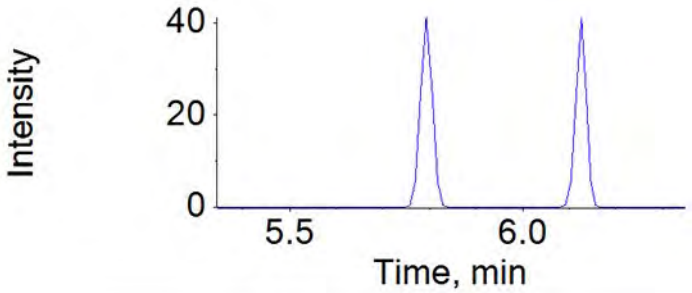
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



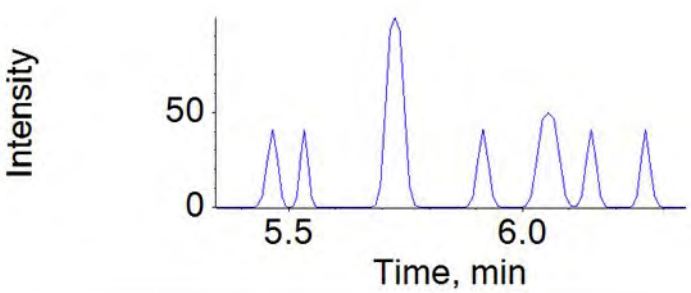
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



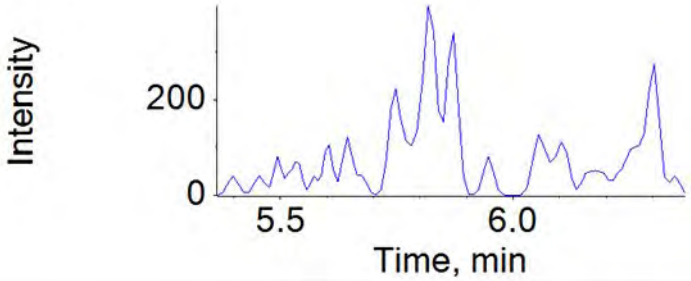
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Secondary Mass: 599.0 / 99.0



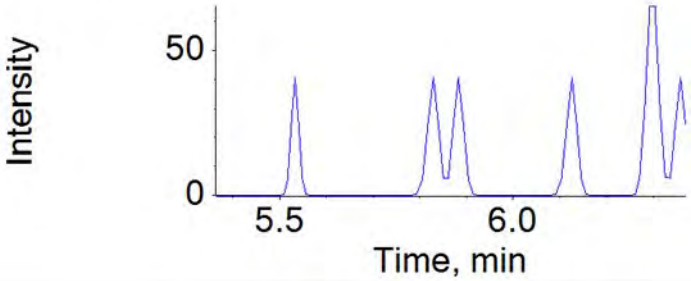
APPROVED
By MCD at 5:19 pm, 11/9/18

REVIEWED
By HMK at 8:09 am, 11/15/18

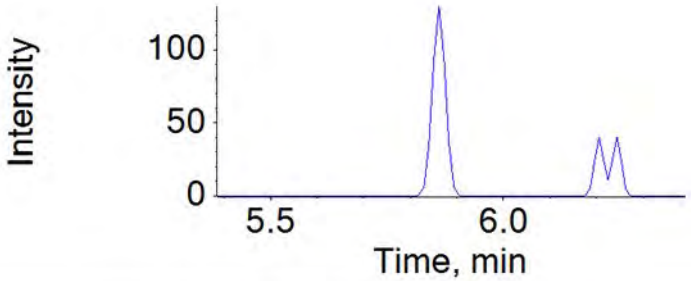
Component: PFUnDA
Primary Mass: 563.0 / 519.0



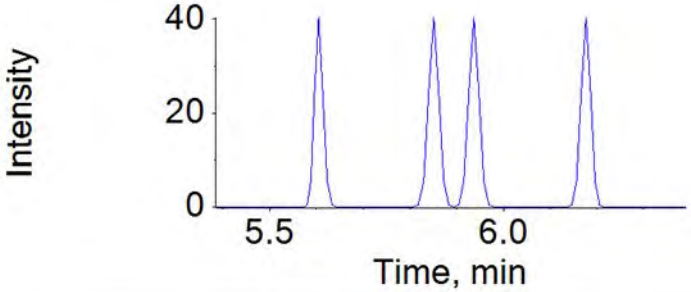
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



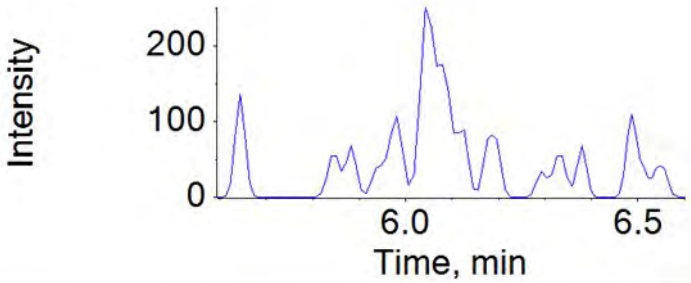
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



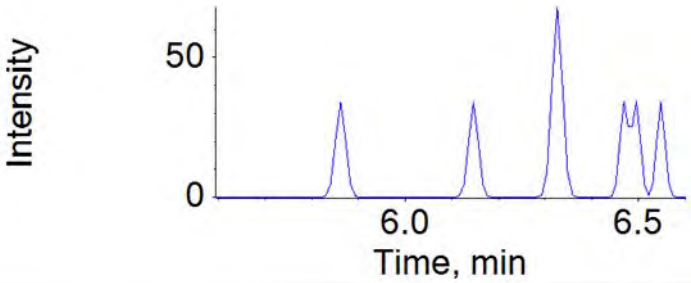
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



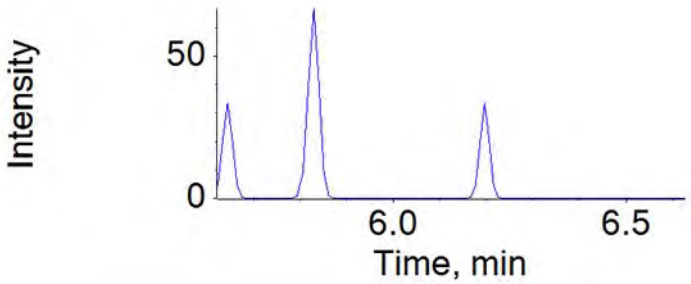
Component: PFDoDA
Primary Mass: 613.0 / 569.0



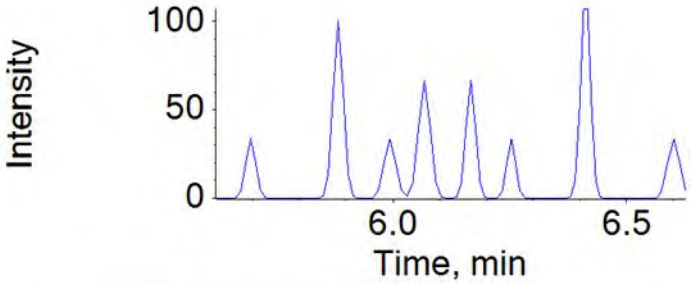
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



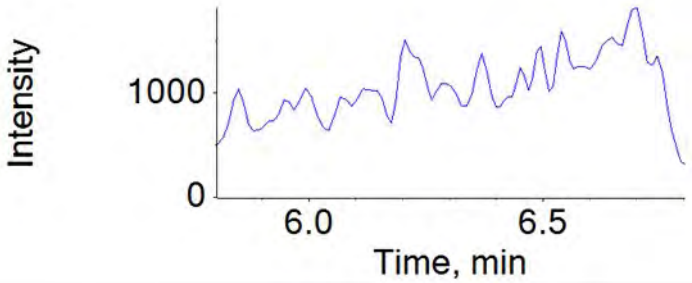
Component: 10:2-FTS_2
Secondary Mass: 627.0 / 81.0



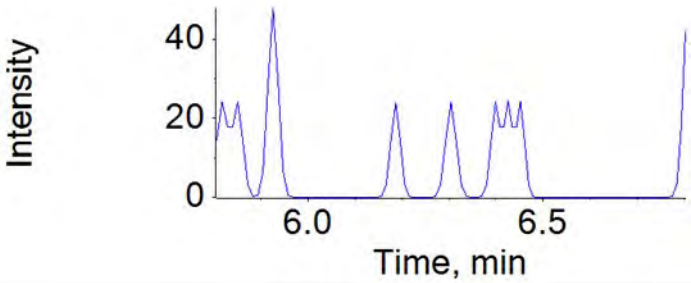
APPROVED
By MCD at 5:19 pm, 11/9/18

REVIEWED
By HMK at 8:09 am, 11/15/18

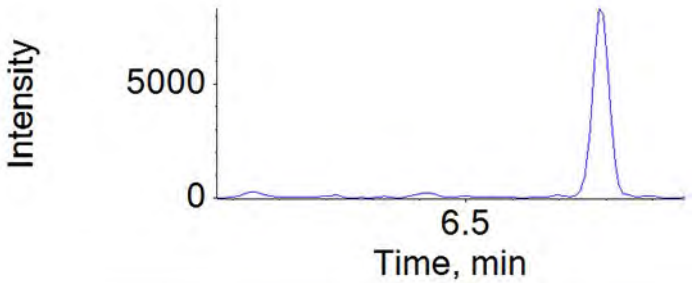
Component: PFTrDA
Primary Mass: 663.0 / 619.0



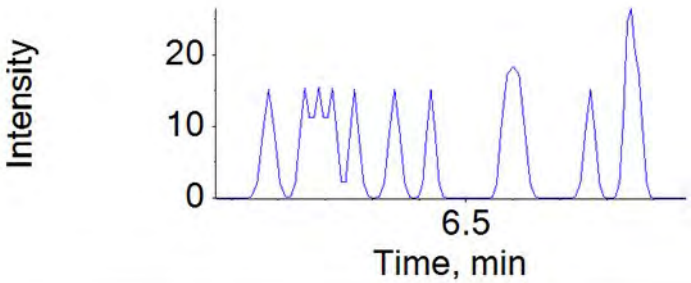
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Secondary Mass: 663.0 / 169.0



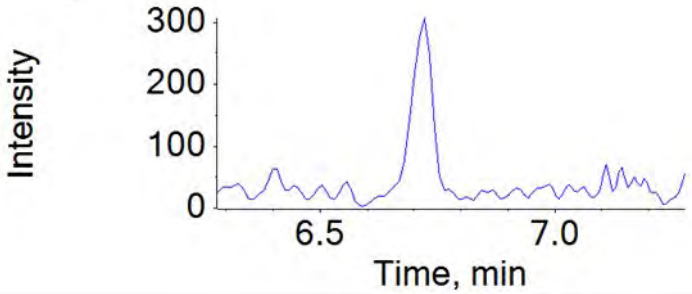
Component: PFTeDA
Primary Mass: 713.0 / 669.0



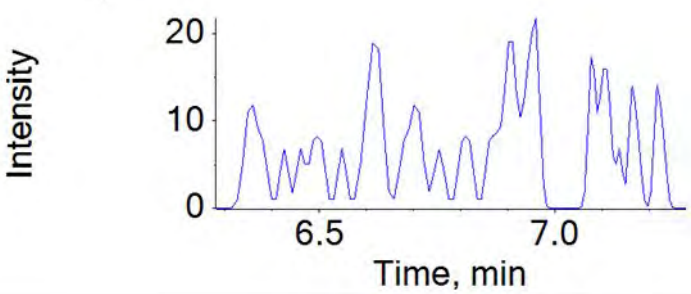
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Secondary Mass: 713.0 / 169.0



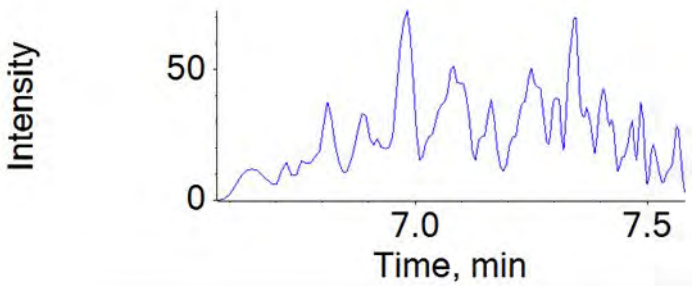
Component: PFHxDA
Primary Mass: 813.0 / 769.0



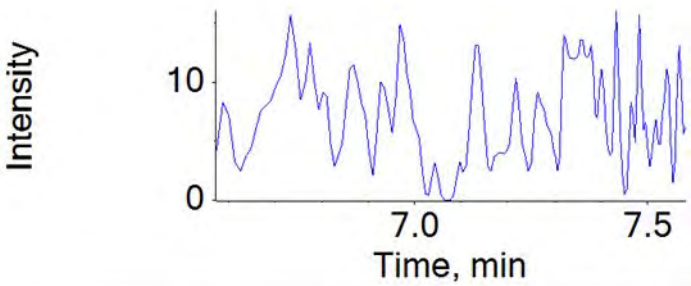
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



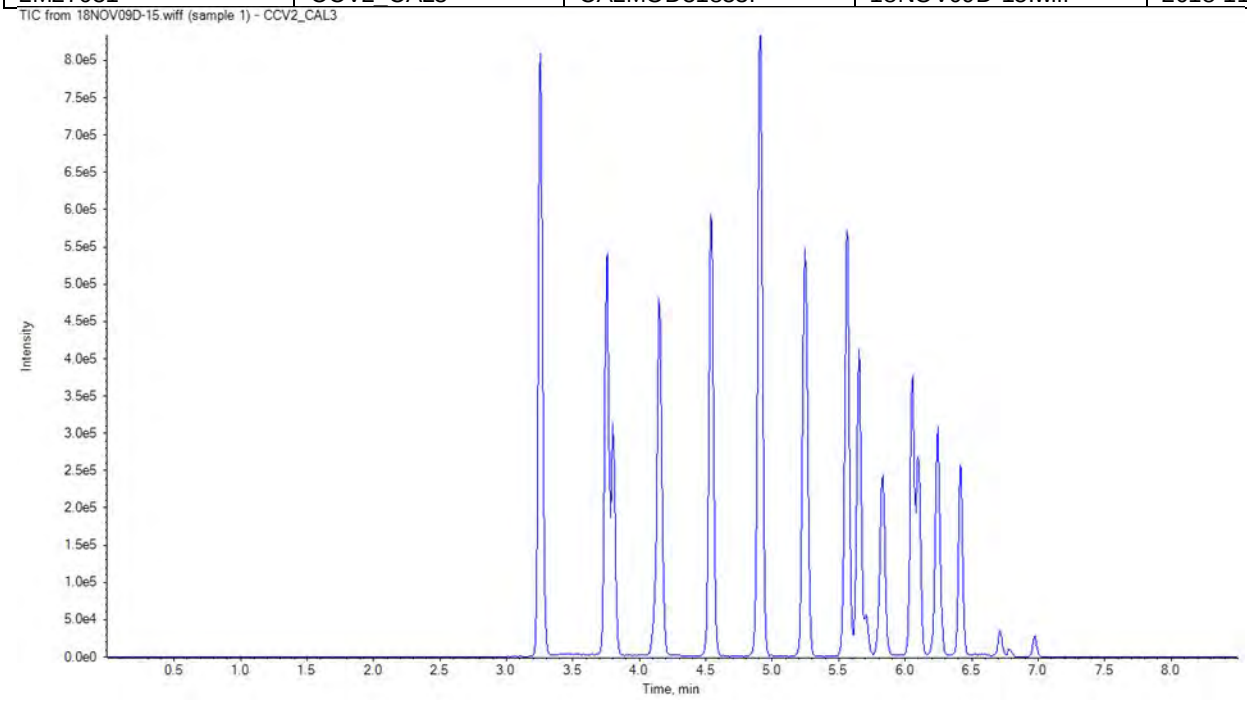
APPROVED
By MCD at 5:19 pm, 11/9/18

REVIEWED
By HMK at 8:09 am, 11/15/18

Continuing Calibration Verfication

ICAL Name: 18NOV07DCAL **Result Table:** 18NOV09DCCV1-4 11/9/2018 5:07:16 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	CCV2_CAL3	CALMOD31833F	18NOV09D-15.wiff	2018-11-09T06:45:20



Injection Standard Area Reference File: 18NOV09D-03

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Reference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	740260.9	725974.7	2	50	
13C2-PFOA	5.0	507871.8	506876.7	0	50	
13C4-PFOS	4.8	282927.8	274910.1	3	50	
13C2-PFDA	5.0	319321.5	307276.7	4	50	

APPROVED
By MCD at 5:19 pm, 11/9/18

REVIEWED
By umar at 4:02 pm, 11/15/18

Continuing Calibration Verfication

ICAL Name: 18NOV07DCAL **Result Table:** 18NOV09DCCV1-4 11/9/2018 5:07:16 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	CCV2_CAL3	CALMOD31833F	18NOV09D-15.wiff	2018-11-09T06:45:20

Analyte Name	Analyte Area	Sc /pk	Ext Std Name	Ext Std Area	Ext Std con	Area Ratio	RT (min)	RRT	Spec Amt	Calc Amt	% Diff	% Diff Lim	% Diff OOS
PFBA	291667.8	10	13C4-PFBA	795607.5	5.0	0.367	3.25	1.000	2.000	2.145	7	30	
PFPeA	304045.4	12	13C5-PFPeA	869761.9	5.0	0.350	3.76	1.000	2.000	2.077	4	30	
PFBS	154093.5	11	13C3-PFBS	424203.6	4.7	0.363	3.80	1.000	1.770	1.831	3	30	
4:2-FTS	36499.7	12	13C2-4:2-FTS	51796.5	4.7	0.705	4.12	1.000	1.868	1.894	1	30	
PFHxA	348756.6	11	13C5-PFHxA	683498.3	5.0	0.510	4.15	1.000	2.000	2.188	9	30	
PFPeS	77740.8	11	13C3-PFBS	424203.6	4.7	0.183	4.17	1.100	1.880	1.808	-4	30	
PFHxS	121413.6	11	13C3-PFHxS	331301.4	4.7	0.366	4.54	1.000	1.890	1.858	-2	30	
PFHpA	363637.0	12	13C4-PFHpA	557245.6	5.0	0.653	4.54	1.000	2.000	2.195	10	30	
6:2-FTS	29391.2	11	13C2-6:2-FTS	34921.0	4.8	0.842	4.90	1.000	1.896	2.100	11	30	
PFHpS	116772.6	11	13C3-PFHxS	331301.4	4.7	0.352	4.90	1.080	1.900	1.844	-3	30	
PFOA	358374.3	11	13C8-PFOA	938647.1	5.0	0.382	4.91	1.000	2.000	2.150	7	30	
PFOS	108738.7	11	13C8-PFOS	286582.0	4.8	0.379	5.24	1.000	1.910	1.968	3	30	
PFNA	282459.4	11	13C9-PFNA	498209.8	5.0	0.567	5.26	1.000	2.000	2.119	6	30	
PFNS	71959.0	10	13C8-PFOS	286582.0	4.8	0.251	5.54	1.060	1.920	1.991	4	30	
PFDA	239465.1	11	13C6-PFDA	626462.6	5.0	0.382	5.56	1.000	2.000	2.103	5	30	
8:2-FTS	24863.4	11	13C2-8:2-FTS	29773.0	4.8	0.835	5.57	1.000	1.916	1.882	-2	30	
PFOSA	270632.6	11	13C8-PFOSA	694104.3	5.0	0.390	5.65	1.000	2.000	2.108	5	30	
NMeFOSAA	31558.6	12	d3-NMeFOSAA	77600.5	5.0	0.407	5.71	1.000	2.000	2.093	5	30	
PFDS	56695.5	12	13C8-PFOS	286582.0	4.8	0.198	5.80	1.110	1.930	1.890	-2	30	
PFUnDA	203435.1	11	13C7-PFUnDA	272816.1	5.0	0.746	5.83	1.000	2.000	2.138	7	30	
NEtFOSAA	28850.8	12	d5-NEtFOSAA	65710.4	5.0	0.439	5.85	1.000	2.000	1.887	-6	30	
PFDoDA	224678.8	12	13C2-PFDoDA	576439.7	5.0	0.390	6.05	1.000	2.000	2.112	6	30	
10:2-FTS	17682.1	12	13C2-8:2-FTS	29773.0	4.8	0.594	6.07	1.090	1.928	1.849	-4	30	
NMePFOSAE	161839.8	11	d7-NMePFOSAE	351795.4	5.0	0.460	6.10	1.000	2.000	2.061	3	30	
NMePFOSA	31890.3	11	d3-NMePFOSA	88082.0	5.0	0.362	6.11	1.000	2.000	2.027	1	30	
PFDoS	28554.6	11	13C8-PFOS	286582.0	4.8	0.100	6.21	1.190	1.940	1.923	-1	30	
NEtPFOSAE	182342.8	11	d9-NEtPFOSAE	273275.4	5.0	0.667	6.25	1.000	2.000	2.139	7	30	
NEtPFOSA	27652.0	12	d5-NEtPFOSA	66043.9	5.0	0.419	6.26	1.000	2.000	1.844	-8	30	
PFTrDA	179966.1	11	13C2-PFDoDA	576439.7	5.0	0.312	6.24	1.030	2.000	1.969	-2	30	
PFTeDA	147019.1	11	13C2-PFTeDA	400870.1	5.0	0.367	6.42	1.000	2.000	2.154	8	30	
PFHxDA	68593.6	11	13C2-PFTeDA	400870.1	5.0	0.171	6.71	1.050	2.000	2.124	6	30	
PFODA	58322.8	10	13C2-PFTeDA	400870.1	5.0	0.145	6.97	1.090	2.000	2.084	4	30	

APPROVED
By MCD at 5:19 pm, 11/9/18

REVIEWED
By umar at 4:02 pm, 11/15/18

Continuing Calibration Verfication

ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13
Result Table: 18NOV09DCCV1-4 11/9/2018 5:07:16 PM
Acquisition Method: 18AUG13_3uL.dam

ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18NOV09DCCV1-4 11/9/2018 5:13:22 PM
Acquisition Method: 18AUG13_3uL.dam

Sample Name:	CCV2_CAL3			**Data File:**		18NOV09D-15.wiff
Sample ID:	CALMOD31833F			**Acquis Date:**		2018-11-09T06:45:20
Sample Type:	Quality Control			**Instrument:**		LM27631
Vial Position:	5			**Acquis Method:**		18AUG13_3uL.dam
Injection Vol:	3.00			**Result Table:**		18NOV09DCCV1-4
QMethod File:	MQ4-18AUG13			**ICAL Name:**		18NOV07DCAL
Batch Number:	N/A			**Operator:**		MCD7824
Sample Wt.:	1.00000			**Dilution Factor:**		1.00
Sample Vol.:	1.000			**Prep Factor:**		1.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV09D-03

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Rreference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	740260.9	725974.7	2	50	
13C2-PFOA	5.0	507871.8	506876.7	0	50	
13C4-PFOS	4.8	282927.8	274910.1	3	50	
13C2-PFDA	5.0	319321.5	307276.7	4	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	795607.5	13C3-PFBA	740260.9	1.075	5.000	4.974	99	70-130	
E13C5-PFPeA	869761.9	13C3-PFBA	740260.9	1.175	5.000	5.118	102	70-130	
E13C3-PFBS	424203.6	13C3-PFBA	740260.9	0.573	4.650	4.206	90	70-130	
E13C2-4:2-FTS	51796.5	13C2-PFOA	507871.8	0.102	4.670	4.602	99	70-130	
E13C5-PFHxA	683498.3	13C2-PFOA	507871.8	1.346	5.000	4.950	99	70-130	
E13C3-PFHxS	331301.4	13C2-PFOA	507871.8	0.652	4.730	4.683	99	70-130	
E13C4-PFHpA	557245.6	13C2-PFOA	507871.8	1.097	5.000	4.991	100	70-130	
E13C2-6:2-FTS	34921.0	13C2-PFOA	507871.8	0.069	4.750	4.585	97	70-130	
E13C8-PFOA	938647.1	13C2-PFOA	507871.8	1.848	5.000	5.154	103	70-130	
E13C8-PFOS	286582.0	13C4-PFOS	282927.8	1.013	4.780	4.479	94	70-130	
E13C9-PFNA	498209.8	13C4-PFOS	282927.8	1.761	5.000	4.810	96	70-130	
E13C6-PFDA	626462.6	13C2-PFDA	319321.5	1.962	5.000	4.934	99	70-130	
E13C2-8:2-FTS	29773.0	13C2-PFDA	319321.5	0.093	4.790	4.934	103	70-130	
E13C8-PFOSA	694104.3	13C2-PFDA	319321.5	2.174	5.000	4.743	95	70-130	
Ed3-NMeFOSAA	77600.5	13C2-PFDA	319321.5	0.243	5.000	4.519	90	70-130	
E13C7-PFUnDA	272816.1	13C2-PFDA	319321.5	0.854	5.000	4.929	99	70-130	
Ed5-NEtFOSAA	65710.4	13C2-PFDA	319321.5	0.206	5.000	4.762	95	70-130	
E13C2-PFDoDA	576439.7	13C2-PFDA	319321.5	1.805	5.000	4.867	97	70-130	
Ed7-NMePFOSAE	351795.4	13C2-PFDA	319321.5	1.102	5.000	5.123	102	70-130	
Ed3-NMePFOSA	88082.0	13C2-PFDA	319321.5	0.276	5.000	5.050	101	70-130	
Ed9-NEtPFOSAE	273275.4	13C2-PFDA	319321.5	0.856	5.000	4.887	98	70-130	
Ed5-NEtPFOSA	66043.9	13C2-PFDA	319321.5	0.207	5.000	4.789	96	70-130	
E13C2-PFTeDA	400870.1	13C2-PFDA	319321.5	1.255	5.000	4.519	90	70-130	

APPROVED
By MCD at 5:19 pm, 11/9/18

REVIEWED
By umar at 4:02 pm, 11/15/18

ICAL Name: 18NOV07DCAL **Result Table:** 18NOV09DCCV1-4 11/9/2018 5:13:22 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

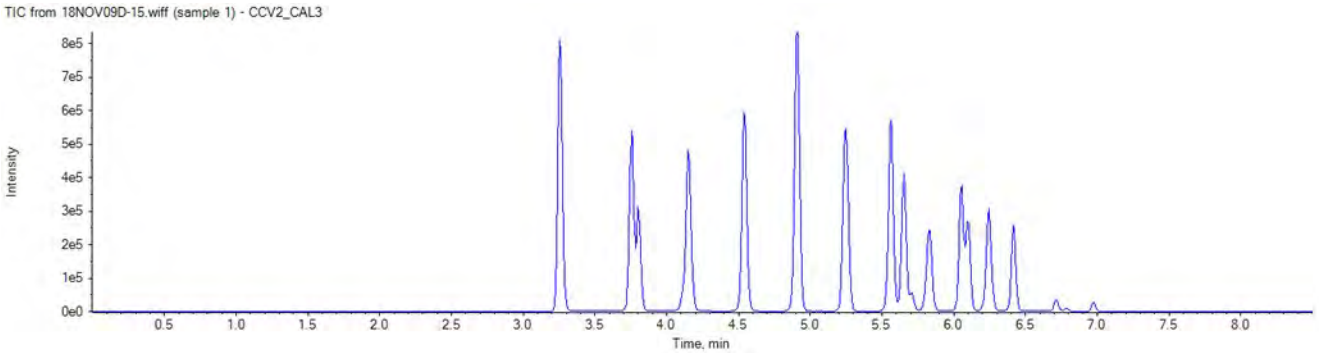
Analyte Quantitation Peak Table

Sample Name: CCV2_CAL3 **Instrument Name:** LM27631 **File Name:** 18NOV09D-15.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	1.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	3.25	1.000	291667.8		A	13C4-PFBA	3.26	795607.5	0.367	2.145
PFPeA	3.76	1.000	304045.4		A	13C5-PFPeA	3.76	869761.9	0.350	2.077
PFBS	3.80	1.000	154093.5		A	13C3-PFBS	3.80	424203.6	0.363	1.831
4:2-FTS	4.12	1.000	36499.7		A	13C2-4:2-FTS	4.12	51796.5	0.705	1.894
PFHxA	4.15	1.000	348756.6		A	13C5-PFHxA	4.15	683498.3	0.510	2.188
PFPeS	4.17	1.100	77740.8		A	13C3-PFBS	3.80	424203.6	0.183	1.808
PFHxS	4.54	1.000	121413.6		A	13C3-PFHxS	4.54	331301.4	0.366	1.858
PFHpA	4.54	1.000	363637.0		A	13C4-PFHpA	4.54	557245.6	0.653	2.195
6:2-FTS	4.90	1.000	29391.2		A	13C2-6:2-FTS	4.90	34921.0	0.842	2.100
PFHpS	4.90	1.080	116772.6		A	13C3-PFHxS	4.54	331301.4	0.352	1.844
PFOA	4.91	1.000	358374.3		A	13C8-PFOA	4.91	938647.1	0.382	2.150
PFOS	5.24	1.000	108738.7		A	13C8-PFOS	5.24	286582.0	0.379	1.968
PFNA	5.26	1.000	282459.4		A	13C9-PFNA	5.25	498209.8	0.567	2.119
PFNS	5.54	1.060	71959.0		A	13C8-PFOS	5.24	286582.0	0.251	1.991
PFDA	5.56	1.000	239465.1		A	13C6-PFDA	5.56	626462.6	0.382	2.103
8:2-FTS	5.57	1.000	24863.4		A	13C2-8:2-FTS	5.57	29773.0	0.835	1.882
PFOSA	5.65	1.000	270632.6		A	13C8-PFOSA	5.65	694104.3	0.390	2.108
NMeFOSAA	5.71	1.000	31558.6		A	d3-NMeFOSAA	5.71	77600.5	0.407	2.093
PFDS	5.80	1.110	56695.5		A	13C8-PFOS	5.24	286582.0	0.198	1.890
PFUnDA	5.83	1.000	203435.1		A	13C7-PFUnDA	5.83	272816.1	0.746	2.138
NEtFOSAA	5.85	1.000	28850.8		A	d5-NEtFOSAA	5.84	65710.4	0.439	1.887
PFDoDA	6.05	1.000	224678.8		A	13C2-PFDoDA	6.05	576439.7	0.390	2.112
10:2-FTS	6.07	1.090	17682.1		A	13C2-8:2-FTS	5.57	29773.0	0.594	1.849
NMePFOSAE	6.10	1.000	161839.8		A	d7-NMePFOSAE	6.09	351795.4	0.460	2.061
NMePFOSA	6.11	1.000	31890.3		M	d3-NMePFOSA	6.11	88082.0	0.362	2.027
PFDoS	6.21	1.190	28554.6		A	13C8-PFOS	5.24	286582.0	0.100	1.923
NEtPFOSAE	6.25	1.000	182342.8		A	d9-NEtPFOSAE	6.24	273275.4	0.667	2.139
NEtPFOSA	6.26	1.000	27652.0		A	d5-NEtPFOSA	6.26	66043.9	0.419	1.844
PFTrDA	6.24	1.030	179966.1		A	13C2-PFDoDA	6.05	576439.7	0.312	1.969
PFTeDA	6.42	1.000	147019.1		A	13C2-PFTeDA	6.42	400870.1	0.367	2.154
PFHxDA	6.71	1.050	68593.6		A	13C2-PFTeDA	6.42	400870.1	0.171	2.124
PFODA	6.97	1.090	58322.8		A	13C2-PFTeDA	6.42	400870.1	0.145	2.084

Total Ion Chromatogram

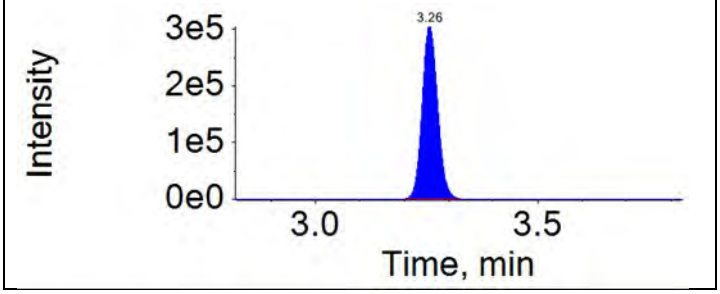


APPROVED
By MCD at 5:19 pm, 11/9/18

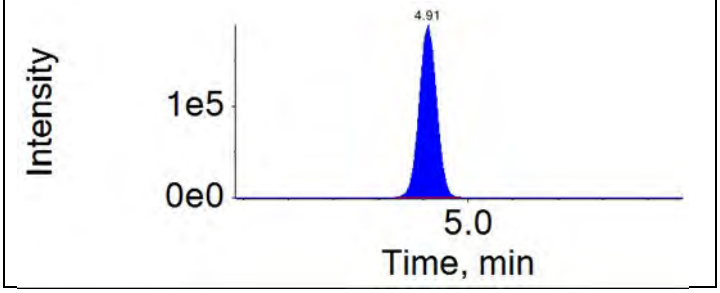
REVIEWED
By umar at 4:02 pm, 11/15/18

ICAL Name: 18NOV07DCAL **Result Table:** 18NOV09DCCV1-4 11/9/2018 5:13:22 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

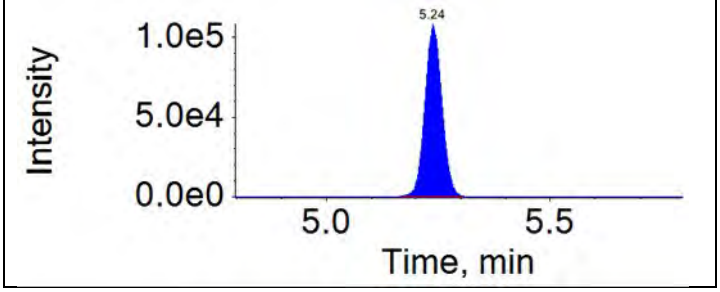
Injection Standard: 13C3-PFBA
216.0 / 172.0



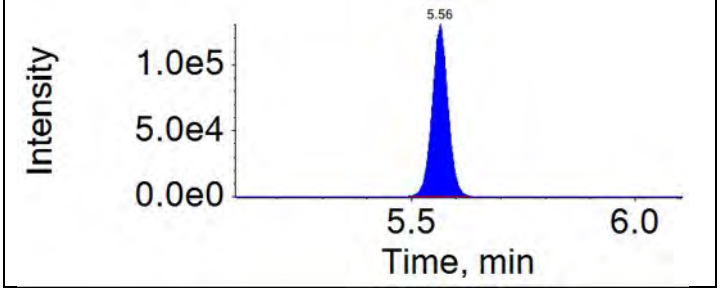
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0



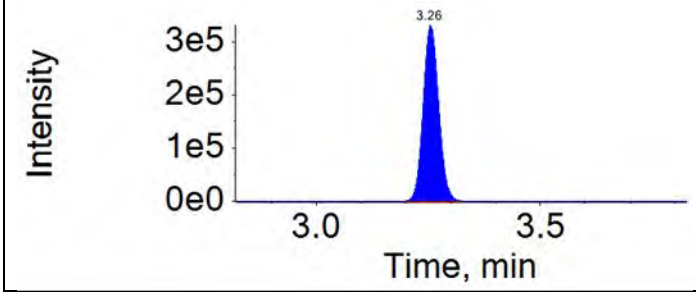
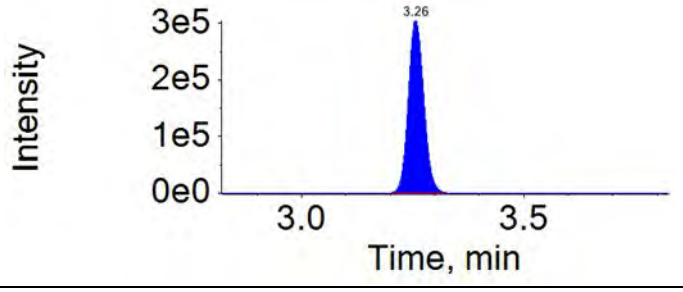
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515.0 / 470.0

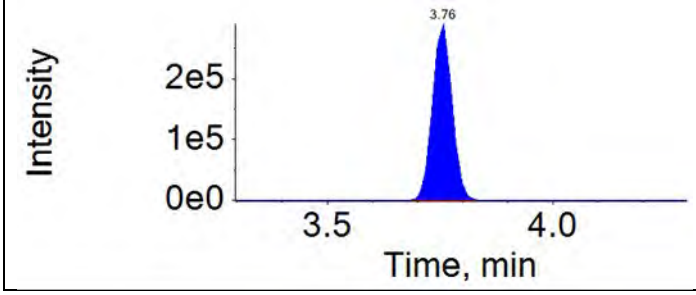
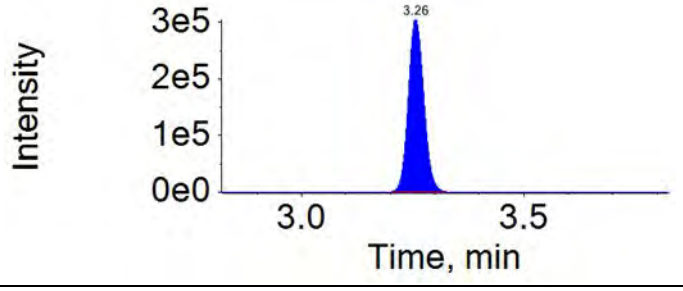


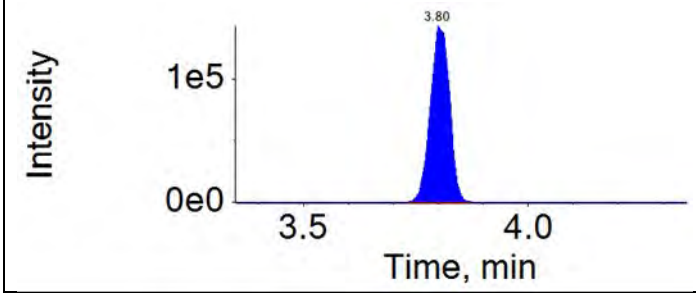
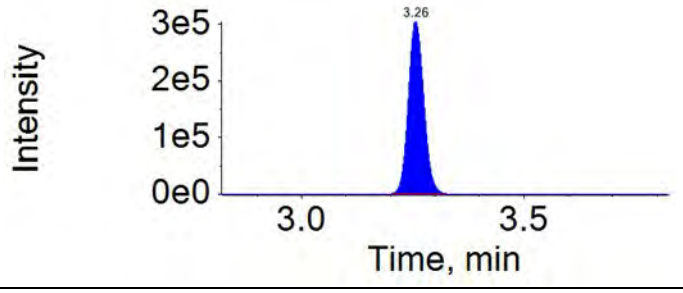
APPROVED
By MCD at 5:19 pm, 11/9/18

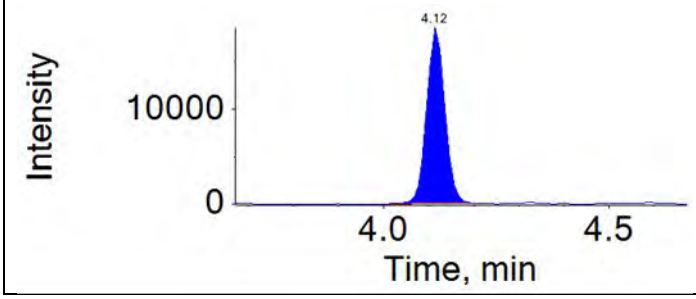
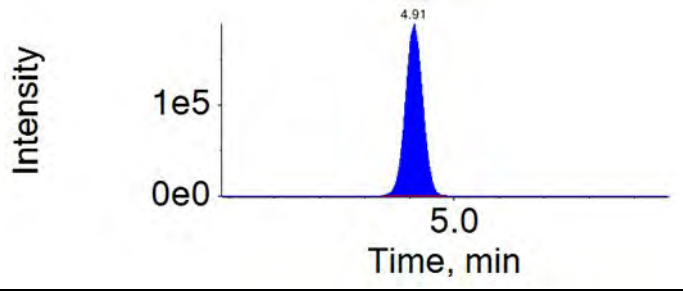
REVIEWED
By umar at 4:02 pm, 11/15/18

ICAL Name: 18NOV07DCAL **Result Table:** 18NOV09DCCV1-4 11/9/2018 5:13:22 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0
	

Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0
	

Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0
	

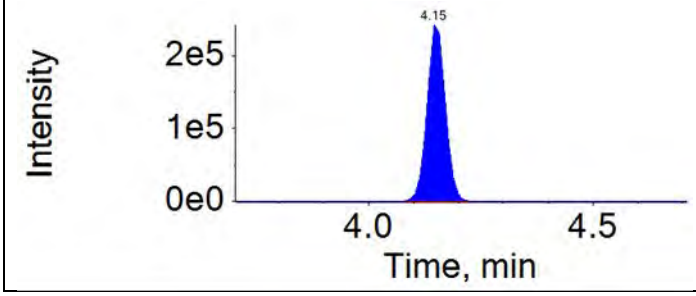
Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0
	

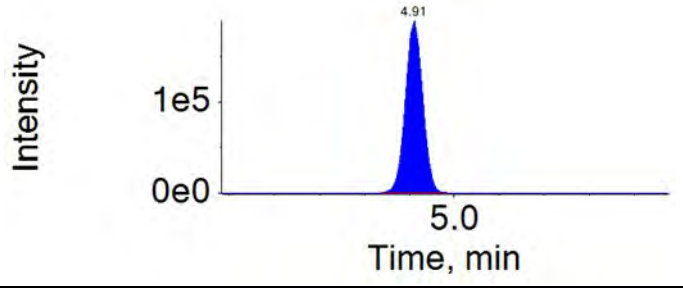
APPROVED
By MCD at 5:19 pm, 11/9/18

REVIEWED
By umar at 4:02 pm, 11/15/18

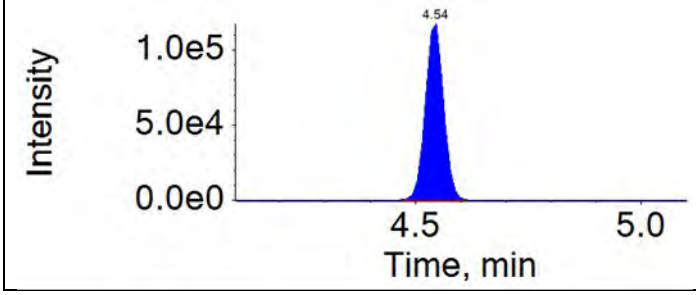
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV09DCCV1-4 11/9/2018 5:13:22 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

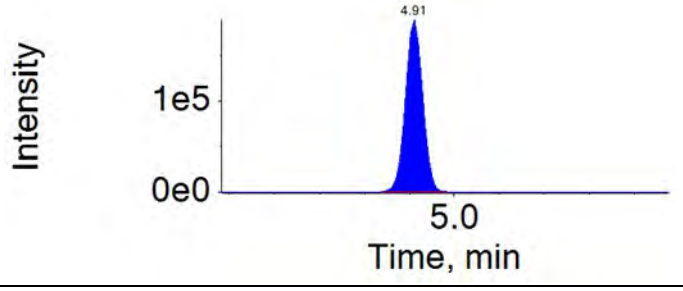
Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0



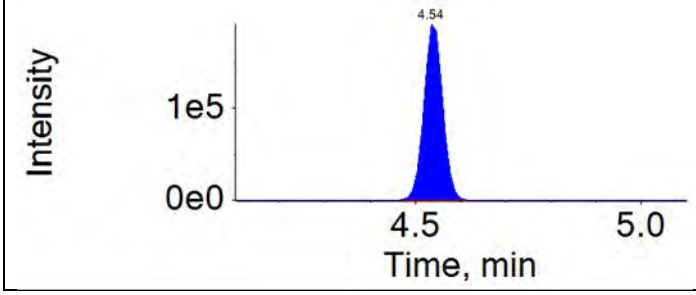


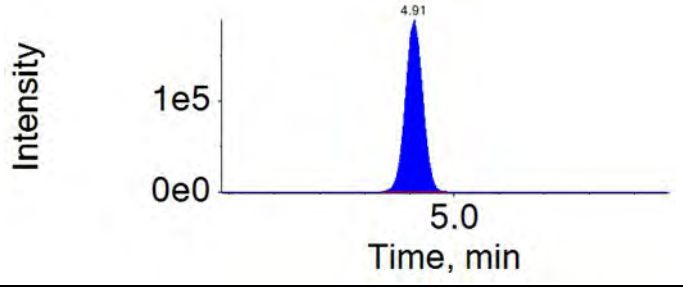
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0



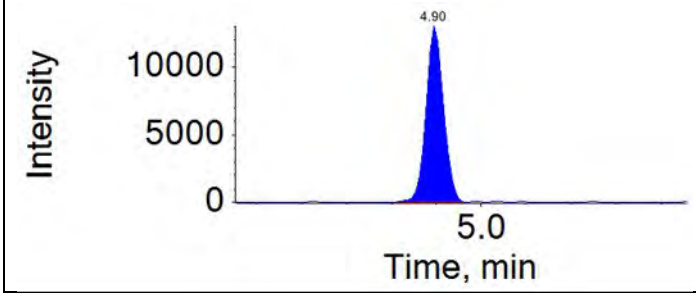


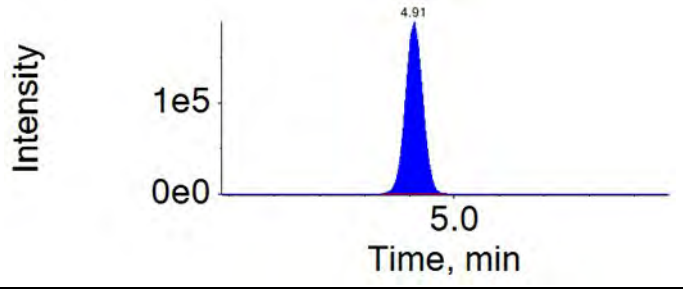
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0





Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0

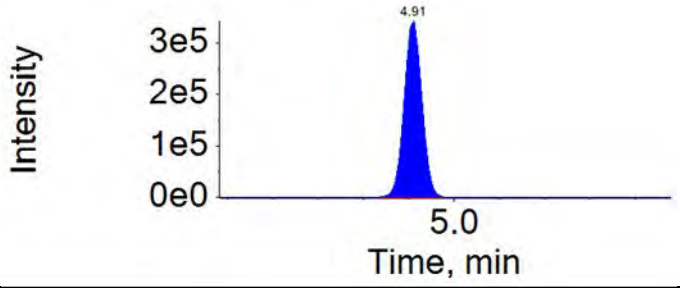
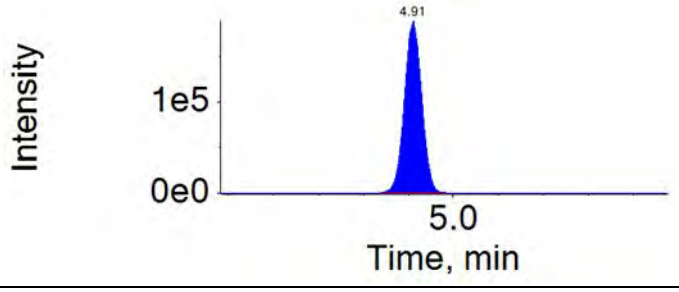


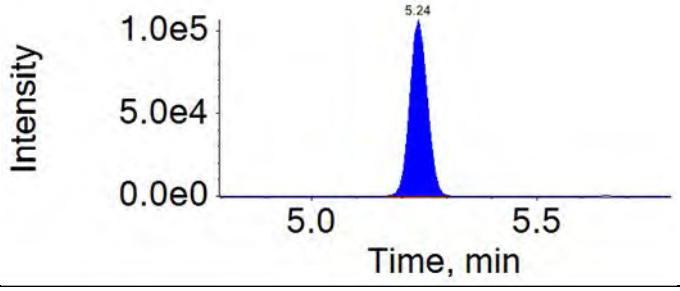
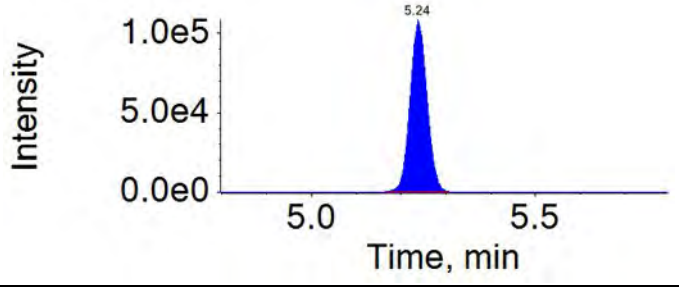


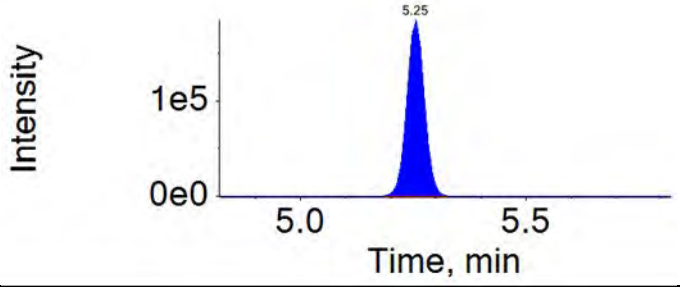
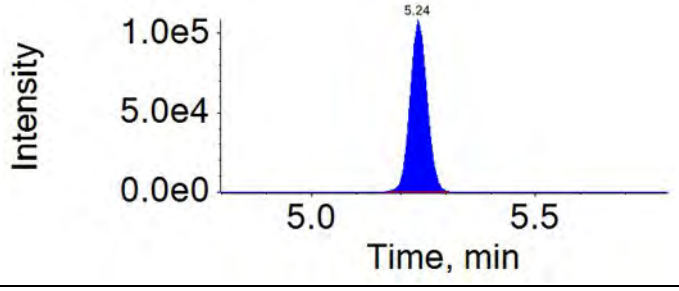
APPROVED
By MCD at 5:19 pm, 11/9/18

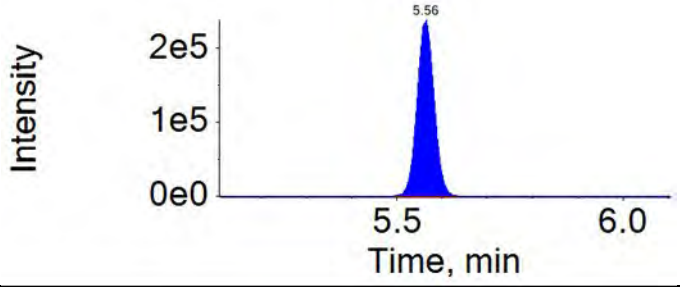
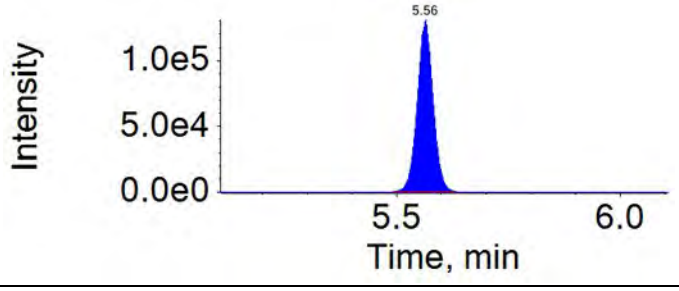
REVIEWED
By umar at 4:02 pm, 11/15/18

ICAL Name: 18NOV07DCAL **Result Table:** 18NOV09DCCV1-4 11/9/2018 5:13:22 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: E13C8-PFOA	Injection Standard: 13C2-PFOA
421.0 / 376.0	415.0 / 370.0
	

Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0
	

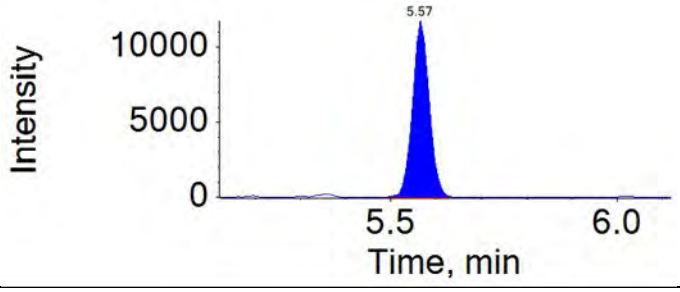
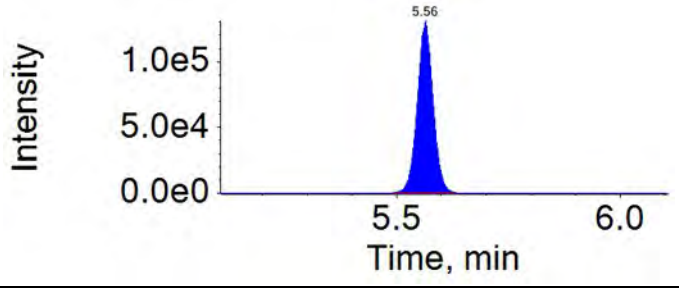
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0
	

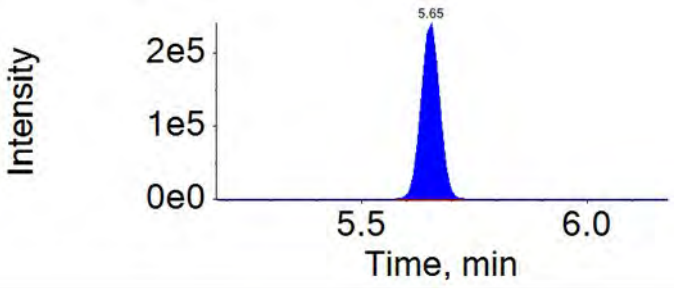
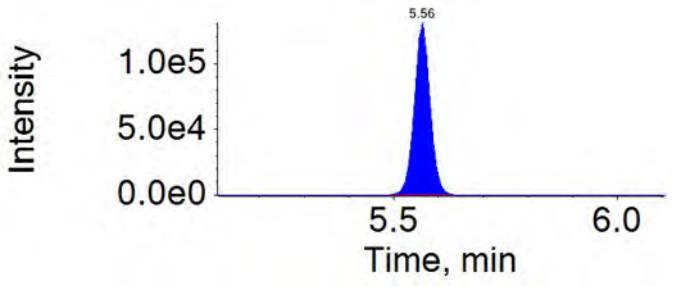
Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0
	

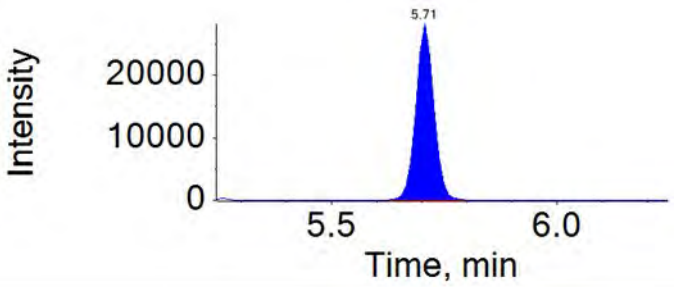
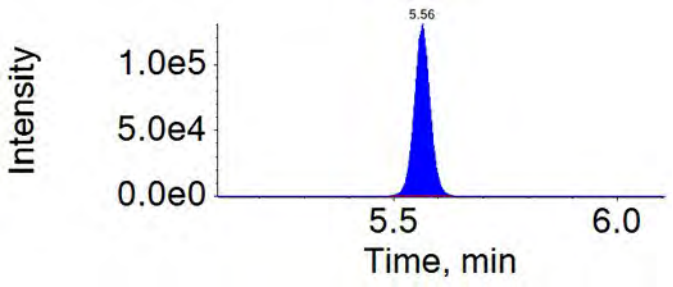
APPROVED
By MCD at 5:19 pm, 11/9/18

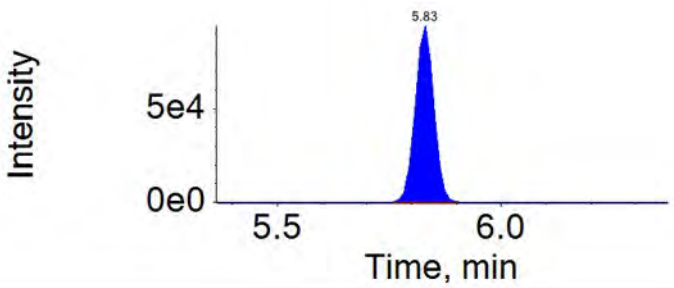
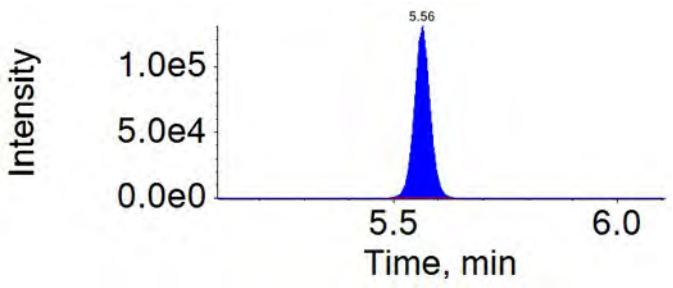
REVIEWED
By umar at 4:02 pm, 11/15/18

ICAL Name: 18NOV07DCAL **Result Table:** 18NOV09DCCV1-4 11/9/2018 5:13:22 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: E13C2-8:2-FTS	Injection Standard: 13C2-PFDA
529.0 / 81.0	515.0 / 470.0
	

Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0
	

Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0
	

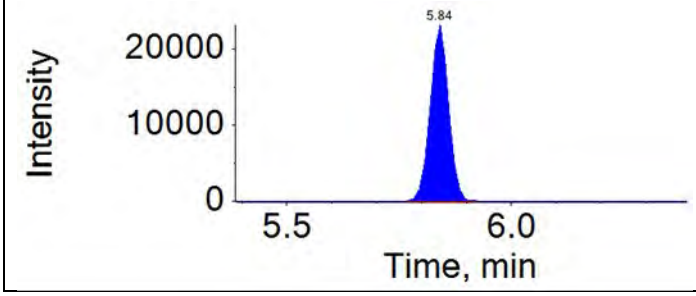
Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0
	

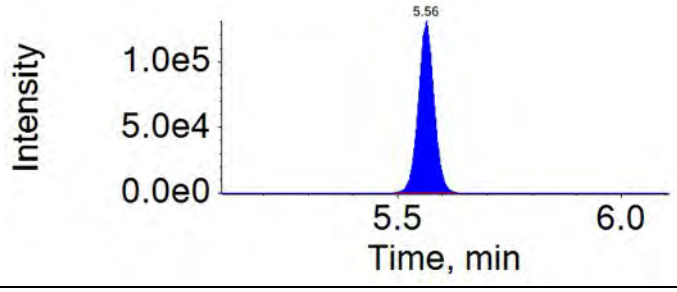
APPROVED
By MCD at 5:19 pm, 11/9/18

REVIEWED
By umar at 4:02 pm, 11/15/18

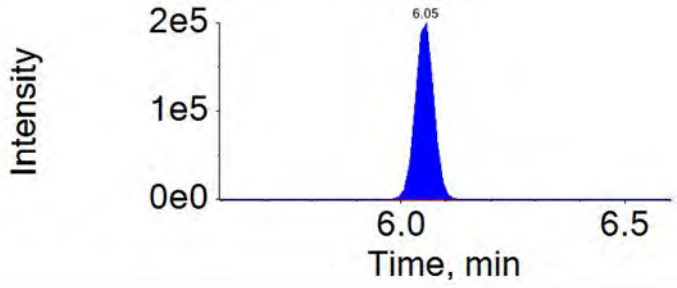
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV09DCCV1-4 11/9/2018 5:13:22 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

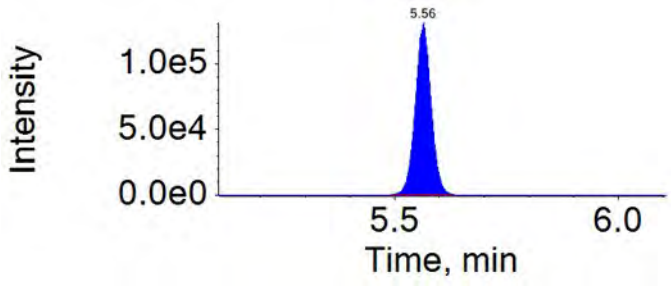
Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0



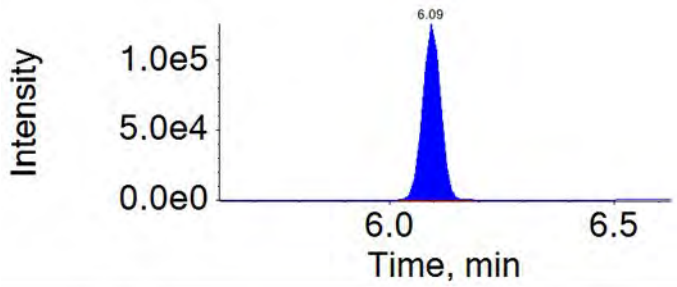


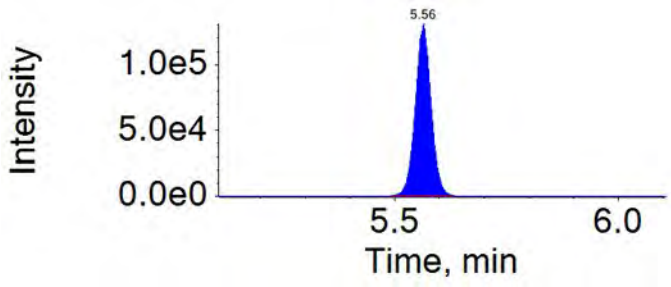
Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0



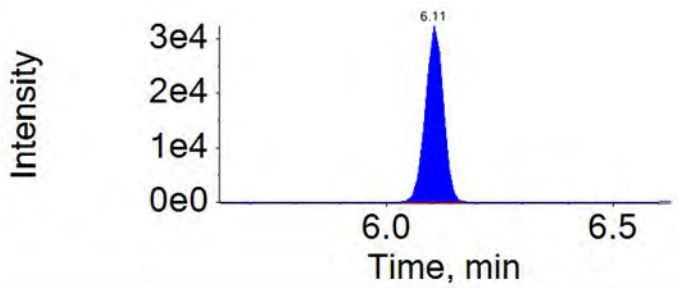


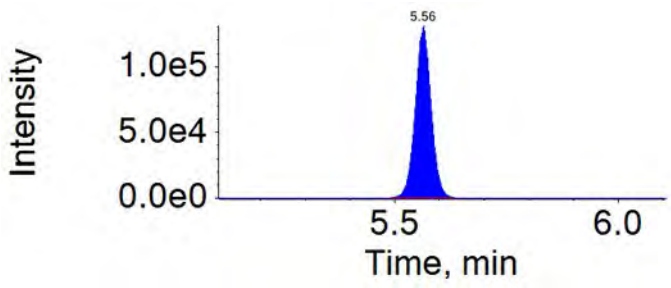
Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0





Extraction Standard: Ed3-NMePFOSA	Injection Standard: 13C2-PFDA
515.0 / 169.0	515.0 / 470.0



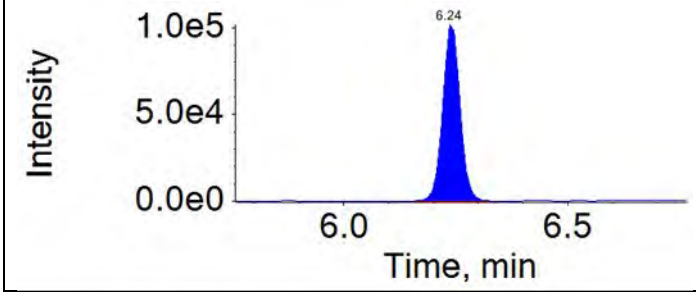


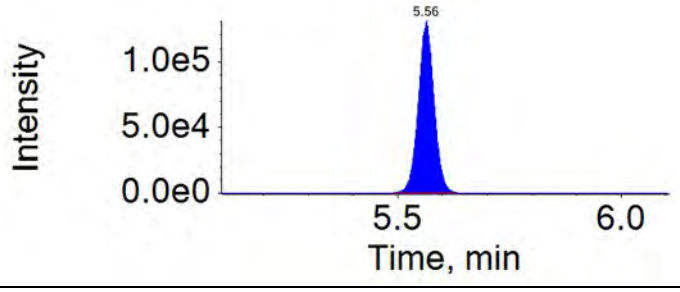
APPROVED
By MCD at 5:19 pm, 11/9/18

REVIEWED
By umar at 4:02 pm, 11/15/18

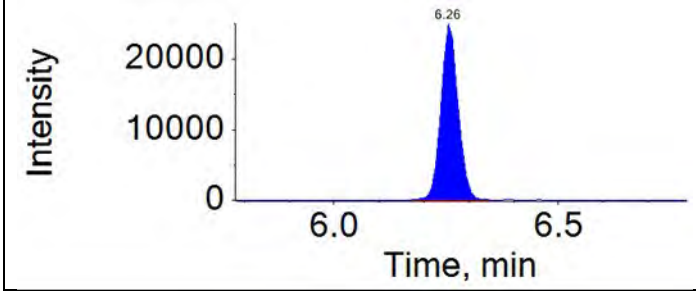
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV09DCCV1-4 11/9/2018 5:13:22 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

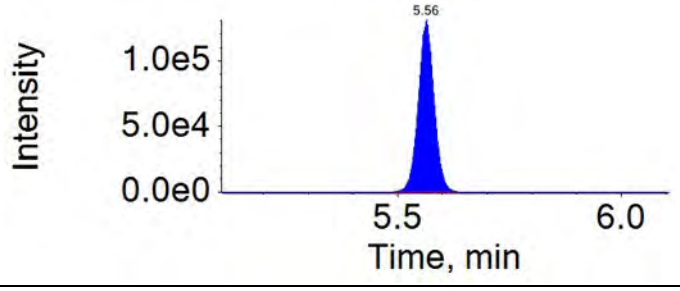
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



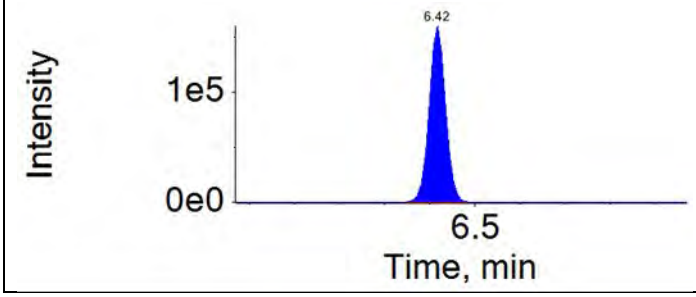


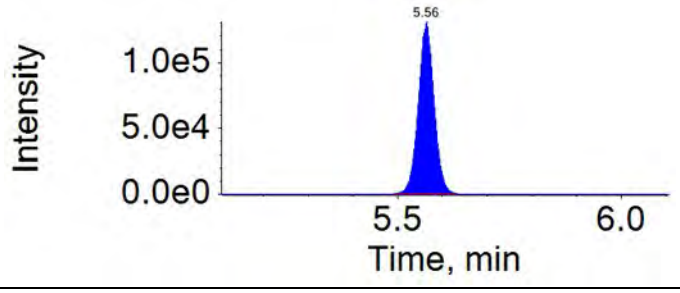
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0



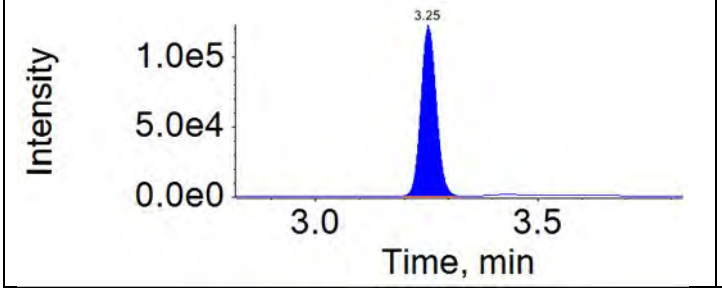


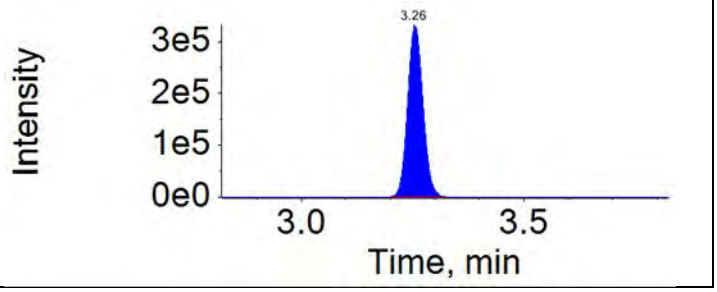
APPROVED
By MCD at 5:19 pm, 11/9/18

REVIEWED
By umar at 4:02 pm, 11/15/18

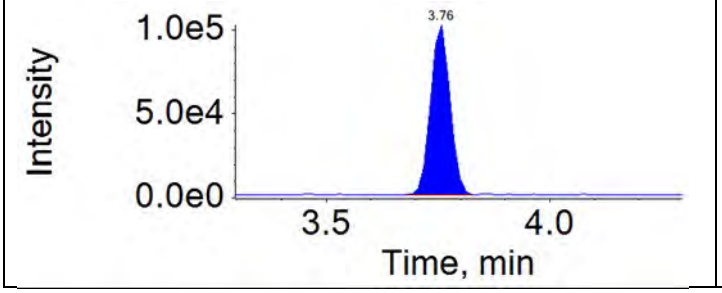
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV09DCCV1-4 11/9/2018 5:13:22 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

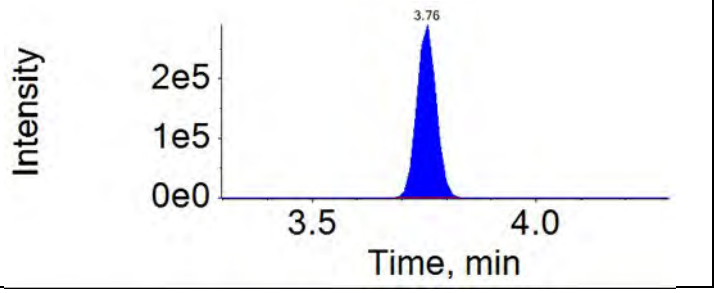
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



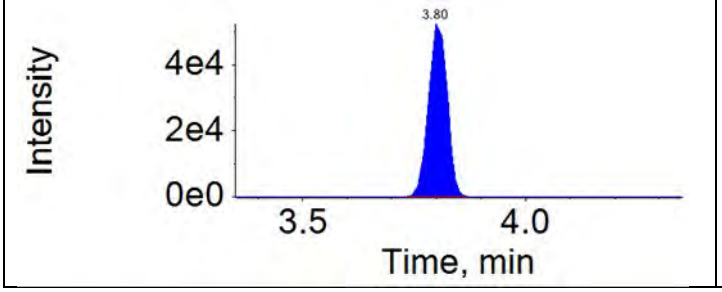


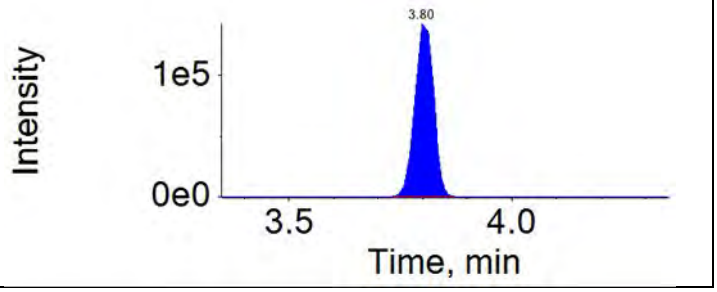
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



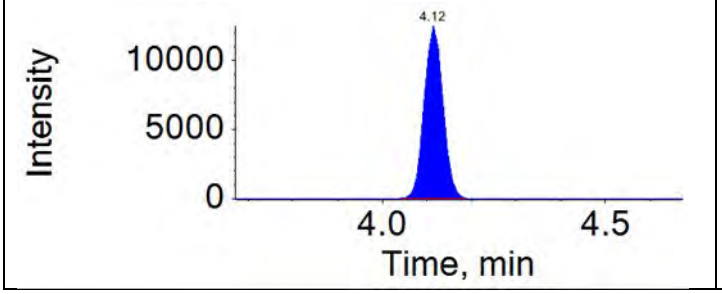


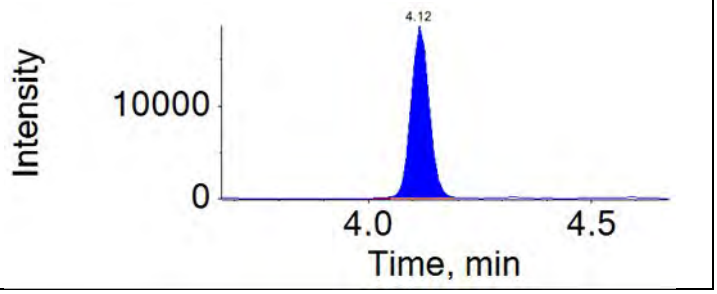
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





Analyte: 4:2-FTS	Extraction Standard: 13C2-4:2-FTS
327.0 / 307.0	329.0 / 81.0



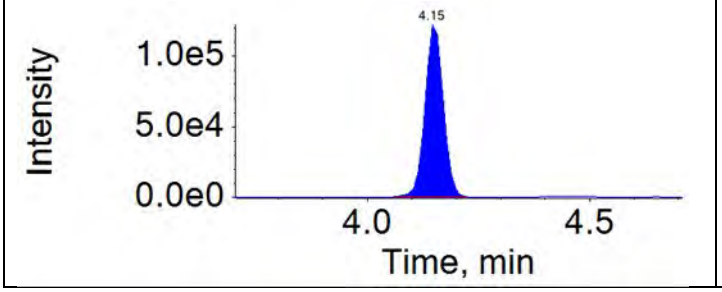


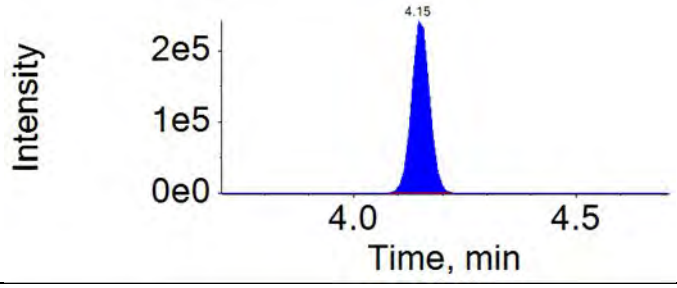
APPROVED
By MCD at 5:19 pm, 11/9/18

REVIEWED
By umar at 4:02 pm, 11/15/18

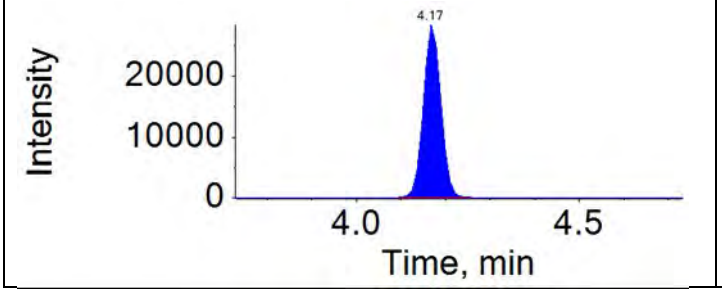
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV09DCCV1-4 11/9/2018 5:13:22 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

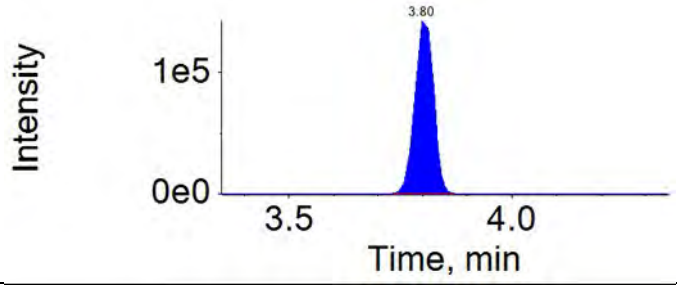
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



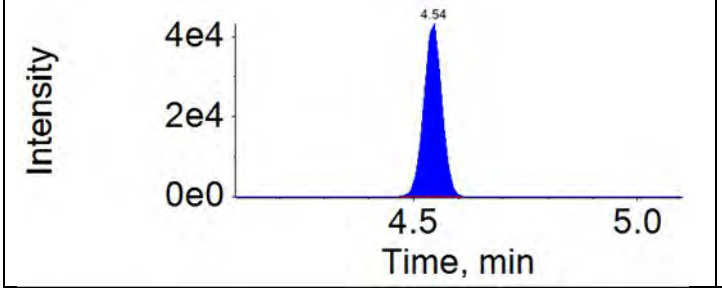


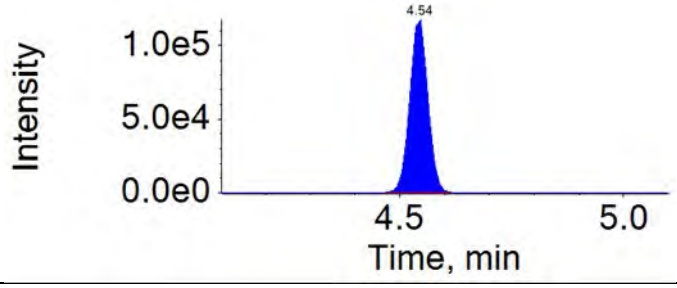
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



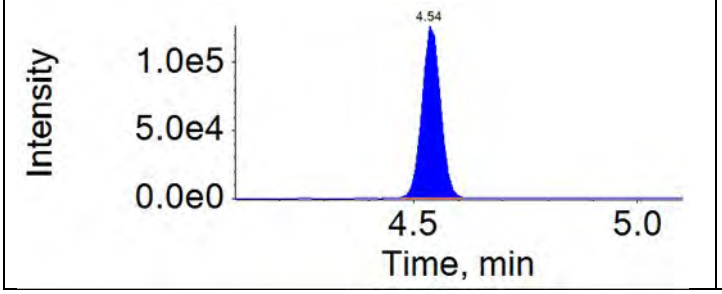


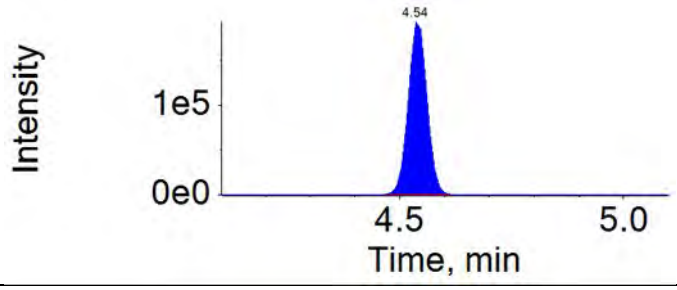
Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0





Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0

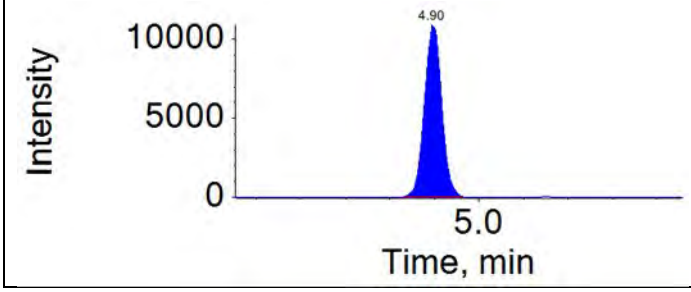
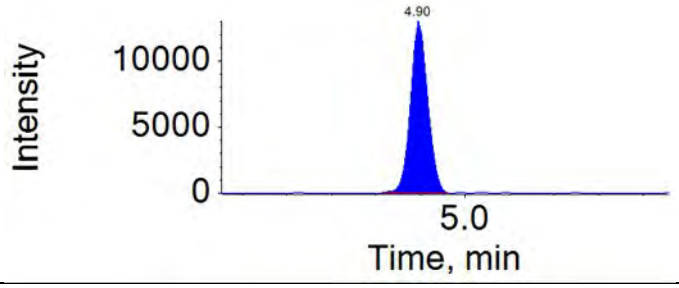


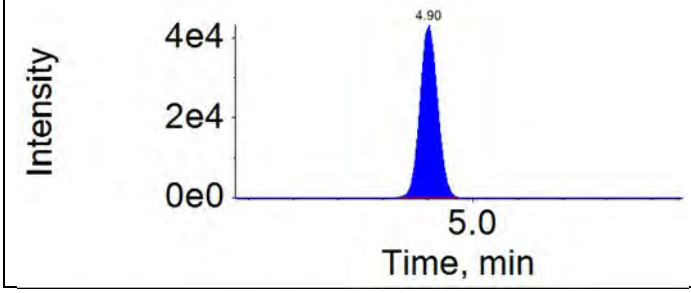
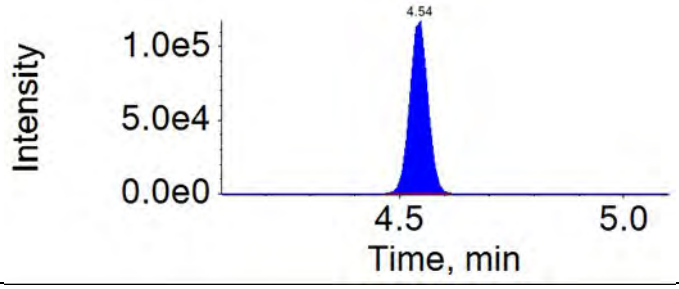


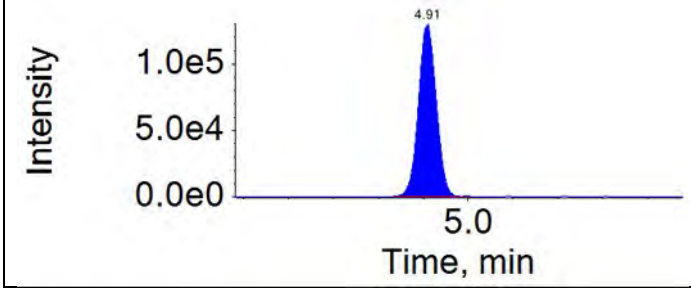
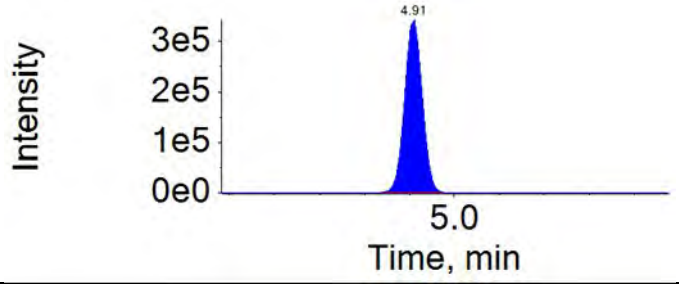
APPROVED
By MCD at 5:19 pm, 11/9/18

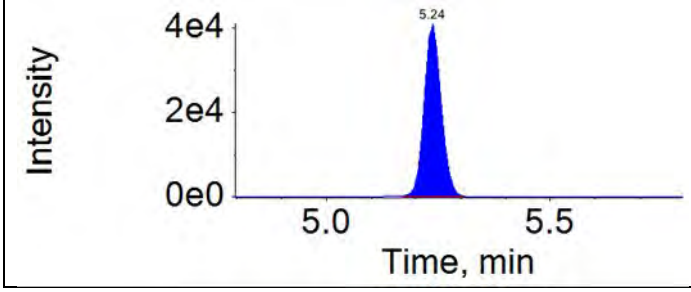
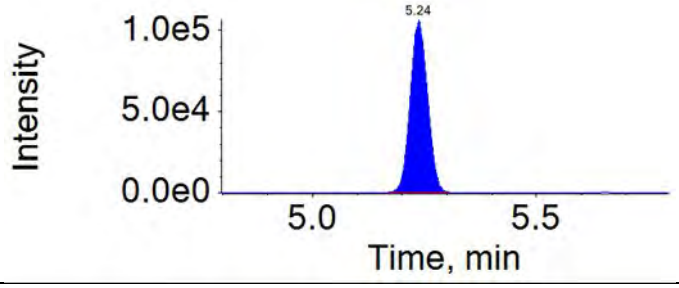
REVIEWED
By umar at 4:02 pm, 11/15/18

ICAL Name: 18NOV07DCAL **Result Table:** 18NOV09DCCV1-4 11/9/2018 5:13:22 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Analyte: 6:2-FTS	Extraction Standard: 13C2-6:2-FTS
427.0 / 407.0	429.0 / 81.0
	

Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0
	

Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0
	

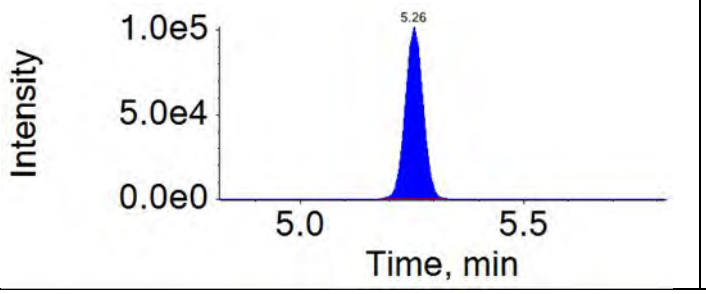
Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0
	

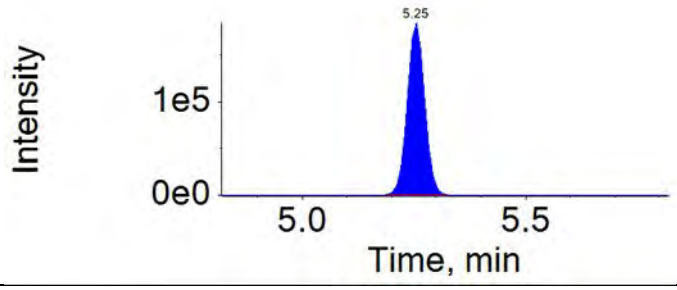
APPROVED
By MCD at 5:19 pm, 11/9/18

REVIEWED
By umar at 4:02 pm, 11/15/18

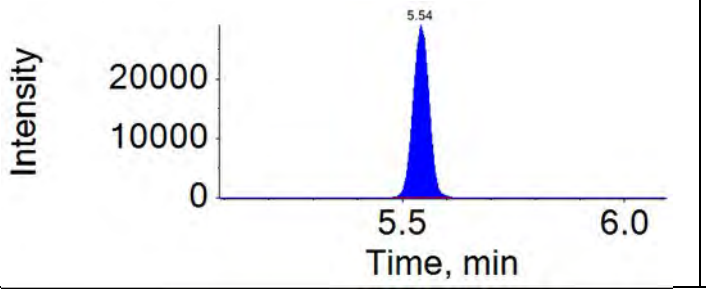
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV09DCCV1-4 11/9/2018 5:13:22 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

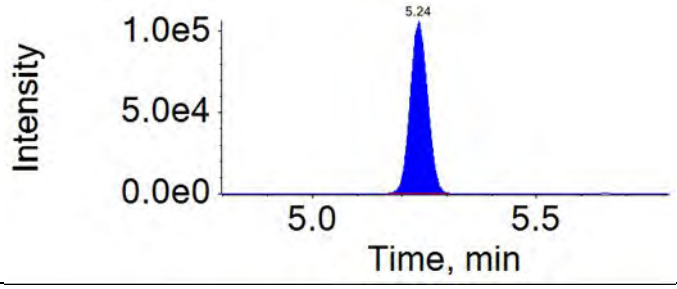
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



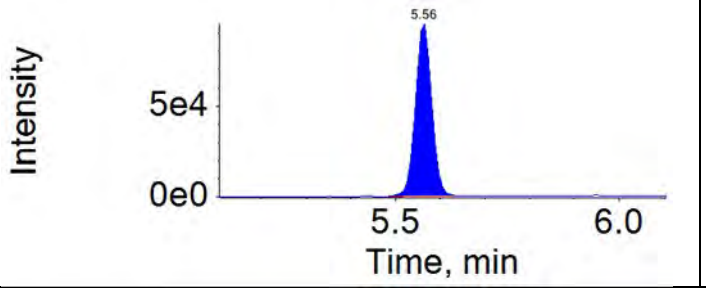


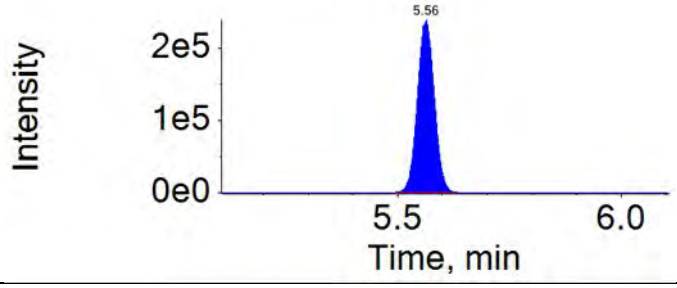
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



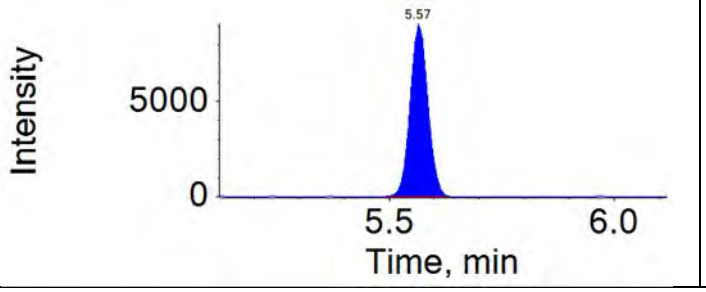


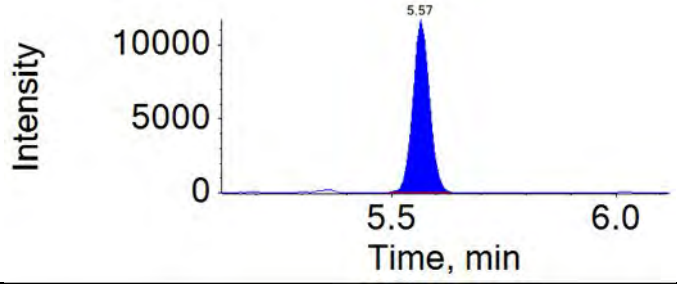
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





Analyte: 8:2-FTS	Extraction Standard: 13C2-8:2-FTS
527.0 / 507.0	529.0 / 81.0



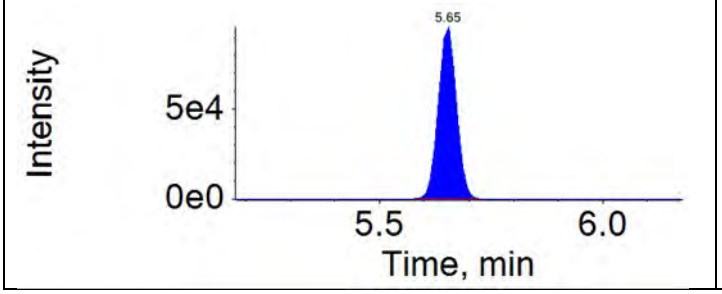


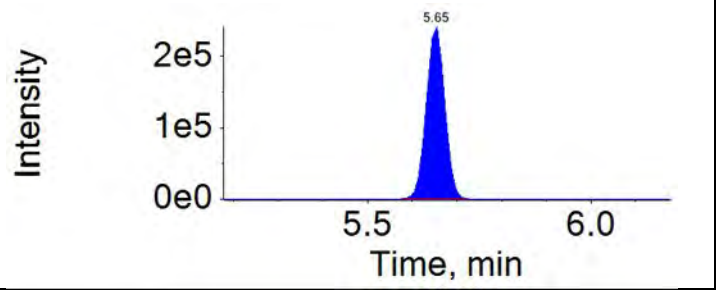
APPROVED
By MCD at 5:19 pm, 11/9/18

REVIEWED
By umar at 4:02 pm, 11/15/18

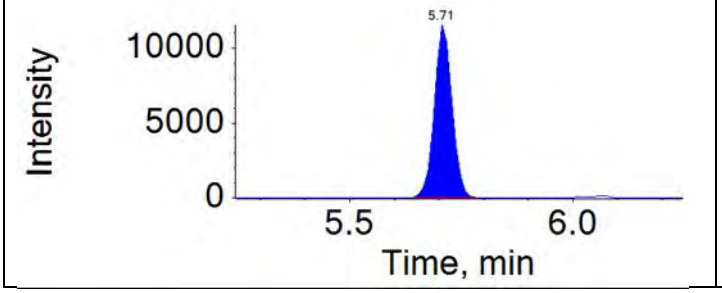
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV09DCCV1-4 11/9/2018 5:13:22 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

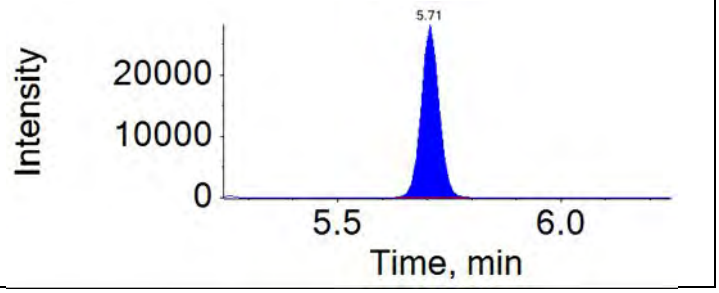
Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0



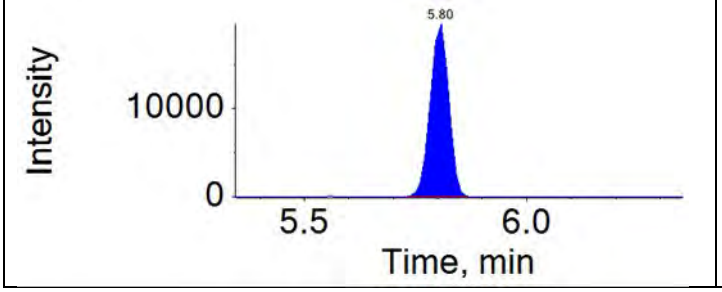


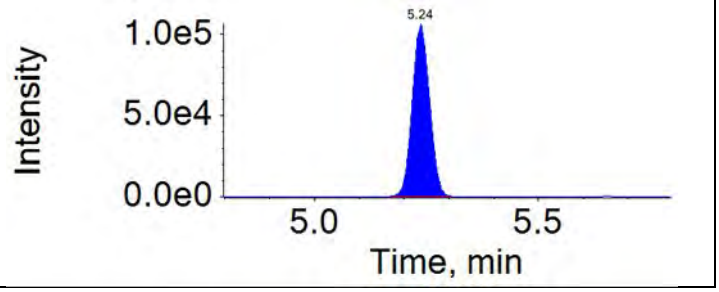
Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0



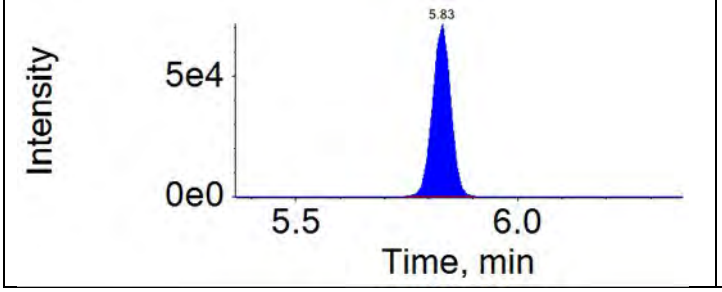


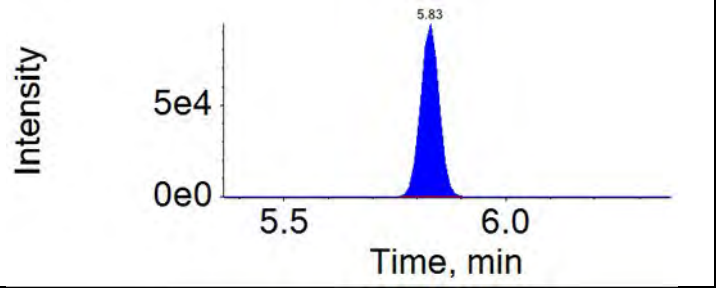
Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0





Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0



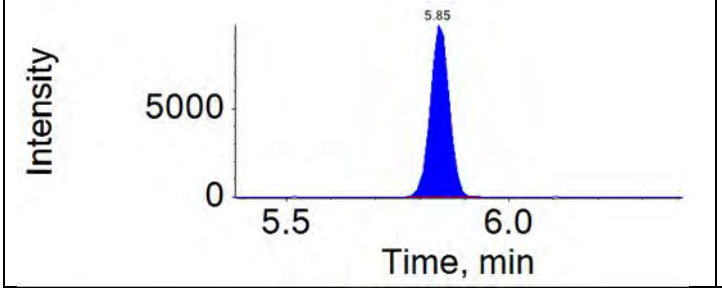


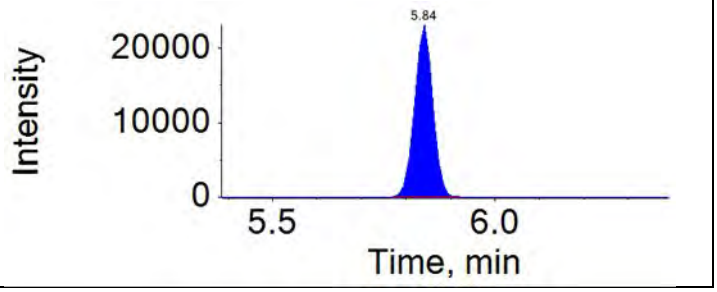
APPROVED
By MCD at 5:19 pm, 11/9/18

REVIEWED
By umar at 4:02 pm, 11/15/18

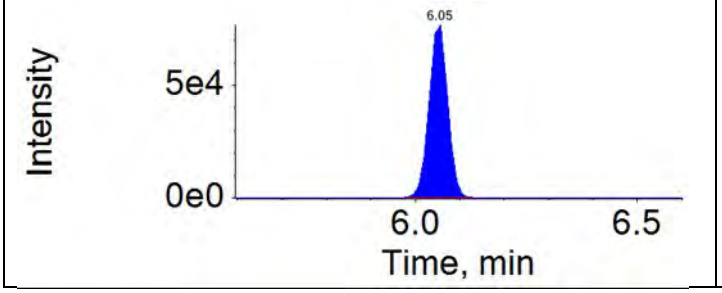
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV09DCCV1-4 11/9/2018 5:13:22 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

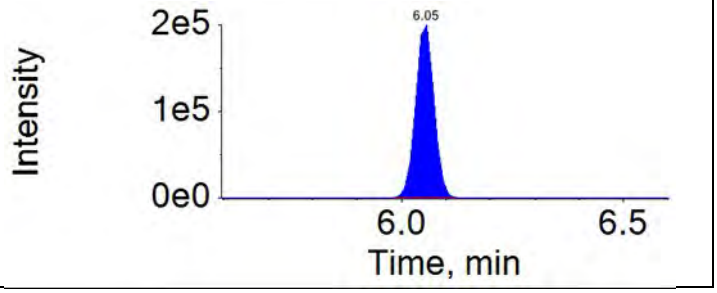
Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0



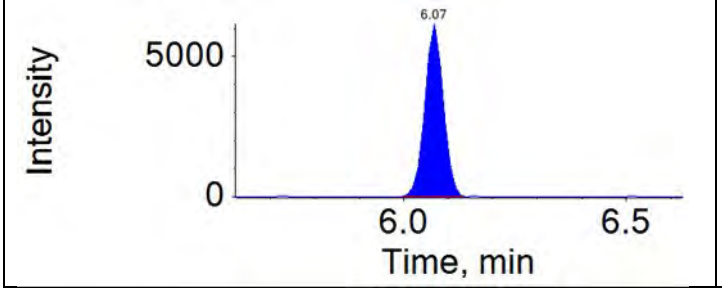


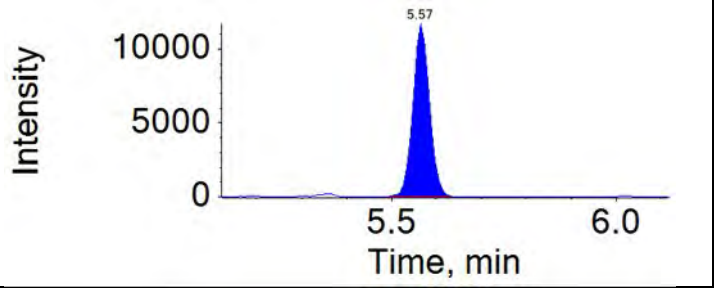
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0



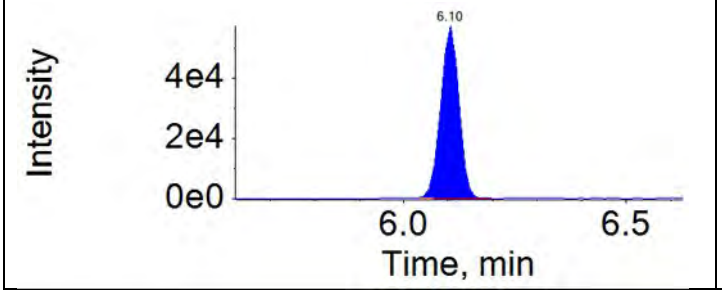


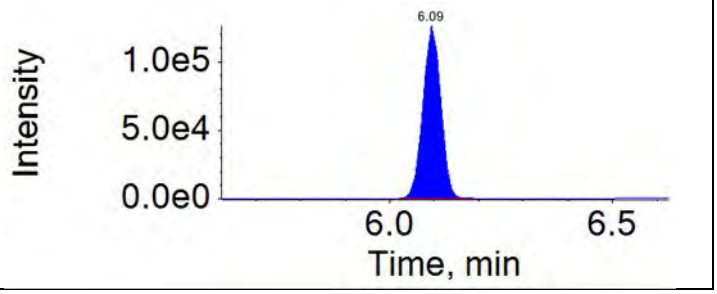
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0





Analyte: NMePFOSAE	Extraction Standard: d7-NMePFOSAE
616.0 / 59.0	623.0 / 59.0



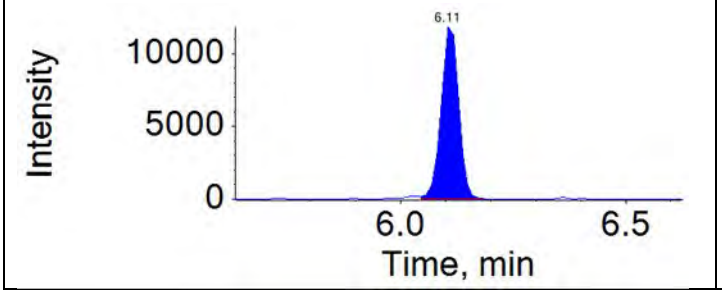


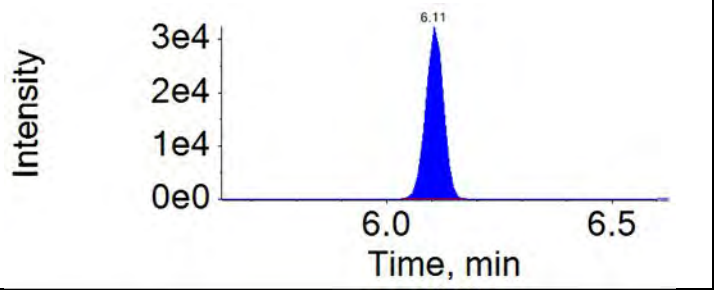
APPROVED
By MCD at 5:19 pm, 11/9/18

REVIEWED
By umar at 4:02 pm, 11/15/18

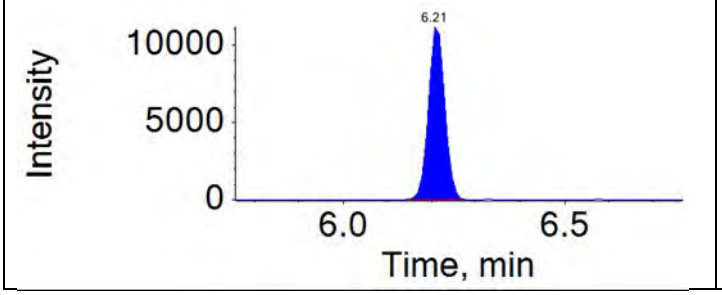
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV09DCCV1-4 11/9/2018 5:13:22 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

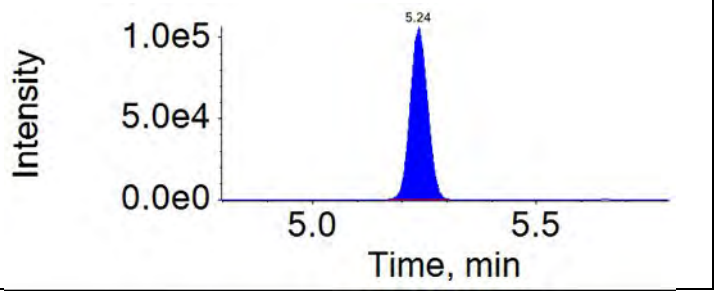
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



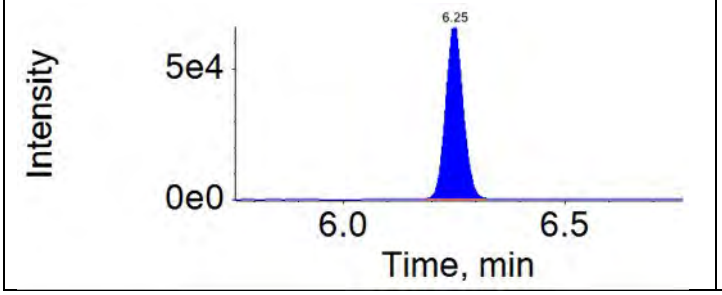


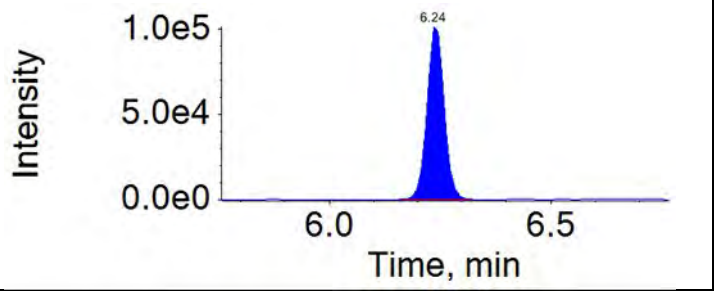
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



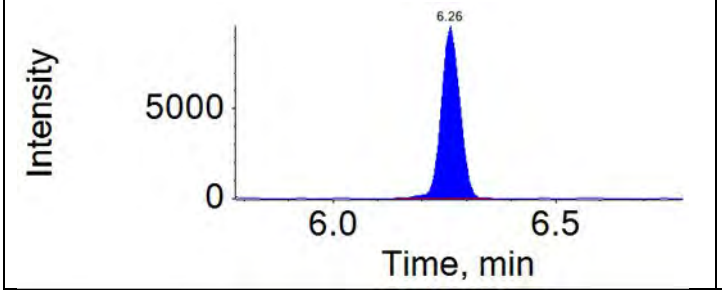


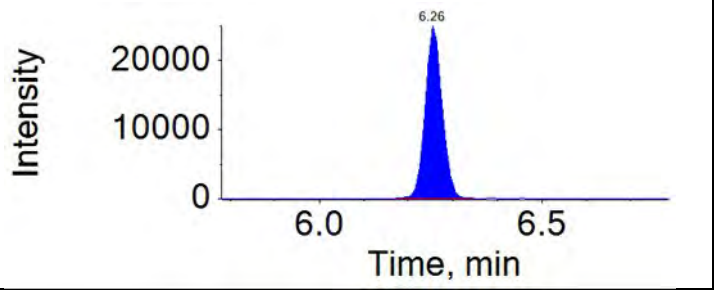
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





Analyte: NEtPFOSA	Extraction Standard: d5-NEtPFOSA
526.0 / 169.0	531.0 / 169.0



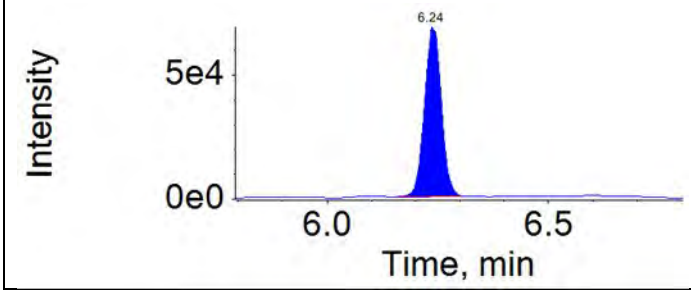


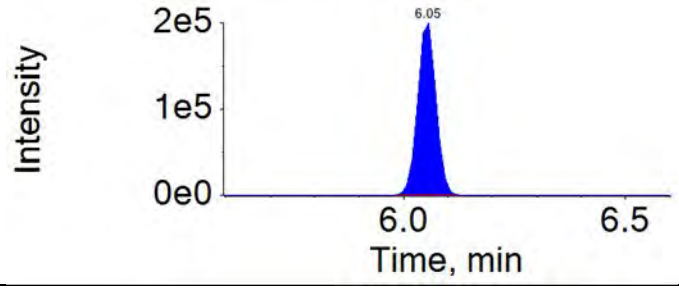
APPROVED
By MCD at 5:19 pm, 11/9/18

REVIEWED
By umar at 4:02 pm, 11/15/18

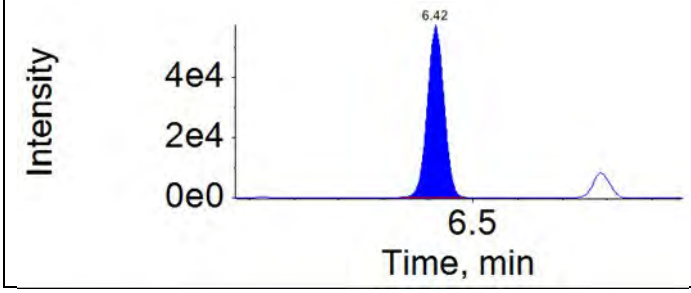
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV09DCCV1-4 11/9/2018 5:13:22 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

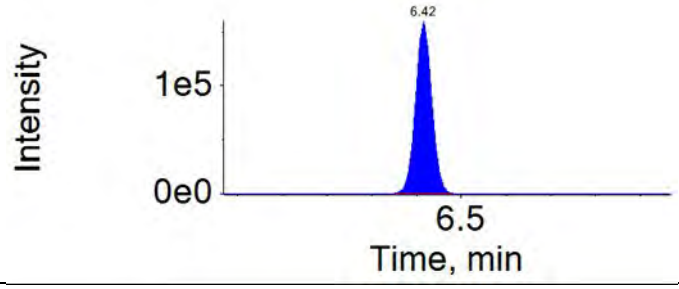
Analyte: PFTrDA	Extraction Standard: 13C2-PFDoDA
663.0 / 619.0	615.0 / 570.0



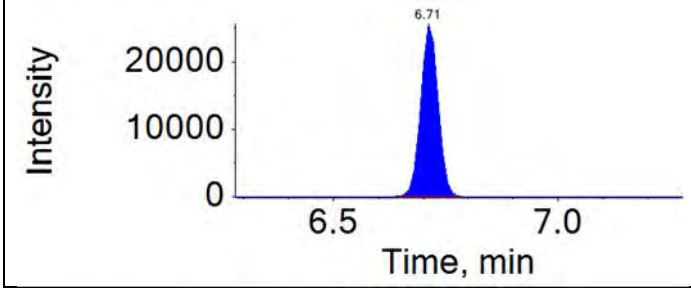


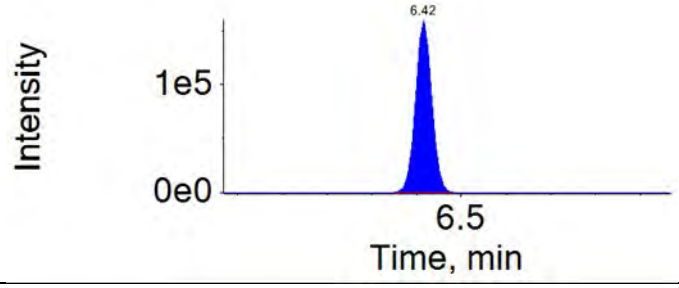
Analyte: PFTeDA	Extraction Standard: 13C2-PFTeDA
713.0 / 669.0	715.0 / 670.0



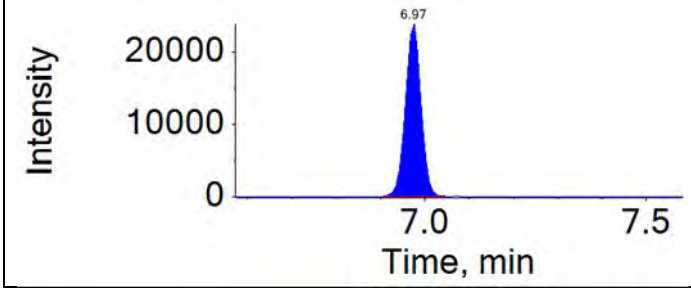


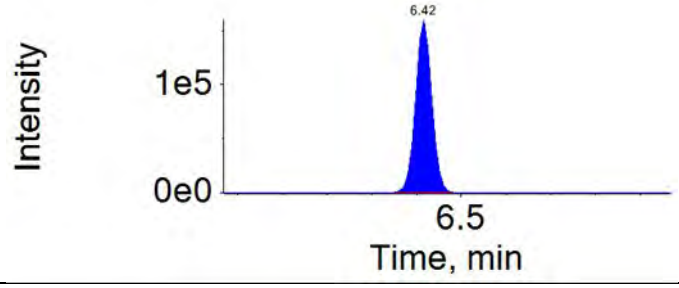
Analyte: PFHxDA	Extraction Standard: 13C2-PFTeDA
813.0 / 769.0	715.0 / 670.0





Analyte: PFODA	Extraction Standard: 13C2-PFTeDA
913.0 / 869.0	715.0 / 670.0





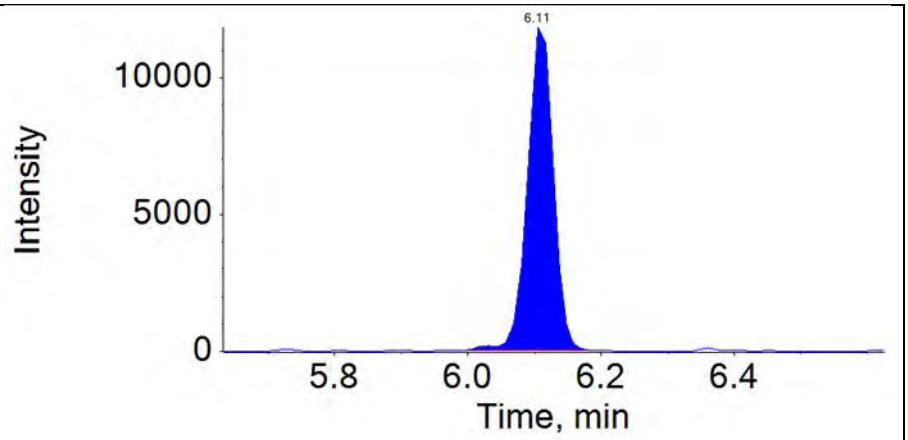
APPROVED
By MCD at 5:19 pm, 11/9/18

REVIEWED
By umar at 4:02 pm, 11/15/18

Results Table Name: 18NOV09DCCV1-4
Results Table Date: 11/9/2018 5:13:22 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: MQ4-18AUG13

Component Name:
NMePFOSA
RT (min.):
6.11
Peak Area:
32217.7
Mass Range:
512.0 / 169.0
File Name:
18NOV09D-15.wiff
Sample Name:
CCV2_CAL3



Integration Comment: incorrect integration

APPROVED
By MCD at 5:19 pm, 11/9/18

REVIEWED
By umar at 4:02 pm, 11/15/18

Results Table Name: 18NOV09DCCV1-4
Results Table Date: 11/9/2018 5:13:22 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: MQ4-18AUG13

Ion Ratio Report

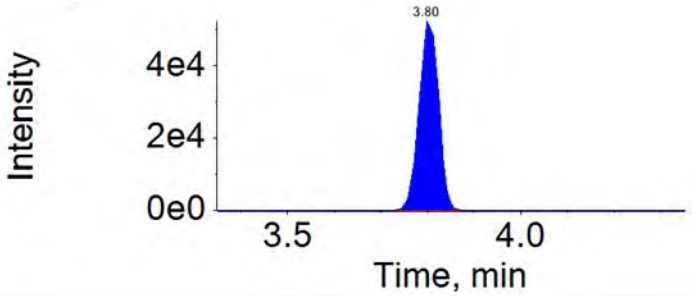
Sample Name: CCV2_CAL3 **Instrument Name:** LM27631 **File Name:** 18NOV09D-15.wiff

Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	3.80	1.00	154093.5	A	N/A	0.3675			
PFBS_2	3.80	1.00	56623.4	A	N/A	0.3675	3	50	
4:2-FTS	4.12	1.00	36499.7	A	N/A	0.6978			
4:2-FTS_2	4.11	1.00	25468.5	A	N/A	0.6978	9	50	
PFHxA	4.15	1.00	348756.6	A	N/A	0.0105			
PFHxA_2	4.15	1.00	3656.3	A	N/A	0.0105	-7	50	
PFPeS	4.17	1.10	77740.8	A	N/A	0.5605			
PFPeS_2	4.17	1.10	43575.9	A	N/A	0.5605	3	50	
PFHxS	4.54	1.00	121413.6	A	N/A	0.3370			
PFHxS_2	4.54	1.00	40916.2	A	N/A	0.3370	-6	50	
PFHpA	4.54	1.00	363637.0	A	N/A	0.0486			
PFHpA_2	4.54	1.00	17676.1	A	N/A	0.0486	-16	50	
6:2-FTS	4.90	1.00	29391.2	A	N/A	0.6880			
6:2-FTS_2	4.90	1.00	20222.1	A	N/A	0.6880	1	50	
PFHpS	4.90	1.08	116772.6	A	N/A	0.4087			
PFHpS_2	4.90	1.08	47729.5	A	N/A	0.4087	4	50	
PFOA	4.91	1.00	358374.3	A	N/A	0.0545			
PFOA_2	4.91	1.00	19543.6	A	N/A	0.0545	-15	50	
PFOS	5.24	1.00	108738.7	A	N/A	0.3436			
PFOS_2	5.24	1.00	37358.7	A	N/A	0.3436	-2	50	
PFNA	5.26	1.00	282459.4	A	N/A	0.0178			
PFNA_2	5.25	1.00	5033.3	A	N/A	0.0178	-13	50	
PFNS	5.54	1.06	71959.0	A	N/A	0.4699			
PFNS_2	5.54	1.06	33812.6	A	N/A	0.4699	-4	50	
PFDA	5.56	1.00	239465.1	A	N/A	0.0067			
PFDA_2	5.56	1.00	1595.5	A	N/A	0.0067	22	50	
8:2-FTS	5.57	1.00	24863.4	A	N/A	0.5452			
8:2-FTS_2	5.57	1.00	13556.6	A	N/A	0.5452	-12	50	
NMeFOSAA	5.71	1.00	31558.6	A	N/A	0.2375			
NMeFOSAA_2	5.71	1.00	7495.9	A	N/A	0.2375	9	50	
PFDS	5.80	1.11	56695.5	A	N/A	0.4723			
PFDS_2	5.80	1.11	26774.8	A	N/A	0.4723	3	50	
PFUnDA	5.83	1.00	203435.1	A	N/A	0.0021			
PFUnDA_2	5.82	1.00	426.1	A	N/A	0.0021	-31	50	
NEtFOSAA	5.85	1.00	28850.8	A	N/A	0.6044			
NEtFOSAA_2	5.84	1.00	17437.0	A	N/A	0.6044	0	50	
PFDoDA	6.05	1.00	224678.8	A	N/A	0.0109			
PFDoDA_2	6.05	1.00	2453.6	A	N/A	0.0109	4	50	
10:2-FTS	6.07	1.09	17682.1	A	N/A	0.5389			
10:2-FTS_2	6.07	1.09	9528.3	A	N/A	0.5389	-24	50	
PFTrDA	6.24	1.03	179966.1	A	N/A	0.0103			
PFTrDA_2	6.24	1.03	1852.5	A	N/A	0.0103	8	50	
PFTeDA	6.42	1.00	147019.1	A	N/A	0.0074			
PFTeDA_2	6.42	1.00	1082.0	A	N/A	0.0074	36	50	
PFHxDA	6.71	1.05	68593.6	A	N/A	0.0652			
PFHxDA_2	6.71	1.05	4471.9	A	N/A	0.0652	10	50	
PFODA	6.97	1.09	58322.8	A	N/A	0.0258			
PFODA_2	6.97	1.09	1503.1	A	N/A	0.0258	1	50	

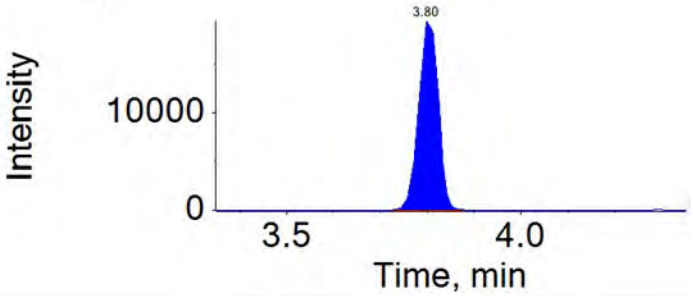
APPROVED
By MCD at 5:19 pm, 11/9/18

REVIEWED
By umar at 4:02 pm, 11/15/18

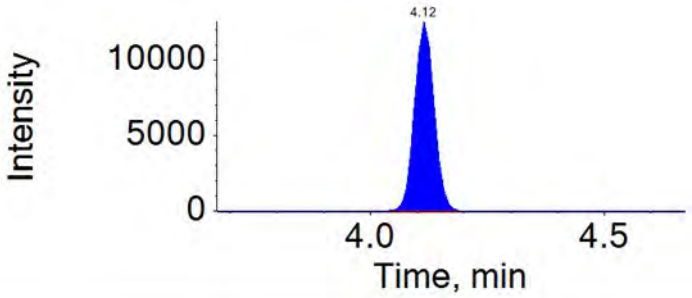
Component: PFBS
Primary Mass: 299.0 / 80.0



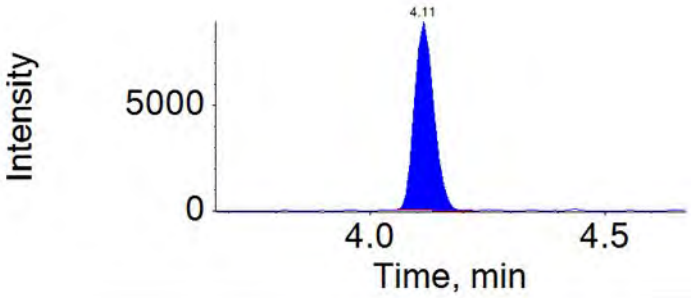
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



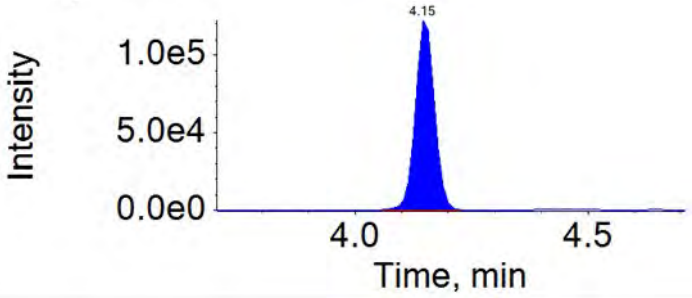
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



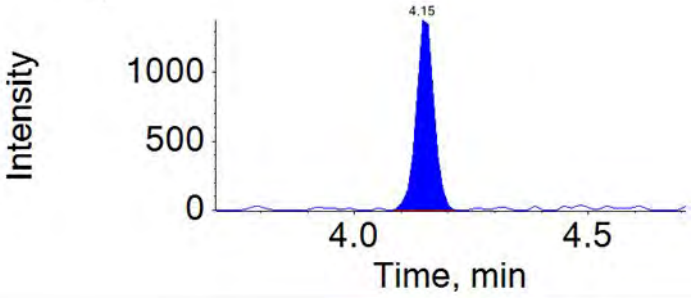
Component: 4:2-FTS_2
Secondary Mass: 327.0 / 81.0



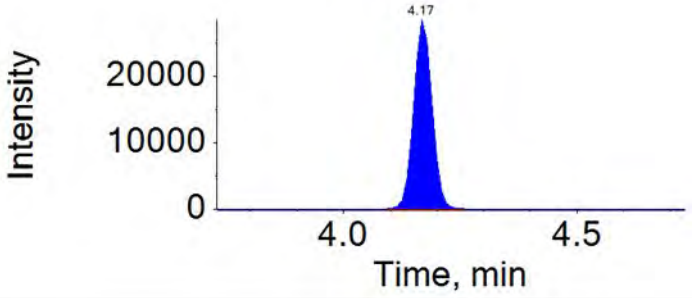
Component: PFHxA
Primary Mass: 313.0 / 269.0



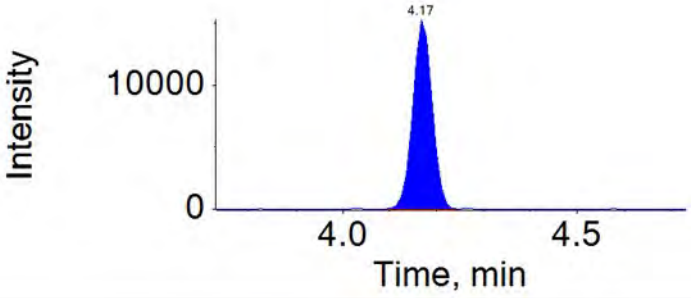
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



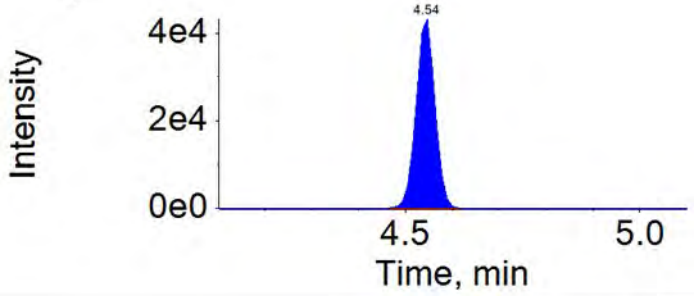
Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



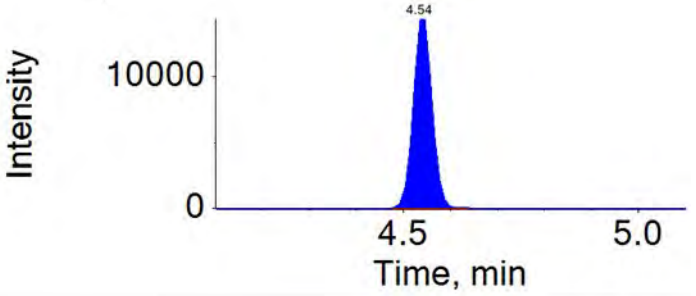
APPROVED
By MCD at 5:19 pm, 11/9/18

REVIEWED
By umar at 4:02 pm, 11/15/18

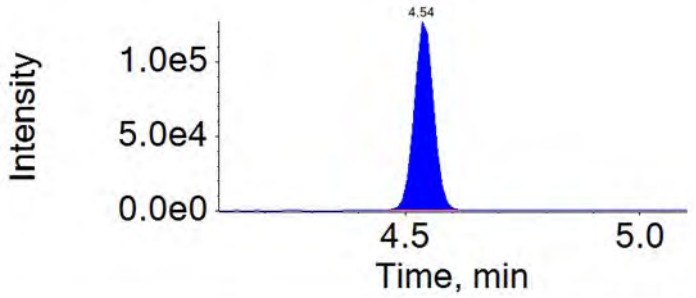
Component: PFHxS
Primary Mass: 399.0 / 80.0



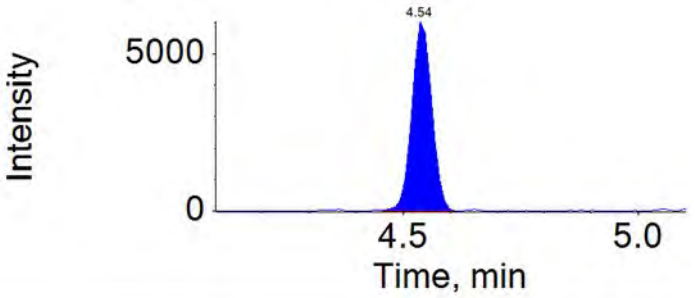
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



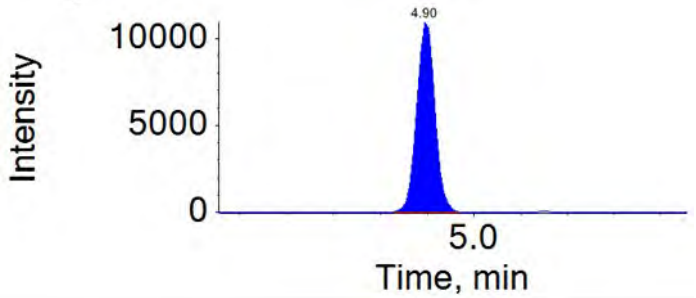
Component: PFHpA
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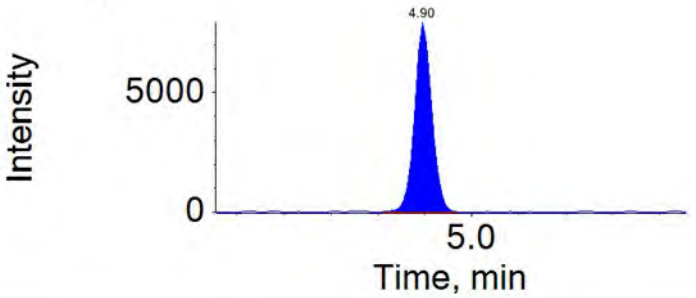
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



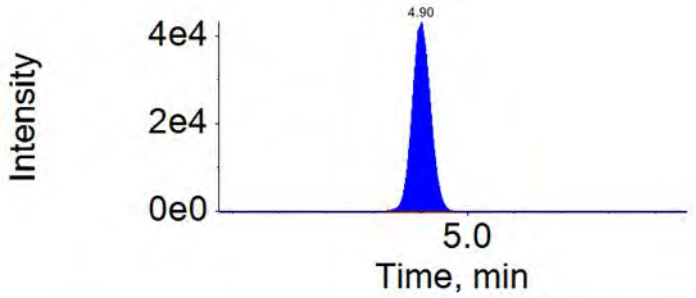
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



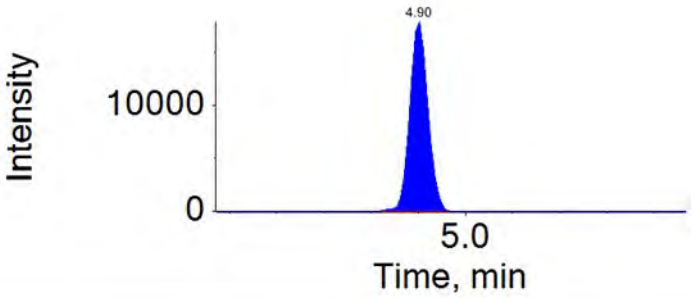
Component: 6:2-FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



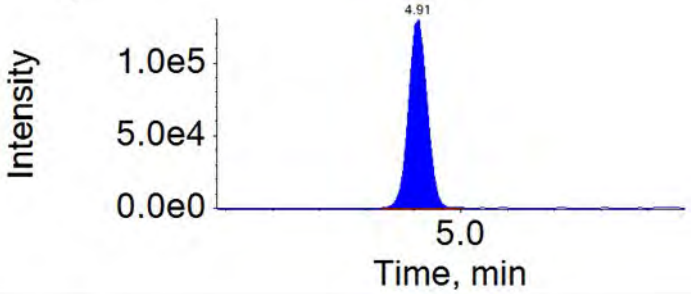
Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



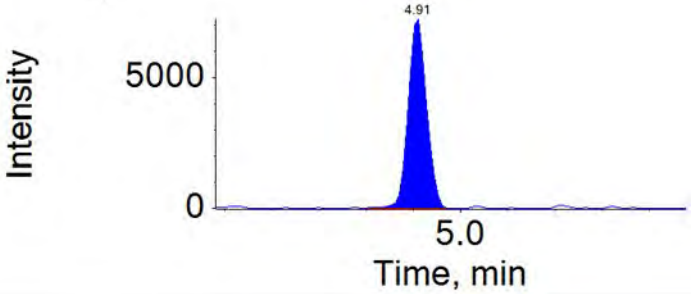
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REVIEWED
By umar at 4:02 pm, 11/15/18

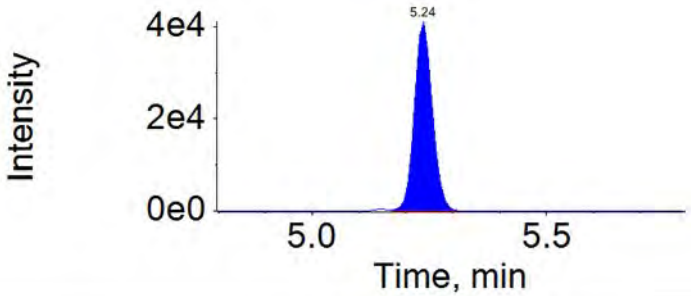
Component: PFOA
Primary Mass: 413.0 / 369.0



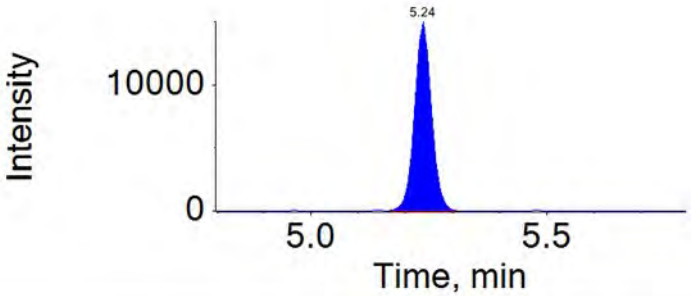
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



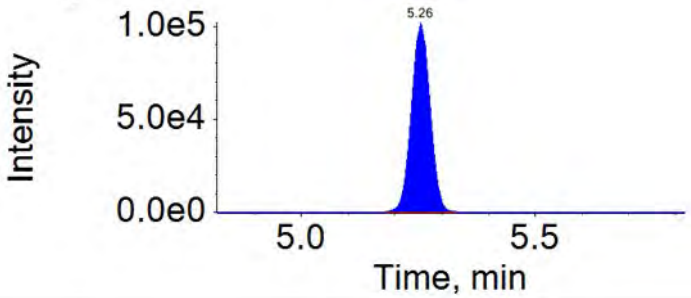
Component: PFOS
Primary Mass: 499.0 / 80.0



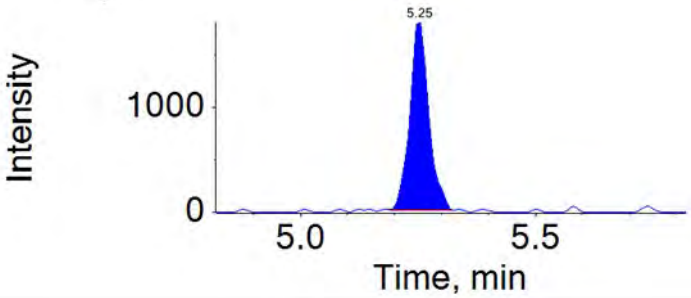
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



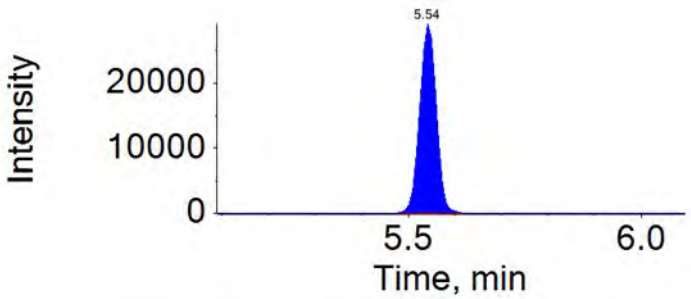
Component: PFNA
Primary Mass: 463.0 / 419.0



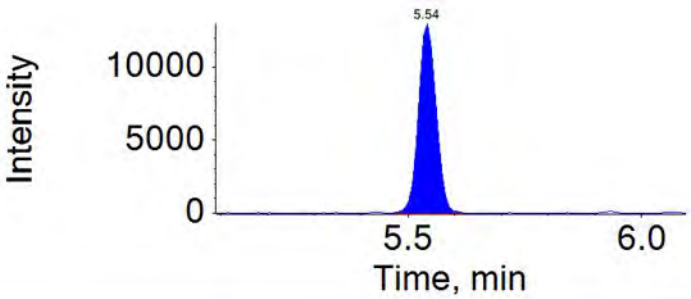
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



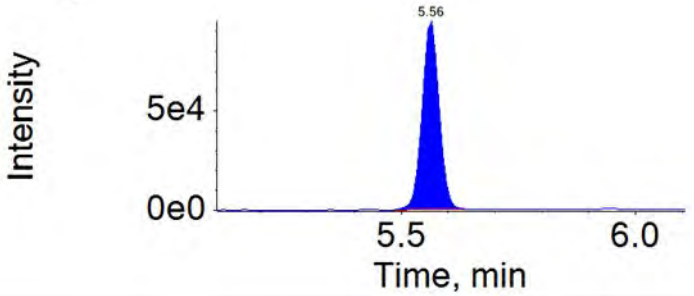
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



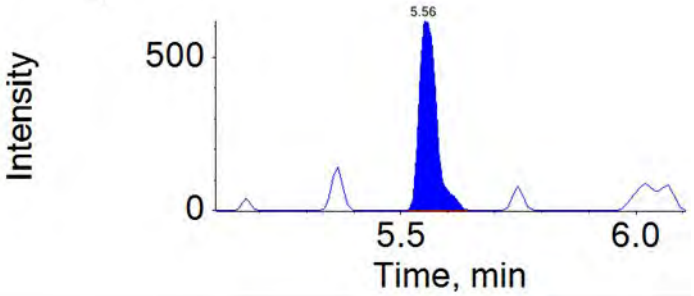
APPROVED
By MCD at 5:19 pm, 11/9/18

REVIEWED
By umar at 4:02 pm, 11/15/18

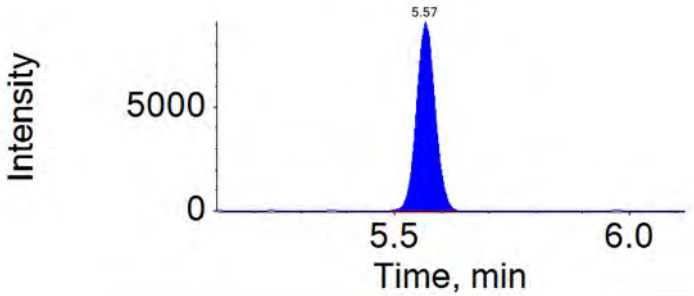
Component: PFDA
Primary Mass: 513.0 / 469.0



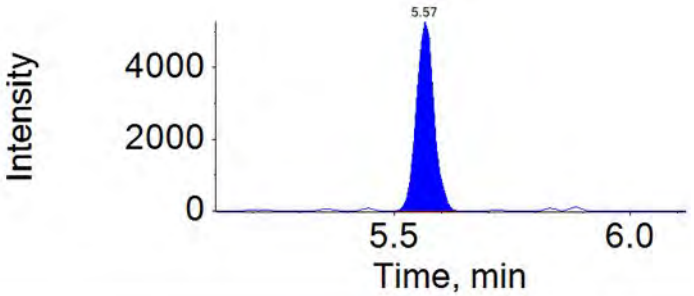
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



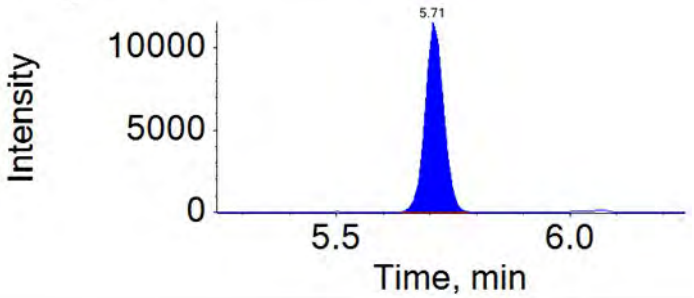
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



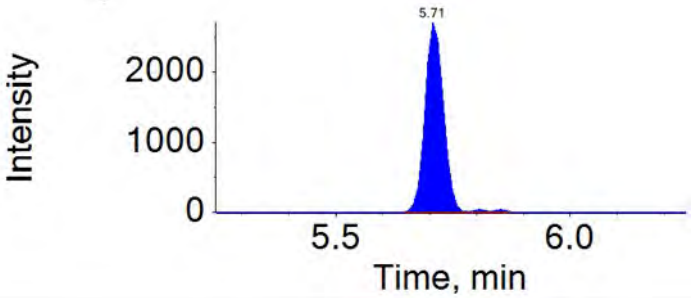
Component: 8:2-FTS_2
Secondary Mass: 527.0 / 81.0



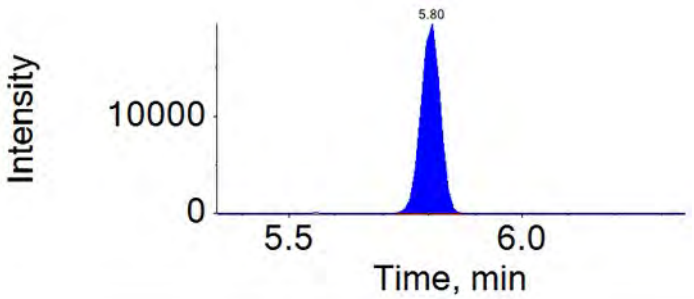
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



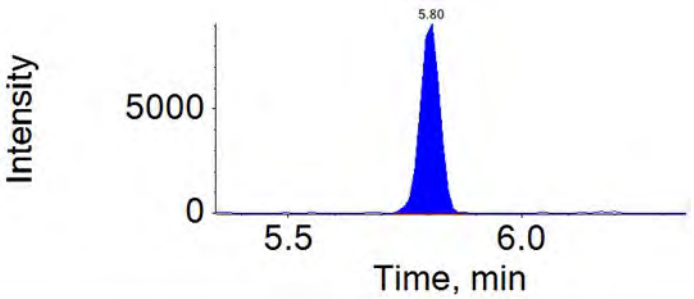
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



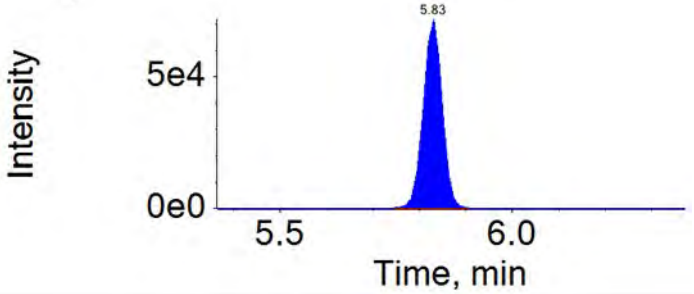
Component: PFDS_2
Secondary Mass: 599.0 / 99.0



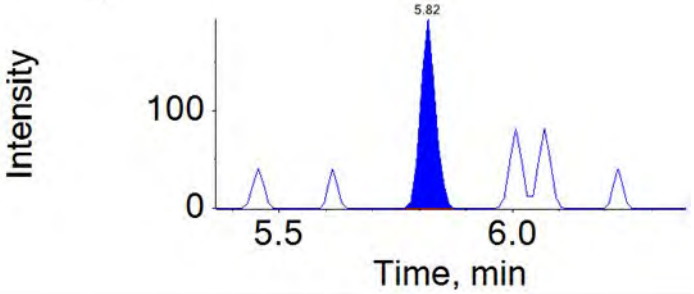
APPROVED
By MCD at 5:19 pm, 11/9/18

REVIEWED
By umar at 4:02 pm, 11/15/18

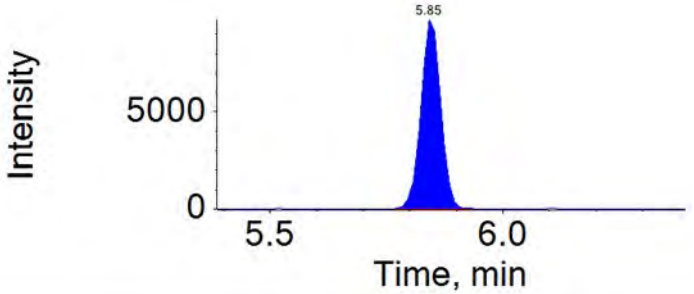
Component: PFUnDA
Primary Mass: 563.0 / 519.0



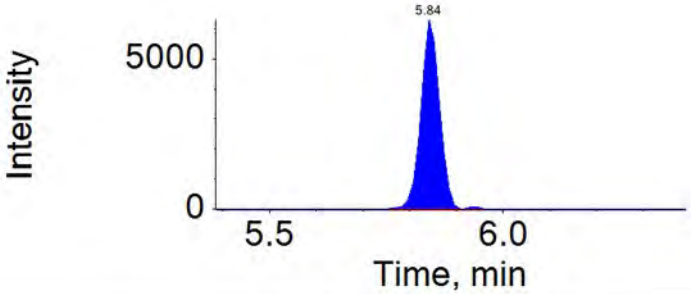
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



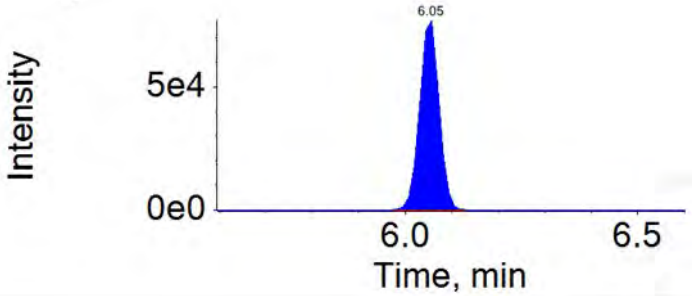
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



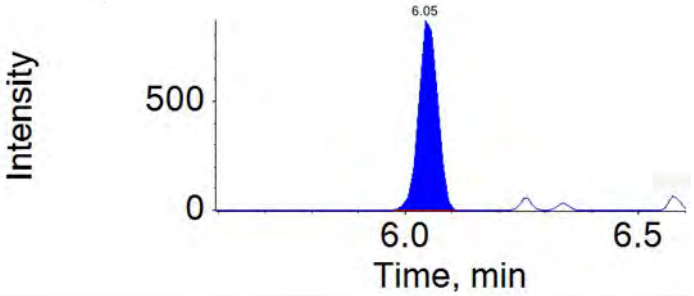
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



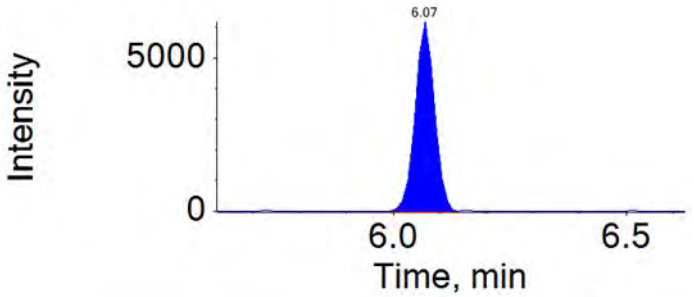
Component: PFDoDA
Primary Mass: 613.0 / 569.0



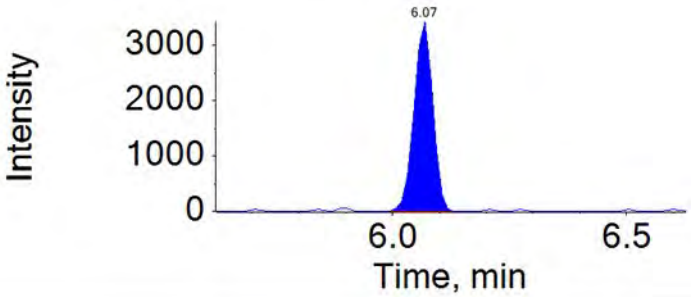
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



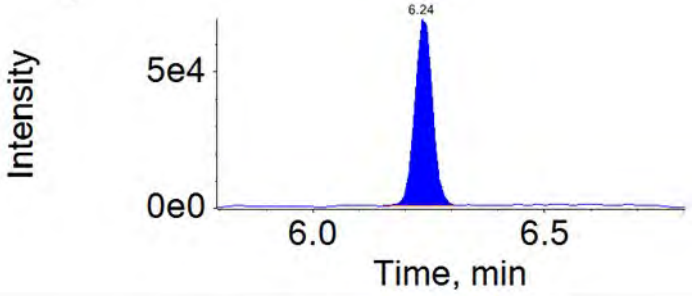
Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



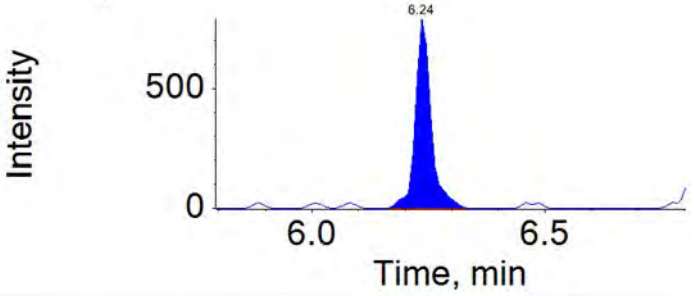
Component: 10:2-FTS_2
Secondary Mass: 627.0 / 81.0



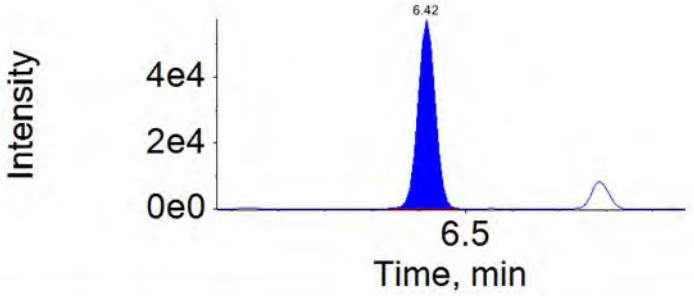
Component: PFTrDA
Primary Mass: 663.0 / 619.0



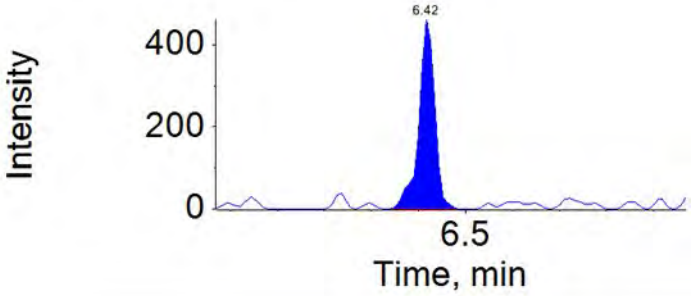
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



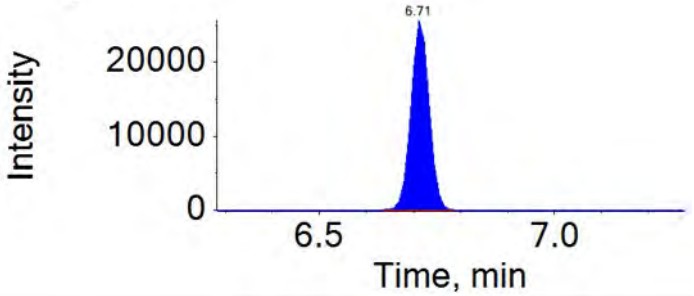
Component: PFTeDA
Primary Mass: 713.0 / 669.0



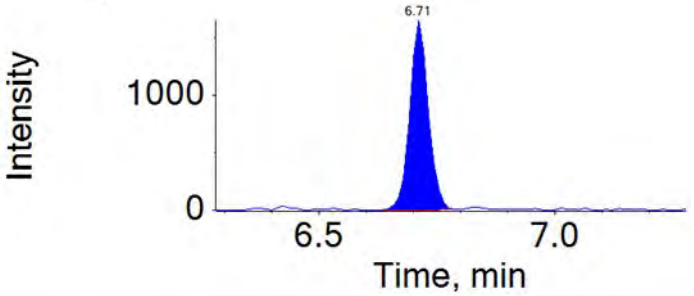
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



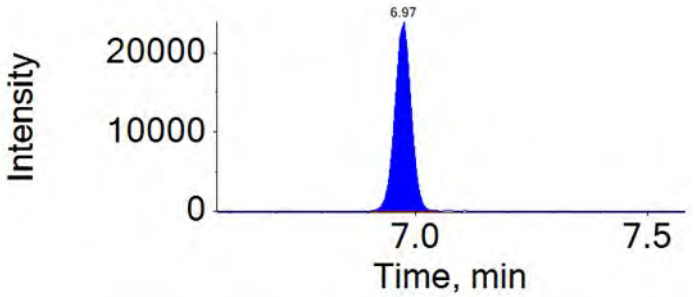
Component: PFHxDA
Primary Mass: 813.0 / 769.0



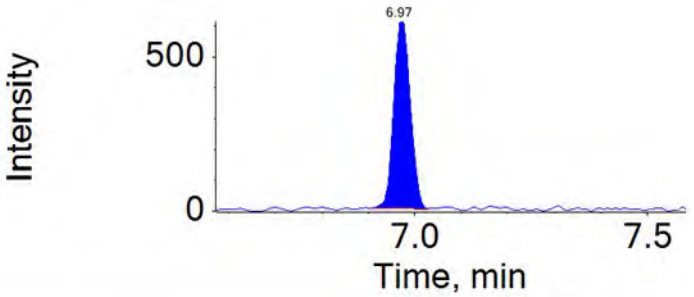
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



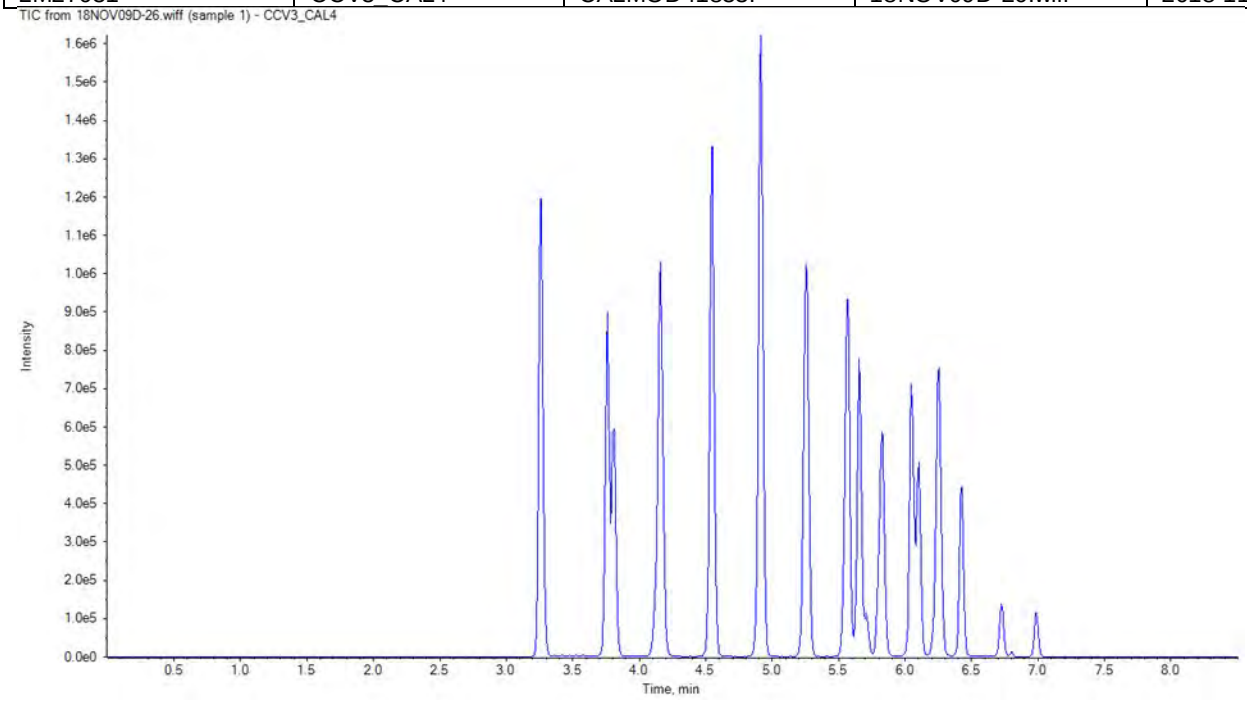
APPROVED
By MCD at 5:19 pm, 11/9/18

REVIEWED
By umar at 4:02 pm, 11/15/18

Continuing Calibration Verfication

ICAL Name: 18NOV07DCAL **Result Table:** 18NOV09DCCV1-4 11/9/2018 5:07:16 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	CCV3_CAL4	CALMOD41833F	18NOV09D-26.wiff	2018-11-09T08:24:29



Injection Standard Area Reference File: 18NOV09D-03

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Reference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	725152.8	725974.7	0	50	
13C2-PFOA	5.0	516300.1	506876.7	2	50	
13C4-PFOS	4.8	279684.0	274910.1	2	50	
13C2-PFDA	5.0	303204.9	307276.7	-1	50	

APPROVED
By MCD at 5:19 pm, 11/9/18

REVIEWED
By umar at 4:02 pm, 11/15/18

Continuing Calibration Verfication

ICAL Name: 18NOV07DCAL **Result Table:** 18NOV09DCCV1-4 11/9/2018 5:07:16 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	CCV3_CAL4	CALMOD41833F	18NOV09D-26.wiff	2018-11-09T08:24:29

Analyte Name	Analyte Area	Sc /pk	Ext Std Name	Ext Std Area	Ext Std con	Area Ratio	RT (min)	RRT	Spec Amt	Calc Amt	% Diff	% Diff Lim	% Diff OOS
PFBA	1179091.1	10	13C4-PFBA	780487.2	5.0	1.511	3.26	1.000	8.000	8.841	11	30	
PFPeA	1130839.3	12	13C5-PFPeA	803381.8	5.0	1.408	3.76	1.000	8.000	8.365	5	30	
PFBS	644472.1	11	13C3-PFBS	434336.1	4.7	1.484	3.81	1.000	7.080	7.481	6	30	
4:2-FTS	153588.0	11	13C2-4:2-FTS	48719.8	4.7	3.152	4.12	1.000	7.472	8.475	13	30	
PFHxA	1345972.4	12	13C5-PFHxA	702616.8	5.0	1.916	4.16	1.000	8.000	8.215	3	30	
PFPeS	346340.0	11	13C3-PFBS	434336.1	4.7	0.797	4.18	1.100	7.500	7.865	5	30	
PFHxS	497266.5	12	13C3-PFHxS	343635.5	4.7	1.447	4.55	1.000	7.560	7.335	-3	30	
PFHpA	1424173.6	12	13C4-PFHpA	545964.9	5.0	2.609	4.55	1.000	8.000	8.773	10	30	
6:2-FTS	117369.3	11	13C2-6:2-FTS	36524.0	4.8	3.213	4.90	1.000	7.584	8.017	6	30	
PFHpS	506158.9	11	13C3-PFHxS	343635.5	4.7	1.473	4.91	1.080	7.610	7.706	1	30	
PFOA	1472224.5	11	13C8-PFOA	908050.6	5.0	1.621	4.92	1.000	8.000	9.129	14	30	
PFOS	455029.8	11	13C8-PFOS	291769.0	4.8	1.560	5.25	1.000	7.650	8.087	6	30	
PFNA	1138897.5	11	13C9-PFNA	505275.0	5.0	2.254	5.26	1.000	8.000	8.424	5	30	
PFNS	300919.7	11	13C8-PFOS	291769.0	4.8	1.031	5.55	1.060	7.680	8.177	6	30	
PFDA	933472.7	11	13C6-PFDA	614548.6	5.0	1.519	5.57	1.000	8.000	8.357	4	30	
8:2-FTS	100308.8	11	13C2-8:2-FTS	28645.7	4.8	3.502	5.57	1.000	7.664	7.893	3	30	
PFOSA	1063956.6	12	13C8-PFOSA	673797.7	5.0	1.579	5.66	1.000	8.000	8.536	7	30	
NMeFOSAA	128720.6	11	d3-NMeFOSAA	77010.6	5.0	1.671	5.71	1.000	8.000	8.601	8	30	
PFDS	247458.9	12	13C8-PFOS	291769.0	4.8	0.848	5.80	1.110	7.700	8.102	5	30	
PFUnDA	781906.4	12	13C7-PFUnDA	269371.8	5.0	2.903	5.83	1.000	8.000	8.324	4	30	
NEtFOSAA	121903.6	11	d5-NEtFOSAA	64356.1	5.0	1.894	5.84	1.000	8.000	8.141	2	30	
PFDoDA	903451.4	12	13C2-PFDoDA	588148.0	5.0	1.536	6.05	1.000	8.000	8.325	4	30	
10:2-FTS	70799.4	12	13C2-8:2-FTS	28645.7	4.8	2.472	6.06	1.090	7.712	7.696	0	30	
NMePFOSAE	647505.5	11	d7-NMePFOSAE	336459.8	5.0	1.924	6.10	1.000	8.000	8.624	8	30	
NMePFOSA	121747.6	12	d3-NMePFOSA	82215.6	5.0	1.481	6.11	1.000	8.000	8.289	4	30	
PFDoS	114666.2	11	13C8-PFOS	291769.0	4.8	0.393	6.22	1.190	7.740	7.585	-2	30	
NEtPFOSAE	762374.1	11	d9-NEtPFOSAE	278530.3	5.0	2.737	6.26	1.000	8.000	8.774	10	30	
NEtPFOSA	119687.0	11	d5-NEtPFOSA	67979.4	5.0	1.761	6.27	1.000	8.000	7.754	-3	30	
PFTrDA	718982.5	11	13C2-PFDoDA	588148.0	5.0	1.222	6.25	1.030	8.000	7.709	-4	30	
PFTeDA	579924.3	11	13C2-PFTeDA	389003.3	5.0	1.491	6.42	1.000	8.000	8.754	9	30	
PFHxDA	282378.4	11	13C2-PFTeDA	389003.3	5.0	0.726	6.73	1.050	8.000	9.011	13	30	
PFODA	242541.6	10	13C2-PFTeDA	389003.3	5.0	0.623	6.99	1.090	8.000	8.933	12	30	

APPROVED
By MCD at 5:19 pm, 11/9/18

REVIEWED
By umar at 4:02 pm, 11/15/18

Continuing Calibration Verfication

ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13
Result Table: 18NOV09DCCV1-4 11/9/2018 5:07:16 PM
Acquisition Method: 18AUG13_3uL.dam

APPROVED
By MCD at 5:19 pm, 11/9/18

REVIEWED
By umar at 4:02 pm, 11/15/18

ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18NOV09DCCV1-4 11/9/2018 5:13:22 PM
Acquisition Method: 18AUG13_3uL.dam

Sample Name:	CCV3_CAL4			**Data File:**		18NOV09D-26.wiff
Sample ID:	CALMOD41833F			**Acquis Date:**		2018-11-09T08:24:29
Sample Type:	Quality Control			**Instrument:**		LM27631
Vial Position:	6			**Acquis Method:**		18AUG13_3uL.dam
Injection Vol:	3.00			**Result Table:**		18NOV09DCCV1-4
QMethod File:	MQ4-18AUG13			**ICAL Name:**		18NOV07DCAL
Batch Number:	N/A			**Operator:**		MCD7824
Sample Wt.:	1.00000			**Dilution Factor:**		1.00
Sample Vol.:	1.000			**Prep Factor:**		1.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV09D-03

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Rreference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	725152.8	725974.7	0	50	
13C2-PFOA	5.0	516300.1	506876.7	2	50	
13C4-PFOS	4.8	279684.0	274910.1	2	50	
13C2-PFDA	5.0	303204.9	307276.7	-1	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	780487.2	13C3-PFBA	725152.8	1.076	5.000	4.981	100	70-130	
E13C5-PFPeA	803381.8	13C3-PFBA	725152.8	1.108	5.000	4.826	97	70-130	
E13C3-PFBS	434336.1	13C3-PFBA	725152.8	0.599	4.650	4.396	95	70-130	
E13C2-4:2-FTS	48719.8	13C2-PFOA	516300.1	0.094	4.670	4.258	91	70-130	
E13C5-PFHxA	702616.8	13C2-PFOA	516300.1	1.361	5.000	5.006	100	70-130	
E13C3-PFHxS	343635.5	13C2-PFOA	516300.1	0.666	4.730	4.778	101	70-130	
E13C4-PFHpA	545964.9	13C2-PFOA	516300.1	1.057	5.000	4.811	96	70-130	
E13C2-6:2-FTS	36524.0	13C2-PFOA	516300.1	0.071	4.750	4.717	99	70-130	
E13C8-PFOA	908050.6	13C2-PFOA	516300.1	1.759	5.000	4.905	98	70-130	
E13C8-PFOS	291769.0	13C4-PFOS	279684.0	1.043	4.780	4.613	97	70-130	
E13C9-PFNA	505275.0	13C4-PFOS	279684.0	1.807	5.000	4.935	99	70-130	
E13C6-PFDA	614548.6	13C2-PFDA	303204.9	2.027	5.000	5.097	102	70-130	
E13C2-8:2-FTS	28645.7	13C2-PFDA	303204.9	0.094	4.790	4.999	104	70-130	
E13C8-PFOSA	673797.7	13C2-PFDA	303204.9	2.222	5.000	4.849	97	70-130	
Ed3-NMeFOSAA	77010.6	13C2-PFDA	303204.9	0.254	5.000	4.723	94	70-130	
E13C7-PFUnDA	269371.8	13C2-PFDA	303204.9	0.888	5.000	5.125	103	70-130	
Ed5-NEtFOSAA	64356.1	13C2-PFDA	303204.9	0.212	5.000	4.912	98	70-130	
E13C2-PFDoDA	588148.0	13C2-PFDA	303204.9	1.940	5.000	5.229	105	70-130	
Ed7-NMePFOSAE	336459.8	13C2-PFDA	303204.9	1.110	5.000	5.160	103	70-130	
Ed3-NMePFOSA	82215.6	13C2-PFDA	303204.9	0.271	5.000	4.964	99	70-130	
Ed9-NEtPFOSAE	278530.3	13C2-PFDA	303204.9	0.919	5.000	5.246	105	70-130	
Ed5-NEtPFOSA	67979.4	13C2-PFDA	303204.9	0.224	5.000	5.191	104	70-130	
E13C2-PFTeDA	389003.3	13C2-PFDA	303204.9	1.283	5.000	4.619	92	70-130	

APPROVED
By MCD at 5:19 pm, 11/9/18

REVIEWED
By umar at 4:02 pm, 11/15/18

ICAL Name: 18NOV07DCAL **Result Table:** 18NOV09DCCV1-4 11/9/2018 5:13:22 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

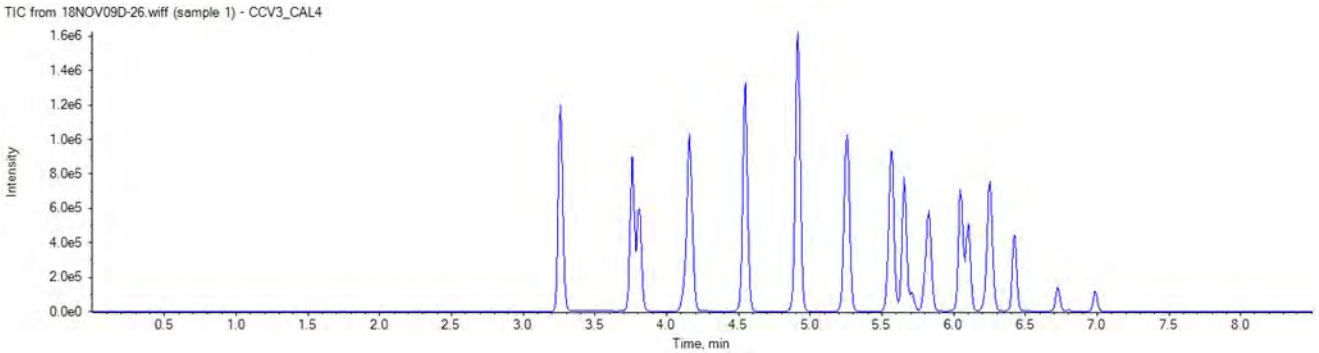
Analyte Quantitation Peak Table

Sample Name: CCV3_CAL4 **Instrument Name:** LM27631 **File Name:** 18NOV09D-26.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	1.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	3.26	1.000	1179091.1		A	13C4-PFBA	3.26	780487.2	1.511	8.841
PFPeA	3.76	1.000	1130839.3		A	13C5-PFPeA	3.76	803381.8	1.408	8.365
PFBS	3.81	1.000	644472.1		A	13C3-PFBS	3.81	434336.1	1.484	7.481
4:2-FTS	4.12	1.000	153588.0		A	13C2-4:2-FTS	4.12	48719.8	3.152	8.475
PFHxA	4.16	1.000	1345972.4		A	13C5-PFHxA	4.16	702616.8	1.916	8.215
PFPeS	4.18	1.100	346340.0		A	13C3-PFBS	3.81	434336.1	0.797	7.865
PFHxS	4.55	1.000	497266.5		A	13C3-PFHxS	4.55	343635.5	1.447	7.335
PFHpA	4.55	1.000	1424173.6		A	13C4-PFHpA	4.55	545964.9	2.609	8.773
6:2-FTS	4.90	1.000	117369.3		A	13C2-6:2-FTS	4.90	36524.0	3.213	8.017
PFHpS	4.91	1.080	506158.9		A	13C3-PFHxS	4.55	343635.5	1.473	7.706
PFOA	4.92	1.000	1472224.5		A	13C8-PFOA	4.92	908050.6	1.621	9.129
PFOS	5.25	1.000	455029.8		A	13C8-PFOS	5.24	291769.0	1.560	8.087
PFNA	5.26	1.000	1138897.5		A	13C9-PFNA	5.26	505275.0	2.254	8.424
PFNS	5.55	1.060	300919.7		A	13C8-PFOS	5.24	291769.0	1.031	8.177
PFDA	5.57	1.000	933472.7		A	13C6-PFDA	5.57	614548.6	1.519	8.357
8:2-FTS	5.57	1.000	100308.8		A	13C2-8:2-FTS	5.57	28645.7	3.502	7.893
PFOSA	5.66	1.000	1063956.6		A	13C8-PFOSA	5.66	673797.7	1.579	8.536
NMeFOSAA	5.71	1.000	128720.6		A	d3-NMeFOSAA	5.71	77010.6	1.671	8.601
PFDS	5.80	1.110	247458.9		A	13C8-PFOS	5.24	291769.0	0.848	8.102
PFUnDA	5.83	1.000	781906.4		A	13C7-PFUnDA	5.83	269371.8	2.903	8.324
NEtFOSAA	5.84	1.000	121903.6		A	d5-NEtFOSAA	5.84	64356.1	1.894	8.141
PFDoDA	6.05	1.000	903451.4		A	13C2-PFDoDA	6.05	588148.0	1.536	8.325
10:2-FTS	6.06	1.090	70799.4		A	13C2-8:2-FTS	5.57	28645.7	2.472	7.696
NMePFOSAE	6.10	1.000	647505.5		A	d7-NMePFOSAE	6.09	336459.8	1.924	8.624
NMePFOSA	6.11	1.000	121747.6		A	d3-NMePFOSA	6.11	82215.6	1.481	8.289
PFDoS	6.22	1.190	114666.2		A	13C8-PFOS	5.24	291769.0	0.393	7.585
NEtPFOSAE	6.26	1.000	762374.1		A	d9-NEtPFOSAE	6.25	278530.3	2.737	8.774
NEtPFOSA	6.27	1.000	119687.0		A	d5-NEtPFOSA	6.26	67979.4	1.761	7.754
PFTrDA	6.25	1.030	718982.5		A	13C2-PFDoDA	6.05	588148.0	1.222	7.709
PFTeDA	6.42	1.000	579924.3		A	13C2-PFTeDA	6.42	389003.3	1.491	8.754
PFHxDA	6.73	1.050	282378.4		A	13C2-PFTeDA	6.42	389003.3	0.726	9.011
PFODA	6.99	1.090	242541.6		A	13C2-PFTeDA	6.42	389003.3	0.623	8.933

Total Ion Chromatogram

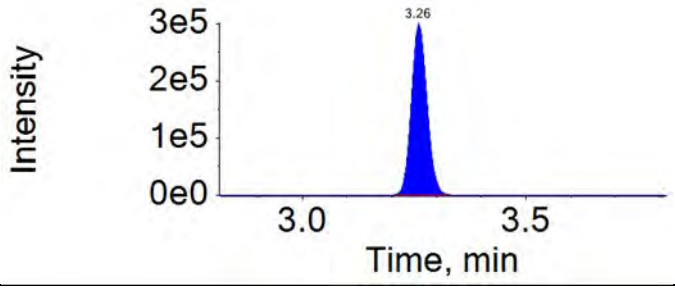


APPROVED
By MCD at 5:19 pm, 11/9/18

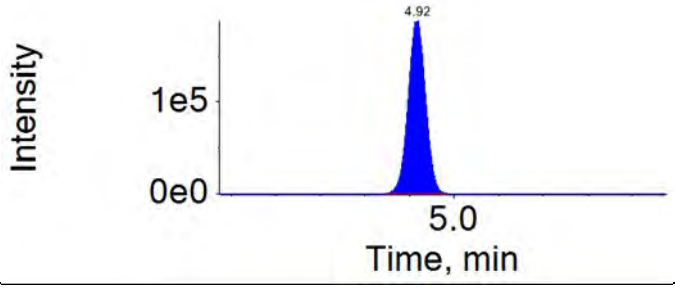
REVIEWED
By umar at 4:02 pm, 11/15/18

ICAL Name: 18NOV07DCAL **Result Table:** 18NOV09DCCV1-4 11/9/2018 5:13:22 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

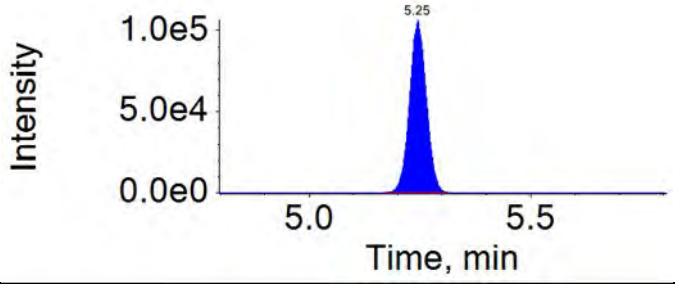
Injection Standard: 13C3-PFBA
216.0 / 172.0



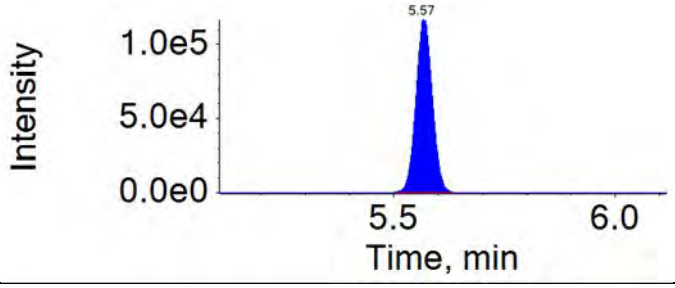
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0



Injection Standard: 13C2-PFDA
515.0 / 470.0

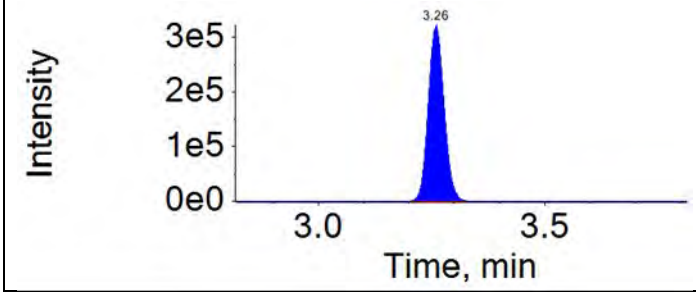


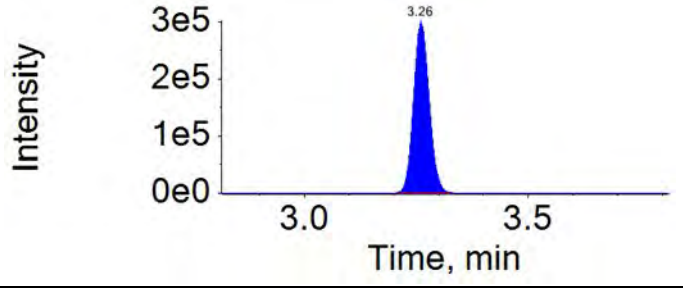
APPROVED
By MCD at 5:19 pm, 11/9/18

REVIEWED
By umar at 4:02 pm, 11/15/18

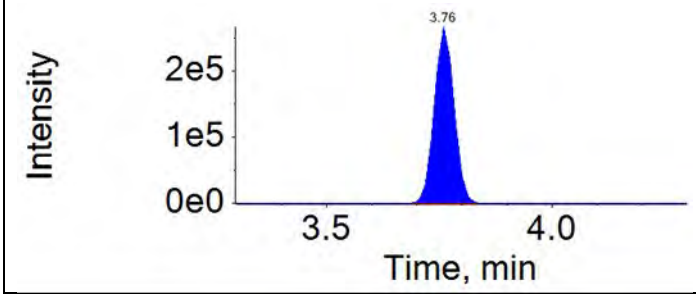
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV09DCCV1-4 11/9/2018 5:13:22 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

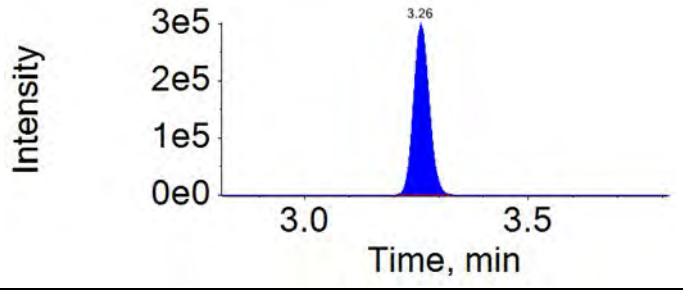
Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0



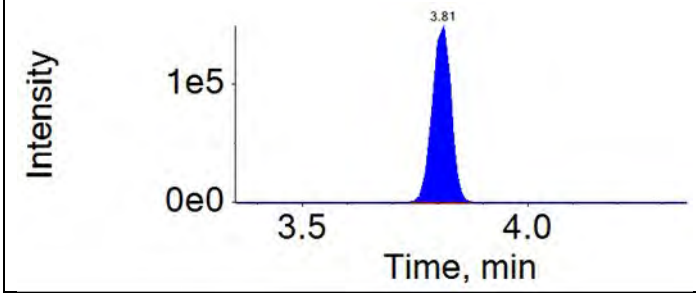


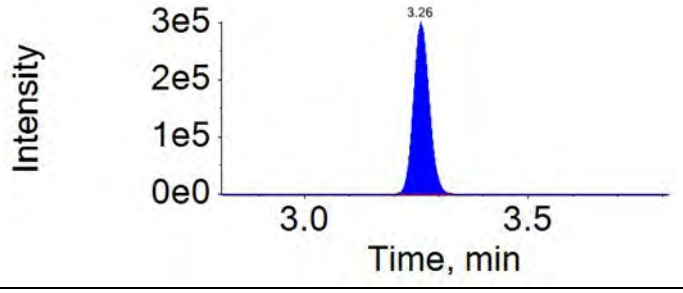
Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0



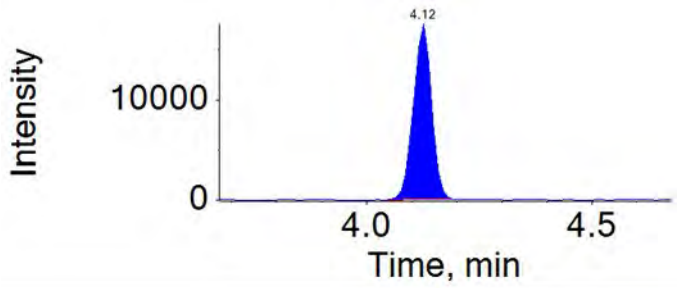


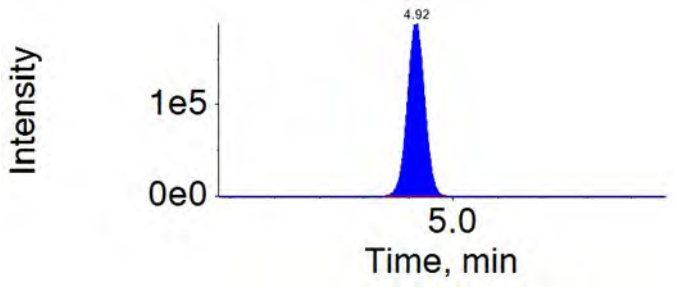
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0





Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0



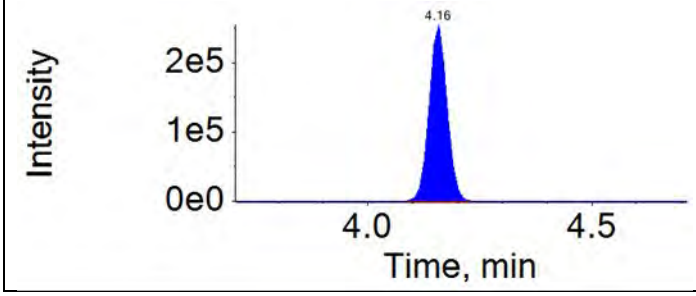


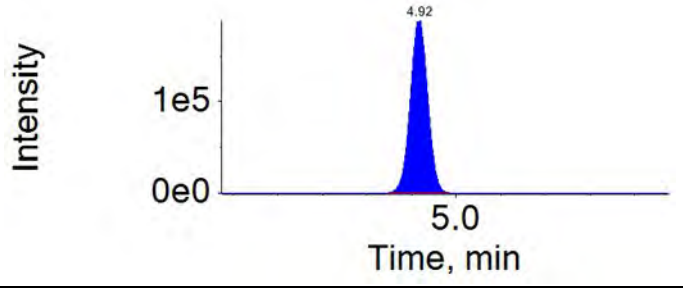
APPROVED
By MCD at 5:19 pm, 11/9/18

REVIEWED
By umar at 4:02 pm, 11/15/18

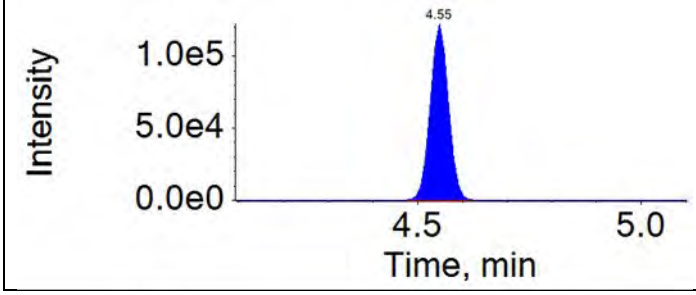
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV09DCCV1-4 11/9/2018 5:13:22 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

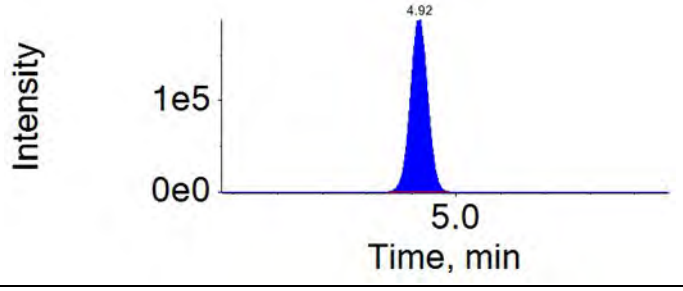
Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0



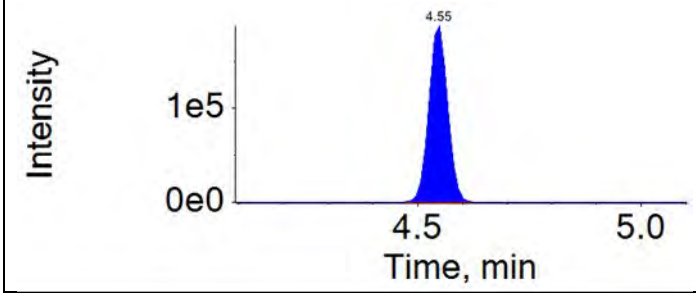


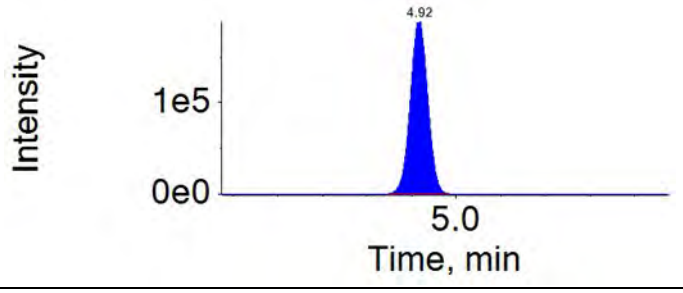
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0



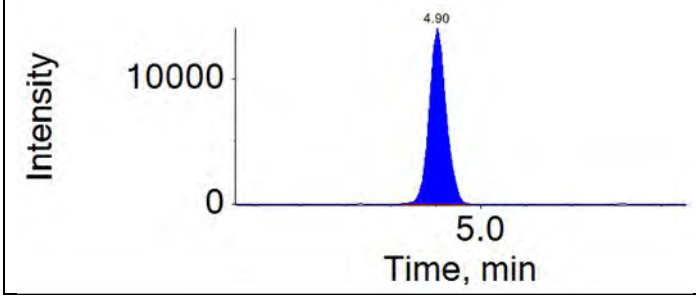


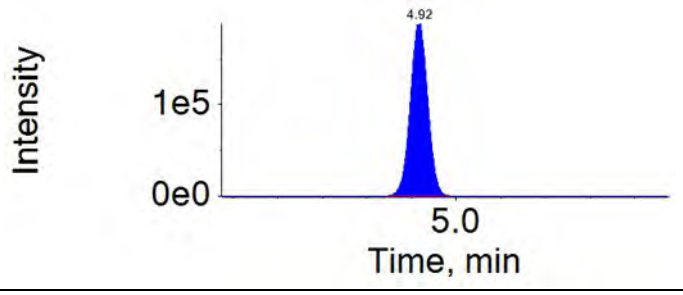
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0





Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0



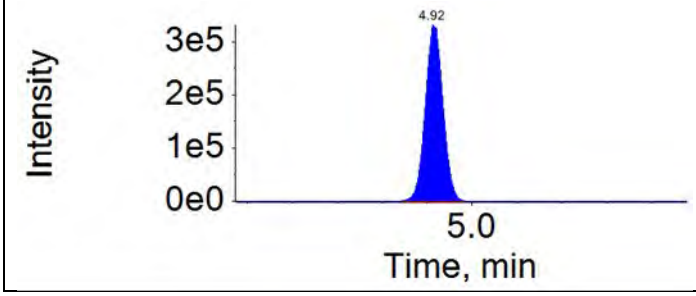


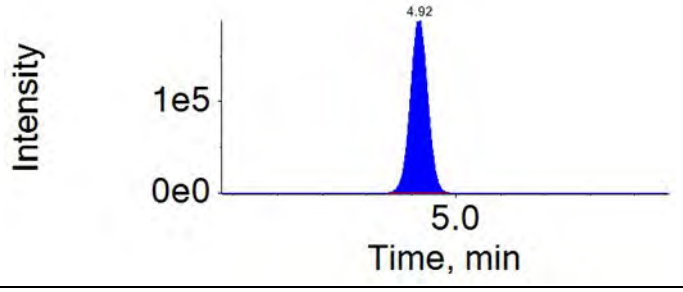
APPROVED
By MCD at 5:19 pm, 11/9/18

REVIEWED
By umar at 4:02 pm, 11/15/18

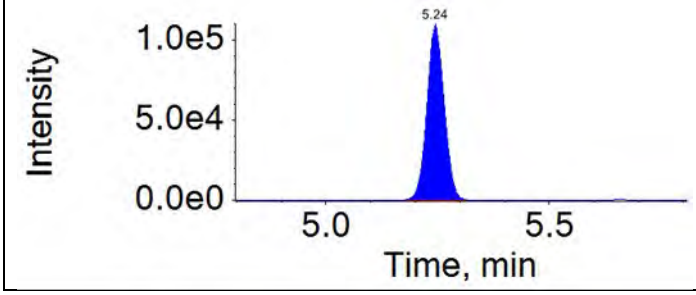
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV09DCCV1-4 11/9/2018 5:13:22 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

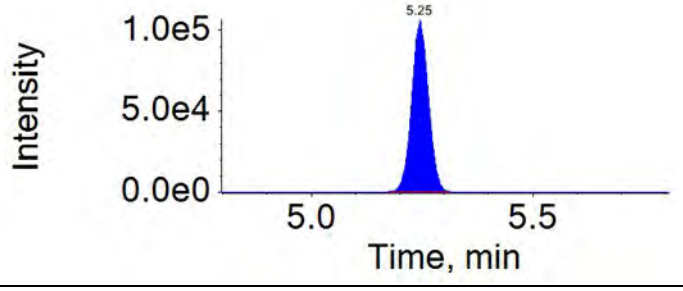
Extraction Standard: E13C8-PFOA	Injection Standard: 13C2-PFOA
421.0 / 376.0	415.0 / 370.0



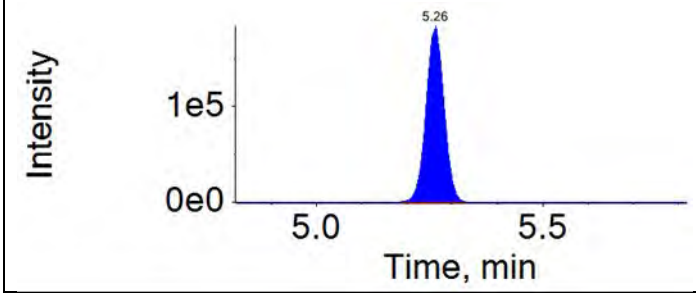


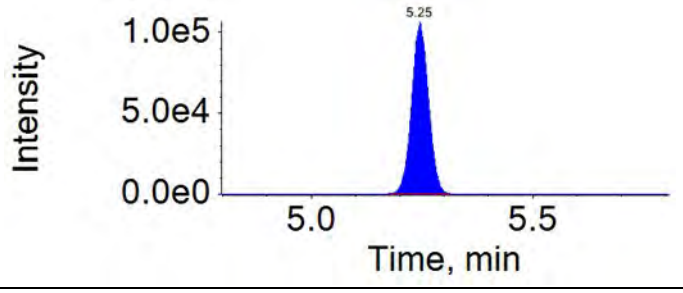
Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0



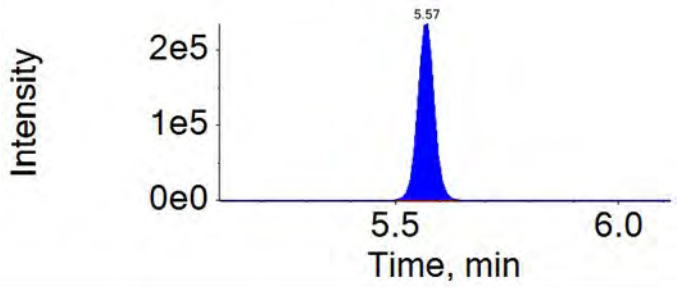


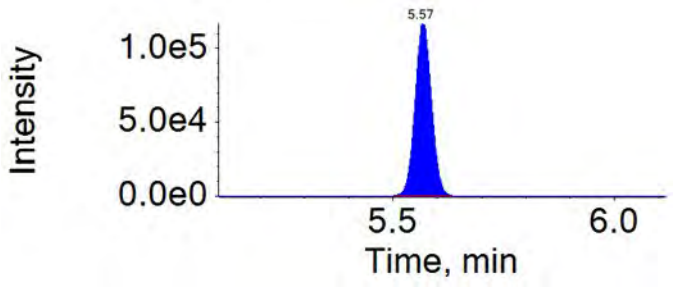
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0





Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0



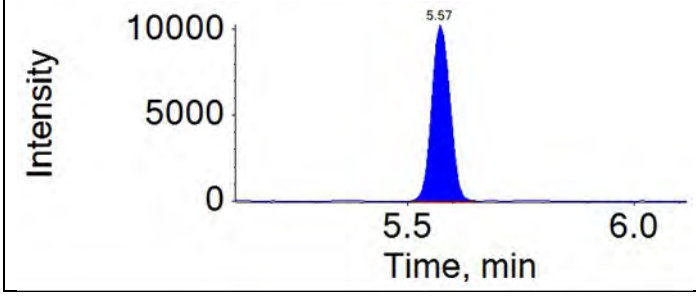


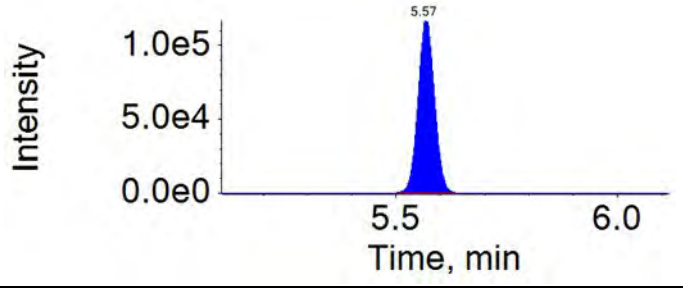
APPROVED
By MCD at 5:19 pm, 11/9/18

REVIEWED
By umar at 4:02 pm, 11/15/18

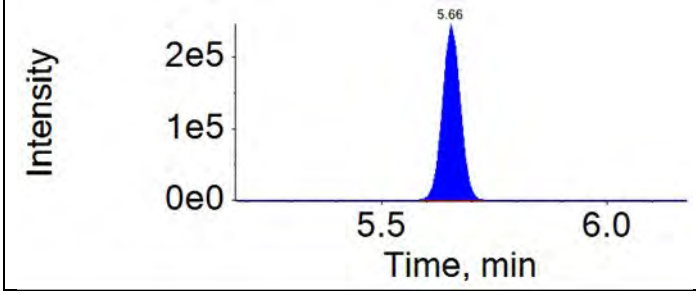
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV09DCCV1-4 11/9/2018 5:13:22 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

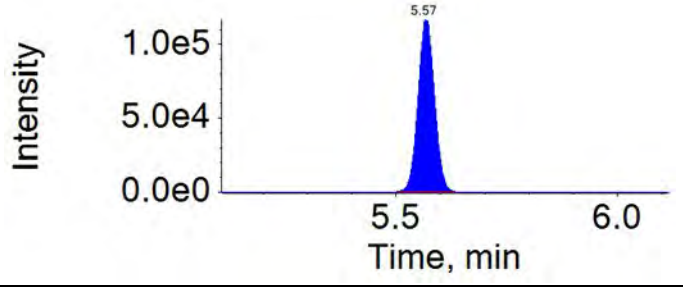
Extraction Standard: E13C2-8:2-FTS	Injection Standard: 13C2-PFDA
529.0 / 81.0	515.0 / 470.0



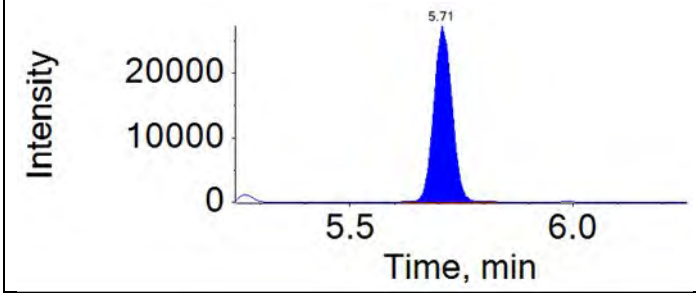


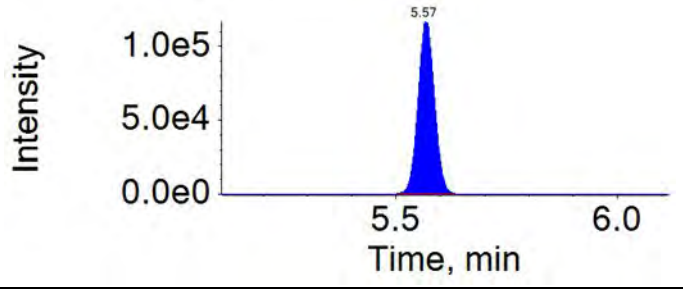
Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0



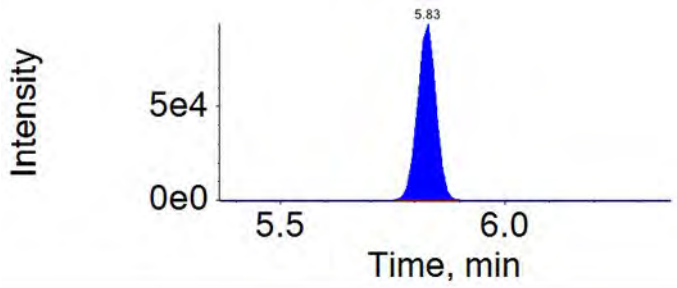


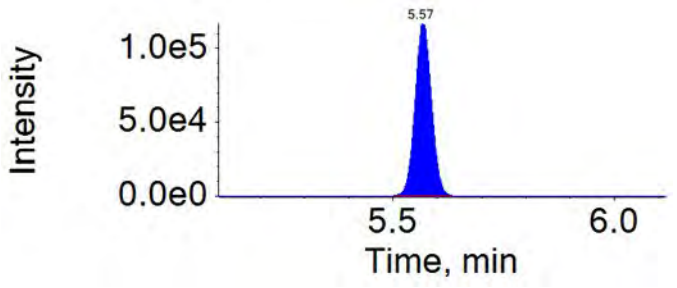
Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0





Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0



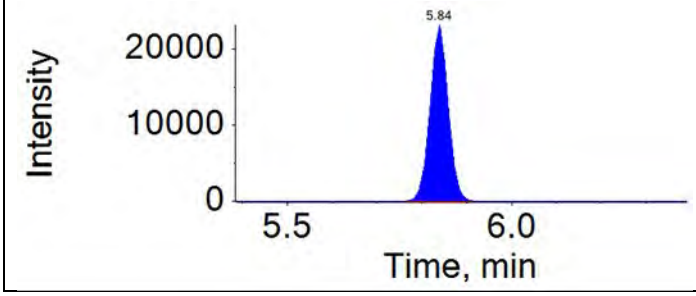


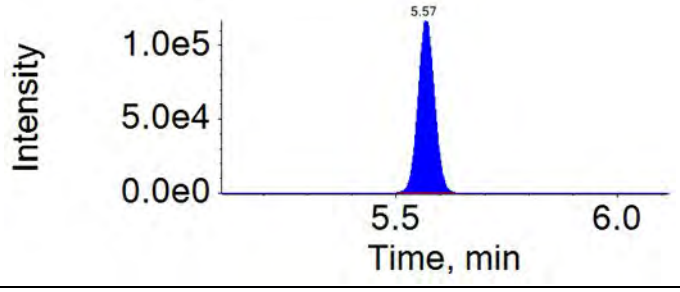
APPROVED
By MCD at 5:19 pm, 11/9/18

REVIEWED
By umar at 4:02 pm, 11/15/18

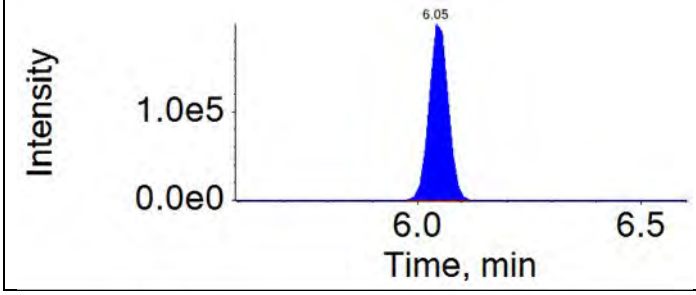
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV09DCCV1-4 11/9/2018 5:13:22 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

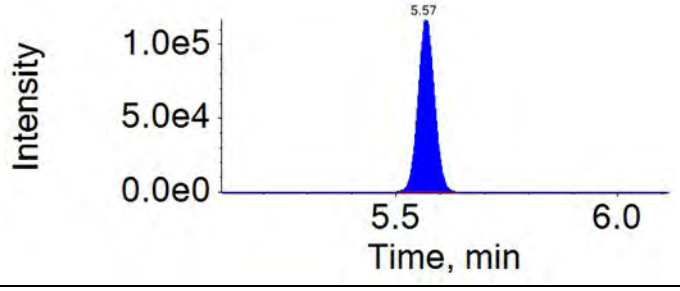
Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0



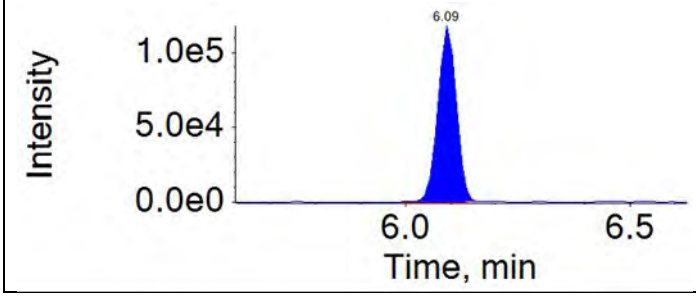


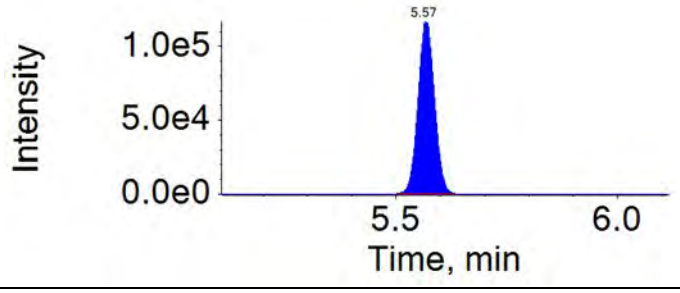
Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0



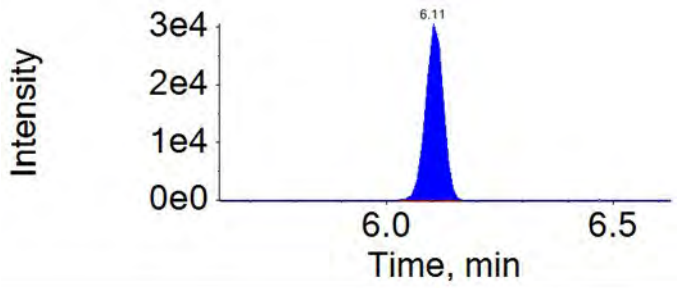


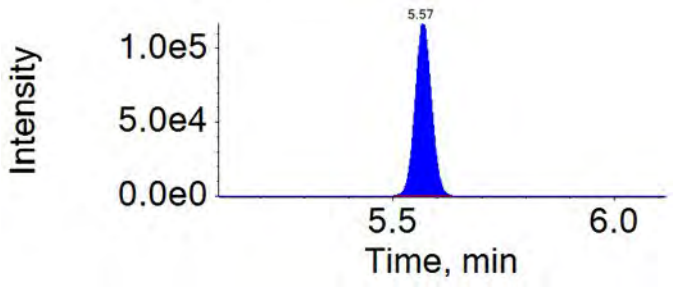
Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0





Extraction Standard: Ed3-NMePFOSA	Injection Standard: 13C2-PFDA
515.0 / 169.0	515.0 / 470.0



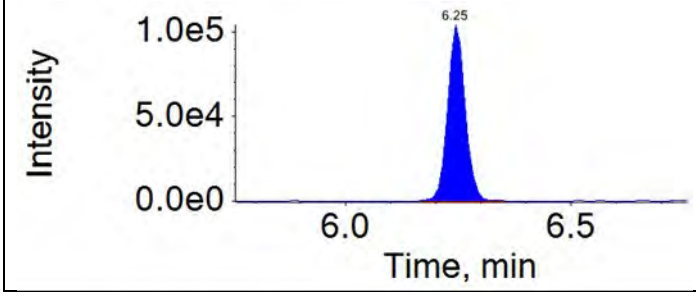


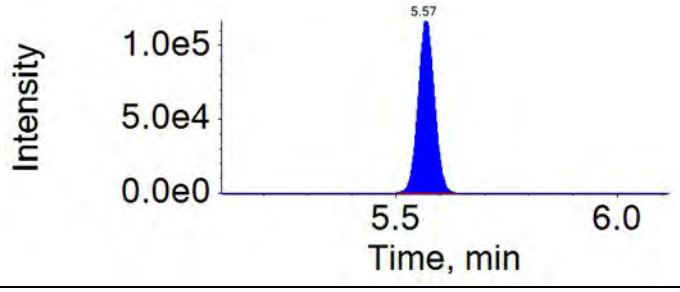
APPROVED
By MCD at 5:19 pm, 11/9/18

REVIEWED
By umar at 4:02 pm, 11/15/18

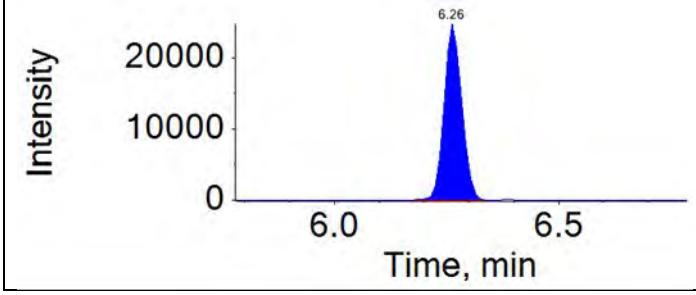
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV09DCCV1-4 11/9/2018 5:13:22 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

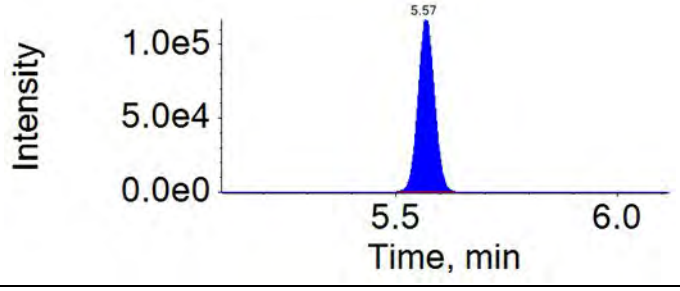
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



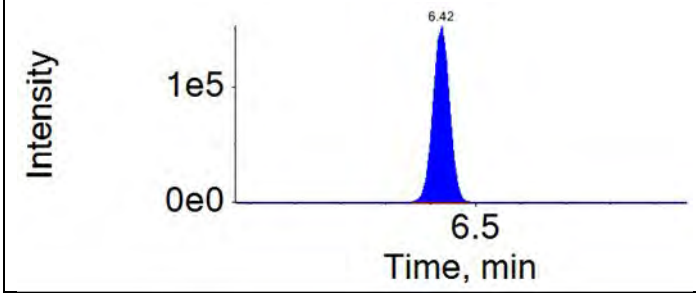


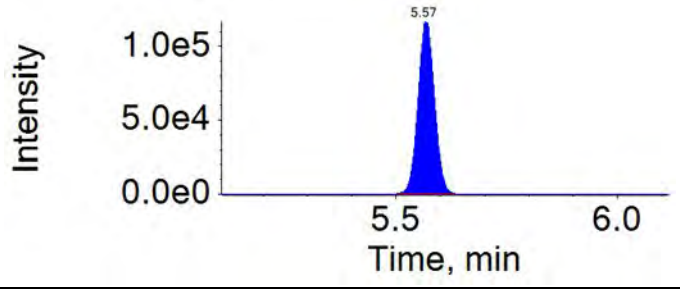
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0



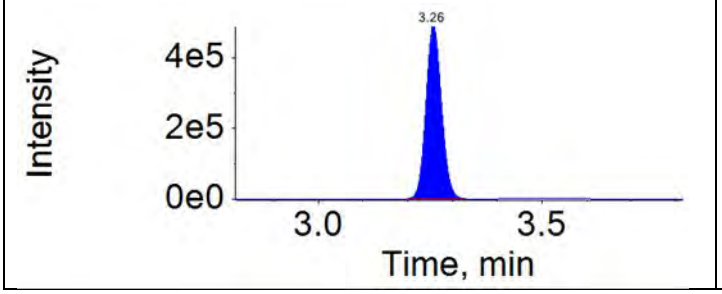


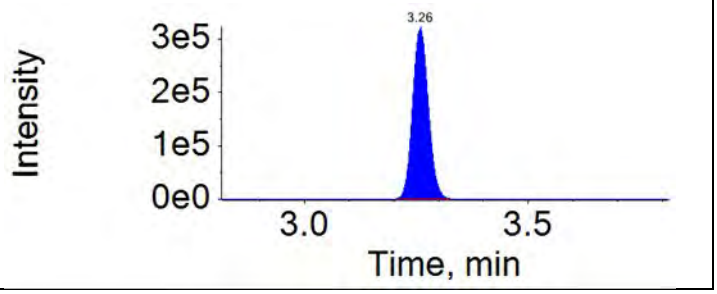
APPROVED
By MCD at 5:19 pm, 11/9/18

REVIEWED
By umar at 4:02 pm, 11/15/18

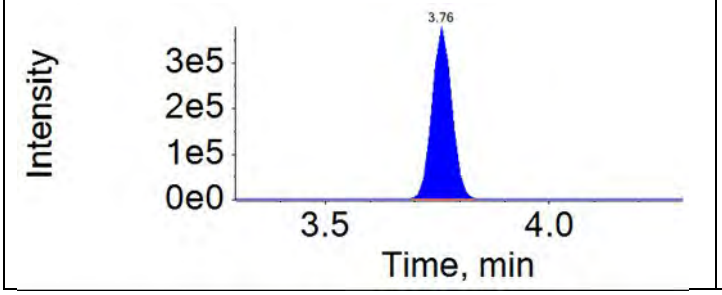
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV09DCCV1-4 11/9/2018 5:13:22 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

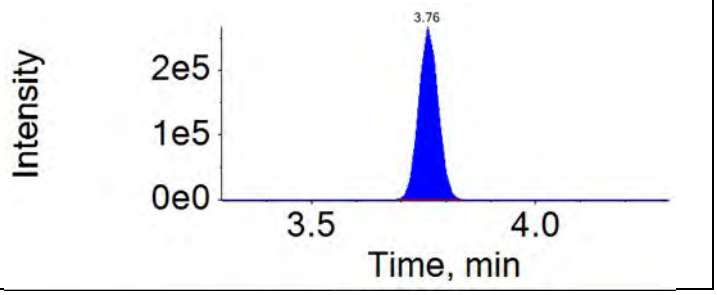
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



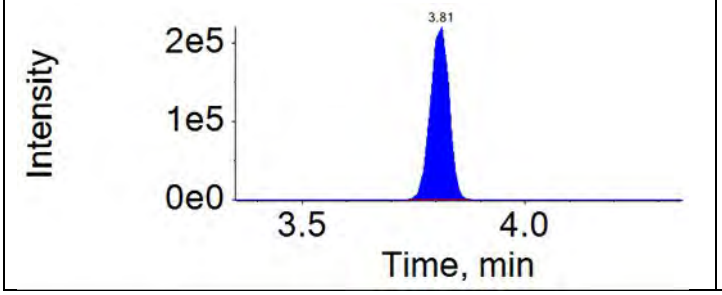


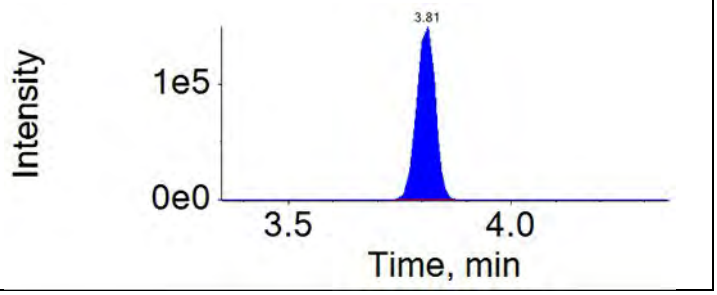
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



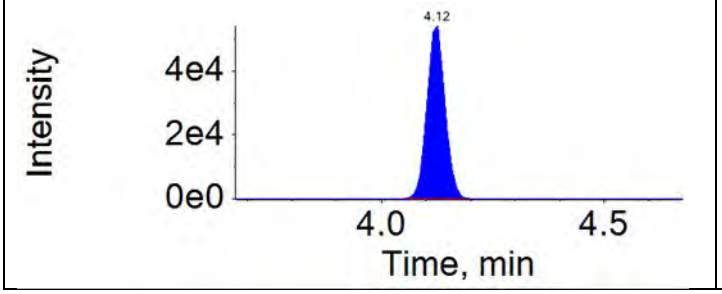


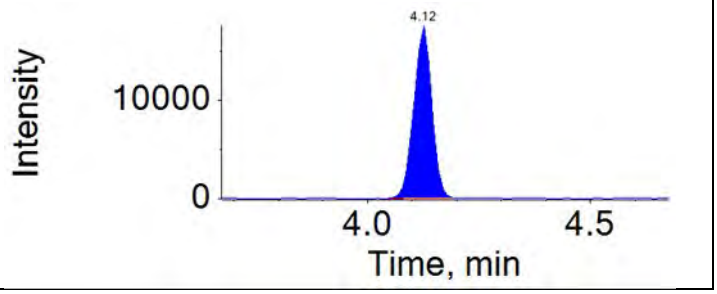
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





Analyte: 4:2-FTS	Extraction Standard: 13C2-4:2-FTS
327.0 / 307.0	329.0 / 81.0



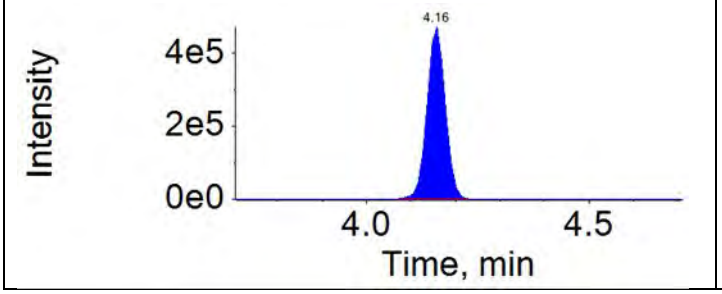


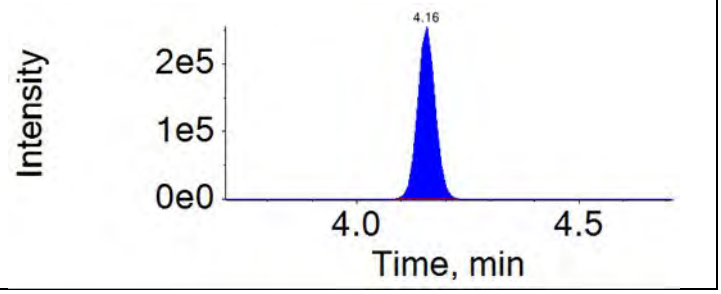
APPROVED
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REVIEWED
By umar at 4:02 pm, 11/15/18

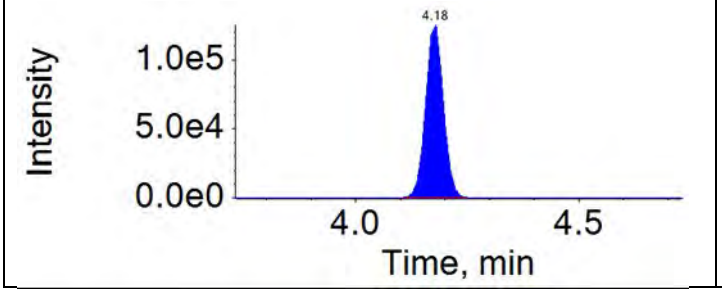
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV09DCCV1-4 11/9/2018 5:13:22 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

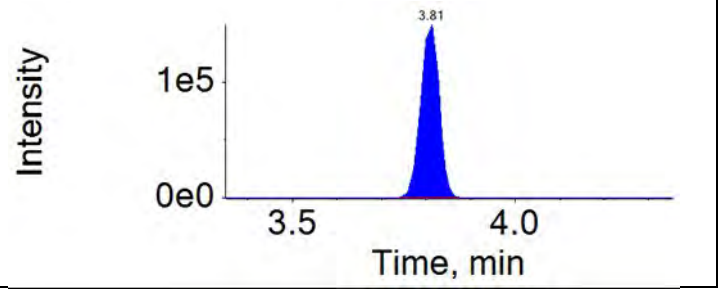
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



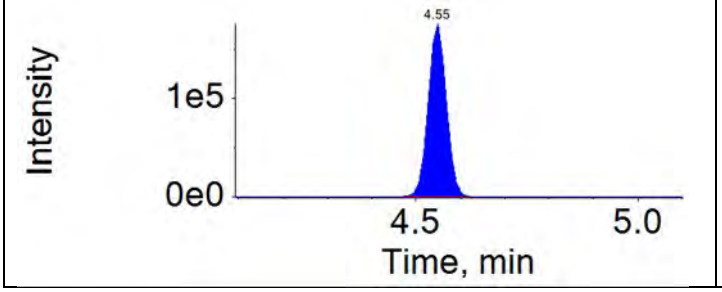


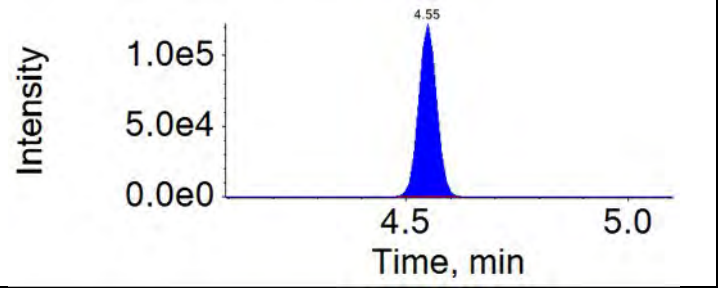
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



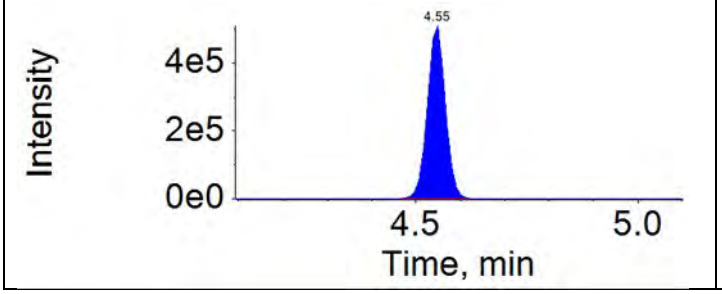


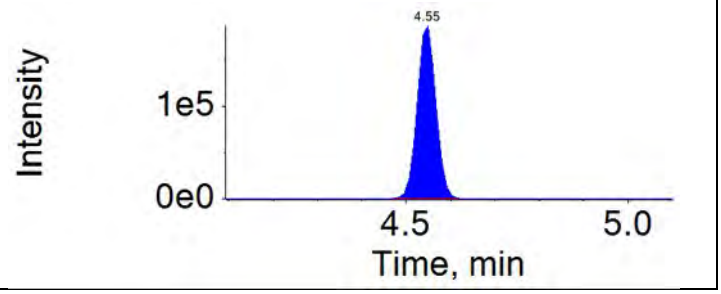
Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0





Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0



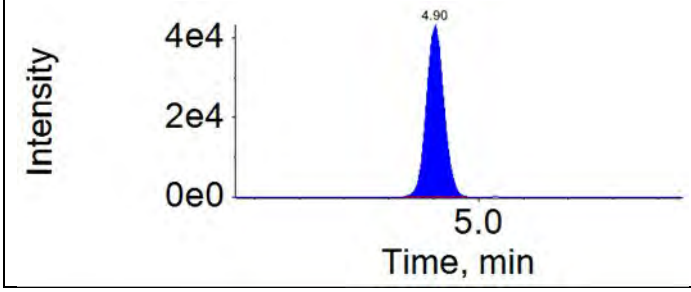


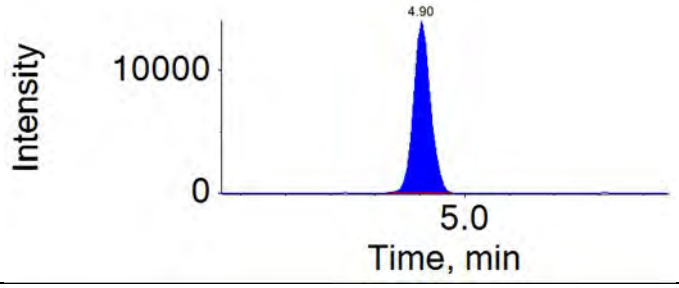
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REVIEWED
By umar at 4:02 pm, 11/15/18

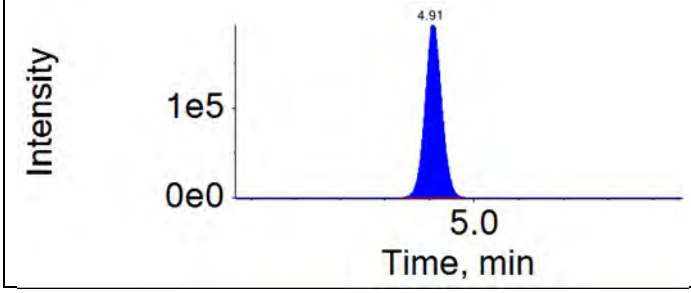
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV09DCCV1-4 11/9/2018 5:13:22 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

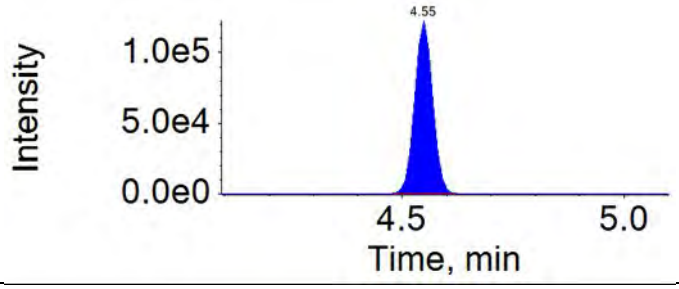
Analyte: 6:2-FTS	Extraction Standard: 13C2-6:2-FTS
427.0 / 407.0	429.0 / 81.0



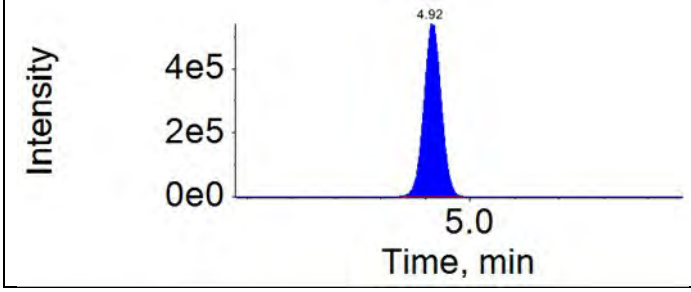


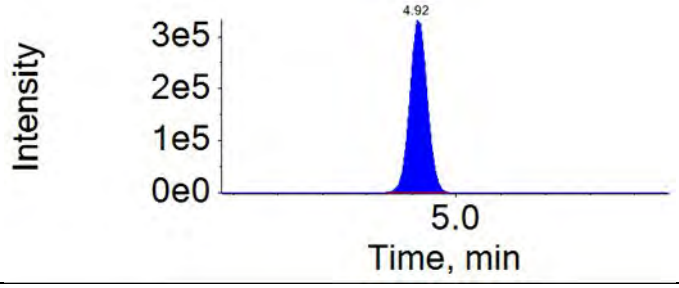
Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0



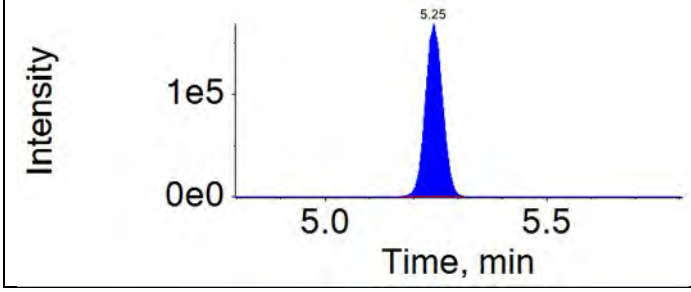


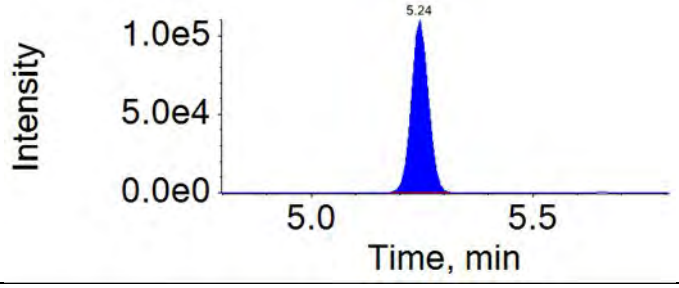
Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0





Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0



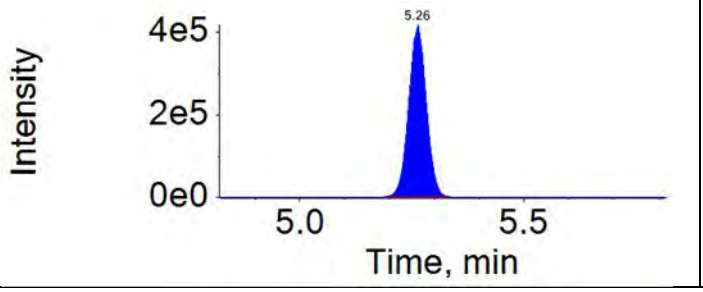


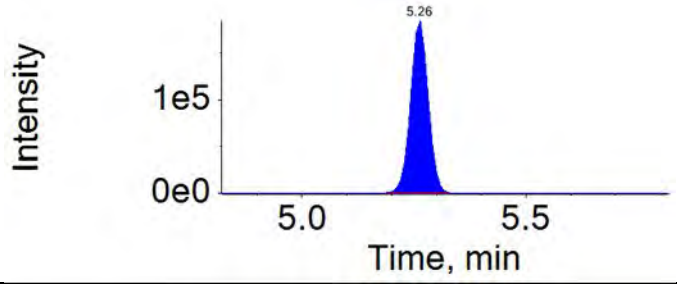
APPROVED
By MCD at 5:19 pm, 11/9/18

REVIEWED
By umar at 4:02 pm, 11/15/18

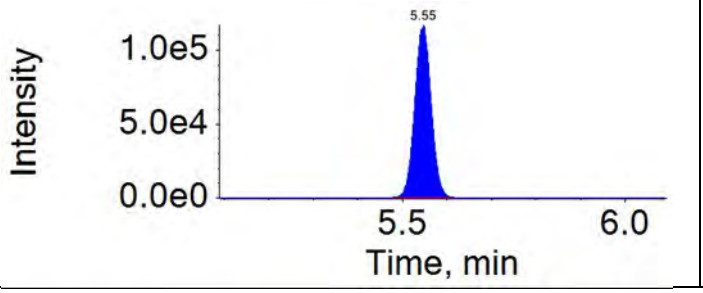
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV09DCCV1-4 11/9/2018 5:13:22 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

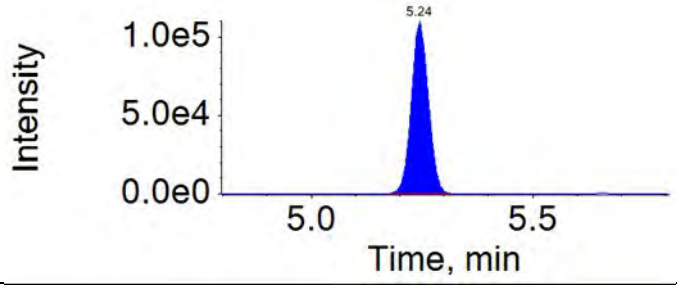
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



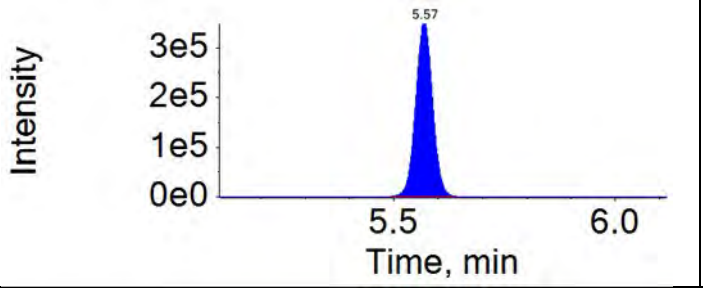


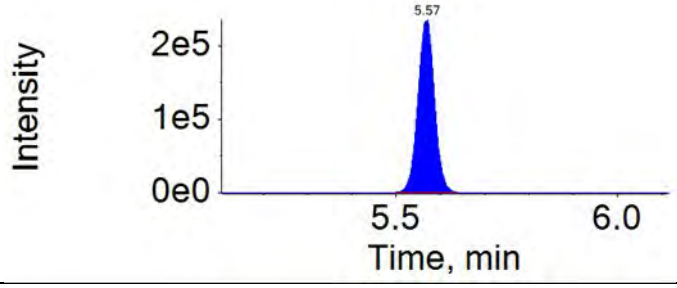
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



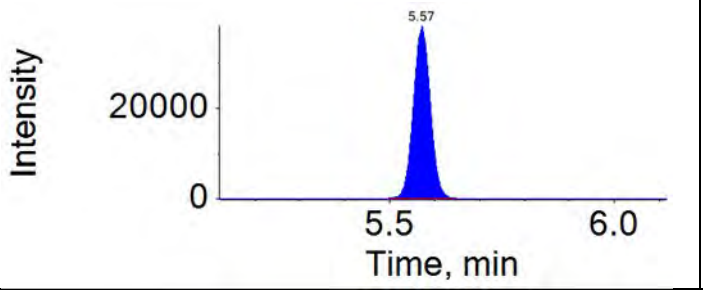


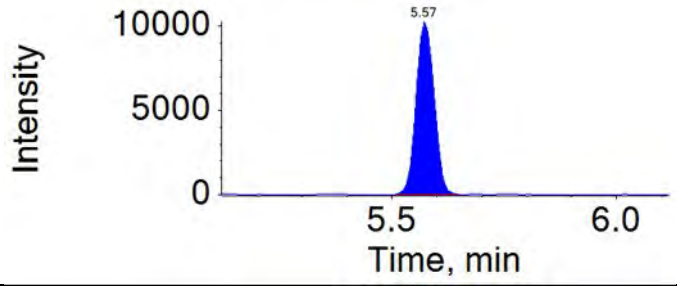
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





Analyte: 8:2-FTS	Extraction Standard: 13C2-8:2-FTS
527.0 / 507.0	529.0 / 81.0



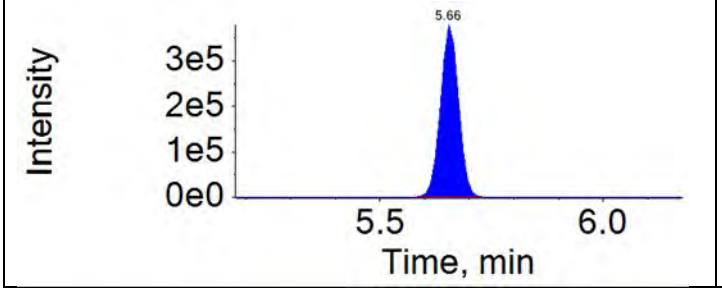


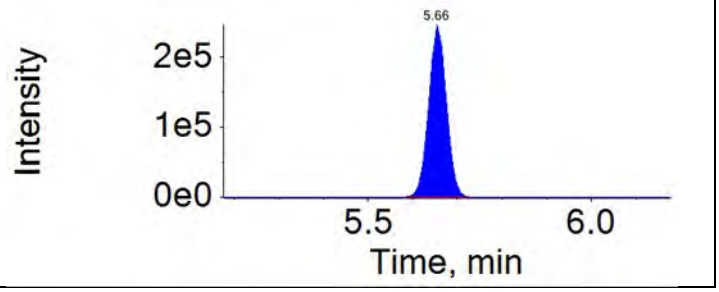
APPROVED
By MCD at 5:19 pm, 11/9/18

REVIEWED
By umar at 4:02 pm, 11/15/18

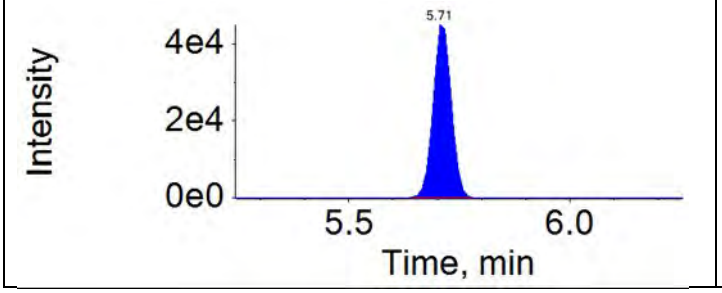
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV09DCCV1-4 11/9/2018 5:13:22 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

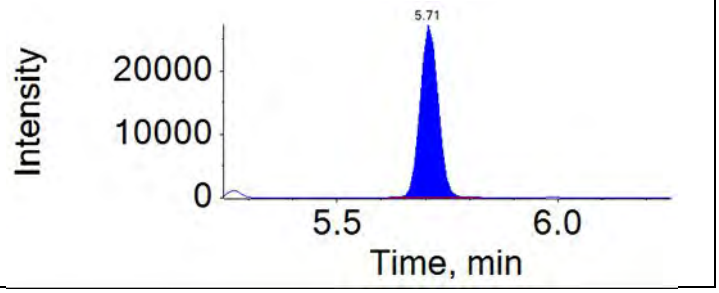
Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0



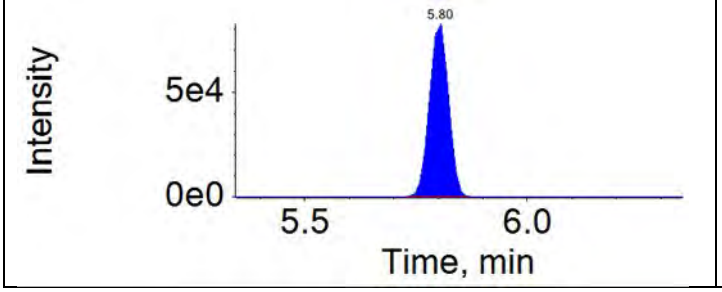


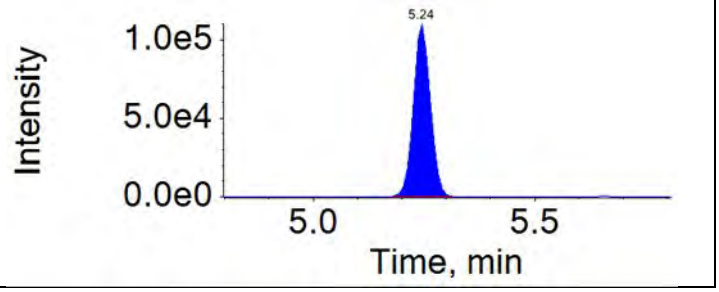
Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0



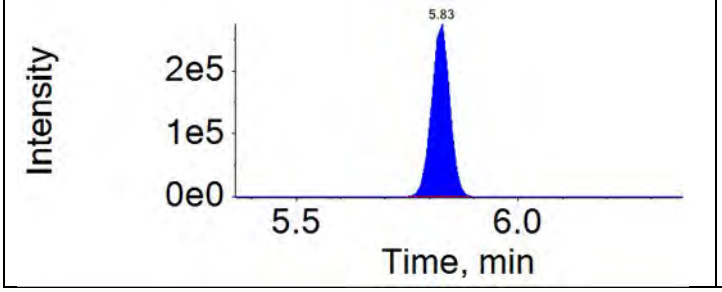


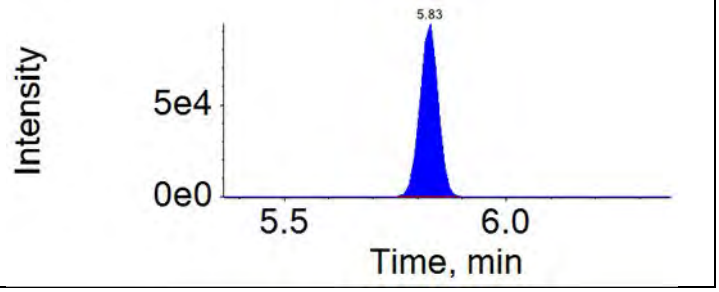
Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0





Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0



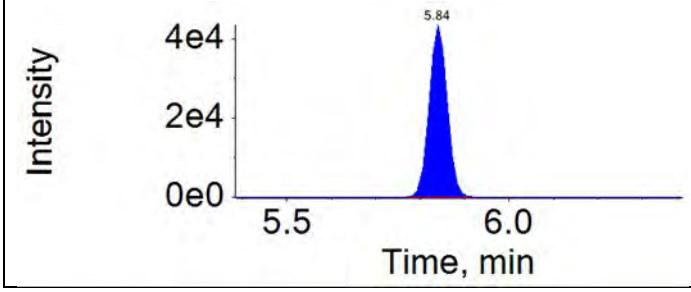


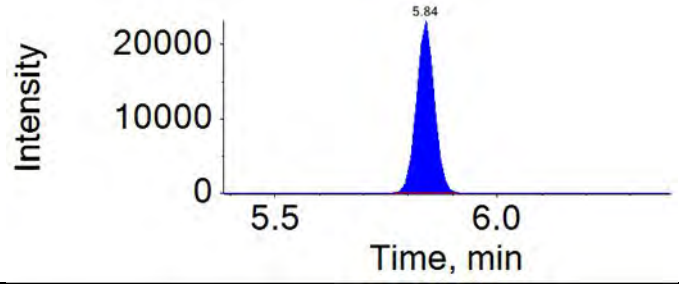
APPROVED
By MCD at 5:19 pm, 11/9/18

REVIEWED
By umar at 4:02 pm, 11/15/18

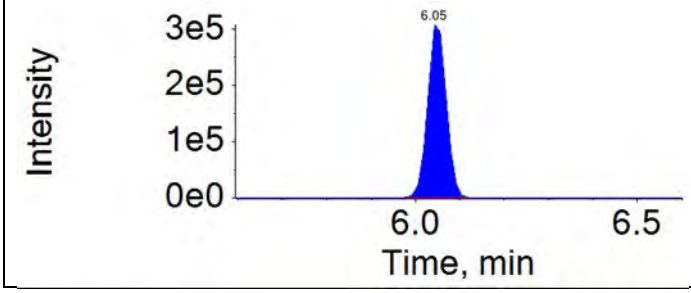
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV09DCCV1-4 11/9/2018 5:13:22 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

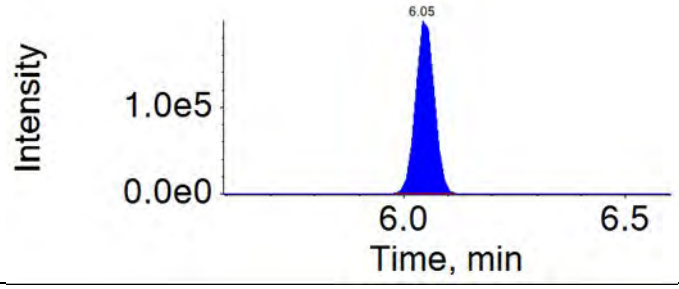
Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0



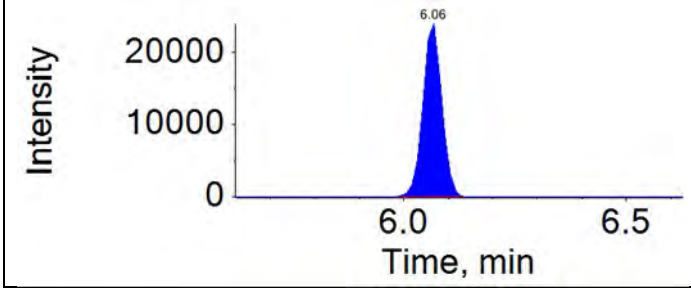


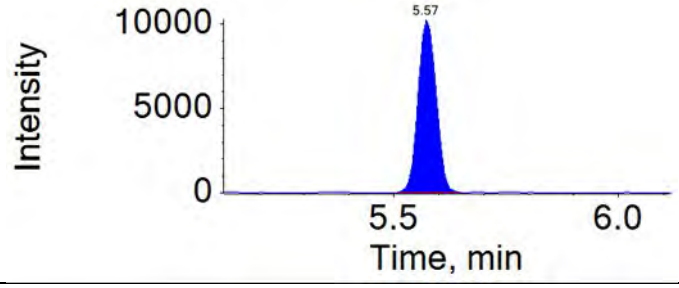
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0



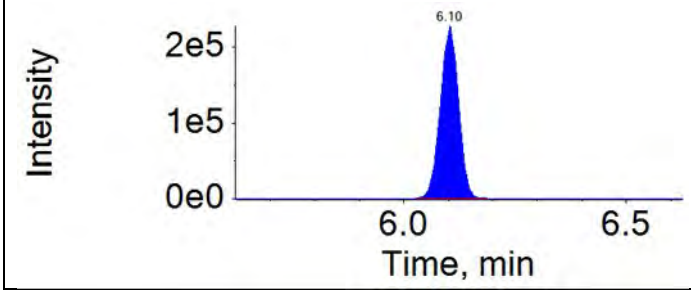


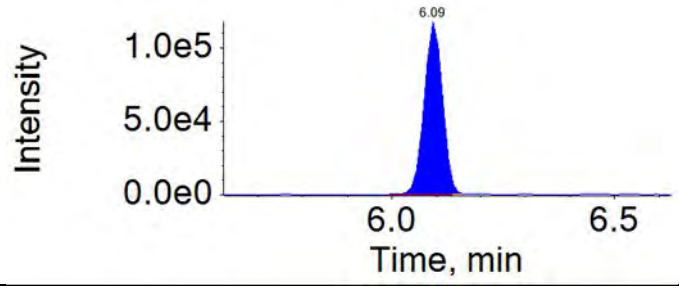
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0





Analyte: NMePFOSAE	Extraction Standard: d7-NMePFOSAE
616.0 / 59.0	623.0 / 59.0



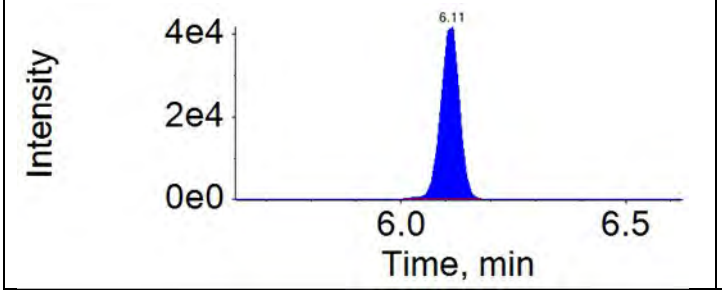


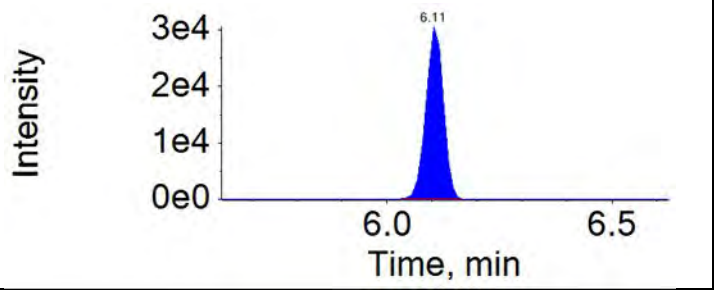
APPROVED
By MCD at 5:19 pm, 11/9/18

REVIEWED
By umar at 4:02 pm, 11/15/18

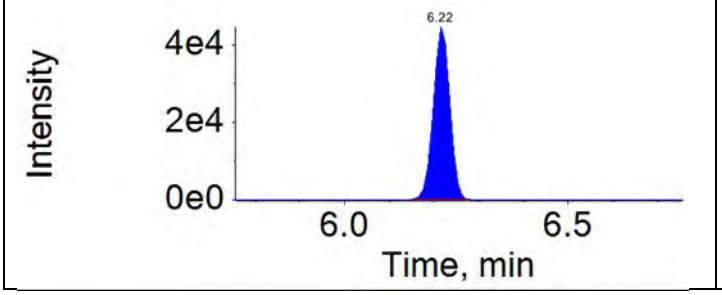
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV09DCCV1-4 11/9/2018 5:13:22 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

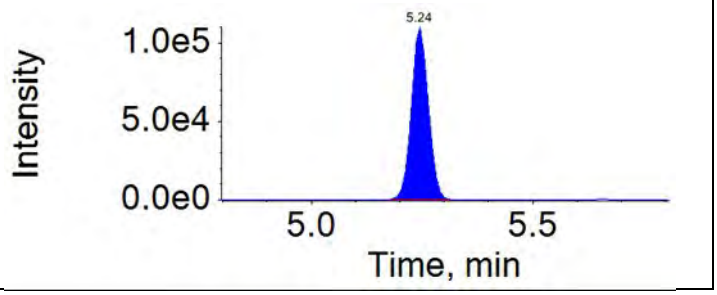
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



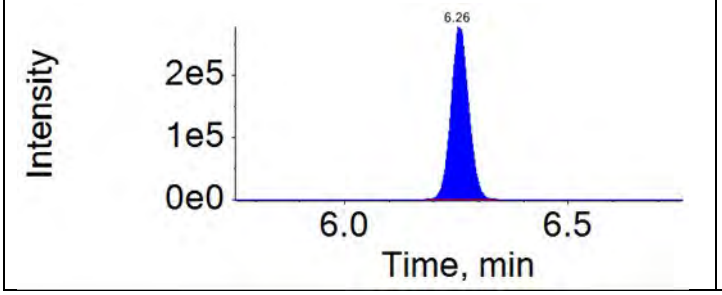


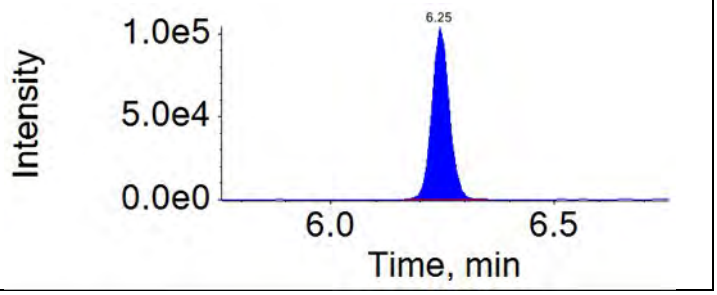
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



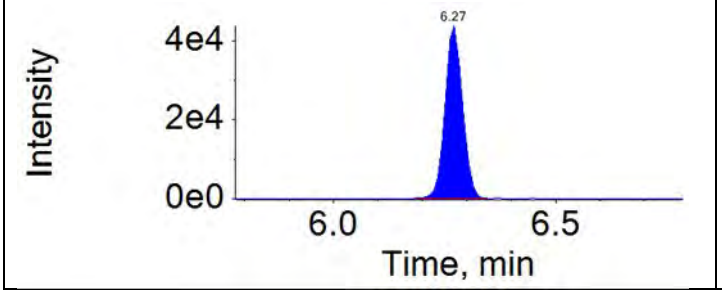


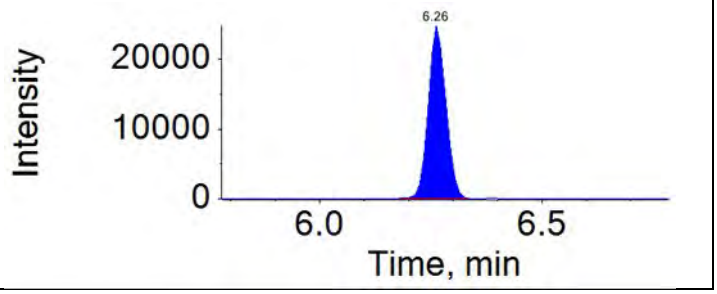
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





Analyte: NEtPFOSA	Extraction Standard: d5-NEtPFOSA
526.0 / 169.0	531.0 / 169.0

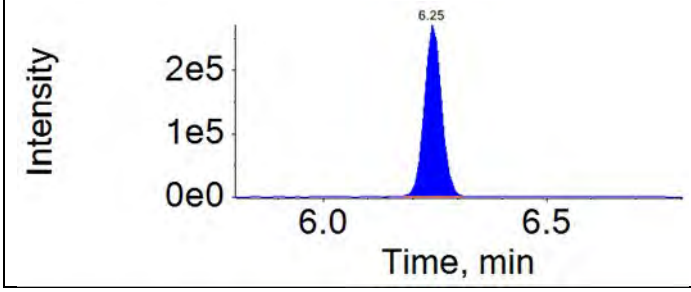
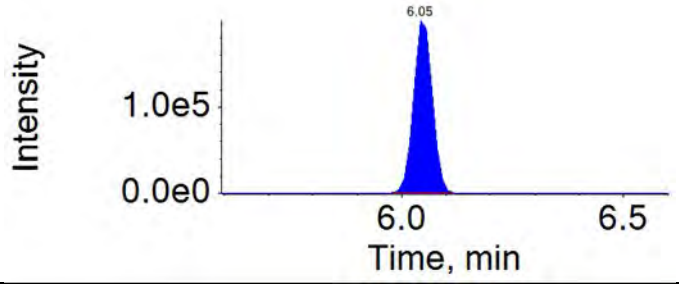


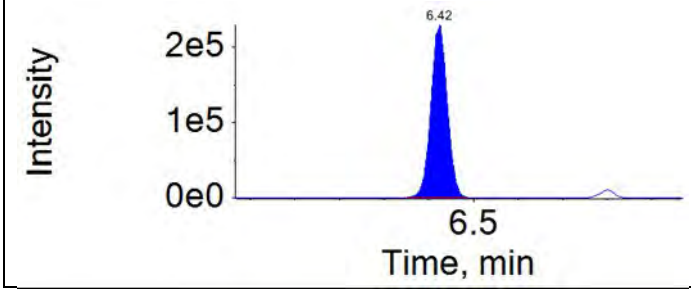
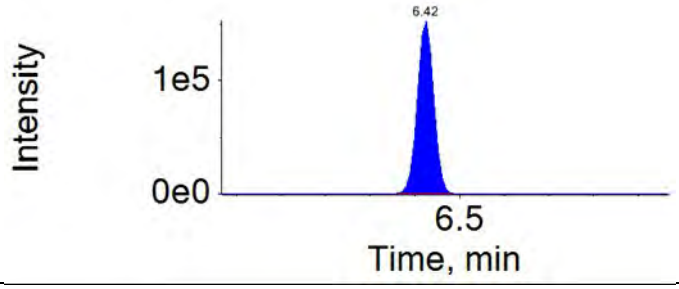


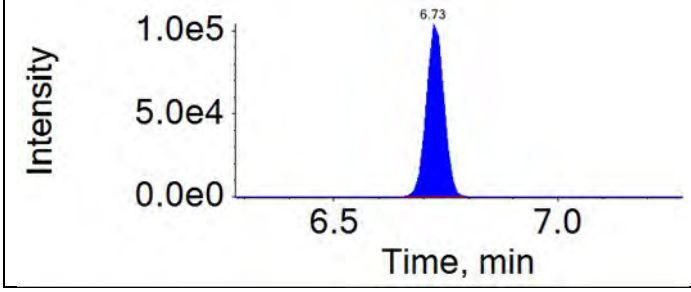
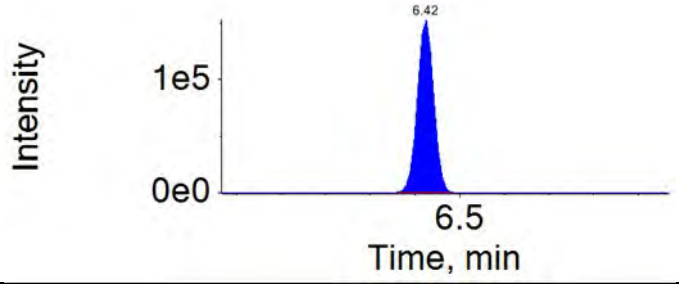
APPROVED
By MCD at 5:19 pm, 11/9/18

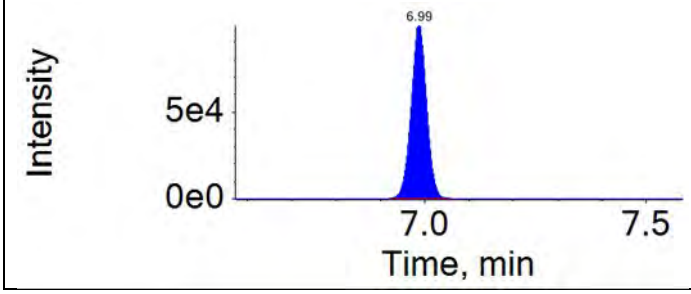
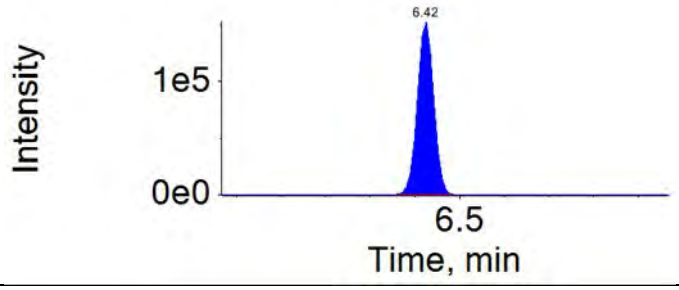
REVIEWED
By umar at 4:02 pm, 11/15/18

ICAL Name: 18NOV07DCAL **Result Table:** 18NOV09DCCV1-4 11/9/2018 5:13:22 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Analyte: PFTrDA	Extraction Standard: 13C2-PFDoDA
663.0 / 619.0	615.0 / 570.0
	

Analyte: PFTeDA	Extraction Standard: 13C2-PFTeDA
713.0 / 669.0	715.0 / 670.0
	

Analyte: PFHxDA	Extraction Standard: 13C2-PFTeDA
813.0 / 769.0	715.0 / 670.0
	

Analyte: PFODA	Extraction Standard: 13C2-PFTeDA
913.0 / 869.0	715.0 / 670.0
	

APPROVED
By MCD at 5:19 pm, 11/9/18

REVIEWED
By umar at 4:02 pm, 11/15/18

Ion Ratio Report

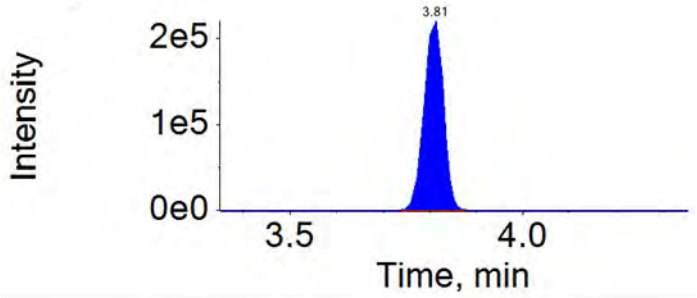
Sample Name: CCV3_CAL4 **Instrument Name:** LM27631 **File Name:** 18NOV09D-26.wiff

Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	3.81	1.00	644472.1	A	N/A	0.3601			
PFBS_2	3.81	1.00	232069.4	A	N/A	0.3601	1	50	
4:2-FTS	4.12	1.00	153588.0	A	N/A	0.6113			
4:2-FTS_2	4.12	1.00	93883.3	A	N/A	0.6113	-5	50	
PFHxA	4.16	1.00	1345972.4	A	N/A	0.0121			
PFHxA_2	4.16	1.00	16261.5	A	N/A	0.0121	7	50	
PFPeS	4.18	1.10	346340.0	A	N/A	0.5277			
PFPeS_2	4.18	1.10	182747.3	A	N/A	0.5277	-3	50	
PFHxS	4.55	1.00	497266.5	A	N/A	0.3616			
PFHxS_2	4.55	1.00	179814.1	A	N/A	0.3616	1	50	
PFHpA	4.55	1.00	1424173.6	A	N/A	0.0521			
PFHpA_2	4.54	1.00	74244.2	A	N/A	0.0521	-10	50	
6:2-FTS	4.90	1.00	117369.3	A	N/A	0.6597			
6:2-FTS_2	4.90	1.00	77427.0	A	N/A	0.6597	-3	50	
PFHpS	4.91	1.08	506158.9	A	N/A	0.3820			
PFHpS_2	4.91	1.08	193338.0	A	N/A	0.3820	-3	50	
PFOA	4.92	1.00	1472224.5	A	N/A	0.0548			
PFOA_2	4.92	1.00	80653.0	A	N/A	0.0548	-14	50	
PFOS	5.25	1.00	455029.8	A	N/A	0.3381			
PFOS_2	5.25	1.00	153837.2	A	N/A	0.3381	-4	50	
PFNA	5.26	1.00	1138897.5	A	N/A	0.0192			
PFNA_2	5.26	1.00	21888.3	A	N/A	0.0192	-7	50	
PFNS	5.55	1.06	300919.7	A	N/A	0.4475			
PFNS_2	5.55	1.06	134668.5	A	N/A	0.4475	-8	50	
PFDA	5.57	1.00	933472.7	A	N/A	0.0065			
PFDA_2	5.57	1.00	6098.5	A	N/A	0.0065	20	50	
8:2-FTS	5.57	1.00	100308.8	A	N/A	0.6703			
8:2-FTS_2	5.57	1.00	67239.4	A	N/A	0.6703	8	50	
NMeFOSAA	5.71	1.00	128720.6	A	N/A	0.2345			
NMeFOSAA_2	5.71	1.00	30190.5	A	N/A	0.2345	8	50	
PFDS	5.80	1.11	247458.9	A	N/A	0.4961			
PFDS_2	5.80	1.11	122768.2	A	N/A	0.4961	8	50	
PFUnDA	5.83	1.00	781906.4	A	N/A	0.0042			
PFUnDA_2	5.83	1.00	3264.1	A	N/A	0.0042	37	50	
NEtFOSAA	5.84	1.00	121903.6	A	N/A	0.6488			
NEtFOSAA_2	5.84	1.00	79092.5	A	N/A	0.6488	7	50	
PFDoDA	6.05	1.00	903451.4	A	N/A	0.0127			
PFDoDA_2	6.05	1.00	11454.1	A	N/A	0.0127	21	50	
10:2-FTS	6.06	1.09	70799.4	A	N/A	0.6474			
10:2-FTS_2	6.06	1.09	45834.2	A	N/A	0.6474	-9	50	
PFTrDA	6.25	1.03	718982.5	A	N/A	0.0094			
PFTrDA_2	6.24	1.03	6723.2	A	N/A	0.0094	-2	50	
PFTeDA	6.42	1.00	579924.3	A	N/A	0.0068			
PFTeDA_2	6.42	1.00	3932.2	A	N/A	0.0068	26	50	
PFHxDA	6.73	1.05	282378.4	A	N/A	0.0588			
PFHxDA_2	6.72	1.05	16593.4	A	N/A	0.0588	-1	50	
PFODA	6.99	1.09	242541.6	A	N/A	0.0259			
PFODA_2	6.99	1.09	6279.4	A	N/A	0.0259	1	50	

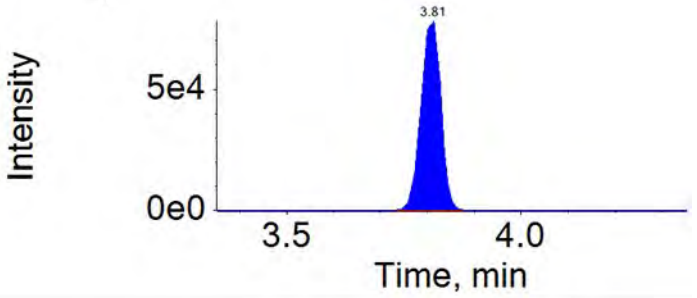
APPROVED
By MCD at 5:19 pm, 11/9/18

REVIEWED
By umar at 4:02 pm, 11/15/18

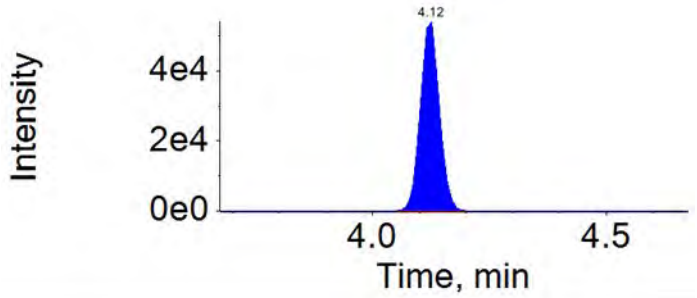
Component: PFBS
Primary Mass: 299.0 / 80.0



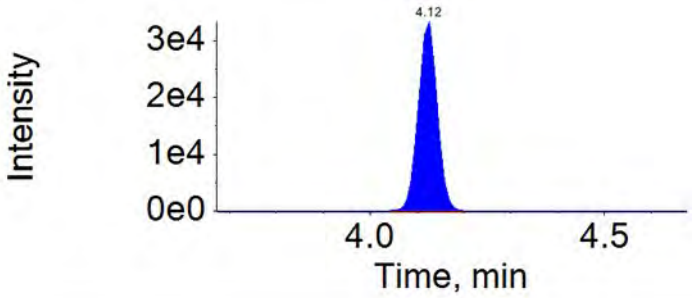
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



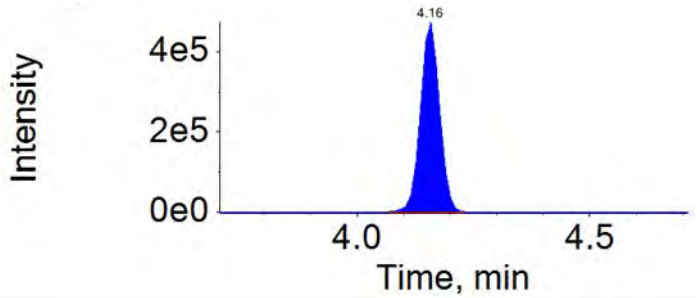
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



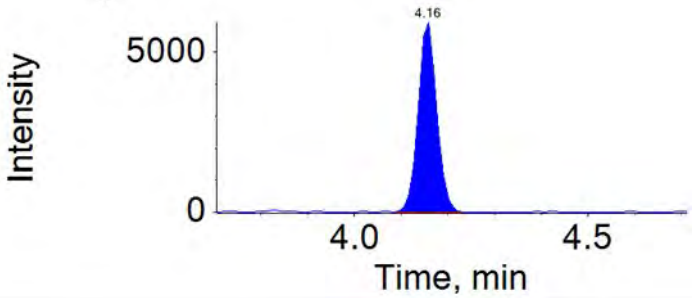
Component: 4:2-FTS_2
Secondary Mass: 327.0 / 81.0



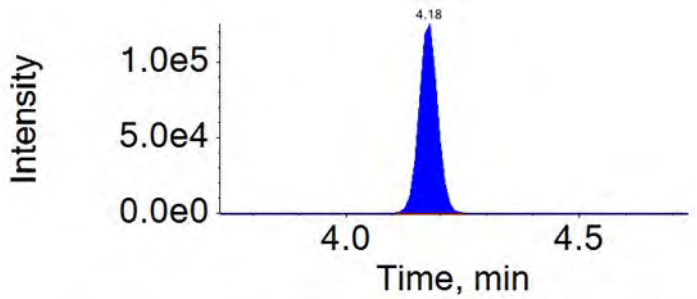
Component: PFHxA
Primary Mass: 313.0 / 269.0



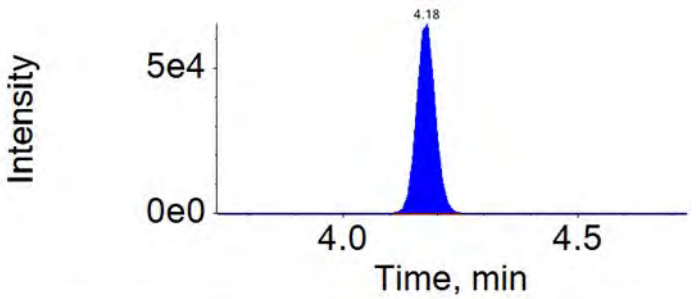
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



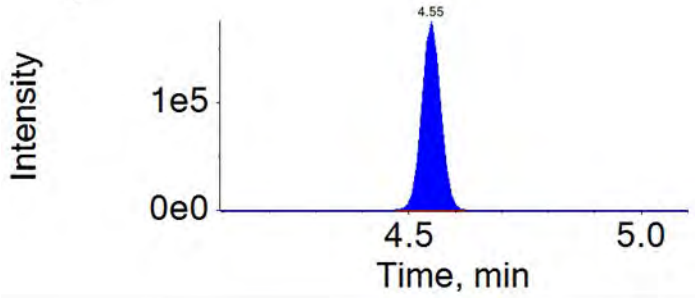
Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



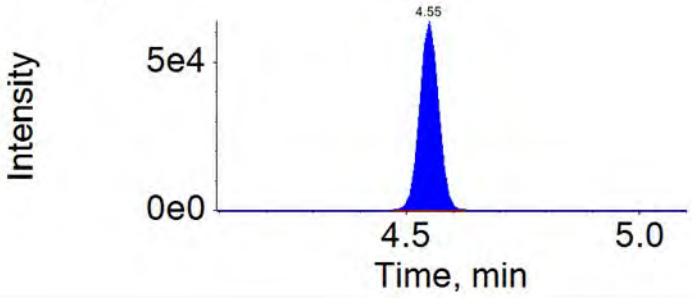
APPROVED
By MCD at 5:19 pm, 11/9/18

REVIEWED
By umar at 4:02 pm, 11/15/18

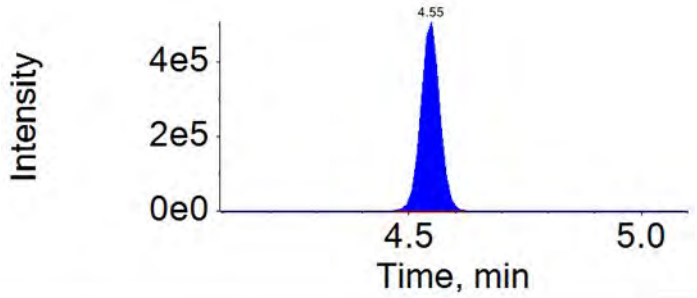
Component: PFHxS
Primary Mass: 399.0 / 80.0



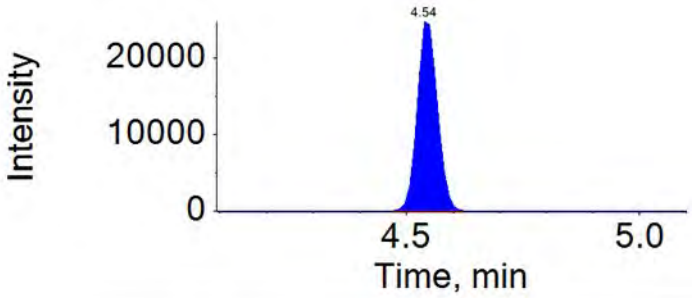
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



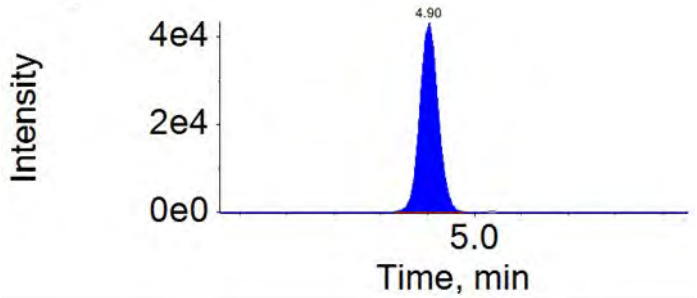
Component: PFHpA
Primary Mass: 363.0 / 319.0



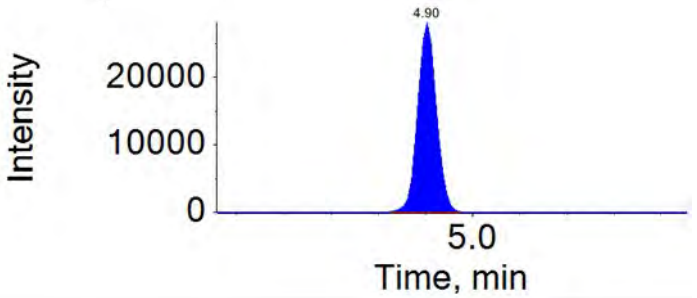
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



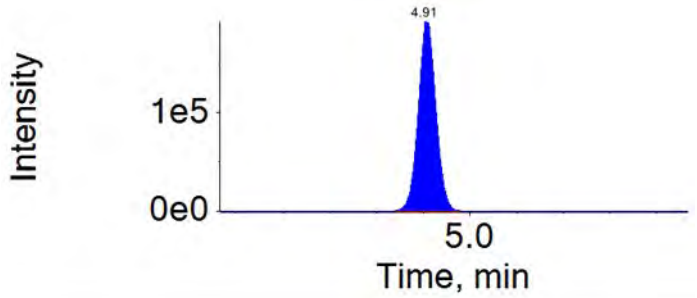
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



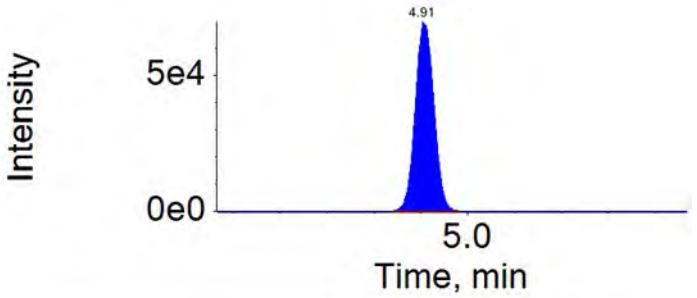
Component: 6:2-FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



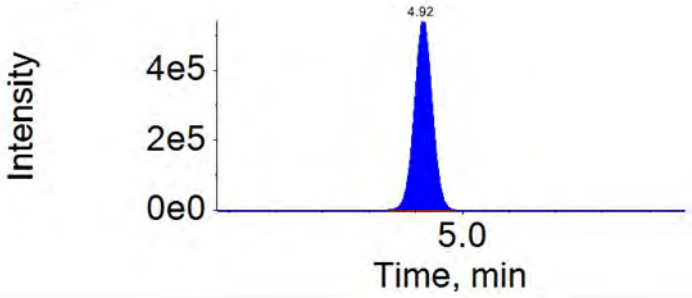
Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



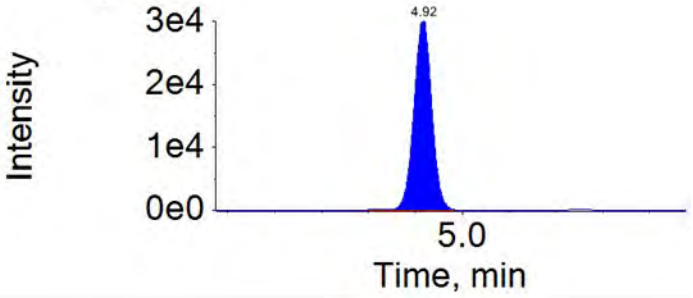
APPROVED
By MCD at 5:19 pm, 11/9/18

REVIEWED
By umar at 4:02 pm, 11/15/18

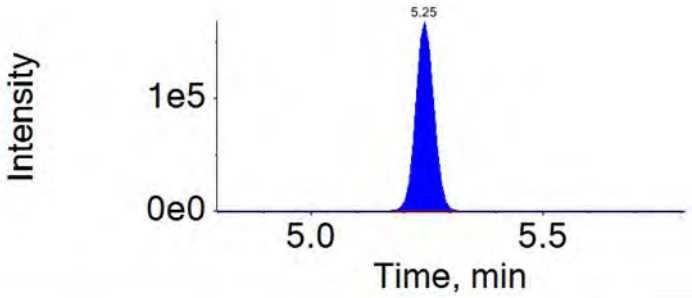
Component: PFOA
Primary Mass: 413.0 / 369.0



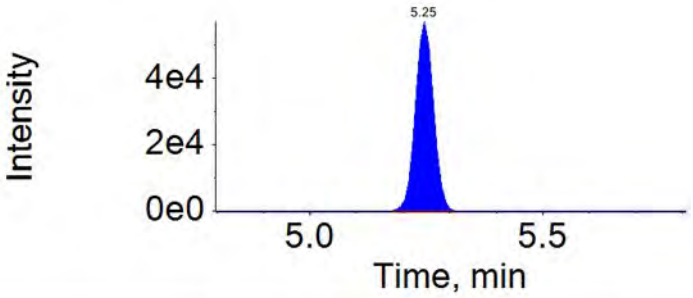
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



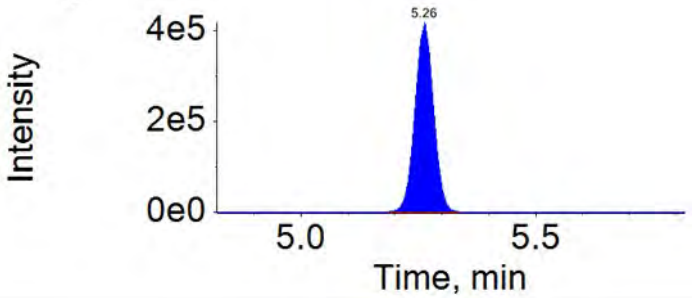
Component: PFOS
Primary Mass: 499.0 / 80.0



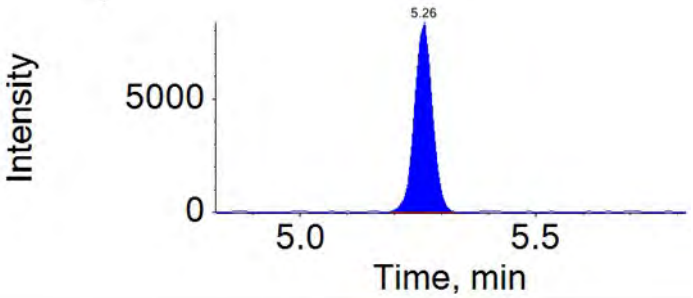
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



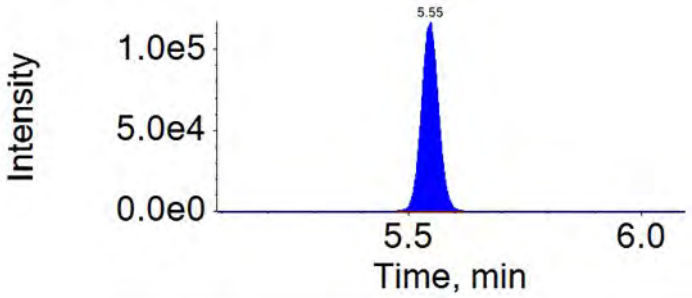
Component: PFNA
Primary Mass: 463.0 / 419.0



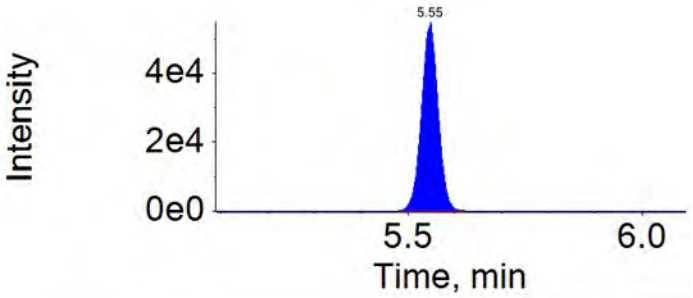
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



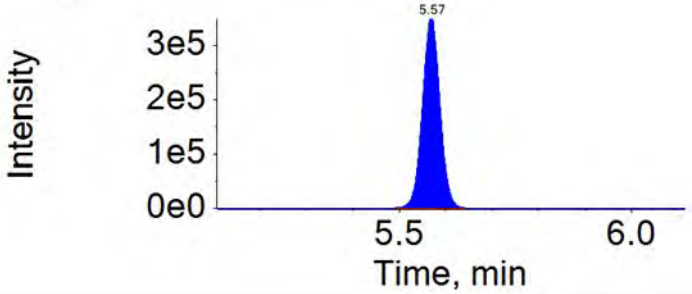
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



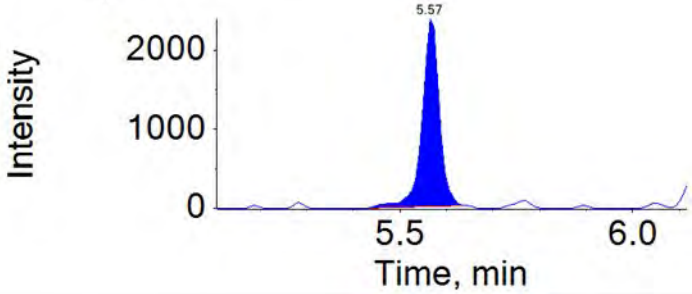
APPROVED
By MCD at 5:19 pm, 11/9/18

REVIEWED
By umar at 4:02 pm, 11/15/18

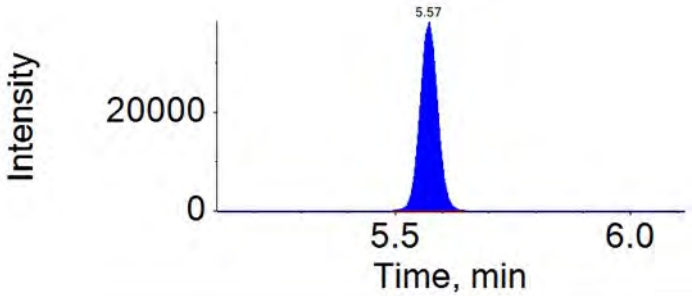
Component: PFDA
Primary Mass: 513.0 / 469.0



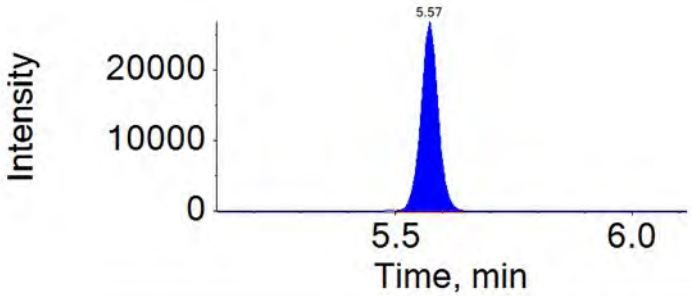
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



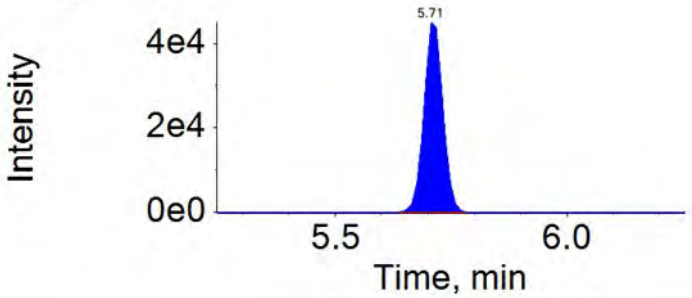
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



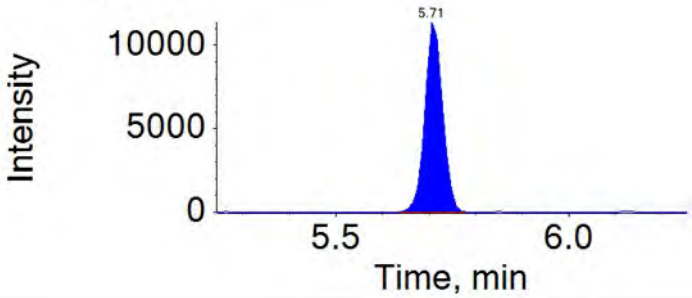
Component: 8:2-FTS_2
Secondary Mass: 527.0 / 81.0



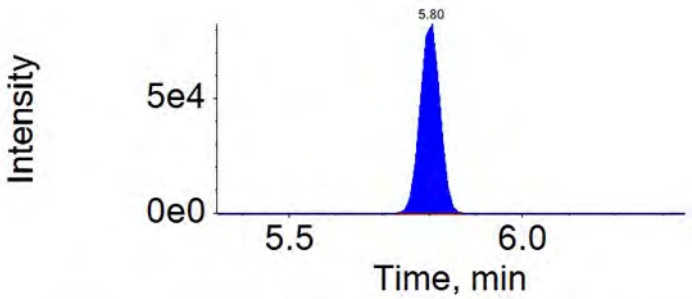
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



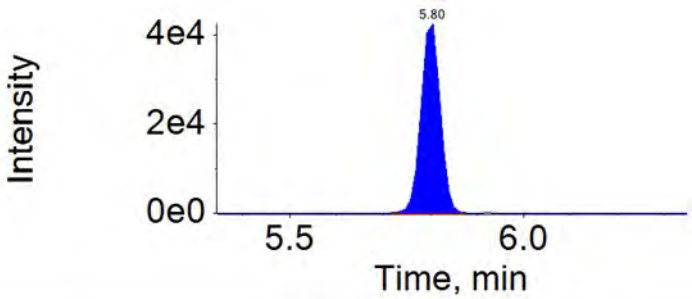
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



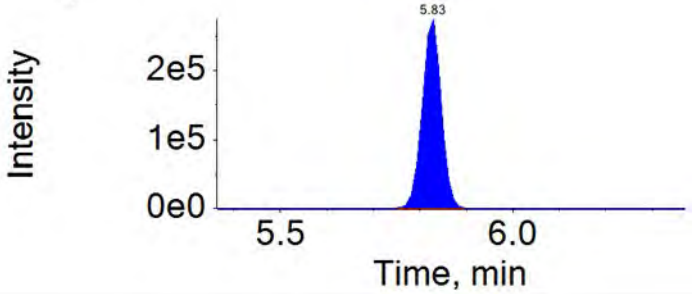
Component: PFDS_2
Secondary Mass: 599.0 / 99.0



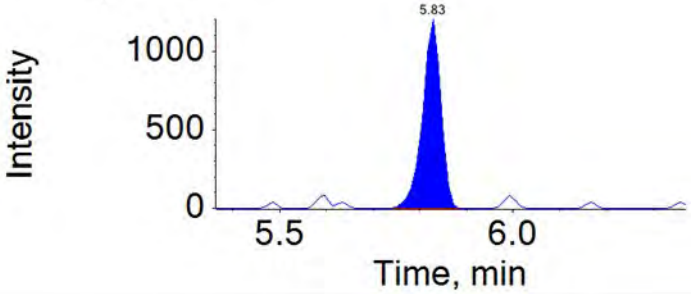
APPROVED
By MCD at 5:19 pm, 11/9/18

REVIEWED
By umar at 4:02 pm, 11/15/18

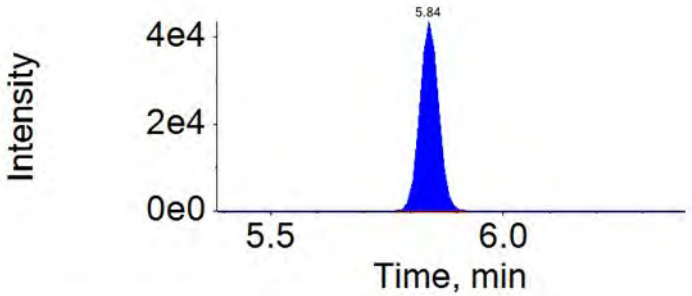
Component: PFUnDA
Primary Mass: 563.0 / 519.0



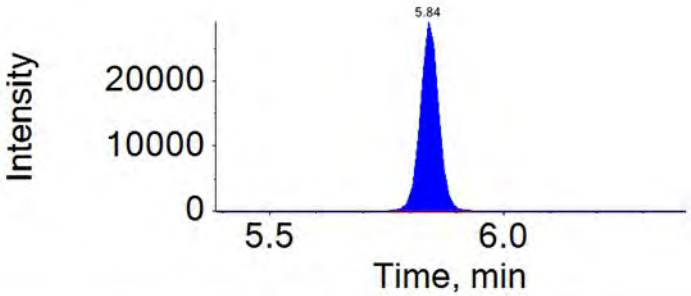
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



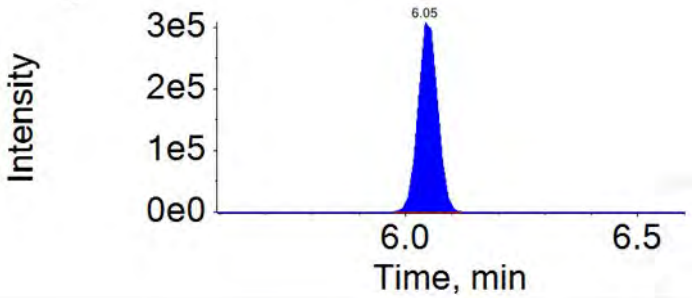
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



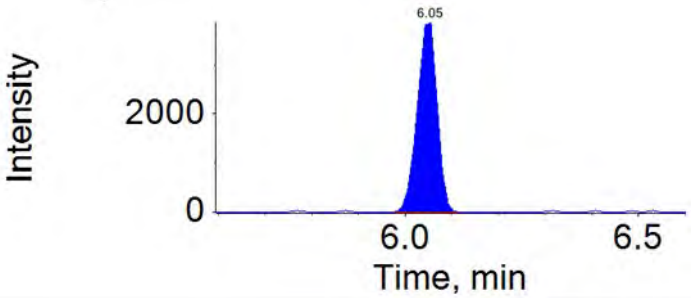
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



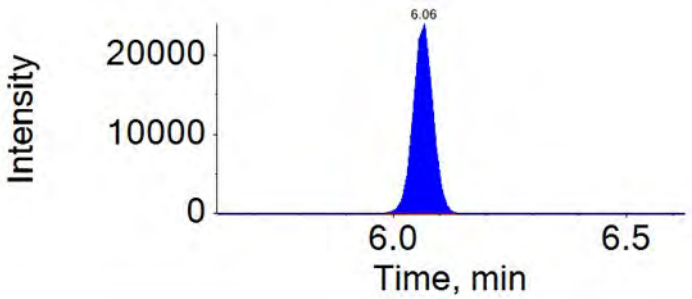
Component: PFDoDA
Primary Mass: 613.0 / 569.0



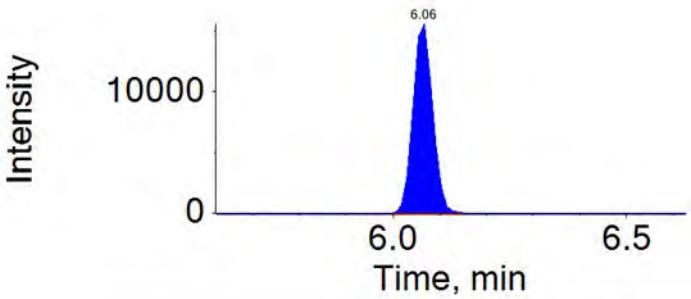
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



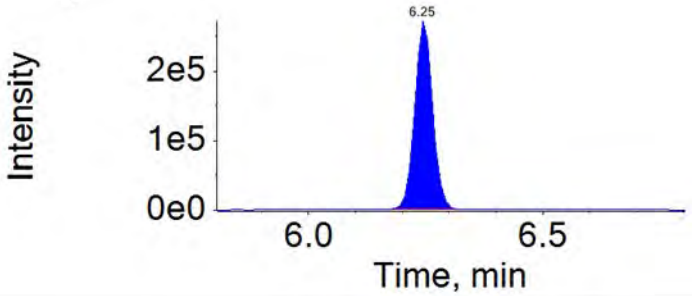
Component: 10:2-FTS_2
Secondary Mass: 627.0 / 81.0



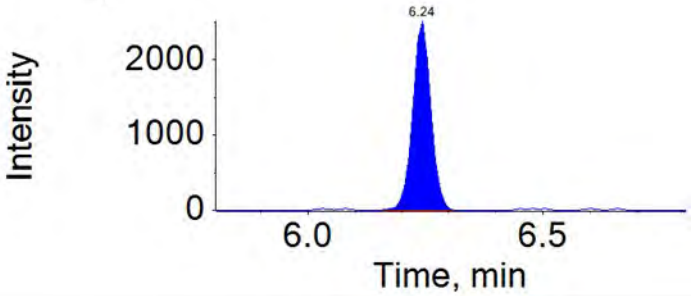
APPROVED
By MCD at 5:19 pm, 11/9/18

REVIEWED
By umar at 4:02 pm, 11/15/18

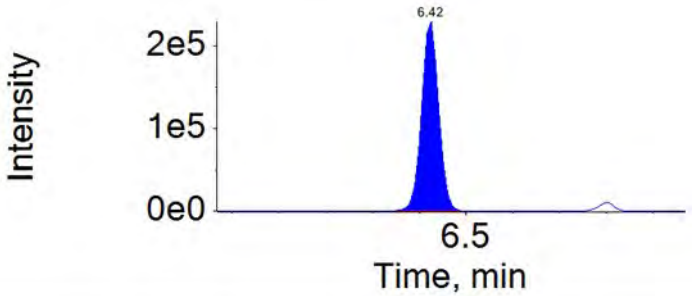
Component: PFTrDA
Primary Mass: 663.0 / 619.0



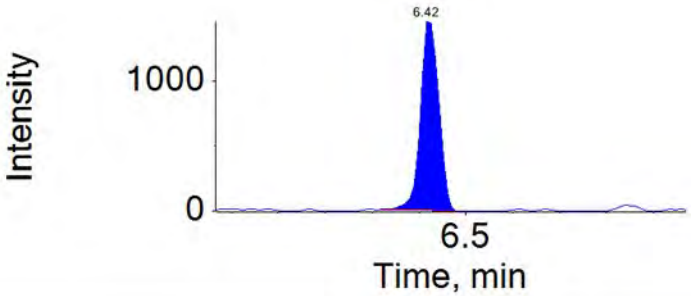
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



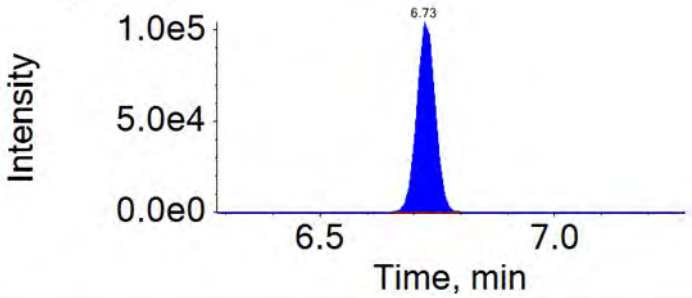
Component: PFTeDA
Primary Mass: 713.0 / 669.0



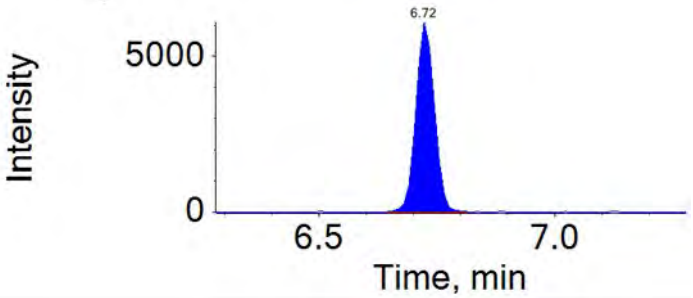
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



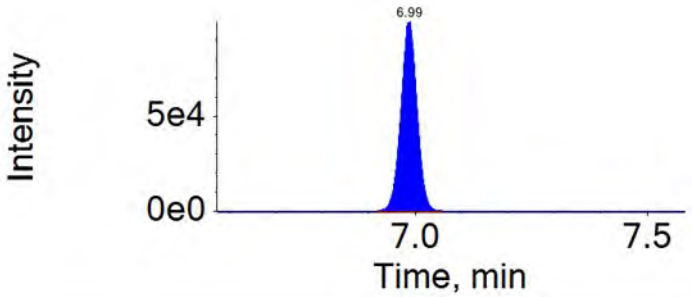
Component: PFHxDA
Primary Mass: 813.0 / 769.0



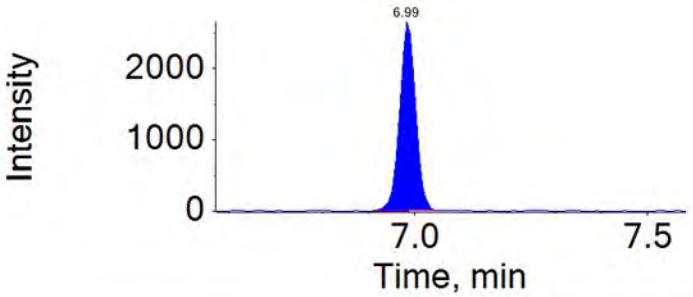
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



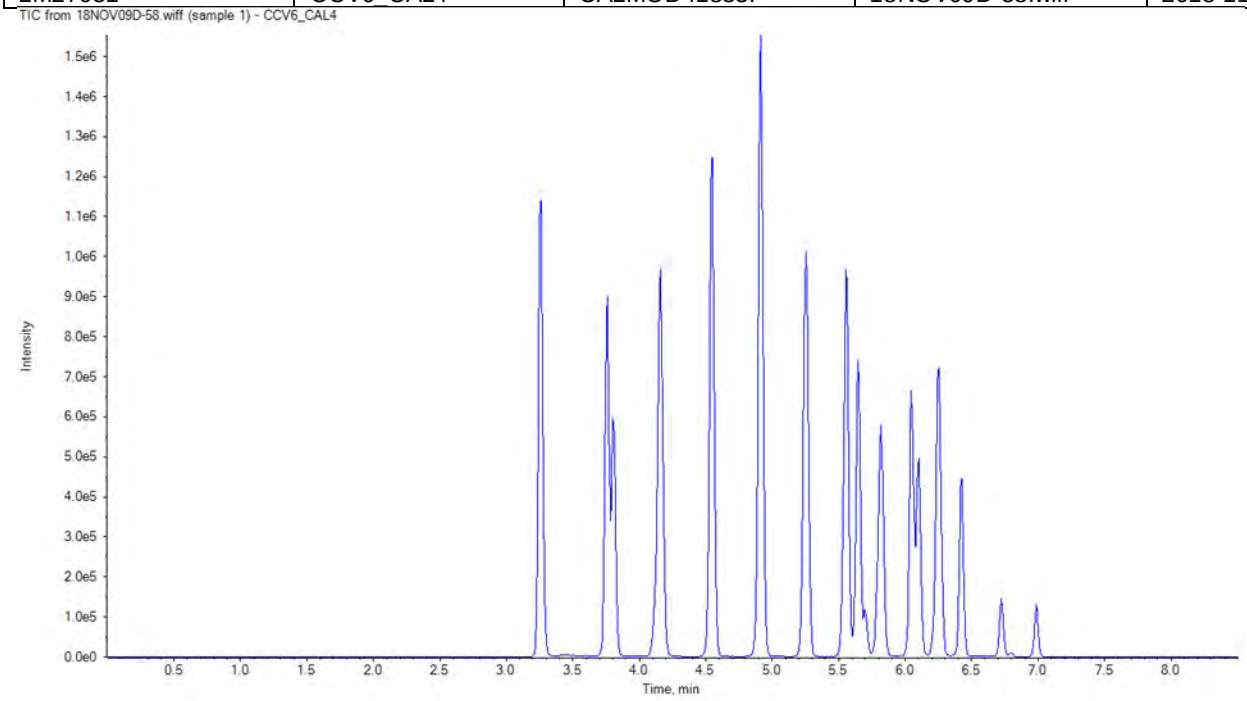
APPROVED
By MCD at 5:19 pm, 11/9/18

REVIEWED
By umar at 4:02 pm, 11/15/18

Continuing Calibration Verfication

ICAL Name: 18NOV07DCAL **Result Table:** 18NOV09DCCV5-10 11/9/2018 9:20:28 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	CCV6_CAL4	CALMOD41833F	18NOV09D-58.wiff	2018-11-09T13:13:18



Injection Standard Area Reference File: 18NOV09D-03

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Reference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	711851.5	725974.7	-2	50	
13C2-PFOA	5.0	487990.0	506876.7	-4	50	
13C4-PFOS	4.8	268339.7	274910.1	-2	50	
13C2-PFDA	5.0	300485.2	307276.7	-2	50	

APPROVED
By MCD at 9:29 pm, 11/9/18

REVIEWED
By HMK at 7:21 am, 11/15/18

Continuing Calibration Verfication

ICAL Name: 18NOV07DCAL **Result Table:** 18NOV09DCCV5-10 11/9/2018 9:20:28 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	CCV6_CAL4	CALMOD41833F	18NOV09D-58.wiff	2018-11-09T13:13:18

Analyte Name	Analyte Area	Sc /pk	Ext Std Name	Ext Std Area	Ext Std con	Area Ratio	RT (min)	RRT	Spec Amt	Calc Amt	% Diff	% Diff Lim	% Diff OOS
PFBA	1128448.1	10	13C4-PFBA	775941.9	5.0	1.454	3.26	1.000	8.000	8.511	6	30	
PFPeA	1158325.1	12	13C5-PFPeA	813743.5	5.0	1.423	3.76	1.000	8.000	8.459	6	30	
PFBS	618537.7	11	13C3-PFBS	418651.3	4.7	1.477	3.81	1.000	7.080	7.449	5	30	
4:2-FTS	147591.3	11	13C2-4:2-FTS	49993.6	4.7	2.952	4.12	1.000	7.472	7.937	6	30	
PFHxA	1304135.9	12	13C5-PFHxA	663357.8	5.0	1.966	4.16	1.000	8.000	8.431	5	30	
PFPeS	330448.2	11	13C3-PFBS	418651.3	4.7	0.789	4.18	1.100	7.500	7.785	4	30	
PFHxS	481361.1	12	13C3-PFHxS	335299.7	4.7	1.436	4.55	1.000	7.560	7.277	-4	30	
PFHpA	1402000.9	12	13C4-PFHpA	544254.9	5.0	2.576	4.54	1.000	8.000	8.664	8	30	
6:2-FTS	117446.7	11	13C2-6:2-FTS	35193.3	4.8	3.337	4.90	1.000	7.584	8.325	10	30	
PFHpS	485428.9	11	13C3-PFHxS	335299.7	4.7	1.448	4.91	1.080	7.610	7.574	0	30	
PFOA	1375232.8	11	13C8-PFOA	918626.3	5.0	1.497	4.92	1.000	8.000	8.429	5	30	
PFOS	444338.9	11	13C8-PFOS	293881.6	4.8	1.512	5.24	1.000	7.650	7.840	2	30	
PFNA	1109597.3	11	13C9-PFNA	481807.0	5.0	2.303	5.26	1.000	8.000	8.607	8	30	
PFNS	293202.2	10	13C8-PFOS	293881.6	4.8	0.998	5.54	1.060	7.680	7.910	3	30	
PFDA	889730.2	11	13C6-PFDA	601491.8	5.0	1.479	5.56	1.000	8.000	8.138	2	30	
8:2-FTS	92493.2	11	13C2-8:2-FTS	28871.3	4.8	3.204	5.56	1.000	7.664	7.221	-6	30	
PFOSA	1041481.6	11	13C8-PFOSA	668402.5	5.0	1.558	5.65	1.000	8.000	8.423	5	30	
NMeFOSAA	128740.2	11	d3-NMeFOSAA	82371.2	5.0	1.563	5.70	1.000	8.000	8.042	1	30	
PFDS	236970.5	12	13C8-PFOS	293881.6	4.8	0.806	5.79	1.110	7.700	7.703	0	30	
PFUnDA	780262.5	12	13C7-PFUnDA	272828.3	5.0	2.860	5.82	1.000	8.000	8.202	3	30	
NEtFOSAA	118779.9	12	d5-NEtFOSAA	62326.5	5.0	1.906	5.84	1.000	8.000	8.190	2	30	
PFDoDA	850770.9	12	13C2-PFDoDA	556295.8	5.0	1.529	6.05	1.000	8.000	8.288	4	30	
10:2-FTS	64255.6	12	13C2-8:2-FTS	28871.3	4.8	2.226	6.06	1.090	7.712	6.930	-10	30	
NMePFOSAE	628735.4	11	d7-NMePFOSAE	322031.7	5.0	1.952	6.10	1.000	8.000	8.749	9	30	
NMePFOSA	120293.7	12	d3-NMePFOSA	84087.8	5.0	1.431	6.11	1.000	8.000	8.007	0	30	
PFDoS	115540.3	11	13C8-PFOS	293881.6	4.8	0.393	6.22	1.190	7.740	7.588	-2	30	
NEtPFOSAE	720253.4	11	d9-NEtPFOSAE	270998.9	5.0	2.658	6.26	1.000	8.000	8.520	7	30	
NEtPFOSA	122059.6	11	d5-NEtPFOSA	69807.0	5.0	1.749	6.27	1.000	8.000	7.701	-4	30	
PFTrDA	710393.0	11	13C2-PFDoDA	556295.8	5.0	1.277	6.24	1.030	8.000	8.053	1	30	
PFTeDA	574891.9	11	13C2-PFTeDA	385094.1	5.0	1.493	6.42	1.000	8.000	8.767	10	30	
PFHxDA	282106.4	11	13C2-PFTeDA	385094.1	5.0	0.733	6.72	1.050	8.000	9.094	14	30	
PFODA	252545.4	10	13C2-PFTeDA	385094.1	5.0	0.656	6.99	1.090	8.000	9.395	17	30	

APPROVED
By MCD at 9:29 pm, 11/9/18

REVIEWED
By HMK at 7:21 am, 11/15/18

Continuing Calibration Verfication

ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13
Result Table: 18NOV09DCCV5-10 11/9/2018 9:20:28 PM
Acquisition Method: 18AUG13_3uL.dam

APPROVED
By MCD at 9:29 pm, 11/9/18

REVIEWED
By HMK at 7:21 am, 11/15/18

ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13
Result Table: 18NOV09DCCV5-10 11/9/2018 9:22:25 PM
Acquisition Method: 18AUG13_3uL.dam

Sample Name:	CCV6_CAL4			**Data File:**		18NOV09D-58.wiff
Sample ID:	CALMOD41833F			**Acquis Date:**		2018-11-09T13:13:18
Sample Type:	Quality Control			**Instrument:**		LM27631
Vial Position:	6			**Acquis Method:**		18AUG13_3uL.dam
Injection Vol:	3.00			**Result Table:**		18NOV09DCCV5-10
QMethod File:	MQ4-18AUG13			**ICAL Name:**		18NOV07DCAL
Batch Number:	N/A			**Operator:**		MCD7824
Sample Wt.:	1.00000			**Dilution Factor:**		1.00
Sample Vol.:	1.000			**Prep Factor:**		1.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV09D-03

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Rreference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	711851.5	725974.7	-2	50	
13C2-PFOA	5.0	487990.0	506876.7	-4	50	
13C4-PFOS	4.8	268339.7	274910.1	-2	50	
13C2-PFDA	5.0	300485.2	307276.7	-2	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	775941.9	13C3-PFBA	711851.5	1.090	5.000	5.044	101	70-130	
E13C5-PFPeA	813743.5	13C3-PFBA	711851.5	1.143	5.000	4.980	100	70-130	
E13C3-PFBS	418651.3	13C3-PFBA	711851.5	0.588	4.650	4.316	93	70-130	
E13C2-4:2-FTS	49993.6	13C2-PFOA	487990.0	0.102	4.670	4.623	99	70-130	
E13C5-PFHxA	663357.8	13C2-PFOA	487990.0	1.359	5.000	5.000	100	70-130	
E13C3-PFHxS	335299.7	13C2-PFOA	487990.0	0.687	4.730	4.933	104	70-130	
E13C4-PFHpA	544254.9	13C2-PFOA	487990.0	1.115	5.000	5.074	101	70-130	
E13C2-6:2-FTS	35193.3	13C2-PFOA	487990.0	0.072	4.750	4.809	101	70-130	
E13C8-PFOA	918626.3	13C2-PFOA	487990.0	1.882	5.000	5.250	105	70-130	
E13C8-PFOS	293881.6	13C4-PFOS	268339.7	1.095	4.780	4.843	101	70-130	
E13C9-PFNA	481807.0	13C4-PFOS	268339.7	1.796	5.000	4.905	98	70-130	
E13C6-PFDA	601491.8	13C2-PFDA	300485.2	2.002	5.000	5.034	101	70-130	
E13C2-8:2-FTS	28871.3	13C2-PFDA	300485.2	0.096	4.790	5.084	106	70-130	
E13C8-PFOSA	668402.5	13C2-PFDA	300485.2	2.224	5.000	4.854	97	70-130	
Ed3-NMeFOSAA	82371.2	13C2-PFDA	300485.2	0.274	5.000	5.098	102	70-130	
E13C7-PFUnDA	272828.3	13C2-PFDA	300485.2	0.908	5.000	5.238	105	70-130	
Ed5-NEtFOSAA	62326.5	13C2-PFDA	300485.2	0.207	5.000	4.800	96	70-130	
E13C2-PFDoDA	556295.8	13C2-PFDA	300485.2	1.851	5.000	4.991	100	70-130	
Ed7-NMePFOSAE	322031.7	13C2-PFDA	300485.2	1.072	5.000	4.984	100	70-130	
Ed3-NMePFOSA	84087.8	13C2-PFDA	300485.2	0.280	5.000	5.123	102	70-130	
Ed9-NEtPFOSAE	270998.9	13C2-PFDA	300485.2	0.902	5.000	5.150	103	70-130	
Ed5-NEtPFOSA	69807.0	13C2-PFDA	300485.2	0.232	5.000	5.379	108	70-130	
E13C2-PFTeDA	385094.1	13C2-PFDA	300485.2	1.282	5.000	4.614	92	70-130	

APPROVED
By MCD at 9:29 pm, 11/9/18

REVIEWED
By HMK at 7:21 am, 11/15/18

ICAL Name: 18NOV07DCAL **Result Table:** 18NOV09DCCV5-10 11/9/2018 9:22:25 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

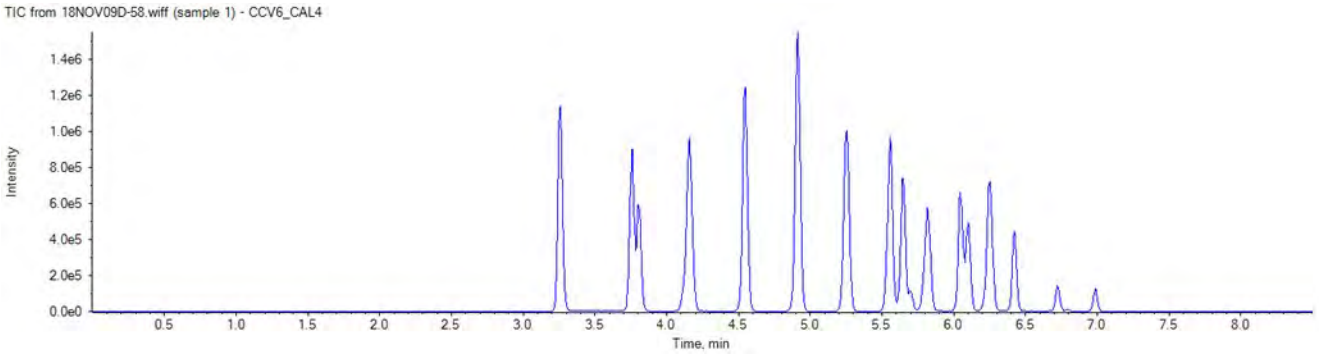
Analyte Quantitation Peak Table

Sample Name: CCV6_CAL4 **Instrument Name:** LM27631 **File Name:** 18NOV09D-58.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	1.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	3.26	1.000	1128448.1		A	13C4-PFBA	3.26	775941.9	1.454	8.511
PFPeA	3.76	1.000	1158325.1		A	13C5-PFPeA	3.76	813743.5	1.423	8.459
PFBS	3.81	1.000	618537.7		A	13C3-PFBS	3.81	418651.3	1.477	7.449
4:2-FTS	4.12	1.000	147591.3		A	13C2-4:2-FTS	4.12	49993.6	2.952	7.937
PFHxA	4.16	1.000	1304135.9		A	13C5-PFHxA	4.16	663357.8	1.966	8.431
PFPeS	4.18	1.100	330448.2		A	13C3-PFBS	3.81	418651.3	0.789	7.785
PFHxS	4.55	1.000	481361.1		A	13C3-PFHxS	4.55	335299.7	1.436	7.277
PFHpA	4.54	1.000	1402000.9		A	13C4-PFHpA	4.54	544254.9	2.576	8.664
6:2-FTS	4.90	1.000	117446.7		A	13C2-6:2-FTS	4.90	35193.3	3.337	8.325
PFHpS	4.91	1.080	485428.9		A	13C3-PFHxS	4.55	335299.7	1.448	7.574
PFOA	4.92	1.000	1375232.8		A	13C8-PFOA	4.91	918626.3	1.497	8.429
PFOS	5.24	1.000	444338.9		A	13C8-PFOS	5.24	293881.6	1.512	7.840
PFNA	5.26	1.000	1109597.3		A	13C9-PFNA	5.26	481807.0	2.303	8.607
PFNS	5.54	1.060	293202.2		A	13C8-PFOS	5.24	293881.6	0.998	7.910
PFDA	5.56	1.000	889730.2		A	13C6-PFDA	5.56	601491.8	1.479	8.138
8:2-FTS	5.56	1.000	92493.2		A	13C2-8:2-FTS	5.56	28871.3	3.204	7.221
PFOSA	5.65	1.000	1041481.6		A	13C8-PFOSA	5.65	668402.5	1.558	8.423
NMeFOSAA	5.70	1.000	128740.2		A	d3-NMeFOSAA	5.70	82371.2	1.563	8.042
PFDS	5.79	1.110	236970.5		A	13C8-PFOS	5.24	293881.6	0.806	7.703
PFUnDA	5.82	1.000	780262.5		A	13C7-PFUnDA	5.82	272828.3	2.860	8.202
NEtFOSAA	5.84	1.000	118779.9		A	d5-NEtFOSAA	5.83	62326.5	1.906	8.190
PFDoDA	6.05	1.000	850770.9		A	13C2-PFDoDA	6.05	556295.8	1.529	8.288
10:2-FTS	6.06	1.090	64255.6		A	13C2-8:2-FTS	5.56	28871.3	2.226	6.930
NMePFOSAE	6.10	1.000	628735.4		A	d7-NMePFOSAE	6.09	322031.7	1.952	8.749
NMePFOSA	6.11	1.000	120293.7		A	d3-NMePFOSA	6.11	84087.8	1.431	8.007
PFDoS	6.22	1.190	115540.3		A	13C8-PFOS	5.24	293881.6	0.393	7.588
NEtPFOSAE	6.26	1.000	720253.4		A	d9-NEtPFOSAE	6.25	270998.9	2.658	8.520
NEtPFOSA	6.27	1.000	122059.6		A	d5-NEtPFOSA	6.26	69807.0	1.749	7.701
PFTrDA	6.24	1.030	710393.0		A	13C2-PFDoDA	6.05	556295.8	1.277	8.053
PFTeDA	6.42	1.000	574891.9		A	13C2-PFTeDA	6.42	385094.1	1.493	8.767
PFHxDA	6.72	1.050	282106.4		A	13C2-PFTeDA	6.42	385094.1	0.733	9.094
PFODA	6.99	1.090	252545.4		A	13C2-PFTeDA	6.42	385094.1	0.656	9.395

Total Ion Chromatogram

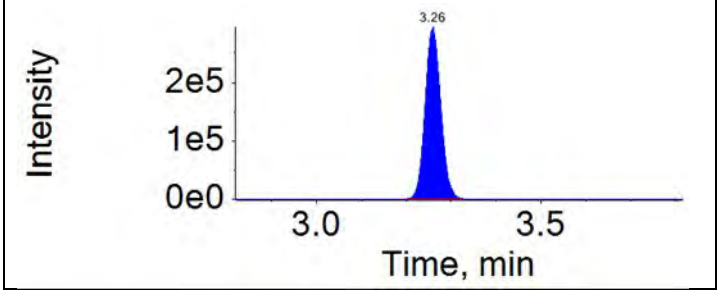


APPROVED
By MCD at 9:29 pm, 11/9/18

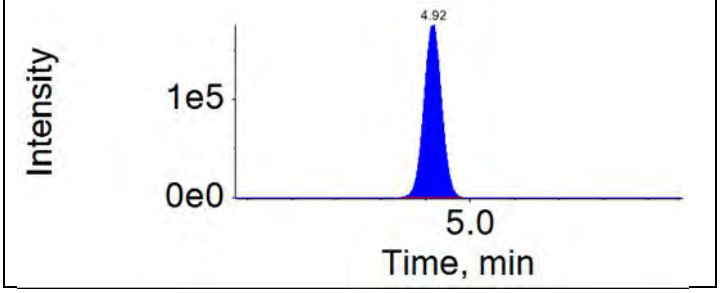
REVIEWED
By HMK at 7:21 am, 11/15/18

ICAL Name: 18NOV07DCAL **Result Table:** 18NOV09DCCV5-10 11/9/2018 9:22:25 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

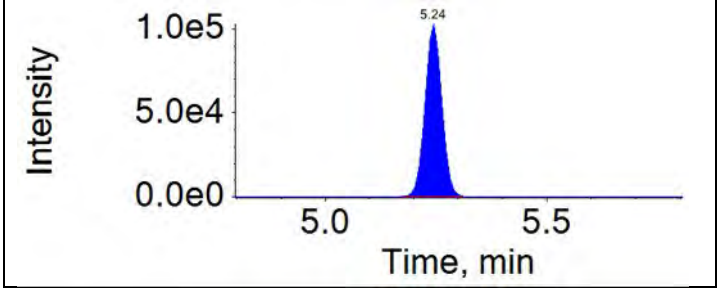
Injection Standard: 13C3-PFBA
216.0 / 172.0



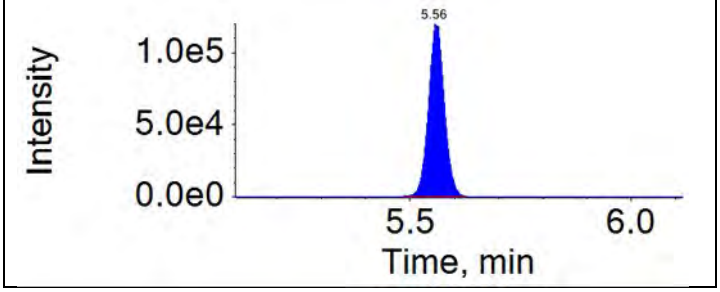
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0



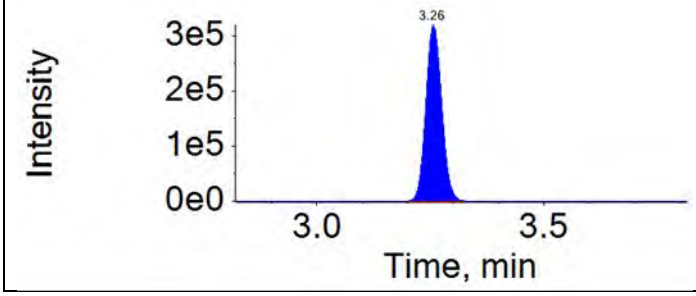
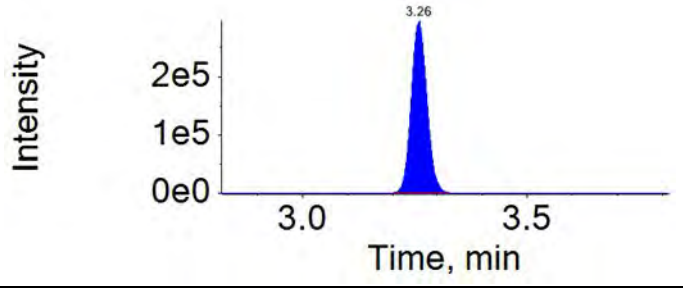
Injection Standard: 13C2-PFDA
515.0 / 470.0

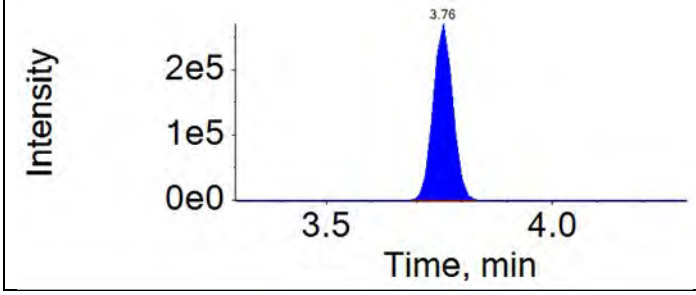
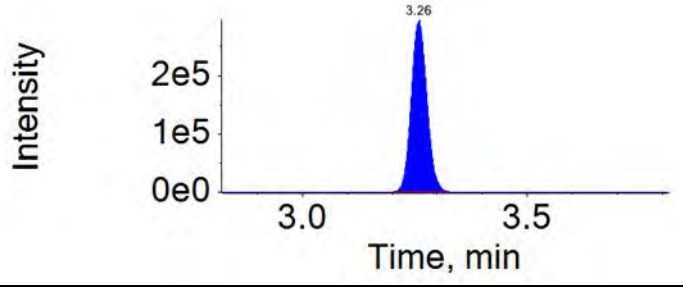


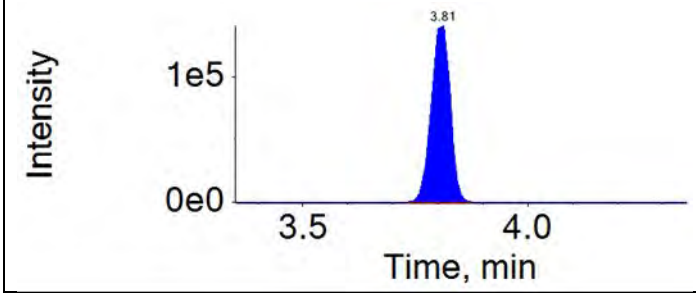
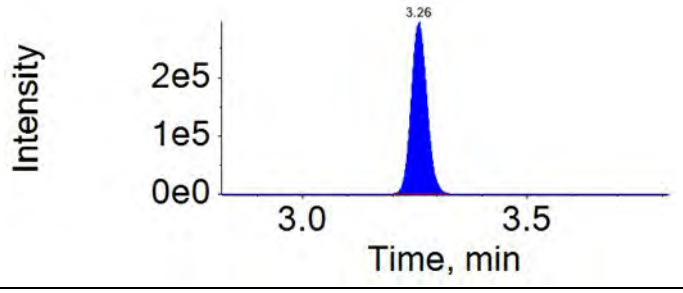
APPROVED
By MCD at 9:29 pm, 11/9/18

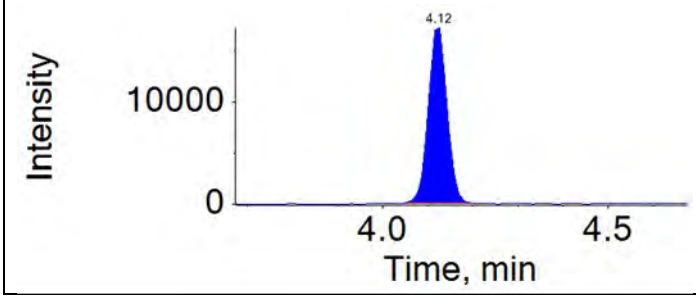
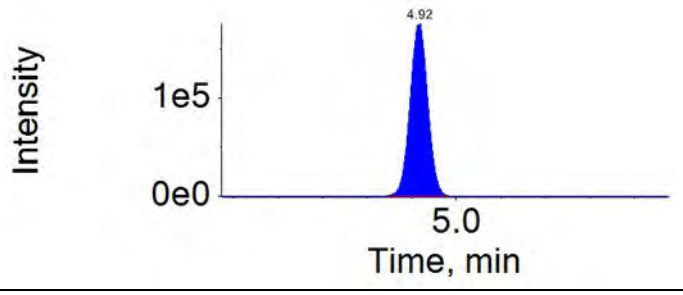
REVIEWED
By HMK at 7:21 am, 11/15/18

ICAL Name: 18NOV07DCAL **Result Table:** 18NOV09DCCV5-10 11/9/2018 9:22:25 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0
	

Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0
	

Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0
	

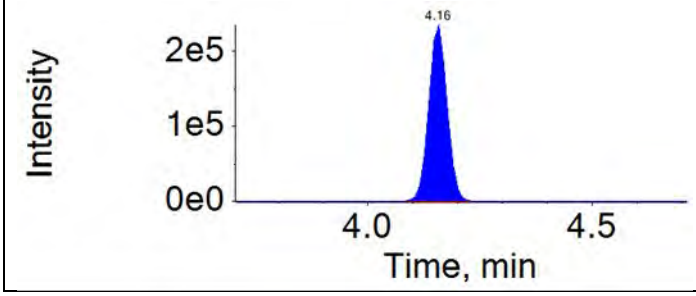
Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0
	

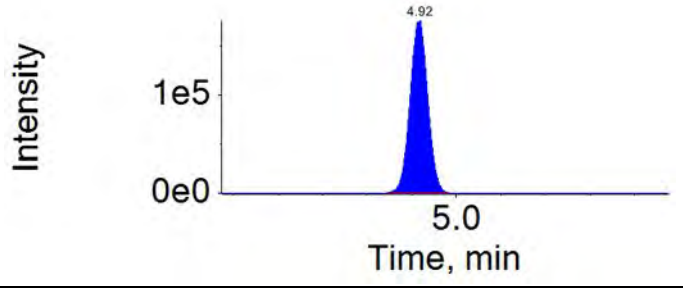
APPROVED
By MCD at 9:29 pm, 11/9/18

REVIEWED
By HMK at 7:21 am, 11/15/18

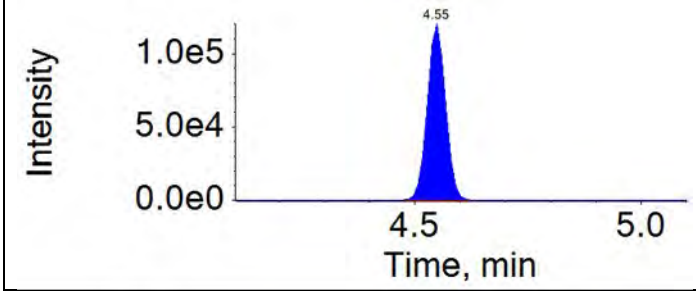
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV09DCCV5-10 11/9/2018 9:22:25 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

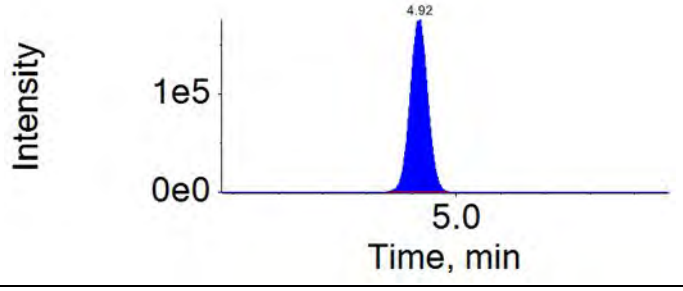
Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0



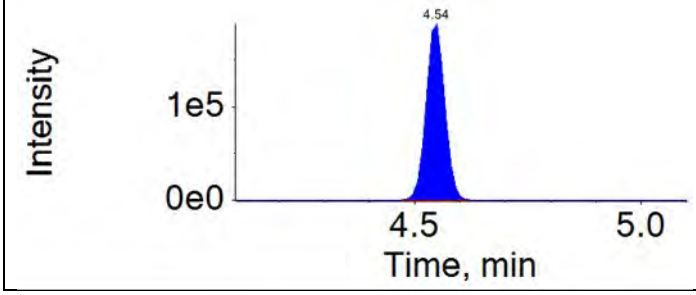


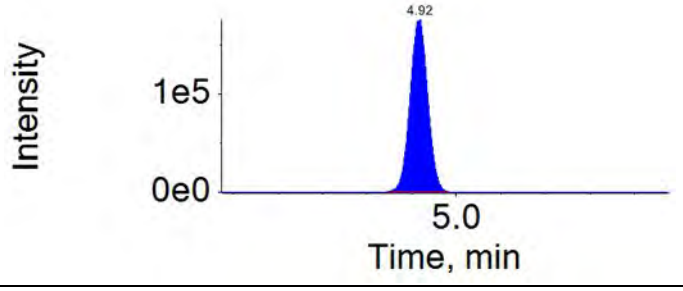
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0



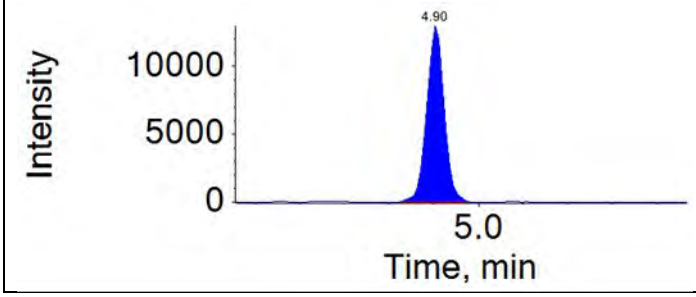


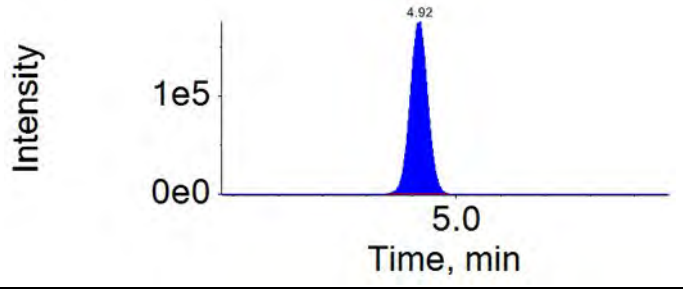
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0





Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0



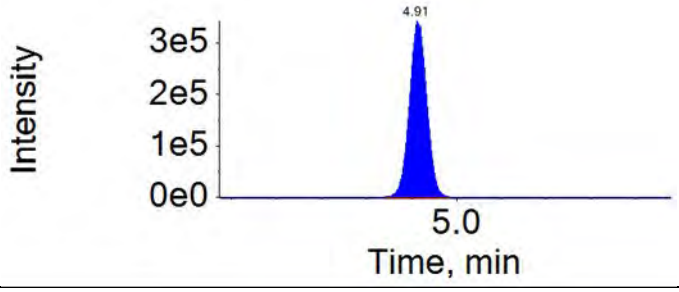


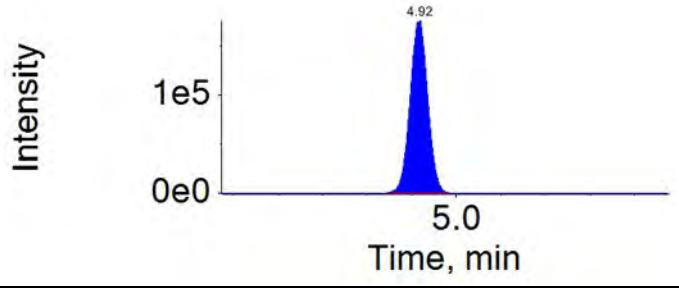
APPROVED
By MCD at 9:29 pm, 11/9/18

REVIEWED
By HMK at 7:21 am, 11/15/18

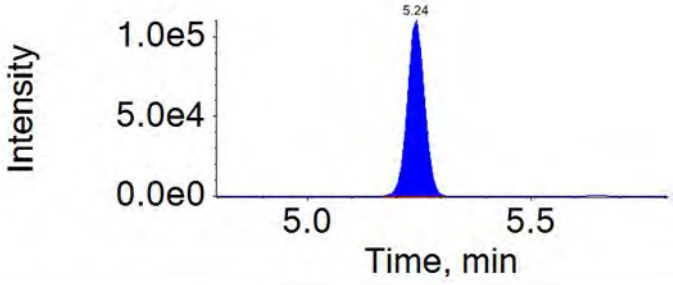
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV09DCCV5-10 11/9/2018 9:22:25 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

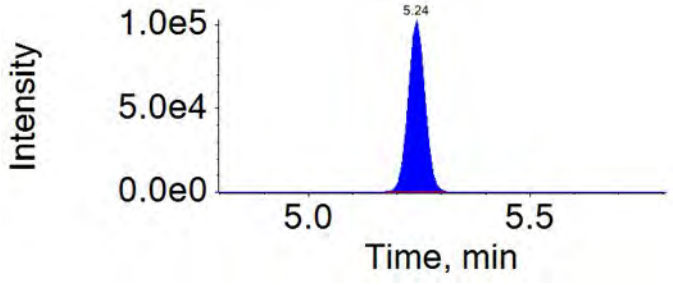
Extraction Standard: E13C8-PFOA	Injection Standard: 13C2-PFOA
421.0 / 376.0	415.0 / 370.0



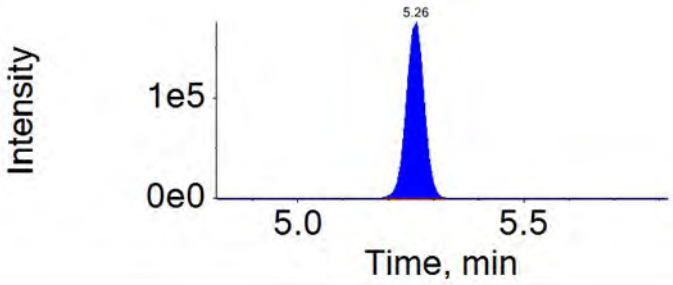


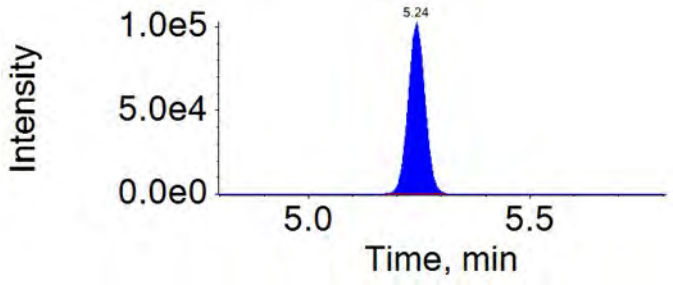
Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0



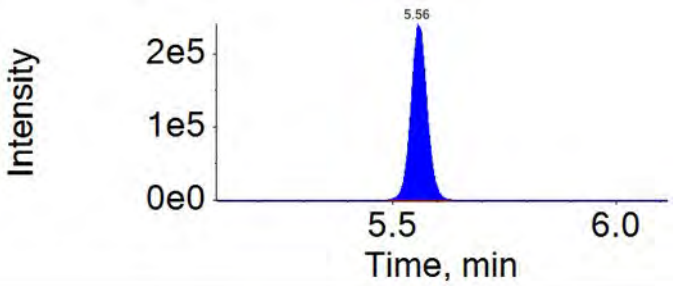


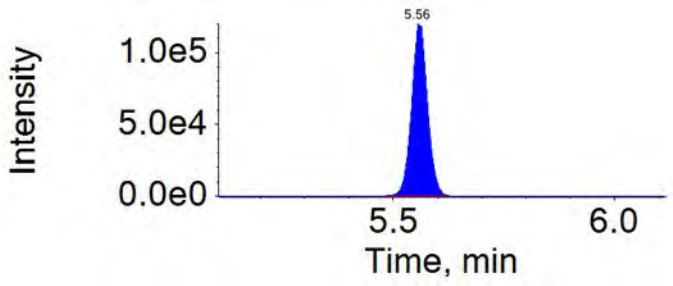
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0





Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0

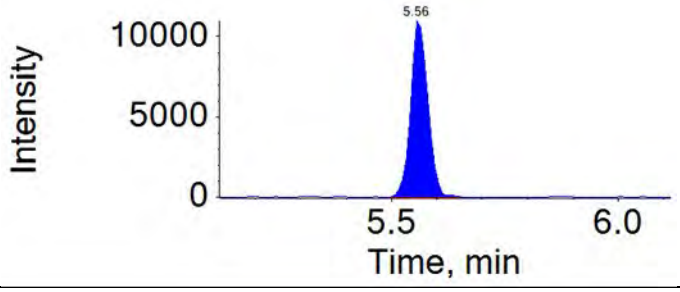
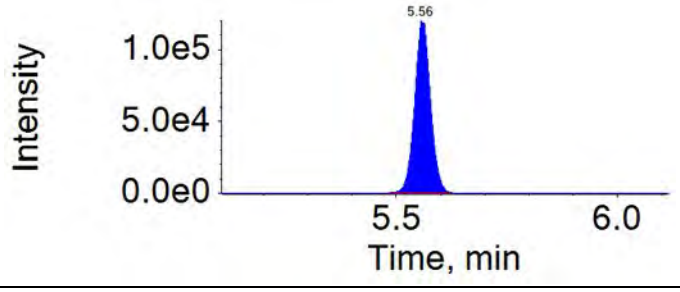


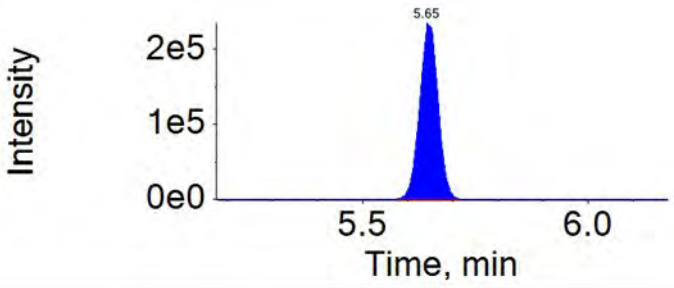
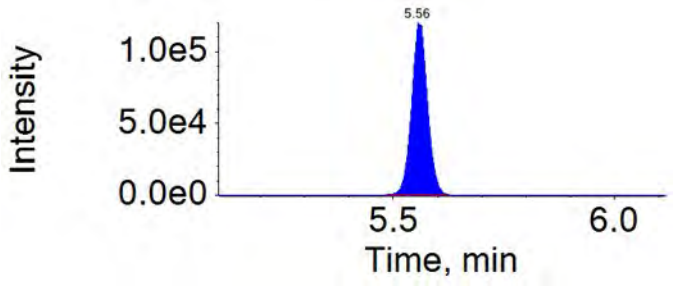


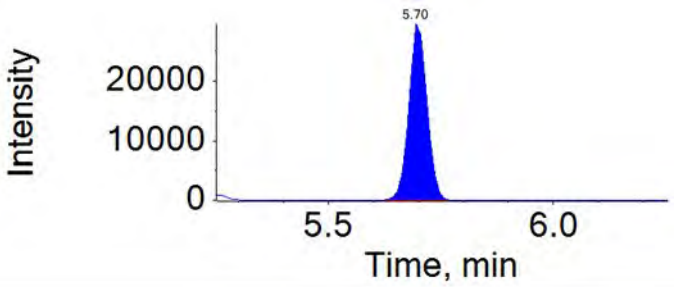
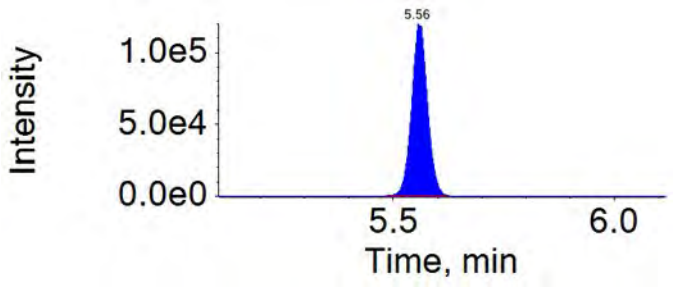
APPROVED
By MCD at 9:29 pm, 11/9/18

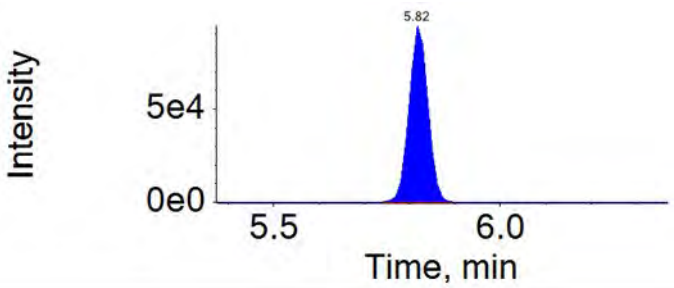
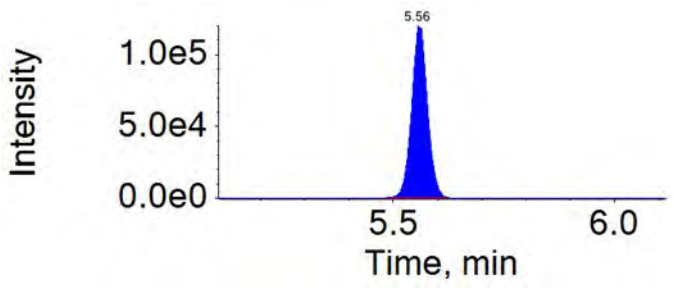
REVIEWED
By HMK at 7:21 am, 11/15/18

ICAL Name: 18NOV07DCAL **Result Table:** 18NOV09DCCV5-10 11/9/2018 9:22:25 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: E13C2-8:2-FTS	Injection Standard: 13C2-PFDA
529.0 / 81.0	515.0 / 470.0
	

Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0
	

Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0
	

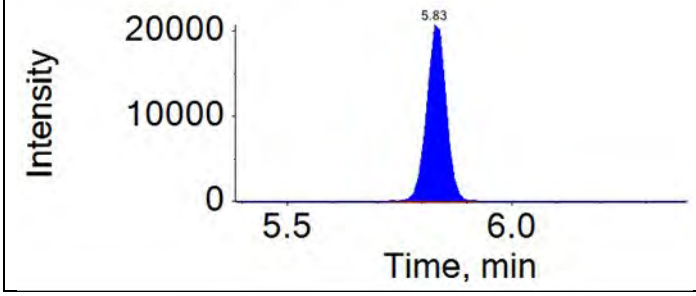
Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0
	

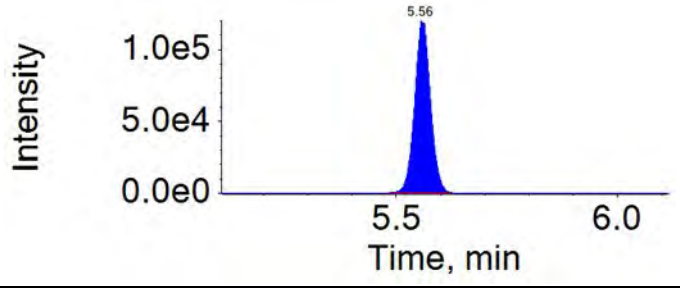
APPROVED
By MCD at 9:29 pm, 11/9/18

REVIEWED
By HMK at 7:21 am, 11/15/18

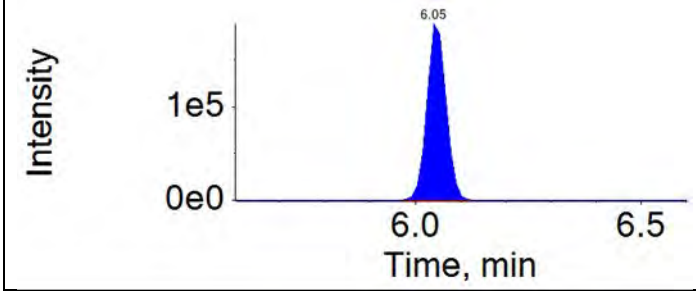
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV09DCCV5-10 11/9/2018 9:22:25 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

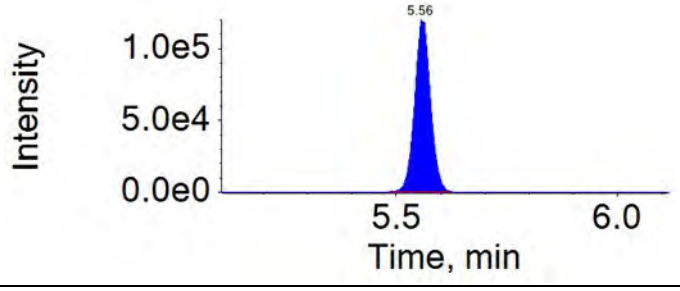
Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0



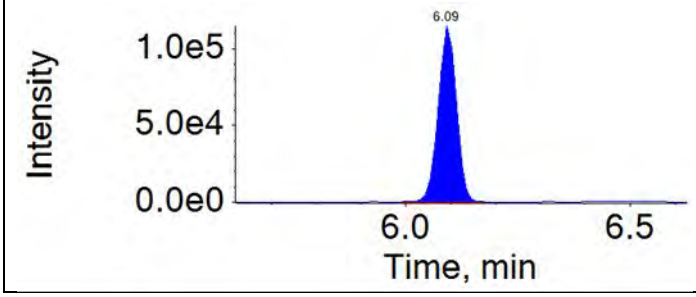


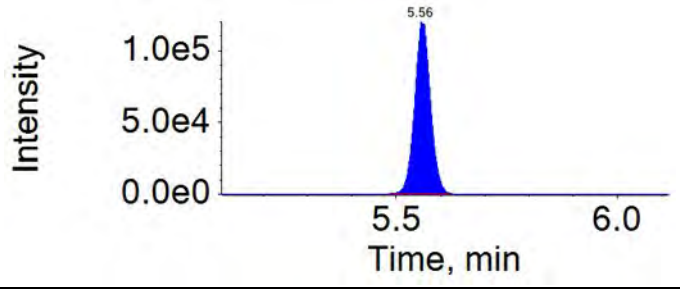
Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0



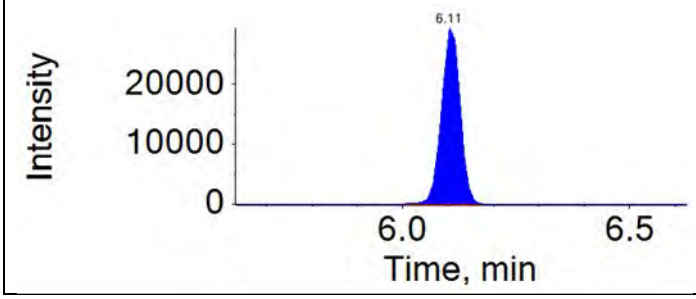


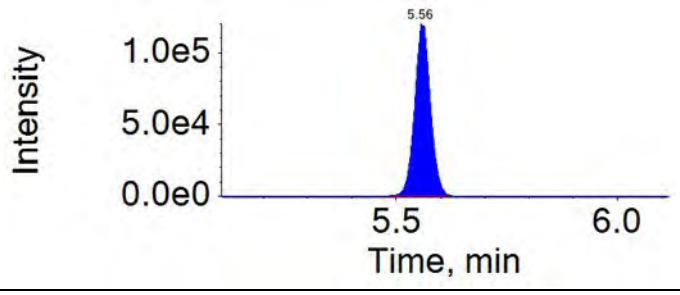
Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0





Extraction Standard: Ed3-NMePFOSA	Injection Standard: 13C2-PFDA
515.0 / 169.0	515.0 / 470.0



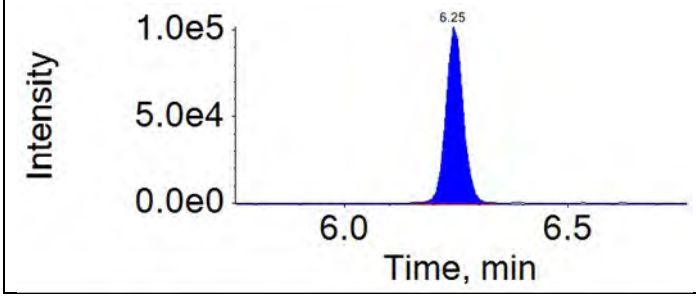


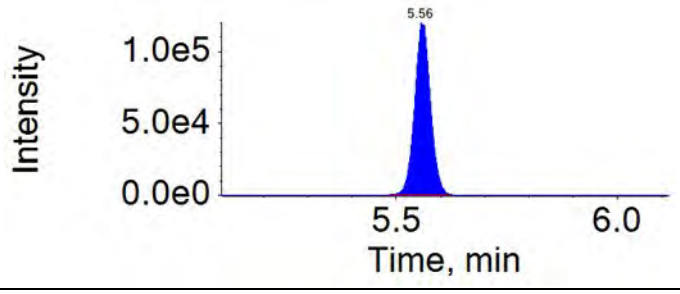
APPROVED
By MCD at 9:29 pm, 11/9/18

REVIEWED
By HMK at 7:21 am, 11/15/18

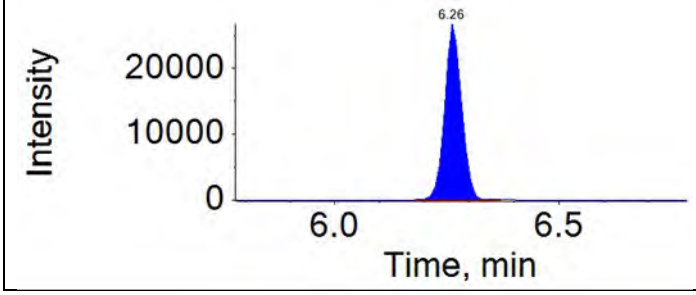
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV09DCCV5-10 11/9/2018 9:22:25 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

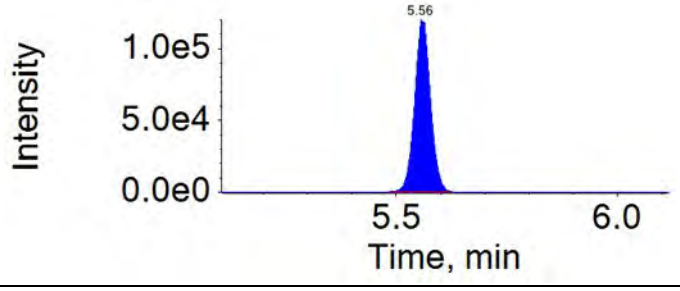
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



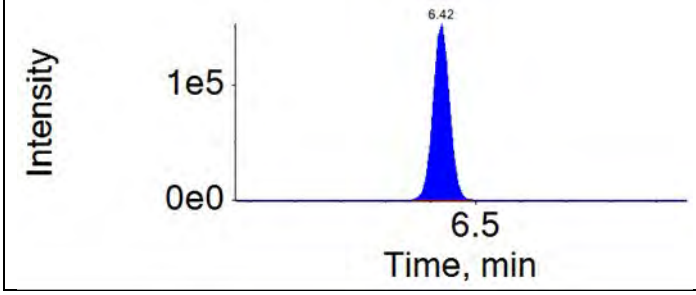


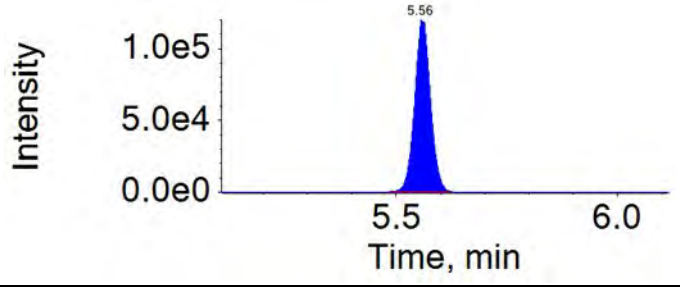
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0

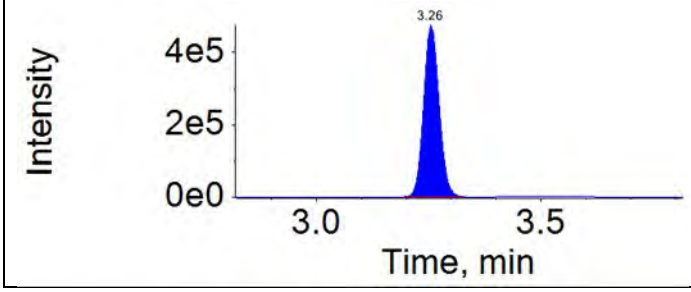
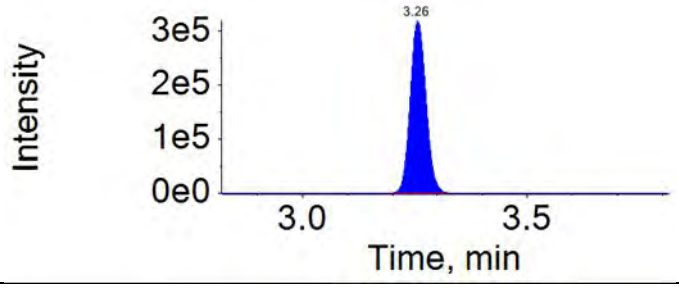


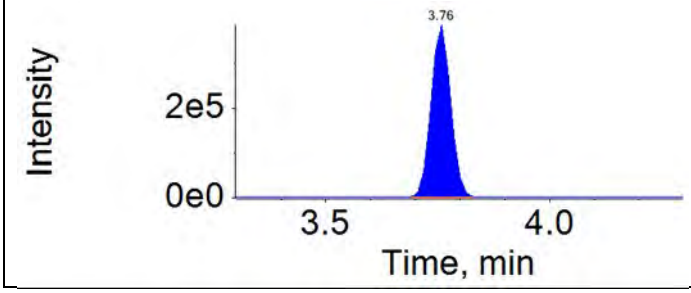
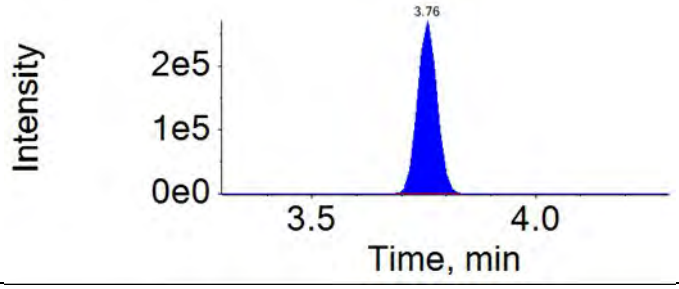


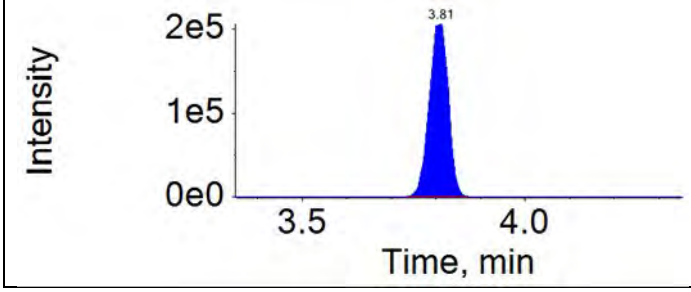
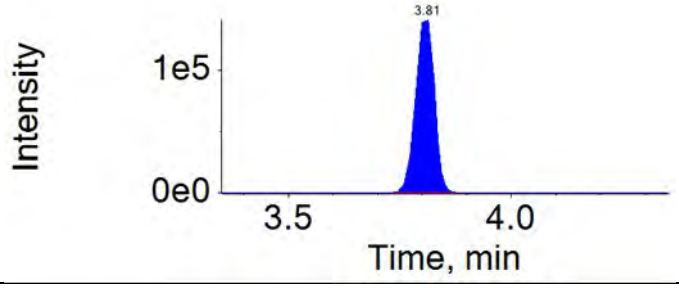
APPROVED
By MCD at 9:29 pm, 11/9/18

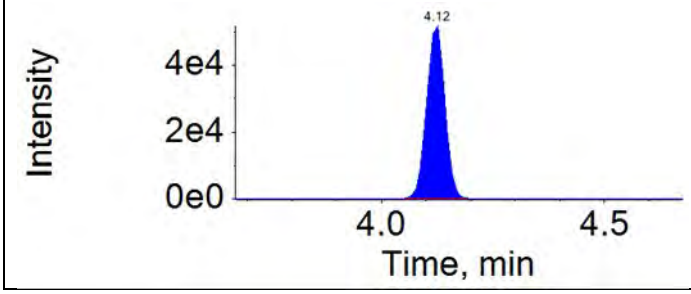
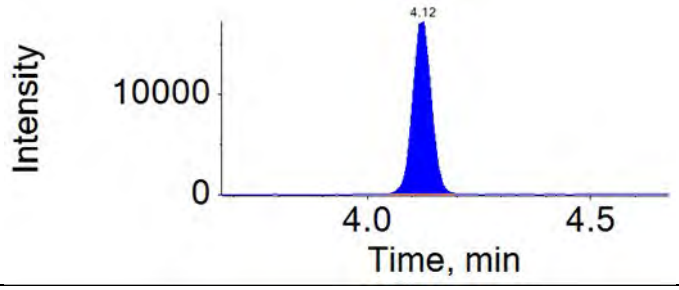
REVIEWED
By HMK at 7:21 am, 11/15/18

ICAL Name: 18NOV07DCAL **Result Table:** 18NOV09DCCV5-10 11/9/2018 9:22:25 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0
	

Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0
	

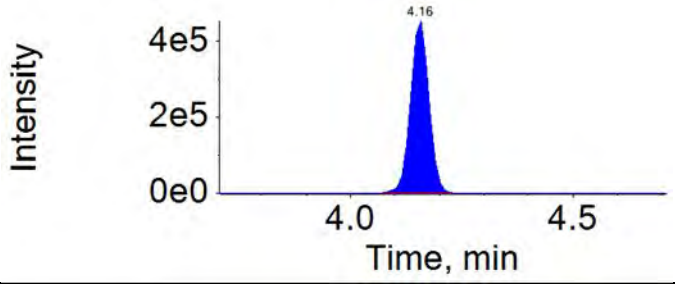
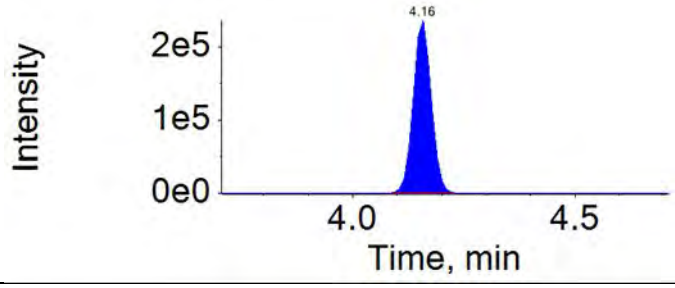
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0
	

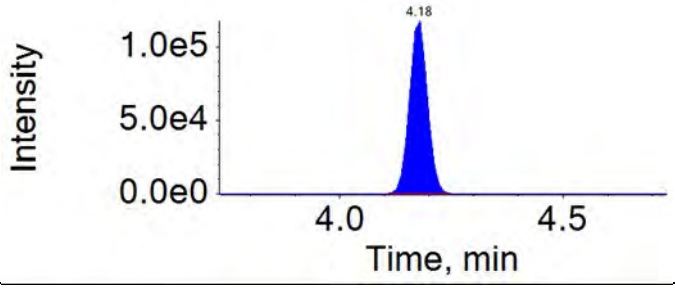
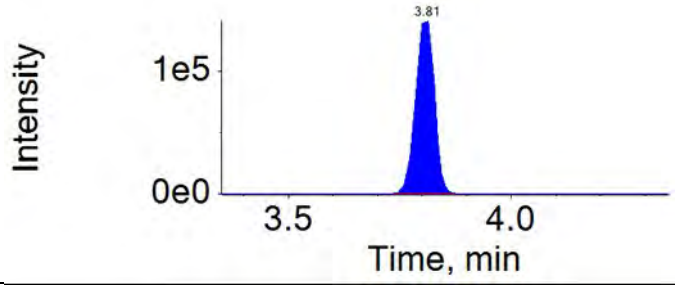
Analyte: 4:2-FTS	Extraction Standard: 13C2-4:2-FTS
327.0 / 307.0	329.0 / 81.0
	

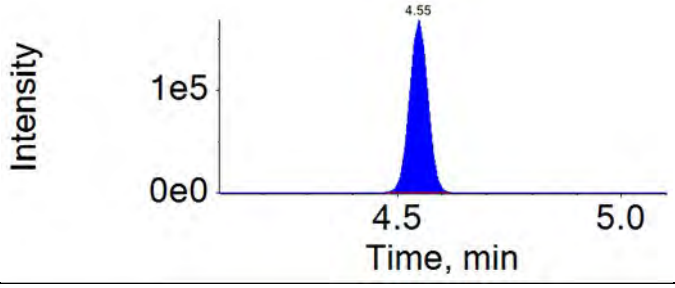
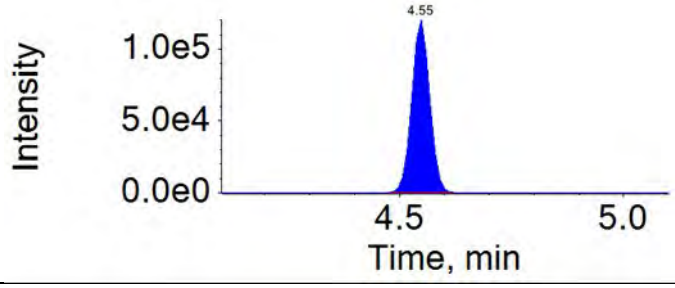
APPROVED
By MCD at 9:29 pm, 11/9/18

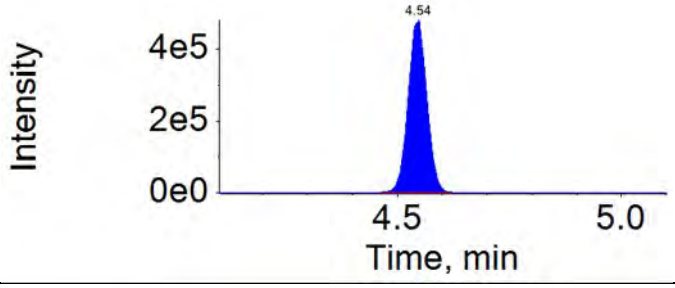
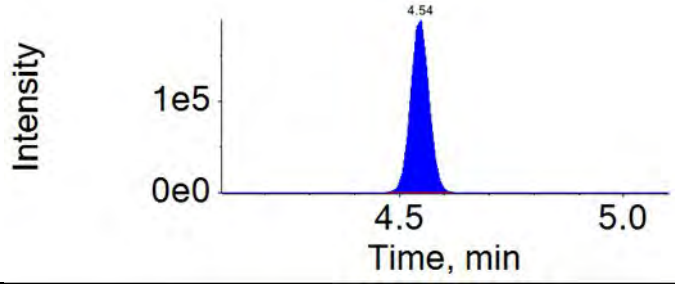
REVIEWED
By HMK at 7:21 am, 11/15/18

ICAL Name: 18NOV07DCAL **Result Table:** 18NOV09DCCV5-10 11/9/2018 9:22:25 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0
	

Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0
	

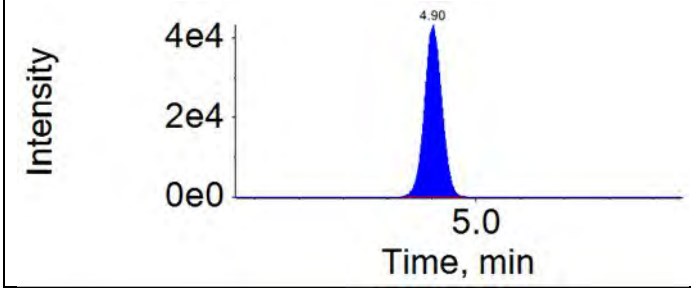
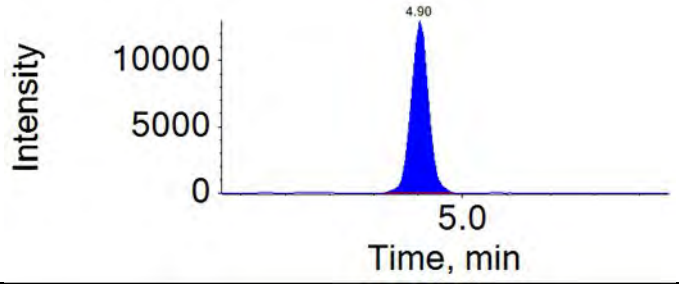
Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0
	

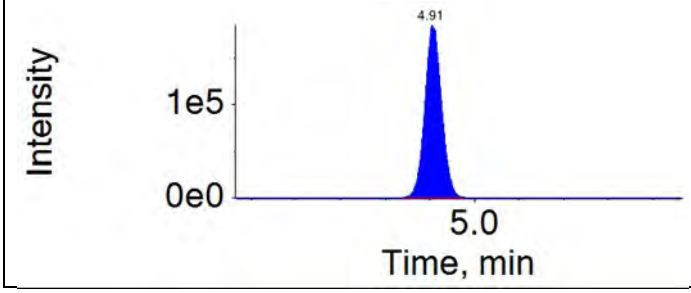
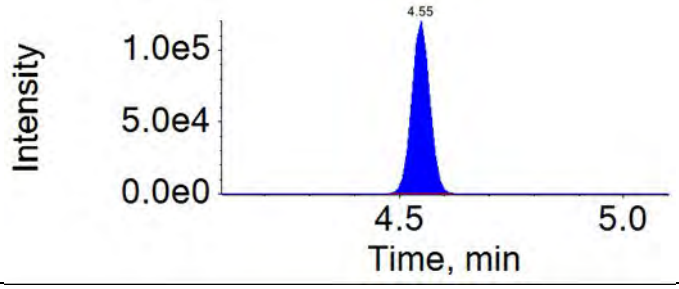
Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0
	

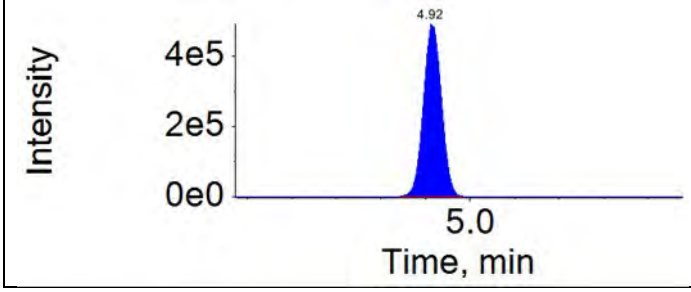
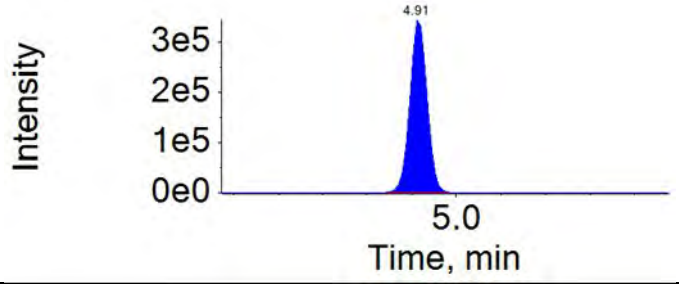
APPROVED
By MCD at 9:29 pm, 11/9/18

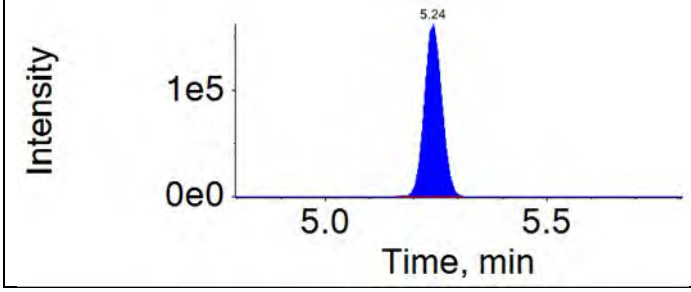
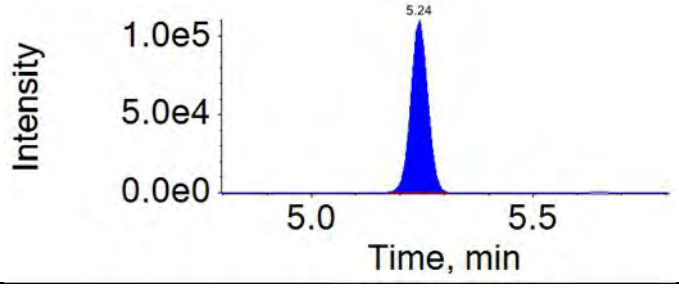
REVIEWED
By HMK at 7:21 am, 11/15/18

ICAL Name: 18NOV07DCAL **Result Table:** 18NOV09DCCV5-10 11/9/2018 9:22:25 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Analyte: 6:2-FTS	Extraction Standard: 13C2-6:2-FTS
427.0 / 407.0	429.0 / 81.0
	

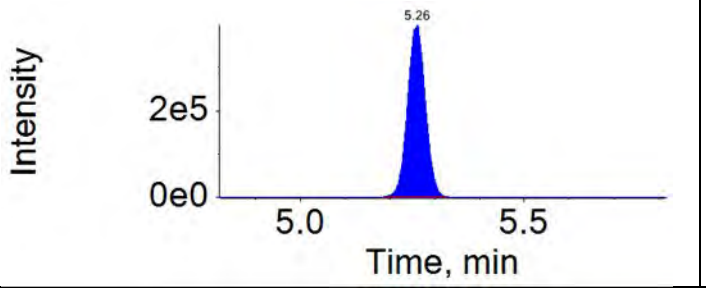
Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0
	

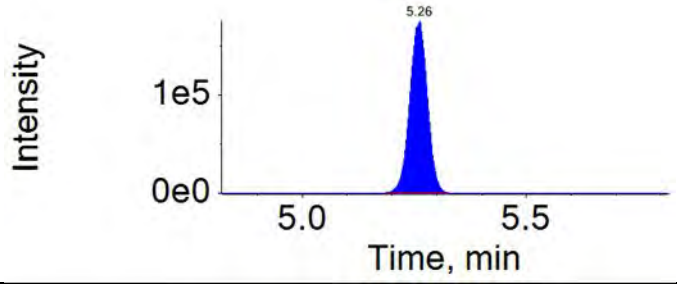
Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0
	

Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0
	

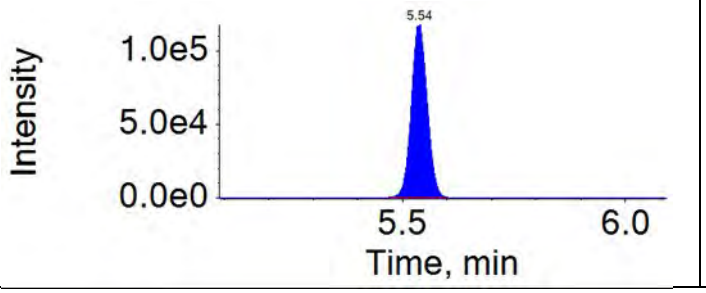
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV09DCCV5-10 11/9/2018 9:22:25 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

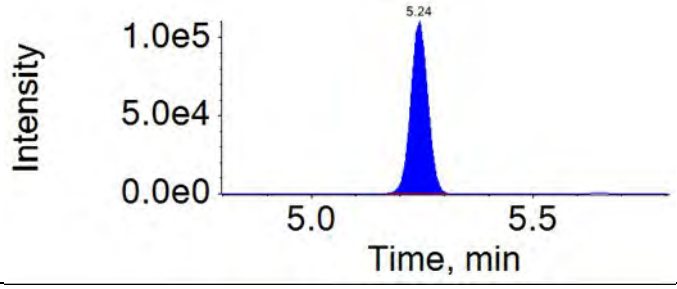
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



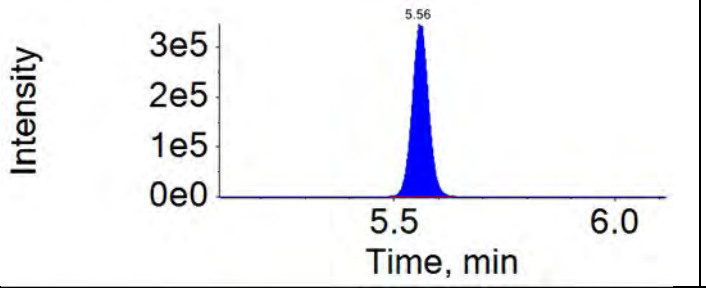


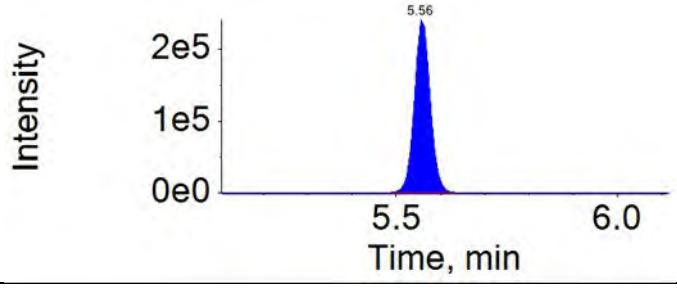
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



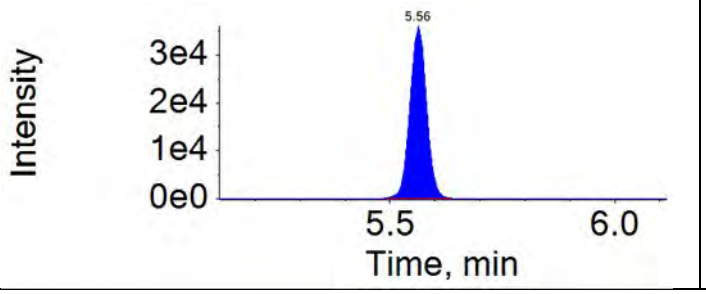


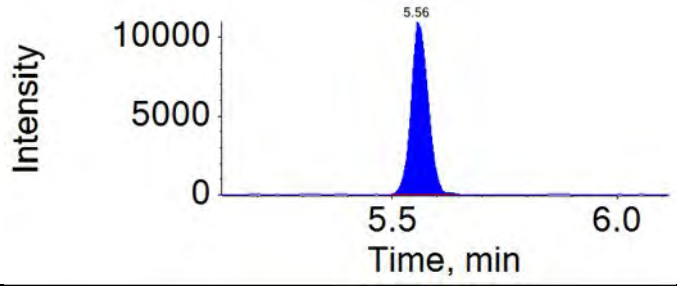
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





Analyte: 8:2-FTS	Extraction Standard: 13C2-8:2-FTS
527.0 / 507.0	529.0 / 81.0



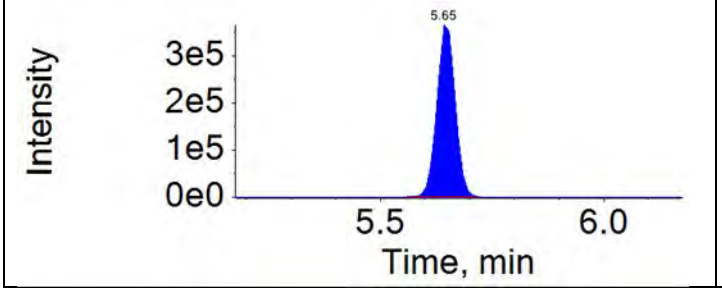


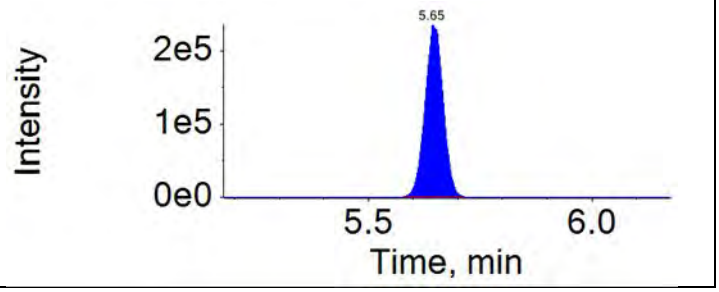
APPROVED
By MCD at 9:29 pm, 11/9/18

REVIEWED
By HMK at 7:21 am, 11/15/18

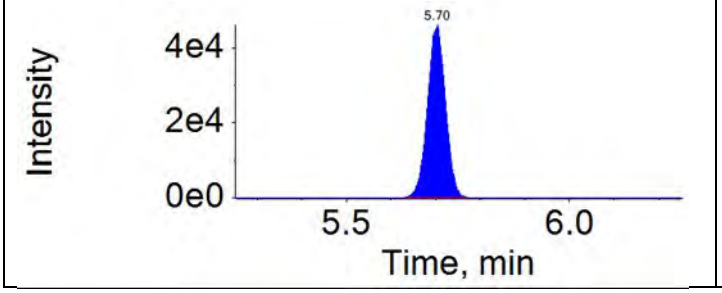
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV09DCCV5-10 11/9/2018 9:22:25 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

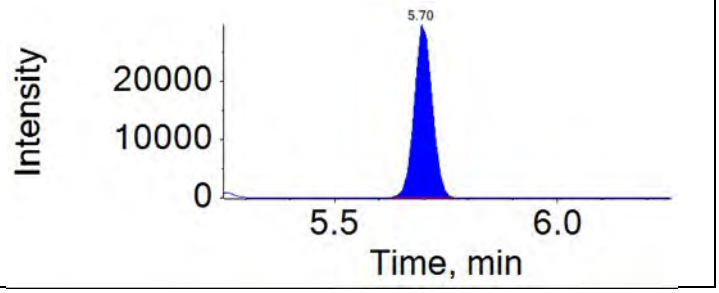
Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0



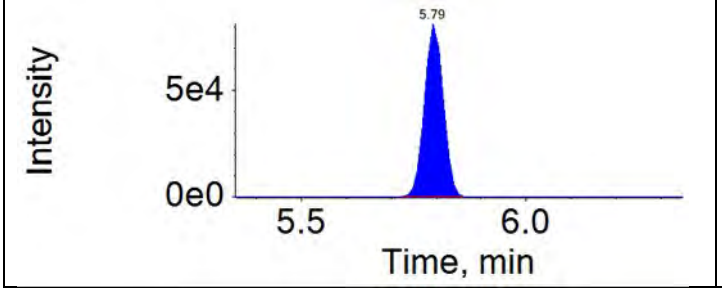


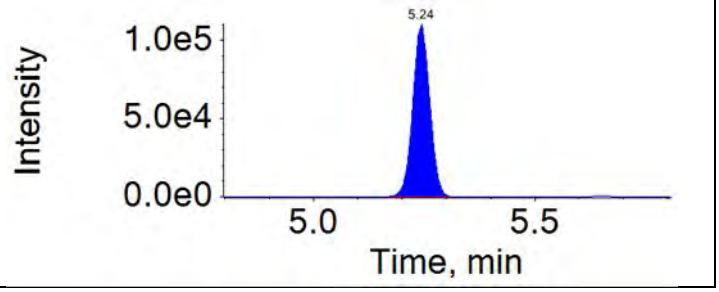
Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0



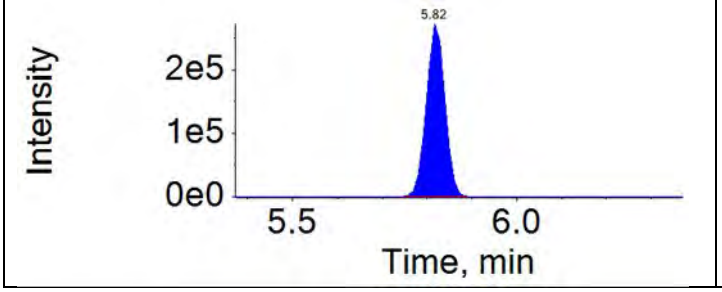


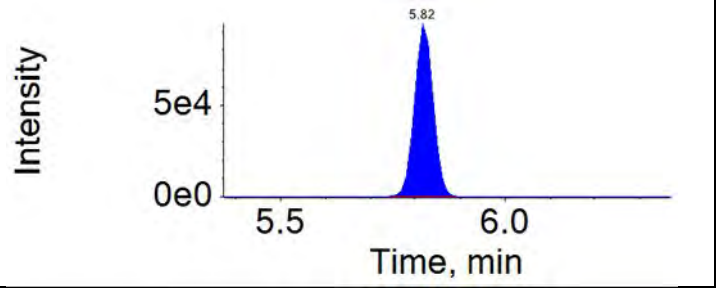
Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0





Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0

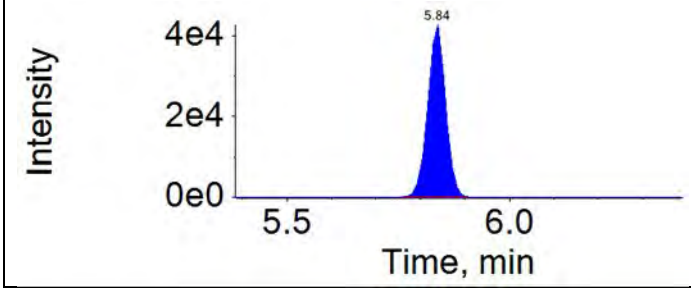
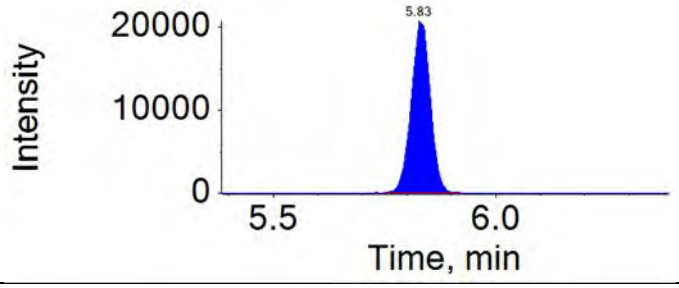


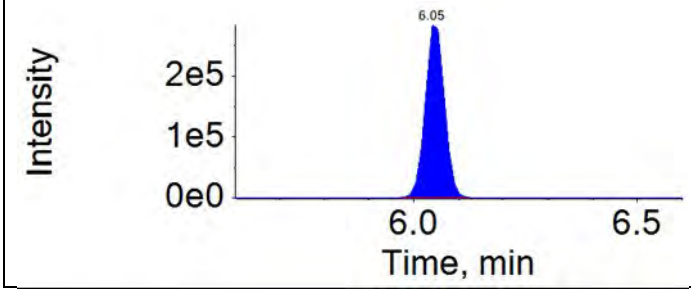
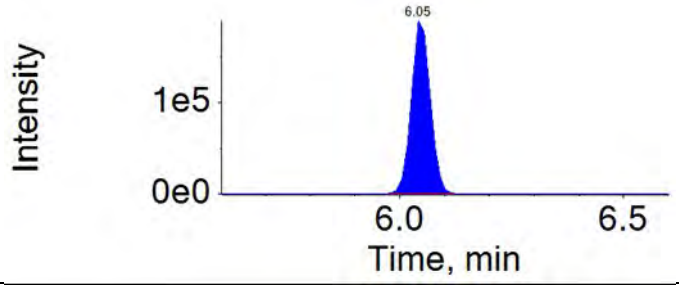


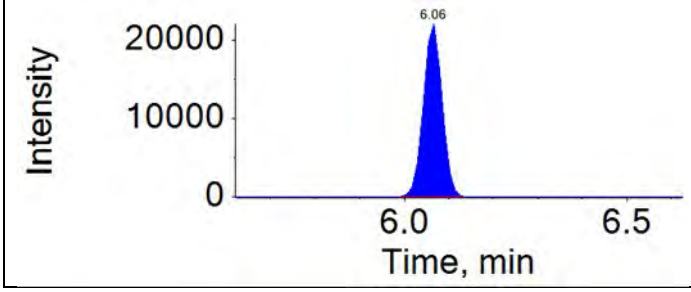
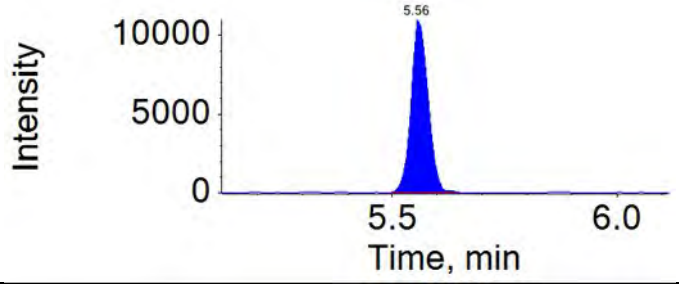
APPROVED
By MCD at 9:29 pm, 11/9/18

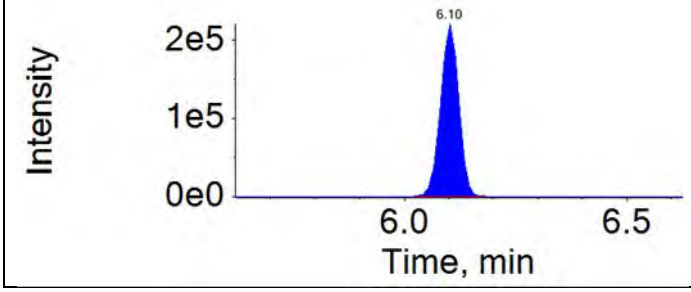
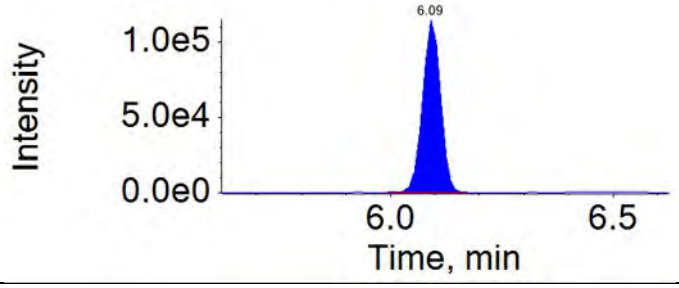
REVIEWED
By HMK at 7:21 am, 11/15/18

ICAL Name: 18NOV07DCAL **Result Table:** 18NOV09DCCV5-10 11/9/2018 9:22:25 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0
	

Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0
	

Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0
	

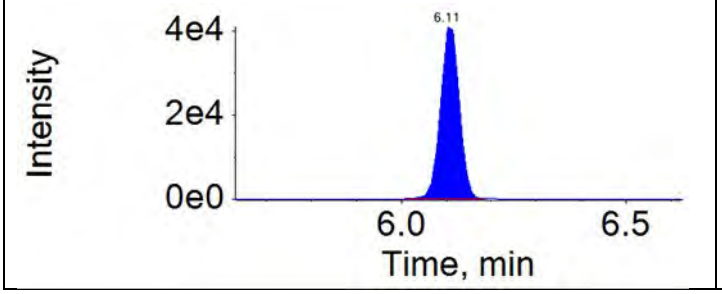
Analyte: NMePFOSAE	Extraction Standard: d7-NMePFOSAE
616.0 / 59.0	623.0 / 59.0
	

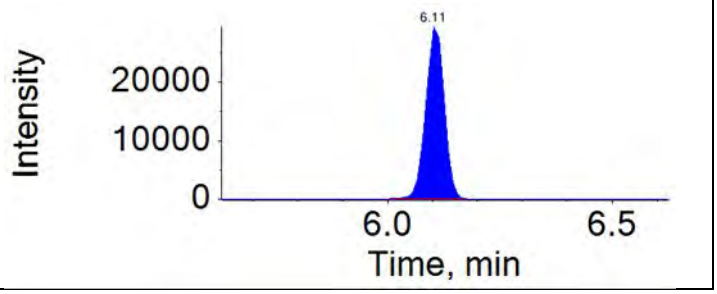
APPROVED
By MCD at 9:29 pm, 11/9/18

REVIEWED
By HMK at 7:21 am, 11/15/18

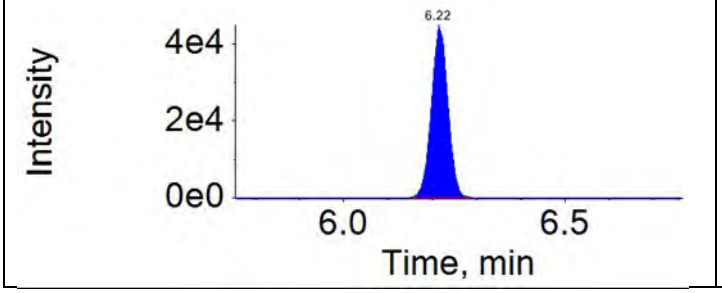
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV09DCCV5-10 11/9/2018 9:22:25 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

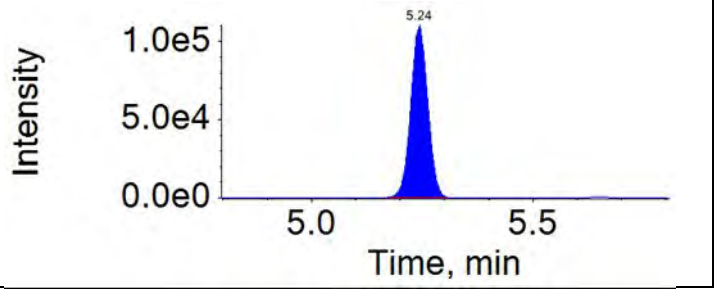
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



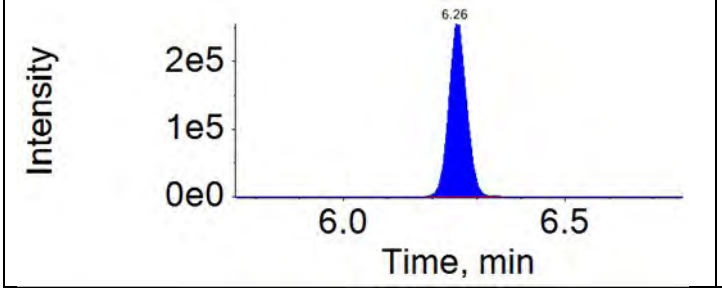


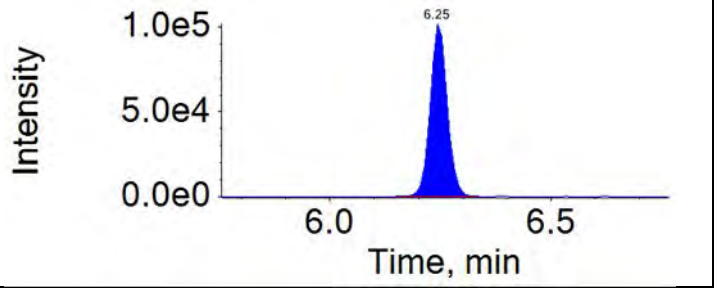
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



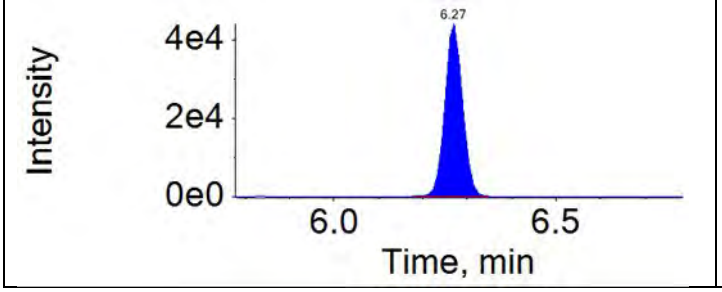


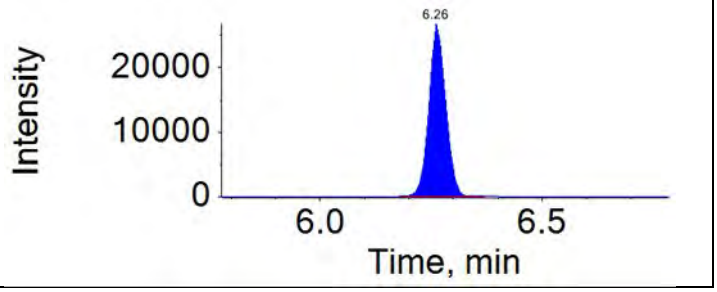
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





Analyte: NEtPFOSA	Extraction Standard: d5-NEtPFOSA
526.0 / 169.0	531.0 / 169.0

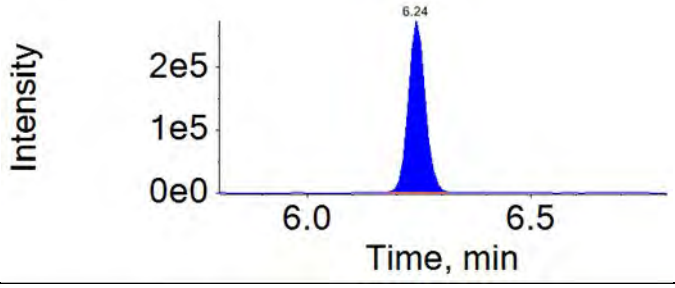
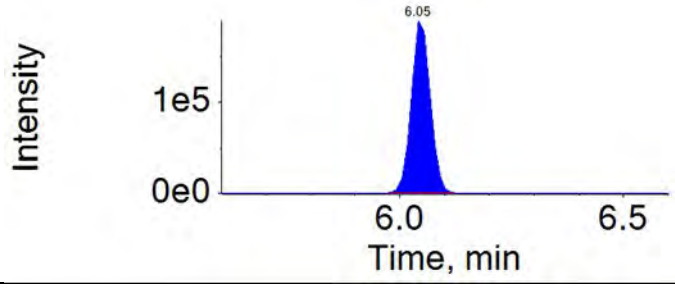


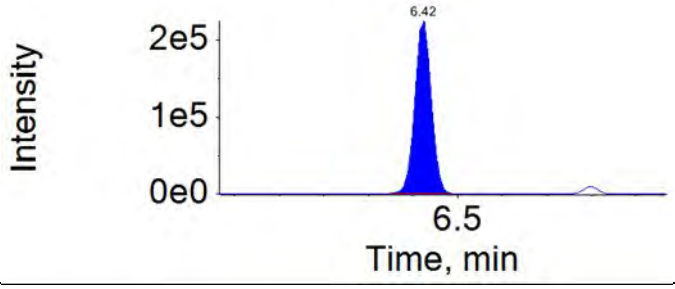
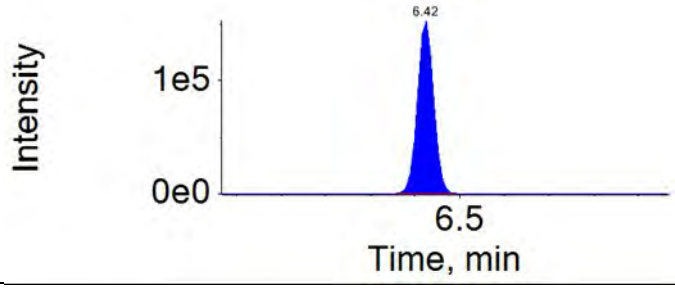


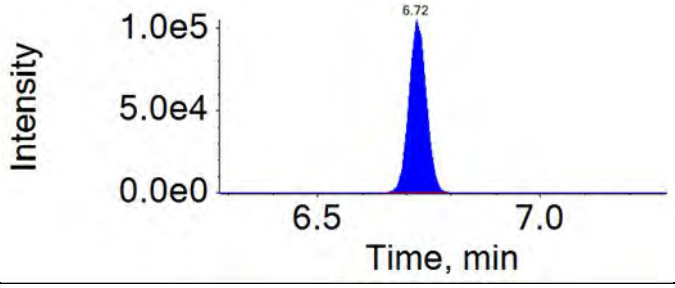
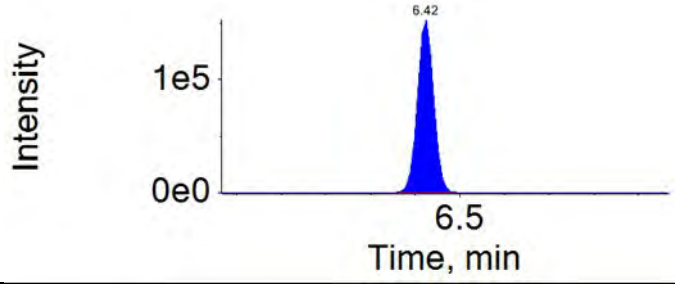
APPROVED
By MCD at 9:29 pm, 11/9/18

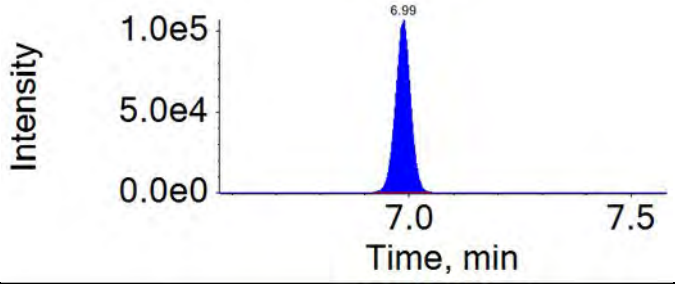
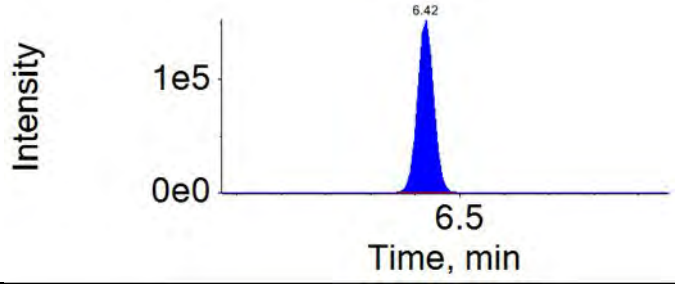
REVIEWED
By HMK at 7:21 am, 11/15/18

ICAL Name: 18NOV07DCAL **Result Table:** 18NOV09DCCV5-10 11/9/2018 9:22:25 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Analyte: PFTrDA	Extraction Standard: 13C2-PFDoDA
663.0 / 619.0	615.0 / 570.0
	

Analyte: PFTeDA	Extraction Standard: 13C2-PFTeDA
713.0 / 669.0	715.0 / 670.0
	

Analyte: PFHxDA	Extraction Standard: 13C2-PFTeDA
813.0 / 769.0	715.0 / 670.0
	

Analyte: PFODA	Extraction Standard: 13C2-PFTeDA
913.0 / 869.0	715.0 / 670.0
	

APPROVED
By MCD at 9:29 pm, 11/9/18

REVIEWED
By HMK at 7:21 am, 11/15/18

Ion Ratio Report

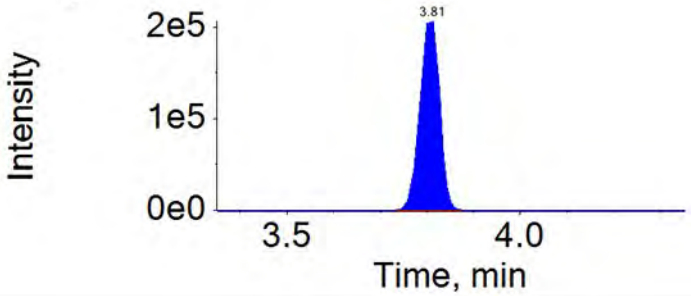
Sample Name: CCV6_CAL4 **Instrument Name:** LM27631 **File Name:** 18NOV09D-58.wiff

Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	3.81	1.00	618537.7	A	N/A	0.3761			
PFBS_2	3.81	1.00	232662.3	A	N/A	0.3761	6	50	
4:2-FTS	4.12	1.00	147591.3	A	N/A	0.6397			
4:2-FTS_2	4.12	1.00	94412.9	A	N/A	0.6397	0	50	
PFHxA	4.16	1.00	1304135.9	A	N/A	0.0114			
PFHxA_2	4.16	1.00	14822.0	A	N/A	0.0114	1	50	
PFPeS	4.18	1.10	330448.2	A	N/A	0.5227			
PFPeS_2	4.18	1.10	172723.6	A	N/A	0.5227	-4	50	
PFHxS	4.55	1.00	481361.1	A	N/A	0.3828			
PFHxS_2	4.55	1.00	184245.0	A	N/A	0.3828	7	50	
PFHpA	4.54	1.00	1402000.9	A	N/A	0.0549			
PFHpA_2	4.54	1.00	77037.0	A	N/A	0.0549	-5	50	
6:2-FTS	4.90	1.00	117446.7	A	N/A	0.6685			
6:2-FTS_2	4.90	1.00	78515.5	A	N/A	0.6685	-2	50	
PFHpS	4.91	1.08	485428.9	A	N/A	0.4116			
PFHpS_2	4.91	1.08	199805.3	A	N/A	0.4116	4	50	
PFOA	4.92	1.00	1375232.8	A	N/A	0.0580			
PFOA_2	4.91	1.00	79812.1	A	N/A	0.0580	-9	50	
PFOS	5.24	1.00	444338.9	A	N/A	0.3464			
PFOS_2	5.24	1.00	153906.9	A	N/A	0.3464	-2	50	
PFNA	5.26	1.00	1109597.3	A	N/A	0.0181			
PFNA_2	5.26	1.00	20063.4	A	N/A	0.0181	-12	50	
PFNS	5.54	1.06	293202.2	A	N/A	0.4474			
PFNS_2	5.54	1.06	131166.0	A	N/A	0.4474	-8	50	
PFDA	5.56	1.00	889730.2	A	N/A	0.0065			
PFDA_2	5.56	1.00	5786.2	A	N/A	0.0065	19	50	
8:2-FTS	5.56	1.00	92493.2	A	N/A	0.6450			
8:2-FTS_2	5.56	1.00	59662.0	A	N/A	0.6450	4	50	
NMeFOSAA	5.70	1.00	128740.2	A	N/A	0.2405			
NMeFOSAA_2	5.70	1.00	30960.1	A	N/A	0.2405	11	50	
PFDS	5.79	1.11	236970.5	A	N/A	0.5106			
PFDS_2	5.79	1.11	120992.2	A	N/A	0.5106	11	50	
PFUnDA	5.82	1.00	780262.5	A	N/A	0.0037			
PFUnDA_2	5.82	1.00	2890.1	A	N/A	0.0037	21	50	
NEtFOSAA	5.84	1.00	118779.9	A	N/A	0.6081			
NEtFOSAA_2	5.84	1.00	72227.3	A	N/A	0.6081	0	50	
PFDoDA	6.05	1.00	850770.9	A	N/A	0.0135			
PFDoDA_2	6.05	1.00	11514.2	A	N/A	0.0135	29	50	
10:2-FTS	6.06	1.09	64255.6	A	N/A	0.6830			
10:2-FTS_2	6.06	1.09	43888.6	A	N/A	0.6830	-4	50	
PFTrDA	6.24	1.03	710393.0	A	N/A	0.0109			
PFTrDA_2	6.24	1.03	7731.0	A	N/A	0.0109	14	50	
PFTeDA	6.42	1.00	574891.9	A	N/A	0.0061			
PFTeDA_2	6.42	1.00	3495.6	A	N/A	0.0061	13	50	
PFHxDA	6.72	1.05	282106.4	A	N/A	0.0620			
PFHxDA_2	6.72	1.05	17479.3	A	N/A	0.0620	5	50	
PFODA	6.99	1.09	252545.4	A	N/A	0.0250			
PFODA_2	6.98	1.09	6323.9	A	N/A	0.0250	-2	50	

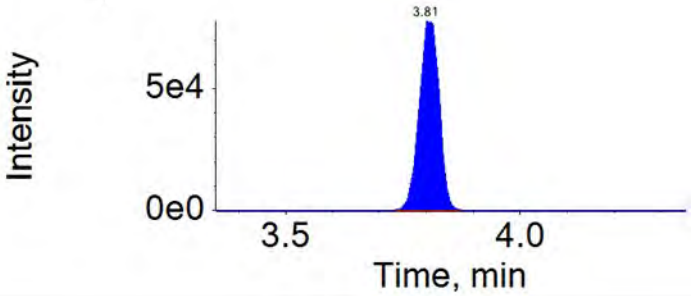
APPROVED
By MCD at 9:29 pm, 11/9/18

REVIEWED
By HMK at 7:21 am, 11/15/18

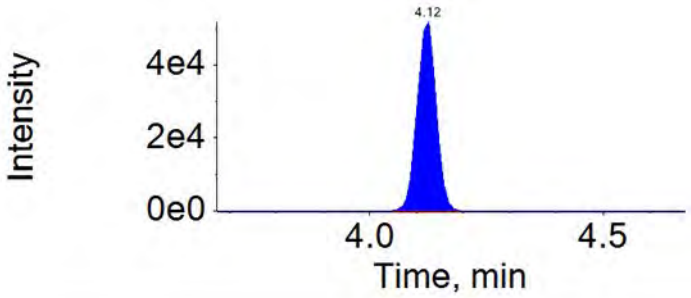
Component: PFBS
Primary Mass: 299.0 / 80.0



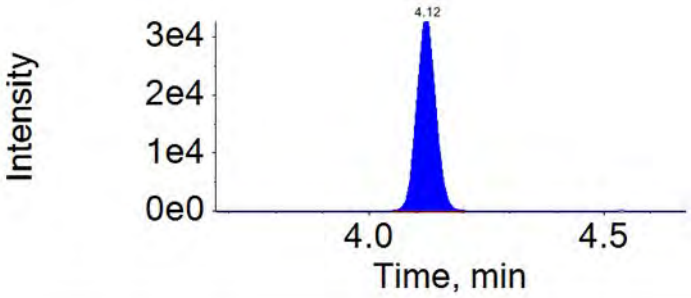
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



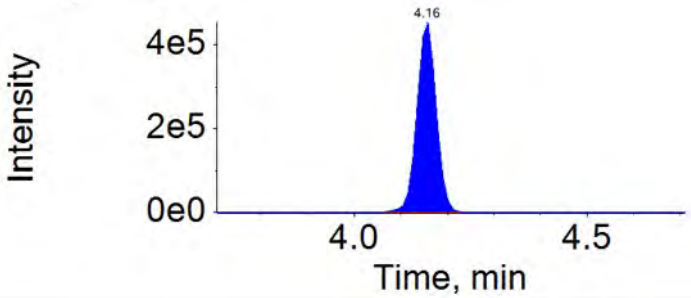
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



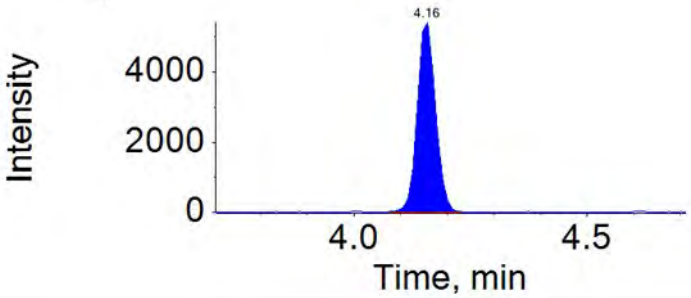
Component: 4:2-FTS_2
Secondary Mass: 327.0 / 81.0



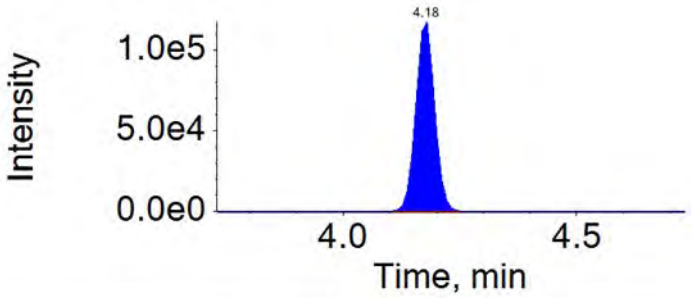
Component: PFHxA
Primary Mass: 313.0 / 269.0



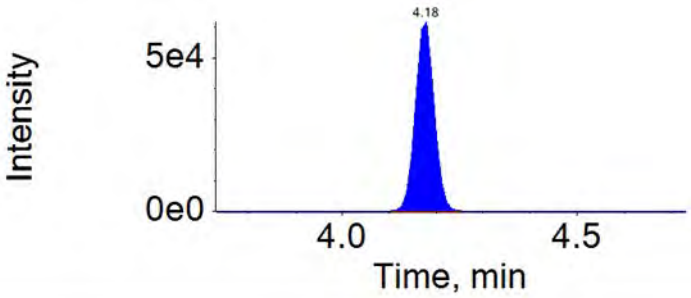
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



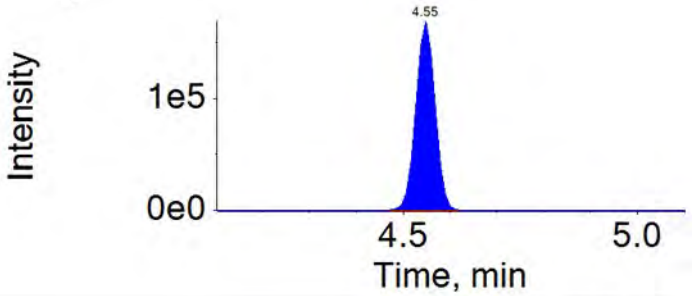
Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



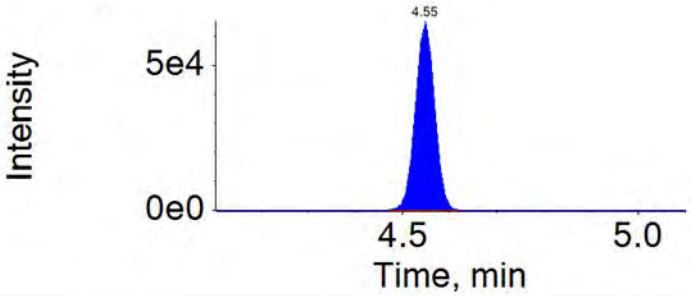
APPROVED
By MCD at 9:29 pm, 11/9/18

REVIEWED
By HMK at 7:21 am, 11/15/18

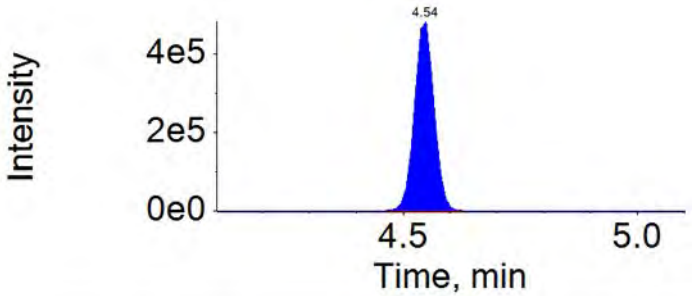
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Primary Mass: 399.0 / 80.0



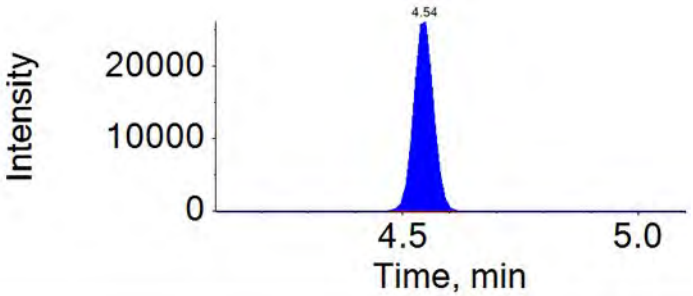
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Secondary Mass: 399.0 / 99.0



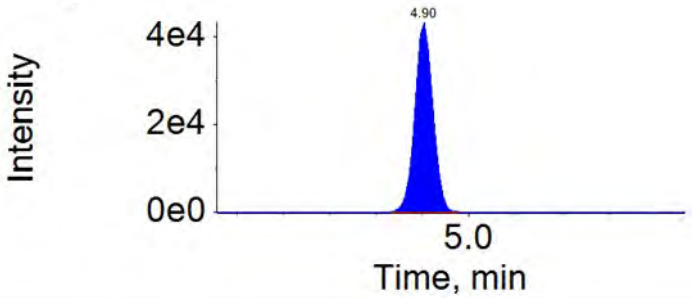
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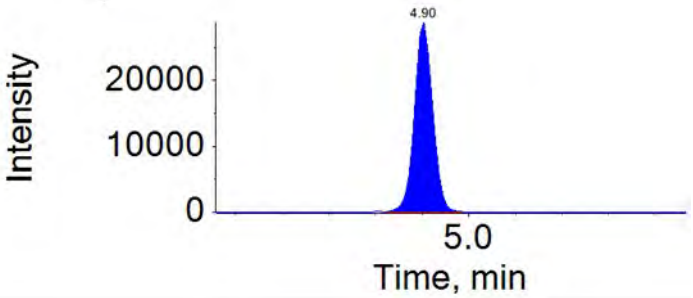
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



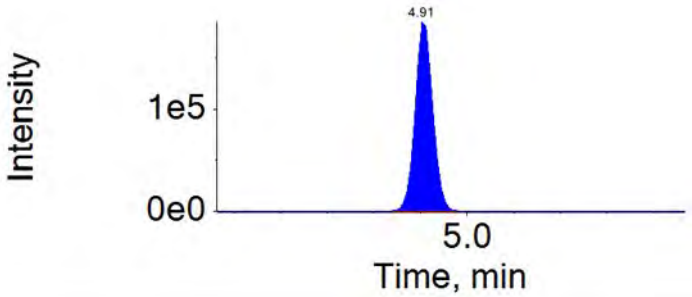
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



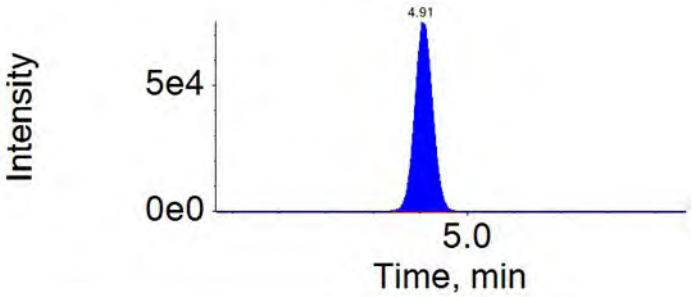
Component: 6:2-FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



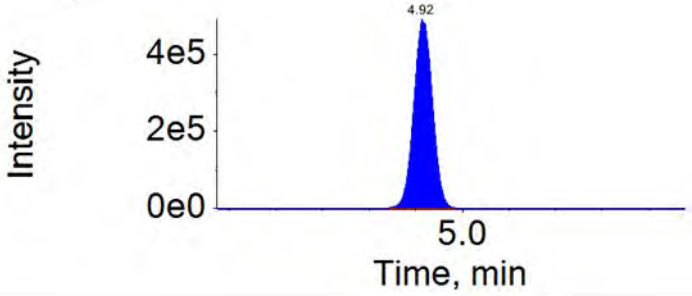
Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



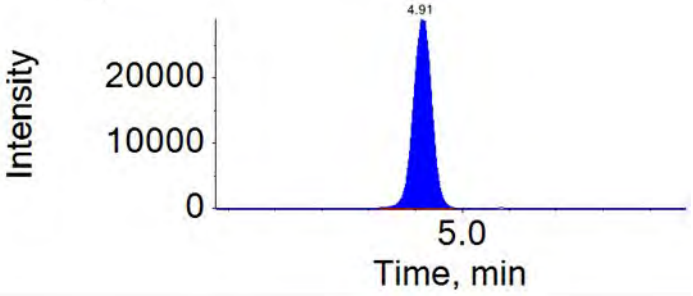
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By HMK at 7:21 am, 11/15/18

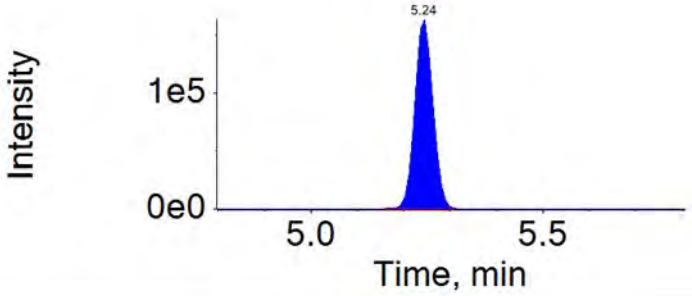
Component: PFOA
Primary Mass: 413.0 / 369.0



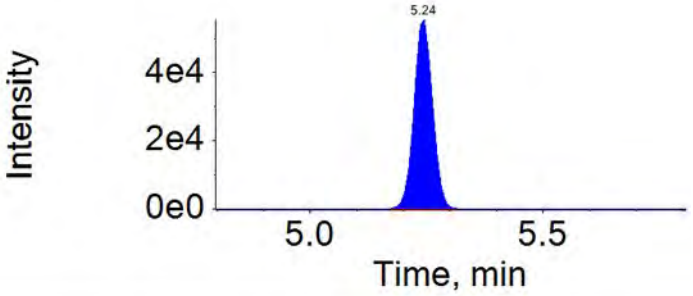
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Secondary Mass: 413.0 / 169.0



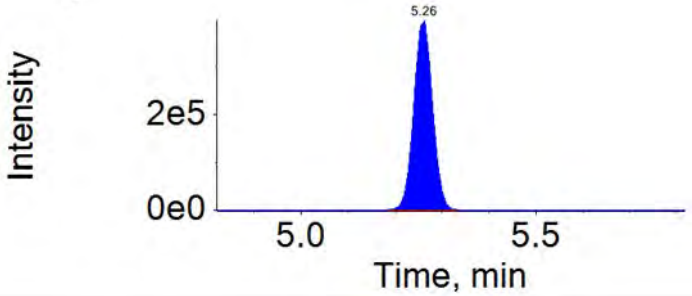
Component: PFOS
Primary Mass: 499.0 / 80.0



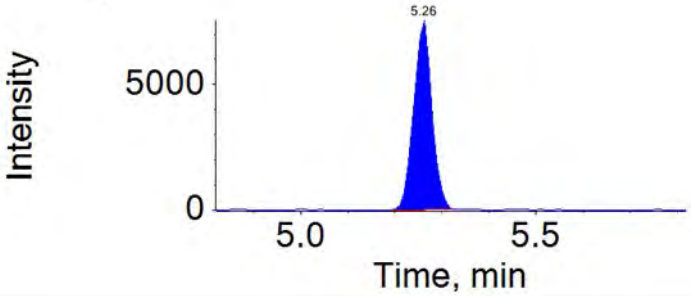
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Secondary Mass: 499.0 / 99.0



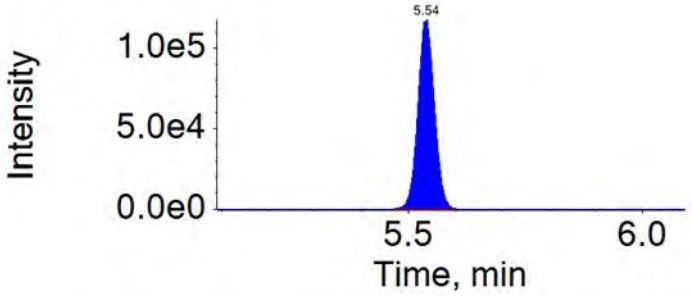
Component: PFNA
Primary Mass: 463.0 / 419.0



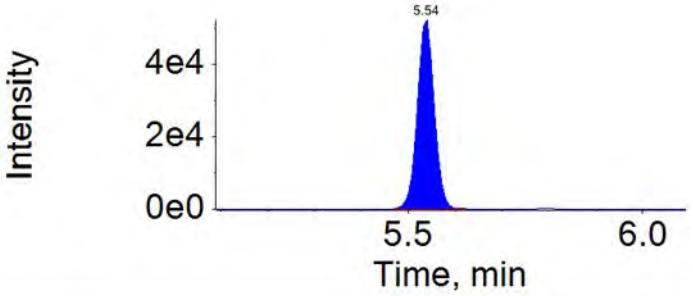
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



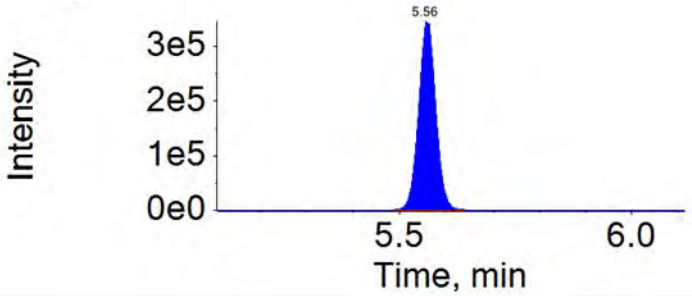
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



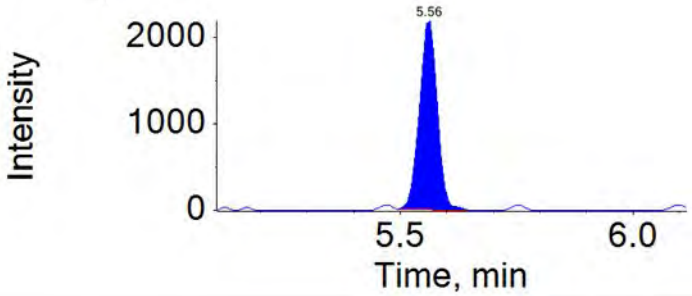
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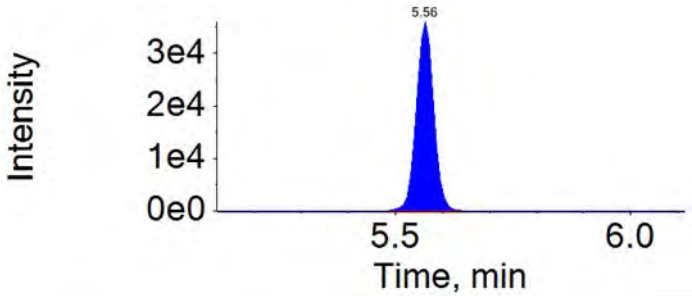
Component: PFDA
Primary Mass: 513.0 / 469.0



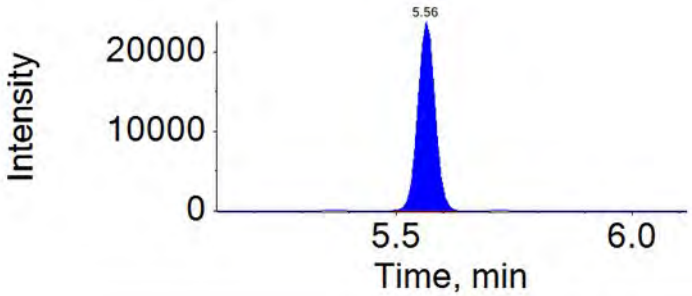
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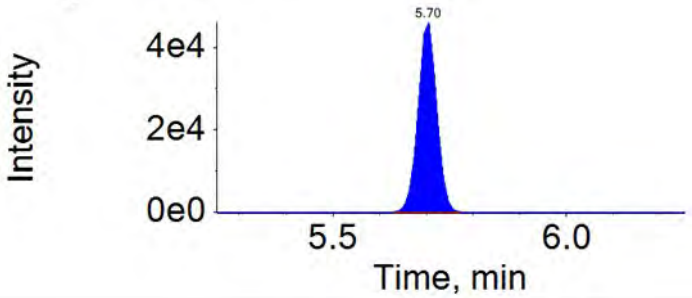
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



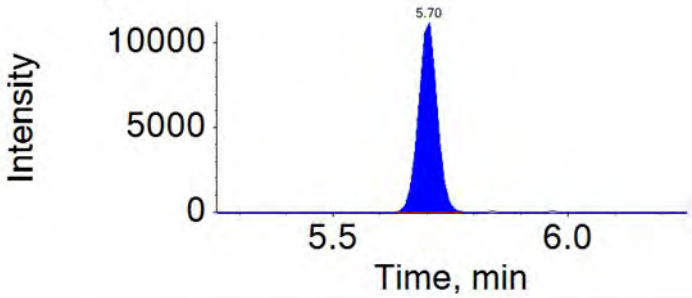
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Secondary Mass: 527.0 / 81.0



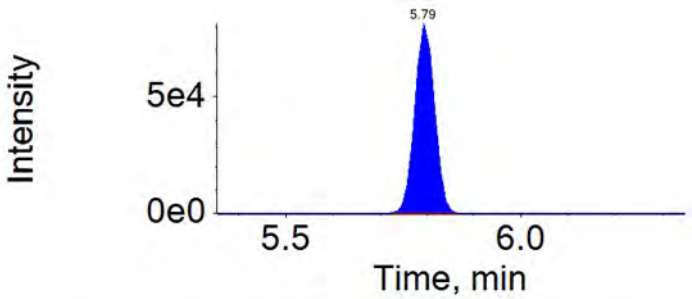
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



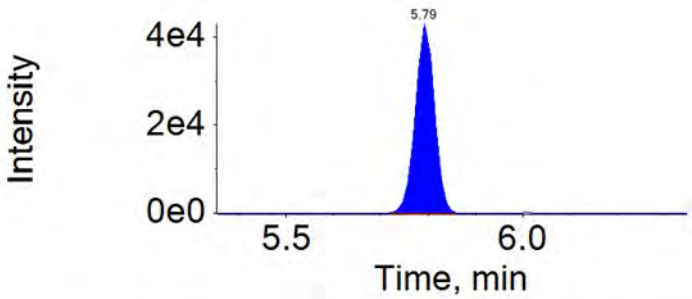
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



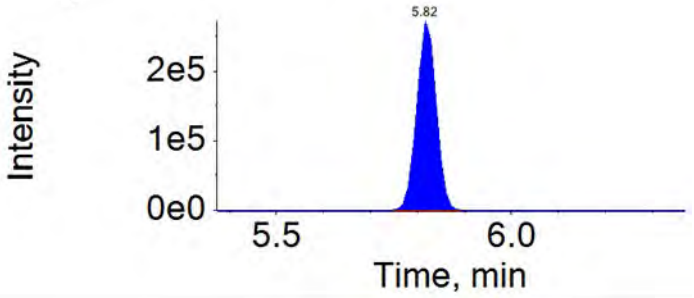
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Secondary Mass: 599.0 / 99.0



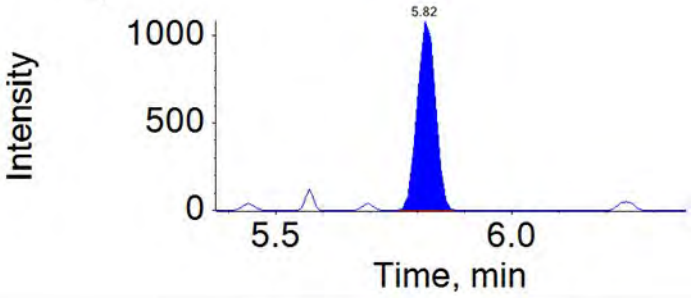
APPROVED
By MCD at 9:29 pm, 11/9/18

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By HMK at 7:21 am, 11/15/18

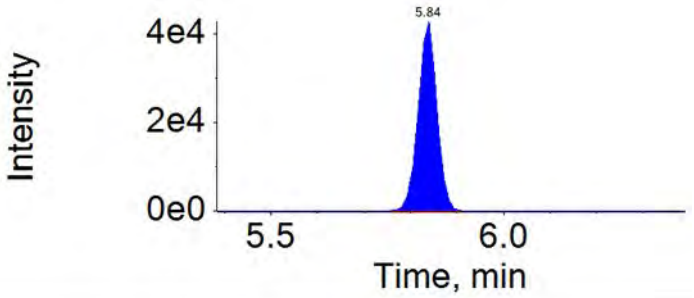
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Primary Mass: 563.0 / 519.0



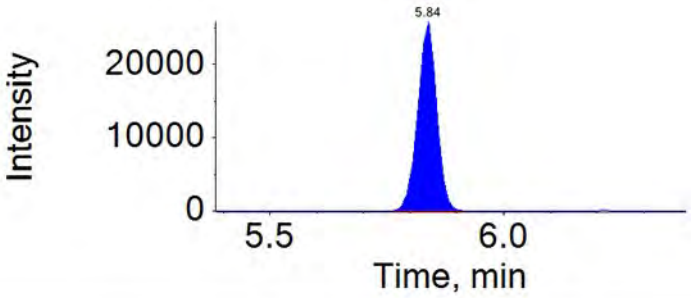
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Secondary Mass: 563.0 / 169.0



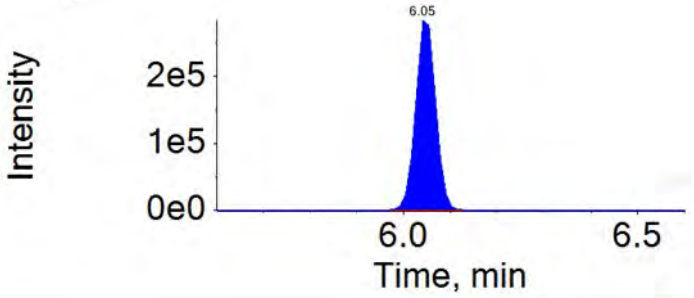
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



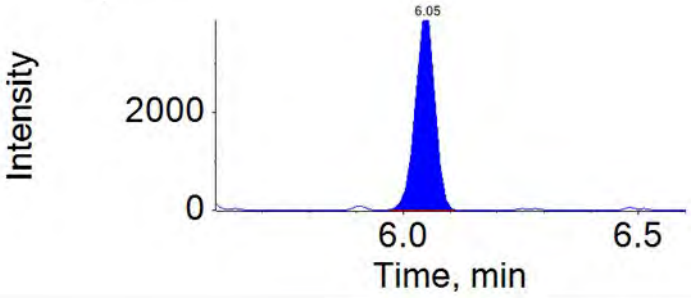
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



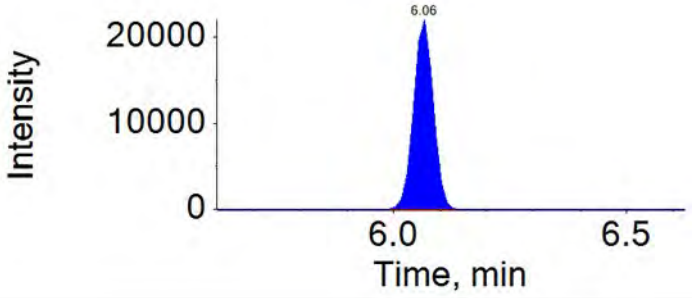
Component: PFDoDA
Primary Mass: 613.0 / 569.0



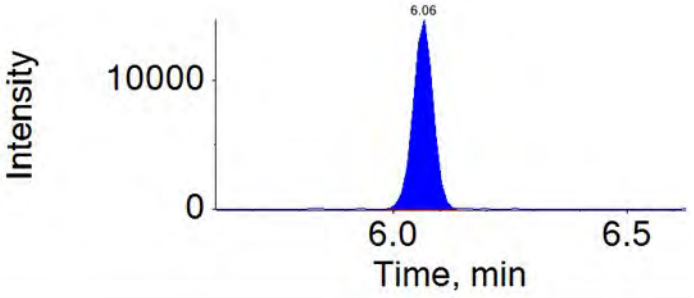
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



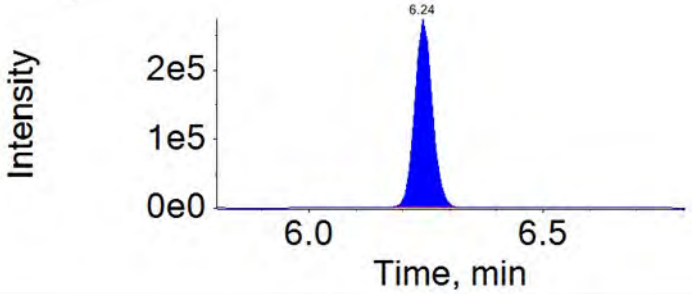
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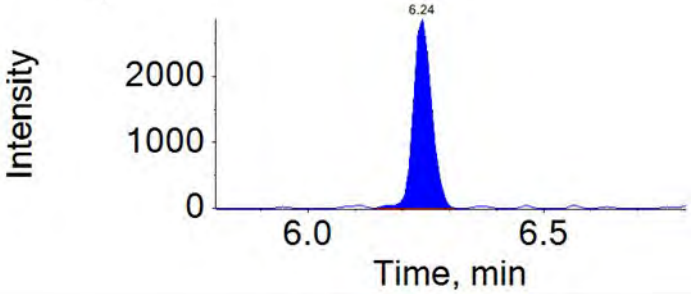
APPROVED
By MCD at 9:29 pm, 11/9/18

REVIEWED
By HMK at 7:21 am, 11/15/18

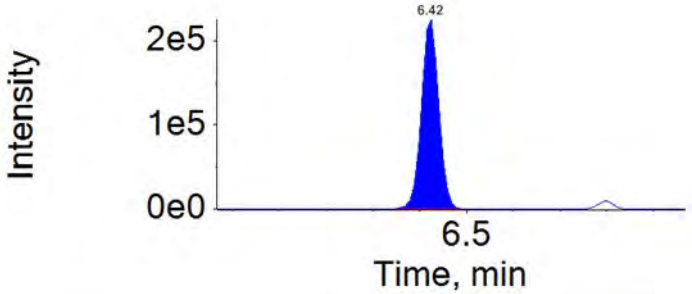
Component: PFTrDA
Primary Mass: 663.0 / 619.0



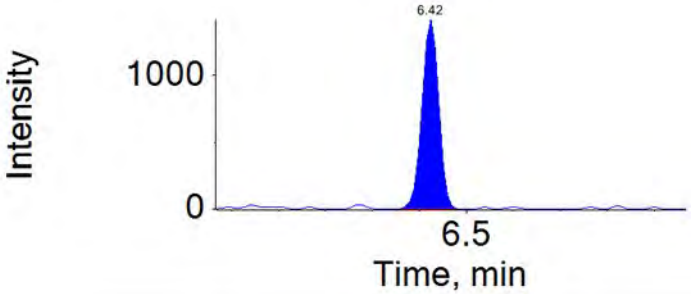
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



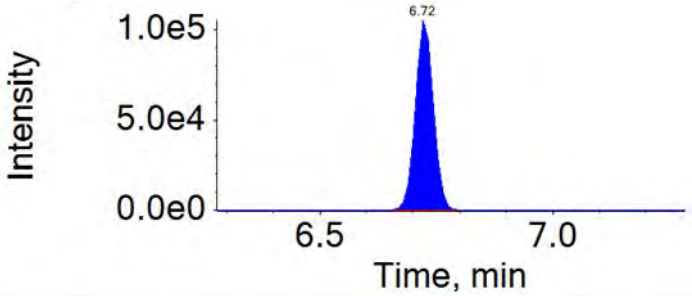
Component: PFTeDA
Primary Mass: 713.0 / 669.0



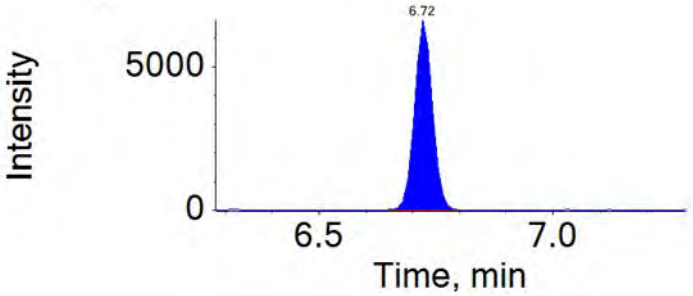
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



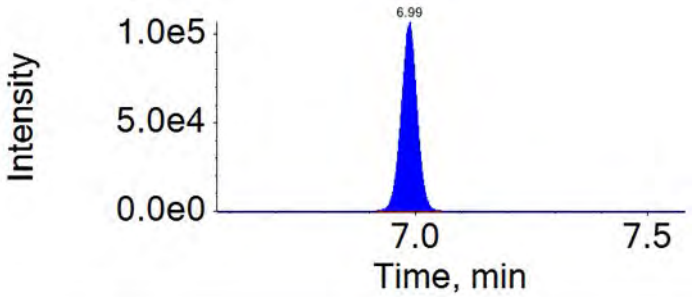
Component: PFHxDA
Primary Mass: 813.0 / 769.0



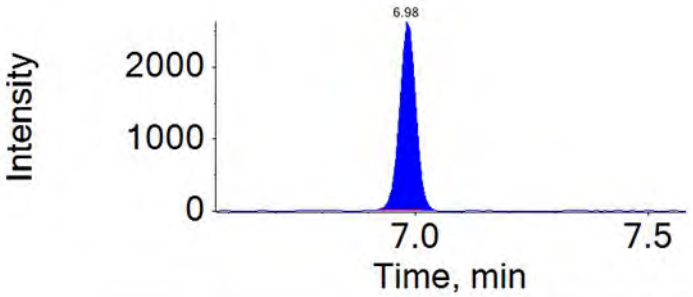
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



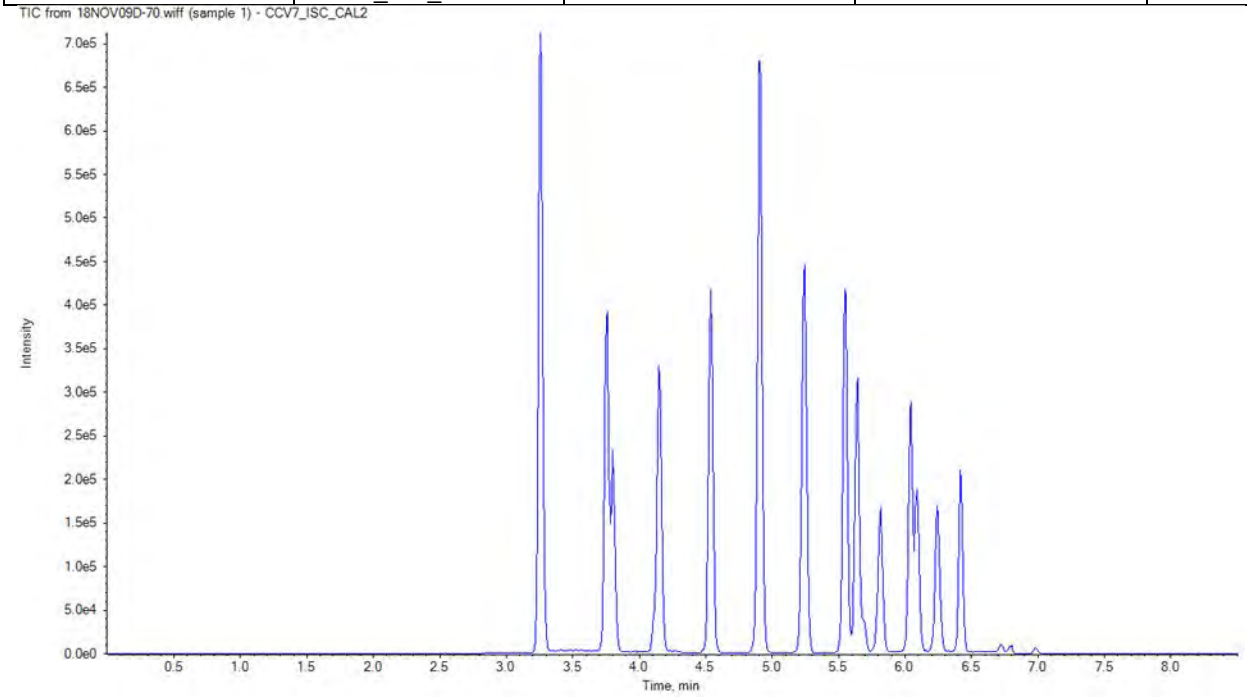
APPROVED
By MCD at 9:29 pm, 11/9/18

REVIEWED
By HMK at 7:21 am, 11/15/18

Instrument Sensitivity Check/ Continuing Calibration Verfication

ICAL Name: 18NOV07DCAL **Result Table:** 18NOV09DCCV5-10 11/9/2018 9:20:28 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	CCV7_ISC_CAL2	CALMOD21833F	18NOV09D-70.wiff	2018-11-09T15:01:29



Injection Standard Area Reference File: 18NOV09D-03

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Reference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	719203.7	725974.7	-1	50	
13C2-PFOA	5.0	488634.8	506876.7	-4	50	
13C4-PFOS	4.8	260065.0	274910.1	-5	50	
13C2-PFDA	5.0	304659.8	307276.7	-1	50	

APPROVED
By MCD at 9:29 pm, 11/9/18

REVIEWED
By HMK at 7:21 am, 11/15/18

Instrument Sensitivity Check/ Continuing Calibration Verfication

ICAL Name: 18NOV07DCAL **Result Table:** 18NOV09DCCV5-10 11/9/2018 9:20:28 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	CCV7_ISC_CAL2	CALMOD21833F	18NOV09D-70.wiff	2018-11-09T15:01:29

Analyte Name	Analyte Area	Sc /pk	Ext Std Name	Ext Std Area	Ext Std con	Area Ratio	RT (min)	RRT	Spec Amt	Calc Amt	% Diff	% Diff Lim	% Diff OOS
PFBA	73492.2	10	13C4-PFBA	779166.9	5.0	0.094	3.25	1.000	0.500	0.552	10	30	
PFPeA	74920.8	12	13C5-PFPeA	808883.2	5.0	0.093	3.75	1.000	0.500	0.550	10	30	
PFBS	41183.6	11	13C3-PFBS	393094.5	4.7	0.105	3.80	1.000	0.440	0.528	20	30	
4:2-FTS	9655.7	12	13C2-4:2-FTS	54396.2	4.7	0.178	4.12	1.000	0.467	0.477	2	30	
PFHxA	82189.0	12	13C5-PFHxA	668949.5	5.0	0.123	4.15	1.000	0.500	0.527	5	30	
PFPeS	19670.2	11	13C3-PFBS	393094.5	4.7	0.050	4.17	1.100	0.469	0.494	5	30	
PFHxS	29901.9	11	13C3-PFHxS	312166.7	4.7	0.096	4.54	1.000	0.473	0.486	3	30	
PFHpA	85576.4	12	13C4-PFHpA	548771.2	5.0	0.156	4.54	1.000	0.500	0.524	5	30	
6:2-FTS	6933.9	13	13C2-6:2-FTS	32697.8	4.8	0.212	4.89	1.000	0.474	0.529	12	30	
PFHpS	28380.7	11	13C3-PFHxS	312166.7	4.7	0.091	4.90	1.080	0.476	0.476	0	30	
PFOA	92656.6	11	13C8-PFOA	902876.6	5.0	0.103	4.91	1.000	0.500	0.578	16	30	
PFOS	28378.4	11	13C8-PFOS	291965.1	4.8	0.097	5.23	1.000	0.478	0.504	5	30	
PFNA	70701.7	11	13C9-PFNA	493147.8	5.0	0.143	5.25	1.000	0.500	0.536	7	30	
PFNS	17604.0	10	13C8-PFOS	291965.1	4.8	0.060	5.53	1.060	0.480	0.478	0	30	
PFDA	56595.3	10	13C6-PFDA	578996.8	5.0	0.098	5.55	1.000	0.500	0.538	8	30	
8:2-FTS	6316.2	11	13C2-8:2-FTS	22990.8	4.8	0.275	5.55	1.000	0.479	0.619	29	30	
PFOSA	60815.5	11	13C8-PFOSA	674942.3	5.0	0.090	5.64	1.000	0.500	0.487	-3	30	
NMeFOSAA	6322.3	12	d3-NMeFOSAA	76063.8	5.0	0.083	5.69	1.000	0.500	0.428	-14	30	
PFDS	16554.3	12	13C8-PFOS	291965.1	4.8	0.057	5.78	1.110	0.482	0.542	12	30	
PFUnDA	45893.5	12	13C7-PFUnDA	270038.0	5.0	0.170	5.81	1.000	0.500	0.487	-3	30	
NEtFOSAA	7460.1	13	d5-NEtFOSAA	60214.8	5.0	0.124	5.83	1.000	0.500	0.532	6	30	
PFDoDA	52718.5	12	13C2-PFDoDA	563148.2	5.0	0.094	6.04	1.000	0.500	0.507	1	30	
10:2-FTS	3263.8	11	13C2-8:2-FTS	22990.8	4.8	0.142	6.06	1.090	0.482	0.442	-8	30	
NMePFOSAE	35185.8	12	d7-NMePFOSAE	318159.2	5.0	0.111	6.10	1.000	0.500	0.496	-1	30	
NMePFOSA	8474.4	12	d3-NMePFOSA	77778.0	5.0	0.109	6.10	1.000	0.500	0.610	22	30	
PFDoS	6973.0	11	13C8-PFOS	291965.1	4.8	0.024	6.21	1.190	0.484	0.461	-5	30	
NEtPFOSAE	46363.8	12	d9-NEtPFOSAE	255279.0	5.0	0.182	6.25	1.000	0.500	0.582	16	30	
NEtPFOSA	7240.2	11	d5-NEtPFOSA	60534.1	5.0	0.120	6.26	1.000	0.500	0.527	5	30	
PFTrDA	41709.5	11	13C2-PFDoDA	563148.2	5.0	0.074	6.24	1.030	0.500	0.467	-7	30	
PFTeDA	36855.9	10	13C2-PFTeDA	394092.3	5.0	0.094	6.42	1.000	0.500	0.549	10	30	
PFHxDA	17530.4	11	13C2-PFTeDA	394092.3	5.0	0.044	6.72	1.050	0.500	0.552	10	30	
PFODA	14666.4	10	13C2-PFTeDA	394092.3	5.0	0.037	6.98	1.090	0.500	0.533	7	30	

APPROVED
By MCD at 9:29 pm, 11/9/18

REVIEWED
By HMK at 7:21 am, 11/15/18

Instrument Sensitivity Check/ Continuing Calibration Verfication

ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13
Result Table: 18NOV09DCCV5-10 11/9/2018 9:20:28 PM
Acquisition Method: 18AUG13_3uL.dam

APPROVED
By MCD at 9:29 pm, 11/9/18

REVIEWED
By HMK at 7:21 am, 11/15/18

ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13
Result Table: 18NOV09DCCV5-10 11/9/2018 9:22:25 PM
Acquisition Method: 18AUG13_3uL.dam

Sample Name:	CCV7_ISC_CAL2			**Data File:**		18NOV09D-70.wiff
Sample ID:	CALMOD21833F			**Acquis Date:**		2018-11-09T15:01:29
Sample Type:	Quality Control			**Instrument:**		LM27631
Vial Position:	4			**Acquis Method:**		18AUG13_3uL.dam
Injection Vol:	3.00			**Result Table:**		18NOV09DCCV5-10
QMethod File:	MQ4-18AUG13			**ICAL Name:**		18NOV07DCAL
Batch Number:	N/A			**Operator:**		MCD7824
Sample Wt.:	1.00000			**Dilution Factor:**		1.00
Sample Vol.:	1.000			**Prep Factor:**		1.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV09D-03

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Rreference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	719203.7	725974.7	-1	50	
13C2-PFOA	5.0	488634.8	506876.7	-4	50	
13C4-PFOS	4.8	260065.0	274910.1	-5	50	
13C2-PFDA	5.0	304659.8	307276.7	-1	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	779166.9	13C3-PFBA	719203.7	1.083	5.000	5.014	100	70-130	
E13C5-PFPeA	808883.2	13C3-PFBA	719203.7	1.125	5.000	4.900	98	70-130	
E13C3-PFBS	393094.5	13C3-PFBA	719203.7	0.547	4.650	4.011	86	70-130	
E13C2-4:2-FTS	54396.2	13C2-PFOA	488634.8	0.111	4.670	5.023	108	70-130	
E13C5-PFHxA	668949.5	13C2-PFOA	488634.8	1.369	5.000	5.036	101	70-130	
E13C3-PFHxS	312166.7	13C2-PFOA	488634.8	0.639	4.730	4.586	97	70-130	
E13C4-PFHpA	548771.2	13C2-PFOA	488634.8	1.123	5.000	5.109	102	70-130	
E13C2-6:2-FTS	32697.8	13C2-PFOA	488634.8	0.067	4.750	4.462	94	70-130	
E13C8-PFOA	902876.6	13C2-PFOA	488634.8	1.848	5.000	5.153	103	70-130	
E13C8-PFOS	291965.1	13C4-PFOS	260065.0	1.123	4.780	4.964	104	70-130	
E13C9-PFNA	493147.8	13C4-PFOS	260065.0	1.896	5.000	5.180	104	70-130	
E13C6-PFDA	578996.8	13C2-PFDA	304659.8	1.900	5.000	4.779	96	70-130	
E13C2-8:2-FTS	22990.8	13C2-PFDA	304659.8	0.075	4.790	3.993	83	70-130	
E13C8-PFOSA	674942.3	13C2-PFDA	304659.8	2.215	5.000	4.834	97	70-130	
Ed3-NMeFOSAA	76063.8	13C2-PFDA	304659.8	0.250	5.000	4.643	93	70-130	
E13C7-PFUnDA	270038.0	13C2-PFDA	304659.8	0.886	5.000	5.113	102	70-130	
Ed5-NEtFOSAA	60214.8	13C2-PFDA	304659.8	0.198	5.000	4.574	91	70-130	
E13C2-PFDoDA	563148.2	13C2-PFDA	304659.8	1.848	5.000	4.983	100	70-130	
Ed7-NMePFOSAE	318159.2	13C2-PFDA	304659.8	1.044	5.000	4.856	97	70-130	
Ed3-NMePFOSA	77778.0	13C2-PFDA	304659.8	0.255	5.000	4.674	93	70-130	
Ed9-NEtPFOSAE	255279.0	13C2-PFDA	304659.8	0.838	5.000	4.785	96	70-130	
Ed5-NEtPFOSA	60534.1	13C2-PFDA	304659.8	0.199	5.000	4.601	92	70-130	
E13C2-PFTeDA	394092.3	13C2-PFDA	304659.8	1.294	5.000	4.657	93	70-130	

APPROVED
By MCD at 9:29 pm, 11/9/18

REVIEWED
By HMK at 7:21 am, 11/15/18

ICAL Name: 18NOV07DCAL **Result Table:** 18NOV09DCCV5-10 11/9/2018 9:22:25 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

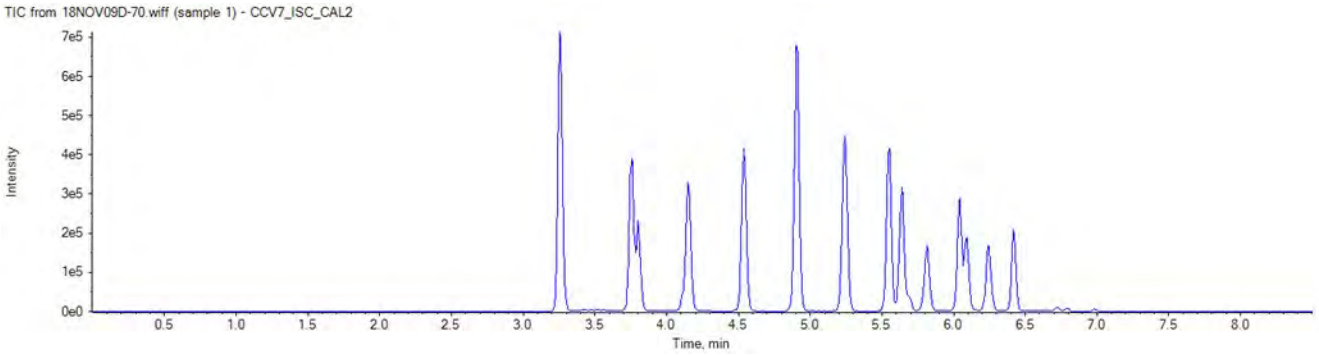
Analyte Quantitation Peak Table

Sample Name: CCV7_ISC_CAL2 **Instrument Name:** LM27631 **File Name:** 18NOV09D-70.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	1.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	3.25	1.000	73492.2		A	13C4-PFBA	3.26	779166.9	0.094	0.552
PFPeA	3.75	1.000	74920.8		A	13C5-PFPeA	3.76	808883.2	0.093	0.550
PFBS	3.80	1.000	41183.6		A	13C3-PFBS	3.80	393094.5	0.105	0.528
4:2-FTS	4.12	1.000	9655.7		A	13C2-4:2-FTS	4.11	54396.2	0.178	0.477
PFHxA	4.15	1.000	82189.0		A	13C5-PFHxA	4.15	668949.5	0.123	0.527
PFPeS	4.17	1.100	19670.2		A	13C3-PFBS	3.80	393094.5	0.050	0.494
PFHxS	4.54	1.000	29901.9		A	13C3-PFHxS	4.54	312166.7	0.096	0.486
PFHpA	4.54	1.000	85576.4		A	13C4-PFHpA	4.54	548771.2	0.156	0.524
6:2-FTS	4.89	1.000	6933.9		A	13C2-6:2-FTS	4.90	32697.8	0.212	0.529
PFHpS	4.90	1.080	28380.7		A	13C3-PFHxS	4.54	312166.7	0.091	0.476
PFOA	4.91	1.000	92656.6		A	13C8-PFOA	4.91	902876.6	0.103	0.578
PFOS	5.23	1.000	28378.4		A	13C8-PFOS	5.23	291965.1	0.097	0.504
PFNA	5.25	1.000	70701.7		A	13C9-PFNA	5.25	493147.8	0.143	0.536
PFNS	5.53	1.060	17604.0		A	13C8-PFOS	5.23	291965.1	0.060	0.478
PFDA	5.55	1.000	56595.3		A	13C6-PFDA	5.55	578996.8	0.098	0.538
8:2-FTS	5.55	1.000	6316.2		A	13C2-8:2-FTS	5.56	22990.8	0.275	0.619
PFOSA	5.64	1.000	60815.5		A	13C8-PFOSA	5.64	674942.3	0.090	0.487
NMeFOSAA	5.69	1.000	6322.3		A	d3-NMeFOSAA	5.69	76063.8	0.083	0.428
PFDS	5.78	1.110	16554.3		A	13C8-PFOS	5.23	291965.1	0.057	0.542
PFUnDA	5.81	1.000	45893.5		A	13C7-PFUnDA	5.81	270038.0	0.170	0.487
NEtFOSAA	5.83	1.000	7460.1		A	d5-NEtFOSAA	5.83	60214.8	0.124	0.532
PFDoDA	6.04	1.000	52718.5		A	13C2-PFDoDA	6.04	563148.2	0.094	0.507
10:2-FTS	6.06	1.090	3263.8		A	13C2-8:2-FTS	5.56	22990.8	0.142	0.442
NMePFOSAE	6.10	1.000	35185.8		A	d7-NMePFOSAE	6.09	318159.2	0.111	0.496
NMePFOSA	6.10	1.000	8474.4		A	d3-NMePFOSA	6.10	77778.0	0.109	0.610
PFDoS	6.21	1.190	6973.0		A	13C8-PFOS	5.23	291965.1	0.024	0.461
NEtPFOSAE	6.25	1.000	46363.8		A	d9-NEtPFOSAE	6.24	255279.0	0.182	0.582
NEtPFOSA	6.26	1.000	7240.2		A	d5-NEtPFOSA	6.26	60534.1	0.120	0.527
PFTrDA	6.24	1.030	41709.5		A	13C2-PFDoDA	6.04	563148.2	0.074	0.467
PFTeDA	6.42	1.000	36855.9		A	13C2-PFTeDA	6.42	394092.3	0.094	0.549
PFHxDA	6.72	1.050	17530.4		A	13C2-PFTeDA	6.42	394092.3	0.044	0.552
PFODA	6.98	1.090	14666.4		A	13C2-PFTeDA	6.42	394092.3	0.037	0.533

Total Ion Chromatogram

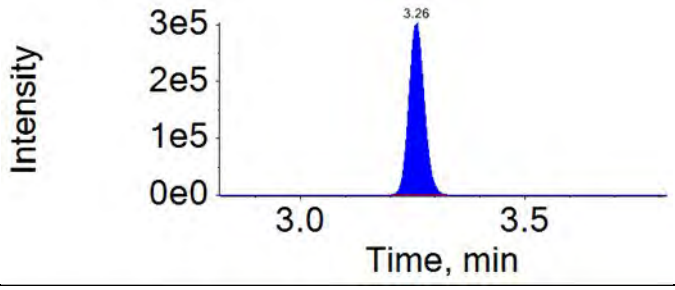


APPROVED
By MCD at 9:29 pm, 11/9/18

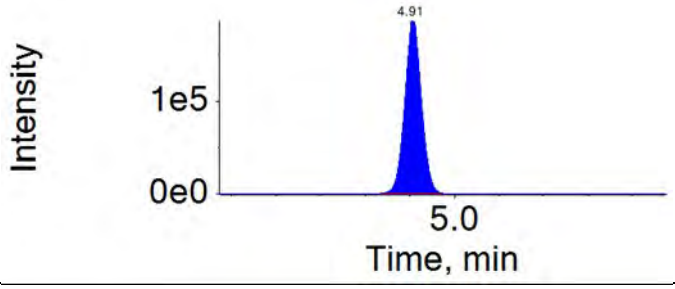
REVIEWED
By HMK at 7:21 am, 11/15/18

ICAL Name: 18NOV07DCAL **Result Table:** 18NOV09DCCV5-10 11/9/2018 9:22:25 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

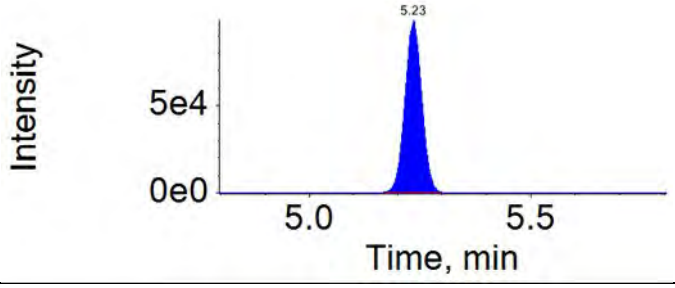
Injection Standard: 13C3-PFBA
216.0 / 172.0



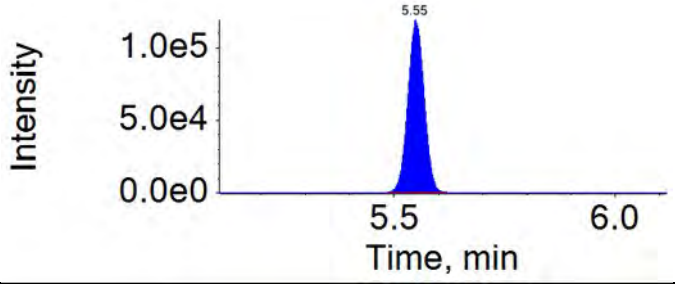
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0



Injection Standard: 13C2-PFDA
515.0 / 470.0

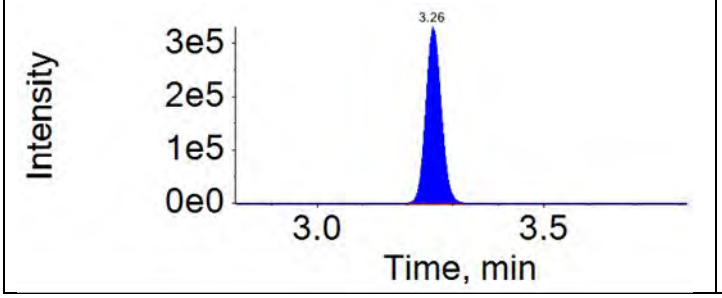


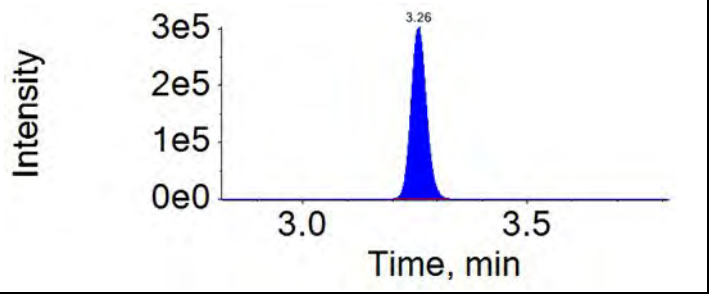
APPROVED
By MCD at 9:29 pm, 11/9/18

REVIEWED
By HMK at 7:21 am, 11/15/18

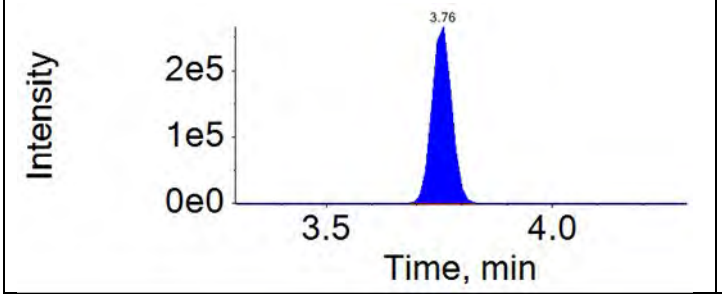
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV09DCCV5-10 11/9/2018 9:22:25 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

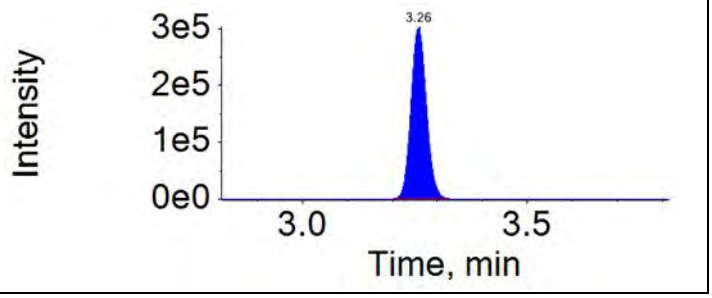
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217.0 / 172.0	216.0 / 172.0



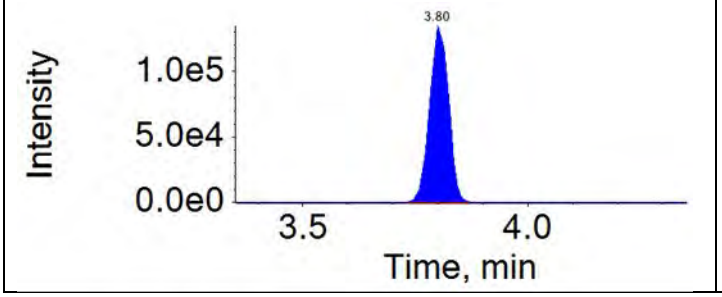


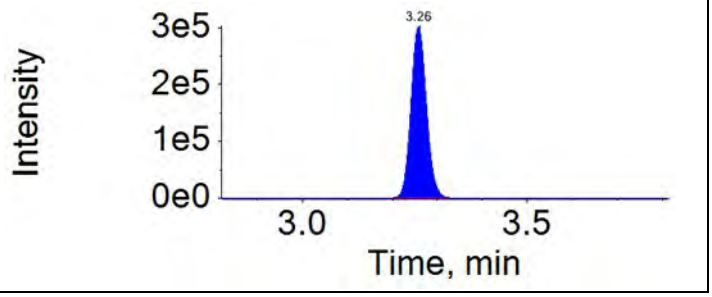
Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0



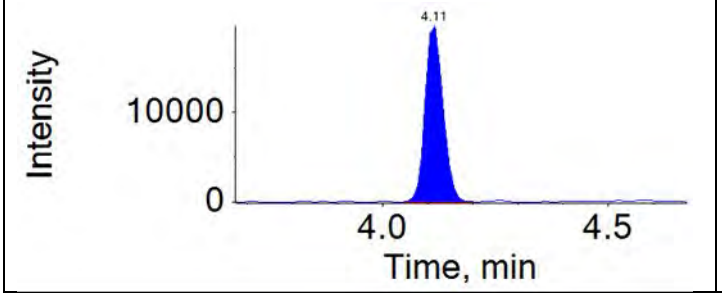


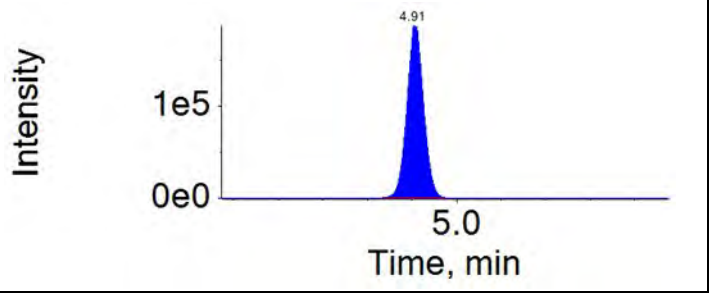
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0





Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0



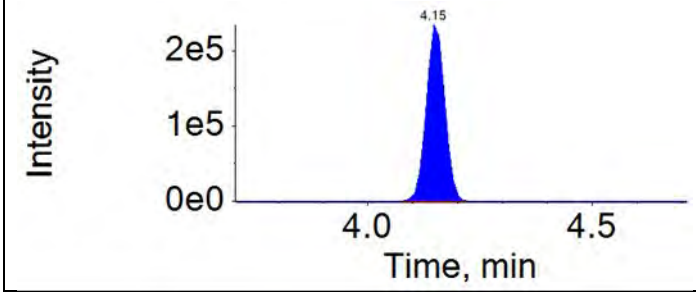


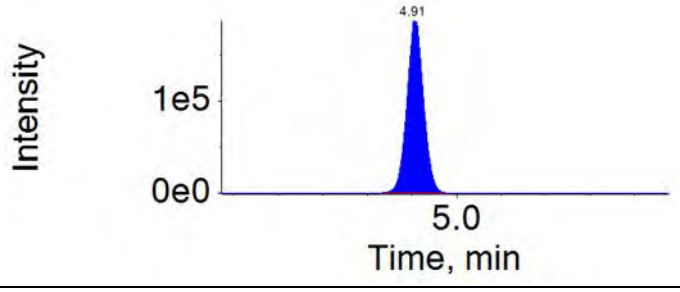
APPROVED
By MCD at 9:29 pm, 11/9/18

REVIEWED
By HMK at 7:21 am, 11/15/18

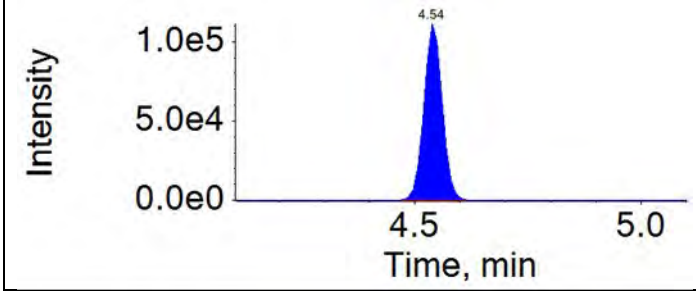
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV09DCCV5-10 11/9/2018 9:22:25 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

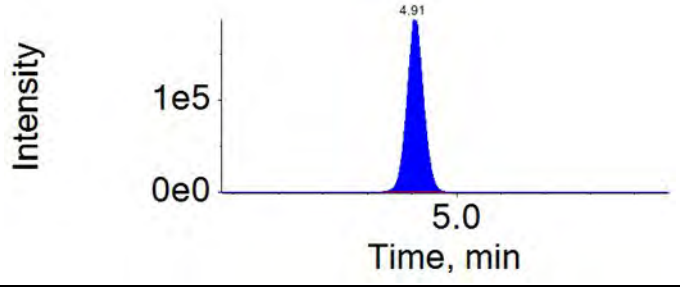
Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0



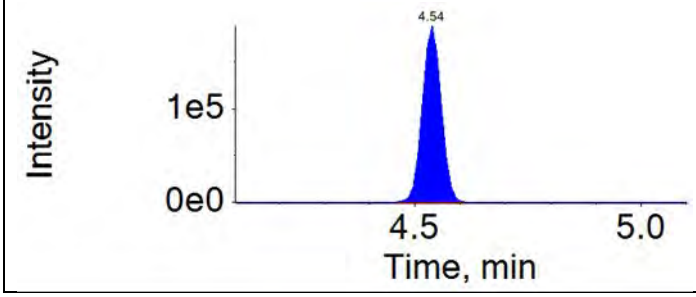


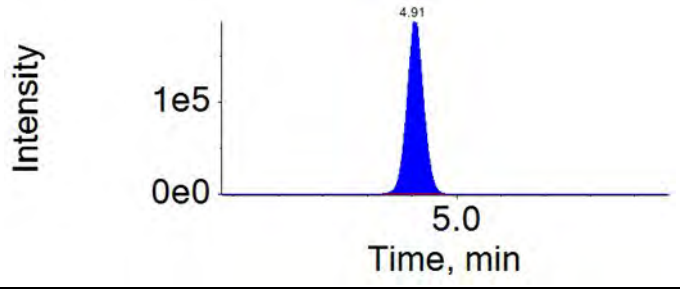
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0



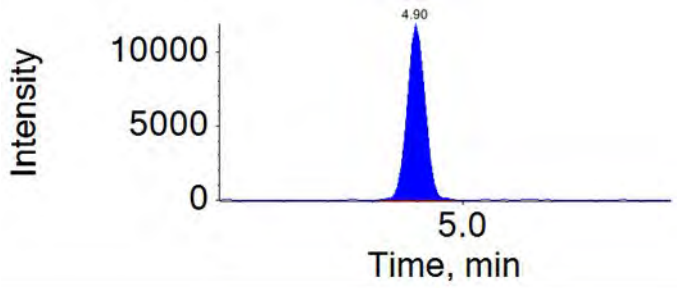


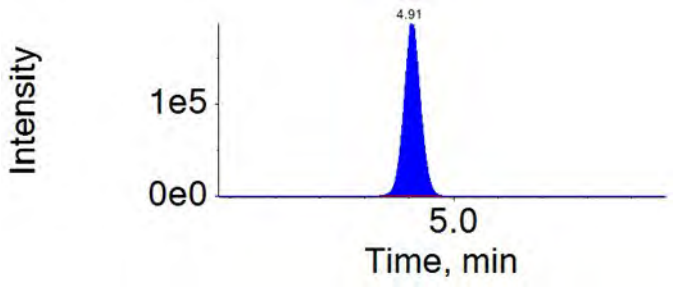
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0





Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0

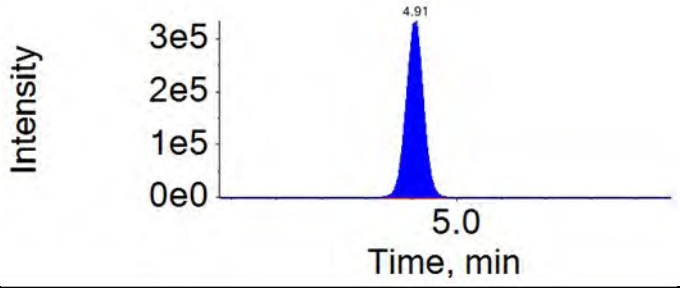
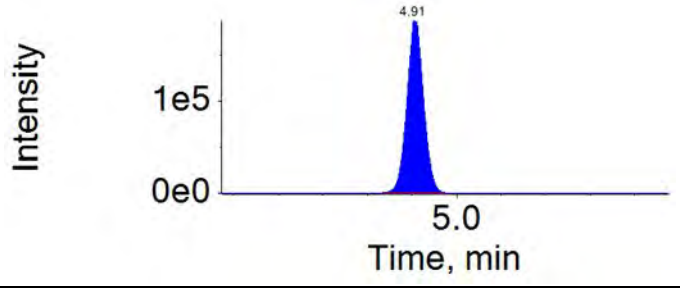


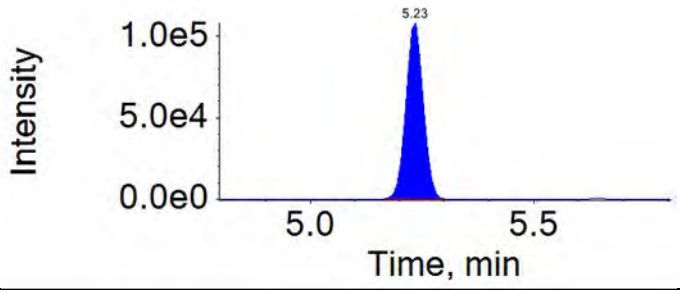
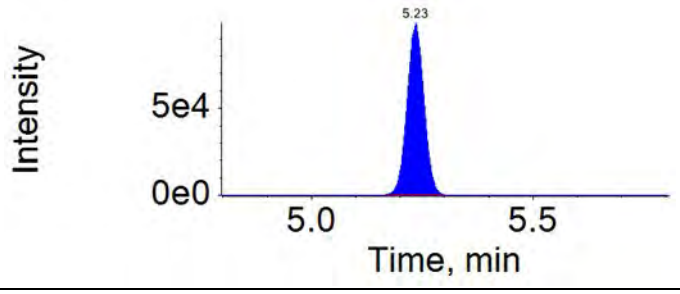


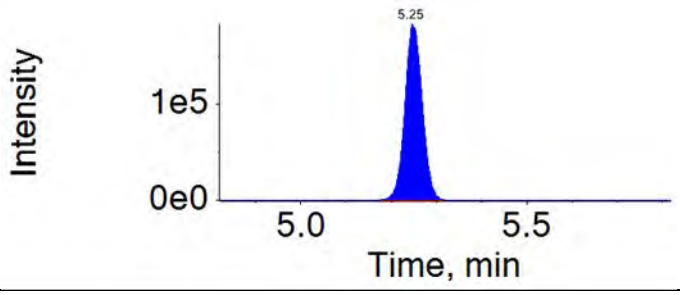
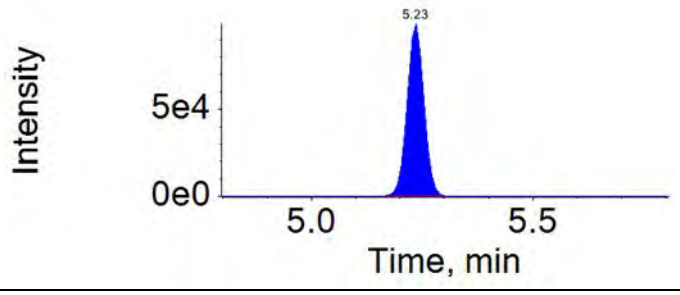
APPROVED
By MCD at 9:29 pm, 11/9/18

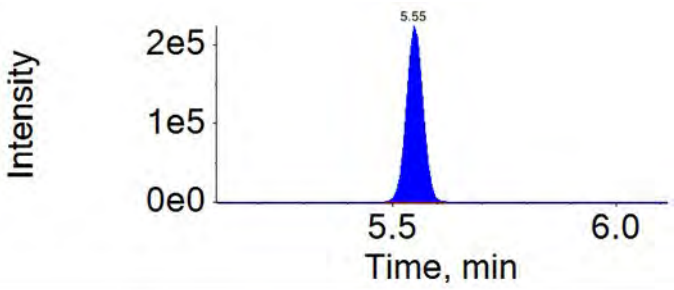
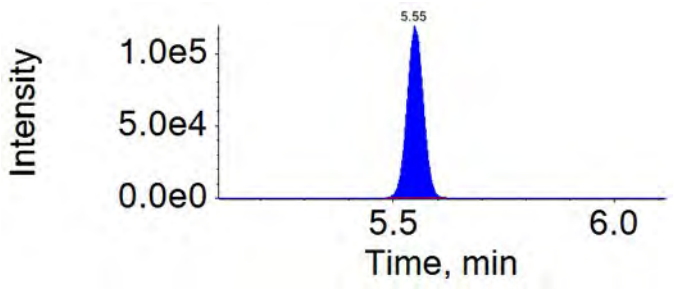
REVIEWED
By HMK at 7:21 am, 11/15/18

ICAL Name: 18NOV07DCAL **Result Table:** 18NOV09DCCV5-10 11/9/2018 9:22:25 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

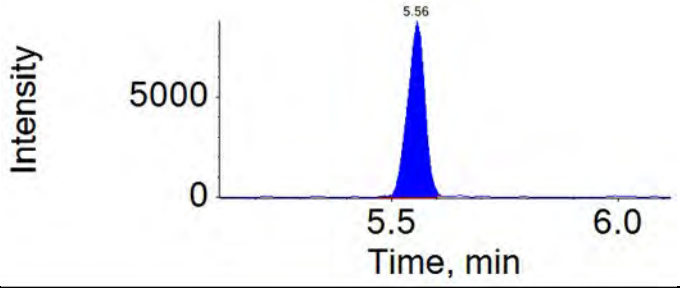
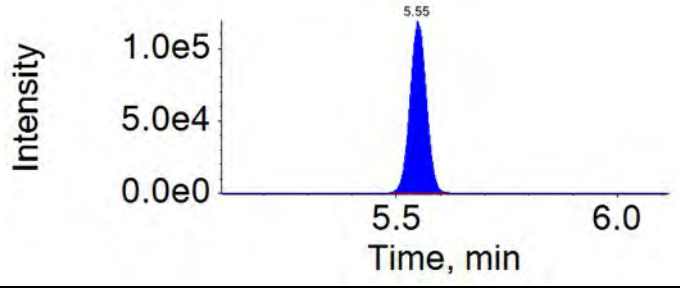
Extraction Standard: E13C8-PFOA	Injection Standard: 13C2-PFOA
421.0 / 376.0	415.0 / 370.0
	

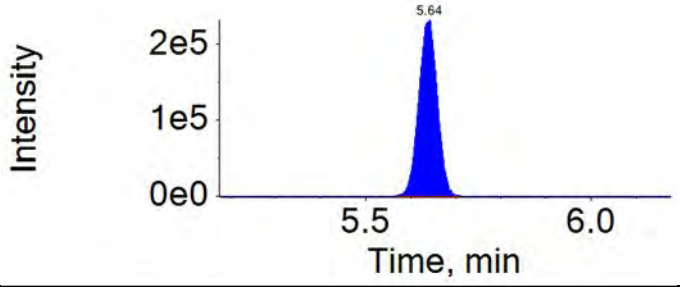
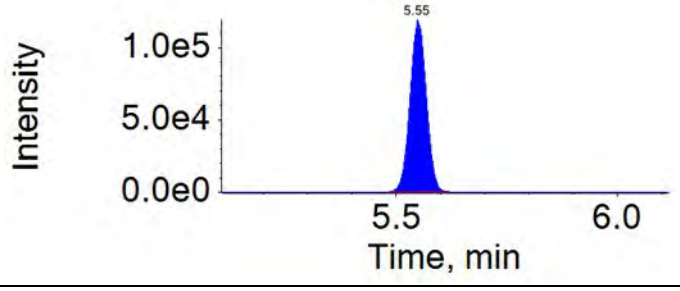
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507.0 / 80.0	503.0 / 80.0
	

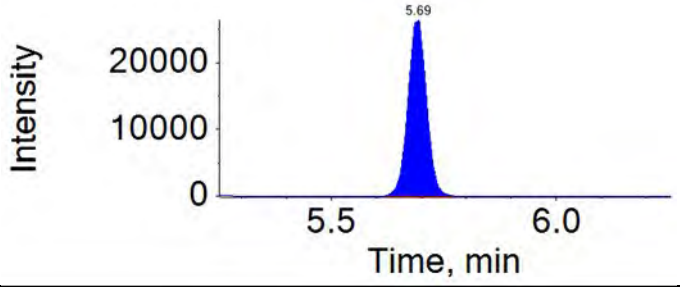
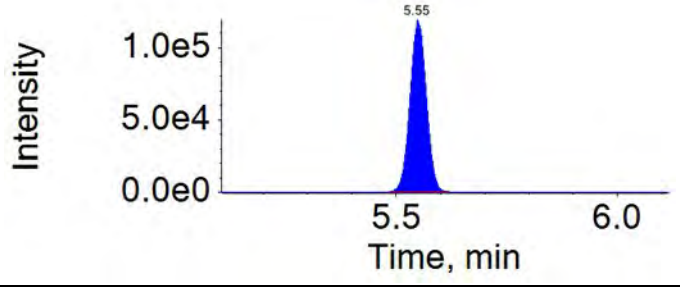
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472.0 / 427.0	503.0 / 80.0
	

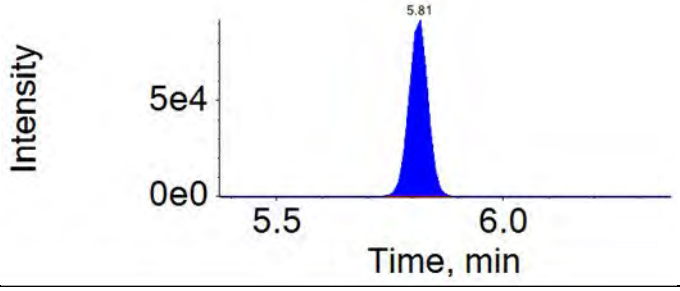
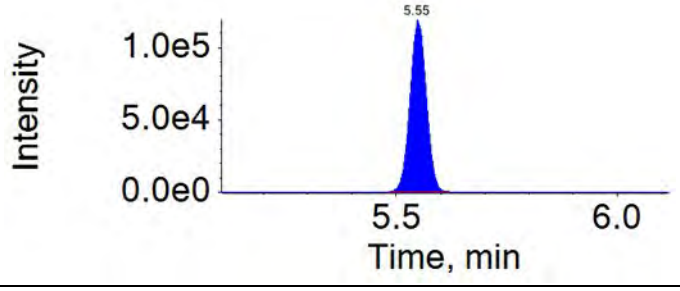
Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0
	

ICAL Name: 18NOV07DCAL **Result Table:** 18NOV09DCCV5-10 11/9/2018 9:22:25 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

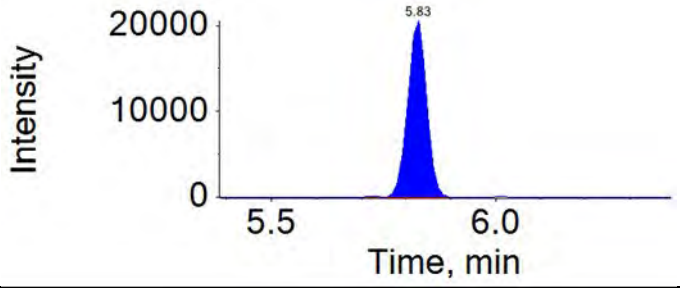
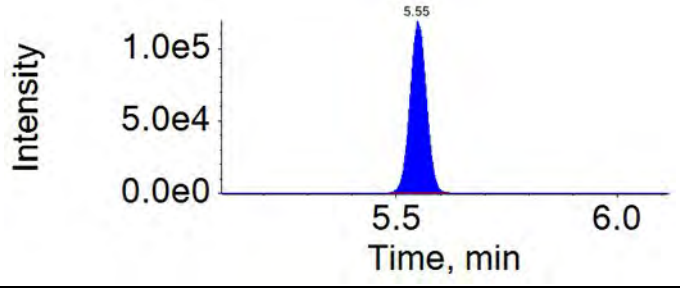
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529.0 / 81.0	515.0 / 470.0
	

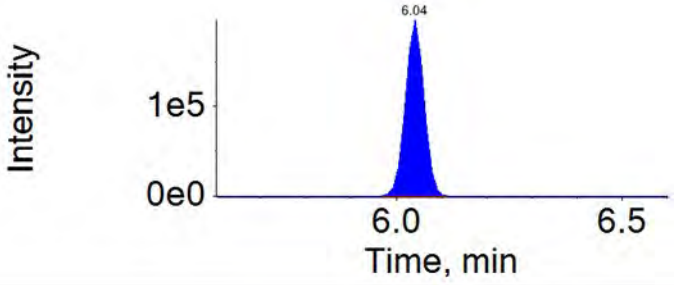
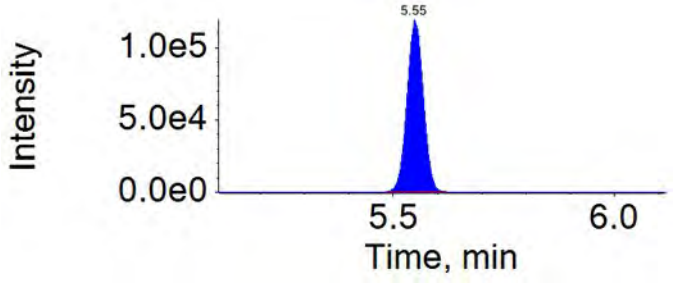
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506.0 / 78.0	515.0 / 470.0
	

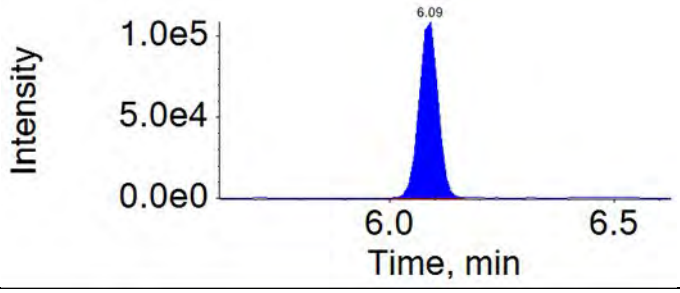
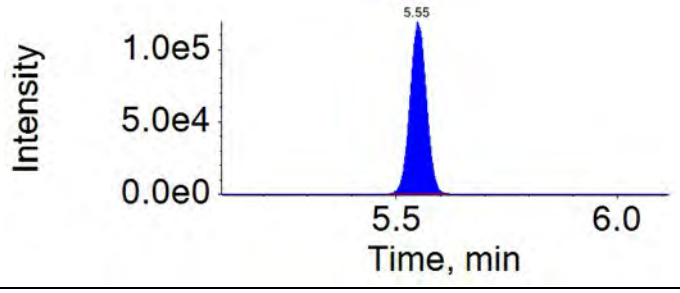
Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0
	

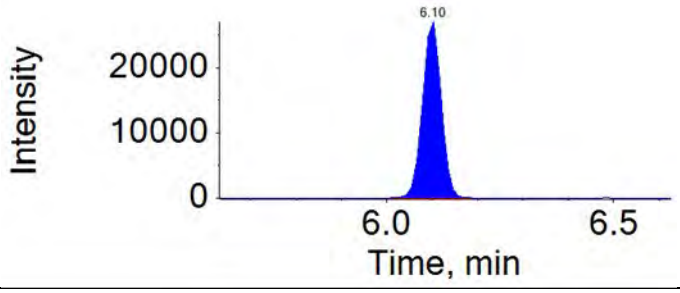
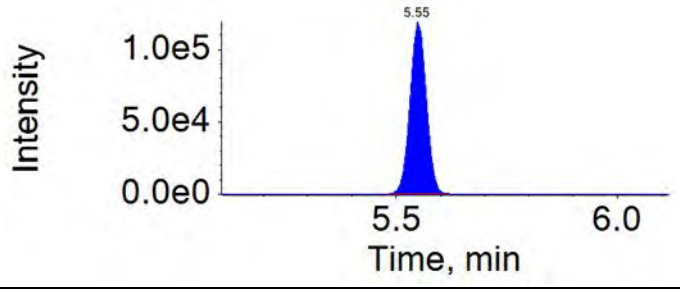
Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0
	

ICAL Name: 18NOV07DCAL **Result Table:** 18NOV09DCCV5-10 11/9/2018 9:22:25 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0
	

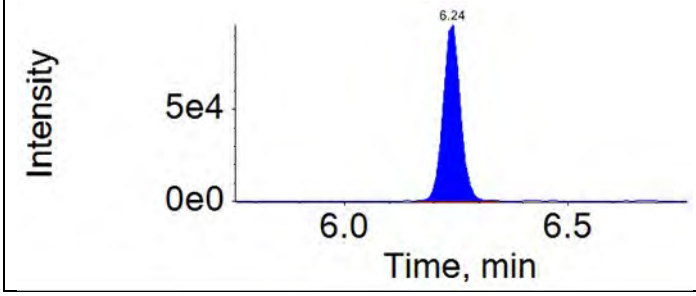
Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0
	

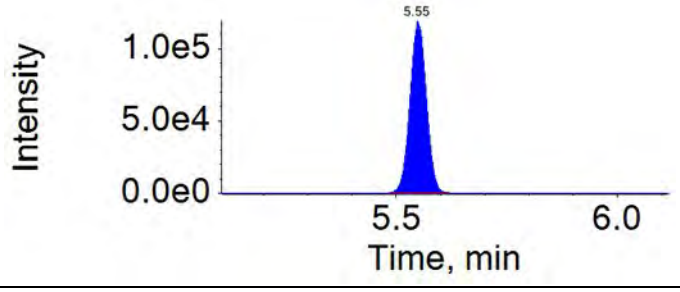
Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0
	

Extraction Standard: Ed3-NMePFOSA	Injection Standard: 13C2-PFDA
515.0 / 169.0	515.0 / 470.0
	

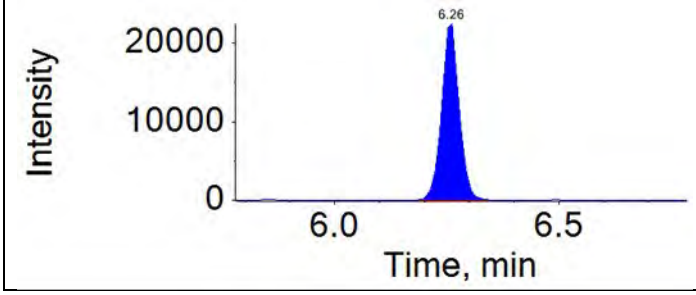
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV09DCCV5-10 11/9/2018 9:22:25 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

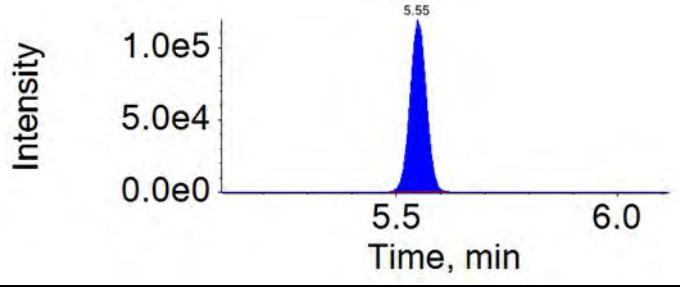
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



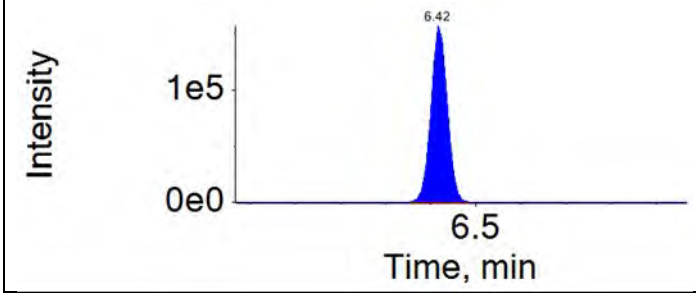


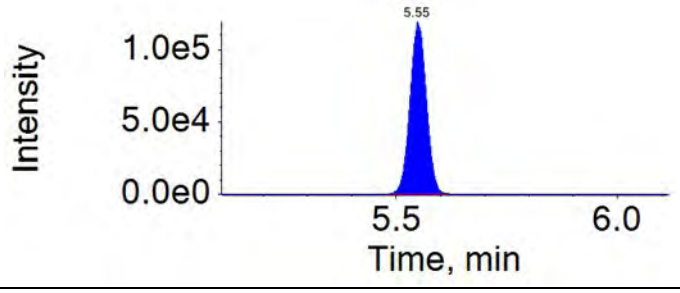
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0



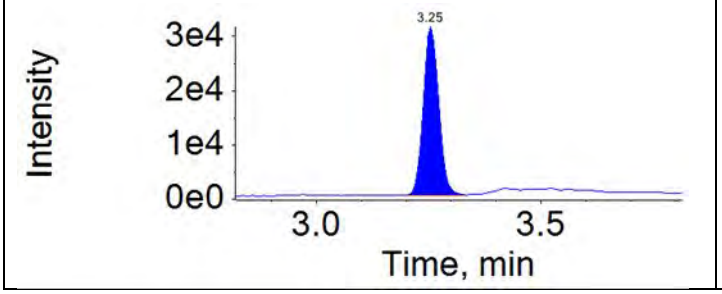


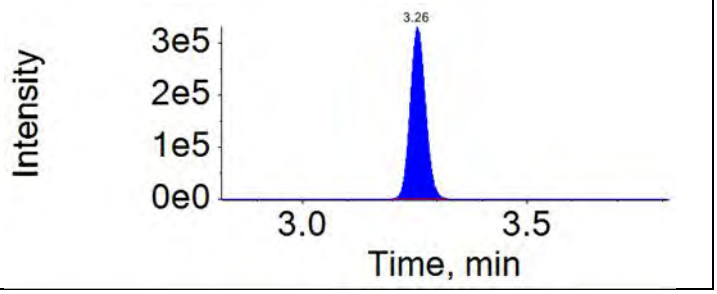
APPROVED
By MCD at 9:29 pm, 11/9/18

REVIEWED
By HMK at 7:21 am, 11/15/18

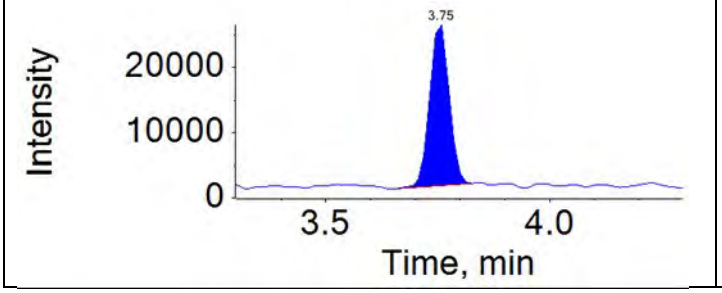
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV09DCCV5-10 11/9/2018 9:22:25 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

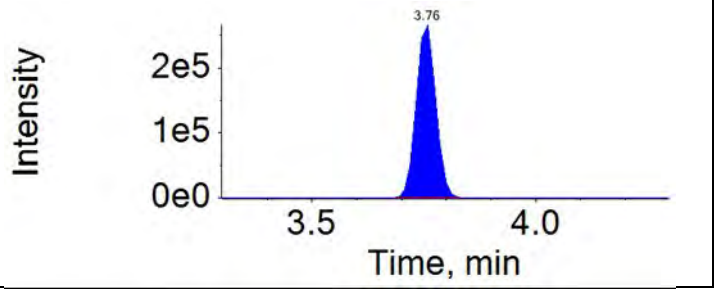
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



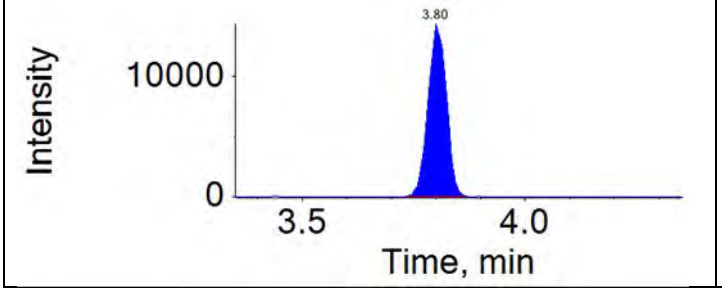


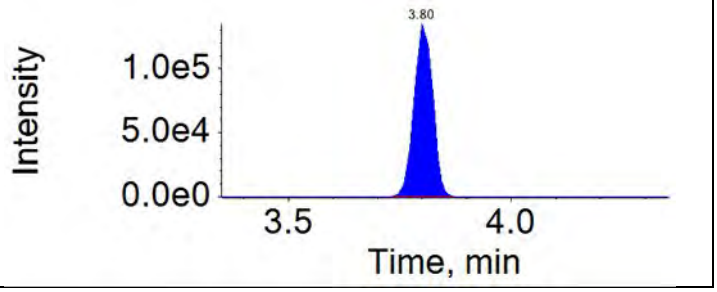
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



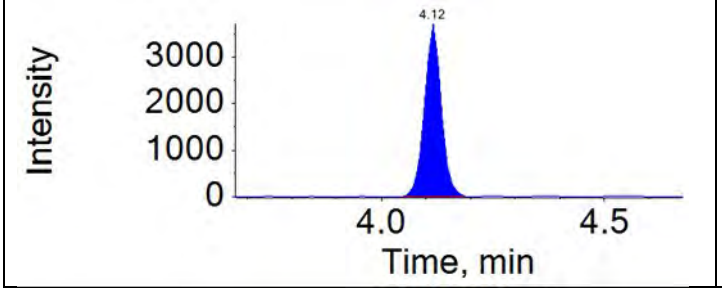


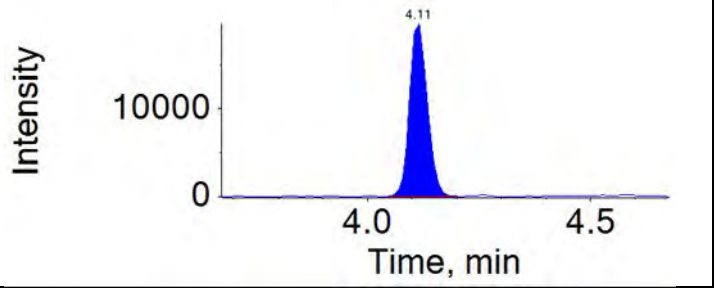
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





Analyte: 4:2-FTS	Extraction Standard: 13C2-4:2-FTS
327.0 / 307.0	329.0 / 81.0



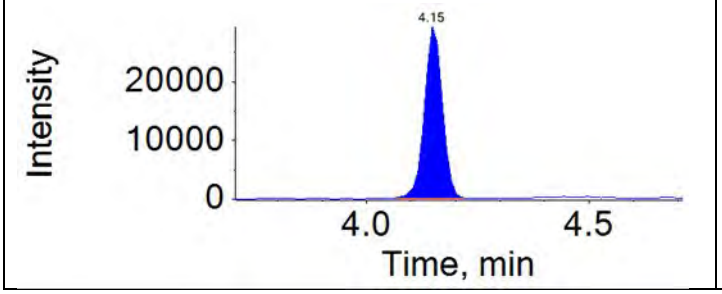


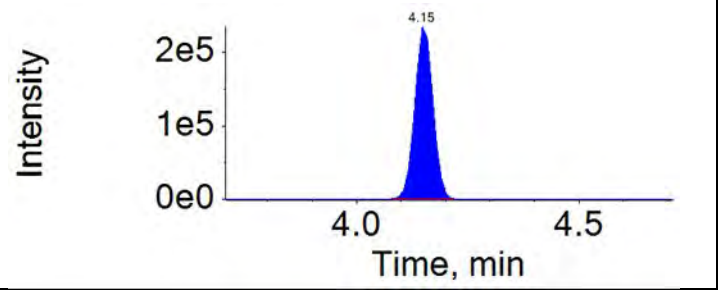
APPROVED
By MCD at 9:29 pm, 11/9/18

REVIEWED
By HMK at 7:21 am, 11/15/18

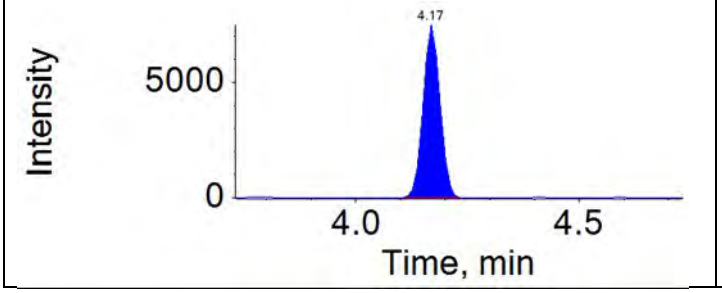
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV09DCCV5-10 11/9/2018 9:22:25 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

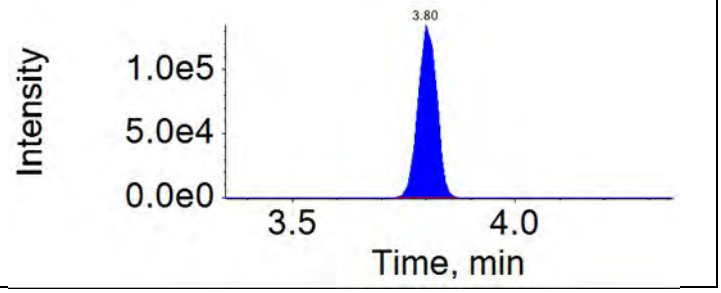
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



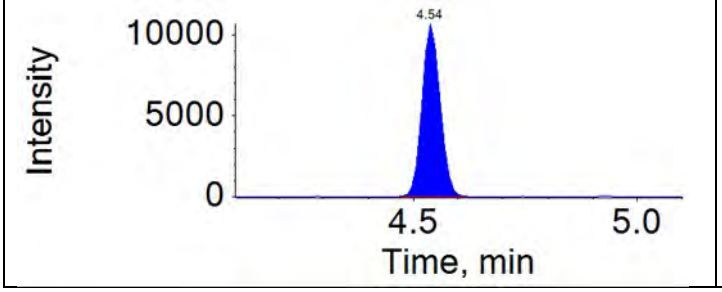


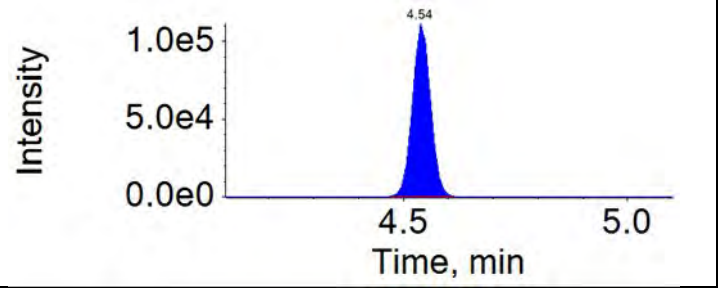
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



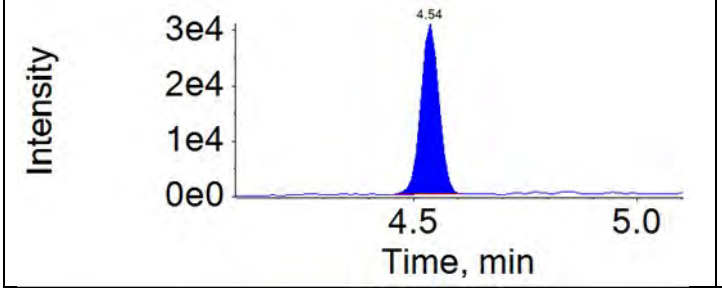


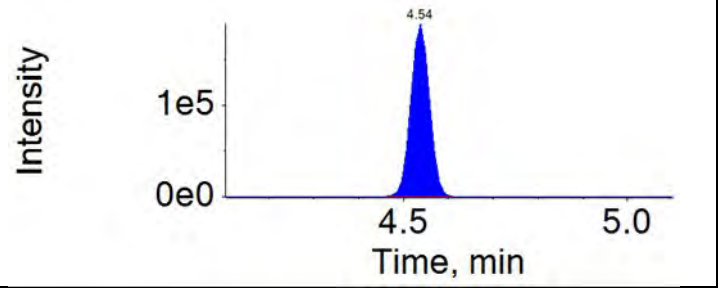
Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0





Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0

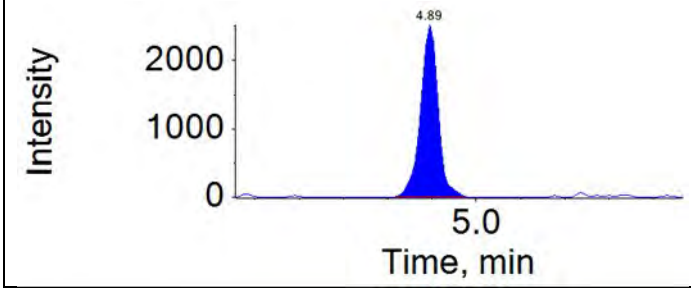
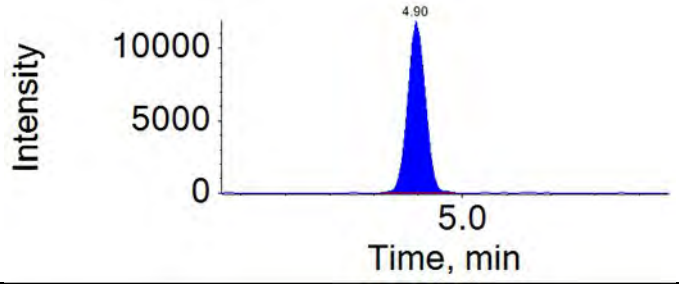


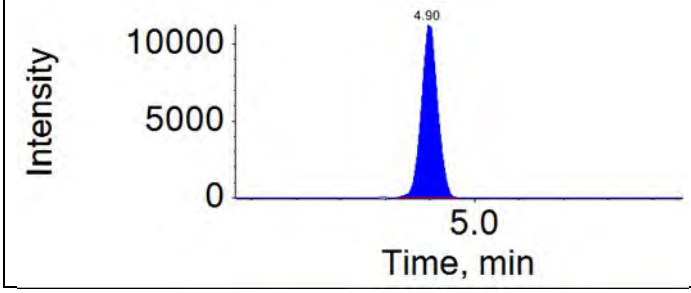
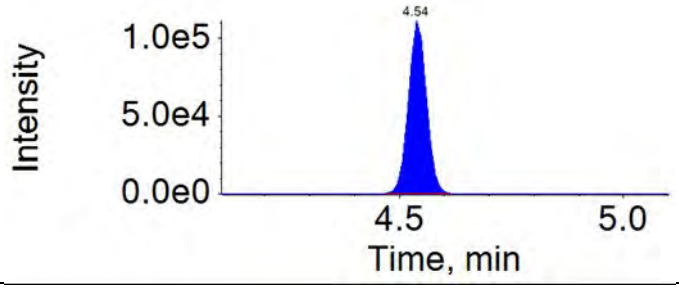


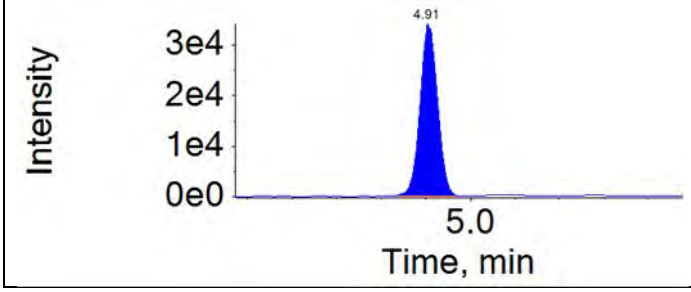
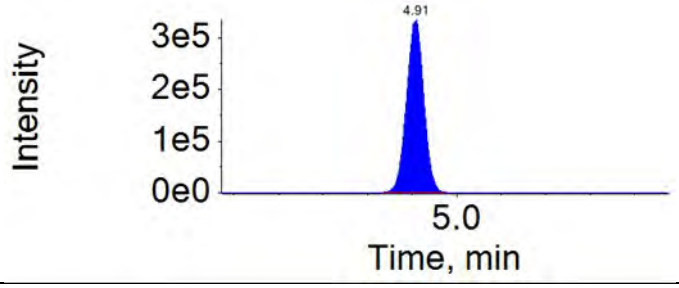
APPROVED
By MCD at 9:29 pm, 11/9/18

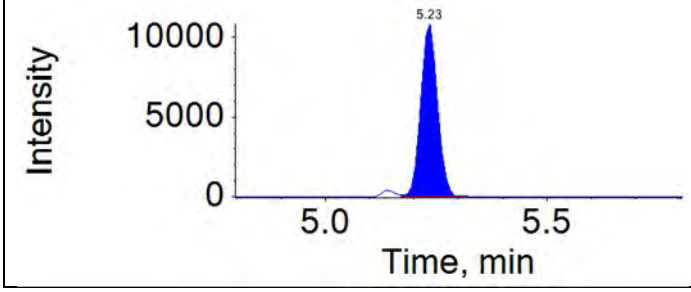
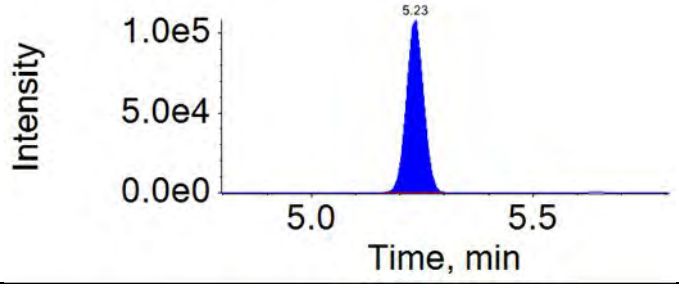
REVIEWED
By HMK at 7:21 am, 11/15/18

ICAL Name: 18NOV07DCAL **Result Table:** 18NOV09DCCV5-10 11/9/2018 9:22:25 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Analyte: 6:2-FTS	Extraction Standard: 13C2-6:2-FTS
427.0 / 407.0	429.0 / 81.0
	

Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0
	

Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0
	

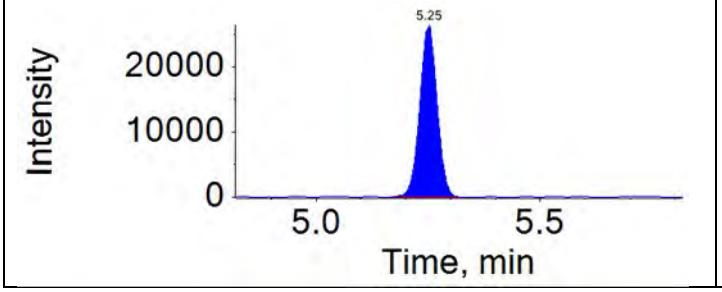
Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0
	

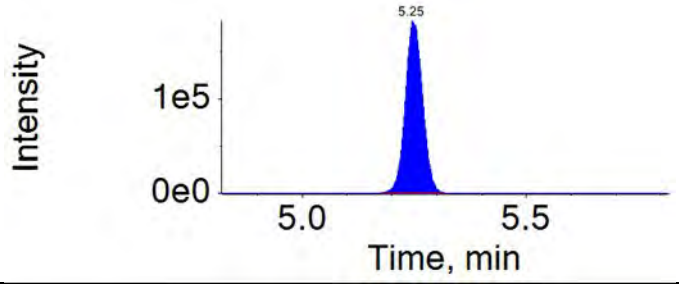
APPROVED
By MCD at 9:29 pm, 11/9/18

REVIEWED
By HMK at 7:21 am, 11/15/18

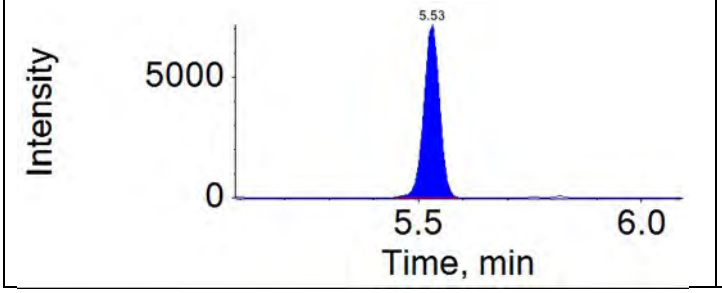
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV09DCCV5-10 11/9/2018 9:22:25 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

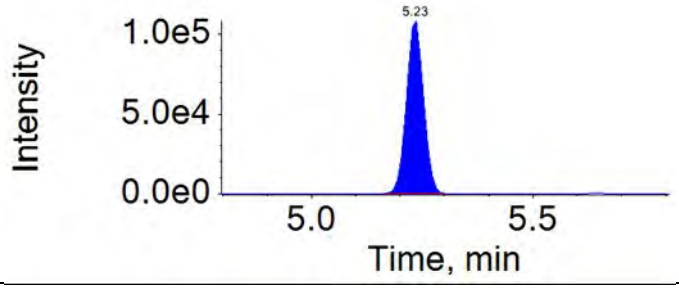
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



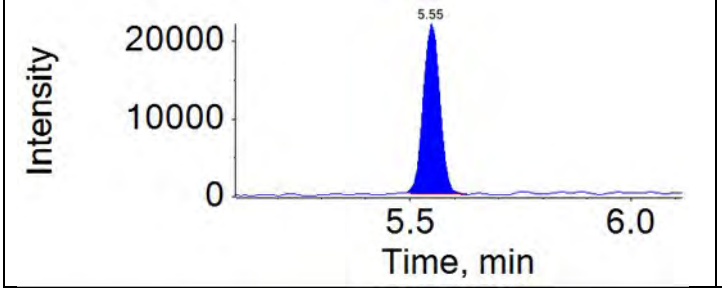


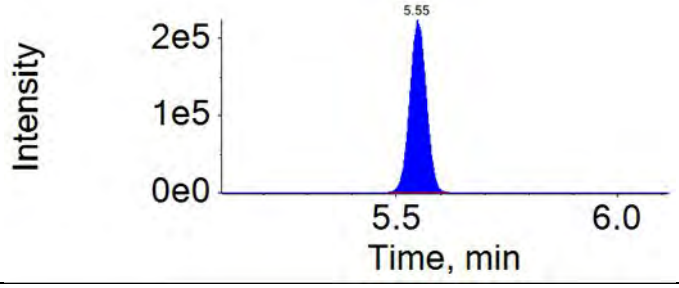
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



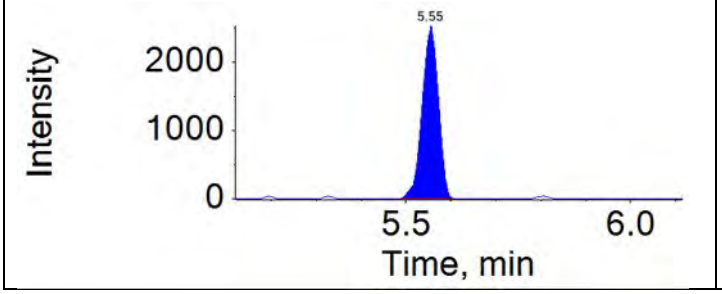


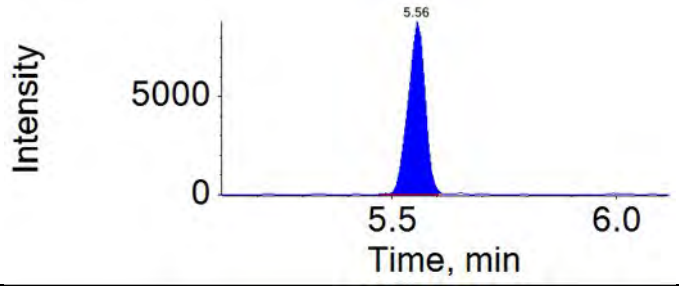
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





Analyte: 8:2-FTS	Extraction Standard: 13C2-8:2-FTS
527.0 / 507.0	529.0 / 81.0

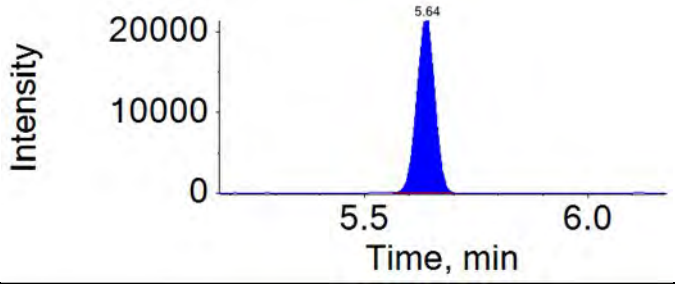
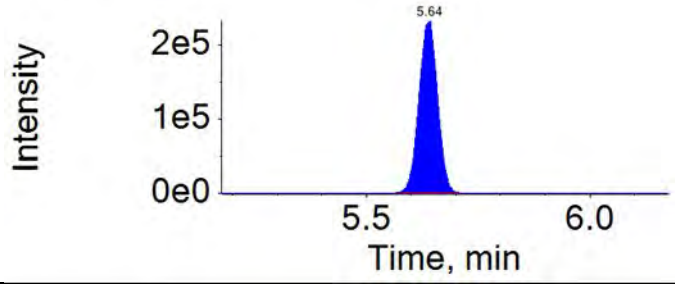


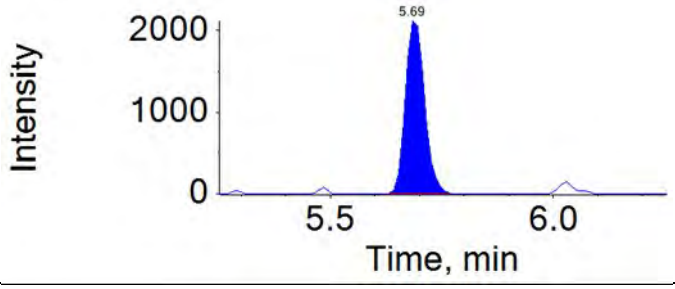
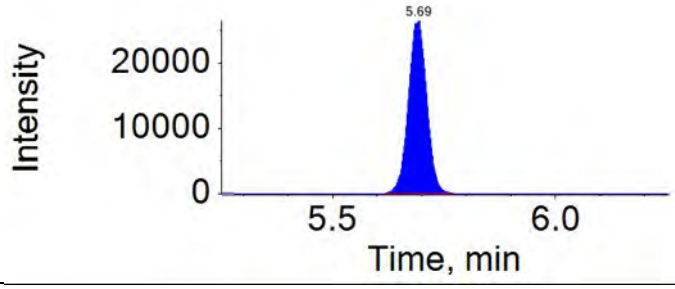


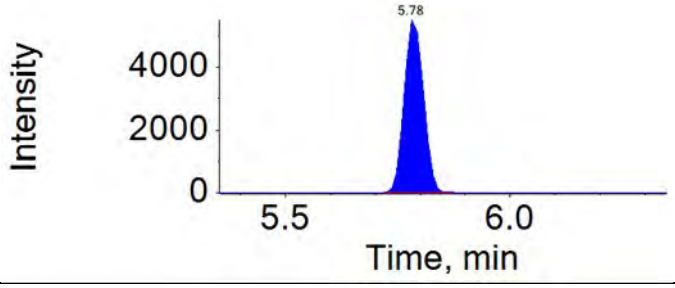
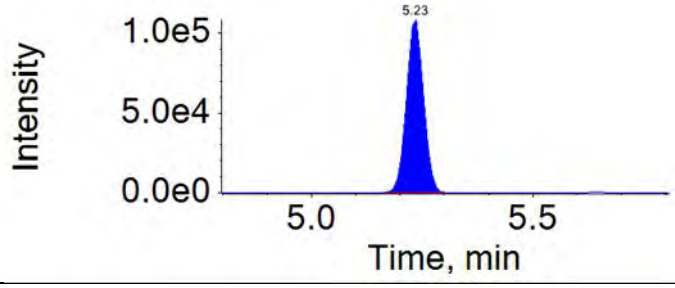
APPROVED
By MCD at 9:29 pm, 11/9/18

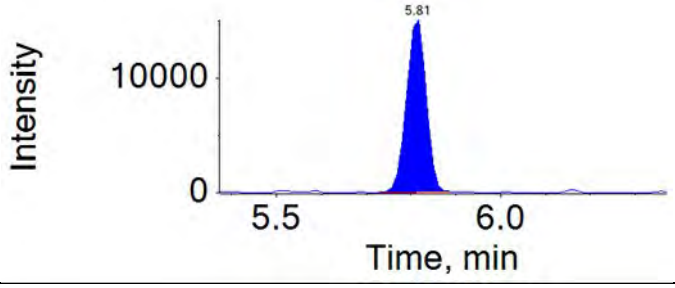
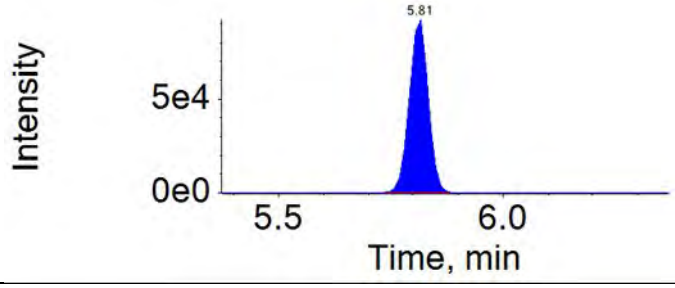
REVIEWED
By HMK at 7:21 am, 11/15/18

ICAL Name: 18NOV07DCAL **Result Table:** 18NOV09DCCV5-10 11/9/2018 9:22:25 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0
	

Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0
	

Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0
	

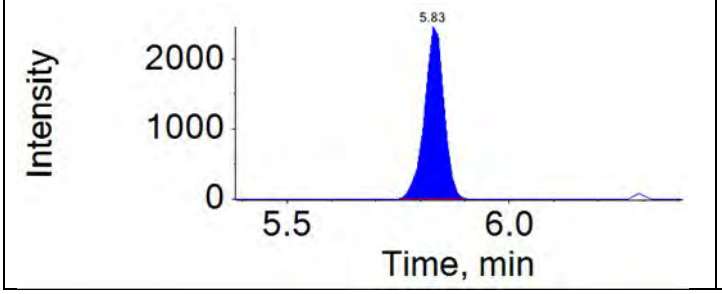
Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0
	

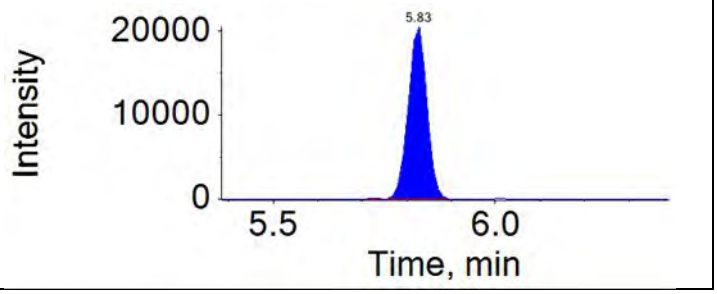
APPROVED
By MCD at 9:29 pm, 11/9/18

REVIEWED
By HMK at 7:21 am, 11/15/18

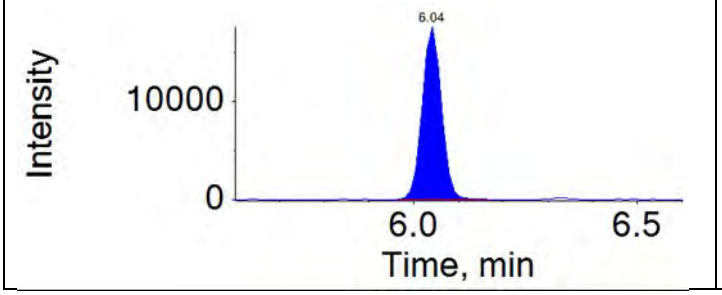
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV09DCCV5-10 11/9/2018 9:22:25 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

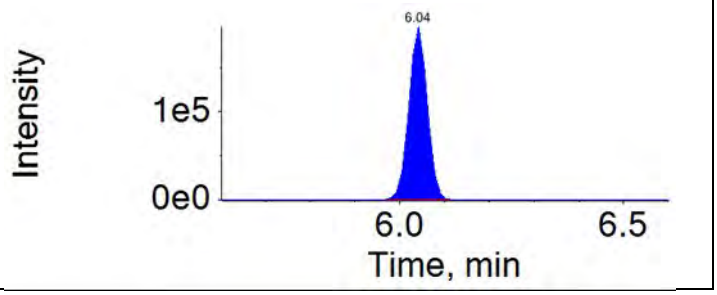
Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0



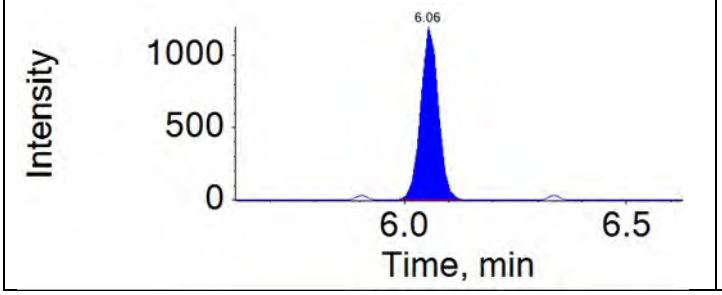


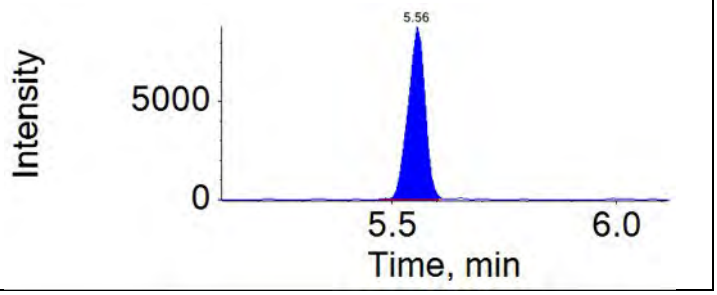
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0



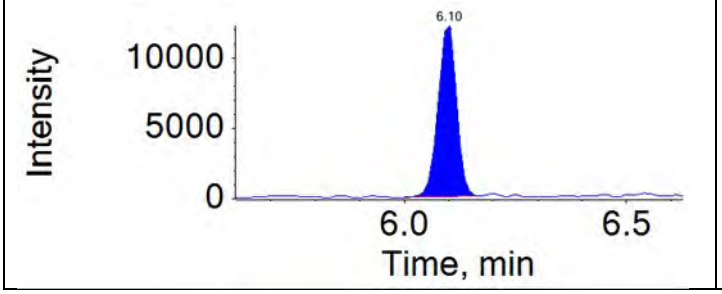


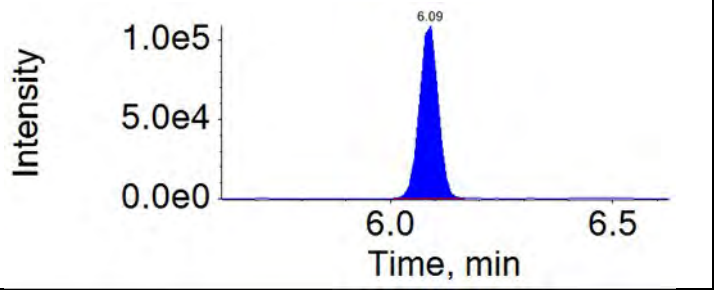
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0





Analyte: NMePFOSAE	Extraction Standard: d7-NMePFOSAE
616.0 / 59.0	623.0 / 59.0



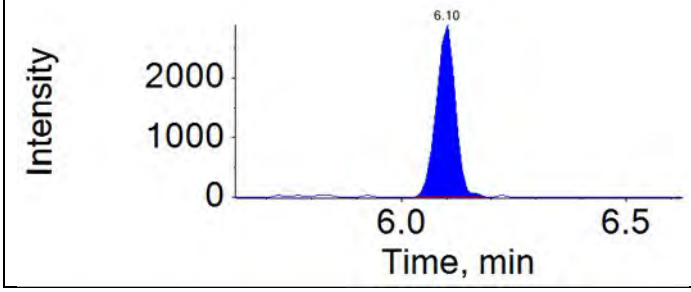


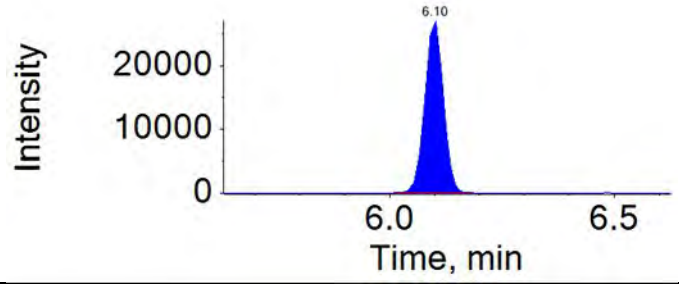
APPROVED
By MCD at 9:29 pm, 11/9/18

REVIEWED
By HMK at 7:21 am, 11/15/18

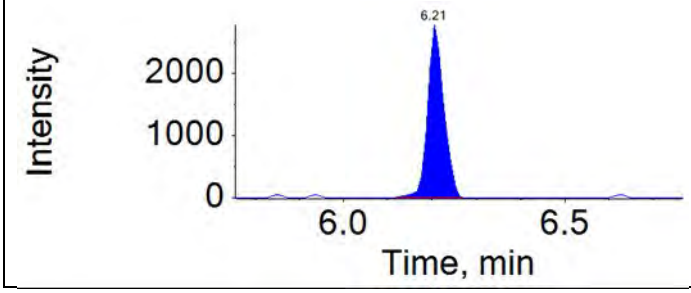
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV09DCCV5-10 11/9/2018 9:22:25 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

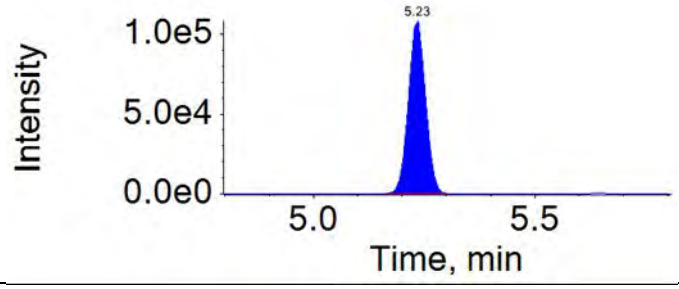
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



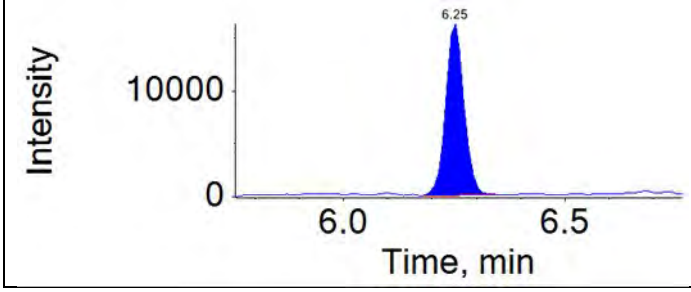


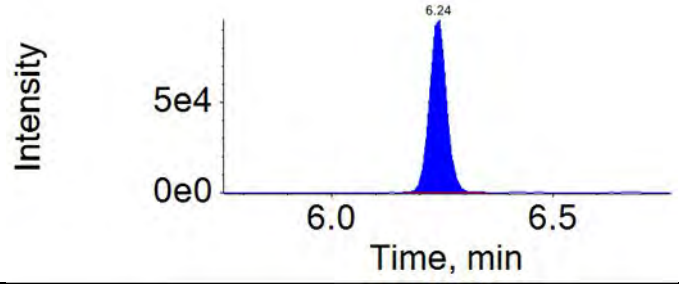
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



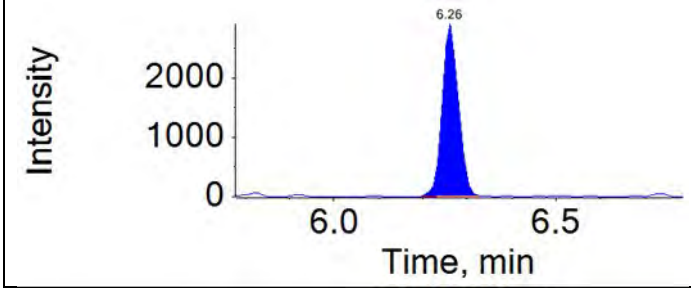


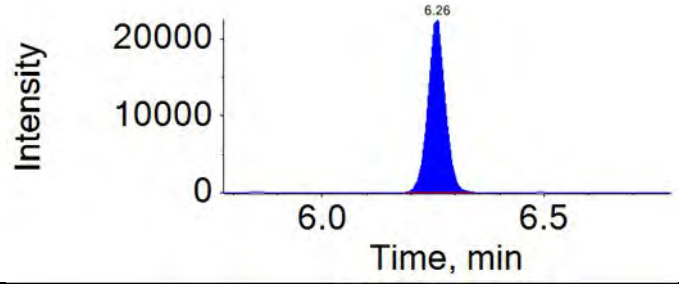
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





Analyte: NEtPFOSA	Extraction Standard: d5-NEtPFOSA
526.0 / 169.0	531.0 / 169.0



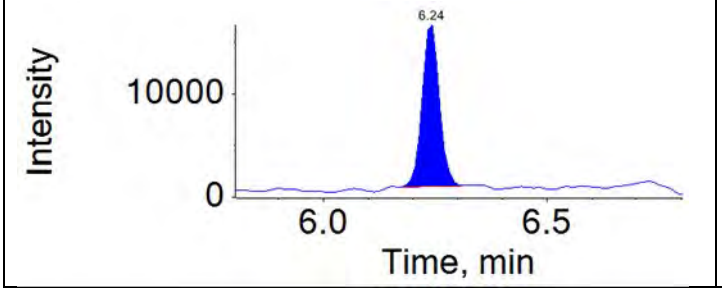


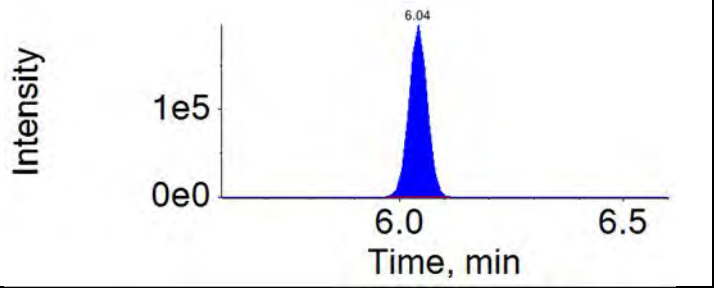
APPROVED
By MCD at 9:29 pm, 11/9/18

REVIEWED
By HMK at 7:21 am, 11/15/18

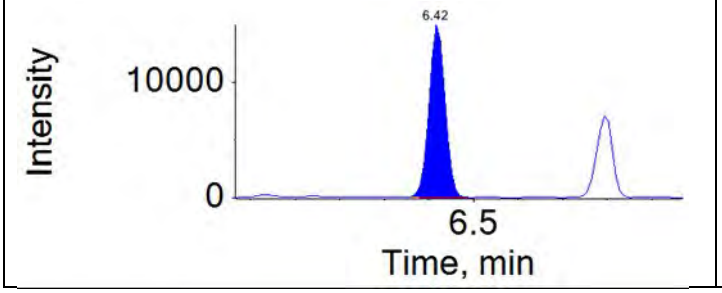
ICAL Name: 18NOV07DCAL **Result Table:** 18NOV09DCCV5-10 11/9/2018 9:22:25 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

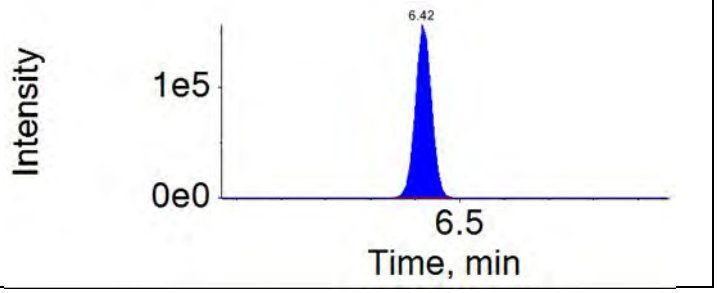
Analyte: PFTrDA	Extraction Standard: 13C2-PFDoDA
663.0 / 619.0	615.0 / 570.0



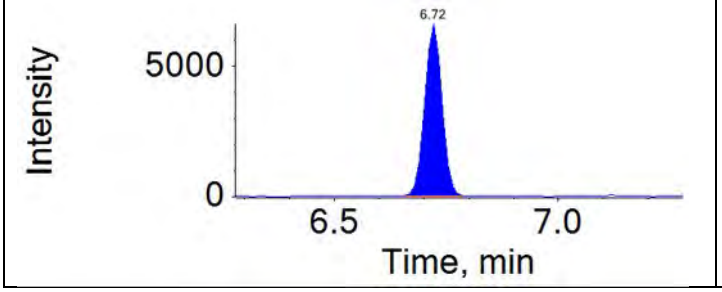


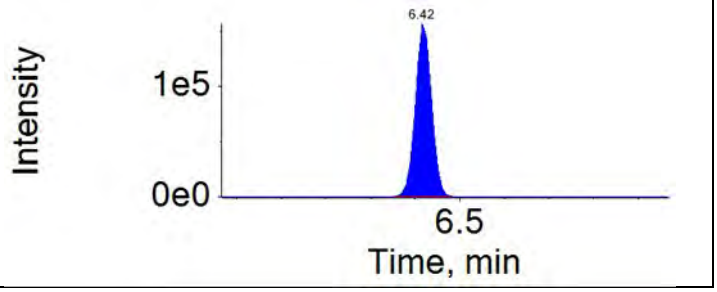
Analyte: PFTeDA	Extraction Standard: 13C2-PFTeDA
713.0 / 669.0	715.0 / 670.0



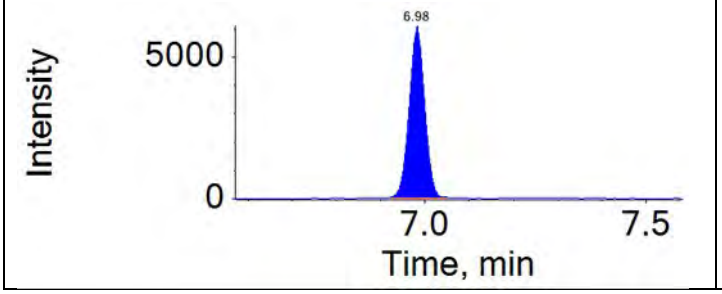


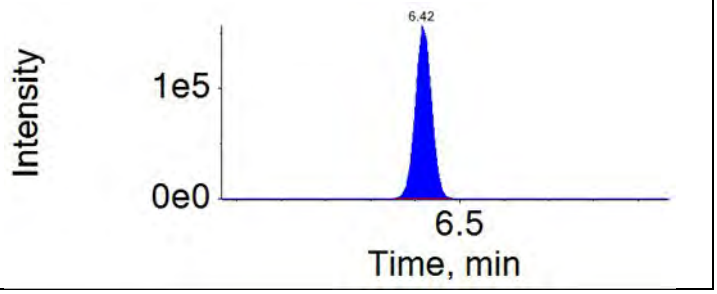
Analyte: PFHxDA	Extraction Standard: 13C2-PFTeDA
813.0 / 769.0	715.0 / 670.0





Analyte: PFODA	Extraction Standard: 13C2-PFTeDA
913.0 / 869.0	715.0 / 670.0





APPROVED
By MCD at 9:29 pm, 11/9/18

REVIEWED
By HMK at 7:21 am, 11/15/18

Ion Ratio Report

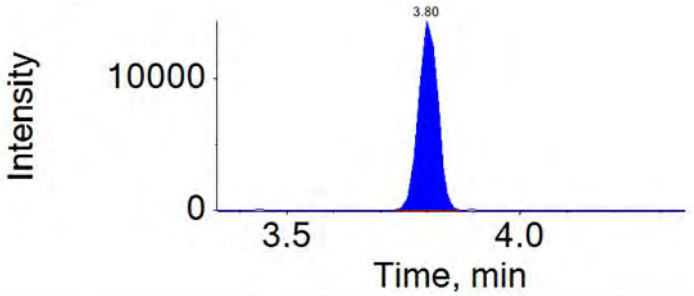
Sample Name: CCV7_ISC_CAL2 **Instrument Name:** LM27631 **File Name:** 18NOV09D-70.wiff

Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	3.80	1.00	41183.6	A	N/A	0.3208			
PFBS_2	3.80	1.00	13210.3	A	N/A	0.3208	-10	50	
4:2-FTS	4.12	1.00	9655.7	A	N/A	0.5813			
4:2-FTS_2	4.11	1.00	5613.0	A	N/A	0.5813	-9	50	
PFHxA	4.15	1.00	82189.0	A	N/A	0.0143			
PFHxA_2	4.14	1.00	1173.5	A	N/A	0.0143	26	50	
PFPeS	4.17	1.10	19670.2	A	N/A	0.5504			
PFPeS_2	4.17	1.10	10826.0	A	N/A	0.5504	1	50	
PFHxS	4.54	1.00	29901.9	A	N/A	0.3400			
PFHxS_2	4.54	1.00	10165.3	A	N/A	0.3400	-5	50	
PFHpA	4.54	1.00	85576.4	A	N/A	0.0545			
PFHpA_2	4.54	1.00	4668.0	A	N/A	0.0545	-5	50	
6:2-FTS	4.89	1.00	6933.9	A	N/A	0.6752			
6:2-FTS_2	4.90	1.00	4681.5	A	N/A	0.6752	-1	50	
PFHpS	4.90	1.08	28380.7	A	N/A	0.4389			
PFHpS_2	4.90	1.08	12455.9	A	N/A	0.4389	11	50	
PFOA	4.91	1.00	92656.6	A	N/A	0.0541			
PFOA_2	4.91	1.00	5010.9	A	N/A	0.0541	-15	50	
PFOS	5.23	1.00	28378.4	A	N/A	0.3343			
PFOS_2	5.23	1.00	9486.9	A	N/A	0.3343	-5	50	
PFNA	5.25	1.00	70701.7	A	N/A	0.0234			
PFNA_2	5.25	1.00	1656.5	A	N/A	0.0234	14	50	
PFNS	5.53	1.06	17604.0	A	N/A	0.4828			
PFNS_2	5.53	1.06	8498.8	A	N/A	0.4828	-1	50	
PFDA	5.55	1.00	56595.3	A	N/A	0.0087			
PFDA_2	5.54	1.00	495.0	A	N/A	0.0087	61	50	OOS
8:2-FTS	5.55	1.00	6316.2	A	N/A	0.6516			
8:2-FTS_2	5.55	1.00	4115.4	A	N/A	0.6516	5	50	
NMeFOSAA	5.69	1.00	6322.3	A	N/A	0.2754			
NMeFOSAA_2	5.69	1.00	1741.3	A	N/A	0.2754	27	50	
PFDS	5.78	1.11	16554.3	A	N/A	0.4575			
PFDS_2	5.79	1.11	7573.6	A	N/A	0.4575	0	50	
PFUnDA	5.81	1.00	45893.5	A	N/A	0.0044			
PFUnDA_2	5.83	1.00	200.8	A	N/A	0.0044	43	50	
NEtFOSAA	5.83	1.00	7460.1	A	N/A	0.5287			
NEtFOSAA_2	5.83	1.00	3944.0	A	N/A	0.5287	-13	50	
PFDoDA	6.04	1.00	52718.5	A	N/A	0.0096			
PFDoDA_2	6.04	1.00	503.7	A	N/A	0.0096	-9	50	
10:2-FTS	6.06	1.09	3263.8	A	N/A	0.7856			
10:2-FTS_2	6.06	1.09	2563.9	A	N/A	0.7856	10	50	
PFTrDA	6.24	1.03	41709.5	A	N/A	0.0066			
PFTrDA_2	6.24	1.03	273.7	A	N/A	0.0066	-31	50	
PFTeDA	6.42	1.00	36855.9	A	N/A	0.0064			
PFTeDA_2	6.41	1.00	235.1	A	N/A	0.0064	18	50	
PFHxDA	6.72	1.05	17530.4	A	N/A	0.0530			
PFHxDA_2	6.72	1.05	929.5	A	N/A	0.0530	-10	50	
PFODA	6.98	1.09	14666.4	A	N/A	0.0239			
PFODA_2	6.98	1.09	350.9	A	N/A	0.0239	-7	50	

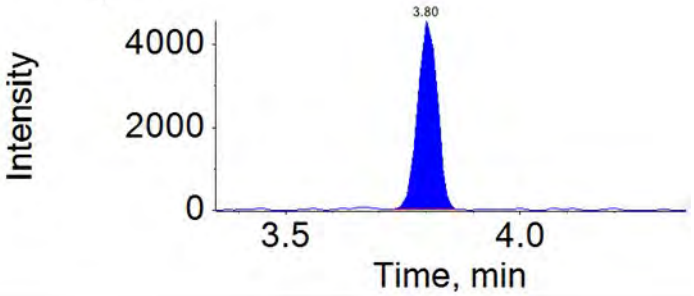
APPROVED
By MCD at 9:29 pm, 11/9/18

REVIEWED
By HMK at 7:21 am, 11/15/18

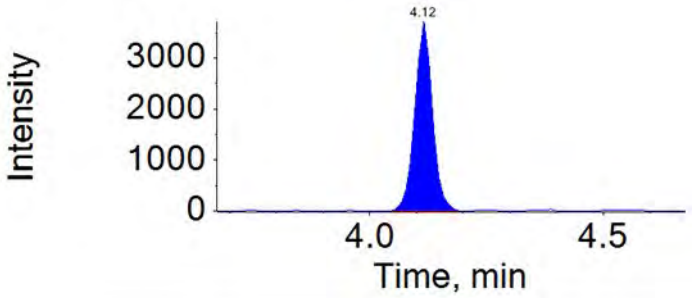
Component: PFBS
Primary Mass: 299.0 / 80.0



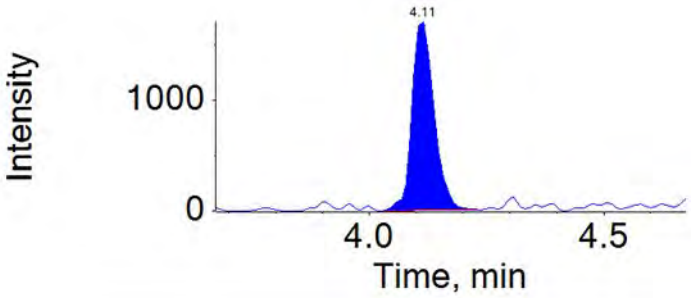
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



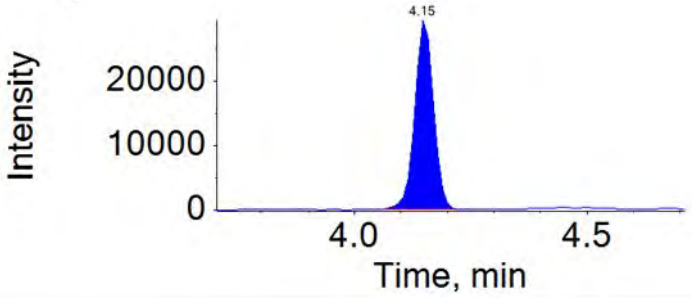
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



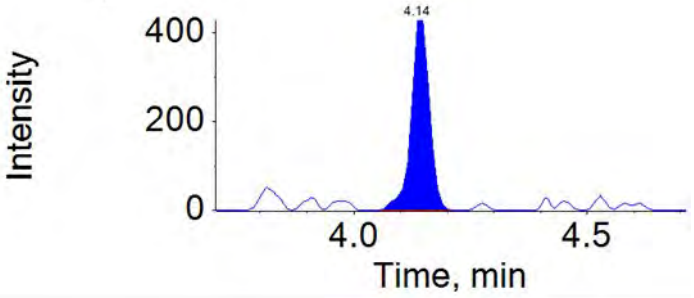
Component: 4:2-FTS_2
Secondary Mass: 327.0 / 81.0



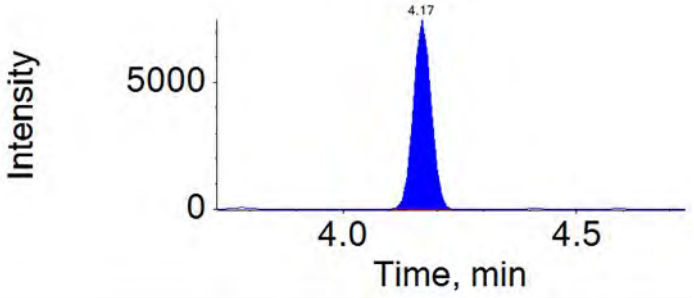
Component: PFHxA
Primary Mass: 313.0 / 269.0



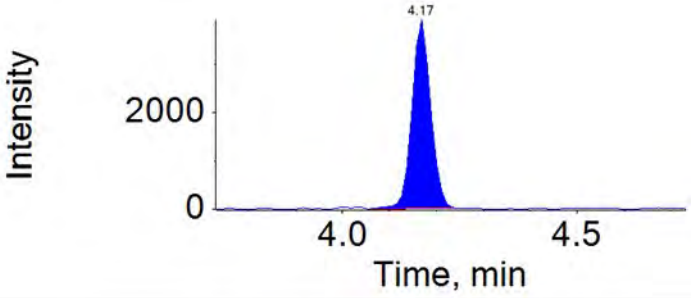
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



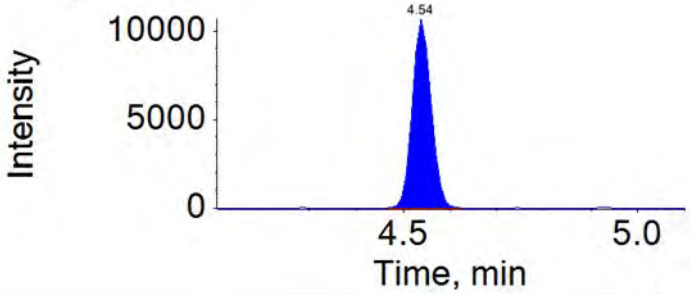
Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



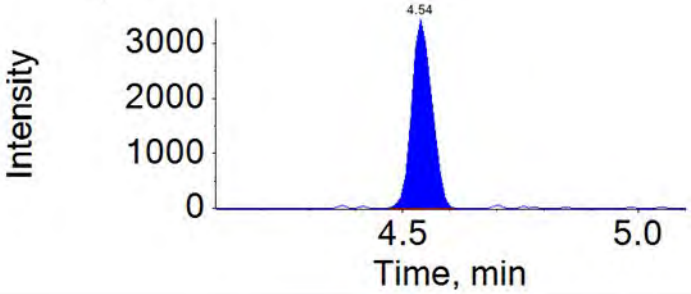
APPROVED
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REVIEWED
By HMK at 7:21 am, 11/15/18

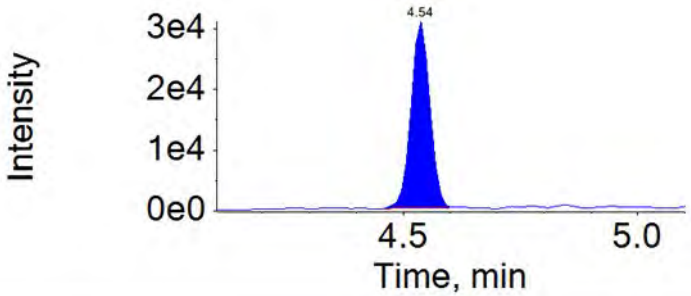
Component: PFHxS
Primary Mass: 399.0 / 80.0



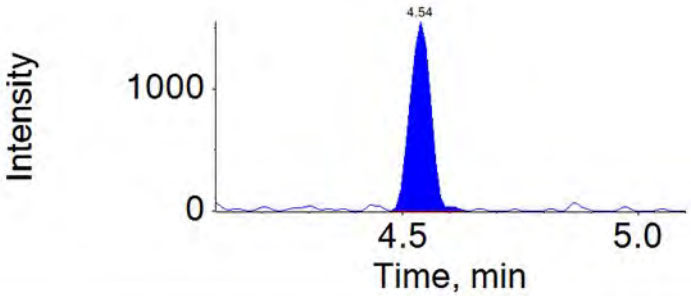
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



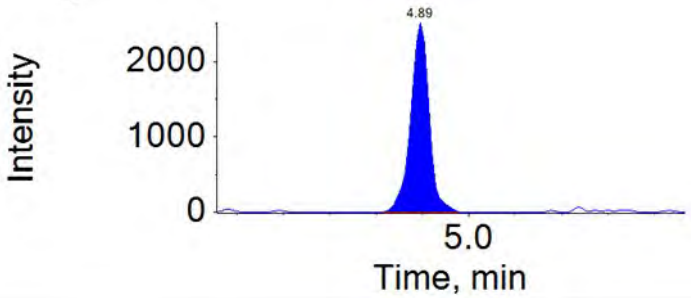
Component: PFHpA
Primary Mass: 363.0 / 319.0



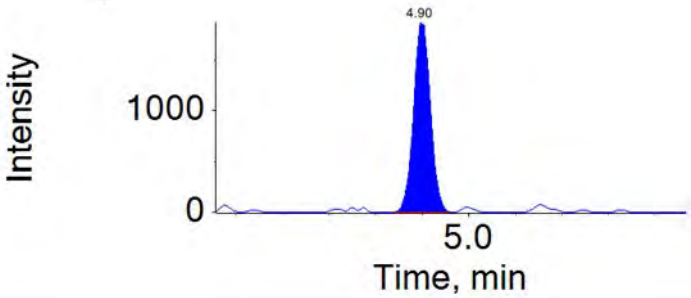
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



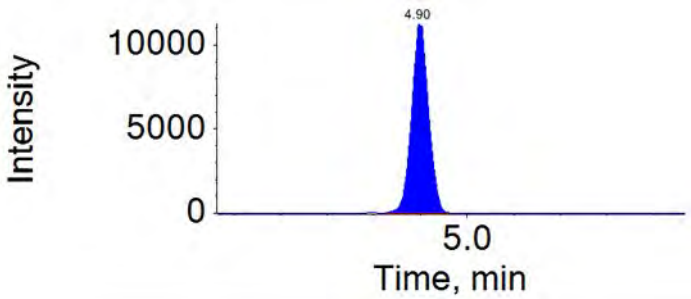
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



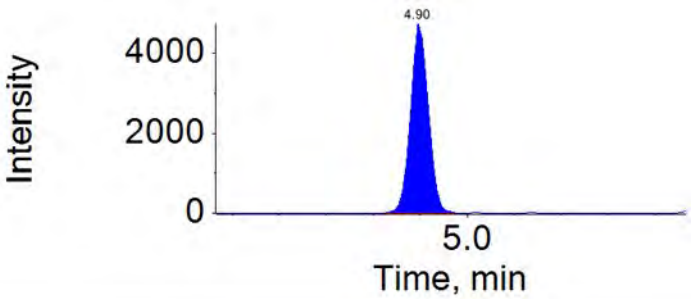
Component: 6:2-FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



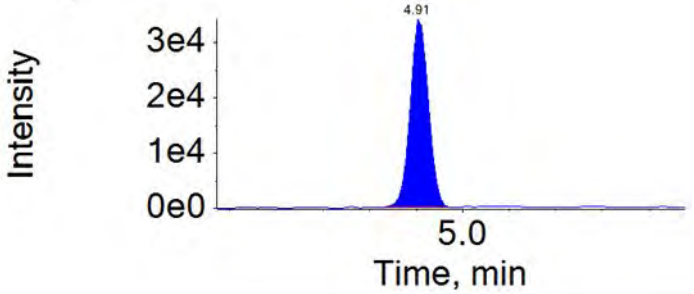
Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



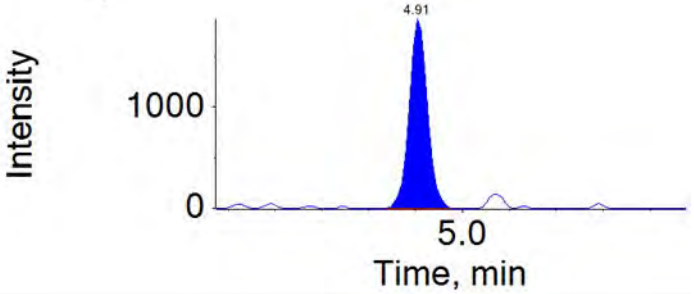
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REVIEWED
By HMK at 7:21 am, 11/15/18

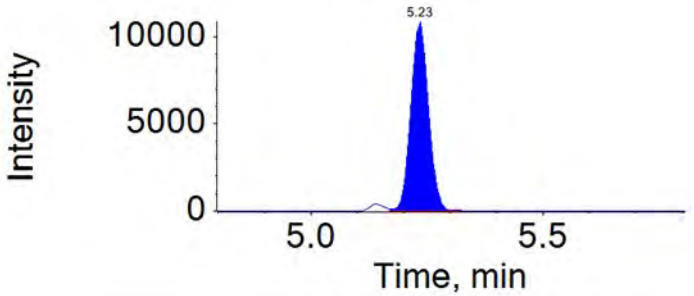
Component: PFOA
Primary Mass: 413.0 / 369.0



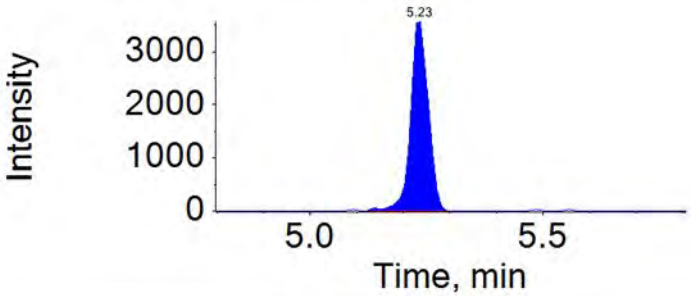
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



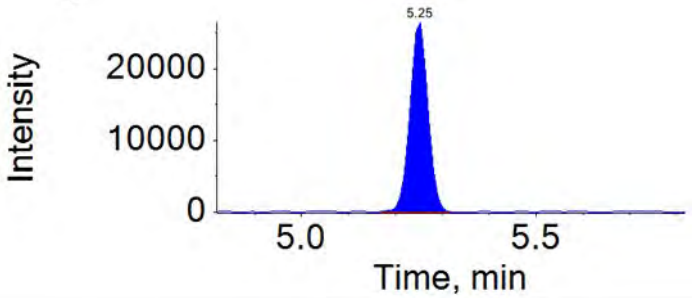
Component: PFOS
Primary Mass: 499.0 / 80.0



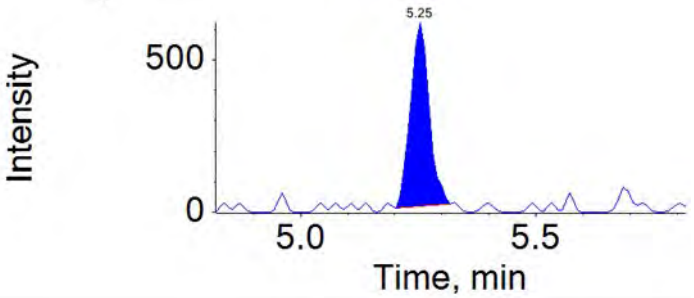
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



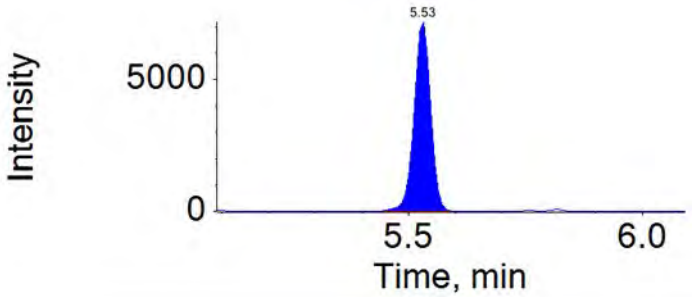
Component: PFNA
Primary Mass: 463.0 / 419.0



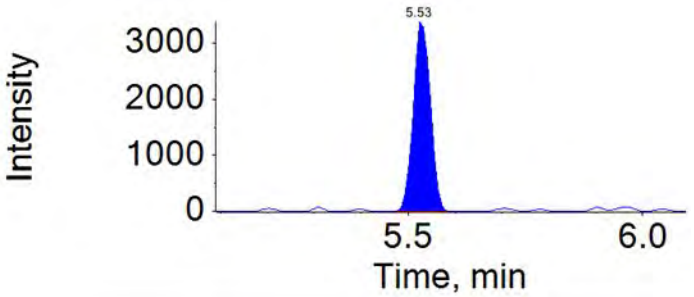
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



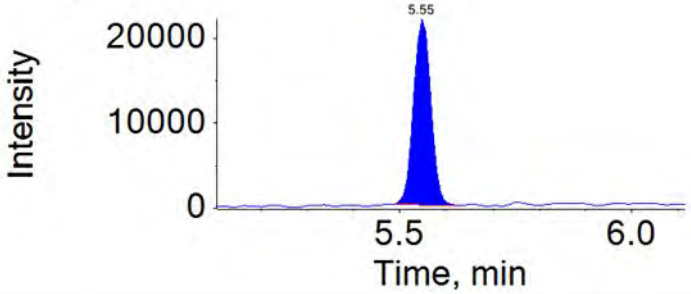
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



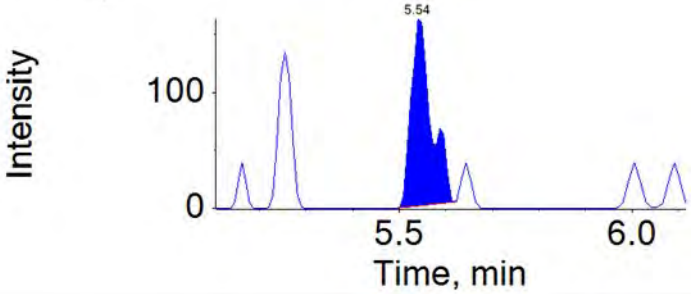
APPROVED
By MCD at 9:29 pm, 11/9/18

REVIEWED
By HMK at 7:21 am, 11/15/18

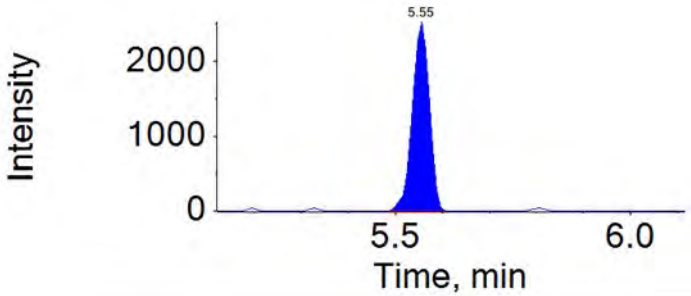
Component: PFDA
Primary Mass: 513.0 / 469.0



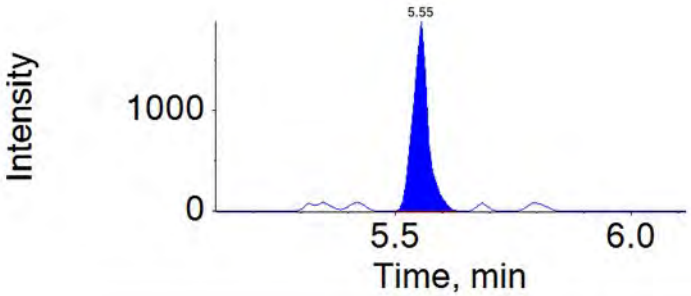
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



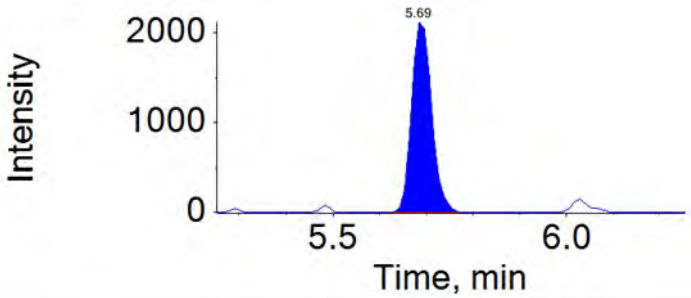
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



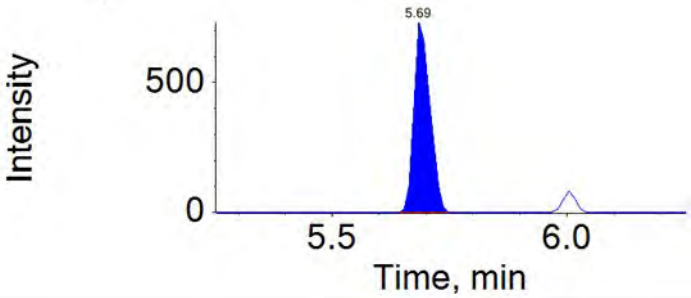
Component: 8:2-FTS_2
Secondary Mass: 527.0 / 81.0



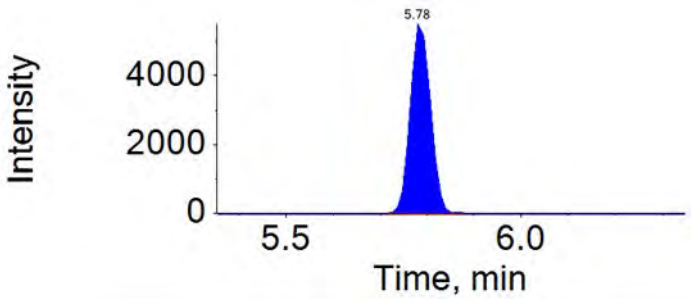
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



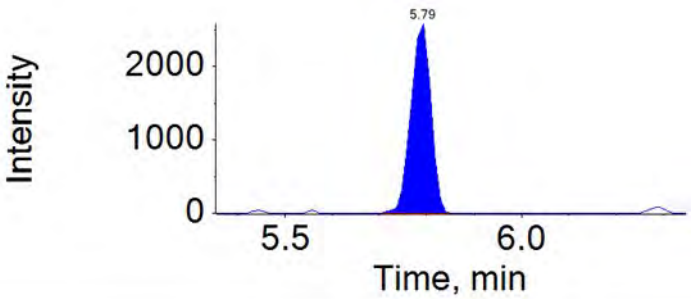
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



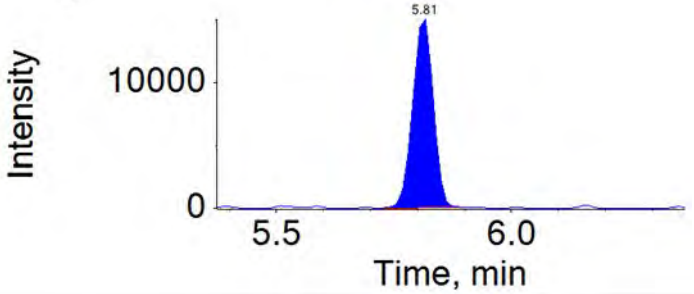
Component: PFDS_2
Secondary Mass: 599.0 / 99.0



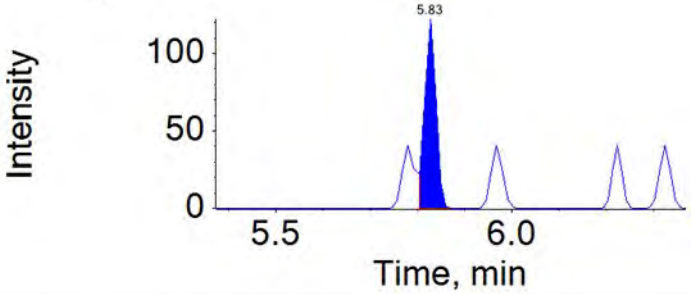
APPROVED
By MCD at 9:29 pm, 11/9/18

REVIEWED
By HMK at 7:21 am, 11/15/18

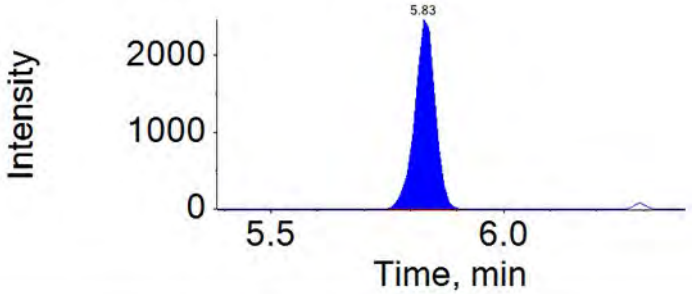
Component: PFUnDA
Primary Mass: 563.0 / 519.0



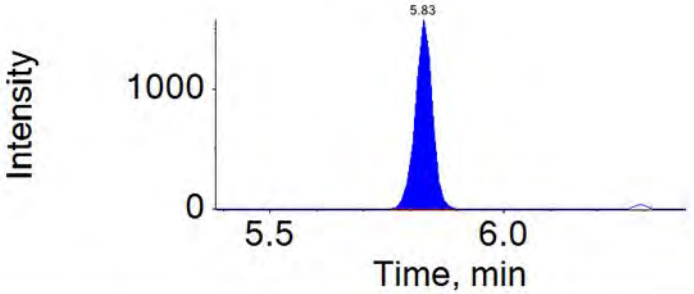
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



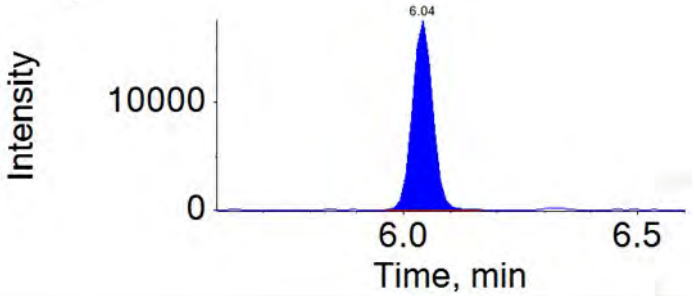
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



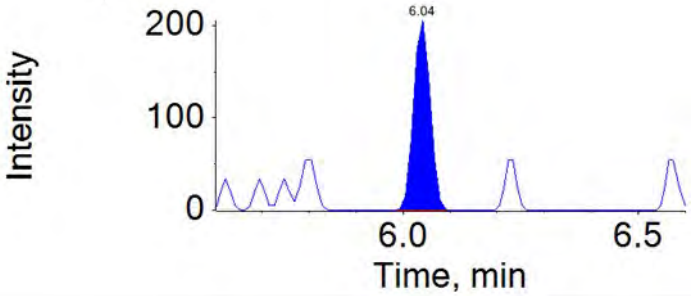
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



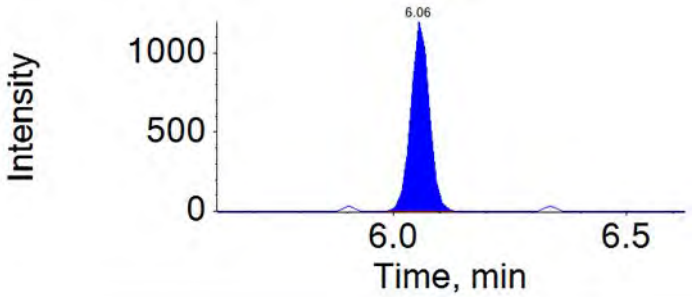
Component: PFDoDA
Primary Mass: 613.0 / 569.0



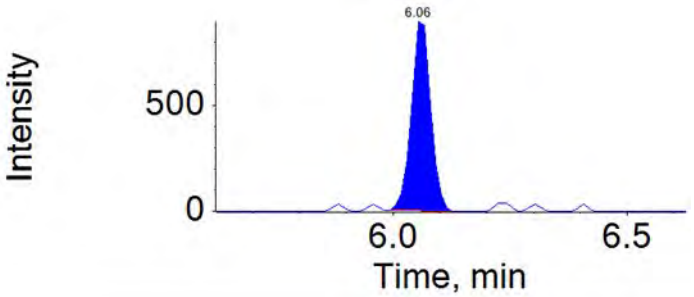
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



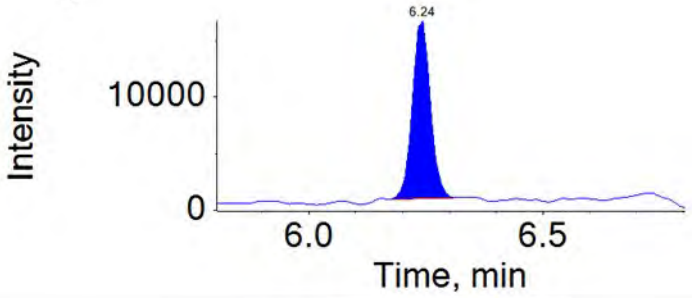
Component: 10:2-FTS_2
Secondary Mass: 627.0 / 81.0



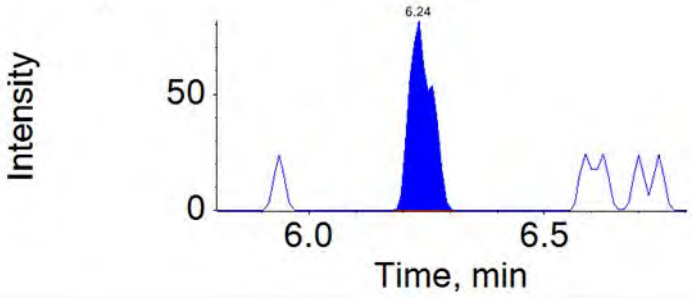
APPROVED
By MCD at 9:29 pm, 11/9/18

REVIEWED
By HMK at 7:21 am, 11/15/18

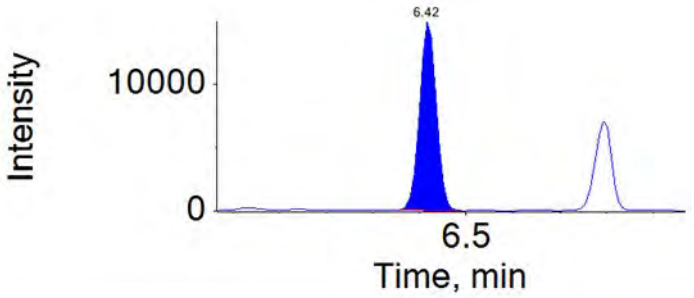
Component: PFTrDA
Primary Mass: 663.0 / 619.0



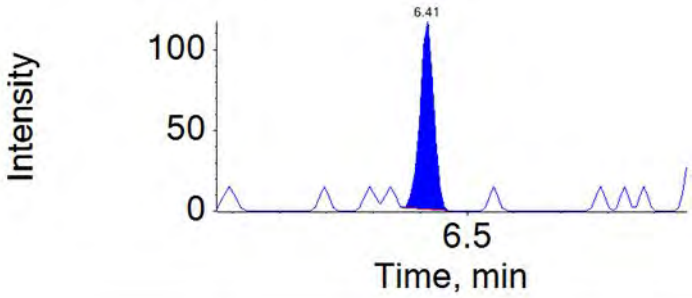
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



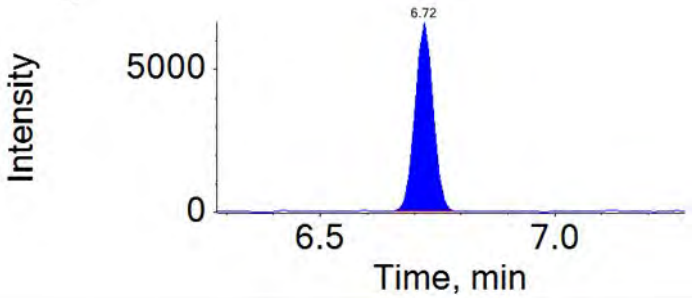
Component: PFTeDA
Primary Mass: 713.0 / 669.0



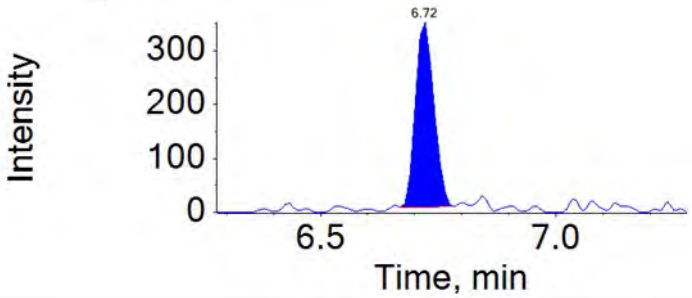
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



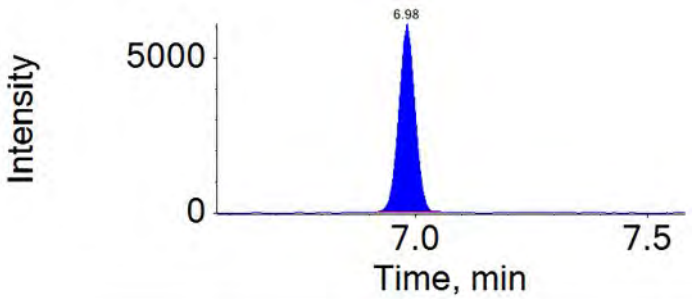
Component: PFHxDA
Primary Mass: 813.0 / 769.0



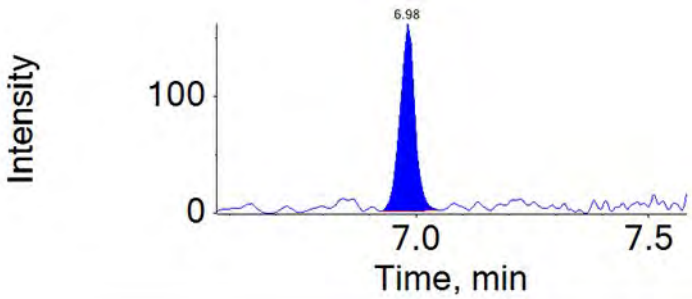
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



APPROVED
By MCD at 9:29 pm, 11/9/18

REVIEWED
By HMK at 7:21 am, 11/15/18

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV12DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM **Acquisition Method:** 18AUG13_3uL.dam

Sample File Name	Acquisition Date	Sample ID	Sample Name
18NOV12DCAL-42.wiff	11/12/2018 3:05:54 PM	CALBRN11833C	CAL1
18NOV12DCAL-43.wiff	11/12/2018 3:15:03 PM	CALBRN21833C	CAL2
18NOV12DCAL-44.wiff	11/12/2018 3:24:03 PM	CALBRN31833B	CAL3
18NOV12DCAL-45.wiff	11/12/2018 3:33:03 PM	CALBRN41833B	CAL4
18NOV12DCAL-46.wiff	11/12/2018 3:42:06 PM	CALBRN51833B	CAL5
18NOV12DCAL-47.wiff	11/12/2018 3:51:06 PM	CALBRN61833B	CAL6
18NOV12DCAL-48.wiff	11/12/2018 4:00:06 PM	CALBRN71833B	CAL7

CAL3 Injection Standard Areas

Sample Name	Injection Std Name	Injection Std Area
CAL3	13C3-PFBA	659926.2
CAL3	13C2-PFOA	450219.7
CAL3	13C4-PFOS	249205.8
CAL3	13C2-PFDA	278743.9

APPROVED
By MCD at 3:22 pm, 1/10/19

REVIEWED
By ucmr at 3:21 pm, 1/25/19

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV12DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM **Acquisition Method:** 18AUG13_3uL.dam

Response Factor Table

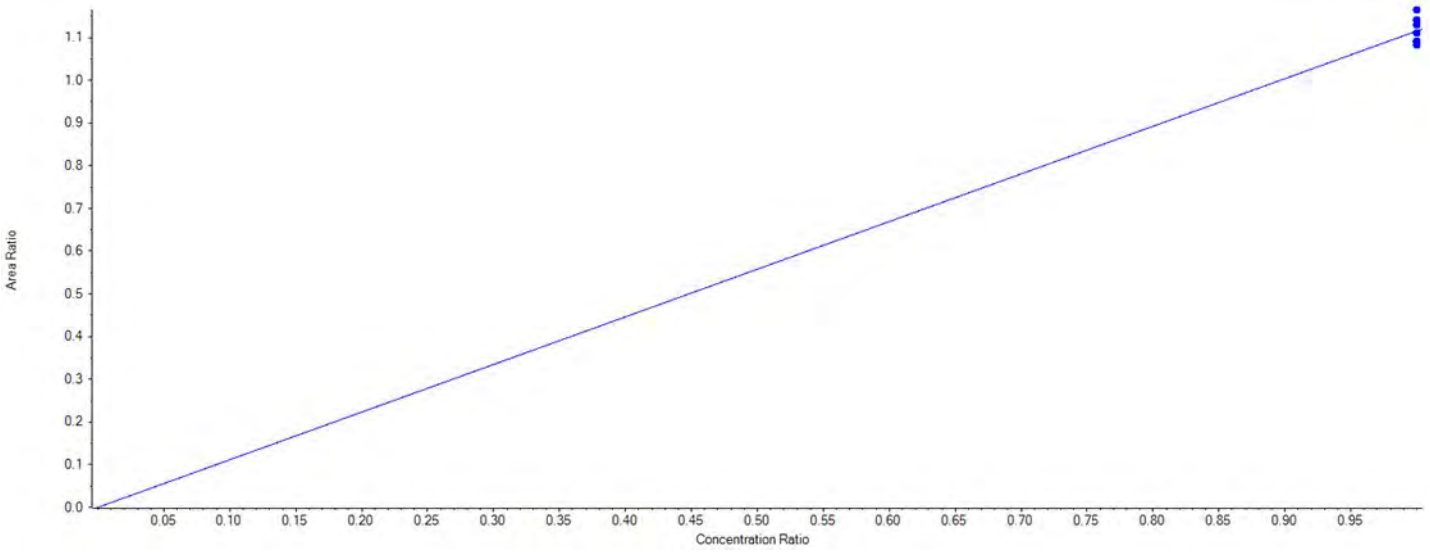
Analyte Name	CAL 1	CAL 2	CAL 3	CAL 4	CAL 5	CAL 6	CAL 7	%RSD	Limit	OOS	r^2	OOS
PFBA	1.059	0.868	1.034	0.919	0.966	0.910	0.882	7	20		0.999	
PFPeA	1.058	0.952	1.052	0.939	0.906	0.876	0.839	8	20		0.999	
PFBS	1.061	0.938	1.061	0.954	1.001	0.997	0.964	5	20		1.000	
4:2-FTS	1.764	1.591	1.797	1.672	1.662	1.782	1.703	4	20		0.999	
PFHxA	1.470	1.241	1.361	1.233	1.255	1.160	N/A	8	20		0.998	
PFPeS	0.534	0.400	0.499	0.479	0.471	0.484	0.478	8	20		1.000	
PFHpA	1.776	1.486	1.766	1.619	1.555	1.461	N/A	8	20		0.998	
PFHxS	1.019	0.838	1.029	0.984	0.957	0.972	0.980	6	20		1.000	
6:2-FTS	1.892	1.888	2.214	2.112	2.098	1.876	N/A	7	20		0.996	
PFHpS	1.007	0.773	0.988	0.856	0.922	0.911	0.890	8	20		1.000	
PFOA	1.136	0.940	1.059	0.960	1.022	0.956	0.904	7	20		0.998	
PFOS	1.194	1.024	1.112	1.084	1.110	1.087	1.093	4	20		1.000	
PFNA	1.545	1.489	1.658	1.424	1.542	1.407	1.336	7	20		0.997	
PFNS	0.602	0.621	0.674	0.628	0.676	0.673	0.695	5	20		0.999	
PFDA	1.122	0.883	1.037	0.962	0.987	0.919	N/A	8	20		0.999	
8:2-FTS	2.201	1.873	2.243	1.857	2.127	2.051	N/A	7	20		0.998	
PFOSA	1.113	0.931	1.074	0.954	1.047	1.024	N/A	6	20		0.999	
NMeFOSAA	0.663	0.620	0.877	0.890	0.865	0.893	0.886	13	20		1.000	
PFDS	0.521	0.496	0.511	0.520	0.537	0.515	0.533	2	20		1.000	
PFUnDA	2.280	1.757	2.026	2.069	1.918	1.881	N/A	8	20		0.999	
NEtFOSAA	0.709	1.011	1.153	0.906	0.931	0.963	N/A	14	20		0.998	
PFDoDA	1.015	0.935	1.079	0.963	1.034	0.961	N/A	5	20		0.999	
10:2-FTS	1.703	1.561	1.573	1.278	1.573	1.511	1.383	9	20		0.997	
NMePFOSAE	1.287	1.110	1.331	1.179	1.255	1.278	1.152	6	20		0.997	
NMePFOSA	0.758	0.950	0.975	1.020	1.096	0.983	N/A	11	20		0.998	
PFDoS	0.306	0.272	0.264	0.272	0.266	0.278	0.272	5	20		1.000	
NEtPFOSAE	1.873	1.487	1.717	1.622	1.623	1.516	N/A	8	20		0.999	
NEtPFOSA	1.129	1.156	1.156	1.125	1.166	1.070	1.078	3	20		0.999	
PFTrDA	0.925	0.751	0.839	0.808	0.827	0.774	N/A	7	20		0.999	
PFTeDA	0.996	0.851	0.994	0.911	0.934	0.892	0.880	6	20		0.999	
PFHxDA	0.486	0.402	0.442	0.409	0.413	0.435	0.414	6	20		0.999	
PFODA	0.367	0.316	0.367	0.349	0.358	0.360	0.359	5	20		1.000	

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV12DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM **Acquisition Method:** 18AUG13_3uL.dam

E13C4-PFBA

y = 1.11523 x (std. dev. = 0.03058) (weighting: None)



Extraction Standard Calibration Verification

Sample Name	E13C4-PFBA Area	13C3-PFBA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	763334.3	676527.501	True	5.00	1.128	3.27	1.000	5.000	5.059	1	30	
CAL2	771445.8	662396.701	True	5.00	1.165	3.27	1.000	5.000	5.221	4	30	
CAL3	733360.2	659926.183	True	5.00	1.111	3.27	1.000	5.000	4.982	0	30	
CAL4	726396.0	671568.052	True	5.00	1.082	3.26	1.000	5.000	4.849	-3	30	
CAL5	698871.9	641789.507	True	5.00	1.089	3.26	1.000	5.000	4.882	-2	30	
CAL6	633648.4	555817.856	True	5.00	1.140	3.27	1.000	5.000	5.111	2	30	
CAL7	557392.8	510525.814	True	5.00	1.092	3.25	1.000	5.000	4.895	-2	30	

APPROVED
By MCD at 3:22 pm, 1/10/19

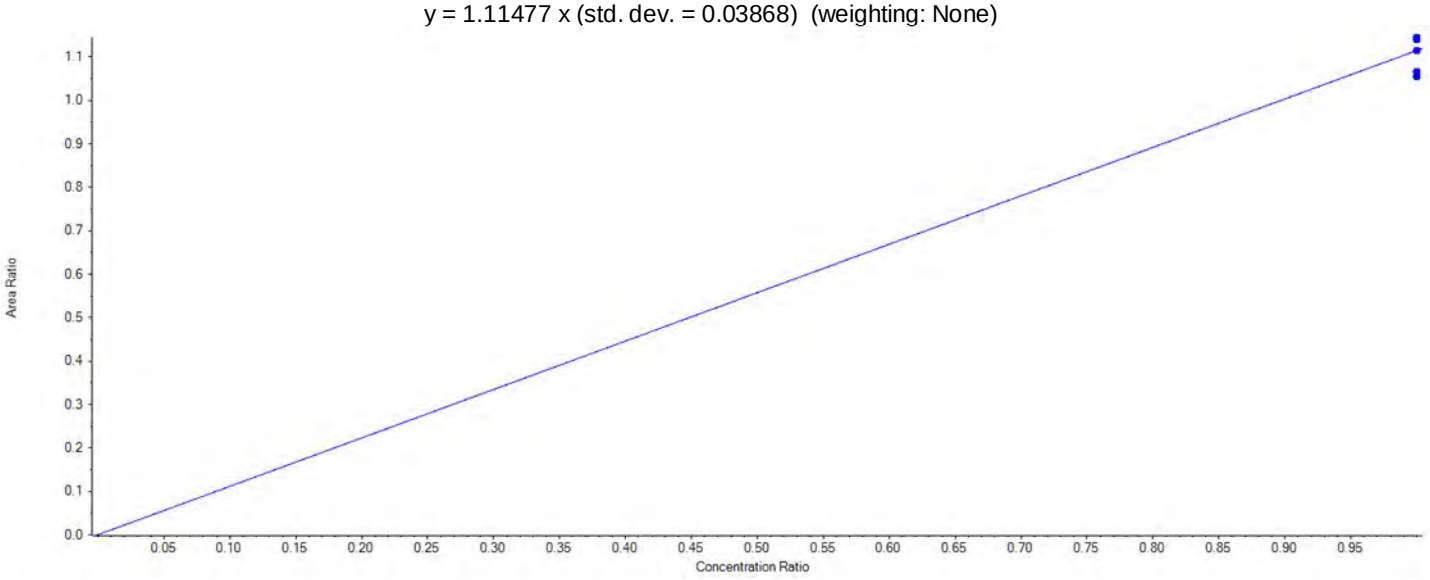
REVIEWED
By ucmr at 3:21 pm, 1/25/19

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV12DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM **Acquisition Method:** 18AUG13_3uL.dam

E13C5-PFPeA

y = 1.11477 x (std. dev. = 0.03868) (weighting: None)



Extraction Standard Calibration Verification

Sample Name	E13C5-PFPeA Area	13C3-PFBA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	771179.4	676527.501	True	5.00	1.140	3.76	1.150	5.000	5.113	2	30	
CAL2	738194.7	662396.701	True	5.00	1.114	3.77	1.150	5.000	4.998	0	30	
CAL3	695805.7	659926.183	True	5.00	1.054	3.77	1.150	5.000	4.729	-5	30	
CAL4	716206.9	671568.052	True	5.00	1.066	3.76	1.150	5.000	4.783	-4	30	
CAL5	734598.3	641789.507	True	5.00	1.145	3.76	1.150	5.000	5.134	3	30	
CAL6	635977.8	555817.856	True	5.00	1.144	3.76	1.150	5.000	5.132	3	30	
CAL7	581688.7	510525.814	True	5.00	1.139	3.75	1.150	5.000	5.110	2	30	

APPROVED
By MCD at 3:22 pm, 1/10/19

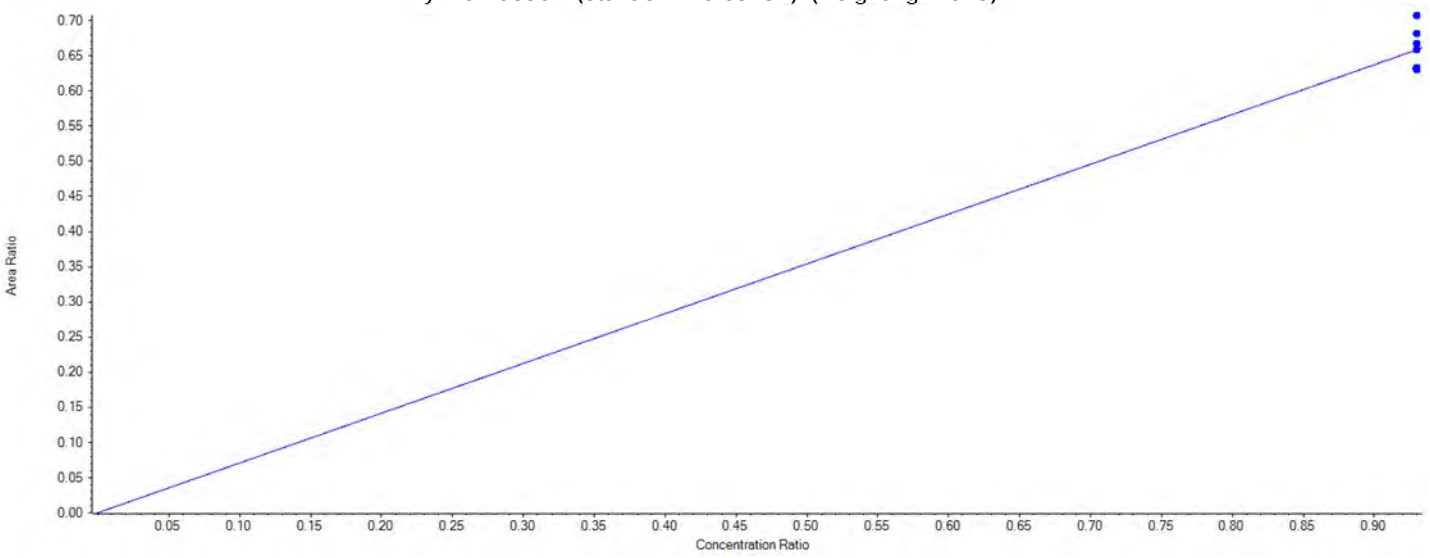
REVIEWED
By ucmr at 3:21 pm, 1/25/19

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV12DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM **Acquisition Method:** 18AUG13_3uL.dam

E13C3-PFBS

y = 0.70830 x (std. dev. = 0.03132) (weighting: None)



Extraction Standard Calibration Verification

Sample Name	E13C3-PFBS Area	13C3-PFBA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	445963.4	676527.501	True	5.00	0.659	3.81	1.170	4.650	4.653	0	30	
CAL2	418860.7	662396.701	True	5.00	0.632	3.82	1.170	4.650	4.464	-4	30	
CAL3	416352.7	659926.183	True	5.00	0.631	3.82	1.170	4.650	4.454	-4	30	
CAL4	425015.7	671568.052	True	5.00	0.633	3.81	1.170	4.650	4.468	-4	30	
CAL5	428050.6	641789.507	True	5.00	0.667	3.81	1.170	4.650	4.708	1	30	
CAL6	378676.8	555817.856	True	5.00	0.681	3.81	1.170	4.650	4.809	3	30	
CAL7	361166.0	510525.814	True	5.00	0.707	3.80	1.170	4.650	4.994	7	30	

APPROVED
By MCD at 3:22 pm, 1/10/19

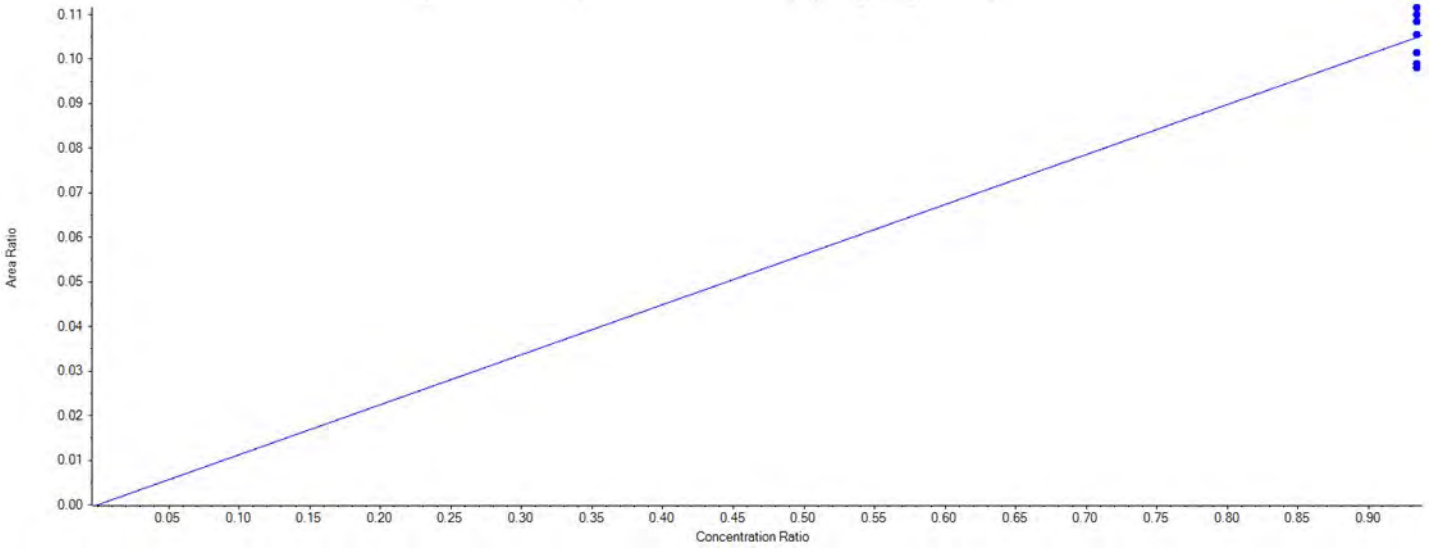
REVIEWED
By ucmr at 3:21 pm, 1/25/19

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV12DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM **Acquisition Method:** 18AUG13_3uL.dam

E13C2-4:2-FTS

y = 0.11226 x (std. dev. = 0.00584) (weighting: None)



Extraction Standard Calibration Verification

Sample Name	E13C2-4:2-FTS Area	13C2-PFOA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	51494.6	474834.926	True	5.00	0.108	4.13	0.840	4.670	4.830	3	30	
CAL2	46141.8	454466.719	True	5.00	0.102	4.13	0.840	4.670	4.522	-3	30	
CAL3	47514.8	450219.683	True	5.00	0.106	4.13	0.840	4.670	4.700	1	30	
CAL4	47246.4	477519.675	True	5.00	0.099	4.13	0.840	4.670	4.407	-6	30	
CAL5	51791.9	464284.617	True	5.00	0.112	4.12	0.840	4.670	4.968	6	30	
CAL6	41422.2	422900.470	True	5.00	0.098	4.13	0.840	4.670	4.362	-7	30	
CAL7	40505.1	368158.252	True	5.00	0.110	4.11	0.840	4.670	4.900	5	30	

APPROVED
By MCD at 3:22 pm, 1/10/19

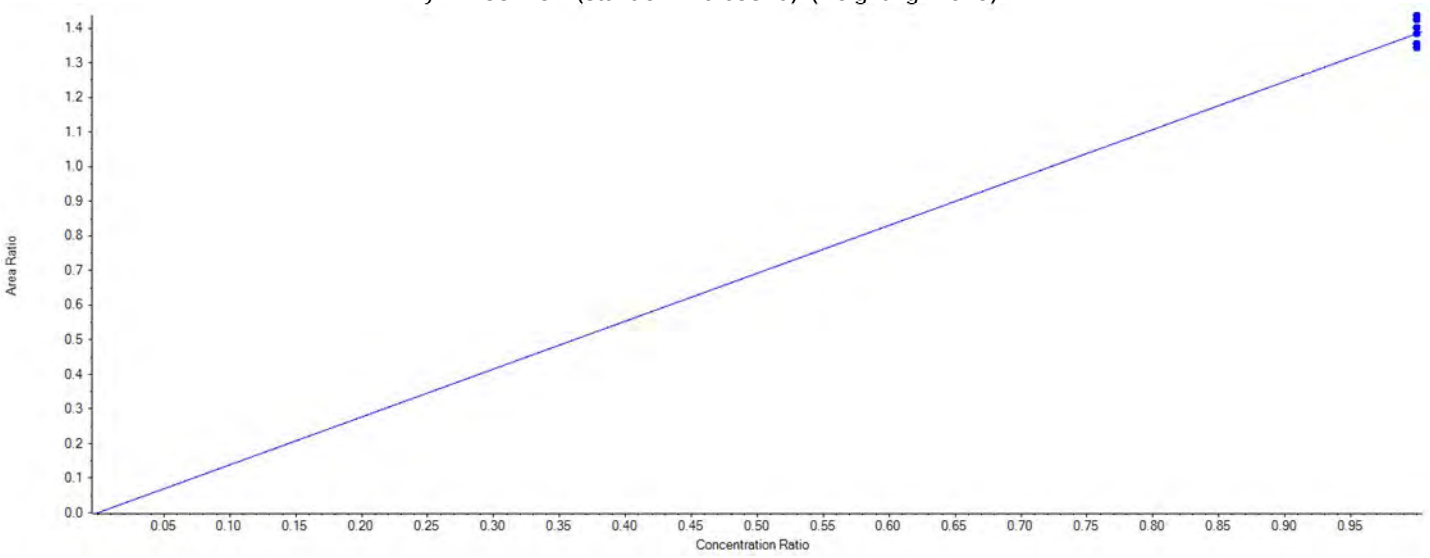
REVIEWED
By ucmr at 3:21 pm, 1/25/19

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV12DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM **Acquisition Method:** 18AUG13_3uL.dam

E13C5-PFHxA

y = 1.38415 x (std. dev. = 0.03876) (weighting: None)



Extraction Standard Calibration Verification

Sample Name	E13C5-PFHxA Area	13C2-PFOA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	664975.9	474834.926	True	5.00	1.400	4.16	0.850	5.000	5.059	1	30	
CAL2	648170.1	454466.719	True	5.00	1.426	4.17	0.850	5.000	5.152	3	30	
CAL3	646783.5	450219.683	True	5.00	1.437	4.17	0.850	5.000	5.189	4	30	
CAL4	641195.8	477519.675	True	5.00	1.343	4.16	0.850	5.000	4.851	-3	30	
CAL5	628952.8	464284.617	True	5.00	1.355	4.15	0.850	5.000	4.894	-2	30	
CAL6	568205.8	422900.470	True	5.00	1.344	4.16	0.850	5.000	4.854	-3	30	
CAL7	509807.9	368158.252	True	5.00	1.385	4.15	0.840	5.000	5.002	0	30	

APPROVED
By MCD at 3:22 pm, 1/10/19

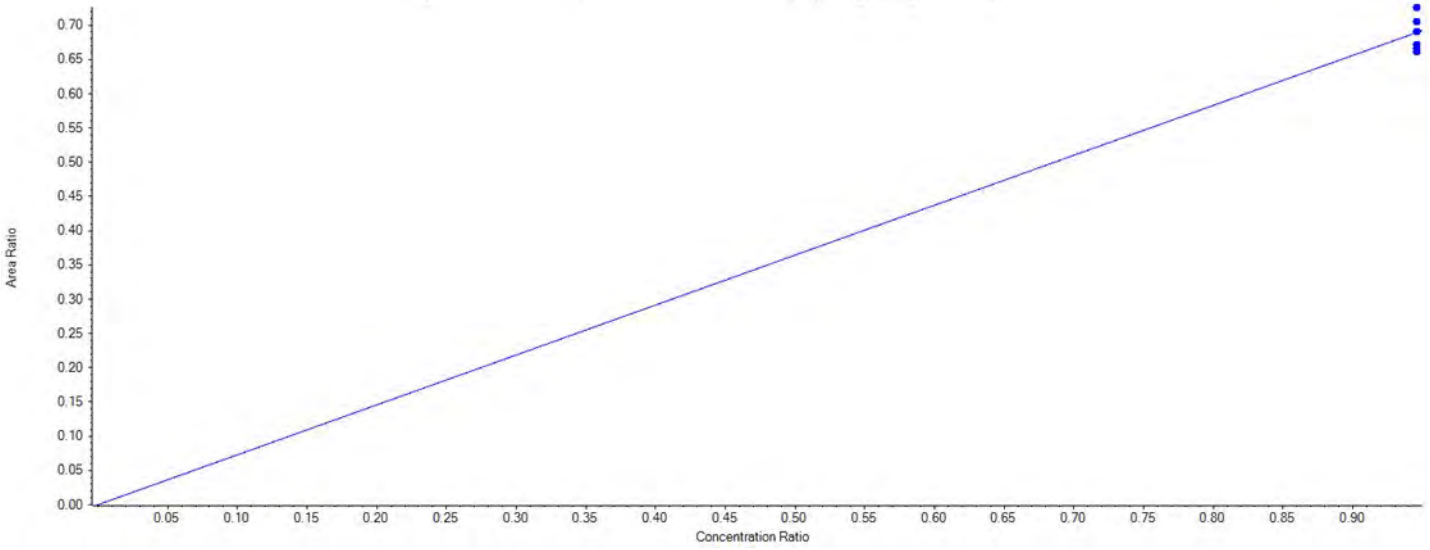
REVIEWED
By ucmr at 3:21 pm, 1/25/19

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV12DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM **Acquisition Method:** 18AUG13_3uL.dam

E13C3-PFHxS

y = 0.72866 x (std. dev. = 0.02531) (weighting: None)



Extraction Standard Calibration Verification

Sample Name	E13C3-PFHxS Area	13C2-PFOA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	327944.5	474834.926	True	5.00	0.691	4.55	0.930	4.730	4.739	0	30	
CAL2	320400.4	454466.719	True	5.00	0.705	4.56	0.930	4.730	4.838	2	30	
CAL3	317243.2	450219.683	True	5.00	0.705	4.56	0.930	4.730	4.835	2	30	
CAL4	315722.6	477519.675	True	5.00	0.661	4.55	0.930	4.730	4.537	-4	30	
CAL5	309304.5	464284.617	True	5.00	0.666	4.54	0.920	4.730	4.571	-3	30	
CAL6	284116.5	422900.470	True	5.00	0.672	4.55	0.920	4.730	4.610	-3	30	
CAL7	267182.8	368158.252	True	5.00	0.726	4.54	0.920	4.730	4.980	5	30	

APPROVED
By MCD at 3:23 pm, 1/10/19

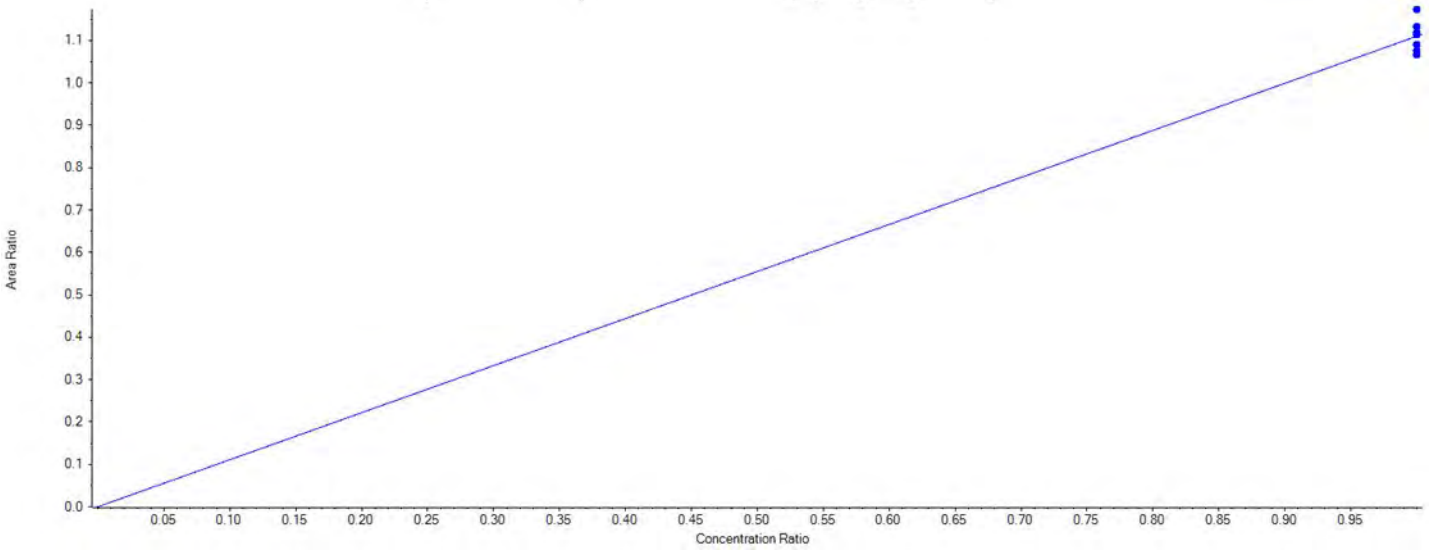
REVIEWED
By ucmr at 3:21 pm, 1/25/19

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV12DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM **Acquisition Method:** 18AUG13_3uL.dam

E13C4-PFHpA

y = 1.10984 x (std. dev. = 0.03656) (weighting: None)



Extraction Standard Calibration Verification

Sample Name	E13C4-PFHpA Area	13C2-PFOA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	528473.5	474834.926	True	5.00	1.113	4.55	0.920	5.000	5.014	0	30	
CAL2	532987.5	454466.719	True	5.00	1.173	4.55	0.920	5.000	5.284	6	30	
CAL3	503681.0	450219.683	True	5.00	1.119	4.55	0.920	5.000	5.040	1	30	
CAL4	509151.8	477519.675	True	5.00	1.066	4.55	0.920	5.000	4.804	-4	30	
CAL5	525802.0	464284.617	True	5.00	1.132	4.54	0.920	5.000	5.102	2	30	
CAL6	455005.8	422900.470	True	5.00	1.076	4.55	0.920	5.000	4.847	-3	30	
CAL7	401203.9	368158.252	True	5.00	1.090	4.54	0.920	5.000	4.910	-2	30	

APPROVED
By MCD at 3:23 pm, 1/10/19

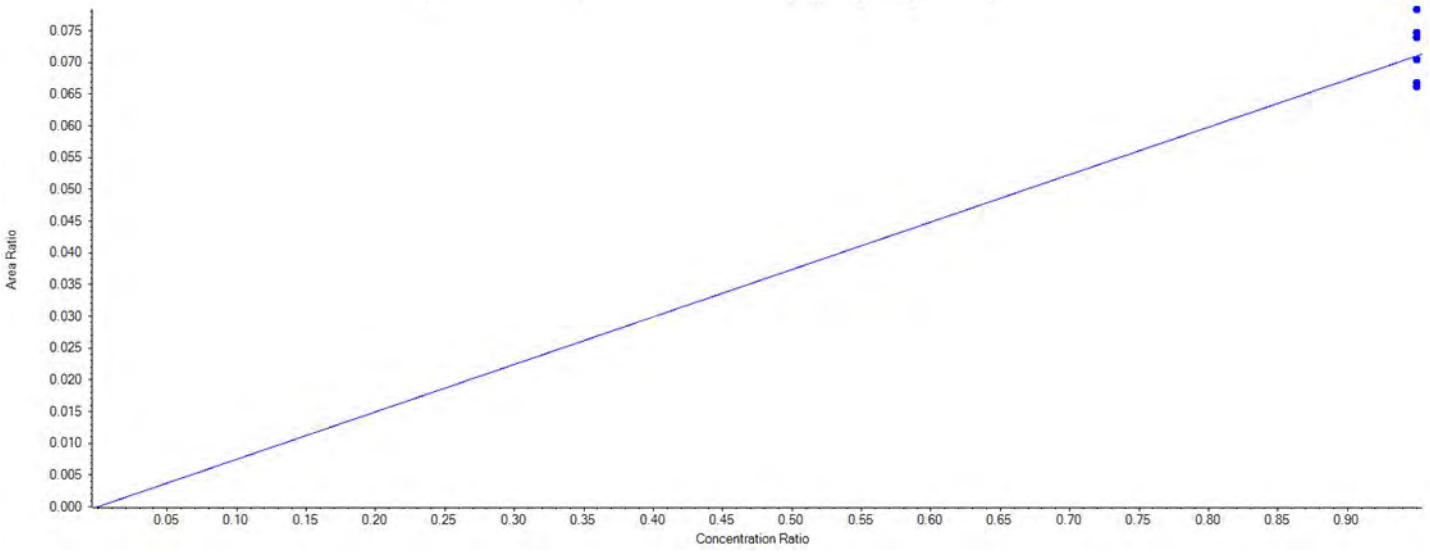
REVIEWED
By ucmr at 3:21 pm, 1/25/19

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV12DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM **Acquisition Method:** 18AUG13_3uL.dam

E13C2-6:2-FTS

y = 0.07473 x (std. dev. = 0.00497) (weighting: None)



Extraction Standard Calibration Verification

Sample Name	E13C2-6:2-FTS Area	13C2-PFOA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	35455.2	474834.926	True	5.00	0.075	4.91	1.000	4.750	4.996	5	30	
CAL2	35585.7	454466.719	True	5.00	0.078	4.91	1.000	4.750	5.239	10	30	
CAL3	31706.4	450219.683	True	5.00	0.070	4.91	1.000	4.750	4.712	-1	30	
CAL4	31883.3	477519.675	True	5.00	0.067	4.91	1.000	4.750	4.467	-6	30	
CAL5	31012.0	464284.617	True	5.00	0.067	4.90	1.000	4.750	4.469	-6	30	
CAL6	27988.5	422900.470	True	5.00	0.066	4.91	1.000	4.750	4.428	-7	30	
CAL7	27180.2	368158.252	True	5.00	0.074	4.89	1.000	4.750	4.939	4	30	

APPROVED
By MCD at 3:23 pm, 1/10/19

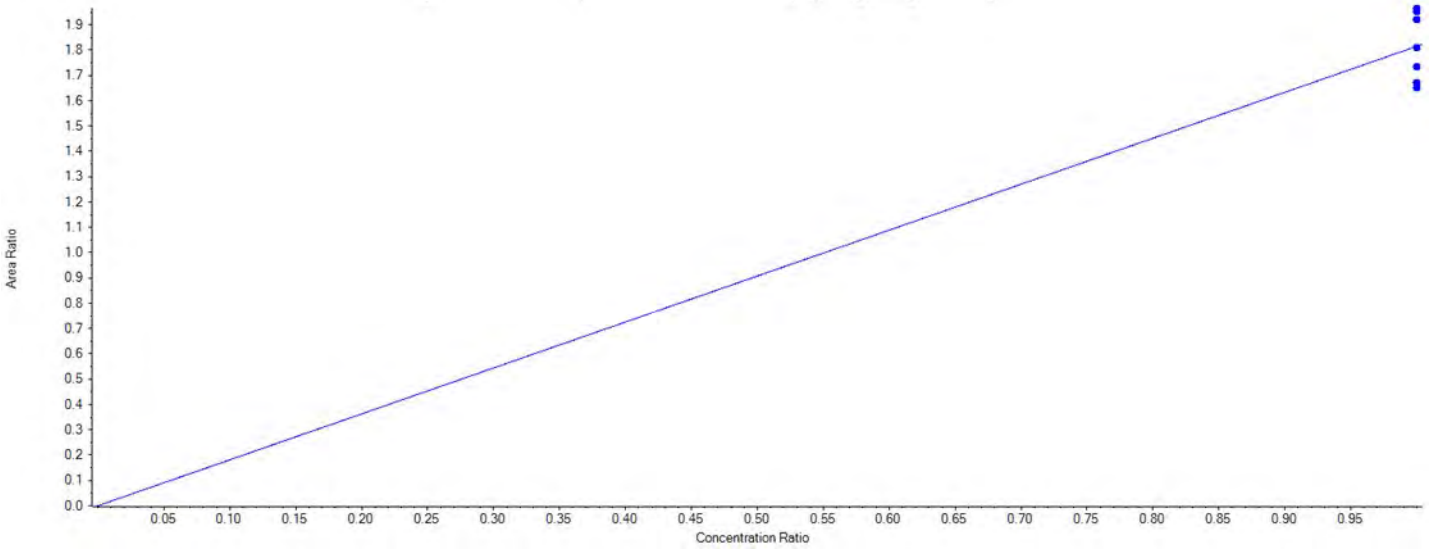
REVIEWED
By ucmr at 3:21 pm, 1/25/19

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV12DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM **Acquisition Method:** 18AUG13_3uL.dam

E13C8-PFOA

y = 1.81479 x (std. dev. = 0.13316) (weighting: None)



Extraction Standard Calibration Verification

Sample Name	E13C8-PFOA Area	13C2-PFOA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	912537.7	474834.926	True	5.00	1.922	4.92	1.000	5.000	5.295	6	30	
CAL2	892584.2	454466.719	True	5.00	1.964	4.92	1.000	5.000	5.411	8	30	
CAL3	878868.5	450219.683	True	5.00	1.952	4.93	1.000	5.000	5.378	8	30	
CAL4	863597.3	477519.675	True	5.00	1.809	4.92	1.000	5.000	4.983	0	30	
CAL5	805288.7	464284.617	True	5.00	1.734	4.91	1.000	5.000	4.779	-4	30	
CAL6	707130.3	422900.470	True	5.00	1.672	4.92	1.000	5.000	4.607	-8	30	
CAL7	607669.5	368158.252	True	5.00	1.651	4.91	1.000	5.000	4.548	-9	30	

APPROVED
By MCD at 3:23 pm, 1/10/19

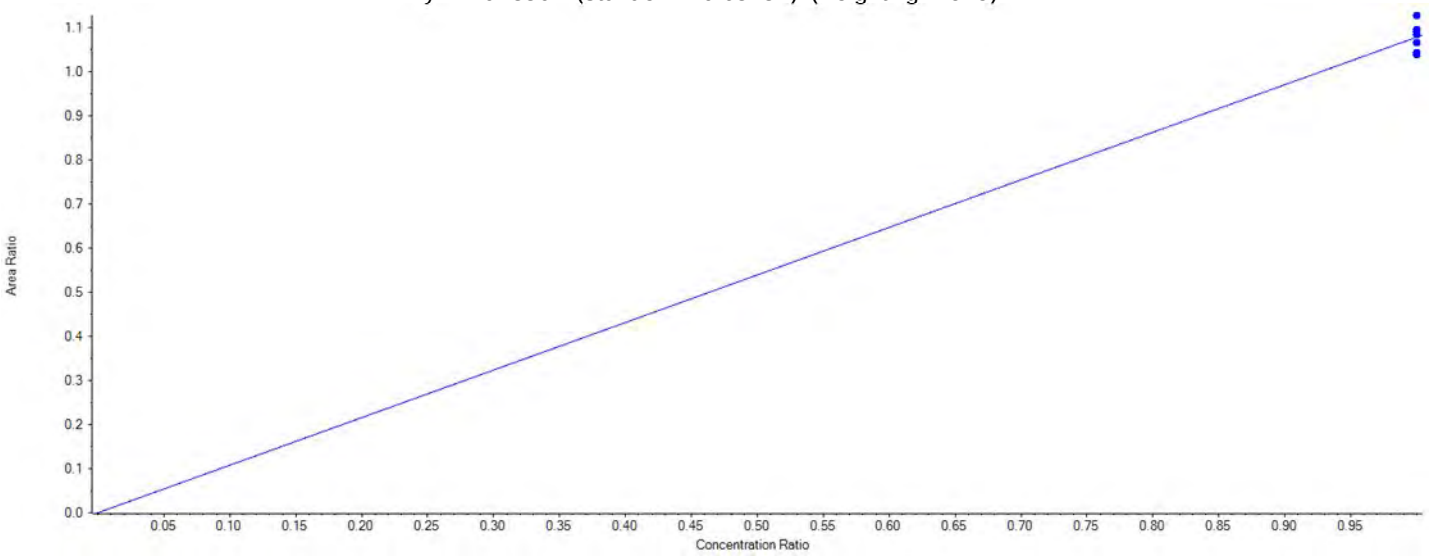
REVIEWED
By ucmr at 3:21 pm, 1/25/19

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV12DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM **Acquisition Method:** 18AUG13_3uL.dam

E13C8-PFOS

y = 1.07880 x (std. dev. = 0.03134) (weighting: None)



Extraction Standard Calibration Verification

Sample Name	E13C8-PFOS Area	13C4-PFOS Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	283127.4	265368.985	True	4.78	1.067	5.25	1.000	4.780	4.727	-1	30	
CAL2	271778.8	250483.817	True	4.78	1.085	5.25	1.000	4.780	4.808	1	30	
CAL3	281035.5	249205.780	True	4.78	1.128	5.25	1.000	4.780	4.997	5	30	
CAL4	267380.8	256143.287	True	4.78	1.044	5.25	1.000	4.780	4.625	-3	30	
CAL5	267157.6	243589.874	True	4.78	1.097	5.24	1.000	4.780	4.860	2	30	
CAL6	253129.2	231712.116	True	4.78	1.092	5.25	1.000	4.780	4.840	1	30	
CAL7	242617.5	233532.695	True	4.78	1.039	5.24	1.000	4.780	4.603	-4	30	

APPROVED
By MCD at 3:23 pm, 1/10/19

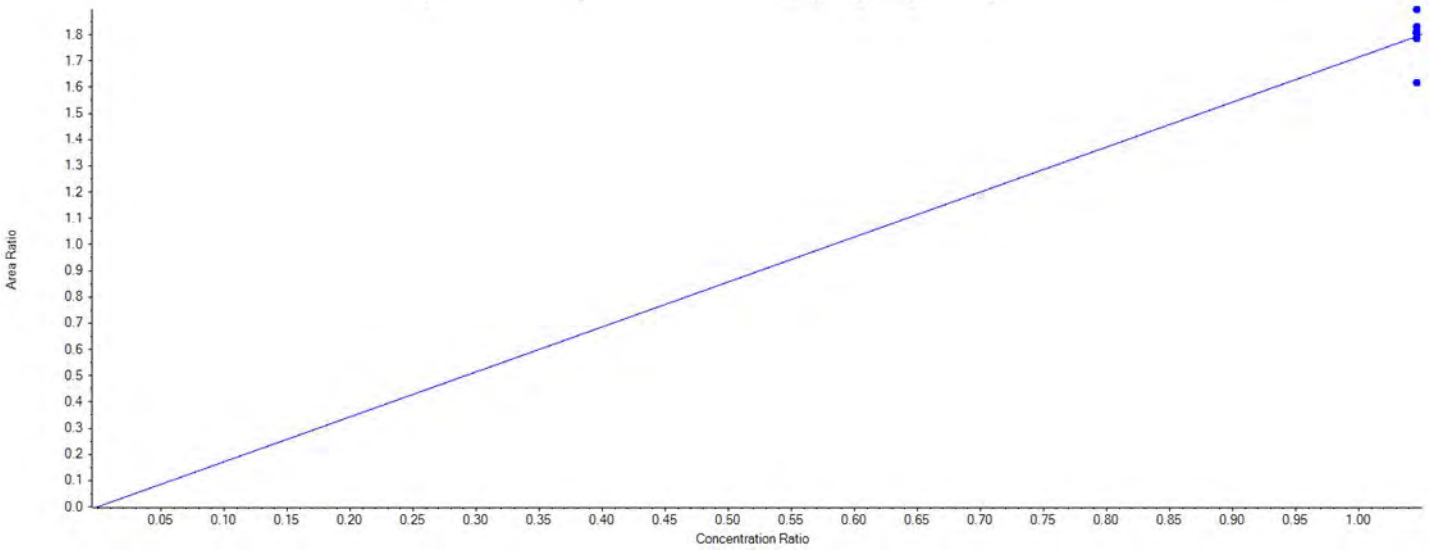
REVIEWED
By ucmr at 3:21 pm, 1/25/19

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV12DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM **Acquisition Method:** 18AUG13_3uL.dam

E13C9-PFNA

y = 1.71440 x (std. dev. = 0.08194) (weighting: None)



Extraction Standard Calibration Verification

Sample Name	E13C9-PFNA Area	13C4-PFOS Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	479931.4	265368.985	True	4.78	1.809	5.26	1.000	5.000	5.042	1	30	
CAL2	451850.1	250483.817	True	4.78	1.804	5.27	1.000	5.000	5.030	1	30	
CAL3	455948.9	249205.780	True	4.78	1.830	5.27	1.000	5.000	5.101	2	30	
CAL4	485570.4	256143.287	True	4.78	1.896	5.26	1.000	5.000	5.285	6	30	
CAL5	441776.8	243589.874	True	4.78	1.814	5.26	1.000	5.000	5.057	1	30	
CAL6	413811.3	231712.116	True	4.78	1.786	5.27	1.000	5.000	4.979	0	30	
CAL7	377369.8	233532.695	True	4.78	1.616	5.25	1.000	5.000	4.505	-10	30	

APPROVED
By MCD at 3:23 pm, 1/10/19

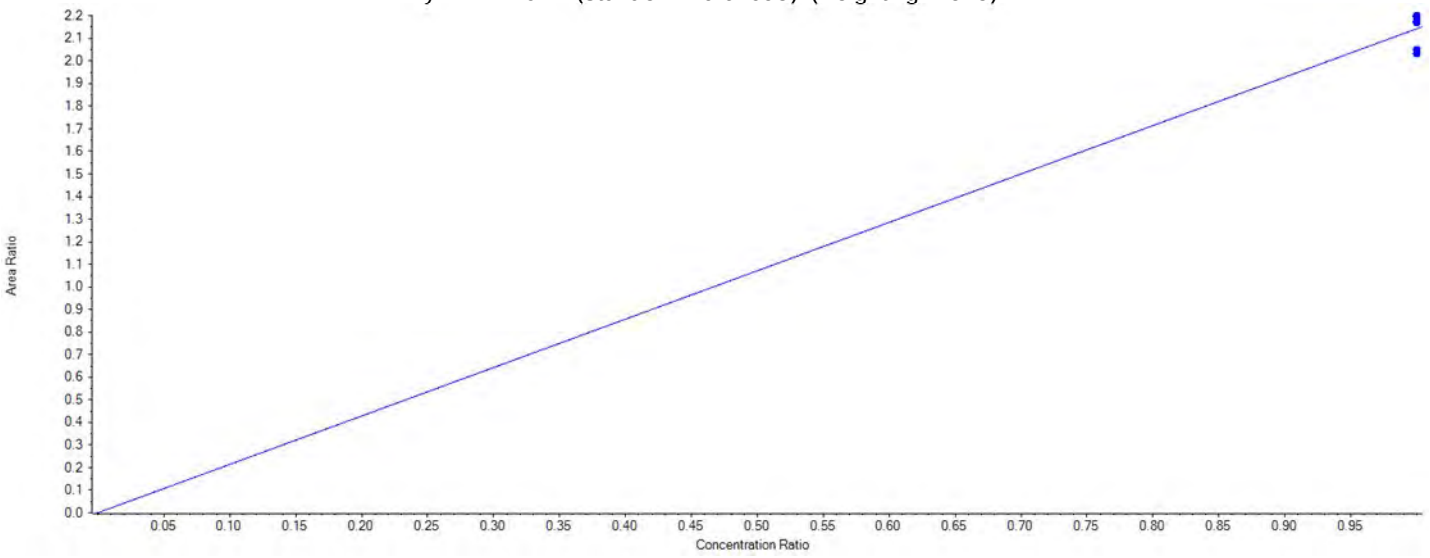
REVIEWED
By ucmr at 3:21 pm, 1/25/19

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV12DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM **Acquisition Method:** 18AUG13_3uL.dam

E13C6-PFDA

y = 2.14262 x (std. dev. = 0.07095) (weighting: None)



Extraction Standard Calibration Verification

Sample Name	E13C6-PFDA Area	13C2-PFDA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	612577.4	281654.747	True	5.00	2.175	5.57	1.000	5.000	5.075	2	30	
CAL2	601859.8	277324.192	True	5.00	2.170	5.57	1.000	5.000	5.064	1	30	
CAL3	612680.8	278743.894	True	5.00	2.198	5.57	1.000	5.000	5.129	3	30	
CAL4	612056.5	301327.179	True	5.00	2.031	5.56	1.000	5.000	4.740	-5	30	
CAL5	585231.2	269315.722	True	5.00	2.173	5.56	1.000	5.000	5.071	1	30	
CAL6	522613.8	237446.928	True	5.00	2.201	5.57	1.000	5.000	5.136	3	30	
CAL7	479333.1	233825.066	True	5.00	2.050	5.55	1.000	5.000	4.784	-4	30	

APPROVED
By MCD at 3:23 pm, 1/10/19

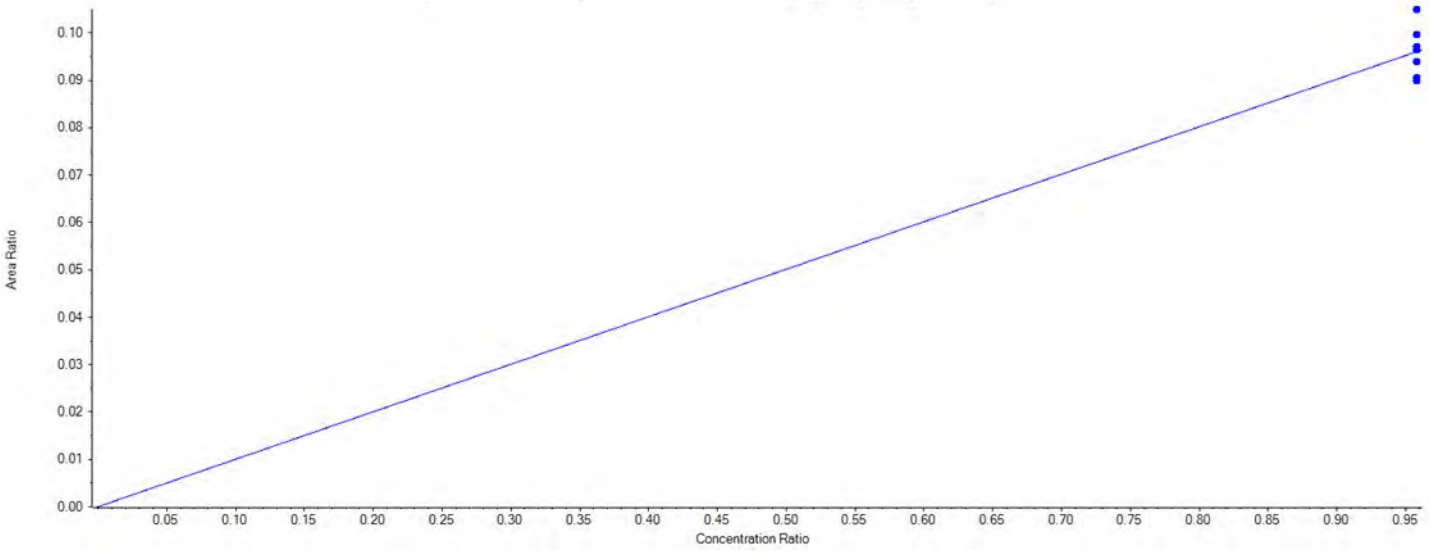
REVIEWED
By ucmr at 3:21 pm, 1/25/19

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV12DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM **Acquisition Method:** 18AUG13_3uL.dam

E13C2-8:2-FTS

y = 0.10026 x (std. dev. = 0.00552) (weighting: None)



Extraction Standard Calibration Verification

Sample Name	E13C2-8:2-FTS Area	13C2-PFDA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	26445.5	281654.747	True	5.00	0.094	5.57	1.000	4.790	4.683	-2	30	
CAL2	27639.2	277324.192	True	5.00	0.100	5.57	1.000	4.790	4.970	4	30	
CAL3	29249.8	278743.894	True	5.00	0.105	5.57	1.000	4.790	5.233	9	30	
CAL4	27253.5	301327.179	True	5.00	0.090	5.57	1.000	4.790	4.511	-6	30	
CAL5	24192.1	269315.722	True	5.00	0.090	5.56	1.000	4.790	4.480	-6	30	
CAL6	22899.0	237446.928	True	5.00	0.096	5.57	1.000	4.790	4.810	0	30	
CAL7	22711.0	233825.066	True	5.00	0.097	5.56	1.000	4.790	4.844	1	30	

APPROVED
By MCD at 3:23 pm, 1/10/19

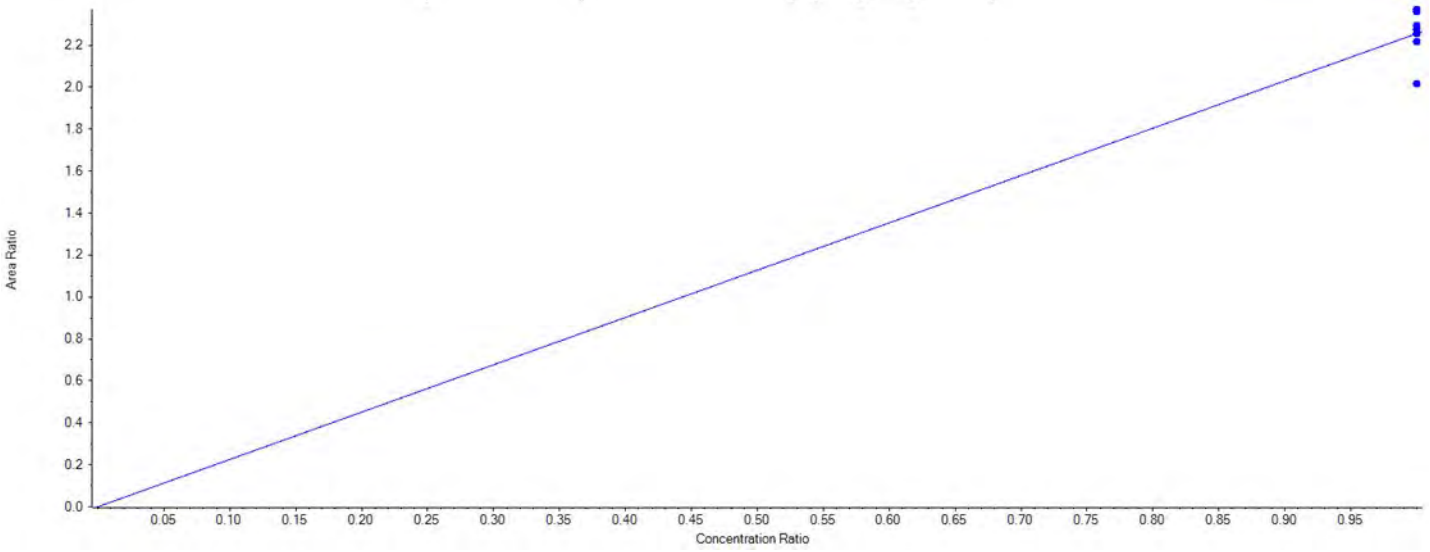
REVIEWED
By ucmr at 3:21 pm, 1/25/19

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV12DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM **Acquisition Method:** 18AUG13_3uL.dam

E13C8-PFOSA

y = 2.25533 x (std. dev. = 0.11852) (weighting: None)



Extraction Standard Calibration Verification

Sample Name	E13C8-PFOSA Area	13C2-PFDA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	664489.9	281654.747	True	5.00	2.359	5.65	1.010	5.000	5.230	5	30	
CAL2	636543.1	277324.192	True	5.00	2.295	5.65	1.010	5.000	5.089	2	30	
CAL3	629109.9	278743.894	True	5.00	2.257	5.65	1.010	5.000	5.004	0	30	
CAL4	607762.0	301327.179	True	5.00	2.017	5.64	1.010	5.000	4.472	-11	30	
CAL5	596544.1	269315.722	True	5.00	2.215	5.64	1.010	5.000	4.911	-2	30	
CAL6	539992.5	237446.928	True	5.00	2.274	5.65	1.010	5.000	5.042	1	30	
CAL7	554092.6	233825.066	True	5.00	2.370	5.63	1.010	5.000	5.254	5	30	

APPROVED
By MCD at 3:23 pm, 1/10/19

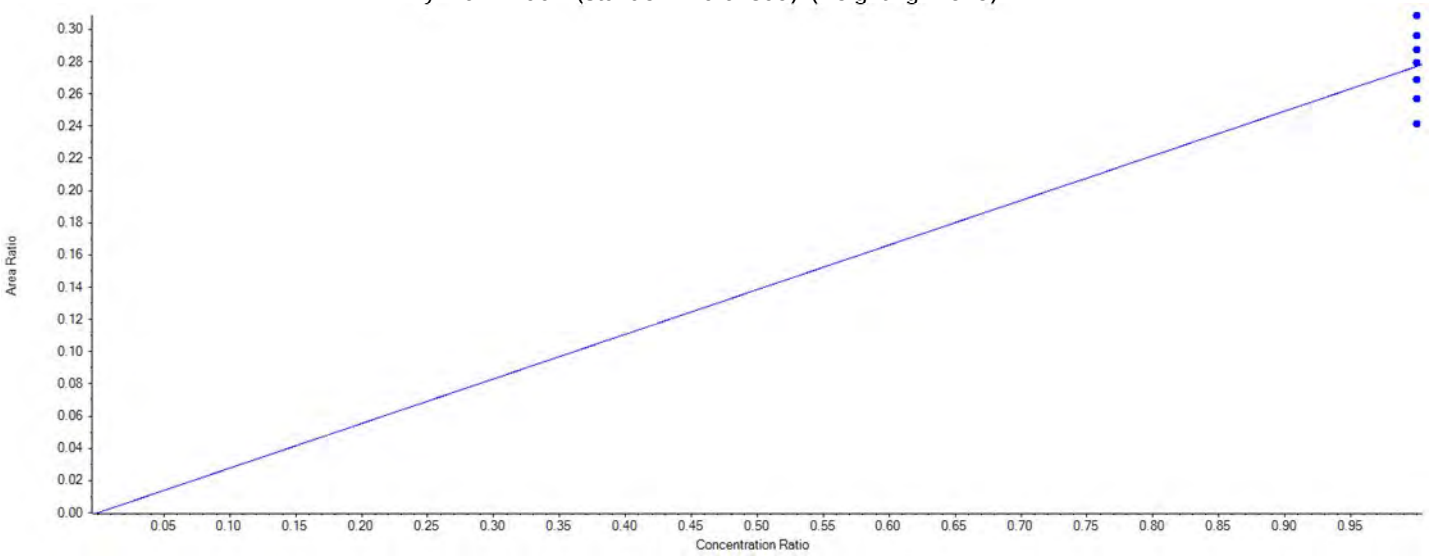
REVIEWED
By ucmr at 3:21 pm, 1/25/19

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV12DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM **Acquisition Method:** 18AUG13_3uL.dam

Ed3-NMeFOSAA

y = 0.27700 x (std. dev. = 0.02309) (weighting: None)



Extraction Standard Calibration Verification

Sample Name	Ed3-NMeFOSAA Area	13C2-PFDA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	86914.5	281654.747	True	5.00	0.309	5.70	1.020	5.000	5.570	11	30	
CAL2	77388.6	277324.192	True	5.00	0.279	5.71	1.020	5.000	5.037	1	30	
CAL3	71670.3	278743.894	True	5.00	0.257	5.71	1.030	5.000	4.641	-7	30	
CAL4	72788.0	301327.179	True	5.00	0.242	5.70	1.020	5.000	4.360	-13	30	
CAL5	72424.5	269315.722	True	5.00	0.269	5.70	1.020	5.000	4.854	-3	30	
CAL6	70320.3	237446.928	True	5.00	0.296	5.71	1.020	5.000	5.346	7	30	
CAL7	67250.5	233825.066	True	5.00	0.288	5.69	1.020	5.000	5.192	4	30	

APPROVED
By MCD at 3:23 pm, 1/10/19

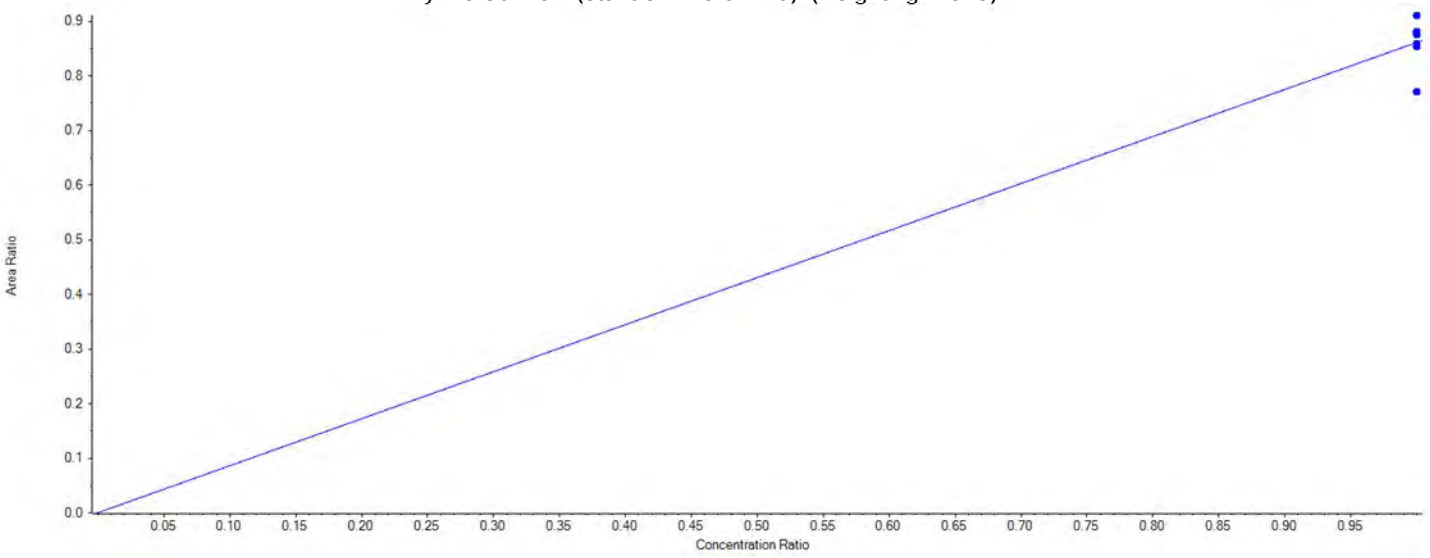
REVIEWED
By ucmr at 3:21 pm, 1/25/19

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV12DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM **Acquisition Method:** 18AUG13_3uL.dam

E13C7-PFUnDA

y = 0.86119 x (std. dev. = 0.04416) (weighting: None)



Extraction Standard Calibration Verification

Sample Name	E13C7-PFUnDA Area	13C2-PFDA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	256402.0	281654.747	True	5.00	0.910	5.83	1.050	5.000	5.285	6	30	
CAL2	242881.7	277324.192	True	5.00	0.876	5.83	1.050	5.000	5.085	2	30	
CAL3	245605.3	278743.894	True	5.00	0.881	5.83	1.050	5.000	5.116	2	30	
CAL4	232014.1	301327.179	True	5.00	0.770	5.82	1.050	5.000	4.470	-11	30	
CAL5	231187.9	269315.722	True	5.00	0.858	5.82	1.050	5.000	4.984	0	30	
CAL6	208574.1	237446.928	True	5.00	0.878	5.83	1.050	5.000	5.100	2	30	
CAL7	199746.8	233825.066	True	5.00	0.854	5.81	1.050	5.000	4.960	-1	30	

APPROVED
By MCD at 3:23 pm, 1/10/19

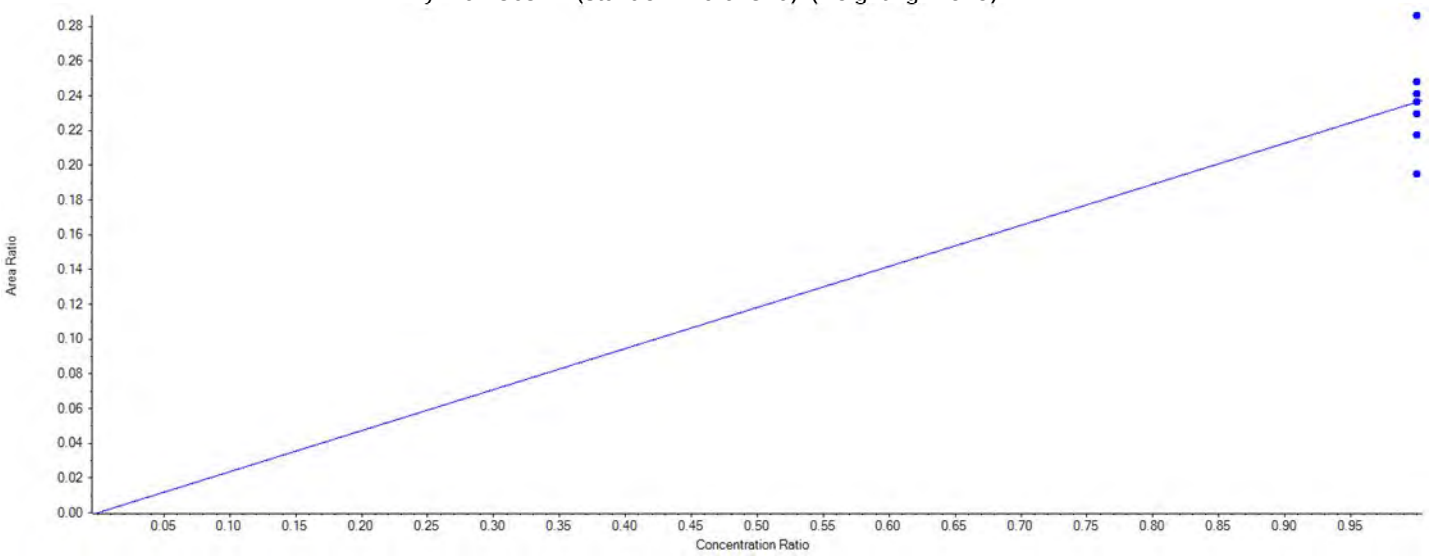
REVIEWED
By ucmr at 3:21 pm, 1/25/19

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV12DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM **Acquisition Method:** 18AUG13_3uL.dam

Ed5-NEtFOSAA

y = 0.23634 x (std. dev. = 0.02816) (weighting: None)



Extraction Standard Calibration Verification

Sample Name	Ed5-NEtFOSAA Area	13C2-PFDA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	80597.2	281654.747	True	5.00	0.286	5.84	1.050	5.000	6.054	21	30	
CAL2	63686.9	277324.192	True	5.00	0.230	5.84	1.050	5.000	4.859	-3	30	
CAL3	54383.9	278743.894	True	5.00	0.195	5.84	1.050	5.000	4.128	-17	30	
CAL4	65478.0	301327.179	True	5.00	0.217	5.83	1.050	5.000	4.597	-8	30	
CAL5	63701.7	269315.722	True	5.00	0.237	5.83	1.050	5.000	5.004	0	30	
CAL6	57308.1	237446.928	True	5.00	0.241	5.84	1.050	5.000	5.106	2	30	
CAL7	58049.5	233825.066	True	5.00	0.248	5.82	1.050	5.000	5.252	5	30	

APPROVED
By MCD at 3:23 pm, 1/10/19

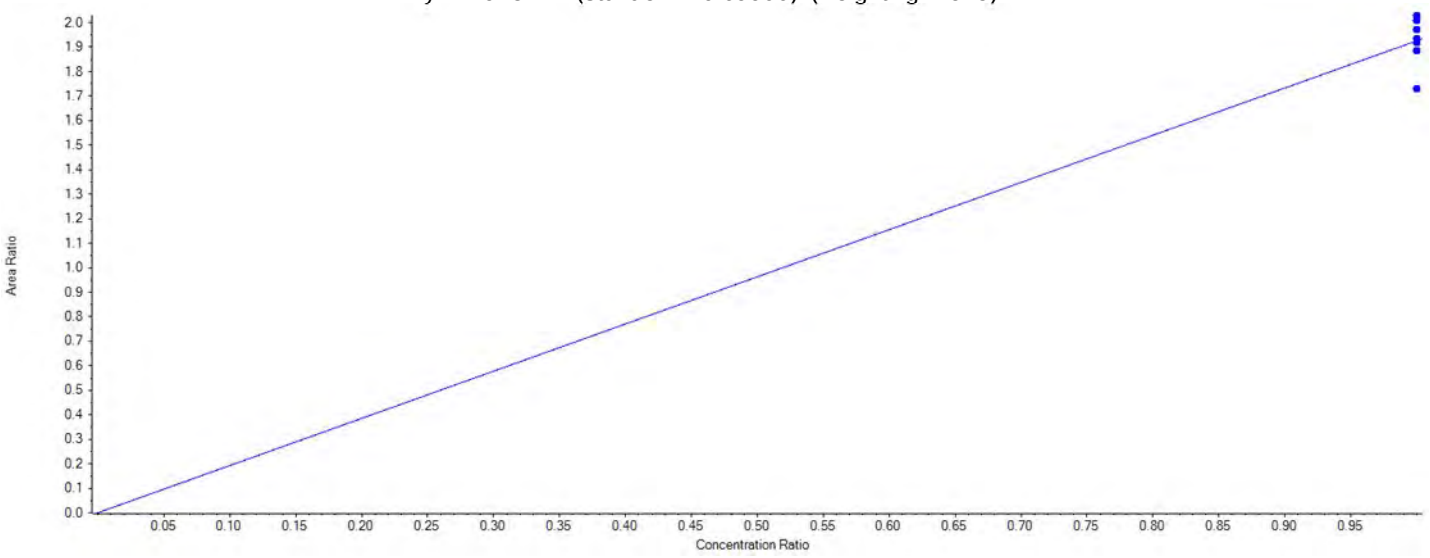
REVIEWED
By ucmr at 3:21 pm, 1/25/19

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV12DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM **Acquisition Method:** 18AUG13_3uL.dam

E13C2-PFDoDA

y = 1.92577 x (std. dev. = 0.09966) (weighting: None)



Extraction Standard Calibration Verification

Sample Name	E13C2-PFDoDA Area	13C2-PFDA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	545413.2	281654.747	True	5.00	1.936	6.05	1.090	5.000	5.028	1	30	
CAL2	532175.3	277324.192	True	5.00	1.919	6.06	1.090	5.000	4.982	0	30	
CAL3	549542.3	278743.894	True	5.00	1.971	6.06	1.090	5.000	5.119	2	30	
CAL4	521514.1	301327.179	True	5.00	1.731	6.05	1.090	5.000	4.494	-10	30	
CAL5	507556.8	269315.722	True	5.00	1.885	6.04	1.090	5.000	4.893	-2	30	
CAL6	477105.5	237446.928	True	5.00	2.009	6.06	1.090	5.000	5.217	4	30	
CAL7	474393.8	233825.066	True	5.00	2.029	6.04	1.090	5.000	5.268	5	30	

APPROVED
By MCD at 3:23 pm, 1/10/19

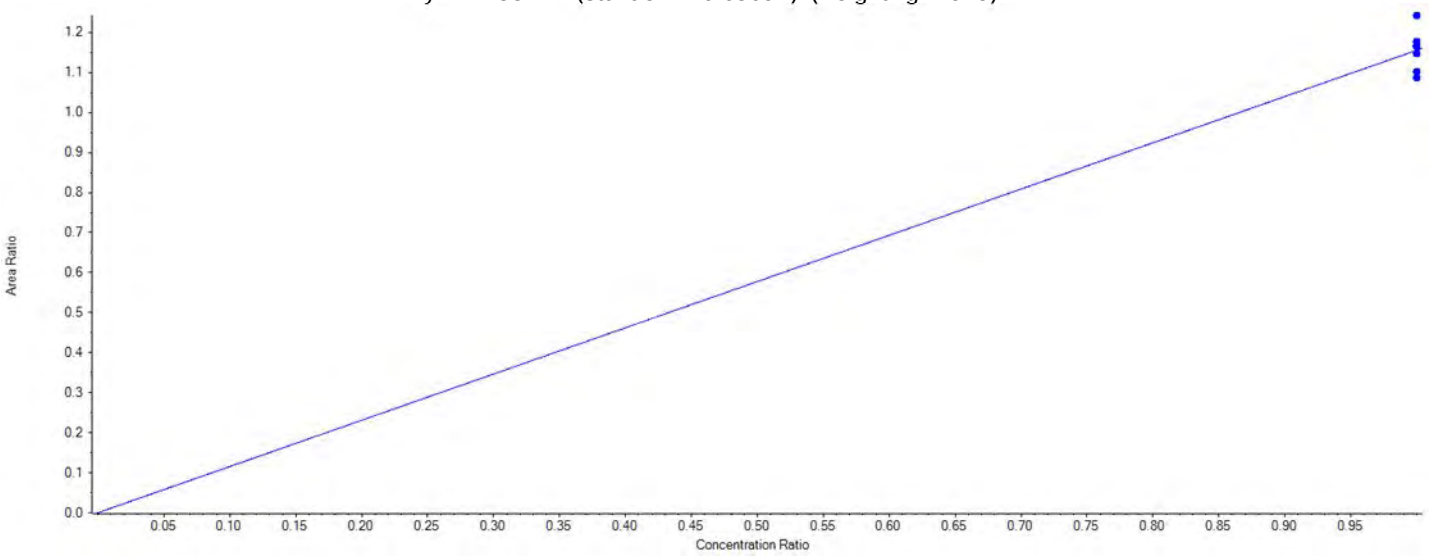
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By ucmr at 3:21 pm, 1/25/19

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV12DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM **Acquisition Method:** 18AUG13_3uL.dam

Ed7-NMePFOSAE

y = 1.15541 x (std. dev. = 0.05092) (weighting: None)



Extraction Standard Calibration Verification

Sample Name	Ed7-NMePFOSAE Area	13C2-PFDA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	349854.5	281654.747	True	5.00	1.242	6.09	1.090	5.000	5.375	8	30	
CAL2	323456.5	277324.192	True	5.00	1.166	6.09	1.090	5.000	5.047	1	30	
CAL3	307355.4	278743.894	True	5.00	1.103	6.09	1.090	5.000	4.772	-5	30	
CAL4	327796.4	301327.179	True	5.00	1.088	6.09	1.090	5.000	4.708	-6	30	
CAL5	316777.8	269315.722	True	5.00	1.176	6.08	1.090	5.000	5.090	2	30	
CAL6	272639.0	237446.928	True	5.00	1.148	6.09	1.090	5.000	4.969	-1	30	
CAL7	272283.1	233825.066	True	5.00	1.164	6.08	1.090	5.000	5.039	1	30	

APPROVED
By MCD at 3:23 pm, 1/10/19

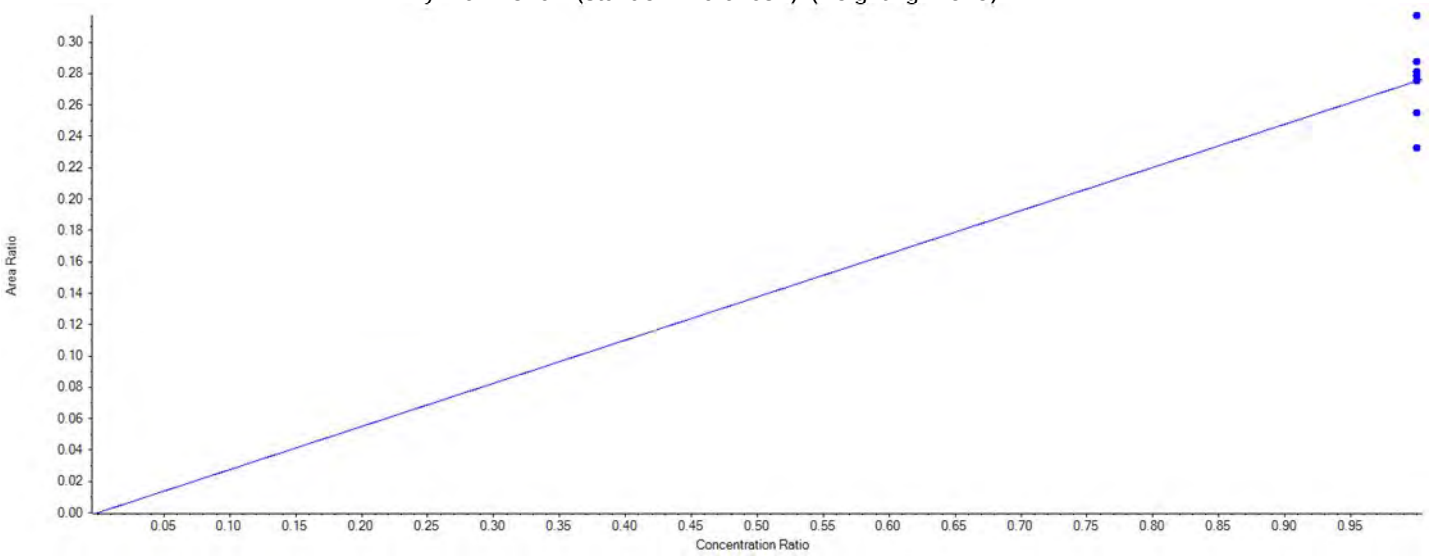
REVIEWED
By ucmr at 3:21 pm, 1/25/19

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV12DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM **Acquisition Method:** 18AUG13_3uL.dam

Ed3-NMePFOSA

y = 0.27520 x (std. dev. = 0.02631) (weighting: None)



Extraction Standard Calibration Verification

Sample Name	Ed3-NMePFOSA Area	13C2-PFDA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	78396.5	281654.747	True	5.00	0.278	6.10	1.100	5.000	5.057	1	30	
CAL2	77893.2	277324.192	True	5.00	0.281	6.11	1.100	5.000	5.103	2	30	
CAL3	76782.9	278743.894	True	5.00	0.275	6.11	1.100	5.000	5.005	0	30	
CAL4	70122.5	301327.179	True	5.00	0.233	6.10	1.100	5.000	4.228	-15	30	
CAL5	68615.7	269315.722	True	5.00	0.255	6.09	1.100	5.000	4.629	-7	30	
CAL6	68215.9	237446.928	True	5.00	0.287	6.11	1.100	5.000	5.220	4	30	
CAL7	74110.3	233825.066	True	5.00	0.317	6.09	1.100	5.000	5.758	15	30	

APPROVED
By MCD at 3:23 pm, 1/10/19

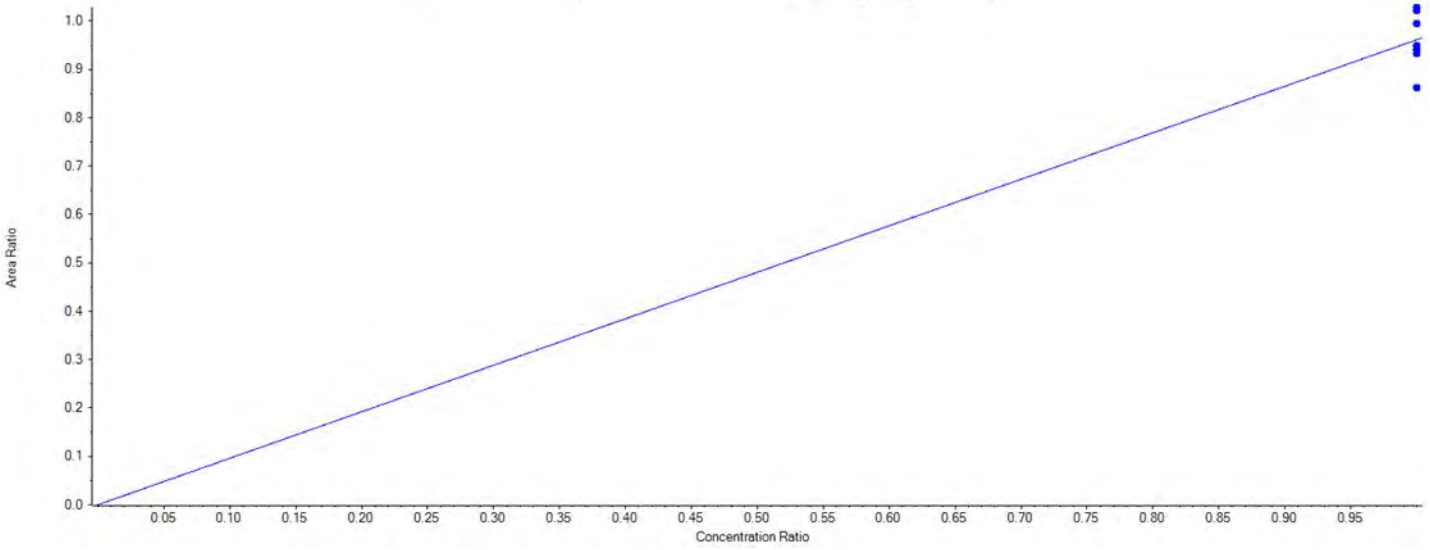
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DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV12DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM **Acquisition Method:** 18AUG13_3uL.dam

Ed9-NEtPFOSAE

y = 0.96134 x (std. dev. = 0.05866) (weighting: None)



Extraction Standard Calibration Verification

Sample Name	Ed9-NEtPFOSAE Area	13C2-PFDA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	280311.6	281654.747	True	5.00	0.995	6.24	1.120	5.000	5.176	4	30	
CAL2	261195.6	277324.192	True	5.00	0.942	6.25	1.120	5.000	4.899	-2	30	
CAL3	259792.3	278743.894	True	5.00	0.932	6.25	1.120	5.000	4.847	-3	30	
CAL4	259467.4	301327.179	True	5.00	0.861	6.24	1.120	5.000	4.479	-10	30	
CAL5	255767.7	269315.722	True	5.00	0.950	6.23	1.120	5.000	4.939	-1	30	
CAL6	242587.5	237446.928	True	5.00	1.022	6.25	1.120	5.000	5.314	6	30	
CAL7	240346.5	233825.066	True	5.00	1.028	6.23	1.120	5.000	5.346	7	30	

APPROVED
By MCD at 3:23 pm, 1/10/19

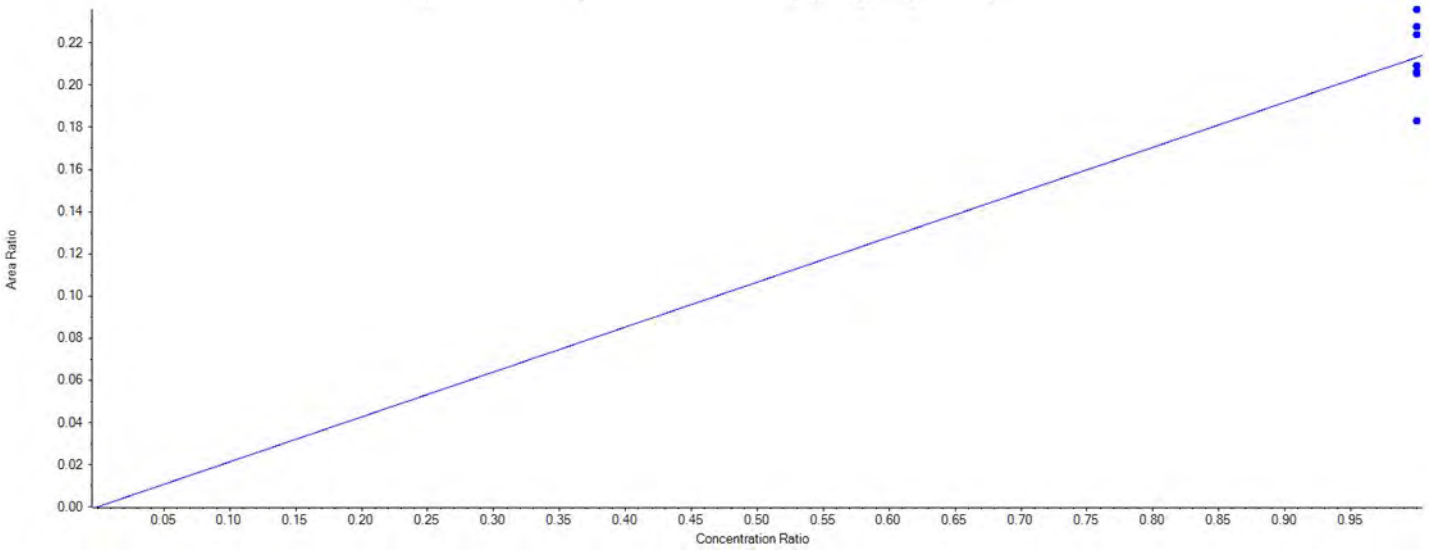
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By ucmr at 3:21 pm, 1/25/19

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV12DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM **Acquisition Method:** 18AUG13_3uL.dam

Ed5-NEtPFOSA

y = 0.21315 x (std. dev. = 0.01765) (weighting: None)



Extraction Standard Calibration Verification

Sample Name	Ed5-NEtPFOSA Area	13C2-PFDA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	63047.1	281654.747	True	5.00	0.224	6.26	1.130	5.000	5.251	5	30	
CAL2	58073.5	277324.192	True	5.00	0.209	6.27	1.130	5.000	4.912	-2	30	
CAL3	57485.9	278743.894	True	5.00	0.206	6.27	1.130	5.000	4.838	-3	30	
CAL4	55177.3	301327.179	True	5.00	0.183	6.26	1.130	5.000	4.296	-14	30	
CAL5	55378.4	269315.722	True	5.00	0.206	6.25	1.130	5.000	4.824	-4	30	
CAL6	56004.0	237446.928	True	5.00	0.236	6.27	1.130	5.000	5.533	11	30	
CAL7	53297.8	233825.066	True	5.00	0.228	6.25	1.130	5.000	5.347	7	30	

APPROVED
By MCD at 3:23 pm, 1/10/19

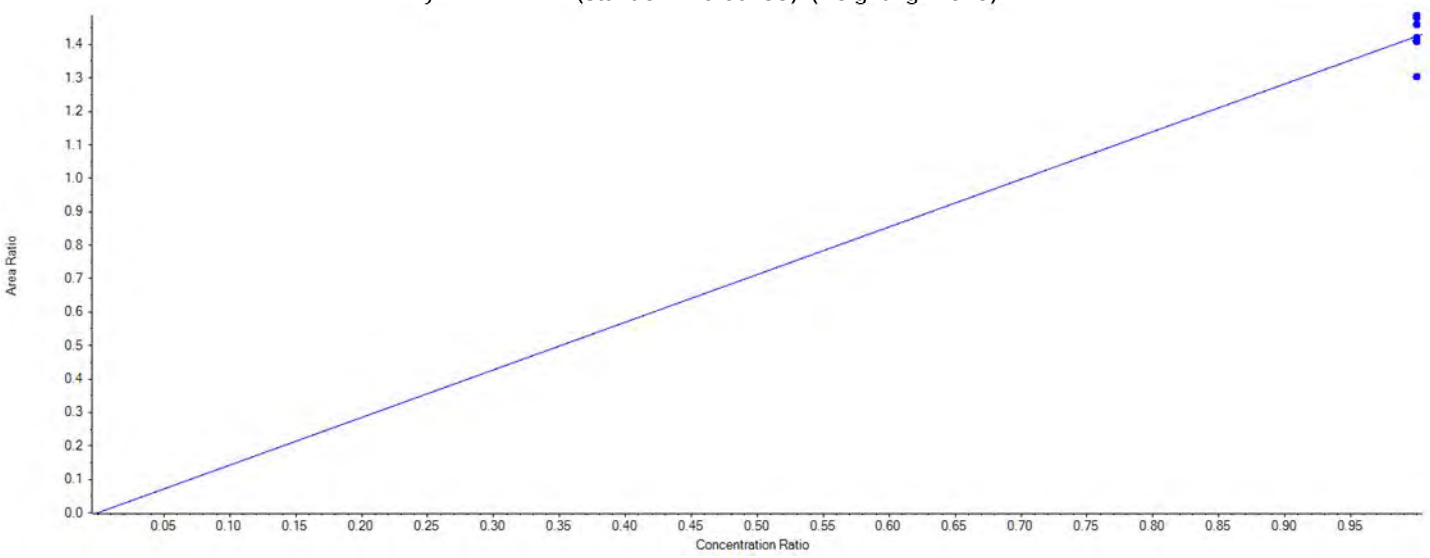
REVIEWED
By ucmr at 3:21 pm, 1/25/19

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV12DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM **Acquisition Method:** 18AUG13_3uL.dam

E13C2-PFTeDA

y = 1.42422 x (std. dev. = 0.06255) (weighting: None)



Extraction Standard Calibration Verification

Sample Name	E13C2-PFTeDA Area	13C2-PFDA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	410633.0	281654.747	True	5.00	1.458	6.43	1.160	5.000	5.118	2	30	
CAL2	394146.2	277324.192	True	5.00	1.421	6.43	1.160	5.000	4.990	0	30	
CAL3	393544.9	278743.894	True	5.00	1.412	6.43	1.160	5.000	4.957	-1	30	
CAL4	392356.6	301327.179	True	5.00	1.302	6.43	1.160	5.000	4.571	-9	30	
CAL5	379571.6	269315.722	True	5.00	1.409	6.42	1.160	5.000	4.948	-1	30	
CAL6	352892.2	237446.928	True	5.00	1.486	6.43	1.160	5.000	5.218	4	30	
CAL7	346256.6	233825.066	True	5.00	1.481	6.42	1.160	5.000	5.199	4	30	

APPROVED
By MCD at 3:23 pm, 1/10/19

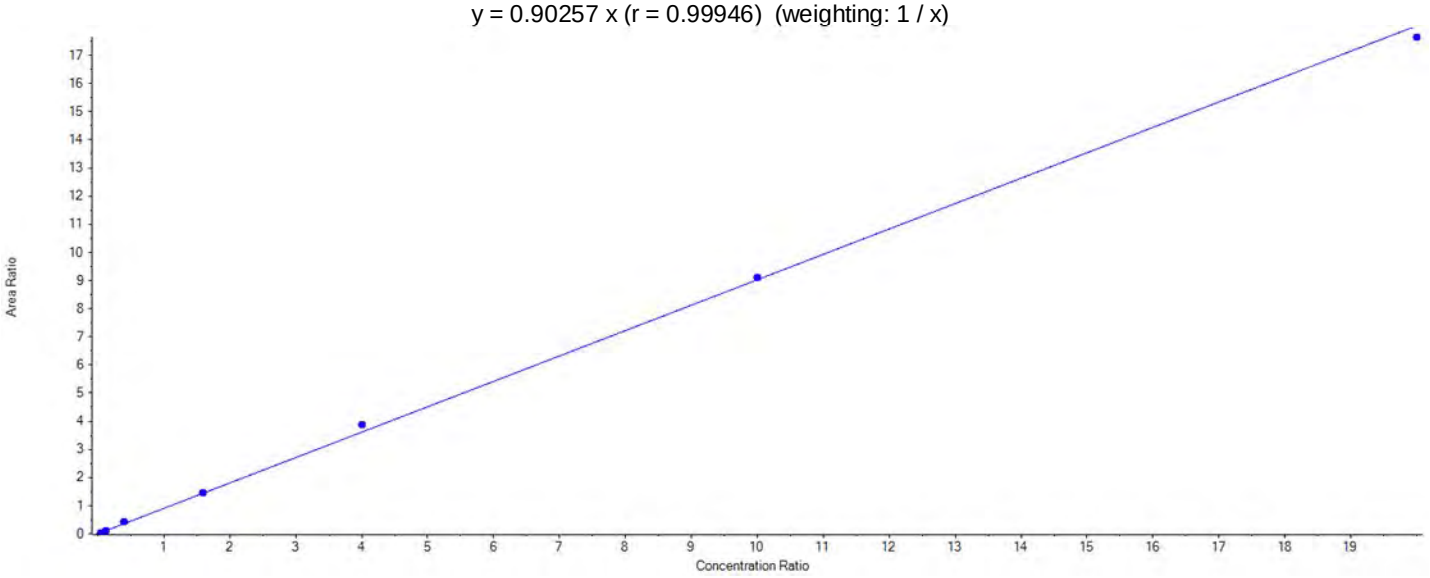
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By ucmr at 3:21 pm, 1/25/19

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV12DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM **Acquisition Method:** 18AUG13_3uL.dam

PFBA

y = 0.90257 x (r = 0.99946) (weighting: 1 / x)



Component Calibration Verification

Sample Name	PFBA Area	S/N	13C4-PFBA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	32322.9	189.9	763334.268	True	5.00	0.042	3.27	1.000	0.200	0.235	17	30	
CAL2	80396.2	328.7	771445.801	True	5.00	0.104	3.27	1.000	0.600	0.577	-4	30	
CAL3	303228.7	603.0	733360.151	True	5.00	0.413	3.27	1.000	2.000	2.291	15	30	
CAL4	1068414.9	996.7	726395.964	True	5.00	1.471	3.26	1.000	8.000	8.148	2	30	
CAL5	2700090.8	1579.9	698871.915	True	5.00	3.863	3.26	1.000	20.000	21.403	7	30	
CAL6	5765353.4	2132.7	633648.378	True	5.00	9.099	3.26	1.000	50.000	50.404	1	30	
CAL7	9834601.7	2326.7	557392.782	True	5.00	17.644	3.25	1.000	100.000	97.743	-2	30	

APPROVED
By MCD at 3:23 pm, 1/10/19

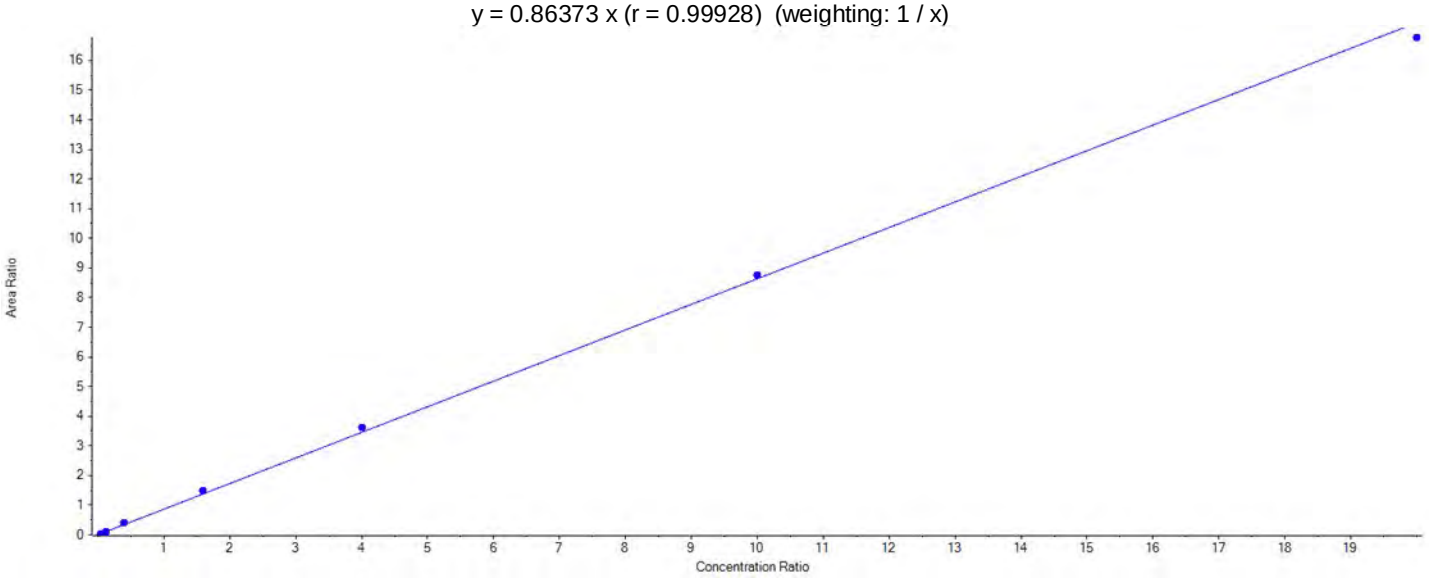
REVIEWED
By ucmr at 3:21 pm, 1/25/19

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV12DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM **Acquisition Method:** 18AUG13_3uL.dam

PFPeA

y = 0.86373 x (r = 0.99928) (weighting: 1 / x)



Component Calibration Verification

Sample Name	PFPeA Area	S/N	13C5-PFPeA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	32633.1	78.7	771179.392	True	5.00	0.042	3.77	1.000	0.200	0.245	22	30	
CAL2	84319.4	153.0	738194.743	True	5.00	0.114	3.77	1.000	0.600	0.661	10	30	
CAL3	292715.8	240.6	695805.672	True	5.00	0.421	3.77	1.000	2.000	2.435	22	30	
CAL4	1075643.5	403.4	716206.931	True	5.00	1.502	3.76	1.000	8.000	8.694	9	30	
CAL5	2660895.4	642.6	734598.250	True	5.00	3.622	3.76	1.000	20.000	20.969	5	30	
CAL6	5570221.7	1016.0	635977.788	True	5.00	8.759	3.77	1.000	50.000	50.702	1	30	
CAL7	9756431.5	1095.7	581688.659	True	5.00	16.773	3.75	1.000	100.000	97.094	-3	30	

APPROVED
By MCD at 3:23 pm, 1/10/19

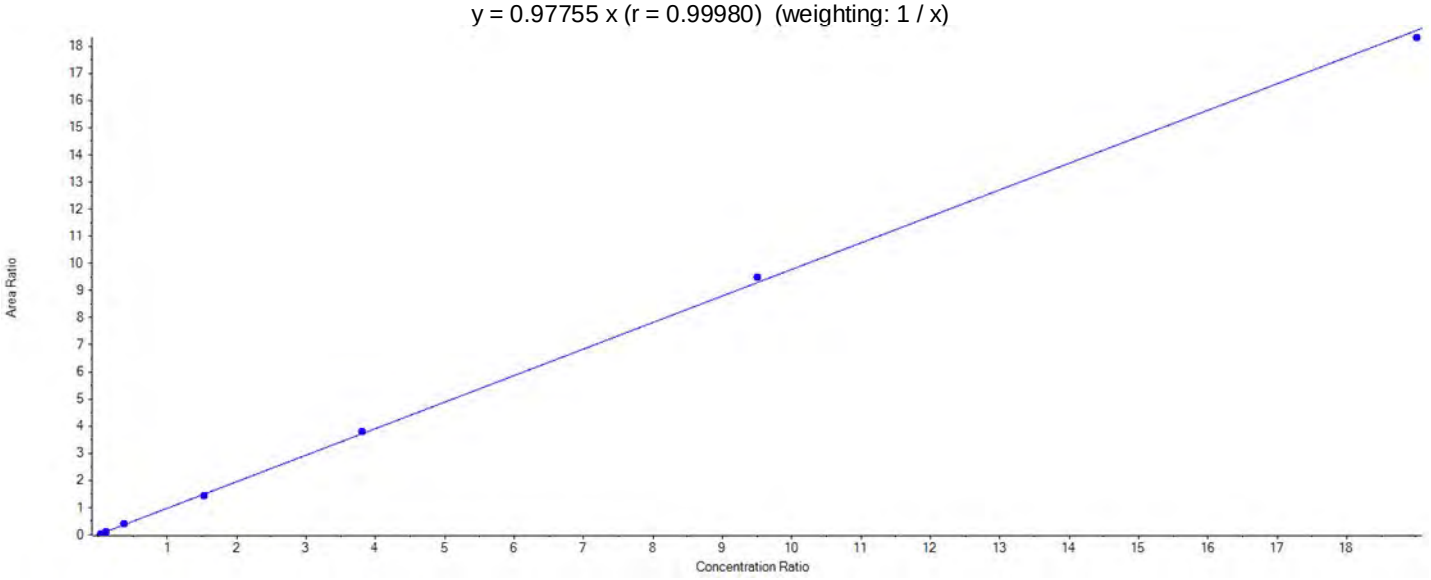
REVIEWED
By ucmr at 3:21 pm, 1/25/19

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV12DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM **Acquisition Method:** 18AUG13_3uL.dam

PFBS

y = 0.97755 x (r = 0.99980) (weighting: 1 / x)



Component Calibration Verification

Sample Name	PFBS Area	S/N	13C3-PFBS Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	18010.0	456.9	445963.431	True	4.65	0.040	3.81	1.000	0.177	0.192	9	30	
CAL2	44885.2	959.4	418860.683	True	4.65	0.107	3.82	1.000	0.531	0.510	-4	30	
CAL3	168144.6	1287.7	416352.746	True	4.65	0.404	3.82	1.000	1.770	1.921	9	30	
CAL4	617045.6	2604.2	425015.723	True	4.65	1.452	3.81	1.000	7.080	6.906	-2	30	
CAL5	1630613.5	4013.6	428050.642	True	4.65	3.809	3.80	1.000	17.700	18.121	2	30	
CAL6	3588084.1	4714.2	378676.812	True	4.65	9.475	3.81	1.000	44.200	45.072	2	30	
CAL7	6615935.3	4086.7	361166.004	True	4.65	18.318	3.80	1.000	88.400	87.136	-1	30	

APPROVED
By MCD at 3:23 pm, 1/10/19

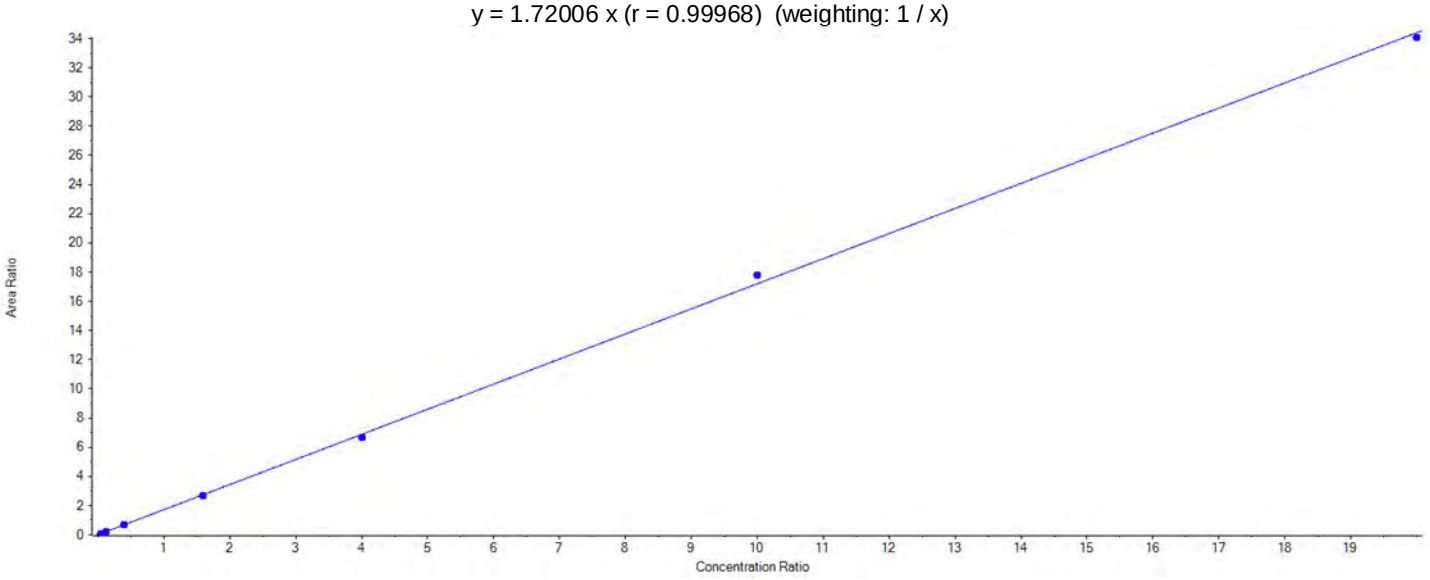
REVIEWED
By ucmr at 3:21 pm, 1/25/19

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV12DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM **Acquisition Method:** 18AUG13_3uL.dam

4:2-FTS

y = 1.72006 x (r = 0.99968) (weighting: 1 / x)



Component Calibration Verification

Sample Name	4:2-FTS Area	S/N	13C2-4:2-FTS Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	3636.4	188.8	51494.566	True	4.67	0.071	4.13	1.000	0.187	0.192	3	30	
CAL2	8804.0	391.1	46141.763	True	4.67	0.191	4.13	1.000	0.560	0.518	-7	30	
CAL3	34188.5	932.2	47514.792	True	4.67	0.720	4.13	1.000	1.870	1.954	4	30	
CAL4	126396.5	2063.7	47246.369	True	4.67	2.675	4.13	1.000	7.470	7.263	-3	30	
CAL5	344695.9	2546.9	51791.866	True	4.67	6.655	4.12	1.000	18.700	18.070	-3	30	
CAL6	738293.9	3115.2	41422.166	True	4.67	17.824	4.13	1.000	46.700	48.392	4	30	
CAL7	1379983.9	3342.5	40505.086	True	4.67	34.069	4.11	1.000	93.400	92.499	-1	30	

APPROVED
By MCD at 3:23 pm, 1/10/19

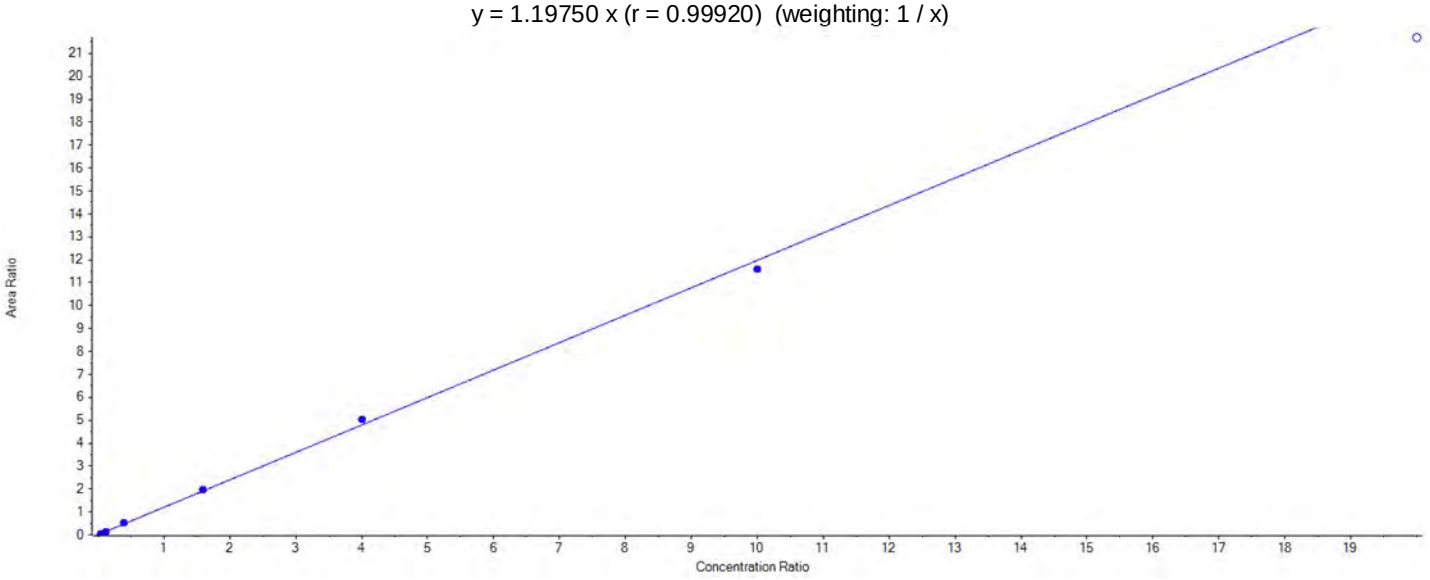
REVIEWED
By ucmr at 3:21 pm, 1/25/19

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV12DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM **Acquisition Method:** 18AUG13_3uL.dam

PFHxA

y = 1.19750 x (r = 0.99920) (weighting: 1 / x)



Component Calibration Verification

Sample Name	PFHxA Area	S/N	13C5-PFHxA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	39108.2	254.9	664975.876	True	5.00	0.059	4.16	1.000	0.200	0.246	23	30	
CAL2	96559.3	367.8	648170.061	True	5.00	0.149	4.16	1.000	0.600	0.622	4	30	
CAL3	352013.5	713.4	646783.501	True	5.00	0.544	4.17	1.000	2.000	2.272	14	30	
CAL4	1265231.1	1181.4	641195.847	True	5.00	1.973	4.16	1.000	8.000	8.239	3	30	
CAL5	3158486.4	1640.8	628952.790	True	5.00	5.022	4.15	1.000	20.000	20.968	5	30	
CAL6	6593779.0	2095.1	568205.817	True	5.00	11.605	4.16	1.000	50.000	48.453	-3	30	
CAL7	11059420.3	2611.8	509807.950	False	5.00	21.693	4.15	1.000	100.000	90.577	-9	30	

APPROVED
By MCD at 3:23 pm, 1/10/19

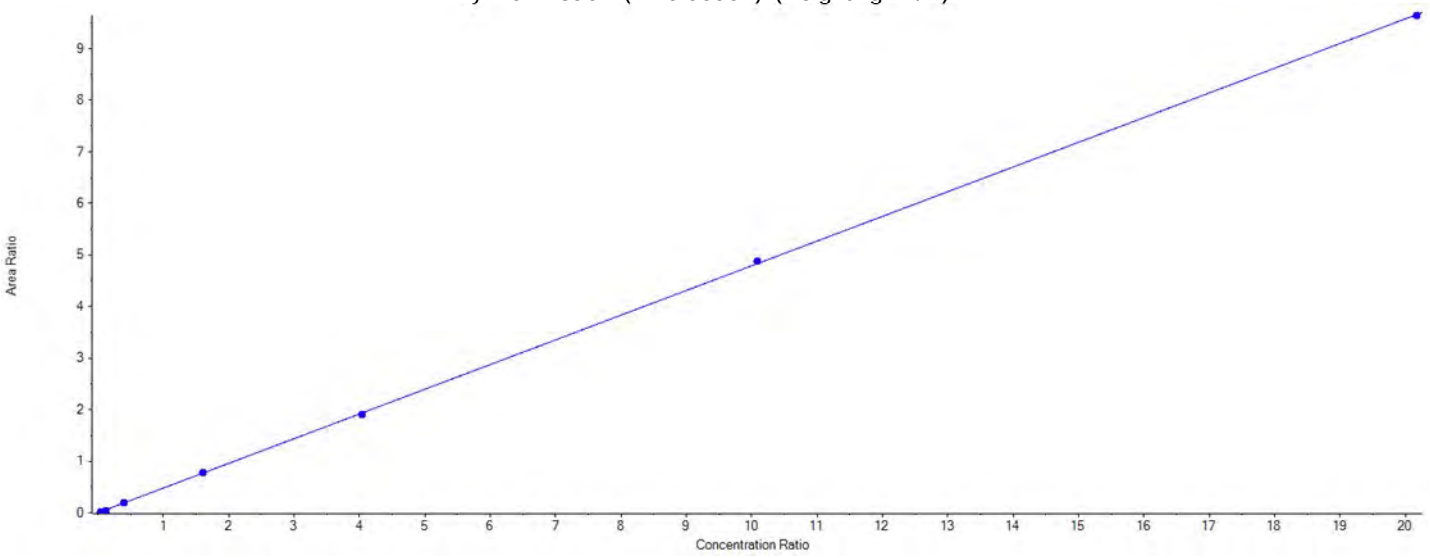
REVIEWED
By ucmr at 3:21 pm, 1/25/19

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV12DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM **Acquisition Method:** 18AUG13_3uL.dam

PFPeS

y = 0.47896 x (r = 0.99991) (weighting: 1 / x)



Component Calibration Verification

Sample Name	PFPeS Area	S/N	13C3-PFBS Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	9620.1	321.5	445963.431	True	4.65	0.022	4.18	1.100	0.188	0.209	11	30	
CAL2	20295.0	611.8	418860.683	True	4.65	0.048	4.19	1.100	0.563	0.470	-16	30	
CAL3	84071.2	1175.2	416352.746	True	4.65	0.202	4.19	1.100	1.880	1.960	4	30	
CAL4	328681.7	3455.2	425015.723	True	4.65	0.773	4.18	1.100	7.500	7.508	0	30	
CAL5	815928.2	2443.7	428050.642	True	4.65	1.906	4.17	1.100	18.800	18.506	-2	30	
CAL6	1847826.8	3263.9	378676.812	True	4.65	4.880	4.18	1.100	46.900	47.375	1	30	
CAL7	3482095.9	4201.9	361166.004	True	4.65	9.641	4.17	1.100	93.800	93.602	0	30	

APPROVED
By MCD at 3:23 pm, 1/10/19

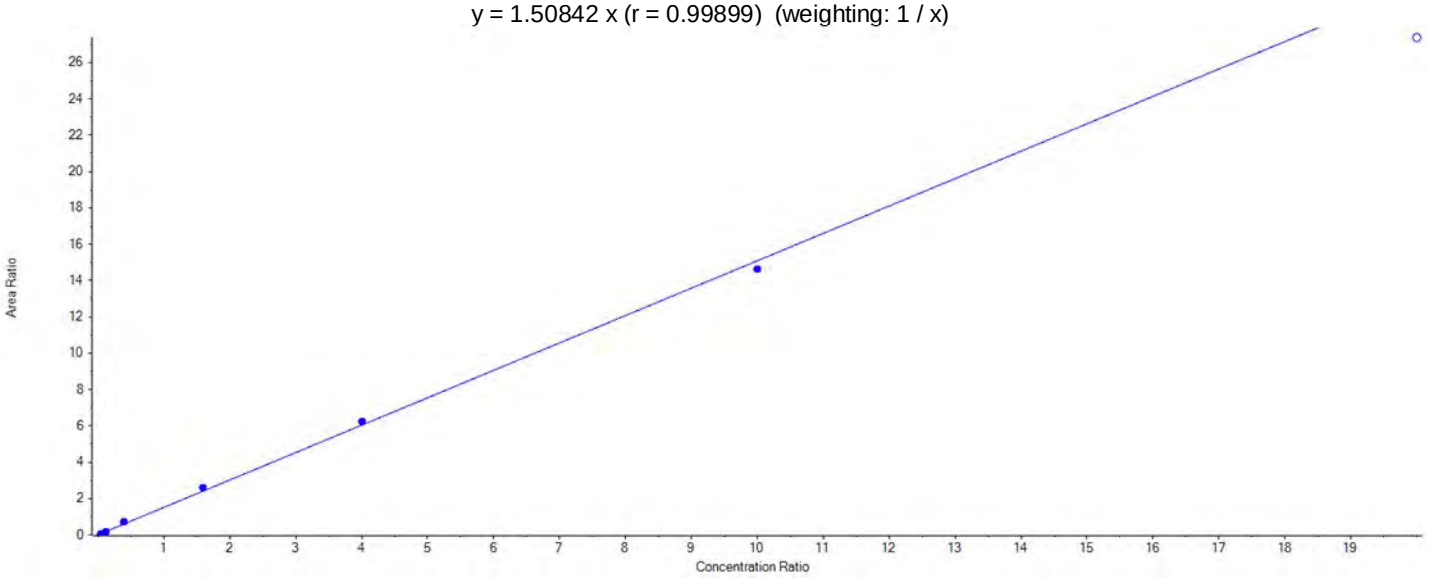
REVIEWED
By ucmr at 3:21 pm, 1/25/19

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV12DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM **Acquisition Method:** 18AUG13_3uL.dam

PFHpA

y = 1.50842 x (r = 0.99899) (weighting: 1 / x)



Component Calibration Verification

Sample Name	PFHpA Area	S/N	13C4-PFHpA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	37545.4	111.6	528473.493	True	5.00	0.071	4.55	1.000	0.200	0.235	18	30	
CAL2	95048.3	255.2	532987.486	True	5.00	0.178	4.55	1.000	0.600	0.591	-1	30	
CAL3	355834.2	621.3	503681.029	True	5.00	0.706	4.56	1.000	2.000	2.342	17	30	
CAL4	1318774.5	846.6	509151.776	True	5.00	2.590	4.55	1.000	8.000	8.586	7	30	
CAL5	3269561.0	1266.8	525802.046	True	5.00	6.218	4.54	1.000	20.000	20.612	3	30	
CAL6	6648455.3	1607.4	455005.812	True	5.00	14.612	4.55	1.000	50.000	48.434	-3	30	
CAL7	10981922.8	1824.2	401203.881	False	5.00	27.372	4.54	1.000	100.000	90.732	-9	30	

APPROVED
By MCD at 3:23 pm, 1/10/19

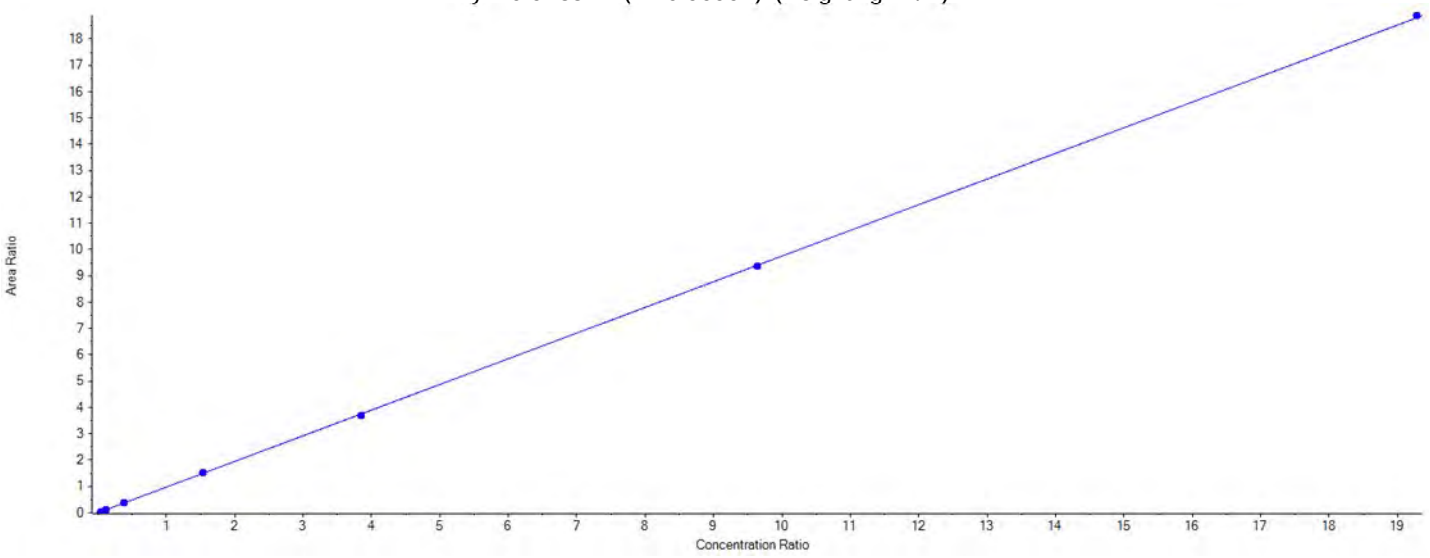
REVIEWED
By ucmr at 3:21 pm, 1/25/19

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV12DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM **Acquisition Method:** 18AUG13_3uL.dam

PFHxS

y = 0.97552 x (r = 0.99992) (weighting: 1 / x)



Component Calibration Verification

Sample Name	PFHxS Area	S/N	13C3-PFHxS Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	12858.1	420.7	327944.533	True	4.73	0.039	4.55	1.000	0.182	0.190	4	30	
CAL2	31064.7	21916.1	320400.366	True	4.73	0.097	4.56	1.000	0.547	0.470	-14	30	
CAL3	125622.0	1397.4	317243.200	True	4.73	0.396	4.56	1.000	1.820	1.920	5	30	
CAL4	479291.0	1690.0	315722.635	True	4.73	1.518	4.55	1.000	7.300	7.361	1	30	
CAL5	1138604.3	1511.8	309304.485	True	4.73	3.681	4.54	1.000	18.200	17.849	-2	30	
CAL6	2662852.0	1747.2	284116.506	True	4.73	9.372	4.55	1.000	45.600	45.444	0	30	
CAL7	5048349.8	1449.1	267182.785	True	4.73	18.895	4.54	1.000	91.200	91.615	0	30	

APPROVED
By MCD at 3:23 pm, 1/10/19

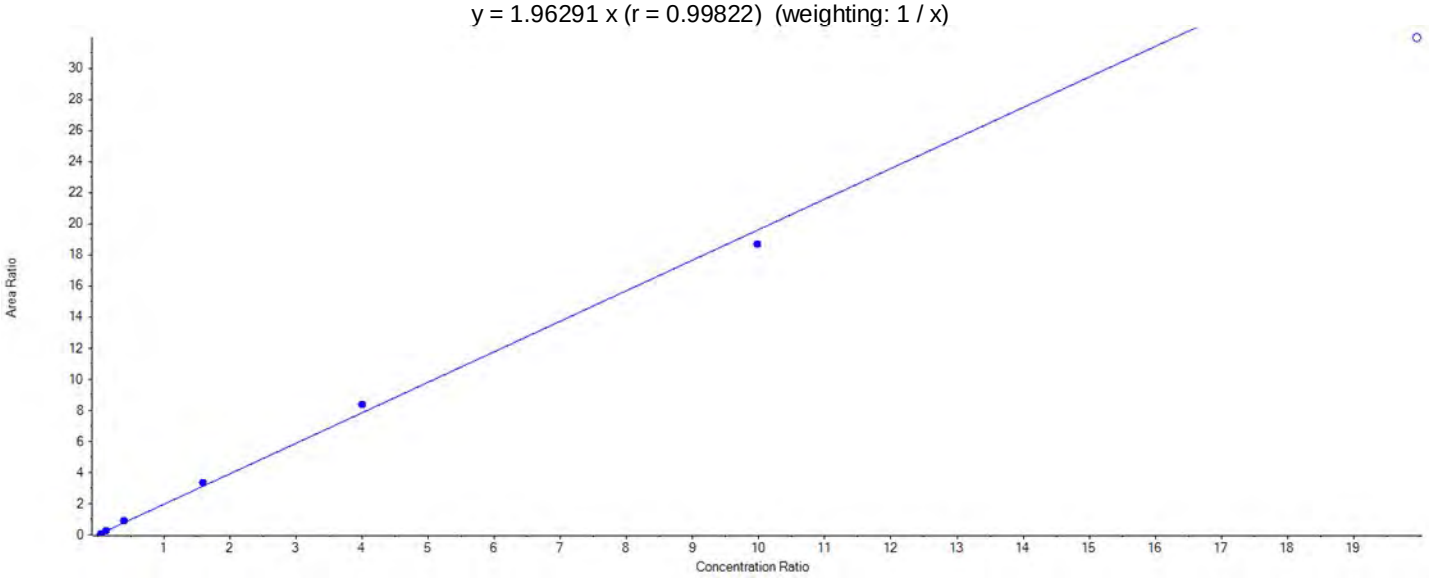
REVIEWED
By ucmr at 3:21 pm, 1/25/19

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV12DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM **Acquisition Method:** 18AUG13_3uL.dam

6:2-FTS

y = 1.96291 x (r = 0.99822) (weighting: 1 / x)



Component Calibration Verification

Sample Name	6:2-FTS Area	S/N	13C2-6:2-FTS Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	2683.1	289.4	35455.215	True	4.75	0.076	4.90	1.000	0.190	0.183	-4	30	
CAL2	8048.4	680.8	35585.691	True	4.75	0.226	4.91	1.000	0.569	0.547	-4	30	
CAL3	28084.9	4492.0	31706.424	True	4.75	0.886	4.91	1.000	1.900	2.143	13	30	
CAL4	107470.6	1876.3	31883.281	True	4.75	3.371	4.91	1.000	7.580	8.157	8	30	
CAL5	260254.3	2335.4	31012.005	True	4.75	8.392	4.90	1.000	19.000	20.308	7	30	
CAL6	523949.5	2243.2	27988.493	True	4.75	18.720	4.91	1.000	47.400	45.301	-4	30	
CAL7	869227.2	3021.8	27180.238	False	4.75	31.980	4.89	1.000	94.800	77.388	-18	30	

APPROVED
By MCD at 3:23 pm, 1/10/19

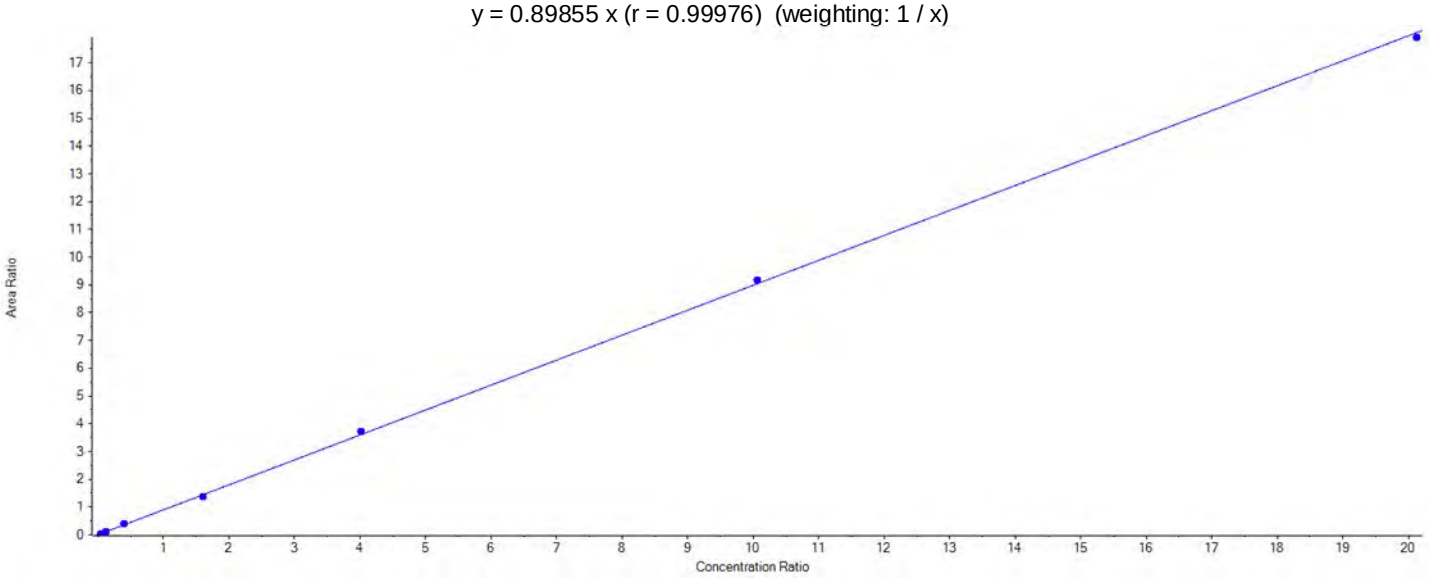
REVIEWED
By ucmr at 3:21 pm, 1/25/19

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV12DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM **Acquisition Method:** 18AUG13_3uL.dam

PFHpS

y = 0.89855 x (r = 0.99976) (weighting: 1 / x)



Component Calibration Verification

Sample Name	PFHpS Area	S/N	13C3-PFHxS Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	13262.8	924.7	327944.533	True	4.73	0.040	4.91	1.080	0.190	0.213	12	30	
CAL2	29902.3	1651.5	320400.366	True	4.73	0.093	4.92	1.080	0.571	0.491	-14	30	
CAL3	125907.9	2910.0	317243.200	True	4.73	0.397	4.92	1.080	1.900	2.089	10	30	
CAL4	434949.2	2606.3	315722.635	True	4.73	1.378	4.91	1.080	7.610	7.252	-5	30	
CAL5	1145559.8	3668.3	309304.485	True	4.73	3.704	4.90	1.080	19.000	19.496	3	30	
CAL6	2604868.6	3378.5	284116.506	True	4.73	9.168	4.91	1.080	47.600	48.262	1	30	
CAL7	4784682.8	2777.4	267182.785	True	4.73	17.908	4.90	1.080	95.200	94.267	-1	30	

APPROVED
By MCD at 3:23 pm, 1/10/19

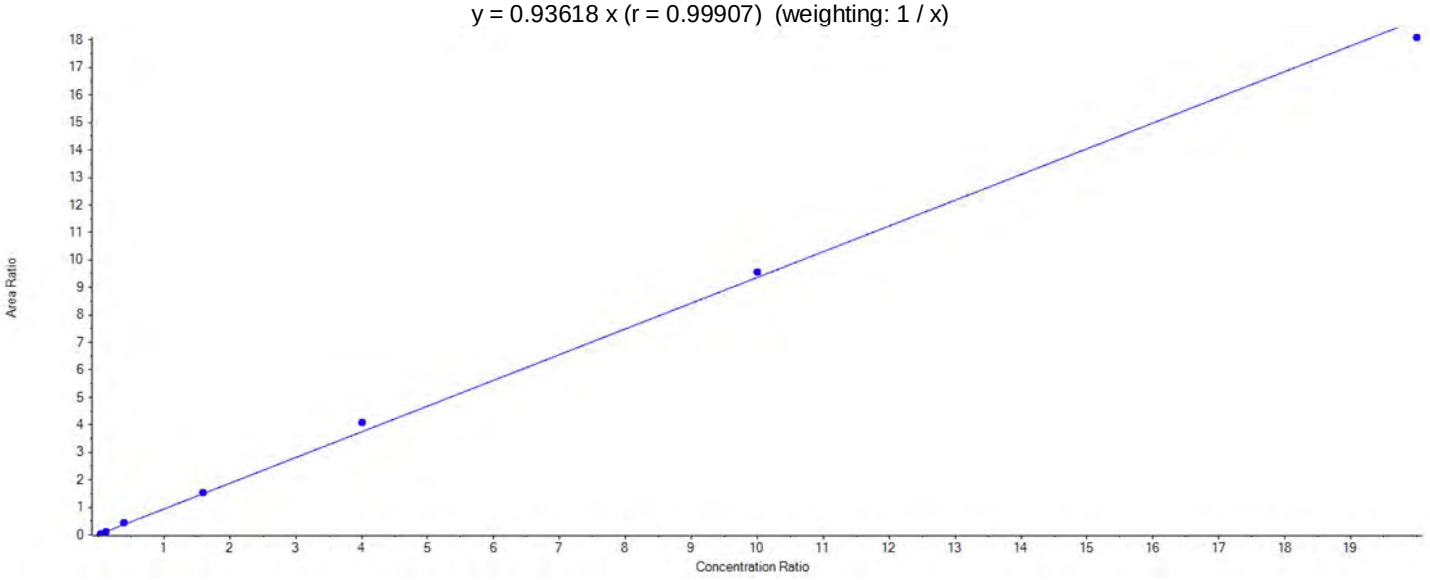
REVIEWED
By ucmr at 3:21 pm, 1/25/19

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV12DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM **Acquisition Method:** 18AUG13_3uL.dam

PFOA

y = 0.93618 x (r = 0.99907) (weighting: 1 / x)



Component Calibration Verification

Sample Name	PFOA Area	S/N	13C8-PFOA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	41468.0	187.1	912537.715	True	5.00	0.045	4.92	1.000	0.200	0.243	21	30	
CAL2	100710.5	331.7	892584.211	True	5.00	0.113	4.93	1.000	0.600	0.603	0	30	
CAL3	372258.9	744.4	878868.476	True	5.00	0.424	4.93	1.000	2.000	2.262	13	30	
CAL4	1327086.1	1187.5	863597.255	True	5.00	1.537	4.92	1.000	8.000	8.207	3	30	
CAL5	3291549.4	1816.2	805288.723	True	5.00	4.087	4.91	1.000	20.000	21.830	9	30	
CAL6	6758642.8	2708.4	707130.314	True	5.00	9.558	4.92	1.000	50.000	51.047	2	30	
CAL7	10991740.1	2902.7	607669.526	True	5.00	18.088	4.91	1.000	100.000	96.608	-3	30	

APPROVED
By MCD at 3:23 pm, 1/10/19

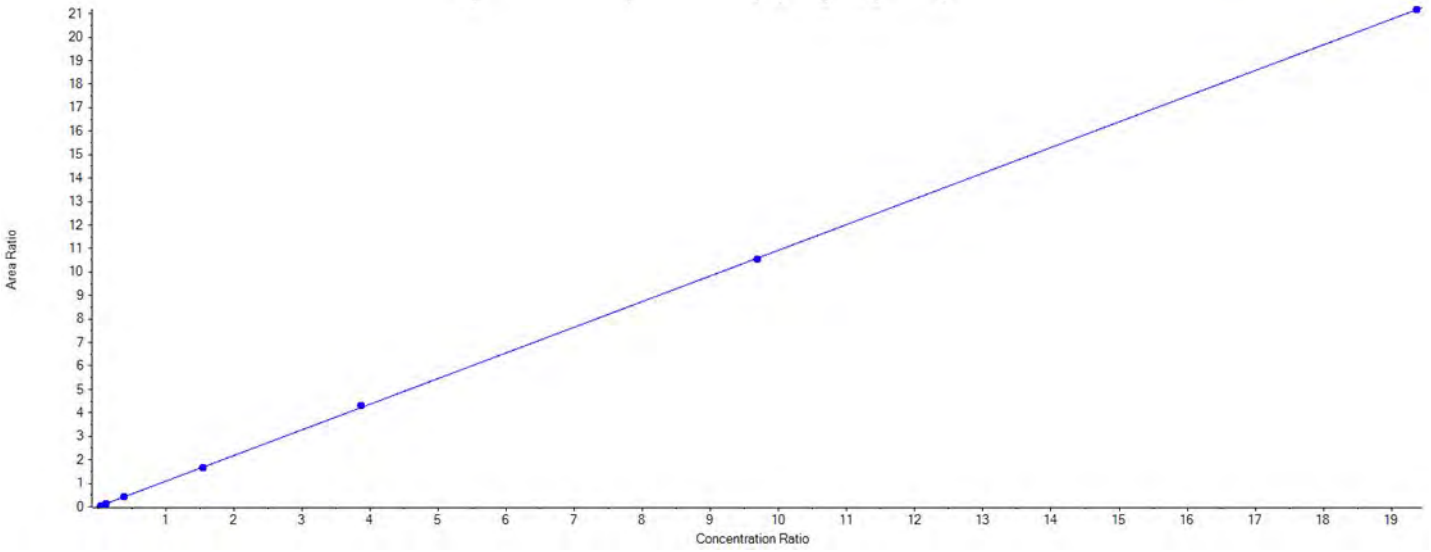
REVIEWED
By ucmr at 3:21 pm, 1/25/19

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV12DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM **Acquisition Method:** 18AUG13_3uL.dam

PFOS

y = 1.09305 x (r = 0.99997) (weighting: 1 / x)



Component Calibration Verification

Sample Name	PFOS Area	S/N	13C8-PFOS Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	13088.5	581.9	283127.433	True	4.78	0.046	5.25	1.000	0.185	0.202	9	30	
CAL2	32301.0	342.7	271778.843	True	4.78	0.119	5.25	1.000	0.555	0.520	-6	30	
CAL3	120897.4	739.8	281035.504	True	4.78	0.430	5.25	1.000	1.850	1.881	2	30	
CAL4	448833.8	1353.6	267380.807	True	4.78	1.679	5.25	1.000	7.400	7.341	-1	30	
CAL5	1147826.8	1190.7	267157.611	True	4.78	4.296	5.24	1.000	18.500	18.789	2	30	
CAL6	2664957.2	1191.1	253129.162	True	4.78	10.528	5.25	1.000	46.300	46.040	-1	30	
CAL7	5138367.0	1123.0	242617.529	True	4.78	21.179	5.24	1.000	92.600	92.617	0	30	

APPROVED
By MCD at 3:23 pm, 1/10/19

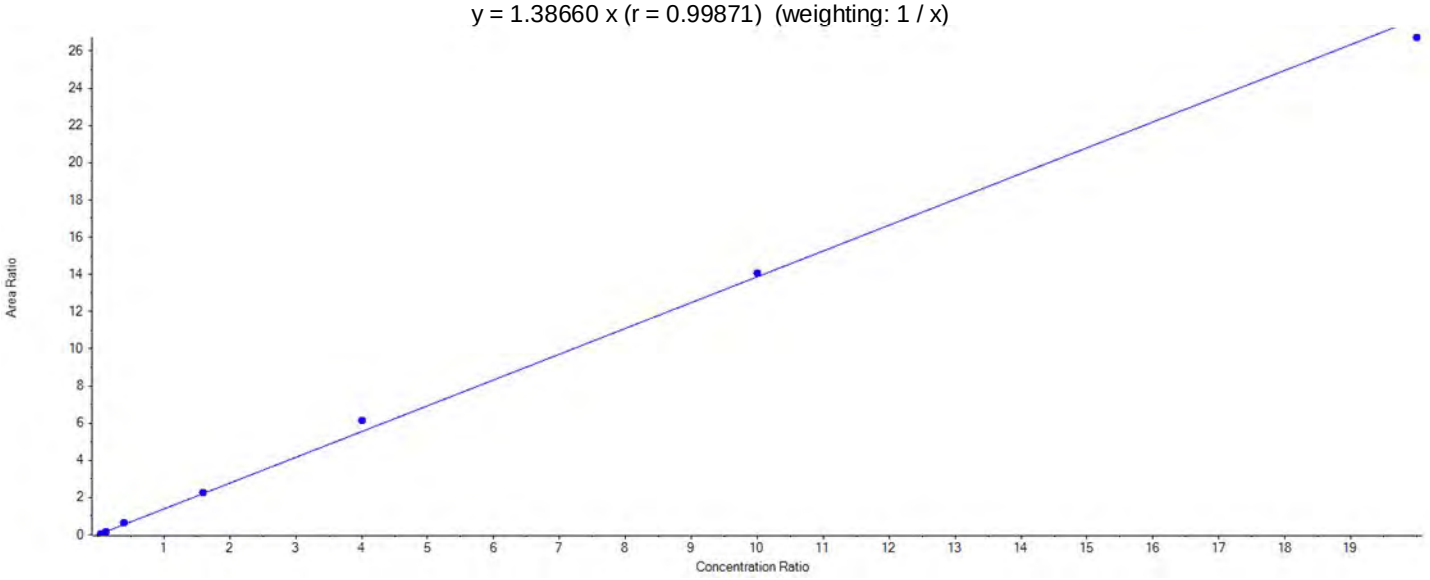
REVIEWED
By ucmr at 3:21 pm, 1/25/19

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV12DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM **Acquisition Method:** 18AUG13_3uL.dam

PFNA

y = 1.38660 x (r = 0.99871) (weighting: 1 / x)



Component Calibration Verification

Sample Name	PFNA Area	S/N	13C9-PFNA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	29660.1	270.7	479931.430	True	5.00	0.062	5.26	1.000	0.200	0.223	11	30	
CAL2	80724.2	537.0	451850.144	True	5.00	0.179	5.27	1.000	0.600	0.644	7	30	
CAL3	302323.8	1252.4	455948.853	True	5.00	0.663	5.27	1.000	2.000	2.391	20	30	
CAL4	1106664.2	1697.5	485570.409	True	5.00	2.279	5.26	1.000	8.000	8.218	3	30	
CAL5	2725089.7	2530.1	441776.750	True	5.00	6.168	5.26	1.000	20.000	22.243	11	30	
CAL6	5820576.6	3024.4	413811.345	True	5.00	14.066	5.27	1.000	50.000	50.720	1	30	
CAL7	10084288.3	3917.9	377369.763	True	5.00	26.723	5.25	1.000	100.000	96.360	-4	30	

APPROVED
By MCD at 3:23 pm, 1/10/19

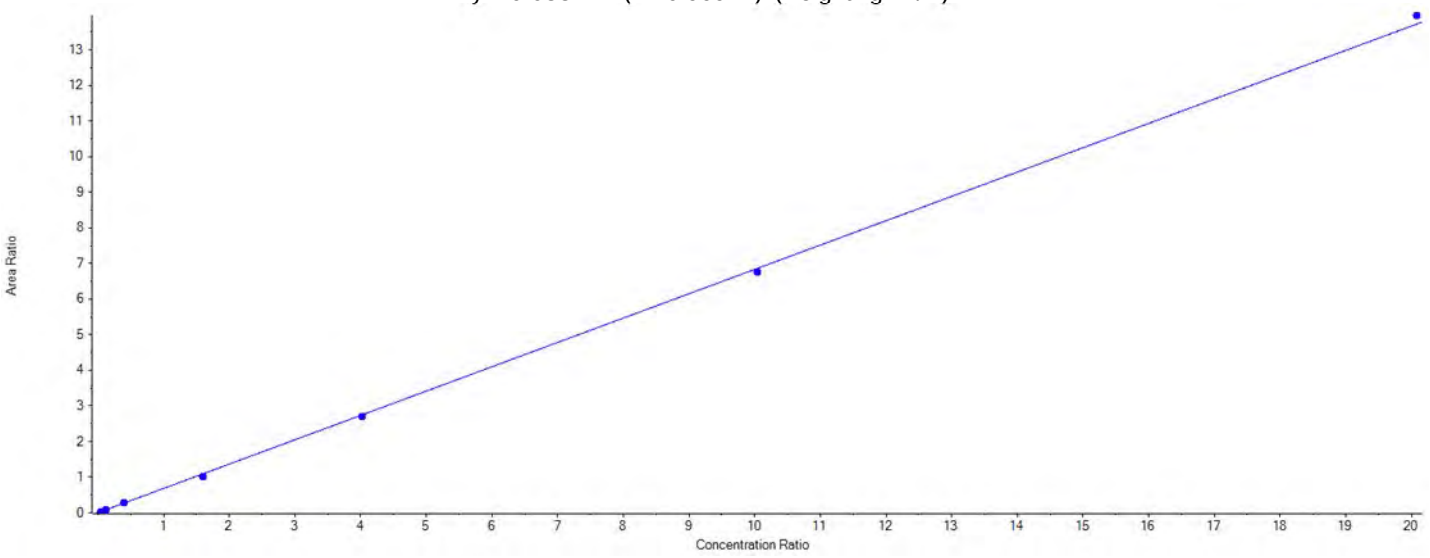
REVIEWED
By ucmr at 3:21 pm, 1/25/19

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV12DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM **Acquisition Method:** 18AUG13_3uL.dam

PFNS

y = 0.68322 x (r = 0.99974) (weighting: 1 / x)



Component Calibration Verification

Sample Name	PFNS Area	S/N	13C8-PFOS Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	6846.6	64175.9	283127.433	True	4.78	0.024	5.54	1.060	0.192	0.169	-12	30	
CAL2	20326.1	1643.1	271778.843	True	4.78	0.075	5.55	1.060	0.576	0.523	-9	30	
CAL3	76049.0	306613.9	281035.504	True	4.78	0.271	5.55	1.060	1.920	1.893	-1	30	
CAL4	269712.3	3708.3	267380.807	True	4.78	1.009	5.54	1.060	7.680	7.057	-8	30	
CAL5	725402.0	3853.5	267157.611	True	4.78	2.715	5.53	1.060	19.200	18.997	-1	30	
CAL6	1709959.4	3115.5	253129.162	True	4.78	6.755	5.55	1.060	48.000	47.262	-2	30	
CAL7	3386860.5	3789.1	242617.529	True	4.78	13.960	5.53	1.060	96.000	97.666	2	30	

APPROVED
By MCD at 3:23 pm, 1/10/19

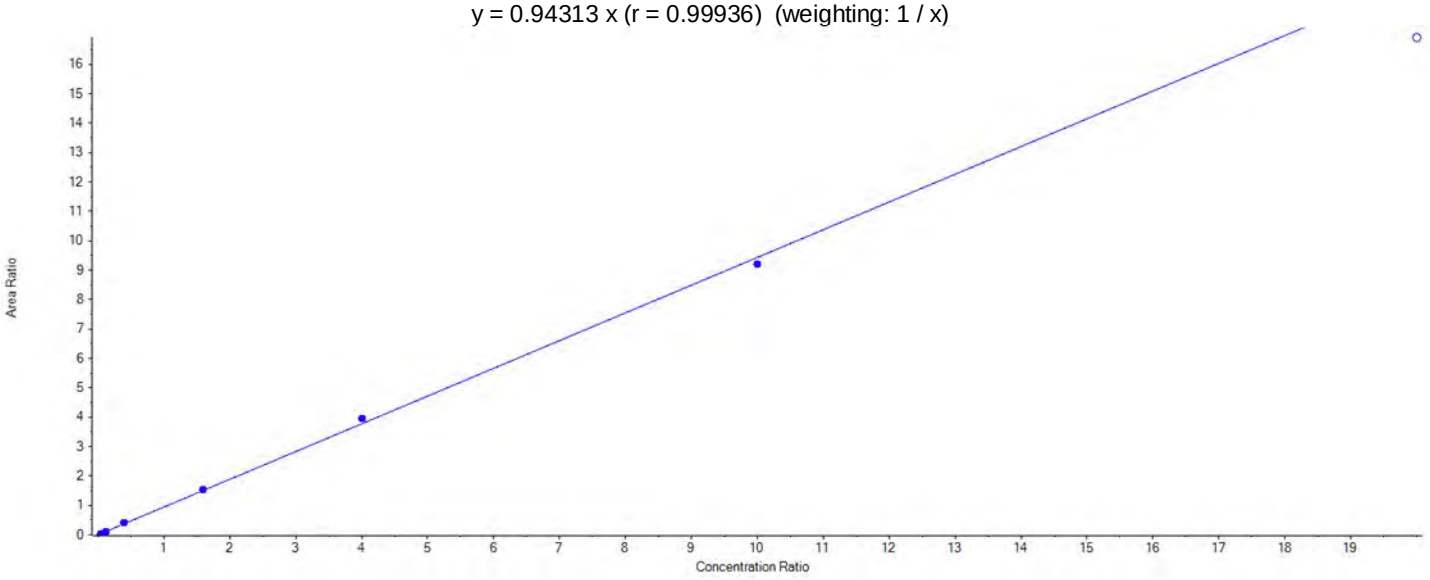
REVIEWED
By ucmr at 3:21 pm, 1/25/19

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV12DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM **Acquisition Method:** 18AUG13_3uL.dam

PFDA

y = 0.94313 x (r = 0.99936) (weighting: 1 / x)



Component Calibration Verification

Sample Name	PFDA Area	S/N	13C6-PFDA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	27488.5	91.3	612577.429	True	5.00	0.045	5.56	1.000	0.200	0.238	19	30	
CAL2	63802.1	156.0	601859.800	True	5.00	0.106	5.57	1.000	0.600	0.562	-6	30	
CAL3	254047.8	380.5	612680.786	True	5.00	0.415	5.57	1.000	2.000	2.198	10	30	
CAL4	941985.3	720.2	612056.466	True	5.00	1.539	5.56	1.000	8.000	8.159	2	30	
CAL5	2309359.5	1113.9	585231.231	True	5.00	3.946	5.56	1.000	20.000	20.920	5	30	
CAL6	4802967.8	1415.3	522613.810	True	5.00	9.190	5.57	1.000	50.000	48.722	-3	30	
CAL7	8104726.6	2024.7	479333.064	False	5.00	16.908	5.55	1.000	100.000	89.640	-10	30	

APPROVED
By MCD at 3:23 pm, 1/10/19

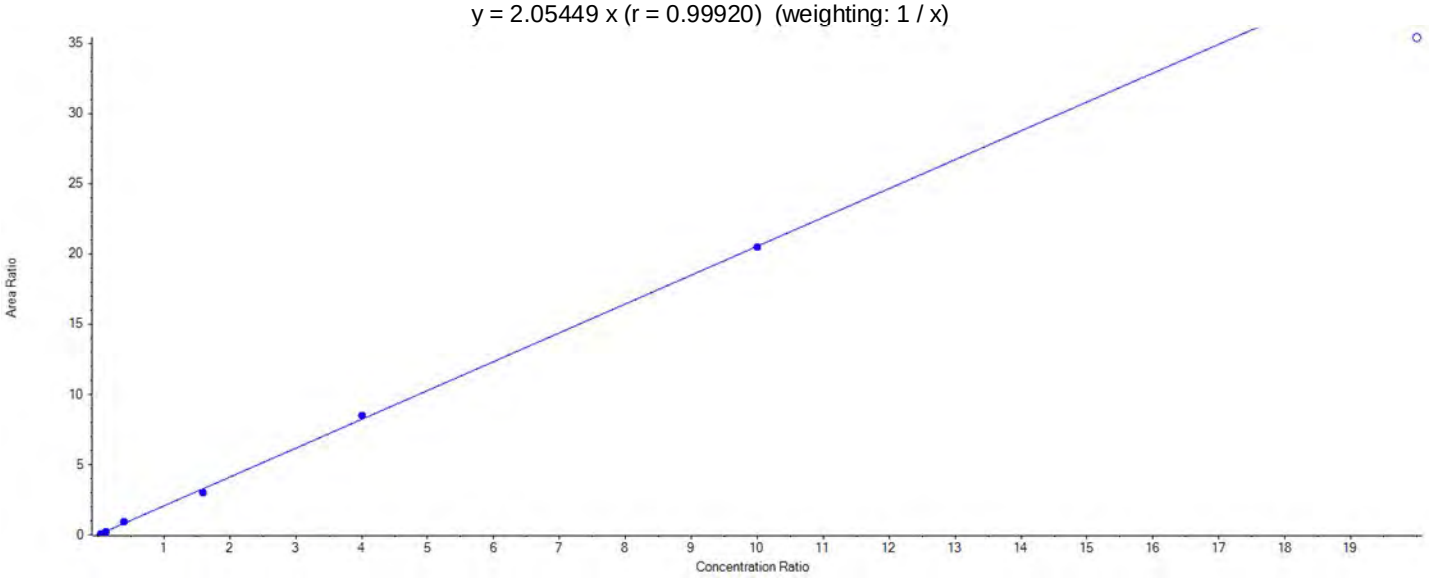
REVIEWED
By ucmr at 3:21 pm, 1/25/19

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV12DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM **Acquisition Method:** 18AUG13_3uL.dam

8:2-FTS

y = 2.05449 x (r = 0.99920) (weighting: 1 / x)



Component Calibration Verification

Sample Name	8:2-FTS Area	S/N	13C2-8:2-FTS Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	2333.1	294799.1	26445.481	True	4.79	0.088	5.57	1.000	0.192	0.206	7	30	
CAL2	6214.2	6270.0	27639.188	True	4.79	0.225	5.57	1.000	0.575	0.524	-9	30	
CAL3	26295.1	17693.1	29249.839	True	4.79	0.899	5.57	1.000	1.920	2.096	9	30	
CAL4	80922.6	6228.9	27253.461	True	4.79	2.969	5.57	1.000	7.660	6.923	-10	30	
CAL5	206213.1	2630.2	24192.138	True	4.79	8.524	5.56	1.000	19.200	19.873	4	30	
CAL6	469719.6	3836.0	22899.000	True	4.79	20.513	5.57	1.000	47.900	47.825	0	30	
CAL7	804019.5	2307.7	22710.952	False	4.79	35.402	5.56	1.000	95.800	82.540	-14	30	

APPROVED
By MCD at 3:23 pm, 1/10/19

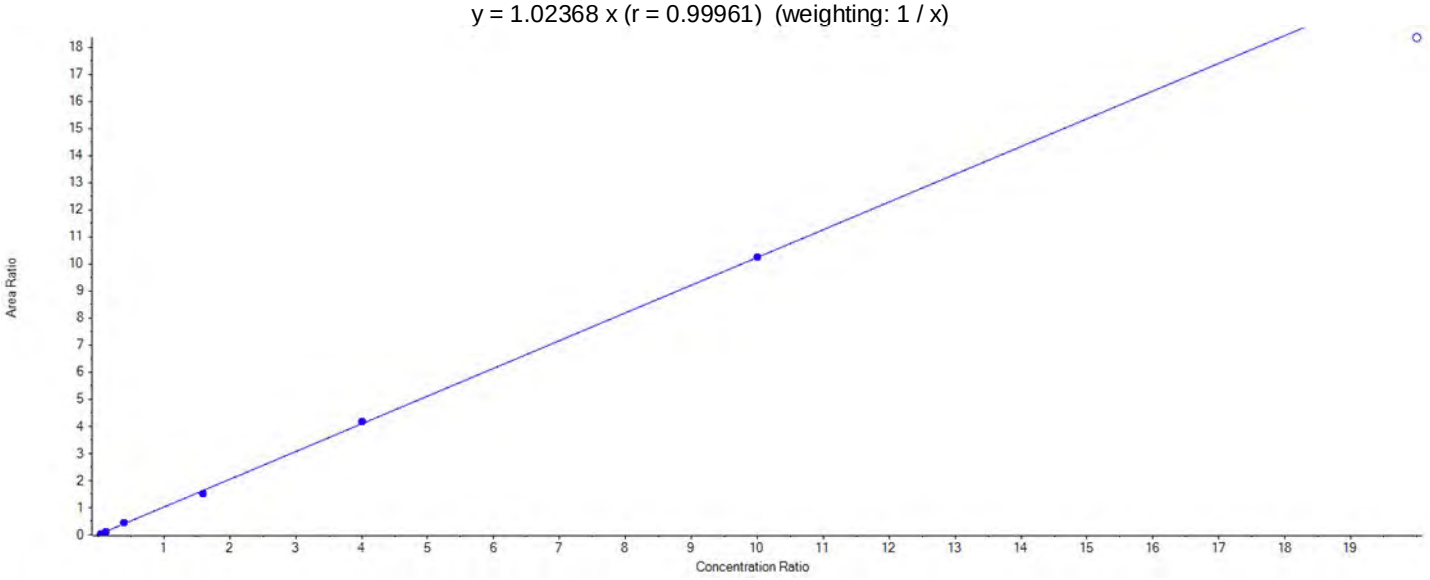
REVIEWED
By ucmr at 3:21 pm, 1/25/19

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV12DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM **Acquisition Method:** 18AUG13_3uL.dam

PFOSA

y = 1.02368 x (r = 0.99961) (weighting: 1 / x)



Component Calibration Verification

Sample Name	PFOSA Area	S/N	13C8-PFOSA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	29582.8	441.0	664489.930	True	5.00	0.045	5.64	1.000	0.200	0.217	9	30	
CAL2	71087.0	726.6	636543.149	True	5.00	0.112	5.65	1.000	0.600	0.545	-9	30	
CAL3	270175.4	1379.9	629109.871	True	5.00	0.429	5.65	1.000	2.000	2.098	5	30	
CAL4	927660.4	2034.5	607762.027	True	5.00	1.526	5.64	1.000	8.000	7.455	-7	30	
CAL5	2498877.9	2082.0	596544.134	True	5.00	4.189	5.64	1.000	20.000	20.460	2	30	
CAL6	5530440.6	2331.7	539992.495	True	5.00	10.242	5.65	1.000	50.000	50.024	0	30	
CAL7	10169176.9	2455.7	554092.642	False	5.00	18.353	5.63	1.000	100.000	89.642	-10	30	

APPROVED
By MCD at 3:23 pm, 1/10/19

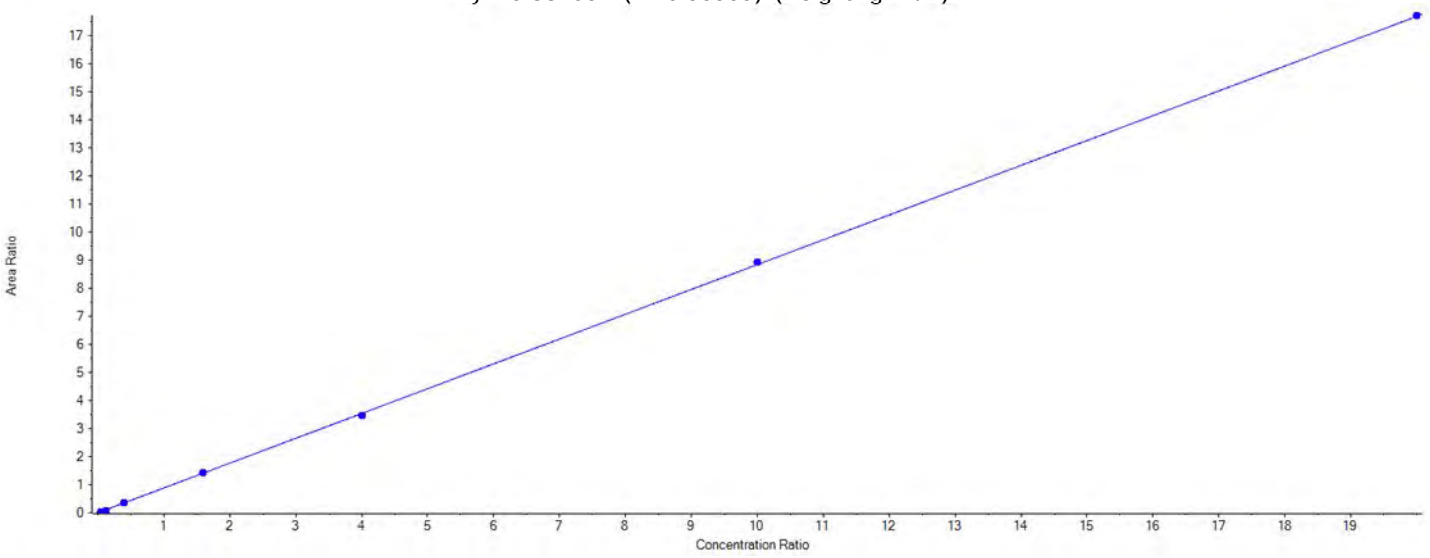
REVIEWED
By ucmr at 3:21 pm, 1/25/19

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV12DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM **Acquisition Method:** 18AUG13_3uL.dam

NMeFOSAA

y = 0.88469 x (r = 0.99990) (weighting: 1 / x)



Component Calibration Verification

Sample Name	NMeFOSAA Area	S/N	d3-NMeFOSAA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	2306.4	597.4	86914.510	True	5.00	0.027	5.71	1.000	0.200	0.150	-25	30	
CAL2	5759.6	226.1	77388.613	True	5.00	0.074	5.71	1.000	0.600	0.421	-30	30	
CAL3	25147.6	632.7	71670.262	True	5.00	0.351	5.71	1.000	2.000	1.983	-1	30	
CAL4	103649.1	37382.5	72788.025	True	5.00	1.424	5.70	1.000	8.000	8.048	1	30	
CAL5	250711.5	2299.0	72424.490	True	5.00	3.462	5.70	1.000	20.000	19.564	-2	30	
CAL6	627854.4	1632.7	70320.259	True	5.00	8.928	5.71	1.000	50.000	50.461	1	30	
CAL7	1191981.7	2314.0	67250.454	True	5.00	17.725	5.69	1.000	100.000	100.173	0	30	

APPROVED
By MCD at 3:23 pm, 1/10/19

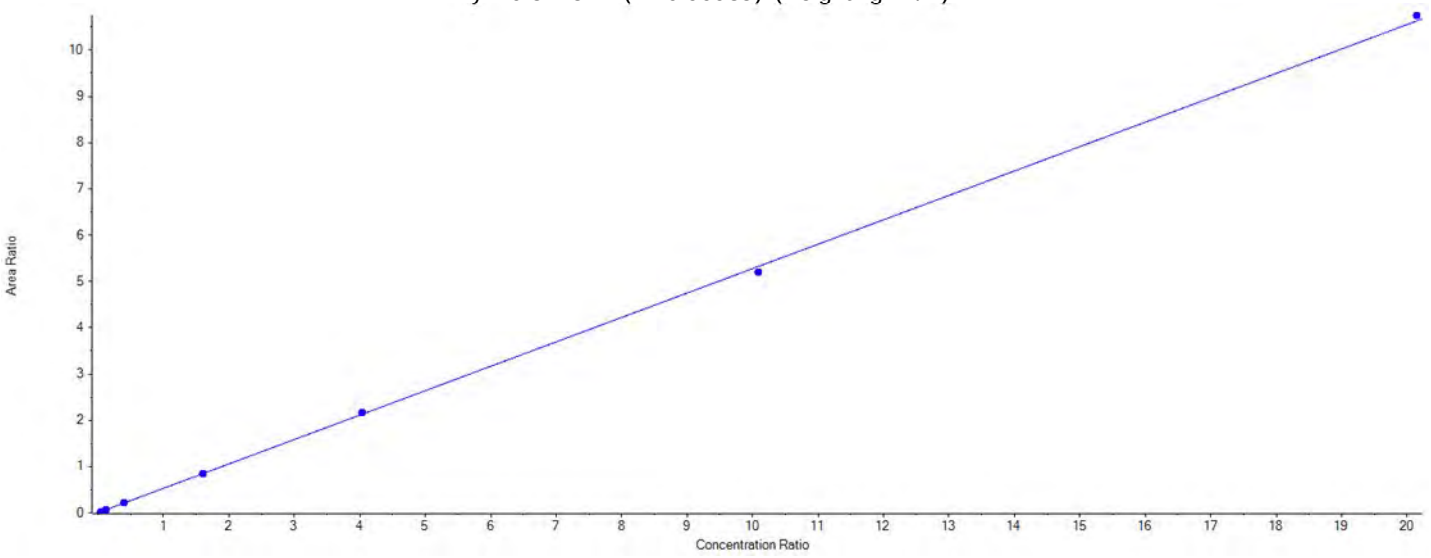
REVIEWED
By ucmr at 3:21 pm, 1/25/19

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV12DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM **Acquisition Method:** 18AUG13_3uL.dam

PFDS

y = 0.52754 x (r = 0.99985) (weighting: 1 / x)



Component Calibration Verification

Sample Name	PFDS Area	S/N	13C8-PFOS Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	5952.2	1142.3	283127.433	True	4.78	0.021	5.80	1.100	0.193	0.190	-1	30	
CAL2	16291.9	12424.6	271778.843	True	4.78	0.060	5.80	1.100	0.578	0.543	-6	30	
CAL3	57966.9	3930335.8	281035.504	True	4.78	0.206	5.80	1.110	1.930	1.869	-3	30	
CAL4	224031.2	2859776.1	267380.807	True	4.78	0.838	5.80	1.110	7.700	7.592	-1	30	
CAL5	578877.5	2392.5	267157.611	True	4.78	2.167	5.79	1.100	19.300	19.633	2	30	
CAL6	1313570.3	3303.1	253129.162	True	4.78	5.189	5.80	1.100	48.200	47.020	-2	30	
CAL7	2606720.7	3557.3	242617.529	True	4.78	10.744	5.79	1.110	96.300	97.353	1	30	

APPROVED
By MCD at 3:23 pm, 1/10/19

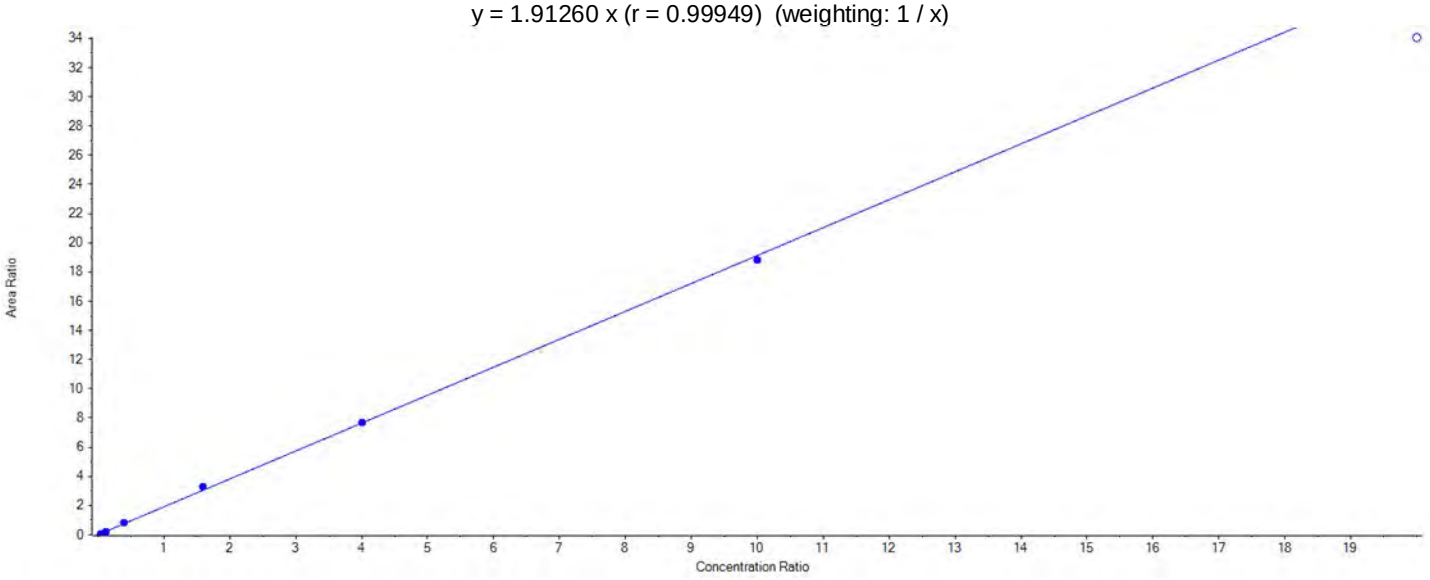
REVIEWED
By ucmr at 3:21 pm, 1/25/19

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV12DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM **Acquisition Method:** 18AUG13_3uL.dam

PFUnDA

y = 1.91260 x (r = 0.99949) (weighting: 1 / x)



Component Calibration Verification

Sample Name	PFUnDA Area	S/N	13C7-PFUnDA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	23379.5	206.2	256401.964	True	5.00	0.091	5.82	1.000	0.200	0.238	19	30	
CAL2	51206.8	285.0	242881.749	True	5.00	0.211	5.83	1.000	0.600	0.551	-8	30	
CAL3	199061.8	846.0	245605.298	True	5.00	0.810	5.83	1.000	2.000	2.119	6	30	
CAL4	768010.8	1510.9	232014.103	True	5.00	3.310	5.82	1.000	8.000	8.654	8	30	
CAL5	1773582.6	2061.6	231187.889	True	5.00	7.672	5.82	1.000	20.000	20.055	0	30	
CAL6	3923979.2	2695.3	208574.106	True	5.00	18.813	5.83	1.000	50.000	49.183	-2	30	
CAL7	6802701.2	3209.1	199746.834	False	5.00	34.057	5.81	1.000	100.000	89.032	-11	30	

APPROVED
By MCD at 3:23 pm, 1/10/19

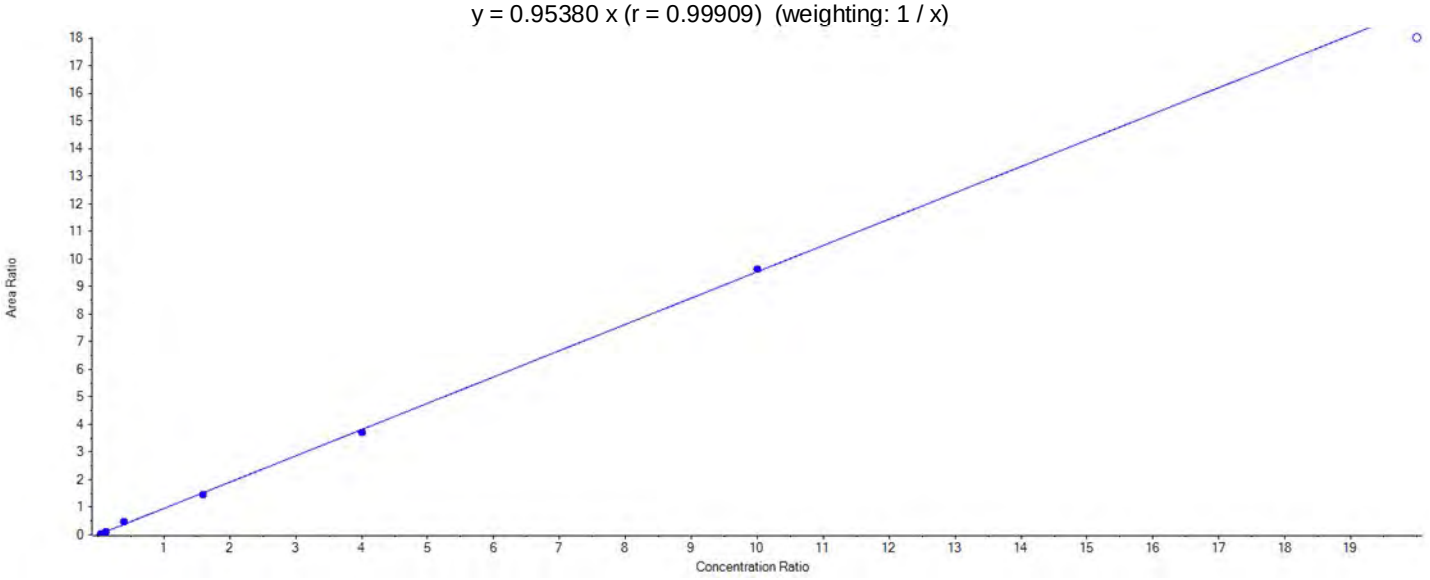
REVIEWED
By ucmr at 3:21 pm, 1/25/19

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV12DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM **Acquisition Method:** 18AUG13_3uL.dam

NEtFOSAA

y = 0.95380 x (r = 0.99909) (weighting: 1 / x)



Component Calibration Verification

Sample Name	NEtFOSAA Area	S/N	d5-NEtFOSAA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	2284.9	20256.7	80597.244	True	5.00	0.028	5.85	1.000	0.200	0.149	-26	30	
CAL2	7727.1	209.6	63686.933	True	5.00	0.121	5.85	1.000	0.600	0.636	6	30	
CAL3	25089.0	97.0	54383.911	True	5.00	0.461	5.84	1.000	2.000	2.418	21	30	
CAL4	94877.8	20462.7	65477.959	True	5.00	1.449	5.84	1.000	8.000	7.596	-5	30	
CAL5	237197.2	1311.0	63701.688	True	5.00	3.724	5.83	1.000	20.000	19.520	-2	30	
CAL6	551865.7	1762.3	57308.081	True	5.00	9.630	5.84	1.000	50.000	50.481	1	30	
CAL7	1046636.1	1311.5	58049.489	False	5.00	18.030	5.83	1.000	100.000	94.517	-5	30	

APPROVED
By MCD at 3:23 pm, 1/10/19

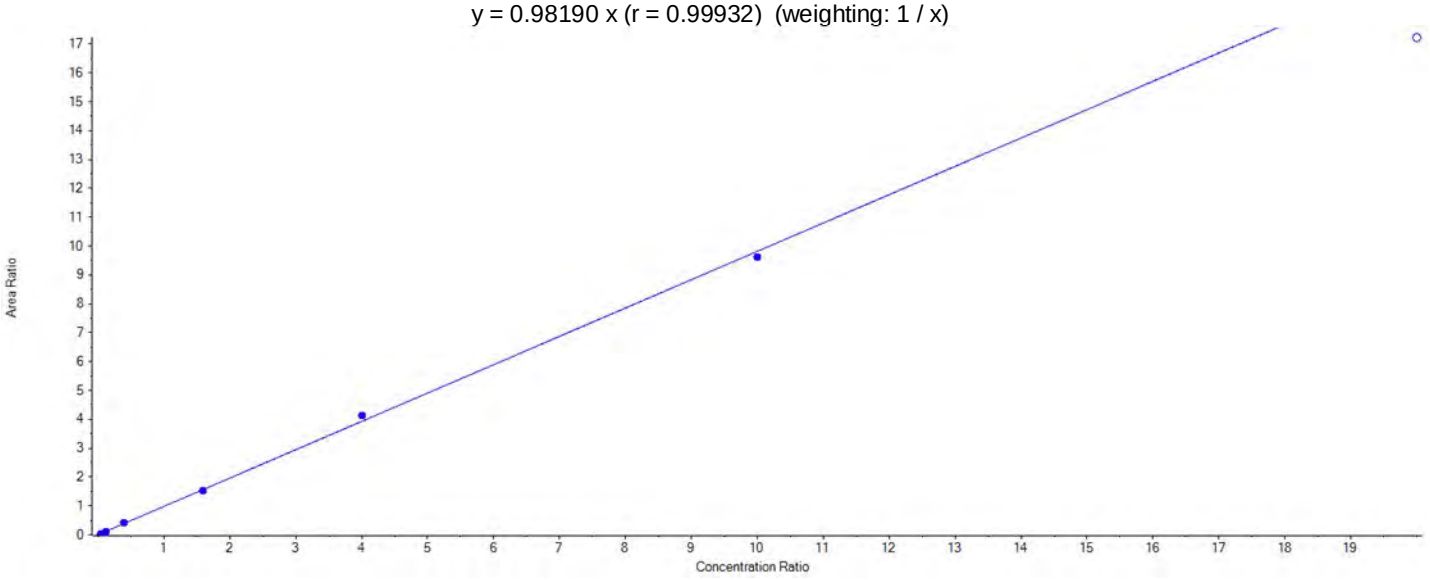
REVIEWED
By ucmr at 3:21 pm, 1/25/19

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV12DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM **Acquisition Method:** 18AUG13_3uL.dam

PFDoDA

y = 0.98190 x (r = 0.99932) (weighting: 1 / x)



Component Calibration Verification

Sample Name	PFDoDA Area	S/N	13C2-PFDoDA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	22143.6	430.3	545413.193	True	5.00	0.041	6.05	1.000	0.200	0.207	3	30	
CAL2	59695.2	467.4	532175.345	True	5.00	0.112	6.06	1.000	0.600	0.571	-5	30	
CAL3	237252.6	1192.0	549542.276	True	5.00	0.432	6.06	1.000	2.000	2.198	10	30	
CAL4	803646.8	1372.0	521514.091	True	5.00	1.541	6.05	1.000	8.000	7.847	-2	30	
CAL5	2099385.0	2645.1	507556.819	True	5.00	4.136	6.04	1.000	20.000	21.062	5	30	
CAL6	4582985.5	2623.0	477105.492	True	5.00	9.606	6.06	1.000	50.000	48.914	-2	30	
CAL7	8171355.3	3494.7	474393.787	False	5.00	17.225	6.04	1.000	100.000	87.711	-12	30	

APPROVED
By MCD at 3:23 pm, 1/10/19

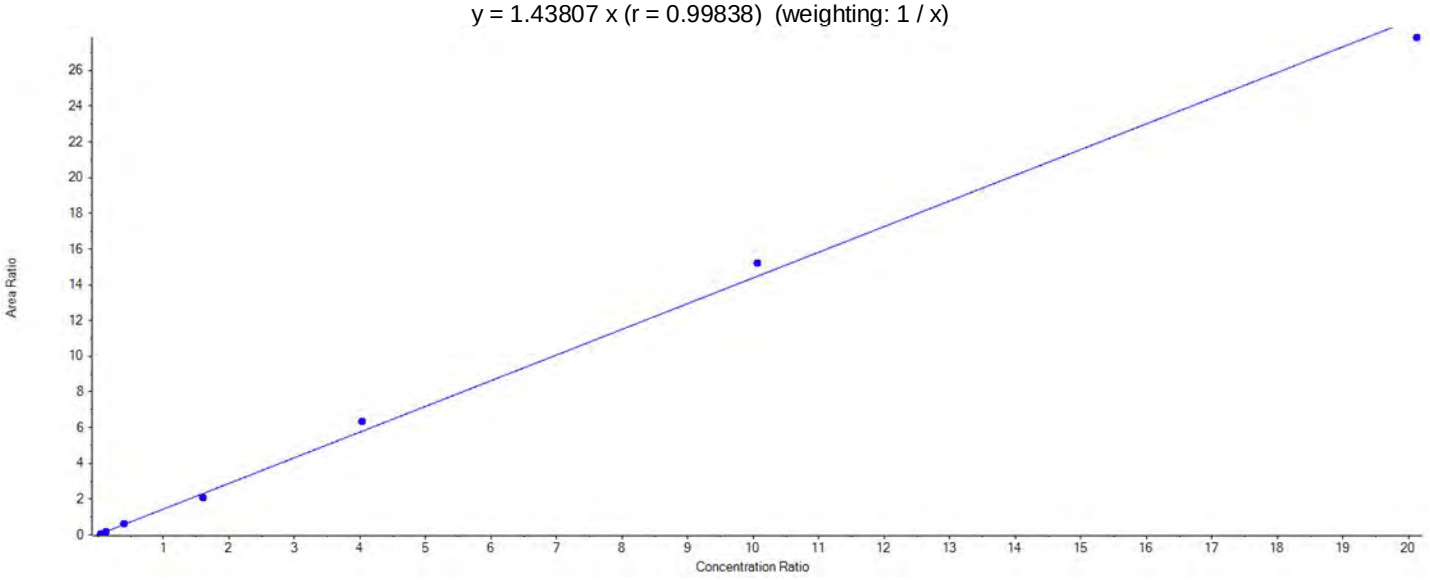
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By ucmr at 3:21 pm, 1/25/19

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV12DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM **Acquisition Method:** 18AUG13_3uL.dam

10:2-FTS

y = 1.43807 x (r = 0.99838) (weighting: 1 / x)



Component Calibration Verification

Sample Name	10:2-FTS Area	S/N	13C2-8:2-FTS Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	1814.2	3265.8	26445.481	True	4.79	0.069	6.07	1.090	0.193	0.229	18	30	
CAL2	5206.5	6837.3	27639.188	True	4.79	0.188	6.08	1.090	0.578	0.627	9	30	
CAL3	18541.7	12580.7	29249.839	True	4.79	0.634	6.07	1.090	1.930	2.111	9	30	
CAL4	56040.8	5520.1	27253.461	True	4.79	2.056	6.07	1.090	7.710	6.849	-11	30	
CAL5	153343.6	2460.5	24192.138	True	4.79	6.339	6.06	1.090	19.300	21.113	9	30	
CAL6	348263.2	3159.4	22899.000	True	4.79	15.209	6.07	1.090	48.200	50.658	5	30	
CAL7	632223.7	3215.8	22710.952	True	4.79	27.838	6.06	1.090	96.400	92.724	-4	30	

APPROVED
By MCD at 3:23 pm, 1/10/19

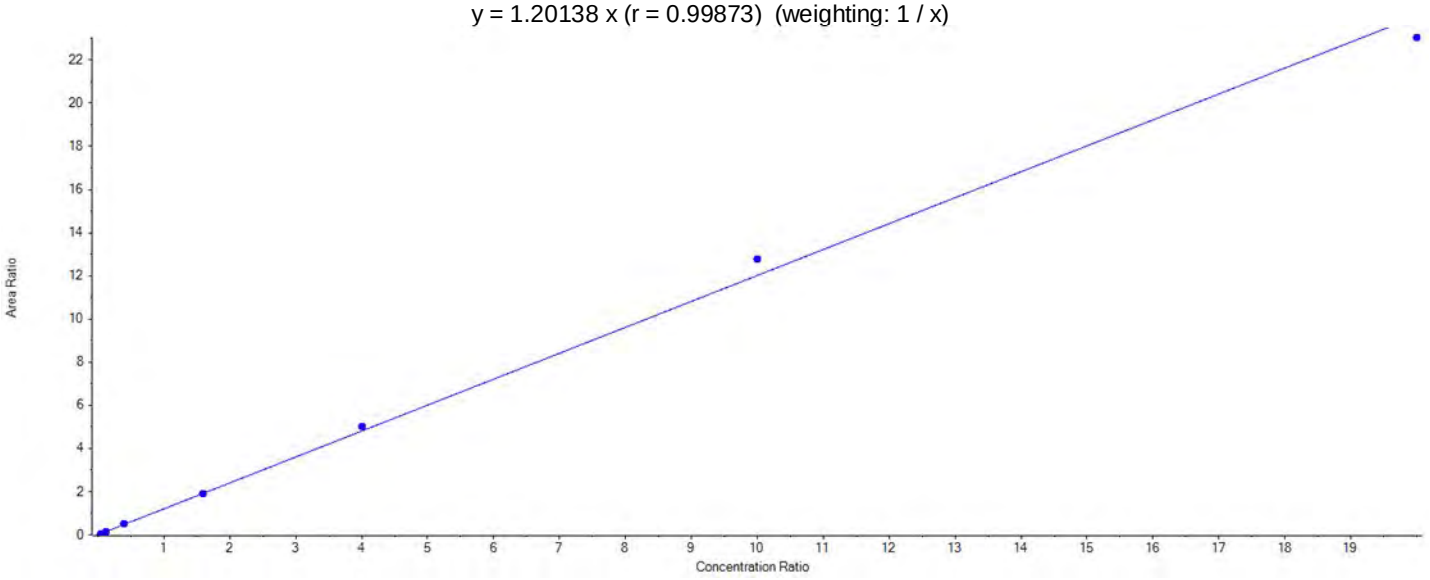
REVIEWED
By ucmr at 3:21 pm, 1/25/19

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV12DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM **Acquisition Method:** 18AUG13_3uL.dam

NMePFOSAE

y = 1.20138 x (r = 0.99873) (weighting: 1 / x)



Component Calibration Verification

Sample Name	NMePFOSAE Area	S/N	d7-NMePFOSAE Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	18013.9	109.4	349854.469	True	5.00	0.051	6.10	1.000	0.200	0.214	7	30	
CAL2	43085.1	193.1	323456.508	True	5.00	0.133	6.10	1.000	0.600	0.554	-8	30	
CAL3	163668.7	409.2	307355.434	True	5.00	0.533	6.10	1.000	2.000	2.216	11	30	
CAL4	618314.4	740.2	327796.394	True	5.00	1.886	6.10	1.000	8.000	7.850	-2	30	
CAL5	1590507.1	975.1	316777.819	True	5.00	5.021	6.09	1.000	20.000	20.896	4	30	
CAL6	3484588.8	1388.9	272638.968	True	5.00	12.781	6.10	1.000	50.000	53.193	6	30	
CAL7	6272486.3	1388.0	272283.142	True	5.00	23.037	6.09	1.000	100.000	95.876	-4	30	

APPROVED
By MCD at 3:23 pm, 1/10/19

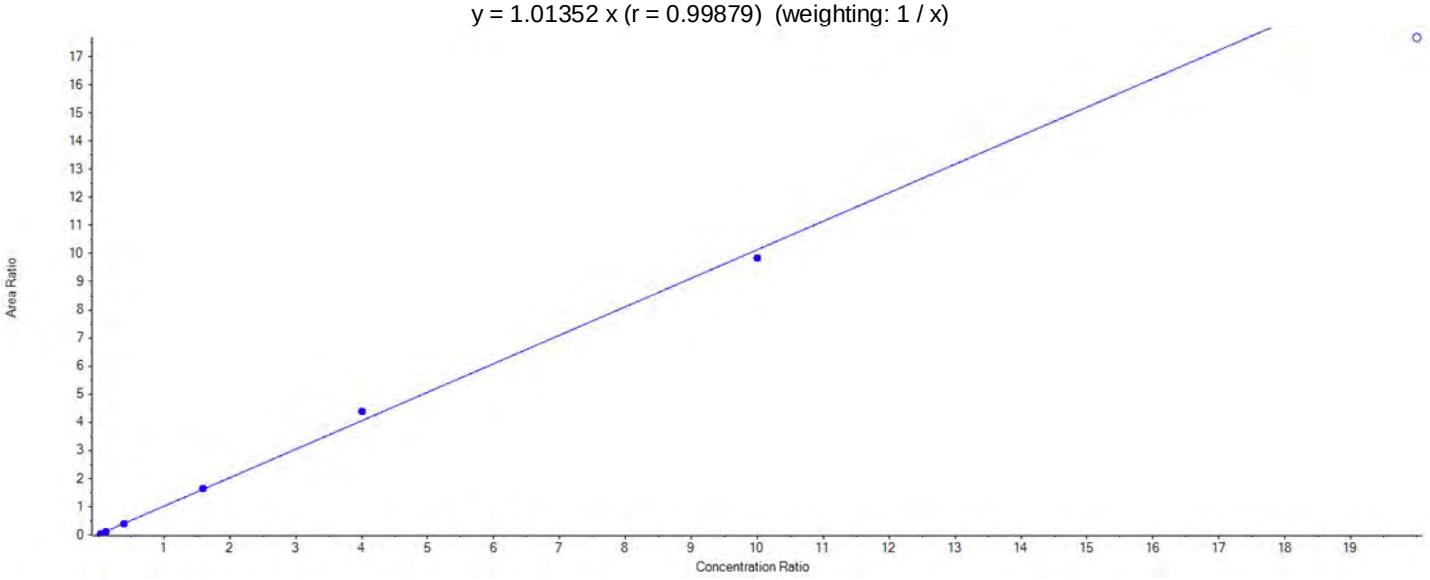
REVIEWED
By ucmr at 3:21 pm, 1/25/19

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV12DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM **Acquisition Method:** 18AUG13_3uL.dam

NMePFOSA

y = 1.01352 x (r = 0.99879) (weighting: 1 / x)



Component Calibration Verification

Sample Name	NMePFOSA Area	S/N	d3-NMePFOSA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	2376.3	153.9	78396.495	True	5.00	0.030	6.11	1.000	0.200	0.150	-25	30	
CAL2	8877.7	472.1	77893.238	True	5.00	0.114	6.11	1.000	0.600	0.562	-6	30	
CAL3	29934.3	447.4	76782.886	True	5.00	0.390	6.11	1.000	2.000	1.923	-4	30	
CAL4	114415.9	890.1	70122.473	True	5.00	1.632	6.10	1.000	8.000	8.049	1	30	
CAL5	300855.7	937.9	68615.664	True	5.00	4.385	6.10	1.000	20.000	21.631	8	30	
CAL6	670429.6	1054.0	68215.937	True	5.00	9.828	6.11	1.000	50.000	48.485	-3	30	
CAL7	1310162.9	1043.5	74110.295	False	5.00	17.679	6.09	1.000	100.000	87.214	-13	30	

APPROVED
By MCD at 3:23 pm, 1/10/19

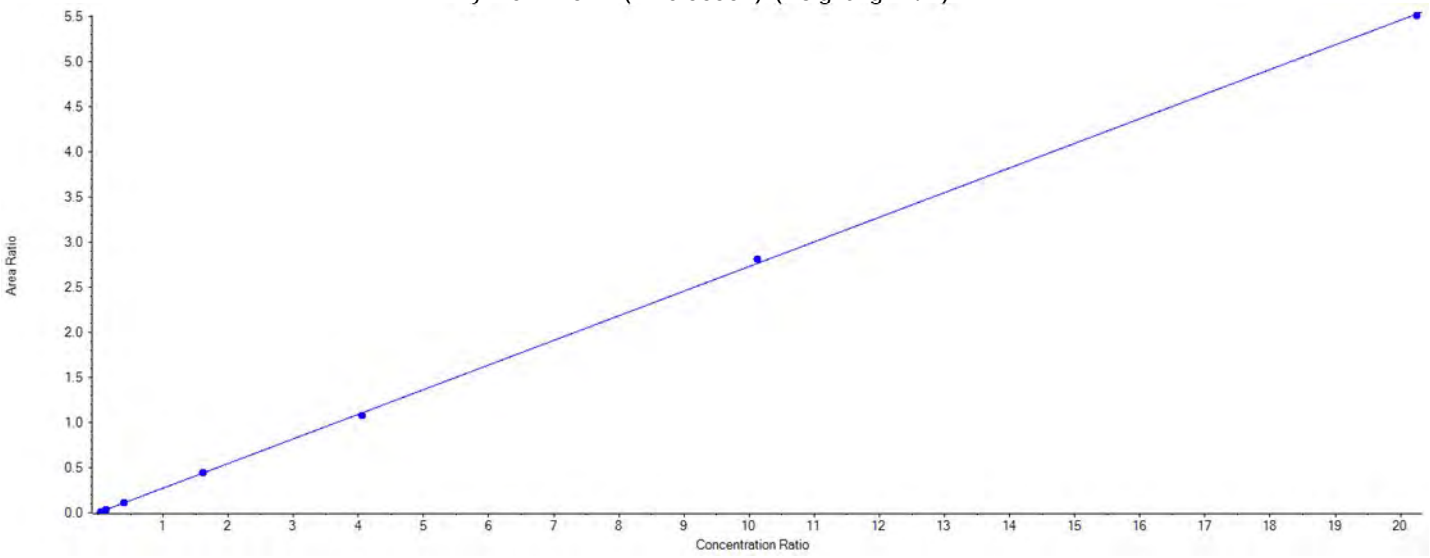
REVIEWED
By ucmr at 3:21 pm, 1/25/19

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV12DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM **Acquisition Method:** 18AUG13_3uL.dam

PFDoS

y = 0.27292 x (r = 0.99991) (weighting: 1 / x)



Component Calibration Verification

Sample Name	PFDoS Area	S/N	13C8-PFOS Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	3520.9	58335.2	283127.433	True	4.78	0.012	6.22	1.190	0.194	0.218	12	30	
CAL2	8992.5	12149.3	271778.843	True	4.78	0.033	6.22	1.190	0.581	0.580	0	30	
CAL3	30098.3	137145.7	281035.504	True	4.78	0.107	6.23	1.190	1.940	1.876	-3	30	
CAL4	117663.3	1376.2	267380.807	True	4.78	0.440	6.22	1.190	7.740	7.707	0	30	
CAL5	288905.1	1660.8	267157.611	True	4.78	1.081	6.21	1.190	19.400	18.940	-2	30	
CAL6	711567.5	2275.7	253129.162	True	4.78	2.811	6.23	1.190	48.400	49.234	2	30	
CAL7	1336765.3	3028.7	242617.529	True	4.78	5.510	6.21	1.190	96.800	96.500	0	30	

APPROVED
By MCD at 3:23 pm, 1/10/19

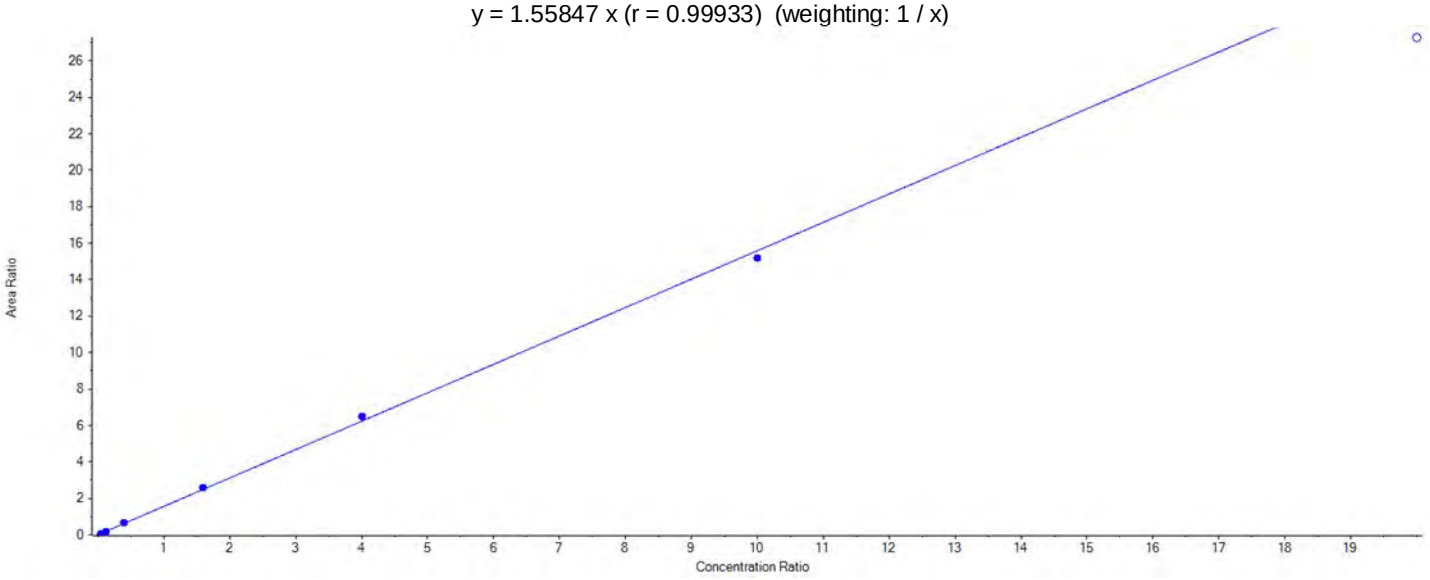
REVIEWED
By ucmr at 3:21 pm, 1/25/19

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV12DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM **Acquisition Method:** 18AUG13_3uL.dam

NEtPFOSAE

y = 1.55847 x (r = 0.99933) (weighting: 1 / x)



Component Calibration Verification

Sample Name	NEtPFOSAE Area	S/N	d9-NEtPFOSAE Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	21005.9	119.5	280311.617	True	5.00	0.075	6.26	1.000	0.200	0.240	20	30	
CAL2	46623.3	205.6	261195.607	True	5.00	0.178	6.26	1.000	0.600	0.573	-5	30	
CAL3	178457.8	320.7	259792.277	True	5.00	0.687	6.26	1.000	2.000	2.204	10	30	
CAL4	673196.1	592.1	259467.367	True	5.00	2.595	6.25	1.000	8.000	8.324	4	30	
CAL5	1660562.6	810.5	255767.749	True	5.00	6.492	6.25	1.000	20.000	20.830	4	30	
CAL6	3677006.6	1204.8	242587.535	True	5.00	15.157	6.26	1.000	50.000	48.629	-3	30	
CAL7	6557402.5	1093.9	240346.474	False	5.00	27.283	6.25	1.000	100.000	87.532	-12	30	

APPROVED
By MCD at 3:23 pm, 1/10/19

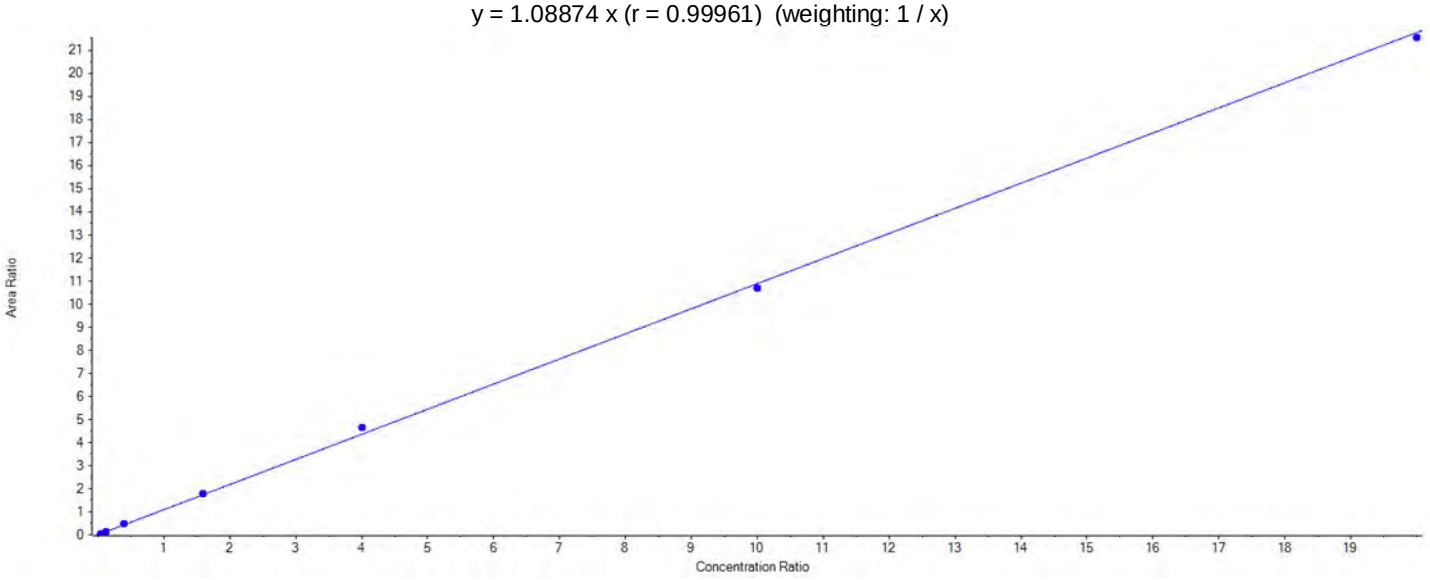
REVIEWED
By ucmr at 3:21 pm, 1/25/19

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV12DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM **Acquisition Method:** 18AUG13_3uL.dam

NEtPFOSA

y = 1.08874 x (r = 0.99961) (weighting: 1 / x)



Component Calibration Verification

Sample Name	NEtPFOSA Area	S/N	d5-NEtPFOSA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	2846.2	154.5	63047.063	True	5.00	0.045	6.27	1.000	0.200	0.207	4	30	
CAL2	8053.7	439.3	58073.450	True	5.00	0.139	6.27	1.000	0.600	0.637	6	30	
CAL3	26590.2	407.4	57485.886	True	5.00	0.463	6.27	1.000	2.000	2.124	6	30	
CAL4	99354.1	862.8	55177.273	True	5.00	1.801	6.27	1.000	8.000	8.269	3	30	
CAL5	258300.3	1044.0	55378.447	True	5.00	4.664	6.26	1.000	20.000	21.421	7	30	
CAL6	599280.4	865.2	56004.042	True	5.00	10.701	6.27	1.000	50.000	49.142	-2	30	
CAL7	1148933.0	1266.7	53297.846	True	5.00	21.557	6.26	1.000	100.000	98.999	-1	30	

APPROVED
By MCD at 3:23 pm, 1/10/19

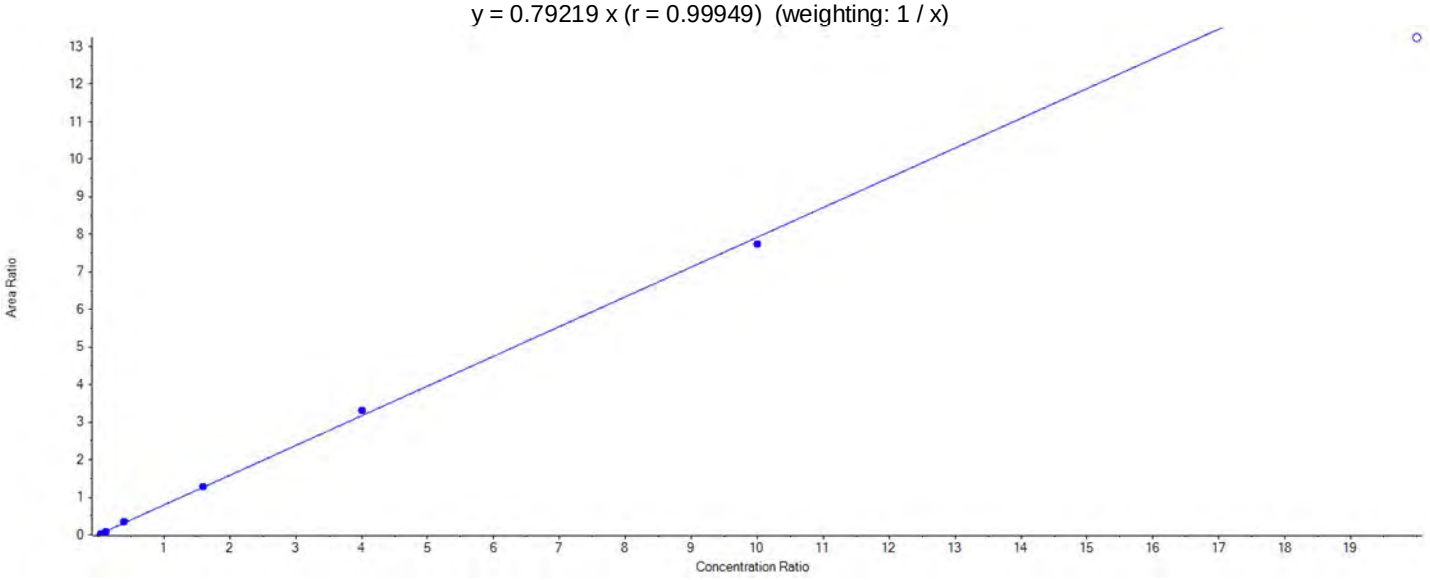
REVIEWED
By ucmr at 3:21 pm, 1/25/19

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV12DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM **Acquisition Method:** 18AUG13_3uL.dam

PFTrDA

y = 0.79219 x (r = 0.99949) (weighting: 1 / x)



Component Calibration Verification

Sample Name	PFTrDA Area	S/N	13C2-PFDoDA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	20185.1	68.6	545413.193	True	5.00	0.037	6.25	1.030	0.200	0.234	17	30	
CAL2	47991.3	109.2	532175.345	True	5.00	0.090	6.26	1.030	0.600	0.569	-5	30	
CAL3	184322.9	257.3	549542.276	True	5.00	0.335	6.26	1.030	2.000	2.117	6	30	
CAL4	674140.3	350.0	521514.091	True	5.00	1.293	6.25	1.030	8.000	8.159	2	30	
CAL5	1679407.2	589.3	507556.819	True	5.00	3.309	6.24	1.030	20.000	20.884	4	30	
CAL6	3691733.8	935.9	477105.492	True	5.00	7.738	6.26	1.030	50.000	48.838	-2	30	
CAL7	6281239.0	1061.9	474393.787	False	5.00	13.241	6.24	1.030	100.000	83.569	-16	30	

APPROVED
By MCD at 3:23 pm, 1/10/19

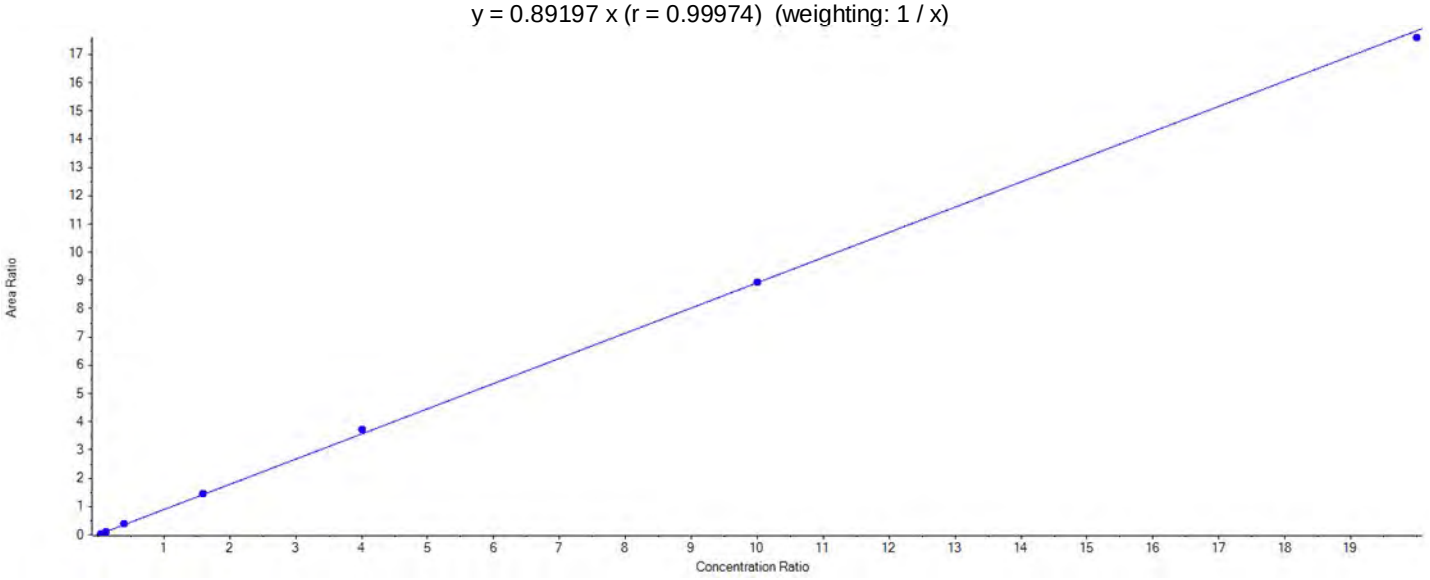
REVIEWED
By ucmr at 3:21 pm, 1/25/19

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV12DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM **Acquisition Method:** 18AUG13_3uL.dam

PFTeDA

y = 0.89197 x (r = 0.99974) (weighting: 1 / x)



Component Calibration Verification

Sample Name	PFTeDA Area	S/N	13C2-PFTeDA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	16357.5	210.0	410633.036	True	5.00	0.040	6.43	1.000	0.200	0.223	12	30	
CAL2	40236.5	281.3	394146.239	True	5.00	0.102	6.43	1.000	0.600	0.572	-5	30	
CAL3	156439.9	700.6	393544.938	True	5.00	0.398	6.43	1.000	2.000	2.228	11	30	
CAL4	571926.7	1105.3	392356.634	True	5.00	1.458	6.43	1.000	8.000	8.171	2	30	
CAL5	1418276.7	1705.5	379571.560	True	5.00	3.737	6.42	1.000	20.000	20.945	5	30	
CAL6	3149020.2	2109.2	352892.214	True	5.00	8.923	6.43	1.000	50.000	50.021	0	30	
CAL7	6092875.7	2023.1	346256.589	True	5.00	17.596	6.42	1.000	100.000	98.638	-1	30	

APPROVED
By MCD at 3:23 pm, 1/10/19

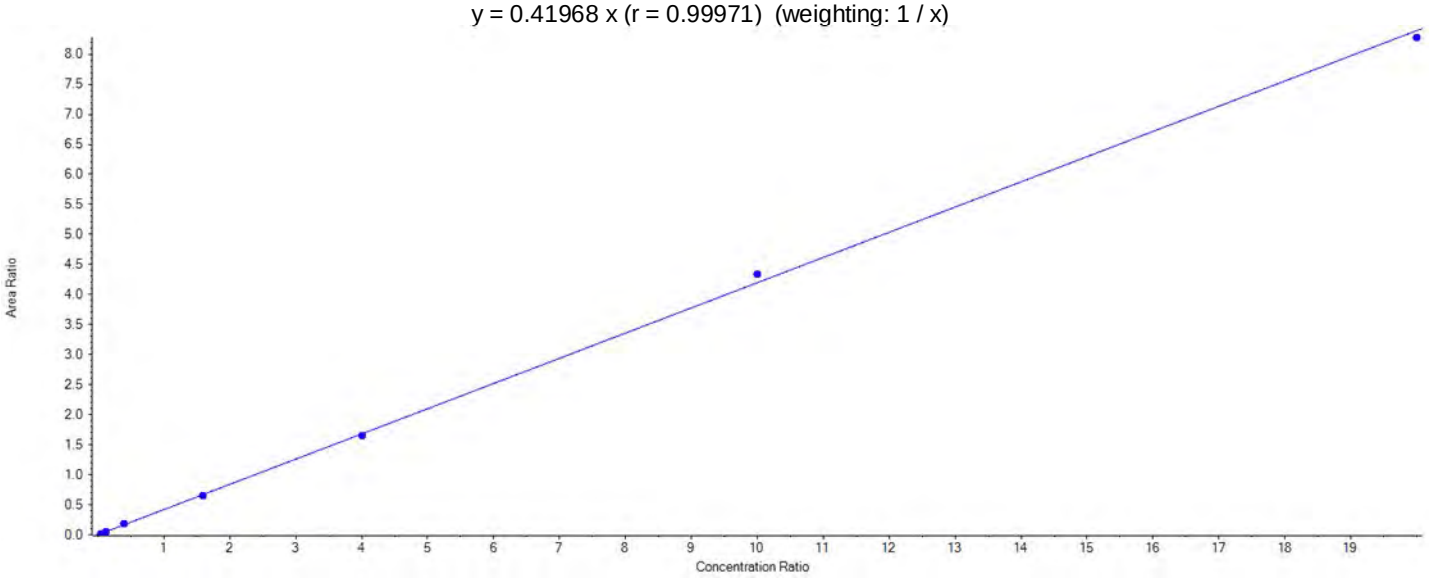
REVIEWED
By ucmr at 3:21 pm, 1/25/19

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV12DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM **Acquisition Method:** 18AUG13_3uL.dam

PFHxDA

y = 0.41968 x (r = 0.99971) (weighting: 1 / x)



Component Calibration Verification

Sample Name	PFHxDA Area	S/N	13C2-PFTeDA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	7976.0	221.5	410633.036	True	5.00	0.019	6.73	1.050	0.200	0.231	16	30	
CAL2	19006.4	621.9	394146.239	True	5.00	0.048	6.74	1.050	0.600	0.575	-4	30	
CAL3	69655.1	986.8	393544.938	True	5.00	0.177	6.74	1.050	2.000	2.109	5	30	
CAL4	256654.3	1362.8	392356.634	True	5.00	0.654	6.73	1.050	8.000	7.793	-3	30	
CAL5	627350.7	1919.3	379571.560	True	5.00	1.653	6.72	1.050	20.000	19.691	-2	30	
CAL6	1533920.2	4020.8	352892.214	True	5.00	4.347	6.74	1.050	50.000	51.786	4	30	
CAL7	2866097.3	3342.9	346256.589	True	5.00	8.277	6.72	1.050	100.000	98.615	-1	30	

APPROVED
By MCD at 3:23 pm, 1/10/19

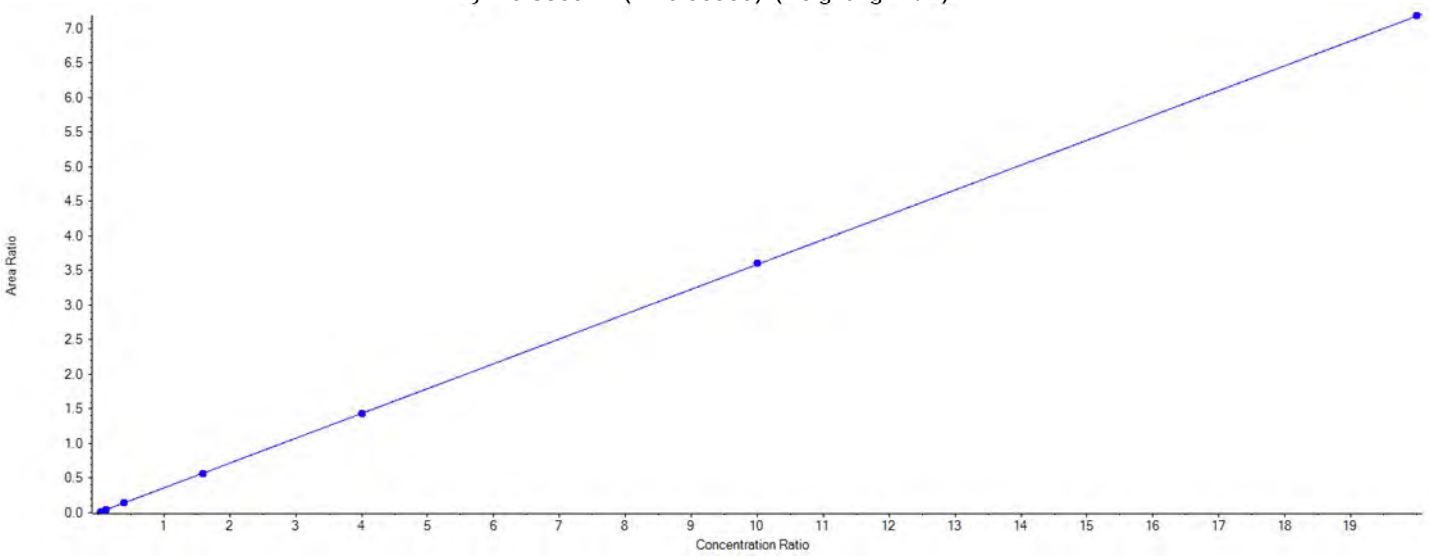
REVIEWED
By ucmr at 3:21 pm, 1/25/19

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV12DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM **Acquisition Method:** 18AUG13_3uL.dam

PFODA

y = 0.35901 x (r = 0.99996) (weighting: 1 / x)



Component Calibration Verification

Sample Name	PFODA Area	S/N	13C2-PFTeDA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	6020.3	470.6	410633.036	True	5.00	0.015	7.00	1.090	0.200	0.204	2	30	
CAL2	14955.6	635.0	394146.239	True	5.00	0.038	7.00	1.090	0.600	0.528	-12	30	
CAL3	57796.0	1304.8	393544.938	True	5.00	0.147	7.00	1.090	2.000	2.045	2	30	
CAL4	219359.6	2291.9	392356.634	True	5.00	0.559	6.99	1.090	8.000	7.786	-3	30	
CAL5	544296.5	2946.8	379571.560	True	5.00	1.434	6.98	1.090	20.000	19.971	0	30	
CAL6	1270897.6	3196.4	352892.214	True	5.00	3.601	7.00	1.090	50.000	50.157	0	30	
CAL7	2488863.6	3668.3	346256.589	True	5.00	7.188	6.98	1.090	100.000	100.107	0	30	

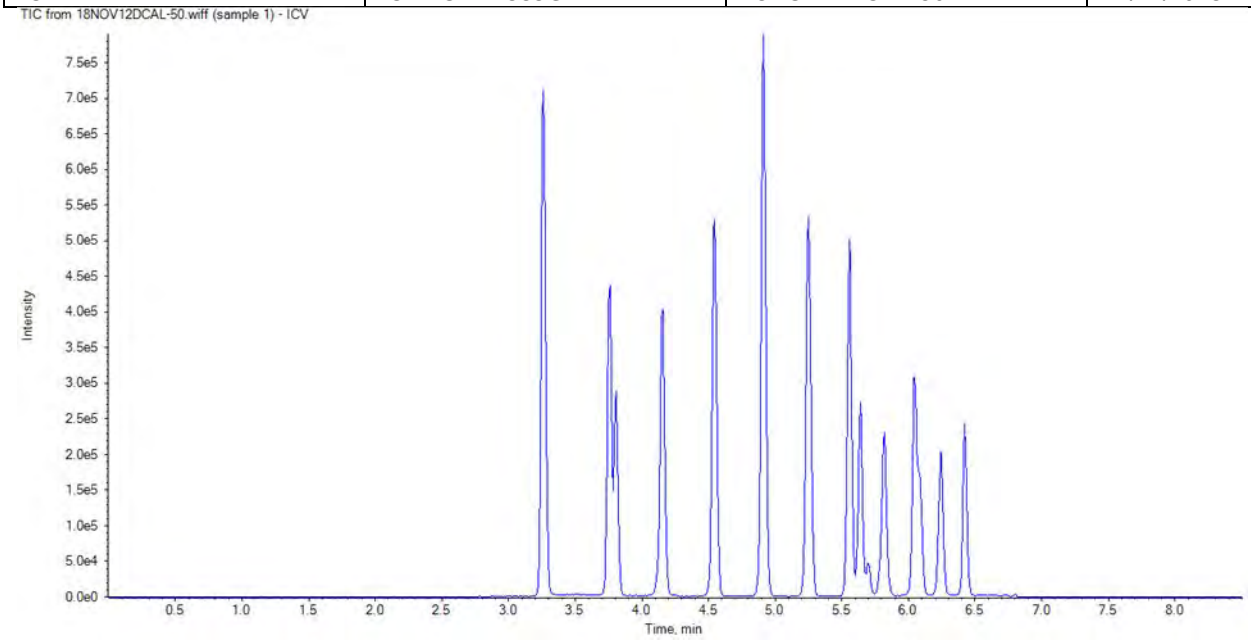
APPROVED
By MCD at 3:23 pm, 1/10/19

REVIEWED
By ucmr at 3:21 pm, 1/25/19

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV12DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM **Acquisition Method:** 18AUG13_3uL.dam

Sample Name	Sample ID:	Sample File:	Acquisition Date:
ICV	ICVMODX1833G	18NOV12DCAL-50.wiff	11/12/2018 4:18:11 PM



Injection Standard Name	Inj Std Conc	Injection Std Peak Area	CAL3 Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.000	655209.3	659926.2	-0.7	50	
13C2-PFOA	5.000	452726.2	450219.7	0.6	50	
13C4-PFOS	4.780	253010.3	249205.8	1.5	50	
13C2-PFDA	5.000	277002.7	278743.9	-0.6	50	

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV12DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM **Acquisition Method:** 18AUG13_3uL.dam

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV12DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM **Acquisition Method:** 18AUG13_3uL.dam

Sample Name	Sample ID:	Sample File:	Acquisition Date:
ICV	ICVMODX1833G	18NOV12DCAL-50.wiff	11/12/2018 4:18:11 PM

Analyte Name	Analyte Area	Ext Std Name	Ext Std Area	Ext Std Con	Area Ratio	RT (min)	RRT	Spec Amt	Calc Amt	% Diff	% Diff Lim	% Diff OOS
PFBA	270820.6	13C4-PFBA	715834.413	5.00	0.378	3.26	1.00	2.000	2.096	5	30	
PFPeA	265646.8	13C5-PFPeA	699482.188	5.00	0.380	3.76	1.00	2.000	2.198	10	30	
PFBS	150059.6	13C3-PFBS	394903.376	4.65	0.380	3.80	1.00	1.769	1.808	2	30	
4:2-FTS	N/A	13C2-4:2-FTS	47297.290	4.67	N/A	N/A	N/A	0.000	N/A		30	
PFHxA	328694.3	13C5-PFHxA	613579.433	5.00	0.536	4.15	1.00	2.000	2.237	12	30	
PFPeS	N/A	13C3-PFBS	394903.376	4.65	N/A	N/A	N/A	0.000	N/A		30	
PFHpA	316975.3	13C4-PFHpA	485394.910	5.00	0.653	4.54	1.00	2.000	2.165	8	30	
PFHxS	115564.2	13C3-PFHxS	304897.777	4.73	0.379	4.55	1.00	1.890	1.838	-3	30	
6:2-FTS	N/A	13C2-6:2-FTS	31532.780	4.75	N/A	N/A	N/A	0.000	N/A		30	
PFHpS	118318.7	13C3-PFHxS	304897.777	4.73	0.388	4.91	1.08	1.900	2.043	8	30	
PFOA	332094.4	13C8-PFOA	843573.278	5.00	0.394	4.91	1.00	2.000	2.103	5	30	
PFOS	100952.5	13C8-PFOS	266211.354	4.78	0.379	5.24	1.00	1.910	1.658	-13	30	
PFNA	271240.4	13C9-PFNA	458821.538	5.00	0.591	5.26	1.00	2.000	2.132	7	30	
PFNS	N/A	13C8-PFOS	266211.354	4.78	N/A	N/A	N/A	0.000	N/A		30	
PFDA	224279.7	13C6-PFDA	590290.290	5.00	0.380	5.56	1.00	2.000	2.014	1	30	
8:2-FTS	N/A	13C2-8:2-FTS	22188.868	4.79	N/A	N/A	N/A	0.000	N/A		30	
PFOSA	N/A	13C8-PFOSA	587080.139	5.00	N/A	N/A	N/A	0.000	N/A		30	
NMeFOSAA	30591.9	d3-NMeFOSAA	70133.206	5.00	0.436	5.70	1.00	2.000	2.465	23	30	
PFDS	52860.9	13C8-PFOS	266211.354	4.78	0.199	5.79	1.11	1.930	1.799	-7	30	
PFUnDA	183511.3	13C7-PFUnDA	228363.909	5.00	0.804	5.82	1.00	2.000	2.101	5	30	
NEtFOSAA	26149.3	d5-NEtFOSAA	59551.262	5.00	0.439	5.83	1.00	2.000	2.302	15	30	
PFDoDA	185295.0	13C2-PFDoDA	495858.058	5.00	0.374	6.05	1.00	2.000	1.903	-5	30	
10:2-FTS	N/A	13C2-8:2-FTS	22188.868	4.79	N/A	N/A	N/A	0.000	N/A		30	
NMePFOSAE	N/A	d7-NMePFOSAE	299185.381	5.00	N/A	N/A	N/A	0.000	N/A		30	
NMePFOSA	N/A	d3-NMePFOSA	75186.885	5.00	N/A	N/A	N/A	0.000	N/A		30	
PFDoS	N/A	13C8-PFOS	266211.354	4.78	N/A	N/A	N/A	0.000	N/A		30	
NEtPFOSAE	N/A	d9-NEtPFOSAE	255149.770	5.00	N/A	N/A	N/A	0.000	N/A		30	
NEtPFOSA	N/A	d5-NEtPFOSA	53596.168	5.00	N/A	N/A	N/A	0.000	N/A		30	
PFTrDA	165153.1	13C2-PFDoDA	495858.058	5.00	0.333	6.25	1.03	2.000	2.102	5	30	

APPROVED
By MCD at 3:23 pm, 1/10/19

REVIEWED
By ucmr at 3:21 pm, 1/25/19

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV12DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM **Acquisition Method:** 18AUG13_3uL.dam

PFTeDA	135651.0	13C2-PFTeDA	365300.216	5.00	0.371	6.42	1.00	2.000	2.082	4	30	
PFHxDA	N/A	13C2-PFTeDA	365300.216	5.00	N/A	N/A	N/A	0.000	N/A		30	
PFODA	N/A	13C2-PFTeDA	365300.216	5.00	N/A	N/A	N/A	0.000	N/A		30	

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Sample Name:	CAL1			**Data File:**		18NOV12DCAL-42.wiff
Sample ID:	CALBRN11833C			**Acquis Date:**		2018-11-12T15:05:54
Sample Type:	Standard			**Instrument:**		LM27631
Vial Position:	3			**Acquis Method:**		18AUG13_3uL.dam
Injection Vol:	3.00			**Result Table:**		18NOV12DCAL
QMethod File:	18AUG20QM			**ICAL Name:**		18NOV12DCAL
Batch Number:	N\A			**Operator:**		MCD7824
Sample Wt.:	1.00000			**Dilution Factor:**		1.00
Sample Vol.:	1.000			**Prep Factor:**		1.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV12DCAL-44

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Rreference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	676527.5	659926.2	3	50	
13C2-PFOA	5.0	474834.9	450219.7	5	50	
13C4-PFOS	4.8	265369.0	249205.8	6	50	
13C2-PFDA	5.0	281654.8	278743.9	1	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	763334.3	13C3-PFBA	676527.5	1.128	5.000	5.059	101	70-130	
E13C5-PFPeA	771179.4	13C3-PFBA	676527.5	1.140	5.000	5.113	102	70-130	
E13C3-PFBS	445963.4	13C3-PFBA	676527.5	0.659	4.650	4.653	100	70-130	
E13C2-4:2-FTS	51494.6	13C2-PFOA	474834.9	0.108	4.670	4.830	103	70-130	
E13C5-PFHxA	664975.9	13C2-PFOA	474834.9	1.400	5.000	5.059	101	70-130	
E13C3-PFHxS	327944.5	13C2-PFOA	474834.9	0.691	4.730	4.739	100	70-130	
E13C4-PFHpA	528473.5	13C2-PFOA	474834.9	1.113	5.000	5.014	100	70-130	
E13C2-6:2-FTS	35455.2	13C2-PFOA	474834.9	0.075	4.750	4.996	105	70-130	
E13C8-PFOA	912537.7	13C2-PFOA	474834.9	1.922	5.000	5.295	106	70-130	
E13C8-PFOS	283127.4	13C4-PFOS	265369.0	1.067	4.780	4.727	99	70-130	
E13C9-PFNA	479931.4	13C4-PFOS	265369.0	1.809	5.000	5.042	101	70-130	
E13C6-PFDA	612577.4	13C2-PFDA	281654.8	2.175	5.000	5.075	102	70-130	
E13C2-8:2-FTS	26445.5	13C2-PFDA	281654.8	0.094	4.790	4.683	98	70-130	
E13C8-PFOSA	664489.9	13C2-PFDA	281654.8	2.359	5.000	5.230	105	70-130	
Ed3-NMeFOSAA	86914.5	13C2-PFDA	281654.8	0.309	5.000	5.570	111	70-130	
E13C7-PFUnDA	256402.0	13C2-PFDA	281654.8	0.910	5.000	5.285	106	70-130	
Ed5-NEtFOSAA	80597.2	13C2-PFDA	281654.8	0.286	5.000	6.054	121	70-130	
E13C2-PFDoDA	545413.2	13C2-PFDA	281654.8	1.936	5.000	5.028	101	70-130	
Ed7-NMePFOSAE	349854.5	13C2-PFDA	281654.8	1.242	5.000	5.375	108	70-130	
Ed3-NMePFOSA	78396.5	13C2-PFDA	281654.8	0.278	5.000	5.057	101	70-130	
Ed9-NEtPFOSAE	280311.6	13C2-PFDA	281654.8	0.995	5.000	5.176	104	70-130	
Ed5-NEtPFOSA	63047.1	13C2-PFDA	281654.8	0.224	5.000	5.251	105	70-130	
E13C2-PFTeDA	410633.0	13C2-PFDA	281654.8	1.458	5.000	5.118	102	70-130	

APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

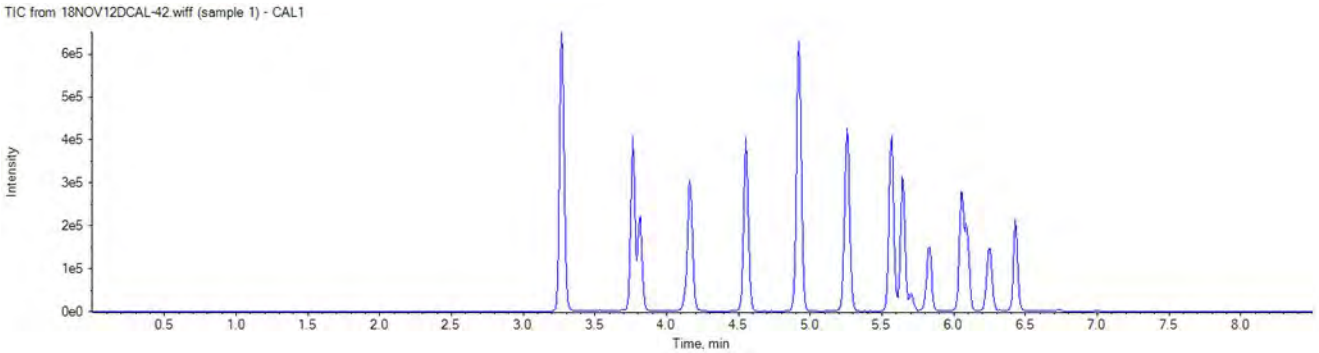
Analyte Quantitation Peak Table

Sample Name: CAL1 **Instrument Name:** LM27631 **File Name:** 18NOV12DCAL-42.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	1.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	3.27	1.000	32322.9		A	13C4-PFBA	3.27	763334.3	0.042	0.235
PFPeA	3.77	1.000	32633.1		M	13C5-PFPeA	3.76	771179.4	0.042	0.245
PFBS	3.81	1.000	18010.0		A	13C3-PFBS	3.81	445963.4	0.040	0.192
4:2-FTS	4.13	1.000	3636.4		A	13C2-4:2-FTS	4.13	51494.6	0.071	0.192
PFHxA	4.16	1.000	39108.2		A	13C5-PFHxA	4.16	664975.9	0.059	0.246
PFPeS	4.18	1.100	9620.1		A	13C3-PFBS	3.81	445963.4	0.022	0.209
PFHpA	4.55	1.000	37545.4		A	13C4-PFHpA	4.55	528473.5	0.071	0.235
PFHxS	4.55	1.000	12858.1		M	13C3-PFHxS	4.55	327944.5	0.039	0.190
6:2-FTS	4.90	1.000	2683.1		M	13C2-6:2-FTS	4.91	35455.2	0.076	0.183
PFHpS	4.91	1.080	13262.8		A	13C3-PFHxS	4.55	327944.5	0.040	0.213
PFOA	4.92	1.000	41468.0		A	13C8-PFOA	4.92	912537.7	0.045	0.243
PFOS	5.25	1.000	13088.5		M	13C8-PFOS	5.25	283127.4	0.046	0.202
PFNA	5.26	1.000	29660.1		A	13C9-PFNA	5.26	479931.4	0.062	0.223
PFNS	5.54	1.060	6846.6		A	13C8-PFOS	5.25	283127.4	0.024	0.169
PFDA	5.56	1.000	27488.6		A	13C6-PFDA	5.57	612577.4	0.045	0.238
8:2-FTS	5.57	1.000	2333.1		A	13C2-8:2-FTS	5.57	26445.5	0.088	0.206
PFOSA	5.64	1.000	29582.8		A	13C8-PFOSA	5.65	664489.9	0.045	0.217
NMeFOSAA	5.71	1.000	2306.4		A	d3-NMeFOSAA	5.70	86914.5	0.027	0.150
PFDS	5.80	1.100	5952.2		A	13C8-PFOS	5.25	283127.4	0.021	0.190
PFUnDA	5.82	1.000	23379.5		A	13C7-PFUnDA	5.83	256402.0	0.091	0.238
NEtFOSAA	5.85	1.000	2284.9		A	d5-NEtFOSAA	5.84	80597.2	0.028	0.149
PFDoDA	6.05	1.000	22143.6		A	13C2-PFDoDA	6.05	545413.2	0.041	0.207
10:2-FTS	6.07	1.090	1814.2		A	13C2-8:2-FTS	5.57	26445.5	0.069	0.229
NMePFOSAE	6.10	1.000	18013.9		A	d7-NMePFOSAE	6.09	349854.5	0.051	0.214
NMePFOSA	6.11	1.000	2376.3		A	d3-NMePFOSA	6.10	78396.5	0.030	0.150
PFDoS	6.22	1.190	3520.9		A	13C8-PFOS	5.25	283127.4	0.012	0.218
NEtPFOSAE	6.26	1.000	21005.9		A	d9-NEtPFOSAE	6.24	280311.6	0.075	0.240
NEtPFOSA	6.27	1.000	2846.2		M	d5-NEtPFOSA	6.26	63047.1	0.045	0.207
PFTrDA	6.25	1.030	20185.1		M	13C2-PFDoDA	6.05	545413.2	0.037	0.234
PFTeDA	6.43	1.000	16357.5		A	13C2-PFTeDA	6.43	410633.0	0.040	0.223
PFHxDA	6.73	1.050	7976.0		M	13C2-PFTeDA	6.43	410633.0	0.019	0.231
PFODA	7.00	1.090	6020.3		A	13C2-PFTeDA	6.43	410633.0	0.015	0.204

Total Ion Chromatogram

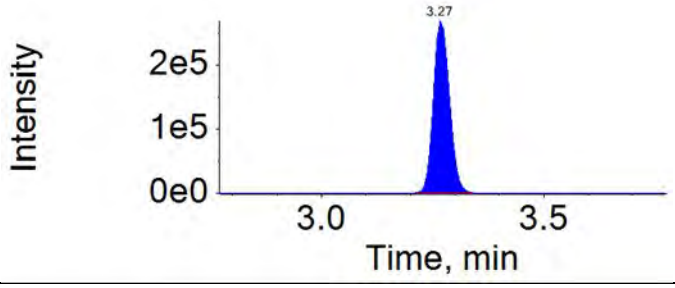


APPROVED
By MCD at 6:33 pm, 11/12/18

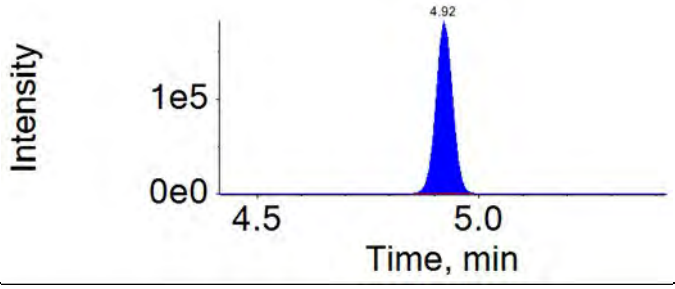
REVIEWED
By HMK at 10:53 am, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

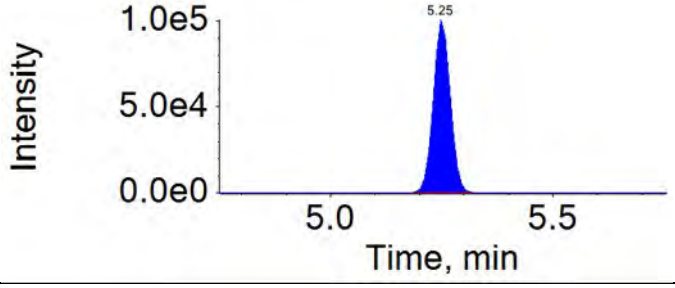
Injection Standard: 13C3-PFBA
216.0 / 172.0



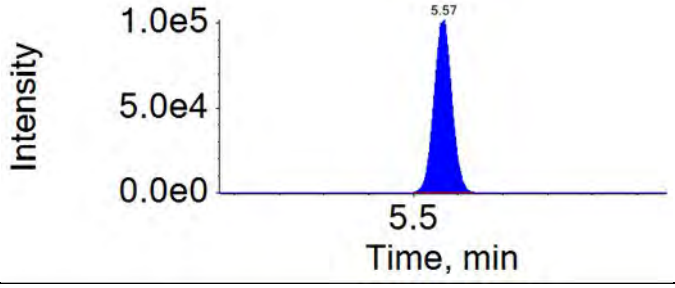
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0

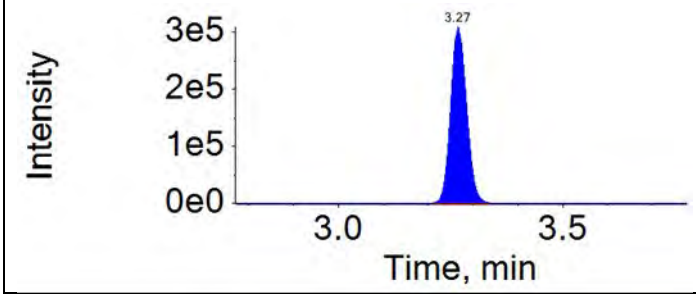


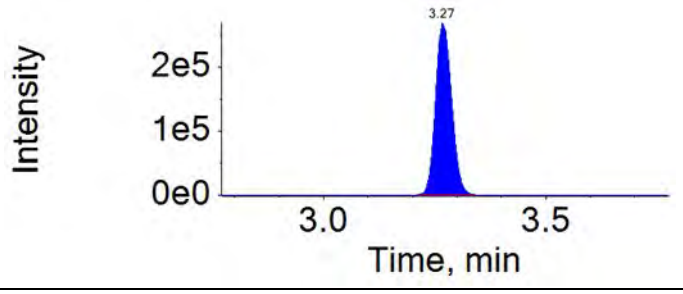
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515.0 / 470.0



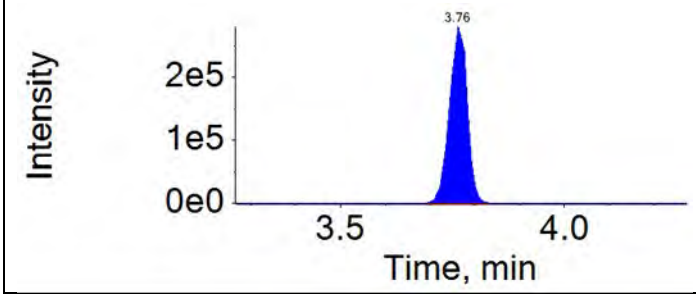
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

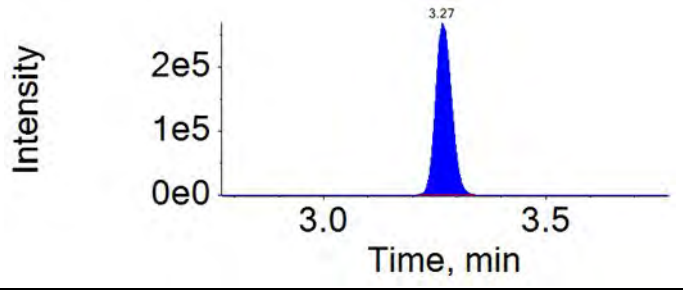
Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0



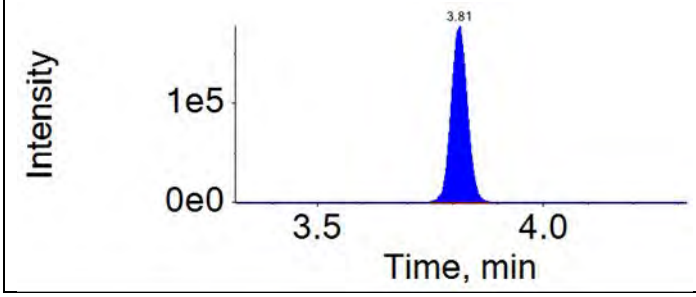


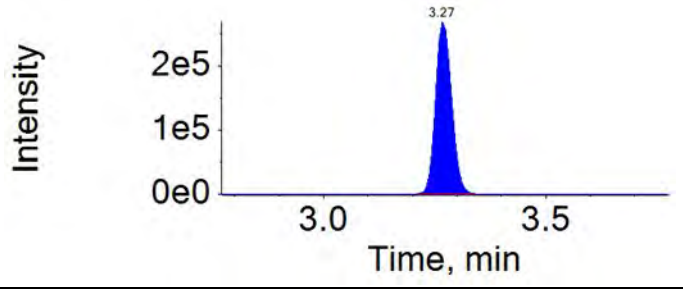
Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0



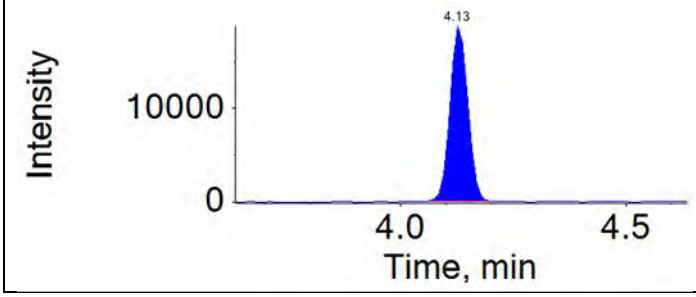


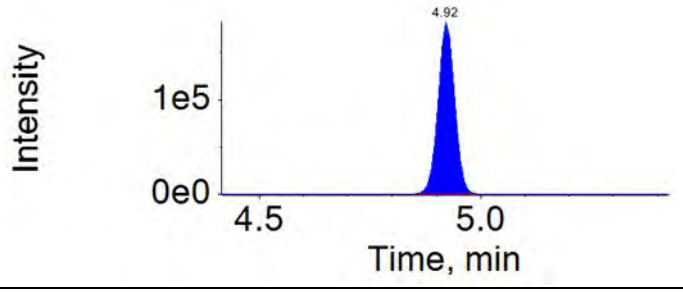
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0





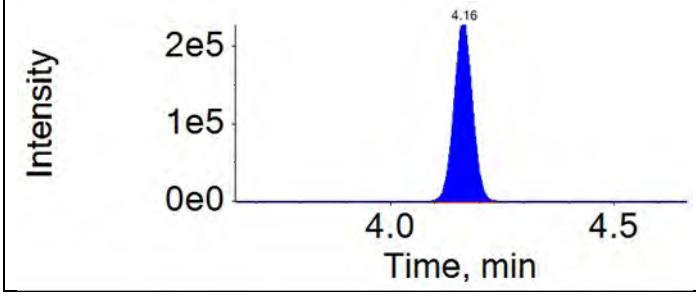
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329.0 / 81.0	415.0 / 370.0

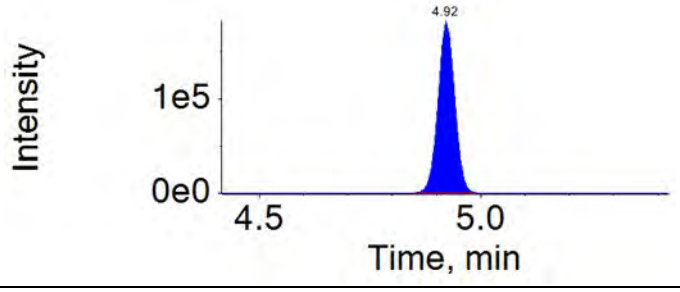




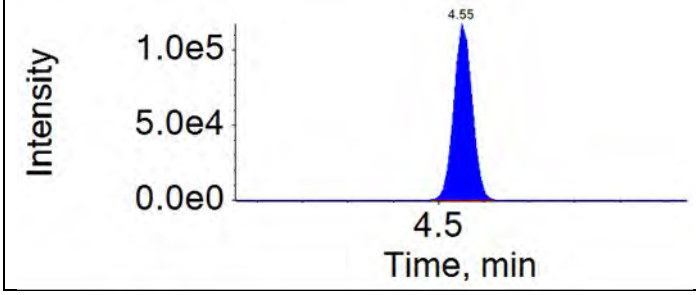
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

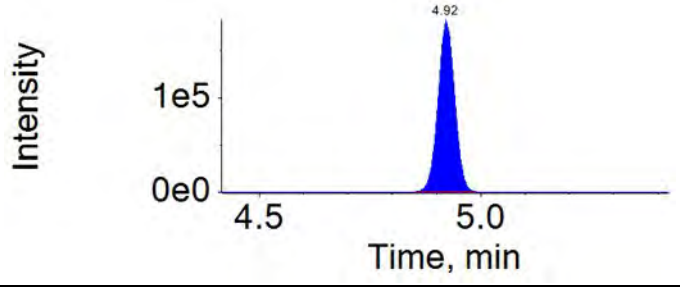
Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0



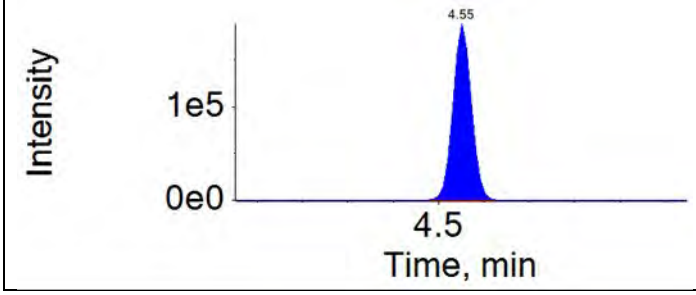


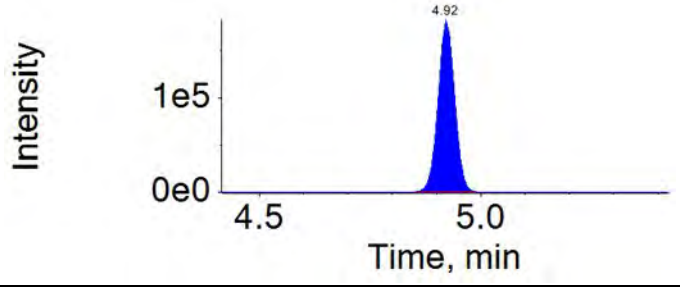
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0



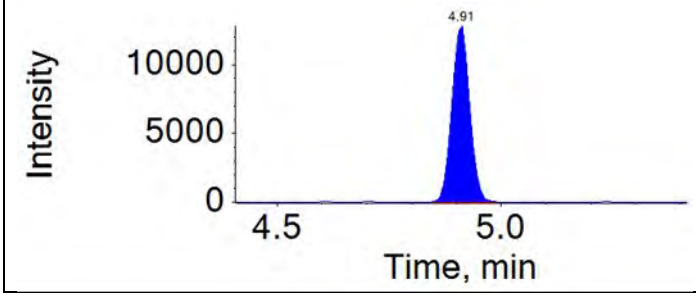


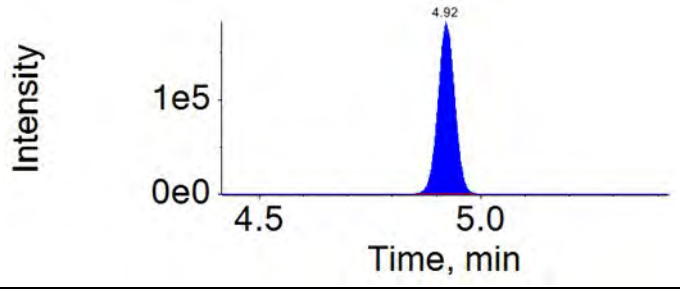
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0





Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0

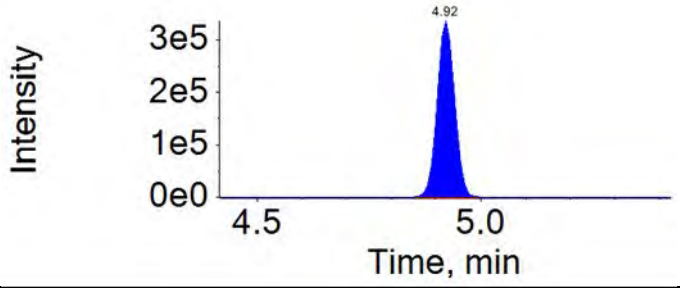
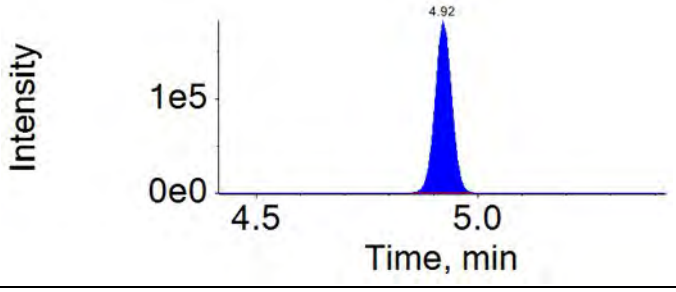


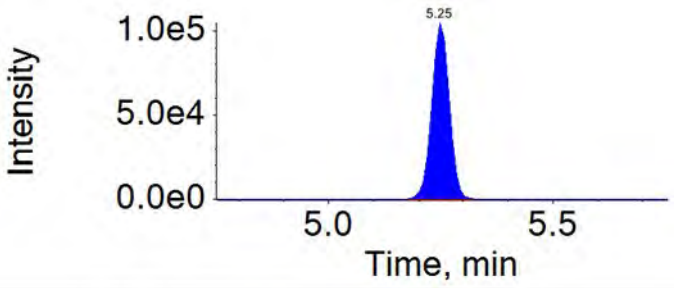
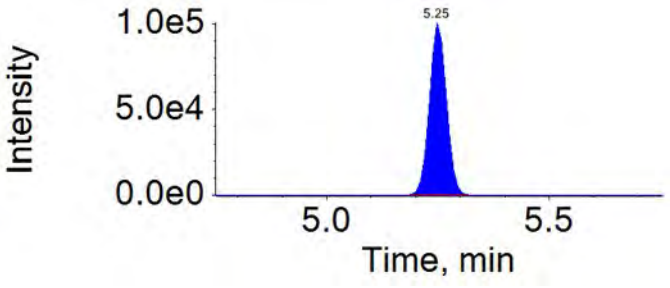


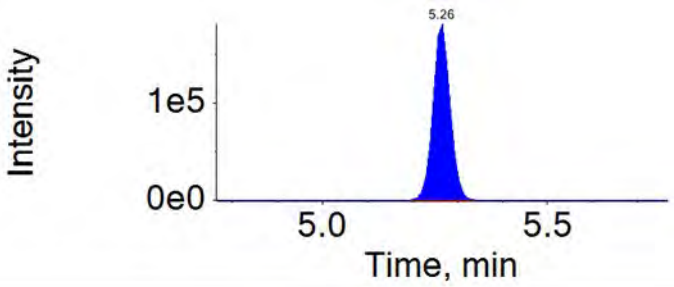
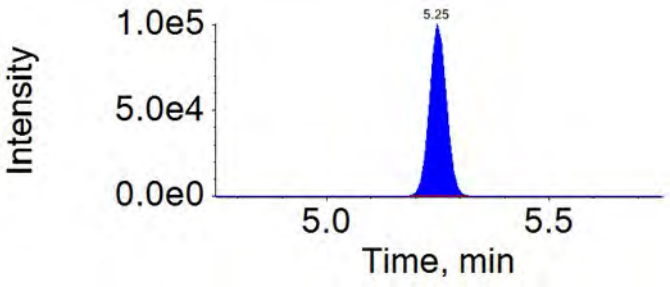
APPROVED
By MCD at 6:33 pm, 11/12/18

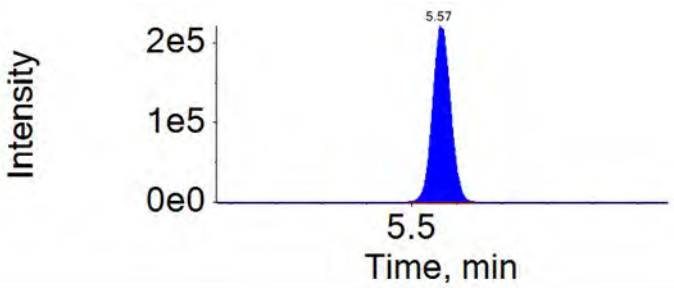
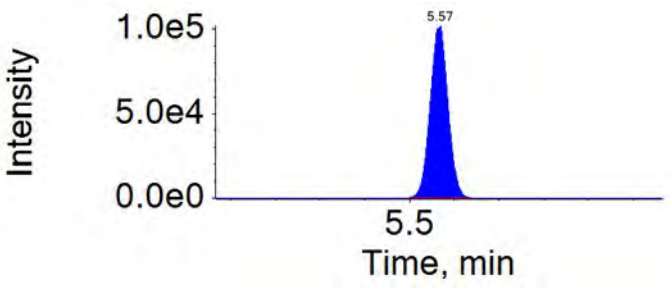
REVIEWED
By HMK at 10:53 am, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

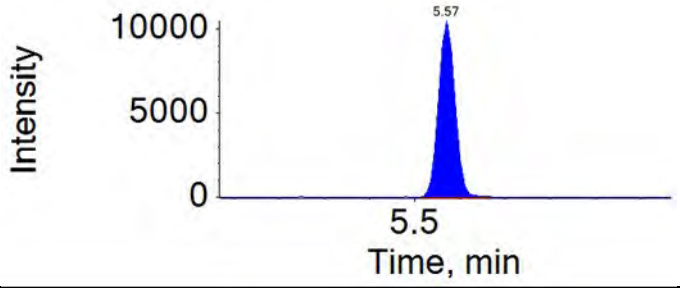
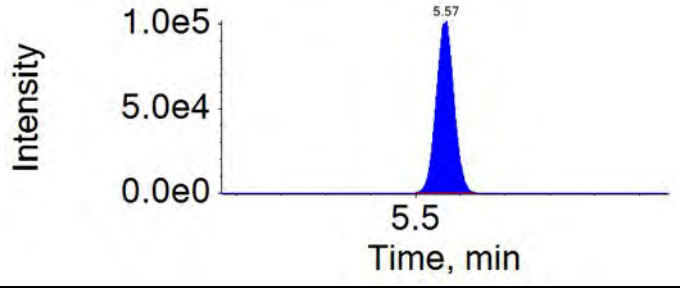
Extraction Standard: E13C8-PFOA	Injection Standard: 13C2-PFOA
421.0 / 376.0	415.0 / 370.0
	

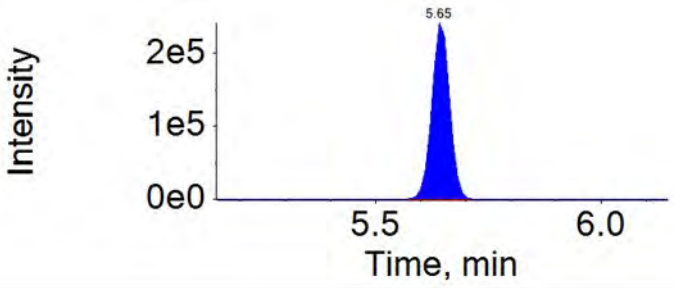
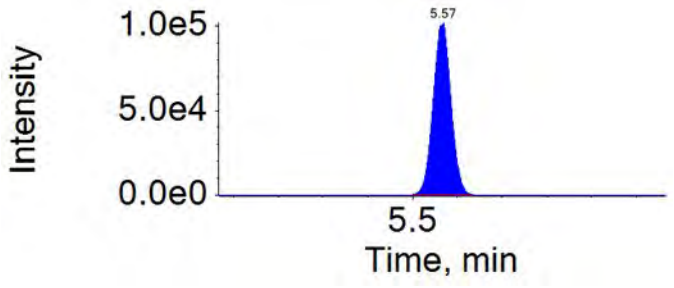
Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0
	

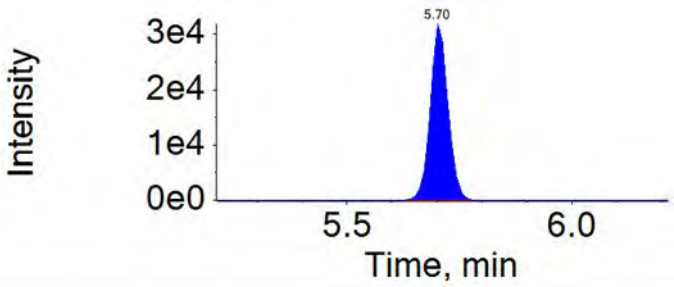
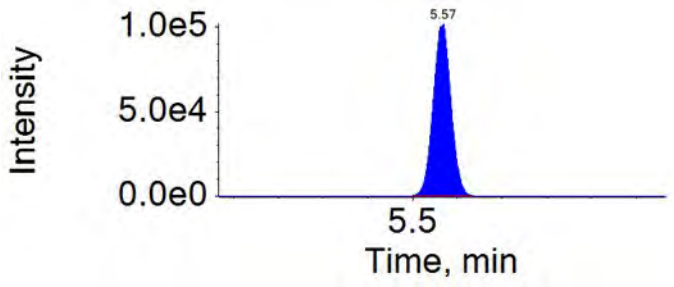
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0
	

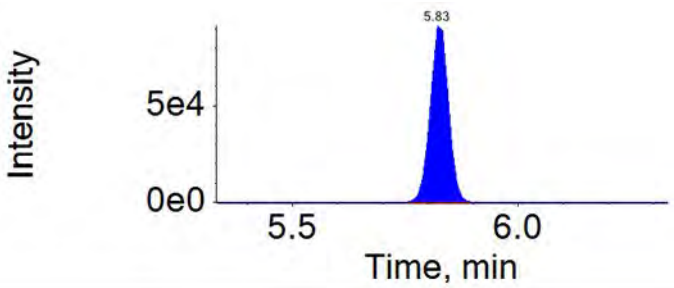
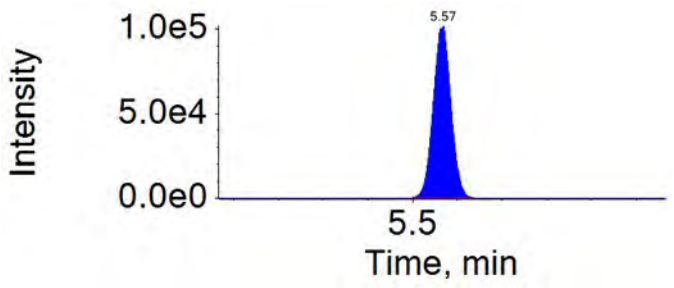
Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0
	

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: E13C2-8:2-FTS	Injection Standard: 13C2-PFDA
529.0 / 81.0	515.0 / 470.0
	

Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0
	

Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0
	

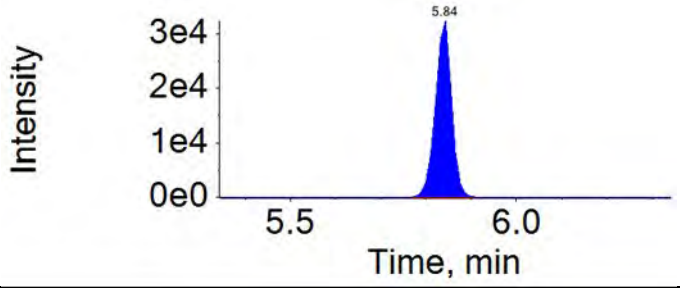
Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0
	

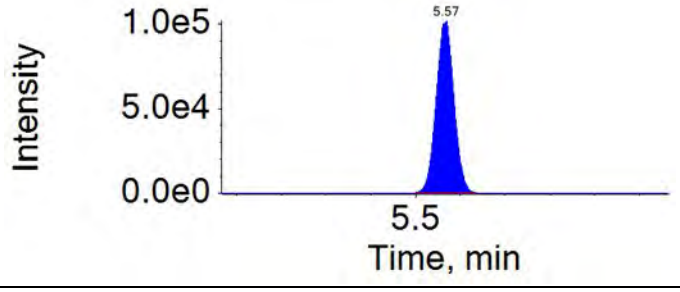
APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

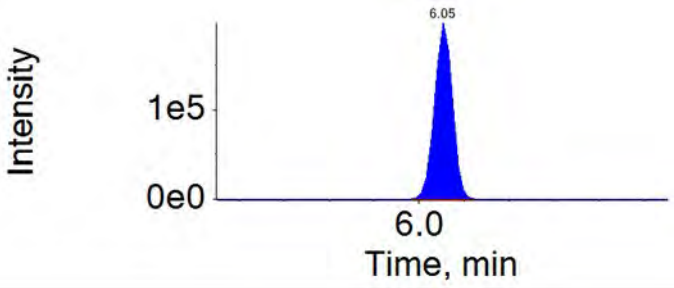
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

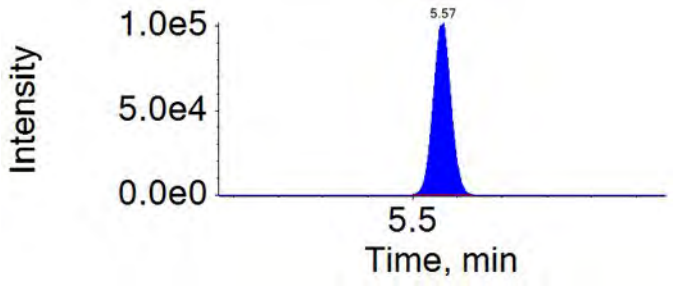
Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0



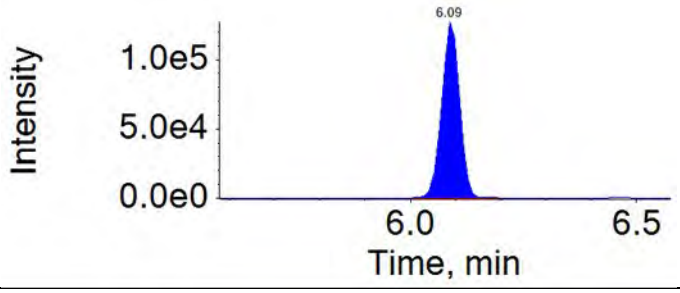


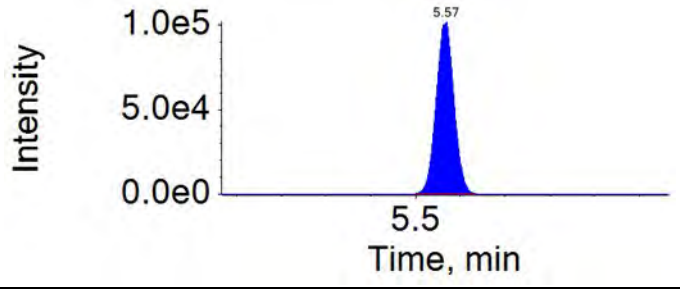
Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0



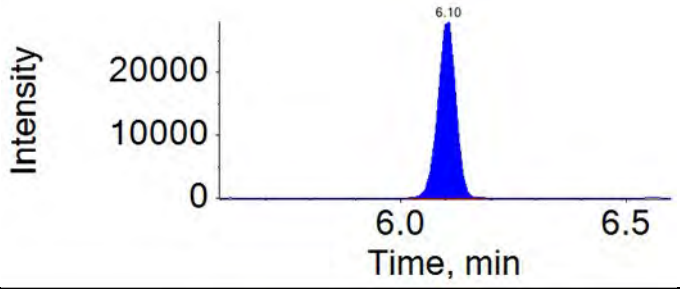


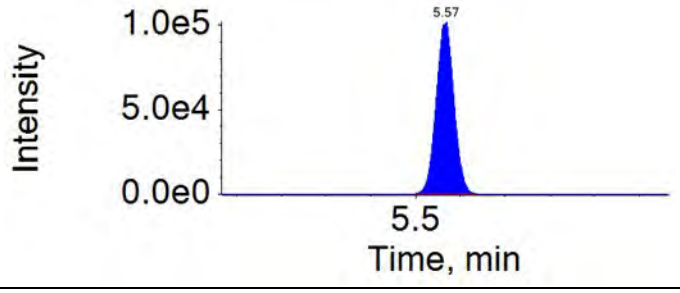
Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0





Extraction Standard: Ed3-NMePFOSA	Injection Standard: 13C2-PFDA
515.0 / 169.0	515.0 / 470.0



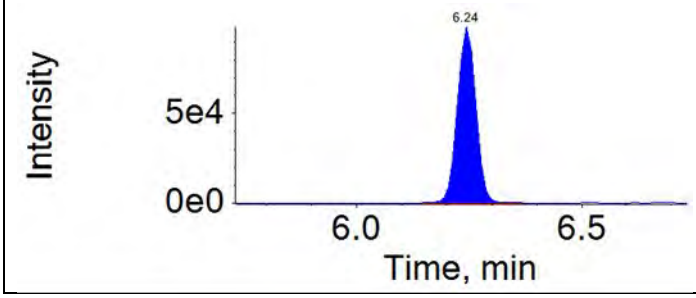


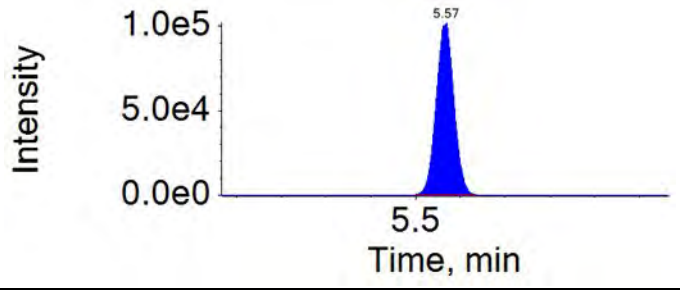
APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

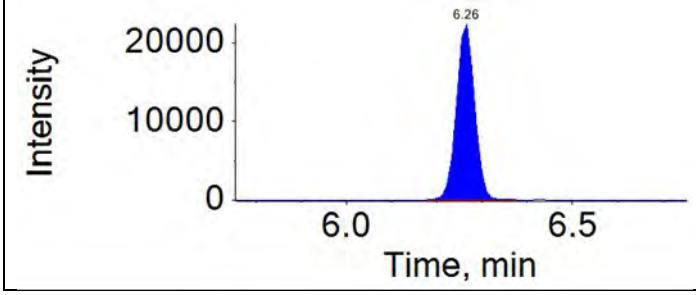
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

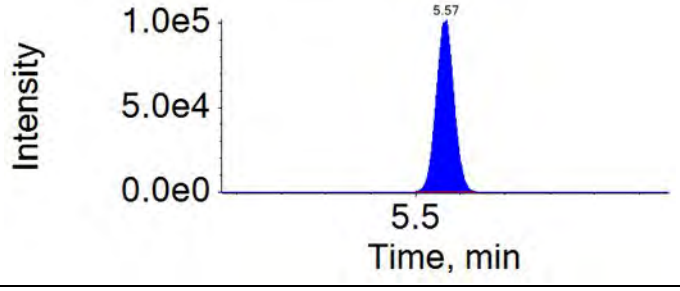
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



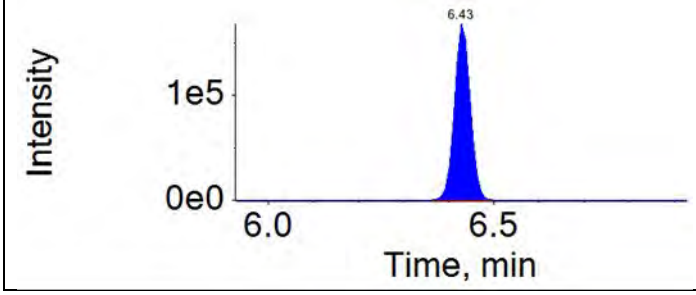


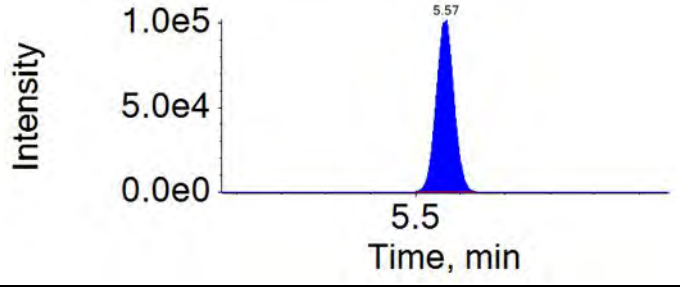
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0



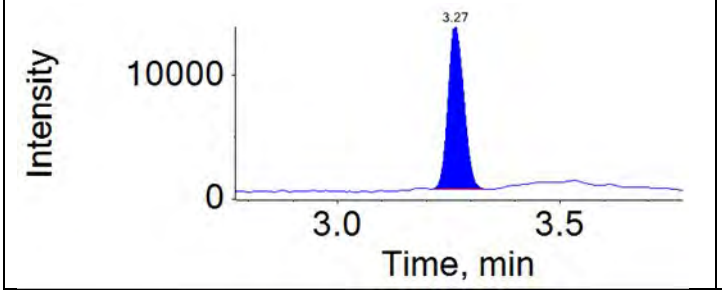


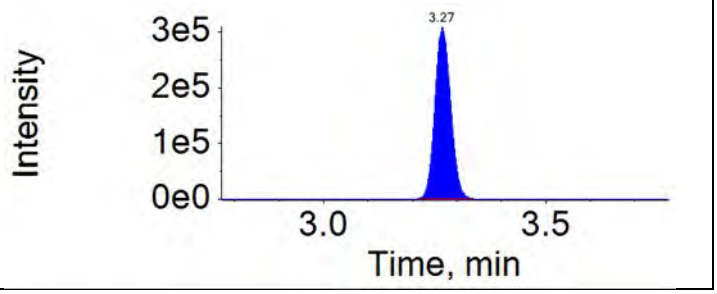
APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

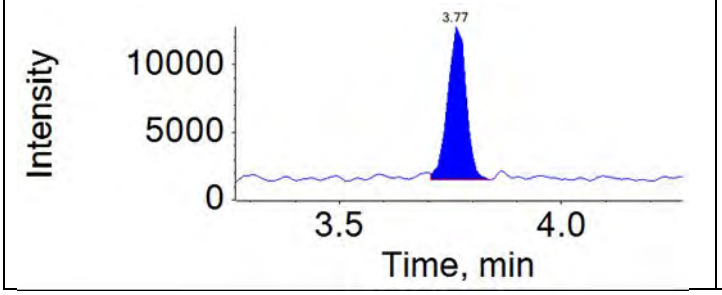
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

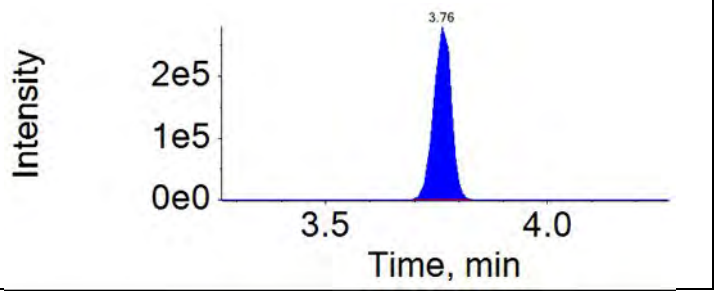
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



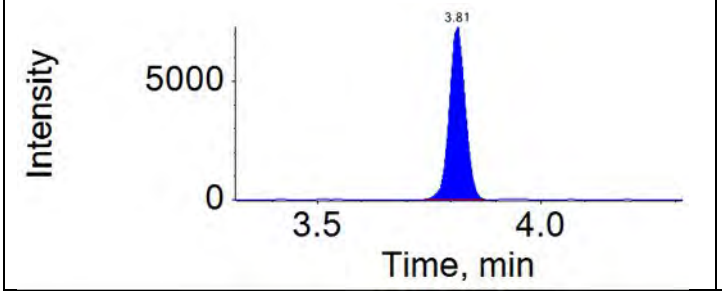


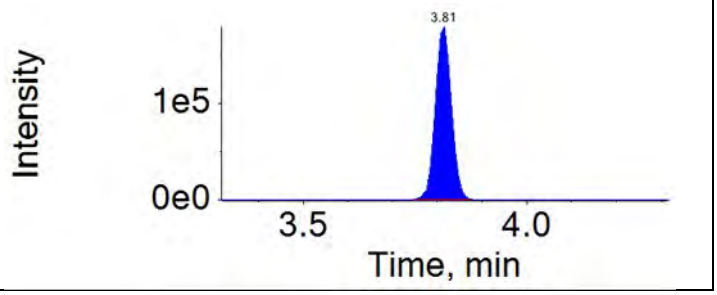
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



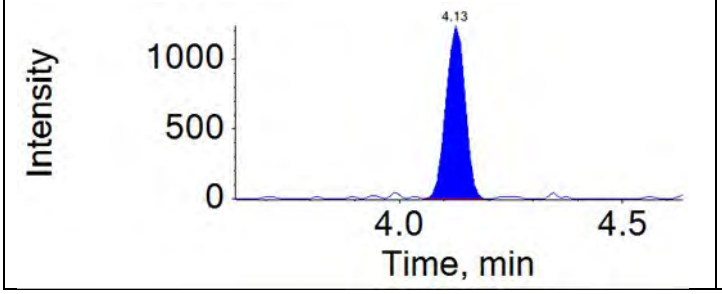


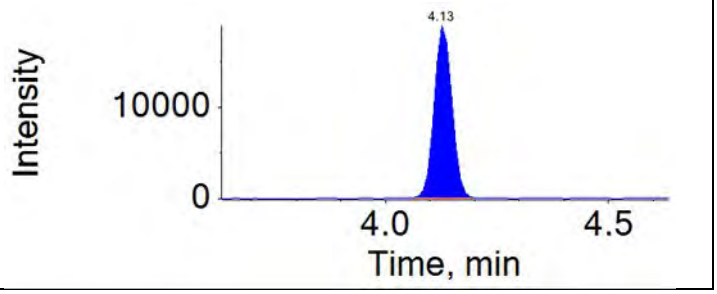
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





Analyte: 4:2-FTS	Extraction Standard: 13C2-4:2-FTS
327.0 / 307.0	329.0 / 81.0



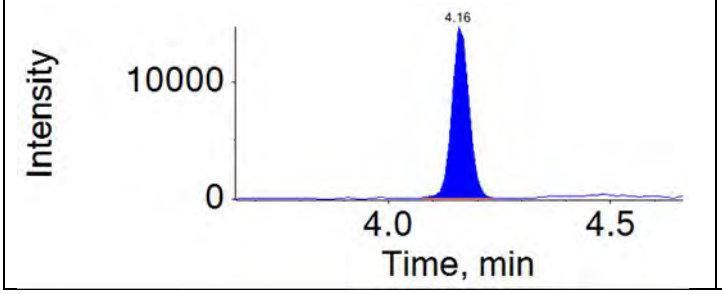


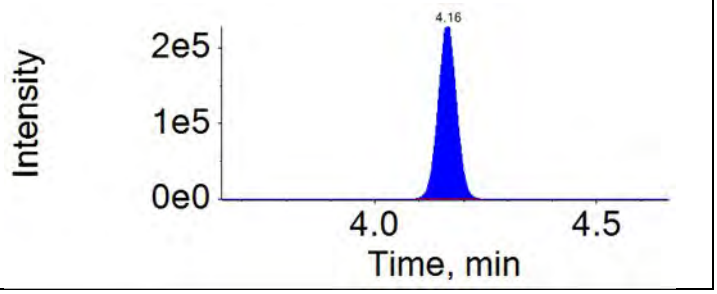
APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

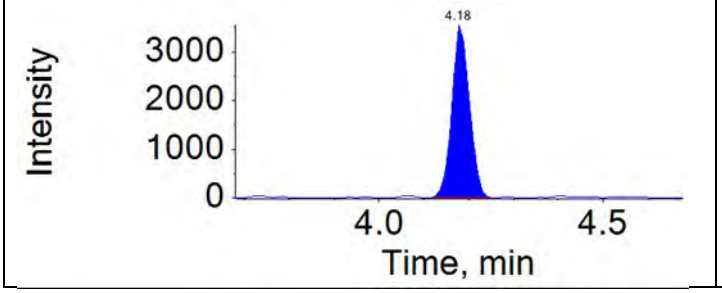
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

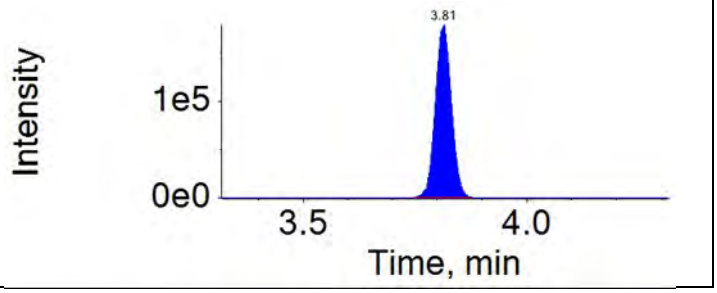
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



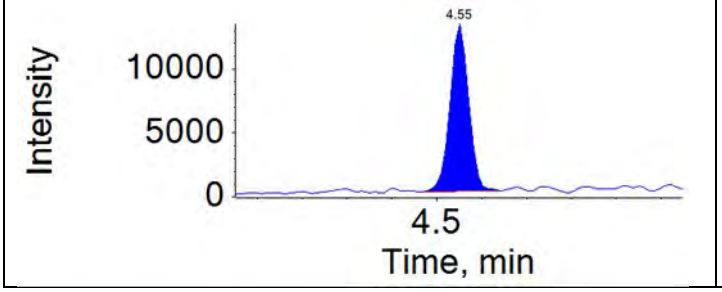


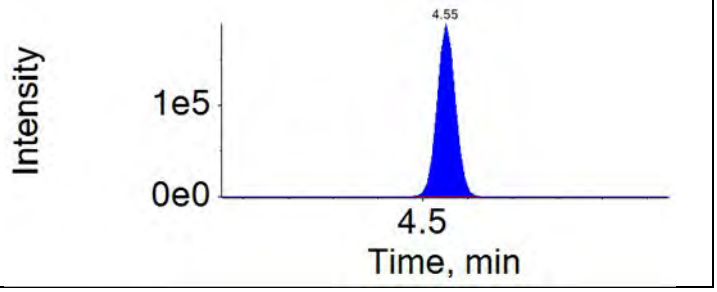
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



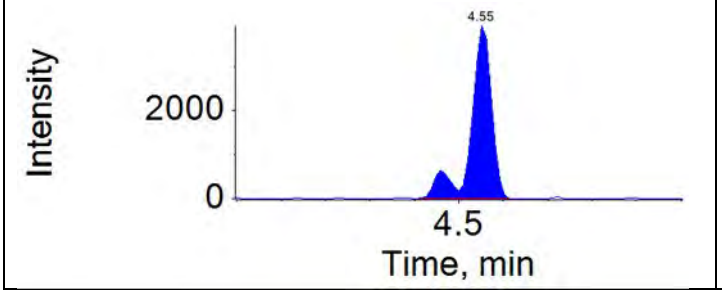


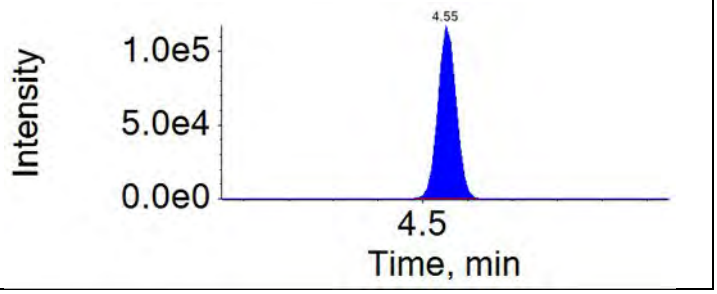
Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0





Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0



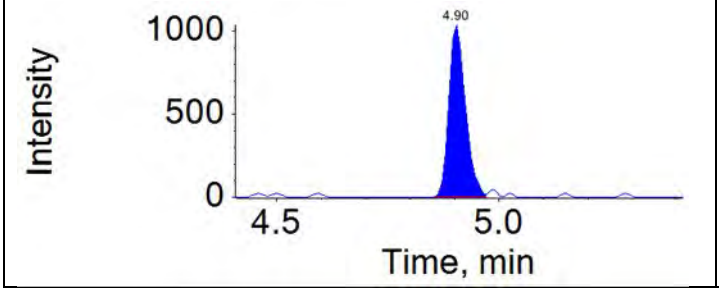


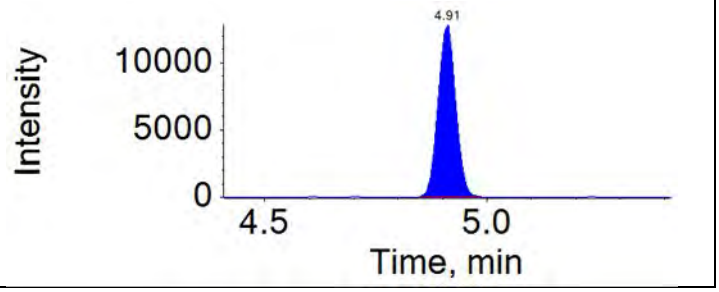
APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

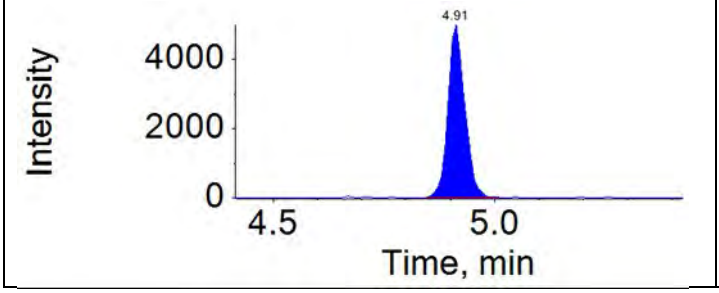
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

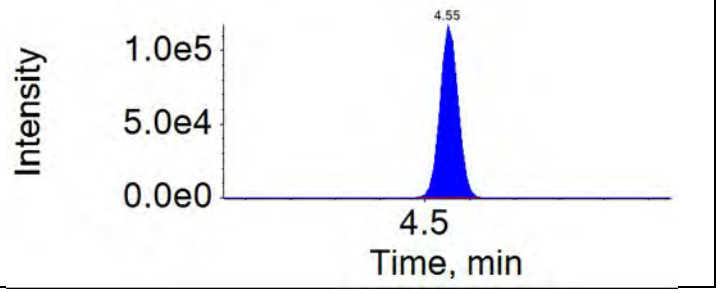
Analyte: 6:2-FTS	Extraction Standard: 13C2-6:2-FTS
427.0 / 407.0	429.0 / 81.0



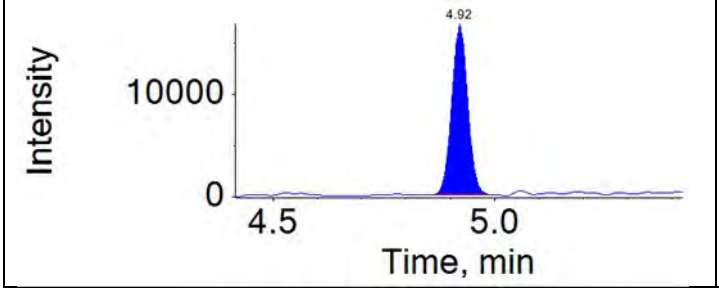


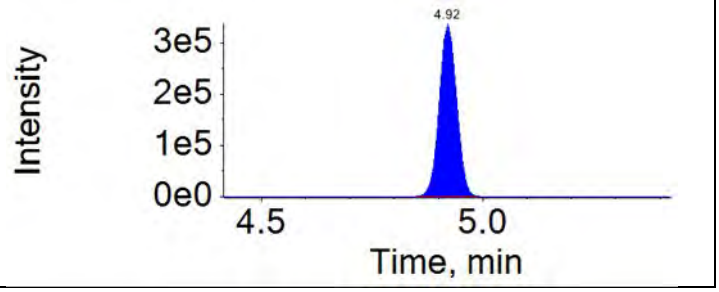
Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0



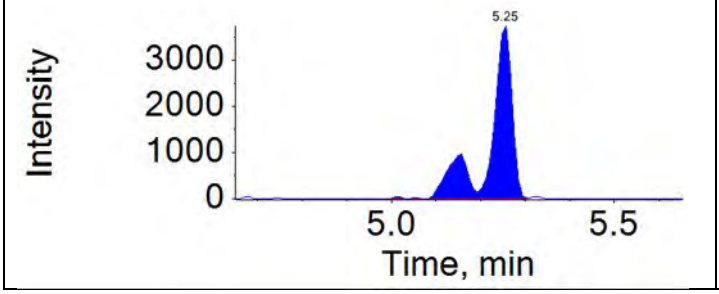


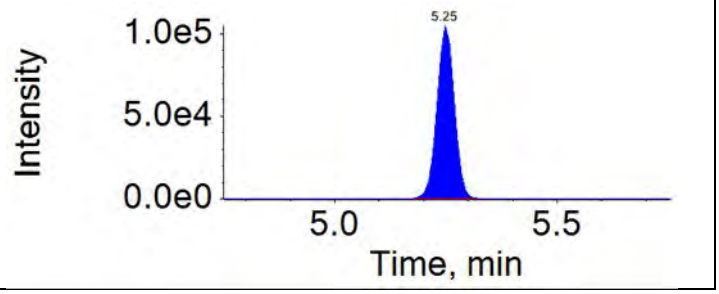
Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0





Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0



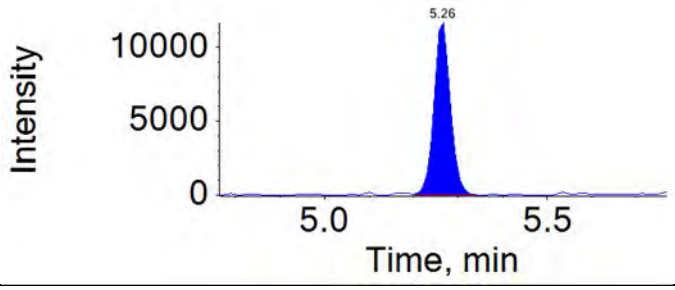


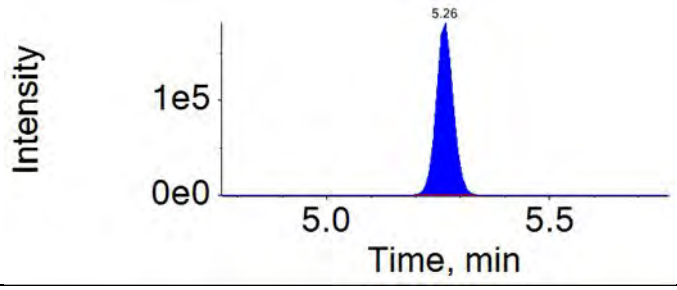
APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

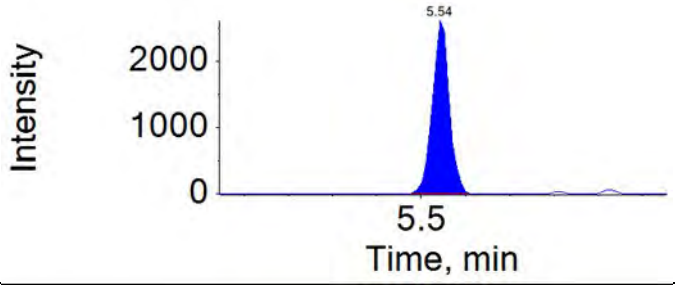
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

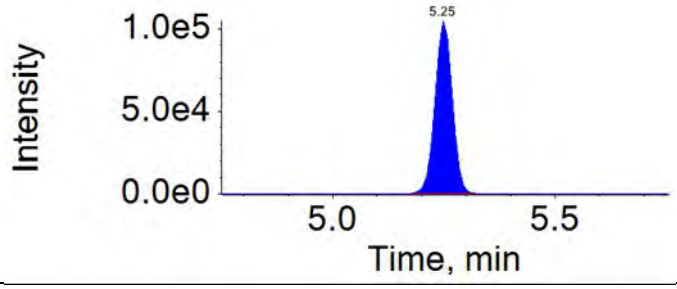
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



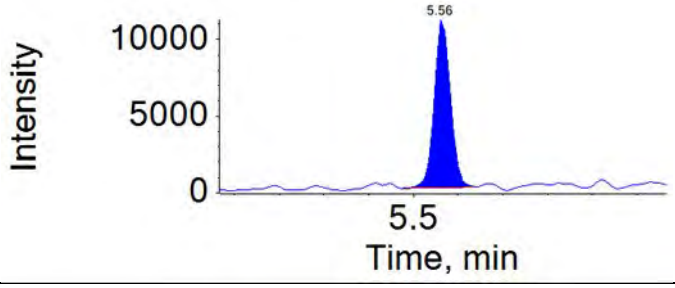


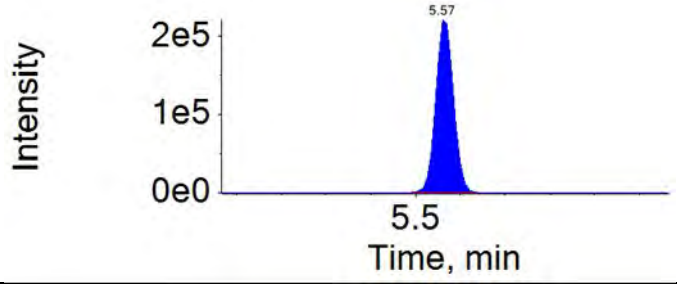
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



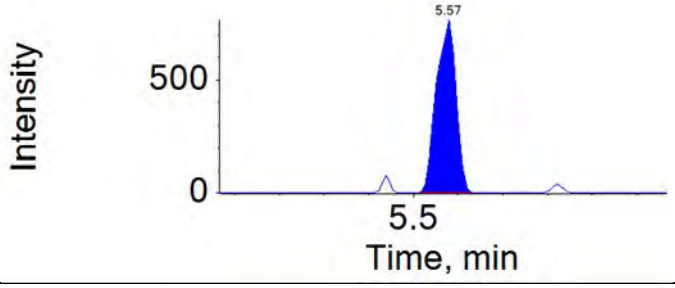


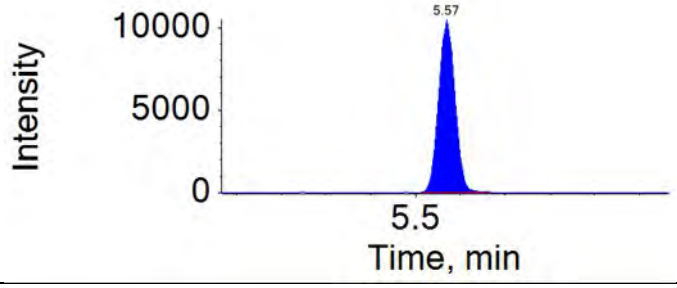
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





Analyte: 8:2-FTS	Extraction Standard: 13C2-8:2-FTS
527.0 / 507.0	529.0 / 81.0



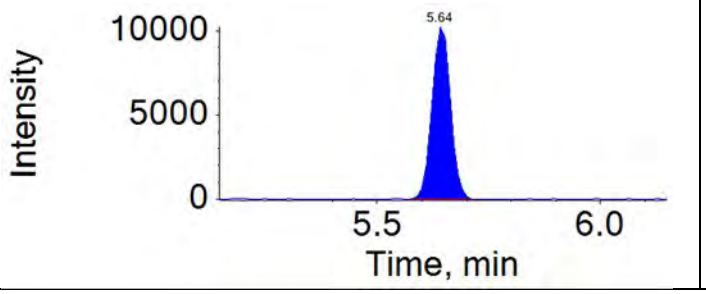


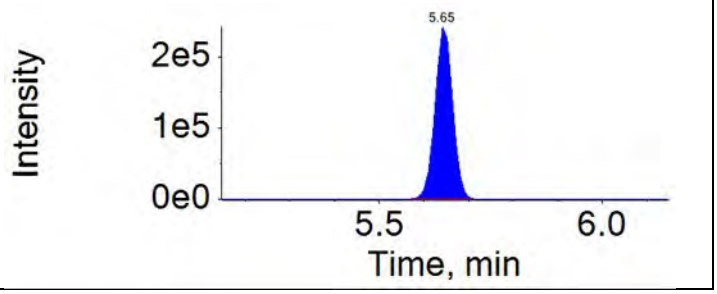
APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

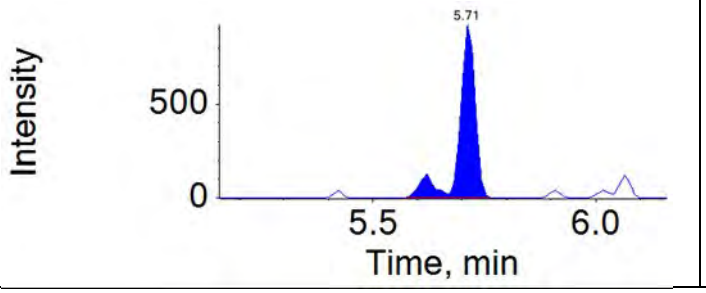
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

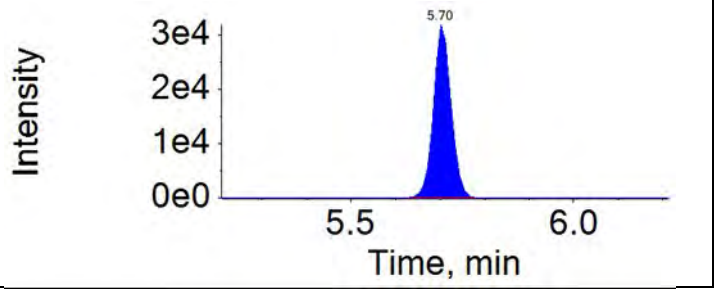
Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0



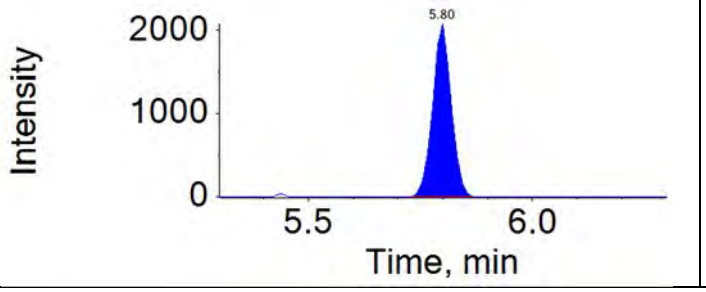


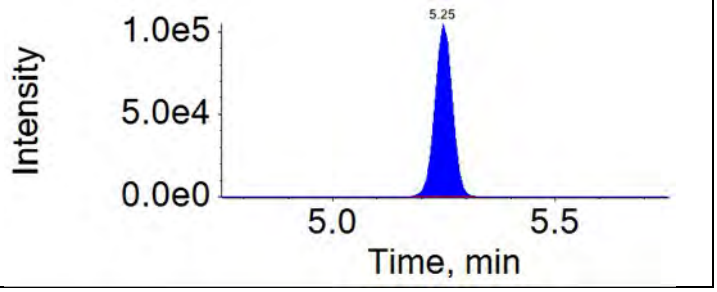
Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0



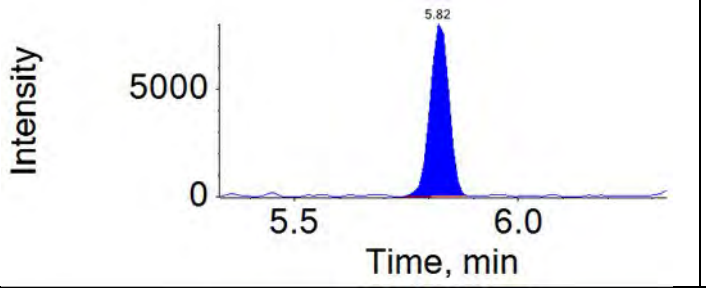


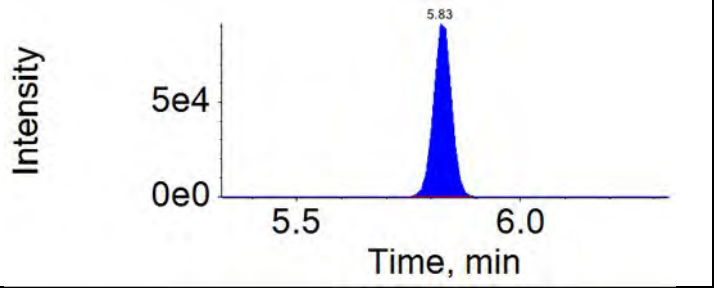
Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0





Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0



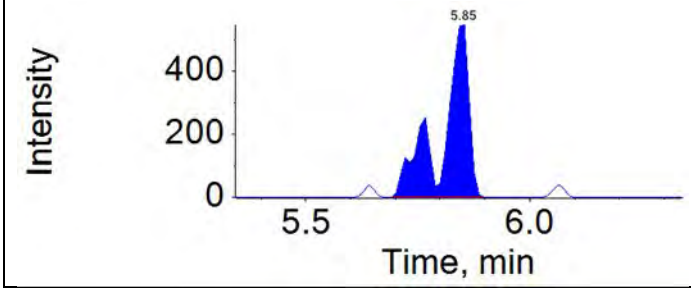


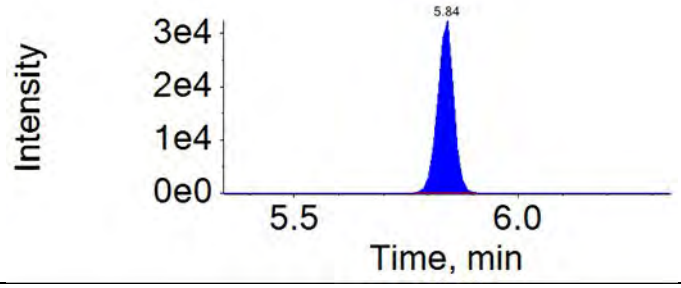
APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

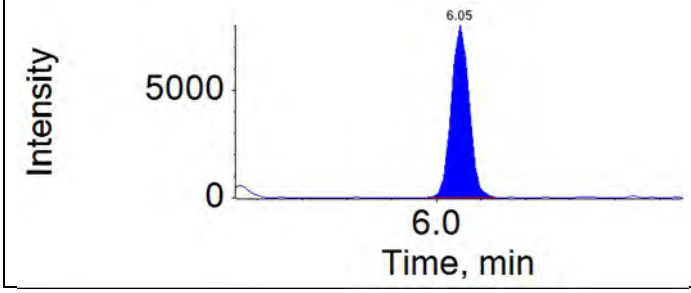
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

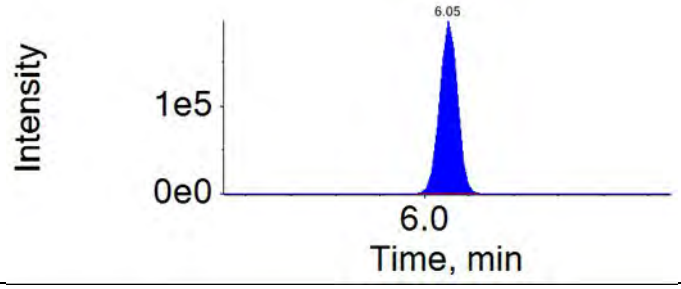
Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0



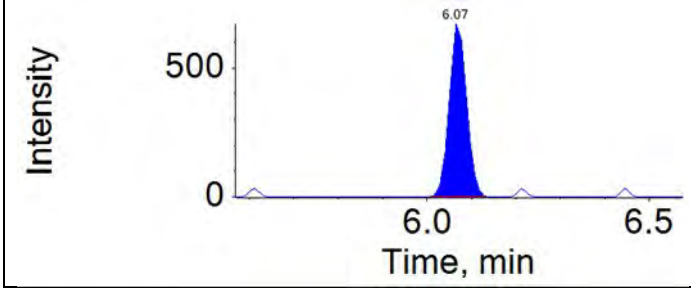


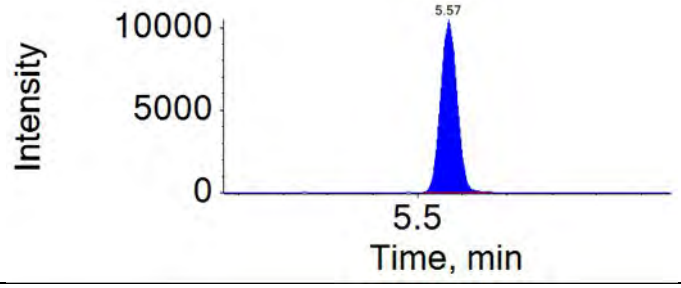
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0



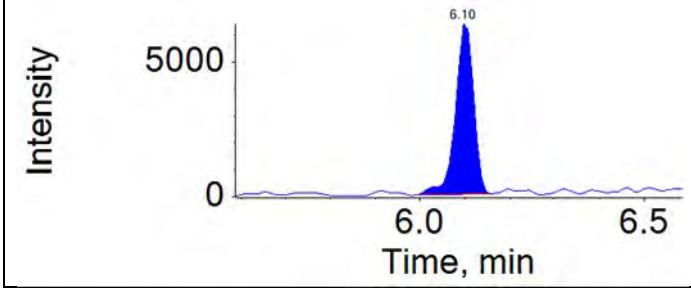


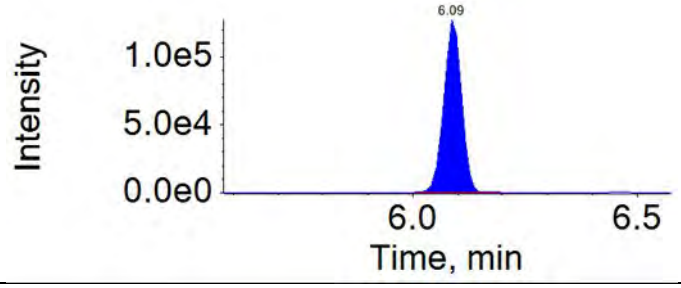
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0





Analyte: NMePFOSAE	Extraction Standard: d7-NMePFOSAE
616.0 / 59.0	623.0 / 59.0



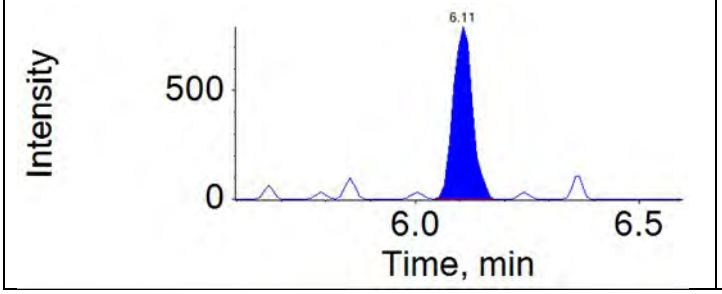


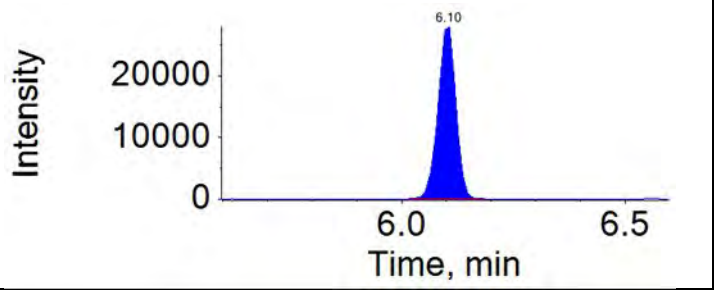
APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

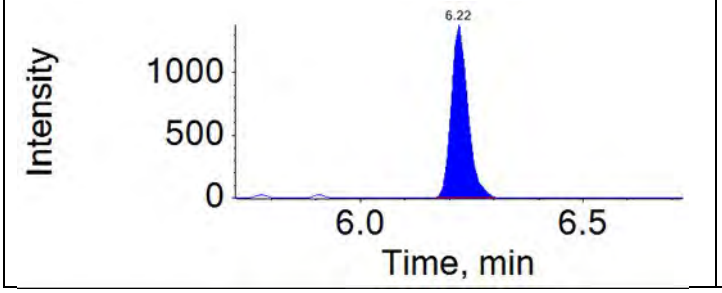
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

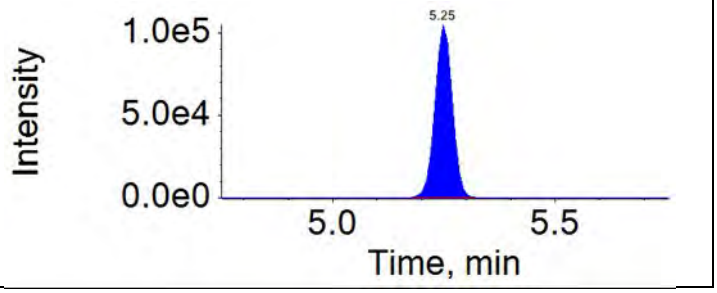
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



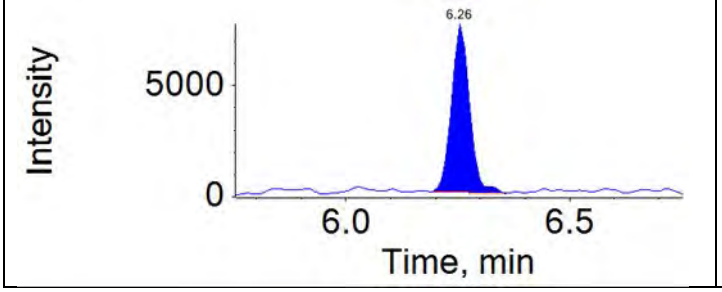


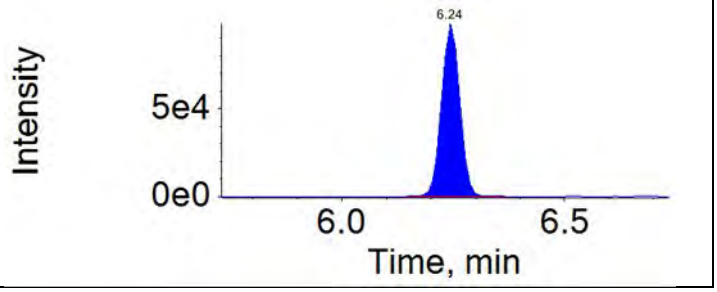
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



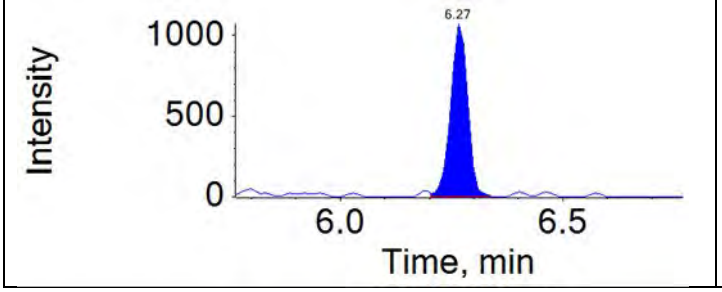


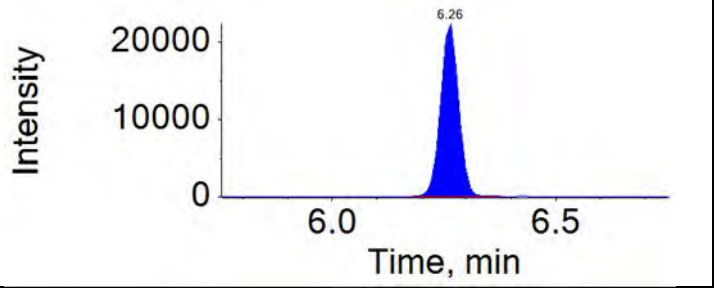
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





Analyte: NEtPFOSA	Extraction Standard: d5-NEtPFOSA
526.0 / 169.0	531.0 / 169.0



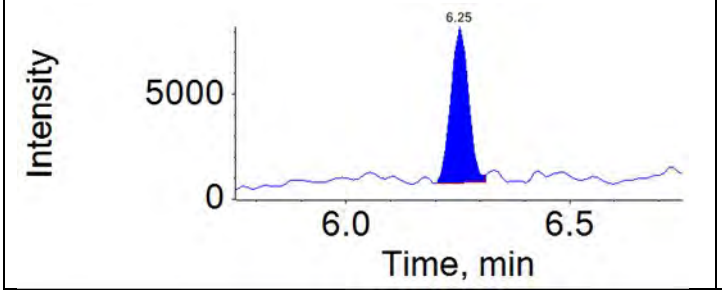


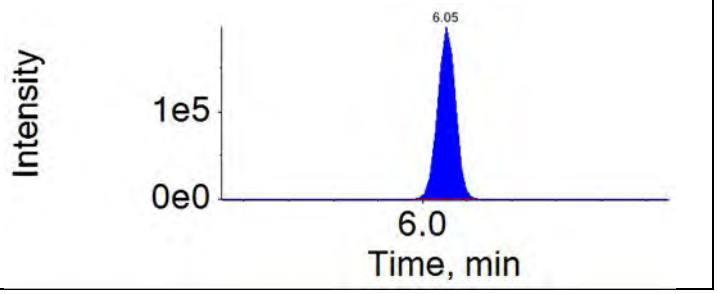
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By HMK at 10:53 am, 11/13/18

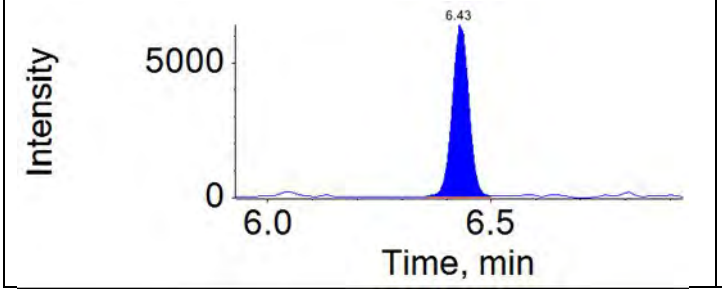
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

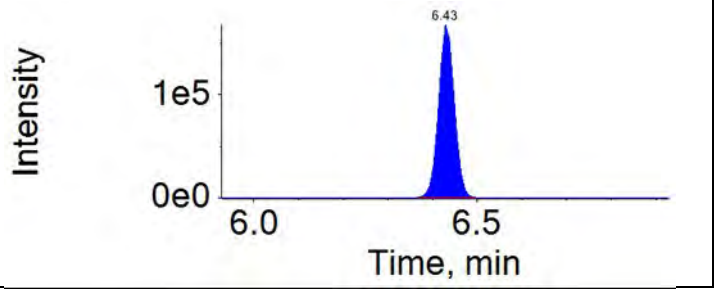
Analyte: PFTrDA	Extraction Standard: 13C2-PFDoDA
663.0 / 619.0	615.0 / 570.0



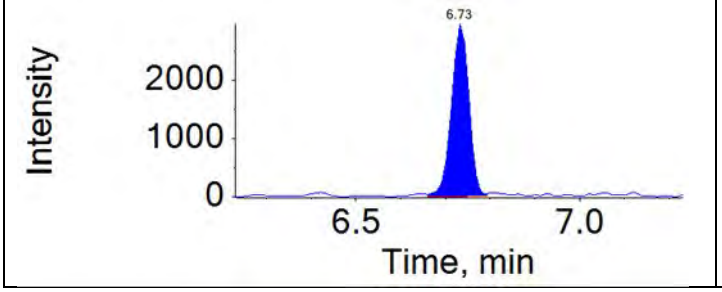


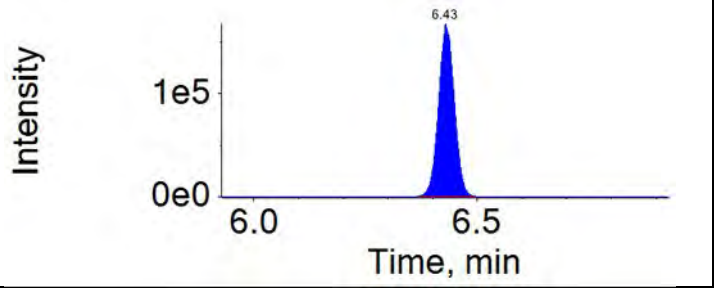
Analyte: PFTeDA	Extraction Standard: 13C2-PFTeDA
713.0 / 669.0	715.0 / 670.0



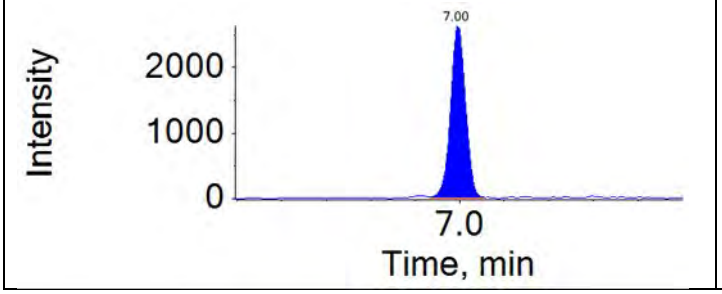


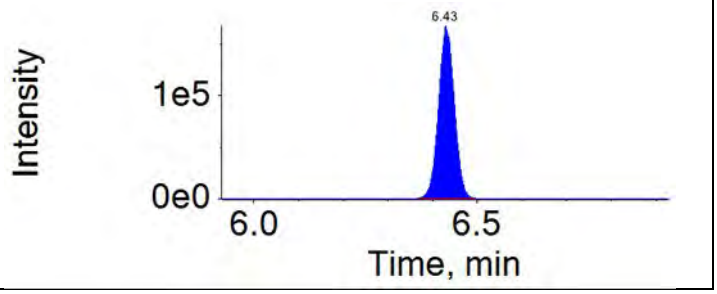
Analyte: PFHxDA	Extraction Standard: 13C2-PFTeDA
813.0 / 769.0	715.0 / 670.0





Analyte: PFODA	Extraction Standard: 13C2-PFTeDA
913.0 / 869.0	715.0 / 670.0

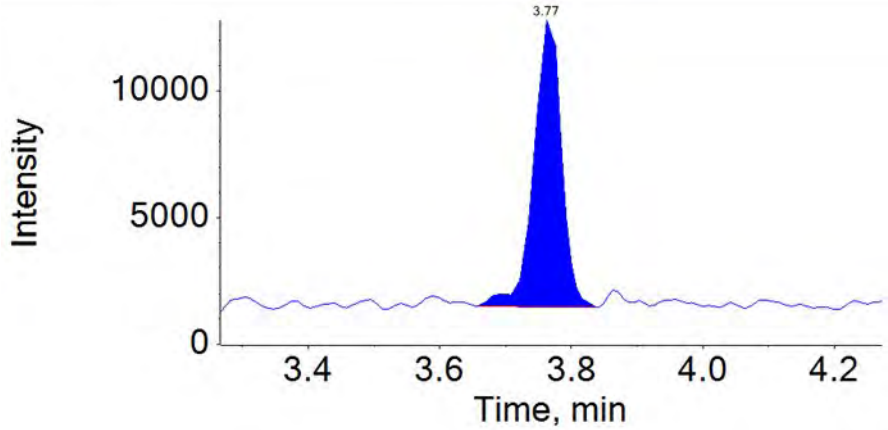


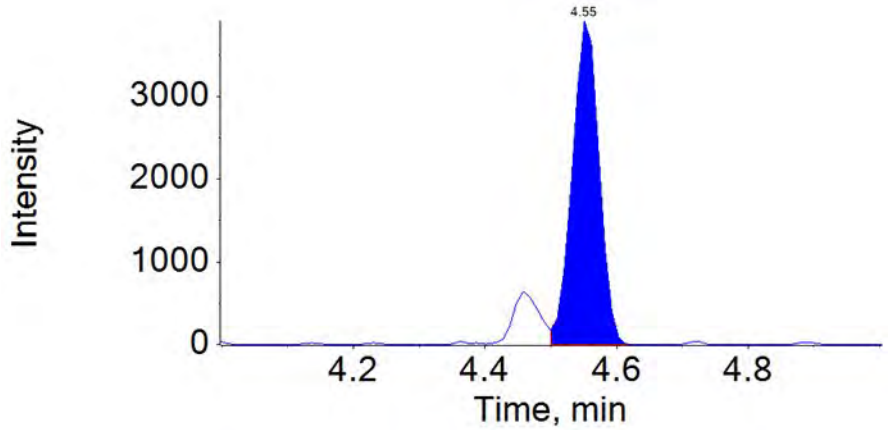


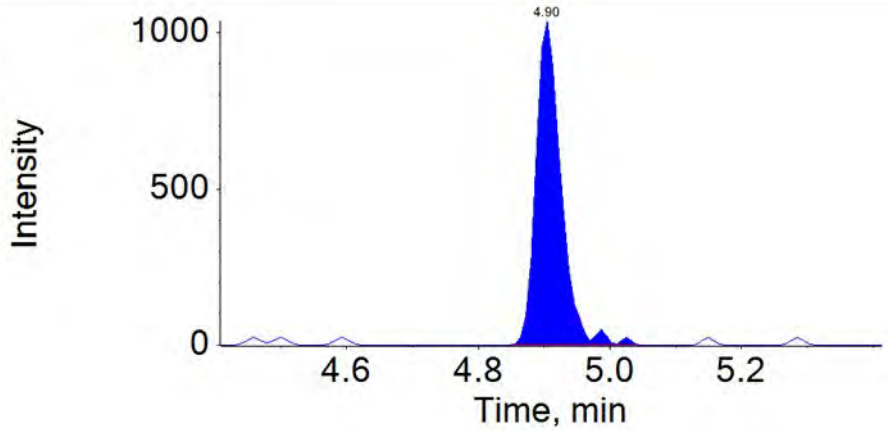
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By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

Results Table Name: 18NOV12DCAL
Results Table Date: 11/12/2018 6:23:42 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name: PFPeA **RT (min.):** 3.77 **Peak Area:** 33474.86 **Mass Range:** 263.0 / 219.0 **File Name:** 18NOV12DCAL-42.wiff **Sample Name:** CAL1	 **Integration Comment:** incorrect integration

Component Name: PFHxS **RT (min.):** 4.55 **Peak Area:** 11101.81 **Mass Range:** 399.0 / 80.0 **File Name:** 18NOV12DCAL-42.wiff **Sample Name:** CAL1	 **Integration Comment:** incorrect integration

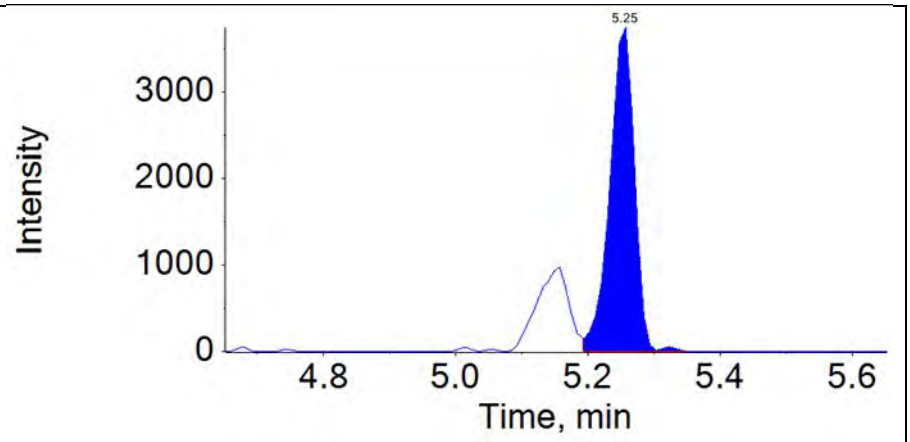
Component Name: 6:2-FTS **RT (min.):** 4.90 **Peak Area:** 2772.78 **Mass Range:** 427.0 / 407.0 **File Name:** 18NOV12DCAL-42.wiff **Sample Name:** CAL1	 **Integration Comment:** incorrect integration

APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

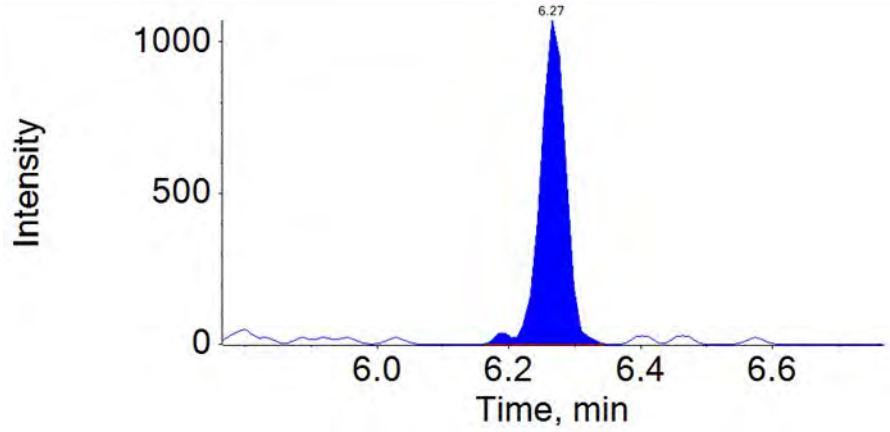
Results Table Name: 18NOV12DCAL
Results Table Date: 11/12/2018 6:23:42 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFOS
RT (min.):
5.25
Peak Area:
9779.70
Mass Range:
499.0 / 80.0
File Name:
18NOV12DCAL-42.wiff
Sample Name:
CAL1



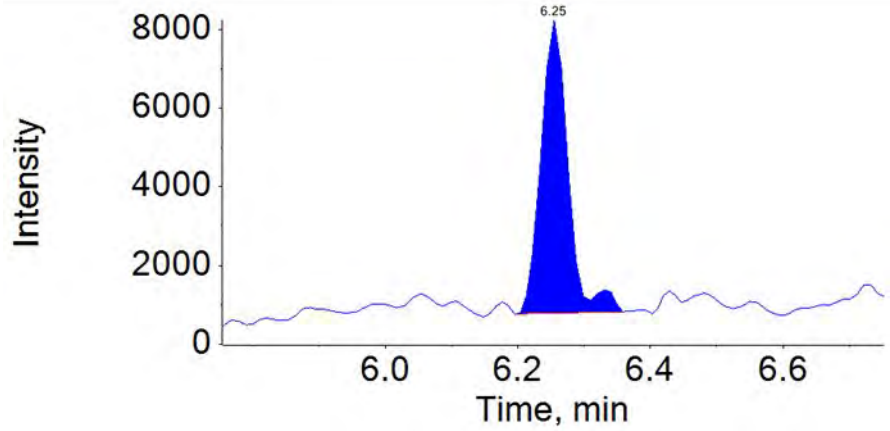
Integration Comment: incorrect integration

Component Name:
NEtPFOSA
RT (min.):
6.27
Peak Area:
2904.33
Mass Range:
526.0 / 169.0
File Name:
18NOV12DCAL-42.wiff
Sample Name:
CAL1



Integration Comment: incorrect integration

Component Name:
PFTrDA
RT (min.):
6.25
Peak Area:
21221.75
Mass Range:
663.0 / 619.0
File Name:
18NOV12DCAL-42.wiff
Sample Name:
CAL1



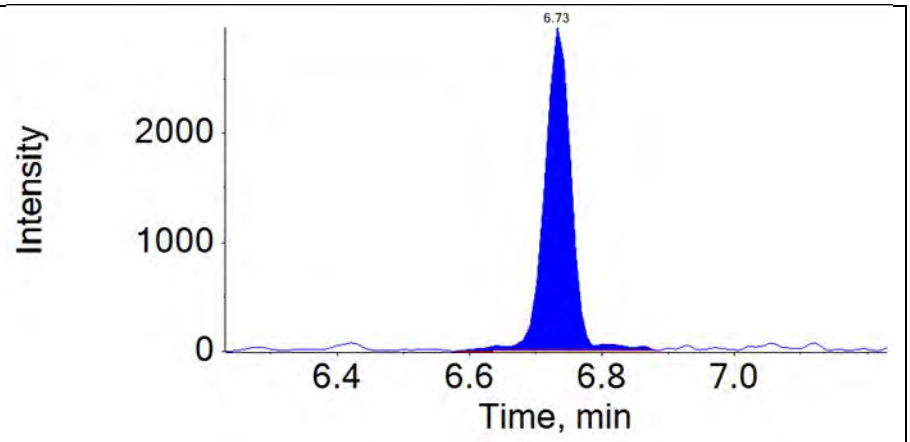
Integration Comment: incorrect integration

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REVIEWED
By HMK at 10:53 am, 11/13/18

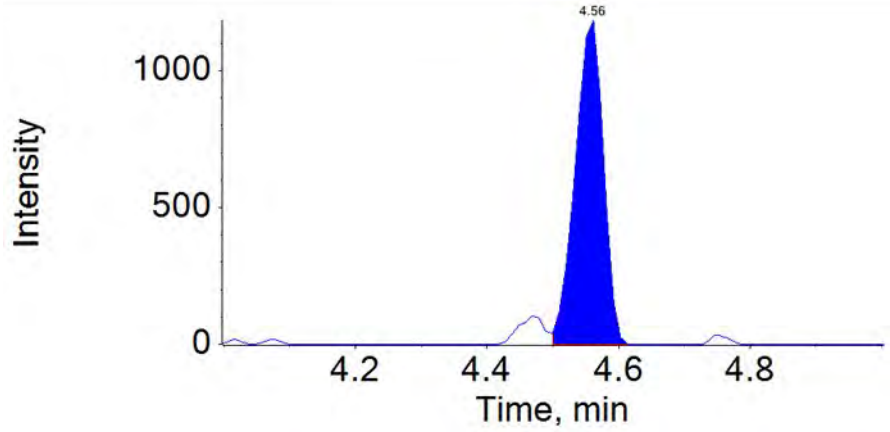
Results Table Name: 18NOV12DCAL
Results Table Date: 11/12/2018 6:23:42 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFHxDA
RT (min.):
6.73
Peak Area:
8304.86
Mass Range:
813.0 / 769.0
File Name:
18NOV12DCAL-42.wiff
Sample Name:
CAL1



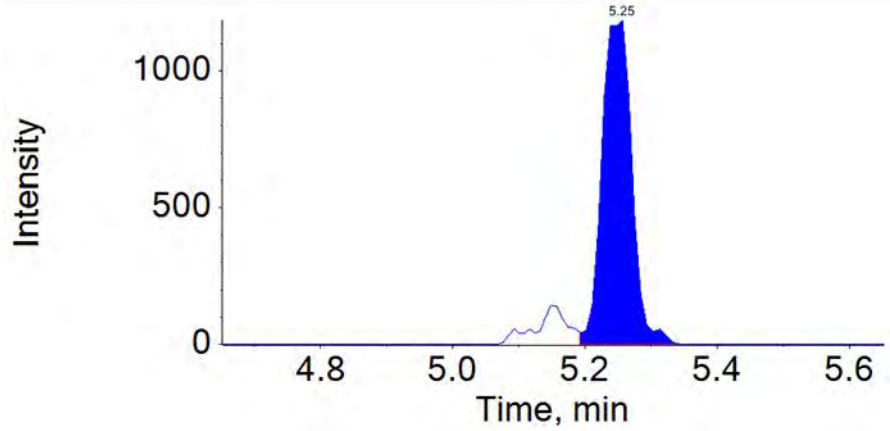
Integration Comment: incorrect integration

Component Name:
PFHxS_2
RT (min.):
4.56
Peak Area:
3529.38
Mass Range:
399.0 / 99.0
File Name:
18NOV12DCAL-42.wiff
Sample Name:
CAL1



Integration Comment: incorrect integration

Component Name:
PFOS_2
RT (min.):
5.25
Peak Area:
3773.94
Mass Range:
499.0 / 99.0
File Name:
18NOV12DCAL-42.wiff
Sample Name:
CAL1

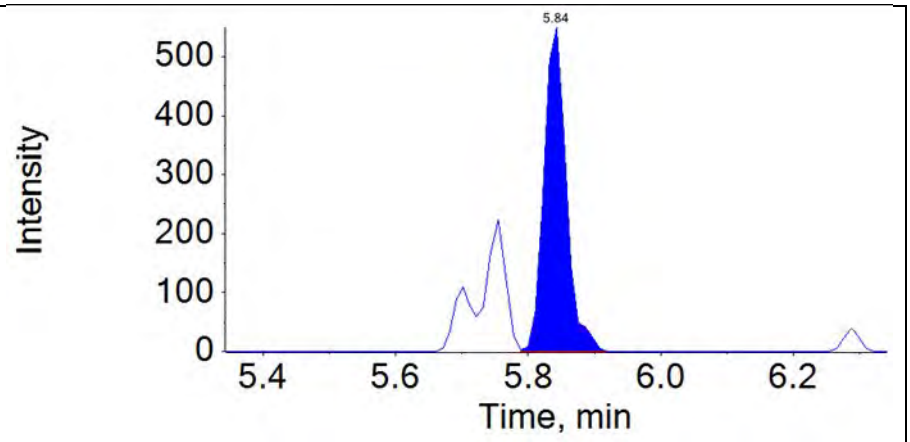


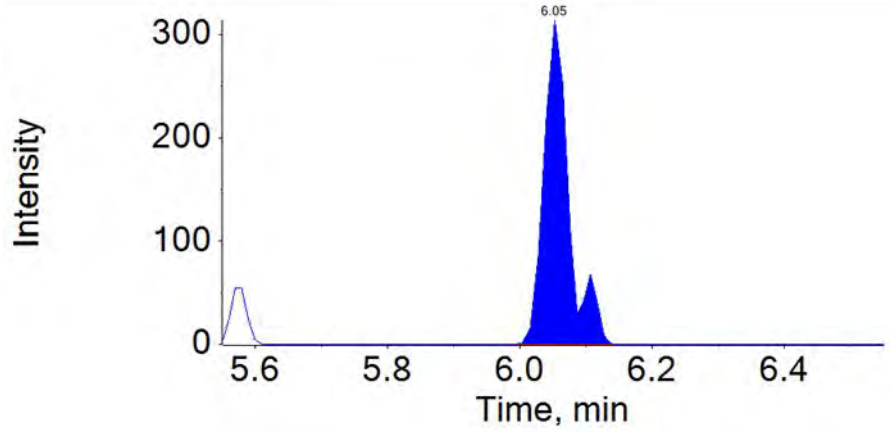
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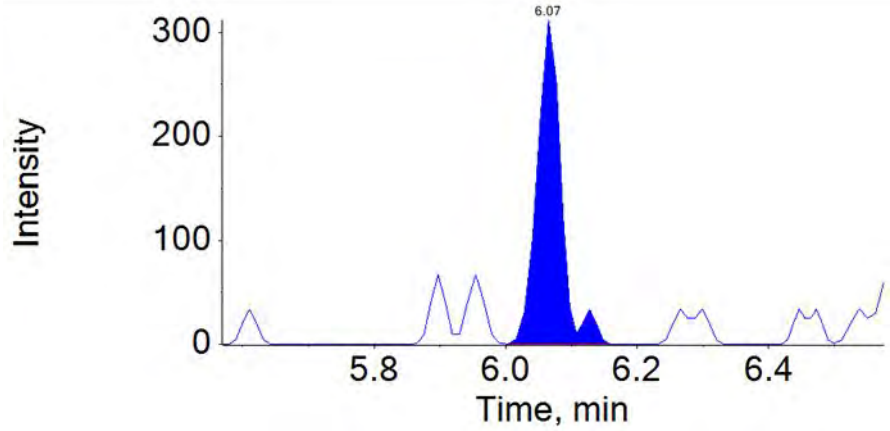
APPROVED
By MCD at 6:33 pm, 11/12/18

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By HMK at 10:53 am, 11/13/18

Results Table Name: 18NOV12DCAL
Results Table Date: 11/12/2018 6:23:42 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name: NEtFOSAA_2 **RT (min.):** 5.84 **Peak Area:** 1295.22 **Mass Range:** 584.0 / 526.0 **File Name:** 18NOV12DCAL-42.wiff **Sample Name:** CAL1	 **Integration Comment:** incorrect integration

Component Name: PFDoDA_2 **RT (min.):** 6.05 **Peak Area:** 835.89 **Mass Range:** 613.0 / 169.0 **File Name:** 18NOV12DCAL-42.wiff **Sample Name:** CAL1	 **Integration Comment:** incorrect integration

Component Name: 10:2 FTS_2 **RT (min.):** 6.07 **Peak Area:** 801.59 **Mass Range:** 627.0 / 81.0 **File Name:** 18NOV12DCAL-42.wiff **Sample Name:** CAL1	 **Integration Comment:** incorrect integration

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REVIEWED
By HMK at 10:53 am, 11/13/18

Results Table Name: 18NOV12DCAL
Results Table Date: 11/12/2018 6:23:42 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Ion Ratio Report

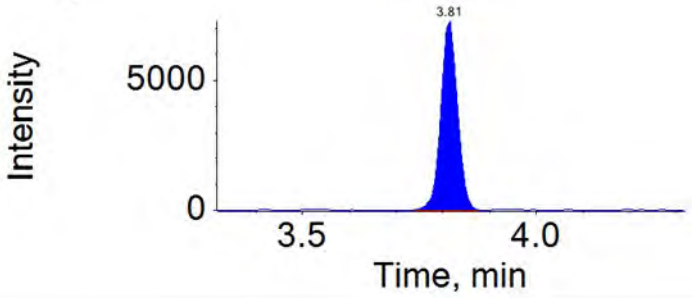
Sample Name: CAL1 **Instrument Name:** LM27631 **File Name:** 18NOV12DCAL-42.wiff

Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	3.81	1.00	18010.03	A	0.3619	0.3587			
PFBS_2	3.81	1.00	6459.67	A	0.3619	0.3587	-1	50	
4:2-FTS	4.13	1.00	3636.36	A	0.6730	0.7769			
4:2 FTS_2	4.13	1.00	2825.20	A	0.6730	0.7769		#NA!	
PFHxA	4.16	1.00	39108.19	A	0.0117	0.0110			
PFHxA_2	4.16	1.00	431.19	A	0.0117	0.0110	-5	50	
PFPeS	4.18	1.10	9620.09	A	0.5191	0.4377			
PFPeS_2	4.18	1.10	4210.95	A	0.5191	0.4377	-16	50	
PFHpA	4.55	1.00	37545.37	A	0.0563	0.0594			
PFHpA_2	4.55	1.00	2229.00	A	0.0563	0.0594	5	50	
PFHxS	4.55	1.00	12858.11	M	0.3428	0.2967			
PFHxS_2	4.56	1.00	3815.05	M	0.3428	0.2967	-13	50	
6:2-FTS	4.90	1.00	2683.12	M	0.6604	0.6208			
6:2 FTS_2	4.91	1.00	1665.70	A	0.6604	0.6208		#NA!	
PFHpS	4.91	1.08	13262.78	A	0.4066	0.3857			
PFHpS_2	4.91	1.08	5115.91	A	0.4066	0.3857	-5	50	
PFOA	4.92	1.00	41467.99	A	0.0562	0.0587			
PFOA_2	4.92	1.00	2433.19	A	0.0562	0.0587	4	50	
PFOS	5.25	1.00	13088.49	M	0.2968	0.3248			
PFOS_2	5.25	1.00	4250.80	M	0.2968	0.3248	9	50	
PFNA	5.26	1.00	29660.05	A	0.0229	0.0300			
PFNA_2	5.26	1.00	890.58	A	0.0229	0.0300	31	50	
PFNS	5.54	1.06	6846.55	A	0.4828	0.5747			
PFNS_2	5.55	1.06	3934.96	A	0.4828	0.5747	19	50	
PFDA	5.56	1.00	27488.55	A	0.0081	0.0185			
PFDA_2	5.57	1.00	509.91	A	0.0081	0.0185	130	50	OOS
8:2-FTS	5.57	1.00	2333.06	A	0.6814	0.8052			
8:2 FTS_2	5.57	1.00	1878.62	A	0.6814	0.8052		#NA!	
NMeFOSAA	5.71	1.00	2306.38	A	0.2569	0.2416			
NMeFOSAA_2	5.69	1.00	557.21	A	0.2569	0.2416	-6	50	
PFDS	5.80	1.10	5952.23	A	0.5144	0.5857			
PFDS_2	5.80	1.11	3486.36	A	0.5144	0.5857	14	50	
PFUnDA	5.82	1.00	23379.53	A	0.0058	0.0168			
PFUnDA_2	5.83	1.00	393.36	A	0.0058	0.0168	189	50	OOS
NEtFOSAA	5.85	1.00	2284.89	A	0.7253	0.8510			
NEtFOSAA_2	5.84	1.00	1944.53	M	0.7253	0.8510	17	50	
PFDoDA	6.05	1.00	22143.56	A	0.0157	0.0329			
PFDoDA_2	6.05	1.00	728.93	M	0.0157	0.0329	110	50	OOS
10:2-FTS	6.07	1.09	1814.19	A	0.6356	0.4140			
10:2 FTS_2	6.07	1.09	751.03	M	0.6356	0.4140		#NA!	
PFTrDA	6.25	1.03	20185.08	M	0.0086	0.0098			
PFTrDA_2	6.24	1.03	198.77	A	0.0086	0.0098	15	50	
PFTeDA	6.43	1.00	16357.53	A	0.0062	0.0036			
PFTeDA_2	6.46	1.01	58.89	A	0.0062	0.0036	-42	50	
PFHxDA	6.73	1.05	7976.02	M	0.0683	0.0708			
PFHxDA_2	6.73	1.05	564.53	A	0.0683	0.0708	4	50	
PFODA	7.00	1.09	6020.31	A	0.0277	0.0307			
PFODA_2	6.99	1.09	185.07	A	0.0277	0.0307	11	50	

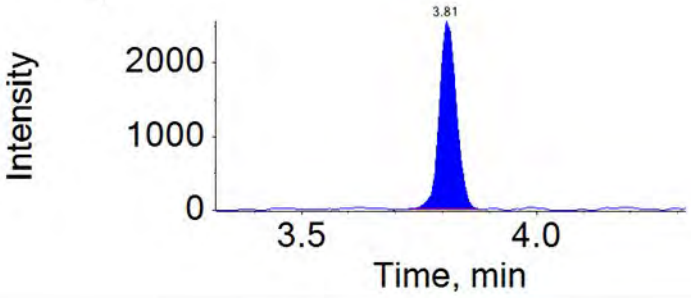
APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

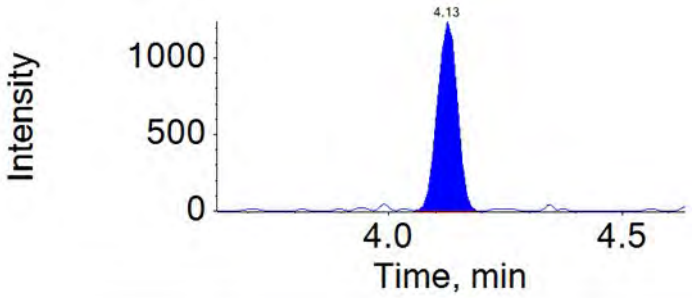
Component: PFBS
Primary Mass: 299.0 / 80.0



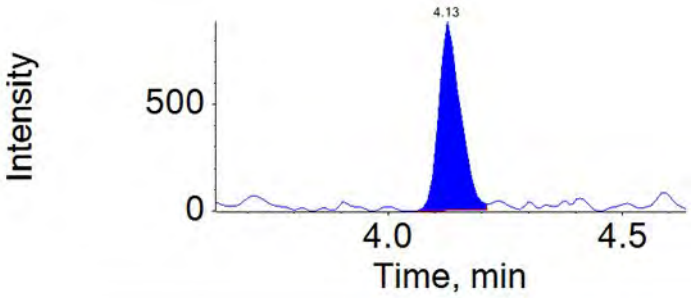
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



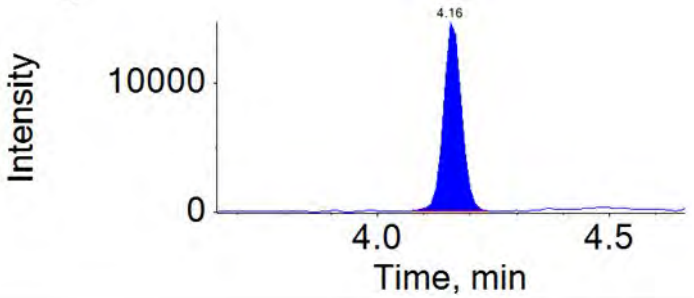
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



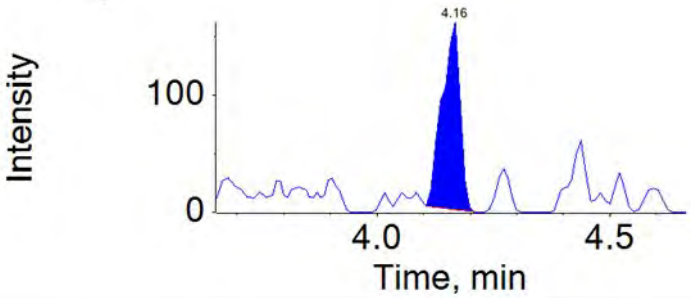
Component: 4:2 FTS_2
Secondary Mass: 327.0 / 81.0



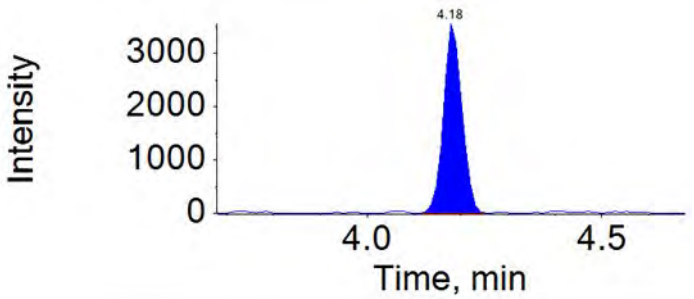
Component: PFHxA
Primary Mass: 313.0 / 269.0



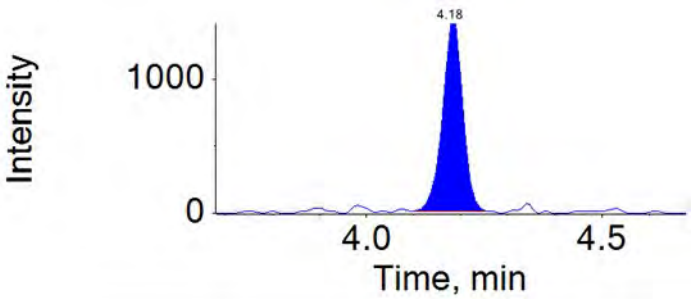
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



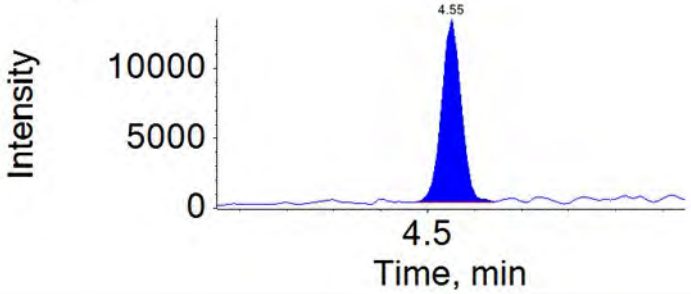
Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



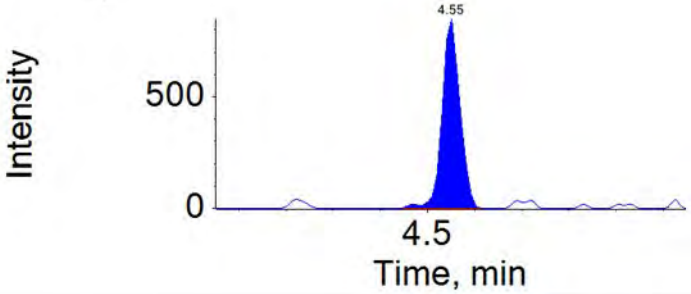
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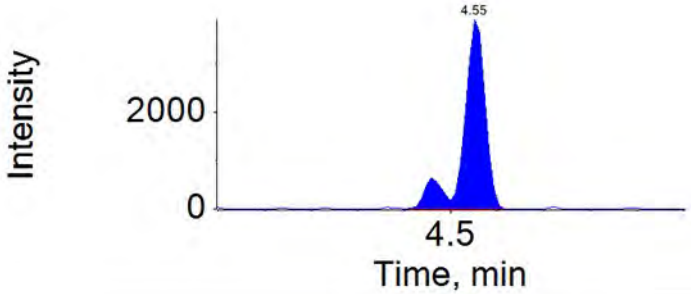
Component: PFHpA
Primary Mass: 363.0 / 319.0



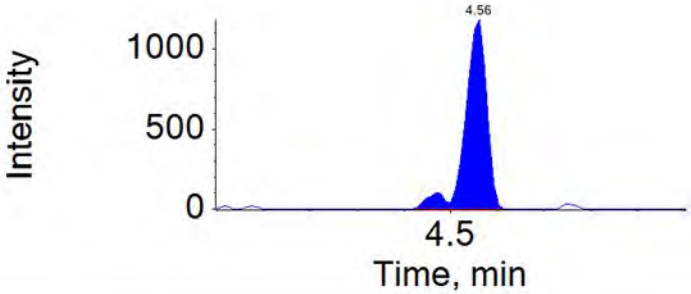
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



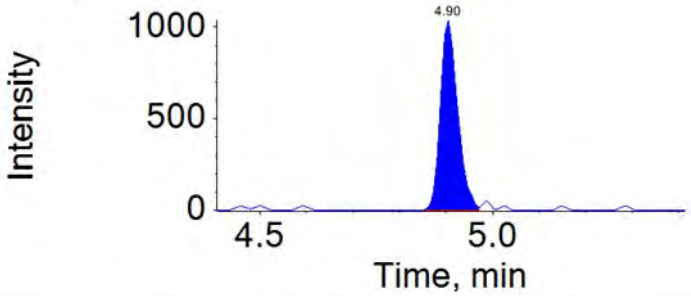
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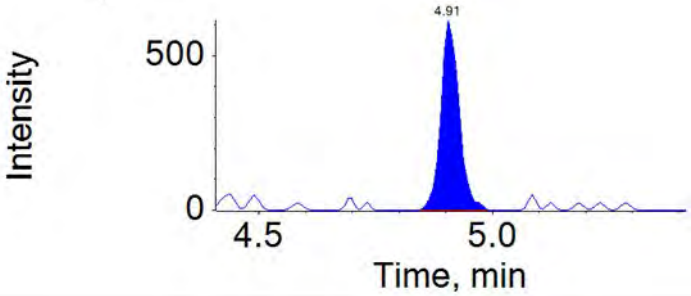
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Secondary Mass: 399.0 / 99.0



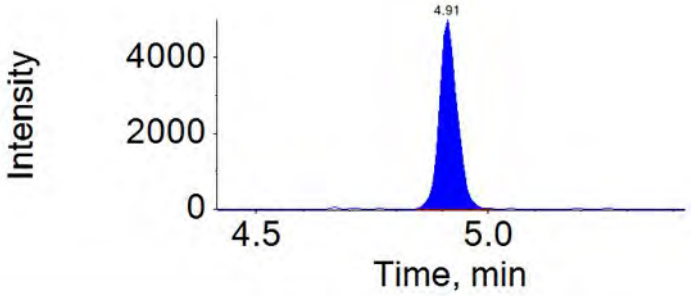
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



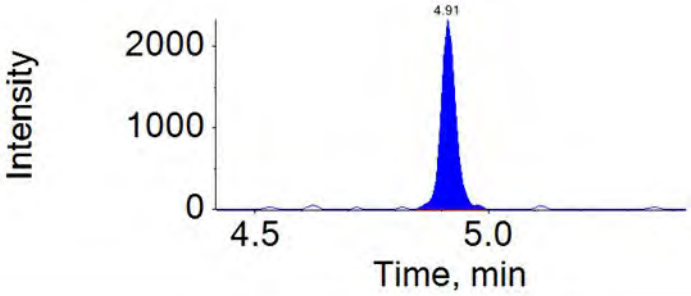
Component: 6:2 FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



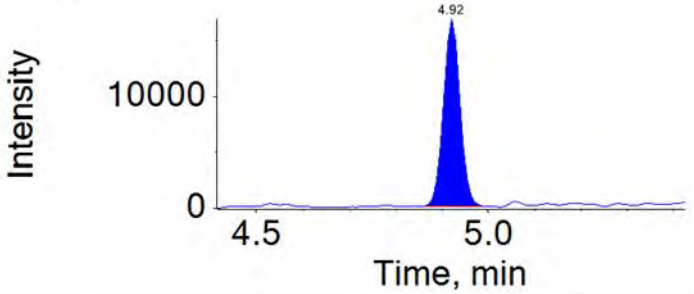
Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



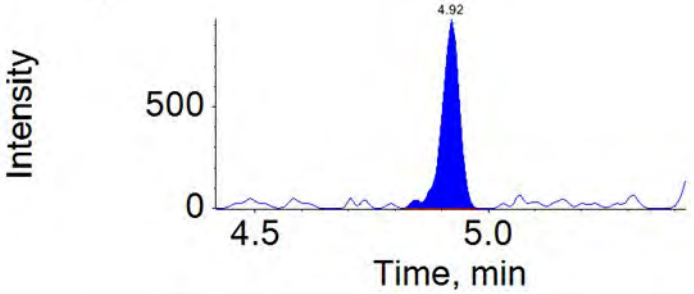
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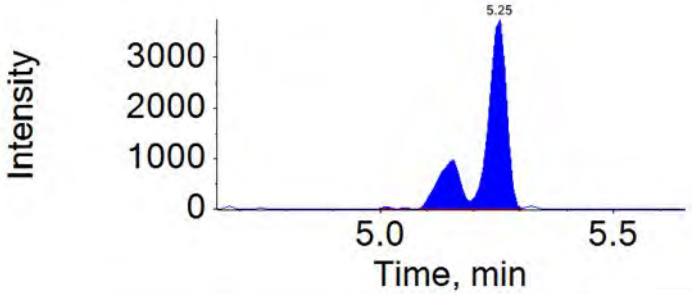
Component: PFOA
Primary Mass: 413.0 / 369.0



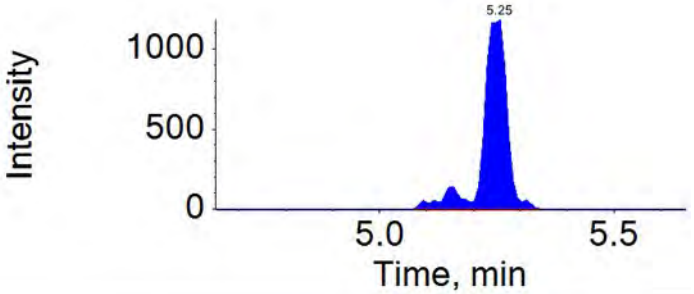
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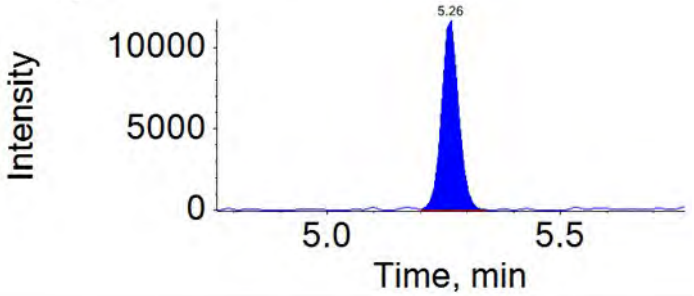
Component: PFOS
Primary Mass: 499.0 / 80.0



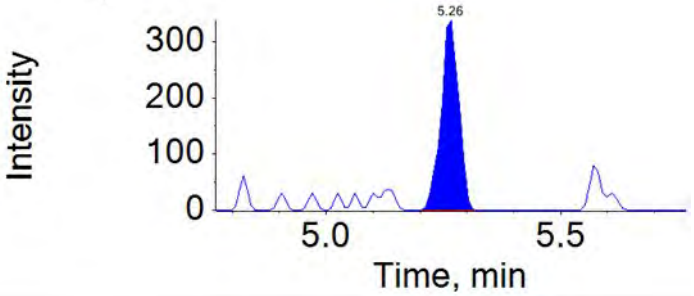
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



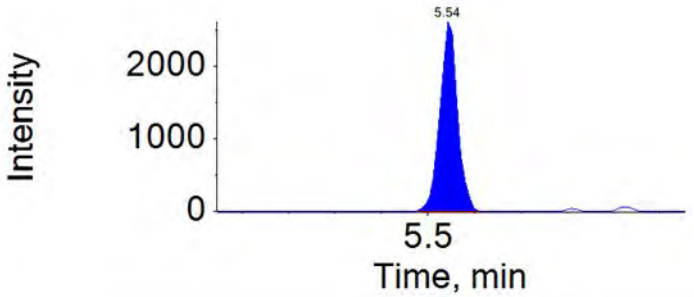
Component: PFNA
Primary Mass: 463.0 / 419.0



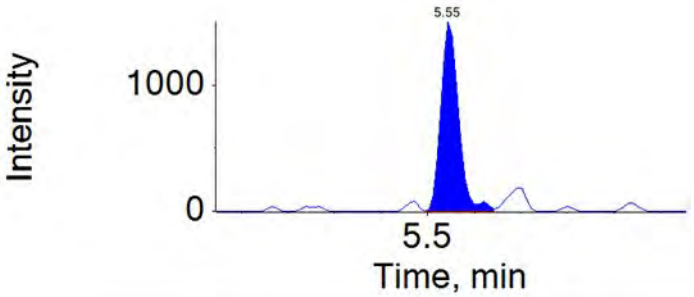
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



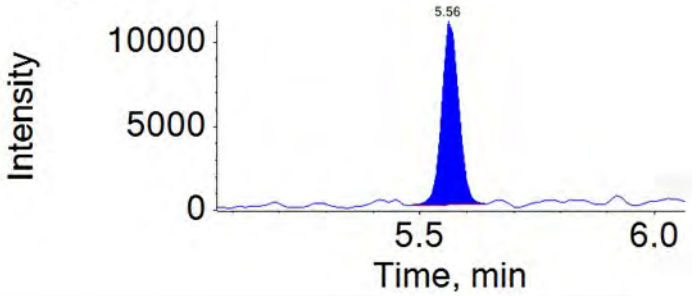
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



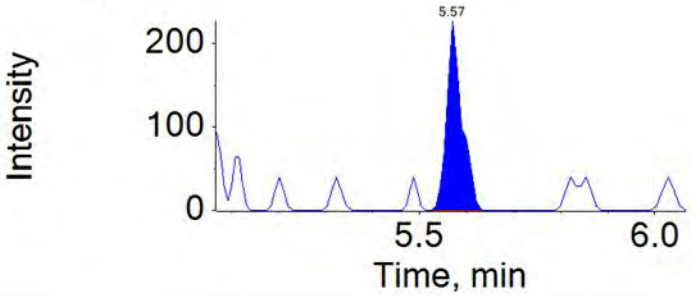
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By MCD at 6:33 pm, 11/12/18

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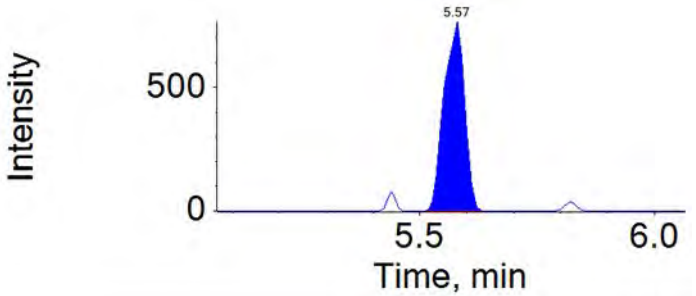
Component: PFDA
Primary Mass: 513.0 / 469.0



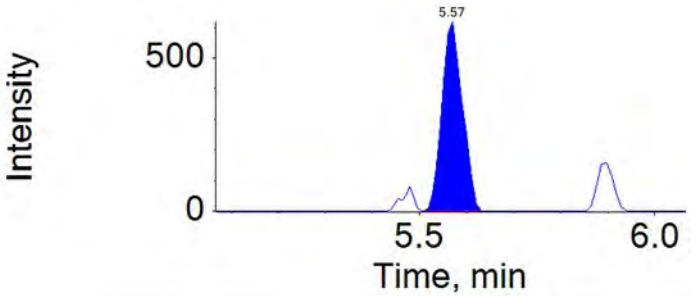
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



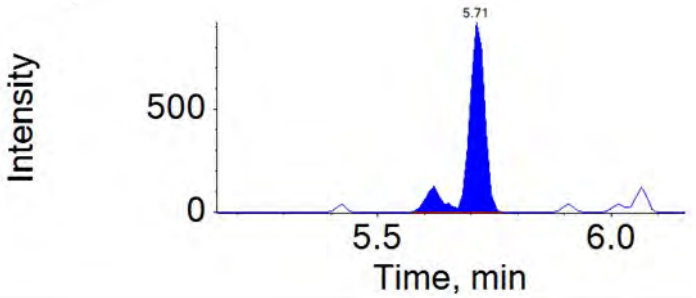
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



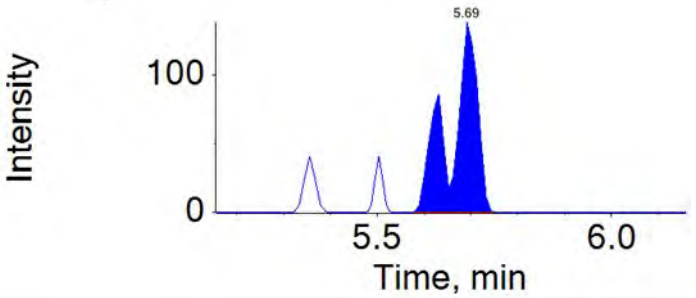
Component: 8:2 FTS_2
Secondary Mass: 527.0 / 81.0



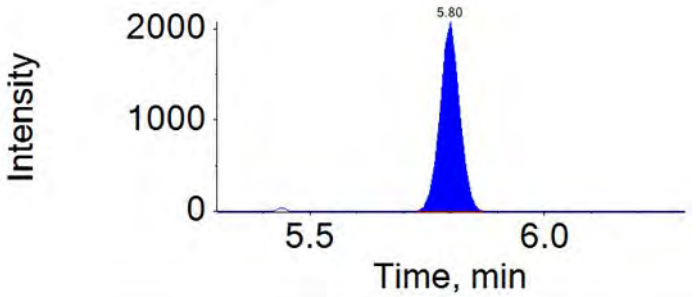
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



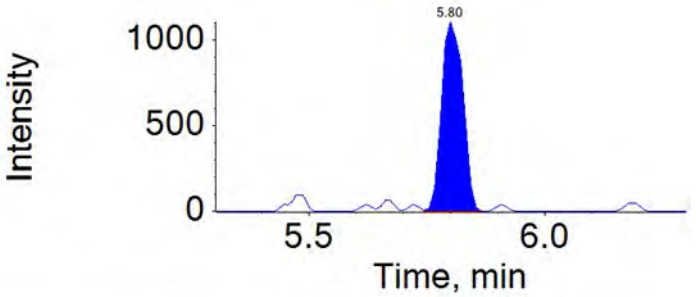
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



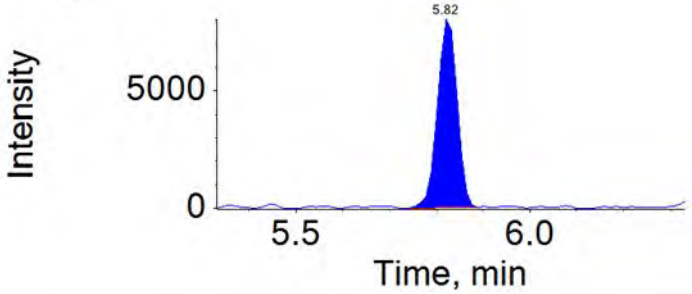
Component: PFDS_2
Secondary Mass: 599.0 / 99.0



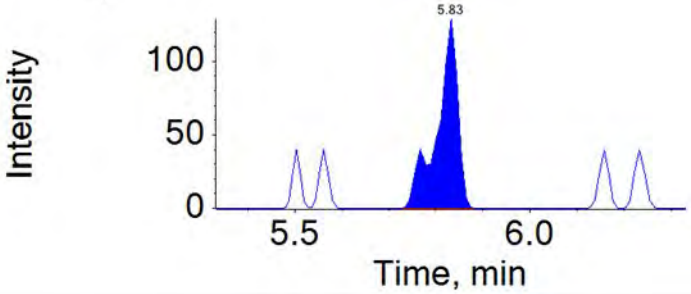
APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

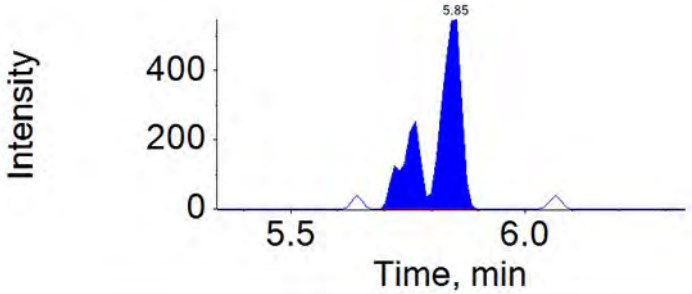
Component: PFUnDA
Primary Mass: 563.0 / 519.0



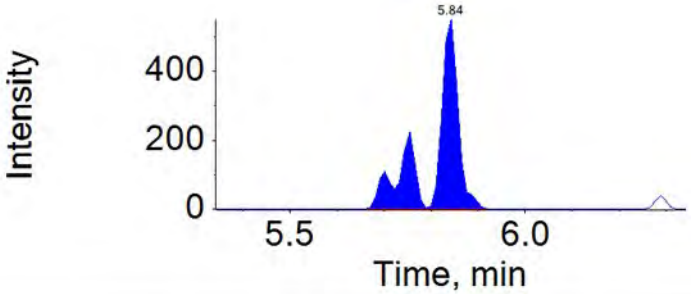
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



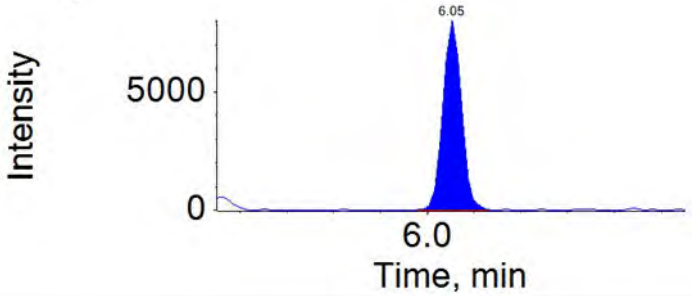
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



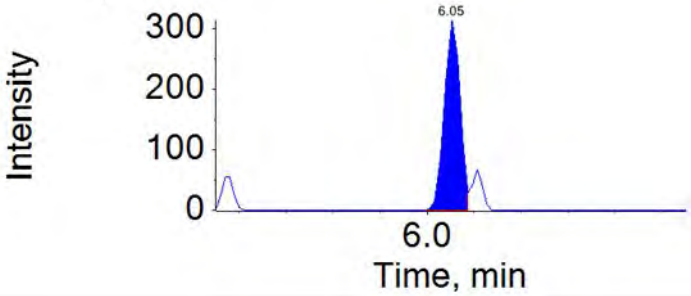
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



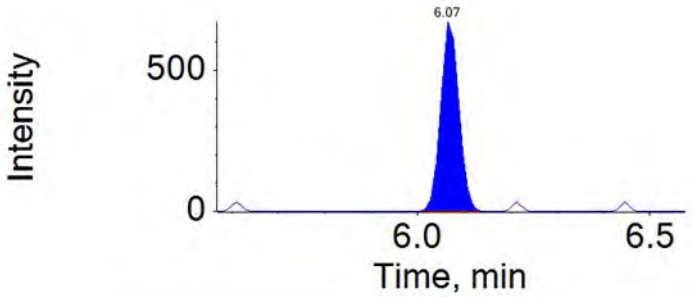
Component: PFDoDA
Primary Mass: 613.0 / 569.0



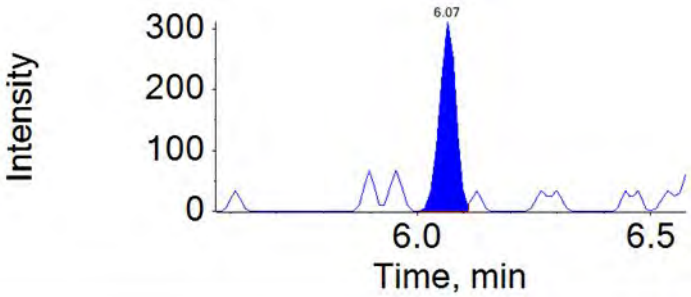
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



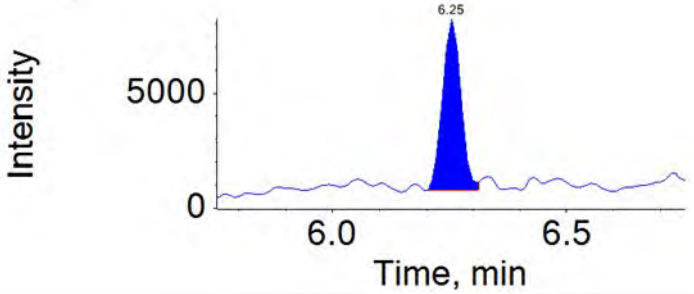
Component: 10:2 FTS_2
Secondary Mass: 627.0 / 81.0



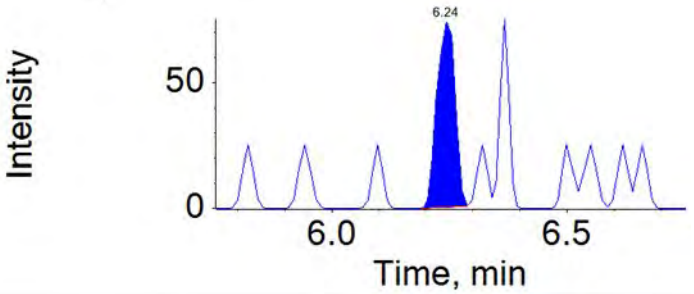
APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

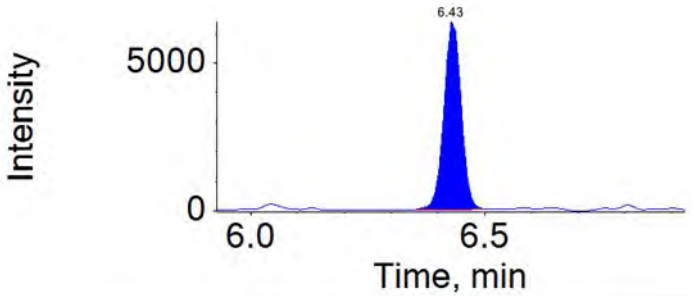
Component: PFTrDA
Primary Mass: 663.0 / 619.0



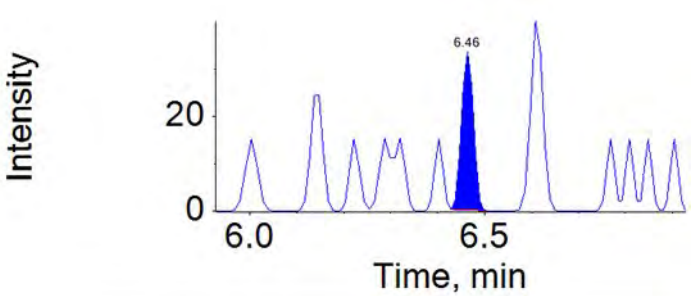
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



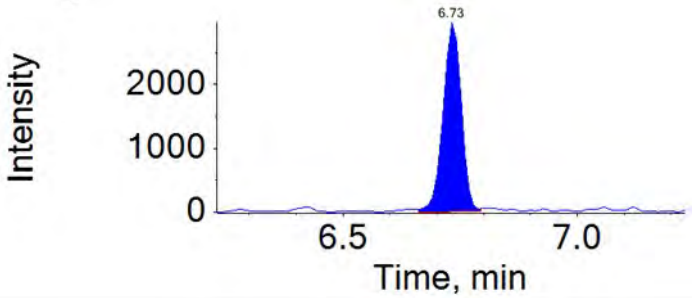
Component: PFTeDA
Primary Mass: 713.0 / 669.0



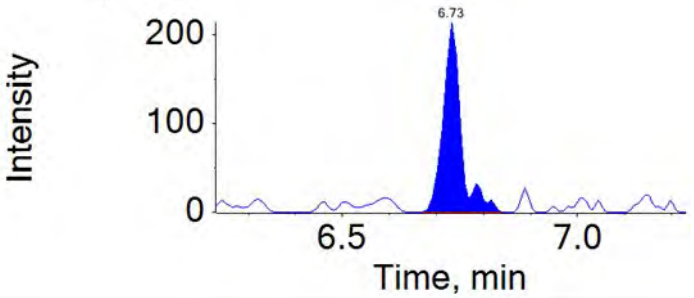
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



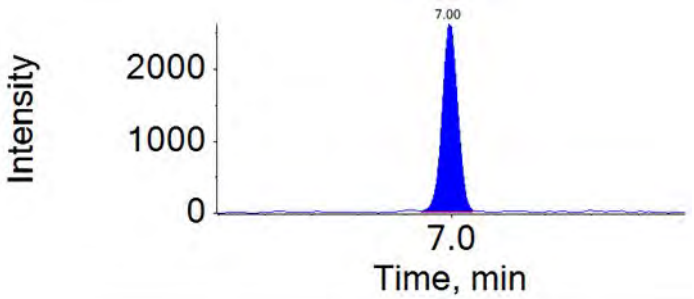
Component: PFHxDA
Primary Mass: 813.0 / 769.0



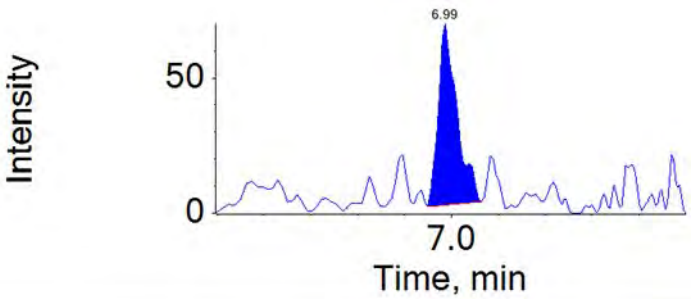
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Sample Name:	CAL2			**Data File:**		18NOV12DCAL-43.wiff
Sample ID:	CALBRN21833C			**Acquis Date:**		2018-11-12T15:15:03
Sample Type:	Standard			**Instrument:**		LM27631
Vial Position:	4			**Acquis Method:**		18AUG13_3uL.dam
Injection Vol:	3.00			**Result Table:**		18NOV12DCAL
QMethod File:	18AUG20QM			**ICAL Name:**		18NOV12DCAL
Batch Number:	N\A			**Operator:**		MCD7824
Sample Wt.:	1.00000			**Dilution Factor:**		1.00
Sample Vol.:	1.000			**Prep Factor:**		1.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV12DCAL-44

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Rreference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	662396.7	659926.2	0	50	
13C2-PFOA	5.0	454466.7	450219.7	1	50	
13C4-PFOS	4.8	250483.8	249205.8	1	50	
13C2-PFDA	5.0	277324.2	278743.9	-1	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	771445.8	13C3-PFBA	662396.7	1.165	5.000	5.221	104	70-130	
E13C5-PFPeA	738194.7	13C3-PFBA	662396.7	1.114	5.000	4.998	100	70-130	
E13C3-PFBS	418860.7	13C3-PFBA	662396.7	0.632	4.650	4.464	96	70-130	
E13C2-4:2-FTS	46141.8	13C2-PFOA	454466.7	0.102	4.670	4.522	97	70-130	
E13C5-PFHxA	648170.1	13C2-PFOA	454466.7	1.426	5.000	5.152	103	70-130	
E13C3-PFHxS	320400.4	13C2-PFOA	454466.7	0.705	4.730	4.838	102	70-130	
E13C4-PFHpA	532987.5	13C2-PFOA	454466.7	1.173	5.000	5.284	106	70-130	
E13C2-6:2-FTS	35585.7	13C2-PFOA	454466.7	0.078	4.750	5.239	110	70-130	
E13C8-PFOA	892584.2	13C2-PFOA	454466.7	1.964	5.000	5.411	108	70-130	
E13C8-PFOS	271778.8	13C4-PFOS	250483.8	1.085	4.780	4.808	101	70-130	
E13C9-PFNA	451850.1	13C4-PFOS	250483.8	1.804	5.000	5.030	101	70-130	
E13C6-PFDA	601859.8	13C2-PFDA	277324.2	2.170	5.000	5.064	101	70-130	
E13C2-8:2-FTS	27639.2	13C2-PFDA	277324.2	0.100	4.790	4.970	104	70-130	
E13C8-PFOSA	636543.2	13C2-PFDA	277324.2	2.295	5.000	5.089	102	70-130	
Ed3-NMeFOSAA	77388.6	13C2-PFDA	277324.2	0.279	5.000	5.037	101	70-130	
E13C7-PFUnDA	242881.8	13C2-PFDA	277324.2	0.876	5.000	5.085	102	70-130	
Ed5-NEtFOSAA	63686.9	13C2-PFDA	277324.2	0.230	5.000	4.859	97	70-130	
E13C2-PFDoDA	532175.4	13C2-PFDA	277324.2	1.919	5.000	4.982	100	70-130	
Ed7-NMePFOSAE	323456.5	13C2-PFDA	277324.2	1.166	5.000	5.047	101	70-130	
Ed3-NMePFOSA	77893.2	13C2-PFDA	277324.2	0.281	5.000	5.103	102	70-130	
Ed9-NEtPFOSAE	261195.6	13C2-PFDA	277324.2	0.942	5.000	4.899	98	70-130	
Ed5-NEtPFOSA	58073.5	13C2-PFDA	277324.2	0.209	5.000	4.912	98	70-130	
E13C2-PFTeDA	394146.2	13C2-PFDA	277324.2	1.421	5.000	4.990	100	70-130	

APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

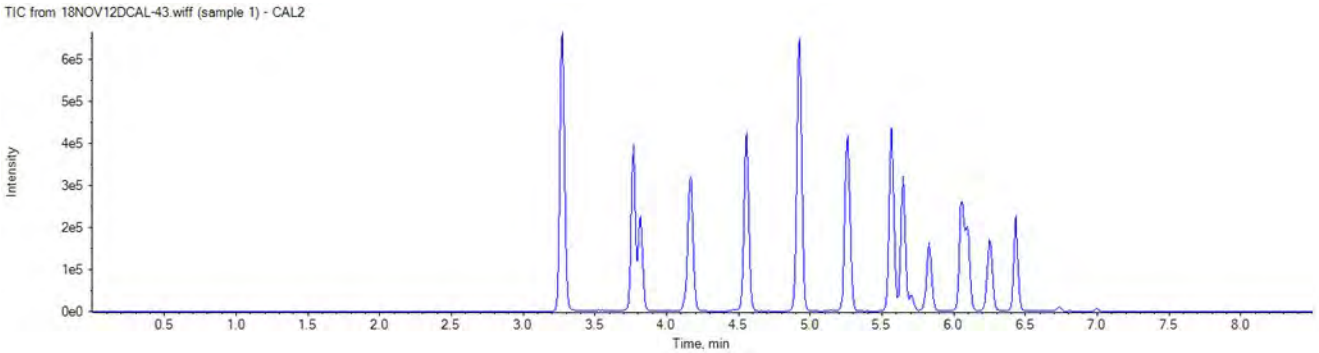
Analyte Quantitation Peak Table

Sample Name: CAL2 **Instrument Name:** LM27631 **File Name:** 18NOV12DCAL-43.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	1.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	3.27	1.000	80396.2		A	13C4-PFBA	3.27	771445.8	0.104	0.577
PFPeA	3.77	1.000	84319.4		A	13C5-PFPeA	3.77	738194.7	0.114	0.661
PFBS	3.82	1.000	44885.2		A	13C3-PFBS	3.82	418860.7	0.107	0.510
4:2-FTS	4.13	1.000	8804.0		A	13C2-4:2-FTS	4.13	46141.8	0.191	0.518
PFHxA	4.16	1.000	96559.3		A	13C5-PFHxA	4.17	648170.1	0.149	0.622
PFPeS	4.19	1.100	20295.0		A	13C3-PFBS	3.82	418860.7	0.048	0.470
PFHpA	4.55	1.000	95048.3		M	13C4-PFHpA	4.55	532987.5	0.178	0.591
PFHxS	4.56	1.000	31064.7		M	13C3-PFHxS	4.56	320400.4	0.097	0.470
6:2-FTS	4.91	1.000	8048.4		A	13C2-6:2-FTS	4.91	35585.7	0.226	0.547
PFHpS	4.92	1.080	29902.3		A	13C3-PFHxS	4.56	320400.4	0.093	0.491
PFOA	4.93	1.000	100710.5		A	13C8-PFOA	4.92	892584.2	0.113	0.603
PFOS	5.25	1.000	32301.0		M	13C8-PFOS	5.25	271778.8	0.119	0.520
PFNA	5.27	1.000	80724.2		A	13C9-PFNA	5.27	451850.1	0.179	0.644
PFNS	5.55	1.060	20326.1		A	13C8-PFOS	5.25	271778.8	0.075	0.523
PFDA	5.57	1.000	63802.1		M	13C6-PFDA	5.57	601859.8	0.106	0.562
8:2-FTS	5.57	1.000	6214.2		A	13C2-8:2-FTS	5.57	27639.2	0.225	0.524
PFOSA	5.65	1.000	71087.0		A	13C8-PFOSA	5.65	636543.2	0.112	0.545
NMeFOSAA	5.71	1.000	5759.6		A	d3-NMeFOSAA	5.71	77388.6	0.074	0.421
PFDS	5.80	1.100	16291.9		A	13C8-PFOS	5.25	271778.8	0.060	0.543
PFUnDA	5.83	1.000	51206.8		A	13C7-PFUnDA	5.83	242881.8	0.211	0.551
NEtFOSAA	5.85	1.000	7727.1		M	d5-NEtFOSAA	5.84	63686.9	0.121	0.636
PFDoDA	6.06	1.000	59695.3		A	13C2-PFDoDA	6.06	532175.4	0.112	0.571
10:2-FTS	6.08	1.090	5206.5		A	13C2-8:2-FTS	5.57	27639.2	0.188	0.627
NMePFOSAE	6.10	1.000	43085.1		A	d7-NMePFOSAE	6.09	323456.5	0.133	0.554
NMePFOSA	6.11	1.000	8877.7		A	d3-NMePFOSA	6.11	77893.2	0.114	0.562
PFDoS	6.22	1.190	8992.5		M	13C8-PFOS	5.25	271778.8	0.033	0.580
NEtPFOSAE	6.26	1.000	46623.3		M	d9-NEtPFOSAE	6.25	261195.6	0.178	0.573
NEtPFOSA	6.27	1.000	8053.7		M	d5-NEtPFOSA	6.27	58073.5	0.139	0.637
PFTrDA	6.26	1.030	47991.3		A	13C2-PFDoDA	6.06	532175.4	0.090	0.569
PFTeDA	6.43	1.000	40236.5		A	13C2-PFTeDA	6.43	394146.2	0.102	0.572
PFHxDA	6.74	1.050	19006.4		A	13C2-PFTeDA	6.43	394146.2	0.048	0.575
PFODA	7.00	1.090	14955.6		A	13C2-PFTeDA	6.43	394146.2	0.038	0.528

Total Ion Chromatogram

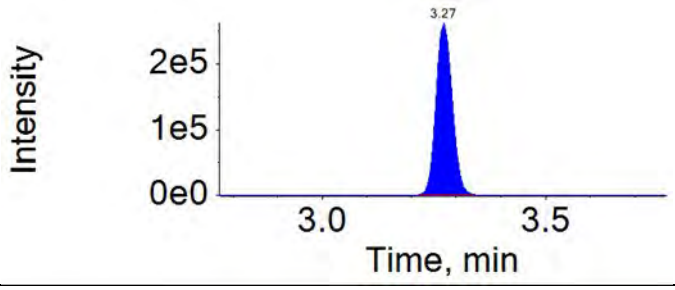


APPROVED
By MCD at 6:33 pm, 11/12/18

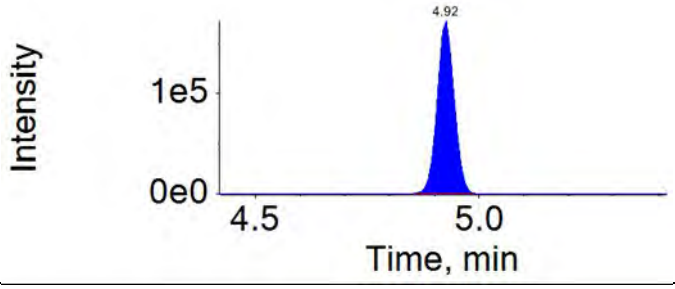
REVIEWED
By HMK at 10:53 am, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

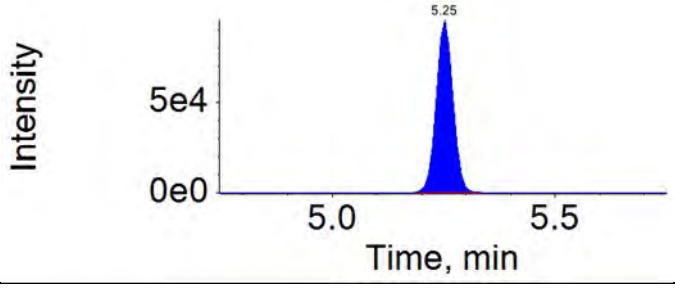
Injection Standard: 13C3-PFBA
216.0 / 172.0



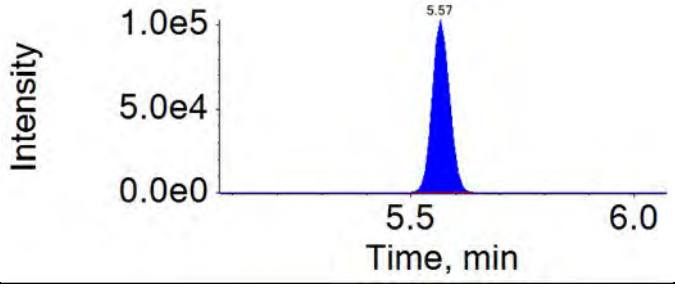
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0



Injection Standard: 13C2-PFDA
515.0 / 470.0

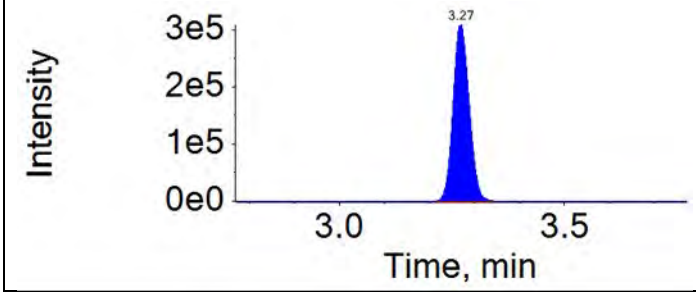


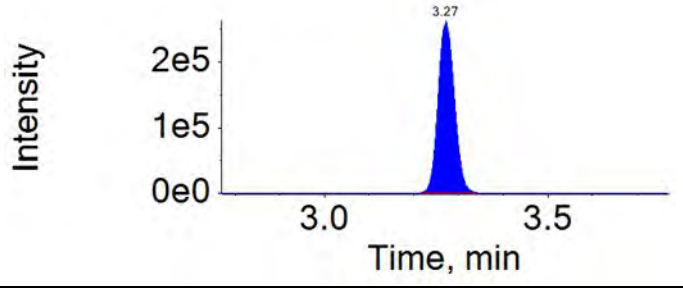
APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

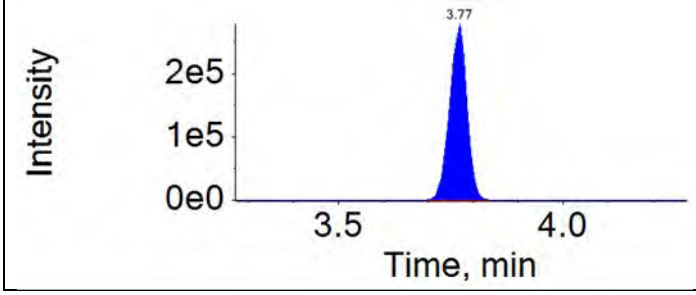
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

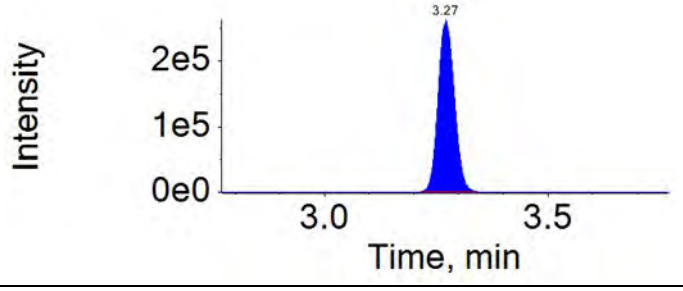
Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0



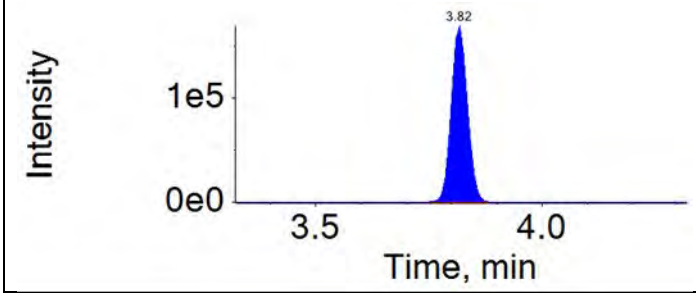


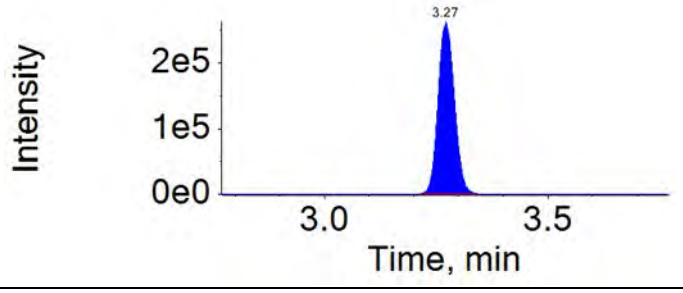
Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0



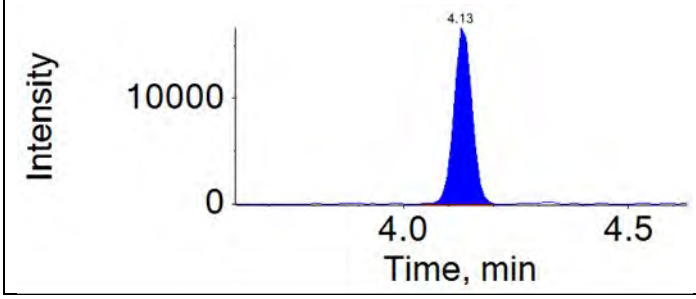


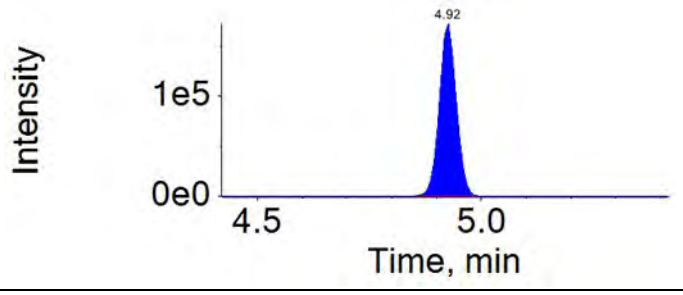
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0





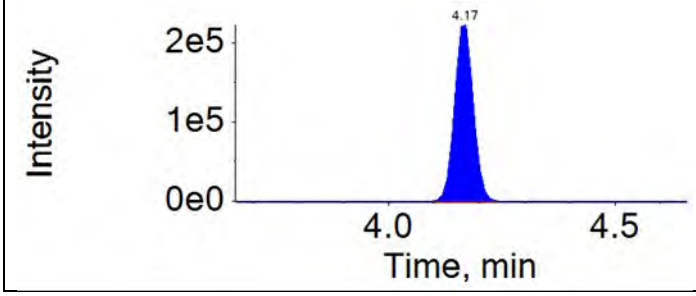
Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0

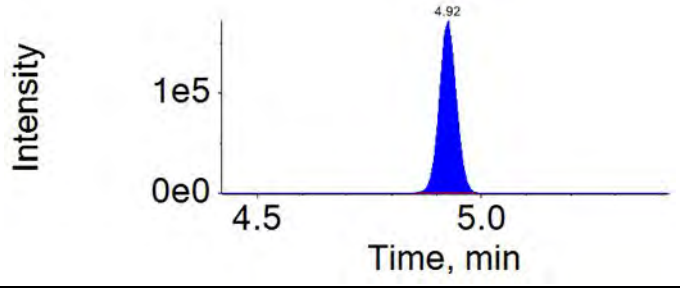




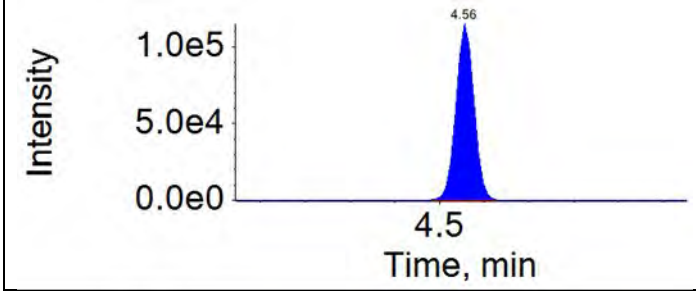
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

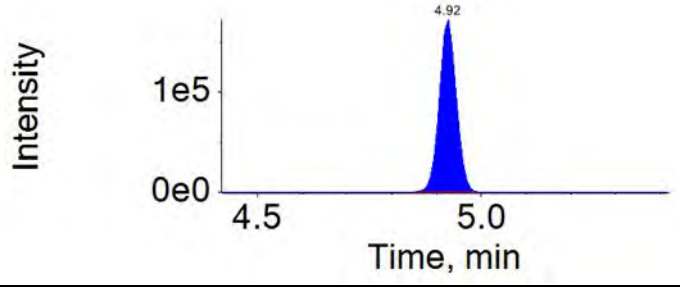
Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0



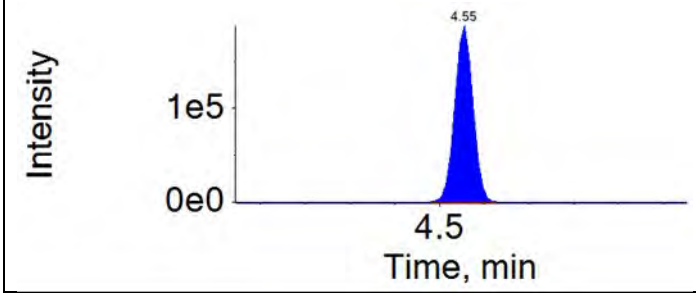


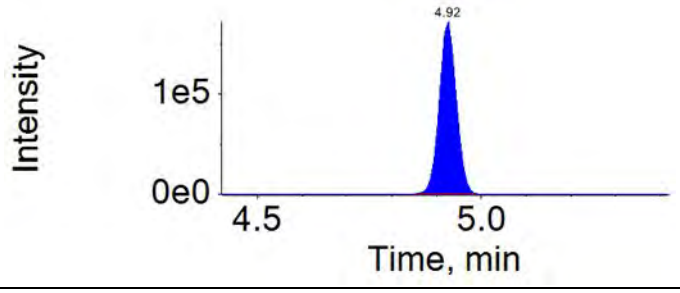
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0



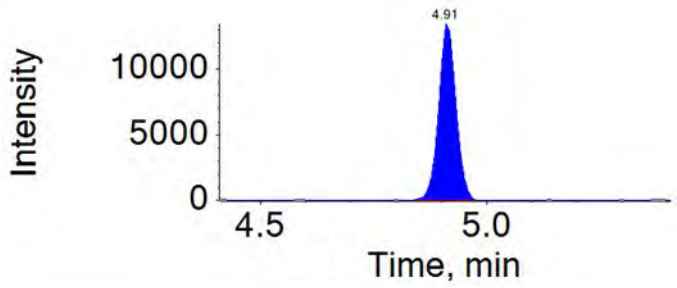


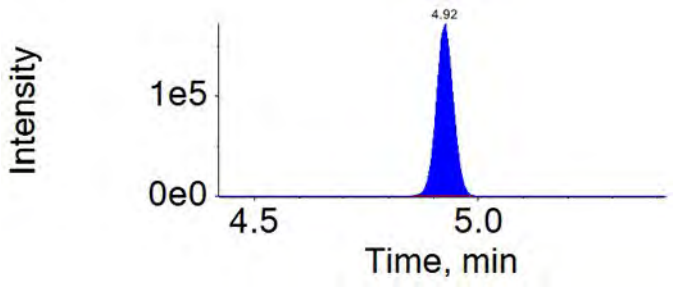
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0





Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0

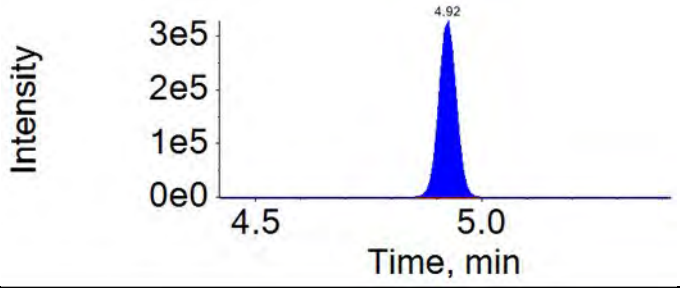
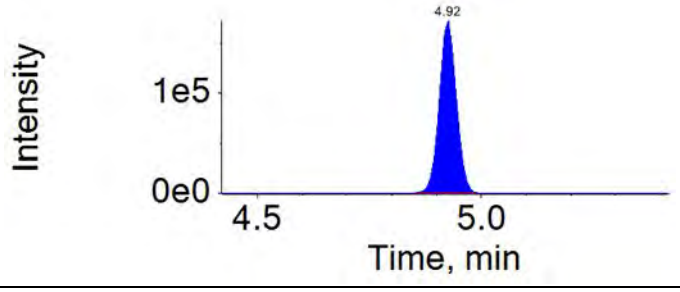


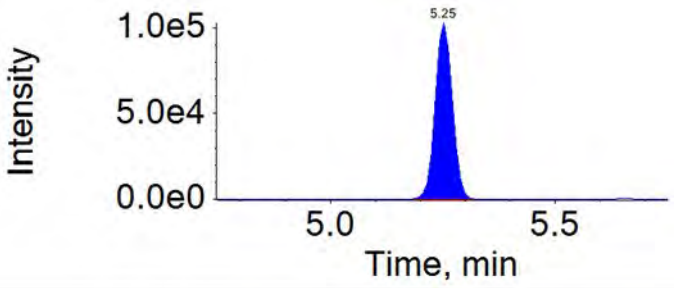
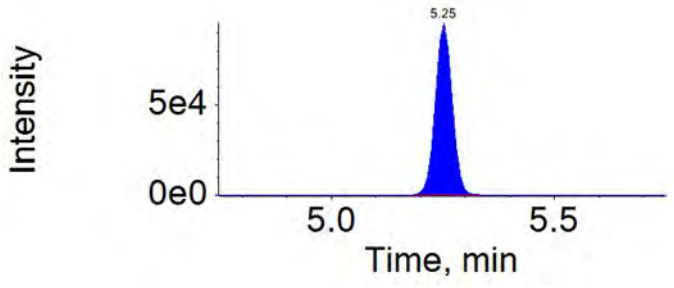


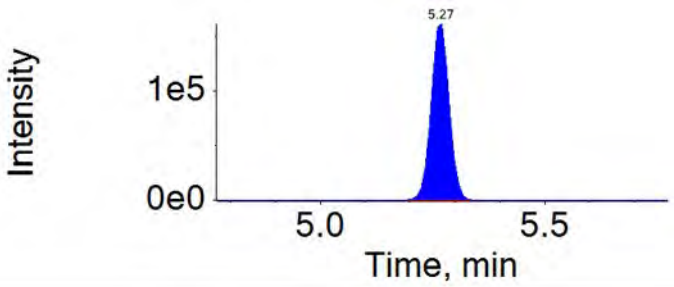
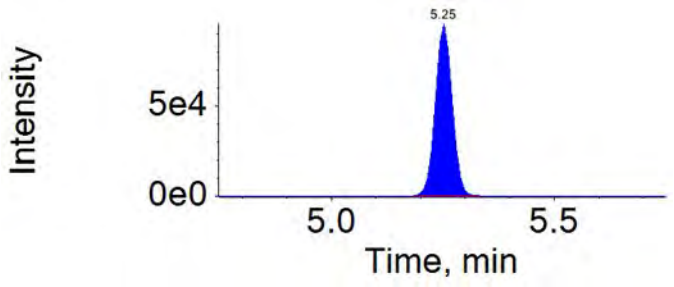
APPROVED
By MCD at 6:33 pm, 11/12/18

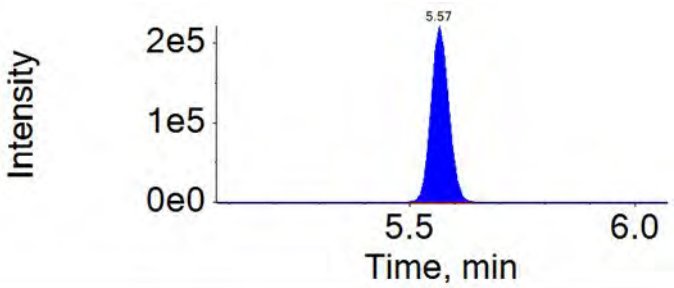
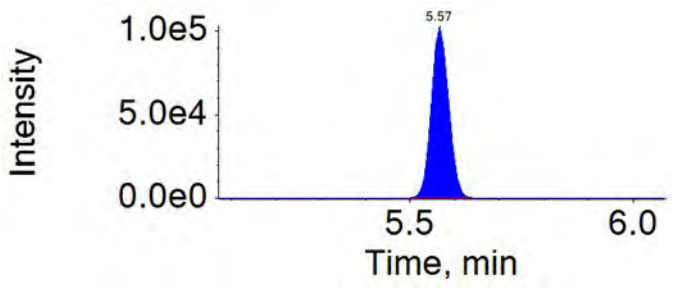
REVIEWED
By HMK at 10:53 am, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

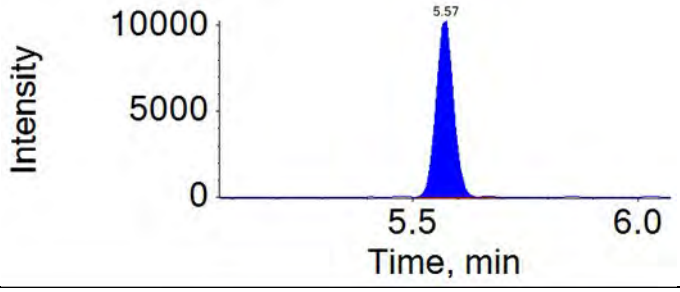
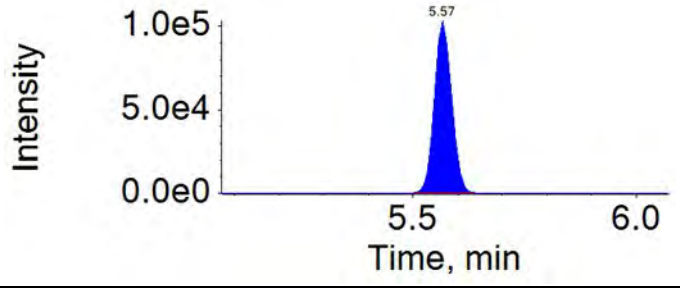
Extraction Standard: E13C8-PFOA	Injection Standard: 13C2-PFOA
421.0 / 376.0	415.0 / 370.0
	

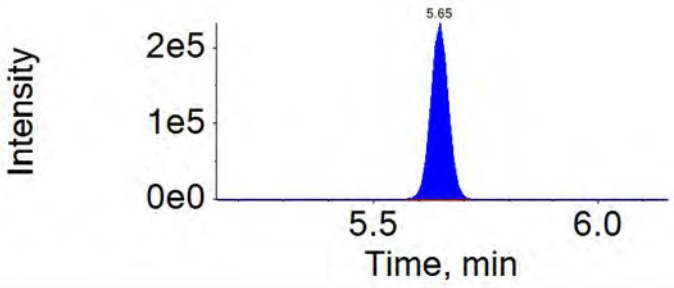
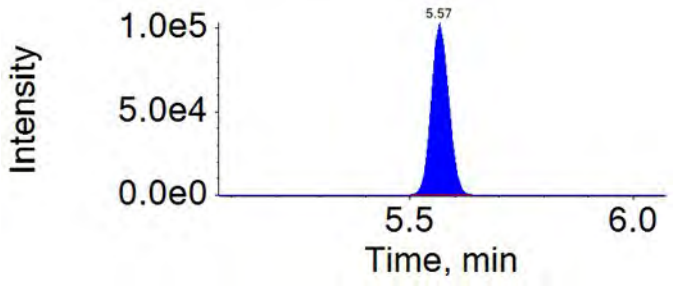
Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0
	

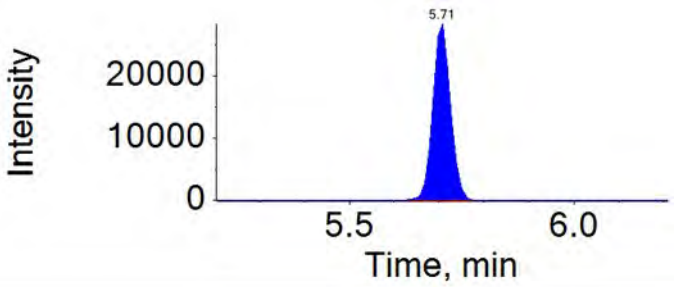
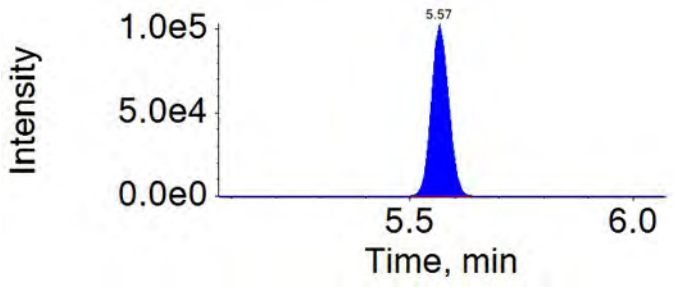
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0
	

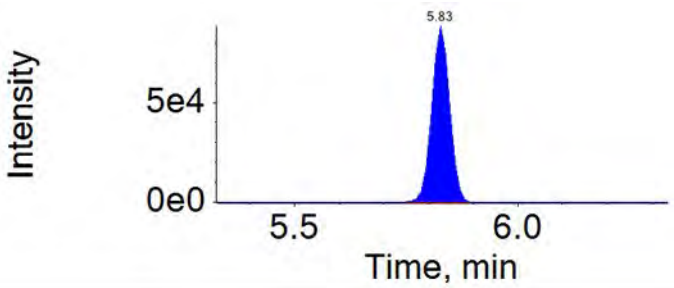
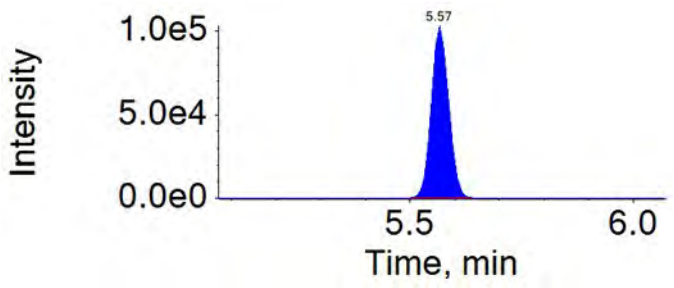
Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0
	

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: E13C2-8:2-FTS	Injection Standard: 13C2-PFDA
529.0 / 81.0	515.0 / 470.0
	

Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0
	

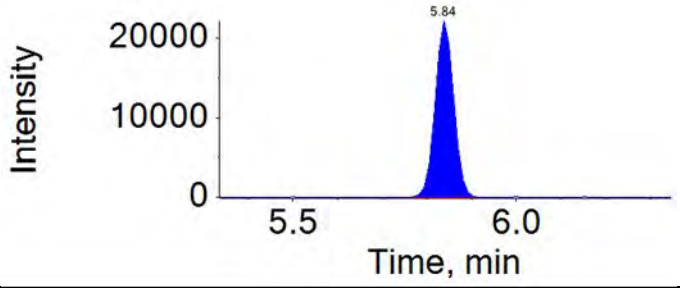
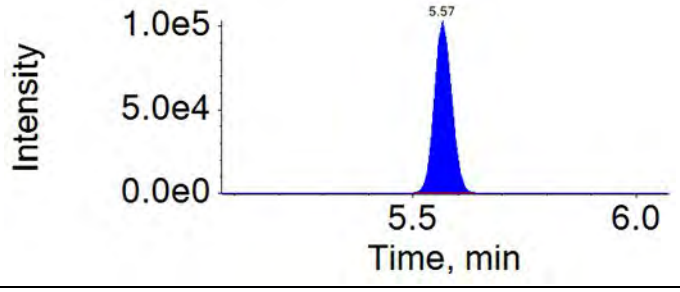
Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0
	

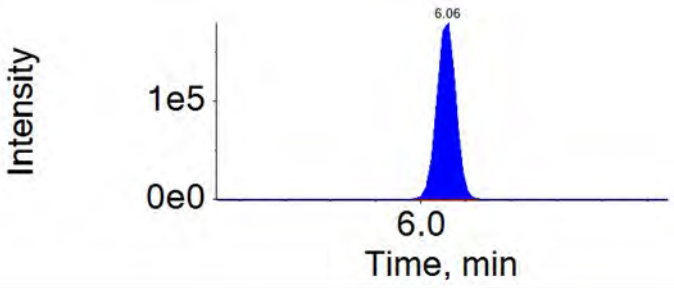
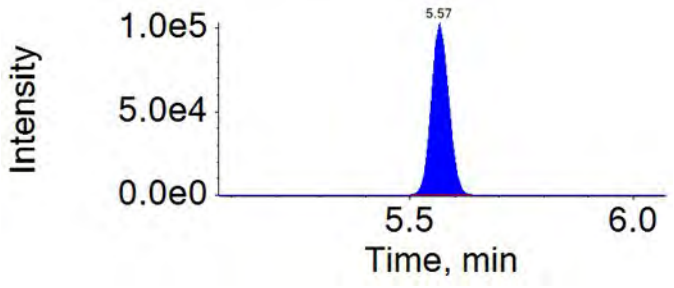
Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0
	

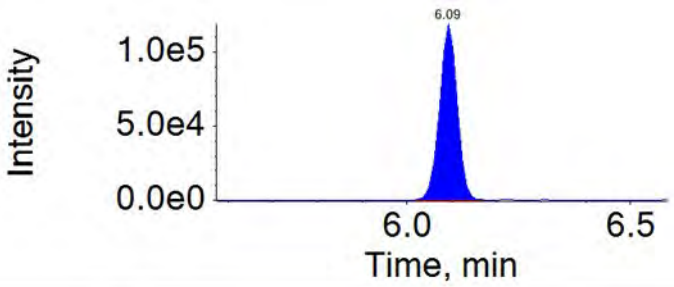
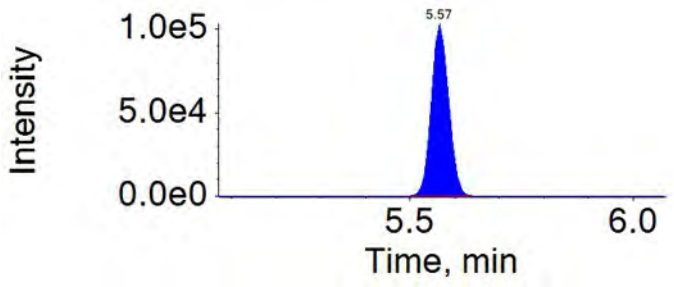
APPROVED
By MCD at 6:33 pm, 11/12/18

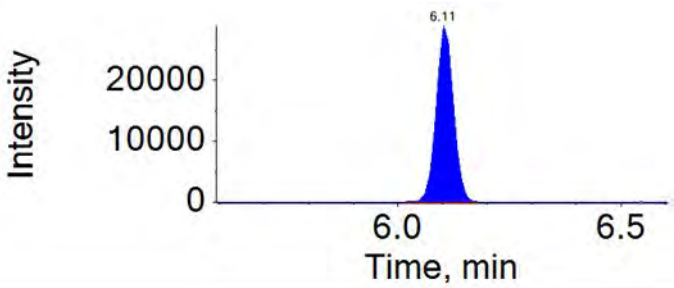
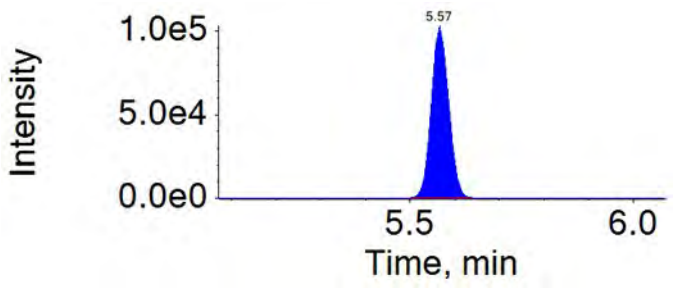
REVIEWED
By HMK at 10:53 am, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0
	

Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0
	

Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0
	

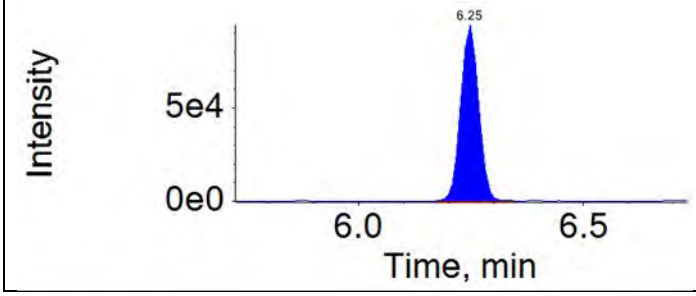
Extraction Standard: Ed3-NMePFOSA	Injection Standard: 13C2-PFDA
515.0 / 169.0	515.0 / 470.0
	

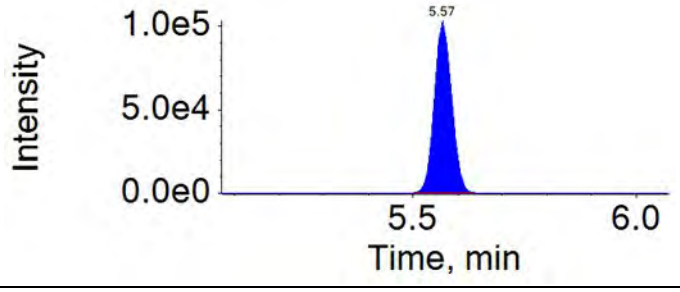
APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

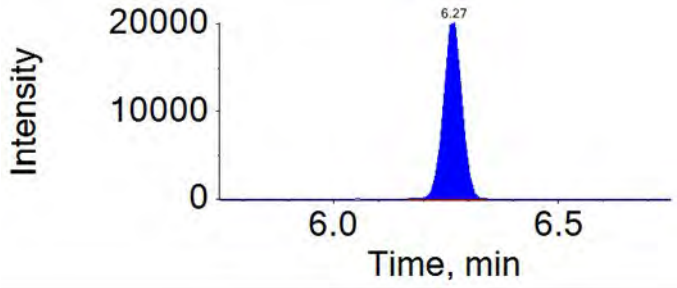
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

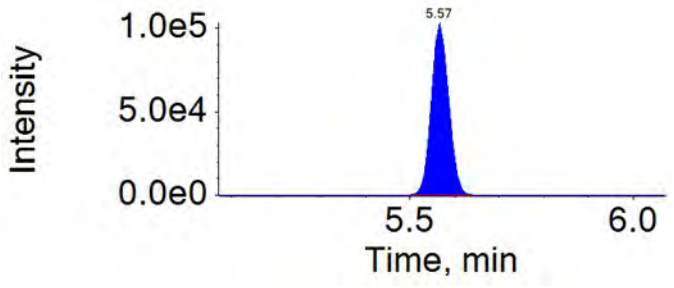
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



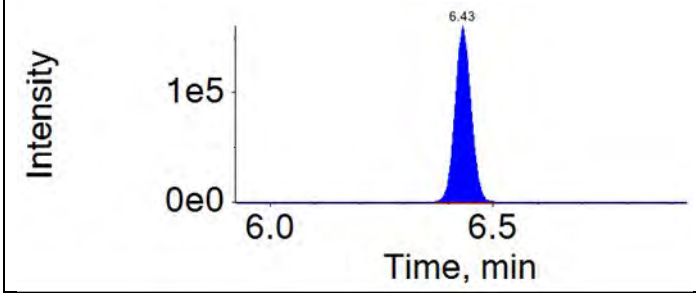


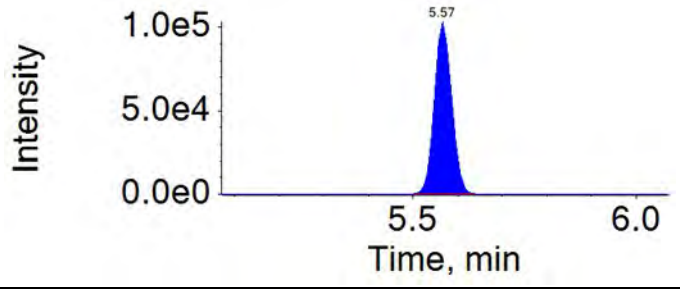
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0



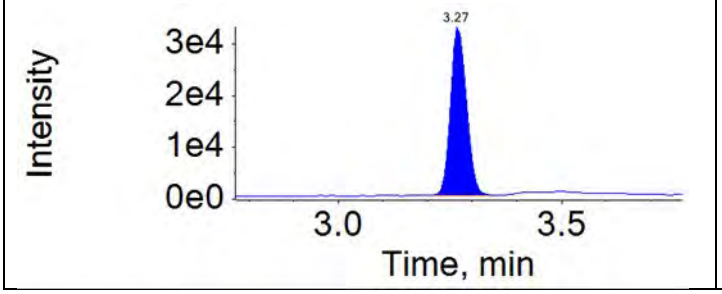


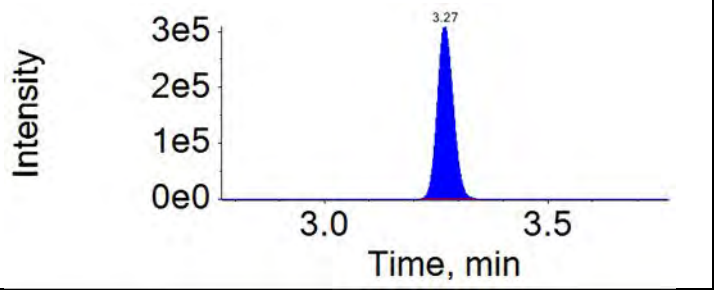
APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

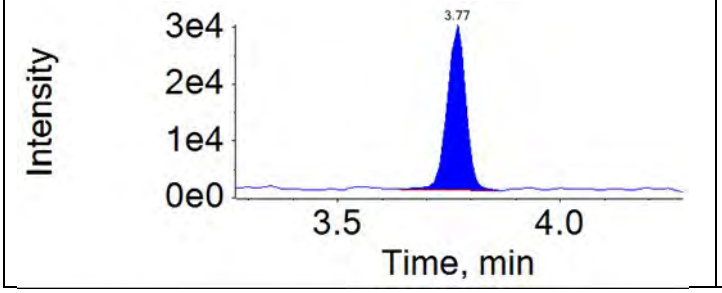
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

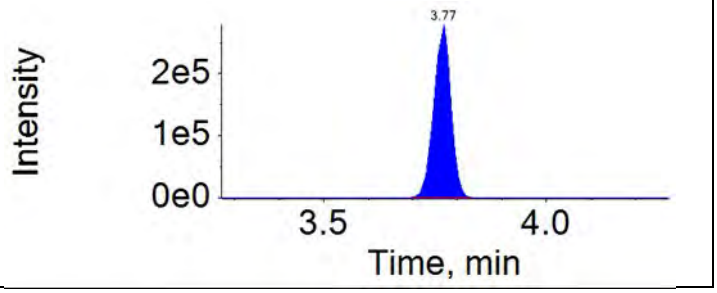
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



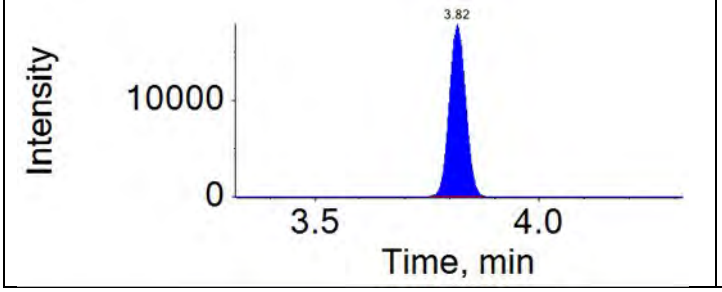


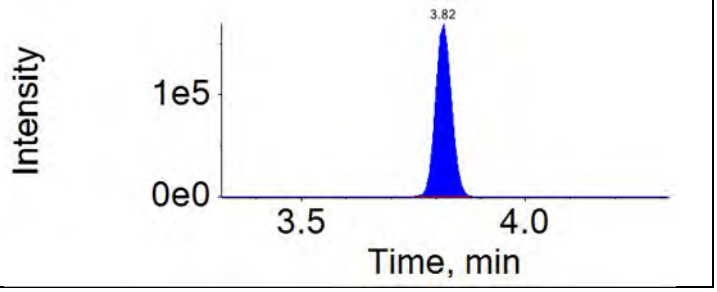
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



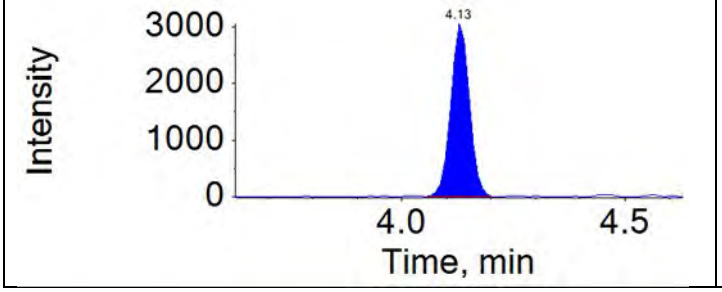


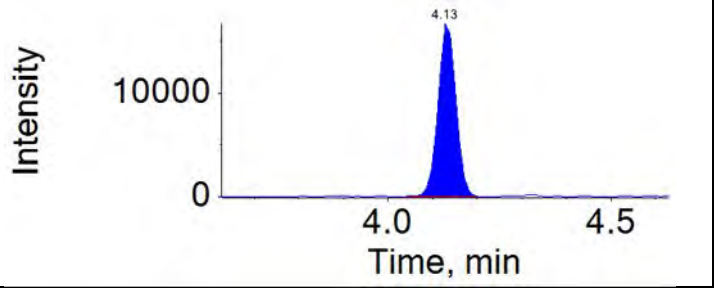
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





Analyte: 4:2-FTS	Extraction Standard: 13C2-4:2-FTS
327.0 / 307.0	329.0 / 81.0



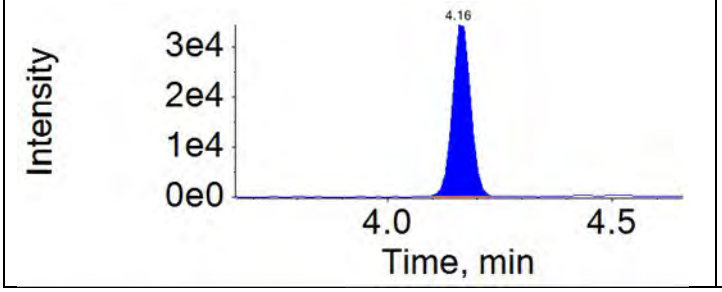


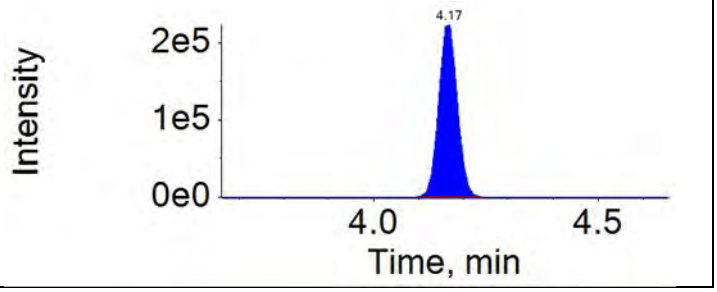
APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

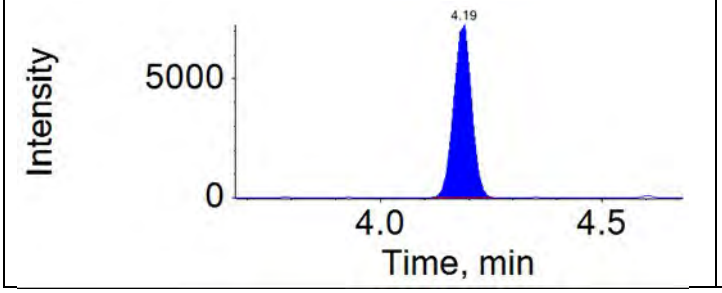
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

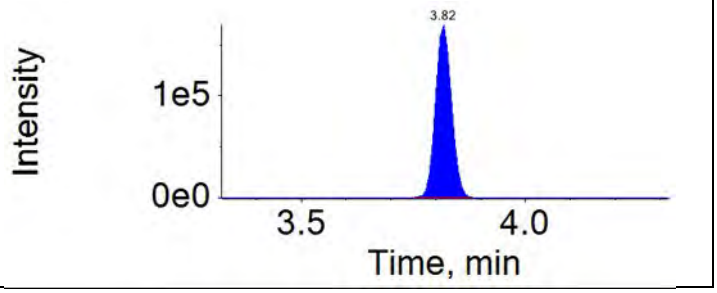
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



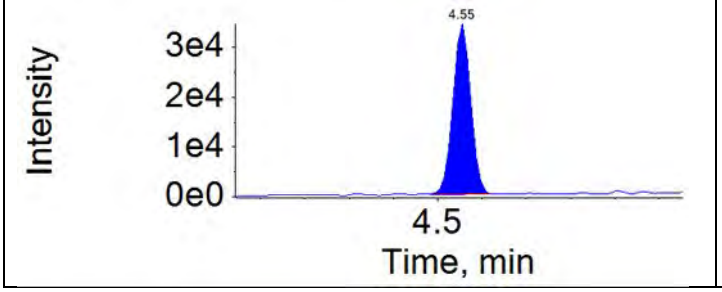


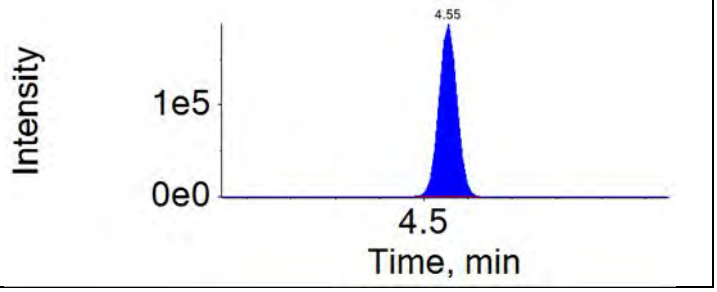
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



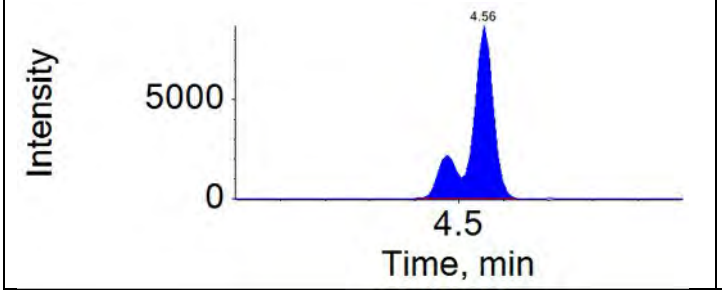


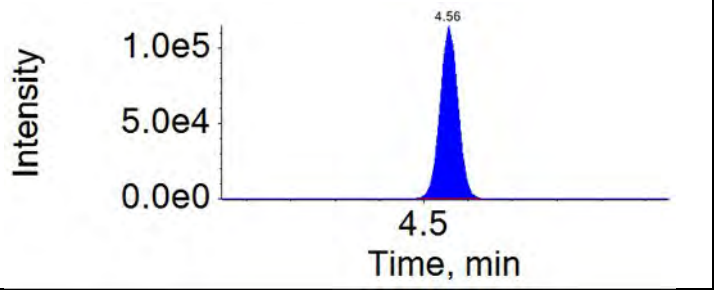
Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0





Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0

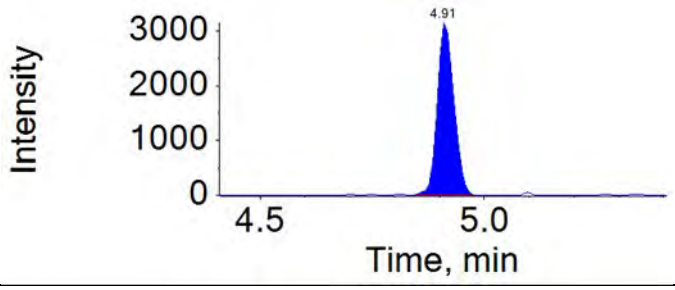
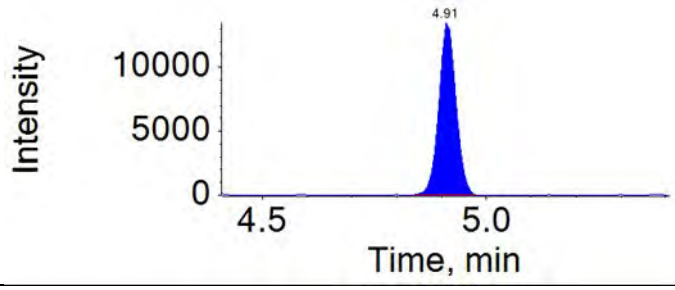


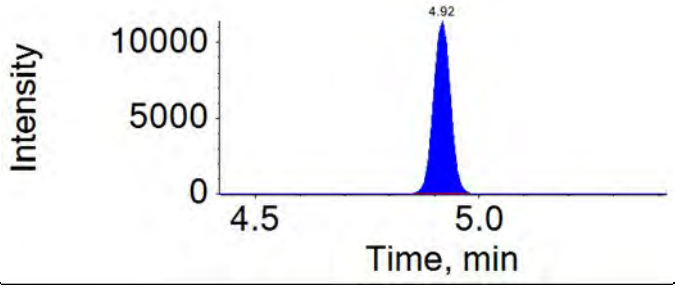
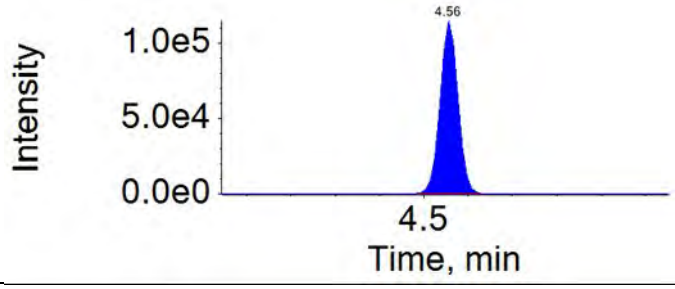


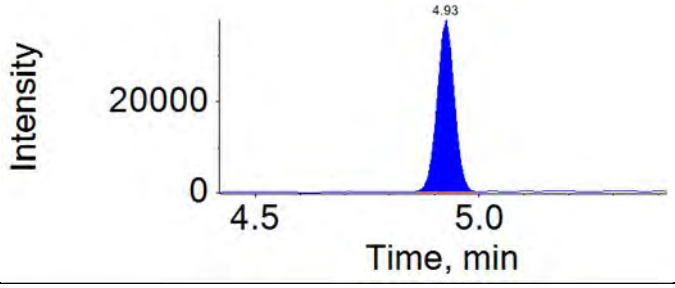
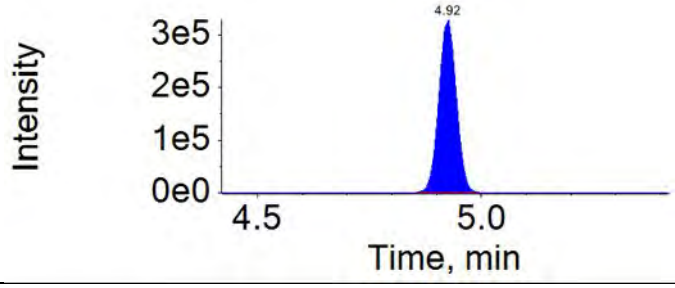
APPROVED
By MCD at 6:33 pm, 11/12/18

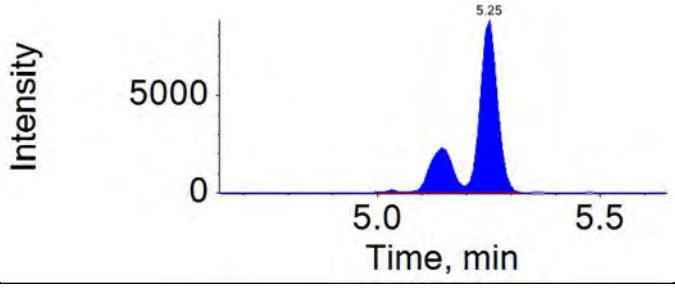
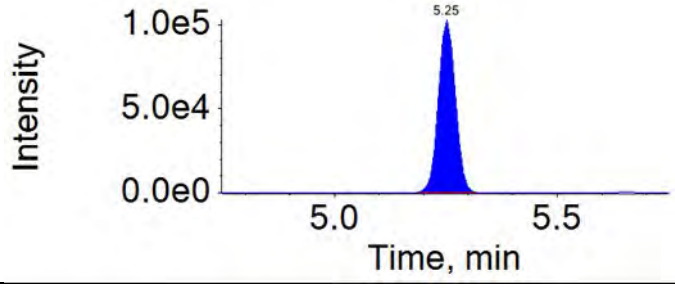
REVIEWED
By HMK at 10:53 am, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Analyte: 6:2-FTS	Extraction Standard: 13C2-6:2-FTS
427.0 / 407.0	429.0 / 81.0
	

Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0
	

Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0
	

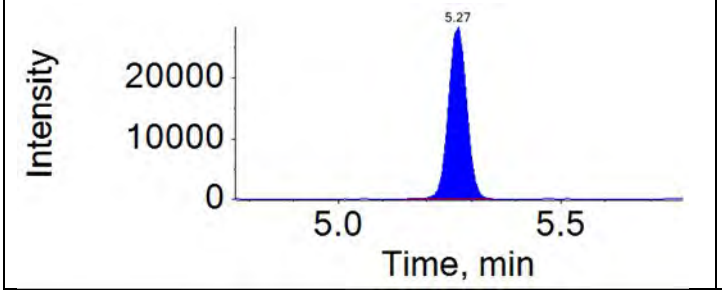
Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0
	

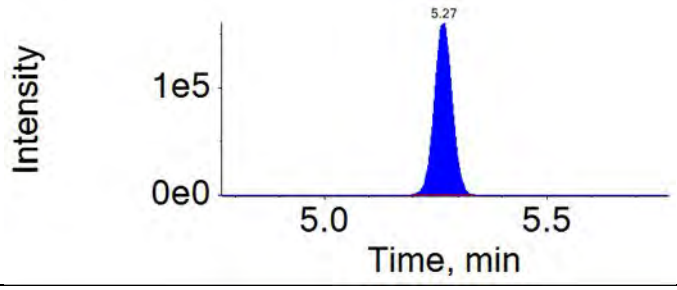
APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

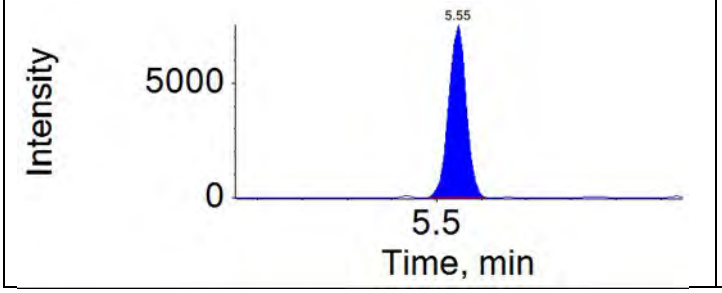
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

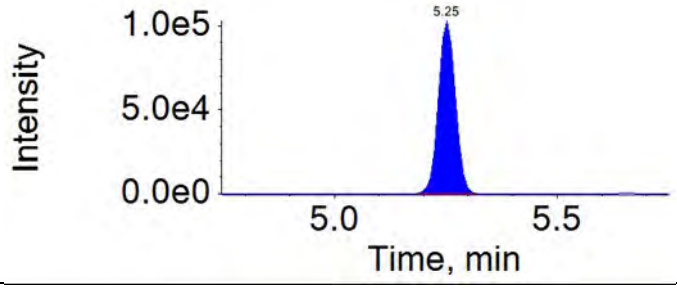
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



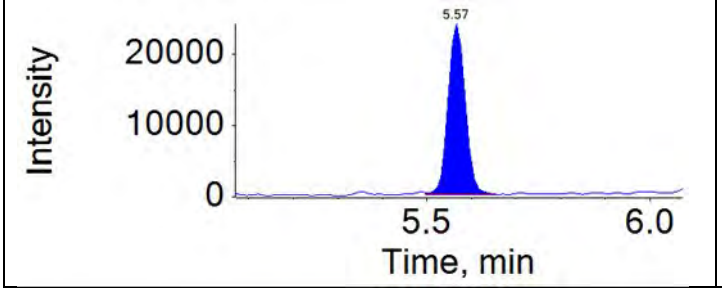


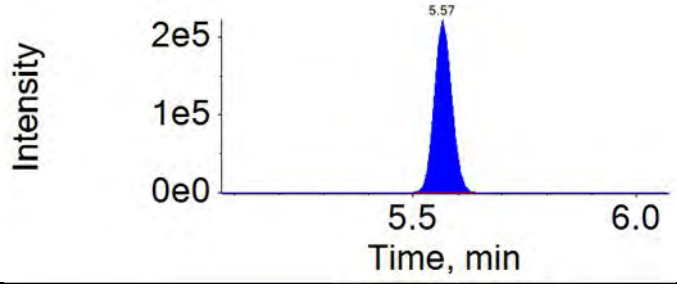
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



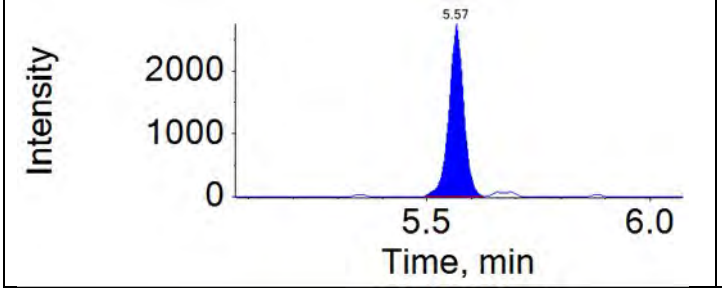


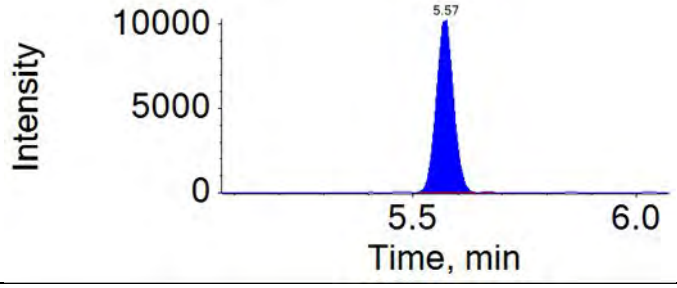
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





Analyte: 8:2-FTS	Extraction Standard: 13C2-8:2-FTS
527.0 / 507.0	529.0 / 81.0



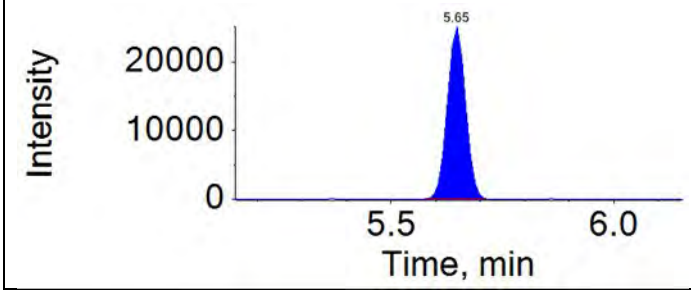


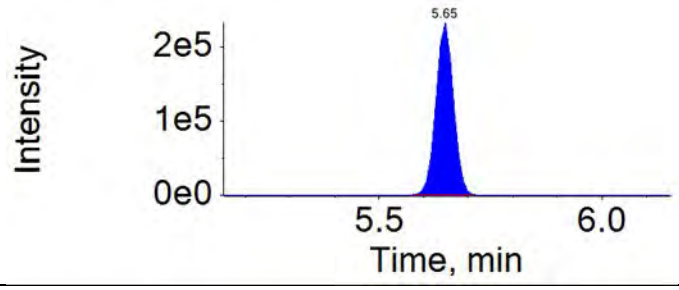
APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

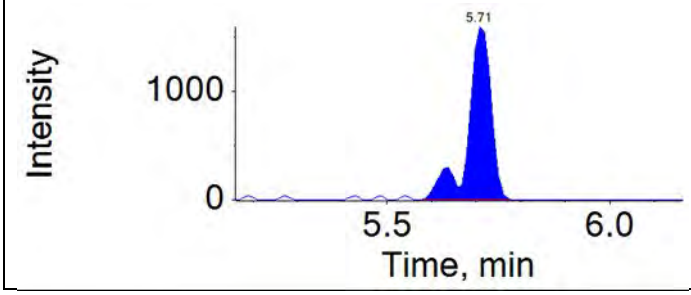
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

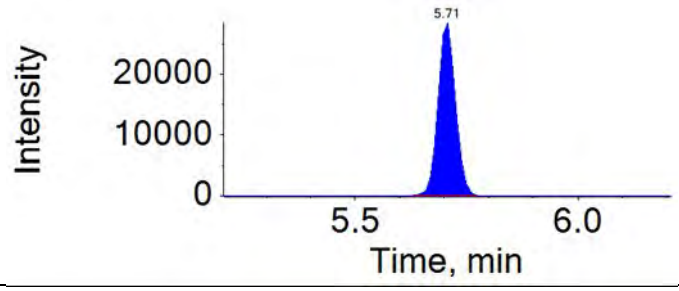
Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0



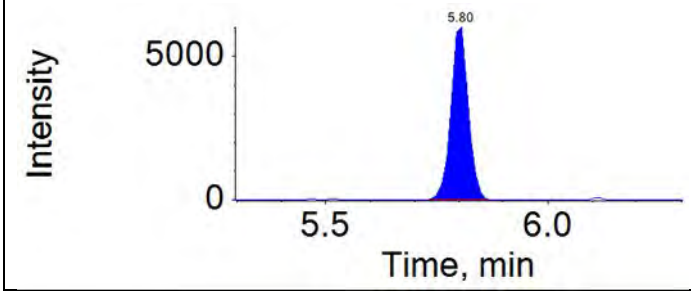


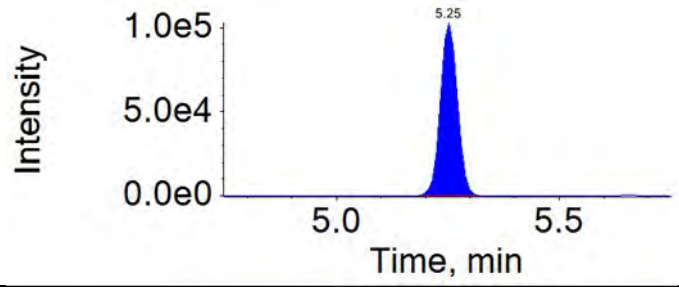
Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0



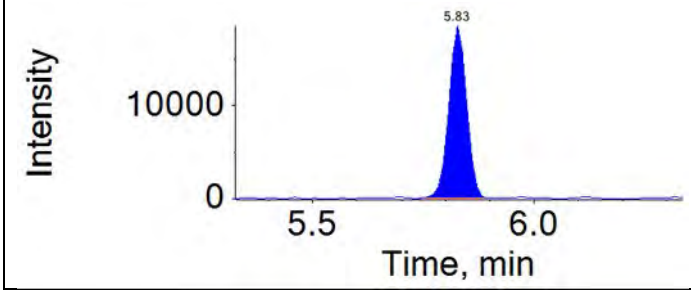


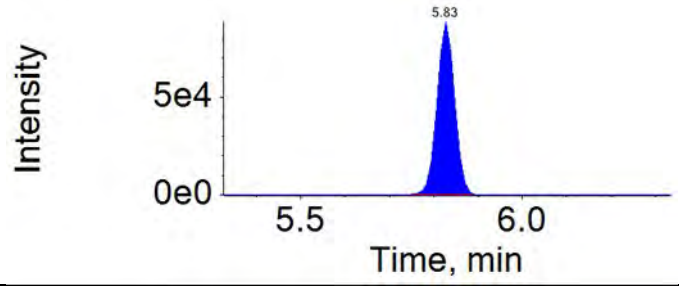
Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0





Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0

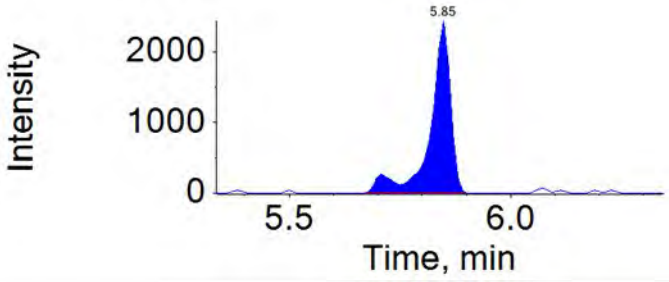
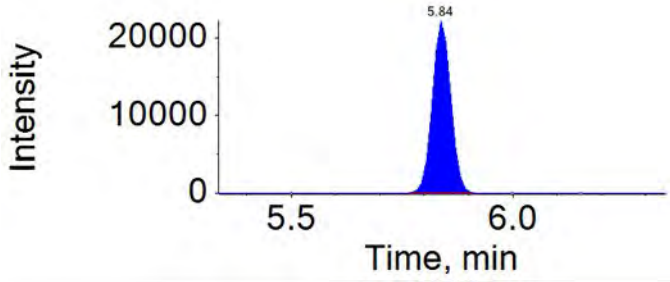


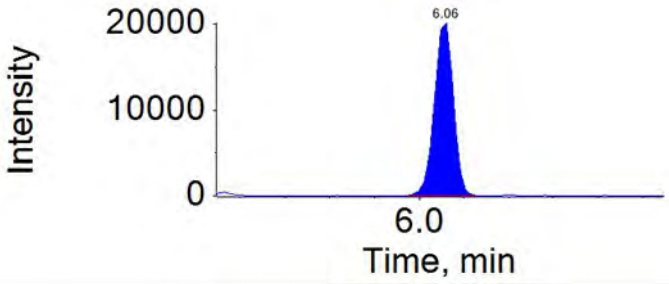
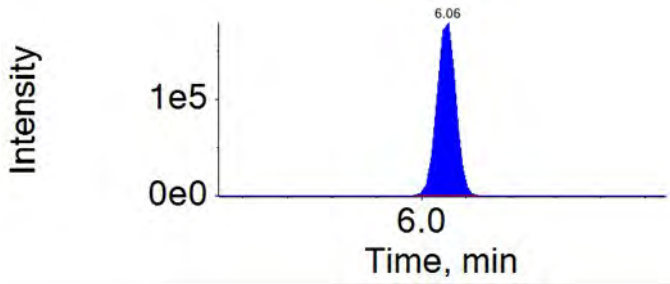


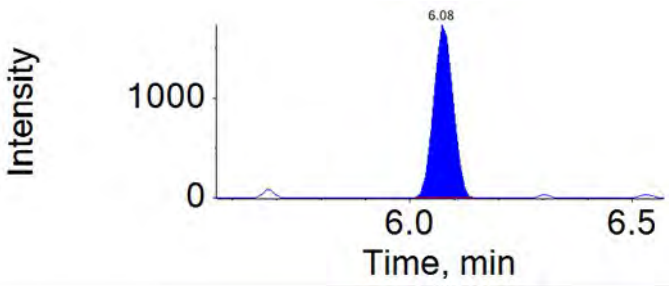
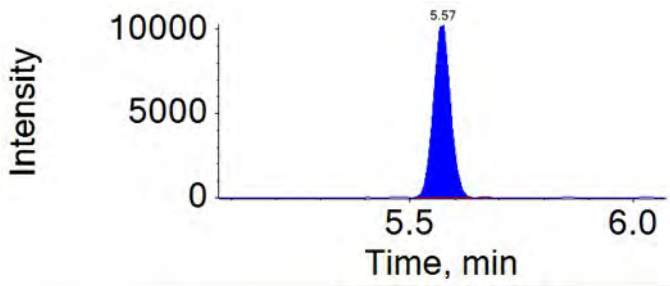
APPROVED
By MCD at 6:33 pm, 11/12/18

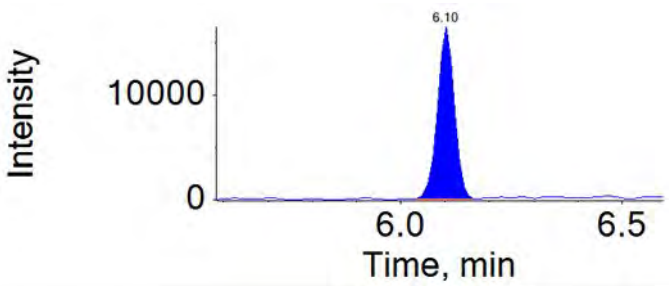
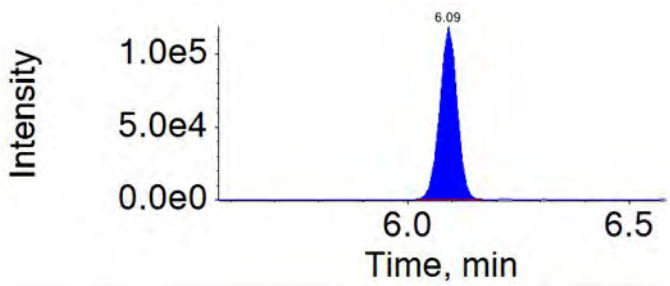
REVIEWED
By HMK at 10:53 am, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0
	

Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0
	

Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0
	

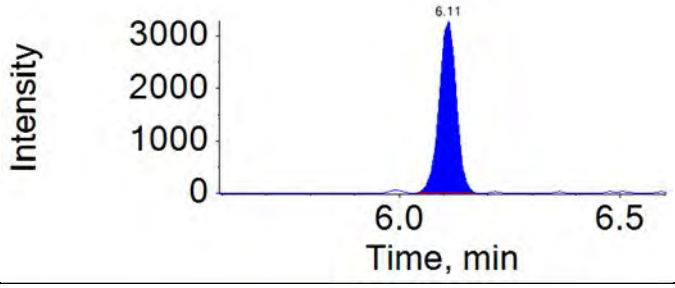
Analyte: NMePFOSAE	Extraction Standard: d7-NMePFOSAE
616.0 / 59.0	623.0 / 59.0
	

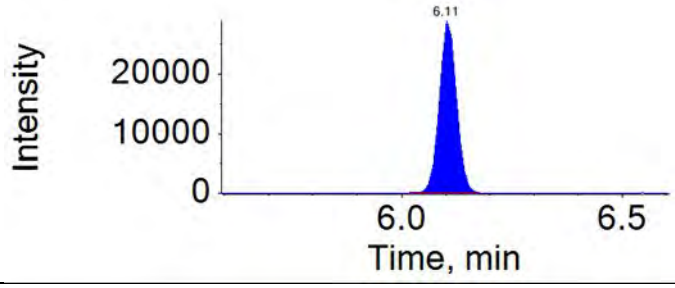
APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

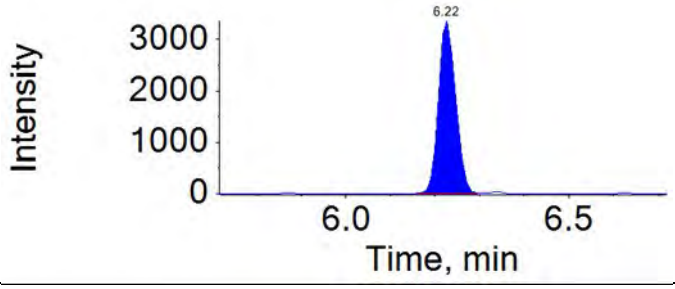
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

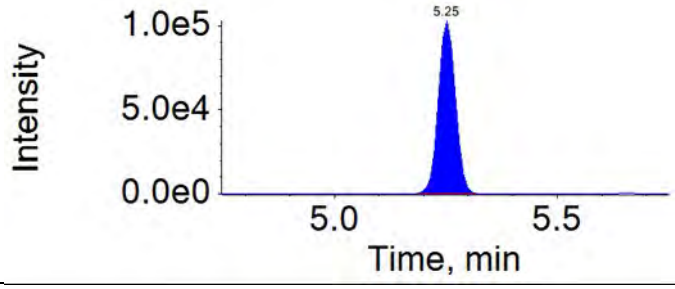
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



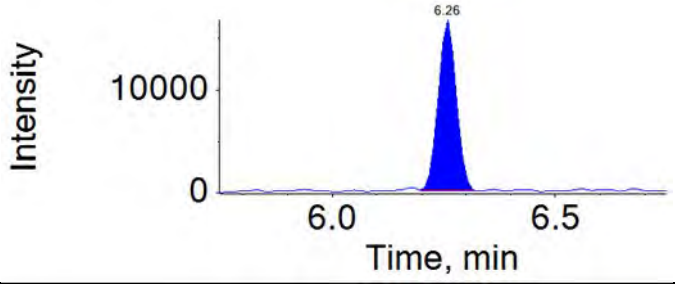


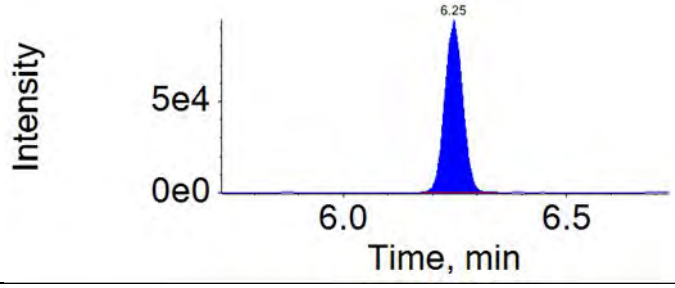
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



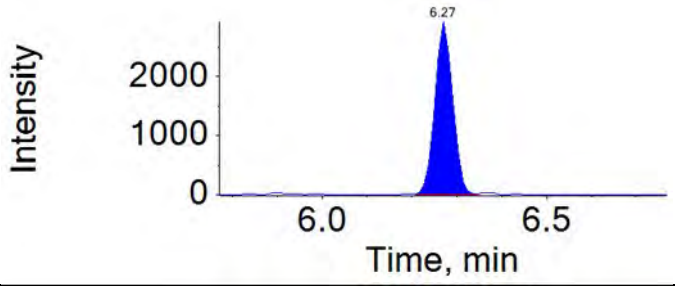


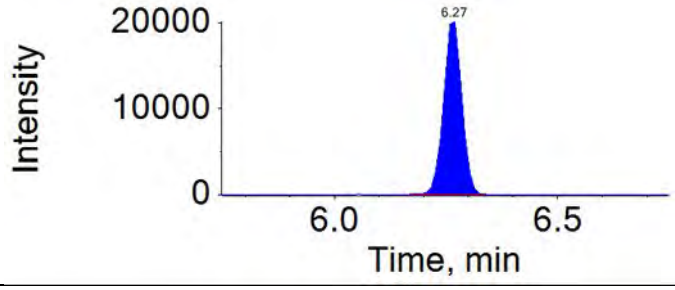
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





Analyte: NEtPFOSA	Extraction Standard: d5-NEtPFOSA
526.0 / 169.0	531.0 / 169.0

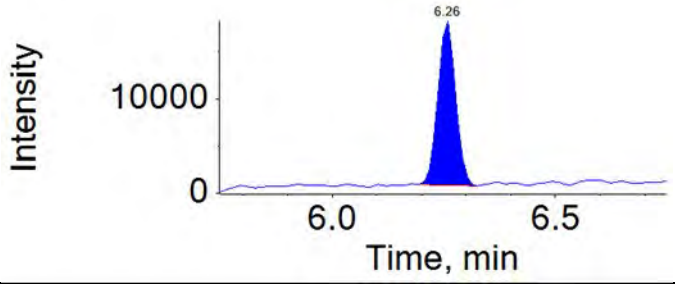
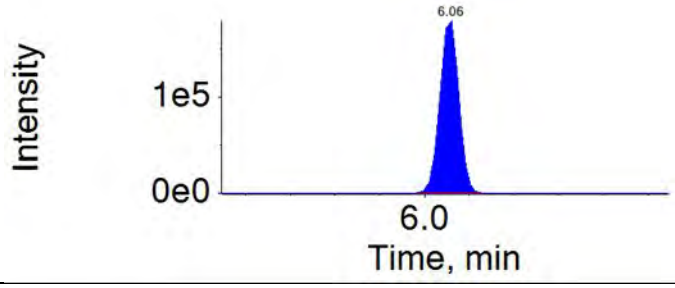


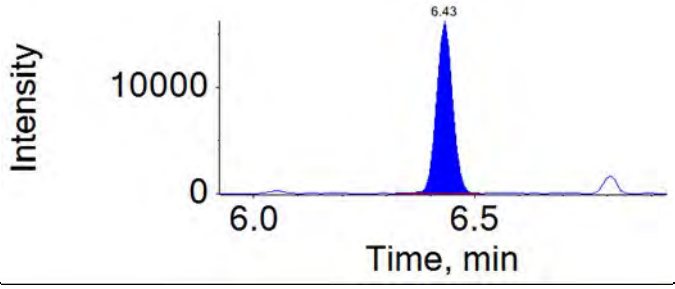
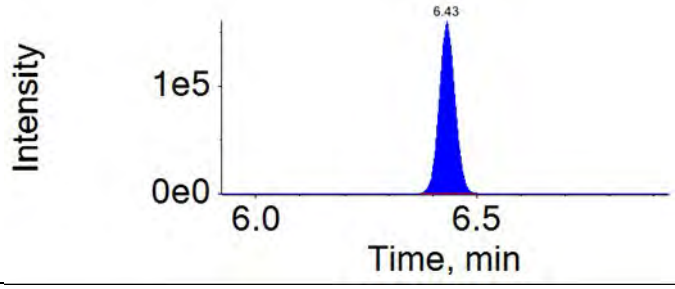


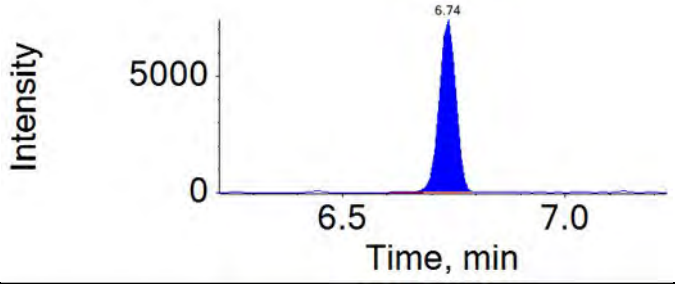
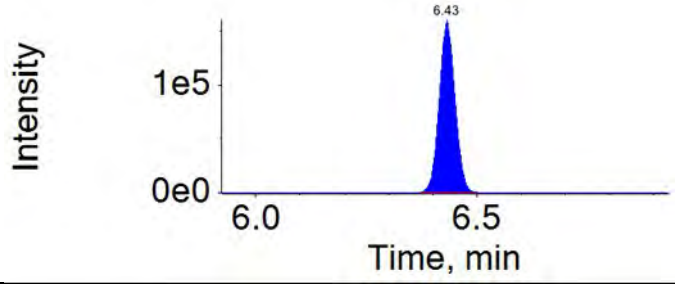
APPROVED
By MCD at 6:33 pm, 11/12/18

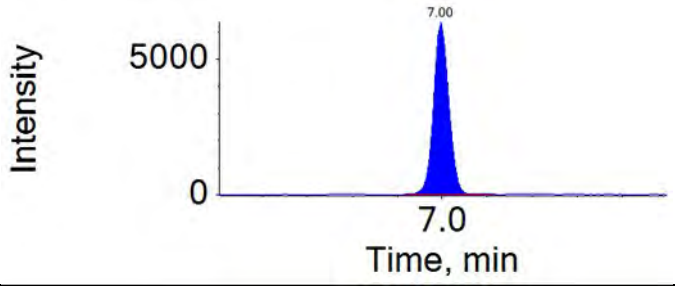
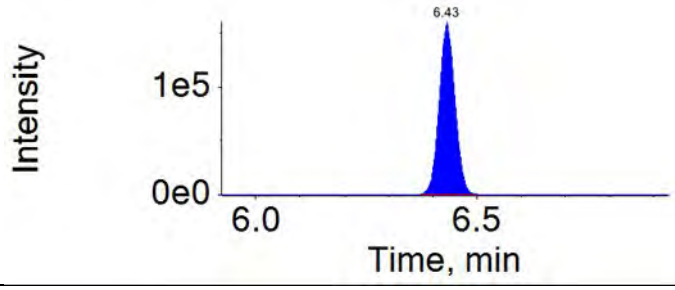
REVIEWED
By HMK at 10:53 am, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Analyte: PFTrDA	Extraction Standard: 13C2-PFDoDA
663.0 / 619.0	615.0 / 570.0
	

Analyte: PFTeDA	Extraction Standard: 13C2-PFTeDA
713.0 / 669.0	715.0 / 670.0
	

Analyte: PFHxDA	Extraction Standard: 13C2-PFTeDA
813.0 / 769.0	715.0 / 670.0
	

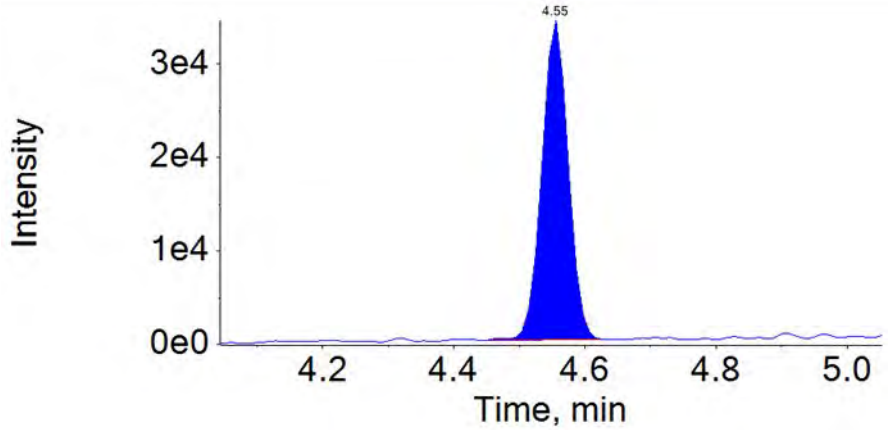
Analyte: PFODA	Extraction Standard: 13C2-PFTeDA
913.0 / 869.0	715.0 / 670.0
	

APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

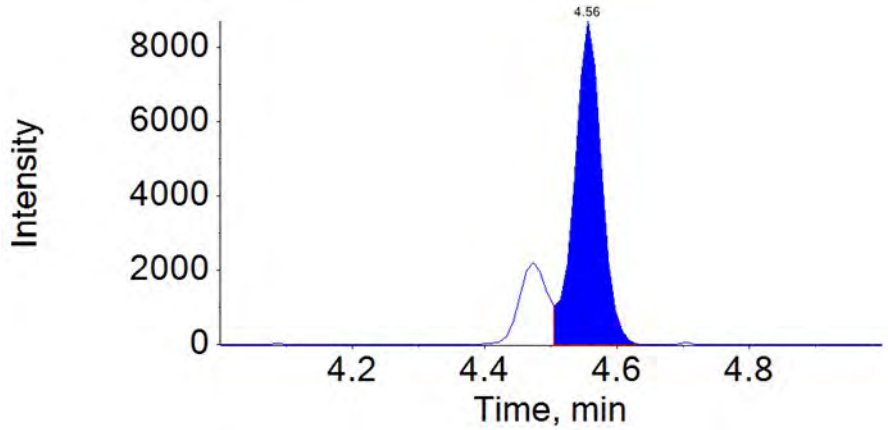
Results Table Name: 18NOV12DCAL
Results Table Date: 11/12/2018 6:23:42 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFHpA
RT (min.):
4.55
Peak Area:
95434.80
Mass Range:
363.0 / 319.0
File Name:
18NOV12DCAL-43.wiff
Sample Name:
CAL2



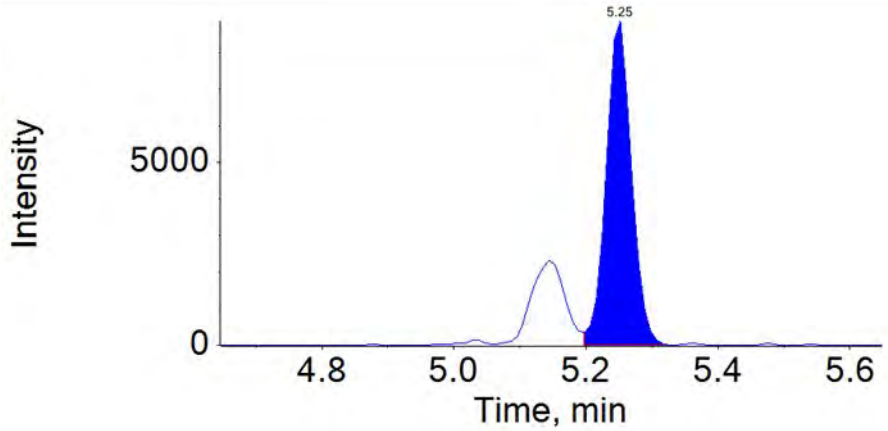
Integration Comment: incorrect integration

Component Name:
PFHxS
RT (min.):
4.56
Peak Area:
24710.47
Mass Range:
399.0 / 80.0
File Name:
18NOV12DCAL-43.wiff
Sample Name:
CAL2



Integration Comment: incorrect integration

Component Name:
PFOS
RT (min.):
5.25
Peak Area:
23625.90
Mass Range:
499.0 / 80.0
File Name:
18NOV12DCAL-43.wiff
Sample Name:
CAL2



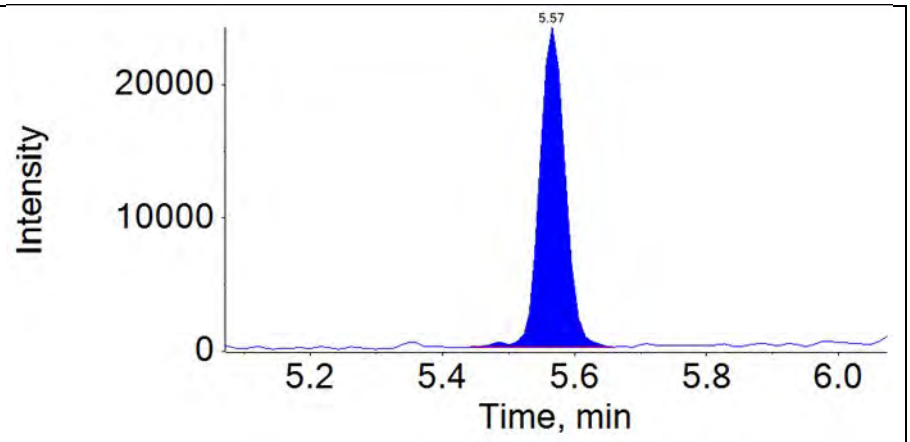
Integration Comment: incorrect integration

APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

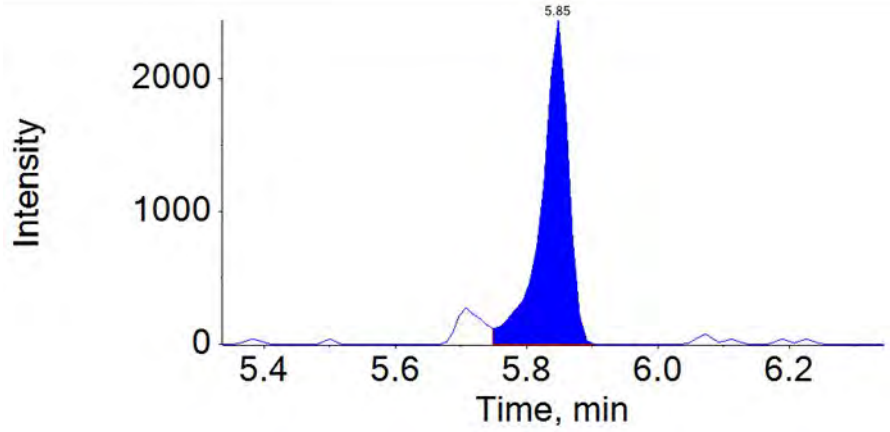
Results Table Name: 18NOV12DCAL
Results Table Date: 11/12/2018 6:23:42 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFDA
RT (min.):
5.57
Peak Area:
64555.75
Mass Range:
513.0 / 469.0
File Name:
18NOV12DCAL-43.wiff
Sample Name:
CAL2



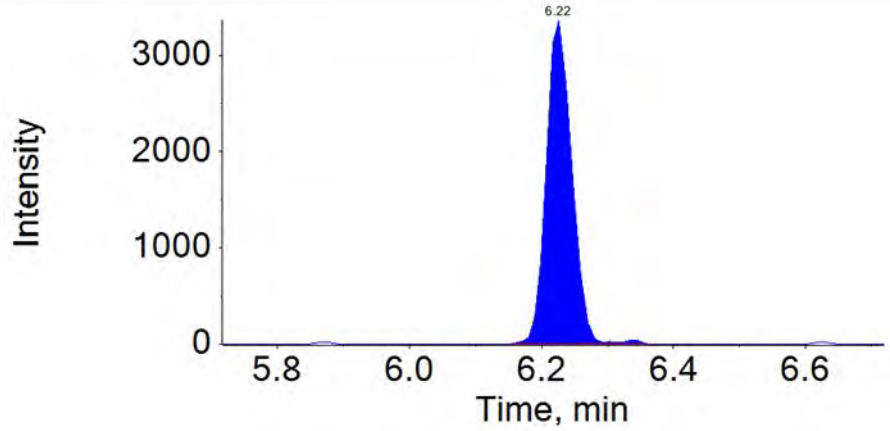
Integration Comment: incorrect integration

Component Name:
NEtFOSAA
RT (min.):
5.85
Peak Area:
6972.11
Mass Range:
584.0 / 419.0
File Name:
18NOV12DCAL-43.wiff
Sample Name:
CAL2



Integration Comment: incorrect integration

Component Name:
PFDoS
RT (min.):
6.22
Peak Area:
9104.97
Mass Range:
699.0 / 80.0
File Name:
18NOV12DCAL-43.wiff
Sample Name:
CAL2



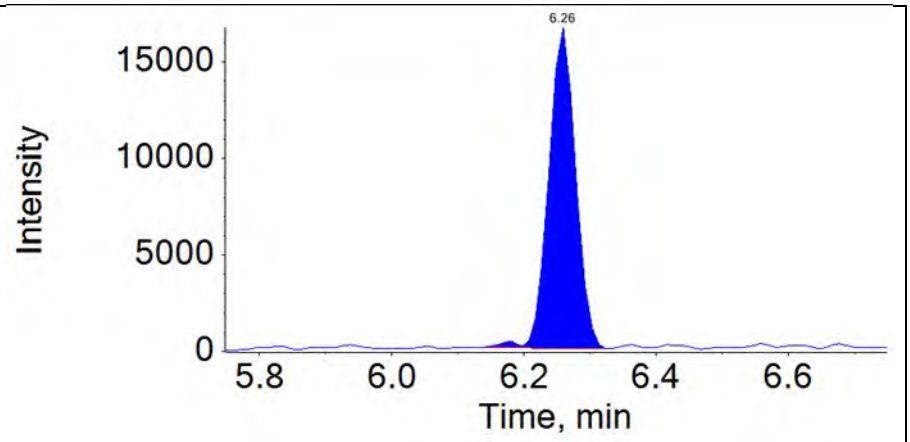
Integration Comment: incorrect integration

APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

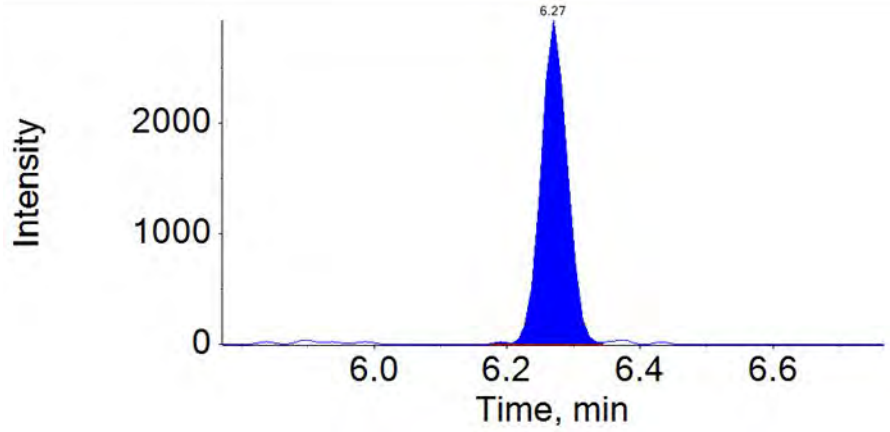
Results Table Name: 18NOV12DCAL
Results Table Date: 11/12/2018 6:23:42 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
NEtPFOSAE
RT (min.):
6.26
Peak Area:
47267.14
Mass Range:
630.0 / 59.0
File Name:
18NOV12DCAL-43.wiff
Sample Name:
CAL2



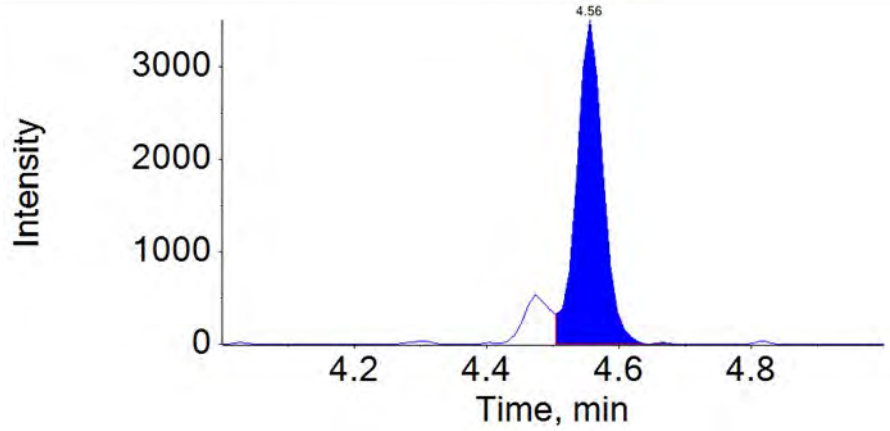
Integration Comment: incorrect integration

Component Name:
NEtPFOSA
RT (min.):
6.27
Peak Area:
8081.41
Mass Range:
526.0 / 169.0
File Name:
18NOV12DCAL-43.wiff
Sample Name:
CAL2



Integration Comment: incorrect integration

Component Name:
PFHxS_2
RT (min.):
4.56
Peak Area:
9734.65
Mass Range:
399.0 / 99.0
File Name:
18NOV12DCAL-43.wiff
Sample Name:
CAL2

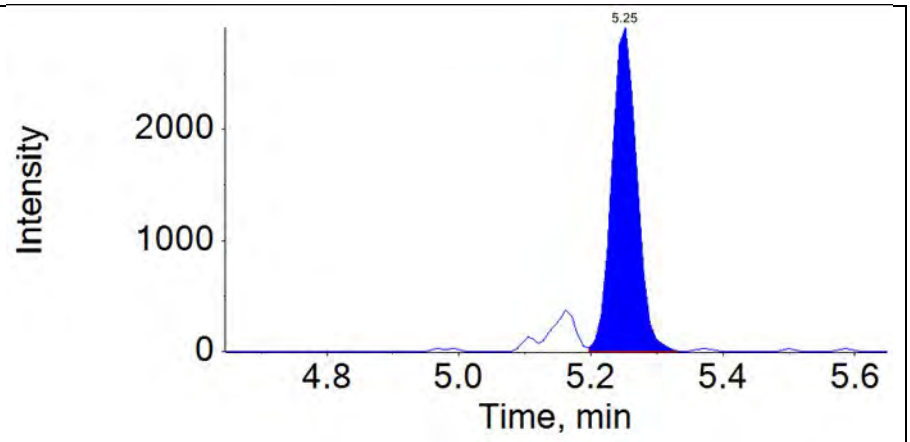


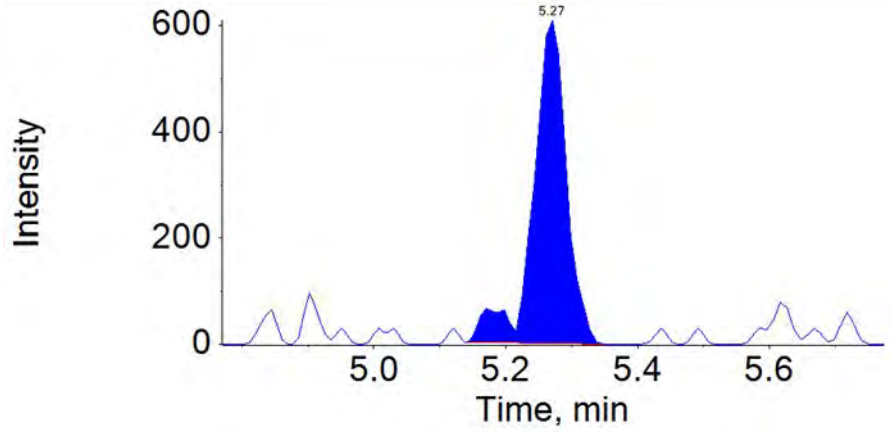
Integration Comment: incorrect integration

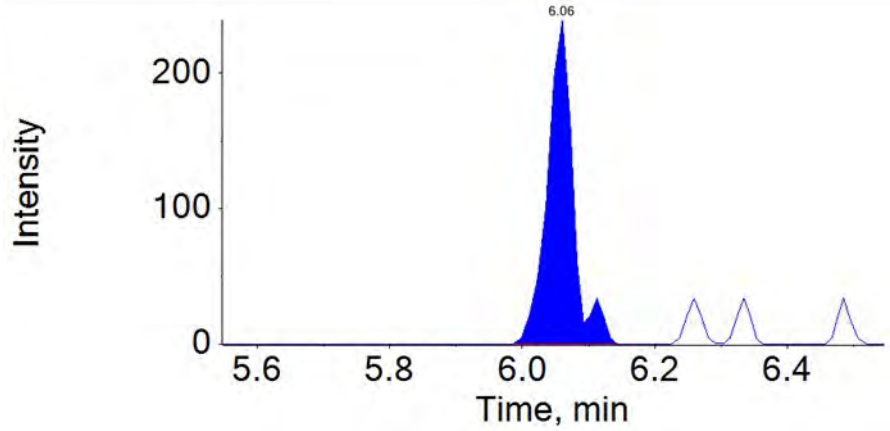
APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

Results Table Name: 18NOV12DCAL
Results Table Date: 11/12/2018 6:23:42 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name: PFOS_2 **RT (min.):** 5.25 **Peak Area:** 7692.11 **Mass Range:** 499.0 / 99.0 **File Name:** 18NOV12DCAL-43.wiff **Sample Name:** CAL2	 **Integration Comment:** incorrect integration

Component Name: PFNA_2 **RT (min.):** 5.27 **Peak Area:** 2176.77 **Mass Range:** 463.0 / 169.0 **File Name:** 18NOV12DCAL-43.wiff **Sample Name:** CAL2	 **Integration Comment:** incorrect integration

Component Name: PFDoDA_2 **RT (min.):** 6.06 **Peak Area:** 655.49 **Mass Range:** 613.0 / 169.0 **File Name:** 18NOV12DCAL-43.wiff **Sample Name:** CAL2	 **Integration Comment:** incorrect integration

APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

Results Table Name: 18NOV12DCAL
Results Table Date: 11/12/2018 6:23:42 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Ion Ratio Report

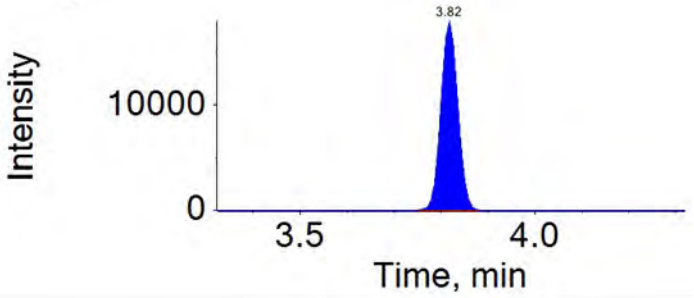
Sample Name: CAL2 **Instrument Name:** LM27631 **File Name:** 18NOV12DCAL-43.wiff

Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	3.82	1.00	44885.16	A	0.3619	0.3622			
PFBS_2	3.82	1.00	16259.22	A	0.3619	0.3622	0	50	
4:2-FTS	4.13	1.00	8803.96	A	0.6730	0.7006			
4:2 FTS_2	4.13	1.00	6168.18	A	0.6730	0.7006		#NA!	
PFHxA	4.16	1.00	96559.34	A	0.0117	0.0147			
PFHxA_2	4.16	1.00	1416.25	A	0.0117	0.0147	26	50	
PFPeS	4.19	1.10	20295.04	A	0.5191	0.5794			
PFPeS_2	4.18	1.10	11758.90	A	0.5191	0.5794	12	50	
PFHpA	4.55	1.00	95048.34	M	0.0563	0.0529			
PFHpA_2	4.55	1.00	5032.31	A	0.0563	0.0529	-6	50	
PFHxS	4.56	1.00	31064.73	M	0.3428	0.3595			
PFHxS_2	4.56	1.00	11169.02	M	0.3428	0.3595	5	50	
6:2-FTS	4.91	1.00	8048.37	A	0.6604	0.6742			
6:2 FTS_2	4.91	1.00	5425.84	A	0.6604	0.6742		#NA!	
PFHpS	4.92	1.08	29902.32	A	0.4066	0.4437			
PFHpS_2	4.92	1.08	13266.19	A	0.4066	0.4437	9	50	
PFOA	4.93	1.00	100710.53	A	0.0562	0.0523			
PFOA_2	4.92	1.00	5264.55	A	0.0562	0.0523	-7	50	
PFOS	5.25	1.00	32300.98	M	0.2968	0.2722			
PFOS_2	5.25	1.00	8793.88	M	0.2968	0.2722	-8	50	
PFNA	5.27	1.00	80724.19	A	0.0229	0.0248			
PFNA_2	5.27	1.00	1999.67	M	0.0229	0.0248	8	50	
PFNS	5.55	1.06	20326.14	A	0.4828	0.4548			
PFNS_2	5.54	1.06	9243.39	A	0.4828	0.4548	-6	50	
PFDA	5.57	1.00	63802.06	M	0.0081	0.0067			
PFDA_2	5.56	1.00	427.00	A	0.0081	0.0067	-17	50	
8:2-FTS	5.57	1.00	6214.24	A	0.6814	0.7964			
8:2 FTS_2	5.57	1.00	4949.26	A	0.6814	0.7964		#NA!	
NMeFOSAA	5.71	1.00	5759.59	A	0.2569	0.2344			
NMeFOSAA_2	5.70	1.00	1350.22	A	0.2569	0.2344	-9	50	
PFDS	5.80	1.10	16291.91	A	0.5144	0.5360			
PFDS_2	5.80	1.11	8732.52	A	0.5144	0.5360	4	50	
PFUnDA	5.83	1.00	51206.76	A	0.0058	0.0013			
PFUnDA_2	5.87	1.01	64.88	A	0.0058	0.0013	-78	50	OOS
NEtFOSAA	5.85	1.00	7727.12	M	0.7253	0.7329			
NEtFOSAA_2	5.84	1.00	5663.34	A	0.7253	0.7329	1	50	
PFDoDA	6.06	1.00	59695.25	A	0.0157	0.0101			
PFDoDA_2	6.06	1.00	604.13	M	0.0157	0.0101	-35	50	
10:2-FTS	6.08	1.09	5206.47	A	0.6356	0.6377			
10:2 FTS_2	6.07	1.09	3320.12	A	0.6356	0.6377		#NA!	
PFTrDA	6.26	1.03	47991.31	A	0.0086	0.0047			
PFTrDA_2	6.26	1.03	226.86	A	0.0086	0.0047	-45	50	
PFTeDA	6.43	1.00	40236.53	A	0.0062	0.0078			
PFTeDA_2	6.43	1.00	314.50	A	0.0062	0.0078	25	50	
PFHxDA	6.74	1.05	19006.44	A	0.0683	0.0747			
PFHxDA_2	6.73	1.05	1419.64	A	0.0683	0.0747	9	50	
PFODA	7.00	1.09	14955.56	A	0.0277	0.0314			
PFODA_2	7.00	1.09	469.81	A	0.0277	0.0314	13	50	

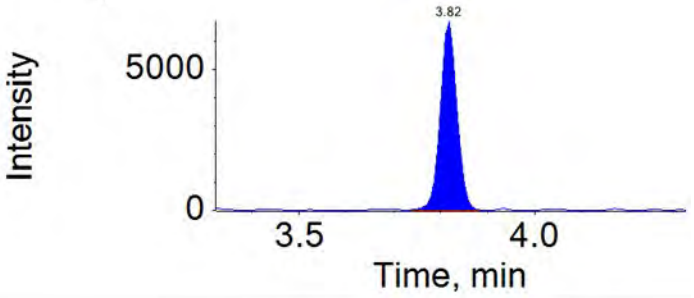
APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

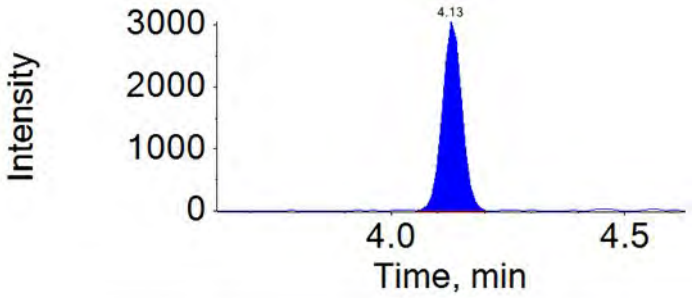
Component: PFBS
Primary Mass: 299.0 / 80.0



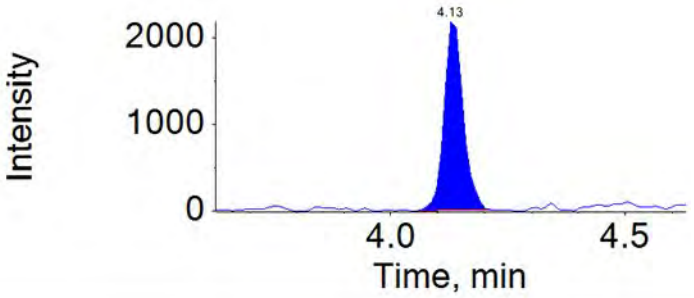
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



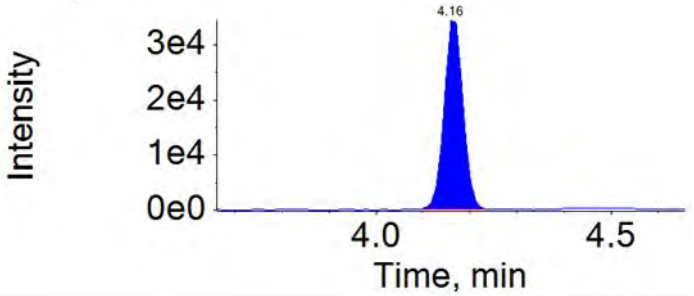
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



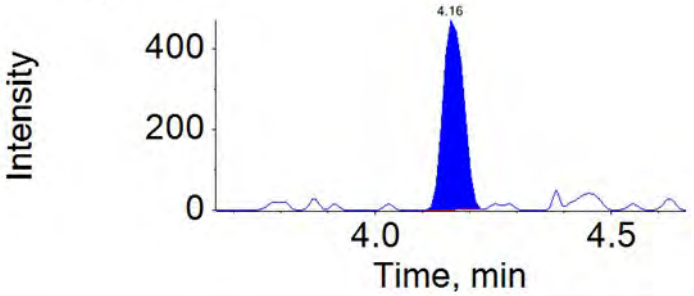
Component: 4:2 FTS_2
Secondary Mass: 327.0 / 81.0



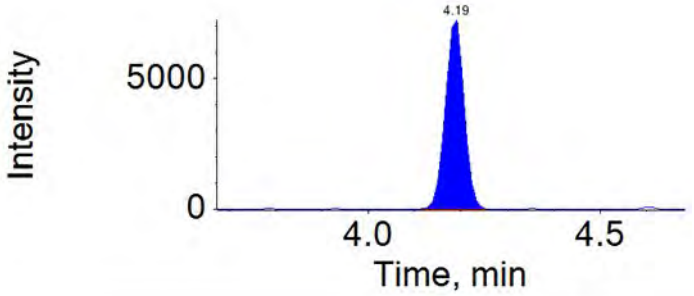
Component: PFHxA
Primary Mass: 313.0 / 269.0



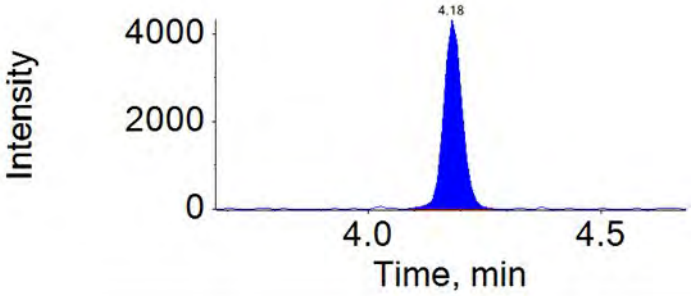
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



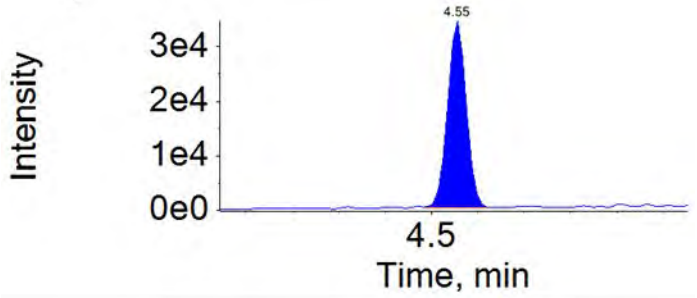
Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



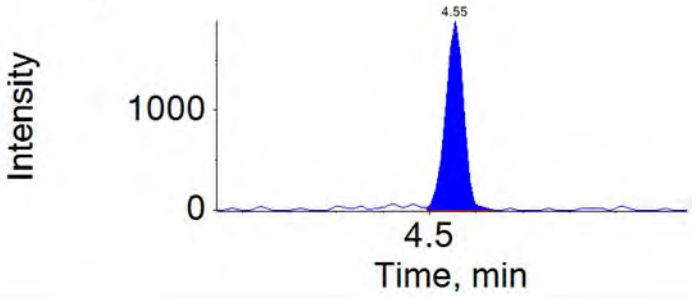
APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

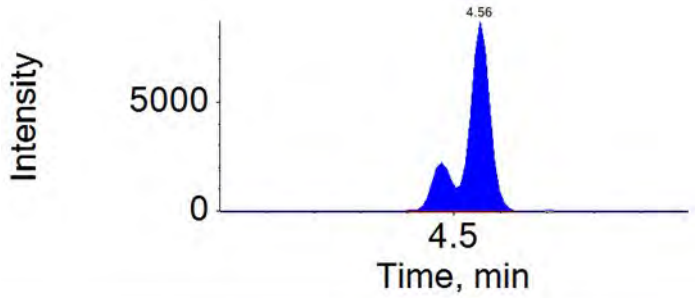
Component: PFHpA
Primary Mass: 363.0 / 319.0



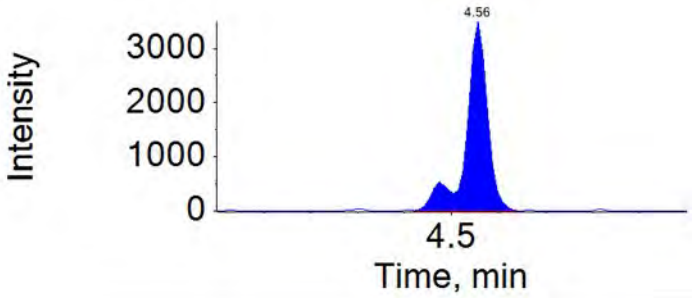
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



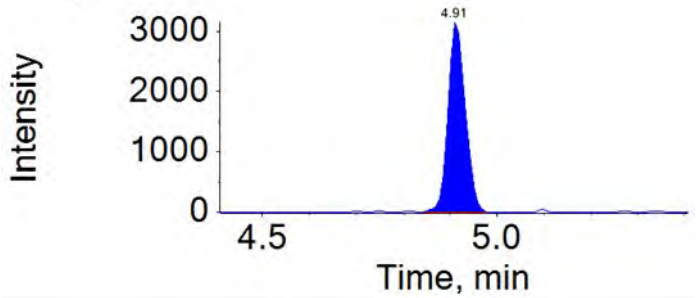
Component: PFHxS
Primary Mass: 399.0 / 80.0



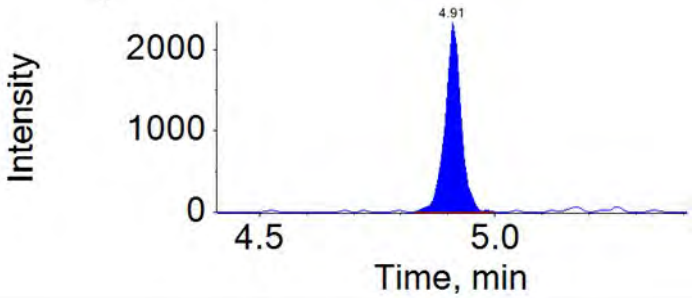
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



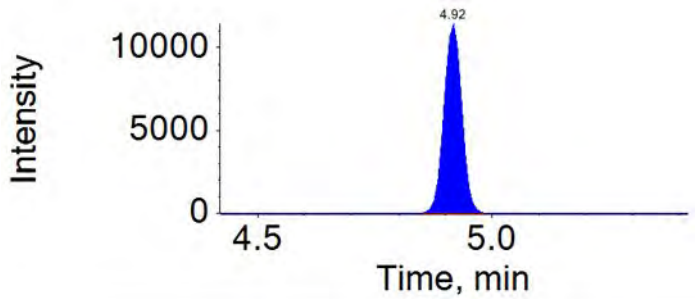
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



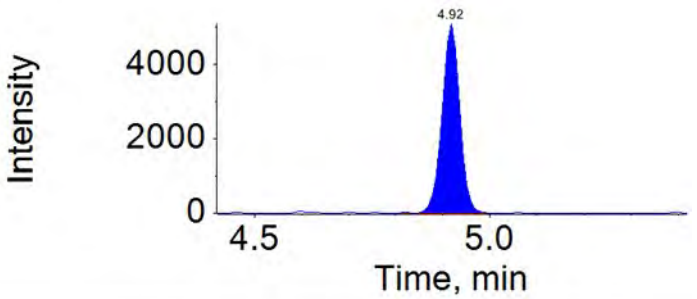
Component: 6:2 FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



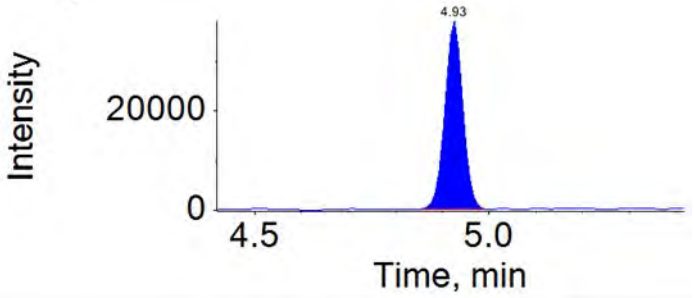
Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



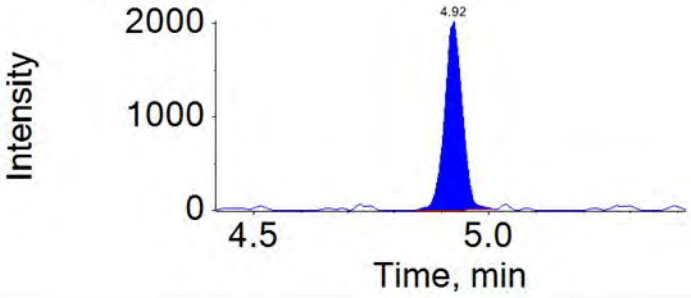
APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

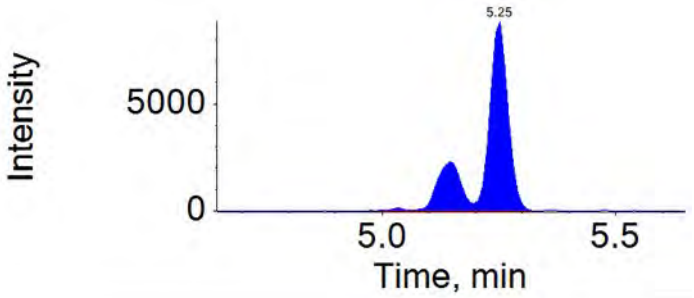
Component: PFOA
Primary Mass: 413.0 / 369.0



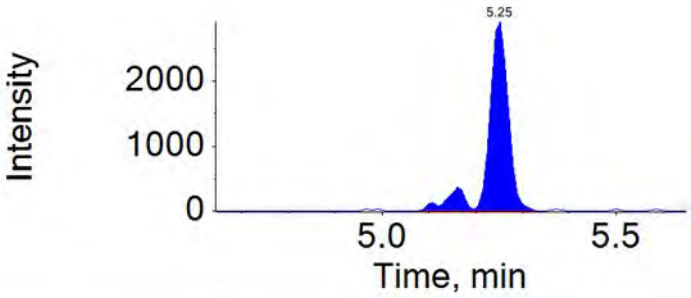
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



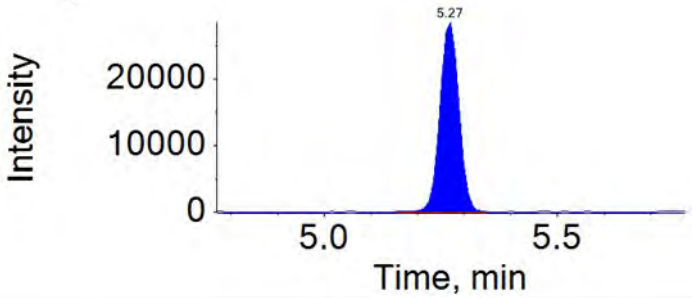
Component: PFOS
Primary Mass: 499.0 / 80.0



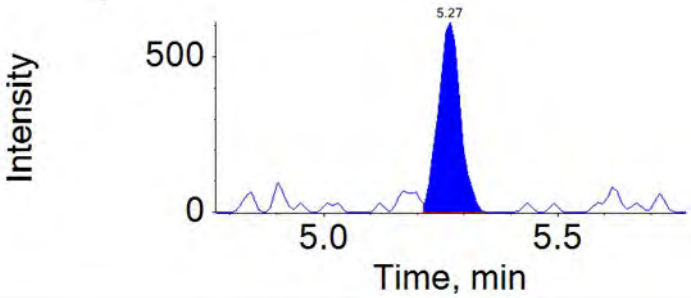
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Secondary Mass: 499.0 / 99.0



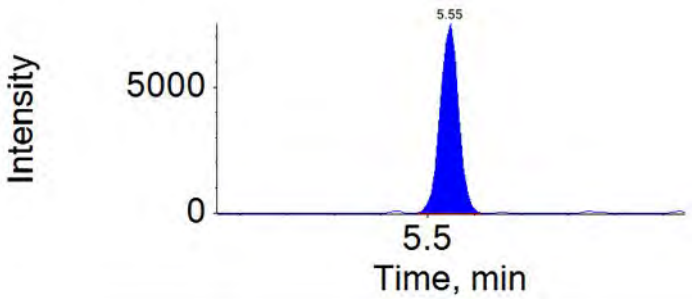
Component: PFNA
Primary Mass: 463.0 / 419.0



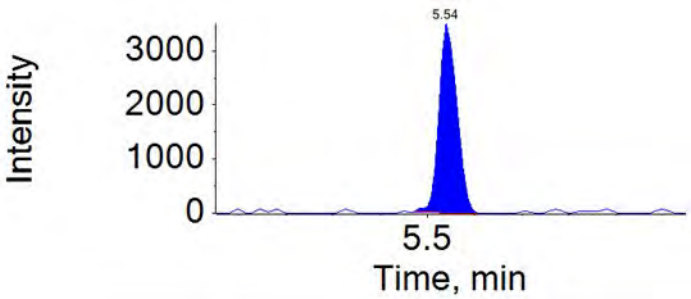
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



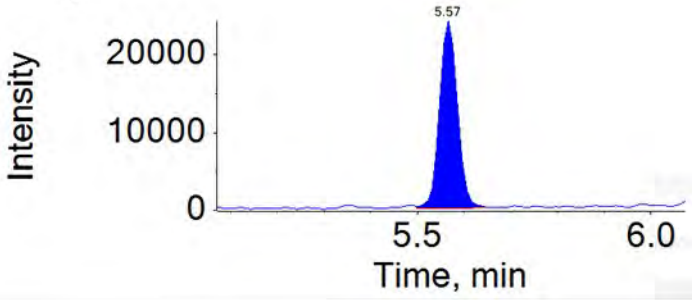
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



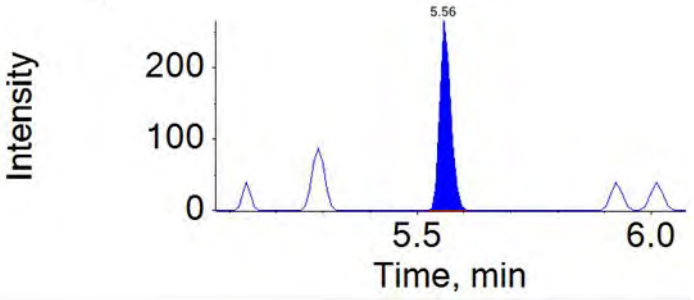
APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

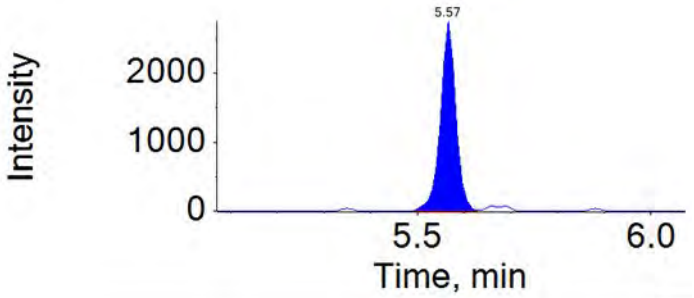
Component: PFDA
Primary Mass: 513.0 / 469.0



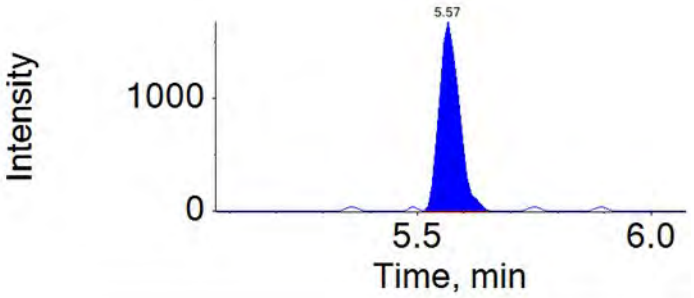
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



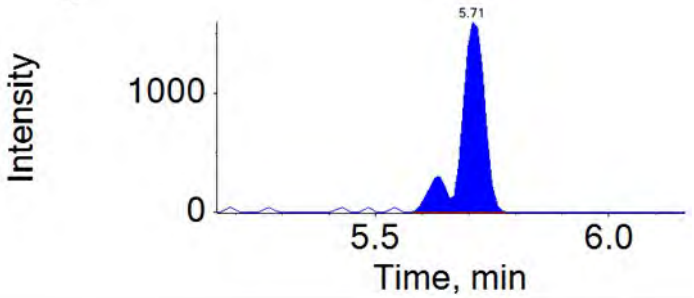
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



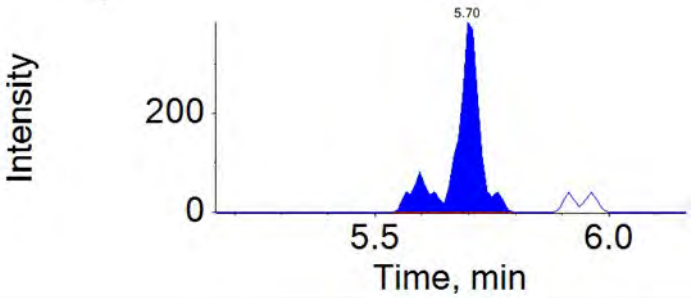
Component: 8:2 FTS_2
Secondary Mass: 527.0 / 81.0



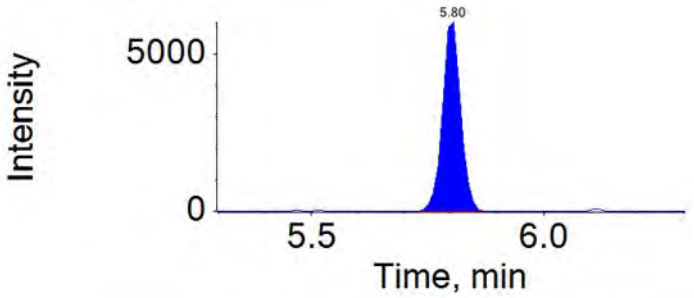
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



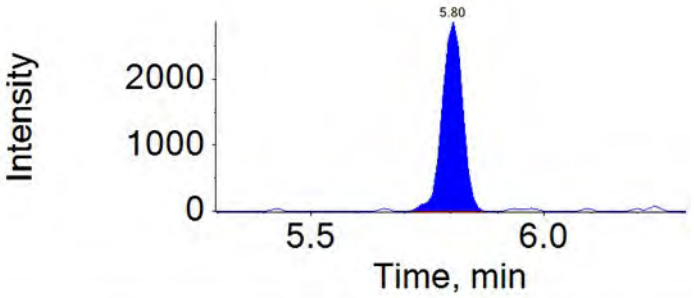
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



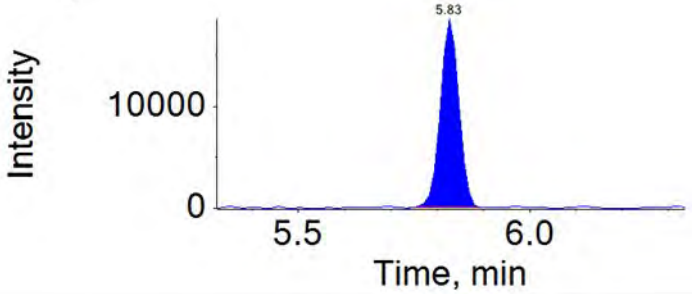
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Secondary Mass: 599.0 / 99.0



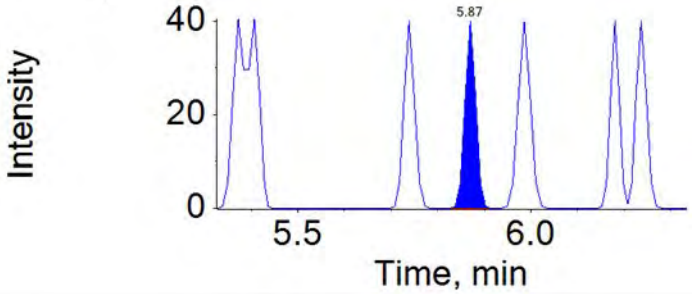
APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

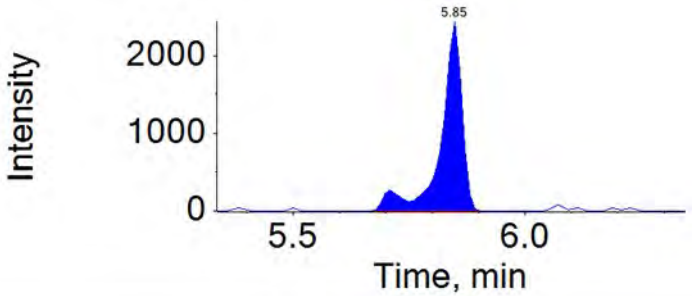
Component: PFUnDA
Primary Mass: 563.0 / 519.0



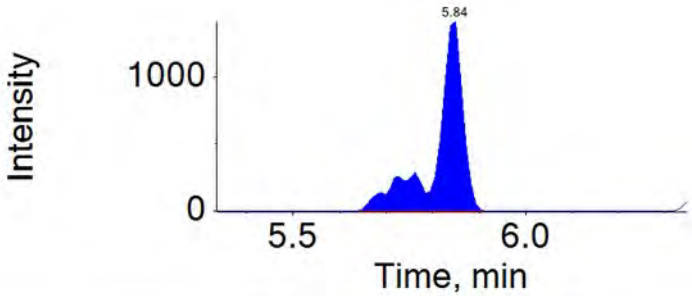
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



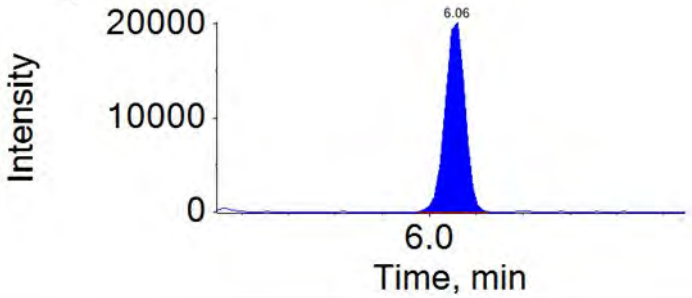
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



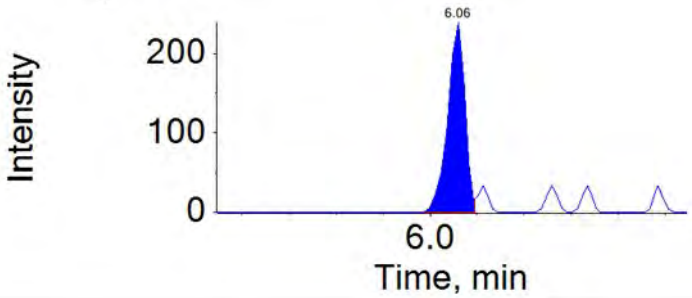
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



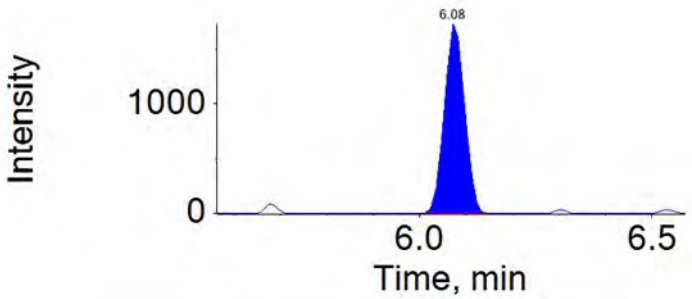
Component: PFDoDA
Primary Mass: 613.0 / 569.0



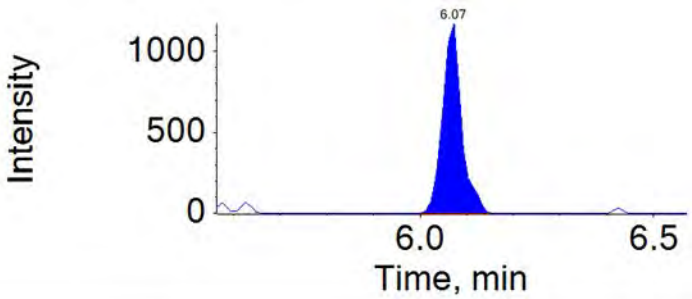
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



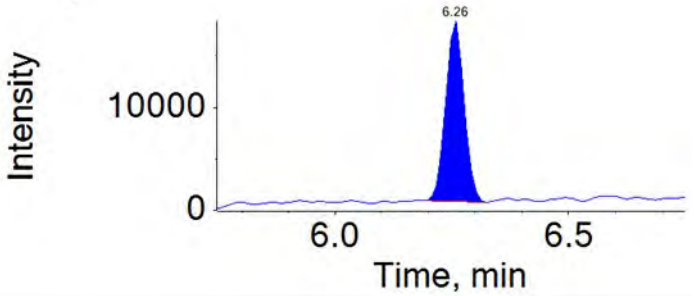
Component: 10:2 FTS_2
Secondary Mass: 627.0 / 81.0



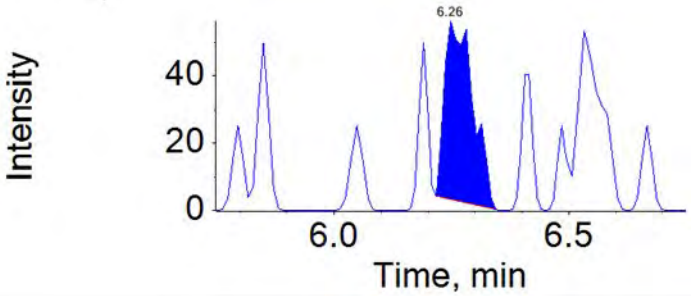
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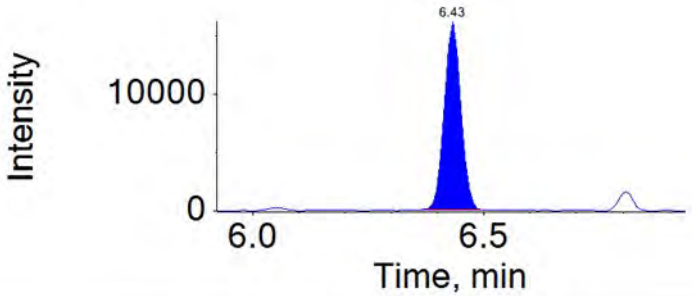
Component: PFTrDA
Primary Mass: 663.0 / 619.0



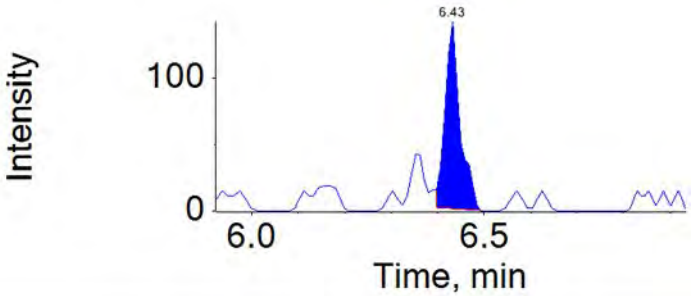
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Secondary Mass: 663.0 / 169.0



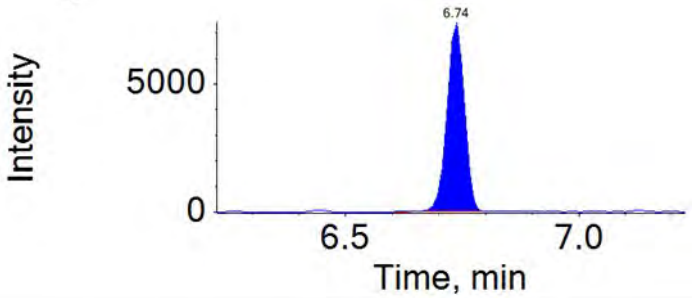
Component: PFTeDA
Primary Mass: 713.0 / 669.0



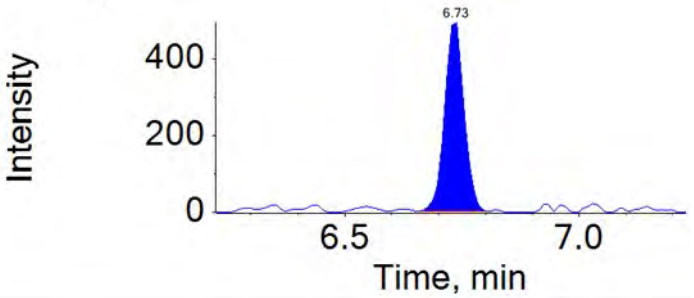
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



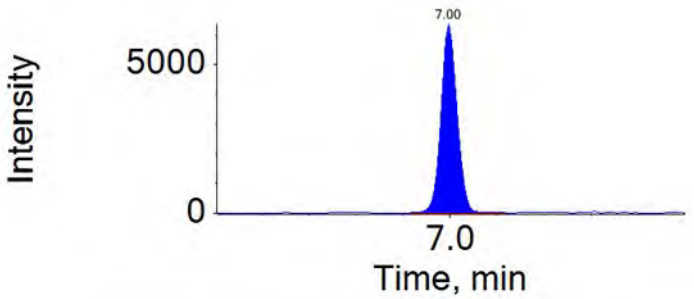
Component: PFHxDA
Primary Mass: 813.0 / 769.0



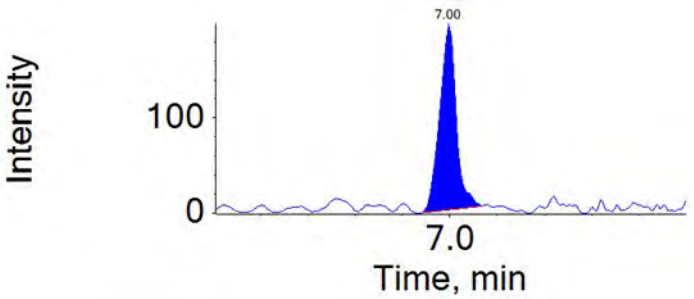
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Sample Name:	CAL3			**Data File:**		18NOV12DCAL-44.wiff
Sample ID:	CALBRN31833B			**Acquis Date:**		2018-11-12T15:24:03
Sample Type:	Standard			**Instrument:**		LM27631
Vial Position:	5			**Acquis Method:**		18AUG13_3uL.dam
Injection Vol:	3.00			**Result Table:**		18NOV12DCAL
QMethod File:	18AUG20QM			**ICAL Name:**		18NOV12DCAL
Batch Number:	N\A			**Operator:**		MCD7824
Sample Wt.:	1.00000			**Dilution Factor:**		1.00
Sample Vol.:	1.000			**Prep Factor:**		1.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV12DCAL-44

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Rreference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	659926.2	659926.2	0	50	
13C2-PFOA	5.0	450219.7	450219.7	0	50	
13C4-PFOS	4.8	249205.8	249205.8	0	50	
13C2-PFDA	5.0	278743.9	278743.9	0	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	733360.2	13C3-PFBA	659926.2	1.111	5.000	4.982	100	70-130	
E13C5-PFPeA	695805.7	13C3-PFBA	659926.2	1.054	5.000	4.729	95	70-130	
E13C3-PFBS	416352.8	13C3-PFBA	659926.2	0.631	4.650	4.454	96	70-130	
E13C2-4:2-FTS	47514.8	13C2-PFOA	450219.7	0.106	4.670	4.700	101	70-130	
E13C5-PFHxA	646783.5	13C2-PFOA	450219.7	1.437	5.000	5.189	104	70-130	
E13C3-PFHxS	317243.2	13C2-PFOA	450219.7	0.705	4.730	4.835	102	70-130	
E13C4-PFHpA	503681.0	13C2-PFOA	450219.7	1.119	5.000	5.040	101	70-130	
E13C2-6:2-FTS	31706.4	13C2-PFOA	450219.7	0.070	4.750	4.712	99	70-130	
E13C8-PFOA	878868.5	13C2-PFOA	450219.7	1.952	5.000	5.378	108	70-130	
E13C8-PFOS	281035.5	13C4-PFOS	249205.8	1.128	4.780	4.997	105	70-130	
E13C9-PFNA	455948.9	13C4-PFOS	249205.8	1.830	5.000	5.101	102	70-130	
E13C6-PFDA	612680.8	13C2-PFDA	278743.9	2.198	5.000	5.129	103	70-130	
E13C2-8:2-FTS	29249.8	13C2-PFDA	278743.9	0.105	4.790	5.233	109	70-130	
E13C8-PFOSA	629109.9	13C2-PFDA	278743.9	2.257	5.000	5.004	100	70-130	
Ed3-NMeFOSAA	71670.3	13C2-PFDA	278743.9	0.257	5.000	4.641	93	70-130	
E13C7-PFUnDA	245605.3	13C2-PFDA	278743.9	0.881	5.000	5.116	102	70-130	
Ed5-NEtFOSAA	54383.9	13C2-PFDA	278743.9	0.195	5.000	4.128	83	70-130	
E13C2-PFDoDA	549542.3	13C2-PFDA	278743.9	1.971	5.000	5.119	102	70-130	
Ed7-NMePFOSAE	307355.4	13C2-PFDA	278743.9	1.103	5.000	4.772	95	70-130	
Ed3-NMePFOSA	76782.9	13C2-PFDA	278743.9	0.275	5.000	5.005	100	70-130	
Ed9-NEtPFOSAE	259792.3	13C2-PFDA	278743.9	0.932	5.000	4.847	97	70-130	
Ed5-NEtPFOSA	57485.9	13C2-PFDA	278743.9	0.206	5.000	4.838	97	70-130	
E13C2-PFTeDA	393544.9	13C2-PFDA	278743.9	1.412	5.000	4.957	99	70-130	

APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

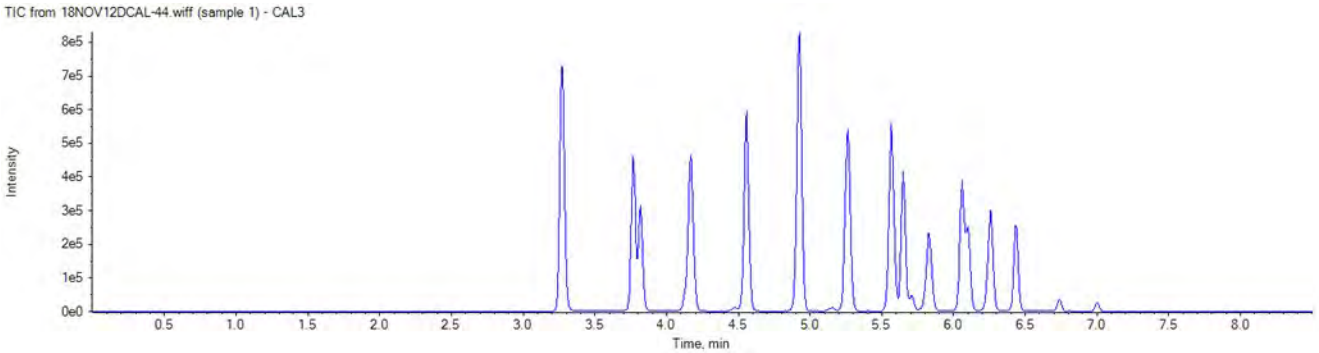
Analyte Quantitation Peak Table

Sample Name: CAL3 **Instrument Name:** LM27631 **File Name:** 18NOV12DCAL-44.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	1.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	3.27	1.000	303228.7		A	13C4-PFBA	3.27	733360.2	0.413	2.291
PFPeA	3.77	1.000	292715.8		A	13C5-PFPeA	3.77	695805.7	0.421	2.435
PFBS	3.82	1.000	168144.6		A	13C3-PFBS	3.82	416352.8	0.404	1.921
4:2-FTS	4.13	1.000	34188.5		A	13C2-4:2-FTS	4.13	47514.8	0.720	1.954
PFHxA	4.17	1.000	352013.5		A	13C5-PFHxA	4.17	646783.5	0.544	2.272
PFPeS	4.19	1.100	84071.2		A	13C3-PFBS	3.82	416352.8	0.202	1.960
PFHpA	4.56	1.000	355834.2		A	13C4-PFHpA	4.55	503681.0	0.706	2.342
PFHxS	4.56	1.000	125622.0		M	13C3-PFHxS	4.56	317243.2	0.396	1.920
6:2-FTS	4.91	1.000	28084.9		A	13C2-6:2-FTS	4.91	31706.4	0.886	2.143
PFHpS	4.92	1.080	125907.9		A	13C3-PFHxS	4.56	317243.2	0.397	2.089
PFOA	4.93	1.000	372258.9		A	13C8-PFOA	4.93	878868.5	0.424	2.262
PFOS	5.25	1.000	120897.5		M	13C8-PFOS	5.25	281035.5	0.430	1.881
PFNA	5.27	1.000	302323.8		A	13C9-PFNA	5.27	455948.9	0.663	2.391
PFNS	5.55	1.060	76049.0		A	13C8-PFOS	5.25	281035.5	0.271	1.893
PFDA	5.57	1.000	254047.8		M	13C6-PFDA	5.57	612680.8	0.415	2.198
8:2-FTS	5.57	1.000	26295.1		A	13C2-8:2-FTS	5.57	29249.8	0.899	2.096
PFOSA	5.65	1.000	270175.5		A	13C8-PFOSA	5.65	629109.9	0.429	2.098
NMeFOSAA	5.71	1.000	25147.7		A	d3-NMeFOSAA	5.71	71670.3	0.351	1.983
PFDS	5.80	1.110	57966.9		A	13C8-PFOS	5.25	281035.5	0.206	1.869
PFUnDA	5.83	1.000	199061.8		A	13C7-PFUnDA	5.83	245605.3	0.810	2.119
NEtFOSAA	5.84	1.000	25089.0		A	d5-NEtFOSAA	5.84	54383.9	0.461	2.418
PFDoDA	6.06	1.000	237252.6		A	13C2-PFDoDA	6.06	549542.3	0.432	2.198
10:2-FTS	6.07	1.090	18541.7		A	13C2-8:2-FTS	5.57	29249.8	0.634	2.111
NMePFOSAE	6.10	1.000	163668.7		A	d7-NMePFOSAE	6.09	307355.4	0.533	2.216
NMePFOSA	6.11	1.000	29934.3		A	d3-NMePFOSA	6.11	76782.9	0.390	1.923
PFDoS	6.23	1.190	30098.3		A	13C8-PFOS	5.25	281035.5	0.107	1.876
NEtPFOSAE	6.26	1.000	178457.9		A	d9-NEtPFOSAE	6.25	259792.3	0.687	2.204
NEtPFOSA	6.27	1.000	26590.2		M	d5-NEtPFOSA	6.27	57485.9	0.463	2.124
PFTrDA	6.26	1.030	184322.9		A	13C2-PFDoDA	6.06	549542.3	0.335	2.117
PFTeDA	6.43	1.000	156439.9		A	13C2-PFTeDA	6.43	393544.9	0.398	2.228
PFHxDA	6.74	1.050	69655.1		A	13C2-PFTeDA	6.43	393544.9	0.177	2.109
PFODA	7.00	1.090	57796.0		A	13C2-PFTeDA	6.43	393544.9	0.147	2.045

Total Ion Chromatogram

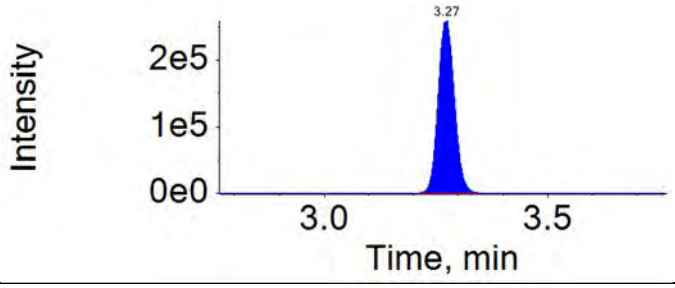


APPROVED
By MCD at 6:33 pm, 11/12/18

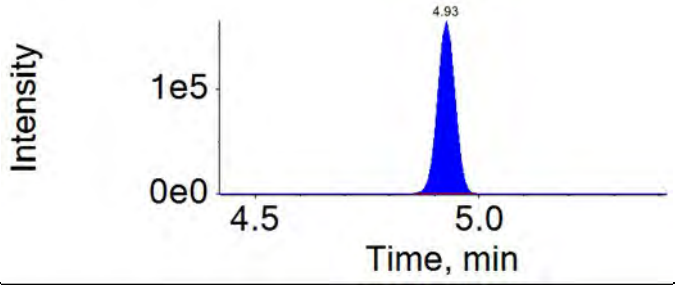
REVIEWED
By HMK at 10:53 am, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

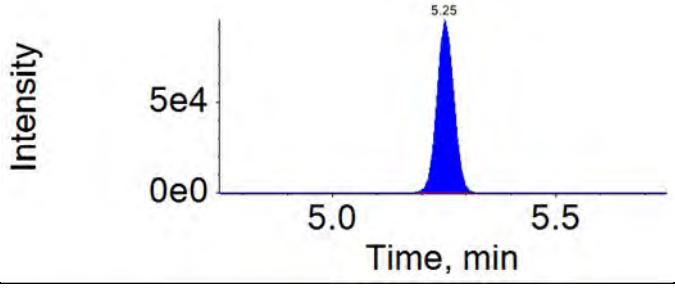
Injection Standard: 13C3-PFBA
216.0 / 172.0



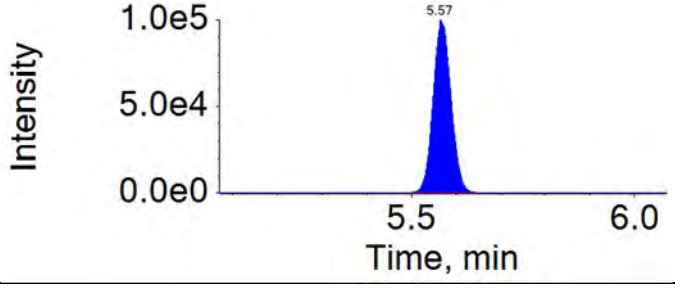
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0



Injection Standard: 13C2-PFDA
515.0 / 470.0

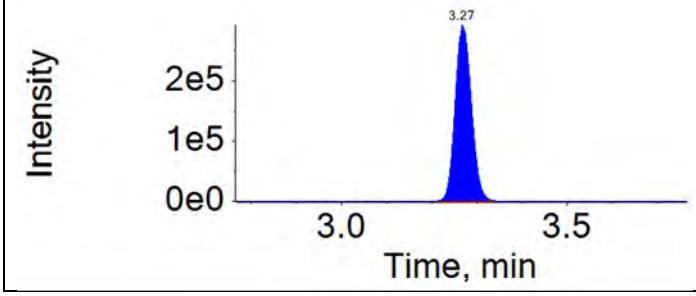


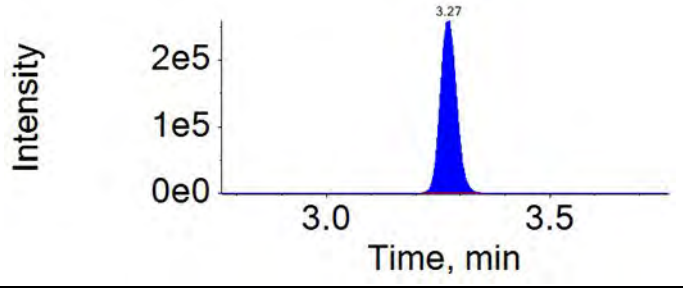
APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

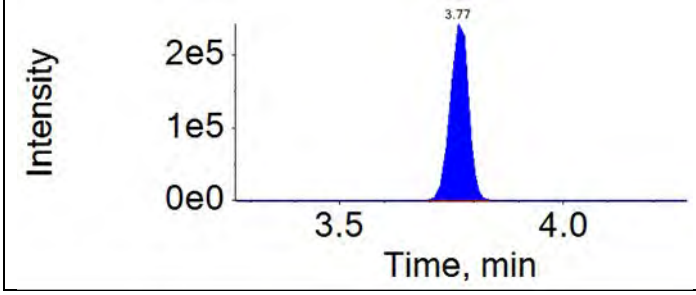
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

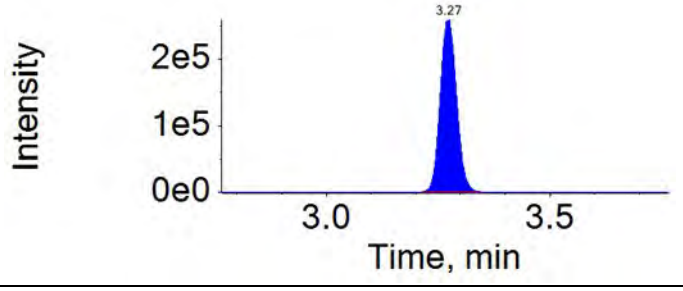
Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0



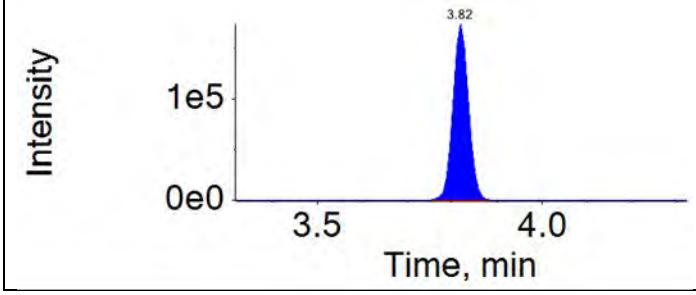


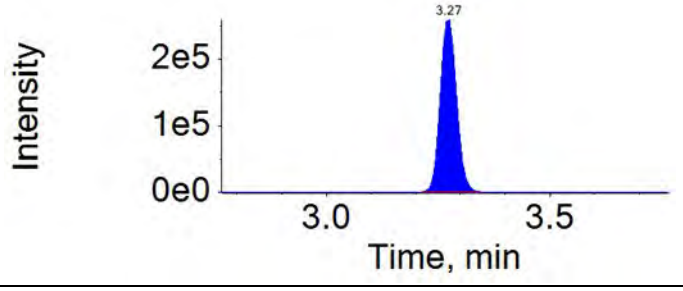
Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0



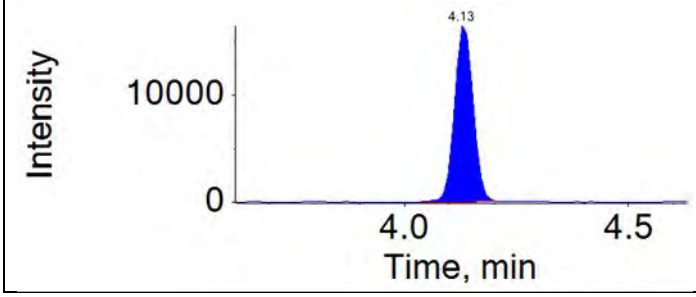


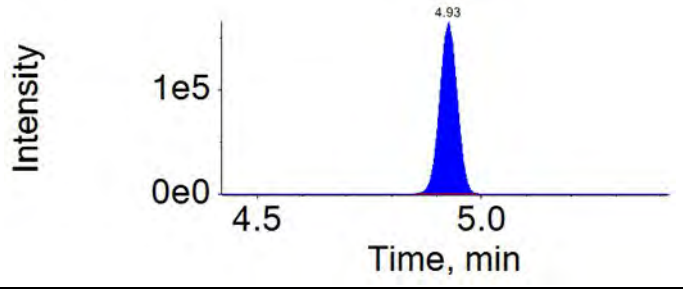
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0





Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0



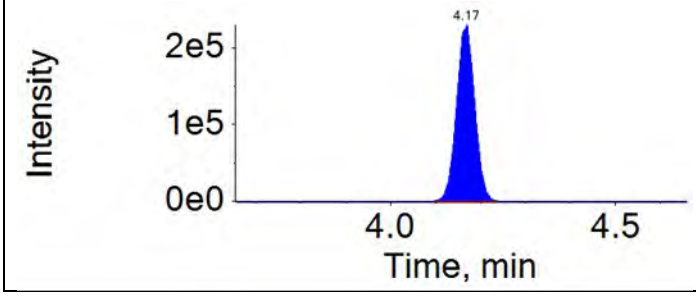


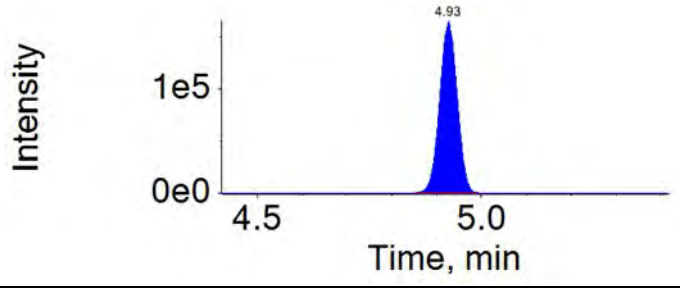
APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

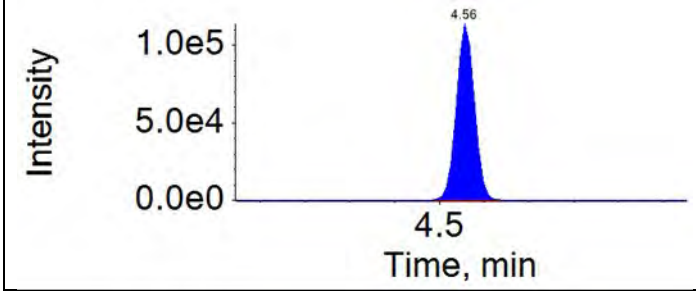
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

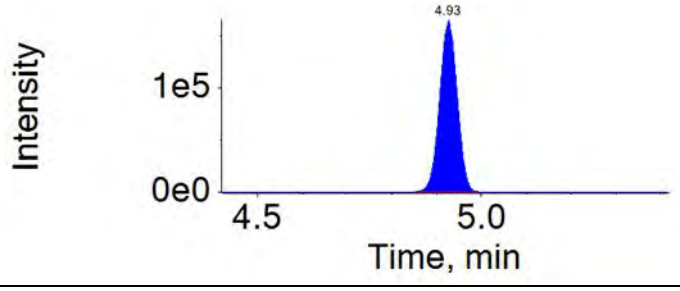
Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0



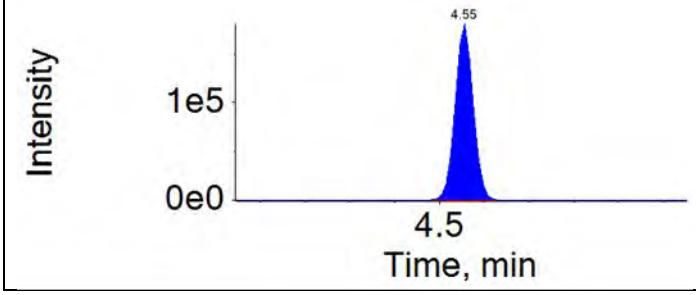


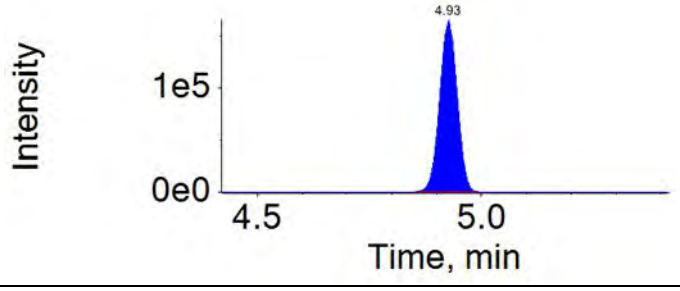
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0



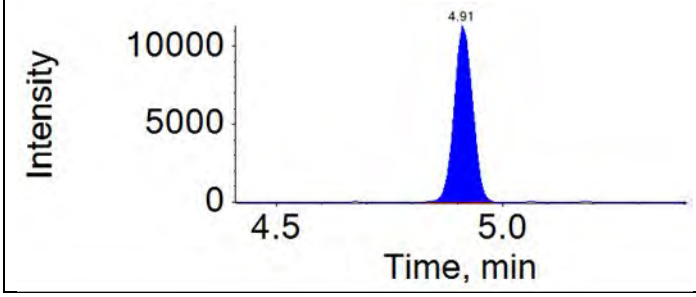


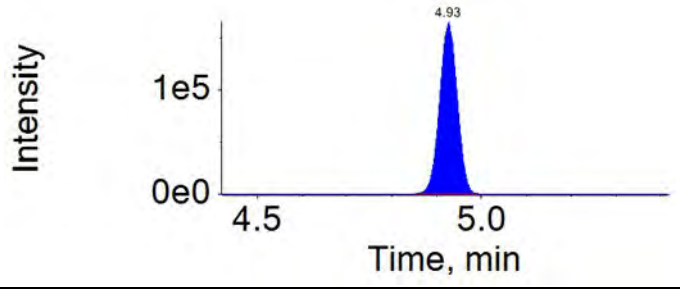
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0





Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0

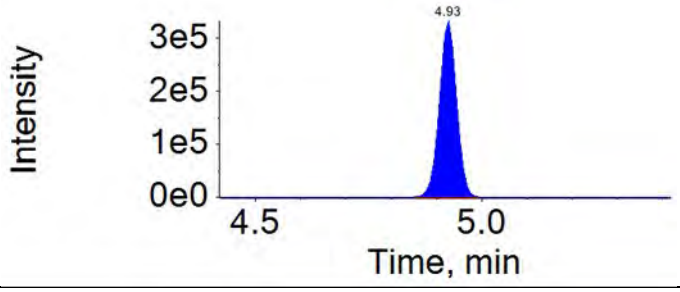
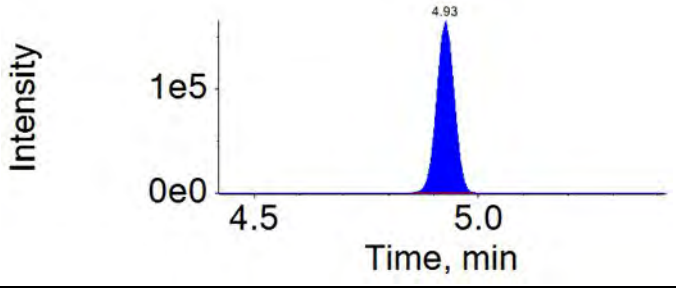


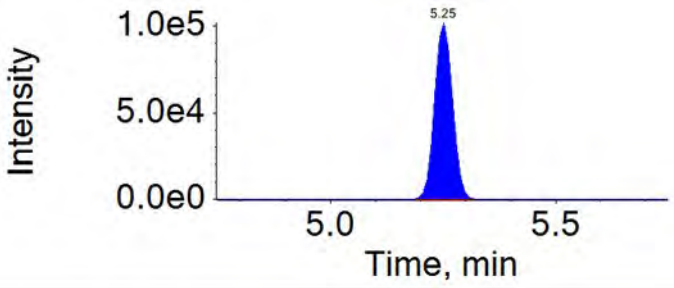
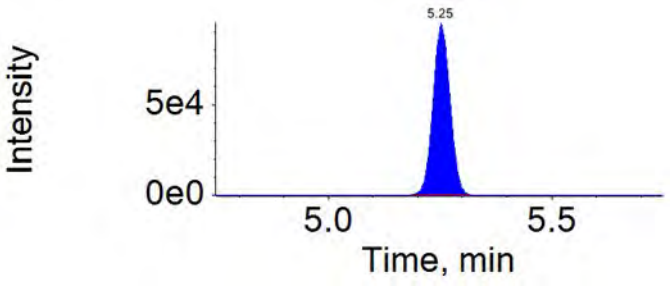


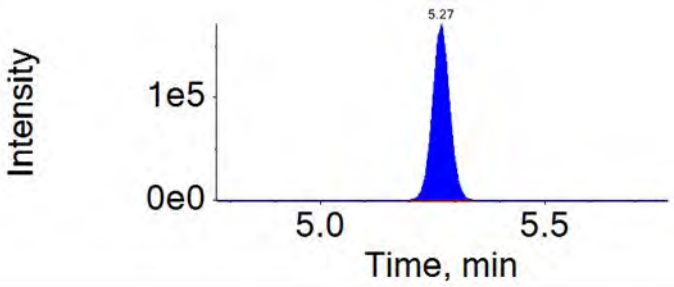
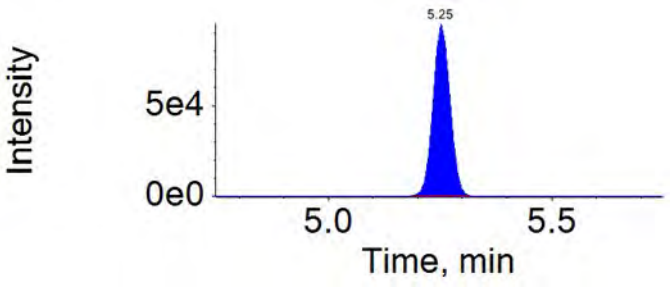
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By MCD at 6:33 pm, 11/12/18

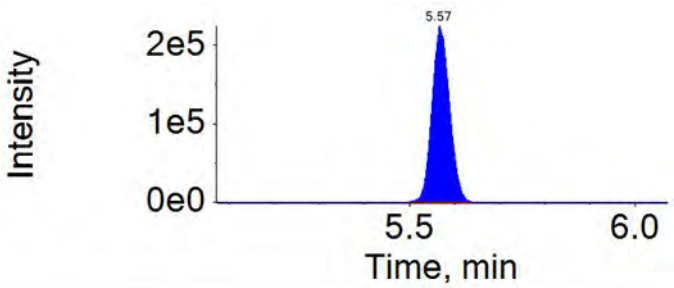
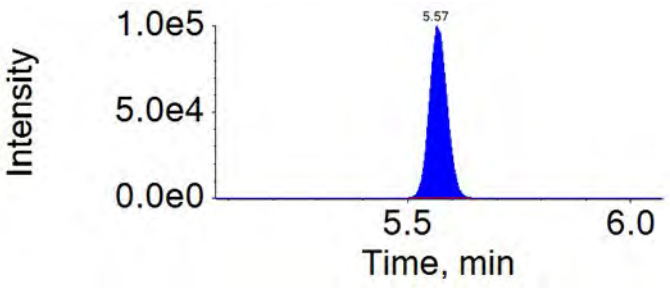
REVIEWED
By HMK at 10:53 am, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

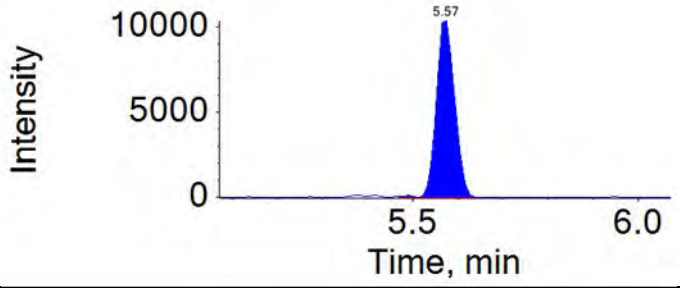
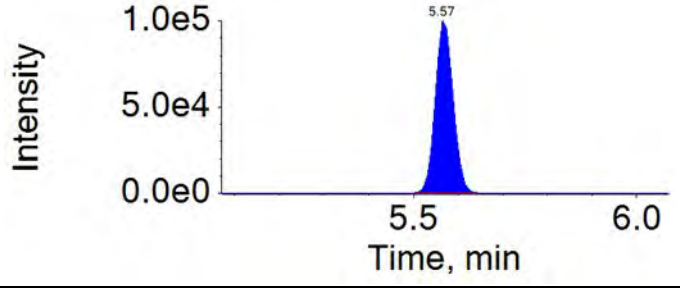
Extraction Standard: E13C8-PFOA	Injection Standard: 13C2-PFOA
421.0 / 376.0	415.0 / 370.0
	

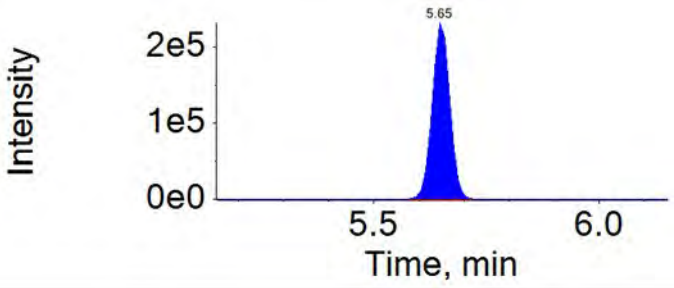
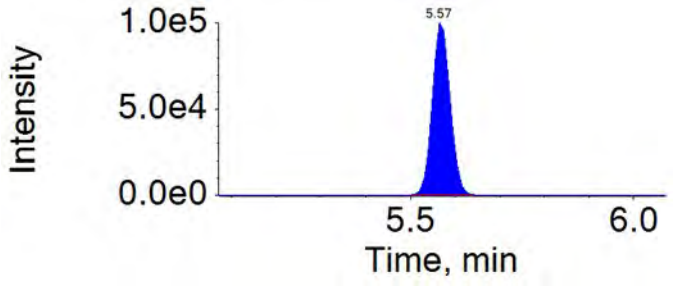
Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0
	

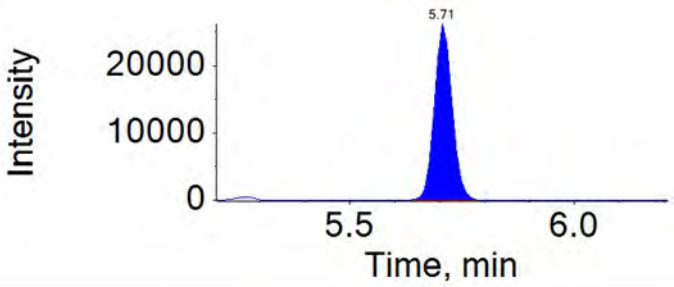
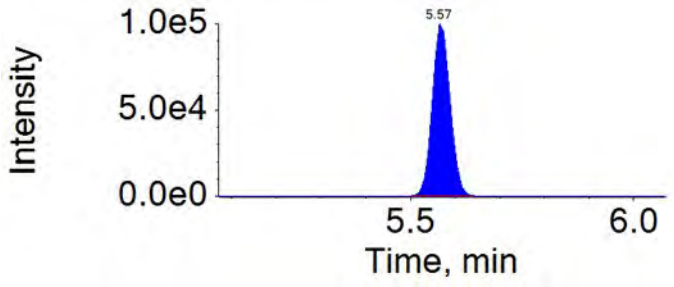
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0
	

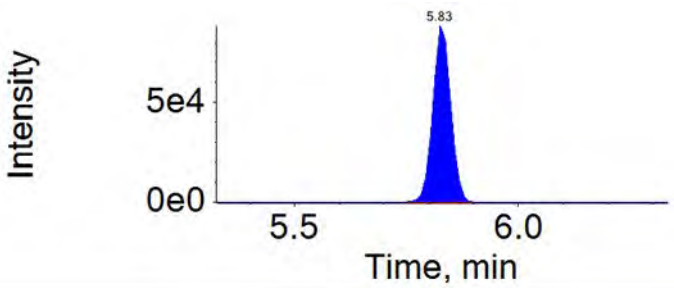
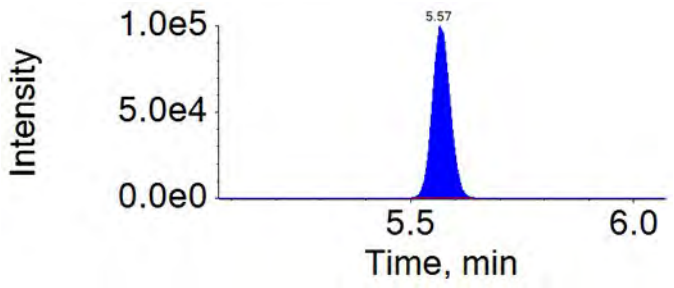
Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0
	

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: E13C2-8:2-FTS	Injection Standard: 13C2-PFDA
529.0 / 81.0	515.0 / 470.0
	

Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0
	

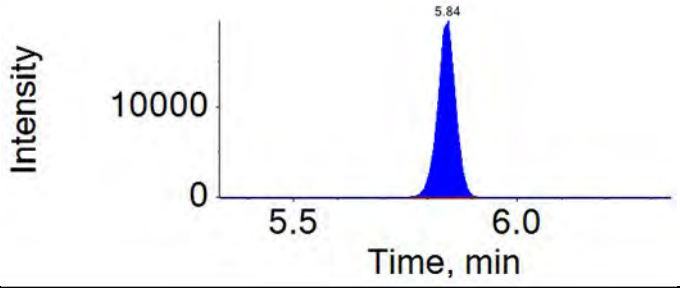
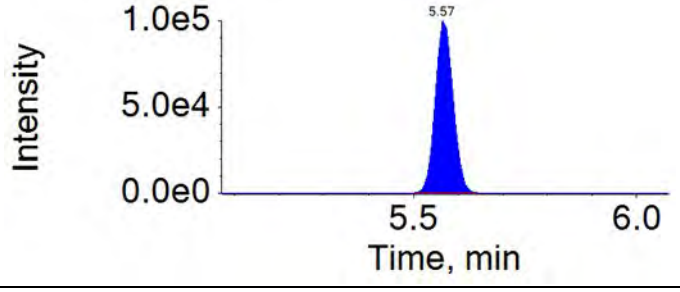
Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0
	

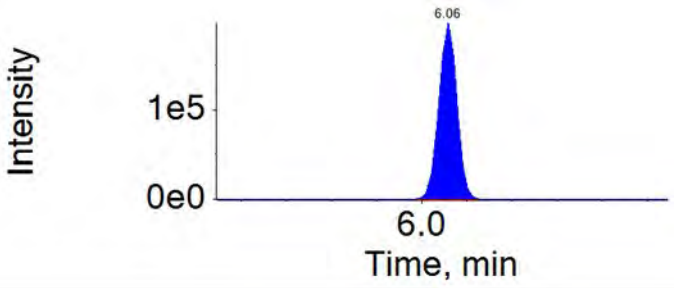
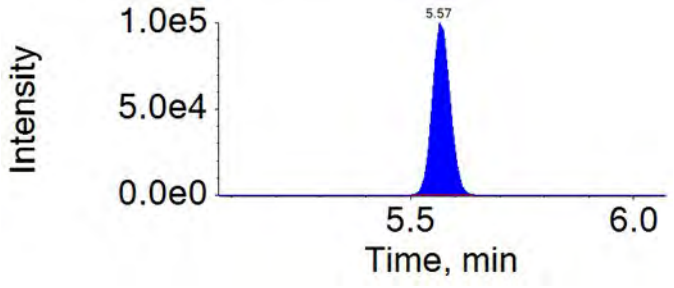
Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0
	

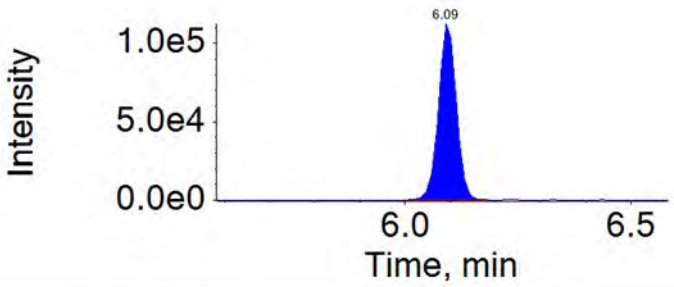
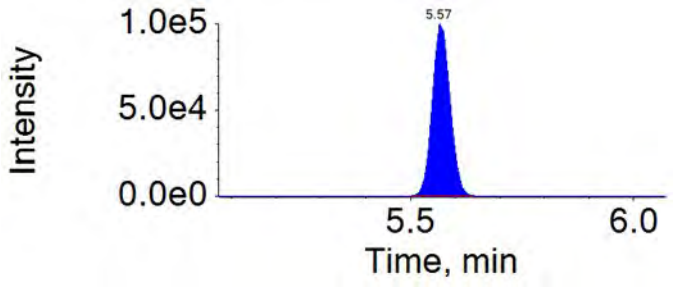
APPROVED
By MCD at 6:33 pm, 11/12/18

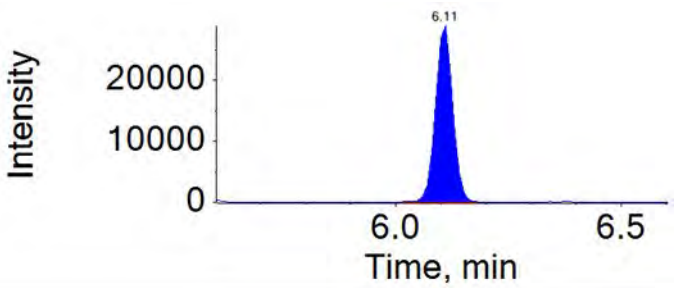
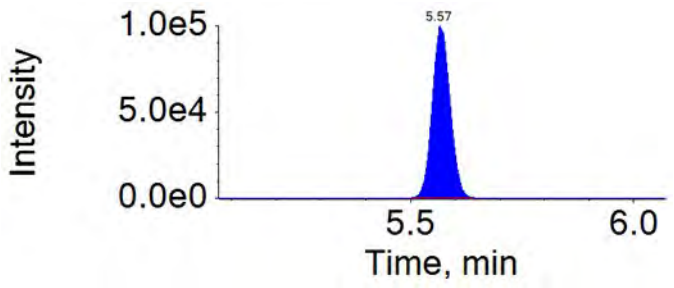
REVIEWED
By HMK at 10:53 am, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0
	

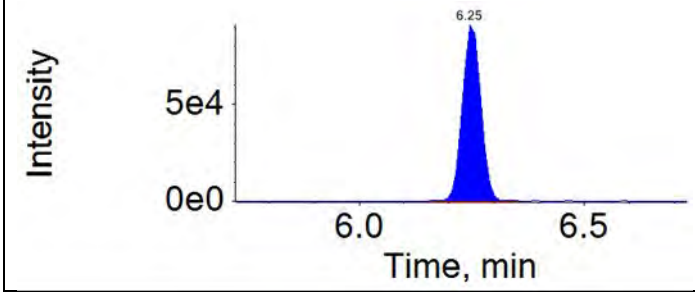
Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0
	

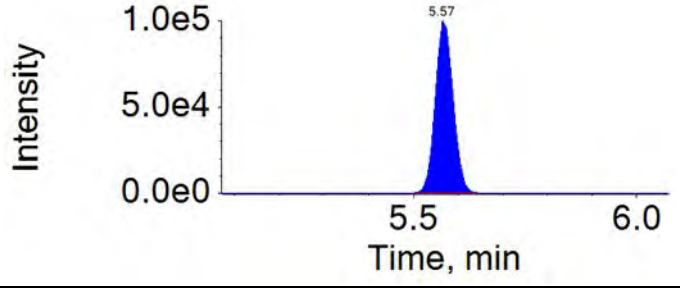
Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0
	

Extraction Standard: Ed3-NMePFOSA	Injection Standard: 13C2-PFDA
515.0 / 169.0	515.0 / 470.0
	

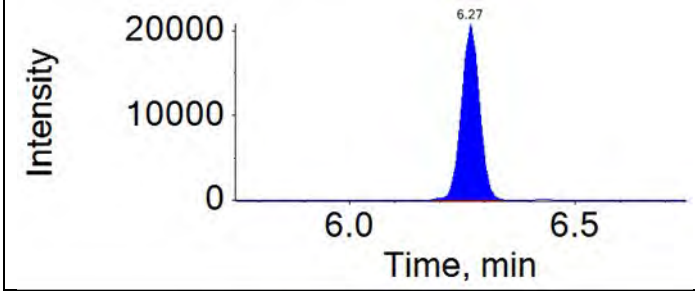
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

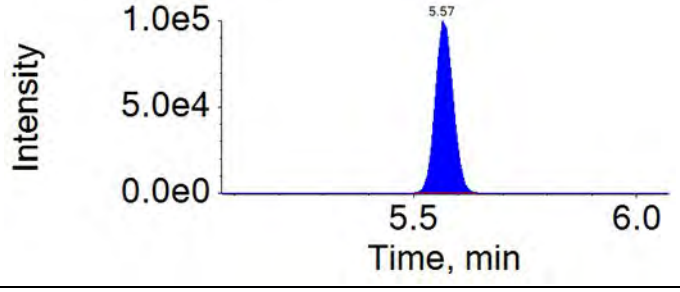
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



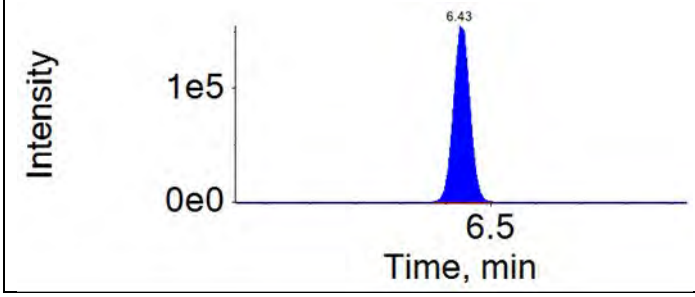


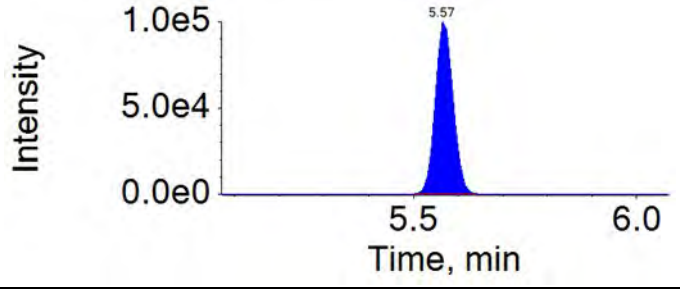
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0



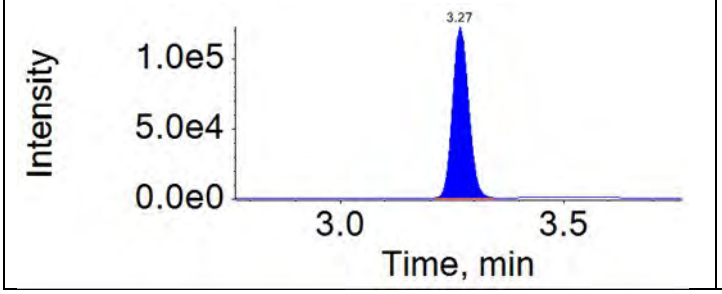


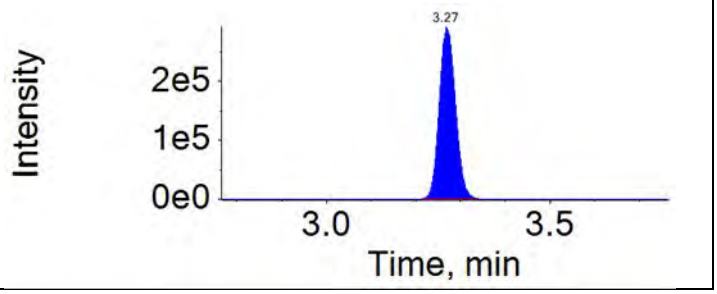
APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

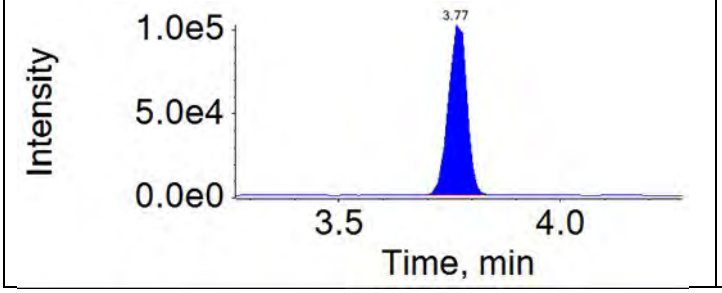
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

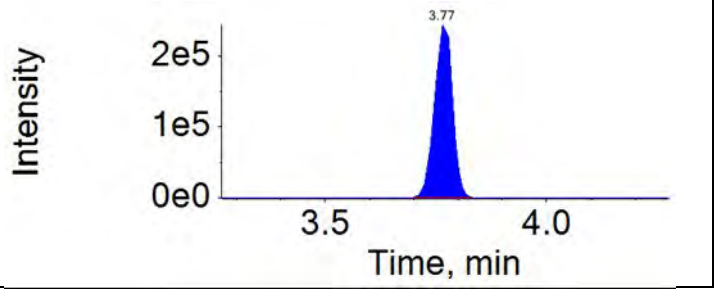
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



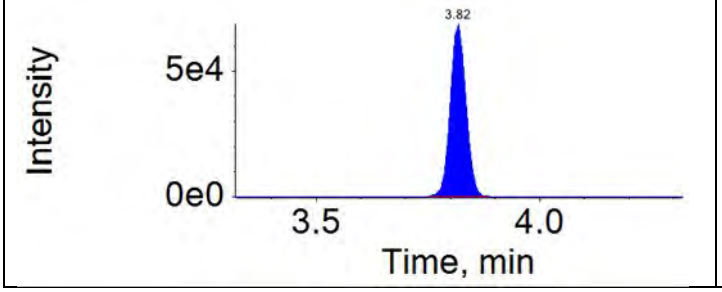


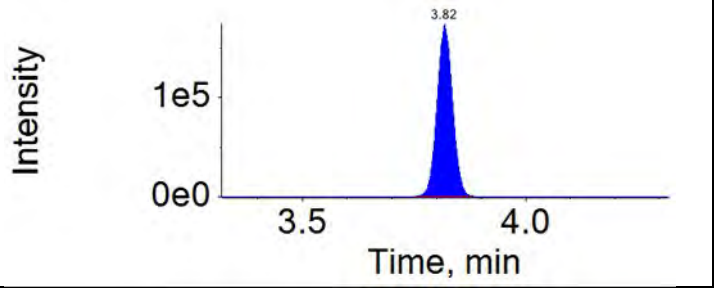
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



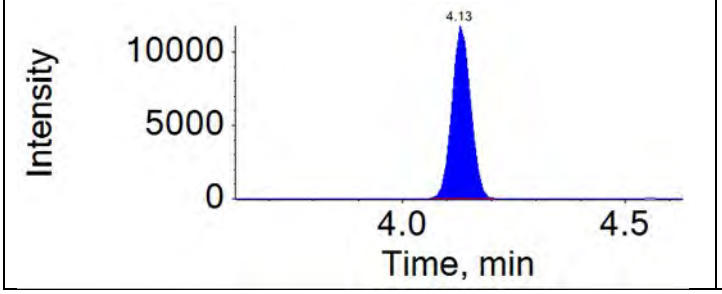


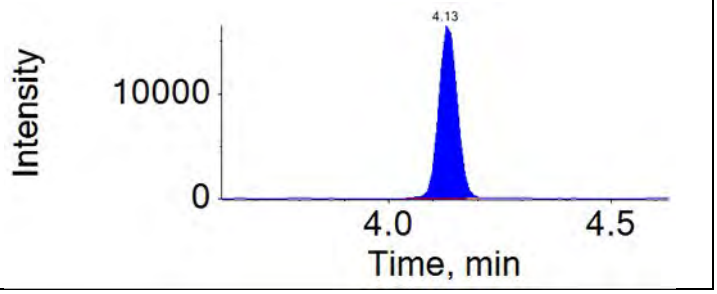
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





Analyte: 4:2-FTS	Extraction Standard: 13C2-4:2-FTS
327.0 / 307.0	329.0 / 81.0



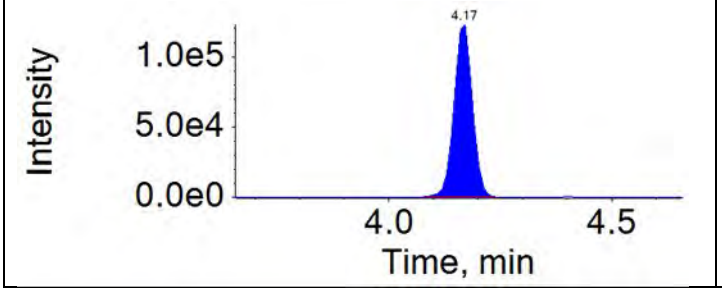


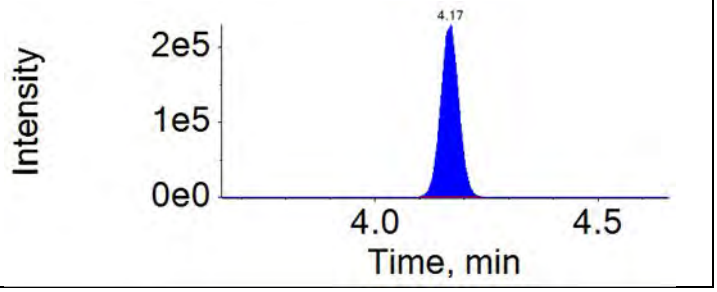
APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

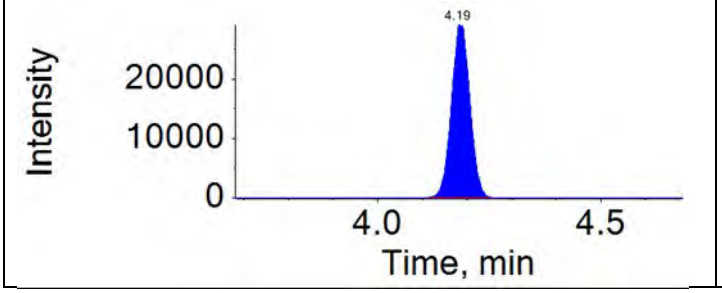
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

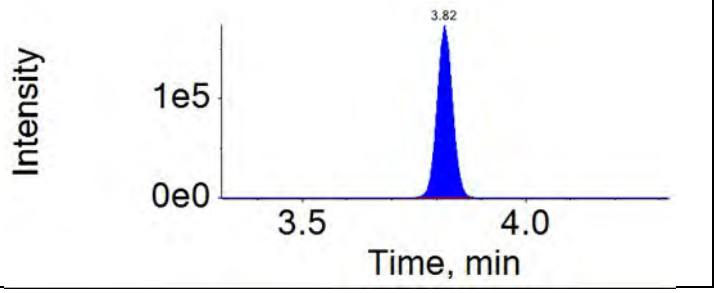
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



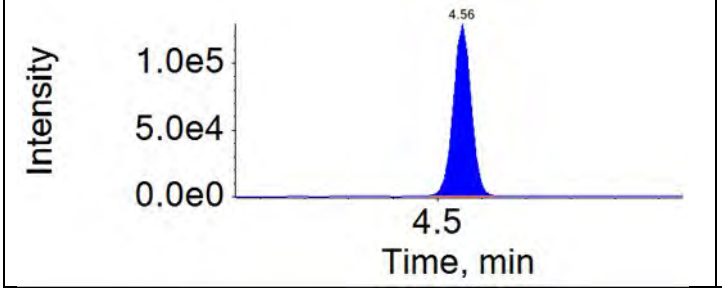


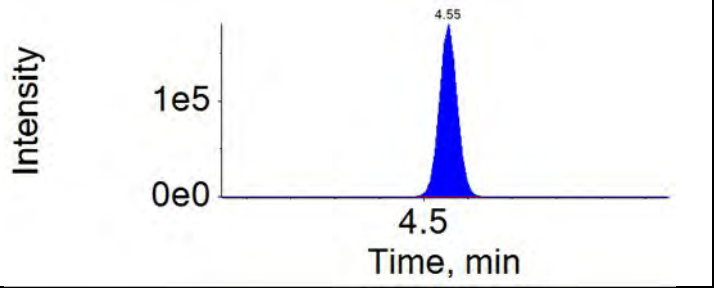
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



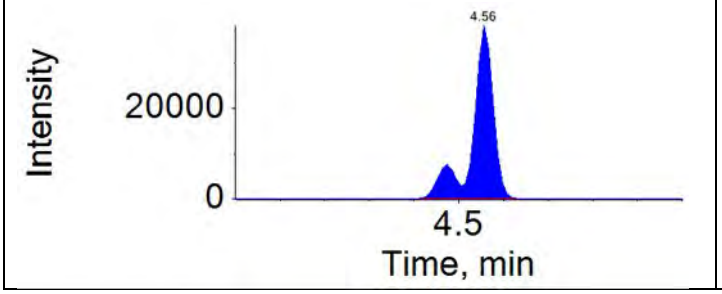


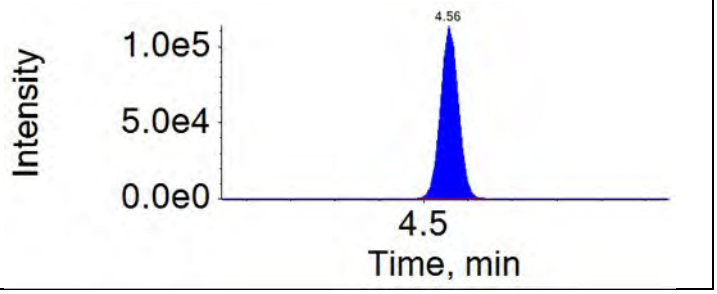
Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0





Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0



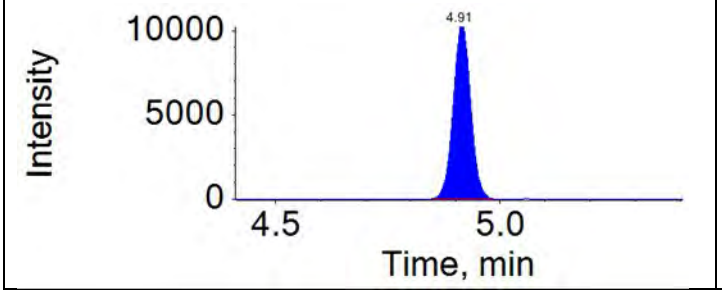


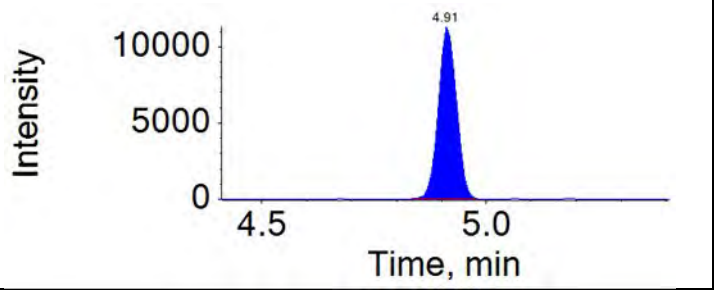
APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

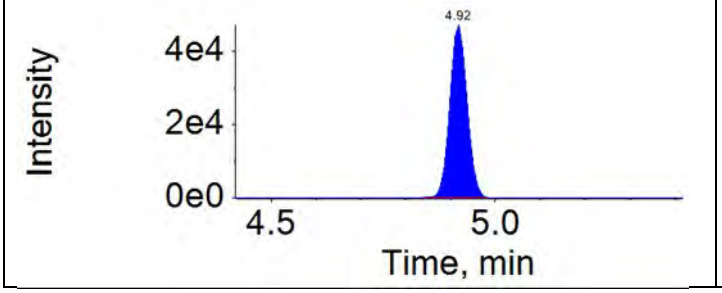
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

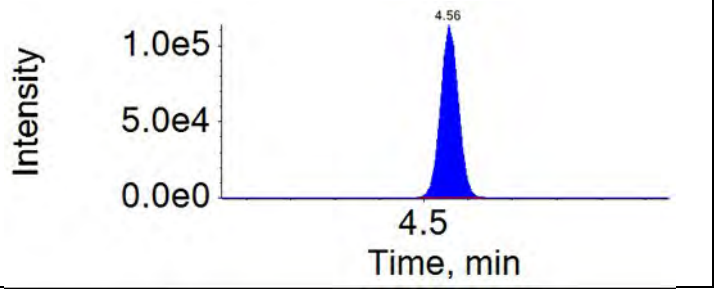
Analyte: 6:2-FTS	Extraction Standard: 13C2-6:2-FTS
427.0 / 407.0	429.0 / 81.0



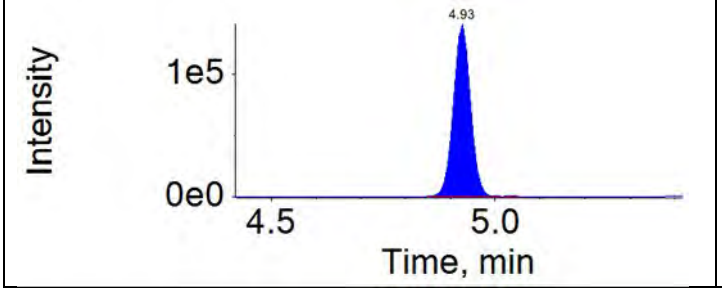


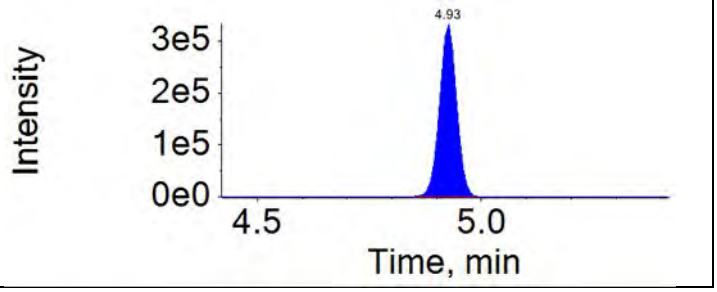
Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0



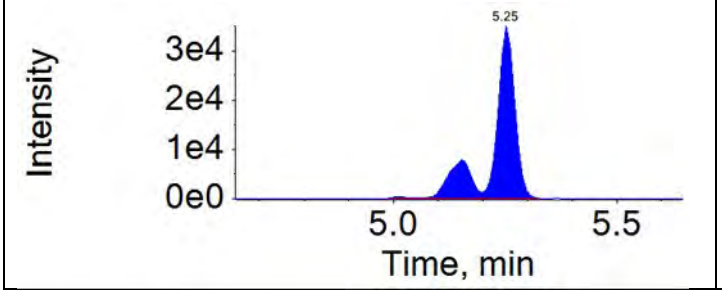


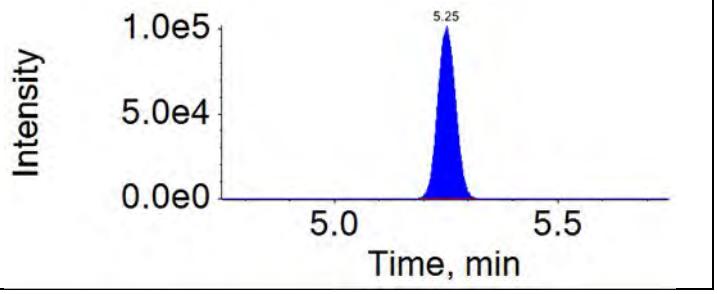
Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0





Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0



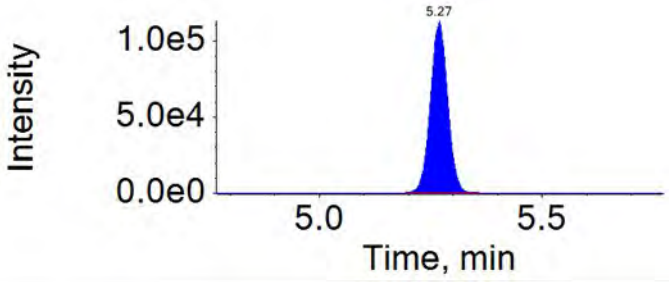


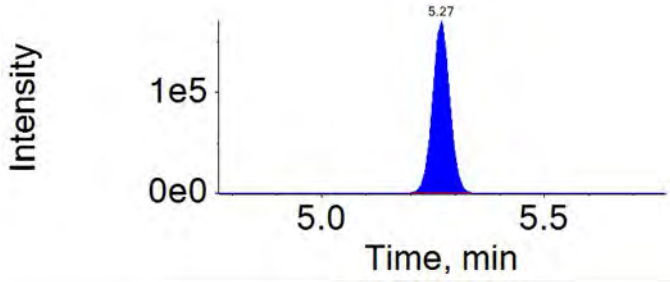
APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

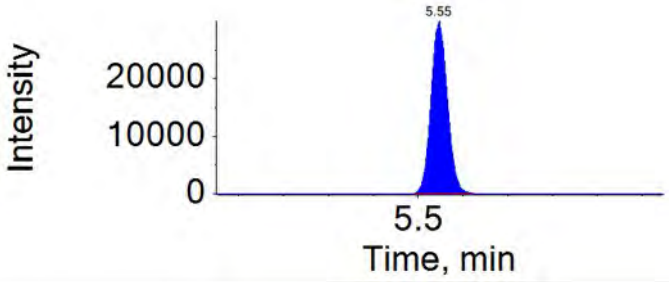
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

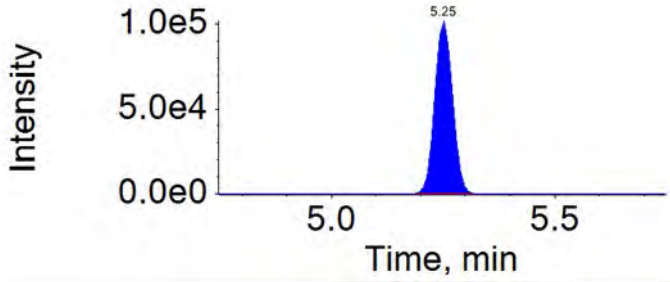
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



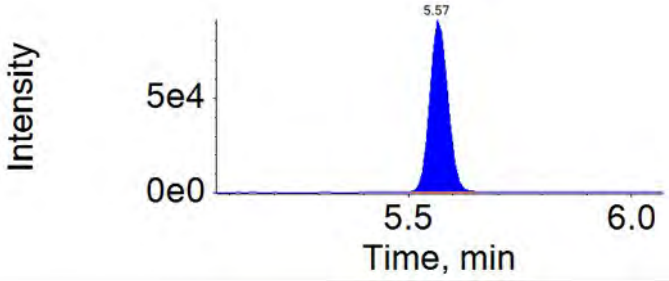


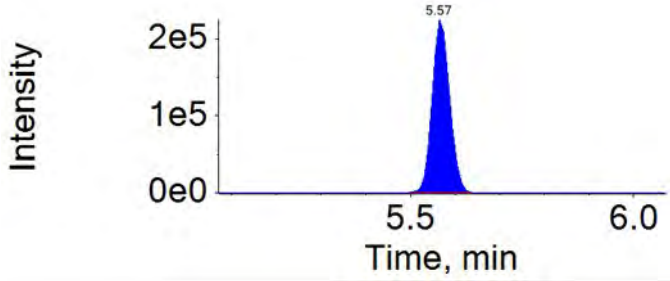
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



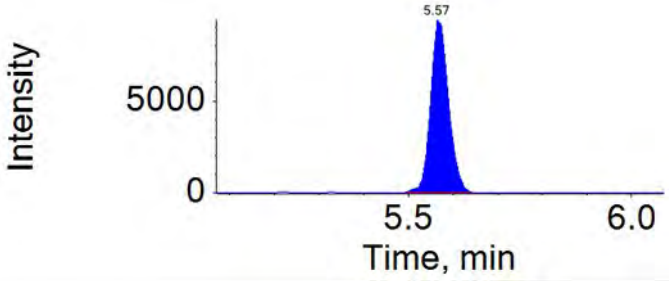


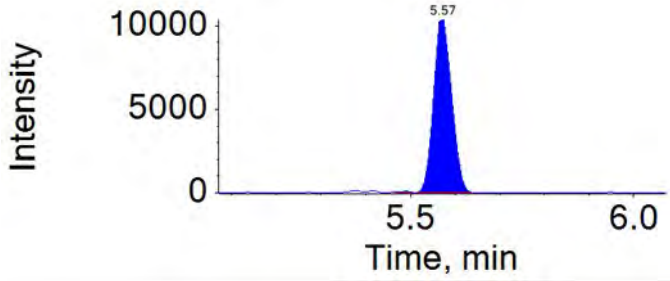
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





Analyte: 8:2-FTS	Extraction Standard: 13C2-8:2-FTS
527.0 / 507.0	529.0 / 81.0



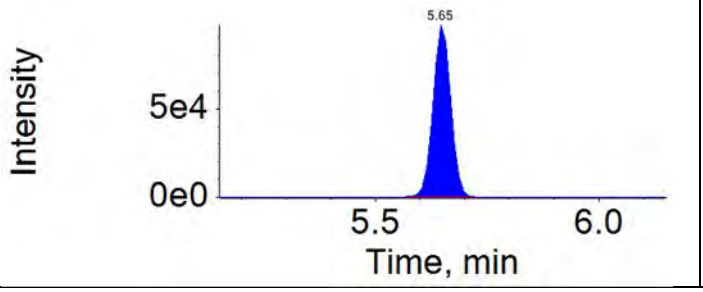


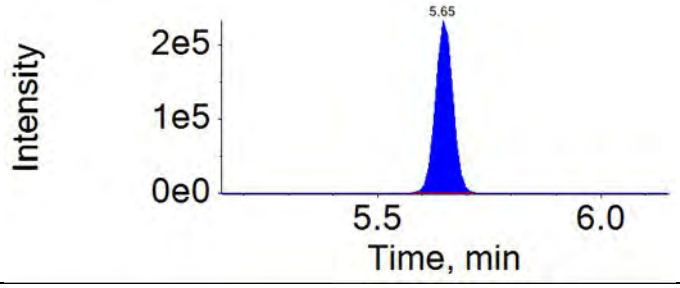
APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

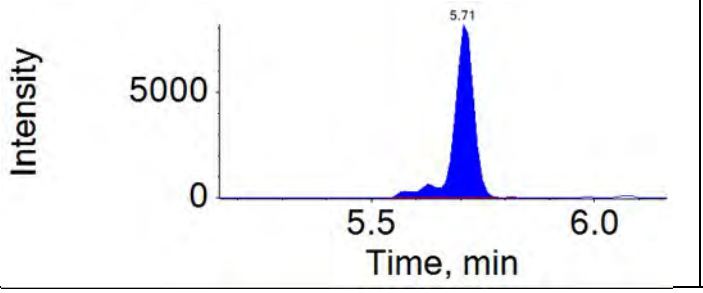
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

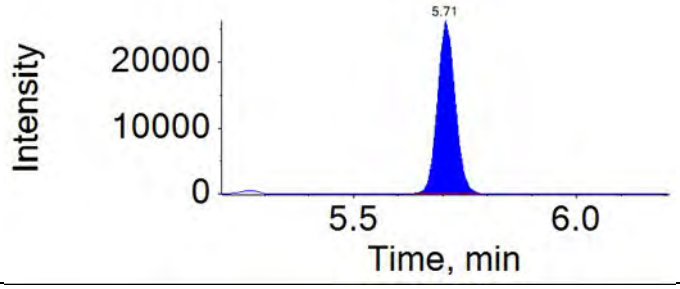
Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0



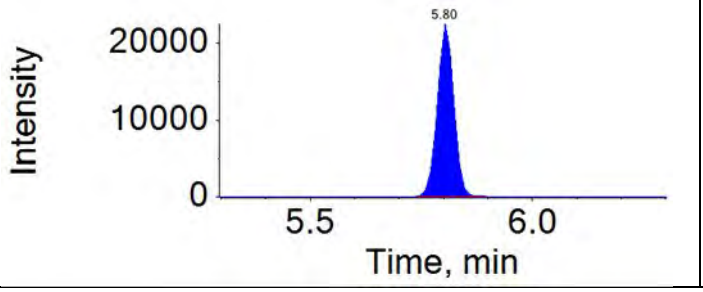


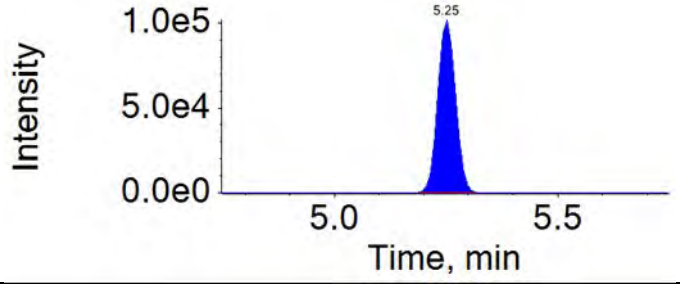
Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0



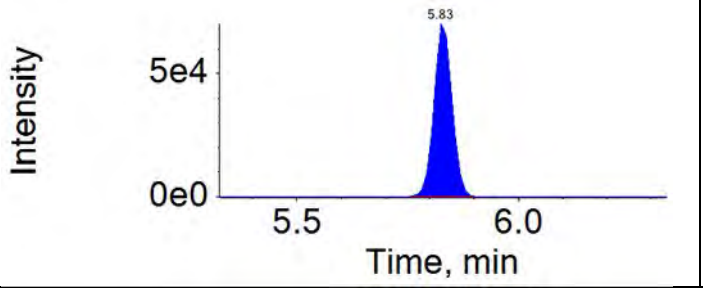


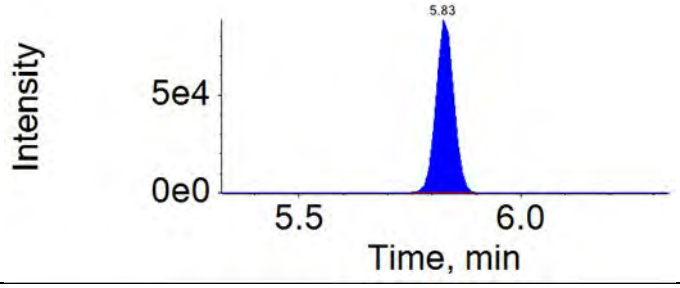
Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0





Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0

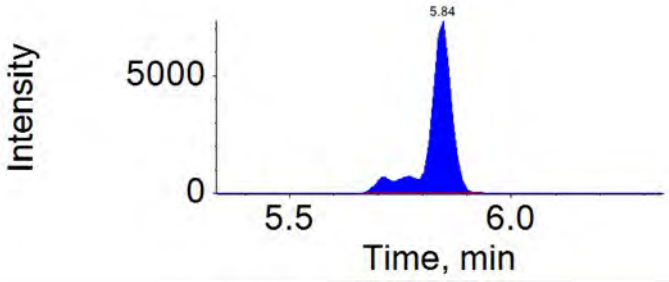
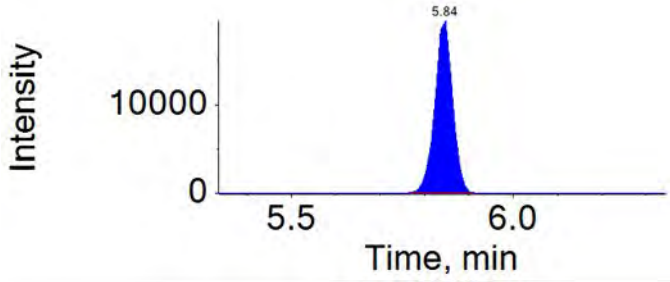


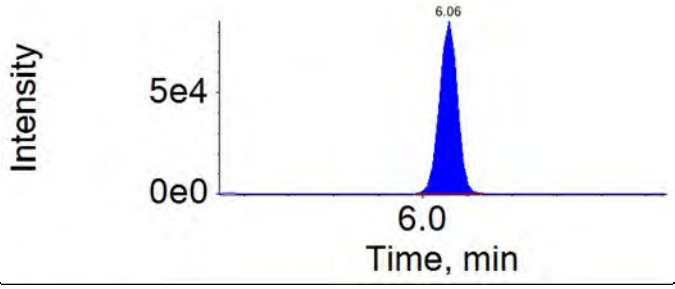
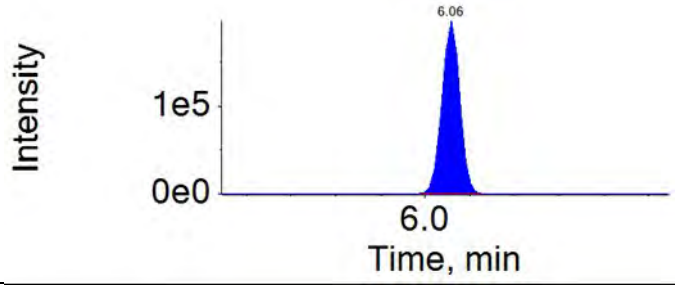


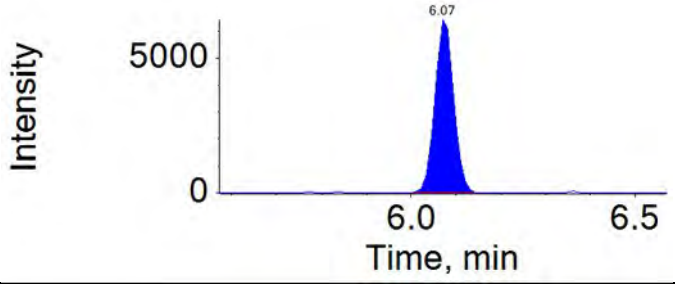
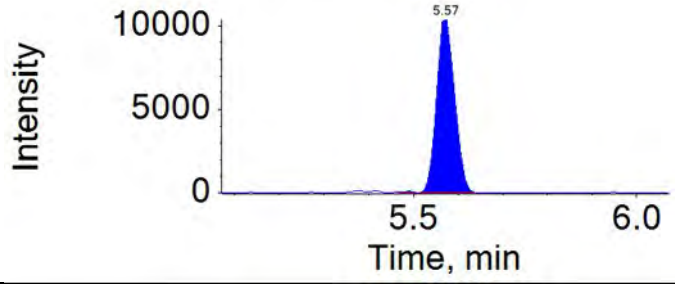
APPROVED
By MCD at 6:33 pm, 11/12/18

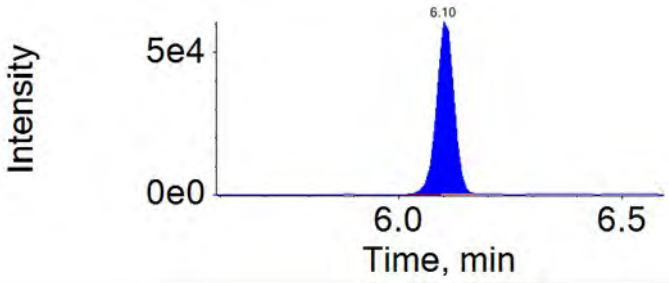
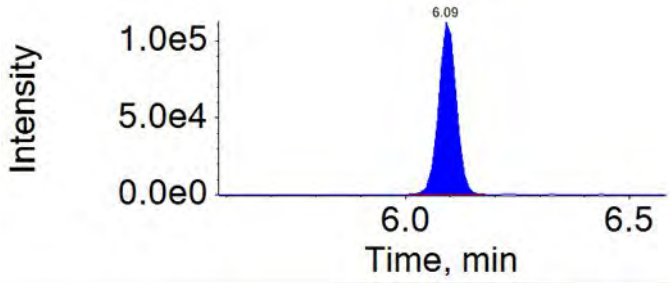
REVIEWED
By HMK at 10:53 am, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0
	

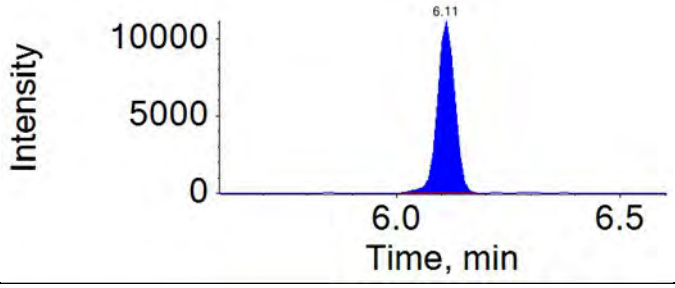
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0
	

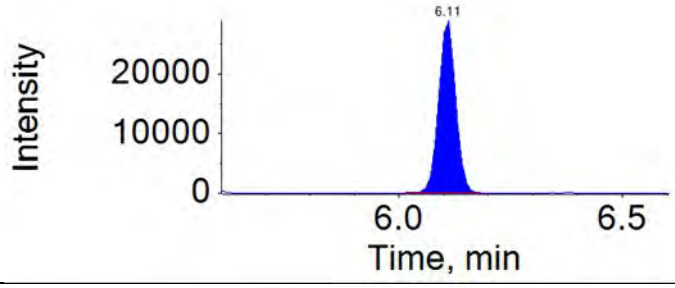
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0
	

Analyte: NMePFOSAE	Extraction Standard: d7-NMePFOSAE
616.0 / 59.0	623.0 / 59.0
	

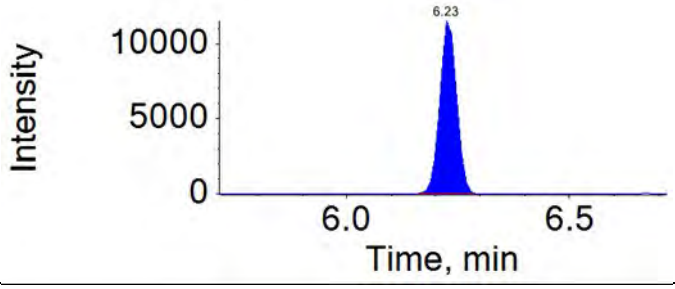
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

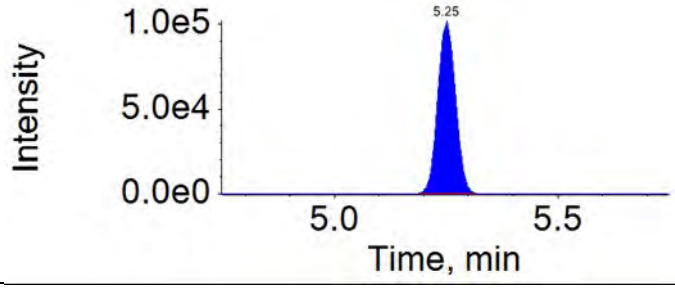
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



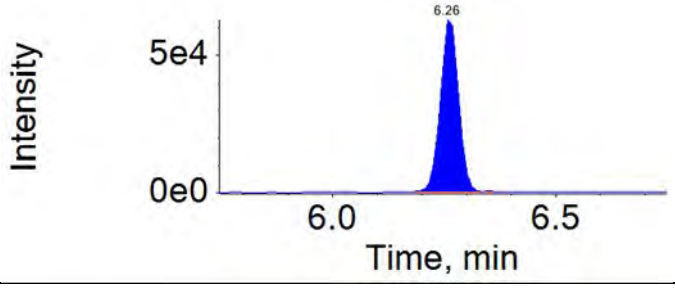


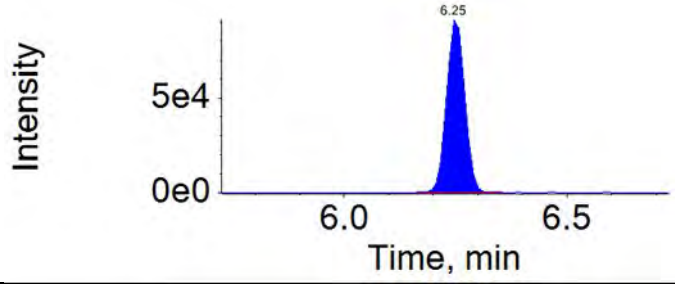
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



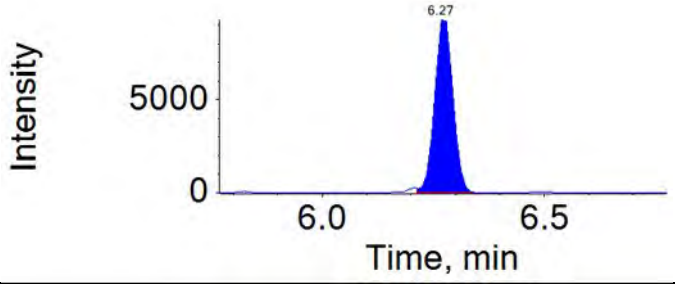


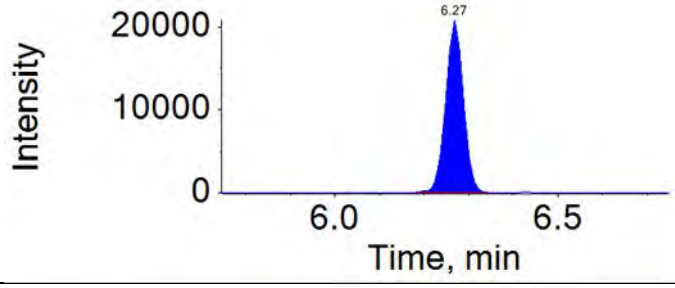
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





Analyte: NEtPFOSA	Extraction Standard: d5-NEtPFOSA
526.0 / 169.0	531.0 / 169.0

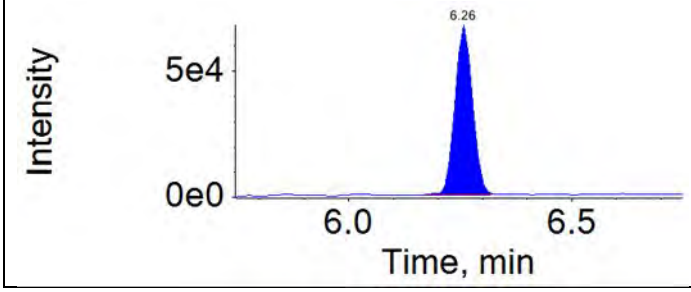
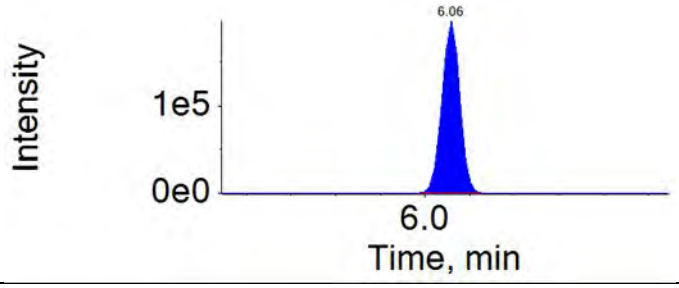


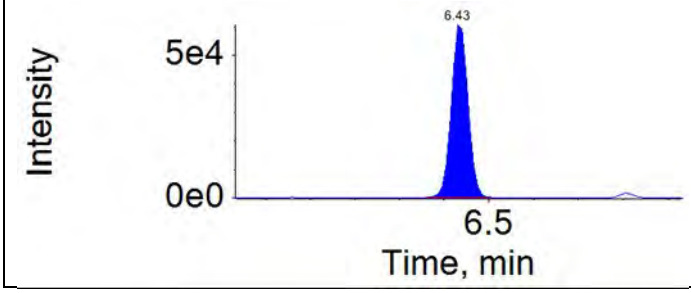
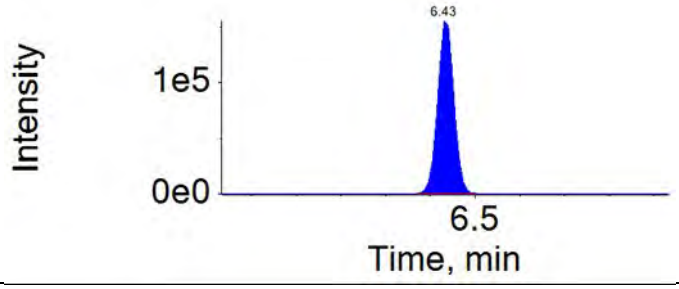


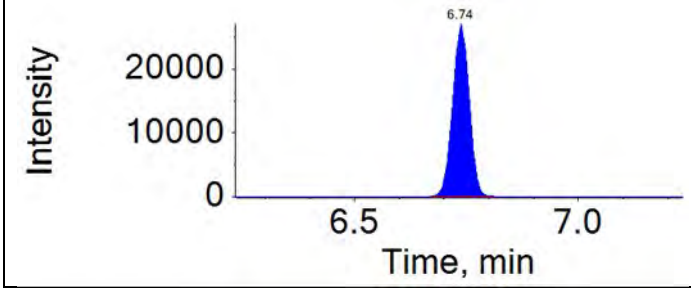
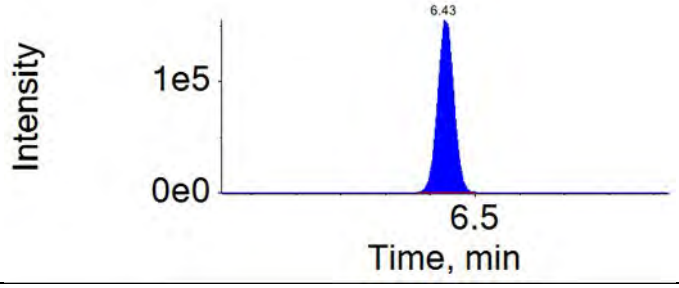
APPROVED
By MCD at 6:33 pm, 11/12/18

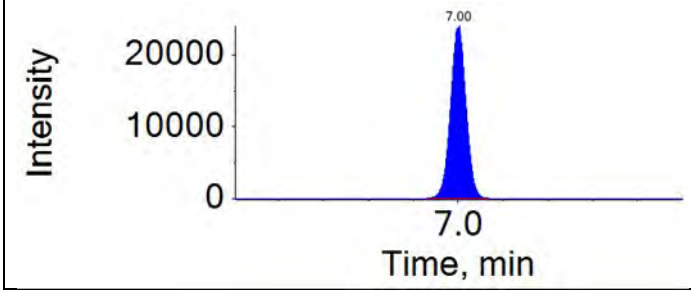
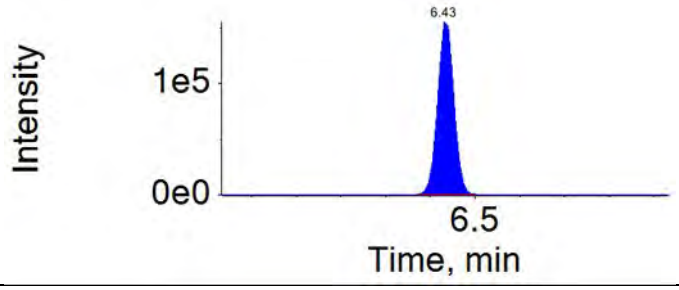
REVIEWED
By HMK at 10:53 am, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Analyte: PFTrDA	Extraction Standard: 13C2-PFDoDA
663.0 / 619.0	615.0 / 570.0
	

Analyte: PFTeDA	Extraction Standard: 13C2-PFTeDA
713.0 / 669.0	715.0 / 670.0
	

Analyte: PFHxDA	Extraction Standard: 13C2-PFTeDA
813.0 / 769.0	715.0 / 670.0
	

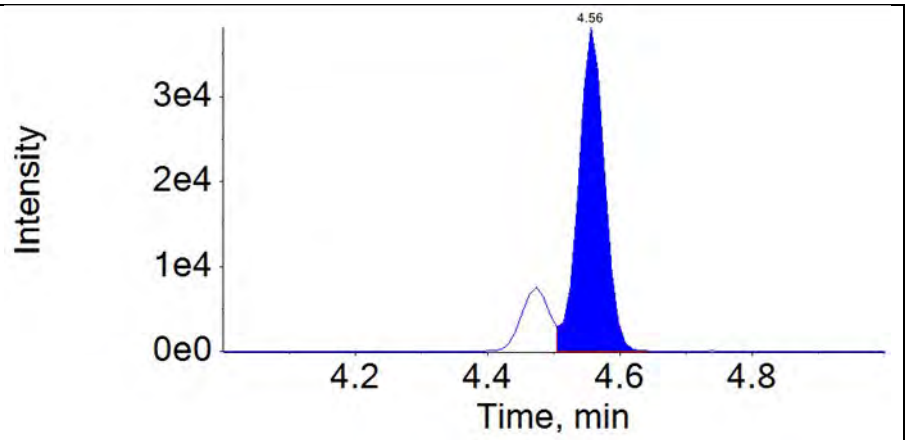
Analyte: PFODA	Extraction Standard: 13C2-PFTeDA
913.0 / 869.0	715.0 / 670.0
	

APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

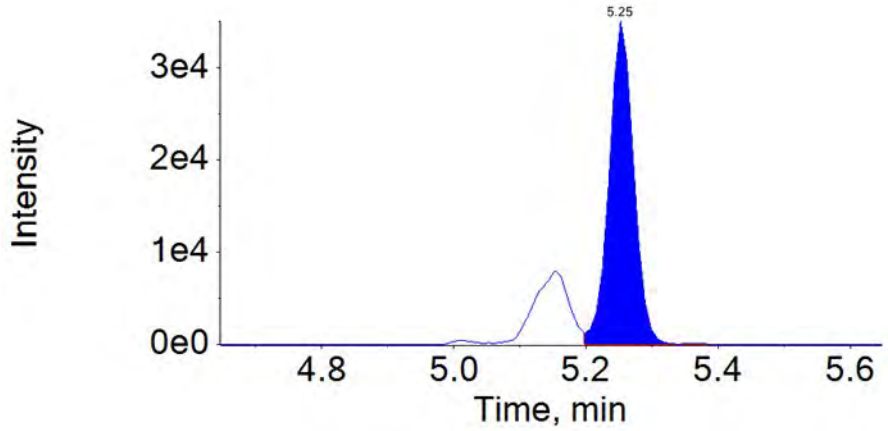
Results Table Name: 18NOV12DCAL
Results Table Date: 11/12/2018 6:23:42 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFHxS
RT (min.):
4.56
Peak Area:
103825.76
Mass Range:
399.0 / 80.0
File Name:
18NOV12DCAL-44.wiff
Sample Name:
CAL3



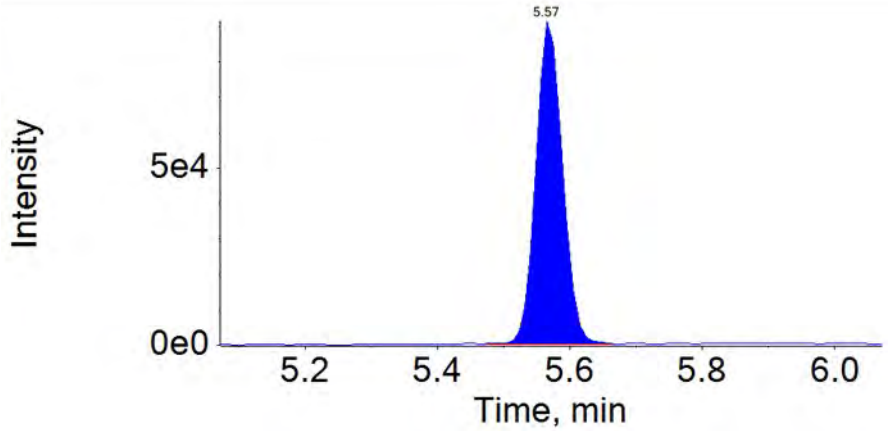
Integration Comment: incorrect integration

Component Name:
PFOS
RT (min.):
5.25
Peak Area:
90727.07
Mass Range:
499.0 / 80.0
File Name:
18NOV12DCAL-44.wiff
Sample Name:
CAL3



Integration Comment: incorrect integration

Component Name:
PFDA
RT (min.):
5.57
Peak Area:
254529.84
Mass Range:
513.0 / 469.0
File Name:
18NOV12DCAL-44.wiff
Sample Name:
CAL3



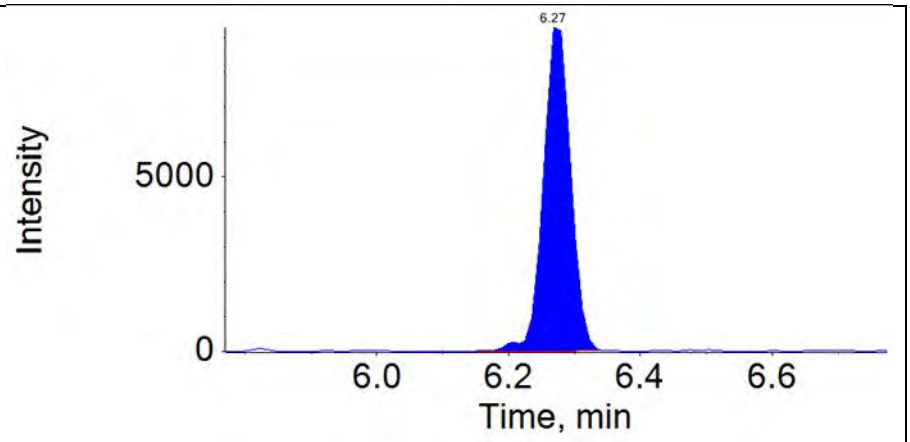
Integration Comment: incorrect integration

APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

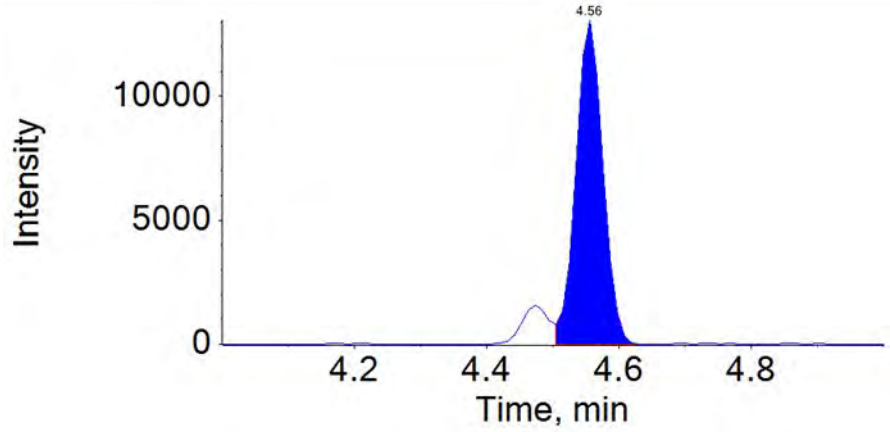
Results Table Name: 18NOV12DCAL
Results Table Date: 11/12/2018 6:23:42 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
NEtPFOSA
RT (min.):
6.27
Peak Area:
26985.34
Mass Range:
526.0 / 169.0
File Name:
18NOV12DCAL-44.wiff
Sample Name:
CAL3



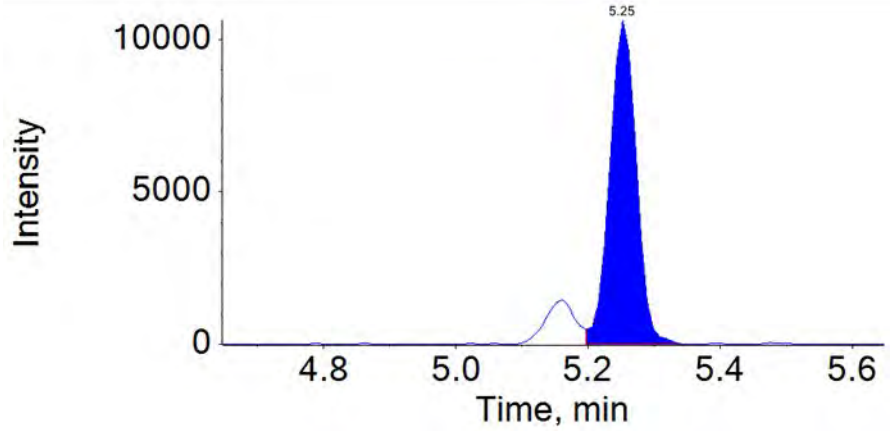
Integration Comment: incorrect integration

Component Name:
PFHxS_2
RT (min.):
4.56
Peak Area:
37027.02
Mass Range:
399.0 / 99.0
File Name:
18NOV12DCAL-44.wiff
Sample Name:
CAL3



Integration Comment: incorrect integration

Component Name:
PFOS_2
RT (min.):
5.25
Peak Area:
29768.90
Mass Range:
499.0 / 99.0
File Name:
18NOV12DCAL-44.wiff
Sample Name:
CAL3



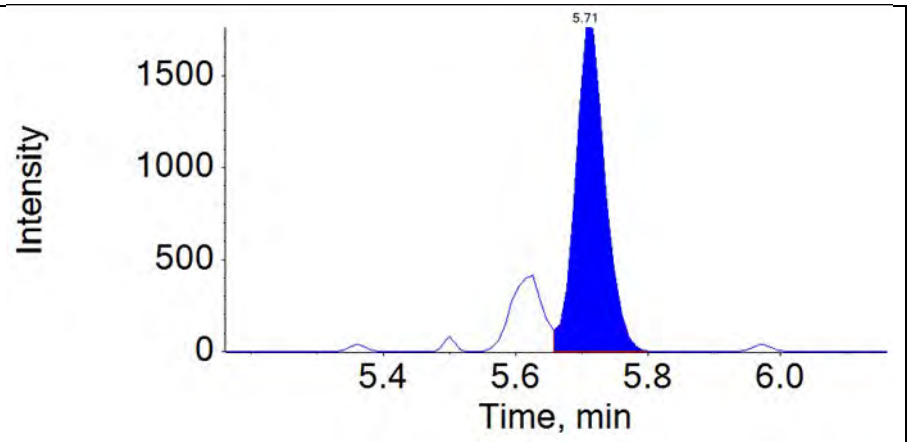
Integration Comment: incorrect integration

APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

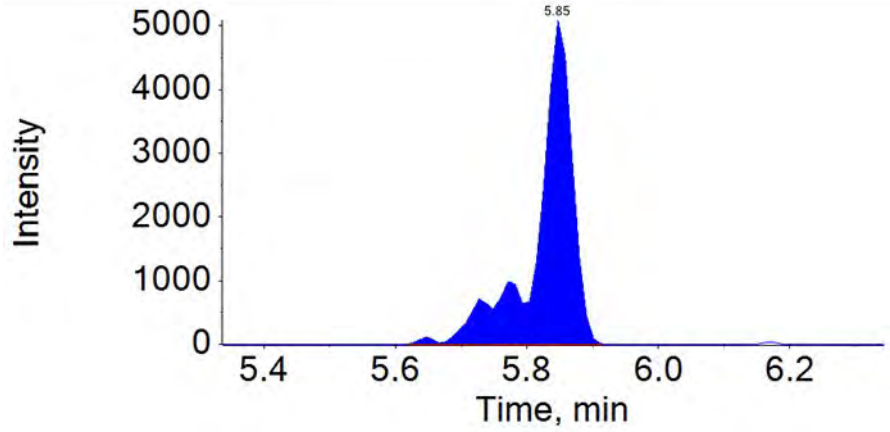
Results Table Name: 18NOV12DCAL
Results Table Date: 11/12/2018 6:23:42 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
NMeFOSAA_2
RT (min.):
5.71
Peak Area:
5548.71
Mass Range:
570.0 / 483.0
File Name:
18NOV12DCAL-44.wiff
Sample Name:
CAL3



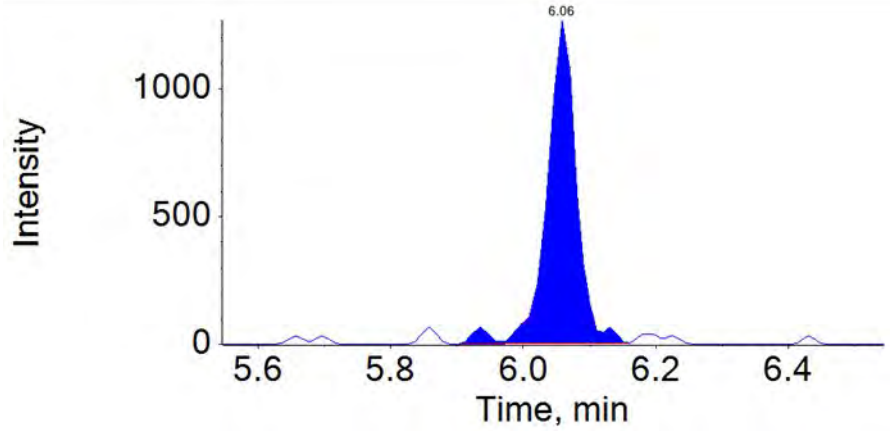
Integration Comment: incorrect integration

Component Name:
NEtFOSAA_2
RT (min.):
5.85
Peak Area:
19243.29
Mass Range:
584.0 / 526.0
File Name:
18NOV12DCAL-44.wiff
Sample Name:
CAL3



Integration Comment: incorrect integration

Component Name:
PFDoDA_2
RT (min.):
6.06
Peak Area:
3956.45
Mass Range:
613.0 / 169.0
File Name:
18NOV12DCAL-44.wiff
Sample Name:
CAL3



Integration Comment: incorrect integration

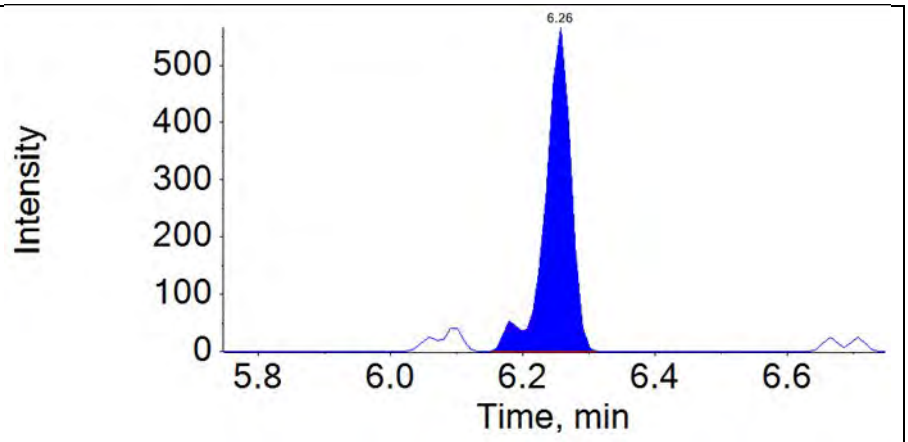
APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

Results Table Name: 18NOV12DCAL
Results Table Date: 11/12/2018 6:23:42 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFTrDA_2
RT (min.):
6.26
Peak Area:
1527.41
Mass Range:
663.0 / 169.0
File Name:
18NOV12DCAL-44.wiff
Sample Name:
CAL3



Integration Comment: incorrect integration

APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

Results Table Name: 18NOV12DCAL
Results Table Date: 11/12/2018 6:23:42 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Ion Ratio Report

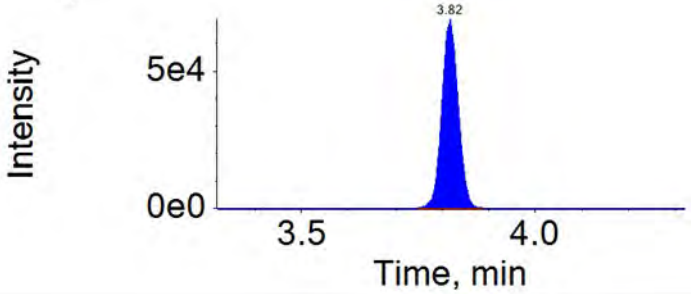
Sample Name: CAL3 **Instrument Name:** LM27631 **File Name:** 18NOV12DCAL-44.wiff

Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	3.82	1.00	168144.64	A	0.3619	0.3569			
PFBS_2	3.82	1.00	60008.36	A	0.3619	0.3569	-1	50	
4:2-FTS	4.13	1.00	34188.48	A	0.6730	0.6730			
4:2 FTS_2	4.13	1.00	23007.23	A	0.6730	0.6730		#NA!	
PFHxA	4.17	1.00	352013.45	A	0.0117	0.0120			
PFHxA_2	4.17	1.00	4207.12	A	0.0117	0.0120	3	50	
PFPeS	4.19	1.10	84071.24	A	0.5191	0.5304			
PFPeS_2	4.19	1.10	44592.70	A	0.5191	0.5304	2	50	
PFHpA	4.56	1.00	355834.18	A	0.0563	0.0619			
PFHpA_2	4.55	1.00	22030.36	A	0.0563	0.0619	10	50	
PFHxS	4.56	1.00	125622.02	M	0.3428	0.3304			
PFHxS_2	4.56	1.00	41506.57	M	0.3428	0.3304	-4	50	
6:2-FTS	4.91	1.00	28084.91	A	0.6604	0.7337			
6:2 FTS_2	4.91	1.00	20606.67	A	0.6604	0.7337		#NA!	
PFHpS	4.92	1.08	125907.86	A	0.4066	0.3838			
PFHpS_2	4.92	1.08	48327.03	A	0.4066	0.3838	-6	50	
PFOA	4.93	1.00	372258.90	A	0.0562	0.0567			
PFOA_2	4.92	1.00	21118.14	A	0.0562	0.0567	1	50	
PFOS	5.25	1.00	120897.45	M	0.2968	0.2842			
PFOS_2	5.25	1.00	34361.90	M	0.2968	0.2842	-4	50	
PFNA	5.27	1.00	302323.82	A	0.0229	0.0192			
PFNA_2	5.28	1.00	5790.58	A	0.0229	0.0192	-16	50	
PFNS	5.55	1.06	76049.00	A	0.4828	0.4502			
PFNS_2	5.54	1.06	34233.54	A	0.4828	0.4502	-7	50	
PFDA	5.57	1.00	254047.79	M	0.0081	0.0044			
PFDA_2	5.56	1.00	1125.96	A	0.0081	0.0044	-45	50	
8:2-FTS	5.57	1.00	26295.08	A	0.6814	0.5850			
8:2 FTS_2	5.57	1.00	15383.41	A	0.6814	0.5850		#NA!	
NMeFOSAA	5.71	1.00	25147.65	A	0.2569	0.2754			
NMeFOSAA_2	5.71	1.00	6926.51	M	0.2569	0.2754	7	50	
PFDS	5.80	1.11	57966.88	A	0.5144	0.5358			
PFDS_2	5.80	1.11	31061.10	A	0.5144	0.5358	4	50	
PFUnDA	5.83	1.00	199061.83	A	0.0058	0.0049			
PFUnDA_2	5.83	1.00	975.19	A	0.0058	0.0049	-16	50	
NEtFOSAA	5.84	1.00	25089.02	A	0.7253	0.7602			
NEtFOSAA_2	5.85	1.00	19071.96	M	0.7253	0.7602	5	50	
PFDoDA	6.06	1.00	237252.63	A	0.0157	0.0159			
PFDoDA_2	6.06	1.00	3761.16	M	0.0157	0.0159	1	50	
10:2-FTS	6.07	1.09	18541.69	A	0.6356	0.6613			
10:2 FTS_2	6.08	1.09	12260.75	A	0.6356	0.6613		#NA!	
PFTrDA	6.26	1.03	184322.87	A	0.0086	0.0079			
PFTrDA_2	6.26	1.03	1447.70	M	0.0086	0.0079	-8	50	
PFTeDA	6.43	1.00	156439.94	A	0.0062	0.0065			
PFTeDA_2	6.44	1.00	1023.07	A	0.0062	0.0065	5	50	
PFHxDA	6.74	1.05	69655.07	A	0.0683	0.0690			
PFHxDA_2	6.74	1.05	4808.92	A	0.0683	0.0690	1	50	
PFODA	7.00	1.09	57795.96	A	0.0277	0.0253			
PFODA_2	7.00	1.09	1464.82	A	0.0277	0.0253	-9	50	

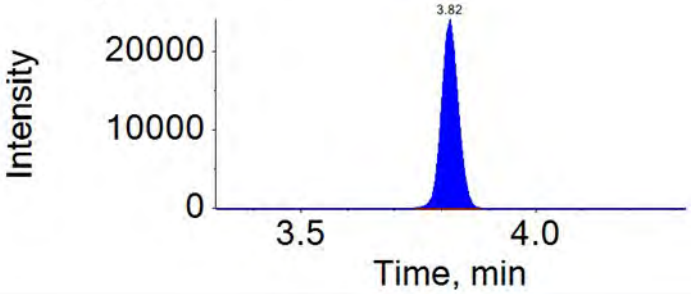
APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

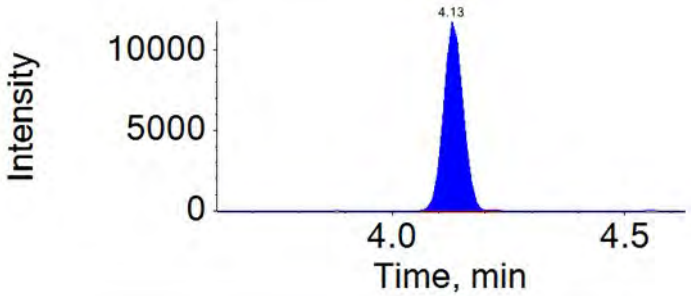
Component: PFBS
Primary Mass: 299.0 / 80.0



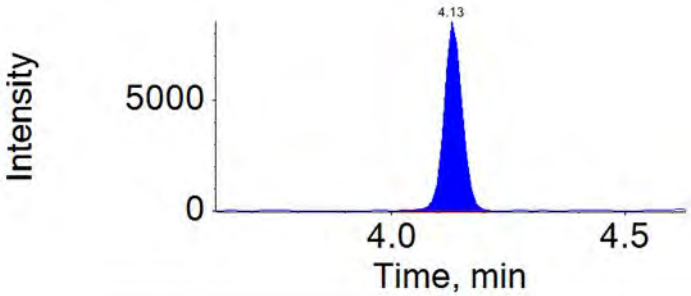
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



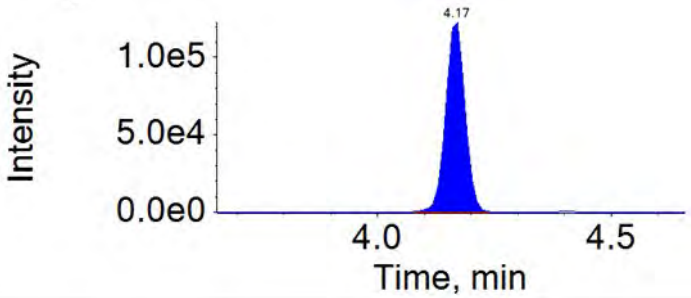
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



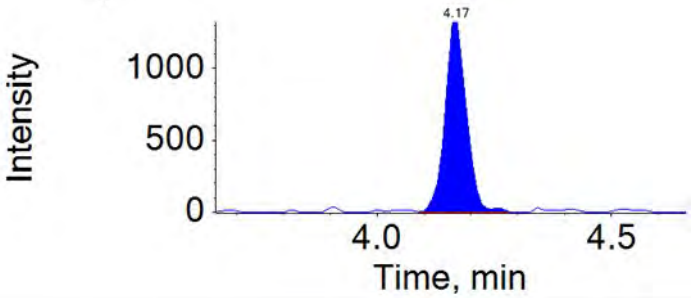
Component: 4:2 FTS_2
Secondary Mass: 327.0 / 81.0



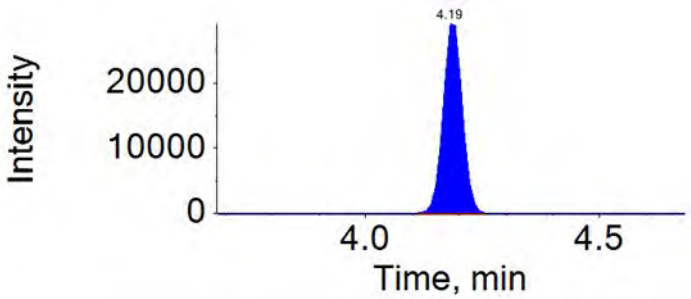
Component: PFHxA
Primary Mass: 313.0 / 269.0



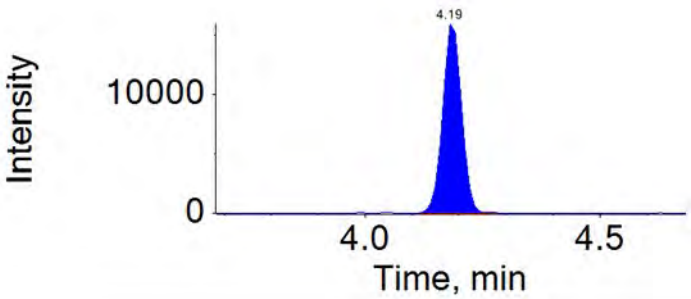
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



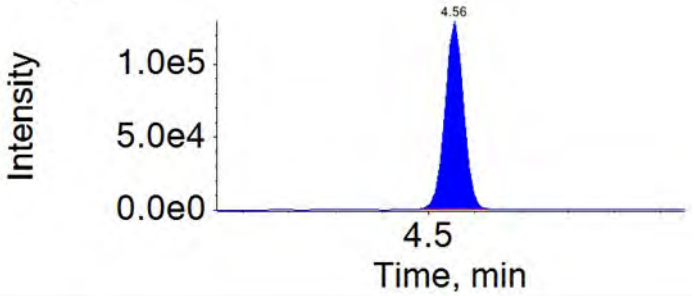
Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



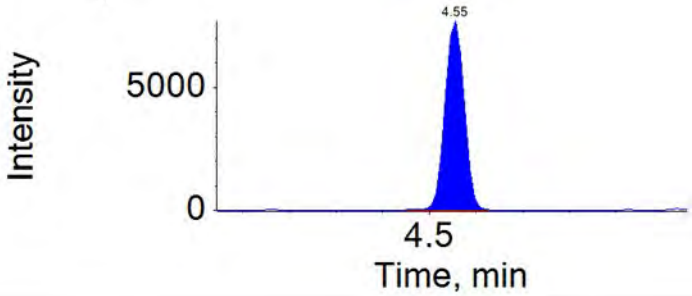
APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

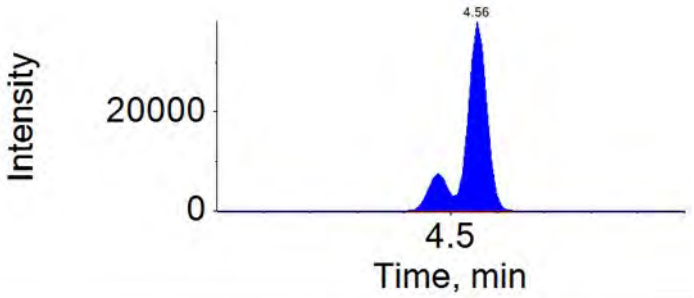
Component: PFHpA
Primary Mass: 363.0 / 319.0



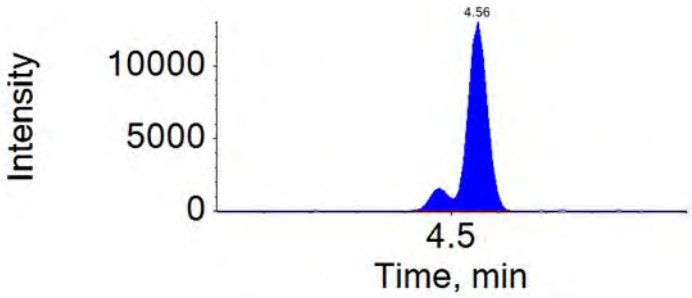
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



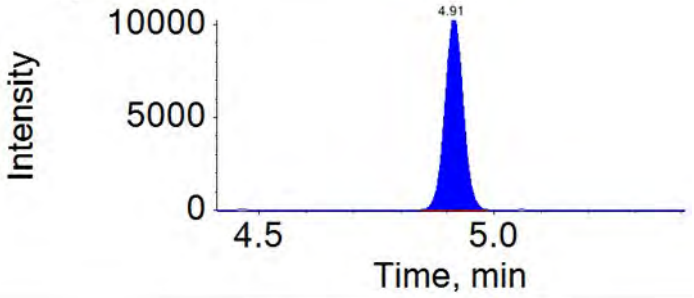
Component: PFHxS
Primary Mass: 399.0 / 80.0



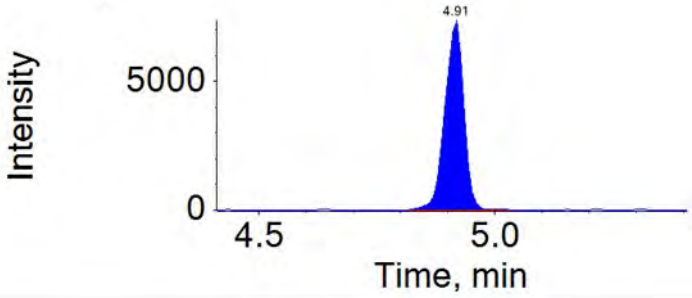
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



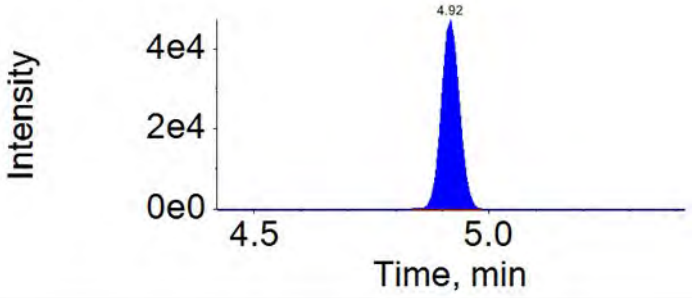
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



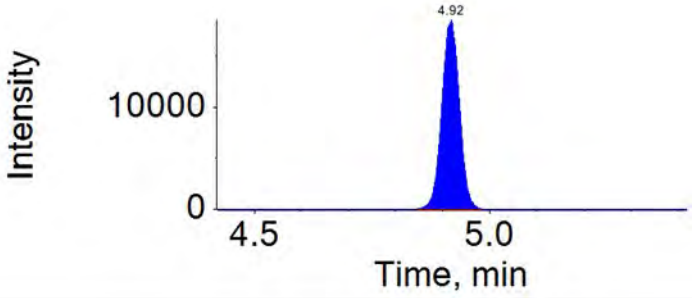
Component: 6:2 FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



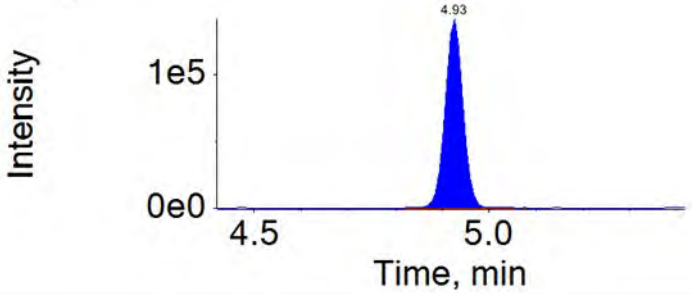
Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



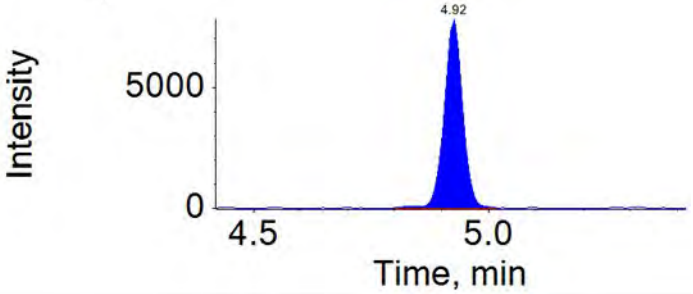
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By HMK at 10:53 am, 11/13/18

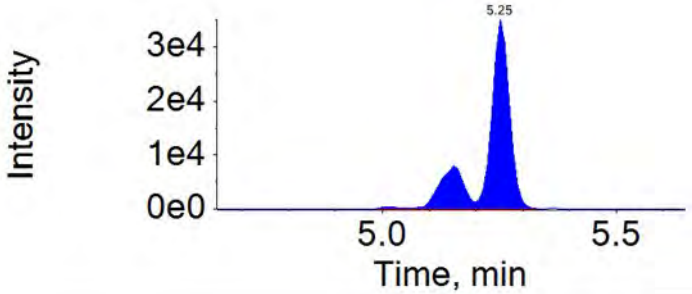
Component: PFOA
Primary Mass: 413.0 / 369.0



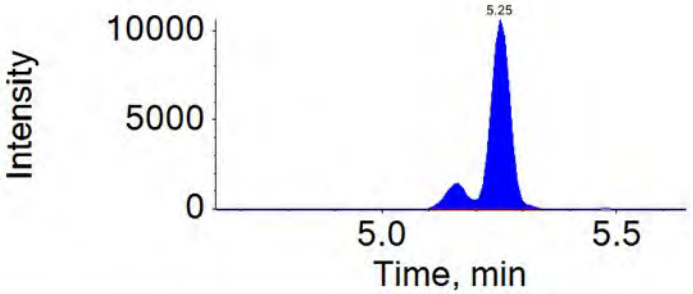
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



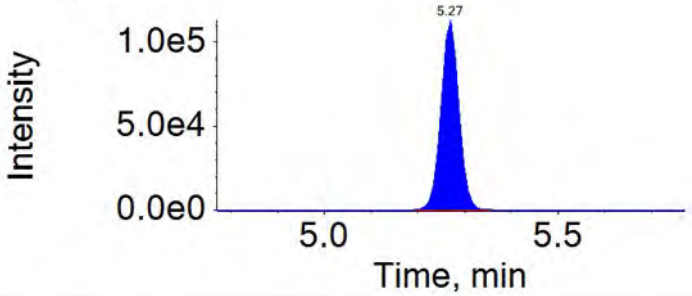
Component: PFOS
Primary Mass: 499.0 / 80.0



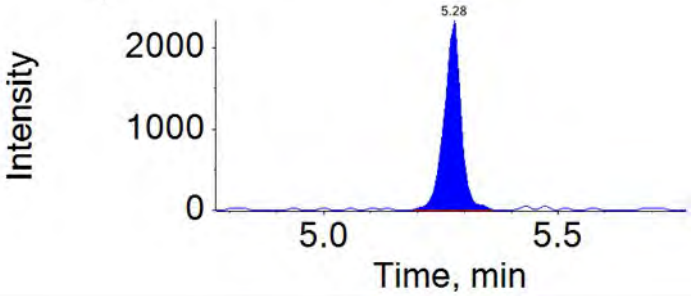
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



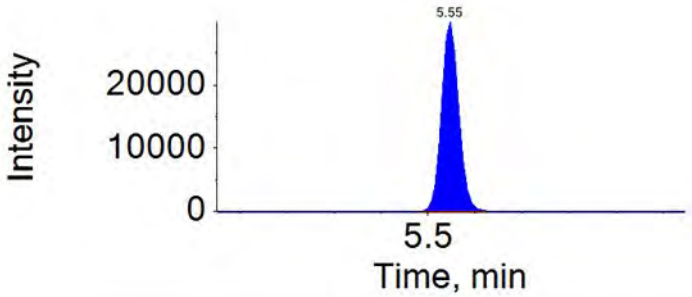
Component: PFNA
Primary Mass: 463.0 / 419.0



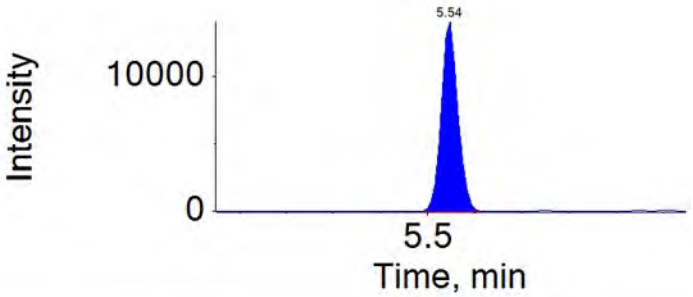
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



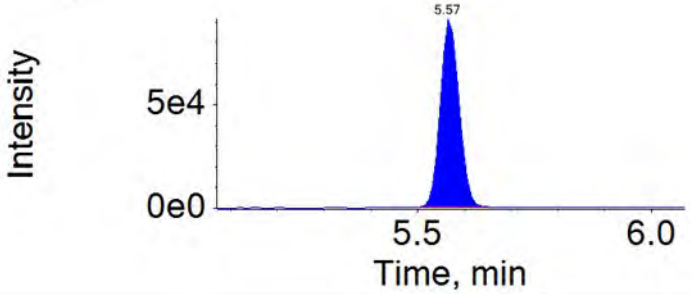
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



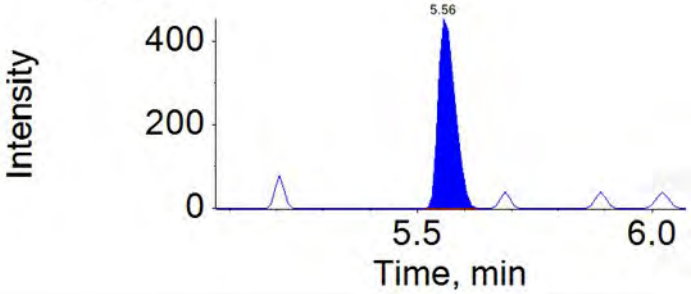
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REVIEWED
By HMK at 10:53 am, 11/13/18

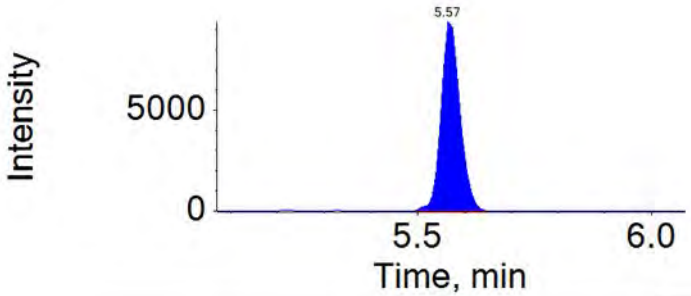
Component: PFDA
Primary Mass: 513.0 / 469.0



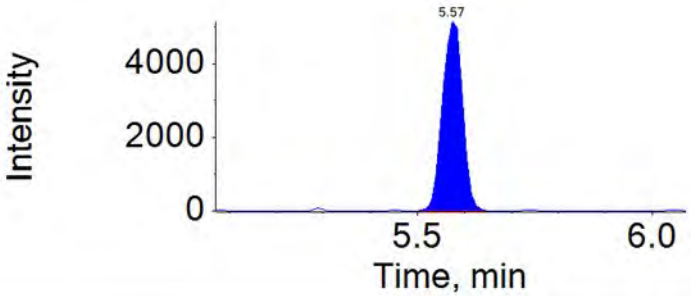
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Secondary Mass: 513.0 / 169.0



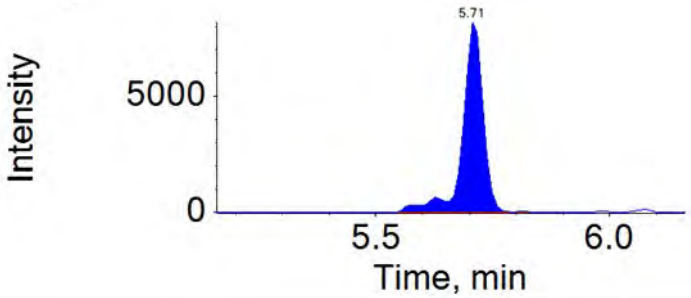
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



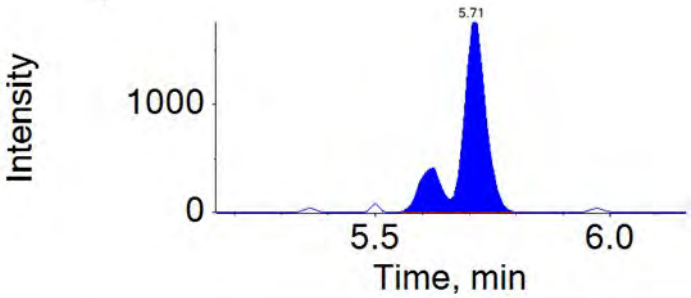
Component: 8:2 FTS_2
Secondary Mass: 527.0 / 81.0



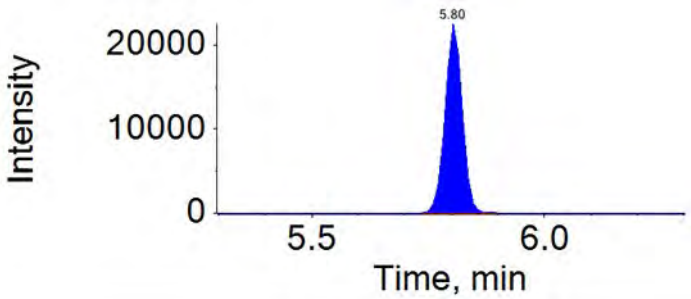
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



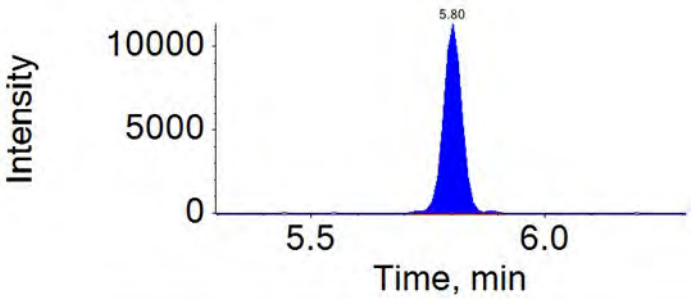
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



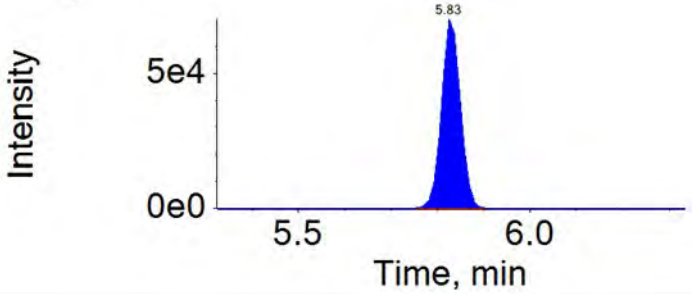
Component: PFDS_2
Secondary Mass: 599.0 / 99.0



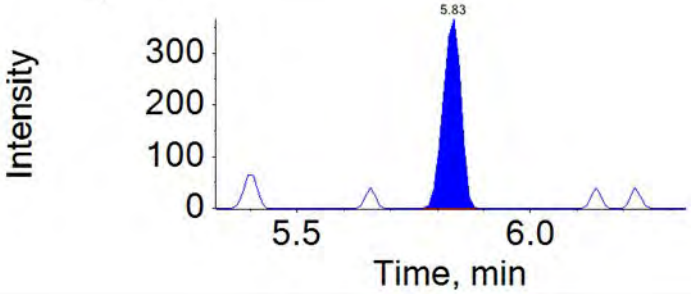
APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

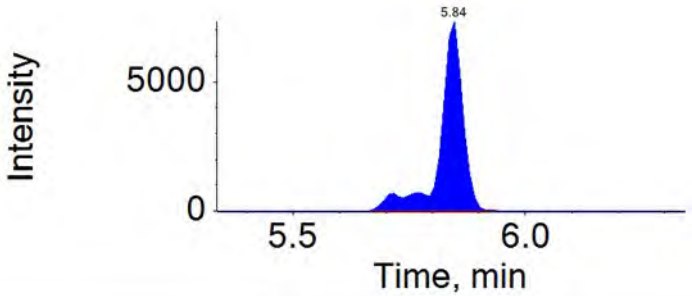
Component: PFUnDA
Primary Mass: 563.0 / 519.0



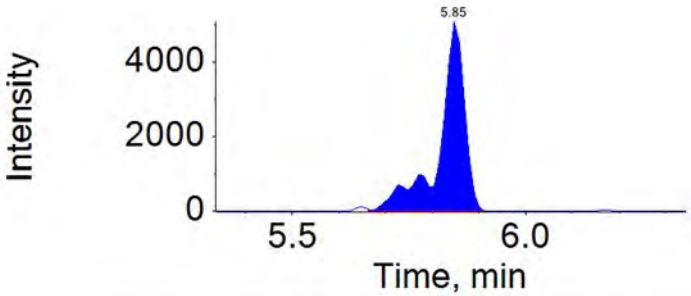
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



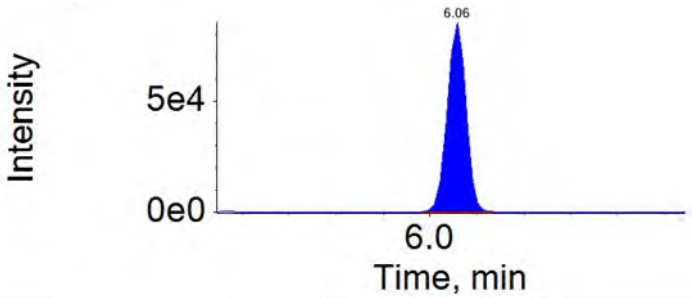
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



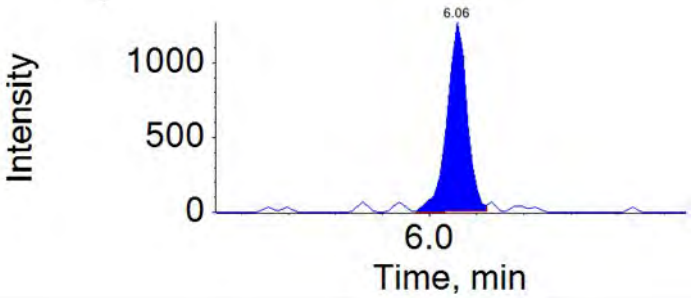
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Secondary Mass: 584.0 / 526.0



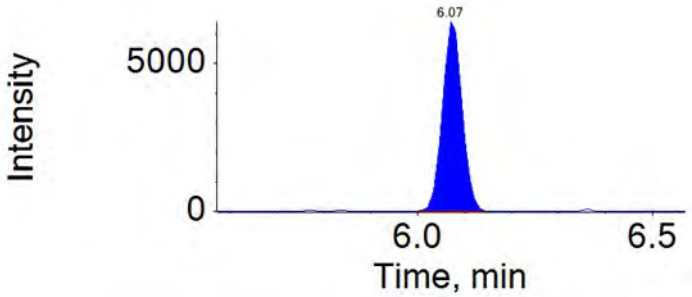
Component: PFDoDA
Primary Mass: 613.0 / 569.0



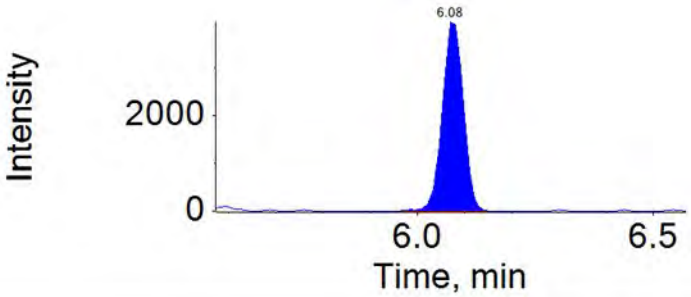
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



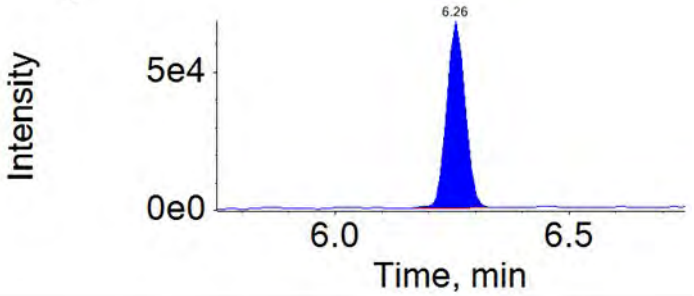
Component: 10:2 FTS_2
Secondary Mass: 627.0 / 81.0



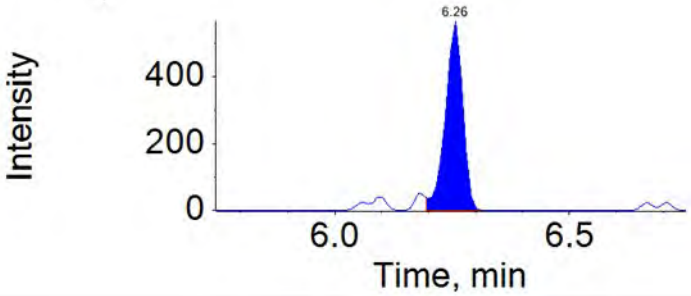
APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

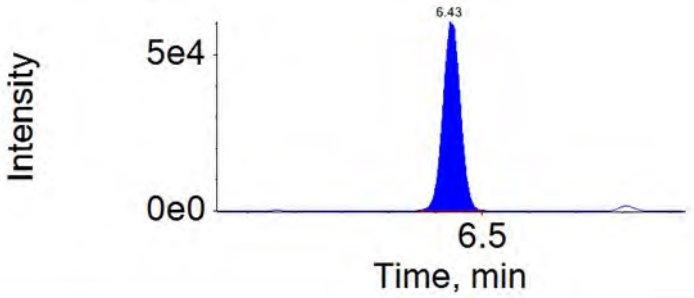
Component: PFTrDA
Primary Mass: 663.0 / 619.0



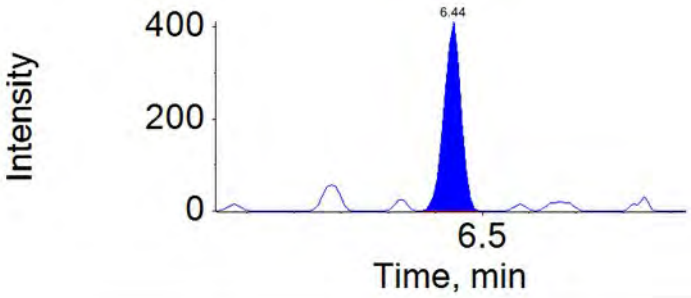
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



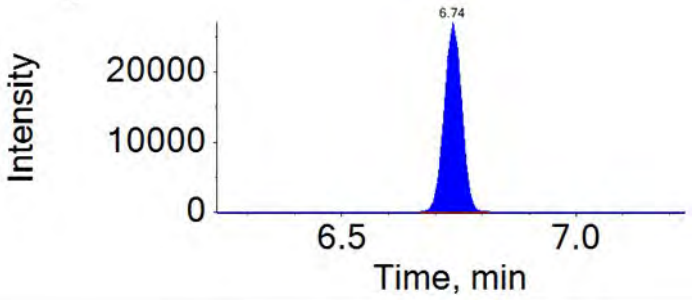
Component: PFTeDA
Primary Mass: 713.0 / 669.0



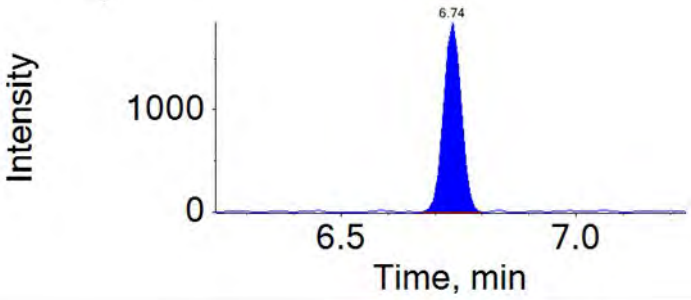
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



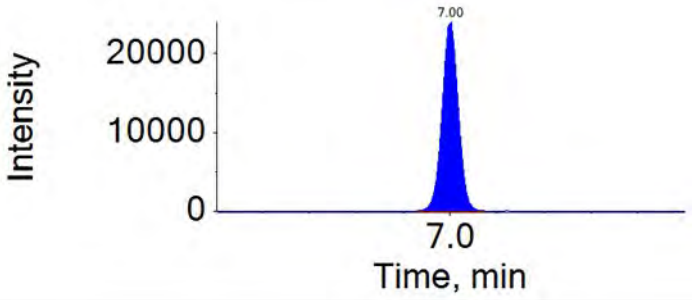
Component: PFHxDA
Primary Mass: 813.0 / 769.0



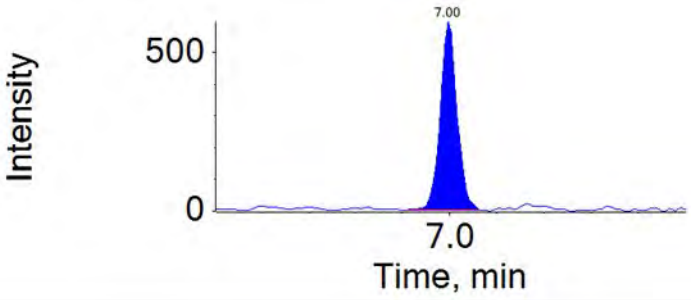
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Sample Name:	CAL4			**Data File:**		18NOV12DCAL-45.wiff
Sample ID:	CALBRN41833B			**Acquis Date:**		2018-11-12T15:33:03
Sample Type:	Standard			**Instrument:**		LM27631
Vial Position:	6			**Acquis Method:**		18AUG13_3uL.dam
Injection Vol:	3.00			**Result Table:**		18NOV12DCAL
QMethod File:	18AUG20QM			**ICAL Name:**		18NOV12DCAL
Batch Number:	N\A			**Operator:**		MCD7824
Sample Wt.:	1.00000			**Dilution Factor:**		1.00
Sample Vol.:	1.000			**Prep Factor:**		1.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV12DCAL-44

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Rreference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	671568.1	659926.2	2	50	
13C2-PFOA	5.0	477519.7	450219.7	6	50	
13C4-PFOS	4.8	256143.3	249205.8	3	50	
13C2-PFDA	5.0	301327.2	278743.9	8	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	726396.0	13C3-PFBA	671568.1	1.082	5.000	4.849	97	70-130	
E13C5-PFPeA	716206.9	13C3-PFBA	671568.1	1.066	5.000	4.783	96	70-130	
E13C3-PFBS	425015.7	13C3-PFBA	671568.1	0.633	4.650	4.468	96	70-130	
E13C2-4:2-FTS	47246.4	13C2-PFOA	477519.7	0.099	4.670	4.407	94	70-130	
E13C5-PFHxA	641195.9	13C2-PFOA	477519.7	1.343	5.000	4.851	97	70-130	
E13C3-PFHxS	315722.6	13C2-PFOA	477519.7	0.661	4.730	4.537	96	70-130	
E13C4-PFHpA	509151.8	13C2-PFOA	477519.7	1.066	5.000	4.804	96	70-130	
E13C2-6:2-FTS	31883.3	13C2-PFOA	477519.7	0.067	4.750	4.467	94	70-130	
E13C8-PFOA	863597.3	13C2-PFOA	477519.7	1.809	5.000	4.983	100	70-130	
E13C8-PFOS	267380.8	13C4-PFOS	256143.3	1.044	4.780	4.625	97	70-130	
E13C9-PFNA	485570.4	13C4-PFOS	256143.3	1.896	5.000	5.285	106	70-130	
E13C6-PFDA	612056.5	13C2-PFDA	301327.2	2.031	5.000	4.740	95	70-130	
E13C2-8:2-FTS	27253.5	13C2-PFDA	301327.2	0.090	4.790	4.511	94	70-130	
E13C8-PFOSA	607762.0	13C2-PFDA	301327.2	2.017	5.000	4.472	89	70-130	
Ed3-NMeFOSAA	72788.0	13C2-PFDA	301327.2	0.242	5.000	4.360	87	70-130	
E13C7-PFUnDA	232014.1	13C2-PFDA	301327.2	0.770	5.000	4.470	89	70-130	
Ed5-NEtFOSAA	65478.0	13C2-PFDA	301327.2	0.217	5.000	4.597	92	70-130	
E13C2-PFDoDA	521514.1	13C2-PFDA	301327.2	1.731	5.000	4.494	90	70-130	
Ed7-NMePFOSAE	327796.4	13C2-PFDA	301327.2	1.088	5.000	4.708	94	70-130	
Ed3-NMePFOSA	70122.5	13C2-PFDA	301327.2	0.233	5.000	4.228	85	70-130	
Ed9-NEtPFOSAE	259467.4	13C2-PFDA	301327.2	0.861	5.000	4.479	90	70-130	
Ed5-NEtPFOSA	55177.3	13C2-PFDA	301327.2	0.183	5.000	4.296	86	70-130	
E13C2-PFTeDA	392356.6	13C2-PFDA	301327.2	1.302	5.000	4.571	91	70-130	

APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

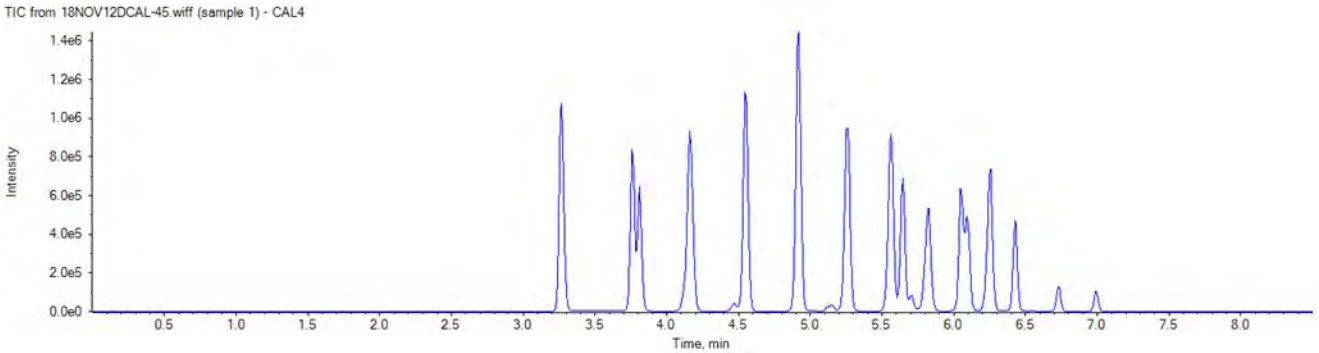
Analyte Quantitation Peak Table

Sample Name: CAL4 **Instrument Name:** LM27631 **File Name:** 18NOV12DCAL-45.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	1.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	3.26	1.000	1068414.9		A	13C4-PFBA	3.26	726396.0	1.471	8.148
PFPeA	3.76	1.000	1075643.5		A	13C5-PFPeA	3.76	716206.9	1.502	8.694
PFBS	3.81	1.000	617045.6		A	13C3-PFBS	3.81	425015.7	1.452	6.906
4:2-FTS	4.13	1.000	126396.5		A	13C2-4:2-FTS	4.13	47246.4	2.675	7.263
PFHxA	4.16	1.000	1265231.1		A	13C5-PFHxA	4.16	641195.9	1.973	8.239
PFPeS	4.18	1.100	328681.7		A	13C3-PFBS	3.81	425015.7	0.773	7.508
PFHpA	4.55	1.000	1318774.5		A	13C4-PFHpA	4.55	509151.8	2.590	8.586
PFHxS	4.55	1.000	479291.0		M	13C3-PFHxS	4.55	315722.6	1.518	7.361
6:2-FTS	4.91	1.000	107470.6		A	13C2-6:2-FTS	4.91	31883.3	3.371	8.157
PFHpS	4.91	1.080	434949.2		A	13C3-PFHxS	4.55	315722.6	1.378	7.252
PFOA	4.92	1.000	1327086.1		A	13C8-PFOA	4.92	863597.3	1.537	8.207
PFOS	5.25	1.000	448833.8		M	13C8-PFOS	5.25	267380.8	1.679	7.341
PFNA	5.26	1.000	1106664.2		A	13C9-PFNA	5.26	485570.4	2.279	8.218
PFNS	5.54	1.060	269712.3		A	13C8-PFOS	5.25	267380.8	1.009	7.057
PFDA	5.56	1.000	941985.3		M	13C6-PFDA	5.56	612056.5	1.539	8.159
8:2-FTS	5.57	1.000	80922.6		A	13C2-8:2-FTS	5.57	27253.5	2.969	6.923
PFOSA	5.64	1.000	927660.5		A	13C8-PFOSA	5.64	607762.0	1.526	7.455
NMeFOSAA	5.70	1.000	103649.1		A	d3-NMeFOSAA	5.70	72788.0	1.424	8.048
PFDS	5.80	1.110	224031.2		A	13C8-PFOS	5.25	267380.8	0.838	7.592
PFUnDA	5.82	1.000	768010.8		A	13C7-PFUnDA	5.82	232014.1	3.310	8.654
NEtFOSAA	5.84	1.000	94877.8		A	d5-NEtFOSAA	5.83	65478.0	1.449	7.596
PFDoDA	6.05	1.000	803646.8		A	13C2-PFDoDA	6.05	521514.1	1.541	7.847
10:2-FTS	6.07	1.090	56040.8		A	13C2-8:2-FTS	5.57	27253.5	2.056	6.849
NMePFOSAE	6.10	1.000	618314.4		M	d7-NMePFOSAE	6.09	327796.4	1.886	7.850
NMePFOSA	6.10	1.000	114415.9		M	d3-NMePFOSA	6.10	70122.5	1.632	8.049
PFDoS	6.22	1.190	117663.3		A	13C8-PFOS	5.25	267380.8	0.440	7.707
NEtPFOSAE	6.25	1.000	673196.1		A	d9-NEtPFOSAE	6.24	259467.4	2.595	8.324
NEtPFOSA	6.27	1.000	99354.1		M	d5-NEtPFOSA	6.26	55177.3	1.801	8.269
PFTrDA	6.25	1.030	674140.3		A	13C2-PFDoDA	6.05	521514.1	1.293	8.159
PFTeDA	6.43	1.000	571926.7		A	13C2-PFTeDA	6.43	392356.6	1.458	8.171
PFHxDA	6.73	1.050	256654.3		A	13C2-PFTeDA	6.43	392356.6	0.654	7.793
PFODA	6.99	1.090	219359.6		A	13C2-PFTeDA	6.43	392356.6	0.559	7.786

Total Ion Chromatogram

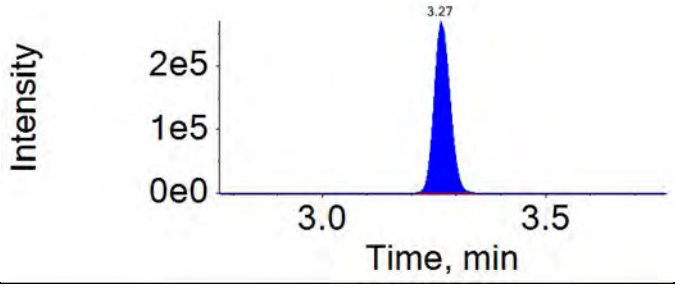


APPROVED
By MCD at 6:33 pm, 11/12/18

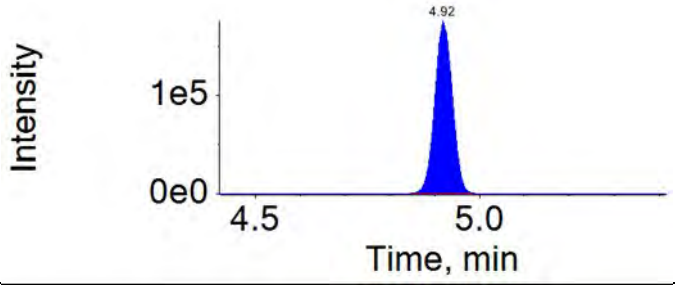
REVIEWED
By HMK at 10:53 am, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

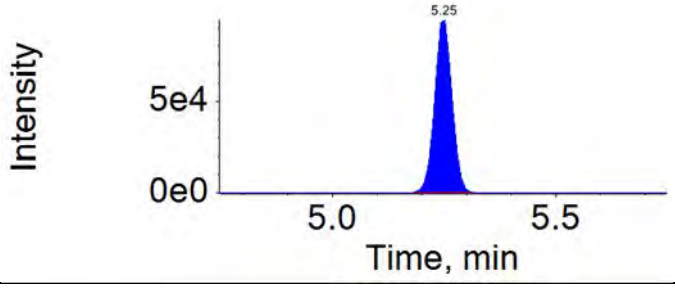
Injection Standard: 13C3-PFBA
216.0 / 172.0



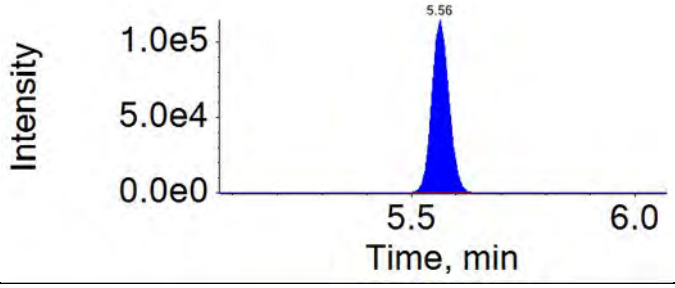
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0



Injection Standard: 13C2-PFDA
515.0 / 470.0

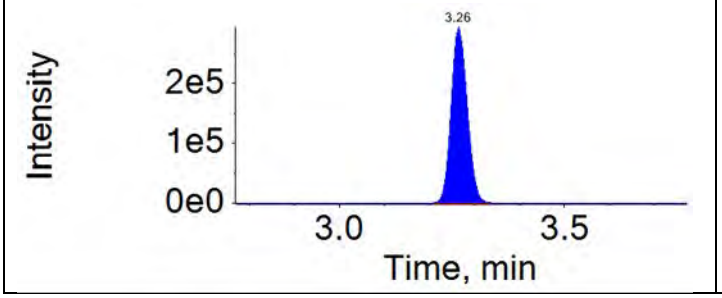


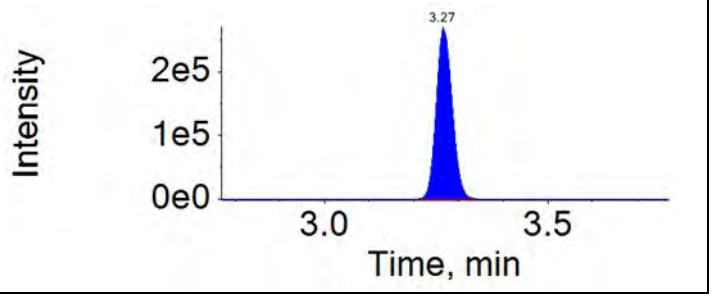
APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

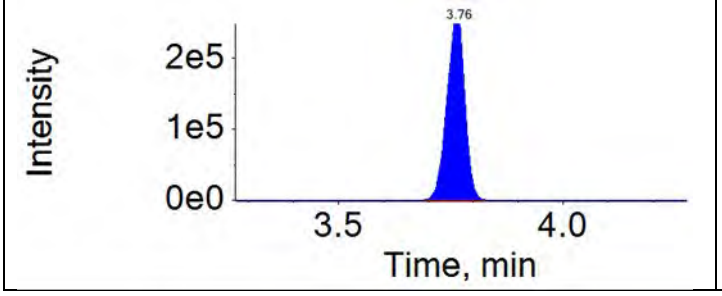
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

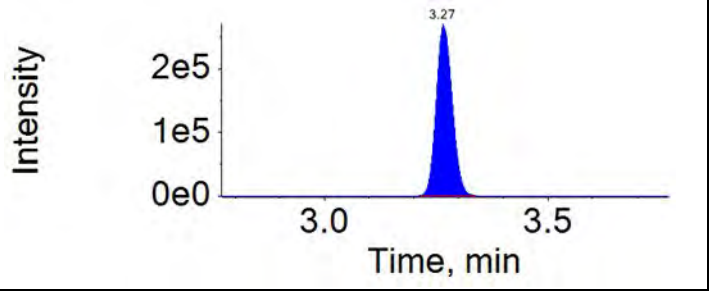
Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0



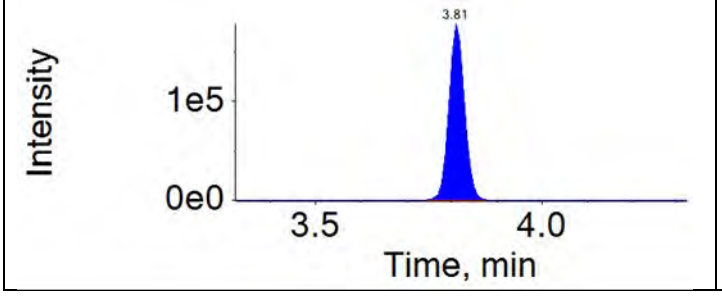


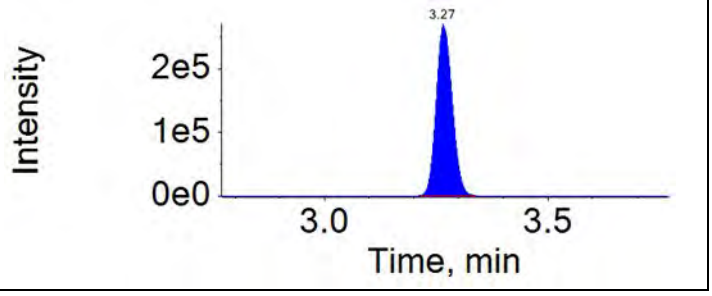
Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0



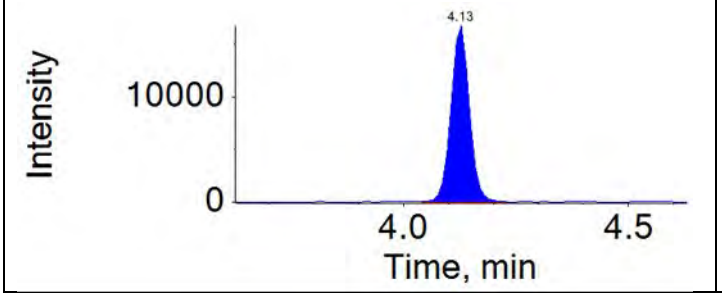


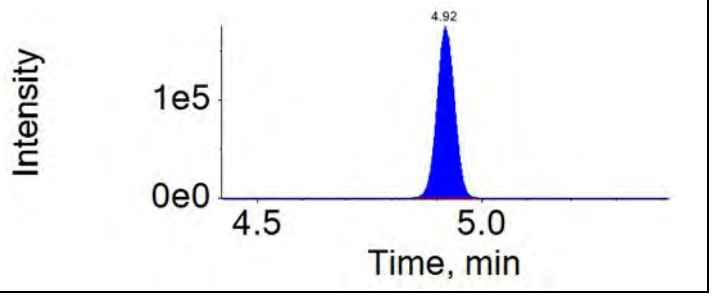
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0





Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0



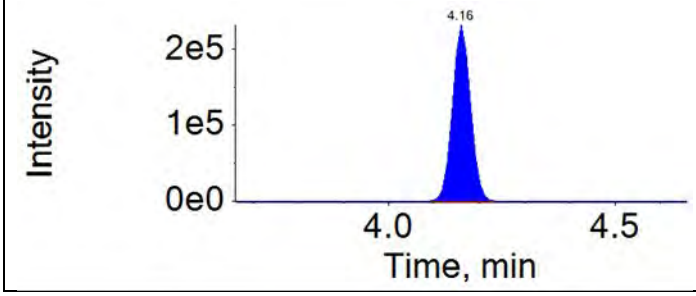


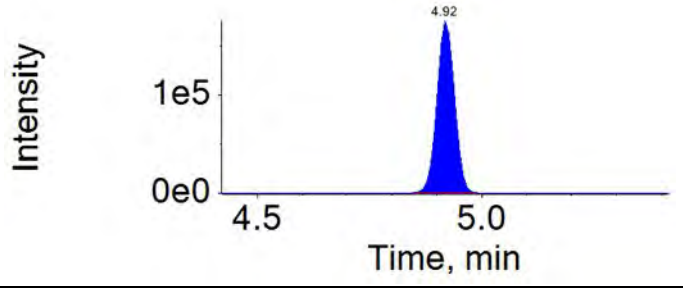
APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

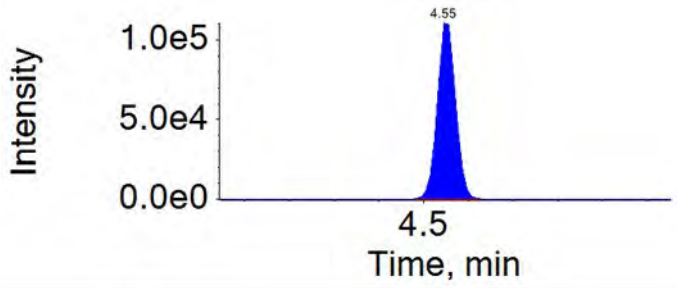
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

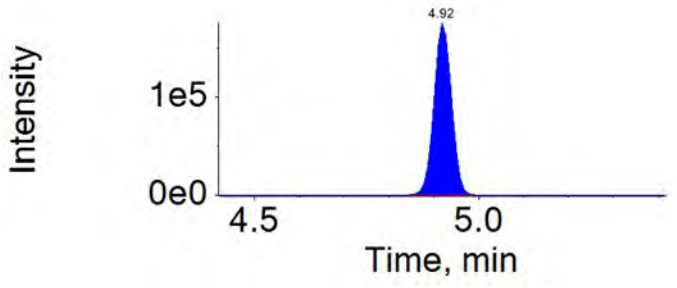
Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0



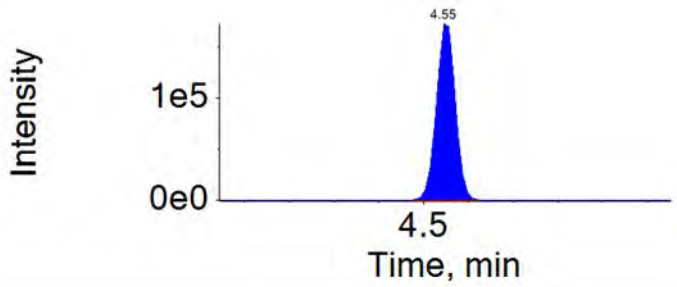


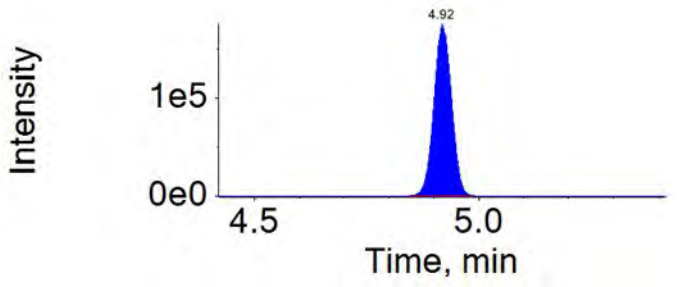
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0



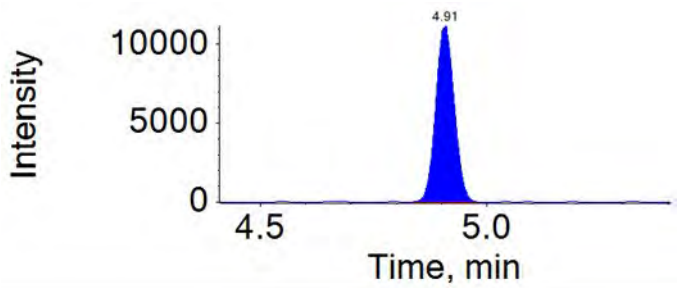


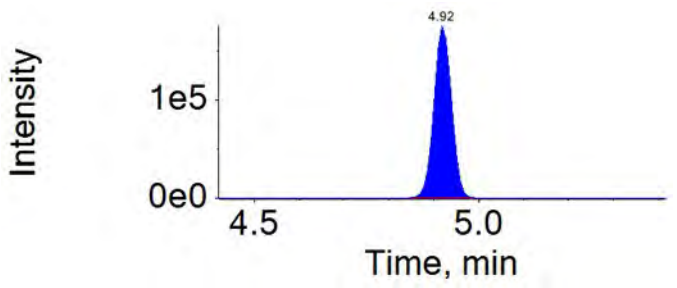
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0





Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0

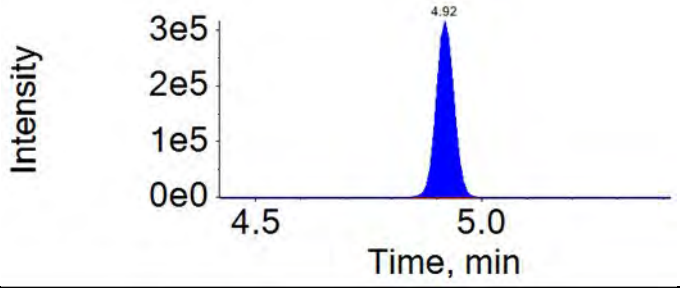
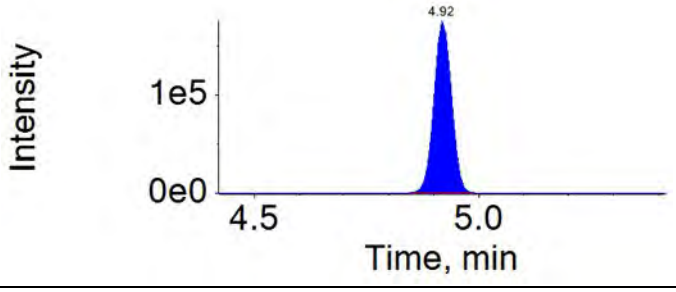


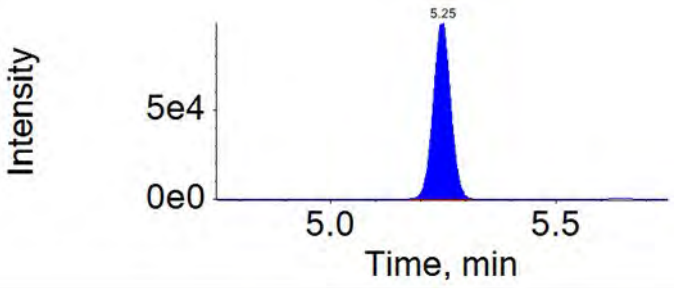
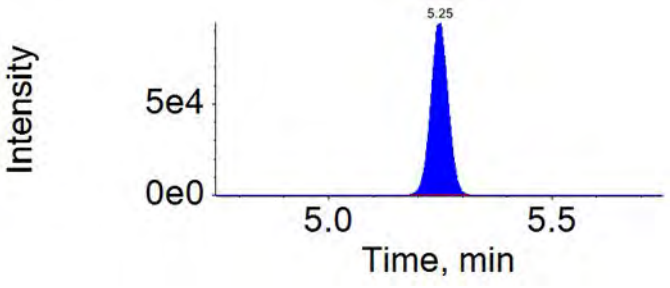


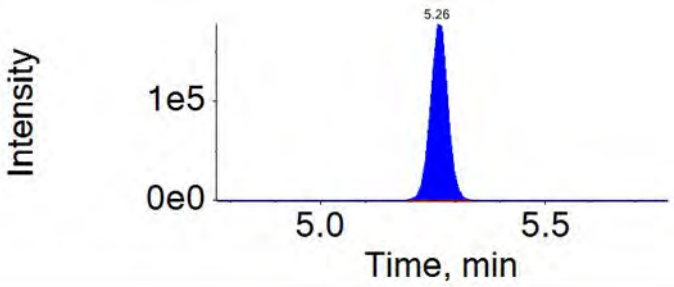
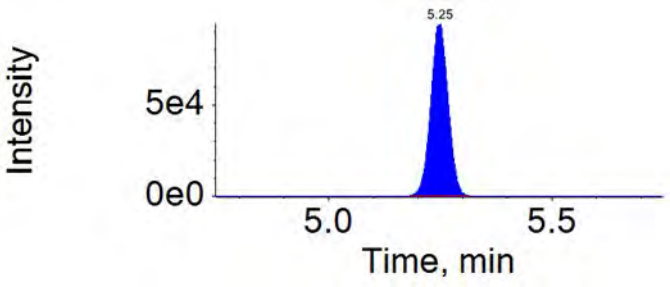
APPROVED
By MCD at 6:33 pm, 11/12/18

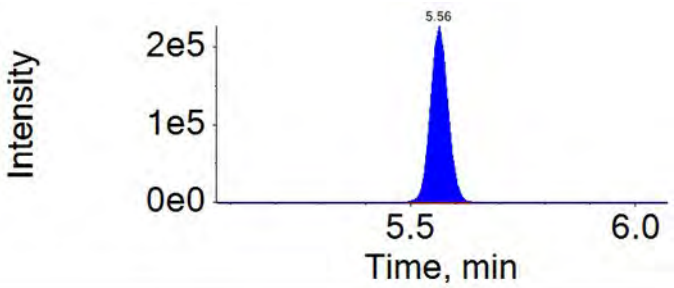
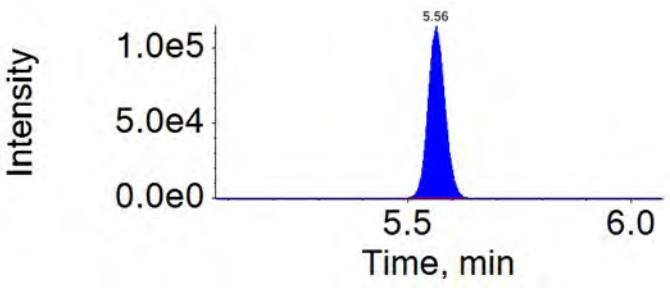
REVIEWED
By HMK at 10:53 am, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

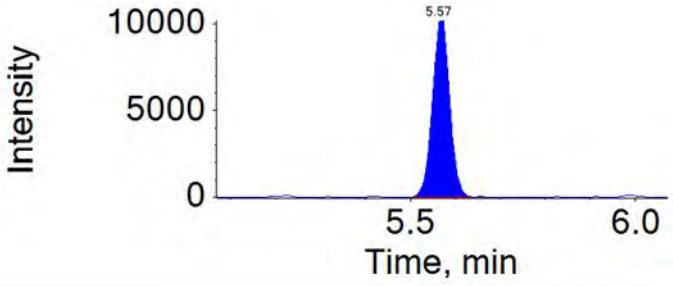
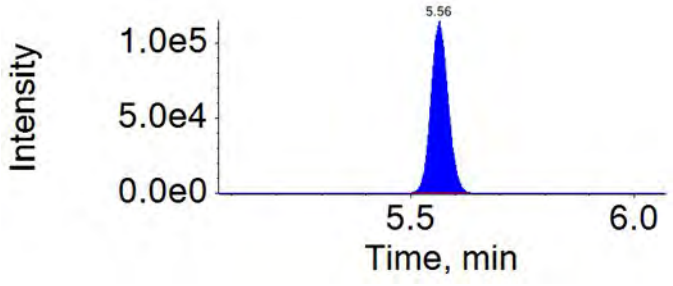
Extraction Standard: E13C8-PFOA	Injection Standard: 13C2-PFOA
421.0 / 376.0	415.0 / 370.0
	

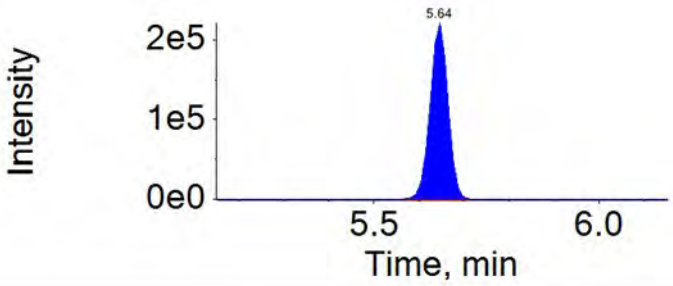
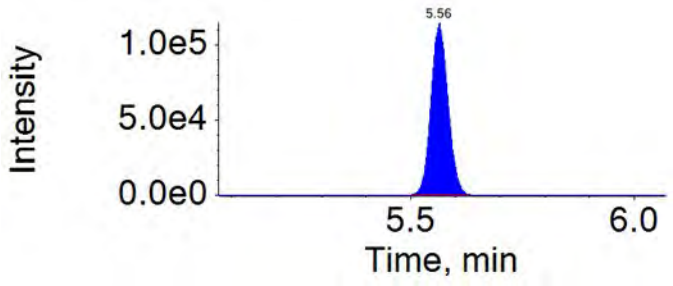
Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0
	

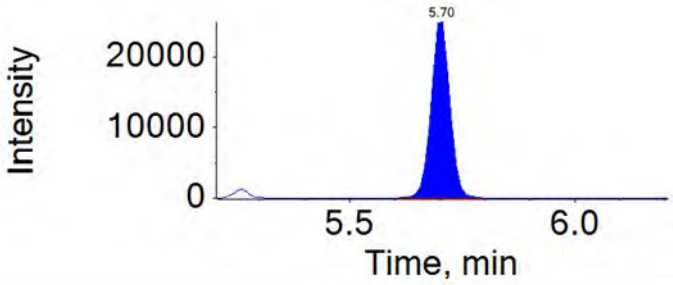
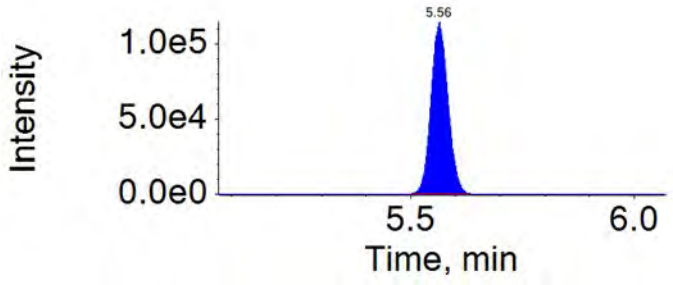
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0
	

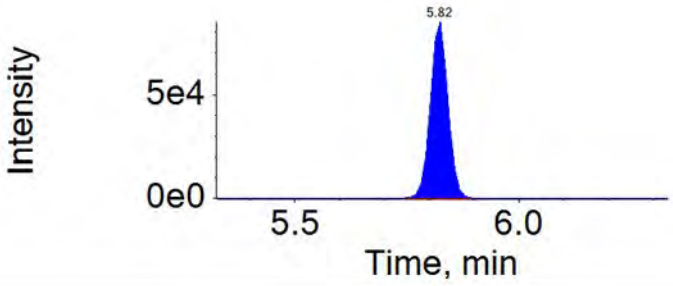
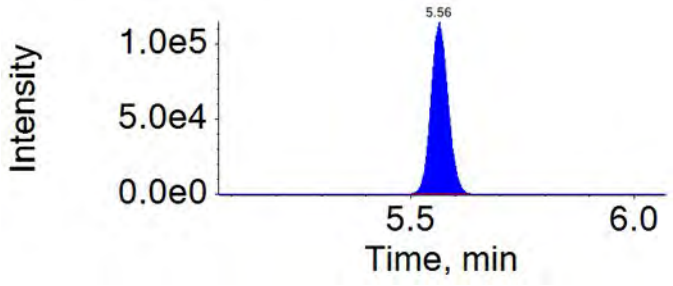
Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0
	

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

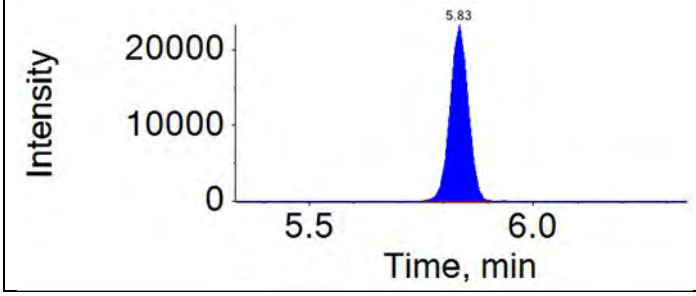
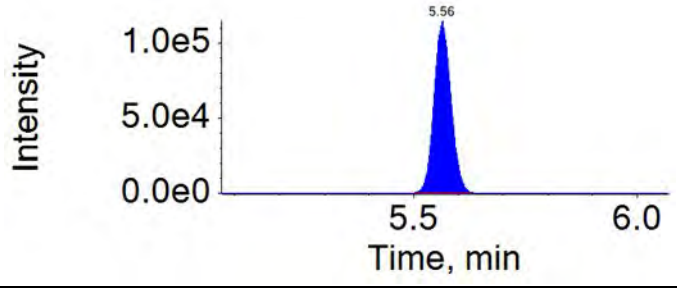
Extraction Standard: E13C2-8:2-FTS	Injection Standard: 13C2-PFDA
529.0 / 81.0	515.0 / 470.0
	

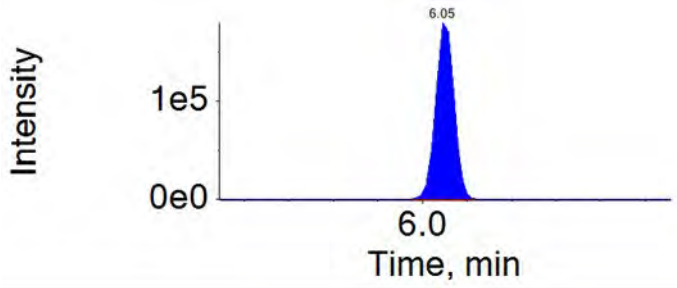
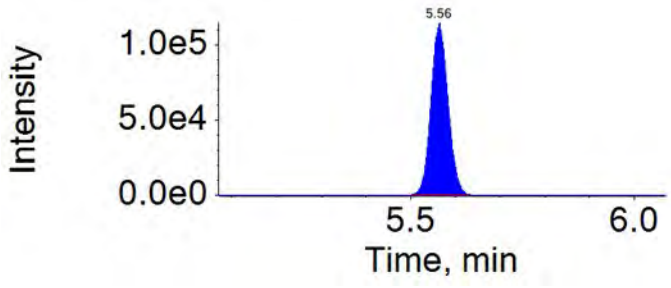
Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0
	

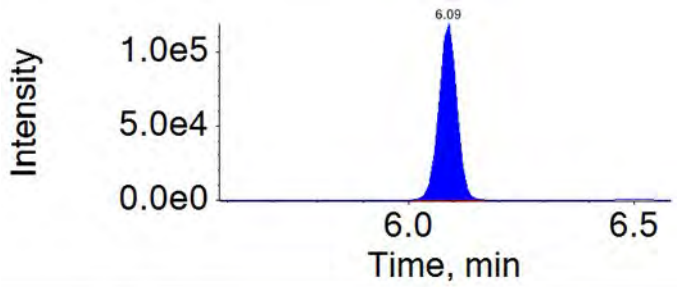
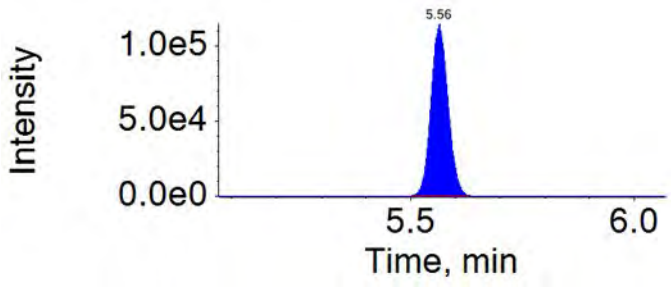
Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0
	

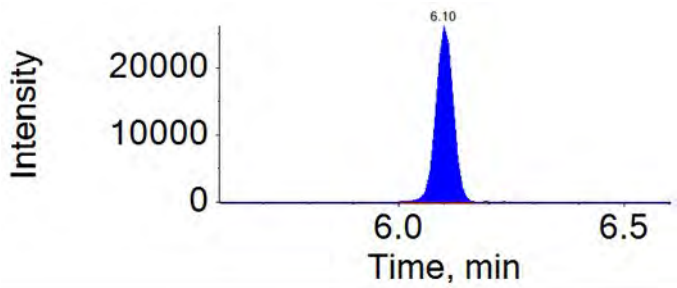
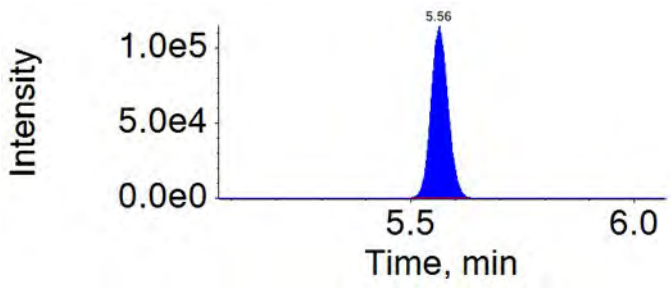
Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0
	

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0
	

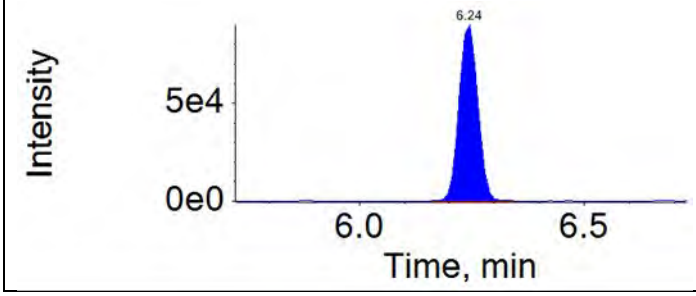
Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0
	

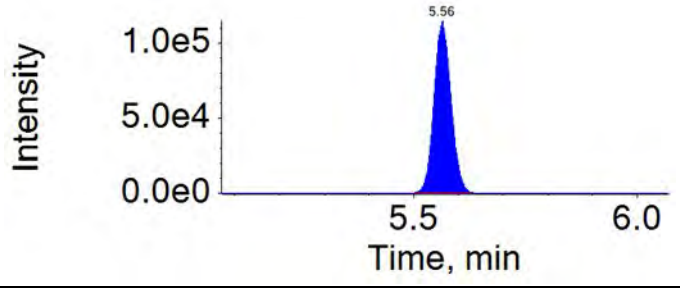
Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0
	

Extraction Standard: Ed3-NMePFOSA	Injection Standard: 13C2-PFDA
515.0 / 169.0	515.0 / 470.0
	

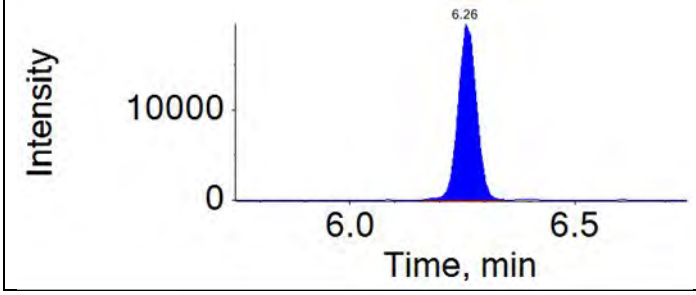
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

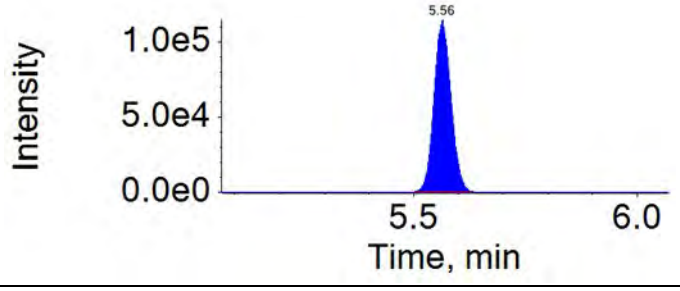
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



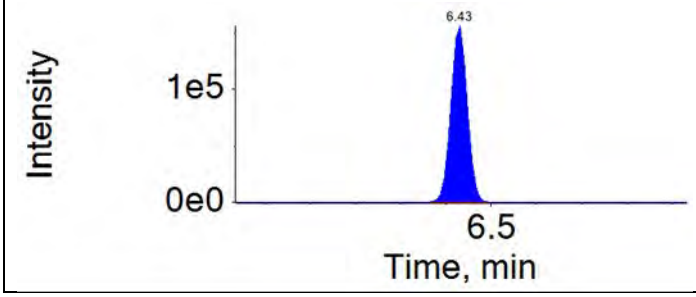


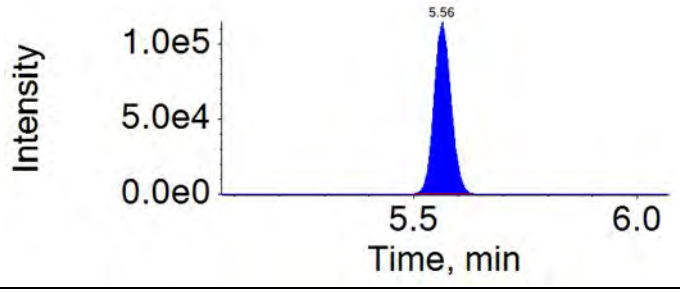
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0

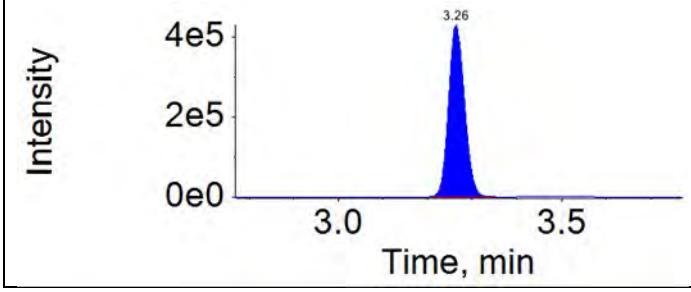
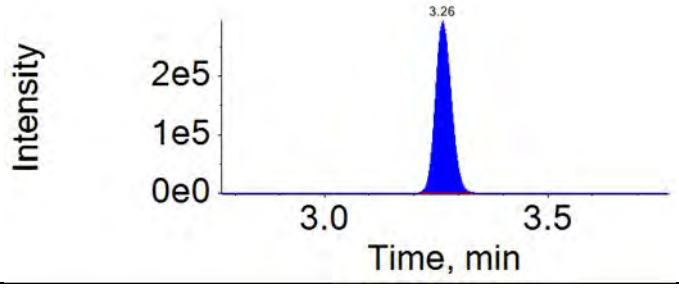


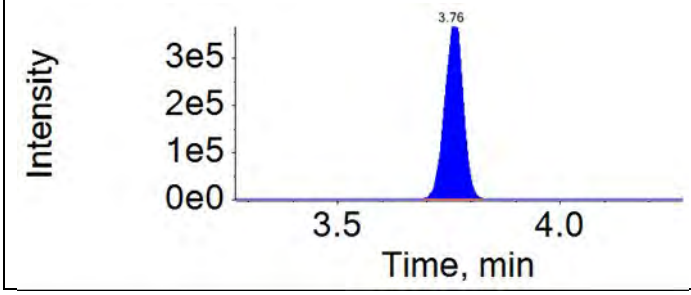
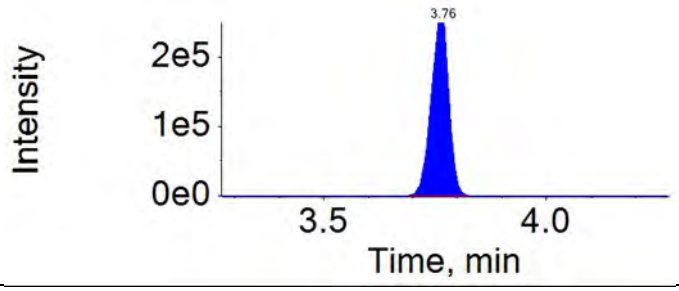


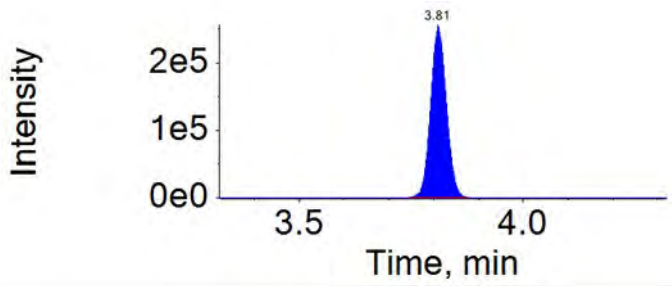
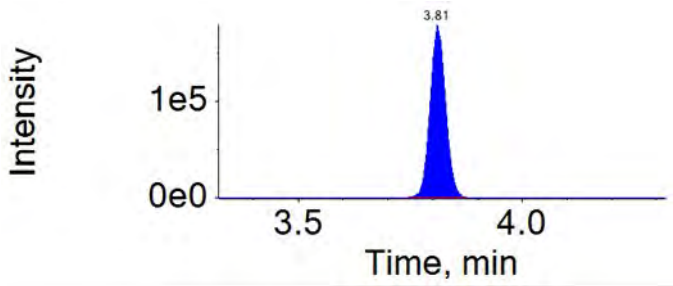
APPROVED
By MCD at 6:33 pm, 11/12/18

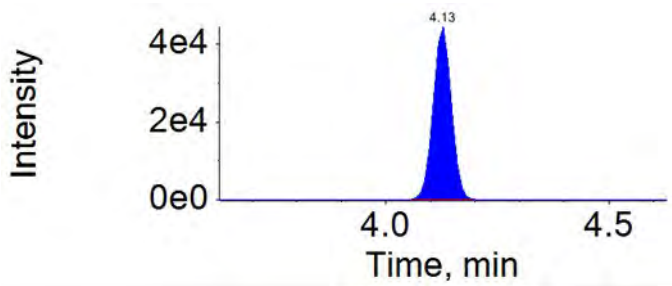
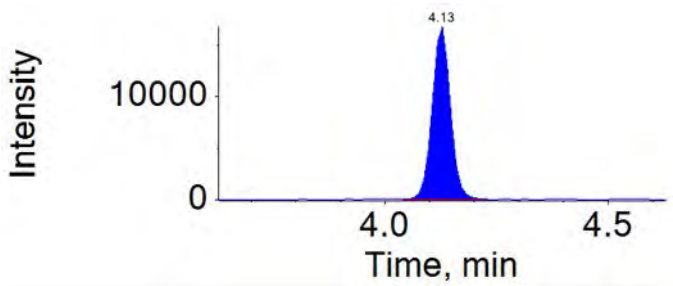
REVIEWED
By HMK at 10:53 am, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0
	

Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0
	

Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0
	

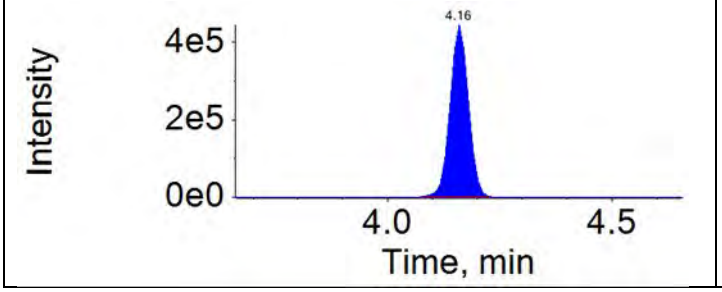
Analyte: 4:2-FTS	Extraction Standard: 13C2-4:2-FTS
327.0 / 307.0	329.0 / 81.0
	

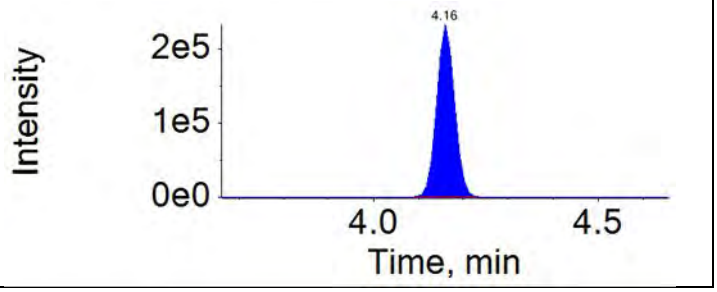
APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

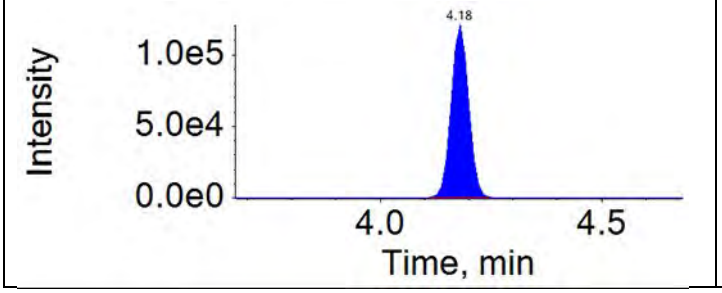
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

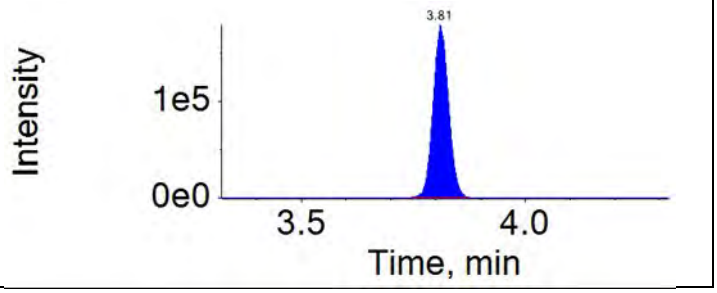
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



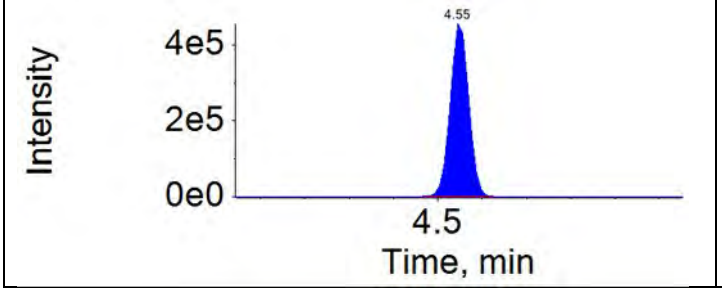


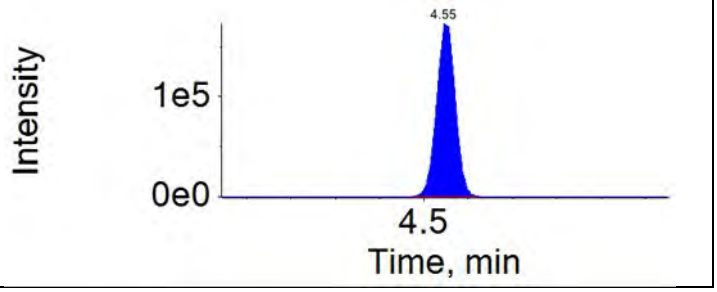
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



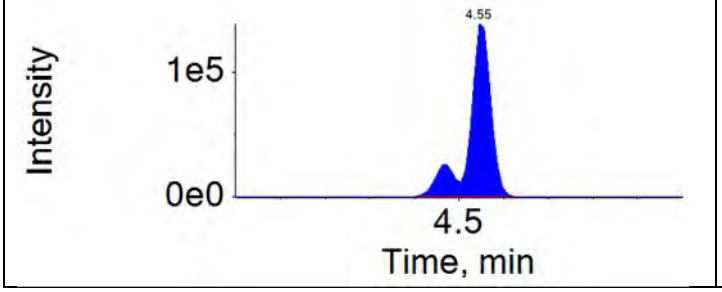


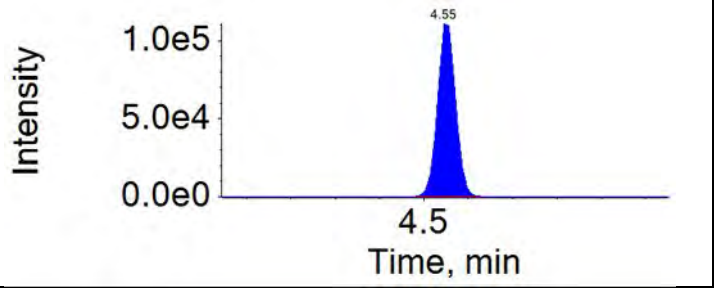
Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0





Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0

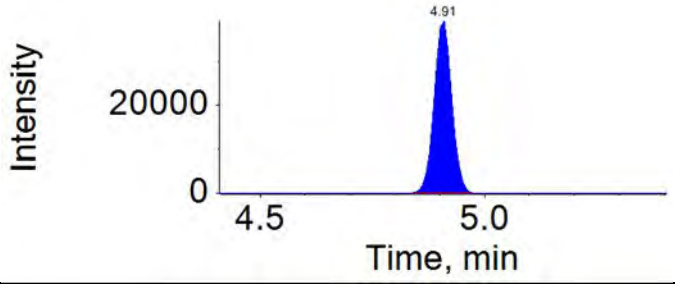
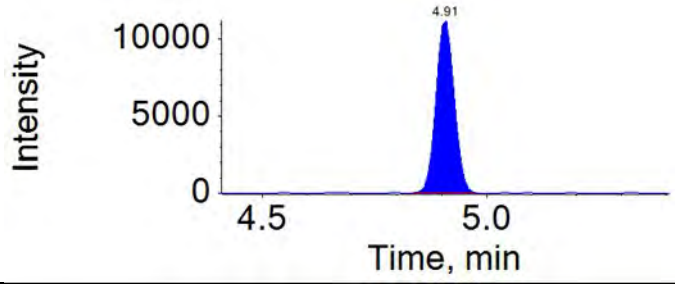


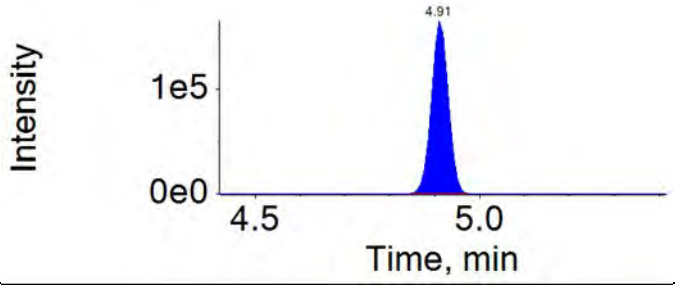
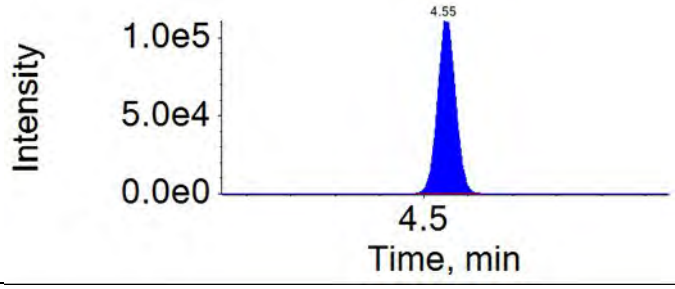


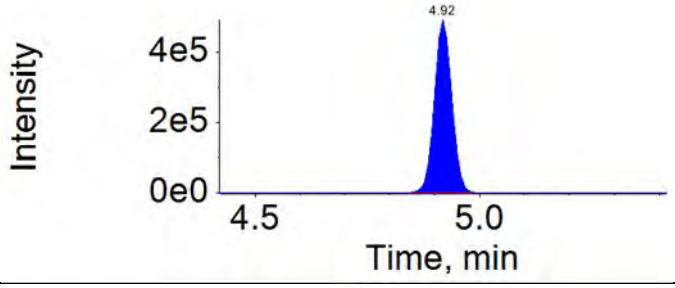
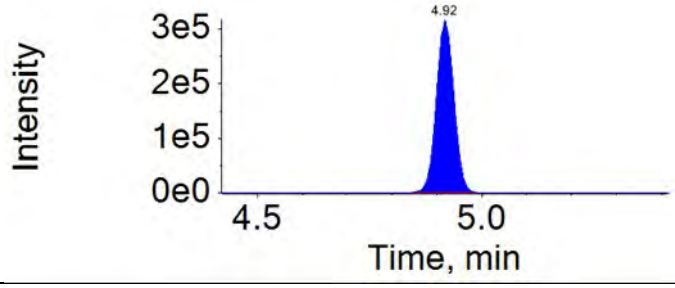
APPROVED
By MCD at 6:33 pm, 11/12/18

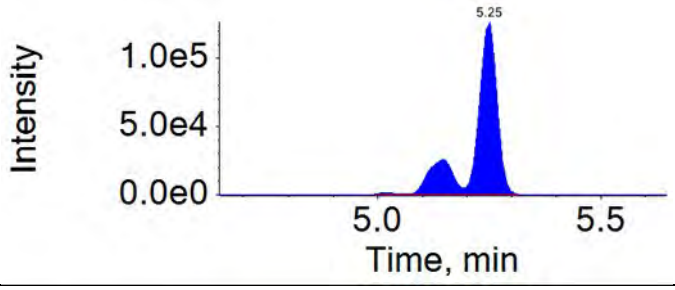
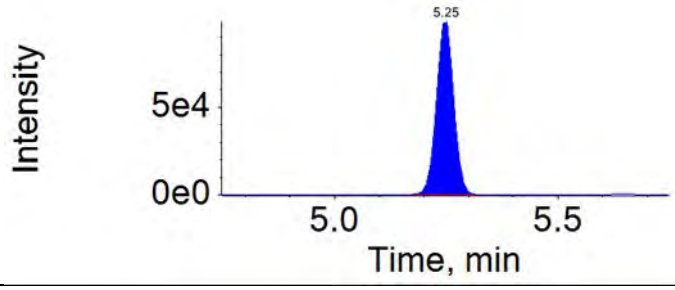
REVIEWED
By HMK at 10:53 am, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Analyte: 6:2-FTS	Extraction Standard: 13C2-6:2-FTS
427.0 / 407.0	429.0 / 81.0
	

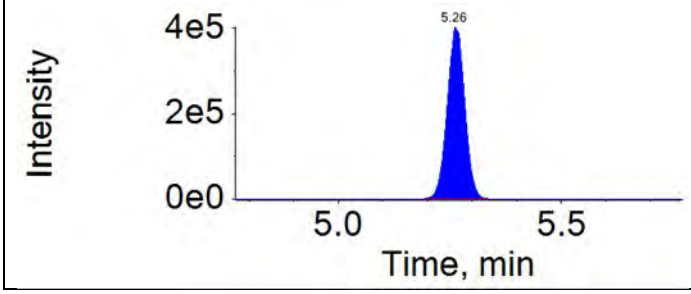
Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0
	

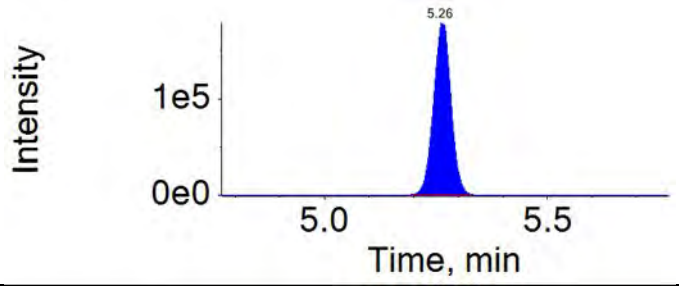
Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0
	

Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0
	

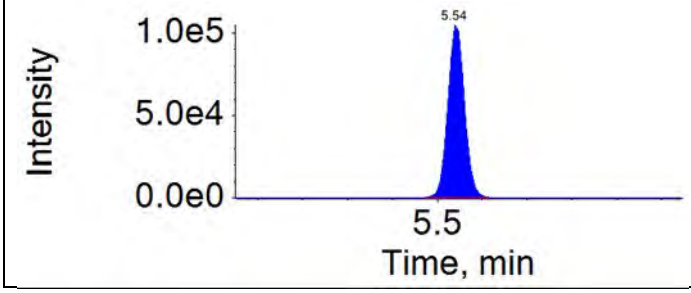
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

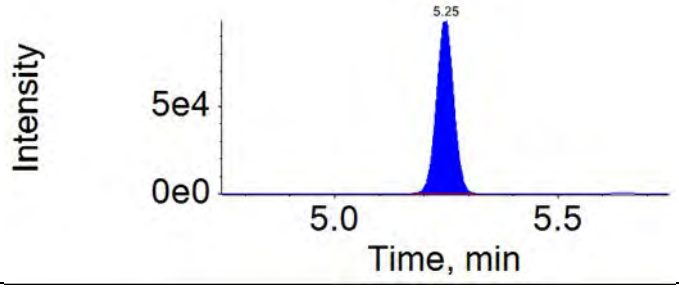
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



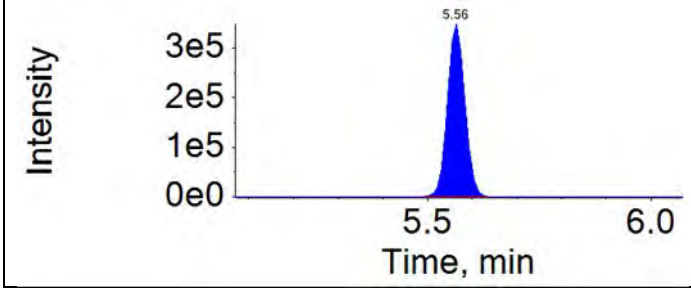


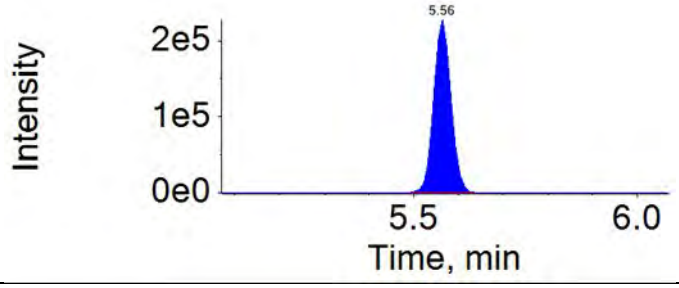
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



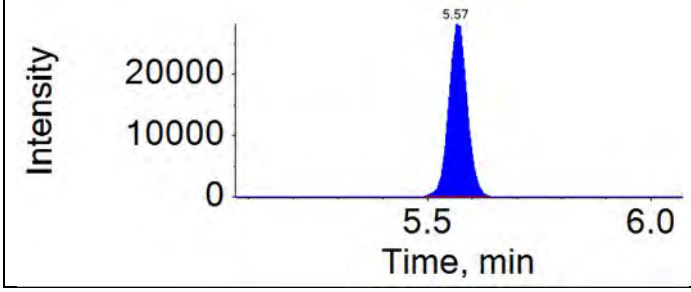


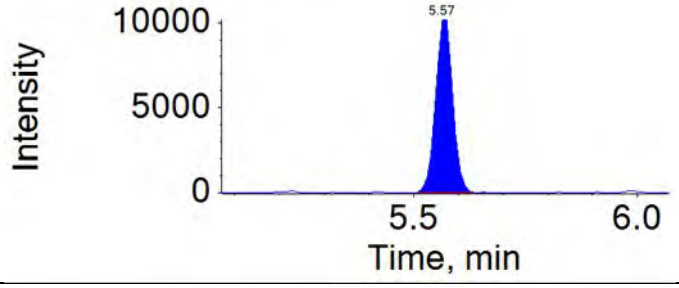
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





Analyte: 8:2-FTS	Extraction Standard: 13C2-8:2-FTS
527.0 / 507.0	529.0 / 81.0



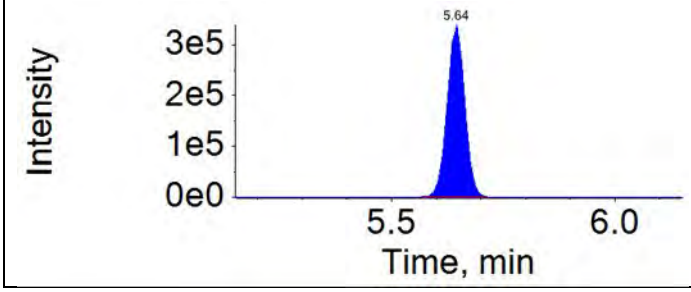


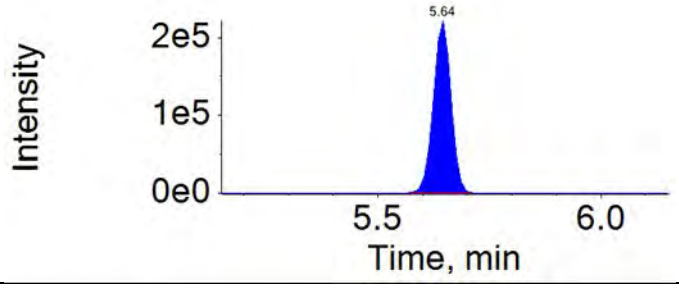
APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

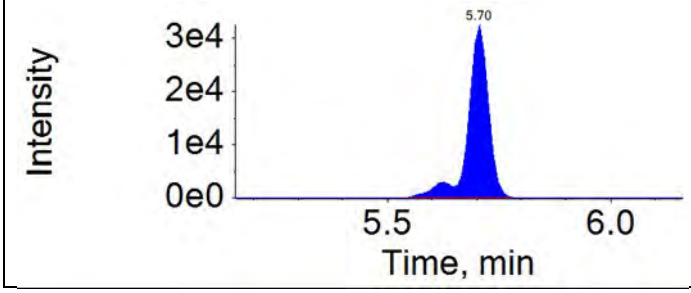
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

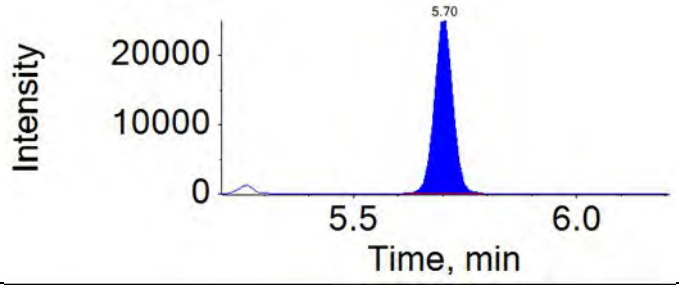
Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0



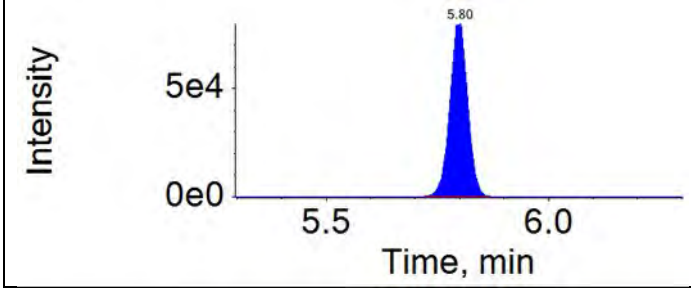


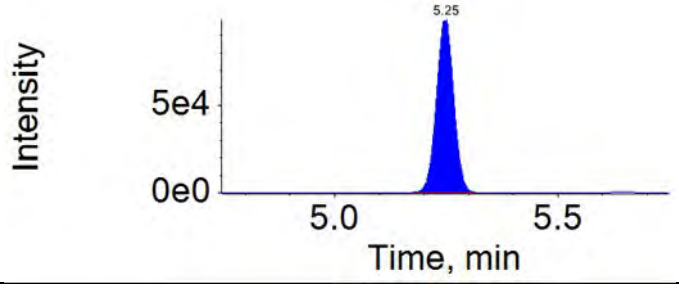
Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0



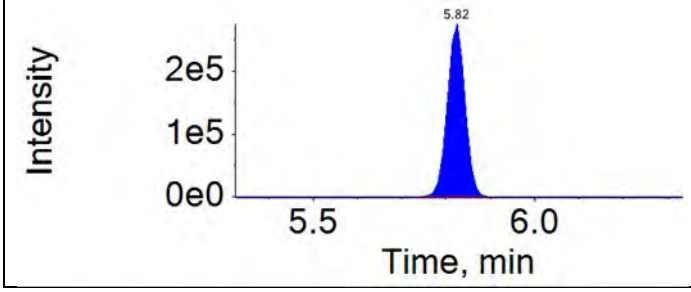


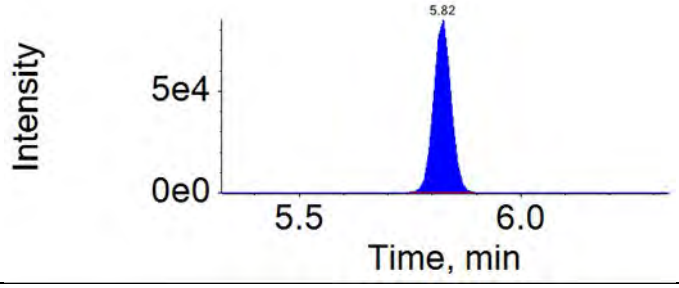
Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0





Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0



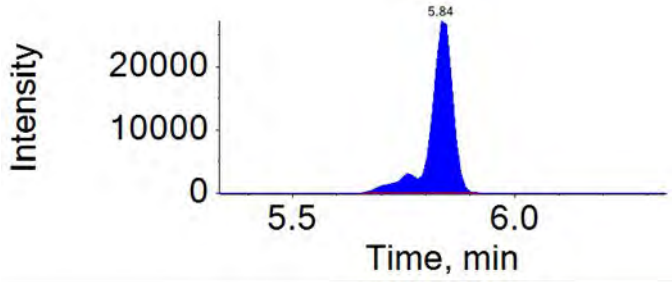


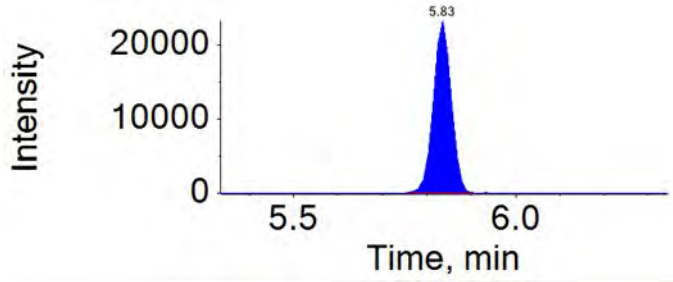
APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

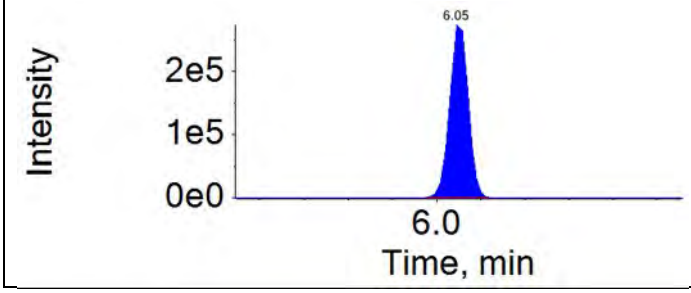
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

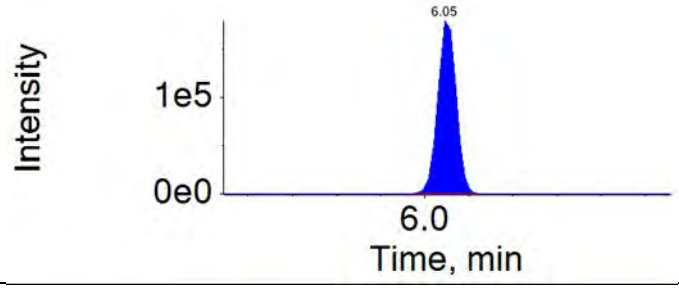
Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0



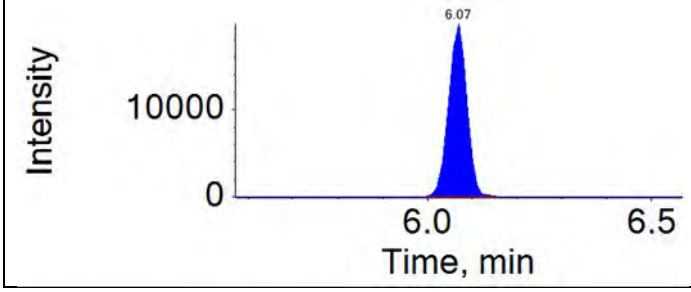


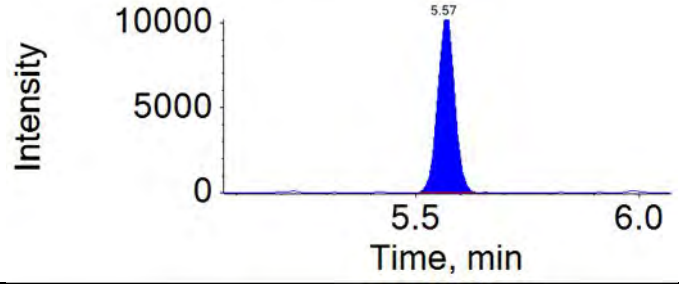
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0



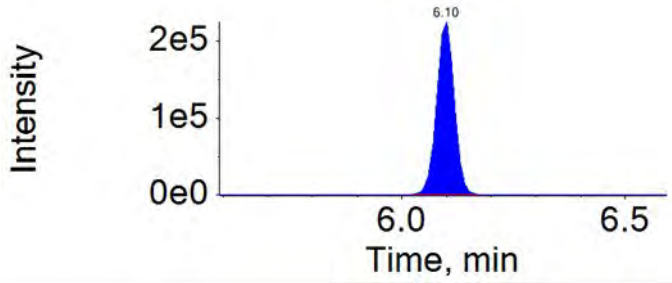


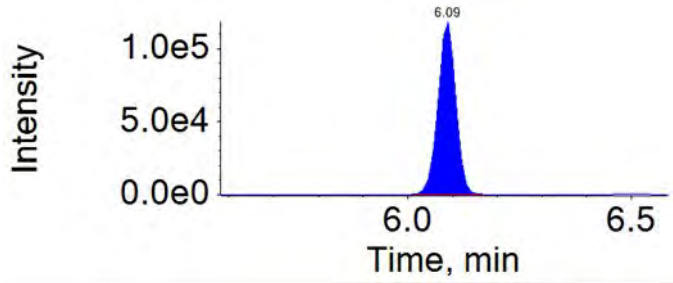
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0





Analyte: NMePFOSAE	Extraction Standard: d7-NMePFOSAE
616.0 / 59.0	623.0 / 59.0



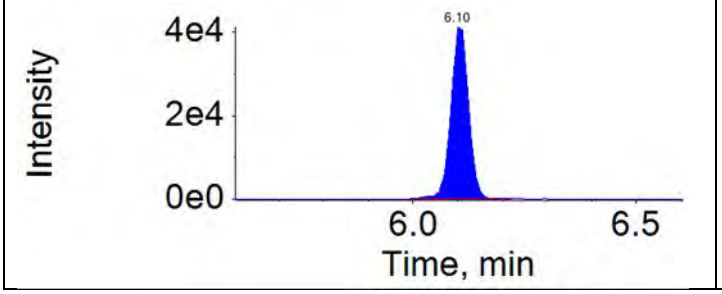


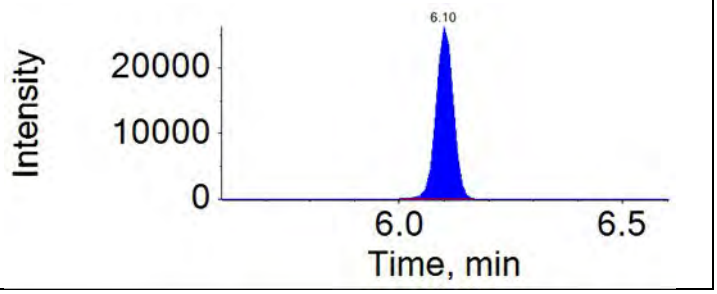
APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

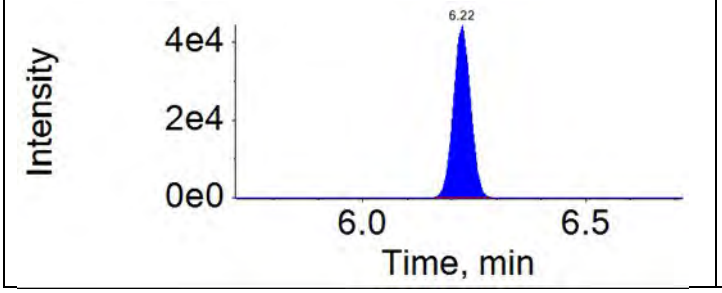
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

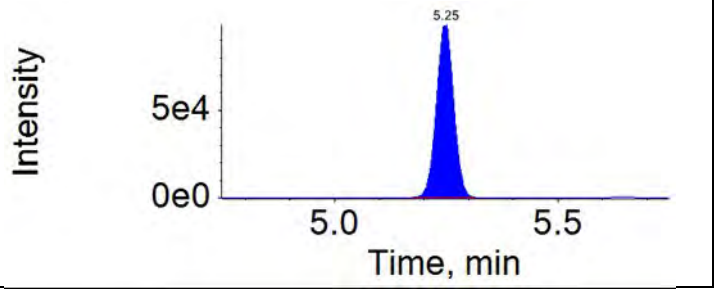
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



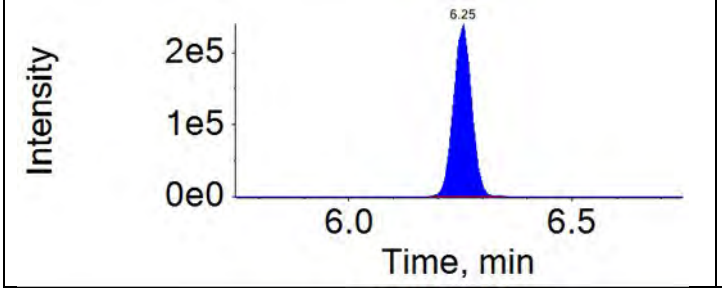


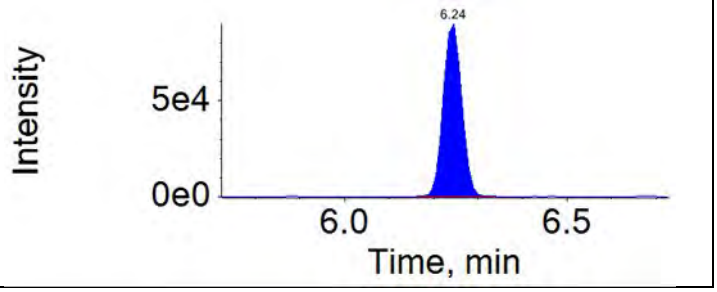
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



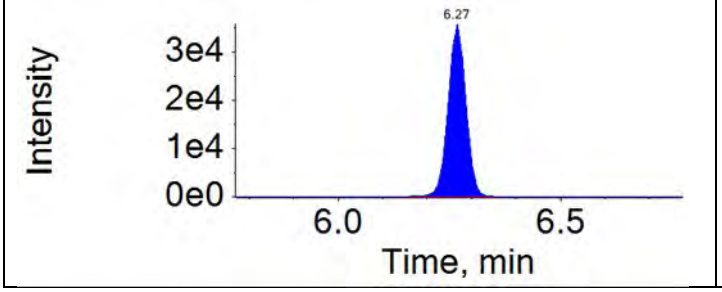


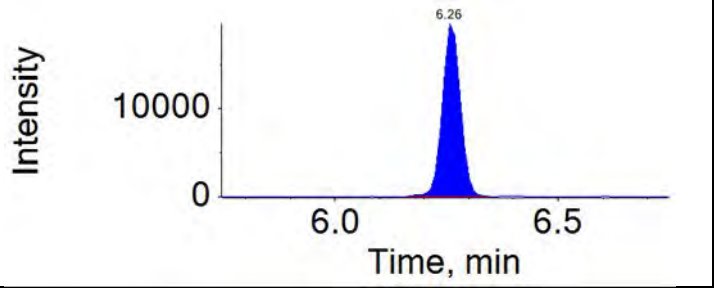
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





Analyte: NEtPFOSA	Extraction Standard: d5-NEtPFOSA
526.0 / 169.0	531.0 / 169.0

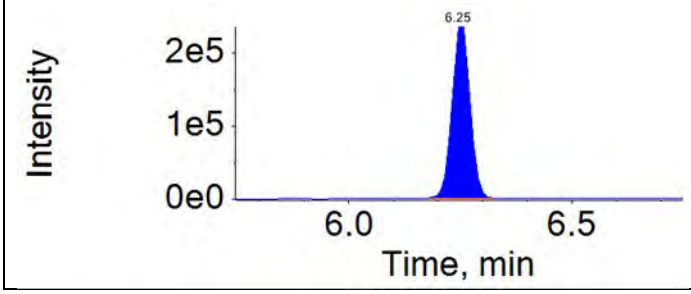
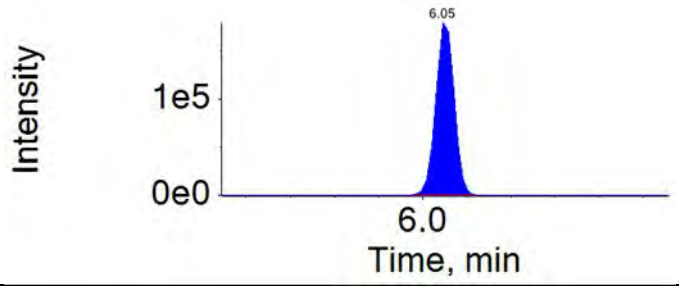


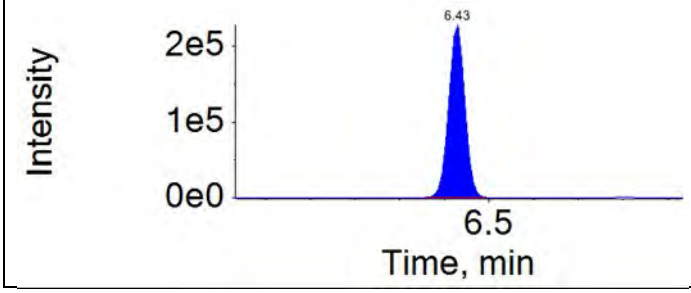
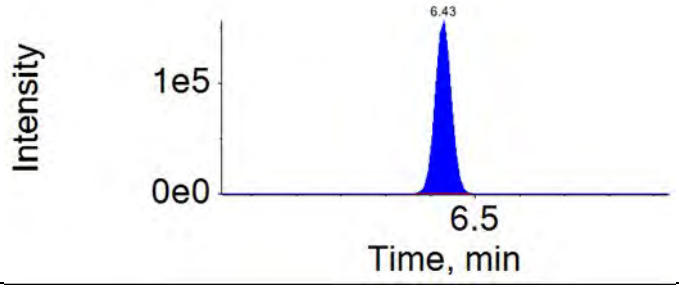


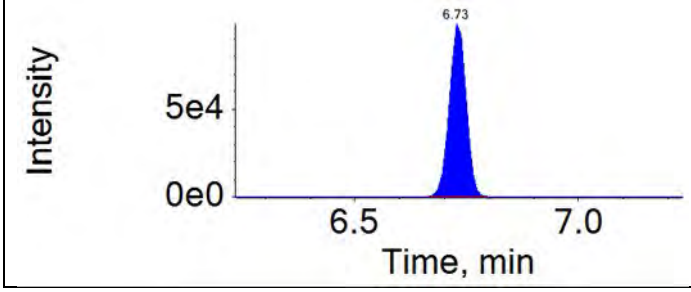
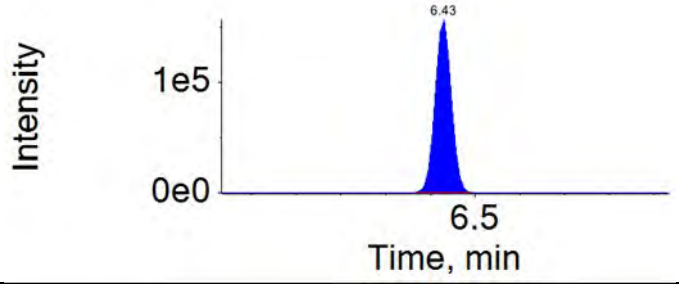
APPROVED
By MCD at 6:33 pm, 11/12/18

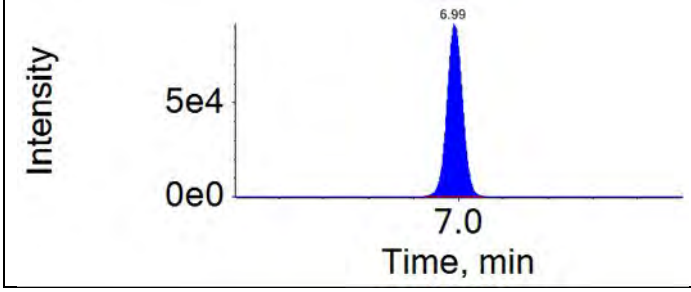
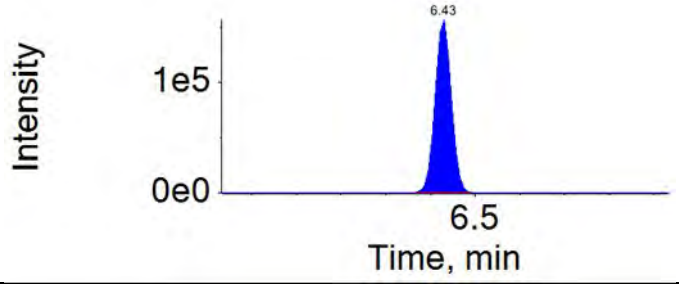
REVIEWED
By HMK at 10:53 am, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Analyte: PFTrDA	Extraction Standard: 13C2-PFDoDA
663.0 / 619.0	615.0 / 570.0
	

Analyte: PFTeDA	Extraction Standard: 13C2-PFTeDA
713.0 / 669.0	715.0 / 670.0
	

Analyte: PFHxDA	Extraction Standard: 13C2-PFTeDA
813.0 / 769.0	715.0 / 670.0
	

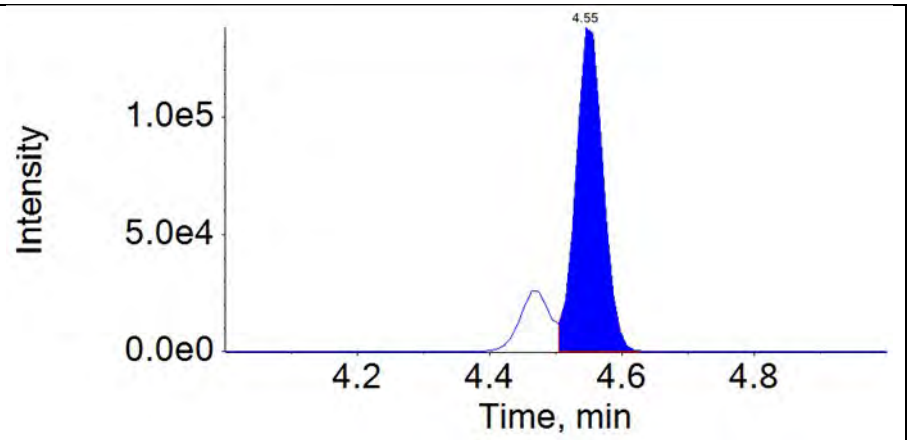
Analyte: PFODA	Extraction Standard: 13C2-PFTeDA
913.0 / 869.0	715.0 / 670.0
	

APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

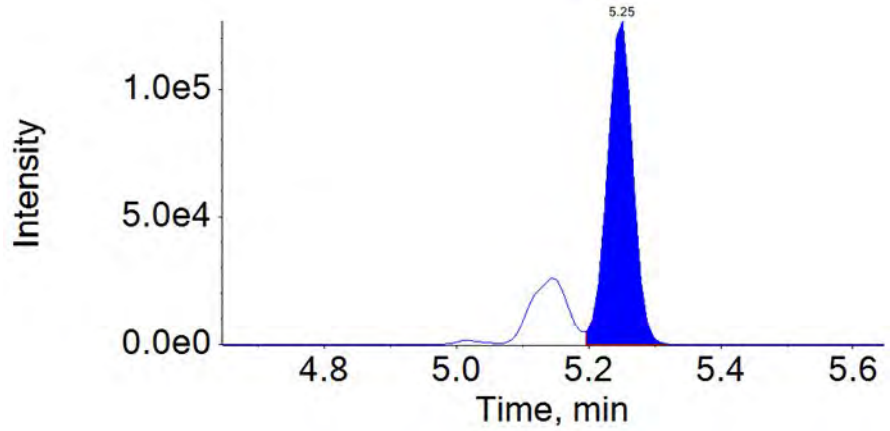
Results Table Name: 18NOV12DCAL
Results Table Date: 11/12/2018 6:23:42 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFHxS
RT (min.):
4.55
Peak Area:
397028.39
Mass Range:
399.0 / 80.0
File Name:
18NOV12DCAL-45.wiff
Sample Name:
CAL4



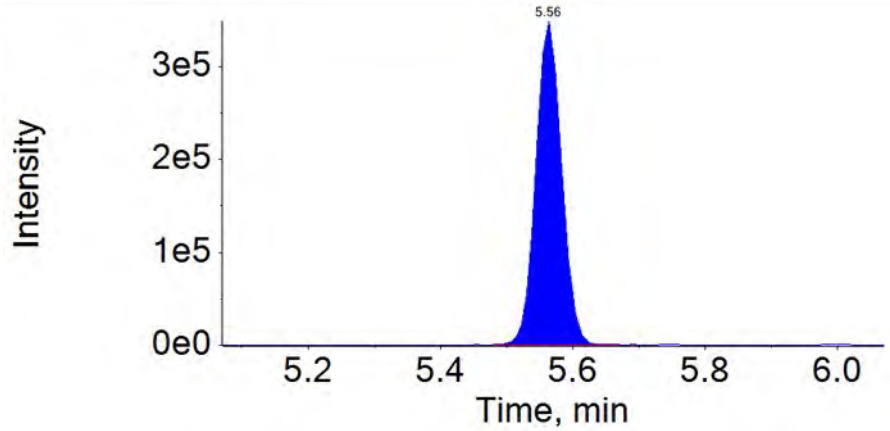
Integration Comment: incorrect integration

Component Name:
PFOS
RT (min.):
5.25
Peak Area:
340529.09
Mass Range:
499.0 / 80.0
File Name:
18NOV12DCAL-45.wiff
Sample Name:
CAL4



Integration Comment: incorrect integration

Component Name:
PFDA
RT (min.):
5.56
Peak Area:
942897.11
Mass Range:
513.0 / 469.0
File Name:
18NOV12DCAL-45.wiff
Sample Name:
CAL4



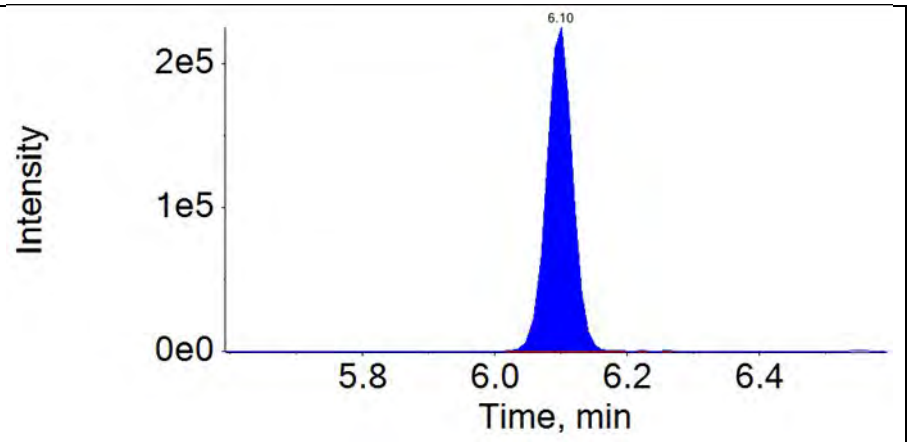
Integration Comment: incorrect integration

APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

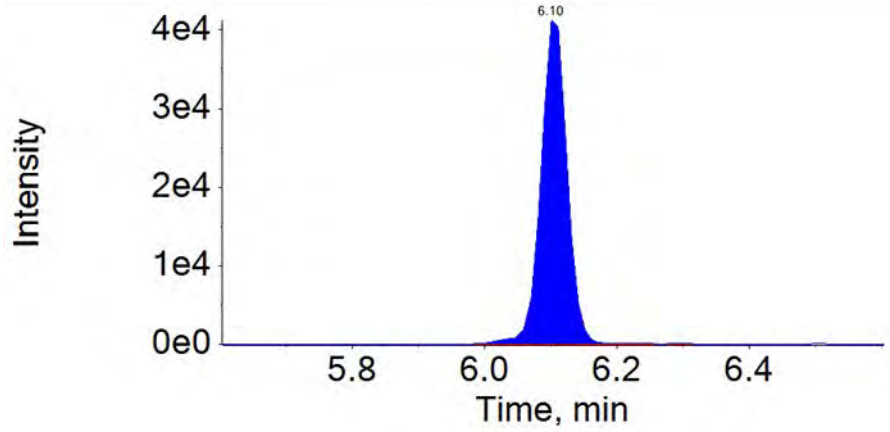
Results Table Name: 18NOV12DCAL
Results Table Date: 11/12/2018 6:23:42 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
NMePFOSAE
RT (min.):
6.10
Peak Area:
620009.05
Mass Range:
616.0 / 59.0
File Name:
18NOV12DCAL-45.wiff
Sample Name:
CAL4



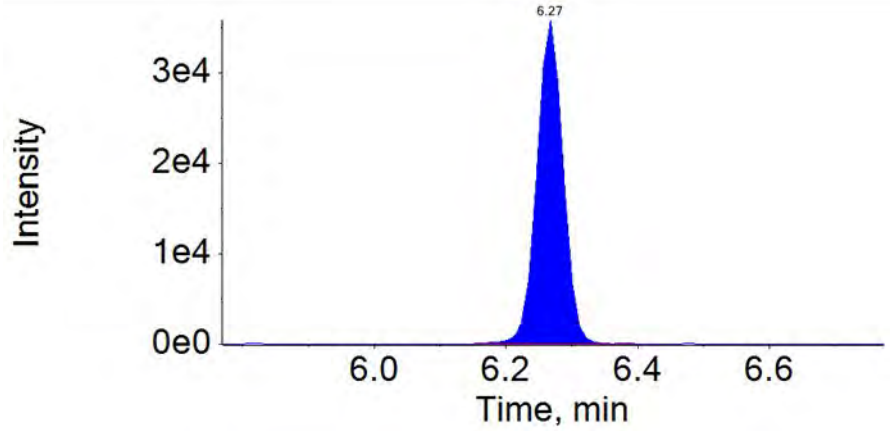
Integration Comment: incorrect integration

Component Name:
NMePFOSA
RT (min.):
6.10
Peak Area:
115018.95
Mass Range:
512.0 / 169.0
File Name:
18NOV12DCAL-45.wiff
Sample Name:
CAL4



Integration Comment: incorrect integration

Component Name:
NEtPFOSA
RT (min.):
6.27
Peak Area:
99550.21
Mass Range:
526.0 / 169.0
File Name:
18NOV12DCAL-45.wiff
Sample Name:
CAL4

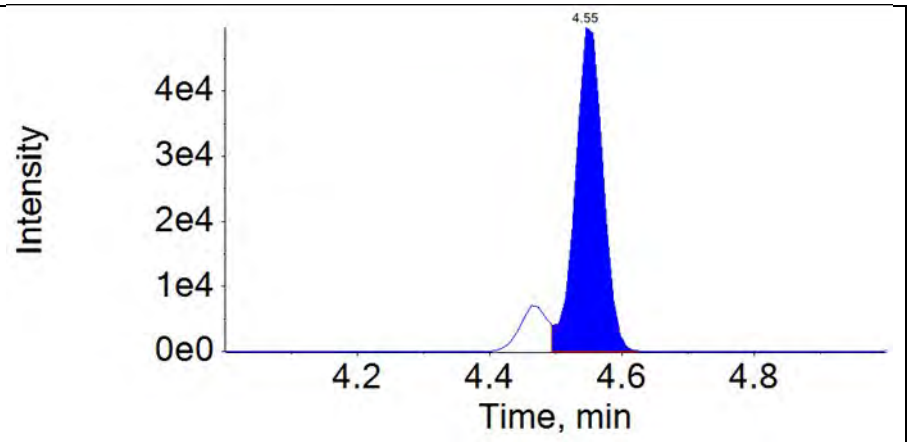


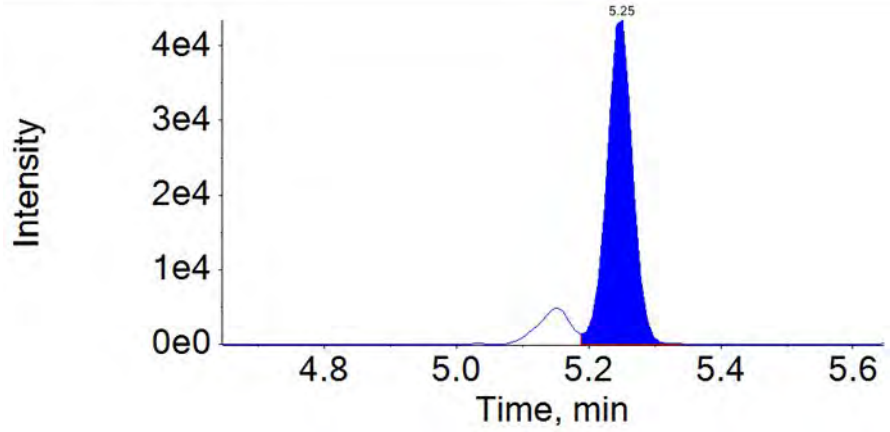
Integration Comment: incorrect integration

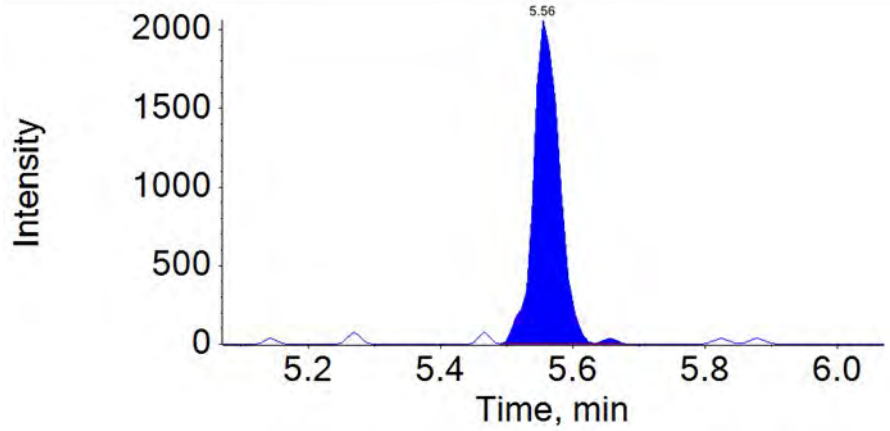
APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

Results Table Name: 18NOV12DCAL
Results Table Date: 11/12/2018 6:23:42 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name: PFHxS_2 **RT (min.):** 4.55 **Peak Area:** 144906.99 **Mass Range:** 399.0 / 99.0 **File Name:** 18NOV12DCAL-45.wiff **Sample Name:** CAL4	 **Integration Comment:** incorrect integration

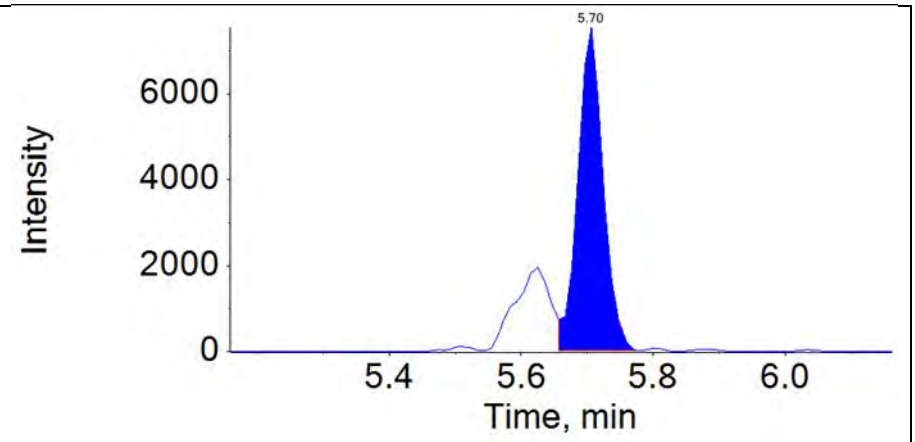
Component Name: PFOS_2 **RT (min.):** 5.25 **Peak Area:** 119086.74 **Mass Range:** 499.0 / 99.0 **File Name:** 18NOV12DCAL-45.wiff **Sample Name:** CAL4	 **Integration Comment:** incorrect integration

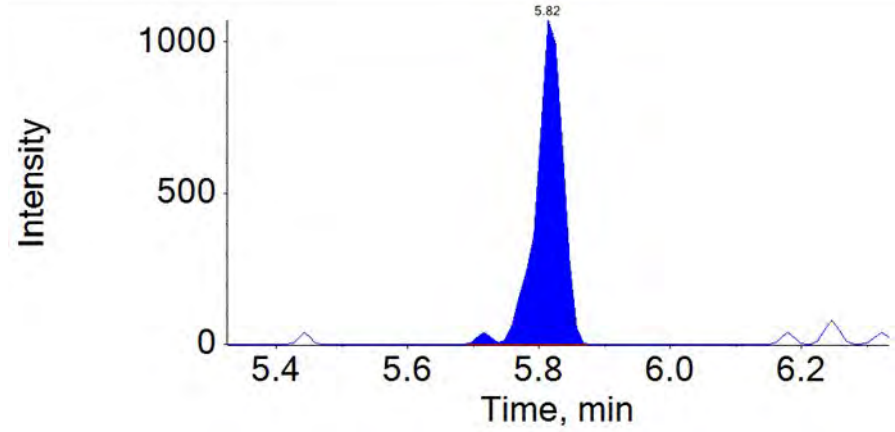
Component Name: PFDA_2 **RT (min.):** 5.56 **Peak Area:** 5673.40 **Mass Range:** 513.0 / 169.0 **File Name:** 18NOV12DCAL-45.wiff **Sample Name:** CAL4	 **Integration Comment:** incorrect integration

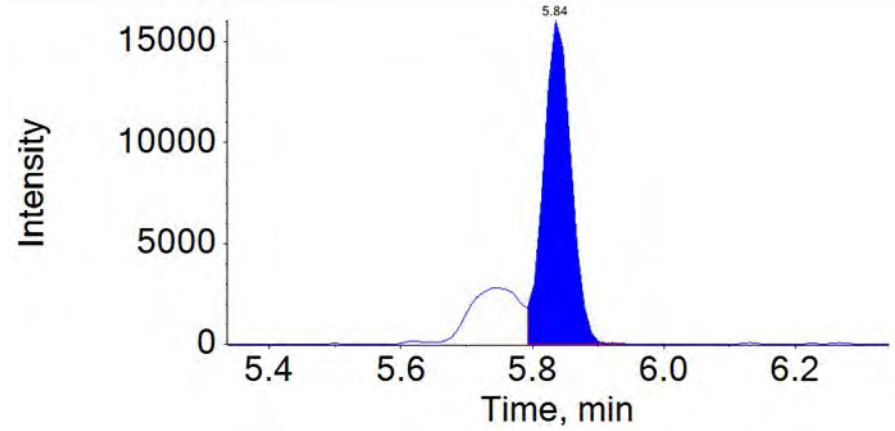
APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

Results Table Name: 18NOV12DCAL
Results Table Date: 11/12/2018 6:23:42 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name: NMeFOSAA_2 **RT (min.):** 5.70 **Peak Area:** 20115.54 **Mass Range:** 570.0 / 483.0 **File Name:** 18NOV12DCAL-45.wiff **Sample Name:** CAL4	 **Integration Comment:** incorrect integration

Component Name: PFUnDA_2 **RT (min.):** 5.82 **Peak Area:** 3055.95 **Mass Range:** 563.0 / 169.0 **File Name:** 18NOV12DCAL-45.wiff **Sample Name:** CAL4	 **Integration Comment:** incorrect integration

Component Name: NEtFOSAA_2 **RT (min.):** 5.84 **Peak Area:** 46742.13 **Mass Range:** 584.0 / 526.0 **File Name:** 18NOV12DCAL-45.wiff **Sample Name:** CAL4	 **Integration Comment:** incorrect integration

APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

Results Table Name: 18NOV12DCAL
Results Table Date: 11/12/2018 6:23:42 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Ion Ratio Report

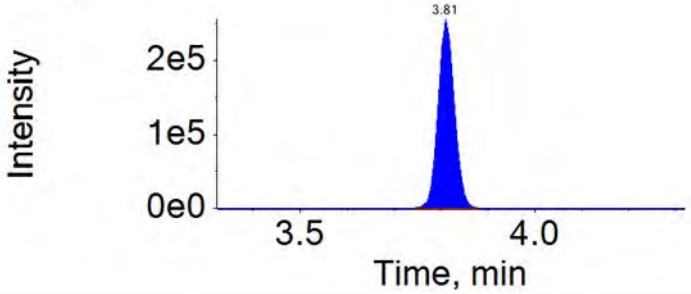
Sample Name: CAL4 **Instrument Name:** LM27631 **File Name:** 18NOV12DCAL-45.wiff

Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	3.81	1.00	617045.58	A	0.3619	0.3710			
PFBS_2	3.81	1.00	228894.51	A	0.3619	0.3710	3	50	
4:2-FTS	4.13	1.00	126396.51	A	0.6730	0.6813			
4:2 FTS_2	4.12	1.00	86110.06	A	0.6730	0.6813		#NA!	
PFHxA	4.16	1.00	1265231.12	A	0.0117	0.0101			
PFHxA_2	4.16	1.00	12793.78	A	0.0117	0.0101	-13	50	
PFPeS	4.18	1.10	328681.66	A	0.5191	0.5078			
PFPeS_2	4.18	1.10	166890.99	A	0.5191	0.5078	-2	50	
PFHpA	4.55	1.00	1318774.50	A	0.0563	0.0555			
PFHpA_2	4.55	1.00	73135.24	A	0.0563	0.0555	-2	50	
PFHxS	4.55	1.00	479290.97	M	0.3428	0.3441			
PFHxS_2	4.55	1.00	164902.13	M	0.3428	0.3441	0	50	
6:2-FTS	4.91	1.00	107470.62	A	0.6604	0.6264			
6:2 FTS_2	4.91	1.00	67319.96	A	0.6604	0.6264		#NA!	
PFHpS	4.91	1.08	434949.18	A	0.4066	0.4089			
PFHpS_2	4.91	1.08	177851.23	A	0.4066	0.4089	1	50	
PFOA	4.92	1.00	1327086.09	A	0.0562	0.0557			
PFOA_2	4.92	1.00	73867.47	A	0.0562	0.0557	-1	50	
PFOS	5.25	1.00	448833.83	M	0.2968	0.3022			
PFOS_2	5.25	1.00	135652.81	M	0.2968	0.3022	2	50	
PFNA	5.26	1.00	1106664.23	A	0.0229	0.0210			
PFNA_2	5.26	1.00	23205.90	A	0.0229	0.0210	-8	50	
PFNS	5.54	1.06	269712.27	A	0.4828	0.4818			
PFNS_2	5.54	1.06	129941.05	A	0.4828	0.4818	0	50	
PFDA	5.56	1.00	941985.31	M	0.0081	0.0060			
PFDA_2	5.56	1.00	5626.45	M	0.0081	0.0060	-26	50	
8:2-FTS	5.57	1.00	80922.57	A	0.6814	0.6947			
8:2 FTS_2	5.57	1.00	56219.65	A	0.6814	0.6947		#NA!	
NMeFOSAA	5.70	1.00	103649.07	A	0.2569	0.2651			
NMeFOSAA_2	5.70	1.00	27472.86	M	0.2569	0.2651	3	50	
PFDS	5.80	1.11	224031.22	A	0.5144	0.4482			
PFDS_2	5.80	1.10	100404.30	A	0.5144	0.4482	-13	50	
PFUnDA	5.82	1.00	768010.80	A	0.0058	0.0039			
PFUnDA_2	5.82	1.00	2997.45	M	0.0058	0.0039	-33	50	
NEtFOSAA	5.84	1.00	94877.84	A	0.7253	0.6488			
NEtFOSAA_2	5.84	1.00	61554.78	M	0.7253	0.6488	-11	50	
PFDoDA	6.05	1.00	803646.84	A	0.0157	0.0099			
PFDoDA_2	6.05	1.00	7981.38	A	0.0157	0.0099	-37	50	
10:2-FTS	6.07	1.09	56040.80	A	0.6356	0.7371			
10:2 FTS_2	6.07	1.09	41308.18	A	0.6356	0.7371		#NA!	
PFTrDA	6.25	1.03	674140.32	A	0.0086	0.0101			
PFTrDA_2	6.25	1.03	6830.51	A	0.0086	0.0101	18	50	
PFTeDA	6.43	1.00	571926.74	A	0.0062	0.0068			
PFTeDA_2	6.43	1.00	3881.08	A	0.0062	0.0068	9	50	
PFHxDA	6.73	1.05	256654.28	A	0.0683	0.0616			
PFHxDA_2	6.73	1.05	15804.20	A	0.0683	0.0616	-10	50	
PFODA	6.99	1.09	219359.64	A	0.0277	0.0258			
PFODA_2	6.99	1.09	5669.48	A	0.0277	0.0258	-7	50	

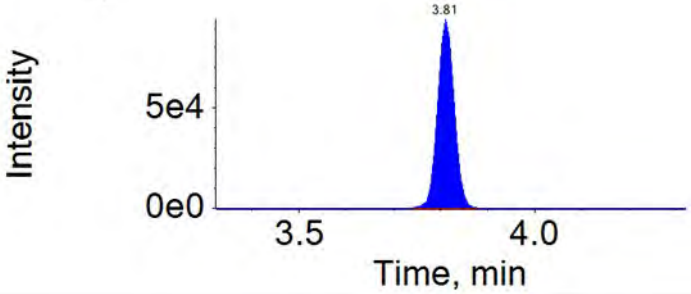
APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

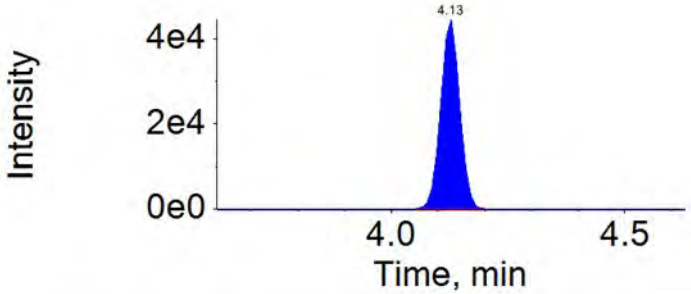
Component: PFBS
Primary Mass: 299.0 / 80.0



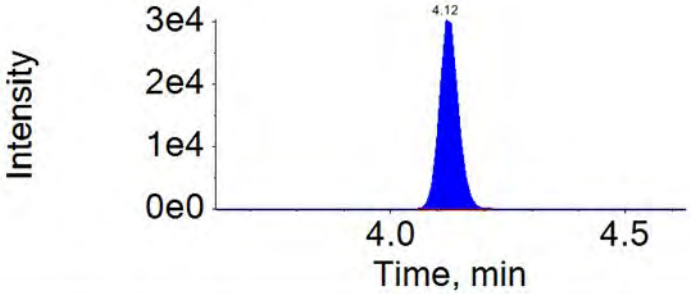
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



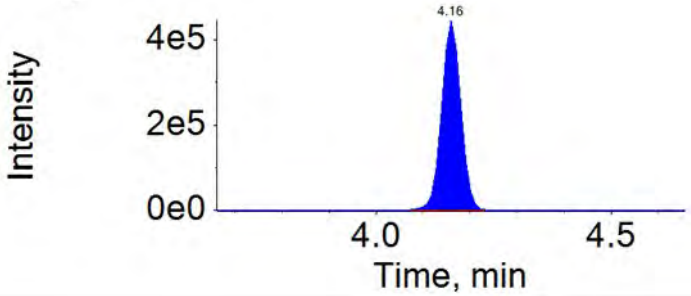
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



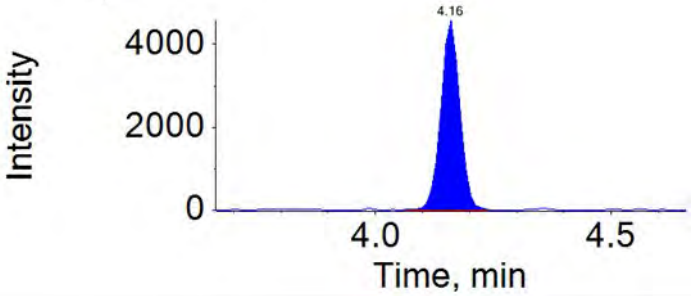
Component: 4:2 FTS_2
Secondary Mass: 327.0 / 81.0



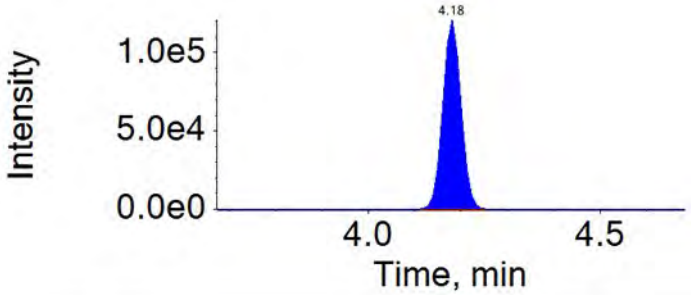
Component: PFHxA
Primary Mass: 313.0 / 269.0



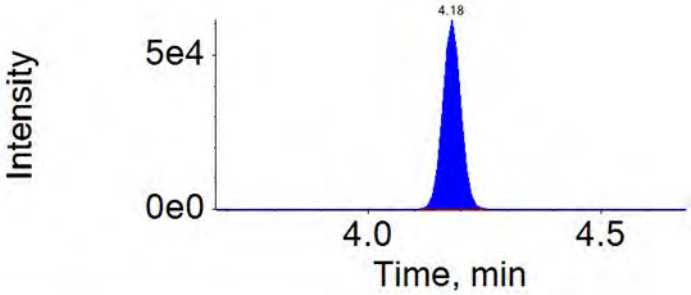
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



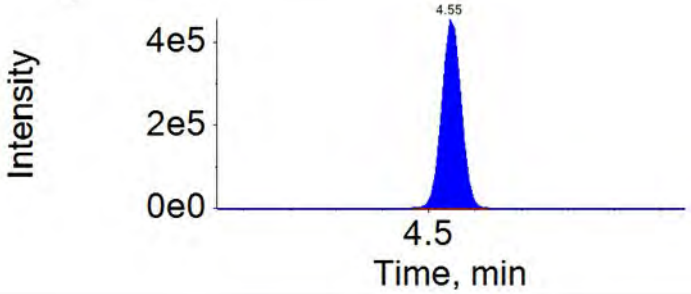
Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



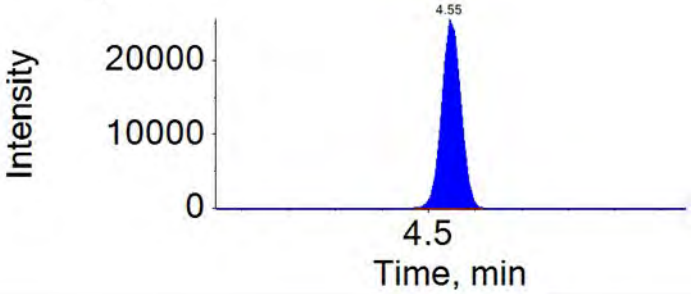
APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

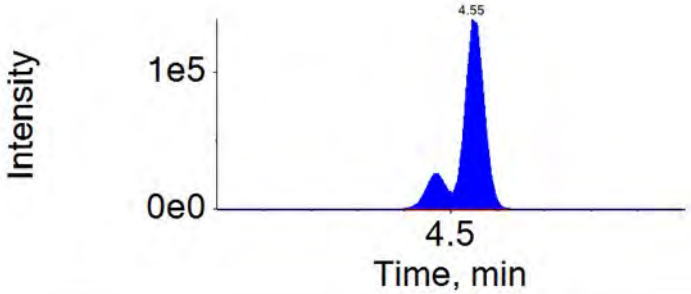
Component: PFHpA
Primary Mass: 363.0 / 319.0



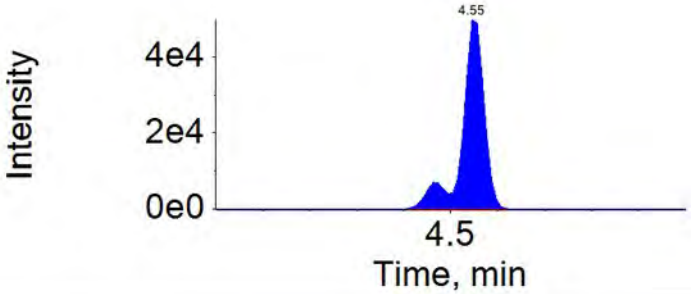
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



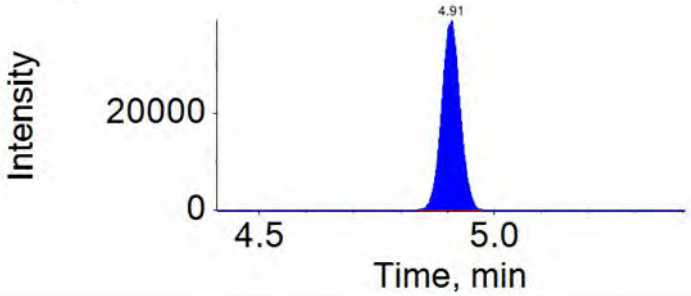
Component: PFHxS
Primary Mass: 399.0 / 80.0



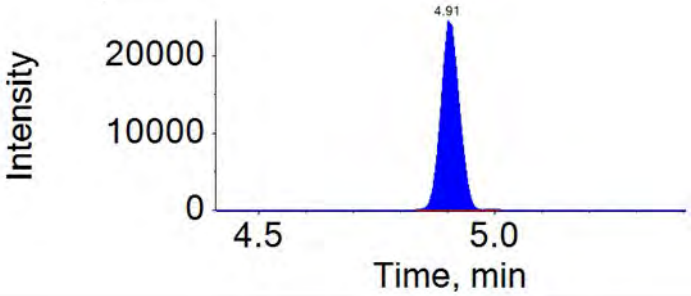
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



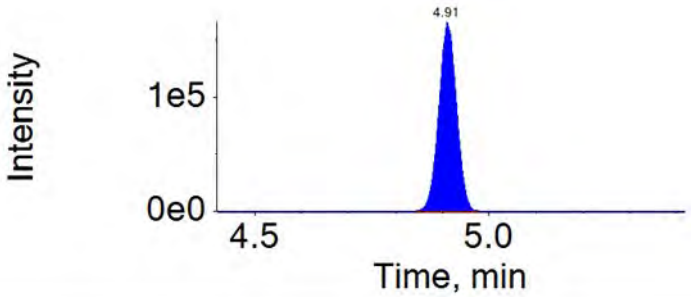
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



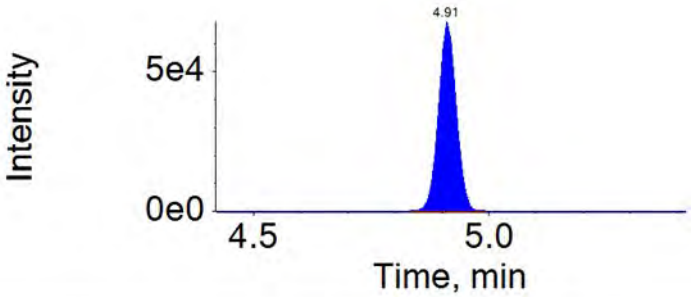
Component: 6:2 FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



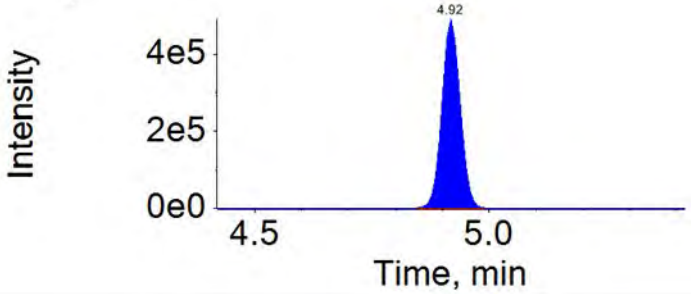
Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



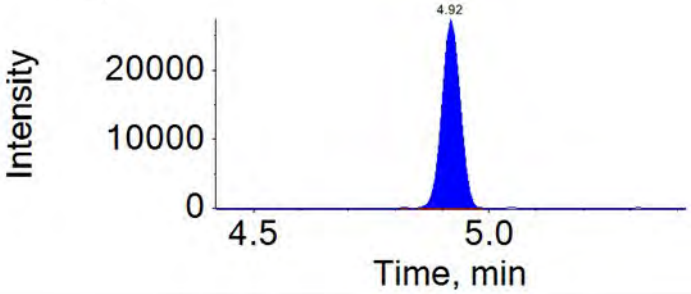
APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

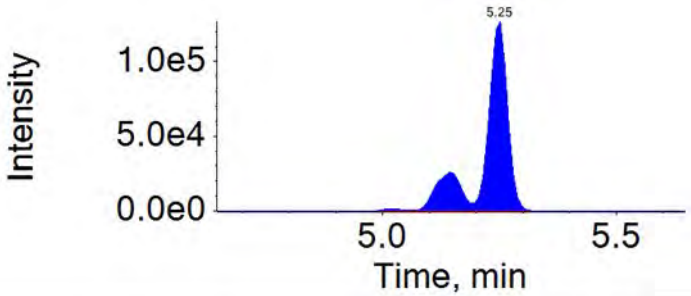
Component: PFOA
Primary Mass: 413.0 / 369.0



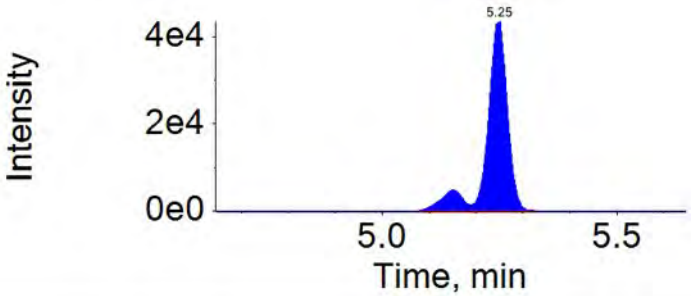
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



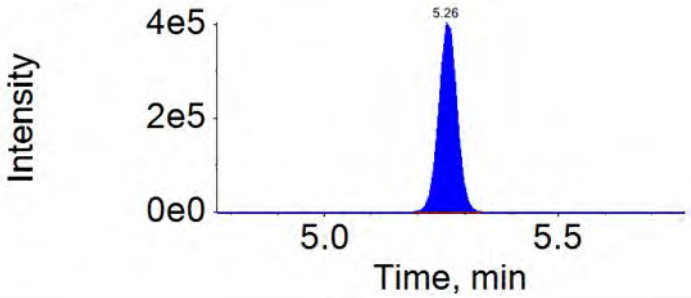
Component: PFOS
Primary Mass: 499.0 / 80.0



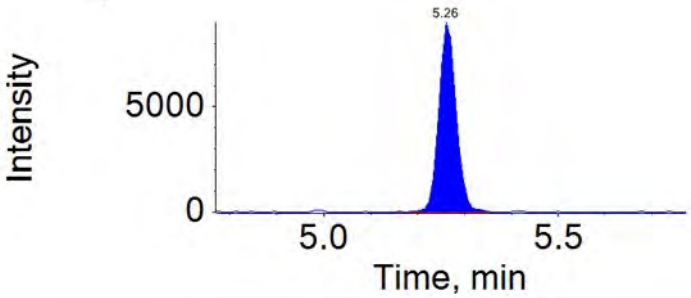
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



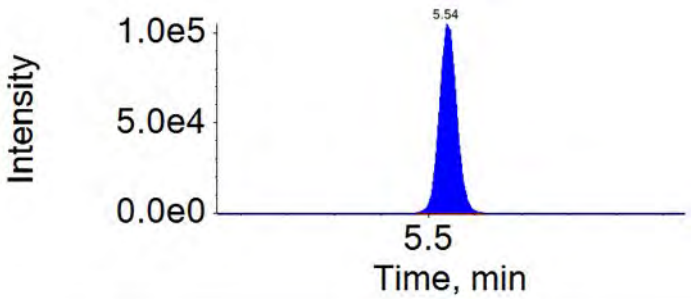
Component: PFNA
Primary Mass: 463.0 / 419.0



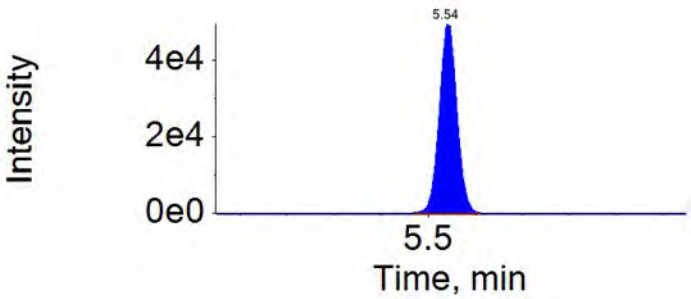
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



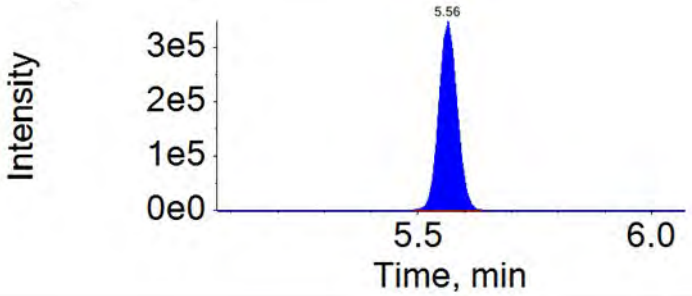
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



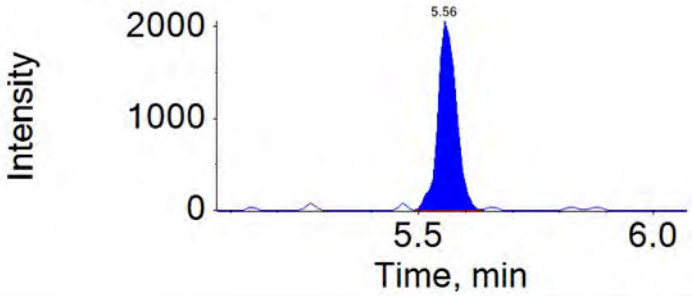
APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

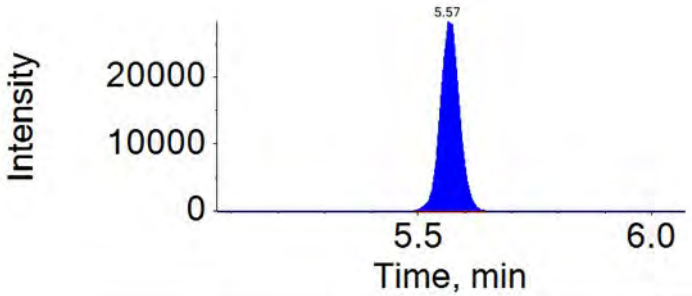
Component: PFDA
Primary Mass: 513.0 / 469.0



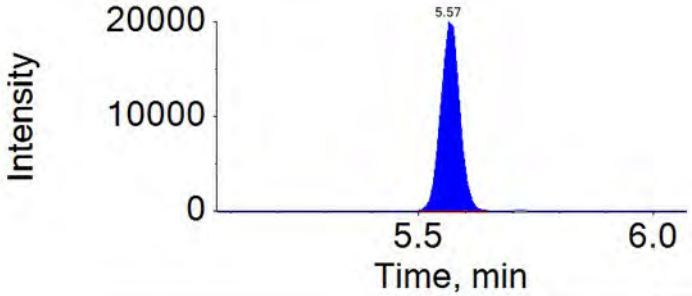
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



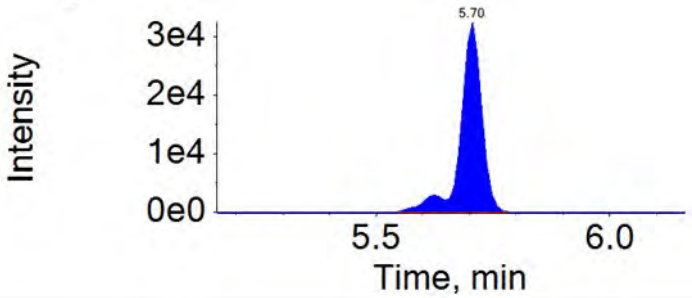
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



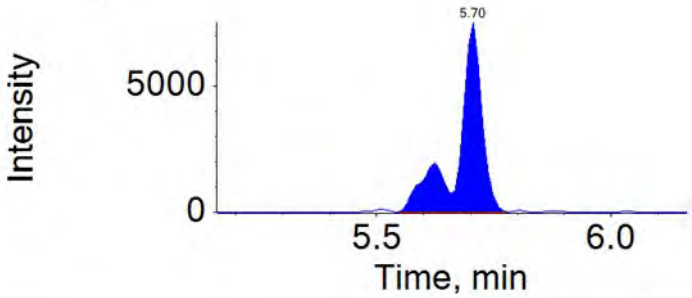
Component: 8:2 FTS_2
Secondary Mass: 527.0 / 81.0



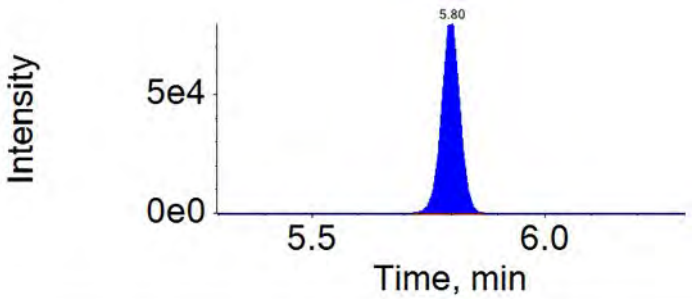
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



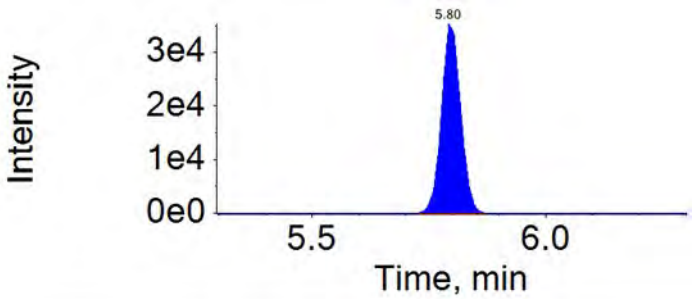
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



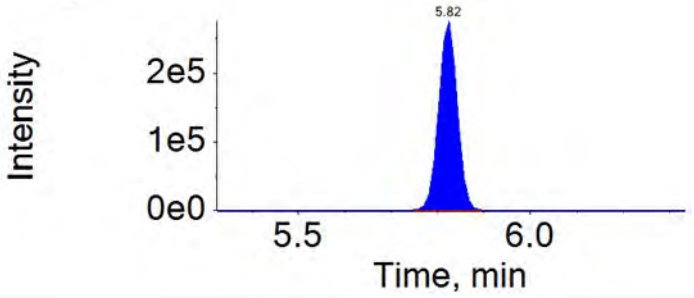
Component: PFDS_2
Secondary Mass: 599.0 / 99.0



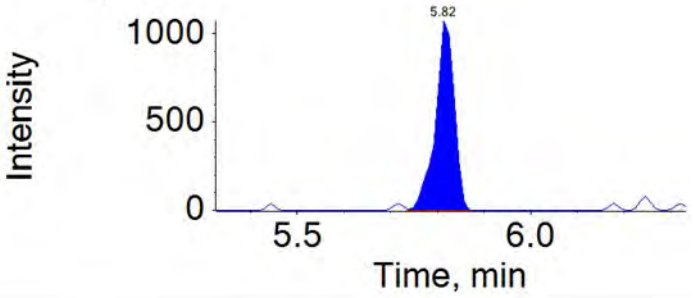
APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

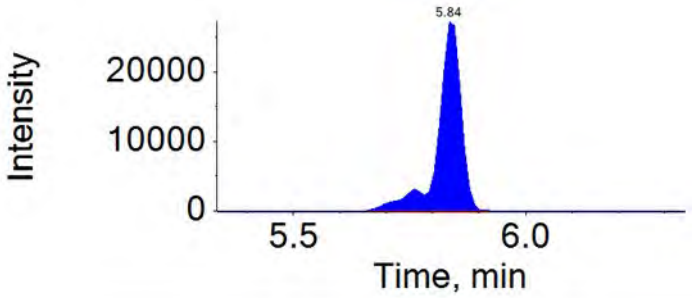
Component: PFUnDA
Primary Mass: 563.0 / 519.0



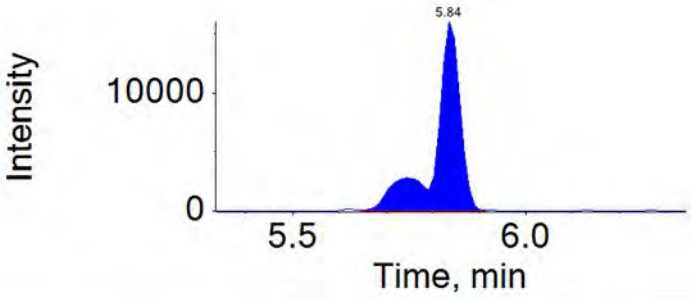
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



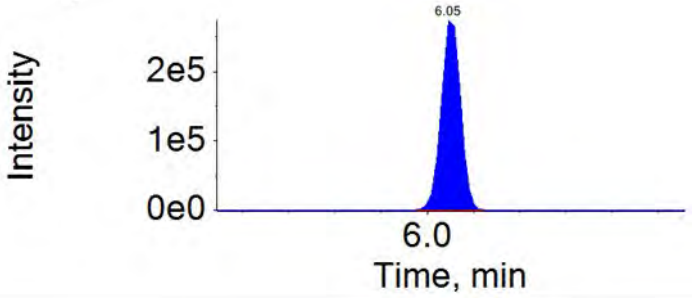
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



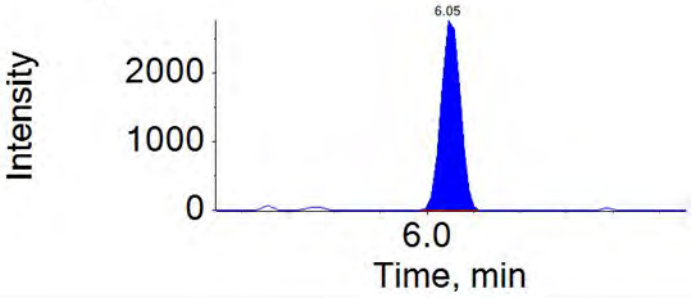
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



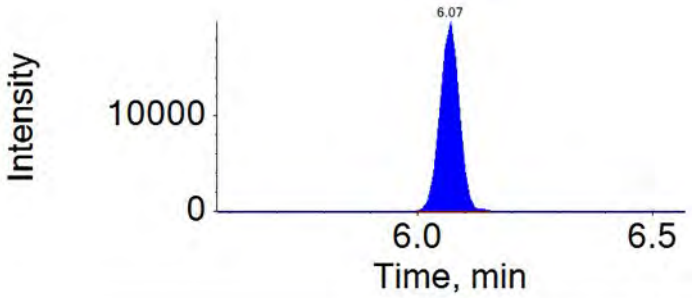
Component: PFDoDA
Primary Mass: 613.0 / 569.0



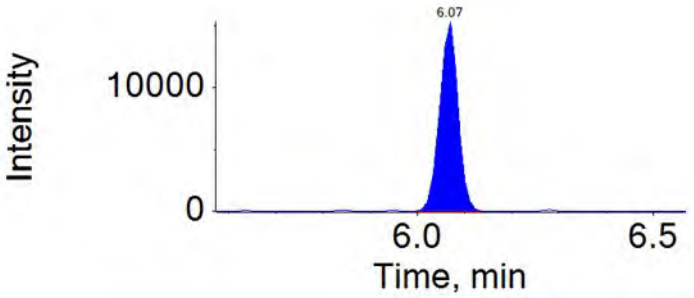
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



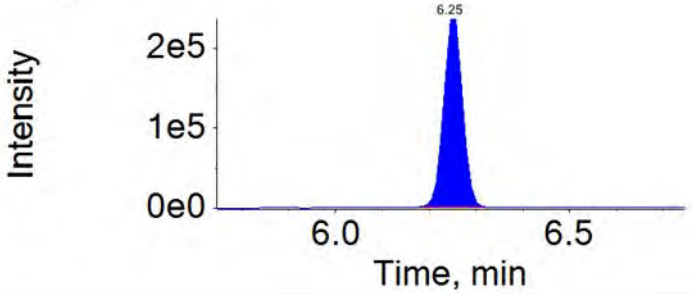
Component: 10:2 FTS_2
Secondary Mass: 627.0 / 81.0



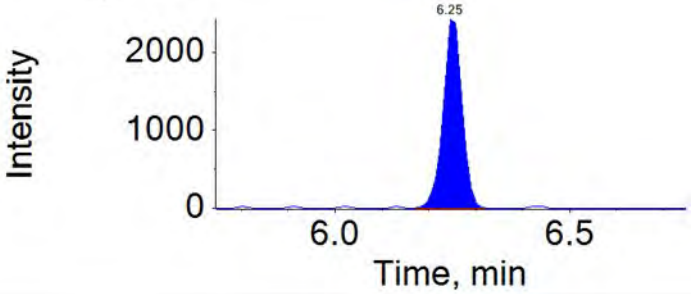
APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

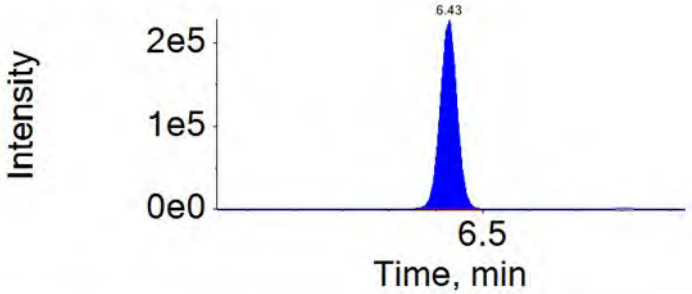
Component: PFTrDA
Primary Mass: 663.0 / 619.0



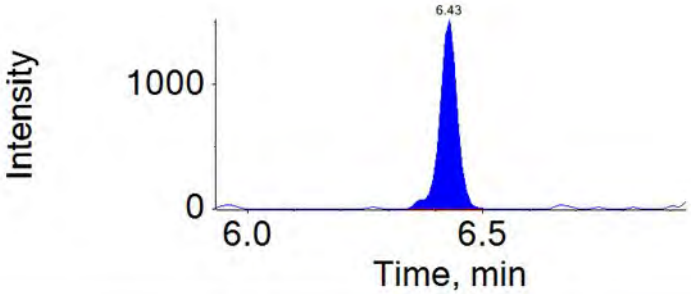
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



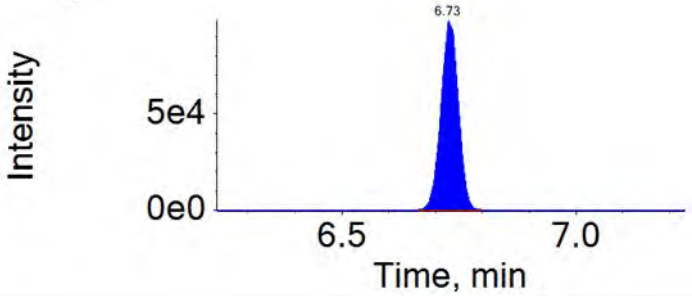
Component: PFTeDA
Primary Mass: 713.0 / 669.0



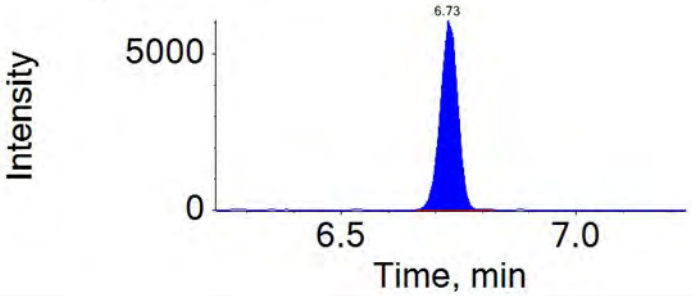
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



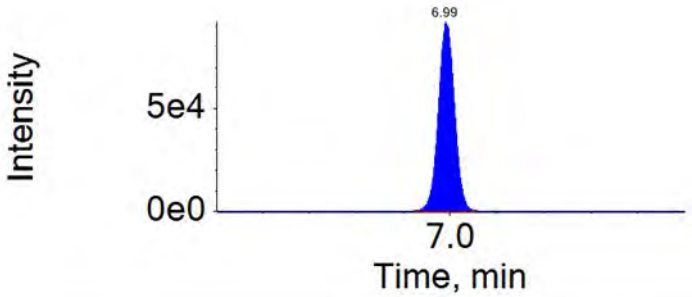
Component: PFHxDA
Primary Mass: 813.0 / 769.0



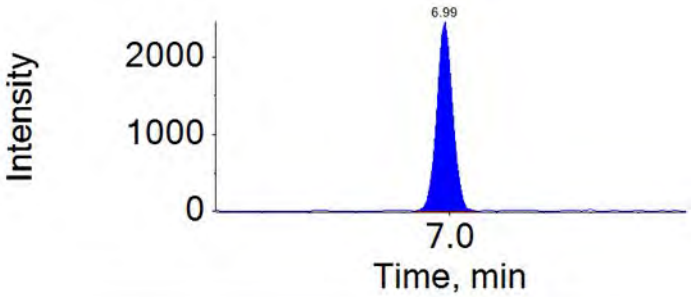
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Sample Name:	CAL5			**Data File:**		18NOV12DCAL-46.wiff
Sample ID:	CALBRN51833B			**Acquis Date:**		2018-11-12T15:42:06
Sample Type:	Standard			**Instrument:**		LM27631
Vial Position:	7			**Acquis Method:**		18AUG13_3uL.dam
Injection Vol:	3.00			**Result Table:**		18NOV12DCAL
QMethod File:	18AUG20QM			**ICAL Name:**		18NOV12DCAL
Batch Number:	N\A			**Operator:**		MCD7824
Sample Wt.:	1.00000			**Dilution Factor:**		1.00
Sample Vol.:	1.000			**Prep Factor:**		1.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV12DCAL-44

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Rreference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	641789.5	659926.2	-3	50	
13C2-PFOA	5.0	464284.6	450219.7	3	50	
13C4-PFOS	4.8	243589.9	249205.8	-2	50	
13C2-PFDA	5.0	269315.7	278743.9	-3	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	698871.9	13C3-PFBA	641789.5	1.089	5.000	4.882	98	70-130	
E13C5-PFPeA	734598.3	13C3-PFBA	641789.5	1.145	5.000	5.134	103	70-130	
E13C3-PFBS	428050.6	13C3-PFBA	641789.5	0.667	4.650	4.708	101	70-130	
E13C2-4:2-FTS	51791.9	13C2-PFOA	464284.6	0.112	4.670	4.968	106	70-130	
E13C5-PFHxA	628952.8	13C2-PFOA	464284.6	1.355	5.000	4.894	98	70-130	
E13C3-PFHxS	309304.5	13C2-PFOA	464284.6	0.666	4.730	4.571	97	70-130	
E13C4-PFHpA	525802.1	13C2-PFOA	464284.6	1.132	5.000	5.102	102	70-130	
E13C2-6:2-FTS	31012.0	13C2-PFOA	464284.6	0.067	4.750	4.469	94	70-130	
E13C8-PFOA	805288.7	13C2-PFOA	464284.6	1.734	5.000	4.779	96	70-130	
E13C8-PFOS	267157.6	13C4-PFOS	243589.9	1.097	4.780	4.860	102	70-130	
E13C9-PFNA	441776.8	13C4-PFOS	243589.9	1.814	5.000	5.057	101	70-130	
E13C6-PFDA	585231.2	13C2-PFDA	269315.7	2.173	5.000	5.071	101	70-130	
E13C2-8:2-FTS	24192.1	13C2-PFDA	269315.7	0.090	4.790	4.480	94	70-130	
E13C8-PFOSA	596544.1	13C2-PFDA	269315.7	2.215	5.000	4.911	98	70-130	
Ed3-NMeFOSAA	72424.5	13C2-PFDA	269315.7	0.269	5.000	4.854	97	70-130	
E13C7-PFUnDA	231187.9	13C2-PFDA	269315.7	0.858	5.000	4.984	100	70-130	
Ed5-NEtFOSAA	63701.7	13C2-PFDA	269315.7	0.237	5.000	5.004	100	70-130	
E13C2-PFDoDA	507556.8	13C2-PFDA	269315.7	1.885	5.000	4.893	98	70-130	
Ed7-NMePFOSAE	316777.8	13C2-PFDA	269315.7	1.176	5.000	5.090	102	70-130	
Ed3-NMePFOSA	68615.7	13C2-PFDA	269315.7	0.255	5.000	4.629	93	70-130	
Ed9-NEtPFOSAE	255767.8	13C2-PFDA	269315.7	0.950	5.000	4.939	99	70-130	
Ed5-NEtPFOSA	55378.5	13C2-PFDA	269315.7	0.206	5.000	4.824	96	70-130	
E13C2-PFTeDA	379571.6	13C2-PFDA	269315.7	1.409	5.000	4.948	99	70-130	

APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

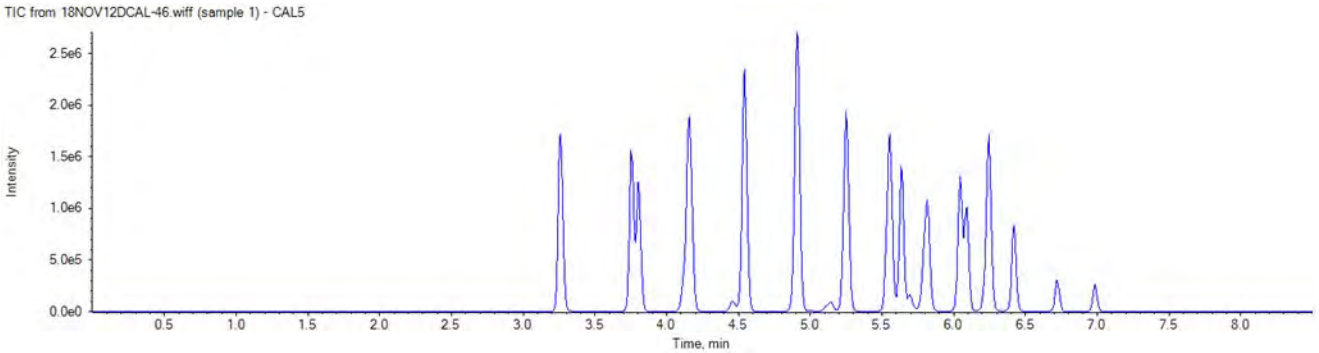
Analyte Quantitation Peak Table

Sample Name: CAL5 **Instrument Name:** LM27631 **File Name:** 18NOV12DCAL-46.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	1.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	3.26	1.000	2700090.8		A	13C4-PFBA	3.26	698871.9	3.863	21.403
PFPeA	3.76	1.000	2660895.4		A	13C5-PFPeA	3.76	734598.3	3.622	20.969
PFBS	3.80	1.000	1630613.5		A	13C3-PFBS	3.81	428050.6	3.809	18.121
4:2-FTS	4.12	1.000	344695.9		A	13C2-4:2-FTS	4.12	51791.9	6.655	18.070
PFHxA	4.15	1.000	3158486.4		A	13C5-PFHxA	4.15	628952.8	5.022	20.968
PFPeS	4.17	1.100	815928.2		A	13C3-PFBS	3.81	428050.6	1.906	18.506
PFHpA	4.54	1.000	3269561.0		A	13C4-PFHpA	4.54	525802.1	6.218	20.612
PFHxS	4.54	1.000	1138604.3		M	13C3-PFHxS	4.54	309304.5	3.681	17.849
6:2-FTS	4.90	1.000	260254.3		A	13C2-6:2-FTS	4.90	31012.0	8.392	20.308
PFHpS	4.90	1.080	1145559.8		A	13C3-PFHxS	4.54	309304.5	3.704	19.496
PFOA	4.91	1.000	3291549.4		A	13C8-PFOA	4.91	805288.7	4.087	21.830
PFOS	5.24	1.000	1147826.8		M	13C8-PFOS	5.24	267157.6	4.296	18.789
PFNA	5.26	1.000	2725089.7		A	13C9-PFNA	5.26	441776.8	6.168	22.243
PFNS	5.53	1.060	725402.0		A	13C8-PFOS	5.24	267157.6	2.715	18.997
PFDA	5.56	1.000	2309359.5		A	13C6-PFDA	5.56	585231.2	3.946	20.920
8:2-FTS	5.56	1.000	206213.1		A	13C2-8:2-FTS	5.56	24192.1	8.524	19.873
PFOSA	5.64	1.000	2498877.9		A	13C8-PFOSA	5.64	596544.1	4.189	20.460
NMeFOSAA	5.70	1.000	250711.5		A	d3-NMeFOSAA	5.70	72424.5	3.462	19.564
PFDS	5.79	1.100	578877.5		A	13C8-PFOS	5.24	267157.6	2.167	19.633
PFUnDA	5.82	1.000	1773582.6		A	13C7-PFUnDA	5.82	231187.9	7.672	20.055
NEtFOSAA	5.83	1.000	237197.2		A	d5-NEtFOSAA	5.83	63701.7	3.724	19.520
PFDoDA	6.04	1.000	2099385.0		A	13C2-PFDoDA	6.04	507556.8	4.136	21.062
10:2-FTS	6.06	1.090	153343.6		A	13C2-8:2-FTS	5.56	24192.1	6.339	21.113
NMePFOSAE	6.09	1.000	1590507.1		M	d7-NMePFOSAE	6.08	316777.8	5.021	20.896
NMePFOSA	6.10	1.000	300855.7		A	d3-NMePFOSA	6.09	68615.7	4.385	21.631
PFDoS	6.21	1.190	288905.1		A	13C8-PFOS	5.24	267157.6	1.081	18.940
NEtPFOSAE	6.25	1.000	1660562.6		M	d9-NEtPFOSAE	6.23	255767.8	6.492	20.830
NEtPFOSA	6.26	1.000	258300.3		A	d5-NEtPFOSA	6.25	55378.5	4.664	21.421
PFTrDA	6.24	1.030	1679407.2		A	13C2-PFDoDA	6.04	507556.8	3.309	20.884
PFTeDA	6.42	1.000	1418276.7		A	13C2-PFTeDA	6.42	379571.6	3.737	20.945
PFHxDA	6.72	1.050	627350.7		A	13C2-PFTeDA	6.42	379571.6	1.653	19.691
PFODA	6.98	1.090	544296.5		A	13C2-PFTeDA	6.42	379571.6	1.434	19.971

Total Ion Chromatogram

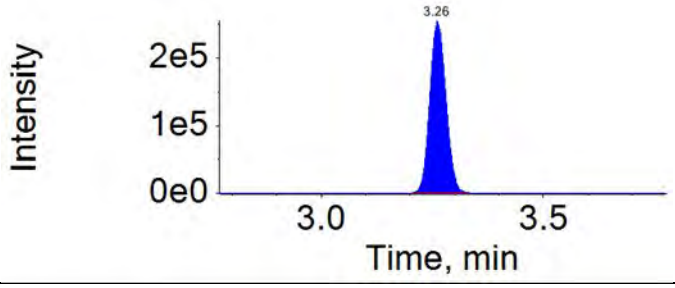


APPROVED
By MCD at 6:33 pm, 11/12/18

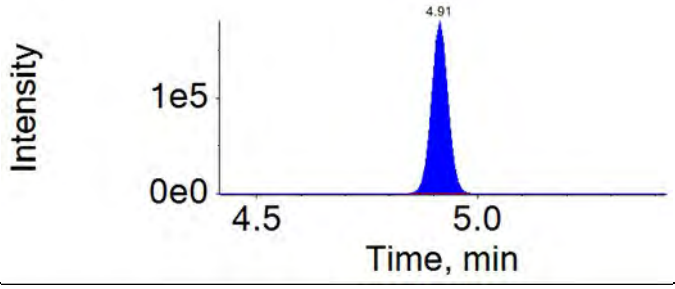
REVIEWED
By HMK at 10:53 am, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

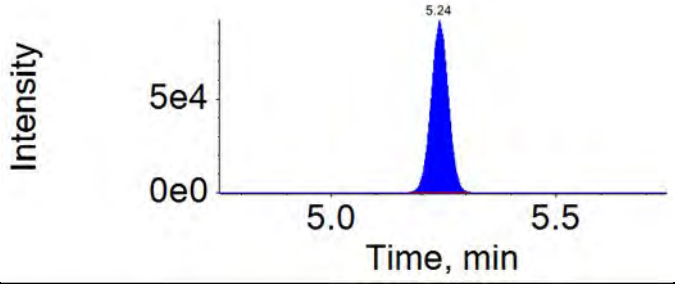
Injection Standard: 13C3-PFBA
216.0 / 172.0



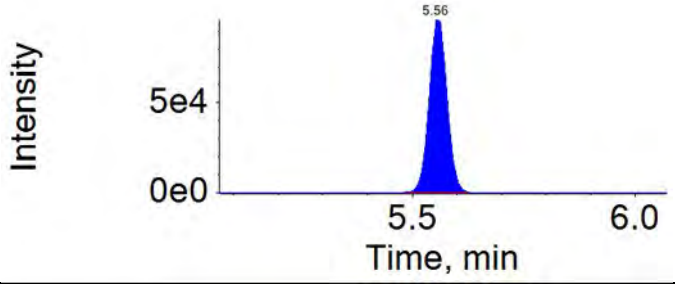
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0



Injection Standard: 13C2-PFDA
515.0 / 470.0

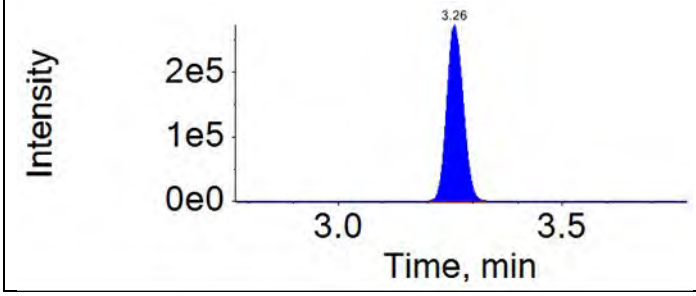


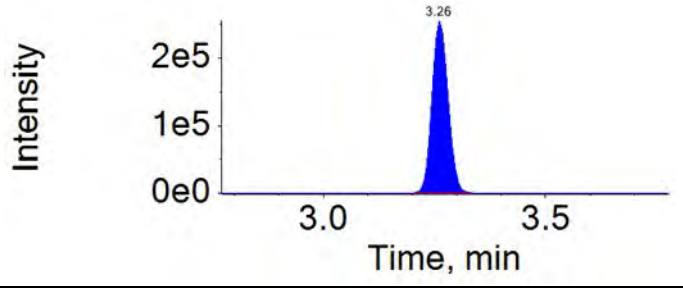
APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

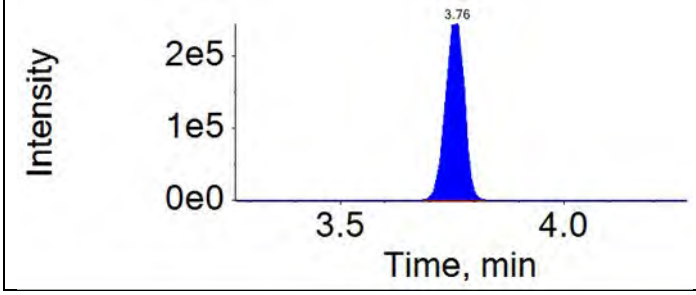
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

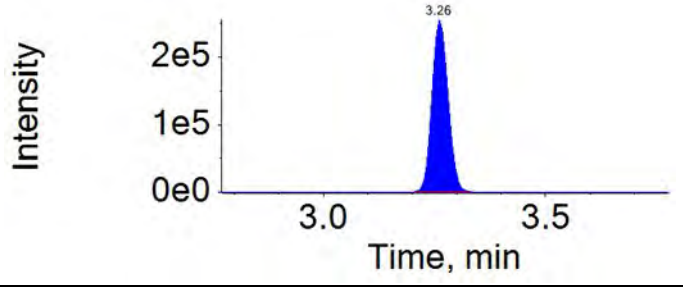
Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0



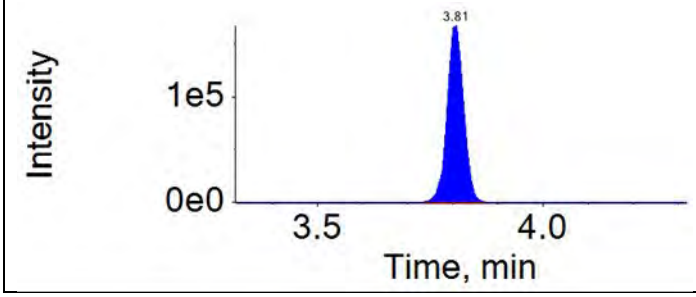


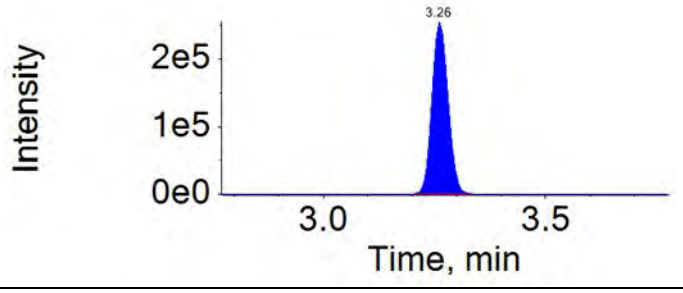
Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0



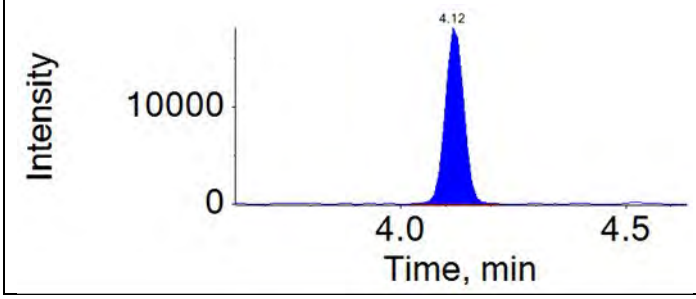


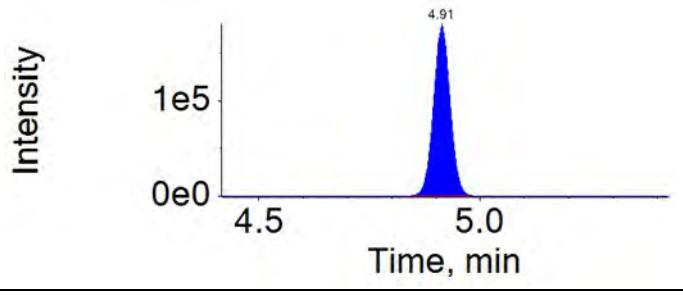
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0





Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0



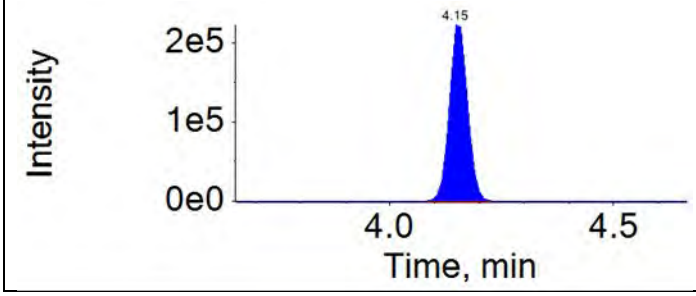


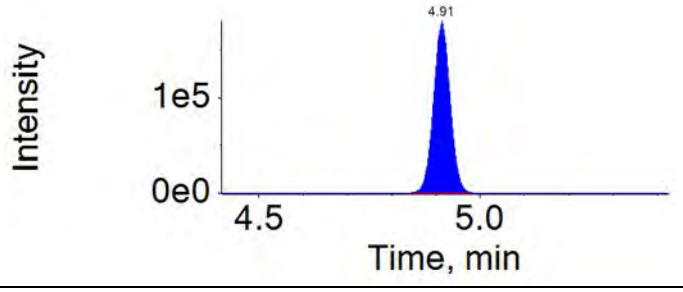
APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

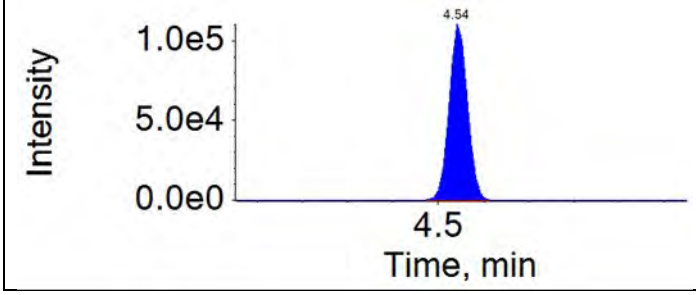
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

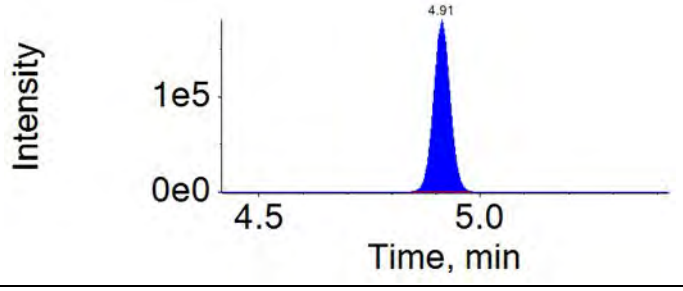
Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0



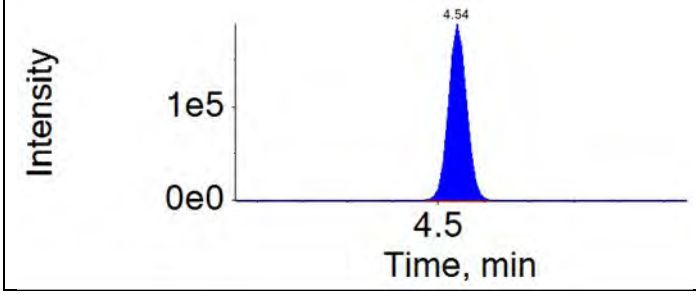


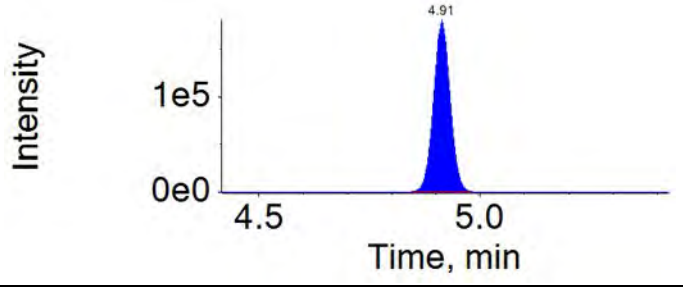
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0



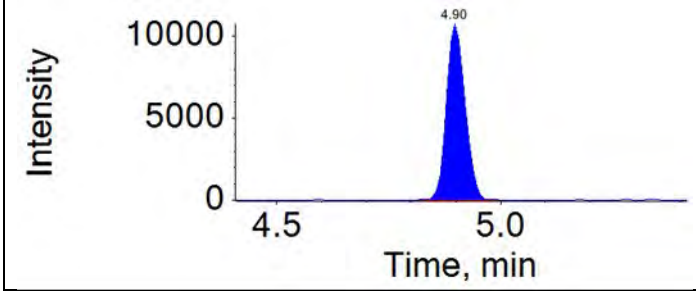


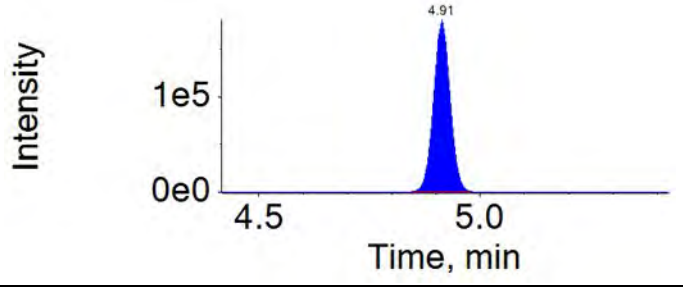
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0





Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0

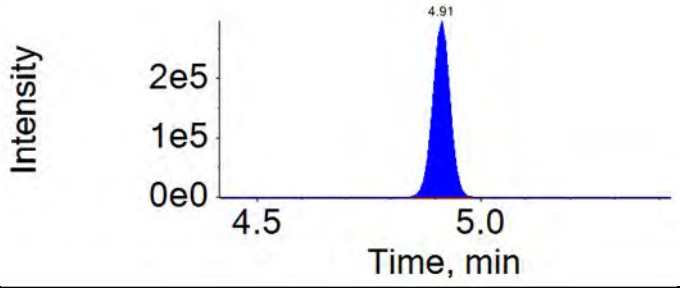
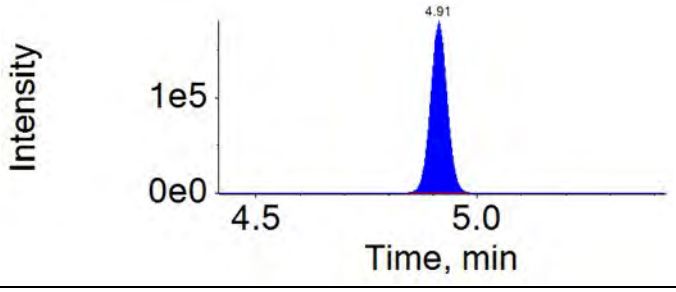


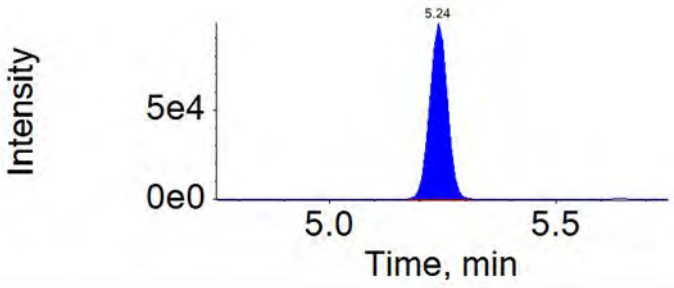
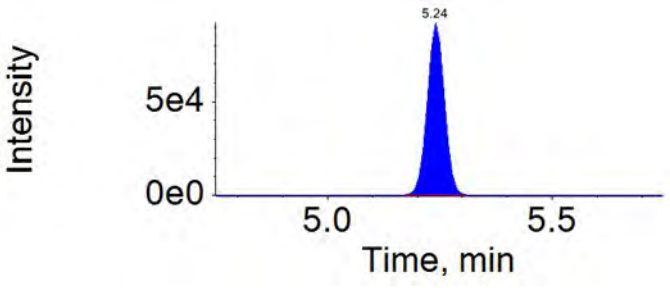


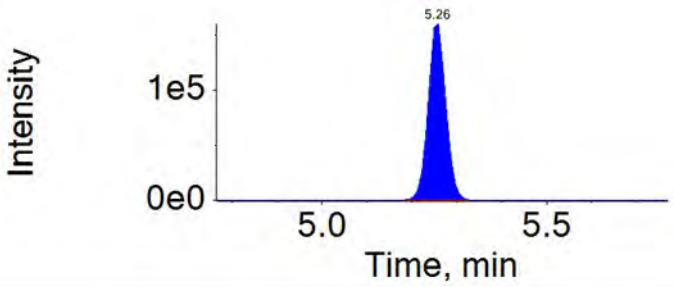
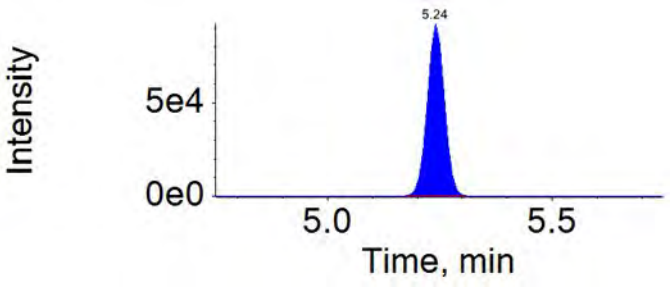
APPROVED
By MCD at 6:33 pm, 11/12/18

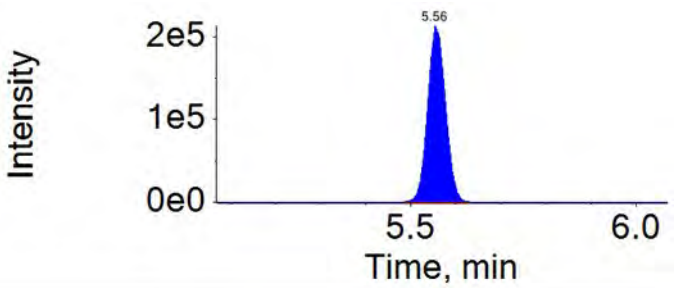
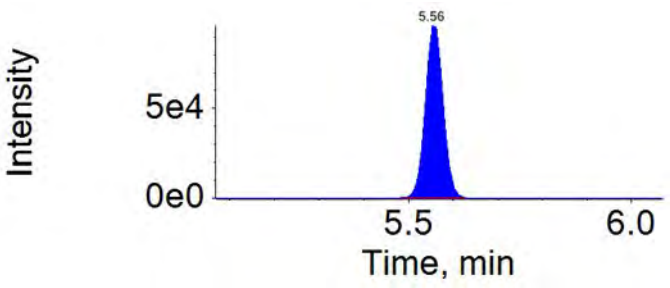
REVIEWED
By HMK at 10:53 am, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

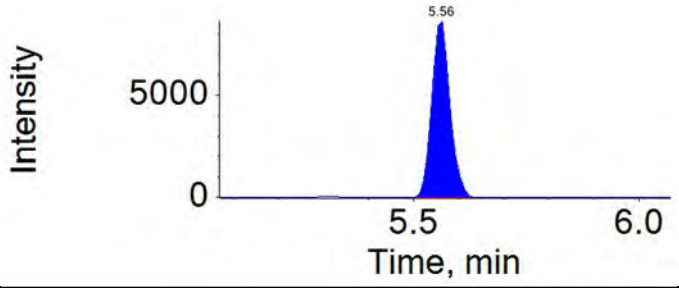
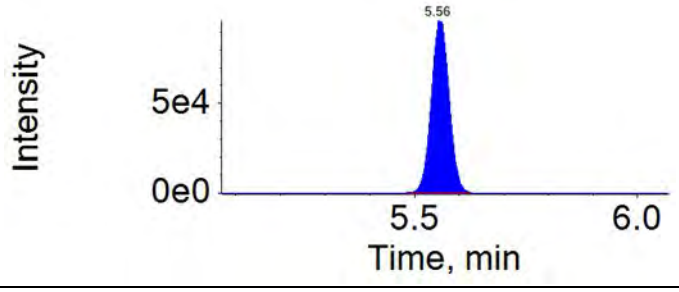
Extraction Standard: E13C8-PFOA	Injection Standard: 13C2-PFOA
421.0 / 376.0	415.0 / 370.0
	

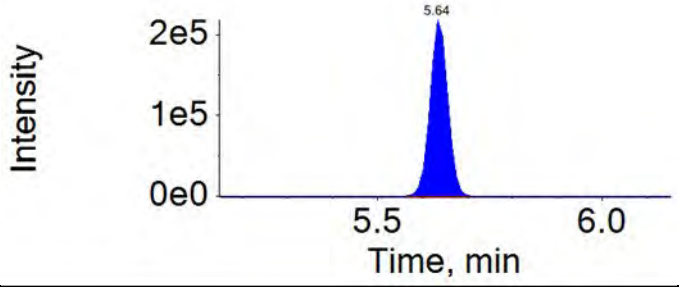
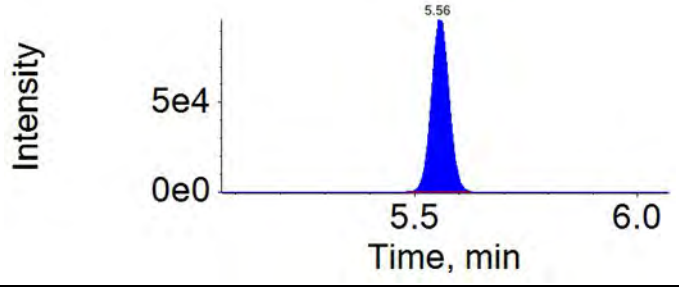
Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0
	

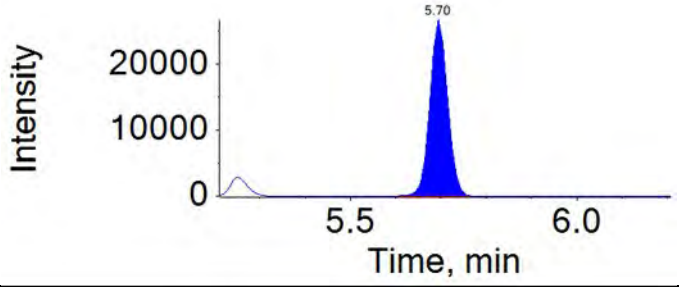
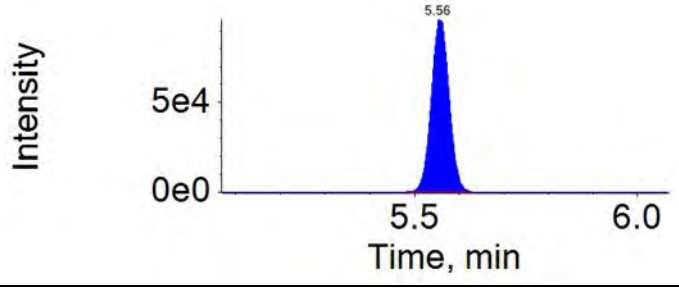
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472.0 / 427.0	503.0 / 80.0
	

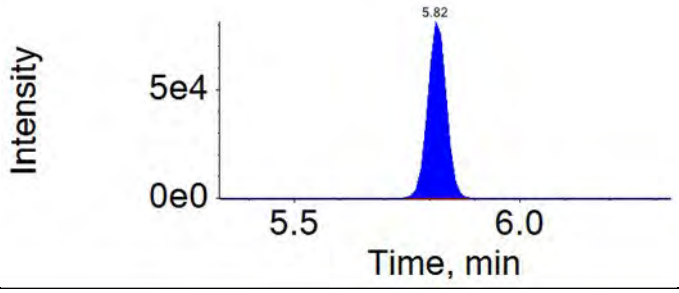
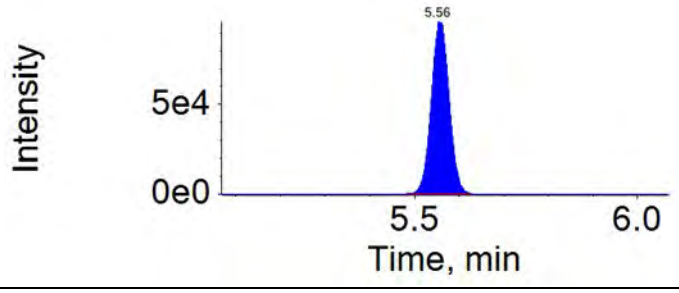
Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0
	

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: E13C2-8:2-FTS	Injection Standard: 13C2-PFDA
529.0 / 81.0	515.0 / 470.0
	

Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0
	

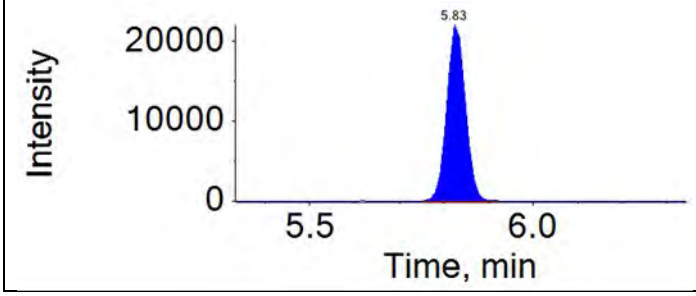
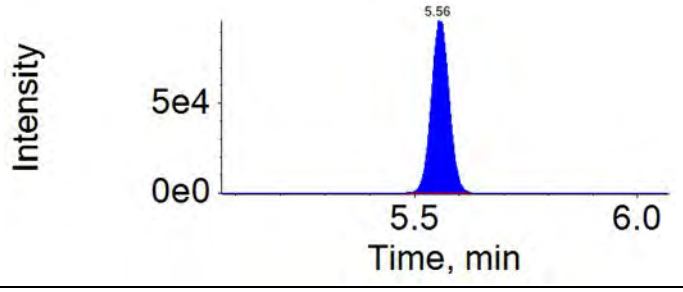
Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0
	

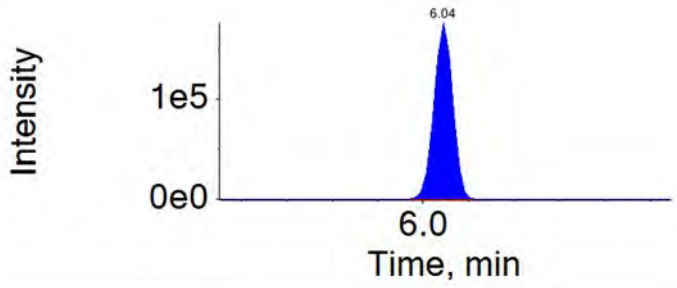
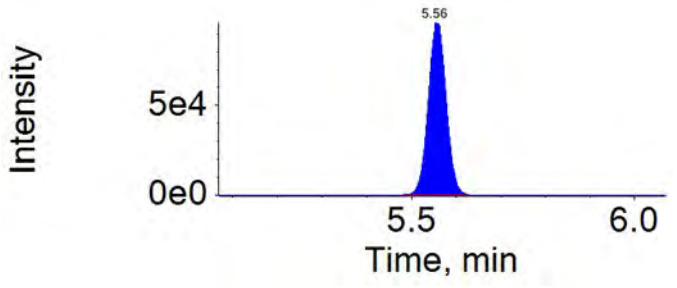
Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0
	

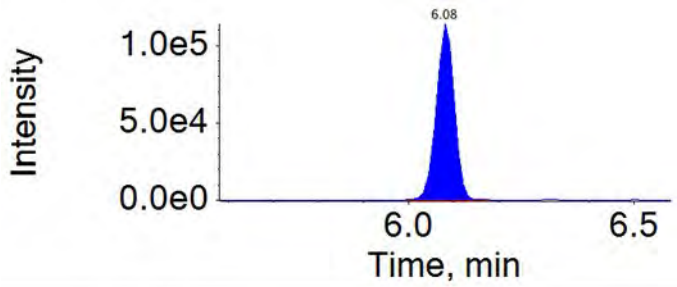
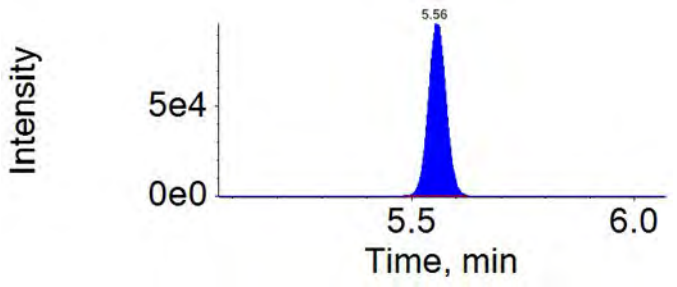
APPROVED
By MCD at 6:33 pm, 11/12/18

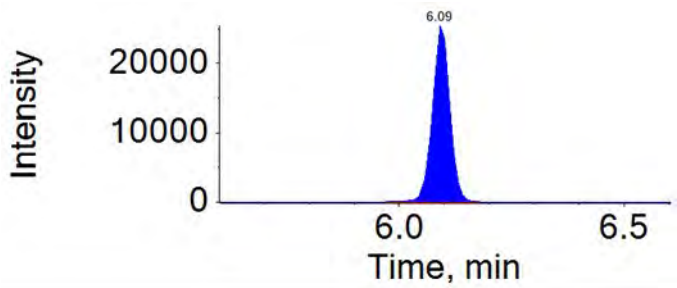
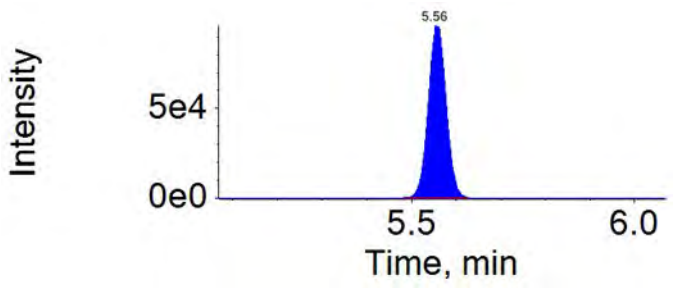
REVIEWED
By HMK at 10:53 am, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0
	

Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0
	

Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0
	

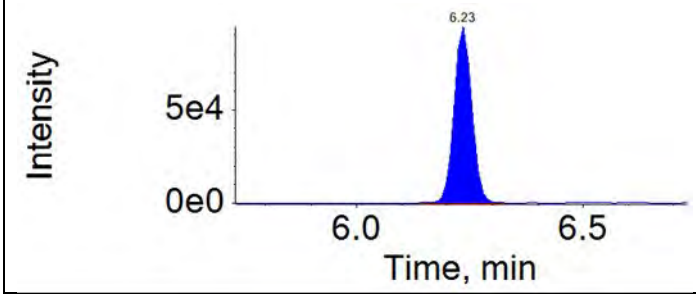
Extraction Standard: Ed3-NMePFOSA	Injection Standard: 13C2-PFDA
515.0 / 169.0	515.0 / 470.0
	

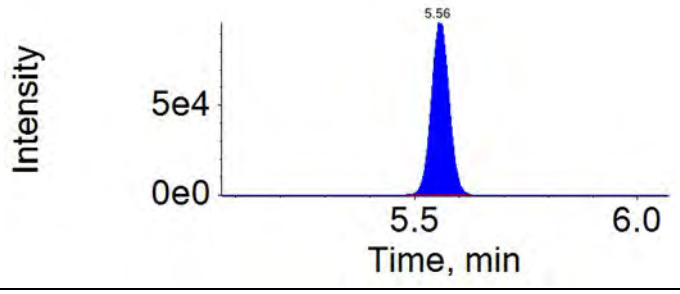
APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

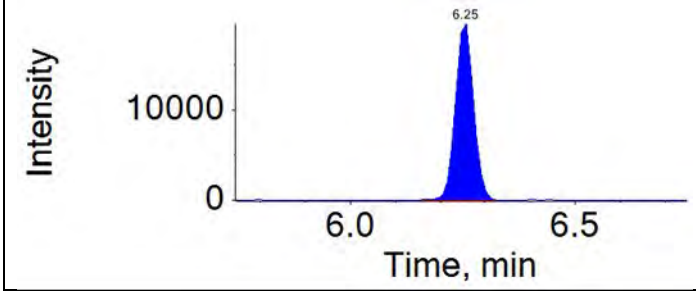
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

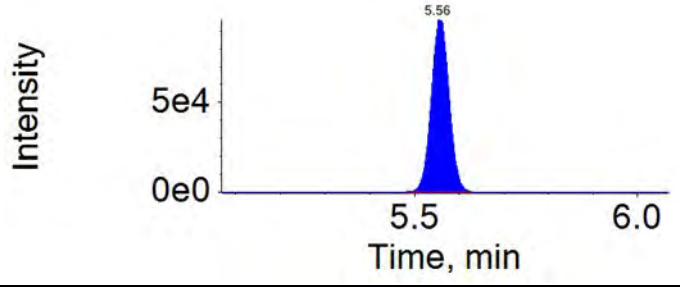
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



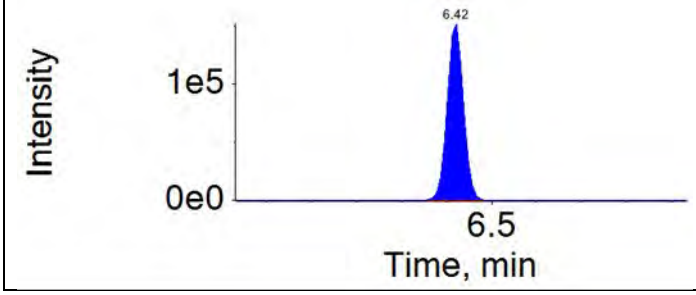


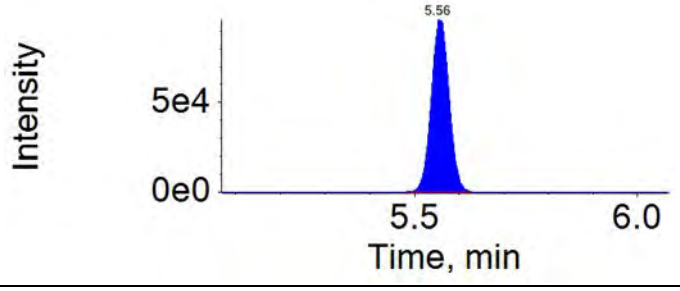
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0



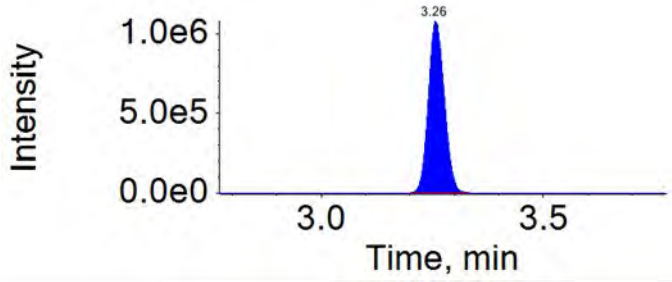


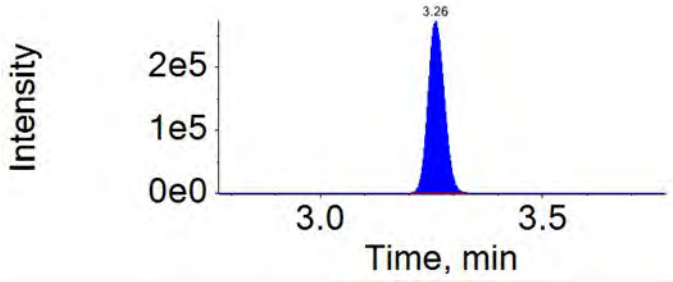
APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

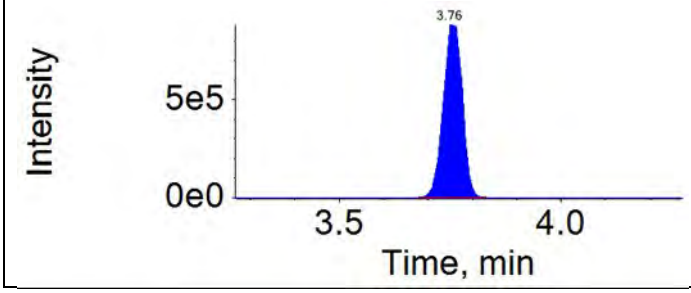
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

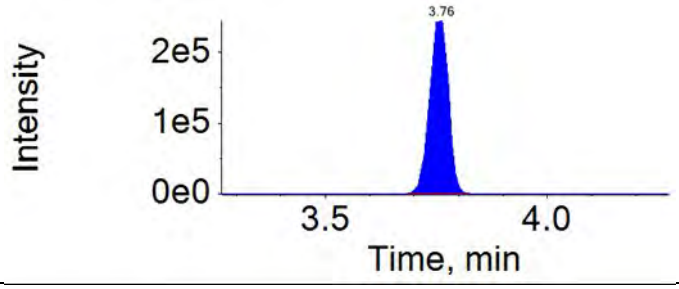
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



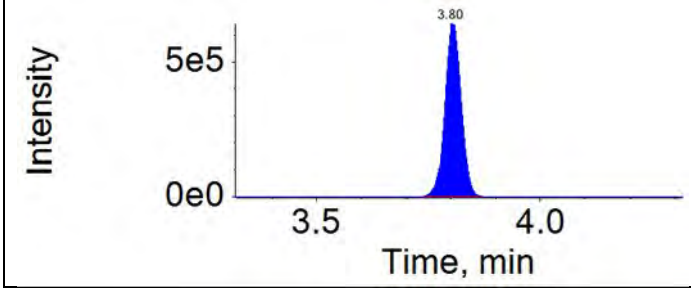


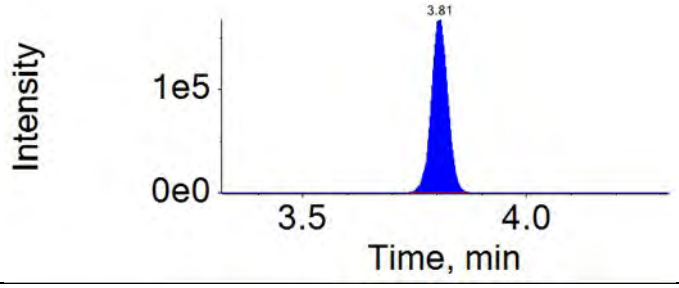
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



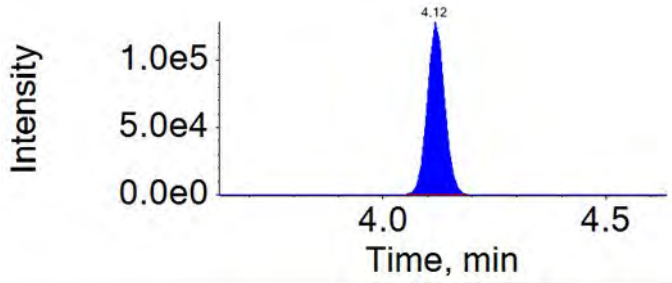


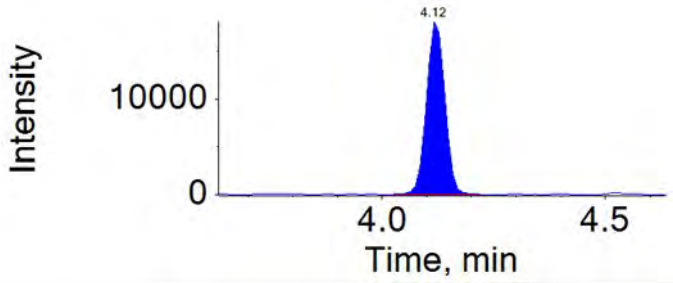
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





Analyte: 4:2-FTS	Extraction Standard: 13C2-4:2-FTS
327.0 / 307.0	329.0 / 81.0



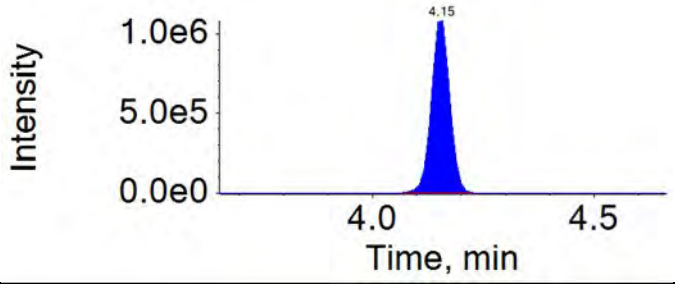


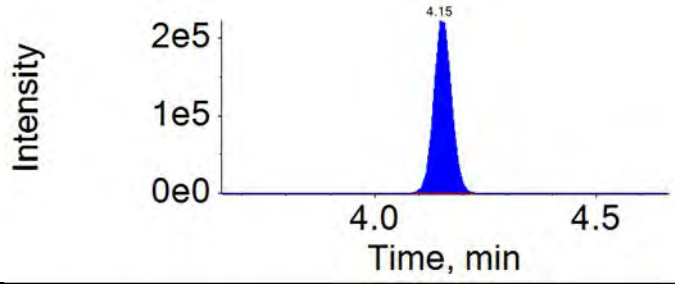
APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

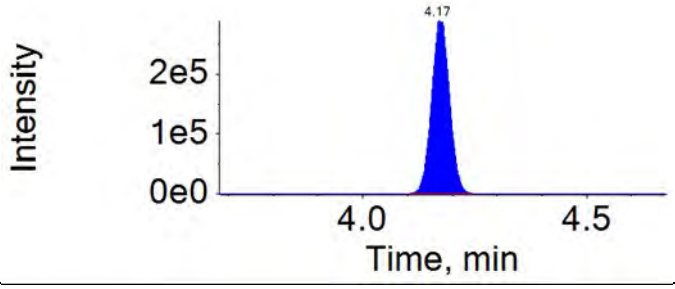
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

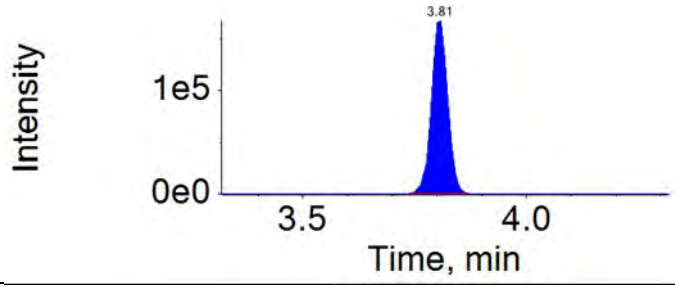
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



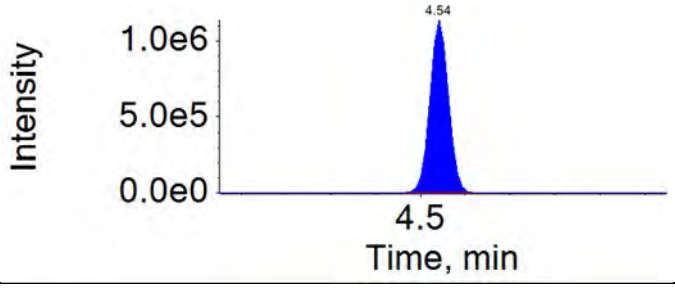


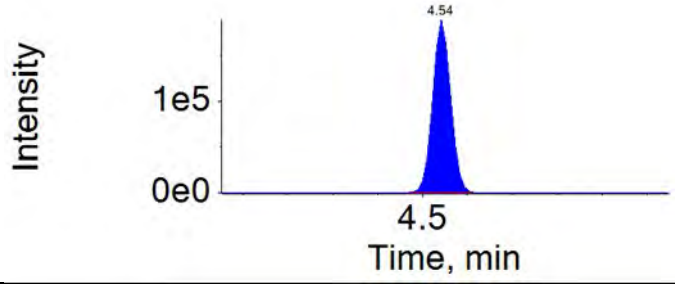
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



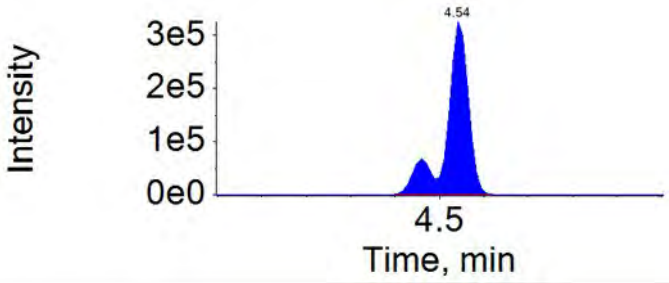


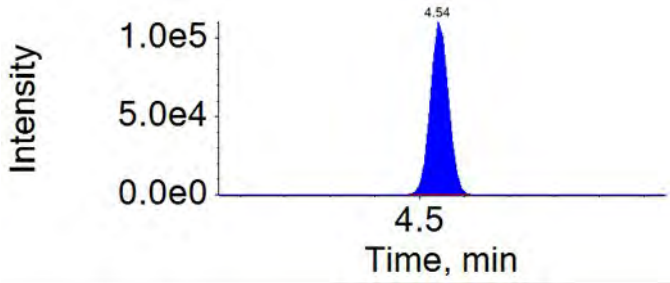
Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0





Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0

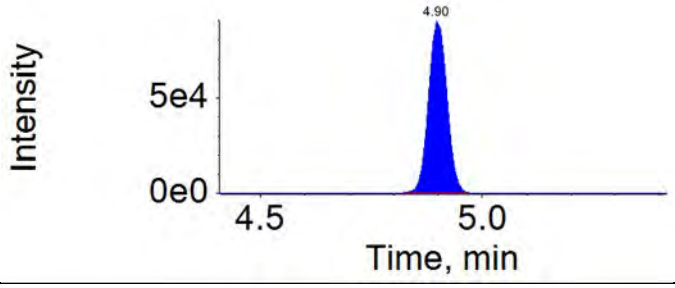
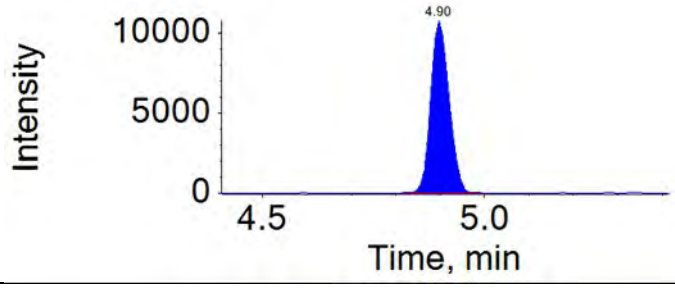


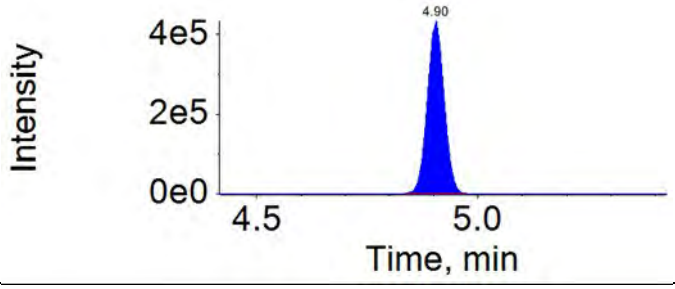
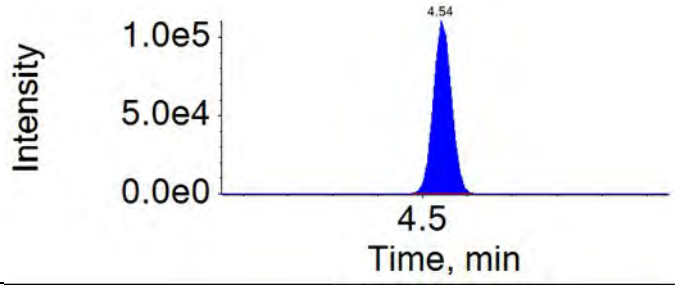


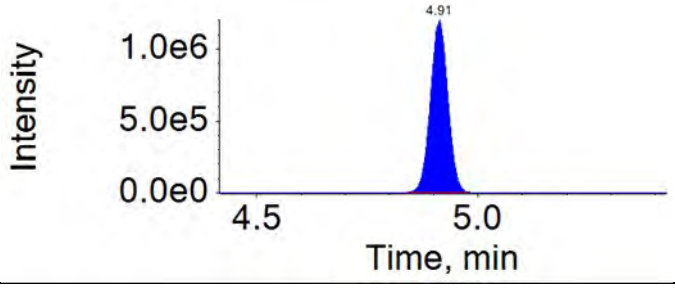
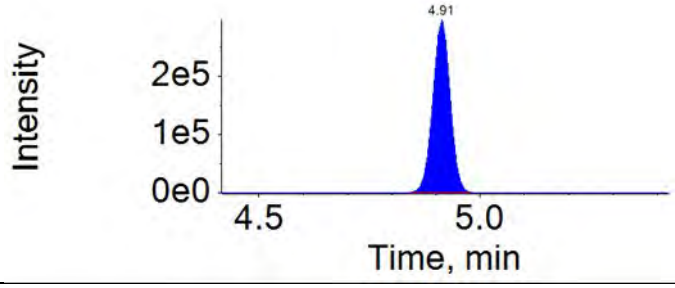
APPROVED
By MCD at 6:33 pm, 11/12/18

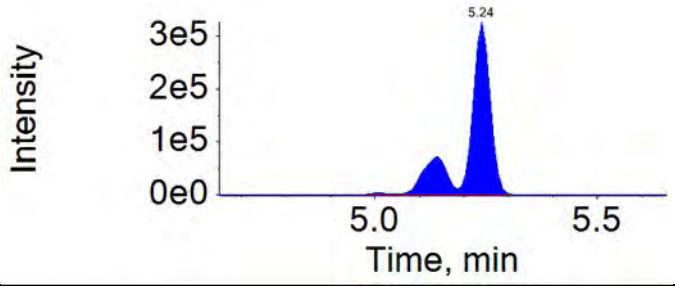
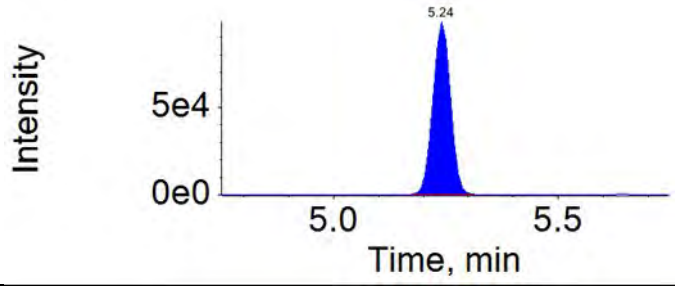
REVIEWED
By HMK at 10:53 am, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Analyte: 6:2-FTS	Extraction Standard: 13C2-6:2-FTS
427.0 / 407.0	429.0 / 81.0
	

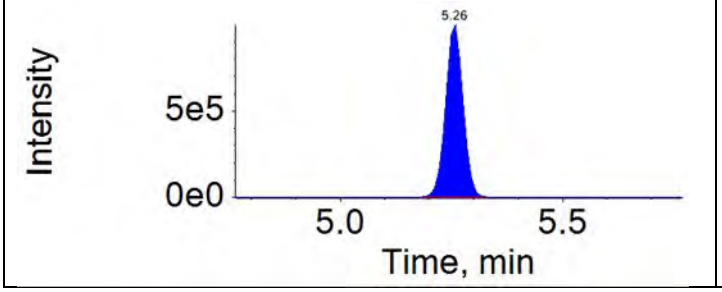
Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0
	

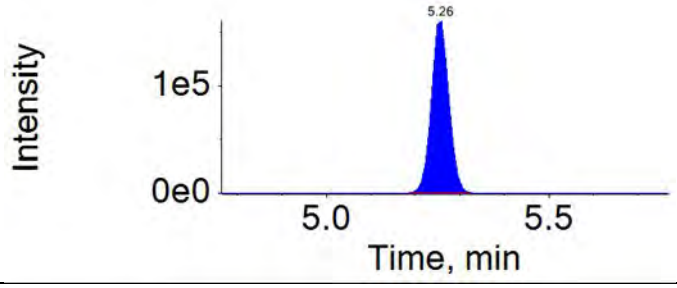
Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0
	

Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0
	

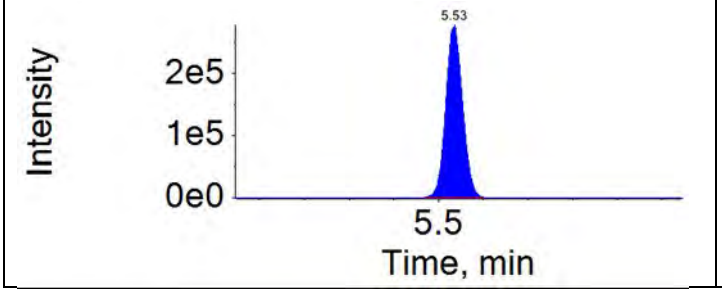
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

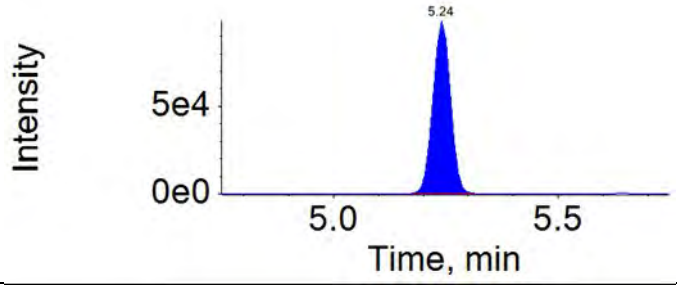
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



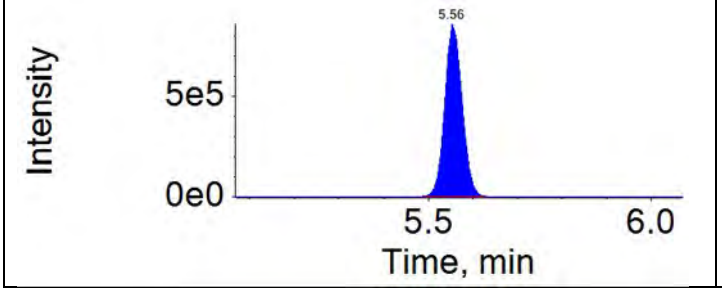


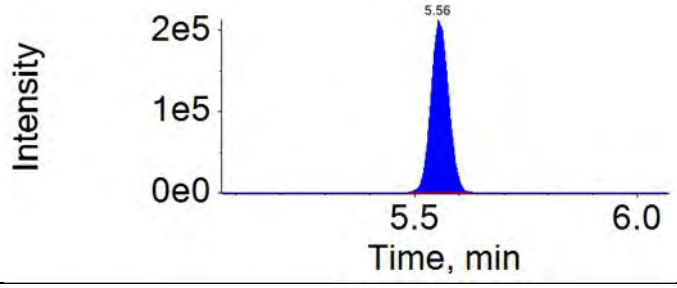
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



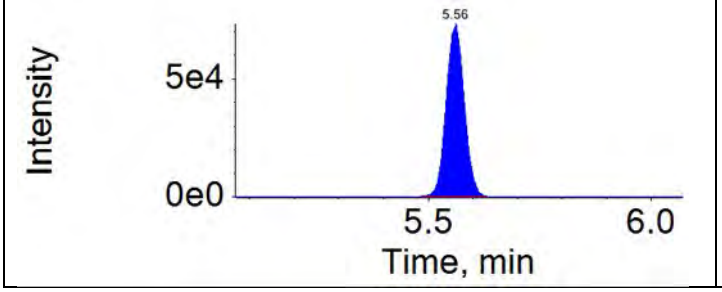


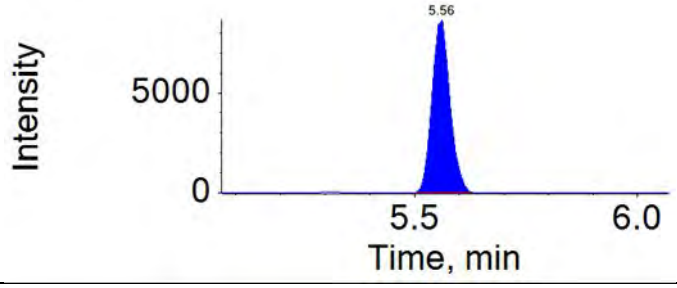
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





Analyte: 8:2-FTS	Extraction Standard: 13C2-8:2-FTS
527.0 / 507.0	529.0 / 81.0



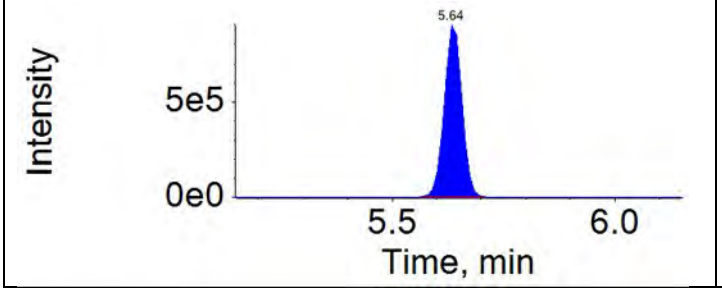


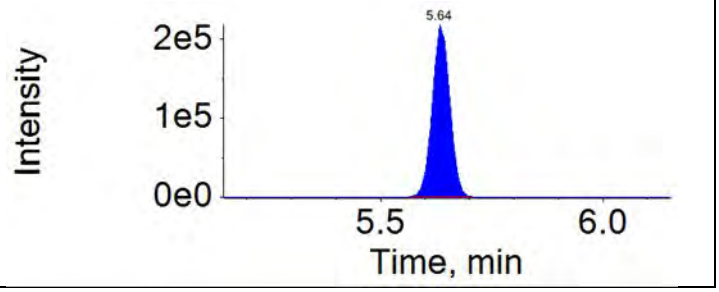
APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

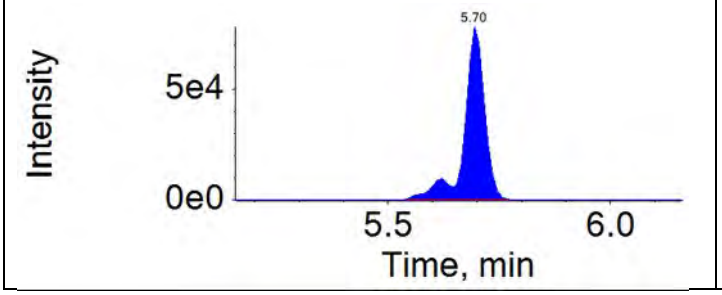
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

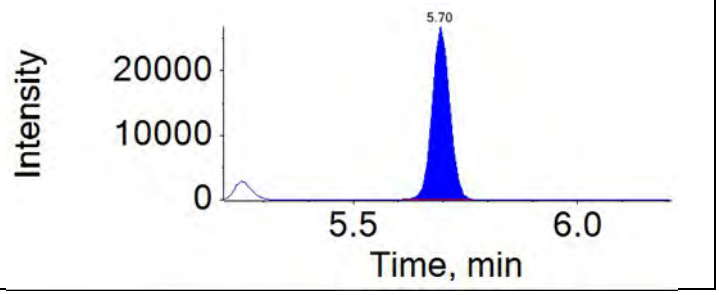
Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0



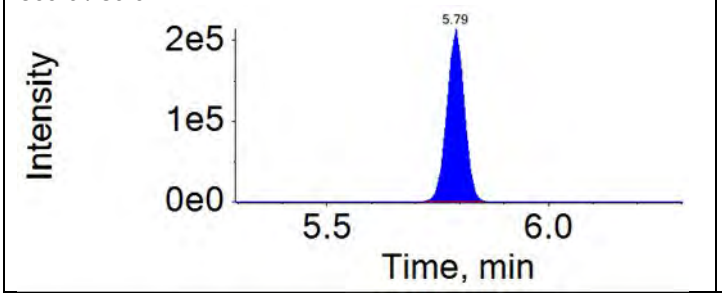


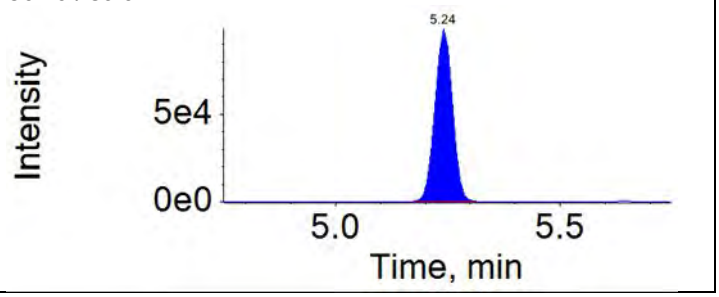
Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0



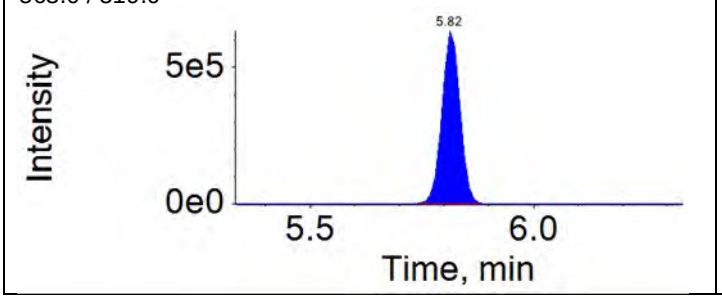


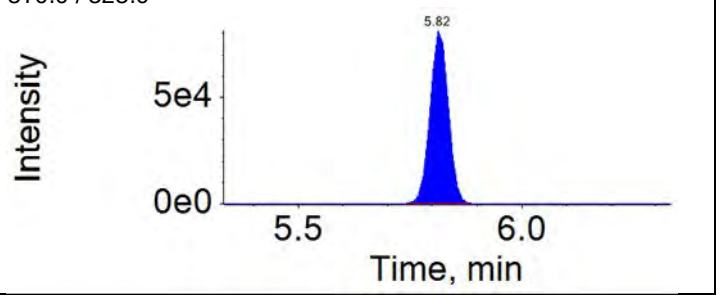
Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0





Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0



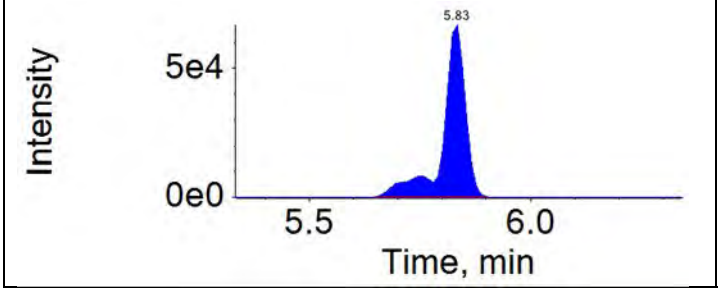


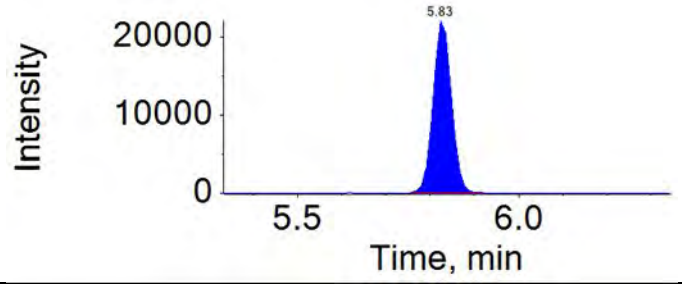
APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

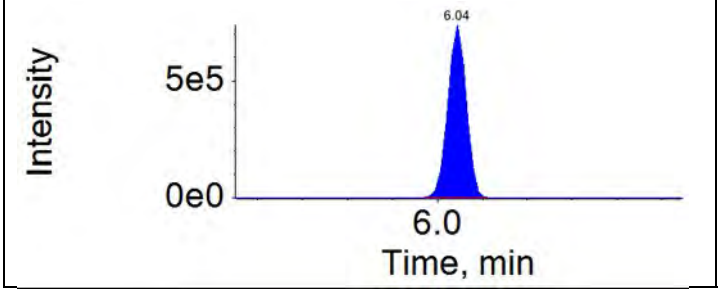
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

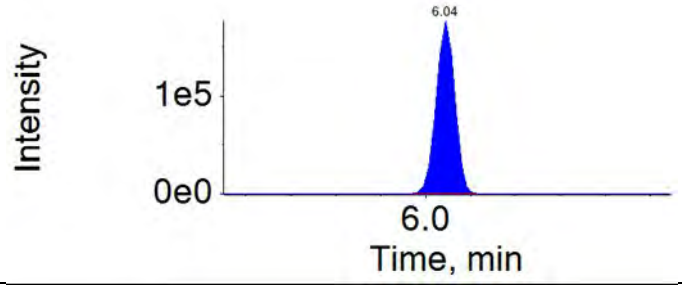
Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0



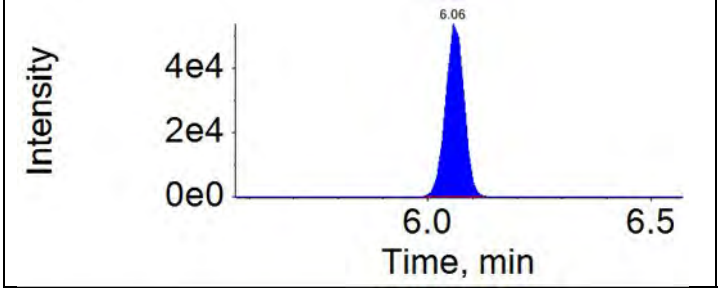


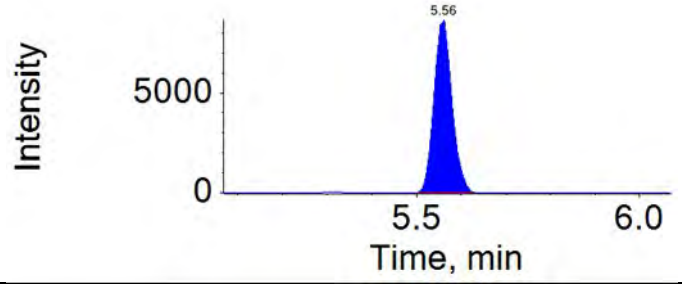
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0



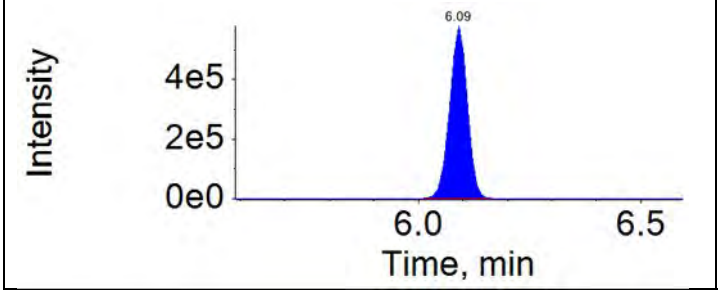


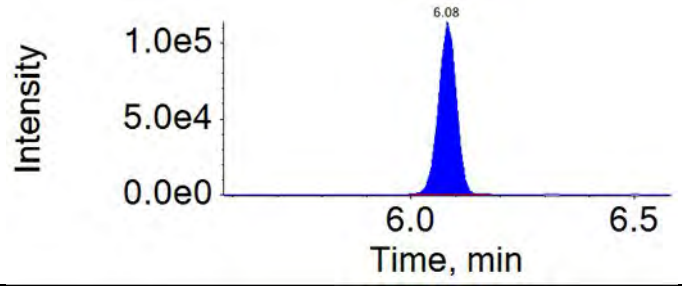
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0





Analyte: NMePFOSAE	Extraction Standard: d7-NMePFOSAE
616.0 / 59.0	623.0 / 59.0



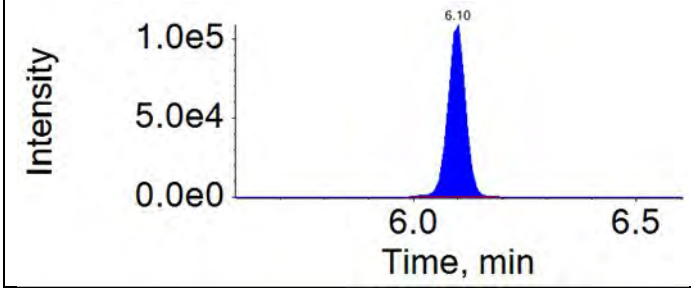


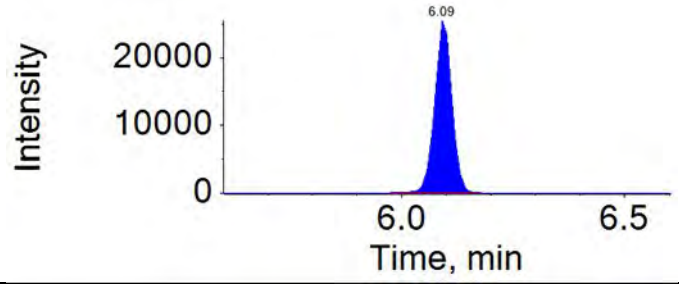
APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

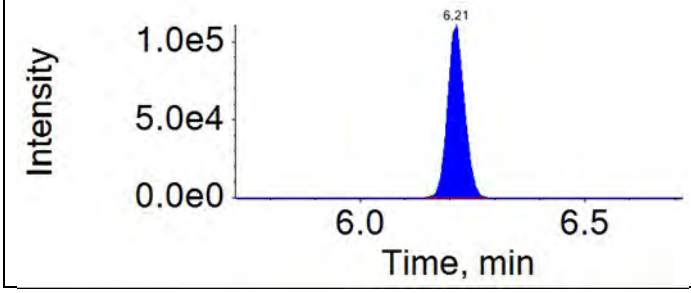
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

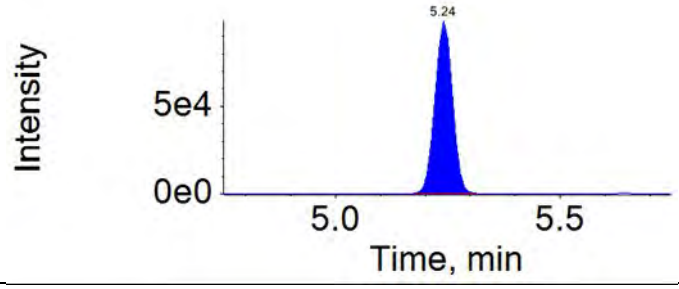
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



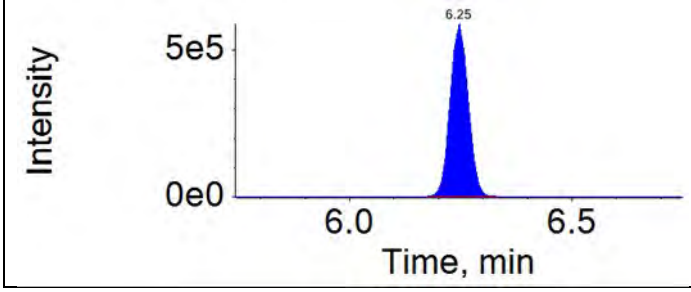


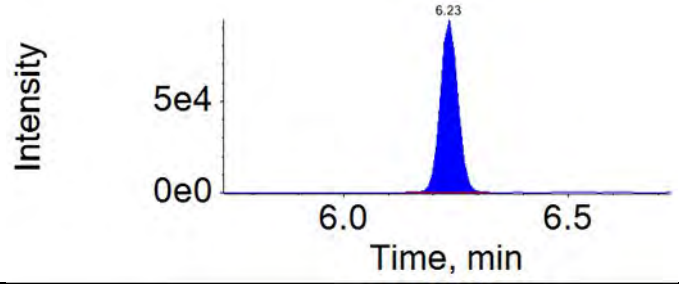
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



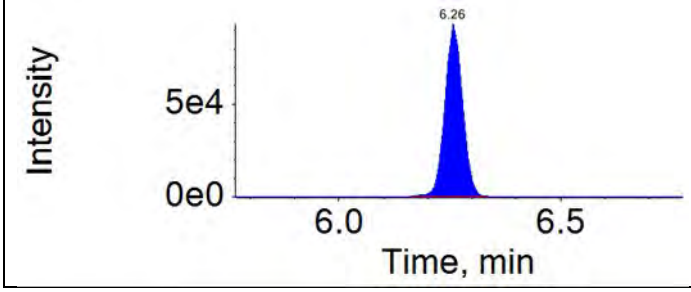


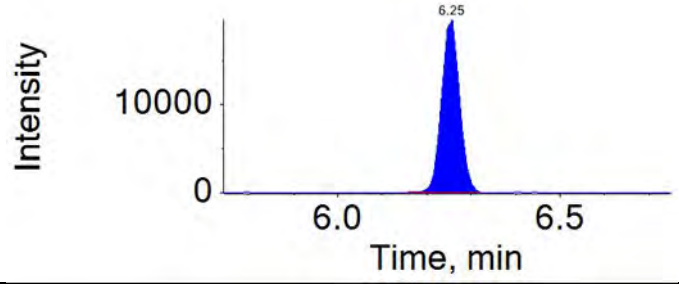
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





Analyte: NEtPFOSA	Extraction Standard: d5-NEtPFOSA
526.0 / 169.0	531.0 / 169.0

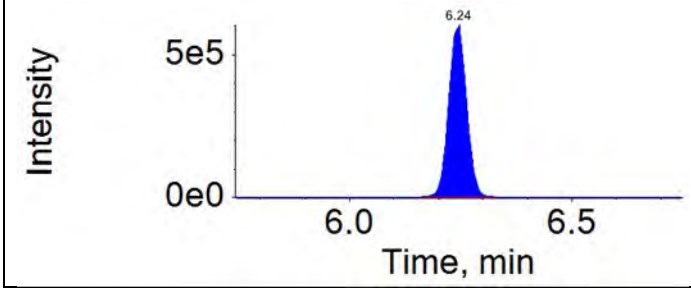
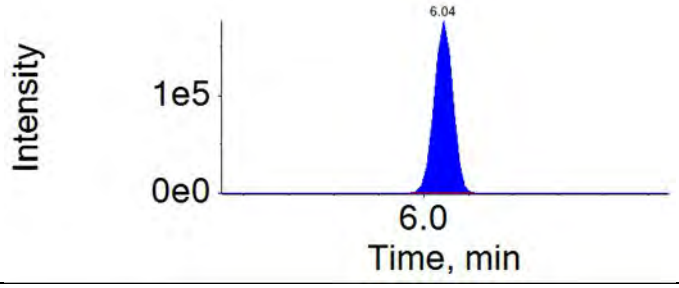


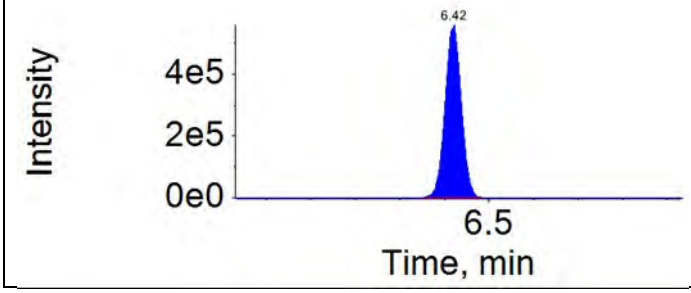
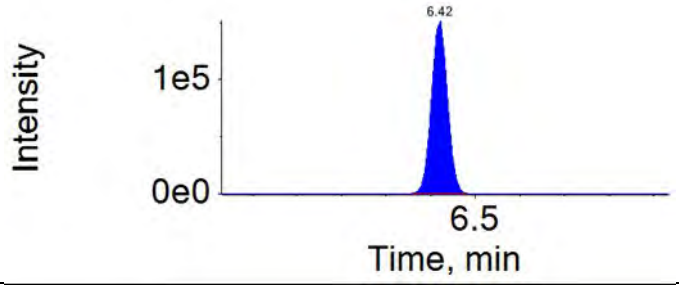


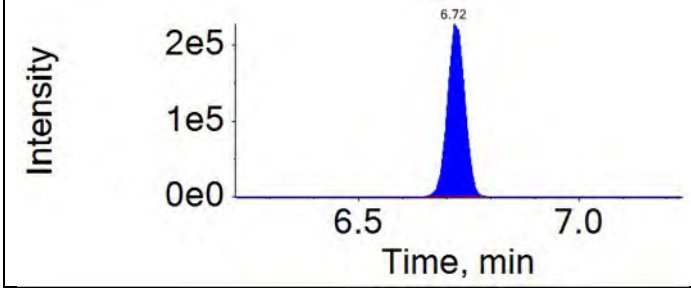
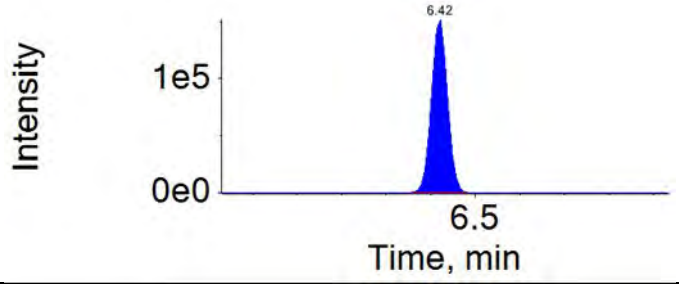
APPROVED
By MCD at 6:33 pm, 11/12/18

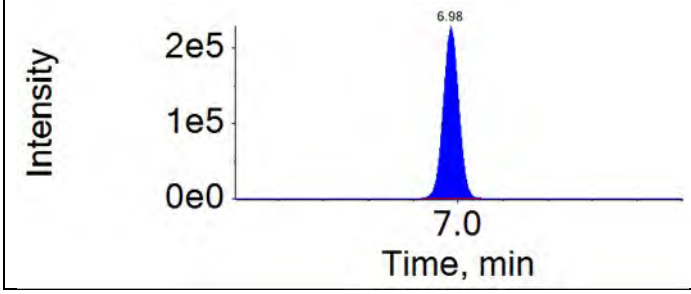
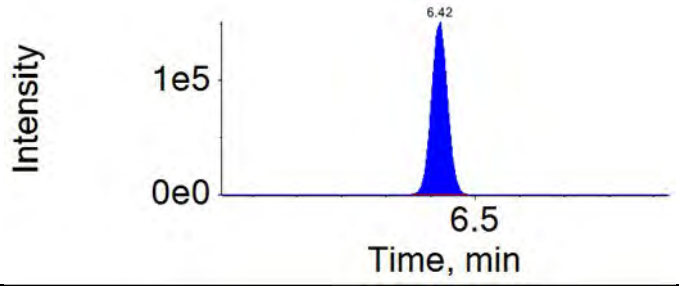
REVIEWED
By HMK at 10:53 am, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Analyte: PFTrDA	Extraction Standard: 13C2-PFDoDA
663.0 / 619.0	615.0 / 570.0
	

Analyte: PFTeDA	Extraction Standard: 13C2-PFTeDA
713.0 / 669.0	715.0 / 670.0
	

Analyte: PFHxDA	Extraction Standard: 13C2-PFTeDA
813.0 / 769.0	715.0 / 670.0
	

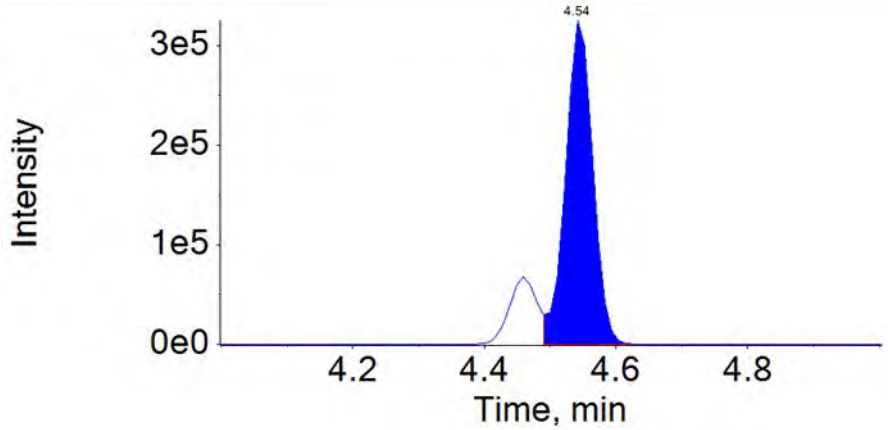
Analyte: PFODA	Extraction Standard: 13C2-PFTeDA
913.0 / 869.0	715.0 / 670.0
	

APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

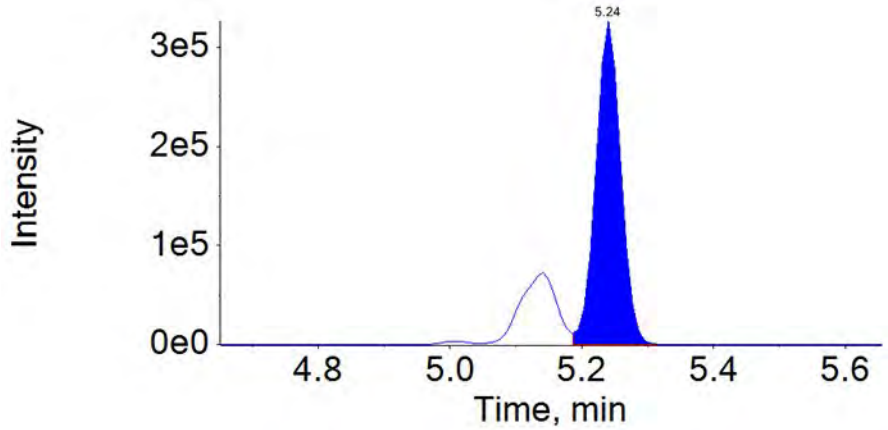
Results Table Name: 18NOV12DCAL
Results Table Date: 11/12/2018 6:23:42 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFHxS
RT (min.):
4.54
Peak Area:
943687.14
Mass Range:
399.0 / 80.0
File Name:
18NOV12DCAL-46.wiff
Sample Name:
CAL5



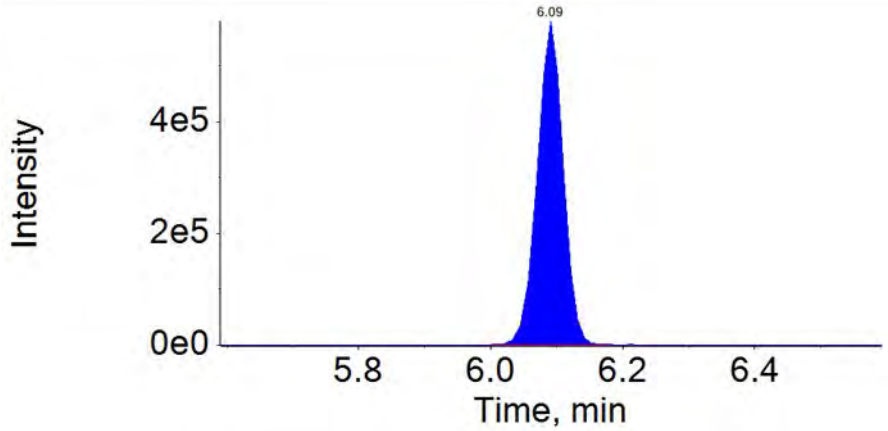
Integration Comment: incorrect integration

Component Name:
PFOS
RT (min.):
5.24
Peak Area:
860586.56
Mass Range:
499.0 / 80.0
File Name:
18NOV12DCAL-46.wiff
Sample Name:
CAL5



Integration Comment: incorrect integration

Component Name:
NMePFOSAE
RT (min.):
6.09
Peak Area:
1591493.63
Mass Range:
616.0 / 59.0
File Name:
18NOV12DCAL-46.wiff
Sample Name:
CAL5

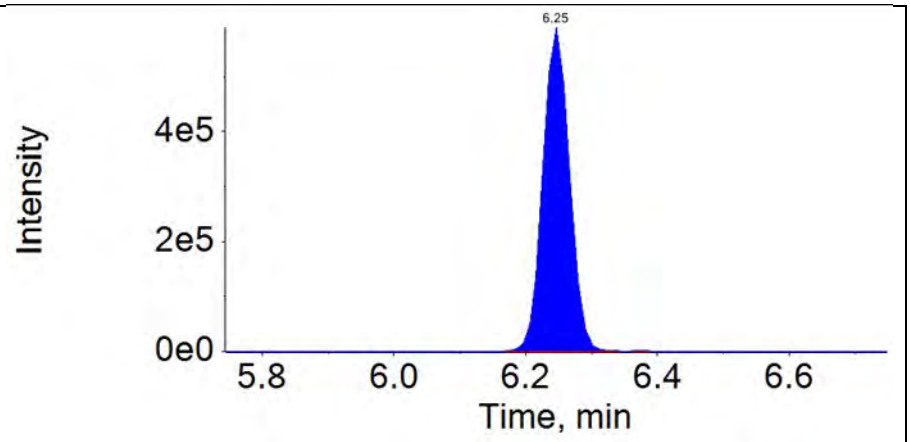


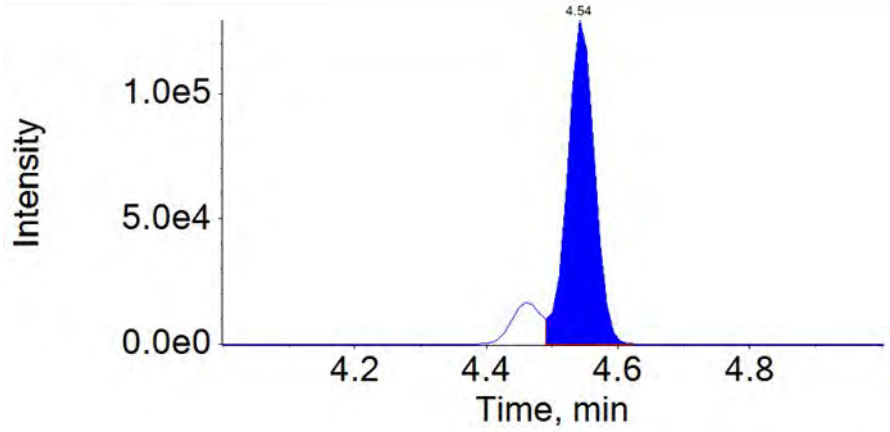
Integration Comment: incorrect integration

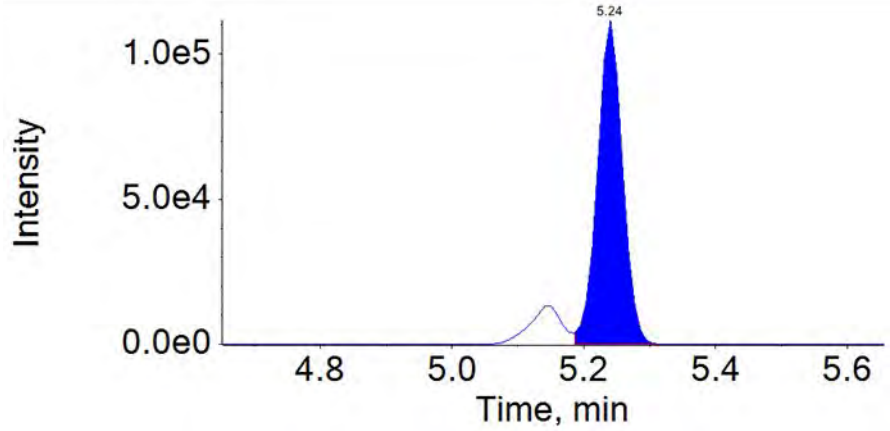
APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

Results Table Name: 18NOV12DCAL
Results Table Date: 11/12/2018 6:23:42 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name: NEtPFOSAE **RT (min.):** 6.25 **Peak Area:** 1662069.44 **Mass Range:** 630.0 / 59.0 **File Name:** 18NOV12DCAL-46.wiff **Sample Name:** CAL5	 **Integration Comment:** incorrect integration

Component Name: PFHxS_2 **RT (min.):** 4.54 **Peak Area:** 369522.57 **Mass Range:** 399.0 / 99.0 **File Name:** 18NOV12DCAL-46.wiff **Sample Name:** CAL5	 **Integration Comment:** incorrect integration

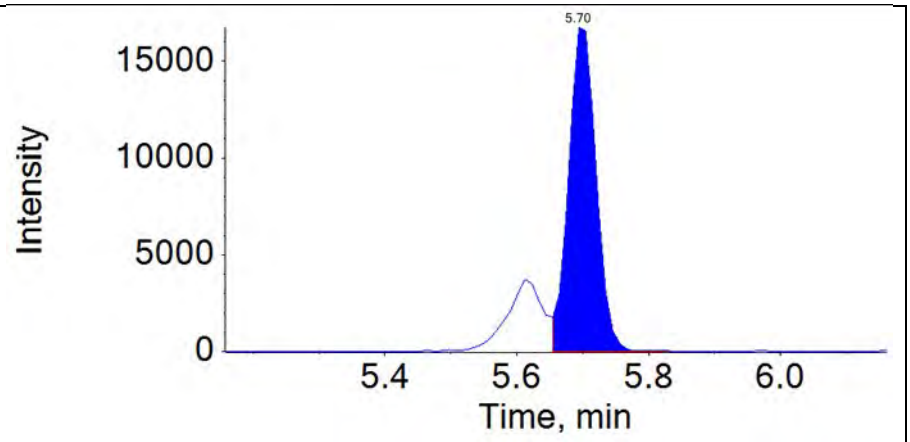
Component Name: PFOS_2 **RT (min.):** 5.24 **Peak Area:** 295251.82 **Mass Range:** 499.0 / 99.0 **File Name:** 18NOV12DCAL-46.wiff **Sample Name:** CAL5	 **Integration Comment:** incorrect integration

APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

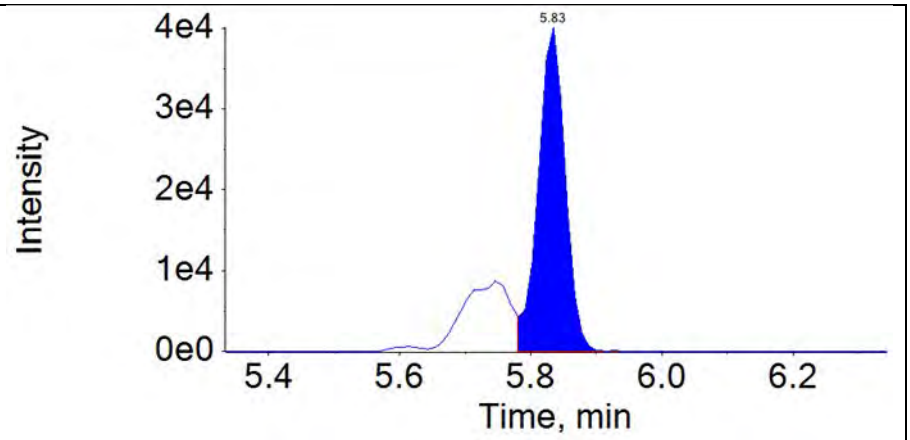
Results Table Name: 18NOV12DCAL
Results Table Date: 11/12/2018 6:23:42 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
NMeFOSAA_2
RT (min.):
5.70
Peak Area:
48911.60
Mass Range:
570.0 / 483.0
File Name:
18NOV12DCAL-46.wiff
Sample Name:
CAL5



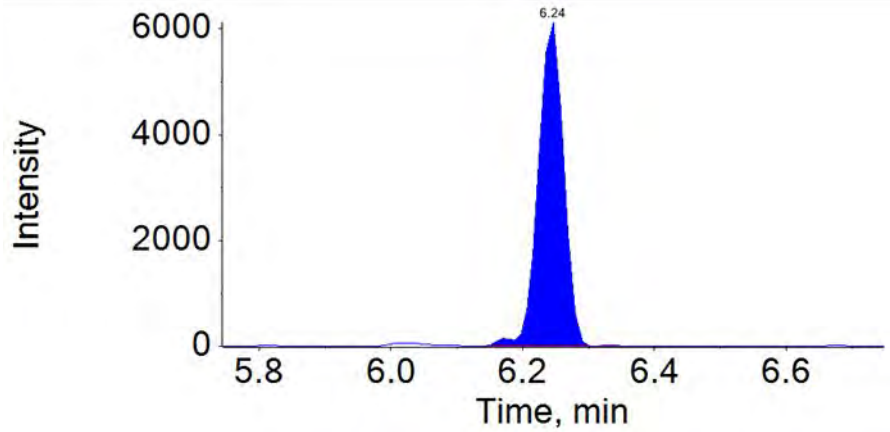
Integration Comment: incorrect integration

Component Name:
NEtFOSAA_2
RT (min.):
5.83
Peak Area:
114677.93
Mass Range:
584.0 / 526.0
File Name:
18NOV12DCAL-46.wiff
Sample Name:
CAL5



Integration Comment: incorrect integration

Component Name:
PFTrDA_2
RT (min.):
6.24
Peak Area:
16434.79
Mass Range:
663.0 / 169.0
File Name:
18NOV12DCAL-46.wiff
Sample Name:
CAL5



Integration Comment: incorrect integration

APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

Results Table Name: 18NOV12DCAL
Results Table Date: 11/12/2018 6:23:42 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Ion Ratio Report

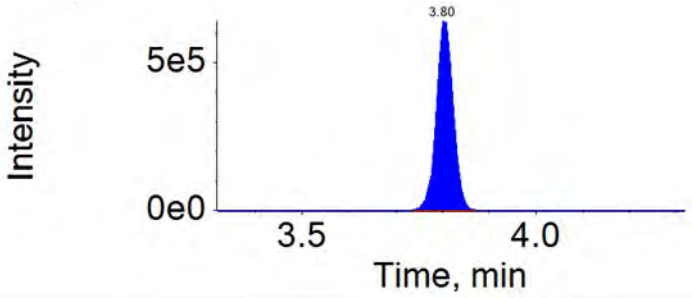
Sample Name: CAL5 **Instrument Name:** LM27631 **File Name:** 18NOV12DCAL-46.wiff

Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	3.80	1.00	1630613.49	A	0.3619	0.3539			
PFBS_2	3.80	1.00	577021.23	A	0.3619	0.3539	-2	50	
4:2-FTS	4.12	1.00	344695.89	A	0.6730	0.5792			
4:2 FTS_2	4.12	1.00	199643.08	A	0.6730	0.5792		#NA!	
PFHxA	4.15	1.00	3158486.41	A	0.0117	0.0109			
PFHxA_2	4.15	1.00	34335.08	A	0.0117	0.0109	-7	50	
PFPeS	4.17	1.10	815928.18	A	0.5191	0.5405			
PFPeS_2	4.17	1.10	440987.79	A	0.5191	0.5405	4	50	
PFHpA	4.54	1.00	3269561.01	A	0.0563	0.0518			
PFHpA_2	4.54	1.00	169510.99	A	0.0563	0.0518	-8	50	
PFHxS	4.54	1.00	1138604.25	M	0.3428	0.3697			
PFHxS_2	4.54	1.00	420898.36	M	0.3428	0.3697	8	50	
6:2-FTS	4.90	1.00	260254.34	A	0.6604	0.6706			
6:2 FTS_2	4.90	1.00	174514.29	A	0.6604	0.6706		#NA!	
PFHpS	4.90	1.08	1145559.80	A	0.4066	0.4043			
PFHpS_2	4.90	1.08	463097.70	A	0.4066	0.4043	-1	50	
PFOA	4.91	1.00	3291549.40	A	0.0562	0.0563			
PFOA_2	4.91	1.00	185238.19	A	0.0562	0.0563	0	50	
PFOS	5.24	1.00	1147826.77	M	0.2968	0.2969			
PFOS_2	5.24	1.00	340771.88	M	0.2968	0.2969	0	50	
PFNA	5.26	1.00	2725089.71	A	0.0229	0.0218			
PFNA_2	5.26	1.00	59324.51	A	0.0229	0.0218	-5	50	
PFNS	5.53	1.06	725402.00	A	0.4828	0.4661			
PFNS_2	5.53	1.06	338109.67	A	0.4828	0.4661	-3	50	
PFDA	5.56	1.00	2309359.54	A	0.0081	0.0056			
PFDA_2	5.56	1.00	12923.91	A	0.0081	0.0056	-31	50	
8:2-FTS	5.56	1.00	206213.12	A	0.6814	0.6384			
8:2 FTS_2	5.56	1.00	131655.86	A	0.6814	0.6384		#NA!	
NMeFOSAA	5.70	1.00	250711.49	A	0.2569	0.2507			
NMeFOSAA_2	5.70	1.00	62849.33	M	0.2569	0.2507	-2	50	
PFDS	5.79	1.10	578877.50	A	0.5144	0.4977			
PFDS_2	5.79	1.10	288112.49	A	0.5144	0.4977	-3	50	
PFUnDA	5.82	1.00	1773582.60	A	0.0058	0.0044			
PFUnDA_2	5.82	1.00	7755.59	A	0.0058	0.0044	-25	50	
NEtFOSAA	5.83	1.00	237197.18	A	0.7253	0.6651			
NEtFOSAA_2	5.83	1.00	157758.05	M	0.7253	0.6651	-8	50	
PFDoDA	6.04	1.00	2099385.04	A	0.0157	0.0116			
PFDoDA_2	6.04	1.00	24326.91	A	0.0157	0.0116	-26	50	
10:2-FTS	6.06	1.09	153343.55	A	0.6356	0.6979			
10:2 FTS_2	6.06	1.09	107018.53	A	0.6356	0.6979		#NA!	
PFTrDA	6.24	1.03	1679407.24	A	0.0086	0.0096			
PFTrDA_2	6.24	1.03	16152.60	M	0.0086	0.0096	12	50	
PFTeDA	6.42	1.00	1418276.72	A	0.0062	0.0062			
PFTeDA_2	6.42	1.00	8850.65	A	0.0062	0.0062	0	50	
PFHxDA	6.72	1.05	627350.68	A	0.0683	0.0680			
PFHxDA_2	6.72	1.05	42651.35	A	0.0683	0.0680	0	50	
PFODA	6.98	1.09	544296.46	A	0.0277	0.0265			
PFODA_2	6.98	1.09	14445.27	A	0.0277	0.0265	-4	50	

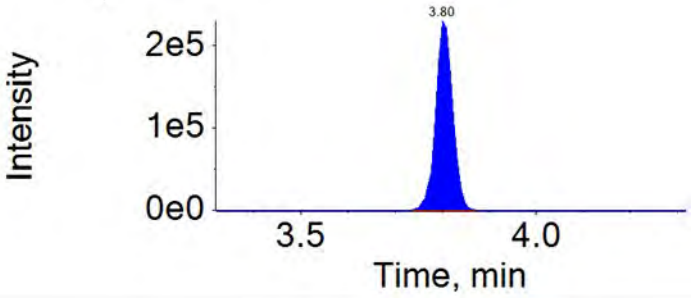
APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

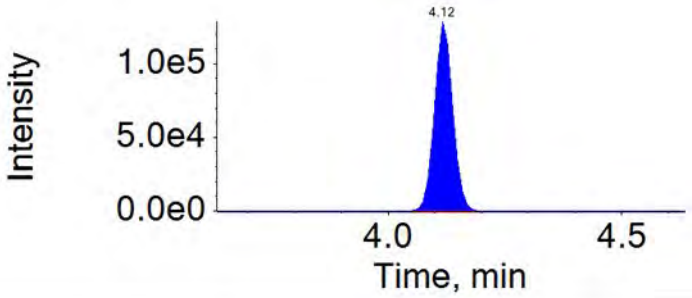
Component: PFBS
Primary Mass: 299.0 / 80.0



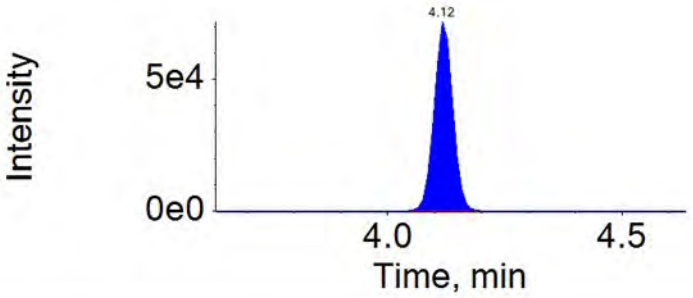
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



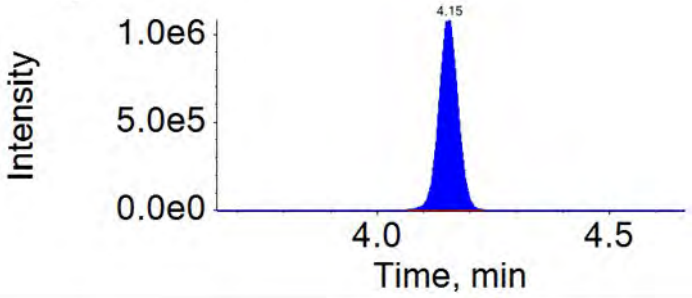
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



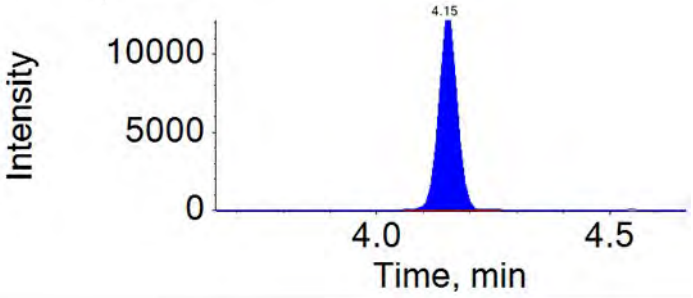
Component: 4:2 FTS_2
Secondary Mass: 327.0 / 81.0



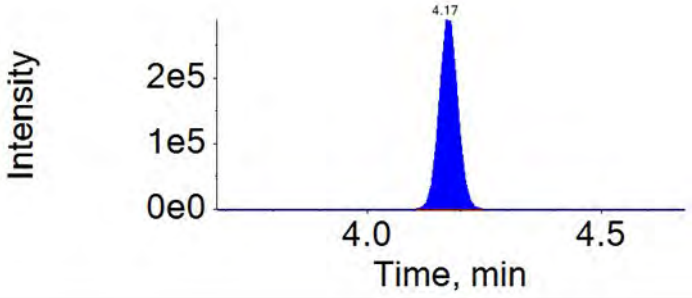
Component: PFHxA
Primary Mass: 313.0 / 269.0



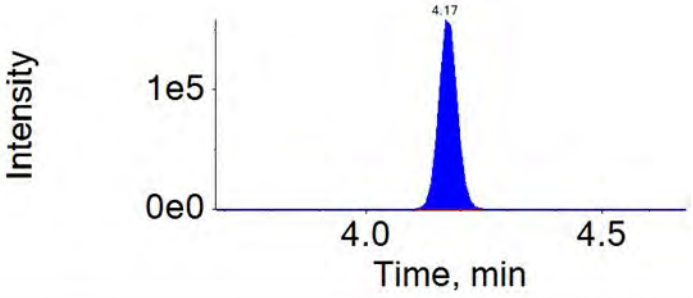
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



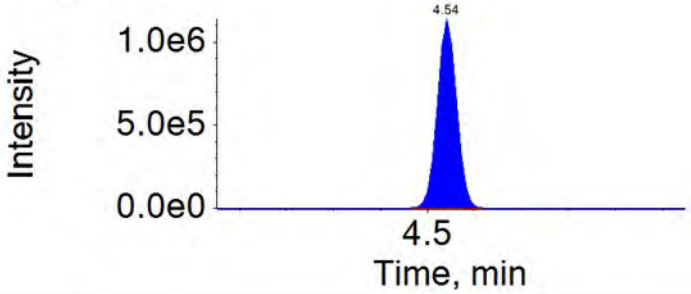
Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



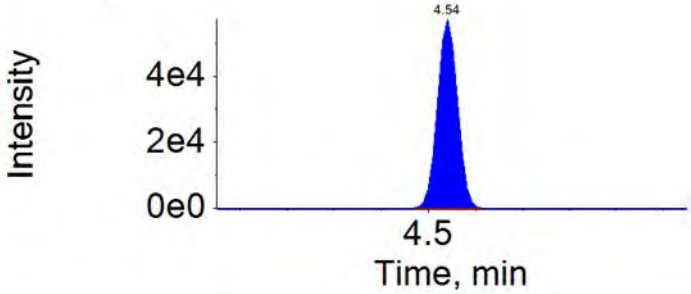
APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

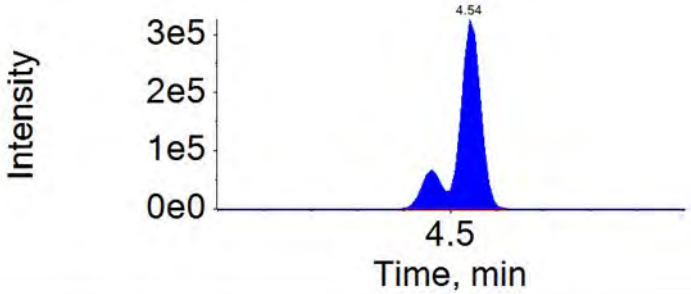
Component: PFHpA
Primary Mass: 363.0 / 319.0



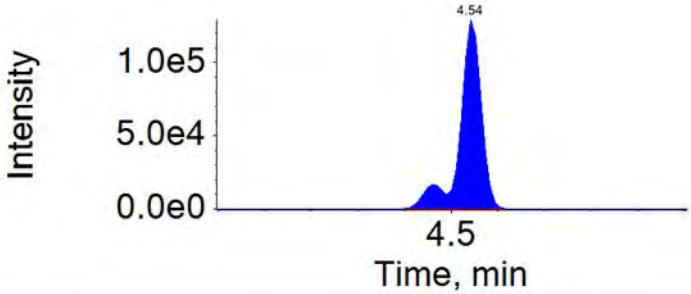
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



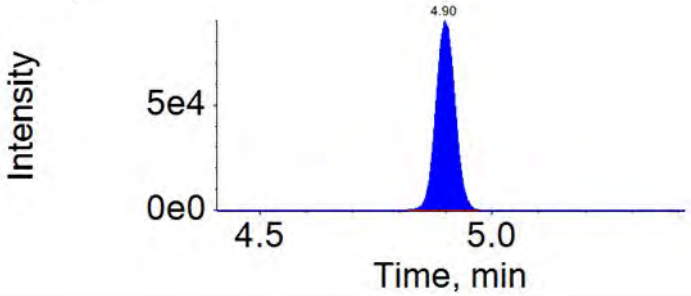
Component: PFHxS
Primary Mass: 399.0 / 80.0



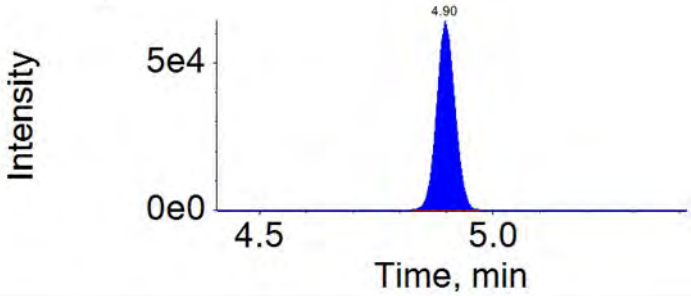
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



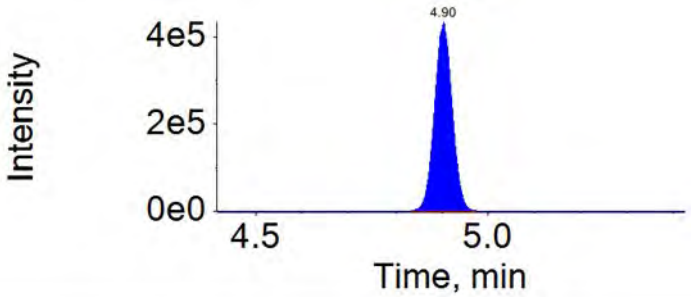
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



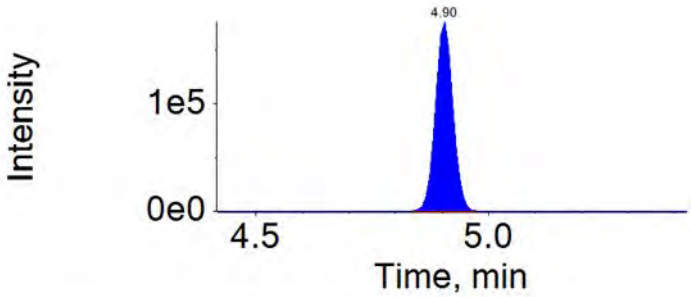
Component: 6:2 FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



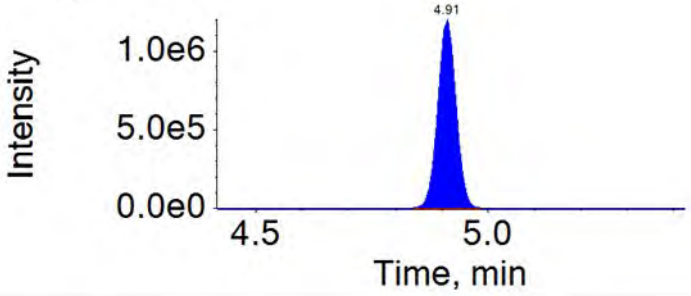
Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



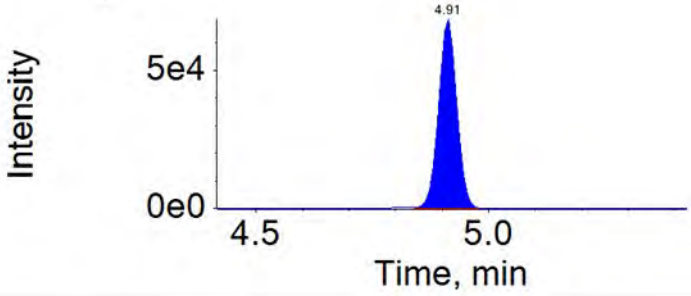
APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

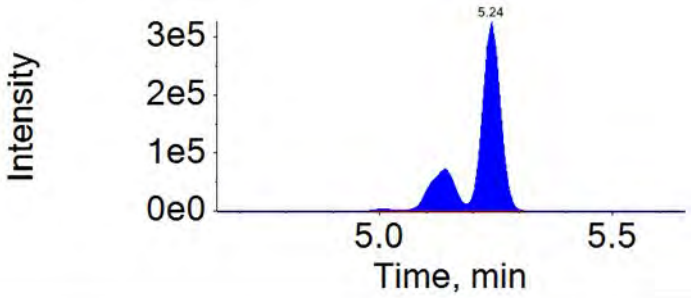
Component: PFOA
Primary Mass: 413.0 / 369.0



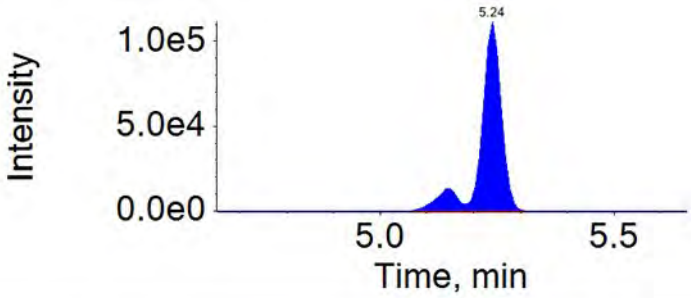
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



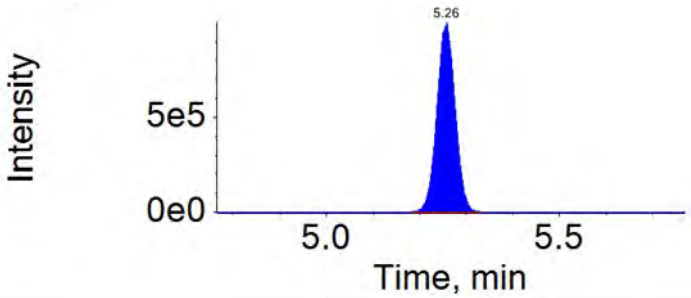
Component: PFOS
Primary Mass: 499.0 / 80.0



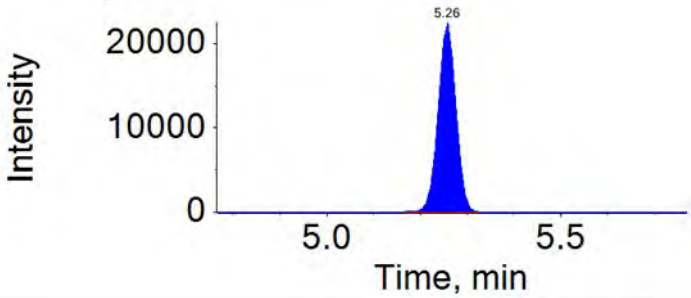
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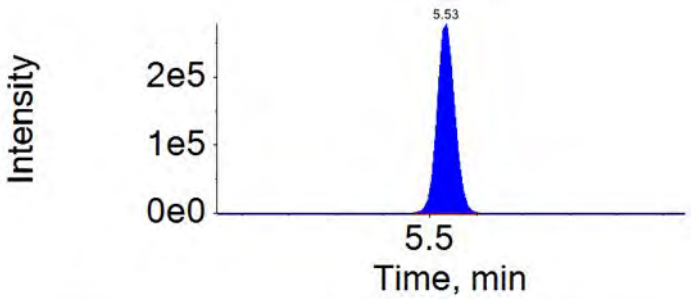
Component: PFNA
Primary Mass: 463.0 / 419.0



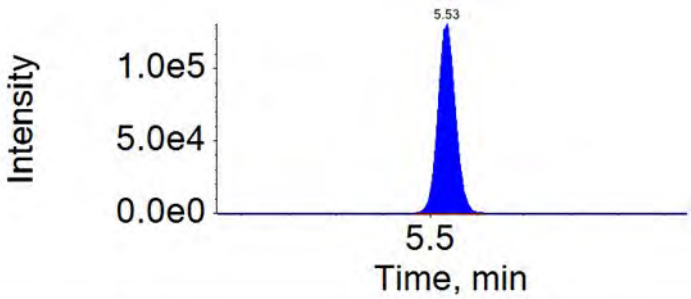
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



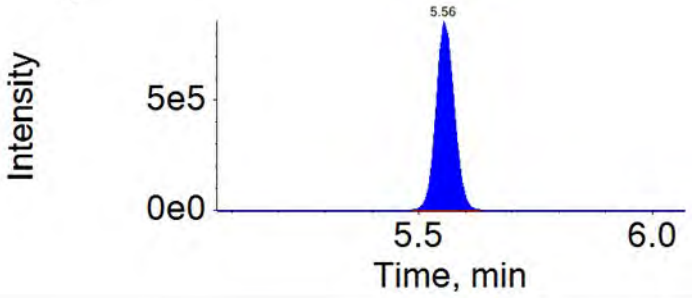
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



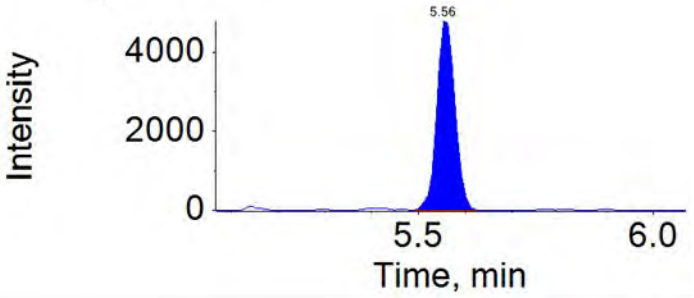
APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

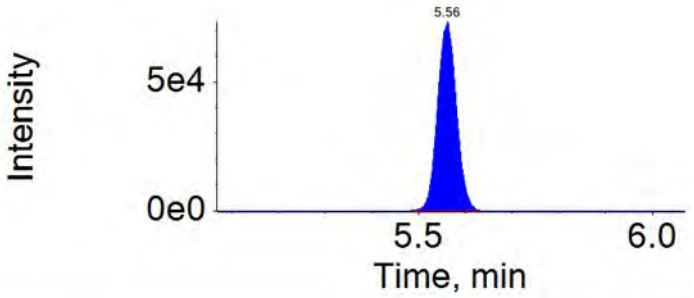
Component: PFDA
Primary Mass: 513.0 / 469.0



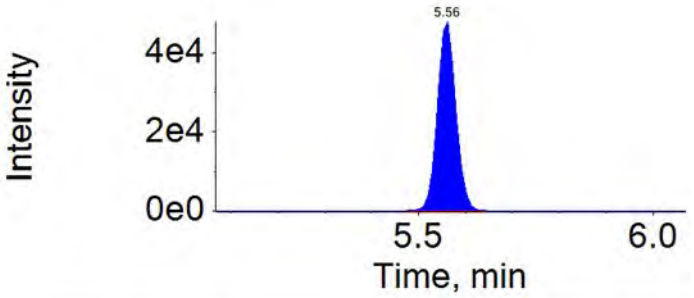
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



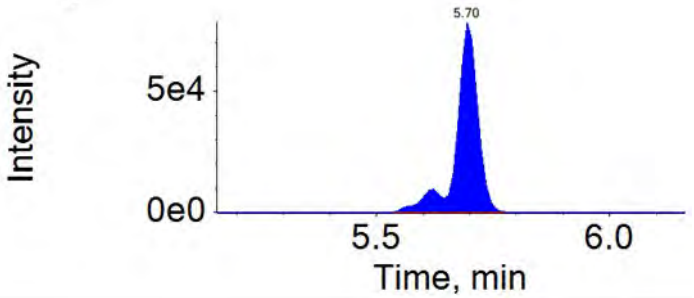
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



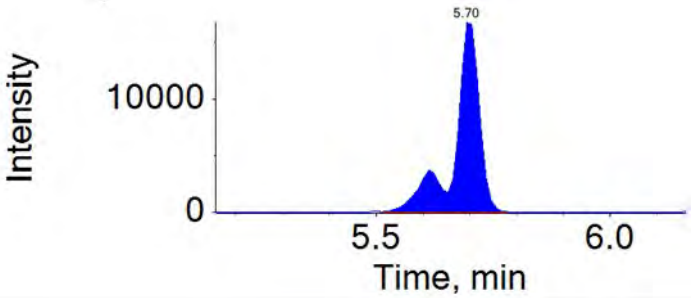
Component: 8:2 FTS_2
Secondary Mass: 527.0 / 81.0



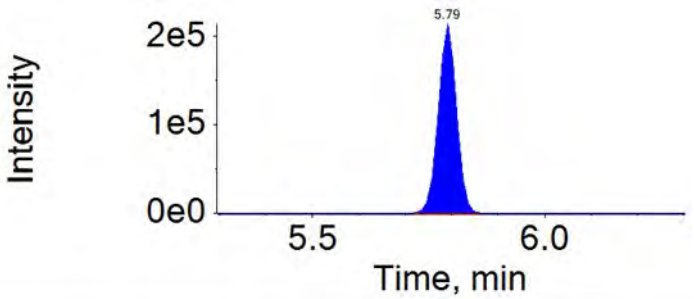
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



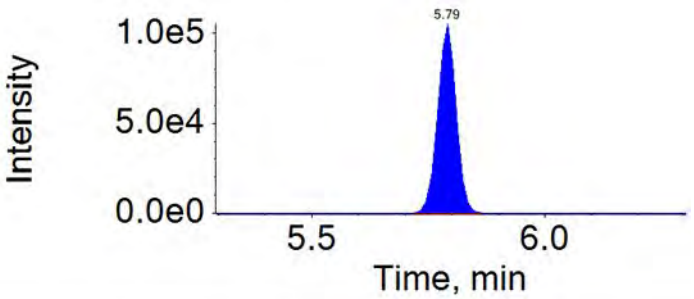
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Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



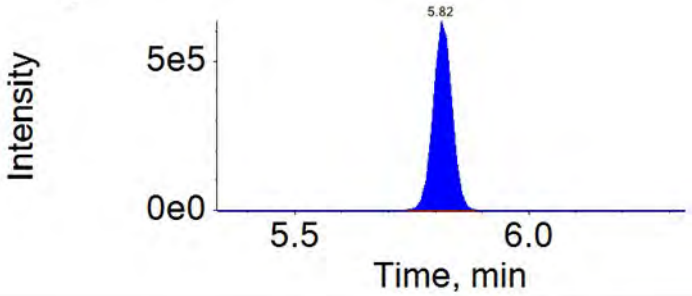
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Secondary Mass: 599.0 / 99.0



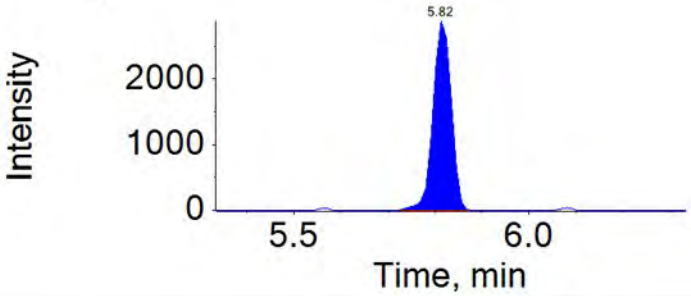
APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

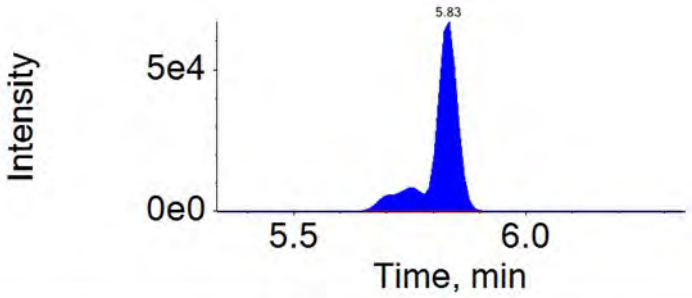
Component: PFUnDA
Primary Mass: 563.0 / 519.0



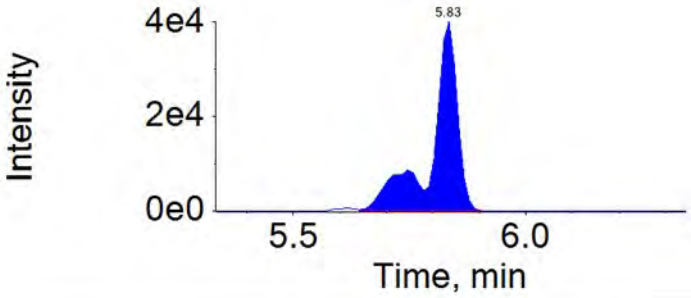
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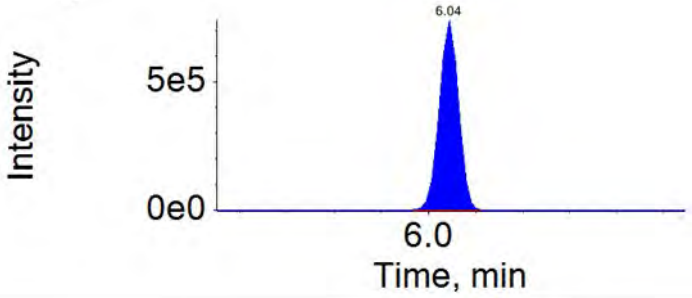
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



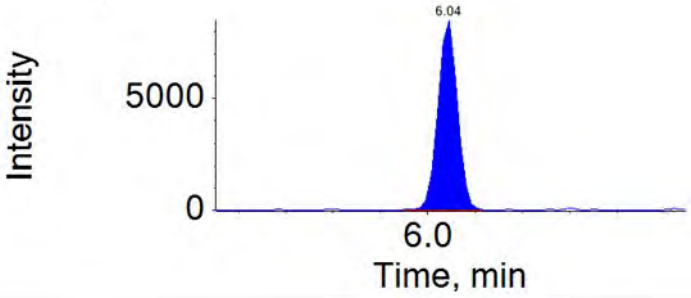
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



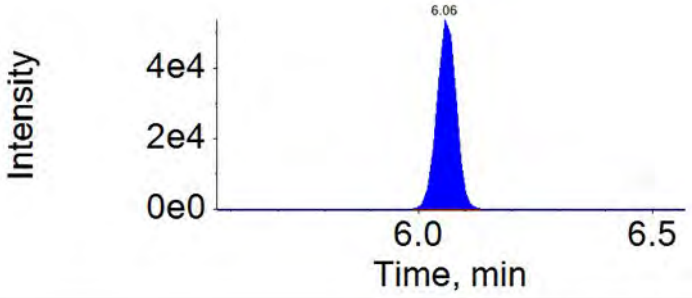
Component: PFDoDA
Primary Mass: 613.0 / 569.0



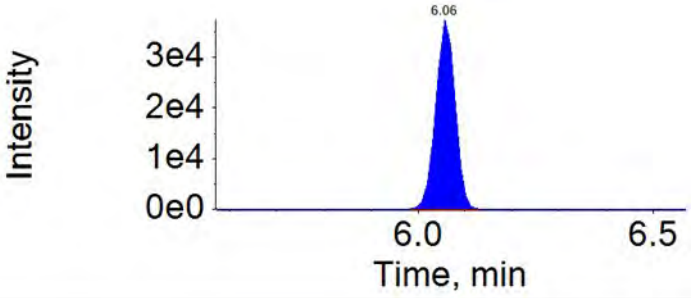
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



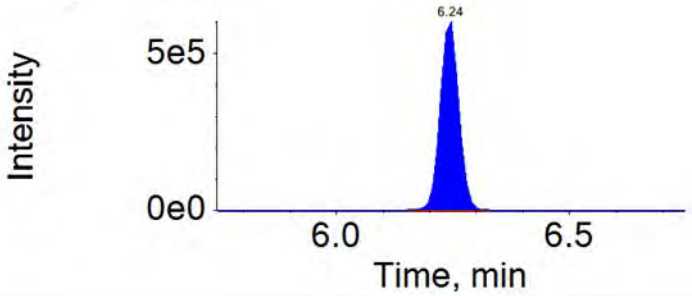
Component: 10:2 FTS_2
Secondary Mass: 627.0 / 81.0



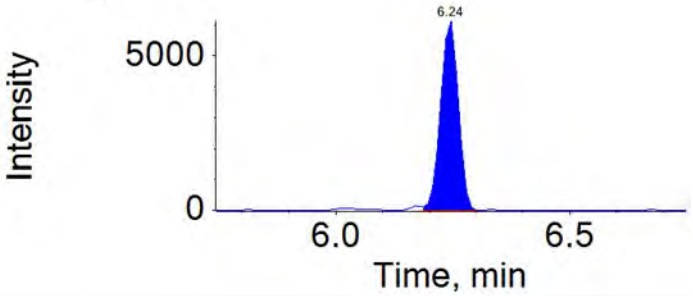
APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

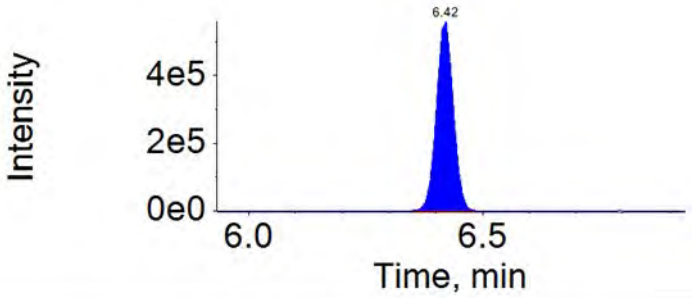
Component: PFTrDA
Primary Mass: 663.0 / 619.0



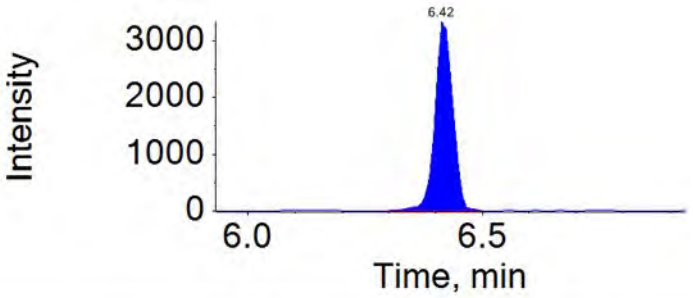
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Secondary Mass: 663.0 / 169.0



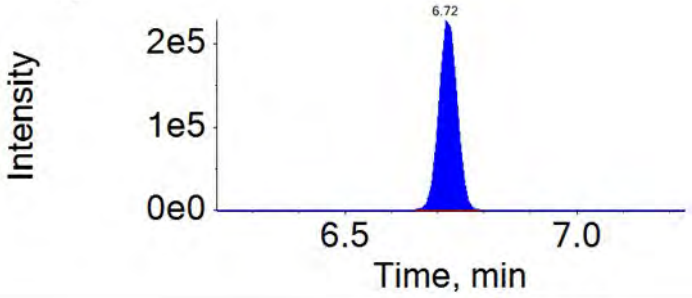
Component: PFTeDA
Primary Mass: 713.0 / 669.0



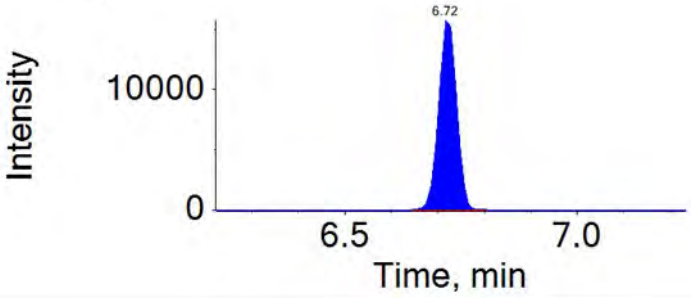
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



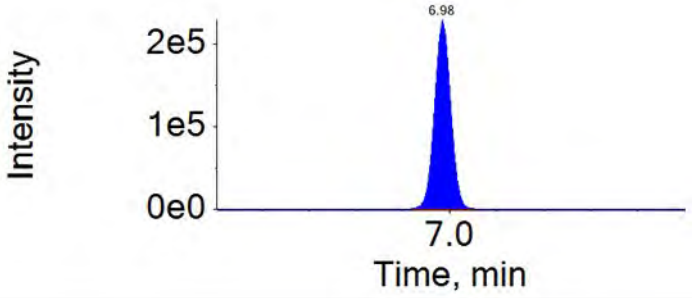
Component: PFHxDA
Primary Mass: 813.0 / 769.0



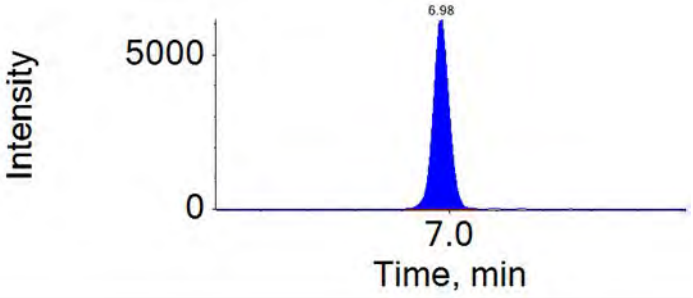
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Sample Name:	CAL6			**Data File:**		18NOV12DCAL-47.wiff
Sample ID:	CALBRN61833B			**Acquis Date:**		2018-11-12T15:51:06
Sample Type:	Standard			**Instrument:**		LM27631
Vial Position:	8			**Acquis Method:**		18AUG13_3uL.dam
Injection Vol:	3.00			**Result Table:**		18NOV12DCAL
QMethod File:	18AUG20QM			**ICAL Name:**		18NOV12DCAL
Batch Number:	N\A			**Operator:**		MCD7824
Sample Wt.:	1.00000			**Dilution Factor:**		1.00
Sample Vol.:	1.000			**Prep Factor:**		1.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV12DCAL-44

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Rreference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	555817.9	659926.2	-16	50	
13C2-PFOA	5.0	422900.5	450219.7	-6	50	
13C4-PFOS	4.8	231712.1	249205.8	-7	50	
13C2-PFDA	5.0	237446.9	278743.9	-15	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	633648.4	13C3-PFBA	555817.9	1.140	5.000	5.111	102	70-130	
E13C5-PFPeA	635977.8	13C3-PFBA	555817.9	1.144	5.000	5.132	103	70-130	
E13C3-PFBS	378676.8	13C3-PFBA	555817.9	0.681	4.650	4.809	103	70-130	
E13C2-4:2-FTS	41422.2	13C2-PFOA	422900.5	0.098	4.670	4.362	93	70-130	
E13C5-PFHxA	568205.8	13C2-PFOA	422900.5	1.344	5.000	4.854	97	70-130	
E13C3-PFHxS	284116.5	13C2-PFOA	422900.5	0.672	4.730	4.610	97	70-130	
E13C4-PFHpA	455005.8	13C2-PFOA	422900.5	1.076	5.000	4.847	97	70-130	
E13C2-6:2-FTS	27988.5	13C2-PFOA	422900.5	0.066	4.750	4.428	93	70-130	
E13C8-PFOA	707130.3	13C2-PFOA	422900.5	1.672	5.000	4.607	92	70-130	
E13C8-PFOS	253129.2	13C4-PFOS	231712.1	1.092	4.780	4.840	101	70-130	
E13C9-PFNA	413811.4	13C4-PFOS	231712.1	1.786	5.000	4.979	100	70-130	
E13C6-PFDA	522613.8	13C2-PFDA	237446.9	2.201	5.000	5.136	103	70-130	
E13C2-8:2-FTS	22899.0	13C2-PFDA	237446.9	0.096	4.790	4.810	100	70-130	
E13C8-PFOSA	539992.5	13C2-PFDA	237446.9	2.274	5.000	5.042	101	70-130	
Ed3-NMeFOSAA	70320.3	13C2-PFDA	237446.9	0.296	5.000	5.346	107	70-130	
E13C7-PFUnDA	208574.1	13C2-PFDA	237446.9	0.878	5.000	5.100	102	70-130	
Ed5-NEtFOSAA	57308.1	13C2-PFDA	237446.9	0.241	5.000	5.106	102	70-130	
E13C2-PFDoDA	477105.5	13C2-PFDA	237446.9	2.009	5.000	5.217	104	70-130	
Ed7-NMePFOSAE	272639.0	13C2-PFDA	237446.9	1.148	5.000	4.969	99	70-130	
Ed3-NMePFOSA	68215.9	13C2-PFDA	237446.9	0.287	5.000	5.220	104	70-130	
Ed9-NEtPFOSAE	242587.5	13C2-PFDA	237446.9	1.022	5.000	5.314	106	70-130	
Ed5-NEtPFOSA	56004.0	13C2-PFDA	237446.9	0.236	5.000	5.533	111	70-130	
E13C2-PFTeDA	352892.2	13C2-PFDA	237446.9	1.486	5.000	5.218	104	70-130	

APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

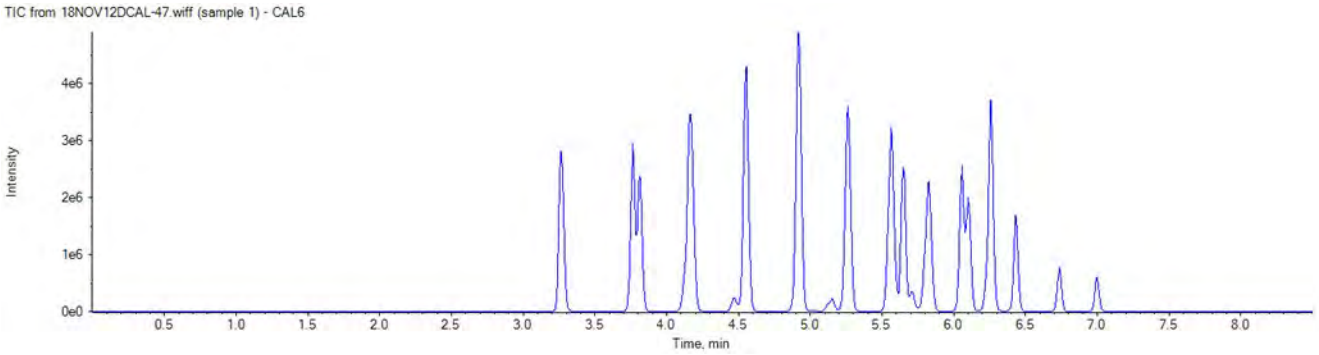
Analyte Quantitation Peak Table

Sample Name: CAL6 **Instrument Name:** LM27631 **File Name:** 18NOV12DCAL-47.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	1.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	3.26	1.000	5765353.4		A	13C4-PFBA	3.27	633648.4	9.099	50.404
PFPeA	3.77	1.000	5570221.7		A	13C5-PFPeA	3.76	635977.8	8.759	50.702
PFBS	3.81	1.000	3588084.2		A	13C3-PFBS	3.81	378676.8	9.475	45.072
4:2-FTS	4.13	1.000	738294.0		A	13C2-4:2-FTS	4.13	41422.2	17.824	48.392
PFHxA	4.16	1.000	6593779.0		A	13C5-PFHxA	4.16	568205.8	11.605	48.453
PFPeS	4.18	1.100	1847826.8		A	13C3-PFBS	3.81	378676.8	4.880	47.375
PFHpA	4.55	1.000	6648455.3		A	13C4-PFHpA	4.55	455005.8	14.612	48.434
PFHxS	4.55	1.000	2662852.0		M	13C3-PFHxS	4.55	284116.5	9.372	45.444
6:2-FTS	4.91	1.000	523949.5		A	13C2-6:2-FTS	4.91	27988.5	18.720	45.301
PFHpS	4.91	1.080	2604868.6		A	13C3-PFHxS	4.55	284116.5	9.168	48.262
PFOA	4.92	1.000	6758642.8		A	13C8-PFOA	4.92	707130.3	9.558	51.047
PFOS	5.25	1.000	2664957.2		M	13C8-PFOS	5.25	253129.2	10.528	46.040
PFNA	5.27	1.000	5820576.6		A	13C9-PFNA	5.27	413811.4	14.066	50.720
PFNS	5.55	1.060	1709959.5		A	13C8-PFOS	5.25	253129.2	6.755	47.262
PFDA	5.57	1.000	4802967.8		A	13C6-PFDA	5.57	522613.8	9.190	48.722
8:2-FTS	5.57	1.000	469719.6		A	13C2-8:2-FTS	5.57	22899.0	20.513	47.825
PFOSA	5.65	1.000	5530440.6		A	13C8-PFOSA	5.65	539992.5	10.242	50.024
NMeFOSAA	5.71	1.000	627854.4		M	d3-NMeFOSAA	5.71	70320.3	8.928	50.461
PFDS	5.80	1.100	1313570.3		A	13C8-PFOS	5.25	253129.2	5.189	47.020
PFUnDA	5.83	1.000	3923979.2		A	13C7-PFUnDA	5.83	208574.1	18.813	49.183
NEtFOSAA	5.84	1.000	551865.7		A	d5-NEtFOSAA	5.84	57308.1	9.630	50.481
PFDoDA	6.06	1.000	4582985.5		A	13C2-PFDoDA	6.06	477105.5	9.606	48.914
10:2-FTS	6.07	1.090	348263.2		A	13C2-8:2-FTS	5.57	22899.0	15.209	50.658
NMePFOSAE	6.10	1.000	3484588.8		A	d7-NMePFOSAE	6.09	272639.0	12.781	53.193
NMePFOSA	6.11	1.000	670429.6		A	d3-NMePFOSA	6.11	68215.9	9.828	48.485
PFDoS	6.23	1.190	711567.5		A	13C8-PFOS	5.25	253129.2	2.811	49.234
NEtPFOSAE	6.26	1.000	3677006.6		A	d9-NEtPFOSAE	6.25	242587.5	15.157	48.629
NEtPFOSA	6.27	1.000	599280.4		A	d5-NEtPFOSA	6.27	56004.0	10.701	49.142
PFTrDA	6.26	1.030	3691733.8		A	13C2-PFDoDA	6.06	477105.5	7.738	48.838
PFTeDA	6.43	1.000	3149020.2		A	13C2-PFTeDA	6.43	352892.2	8.923	50.021
PFHxDA	6.74	1.050	1533920.2		A	13C2-PFTeDA	6.43	352892.2	4.347	51.786
PFODA	7.00	1.090	1270897.6		A	13C2-PFTeDA	6.43	352892.2	3.601	50.157

Total Ion Chromatogram

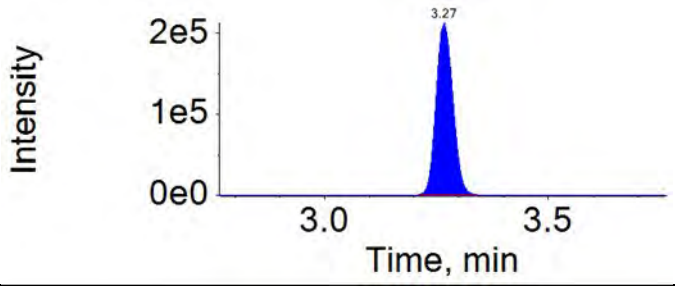


APPROVED
By MCD at 6:33 pm, 11/12/18

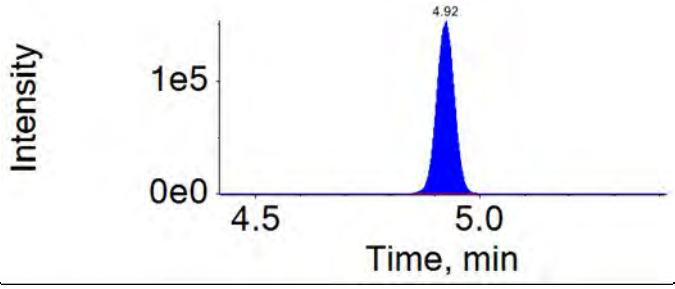
REVIEWED
By HMK at 10:53 am, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

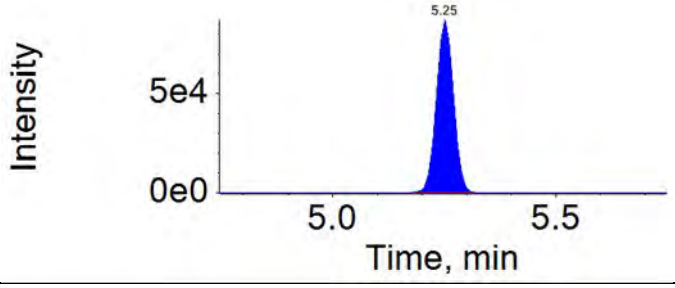
Injection Standard: 13C3-PFBA
216.0 / 172.0



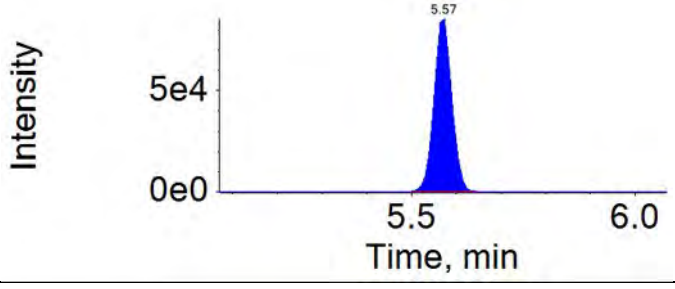
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0



Injection Standard: 13C2-PFDA
515.0 / 470.0

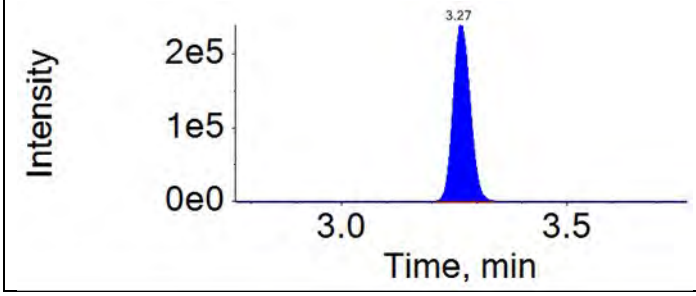


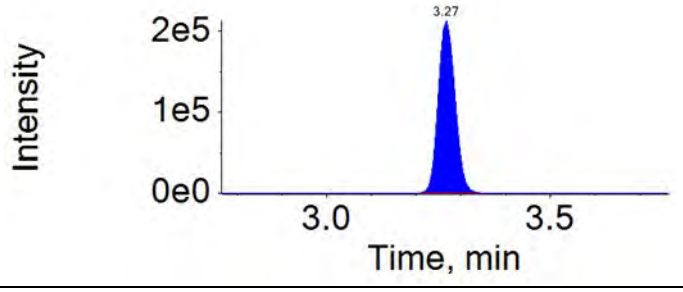
APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

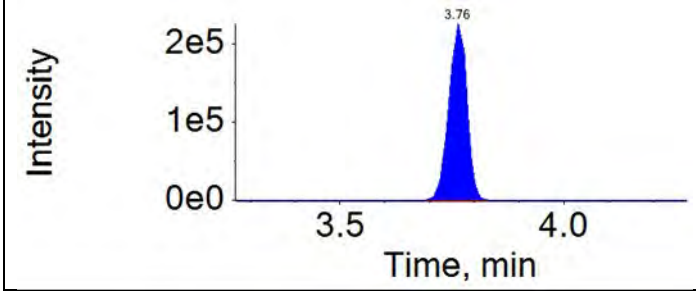
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

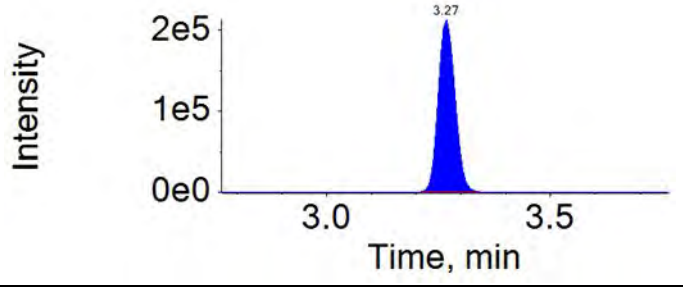
Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0



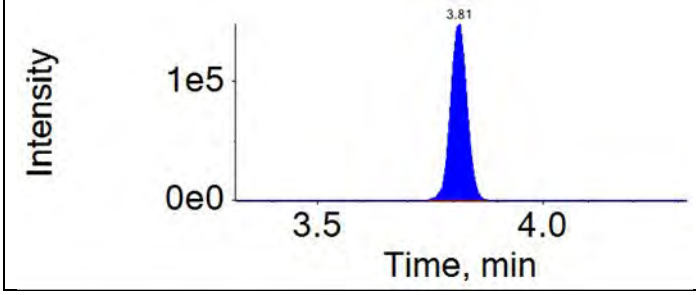


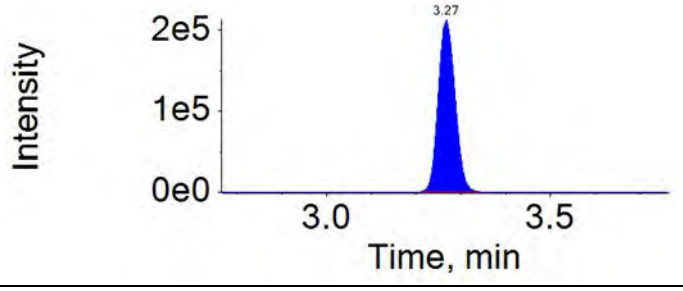
Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0



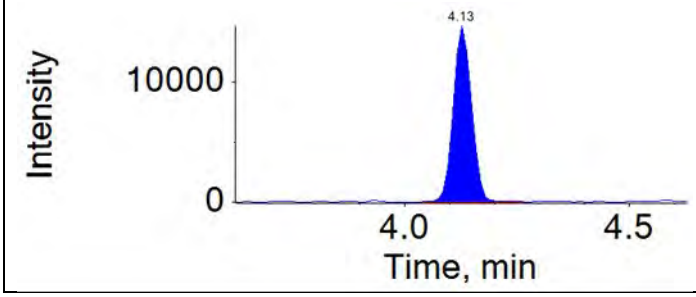


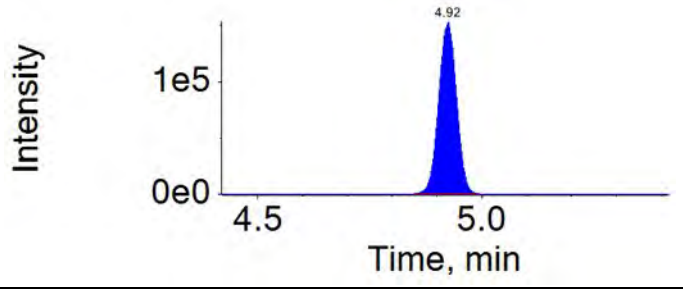
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0





Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0



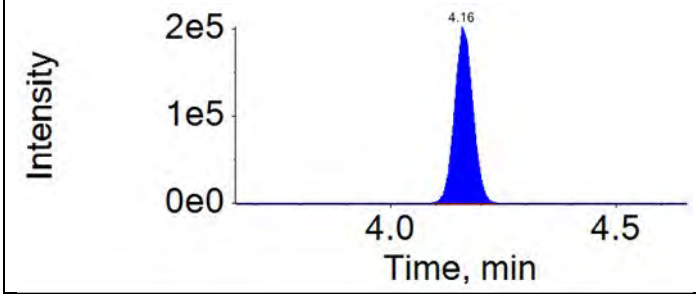


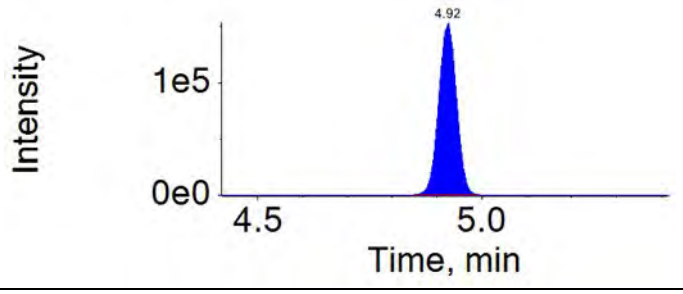
APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

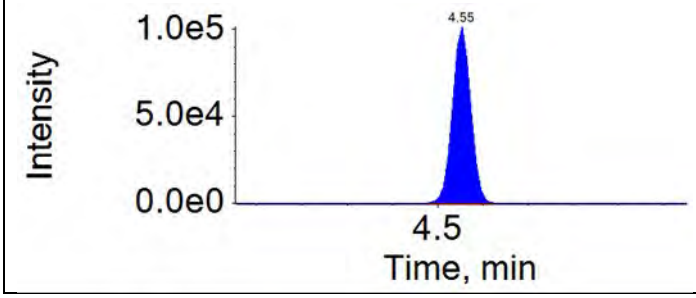
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

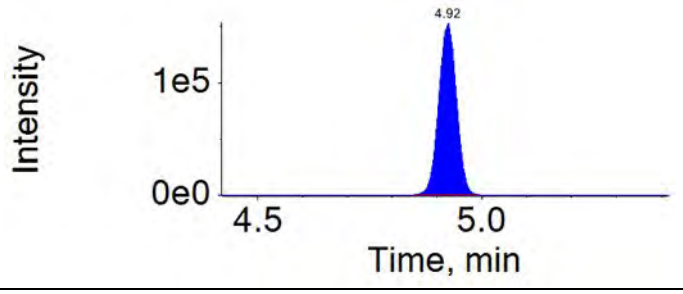
Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0



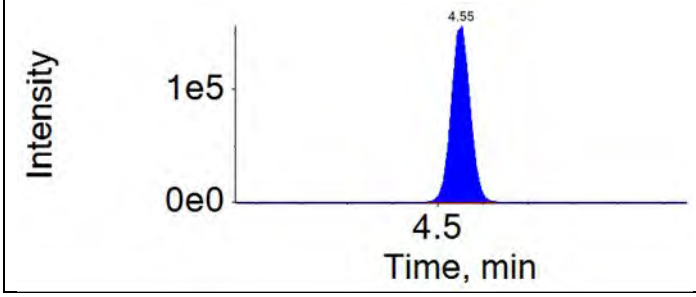


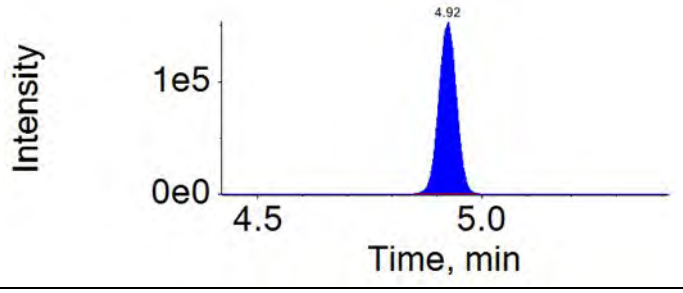
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0



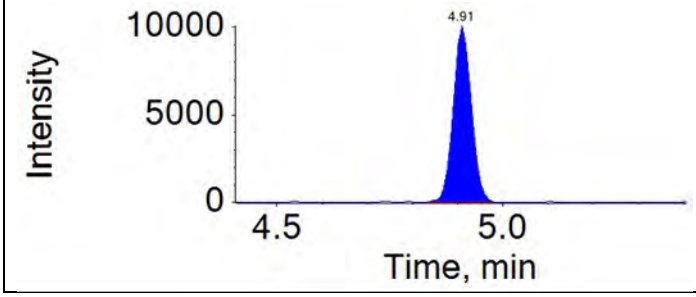


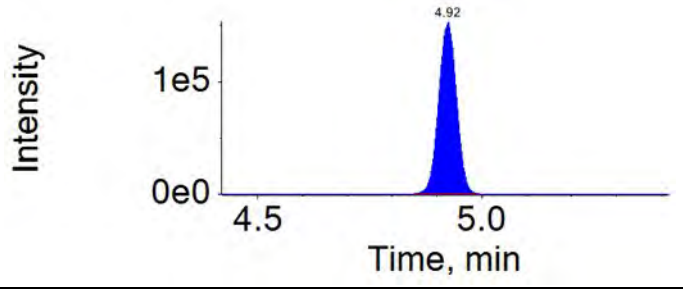
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0





Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0

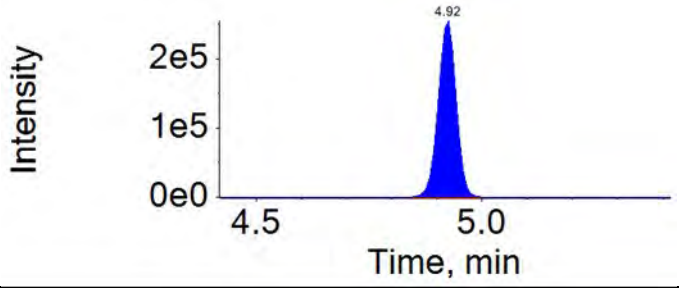
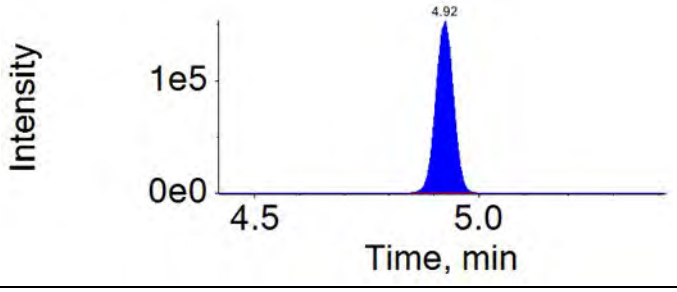


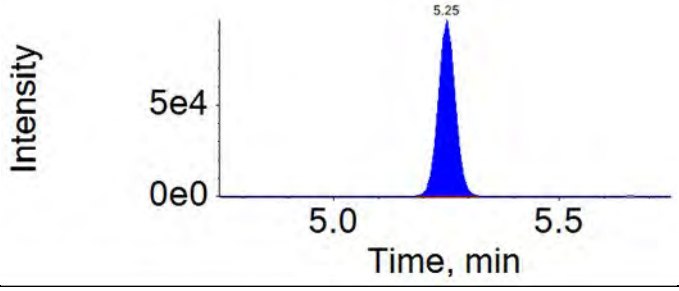
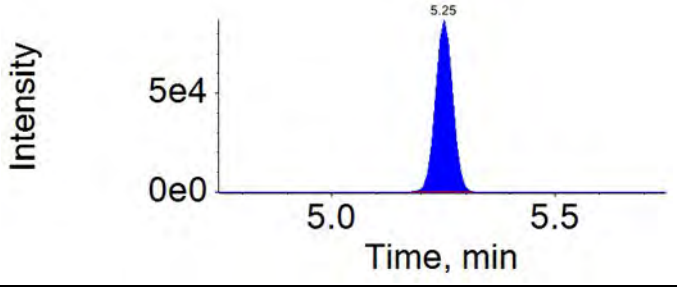


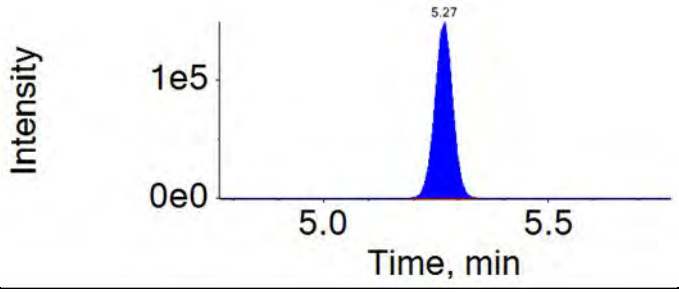
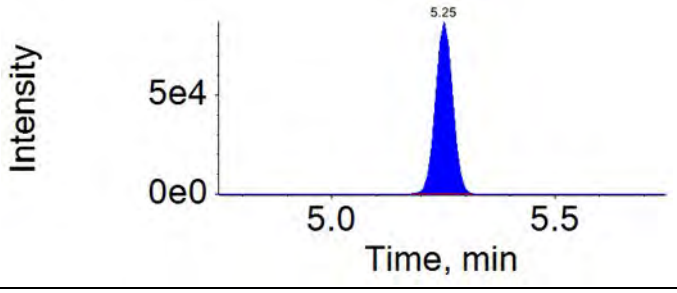
APPROVED
By MCD at 6:33 pm, 11/12/18

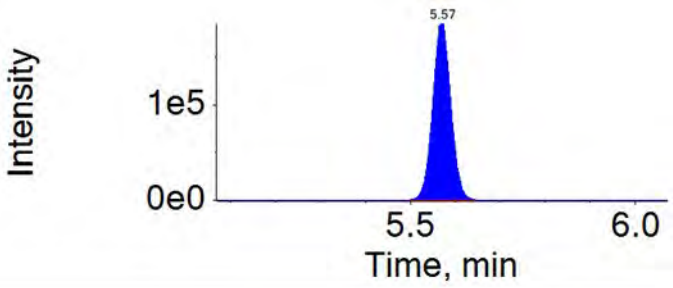
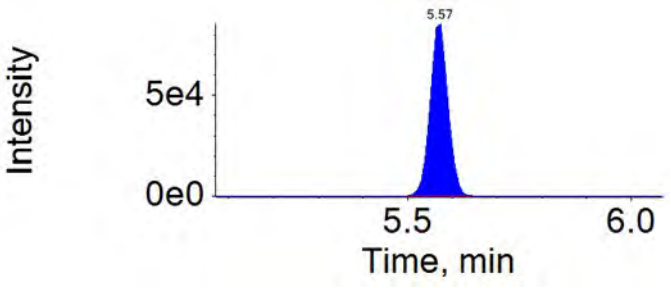
REVIEWED
By HMK at 10:53 am, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: E13C8-PFOA	Injection Standard: 13C2-PFOA
421.0 / 376.0	415.0 / 370.0
	

Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0
	

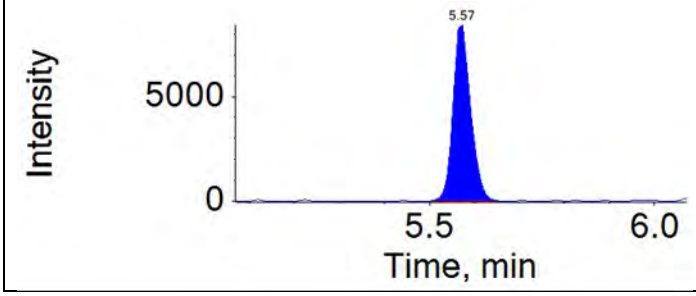
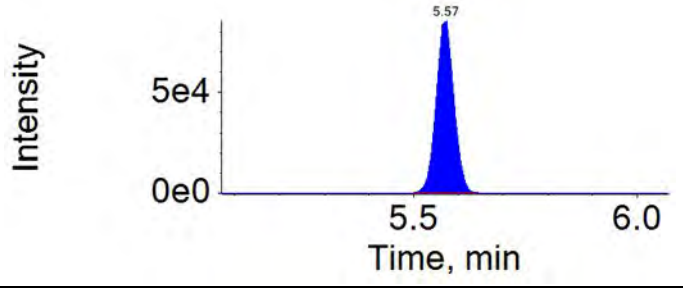
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0
	

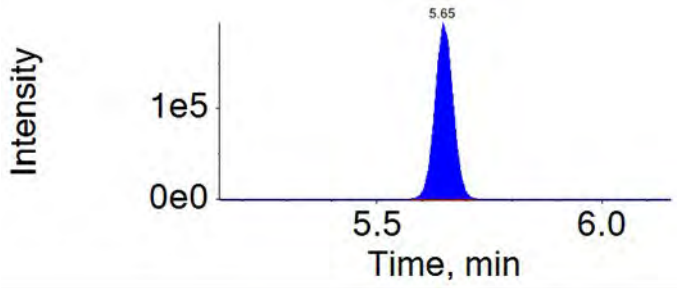
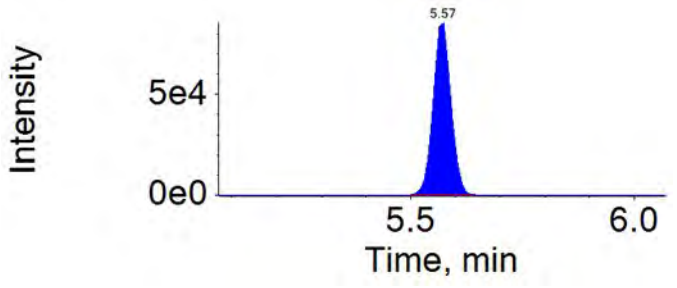
Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0
	

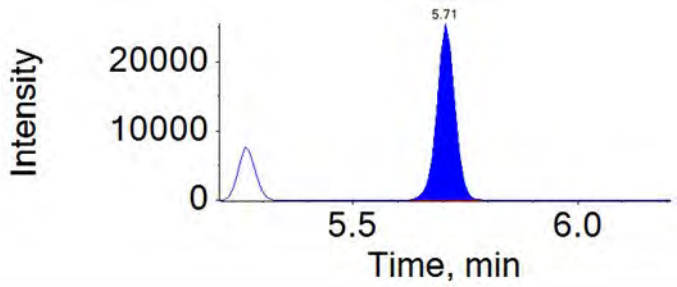
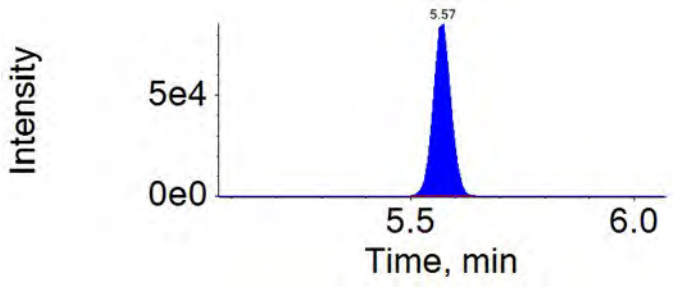
APPROVED
By MCD at 6:33 pm, 11/12/18

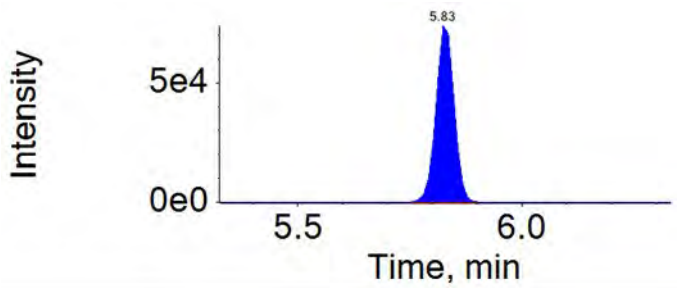
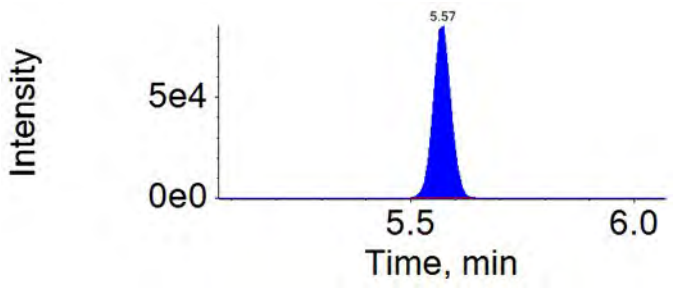
REVIEWED
By HMK at 10:53 am, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

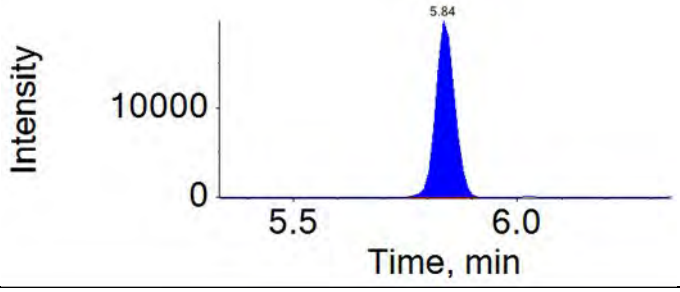
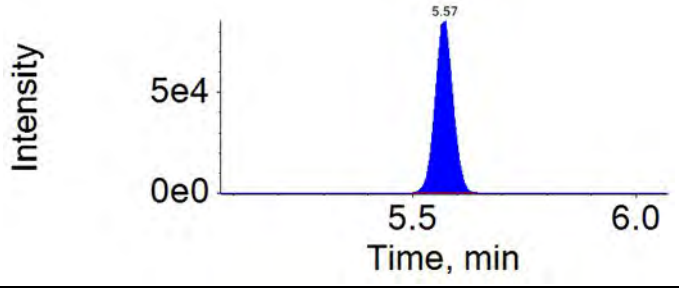
Extraction Standard: E13C2-8:2-FTS	Injection Standard: 13C2-PFDA
529.0 / 81.0	515.0 / 470.0
	

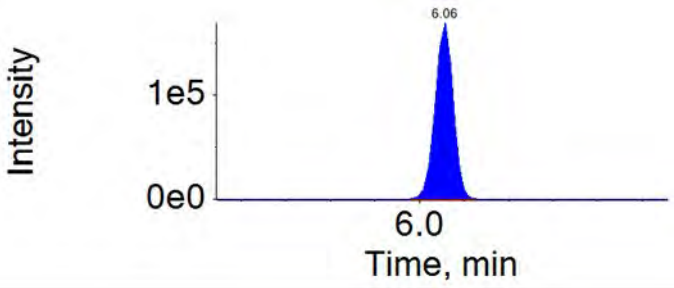
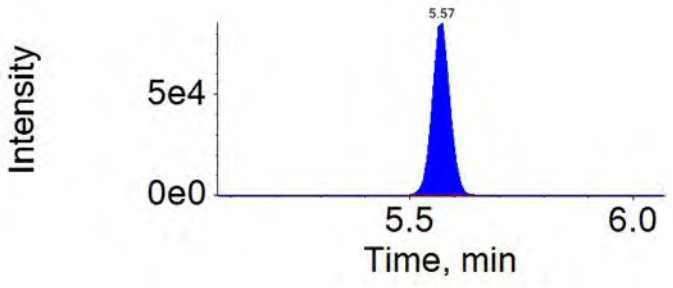
Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0
	

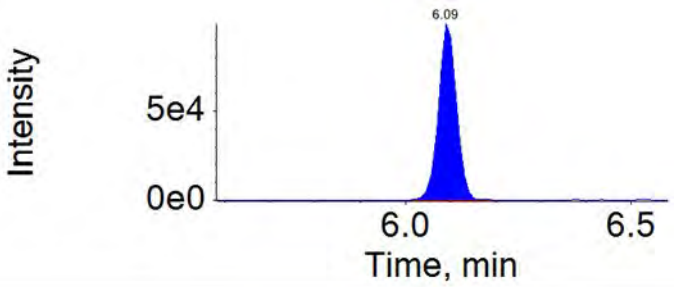
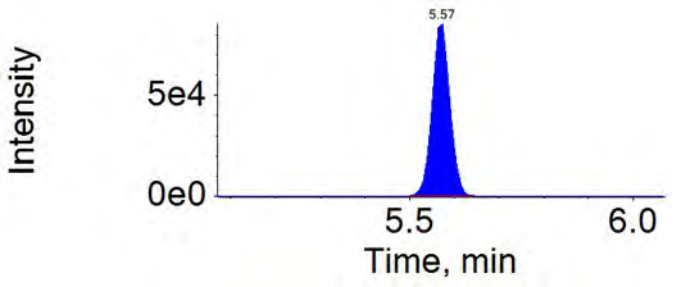
Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0
	

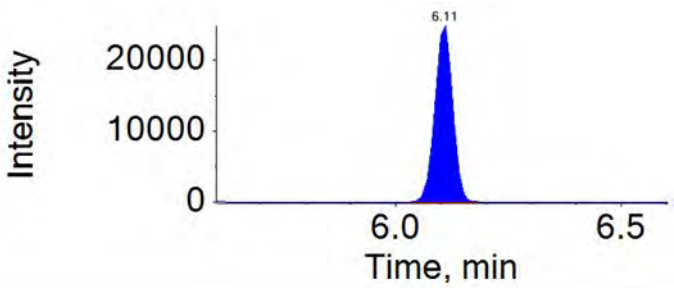
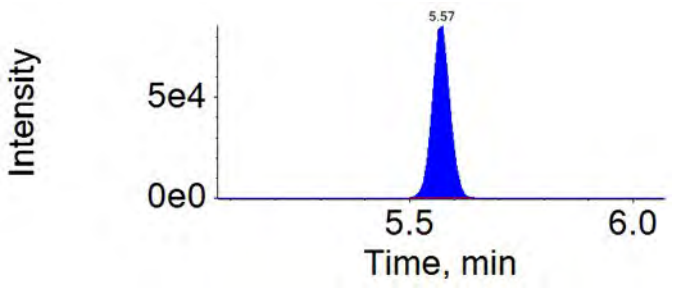
Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0
	

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0
	

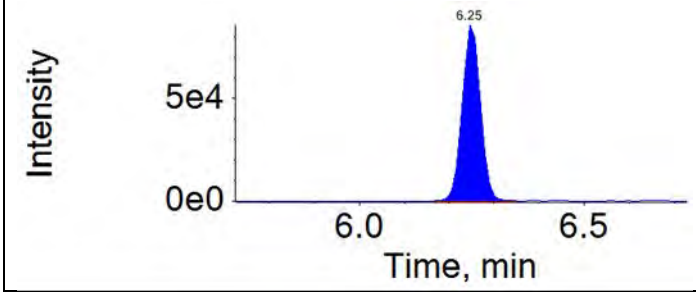
Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0
	

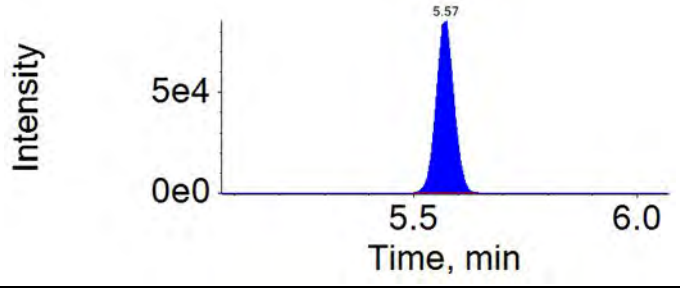
Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0
	

Extraction Standard: Ed3-NMePFOSA	Injection Standard: 13C2-PFDA
515.0 / 169.0	515.0 / 470.0
	

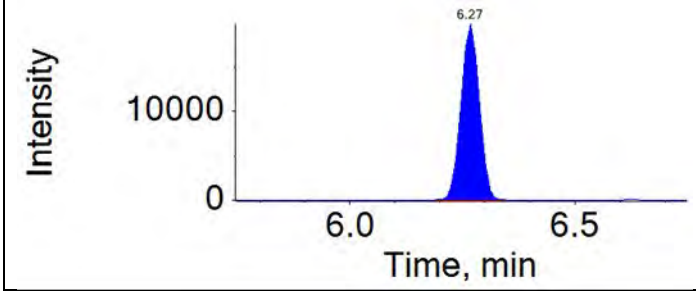
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

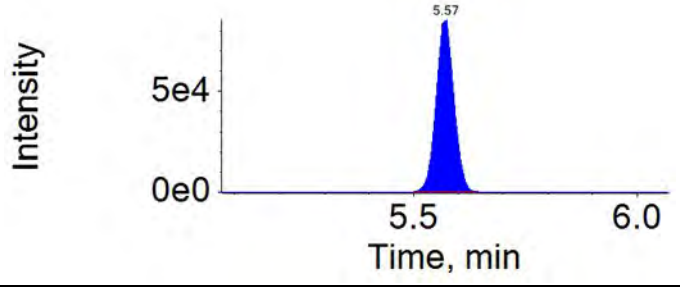
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



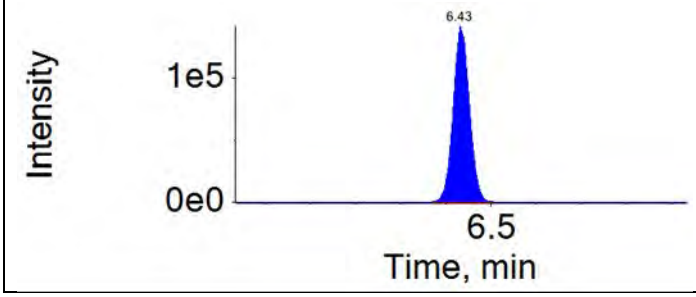


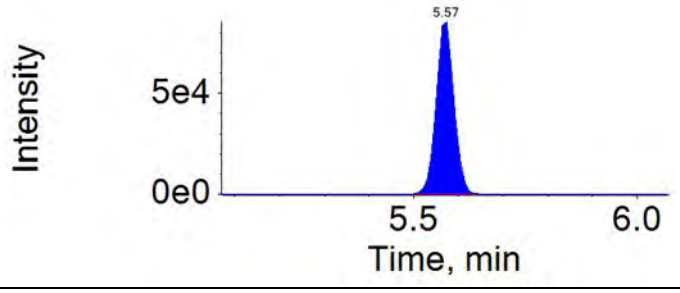
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0



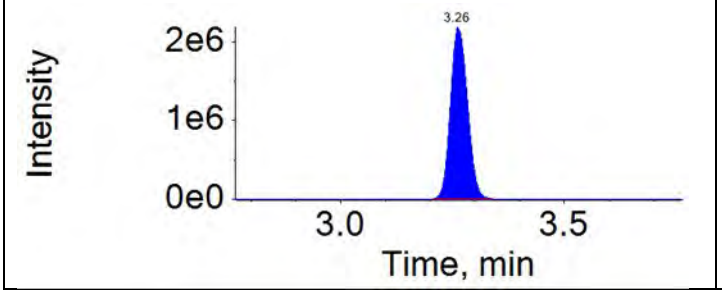


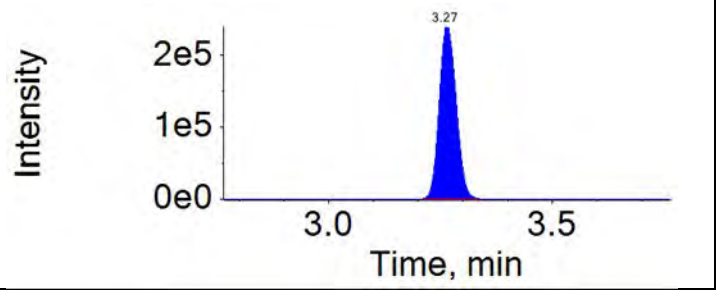
APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

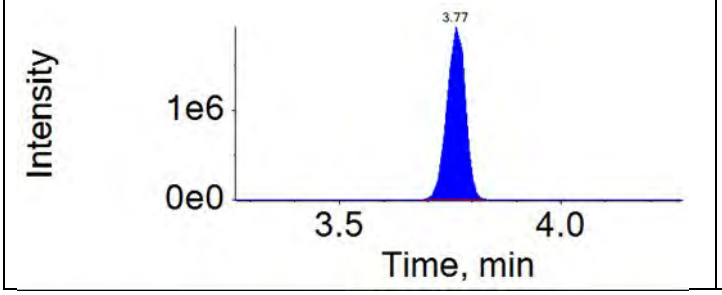
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

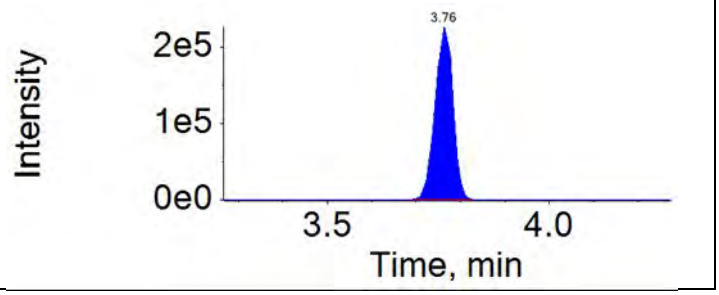
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



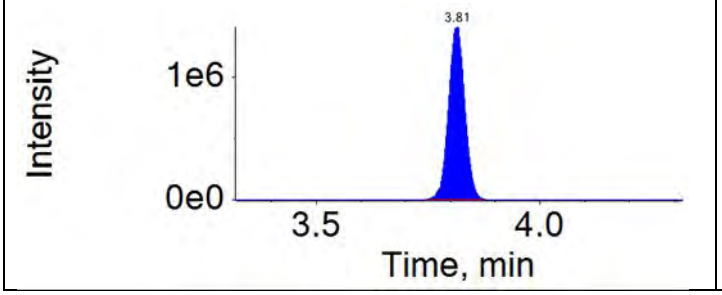


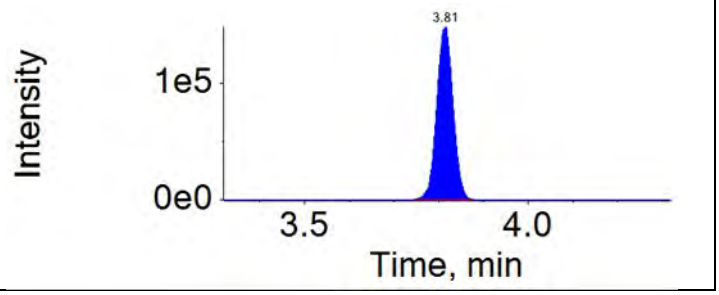
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



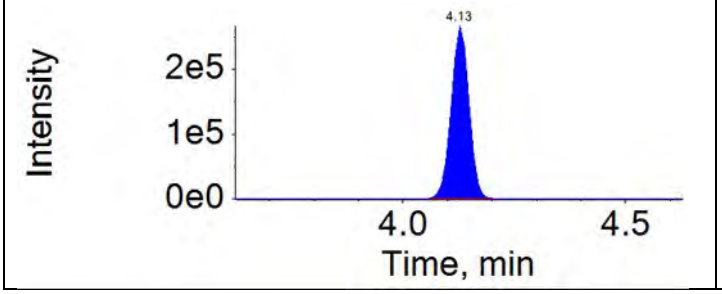


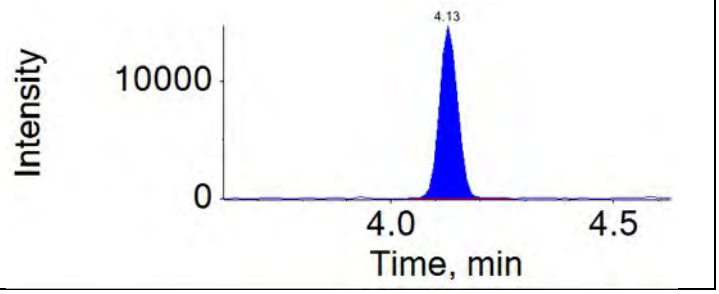
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





Analyte: 4:2-FTS	Extraction Standard: 13C2-4:2-FTS
327.0 / 307.0	329.0 / 81.0



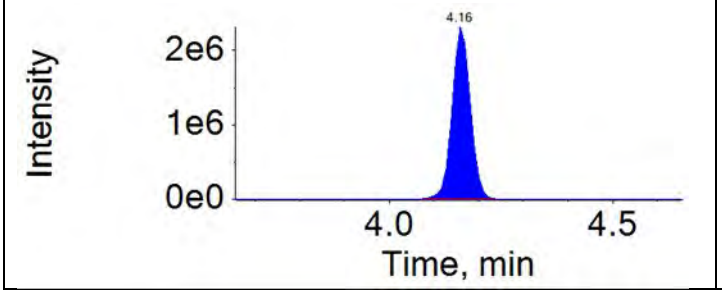


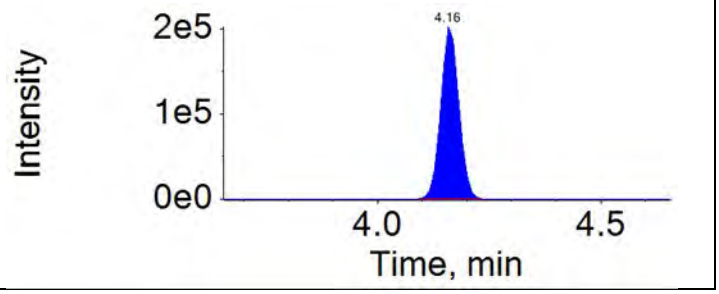
APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

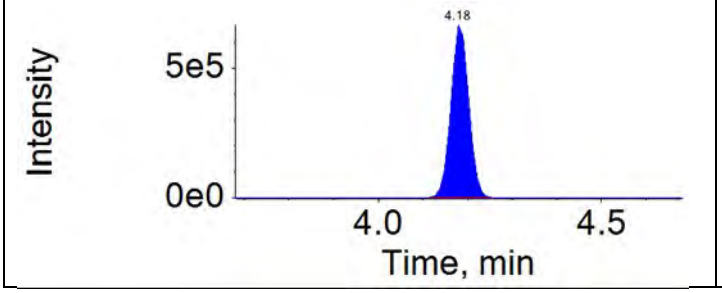
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

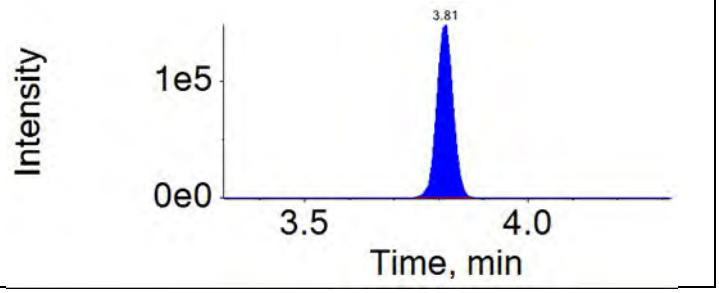
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



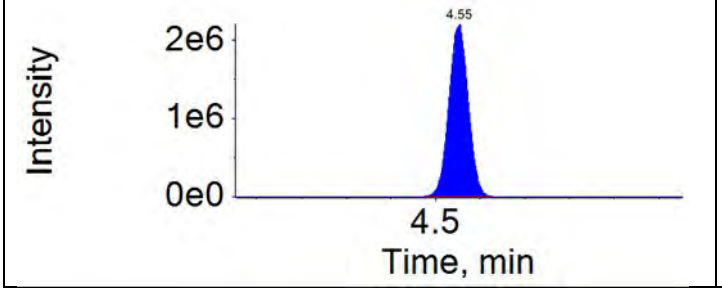


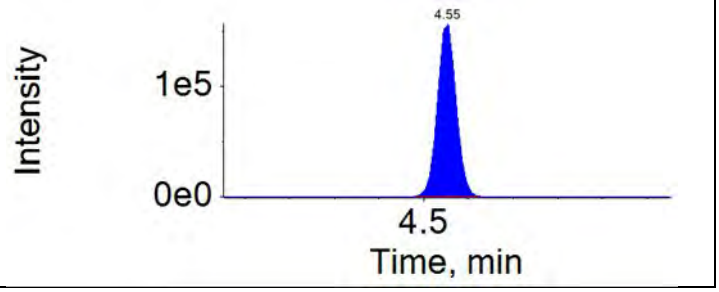
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



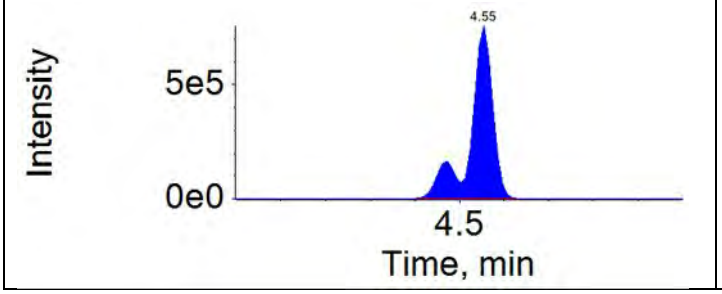


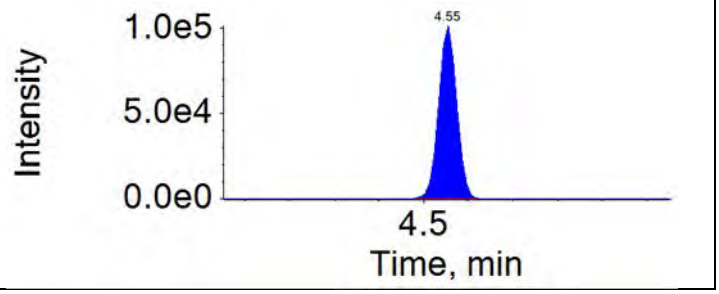
Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0





Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0



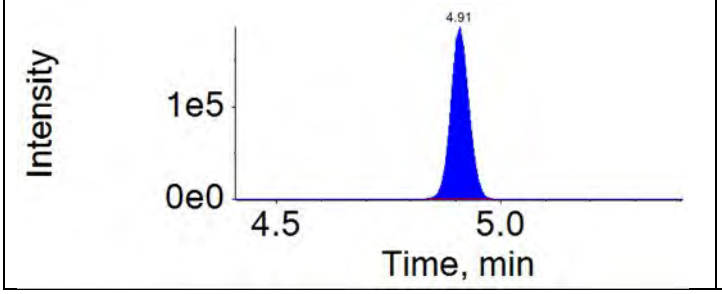


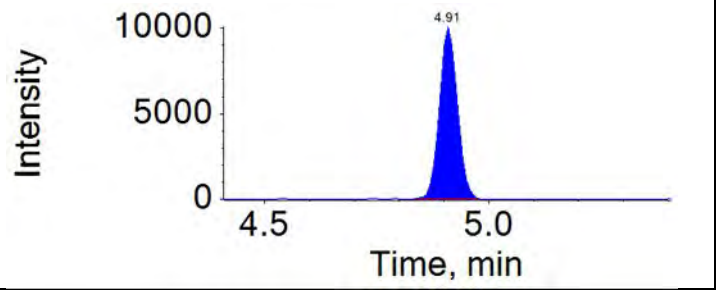
APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

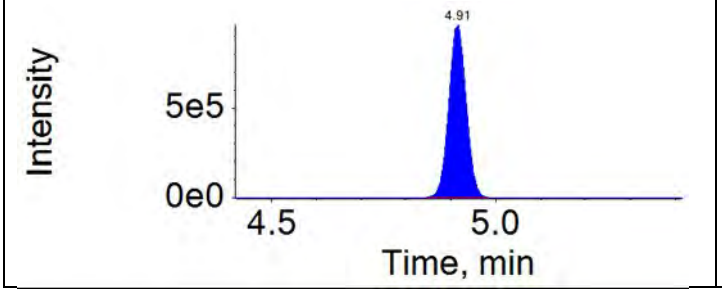
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

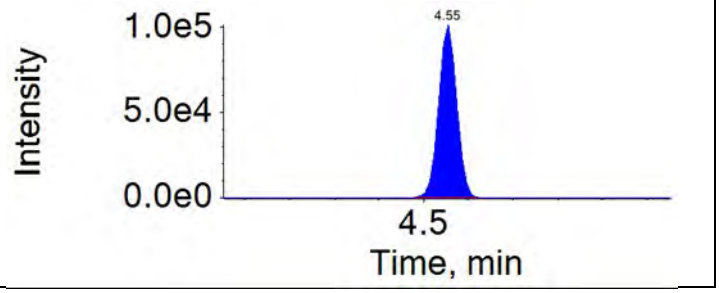
Analyte: 6:2-FTS	Extraction Standard: 13C2-6:2-FTS
427.0 / 407.0	429.0 / 81.0



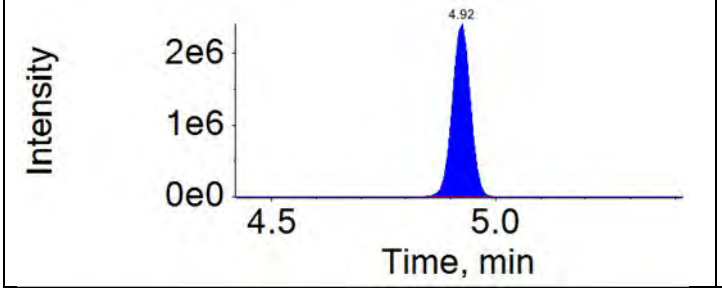


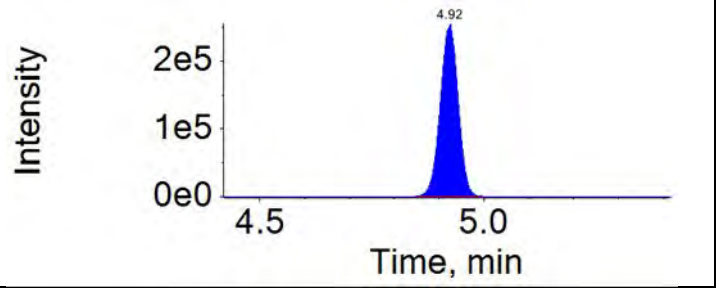
Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0



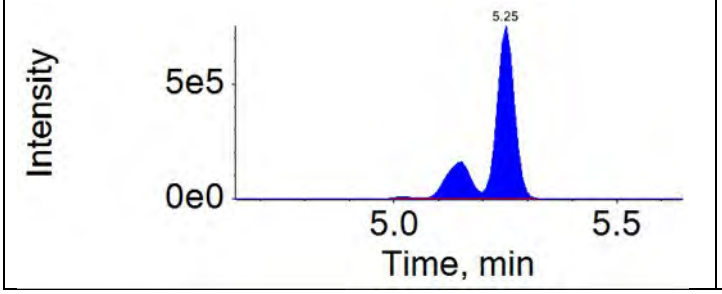


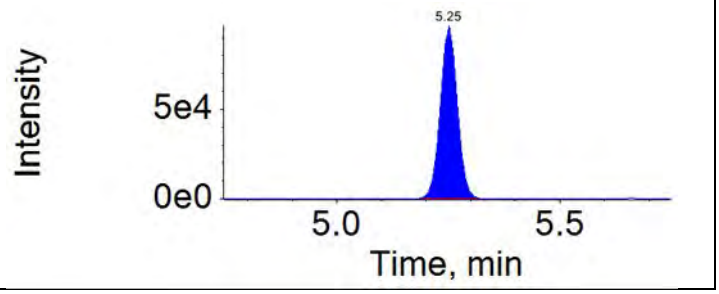
Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0





Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0



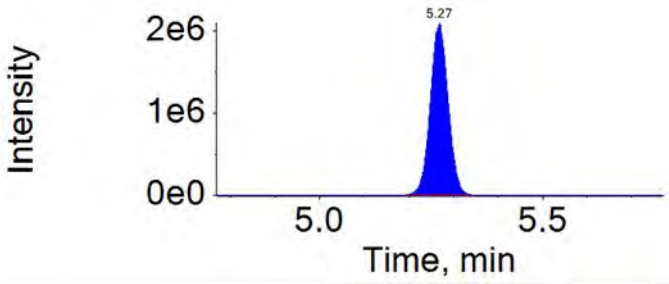


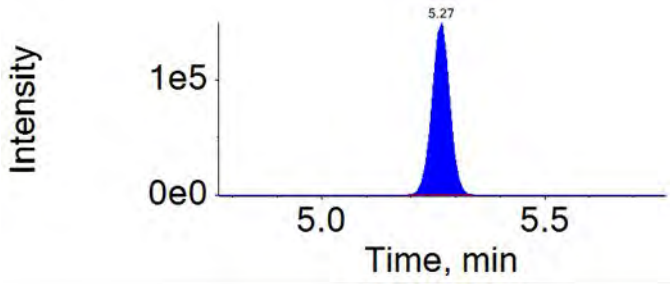
APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

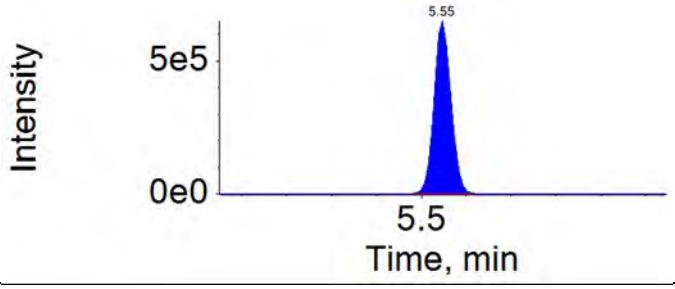
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

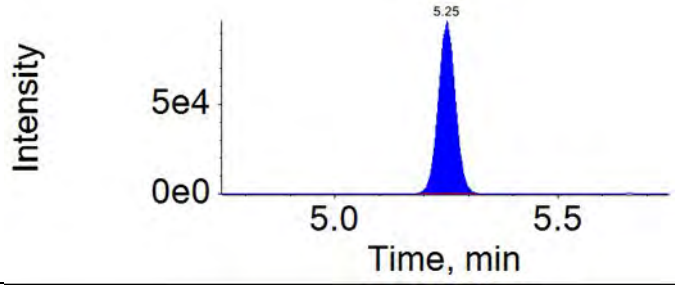
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



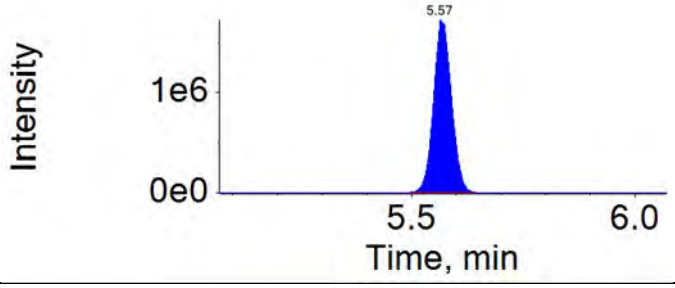


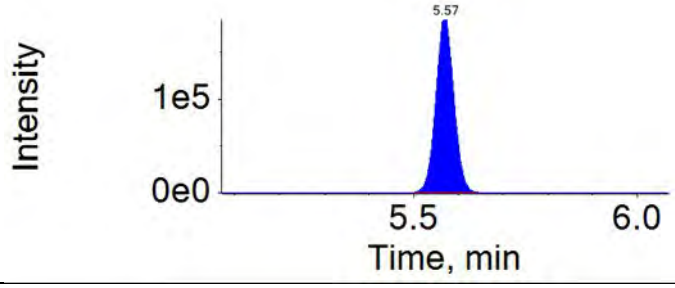
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



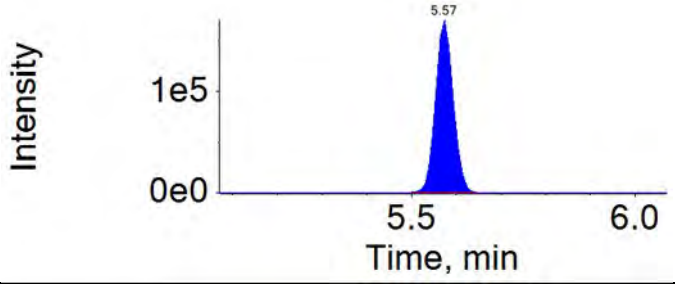


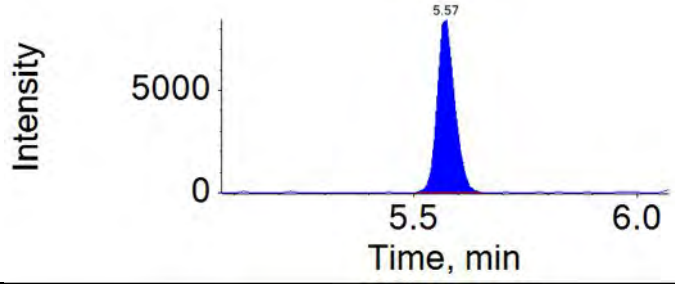
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





Analyte: 8:2-FTS	Extraction Standard: 13C2-8:2-FTS
527.0 / 507.0	529.0 / 81.0



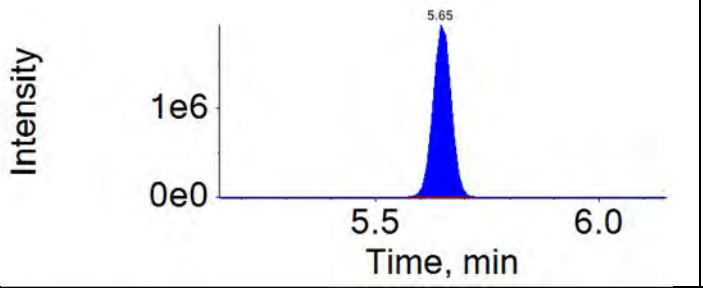


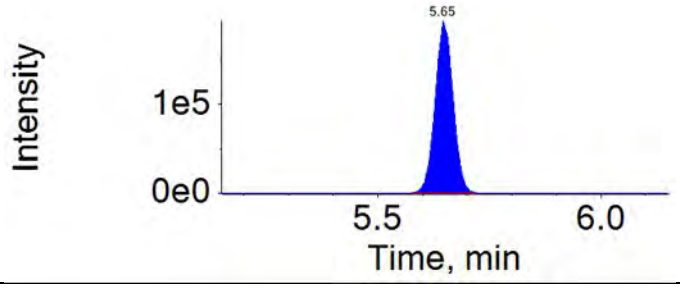
APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

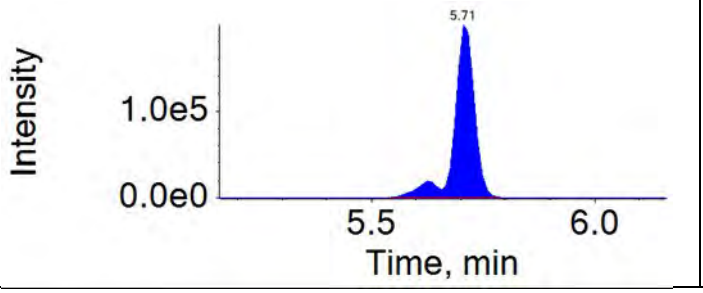
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

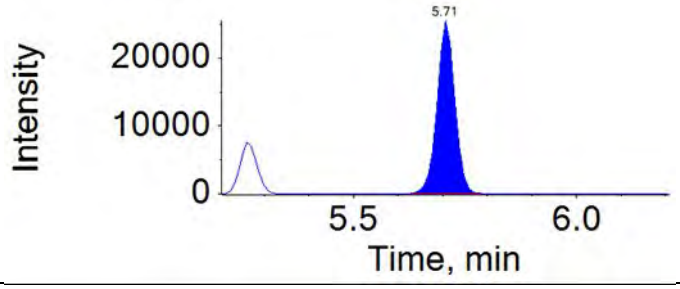
Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0



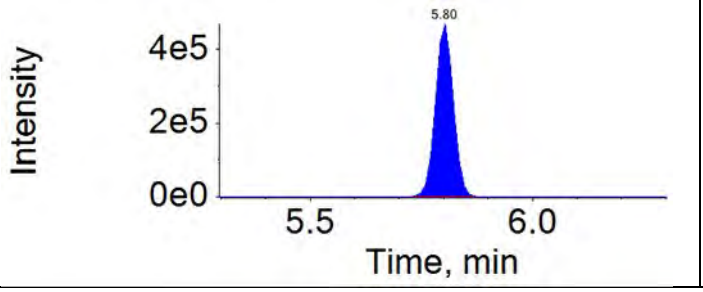


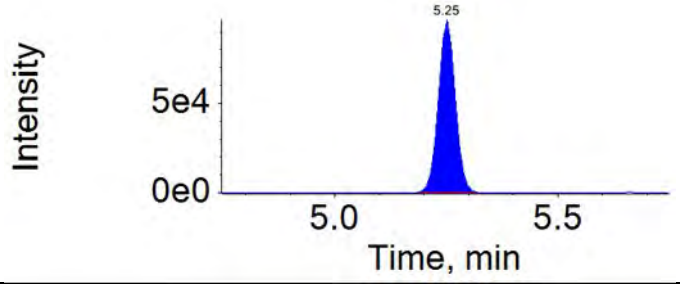
Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0



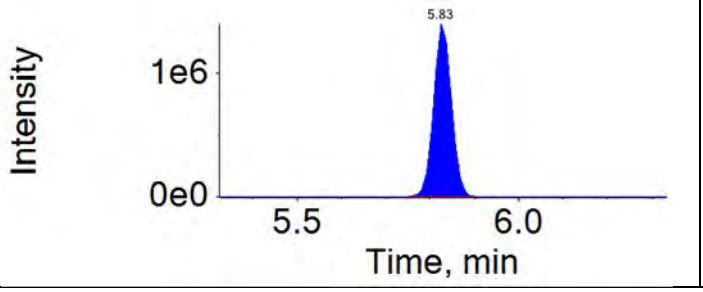


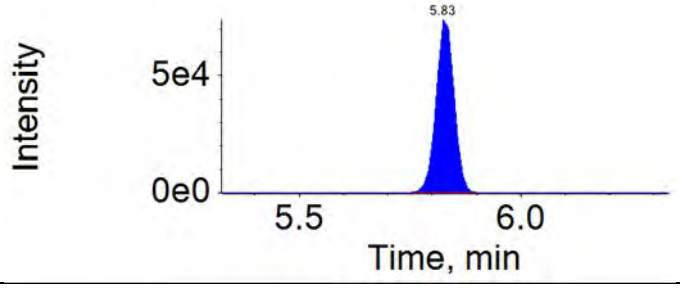
Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0





Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0



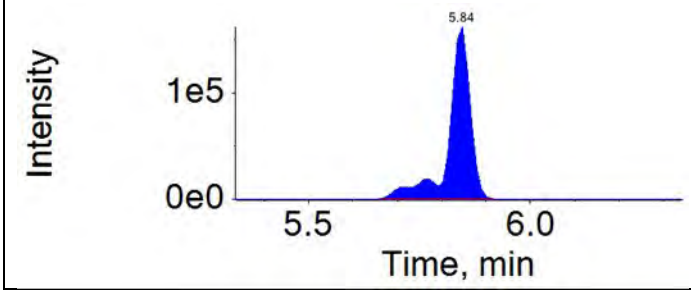


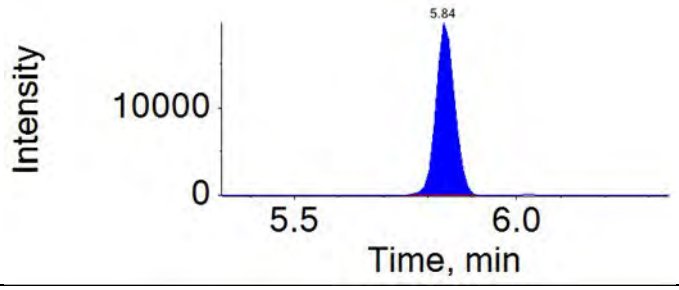
APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

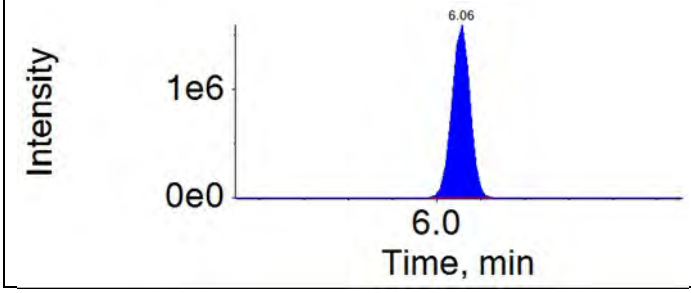
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

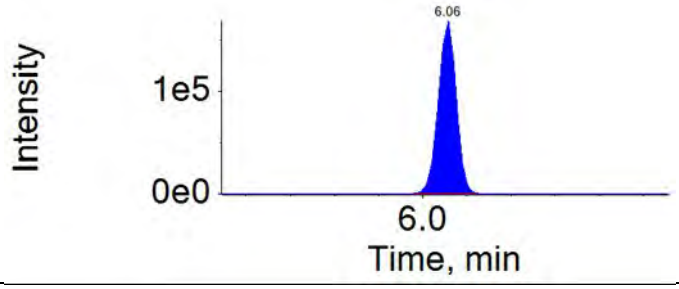
Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0



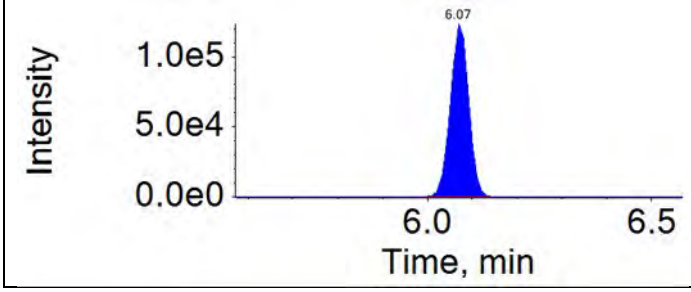


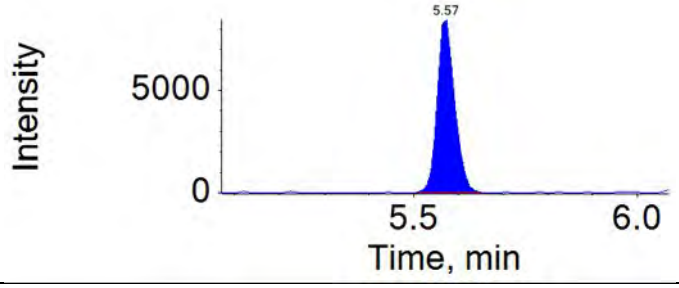
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0



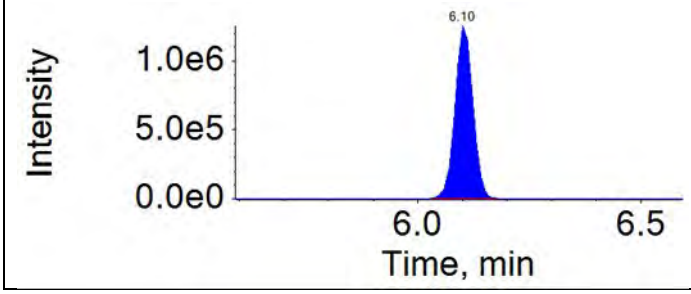


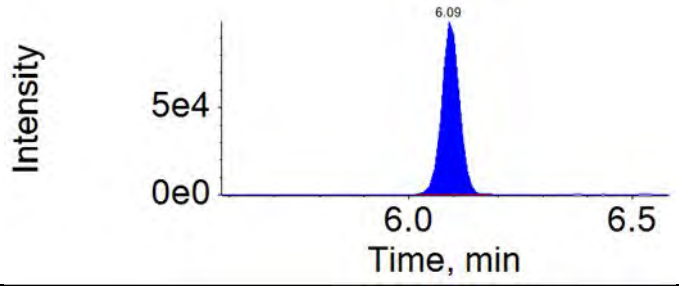
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0





Analyte: NMePFOSAE	Extraction Standard: d7-NMePFOSAE
616.0 / 59.0	623.0 / 59.0



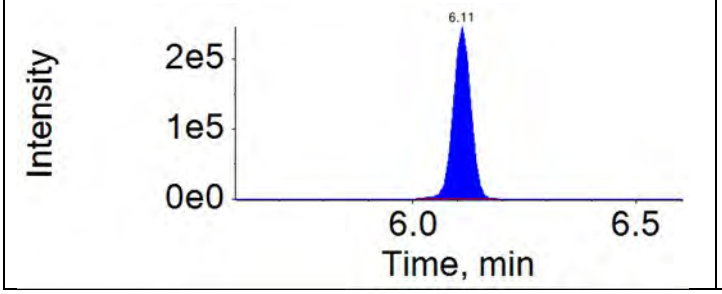


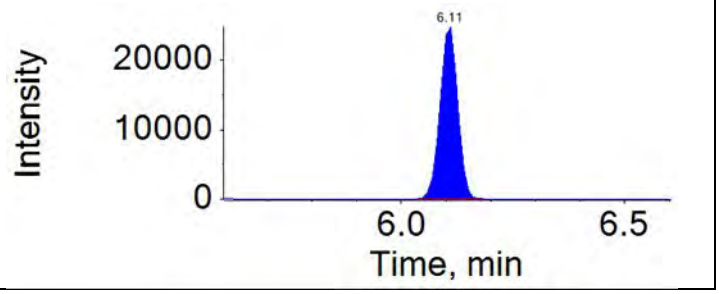
APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

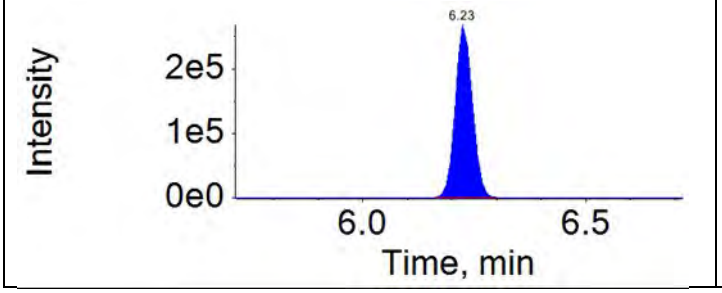
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

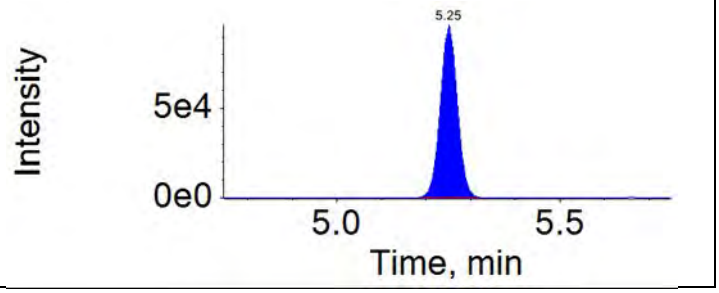
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



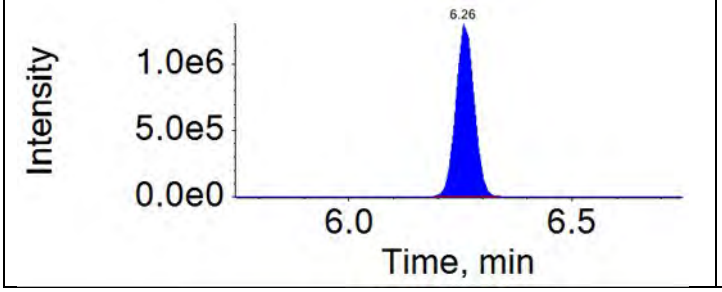


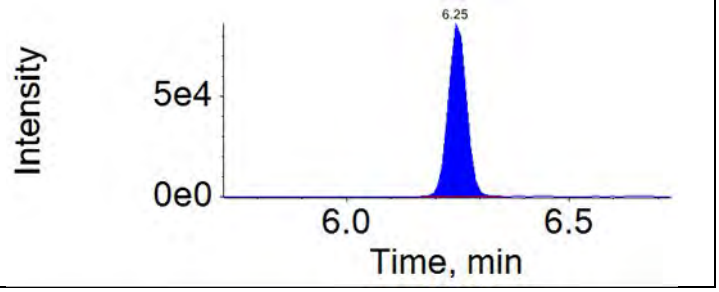
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



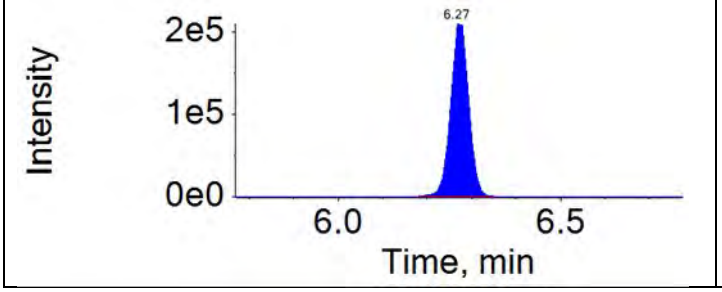


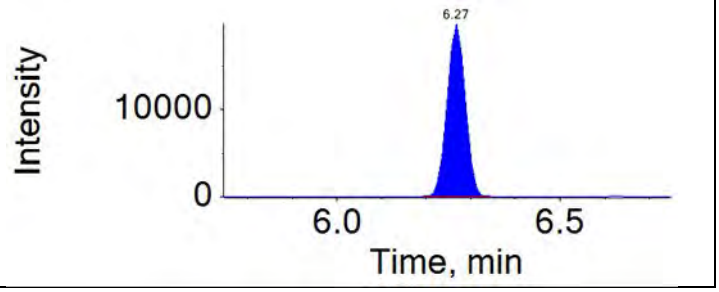
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





Analyte: NEtPFOSA	Extraction Standard: d5-NEtPFOSA
526.0 / 169.0	531.0 / 169.0



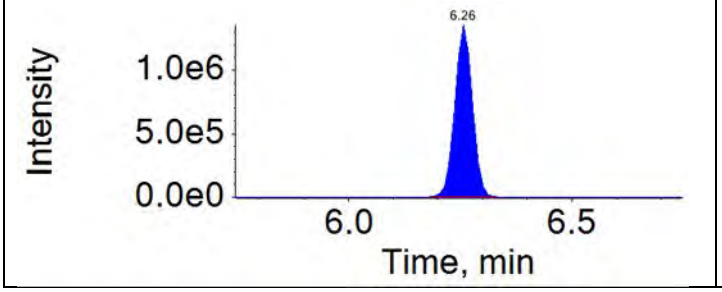


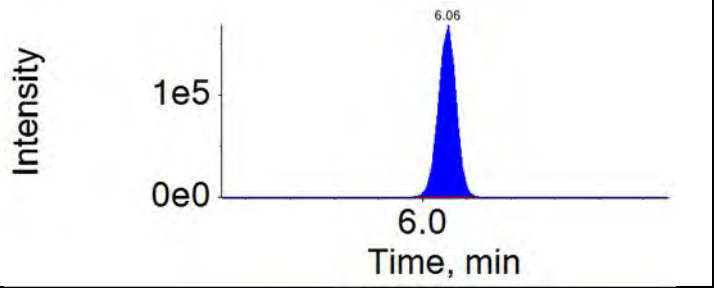
APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

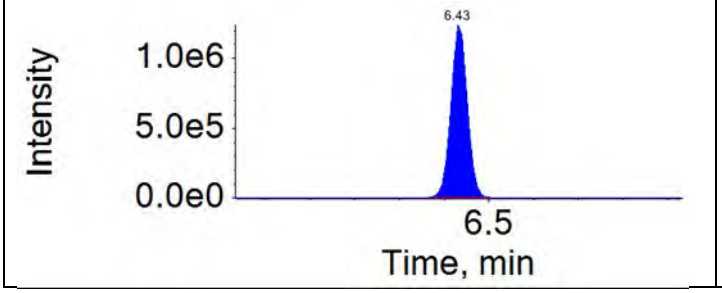
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

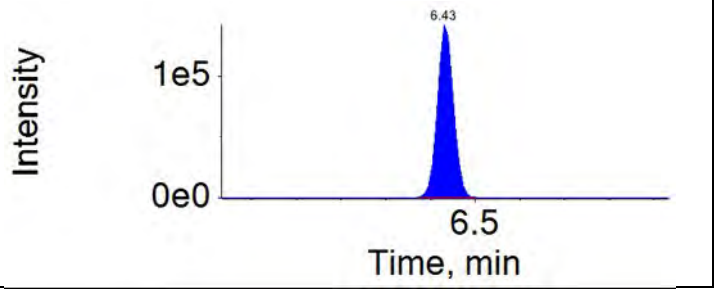
Analyte: PFTrDA	Extraction Standard: 13C2-PFDoDA
663.0 / 619.0	615.0 / 570.0



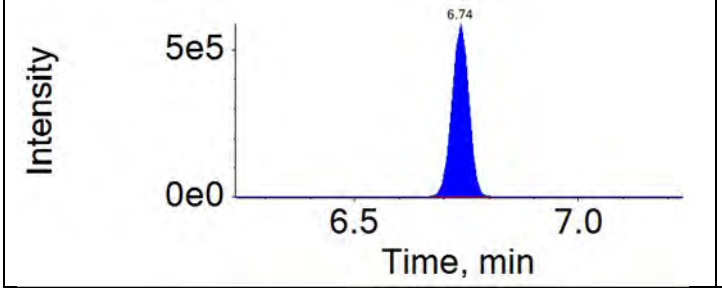


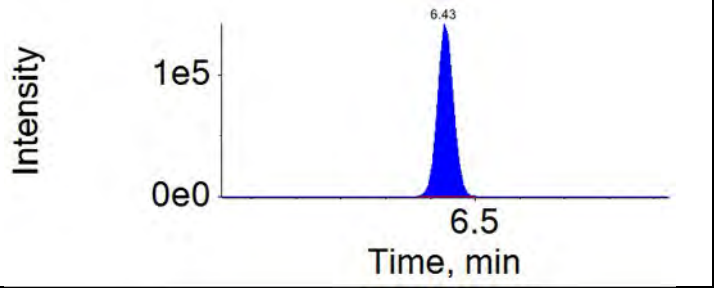
Analyte: PFTeDA	Extraction Standard: 13C2-PFTeDA
713.0 / 669.0	715.0 / 670.0



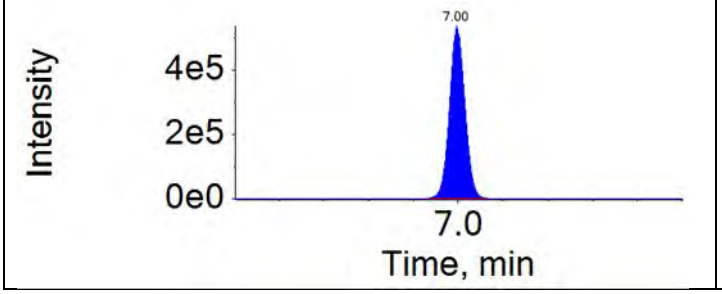


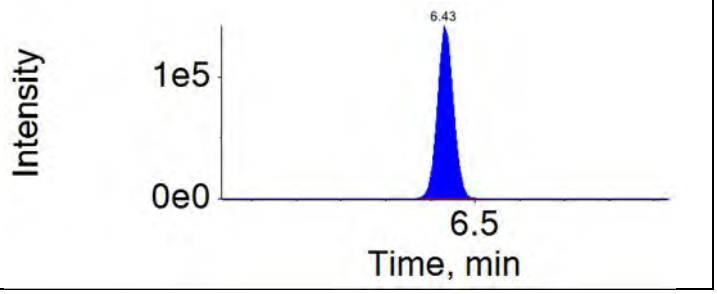
Analyte: PFHxDA	Extraction Standard: 13C2-PFTeDA
813.0 / 769.0	715.0 / 670.0





Analyte: PFODA	Extraction Standard: 13C2-PFTeDA
913.0 / 869.0	715.0 / 670.0



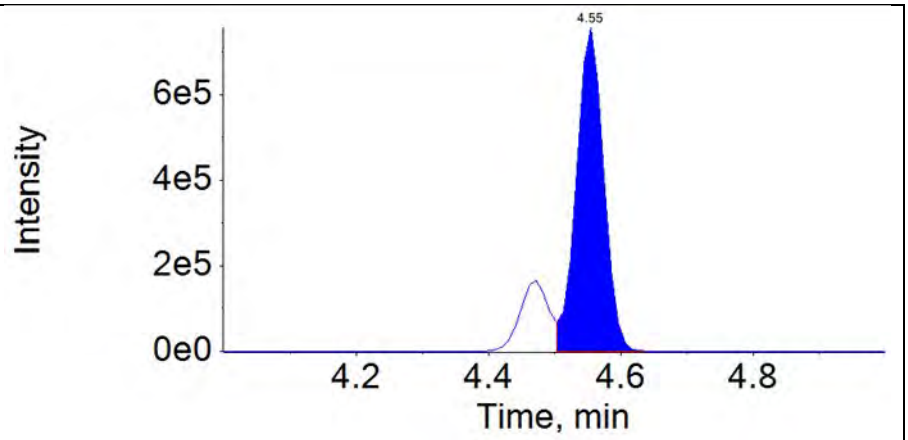


APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

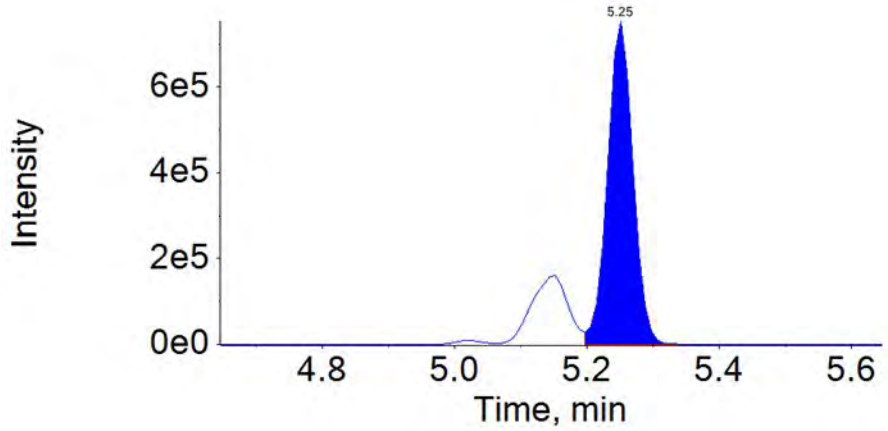
Results Table Name: 18NOV12DCAL
Results Table Date: 11/12/2018 6:23:42 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFHxS
RT (min.):
4.55
Peak Area:
2168276.79
Mass Range:
399.0 / 80.0
File Name:
18NOV12DCAL-47.wiff
Sample Name:
CAL6



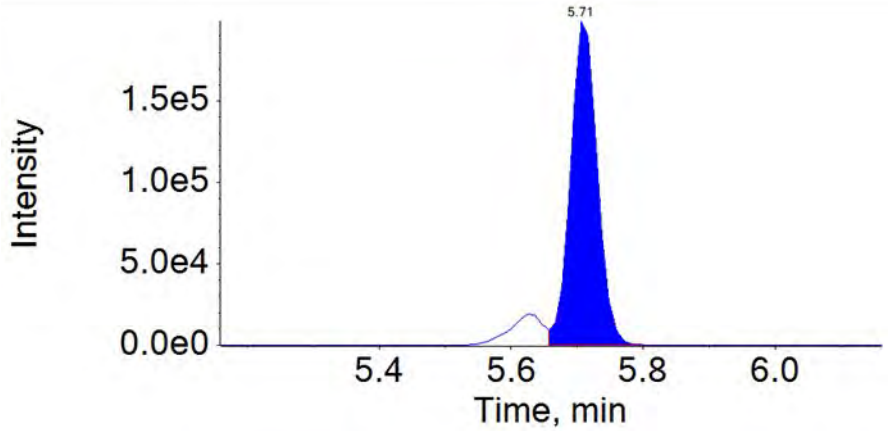
Integration Comment: incorrect integration

Component Name:
PFOS
RT (min.):
5.25
Peak Area:
2015391.27
Mass Range:
499.0 / 80.0
File Name:
18NOV12DCAL-47.wiff
Sample Name:
CAL6



Integration Comment: incorrect integration

Component Name:
NMeFOSAA
RT (min.):
5.71
Peak Area:
561930.92
Mass Range:
570.0 / 419.0
File Name:
18NOV12DCAL-47.wiff
Sample Name:
CAL6

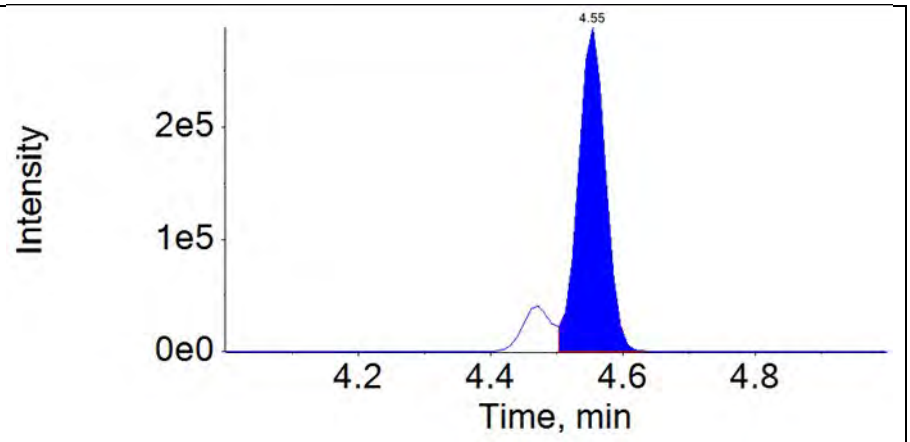


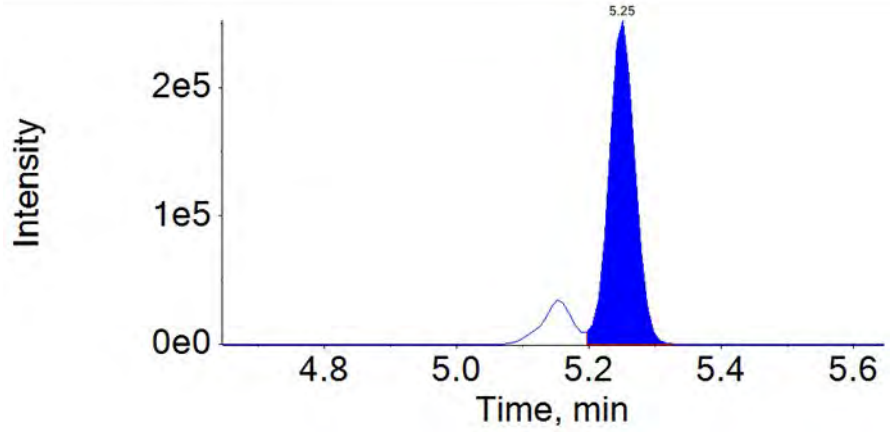
Integration Comment: incorrect integration

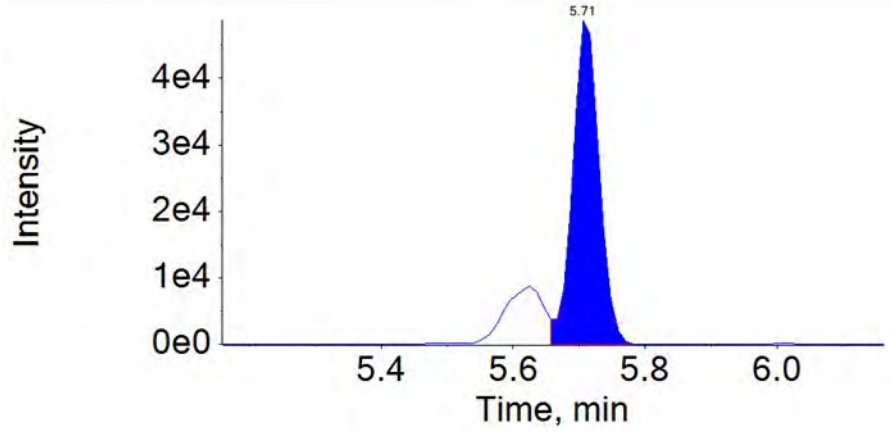
APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

Results Table Name: 18NOV12DCAL
Results Table Date: 11/12/2018 6:23:42 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name: PFHxS_2 **RT (min.):** 4.55 **Peak Area:** 827831.34 **Mass Range:** 399.0 / 99.0 **File Name:** 18NOV12DCAL-47.wiff **Sample Name:** CAL6	 **Integration Comment:** incorrect integration

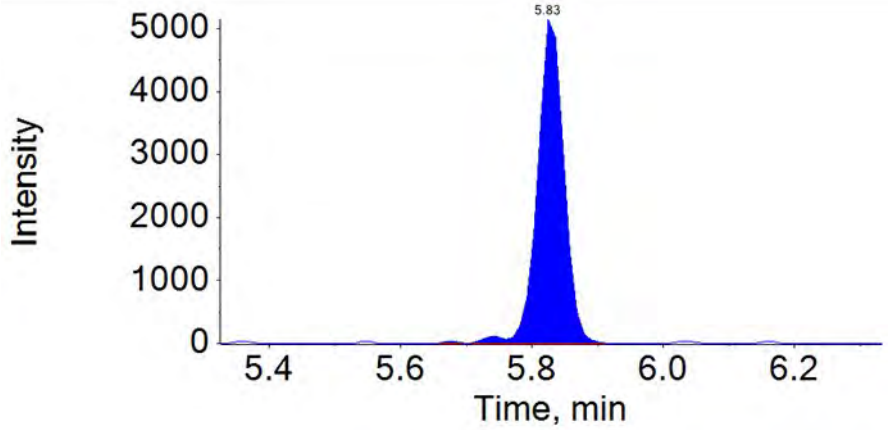
Component Name: PFOS_2 **RT (min.):** 5.25 **Peak Area:** 689553.42 **Mass Range:** 499.0 / 99.0 **File Name:** 18NOV12DCAL-47.wiff **Sample Name:** CAL6	 **Integration Comment:** incorrect integration

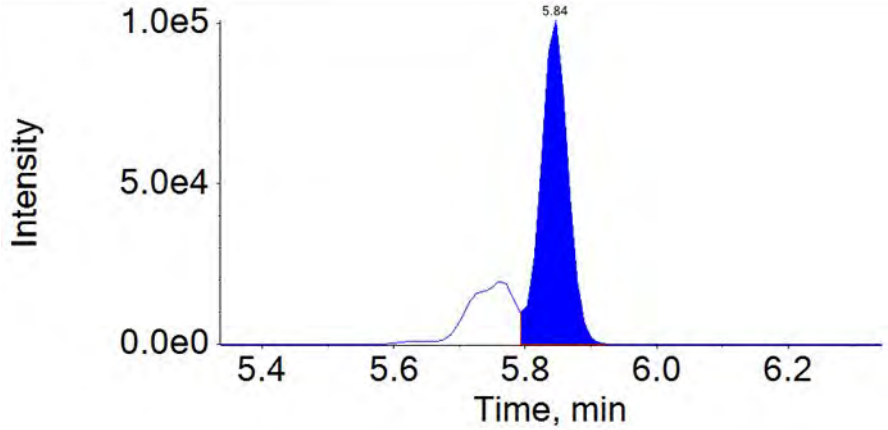
Component Name: NMeFOSAA_2 **RT (min.):** 5.71 **Peak Area:** 136171.13 **Mass Range:** 570.0 / 483.0 **File Name:** 18NOV12DCAL-47.wiff **Sample Name:** CAL6	 **Integration Comment:** incorrect integration

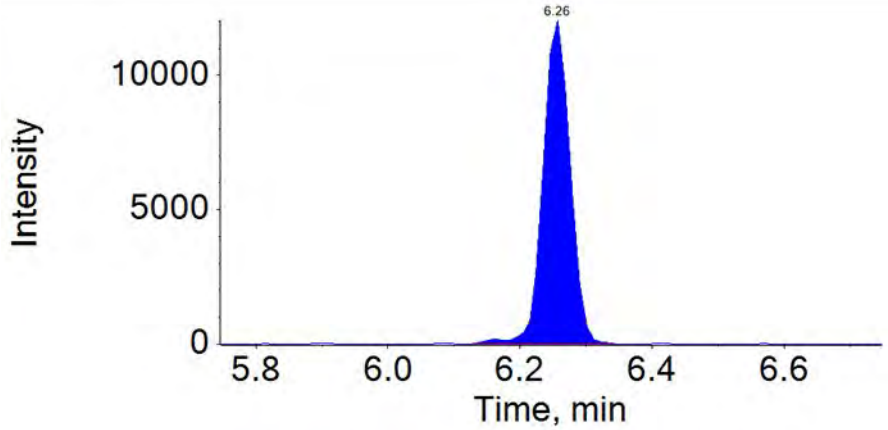
APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

Results Table Name: 18NOV12DCAL
Results Table Date: 11/12/2018 6:23:42 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name: PFUnDA_2 **RT (min.):** 5.83 **Peak Area:** 14552.55 **Mass Range:** 563.0 / 169.0 **File Name:** 18NOV12DCAL-47.wiff **Sample Name:** CAL6	 **Integration Comment:** incorrect integration

Component Name: NEtFOSAA_2 **RT (min.):** 5.84 **Peak Area:** 290918.50 **Mass Range:** 584.0 / 526.0 **File Name:** 18NOV12DCAL-47.wiff **Sample Name:** CAL6	 **Integration Comment:** incorrect integration

Component Name: PFTrDA_2 **RT (min.):** 6.26 **Peak Area:** 34575.92 **Mass Range:** 663.0 / 169.0 **File Name:** 18NOV12DCAL-47.wiff **Sample Name:** CAL6	 **Integration Comment:** incorrect integration

APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

Results Table Name: 18NOV12DCAL
Results Table Date: 11/12/2018 6:23:42 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Ion Ratio Report

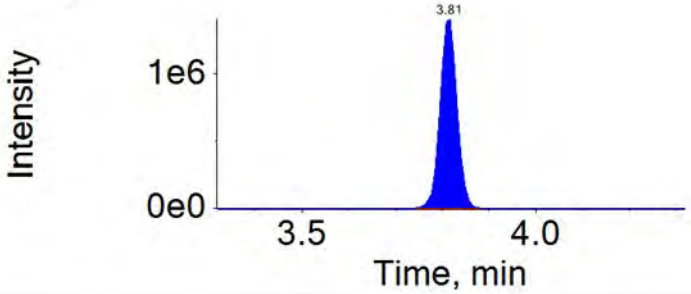
Sample Name: CAL6 **Instrument Name:** LM27631 **File Name:** 18NOV12DCAL-47.wiff

Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	3.81	1.00	3588084.15	A	0.3619	0.3688			
PFBS_2	3.81	1.00	1323155.38	A	0.3619	0.3688	2	50	
4:2-FTS	4.13	1.00	738293.95	A	0.6730	0.6272			
4:2 FTS_2	4.13	1.00	463074.71	A	0.6730	0.6272		#NA!	
PFHxA	4.16	1.00	6593778.96	A	0.0117	0.0113			
PFHxA_2	4.16	1.00	74578.79	A	0.0117	0.0113	-3	50	
PFPeS	4.18	1.10	1847826.78	A	0.5191	0.5187			
PFPeS_2	4.18	1.10	958558.40	A	0.5191	0.5187	0	50	
PFHpA	4.55	1.00	6648455.32	A	0.0563	0.0564			
PFHpA_2	4.55	1.00	375071.53	A	0.0563	0.0564	0	50	
PFHxS	4.55	1.00	2662852.00	M	0.3428	0.3565			
PFHxS_2	4.55	1.00	949378.20	M	0.3428	0.3565	4	50	
6:2-FTS	4.91	1.00	523949.46	A	0.6604	0.6368			
6:2 FTS_2	4.91	1.00	333633.12	A	0.6604	0.6368		#NA!	
PFHpS	4.91	1.08	2604868.63	A	0.4066	0.4130			
PFHpS_2	4.91	1.08	1075742.12	A	0.4066	0.4130	2	50	
PFOA	4.92	1.00	6758642.79	A	0.0562	0.0574			
PFOA_2	4.92	1.00	387863.69	A	0.0562	0.0574	2	50	
PFOS	5.25	1.00	2664957.22	M	0.2968	0.3006			
PFOS_2	5.25	1.00	801195.47	M	0.2968	0.3006	1	50	
PFNA	5.27	1.00	5820576.59	A	0.0229	0.0205			
PFNA_2	5.27	1.00	119436.95	A	0.0229	0.0205	-10	50	
PFNS	5.55	1.06	1709959.45	A	0.4828	0.4693			
PFNS_2	5.55	1.06	802535.42	A	0.4828	0.4693	-3	50	
PFDA	5.57	1.00	4802967.81	A	0.0081	0.0072			
PFDA_2	5.57	1.00	34768.56	A	0.0081	0.0072	-10	50	
8:2-FTS	5.57	1.00	469719.63	A	0.6814	0.5683			
8:2 FTS_2	5.57	1.00	266934.57	A	0.6814	0.5683		#NA!	
NMeFOSAA	5.71	1.00	627854.43	M	0.2569	0.2739			
NMeFOSAA_2	5.71	1.00	171981.91	M	0.2569	0.2739	7	50	
PFDS	5.80	1.10	1313570.32	A	0.5144	0.4832			
PFDS_2	5.80	1.11	634717.73	A	0.5144	0.4832	-6	50	
PFUnDA	5.83	1.00	3923979.21	A	0.0058	0.0036			
PFUnDA_2	5.83	1.00	14257.68	M	0.0058	0.0036	-38	50	
NEtFOSAA	5.84	1.00	551865.73	A	0.7253	0.6936			
NEtFOSAA_2	5.84	1.00	382778.11	M	0.7253	0.6936	-4	50	
PFDoDA	6.06	1.00	4582985.49	A	0.0157	0.0136			
PFDoDA_2	6.06	1.00	62235.50	A	0.0157	0.0136	-13	50	
10:2-FTS	6.07	1.09	348263.21	A	0.6356	0.6654			
10:2 FTS_2	6.07	1.09	231731.38	A	0.6356	0.6654		#NA!	
PFTrDA	6.26	1.03	3691733.76	A	0.0086	0.0093			
PFTrDA_2	6.26	1.03	34255.33	M	0.0086	0.0093	8	50	
PFTeDA	6.43	1.00	3149020.22	A	0.0062	0.0065			
PFTeDA_2	6.43	1.00	20486.74	A	0.0062	0.0065	4	50	
PFHxDA	6.74	1.05	1533920.21	A	0.0683	0.0655			
PFHxDA_2	6.73	1.05	100532.17	A	0.0683	0.0655	-4	50	
PFODA	7.00	1.09	1270897.62	A	0.0277	0.0264			
PFODA_2	7.00	1.09	33518.79	A	0.0277	0.0264	-5	50	

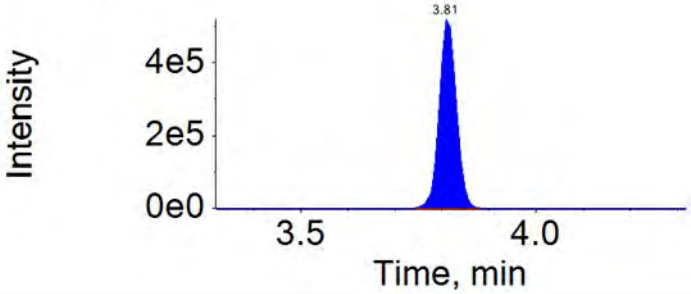
APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

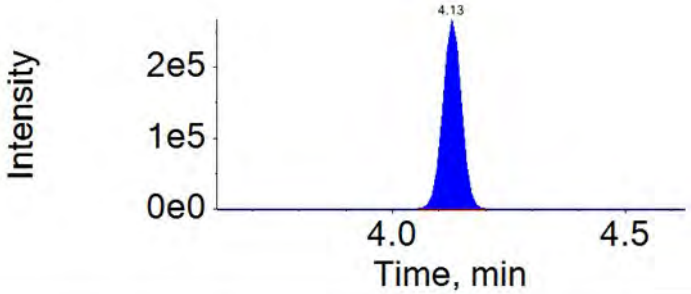
Component: PFBS
Primary Mass: 299.0 / 80.0



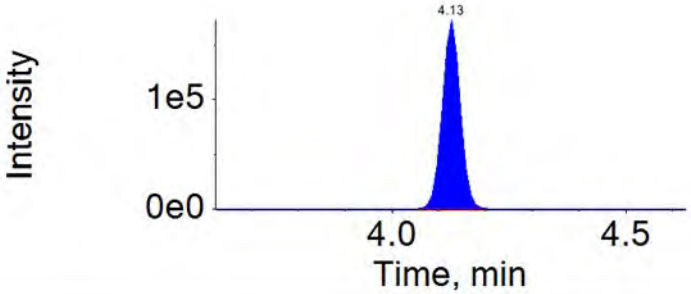
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



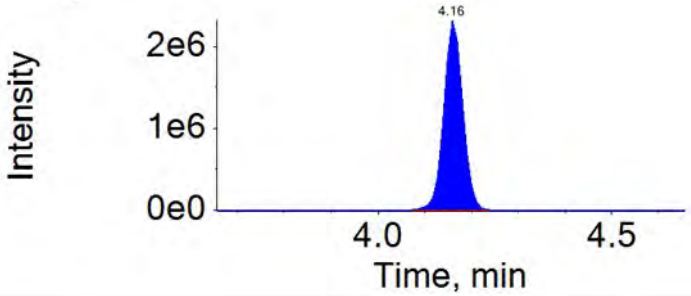
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



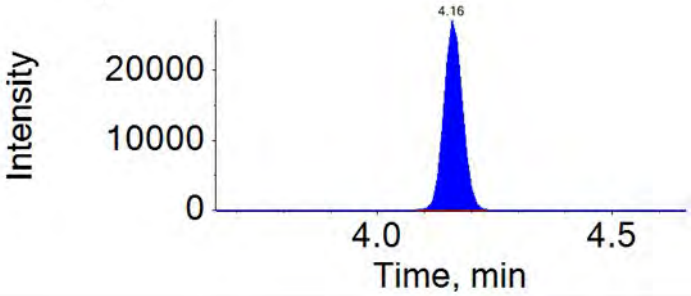
Component: 4:2 FTS_2
Secondary Mass: 327.0 / 81.0



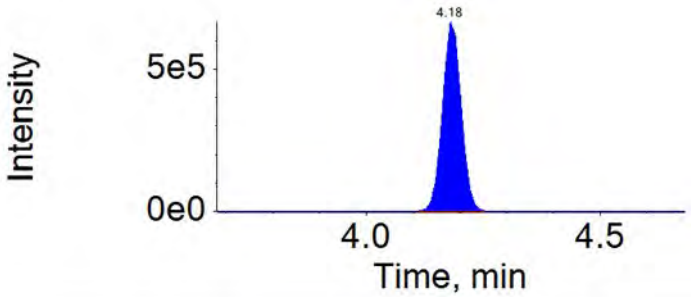
Component: PFHxA
Primary Mass: 313.0 / 269.0



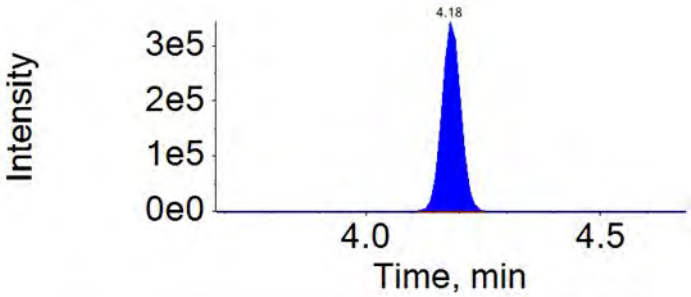
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



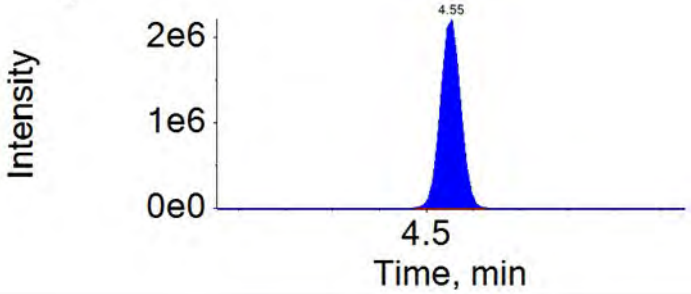
Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



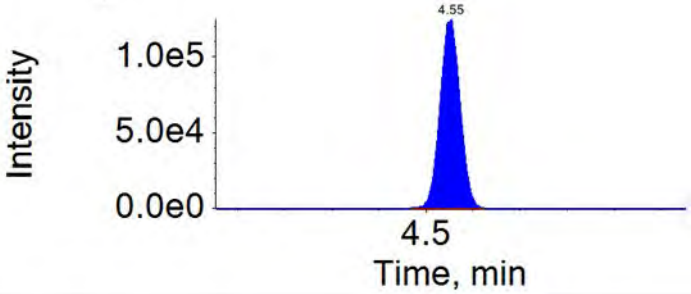
APPROVED
By MCD at 6:33 pm, 11/12/18

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By HMK at 10:53 am, 11/13/18

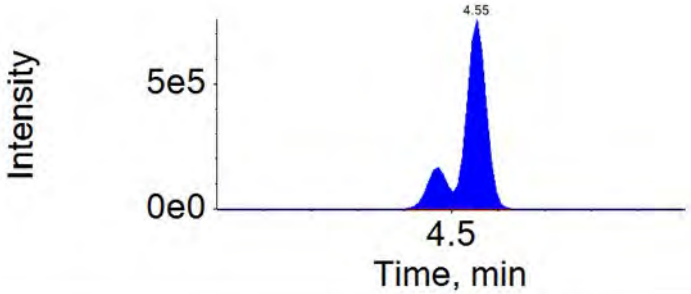
Component: PFHpA
Primary Mass: 363.0 / 319.0



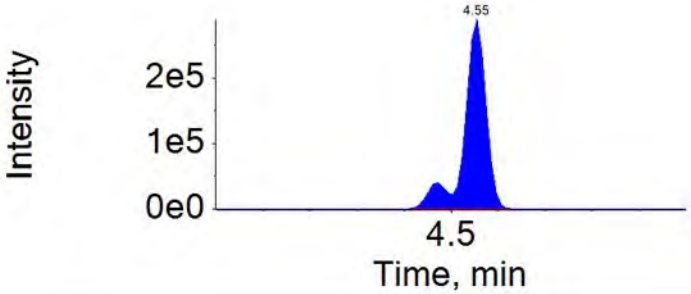
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



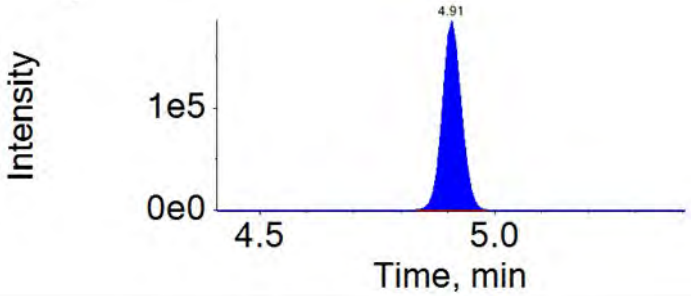
Component: PFHxS
Primary Mass: 399.0 / 80.0



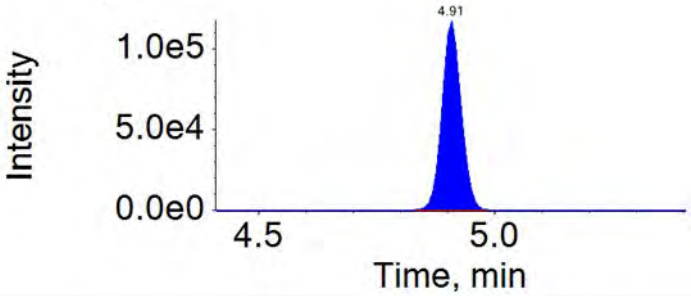
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



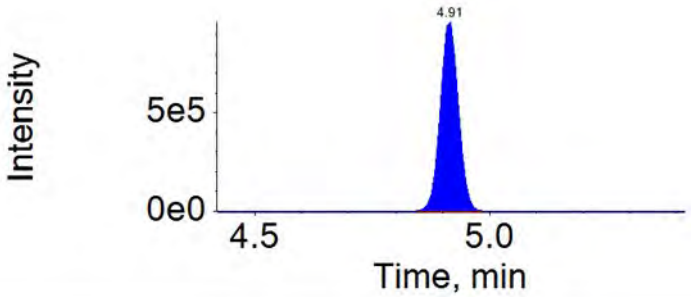
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



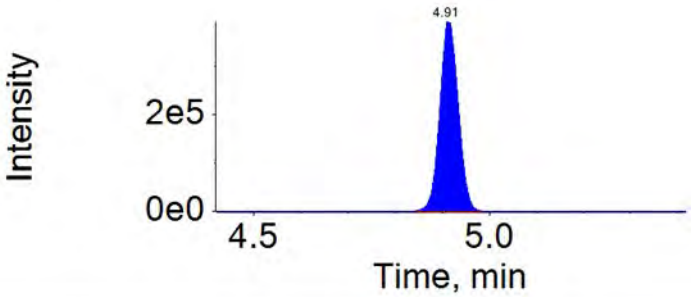
Component: 6:2 FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



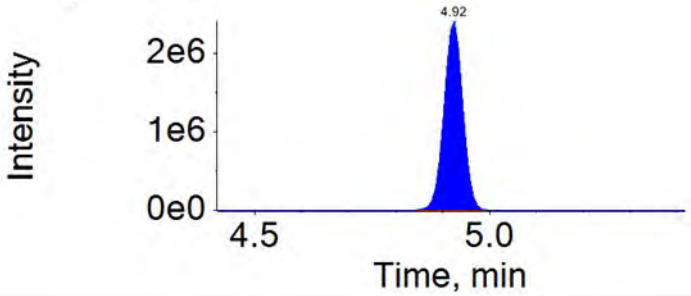
Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



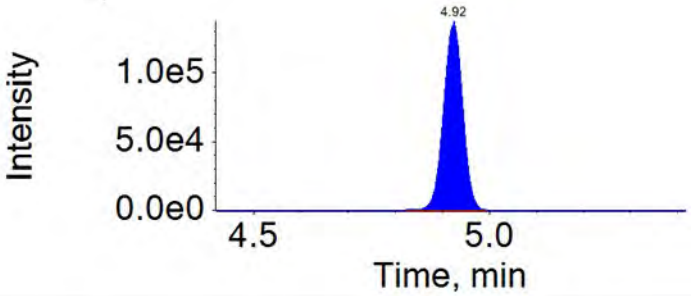
APPROVED
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By HMK at 10:53 am, 11/13/18

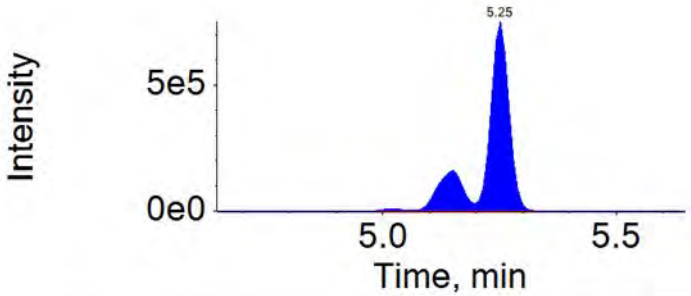
Component: PFOA
Primary Mass: 413.0 / 369.0



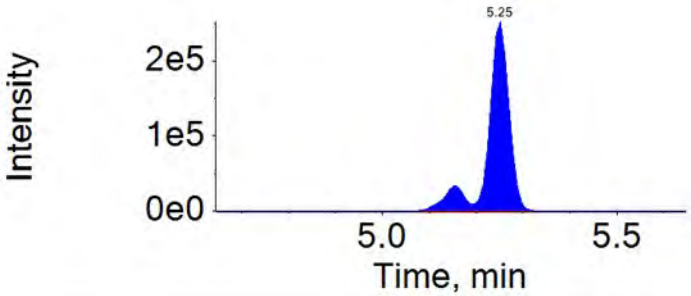
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Secondary Mass: 413.0 / 169.0



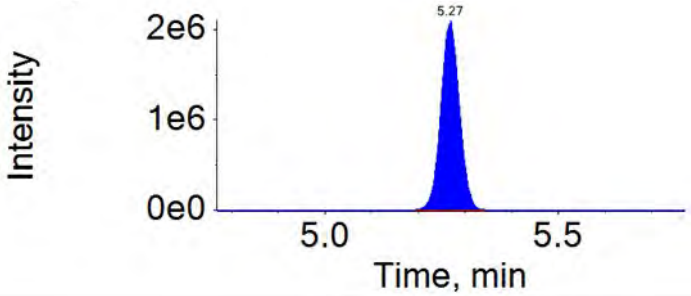
Component: PFOS
Primary Mass: 499.0 / 80.0



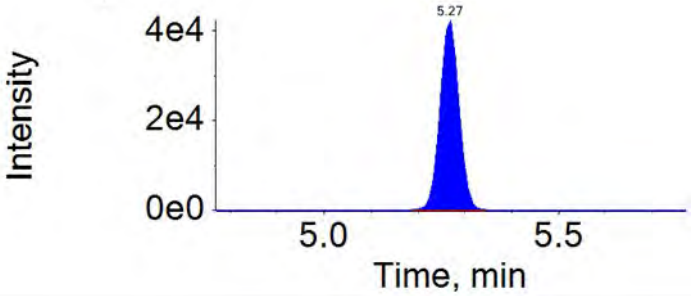
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Secondary Mass: 499.0 / 99.0



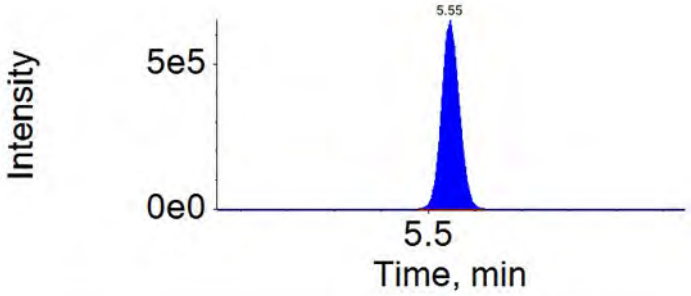
Component: PFNA
Primary Mass: 463.0 / 419.0



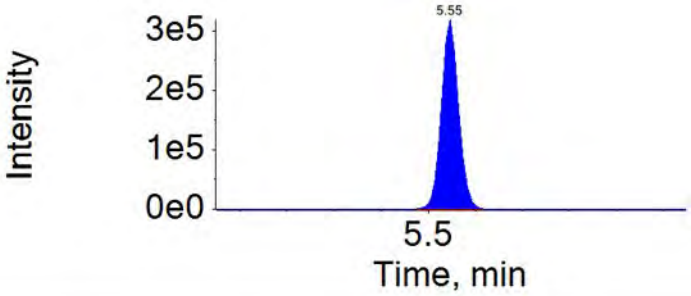
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



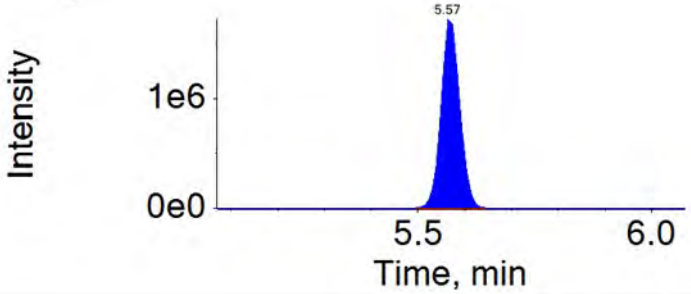
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



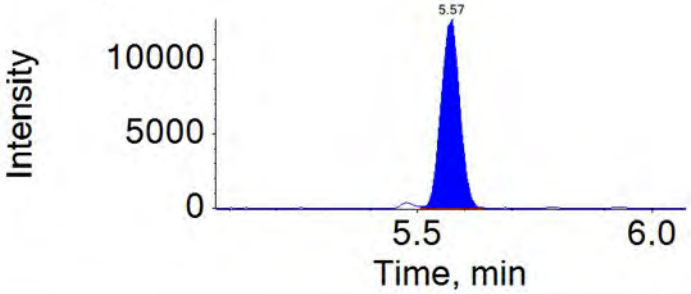
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REVIEWED
By HMK at 10:53 am, 11/13/18

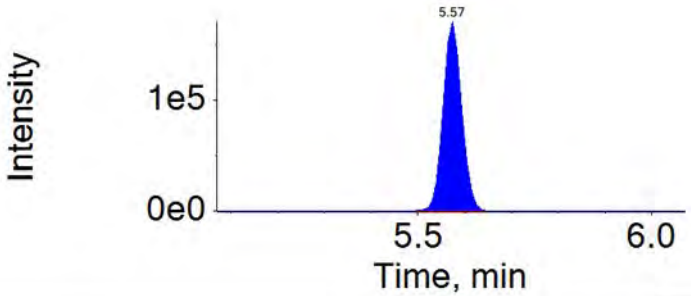
Component: PFDA
Primary Mass: 513.0 / 469.0



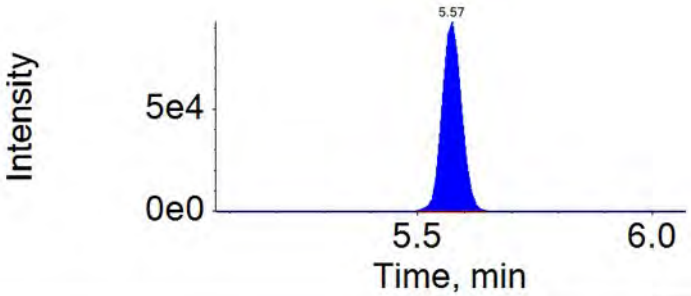
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



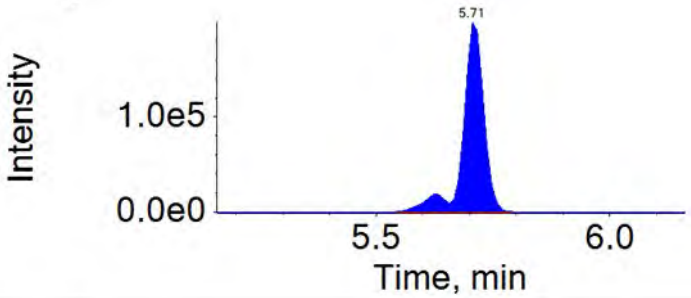
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



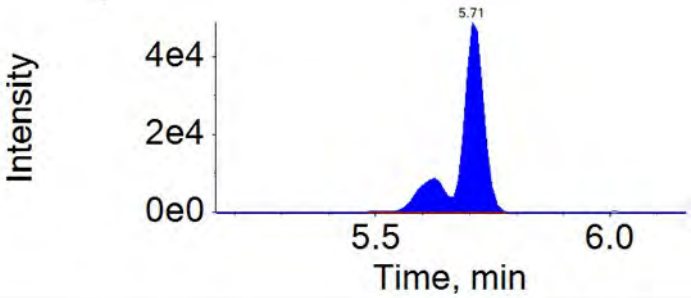
Component: 8:2 FTS_2
Secondary Mass: 527.0 / 81.0



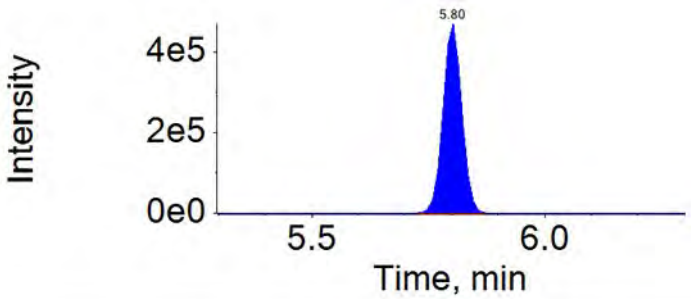
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



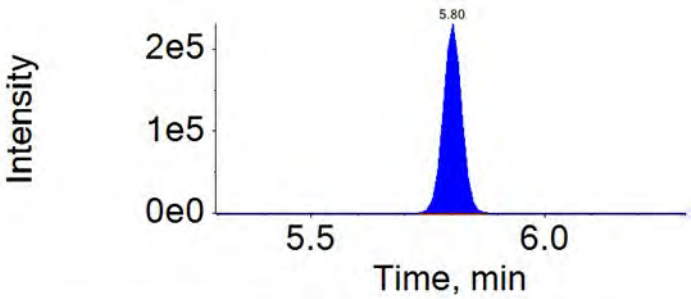
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



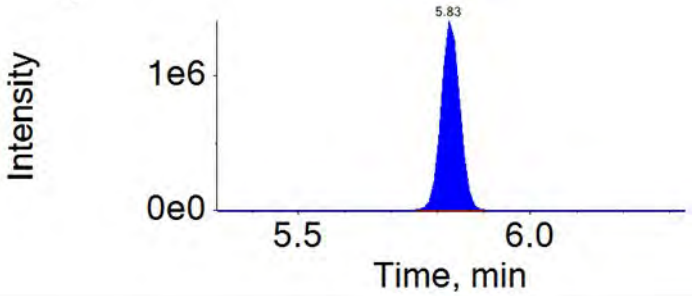
Component: PFDS_2
Secondary Mass: 599.0 / 99.0



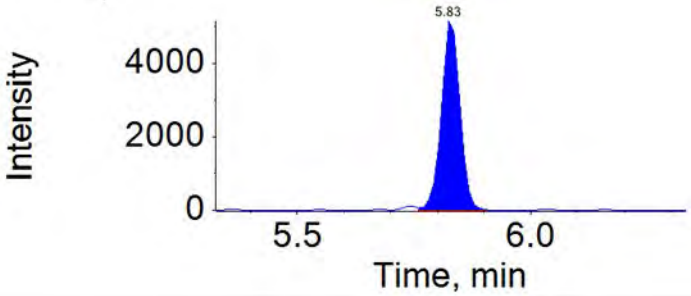
APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

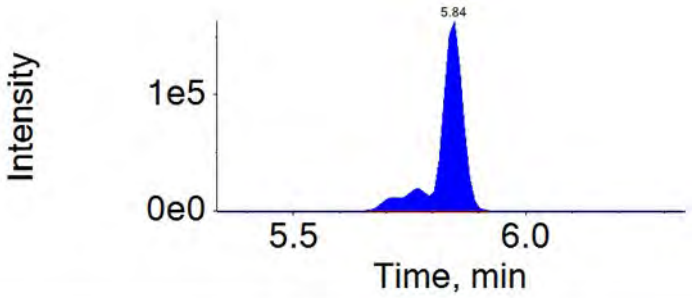
Component: PFUnDA
Primary Mass: 563.0 / 519.0



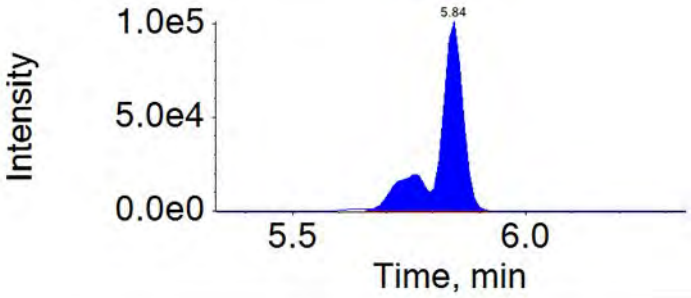
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



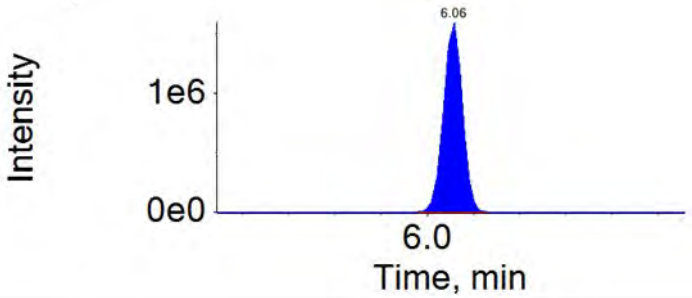
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



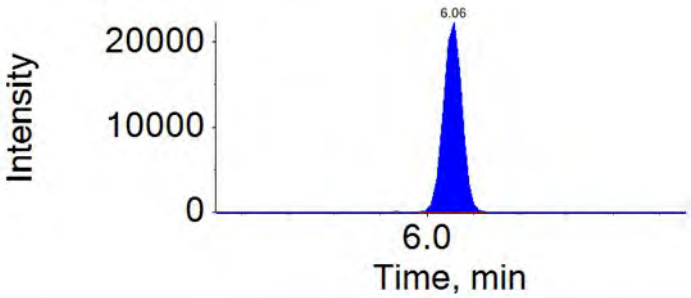
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



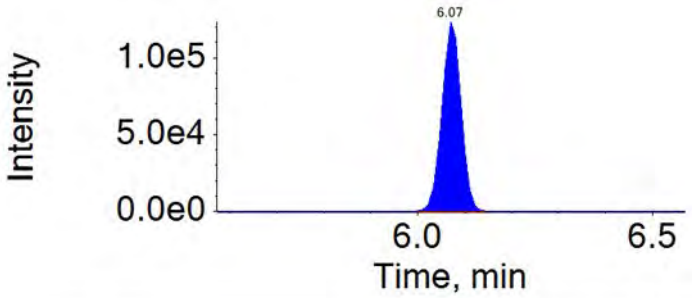
Component: PFDoDA
Primary Mass: 613.0 / 569.0



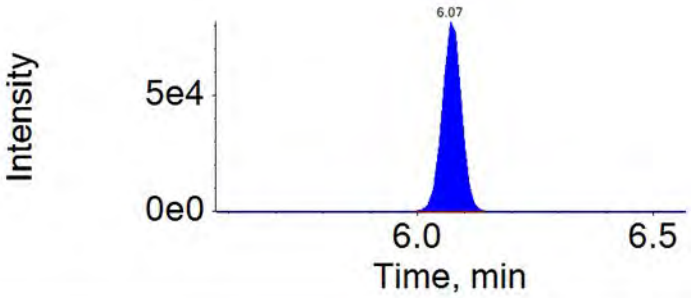
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



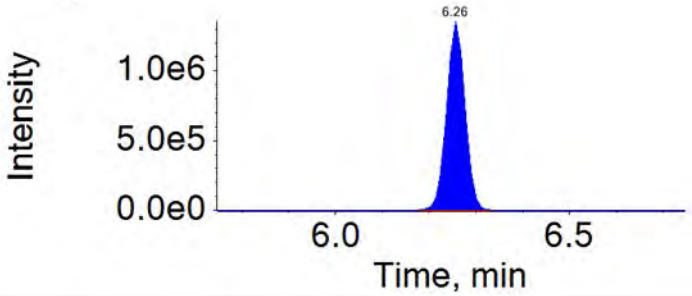
Component: 10:2 FTS_2
Secondary Mass: 627.0 / 81.0



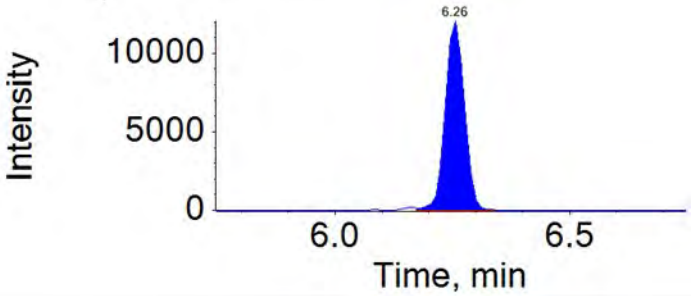
APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

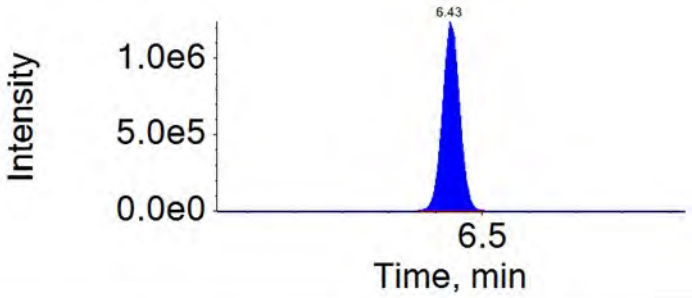
Component: PFTrDA
Primary Mass: 663.0 / 619.0



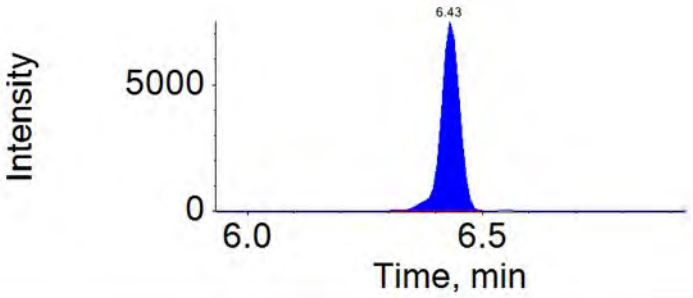
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



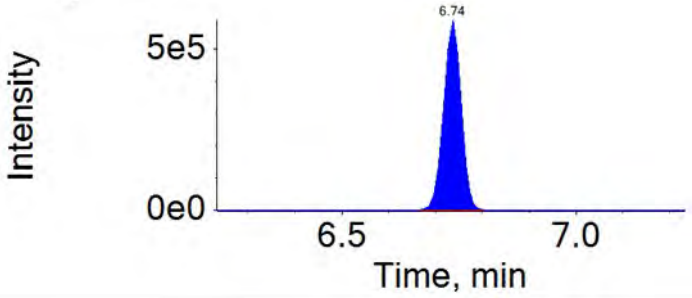
Component: PFTeDA
Primary Mass: 713.0 / 669.0



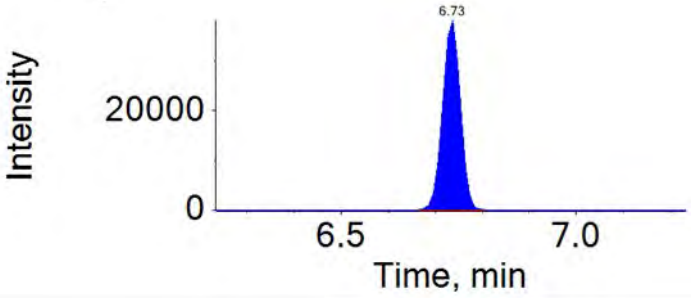
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



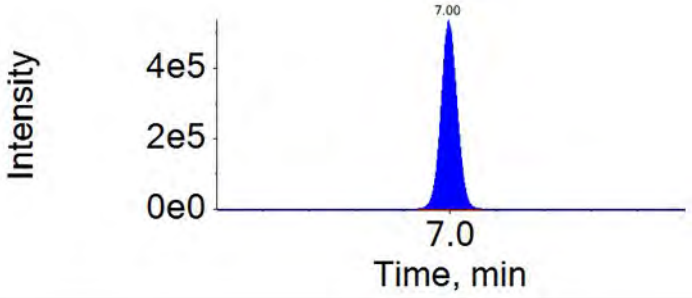
Component: PFHxDA
Primary Mass: 813.0 / 769.0



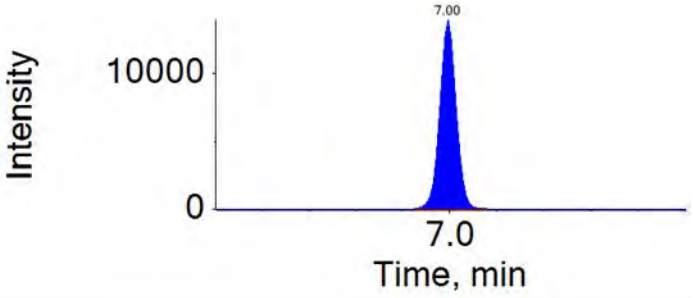
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Sample Name:	CAL7			**Data File:**		18NOV12DCAL-48.wiff
Sample ID:	CALBRN71833B			**Acquis Date:**		2018-11-12T16:00:06
Sample Type:	Standard			**Instrument:**		LM27631
Vial Position:	9			**Acquis Method:**		18AUG13_3uL.dam
Injection Vol:	3.00			**Result Table:**		18NOV12DCAL
QMethod File:	18AUG20QM			**ICAL Name:**		18NOV12DCAL
Batch Number:	N\A			**Operator:**		MCD7824
Sample Wt.:	1.00000			**Dilution Factor:**		1.00
Sample Vol.:	1.000			**Prep Factor:**		1.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV12DCAL-44

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Rreference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	510525.8	659926.2	-23	50	
13C2-PFOA	5.0	368158.3	450219.7	-18	50	
13C4-PFOS	4.8	233532.7	249205.8	-6	50	
13C2-PFDA	5.0	233825.1	278743.9	-16	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	557392.8	13C3-PFBA	510525.8	1.092	5.000	4.895	98	70-130	
E13C5-PFPeA	581688.7	13C3-PFBA	510525.8	1.139	5.000	5.110	102	70-130	
E13C3-PFBS	361166.0	13C3-PFBA	510525.8	0.707	4.650	4.994	107	70-130	
E13C2-4:2-FTS	40505.1	13C2-PFOA	368158.3	0.110	4.670	4.900	105	70-130	
E13C5-PFHxA	509808.0	13C2-PFOA	368158.3	1.385	5.000	5.002	100	70-130	
E13C3-PFHxS	267182.8	13C2-PFOA	368158.3	0.726	4.730	4.980	105	70-130	
E13C4-PFHpA	401203.9	13C2-PFOA	368158.3	1.090	5.000	4.910	98	70-130	
E13C2-6:2-FTS	27180.2	13C2-PFOA	368158.3	0.074	4.750	4.939	104	70-130	
E13C8-PFOA	607669.5	13C2-PFOA	368158.3	1.651	5.000	4.548	91	70-130	
E13C8-PFOS	242617.5	13C4-PFOS	233532.7	1.039	4.780	4.603	96	70-130	
E13C9-PFNA	377369.8	13C4-PFOS	233532.7	1.616	5.000	4.505	90	70-130	
E13C6-PFDA	479333.1	13C2-PFDA	233825.1	2.050	5.000	4.784	96	70-130	
E13C2-8:2-FTS	22711.0	13C2-PFDA	233825.1	0.097	4.790	4.844	101	70-130	
E13C8-PFOSA	554092.6	13C2-PFDA	233825.1	2.370	5.000	5.254	105	70-130	
Ed3-NMeFOSAA	67250.5	13C2-PFDA	233825.1	0.288	5.000	5.192	104	70-130	
E13C7-PFUnDA	199746.8	13C2-PFDA	233825.1	0.854	5.000	4.960	99	70-130	
Ed5-NEtFOSAA	58049.5	13C2-PFDA	233825.1	0.248	5.000	5.252	105	70-130	
E13C2-PFDoDA	474393.8	13C2-PFDA	233825.1	2.029	5.000	5.268	105	70-130	
Ed7-NMePFOSAE	272283.1	13C2-PFDA	233825.1	1.164	5.000	5.039	101	70-130	
Ed3-NMePFOSA	74110.3	13C2-PFDA	233825.1	0.317	5.000	5.758	115	70-130	
Ed9-NEtPFOSAE	240346.5	13C2-PFDA	233825.1	1.028	5.000	5.346	107	70-130	
Ed5-NEtPFOSA	53297.9	13C2-PFDA	233825.1	0.228	5.000	5.347	107	70-130	
E13C2-PFTeDA	346256.6	13C2-PFDA	233825.1	1.481	5.000	5.199	104	70-130	

APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

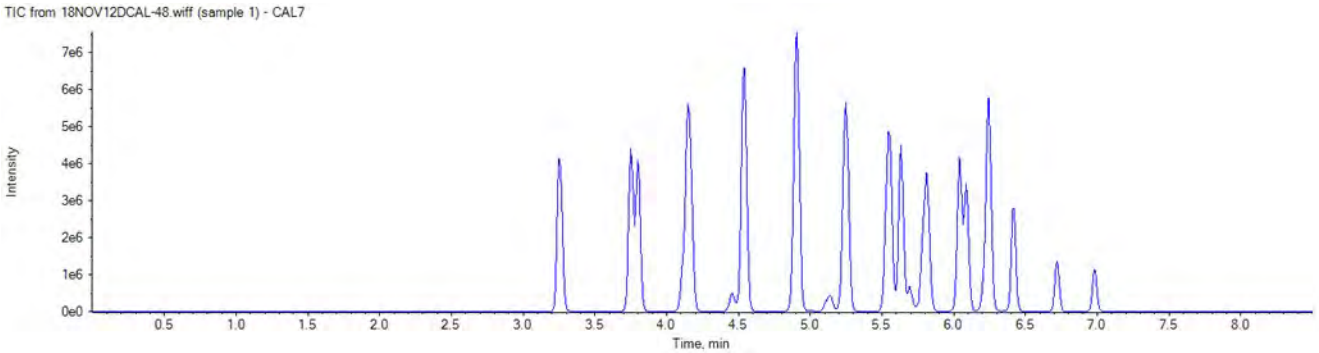
Analyte Quantitation Peak Table

Sample Name: CAL7 **Instrument Name:** LM27631 **File Name:** 18NOV12DCAL-48.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	1.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	3.25	1.000	9834601.7		A	13C4-PFBA	3.25	557392.8	17.644	97.743
PFPeA	3.75	1.000	9756431.5		A	13C5-PFPeA	3.75	581688.7	16.773	97.094
PFBS	3.80	1.000	6615935.3		A	13C3-PFBS	3.80	361166.0	18.318	87.136
4:2-FTS	4.11	1.000	1379983.9		A	13C2-4:2-FTS	4.11	40505.1	34.069	92.499
PFHxA	4.15	1.000	11059420.3		A	13C5-PFHxA	4.15	509808.0	21.693	90.577
PFPeS	4.17	1.100	3482095.9		A	13C3-PFBS	3.80	361166.0	9.641	93.602
PFHpA	4.54	1.000	10981922.8		A	13C4-PFHpA	4.54	401203.9	27.372	90.732
PFHxS	4.54	1.000	5048349.8		M	13C3-PFHxS	4.54	267182.8	18.895	91.615
6:2-FTS	4.89	1.000	869227.2		A	13C2-6:2-FTS	4.89	27180.2	31.980	77.388
PFHpS	4.90	1.080	4784682.8		A	13C3-PFHxS	4.54	267182.8	17.908	94.267
PFOA	4.91	1.000	10991740.1		A	13C8-PFOA	4.91	607669.5	18.088	96.608
PFOS	5.24	1.000	5138367.0		M	13C8-PFOS	5.24	242617.5	21.179	92.617
PFNA	5.25	1.000	10084288.3		A	13C9-PFNA	5.25	377369.8	26.723	96.360
PFNS	5.53	1.060	3386860.5		A	13C8-PFOS	5.24	242617.5	13.960	97.666
PFDA	5.55	1.000	8104726.6		A	13C6-PFDA	5.55	479333.1	16.908	89.640
8:2-FTS	5.56	1.000	804019.5		A	13C2-8:2-FTS	5.56	22711.0	35.402	82.540
PFOSA	5.63	1.000	10169176.9		A	13C8-PFOSA	5.63	554092.6	18.353	89.642
NMeFOSAA	5.69	1.000	1191981.7		M	d3-NMeFOSAA	5.69	67250.5	17.725	100.173
PFDS	5.79	1.110	2606720.7		A	13C8-PFOS	5.24	242617.5	10.744	97.353
PFUnDA	5.81	1.000	6802701.2		A	13C7-PFUnDA	5.81	199746.8	34.057	89.032
NEtFOSAA	5.83	1.000	1046636.1		M	d5-NEtFOSAA	5.82	58049.5	18.030	94.517
PFDoDA	6.04	1.000	8171355.4		A	13C2-PFDoDA	6.04	474393.8	17.225	87.711
10:2-FTS	6.06	1.090	632223.7		A	13C2-8:2-FTS	5.56	22711.0	27.838	92.724
NMePFOSAE	6.09	1.000	6272486.3		A	d7-NMePFOSAE	6.08	272283.1	23.037	95.876
NMePFOSA	6.09	1.000	1310162.9		A	d3-NMePFOSA	6.09	74110.3	17.679	87.214
PFDoS	6.21	1.190	1336765.3		A	13C8-PFOS	5.24	242617.5	5.510	96.500
NEtPFOSAE	6.25	1.000	6557402.5		A	d9-NEtPFOSAE	6.23	240346.5	27.283	87.532
NEtPFOSA	6.26	1.000	1148933.0		A	d5-NEtPFOSA	6.25	53297.9	21.557	98.999
PFTrDA	6.24	1.030	6281239.0		A	13C2-PFDoDA	6.04	474393.8	13.241	83.569
PFTeDA	6.42	1.000	6092875.7		A	13C2-PFTeDA	6.42	346256.6	17.596	98.638
PFHxDA	6.72	1.050	2866097.3		A	13C2-PFTeDA	6.42	346256.6	8.277	98.615
PFODA	6.98	1.090	2488863.6		A	13C2-PFTeDA	6.42	346256.6	7.188	100.107

Total Ion Chromatogram

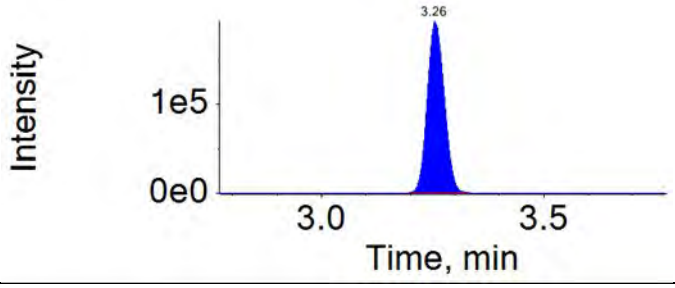


APPROVED
By MCD at 6:33 pm, 11/12/18

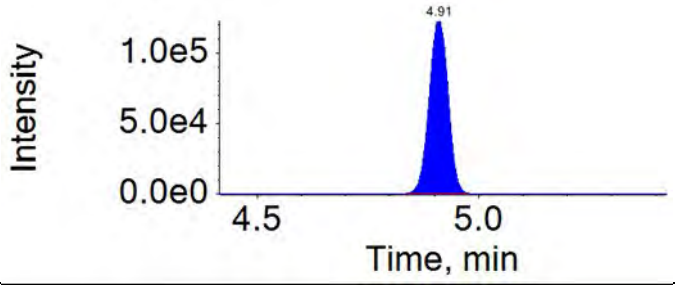
REVIEWED
By HMK at 10:53 am, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

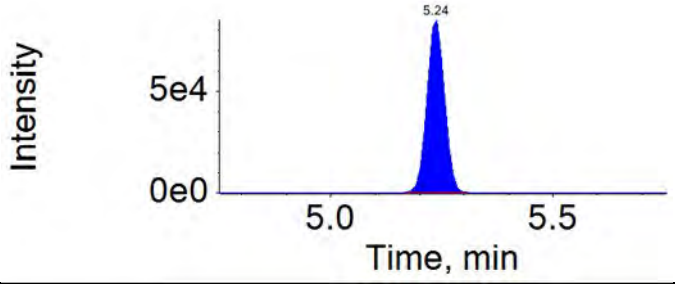
Injection Standard: 13C3-PFBA
216.0 / 172.0



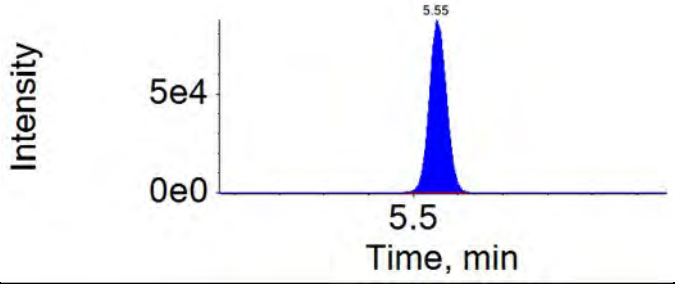
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0



Injection Standard: 13C2-PFDA
515.0 / 470.0

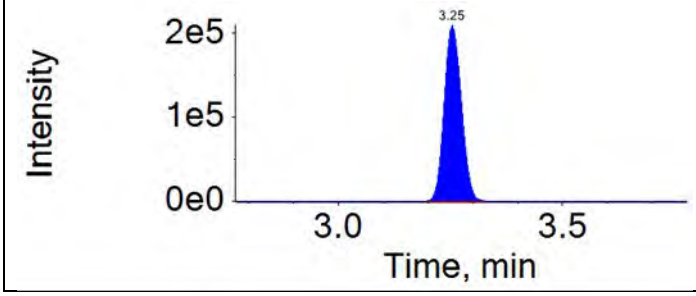


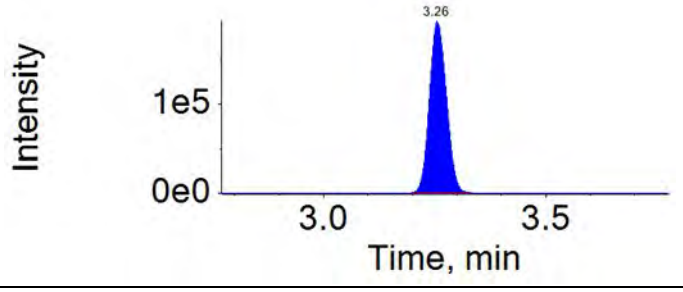
APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

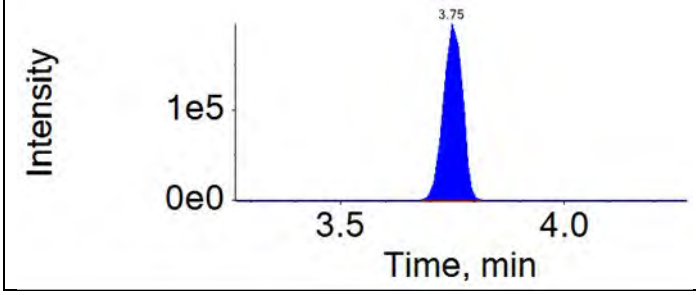
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

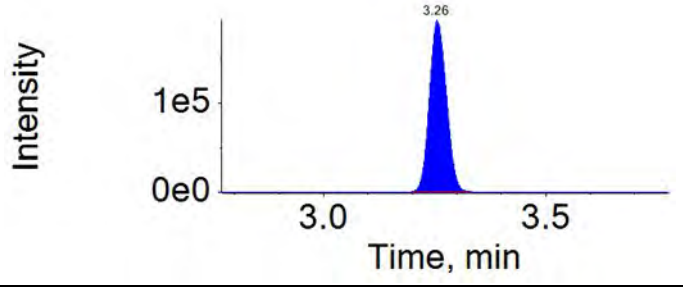
Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0



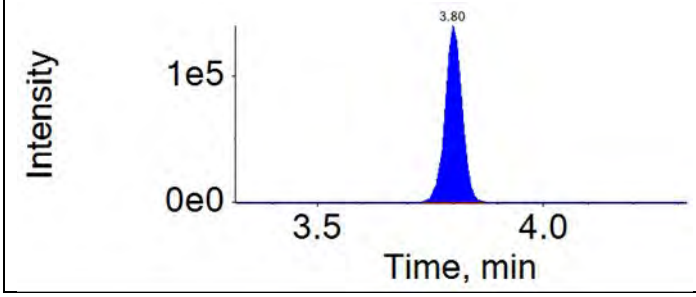


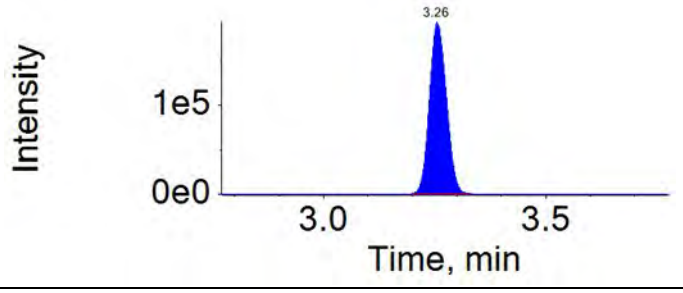
Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0



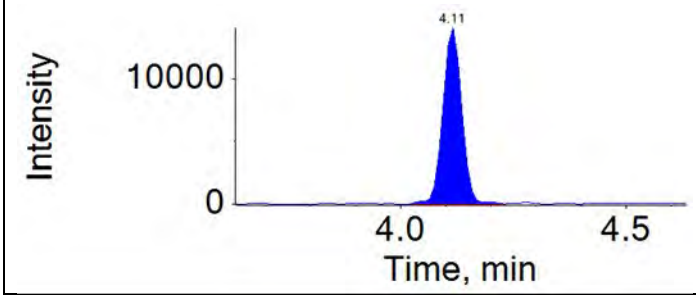


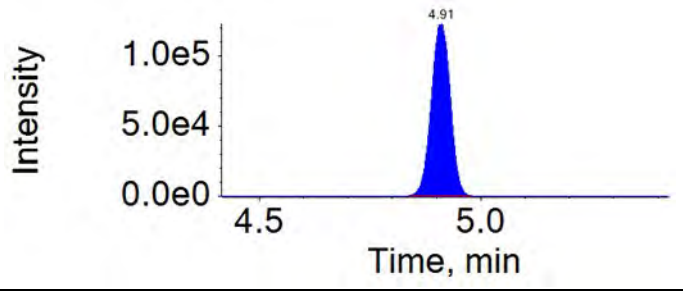
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0





Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0

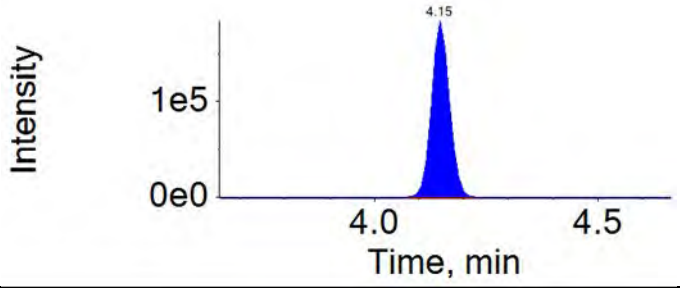
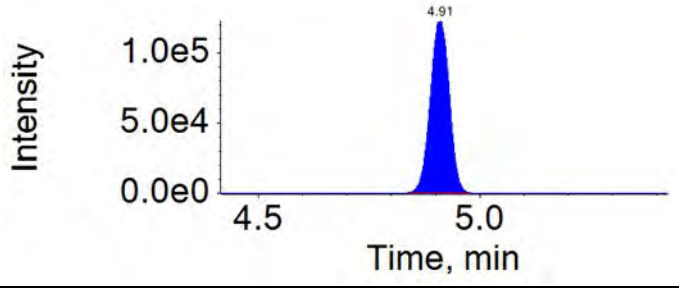


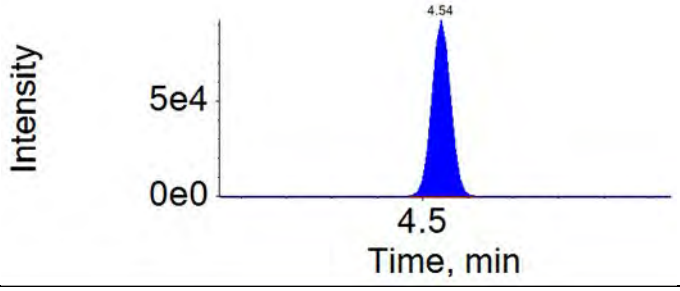
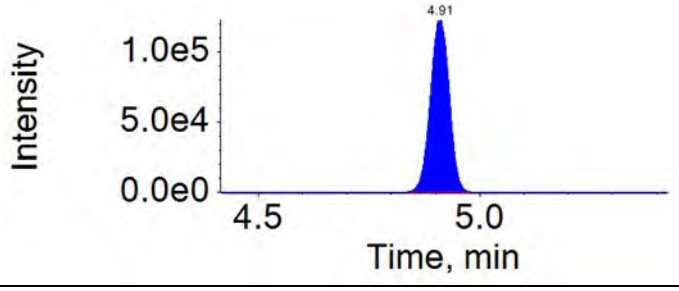


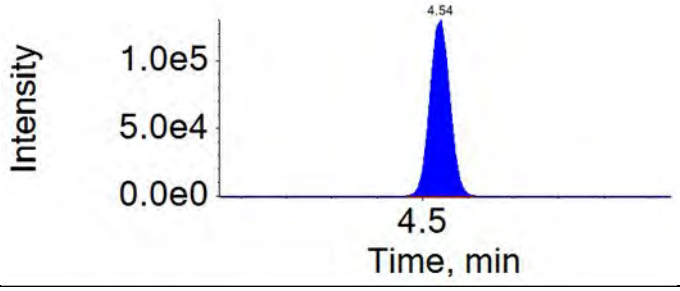
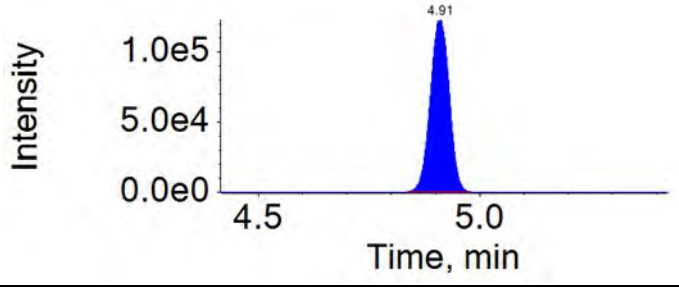
APPROVED
By MCD at 6:33 pm, 11/12/18

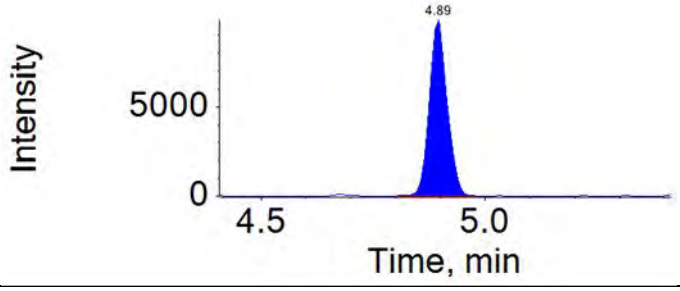
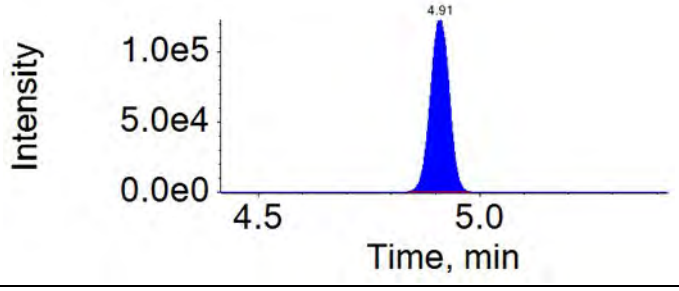
REVIEWED
By HMK at 10:53 am, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0
	

Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0
	

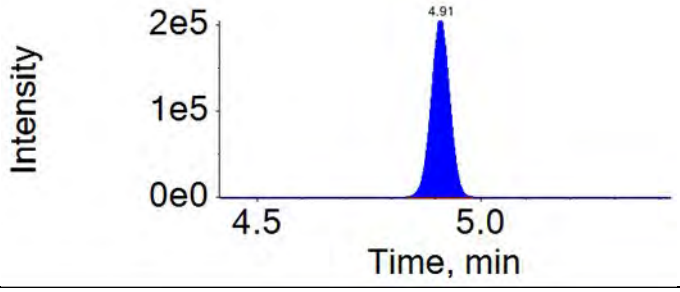
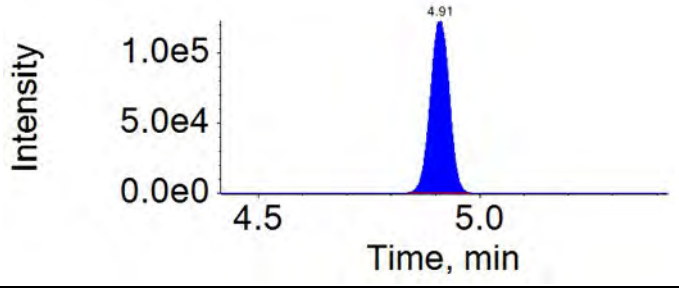
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0
	

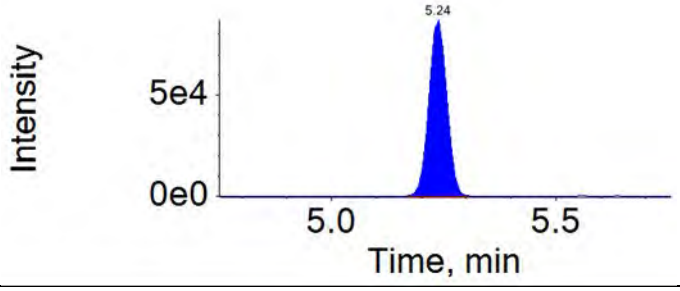
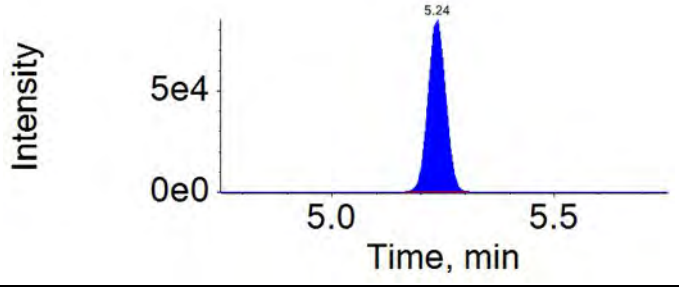
Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0
	

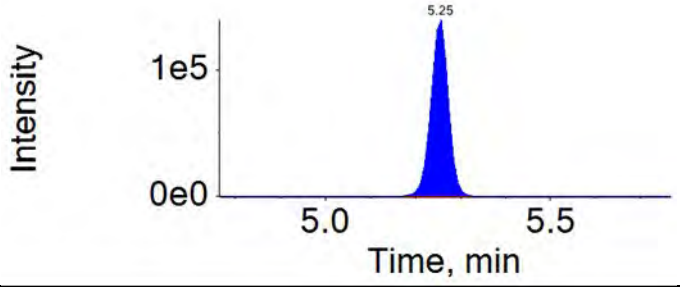
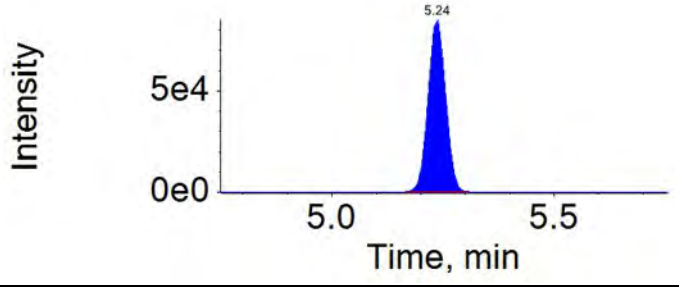
APPROVED
By MCD at 6:33 pm, 11/12/18

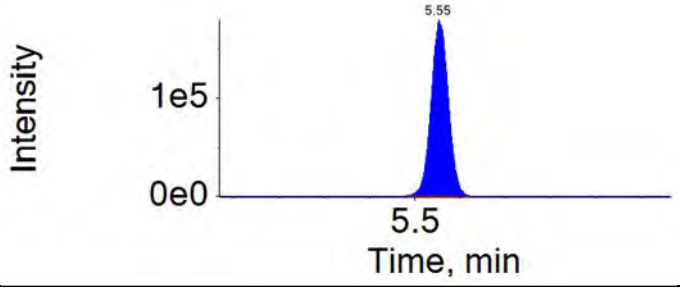
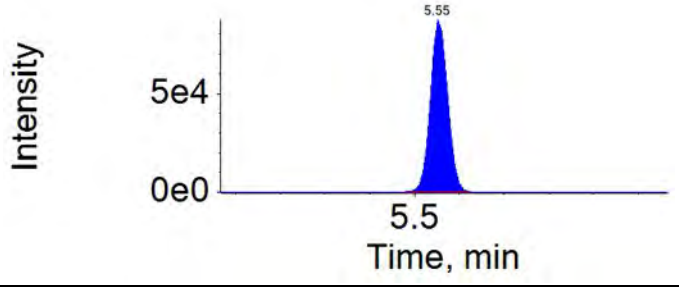
REVIEWED
By HMK at 10:53 am, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: E13C8-PFOA	Injection Standard: 13C2-PFOA
421.0 / 376.0	415.0 / 370.0
	

Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0
	

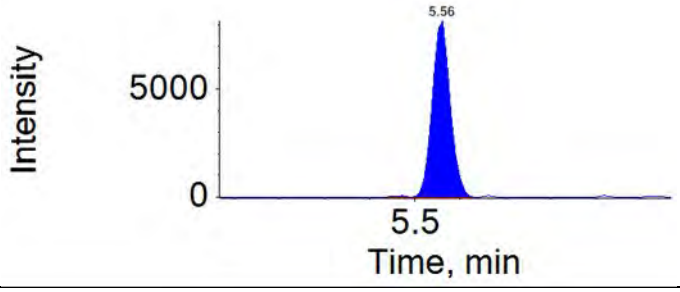
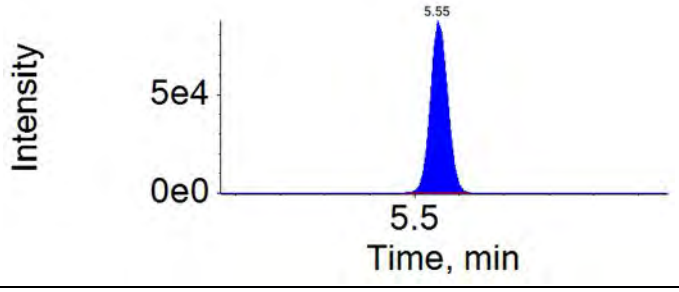
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0
	

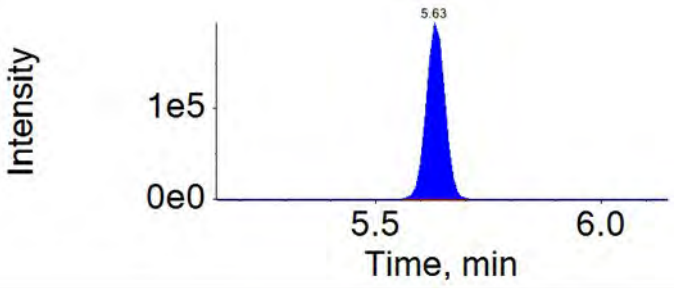
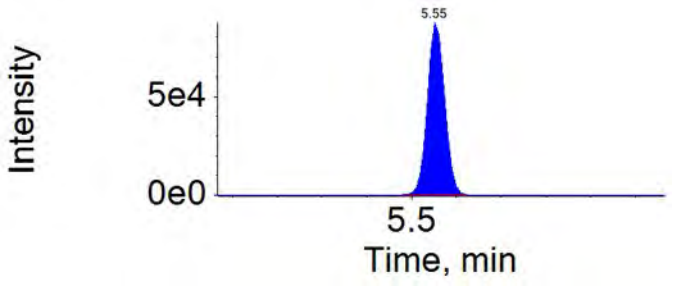
Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0
	

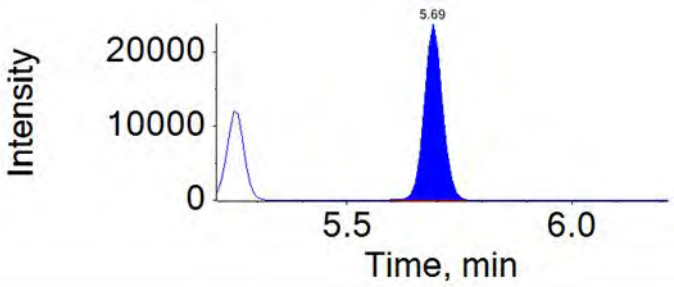
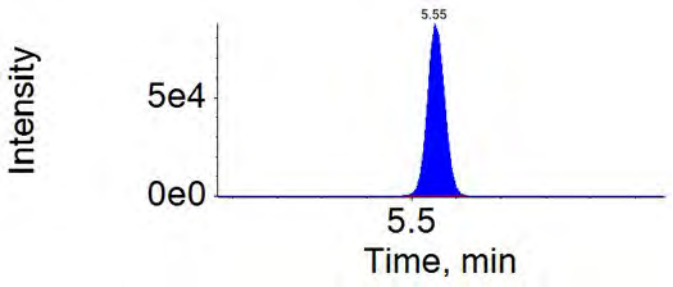
APPROVED
By MCD at 6:33 pm, 11/12/18

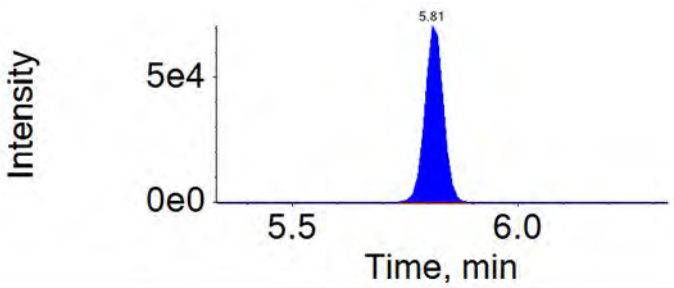
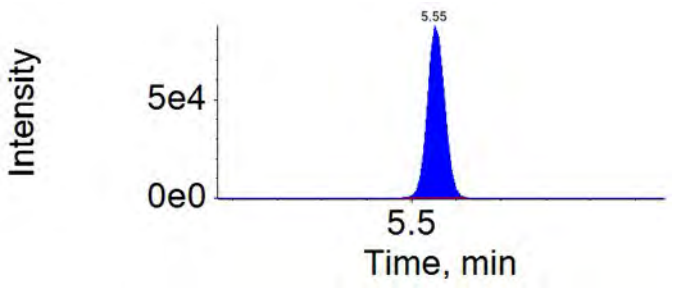
REVIEWED
By HMK at 10:53 am, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: E13C2-8:2-FTS	Injection Standard: 13C2-PFDA
529.0 / 81.0	515.0 / 470.0
	

Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0
	

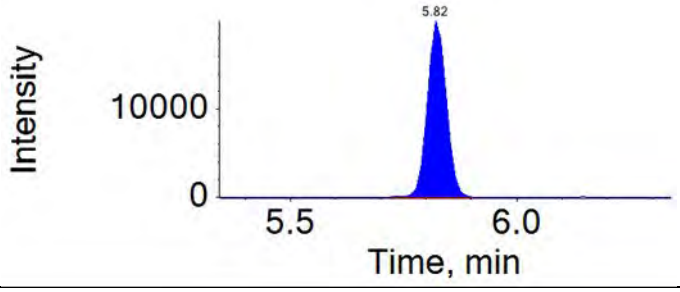
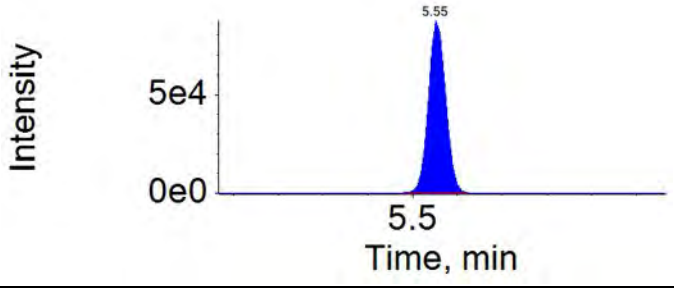
Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0
	

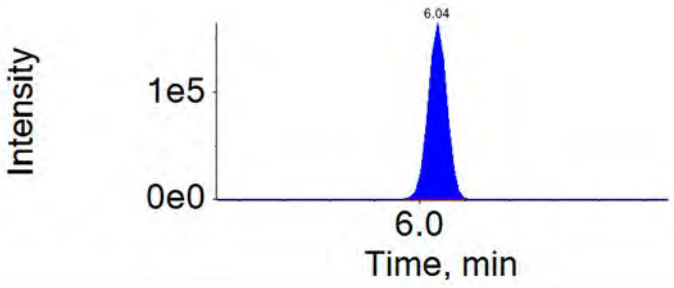
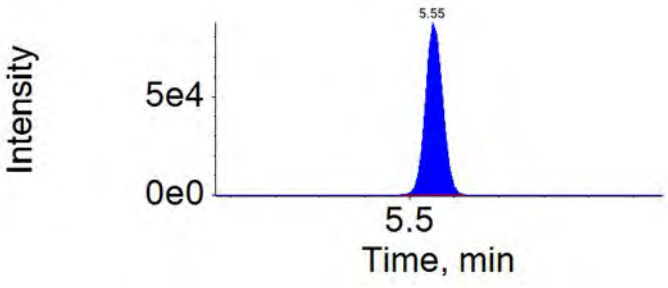
Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0
	

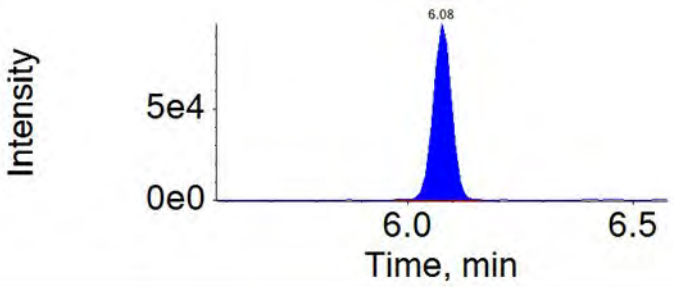
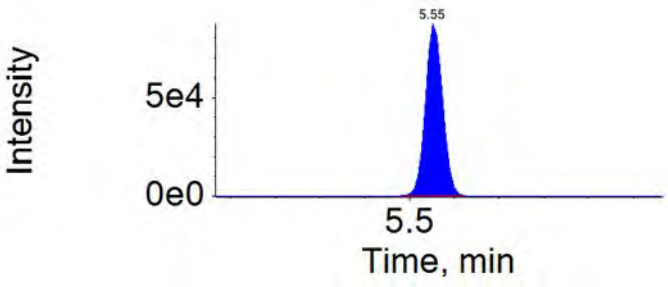
APPROVED
By MCD at 6:33 pm, 11/12/18

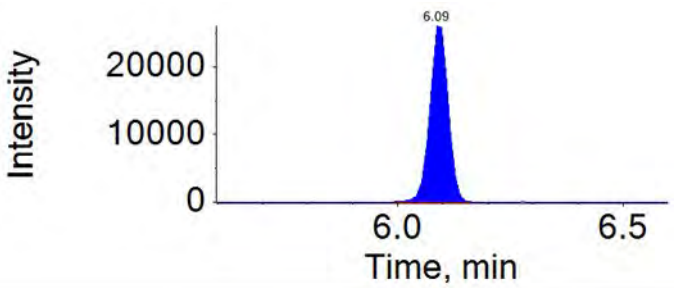
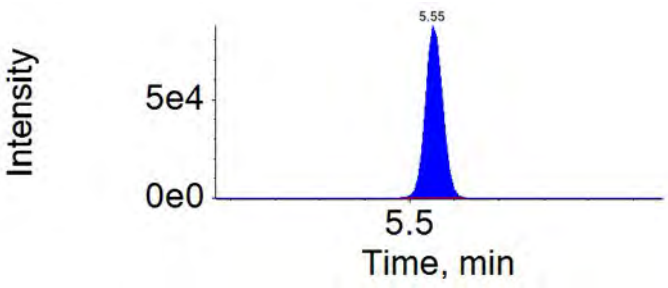
REVIEWED
By HMK at 10:53 am, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0
	

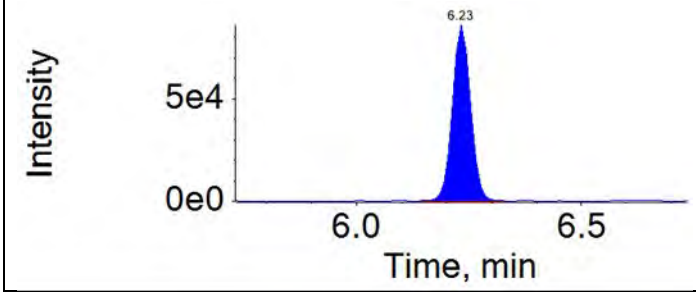
Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0
	

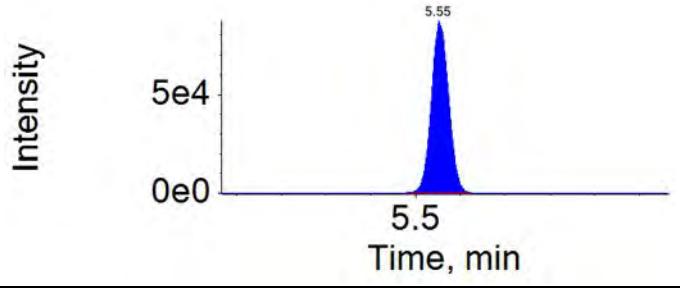
Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0
	

Extraction Standard: Ed3-NMePFOSA	Injection Standard: 13C2-PFDA
515.0 / 169.0	515.0 / 470.0
	

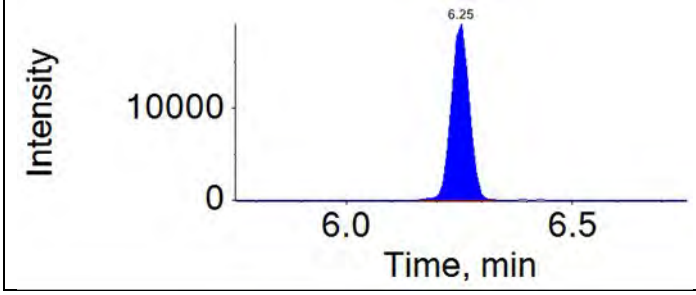
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

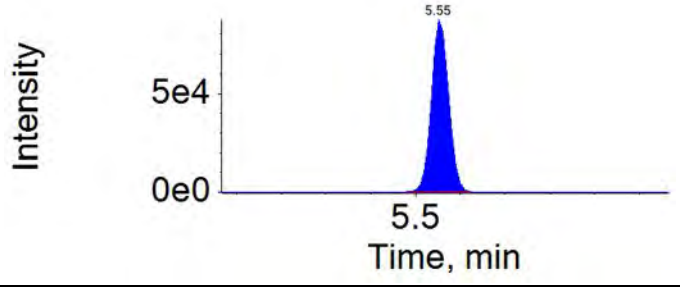
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



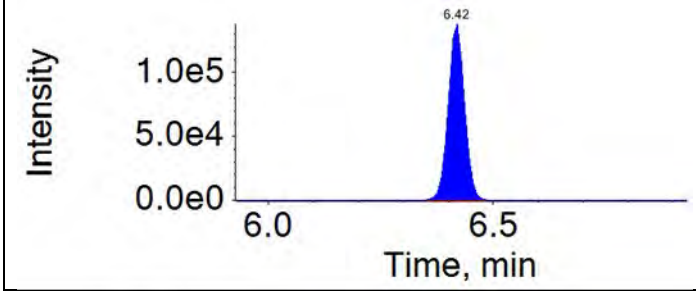


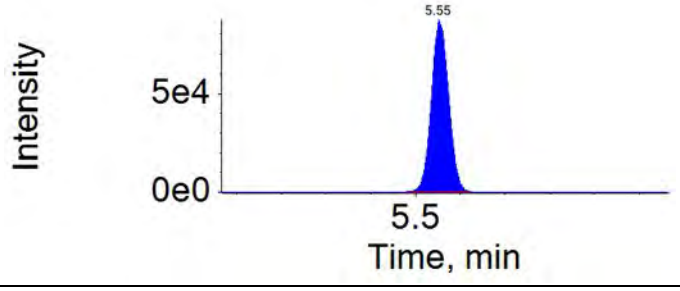
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0



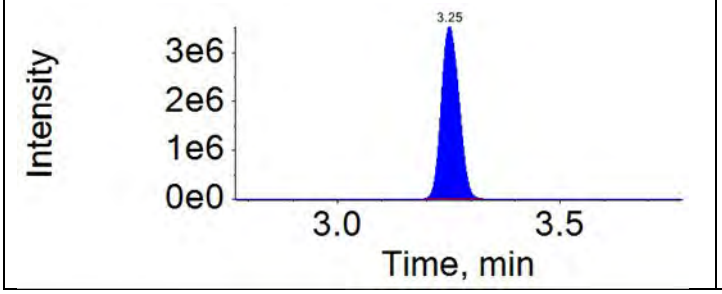


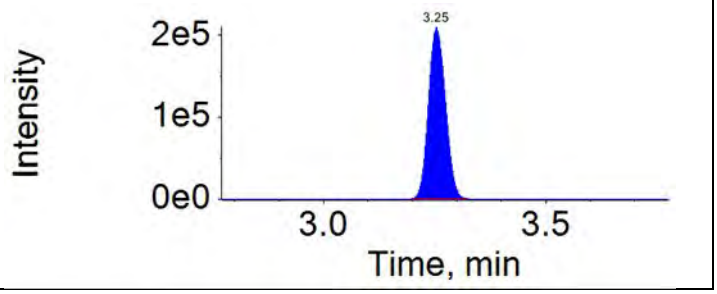
APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

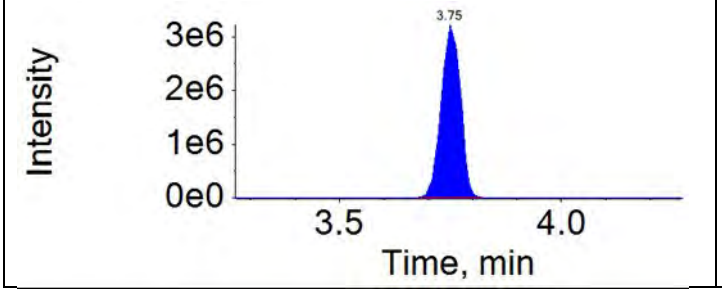
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

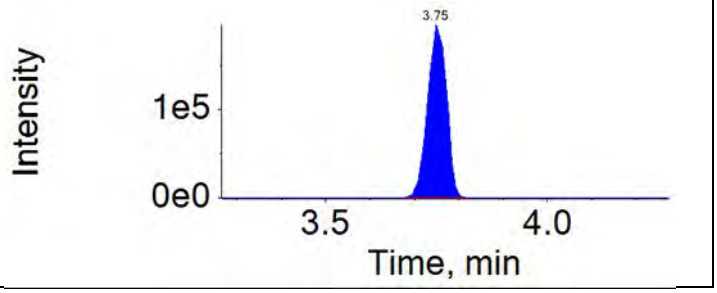
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



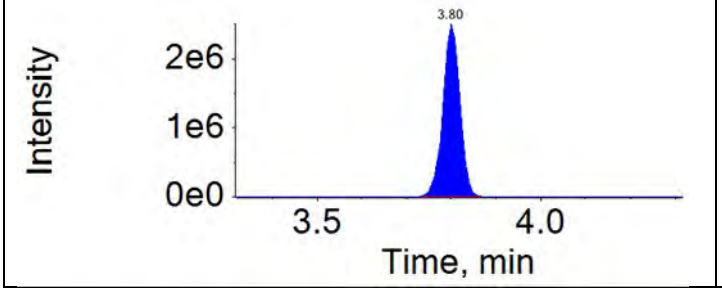


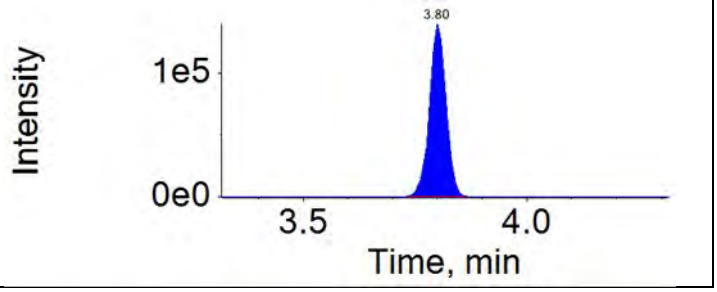
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



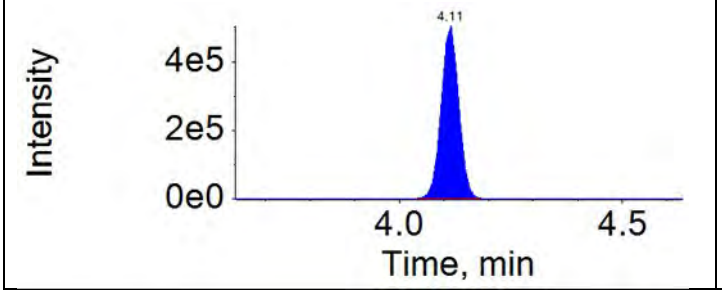


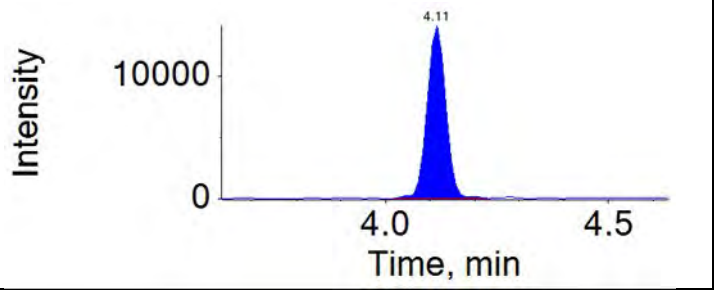
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





Analyte: 4:2-FTS	Extraction Standard: 13C2-4:2-FTS
327.0 / 307.0	329.0 / 81.0



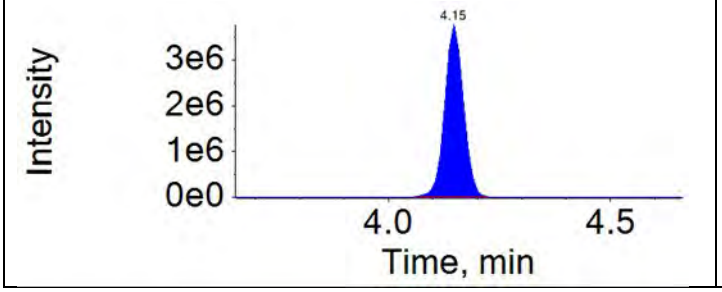


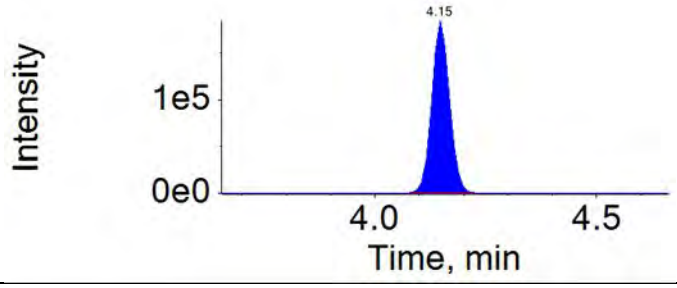
APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

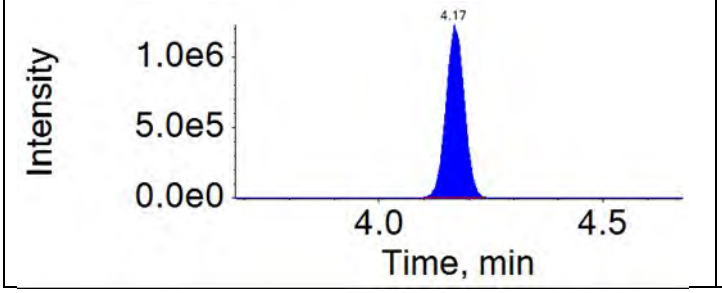
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

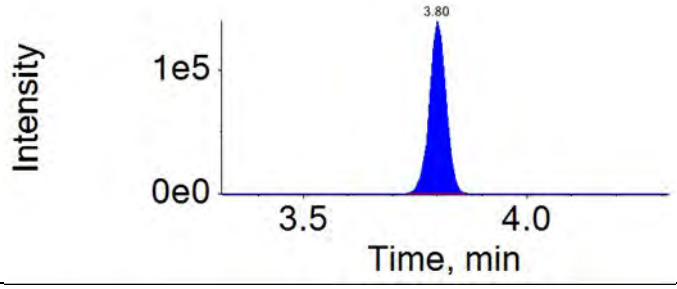
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



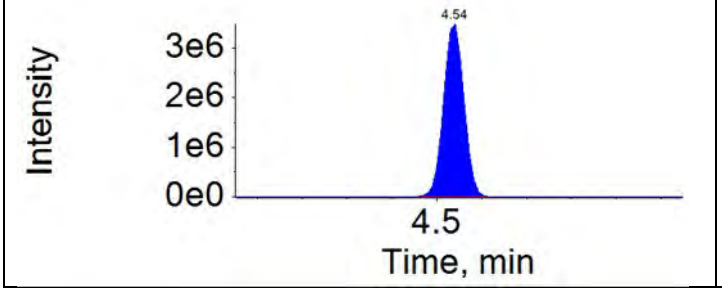


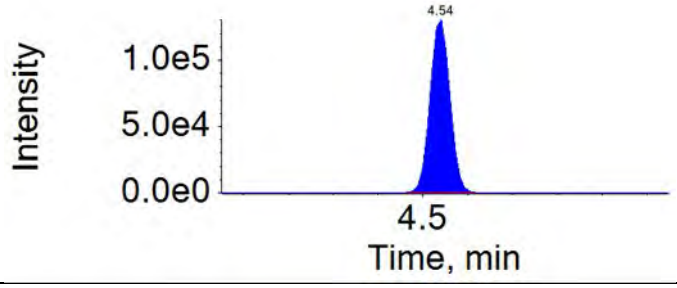
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



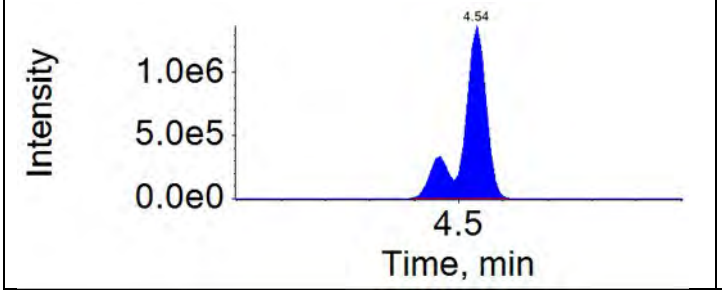


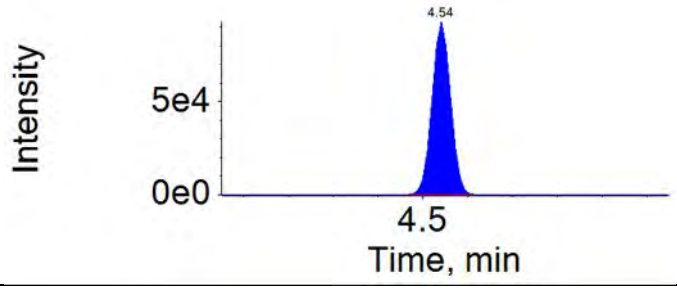
Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0





Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0

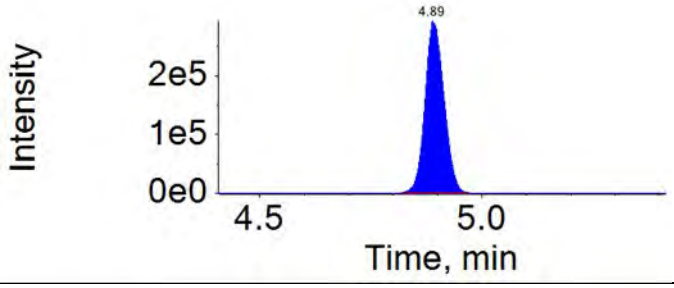
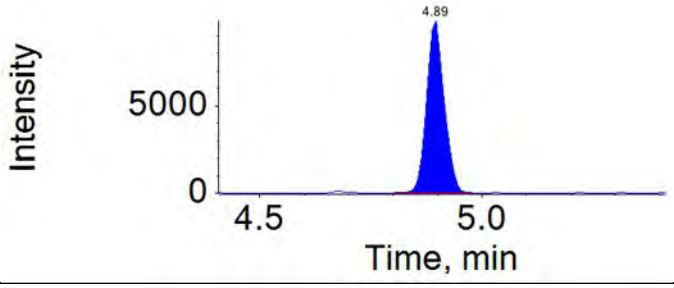


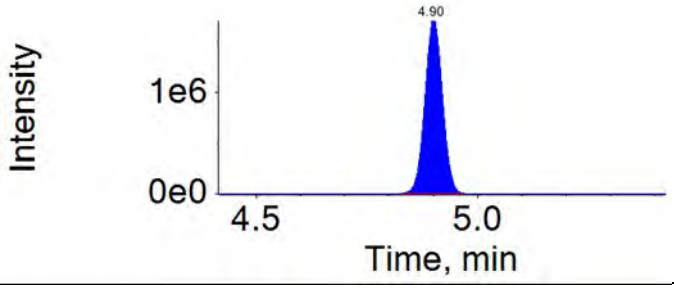
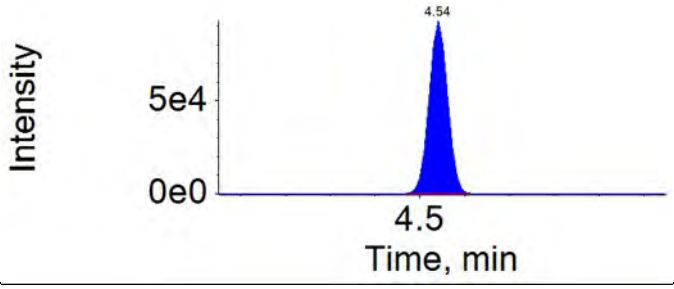


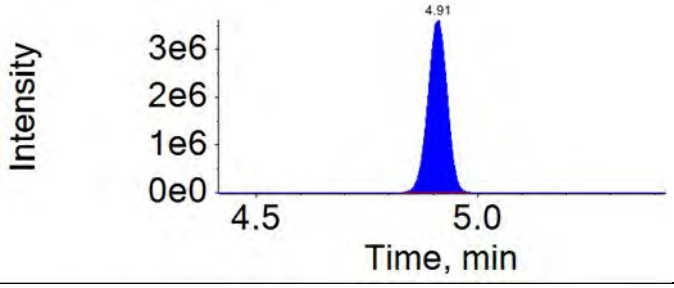
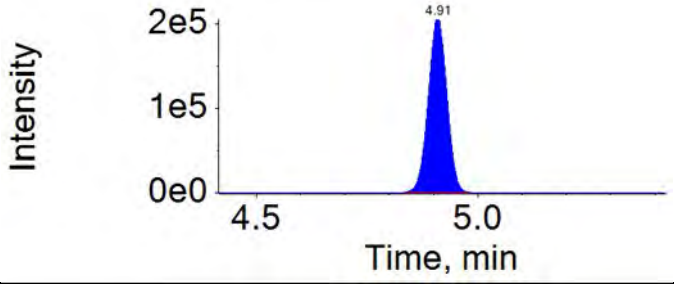
APPROVED
By MCD at 6:33 pm, 11/12/18

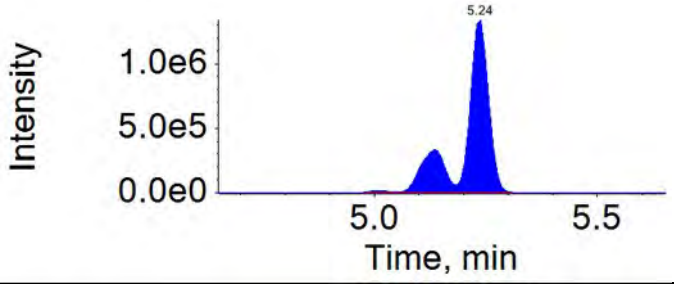
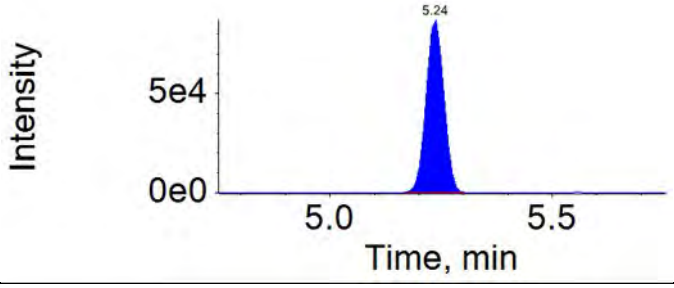
REVIEWED
By HMK at 10:53 am, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Analyte: 6:2-FTS	Extraction Standard: 13C2-6:2-FTS
427.0 / 407.0	429.0 / 81.0
	

Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0
	

Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0
	

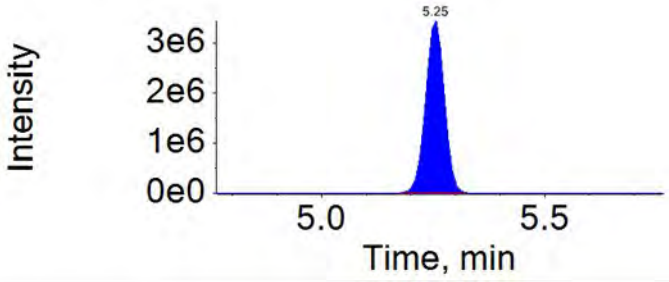
Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0
	

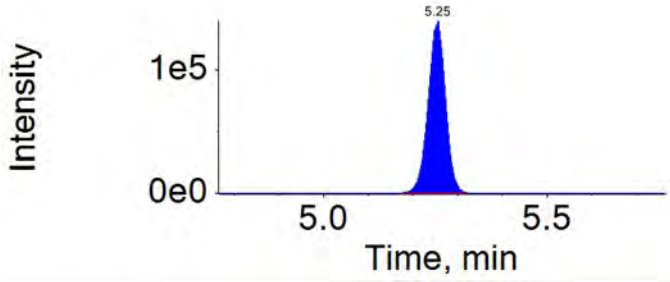
APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

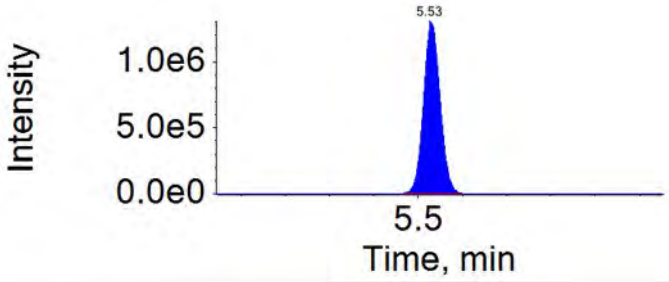
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

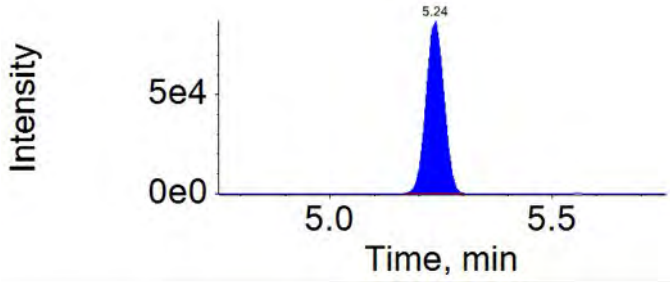
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



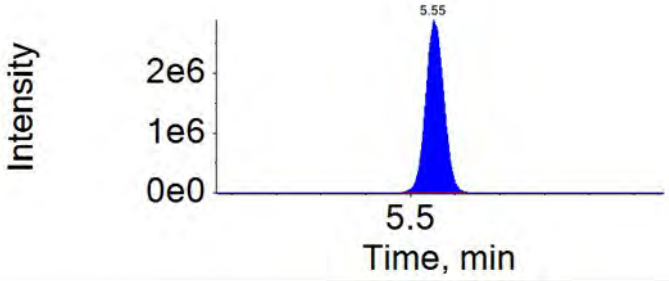


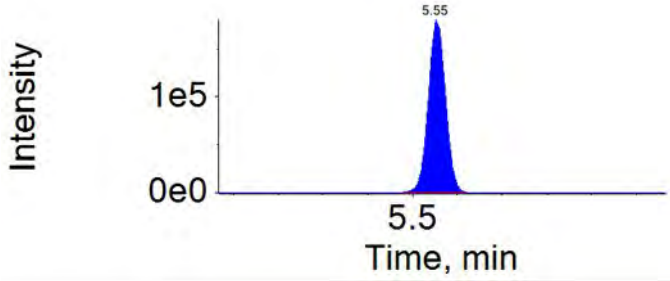
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



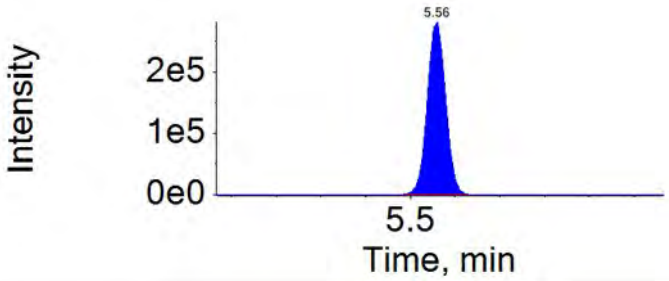


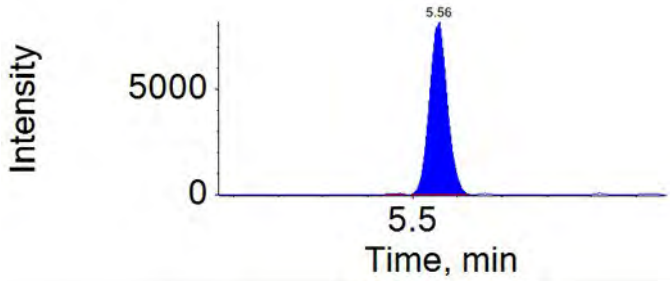
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





Analyte: 8:2-FTS	Extraction Standard: 13C2-8:2-FTS
527.0 / 507.0	529.0 / 81.0



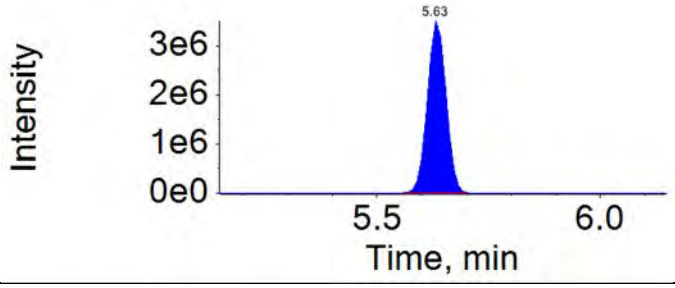


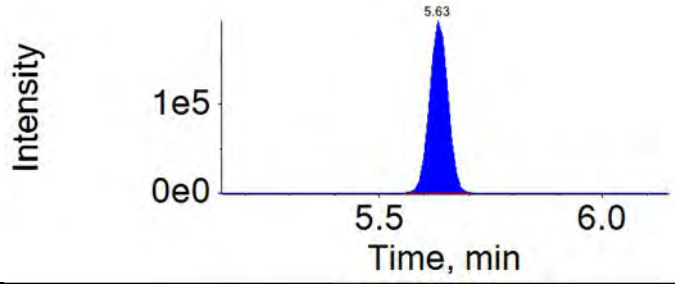
APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

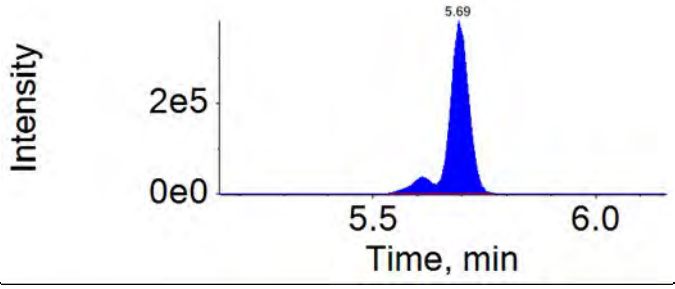
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

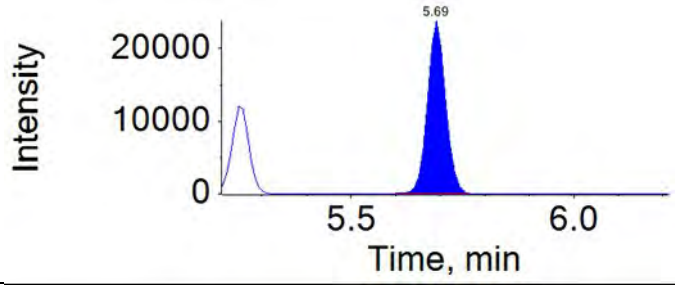
Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0



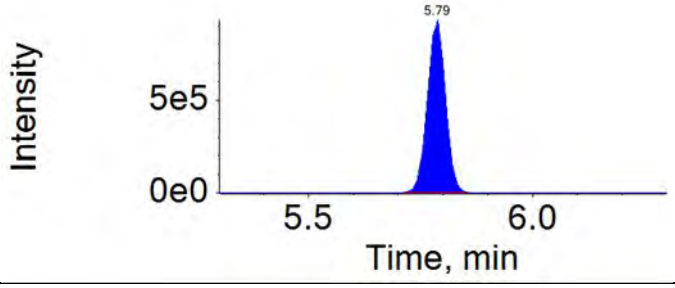


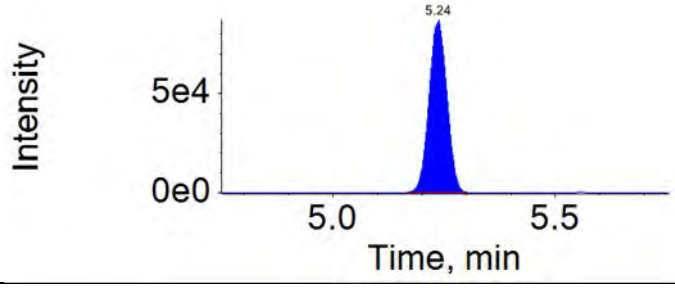
Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0



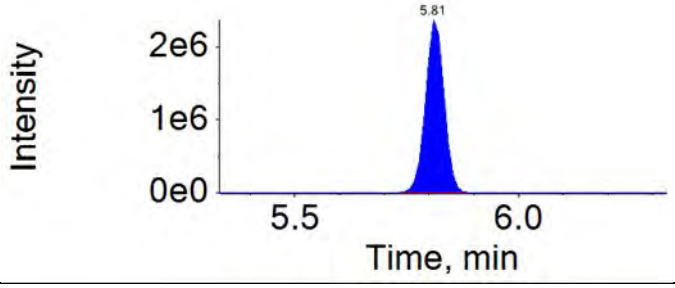


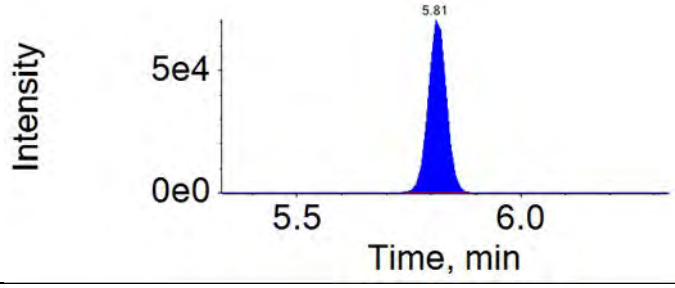
Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0





Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0



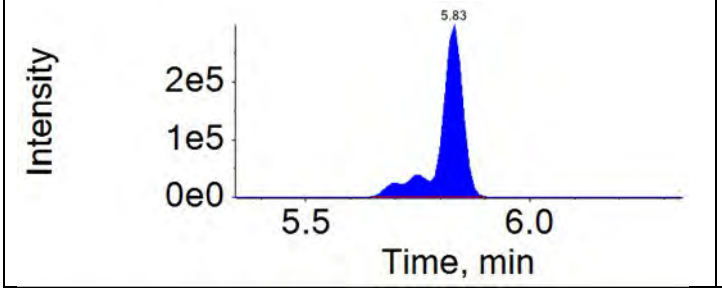


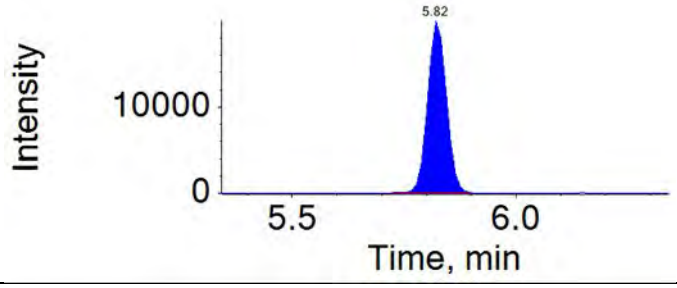
APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

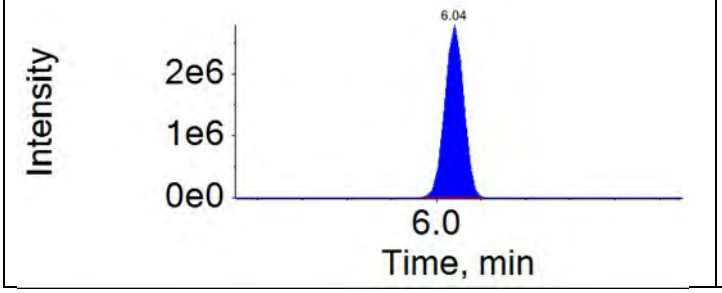
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

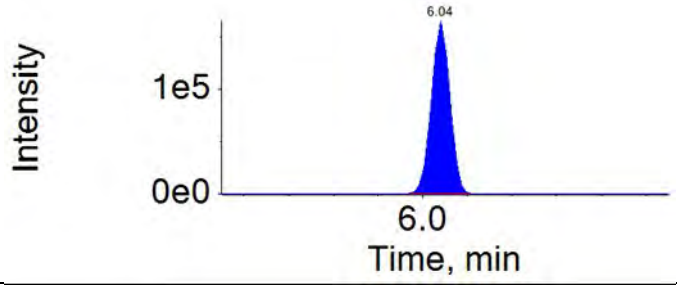
Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0



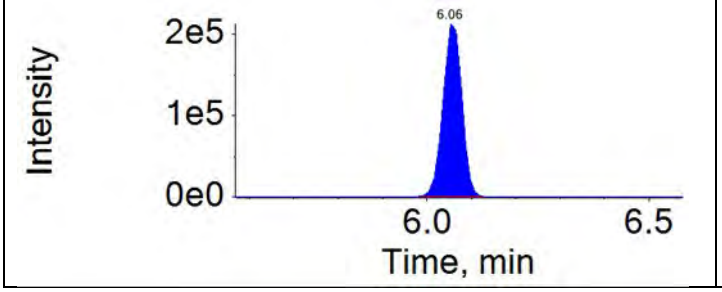


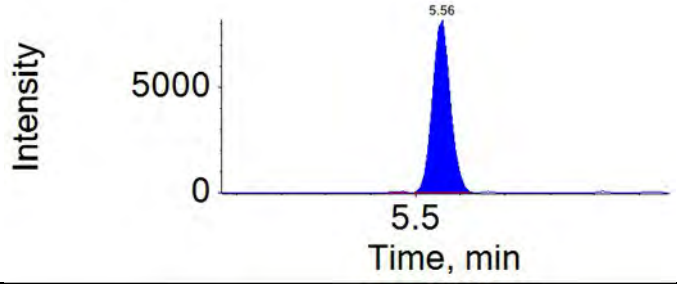
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0



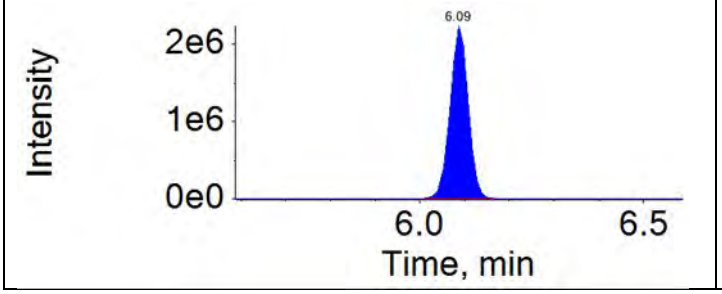


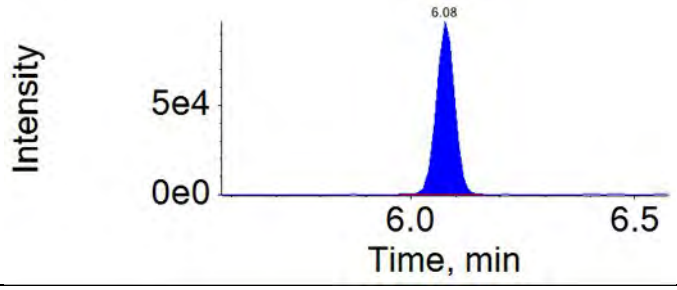
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0





Analyte: NMePFOSAE	Extraction Standard: d7-NMePFOSAE
616.0 / 59.0	623.0 / 59.0



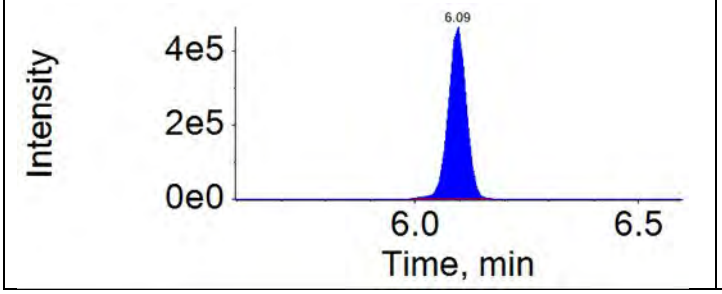


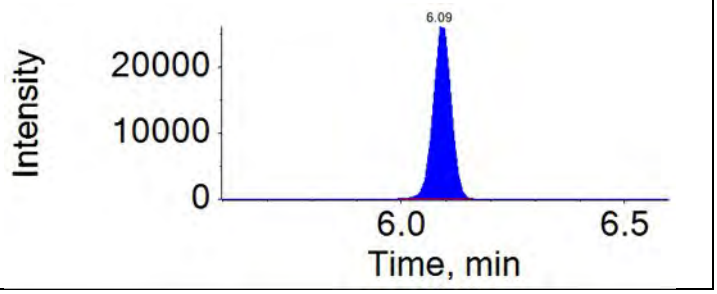
APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

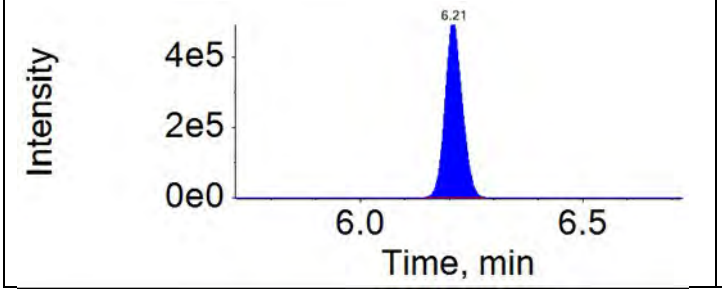
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

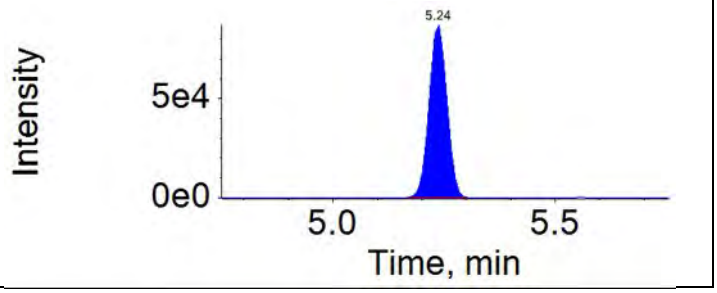
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



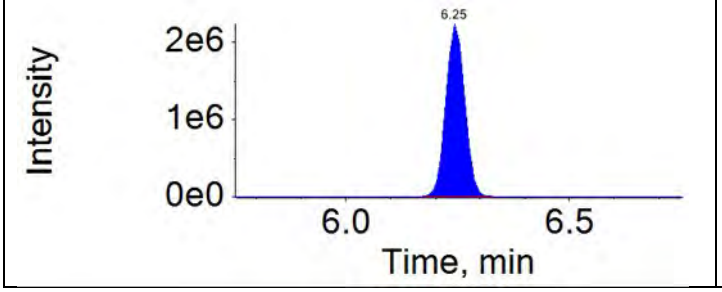


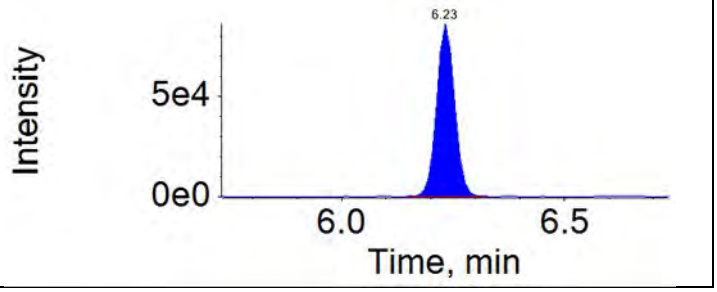
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



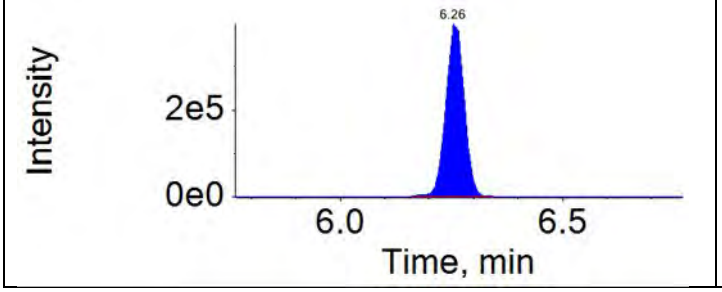


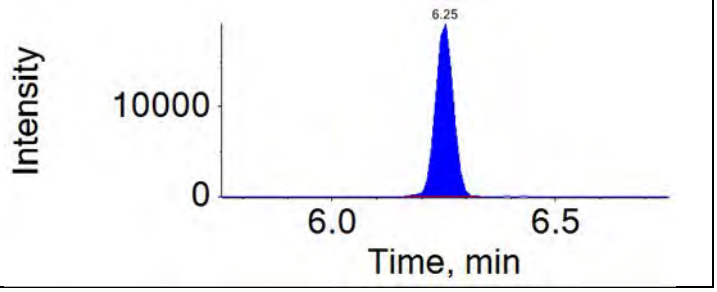
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





Analyte: NEtPFOSA	Extraction Standard: d5-NEtPFOSA
526.0 / 169.0	531.0 / 169.0



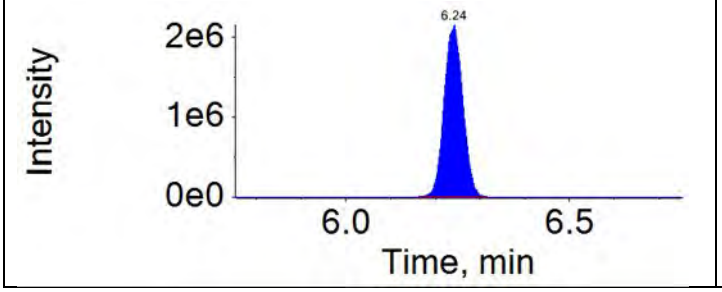


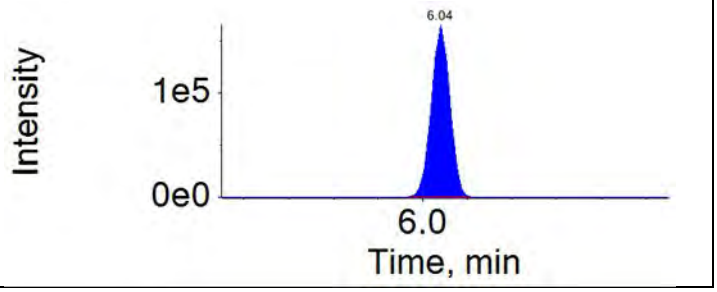
APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

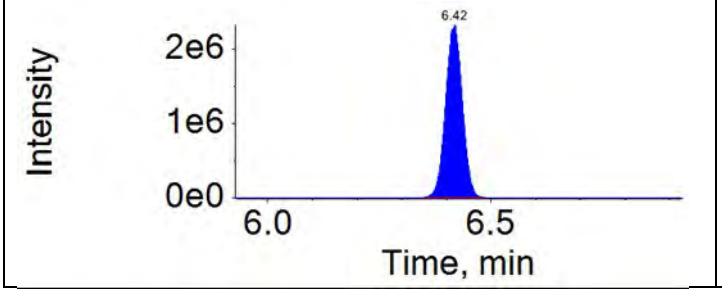
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

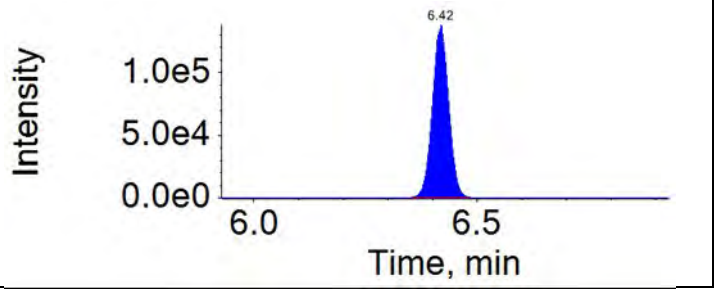
Analyte: PFTrDA	Extraction Standard: 13C2-PFDoDA
663.0 / 619.0	615.0 / 570.0



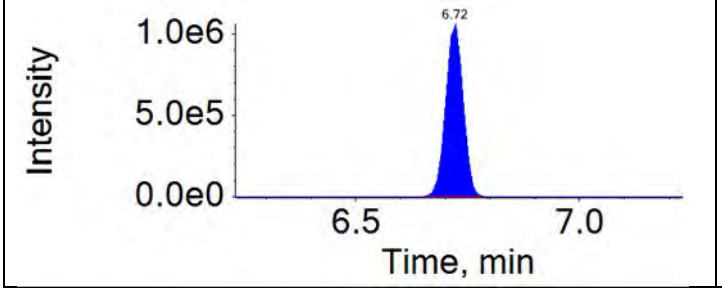


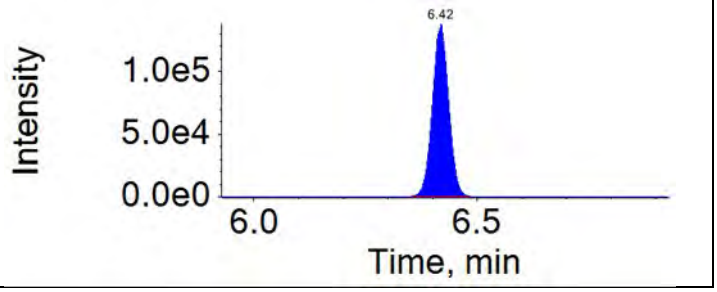
Analyte: PFTeDA	Extraction Standard: 13C2-PFTeDA
713.0 / 669.0	715.0 / 670.0



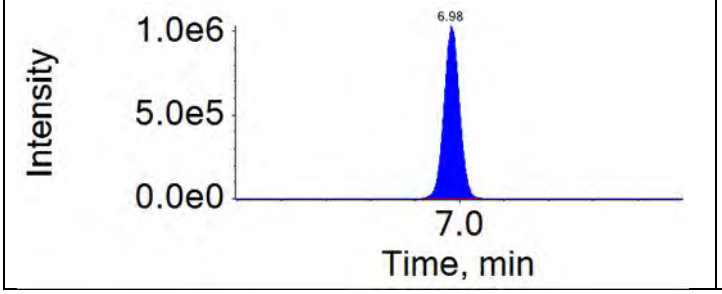


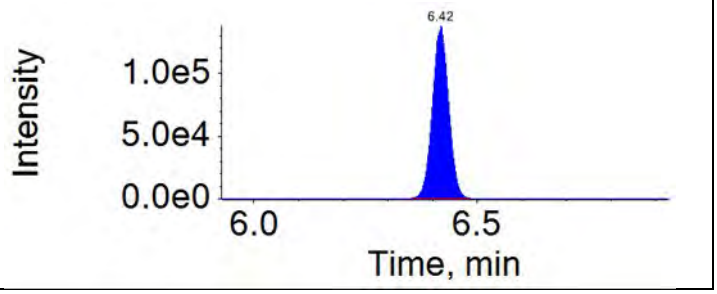
Analyte: PFHxDA	Extraction Standard: 13C2-PFTeDA
813.0 / 769.0	715.0 / 670.0





Analyte: PFODA	Extraction Standard: 13C2-PFTeDA
913.0 / 869.0	715.0 / 670.0



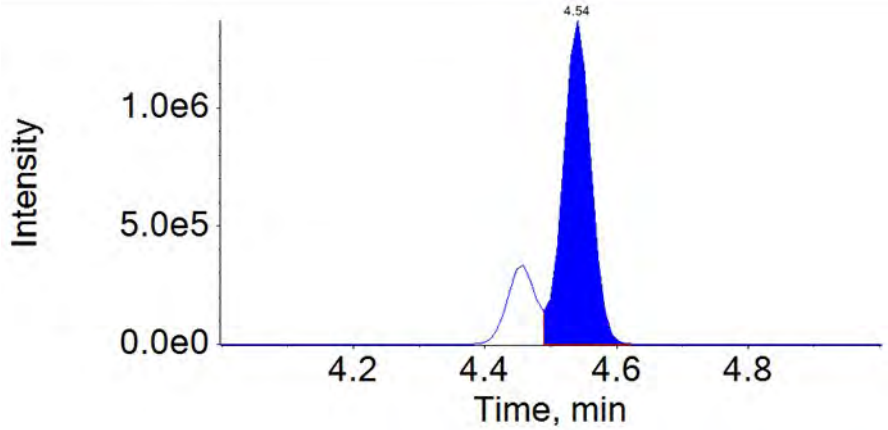


APPROVED
By MCD at 6:33 pm, 11/12/18

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By HMK at 10:53 am, 11/13/18

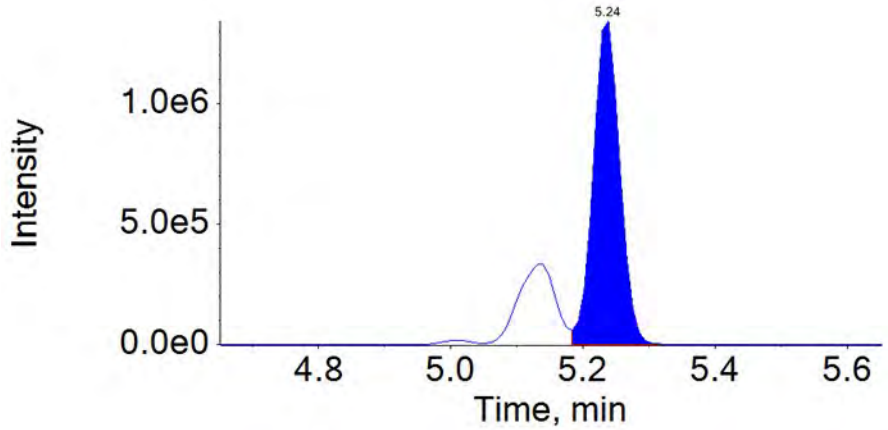
Results Table Name: 18NOV12DCAL
Results Table Date: 11/12/2018 6:23:42 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFHxS
RT (min.):
4.54
Peak Area:
4044983.17
Mass Range:
399.0 / 80.0
File Name:
18NOV12DCAL-48.wiff
Sample Name:
CAL7



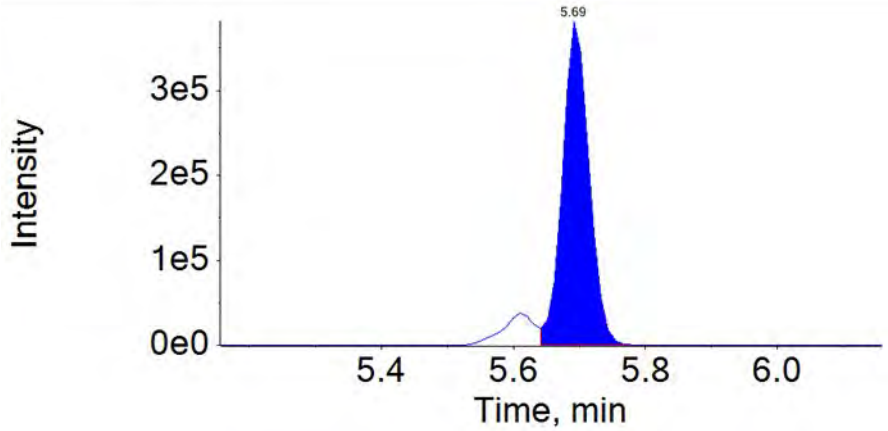
Integration Comment: incorrect integration

Component Name:
PFOS
RT (min.):
5.24
Peak Area:
3770924.60
Mass Range:
499.0 / 80.0
File Name:
18NOV12DCAL-48.wiff
Sample Name:
CAL7



Integration Comment: incorrect integration

Component Name:
NMeFOSAA
RT (min.):
5.69
Peak Area:
1065914.33
Mass Range:
570.0 / 419.0
File Name:
18NOV12DCAL-48.wiff
Sample Name:
CAL7

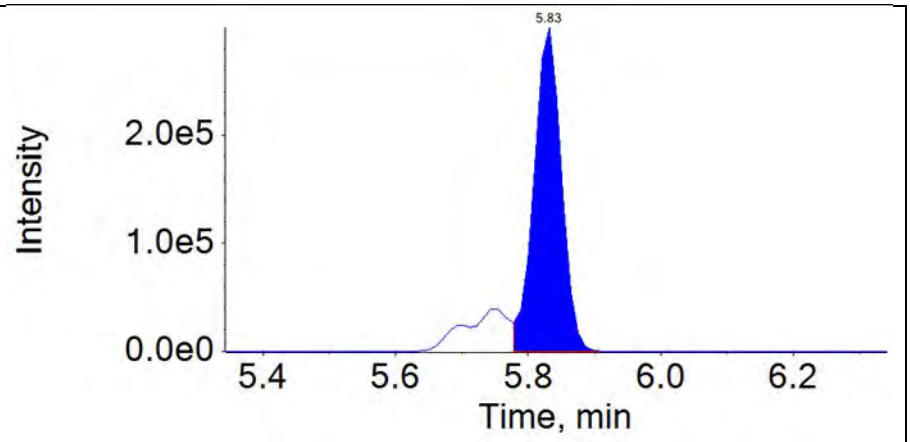


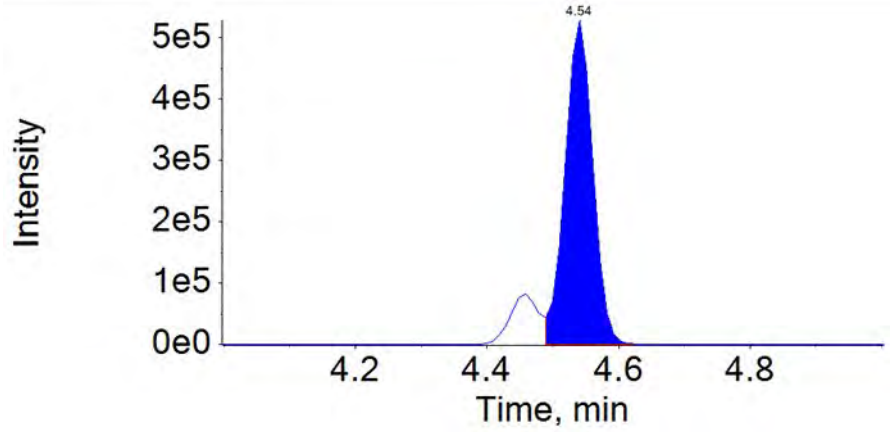
Integration Comment: incorrect integration

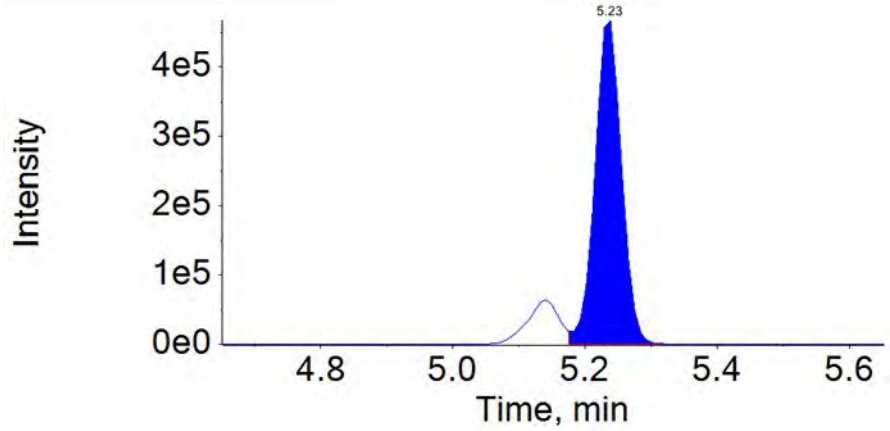
APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

Results Table Name: 18NOV12DCAL
Results Table Date: 11/12/2018 6:23:42 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name: NEtFOSAA **RT (min.):** 5.83 **Peak Area:** 862135.47 **Mass Range:** 584.0 / 419.0 **File Name:** 18NOV12DCAL-48.wiff **Sample Name:** CAL7	 **Integration Comment:** incorrect integration

Component Name: PFHxS_2 **RT (min.):** 4.54 **Peak Area:** 1552233.65 **Mass Range:** 399.0 / 99.0 **File Name:** 18NOV12DCAL-48.wiff **Sample Name:** CAL7	 **Integration Comment:** incorrect integration

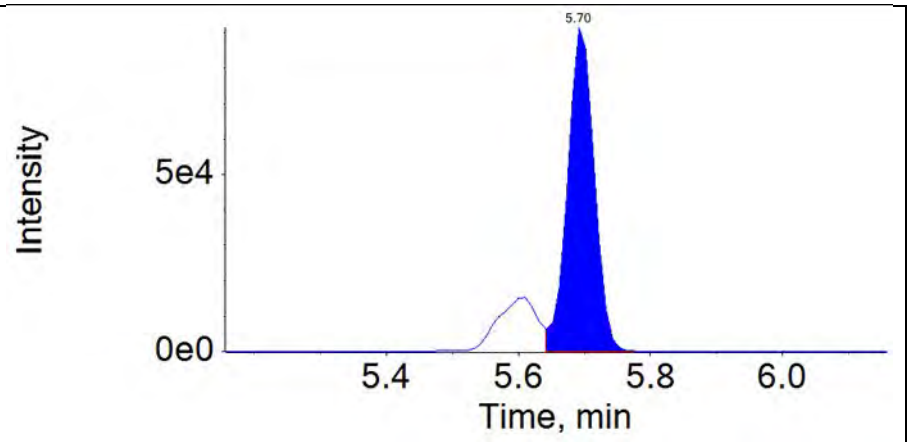
Component Name: PFOS_2 **RT (min.):** 5.23 **Peak Area:** 1316284.93 **Mass Range:** 499.0 / 99.0 **File Name:** 18NOV12DCAL-48.wiff **Sample Name:** CAL7	 **Integration Comment:** incorrect integration

APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

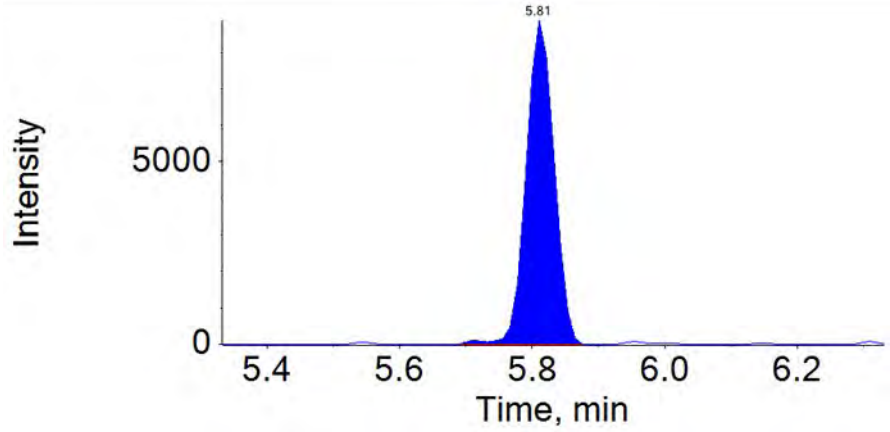
Results Table Name: 18NOV12DCAL
Results Table Date: 11/12/2018 6:23:42 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
NMeFOSAA_2
RT (min.):
5.70
Peak Area:
256419.22
Mass Range:
570.0 / 483.0
File Name:
18NOV12DCAL-48.wiff
Sample Name:
CAL7



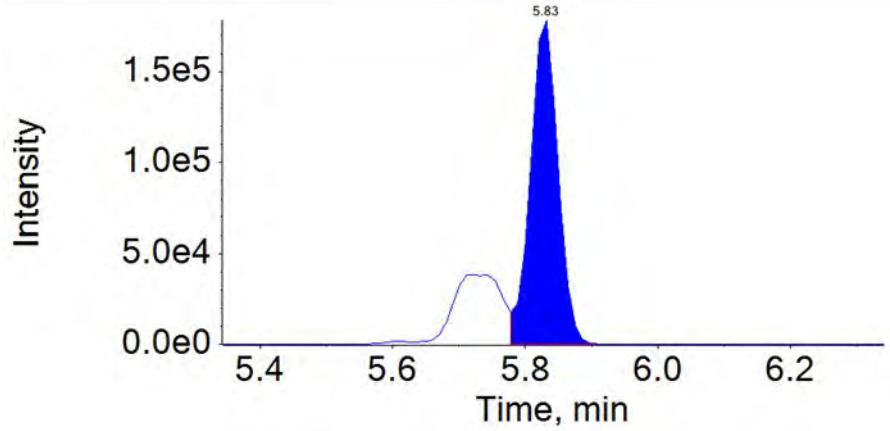
Integration Comment: incorrect integration

Component Name:
PFUnDA_2
RT (min.):
5.81
Peak Area:
26121.92
Mass Range:
563.0 / 169.0
File Name:
18NOV12DCAL-48.wiff
Sample Name:
CAL7



Integration Comment: incorrect integration

Component Name:
NEtFOSAA_2
RT (min.):
5.83
Peak Area:
517079.85
Mass Range:
584.0 / 526.0
File Name:
18NOV12DCAL-48.wiff
Sample Name:
CAL7



Integration Comment: incorrect integration

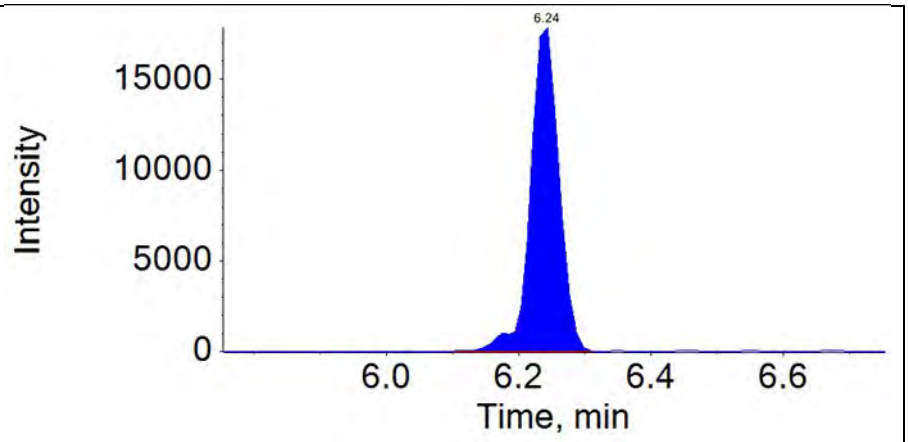
APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

Results Table Name: 18NOV12DCAL
Results Table Date: 11/12/2018 6:23:42 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFTrDA_2
RT (min.):
6.24
Peak Area:
53950.01
Mass Range:
663.0 / 169.0
File Name:
18NOV12DCAL-48.wiff
Sample Name:
CAL7



Integration Comment: incorrect integration

APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

Results Table Name: 18NOV12DCAL
Results Table Date: 11/12/2018 6:23:42 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Ion Ratio Report

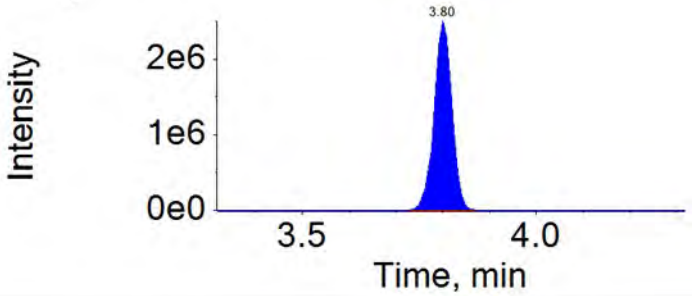
Sample Name: CAL7 **Instrument Name:** LM27631 **File Name:** 18NOV12DCAL-48.wiff

Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	3.80	1.00	6615935.34	A	0.3619	0.3803			
PFBS_2	3.80	1.00	2515947.77	A	0.3619	0.3803	5	50	
4:2-FTS	4.11	1.00	1379983.90	A	0.6730	0.6491			
4:2 FTS_2	4.11	1.00	895801.93	A	0.6730	0.6491		#NA!	
PFHxA	4.15	1.00	11059420.28	A	0.0117	0.0124			
PFHxA_2	4.15	1.00	136818.87	A	0.0117	0.0124	6	50	
PFPeS	4.17	1.10	3482095.87	A	0.5191	0.5217			
PFPeS_2	4.17	1.10	1816709.54	A	0.5191	0.5217	1	50	
PFHpA	4.54	1.00	10981922.82	A	0.0563	0.0563			
PFHpA_2	4.54	1.00	618128.71	A	0.0563	0.0563	0	50	
PFHxS	4.54	1.00	5048349.82	M	0.3428	0.3562			
PFHxS_2	4.54	1.00	1798400.55	M	0.3428	0.3562	4	50	
6:2-FTS	4.89	1.00	869227.19	A	0.6604	0.6365			
6:2 FTS_2	4.89	1.00	553300.52	A	0.6604	0.6365		#NA!	
PFHpS	4.90	1.08	4784682.82	A	0.4066	0.4068			
PFHpS_2	4.90	1.08	1946425.33	A	0.4066	0.4068	0	50	
PFOA	4.91	1.00	10991740.12	A	0.0562	0.0611			
PFOA_2	4.91	1.00	671295.39	A	0.0562	0.0611	9	50	
PFOS	5.24	1.00	5138366.95	M	0.2968	0.2975			
PFOS_2	5.23	1.00	1528751.71	M	0.2968	0.2975	0	50	
PFNA	5.25	1.00	10084288.28	A	0.0229	0.0213			
PFNA_2	5.25	1.00	214560.66	A	0.0229	0.0213	-7	50	
PFNS	5.53	1.06	3386860.46	A	0.4828	0.4408			
PFNS_2	5.53	1.06	1492987.09	A	0.4828	0.4408	-9	50	
PFDA	5.55	1.00	8104726.61	A	0.0081	0.0071			
PFDA_2	5.55	1.00	57305.88	A	0.0081	0.0071	-12	50	
8:2-FTS	5.56	1.00	804019.53	A	0.6814	0.5854			
8:2 FTS_2	5.56	1.00	470706.51	A	0.6814	0.5854		#NA!	
NMeFOSAA	5.69	1.00	1191981.70	M	0.2569	0.2688			
NMeFOSAA_2	5.70	1.00	320371.24	M	0.2569	0.2688	5	50	
PFDS	5.79	1.11	2606720.69	A	0.5144	0.4749			
PFDS_2	5.79	1.10	1238034.03	A	0.5144	0.4749	-8	50	
PFUnDA	5.81	1.00	6802701.21	A	0.0058	0.0038			
PFUnDA_2	5.81	1.00	25933.20	M	0.0058	0.0038	-34	50	
NEtFOSAA	5.83	1.00	1046636.11	M	0.7253	0.6803			
NEtFOSAA_2	5.83	1.00	711980.18	M	0.7253	0.6803	-6	50	
PFDoDA	6.04	1.00	8171355.35	A	0.0157	0.0138			
PFDoDA_2	6.04	1.00	113144.85	A	0.0157	0.0138	-12	50	
10:2-FTS	6.06	1.09	632223.71	A	0.6356	0.6817			
10:2 FTS_2	6.06	1.09	431003.27	A	0.6356	0.6817		#NA!	
PFTrDA	6.24	1.03	6281239.03	A	0.0086	0.0083			
PFTrDA_2	6.24	1.03	52325.72	M	0.0086	0.0083	-3	50	
PFTeDA	6.42	1.00	6092875.66	A	0.0062	0.0060			
PFTeDA_2	6.42	1.00	36395.60	A	0.0062	0.0060	-4	50	
PFHxDA	6.72	1.05	2866097.32	A	0.0683	0.0642			
PFHxDA_2	6.72	1.05	183981.95	A	0.0683	0.0642	-6	50	
PFODA	6.98	1.09	2488863.64	A	0.0277	0.0267			
PFODA_2	6.98	1.09	66332.27	A	0.0277	0.0267	-4	50	

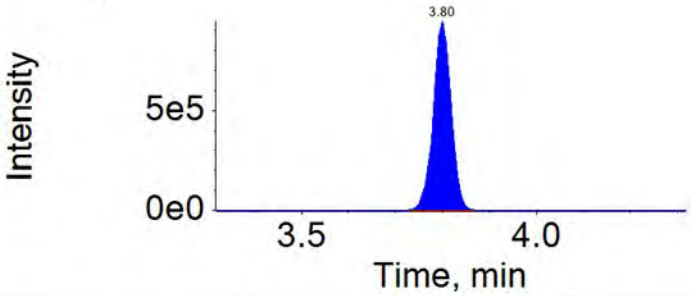
APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

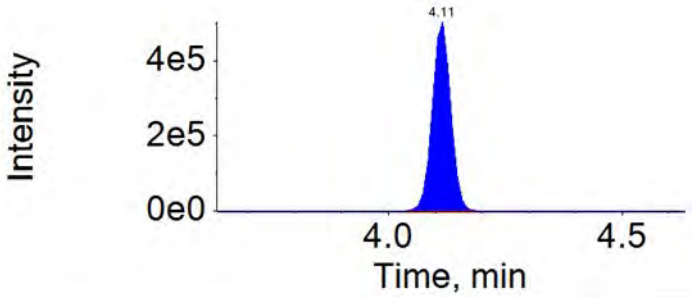
Component: PFBS
Primary Mass: 299.0 / 80.0



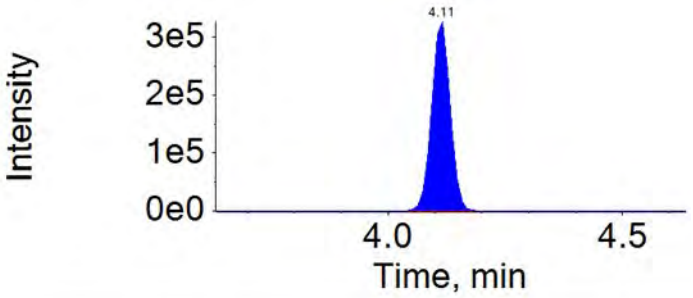
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



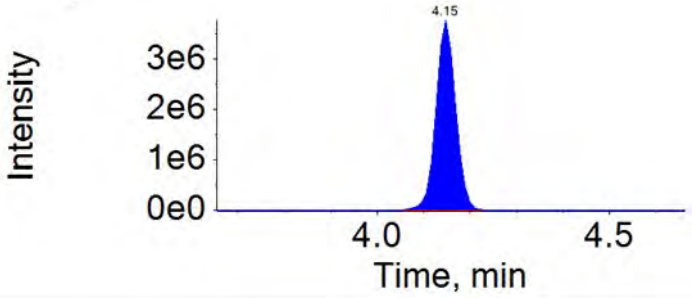
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



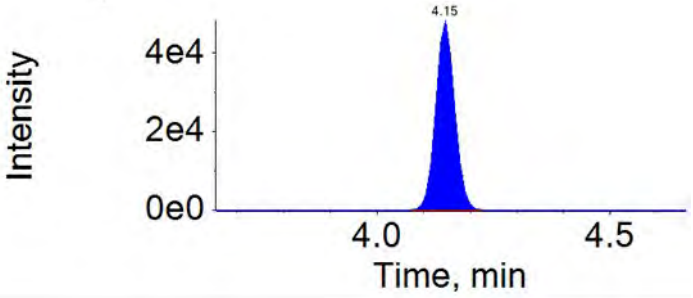
Component: 4:2 FTS_2
Secondary Mass: 327.0 / 81.0



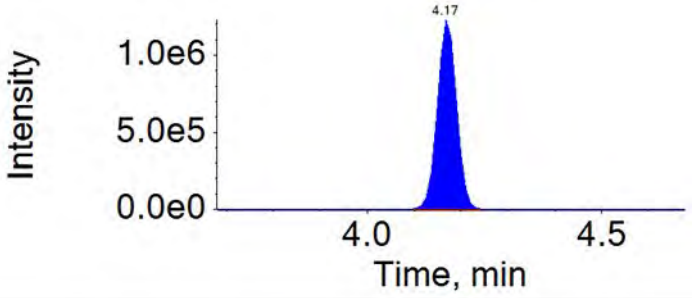
Component: PFHxA
Primary Mass: 313.0 / 269.0



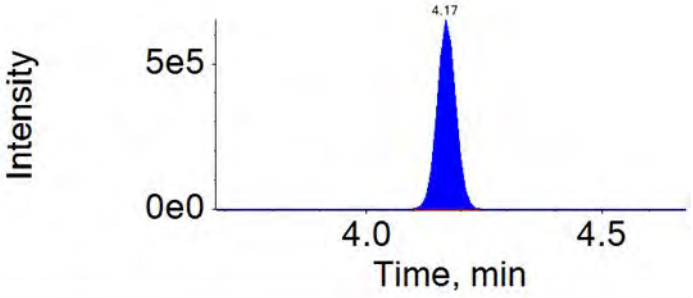
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



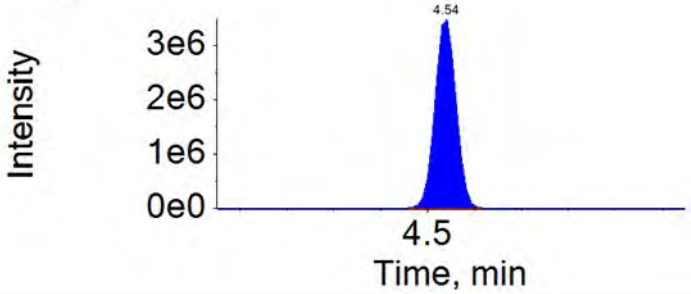
Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



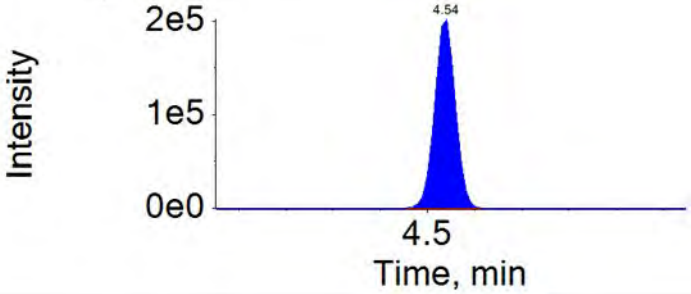
APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

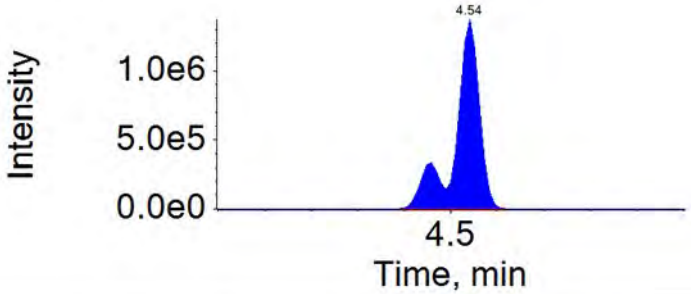
Component: PFHpA
Primary Mass: 363.0 / 319.0



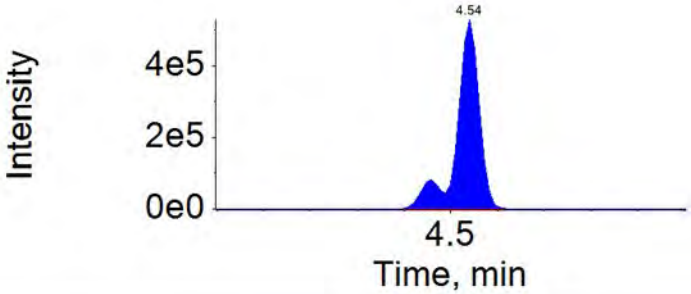
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



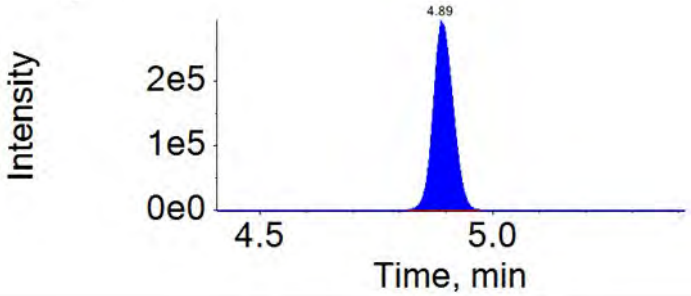
Component: PFHxS
Primary Mass: 399.0 / 80.0



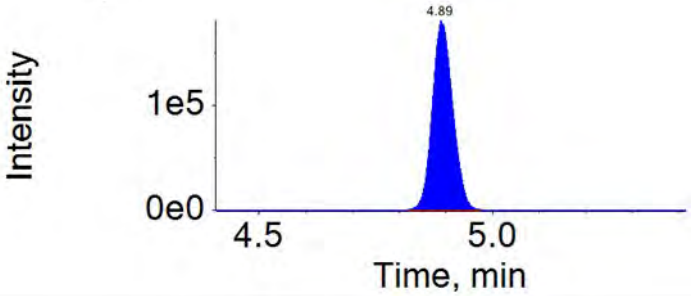
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



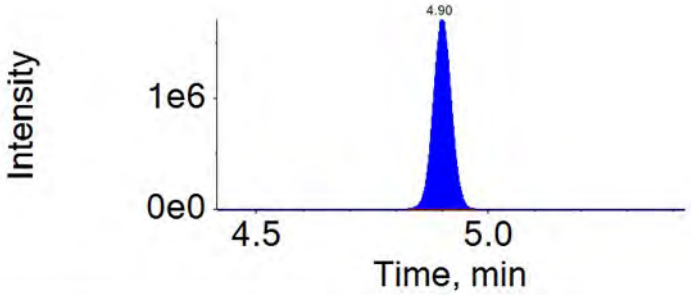
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



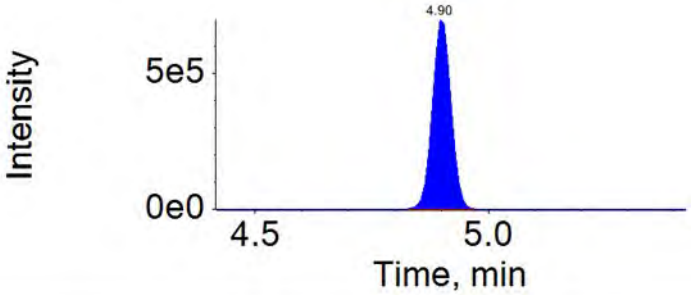
Component: 6:2 FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



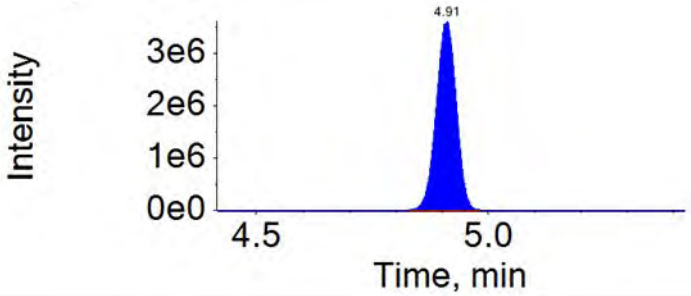
Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



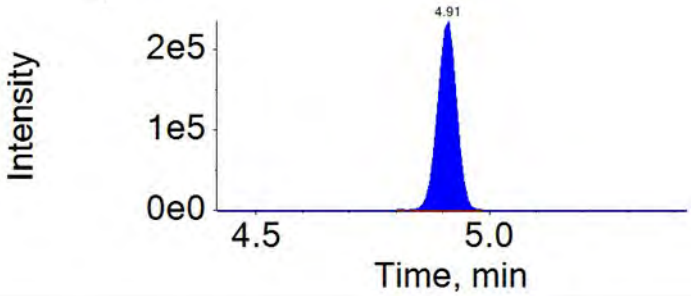
APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

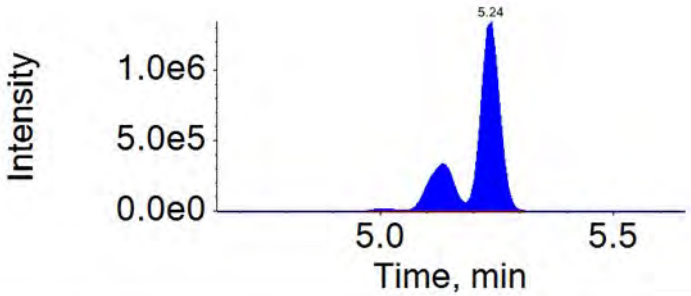
Component: PFOA
Primary Mass: 413.0 / 369.0



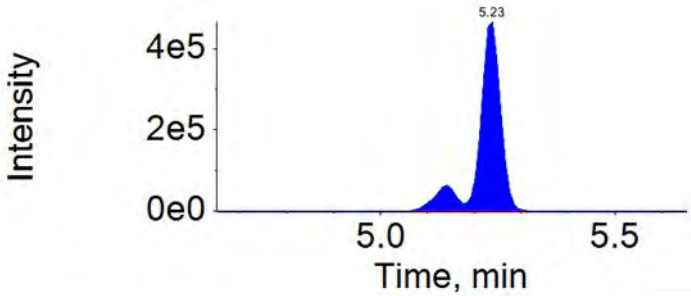
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



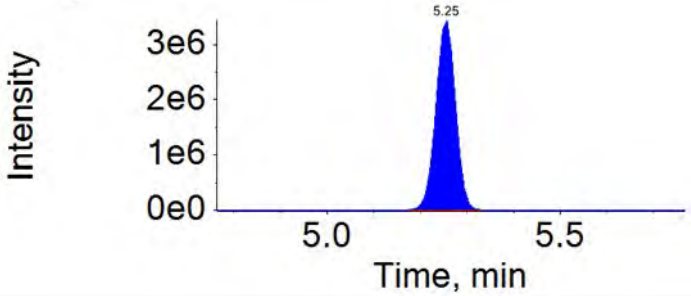
Component: PFOS
Primary Mass: 499.0 / 80.0



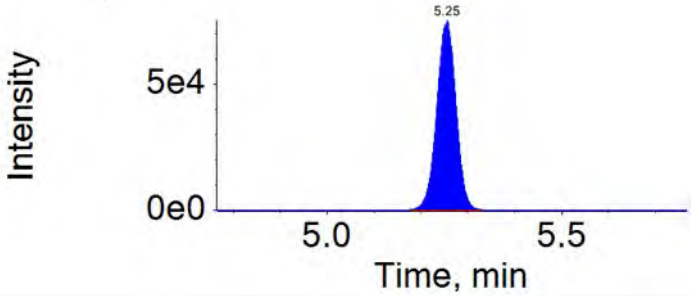
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



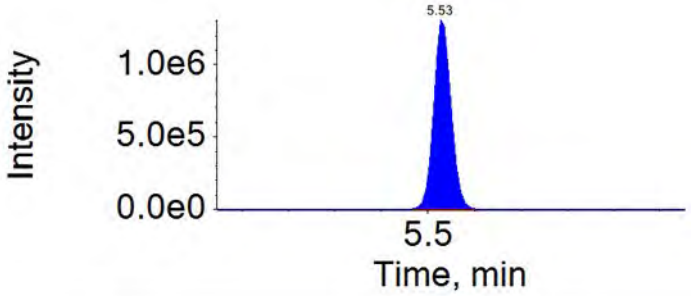
Component: PFNA
Primary Mass: 463.0 / 419.0



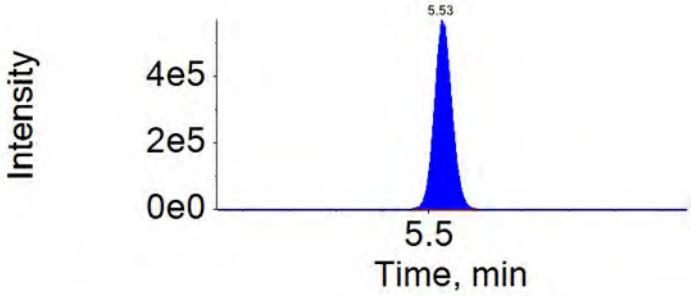
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



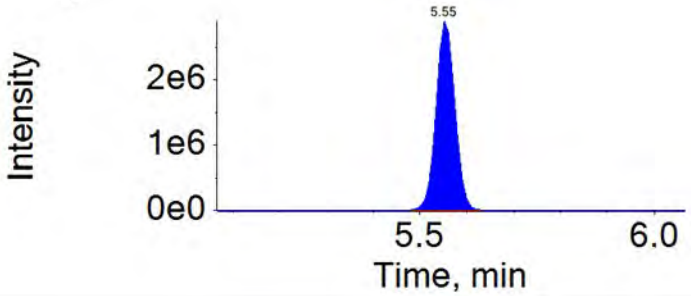
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



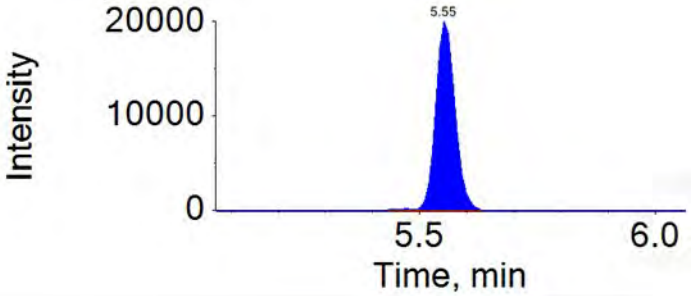
APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

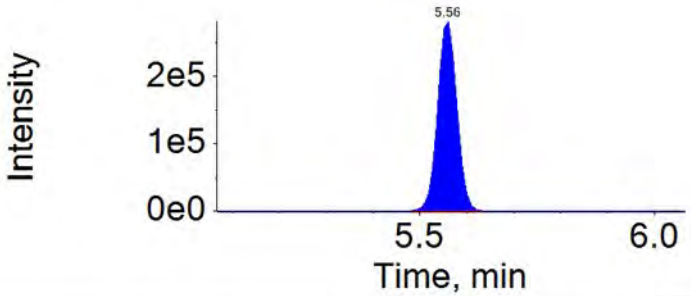
Component: PFDA
Primary Mass: 513.0 / 469.0



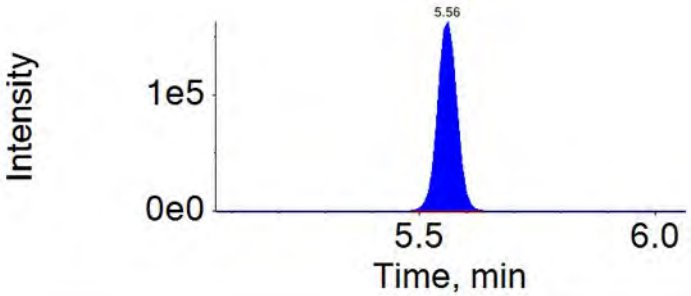
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



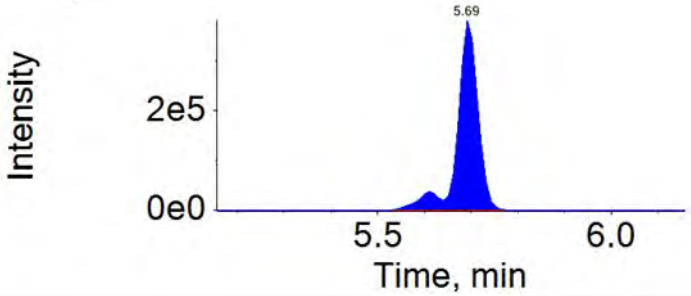
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



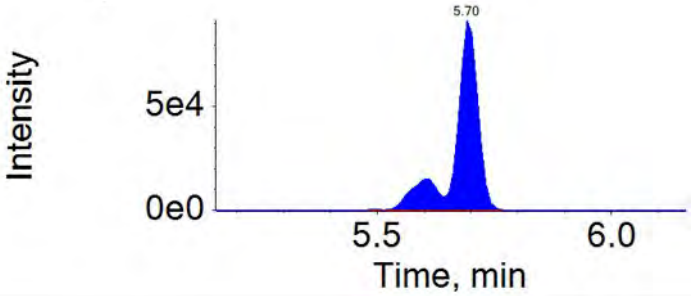
Component: 8:2 FTS_2
Secondary Mass: 527.0 / 81.0



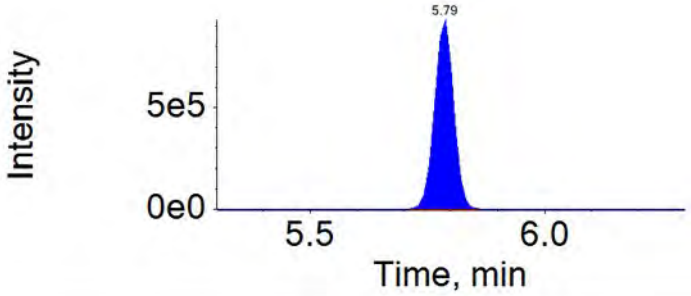
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



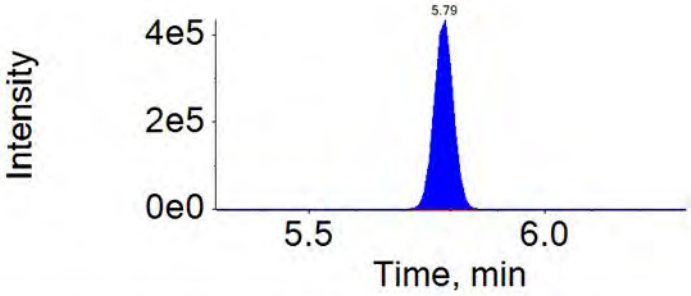
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



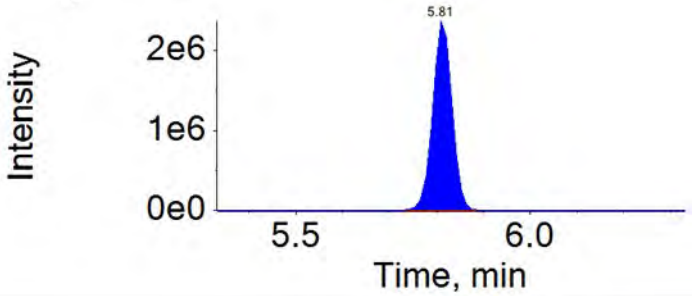
Component: PFDS_2
Secondary Mass: 599.0 / 99.0



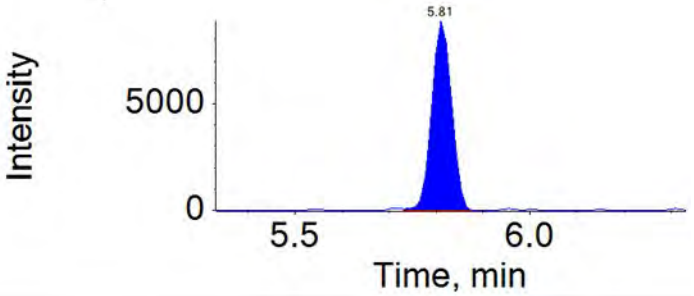
APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

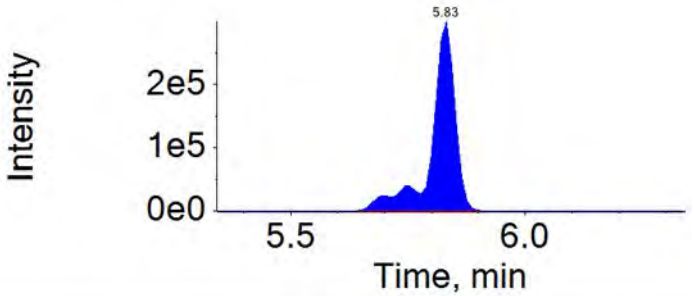
Component: PFUnDA
Primary Mass: 563.0 / 519.0



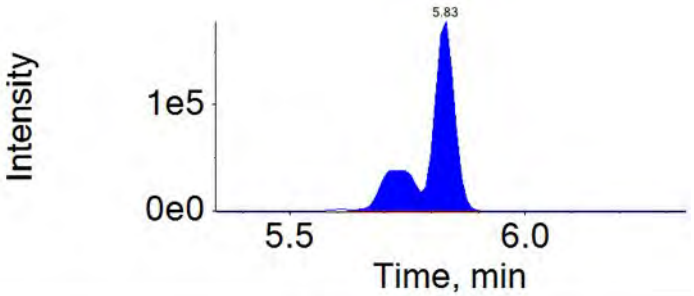
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



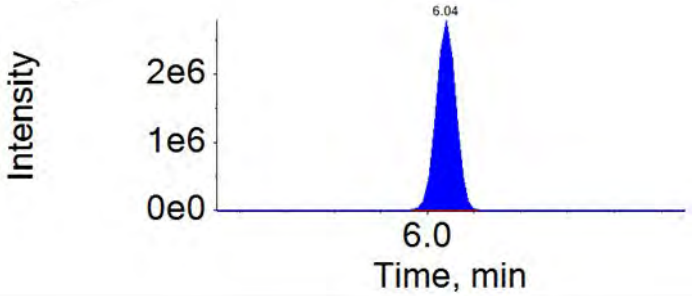
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



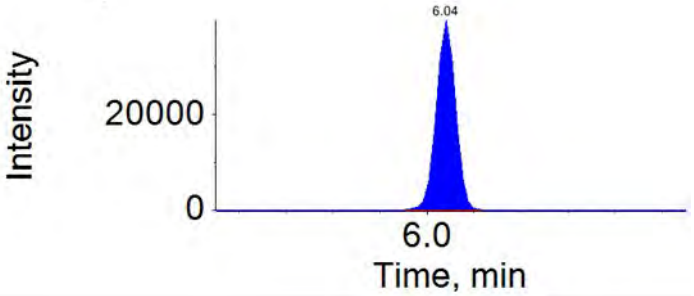
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



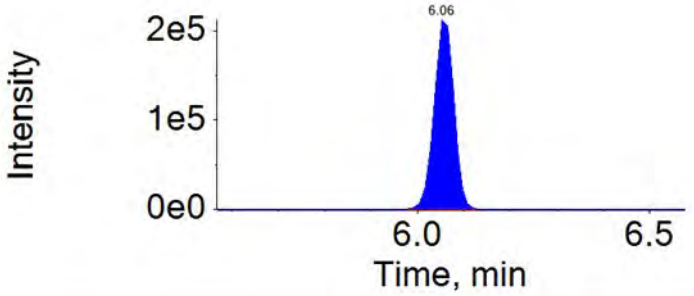
Component: PFDoDA
Primary Mass: 613.0 / 569.0



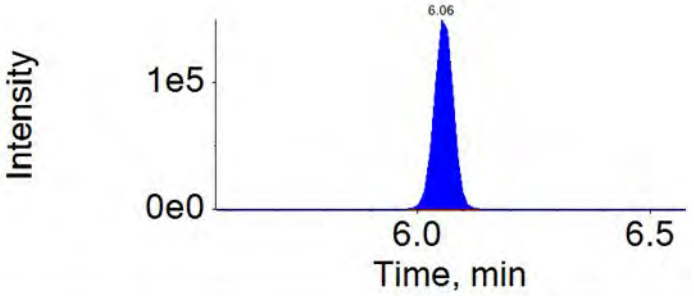
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



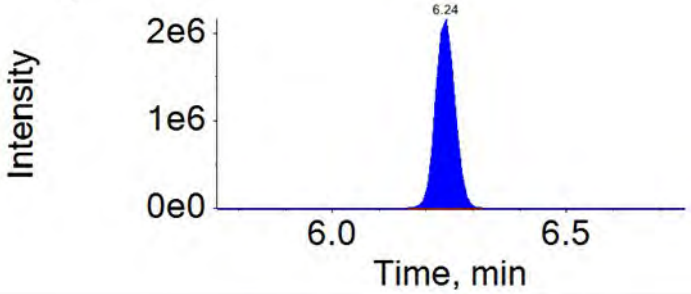
Component: 10:2 FTS_2
Secondary Mass: 627.0 / 81.0



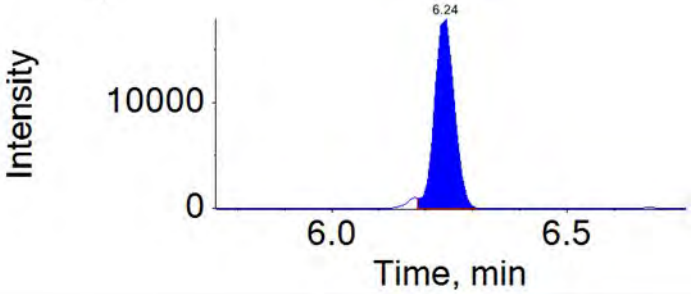
APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

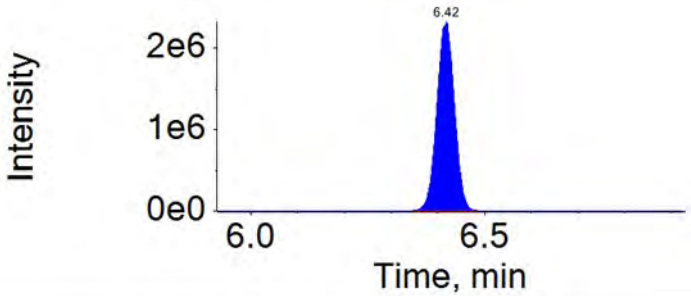
Component: PFTrDA
Primary Mass: 663.0 / 619.0



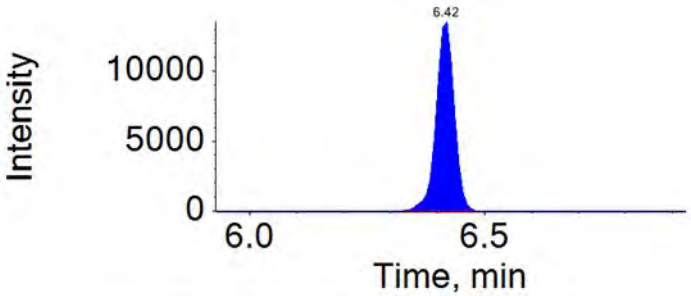
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



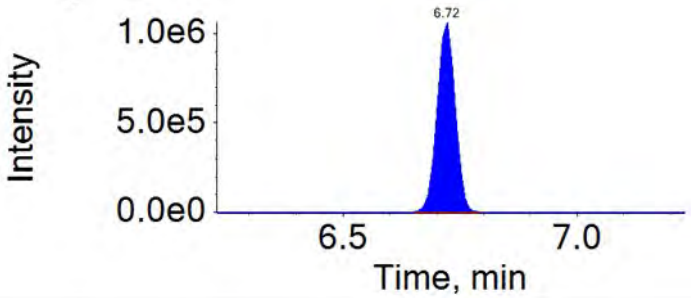
Component: PFTeDA
Primary Mass: 713.0 / 669.0



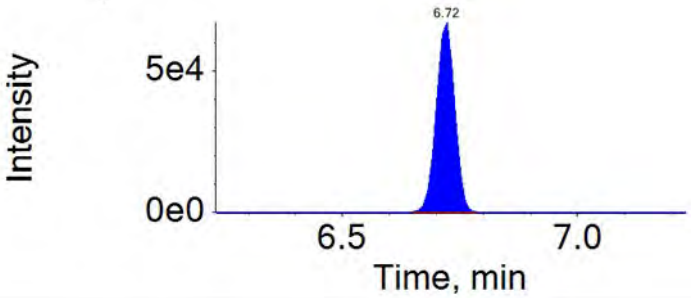
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



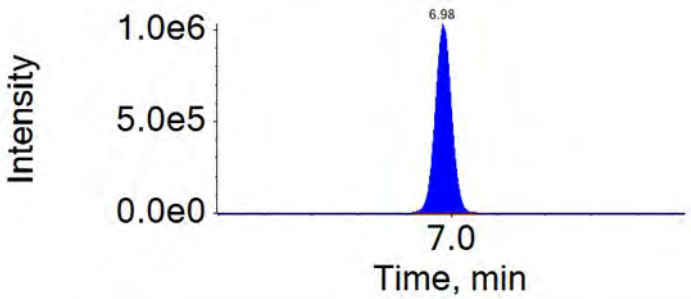
Component: PFHxDA
Primary Mass: 813.0 / 769.0



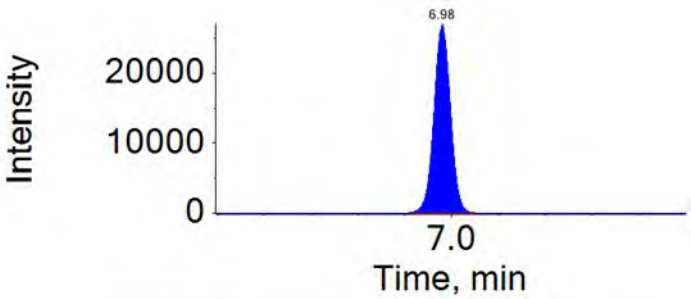
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



APPROVED
By MCD at 6:33 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Sample Name:	MDL			**Data File:**		18NOV12DCAL-41.wiff
Sample ID:	MDLMODX1833F			**Acquis Date:**		2018-11-12T14:56:51
Sample Type:	Unknown			**Instrument:**		LM27631
Vial Position:	2			**Acquis Method:**		18AUG13_3uL.dam
Injection Vol:	3.00			**Result Table:**		18NOV12DCAL
QMethod File:	18AUG20QM			**ICAL Name:**		18NOV12DCAL
Batch Number:	N\A			**Operator:**		MCD7824
Sample Wt.:	1.00000			**Dilution Factor:**		1.00
Sample Vol.:	1.000			**Prep Factor:**		1.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV12DCAL-44

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Rreference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	633265.0	659926.2	-4	50	
13C2-PFOA	5.0	422926.0	450219.7	-6	50	
13C4-PFOS	4.8	238608.2	249205.8	-4	50	
13C2-PFDA	5.0	268362.6	278743.9	-4	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	710466.9	13C3-PFBA	633265.0	1.122	5.000	5.030	101	70-130	
E13C5-PFPeA	681259.0	13C3-PFBA	633265.0	1.076	5.000	4.825	97	70-130	
E13C3-PFBS	393264.2	13C3-PFBA	633265.0	0.621	4.650	4.384	94	70-130	
E13C2-4:2-FTS	44526.6	13C2-PFOA	422926.0	0.105	4.670	4.689	100	70-130	
E13C5-PFHxA	637812.0	13C2-PFOA	422926.0	1.508	5.000	5.448	109	70-130	
E13C3-PFHxS	301527.6	13C2-PFOA	422926.0	0.713	4.730	4.892	103	70-130	
E13C4-PFHpA	476944.8	13C2-PFOA	422926.0	1.128	5.000	5.081	102	70-130	
E13C2-6:2-FTS	30514.4	13C2-PFOA	422926.0	0.072	4.750	4.827	102	70-130	
E13C8-PFOA	779343.3	13C2-PFOA	422926.0	1.843	5.000	5.077	102	70-130	
E13C8-PFOS	248479.3	13C4-PFOS	238608.2	1.041	4.780	4.614	97	70-130	
E13C9-PFNA	435787.7	13C4-PFOS	238608.2	1.826	5.000	5.092	102	70-130	
E13C6-PFDA	583105.1	13C2-PFDA	268362.6	2.173	5.000	5.070	101	70-130	
E13C2-8:2-FTS	24193.5	13C2-PFDA	268362.6	0.090	4.790	4.496	94	70-130	
E13C8-PFOSA	559143.9	13C2-PFDA	268362.6	2.084	5.000	4.619	92	70-130	
Ed3-NMeFOSAA	63421.6	13C2-PFDA	268362.6	0.236	5.000	4.266	85	70-130	
E13C7-PFUnDA	227858.5	13C2-PFDA	268362.6	0.849	5.000	4.930	99	70-130	
Ed5-NEtFOSAA	57840.8	13C2-PFDA	268362.6	0.216	5.000	4.560	91	70-130	
E13C2-PFDoDA	487146.2	13C2-PFDA	268362.6	1.815	5.000	4.713	94	70-130	
Ed7-NMePFOSAE	286690.6	13C2-PFDA	268362.6	1.068	5.000	4.623	92	70-130	
Ed3-NMePFOSA	71517.2	13C2-PFDA	268362.6	0.266	5.000	4.842	97	70-130	
Ed9-NEtPFOSAE	252037.2	13C2-PFDA	268362.6	0.939	5.000	4.885	98	70-130	
Ed5-NEtPFOSA	54637.9	13C2-PFDA	268362.6	0.204	5.000	4.776	96	70-130	
E13C2-PFTeDA	362820.8	13C2-PFDA	268362.6	1.352	5.000	4.746	95	70-130	

APPROVED
By MCD at 6:34 pm, 11/12/18

REVIEWED
By HMK at 10:54 am, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

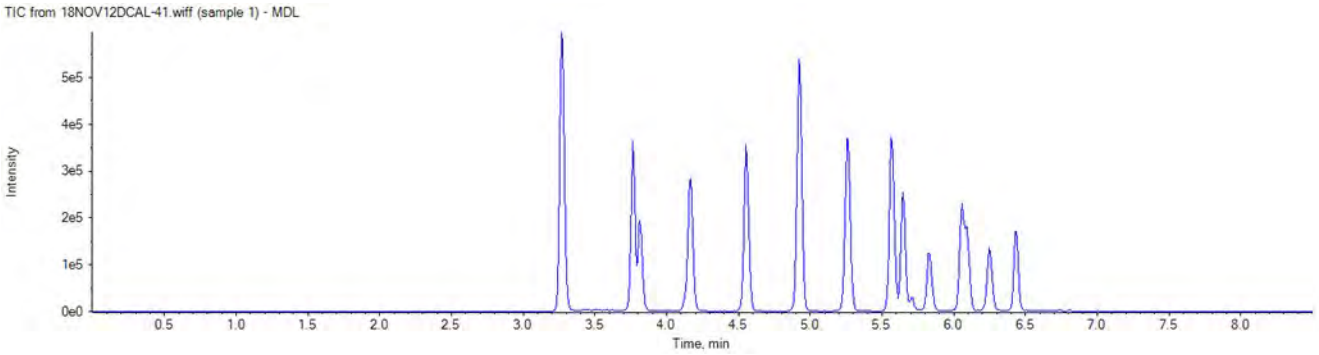
Analyte Quantitation Peak Table

Sample Name: MDL **Instrument Name:** LM27631 **File Name:** 18NOV12DCAL-41.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	1.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	3.27	1.000	22532.9		A	13C4-PFBA	3.27	710466.9	0.032	0.176
PFPeA	3.77	1.000	20193.5		M	13C5-PFPeA	3.77	681259.0	0.030	0.172
PFBS	3.81	1.000	9248.3		A	13C3-PFBS	3.81	393264.2	0.024	0.112
4:2-FTS	4.13	1.000	1329.9		A	13C2-4:2-FTS	4.13	44526.6	0.030	0.081
PFHxA	4.17	1.000	21601.6		A	13C5-PFHxA	4.17	637812.0	0.034	0.141
PFPeS	4.19	1.100	4484.8		A	13C3-PFBS	3.81	393264.2	0.011	0.111
PFHpA	4.56	1.000	22043.5		A	13C4-PFHpA	4.55	476944.8	0.046	0.153
PFHxS	4.56	1.000	8143.5		M	13C3-PFHxS	4.56	301527.6	0.027	0.131
6:2-FTS	4.91	1.000	1176.2		M	13C2-6:2-FTS	4.91	30514.4	0.039	0.093
PFHpS	4.92	1.080	7117.5		A	13C3-PFHxS	4.56	301527.6	0.024	0.124
PFOA	4.93	1.000	18045.0		A	13C8-PFOA	4.93	779343.3	0.023	0.124
PFOS	5.25	1.000	6416.9		A	13C8-PFOS	5.25	248479.3	0.026	0.113
PFNA	5.27	1.000	18065.1		M	13C9-PFNA	5.27	435787.7	0.041	0.149
PFNS	5.54	1.060	3661.2		A	13C8-PFOS	5.25	248479.3	0.015	0.103
PFDA	5.57	1.000	17350.5		A	13C6-PFDA	5.57	583105.1	0.030	0.158
8:2-FTS	5.57	1.000	1475.2		A	13C2-8:2-FTS	5.57	24193.5	0.061	0.142
PFOSA	5.64	1.000	10288.3		A	13C8-PFOSA	5.65	559143.9	0.018	0.090
NMeFOSAA	5.72	1.000	1372.4		A	d3-NMeFOSAA	5.71	63421.6	0.022	0.122
PFDS	5.80	1.100	2648.8		A	13C8-PFOS	5.25	248479.3	0.011	0.097
PFUnDA	5.83	1.000	12215.3		M	13C7-PFUnDA	5.83	227858.5	0.054	0.140
NEtFOSAA	5.84	1.000	1937.8		A	d5-NEtFOSAA	5.84	57840.8	0.034	0.176
PFDoDA	6.06	1.000	14033.1		A	13C2-PFDoDA	6.06	487146.2	0.029	0.147
10:2-FTS	6.06	1.090	352.6		M	13C2-8:2-FTS	5.57	24193.5	0.015	0.049
NMePFOSAE	6.10	1.000	9218.1		A	d7-NMePFOSAE	6.09	286690.6	0.032	0.134
NMePFOSA	6.11	1.000	1339.8		A	d3-NMePFOSA	6.11	71517.2	0.019	0.092
PFDoS	6.22	1.180	1425.7		A	13C8-PFOS	5.25	248479.3	0.006	0.100
NEtPFOSAE	6.26	1.000	10510.3		A	d9-NEtPFOSAE	6.25	252037.2	0.042	0.134
NEtPFOSA	6.28	1.000	1191.3		M	d5-NEtPFOSA	6.27	54637.9	0.022	0.100
PFTrDA	6.26	1.030	7825.5		M	13C2-PFDoDA	6.06	487146.2	0.016	0.101
PFTeDA	6.43	1.000	8938.5		A	13C2-PFTeDA	6.43	362820.8	0.025	0.138
PFHxDA	6.74	1.050	3934.2		A	13C2-PFTeDA	6.43	362820.8	0.011	0.129
PFODA	7.00	1.090	2726.4		A	13C2-PFTeDA	6.43	362820.8	0.008	0.105

Total Ion Chromatogram

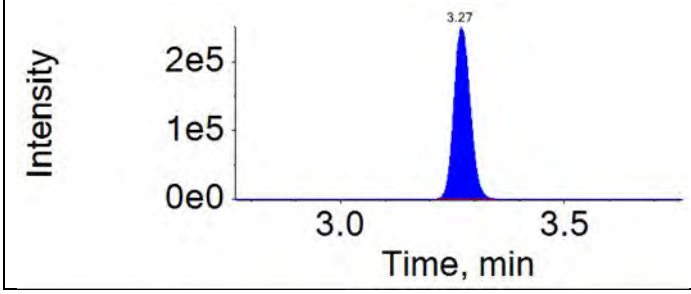


APPROVED
By MCD at 6:34 pm, 11/12/18

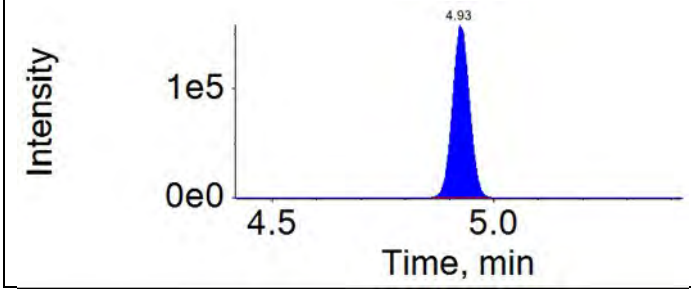
REVIEWED
By HMK at 10:54 am, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

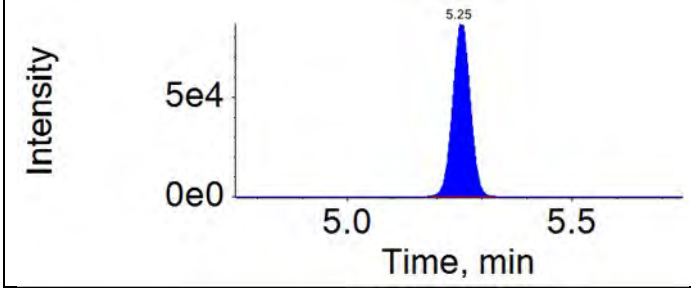
Injection Standard: 13C3-PFBA
216.0 / 172.0



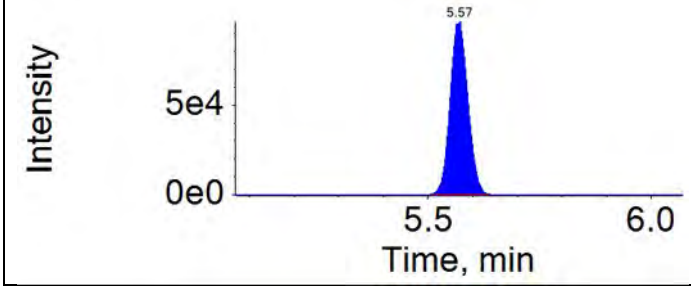
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0



Injection Standard: 13C2-PFDA
515.0 / 470.0

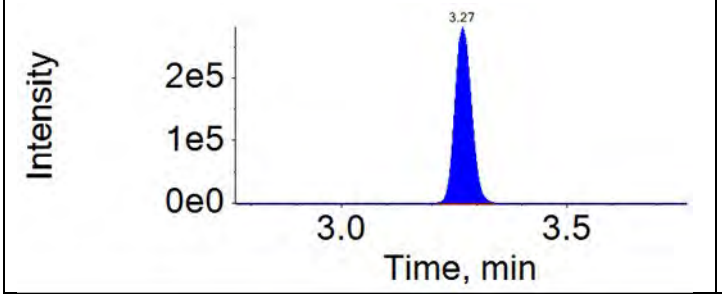


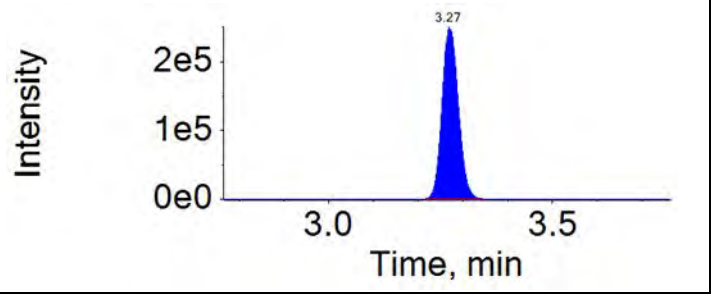
APPROVED
By MCD at 6:34 pm, 11/12/18

REVIEWED
By HMK at 10:54 am, 11/13/18

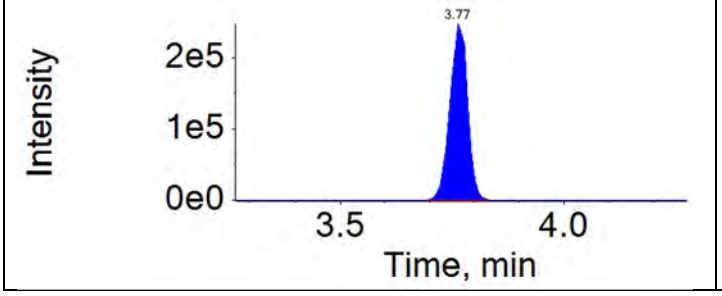
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QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

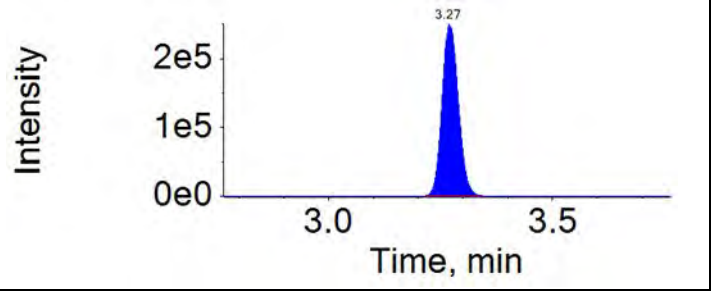
Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0



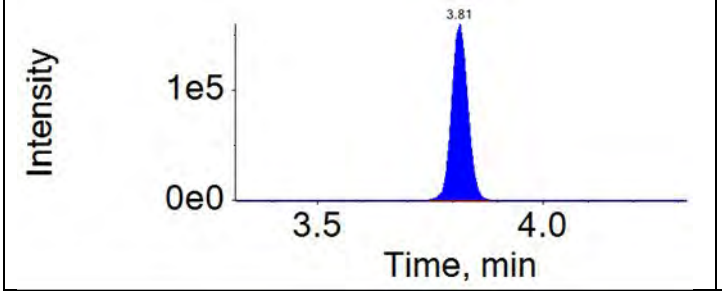


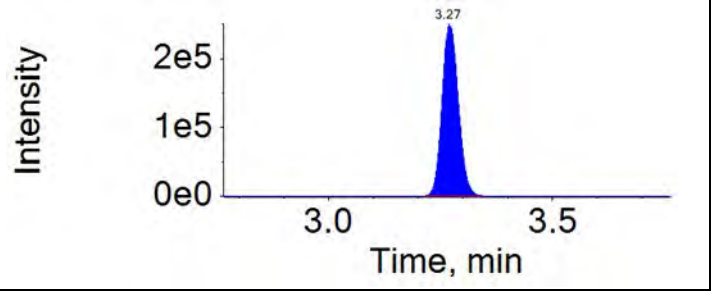
Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0



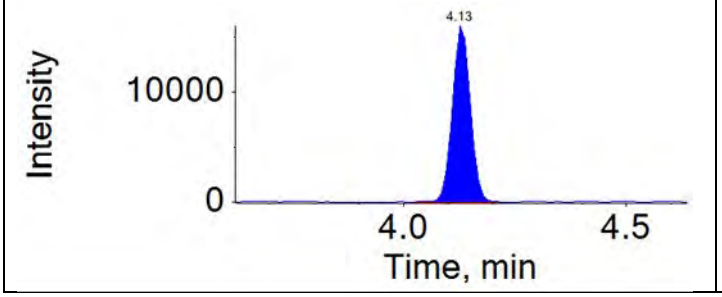


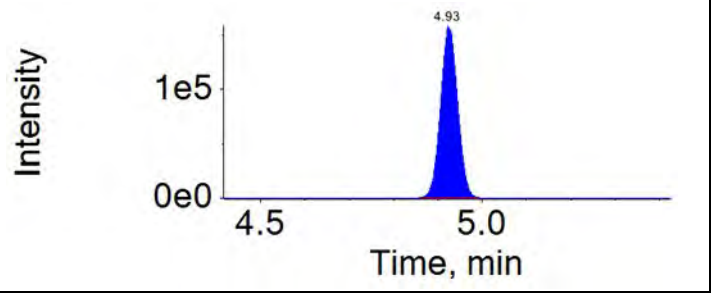
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0





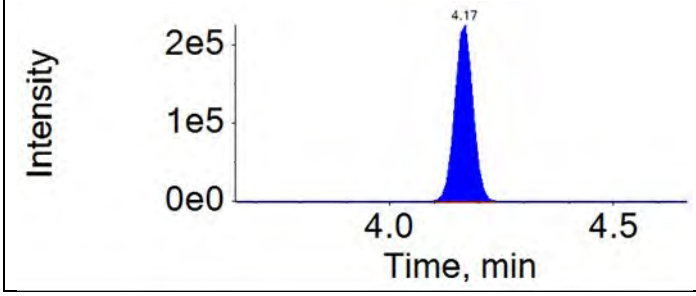
Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0

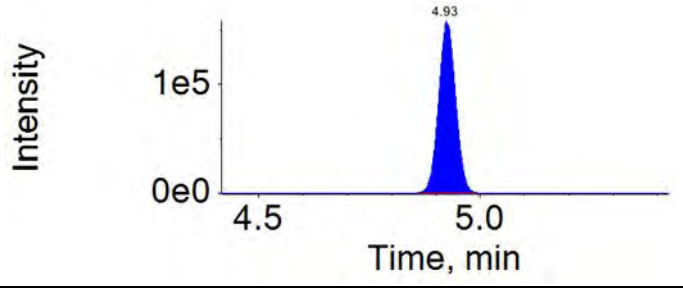




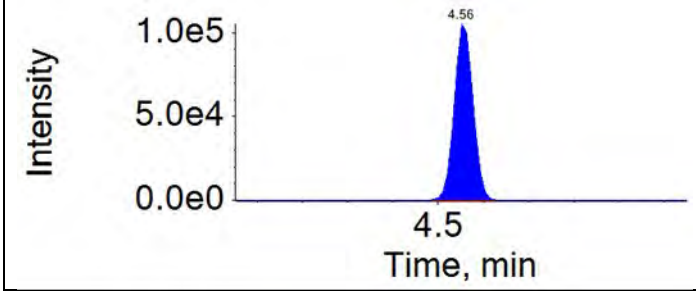
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

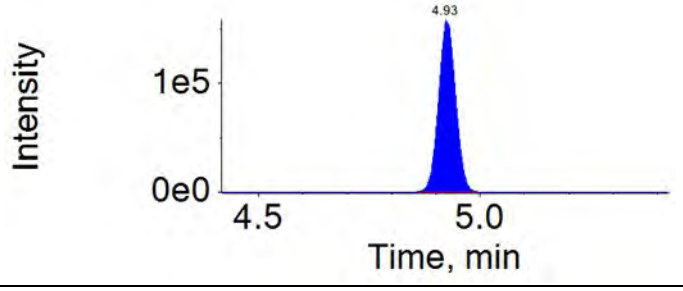
Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0



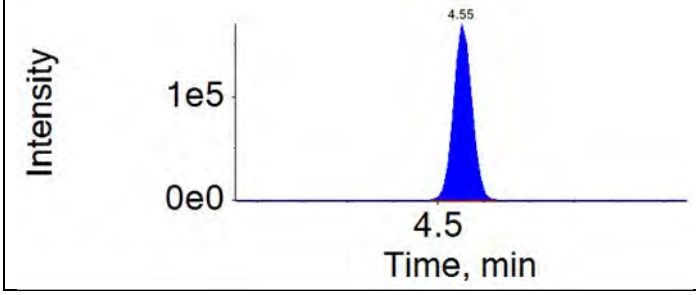


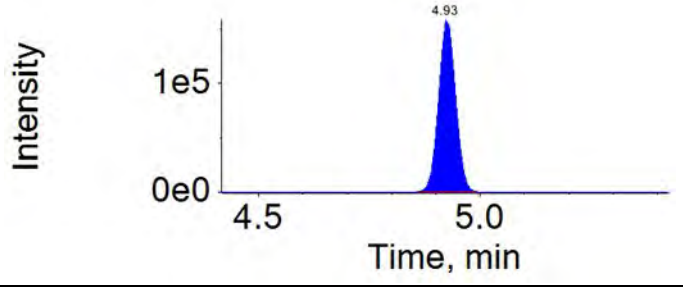
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0



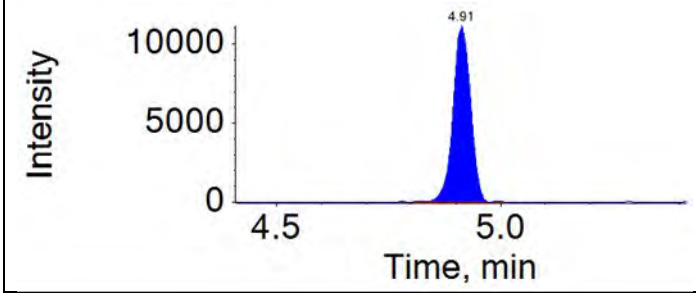


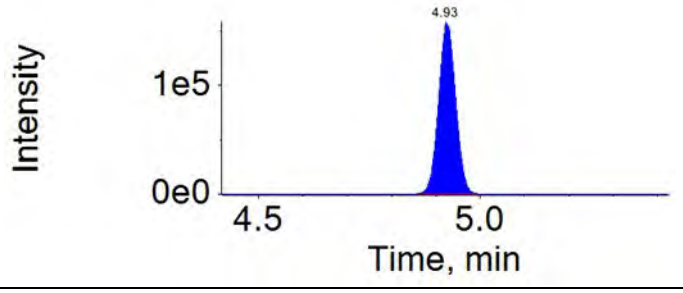
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0





Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0

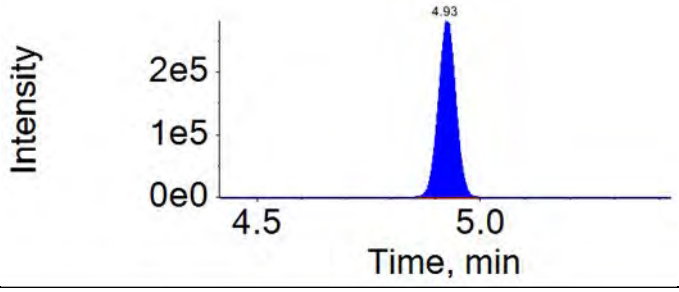
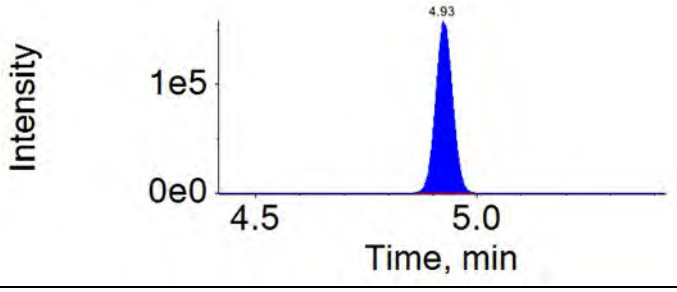


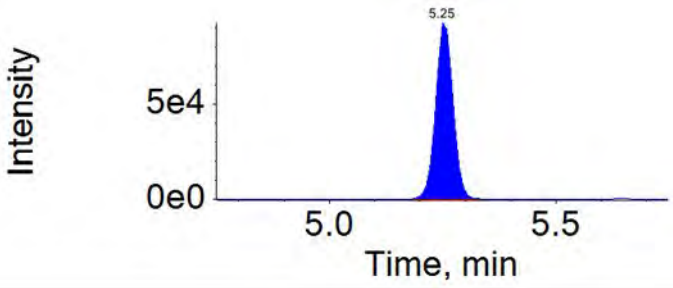
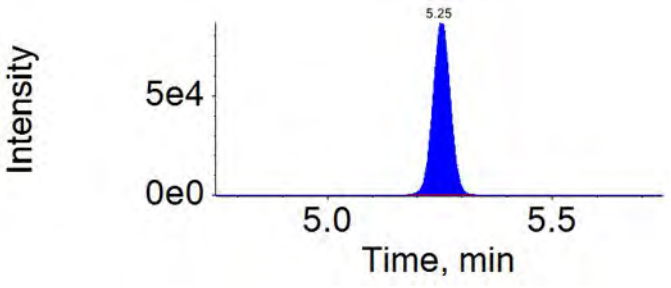


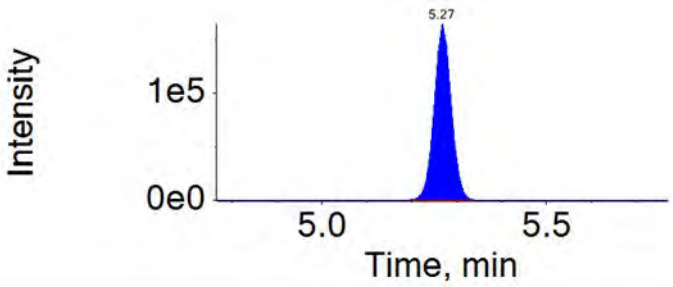
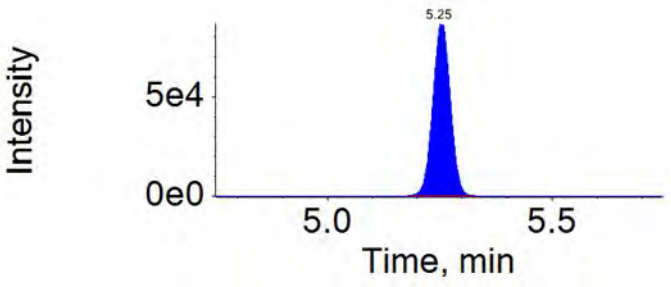
APPROVED
By MCD at 6:34 pm, 11/12/18

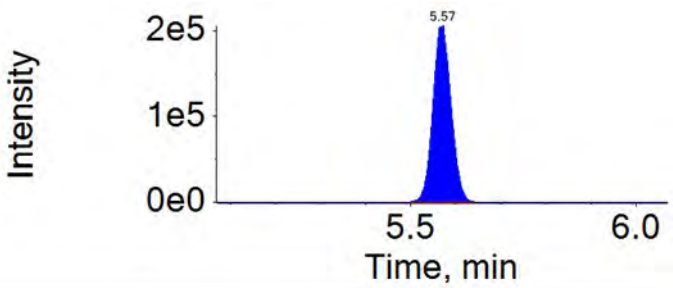
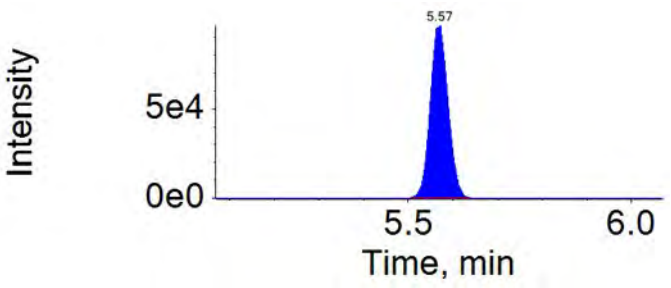
REVIEWED
By HMK at 10:54 am, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

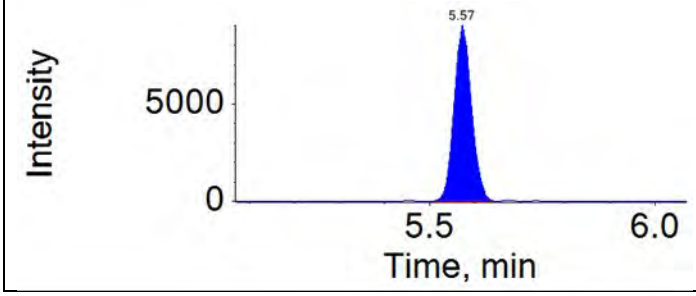
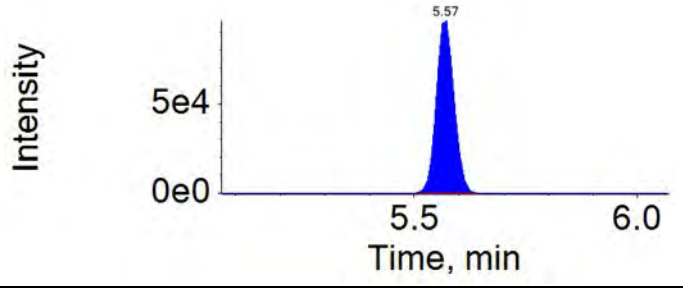
Extraction Standard: E13C8-PFOA	Injection Standard: 13C2-PFOA
421.0 / 376.0	415.0 / 370.0
	

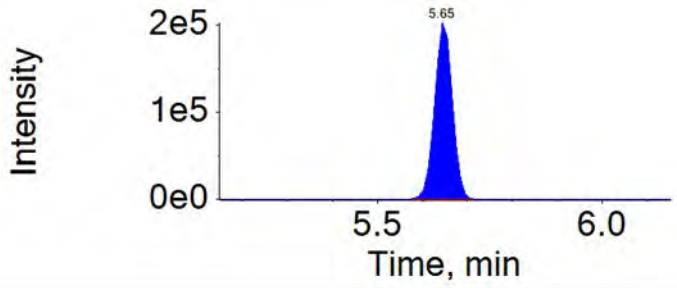
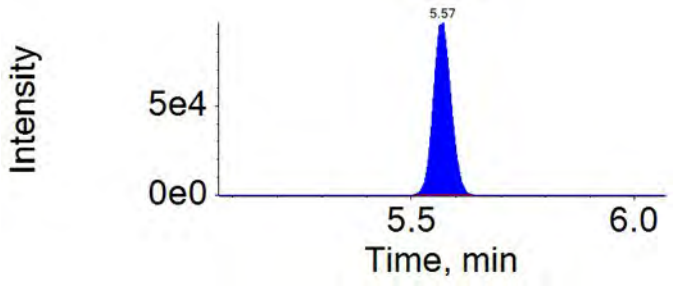
Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0
	

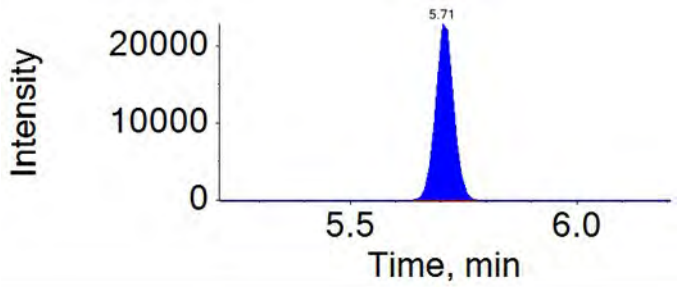
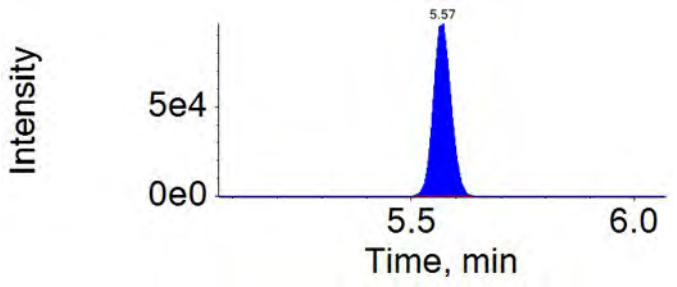
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472.0 / 427.0	503.0 / 80.0
	

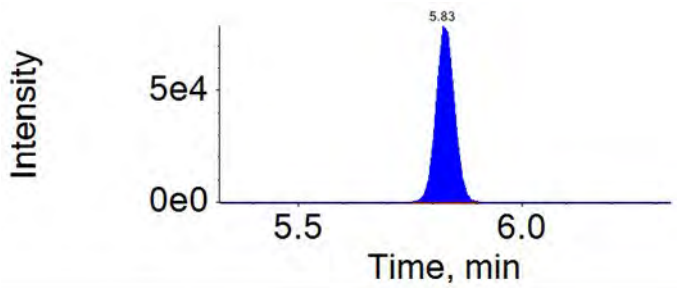
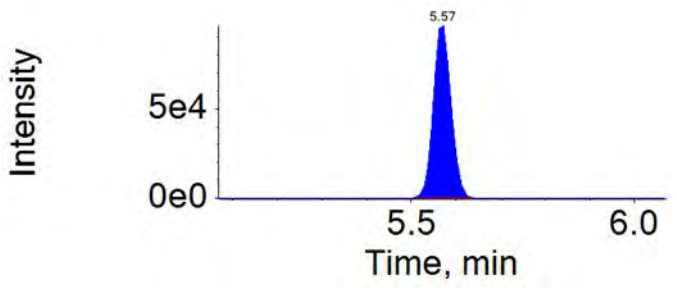
Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0
	

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: E13C2-8:2-FTS	Injection Standard: 13C2-PFDA
529.0 / 81.0	515.0 / 470.0
	

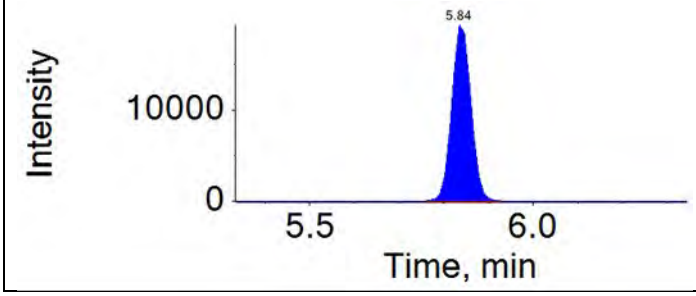
Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0
	

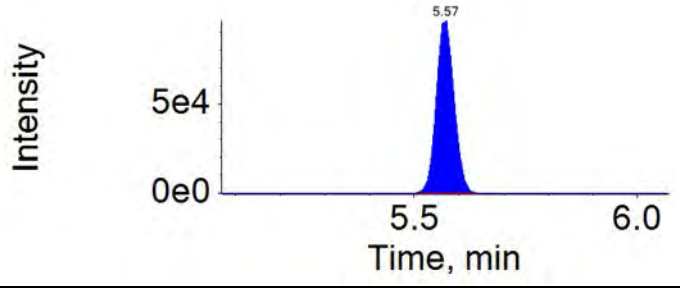
Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0
	

Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0
	

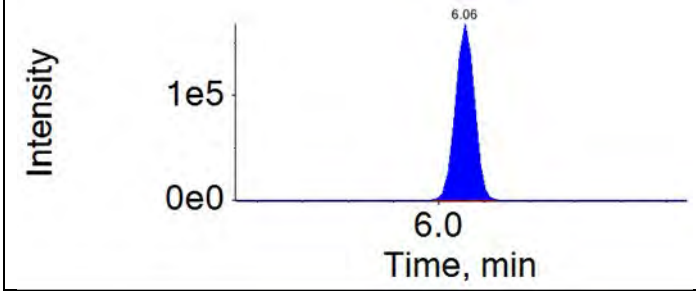
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

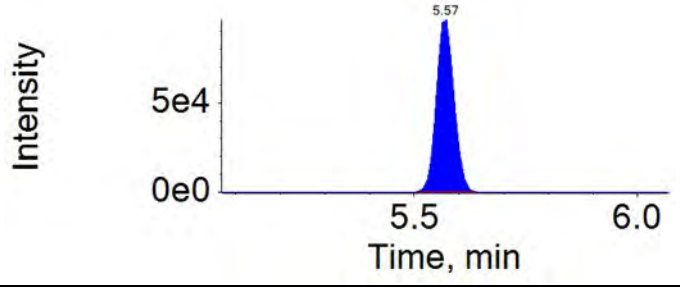
Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0



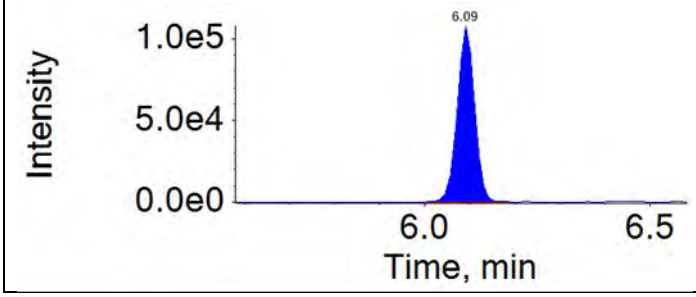


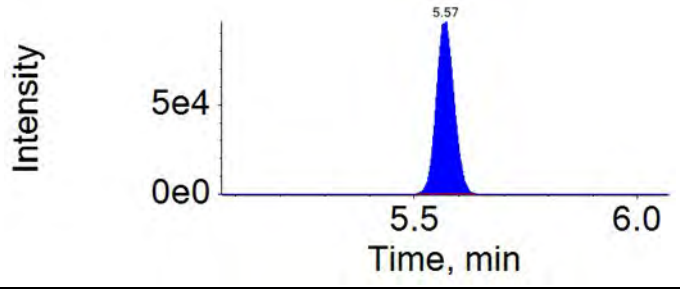
Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0



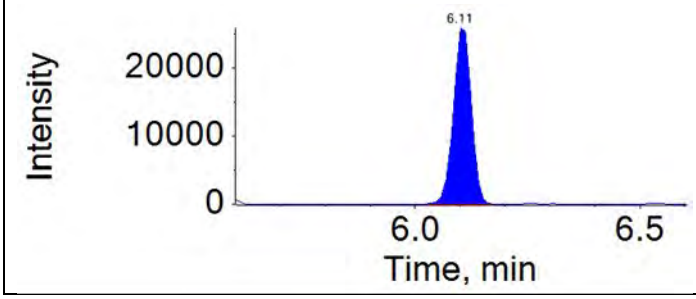


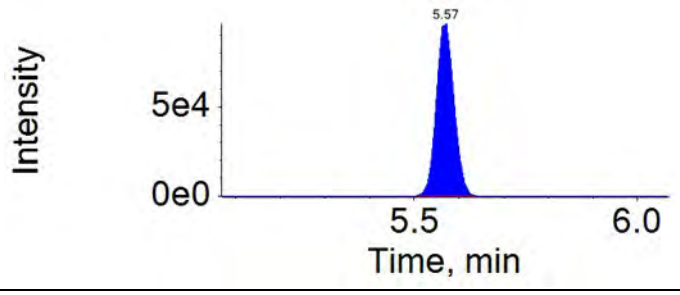
Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0





Extraction Standard: Ed3-NMePFOSA	Injection Standard: 13C2-PFDA
515.0 / 169.0	515.0 / 470.0



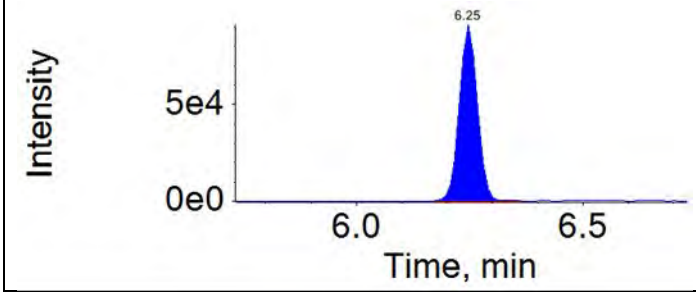


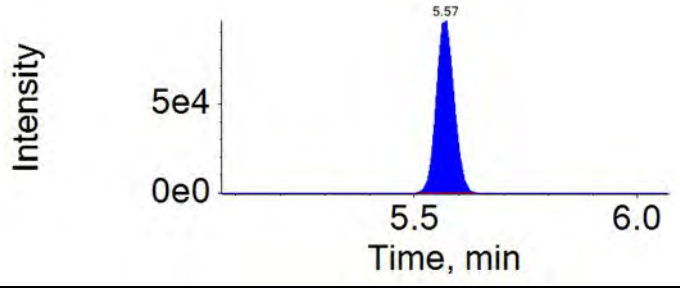
APPROVED
By MCD at 6:34 pm, 11/12/18

REVIEWED
By HMK at 10:54 am, 11/13/18

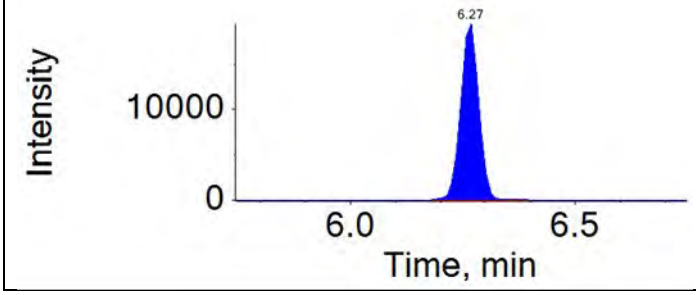
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

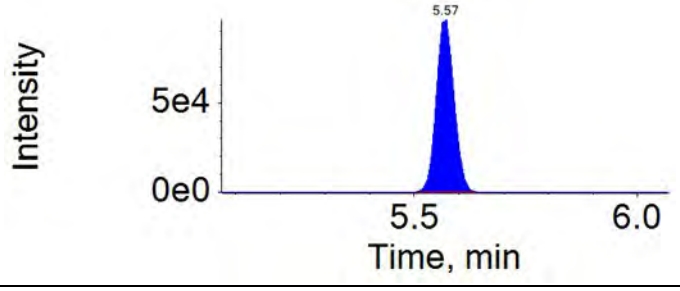
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



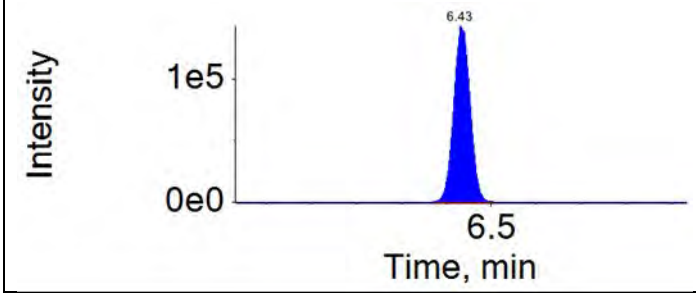


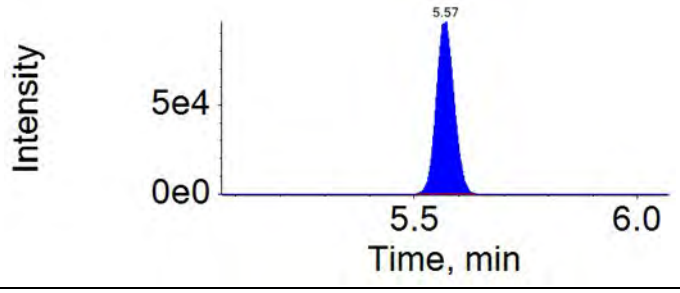
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0



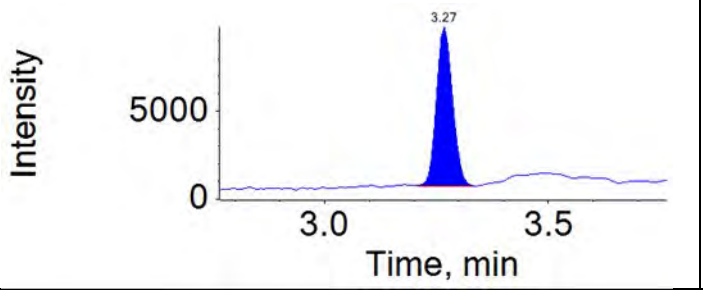


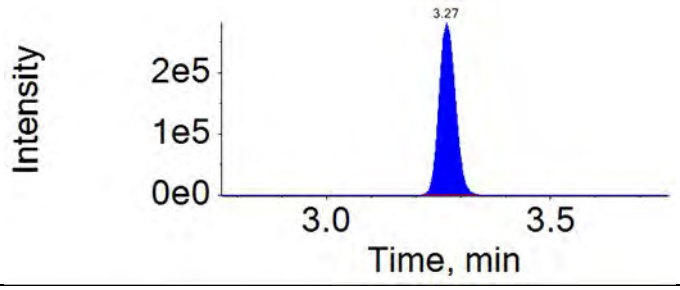
APPROVED
By MCD at 6:34 pm, 11/12/18

REVIEWED
By HMK at 10:54 am, 11/13/18

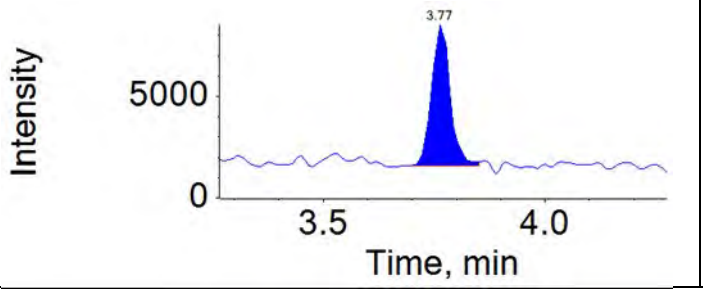
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

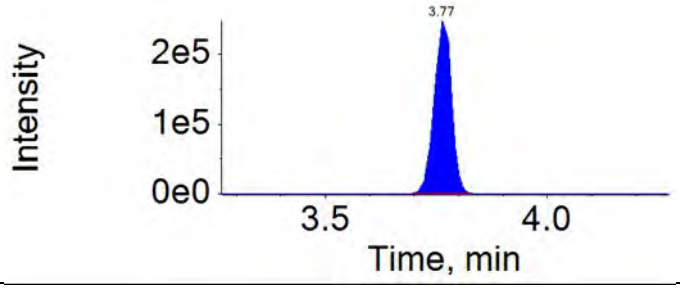
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



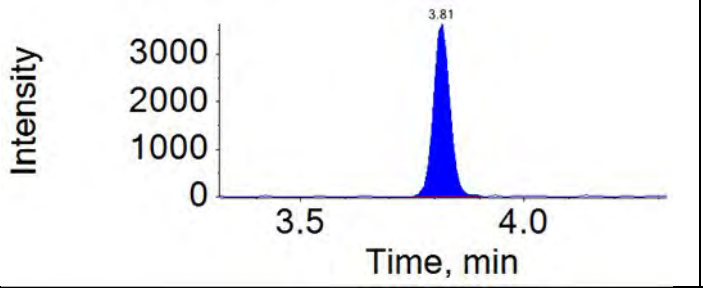


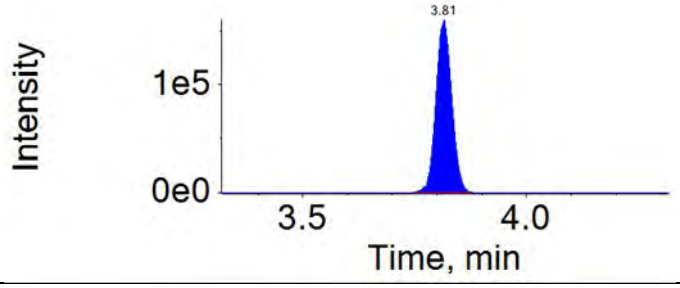
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



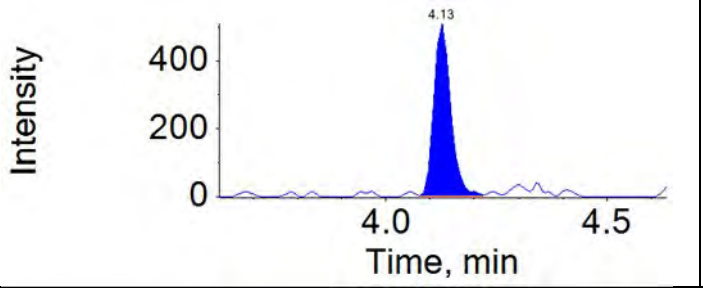


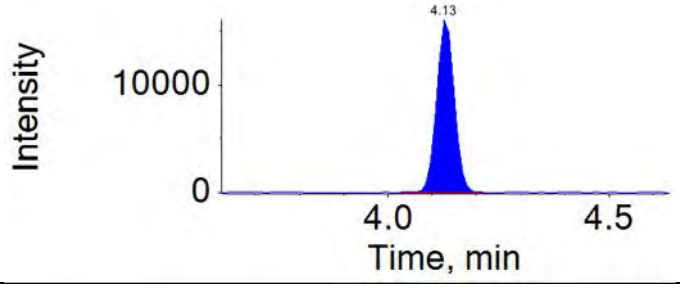
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





Analyte: 4:2-FTS	Extraction Standard: 13C2-4:2-FTS
327.0 / 307.0	329.0 / 81.0



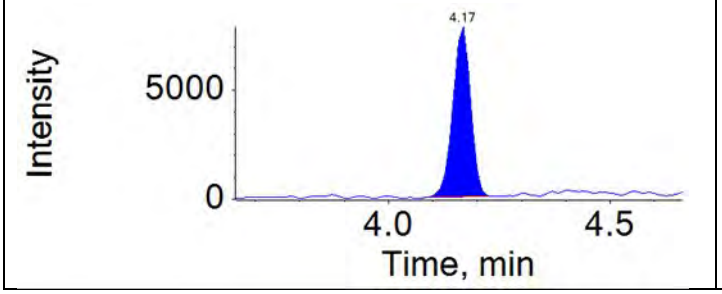


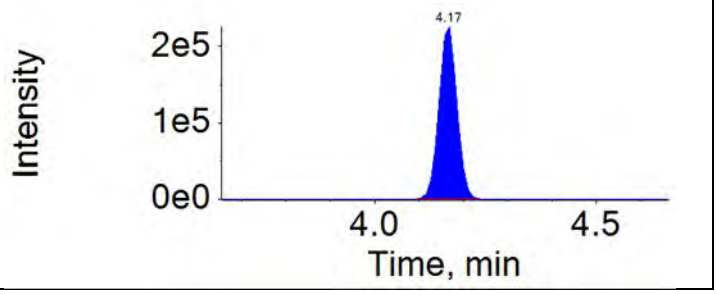
APPROVED
By MCD at 6:34 pm, 11/12/18

REVIEWED
By HMK at 10:54 am, 11/13/18

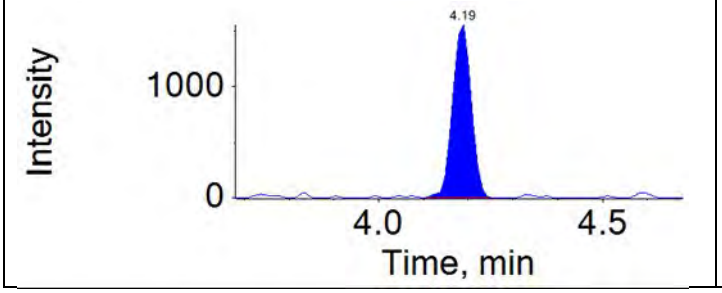
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

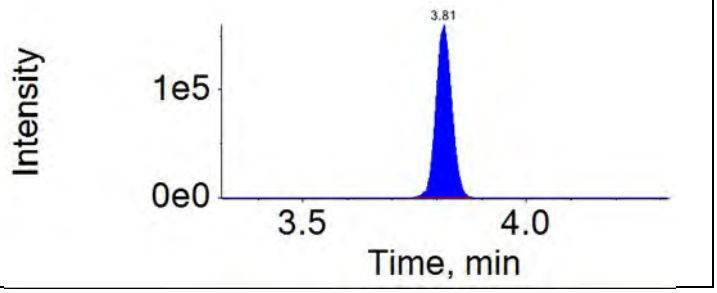
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



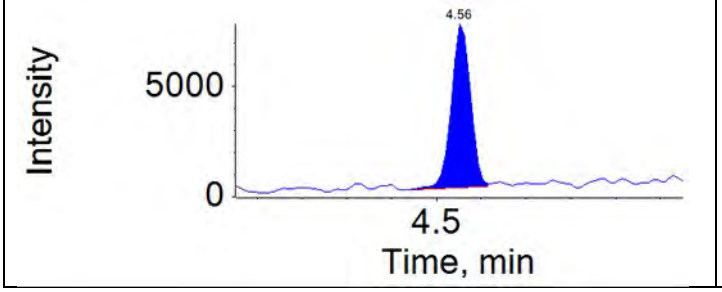


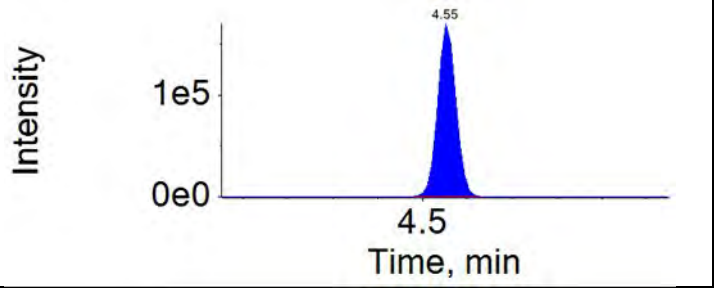
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



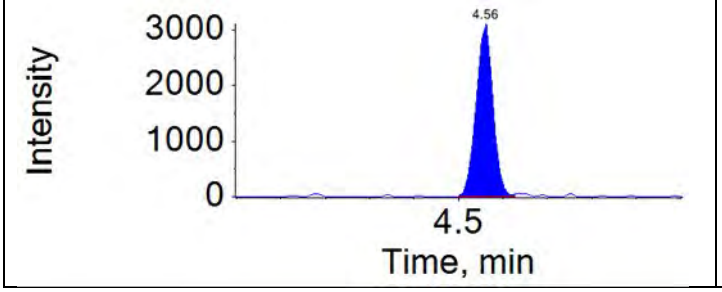


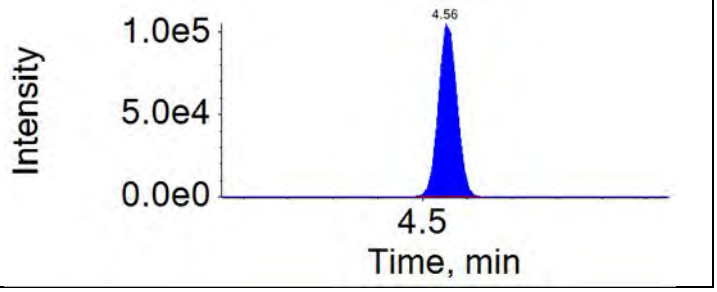
Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0





Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0



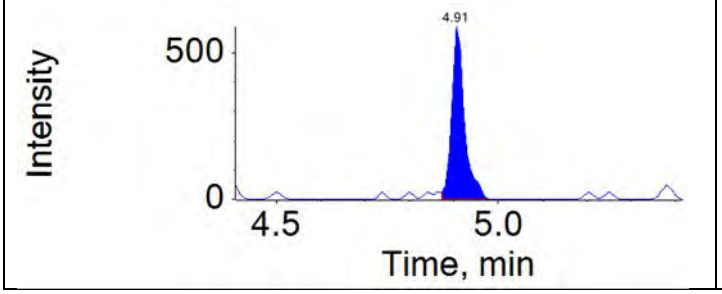


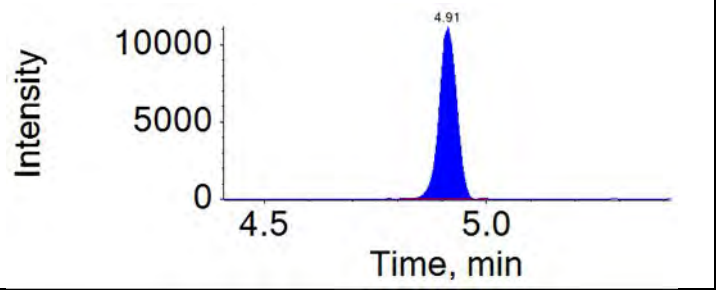
APPROVED
By MCD at 6:34 pm, 11/12/18

REVIEWED
By HMK at 10:54 am, 11/13/18

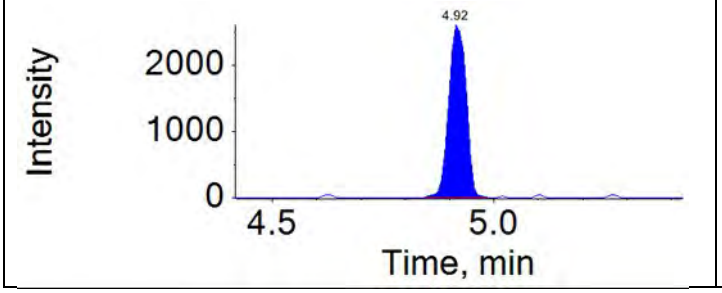
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

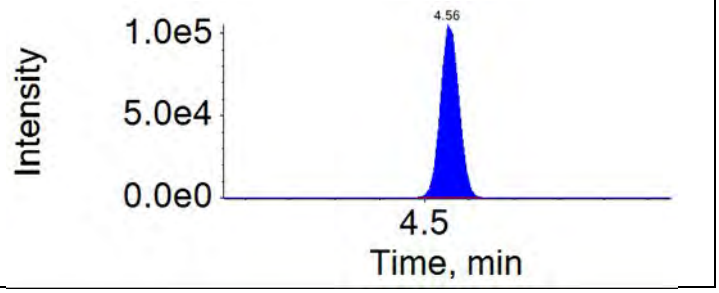
Analyte: 6:2-FTS	Extraction Standard: 13C2-6:2-FTS
427.0 / 407.0	429.0 / 81.0



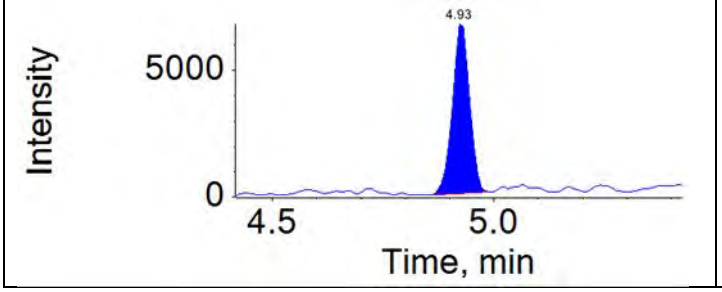


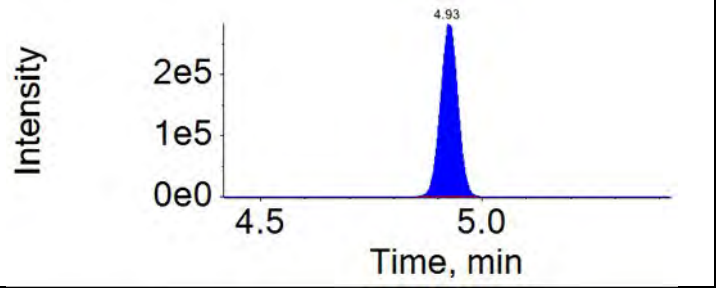
Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0



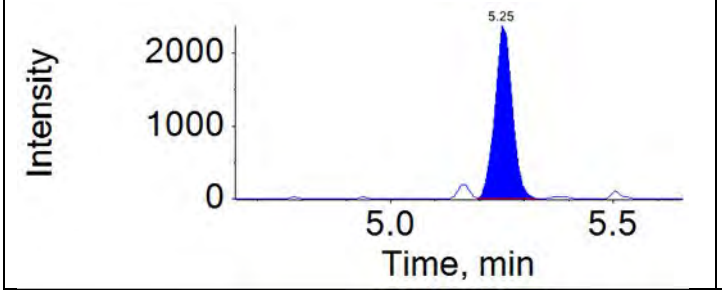


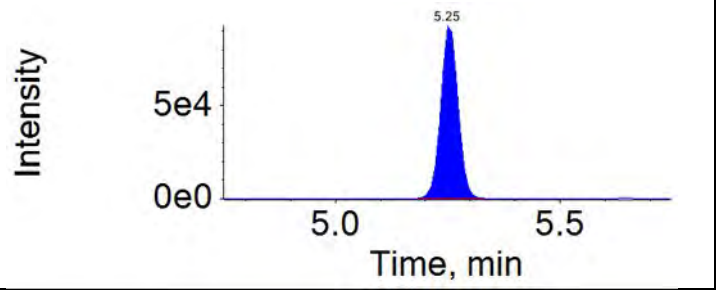
Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0





Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0

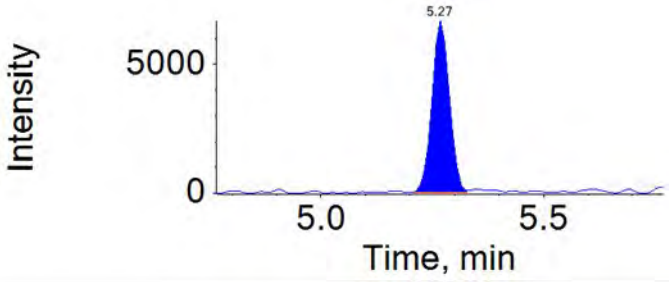
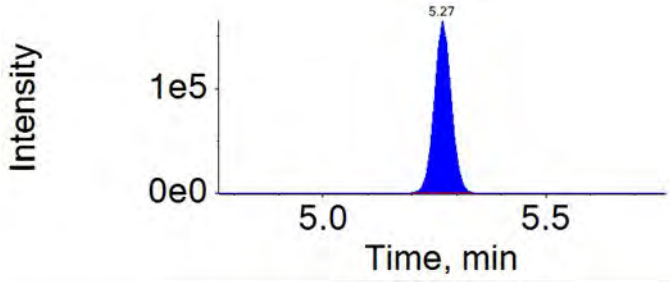


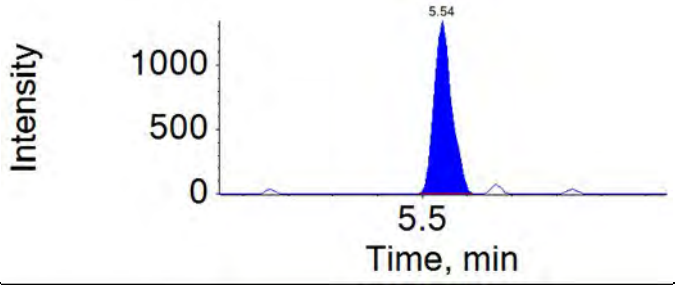
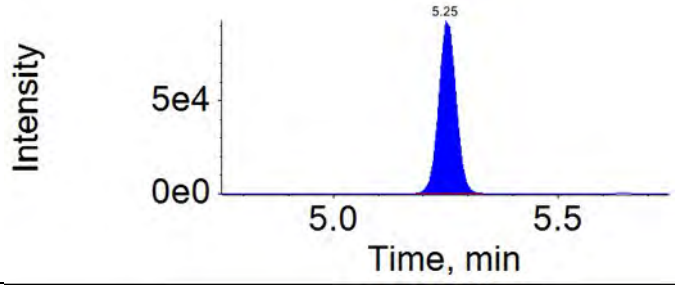


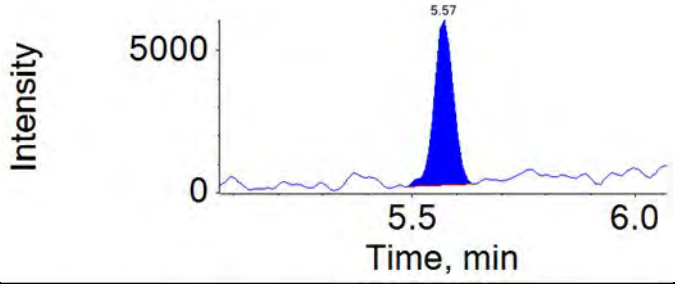
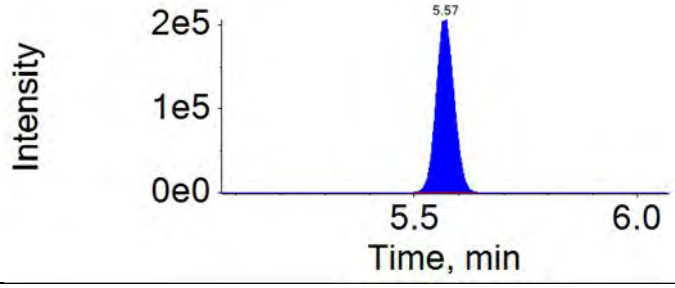
APPROVED
By MCD at 6:34 pm, 11/12/18

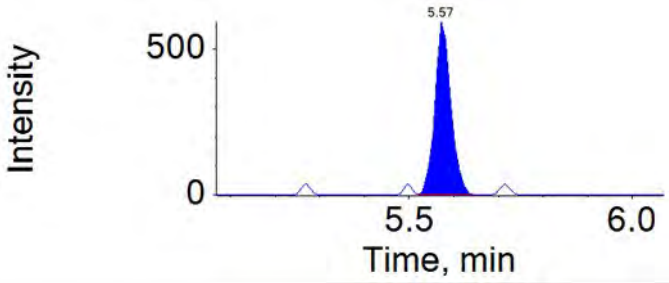
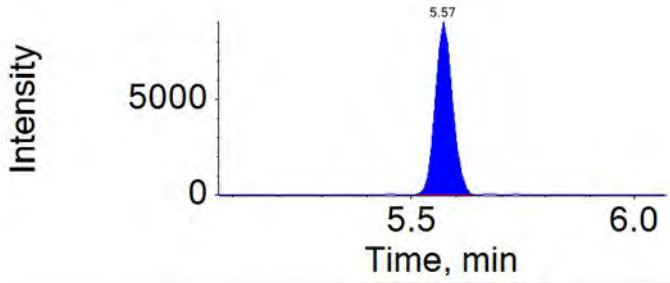
REVIEWED
By HMK at 10:54 am, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0
	

Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0
	

Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0
	

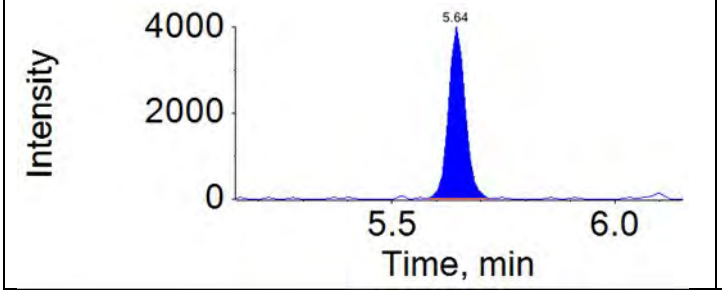
Analyte: 8:2-FTS	Extraction Standard: 13C2-8:2-FTS
527.0 / 507.0	529.0 / 81.0
	

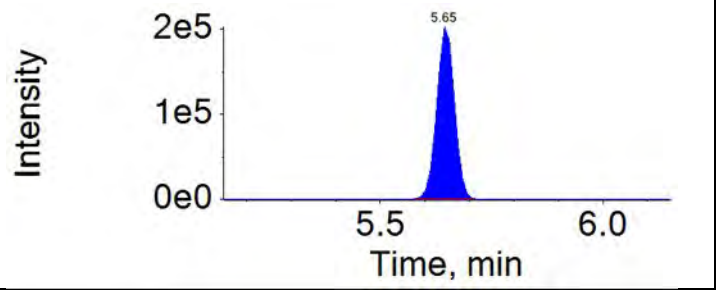
APPROVED
By MCD at 6:34 pm, 11/12/18

REVIEWED
By HMK at 10:54 am, 11/13/18

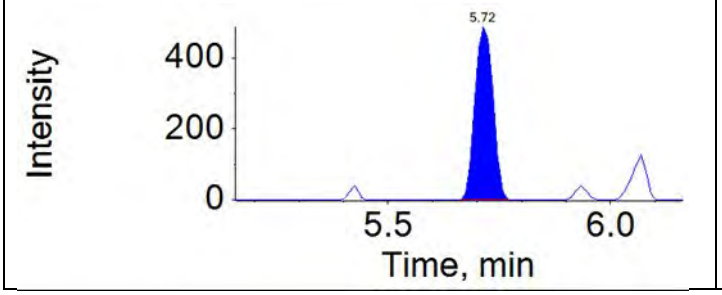
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

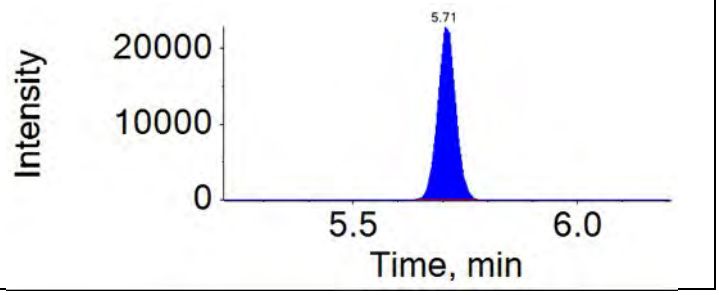
Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0



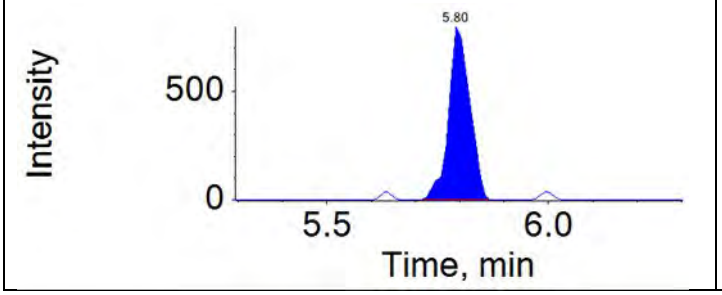


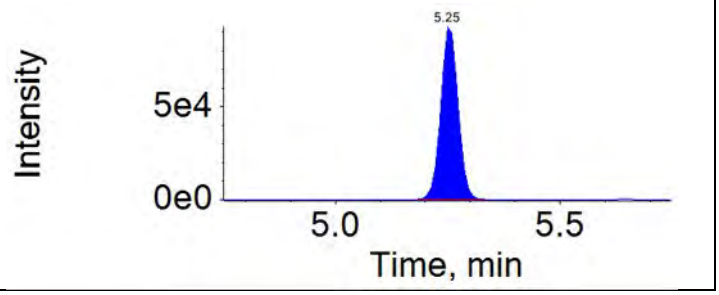
Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0



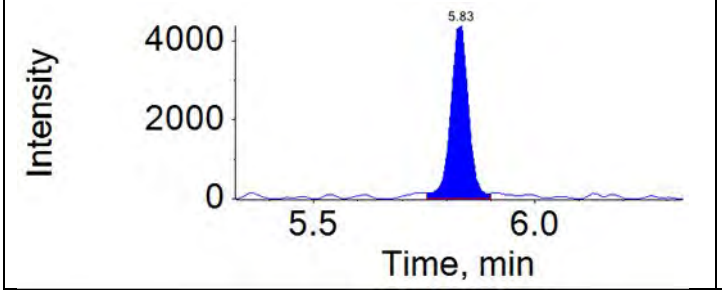


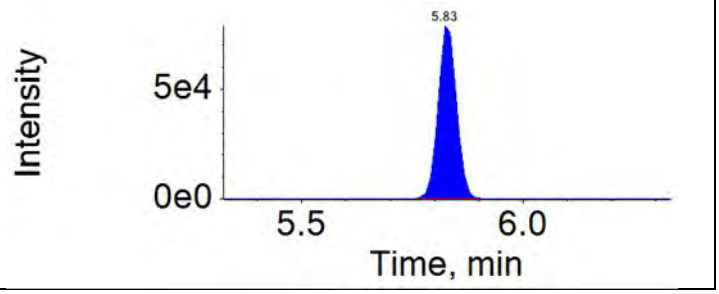
Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0





Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0



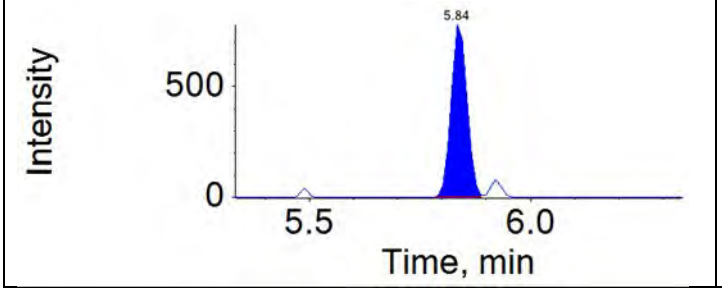


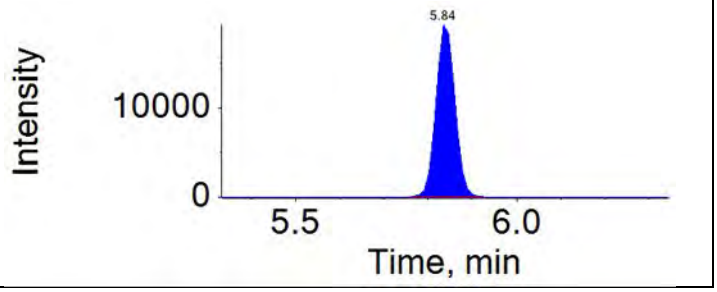
APPROVED
By MCD at 6:34 pm, 11/12/18

REVIEWED
By HMK at 10:54 am, 11/13/18

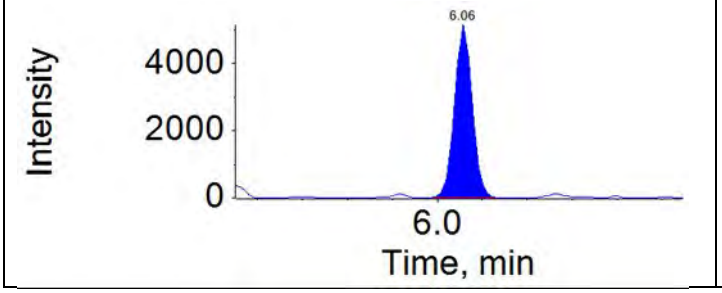
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

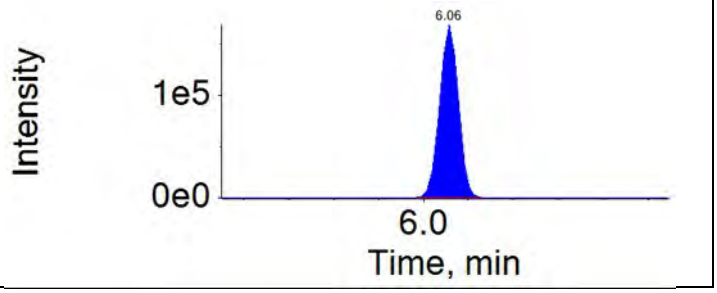
Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0



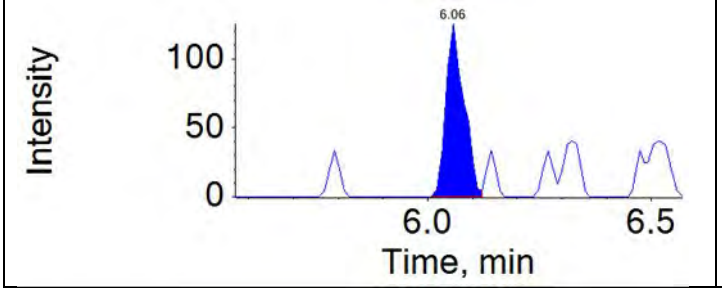


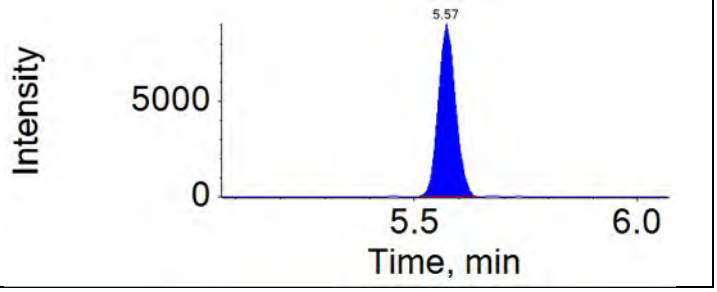
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0



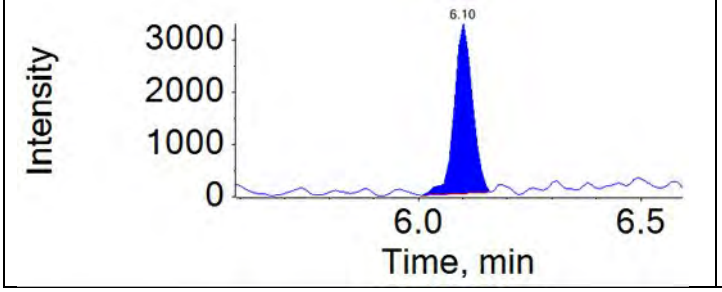


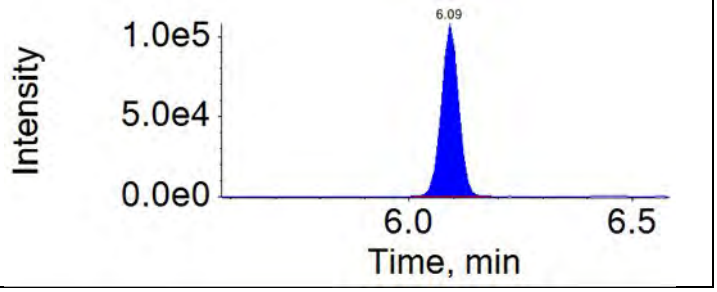
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0





Analyte: NMePFOSAE	Extraction Standard: d7-NMePFOSAE
616.0 / 59.0	623.0 / 59.0



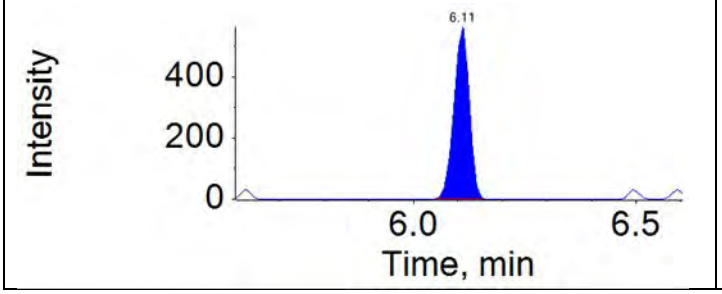


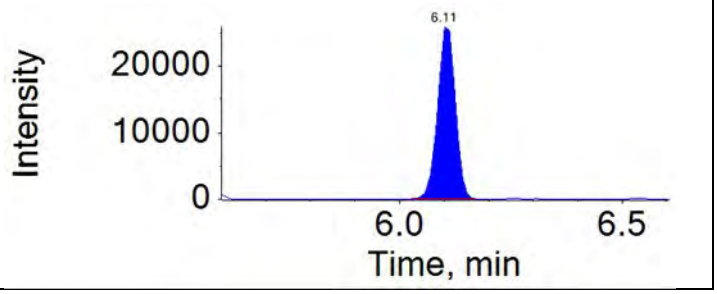
APPROVED
By MCD at 6:34 pm, 11/12/18

REVIEWED
By HMK at 10:54 am, 11/13/18

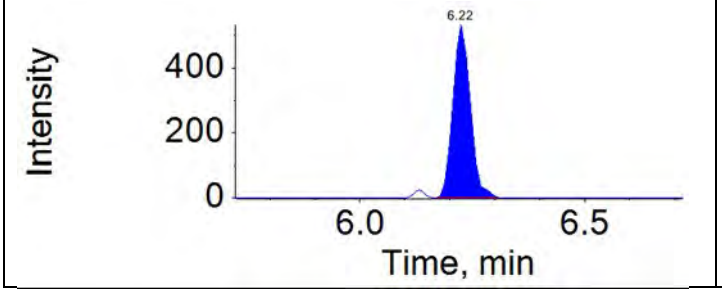
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

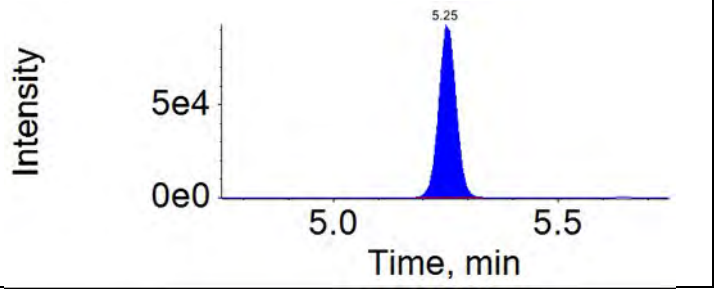
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



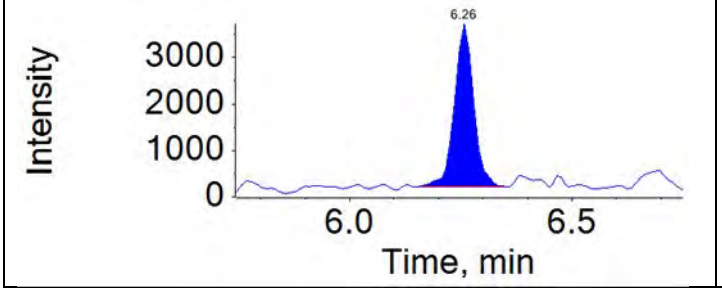


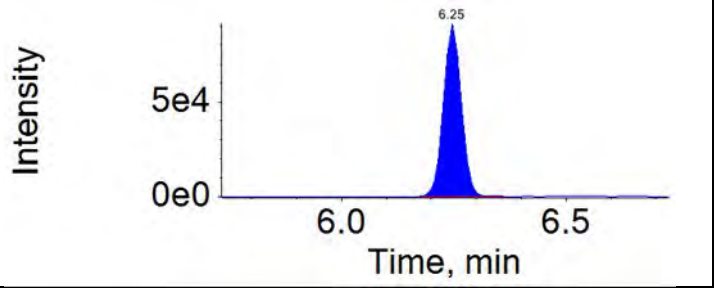
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



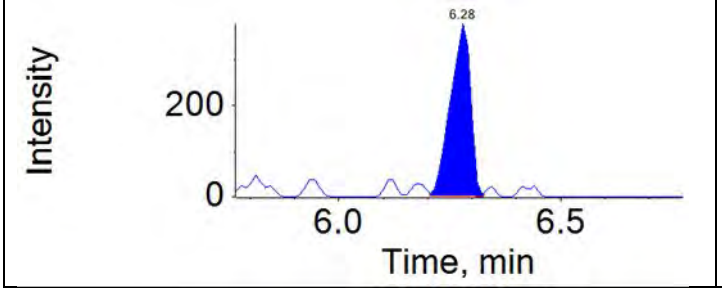


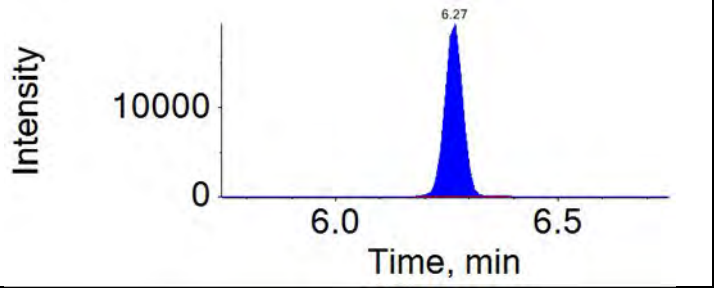
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





Analyte: NEtPFOSA	Extraction Standard: d5-NEtPFOSA
526.0 / 169.0	531.0 / 169.0

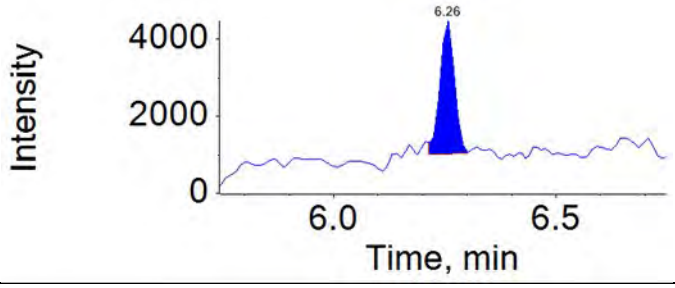
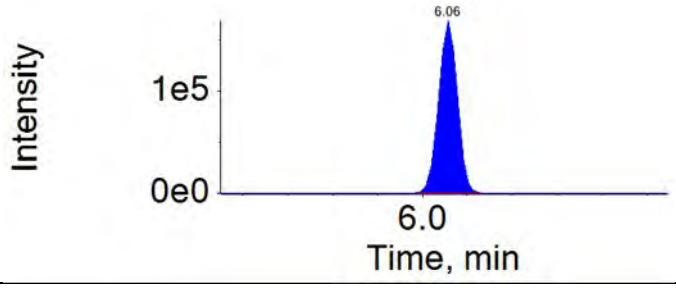


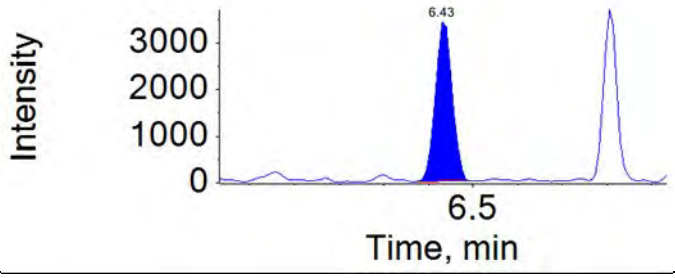
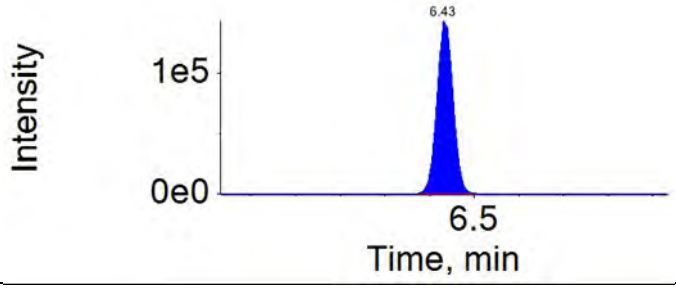


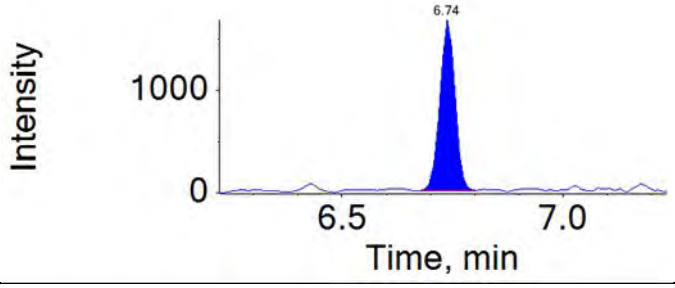
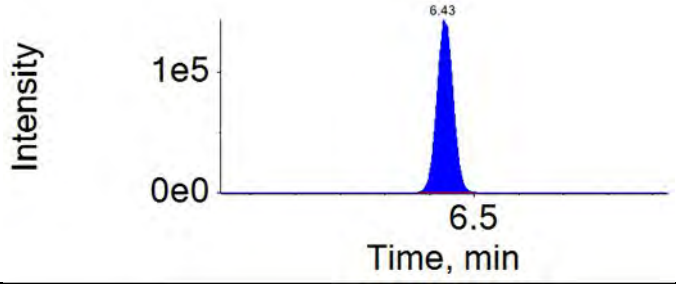
APPROVED
By MCD at 6:34 pm, 11/12/18

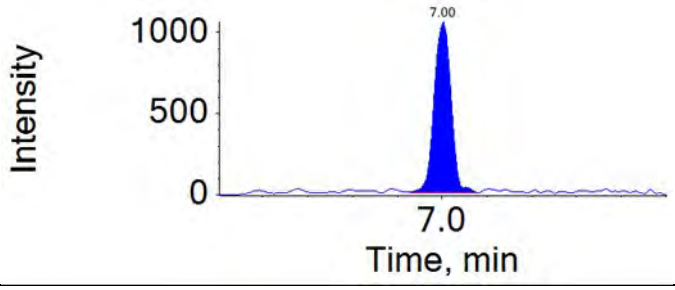
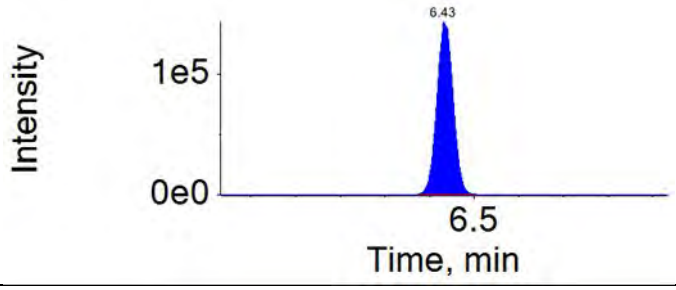
REVIEWED
By HMK at 10:54 am, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Analyte: PFTrDA	Extraction Standard: 13C2-PFDoDA
663.0 / 619.0	615.0 / 570.0
	

Analyte: PFTeDA	Extraction Standard: 13C2-PFTeDA
713.0 / 669.0	715.0 / 670.0
	

Analyte: PFHxDA	Extraction Standard: 13C2-PFTeDA
813.0 / 769.0	715.0 / 670.0
	

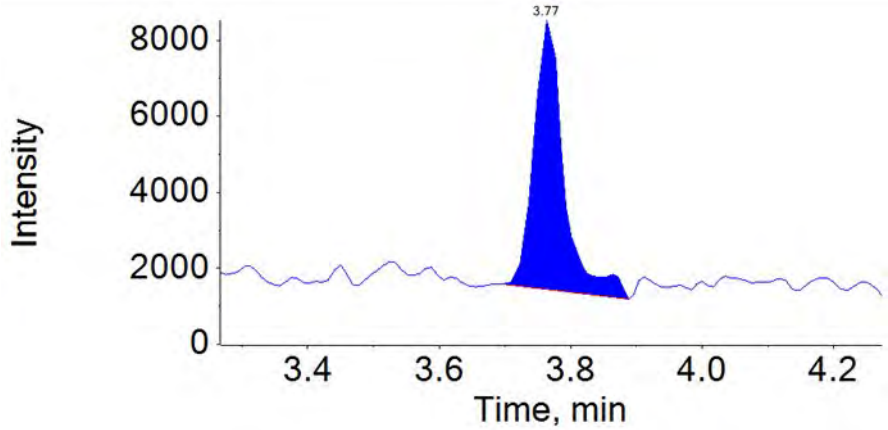
Analyte: PFODA	Extraction Standard: 13C2-PFTeDA
913.0 / 869.0	715.0 / 670.0
	

APPROVED
By MCD at 6:34 pm, 11/12/18

REVIEWED
By HMK at 10:54 am, 11/13/18

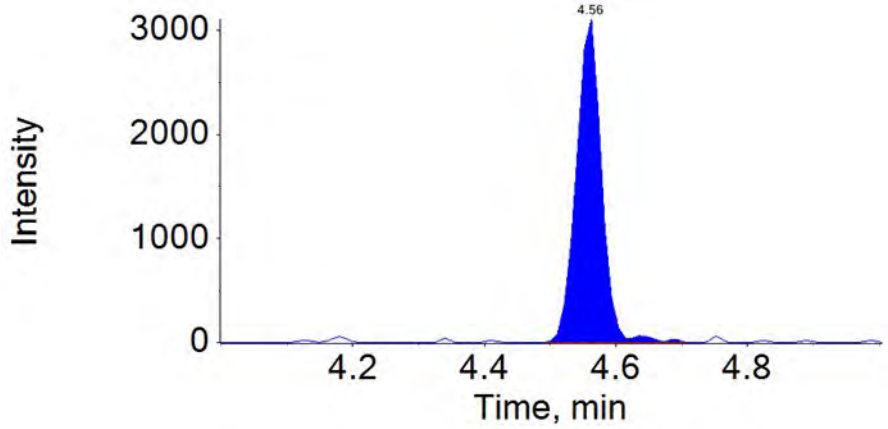
Results Table Name: 18NOV12DCAL
Results Table Date: 11/12/2018 6:23:42 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFPeA
RT (min.):
3.77
Peak Area:
22570.74
Mass Range:
263.0 / 219.0
File Name:
18NOV12DCAL-41.wiff
Sample Name:
MDL



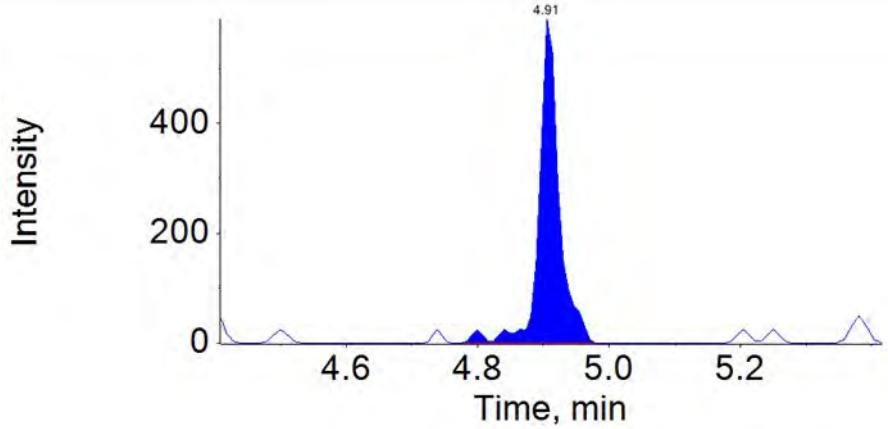
Integration Comment: incorrect integration

Component Name:
PFHxS
RT (min.):
4.56
Peak Area:
8305.21
Mass Range:
399.0 / 80.0
File Name:
18NOV12DCAL-41.wiff
Sample Name:
MDL



Integration Comment: incorrect integration

Component Name:
6:2-FTS
RT (min.):
4.91
Peak Area:
1264.35
Mass Range:
427.0 / 407.0
File Name:
18NOV12DCAL-41.wiff
Sample Name:
MDL



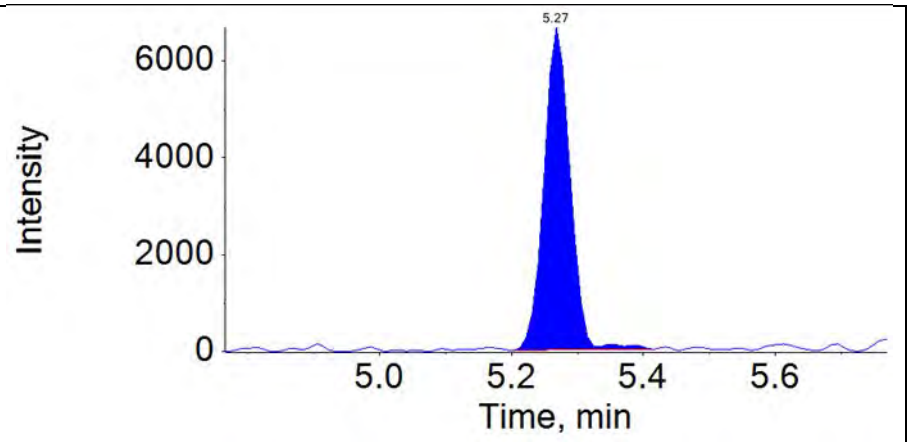
Integration Comment: incorrect integration

APPROVED
By MCD at 6:34 pm, 11/12/18

REVIEWED
By HMK at 10:54 am, 11/13/18

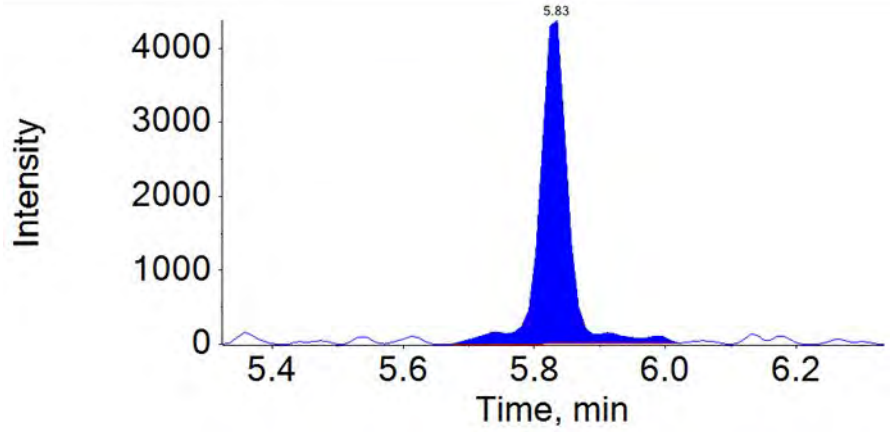
Results Table Name: 18NOV12DCAL
Results Table Date: 11/12/2018 6:23:42 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFNA
RT (min.):
5.27
Peak Area:
18397.36
Mass Range:
463.0 / 419.0
File Name:
18NOV12DCAL-41.wiff
Sample Name:
MDL



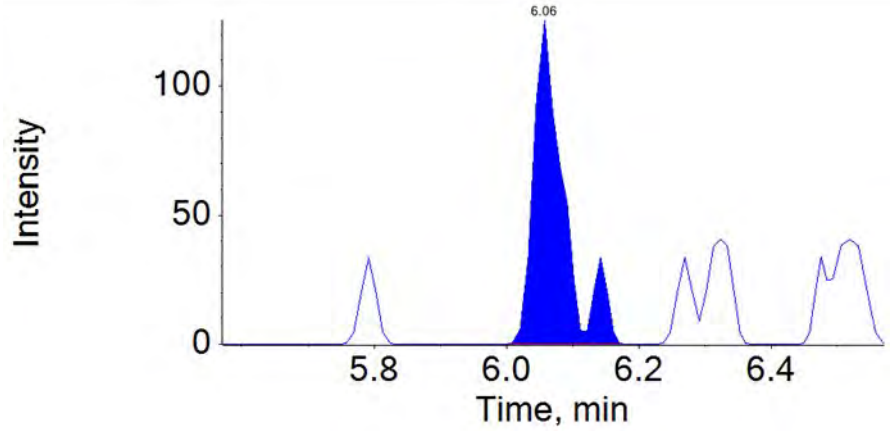
Integration Comment: incorrect integration

Component Name:
PFUnDA
RT (min.):
5.83
Peak Area:
13277.76
Mass Range:
563.0 / 519.0
File Name:
18NOV12DCAL-41.wiff
Sample Name:
MDL



Integration Comment: incorrect integration

Component Name:
10:2-FTS
RT (min.):
6.06
Peak Area:
401.71
Mass Range:
627.0 / 607.0
File Name:
18NOV12DCAL-41.wiff
Sample Name:
MDL



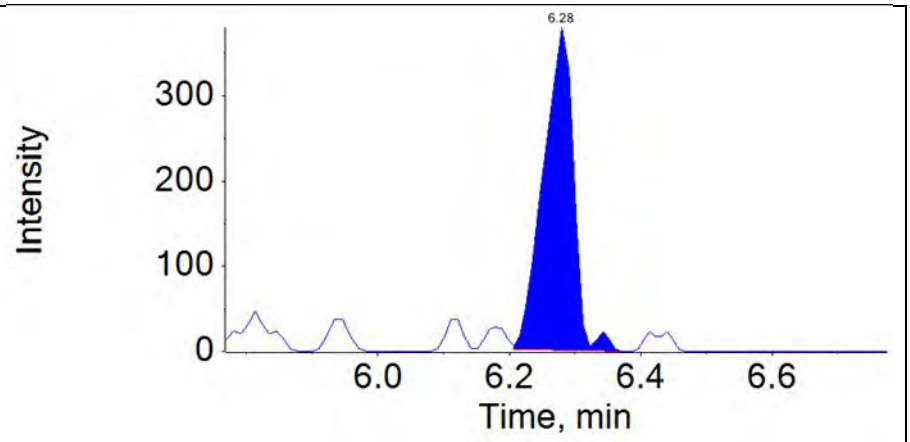
Integration Comment: incorrect integration

APPROVED
By MCD at 6:34 pm, 11/12/18

REVIEWED
By HMK at 10:54 am, 11/13/18

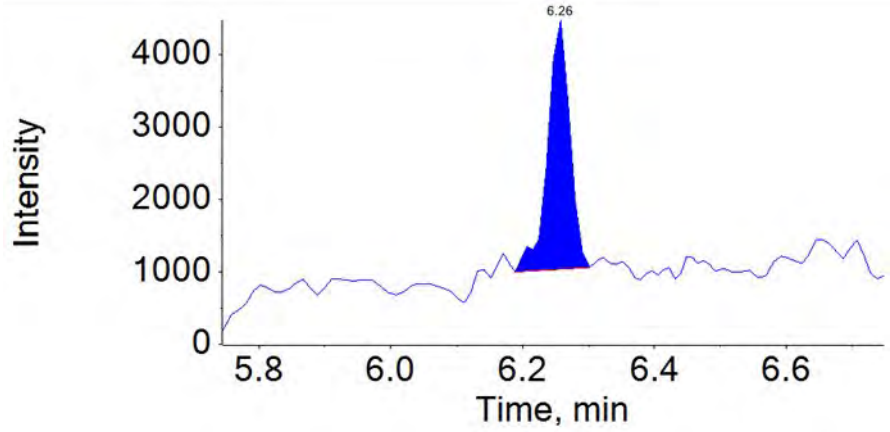
Results Table Name: 18NOV12DCAL
Results Table Date: 11/12/2018 6:23:42 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
NEtPFOSA
RT (min.):
6.28
Peak Area:
1221.08
Mass Range:
526.0 / 169.0
File Name:
18NOV12DCAL-41.wiff
Sample Name:
MDL



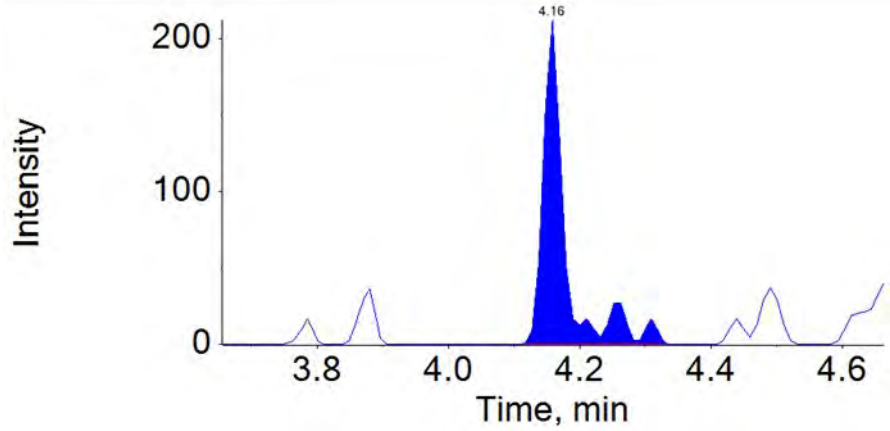
Integration Comment: incorrect integration

Component Name:
PFTrDA
RT (min.):
6.26
Peak Area:
8070.84
Mass Range:
663.0 / 619.0
File Name:
18NOV12DCAL-41.wiff
Sample Name:
MDL



Integration Comment: incorrect integration

Component Name:
PFHxA_2
RT (min.):
4.16
Peak Area:
496.72
Mass Range:
313.0 / 119.0
File Name:
18NOV12DCAL-41.wiff
Sample Name:
MDL



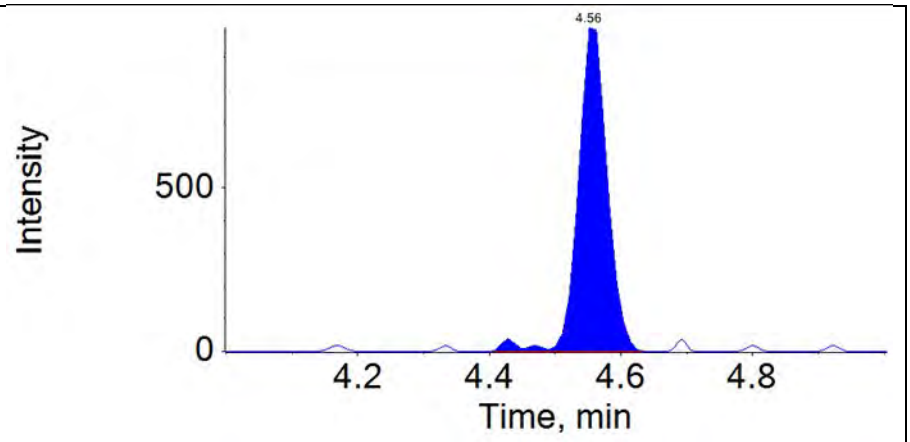
Integration Comment: incorrect integration

APPROVED
By MCD at 6:34 pm, 11/12/18

REVIEWED
By HMK at 10:54 am, 11/13/18

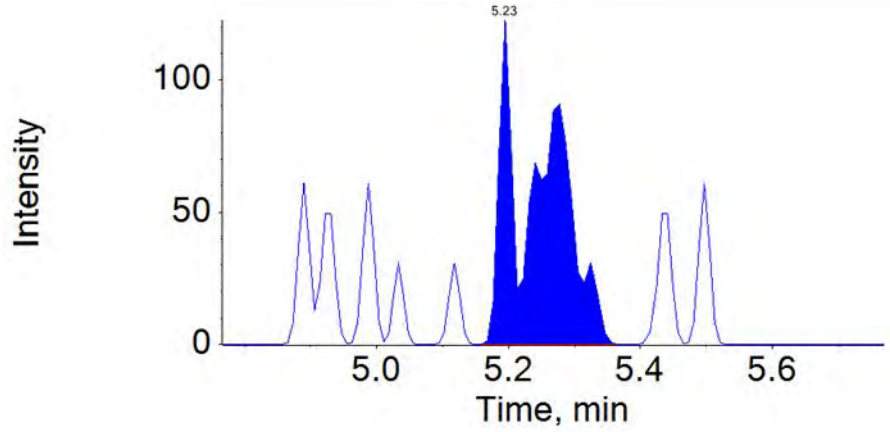
Results Table Name: 18NOV12DCAL
Results Table Date: 11/12/2018 6:23:42 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFHxS_2
RT (min.):
4.56
Peak Area:
3074.31
Mass Range:
399.0 / 99.0
File Name:
18NOV12DCAL-41.wiff
Sample Name:
MDL



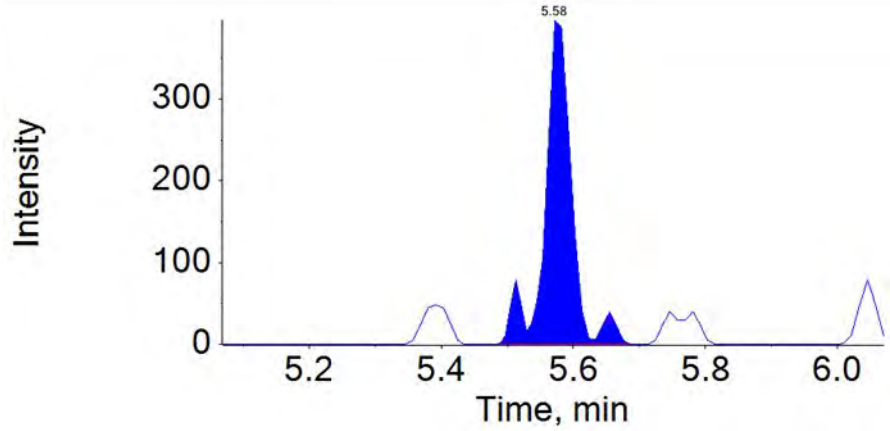
Integration Comment: incorrect integration

Component Name:
PFNA_2
RT (min.):
5.23
Peak Area:
553.54
Mass Range:
463.0 / 169.0
File Name:
18NOV12DCAL-41.wiff
Sample Name:
MDL



Integration Comment: incorrect integration

Component Name:
8:2 FTS_2
RT (min.):
5.58
Peak Area:
1126.66
Mass Range:
527.0 / 81.0
File Name:
18NOV12DCAL-41.wiff
Sample Name:
MDL



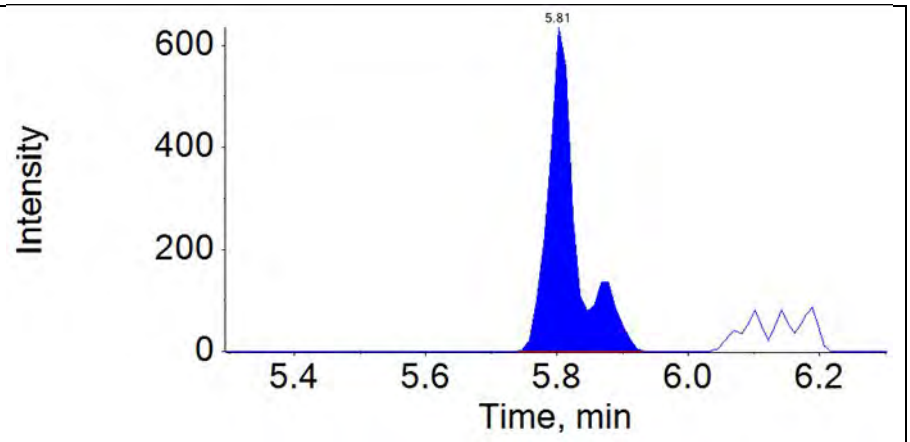
Integration Comment: incorrect integration

APPROVED
By MCD at 6:34 pm, 11/12/18

REVIEWED
By HMK at 10:54 am, 11/13/18

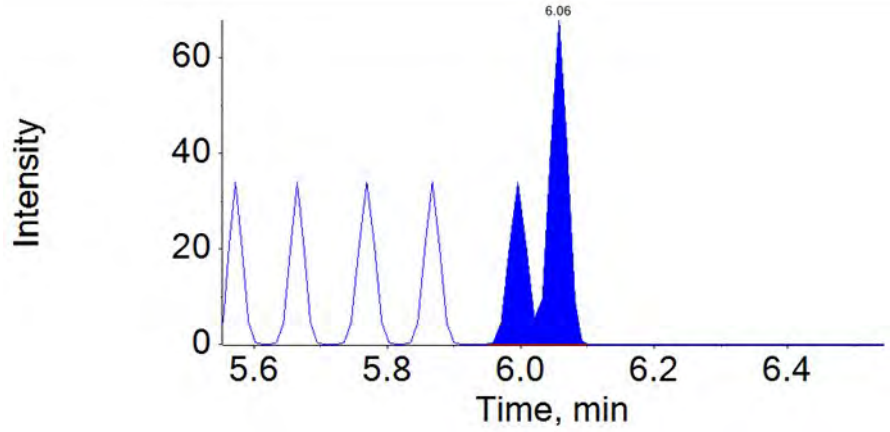
Results Table Name: 18NOV12DCAL
Results Table Date: 11/12/2018 6:23:42 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFDS_2
RT (min.):
5.81
Peak Area:
1909.26
Mass Range:
599.0 / 99.0
File Name:
18NOV12DCAL-41.wiff
Sample Name:
MDL



Integration Comment: incorrect integration

Component Name:
PFDoDA_2
RT (min.):
6.06
Peak Area:
186.10
Mass Range:
613.0 / 169.0
File Name:
18NOV12DCAL-41.wiff
Sample Name:
MDL



Integration Comment: incorrect integration

APPROVED
By MCD at 6:34 pm, 11/12/18

REVIEWED
By HMK at 10:54 am, 11/13/18

Results Table Name: 18NOV12DCAL
Results Table Date: 11/12/2018 6:23:42 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Ion Ratio Report

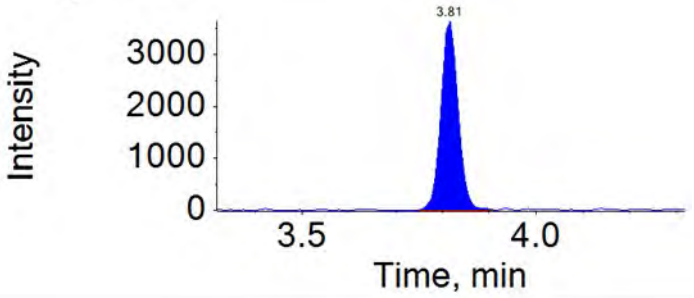
Sample Name: MDL **Instrument Name:** LM27631 **File Name:** 18NOV12DCAL-41.wiff

Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	3.81	1.00	9248.27	A	0.3619	0.4009			
PFBS_2	3.81	1.00	3707.95	A	0.3619	0.4009	11	50	
4:2-FTS	4.13	1.00	1329.90	A	0.6730	1.1531			
4:2 FTS_2	4.14	1.00	1533.53	A	0.6730	1.1531		#NA!	
PFHxA	4.17	1.00	21601.58	A	0.0117	0.0185			
PFHxA_2	4.16	1.00	400.56	M	0.0117	0.0185	59	50	OOS
PFPeS	4.19	1.10	4484.75	A	0.5191	0.5939			
PFPeS_2	4.18	1.10	2663.62	A	0.5191	0.5939	14	50	
PFHpA	4.56	1.00	22043.51	A	0.0563	0.0598			
PFHpA_2	4.54	1.00	1317.81	A	0.0563	0.0598	6	50	
PFHxS	4.56	1.00	8143.51	M	0.3428	0.3665			
PFHxS_2	4.56	1.00	2984.60	M	0.3428	0.3665	7	50	
6:2-FTS	4.91	1.00	1176.17	M	0.6604	0.6555			
6:2 FTS_2	4.91	1.00	771.04	A	0.6604	0.6555		#NA!	
PFHpS	4.92	1.08	7117.47	A	0.4066	0.3729			
PFHpS_2	4.92	1.08	2653.97	A	0.4066	0.3729	-8	50	
PFOA	4.93	1.00	18045.03	A	0.0562	0.0847			
PFOA_2	4.92	1.00	1528.65	A	0.0562	0.0847	51	50	OOS
PFOS	5.25	1.00	6416.89	A	0.2968	0.3439			
PFOS_2	5.25	1.00	2206.80	A	0.2968	0.3439	16	50	
PFNA	5.27	1.00	18065.11	M	0.0229	0.0217			
PFNA_2	5.27	1.00	391.14	M	0.0229	0.0217	-5	50	
PFNS	5.54	1.06	3661.22	A	0.4828	0.5154			
PFNS_2	5.55	1.06	1886.87	A	0.4828	0.5154	7	50	
PFDA	5.57	1.00	17350.54	A	0.0081	0.0034			
PFDA_2	5.58	1.00	58.57	A	0.0081	0.0034	-58	50	OOS
8:2-FTS	5.57	1.00	1475.16	A	0.6814	0.6626			
8:2 FTS_2	5.58	1.00	977.44	M	0.6814	0.6626		#NA!	
NMeFOSAA	5.72	1.00	1372.38	A	0.2569	0.3580			
NMeFOSAA_2	5.70	1.00	491.32	A	0.2569	0.3580	39	50	
PFDS	5.80	1.10	2648.79	A	0.5144	0.5845			
PFDS_2	5.81	1.10	1548.24	M	0.5144	0.5845	14	50	
PFUnDA	5.83	1.00	12215.29	M	0.0058	0.0269			
PFUnDA_2	5.82	1.00	328.37	A	0.0058	0.0269	362	50	OOS
NEtFOSAA	5.84	1.00	1937.77	A	0.7253	0.5676			
NEtFOSAA_2	5.85	1.00	1099.93	A	0.7253	0.5676	-22	50	
PFDoDA	6.06	1.00	14033.14	A	0.0157	0.0089			
PFDoDA_2	6.06	1.00	124.75	M	0.0157	0.0089	-43	50	
10:2-FTS	6.06	1.09	352.60	M	0.6356	0.9381			
10:2 FTS_2	6.08	1.09	330.78	A	0.6356	0.9381		#NA!	
PFTrDA	6.26	1.03	7825.51	M	0.0086	0.0105			
PFTrDA_2	6.26	1.03	82.38	A	0.0086	0.0105	23	50	
PFTeDA	6.43	1.00	8938.53	A	0.0062	0.0089			
PFTeDA_2	6.43	1.00	79.25	A	0.0062	0.0089	42	50	
PFHxDA	6.74	1.05	3934.22	A	0.0683	0.0745			
PFHxDA_2	6.74	1.05	292.96	A	0.0683	0.0745	9	50	
PFODA	7.00	1.09	2726.36	A	0.0277	0.0224			
PFODA_2	6.99	1.09	61.09	A	0.0277	0.0224	-19	50	

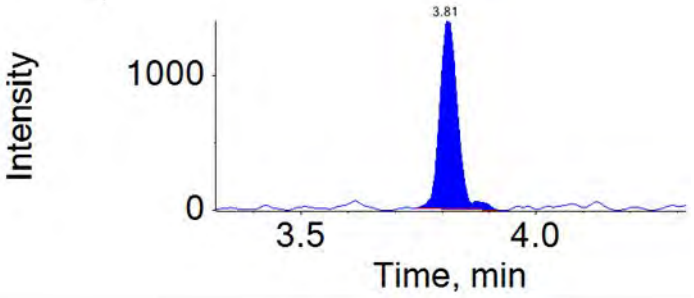
APPROVED
By MCD at 6:34 pm, 11/12/18

REVIEWED
By HMK at 10:54 am, 11/13/18

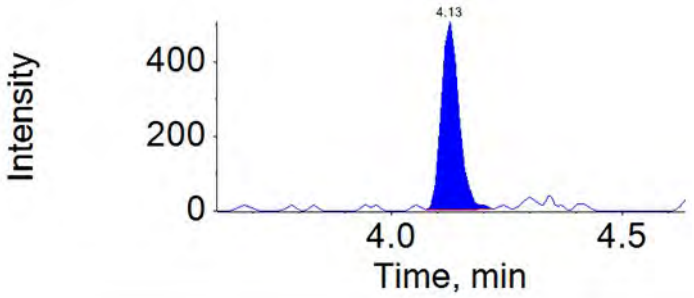
Component: PFBS
Primary Mass: 299.0 / 80.0



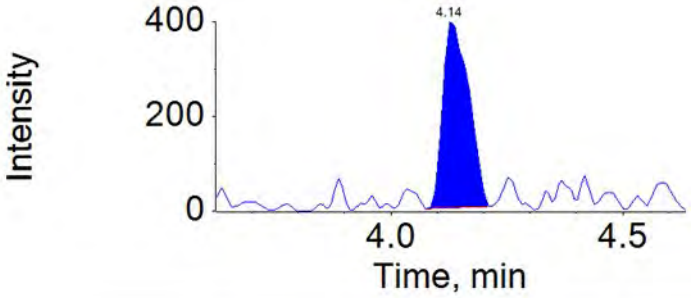
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



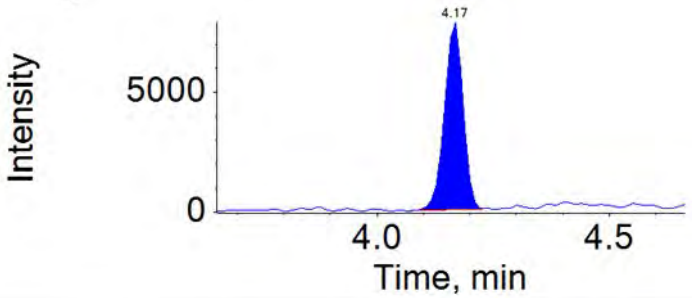
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



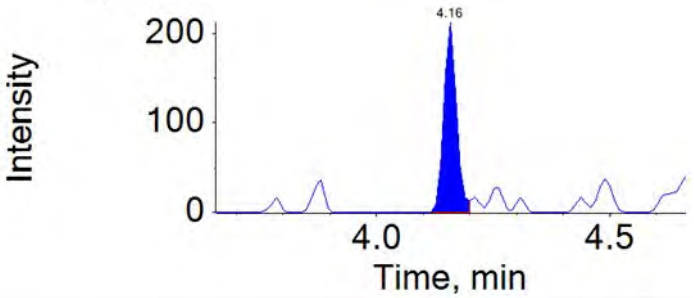
Component: 4:2 FTS_2
Secondary Mass: 327.0 / 81.0



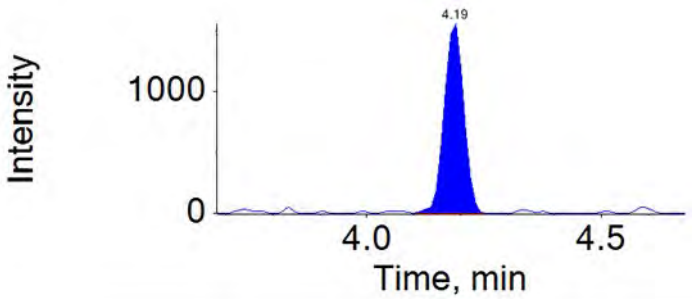
Component: PFHxA
Primary Mass: 313.0 / 269.0



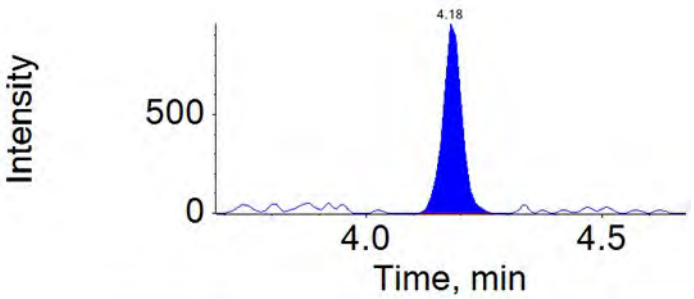
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



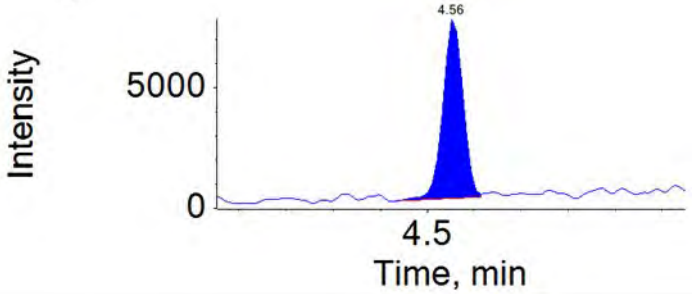
Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



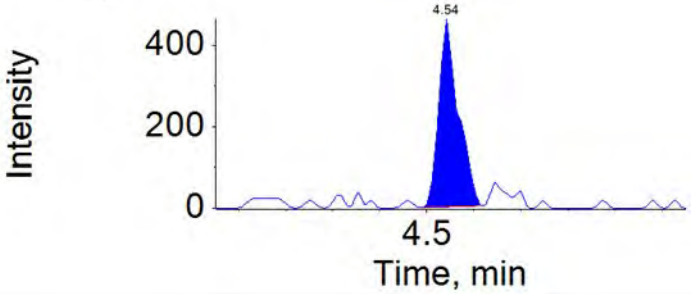
APPROVED
By MCD at 6:34 pm, 11/12/18

REVIEWED
By HMK at 10:54 am, 11/13/18

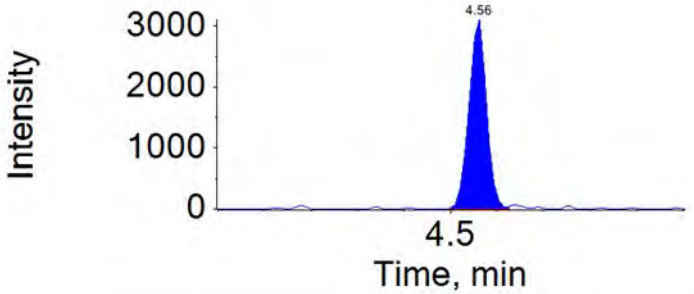
Component: PFHpA
Primary Mass: 363.0 / 319.0



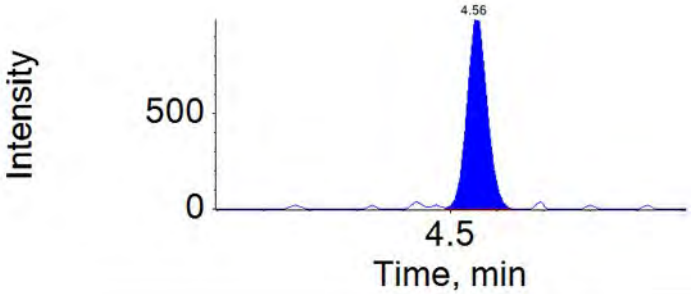
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



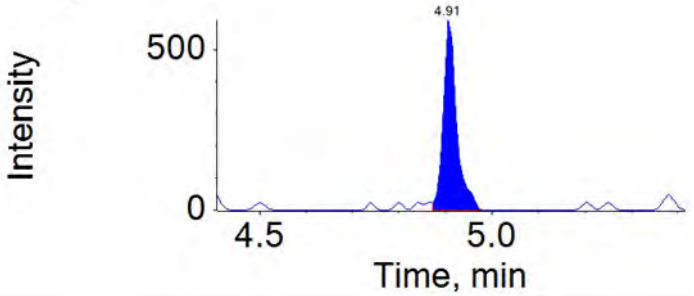
Component: PFHxS
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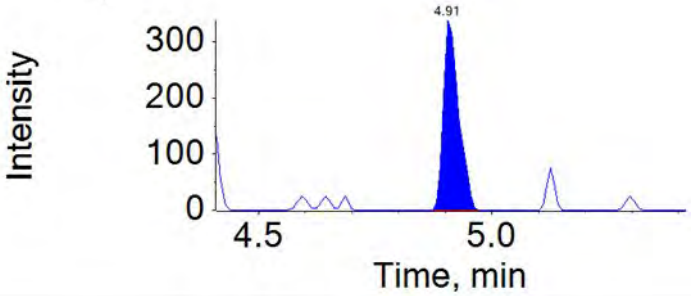
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Secondary Mass: 399.0 / 99.0



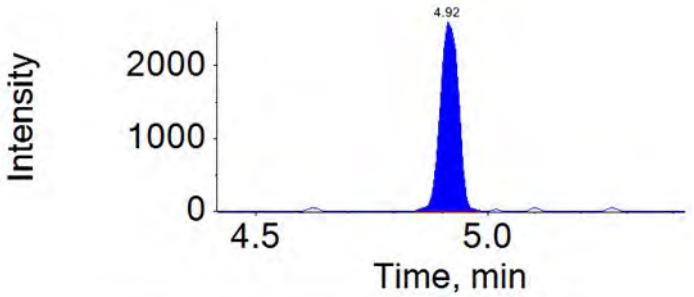
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



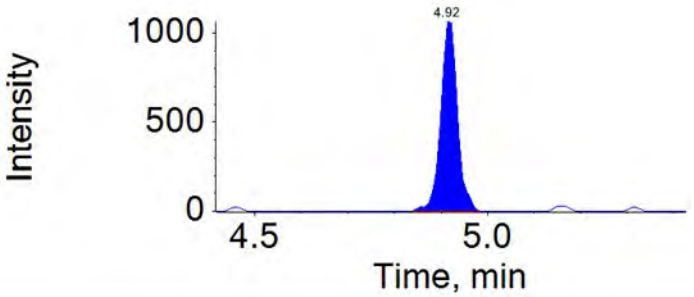
Component: 6:2 FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



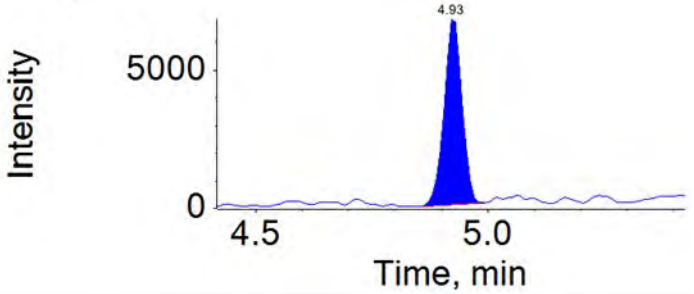
Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



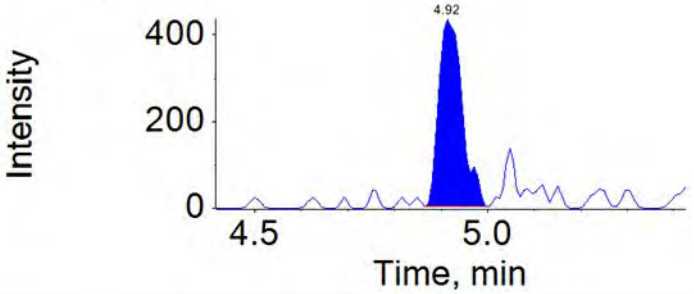
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REVIEWED
By HMK at 10:54 am, 11/13/18

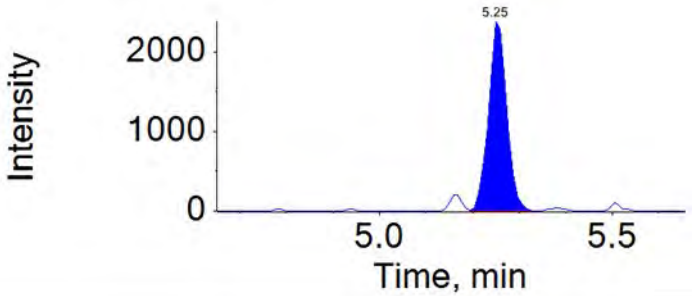
Component: PFOA
Primary Mass: 413.0 / 369.0



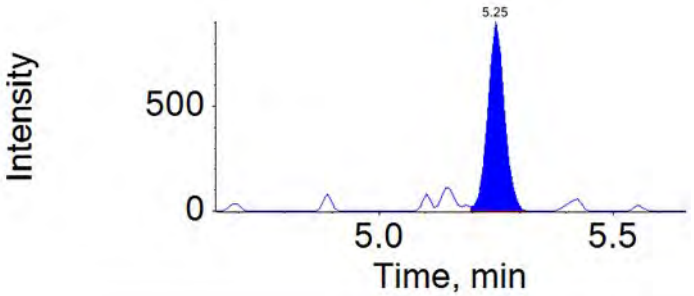
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



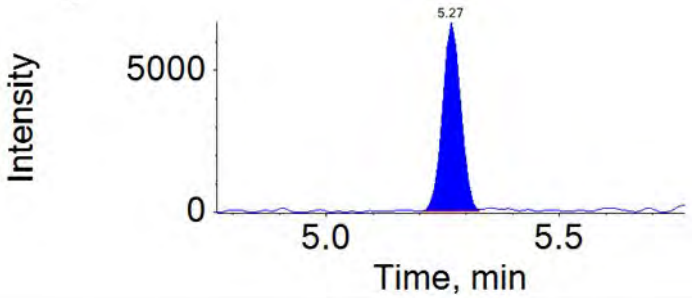
Component: PFOS
Primary Mass: 499.0 / 80.0



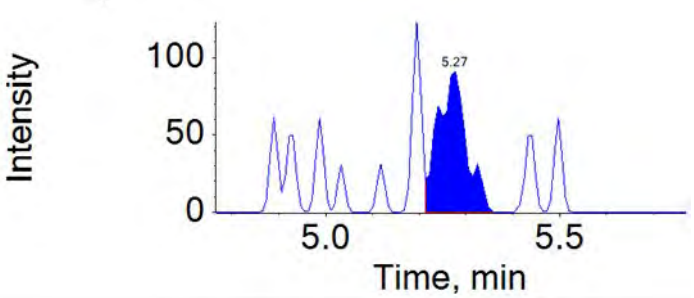
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



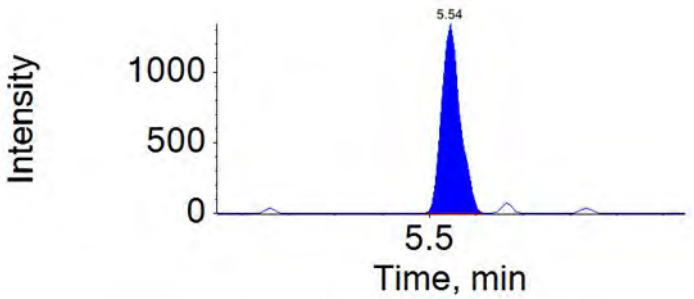
Component: PFNA
Primary Mass: 463.0 / 419.0



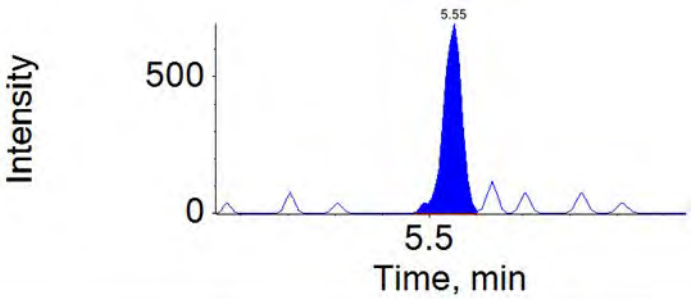
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



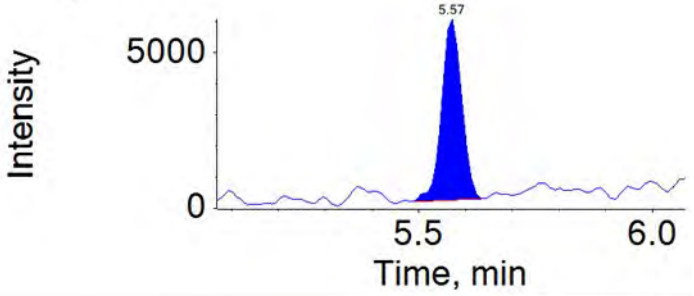
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



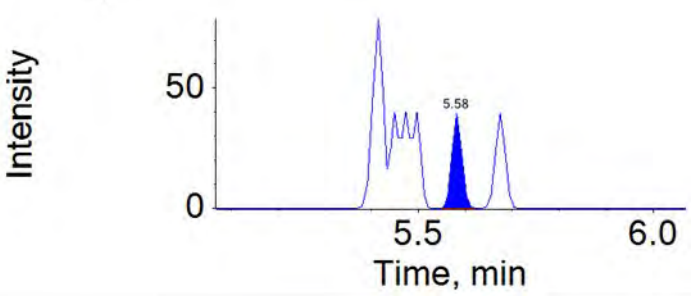
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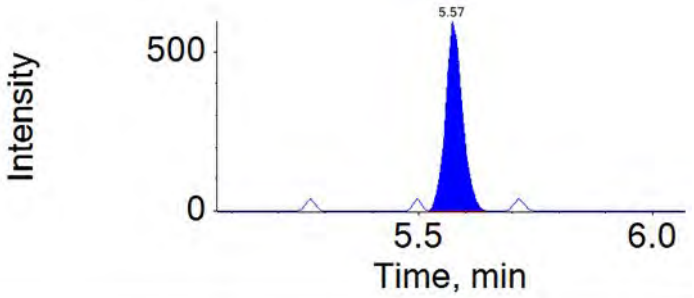
Component: PFDA
Primary Mass: 513.0 / 469.0



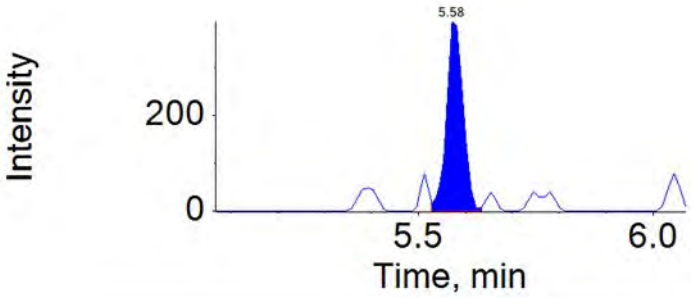
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



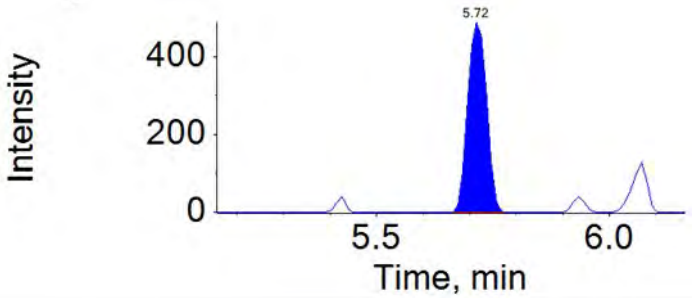
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



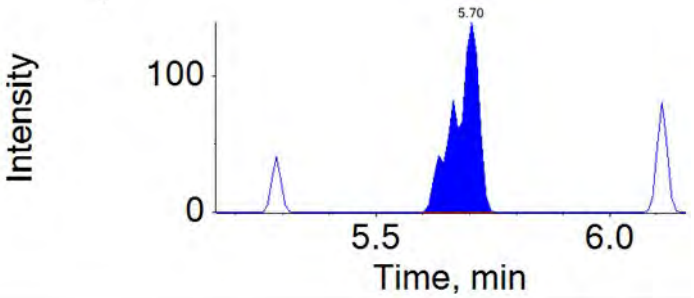
Component: 8:2 FTS_2
Secondary Mass: 527.0 / 81.0



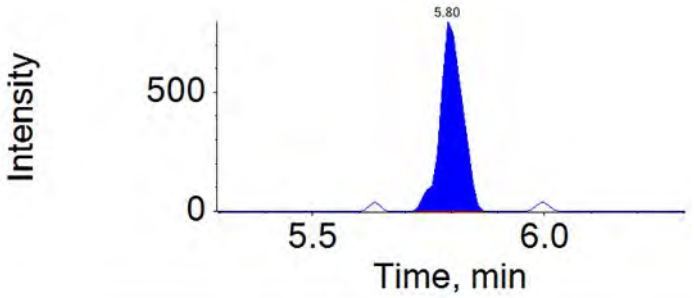
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



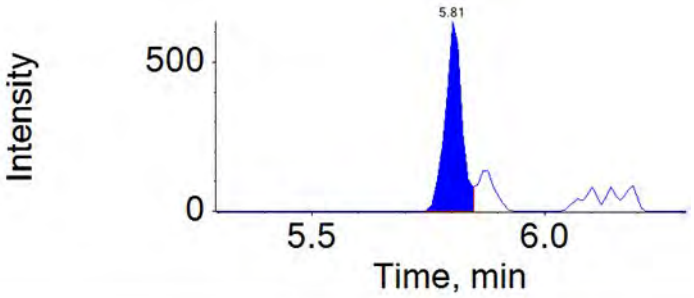
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



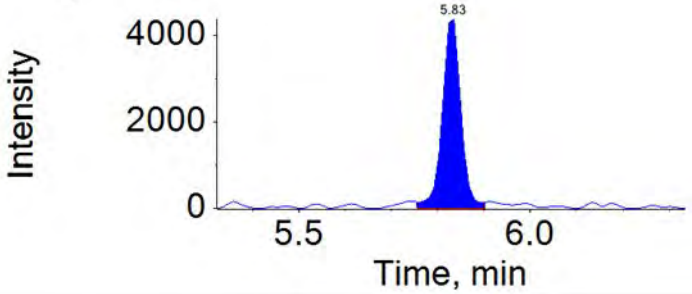
Component: PFDS_2
Secondary Mass: 599.0 / 99.0



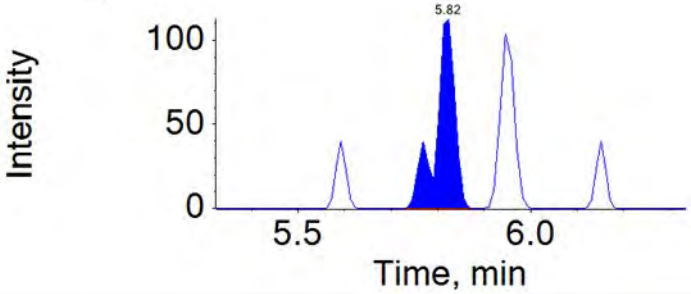
APPROVED
By MCD at 6:34 pm, 11/12/18

REVIEWED
By HMK at 10:54 am, 11/13/18

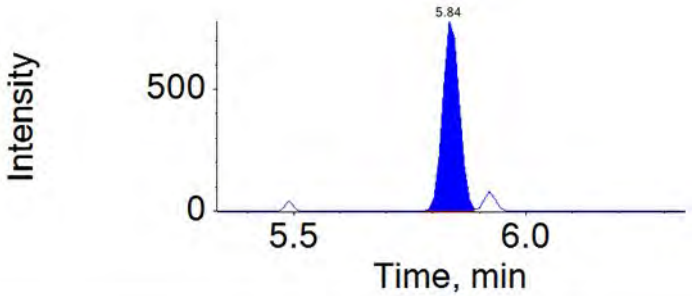
Component: PFUnDA
Primary Mass: 563.0 / 519.0



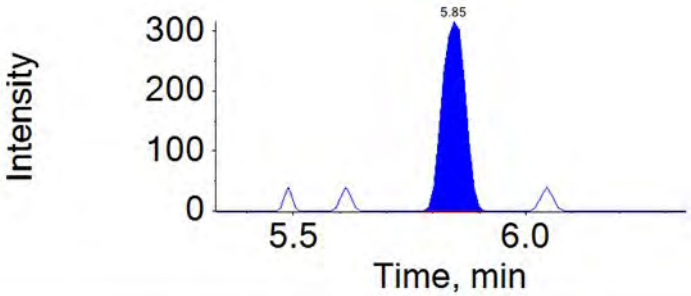
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



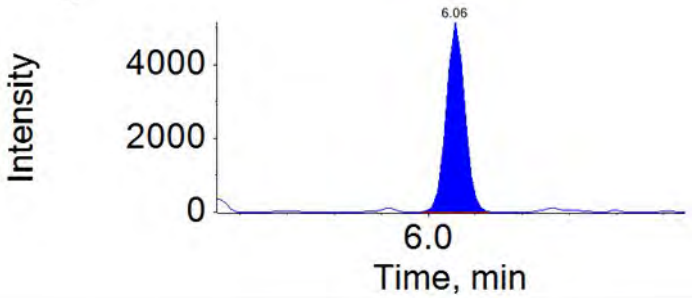
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



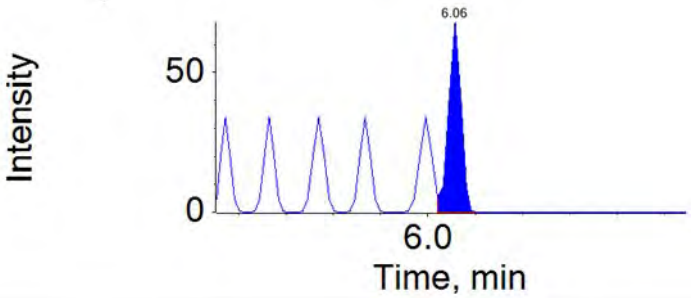
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Secondary Mass: 584.0 / 526.0



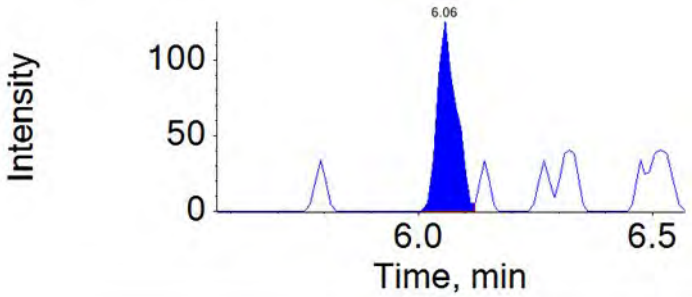
Component: PFDoDA
Primary Mass: 613.0 / 569.0



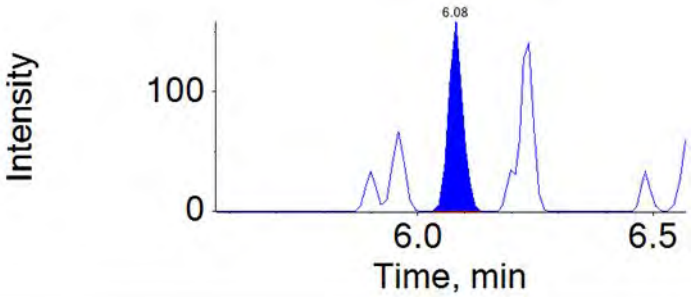
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



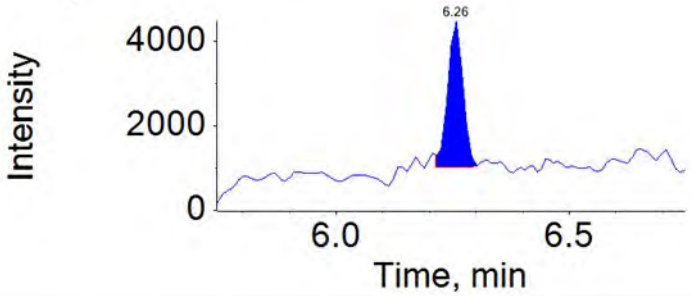
Component: 10:2 FTS_2
Secondary Mass: 627.0 / 81.0



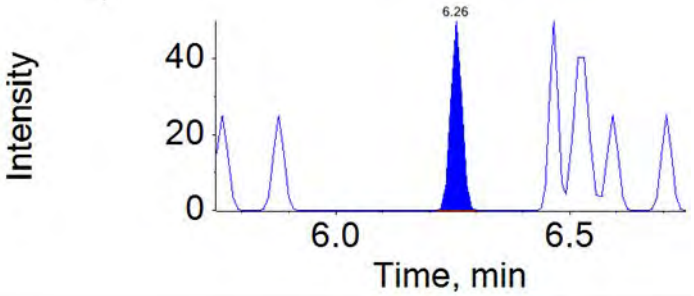
APPROVED
By MCD at 6:34 pm, 11/12/18

REVIEWED
By HMK at 10:54 am, 11/13/18

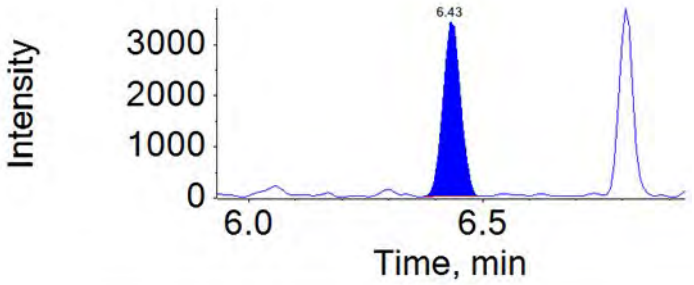
Component: PFTrDA
Primary Mass: 663.0 / 619.0



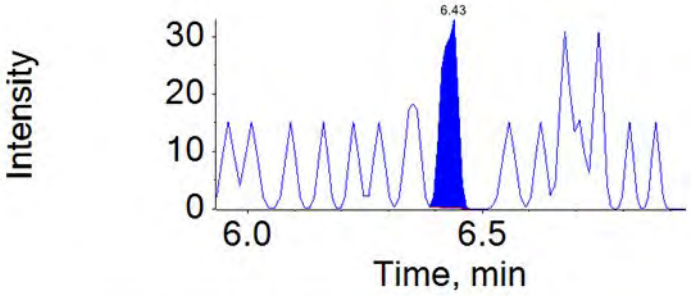
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



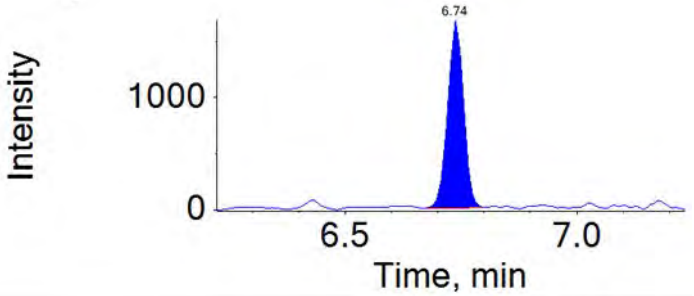
Component: PFTeDA
Primary Mass: 713.0 / 669.0



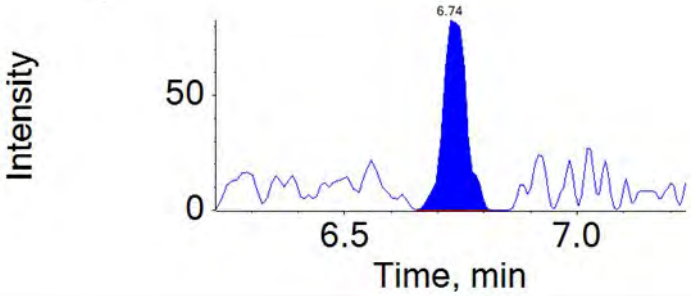
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



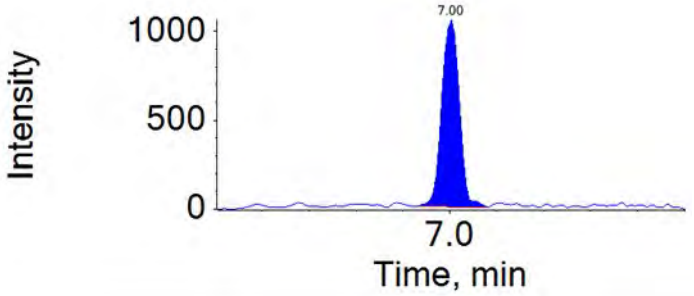
Component: PFHxDA
Primary Mass: 813.0 / 769.0



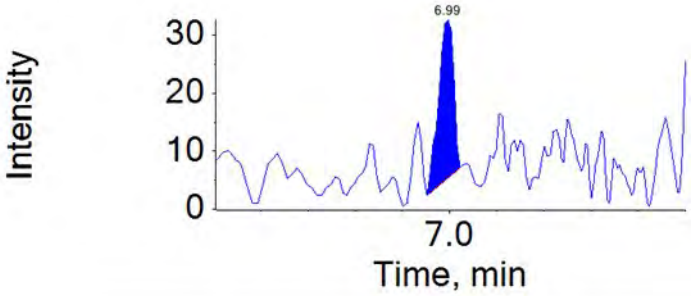
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



APPROVED
By MCD at 6:34 pm, 11/12/18

REVIEWED
By HMK at 10:54 am, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/20/2018 8:36:28 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Sample Name:	INBLK			**Data File:**		18NOV12DCAL-49.wiff
Sample ID:	methanol			**Acquis Date:**		11/12/2018 4:09:09 PM
Sample Type:	Unknown			**Instrument:**		LM27631
Vial Position:	1			**Acquis Method:**		18AUG13_3uL.dam
Injection Vol:	3.00			**Result Table:**		18NOV12DCAL
QMethod File:	18AUG20QM			**ICAL Name:**		18NOV12DCAL
Batch Number:	N\A			**Operator:**		JPT12262
Sample Wt.:	1.00000			**Dilution Factor:**		1.00
Sample Vol.:	1.000			**Prep Factor:**		1.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV12DCAL-44

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Rreference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	705408.6	659926.2	7	50	
13C2-PFOA	5.0	484266.1	450219.7	8	50	
13C4-PFOS	4.8	261290.0	249205.8	5	50	
13C2-PFDA	5.0	303665.7	278743.9	9	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	778730.1	13C3-PFBA	705408.6	1.104	5.000	4.949	99	70-130	
E13C5-PFPeA	758823.9	13C3-PFBA	705408.6	1.076	5.000	4.825	96	70-130	
E13C3-PFBS	456635.4	13C3-PFBA	705408.6	0.647	4.650	4.570	98	70-130	
E13C2-4:2-FTS	57620.0	13C2-PFOA	484266.1	0.119	4.670	5.299	113	70-130	
E13C5-PFHxA	665797.6	13C2-PFOA	484266.1	1.375	5.000	4.966	99	70-130	
E13C3-PFHxS	372925.2	13C2-PFOA	484266.1	0.770	4.730	5.284	112	70-130	
E13C4-PFHpA	547261.8	13C2-PFOA	484266.1	1.130	5.000	5.091	102	70-130	
E13C2-6:2-FTS	39087.0	13C2-PFOA	484266.1	0.081	4.750	5.400	114	70-130	
E13C8-PFOA	901909.5	13C2-PFOA	484266.1	1.862	5.000	5.131	103	70-130	
E13C8-PFOS	289703.0	13C4-PFOS	261290.0	1.109	4.780	4.913	103	70-130	
E13C9-PFNA	509013.2	13C4-PFOS	261290.0	1.948	5.000	5.432	109	70-130	
E13C6-PFDA	643925.8	13C2-PFDA	303665.7	2.121	5.000	4.948	99	70-130	
E13C2-8:2-FTS	27339.0	13C2-PFDA	303665.7	0.090	4.790	4.490	94	70-130	
E13C8-PFOSA	681332.9	13C2-PFDA	303665.7	2.244	5.000	4.974	99	70-130	
Ed3-NMeFOSAA	73694.3	13C2-PFDA	303665.7	0.243	5.000	4.381	88	70-130	
E13C7-PFUnDA	265353.1	13C2-PFDA	303665.7	0.874	5.000	5.073	101	70-130	
Ed5-NEtFOSAA	59646.1	13C2-PFDA	303665.7	0.196	5.000	4.156	83	70-130	
E13C2-PFDoDA	576780.7	13C2-PFDA	303665.7	1.899	5.000	4.932	99	70-130	
Ed7-NMePFOSAE	354624.2	13C2-PFDA	303665.7	1.168	5.000	5.054	101	70-130	
Ed3-NMePFOSA	79601.3	13C2-PFDA	303665.7	0.262	5.000	4.763	95	70-130	
Ed9-NEtPFOSAE	287722.3	13C2-PFDA	303665.7	0.947	5.000	4.928	99	70-130	
Ed5-NEtPFOSA	59772.3	13C2-PFDA	303665.7	0.197	5.000	4.617	92	70-130	
E13C2-PFTeDA	418729.7	13C2-PFDA	303665.7	1.379	5.000	4.841	97	70-130	

APPROVED
By JPT at 8:42 am, 11/20/18

REVIEWED
By HMK at 8:47 am, 11/20/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/20/2018 8:36:28 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

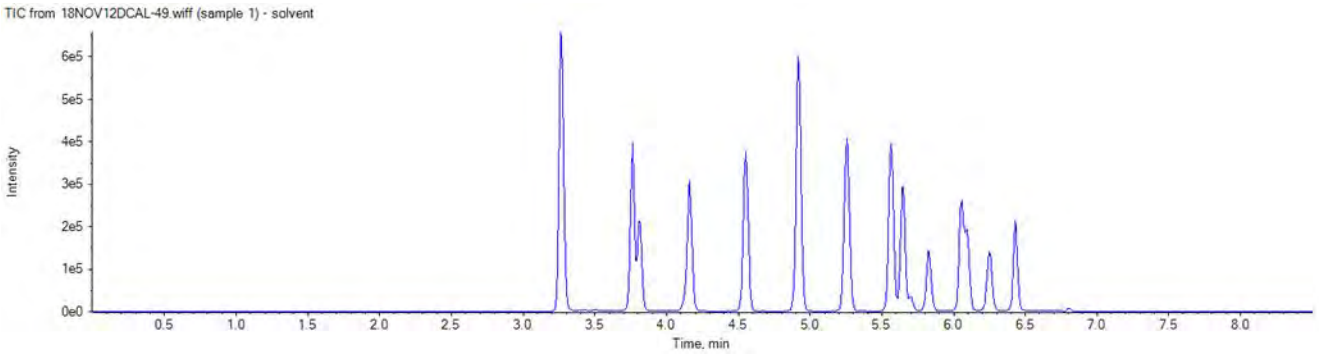
Analyte Quantitation Peak Table

Sample Name: INBLK **Instrument Name:** LM27631 **File Name:** 18NOV12DCAL-49.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	1.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	N/A	N/A	N/A		A	13C4-PFBA	3.26	778730.1	N/A	
PFPeA	N/A	N/A	N/A		A	13C5-PFPeA	3.76	758823.9	N/A	
PFBS	N/A	N/A	N/A		A	13C3-PFBS	3.81	456635.4	N/A	
4:2-FTS	N/A	N/A	N/A		A	13C2-4:2-FTS	4.13	57620.0	N/A	
PFHxA	N/A	N/A	N/A		A	13C5-PFHxA	4.16	665797.6	N/A	
PFPeS	N/A	N/A	N/A		A	13C3-PFBS	3.81	456635.4	N/A	
PFHpA	N/A	N/A	N/A		A	13C4-PFHpA	4.55	547261.8	N/A	
PFHxS	N/A	N/A	N/A		A	13C3-PFHxS	4.55	372925.2	N/A	
6:2-FTS	N/A	N/A	N/A		A	13C2-6:2-FTS	4.91	39087.0	N/A	
PFHpS	N/A	N/A	N/A		A	13C3-PFHxS	4.55	372925.2	N/A	
PFOA	N/A	N/A	N/A		A	13C8-PFOA	4.92	901909.5	N/A	
PFOS	N/A	N/A	N/A		A	13C8-PFOS	5.25	289703.0	N/A	
PFNA	N/A	N/A	N/A		A	13C9-PFNA	5.26	509013.2	N/A	
PFNS	N/A	N/A	N/A		A	13C8-PFOS	5.25	289703.0	N/A	
PFDA	N/A	N/A	N/A		A	13C6-PFDA	5.56	643925.8	N/A	
8:2-FTS	N/A	N/A	N/A		A	13C2-8:2-FTS	5.57	27339.0	N/A	
PFOSA	N/A	N/A	N/A		A	13C8-PFOSA	5.65	681332.9	N/A	
NMeFOSAA	N/A	N/A	N/A		A	d3-NMeFOSAA	5.70	73694.3	N/A	
PFDS	N/A	N/A	N/A		A	13C8-PFOS	5.25	289703.0	N/A	
PFUnDA	N/A	N/A	N/A		A	13C7-PFUnDA	5.83	265353.1	N/A	
NEtFOSAA	N/A	N/A	N/A		A	d5-NEtFOSAA	5.84	59646.1	N/A	
PFDoDA	N/A	N/A	N/A		A	13C2-PFDoDA	6.05	576780.7	N/A	
10:2-FTS	N/A	N/A	N/A		A	13C2-8:2-FTS	5.57	27339.0	N/A	
NMePFOSAE	N/A	N/A	N/A		A	d7-NMePFOSAE	6.09	354624.2	N/A	
NMePFOSA	N/A	N/A	N/A		A	d3-NMePFOSA	6.10	79601.3	N/A	
PFDoS	N/A	N/A	N/A		A	13C8-PFOS	5.25	289703.0	N/A	
NEtPFOSAE	N/A	N/A	N/A		A	d9-NEtPFOSAE	6.25	287722.3	N/A	
NEtPFOSA	N/A	N/A	N/A		A	d5-NEtPFOSA	6.26	59772.3	N/A	
PFTrDA	N/A	N/A	N/A		A	13C2-PFDoDA	6.05	576780.7	N/A	
PFTeDA	N/A	N/A	N/A		A	13C2-PFTeDA	6.43	418729.7	N/A	
PFHxDA	6.73	1.050	2221.7		A	13C2-PFTeDA	6.43	418729.7	0.005	0.063
PFODA	N/A	N/A	N/A		A	13C2-PFTeDA	6.43	418729.7	N/A	

Total Ion Chromatogram

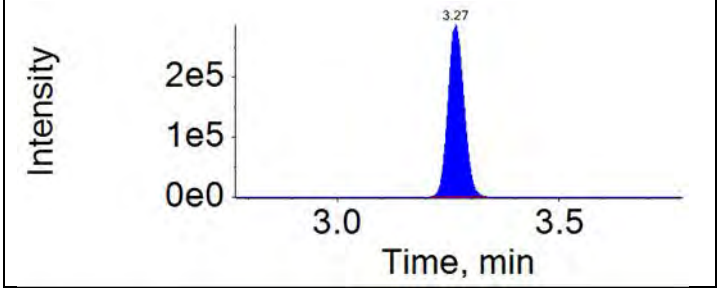


APPROVED
By JPT at 8:42 am, 11/20/18

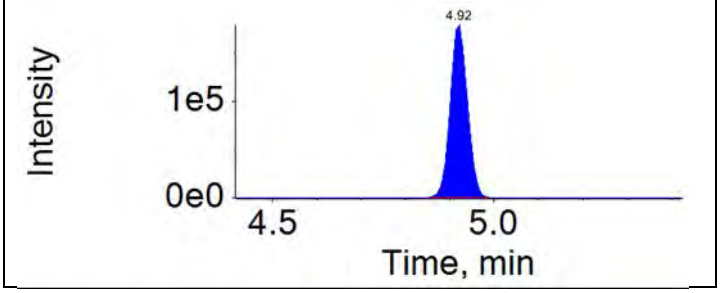
REVIEWED
By HMK at 8:47 am, 11/20/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/20/2018 8:36:28 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

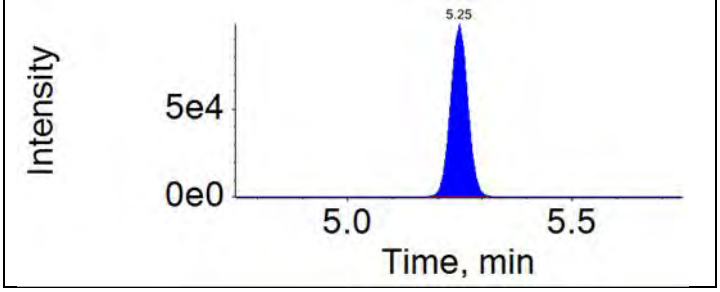
Injection Standard: 13C3-PFBA
216.0 / 172.0



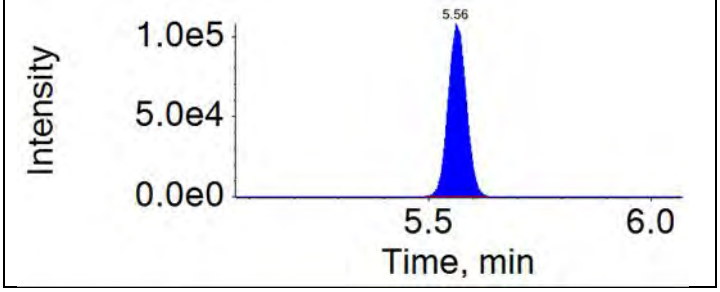
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0



Injection Standard: 13C2-PFDA
515.0 / 470.0

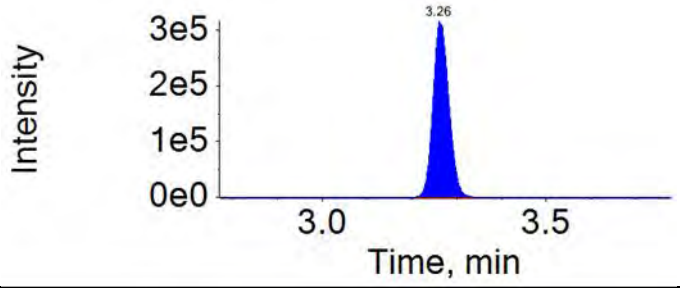


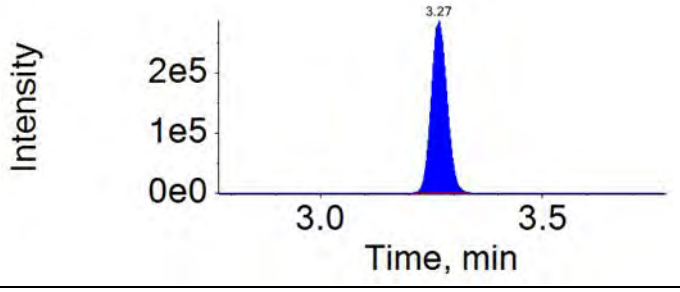
APPROVED
By JPT at 8:42 am, 11/20/18

REVIEWED
By HMK at 8:47 am, 11/20/18

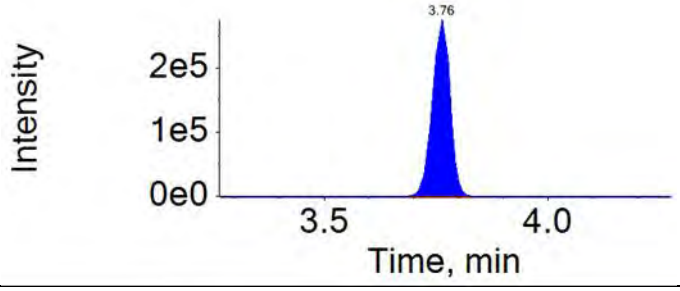
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/20/2018 8:36:28 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

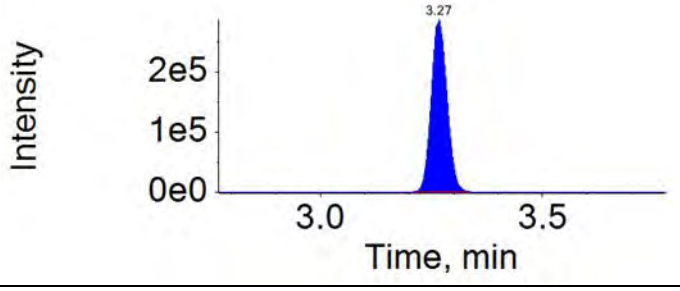
Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0



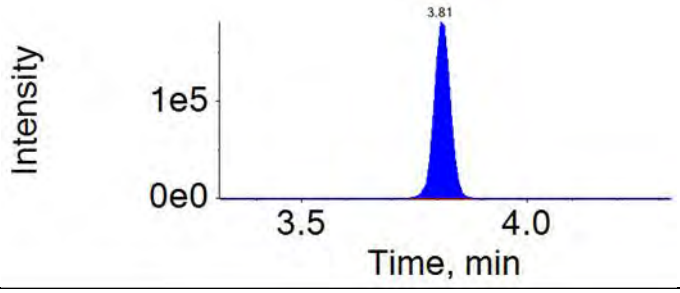


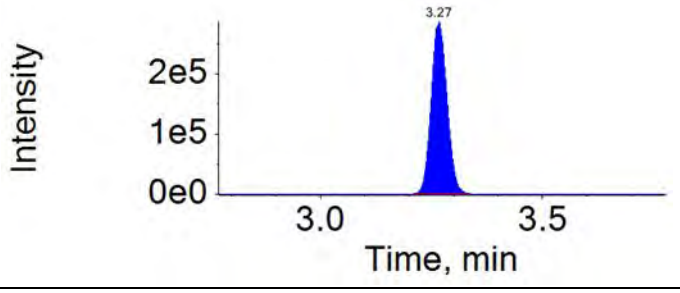
Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0



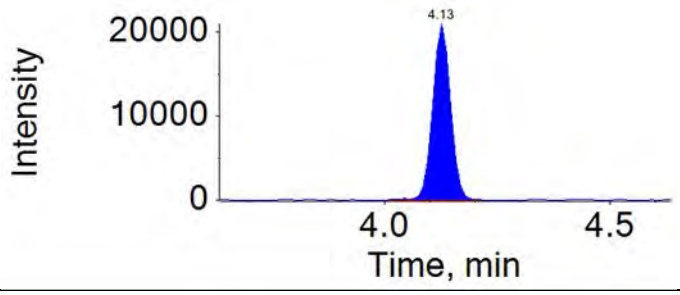


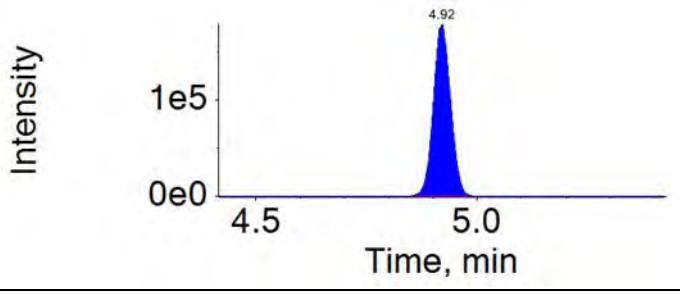
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0





Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0



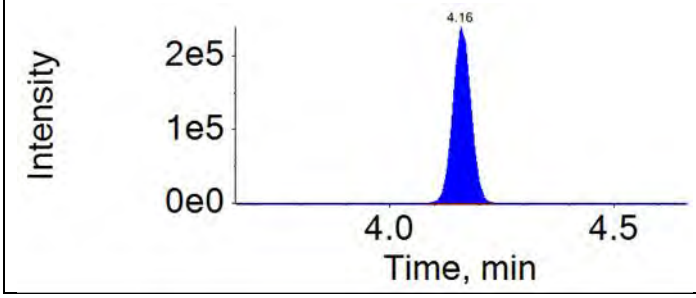


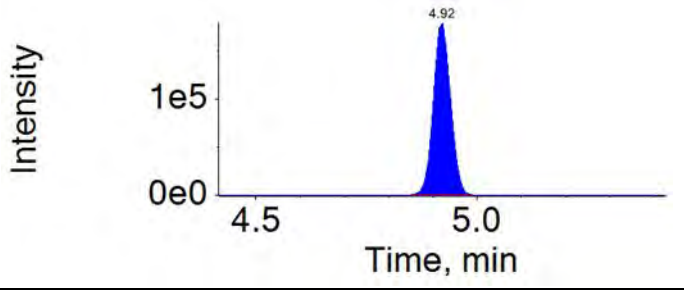
APPROVED
By JPT at 8:42 am, 11/20/18

REVIEWED
By HMK at 8:47 am, 11/20/18

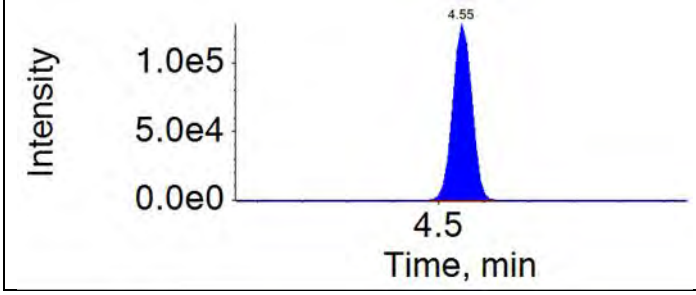
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/20/2018 8:36:28 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

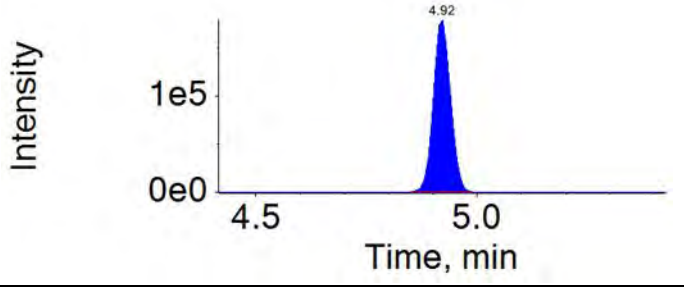
Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0



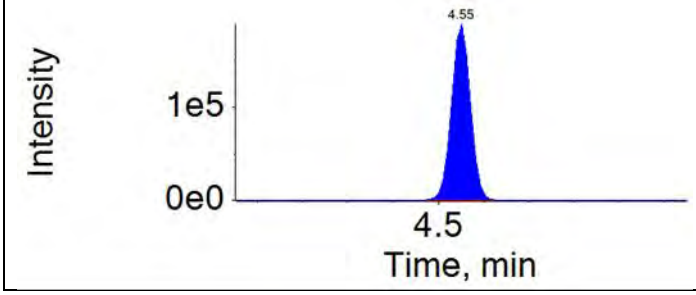


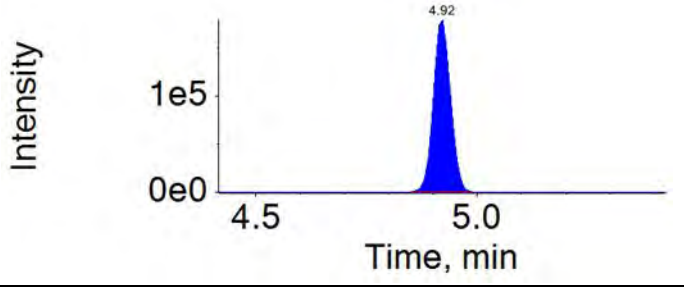
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0



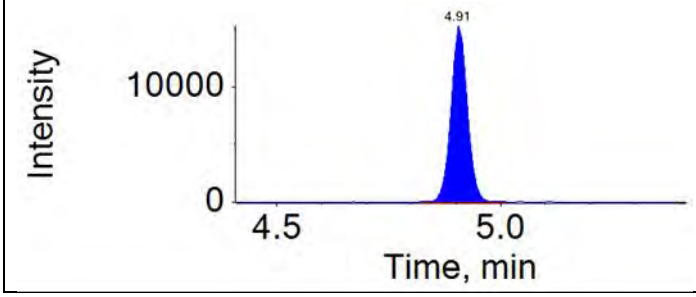


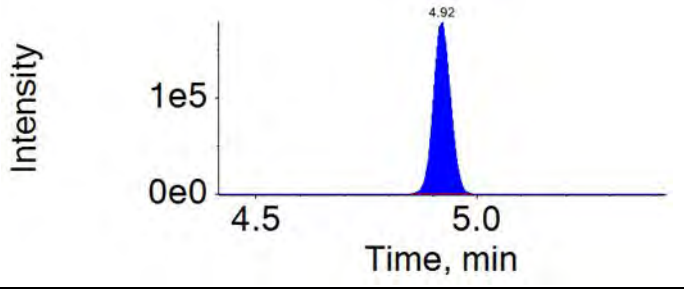
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0





Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0

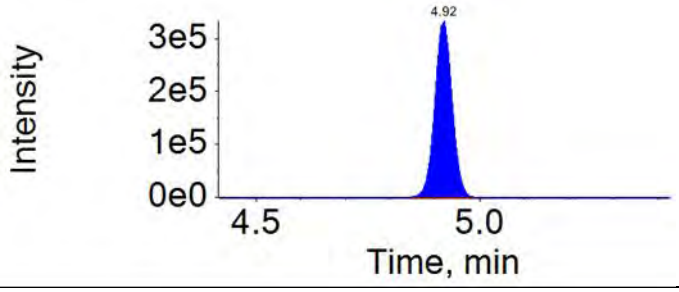
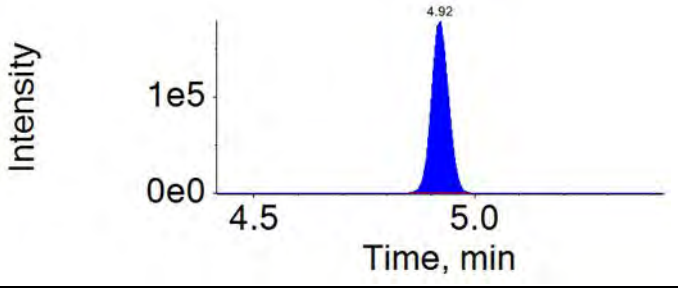


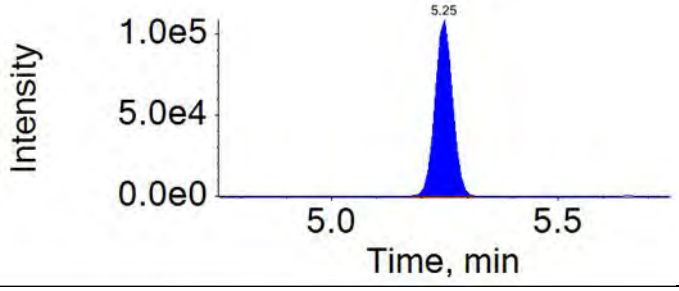
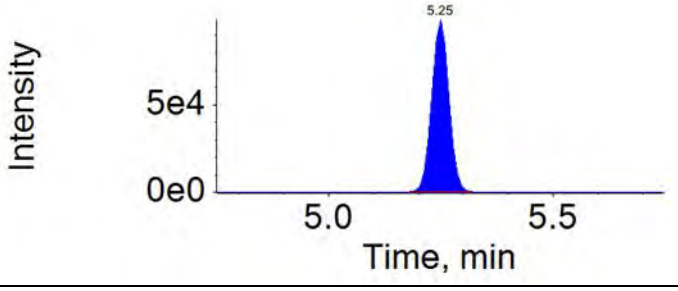


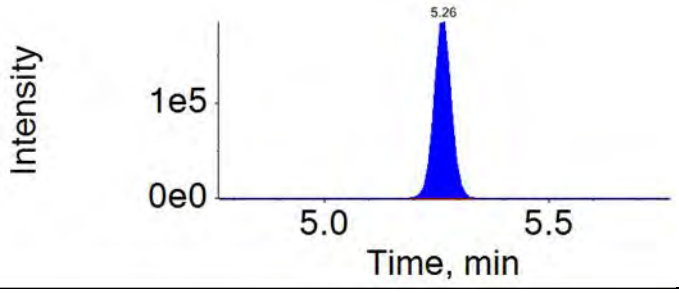
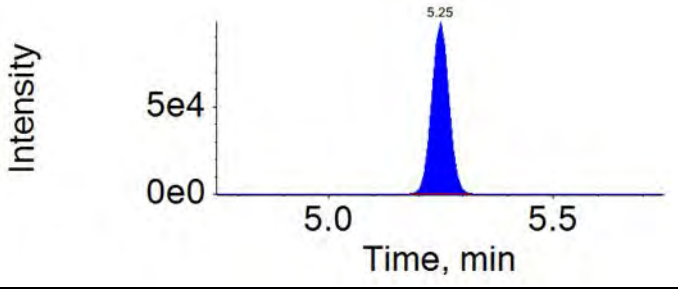
APPROVED
By JPT at 8:42 am, 11/20/18

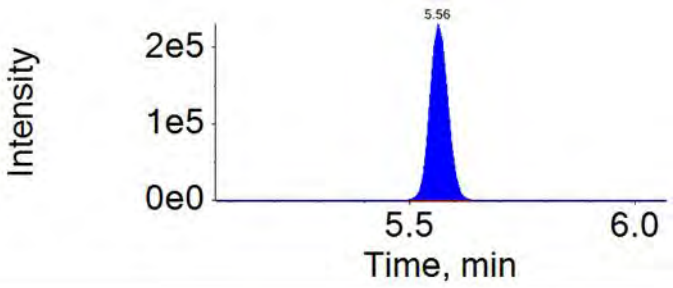
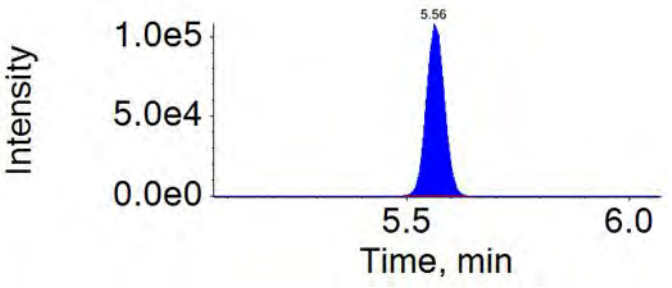
REVIEWED
By HMK at 8:47 am, 11/20/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/20/2018 8:36:28 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: E13C8-PFOA	Injection Standard: 13C2-PFOA
421.0 / 376.0	415.0 / 370.0
	

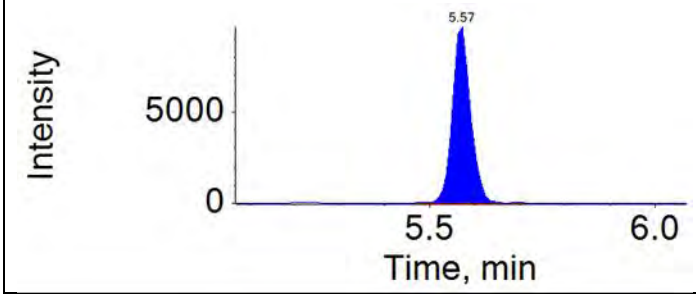
Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0
	

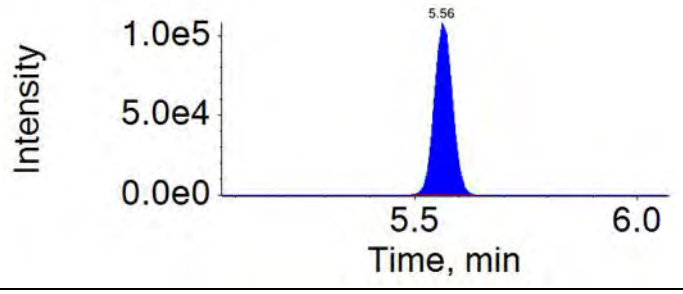
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0
	

Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0
	

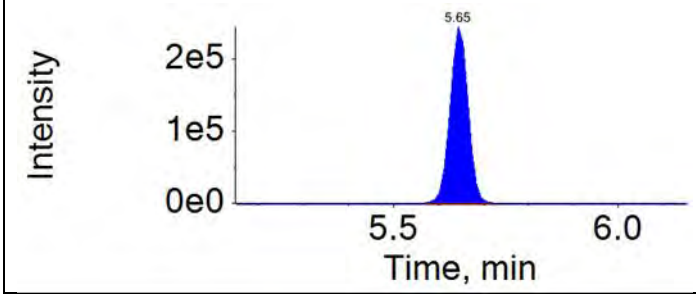
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/20/2018 8:36:28 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

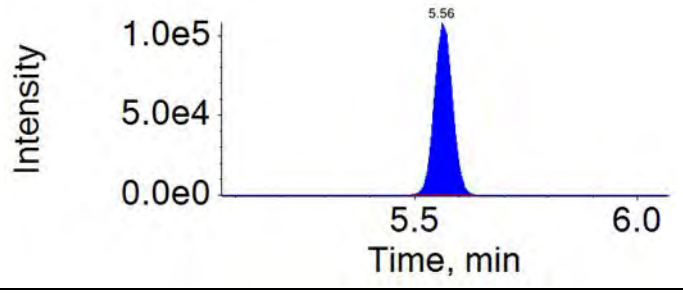
Extraction Standard: E13C2-8:2-FTS	Injection Standard: 13C2-PFDA
529.0 / 81.0	515.0 / 470.0



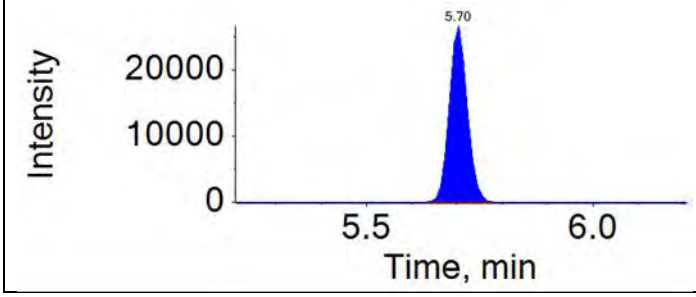


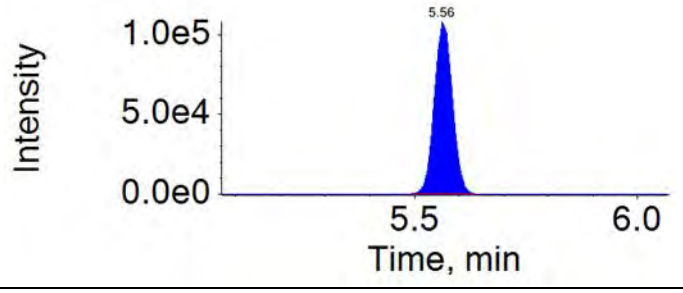
Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0



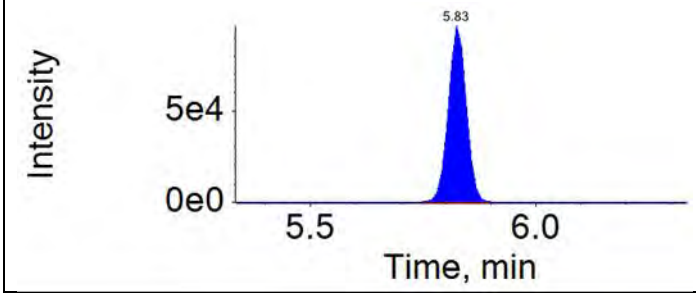


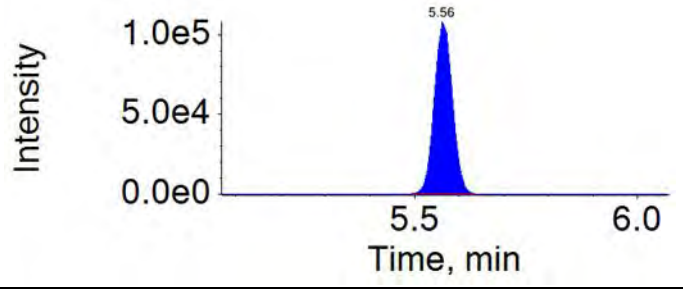
Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0





Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0

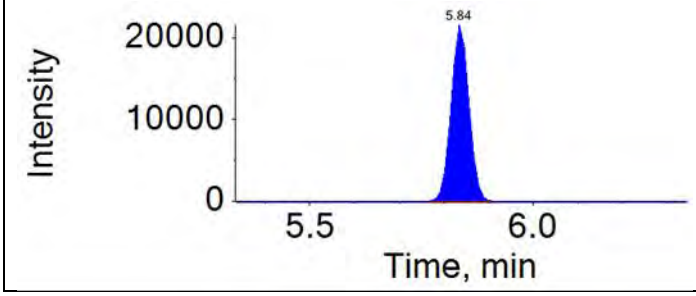
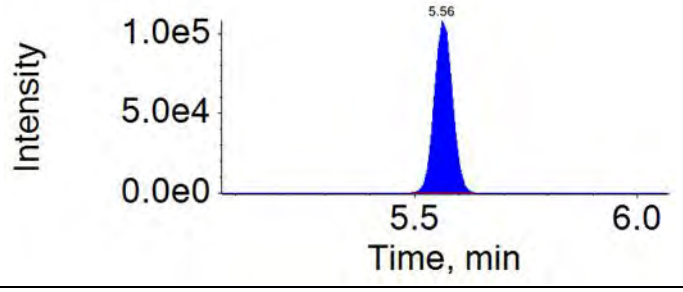


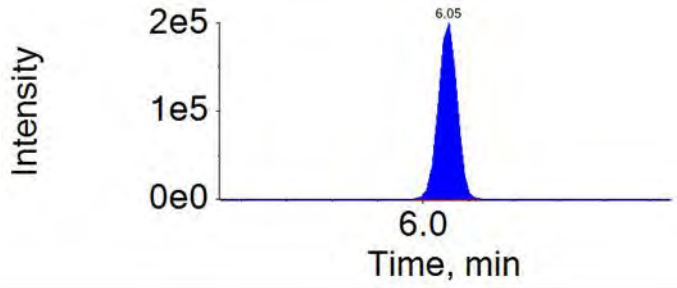
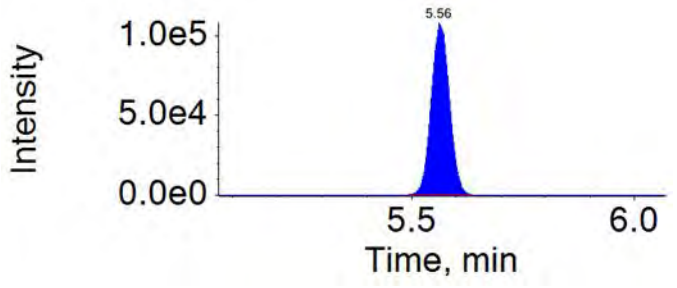


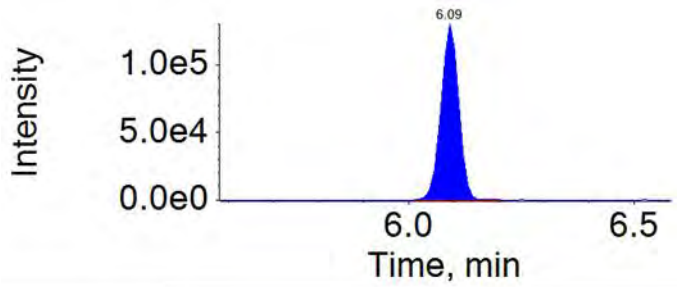
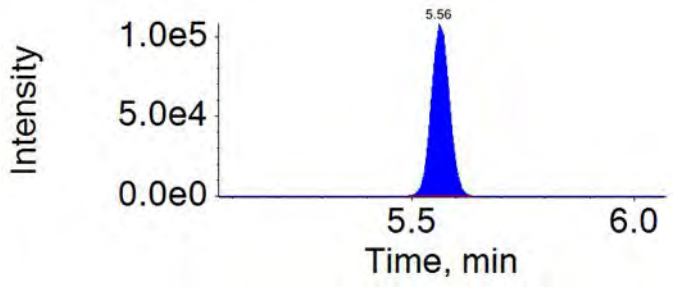
APPROVED
By JPT at 8:42 am, 11/20/18

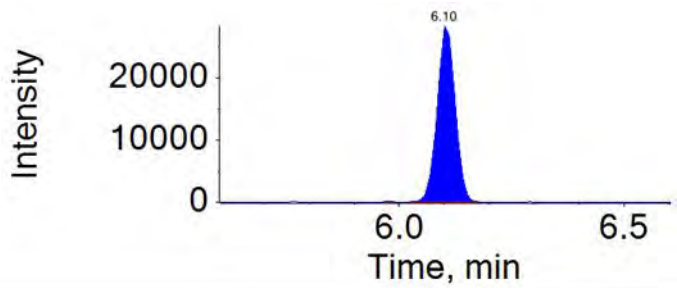
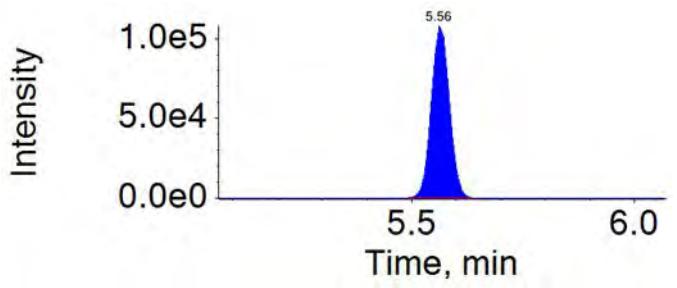
REVIEWED
By HMK at 8:47 am, 11/20/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/20/2018 8:36:28 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

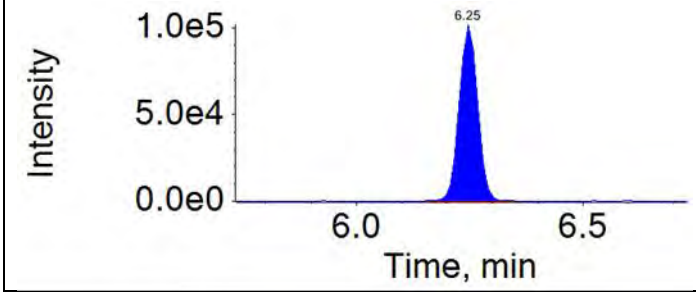
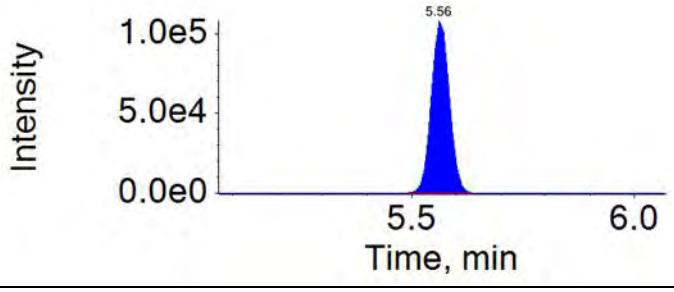
Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0
	

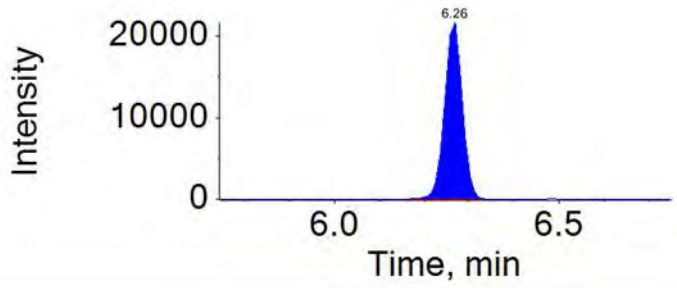
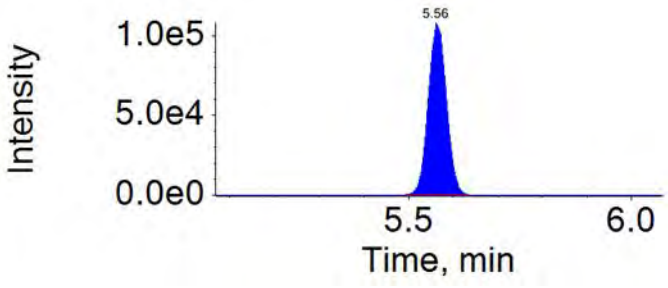
Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0
	

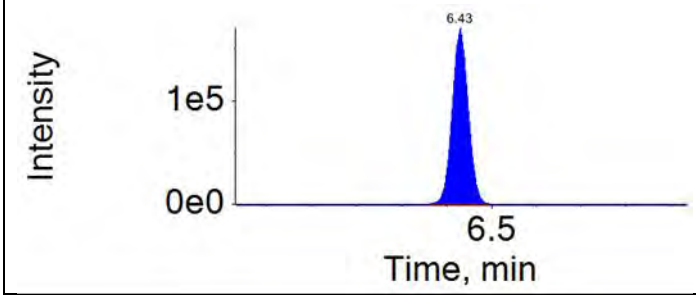
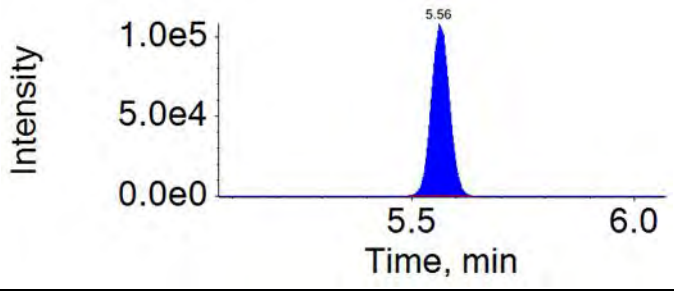
Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0
	

Extraction Standard: Ed3-NMePFOSA	Injection Standard: 13C2-PFDA
515.0 / 169.0	515.0 / 470.0
	

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/20/2018 8:36:28 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

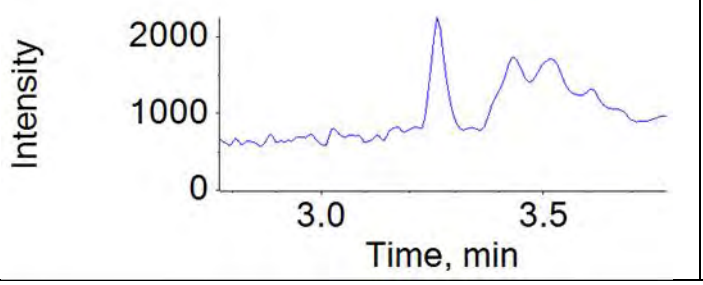
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0
	

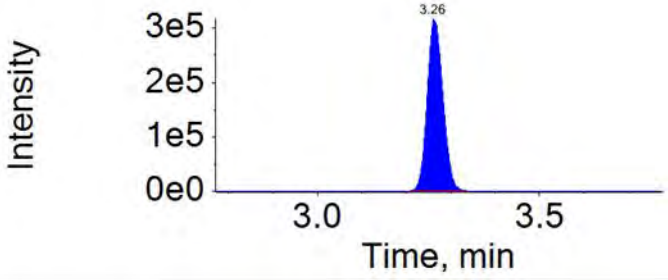
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0
	

Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0
	

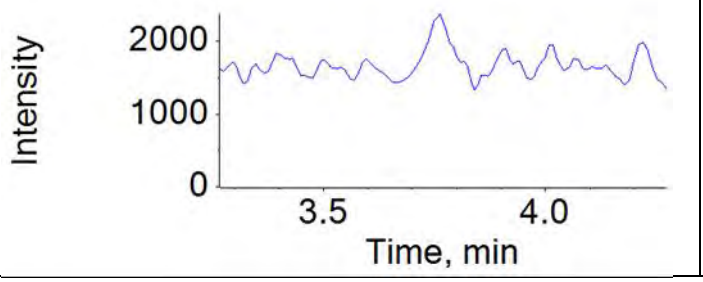
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/20/2018 8:36:28 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

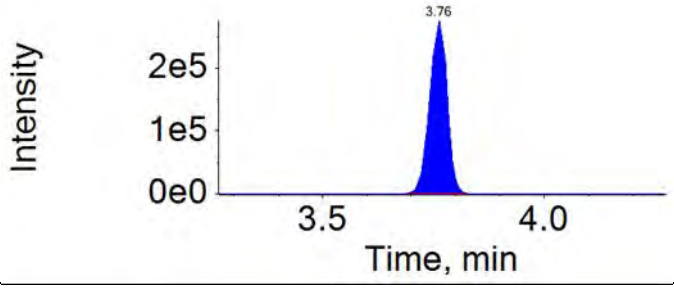
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



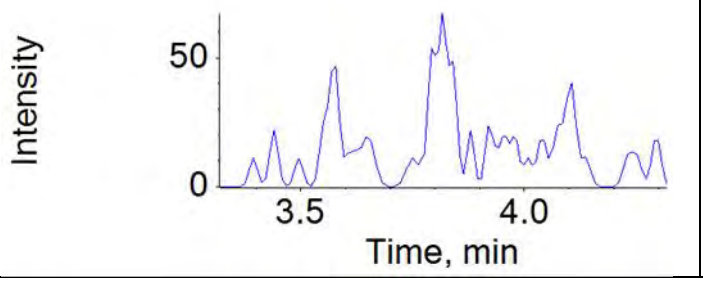


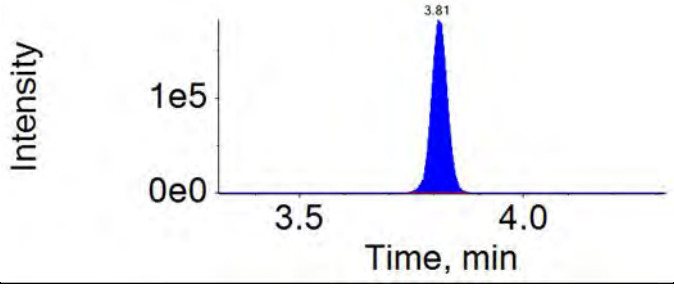
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



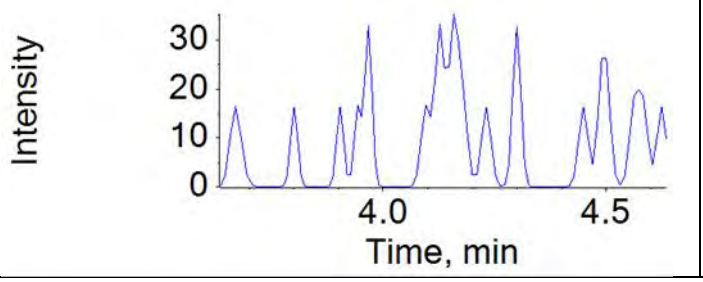


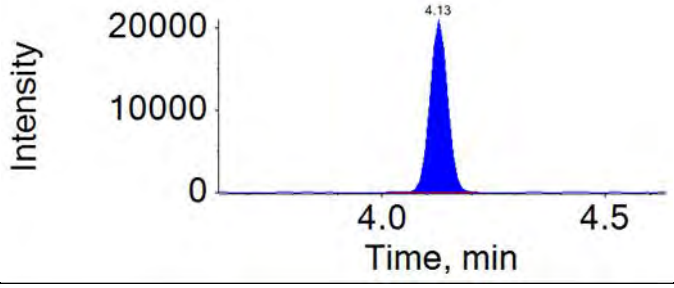
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





Analyte: 4:2-FTS	Extraction Standard: 13C2-4:2-FTS
327.0 / 307.0	329.0 / 81.0



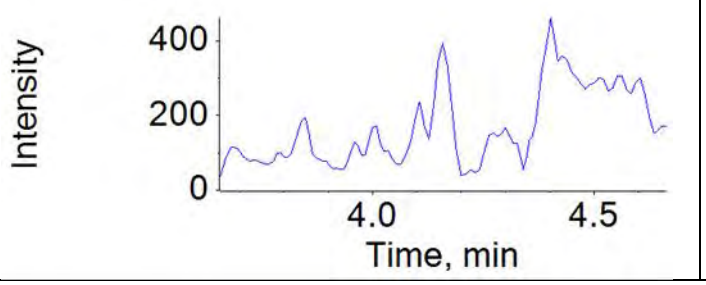


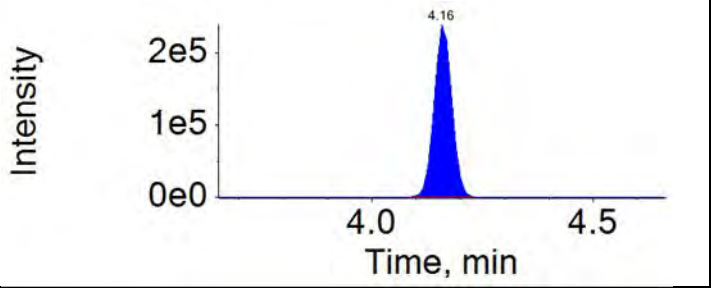
APPROVED
By JPT at 8:42 am, 11/20/18

REVIEWED
By HMK at 8:47 am, 11/20/18

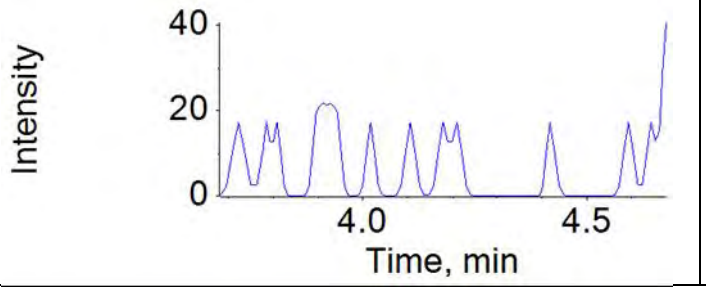
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/20/2018 8:36:28 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

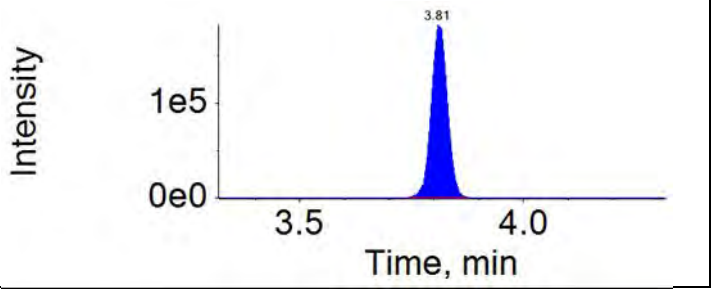
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



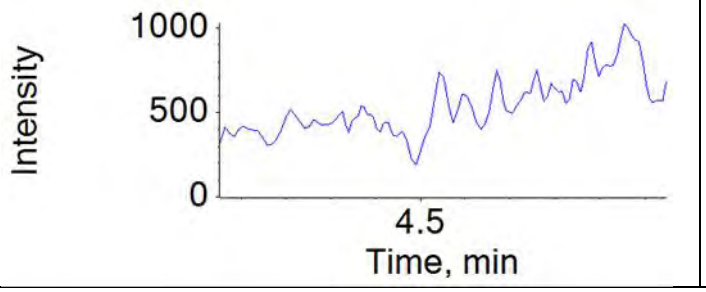


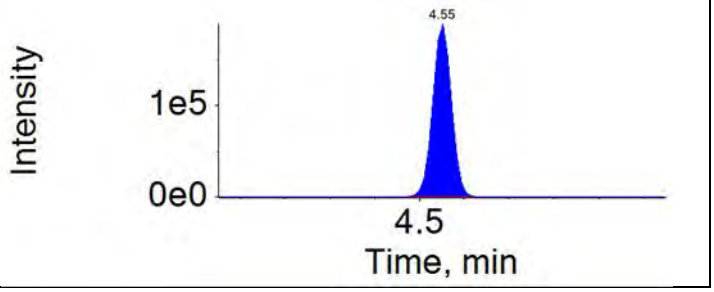
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



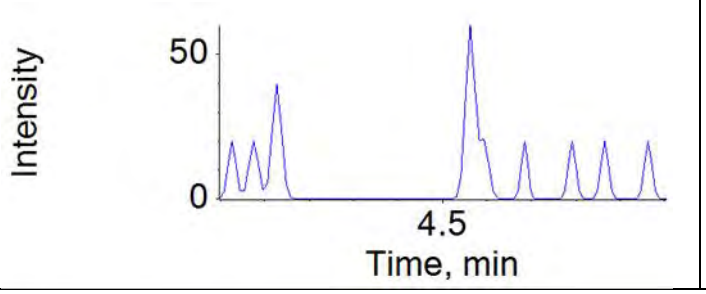


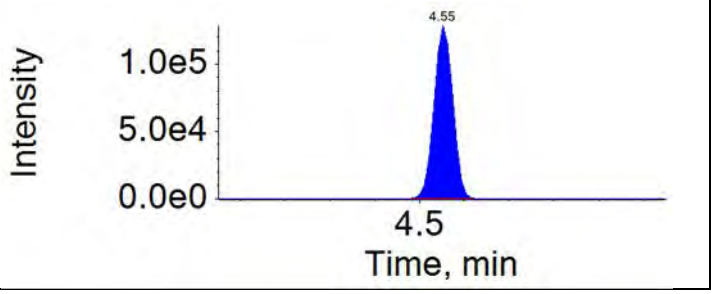
Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0





Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0



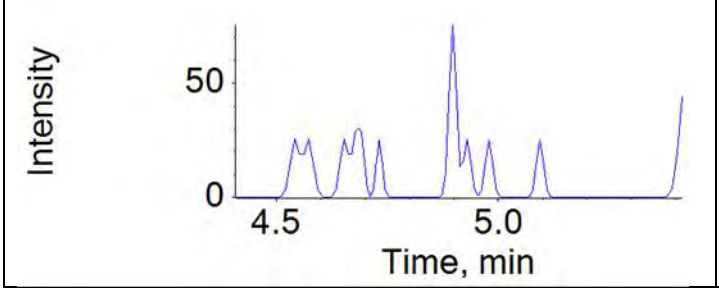


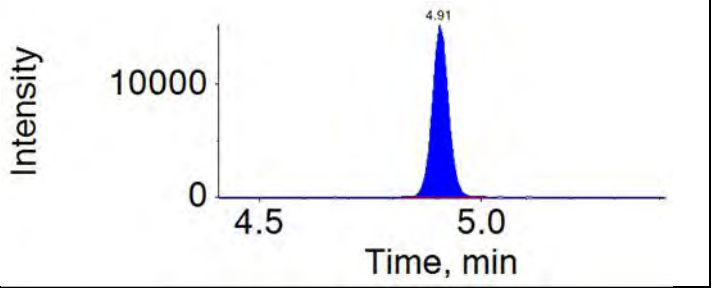
APPROVED
By JPT at 8:42 am, 11/20/18

REVIEWED
By HMK at 8:47 am, 11/20/18

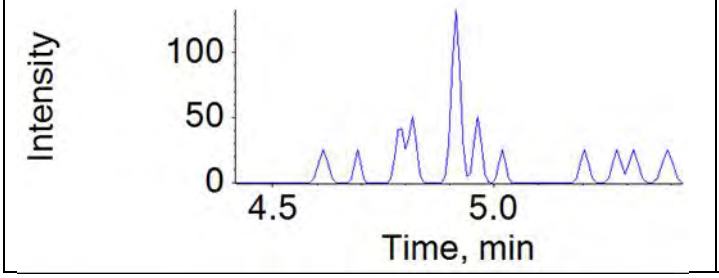
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/20/2018 8:36:28 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

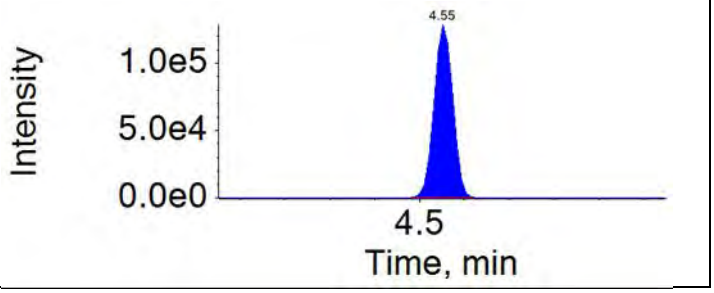
Analyte: 6:2-FTS	Extraction Standard: 13C2-6:2-FTS
427.0 / 407.0	429.0 / 81.0



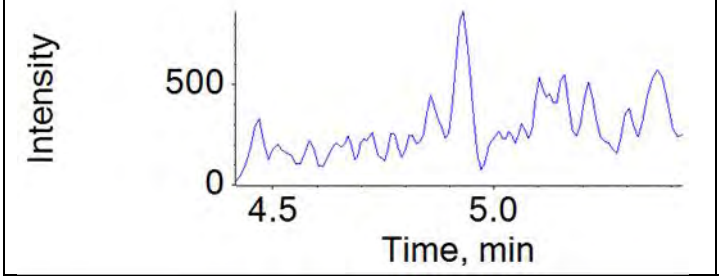


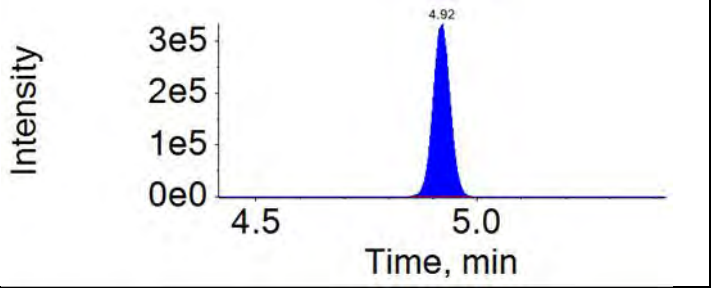
Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0



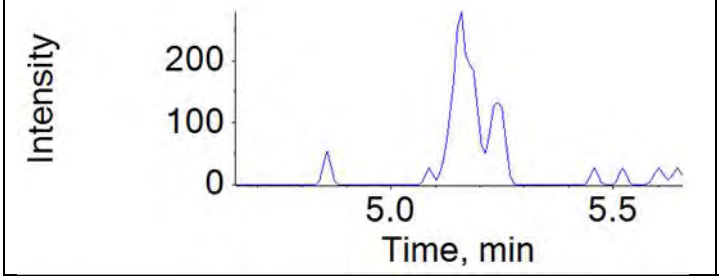


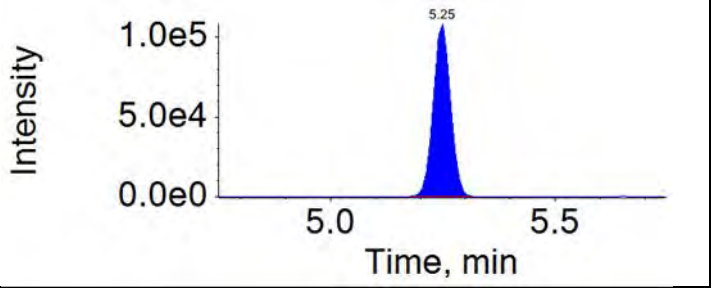
Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0





Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0



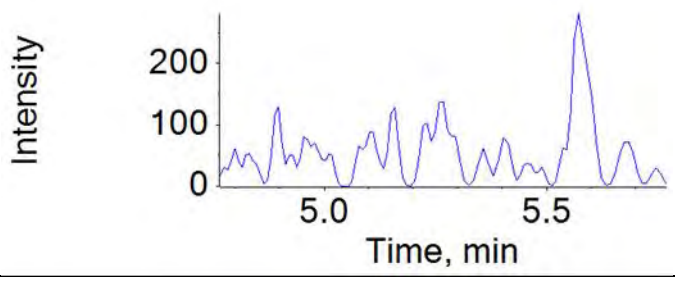


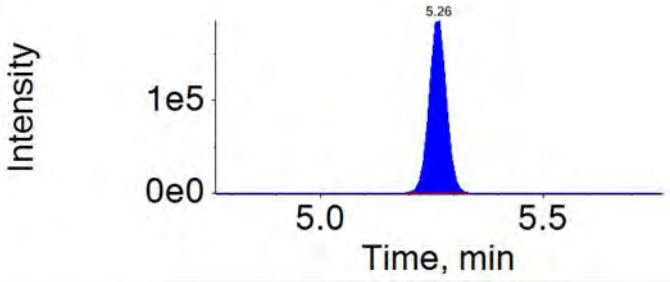
APPROVED
By JPT at 8:42 am, 11/20/18

REVIEWED
By HMK at 8:47 am, 11/20/18

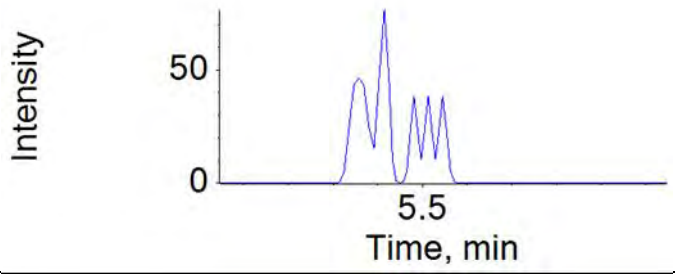
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/20/2018 8:36:28 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

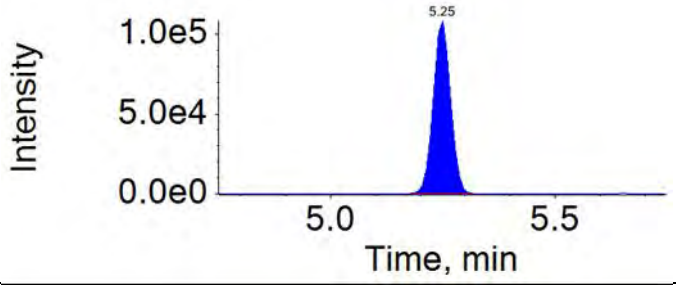
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



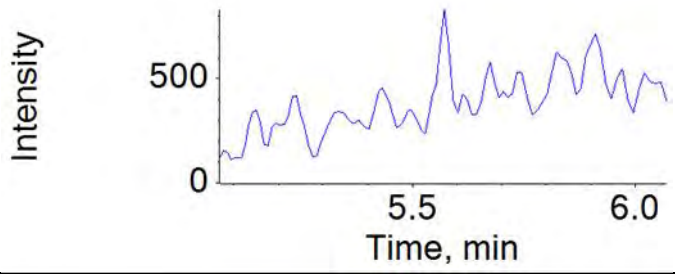


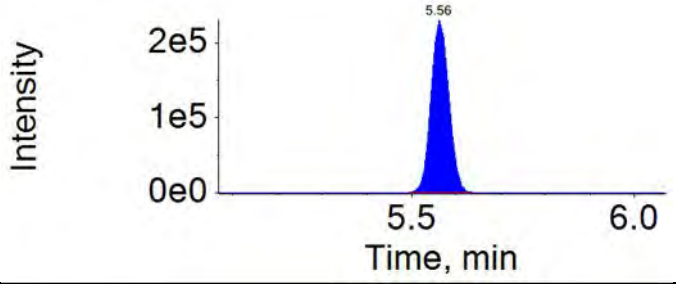
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



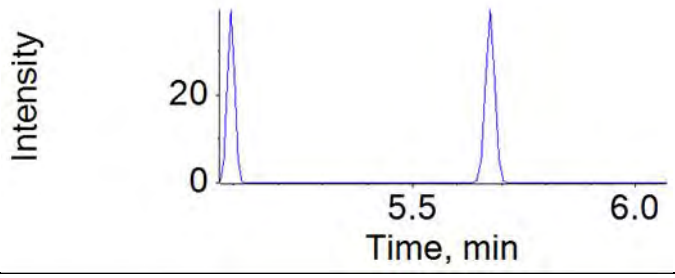


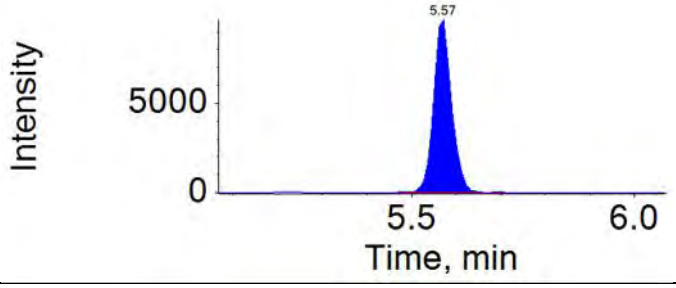
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





Analyte: 8:2-FTS	Extraction Standard: 13C2-8:2-FTS
527.0 / 507.0	529.0 / 81.0



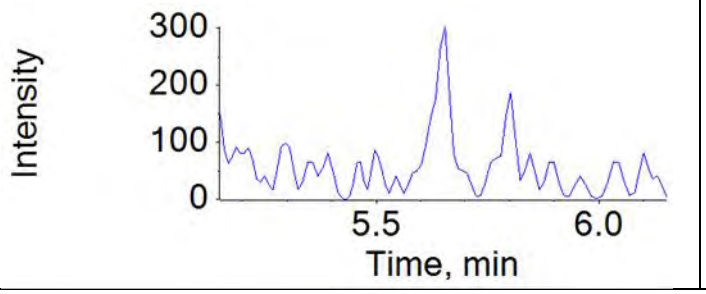


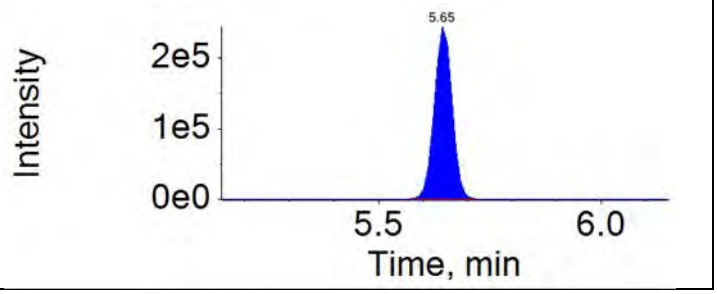
APPROVED
By JPT at 8:42 am, 11/20/18

REVIEWED
By HMK at 8:47 am, 11/20/18

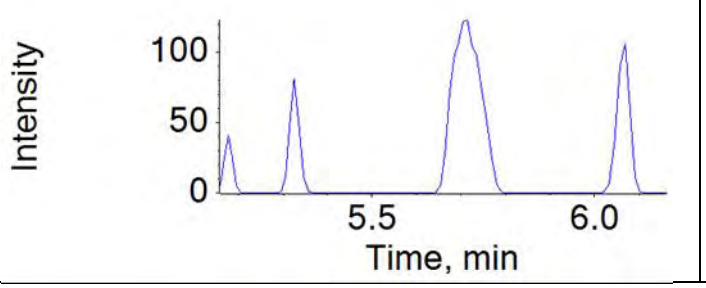
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/20/2018 8:36:28 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

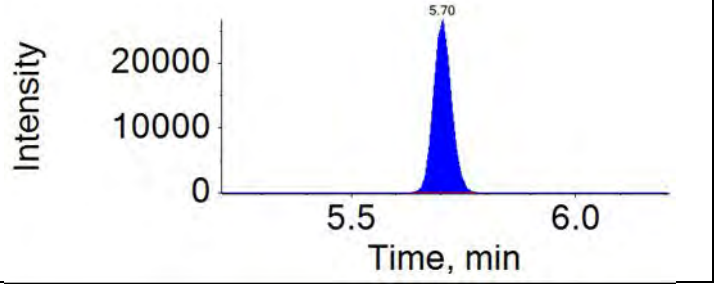
Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0



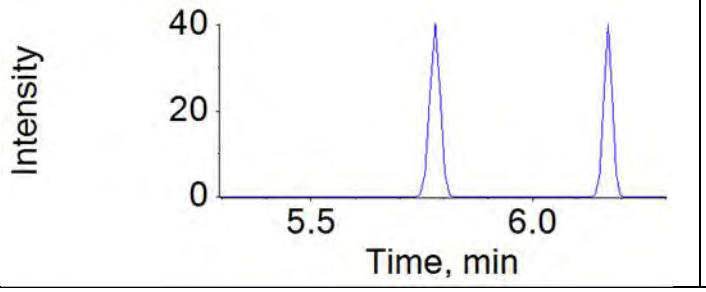


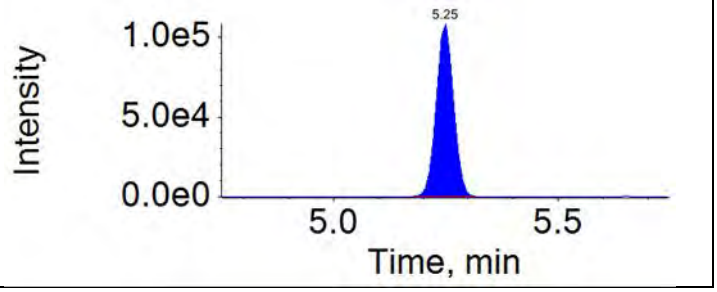
Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0



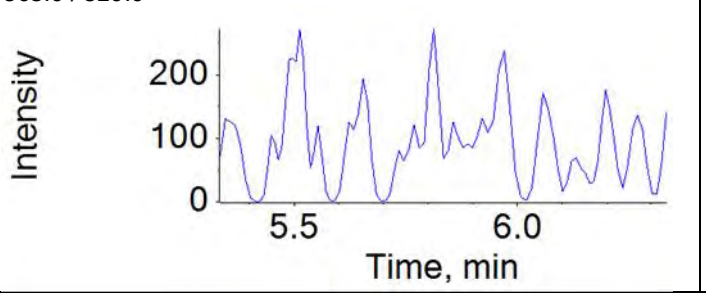


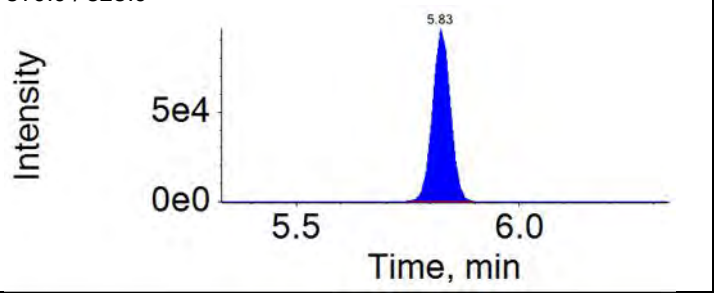
Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0





Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0



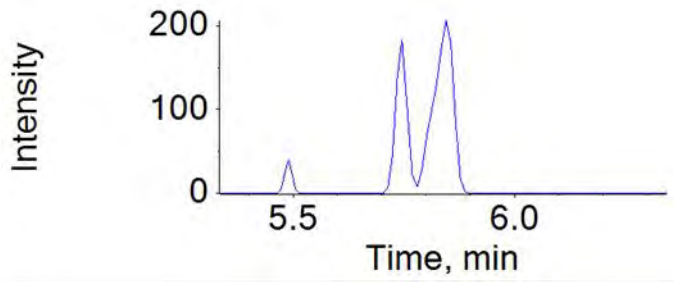


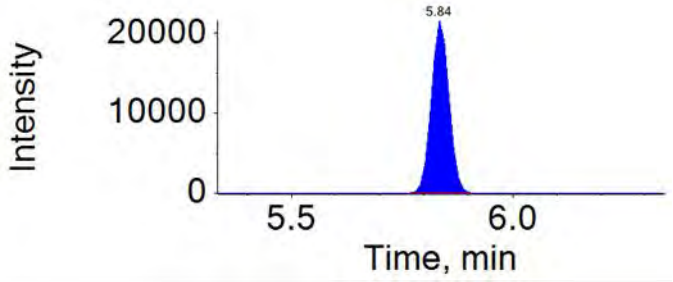
APPROVED
By JPT at 8:42 am, 11/20/18

REVIEWED
By HMK at 8:47 am, 11/20/18

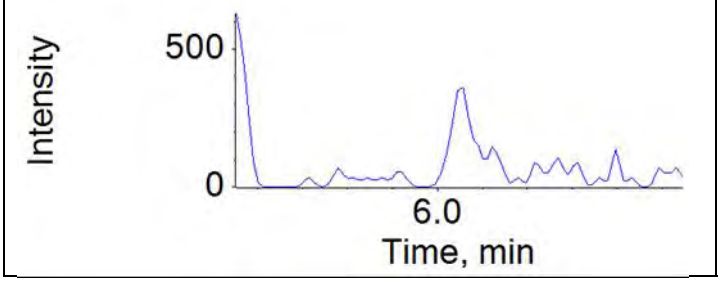
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/20/2018 8:36:28 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

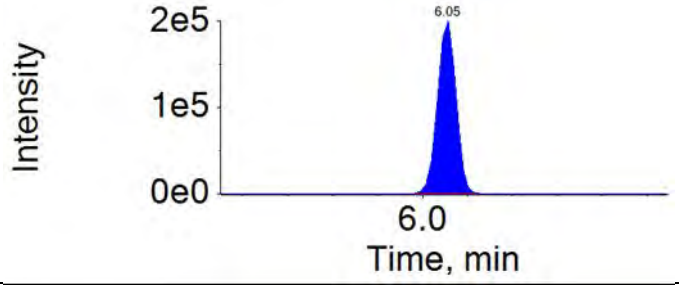
Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0



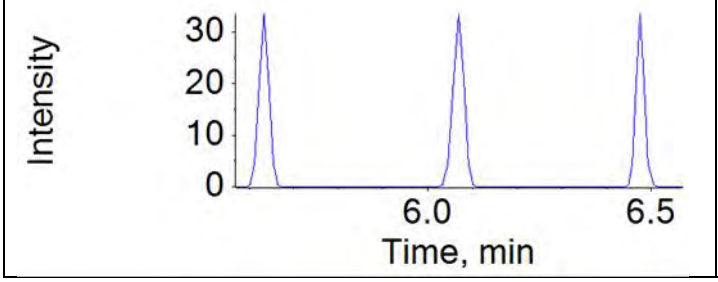


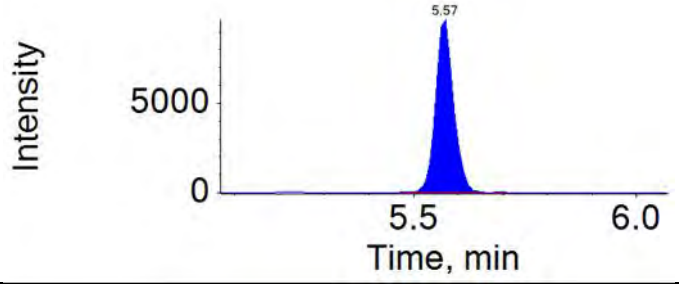
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0



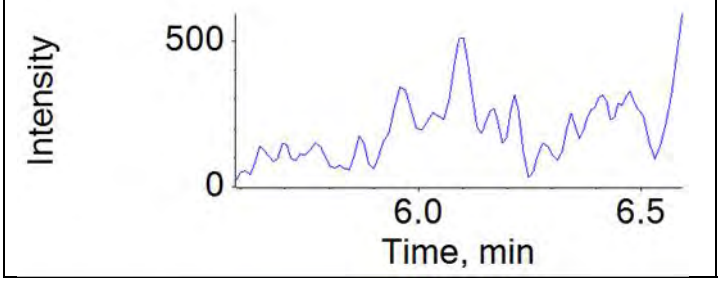


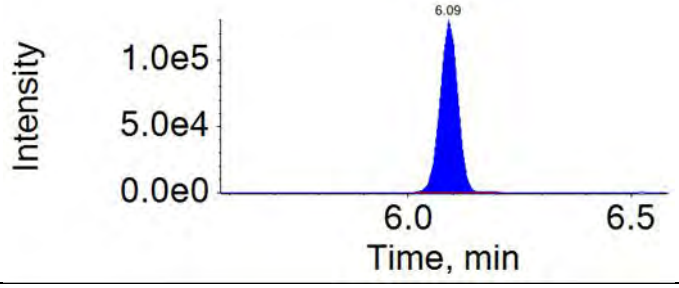
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0





Analyte: NMePFOSAE	Extraction Standard: d7-NMePFOSAE
616.0 / 59.0	623.0 / 59.0



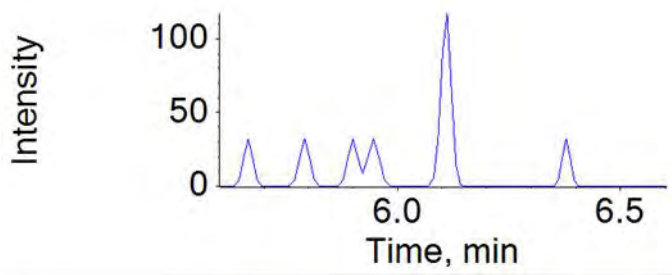


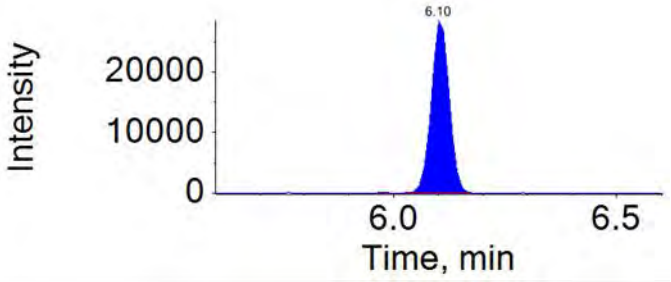
APPROVED
By JPT at 8:42 am, 11/20/18

REVIEWED
By HMK at 8:47 am, 11/20/18

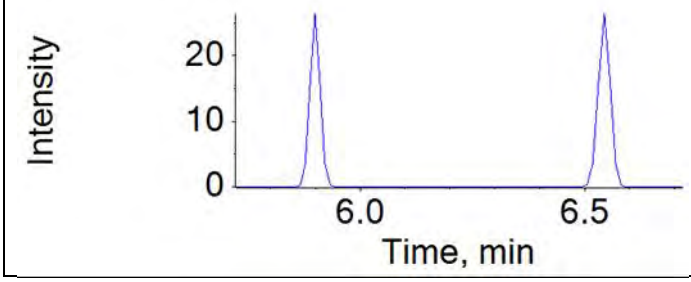
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/20/2018 8:36:28 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

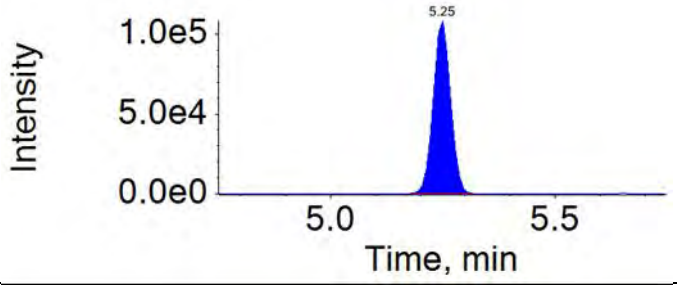
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



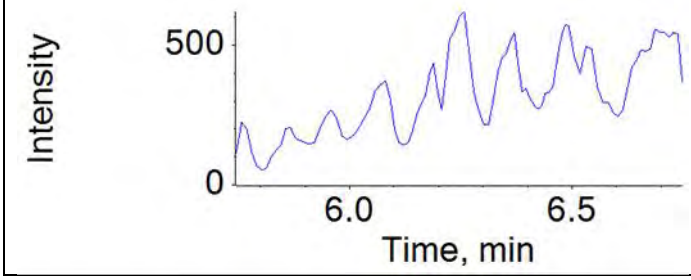


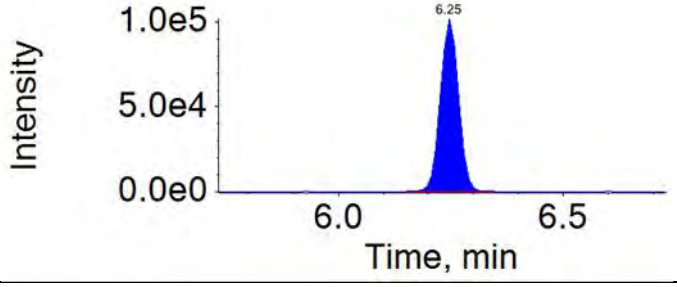
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



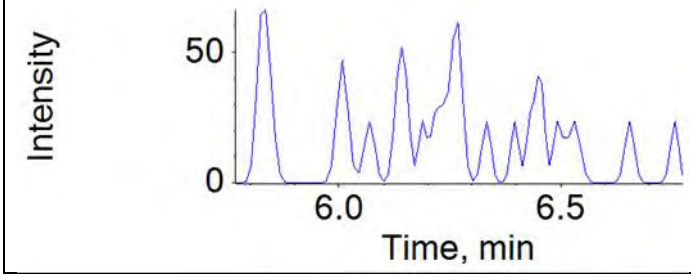


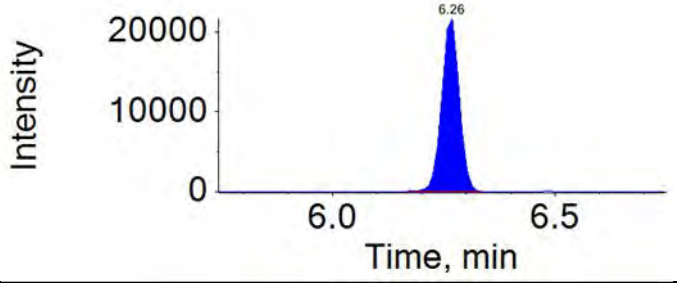
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





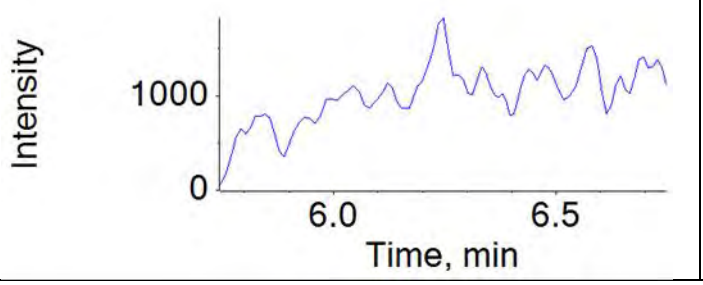
Analyte: NEtPFOSA	Extraction Standard: d5-NEtPFOSA
526.0 / 169.0	531.0 / 169.0

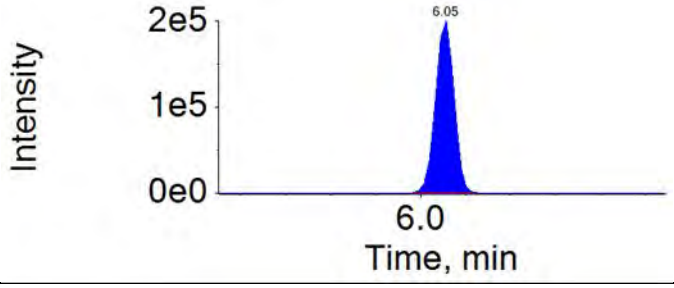




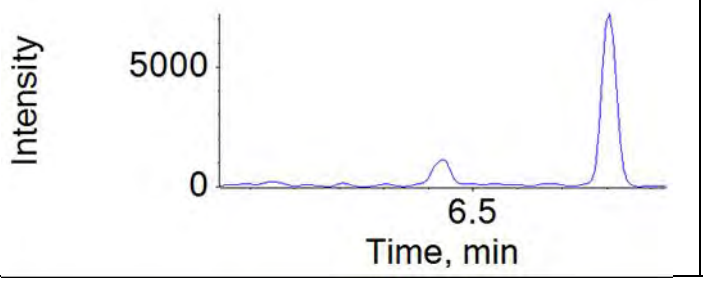
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/20/2018 8:36:28 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

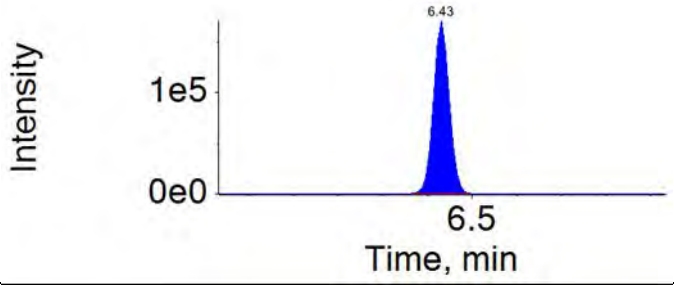
Analyte: PFTrDA	Extraction Standard: 13C2-PFDoDA
663.0 / 619.0	615.0 / 570.0



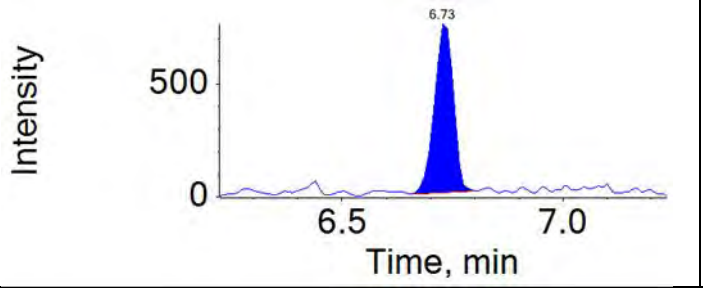


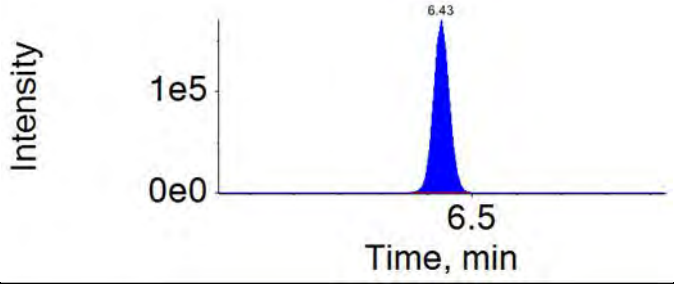
Analyte: PFTeDA	Extraction Standard: 13C2-PFTeDA
713.0 / 669.0	715.0 / 670.0



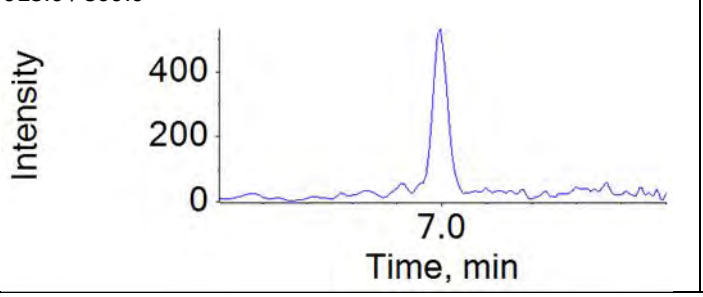


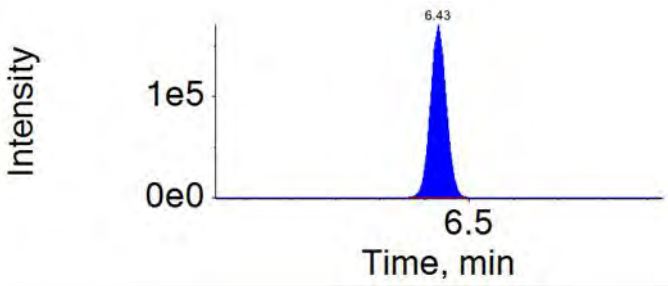
Analyte: PFHxDA	Extraction Standard: 13C2-PFTeDA
813.0 / 769.0	715.0 / 670.0





Analyte: PFODA	Extraction Standard: 13C2-PFTeDA
913.0 / 869.0	715.0 / 670.0





APPROVED
By JPT at 8:42 am, 11/20/18

REVIEWED
By HMK at 8:47 am, 11/20/18

Ion Ratio Report

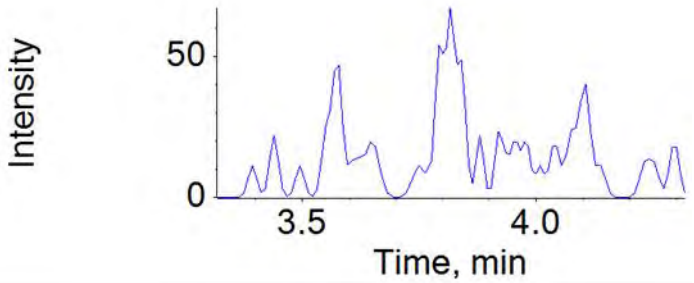
Sample Name: INBLK **Instrument Name:** LM27631 **File Name:** 18NOV12DCAL-49.wiff

Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	N/A	N/A	N/A	A	N/A	N/A			
PFBS_2	N/A	N/A	N/A	A	N/A	N/A		50	
4:2-FTS	N/A	N/A	N/A	A	N/A	N/A			
4:2 FTS_2	N/A	N/A	N/A	A	N/A	N/A		#NA!	
PFHxA	N/A	N/A	N/A	A	N/A	N/A			
PFHxA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFPeS	N/A	N/A	N/A	A	N/A	N/A			
PFPeS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFHpA	N/A	N/A	N/A	A	N/A	N/A			
PFHpA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFHxS	N/A	N/A	N/A	A	N/A	N/A			
PFHxS_2	N/A	N/A	N/A	A	N/A	N/A		50	
6:2-FTS	N/A	N/A	N/A	A	N/A	N/A			
6:2 FTS_2	N/A	N/A	N/A	A	N/A	N/A		#NA!	
PFHpS	N/A	N/A	N/A	A	N/A	N/A			
PFHpS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFOA	N/A	N/A	N/A	A	N/A	N/A			
PFOA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFOS	N/A	N/A	N/A	A	N/A	N/A			
PFOS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFNA	N/A	N/A	N/A	A	N/A	N/A			
PFNA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFNS	N/A	N/A	N/A	A	N/A	N/A			
PFNS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFDA	N/A	N/A	N/A	A	N/A	N/A			
PFDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
8:2-FTS	N/A	N/A	N/A	A	N/A	N/A			
8:2 FTS_2	N/A	N/A	N/A	A	N/A	N/A		#NA!	
NMeFOSAA	N/A	N/A	N/A	A	N/A	N/A			
NMeFOSAA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFDS	N/A	N/A	N/A	A	N/A	N/A			
PFDS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFUnDA	N/A	N/A	N/A	A	N/A	N/A			
PFUnDA_2	5.81	1.00	64.89	A	N/A	N/A		50	
NEtFOSAA	N/A	N/A	N/A	A	N/A	N/A			
NEtFOSAA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFDoDA	N/A	N/A	N/A	A	N/A	N/A			
PFDoDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
10:2-FTS	N/A	N/A	N/A	A	N/A	N/A			
10:2 FTS_2	N/A	N/A	N/A	A	N/A	N/A		#NA!	
PFTrDA	N/A	N/A	N/A	A	N/A	N/A			
PFTrDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFTeDA	N/A	N/A	N/A	A	N/A	N/A			
PFTeDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFHxDA	6.73	1.05	2221.67	A	N/A	1.0000			
PFHxDA_2	6.74	1.05	133.29	A	N/A	0.0600	-11	50	
PFODA	N/A	N/A	N/A	A	N/A	N/A			
PFODA_2	N/A	N/A	N/A	A	N/A	N/A		50	

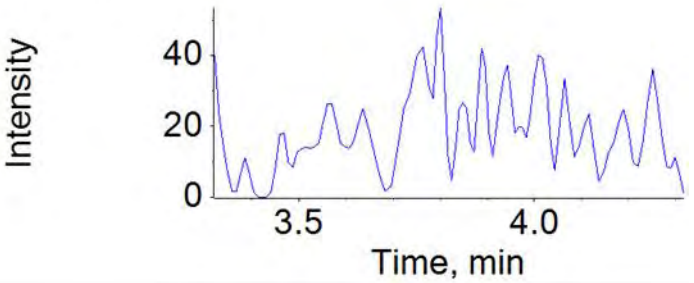
APPROVED
By JPT at 8:42 am, 11/20/18

REVIEWED
By HMK at 8:47 am, 11/20/18

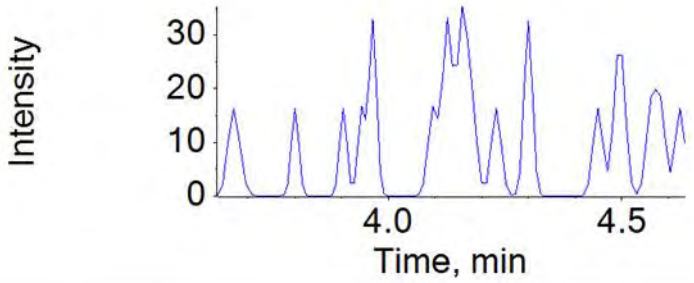
Component: PFBS
Primary Mass: 299.0 / 80.0



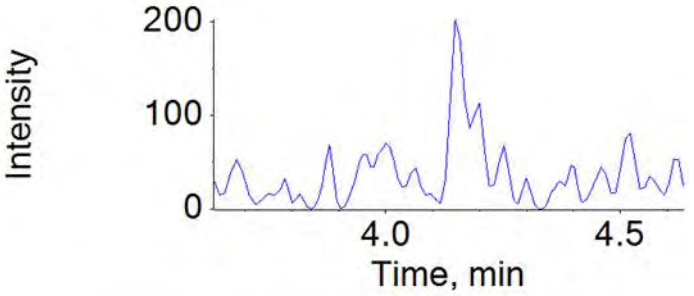
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



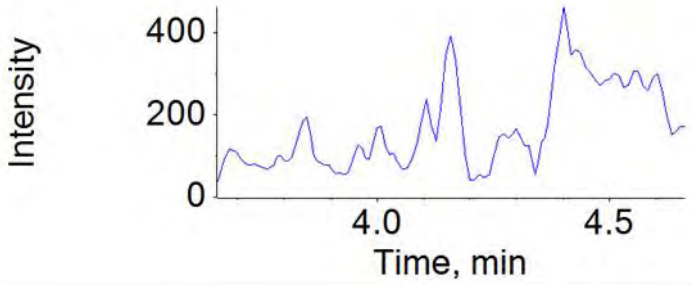
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



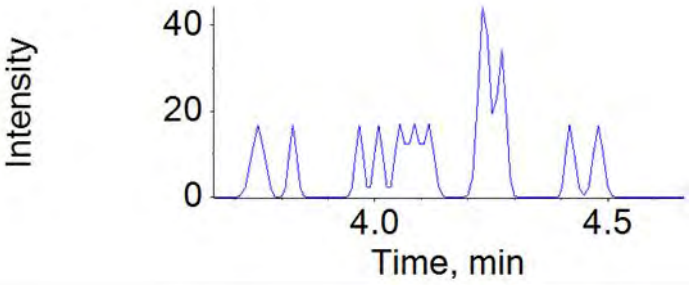
Component: 4:2 FTS_2
Secondary Mass: 327.0 / 81.0



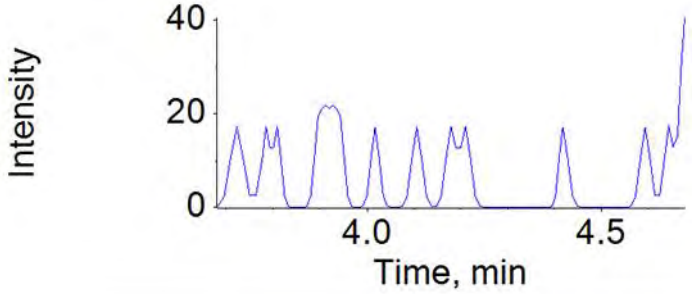
Component: PFHxA
Primary Mass: 313.0 / 269.0



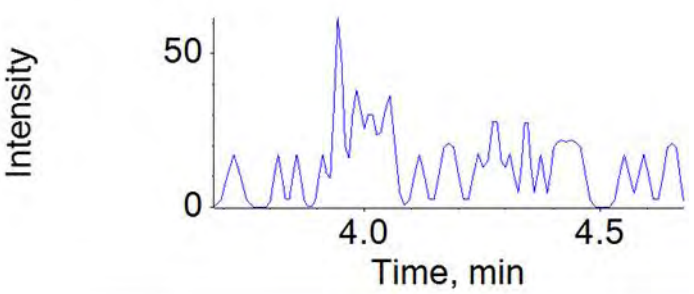
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



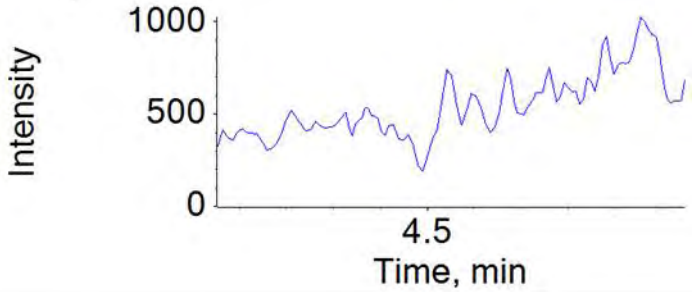
Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



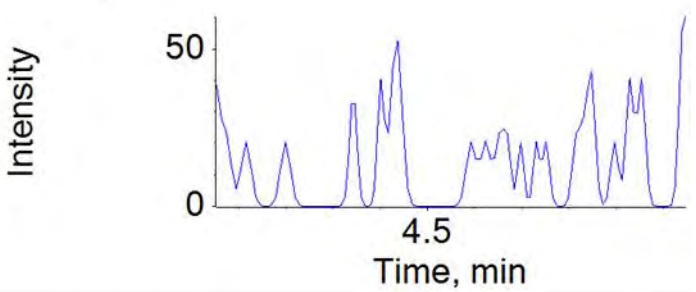
APPROVED
By JPT at 8:42 am, 11/20/18

REVIEWED
By HMK at 8:47 am, 11/20/18

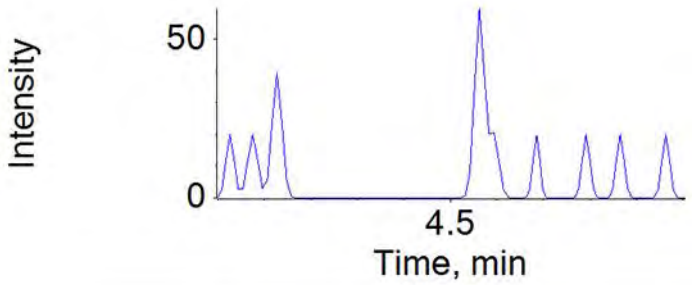
Component: PFHpA
Primary Mass: 363.0 / 319.0



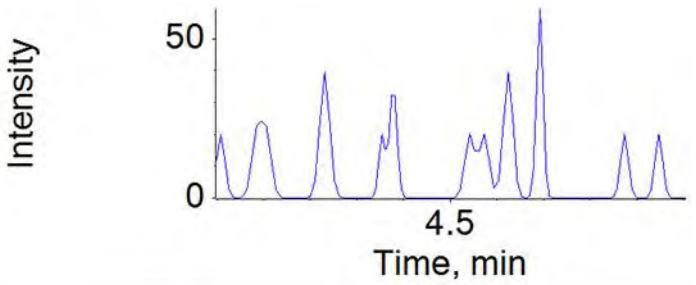
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



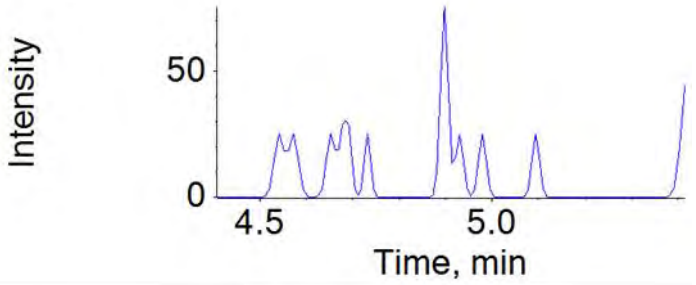
Component: PFHxS
Primary Mass: 399.0 / 80.0



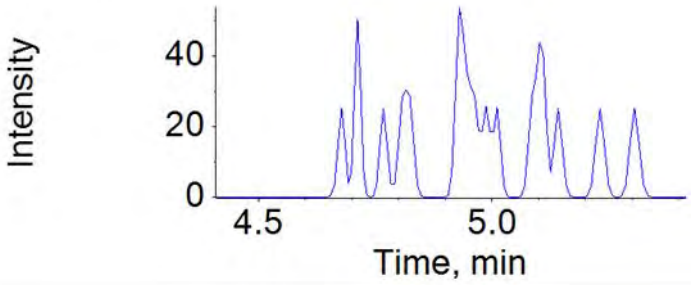
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



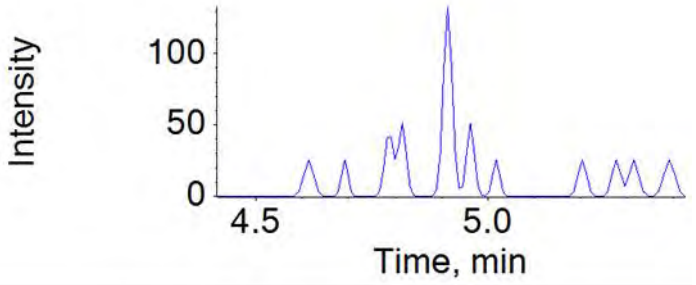
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



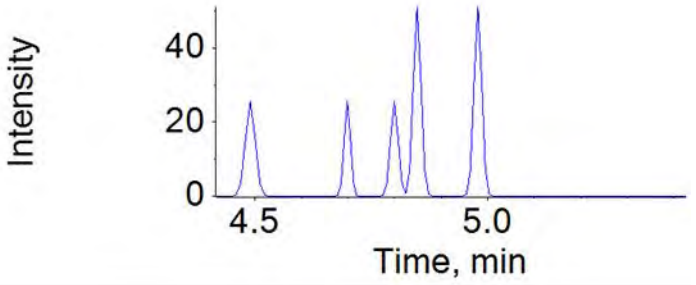
Component: 6:2 FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



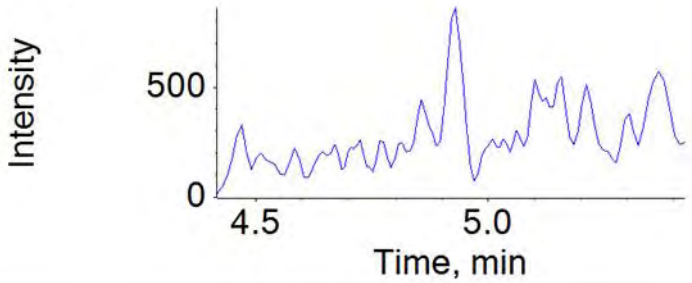
Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



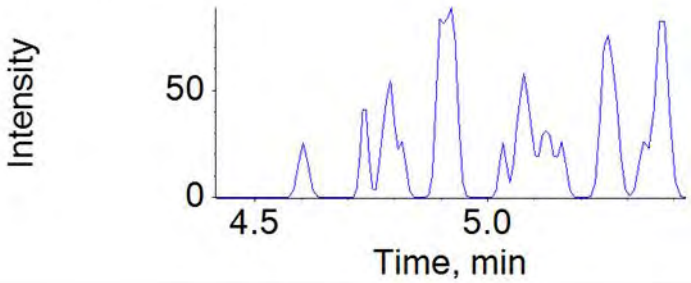
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By HMK at 8:47 am, 11/20/18

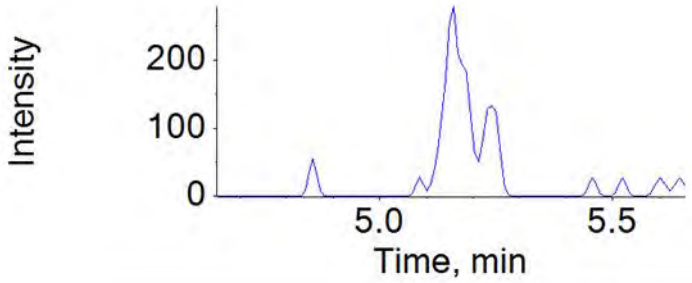
Component: PFOA
Primary Mass: 413.0 / 369.0



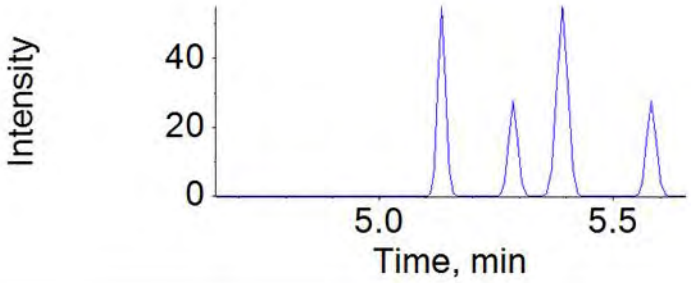
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



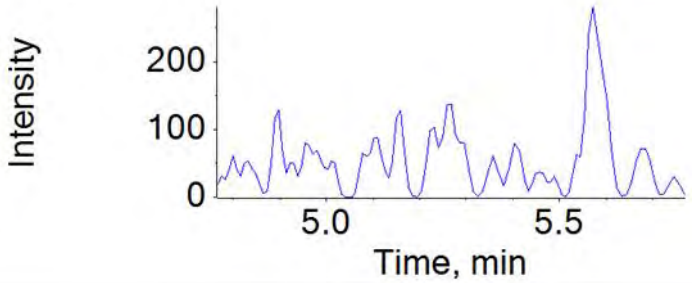
Component: PFOS
Primary Mass: 499.0 / 80.0



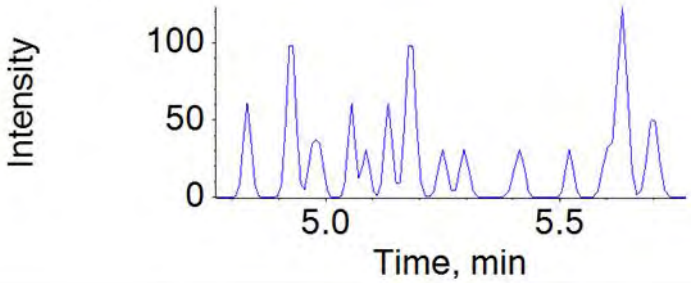
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



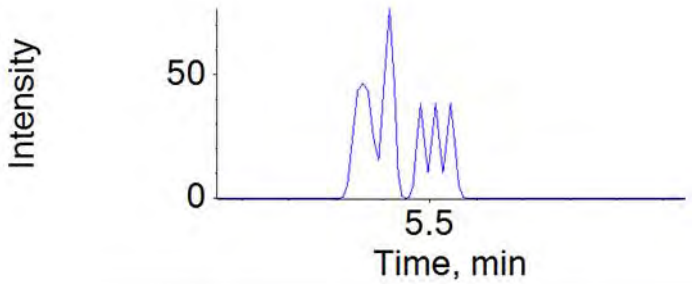
Component: PFNA
Primary Mass: 463.0 / 419.0



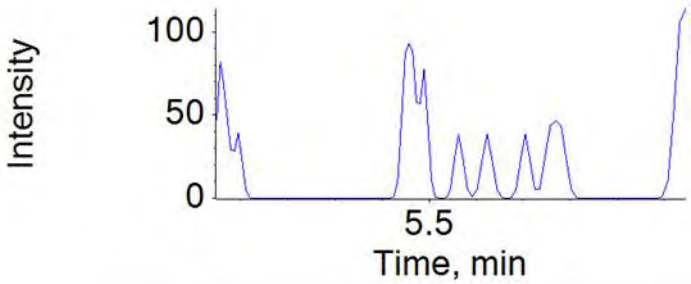
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



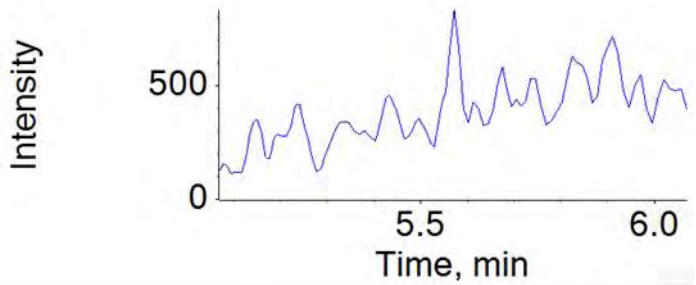
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



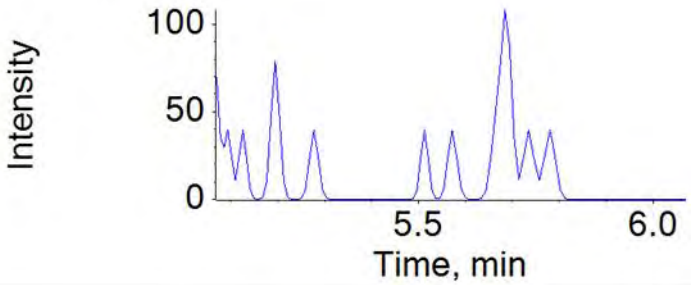
APPROVED
By JPT at 8:42 am, 11/20/18

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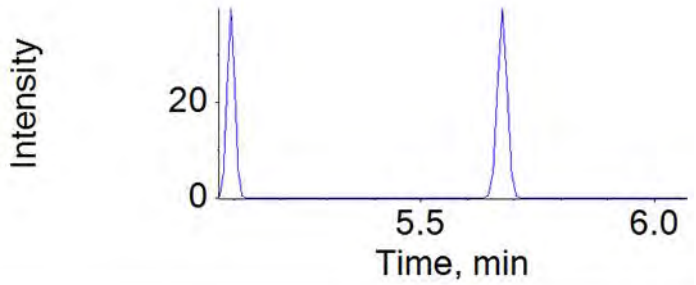
Component: PFDA
Primary Mass: 513.0 / 469.0



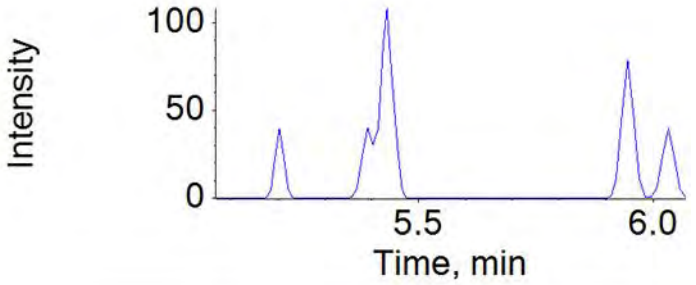
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



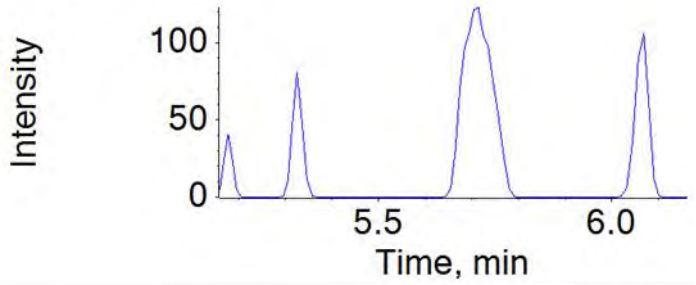
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



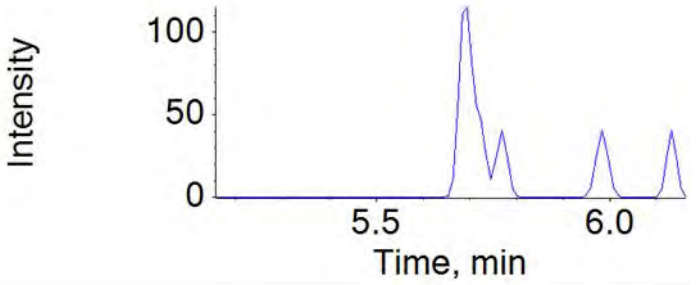
Component: 8:2 FTS_2
Secondary Mass: 527.0 / 81.0



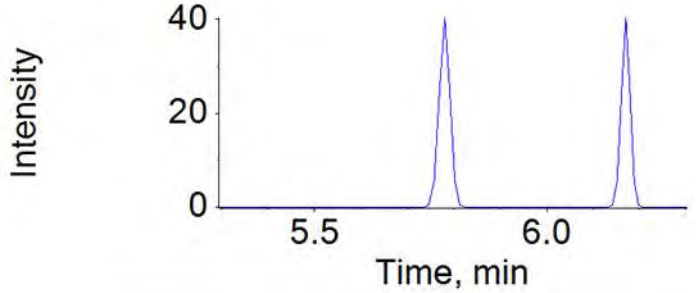
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



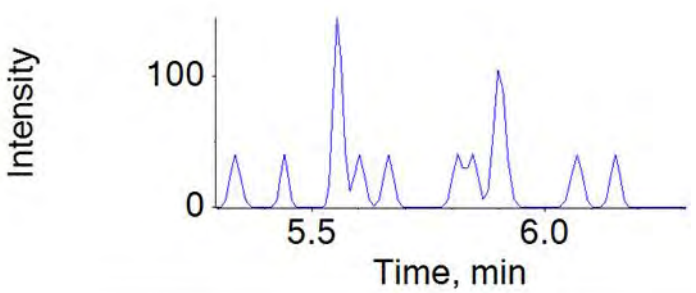
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



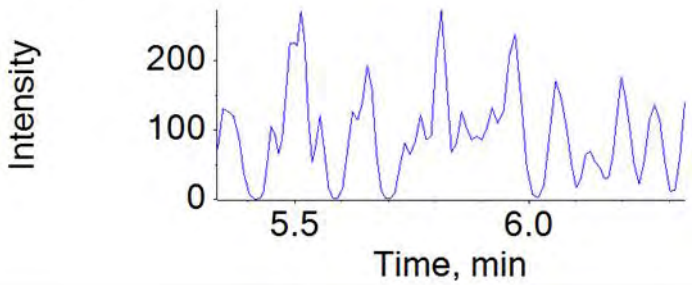
Component: PFDS_2
Secondary Mass: 599.0 / 99.0



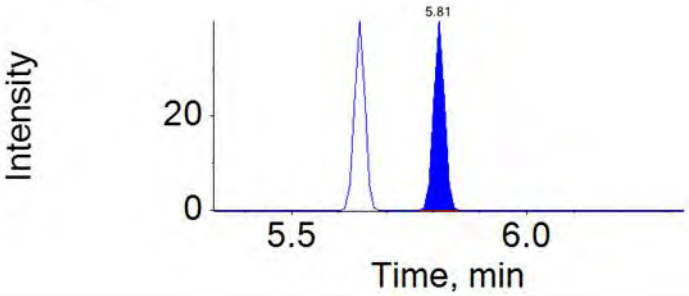
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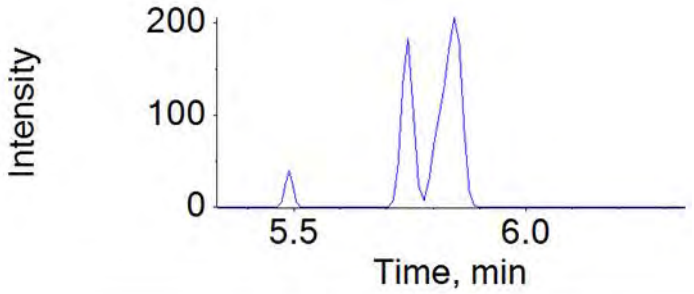
Component: PFUnDA
Primary Mass: 563.0 / 519.0



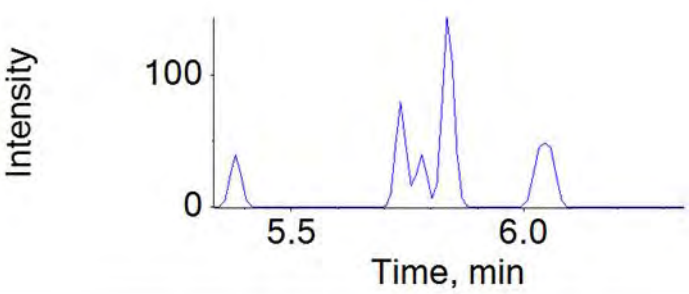
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



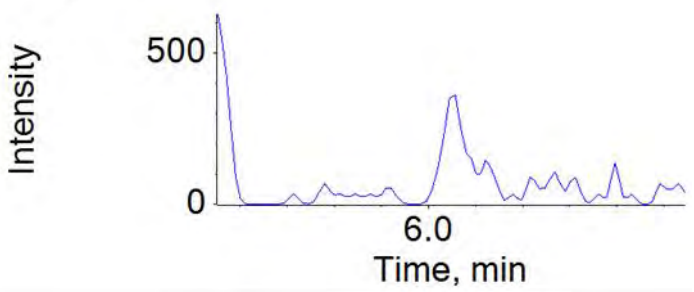
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



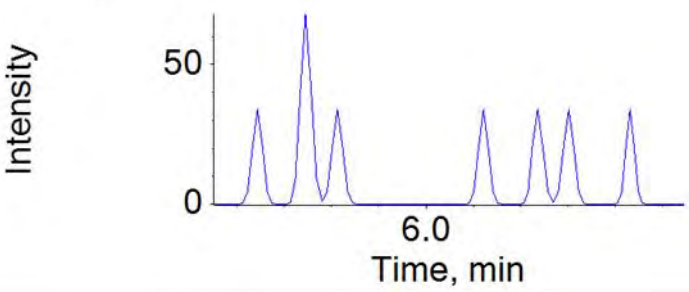
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Secondary Mass: 584.0 / 526.0



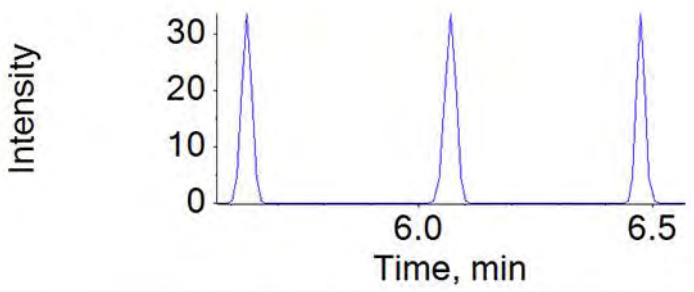
Component: PFDoDA
Primary Mass: 613.0 / 569.0



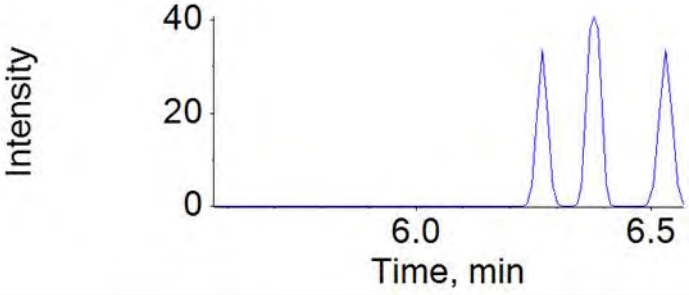
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



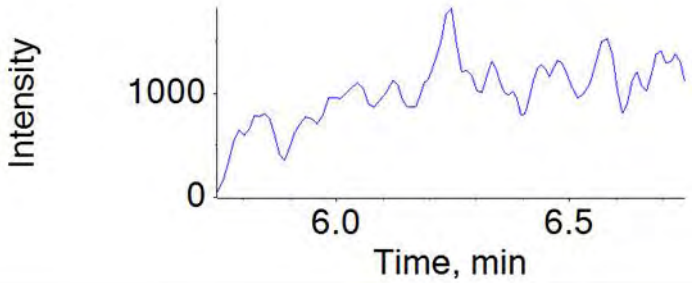
Component: 10:2 FTS_2
Secondary Mass: 627.0 / 81.0



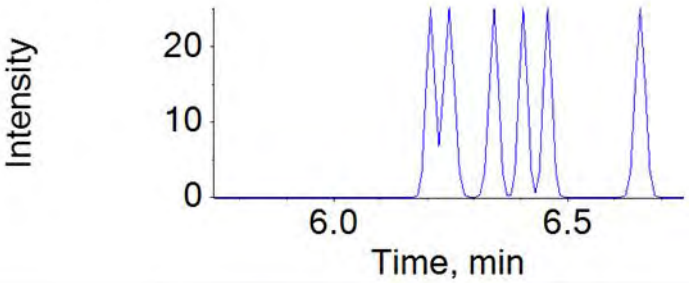
APPROVED
By JPT at 8:42 am, 11/20/18

REVIEWED
By HMK at 8:47 am, 11/20/18

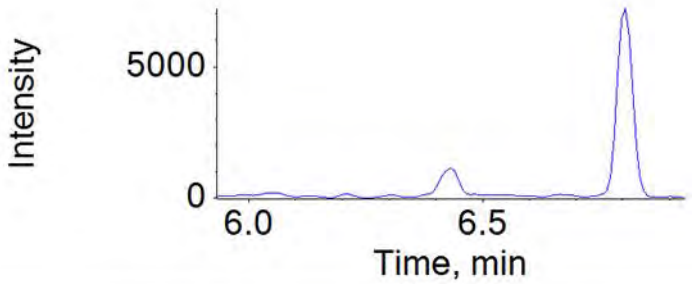
Component: PFTrDA
Primary Mass: 663.0 / 619.0



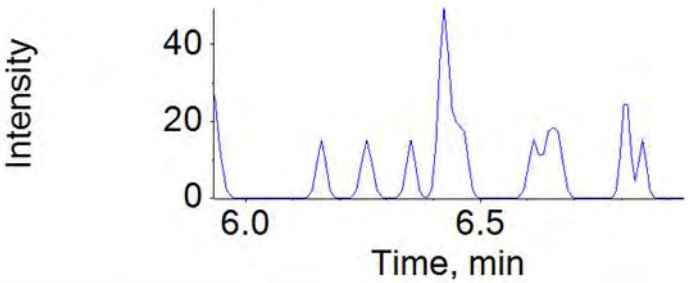
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



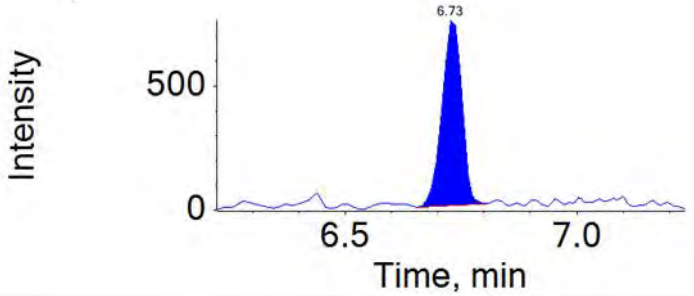
Component: PFTeDA
Primary Mass: 713.0 / 669.0



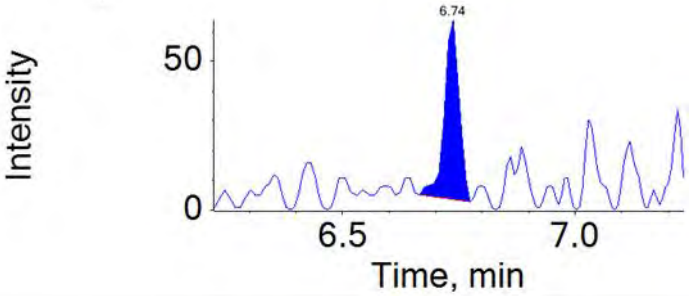
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



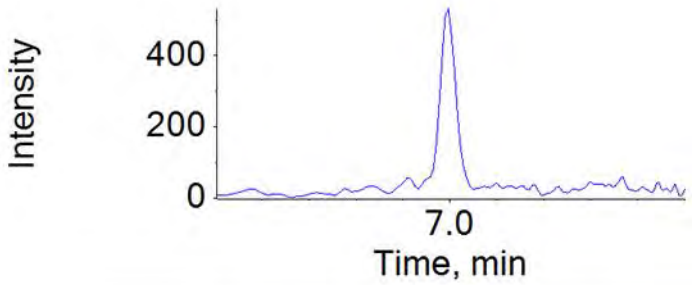
Component: PFHxDA
Primary Mass: 813.0 / 769.0



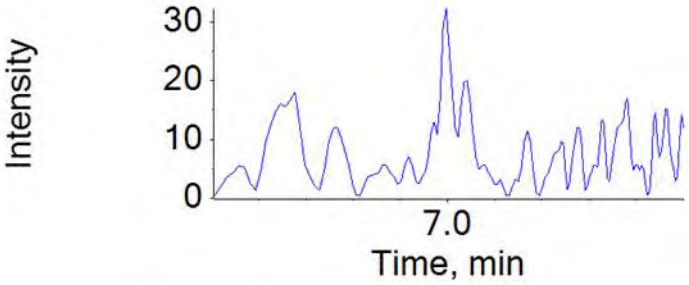
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



APPROVED
By JPT at 8:42 am, 11/20/18

REVIEWED
By HMK at 8:47 am, 11/20/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL_Updated 1/10/2019 3:19:00 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Sample Name:	ICV			**Data File:**		18NOV12DCAL-50.wiff
Sample ID:	ICVMODX1833G			**Acquis Date:**		2018-11-12T16:18:11
Sample Type:	Quality Control			**Instrument:**		LM27631
Vial Position:	10			**Acquis Method:**		18AUG13_3uL.dam
Injection Vol:	3.00			**Result Table:**		18NOV12DCAL_Updated
QMethod File:	18AUG20QM			**ICAL Name:**		18NOV12DCAL
Batch Number:	N\A			**Operator:**		MCD7824
Sample Wt.:	1.00000			**Dilution Factor:**		1.00
Sample Vol.:	1.000			**Prep Factor:**		1.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV12DCAL-44

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Rreference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	655209.3	659926.2	-1	50	
13C2-PFOA	5.0	452726.2	450219.7	1	50	
13C4-PFOS	4.8	253010.3	249205.8	2	50	
13C2-PFDA	5.0	277002.7	278743.9	-1	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	715834.4	13C3-PFBA	655209.3	1.093	5.000	4.898	98	70-130	
E13C5-PFPeA	699482.2	13C3-PFBA	655209.3	1.068	5.000	4.788	96	70-130	
E13C3-PFBS	394903.4	13C3-PFBA	655209.3	0.603	4.650	4.255	91	70-130	
E13C2-4:2-FTS	47297.3	13C2-PFOA	452726.2	0.104	4.670	4.653	100	70-130	
E13C5-PFHxA	613579.4	13C2-PFOA	452726.2	1.355	5.000	4.896	98	70-130	
E13C3-PFHxS	304897.8	13C2-PFOA	452726.2	0.673	4.730	4.621	98	70-130	
E13C4-PFHpA	485394.9	13C2-PFOA	452726.2	1.072	5.000	4.830	97	70-130	
E13C2-6:2-FTS	31532.8	13C2-PFOA	452726.2	0.070	4.750	4.660	98	70-130	
E13C8-PFOA	843573.3	13C2-PFOA	452726.2	1.863	5.000	5.134	103	70-130	
E13C8-PFOS	266211.4	13C4-PFOS	253010.3	1.052	4.780	4.662	98	70-130	
E13C9-PFNA	458821.5	13C4-PFOS	253010.3	1.813	5.000	5.056	101	70-130	
E13C6-PFDA	590290.3	13C2-PFDA	277002.7	2.131	5.000	4.973	99	70-130	
E13C2-8:2-FTS	22188.9	13C2-PFDA	277002.7	0.080	4.790	3.995	83	70-130	
E13C8-PFOSA	587080.1	13C2-PFDA	277002.7	2.119	5.000	4.699	94	70-130	
Ed3-NMeFOSAA	70133.2	13C2-PFDA	277002.7	0.253	5.000	4.570	91	70-130	
E13C7-PFUnDA	228363.9	13C2-PFDA	277002.7	0.824	5.000	4.786	96	70-130	
Ed5-NEtFOSAA	59551.3	13C2-PFDA	277002.7	0.215	5.000	4.548	91	70-130	
E13C2-PFDoDA	495858.1	13C2-PFDA	277002.7	1.790	5.000	4.648	93	70-130	
Ed7-NMePFOSAE	299185.4	13C2-PFDA	277002.7	1.080	5.000	4.674	93	70-130	
Ed3-NMePFOSA	75186.9	13C2-PFDA	277002.7	0.271	5.000	4.931	99	70-130	
Ed9-NEtPFOSAE	255149.8	13C2-PFDA	277002.7	0.921	5.000	4.791	96	70-130	
Ed5-NEtPFOSA	53596.2	13C2-PFDA	277002.7	0.193	5.000	4.539	91	70-130	
E13C2-PFTeDA	365300.2	13C2-PFDA	277002.7	1.319	5.000	4.630	93	70-130	

APPROVED
By MCD at 3:23 pm, 1/10/19

REVIEWED
By ucmr at 3:21 pm, 1/25/19

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL_Updated 1/10/2019 3:19:00 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

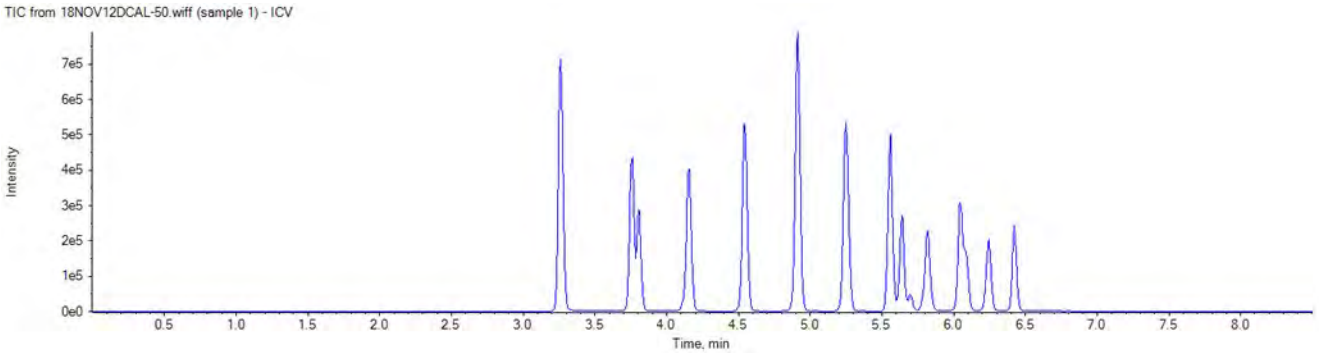
Analyte Quantitation Peak Table

Sample Name: ICV **Instrument Name:** LM27631 **File Name:** 18NOV12DCAL-50.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	1.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	3.26	1.000	270820.6		A	13C4-PFBA	3.26	715834.4	0.378	2.096
PFPeA	3.76	1.000	265646.8		A	13C5-PFPeA	3.76	699482.2	0.380	2.198
PFBS	3.80	1.000	150059.6		A	13C3-PFBS	3.81	394903.4	0.380	1.808
4:2-FTS	N/A	N/A	N/A		A	13C2-4:2-FTS	4.12	47297.3	N/A	
PFHxA	4.15	1.000	328694.3		A	13C5-PFHxA	4.15	613579.4	0.536	2.237
PFPeS	N/A	N/A	N/A		A	13C3-PFBS	3.81	394903.4	N/A	
PFHpA	4.54	1.000	316975.3		A	13C4-PFHpA	4.54	485394.9	0.653	2.165
PFHxS	4.55	1.000	115564.2		A	13C3-PFHxS	4.55	304897.8	0.379	1.838
6:2-FTS	N/A	N/A	N/A		A	13C2-6:2-FTS	4.90	31532.8	N/A	
PFHpS	4.91	1.080	118318.7		A	13C3-PFHxS	4.55	304897.8	0.388	2.043
PFOA	4.91	1.000	332094.4		A	13C8-PFOA	4.91	843573.3	0.394	2.103
PFOS	5.24	1.000	100952.5		M	13C8-PFOS	5.24	266211.4	0.379	1.658
PFNA	5.26	1.000	271240.4		A	13C9-PFNA	5.26	458821.5	0.591	2.132
PFNS	N/A	N/A	N/A		A	13C8-PFOS	5.24	266211.4	N/A	
PFDA	5.56	1.000	224279.7		A	13C6-PFDA	5.56	590290.3	0.380	2.014
8:2-FTS	N/A	N/A	N/A		A	13C2-8:2-FTS	5.56	22188.9	N/A	
PFOSA	N/A	N/A	N/A		A	13C8-PFOSA	5.64	587080.1	N/A	
NMeFOSAA	5.70	1.000	30591.9		A	d3-NMeFOSAA	5.70	70133.2	0.436	2.465
PFDS	5.79	1.110	52860.9		M	13C8-PFOS	5.24	266211.4	0.199	1.799
PFUnDA	5.82	1.000	183511.3		A	13C7-PFUnDA	5.82	228363.9	0.804	2.101
NEtFOSAA	5.83	1.000	26149.3		A	d5-NEtFOSAA	5.83	59551.3	0.439	2.302
PFDoDA	6.05	1.000	185295.0		A	13C2-PFDoDA	6.05	495858.1	0.374	1.903
10:2-FTS	N/A	N/A	N/A		A	13C2-8:2-FTS	5.56	22188.9	N/A	
NMePFOSAE	N/A	N/A	N/A		A	d7-NMePFOSAE	6.08	299185.4	N/A	
NMePFOSA	N/A	N/A	N/A		A	d3-NMePFOSA	6.10	75186.9	N/A	
PFDoS	N/A	N/A	N/A		A	13C8-PFOS	5.24	266211.4	N/A	
NEtPFOSAE	N/A	N/A	N/A		A	d9-NEtPFOSAE	6.24	255149.8	N/A	
NEtPFOSA	N/A	N/A	N/A		A	d5-NEtPFOSA	6.26	53596.2	N/A	
PFTrDA	6.25	1.030	165153.1		A	13C2-PFDoDA	6.05	495858.1	0.333	2.102
PFTeDA	6.42	1.000	135651.0		A	13C2-PFTeDA	6.42	365300.2	0.371	2.082
PFHxDA	N/A	N/A	N/A		A	13C2-PFTeDA	6.42	365300.2	N/A	
PFODA	N/A	N/A	N/A		A	13C2-PFTeDA	6.42	365300.2	N/A	

Total Ion Chromatogram

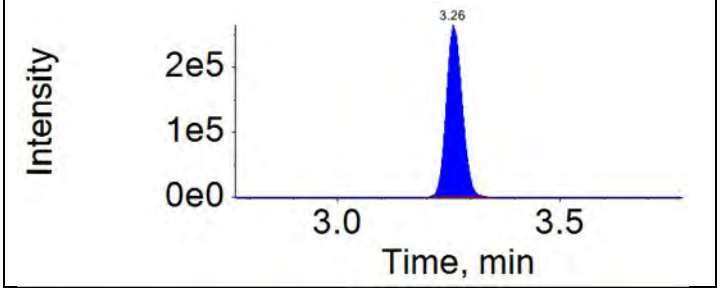


APPROVED
By MCD at 3:23 pm, 1/10/19

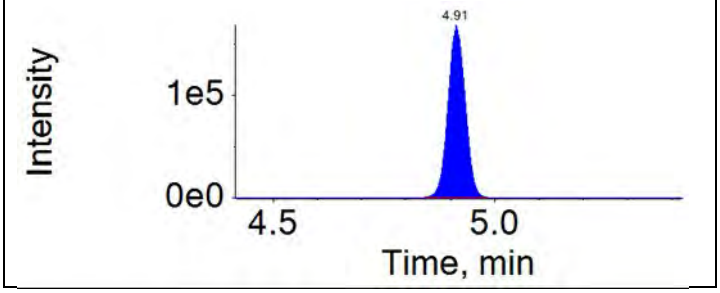
REVIEWED
By ucmr at 3:21 pm, 1/25/19

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL_Updated 1/10/2019 3:19:00 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

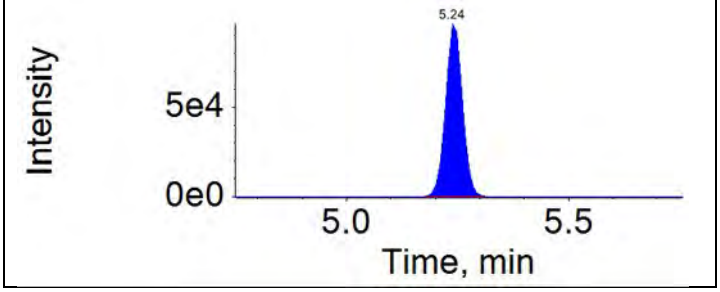
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216.0 / 172.0



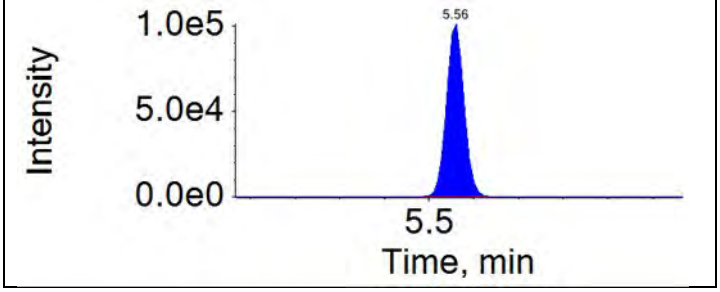
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0

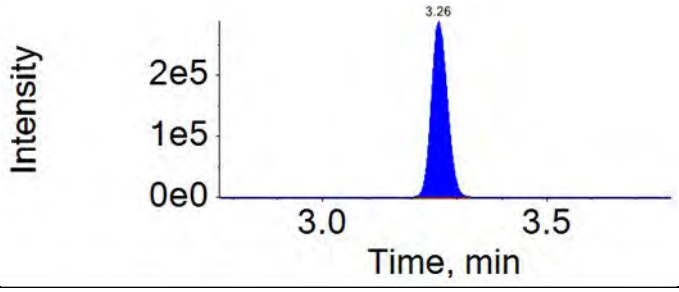


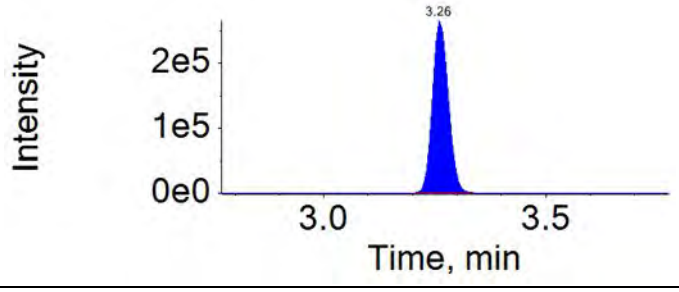
Injection Standard: 13C2-PFDA
515.0 / 470.0



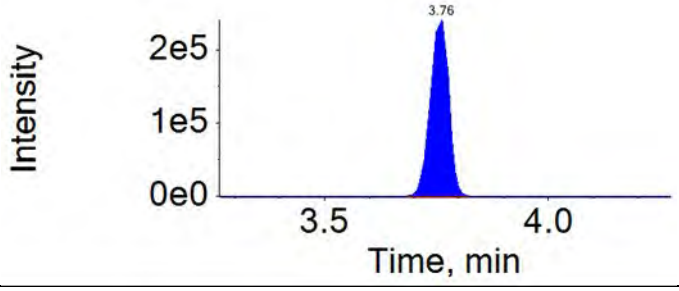
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL_Updated 1/10/2019 3:19:00 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

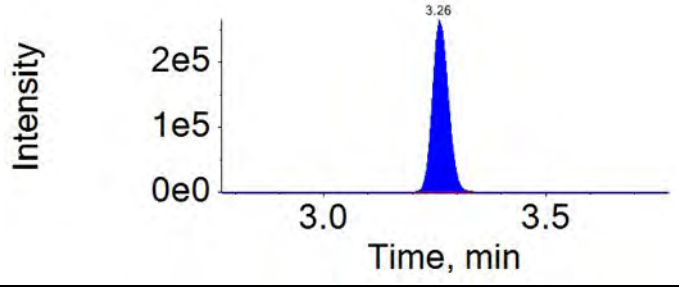
Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0



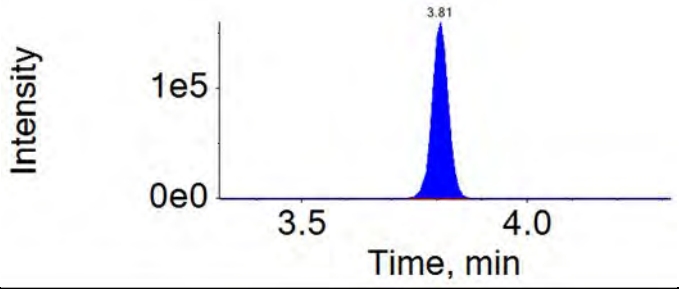


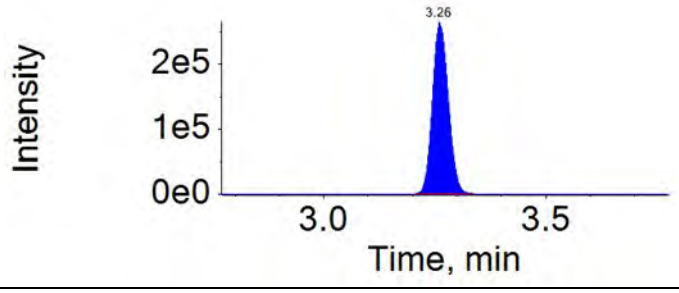
Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0



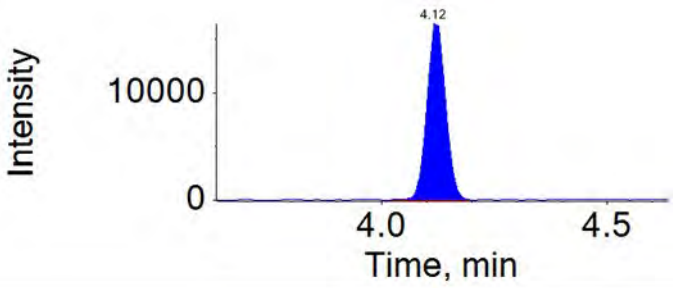


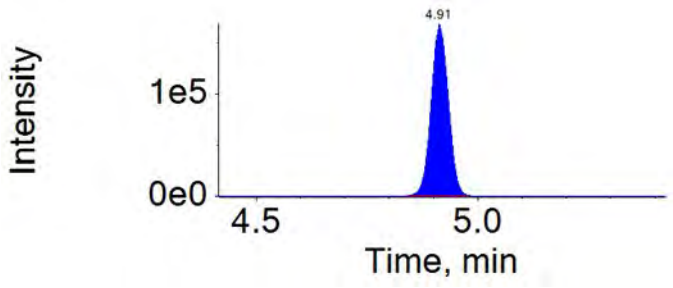
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0





Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0



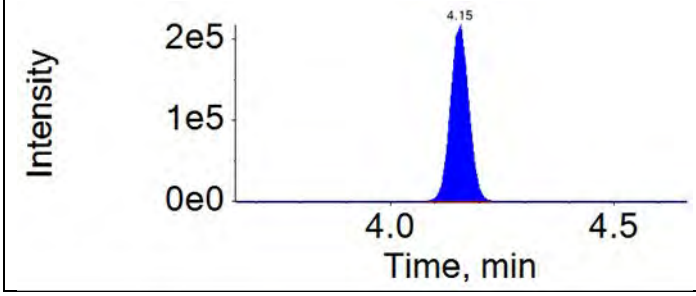


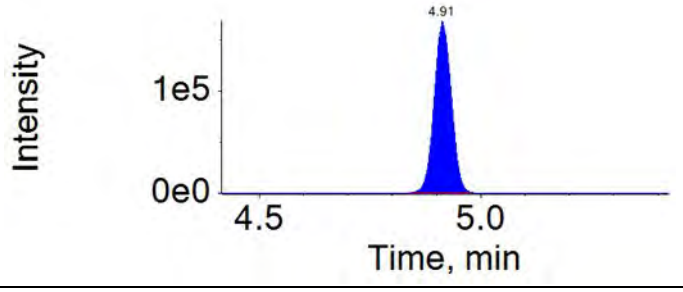
APPROVED
By MCD at 3:23 pm, 1/10/19

REVIEWED
By ucmr at 3:21 pm, 1/25/19

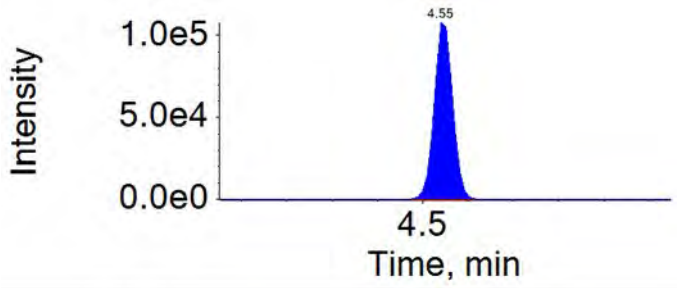
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL_Updated 1/10/2019 3:19:00 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

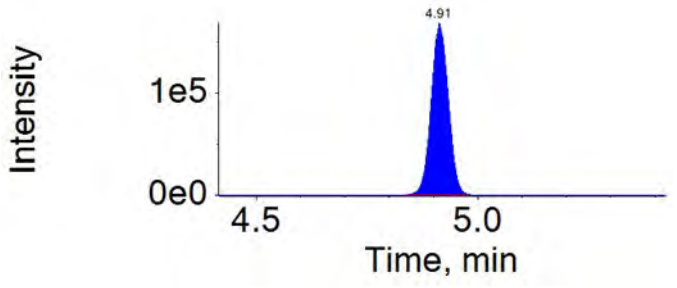
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318.0 / 273.0	415.0 / 370.0



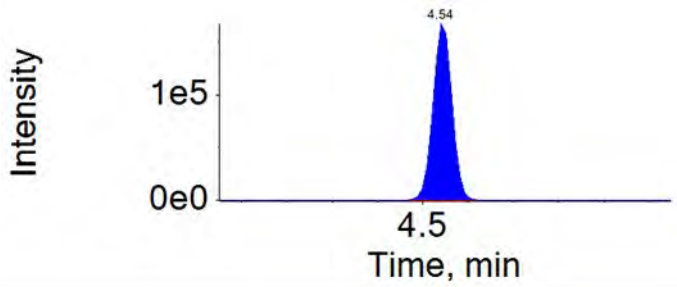


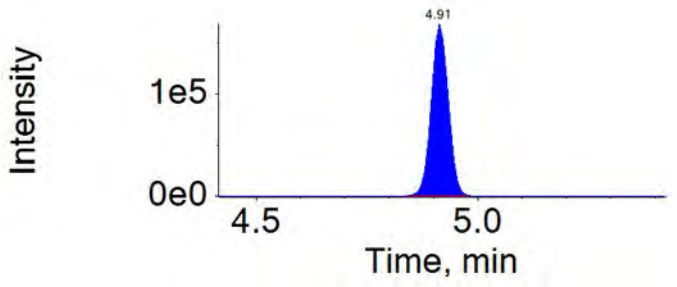
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0



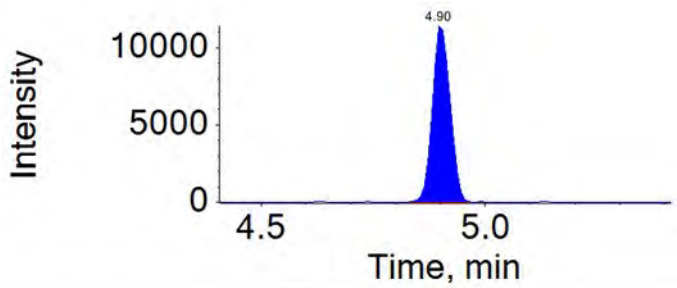


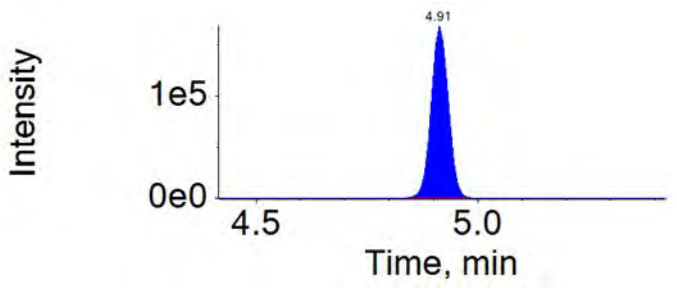
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0





Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0



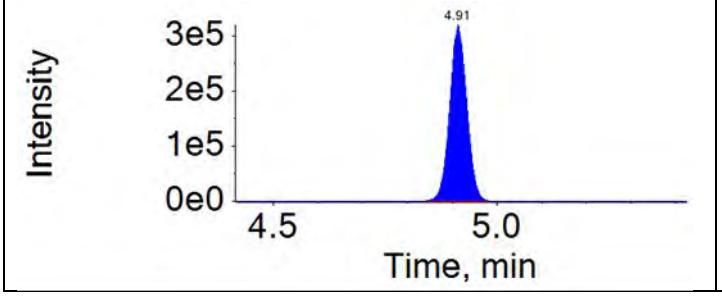


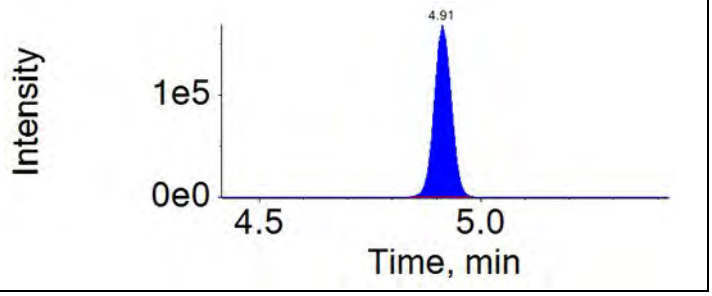
APPROVED
By MCD at 3:23 pm, 1/10/19

REVIEWED
By ucmr at 3:21 pm, 1/25/19

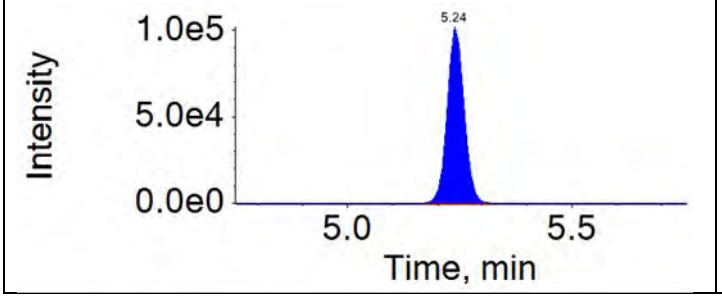
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL_Updated 1/10/2019 3:19:00 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

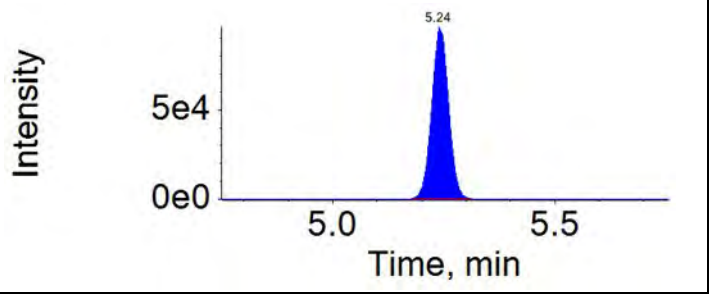
Extraction Standard: E13C8-PFOA	Injection Standard: 13C2-PFOA
421.0 / 376.0	415.0 / 370.0



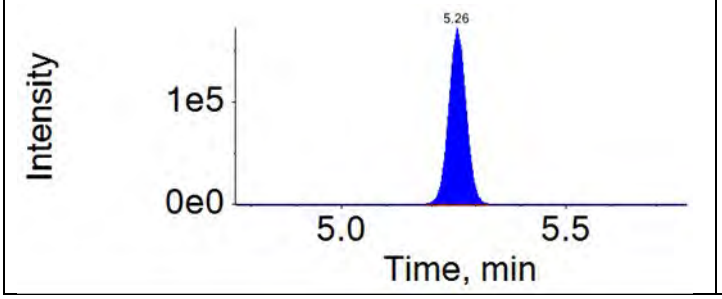


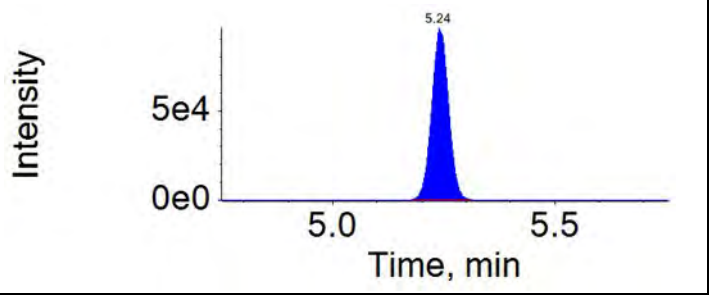
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507.0 / 80.0	503.0 / 80.0



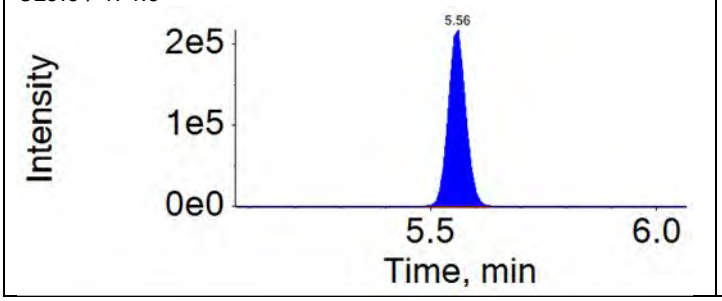


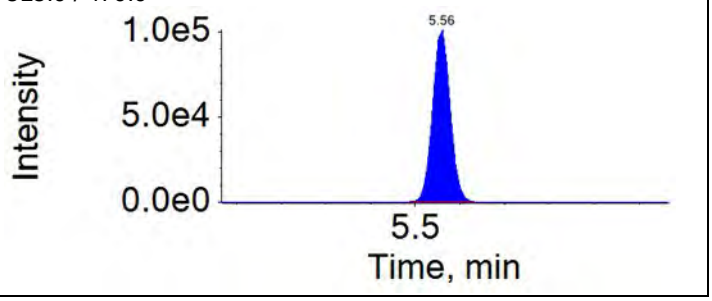
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0





Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0



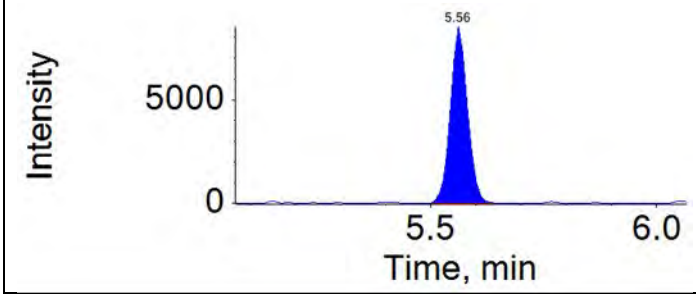


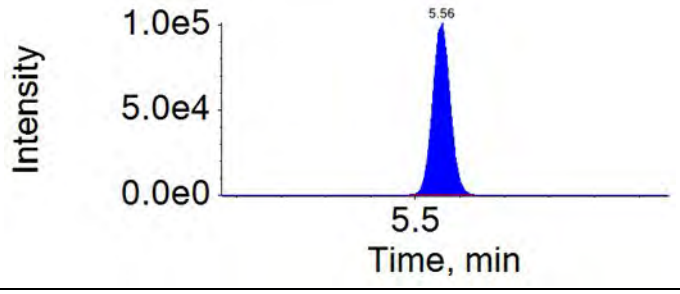
APPROVED
By MCD at 3:23 pm, 1/10/19

REVIEWED
By ucmr at 3:21 pm, 1/25/19

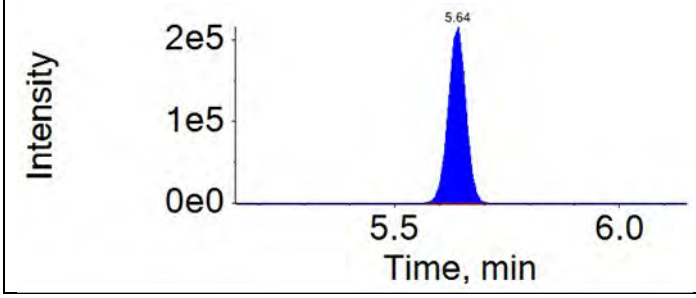
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL_Updated 1/10/2019 3:19:00 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

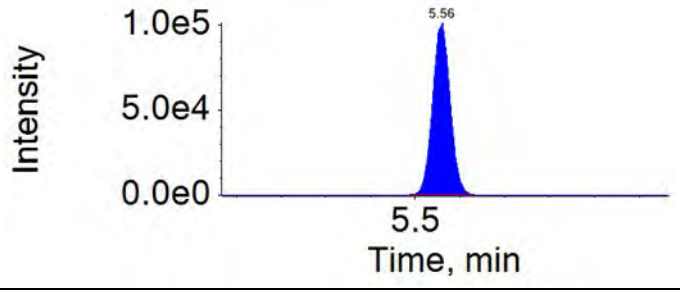
Extraction Standard: E13C2-8:2-FTS	Injection Standard: 13C2-PFDA
529.0 / 81.0	515.0 / 470.0



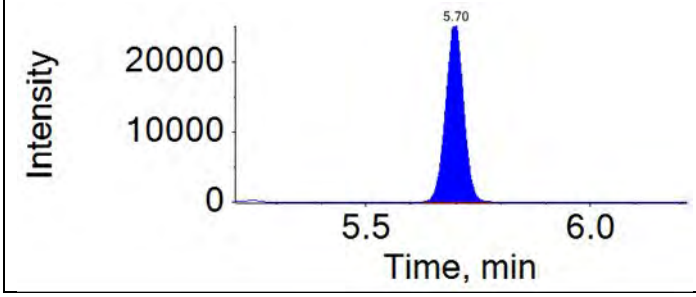


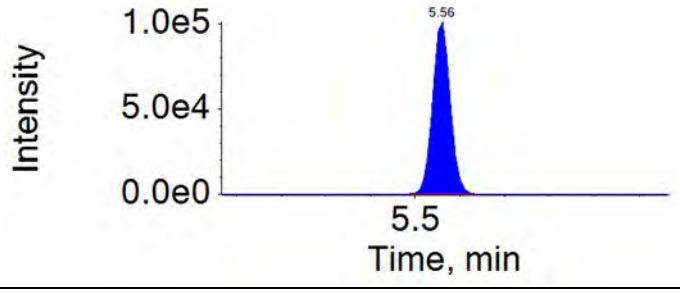
Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0



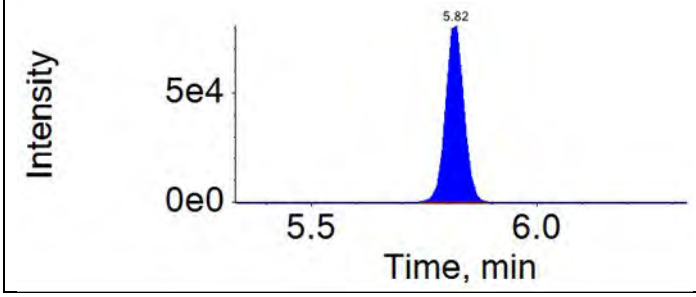


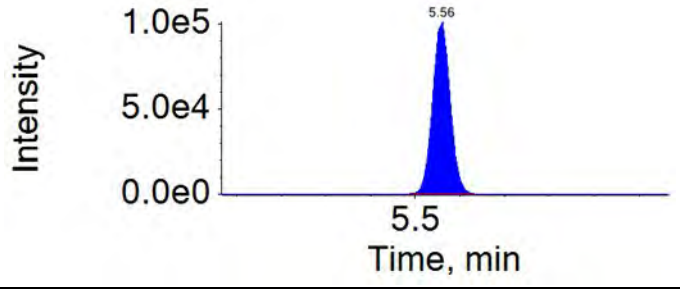
Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0





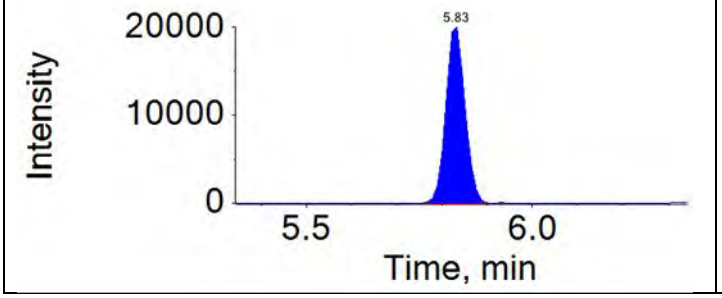
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570.0 / 525.0	515.0 / 470.0

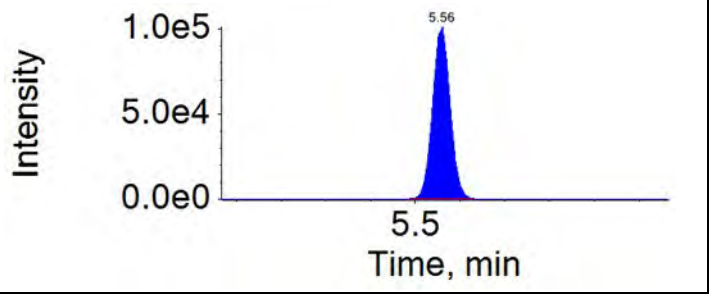




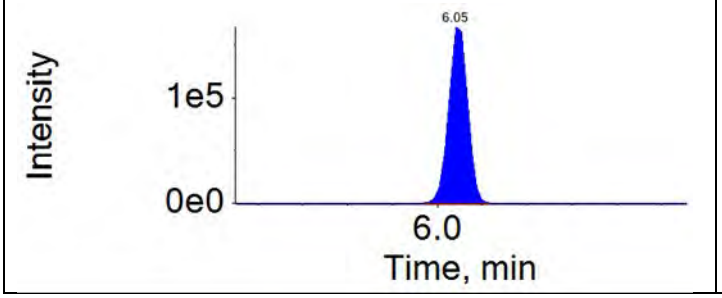
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL_Updated 1/10/2019 3:19:00 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

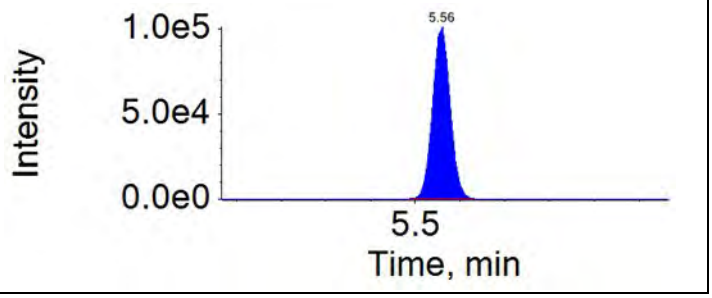
Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0



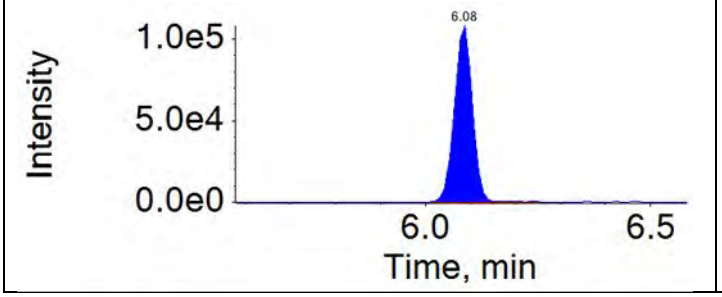


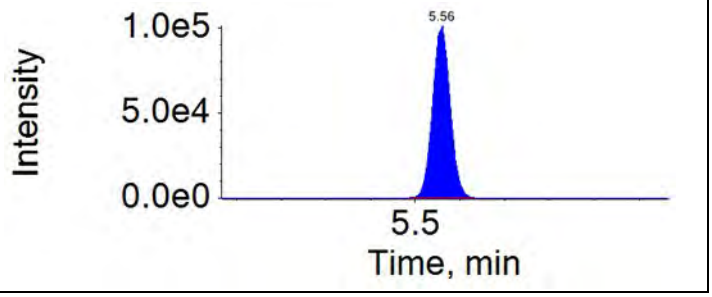
Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0



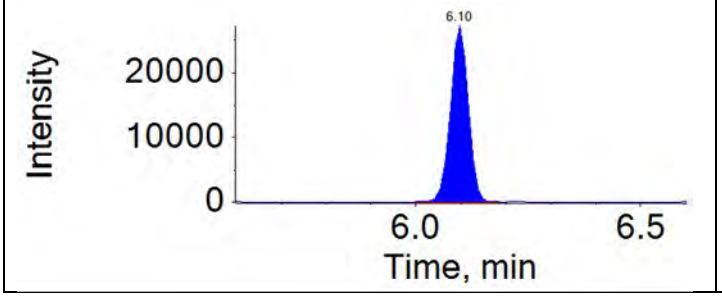


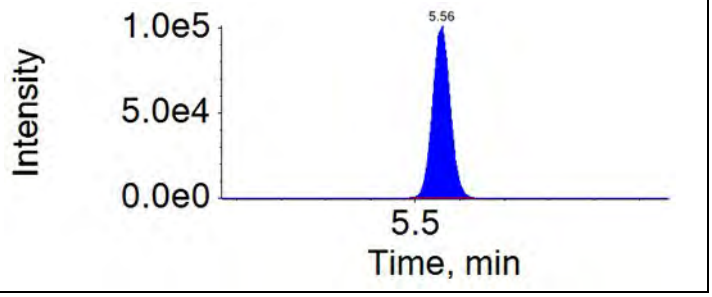
Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0





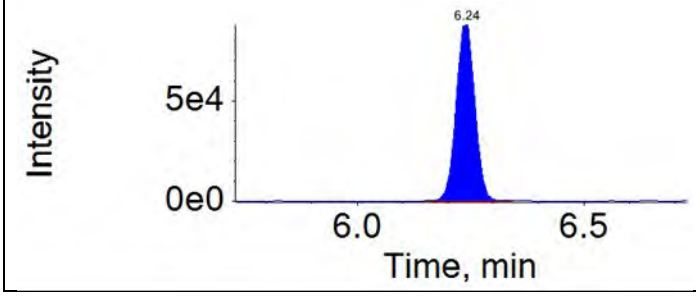
Extraction Standard: Ed3-NMePFOSA	Injection Standard: 13C2-PFDA
515.0 / 169.0	515.0 / 470.0

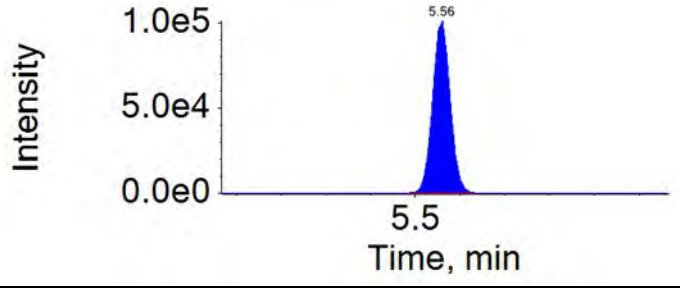




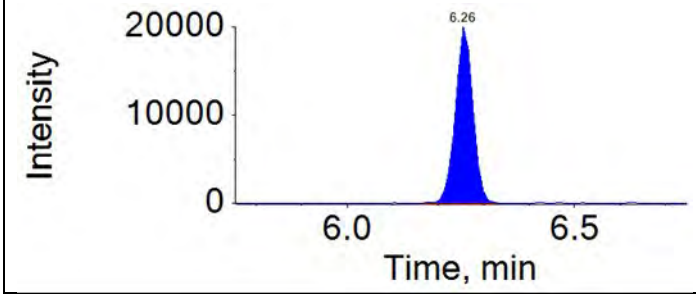
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QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

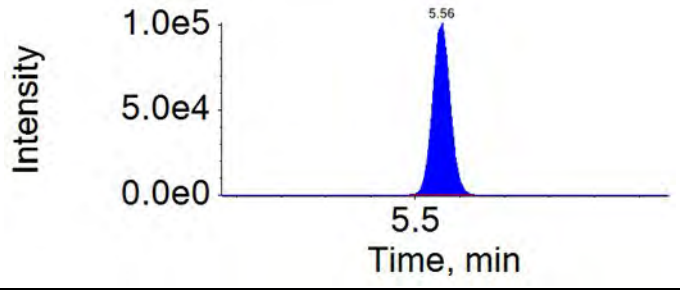
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



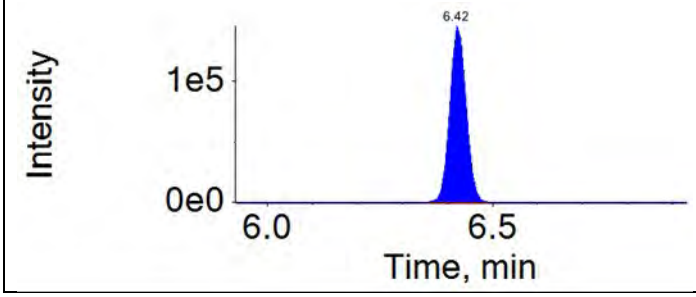


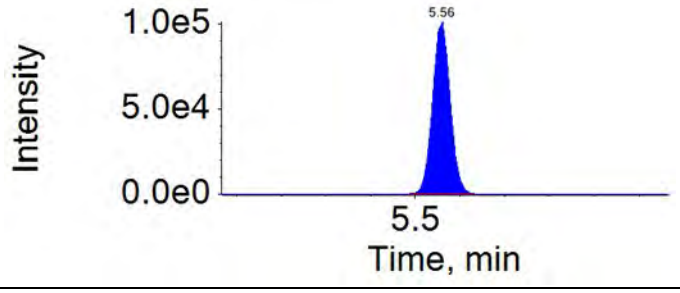
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0



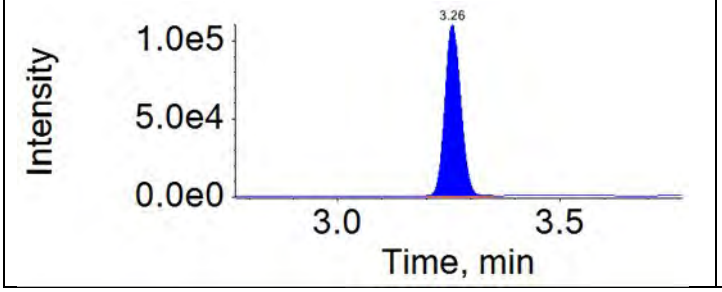


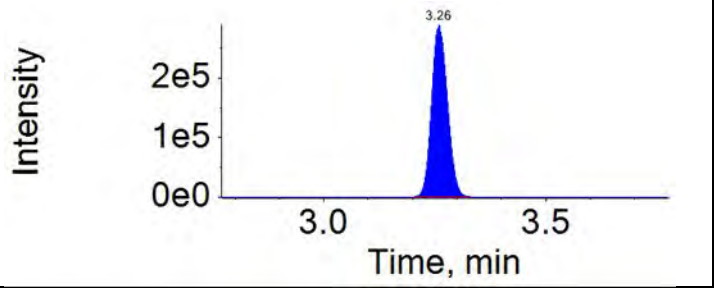
APPROVED
By MCD at 3:23 pm, 1/10/19

REVIEWED
By ucmr at 3:21 pm, 1/25/19

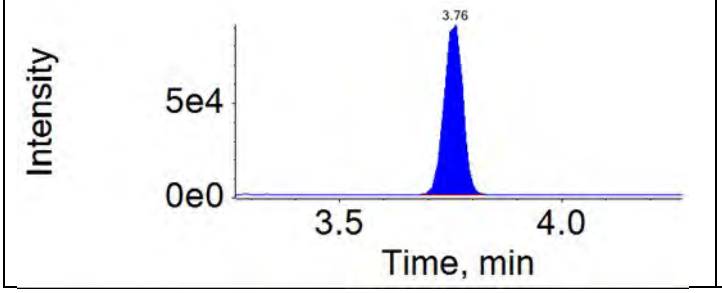
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL_Updated 1/10/2019 3:19:00 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

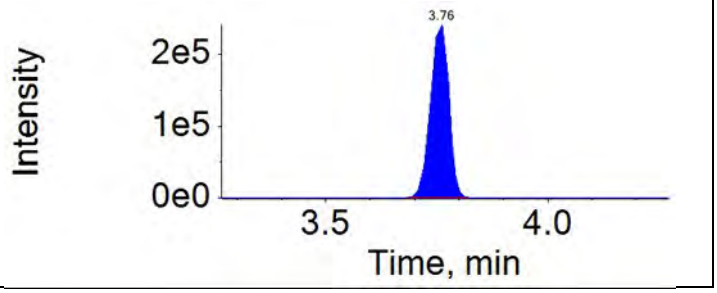
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



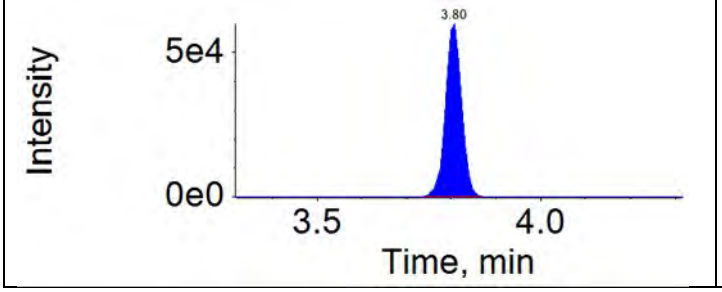


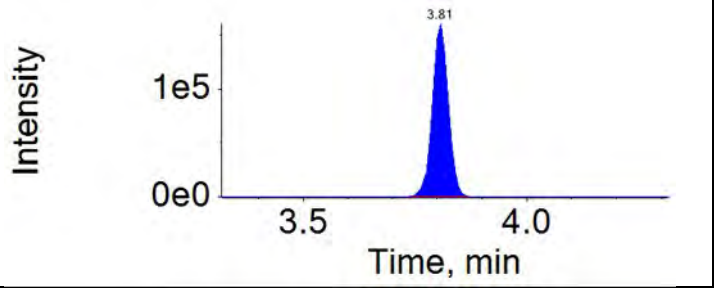
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



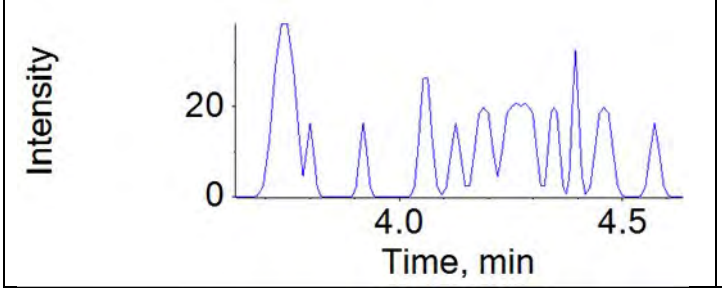


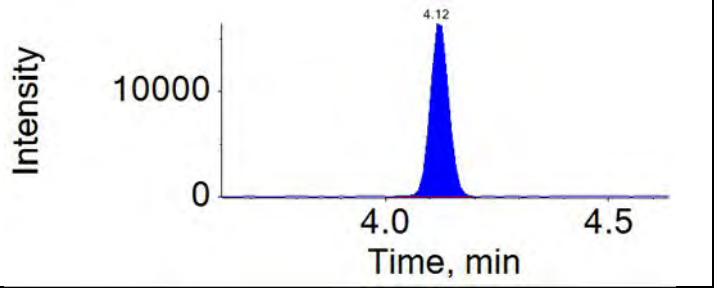
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





Analyte: 4:2-FTS	Extraction Standard: 13C2-4:2-FTS
327.0 / 307.0	329.0 / 81.0



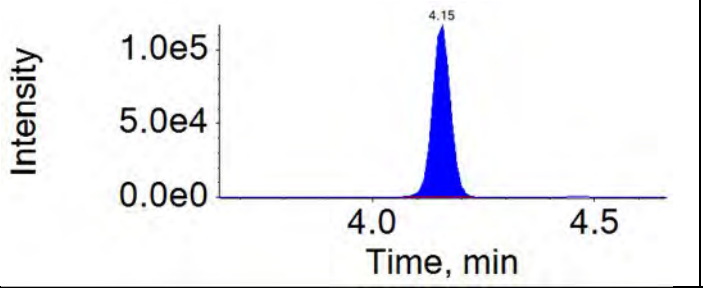


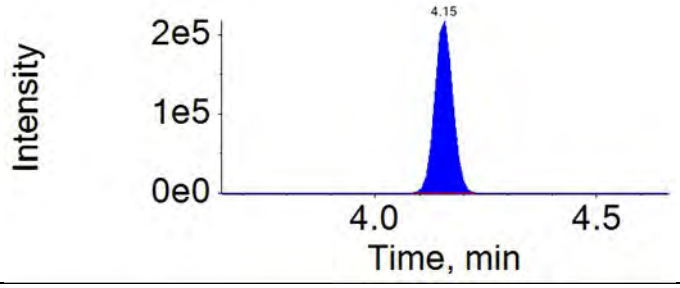
APPROVED
By MCD at 3:23 pm, 1/10/19

REVIEWED
By ucmr at 3:21 pm, 1/25/19

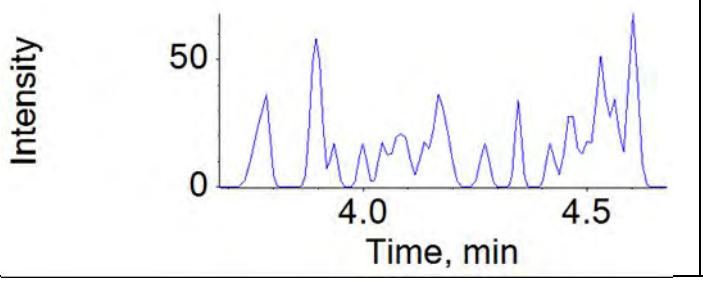
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL_Updated 1/10/2019 3:19:00 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

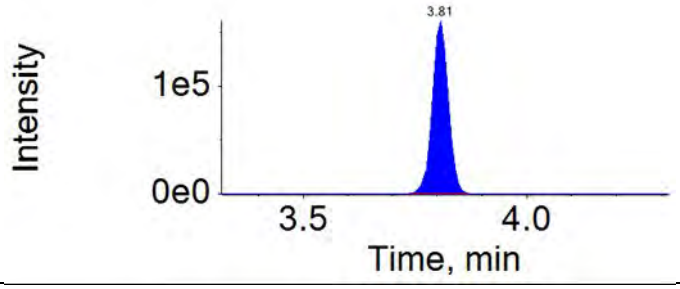
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



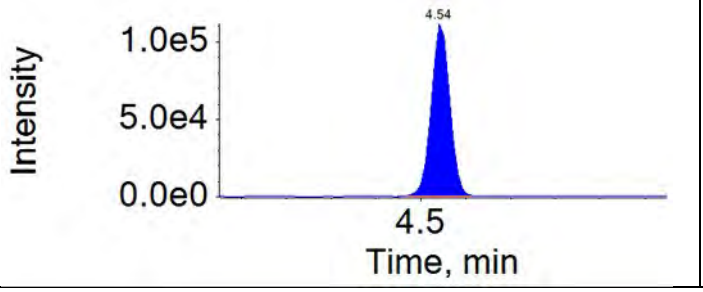


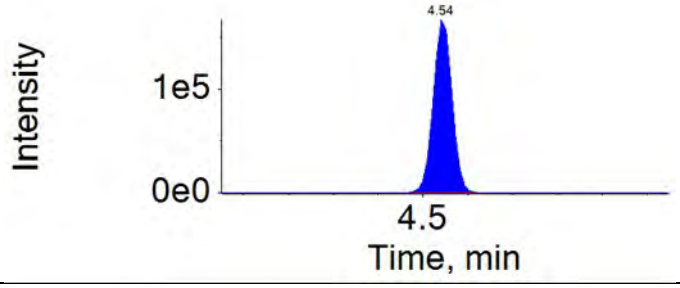
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



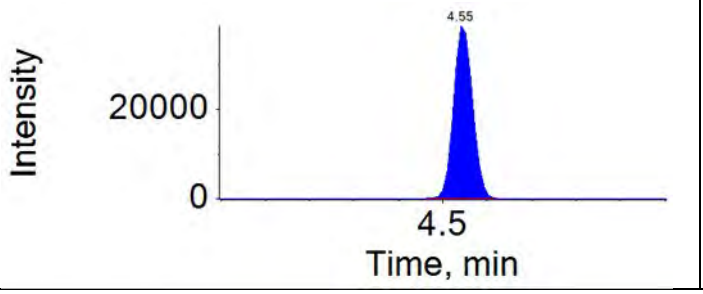


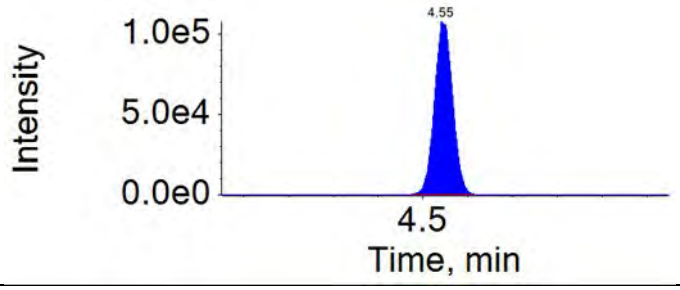
Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0



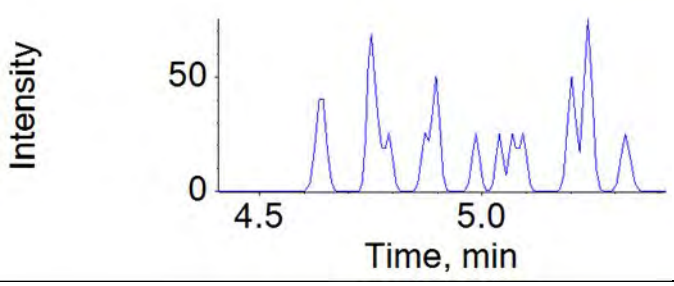
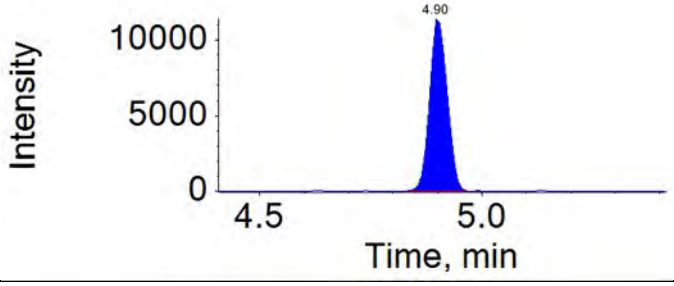


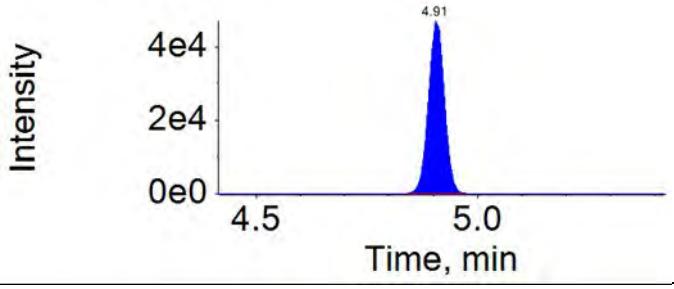
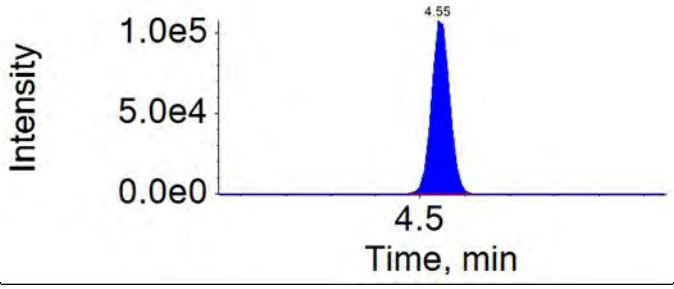
Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0

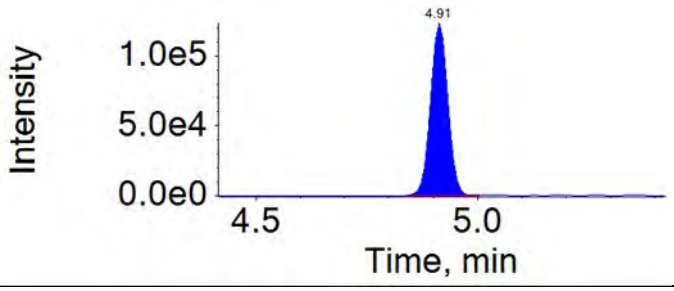
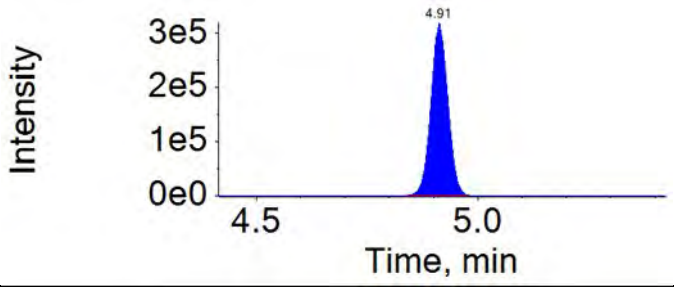


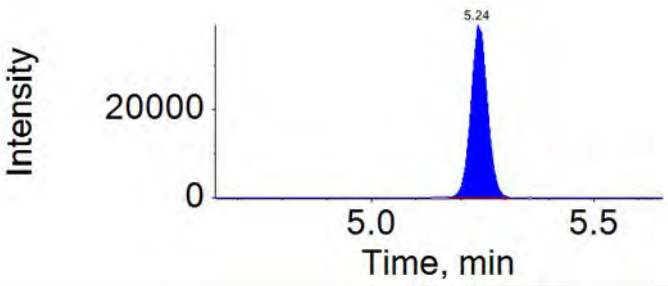
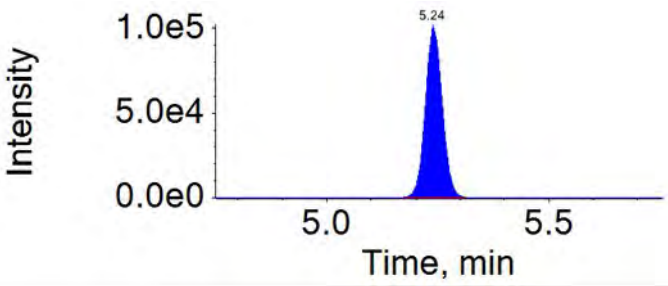


ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL_Updated 1/10/2019 3:19:00 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Analyte: 6:2-FTS	Extraction Standard: 13C2-6:2-FTS
427.0 / 407.0	429.0 / 81.0
	

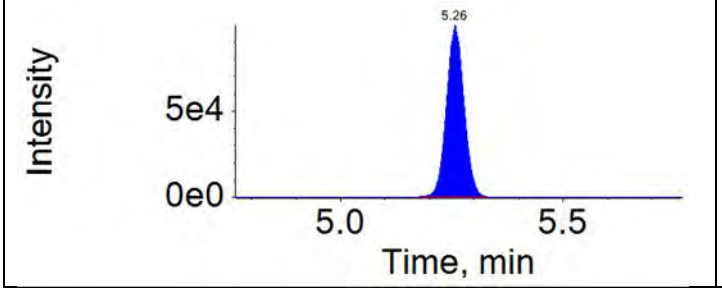
Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0
	

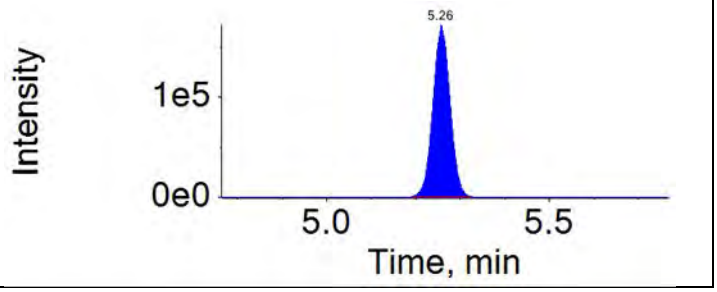
Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0
	

Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0
	

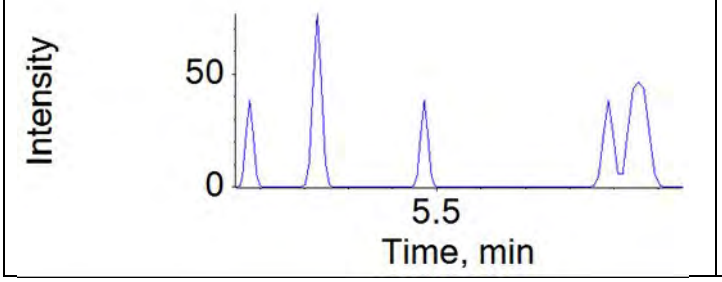
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL_Updated 1/10/2019 3:19:00 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

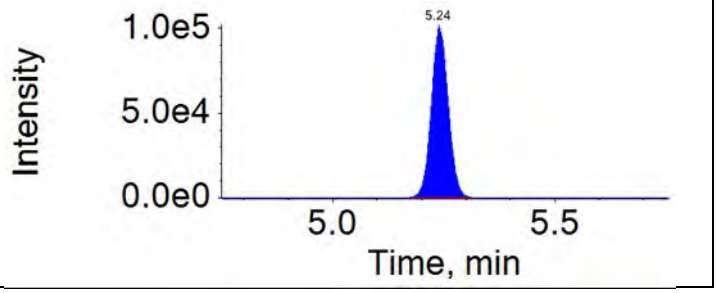
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



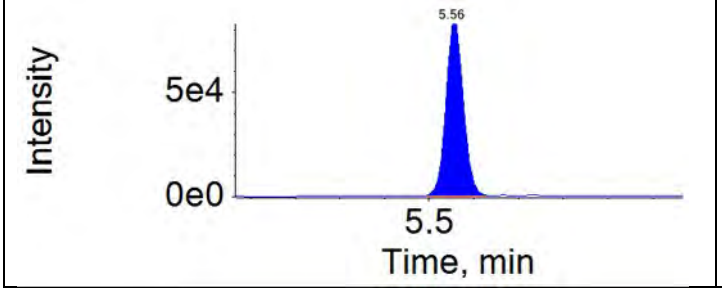


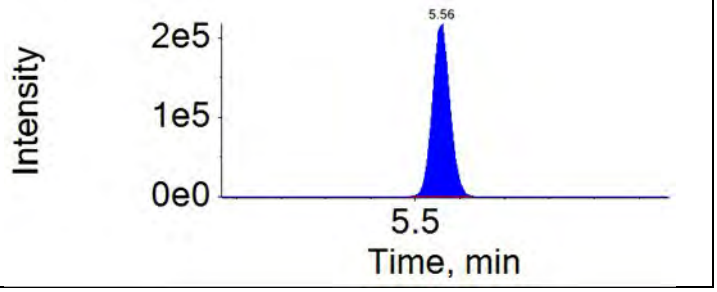
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



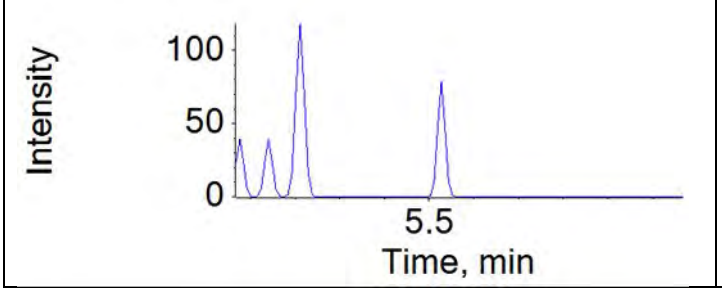


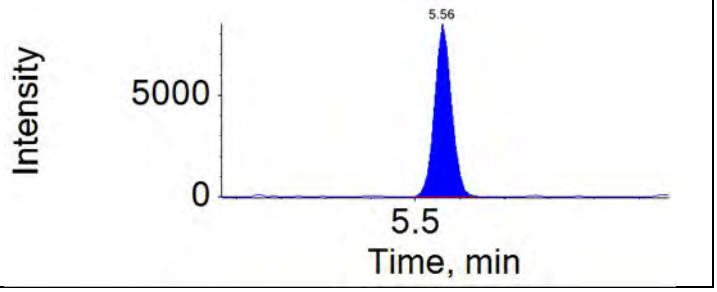
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





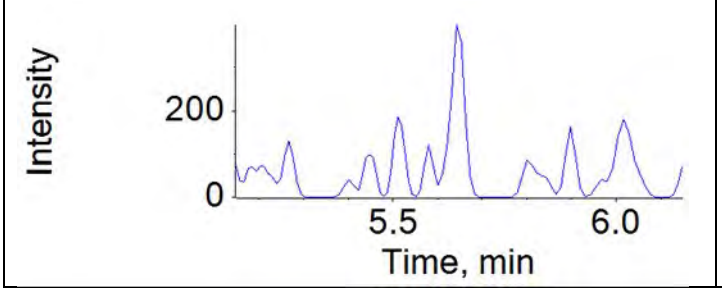
Analyte: 8:2-FTS	Extraction Standard: 13C2-8:2-FTS
527.0 / 507.0	529.0 / 81.0

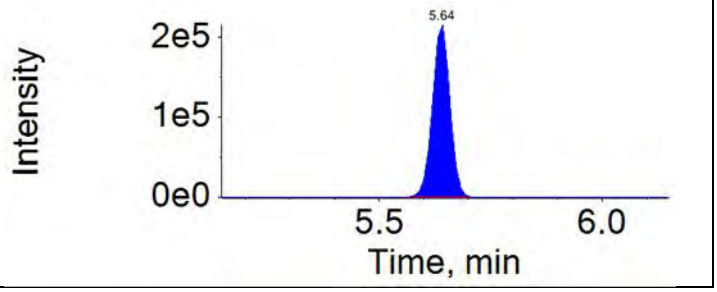




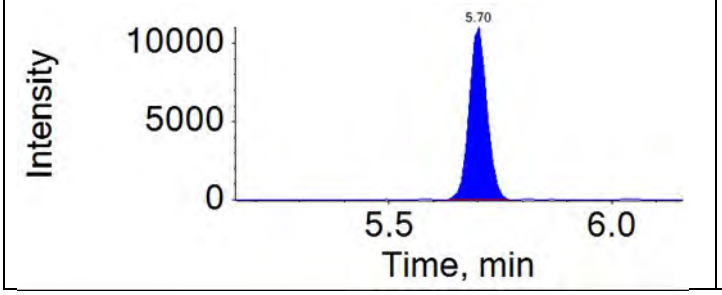
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL_Updated 1/10/2019 3:19:00 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

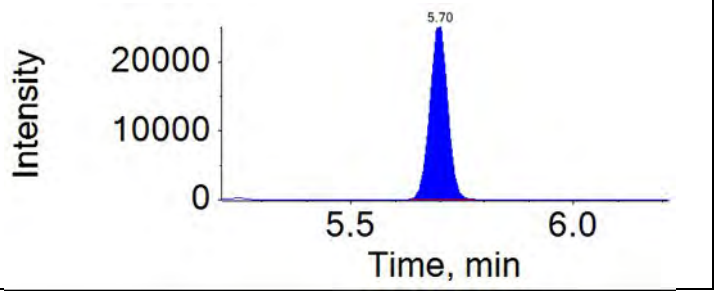
Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0



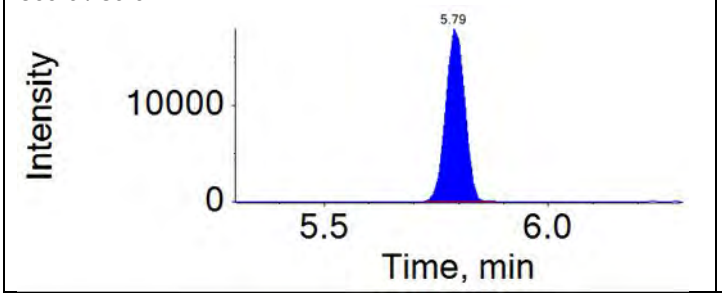


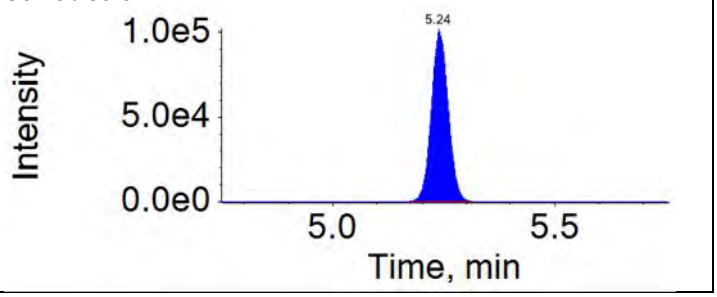
Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0



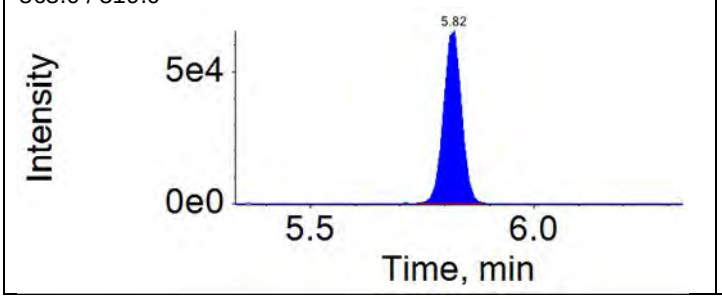


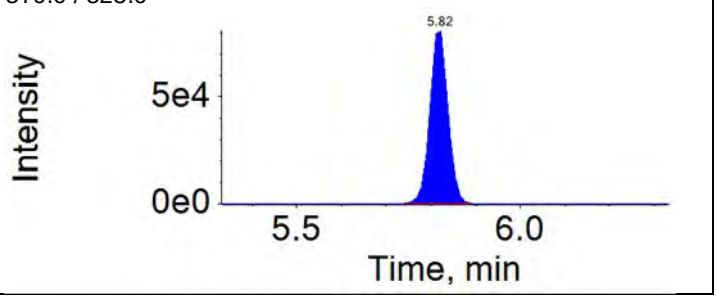
Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0





Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0



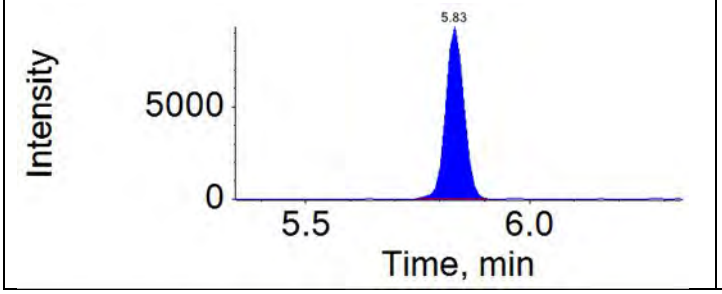


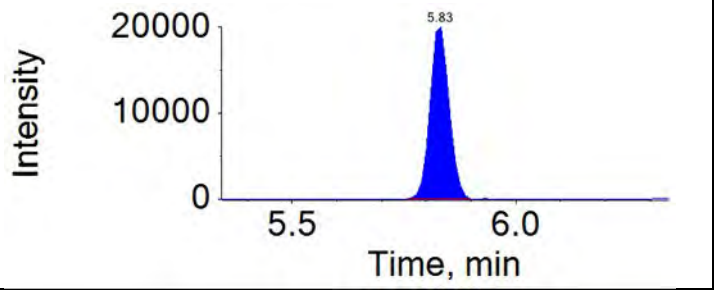
APPROVED
By MCD at 3:23 pm, 1/10/19

REVIEWED
By ucmr at 3:21 pm, 1/25/19

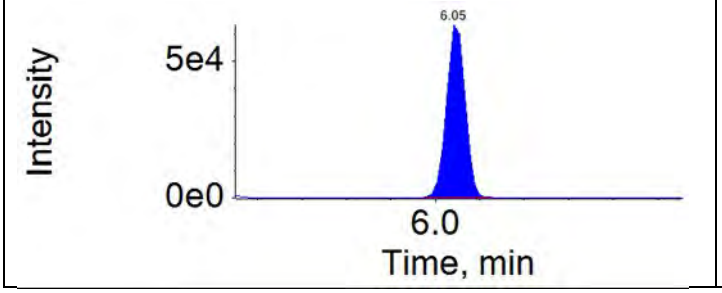
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL_Updated 1/10/2019 3:19:00 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

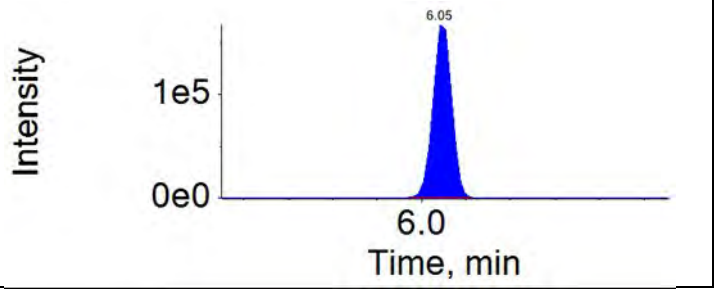
Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0



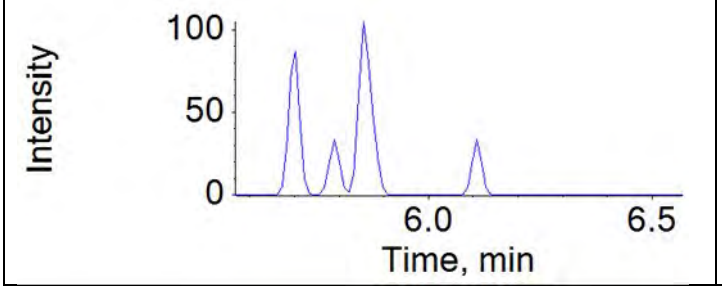


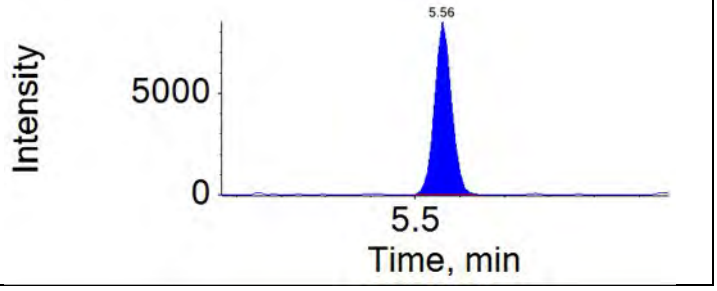
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0



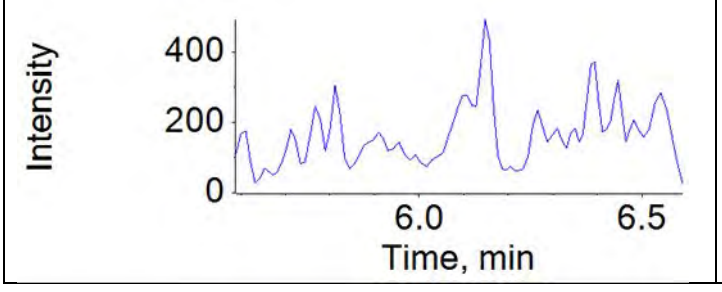


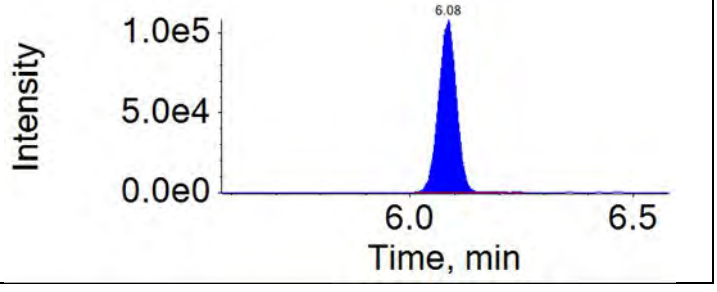
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0





Analyte: NMePFOSAE	Extraction Standard: d7-NMePFOSAE
616.0 / 59.0	623.0 / 59.0



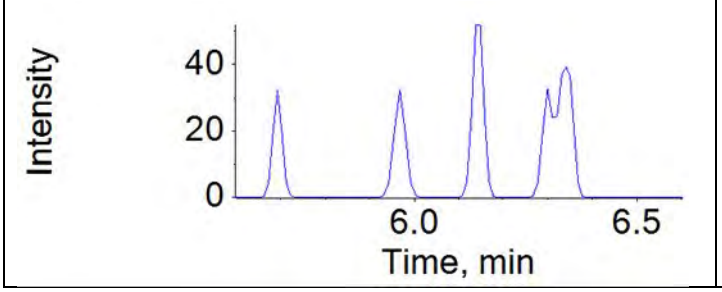


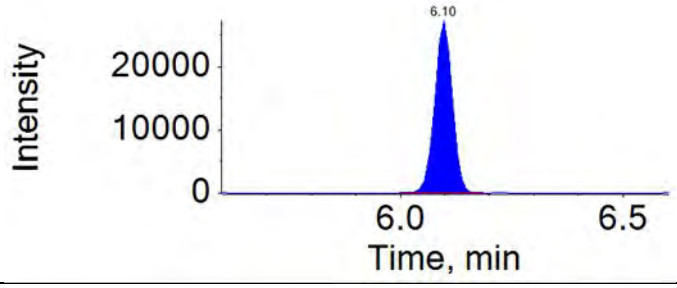
APPROVED
By MCD at 3:23 pm, 1/10/19

REVIEWED
By ucmr at 3:21 pm, 1/25/19

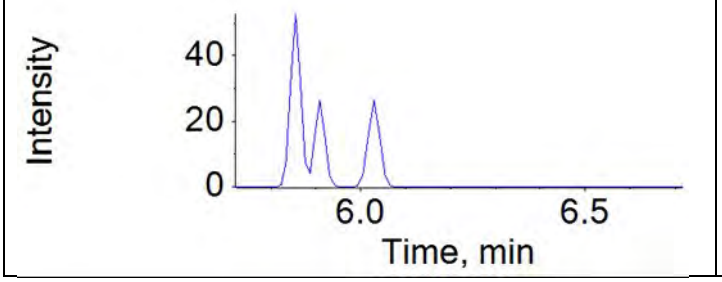
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL_Updated 1/10/2019 3:19:00 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

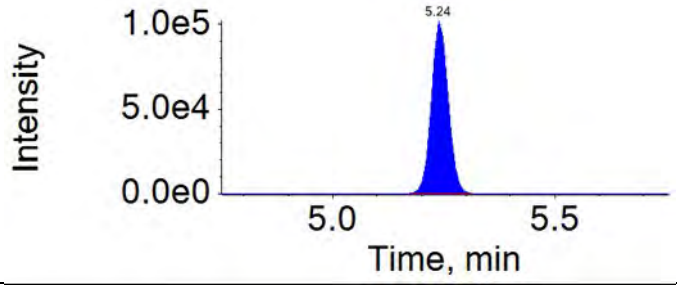
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



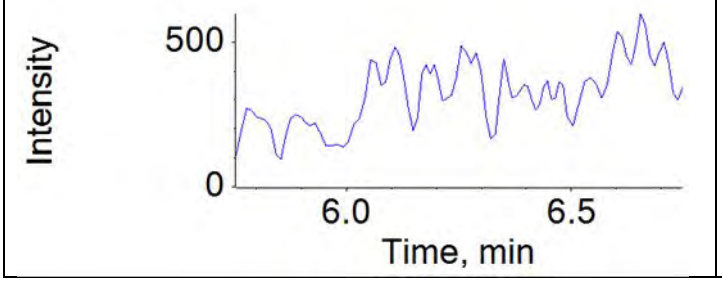


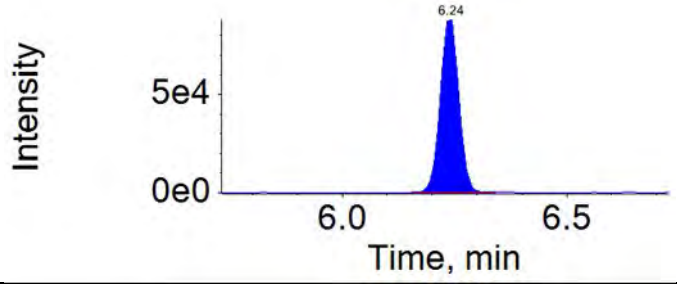
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



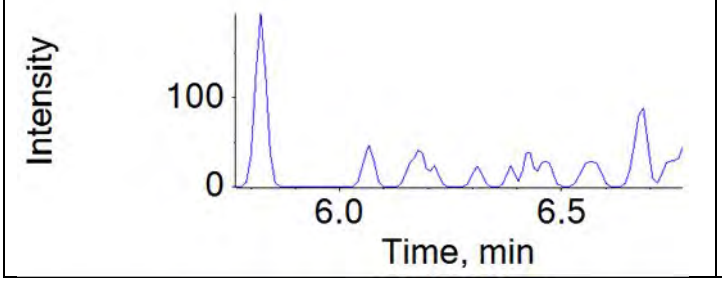


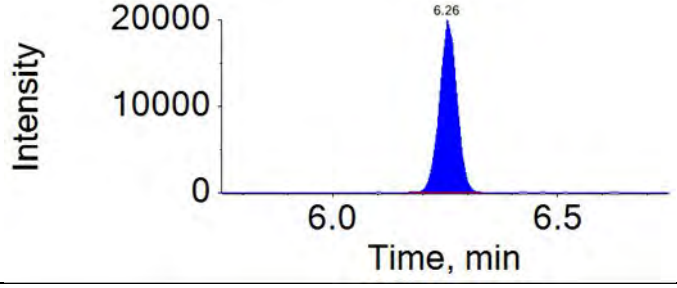
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





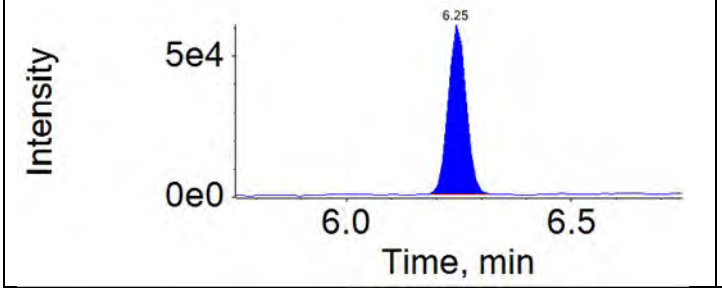
Analyte: NEtPFOSA	Extraction Standard: d5-NEtPFOSA
526.0 / 169.0	531.0 / 169.0

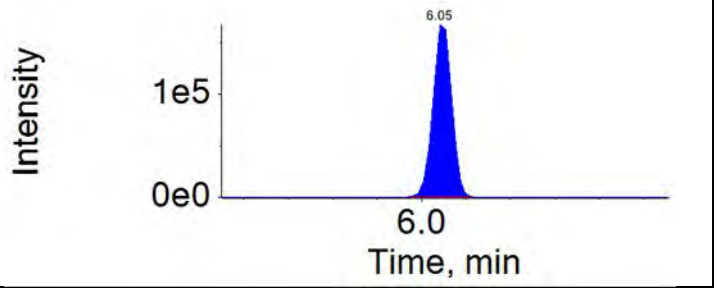




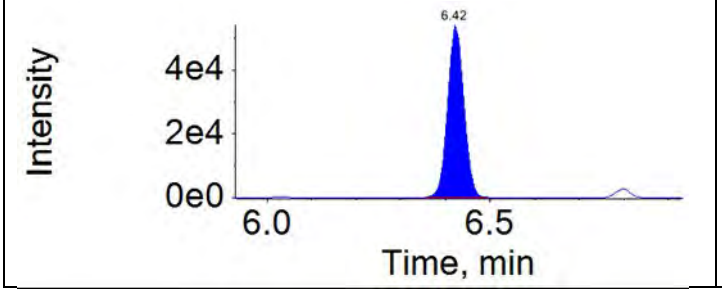
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL_Updated 1/10/2019 3:19:00 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

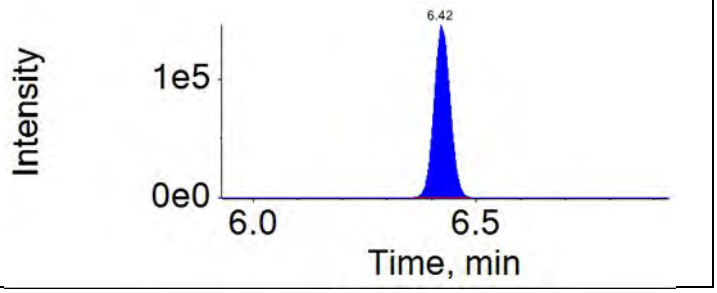
Analyte: PFTrDA	Extraction Standard: 13C2-PFDoDA
663.0 / 619.0	615.0 / 570.0



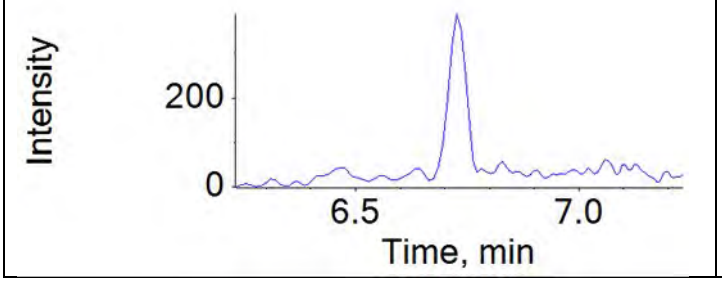


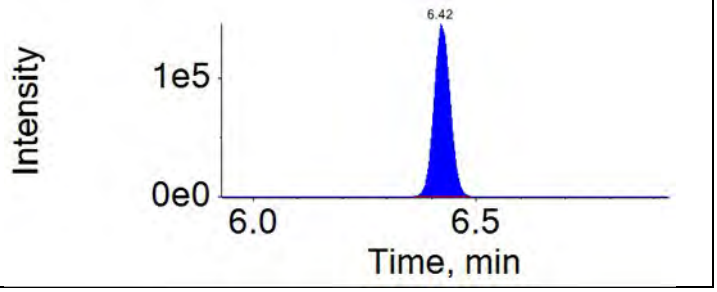
Analyte: PFTeDA	Extraction Standard: 13C2-PFTeDA
713.0 / 669.0	715.0 / 670.0



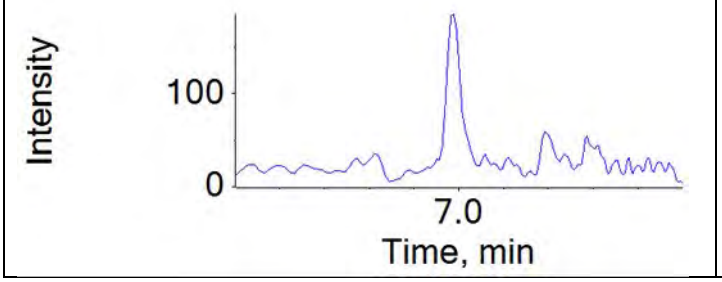


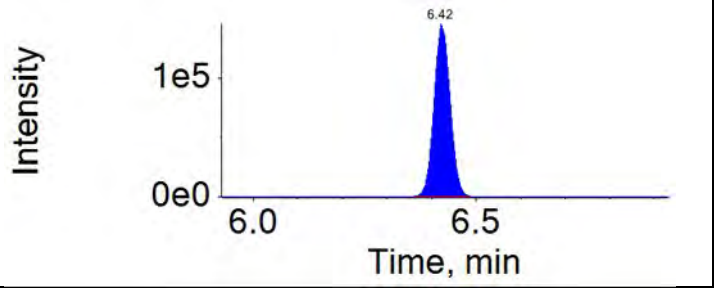
Analyte: PFHxDA	Extraction Standard: 13C2-PFTeDA
813.0 / 769.0	715.0 / 670.0





Analyte: PFODA	Extraction Standard: 13C2-PFTeDA
913.0 / 869.0	715.0 / 670.0



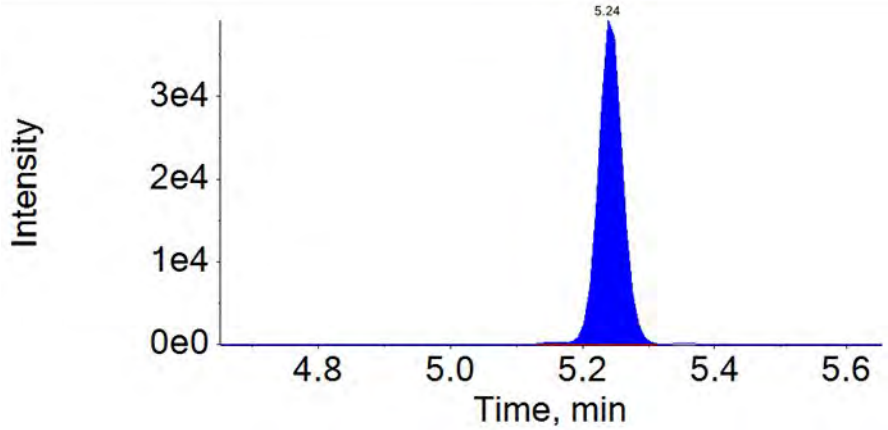


APPROVED
By MCD at 3:23 pm, 1/10/19

REVIEWED
By ucmr at 3:21 pm, 1/25/19

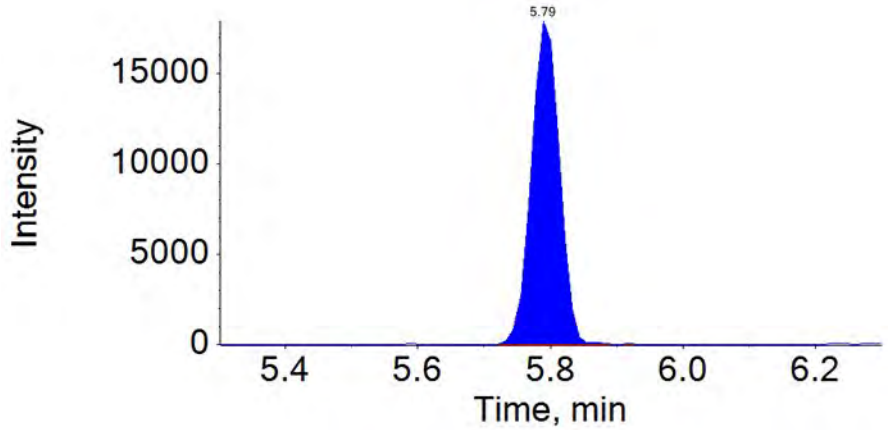
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Results Table Date: 1/10/2019 3:19:00 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFOS
RT (min.):
5.24
Peak Area:
101508.8
Mass Range:
499.0 / 80.0
File Name:
18NOV12DCAL-50.wiff
Sample Name:
ICV



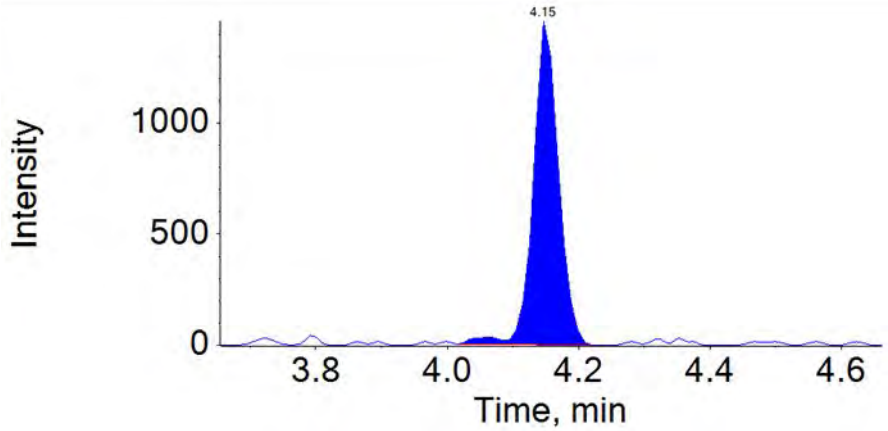
Integration Comment: incorrect integration

Component Name:
PFDS
RT (min.):
5.79
Peak Area:
52928.5
Mass Range:
599.0 / 80.0
File Name:
18NOV12DCAL-50.wiff
Sample Name:
ICV



Integration Comment: incorrect integration

Component Name:
PFHxA_2
RT (min.):
4.15
Peak Area:
3909.7
Mass Range:
313.0 / 119.0
File Name:
18NOV12DCAL-50.wiff
Sample Name:
ICV



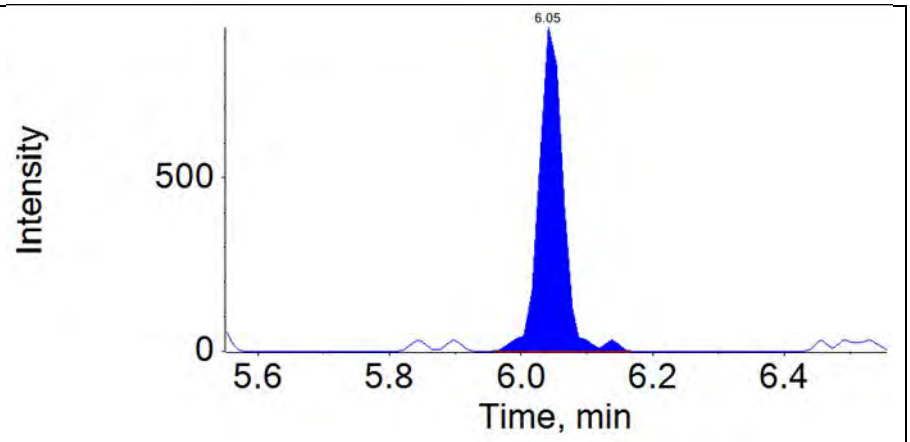
Integration Comment: incorrect integration

APPROVED
By MCD at 3:23 pm, 1/10/19

REVIEWED
By ucmr at 3:21 pm, 1/25/19

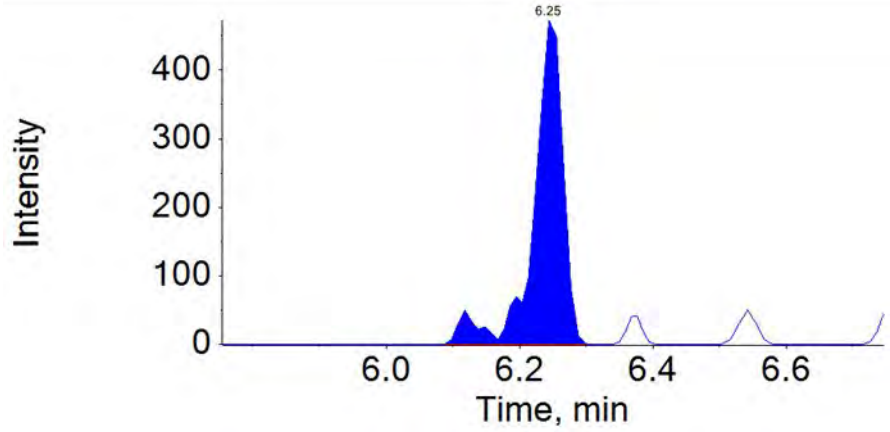
Results Table Name: 18NOV12DCAL_Updated
Results Table Date: 1/10/2019 3:19:00 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFDoDA_2
RT (min.):
6.05
Peak Area:
2399.9
Mass Range:
613.0 / 169.0
File Name:
18NOV12DCAL-50.wiff
Sample Name:
ICV



Integration Comment: incorrect integration

Component Name:
PFTrDA_2
RT (min.):
6.25
Peak Area:
1468.6
Mass Range:
663.0 / 169.0
File Name:
18NOV12DCAL-50.wiff
Sample Name:
ICV



Integration Comment: incorrect integration

APPROVED
By MCD at 3:23 pm, 1/10/19

REVIEWED
By ucmr at 3:21 pm, 1/25/19

Results Table Name: 18NOV12DCAL_Updated
Results Table Date: 1/10/2019 3:19:00 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Ion Ratio Report

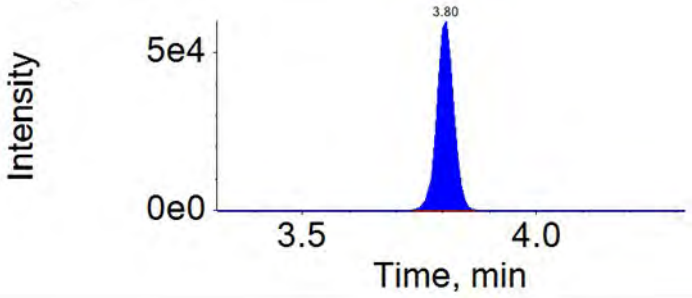
Sample Name: ICV **Instrument Name:** LM27631 **File Name:** 18NOV12DCAL-50.wiff

Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	3.80	1.00	150059.6	A	N/A	0.3773			
PFBS_2	3.81	1.00	56617.7	A	N/A	0.3773	4	50	
4:2-FTS	N/A	N/A	N/A	A	N/A	N/A			
4:2 FTS_2	N/A	N/A	N/A	A	N/A	N/A		#NA!	
PFHxA	4.15	1.00	328694.3	A	N/A	0.0117			
PFHxA_2	4.15	1.00	3829.7	M	N/A	0.0117	0	50	
PFPeS	N/A	N/A	N/A	A	N/A	N/A			
PFPeS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFHpA	4.54	1.00	316975.3	A	N/A	0.0530			
PFHpA_2	4.54	1.00	16790.6	A	N/A	0.0530	-6	50	
PFHxS	4.55	1.00	115564.2	A	N/A	0.3340			
PFHxS_2	4.55	1.00	38596.8	A	N/A	0.3340	-3	50	
6:2-FTS	N/A	N/A	N/A	A	N/A	N/A			
6:2 FTS_2	N/A	N/A	N/A	A	N/A	N/A		#NA!	
PFHpS	4.91	1.08	118318.7	A	N/A	0.3735			
PFHpS_2	4.91	1.08	44193.2	A	N/A	0.3735	-8	50	
PFOA	4.91	1.00	332094.4	A	N/A	0.0559			
PFOA_2	4.91	1.00	18574.5	A	N/A	0.0559	0	50	
PFOS	5.24	1.00	100952.5	M	N/A	0.3741			
PFOS_2	5.24	1.00	37762.8	A	N/A	0.3741	26	50	
PFNA	5.26	1.00	271240.4	A	N/A	0.0190			
PFNA_2	5.26	1.00	5150.4	A	N/A	0.0190	-17	50	
PFNS	N/A	N/A	N/A	A	N/A	N/A			
PFNS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFDA	5.56	1.00	224279.7	A	N/A	0.0061			
PFDA_2	5.56	1.00	1372.7	A	N/A	0.0061	-24	50	
8:2-FTS	N/A	N/A	N/A	A	N/A	N/A			
8:2 FTS_2	N/A	N/A	N/A	A	N/A	N/A		#NA!	
NMeFOSAA	5.70	1.00	30591.9	A	N/A	0.2719			
NMeFOSAA_2	5.70	1.00	8316.9	A	N/A	0.2719	6	50	
PFDS	5.79	1.11	52860.9	M	N/A	0.5291			
PFDS_2	5.79	1.11	27969.6	A	N/A	0.5291	3	50	
PFUnDA	5.82	1.00	183511.3	A	N/A	0.0078			
PFUnDA_2	5.82	1.00	1432.4	A	N/A	0.0078	34	50	
NEtFOSAA	5.83	1.00	26149.3	A	N/A	0.6365			
NEtFOSAA_2	5.83	1.00	16644.9	A	N/A	0.6365	-12	50	
PFDoDA	6.05	1.00	185295.0	A	N/A	0.0127			
PFDoDA_2	6.05	1.00	2349.0	M	N/A	0.0127	-19	50	
10:2-FTS	N/A	N/A	N/A	A	N/A	N/A			
10:2 FTS_2	N/A	N/A	N/A	A	N/A	N/A		#NA!	
PFTrDA	6.25	1.03	165153.1	A	N/A	0.0082			
PFTrDA_2	6.25	1.03	1357.0	M	N/A	0.0082	-4	50	
PFTeDA	6.42	1.00	135651.0	A	N/A	0.0054			
PFTeDA_2	6.42	1.00	727.0	A	N/A	0.0054	-14	50	
PFHxDA	N/A	N/A	N/A	A	N/A	N/A			
PFHxDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFODA	N/A	N/A	N/A	A	N/A	N/A			
PFODA_2	N/A	N/A	N/A	A	N/A	N/A		50	

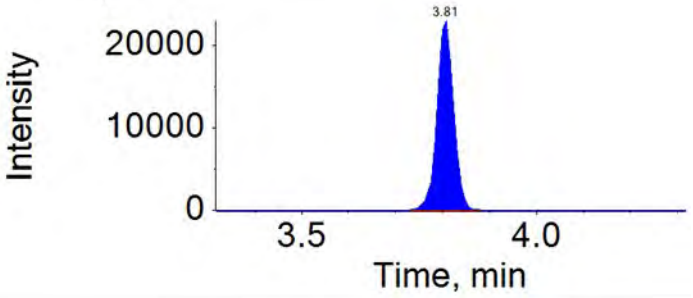
APPROVED
By MCD at 3:23 pm, 1/10/19

REVIEWED
By ucmr at 3:21 pm, 1/25/19

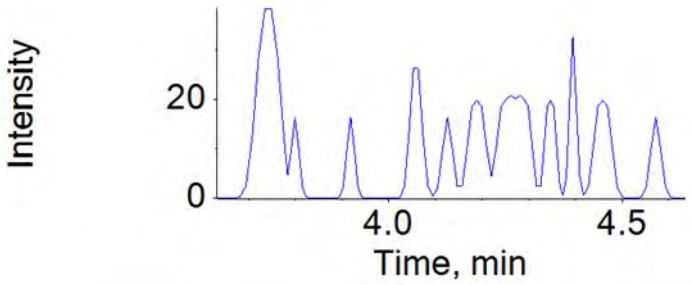
Component: PFBS
Primary Mass: 299.0 / 80.0



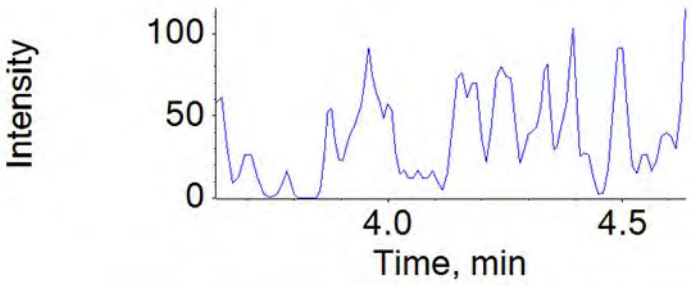
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



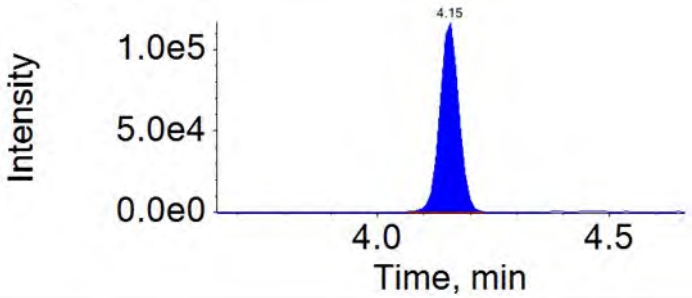
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



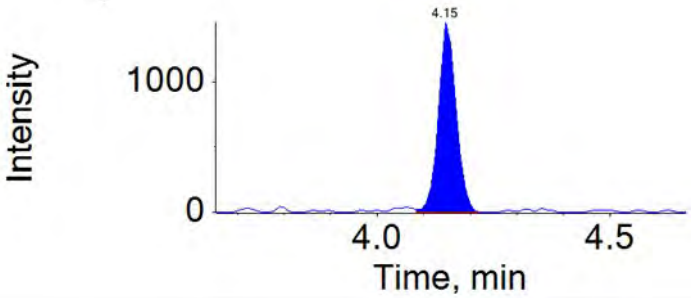
Component: 4:2 FTS_2
Secondary Mass: 327.0 / 81.0



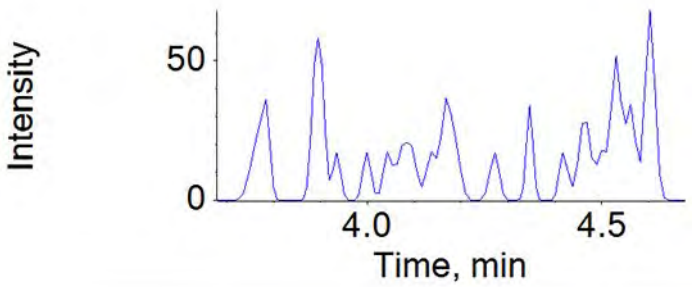
Component: PFHxA
Primary Mass: 313.0 / 269.0



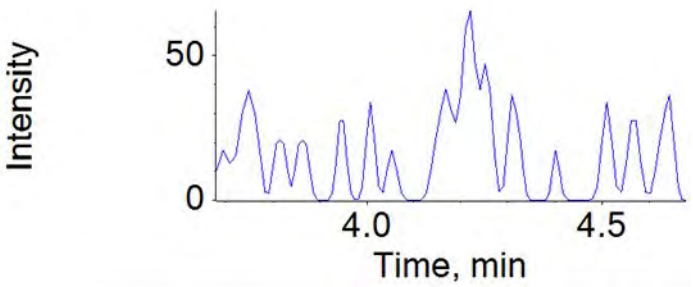
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Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



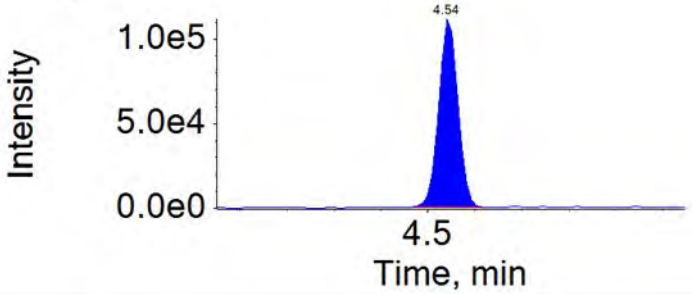
Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



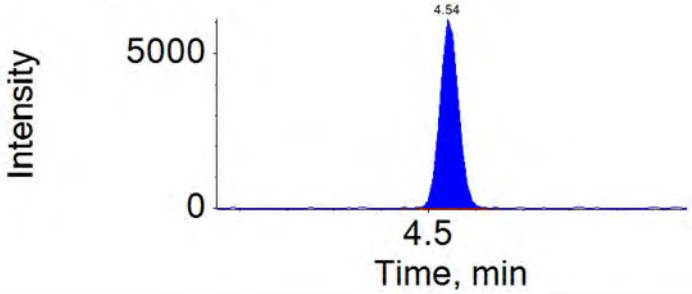
APPROVED
By MCD at 3:23 pm, 1/10/19

REVIEWED
By ucmr at 3:21 pm, 1/25/19

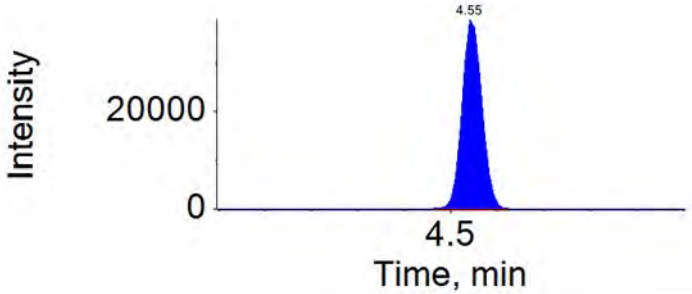
Component: PFHpA
Primary Mass: 363.0 / 319.0



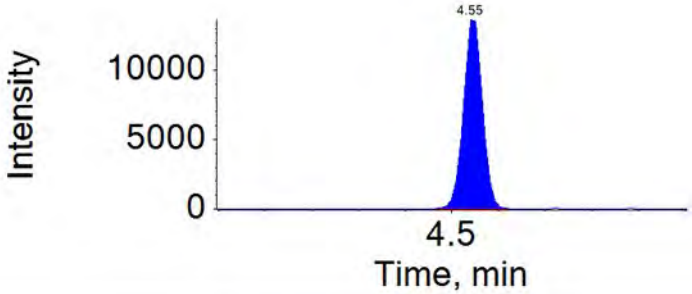
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



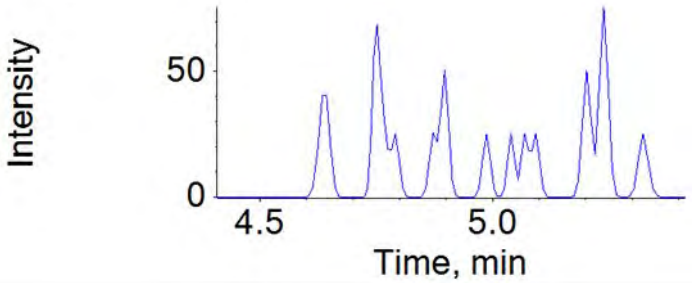
Component: PFHxS
Primary Mass: 399.0 / 80.0



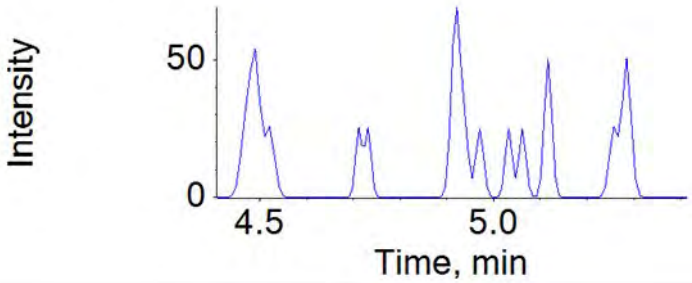
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



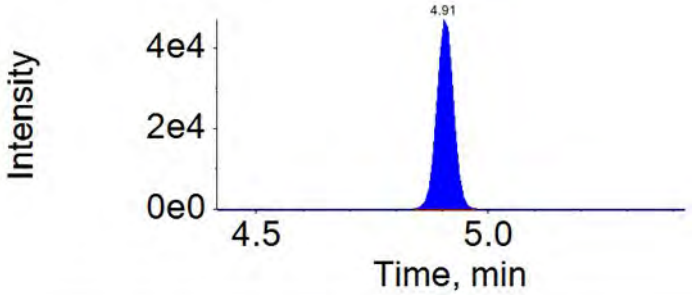
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



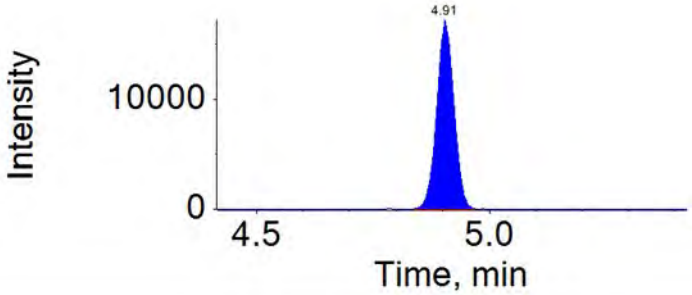
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Secondary Mass: 427.0 / 81.0



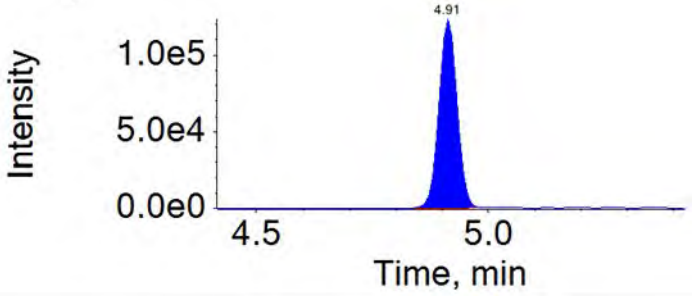
Component: PFHpS
Primary Mass: 449.0 / 80.0



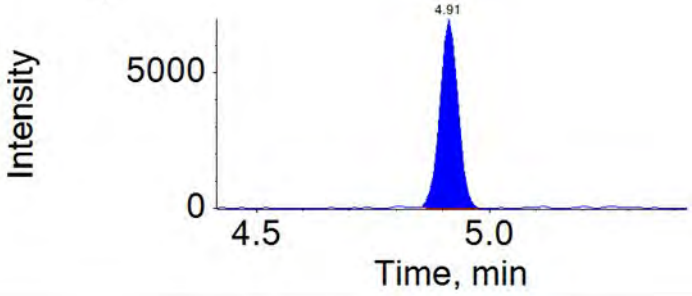
Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



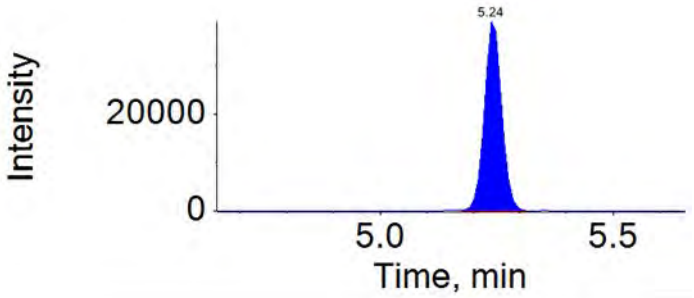
Component: PFOA
Primary Mass: 413.0 / 369.0



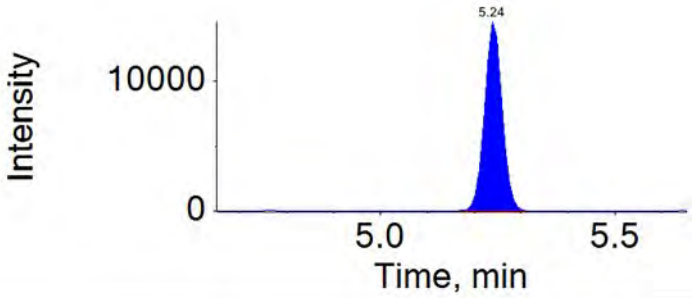
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



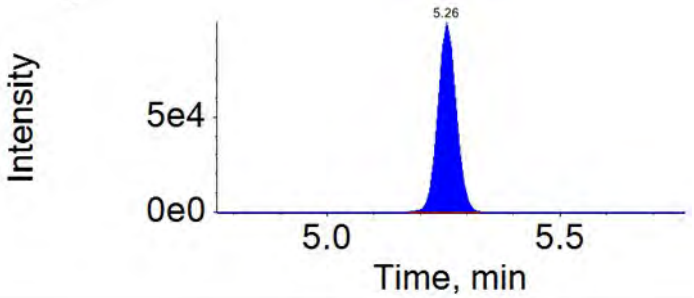
Component: PFOS
Primary Mass: 499.0 / 80.0



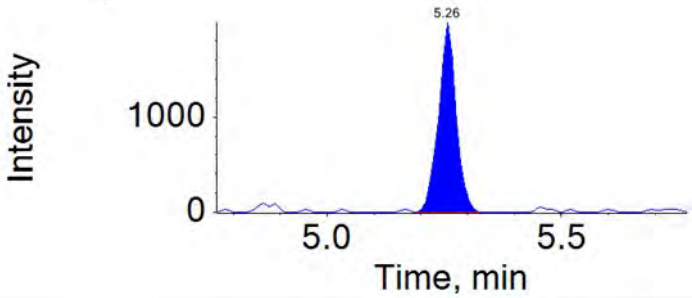
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Secondary Mass: 499.0 / 99.0



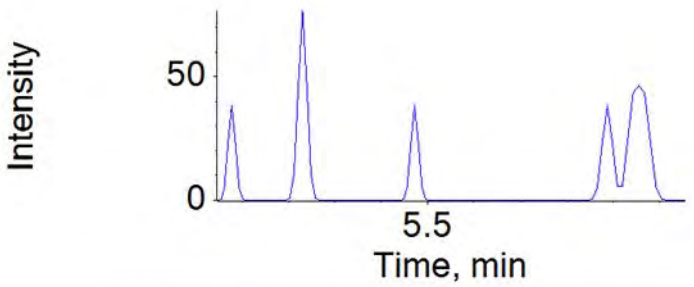
Component: PFNA
Primary Mass: 463.0 / 419.0



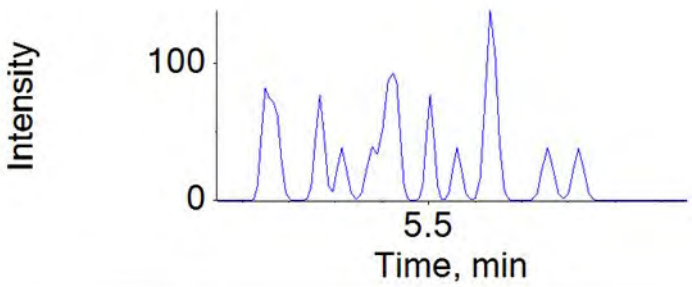
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



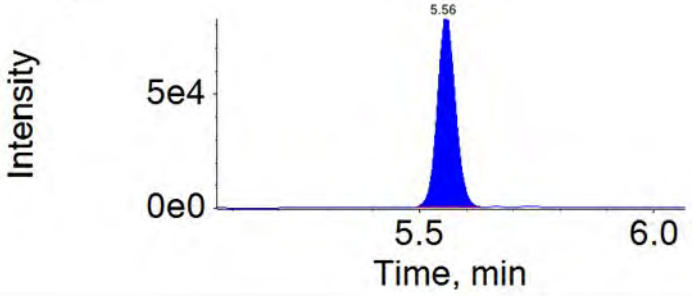
Component: PFNS
Primary Mass: 549.0 / 80.0



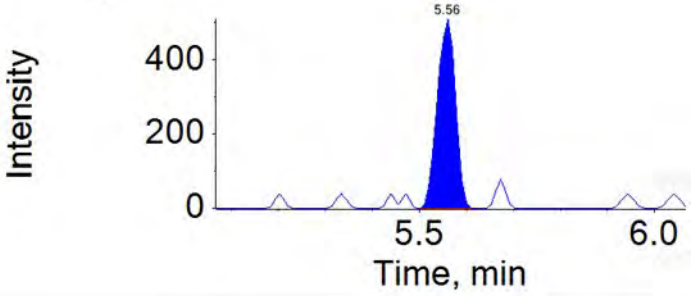
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



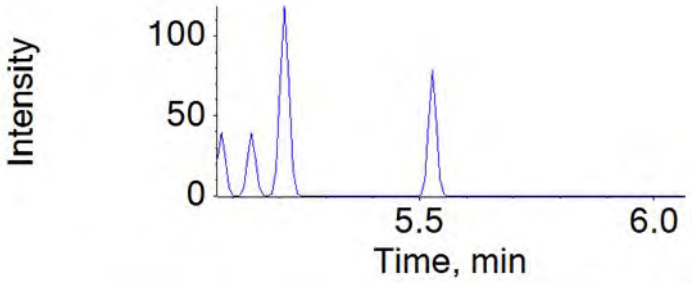
Component: PFDA
Primary Mass: 513.0 / 469.0



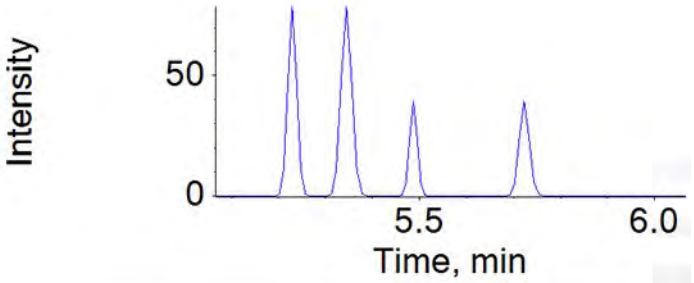
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Secondary Mass: 513.0 / 169.0



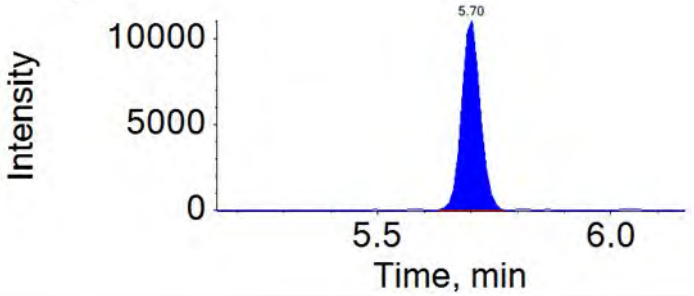
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



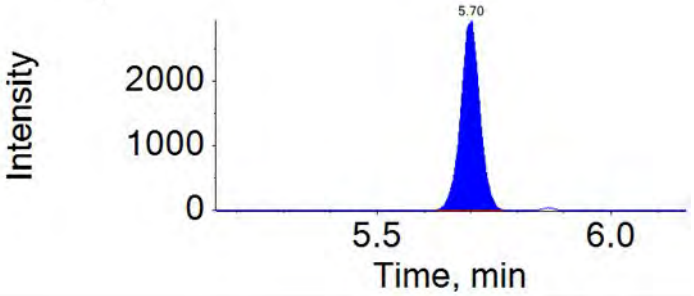
Component: 8:2 FTS_2
Secondary Mass: 527.0 / 81.0



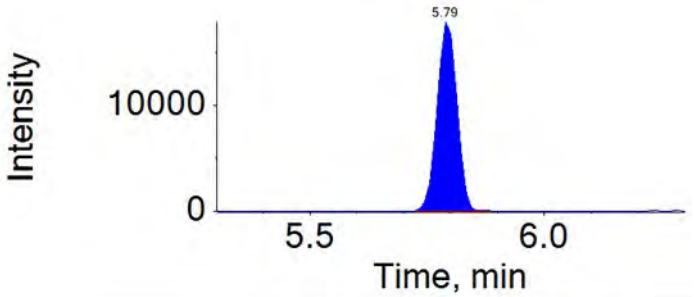
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



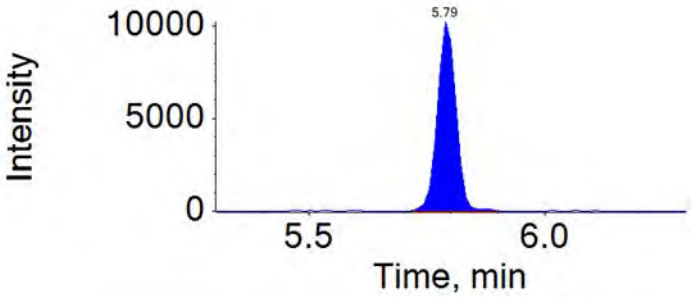
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



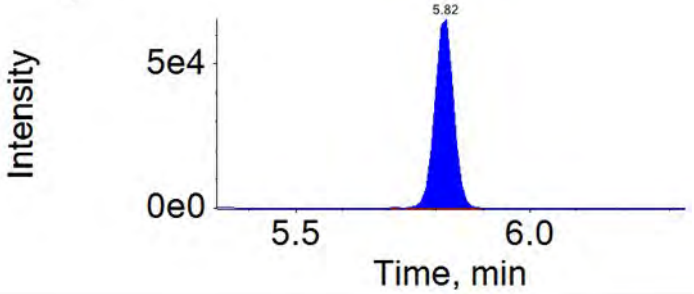
Component: PFDS_2
Secondary Mass: 599.0 / 99.0



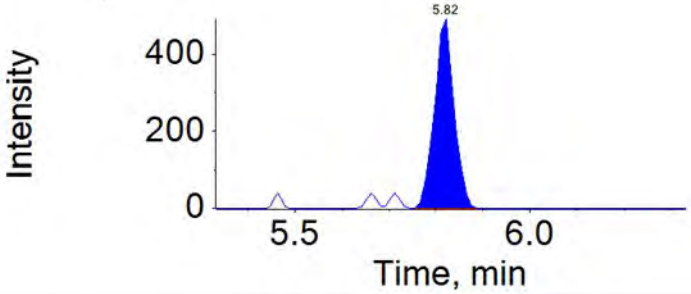
APPROVED
By MCD at 3:23 pm, 1/10/19

REVIEWED
By ucmr at 3:21 pm, 1/25/19

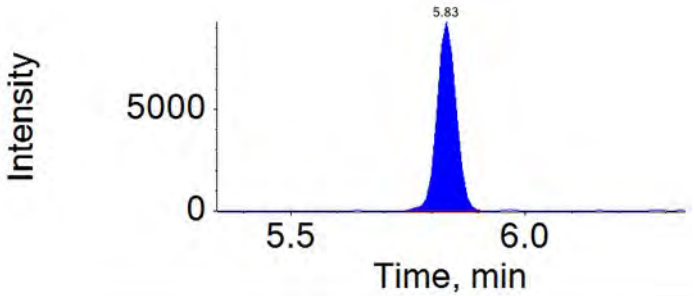
Component: PFUnDA
Primary Mass: 563.0 / 519.0



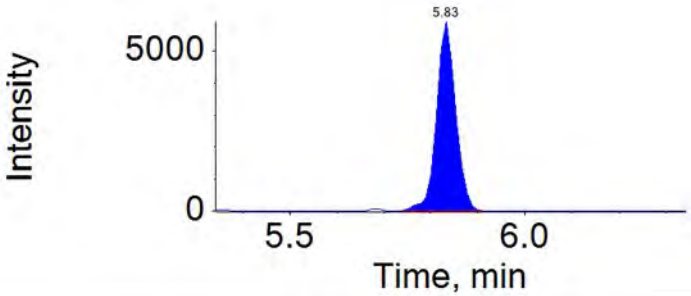
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



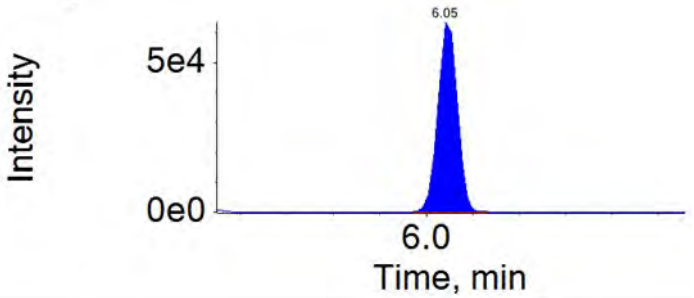
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



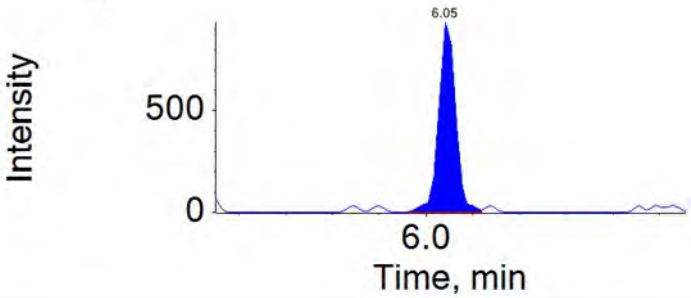
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



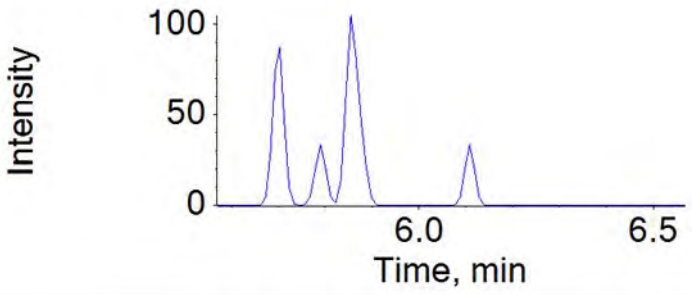
Component: PFDoDA
Primary Mass: 613.0 / 569.0



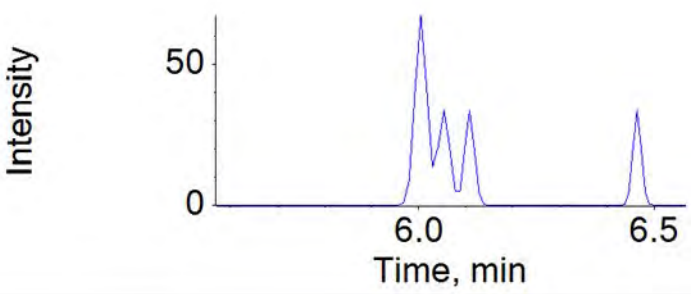
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



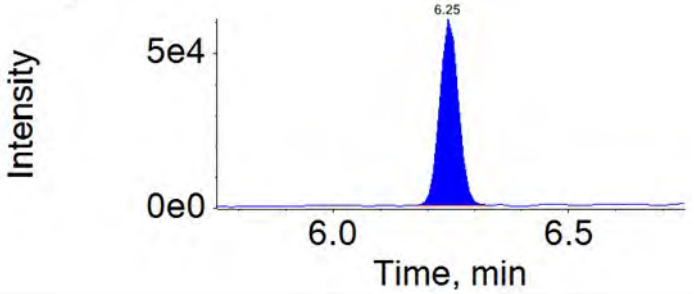
Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



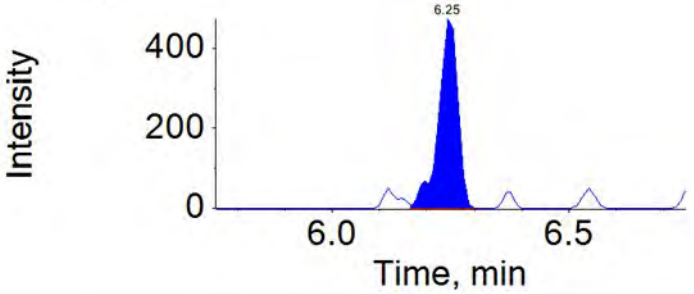
Component: 10:2 FTS_2
Secondary Mass: 627.0 / 81.0



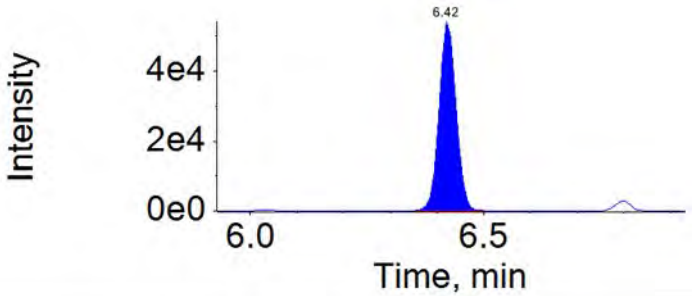
Component: PFTrDA
Primary Mass: 663.0 / 619.0



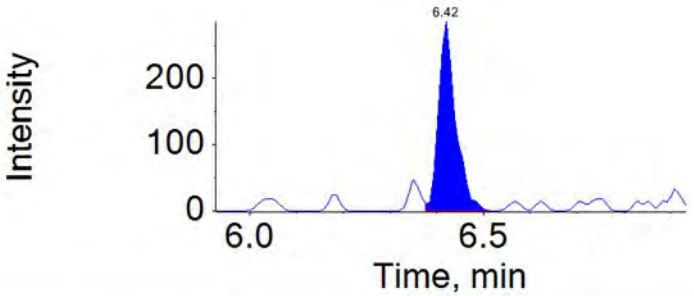
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



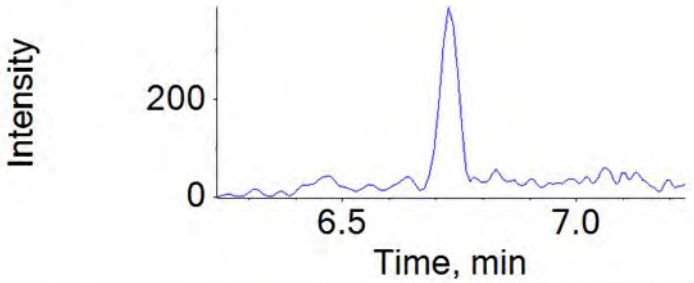
Component: PFTeDA
Primary Mass: 713.0 / 669.0



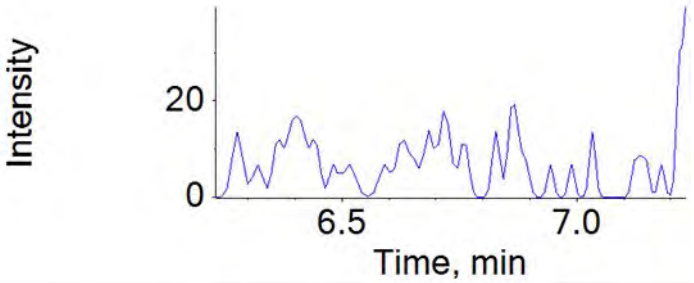
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



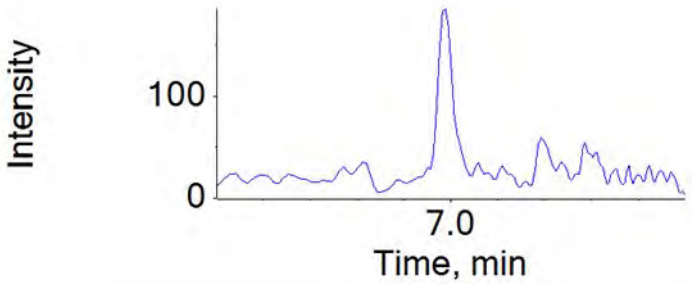
Component: PFHxDA
Primary Mass: 813.0 / 769.0



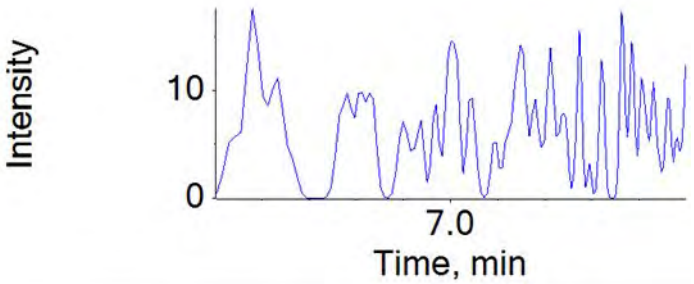
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Sample Name:	L+B CAL3			**Data File:**		18NOV12DCAL-51.wiff
Sample ID:	LBMODX1833D			**Acquis Date:**		2018-11-12T16:27:15
Sample Type:	Unknown			**Instrument:**		LM27631
Vial Position:	11			**Acquis Method:**		18AUG13_3uL.dam
Injection Vol:	3.00			**Result Table:**		18NOV12DCAL
QMethod File:	18AUG20QM			**ICAL Name:**		18NOV12DCAL
Batch Number:	N\A			**Operator:**		MCD7824
Sample Wt.:	1.00000			**Dilution Factor:**		1.00
Sample Vol.:	1.000			**Prep Factor:**		1.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV12DCAL-44

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Rreference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	682528.6	659926.2	3	50	
13C2-PFOA	5.0	446810.2	450219.7	-1	50	
13C4-PFOS	4.8	256014.8	249205.8	3	50	
13C2-PFDA	5.0	295115.2	278743.9	6	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	735331.8	13C3-PFBA	682528.6	1.077	5.000	4.830	97	70-130	
E13C5-PFPeA	714738.5	13C3-PFBA	682528.6	1.047	5.000	4.697	94	70-130	
E13C3-PFBS	418749.4	13C3-PFBA	682528.6	0.614	4.650	4.331	93	70-130	
E13C2-4:2-FTS	45470.2	13C2-PFOA	446810.2	0.102	4.670	4.532	97	70-130	
E13C5-PFHxA	624943.7	13C2-PFOA	446810.2	1.399	5.000	5.052	101	70-130	
E13C3-PFHxS	318599.1	13C2-PFOA	446810.2	0.713	4.730	4.893	103	70-130	
E13C4-PFHpA	492218.6	13C2-PFOA	446810.2	1.102	5.000	4.963	99	70-130	
E13C2-6:2-FTS	35757.3	13C2-PFOA	446810.2	0.080	4.750	5.354	113	70-130	
E13C8-PFOA	860795.2	13C2-PFOA	446810.2	1.927	5.000	5.308	106	70-130	
E13C8-PFOS	257626.7	13C4-PFOS	256014.8	1.006	4.780	4.459	93	70-130	
E13C9-PFNA	443649.2	13C4-PFOS	256014.8	1.733	5.000	4.832	97	70-130	
E13C6-PFDA	588492.8	13C2-PFDA	295115.2	1.994	5.000	4.653	93	70-130	
E13C2-8:2-FTS	26035.6	13C2-PFDA	295115.2	0.088	4.790	4.400	92	70-130	
E13C8-PFOSA	615348.9	13C2-PFDA	295115.2	2.085	5.000	4.623	92	70-130	
Ed3-NMeFOSAA	69196.9	13C2-PFDA	295115.2	0.234	5.000	4.232	85	70-130	
E13C7-PFUnDA	249433.8	13C2-PFDA	295115.2	0.845	5.000	4.907	98	70-130	
Ed5-NEtFOSAA	70399.3	13C2-PFDA	295115.2	0.239	5.000	5.047	101	70-130	
E13C2-PFDoDA	502206.8	13C2-PFDA	295115.2	1.702	5.000	4.418	88	70-130	
Ed7-NMePFOSAE	314874.3	13C2-PFDA	295115.2	1.067	5.000	4.617	92	70-130	
Ed3-NMePFOSA	80287.6	13C2-PFDA	295115.2	0.272	5.000	4.943	99	70-130	
Ed9-NEtPFOSAE	265747.6	13C2-PFDA	295115.2	0.900	5.000	4.683	94	70-130	
Ed5-NEtPFOSA	56128.1	13C2-PFDA	295115.2	0.190	5.000	4.462	89	70-130	
E13C2-PFTeDA	379002.1	13C2-PFDA	295115.2	1.284	5.000	4.509	90	70-130	

APPROVED
By MCD at 6:34 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

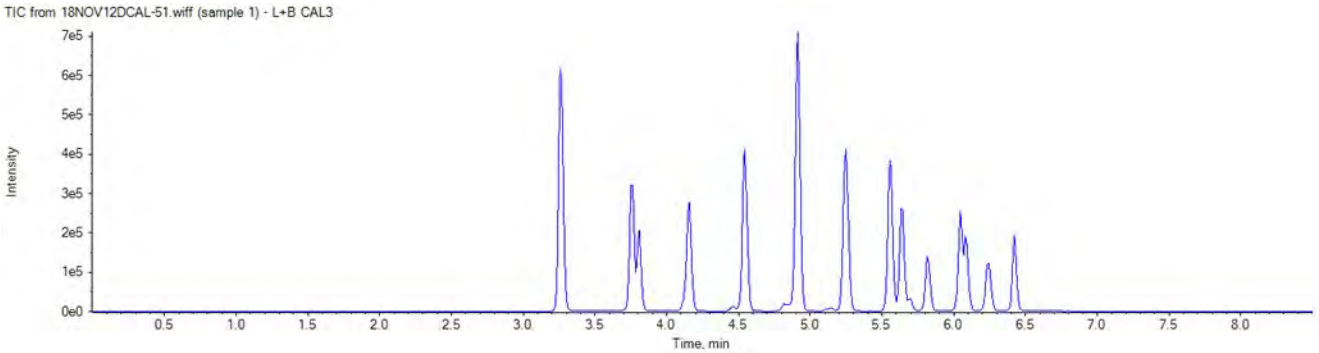
Analyte Quantitation Peak Table

Sample Name: L+B CAL3 **Instrument Name:** LM27631 **File Name:** 18NOV12DCAL-51.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	1.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	N/A	N/A	N/A		A	13C4-PFBA	3.26	735331.8	N/A	
PFPeA	N/A	N/A	N/A		A	13C5-PFPeA	3.76	714738.5	N/A	
PFBS	N/A	N/A	N/A		A	13C3-PFBS	3.81	418749.4	N/A	
4:2-FTS	N/A	N/A	N/A		A	13C2-4:2-FTS	4.12	45470.2	N/A	
PFHxA	N/A	N/A	N/A		A	13C5-PFHxA	4.15	624943.7	N/A	
PFPeS	N/A	N/A	N/A		A	13C3-PFBS	3.81	418749.4	N/A	
PFHpA	N/A	N/A	N/A		A	13C4-PFHpA	4.54	492218.6	N/A	
PFHxS	4.55	1.000	122359.8		M	13C3-PFHxS	4.55	318599.1	0.384	1.862
6:2-FTS	N/A	N/A	N/A		A	13C2-6:2-FTS	4.90	35757.3	N/A	
PFHpS	N/A	N/A	N/A		A	13C3-PFHxS	4.55	318599.1	N/A	
PFOA	4.91	1.000	312625.4		M	13C8-PFOA	4.91	860795.2	0.363	1.940
PFOS	5.24	1.000	105809.8		M	13C8-PFOS	5.24	257626.7	0.411	1.796
PFNA	N/A	N/A	N/A		A	13C9-PFNA	5.26	443649.2	N/A	
PFNS	N/A	N/A	N/A		A	13C8-PFOS	5.24	257626.7	N/A	
PFDA	N/A	N/A	N/A		A	13C6-PFDA	5.56	588492.8	N/A	
8:2-FTS	N/A	N/A	N/A		A	13C2-8:2-FTS	5.56	26035.6	N/A	
PFOSA	N/A	N/A	N/A		A	13C8-PFOSA	5.64	615348.9	N/A	
NMeFOSAA	N/A	N/A	N/A		A	d3-NMeFOSAA	5.70	69196.9	N/A	
PFDS	N/A	N/A	N/A		A	13C8-PFOS	5.24	257626.7	N/A	
PFUnDA	N/A	N/A	N/A		A	13C7-PFUnDA	5.82	249433.8	N/A	
NEtFOSAA	N/A	N/A	N/A		A	d5-NEtFOSAA	5.83	70399.3	N/A	
PFDoDA	N/A	N/A	N/A		A	13C2-PFDoDA	6.05	502206.8	N/A	
10:2-FTS	N/A	N/A	N/A		A	13C2-8:2-FTS	5.56	26035.6	N/A	
NMePFOSAE	N/A	N/A	N/A		A	d7-NMePFOSAE	6.08	314874.3	N/A	
NMePFOSA	N/A	N/A	N/A		A	d3-NMePFOSA	6.10	80287.6	N/A	
PFDoS	N/A	N/A	N/A		A	13C8-PFOS	5.24	257626.7	N/A	
NEtPFOSAE	N/A	N/A	N/A		A	d9-NEtPFOSAE	6.24	265747.6	N/A	
NEtPFOSA	N/A	N/A	N/A		A	d5-NEtPFOSA	6.26	56128.1	N/A	
PFTrDA	N/A	N/A	N/A		A	13C2-PFDoDA	6.05	502206.8	N/A	
PFTeDA	N/A	N/A	N/A		A	13C2-PFTeDA	6.42	379002.1	N/A	
PFHxDA	N/A	N/A	N/A		A	13C2-PFTeDA	6.42	379002.1	N/A	
PFODA	N/A	N/A	N/A		A	13C2-PFTeDA	6.42	379002.1	N/A	

Total Ion Chromatogram

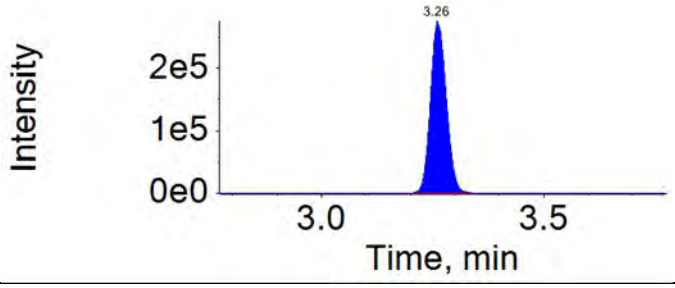


APPROVED
By MCD at 6:34 pm, 11/12/18

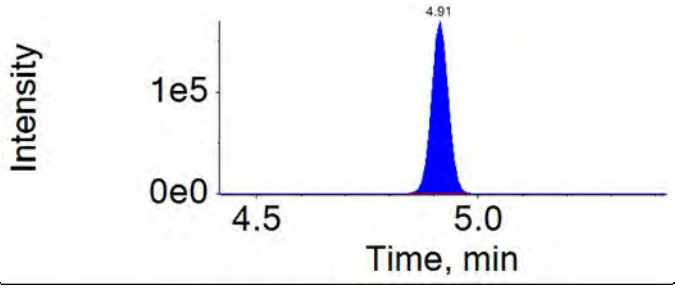
REVIEWED
By HMK at 10:53 am, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

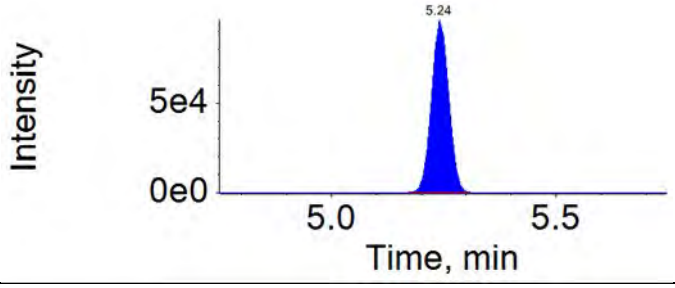
Injection Standard: 13C3-PFBA
216.0 / 172.0



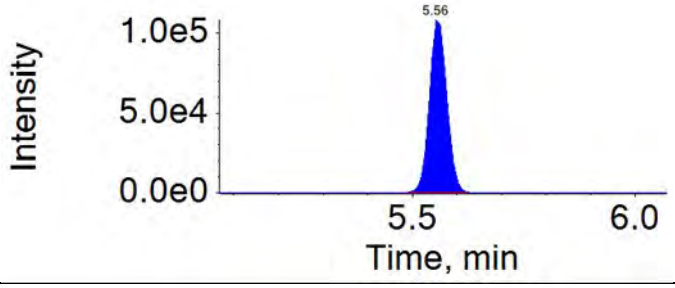
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0



Injection Standard: 13C2-PFDA
515.0 / 470.0

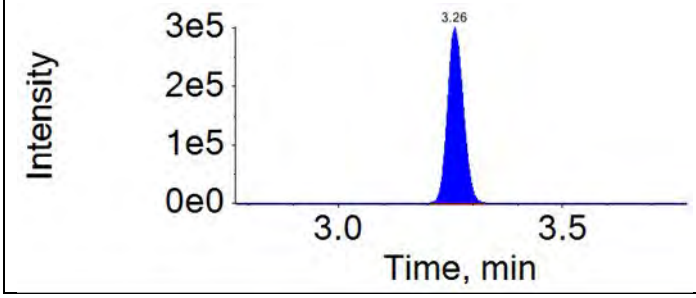


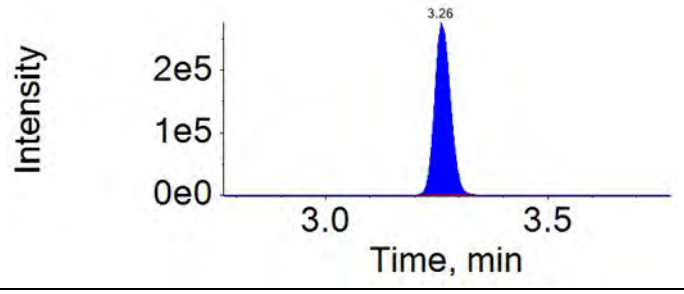
APPROVED
By MCD at 6:34 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

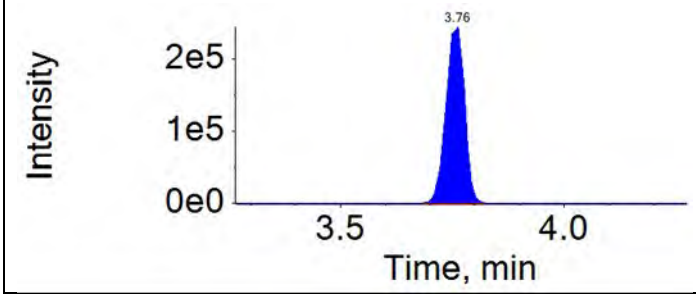
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

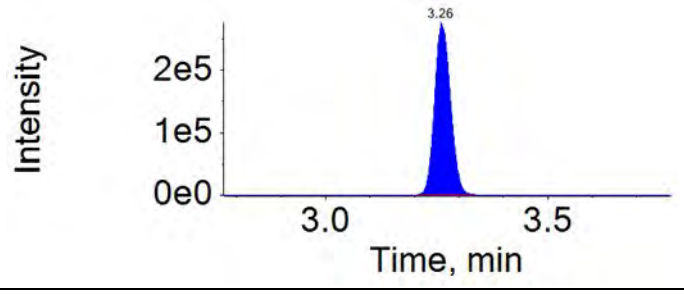
Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0



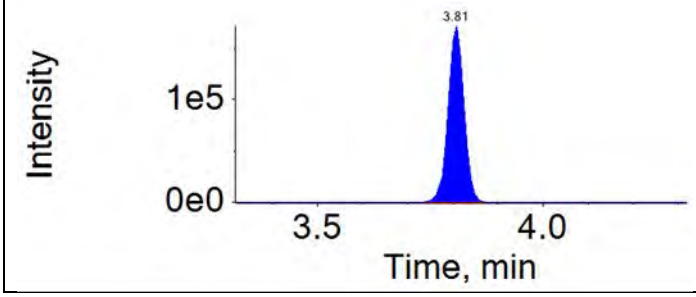


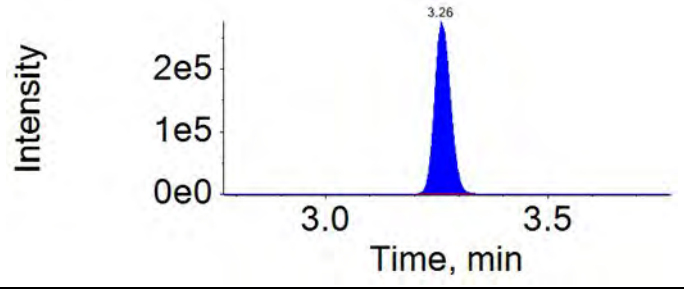
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268.0 / 223.0	216.0 / 172.0



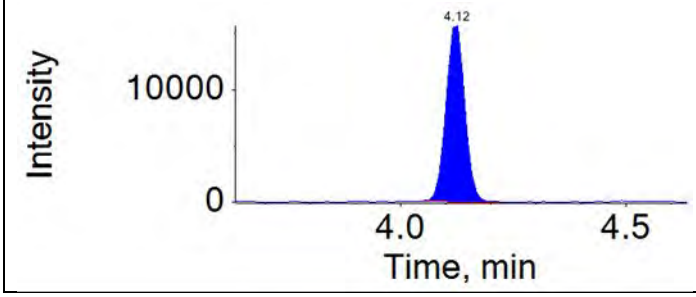


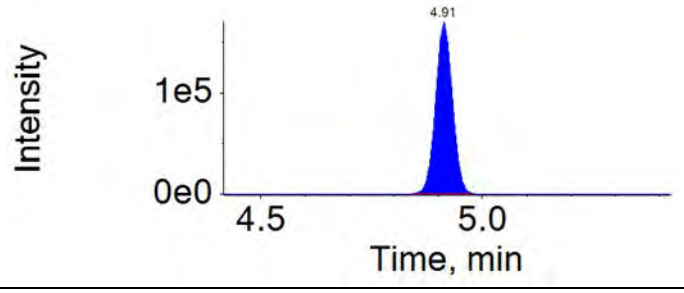
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0





Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0



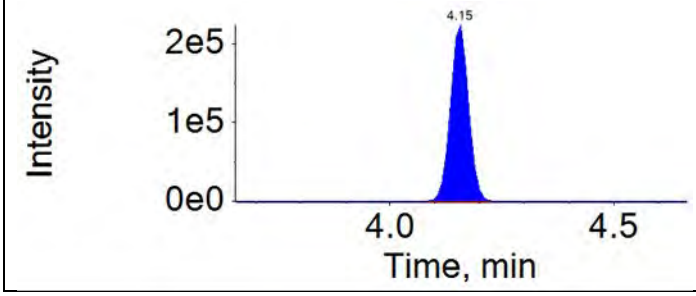


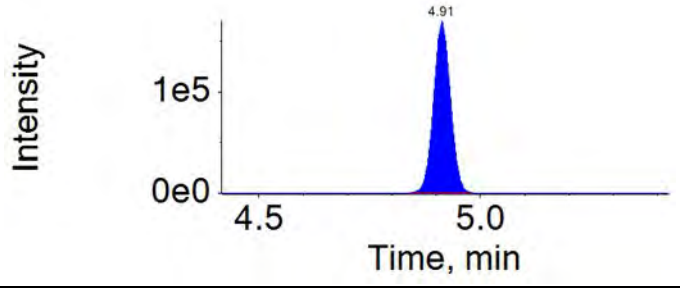
APPROVED
By MCD at 6:34 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

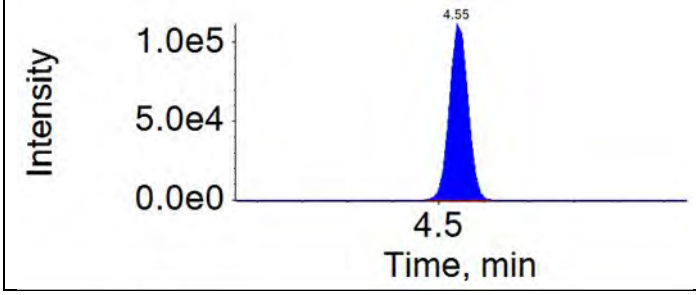
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

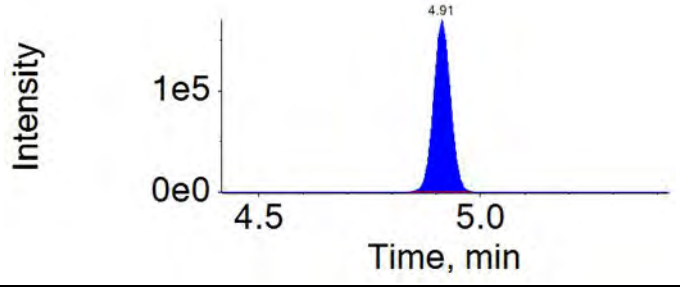
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318.0 / 273.0	415.0 / 370.0



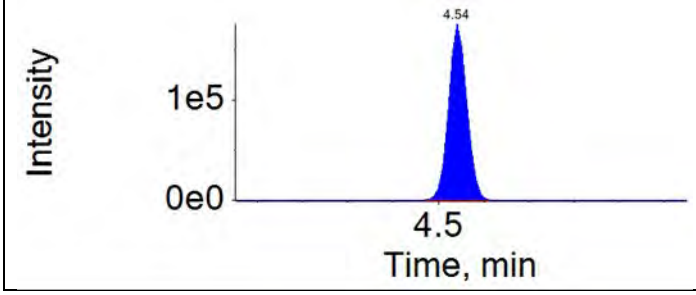


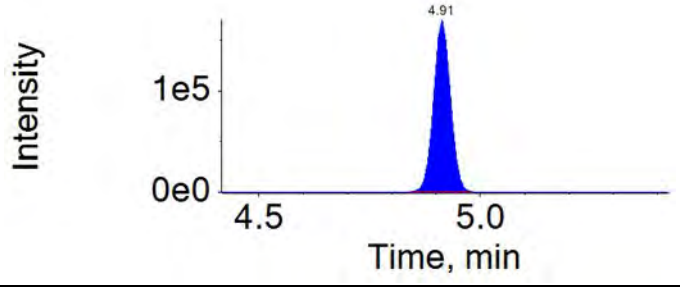
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0



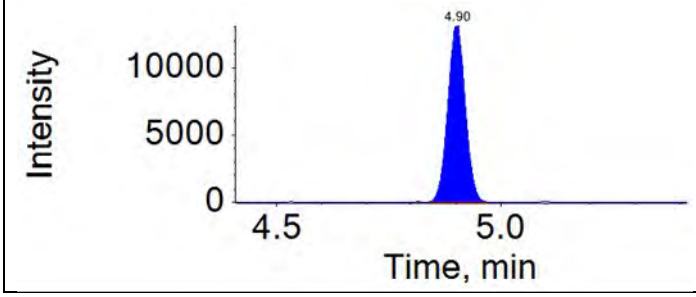


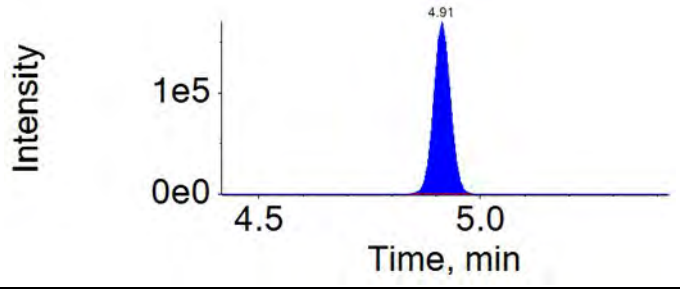
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0





Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0

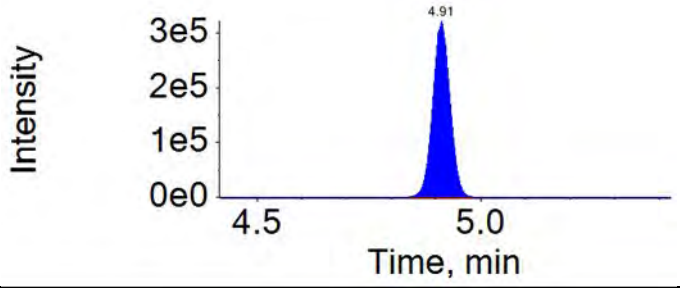
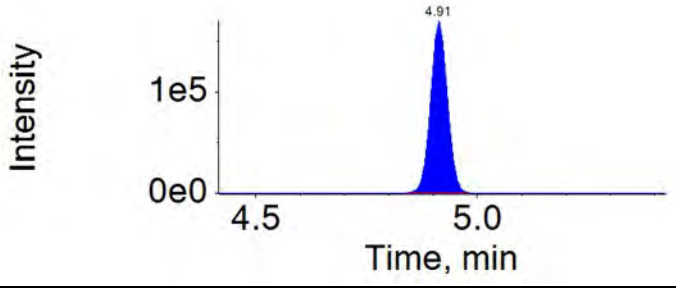


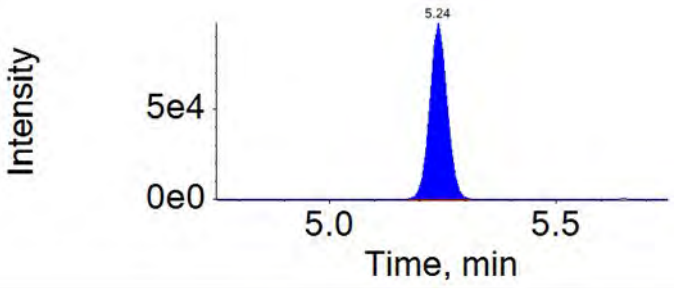
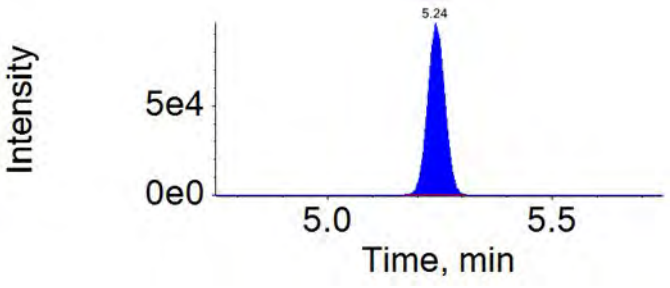


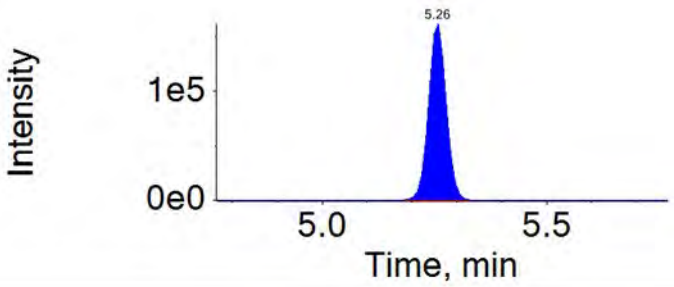
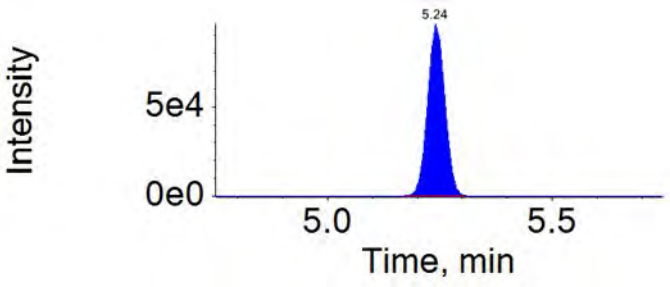
APPROVED
By MCD at 6:34 pm, 11/12/18

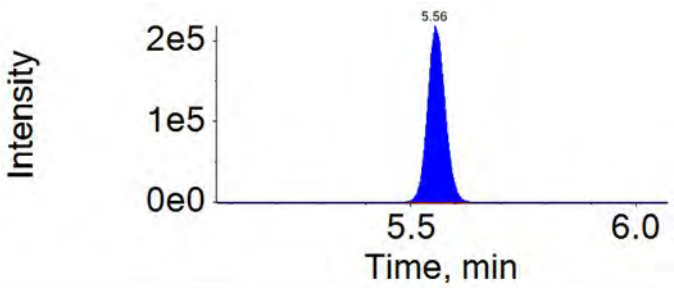
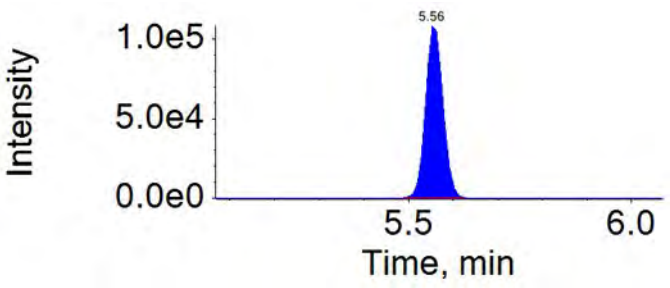
REVIEWED
By HMK at 10:53 am, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

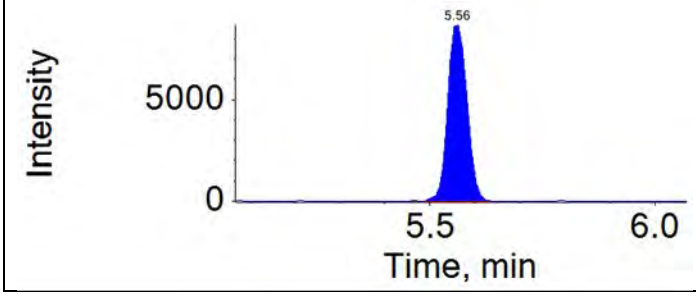
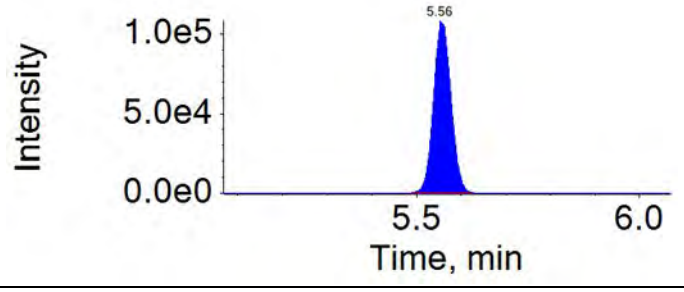
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421.0 / 376.0	415.0 / 370.0
	

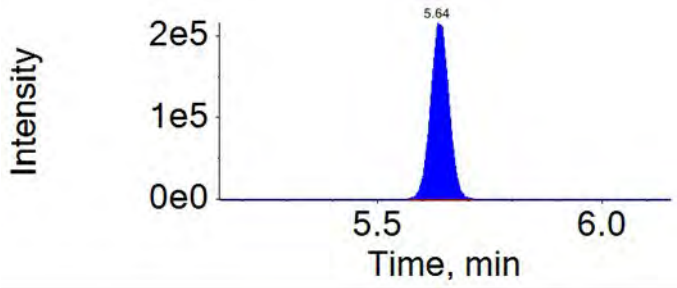
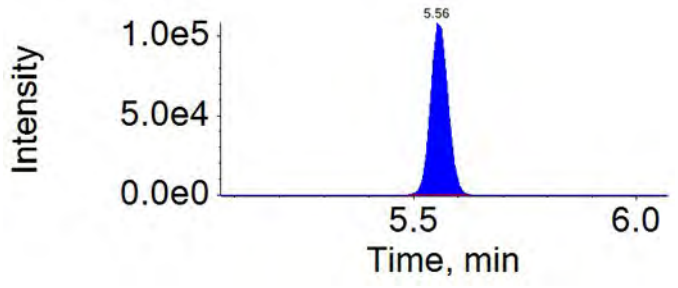
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507.0 / 80.0	503.0 / 80.0
	

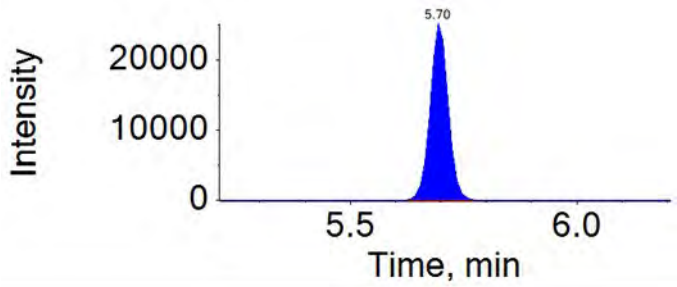
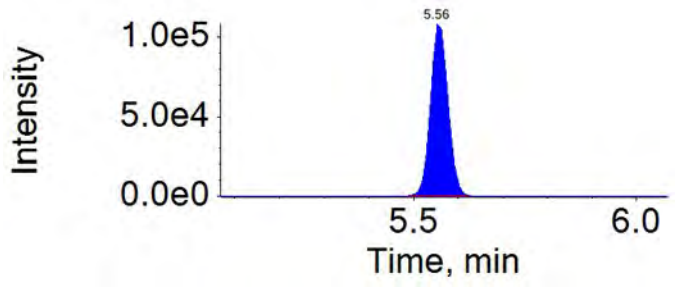
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472.0 / 427.0	503.0 / 80.0
	

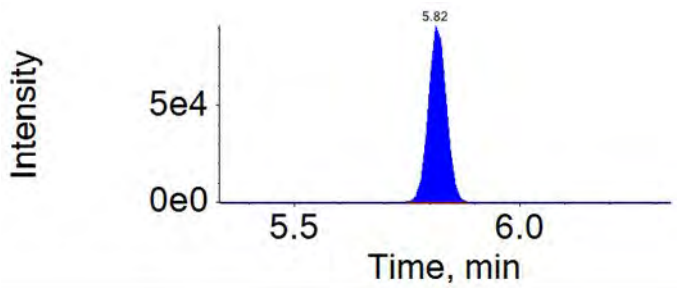
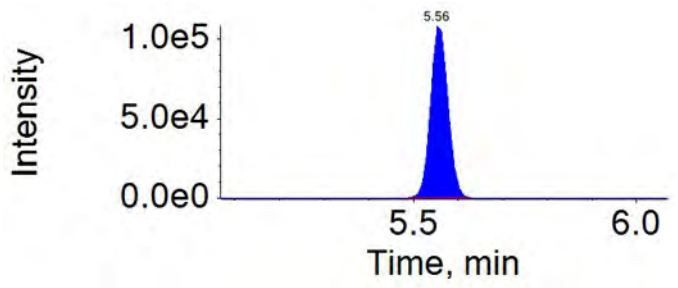
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519.0 / 474.0	515.0 / 470.0
	

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

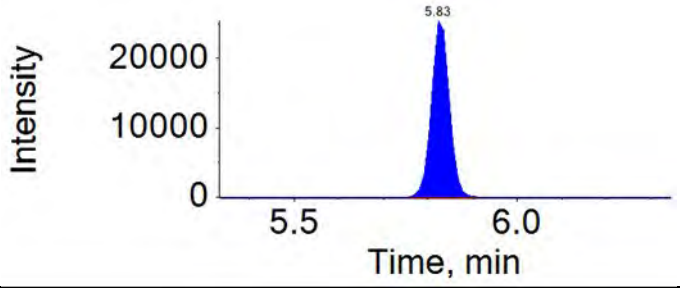
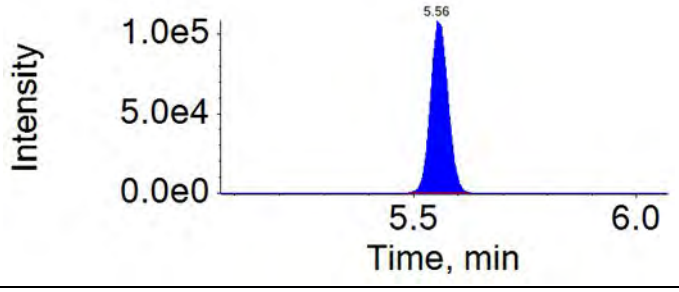
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529.0 / 81.0	515.0 / 470.0
	

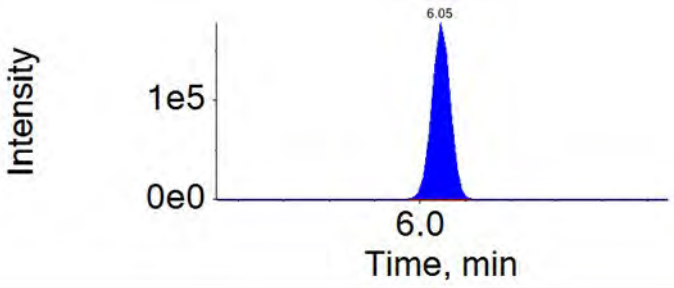
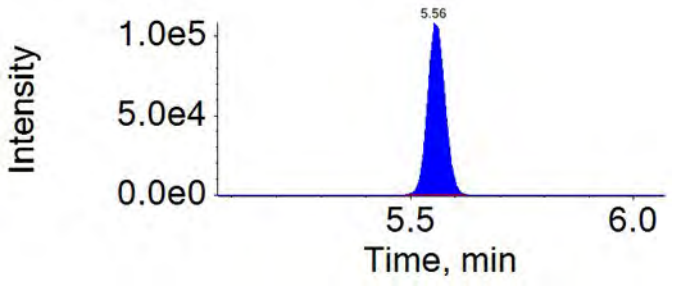
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506.0 / 78.0	515.0 / 470.0
	

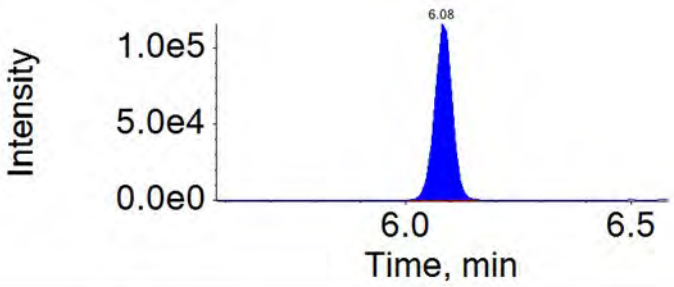
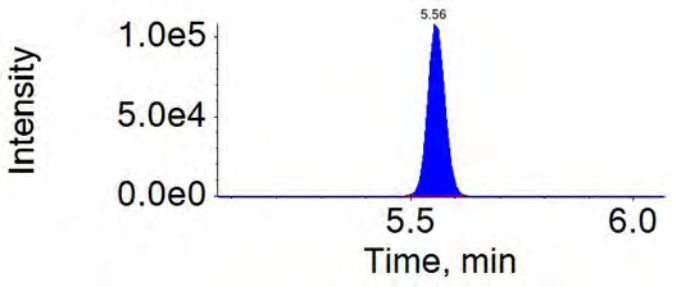
Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0
	

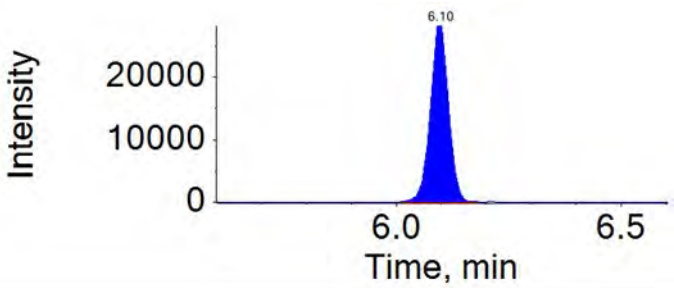
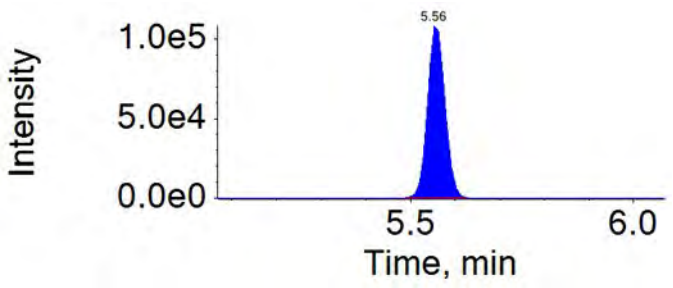
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570.0 / 525.0	515.0 / 470.0
	

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0
	

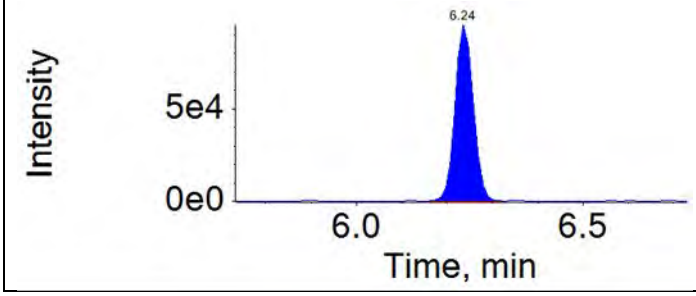
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615.0 / 570.0	515.0 / 470.0
	

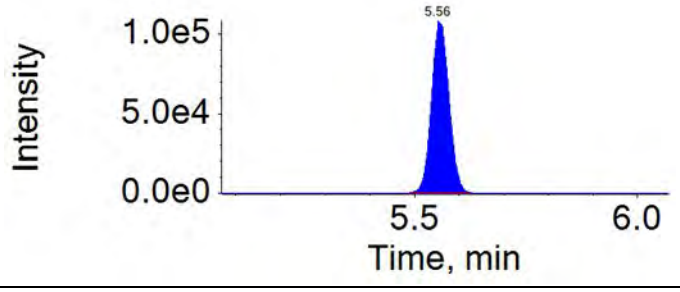
Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0
	

Extraction Standard: Ed3-NMePFOSA	Injection Standard: 13C2-PFDA
515.0 / 169.0	515.0 / 470.0
	

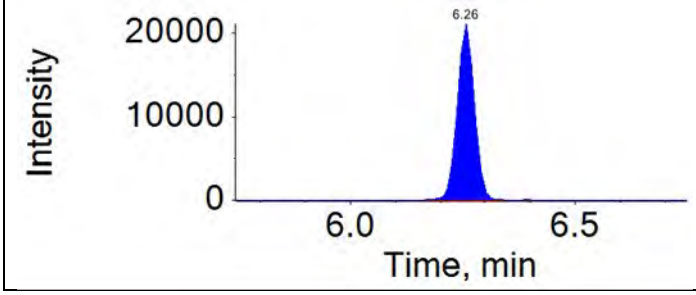
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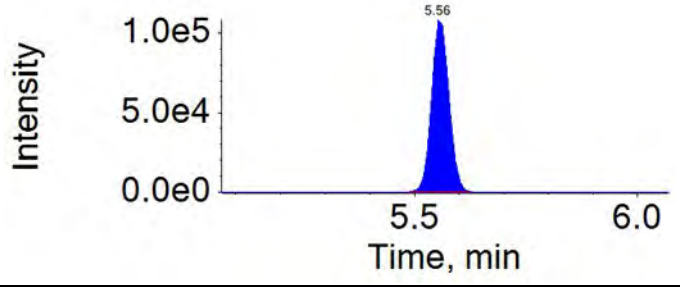
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



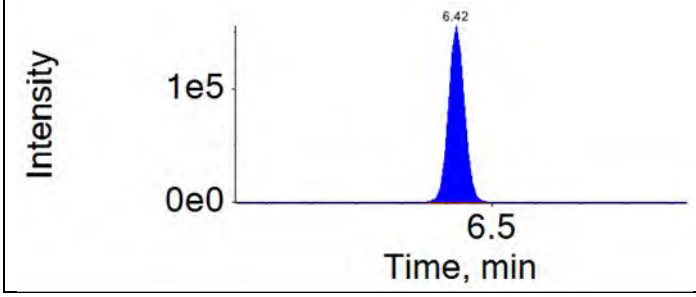


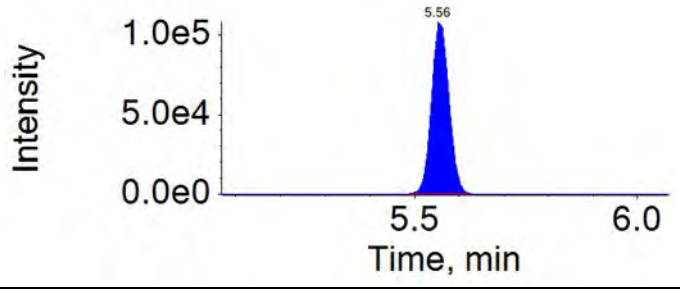
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0



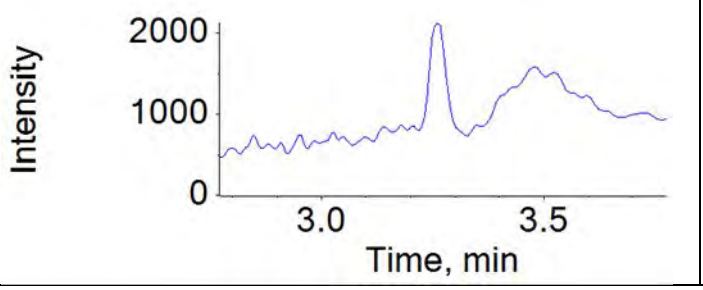


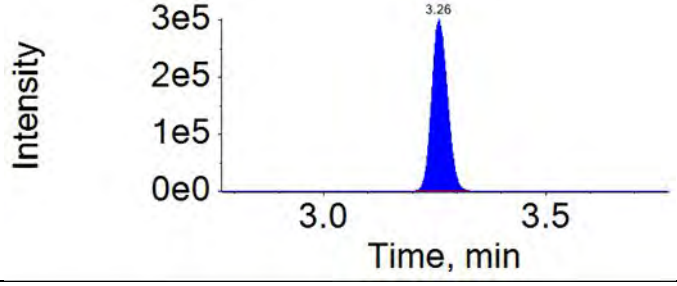
APPROVED
By MCD at 6:34 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

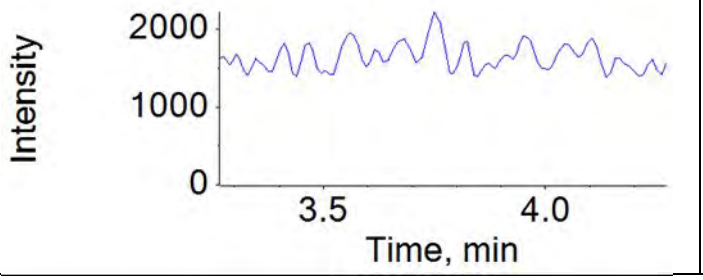
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

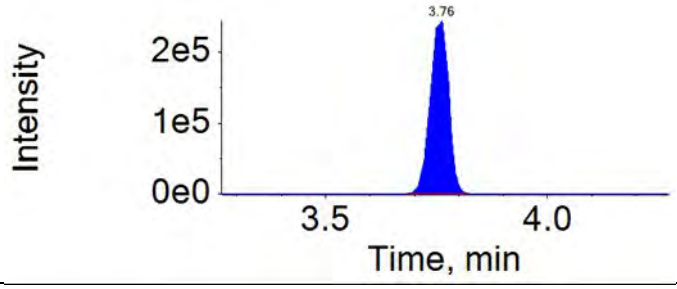
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



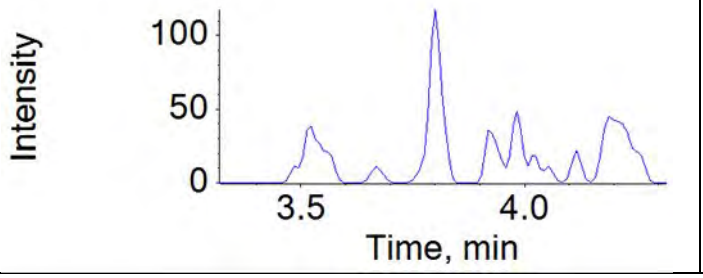


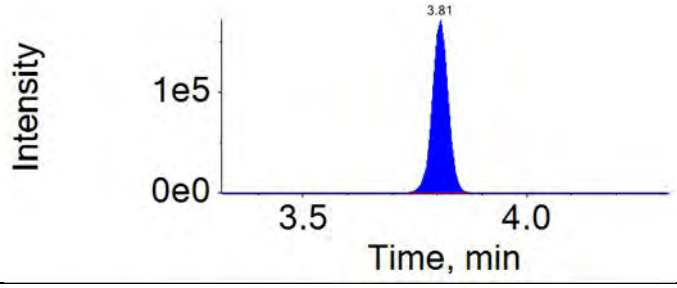
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



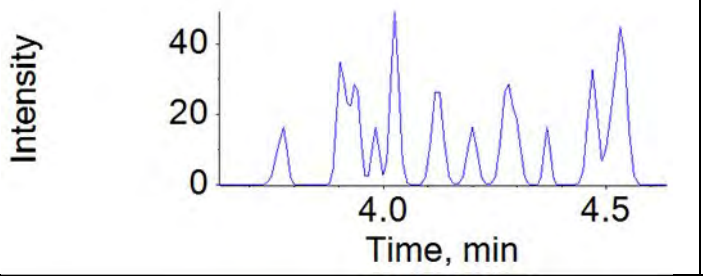


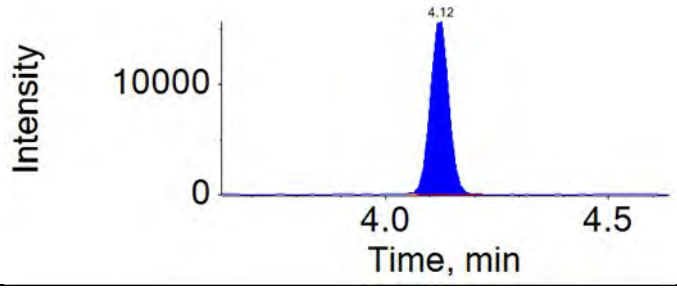
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





Analyte: 4:2-FTS	Extraction Standard: 13C2-4:2-FTS
327.0 / 307.0	329.0 / 81.0



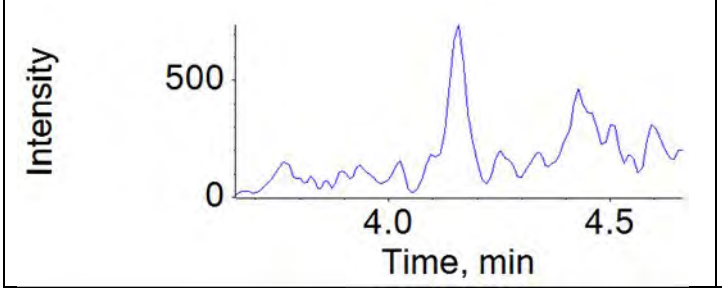


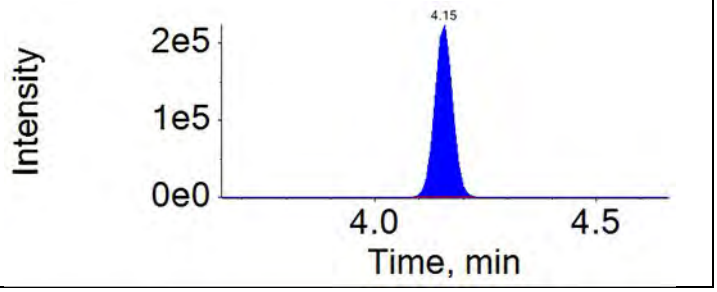
APPROVED
By MCD at 6:34 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

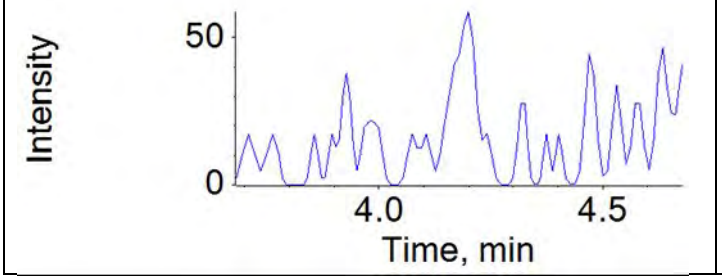
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

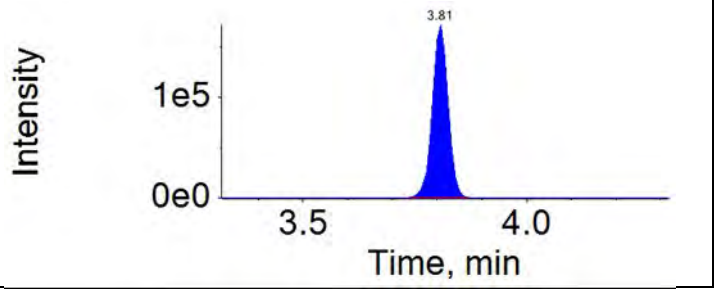
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



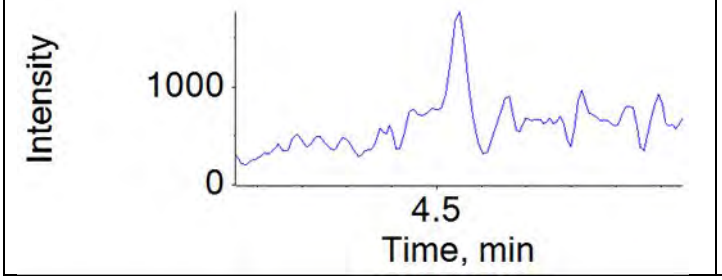


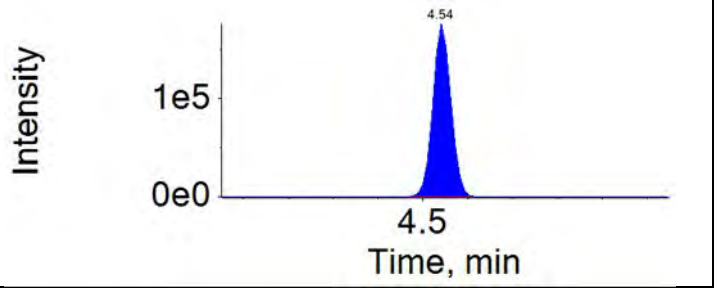
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



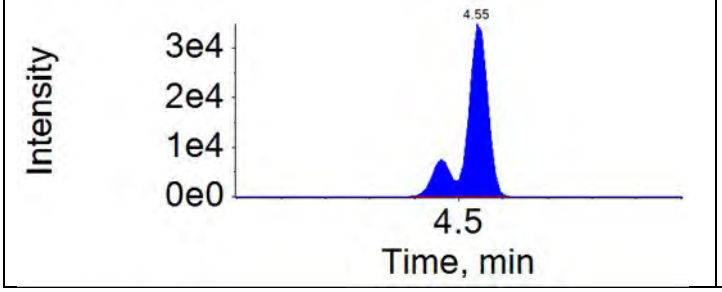


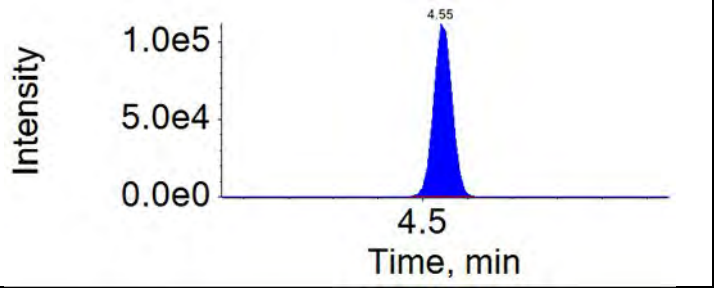
Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0





Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0



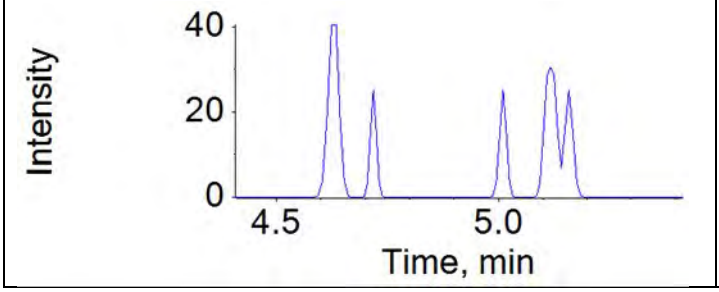


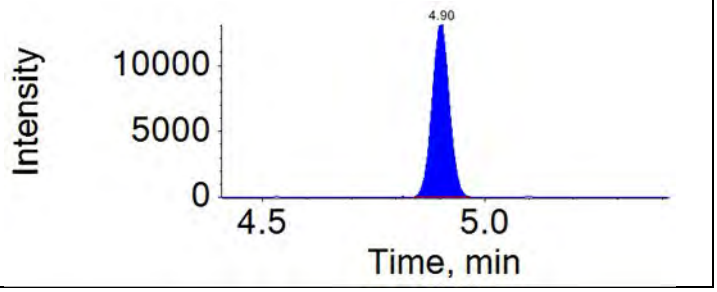
APPROVED
By MCD at 6:34 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

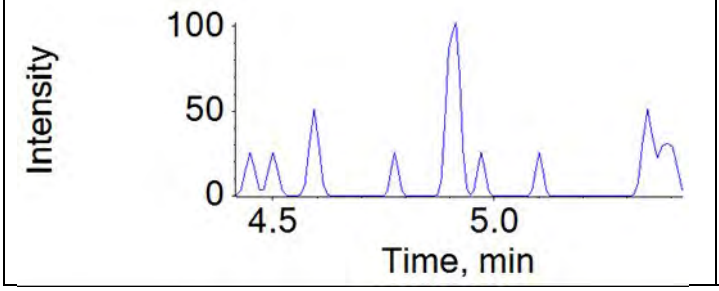
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

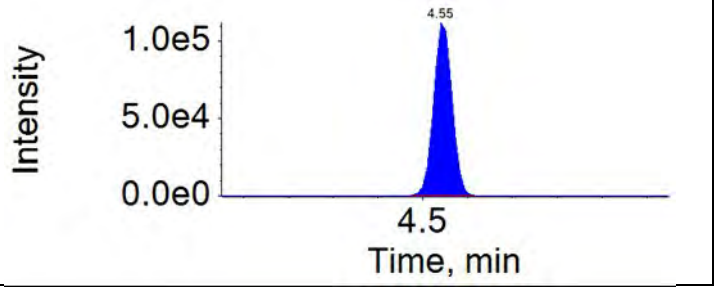
Analyte: 6:2-FTS	Extraction Standard: 13C2-6:2-FTS
427.0 / 407.0	429.0 / 81.0



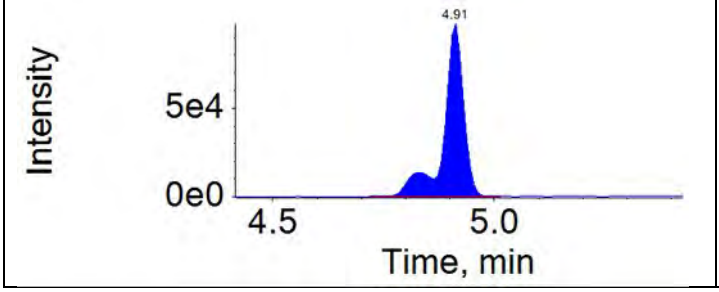


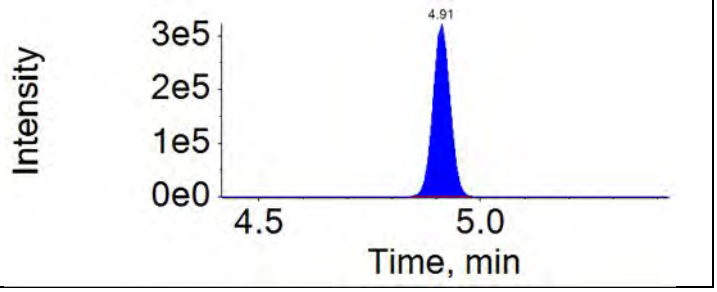
Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0



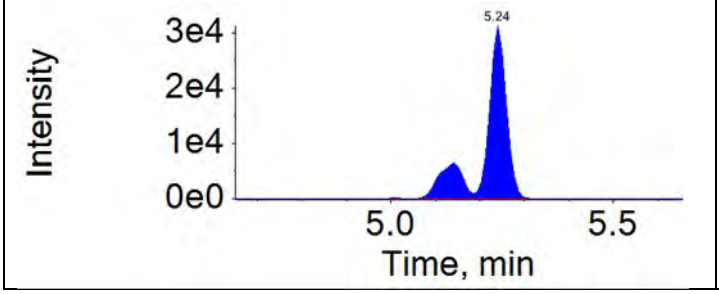


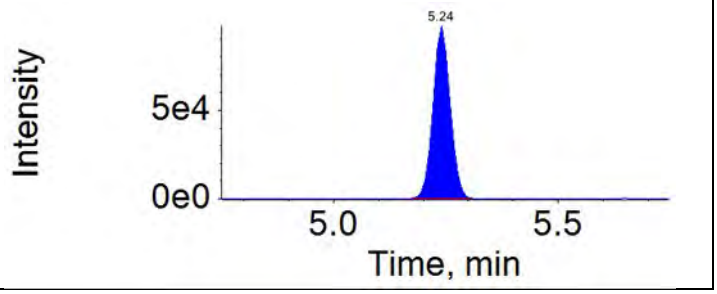
Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0





Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0



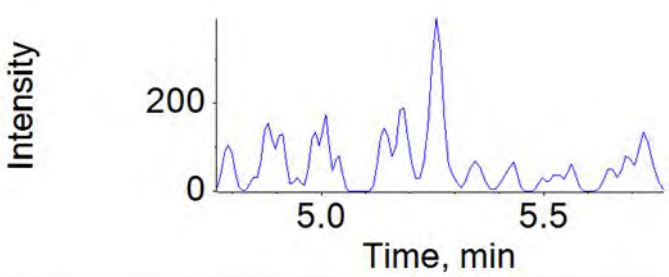


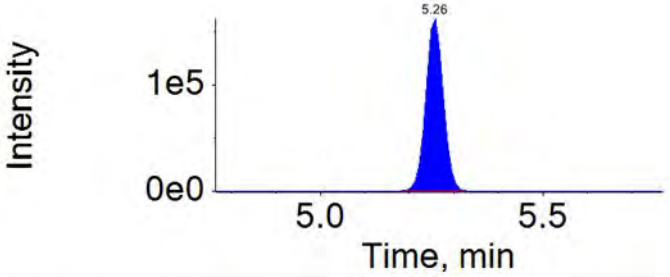
APPROVED
By MCD at 6:34 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

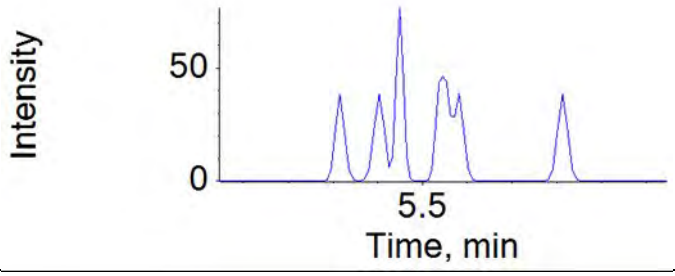
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

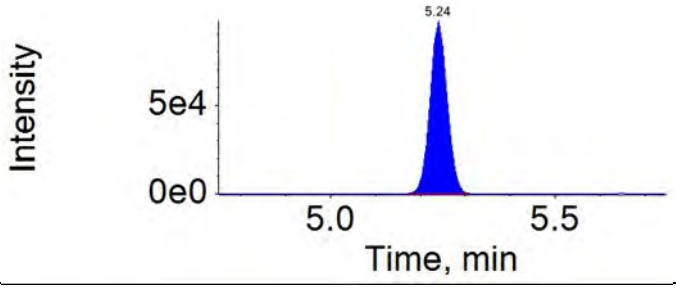
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



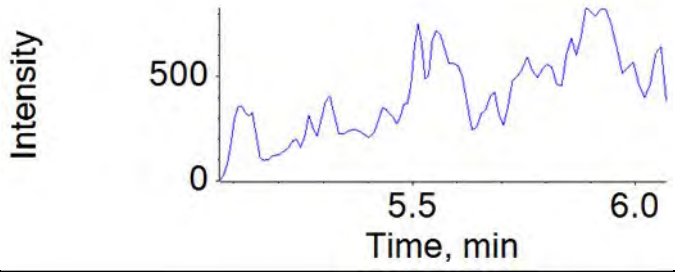


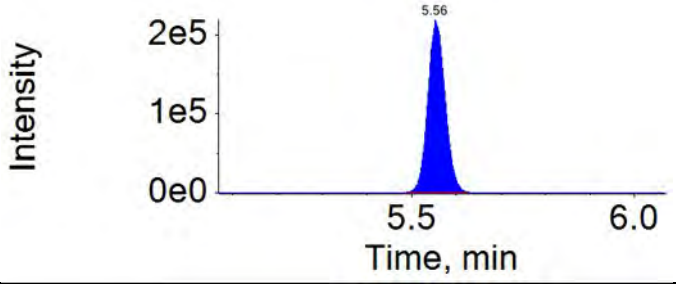
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



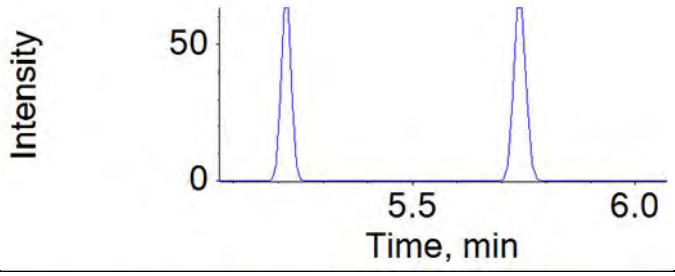


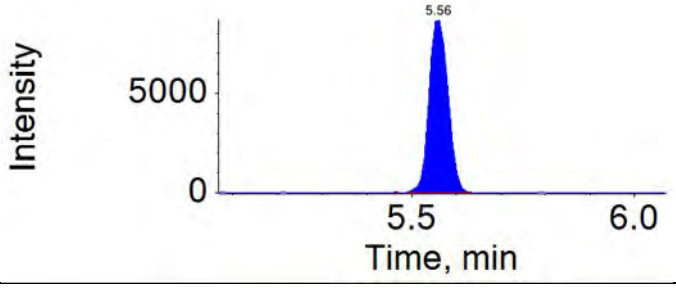
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





Analyte: 8:2-FTS	Extraction Standard: 13C2-8:2-FTS
527.0 / 507.0	529.0 / 81.0



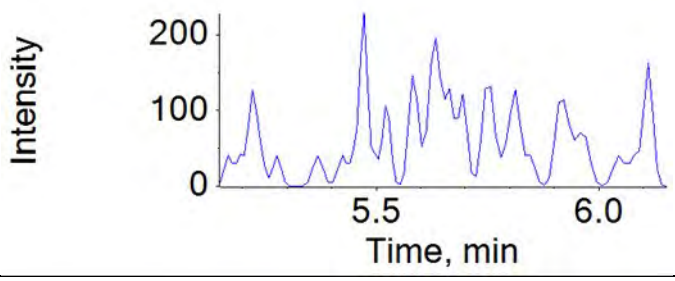


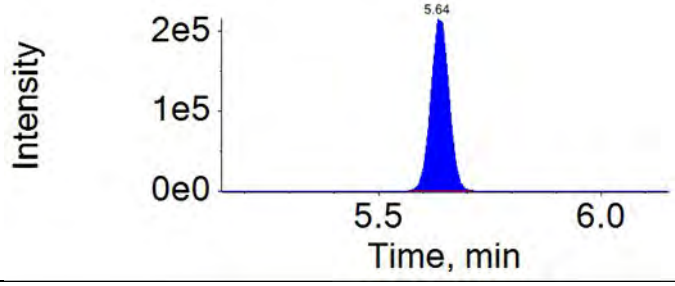
APPROVED
By MCD at 6:34 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

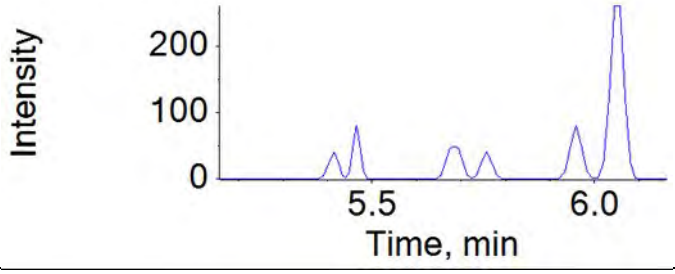
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

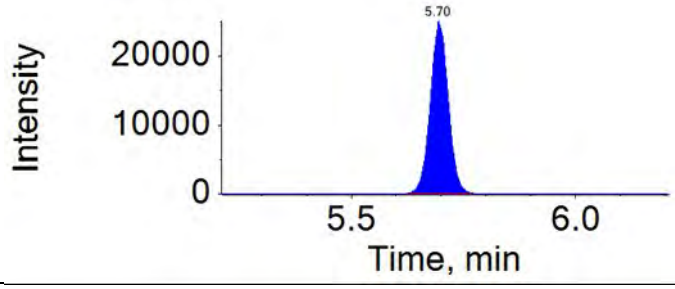
Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0



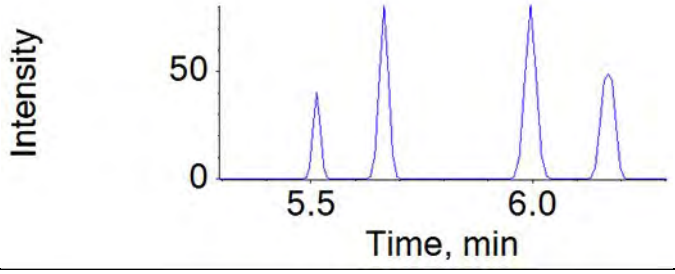


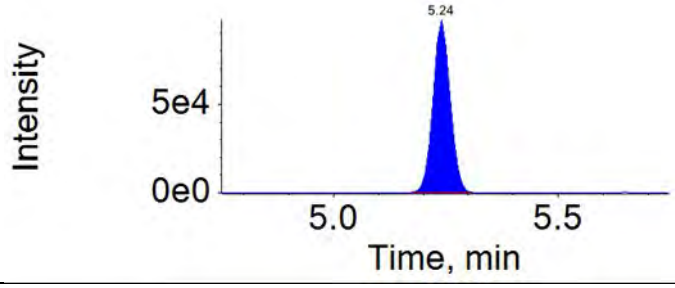
Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0



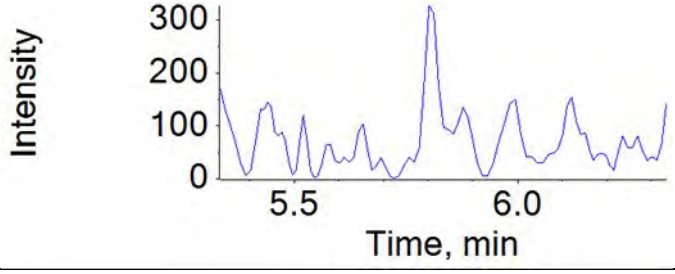


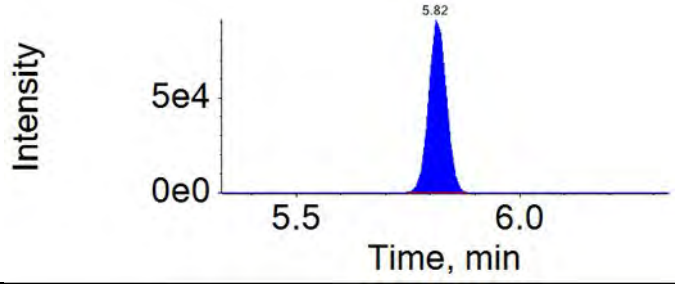
Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0





Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0



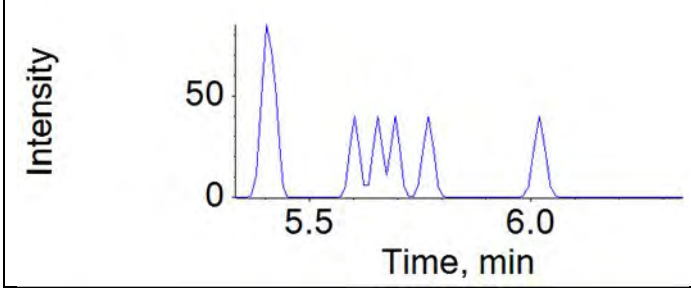


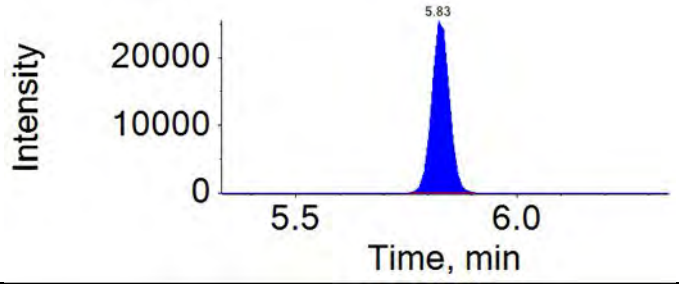
APPROVED
By MCD at 6:34 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

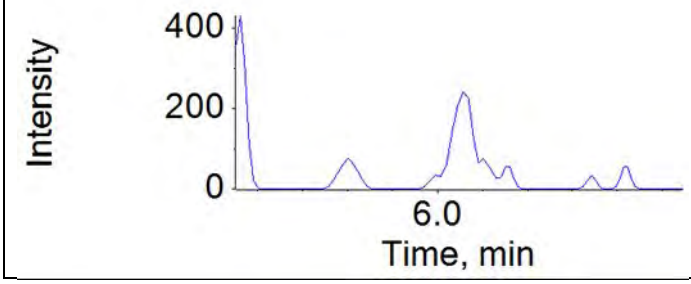
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

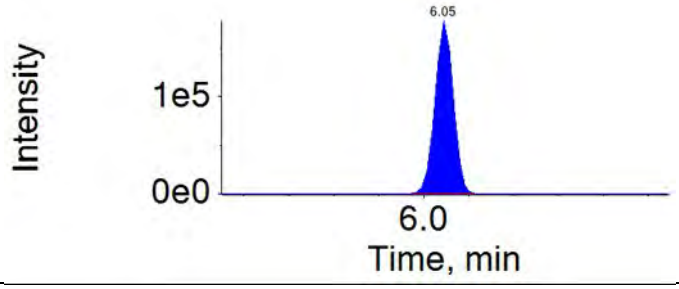
Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0



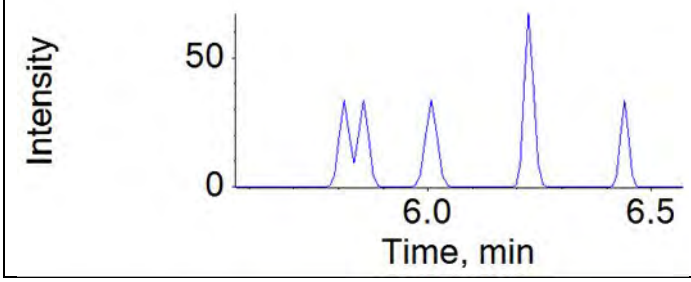


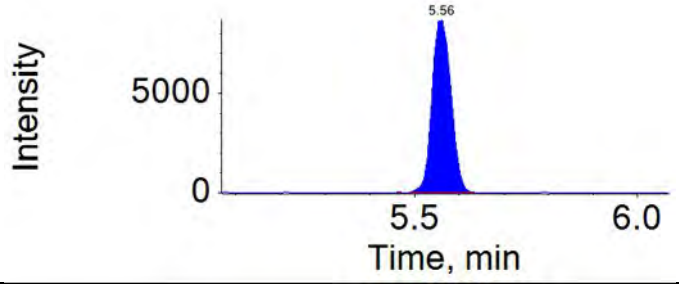
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0



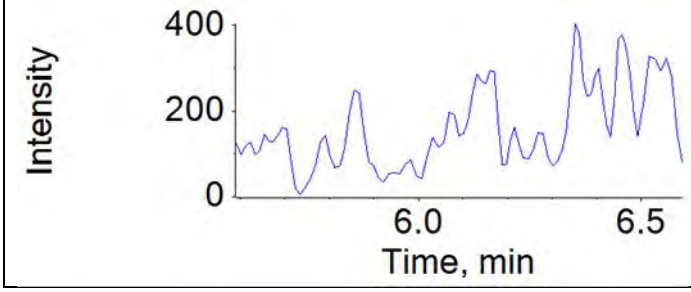


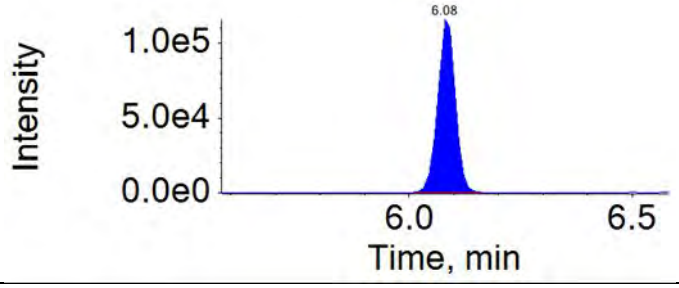
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0





Analyte: NMePFOSAE	Extraction Standard: d7-NMePFOSAE
616.0 / 59.0	623.0 / 59.0



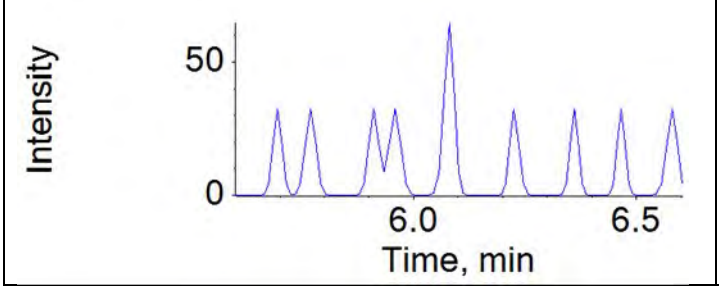


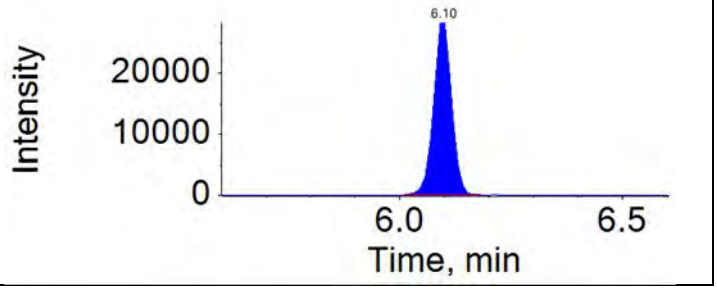
APPROVED
By MCD at 6:34 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

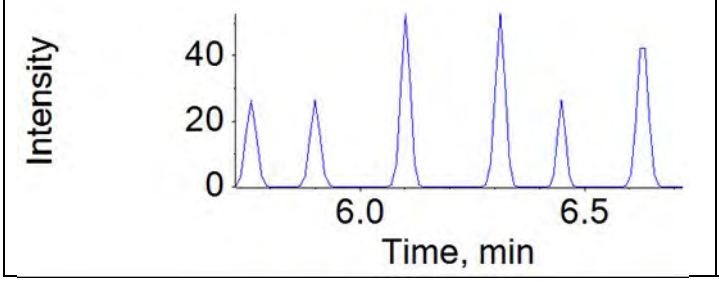
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

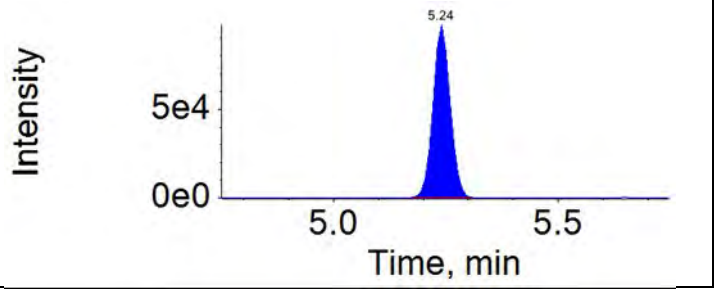
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



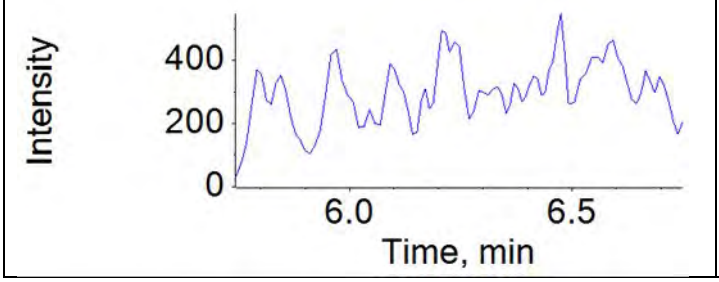


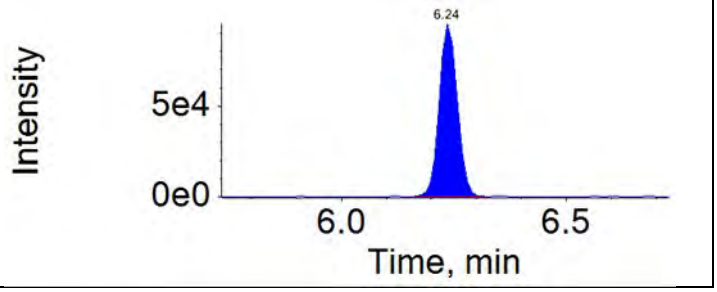
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



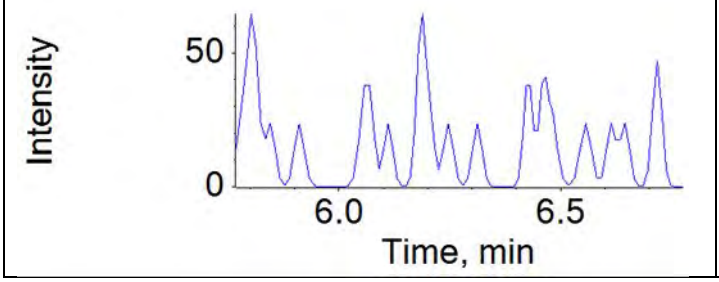


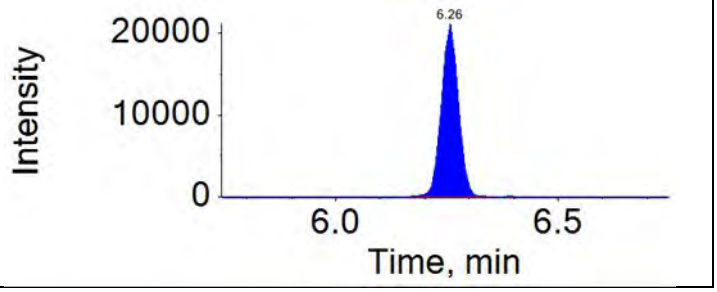
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





Analyte: NEtPFOSA	Extraction Standard: d5-NEtPFOSA
526.0 / 169.0	531.0 / 169.0



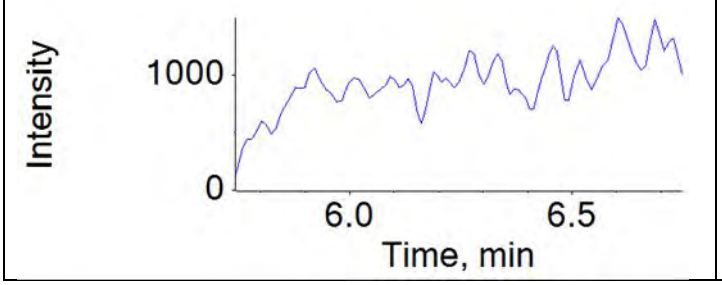


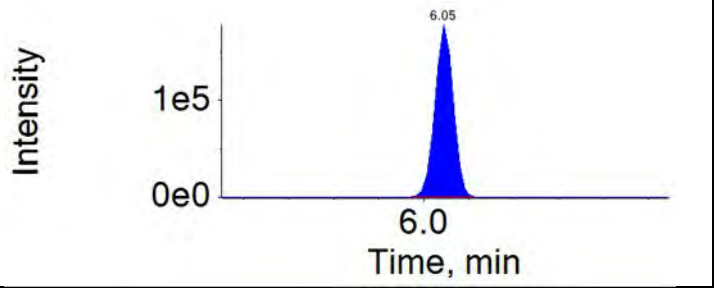
APPROVED
By MCD at 6:34 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

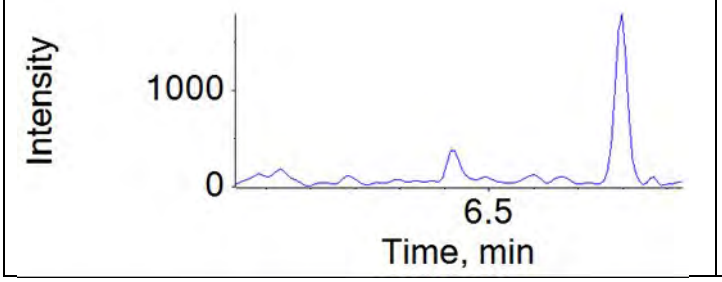
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

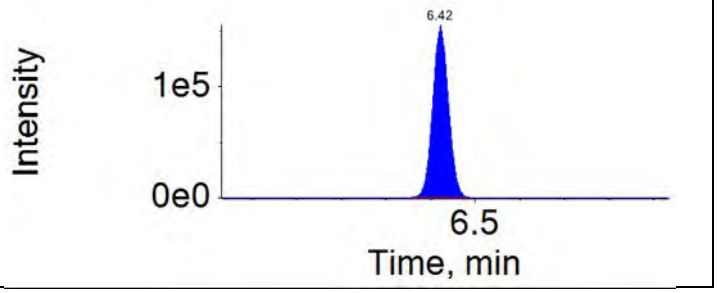
Analyte: PFTrDA	Extraction Standard: 13C2-PFDoDA
663.0 / 619.0	615.0 / 570.0



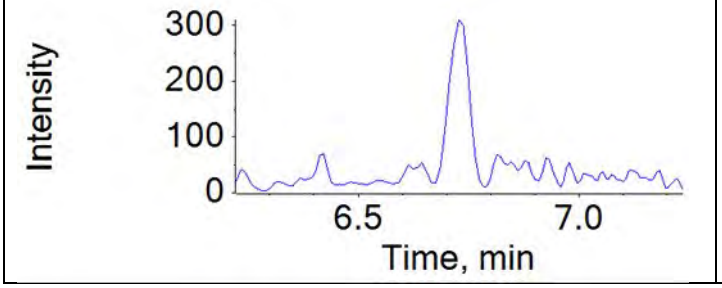


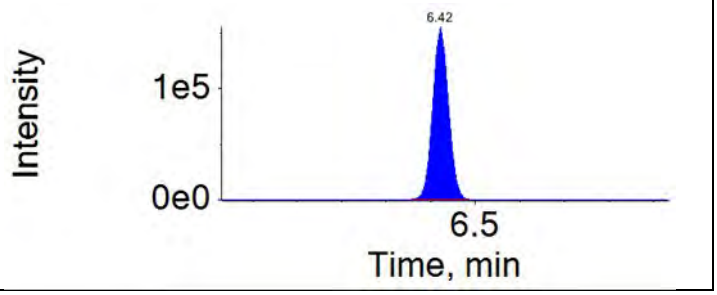
Analyte: PFTeDA	Extraction Standard: 13C2-PFTeDA
713.0 / 669.0	715.0 / 670.0



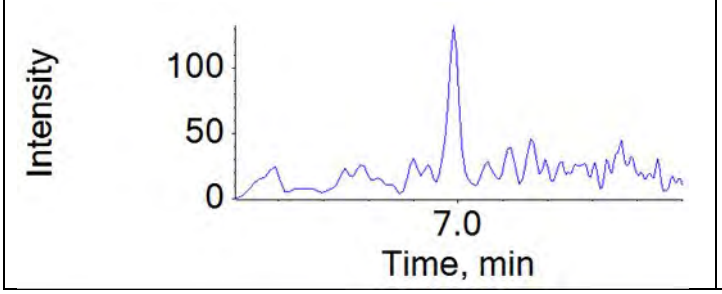


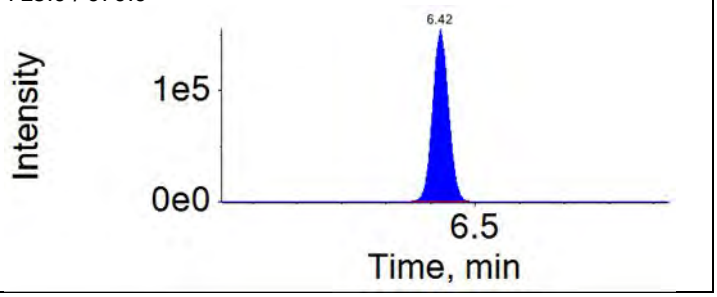
Analyte: PFHxDA	Extraction Standard: 13C2-PFTeDA
813.0 / 769.0	715.0 / 670.0





Analyte: PFODA	Extraction Standard: 13C2-PFTeDA
913.0 / 869.0	715.0 / 670.0



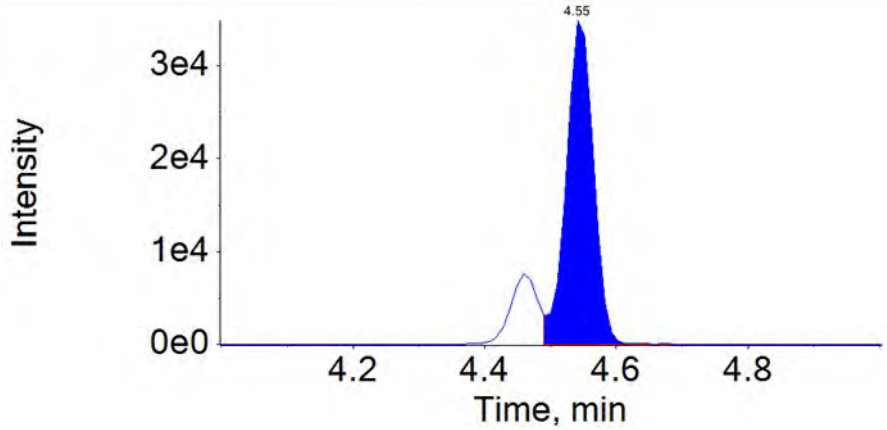


APPROVED
By MCD at 6:34 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

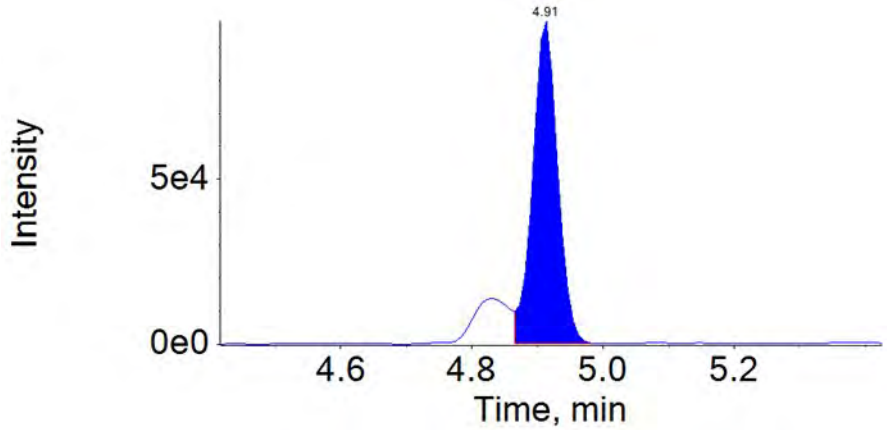
Results Table Name: 18NOV12DCAL
Results Table Date: 11/12/2018 6:23:42 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFHxS
RT (min.):
4.55
Peak Area:
101341.11
Mass Range:
399.0 / 80.0
File Name:
18NOV12DCAL-51.wiff
Sample Name:
L+B CAL3



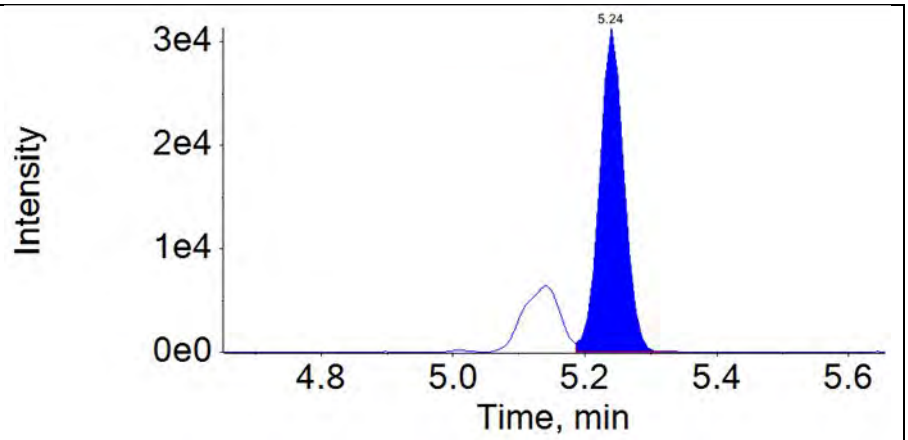
Integration Comment: incorrect integration

Component Name:
PFOA
RT (min.):
4.91
Peak Area:
258567.11
Mass Range:
413.0 / 369.0
File Name:
18NOV12DCAL-51.wiff
Sample Name:
L+B CAL3



Integration Comment: incorrect integration

Component Name:
PFOS
RT (min.):
5.24
Peak Area:
80546.10
Mass Range:
499.0 / 80.0
File Name:
18NOV12DCAL-51.wiff
Sample Name:
L+B CAL3



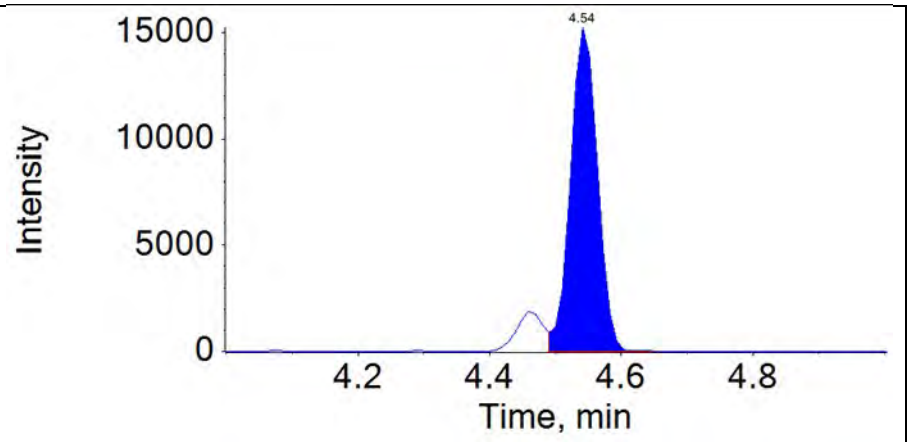
Integration Comment: incorrect integration

APPROVED
By MCD at 6:34 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

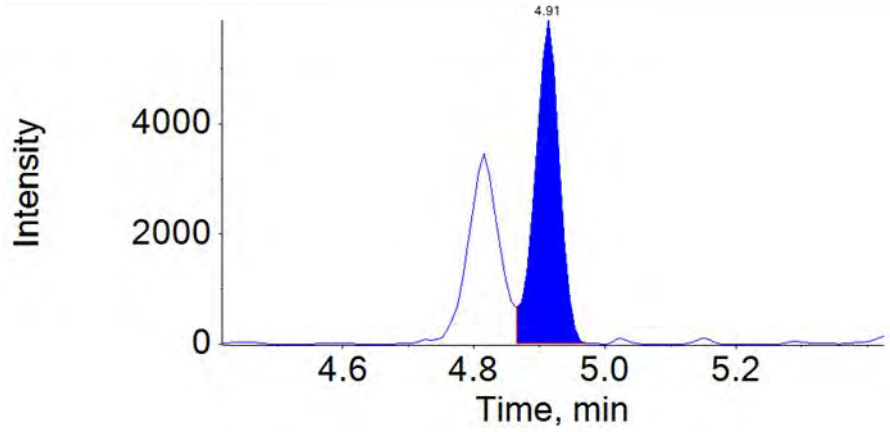
Results Table Name: 18NOV12DCAL
Results Table Date: 11/12/2018 6:23:42 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFHxS_2
RT (min.):
4.54
Peak Area:
43554.75
Mass Range:
399.0 / 99.0
File Name:
18NOV12DCAL-51.wiff
Sample Name:
L+B CAL3



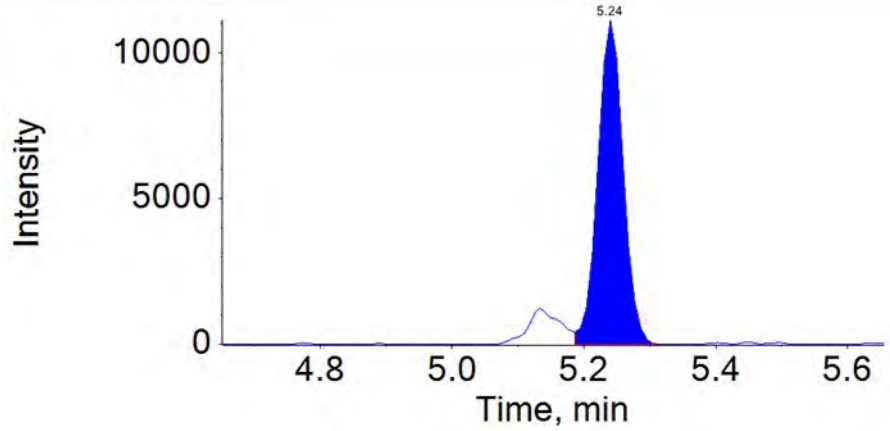
Integration Comment: incorrect integration

Component Name:
PFOA_2
RT (min.):
4.91
Peak Area:
15059.21
Mass Range:
413.0 / 169.0
File Name:
18NOV12DCAL-51.wiff
Sample Name:
L+B CAL3



Integration Comment: incorrect integration

Component Name:
PFOS_2
RT (min.):
5.24
Peak Area:
29829.42
Mass Range:
499.0 / 99.0
File Name:
18NOV12DCAL-51.wiff
Sample Name:
L+B CAL3



Integration Comment: incorrect integration

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By MCD at 6:34 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

Results Table Name: 18NOV12DCAL
Results Table Date: 11/12/2018 6:23:42 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Ion Ratio Report

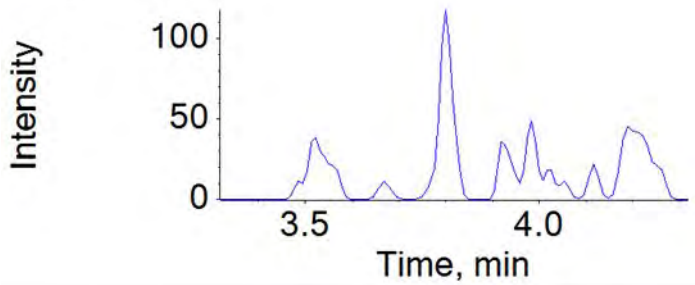
Sample Name: L+B CAL3 **Instrument Name:** LM27631 **File Name:** 18NOV12DCAL-51.wiff

Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	N/A	N/A	N/A	A	0.3619	N/A			
PFBS_2	N/A	N/A	N/A	A	0.3619	N/A		50	
4:2-FTS	N/A	N/A	N/A	A	0.6730	N/A			
4:2 FTS_2	N/A	N/A	N/A	A	0.6730	N/A		#NA!	
PFHxA	N/A	N/A	N/A	A	0.0117	N/A			
PFHxA_2	N/A	N/A	N/A	A	0.0117	N/A		50	
PFPeS	N/A	N/A	N/A	A	0.5191	N/A			
PFPeS_2	N/A	N/A	N/A	A	0.5191	N/A		50	
PFHpA	N/A	N/A	N/A	A	0.0563	N/A			
PFHpA_2	N/A	N/A	N/A	A	0.0563	N/A		50	
PFHxS	4.55	1.00	122359.84	M	0.3428	0.3979			
PFHxS_2	4.54	1.00	48686.07	M	0.3428	0.3979	16	50	
6:2-FTS	N/A	N/A	N/A	A	0.6604	N/A			
6:2 FTS_2	N/A	N/A	N/A	A	0.6604	N/A		#NA!	
PFHpS	N/A	N/A	N/A	A	0.4066	N/A			
PFHpS_2	N/A	N/A	N/A	A	0.4066	N/A		50	
PFOA	4.91	1.00	312625.40	M	0.0562	0.0855			
PFOA_2	4.90	1.00	26736.79	M	0.0562	0.0855	52	50	OOS
PFOS	5.24	1.00	105809.81	M	0.2968	0.3212			
PFOS_2	5.24	1.00	33989.74	M	0.2968	0.3212	8	50	
PFNA	N/A	N/A	N/A	A	0.0229	N/A			
PFNA_2	N/A	N/A	N/A	A	0.0229	N/A		50	
PFNS	N/A	N/A	N/A	A	0.4828	N/A			
PFNS_2	N/A	N/A	N/A	A	0.4828	N/A		50	
PFDA	N/A	N/A	N/A	A	0.0081	N/A			
PFDA_2	N/A	N/A	N/A	A	0.0081	N/A		50	
8:2-FTS	N/A	N/A	N/A	A	0.6814	N/A			
8:2 FTS_2	N/A	N/A	N/A	A	0.6814	N/A		#NA!	
NMeFOSAA	N/A	N/A	N/A	A	0.2569	N/A			
NMeFOSAA_2	N/A	N/A	N/A	A	0.2569	N/A		50	
PFDS	N/A	N/A	N/A	A	0.5144	N/A			
PFDS_2	N/A	N/A	N/A	A	0.5144	N/A		50	
PFUnDA	N/A	N/A	N/A	A	0.0058	N/A			
PFUnDA_2	N/A	N/A	N/A	A	0.0058	N/A		50	
NEtFOSAA	N/A	N/A	N/A	A	0.7253	N/A			
NEtFOSAA_2	N/A	N/A	N/A	A	0.7253	N/A		50	
PFDoDA	N/A	N/A	N/A	A	0.0157	N/A			
PFDoDA_2	N/A	N/A	N/A	A	0.0157	N/A		50	
10:2-FTS	N/A	N/A	N/A	A	0.6356	N/A			
10:2 FTS_2	N/A	N/A	N/A	A	0.6356	N/A		#NA!	
PFTrDA	N/A	N/A	N/A	A	0.0086	N/A			
PFTrDA_2	N/A	N/A	N/A	A	0.0086	N/A		50	
PFTeDA	N/A	N/A	N/A	A	0.0062	N/A			
PFTeDA_2	N/A	N/A	N/A	A	0.0062	N/A		50	
PFHxDA	N/A	N/A	N/A	A	0.0683	N/A			
PFHxDA_2	N/A	N/A	N/A	A	0.0683	N/A		50	
PFODA	N/A	N/A	N/A	A	0.0277	N/A			
PFODA_2	N/A	N/A	N/A	A	0.0277	N/A		50	

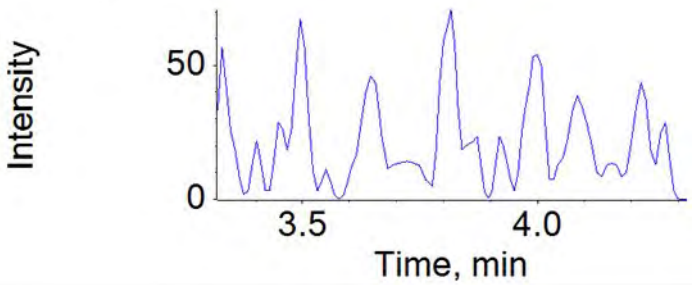
APPROVED
By MCD at 6:34 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

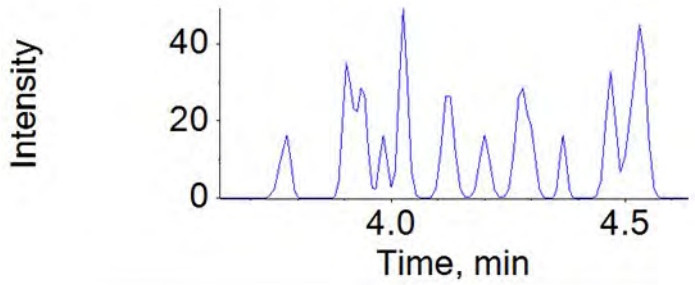
Component: PFBS
Primary Mass: 299.0 / 80.0



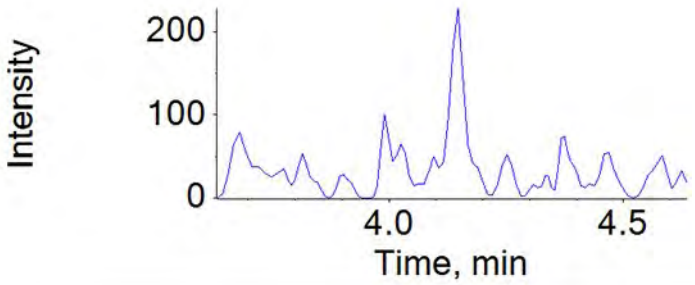
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



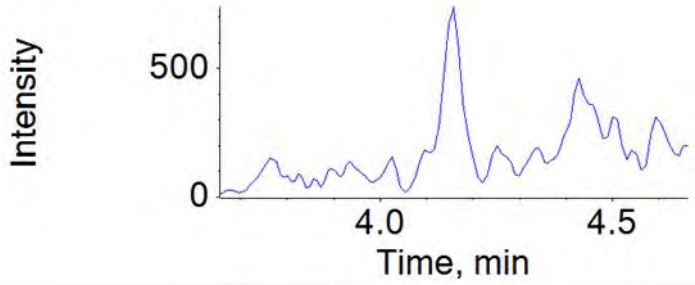
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



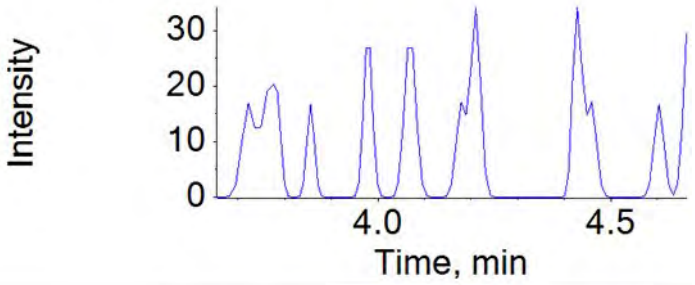
Component: 4:2 FTS_2
Secondary Mass: 327.0 / 81.0



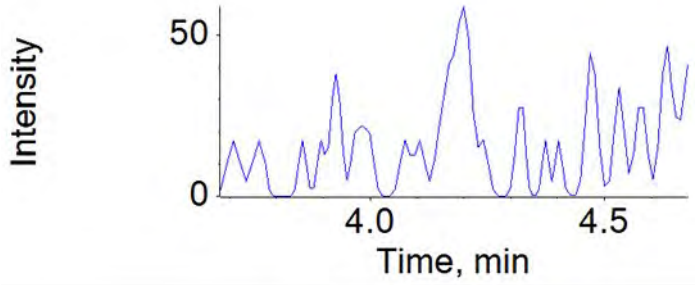
Component: PFHxA
Primary Mass: 313.0 / 269.0



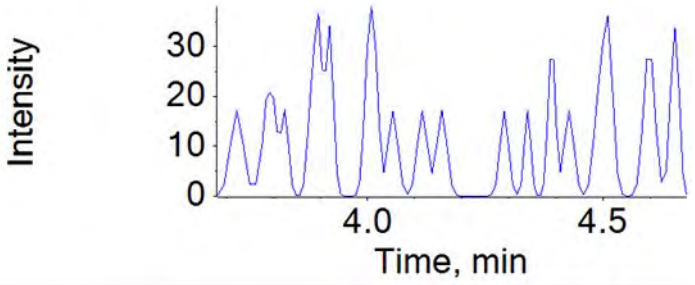
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



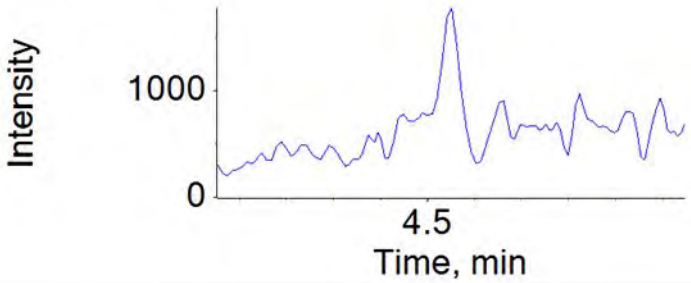
Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



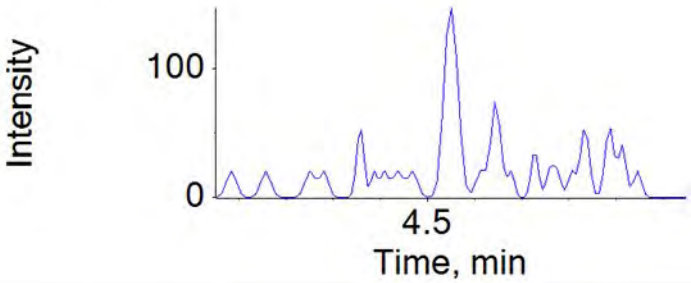
APPROVED
By MCD at 6:34 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

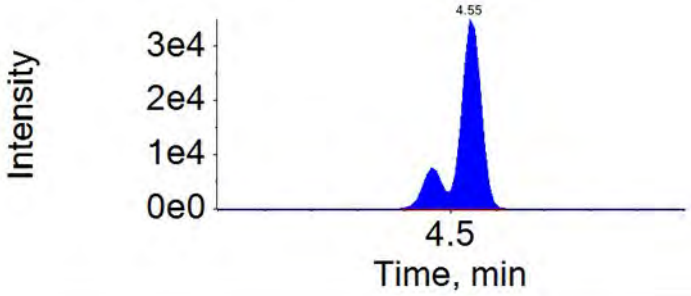
Component: PFHpA
Primary Mass: 363.0 / 319.0



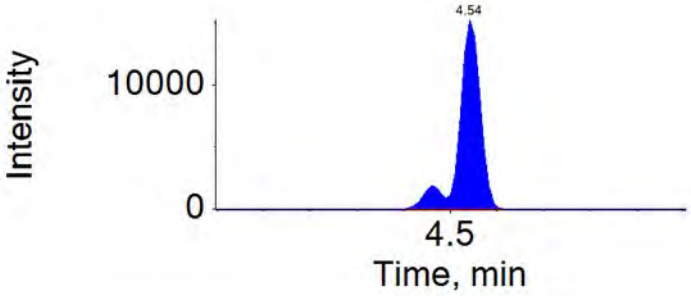
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



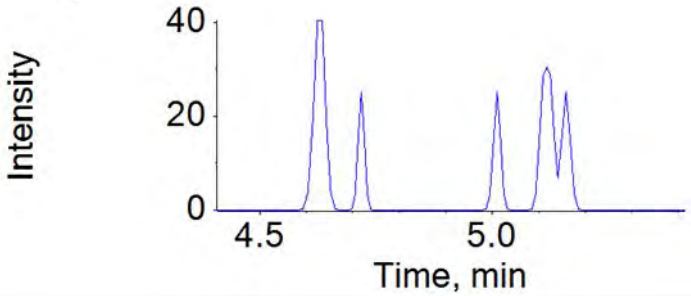
Component: PFHxS
Primary Mass: 399.0 / 80.0



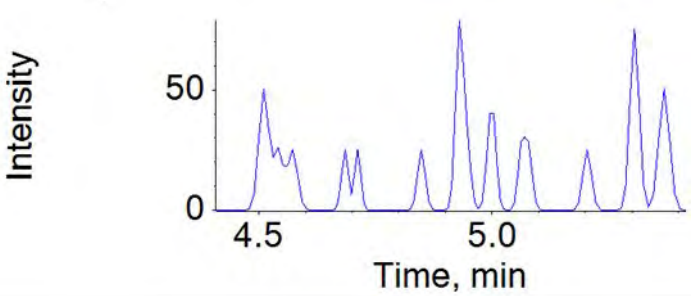
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



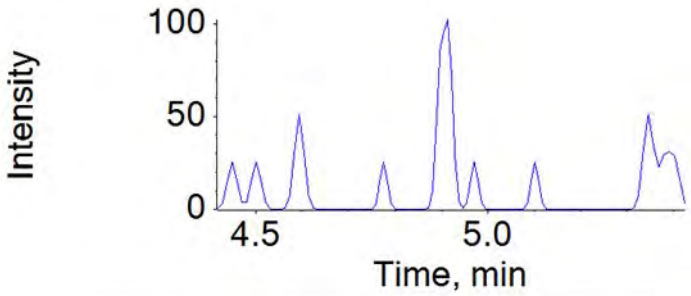
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



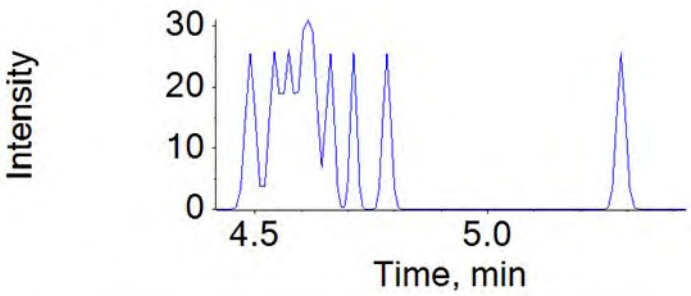
Component: 6:2 FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



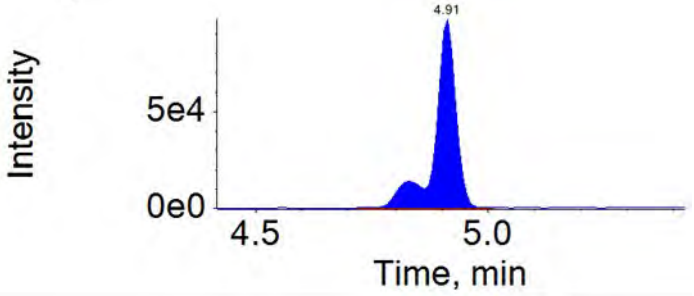
Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



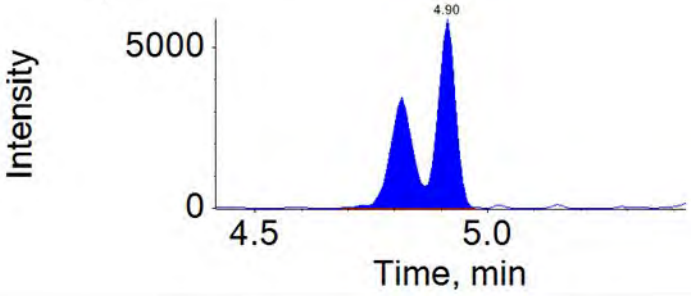
APPROVED
By MCD at 6:34 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

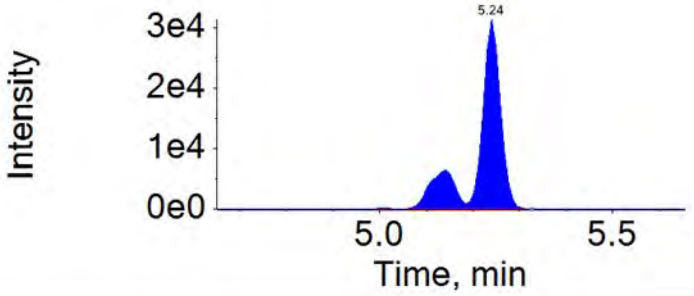
Component: PFOA
Primary Mass: 413.0 / 369.0



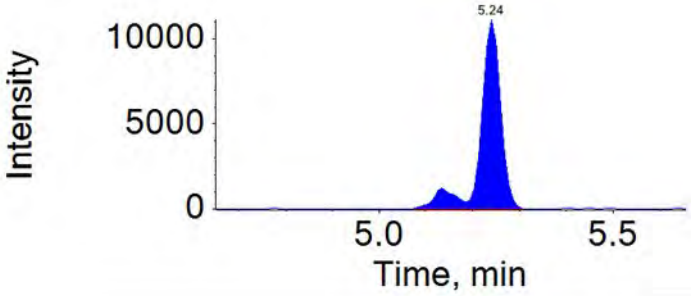
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



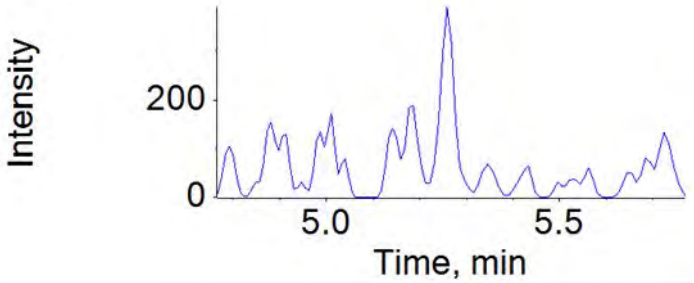
Component: PFOS
Primary Mass: 499.0 / 80.0



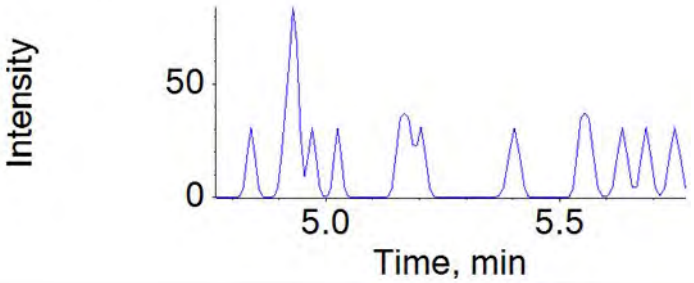
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



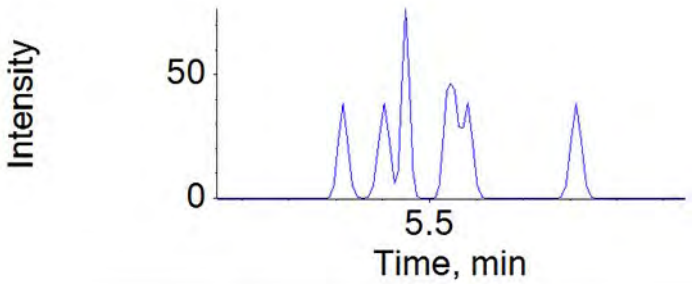
Component: PFNA
Primary Mass: 463.0 / 419.0



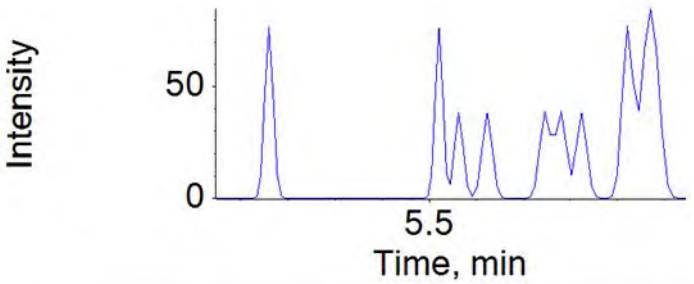
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



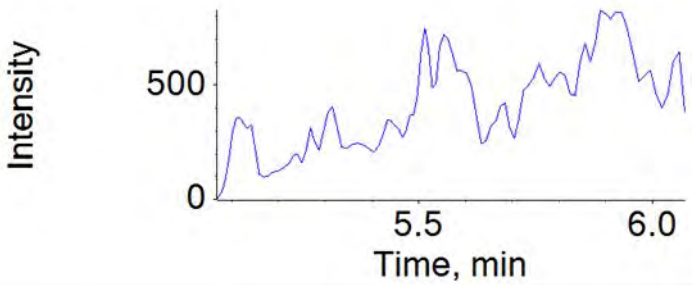
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



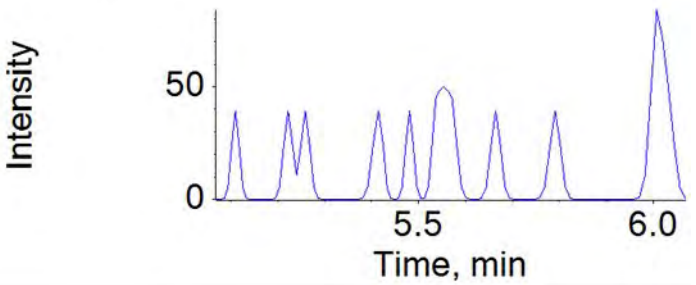
APPROVED
By MCD at 6:34 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

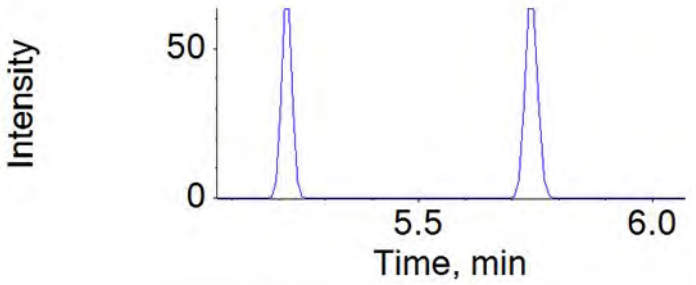
Component: PFDA
Primary Mass: 513.0 / 469.0



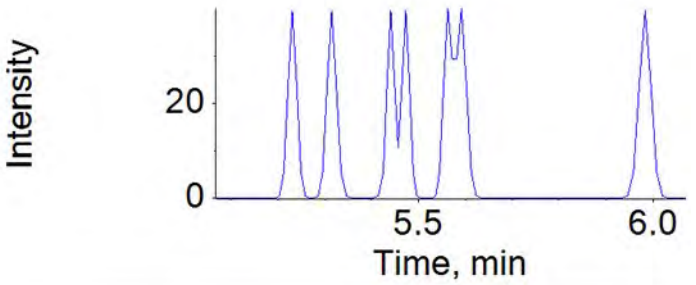
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



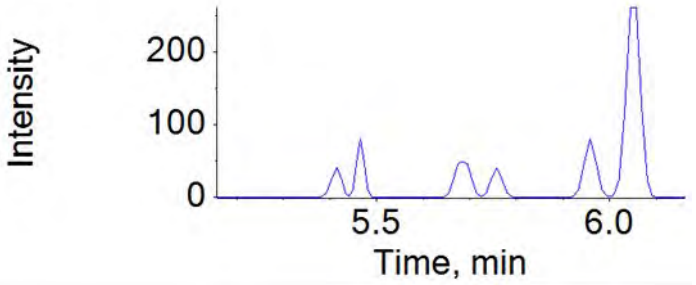
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



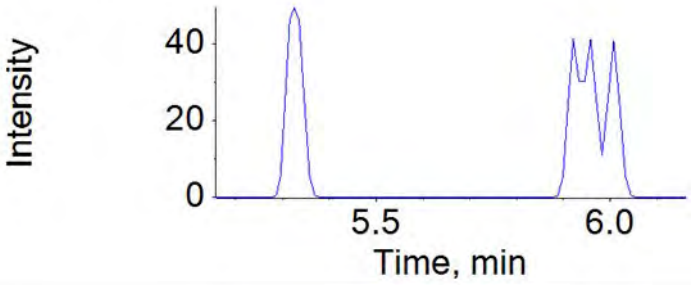
Component: 8:2 FTS_2
Secondary Mass: 527.0 / 81.0



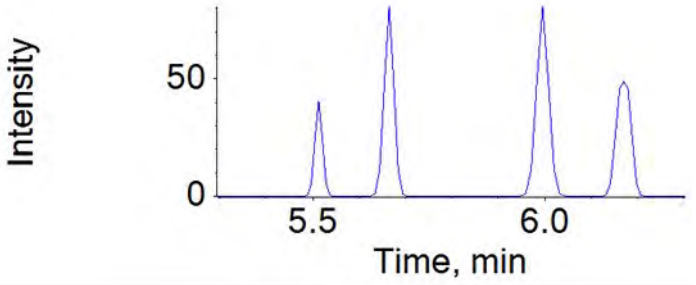
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



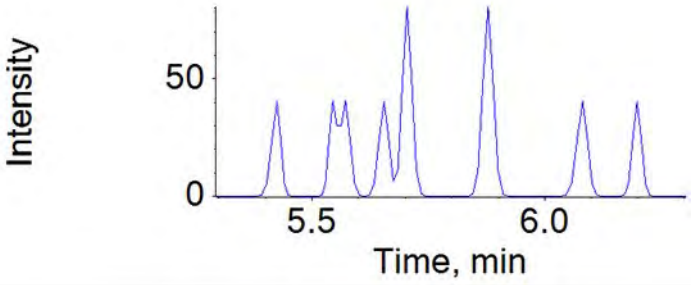
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



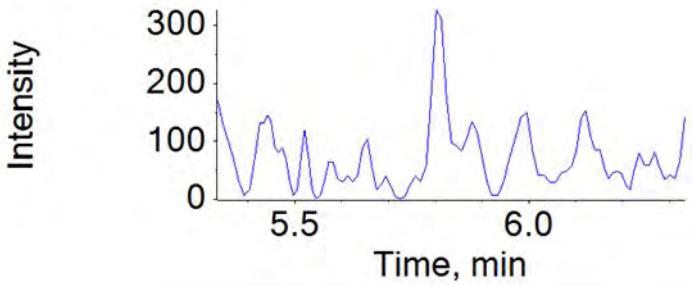
Component: PFDS_2
Secondary Mass: 599.0 / 99.0



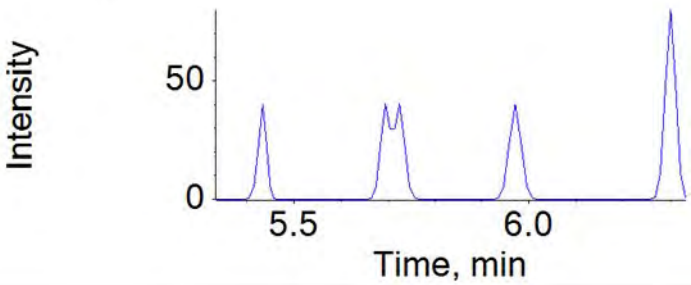
APPROVED
By MCD at 6:34 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

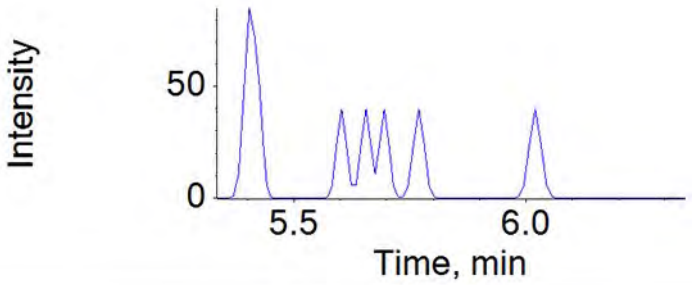
Component: PFUnDA
Primary Mass: 563.0 / 519.0



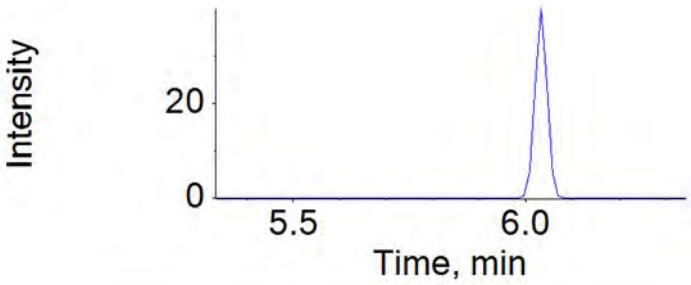
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



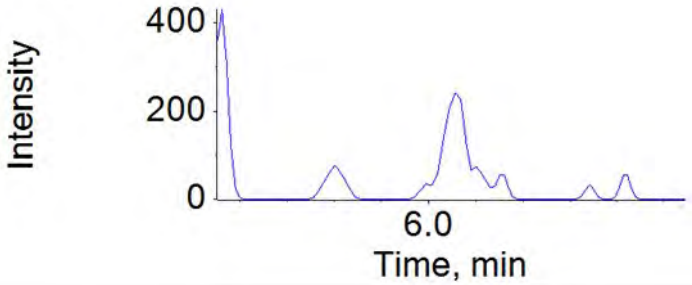
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



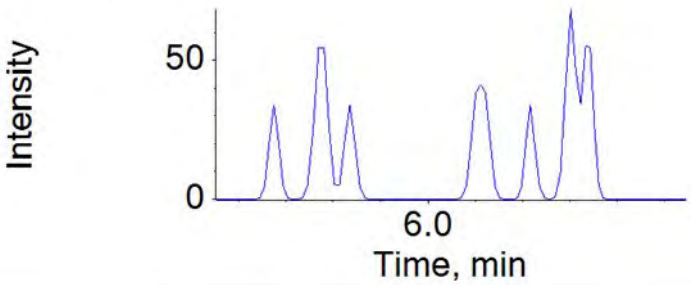
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



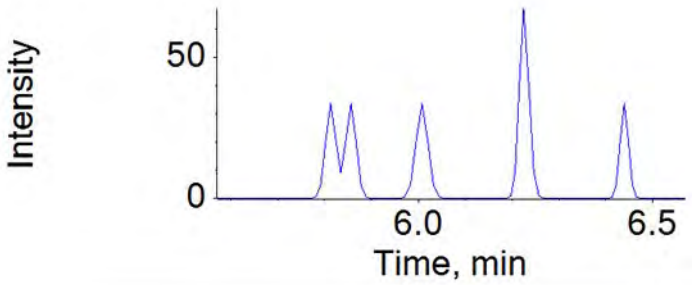
Component: PFDoDA
Primary Mass: 613.0 / 569.0



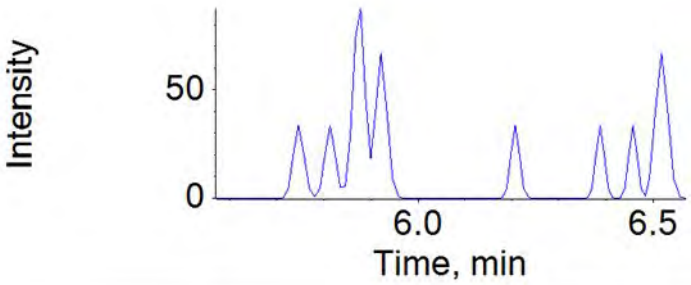
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



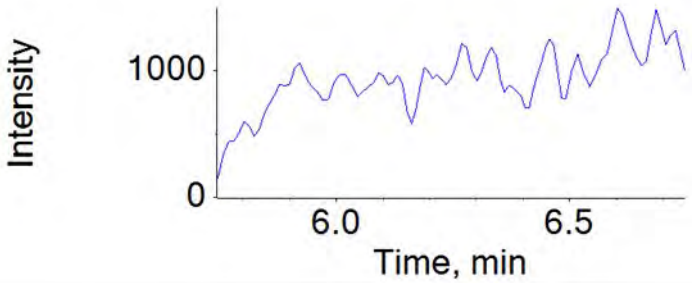
Component: 10:2 FTS_2
Secondary Mass: 627.0 / 81.0



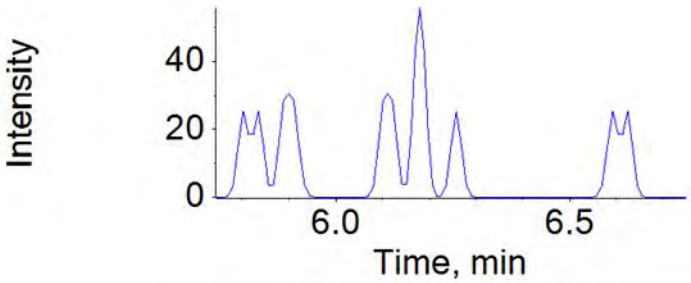
APPROVED
By MCD at 6:34 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

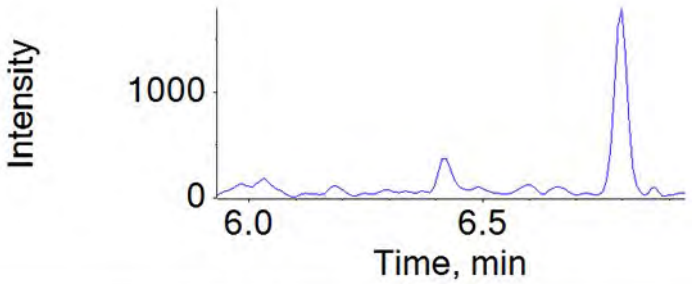
Component: PFTrDA
Primary Mass: 663.0 / 619.0



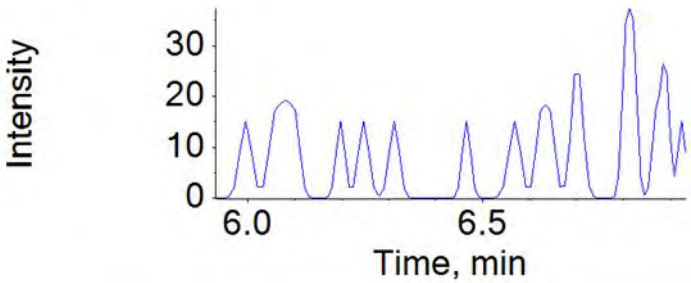
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



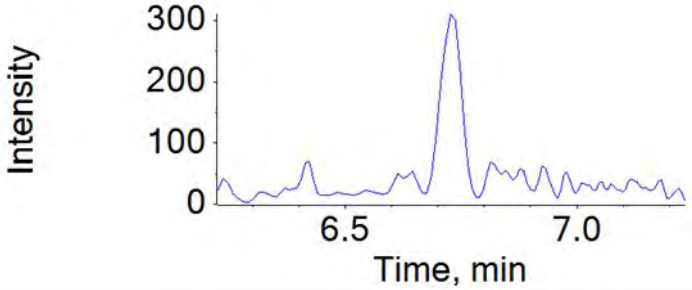
Component: PFTeDA
Primary Mass: 713.0 / 669.0



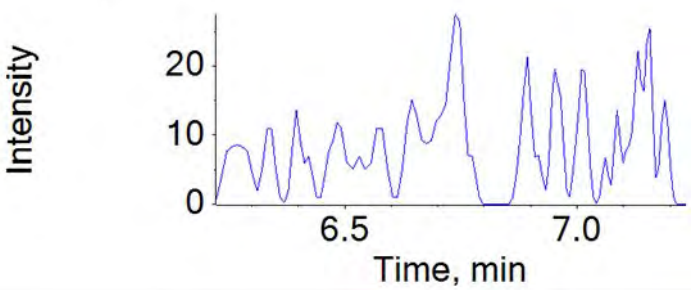
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



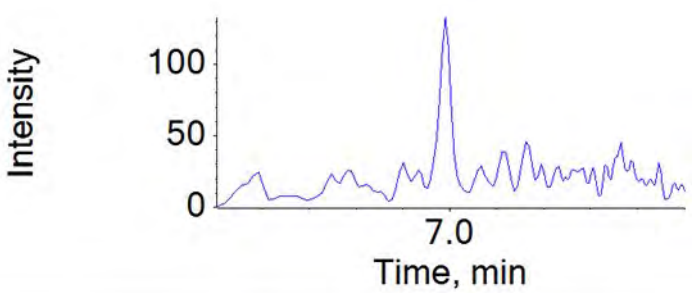
Component: PFHxDA
Primary Mass: 813.0 / 769.0



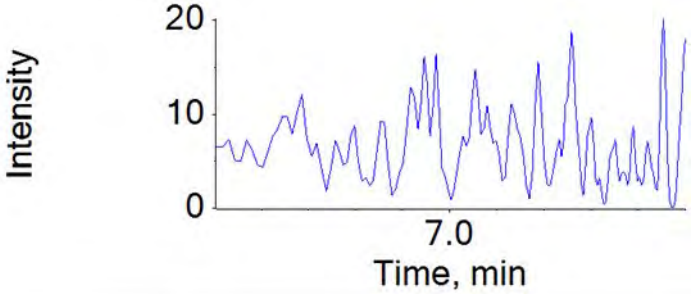
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



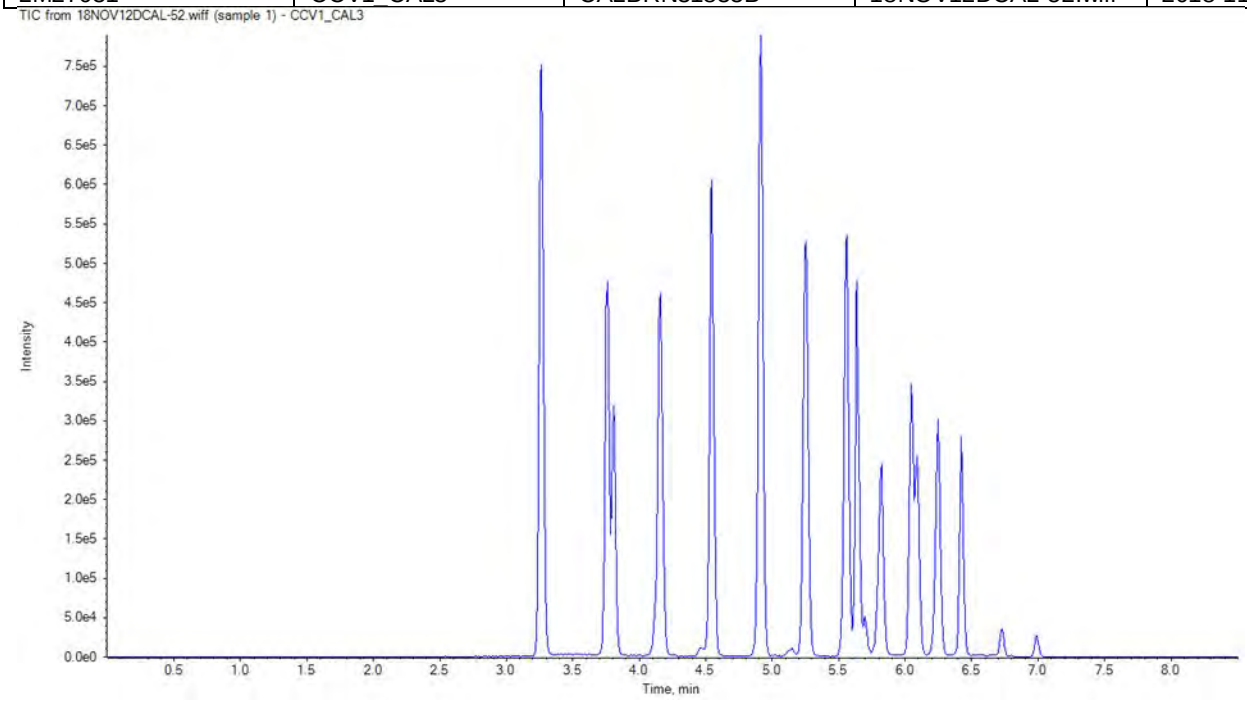
APPROVED
By MCD at 6:34 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

Continuing Calibration Verfication

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	CCV1_CAL3	CALBRN31833B	18NOV12DCAL-52.wiff	2018-11-12T16:36:17



Injection Standard Area Reference File: 18NOV12DCAL-44

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Reference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	664284.7	659926.2	1	50	
13C2-PFOA	5.0	438739.4	450219.7	-3	50	
13C4-PFOS	4.8	248122.9	249205.8	0	50	
13C2-PFDA	5.0	280671.6	278743.9	1	50	

APPROVED
By MCD at 6:34 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

Continuing Calibration Verfication

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	CCV1_CAL3	CALBRN31833B	18NOV12DCAL-52.wiff	2018-11-12T16:36:17

Analyte Name	Analyte Area	Sc /pk	Ext Std Name	Ext Std Area	Ext Std con	Area Ratio	RT (min)	RRT	Spec Amt	Calc Amt	% Diff	% Diff Lim	% Diff OOS
PFBA	303662.2	10	13C4-PFBA	735275.5	5.0	0.413	3.26	1.000	2.000	2.288	14	30	
PFPeA	301109.0	11	13C5-PFPeA	741612.6	5.0	0.406	3.76	1.000	2.000	2.350	18	30	
PFBS	166889.6	10	13C3-PFBS	428368.4	4.7	0.390	3.81	1.000	1.770	1.853	5	30	
4:2-FTS	33008.9	12	13C2-4:2-FTS	45542.8	4.7	0.725	4.12	1.000	1.870	1.968	5	30	
PFHxA	362326.0	12	13C5-PFHxA	638944.4	5.0	0.567	4.16	1.000	2.000	2.368	18	30	
PFPeS	87834.9	11	13C3-PFBS	428368.4	4.7	0.205	4.18	1.100	1.880	1.991	6	30	
PFHpA	361271.6	11	13C4-PFHpA	513535.0	5.0	0.703	4.54	1.000	2.000	2.332	17	30	
PFHxS	128396.1	18	13C3-PFHxS	315408.2	4.7	0.407	4.55	1.000	1.820	1.974	8	30	
6:2-FTS	30500.7	11	13C2-6:2-FTS	31026.1	4.8	0.983	4.90	1.000	1.900	2.379	25	30	
PFHpS	122801.7	11	13C3-PFHxS	315408.2	4.7	0.389	4.91	1.080	1.900	2.050	8	30	
PFOA	370358.7	11	13C8-PFOA	845332.9	5.0	0.438	4.91	1.000	2.000	2.340	17	30	
PFOS	122332.0	21	13C8-PFOS	260810.5	4.8	0.469	5.24	1.000	1.850	2.051	11	30	
PFNA	292557.2	11	13C9-PFNA	468762.7	5.0	0.624	5.26	1.000	2.000	2.250	13	30	
PFNS	76021.2	11	13C8-PFOS	260810.5	4.8	0.291	5.54	1.060	1.920	2.039	6	30	
PFDA	253956.7	11	13C6-PFDA	610394.1	5.0	0.416	5.56	1.000	2.000	2.206	10	30	
8:2-FTS	22335.5	11	13C2-8:2-FTS	28002.9	4.8	0.798	5.56	1.000	1.920	1.860	-3	30	
PFOSA	236734.8	12	13C8-PFOSA	697263.3	5.0	0.340	5.64	1.000	2.000	1.658	-17	30	
NMeFOSAA	28733.4	18	d3-NMeFOSAA	73784.5	5.0	0.389	5.70	1.000	2.000	2.201	10	30	
PFDS	62507.8	11	13C8-PFOS	260810.5	4.8	0.240	5.79	1.110	1.930	2.172	13	30	
PFUnDA	199322.4	12	13C7-PFUnDA	244775.8	5.0	0.814	5.82	1.000	2.000	2.129	6	30	
NEtFOSAA	24531.9	20	d5-NEtFOSAA	70158.9	5.0	0.350	5.83	1.000	2.000	1.833	-8	30	
PFDoDA	228792.9	12	13C2-PFDoDA	497113.0	5.0	0.460	6.05	1.000	2.000	2.344	17	30	
10:2-FTS	14411.1	11	13C2-8:2-FTS	28002.9	4.8	0.515	6.06	1.090	1.930	1.714	-11	30	
NMePFOSAE	172466.5	11	d7-NMePFOSAE	300873.2	5.0	0.573	6.09	1.000	2.000	2.386	19	30	
NMePFOSA	31464.1	12	d3-NMePFOSA	75068.4	5.0	0.419	6.10	1.000	2.000	2.068	3	30	
PFDoS	33762.2	11	13C8-PFOS	260810.5	4.8	0.129	6.22	1.190	1.940	2.267	17	30	
NEtPFOSAE	180928.5	11	d9-NEtPFOSAE	250299.2	5.0	0.723	6.25	1.000	2.000	2.319	16	30	
NEtPFOSA	26529.3	11	d5-NEtPFOSA	59631.6	5.0	0.445	6.26	1.000	2.000	2.043	2	30	
PFTrDA	185154.6	11	13C2-PFDoDA	497113.0	5.0	0.372	6.25	1.030	2.000	2.351	18	30	
PFTeDA	159904.6	10	13C2-PFTeDA	379642.6	5.0	0.421	6.42	1.000	2.000	2.361	18	30	
PFHxDA	68393.8	11	13C2-PFTeDA	379642.6	5.0	0.180	6.73	1.050	2.000	2.146	7	30	
PFODA	58092.4	10	13C2-PFTeDA	379642.6	5.0	0.153	6.99	1.090	2.000	2.131	7	30	

Continuing Calibration Verfication

ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QM
Result Table: 18NOV12DCAL 11/12/2018 6:14:07 PM
Acquisition Method: 18AUG13_3uL.dam

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Sample Name:	CCV1_CAL3			**Data File:**		18NOV12DCAL-52.wiff
Sample ID:	CALBRN31833B			**Acquis Date:**		2018-11-12T16:36:17
Sample Type:	Quality Control			**Instrument:**		LM27631
Vial Position:	5			**Acquis Method:**		18AUG13_3uL.dam
Injection Vol:	3.00			**Result Table:**		18NOV12DCAL
QMethod File:	18AUG20QM			**ICAL Name:**		18NOV12DCAL
Batch Number:	N\A			**Operator:**		MCD7824
Sample Wt.:	1.00000			**Dilution Factor:**		1.00
Sample Vol.:	1.000			**Prep Factor:**		1.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV12DCAL-44

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Rreference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	664284.7	659926.2	1	50	
13C2-PFOA	5.0	438739.4	450219.7	-3	50	
13C4-PFOS	4.8	248122.9	249205.8	0	50	
13C2-PFDA	5.0	280671.6	278743.9	1	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	735275.5	13C3-PFBA	664284.7	1.107	5.000	4.962	99	70-130	
E13C5-PFPeA	741612.6	13C3-PFBA	664284.7	1.116	5.000	5.007	100	70-130	
E13C3-PFBS	428368.4	13C3-PFBA	664284.7	0.645	4.650	4.552	98	70-130	
E13C2-4:2-FTS	45542.8	13C2-PFOA	438739.4	0.104	4.670	4.623	99	70-130	
E13C5-PFHxA	638944.4	13C2-PFOA	438739.4	1.456	5.000	5.261	105	70-130	
E13C3-PFHxS	315408.2	13C2-PFOA	438739.4	0.719	4.730	4.933	104	70-130	
E13C4-PFHpA	513535.0	13C2-PFOA	438739.4	1.170	5.000	5.273	105	70-130	
E13C2-6:2-FTS	31026.1	13C2-PFOA	438739.4	0.071	4.750	4.731	100	70-130	
E13C8-PFOA	845332.9	13C2-PFOA	438739.4	1.927	5.000	5.308	106	70-130	
E13C8-PFOS	260810.5	13C4-PFOS	248122.9	1.051	4.780	4.657	97	70-130	
E13C9-PFNA	468762.7	13C4-PFOS	248122.9	1.889	5.000	5.267	105	70-130	
E13C6-PFDA	610394.1	13C2-PFDA	280671.6	2.175	5.000	5.075	102	70-130	
E13C2-8:2-FTS	28002.9	13C2-PFDA	280671.6	0.100	4.790	4.976	104	70-130	
E13C8-PFOSA	697263.3	13C2-PFDA	280671.6	2.484	5.000	5.508	110	70-130	
Ed3-NMeFOSAA	73784.5	13C2-PFDA	280671.6	0.263	5.000	4.745	95	70-130	
E13C7-PFUnDA	244775.8	13C2-PFDA	280671.6	0.872	5.000	5.063	101	70-130	
Ed5-NEtFOSAA	70158.9	13C2-PFDA	280671.6	0.250	5.000	5.288	106	70-130	
E13C2-PFDoDA	497113.0	13C2-PFDA	280671.6	1.771	5.000	4.599	92	70-130	
Ed7-NMePFOSAE	300873.2	13C2-PFDA	280671.6	1.072	5.000	4.639	93	70-130	
Ed3-NMePFOSA	75068.4	13C2-PFDA	280671.6	0.267	5.000	4.859	97	70-130	
Ed9-NEtPFOSAE	250299.2	13C2-PFDA	280671.6	0.892	5.000	4.638	93	70-130	
Ed5-NEtPFOSA	59631.6	13C2-PFDA	280671.6	0.212	5.000	4.984	100	70-130	
E13C2-PFTeDA	379642.6	13C2-PFDA	280671.6	1.353	5.000	4.749	95	70-130	

APPROVED
By MCD at 6:34 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

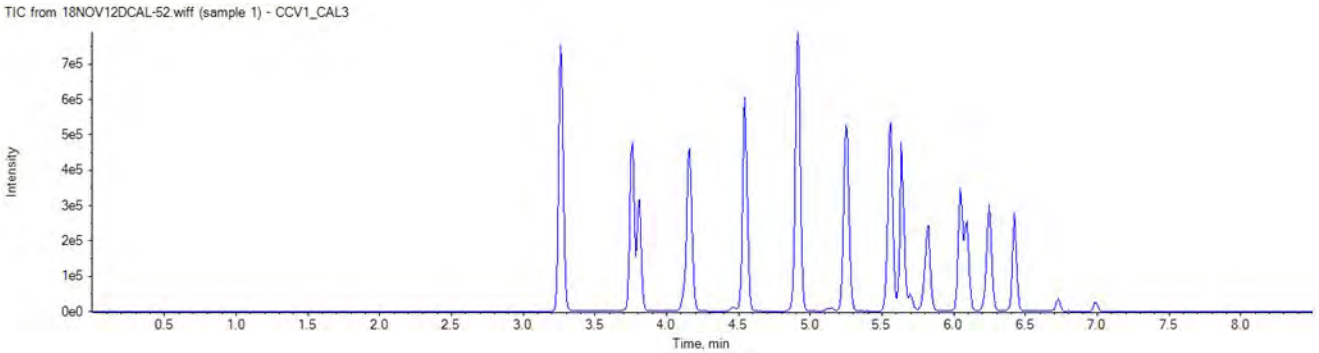
Analyte Quantitation Peak Table

Sample Name: CCV1_CAL3 **Instrument Name:** LM27631 **File Name:** 18NOV12DCAL-52.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	1.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	3.26	1.000	303662.2		A	13C4-PFBA	3.26	735275.5	0.413	2.288
PFPeA	3.76	1.000	301109.0		A	13C5-PFPeA	3.76	741612.6	0.406	2.350
PFBS	3.81	1.000	166889.6		A	13C3-PFBS	3.81	428368.4	0.390	1.853
4:2-FTS	4.12	1.000	33008.9		A	13C2-4:2-FTS	4.12	45542.8	0.725	1.968
PFHxA	4.16	1.000	362326.0		A	13C5-PFHxA	4.16	638944.4	0.567	2.368
PFPeS	4.18	1.100	87834.9		A	13C3-PFBS	3.81	428368.4	0.205	1.991
PFHpA	4.54	1.000	361271.6		A	13C4-PFHpA	4.54	513535.0	0.703	2.332
PFHxS	4.55	1.000	128396.1		M	13C3-PFHxS	4.55	315408.2	0.407	1.974
6:2-FTS	4.90	1.000	30500.7		A	13C2-6:2-FTS	4.90	31026.1	0.983	2.379
PFHpS	4.91	1.080	122801.7		A	13C3-PFHxS	4.55	315408.2	0.389	2.050
PFOA	4.91	1.000	370358.7		A	13C8-PFOA	4.91	845332.9	0.438	2.340
PFOS	5.24	1.000	122332.0		M	13C8-PFOS	5.24	260810.5	0.469	2.051
PFNA	5.26	1.000	292557.2		A	13C9-PFNA	5.26	468762.7	0.624	2.250
PFNS	5.54	1.060	76021.2		A	13C8-PFOS	5.24	260810.5	0.291	2.039
PFDA	5.56	1.000	253956.7		A	13C6-PFDA	5.56	610394.1	0.416	2.206
8:2-FTS	5.56	1.000	22335.5		A	13C2-8:2-FTS	5.56	28002.9	0.798	1.860
PFOSA	5.64	1.000	236734.8		A	13C8-PFOSA	5.64	697263.3	0.340	1.658
NMeFOSAA	5.70	1.000	28733.4		A	d3-NMeFOSAA	5.70	73784.5	0.389	2.201
PFDS	5.79	1.110	62507.8		A	13C8-PFOS	5.24	260810.5	0.240	2.172
PFUnDA	5.82	1.000	199322.4		A	13C7-PFUnDA	5.82	244775.8	0.814	2.129
NEtFOSAA	5.83	1.000	24531.9		A	d5-NEtFOSAA	5.83	70158.9	0.350	1.833
PFDoDA	6.05	1.000	228792.9		A	13C2-PFDoDA	6.05	497113.0	0.460	2.344
10:2-FTS	6.06	1.090	14411.1		A	13C2-8:2-FTS	5.56	28002.9	0.515	1.714
NMePFOSAE	6.09	1.000	172466.5		A	d7-NMePFOSAE	6.09	300873.2	0.573	2.386
NMePFOSA	6.10	1.000	31464.1		A	d3-NMePFOSA	6.10	75068.4	0.419	2.068
PFDoS	6.22	1.190	33762.2		A	13C8-PFOS	5.24	260810.5	0.129	2.267
NEtPFOSAE	6.25	1.000	180928.5		A	d9-NEtPFOSAE	6.24	250299.2	0.723	2.319
NEtPFOSA	6.26	1.000	26529.3		A	d5-NEtPFOSA	6.26	59631.6	0.445	2.043
PFTrDA	6.25	1.030	185154.6		A	13C2-PFDoDA	6.05	497113.0	0.372	2.351
PFTeDA	6.42	1.000	159904.6		A	13C2-PFTeDA	6.42	379642.6	0.421	2.361
PFHxDA	6.73	1.050	68393.8		A	13C2-PFTeDA	6.42	379642.6	0.180	2.146
PFODA	6.99	1.090	58092.4		A	13C2-PFTeDA	6.42	379642.6	0.153	2.131

Total Ion Chromatogram

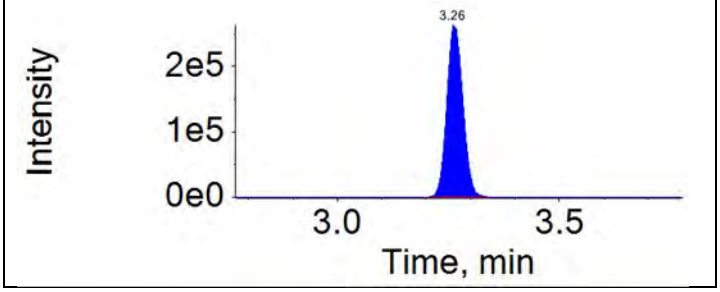


APPROVED
By MCD at 6:34 pm, 11/12/18

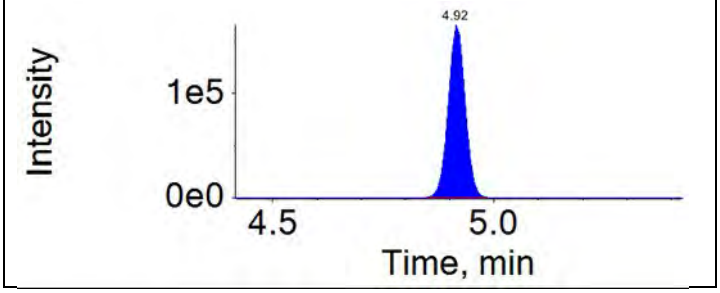
REVIEWED
By HMK at 10:53 am, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

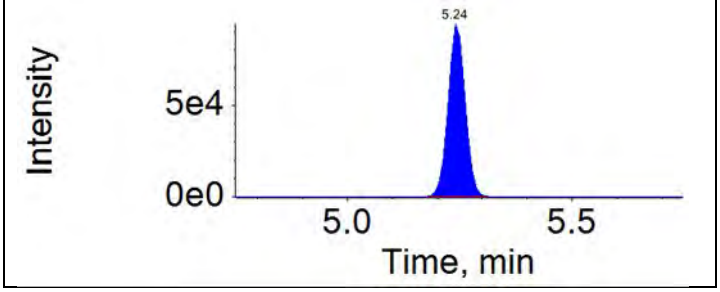
Injection Standard: 13C3-PFBA
216.0 / 172.0



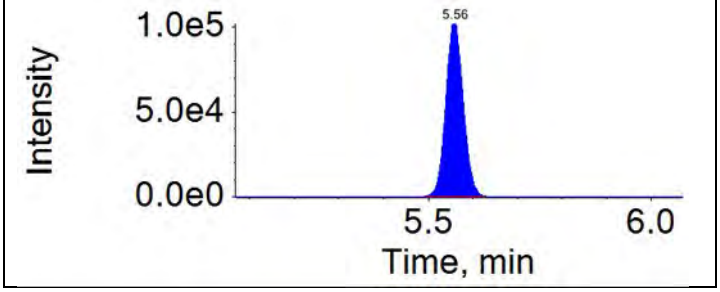
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0



Injection Standard: 13C2-PFDA
515.0 / 470.0

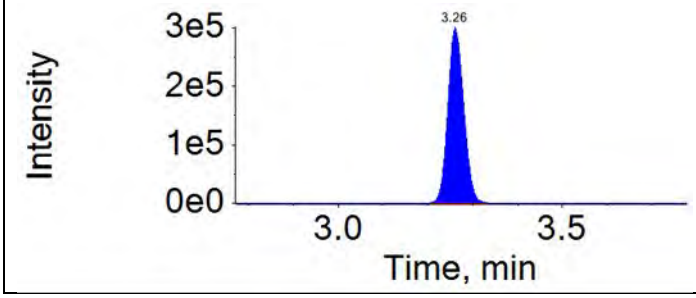


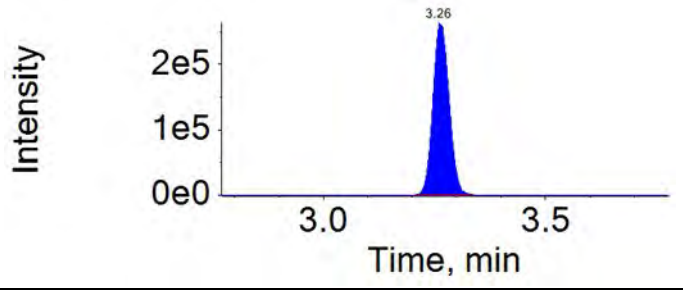
APPROVED
By MCD at 6:34 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

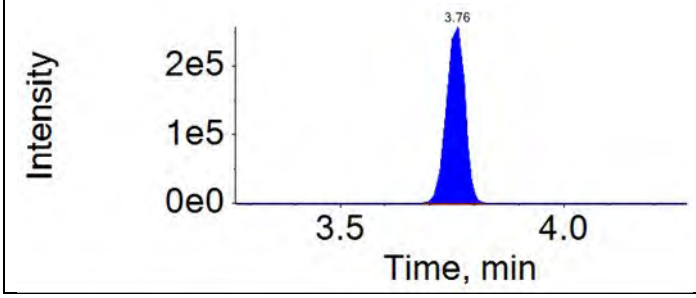
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

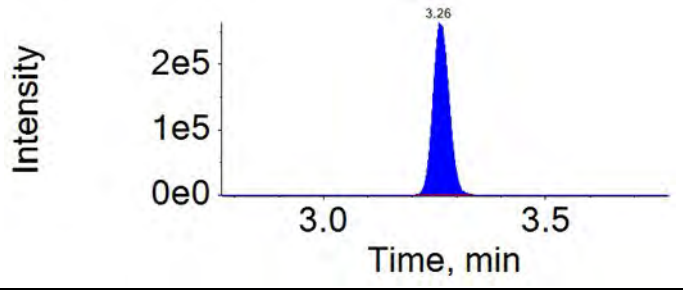
Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0



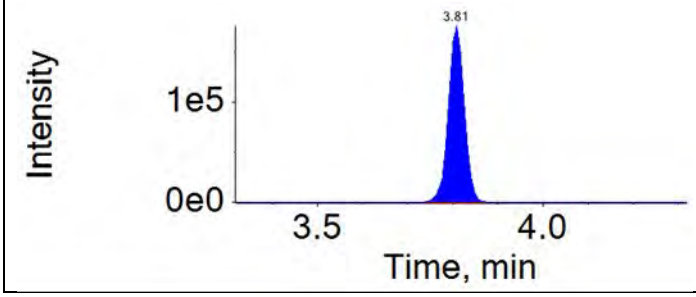


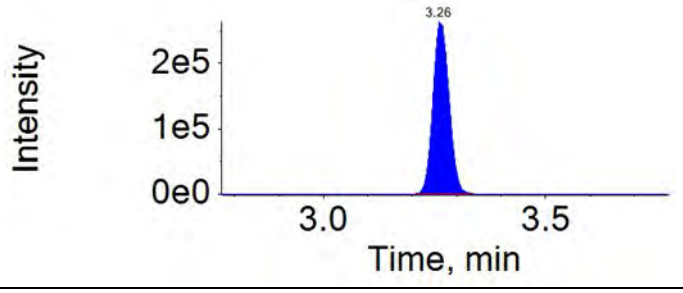
Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0



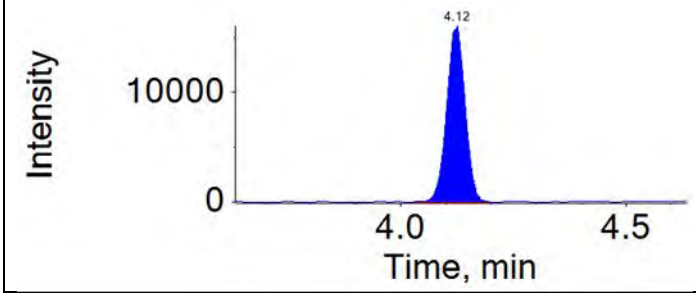


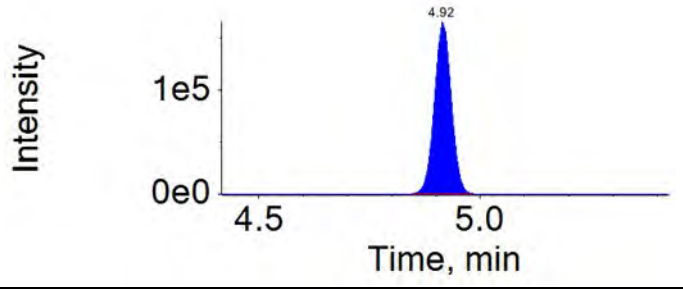
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0





Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0

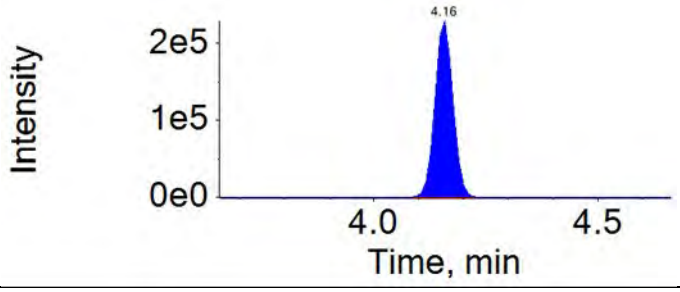
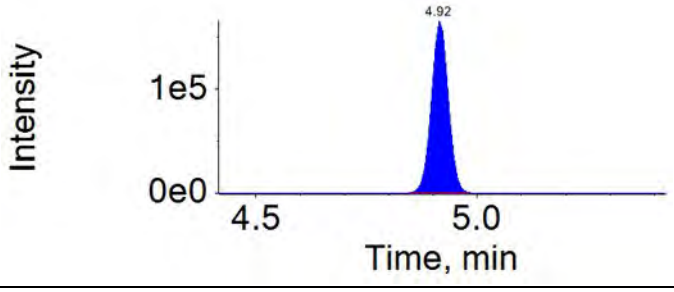


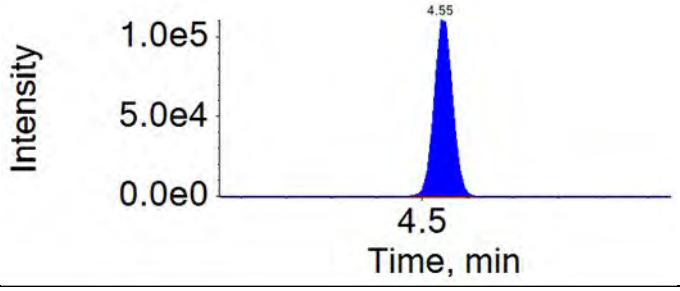
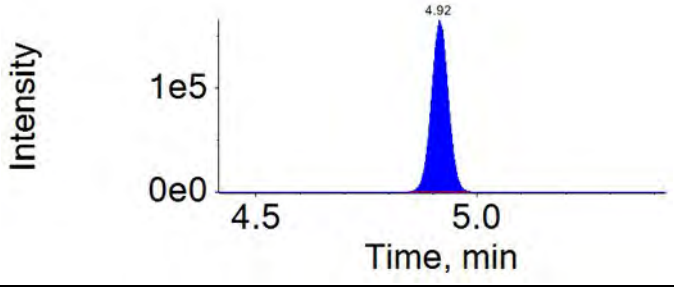


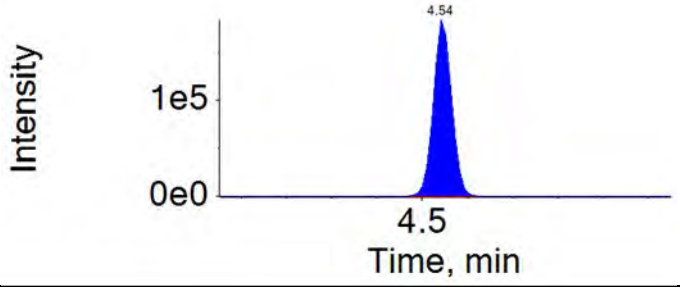
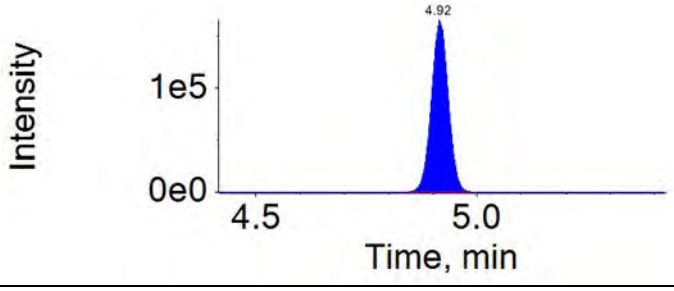
APPROVED
By MCD at 6:34 pm, 11/12/18

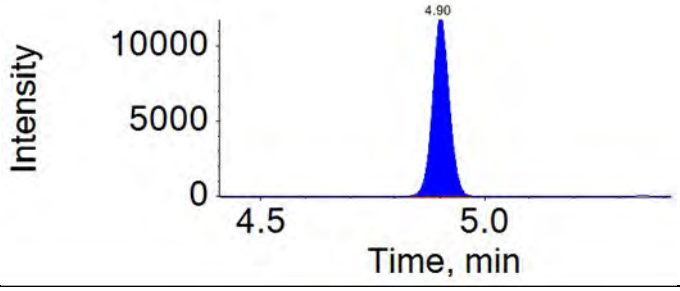
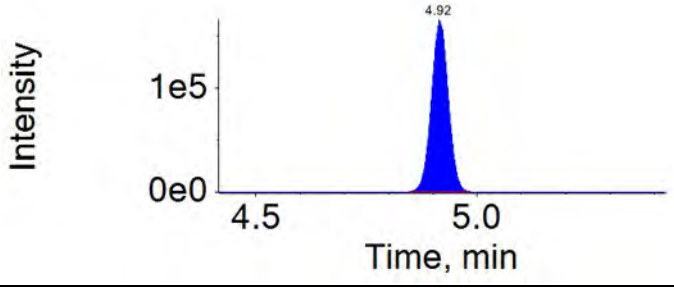
REVIEWED
By HMK at 10:53 am, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0
	

Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0
	

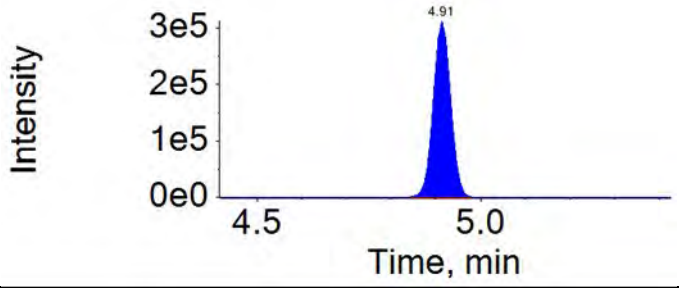
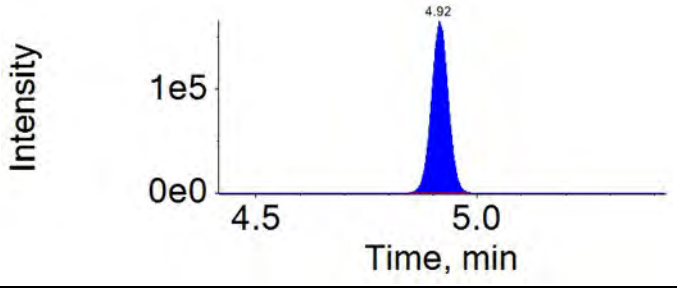
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0
	

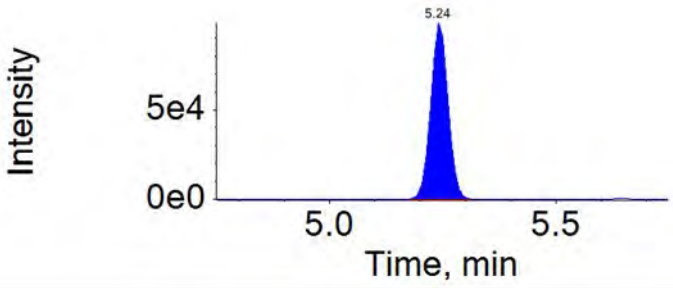
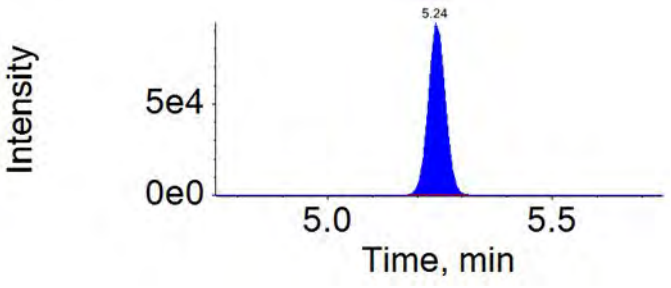
Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0
	

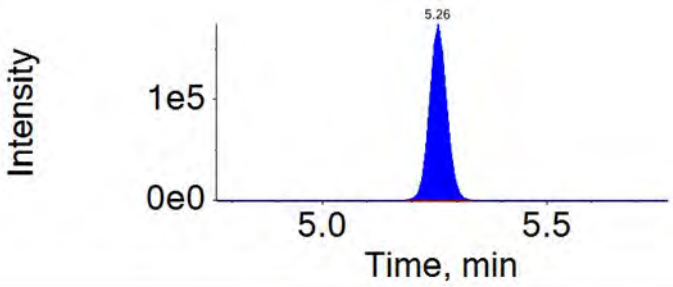
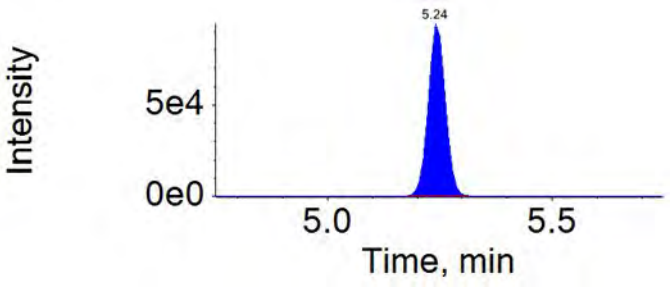
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By MCD at 6:34 pm, 11/12/18

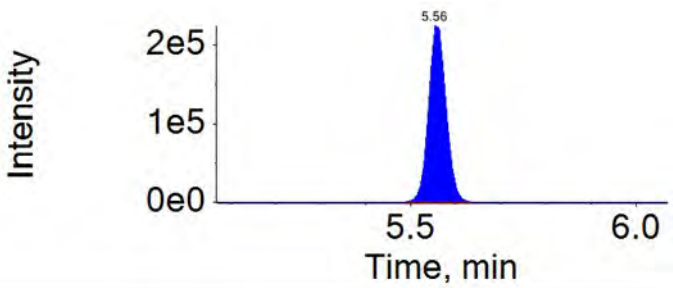
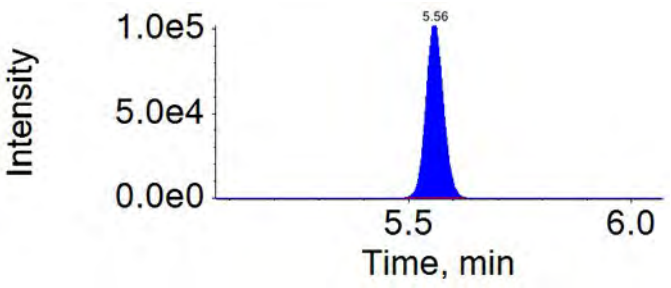
REVIEWED
By HMK at 10:53 am, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: E13C8-PFOA	Injection Standard: 13C2-PFOA
421.0 / 376.0	415.0 / 370.0
	

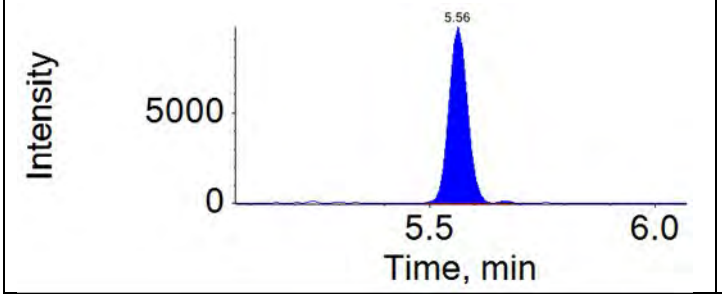
Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0
	

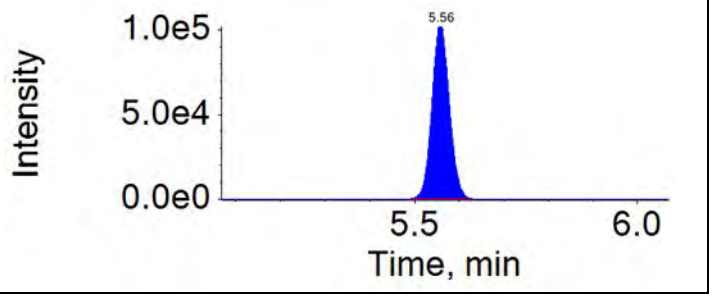
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0
	

Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0
	

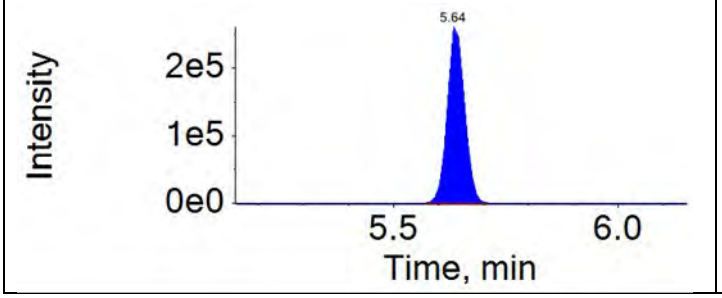
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

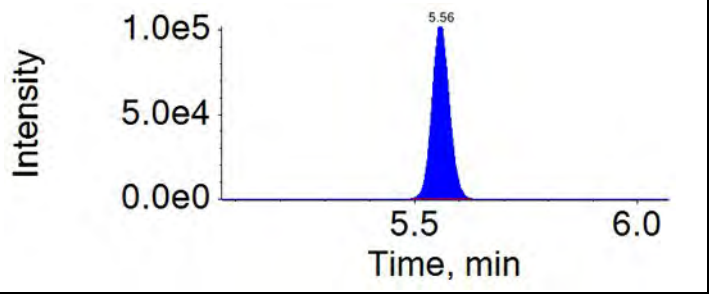
Extraction Standard: E13C2-8:2-FTS	Injection Standard: 13C2-PFDA
529.0 / 81.0	515.0 / 470.0



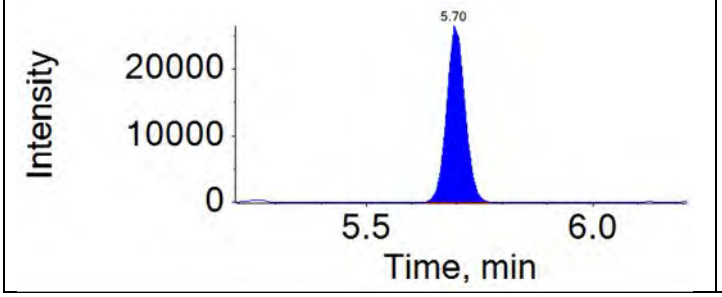


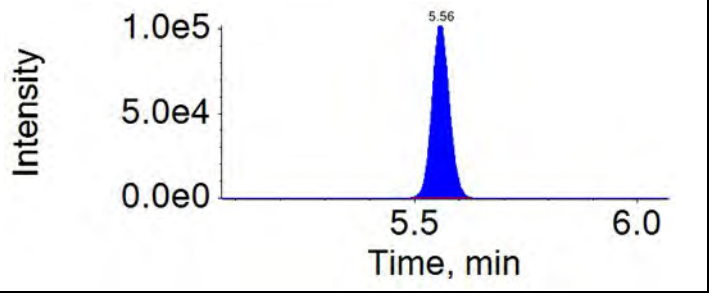
Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0



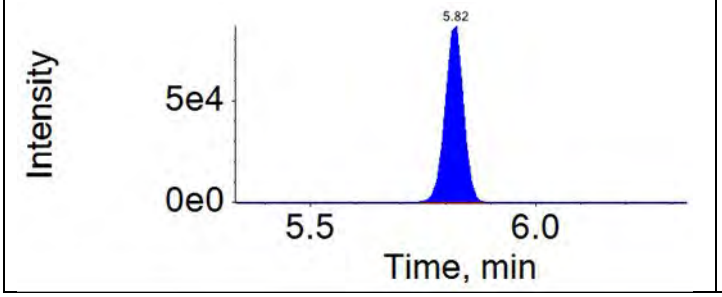


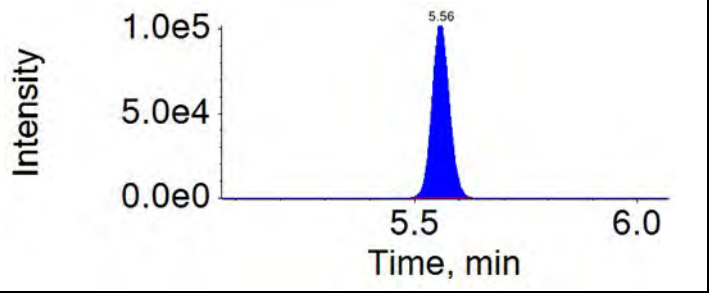
Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0





Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0



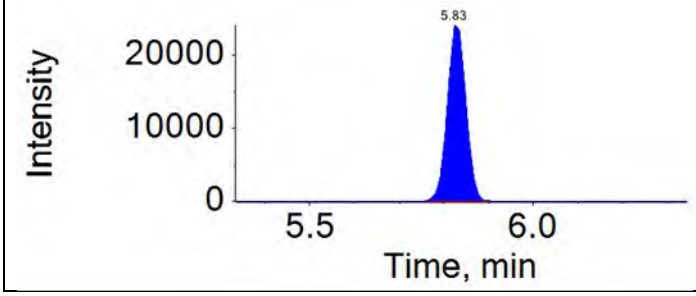


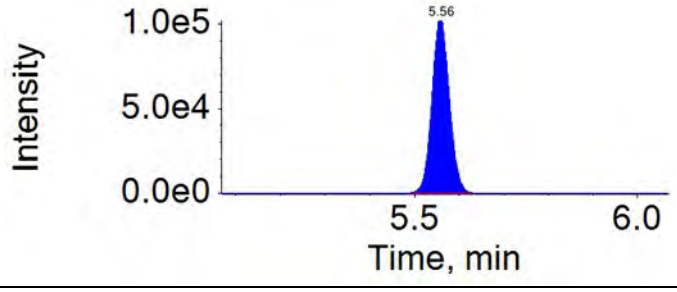
APPROVED
By MCD at 6:34 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

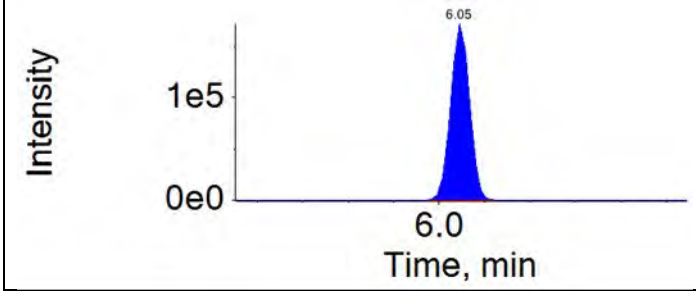
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

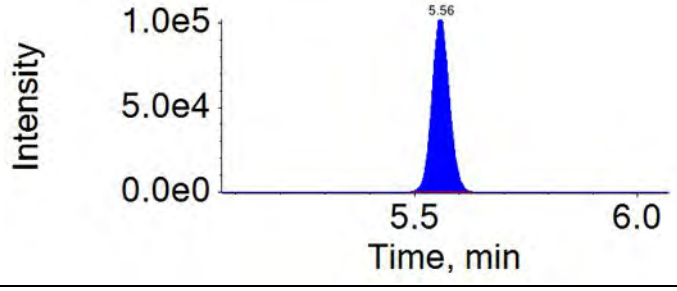
Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0



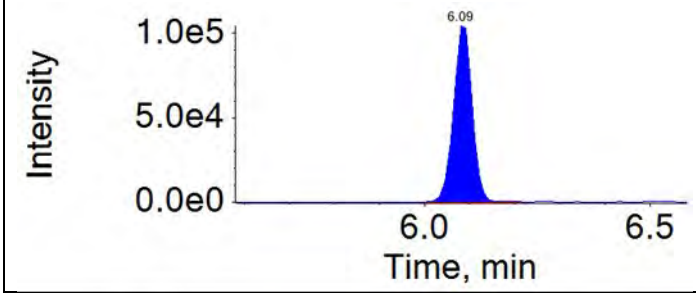


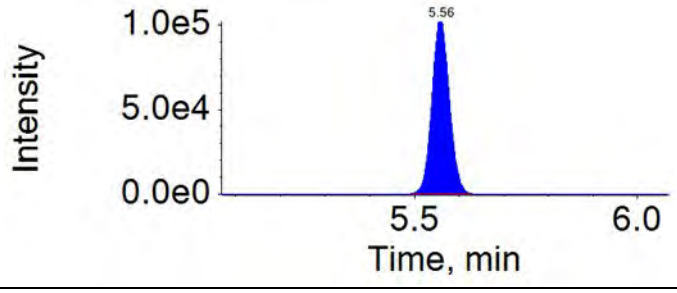
Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0



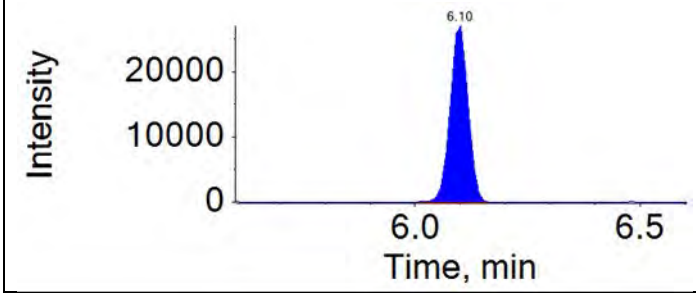


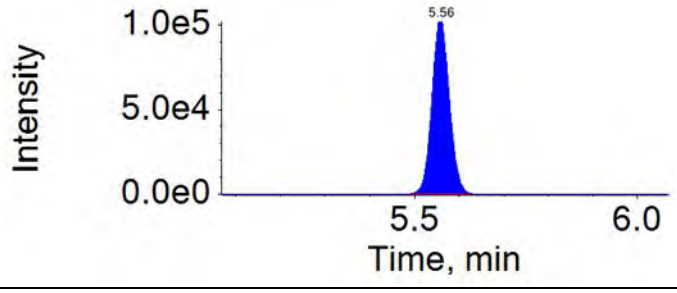
Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0





Extraction Standard: Ed3-NMePFOSA	Injection Standard: 13C2-PFDA
515.0 / 169.0	515.0 / 470.0



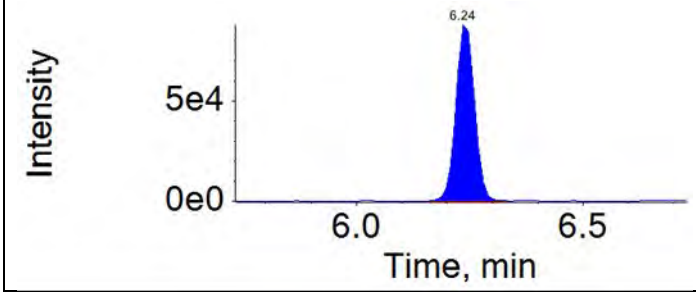


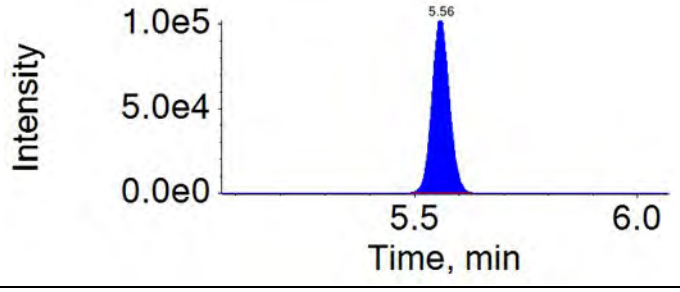
APPROVED
By MCD at 6:34 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

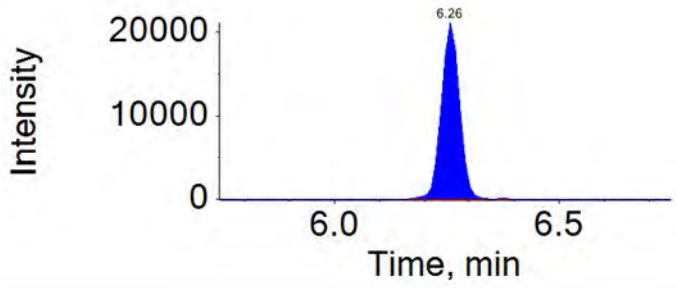
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

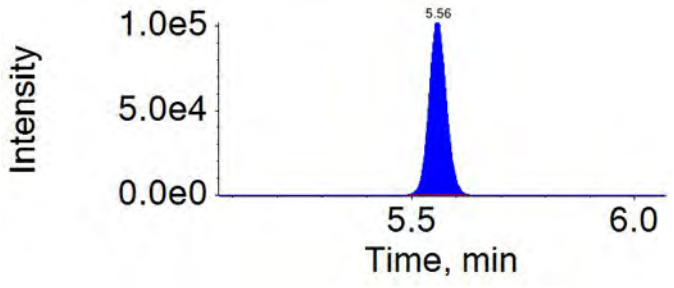
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



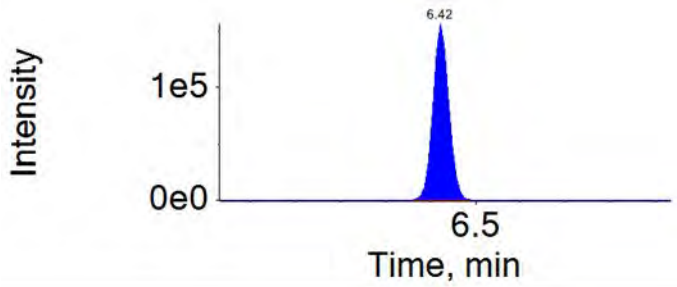


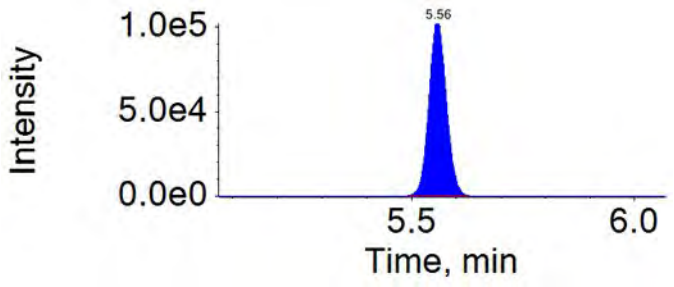
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0



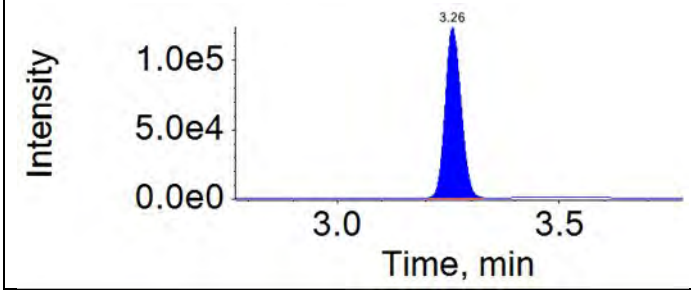


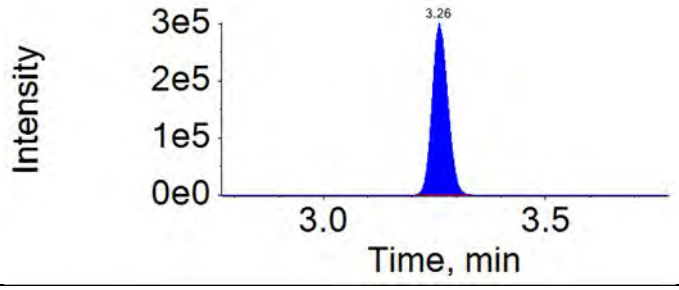
APPROVED
By MCD at 6:34 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

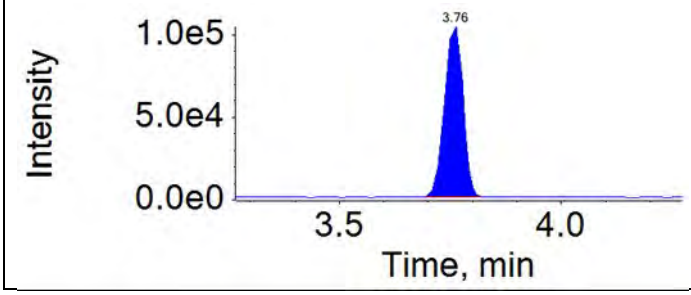
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

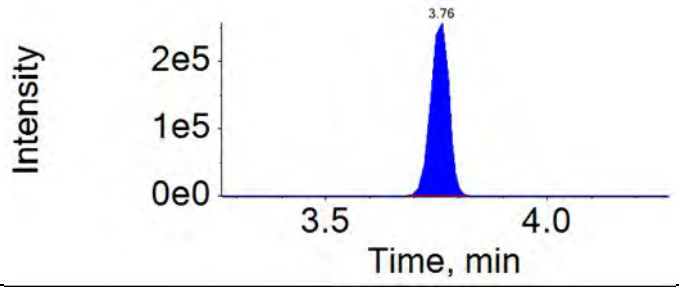
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



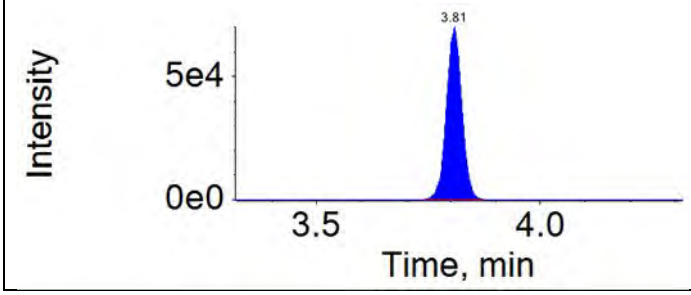


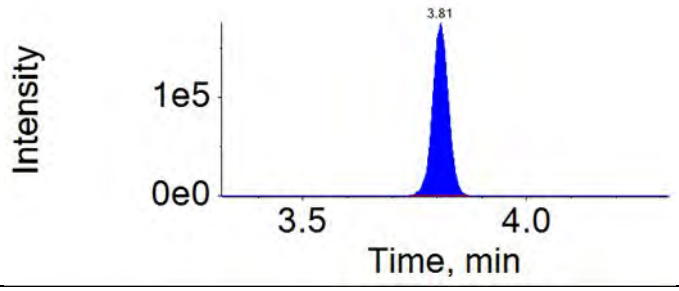
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



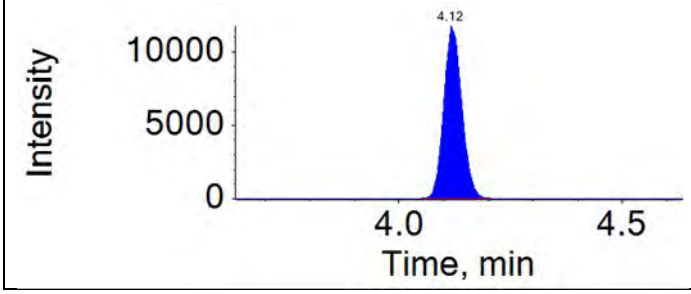


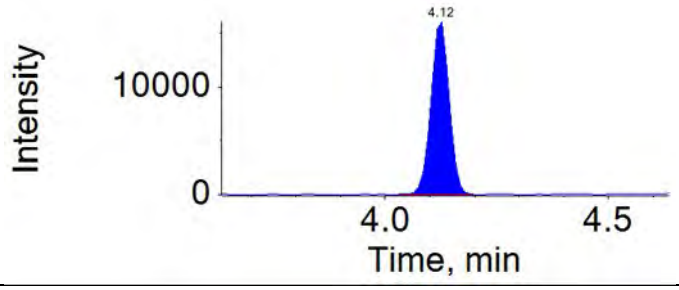
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





Analyte: 4:2-FTS	Extraction Standard: 13C2-4:2-FTS
327.0 / 307.0	329.0 / 81.0



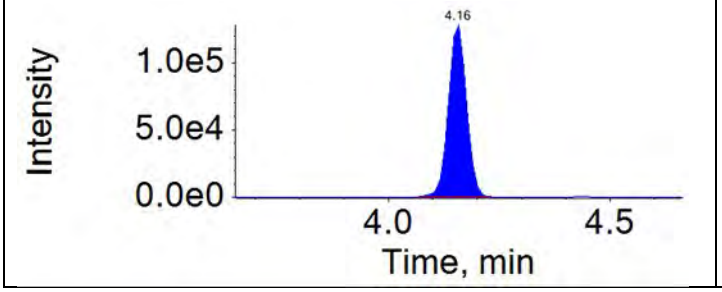


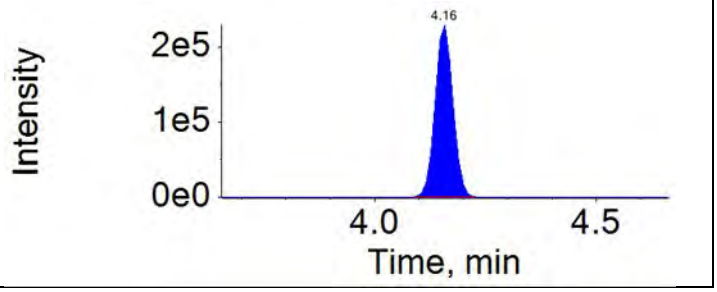
APPROVED
By MCD at 6:34 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

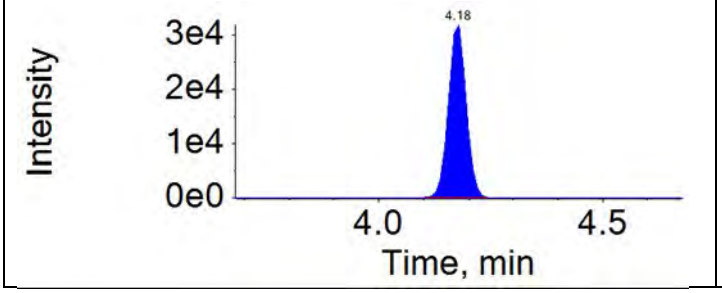
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

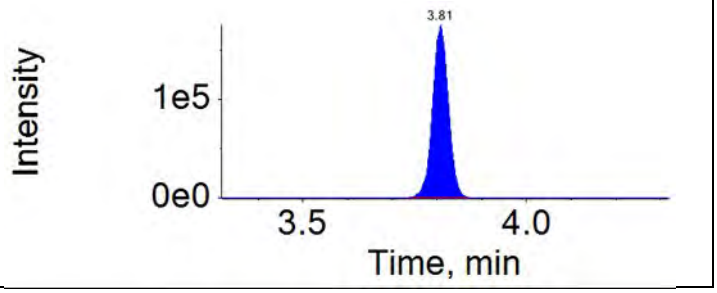
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



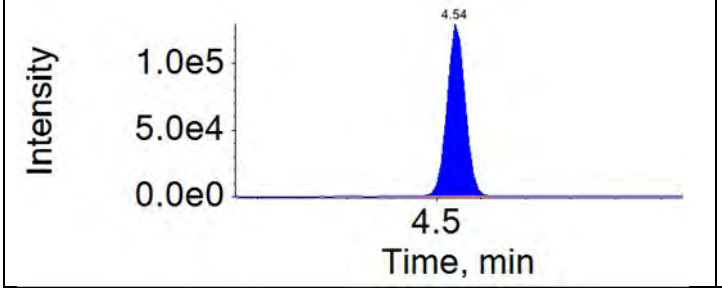


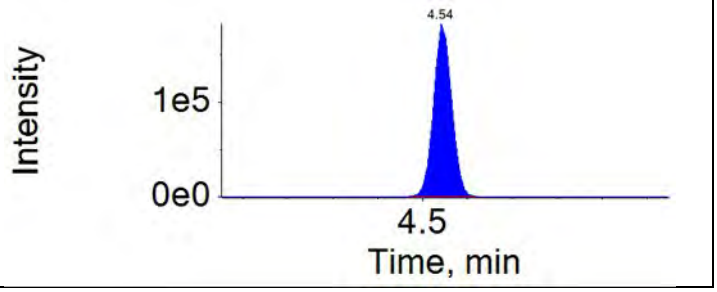
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



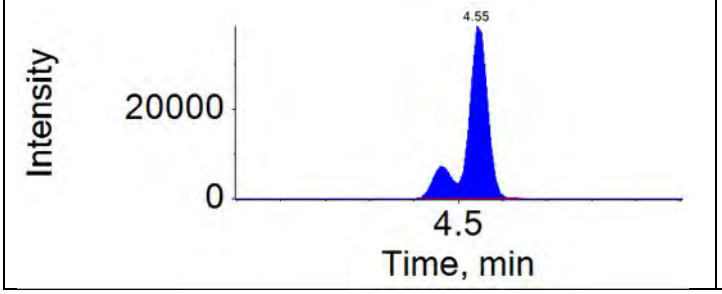


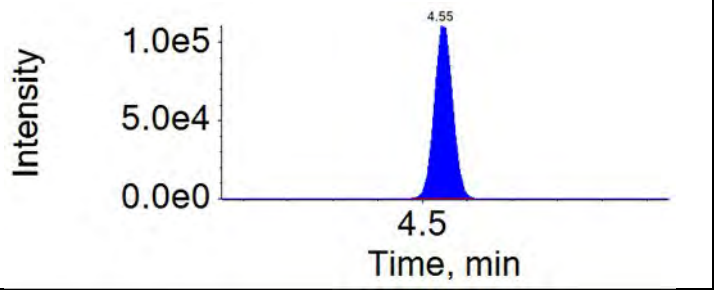
Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0





Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0



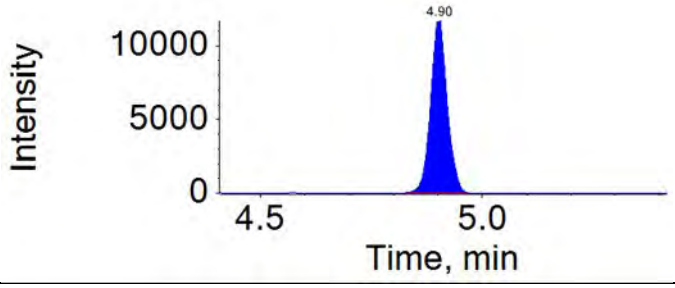


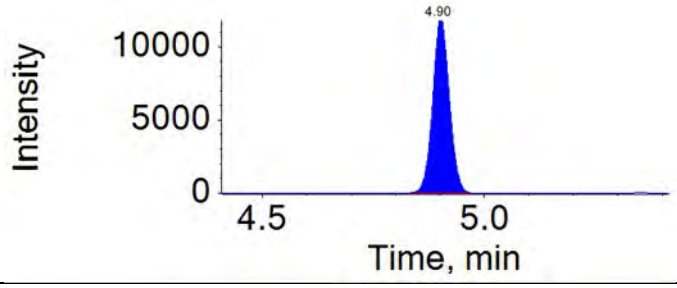
APPROVED
By MCD at 6:34 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

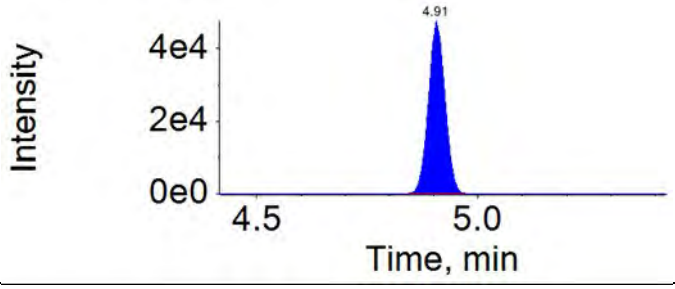
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

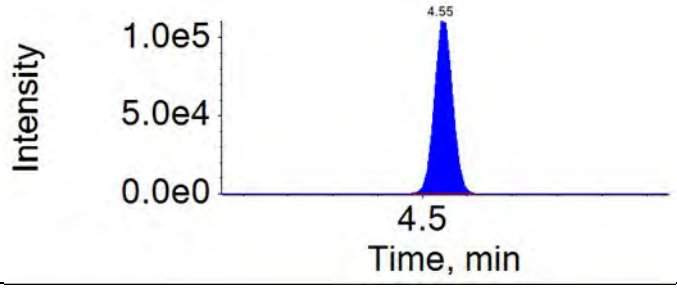
Analyte: 6:2-FTS	Extraction Standard: 13C2-6:2-FTS
427.0 / 407.0	429.0 / 81.0



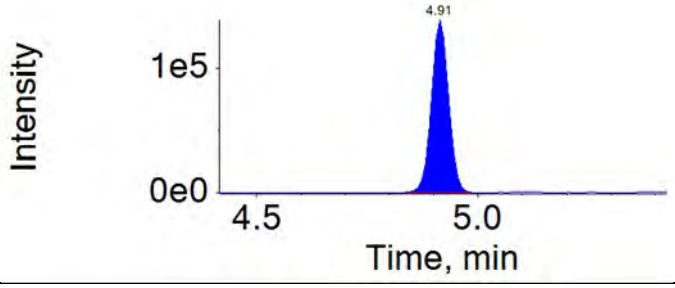


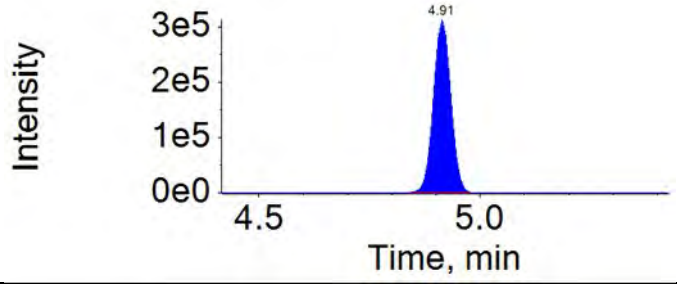
Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0



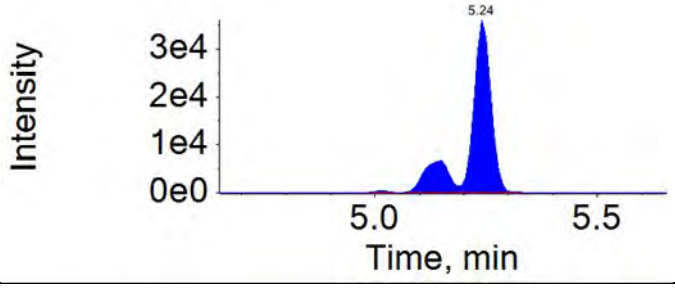


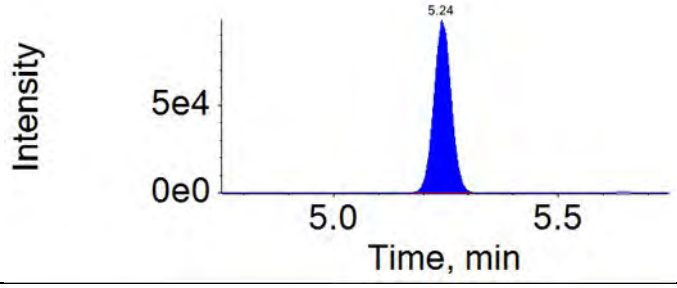
Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0





Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0



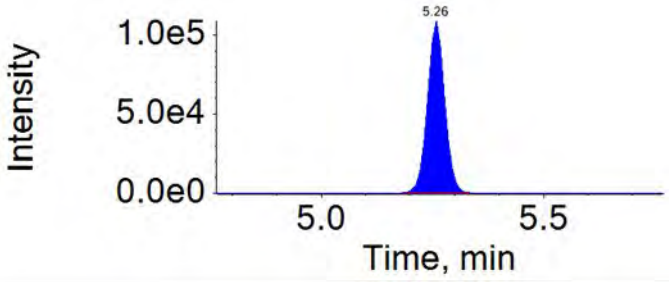


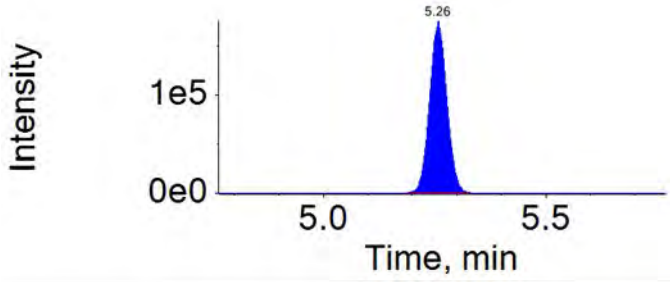
APPROVED
By MCD at 6:34 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

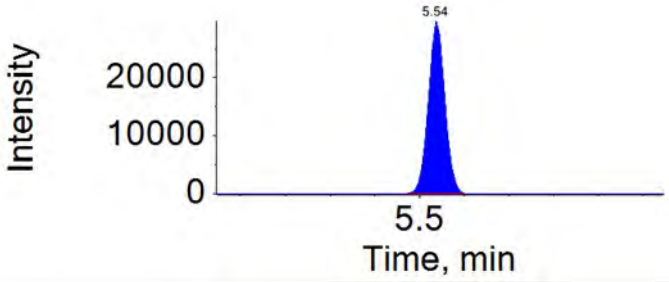
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

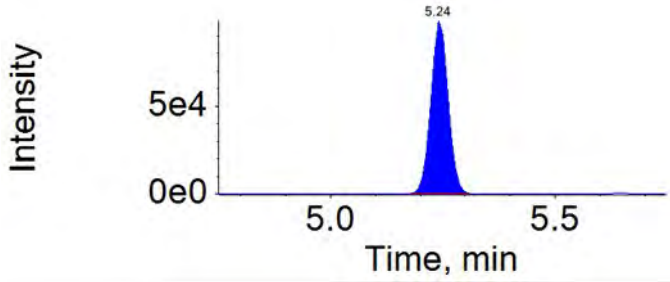
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



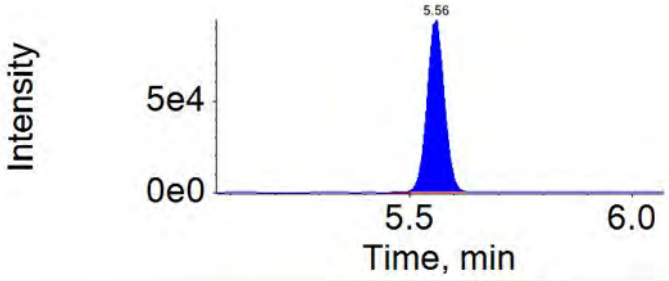


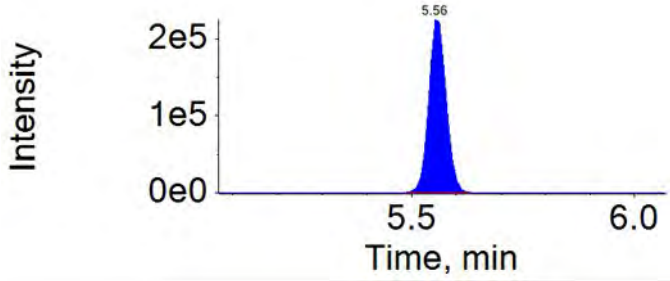
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



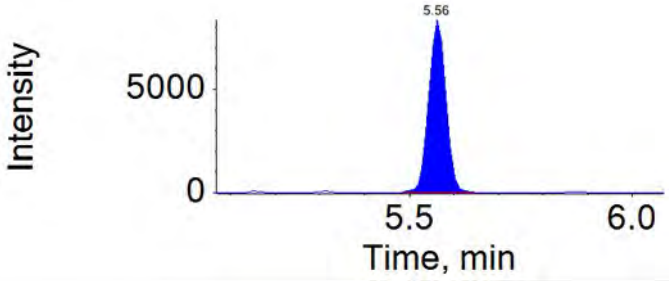


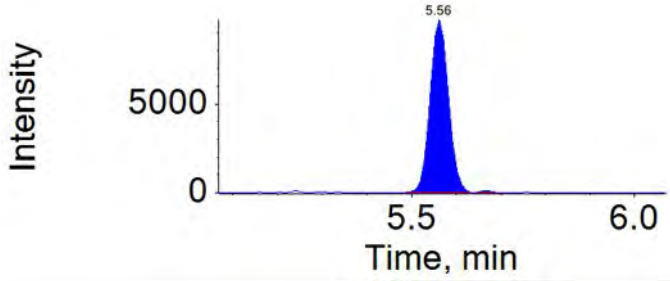
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





Analyte: 8:2-FTS	Extraction Standard: 13C2-8:2-FTS
527.0 / 507.0	529.0 / 81.0



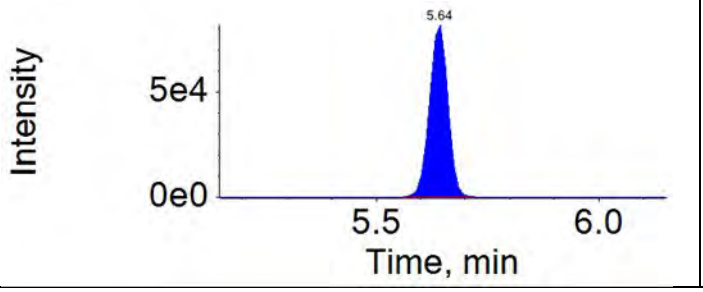


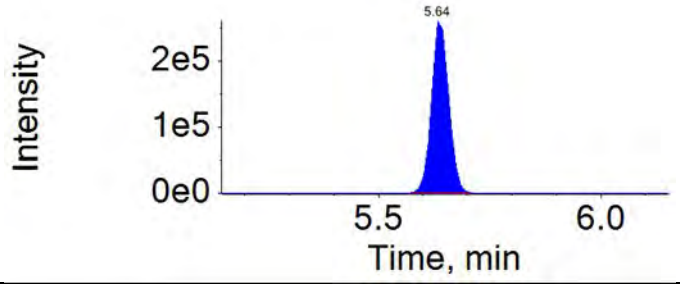
APPROVED
By MCD at 6:34 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

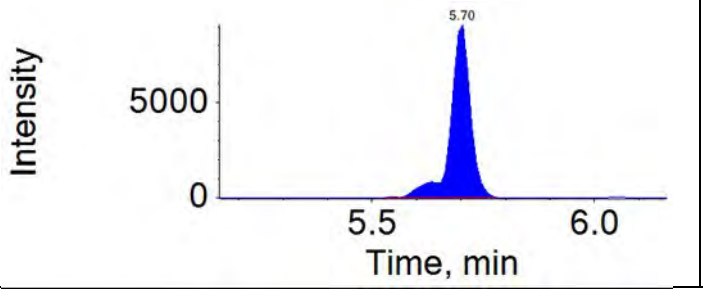
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

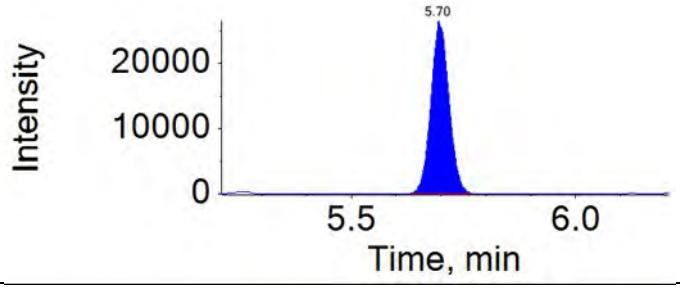
Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0



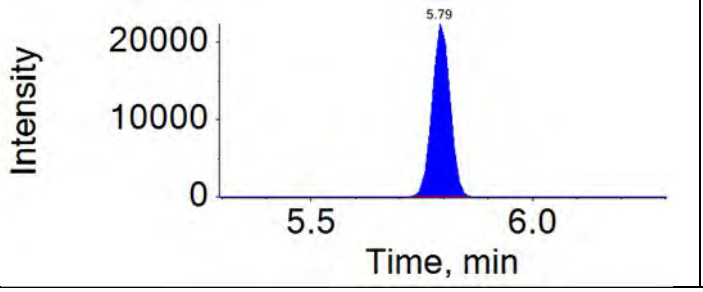


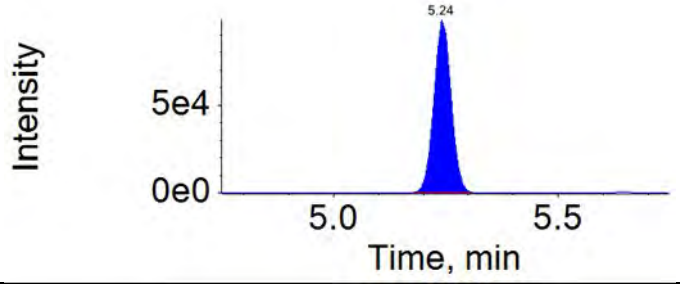
Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0



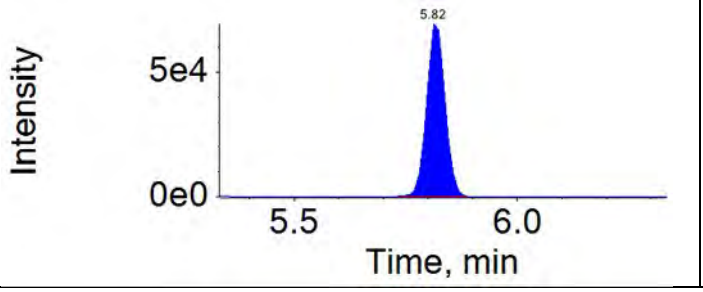


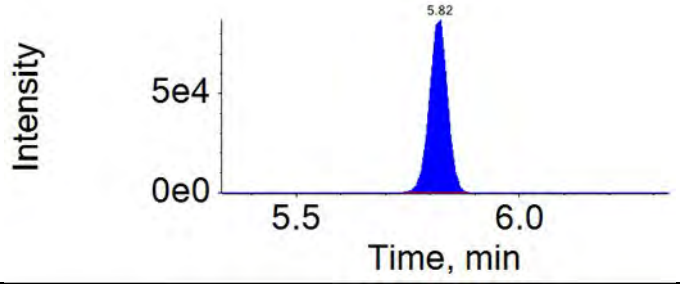
Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0





Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0



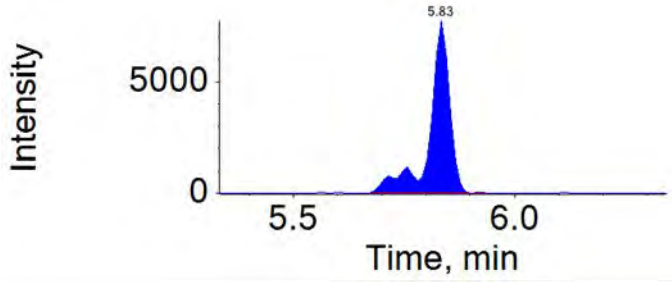


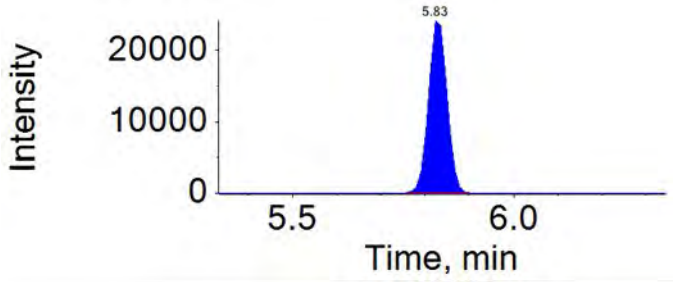
APPROVED
By MCD at 6:34 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

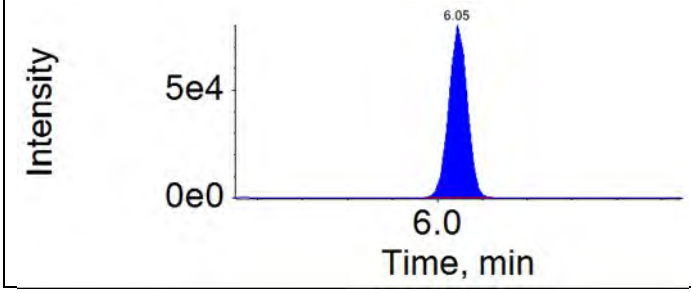
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

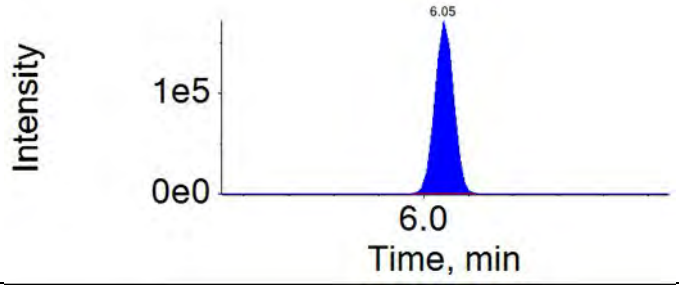
Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0



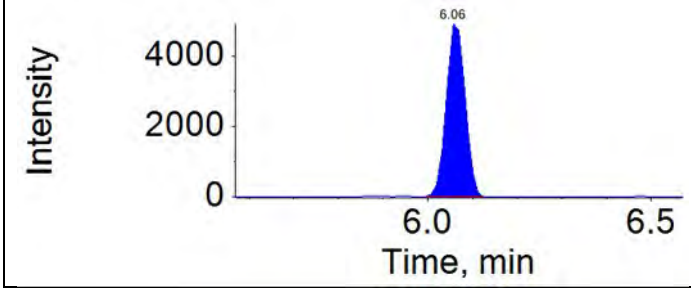


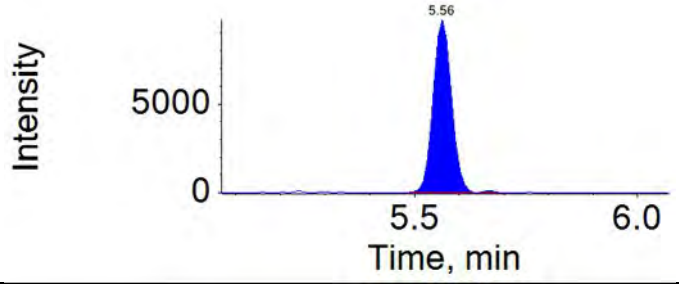
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0



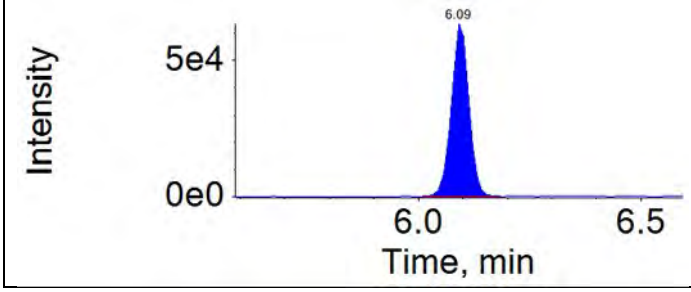


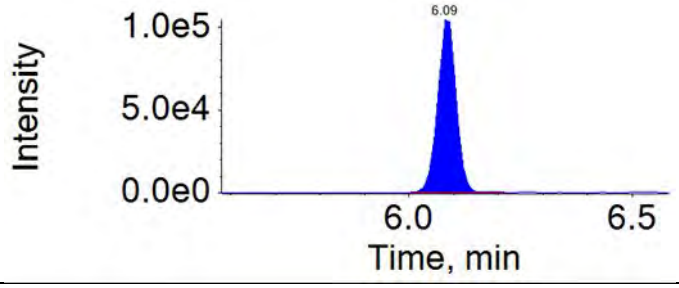
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0





Analyte: NMePFOSAE	Extraction Standard: d7-NMePFOSAE
616.0 / 59.0	623.0 / 59.0



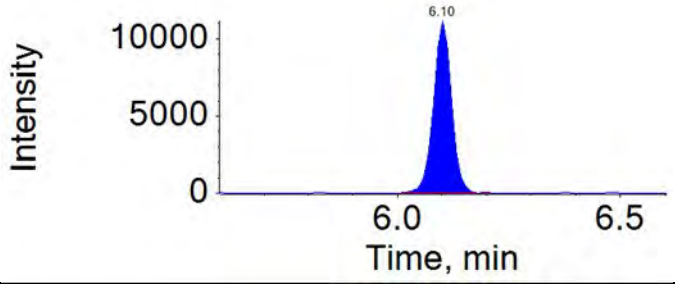


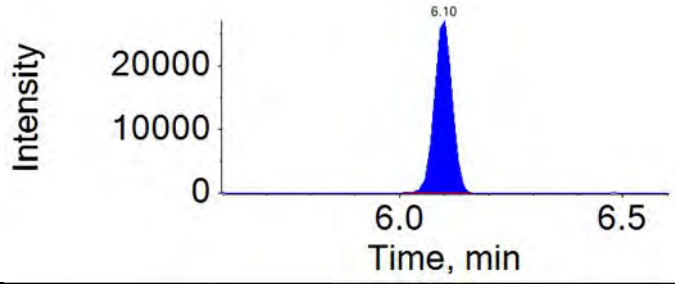
APPROVED
By MCD at 6:34 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

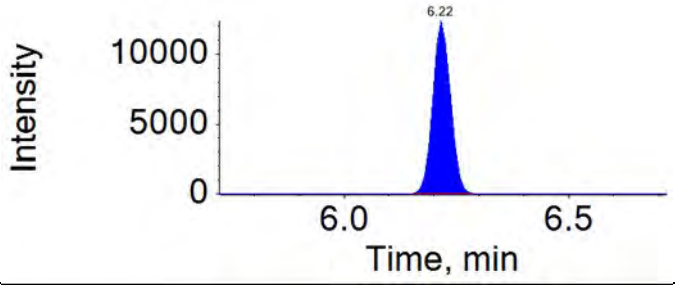
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

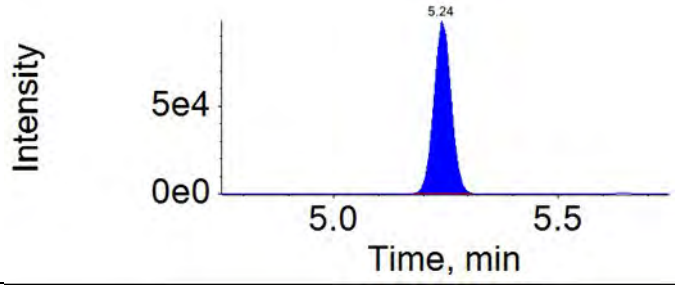
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



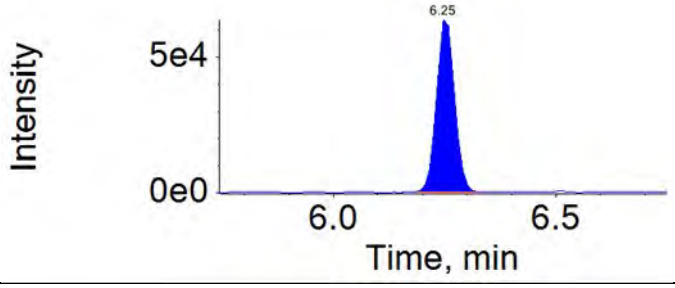


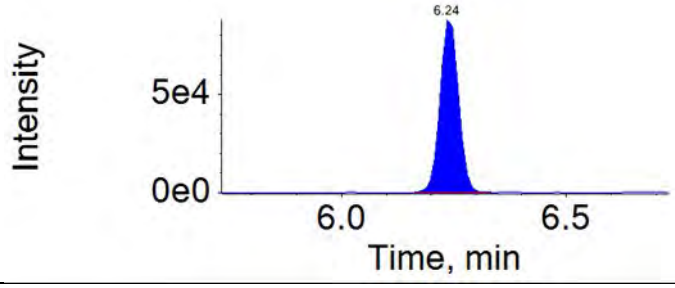
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



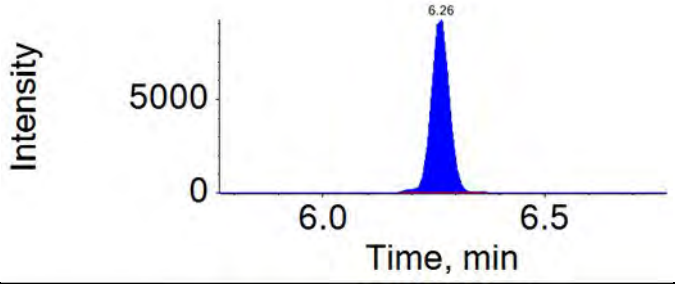


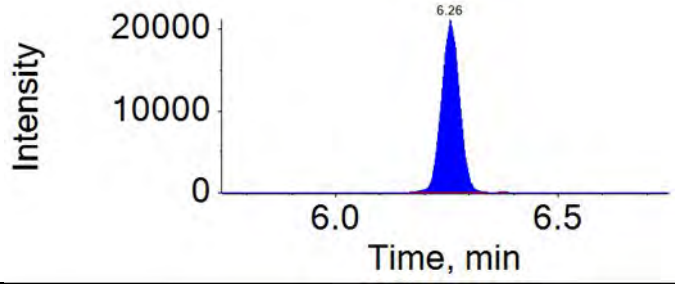
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





Analyte: NEtPFOSA	Extraction Standard: d5-NEtPFOSA
526.0 / 169.0	531.0 / 169.0



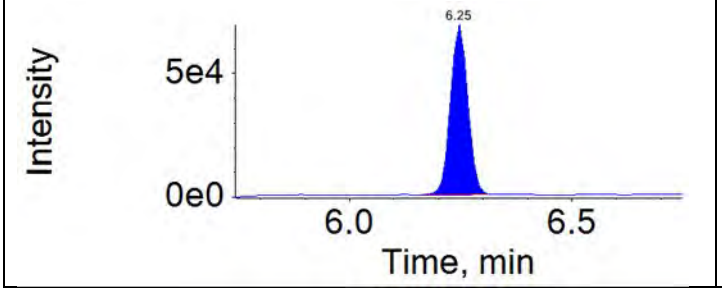


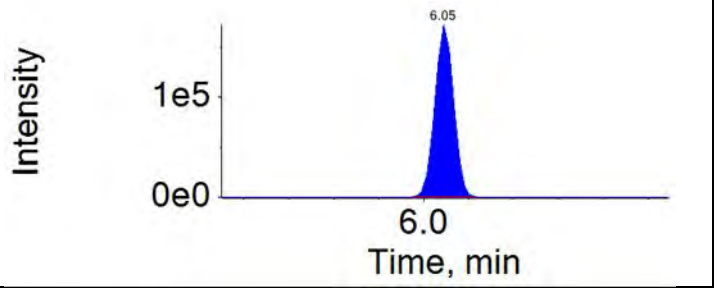
APPROVED
By MCD at 6:34 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

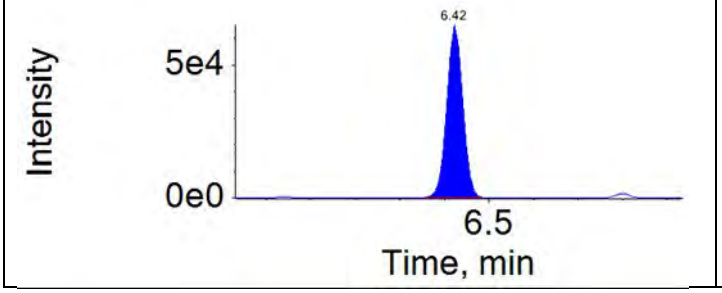
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

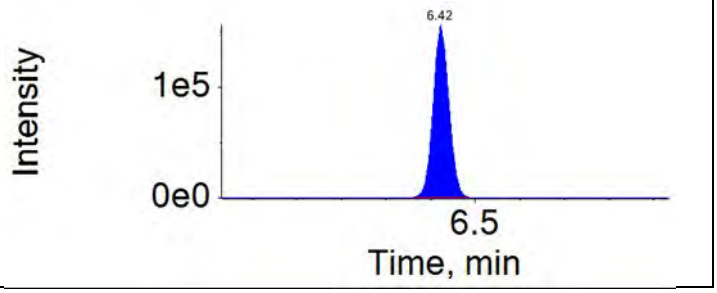
Analyte: PFTrDA	Extraction Standard: 13C2-PFDoDA
663.0 / 619.0	615.0 / 570.0



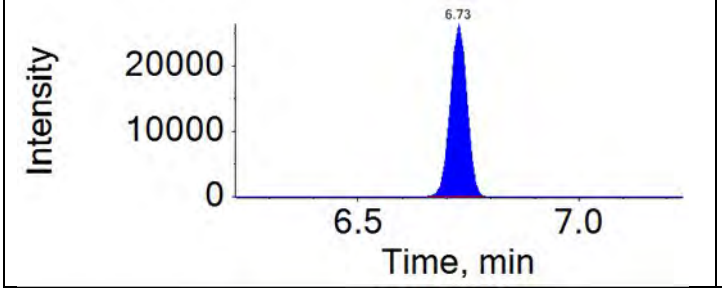


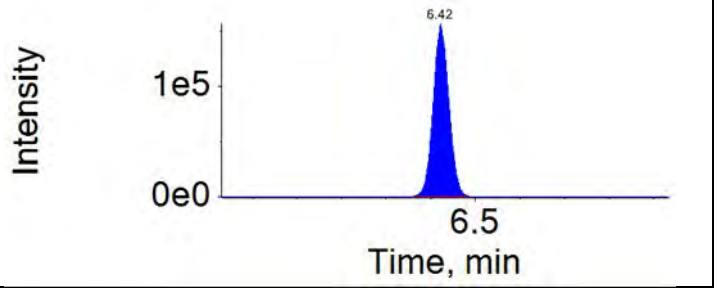
Analyte: PFTeDA	Extraction Standard: 13C2-PFTeDA
713.0 / 669.0	715.0 / 670.0



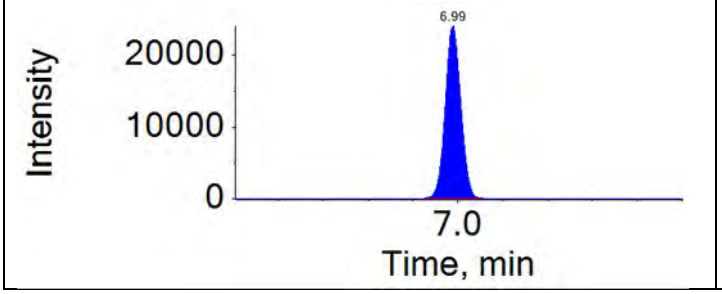


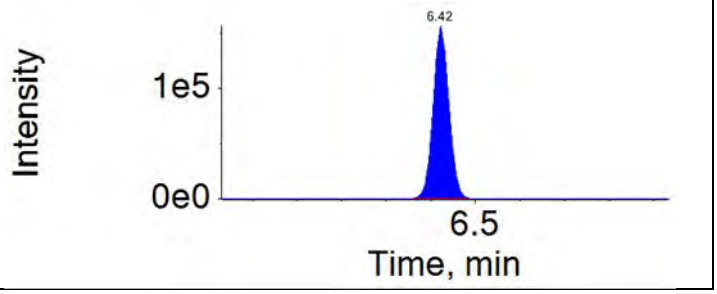
Analyte: PFHxDA	Extraction Standard: 13C2-PFTeDA
813.0 / 769.0	715.0 / 670.0





Analyte: PFODA	Extraction Standard: 13C2-PFTeDA
913.0 / 869.0	715.0 / 670.0



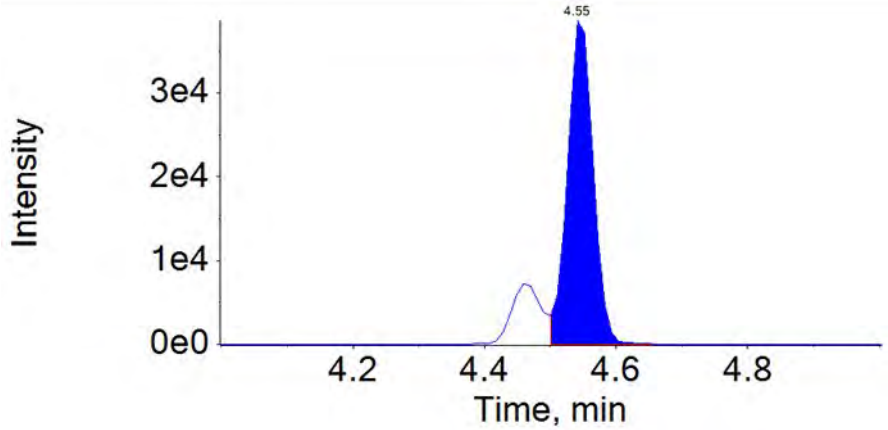


APPROVED
By MCD at 6:34 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

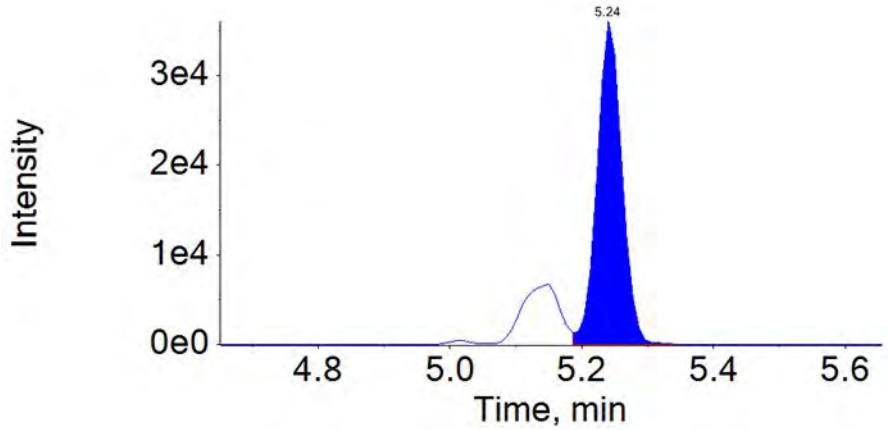
Results Table Name: 18NOV12DCAL
Results Table Date: 11/12/2018 6:23:42 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFHxS
RT (min.):
4.55
Peak Area:
105576.75
Mass Range:
399.0 / 80.0
File Name:
18NOV12DCAL-52.wiff
Sample Name:
CCV1_CAL3



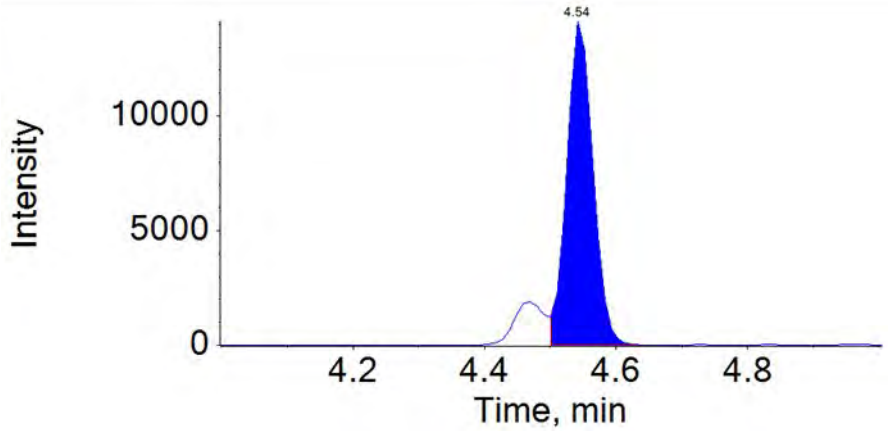
Integration Comment: incorrect integration

Component Name:
PFOS
RT (min.):
5.24
Peak Area:
94723.88
Mass Range:
499.0 / 80.0
File Name:
18NOV12DCAL-52.wiff
Sample Name:
CCV1_CAL3



Integration Comment: incorrect integration

Component Name:
PFHxS_2
RT (min.):
4.54
Peak Area:
39165.47
Mass Range:
399.0 / 99.0
File Name:
18NOV12DCAL-52.wiff
Sample Name:
CCV1_CAL3



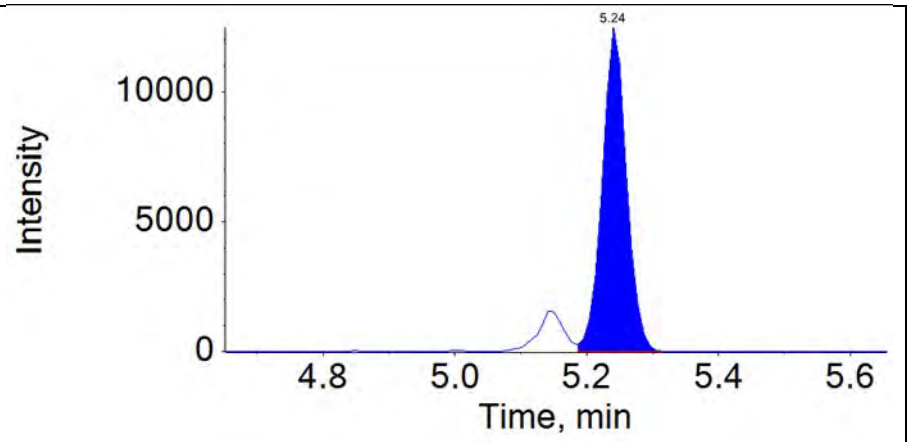
Integration Comment: incorrect integration

APPROVED
By MCD at 6:34 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

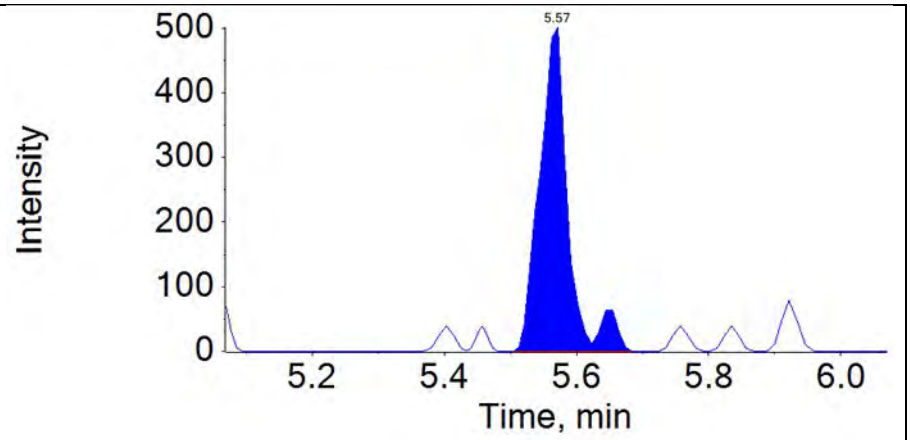
Results Table Name: 18NOV12DCAL
Results Table Date: 11/12/2018 6:23:42 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFOS_2
RT (min.):
5.24
Peak Area:
32024.51
Mass Range:
499.0 / 99.0
File Name:
18NOV12DCAL-52.wiff
Sample Name:
CCV1_CAL3



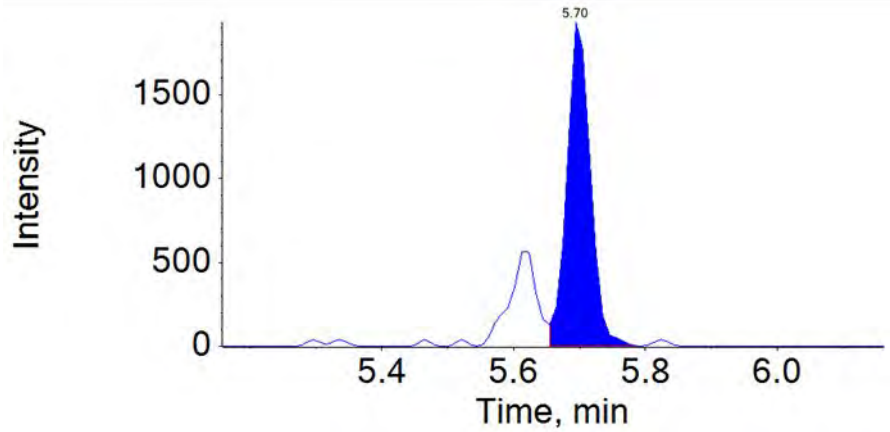
Integration Comment: incorrect integration

Component Name:
PFDA_2
RT (min.):
5.57
Peak Area:
1525.22
Mass Range:
513.0 / 169.0
File Name:
18NOV12DCAL-52.wiff
Sample Name:
CCV1_CAL3



Integration Comment: incorrect integration

Component Name:
NMeFOSAA_2
RT (min.):
5.70
Peak Area:
4786.64
Mass Range:
570.0 / 483.0
File Name:
18NOV12DCAL-52.wiff
Sample Name:
CCV1_CAL3

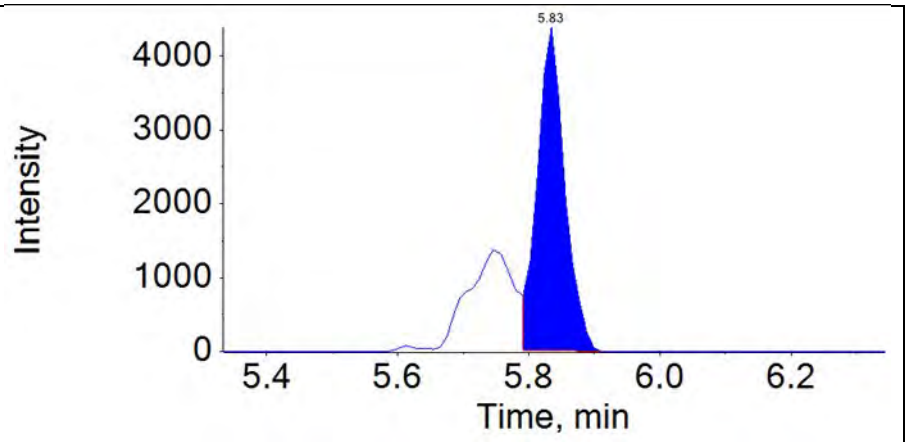


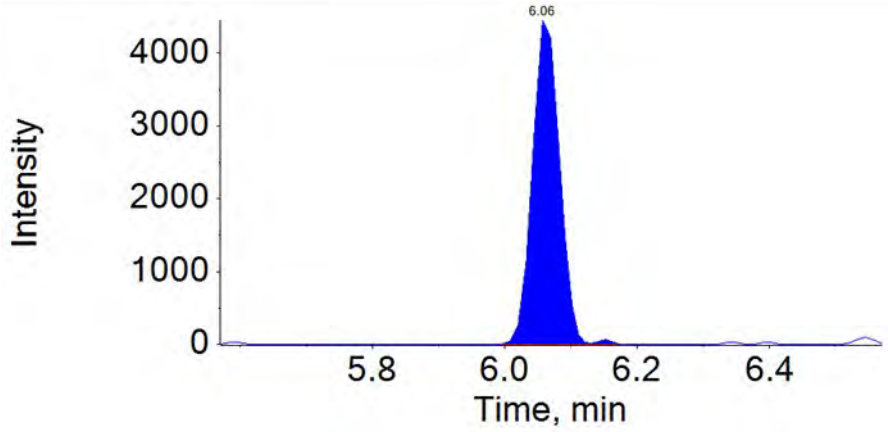
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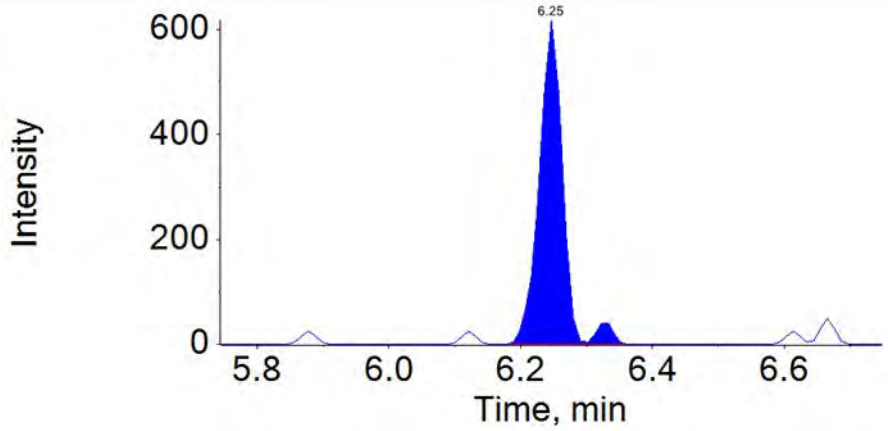
APPROVED
By MCD at 6:34 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

Results Table Name: 18NOV12DCAL
Results Table Date: 11/12/2018 6:23:42 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name: NEtFOSAA_2 **RT (min.):** 5.83 **Peak Area:** 12735.31 **Mass Range:** 584.0 / 526.0 **File Name:** 18NOV12DCAL-52.wiff **Sample Name:** CCV1_CAL3	 **Integration Comment:** incorrect integration

Component Name: 10:2 FTS_2 **RT (min.):** 6.06 **Peak Area:** 12750.49 **Mass Range:** 627.0 / 81.0 **File Name:** 18NOV12DCAL-52.wiff **Sample Name:** CCV1_CAL3	 **Integration Comment:** incorrect integration

Component Name: PFTrDA_2 **RT (min.):** 6.25 **Peak Area:** 1561.97 **Mass Range:** 663.0 / 169.0 **File Name:** 18NOV12DCAL-52.wiff **Sample Name:** CCV1_CAL3	 **Integration Comment:** incorrect integration

APPROVED
By MCD at 6:34 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

Results Table Name: 18NOV12DCAL
Results Table Date: 11/12/2018 6:23:42 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Ion Ratio Report

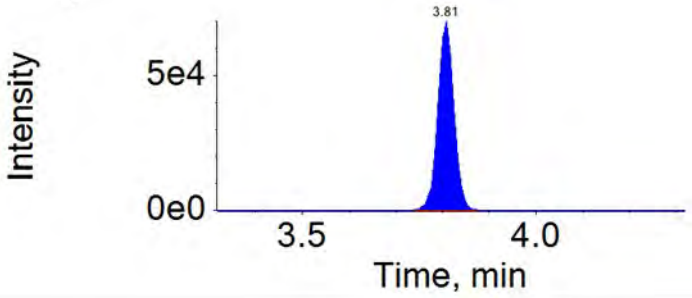
Sample Name: CCV1_CAL3 **Instrument Name:** LM27631 **File Name:** 18NOV12DCAL-52.wiff

Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	3.81	1.00	166889.60	A	0.3619	0.3759			
PFBS_2	3.81	1.00	62739.70	A	0.3619	0.3759	4	50	
4:2-FTS	4.12	1.00	33008.94	A	0.6730	0.6769			
4:2 FTS_2	4.12	1.00	22342.63	A	0.6730	0.6769		#NA!	
PFHxA	4.16	1.00	362325.97	A	0.0117	0.0114			
PFHxA_2	4.16	1.00	4119.87	A	0.0117	0.0114	-2	50	
PFPeS	4.18	1.10	87834.91	A	0.5191	0.5380			
PFPeS_2	4.17	1.10	47259.43	A	0.5191	0.5380	4	50	
PFHpA	4.54	1.00	361271.55	A	0.0563	0.0528			
PFHpA_2	4.54	1.00	19075.67	A	0.0563	0.0528	-6	50	
PFHxS	4.55	1.00	128396.13	M	0.3428	0.3526			
PFHxS_2	4.54	1.00	45266.10	M	0.3428	0.3526	3	50	
6:2-FTS	4.90	1.00	30500.72	A	0.6604	0.6139			
6:2 FTS_2	4.90	1.00	18723.69	A	0.6604	0.6139		#NA!	
PFHpS	4.91	1.08	122801.74	A	0.4066	0.3898			
PFHpS_2	4.91	1.08	47867.04	A	0.4066	0.3898	-4	50	
PFOA	4.91	1.00	370358.65	A	0.0562	0.0572			
PFOA_2	4.91	1.00	21182.05	A	0.0562	0.0572	2	50	
PFOS	5.24	1.00	122332.00	M	0.2968	0.2965			
PFOS_2	5.24	1.00	36275.78	M	0.2968	0.2965	0	50	
PFNA	5.26	1.00	292557.20	A	0.0229	0.0191			
PFNA_2	5.26	1.00	5601.50	A	0.0229	0.0191	-16	50	
PFNS	5.54	1.06	76021.24	A	0.4828	0.4752			
PFNS_2	5.54	1.06	36125.34	A	0.4828	0.4752	-2	50	
PFDA	5.56	1.00	253956.70	A	0.0081	0.0055			
PFDA_2	5.57	1.00	1404.60	M	0.0081	0.0055	-32	50	
8:2-FTS	5.56	1.00	22335.45	A	0.6814	0.6085			
8:2 FTS_2	5.56	1.00	13590.39	A	0.6814	0.6085		#NA!	
NMeFOSAA	5.70	1.00	28733.42	A	0.2569	0.2248			
NMeFOSAA_2	5.70	1.00	6459.32	M	0.2569	0.2248	-12	50	
PFDS	5.79	1.11	62507.84	A	0.5144	0.4958			
PFDS_2	5.79	1.10	30989.83	A	0.5144	0.4958	-4	50	
PFUnDA	5.82	1.00	199322.38	A	0.0058	0.0036			
PFUnDA_2	5.82	1.00	716.12	A	0.0058	0.0036	-38	50	
NEtFOSAA	5.83	1.00	24531.93	A	0.7253	0.7928			
NEtFOSAA_2	5.83	1.00	19448.32	M	0.7253	0.7928	9	50	
PFDoDA	6.05	1.00	228792.93	A	0.0157	0.0084			
PFDoDA_2	6.05	1.00	1930.67	A	0.0157	0.0084	-46	50	
10:2-FTS	6.06	1.09	14411.12	A	0.6356	0.8781			
10:2 FTS_2	6.06	1.09	12654.02	M	0.6356	0.8781		#NA!	
PFTrDA	6.25	1.03	185154.57	A	0.0086	0.0080			
PFTrDA_2	6.25	1.03	1486.41	M	0.0086	0.0080	-6	50	
PFTeDA	6.42	1.00	159904.63	A	0.0062	0.0061			
PFTeDA_2	6.42	1.00	982.46	A	0.0062	0.0061	-2	50	
PFHxDA	6.73	1.05	68393.80	A	0.0683	0.0584			
PFHxDA_2	6.73	1.05	3992.51	A	0.0683	0.0584	-14	50	
PFODA	6.99	1.09	58092.41	A	0.0277	0.0262			
PFODA_2	6.99	1.09	1524.27	A	0.0277	0.0262	-5	50	

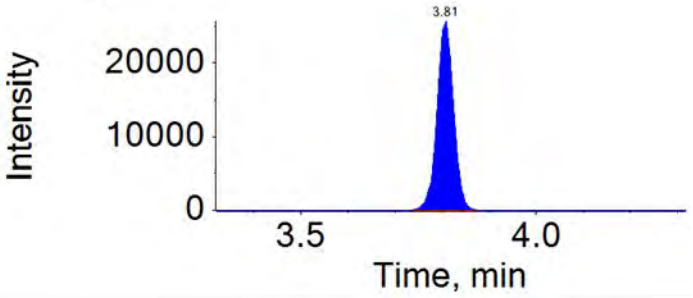
APPROVED
By MCD at 6:34 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

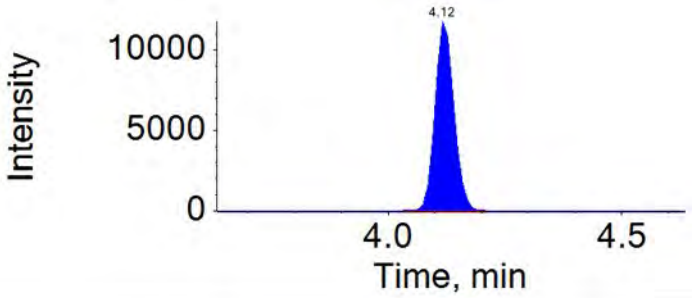
Component: PFBS
Primary Mass: 299.0 / 80.0



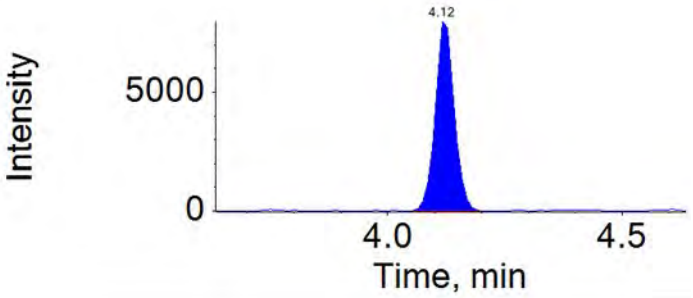
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



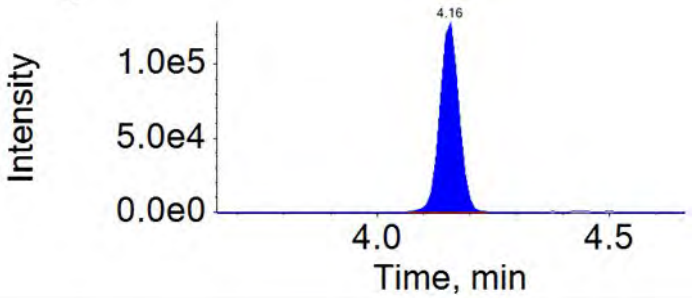
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Primary Mass: 327.0 / 307.0



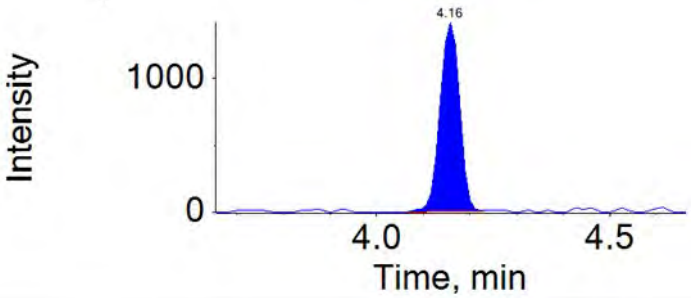
Component: 4:2 FTS_2
Secondary Mass: 327.0 / 81.0



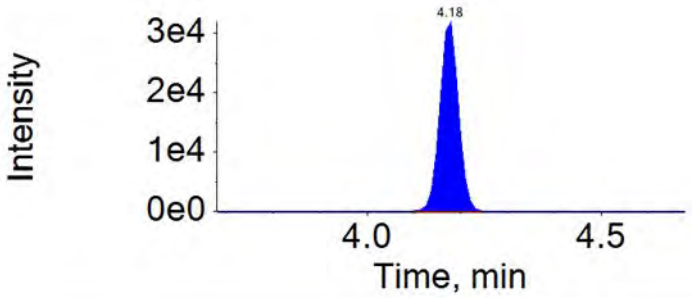
Component: PFHxA
Primary Mass: 313.0 / 269.0



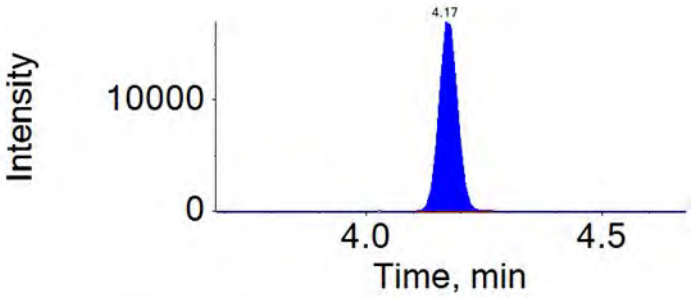
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



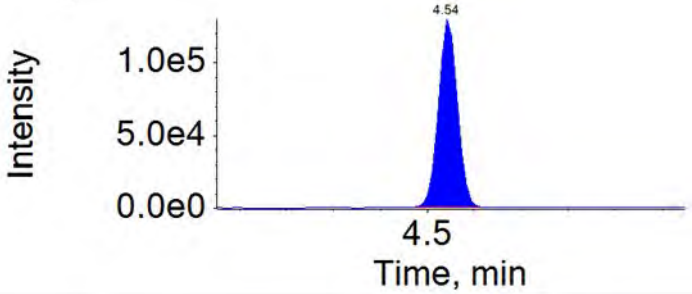
Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



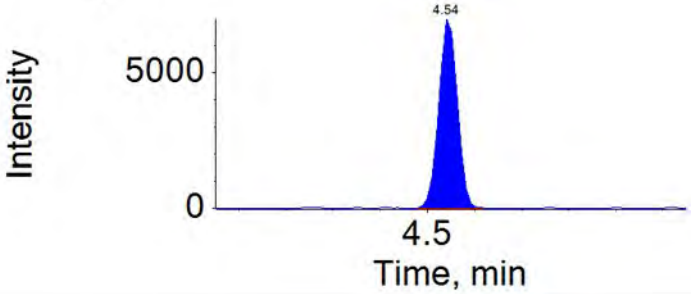
APPROVED
By MCD at 6:34 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

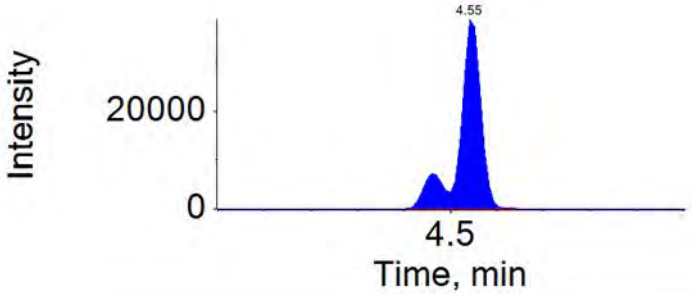
Component: PFHpA
Primary Mass: 363.0 / 319.0



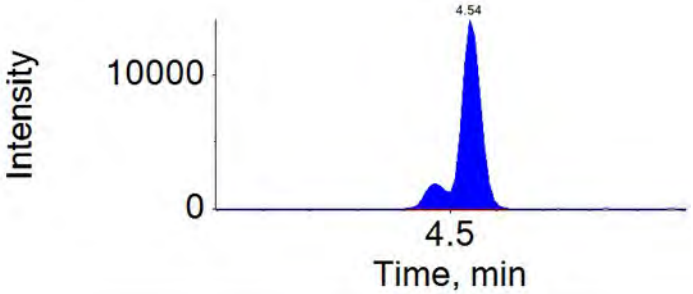
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



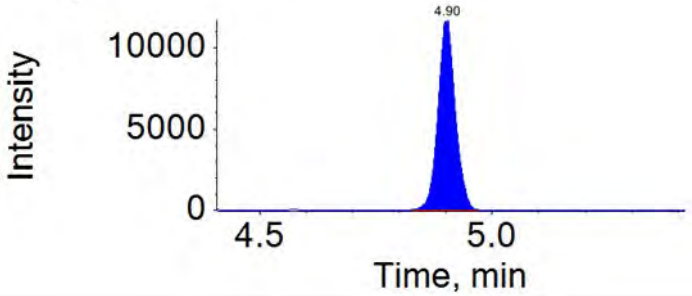
Component: PFHxS
Primary Mass: 399.0 / 80.0



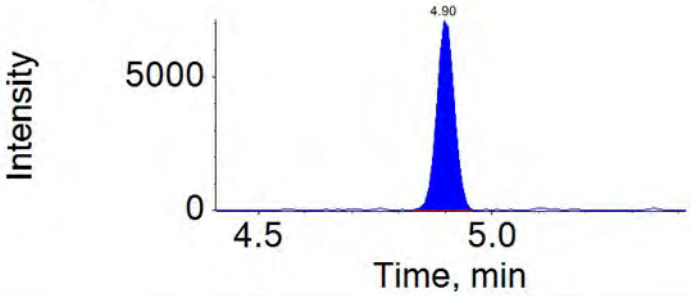
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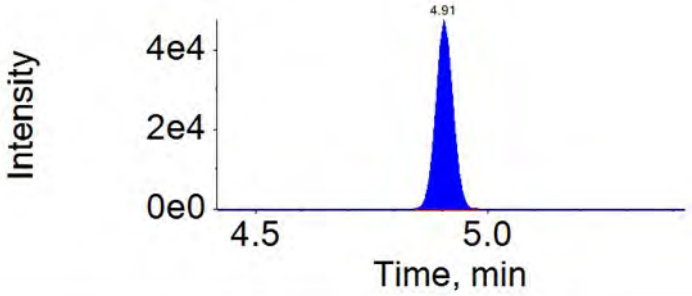
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



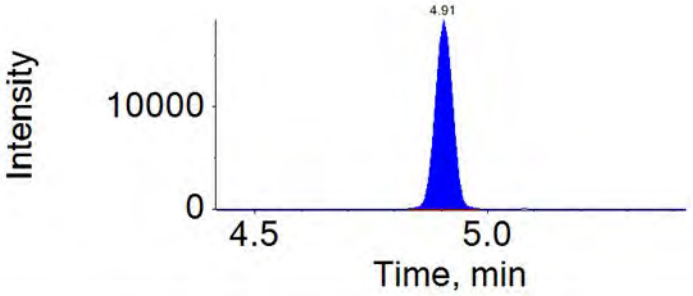
Component: 6:2 FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



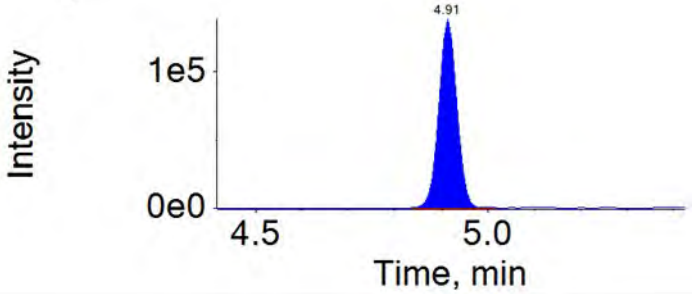
Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



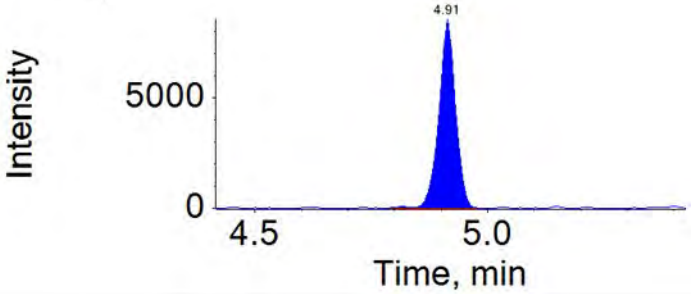
APPROVED
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By HMK at 10:53 am, 11/13/18

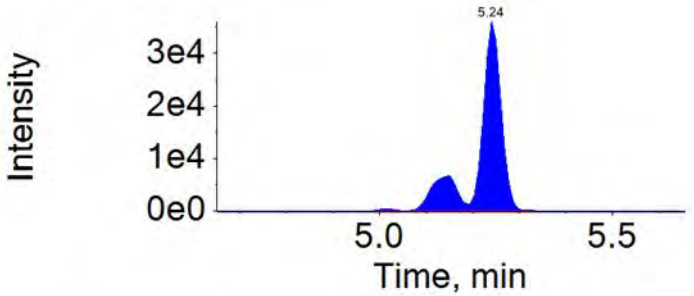
Component: PFOA
Primary Mass: 413.0 / 369.0



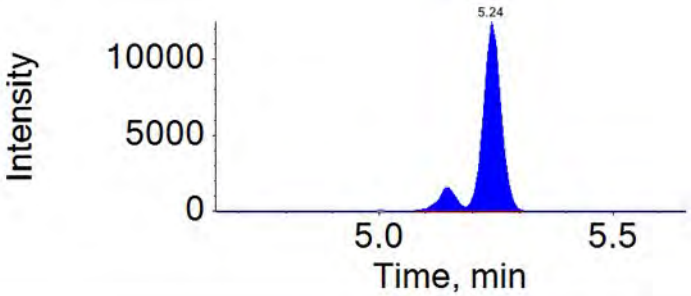
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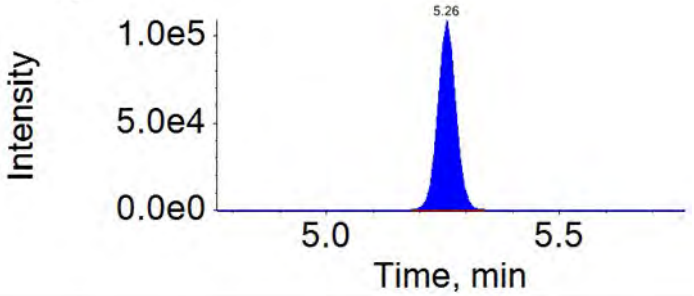
Component: PFOS
Primary Mass: 499.0 / 80.0



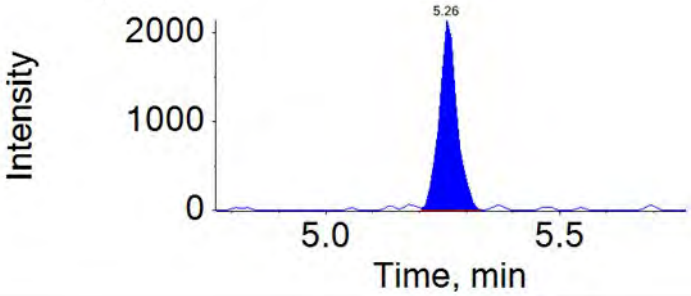
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



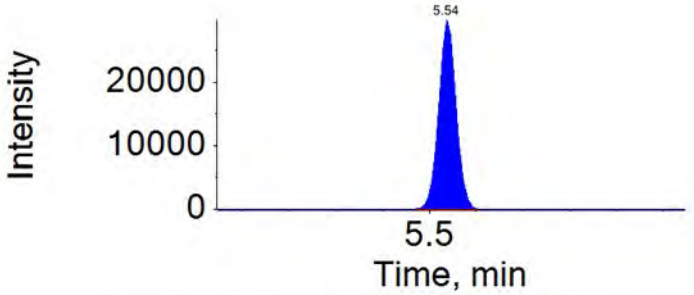
Component: PFNA
Primary Mass: 463.0 / 419.0



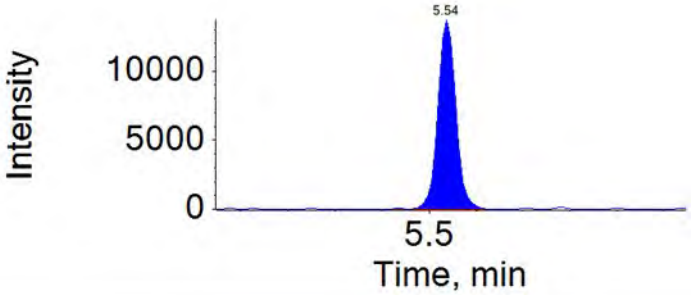
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



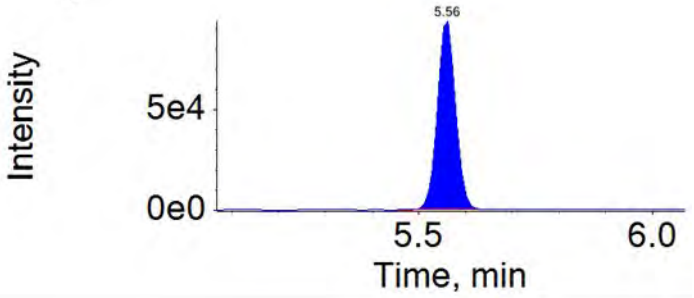
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



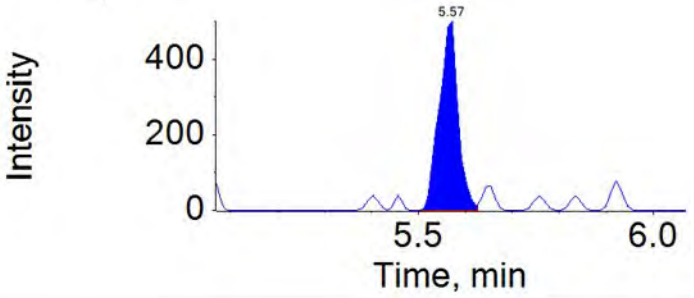
APPROVED
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REVIEWED
By HMK at 10:53 am, 11/13/18

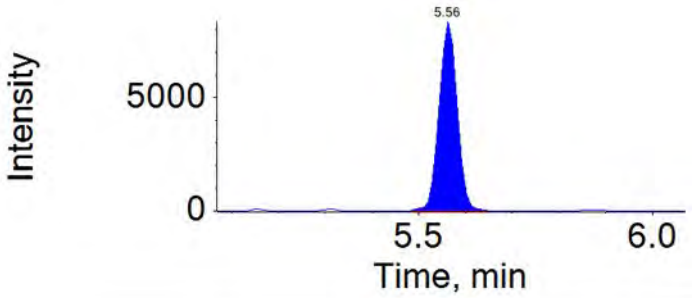
Component: PFDA
Primary Mass: 513.0 / 469.0



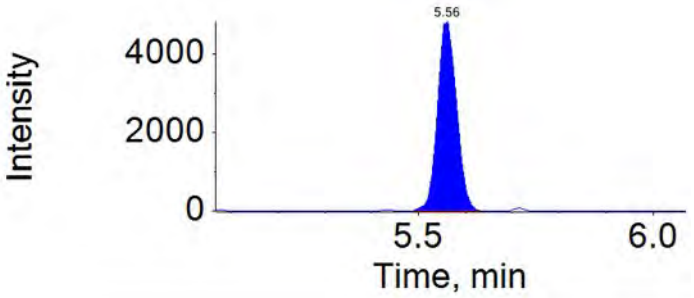
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



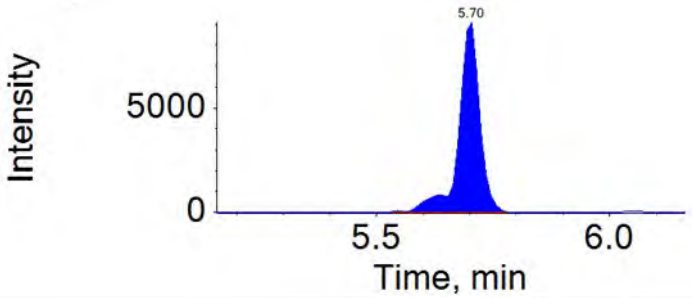
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



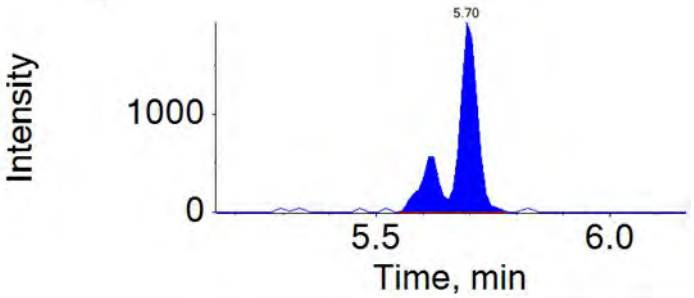
Component: 8:2 FTS_2
Secondary Mass: 527.0 / 81.0



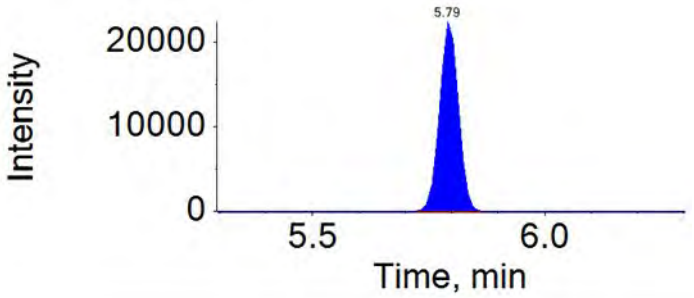
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



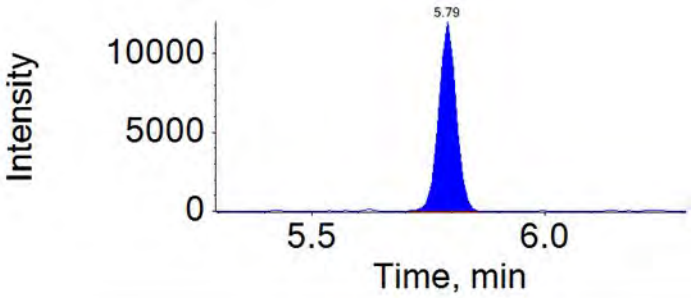
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



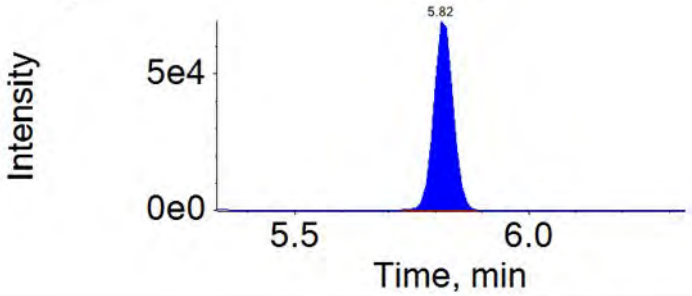
Component: PFDS_2
Secondary Mass: 599.0 / 99.0



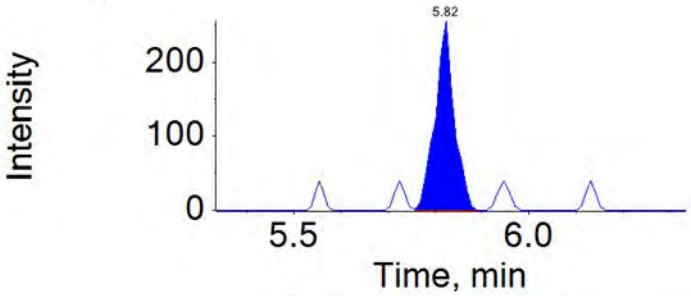
APPROVED
By MCD at 6:34 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

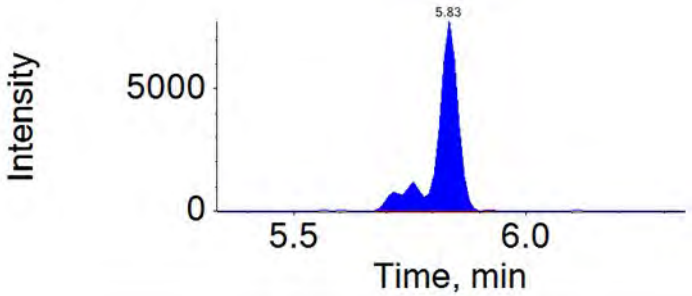
Component: PFUnDA
Primary Mass: 563.0 / 519.0



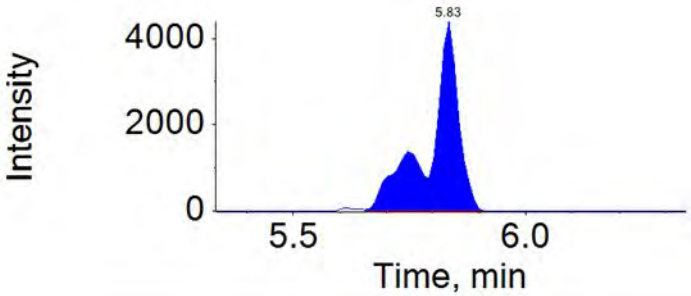
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



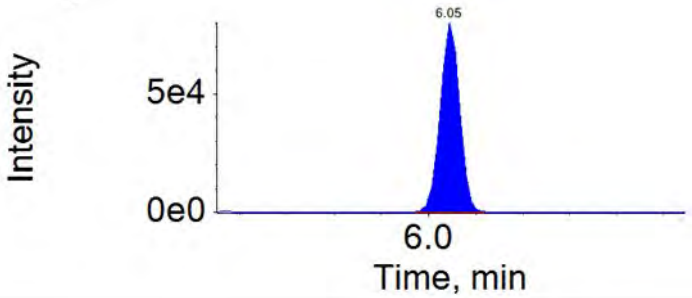
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



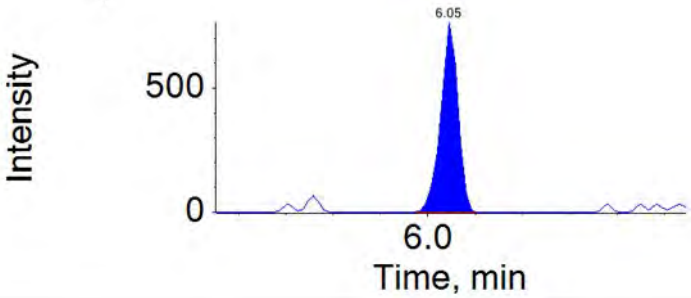
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



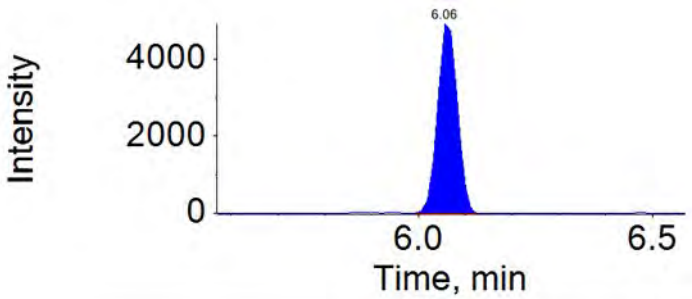
Component: PFDoDA
Primary Mass: 613.0 / 569.0



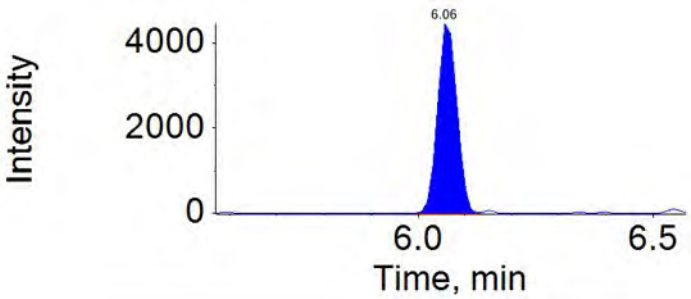
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



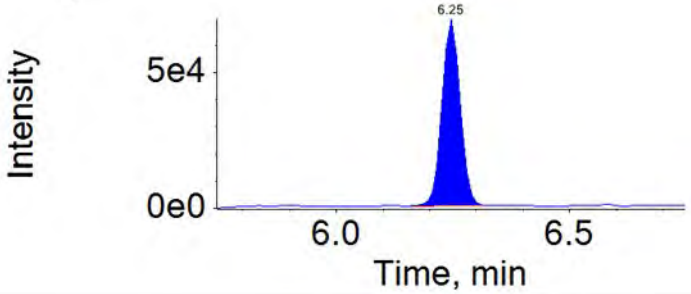
Component: 10:2 FTS_2
Secondary Mass: 627.0 / 81.0



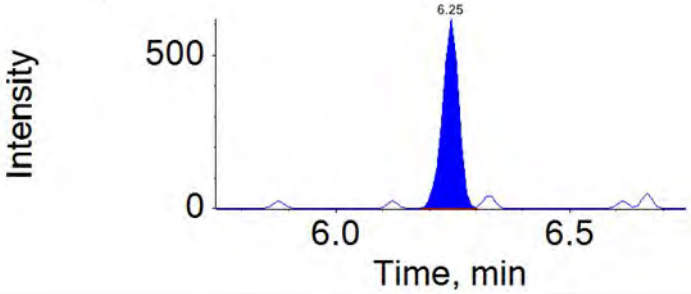
APPROVED
By MCD at 6:34 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

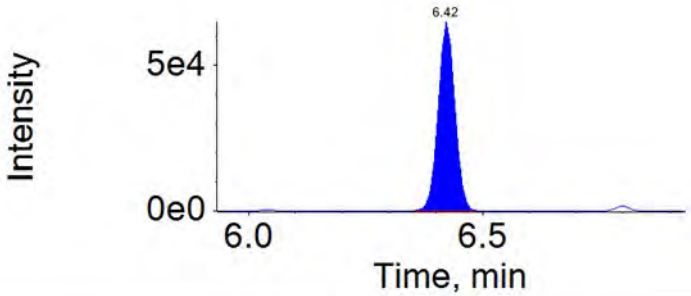
Component: PFTrDA
Primary Mass: 663.0 / 619.0



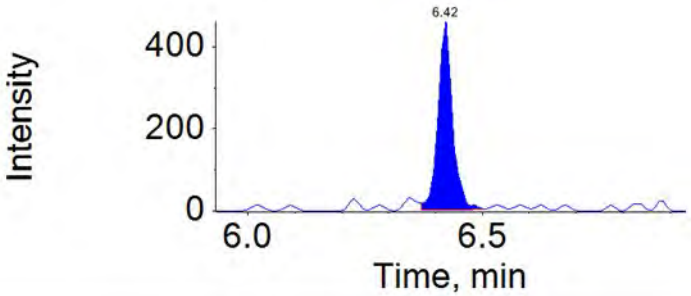
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



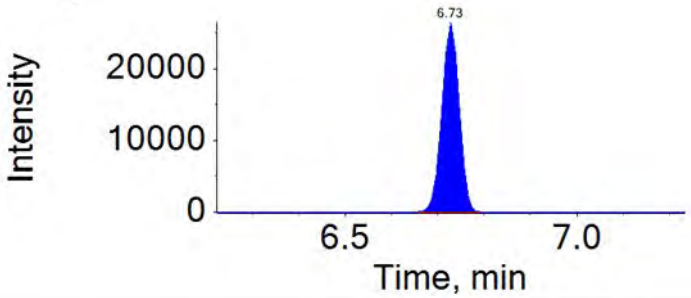
Component: PFTeDA
Primary Mass: 713.0 / 669.0



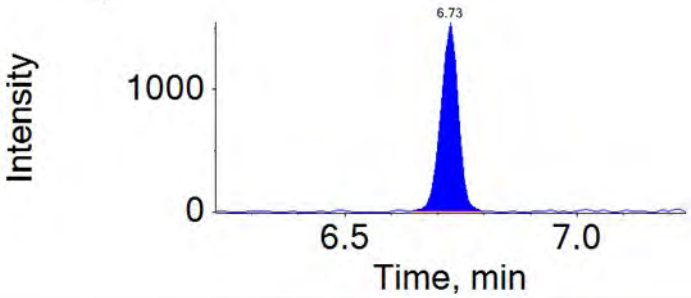
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



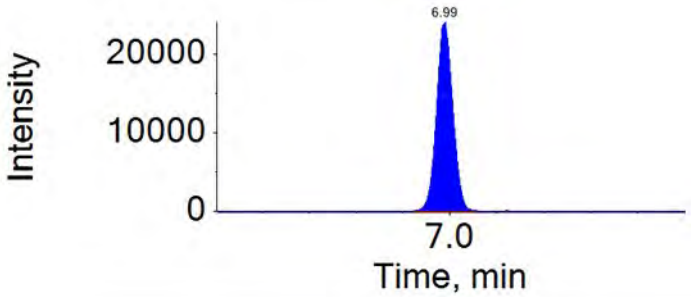
Component: PFHxDA
Primary Mass: 813.0 / 769.0



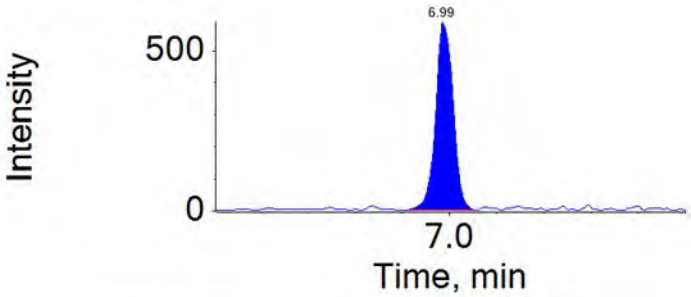
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



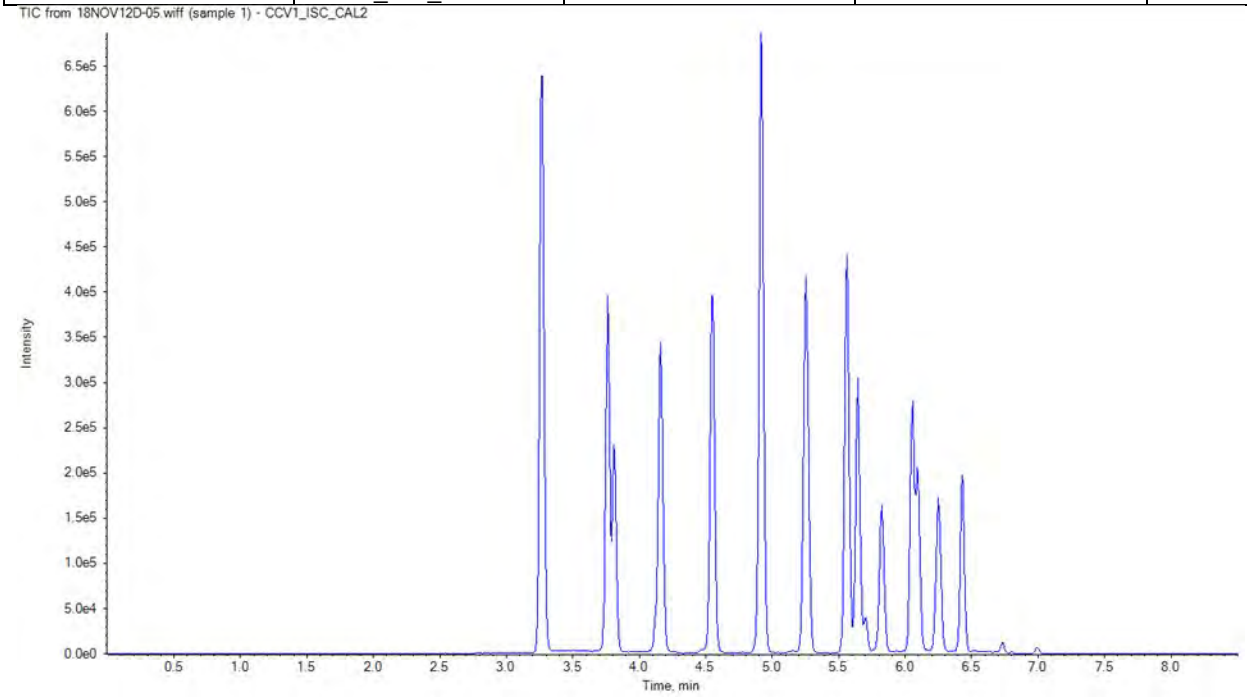
APPROVED
By MCD at 6:34 pm, 11/12/18

REVIEWED
By HMK at 10:53 am, 11/13/18

Instrument Sensitivity Check/ Continuing Calibration Verfication

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV1-2 11/12/2018 7:38:10 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	CCV1_ISC_CAL2	CALBRN21833C	18NOV12D-05.wiff	2018-11-12T17:21:36



Injection Standard Area Reference File: 18NOV12DCAL-44

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Reference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	653019.5	659926.2	-1	50	
13C2-PFOA	5.0	460051.8	450219.7	2	50	
13C4-PFOS	4.8	246521.2	249205.8	-1	50	
13C2-PFDA	5.0	292717.8	278743.9	5	50	

APPROVED
By MCD at 7:46 pm, 11/12/18

REVIEWED
By HMK at 11:56 am, 11/13/18

Instrument Sensitivity Check/ Continuing Calibration Verfication

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV1-2 11/12/2018 7:38:10 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	CCV1_ISC_CAL2	CALBRN21833C	18NOV12D-05.wiff	2018-11-12T17:21:36

Analyte Name	Analyte Area	Sc /pk	Ext Std Name	Ext Std Area	Ext Std con	Area Ratio	RT (min)	RRT	Spec Amt	Calc Amt	% Diff	% Diff Lim	% Diff OOS
PFBA	78557.0	10	13C4-PFBA	759618.7	5.0	0.103	3.26	1.000	0.600	0.573	-5	30	
PFPeA	78261.7	12	13C5-PFPeA	731579.8	5.0	0.107	3.76	1.000	0.600	0.619	3	30	
PFBS	40715.3	11	13C3-PFBS	427605.3	4.7	0.095	3.81	1.000	0.531	0.453	-15	30	
4:2-FTS	11234.3	11	13C2-4:2-FTS	48267.7	4.7	0.233	4.12	1.000	0.560	0.632	13	30	
PFHxA	94419.1	12	13C5-PFHxA	665991.1	5.0	0.142	4.16	1.000	0.600	0.592	-1	30	
PFPeS	22520.0	11	13C3-PFBS	427605.3	4.7	0.053	4.18	1.100	0.563	0.511	-9	30	
PFHpA	94703.4	12	13C4-PFHpA	515157.4	5.0	0.184	4.55	1.000	0.600	0.609	2	30	
PFHxS	31116.0	19	13C3-PFHxS	312372.4	4.7	0.100	4.55	1.000	0.547	0.483	-12	30	
6:2-FTS	7251.1	11	13C2-6:2-FTS	32906.8	4.8	0.220	4.91	1.000	0.569	0.533	-6	30	
PFHpS	33565.2	11	13C3-PFHxS	312372.4	4.7	0.107	4.91	1.080	0.571	0.566	-1	30	
PFOA	97268.8	11	13C8-PFOA	906076.3	5.0	0.107	4.92	1.000	0.600	0.573	-4	30	
PFOS	29101.9	21	13C8-PFOS	272463.6	4.8	0.107	5.25	1.000	0.555	0.467	-16	30	
PFNA	74726.2	11	13C9-PFNA	470836.1	5.0	0.159	5.26	1.000	0.600	0.572	-5	30	
PFNS	21280.8	11	13C8-PFOS	272463.6	4.8	0.078	5.54	1.060	0.576	0.546	-5	30	
PFDA	61208.1	11	13C6-PFDA	617340.8	5.0	0.099	5.56	1.000	0.600	0.526	-12	30	
8:2-FTS	6888.9	11	13C2-8:2-FTS	29145.0	4.8	0.236	5.56	1.000	0.575	0.551	-4	30	
PFOSA	67438.1	12	13C8-PFOSA	605816.1	5.0	0.111	5.64	1.000	0.600	0.544	-9	30	
NMeFOSAA	7803.6	22	d3-NMeFOSAA	75793.3	5.0	0.103	5.70	1.000	0.600	0.582	-3	30	
PFDS	16863.0	12	13C8-PFOS	272463.6	4.8	0.062	5.80	1.110	0.578	0.561	-3	30	
PFUnDA	50785.7	12	13C7-PFUnDA	255941.5	5.0	0.198	5.82	1.000	0.600	0.519	-14	30	
NEtFOSAA	6353.1	23	d5-NEtFOSAA	63458.3	5.0	0.100	5.83	1.000	0.600	0.525	-13	30	
PFDoDA	56256.7	11	13C2-PFDoDA	544805.3	5.0	0.103	6.05	1.000	0.600	0.526	-12	30	
10:2-FTS	4386.3	13	13C2-8:2-FTS	29145.0	4.8	0.150	6.07	1.090	0.578	0.501	-13	30	
NMePFOSAE	47816.0	11	d7-NMePFOSAE	324193.1	5.0	0.147	6.10	1.000	0.600	0.614	2	30	
NMePFOSA	7746.5	12	d3-NMePFOSA	79325.6	5.0	0.098	6.11	1.000	0.600	0.482	-20	30	
PFDoS	7863.8	11	13C8-PFOS	272463.6	4.8	0.029	6.22	1.190	0.581	0.505	-13	30	
NEtPFOSAE	47560.7	11	d9-NEtPFOSAE	265622.4	5.0	0.179	6.26	1.000	0.600	0.574	-4	30	
NEtPFOSA	7352.4	11	d5-NEtPFOSA	59158.0	5.0	0.124	6.27	1.000	0.600	0.571	-5	30	
PFTrDA	47478.9	12	13C2-PFDoDA	544805.3	5.0	0.087	6.25	1.030	0.600	0.550	-8	30	
PFTeDA	37143.0	11	13C2-PFTeDA	375963.1	5.0	0.099	6.43	1.000	0.600	0.554	-8	30	
PFHxDA	19260.7	10	13C2-PFTeDA	375963.1	5.0	0.051	6.73	1.050	0.600	0.610	2	30	
PFODA	14710.9	10	13C2-PFTeDA	375963.1	5.0	0.039	6.99	1.090	0.600	0.545	-9	30	

APPROVED
By MCD at 7:46 pm, 11/12/18

REVIEWED
By HMK at 11:56 am, 11/13/18

Instrument Sensitivity Check/ Continuing Calibration Verfication

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV1-2 11/12/2018 7:38:10 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

APPROVED
By MCD at 7:46 pm, 11/12/18

REVIEWED
By HMK at 11:56 am, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV1-2 11/12/2018 7:40:04 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Sample Name:	CCV1_ISC_CAL2			**Data File:**		18NOV12D-05.wiff
Sample ID:	CALBRN21833C			**Acquis Date:**		2018-11-12T17:21:36
Sample Type:	Quality Control			**Instrument:**		LM27631
Vial Position:	4			**Acquis Method:**		18AUG13_3uL.dam
Injection Vol:	3.00			**Result Table:**		18NOV12DCCV1-2
QMethod File:	18AUG20QM			**ICAL Name:**		18NOV12DCAL
Batch Number:	N/A			**Operator:**		MCD7824
Sample Wt.:	1.00000			**Dilution Factor:**		1.00
Sample Vol.:	1.000			**Prep Factor:**		1.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV12DCAL-44

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Rreference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	653019.5	659926.2	-1	50	
13C2-PFOA	5.0	460051.8	450219.7	2	50	
13C4-PFOS	4.8	246521.2	249205.8	-1	50	
13C2-PFDA	5.0	292717.8	278743.9	5	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	759618.7	13C3-PFBA	653019.5	1.163	5.000	5.215	104	70-130	
E13C5-PFPeA	731579.8	13C3-PFBA	653019.5	1.120	5.000	5.025	100	70-130	
E13C3-PFBS	427605.3	13C3-PFBA	653019.5	0.655	4.650	4.622	99	70-130	
E13C2-4:2-FTS	48267.7	13C2-PFOA	460051.8	0.105	4.670	4.673	100	70-130	
E13C5-PFHxA	665991.1	13C2-PFOA	460051.8	1.448	5.000	5.229	105	70-130	
E13C3-PFHxS	312372.4	13C2-PFOA	460051.8	0.679	4.730	4.659	99	70-130	
E13C4-PFHpA	515157.4	13C2-PFOA	460051.8	1.120	5.000	5.045	101	70-130	
E13C2-6:2-FTS	32906.8	13C2-PFOA	460051.8	0.072	4.750	4.786	101	70-130	
E13C8-PFOA	906076.3	13C2-PFOA	460051.8	1.970	5.000	5.426	109	70-130	
E13C8-PFOS	272463.6	13C4-PFOS	246521.2	1.105	4.780	4.897	102	70-130	
E13C9-PFNA	470836.1	13C4-PFOS	246521.2	1.910	5.000	5.325	107	70-130	
E13C6-PFDA	617340.8	13C2-PFDA	292717.8	2.109	5.000	4.922	98	70-130	
E13C2-8:2-FTS	29145.0	13C2-PFDA	292717.8	0.100	4.790	4.966	104	70-130	
E13C8-PFOSA	605816.1	13C2-PFDA	292717.8	2.070	5.000	4.588	92	70-130	
Ed3-NMeFOSAA	75793.3	13C2-PFDA	292717.8	0.259	5.000	4.674	93	70-130	
E13C7-PFUnDA	255941.5	13C2-PFDA	292717.8	0.874	5.000	5.076	102	70-130	
Ed5-NEtFOSAA	63458.3	13C2-PFDA	292717.8	0.217	5.000	4.586	92	70-130	
E13C2-PFDoDA	544805.3	13C2-PFDA	292717.8	1.861	5.000	4.832	97	70-130	
Ed7-NMePFOSAE	324193.1	13C2-PFDA	292717.8	1.108	5.000	4.793	96	70-130	
Ed3-NMePFOSA	79325.6	13C2-PFDA	292717.8	0.271	5.000	4.924	98	70-130	
Ed9-NEtPFOSAE	265622.4	13C2-PFDA	292717.8	0.907	5.000	4.720	94	70-130	
Ed5-NEtPFOSA	59158.0	13C2-PFDA	292717.8	0.202	5.000	4.741	95	70-130	
E13C2-PFTeDA	375963.1	13C2-PFDA	292717.8	1.284	5.000	4.509	90	70-130	

APPROVED
By MCD at 7:46 pm, 11/12/18

REVIEWED
By HMK at 11:56 am, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV1-2 11/12/2018 7:40:04 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

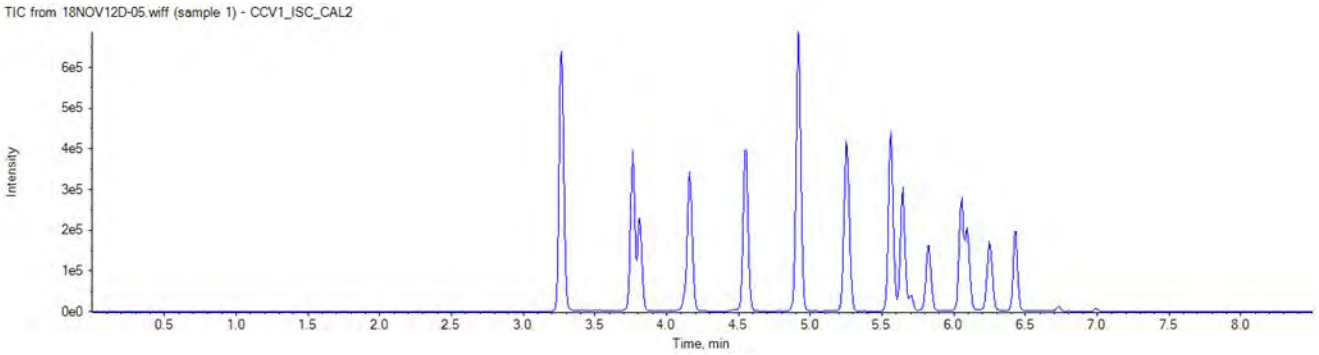
Analyte Quantitation Peak Table

Sample Name: CCV1_ISC_CAL2 **Instrument Name:** LM27631 **File Name:** 18NOV12D-05.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	1.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	3.26	1.000	78557.0		A	13C4-PFBA	3.26	759618.7	0.103	0.573
PFPeA	3.76	1.000	78261.7		A	13C5-PFPeA	3.76	731579.8	0.107	0.619
PFBS	3.81	1.000	40715.3		A	13C3-PFBS	3.81	427605.3	0.095	0.453
4:2-FTS	4.12	1.000	11234.3		A	13C2-4:2-FTS	4.13	48267.7	0.233	0.632
PFHxA	4.16	1.000	94419.1		A	13C5-PFHxA	4.16	665991.1	0.142	0.592
PFPeS	4.18	1.100	22520.0		A	13C3-PFBS	3.81	427605.3	0.053	0.511
PFHpA	4.55	1.000	94703.4		A	13C4-PFHpA	4.55	515157.4	0.184	0.609
PFHxS	4.55	1.000	31116.0		M	13C3-PFHxS	4.55	312372.4	0.100	0.483
6:2-FTS	4.91	1.000	7251.1		A	13C2-6:2-FTS	4.91	32906.8	0.220	0.533
PFHpS	4.91	1.080	33565.2		A	13C3-PFHxS	4.55	312372.4	0.107	0.566
PFOA	4.92	1.000	97268.8		A	13C8-PFOA	4.92	906076.3	0.107	0.573
PFOS	5.25	1.000	29101.9		M	13C8-PFOS	5.25	272463.6	0.107	0.467
PFNA	5.26	1.000	74726.2		A	13C9-PFNA	5.26	470836.1	0.159	0.572
PFNS	5.54	1.060	21280.8		A	13C8-PFOS	5.25	272463.6	0.078	0.546
PFDA	5.56	1.000	61208.1		A	13C6-PFDA	5.56	617340.8	0.099	0.526
8:2-FTS	5.56	1.000	6888.9		A	13C2-8:2-FTS	5.57	29145.0	0.236	0.551
PFOSA	5.64	1.000	67438.1		A	13C8-PFOSA	5.64	605816.1	0.111	0.544
NMeFOSAA	5.70	1.000	7803.6		M	d3-NMeFOSAA	5.70	75793.3	0.103	0.582
PFDS	5.80	1.110	16863.0		A	13C8-PFOS	5.25	272463.6	0.062	0.561
PFUnDA	5.82	1.000	50785.7		A	13C7-PFUnDA	5.82	255941.5	0.198	0.519
NEtFOSAA	5.83	1.000	6353.1		M	d5-NEtFOSAA	5.83	63458.3	0.100	0.525
PFDoDA	6.05	1.000	56256.7		A	13C2-PFDoDA	6.05	544805.3	0.103	0.526
10:2-FTS	6.07	1.090	4386.3		A	13C2-8:2-FTS	5.57	29145.0	0.150	0.501
NMePFOSAE	6.10	1.000	47816.0		A	d7-NMePFOSAE	6.09	324193.1	0.147	0.614
NMePFOSA	6.11	1.000	7746.5		M	d3-NMePFOSA	6.11	79325.6	0.098	0.482
PFDoS	6.22	1.190	7863.8		A	13C8-PFOS	5.25	272463.6	0.029	0.505
NEtPFOSAE	6.26	1.000	47560.7		A	d9-NEtPFOSAE	6.25	265622.4	0.179	0.574
NEtPFOSA	6.27	1.000	7352.4		A	d5-NEtPFOSA	6.26	59158.0	0.124	0.571
PFTrDA	6.25	1.030	47478.9		A	13C2-PFDoDA	6.05	544805.3	0.087	0.550
PFTeDA	6.43	1.000	37143.0		A	13C2-PFTeDA	6.43	375963.1	0.099	0.554
PFHxDA	6.73	1.050	19260.7		A	13C2-PFTeDA	6.43	375963.1	0.051	0.610
PFODA	6.99	1.090	14710.9		A	13C2-PFTeDA	6.43	375963.1	0.039	0.545

Total Ion Chromatogram

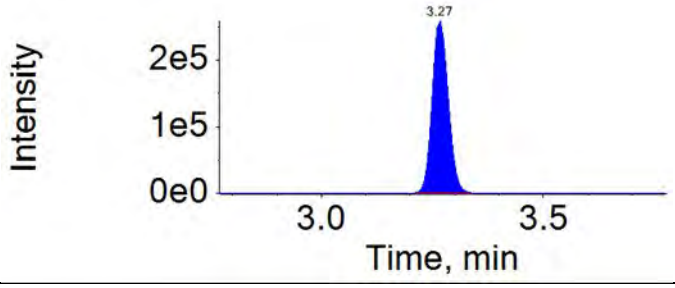


APPROVED
By MCD at 7:46 pm, 11/12/18

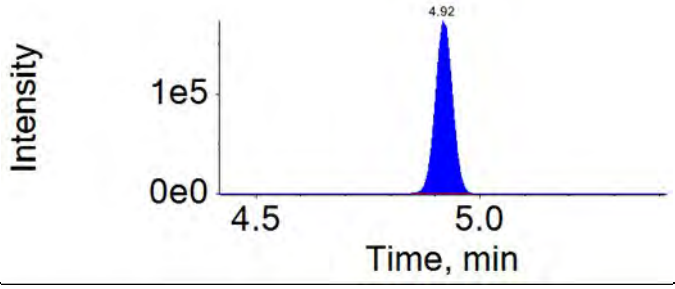
REVIEWED
By HMK at 11:56 am, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV1-2 11/12/2018 7:40:04 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

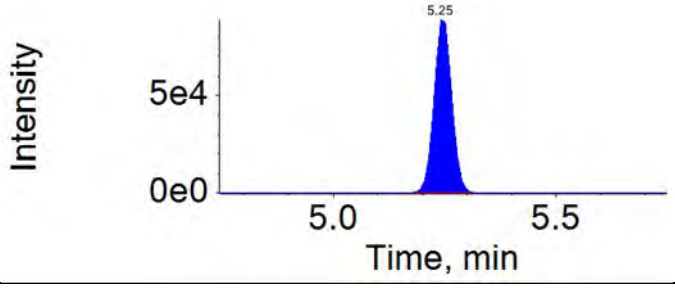
Injection Standard: 13C3-PFBA
216.0 / 172.0



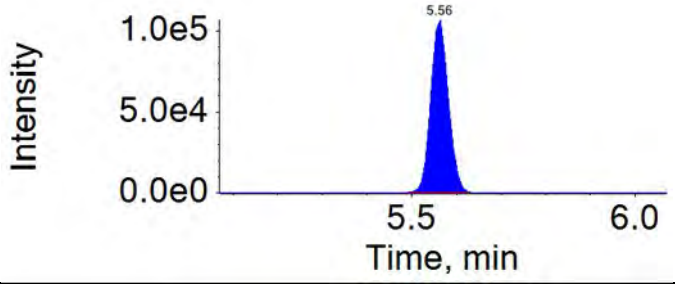
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0



Injection Standard: 13C2-PFDA
515.0 / 470.0

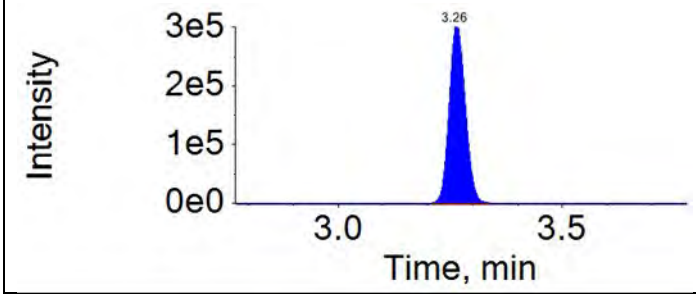


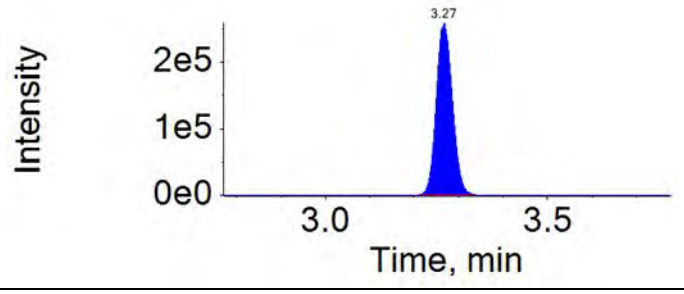
APPROVED
By MCD at 7:46 pm, 11/12/18

REVIEWED
By HMK at 11:56 am, 11/13/18

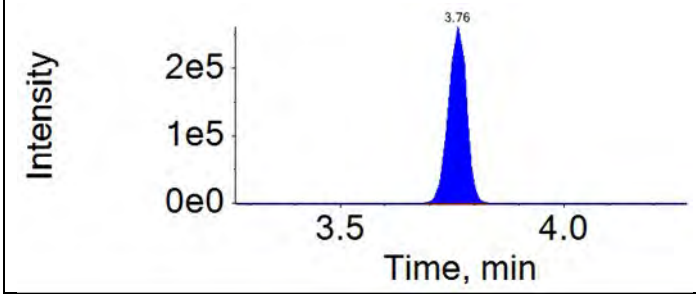
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV1-2 11/12/2018 7:40:04 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

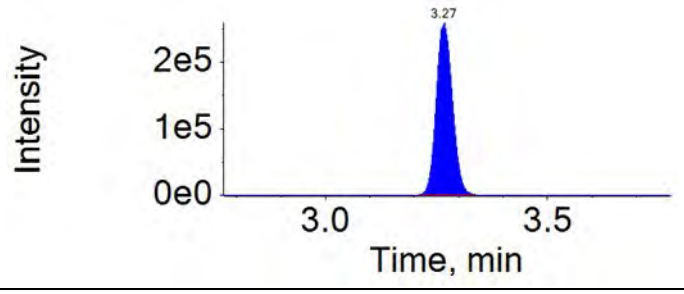
Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0



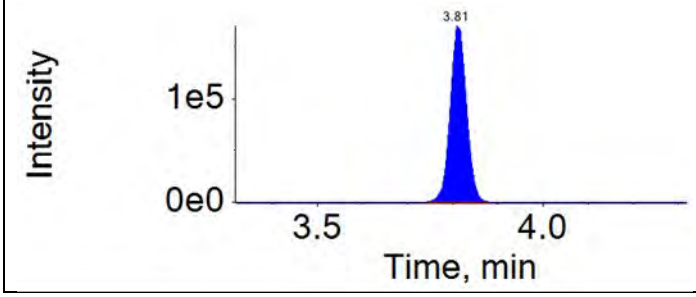


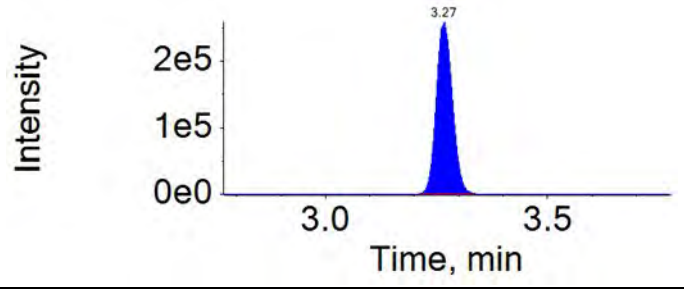
Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0



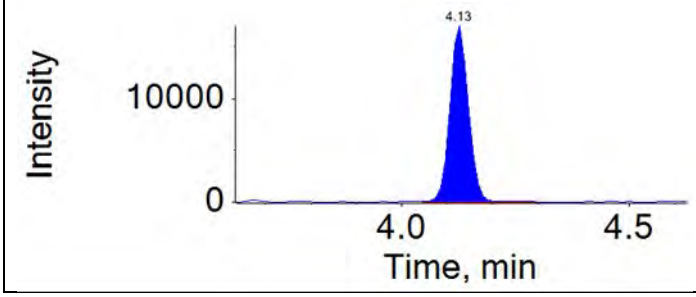


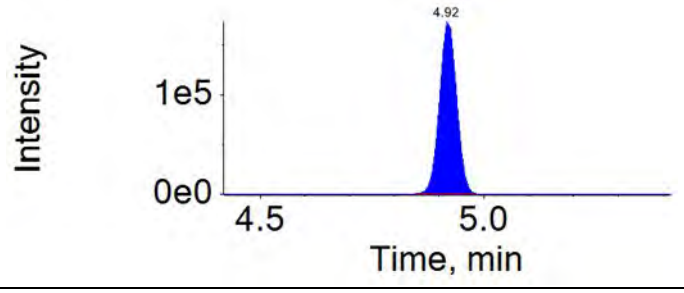
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0





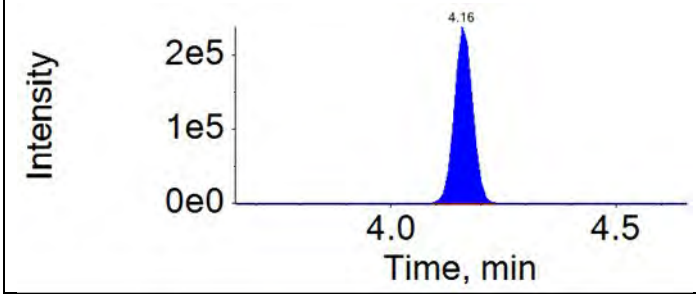
Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0

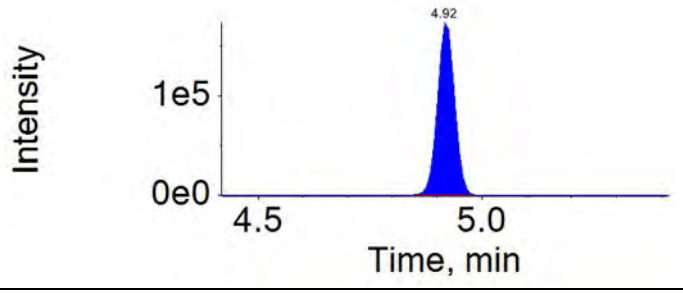




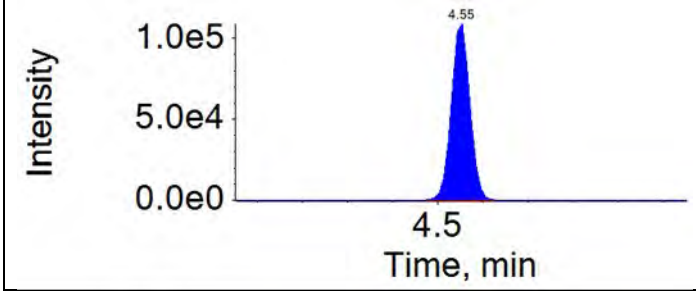
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV1-2 11/12/2018 7:40:04 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

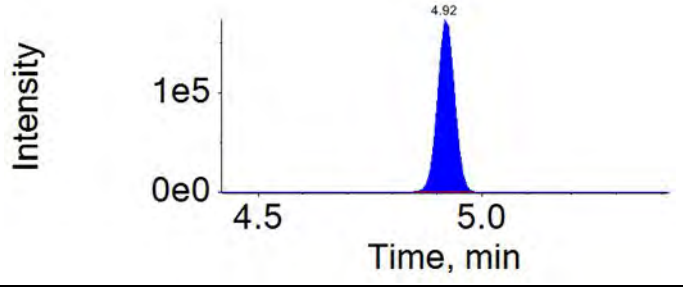
Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0



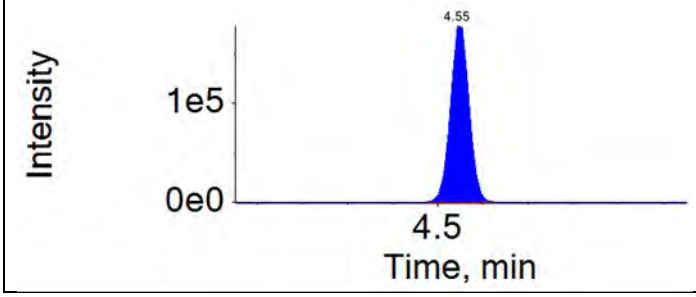


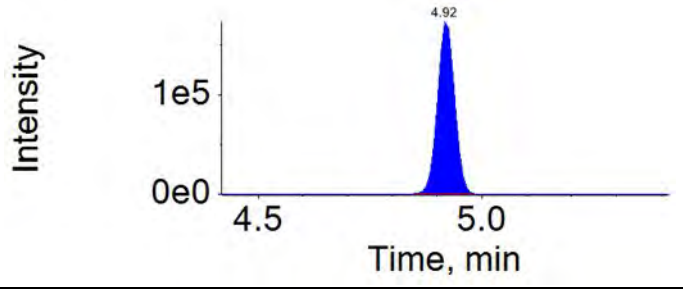
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0



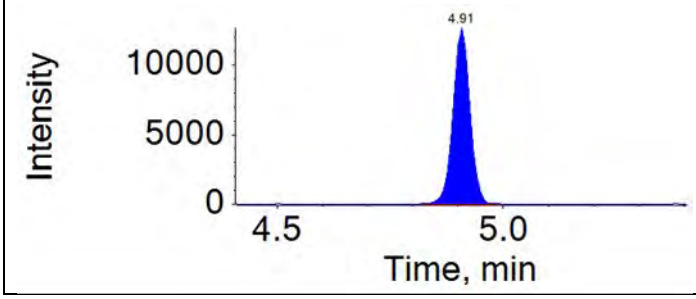


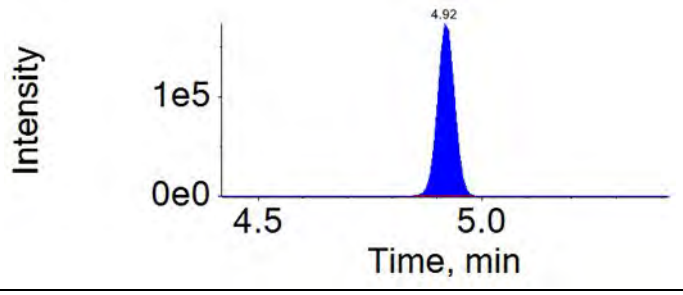
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0





Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0

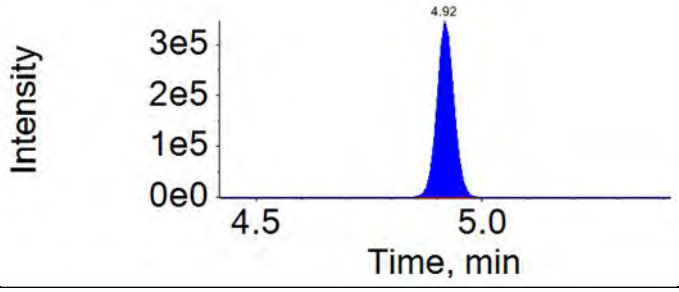
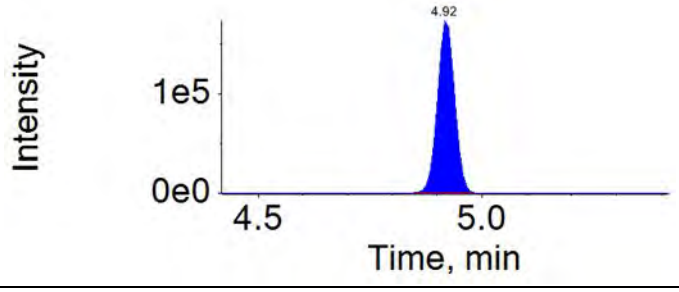


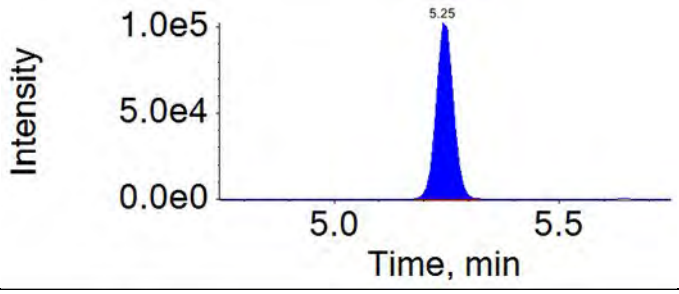
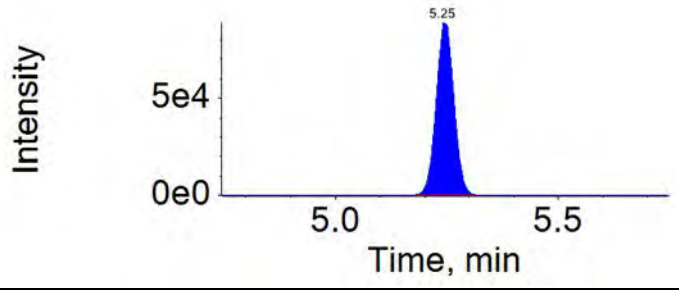


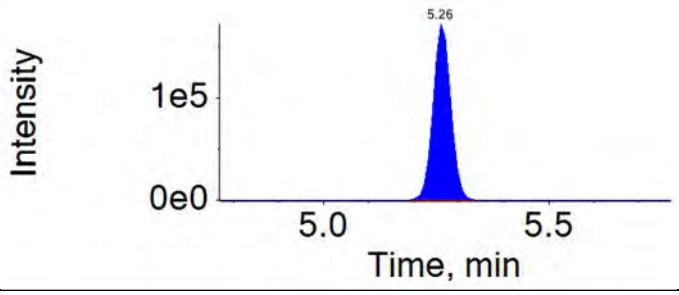
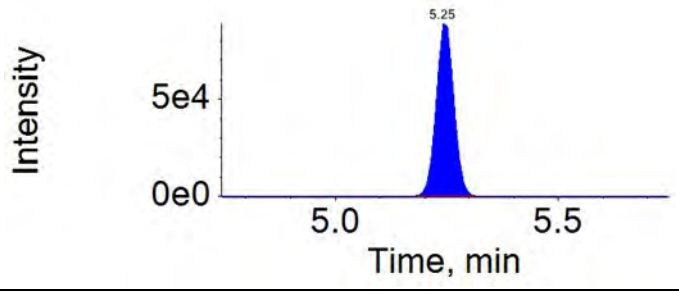
APPROVED
By MCD at 7:46 pm, 11/12/18

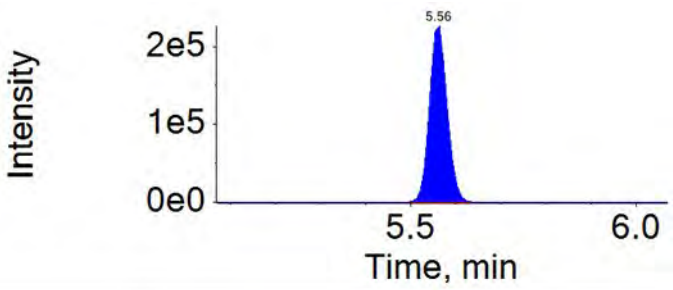
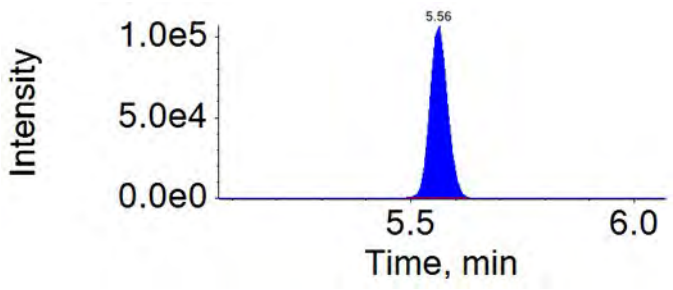
REVIEWED
By HMK at 11:56 am, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV1-2 11/12/2018 7:40:04 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

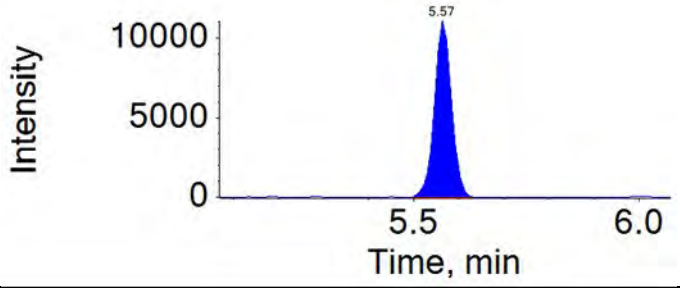
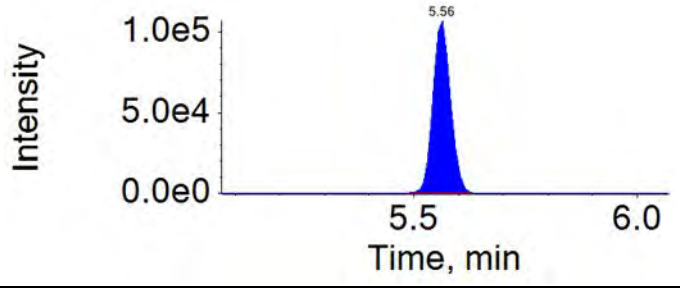
Extraction Standard: E13C8-PFOA	Injection Standard: 13C2-PFOA
421.0 / 376.0	415.0 / 370.0
	

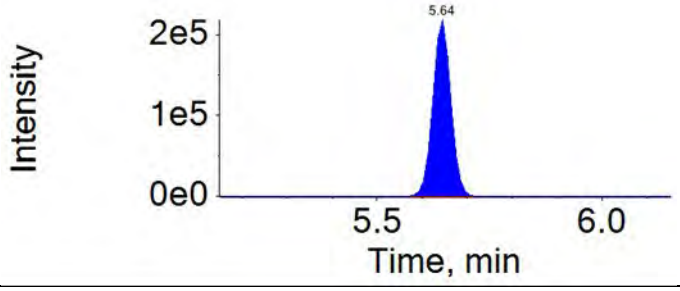
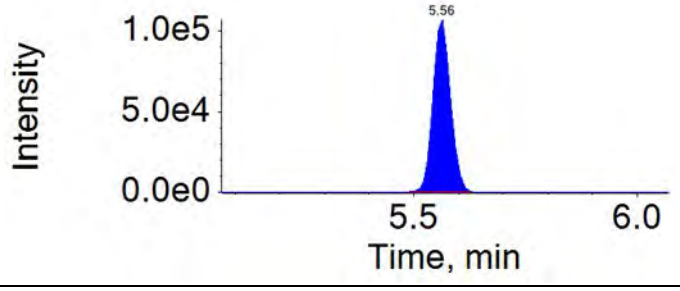
Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0
	

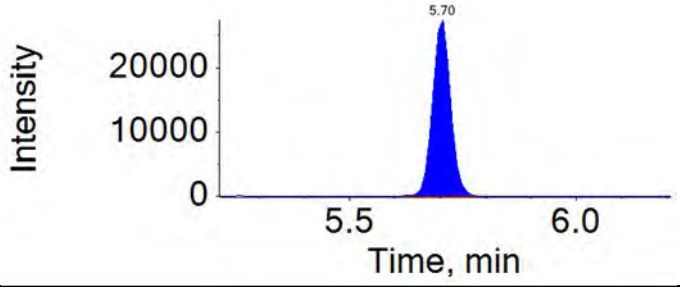
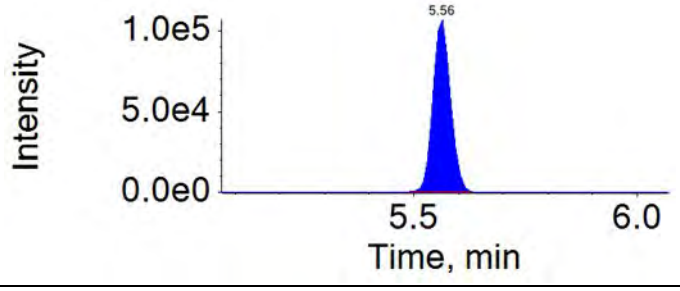
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472.0 / 427.0	503.0 / 80.0
	

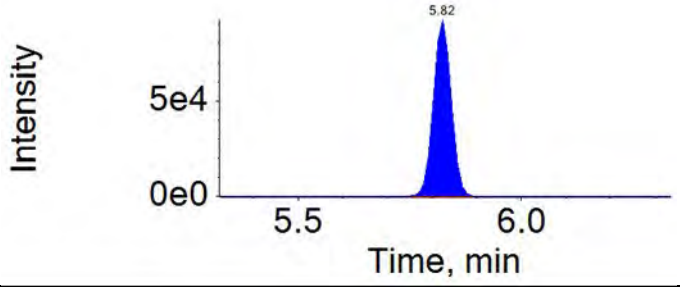
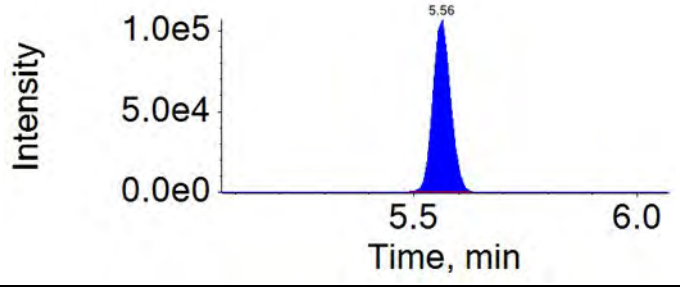
Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0
	

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV1-2 11/12/2018 7:40:04 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: E13C2-8:2-FTS	Injection Standard: 13C2-PFDA
529.0 / 81.0	515.0 / 470.0
	

Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0
	

Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0
	

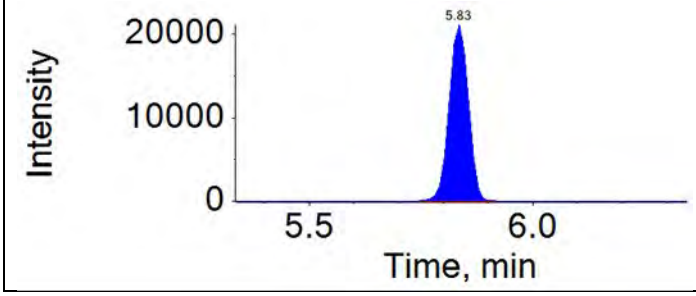
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570.0 / 525.0	515.0 / 470.0
	

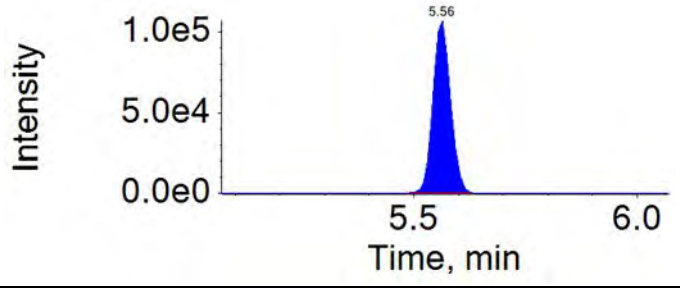
APPROVED
By MCD at 7:46 pm, 11/12/18

REVIEWED
By HMK at 11:56 am, 11/13/18

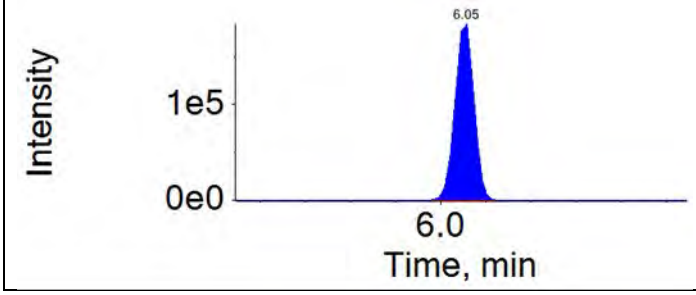
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV1-2 11/12/2018 7:40:04 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

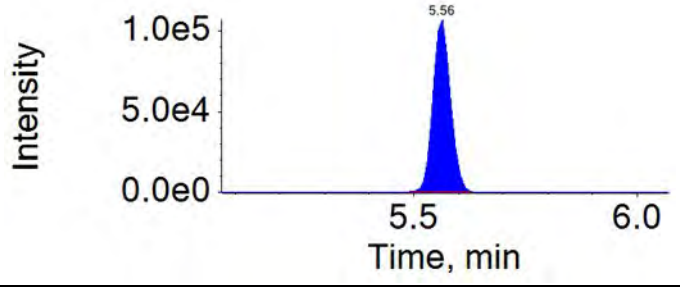
Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0



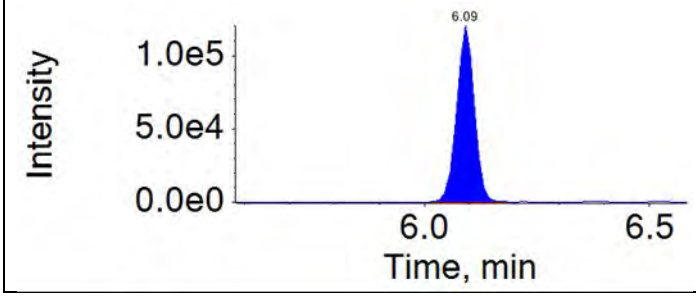


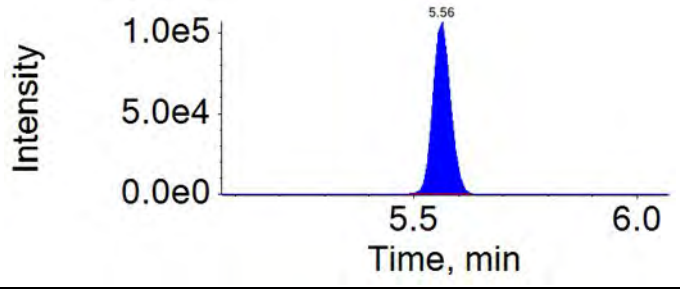
Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0



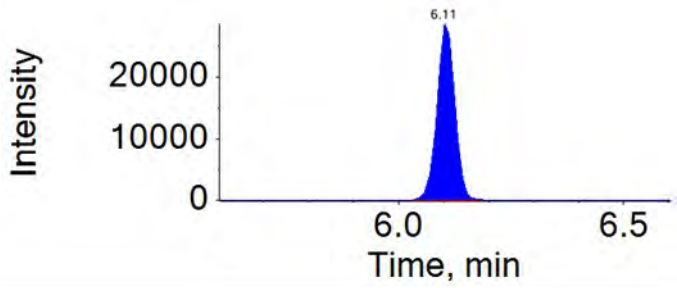


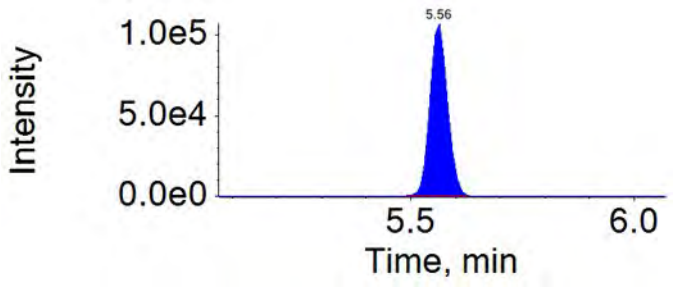
Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0





Extraction Standard: Ed3-NMePFOSA	Injection Standard: 13C2-PFDA
515.0 / 169.0	515.0 / 470.0



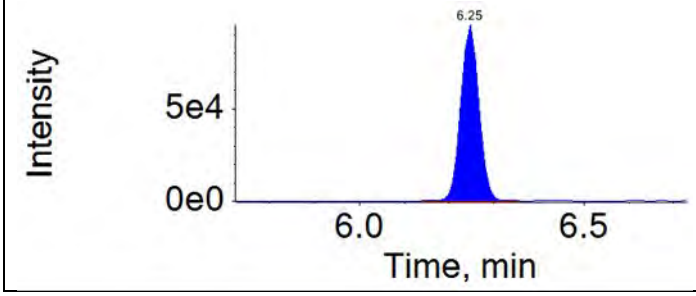


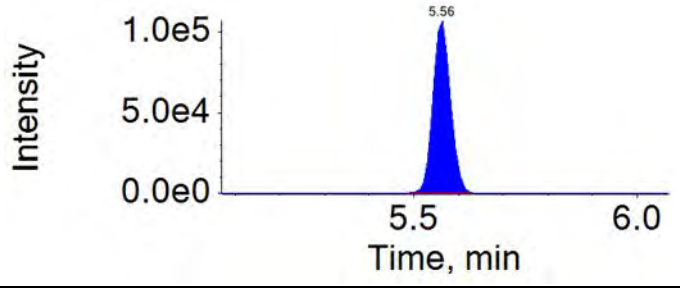
APPROVED
By MCD at 7:46 pm, 11/12/18

REVIEWED
By HMK at 11:56 am, 11/13/18

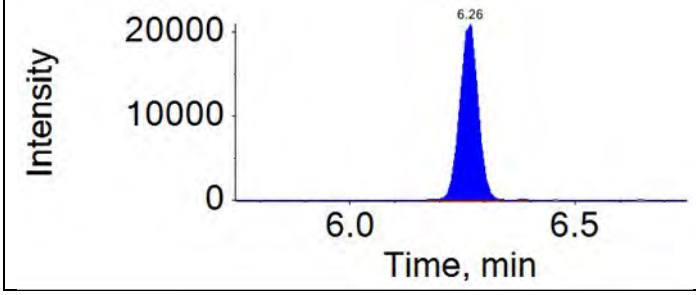
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV1-2 11/12/2018 7:40:04 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

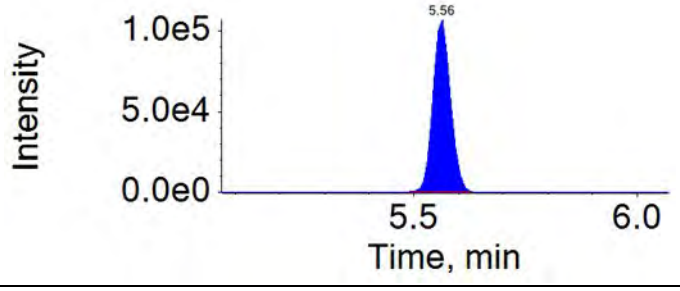
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



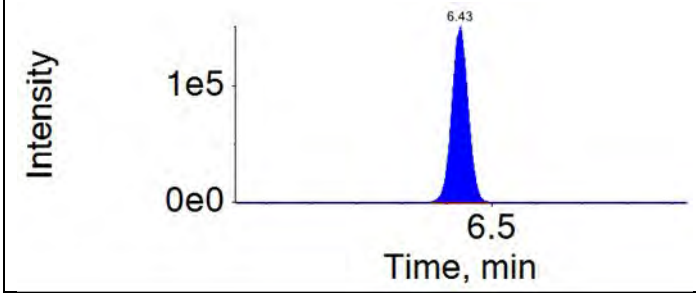


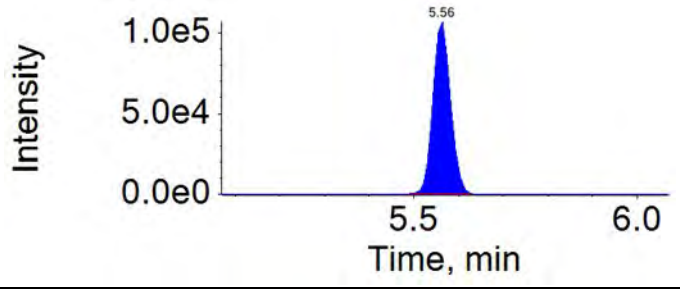
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0



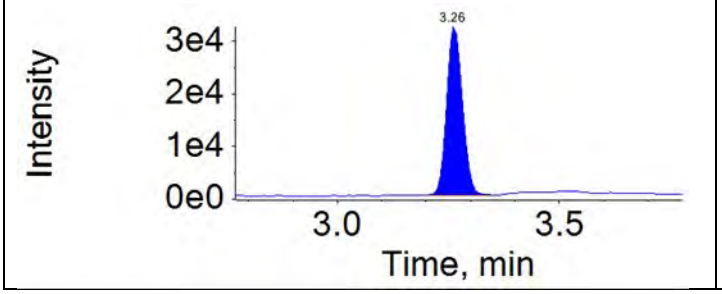


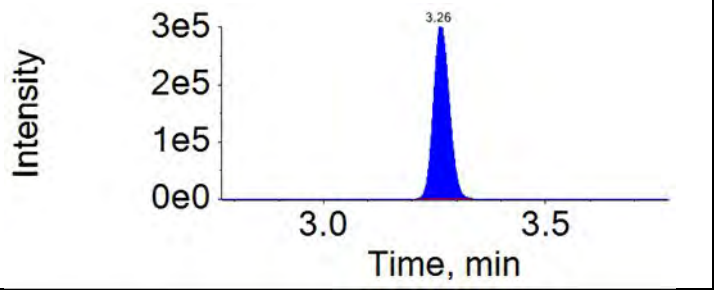
APPROVED
By MCD at 7:46 pm, 11/12/18

REVIEWED
By HMK at 11:56 am, 11/13/18

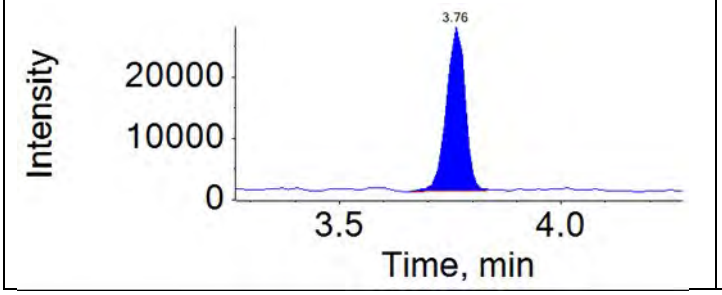
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV1-2 11/12/2018 7:40:04 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

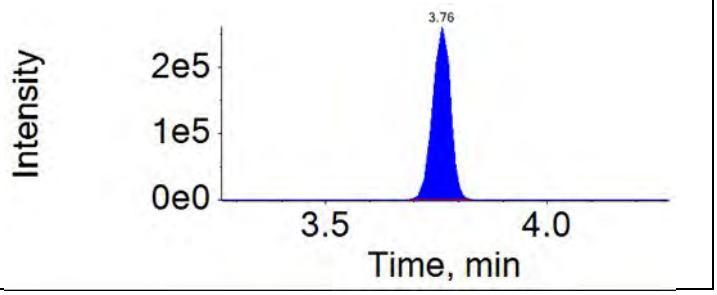
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



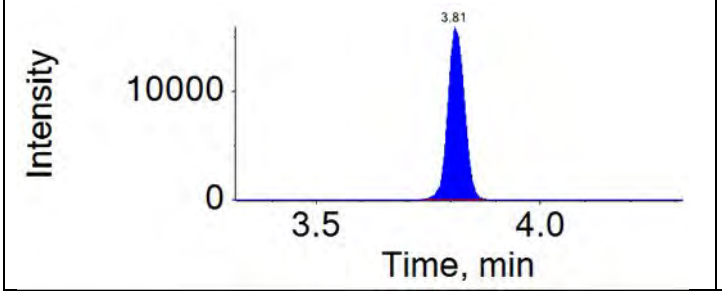


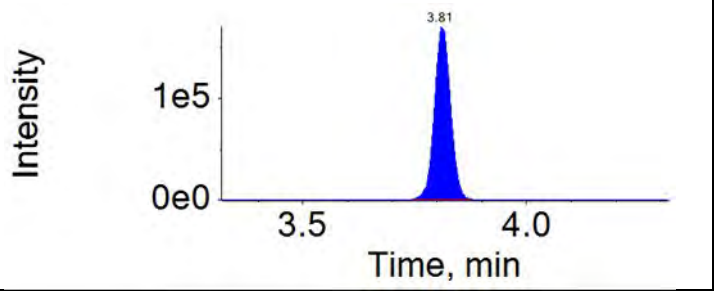
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



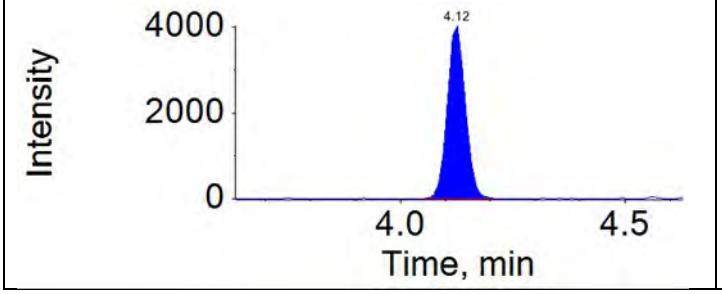


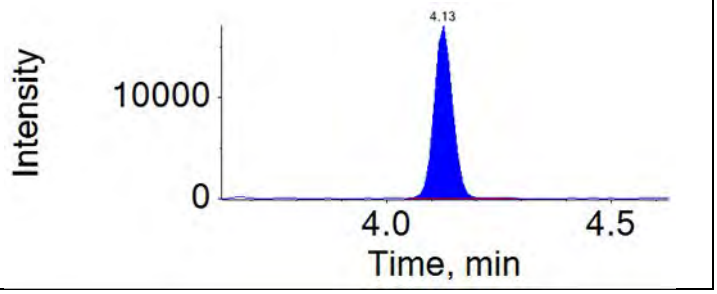
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





Analyte: 4:2-FTS	Extraction Standard: 13C2-4:2-FTS
327.0 / 307.0	329.0 / 81.0



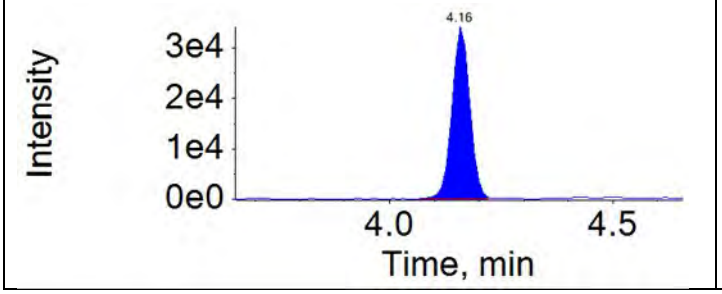


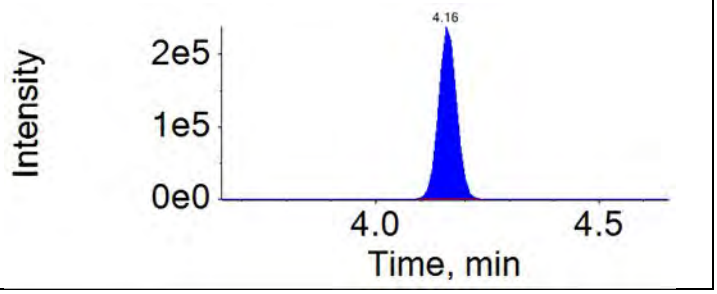
APPROVED
By MCD at 7:46 pm, 11/12/18

REVIEWED
By HMK at 11:56 am, 11/13/18

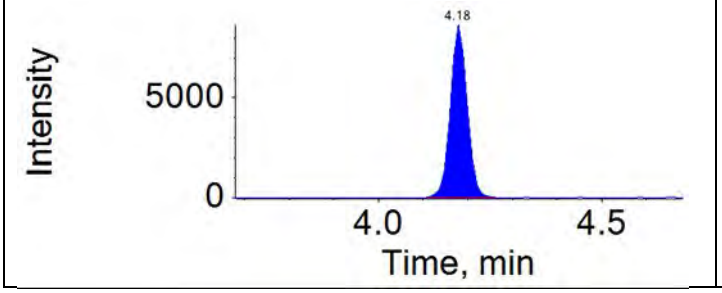
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV1-2 11/12/2018 7:40:04 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

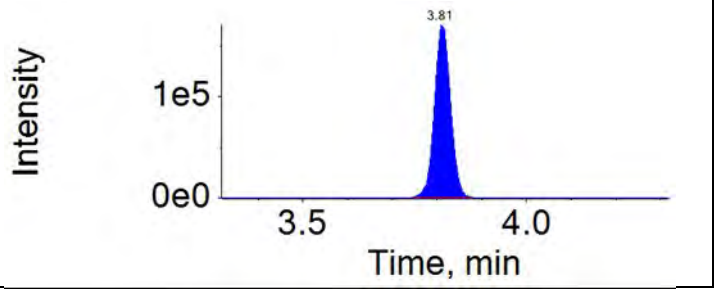
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



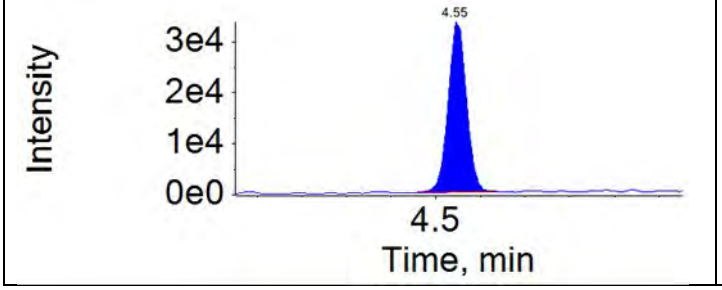


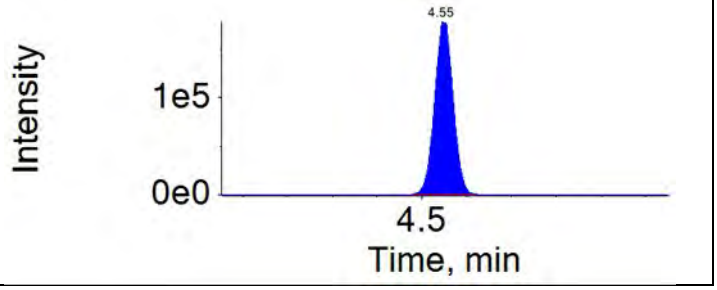
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



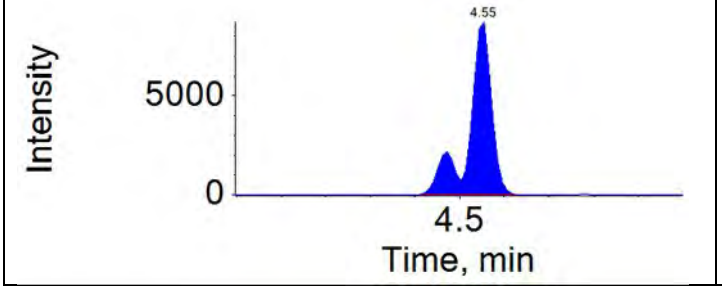


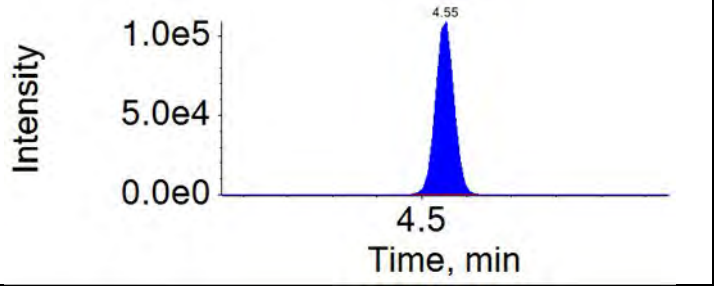
Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0





Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0

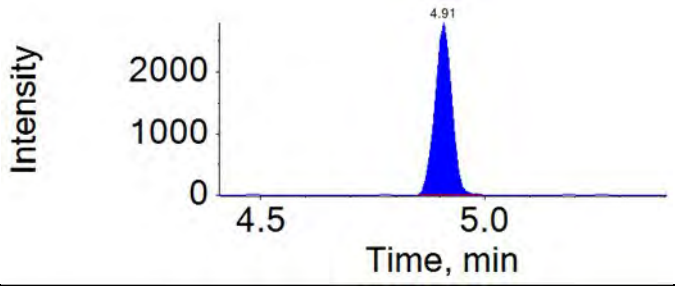
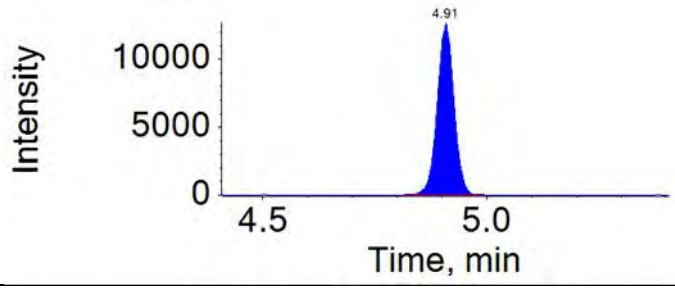


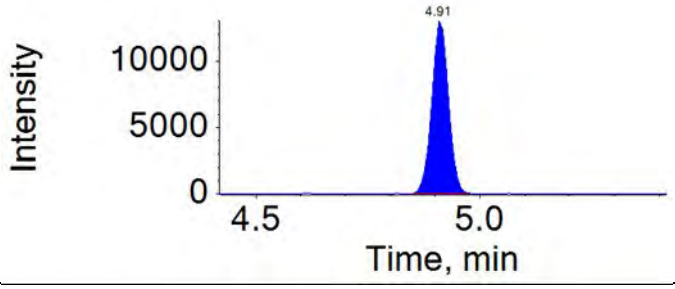
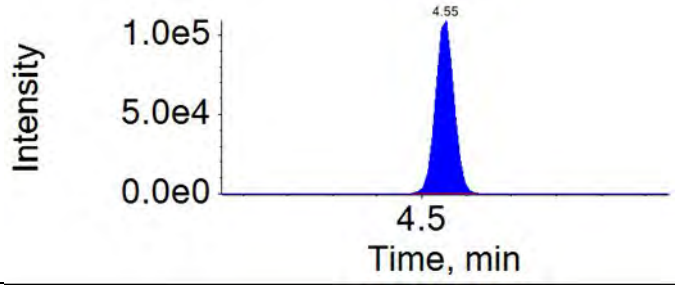


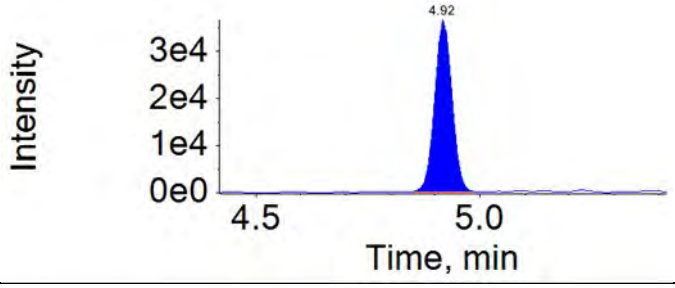
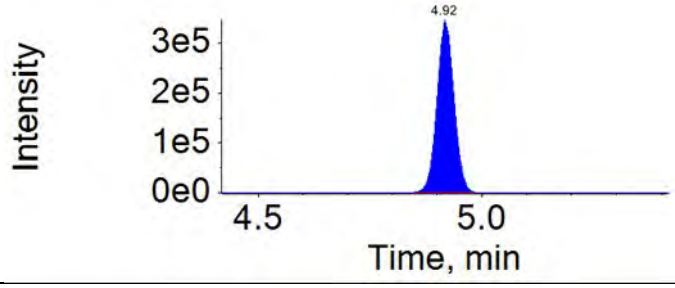
APPROVED
By MCD at 7:46 pm, 11/12/18

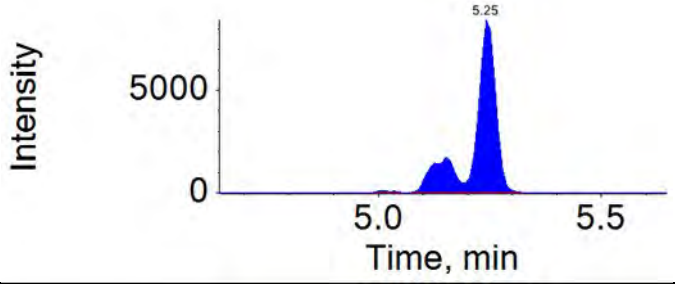
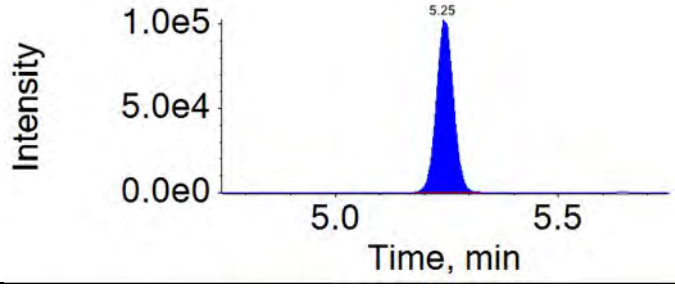
REVIEWED
By HMK at 11:56 am, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV1-2 11/12/2018 7:40:04 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Analyte: 6:2-FTS	Extraction Standard: 13C2-6:2-FTS
427.0 / 407.0	429.0 / 81.0
	

Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0
	

Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0
	

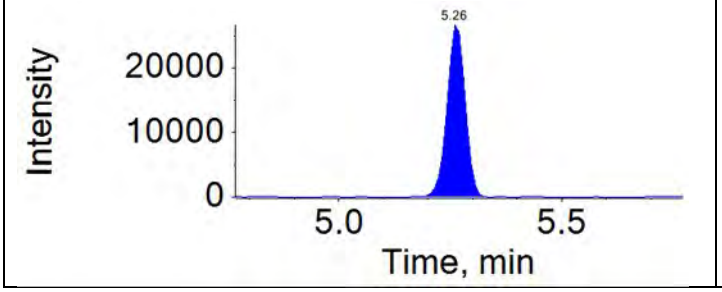
Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0
	

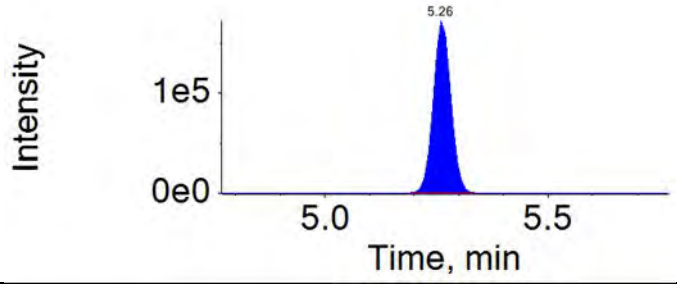
APPROVED
By MCD at 7:46 pm, 11/12/18

REVIEWED
By HMK at 11:56 am, 11/13/18

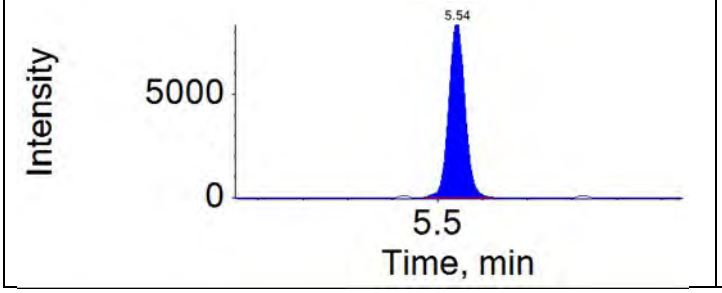
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV1-2 11/12/2018 7:40:04 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

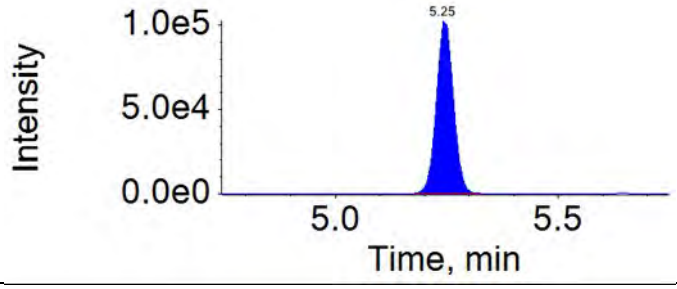
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



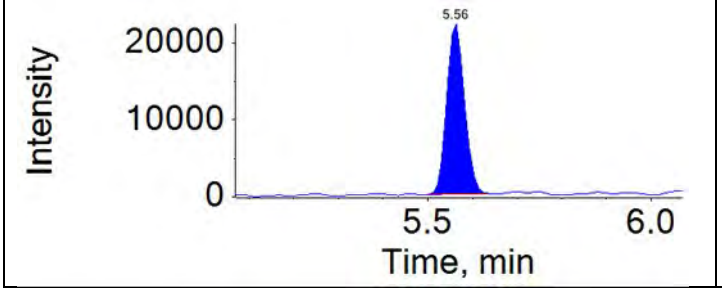


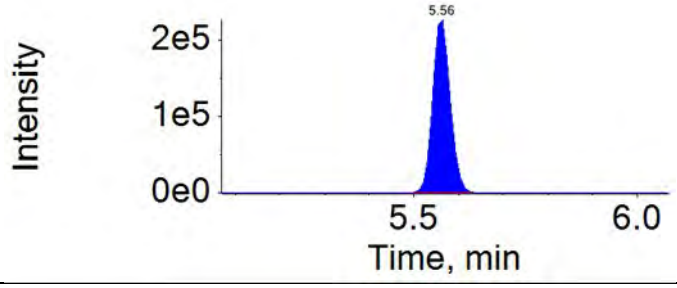
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



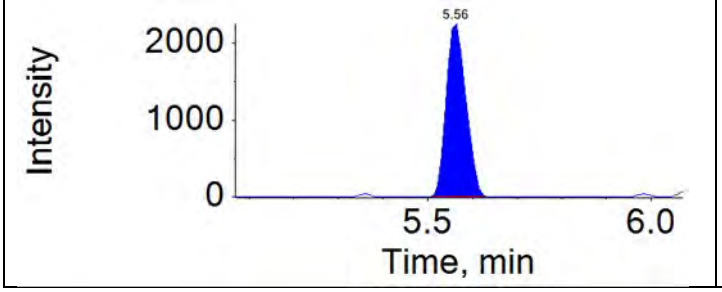


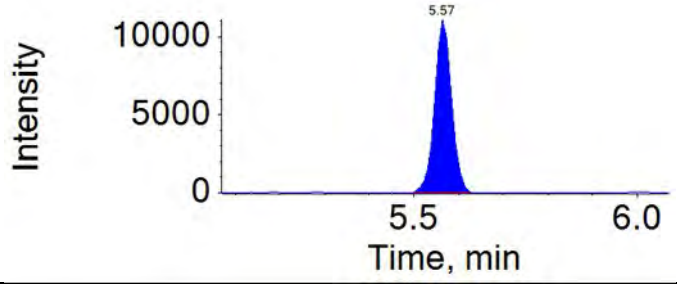
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





Analyte: 8:2-FTS	Extraction Standard: 13C2-8:2-FTS
527.0 / 507.0	529.0 / 81.0

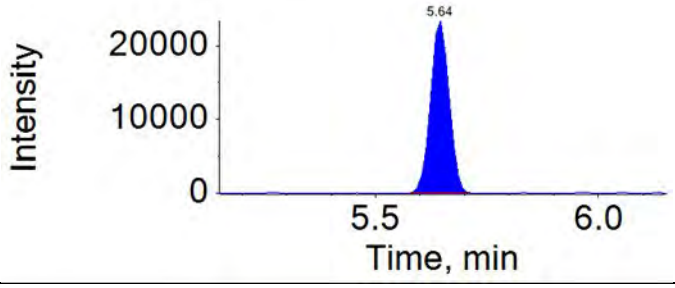
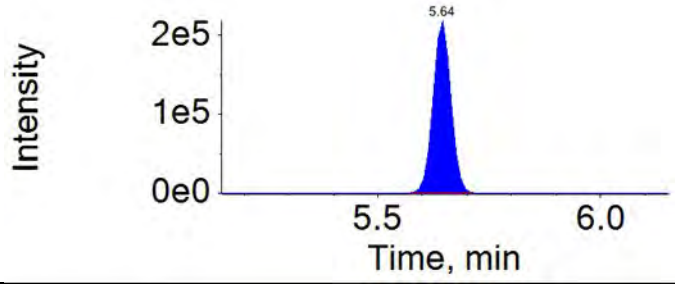


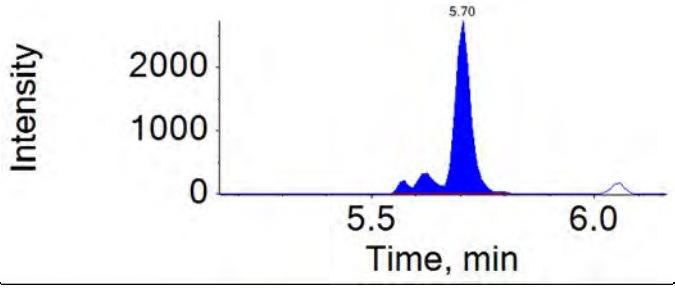
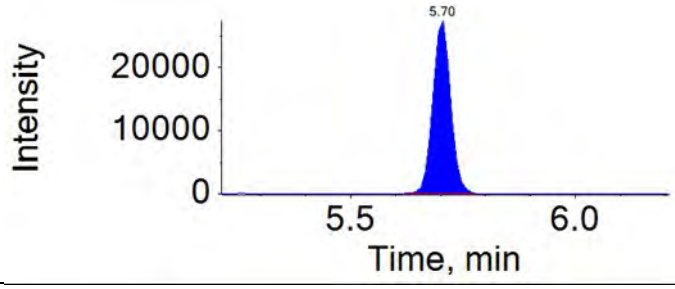


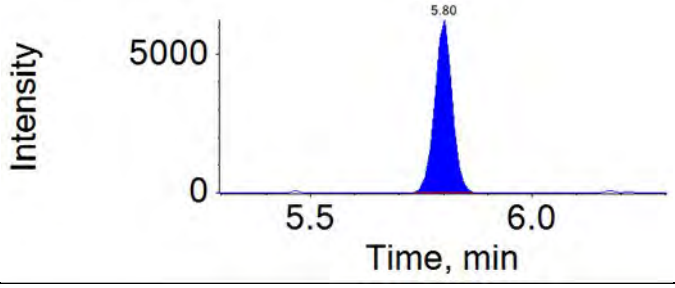
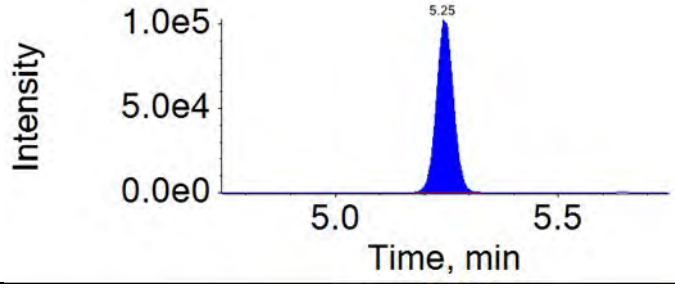
APPROVED
By MCD at 7:46 pm, 11/12/18

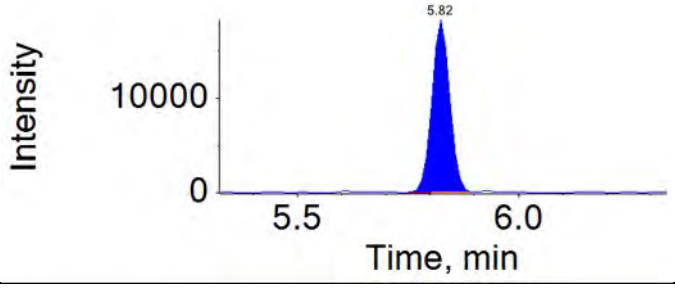
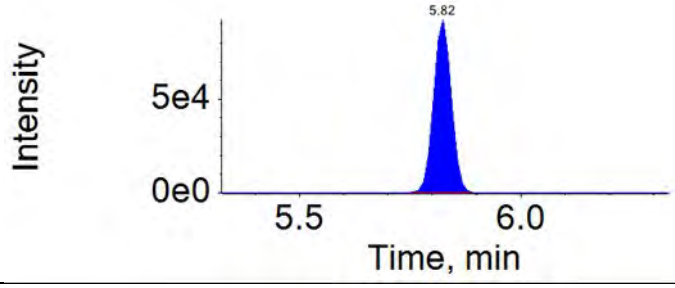
REVIEWED
By HMK at 11:56 am, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV1-2 11/12/2018 7:40:04 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0
	

Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0
	

Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0
	

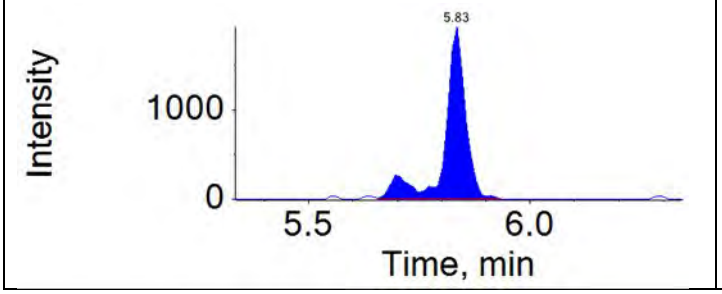
Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0
	

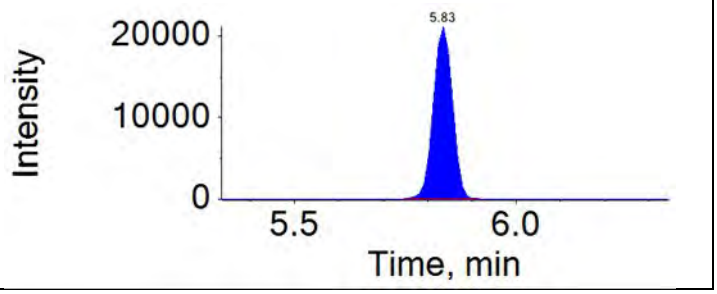
APPROVED
By MCD at 7:46 pm, 11/12/18

REVIEWED
By HMK at 11:56 am, 11/13/18

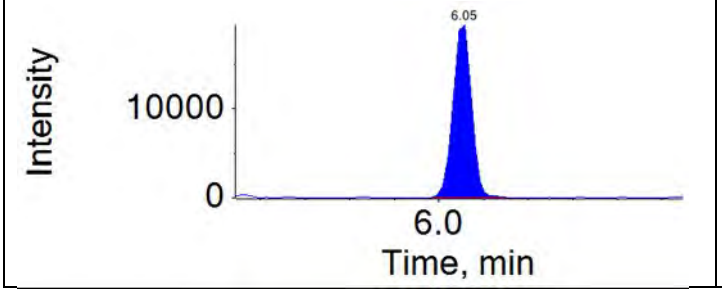
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV1-2 11/12/2018 7:40:04 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

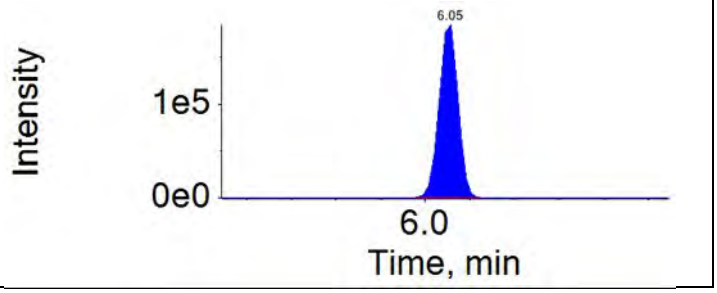
Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0



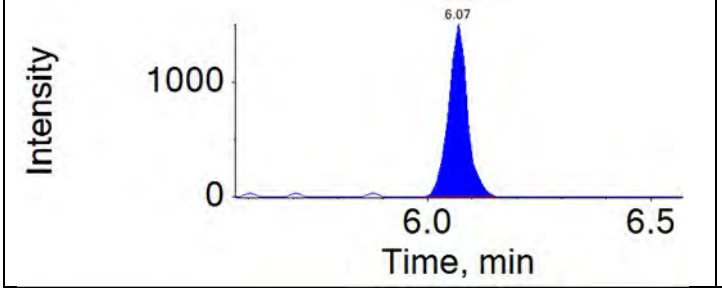


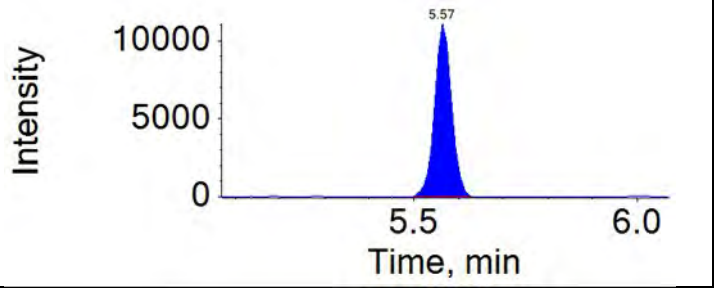
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0



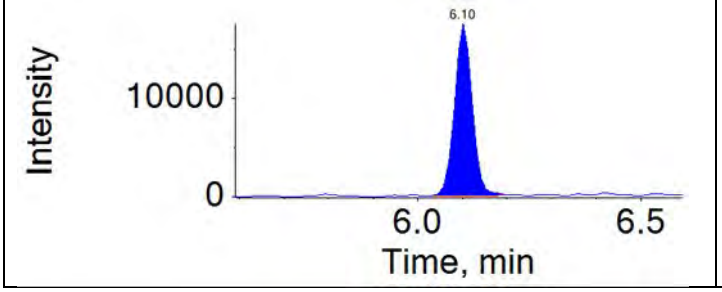


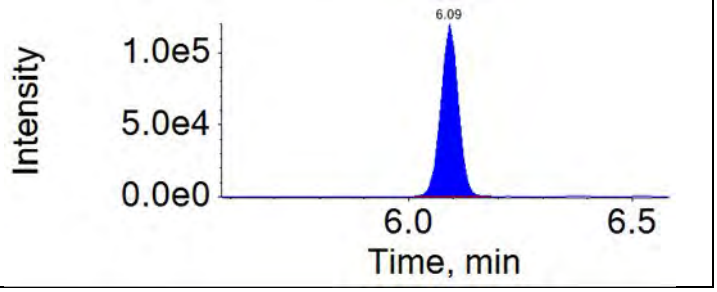
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0





Analyte: NMePFOSAE	Extraction Standard: d7-NMePFOSAE
616.0 / 59.0	623.0 / 59.0



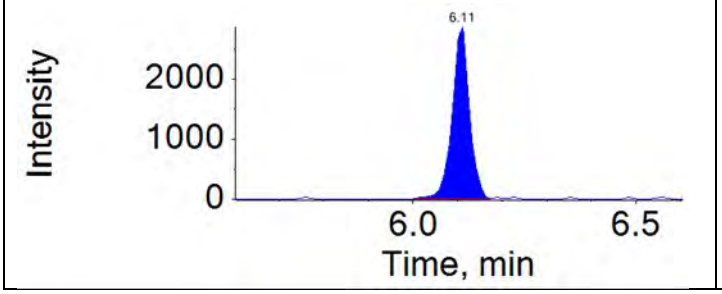


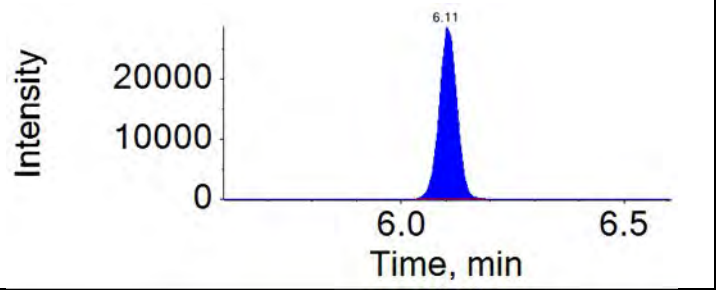
APPROVED
By MCD at 7:46 pm, 11/12/18

REVIEWED
By HMK at 11:56 am, 11/13/18

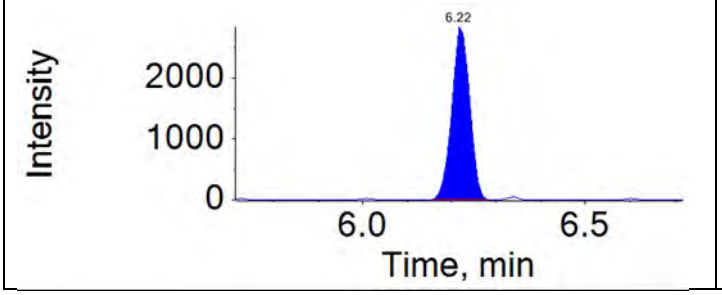
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV1-2 11/12/2018 7:40:04 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

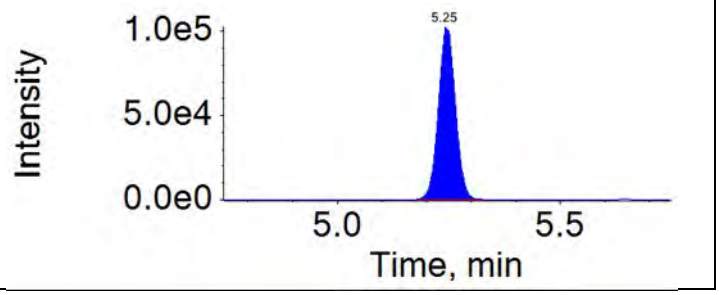
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



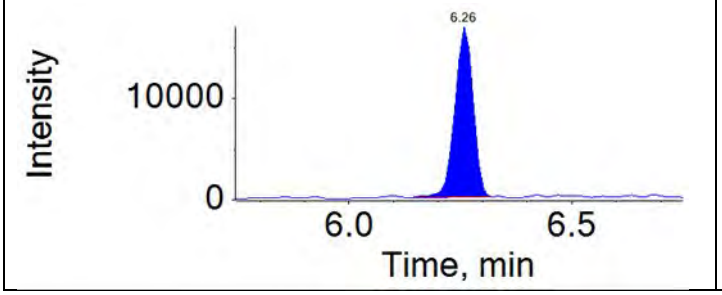


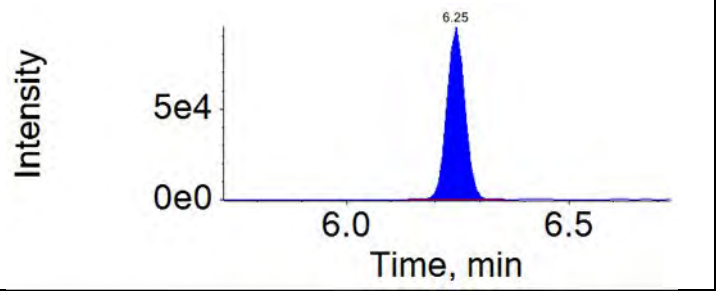
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



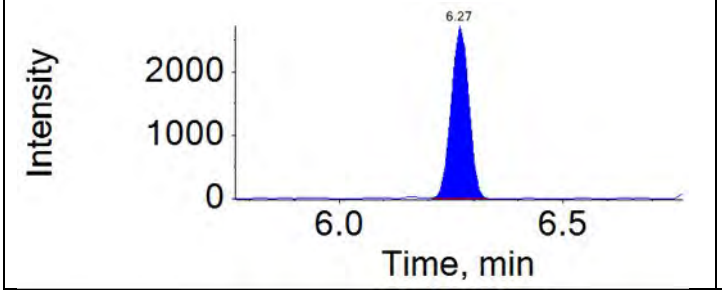


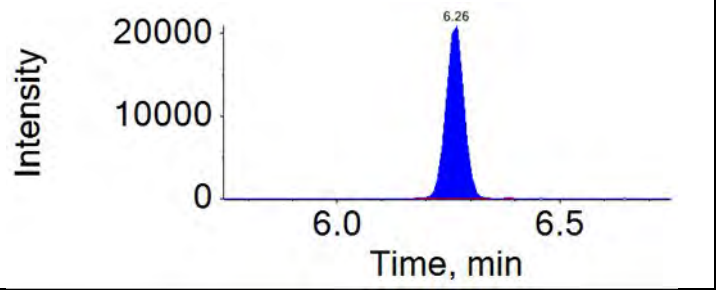
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





Analyte: NEtPFOSA	Extraction Standard: d5-NEtPFOSA
526.0 / 169.0	531.0 / 169.0

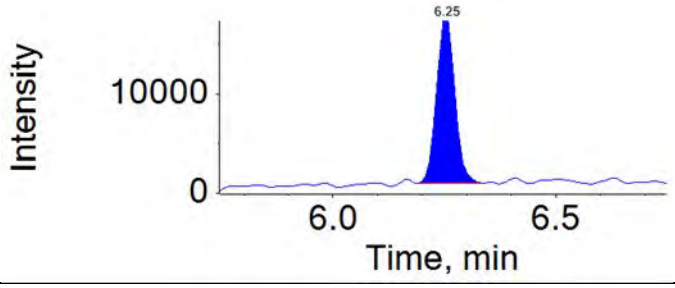
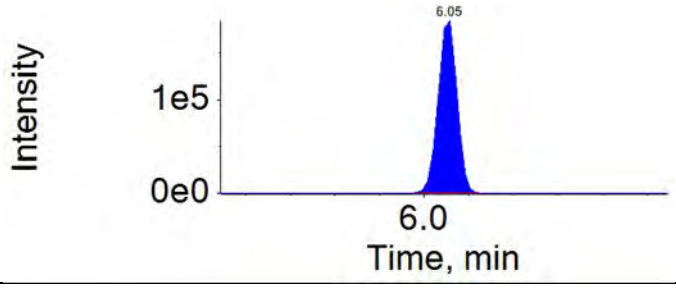


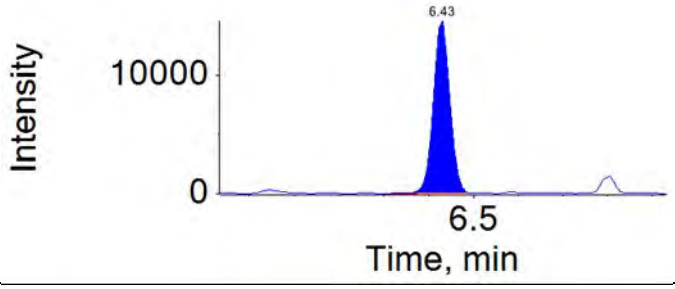
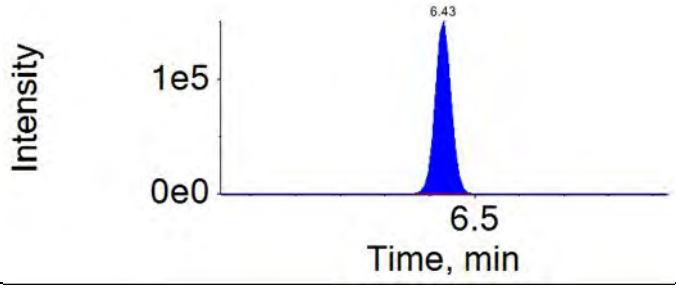


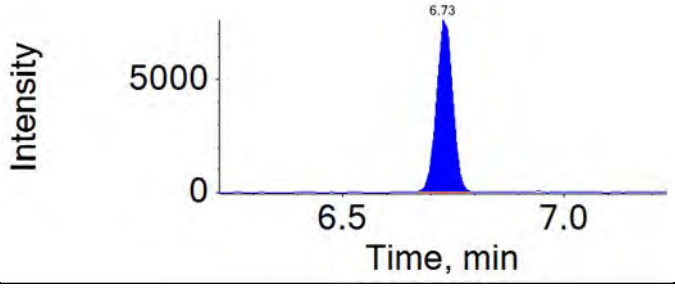
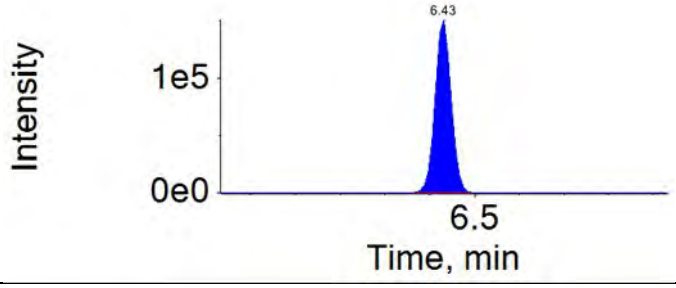
APPROVED
By MCD at 7:46 pm, 11/12/18

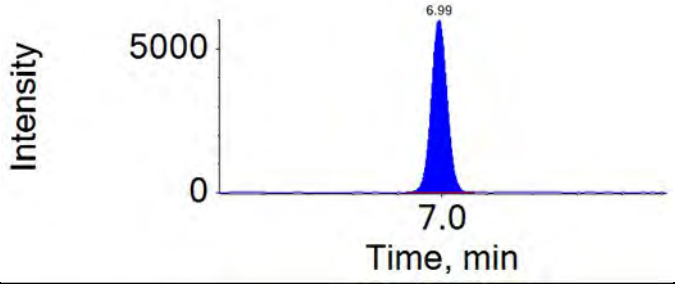
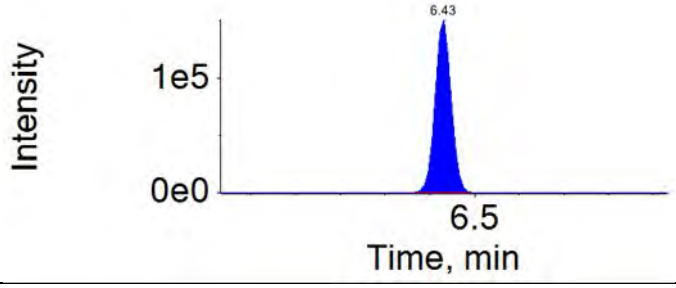
REVIEWED
By HMK at 11:56 am, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV1-2 11/12/2018 7:40:04 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Analyte: PFTrDA	Extraction Standard: 13C2-PFDoDA
663.0 / 619.0	615.0 / 570.0
	

Analyte: PFTeDA	Extraction Standard: 13C2-PFTeDA
713.0 / 669.0	715.0 / 670.0
	

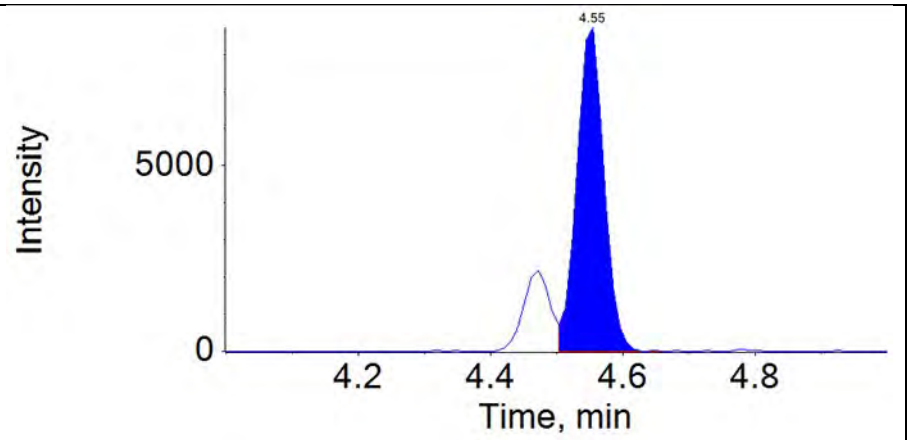
Analyte: PFHxDA	Extraction Standard: 13C2-PFTeDA
813.0 / 769.0	715.0 / 670.0
	

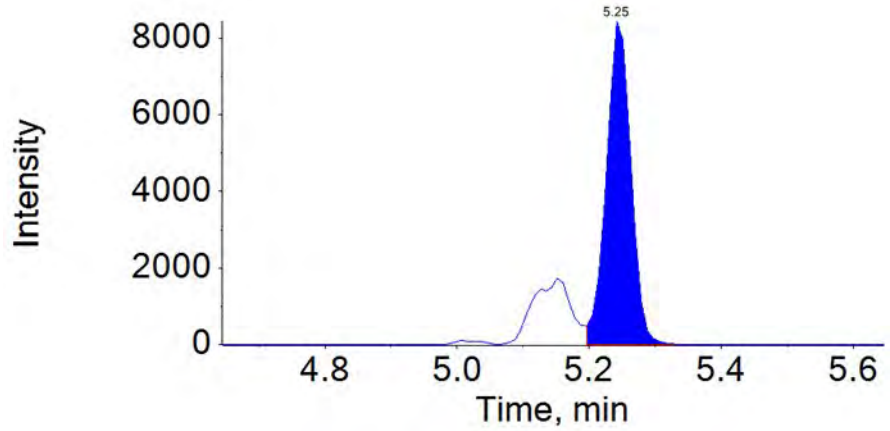
Analyte: PFODA	Extraction Standard: 13C2-PFTeDA
913.0 / 869.0	715.0 / 670.0
	

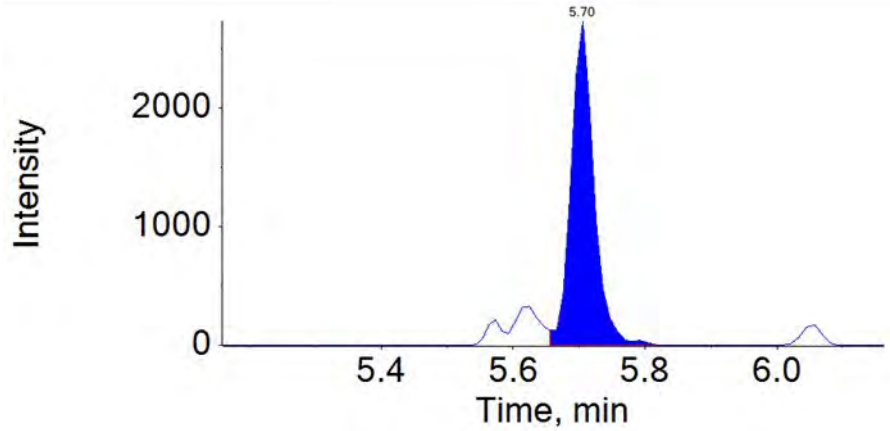
APPROVED
By MCD at 7:46 pm, 11/12/18

REVIEWED
By HMK at 11:56 am, 11/13/18

Results Table Name: 18NOV12DCCV1-2
Results Table Date: 11/12/2018 7:40:04 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name: PFHxS **RT (min.):** 4.55 **Peak Area:** 25019.0 **Mass Range:** 399.0 / 80.0 **File Name:** 18NOV12D-05.wiff **Sample Name:** CCV1_ISC_CAL2	 **Integration Comment:** incorrect integration

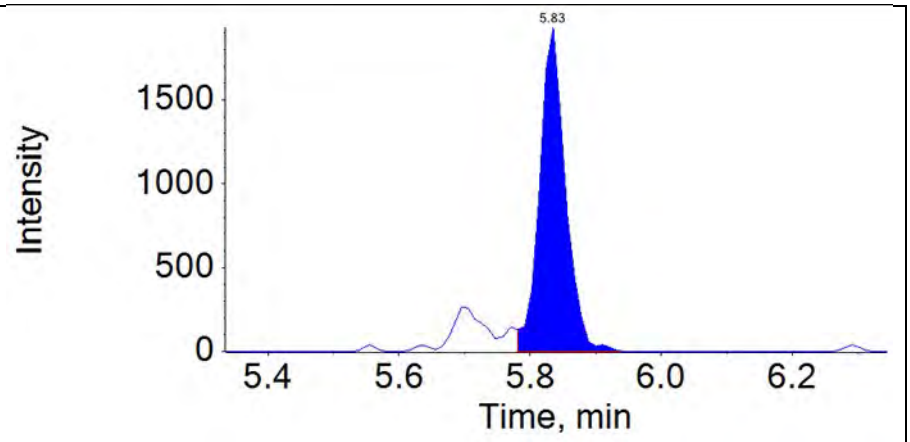
Component Name: PFOS **RT (min.):** 5.25 **Peak Area:** 21859.3 **Mass Range:** 499.0 / 80.0 **File Name:** 18NOV12D-05.wiff **Sample Name:** CCV1_ISC_CAL2	 **Integration Comment:** incorrect integration

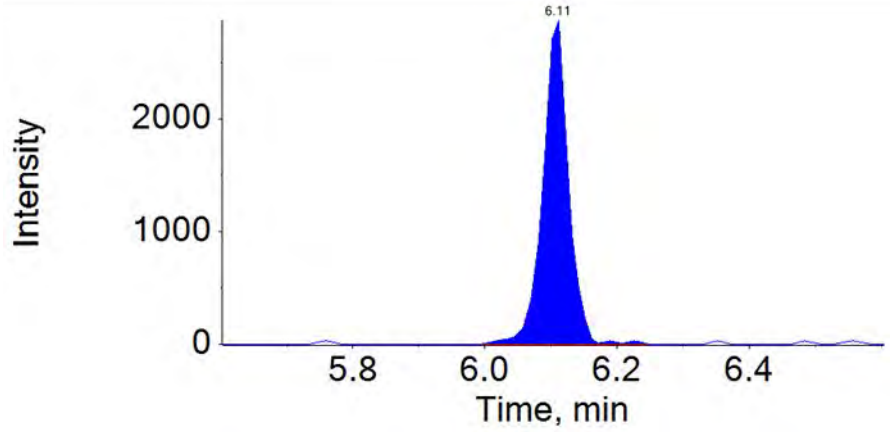
Component Name: NMeFOSAA **RT (min.):** 5.70 **Peak Area:** 6576.0 **Mass Range:** 570.0 / 419.0 **File Name:** 18NOV12D-05.wiff **Sample Name:** CCV1_ISC_CAL2	 **Integration Comment:** incorrect integration

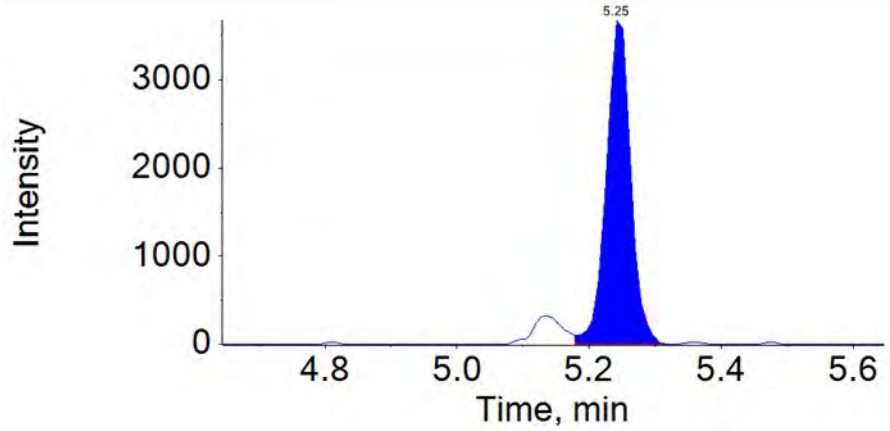
APPROVED
By MCD at 7:46 pm, 11/12/18

REVIEWED
By HMK at 11:56 am, 11/13/18

Results Table Name: 18NOV12DCCV1-2
Results Table Date: 11/12/2018 7:40:04 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name: NEtFOSAA **RT (min.):** 5.83 **Peak Area:** 5300.0 **Mass Range:** 584.0 / 419.0 **File Name:** 18NOV12D-05.wiff **Sample Name:** CCV1_ISC_CAL2	 **Integration Comment:** incorrect integration

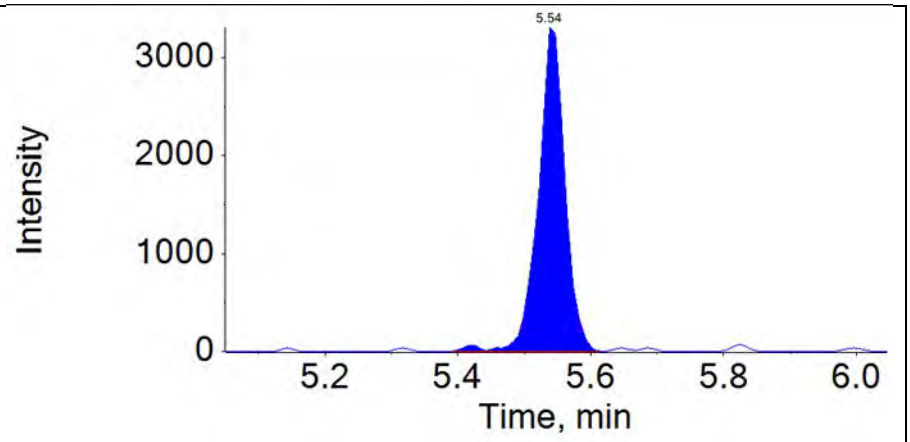
Component Name: NMePFOSA **RT (min.):** 6.11 **Peak Area:** 7839.0 **Mass Range:** 512.0 / 169.0 **File Name:** 18NOV12D-05.wiff **Sample Name:** CCV1_ISC_CAL2	 **Integration Comment:** incorrect integration

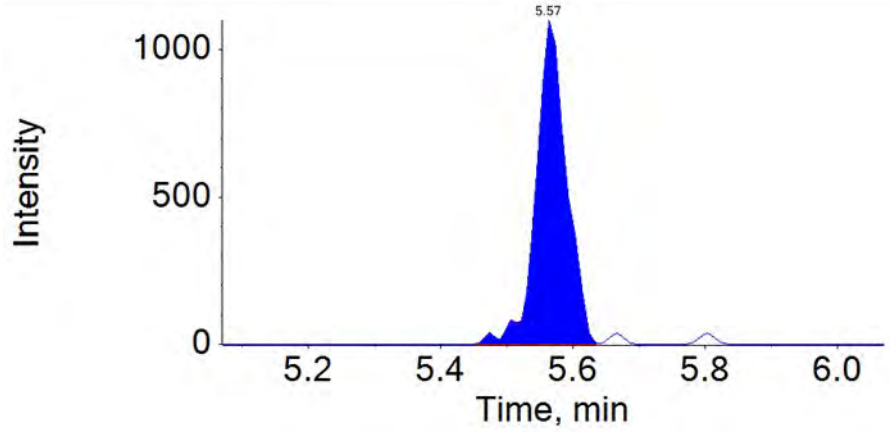
Component Name: PFOS_2 **RT (min.):** 5.25 **Peak Area:** 9521.7 **Mass Range:** 499.0 / 99.0 **File Name:** 18NOV12D-05.wiff **Sample Name:** CCV1_ISC_CAL2	 **Integration Comment:** incorrect integration

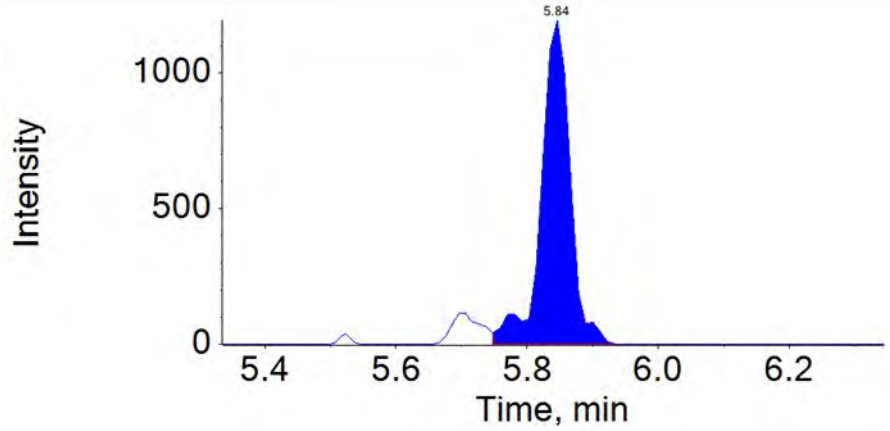
APPROVED
By MCD at 7:46 pm, 11/12/18

REVIEWED
By HMK at 11:56 am, 11/13/18

Results Table Name: 18NOV12DCCV1-2
Results Table Date: 11/12/2018 7:40:04 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name: PFNS_2 **RT (min.):** 5.54 **Peak Area:** 9279.2 **Mass Range:** 549.0 / 99.0 **File Name:** 18NOV12D-05.wiff **Sample Name:** CCV1_ISC_CAL2	 **Integration Comment:** incorrect integration

Component Name: 8:2 FTS_2 **RT (min.):** 5.57 **Peak Area:** 3541.1 **Mass Range:** 527.0 / 81.0 **File Name:** 18NOV12D-05.wiff **Sample Name:** CCV1_ISC_CAL2	 **Integration Comment:** incorrect integration

Component Name: NEtFOSAA_2 **RT (min.):** 5.84 **Peak Area:** 3702.3 **Mass Range:** 584.0 / 526.0 **File Name:** 18NOV12D-05.wiff **Sample Name:** CCV1_ISC_CAL2	 **Integration Comment:** incorrect integration

APPROVED
By MCD at 7:46 pm, 11/12/18

REVIEWED
By HMK at 11:56 am, 11/13/18

Results Table Name: 18NOV12DCCV1-2
Results Table Date: 11/12/2018 7:40:04 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

APPROVED
By MCD at 7:46 pm, 11/12/18

REVIEWED
By HMK at 11:56 am, 11/13/18

Ion Ratio Report

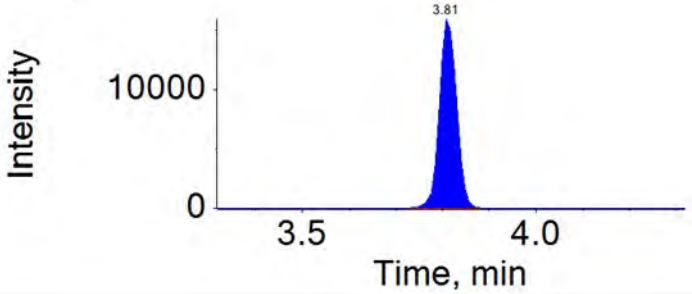
Sample Name: CCV1_ISC_CAL2 **Instrument Name:** LM27631 **File Name:** 18NOV12D-05.wiff

Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	3.81	1.00	40715.3	A	N/A	0.3906			
PFBS_2	3.81	1.00	15902.0	A	N/A	0.3906	8	50	
4:2-FTS	4.12	1.00	11234.3	A	N/A	0.5979			
4:2 FTS_2	4.13	1.00	6716.5	A	N/A	0.5979		#NA!	
PFHxA	4.16	1.00	94419.1	A	N/A	0.0129			
PFHxA_2	4.16	1.00	1215.5	A	N/A	0.0129	10	50	
PFPeS	4.18	1.10	22520.0	A	N/A	0.5041			
PFPeS_2	4.18	1.10	11351.9	A	N/A	0.5041	-3	50	
PFHpA	4.55	1.00	94703.4	A	N/A	0.0563			
PFHpA_2	4.55	1.00	5331.7	A	N/A	0.0563	0	50	
PFHxS	4.55	1.00	31116.0	M	N/A	0.3316			
PFHxS_2	4.55	1.00	10319.5	A	N/A	0.3316	-3	50	
6:2-FTS	4.91	1.00	7251.1	A	N/A	0.6715			
6:2 FTS_2	4.91	1.00	4869.2	A	N/A	0.6715		#NA!	
PFHpS	4.91	1.08	33565.2	A	N/A	0.3376			
PFHpS_2	4.91	1.08	11331.8	A	N/A	0.3376	-17	50	
PFOA	4.92	1.00	97268.8	A	N/A	0.0544			
PFOA_2	4.91	1.00	5290.4	A	N/A	0.0544	-3	50	
PFOS	5.25	1.00	29101.9	M	N/A	0.3621			
PFOS_2	5.25	1.00	10538.2	M	N/A	0.3621	22	50	
PFNA	5.26	1.00	74726.2	A	N/A	0.0205			
PFNA_2	5.27	1.00	1528.2	A	N/A	0.0205	-11	50	
PFNS	5.54	1.06	21280.8	A	N/A	0.4311			
PFNS_2	5.54	1.06	9173.8	M	N/A	0.4311	-11	50	
PFDA	5.56	1.00	61208.1	A	N/A	0.0038			
PFDA_2	5.55	1.00	232.9	A	N/A	0.0038	-53	50	OOS
8:2-FTS	5.56	1.00	6888.9	A	N/A	0.5073			
8:2 FTS_2	5.57	1.00	3494.5	M	N/A	0.5073		#NA!	
NMeFOSAA	5.70	1.00	7803.6	M	N/A	0.3014			
NMeFOSAA_2	5.71	1.00	2352.3	A	N/A	0.3014	17	50	
PFDS	5.80	1.11	16863.0	A	N/A	0.4542			
PFDS_2	5.80	1.11	7659.4	A	N/A	0.4542	-12	50	
PFUnDA	5.82	1.00	50785.7	A	N/A	0.0026			
PFUnDA_2	5.84	1.00	129.8	A	N/A	0.0026	-56	50	OOS
NEtFOSAA	5.83	1.00	6353.1	M	N/A	0.6384			
NEtFOSAA_2	5.84	1.00	4055.6	M	N/A	0.6384	-12	50	
PFDoDA	6.05	1.00	56256.7	A	N/A	0.0155			
PFDoDA_2	6.05	1.00	870.7	A	N/A	0.0155	-1	50	
10:2-FTS	6.07	1.09	4386.3	A	N/A	0.7830			
10:2 FTS_2	6.07	1.09	3434.5	A	N/A	0.7830		#NA!	
PFTrDA	6.25	1.03	47478.9	A	N/A	0.0141			
PFTrDA_2	6.25	1.03	667.5	A	N/A	0.0141	64	50	OOS
PFTeDA	6.43	1.00	37143.0	A	N/A	0.0027			
PFTeDA_2	6.45	1.00	100.7	A	N/A	0.0027	-57	50	OOS
PFHxDA	6.73	1.05	19260.7	A	N/A	0.0722			
PFHxDA_2	6.73	1.05	1390.3	A	N/A	0.0722	6	50	
PFODA	6.99	1.09	14710.9	A	N/A	0.0258			
PFODA_2	6.99	1.09	379.6	A	N/A	0.0258	-7	50	

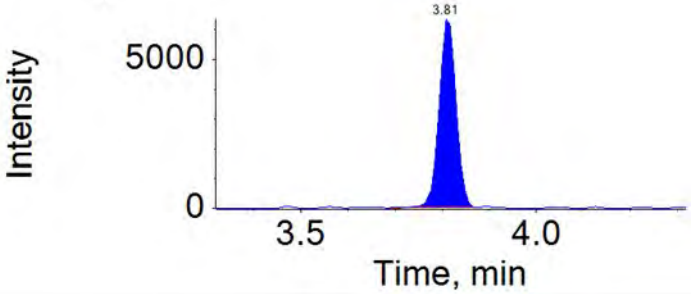
APPROVED
By MCD at 7:46 pm, 11/12/18

REVIEWED
By HMK at 11:56 am, 11/13/18

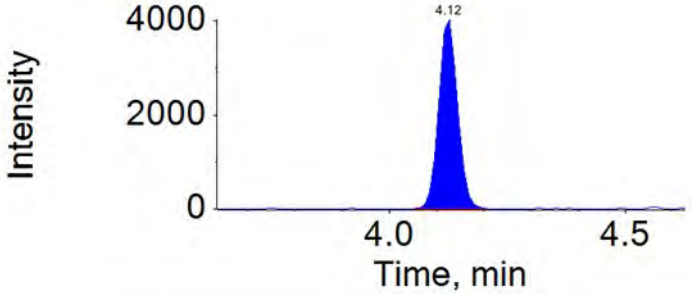
Component: PFBS
Primary Mass: 299.0 / 80.0



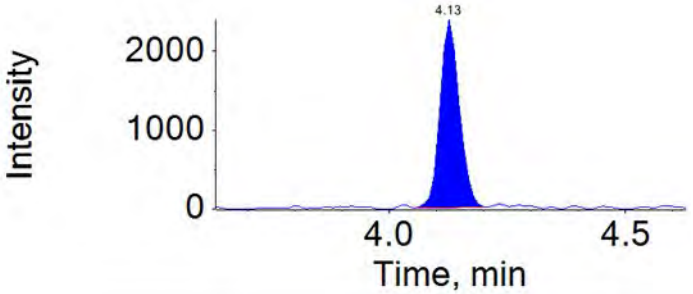
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



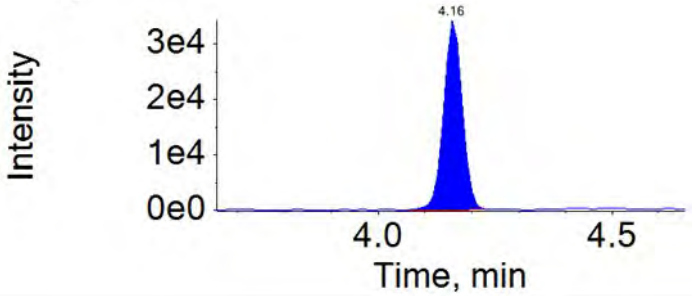
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



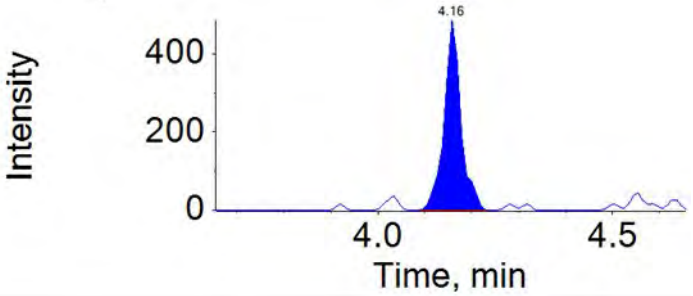
Component: 4:2 FTS_2
Secondary Mass: 327.0 / 81.0



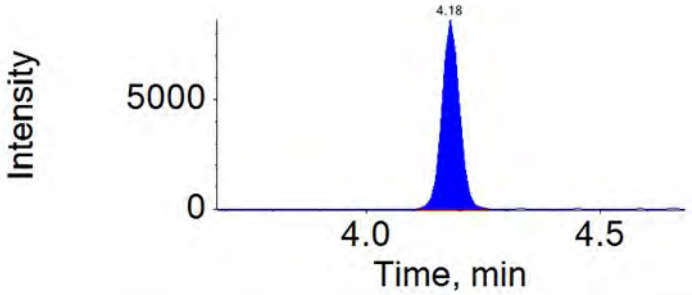
Component: PFHxA
Primary Mass: 313.0 / 269.0



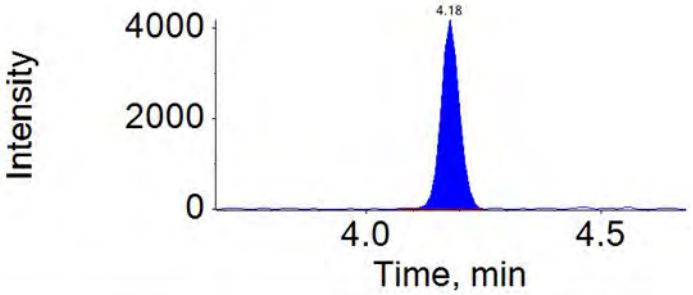
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



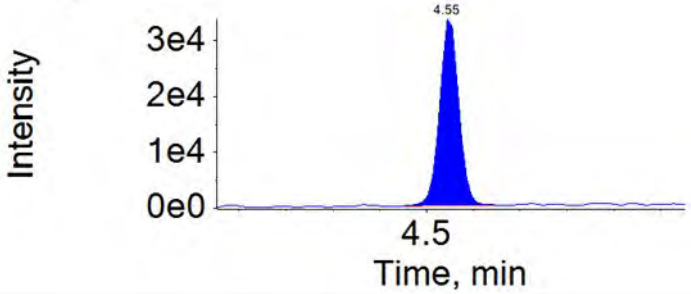
Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



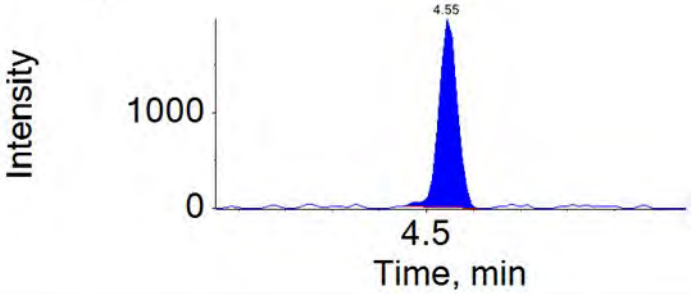
APPROVED
By MCD at 7:46 pm, 11/12/18

REVIEWED
By HMK at 11:56 am, 11/13/18

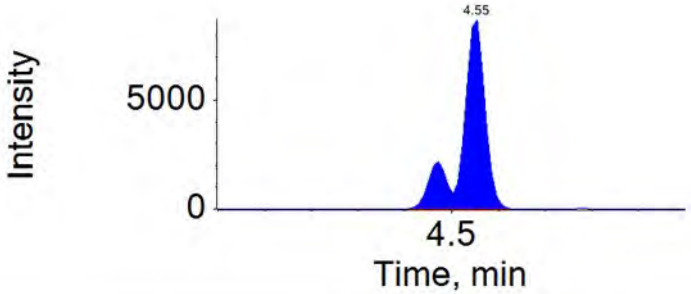
Component: PFHpA
Primary Mass: 363.0 / 319.0



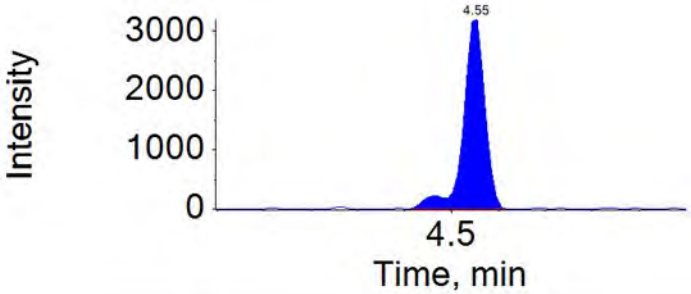
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



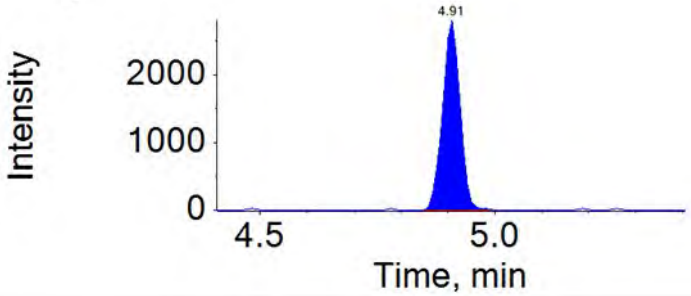
Component: PFHxS
Primary Mass: 399.0 / 80.0



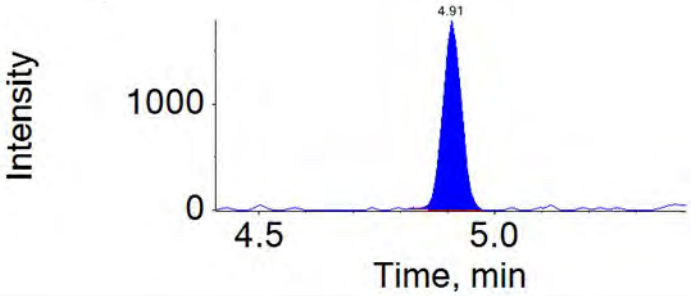
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



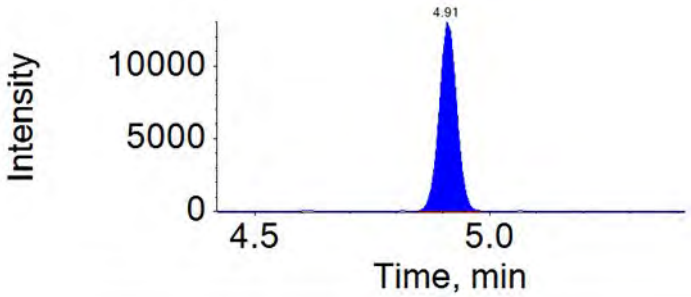
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



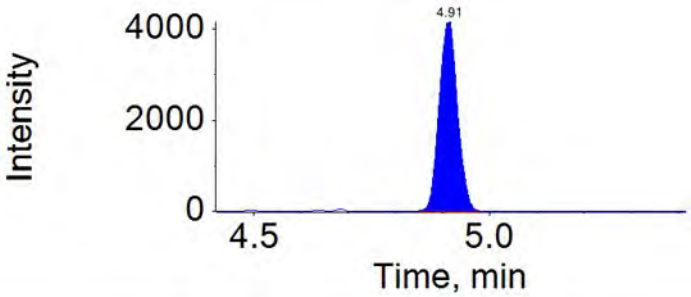
Component: 6:2 FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



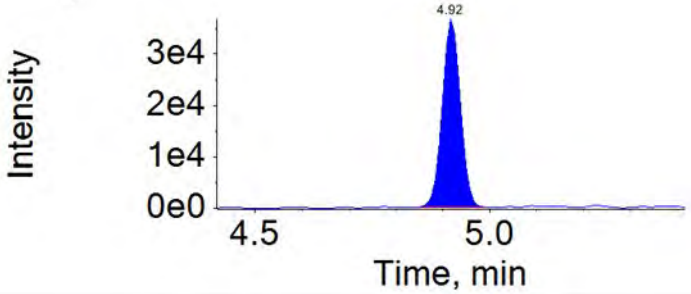
Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



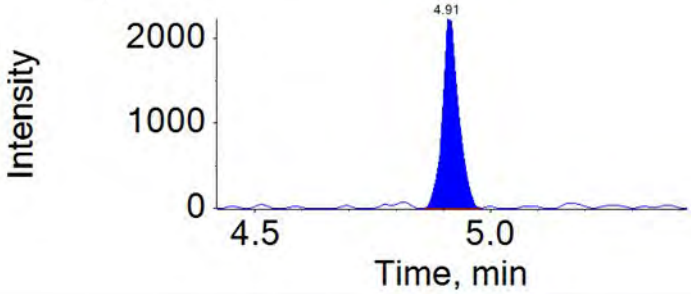
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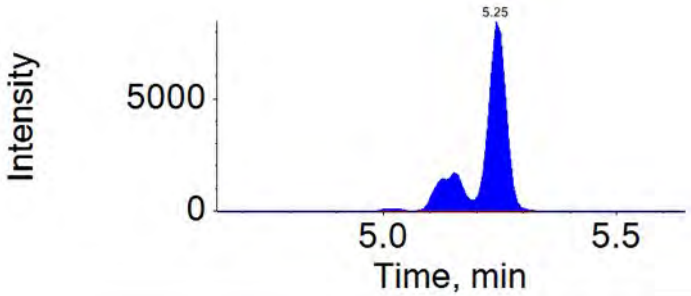
Component: PFOA
Primary Mass: 413.0 / 369.0



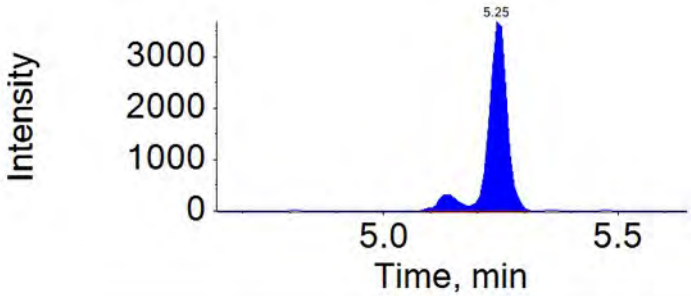
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



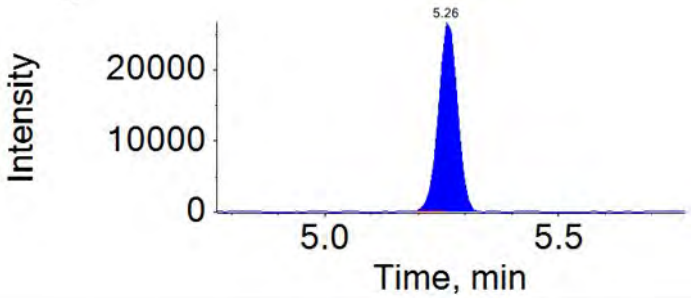
Component: PFOS
Primary Mass: 499.0 / 80.0



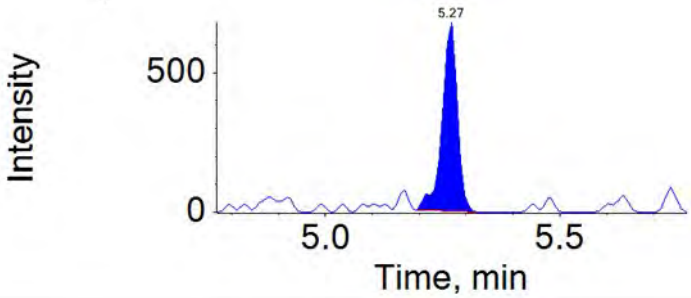
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



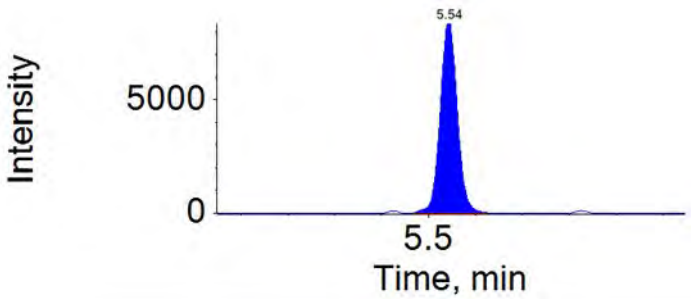
Component: PFNA
Primary Mass: 463.0 / 419.0



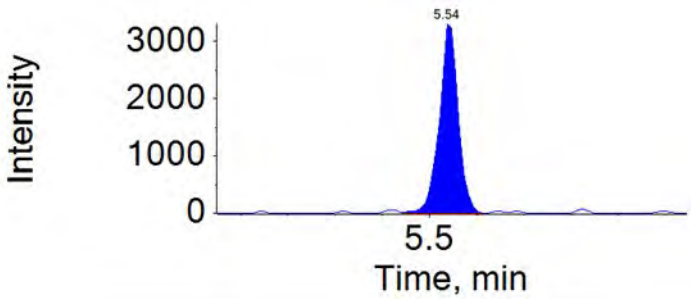
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



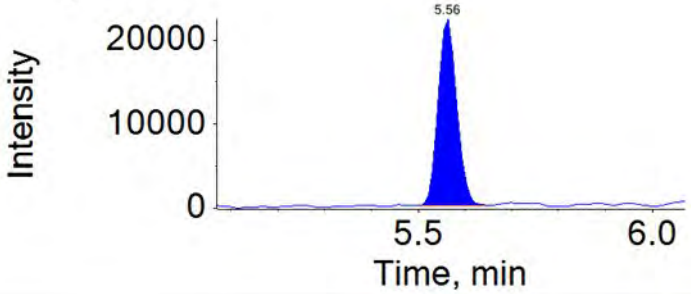
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



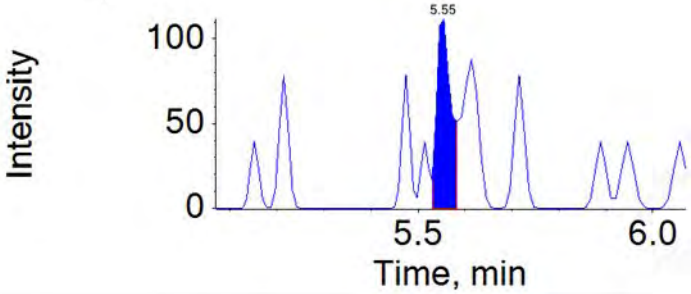
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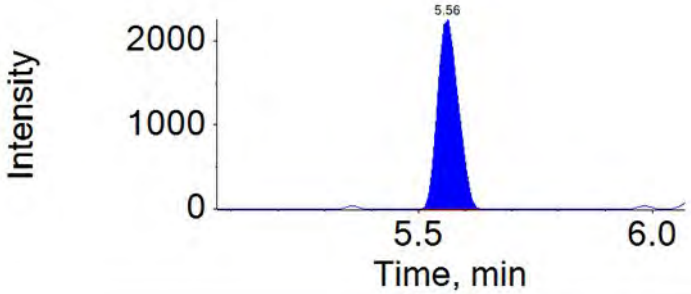
Component: PFDA
Primary Mass: 513.0 / 469.0



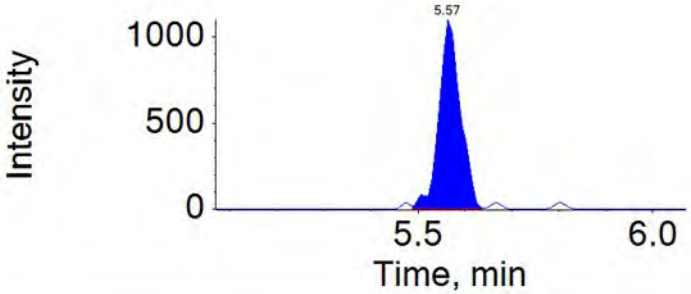
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



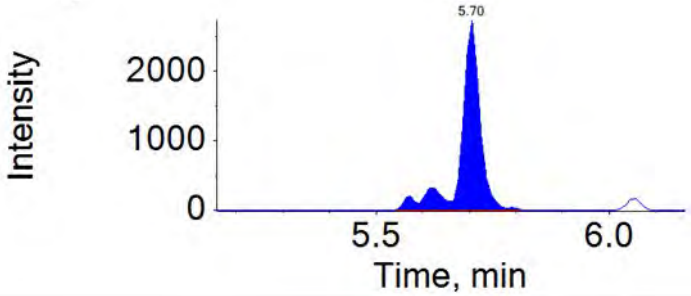
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



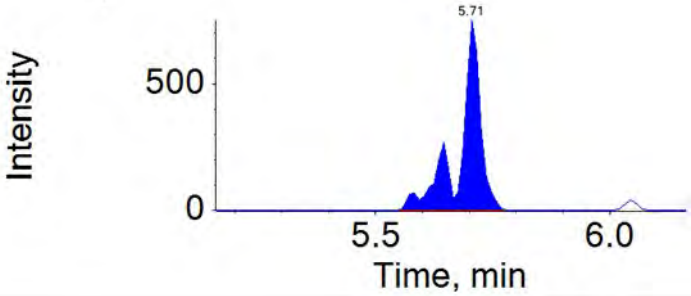
Component: 8:2 FTS_2
Secondary Mass: 527.0 / 81.0



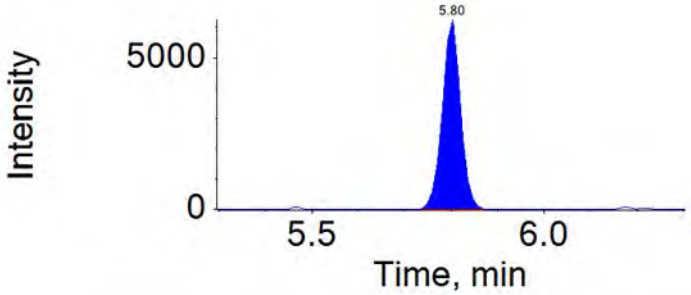
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



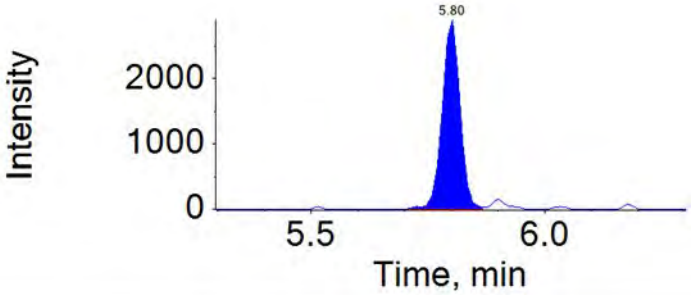
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



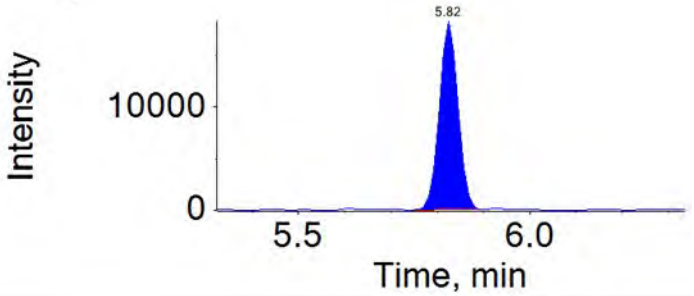
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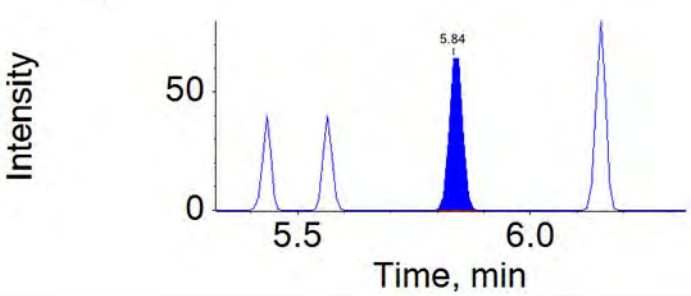
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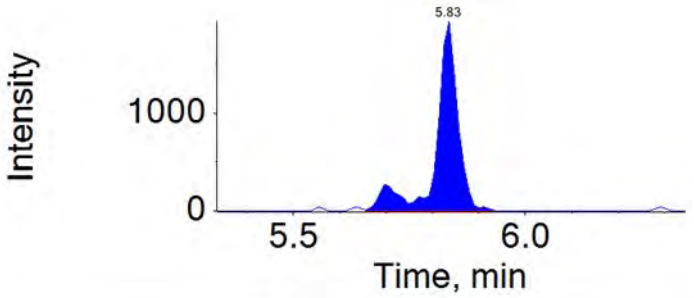
Component: PFUnDA
Primary Mass: 563.0 / 519.0



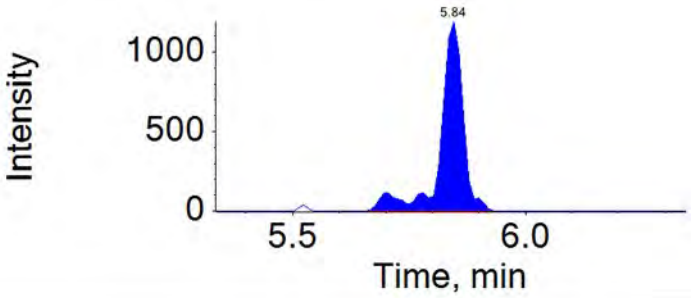
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



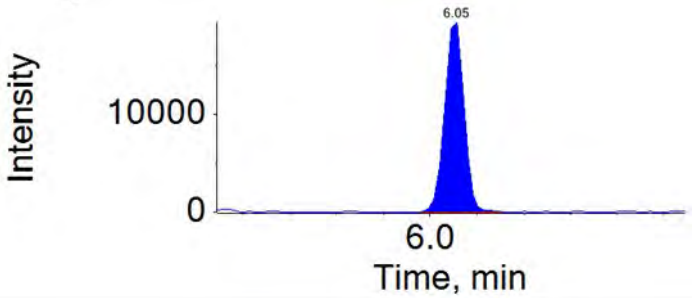
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



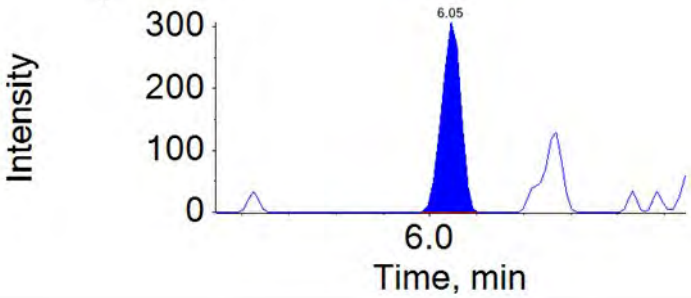
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



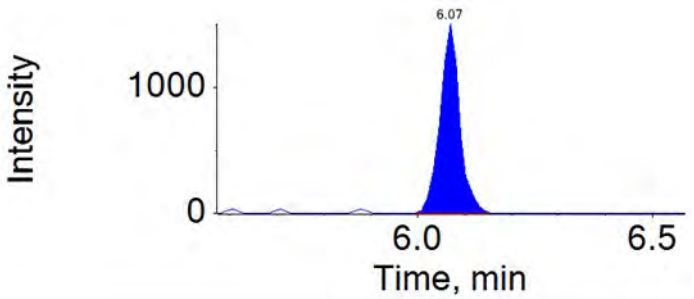
Component: PFDoDA
Primary Mass: 613.0 / 569.0



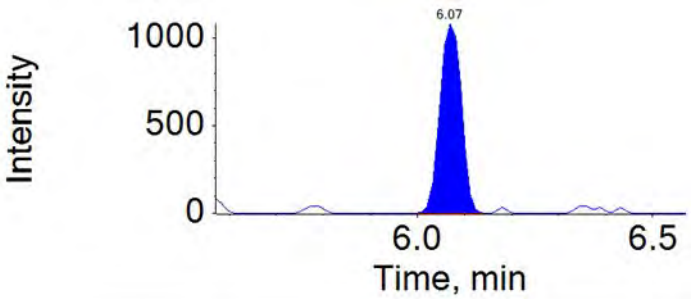
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



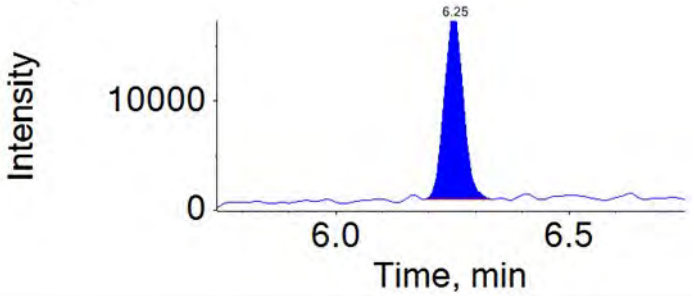
Component: 10:2 FTS_2
Secondary Mass: 627.0 / 81.0



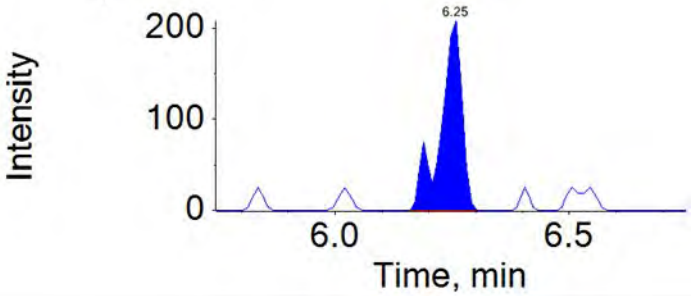
APPROVED
By MCD at 7:46 pm, 11/12/18

REVIEWED
By HMK at 11:56 am, 11/13/18

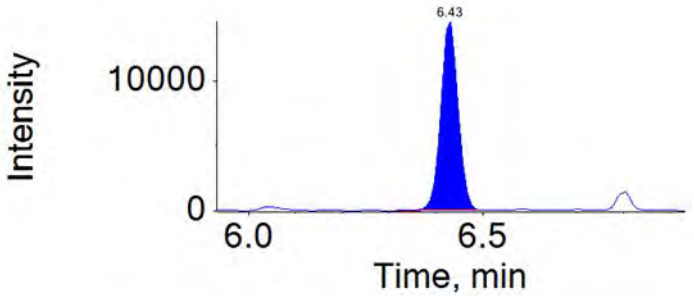
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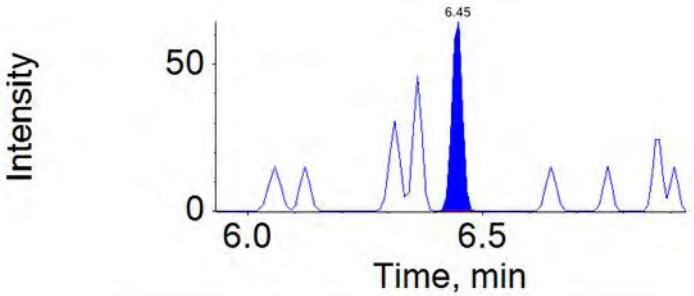
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



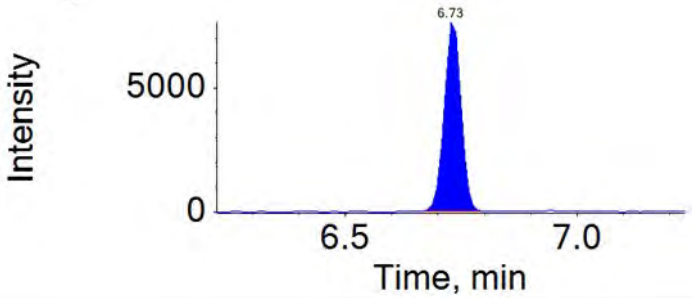
Component: PFTeDA
Primary Mass: 713.0 / 669.0



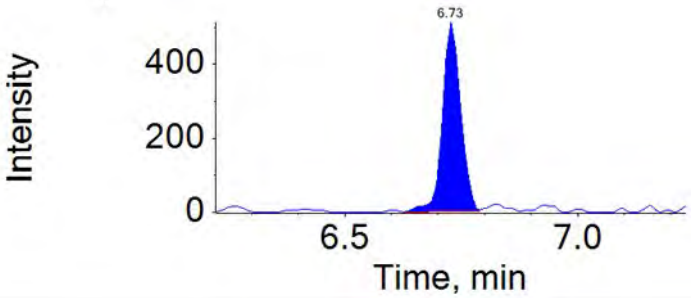
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



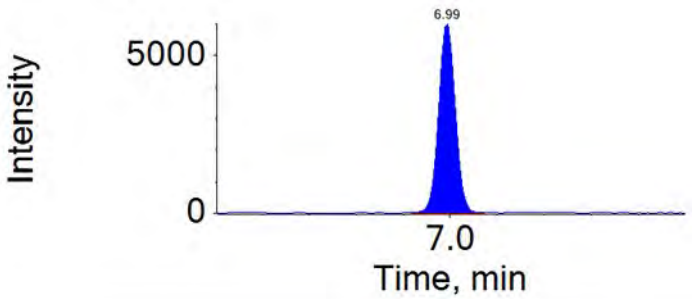
Component: PFHxDA
Primary Mass: 813.0 / 769.0



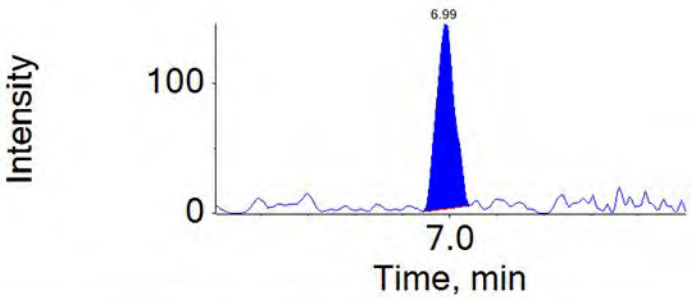
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



APPROVED
By MCD at 7:46 pm, 11/12/18

REVIEWED
By HMK at 11:56 am, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV1-2 11/12/2018 7:40:04 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Sample Name:	Instrument Blank			**Data File:**		18NOV12D-06.wiff
Sample ID:	methanol+labels			**Acquis Date:**		2018-11-12T17:30:36
Sample Type:	Unknown			**Instrument:**		LM27631
Vial Position:	1			**Acquis Method:**		18AUG13_3uL.dam
Injection Vol:	3.00			**Result Table:**		18NOV12DCCV1-2
QMethod File:	18AUG20QM			**ICAL Name:**		18NOV12DCAL
Batch Number:	N/A			**Operator:**		MCD7824
Sample Wt.:	1.00000			**Dilution Factor:**		1.00
Sample Vol.:	1.000			**Prep Factor:**		1.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV12DCAL-44

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Rreference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	700678.2	659926.2	6	50	
13C2-PFOA	5.0	501862.4	450219.7	11	50	
13C4-PFOS	4.8	265827.8	249205.8	7	50	
13C2-PFDA	5.0	313532.3	278743.9	12	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	778338.6	13C3-PFBA	700678.2	1.111	5.000	4.980	100	70-130	
E13C5-PFPeA	771183.8	13C3-PFBA	700678.2	1.101	5.000	4.937	99	70-130	
E13C3-PFBS	454738.5	13C3-PFBA	700678.2	0.649	4.650	4.581	99	70-130	
E13C2-4:2-FTS	54302.6	13C2-PFOA	501862.4	0.108	4.670	4.819	103	70-130	
E13C5-PFHxA	679071.8	13C2-PFOA	501862.4	1.353	5.000	4.888	98	70-130	
E13C3-PFHxS	344474.4	13C2-PFOA	501862.4	0.686	4.730	4.710	100	70-130	
E13C4-PFHpA	532521.5	13C2-PFOA	501862.4	1.061	5.000	4.780	96	70-130	
E13C2-6:2-FTS	37008.0	13C2-PFOA	501862.4	0.074	4.750	4.934	104	70-130	
E13C8-PFOA	918519.6	13C2-PFOA	501862.4	1.830	5.000	5.043	101	70-130	
E13C8-PFOS	289403.4	13C4-PFOS	265827.8	1.089	4.780	4.824	101	70-130	
E13C9-PFNA	484906.2	13C4-PFOS	265827.8	1.824	5.000	5.086	102	70-130	
E13C6-PFDA	652793.5	13C2-PFDA	313532.3	2.082	5.000	4.859	97	70-130	
E13C2-8:2-FTS	30551.9	13C2-PFDA	313532.3	0.097	4.790	4.860	101	70-130	
E13C8-PFOSA	652323.3	13C2-PFDA	313532.3	2.081	5.000	4.613	92	70-130	
Ed3-NMeFOSAA	76377.2	13C2-PFDA	313532.3	0.244	5.000	4.397	88	70-130	
E13C7-PFUnDA	271896.6	13C2-PFDA	313532.3	0.867	5.000	5.035	101	70-130	
Ed5-NEtFOSAA	60822.1	13C2-PFDA	313532.3	0.194	5.000	4.104	82	70-130	
E13C2-PFDoDA	565062.9	13C2-PFDA	313532.3	1.802	5.000	4.679	94	70-130	
Ed7-NMePFOSAE	349234.7	13C2-PFDA	313532.3	1.114	5.000	4.820	96	70-130	
Ed3-NMePFOSA	80586.7	13C2-PFDA	313532.3	0.257	5.000	4.670	93	70-130	
Ed9-NEtPFOSAE	267606.0	13C2-PFDA	313532.3	0.854	5.000	4.439	89	70-130	
Ed5-NEtPFOSA	61370.7	13C2-PFDA	313532.3	0.196	5.000	4.592	92	70-130	
E13C2-PFTeDA	416788.0	13C2-PFDA	313532.3	1.329	5.000	4.667	93	70-130	

APPROVED
By MCD at 7:46 pm, 11/12/18

REVIEWED
By HMK at 11:56 am, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV1-2 11/12/2018 7:40:04 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

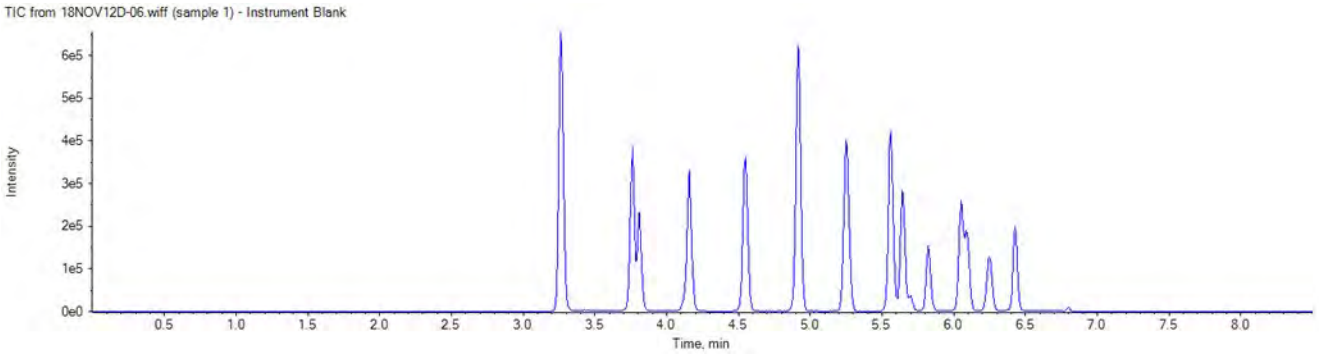
Analyte Quantitation Peak Table

Sample Name: Instrument Blank **Instrument Name:** LM27631 **File Name:** 18NOV12D-06.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	1.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	N/A	N/A	N/A		A	13C4-PFBA	3.26	778338.6	N/A	
PFPeA	N/A	N/A	N/A		A	13C5-PFPeA	3.76	771183.8	N/A	
PFBS	N/A	N/A	N/A		A	13C3-PFBS	3.81	454738.5	N/A	
4:2-FTS	N/A	N/A	N/A		A	13C2-4:2-FTS	4.12	54302.6	N/A	
PFHxA	N/A	N/A	N/A		A	13C5-PFHxA	4.16	679071.8	N/A	
PFPeS	N/A	N/A	N/A		A	13C3-PFBS	3.81	454738.5	N/A	
PFHpA	N/A	N/A	N/A		A	13C4-PFHpA	4.55	532521.5	N/A	
PFHxS	N/A	N/A	N/A		A	13C3-PFHxS	4.55	344474.4	N/A	
6:2-FTS	N/A	N/A	N/A		A	13C2-6:2-FTS	4.90	37008.0	N/A	
PFHpS	N/A	N/A	N/A		A	13C3-PFHxS	4.55	344474.4	N/A	
PFOA	N/A	N/A	N/A		A	13C8-PFOA	4.92	918519.6	N/A	
PFOS	N/A	N/A	N/A		A	13C8-PFOS	5.24	289403.4	N/A	
PFNA	N/A	N/A	N/A		A	13C9-PFNA	5.26	484906.2	N/A	
PFNS	N/A	N/A	N/A		A	13C8-PFOS	5.24	289403.4	N/A	
PFDA	N/A	N/A	N/A		A	13C6-PFDA	5.56	652793.5	N/A	
8:2-FTS	N/A	N/A	N/A		A	13C2-8:2-FTS	5.56	30551.9	N/A	
PFOSA	N/A	N/A	N/A		A	13C8-PFOSA	5.64	652323.3	N/A	
NMeFOSAA	N/A	N/A	N/A		A	d3-NMeFOSAA	5.70	76377.2	N/A	
PFDS	N/A	N/A	N/A		A	13C8-PFOS	5.24	289403.4	N/A	
PFUnDA	N/A	N/A	N/A		A	13C7-PFUnDA	5.82	271896.6	N/A	
NEtFOSAA	N/A	N/A	N/A		A	d5-NEtFOSAA	5.83	60822.1	N/A	
PFDoDA	N/A	N/A	N/A		A	13C2-PFDoDA	6.05	565062.9	N/A	
10:2-FTS	N/A	N/A	N/A		A	13C2-8:2-FTS	5.56	30551.9	N/A	
NMePFOSAE	N/A	N/A	N/A		A	d7-NMePFOSAE	6.09	349234.7	N/A	
NMePFOSA	N/A	N/A	N/A		A	d3-NMePFOSA	6.10	80586.7	N/A	
PFDoS	N/A	N/A	N/A		A	13C8-PFOS	5.24	289403.4	N/A	
NEtPFOSAE	N/A	N/A	N/A		A	d9-NEtPFOSAE	6.25	267606.0	N/A	
NEtPFOSA	N/A	N/A	N/A		A	d5-NEtPFOSA	6.26	61370.7	N/A	
PFTrDA	N/A	N/A	N/A		A	13C2-PFDoDA	6.05	565062.9	N/A	
PFTeDA	N/A	N/A	N/A		A	13C2-PFTeDA	6.43	416788.0	N/A	
PFHxDA	N/A	N/A	N/A		A	13C2-PFTeDA	6.43	416788.0	N/A	
PFODA	N/A	N/A	N/A		A	13C2-PFTeDA	6.43	416788.0	N/A	

Total Ion Chromatogram

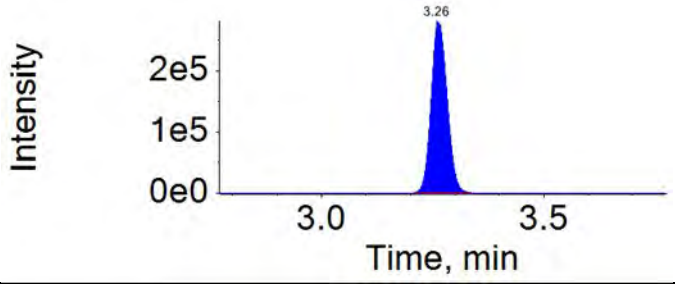


APPROVED
By MCD at 7:46 pm, 11/12/18

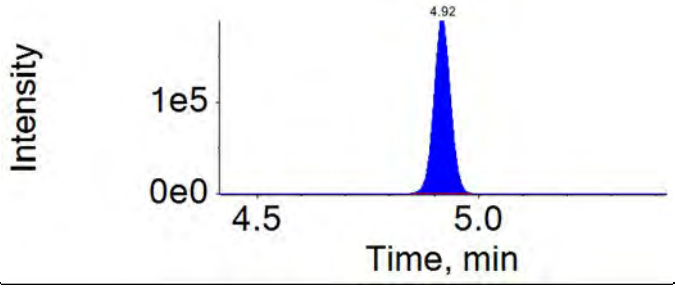
REVIEWED
By HMK at 11:56 am, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV1-2 11/12/2018 7:40:04 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

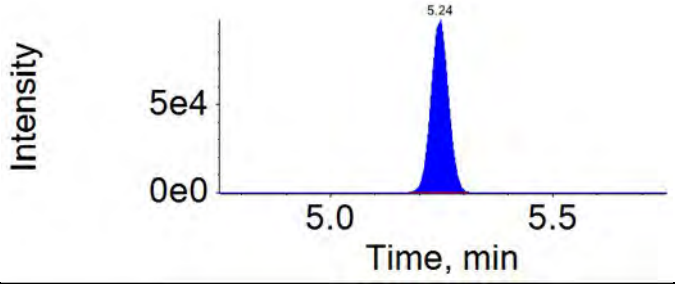
Injection Standard: 13C3-PFBA
216.0 / 172.0



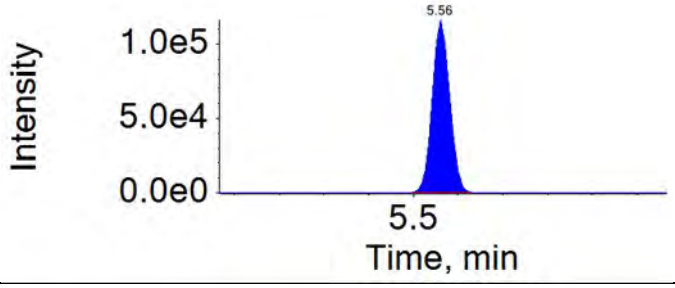
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0



Injection Standard: 13C2-PFDA
515.0 / 470.0

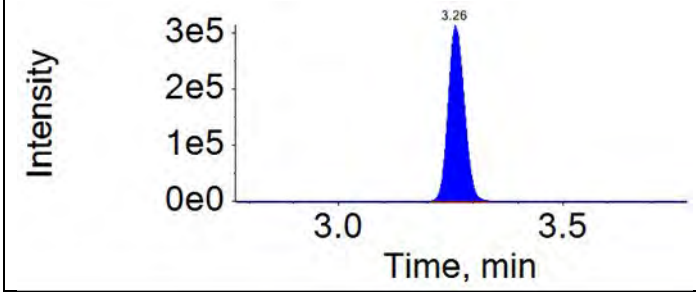


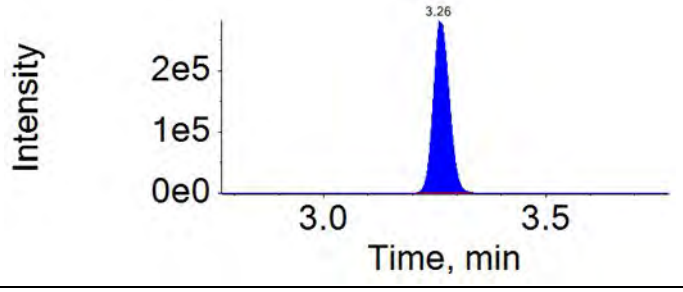
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By HMK at 11:56 am, 11/13/18

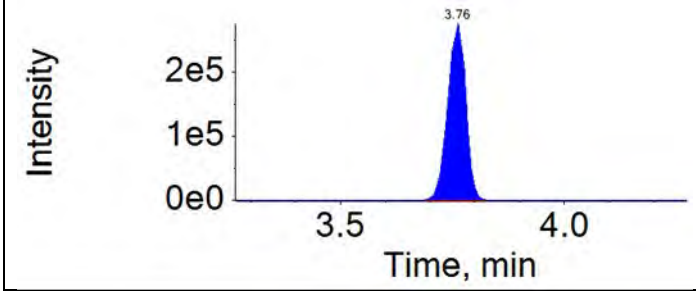
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV1-2 11/12/2018 7:40:04 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

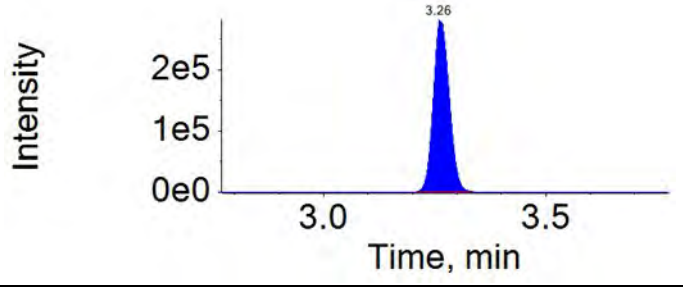
Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0



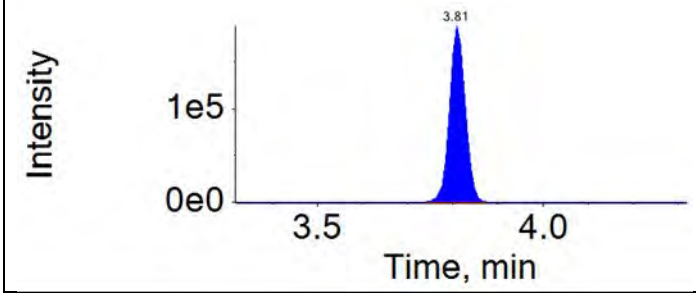


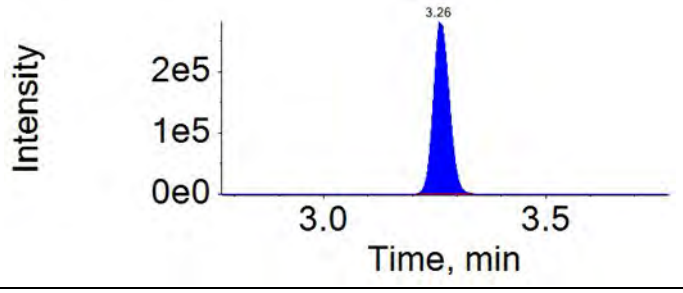
Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0



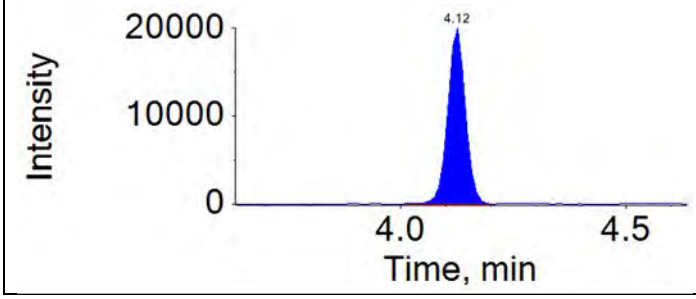


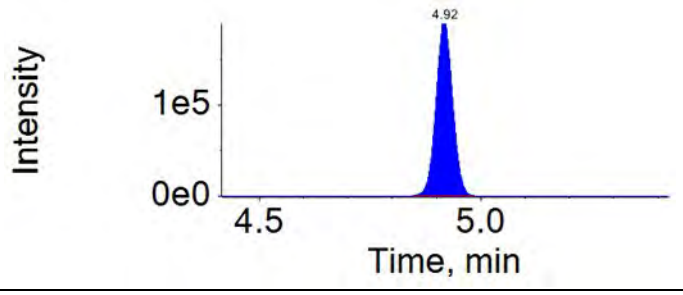
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0





Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0



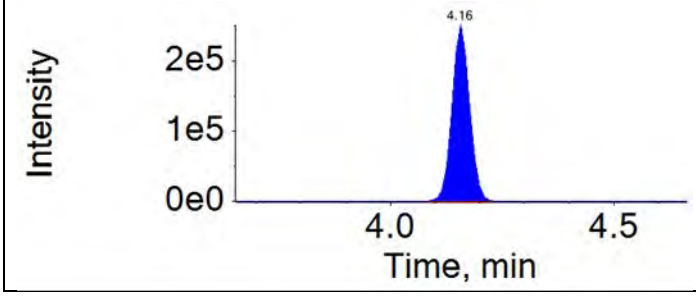


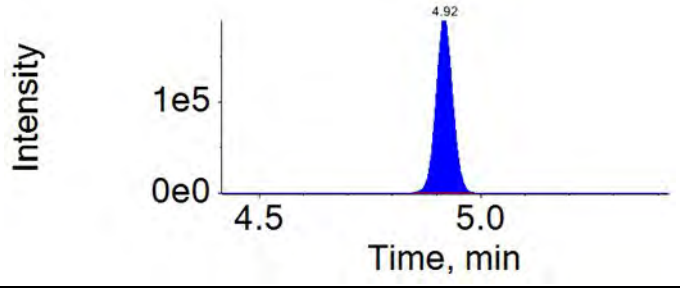
APPROVED
By MCD at 7:46 pm, 11/12/18

REVIEWED
By HMK at 11:56 am, 11/13/18

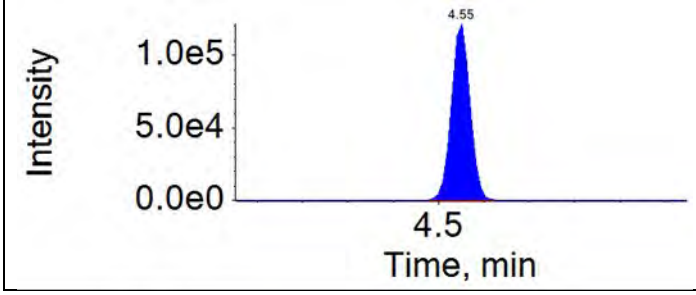
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV1-2 11/12/2018 7:40:04 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

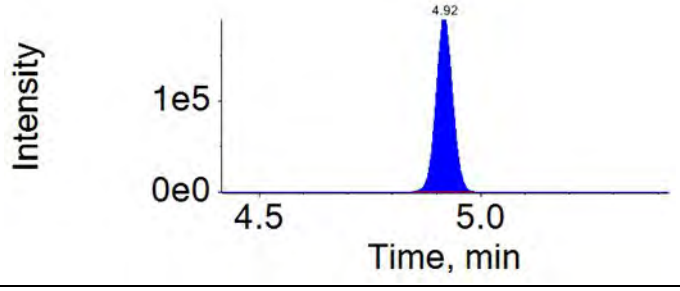
Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0



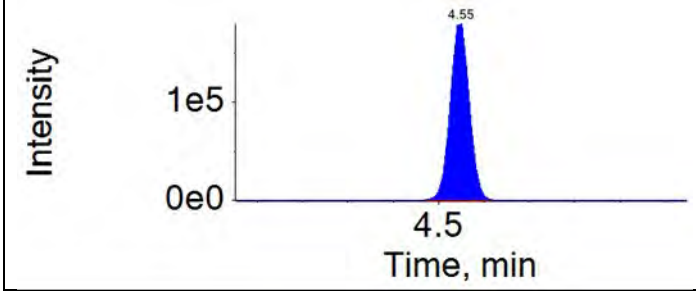


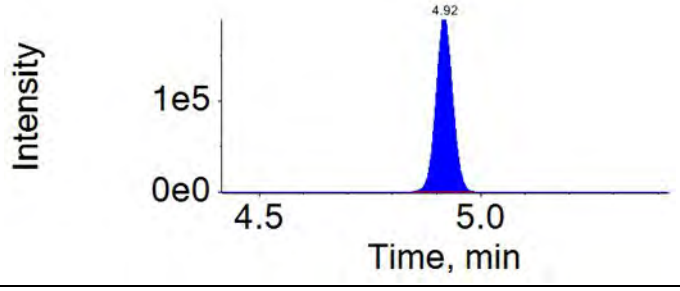
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0



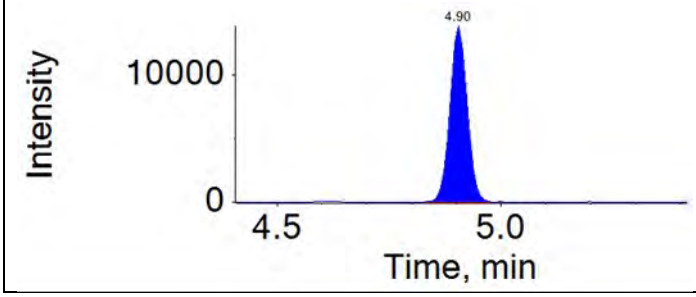


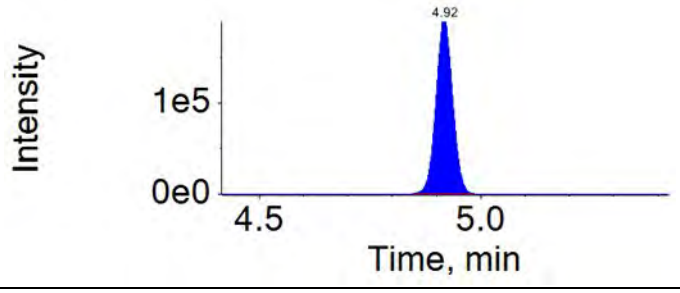
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0





Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0

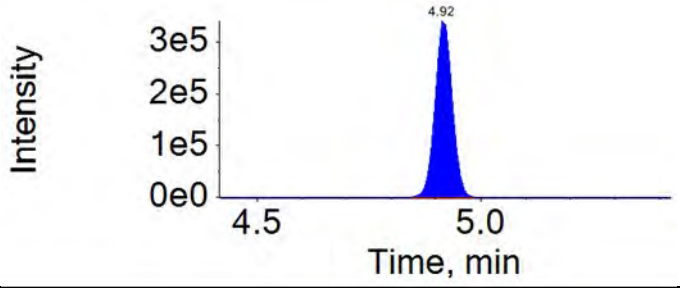
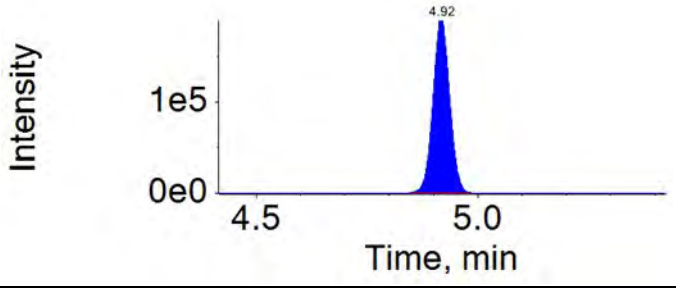


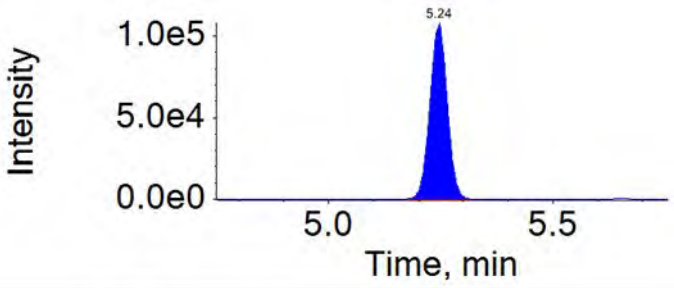
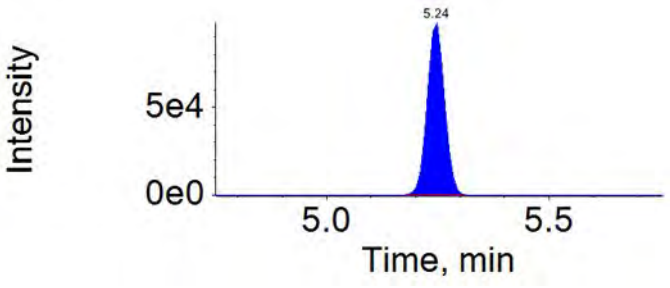


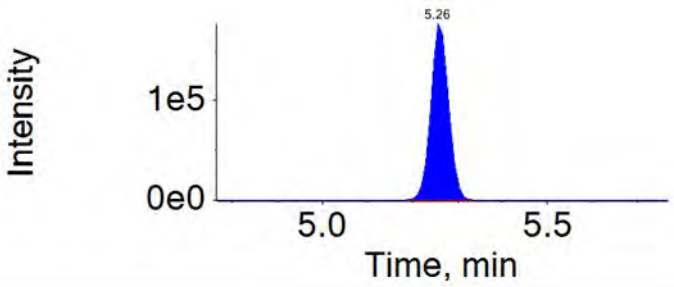
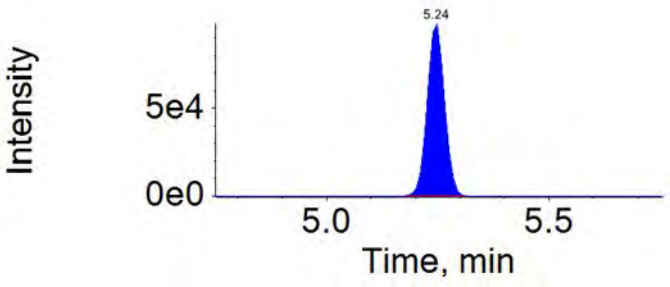
APPROVED
By MCD at 7:46 pm, 11/12/18

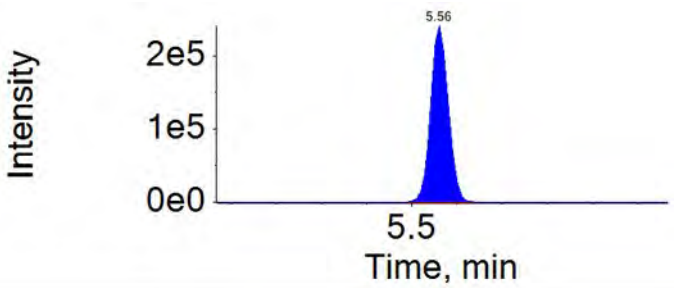
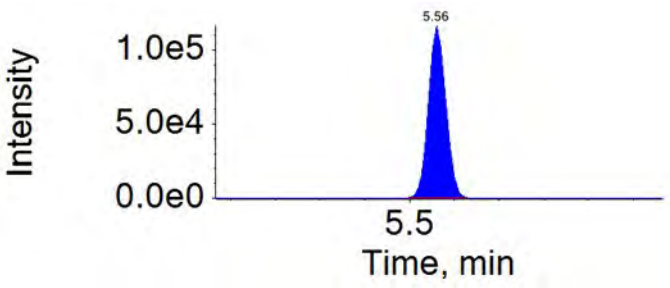
REVIEWED
By HMK at 11:56 am, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV1-2 11/12/2018 7:40:04 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

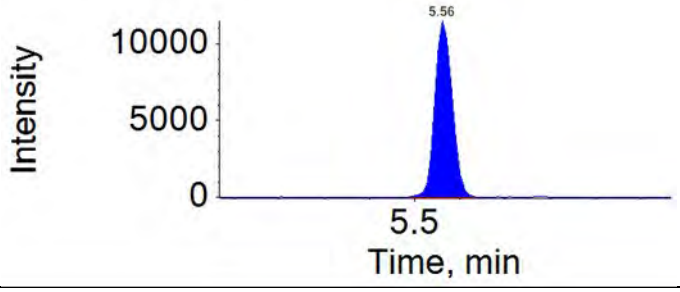
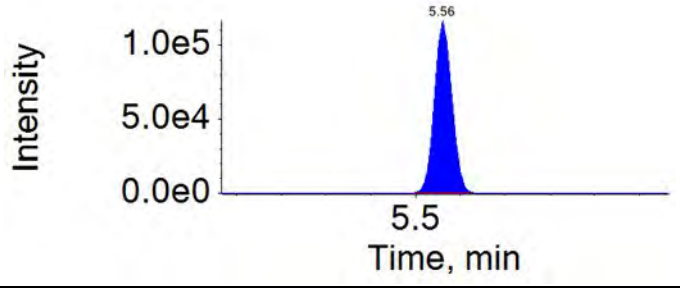
Extraction Standard: E13C8-PFOA	Injection Standard: 13C2-PFOA
421.0 / 376.0	415.0 / 370.0
	

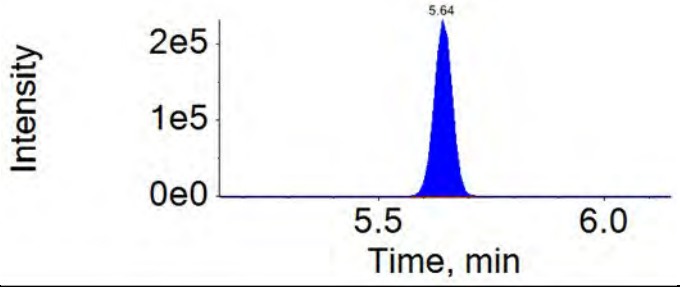
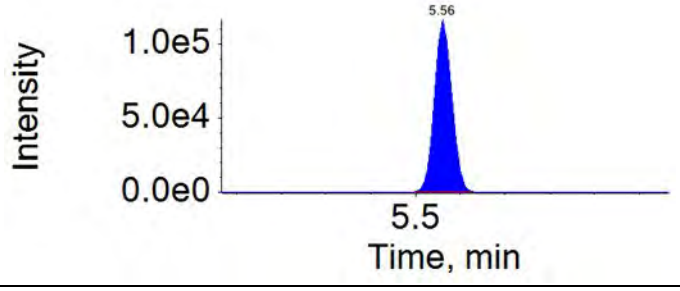
Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0
	

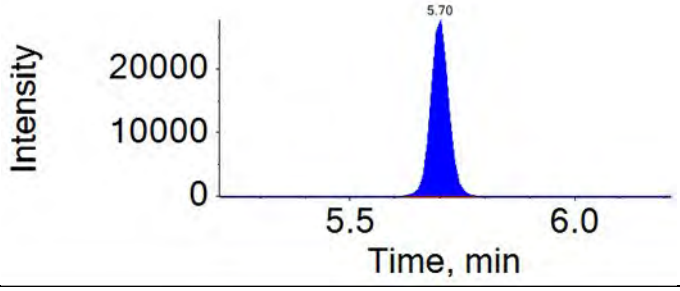
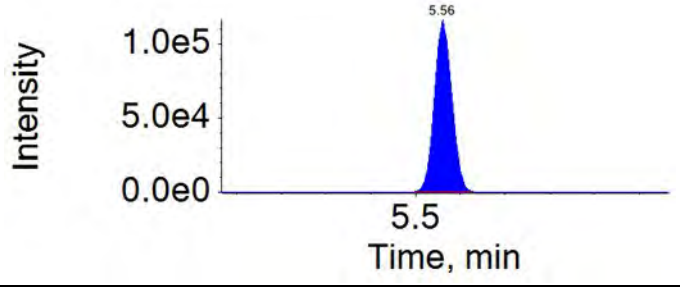
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0
	

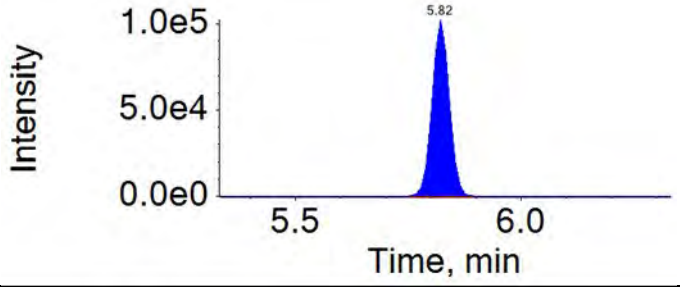
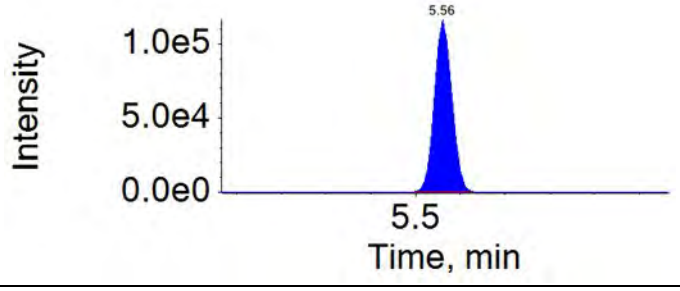
Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0
	

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV1-2 11/12/2018 7:40:04 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: E13C2-8:2-FTS	Injection Standard: 13C2-PFDA
529.0 / 81.0	515.0 / 470.0
	

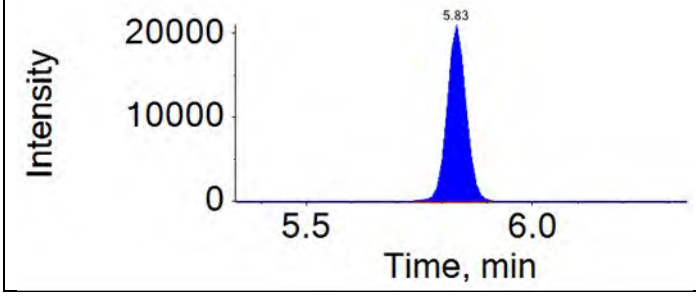
Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0
	

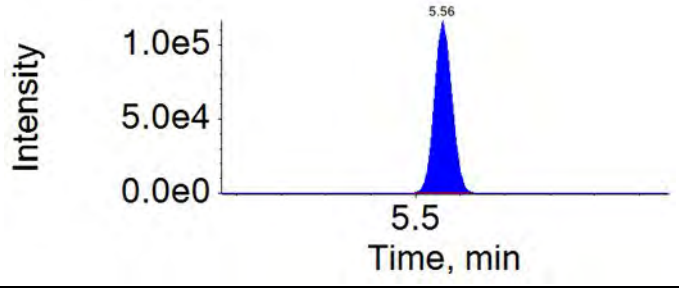
Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0
	

Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0
	

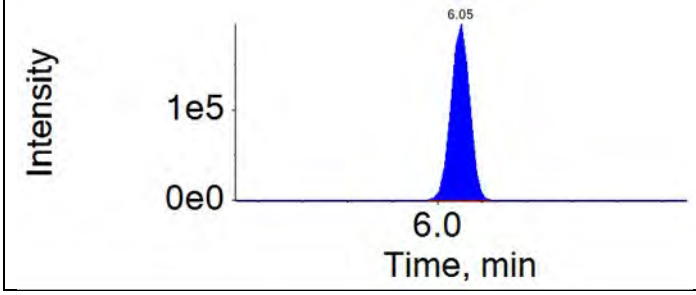
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV1-2 11/12/2018 7:40:04 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

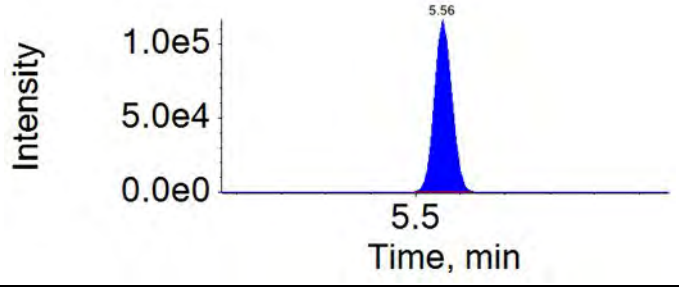
Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0



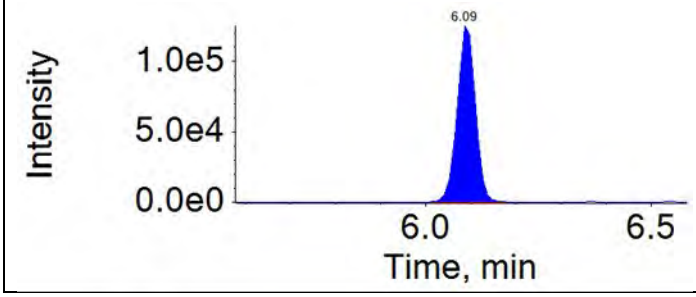


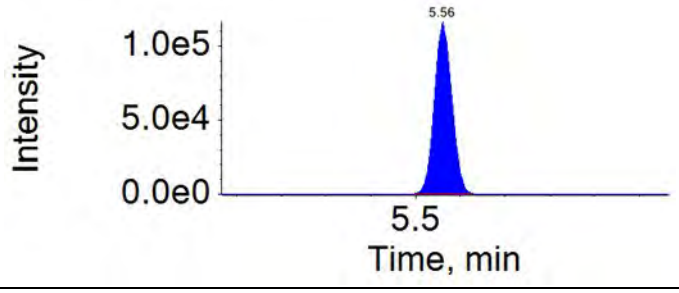
Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0



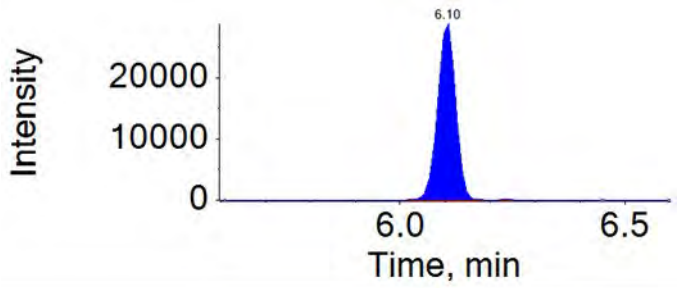


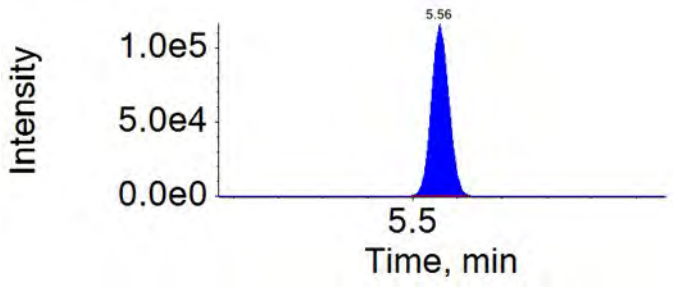
Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0





Extraction Standard: Ed3-NMePFOSA	Injection Standard: 13C2-PFDA
515.0 / 169.0	515.0 / 470.0



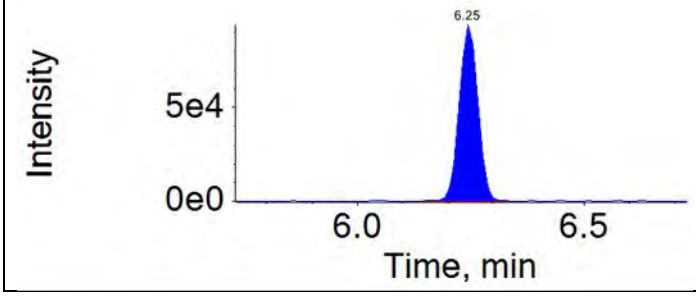


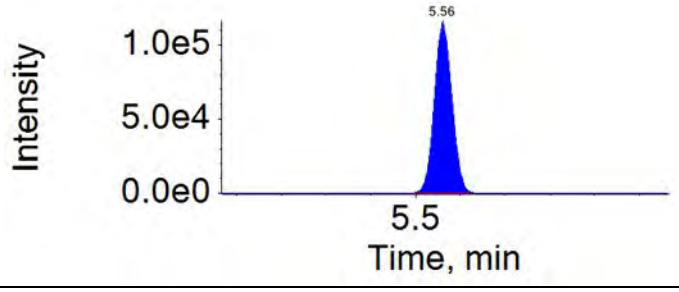
APPROVED
By MCD at 7:46 pm, 11/12/18

REVIEWED
By HMK at 11:56 am, 11/13/18

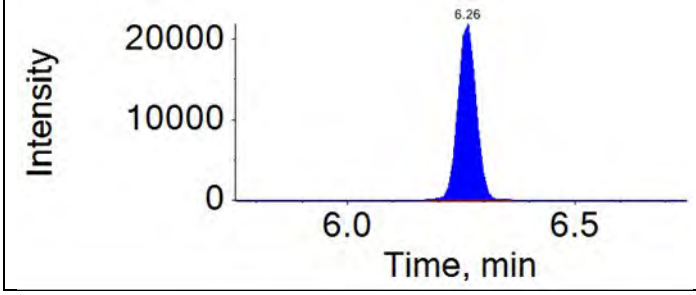
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV1-2 11/12/2018 7:40:04 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

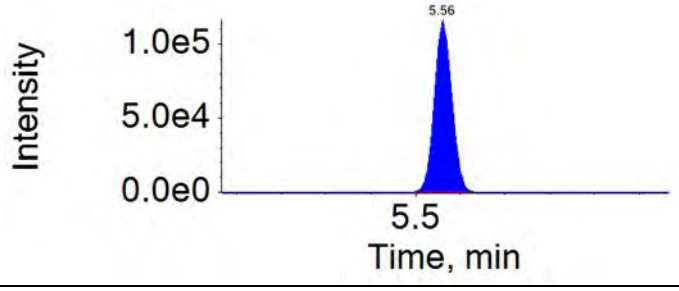
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



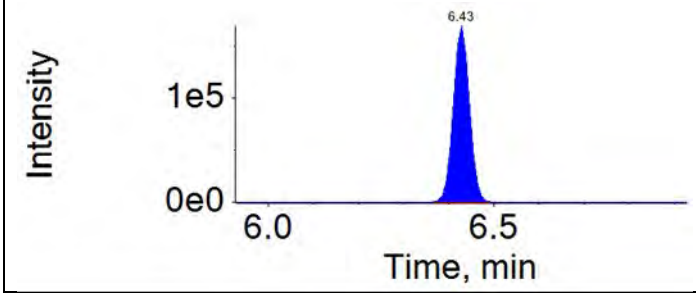


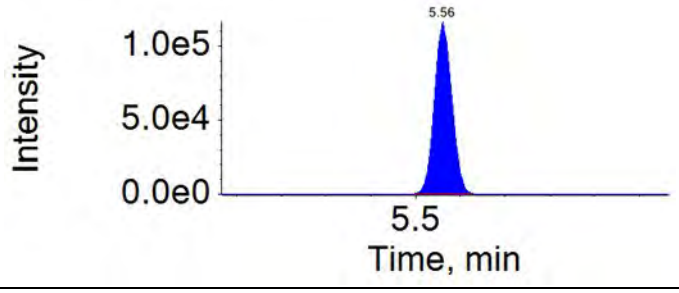
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0



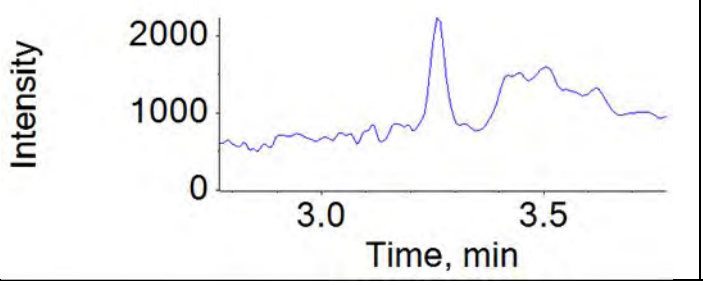


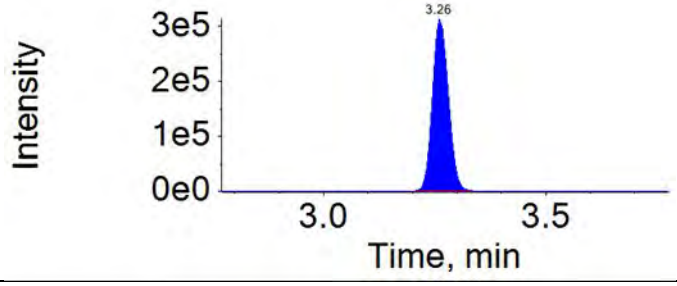
APPROVED
By MCD at 7:46 pm, 11/12/18

REVIEWED
By HMK at 11:56 am, 11/13/18

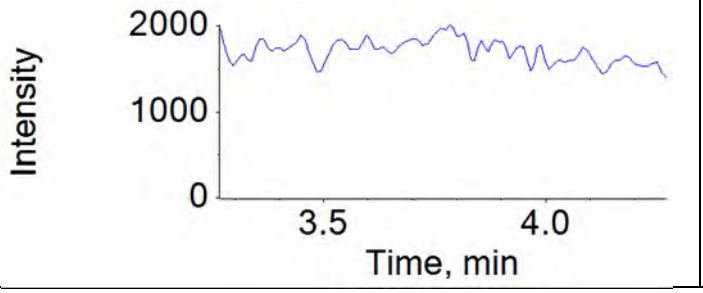
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV1-2 11/12/2018 7:40:04 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

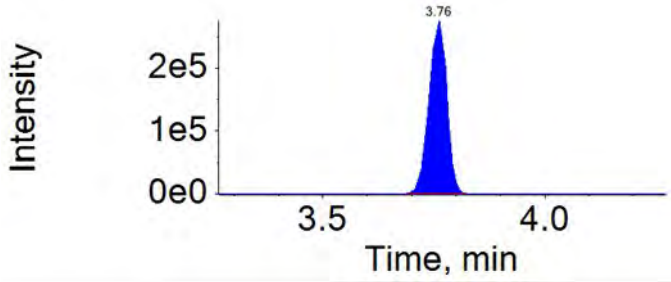
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



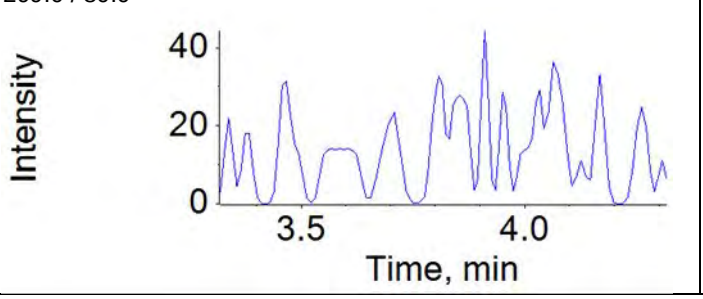


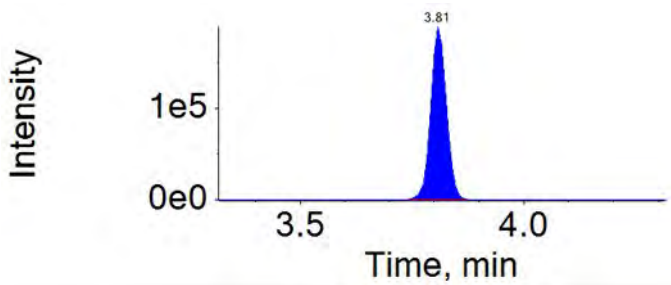
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



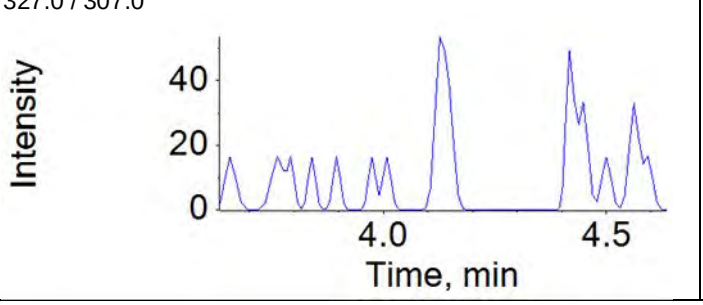


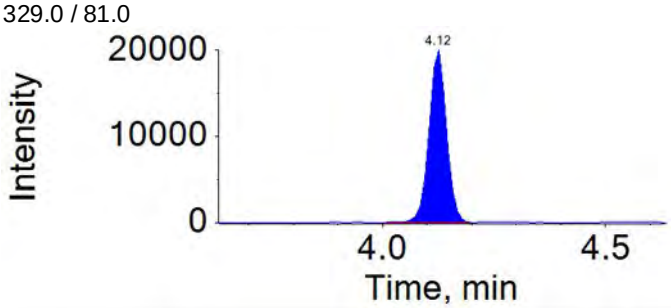
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





Analyte: 4:2-FTS	Extraction Standard: 13C2-4:2-FTS
327.0 / 307.0	329.0 / 81.0



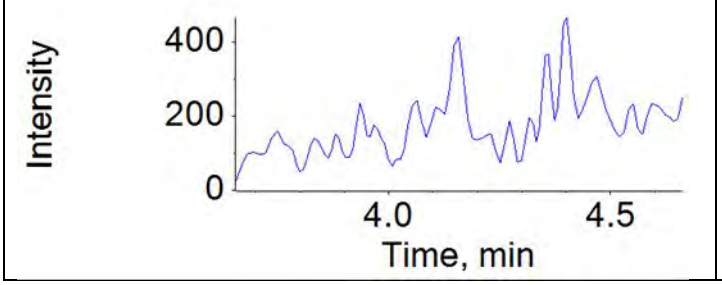


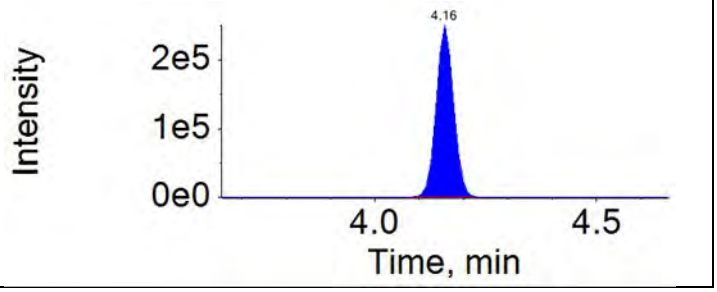
APPROVED
By MCD at 7:46 pm, 11/12/18

REVIEWED
By HMK at 11:56 am, 11/13/18

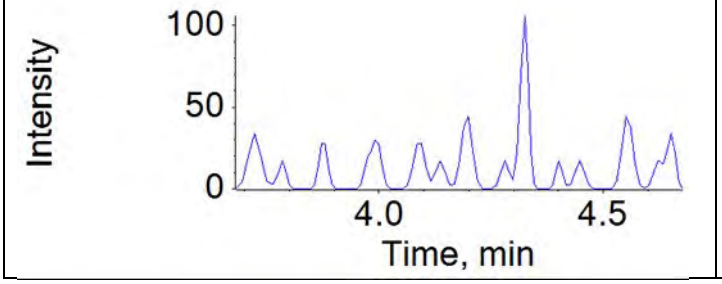
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV1-2 11/12/2018 7:40:04 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

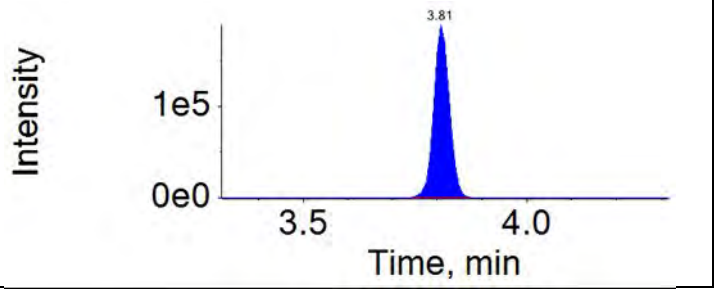
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



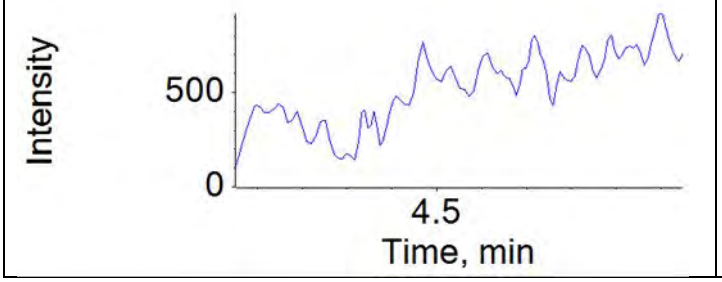


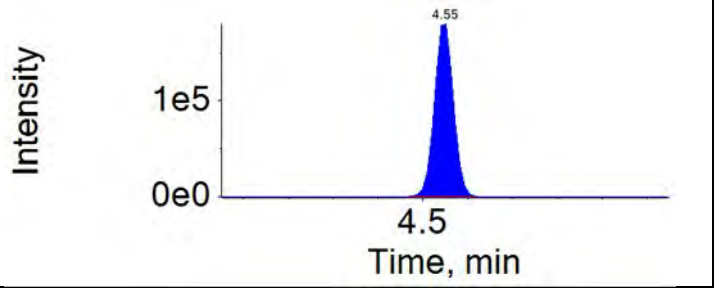
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



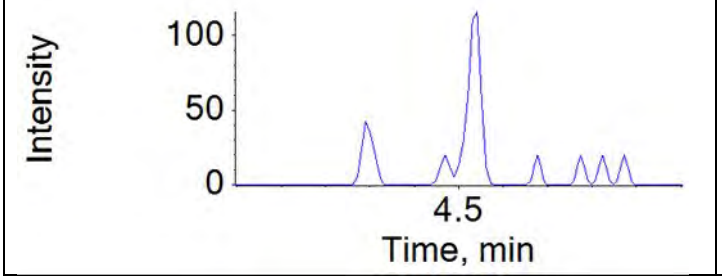


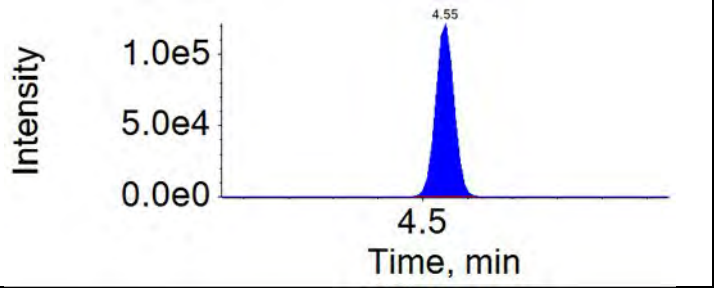
Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0





Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0



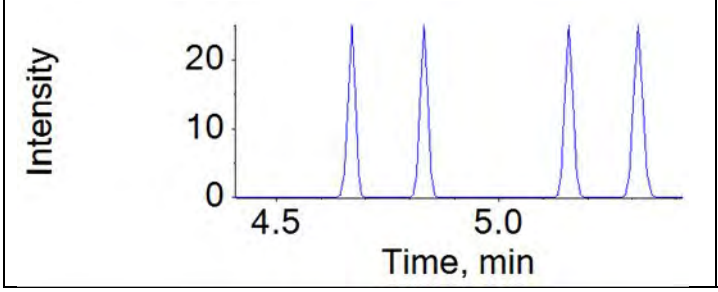


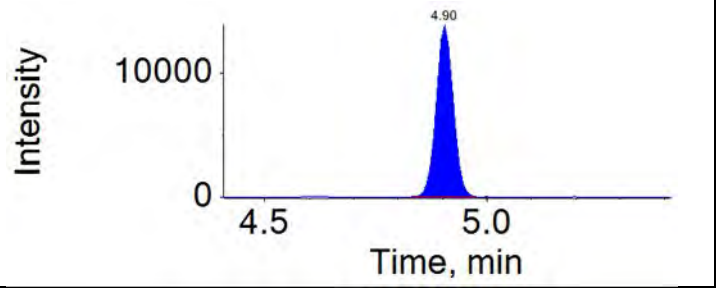
APPROVED
By MCD at 7:46 pm, 11/12/18

REVIEWED
By HMK at 11:56 am, 11/13/18

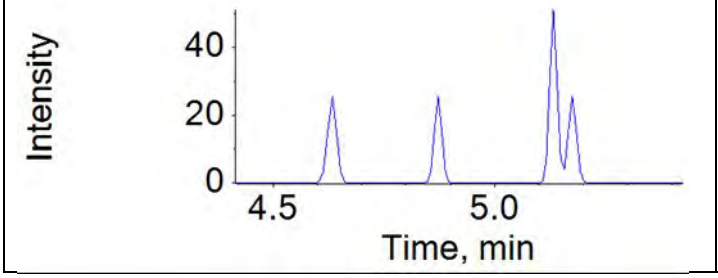
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV1-2 11/12/2018 7:40:04 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

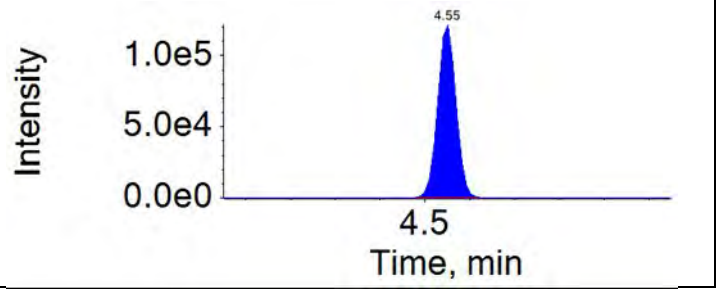
Analyte: 6:2-FTS	Extraction Standard: 13C2-6:2-FTS
427.0 / 407.0	429.0 / 81.0



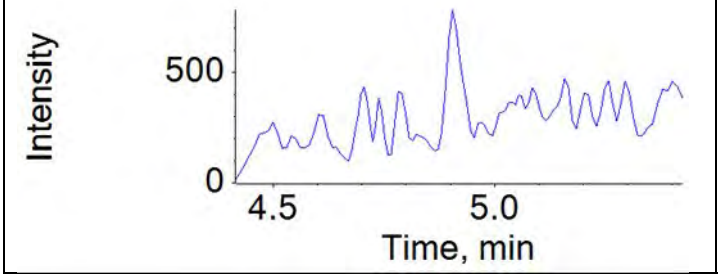


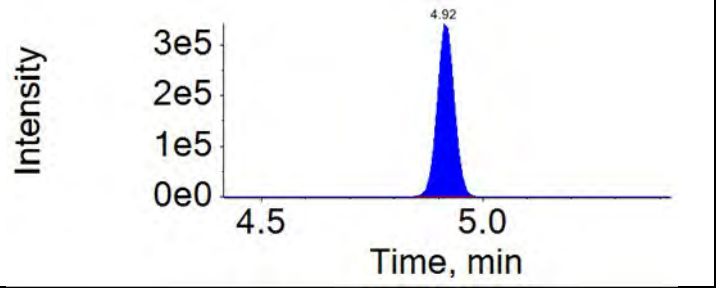
Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0



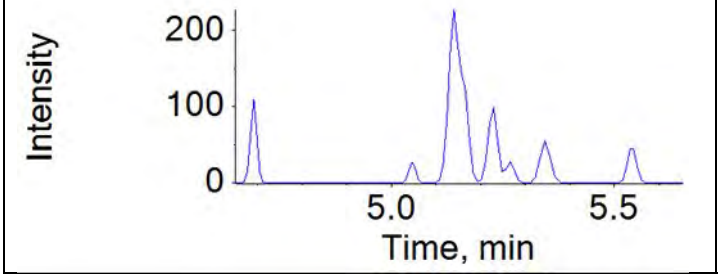


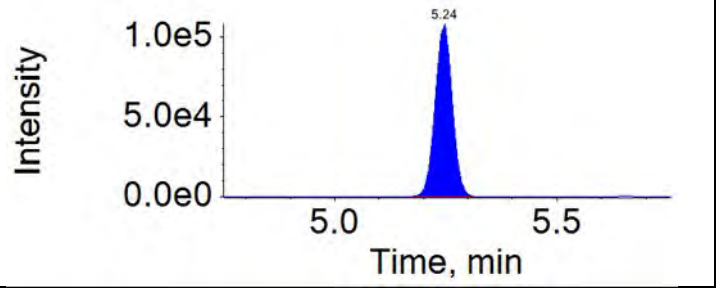
Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0





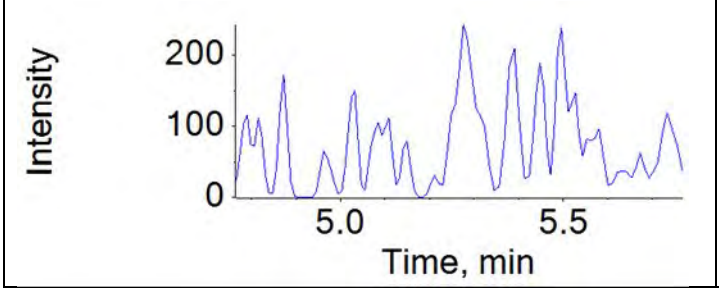
Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0

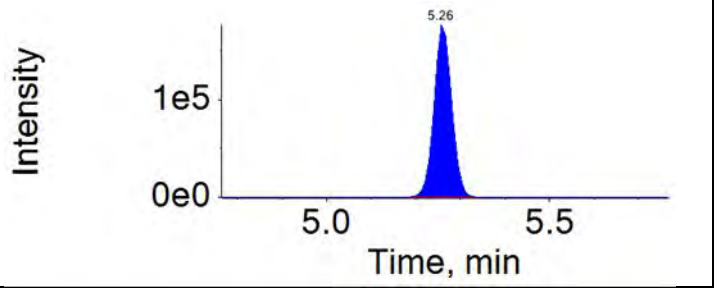




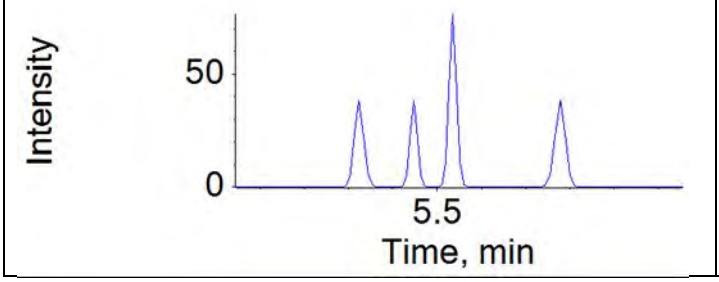
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV1-2 11/12/2018 7:40:04 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

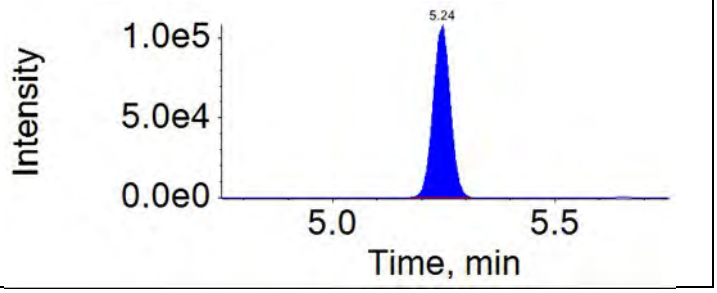
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



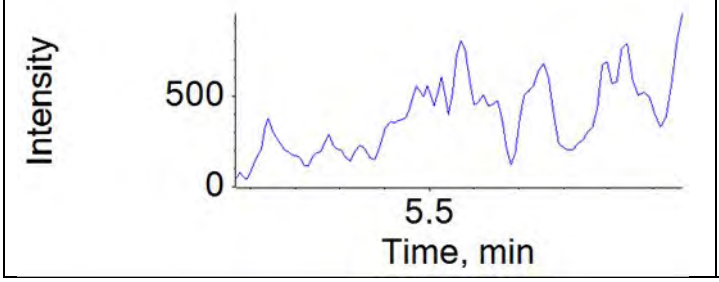


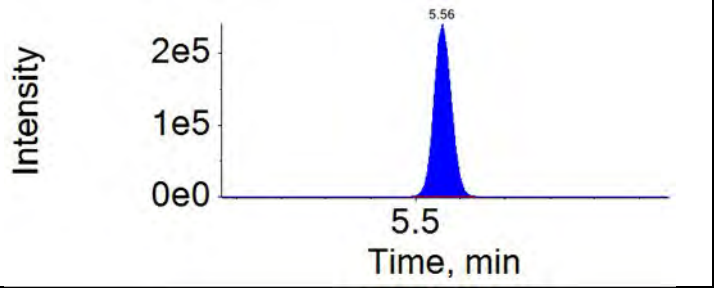
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



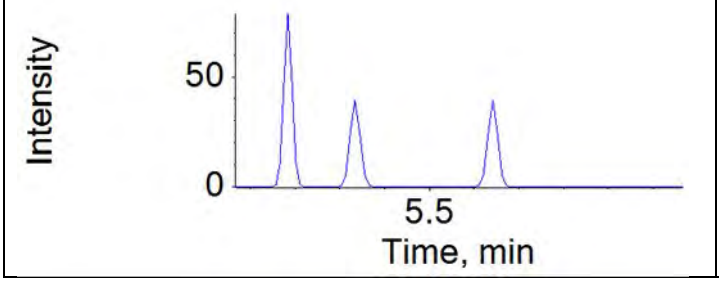


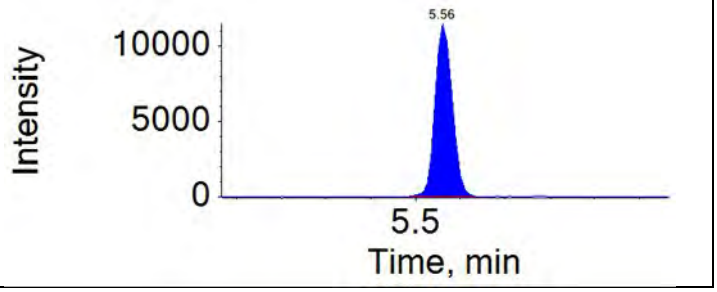
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





Analyte: 8:2-FTS	Extraction Standard: 13C2-8:2-FTS
527.0 / 507.0	529.0 / 81.0

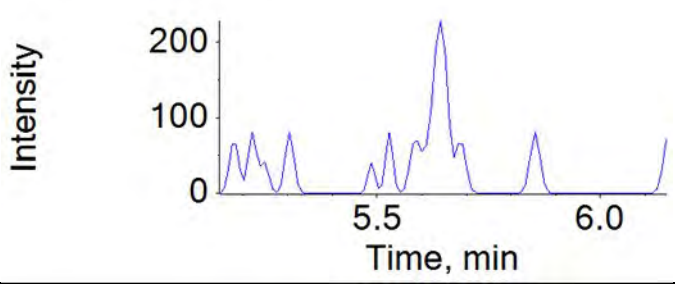
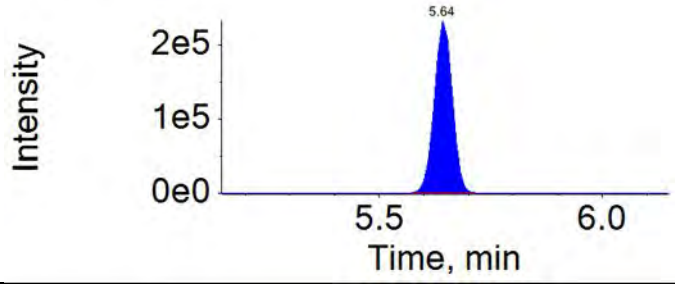


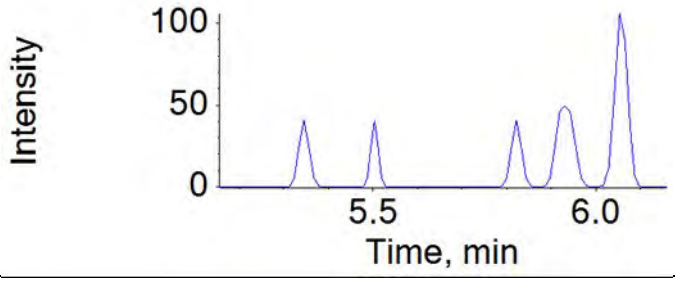
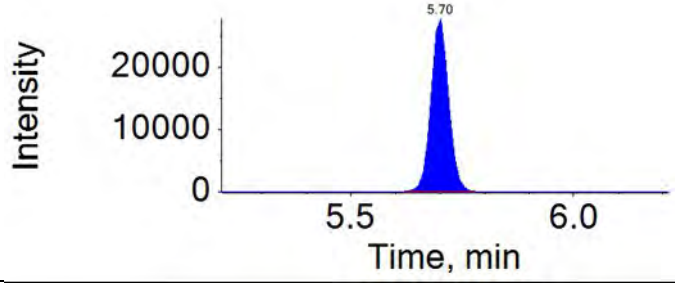


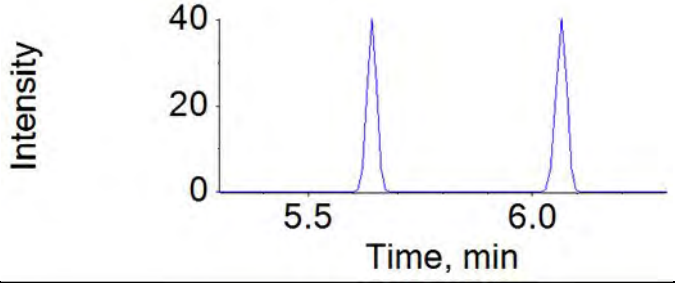
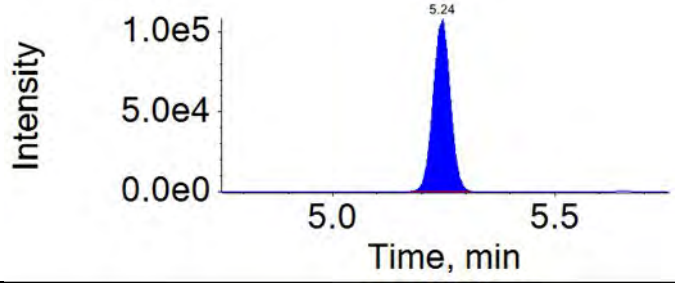
APPROVED
By MCD at 7:46 pm, 11/12/18

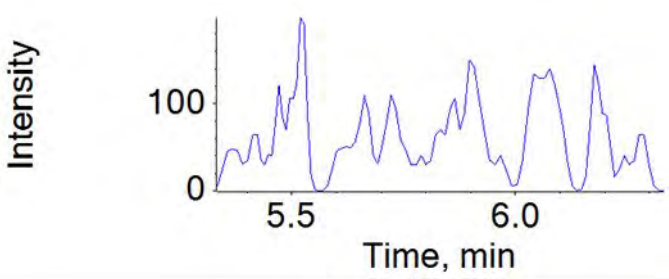
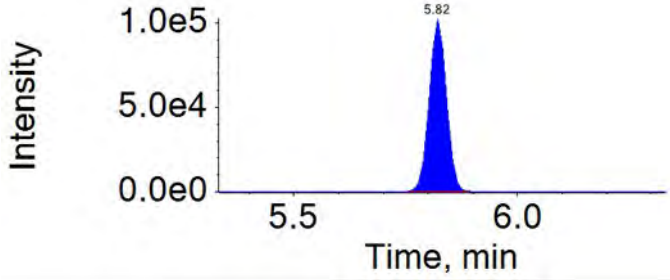
REVIEWED
By HMK at 11:56 am, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV1-2 11/12/2018 7:40:04 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0
	

Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0
	

Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0
	

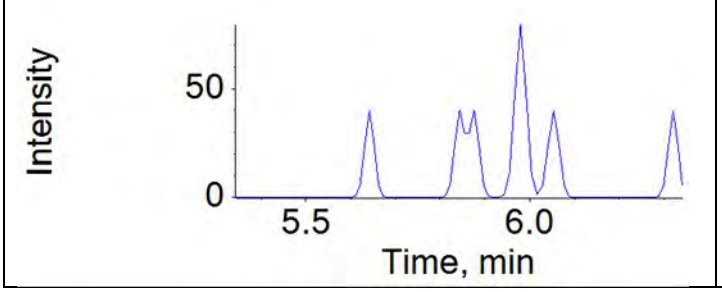
Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0
	

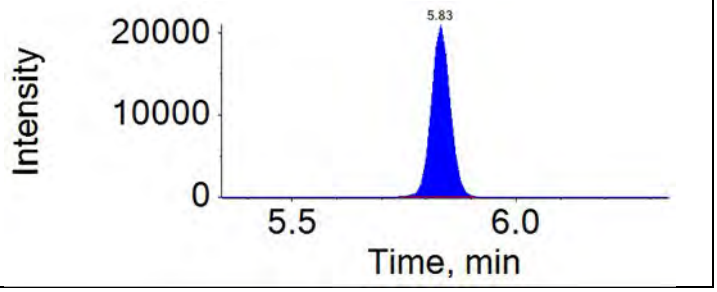
APPROVED
By MCD at 7:46 pm, 11/12/18

REVIEWED
By HMK at 11:56 am, 11/13/18

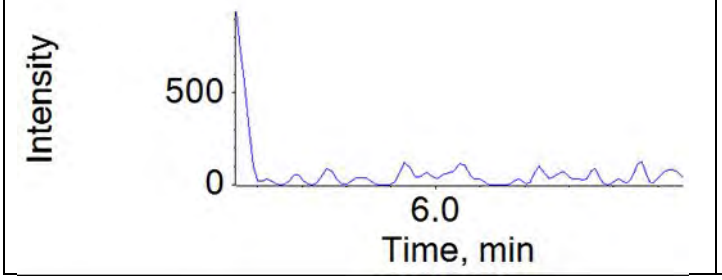
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV1-2 11/12/2018 7:40:04 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

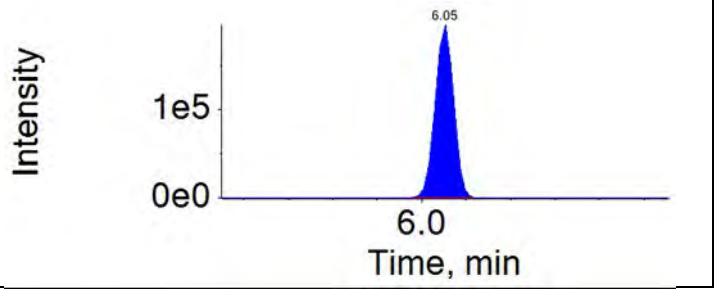
Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0



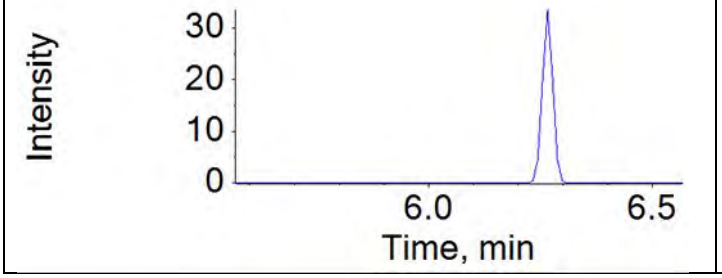


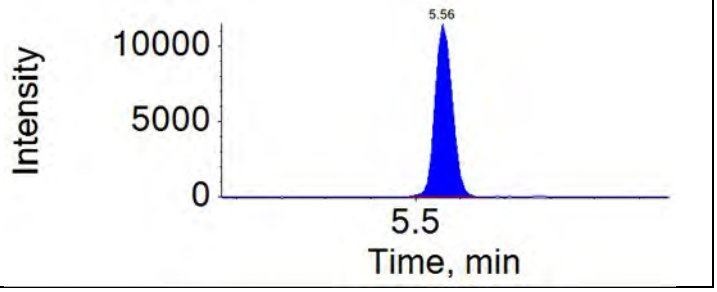
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0



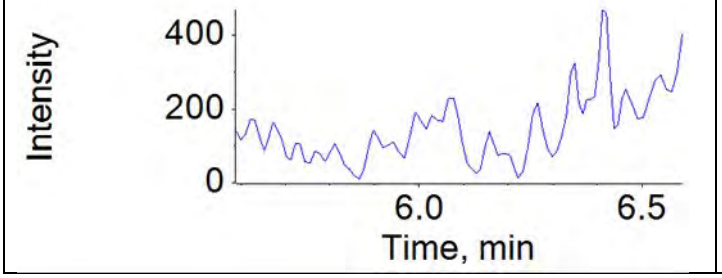


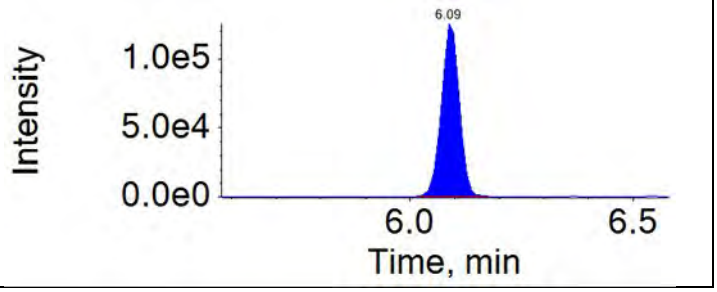
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0





Analyte: NMePFOSAE	Extraction Standard: d7-NMePFOSAE
616.0 / 59.0	623.0 / 59.0



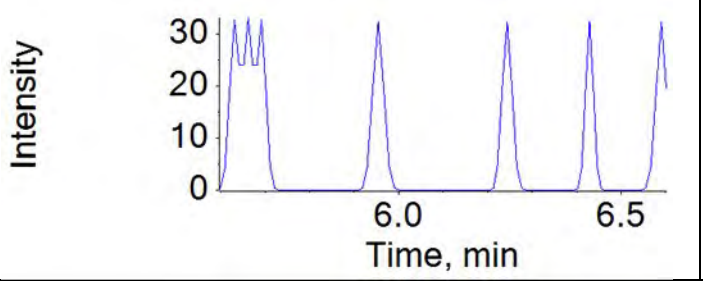


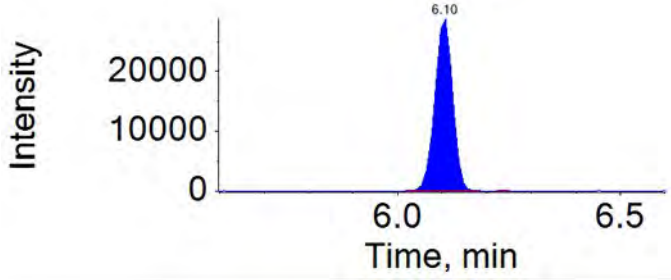
APPROVED
By MCD at 7:46 pm, 11/12/18

REVIEWED
By HMK at 11:56 am, 11/13/18

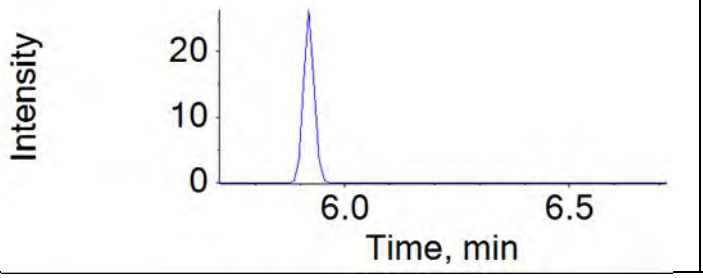
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV1-2 11/12/2018 7:40:04 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

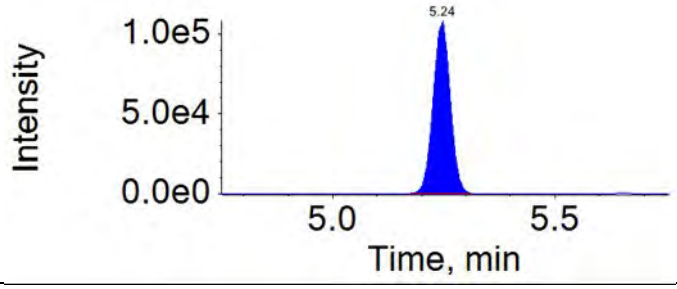
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



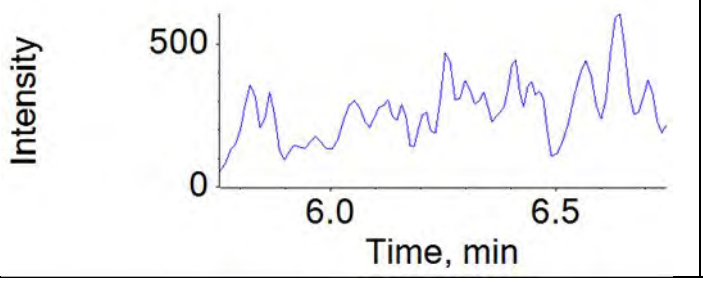


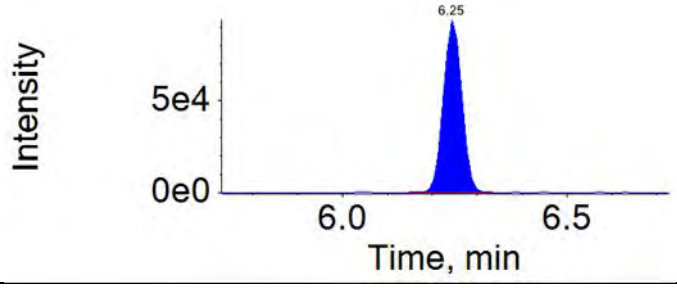
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



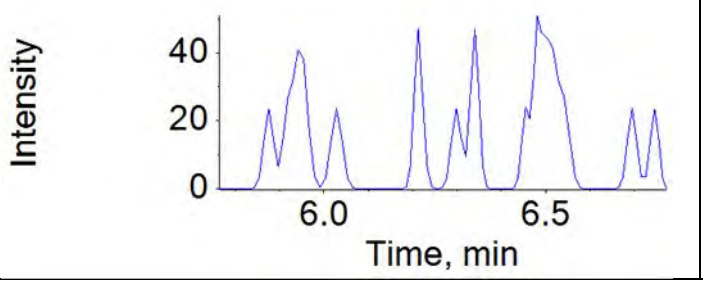


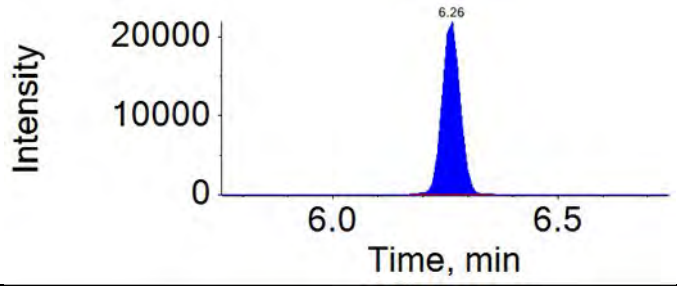
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





Analyte: NEtPFOSA	Extraction Standard: d5-NEtPFOSA
526.0 / 169.0	531.0 / 169.0



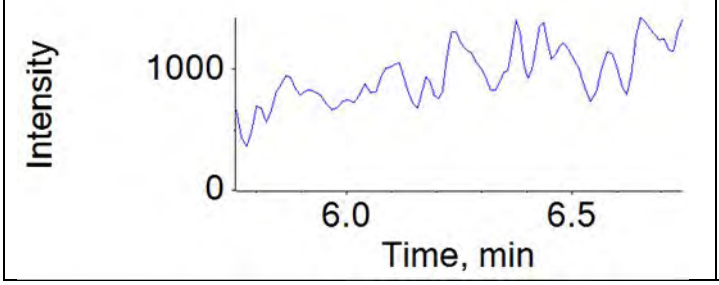


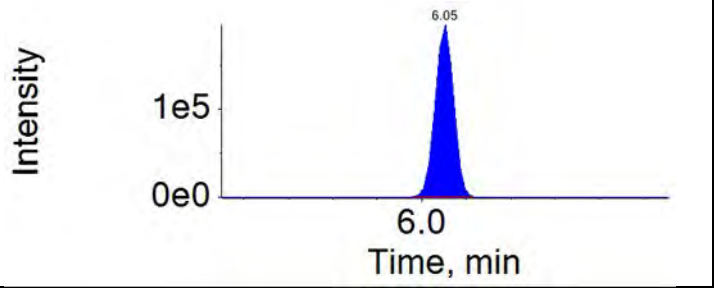
APPROVED
By MCD at 7:46 pm, 11/12/18

REVIEWED
By HMK at 11:56 am, 11/13/18

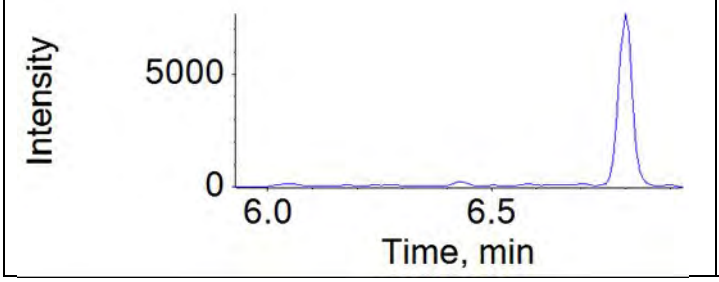
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV1-2 11/12/2018 7:40:04 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

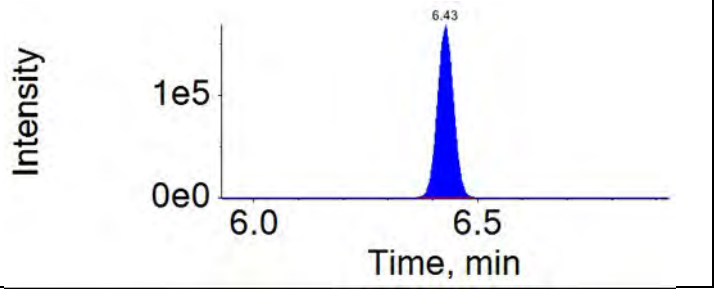
Analyte: PFTrDA	Extraction Standard: 13C2-PFDoDA
663.0 / 619.0	615.0 / 570.0



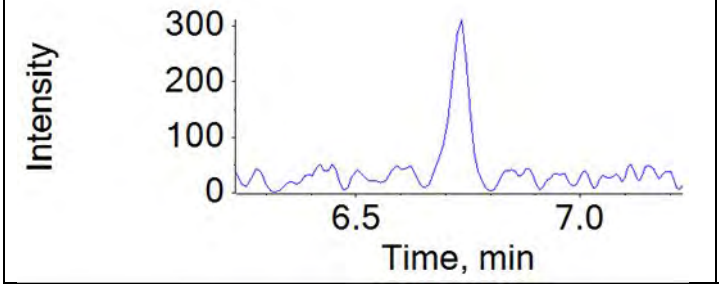


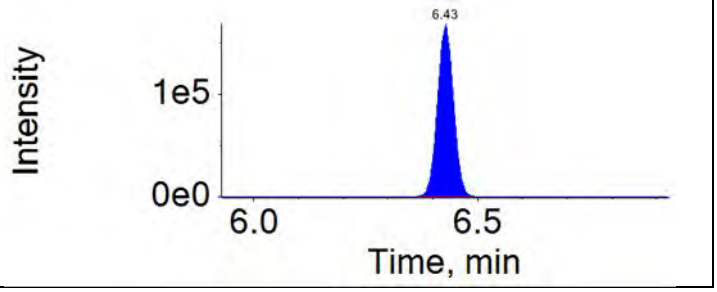
Analyte: PFTeDA	Extraction Standard: 13C2-PFTeDA
713.0 / 669.0	715.0 / 670.0



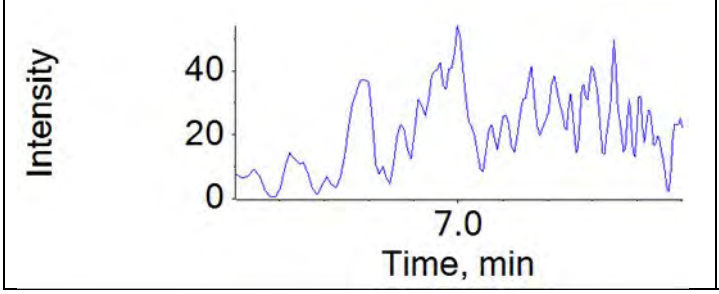


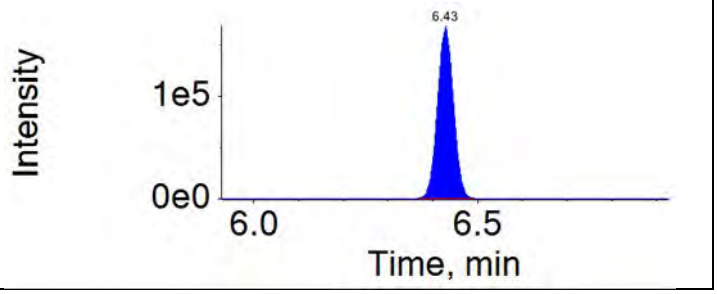
Analyte: PFHxDA	Extraction Standard: 13C2-PFTeDA
813.0 / 769.0	715.0 / 670.0





Analyte: PFODA	Extraction Standard: 13C2-PFTeDA
913.0 / 869.0	715.0 / 670.0





APPROVED
By MCD at 7:46 pm, 11/12/18

REVIEWED
By HMK at 11:56 am, 11/13/18

Ion Ratio Report

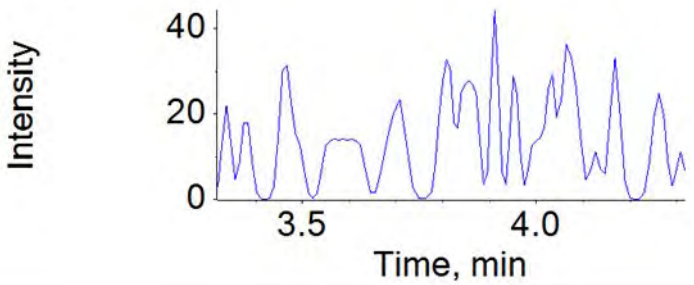
Sample Name: Instrument Blank **Instrument Name:** LM27631 **File Name:** 18NOV12D-06.wiff

Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	N/A	N/A	N/A	A	N/A	N/A			
PFBS_2	N/A	N/A	N/A	A	N/A	N/A		50	
4:2-FTS	N/A	N/A	N/A	A	N/A	N/A			
4:2 FTS_2	N/A	N/A	N/A	A	N/A	N/A		#NA!	
PFHxA	N/A	N/A	N/A	A	N/A	N/A			
PFHxA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFPeS	N/A	N/A	N/A	A	N/A	N/A			
PFPeS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFHpA	N/A	N/A	N/A	A	N/A	N/A			
PFHpA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFHxS	N/A	N/A	N/A	A	N/A	N/A			
PFHxS_2	N/A	N/A	N/A	A	N/A	N/A		50	
6:2-FTS	N/A	N/A	N/A	A	N/A	N/A			
6:2 FTS_2	N/A	N/A	N/A	A	N/A	N/A		#NA!	
PFHpS	N/A	N/A	N/A	A	N/A	N/A			
PFHpS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFOA	N/A	N/A	N/A	A	N/A	N/A			
PFOA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFOS	N/A	N/A	N/A	A	N/A	N/A			
PFOS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFNA	N/A	N/A	N/A	A	N/A	N/A			
PFNA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFNS	N/A	N/A	N/A	A	N/A	N/A			
PFNS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFDA	N/A	N/A	N/A	A	N/A	N/A			
PFDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
8:2-FTS	N/A	N/A	N/A	A	N/A	N/A			
8:2 FTS_2	N/A	N/A	N/A	A	N/A	N/A		#NA!	
NMeFOSAA	N/A	N/A	N/A	A	N/A	N/A			
NMeFOSAA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFDS	N/A	N/A	N/A	A	N/A	N/A			
PFDS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFUnDA	N/A	N/A	N/A	A	N/A	N/A			
PFUnDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
NEtFOSAA	N/A	N/A	N/A	A	N/A	N/A			
NEtFOSAA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFDoDA	N/A	N/A	N/A	A	N/A	N/A			
PFDoDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
10:2-FTS	N/A	N/A	N/A	A	N/A	N/A			
10:2 FTS_2	N/A	N/A	N/A	A	N/A	N/A		#NA!	
PFTrDA	N/A	N/A	N/A	A	N/A	N/A			
PFTrDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFTeDA	N/A	N/A	N/A	A	N/A	N/A			
PFTeDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFHxDA	N/A	N/A	N/A	A	N/A	N/A			
PFHxDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFODA	N/A	N/A	N/A	A	N/A	N/A			
PFODA_2	N/A	N/A	N/A	A	N/A	N/A		50	

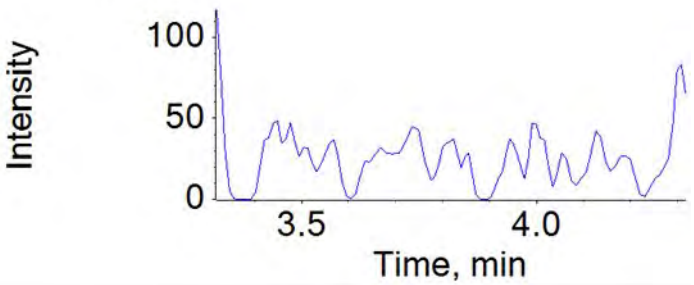
APPROVED
By MCD at 7:46 pm, 11/12/18

REVIEWED
By HMK at 11:56 am, 11/13/18

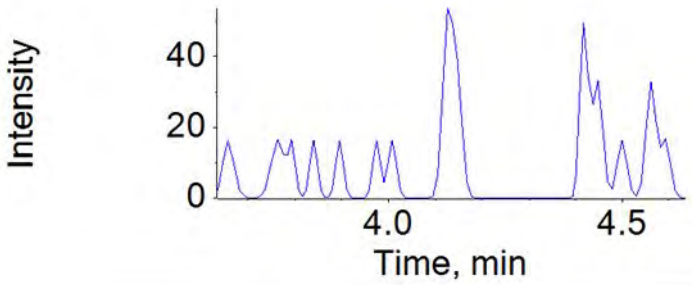
Component: PFBS
Primary Mass: 299.0 / 80.0



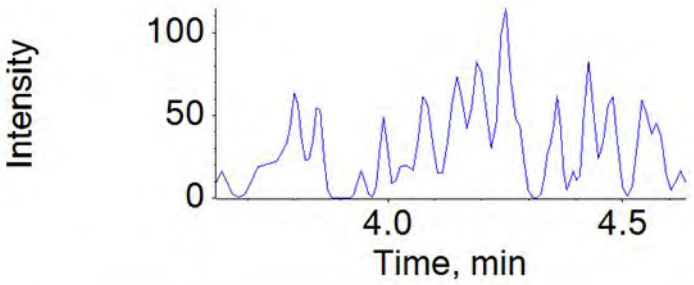
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



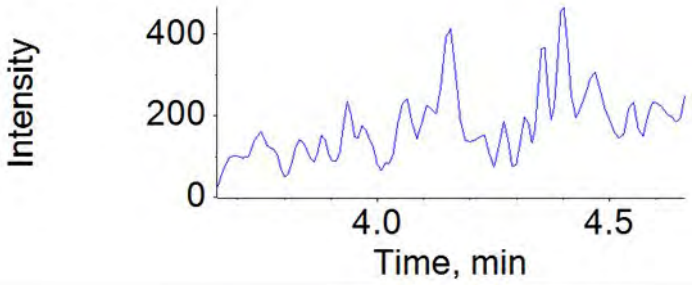
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



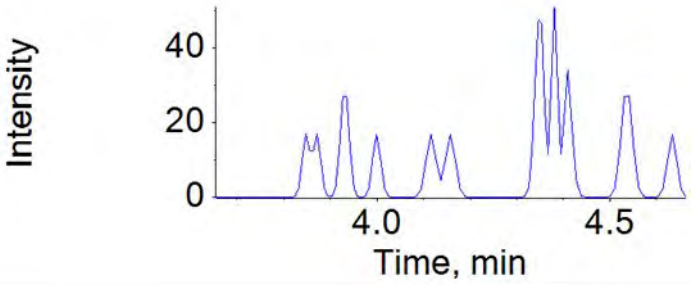
Component: 4:2 FTS_2
Secondary Mass: 327.0 / 81.0



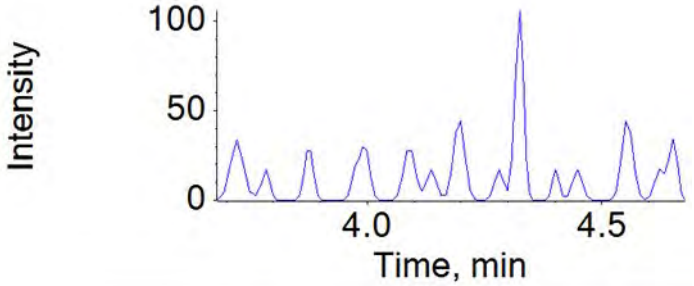
Component: PFHxA
Primary Mass: 313.0 / 269.0



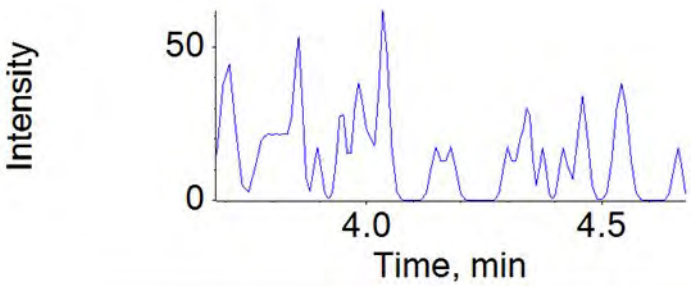
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



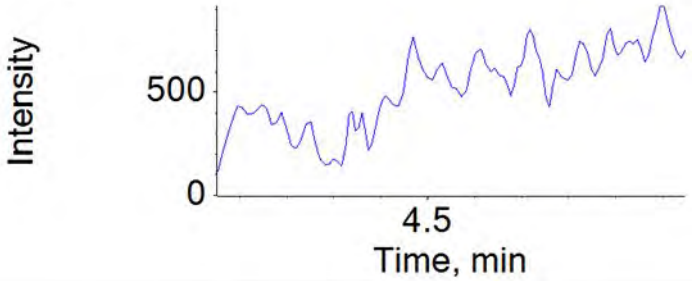
Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



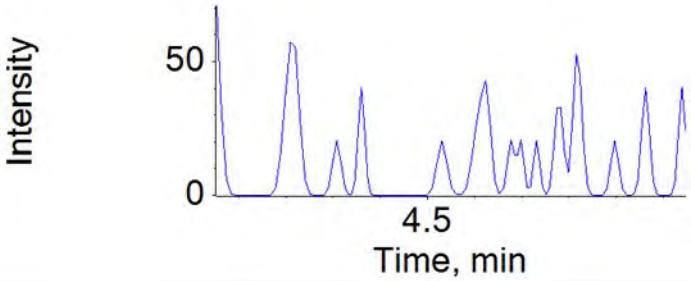
APPROVED
By MCD at 7:46 pm, 11/12/18

REVIEWED
By HMK at 11:56 am, 11/13/18

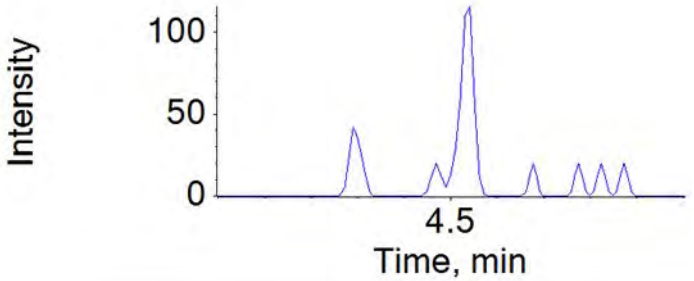
Component: PFHpA
Primary Mass: 363.0 / 319.0



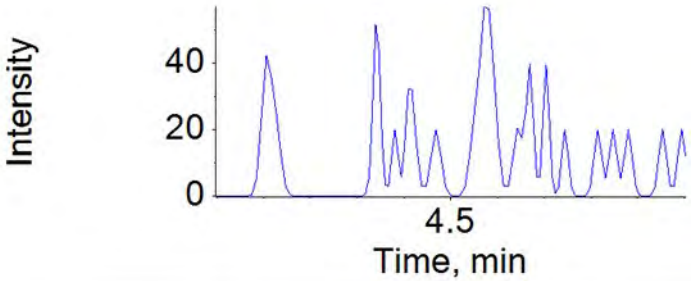
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



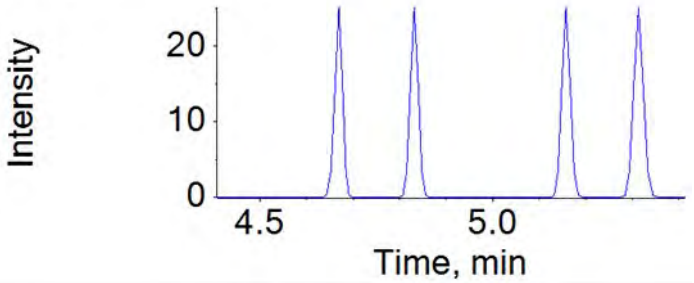
Component: PFHxS
Primary Mass: 399.0 / 80.0



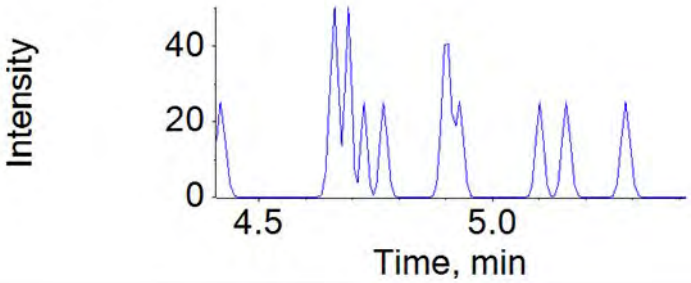
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



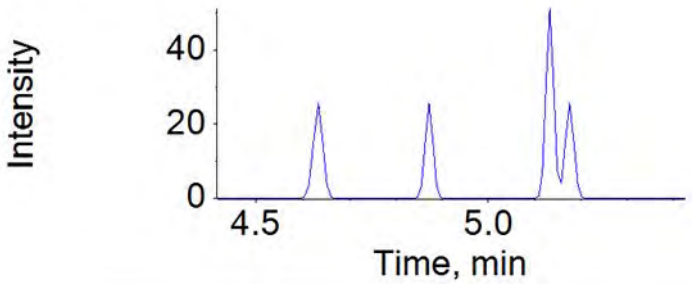
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



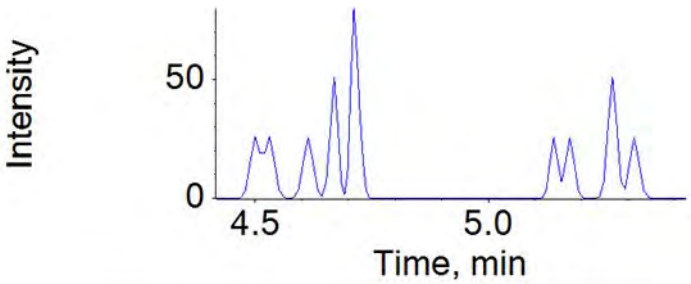
Component: 6:2 FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



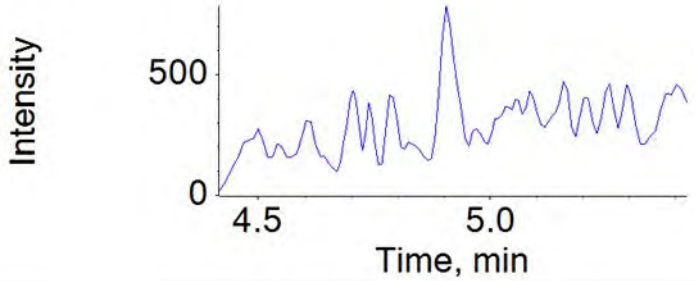
Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



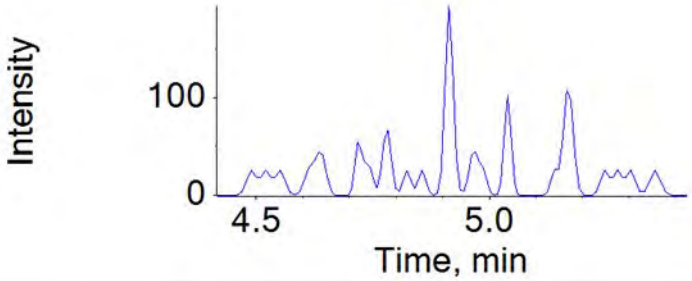
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By HMK at 11:56 am, 11/13/18

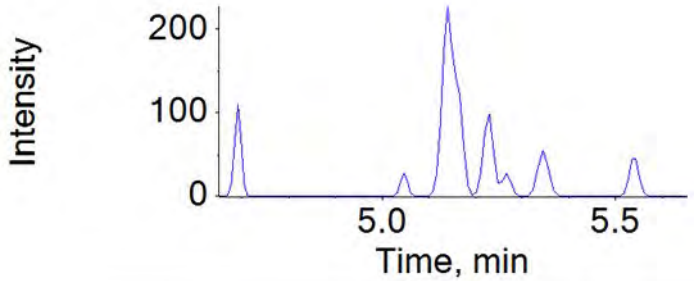
Component: PFOA
Primary Mass: 413.0 / 369.0



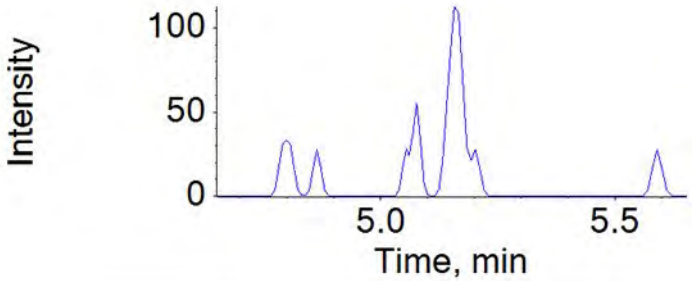
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



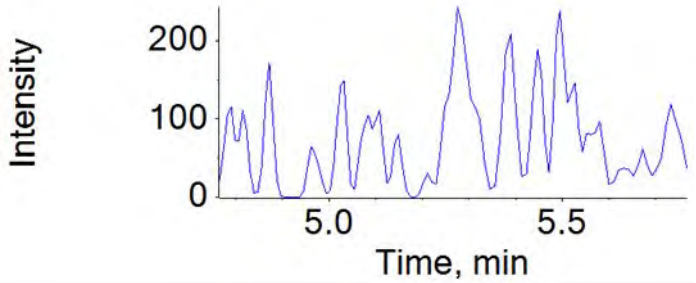
Component: PFOS
Primary Mass: 499.0 / 80.0



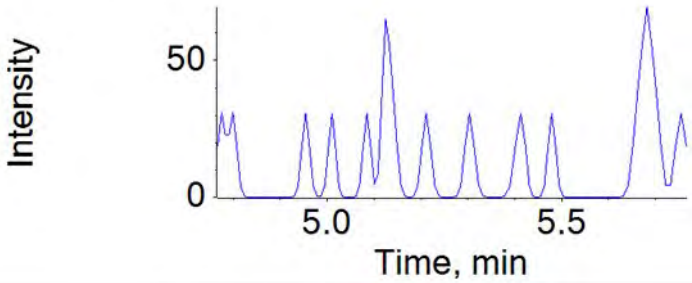
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



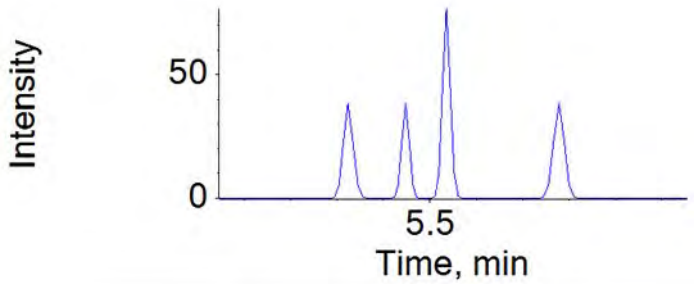
Component: PFNA
Primary Mass: 463.0 / 419.0



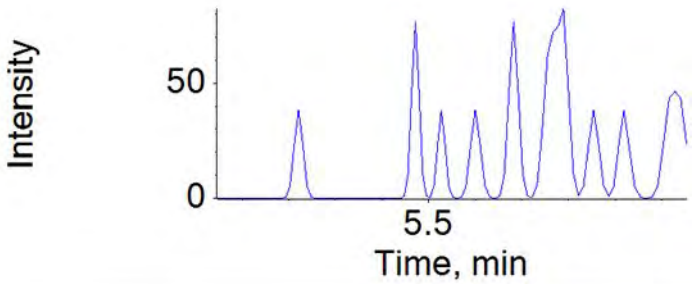
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



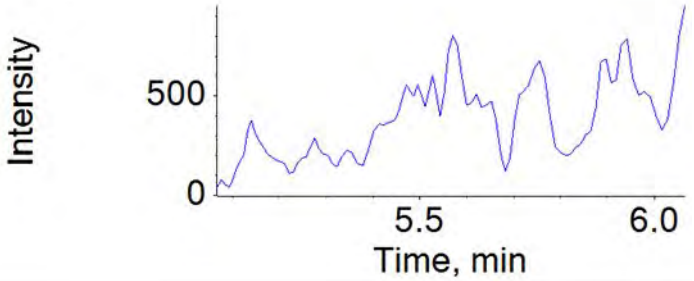
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



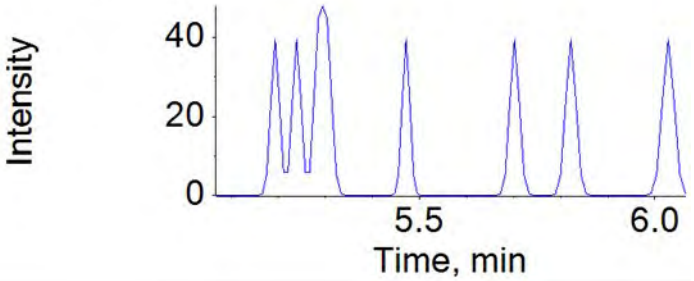
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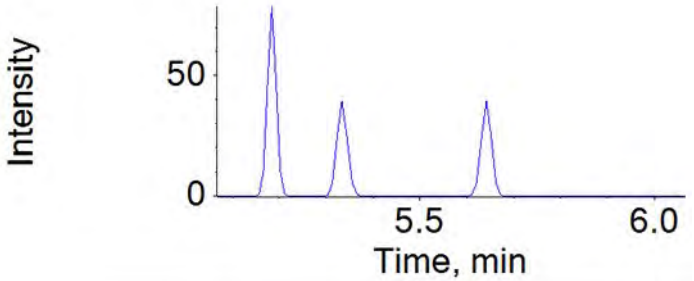
Component: PFDA
Primary Mass: 513.0 / 469.0



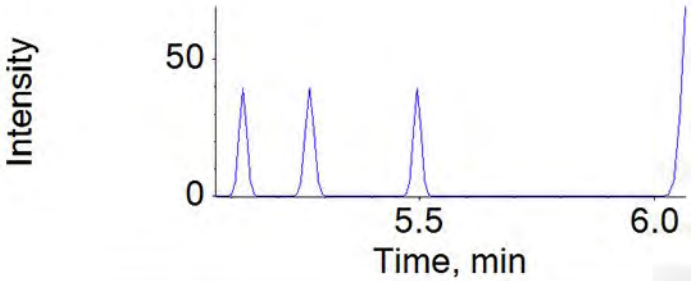
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



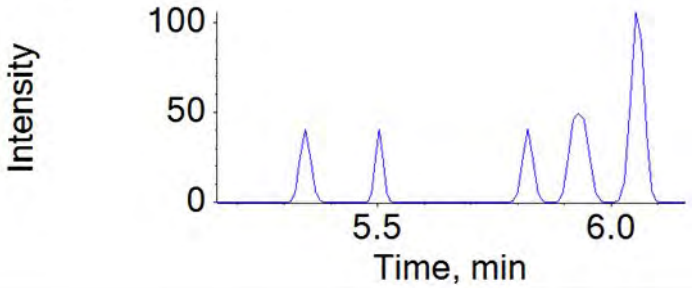
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



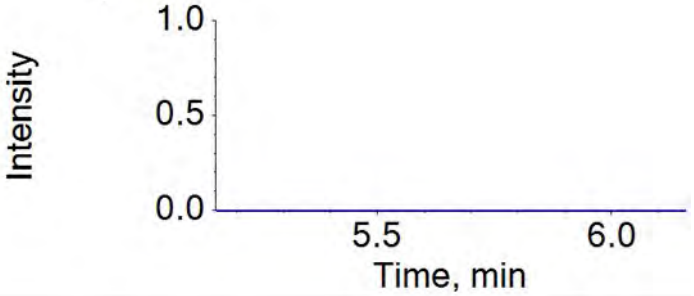
Component: 8:2 FTS_2
Secondary Mass: 527.0 / 81.0



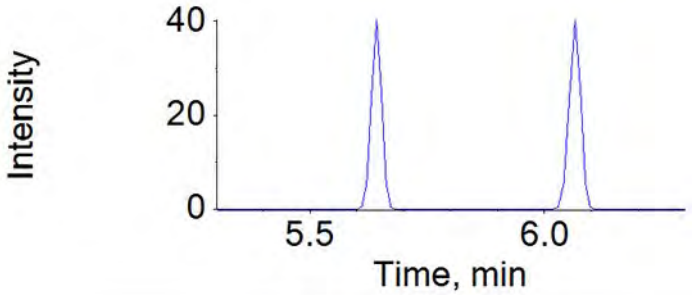
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



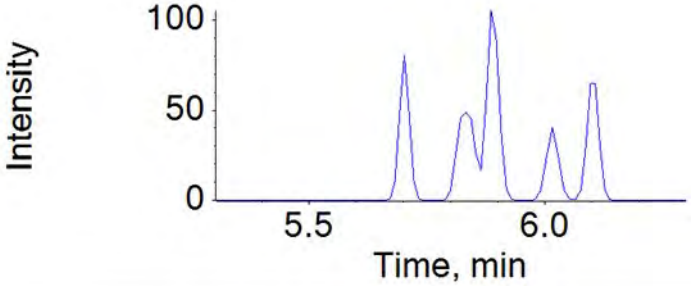
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



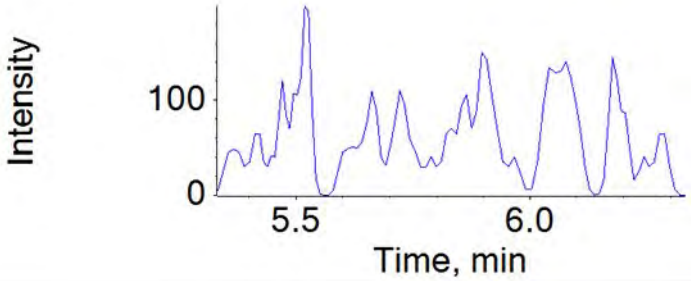
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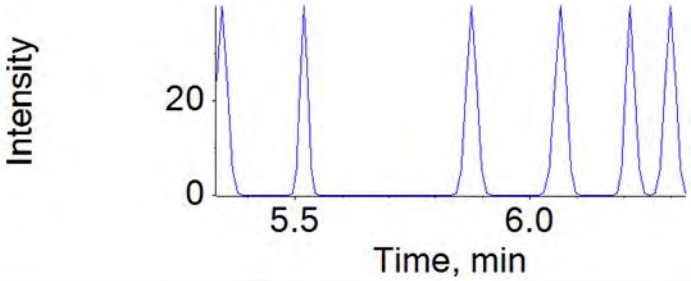
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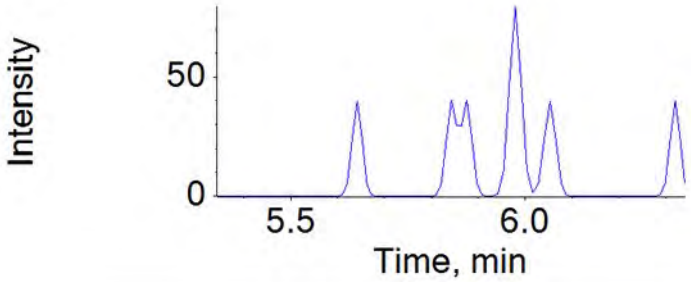
Component: PFUnDA
Primary Mass: 563.0 / 519.0



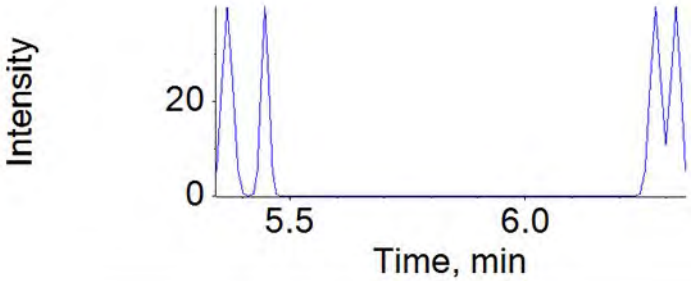
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



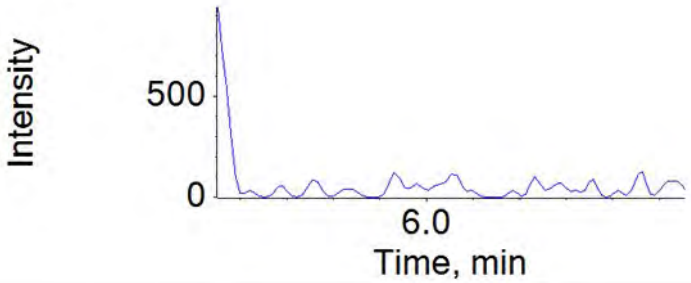
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



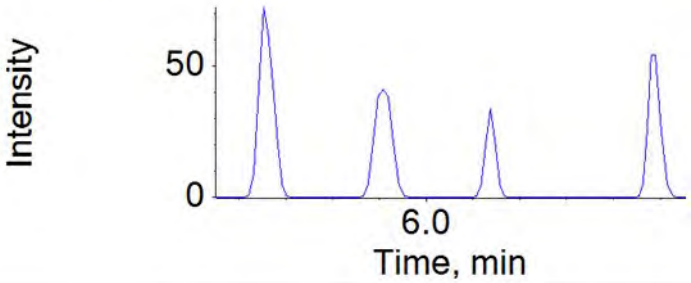
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



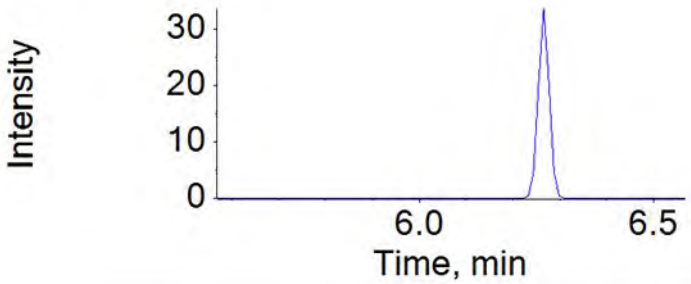
Component: PFDoDA
Primary Mass: 613.0 / 569.0



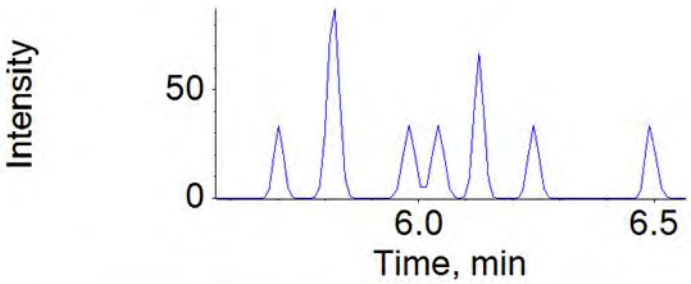
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



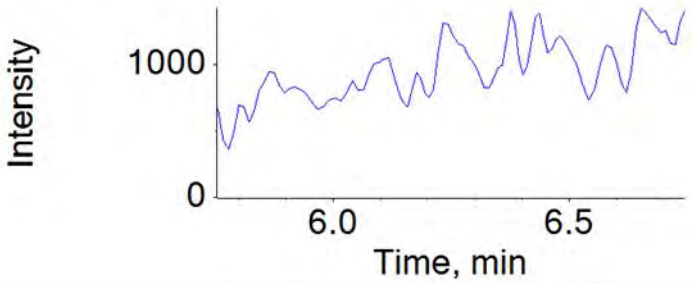
Component: 10:2 FTS_2
Secondary Mass: 627.0 / 81.0



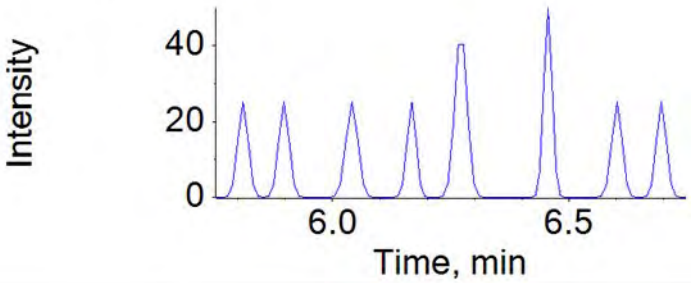
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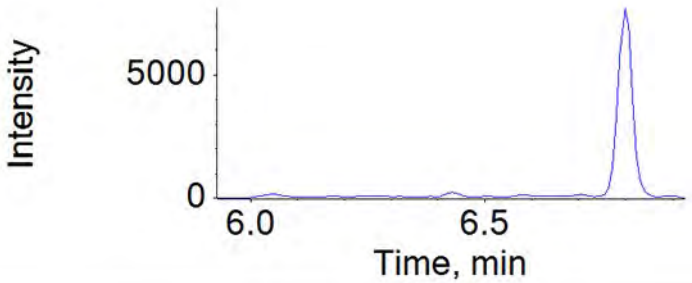
Component: PFTrDA
Primary Mass: 663.0 / 619.0



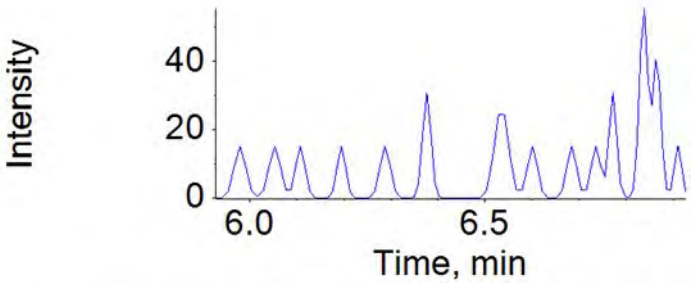
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



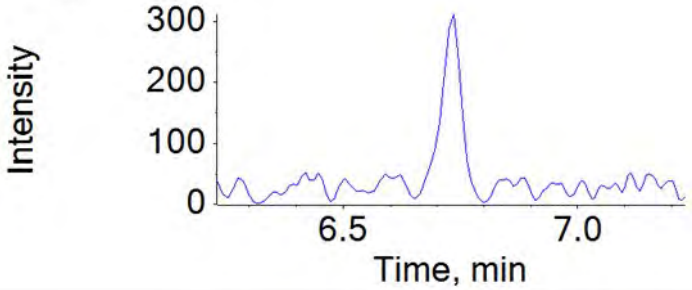
Component: PFTeDA
Primary Mass: 713.0 / 669.0



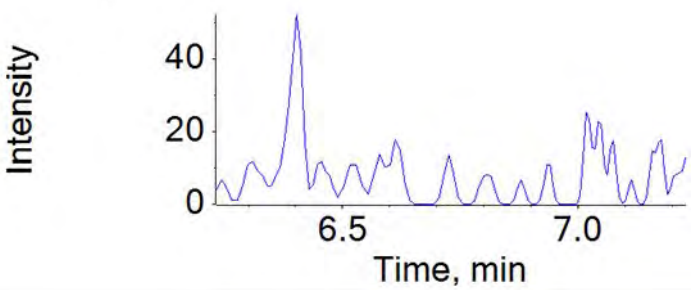
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Secondary Mass: 713.0 / 169.0



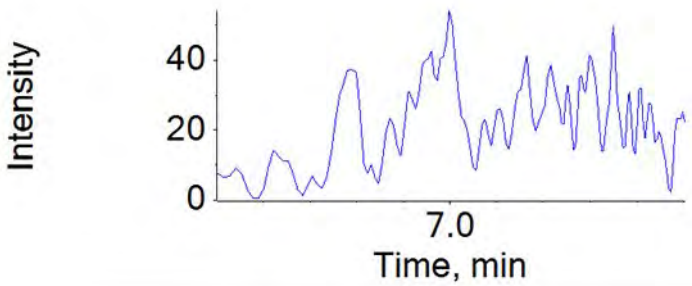
Component: PFHxDA
Primary Mass: 813.0 / 769.0



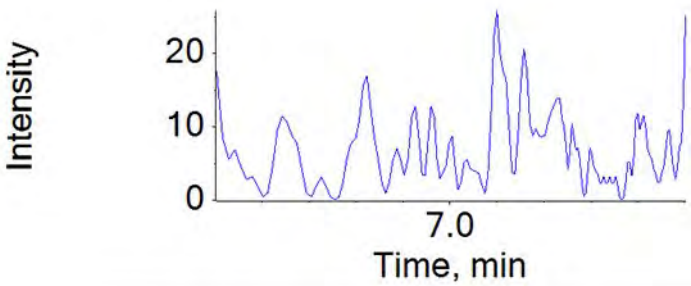
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



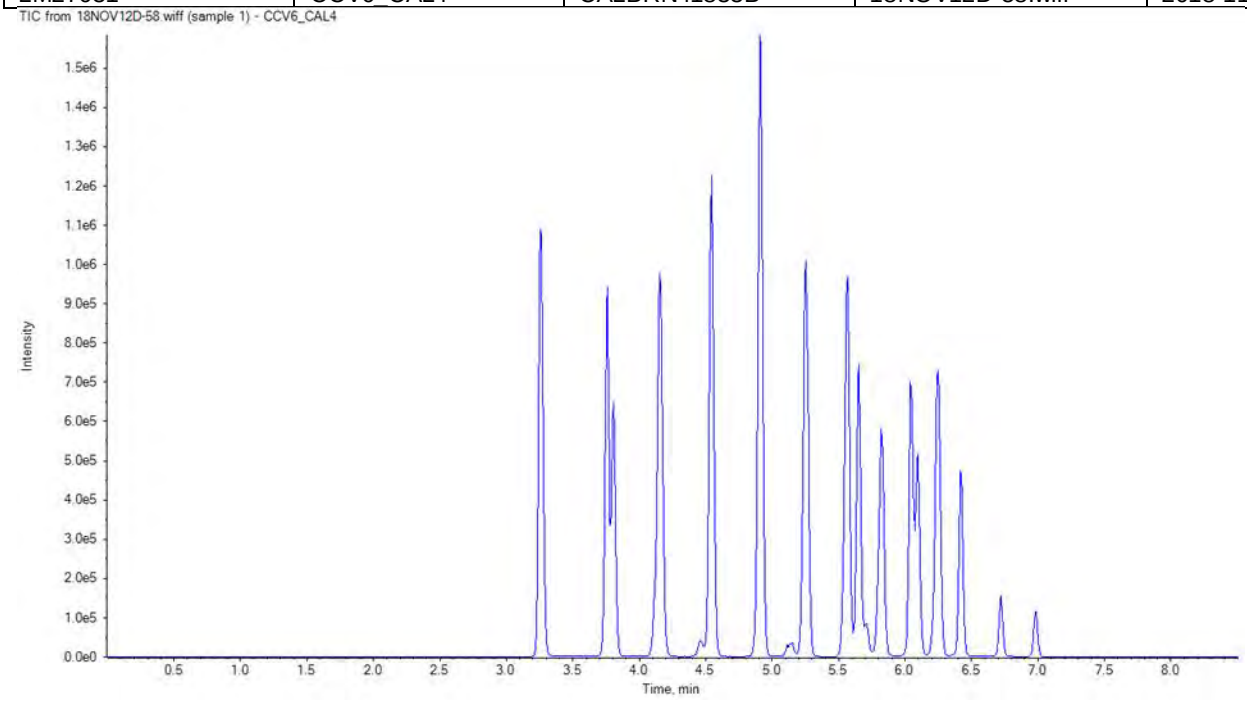
APPROVED
By MCD at 7:46 pm, 11/12/18

REVIEWED
By HMK at 11:56 am, 11/13/18

Continuing Calibration Verfication

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	CCV6_CAL4	CALBRN41833B	18NOV12D-58.wiff	2018-11-13T01:20:06



Injection Standard Area Reference File: 18NOV12DCAL-44

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Reference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	694943.9	659926.2	5	50	
13C2-PFOA	5.0	519786.2	450219.7	15	50	
13C4-PFOS	4.8	270198.2	249205.8	8	50	
13C2-PFDA	5.0	316423.1	278743.9	14	50	

APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By umar at 5:20 pm, 11/13/18

Continuing Calibration Verfication

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	CCV6_CAL4	CALBRN41833B	18NOV12D-58.wiff	2018-11-13T01:20:06

Analyte Name	Analyte Area	Sc /pk	Ext Std Name	Ext Std Area	Ext Std con	Area Ratio	RT (min)	RRT	Spec Amt	Calc Amt	% Diff	% Diff Lim	% Diff OOS
PFBA	1105568.8	10	13C4-PFBA	760029.1	5.0	1.455	3.26	1.000	8.000	8.058	1	30	
PFPeA	1127259.1	11	13C5-PFPeA	759638.3	5.0	1.484	3.76	1.000	8.000	8.590	7	30	
PFBS	650121.6	10	13C3-PFBS	446027.4	4.7	1.458	3.81	1.000	7.080	6.933	-2	30	
4:2-FTS	150233.4	11	13C2-4:2-FTS	54881.6	4.7	2.737	4.12	1.000	7.470	7.432	-1	30	
PFHxA	1348987.8	12	13C5-PFHxA	695243.0	5.0	1.940	4.15	1.000	8.000	8.101	1	30	
PFPeS	319026.2	11	13C3-PFBS	446027.4	4.7	0.715	4.17	1.100	7.500	6.944	-7	30	
PFHpA	1384443.9	12	13C4-PFHpA	541625.6	5.0	2.556	4.54	1.000	8.000	8.473	6	30	
PFHxS	517754.3	19	13C3-PFHxS	339752.8	4.7	1.524	4.55	1.000	7.300	7.389	1	30	
6:2-FTS	113664.7	11	13C2-6:2-FTS	33652.2	4.8	3.378	4.90	1.000	7.580	8.173	8	30	
PFHpS	467674.4	11	13C3-PFHxS	339752.8	4.7	1.377	4.91	1.080	7.610	7.246	-5	30	
PFOA	1421585.9	11	13C8-PFOA	883150.2	5.0	1.610	4.91	1.000	8.000	8.597	7	30	
PFOS	478066.3	22	13C8-PFOS	282689.5	4.8	1.691	5.24	1.000	7.400	7.395	0	30	
PFNA	1179828.0	12	13C9-PFNA	501340.6	5.0	2.353	5.26	1.000	8.000	8.486	6	30	
PFNS	300128.1	11	13C8-PFOS	282689.5	4.8	1.062	5.54	1.060	7.680	7.428	-3	30	
PFDA	961061.7	11	13C6-PFDA	647591.8	5.0	1.484	5.57	1.000	8.000	7.868	-2	30	
8:2-FTS	96931.6	11	13C2-8:2-FTS	25579.6	4.8	3.789	5.57	1.000	7.660	8.835	15	30	
PFOSA	1008057.1	11	13C8-PFOSA	641137.8	5.0	1.572	5.65	1.000	8.000	7.680	-4	30	
NMeFOSAA	108210.9	19	d3-NMeFOSAA	73403.0	5.0	1.474	5.71	1.000	8.000	8.332	4	30	
PFDS	229123.3	11	13C8-PFOS	282689.5	4.8	0.811	5.80	1.110	7.700	7.344	-5	30	
PFUnDA	804226.7	11	13C7-PFUnDA	266920.0	5.0	3.013	5.82	1.000	8.000	7.877	-2	30	
NEtFOSAA	95358.9	21	d5-NEtFOSAA	69388.5	5.0	1.374	5.84	1.000	8.000	7.204	-10	30	
PFDoDA	903550.9	12	13C2-PFDoDA	564228.7	5.0	1.601	6.04	1.000	8.000	8.155	2	30	
10:2-FTS	67615.6	11	13C2-8:2-FTS	25579.6	4.8	2.643	6.06	1.090	7.710	8.805	14	30	
NMePFOSAE	663106.2	11	d7-NMePFOSAE	318171.3	5.0	2.084	6.10	1.000	8.000	8.674	8	30	
NMePFOSA	117948.1	11	d3-NMePFOSA	75466.9	5.0	1.563	6.10	1.000	8.000	7.710	-4	30	
PFDoS	118024.9	11	13C8-PFOS	282689.5	4.8	0.418	6.21	1.190	7.740	7.312	-6	30	
NEtPFOSAE	685532.3	11	d9-NEtPFOSAE	281982.8	5.0	2.431	6.25	1.000	8.000	7.800	-3	30	
NEtPFOSA	103077.1	11	d5-NEtPFOSA	56290.4	5.0	1.831	6.27	1.000	8.000	8.410	5	30	
PFTrDA	775027.4	11	13C2-PFDoDA	564228.7	5.0	1.374	6.24	1.030	8.000	8.670	8	30	
PFTeDA	594227.5	11	13C2-PFTeDA	403537.1	5.0	1.473	6.42	1.000	8.000	8.255	3	30	
PFHxDA	290625.8	11	13C2-PFTeDA	403537.1	5.0	0.720	6.72	1.050	8.000	8.580	7	30	
PFODA	248289.9	10	13C2-PFTeDA	403537.1	5.0	0.615	6.98	1.090	8.000	8.569	7	30	

APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By umar at 5:20 pm, 11/13/18

Continuing Calibration Verfication

ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QM
Result Table: 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
Acquisition Method: 18AUG13_3uL.dam

APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By umar at 5:20 pm, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Sample Name:	CCV6_CAL4			**Data File:**		18NOV12D-58.wiff
Sample ID:	CALBRN41833B			**Acquis Date:**		2018-11-13T01:20:06
Sample Type:	Quality Control			**Instrument:**		LM27631
Vial Position:	6			**Acquis Method:**		18AUG13_3uL.dam
Injection Vol:	3.00			**Result Table:**		18NOV12DCCV3-11
QMethod File:	18AUG20QM			**ICAL Name:**		18NOV12DCAL
Batch Number:	N/A			**Operator:**		JPT12262
Sample Wt.:	1.00000			**Dilution Factor:**		1.00
Sample Vol.:	1.000			**Prep Factor:**		1.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV12DCAL-44

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Rreference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	694943.9	659926.2	5	50	
13C2-PFOA	5.0	519786.2	450219.7	15	50	
13C4-PFOS	4.8	270198.2	249205.8	8	50	
13C2-PFDA	5.0	316423.1	278743.9	14	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	760029.1	13C3-PFBA	694943.9	1.094	5.000	4.903	98	70-130	
E13C5-PFPeA	759638.3	13C3-PFBA	694943.9	1.093	5.000	4.903	98	70-130	
E13C3-PFBS	446027.4	13C3-PFBA	694943.9	0.642	4.650	4.531	97	70-130	
E13C2-4:2-FTS	54881.6	13C2-PFOA	519786.2	0.106	4.670	4.703	101	70-130	
E13C5-PFHxA	695243.0	13C2-PFOA	519786.2	1.338	5.000	4.832	97	70-130	
E13C3-PFHxS	339752.8	13C2-PFOA	519786.2	0.654	4.730	4.485	95	70-130	
E13C4-PFHpA	541625.6	13C2-PFOA	519786.2	1.042	5.000	4.694	94	70-130	
E13C2-6:2-FTS	33652.2	13C2-PFOA	519786.2	0.065	4.750	4.332	91	70-130	
E13C8-PFOA	883150.2	13C2-PFOA	519786.2	1.699	5.000	4.681	94	70-130	
E13C8-PFOS	282689.5	13C4-PFOS	270198.2	1.046	4.780	4.636	97	70-130	
E13C9-PFNA	501340.6	13C4-PFOS	270198.2	1.855	5.000	5.173	103	70-130	
E13C6-PFDA	647591.8	13C2-PFDA	316423.1	2.047	5.000	4.776	96	70-130	
E13C2-8:2-FTS	25579.6	13C2-PFDA	316423.1	0.081	4.790	4.032	84	70-130	
E13C8-PFOSA	641137.8	13C2-PFDA	316423.1	2.026	5.000	4.492	90	70-130	
Ed3-NMeFOSAA	73403.0	13C2-PFDA	316423.1	0.232	5.000	4.187	84	70-130	
E13C7-PFUnDA	266920.0	13C2-PFDA	316423.1	0.844	5.000	4.898	98	70-130	
Ed5-NEtFOSAA	69388.5	13C2-PFDA	316423.1	0.219	5.000	4.639	93	70-130	
E13C2-PFDoDA	564228.7	13C2-PFDA	316423.1	1.783	5.000	4.630	93	70-130	
Ed7-NMePFOSAE	318171.3	13C2-PFDA	316423.1	1.006	5.000	4.351	87	70-130	
Ed3-NMePFOSA	75466.9	13C2-PFDA	316423.1	0.239	5.000	4.333	87	70-130	
Ed9-NEtPFOSAE	281982.8	13C2-PFDA	316423.1	0.891	5.000	4.635	93	70-130	
Ed5-NEtPFOSA	56290.4	13C2-PFDA	316423.1	0.178	5.000	4.173	83	70-130	
E13C2-PFTeDA	403537.1	13C2-PFDA	316423.1	1.275	5.000	4.477	90	70-130	

APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By umar at 5:20 pm, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

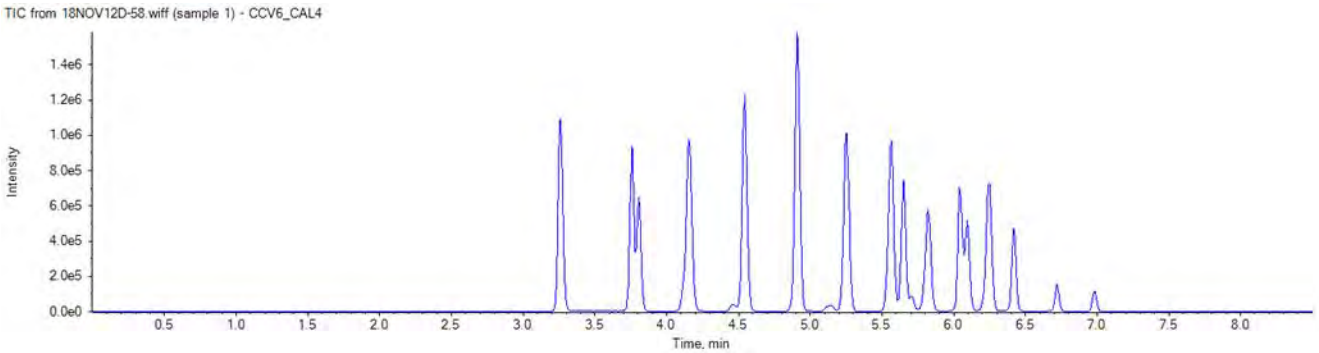
Analyte Quantitation Peak Table

Sample Name: CCV6_CAL4 **Instrument Name:** LM27631 **File Name:** 18NOV12D-58.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	1.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	3.26	1.000	1105568.8		A	13C4-PFBA	3.26	760029.1	1.455	8.058
PFPeA	3.76	1.000	1127259.1		A	13C5-PFPeA	3.76	759638.3	1.484	8.590
PFBS	3.81	1.000	650121.6		A	13C3-PFBS	3.81	446027.4	1.458	6.933
4:2-FTS	4.12	1.000	150233.4		A	13C2-4:2-FTS	4.12	54881.6	2.737	7.432
PFHxA	4.15	1.000	1348987.8		A	13C5-PFHxA	4.15	695243.0	1.940	8.101
PFPeS	4.17	1.100	319026.2		A	13C3-PFBS	3.81	446027.4	0.715	6.944
PFHpA	4.54	1.000	1384443.9		A	13C4-PFHpA	4.54	541625.6	2.556	8.473
PFHxS	4.55	1.000	517754.3		M	13C3-PFHxS	4.55	339752.8	1.524	7.389
6:2-FTS	4.90	1.000	113664.7		A	13C2-6:2-FTS	4.90	33652.2	3.378	8.173
PFHpS	4.91	1.080	467674.4		A	13C3-PFHxS	4.55	339752.8	1.377	7.246
PFOA	4.91	1.000	1421585.9		A	13C8-PFOA	4.91	883150.2	1.610	8.597
PFOS	5.24	1.000	478066.3		M	13C8-PFOS	5.24	282689.5	1.691	7.395
PFNA	5.26	1.000	1179828.0		A	13C9-PFNA	5.26	501340.6	2.353	8.486
PFNS	5.54	1.060	300128.1		A	13C8-PFOS	5.24	282689.5	1.062	7.428
PFDA	5.57	1.000	961061.7		A	13C6-PFDA	5.57	647591.8	1.484	7.868
8:2-FTS	5.57	1.000	96931.6		A	13C2-8:2-FTS	5.57	25579.6	3.789	8.835
PFOSA	5.65	1.000	1008057.1		A	13C8-PFOSA	5.65	641137.8	1.572	7.680
NMeFOSAA	5.71	1.000	108210.9		M	d3-NMeFOSAA	5.71	73403.0	1.474	8.332
PFDS	5.80	1.110	229123.3		A	13C8-PFOS	5.24	282689.5	0.811	7.344
PFUnDA	5.82	1.000	804226.7		A	13C7-PFUnDA	5.82	266920.0	3.013	7.877
NEtFOSAA	5.84	1.000	95358.9		A	d5-NEtFOSAA	5.84	69388.5	1.374	7.204
PFDoDA	6.04	1.000	903550.9		A	13C2-PFDoDA	6.04	564228.7	1.601	8.155
10:2-FTS	6.06	1.090	67615.6		A	13C2-8:2-FTS	5.57	25579.6	2.643	8.805
NMePFOSAE	6.10	1.000	663106.2		A	d7-NMePFOSAE	6.09	318171.3	2.084	8.674
NMePFOSA	6.10	1.000	117948.1		A	d3-NMePFOSA	6.10	75466.9	1.563	7.710
PFDoS	6.21	1.190	118024.9		A	13C8-PFOS	5.24	282689.5	0.418	7.312
NEtPFOSAE	6.25	1.000	685532.3		A	d9-NEtPFOSAE	6.24	281982.8	2.431	7.800
NEtPFOSA	6.27	1.000	103077.1		A	d5-NEtPFOSA	6.26	56290.4	1.831	8.410
PFTrDA	6.24	1.030	775027.4		A	13C2-PFDoDA	6.04	564228.7	1.374	8.670
PFTeDA	6.42	1.000	594227.5		A	13C2-PFTeDA	6.42	403537.1	1.473	8.255
PFHxDA	6.72	1.050	290625.8		A	13C2-PFTeDA	6.42	403537.1	0.720	8.580
PFODA	6.98	1.090	248289.9		A	13C2-PFTeDA	6.42	403537.1	0.615	8.569

Total Ion Chromatogram

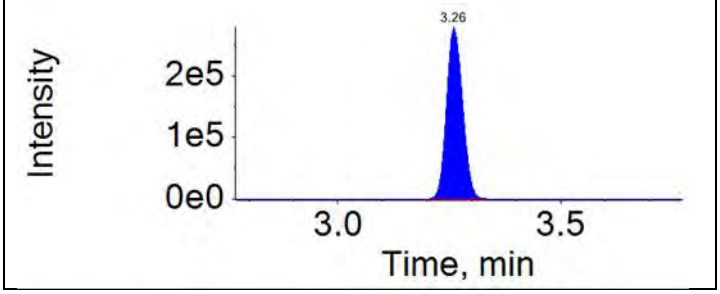


APPROVED
By JPT at 10:23 am, 11/13/18

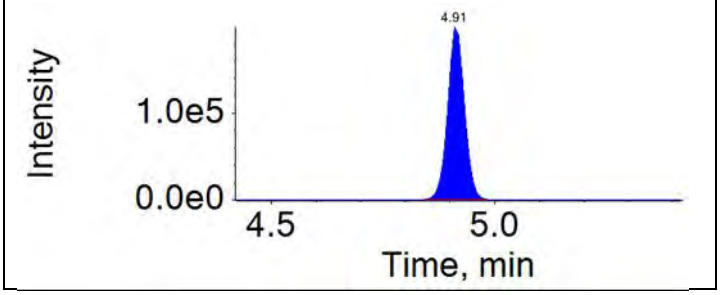
REVIEWED
By umar at 5:20 pm, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

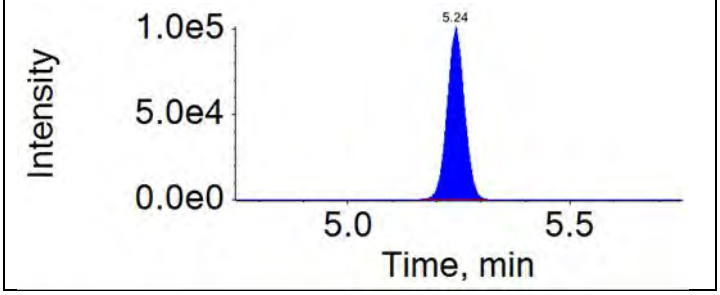
Injection Standard: 13C3-PFBA
216.0 / 172.0



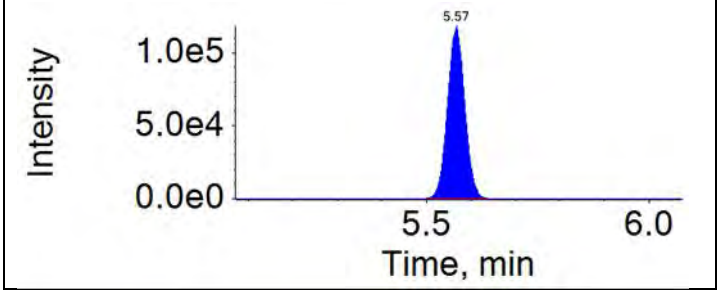
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0



Injection Standard: 13C2-PFDA
515.0 / 470.0

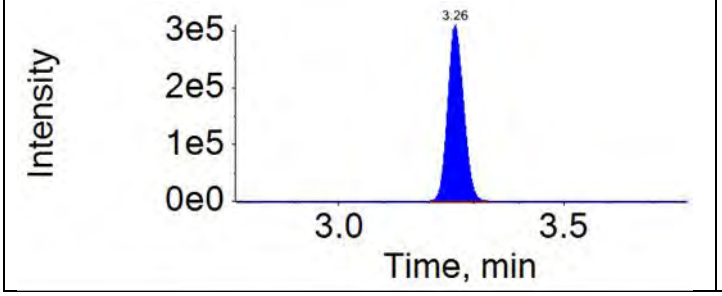


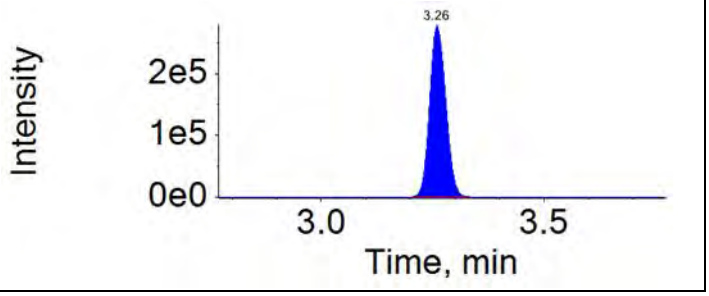
APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By umar at 5:20 pm, 11/13/18

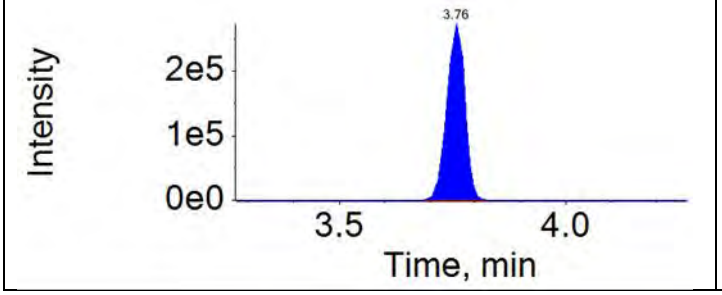
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

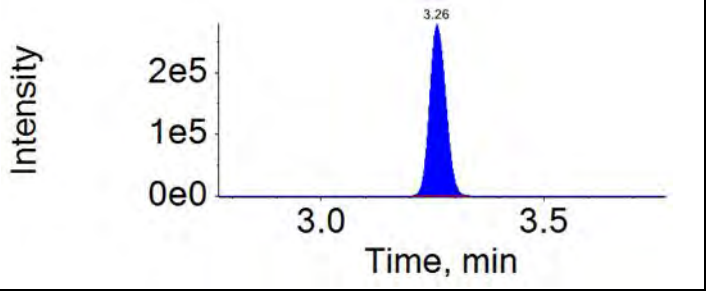
Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0



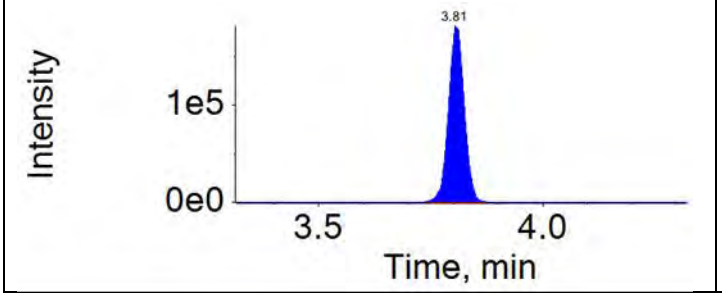


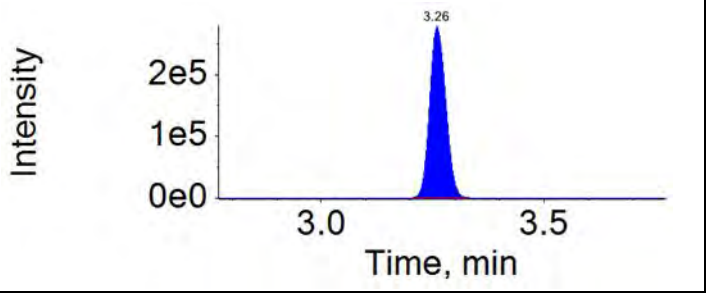
Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0



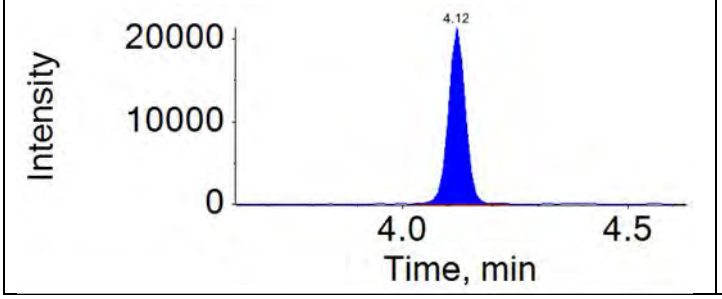


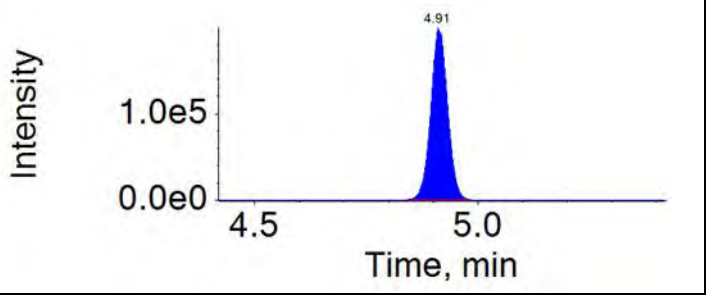
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0





Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0



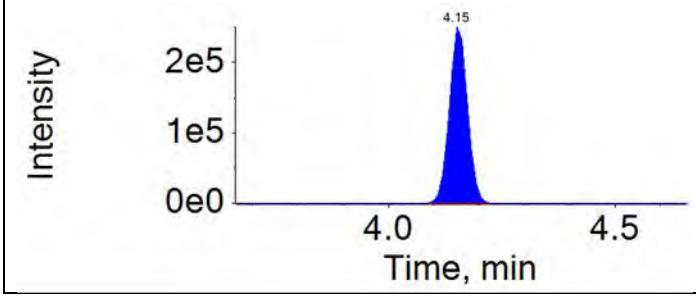


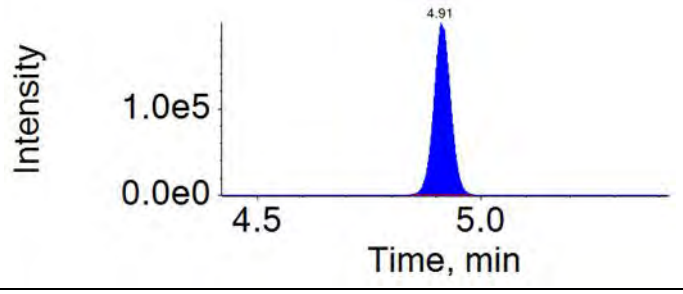
APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By umar at 5:20 pm, 11/13/18

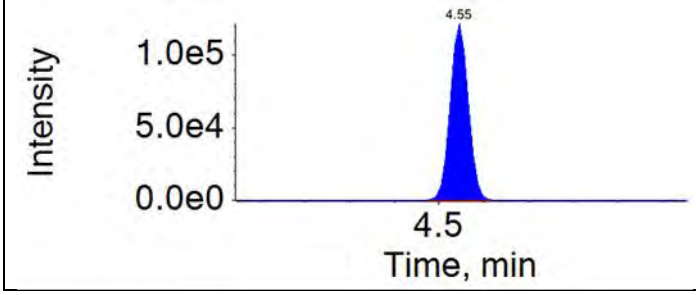
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

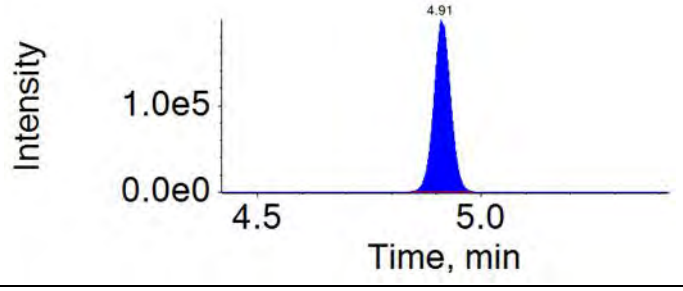
Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0



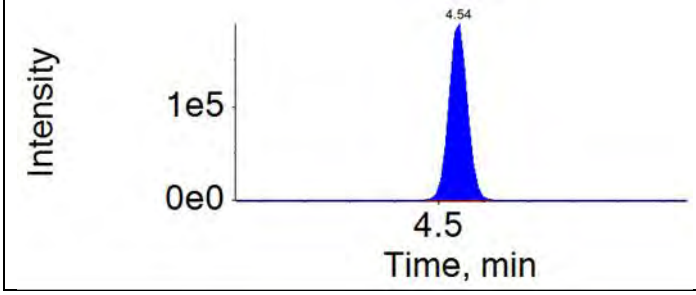


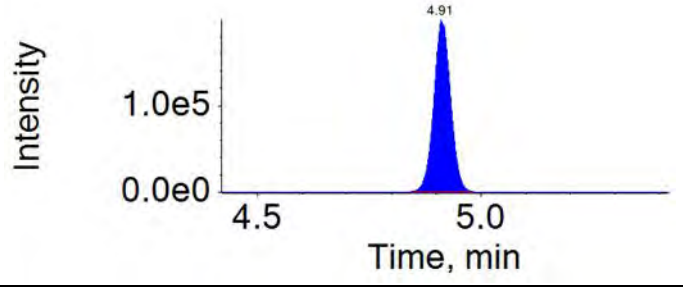
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0



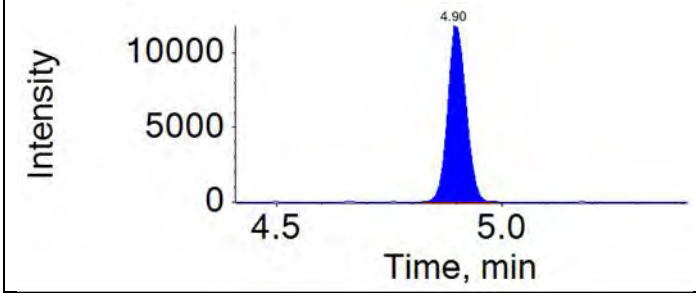


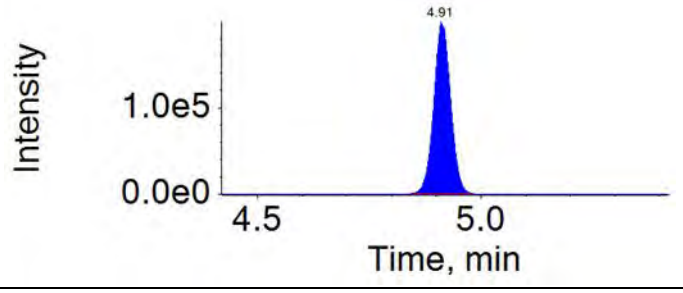
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0





Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0

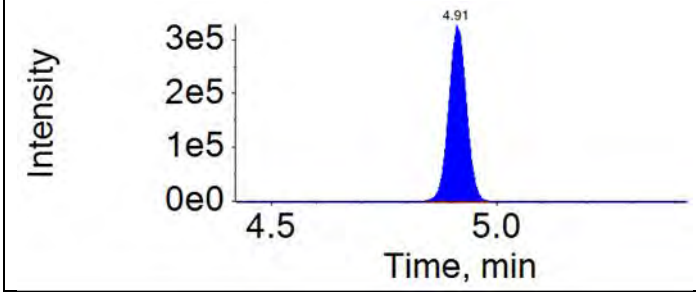
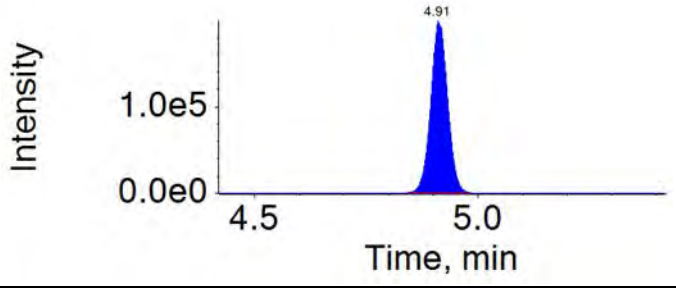


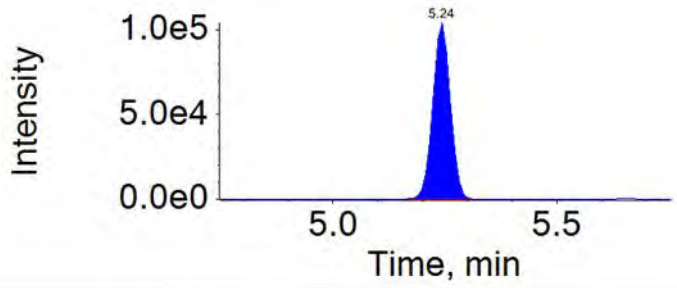
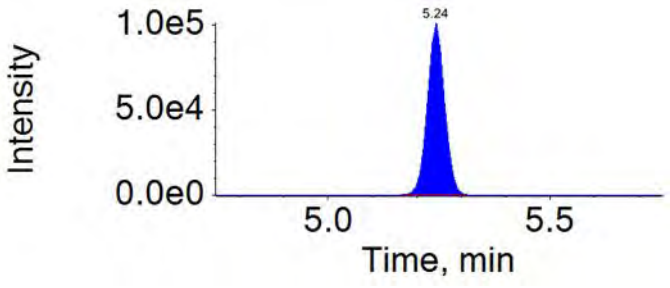


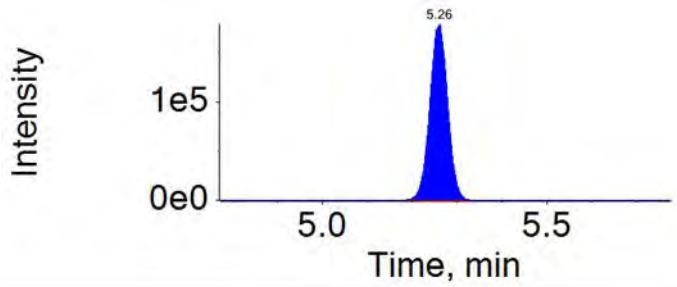
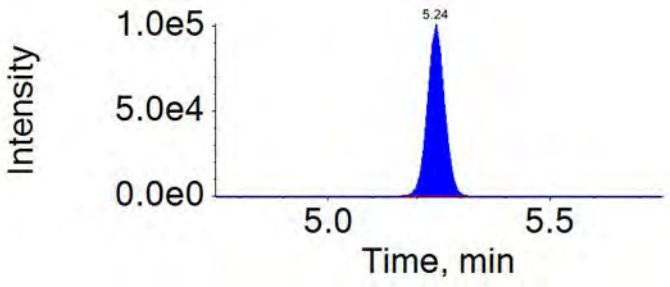
APPROVED
By JPT at 10:23 am, 11/13/18

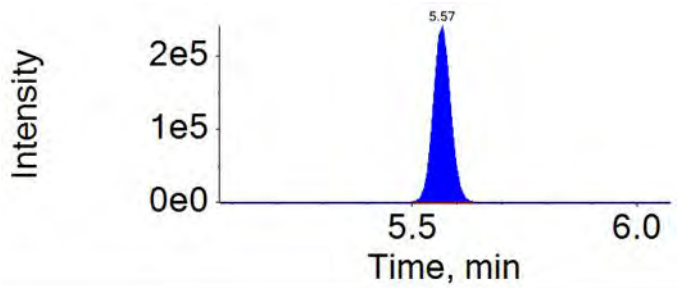
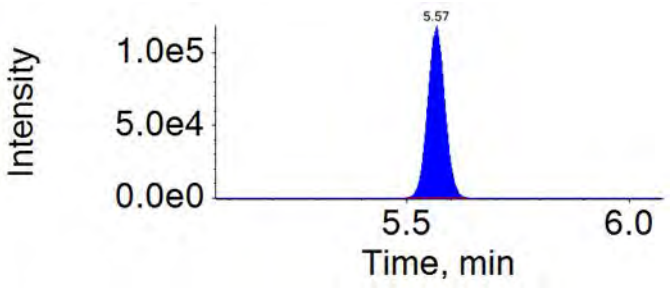
REVIEWED
By umar at 5:20 pm, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: E13C8-PFOA	Injection Standard: 13C2-PFOA
421.0 / 376.0	415.0 / 370.0
	

Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0
	

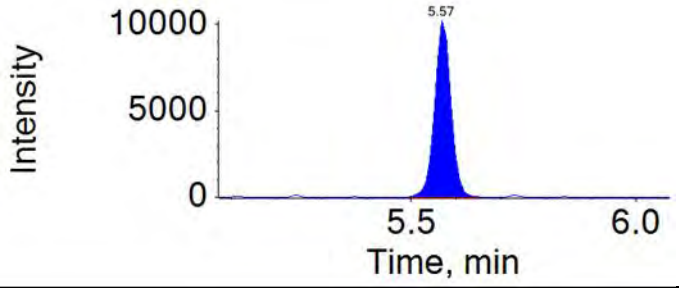
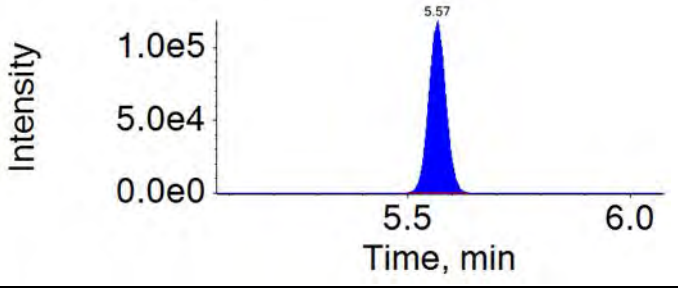
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0
	

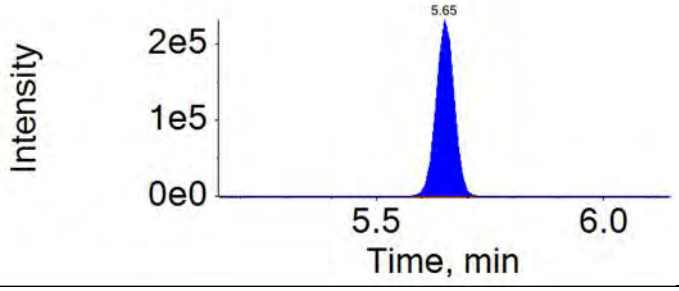
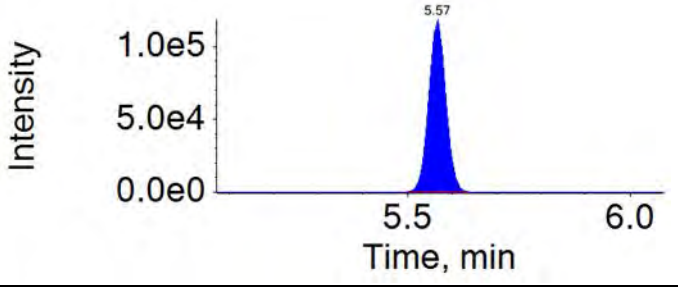
Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0
	

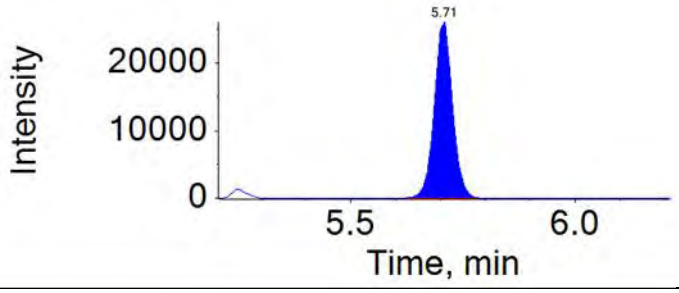
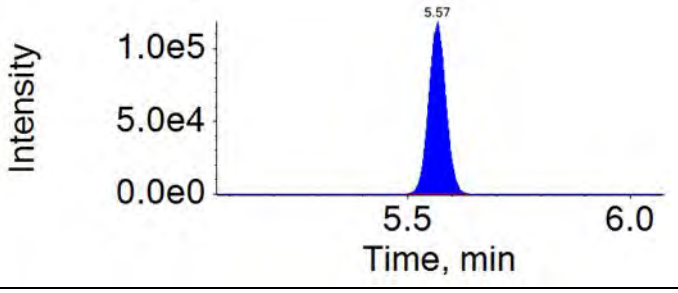
APPROVED
By JPT at 10:23 am, 11/13/18

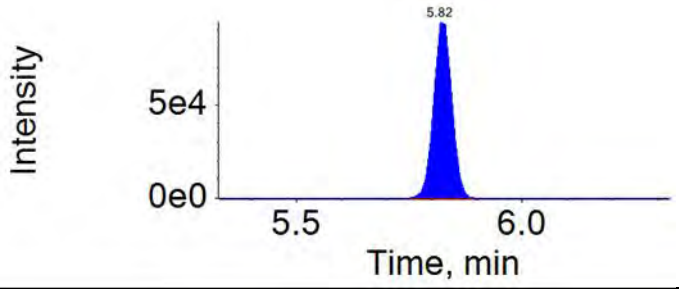
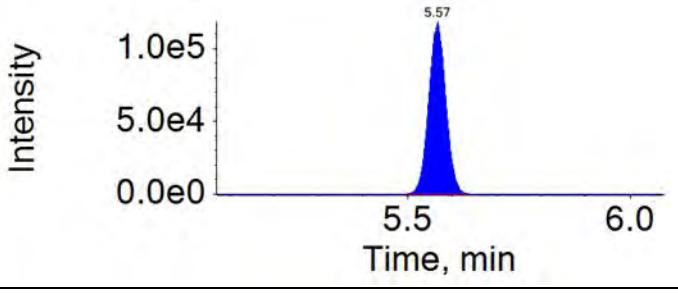
REVIEWED
By umar at 5:20 pm, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: E13C2-8:2-FTS	Injection Standard: 13C2-PFDA
529.0 / 81.0	515.0 / 470.0
	

Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0
	

Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0
	

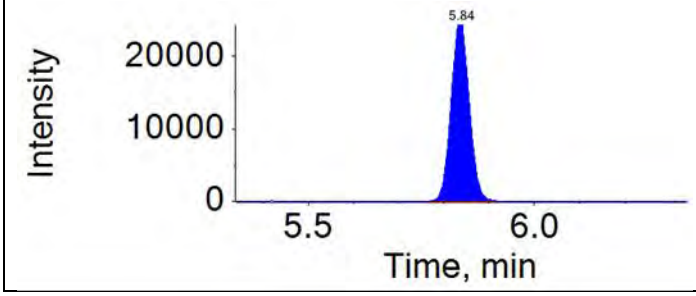
Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0
	

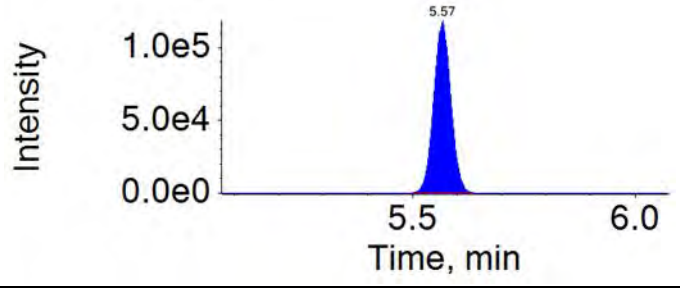
APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By umar at 5:20 pm, 11/13/18

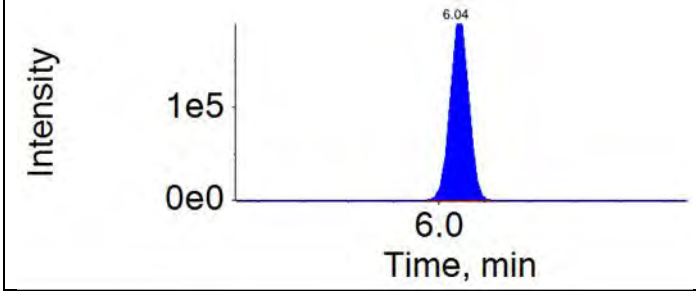
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

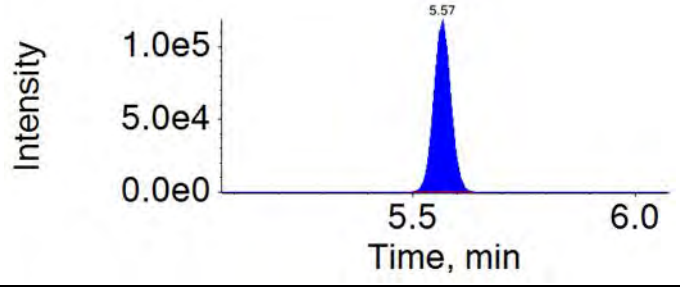
Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0



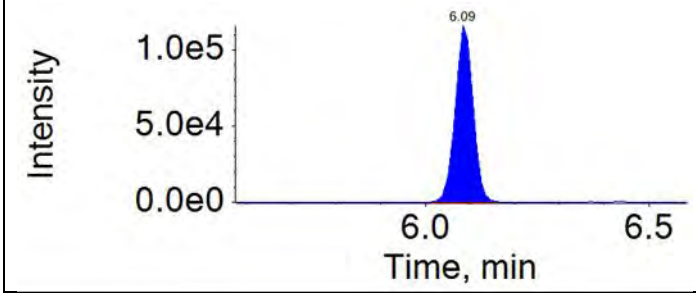


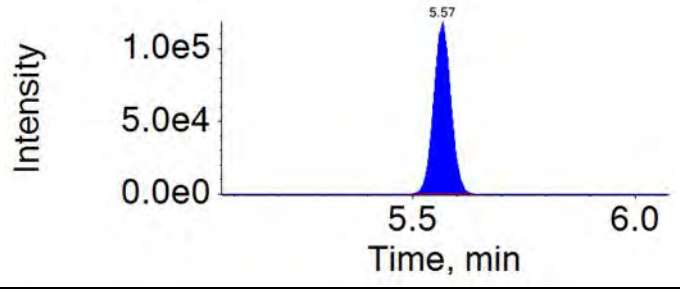
Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0



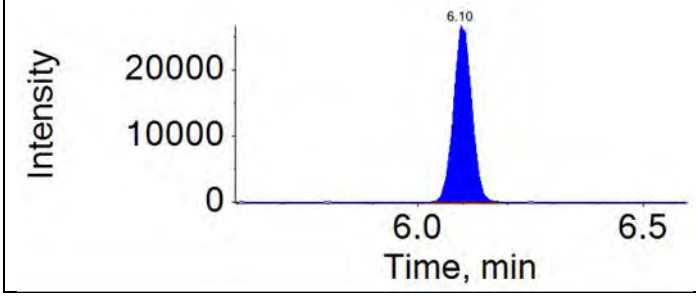


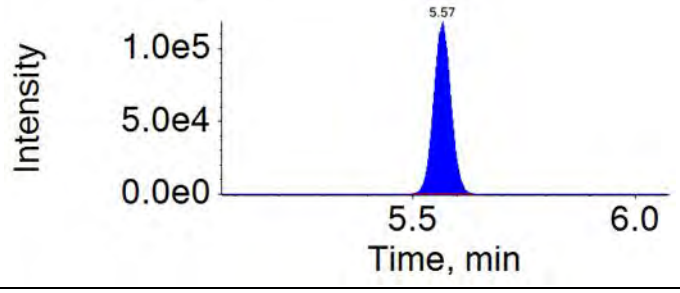
Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0





Extraction Standard: Ed3-NMePFOSA	Injection Standard: 13C2-PFDA
515.0 / 169.0	515.0 / 470.0



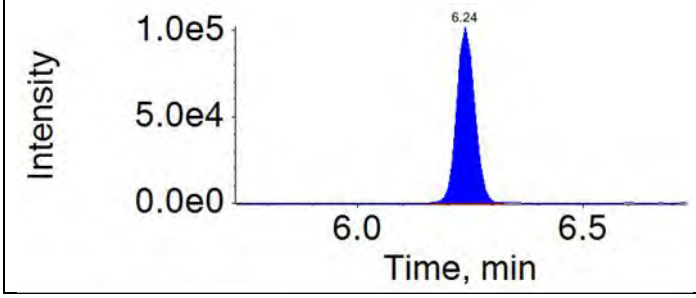


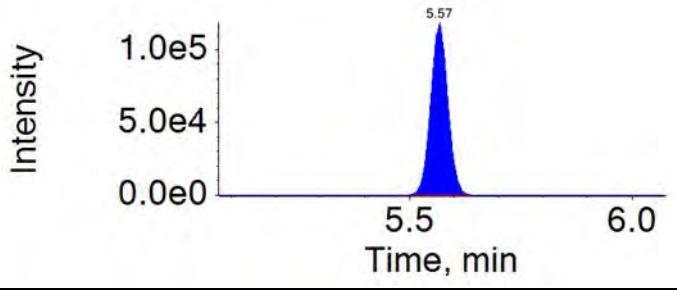
APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By umar at 5:20 pm, 11/13/18

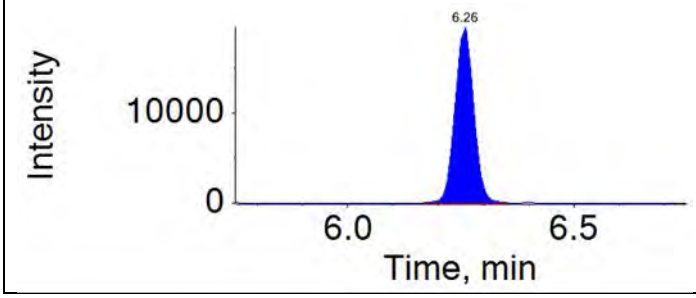
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

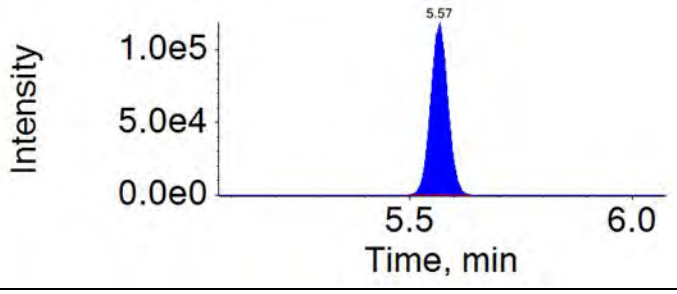
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



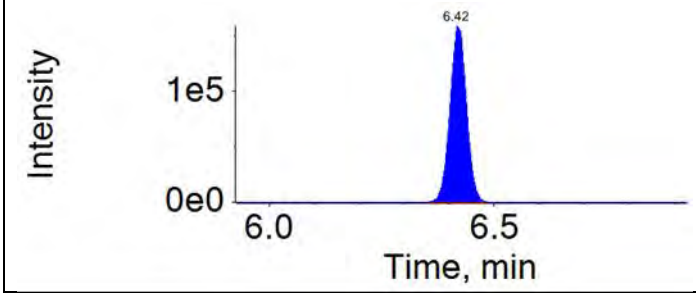


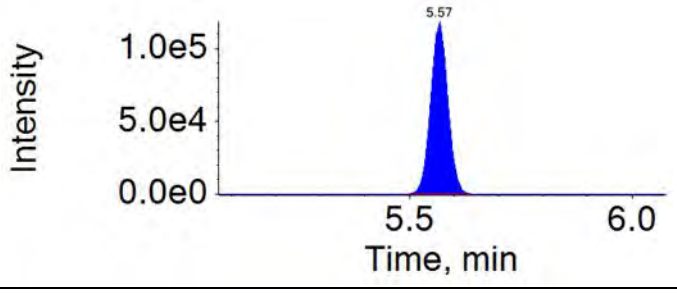
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0



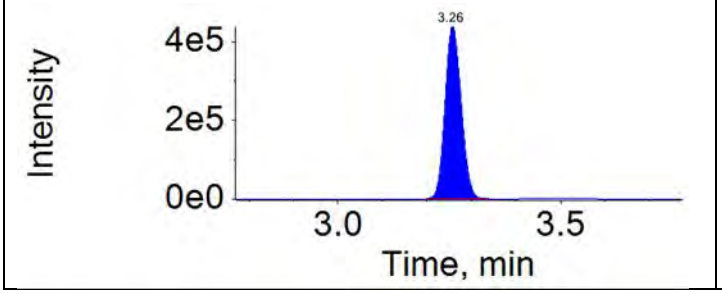


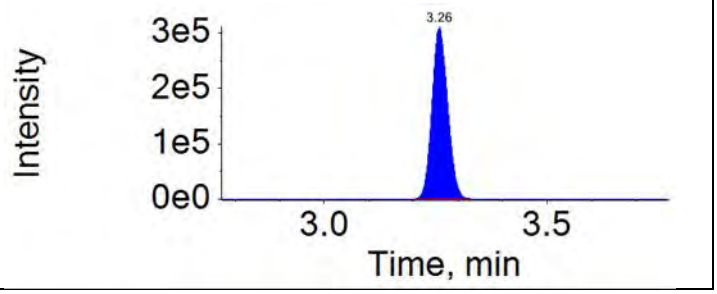
APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By umar at 5:20 pm, 11/13/18

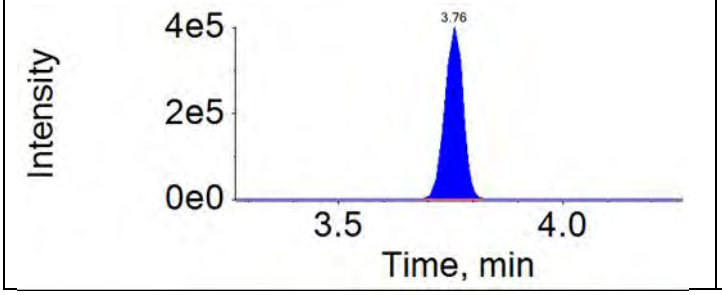
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

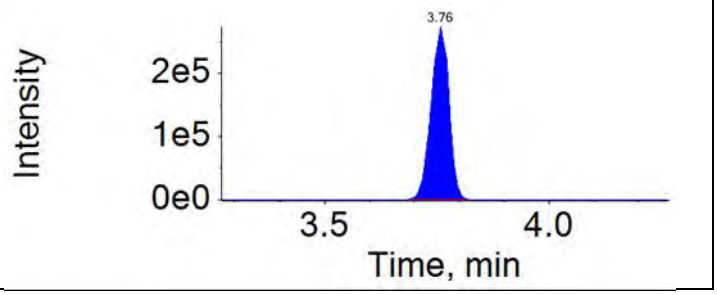
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



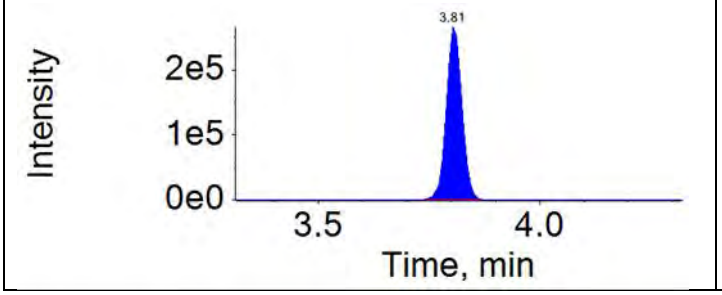


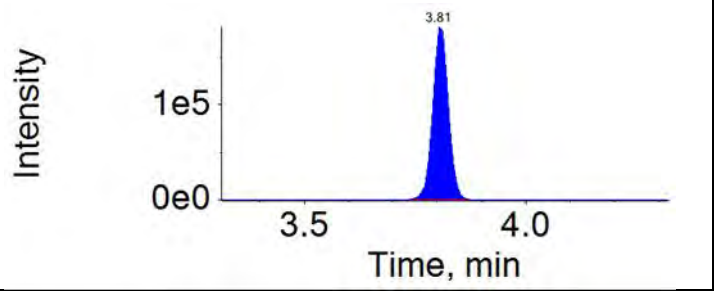
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



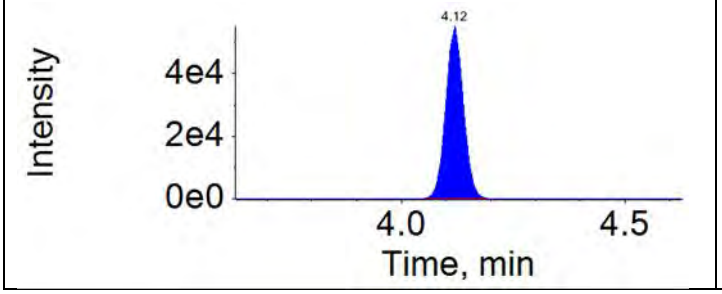


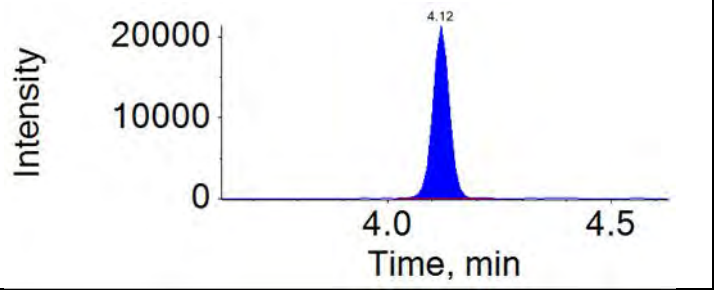
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





Analyte: 4:2-FTS	Extraction Standard: 13C2-4:2-FTS
327.0 / 307.0	329.0 / 81.0

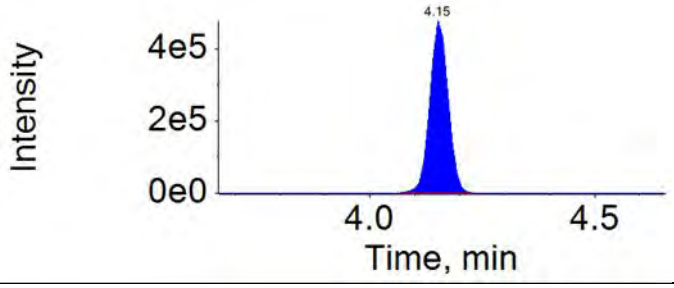
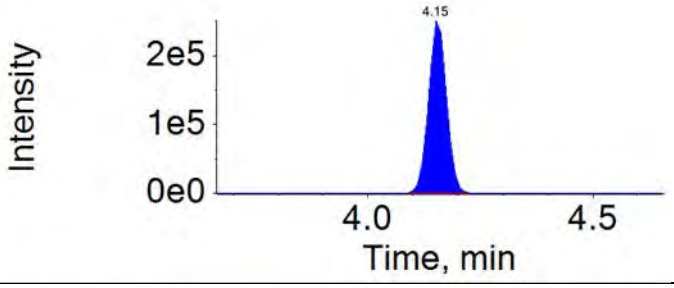


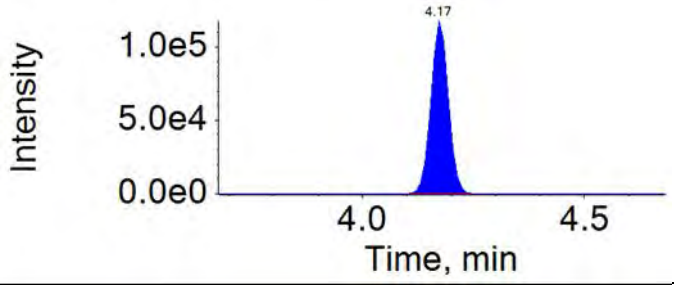
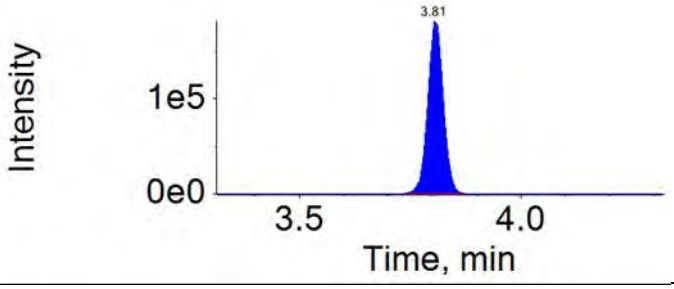


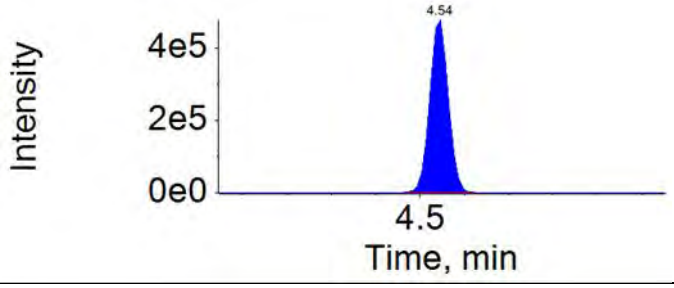
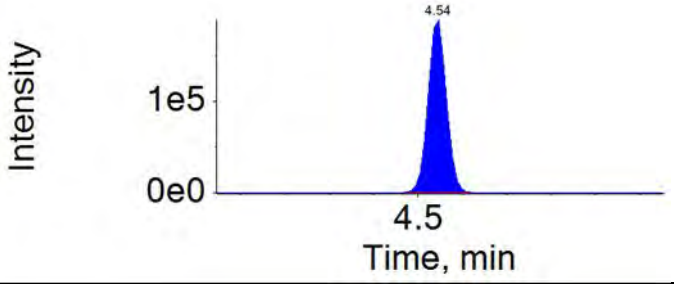
APPROVED
By JPT at 10:23 am, 11/13/18

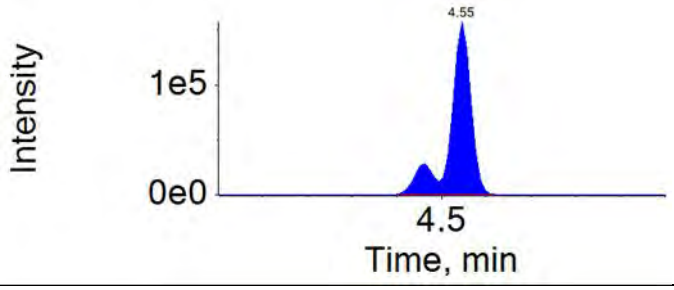
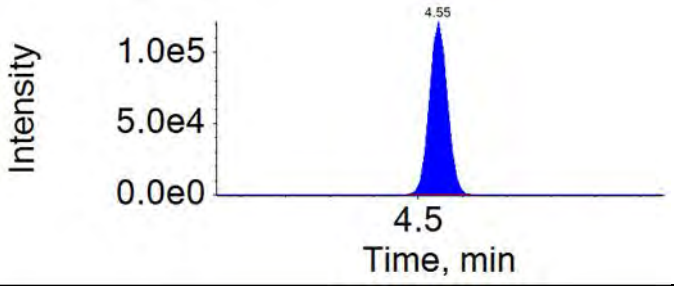
REVIEWED
By umar at 5:20 pm, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0
	

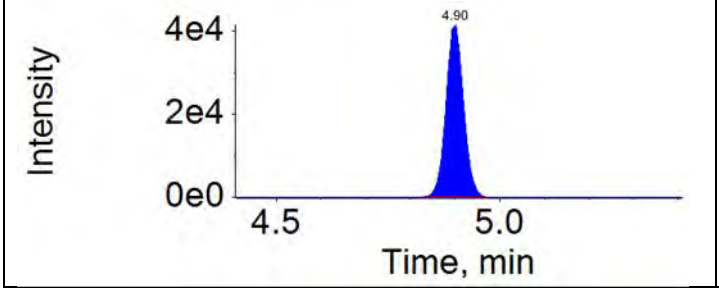
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0
	

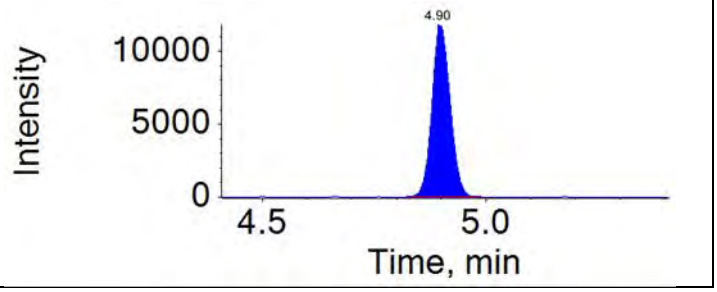
Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0
	

Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0
	

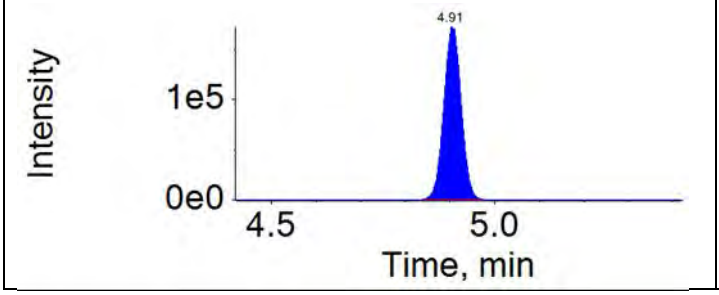
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

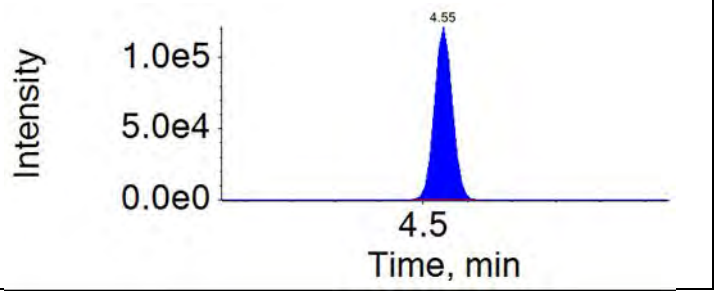
Analyte: 6:2-FTS	Extraction Standard: 13C2-6:2-FTS
427.0 / 407.0	429.0 / 81.0



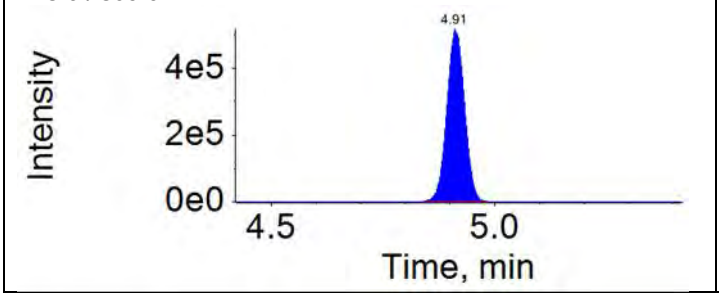


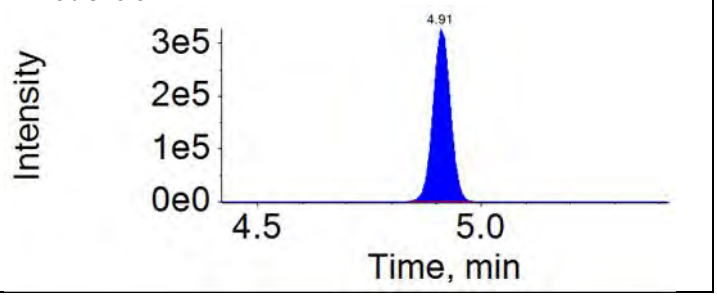
Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0



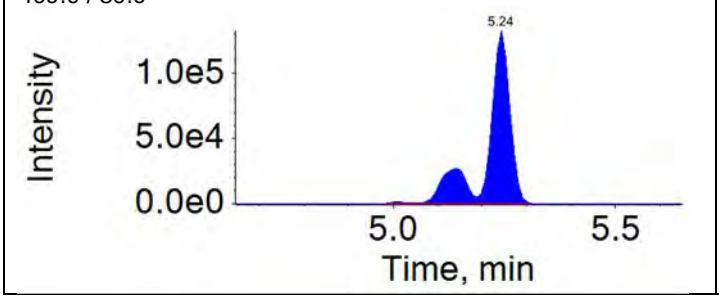


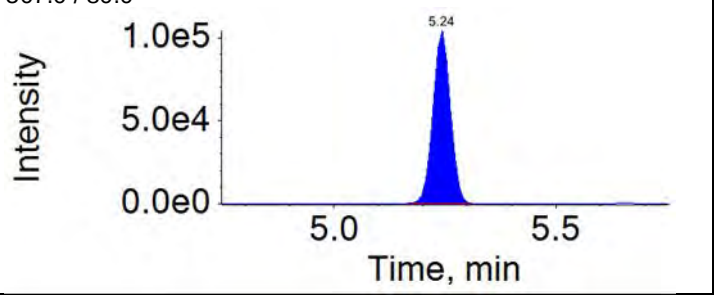
Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0





Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0



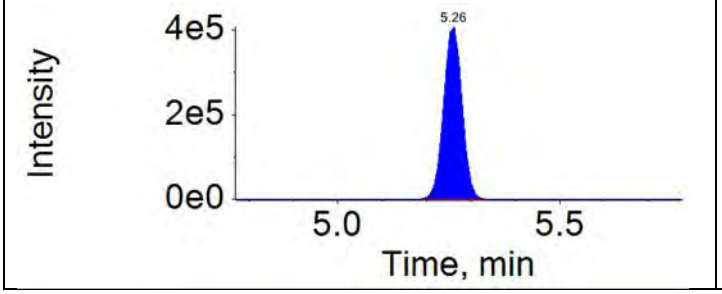


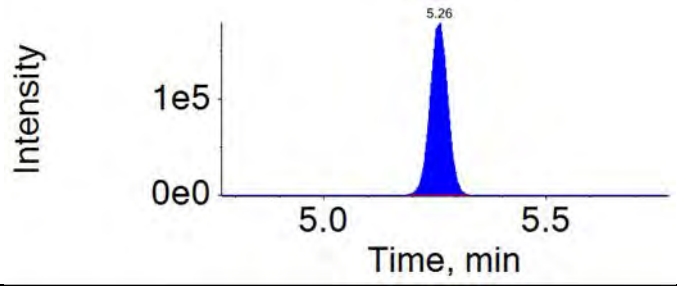
APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By umar at 5:20 pm, 11/13/18

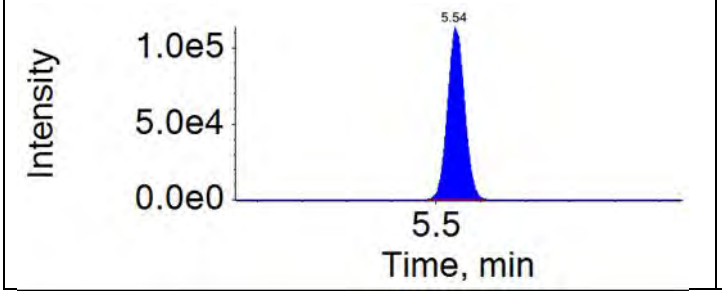
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

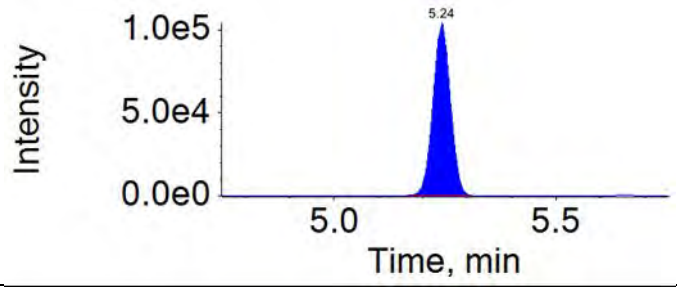
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



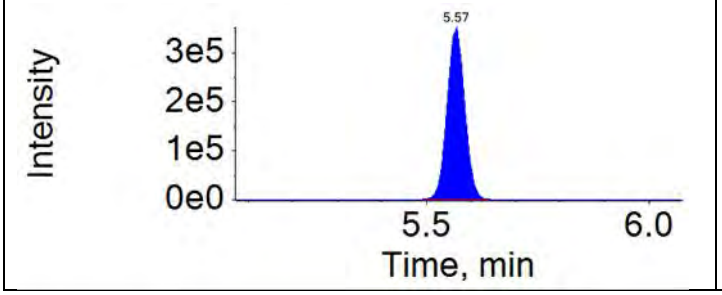


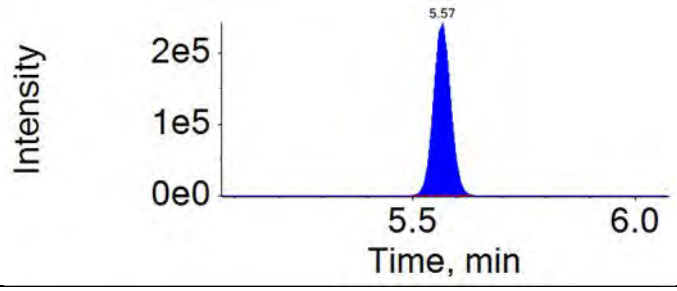
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



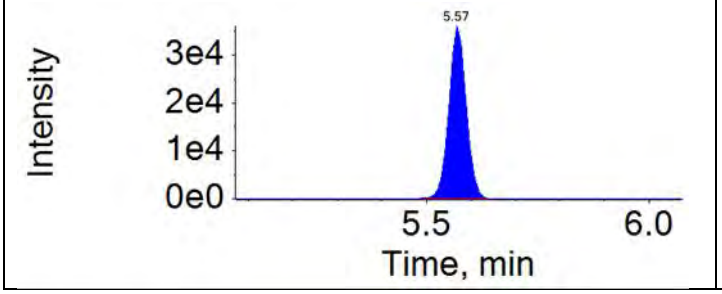


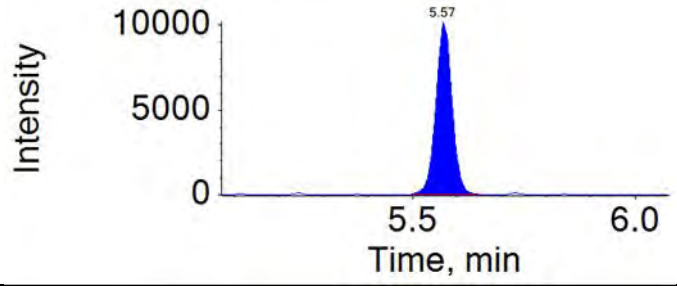
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





Analyte: 8:2-FTS	Extraction Standard: 13C2-8:2-FTS
527.0 / 507.0	529.0 / 81.0



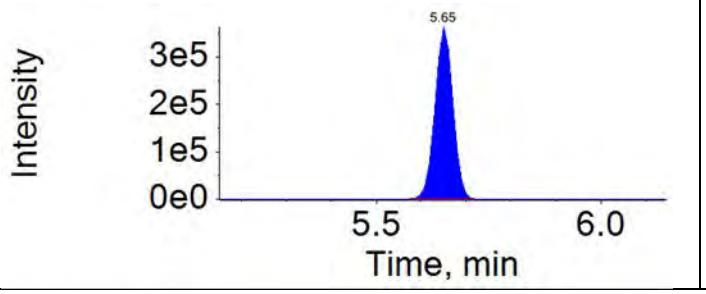


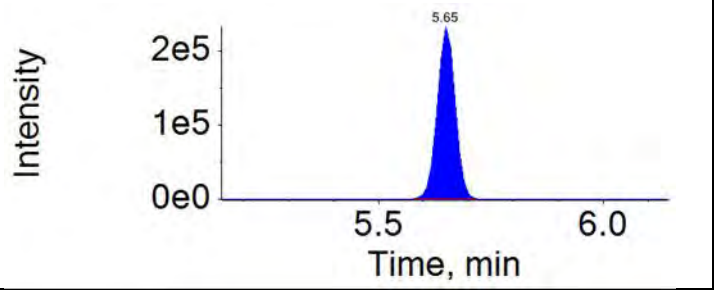
APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By umar at 5:20 pm, 11/13/18

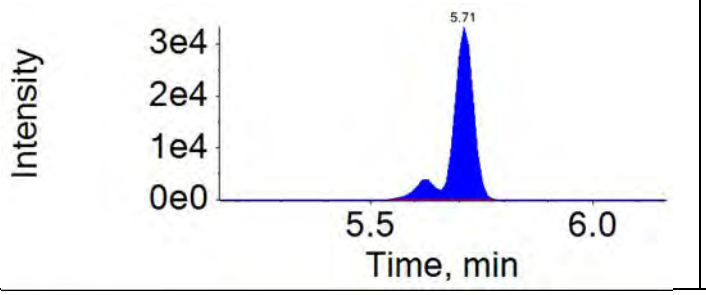
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

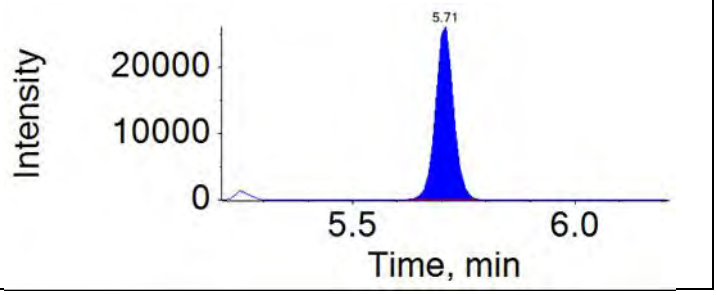
Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0



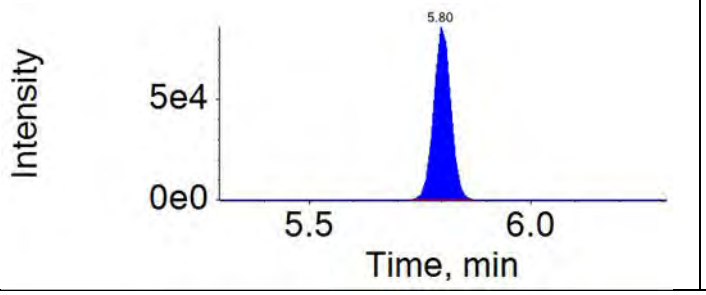


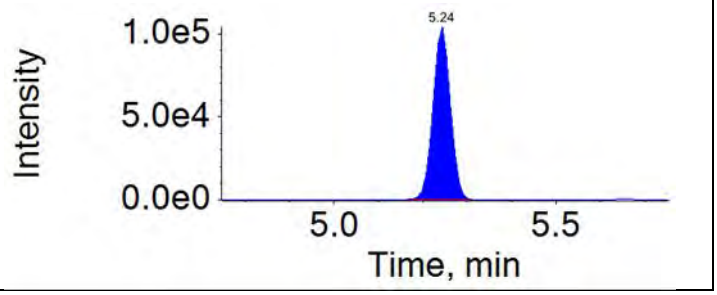
Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0



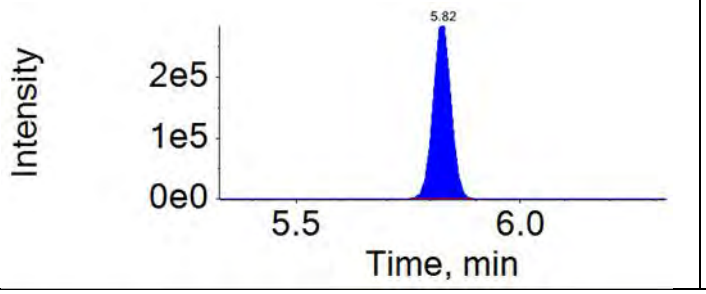


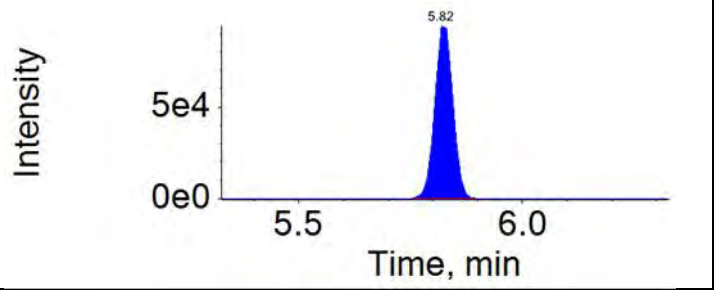
Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0





Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0



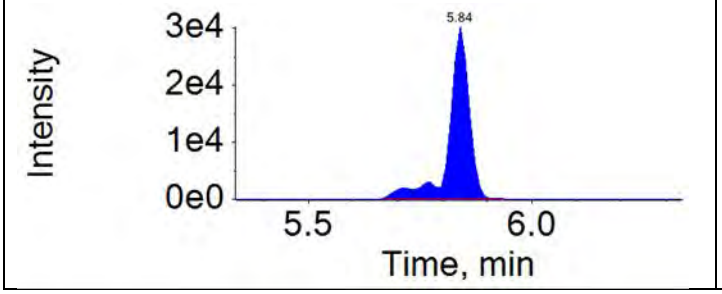


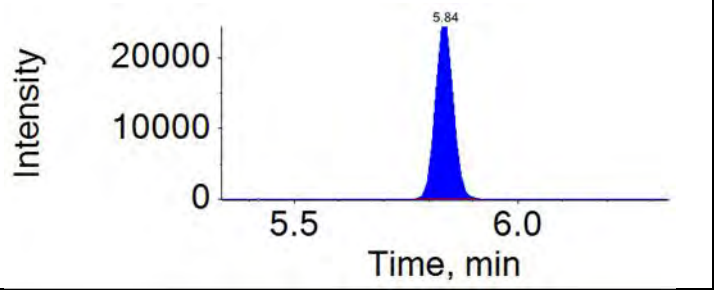
APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By umar at 5:20 pm, 11/13/18

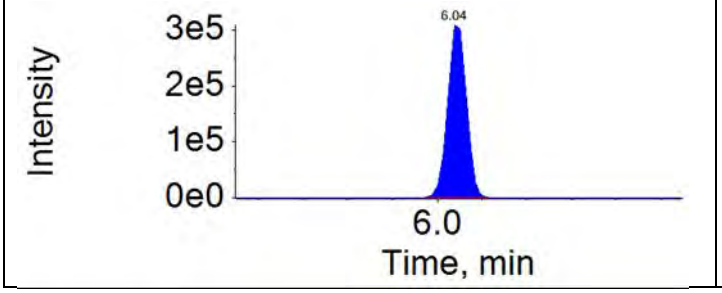
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

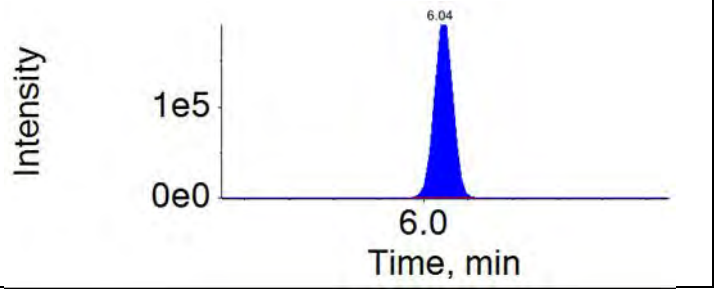
Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0



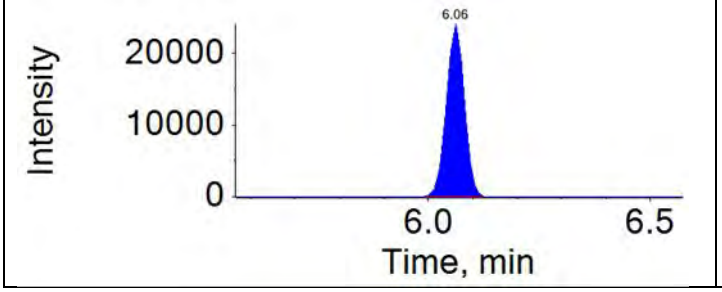


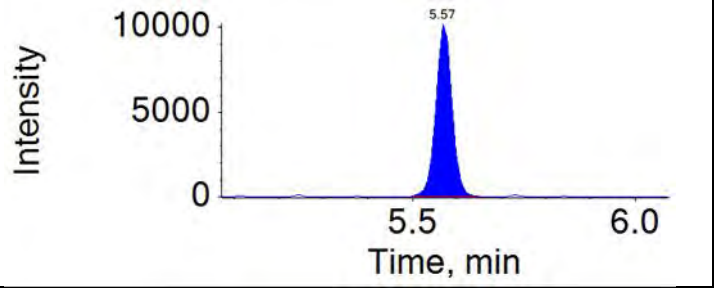
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0



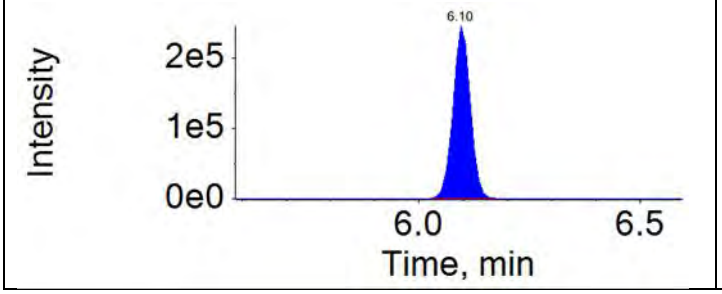


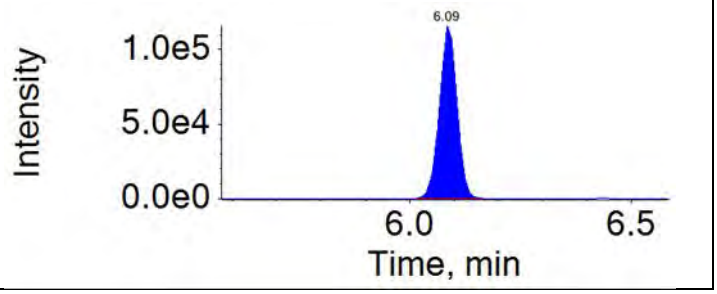
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0





Analyte: NMePFOSAE	Extraction Standard: d7-NMePFOSAE
616.0 / 59.0	623.0 / 59.0



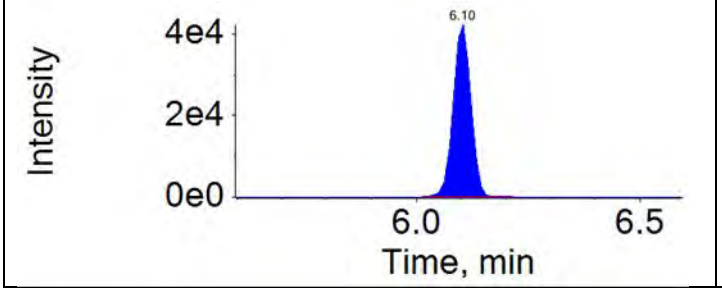


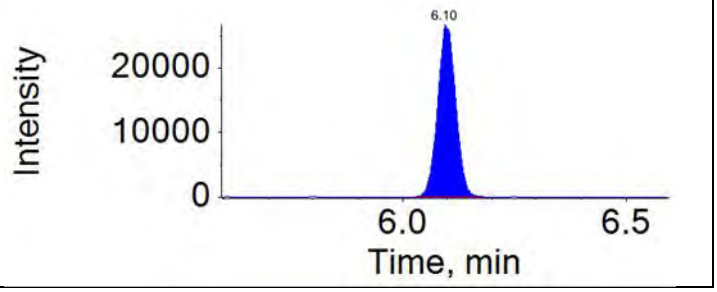
APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By umar at 5:20 pm, 11/13/18

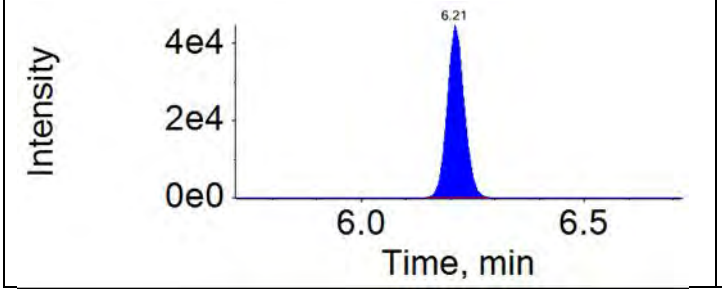
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

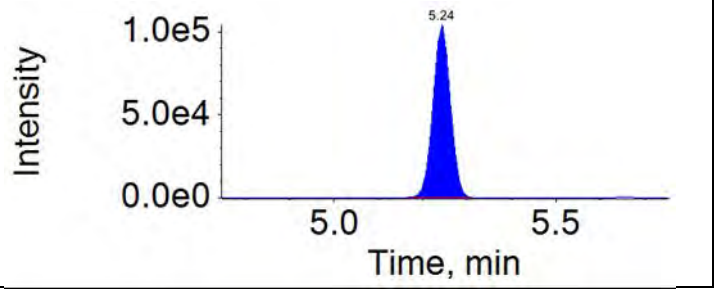
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



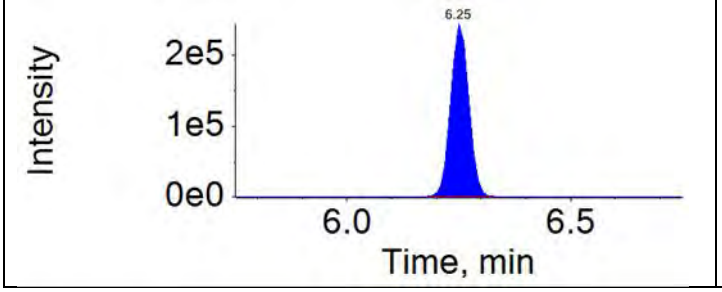


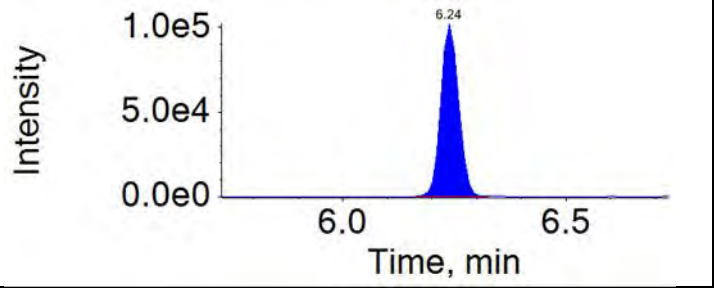
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



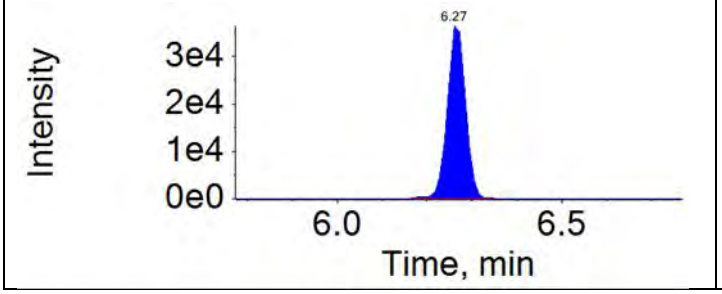


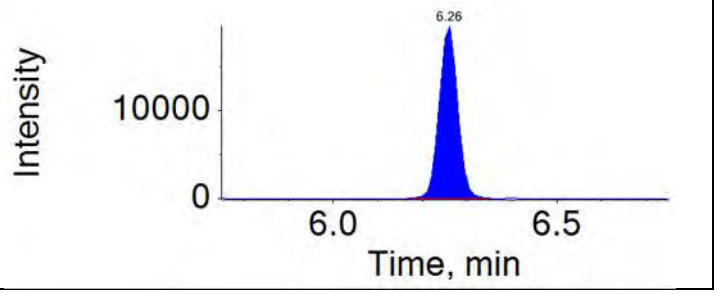
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





Analyte: NEtPFOSA	Extraction Standard: d5-NEtPFOSA
526.0 / 169.0	531.0 / 169.0

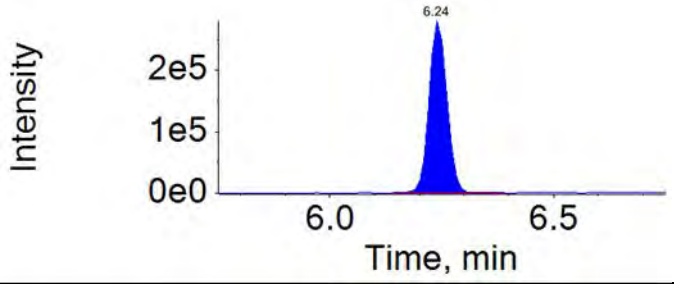
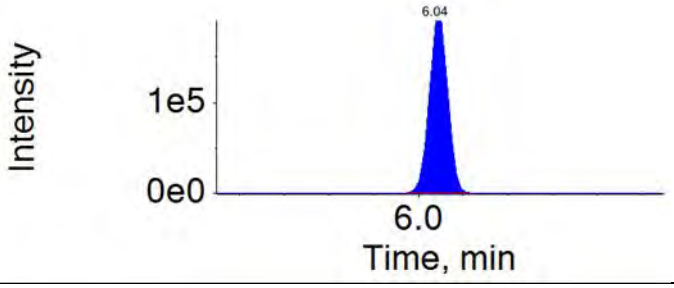


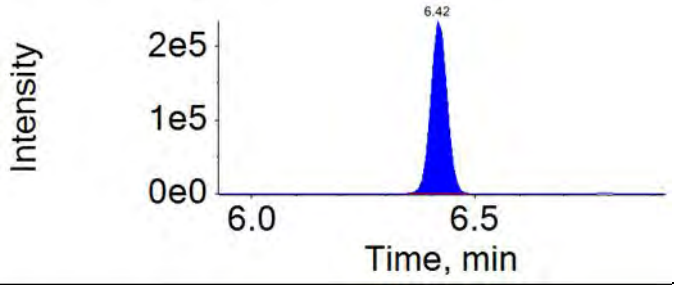
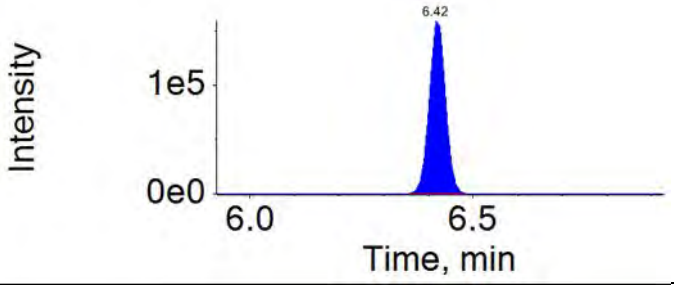


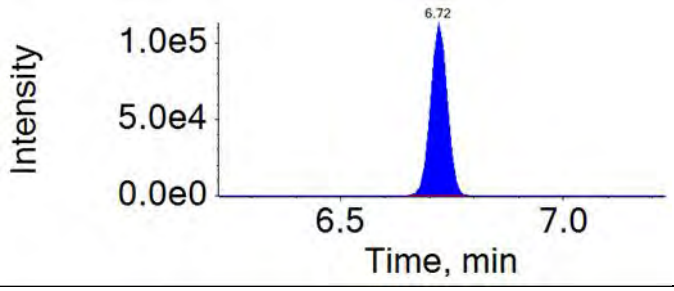
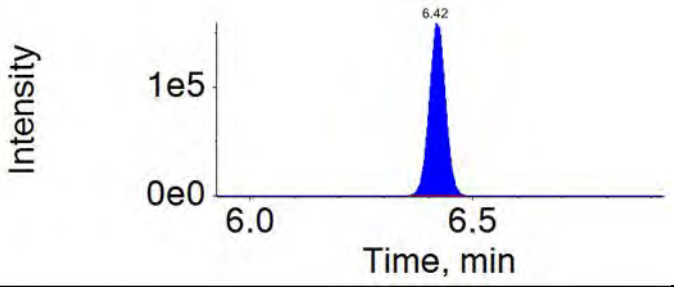
APPROVED
By JPT at 10:23 am, 11/13/18

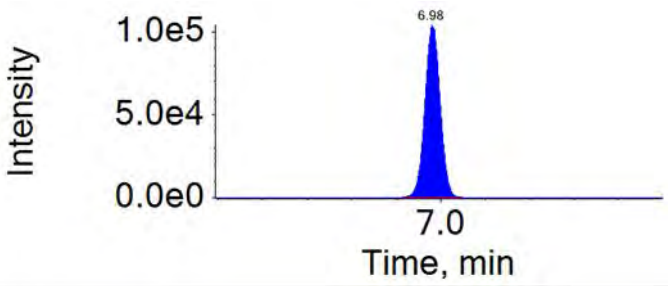
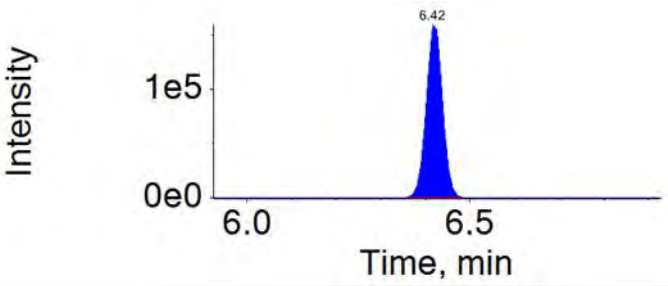
REVIEWED
By umar at 5:20 pm, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Analyte: PFTrDA	Extraction Standard: 13C2-PFDoDA
663.0 / 619.0	615.0 / 570.0
	

Analyte: PFTeDA	Extraction Standard: 13C2-PFTeDA
713.0 / 669.0	715.0 / 670.0
	

Analyte: PFHxDA	Extraction Standard: 13C2-PFTeDA
813.0 / 769.0	715.0 / 670.0
	

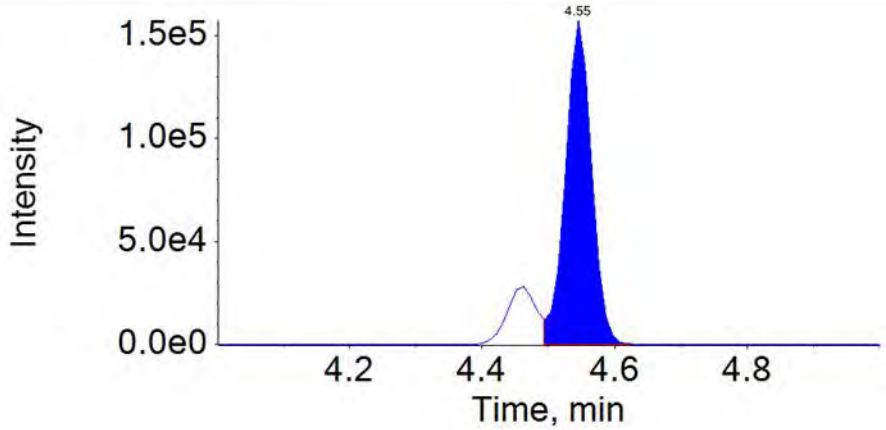
Analyte: PFODA	Extraction Standard: 13C2-PFTeDA
913.0 / 869.0	715.0 / 670.0
	

APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By umar at 5:20 pm, 11/13/18

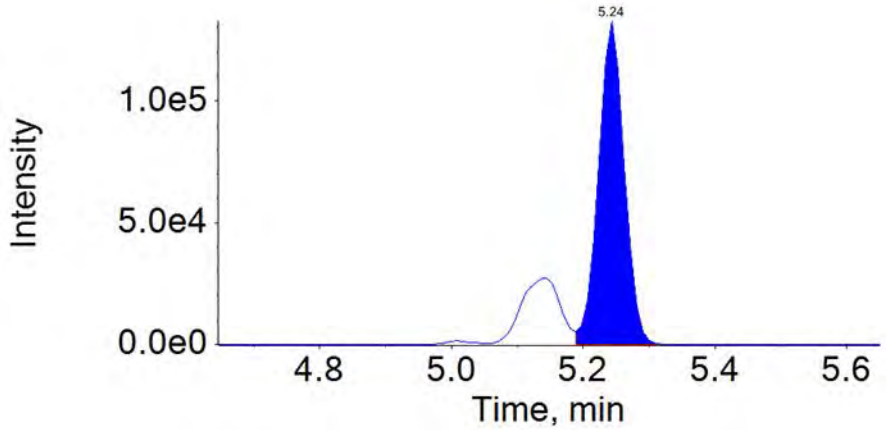
Results Table Name: 18NOV12DCCV3-11
Results Table Date: 11/13/2018 10:08:47 AM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFHxS
RT (min.):
4.55
Peak Area:
432351.5
Mass Range:
399.0 / 80.0
File Name:
18NOV12D-58.wiff
Sample Name:
CCV6_CAL4



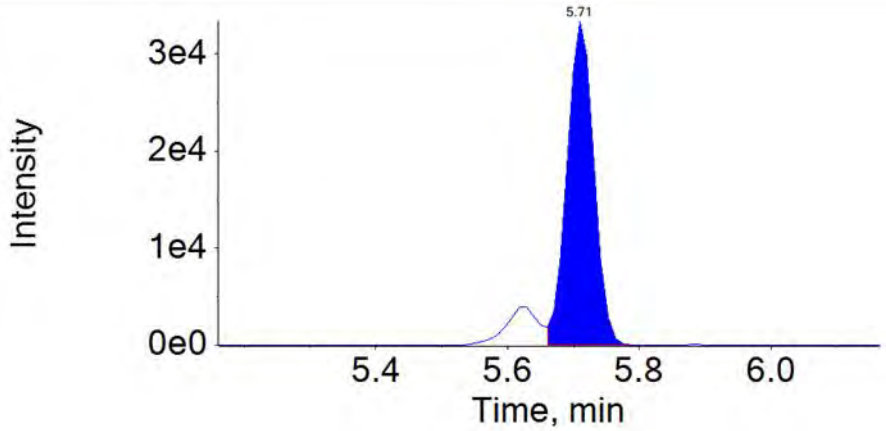
Integration Comment: incorrect integration

Component Name:
PFOS
RT (min.):
5.24
Peak Area:
361424.2
Mass Range:
499.0 / 80.0
File Name:
18NOV12D-58.wiff
Sample Name:
CCV6_CAL4



Integration Comment: incorrect integration

Component Name:
NMeFOSAA
RT (min.):
5.71
Peak Area:
94532.6
Mass Range:
570.0 / 419.0
File Name:
18NOV12D-58.wiff
Sample Name:
CCV6_CAL4



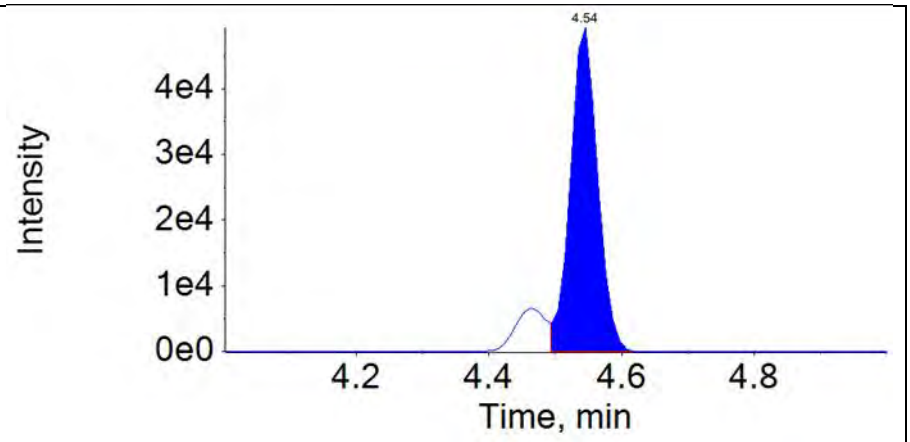
Integration Comment: incorrect integration

APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By umar at 5:20 pm, 11/13/18

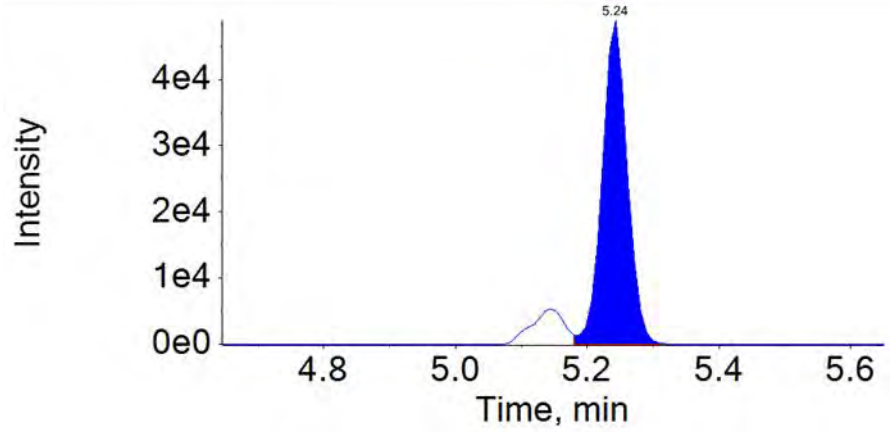
Results Table Name: 18NOV12DCCV3-11
Results Table Date: 11/13/2018 10:08:47 AM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFHxS_2
RT (min.):
4.54
Peak Area:
141111.7
Mass Range:
399.0 / 99.0
File Name:
18NOV12D-58.wiff
Sample Name:
CCV6_CAL4



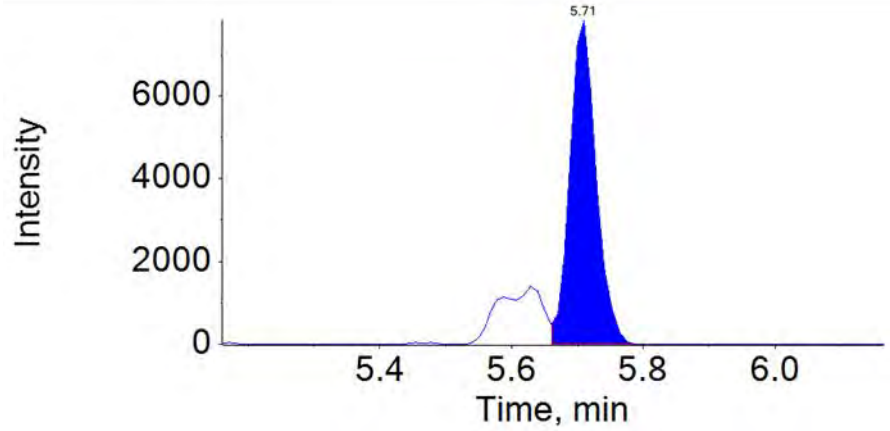
Integration Comment: incorrect integration

Component Name:
PFOS_2
RT (min.):
5.24
Peak Area:
129888.3
Mass Range:
499.0 / 99.0
File Name:
18NOV12D-58.wiff
Sample Name:
CCV6_CAL4



Integration Comment: incorrect integration

Component Name:
NMeFOSAA_2
RT (min.):
5.71
Peak Area:
21702.3
Mass Range:
570.0 / 483.0
File Name:
18NOV12D-58.wiff
Sample Name:
CCV6_CAL4



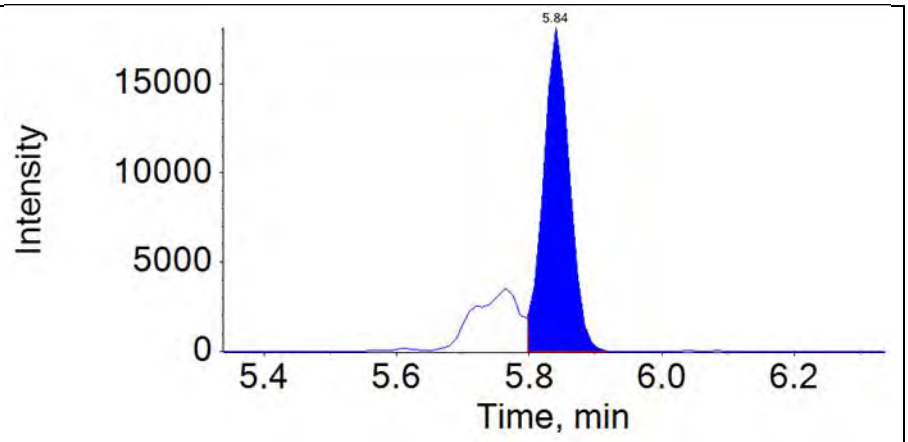
Integration Comment: incorrect integration

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By JPT at 10:23 am, 11/13/18

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By umar at 5:20 pm, 11/13/18

Results Table Name: 18NOV12DCCV3-11
Results Table Date: 11/13/2018 10:08:47 AM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
NEtFOSAA_2
RT (min.):
5.84
Peak Area:
49487.3
Mass Range:
584.0 / 526.0
File Name:
18NOV12D-58.wiff
Sample Name:
CCV6_CAL4



Integration Comment: incorrect integration

APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By umar at 5:20 pm, 11/13/18

Results Table Name: 18NOV12DCCV3-11
Results Table Date: 11/13/2018 10:08:47 AM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Ion Ratio Report

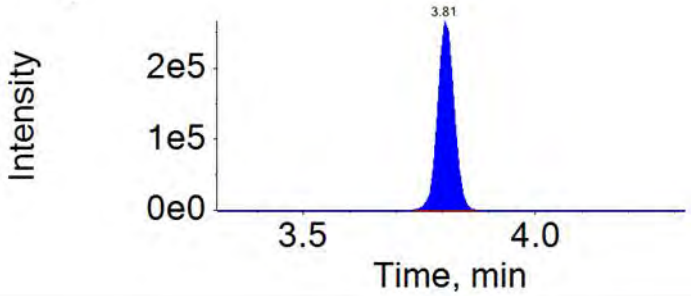
Sample Name: CCV6_CAL4 **Instrument Name:** LM27631 **File Name:** 18NOV12D-58.wiff

Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	3.81	1.00	650121.6	A	N/A	1.0000			
PFBS_2	3.81	1.00	243270.4	A	N/A	0.3742	3	50	
4:2-FTS	4.12	1.00	150233.4	A	N/A	1.0000			
4:2 FTS_2	4.12	1.00	86381.2	A	N/A	0.5750		#NA!	
PFHxA	4.15	1.00	1348987.8	A	N/A	1.0000			
PFHxA_2	4.15	1.00	15975.5	A	N/A	0.0118	1	50	
PFPeS	4.17	1.10	319026.2	A	N/A	1.0000			
PFPeS_2	4.17	1.10	173011.5	A	N/A	0.5423	4	50	
PFHpA	4.54	1.00	1384443.9	A	N/A	1.0000			
PFHpA_2	4.54	1.00	75585.8	A	N/A	0.0546	-3	50	
PFHxS	4.55	1.00	517754.3	M	N/A	1.0000			
PFHxS_2	4.54	1.00	162008.9	M	N/A	0.3129	-9	50	
6:2-FTS	4.90	1.00	113664.7	A	N/A	1.0000			
6:2 FTS_2	4.90	1.00	72576.8	A	N/A	0.6385		#NA!	
PFHpS	4.91	1.08	467674.4	A	N/A	1.0000			
PFHpS_2	4.90	1.08	189233.9	A	N/A	0.4046	0	50	
PFOA	4.91	1.00	1421585.9	A	N/A	1.0000			
PFOA_2	4.91	1.00	80586.2	A	N/A	0.0567	0	50	
PFOS	5.24	1.00	478066.3	M	N/A	1.0000			
PFOS_2	5.24	1.00	148120.8	M	N/A	0.3098	4	50	
PFNA	5.26	1.00	1179828.0	A	N/A	1.0000			
PFNA_2	5.26	1.00	21195.4	A	N/A	0.0180	-21	50	
PFNS	5.54	1.06	300128.1	A	N/A	1.0000			
PFNS_2	5.54	1.06	138703.3	A	N/A	0.4621	-3	50	
PFDA	5.57	1.00	961061.7	A	N/A	1.0000			
PFDA_2	5.57	1.00	6570.1	A	N/A	0.0068	-14	50	
8:2-FTS	5.57	1.00	96931.6	A	N/A	1.0000			
8:2 FTS_2	5.57	1.00	57612.2	A	N/A	0.5944		#NA!	
NMeFOSAA	5.71	1.00	108210.9	M	N/A	1.0000			
NMeFOSAA_2	5.71	1.00	28218.3	M	N/A	0.2608	1	50	
PFDS	5.80	1.11	229123.3	A	N/A	1.0000			
PFDS_2	5.80	1.11	110030.8	A	N/A	0.4802	-6	50	
PFUnDA	5.82	1.00	804226.7	A	N/A	1.0000			
PFUnDA_2	5.82	1.00	3771.3	A	N/A	0.0047	-15	50	
NEtFOSAA	5.84	1.00	95358.9	A	N/A	1.0000			
NEtFOSAA_2	5.84	1.00	66089.1	M	N/A	0.6931	-4	50	
PFDoDA	6.04	1.00	903550.9	A	N/A	1.0000			
PFDoDA_2	6.05	1.00	10723.7	A	N/A	0.0119	-23	50	
10:2-FTS	6.06	1.09	67615.6	A	N/A	1.0000			
10:2 FTS_2	6.06	1.09	44602.5	A	N/A	0.6596		#NA!	
PFTrDA	6.24	1.03	775027.4	A	N/A	1.0000			
PFTrDA_2	6.24	1.03	7327.0	A	N/A	0.0095	11	50	
PFTeDA	6.42	1.00	594227.5	A	N/A	1.0000			
PFTeDA_2	6.42	1.00	3706.9	A	N/A	0.0062	0	50	
PFHxDA	6.72	1.05	290625.8	A	N/A	1.0000			
PFHxDA_2	6.72	1.05	17475.7	A	N/A	0.0601	-11	50	
PFODA	6.98	1.09	248289.9	A	N/A	1.0000			
PFODA_2	6.98	1.09	6003.1	A	N/A	0.0242	-12	50	

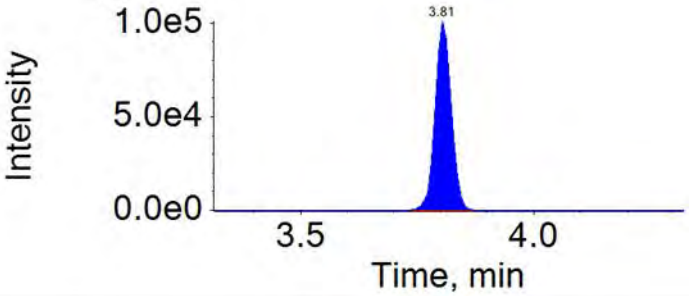
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By JPT at 10:23 am, 11/13/18

REVIEWED
By umar at 5:20 pm, 11/13/18

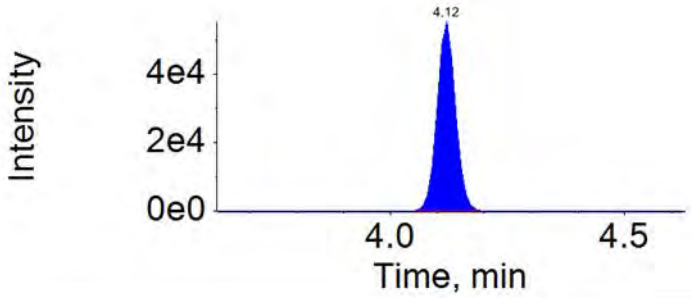
Component: PFBS
Primary Mass: 299.0 / 80.0



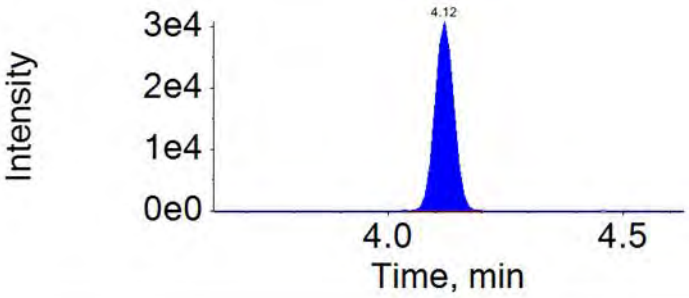
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



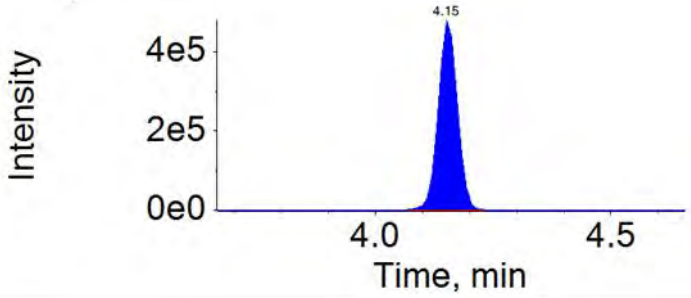
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



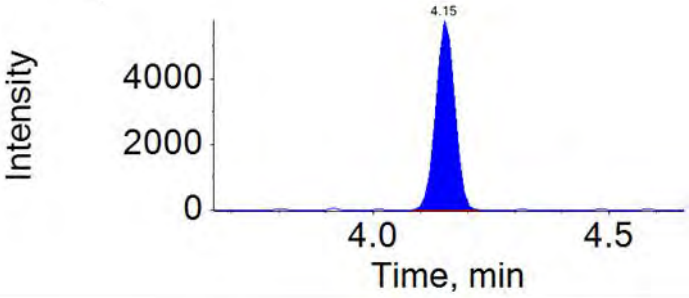
Component: 4:2 FTS_2
Secondary Mass: 327.0 / 81.0



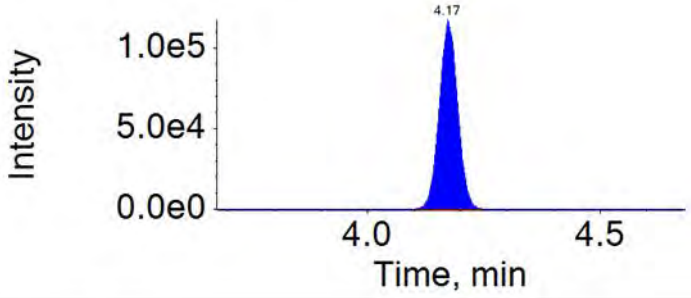
Component: PFHxA
Primary Mass: 313.0 / 269.0



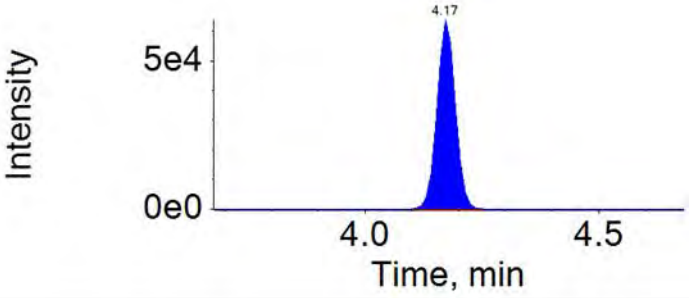
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



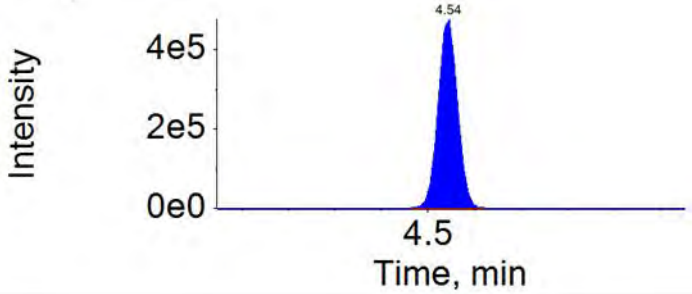
Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



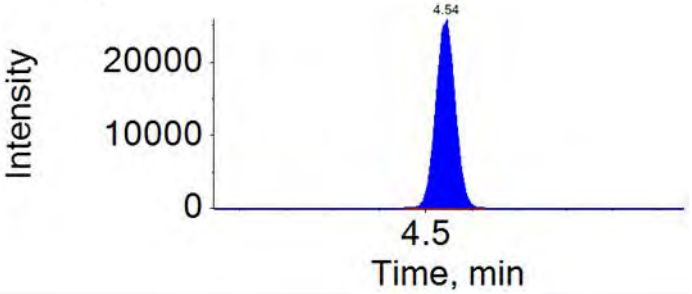
APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By umar at 5:20 pm, 11/13/18

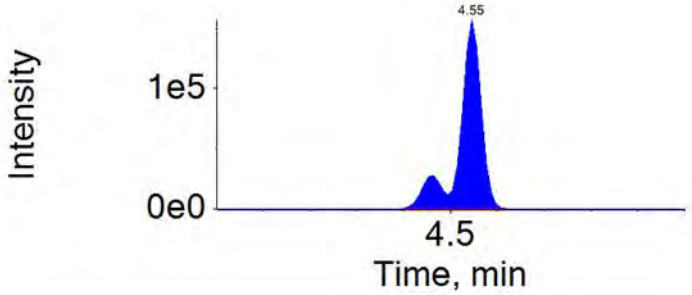
Component: PFHpA
Primary Mass: 363.0 / 319.0



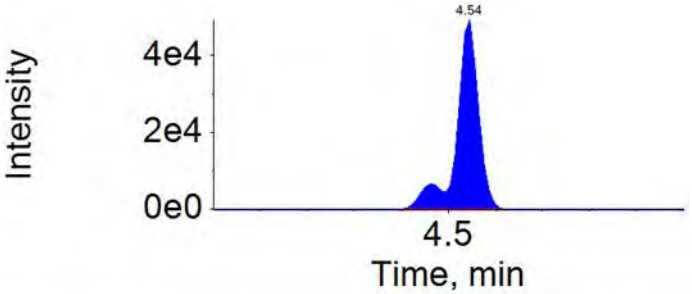
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



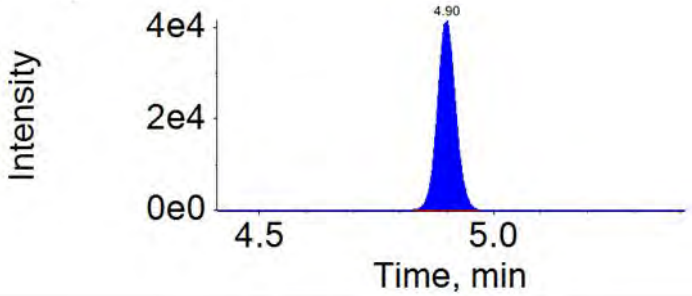
Component: PFHxS
Primary Mass: 399.0 / 80.0



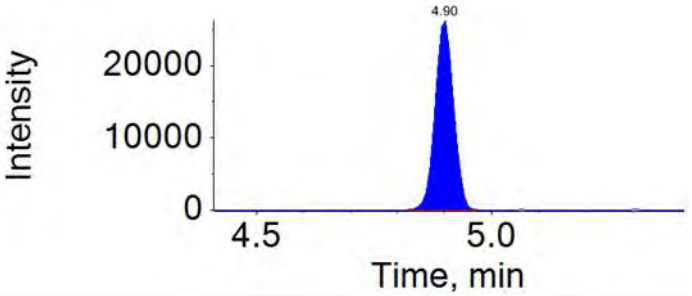
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



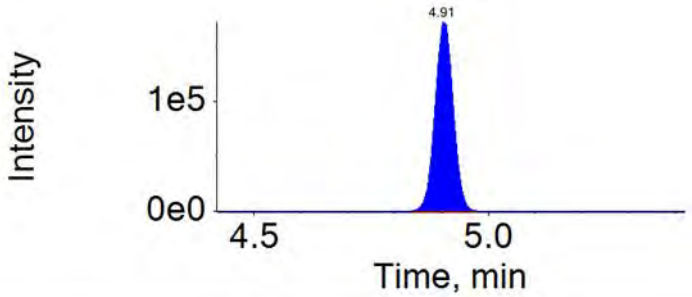
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



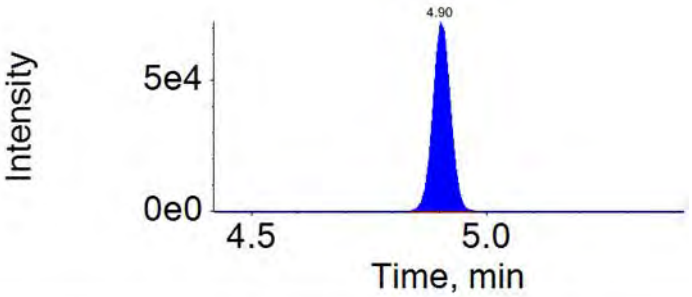
Component: 6:2 FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



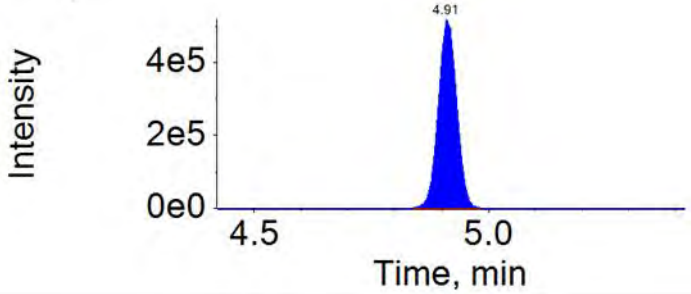
Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



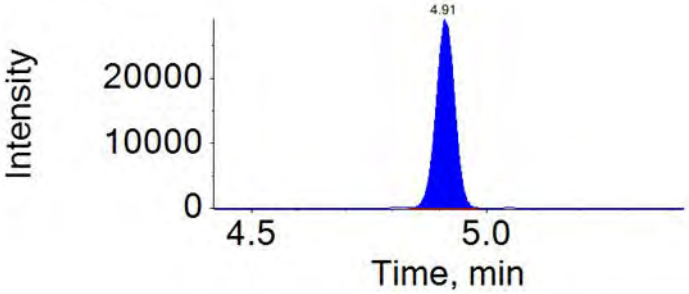
APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By umar at 5:20 pm, 11/13/18

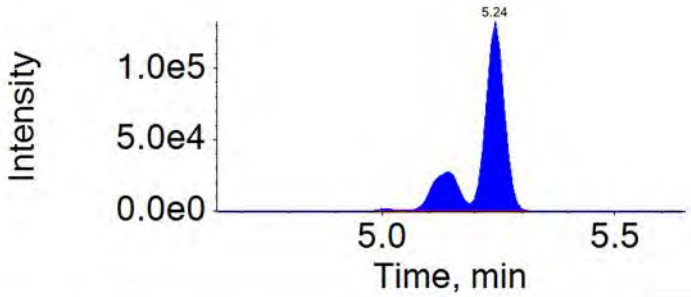
Component: PFOA
Primary Mass: 413.0 / 369.0



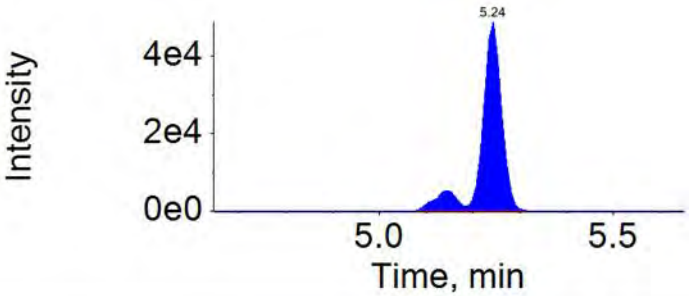
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



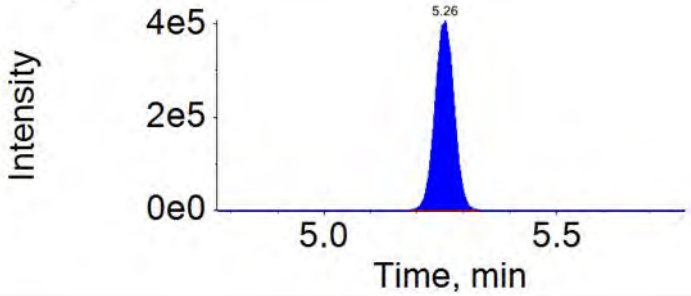
Component: PFOS
Primary Mass: 499.0 / 80.0



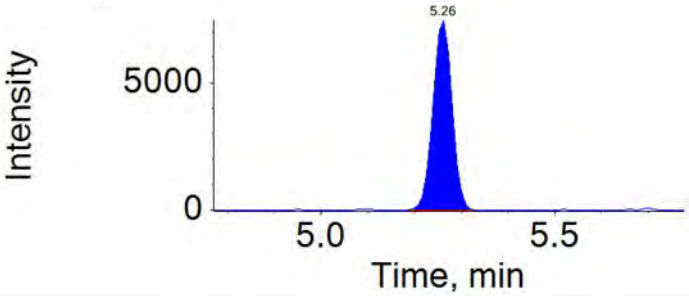
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



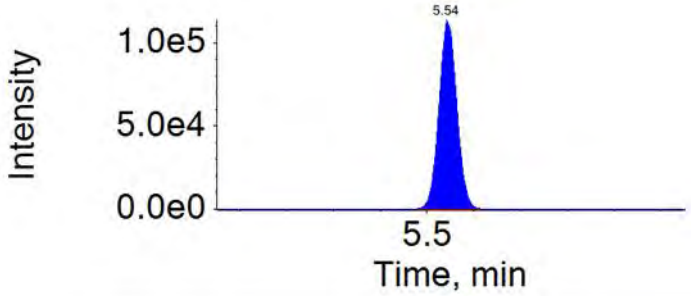
Component: PFNA
Primary Mass: 463.0 / 419.0



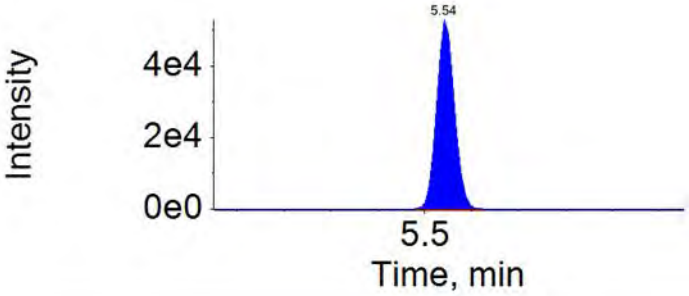
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



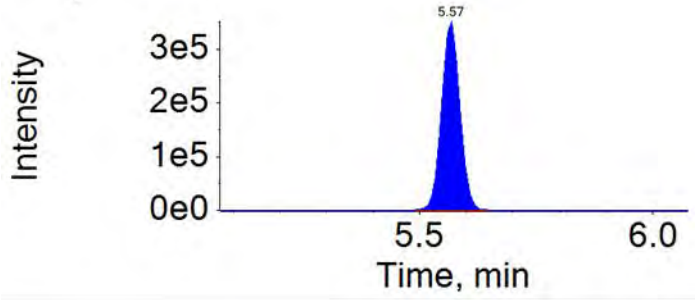
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



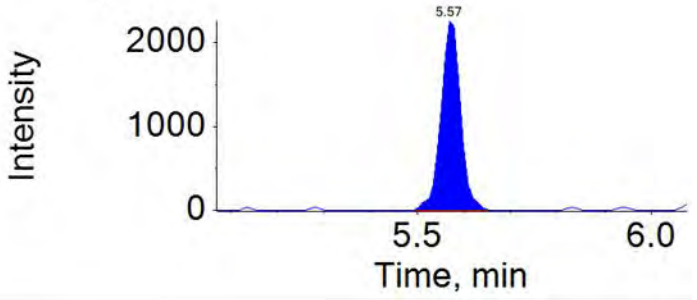
APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By umar at 5:20 pm, 11/13/18

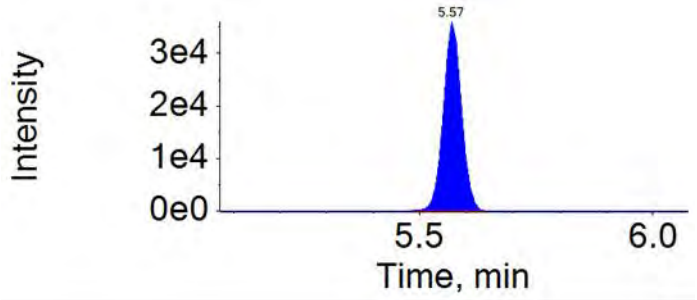
Component: PFDA
Primary Mass: 513.0 / 469.0



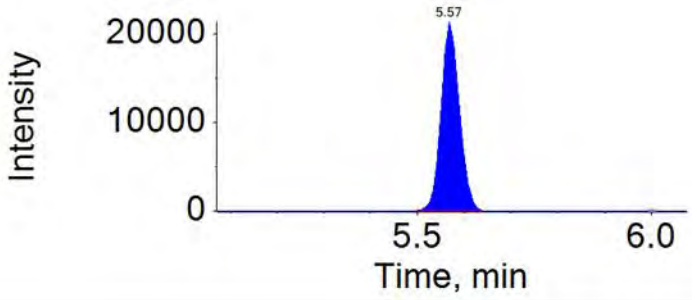
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



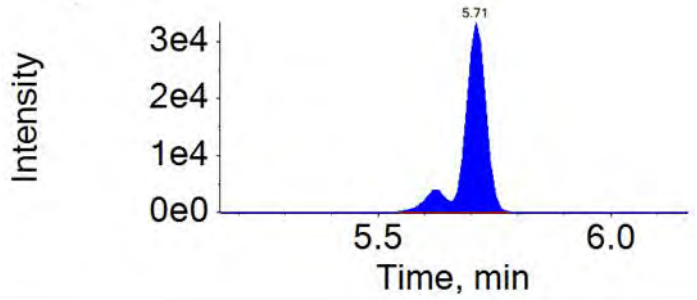
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



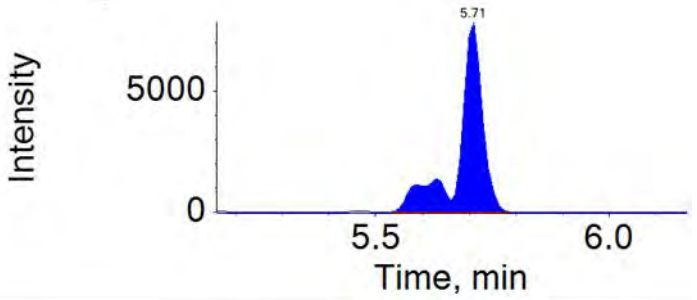
Component: 8:2 FTS_2
Secondary Mass: 527.0 / 81.0



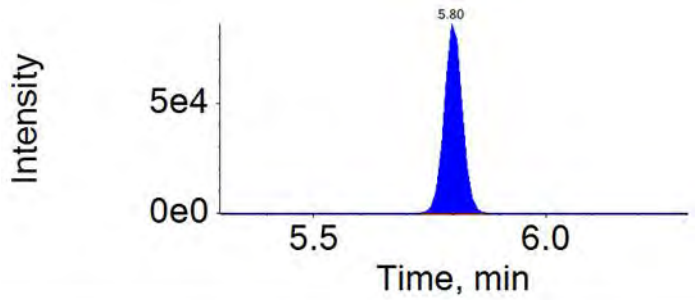
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



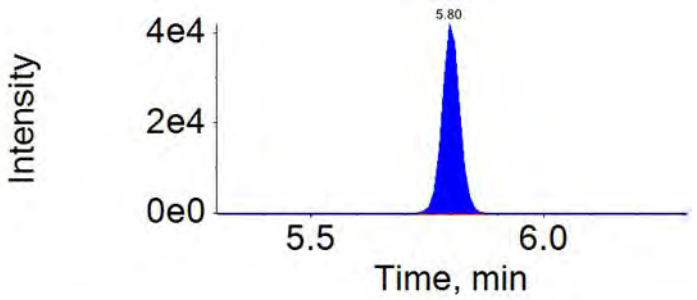
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



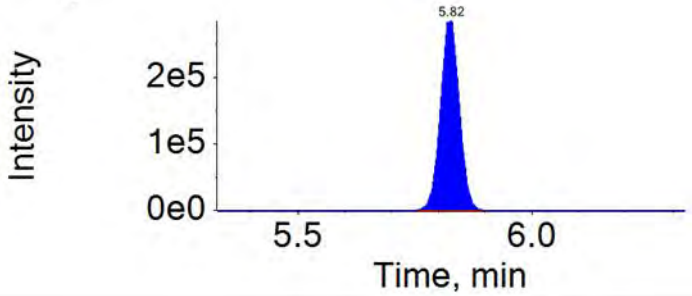
Component: PFDS_2
Secondary Mass: 599.0 / 99.0



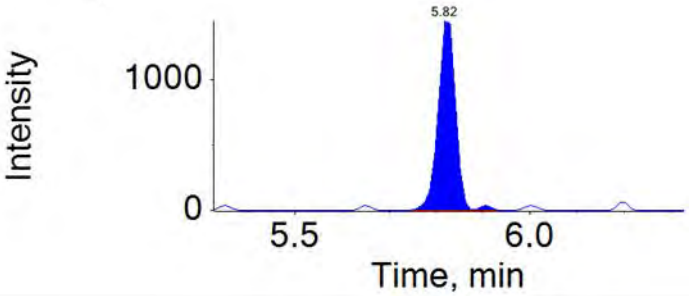
APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By umar at 5:20 pm, 11/13/18

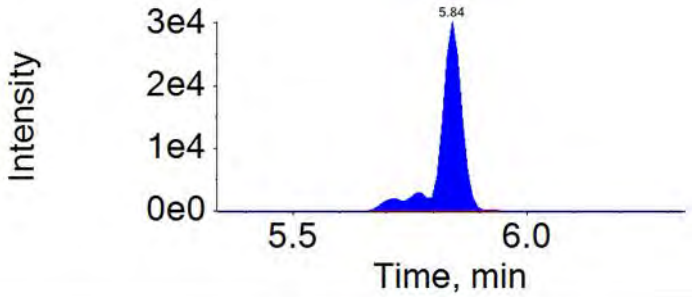
Component: PFUnDA
Primary Mass: 563.0 / 519.0



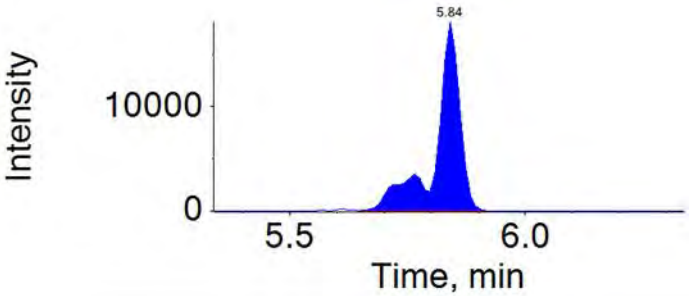
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



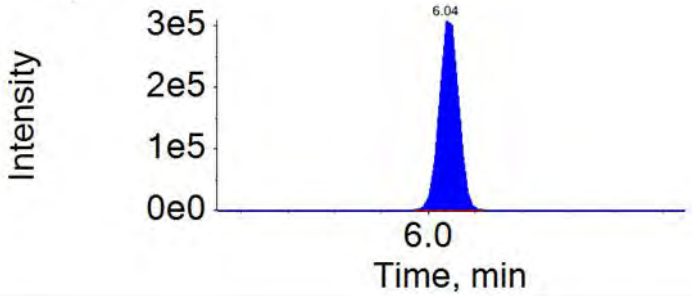
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



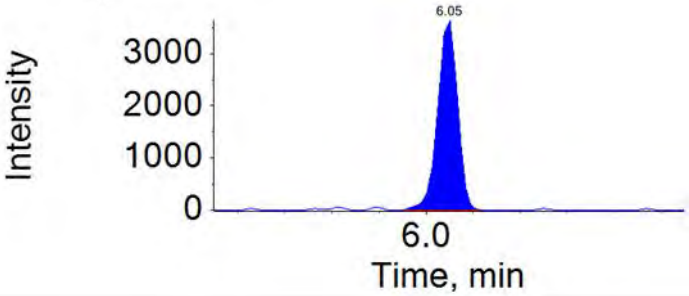
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



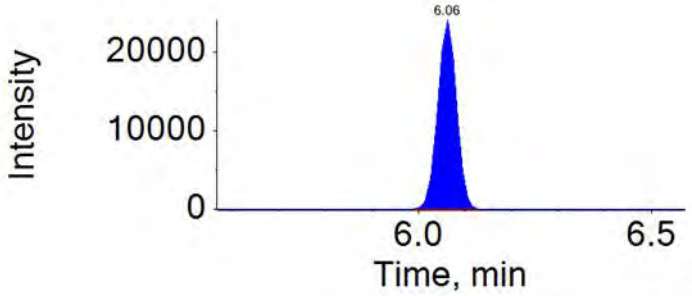
Component: PFDoDA
Primary Mass: 613.0 / 569.0



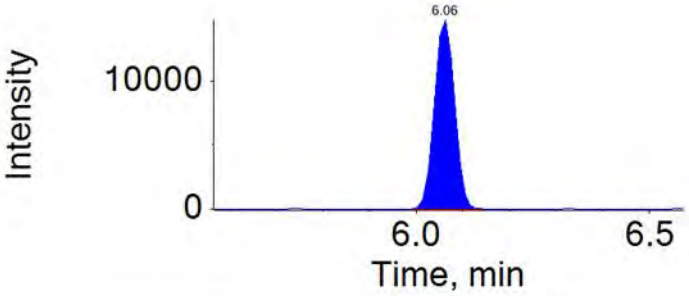
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



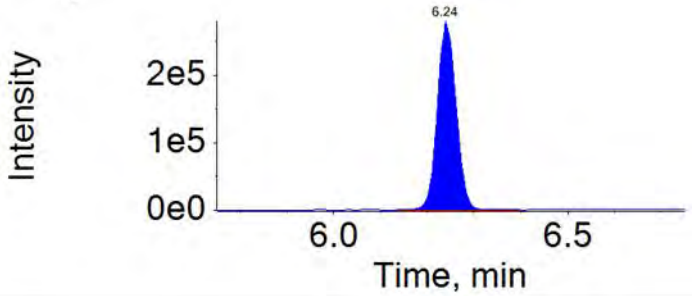
Component: 10:2 FTS_2
Secondary Mass: 627.0 / 81.0



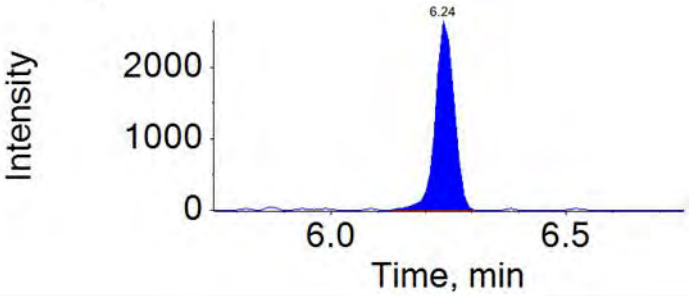
APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By umar at 5:20 pm, 11/13/18

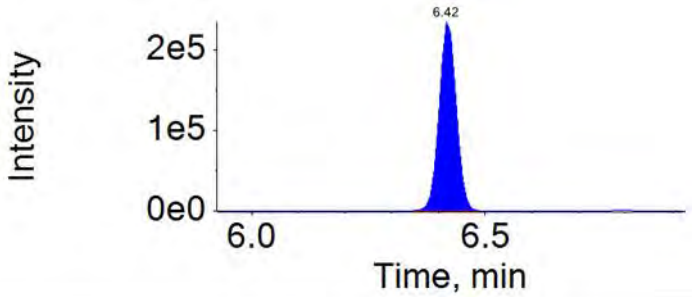
Component: PFTrDA
Primary Mass: 663.0 / 619.0



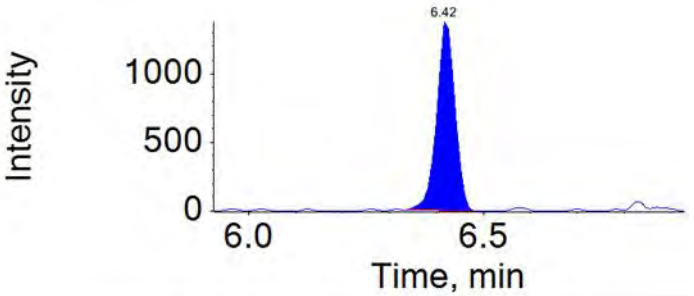
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



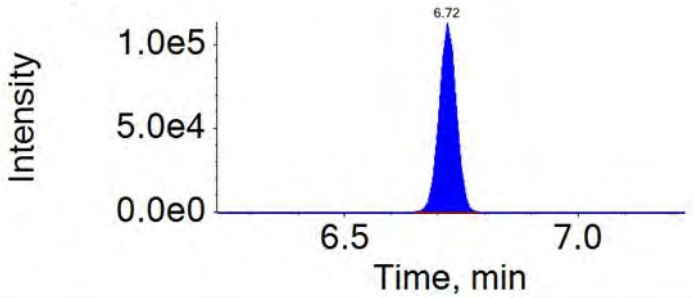
Component: PFTeDA
Primary Mass: 713.0 / 669.0



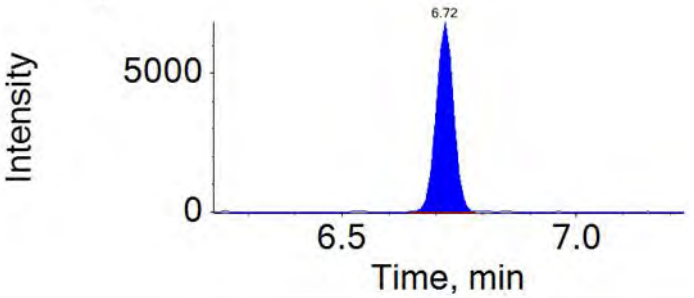
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



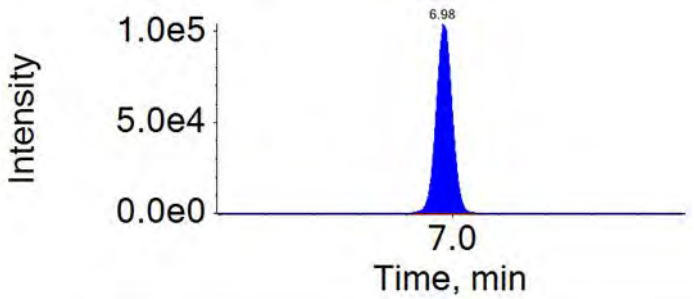
Component: PFHxDA
Primary Mass: 813.0 / 769.0



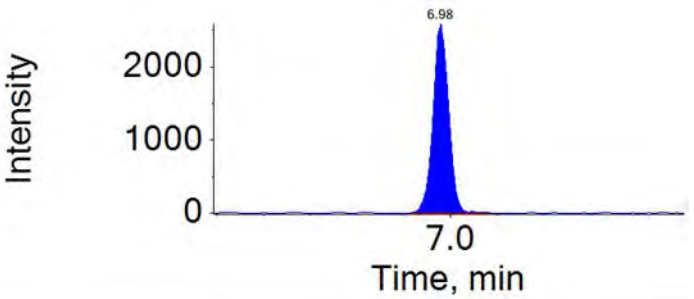
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



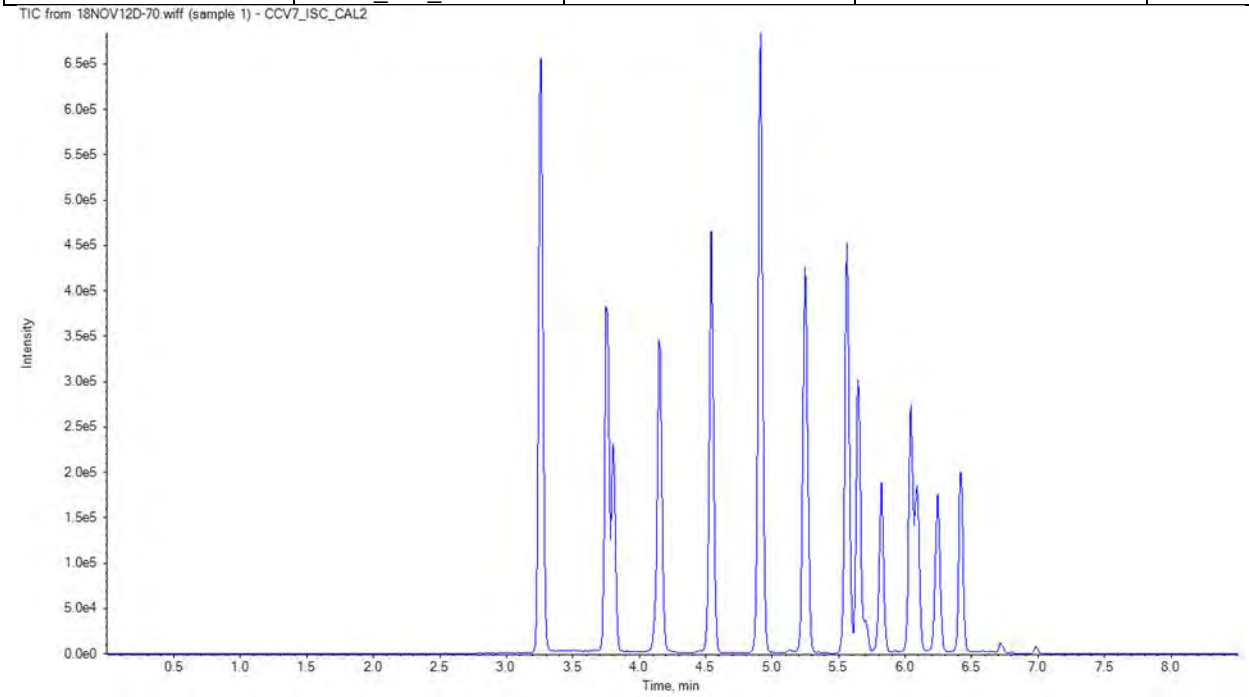
APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By umar at 5:20 pm, 11/13/18

Instrument Sensitivity Check/ Continuing Calibration Verfication

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	CCV7_ISC_CAL2	CALBRN21833C	18NOV12D-70.wiff	2018-11-13T03:08:33



Injection Standard Area Reference File: 18NOV12DCAL-44

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Reference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	663781.9	659926.2	1	50	
13C2-PFOA	5.0	463595.2	450219.7	3	50	
13C4-PFOS	4.8	244885.7	249205.8	-2	50	
13C2-PFDA	5.0	281284.5	278743.9	1	50	

APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By umar at 5:20 pm, 11/13/18

Instrument Sensitivity Check/ Continuing Calibration Verfication

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	CCV7_ISC_CAL2	CALBRN21833C	18NOV12D-70.wiff	2018-11-13T03:08:33

Analyte Name	Analyte Area	Sc /pk	Ext Std Name	Ext Std Area	Ext Std con	Area Ratio	RT (min)	RRT	Spec Amt	Calc Amt	% Diff	% Diff Lim	% Diff OOS
PFBA	80318.1	10	13C4-PFBA	759787.8	5.0	0.106	3.26	1.000	0.600	0.586	-2	30	
PFPeA	76199.0	11	13C5-PFPeA	776046.0	5.0	0.098	3.76	1.000	0.600	0.568	-5	30	
PFBS	43573.8	11	13C3-PFBS	433513.6	4.7	0.101	3.81	1.000	0.531	0.478	-10	30	
4:2-FTS	9044.8	11	13C2-4:2-FTS	45962.1	4.7	0.197	4.12	1.000	0.560	0.534	-5	30	
PFHxA	92374.7	12	13C5-PFHxA	675841.6	5.0	0.137	4.15	1.000	0.600	0.571	-5	30	
PFPeS	21331.8	11	13C3-PFBS	433513.6	4.7	0.049	4.17	1.100	0.563	0.478	-15	30	
PFHpA	94858.7	12	13C4-PFHpA	548919.2	5.0	0.173	4.54	1.000	0.600	0.573	-5	30	
PFHxS	31706.8	19	13C3-PFHxS	324722.8	4.7	0.098	4.54	1.000	0.547	0.473	-13	30	
6:2-FTS	8300.2	11	13C2-6:2-FTS	33444.9	4.8	0.248	4.90	1.000	0.569	0.601	6	30	
PFHpS	30342.3	11	13C3-PFHxS	324722.8	4.7	0.093	4.90	1.080	0.571	0.492	-14	30	
PFOA	99368.2	11	13C8-PFOA	925500.2	5.0	0.107	4.91	1.000	0.600	0.573	-4	30	
PFOS	30080.0	21	13C8-PFOS	271222.4	4.8	0.111	5.24	1.000	0.555	0.485	-13	30	
PFNA	75174.3	11	13C9-PFNA	455669.1	5.0	0.165	5.26	1.000	0.600	0.595	-1	30	
PFNS	17303.4	11	13C8-PFOS	271222.4	4.8	0.064	5.54	1.060	0.576	0.446	-23	30	
PFDA	69571.5	11	13C6-PFDA	652264.3	5.0	0.107	5.56	1.000	0.600	0.565	-6	30	
8:2-FTS	6246.5	13	13C2-8:2-FTS	25907.8	4.8	0.241	5.56	1.000	0.575	0.562	-2	30	
PFOSA	69637.2	11	13C8-PFOSA	621232.7	5.0	0.112	5.65	1.000	0.600	0.548	-9	30	
NMeFOSAA	8320.3	12	d3-NMeFOSAA	74991.5	5.0	0.111	5.71	1.000	0.600	0.627	5	30	
PFDS	15378.4	12	13C8-PFOS	271222.4	4.8	0.057	5.79	1.110	0.578	0.514	-11	30	
PFUnDA	56318.9	11	13C7-PFUnDA	260836.6	5.0	0.216	5.82	1.000	0.600	0.564	-6	30	
NEtFOSAA	5863.7	21	d5-NEtFOSAA	69408.4	5.0	0.084	5.83	1.000	0.600	0.443	-26	30	
PFDoDA	56183.0	11	13C2-PFDoDA	539910.7	5.0	0.104	6.04	1.000	0.600	0.530	-12	30	
10:2-FTS	4429.6	11	13C2-8:2-FTS	25907.8	4.8	0.171	6.07	1.090	0.578	0.569	-1	30	
NMePFOSAE	46046.4	12	d7-NMePFOSAE	316077.1	5.0	0.146	6.10	1.000	0.600	0.606	1	30	
NMePFOSA	8444.8	12	d3-NMePFOSA	77538.7	5.0	0.109	6.10	1.000	0.600	0.537	-10	30	
PFDoS	8181.4	11	13C8-PFOS	271222.4	4.8	0.030	6.21	1.190	0.581	0.528	-9	30	
NEtPFOSAE	45451.8	11	d9-NEtPFOSAE	260793.4	5.0	0.174	6.25	1.000	0.600	0.559	-7	30	
NEtPFOSA	8349.0	11	d5-NEtPFOSA	56766.8	5.0	0.147	6.26	1.000	0.600	0.675	13	30	
PFTrDA	50194.4	11	13C2-PFDoDA	539910.7	5.0	0.093	6.24	1.030	0.600	0.587	-2	30	
PFTeDA	38146.4	10	13C2-PFTeDA	409036.5	5.0	0.093	6.42	1.000	0.600	0.523	-13	30	
PFHxDA	19541.0	11	13C2-PFTeDA	409036.5	5.0	0.048	6.72	1.050	0.600	0.569	-5	30	
PFODA	15536.1	10	13C2-PFTeDA	409036.5	5.0	0.038	6.98	1.090	0.600	0.529	-12	30	

APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By umar at 5:20 pm, 11/13/18

Instrument Sensitivity Check/ Continuing Calibration Verfication

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By umar at 5:20 pm, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Sample Name:	CCV7_ISC_CAL2			**Data File:**		18NOV12D-70.wiff
Sample ID:	CALBRN21833C			**Acquis Date:**		2018-11-13T03:08:33
Sample Type:	Quality Control			**Instrument:**		LM27631
Vial Position:	4			**Acquis Method:**		18AUG13_3uL.dam
Injection Vol:	3.00			**Result Table:**		18NOV12DCCV3-11
QMethod File:	18AUG20QM			**ICAL Name:**		18NOV12DCAL
Batch Number:	N/A			**Operator:**		JPT12262
Sample Wt.:	1.00000			**Dilution Factor:**		1.00
Sample Vol.:	1.000			**Prep Factor:**		1.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV12DCAL-44

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Rreference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	663781.9	659926.2	1	50	
13C2-PFOA	5.0	463595.2	450219.7	3	50	
13C4-PFOS	4.8	244885.7	249205.8	-2	50	
13C2-PFDA	5.0	281284.5	278743.9	1	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	759787.8	13C3-PFBA	663781.9	1.145	5.000	5.132	103	70-130	
E13C5-PFPeA	776046.0	13C3-PFBA	663781.9	1.169	5.000	5.244	105	70-130	
E13C3-PFBS	433513.6	13C3-PFBA	663781.9	0.653	4.650	4.610	99	70-130	
E13C2-4:2-FTS	45962.1	13C2-PFOA	463595.2	0.099	4.670	4.416	95	70-130	
E13C5-PFHxA	675841.6	13C2-PFOA	463595.2	1.458	5.000	5.266	105	70-130	
E13C3-PFHxS	324722.8	13C2-PFOA	463595.2	0.700	4.730	4.806	102	70-130	
E13C4-PFHpA	548919.2	13C2-PFOA	463595.2	1.184	5.000	5.334	107	70-130	
E13C2-6:2-FTS	33444.9	13C2-PFOA	463595.2	0.072	4.750	4.827	102	70-130	
E13C8-PFOA	925500.2	13C2-PFOA	463595.2	1.996	5.000	5.500	110	70-130	
E13C8-PFOS	271222.4	13C4-PFOS	244885.7	1.108	4.780	4.907	103	70-130	
E13C9-PFNA	455669.1	13C4-PFOS	244885.7	1.861	5.000	5.188	104	70-130	
E13C6-PFDA	652264.3	13C2-PFDA	281284.5	2.319	5.000	5.411	108	70-130	
E13C2-8:2-FTS	25907.8	13C2-PFDA	281284.5	0.092	4.790	4.593	96	70-130	
E13C8-PFOSA	621232.7	13C2-PFDA	281284.5	2.209	5.000	4.896	98	70-130	
Ed3-NMeFOSAA	74991.5	13C2-PFDA	281284.5	0.267	5.000	4.812	96	70-130	
E13C7-PFUnDA	260836.6	13C2-PFDA	281284.5	0.927	5.000	5.384	108	70-130	
Ed5-NEtFOSAA	69408.4	13C2-PFDA	281284.5	0.247	5.000	5.220	104	70-130	
E13C2-PFDoDA	539910.7	13C2-PFDA	281284.5	1.919	5.000	4.984	100	70-130	
Ed7-NMePFOSAE	316077.1	13C2-PFDA	281284.5	1.124	5.000	4.863	97	70-130	
Ed3-NMePFOSA	77538.7	13C2-PFDA	281284.5	0.276	5.000	5.008	100	70-130	
Ed9-NEtPFOSAE	260793.4	13C2-PFDA	281284.5	0.927	5.000	4.822	96	70-130	
Ed5-NEtPFOSA	56766.8	13C2-PFDA	281284.5	0.202	5.000	4.734	95	70-130	
E13C2-PFTeDA	409036.5	13C2-PFDA	281284.5	1.454	5.000	5.105	102	70-130	

APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By umar at 5:20 pm, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

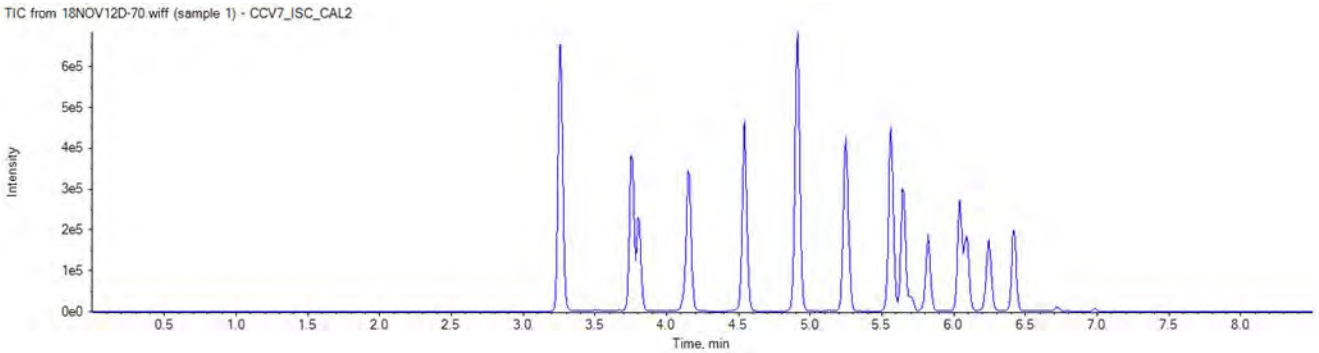
Analyte Quantitation Peak Table

Sample Name: CCV7_ISC_CAL2 **Instrument Name:** LM27631 **File Name:** 18NOV12D-70.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	1.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	3.26	1.000	80318.1		A	13C4-PFBA	3.26	759787.8	0.106	0.586
PFPeA	3.76	1.000	76199.0		M	13C5-PFPeA	3.76	776046.0	0.098	0.568
PFBS	3.81	1.000	43573.8		A	13C3-PFBS	3.81	433513.6	0.101	0.478
4:2-FTS	4.12	1.000	9044.8		A	13C2-4:2-FTS	4.12	45962.1	0.197	0.534
PFHxA	4.15	1.000	92374.7		A	13C5-PFHxA	4.15	675841.6	0.137	0.571
PFPeS	4.17	1.100	21331.8		A	13C3-PFBS	3.81	433513.6	0.049	0.478
PFHpA	4.54	1.000	94858.7		A	13C4-PFHpA	4.54	548919.2	0.173	0.573
PFHxS	4.54	1.000	31706.8		M	13C3-PFHxS	4.54	324722.8	0.098	0.473
6:2-FTS	4.90	1.000	8300.2		A	13C2-6:2-FTS	4.90	33444.9	0.248	0.601
PFHpS	4.90	1.080	30342.3		A	13C3-PFHxS	4.54	324722.8	0.093	0.492
PFOA	4.91	1.000	99368.2		A	13C8-PFOA	4.91	925500.2	0.107	0.573
PFOS	5.24	1.000	30080.0		M	13C8-PFOS	5.24	271222.4	0.111	0.485
PFNA	5.26	1.000	75174.3		A	13C9-PFNA	5.26	455669.1	0.165	0.595
PFNS	5.54	1.060	17303.4		A	13C8-PFOS	5.24	271222.4	0.064	0.446
PFDA	5.56	1.000	69571.5		A	13C6-PFDA	5.56	652264.3	0.107	0.565
8:2-FTS	5.56	1.000	6246.5		A	13C2-8:2-FTS	5.57	25907.8	0.241	0.562
PFOSA	5.65	1.000	69637.2		A	13C8-PFOSA	5.65	621232.7	0.112	0.548
NMeFOSAA	5.71	1.000	8320.3		A	d3-NMeFOSAA	5.70	74991.5	0.111	0.627
PFDS	5.79	1.110	15378.4		A	13C8-PFOS	5.24	271222.4	0.057	0.514
PFUnDA	5.82	1.000	56318.9		A	13C7-PFUnDA	5.82	260836.6	0.216	0.564
NEtFOSAA	5.83	1.000	5863.7		M	d5-NEtFOSAA	5.83	69408.4	0.084	0.443
PFDoDA	6.04	1.000	56183.0		A	13C2-PFDoDA	6.04	539910.7	0.104	0.530
10:2-FTS	6.07	1.090	4429.6		A	13C2-8:2-FTS	5.57	25907.8	0.171	0.569
NMePFOSAE	6.10	1.000	46046.4		A	d7-NMePFOSAE	6.09	316077.1	0.146	0.606
NMePFOSA	6.10	1.000	8444.8		A	d3-NMePFOSA	6.10	77538.7	0.109	0.537
PFDoS	6.21	1.190	8181.4		A	13C8-PFOS	5.24	271222.4	0.030	0.528
NEtPFOSAE	6.25	1.000	45451.8		A	d9-NEtPFOSAE	6.24	260793.4	0.174	0.559
NEtPFOSA	6.26	1.000	8349.0		M	d5-NEtPFOSA	6.26	56766.8	0.147	0.675
PFTrDA	6.24	1.030	50194.4		A	13C2-PFDoDA	6.04	539910.7	0.093	0.587
PFTeDA	6.42	1.000	38146.4		A	13C2-PFTeDA	6.42	409036.5	0.093	0.523
PFHxDA	6.72	1.050	19541.0		A	13C2-PFTeDA	6.42	409036.5	0.048	0.569
PFODA	6.98	1.090	15536.1		A	13C2-PFTeDA	6.42	409036.5	0.038	0.529

Total Ion Chromatogram

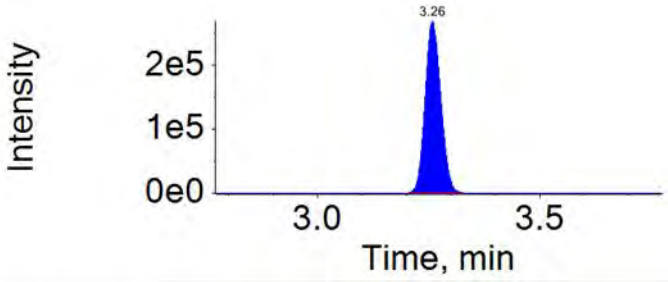


APPROVED
By JPT at 10:23 am, 11/13/18

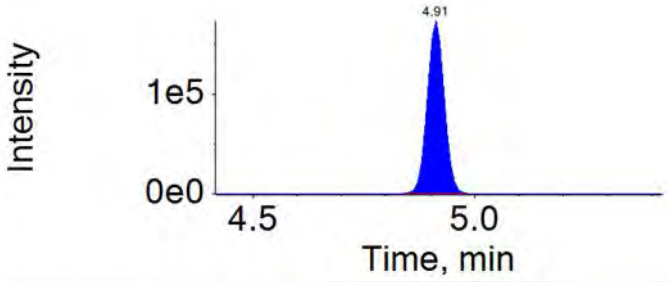
REVIEWED
By umar at 5:20 pm, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

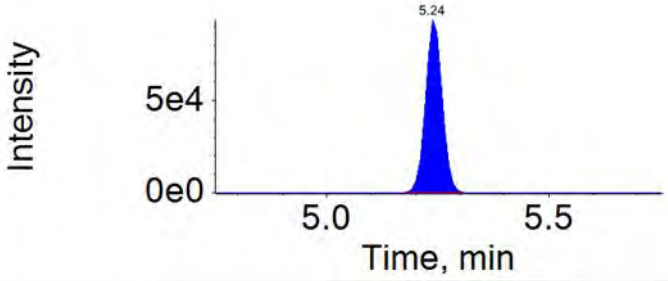
Injection Standard: 13C3-PFBA
216.0 / 172.0



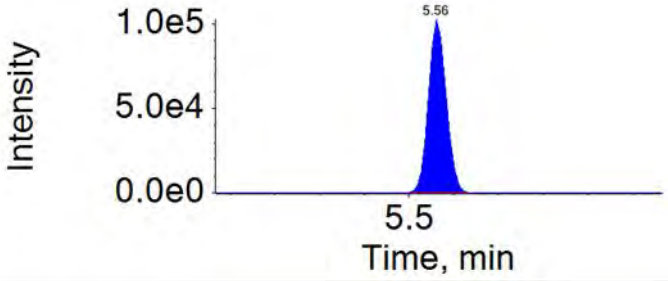
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0



Injection Standard: 13C2-PFDA
515.0 / 470.0

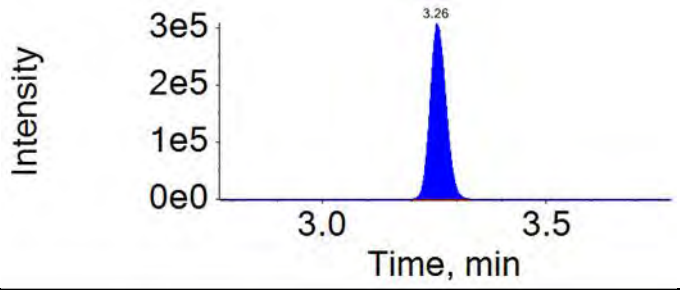


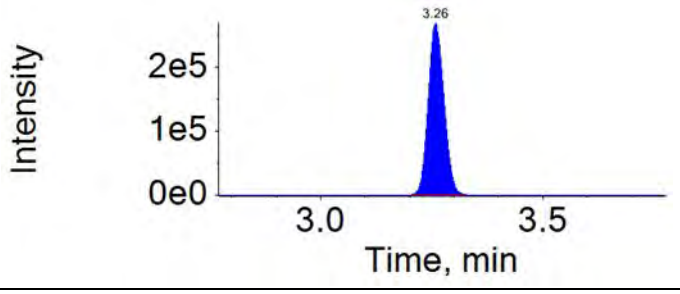
APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By umar at 5:20 pm, 11/13/18

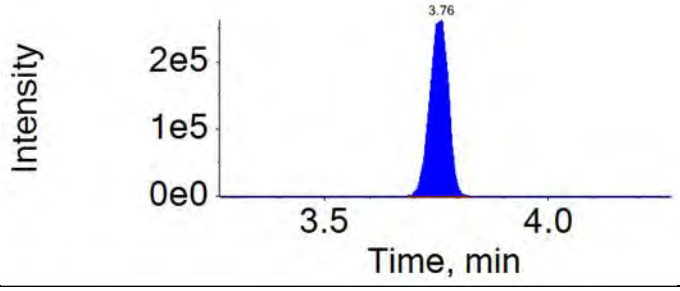
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

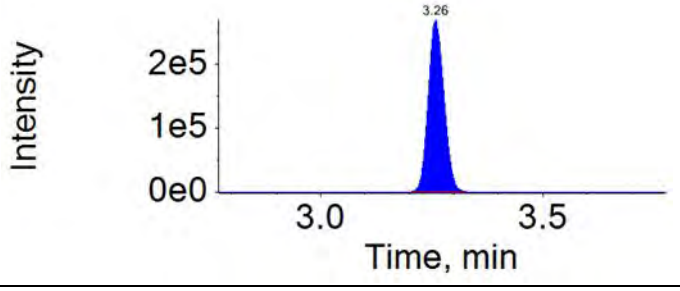
Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0



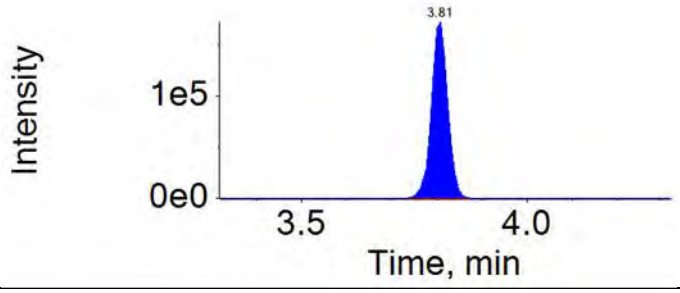


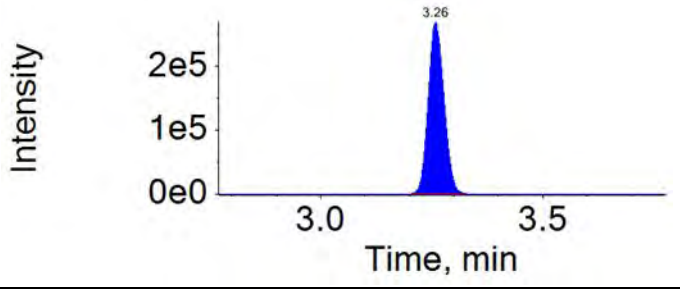
Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0



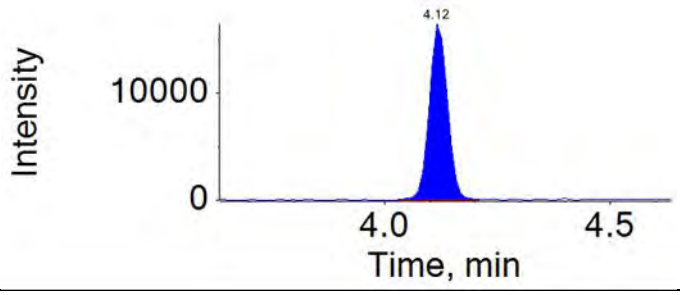


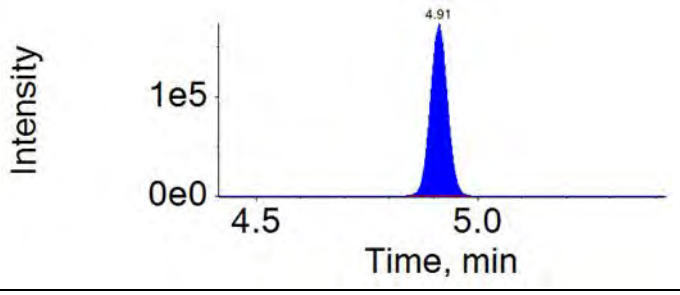
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0





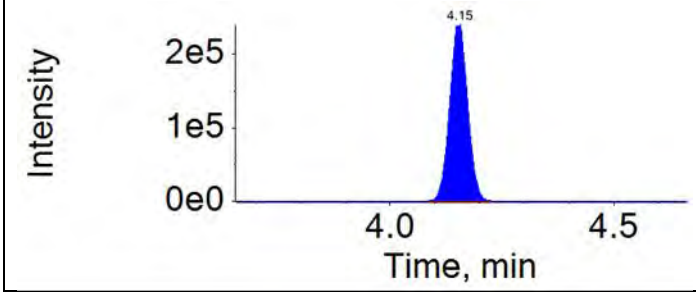
Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0

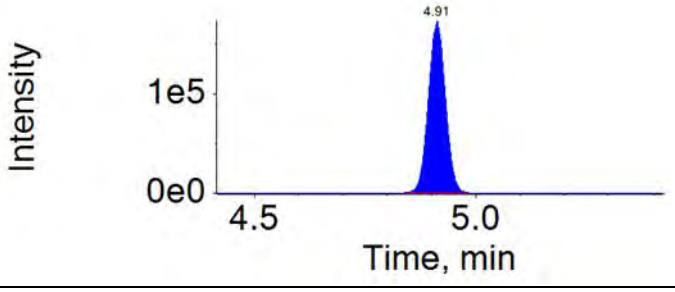




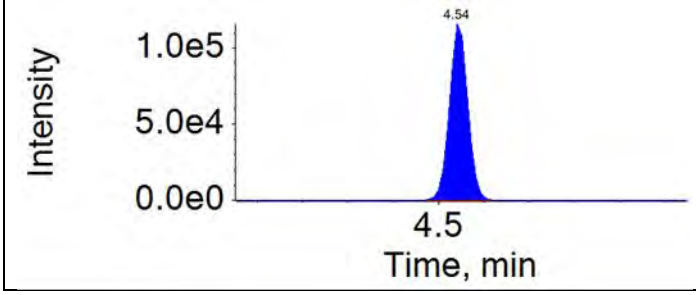
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

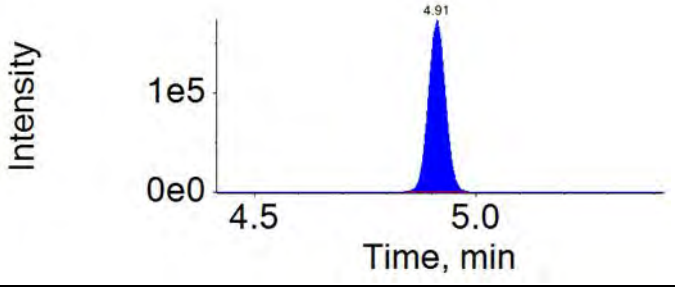
Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0



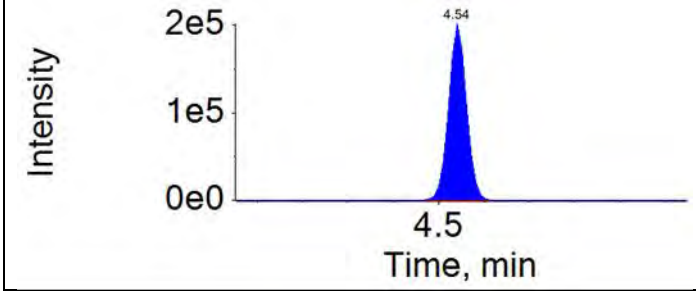


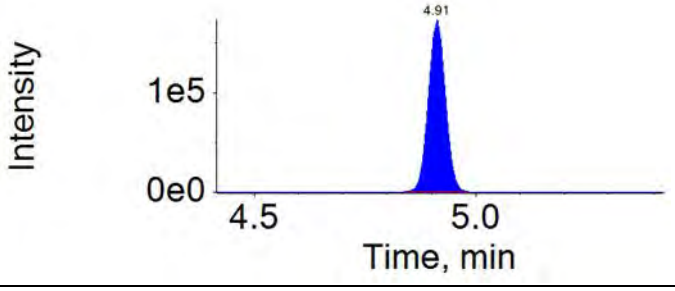
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0



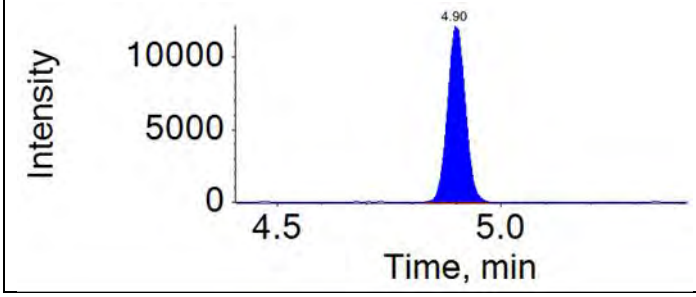


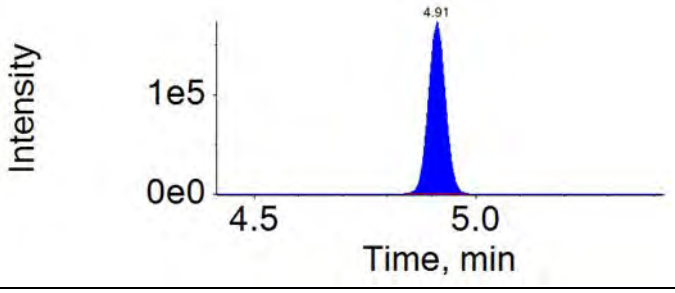
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0



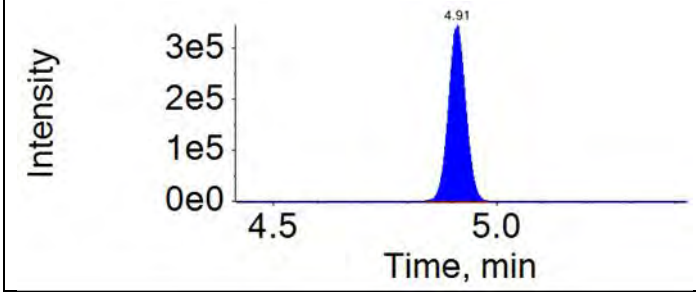
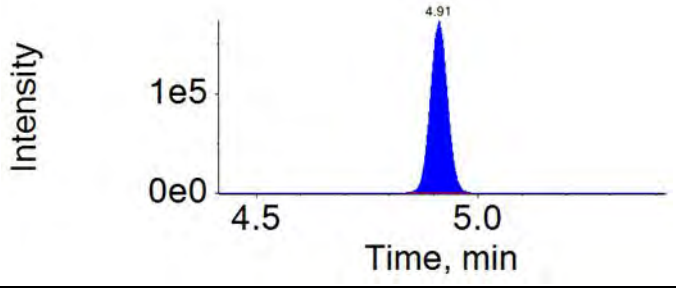


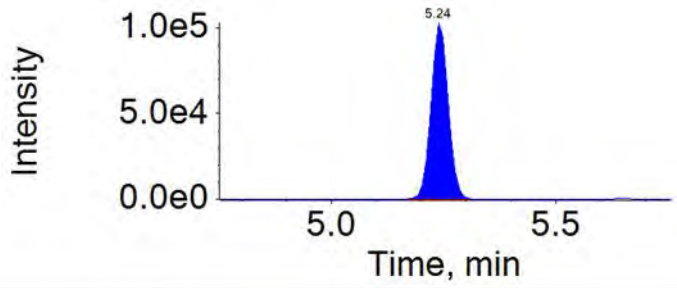
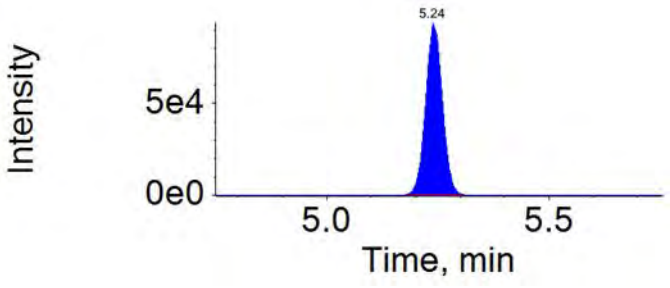
Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0

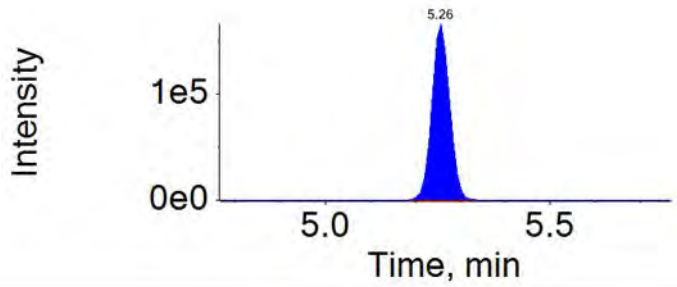
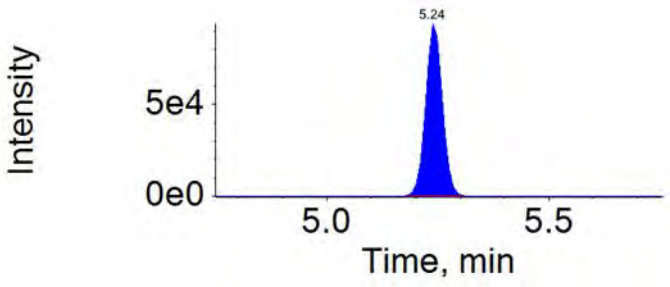


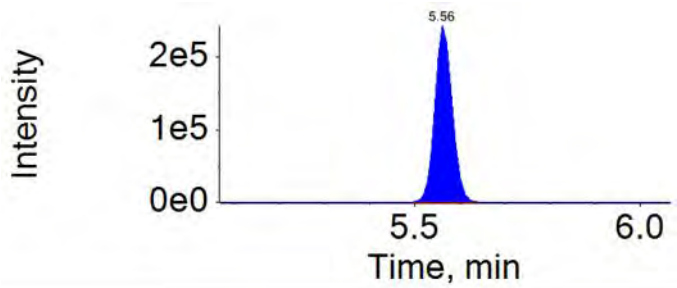
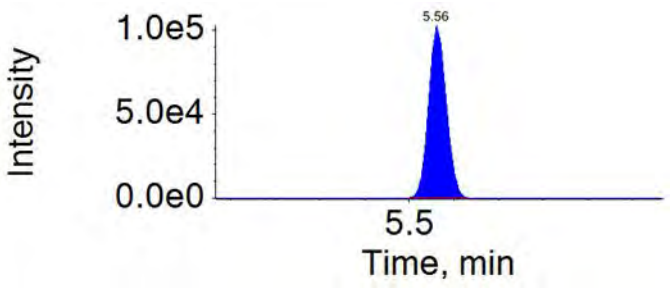


ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

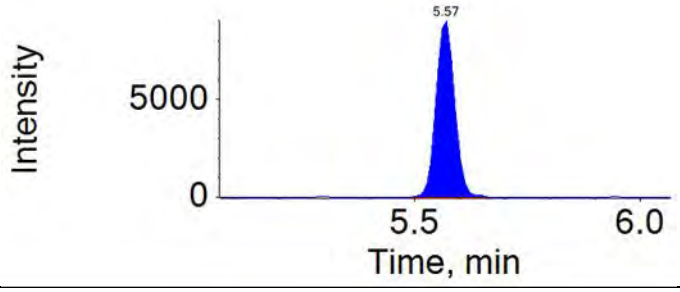
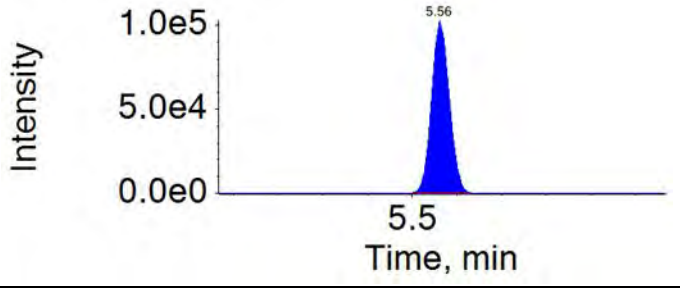
Extraction Standard: E13C8-PFOA	Injection Standard: 13C2-PFOA
421.0 / 376.0	415.0 / 370.0
	

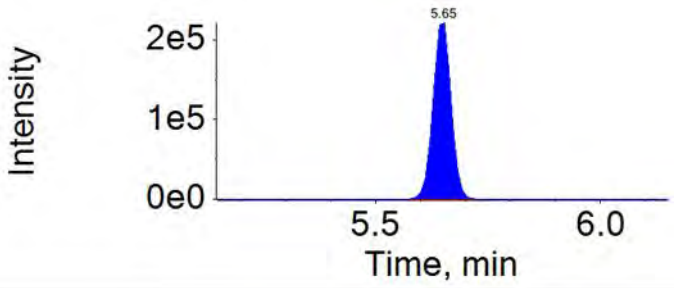
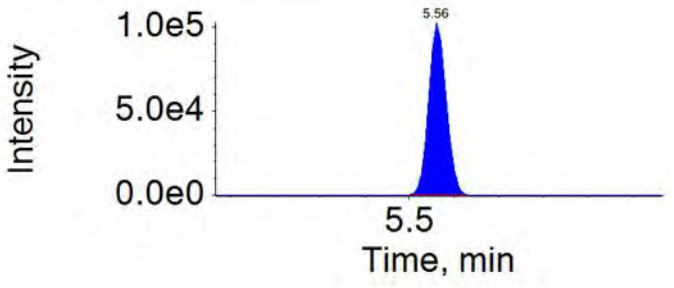
Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0
	

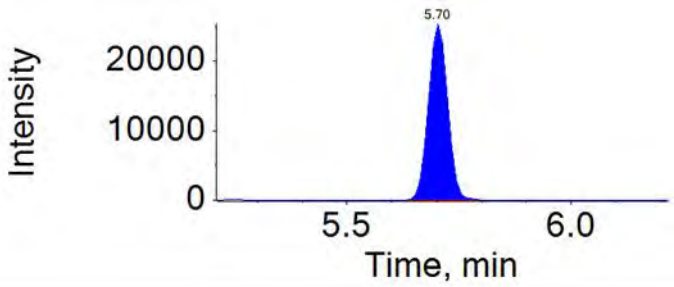
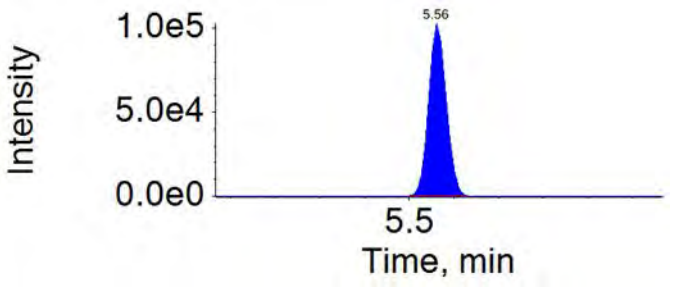
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0
	

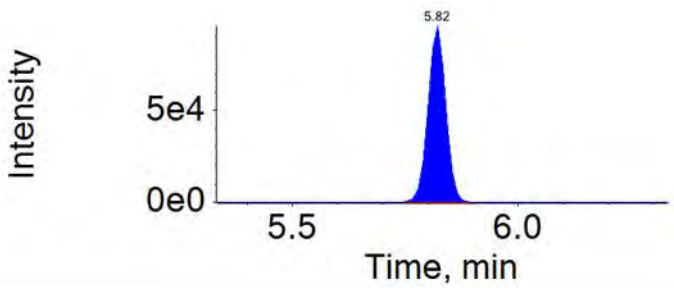
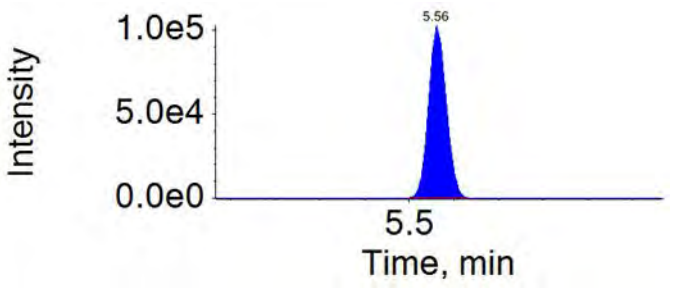
Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0
	

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: E13C2-8:2-FTS	Injection Standard: 13C2-PFDA
529.0 / 81.0	515.0 / 470.0
	

Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0
	

Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0
	

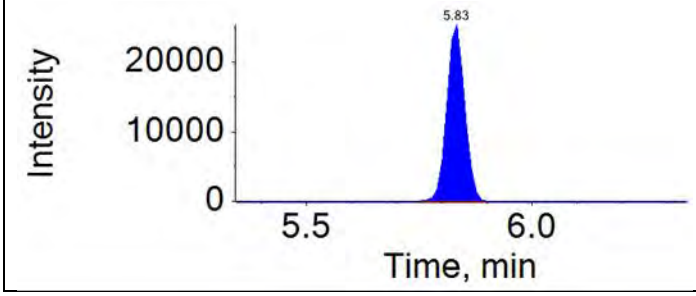
Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0
	

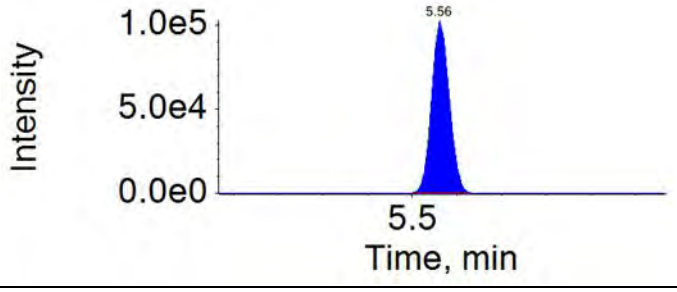
APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By umar at 5:20 pm, 11/13/18

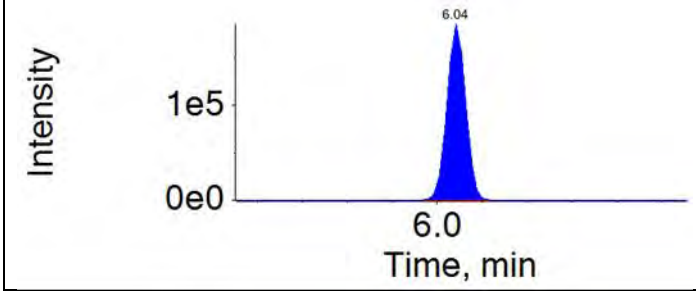
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

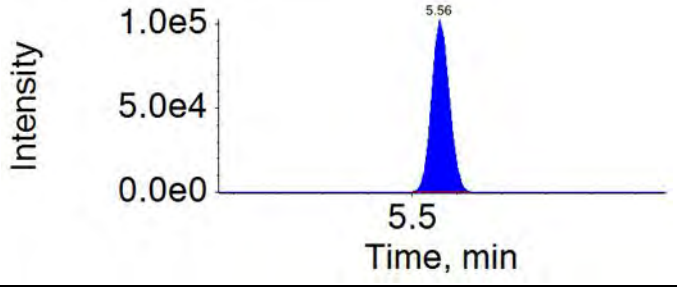
Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0



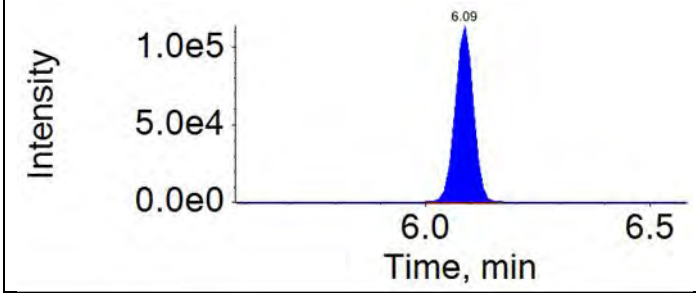


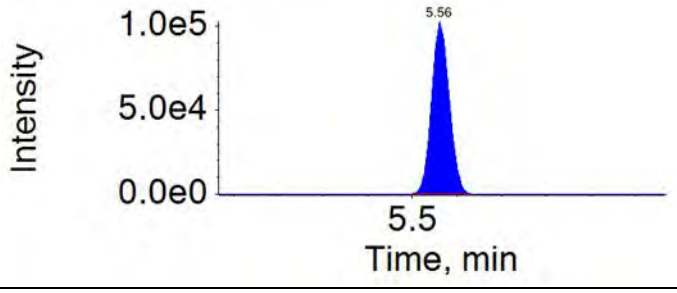
Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0



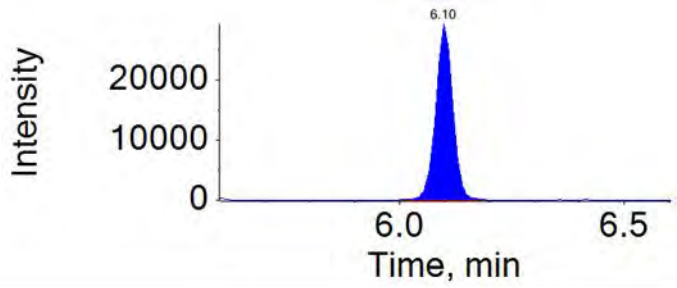


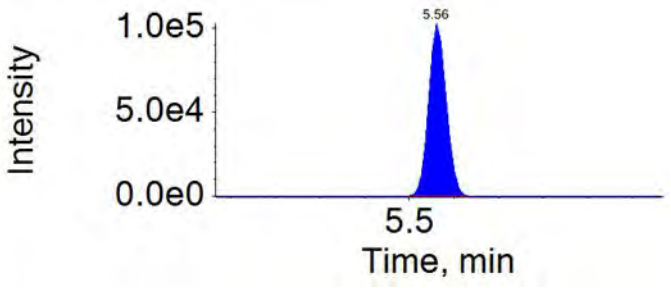
Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0





Extraction Standard: Ed3-NMePFOSA	Injection Standard: 13C2-PFDA
515.0 / 169.0	515.0 / 470.0



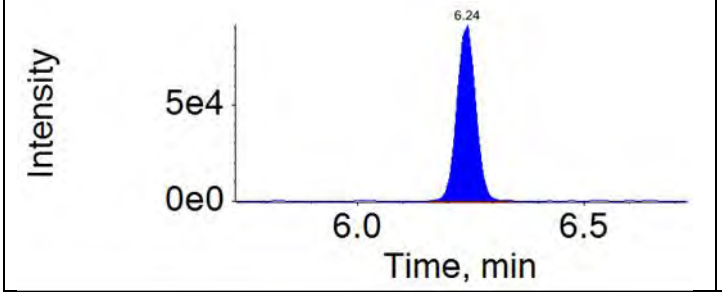


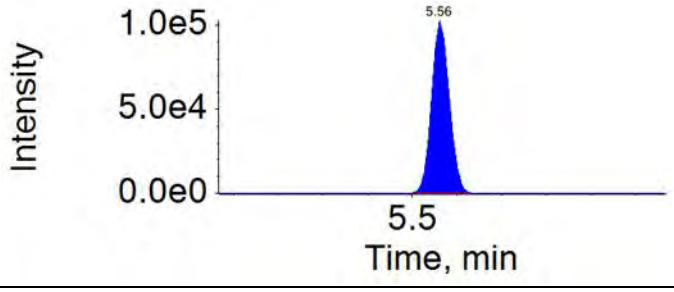
APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By umar at 5:20 pm, 11/13/18

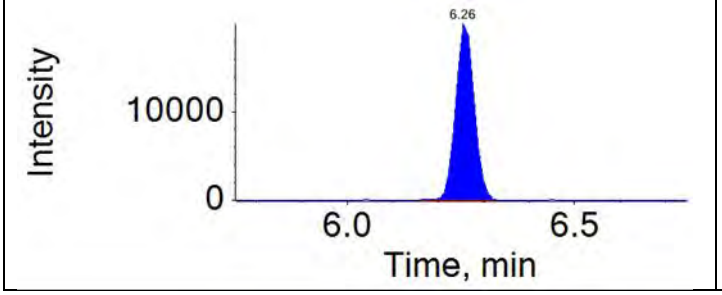
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

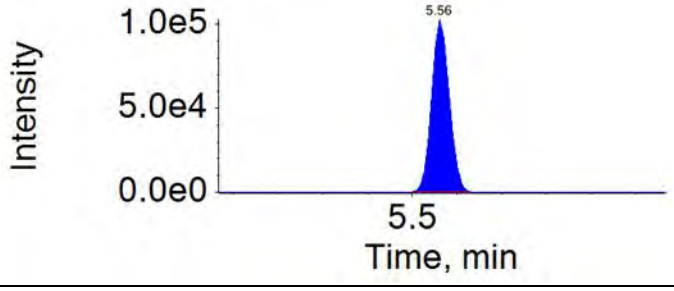
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



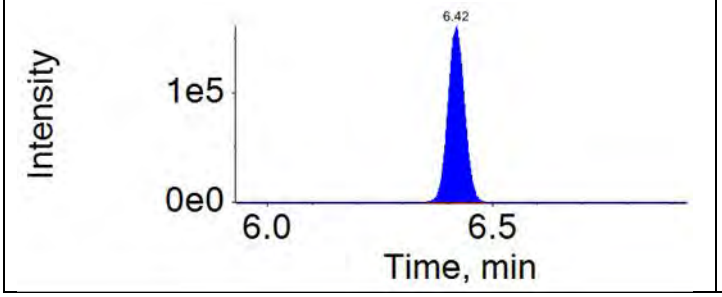


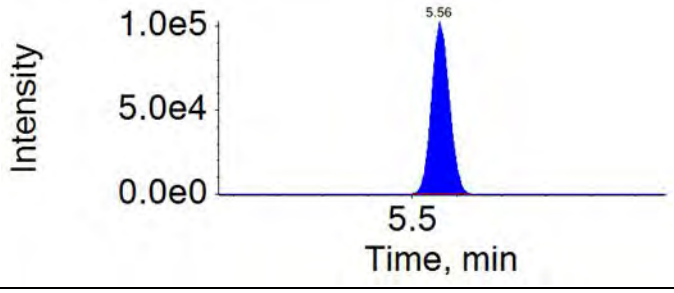
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0



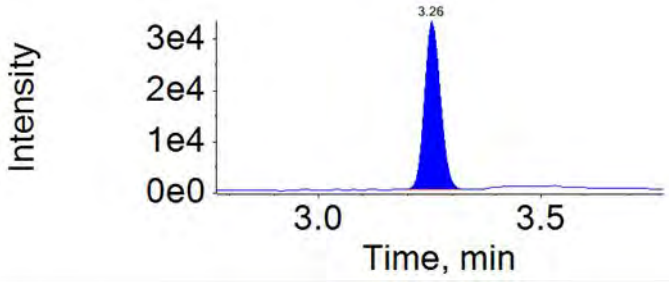


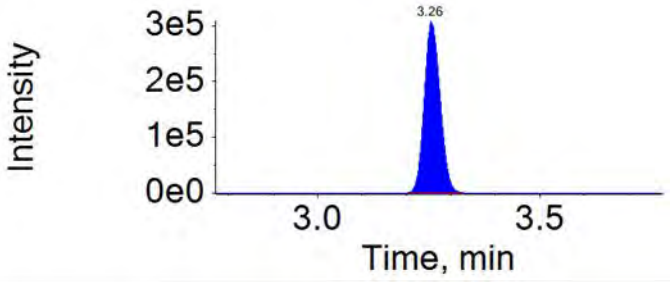
APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By umar at 5:20 pm, 11/13/18

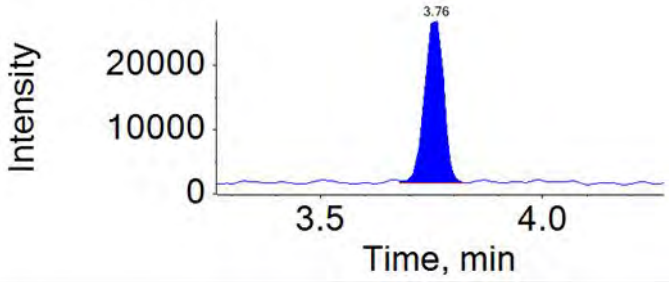
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

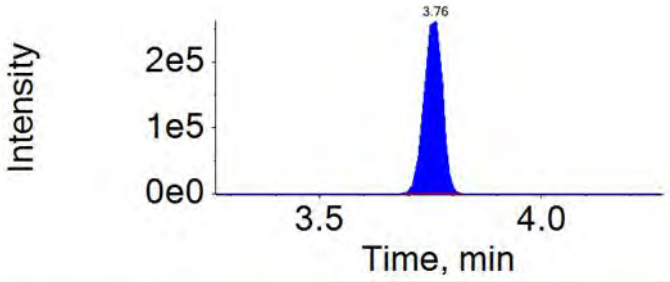
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



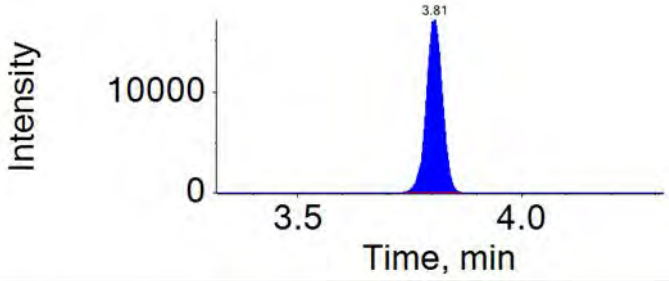


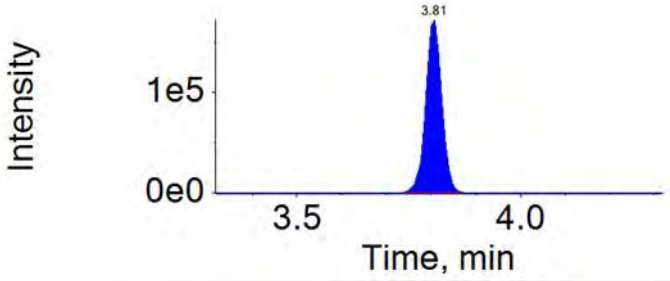
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



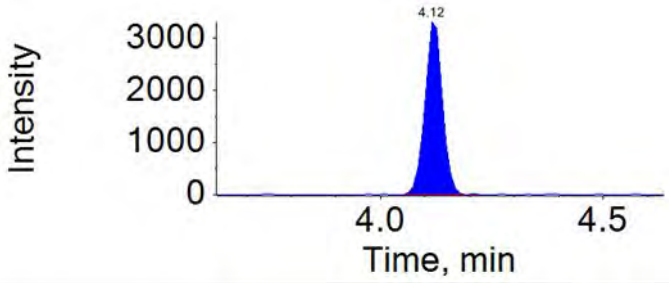


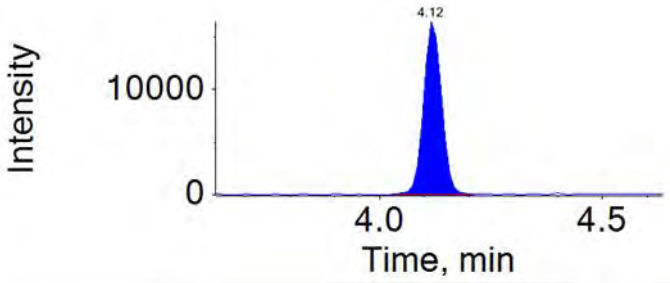
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





Analyte: 4:2-FTS	Extraction Standard: 13C2-4:2-FTS
327.0 / 307.0	329.0 / 81.0



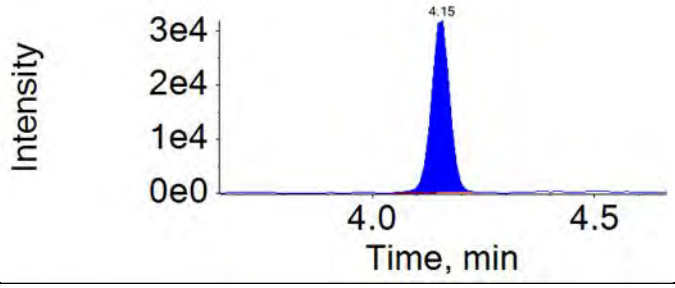


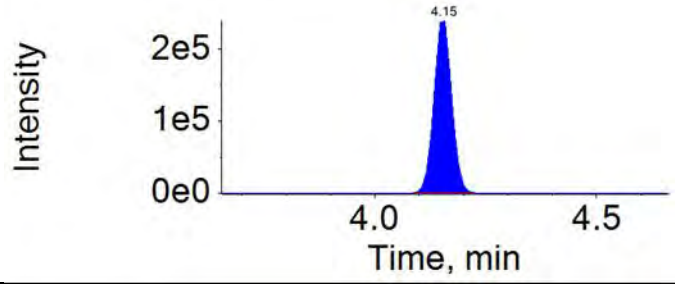
APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By umar at 5:20 pm, 11/13/18

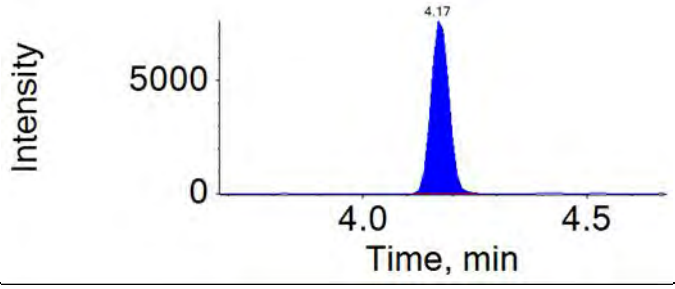
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

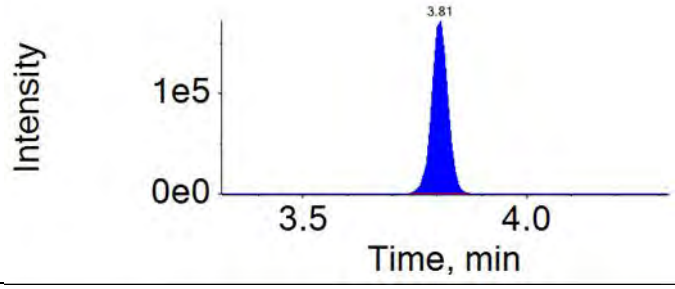
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



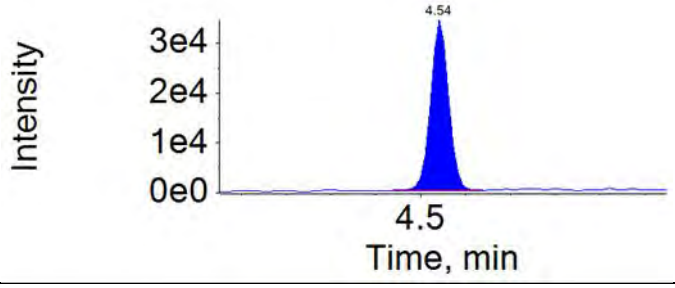


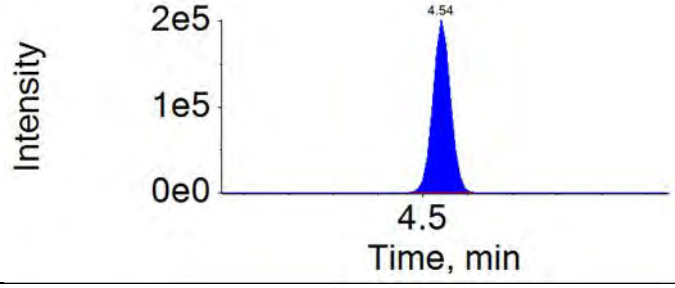
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



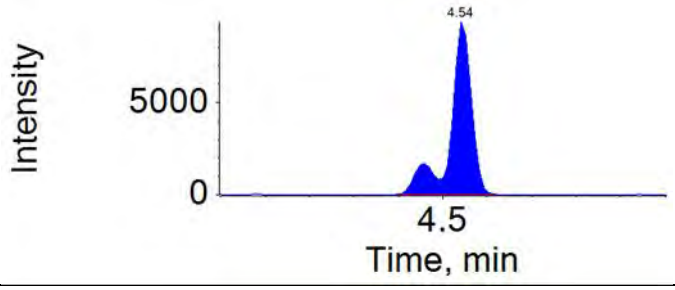


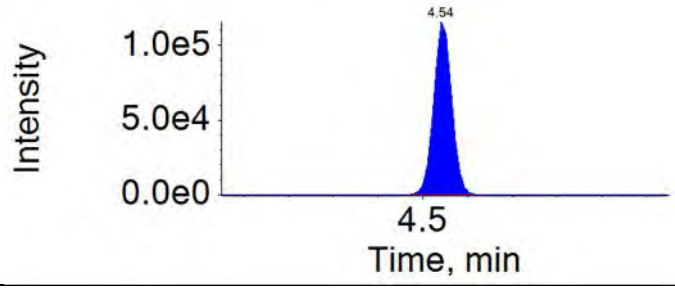
Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0





Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0

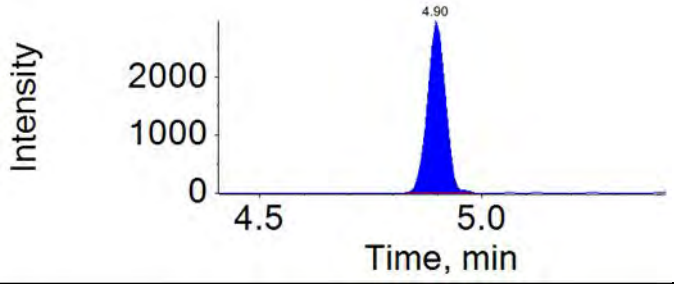
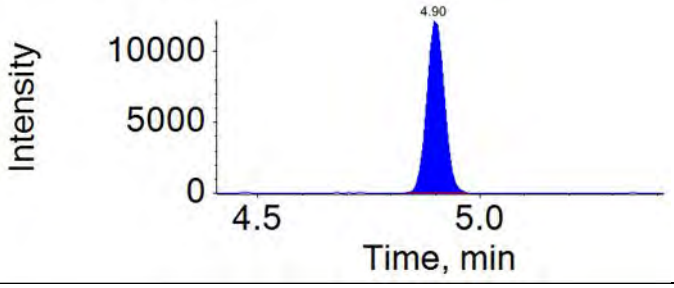


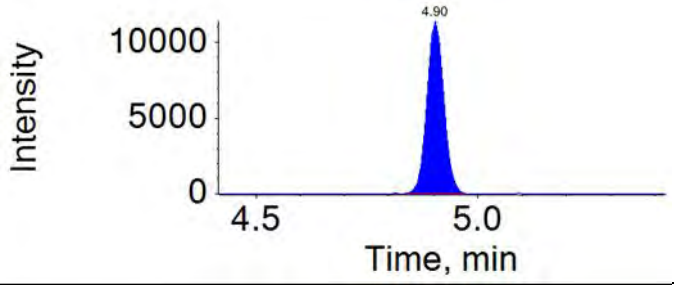
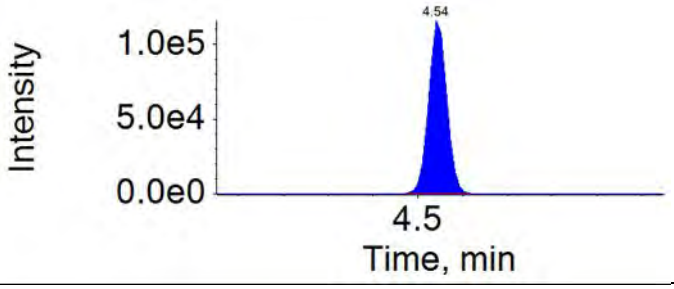


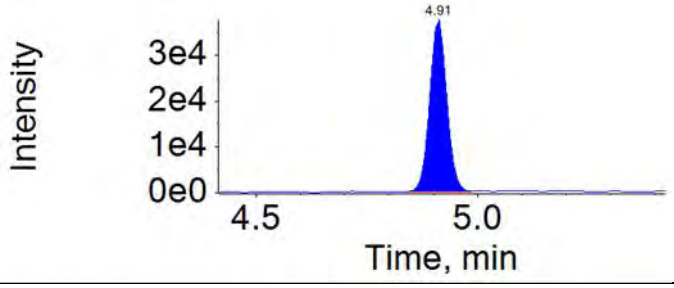
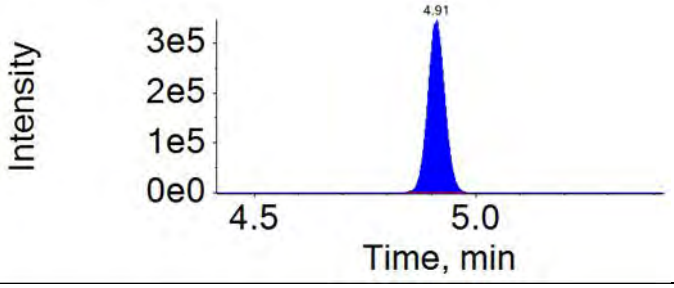
APPROVED
By JPT at 10:23 am, 11/13/18

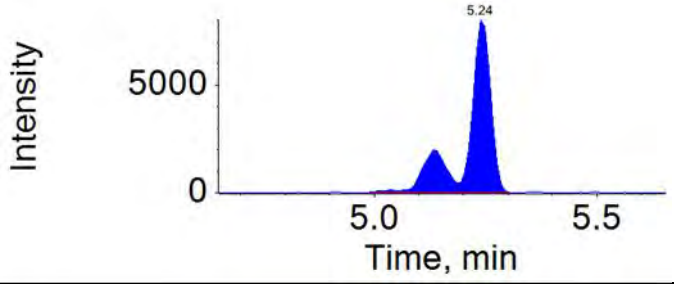
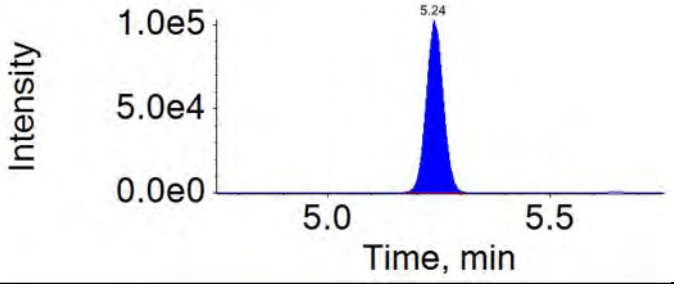
REVIEWED
By umar at 5:20 pm, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Analyte: 6:2-FTS	Extraction Standard: 13C2-6:2-FTS
427.0 / 407.0	429.0 / 81.0
	

Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0
	

Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0
	

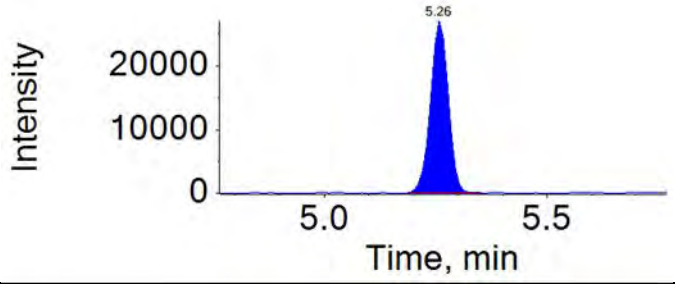
Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0
	

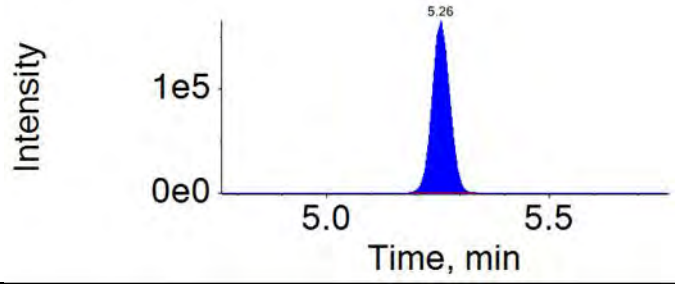
APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By umar at 5:20 pm, 11/13/18

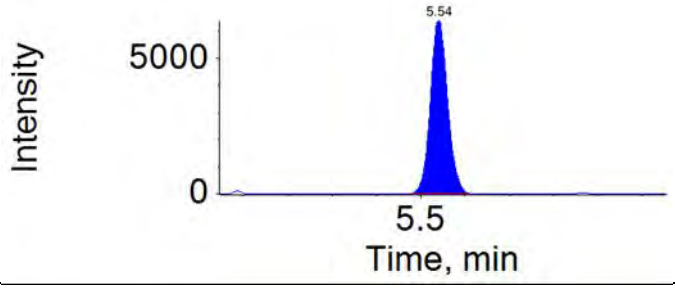
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

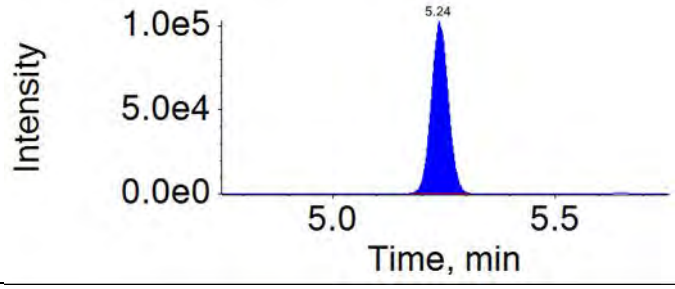
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



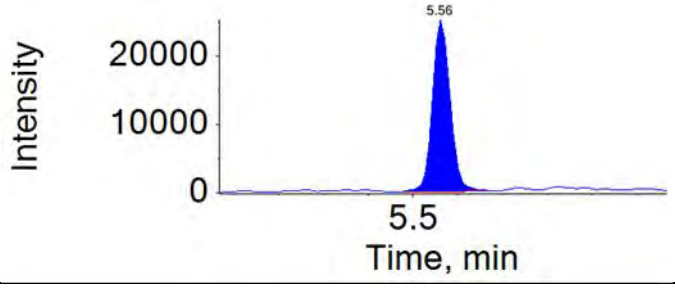


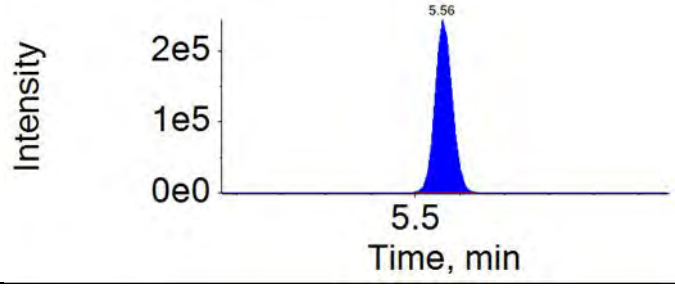
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



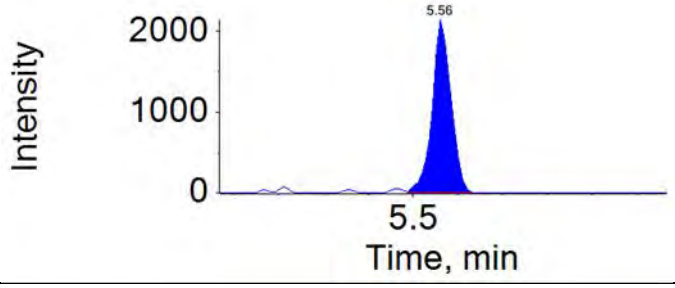


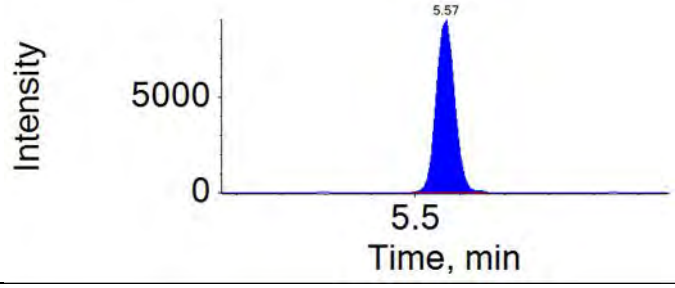
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





Analyte: 8:2-FTS	Extraction Standard: 13C2-8:2-FTS
527.0 / 507.0	529.0 / 81.0

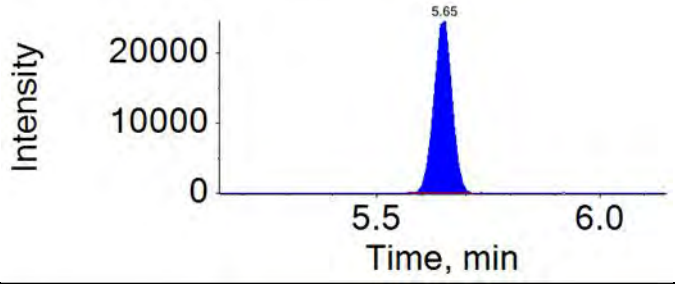
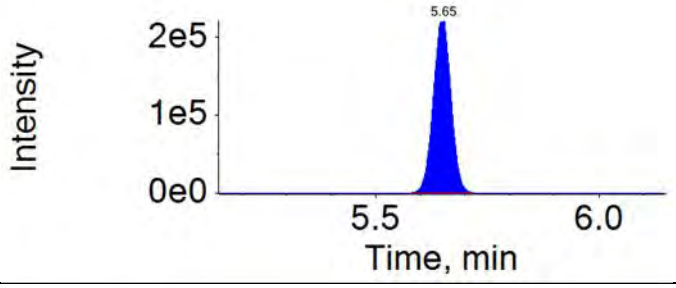


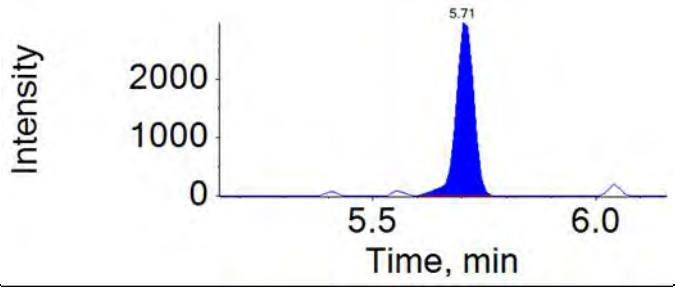
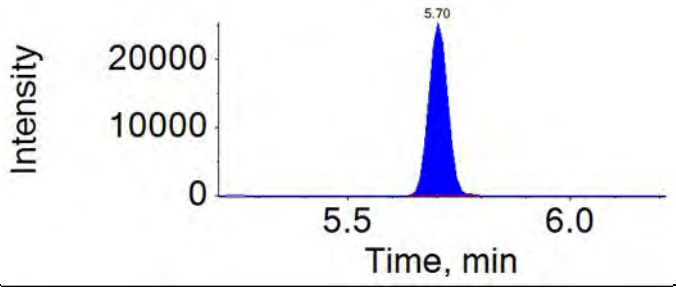


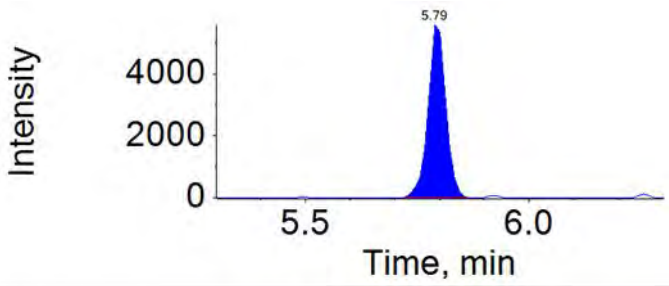
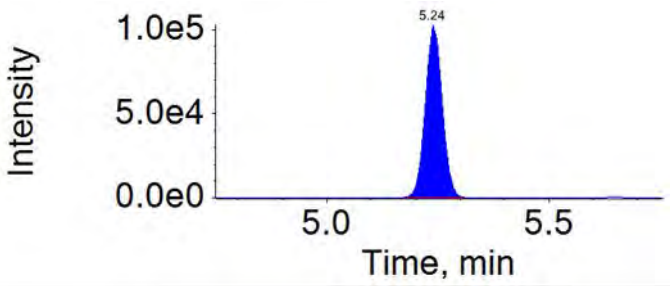
APPROVED
By JPT at 10:23 am, 11/13/18

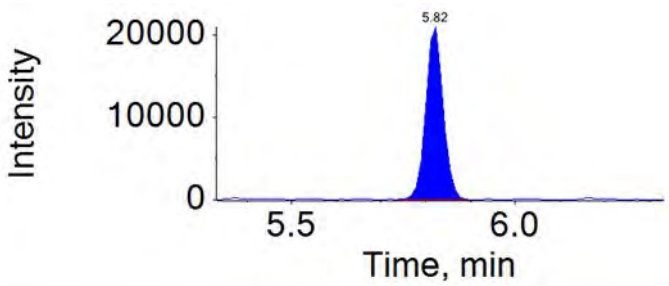
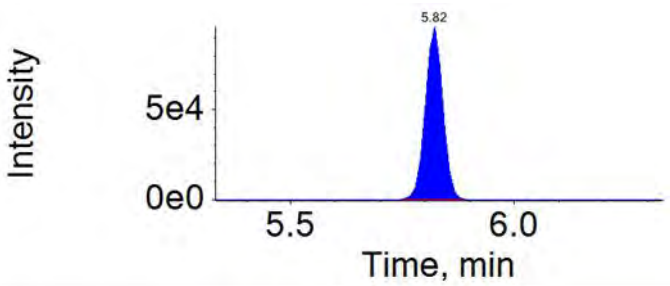
REVIEWED
By umar at 5:20 pm, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0
	

Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0
	

Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0
	

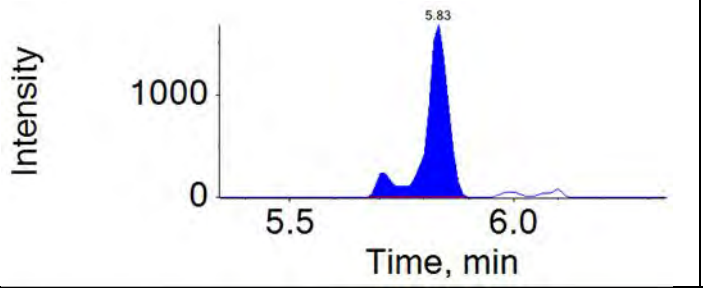
Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0
	

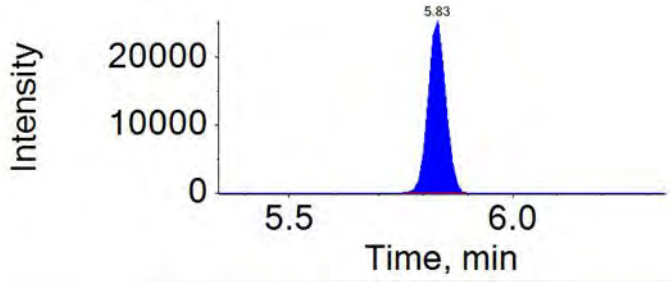
APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By umar at 5:20 pm, 11/13/18

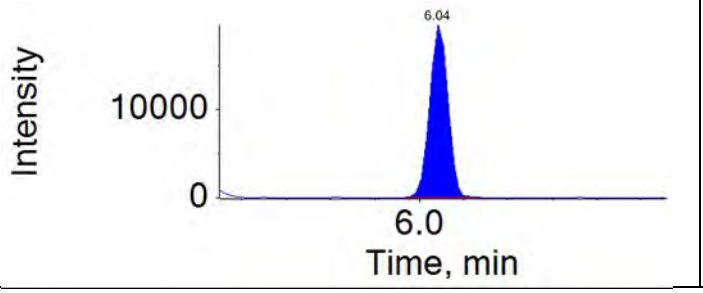
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

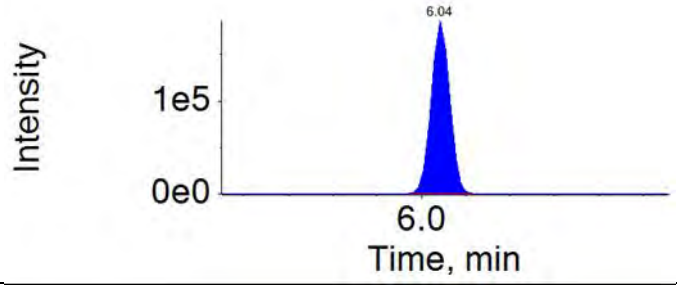
Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0



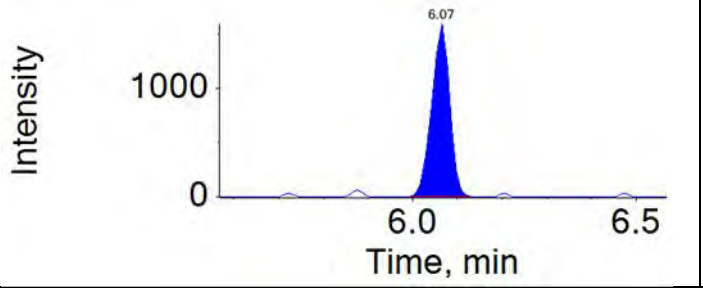


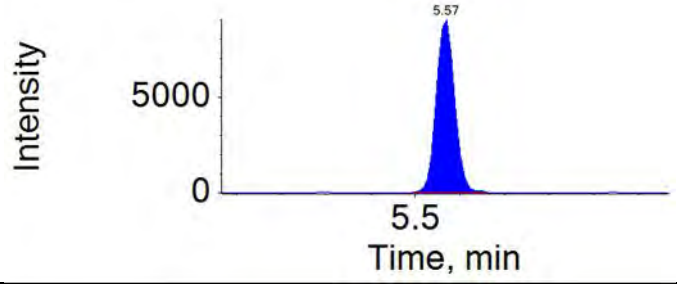
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0



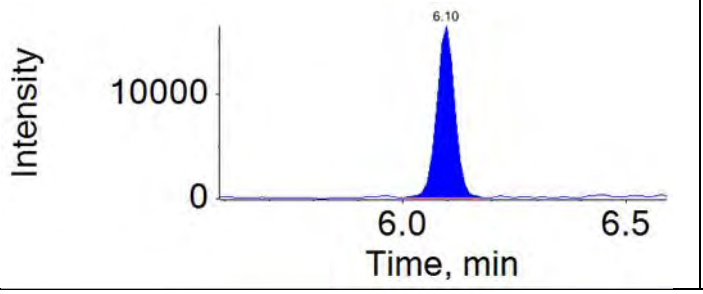


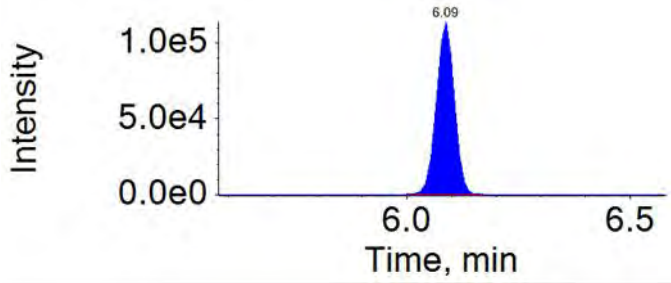
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0





Analyte: NMePFOSAE	Extraction Standard: d7-NMePFOSAE
616.0 / 59.0	623.0 / 59.0



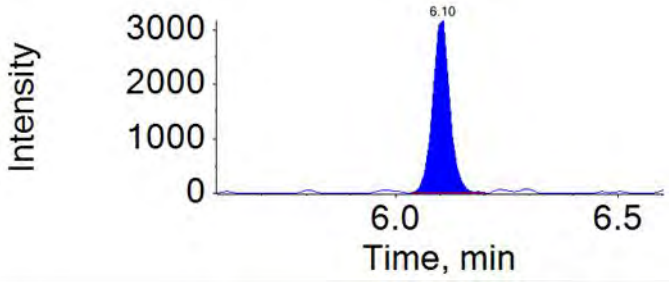


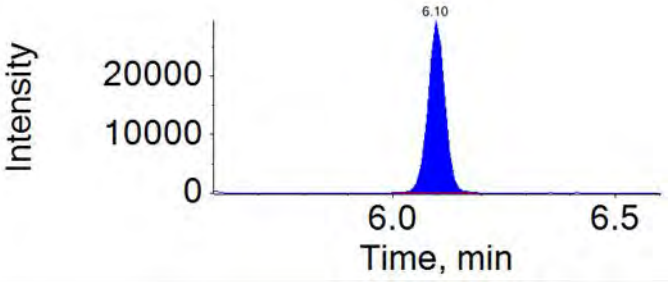
APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By umar at 5:20 pm, 11/13/18

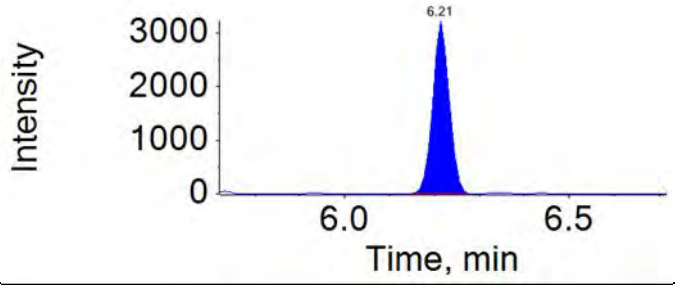
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

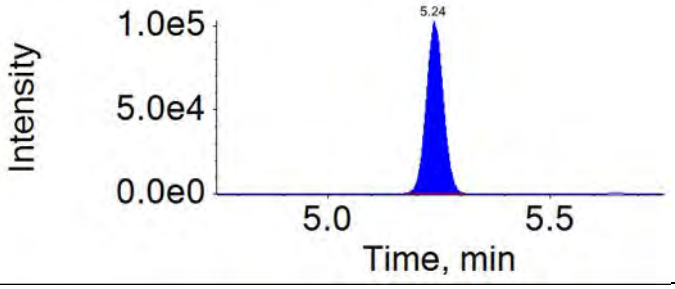
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



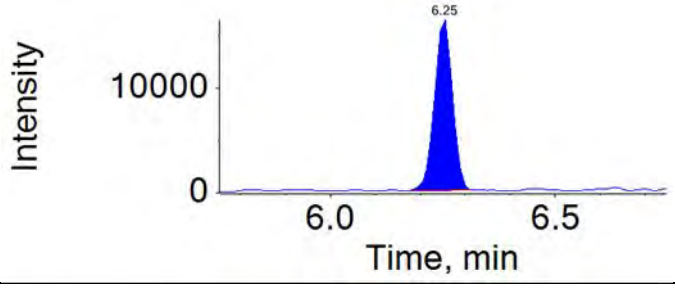


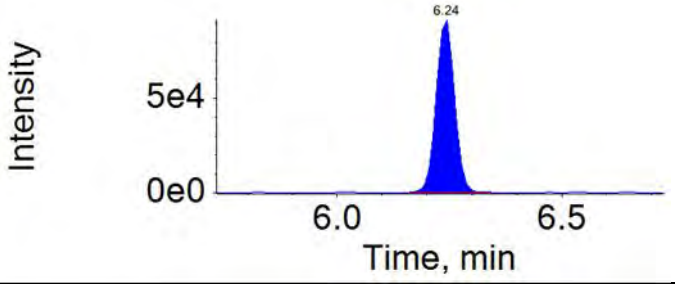
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



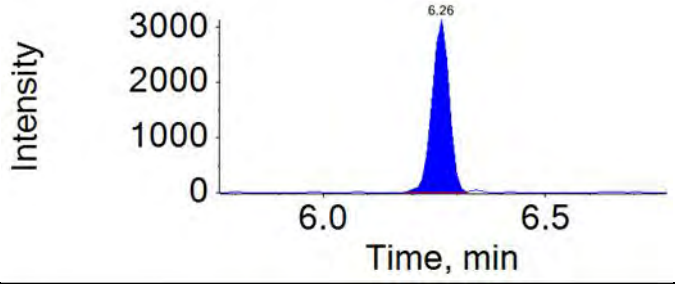


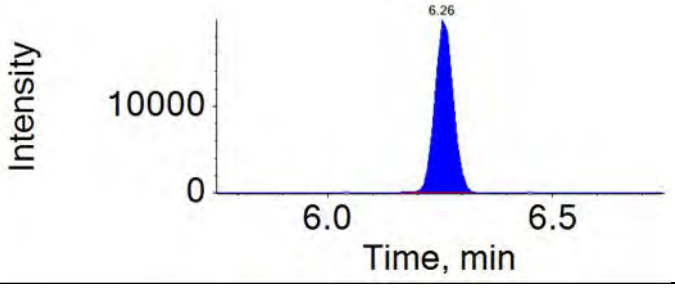
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





Analyte: NEtPFOSA	Extraction Standard: d5-NEtPFOSA
526.0 / 169.0	531.0 / 169.0

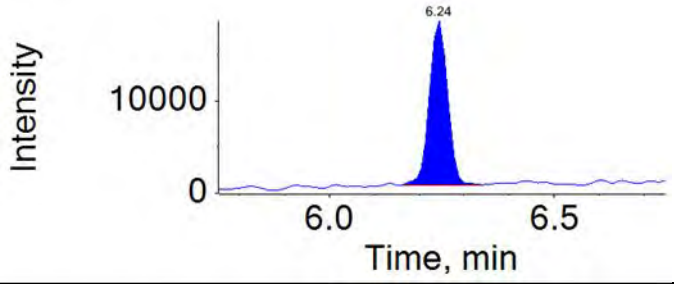
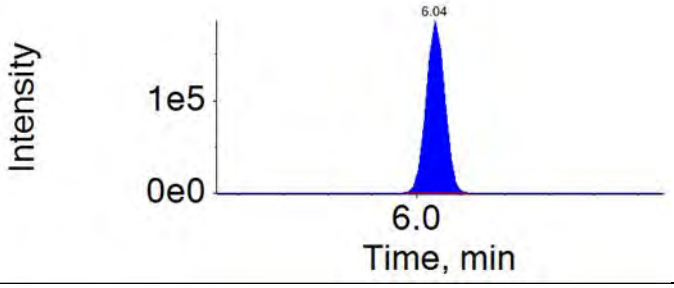


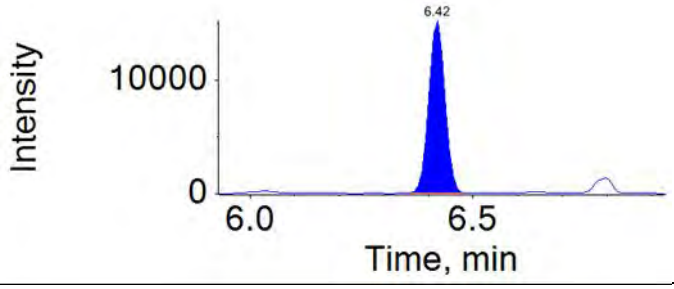
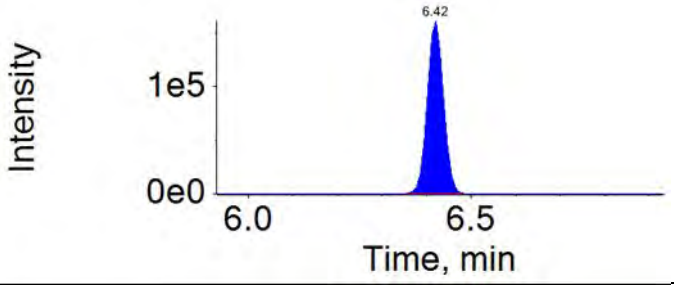


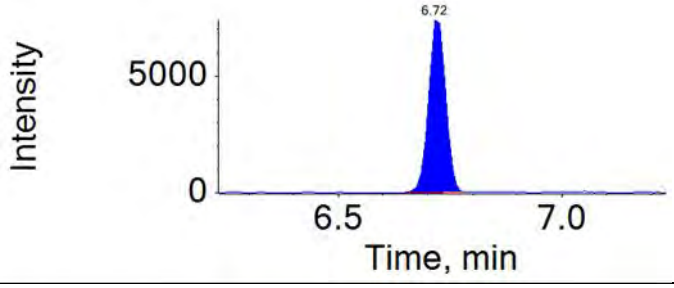
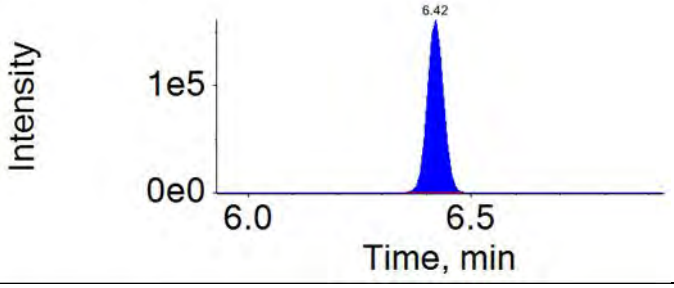
APPROVED
By JPT at 10:23 am, 11/13/18

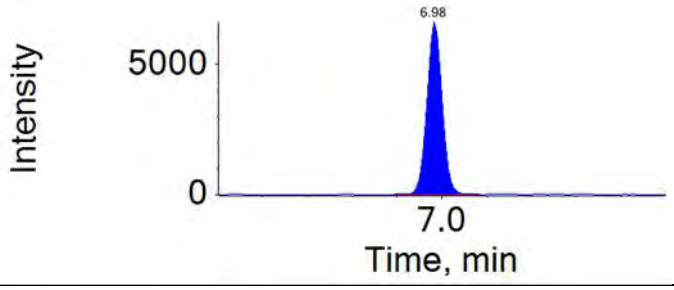
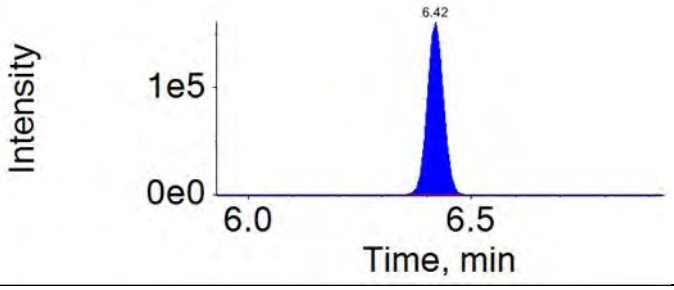
REVIEWED
By umar at 5:20 pm, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Analyte: PFTrDA	Extraction Standard: 13C2-PFDoDA
663.0 / 619.0	615.0 / 570.0
	

Analyte: PFTeDA	Extraction Standard: 13C2-PFTeDA
713.0 / 669.0	715.0 / 670.0
	

Analyte: PFHxDA	Extraction Standard: 13C2-PFTeDA
813.0 / 769.0	715.0 / 670.0
	

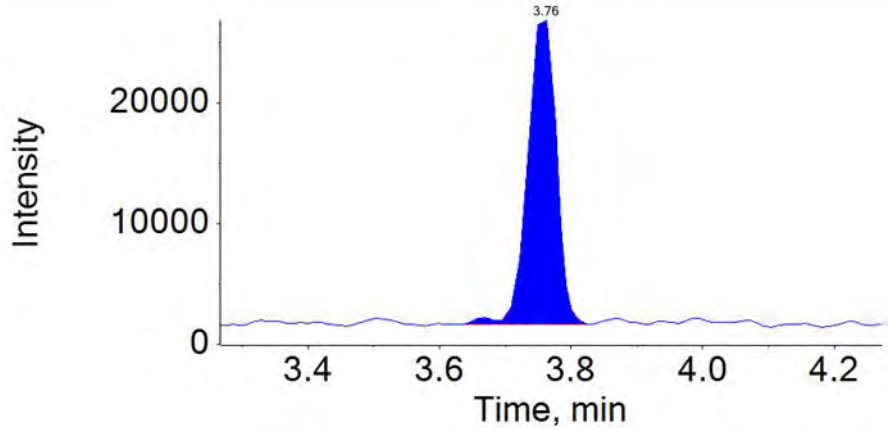
Analyte: PFODA	Extraction Standard: 13C2-PFTeDA
913.0 / 869.0	715.0 / 670.0
	

APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By umar at 5:20 pm, 11/13/18

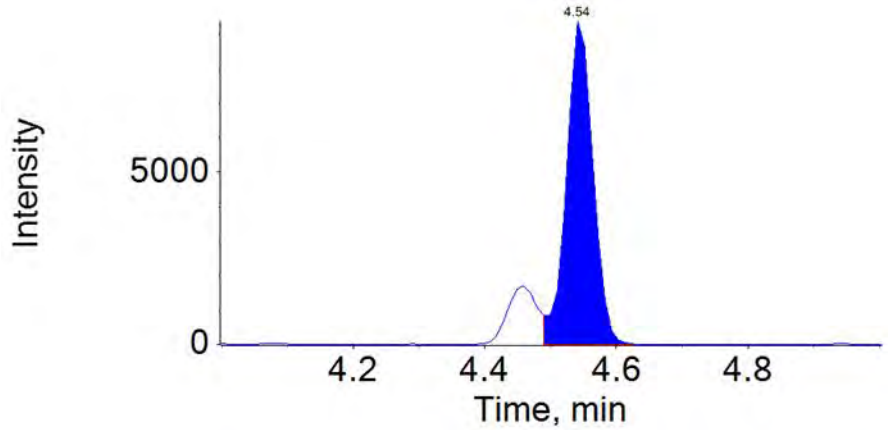
Results Table Name: 18NOV12DCCV3-11
Results Table Date: 11/13/2018 10:08:47 AM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFPeA
RT (min.):
3.76
Peak Area:
77158.8
Mass Range:
263.0 / 219.0
File Name:
18NOV12D-70.wiff
Sample Name:
CCV7_ISC_CAL2



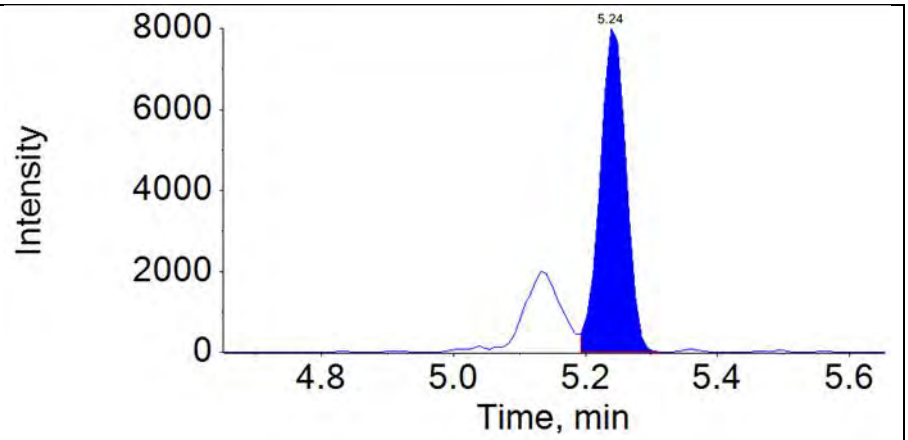
Integration Comment: incorrect integration

Component Name:
PFHxS
RT (min.):
4.54
Peak Area:
26470.9
Mass Range:
399.0 / 80.0
File Name:
18NOV12D-70.wiff
Sample Name:
CCV7_ISC_CAL2



Integration Comment: incorrect integration

Component Name:
PFOS
RT (min.):
5.24
Peak Area:
21977.8
Mass Range:
499.0 / 80.0
File Name:
18NOV12D-70.wiff
Sample Name:
CCV7_ISC_CAL2

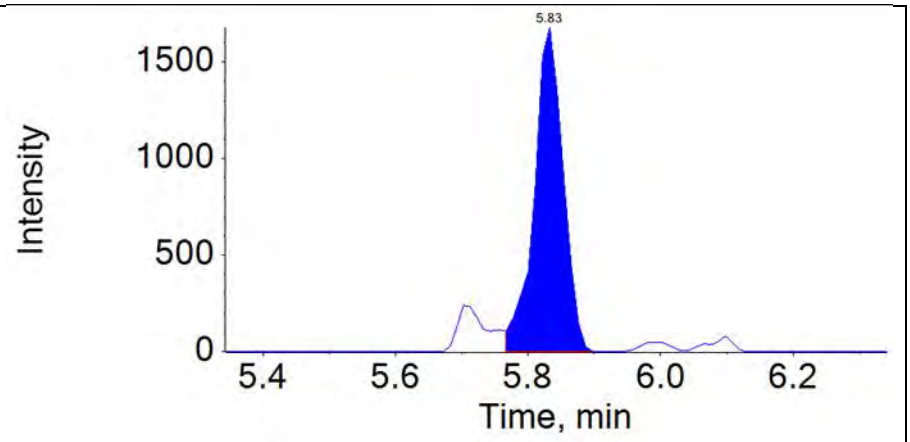


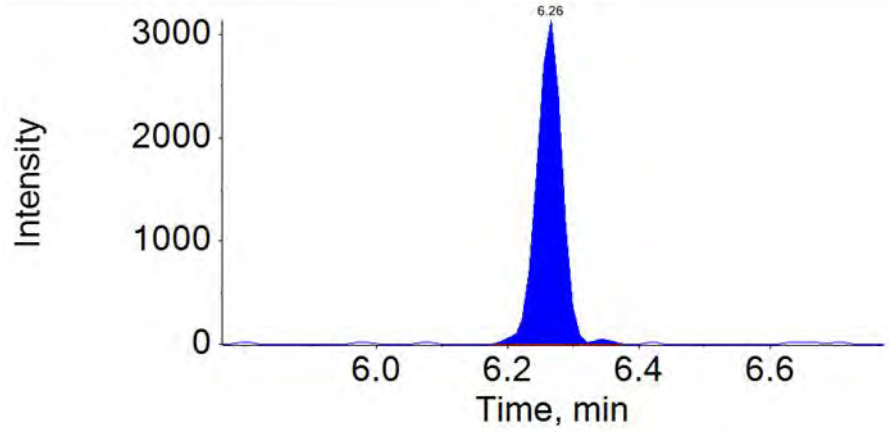
Integration Comment: incorrect integration

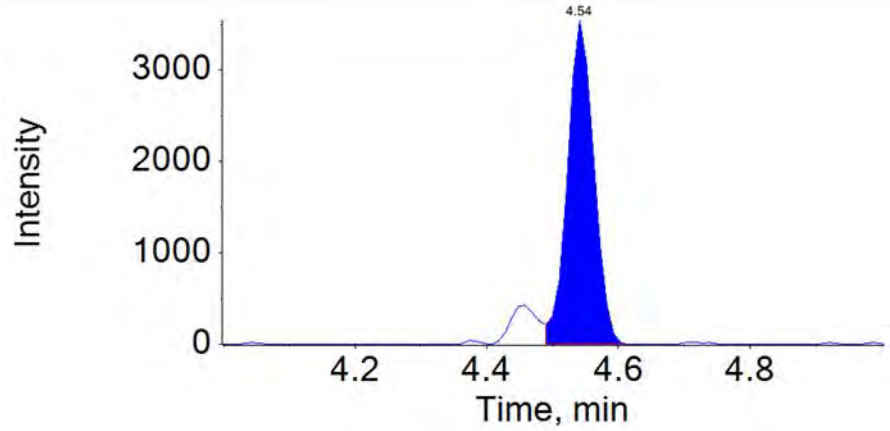
APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By umar at 5:20 pm, 11/13/18

Results Table Name: 18NOV12DCCV3-11
Results Table Date: 11/13/2018 10:08:47 AM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name: NEtFOSAA **RT (min.):** 5.83 **Peak Area:** 5119.1 **Mass Range:** 584.0 / 419.0 **File Name:** 18NOV12D-70.wiff **Sample Name:** CCV7_ISC_CAL2	 **Integration Comment:** incorrect integration

Component Name: NEtPFOSA **RT (min.):** 6.26 **Peak Area:** 8447.3 **Mass Range:** 526.0 / 169.0 **File Name:** 18NOV12D-70.wiff **Sample Name:** CCV7_ISC_CAL2	 **Integration Comment:** incorrect integration

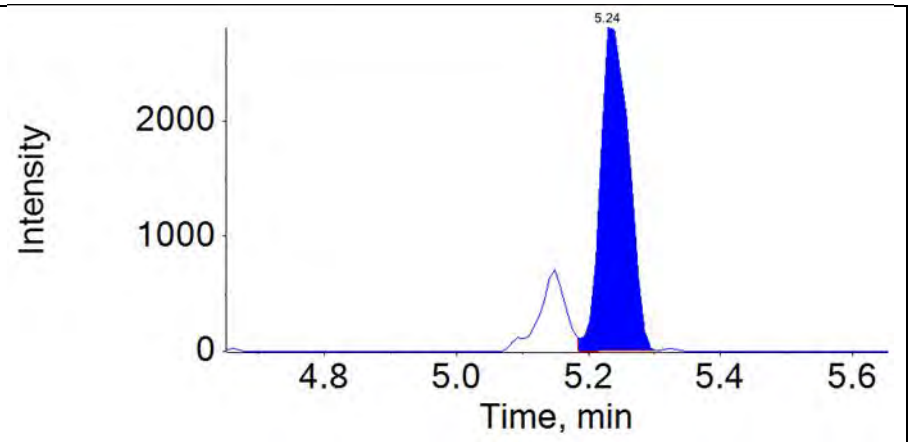
Component Name: PFHxS_2 **RT (min.):** 4.54 **Peak Area:** 9897.8 **Mass Range:** 399.0 / 99.0 **File Name:** 18NOV12D-70.wiff **Sample Name:** CCV7_ISC_CAL2	 **Integration Comment:** incorrect integration

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By JPT at 10:23 am, 11/13/18

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By umar at 5:20 pm, 11/13/18

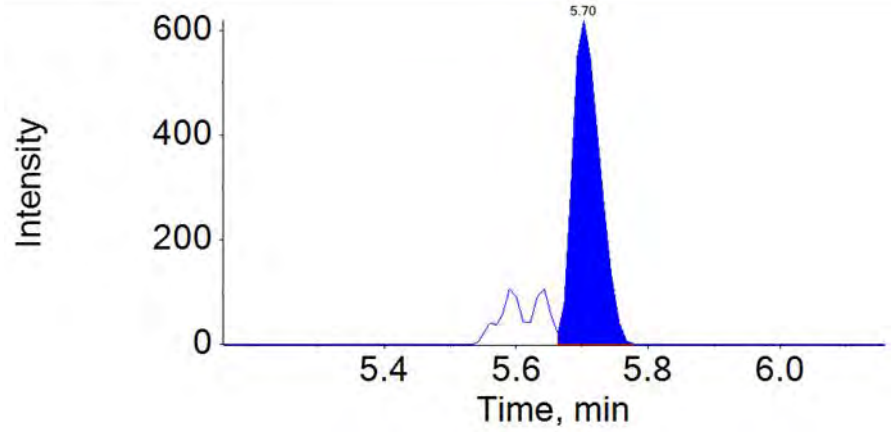
Results Table Name: 18NOV12DCCV3-11
Results Table Date: 11/13/2018 10:08:47 AM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFOS_2
RT (min.):
5.24
Peak Area:
8459.9
Mass Range:
499.0 / 99.0
File Name:
18NOV12D-70.wiff
Sample Name:
CCV7_ISC_CAL2



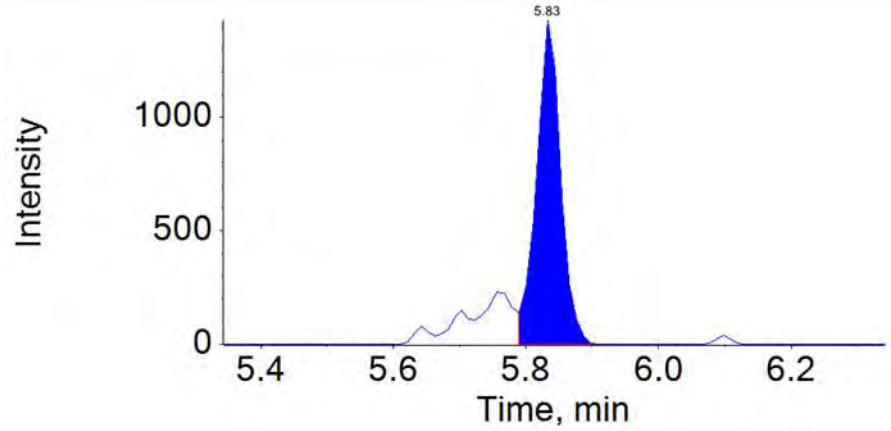
Integration Comment: incorrect integration

Component Name:
NMeFOSAA_2
RT (min.):
5.70
Peak Area:
1794.8
Mass Range:
570.0 / 483.0
File Name:
18NOV12D-70.wiff
Sample Name:
CCV7_ISC_CAL2



Integration Comment: incorrect integration

Component Name:
NEtFOSAA_2
RT (min.):
5.83
Peak Area:
3613.8
Mass Range:
584.0 / 526.0
File Name:
18NOV12D-70.wiff
Sample Name:
CCV7_ISC_CAL2



Integration Comment: incorrect integration

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By JPT at 10:23 am, 11/13/18

REVIEWED
By umar at 5:20 pm, 11/13/18

Results Table Name: 18NOV12DCCV3-11
Results Table Date: 11/13/2018 10:08:47 AM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

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Ion Ratio Report

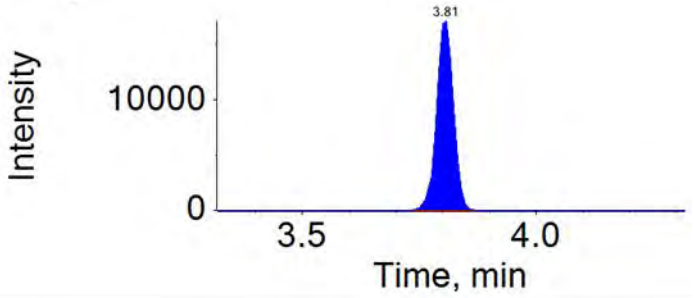
Sample Name: CCV7_ISC_CAL2 **Instrument Name:** LM27631 **File Name:** 18NOV12D-70.wiff

Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	3.81	1.00	43573.8	A	N/A	1.0000			
PFBS_2	3.80	1.00	17445.6	A	N/A	0.4004	10	50	
4:2-FTS	4.12	1.00	9044.8	A	N/A	1.0000			
4:2 FTS_2	4.12	1.00	6229.6	A	N/A	0.6887		#NA!	
PFHxA	4.15	1.00	92374.7	A	N/A	1.0000			
PFHxA_2	4.15	1.00	1107.4	A	N/A	0.0120	2	50	
PFPeS	4.17	1.10	21331.8	A	N/A	1.0000			
PFPeS_2	4.17	1.10	11531.1	A	N/A	0.5406	4	50	
PFHpA	4.54	1.00	94858.7	A	N/A	1.0000			
PFHpA_2	4.54	1.00	4516.1	A	N/A	0.0476	-15	50	
PFHxS	4.54	1.00	31706.8	M	N/A	1.0000			
PFHxS_2	4.54	1.00	11135.3	M	N/A	0.3512	2	50	
6:2-FTS	4.90	1.00	8300.2	A	N/A	1.0000			
6:2 FTS_2	4.90	1.00	4721.0	A	N/A	0.5688		#NA!	
PFHpS	4.90	1.08	30342.3	A	N/A	1.0000			
PFHpS_2	4.90	1.08	12955.9	A	N/A	0.4270	5	50	
PFOA	4.91	1.00	99368.2	A	N/A	1.0000			
PFOA_2	4.91	1.00	5384.6	A	N/A	0.0542	-5	50	
PFOS	5.24	1.00	30080.0	M	N/A	1.0000			
PFOS_2	5.24	1.00	10448.0	M	N/A	0.3473	17	50	
PFNA	5.26	1.00	75174.3	A	N/A	1.0000			
PFNA_2	5.26	1.00	1731.3	A	N/A	0.0230	2	50	
PFNS	5.54	1.06	17303.4	A	N/A	1.0000			
PFNS_2	5.54	1.06	8456.6	A	N/A	0.4887	2	50	
PFDA	5.56	1.00	69571.5	A	N/A	1.0000			
PFDA_2	5.56	1.00	219.0	A	N/A	0.0031	-60	50	OOS
8:2-FTS	5.56	1.00	6246.5	A	N/A	1.0000			
8:2 FTS_2	5.56	1.00	4176.8	A	N/A	0.6687		#NA!	
NMeFOSAA	5.71	1.00	8320.3	A	N/A	1.0000			
NMeFOSAA_2	5.70	1.00	2229.5	M	N/A	0.2680	4	50	
PFDS	5.79	1.11	15378.4	A	N/A	1.0000			
PFDS_2	5.80	1.11	5748.8	A	N/A	0.3738	-27	50	
PFUnDA	5.82	1.00	56318.9	A	N/A	1.0000			
PFUnDA_2	5.85	1.00	389.3	A	N/A	0.0069	25	50	
NEtFOSAA	5.83	1.00	5863.7	M	N/A	1.0000			
NEtFOSAA_2	5.83	1.00	4774.4	M	N/A	0.8142	13	50	
PFDoDA	6.04	1.00	56183.0	A	N/A	1.0000			
PFDoDA_2	6.05	1.00	677.7	A	N/A	0.0121	-22	50	
10:2-FTS	6.07	1.09	4429.6	A	N/A	1.0000			
10:2 FTS_2	6.06	1.09	2884.8	A	N/A	0.6513		#NA!	
PFTrDA	6.24	1.03	50194.4	A	N/A	1.0000			
PFTrDA_2	6.24	1.03	466.1	A	N/A	0.0093	9	50	
PFTeDA	6.42	1.00	38146.4	A	N/A	1.0000			
PFTeDA_2	6.41	1.00	320.1	A	N/A	0.0084	35	50	
PFHxDA	6.72	1.05	19541.0	A	N/A	1.0000			
PFHxDA_2	6.72	1.05	1036.2	A	N/A	0.0530	-22	50	
PFODA	6.98	1.09	15536.1	A	N/A	1.0000			
PFODA_2	6.98	1.09	478.3	A	N/A	0.0308	12	50	

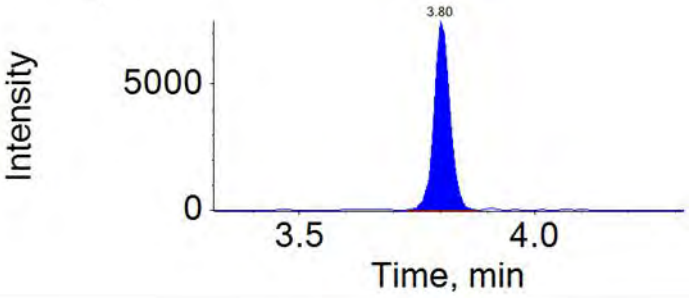
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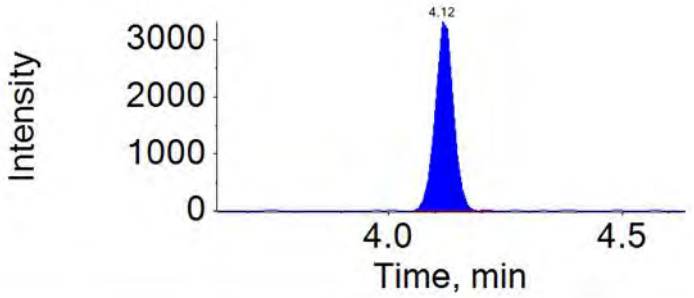
Component: PFBS
Primary Mass: 299.0 / 80.0



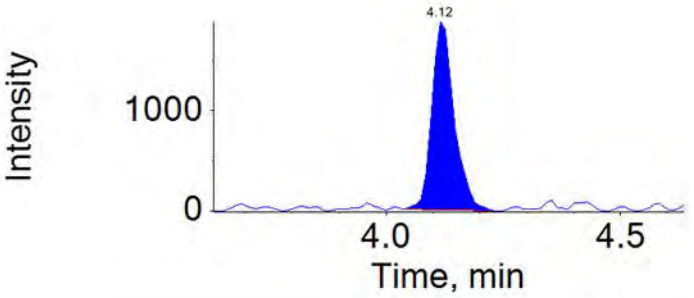
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



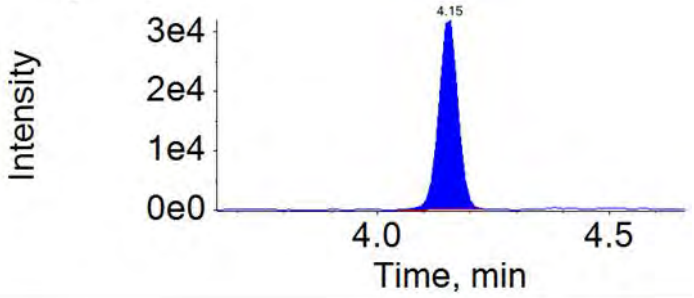
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



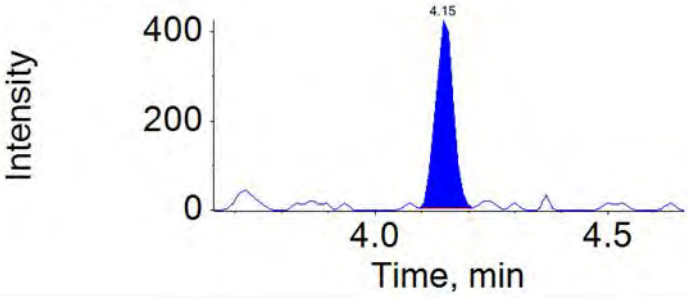
Component: 4:2 FTS_2
Secondary Mass: 327.0 / 81.0



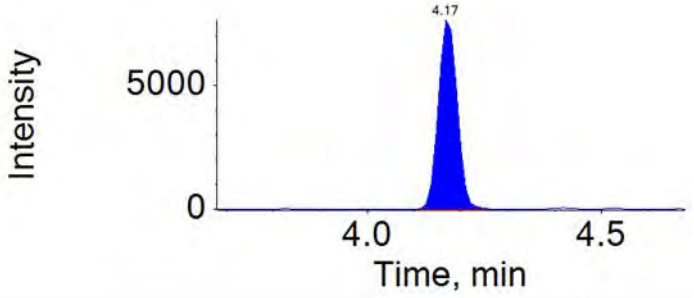
Component: PFHxA
Primary Mass: 313.0 / 269.0



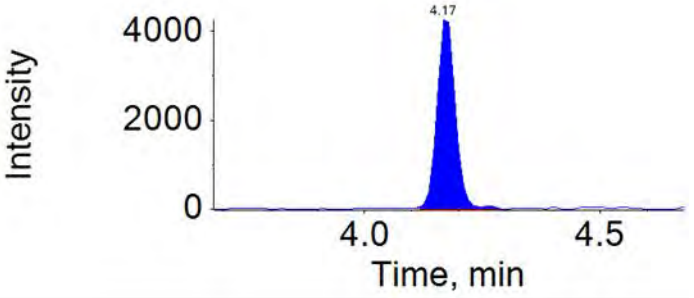
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



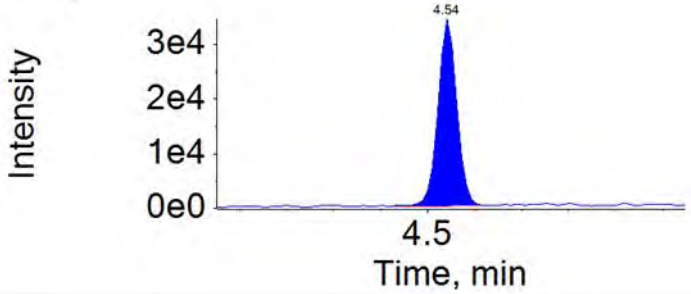
Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



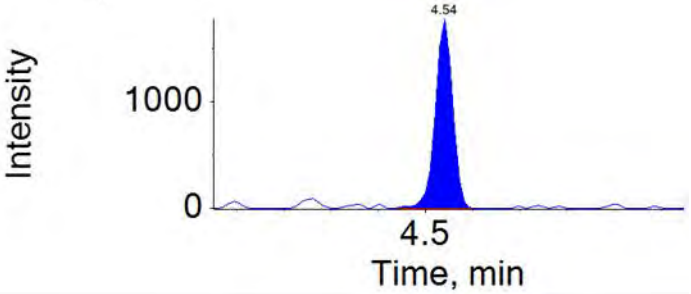
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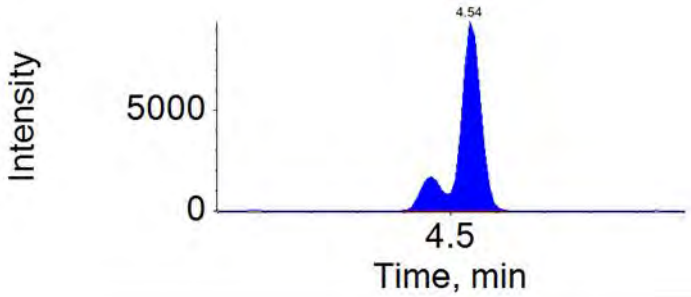
Component: PFHpA
Primary Mass: 363.0 / 319.0



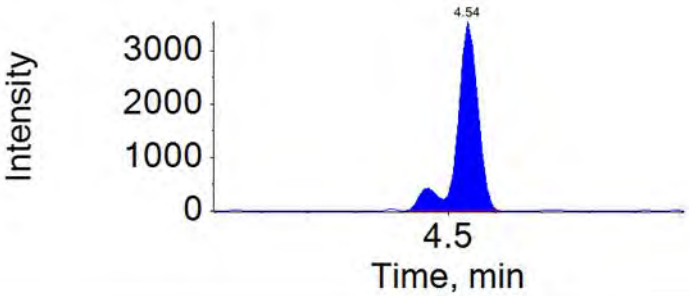
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



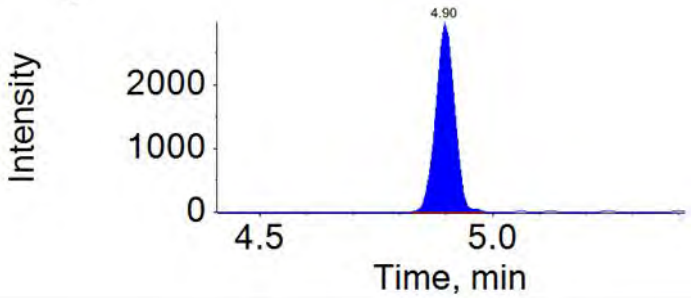
Component: PFHxS
Primary Mass: 399.0 / 80.0



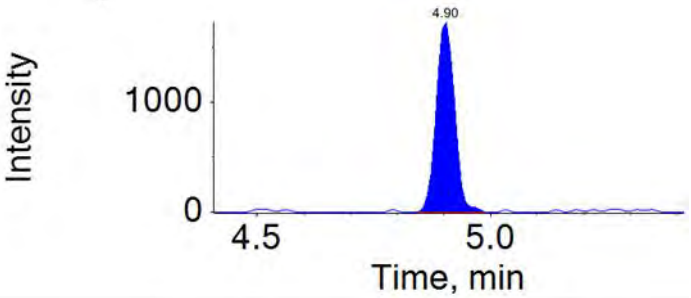
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



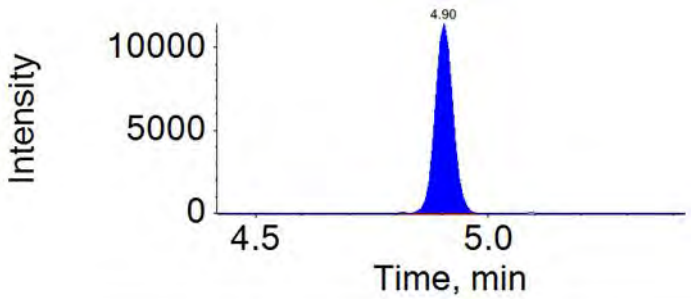
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



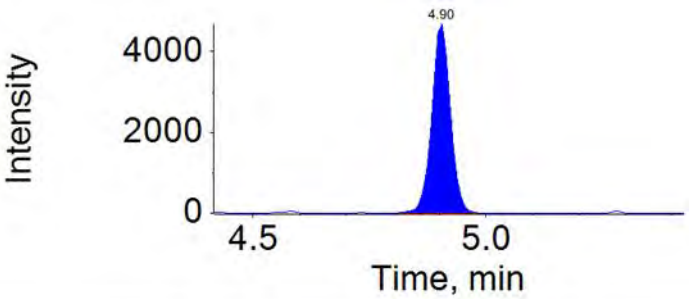
Component: 6:2 FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



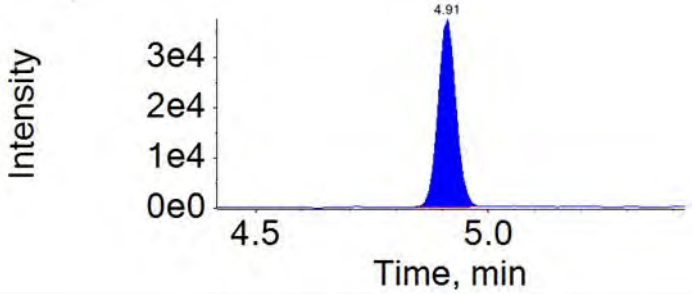
Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



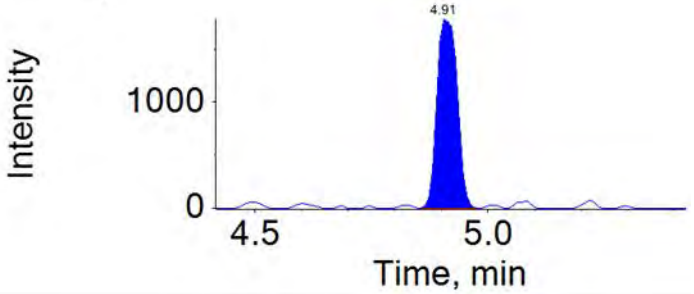
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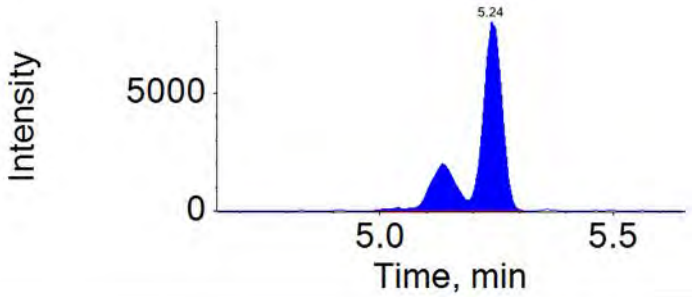
Component: PFOA
Primary Mass: 413.0 / 369.0



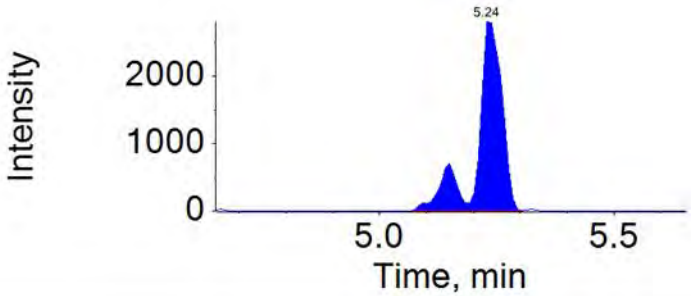
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



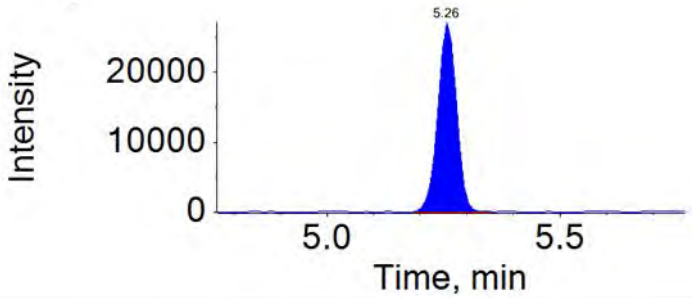
Component: PFOS
Primary Mass: 499.0 / 80.0



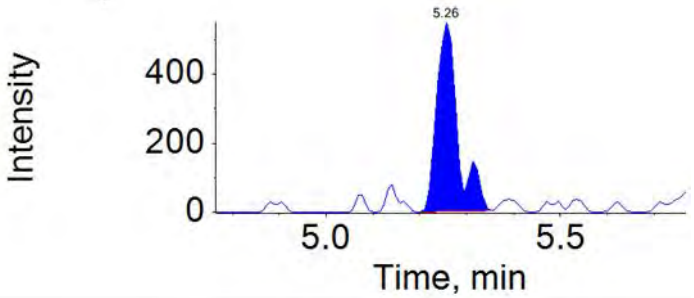
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



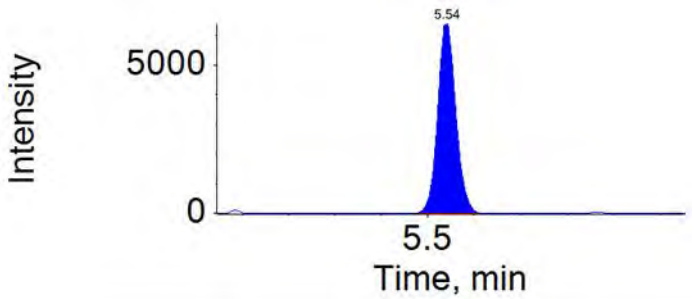
Component: PFNA
Primary Mass: 463.0 / 419.0



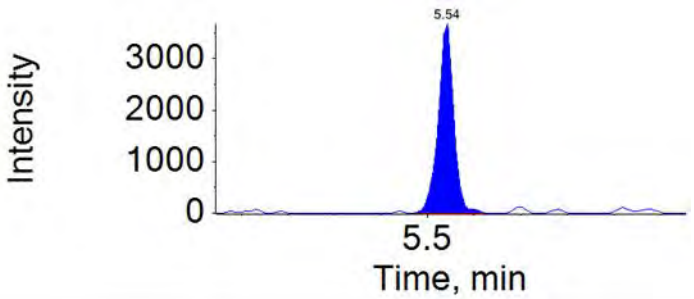
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



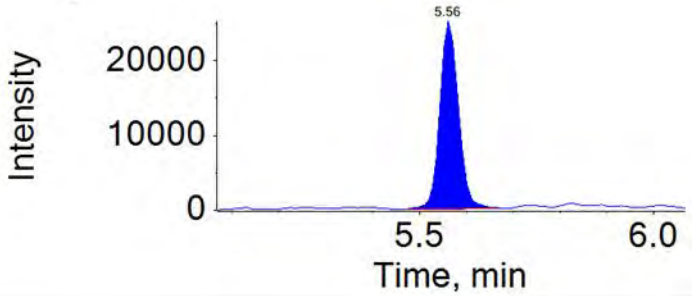
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



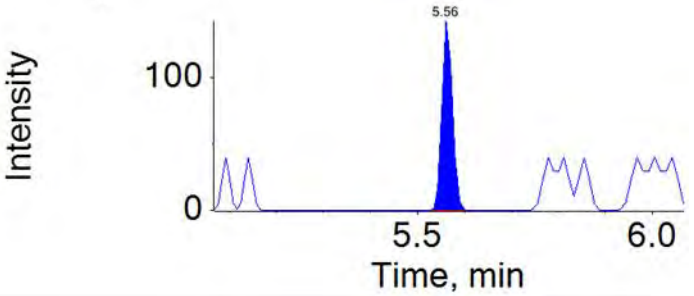
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By umar at 5:20 pm, 11/13/18

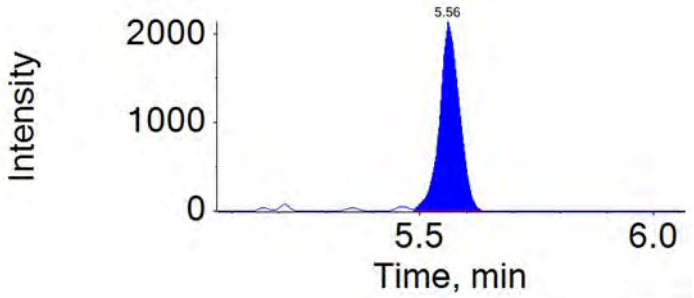
Component: PFDA
Primary Mass: 513.0 / 469.0



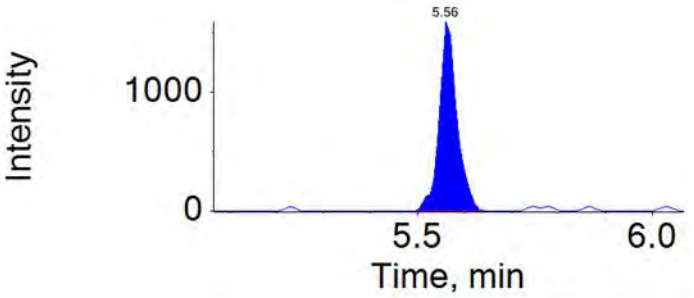
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



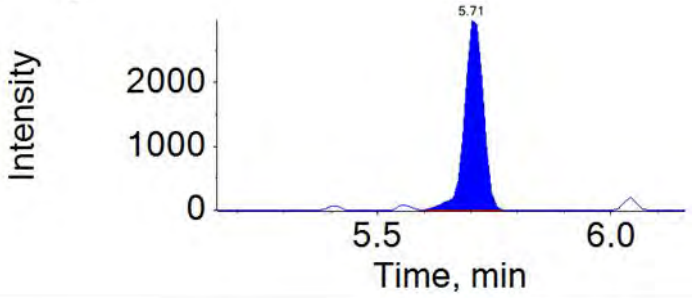
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



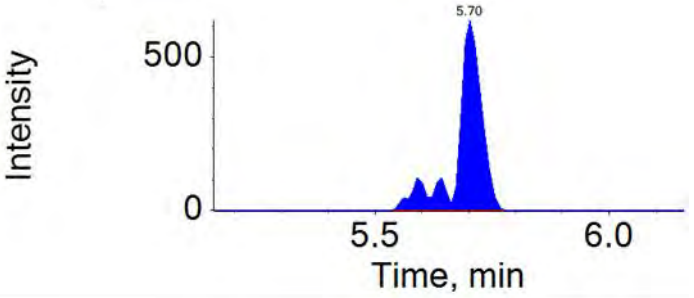
Component: 8:2 FTS_2
Secondary Mass: 527.0 / 81.0



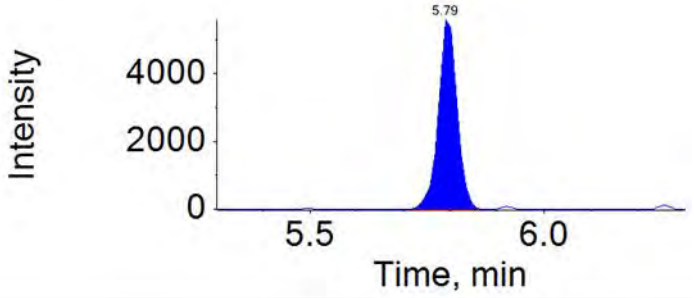
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



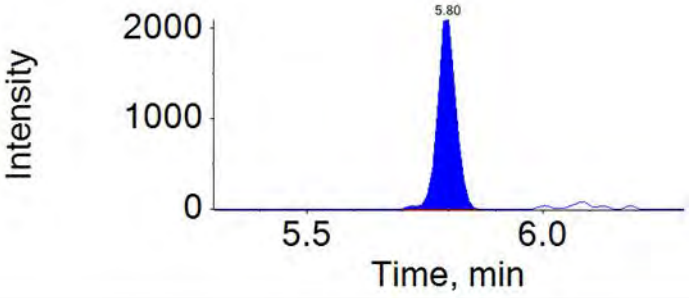
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



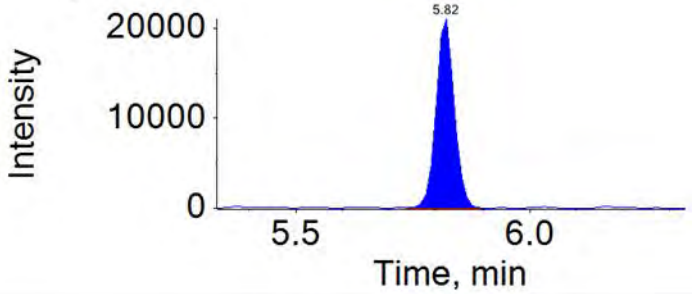
Component: PFDS_2
Secondary Mass: 599.0 / 99.0



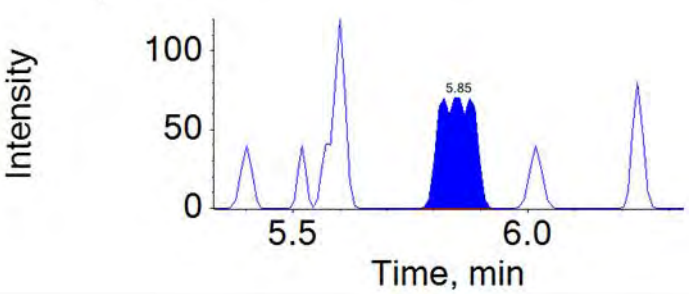
APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By umar at 5:20 pm, 11/13/18

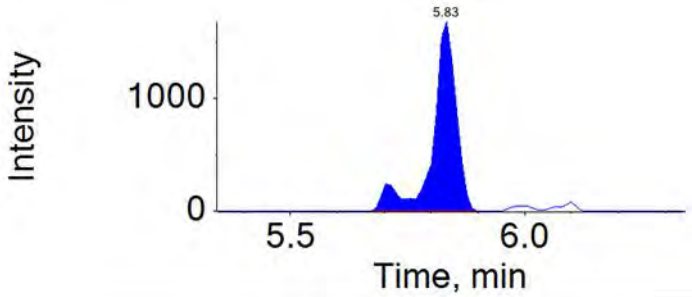
Component: PFUnDA
Primary Mass: 563.0 / 519.0



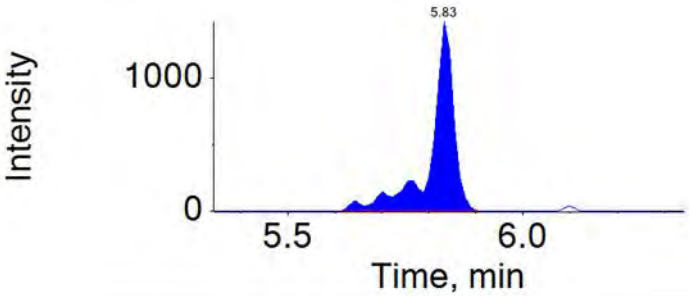
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



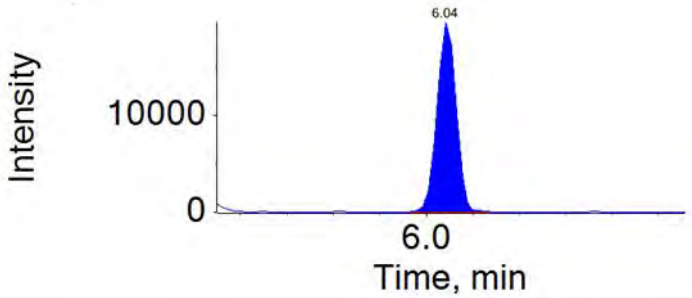
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



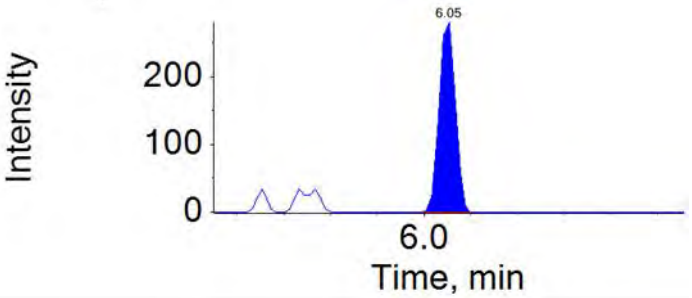
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



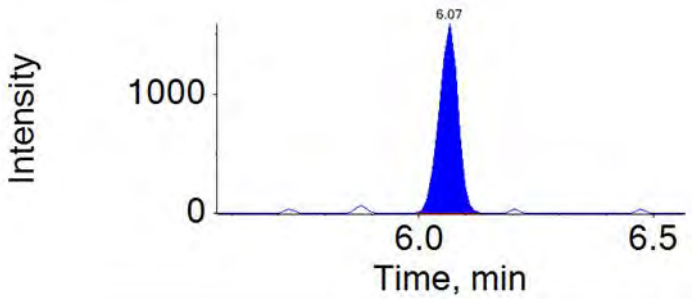
Component: PFDoDA
Primary Mass: 613.0 / 569.0



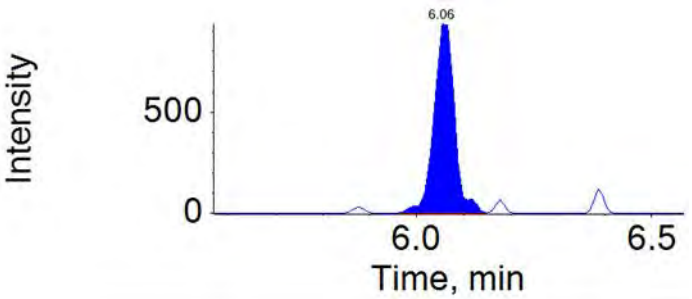
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



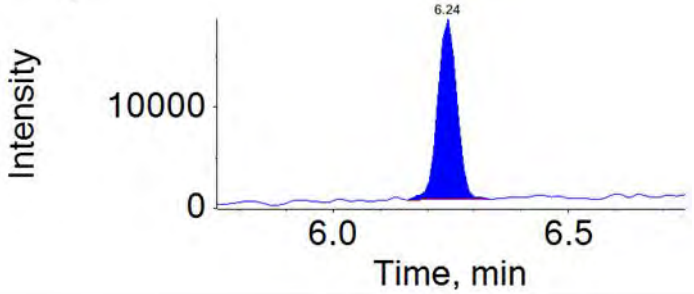
Component: 10:2 FTS_2
Secondary Mass: 627.0 / 81.0



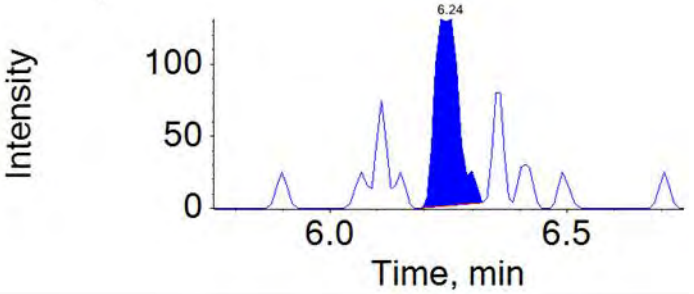
APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By umar at 5:20 pm, 11/13/18

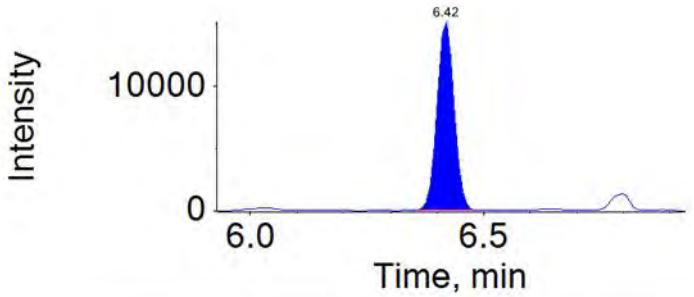
Component: PFTrDA
Primary Mass: 663.0 / 619.0



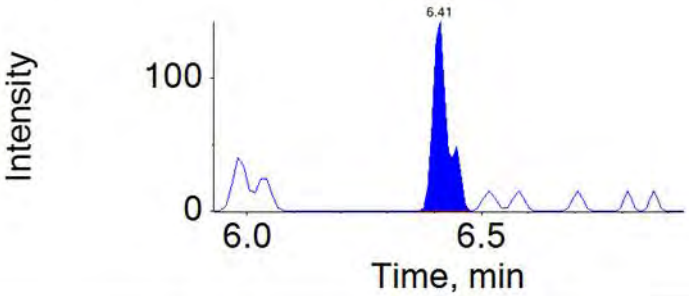
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



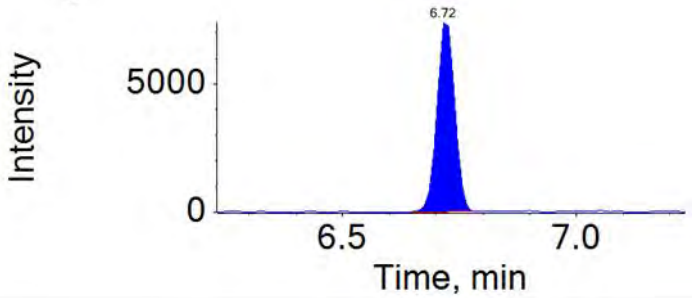
Component: PFTeDA
Primary Mass: 713.0 / 669.0



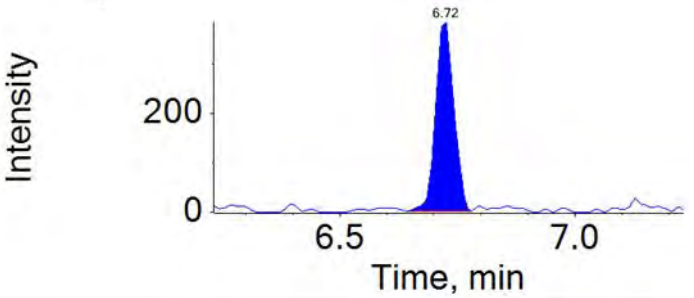
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



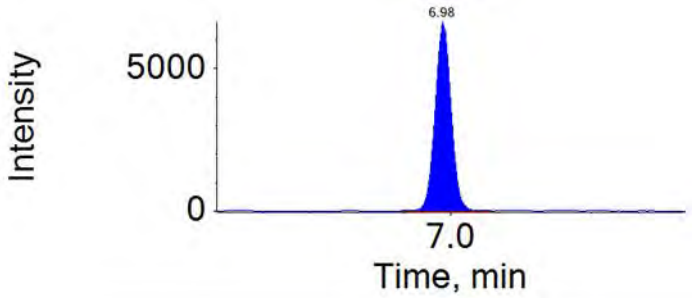
Component: PFHxDA
Primary Mass: 813.0 / 769.0



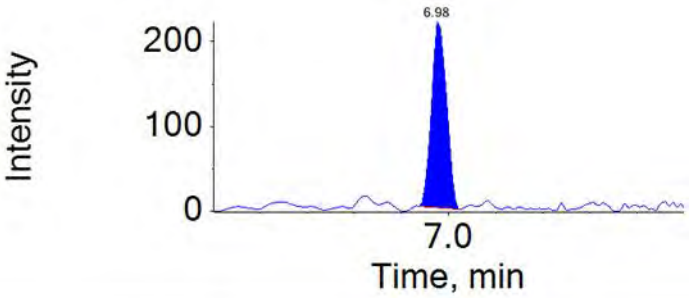
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By umar at 5:20 pm, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Sample Name:	Instrument Blank			**Data File:**		18NOV12D-71.wiff
Sample ID:	methanol+labels			**Acquis Date:**		2018-11-13T03:17:33
Sample Type:	Unknown			**Instrument:**		LM27631
Vial Position:	1			**Acquis Method:**		18AUG13_3uL.dam
Injection Vol:	3.00			**Result Table:**		18NOV12DCCV3-11
QMethod File:	18AUG20QM			**ICAL Name:**		18NOV12DCAL
Batch Number:	N/A			**Operator:**		JPT12262
Sample Wt.:	1.00000			**Dilution Factor:**		1.00
Sample Vol.:	1.000			**Prep Factor:**		1.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV12DCAL-44

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Rreference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	697321.6	659926.2	6	50	
13C2-PFOA	5.0	497803.7	450219.7	11	50	
13C4-PFOS	4.8	275021.7	249205.8	10	50	
13C2-PFDA	5.0	301663.5	278743.9	8	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	771621.7	13C3-PFBA	697321.6	1.107	5.000	4.961	99	70-130	
E13C5-PFPeA	783833.6	13C3-PFBA	697321.6	1.124	5.000	5.042	101	70-130	
E13C3-PFBS	456189.9	13C3-PFBA	697321.6	0.654	4.650	4.618	99	70-130	
E13C2-4:2-FTS	52339.5	13C2-PFOA	497803.7	0.105	4.670	4.683	100	70-130	
E13C5-PFHxA	673746.3	13C2-PFOA	497803.7	1.353	5.000	4.889	98	70-130	
E13C3-PFHxS	357291.6	13C2-PFOA	497803.7	0.718	4.730	4.925	104	70-130	
E13C4-PFHpA	553727.4	13C2-PFOA	497803.7	1.112	5.000	5.011	100	70-130	
E13C2-6:2-FTS	41520.7	13C2-PFOA	497803.7	0.083	4.750	5.580	117	70-130	
E13C8-PFOA	964074.5	13C2-PFOA	497803.7	1.937	5.000	5.336	107	70-130	
E13C8-PFOS	303765.2	13C4-PFOS	275021.7	1.105	4.780	4.894	102	70-130	
E13C9-PFNA	511665.4	13C4-PFOS	275021.7	1.860	5.000	5.187	104	70-130	
E13C6-PFDA	682687.0	13C2-PFDA	301663.5	2.263	5.000	5.281	106	70-130	
E13C2-8:2-FTS	28451.6	13C2-PFDA	301663.5	0.094	4.790	4.704	98	70-130	
E13C8-PFOSA	662257.7	13C2-PFDA	301663.5	2.195	5.000	4.867	97	70-130	
Ed3-NMeFOSAA	73048.1	13C2-PFDA	301663.5	0.242	5.000	4.371	87	70-130	
E13C7-PFUnDA	275514.1	13C2-PFDA	301663.5	0.913	5.000	5.303	106	70-130	
Ed5-NEtFOSAA	69016.7	13C2-PFDA	301663.5	0.229	5.000	4.840	97	70-130	
E13C2-PFDoDA	600781.2	13C2-PFDA	301663.5	1.992	5.000	5.171	103	70-130	
Ed7-NMePFOSAE	344641.0	13C2-PFDA	301663.5	1.142	5.000	4.944	99	70-130	
Ed3-NMePFOSA	77204.1	13C2-PFDA	301663.5	0.256	5.000	4.650	93	70-130	
Ed9-NEtPFOSAE	284074.7	13C2-PFDA	301663.5	0.942	5.000	4.898	98	70-130	
Ed5-NEtPFOSA	60467.1	13C2-PFDA	301663.5	0.200	5.000	4.702	94	70-130	
E13C2-PFTeDA	417729.5	13C2-PFDA	301663.5	1.385	5.000	4.861	97	70-130	

APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By UMJS at 3:32 pm, 11/26/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

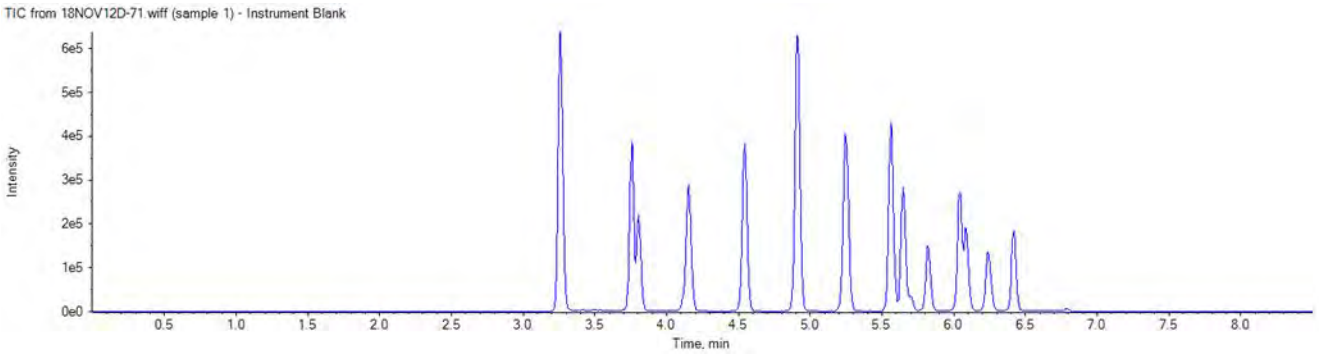
Analyte Quantitation Peak Table

Sample Name: Instrument Blank **Instrument Name:** LM27631 **File Name:** 18NOV12D-71.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	1.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	N/A	N/A	N/A		A	13C4-PFBA	3.26	771621.7	N/A	
PFPeA	N/A	N/A	N/A		A	13C5-PFPeA	3.76	783833.6	N/A	
PFBS	N/A	N/A	N/A		A	13C3-PFBS	3.81	456189.9	N/A	
4:2-FTS	N/A	N/A	N/A		A	13C2-4:2-FTS	4.12	52339.5	N/A	
PFHxA	N/A	N/A	N/A		A	13C5-PFHxA	4.15	673746.3	N/A	
PFPeS	N/A	N/A	N/A		A	13C3-PFBS	3.81	456189.9	N/A	
PFHpA	N/A	N/A	N/A		A	13C4-PFHpA	4.54	553727.4	N/A	
PFHxS	N/A	N/A	N/A		A	13C3-PFHxS	4.54	357291.6	N/A	
6:2-FTS	N/A	N/A	N/A		A	13C2-6:2-FTS	4.90	41520.7	N/A	
PFHpS	N/A	N/A	N/A		A	13C3-PFHxS	4.54	357291.6	N/A	
PFOA	N/A	N/A	N/A		A	13C8-PFOA	4.91	964074.5	N/A	
PFOS	N/A	N/A	N/A		A	13C8-PFOS	5.24	303765.2	N/A	
PFNA	N/A	N/A	N/A		A	13C9-PFNA	5.26	511665.4	N/A	
PFNS	N/A	N/A	N/A		A	13C8-PFOS	5.24	303765.2	N/A	
PFDA	N/A	N/A	N/A		A	13C6-PFDA	5.56	682687.0	N/A	
8:2-FTS	N/A	N/A	N/A		A	13C2-8:2-FTS	5.56	28451.6	N/A	
PFOSA	N/A	N/A	N/A		A	13C8-PFOSA	5.65	662257.7	N/A	
NMeFOSAA	N/A	N/A	N/A		A	d3-NMeFOSAA	5.70	73048.1	N/A	
PFDS	N/A	N/A	N/A		A	13C8-PFOS	5.24	303765.2	N/A	
PFUnDA	N/A	N/A	N/A		A	13C7-PFUnDA	5.82	275514.1	N/A	
NEtFOSAA	N/A	N/A	N/A		A	d5-NEtFOSAA	5.83	69016.7	N/A	
PFDoDA	N/A	N/A	N/A		A	13C2-PFDoDA	6.04	600781.2	N/A	
10:2-FTS	N/A	N/A	N/A		A	13C2-8:2-FTS	5.56	28451.6	N/A	
NMePFOSAE	N/A	N/A	N/A		A	d7-NMePFOSAE	6.09	344641.0	N/A	
NMePFOSA	N/A	N/A	N/A		A	d3-NMePFOSA	6.10	77204.1	N/A	
PFDoS	N/A	N/A	N/A		A	13C8-PFOS	5.24	303765.2	N/A	
NEtPFOSAE	N/A	N/A	N/A		A	d9-NEtPFOSAE	6.24	284074.7	N/A	
NEtPFOSA	N/A	N/A	N/A		A	d5-NEtPFOSA	6.26	60467.1	N/A	
PFTrDA	N/A	N/A	N/A		A	13C2-PFDoDA	6.04	600781.2	N/A	
PFTeDA	N/A	N/A	N/A		A	13C2-PFTeDA	6.42	417729.5	N/A	
PFHxDA	N/A	N/A	N/A		A	13C2-PFTeDA	6.42	417729.5	N/A	
PFODA	N/A	N/A	N/A		A	13C2-PFTeDA	6.42	417729.5	N/A	

Total Ion Chromatogram

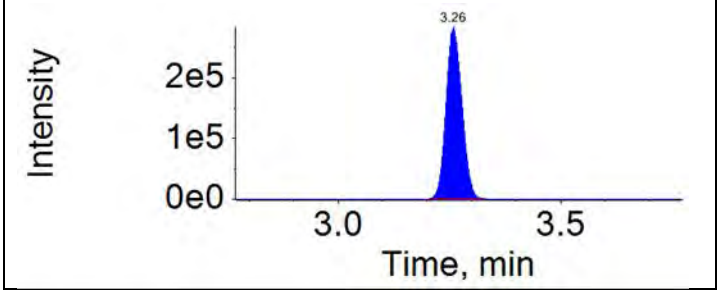


APPROVED
By JPT at 10:23 am, 11/13/18

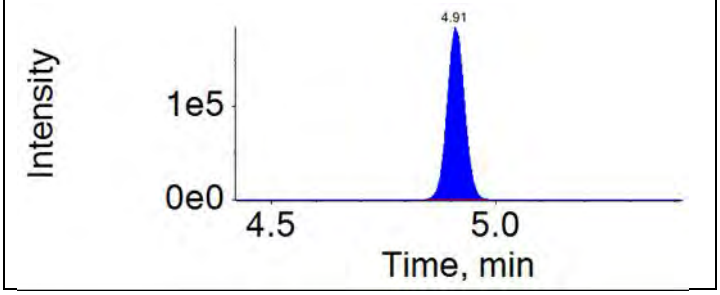
REVIEWED
By UMJS at 3:32 pm, 11/26/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

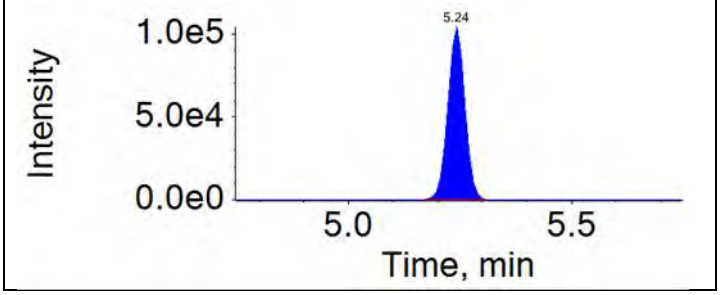
Injection Standard: 13C3-PFBA
216.0 / 172.0



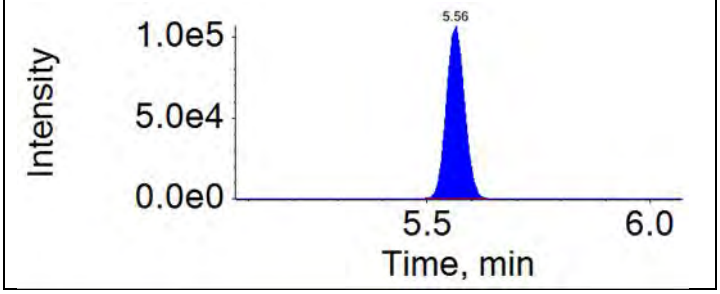
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0

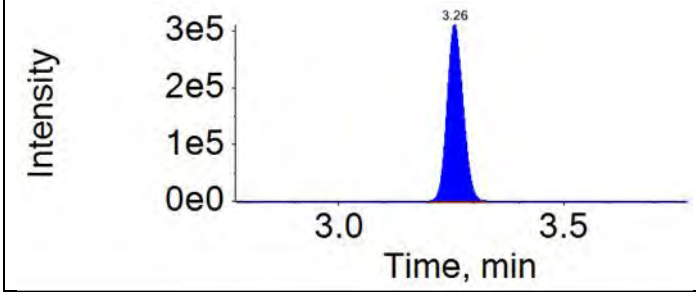


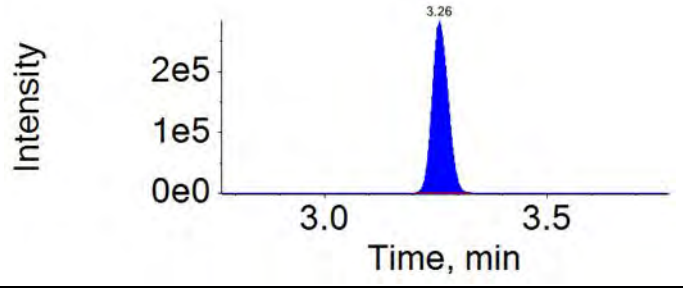
Injection Standard: 13C2-PFDA
515.0 / 470.0



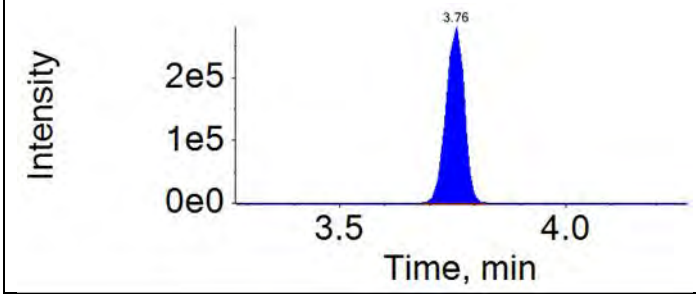
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

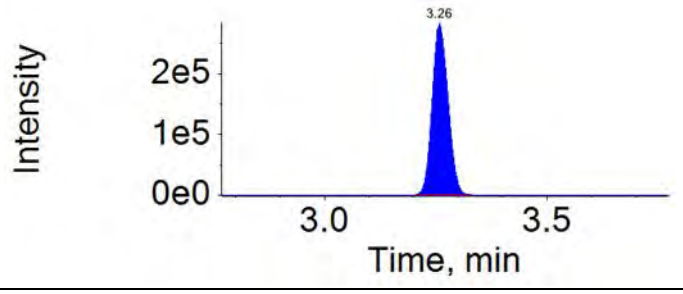
Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0



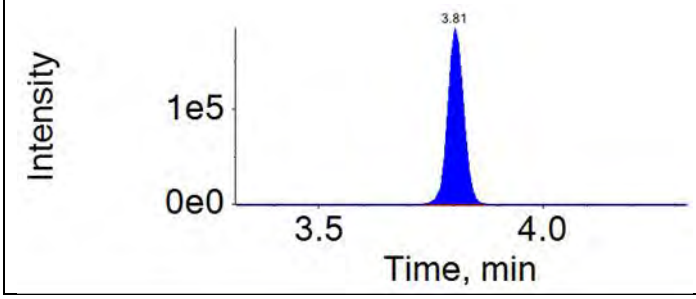


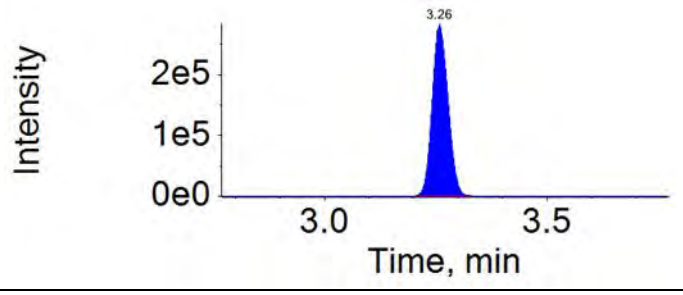
Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0



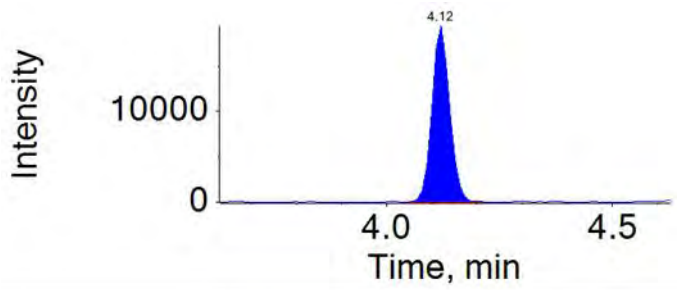


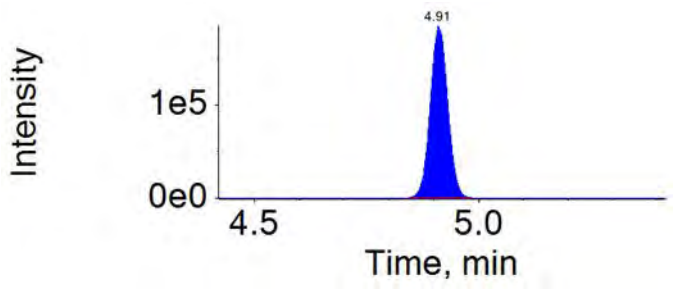
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0



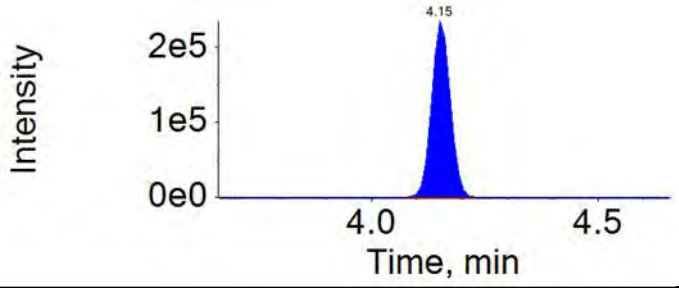
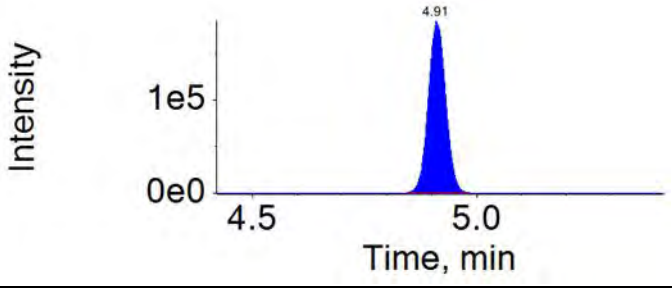


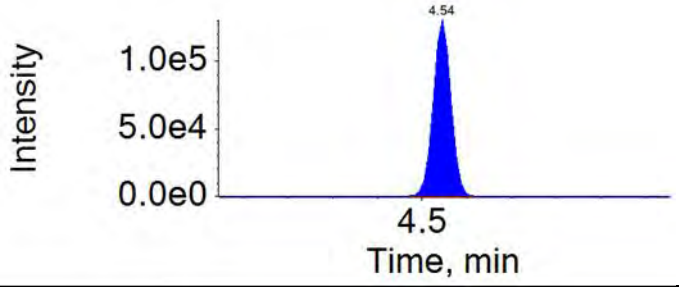
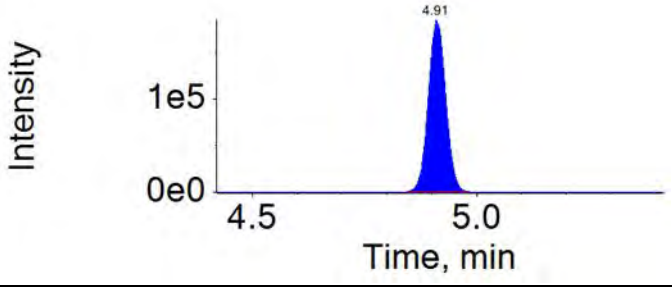
Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0

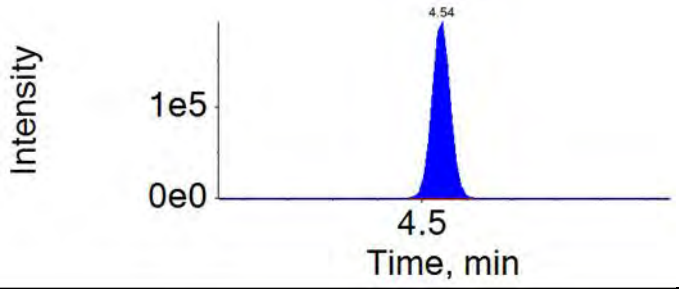
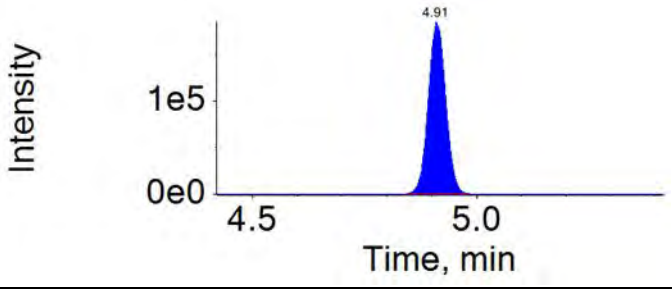


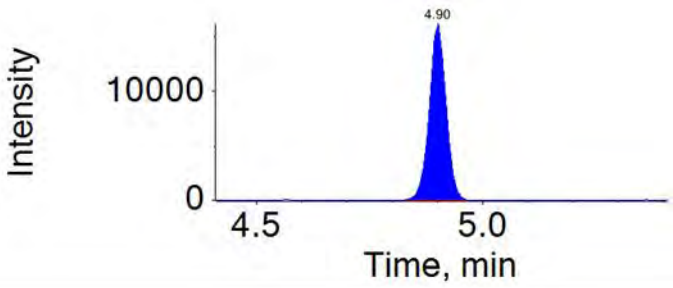
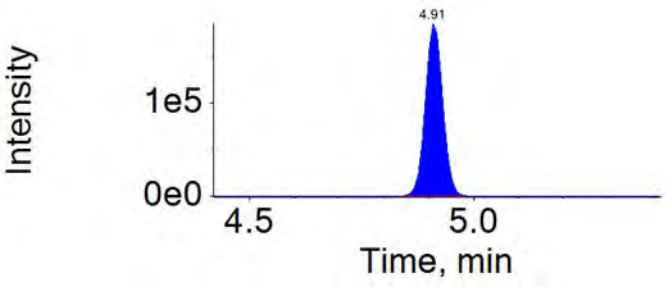


ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0
	

Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0
	

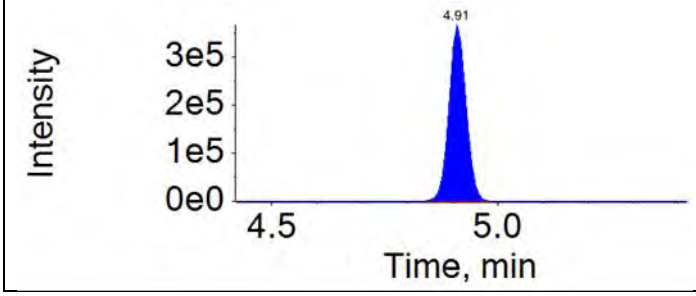
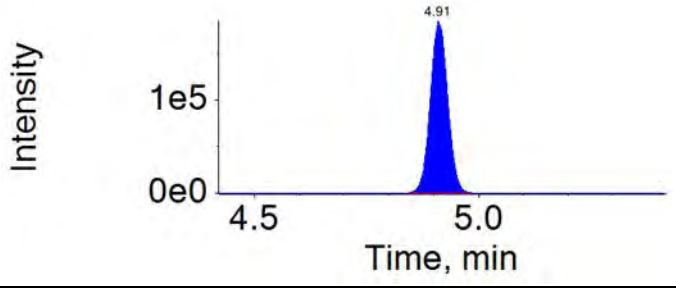
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0
	

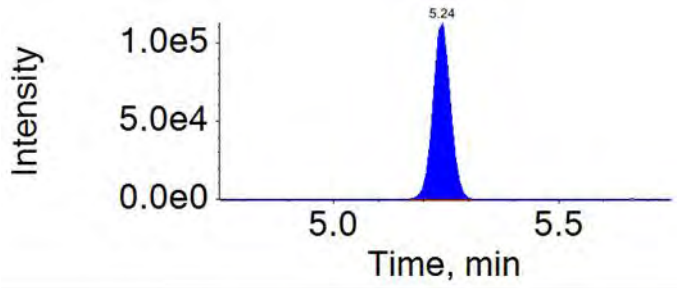
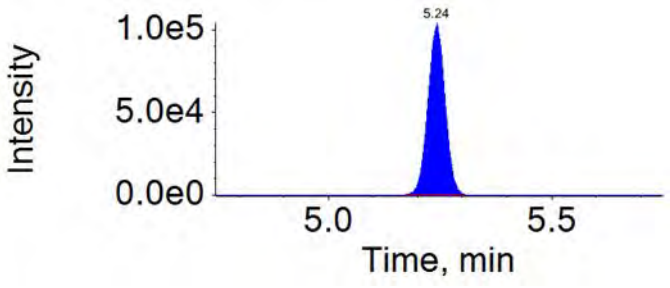
Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0
	

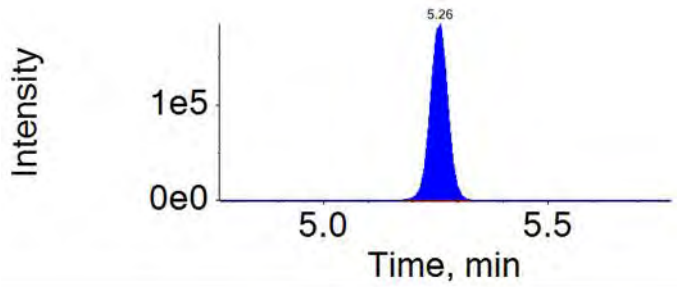
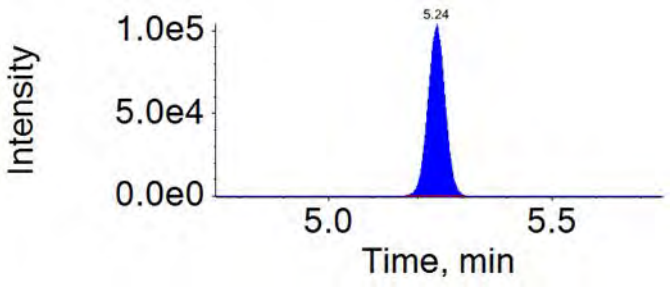
APPROVED
By JPT at 10:23 am, 11/13/18

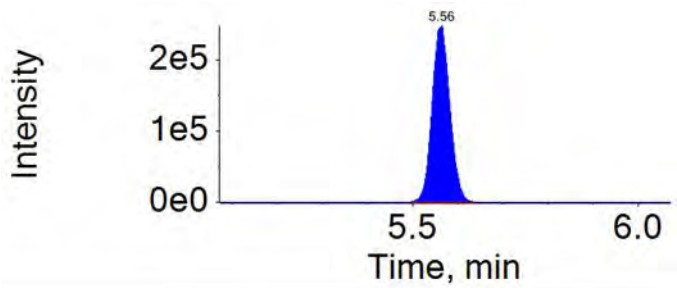
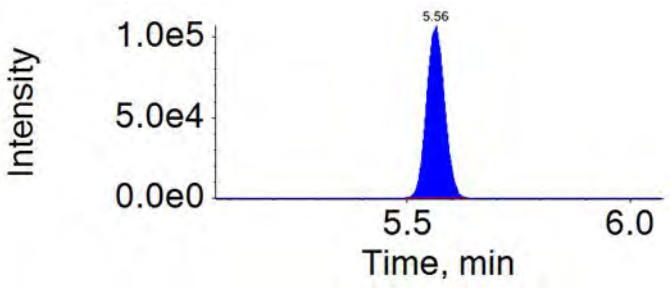
REVIEWED
By UMJS at 3:32 pm, 11/26/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: E13C8-PFOA	Injection Standard: 13C2-PFOA
421.0 / 376.0	415.0 / 370.0
	

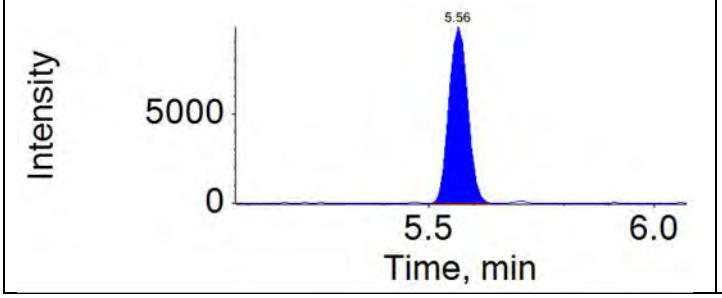
Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0
	

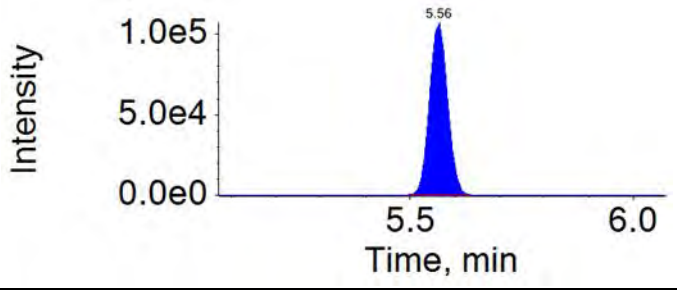
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0
	

Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0
	

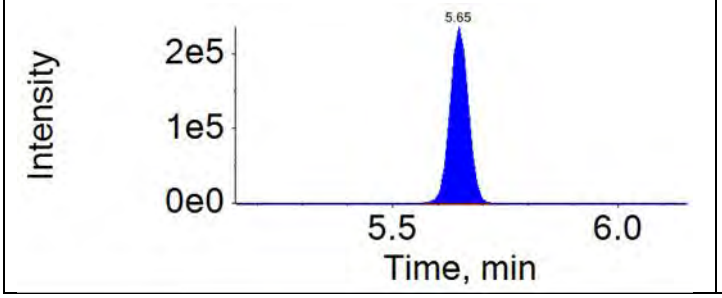
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

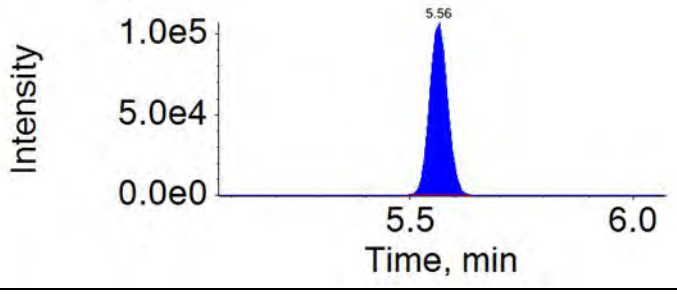
Extraction Standard: E13C2-8:2-FTS	Injection Standard: 13C2-PFDA
529.0 / 81.0	515.0 / 470.0



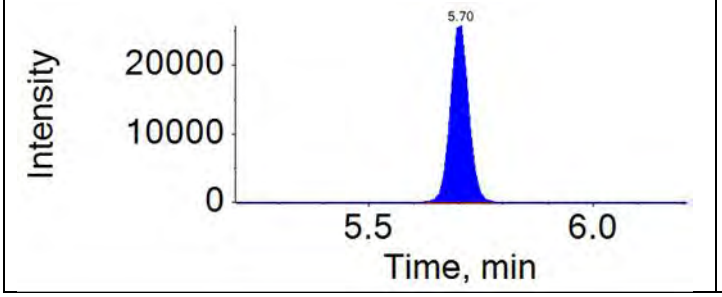


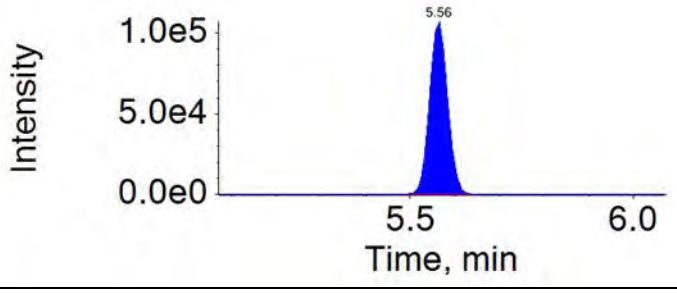
Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0



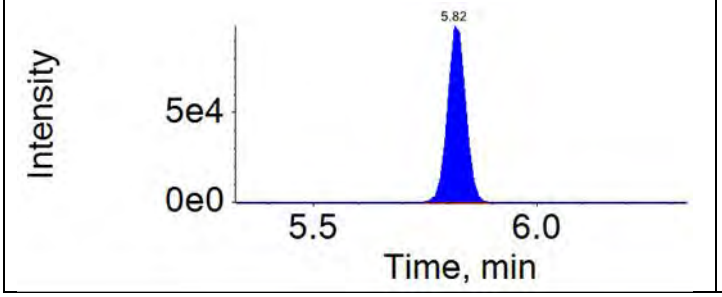


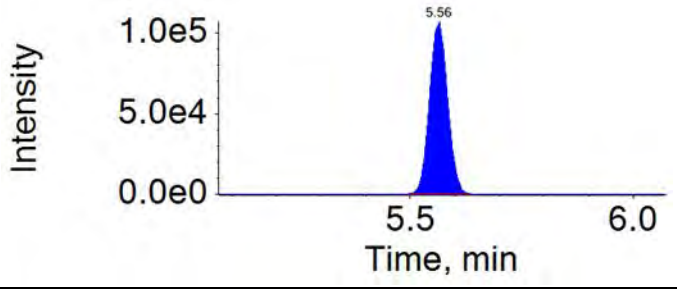
Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0



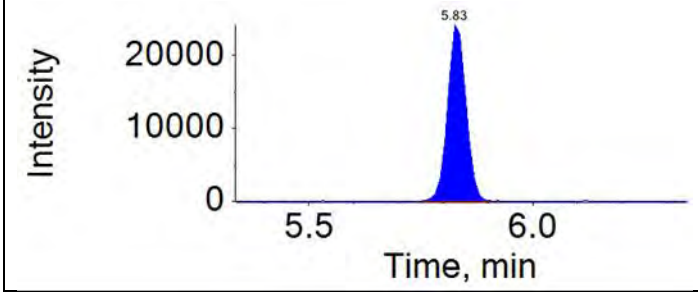
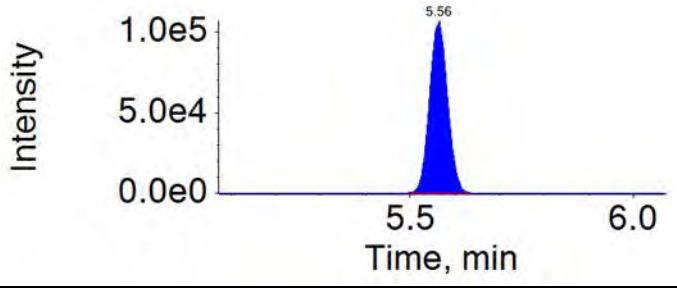


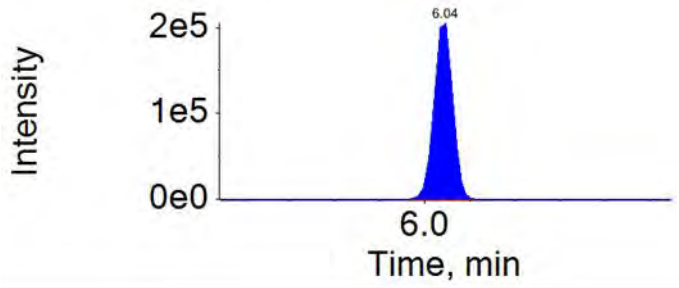
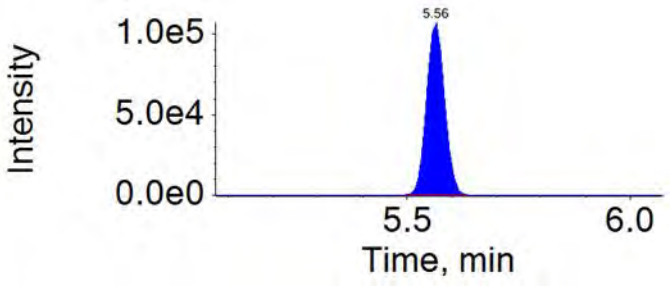
Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0

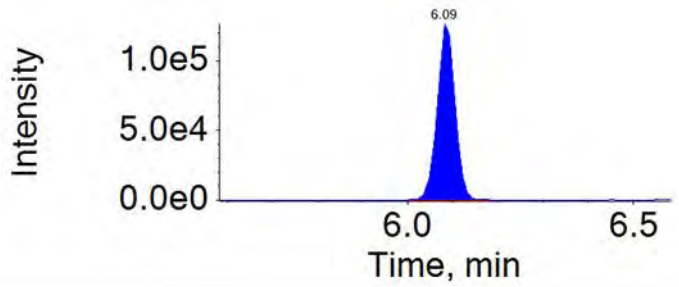
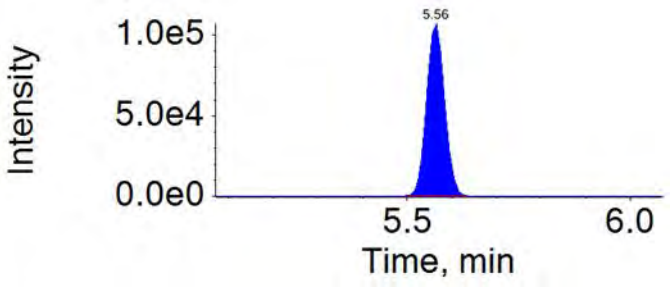


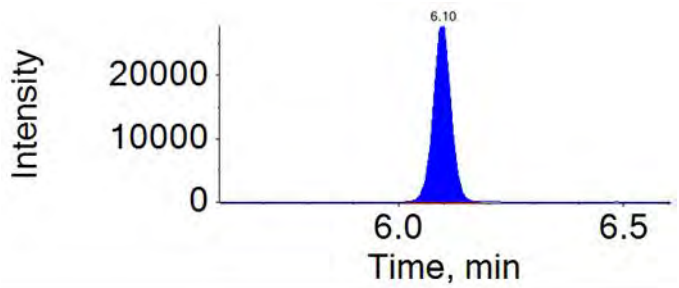
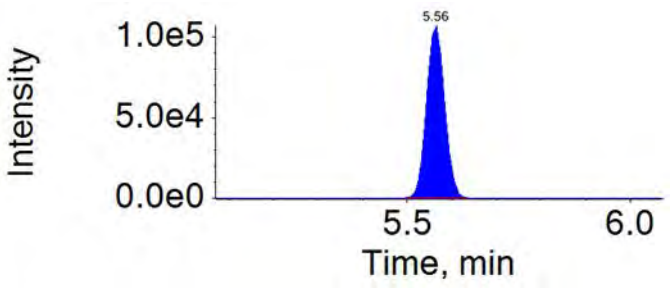


ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0
	

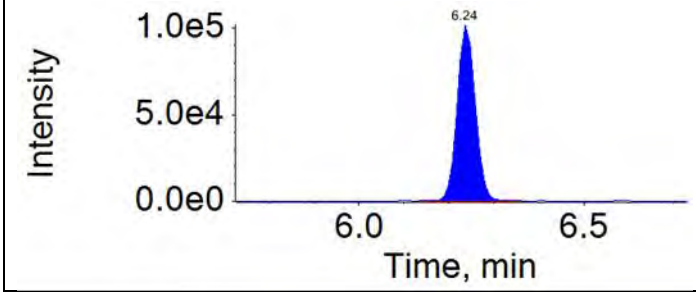
Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0
	

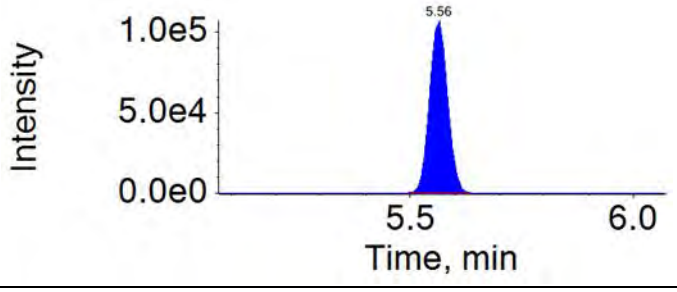
Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0
	

Extraction Standard: Ed3-NMePFOSA	Injection Standard: 13C2-PFDA
515.0 / 169.0	515.0 / 470.0
	

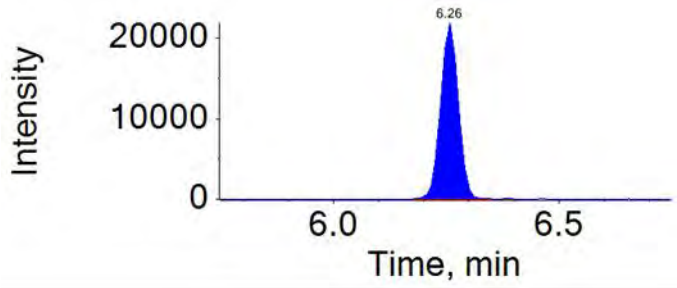
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

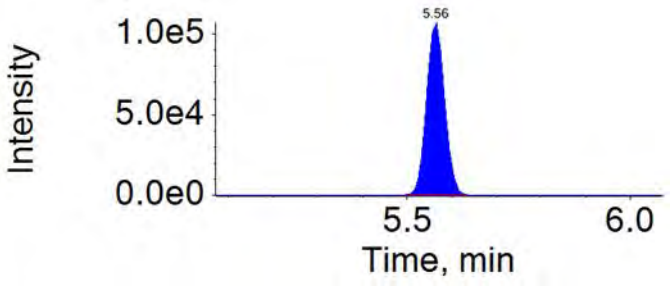
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



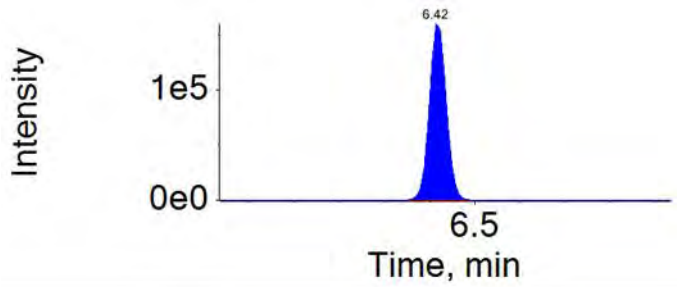


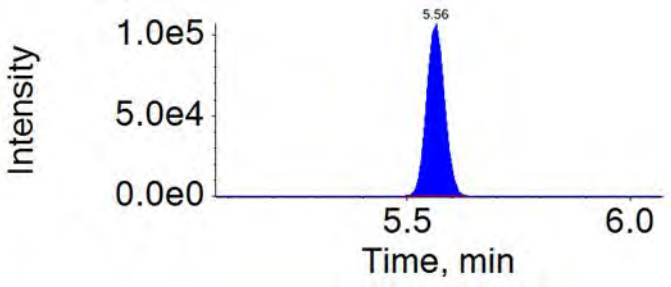
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0



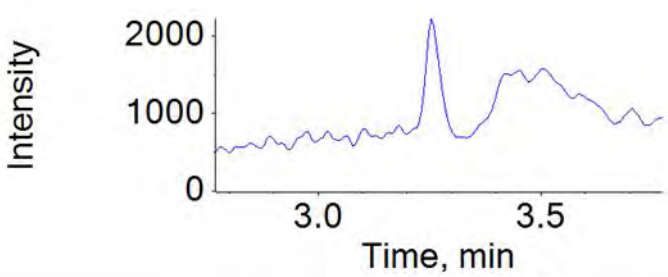
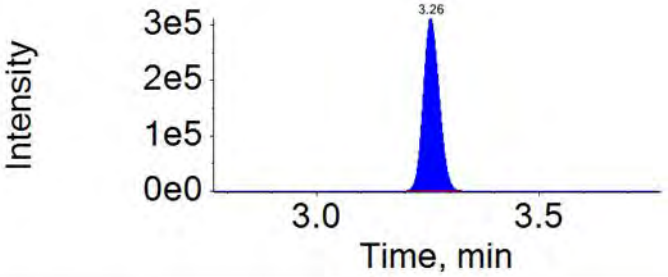


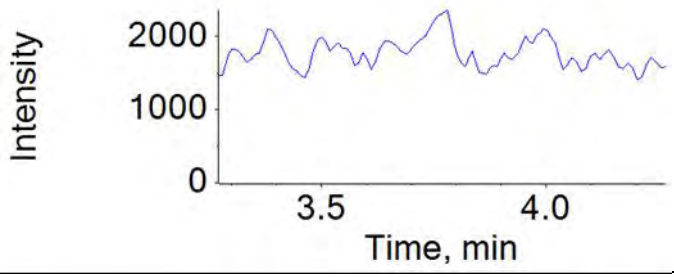
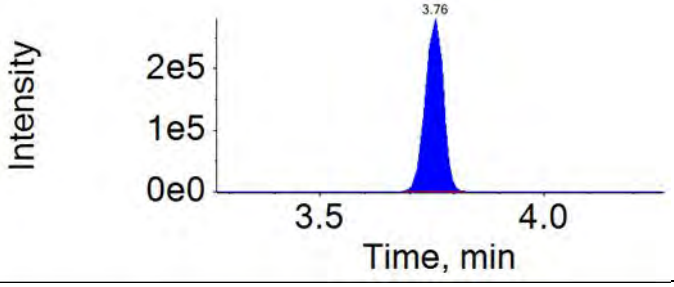
Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0

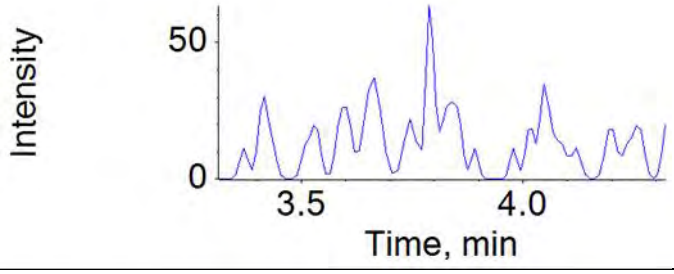
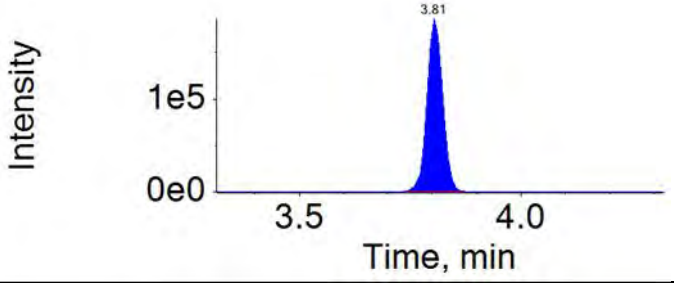


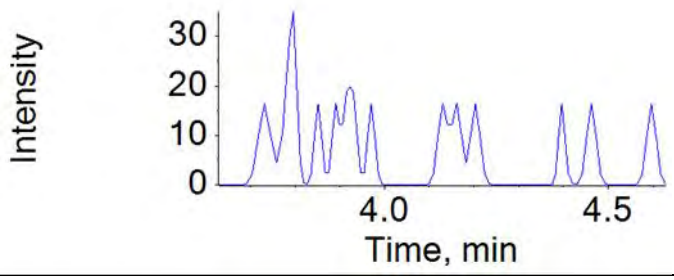
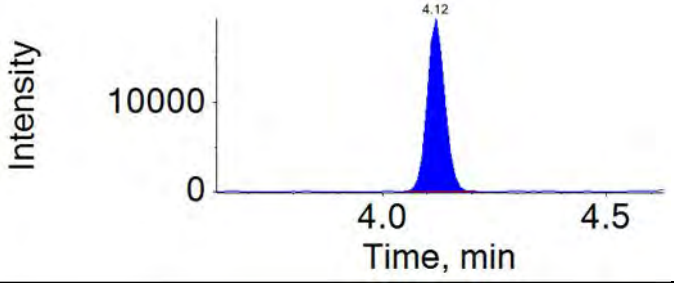


ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0
	

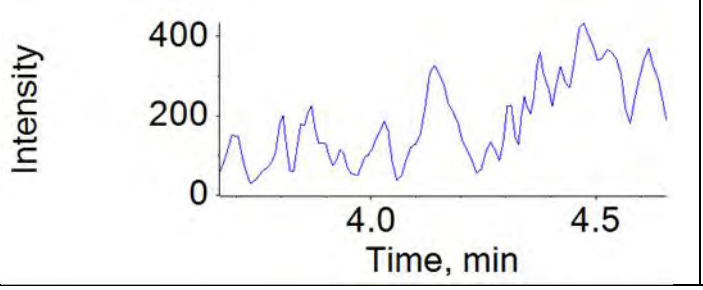
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0
	

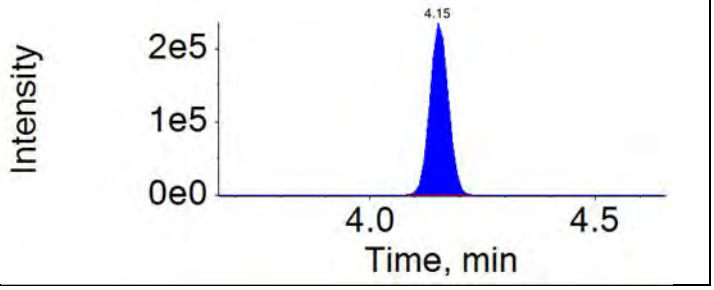
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0
	

Analyte: 4:2-FTS	Extraction Standard: 13C2-4:2-FTS
327.0 / 307.0	329.0 / 81.0
	

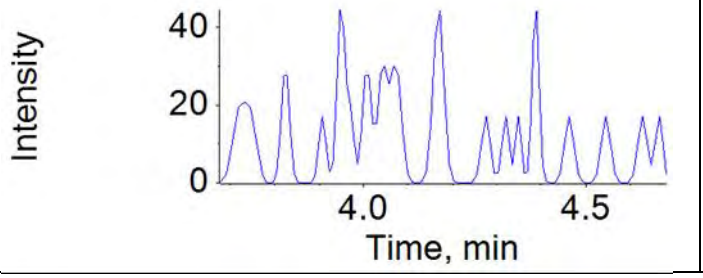
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

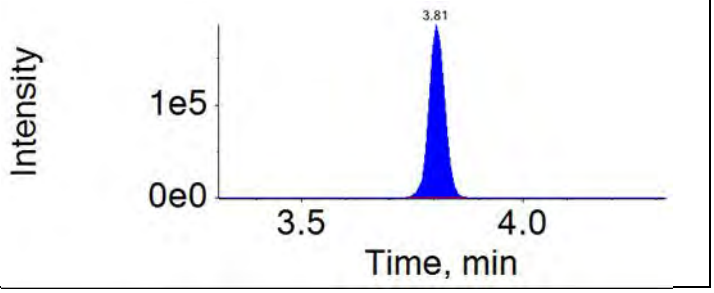
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



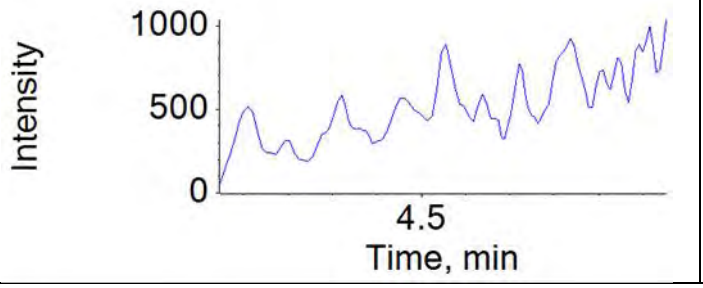


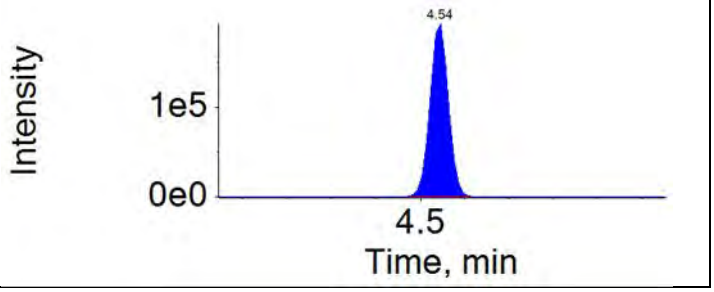
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



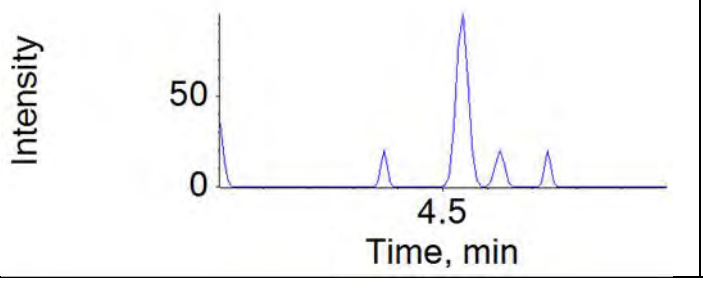


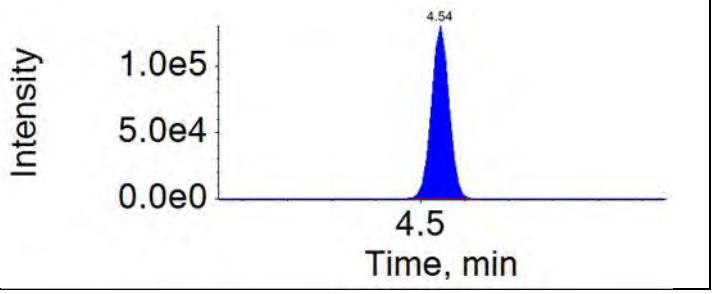
Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0



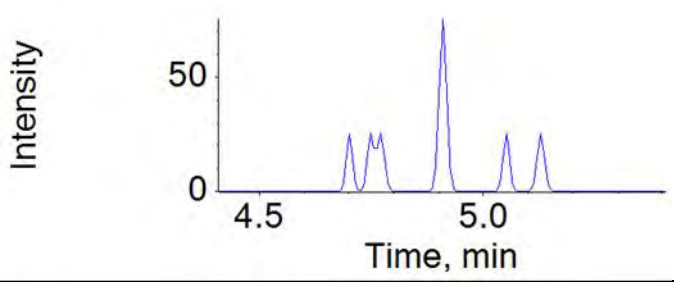
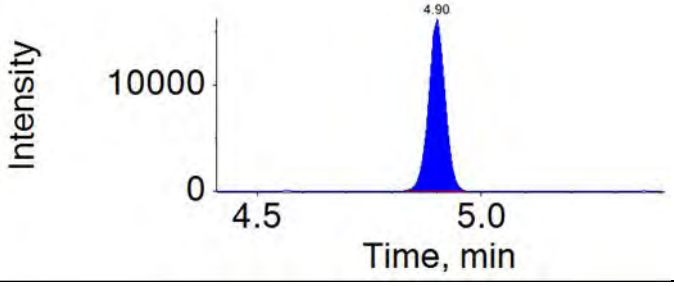


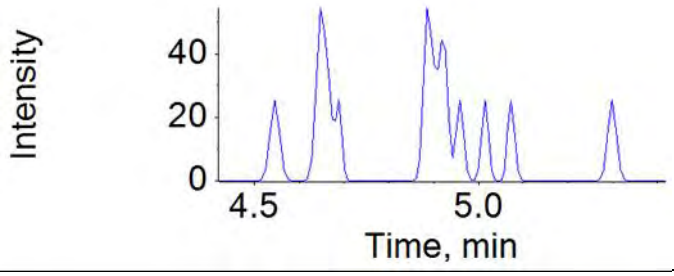
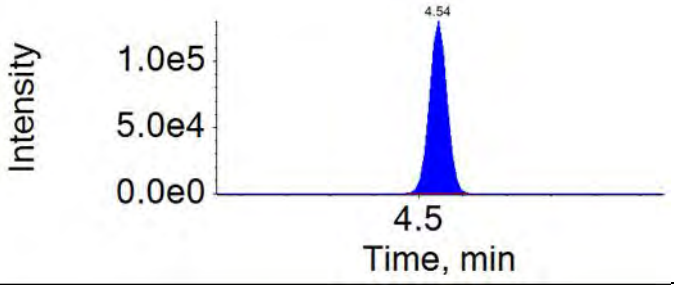
Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0

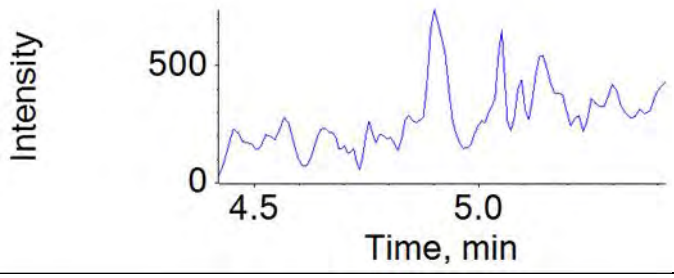
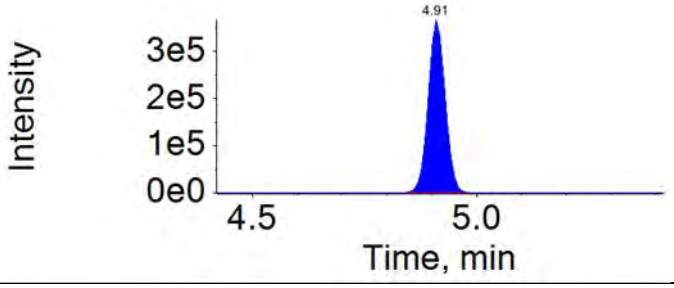


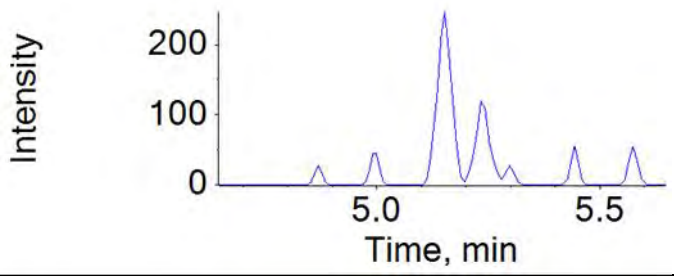
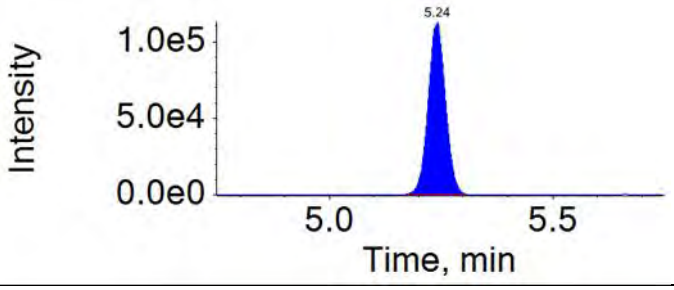


ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Analyte: 6:2-FTS	Extraction Standard: 13C2-6:2-FTS
427.0 / 407.0	429.0 / 81.0
	

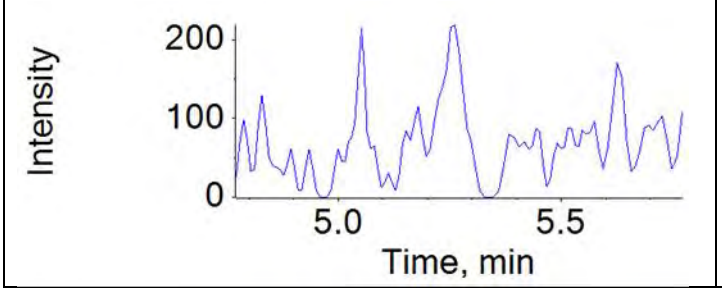
Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0
	

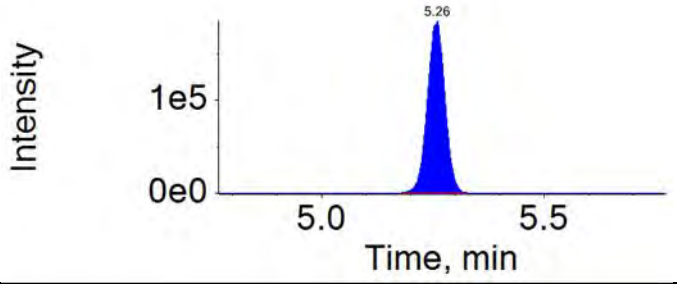
Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0
	

Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0
	

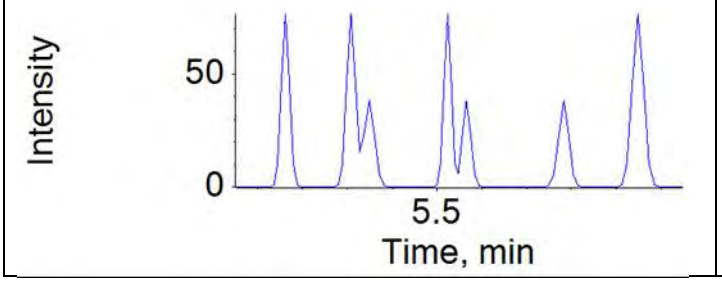
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

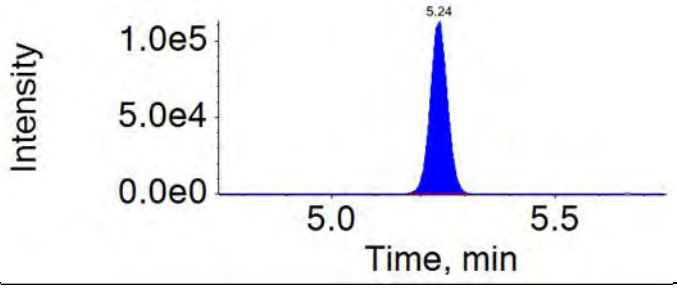
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



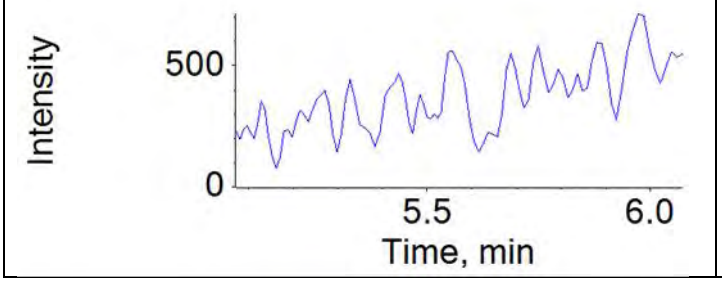


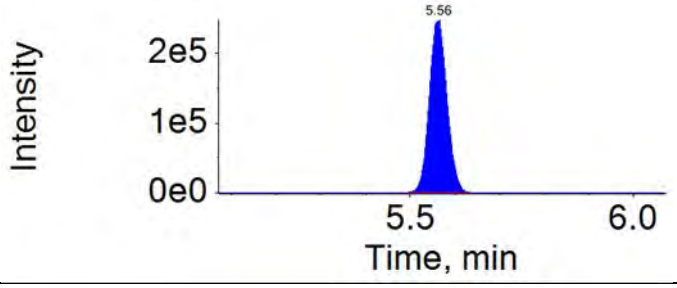
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



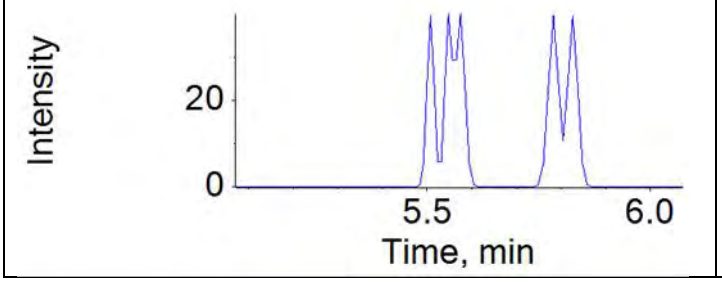


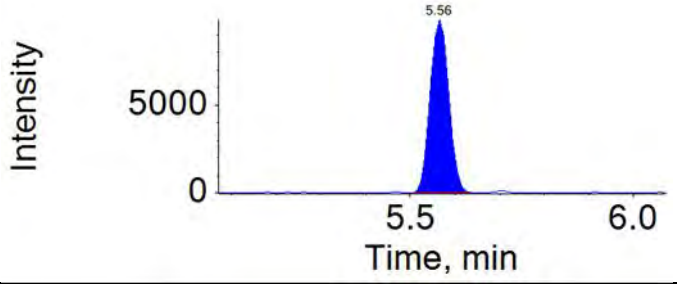
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





Analyte: 8:2-FTS	Extraction Standard: 13C2-8:2-FTS
527.0 / 507.0	529.0 / 81.0

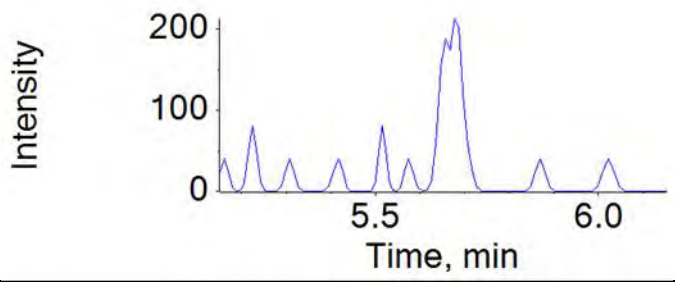
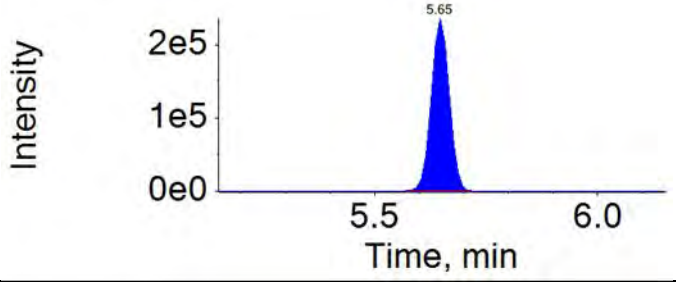


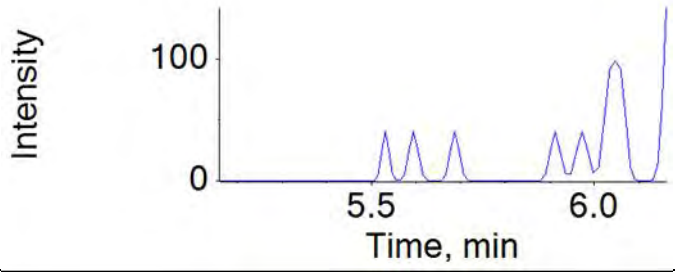
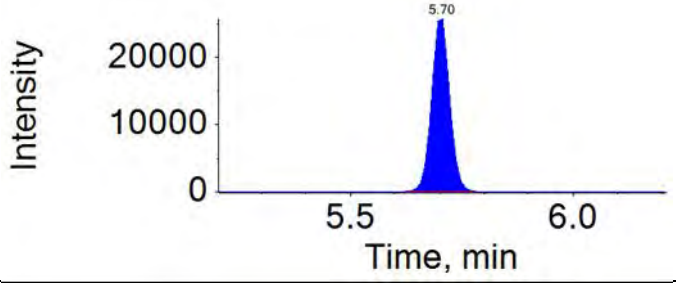


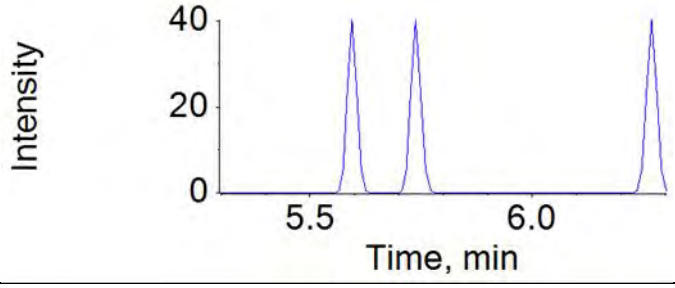
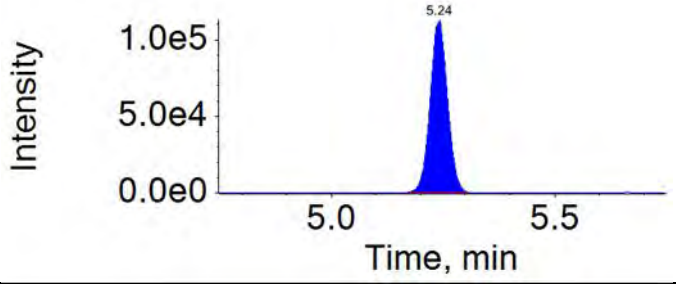
APPROVED
By JPT at 10:23 am, 11/13/18

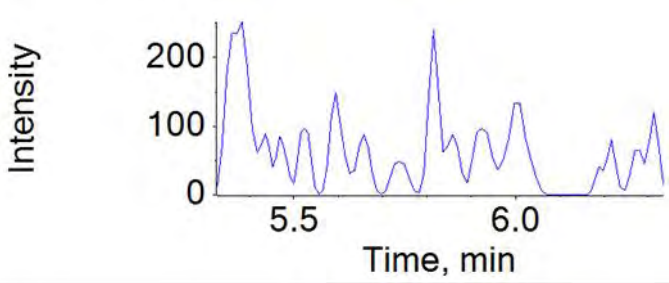
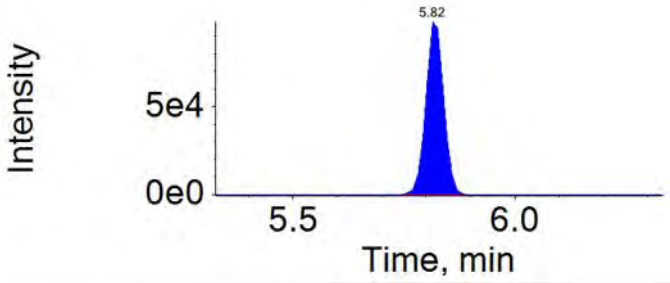
REVIEWED
By UMJS at 3:32 pm, 11/26/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0
	

Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0
	

Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0
	

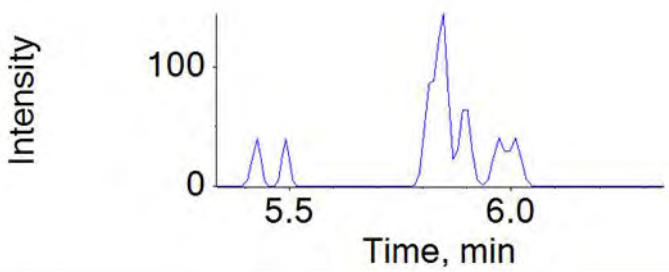
Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0
	

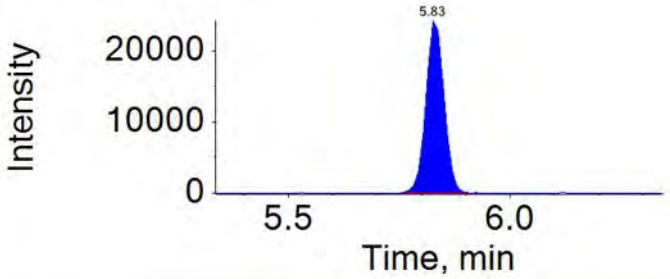
APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By UMJS at 3:32 pm, 11/26/18

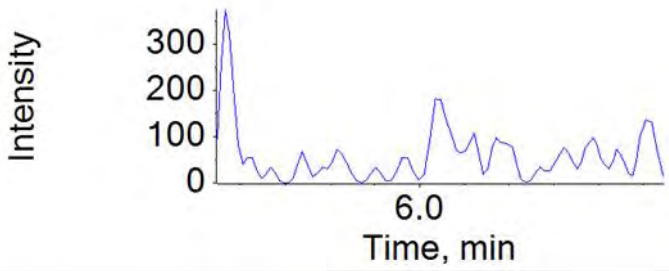
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

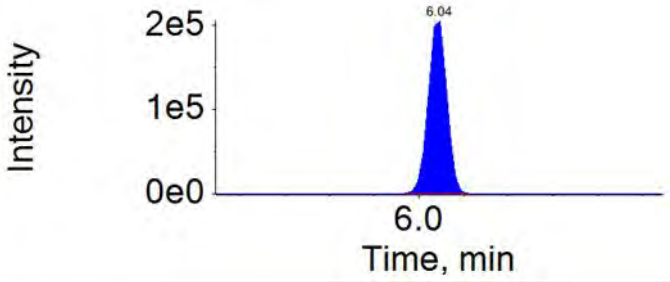
Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0



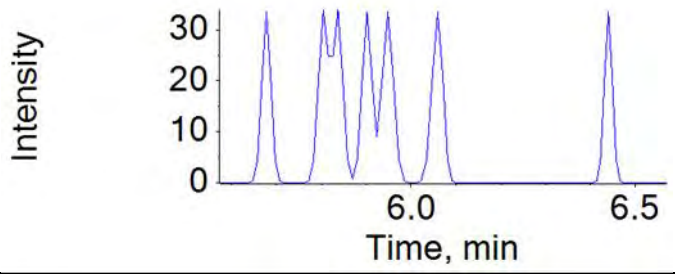


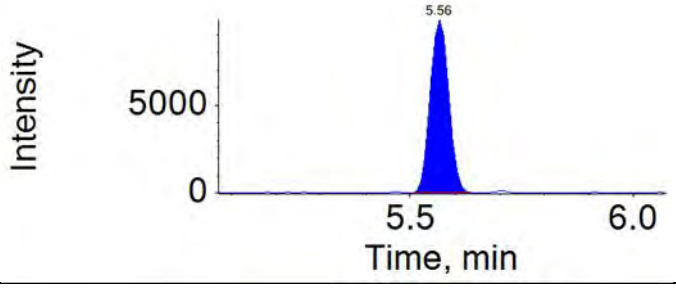
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0



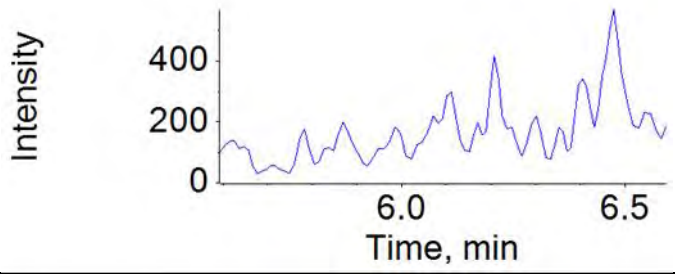


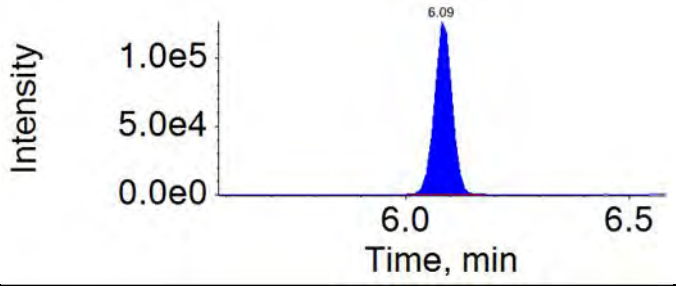
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0





Analyte: NMePFOSAE	Extraction Standard: d7-NMePFOSAE
616.0 / 59.0	623.0 / 59.0



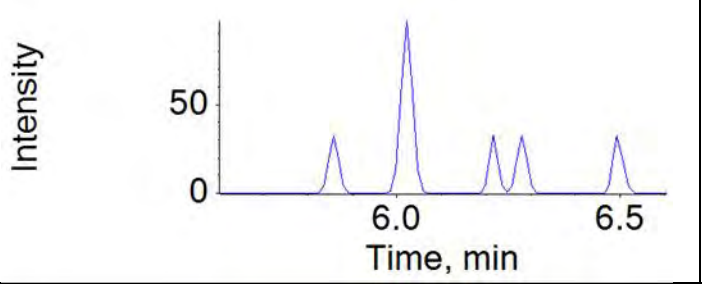


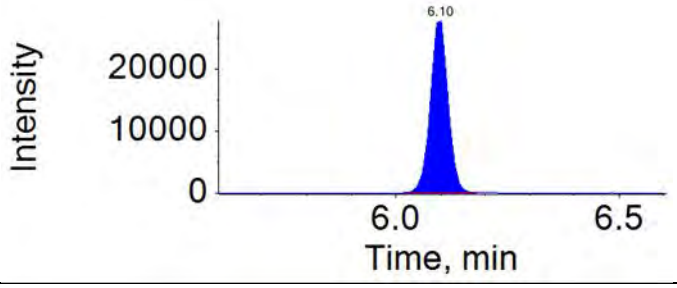
APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By UMJS at 3:32 pm, 11/26/18

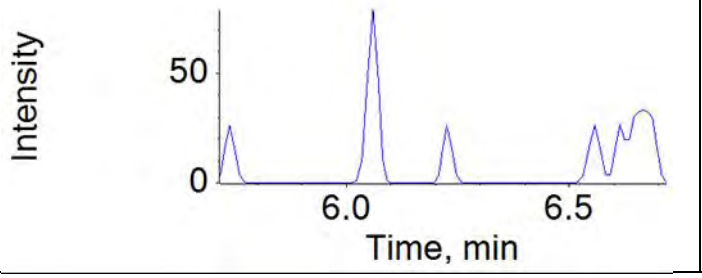
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

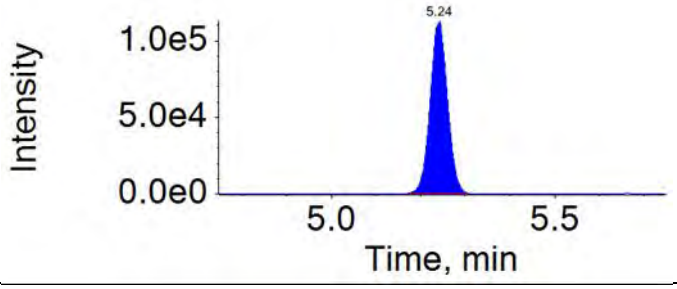
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



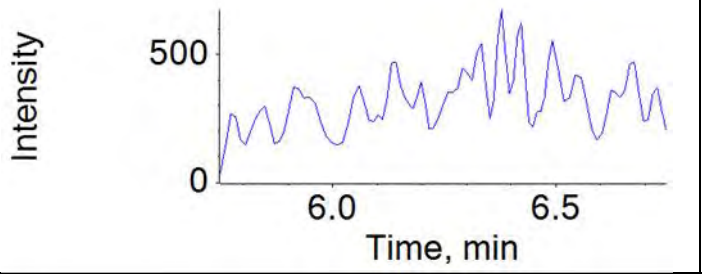


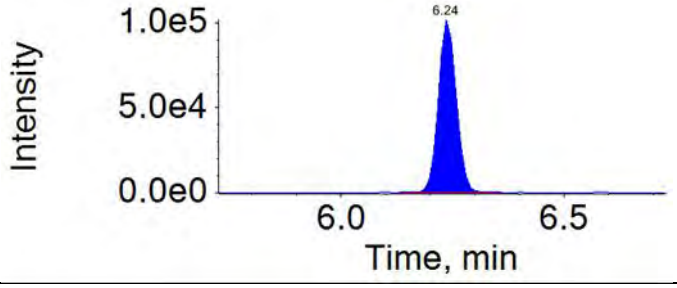
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



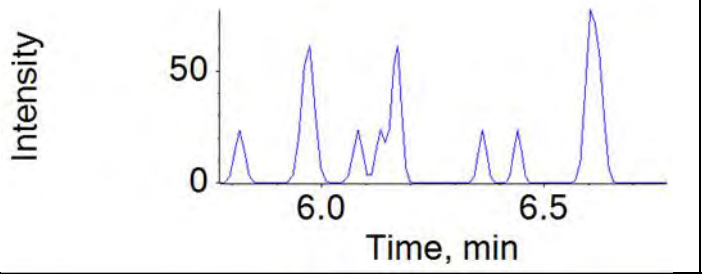


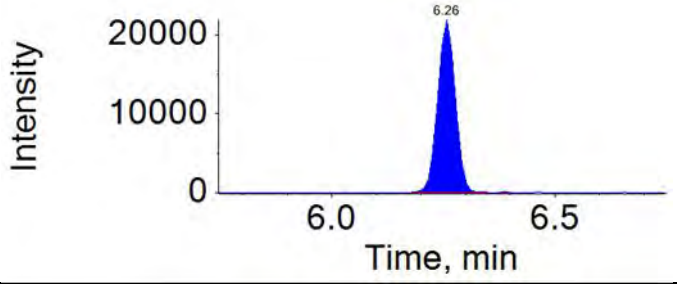
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





Analyte: NEtPFOSA	Extraction Standard: d5-NEtPFOSA
526.0 / 169.0	531.0 / 169.0



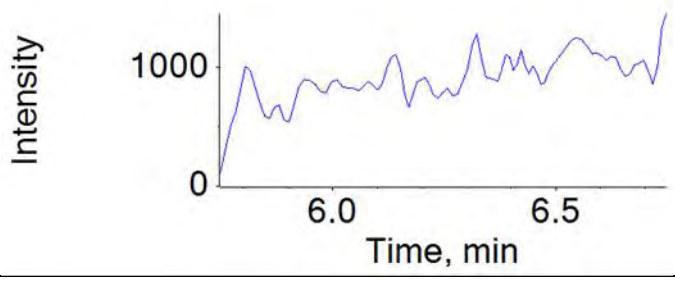


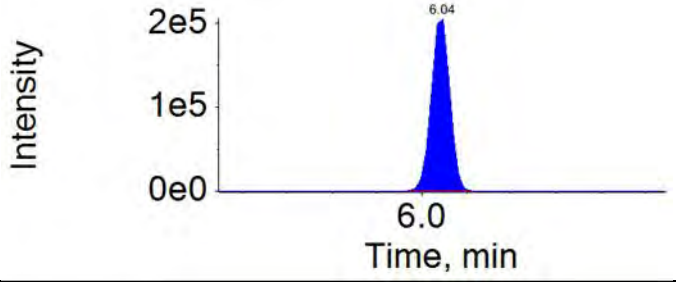
APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By UMJS at 3:32 pm, 11/26/18

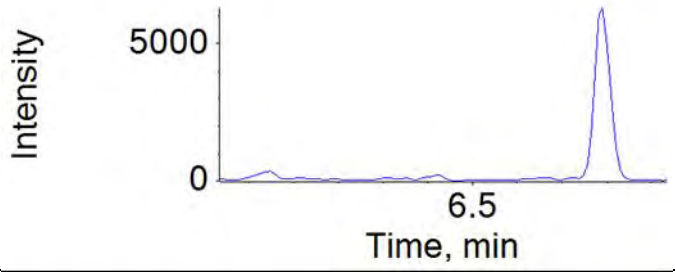
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

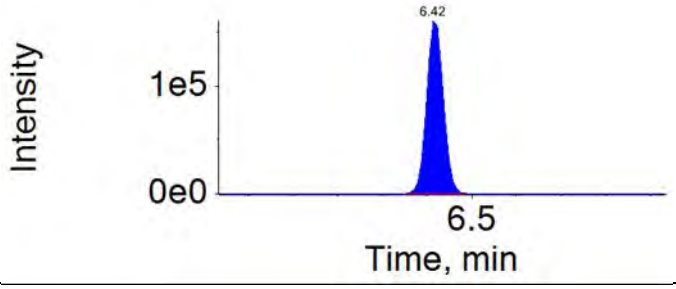
Analyte: PFTrDA	Extraction Standard: 13C2-PFDoDA
663.0 / 619.0	615.0 / 570.0



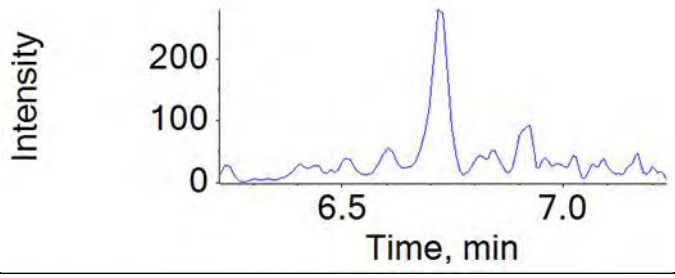


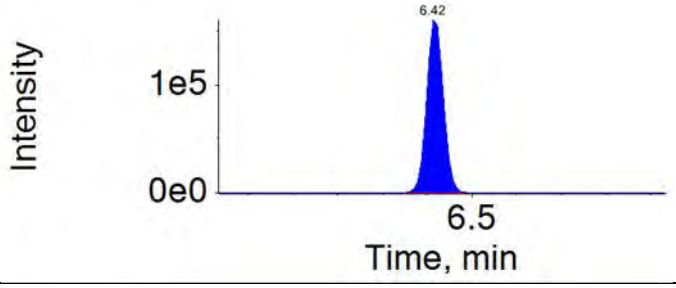
Analyte: PFTeDA	Extraction Standard: 13C2-PFTeDA
713.0 / 669.0	715.0 / 670.0



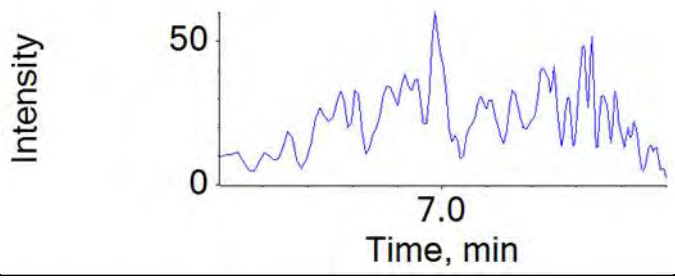


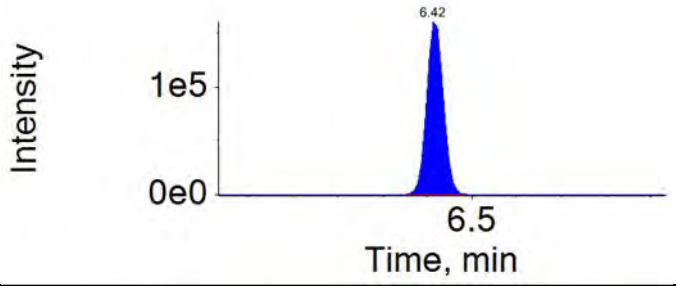
Analyte: PFHxDA	Extraction Standard: 13C2-PFTeDA
813.0 / 769.0	715.0 / 670.0





Analyte: PFODA	Extraction Standard: 13C2-PFTeDA
913.0 / 869.0	715.0 / 670.0





Ion Ratio Report

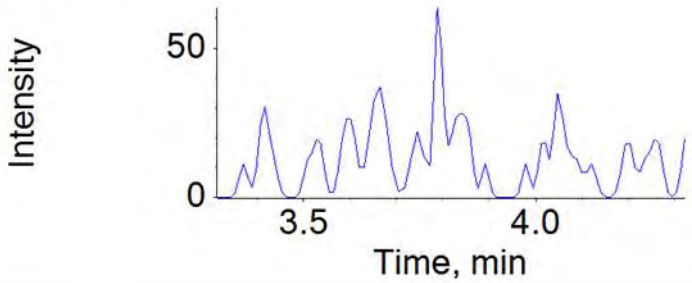
Sample Name: Instrument Blank **Instrument Name:** LM27631 **File Name:** 18NOV12D-71.wiff

Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	N/A	N/A	N/A	A	N/A	N/A			
PFBS_2	N/A	N/A	N/A	A	N/A	N/A		50	
4:2-FTS	N/A	N/A	N/A	A	N/A	N/A			
4:2 FTS_2	N/A	N/A	N/A	A	N/A	N/A		#NA!	
PFHxA	N/A	N/A	N/A	A	N/A	N/A			
PFHxA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFPeS	N/A	N/A	N/A	A	N/A	N/A			
PFPeS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFHpA	N/A	N/A	N/A	A	N/A	N/A			
PFHpA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFHxS	N/A	N/A	N/A	A	N/A	N/A			
PFHxS_2	N/A	N/A	N/A	A	N/A	N/A		50	
6:2-FTS	N/A	N/A	N/A	A	N/A	N/A			
6:2 FTS_2	N/A	N/A	N/A	A	N/A	N/A		#NA!	
PFHpS	N/A	N/A	N/A	A	N/A	N/A			
PFHpS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFOA	N/A	N/A	N/A	A	N/A	N/A			
PFOA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFOS	N/A	N/A	N/A	A	N/A	N/A			
PFOS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFNA	N/A	N/A	N/A	A	N/A	N/A			
PFNA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFNS	N/A	N/A	N/A	A	N/A	N/A			
PFNS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFDA	N/A	N/A	N/A	A	N/A	N/A			
PFDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
8:2-FTS	N/A	N/A	N/A	A	N/A	N/A			
8:2 FTS_2	N/A	N/A	N/A	A	N/A	N/A		#NA!	
NMeFOSAA	N/A	N/A	N/A	A	N/A	N/A			
NMeFOSAA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFDS	N/A	N/A	N/A	A	N/A	N/A			
PFDS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFUnDA	N/A	N/A	N/A	A	N/A	N/A			
PFUnDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
NEtFOSAA	N/A	N/A	N/A	A	N/A	N/A			
NEtFOSAA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFDoDA	N/A	N/A	N/A	A	N/A	N/A			
PFDoDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
10:2-FTS	N/A	N/A	N/A	A	N/A	N/A			
10:2 FTS_2	N/A	N/A	N/A	A	N/A	N/A		#NA!	
PFTrDA	N/A	N/A	N/A	A	N/A	N/A			
PFTrDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFTeDA	N/A	N/A	N/A	A	N/A	N/A			
PFTeDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFHxDA	N/A	N/A	N/A	A	N/A	N/A			
PFHxDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFODA	N/A	N/A	N/A	A	N/A	N/A			
PFODA_2	N/A	N/A	N/A	A	N/A	N/A		50	

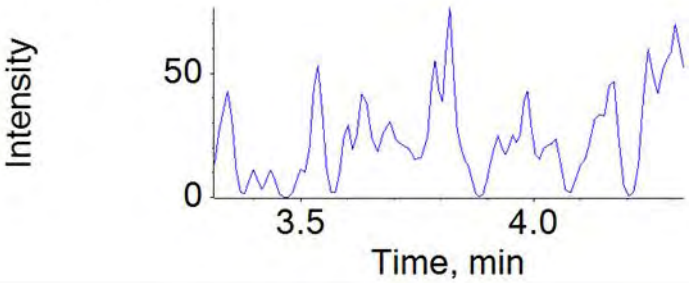
APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By UMJS at 3:32 pm, 11/26/18

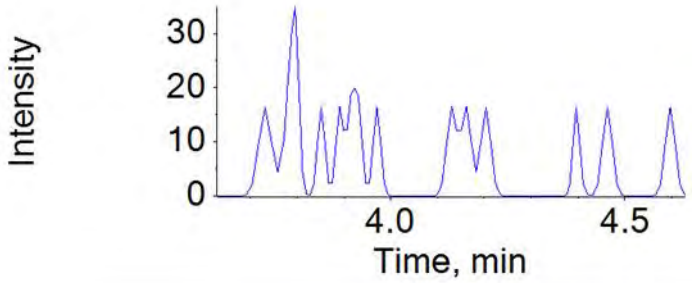
Component: PFBS
Primary Mass: 299.0 / 80.0



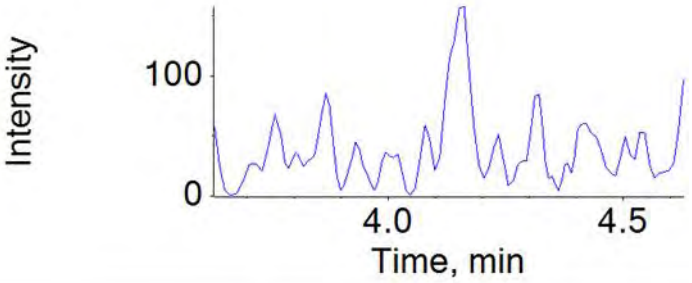
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



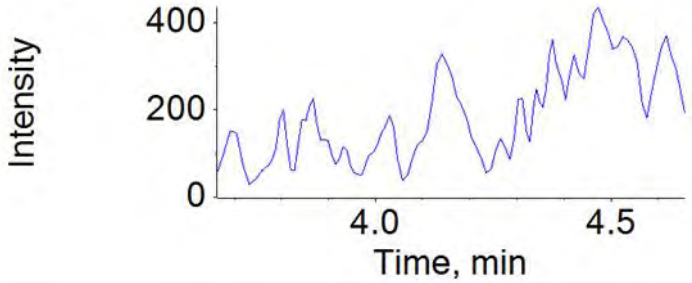
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



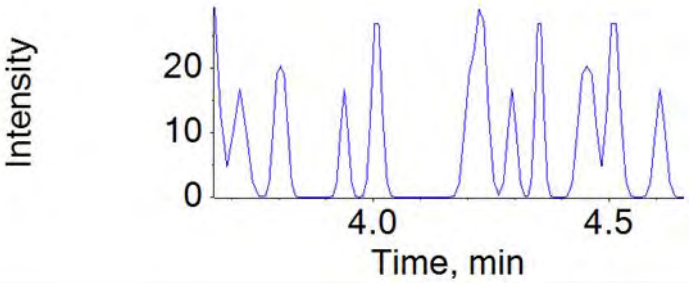
Component: 4:2 FTS_2
Secondary Mass: 327.0 / 81.0



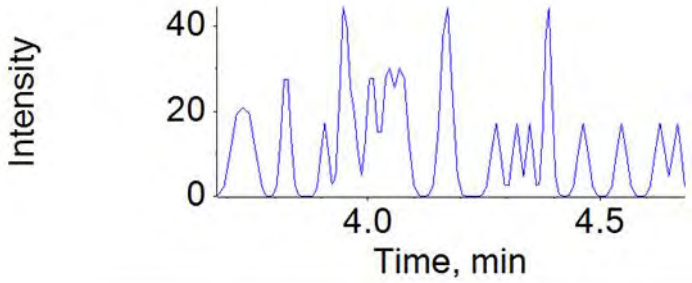
Component: PFHxA
Primary Mass: 313.0 / 269.0



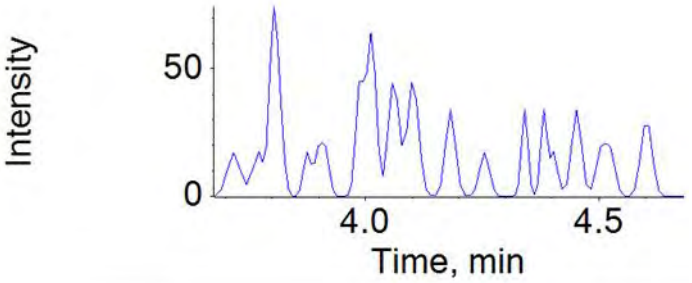
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Secondary Mass: 313.0 / 119.0



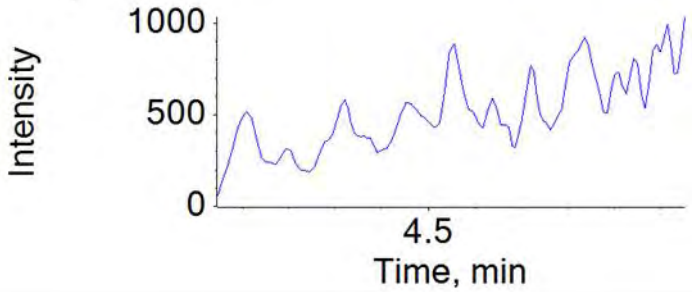
Component: PFPeS
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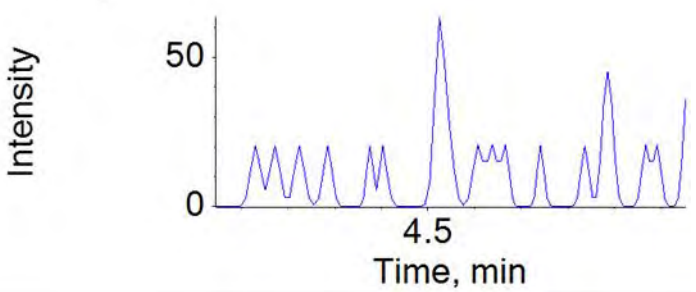
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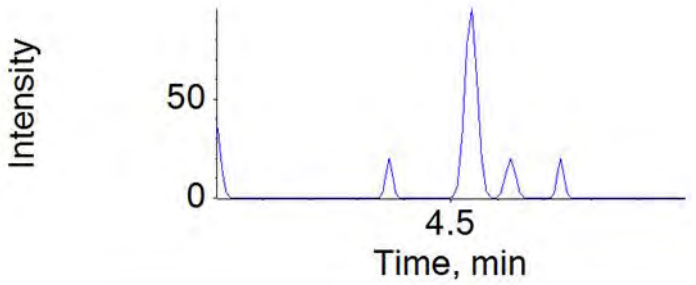
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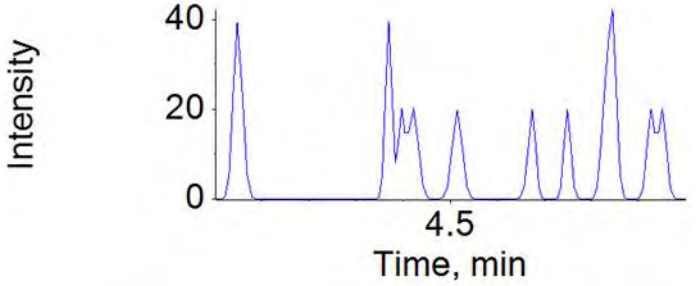
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Secondary Mass: 363.0 / 169.0



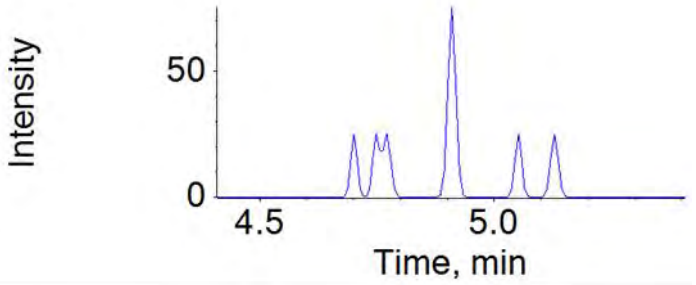
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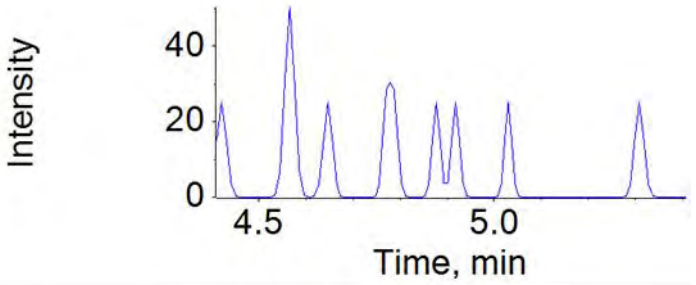
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Secondary Mass: 399.0 / 99.0



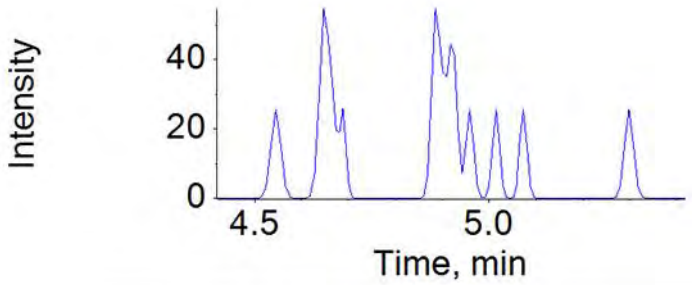
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



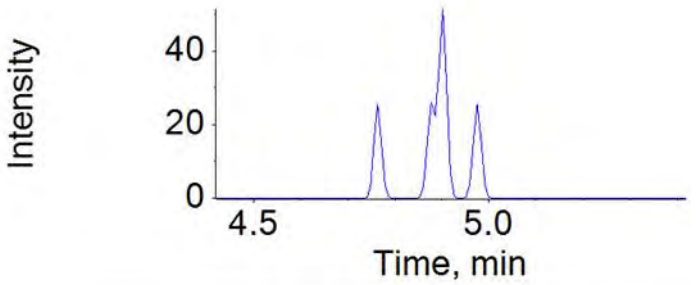
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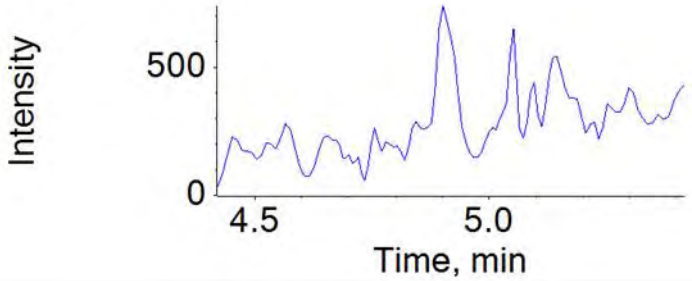
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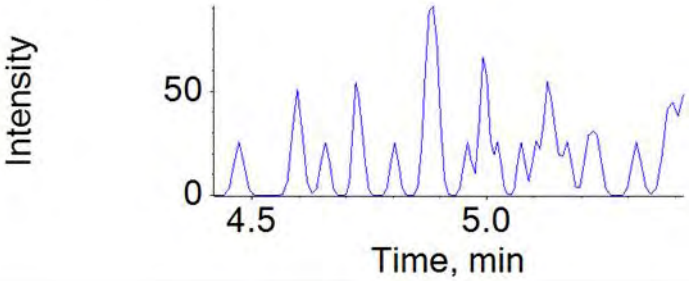
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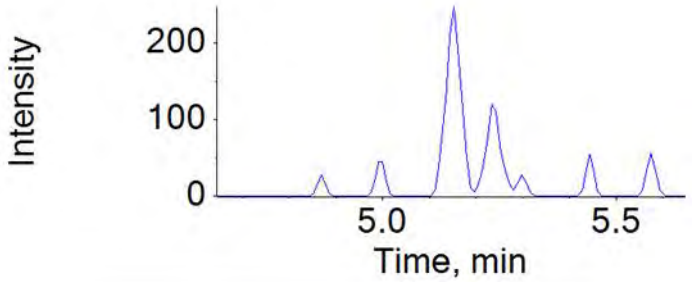
Component: PFOA
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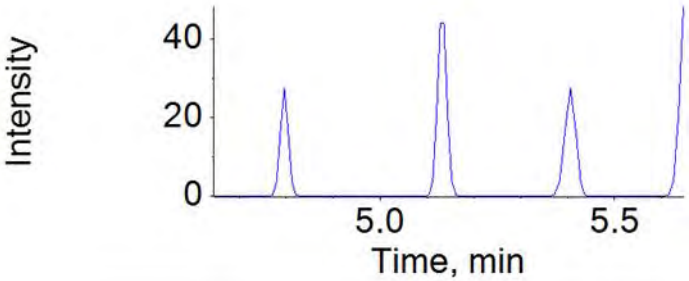
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



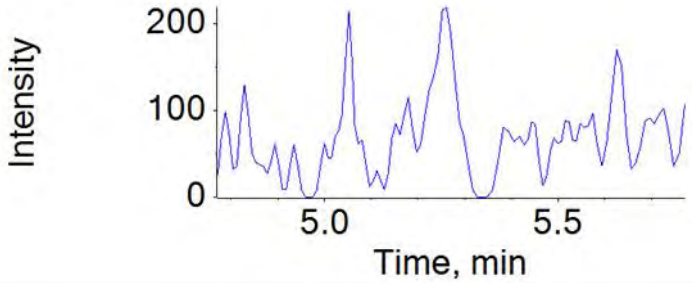
Component: PFOS
Primary Mass: 499.0 / 80.0



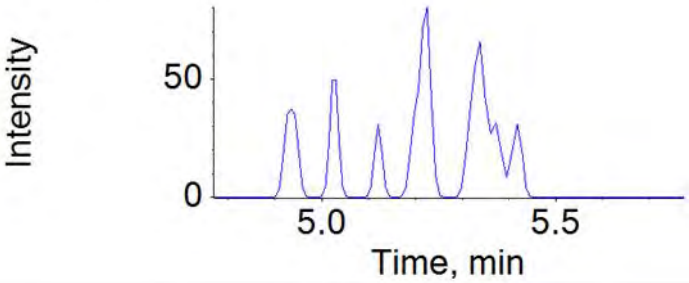
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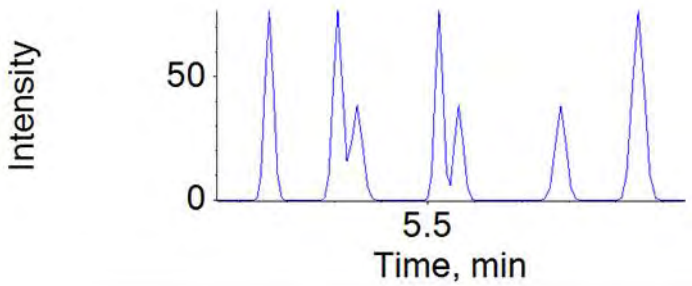
Component: PFNA
Primary Mass: 463.0 / 419.0



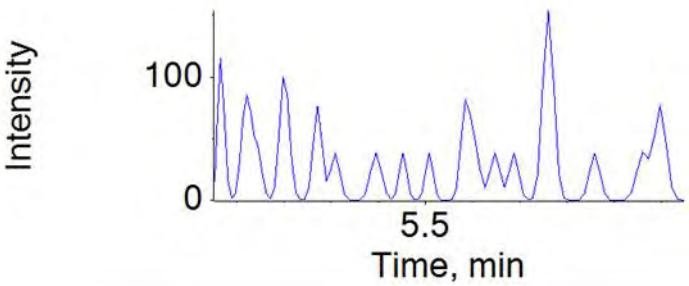
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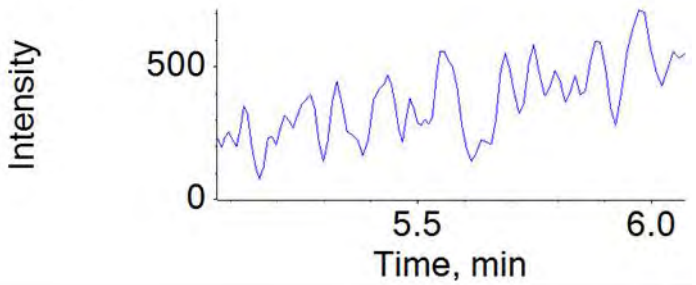
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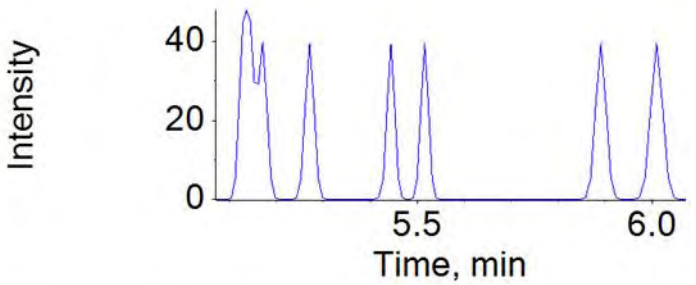
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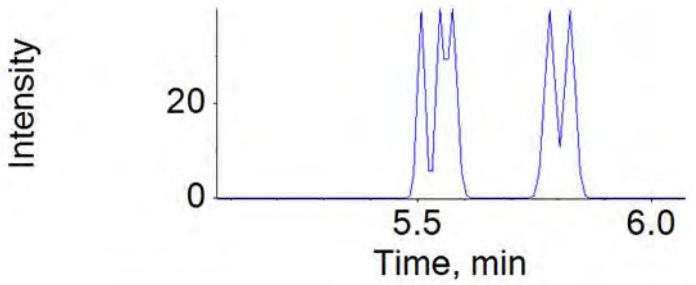
Component: PFDA
Primary Mass: 513.0 / 469.0



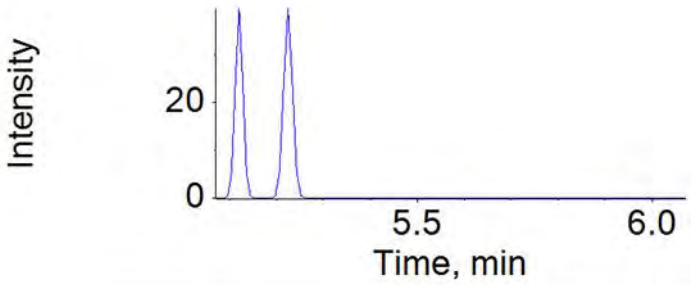
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



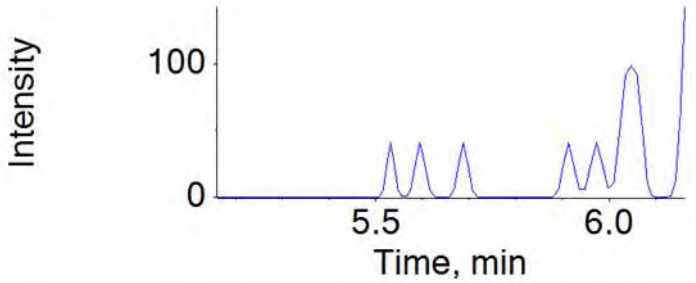
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



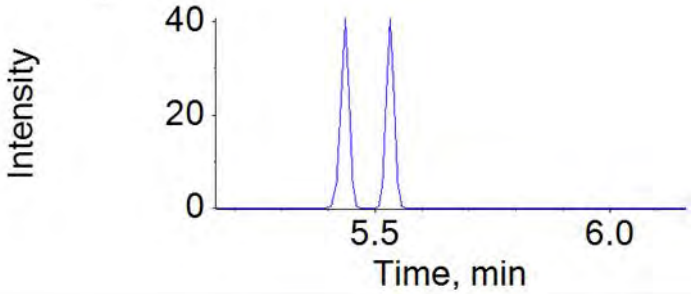
Component: 8:2 FTS_2
Secondary Mass: 527.0 / 81.0



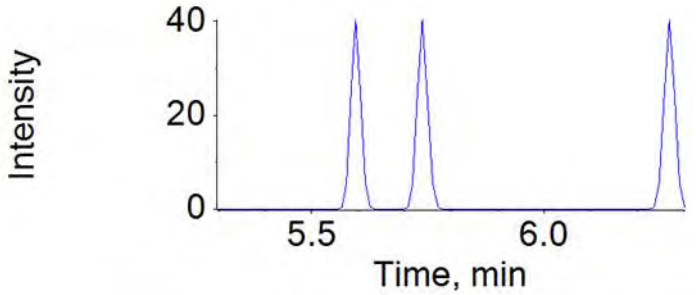
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



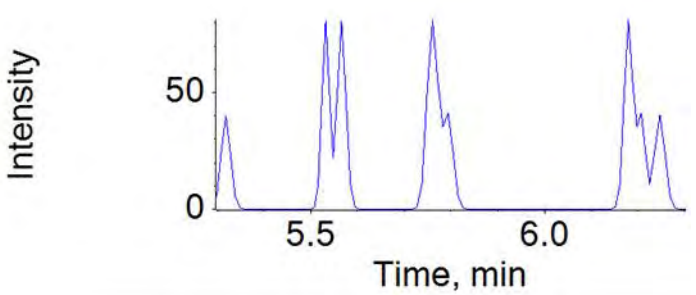
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Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



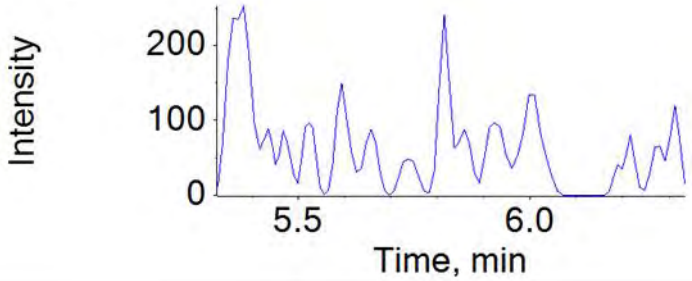
Component: PFDS_2
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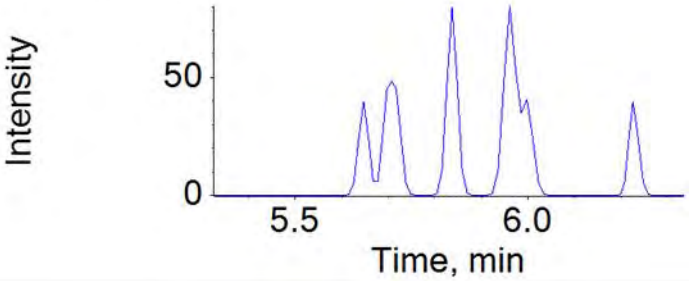
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By JPT at 10:23 am, 11/13/18

REVIEWED
By UMJS at 3:32 pm, 11/26/18

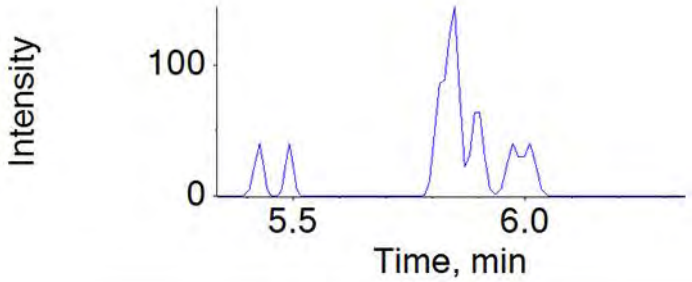
Component: PFUnDA
Primary Mass: 563.0 / 519.0



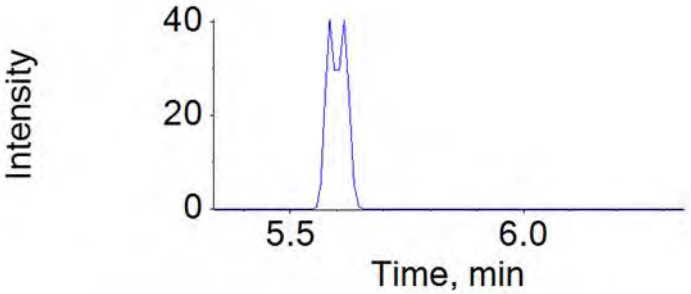
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Secondary Mass: 563.0 / 169.0



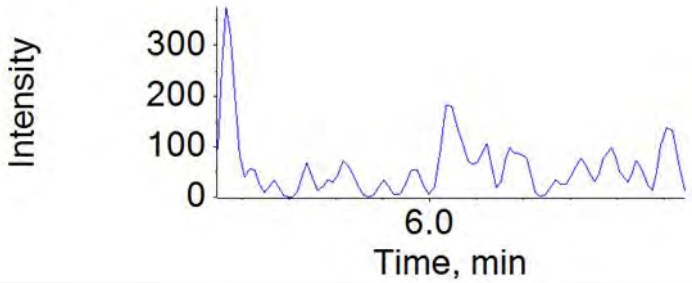
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



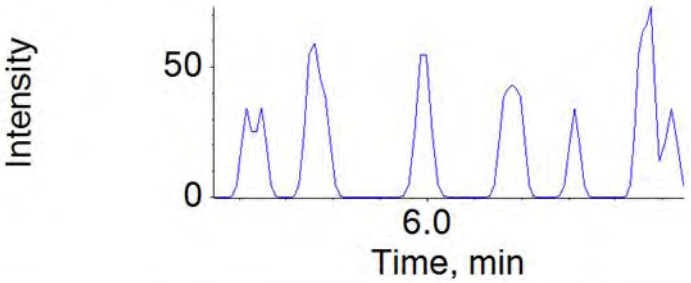
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



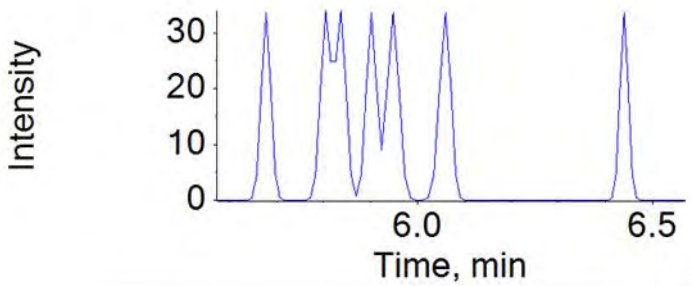
Component: PFDoDA
Primary Mass: 613.0 / 569.0



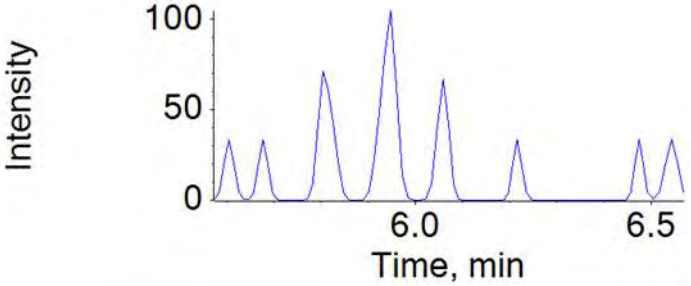
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



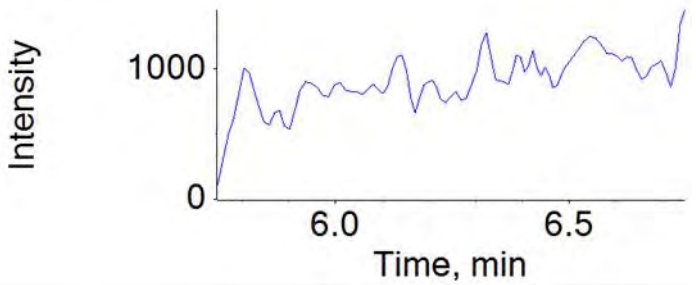
Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



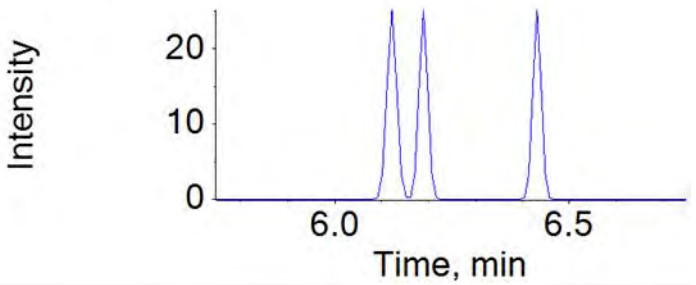
Component: 10:2 FTS_2
Secondary Mass: 627.0 / 81.0



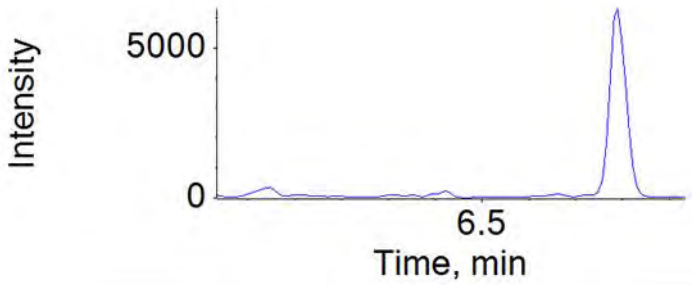
Component: PFTrDA
Primary Mass: 663.0 / 619.0



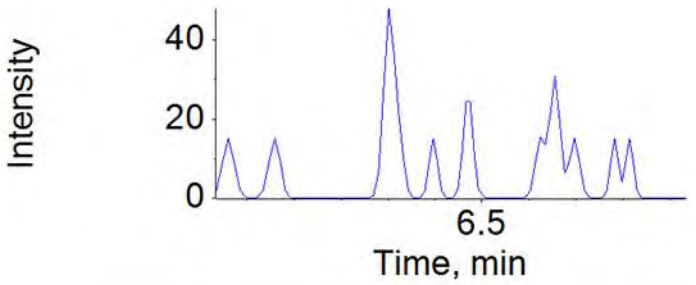
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



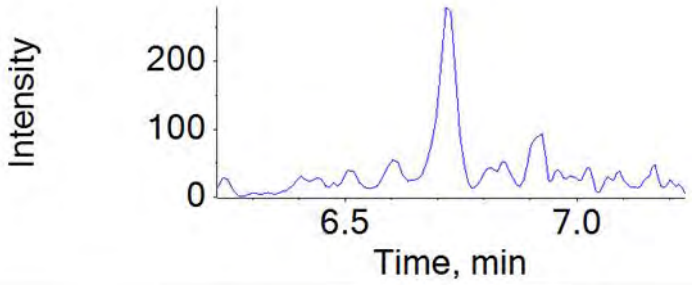
Component: PFTeDA
Primary Mass: 713.0 / 669.0



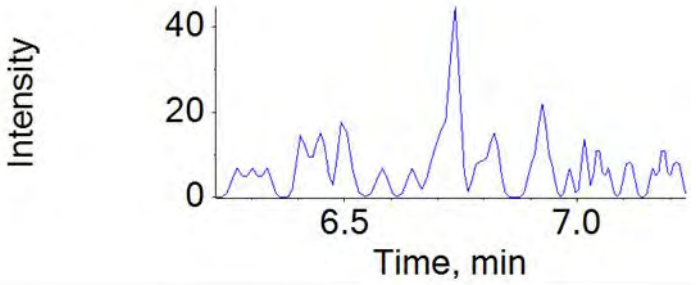
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



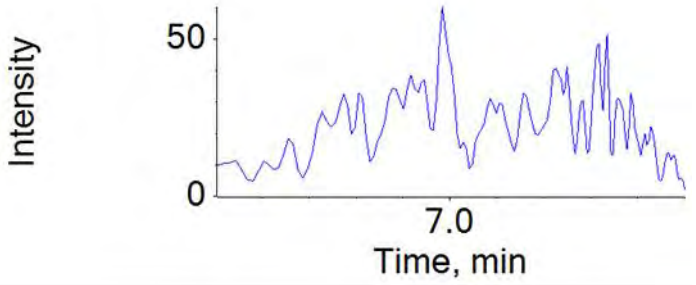
Component: PFHxDA
Primary Mass: 813.0 / 769.0



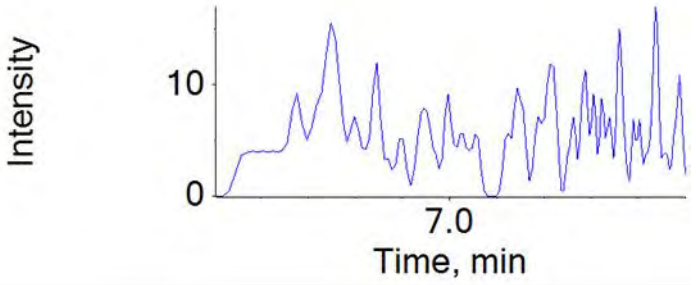
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



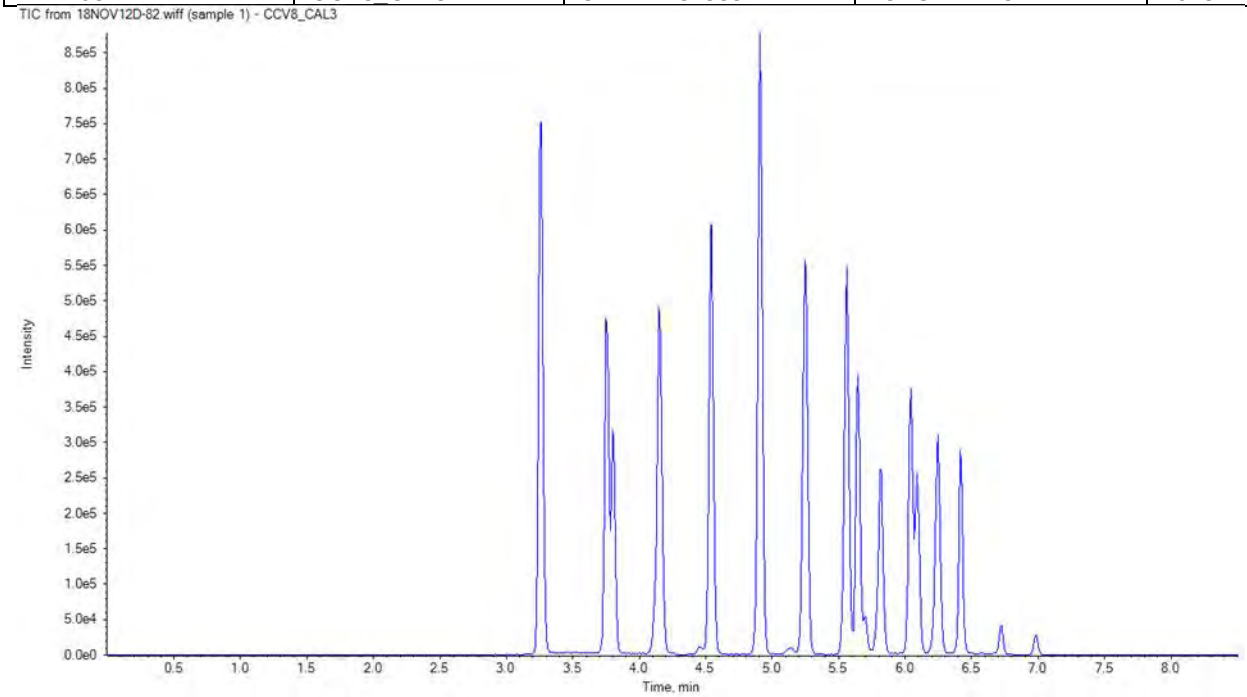
APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By UMJS at 3:32 pm, 11/26/18

Continuing Calibration Verfication

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	CCV8_CAL3	CALBRN31833B	18NOV12D-82.wiff	2018-11-13T04:56:45



Injection Standard Area Reference File: 18NOV12DCAL-44

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Reference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	681190.3	659926.2	3	50	
13C2-PFOA	5.0	470825.9	450219.7	5	50	
13C4-PFOS	4.8	251642.4	249205.8	1	50	
13C2-PFDA	5.0	284301.1	278743.9	2	50	

APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By umar at 5:20 pm, 11/13/18

Continuing Calibration Verfication

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	CCV8_CAL3	CALBRN31833B	18NOV12D-82.wiff	2018-11-13T04:56:45

Analyte Name	Analyte Area	Sc /pk	Ext Std Name	Ext Std Area	Ext Std con	Area Ratio	RT (min)	RRT	Spec Amt	Calc Amt	% Diff	% Diff Lim	% Diff OOS
PFBA	308804.4	10	13C4-PFBA	757660.6	5.0	0.408	3.26	1.000	2.000	2.258	13	30	
PFPeA	304750.1	12	13C5-PFPeA	747962.7	5.0	0.407	3.76	1.000	2.000	2.359	18	30	
PFBS	174556.6	11	13C3-PFBS	427774.8	4.7	0.408	3.80	1.000	1.770	1.941	10	30	
4:2-FTS	40895.9	11	13C2-4:2-FTS	50681.6	4.7	0.807	4.12	1.000	1.870	2.191	17	30	
PFHxA	370004.4	12	13C5-PFHxA	690137.7	5.0	0.536	4.15	1.000	2.000	2.239	12	30	
PFPeS	87020.0	11	13C3-PFBS	427774.8	4.7	0.203	4.17	1.100	1.880	1.975	5	30	
PFHpA	376582.7	12	13C4-PFHpA	510971.8	5.0	0.737	4.54	1.000	2.000	2.443	22	30	
PFHxS	126141.7	19	13C3-PFHxS	327576.8	4.7	0.385	4.54	1.000	1.820	1.867	3	30	
6:2-FTS	29590.6	11	13C2-6:2-FTS	36403.2	4.8	0.813	4.90	1.000	1.900	1.967	4	30	
PFHpS	129790.5	11	13C3-PFHxS	327576.8	4.7	0.396	4.90	1.080	1.900	2.086	10	30	
PFOA	391470.4	11	13C8-PFOA	888734.5	5.0	0.440	4.91	1.000	2.000	2.353	18	30	
PFOS	124465.3	22	13C8-PFOS	275696.6	4.8	0.451	5.24	1.000	1.850	1.974	7	30	
PFNA	305412.4	11	13C9-PFNA	476036.4	5.0	0.642	5.25	1.000	2.000	2.313	16	30	
PFNS	74922.2	11	13C8-PFOS	275696.6	4.8	0.272	5.54	1.060	1.920	1.901	-1	30	
PFDA	252739.7	11	13C6-PFDA	600485.3	5.0	0.421	5.56	1.000	2.000	2.231	12	30	
8:2-FTS	27233.9	11	13C2-8:2-FTS	28313.0	4.8	0.962	5.56	1.000	1.920	2.243	17	30	
PFOSA	274999.1	11	13C8-PFOSA	641397.5	5.0	0.429	5.64	1.000	2.000	2.094	5	30	
NMeFOSAA	29635.8	17	d3-NMeFOSAA	77954.3	5.0	0.380	5.70	1.000	2.000	2.149	7	30	
PFDS	59015.9	11	13C8-PFOS	275696.6	4.8	0.214	5.79	1.110	1.930	1.940	0	30	
PFUnDA	216603.5	11	13C7-PFUnDA	261493.7	5.0	0.828	5.82	1.000	2.000	2.165	8	30	
NEtFOSAA	26318.1	21	d5-NEtFOSAA	66527.7	5.0	0.396	5.83	1.000	2.000	2.074	4	30	
PFDoDA	256189.7	11	13C2-PFDoDA	550856.0	5.0	0.465	6.04	1.000	2.000	2.368	18	30	
10:2-FTS	19300.5	12	13C2-8:2-FTS	28313.0	4.8	0.682	6.06	1.090	1.930	2.271	18	30	
NMePFOSAE	176912.2	11	d7-NMePFOSAE	315412.2	5.0	0.561	6.10	1.000	2.000	2.334	17	30	
NMePFOSA	33428.7	11	d3-NMePFOSA	75152.9	5.0	0.445	6.10	1.000	2.000	2.194	10	30	
PFDoS	32284.6	11	13C8-PFOS	275696.6	4.8	0.117	6.21	1.190	1.940	2.051	6	30	
NEtPFOSAE	195653.9	12	d9-NEtPFOSAE	270298.9	5.0	0.724	6.25	1.000	2.000	2.322	16	30	
NEtPFOSA	27412.4	11	d5-NEtPFOSA	59560.6	5.0	0.460	6.26	1.000	2.000	2.114	6	30	
PFTrDA	195104.3	11	13C2-PFDoDA	550856.0	5.0	0.354	6.24	1.030	2.000	2.235	12	30	
PFTeDA	162073.2	10	13C2-PFTeDA	417234.9	5.0	0.388	6.42	1.000	2.000	2.177	9	30	
PFHxDA	79275.5	11	13C2-PFTeDA	417234.9	5.0	0.190	6.72	1.050	2.000	2.264	13	30	
PFODA	61825.4	10	13C2-PFTeDA	417234.9	5.0	0.148	6.98	1.090	2.000	2.064	3	30	

APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By umar at 5:20 pm, 11/13/18

Continuing Calibration Verfication

ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QM
Result Table: 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
Acquisition Method: 18AUG13_3uL.dam

APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By umar at 5:20 pm, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Sample Name:	CCV8_CAL3			**Data File:**		18NOV12D-82.wiff
Sample ID:	CALBRN31833B			**Acquis Date:**		2018-11-13T04:56:45
Sample Type:	Quality Control			**Instrument:**		LM27631
Vial Position:	5			**Acquis Method:**		18AUG13_3uL.dam
Injection Vol:	3.00			**Result Table:**		18NOV12DCCV3-11
QMethod File:	18AUG20QM			**ICAL Name:**		18NOV12DCAL
Batch Number:	N/A			**Operator:**		JPT12262
Sample Wt.:	1.00000			**Dilution Factor:**		1.00
Sample Vol.:	1.000			**Prep Factor:**		1.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV12DCAL-44

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Rreference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	681190.3	659926.2	3	50	
13C2-PFOA	5.0	470825.9	450219.7	5	50	
13C4-PFOS	4.8	251642.4	249205.8	1	50	
13C2-PFDA	5.0	284301.1	278743.9	2	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	757660.6	13C3-PFBA	681190.3	1.112	5.000	4.987	100	70-130	
E13C5-PFPeA	747962.7	13C3-PFBA	681190.3	1.098	5.000	4.925	98	70-130	
E13C3-PFBS	427774.8	13C3-PFBA	681190.3	0.628	4.650	4.433	95	70-130	
E13C2-4:2-FTS	50681.6	13C2-PFOA	470825.9	0.108	4.670	4.794	103	70-130	
E13C5-PFHxA	690137.7	13C2-PFOA	470825.9	1.466	5.000	5.295	106	70-130	
E13C3-PFHxS	327576.8	13C2-PFOA	470825.9	0.696	4.730	4.774	101	70-130	
E13C4-PFHpA	510971.8	13C2-PFOA	470825.9	1.085	5.000	4.889	98	70-130	
E13C2-6:2-FTS	36403.2	13C2-PFOA	470825.9	0.077	4.750	5.173	109	70-130	
E13C8-PFOA	888734.5	13C2-PFOA	470825.9	1.888	5.000	5.201	104	70-130	
E13C8-PFOS	275696.6	13C4-PFOS	251642.4	1.096	4.780	4.854	102	70-130	
E13C9-PFNA	476036.4	13C4-PFOS	251642.4	1.892	5.000	5.274	105	70-130	
E13C6-PFDA	600485.3	13C2-PFDA	284301.1	2.112	5.000	4.929	99	70-130	
E13C2-8:2-FTS	28313.0	13C2-PFDA	284301.1	0.100	4.790	4.967	104	70-130	
E13C8-PFOSA	641397.5	13C2-PFDA	284301.1	2.256	5.000	5.002	100	70-130	
Ed3-NMeFOSAA	77954.3	13C2-PFDA	284301.1	0.274	5.000	4.949	99	70-130	
E13C7-PFUnDA	261493.7	13C2-PFDA	284301.1	0.920	5.000	5.340	107	70-130	
Ed5-NEtFOSAA	66527.7	13C2-PFDA	284301.1	0.234	5.000	4.951	99	70-130	
E13C2-PFDoDA	550856.0	13C2-PFDA	284301.1	1.938	5.000	5.031	101	70-130	
Ed7-NMePFOSAE	315412.2	13C2-PFDA	284301.1	1.109	5.000	4.801	96	70-130	
Ed3-NMePFOSA	75152.9	13C2-PFDA	284301.1	0.264	5.000	4.803	96	70-130	
Ed9-NEtPFOSAE	270298.9	13C2-PFDA	284301.1	0.951	5.000	4.945	99	70-130	
Ed5-NEtPFOSA	59560.6	13C2-PFDA	284301.1	0.209	5.000	4.914	98	70-130	
E13C2-PFTeDA	417234.9	13C2-PFDA	284301.1	1.468	5.000	5.152	103	70-130	

APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By umar at 5:20 pm, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

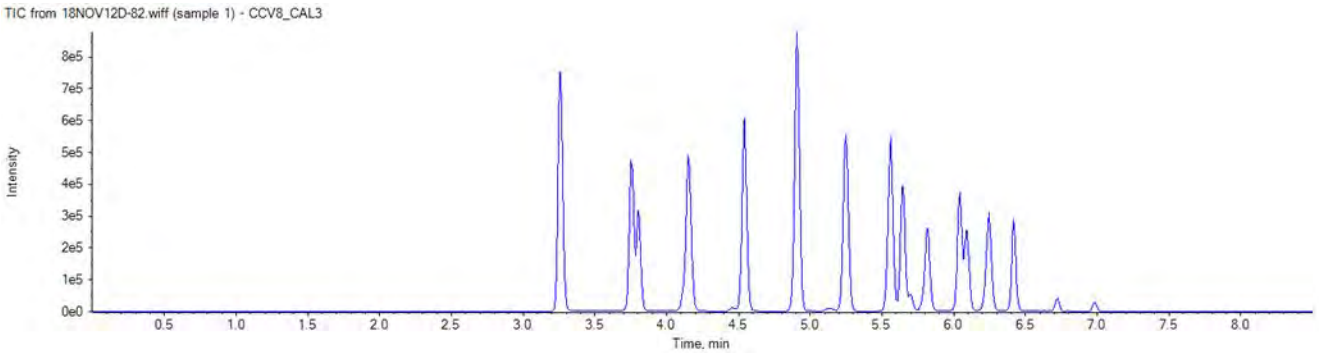
Analyte Quantitation Peak Table

Sample Name: CCV8_CAL3 **Instrument Name:** LM27631 **File Name:** 18NOV12D-82.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	1.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	3.26	1.000	308804.4		A	13C4-PFBA	3.26	757660.6	0.408	2.258
PFPeA	3.76	1.000	304750.1		A	13C5-PFPeA	3.76	747962.7	0.407	2.359
PFBS	3.80	1.000	174556.6		A	13C3-PFBS	3.80	427774.8	0.408	1.941
4:2-FTS	4.12	1.000	40895.9		A	13C2-4:2-FTS	4.12	50681.6	0.807	2.191
PFHxA	4.15	1.000	370004.4		A	13C5-PFHxA	4.15	690137.7	0.536	2.239
PFPeS	4.17	1.100	87020.0		A	13C3-PFBS	3.80	427774.8	0.203	1.975
PFHpA	4.54	1.000	376582.7		A	13C4-PFHpA	4.54	510971.8	0.737	2.443
PFHxS	4.54	1.000	126141.7		M	13C3-PFHxS	4.54	327576.8	0.385	1.867
6:2-FTS	4.90	1.000	29590.6		A	13C2-6:2-FTS	4.90	36403.2	0.813	1.967
PFHpS	4.90	1.080	129790.5		A	13C3-PFHxS	4.54	327576.8	0.396	2.086
PFOA	4.91	1.000	391470.4		A	13C8-PFOA	4.91	888734.5	0.440	2.353
PFOS	5.24	1.000	124465.3		M	13C8-PFOS	5.24	275696.6	0.451	1.974
PFNA	5.25	1.000	305412.4		A	13C9-PFNA	5.25	476036.4	0.642	2.313
PFNS	5.54	1.060	74922.2		A	13C8-PFOS	5.24	275696.6	0.272	1.901
PFDA	5.56	1.000	252739.7		A	13C6-PFDA	5.56	600485.3	0.421	2.231
8:2-FTS	5.56	1.000	27233.9		A	13C2-8:2-FTS	5.56	28313.0	0.962	2.243
PFOSA	5.64	1.000	274999.1		A	13C8-PFOSA	5.65	641397.5	0.429	2.094
NMeFOSAA	5.70	1.000	29635.8		A	d3-NMeFOSAA	5.70	77954.3	0.380	2.149
PFDS	5.79	1.110	59015.9		A	13C8-PFOS	5.24	275696.6	0.214	1.940
PFUnDA	5.82	1.000	216603.5		A	13C7-PFUnDA	5.82	261493.7	0.828	2.165
NEtFOSAA	5.83	1.000	26318.1		A	d5-NEtFOSAA	5.83	66527.7	0.396	2.074
PFDoDA	6.04	1.000	256189.7		A	13C2-PFDoDA	6.04	550856.0	0.465	2.368
10:2-FTS	6.06	1.090	19300.5		A	13C2-8:2-FTS	5.56	28313.0	0.682	2.271
NMePFOSAE	6.10	1.000	176912.2		A	d7-NMePFOSAE	6.09	315412.2	0.561	2.334
NMePFOSA	6.10	1.000	33428.7		A	d3-NMePFOSA	6.10	75152.9	0.445	2.194
PFDoS	6.21	1.190	32284.6		A	13C8-PFOS	5.24	275696.6	0.117	2.051
NEtPFOSAE	6.25	1.000	195653.9		A	d9-NEtPFOSAE	6.24	270298.9	0.724	2.322
NEtPFOSA	6.26	1.000	27412.4		A	d5-NEtPFOSA	6.26	59560.6	0.460	2.114
PFTrDA	6.24	1.030	195104.3		A	13C2-PFDoDA	6.04	550856.0	0.354	2.235
PFTeDA	6.42	1.000	162073.2		A	13C2-PFTeDA	6.42	417234.9	0.388	2.177
PFHxDA	6.72	1.050	79275.5		A	13C2-PFTeDA	6.42	417234.9	0.190	2.264
PFODA	6.98	1.090	61825.4		A	13C2-PFTeDA	6.42	417234.9	0.148	2.064

Total Ion Chromatogram

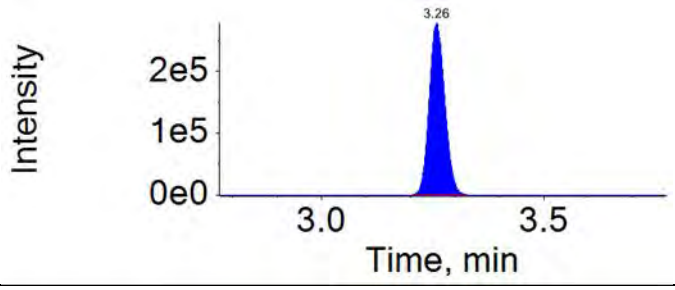


APPROVED
By JPT at 10:23 am, 11/13/18

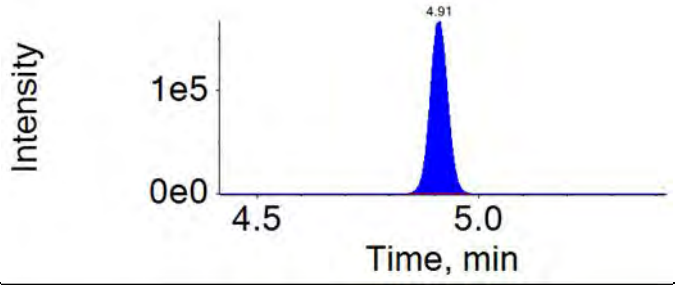
REVIEWED
By umar at 5:20 pm, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

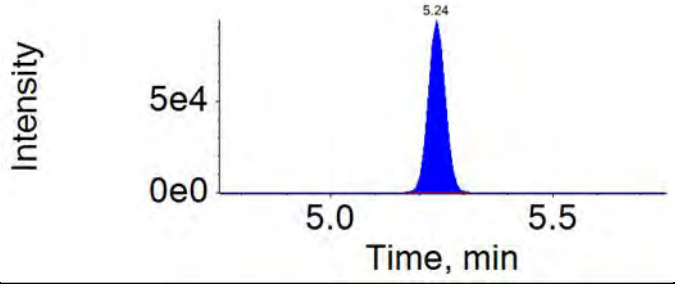
Injection Standard: 13C3-PFBA
216.0 / 172.0



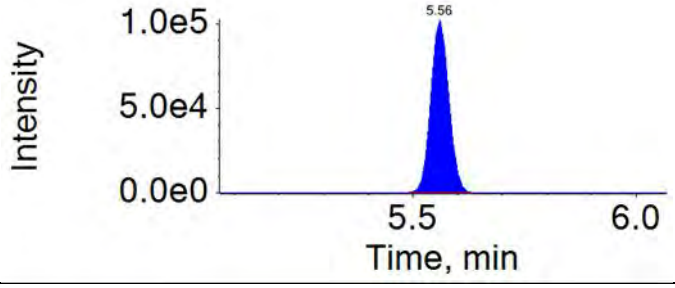
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0



Injection Standard: 13C2-PFDA
515.0 / 470.0

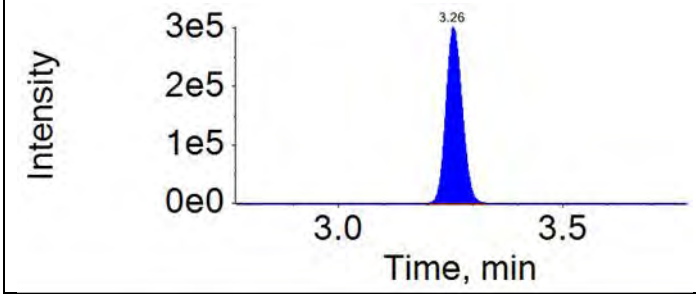


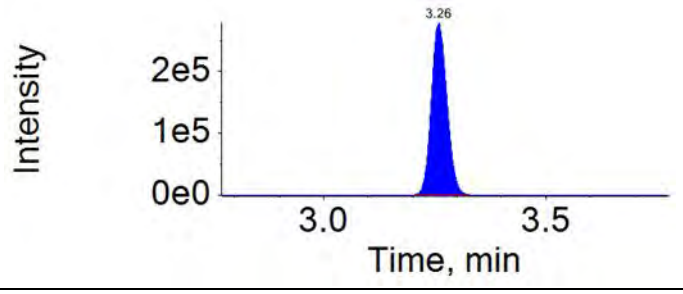
APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By umar at 5:20 pm, 11/13/18

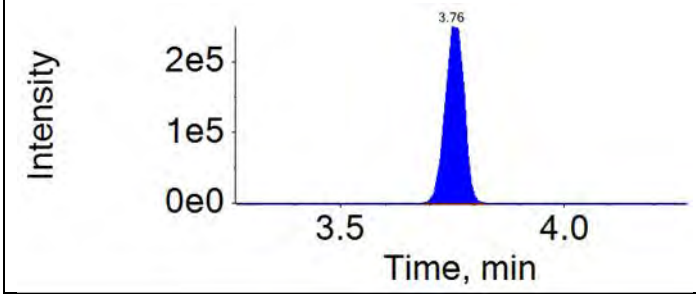
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

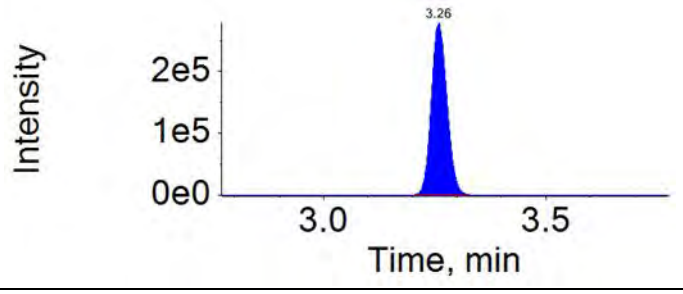
Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0



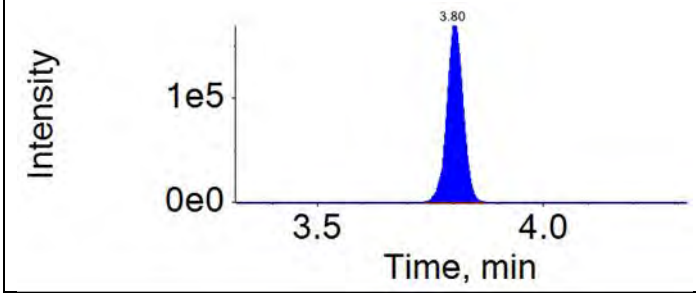


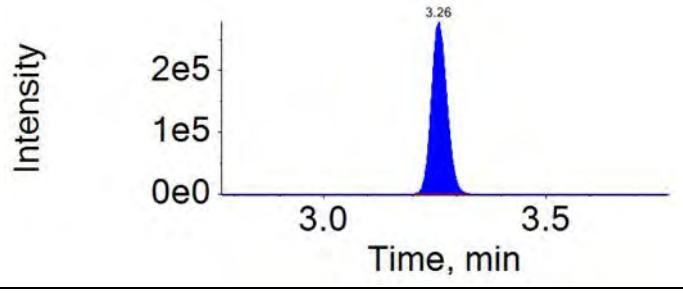
Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0



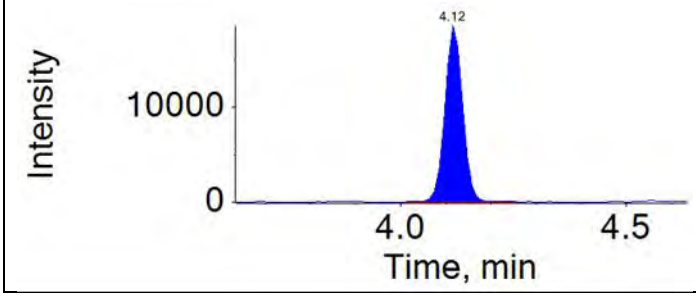


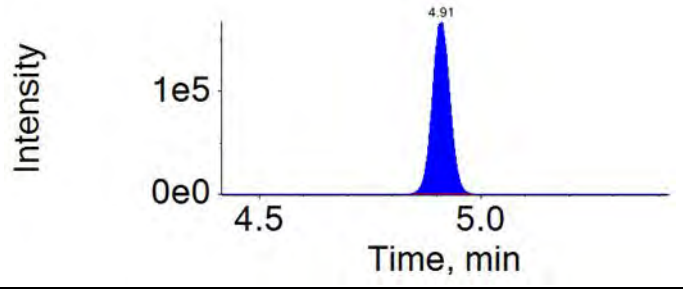
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0





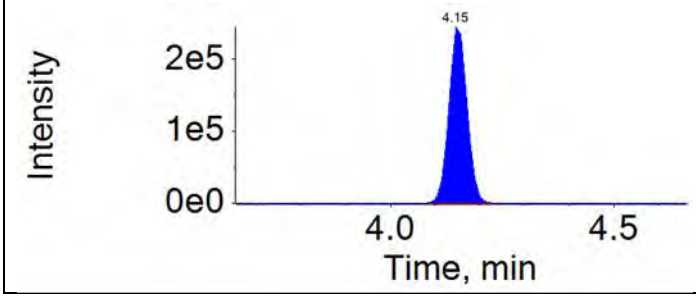
Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0

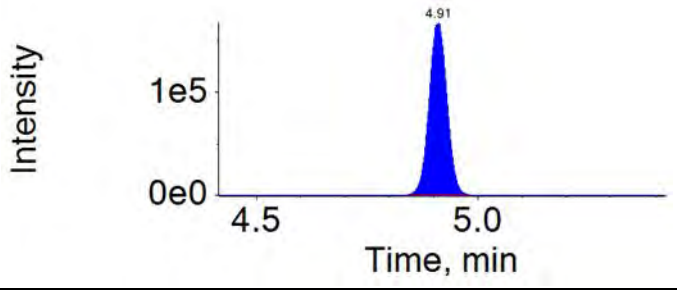




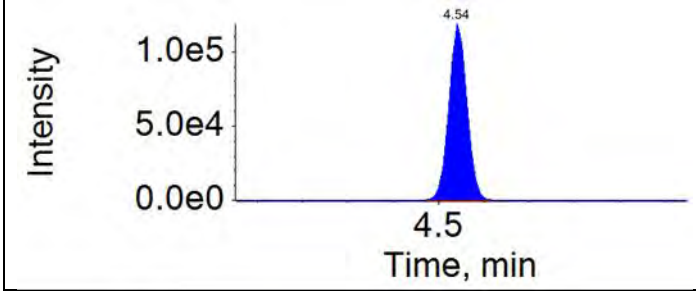
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

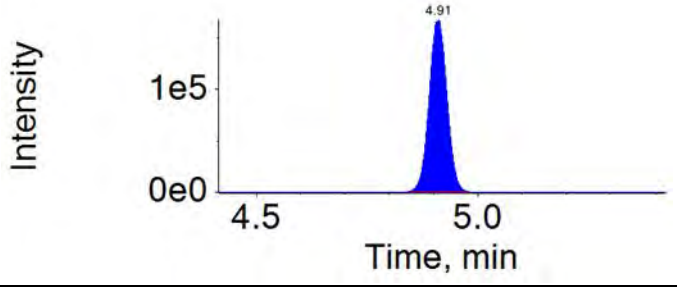
Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0



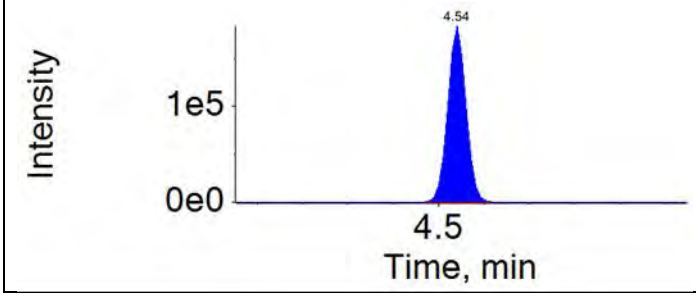


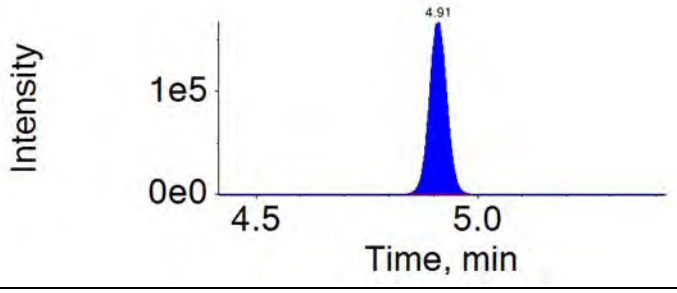
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0



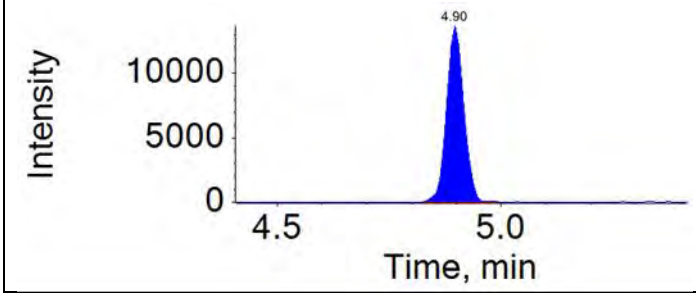


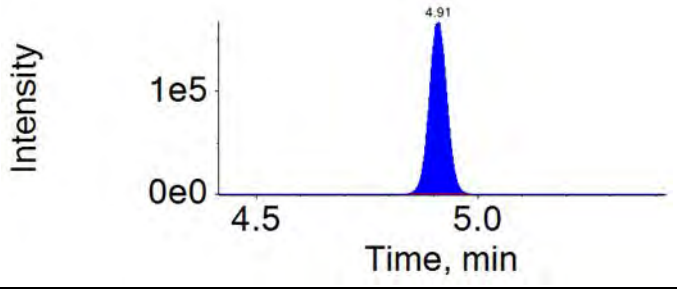
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0





Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0



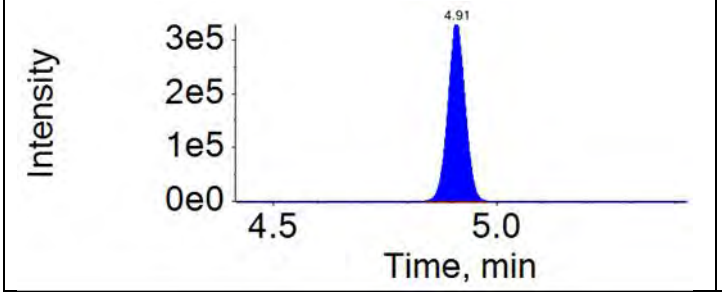


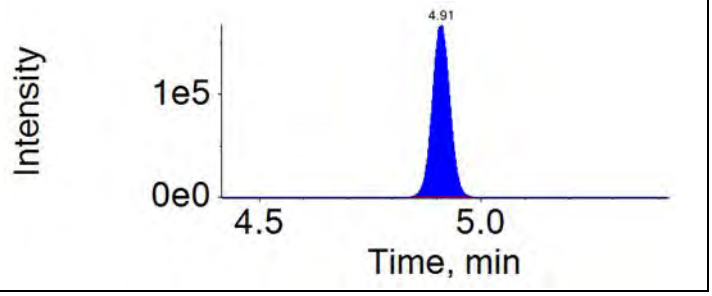
APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By umar at 5:20 pm, 11/13/18

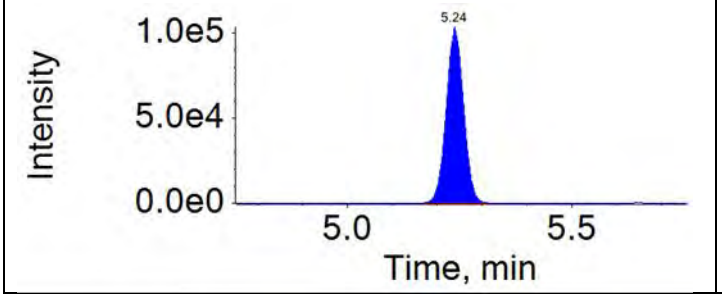
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

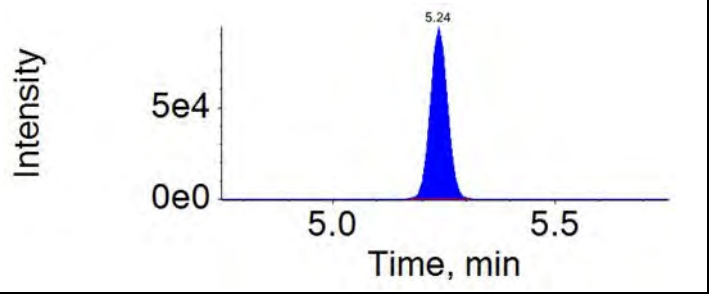
Extraction Standard: E13C8-PFOA	Injection Standard: 13C2-PFOA
421.0 / 376.0	415.0 / 370.0



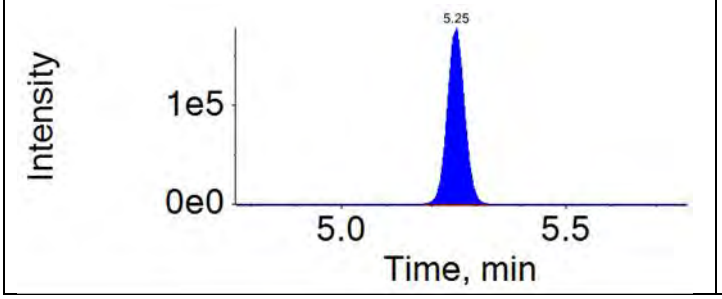


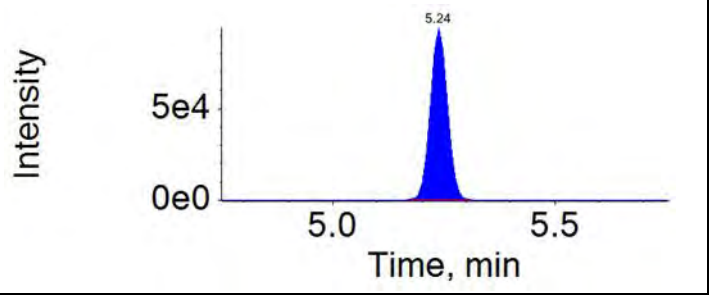
Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0



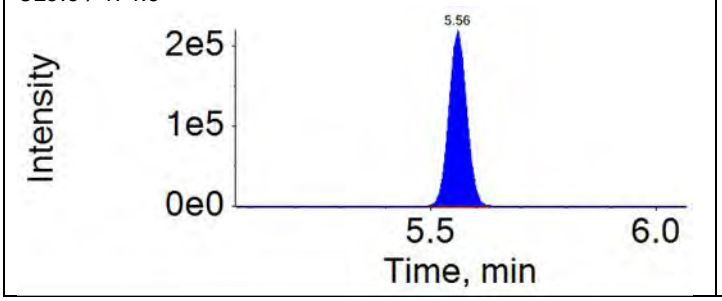


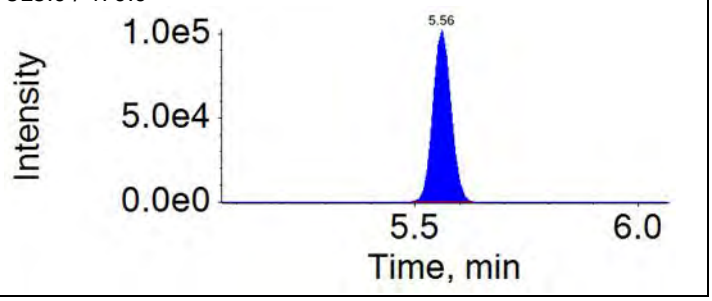
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0





Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0

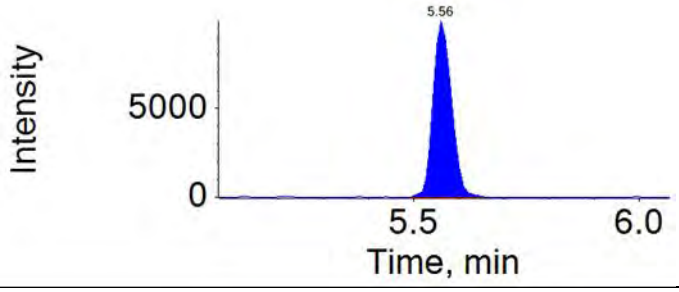
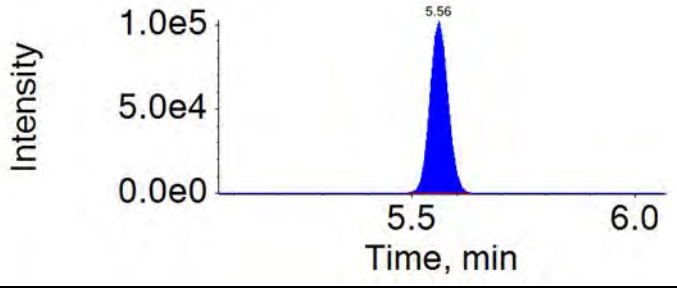


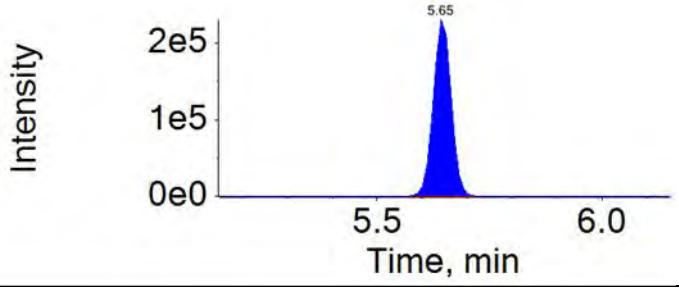
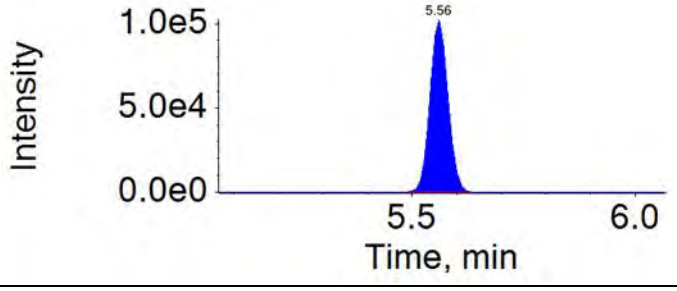


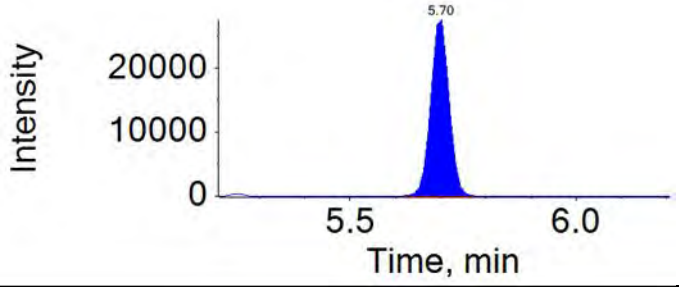
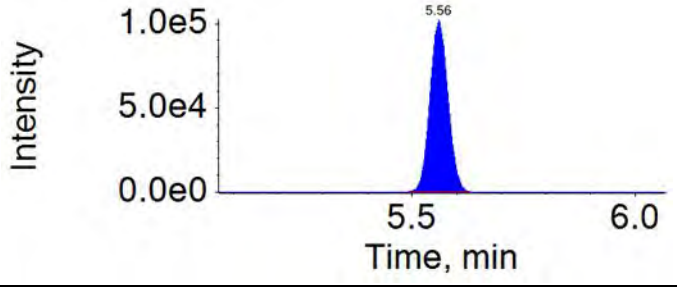
APPROVED
By JPT at 10:23 am, 11/13/18

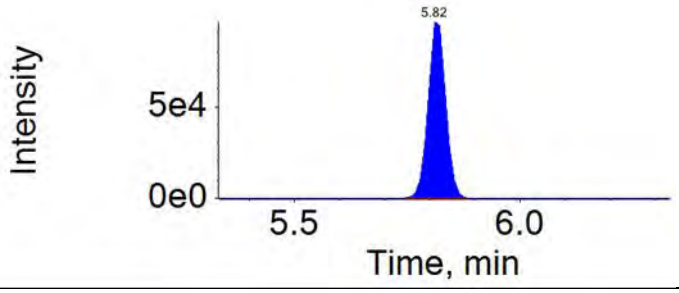
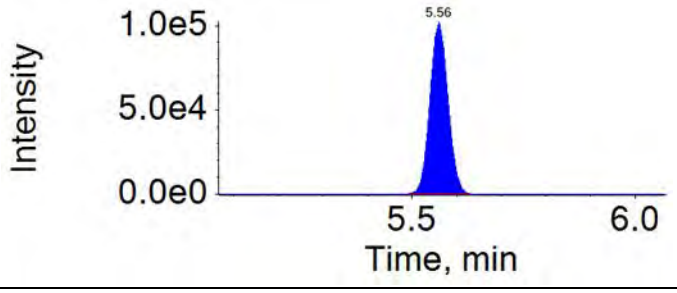
REVIEWED
By umar at 5:20 pm, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: E13C2-8:2-FTS	Injection Standard: 13C2-PFDA
529.0 / 81.0	515.0 / 470.0
	

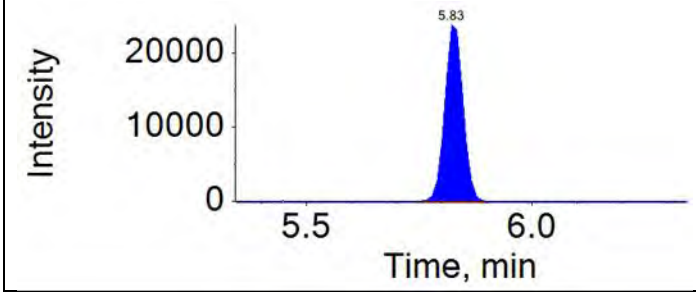
Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0
	

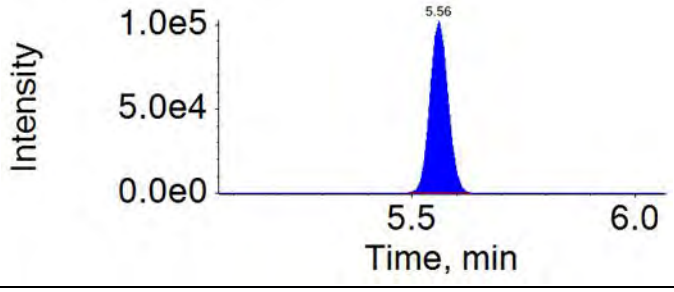
Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0
	

Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0
	

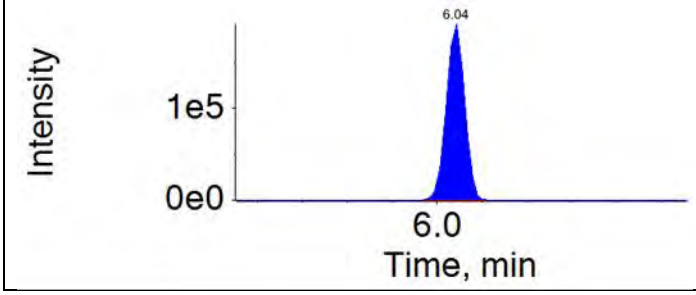
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

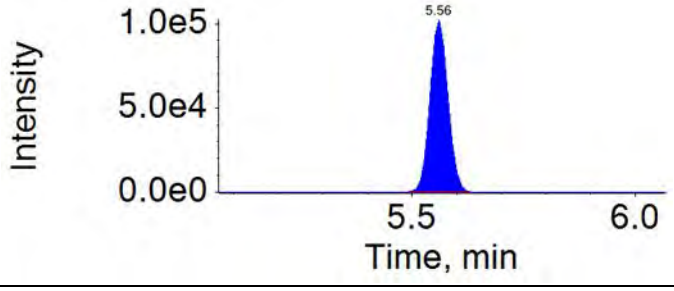
Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0



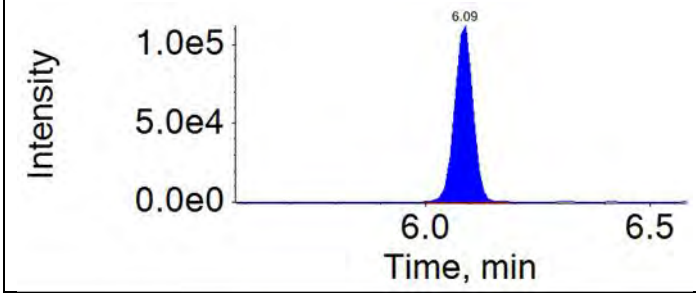


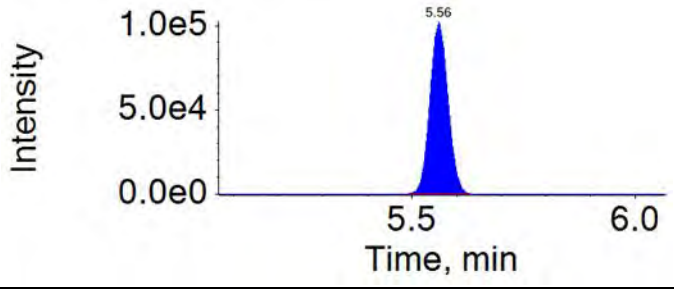
Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0



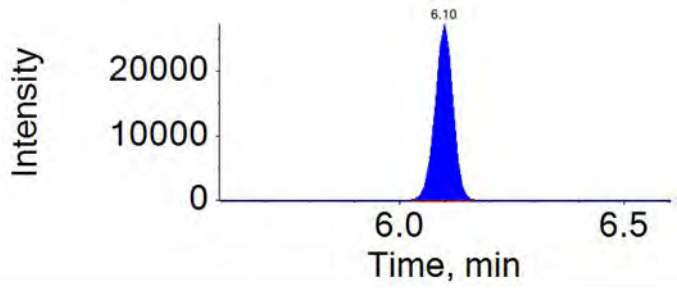


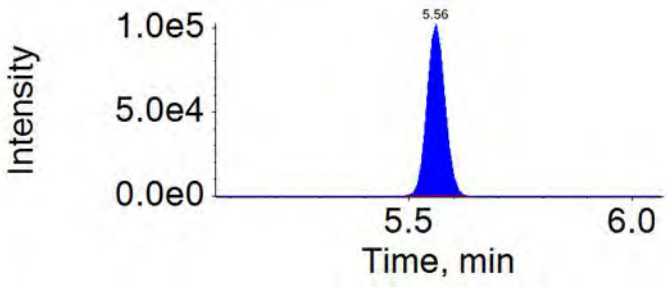
Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0





Extraction Standard: Ed3-NMePFOSA	Injection Standard: 13C2-PFDA
515.0 / 169.0	515.0 / 470.0



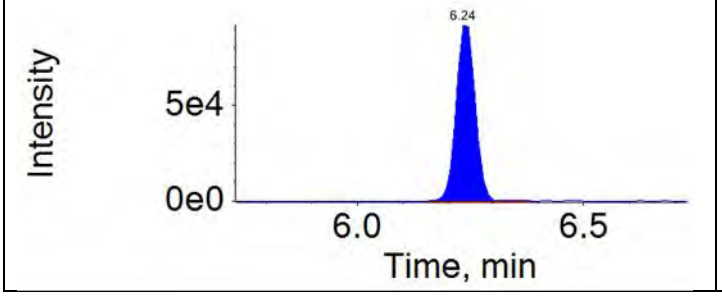


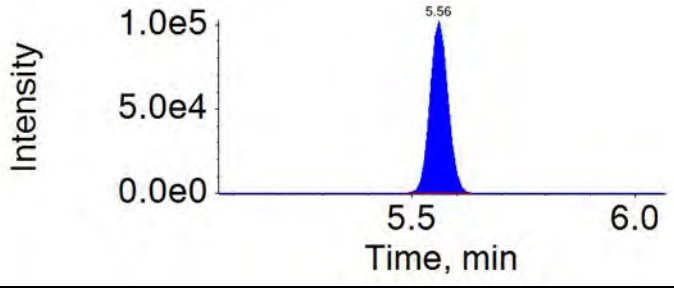
APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By umar at 5:20 pm, 11/13/18

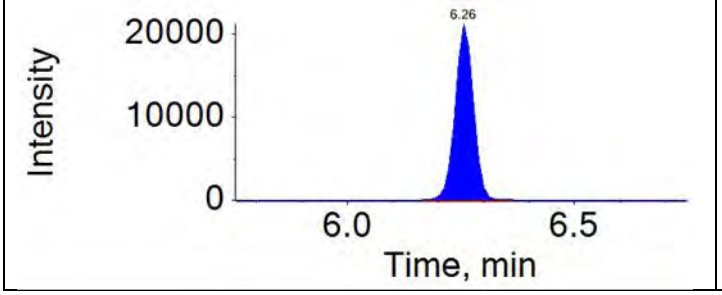
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

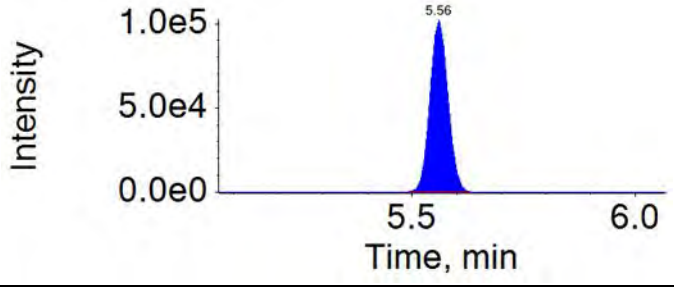
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



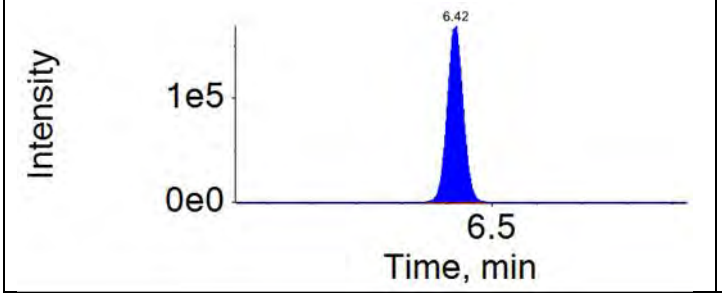


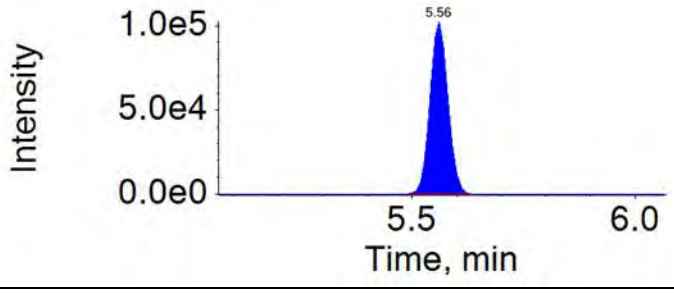
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0



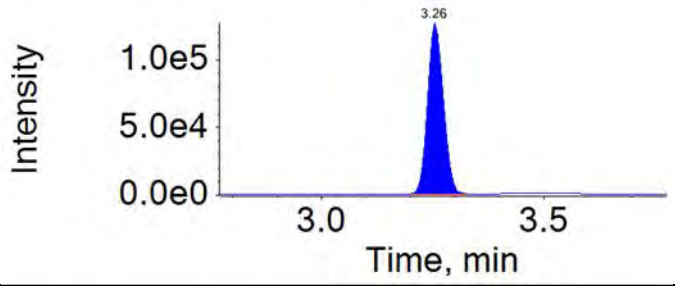


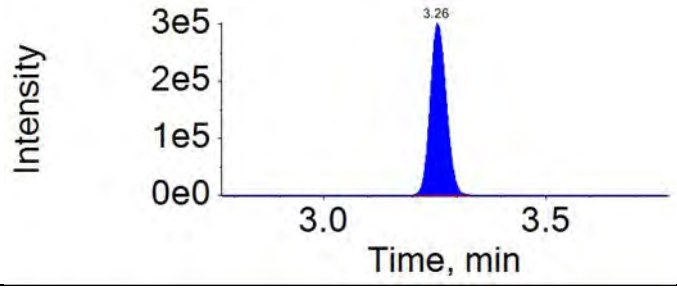
APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By umar at 5:20 pm, 11/13/18

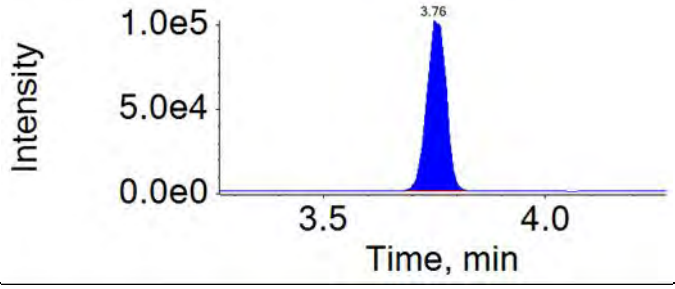
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

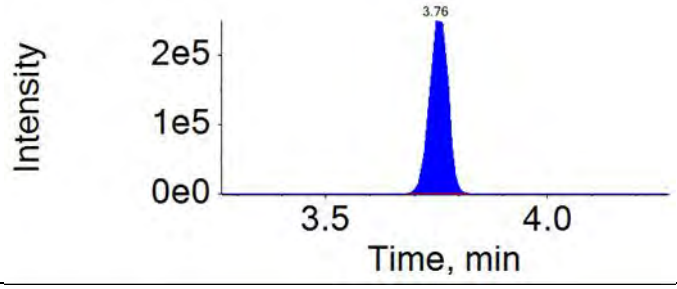
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



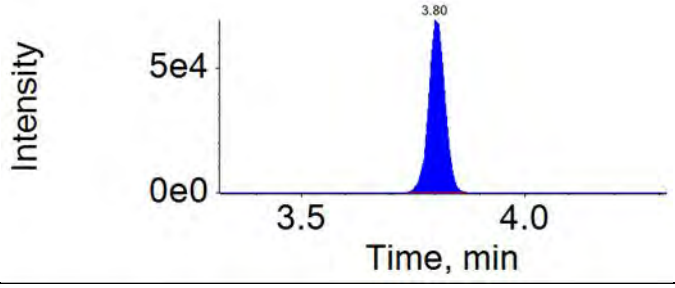


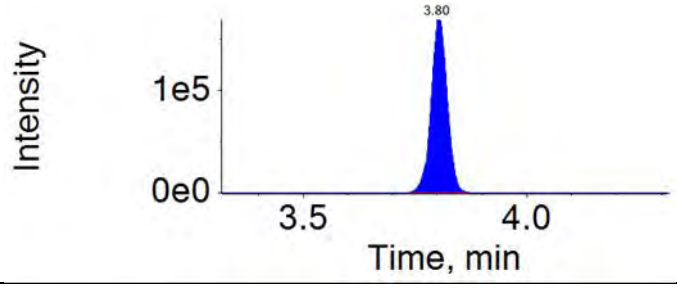
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



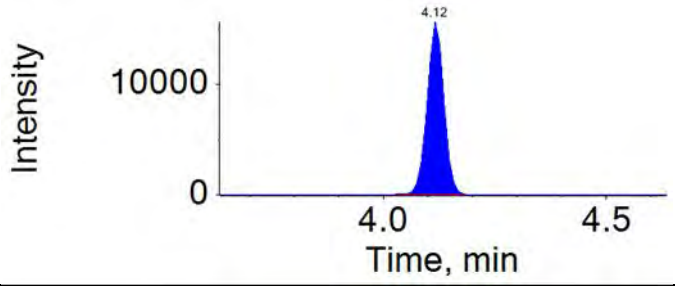


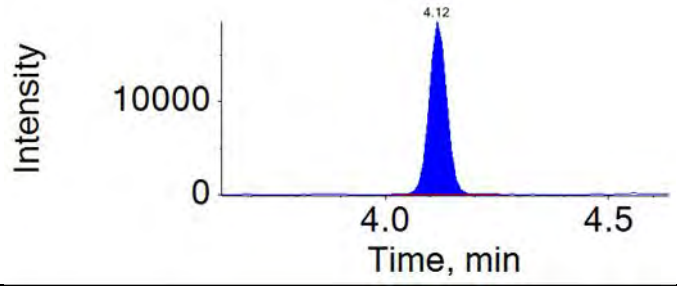
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





Analyte: 4:2-FTS	Extraction Standard: 13C2-4:2-FTS
327.0 / 307.0	329.0 / 81.0

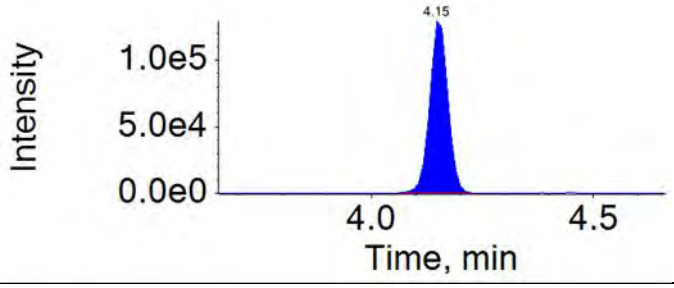
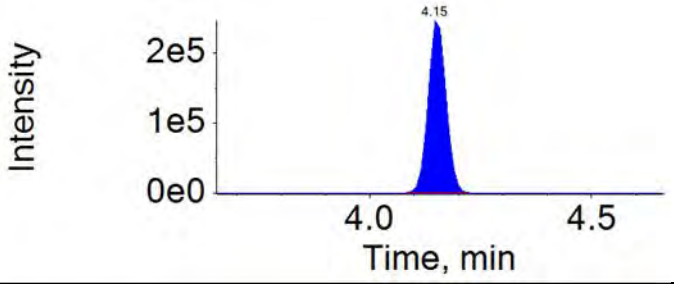


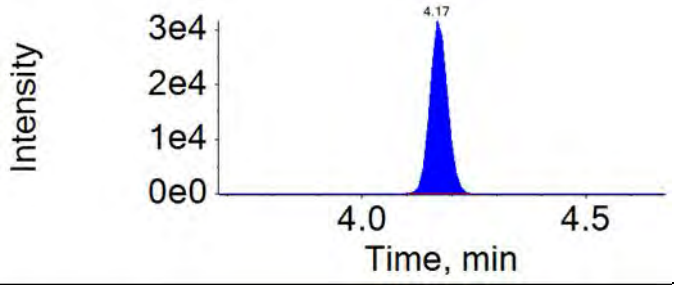
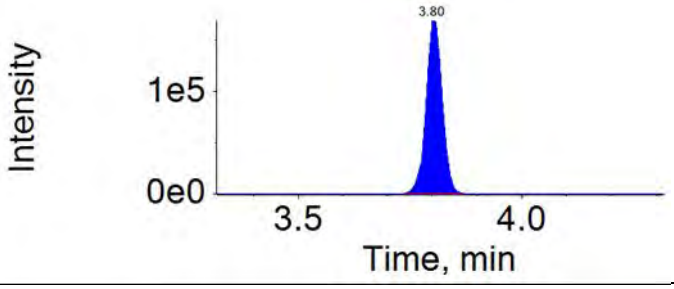


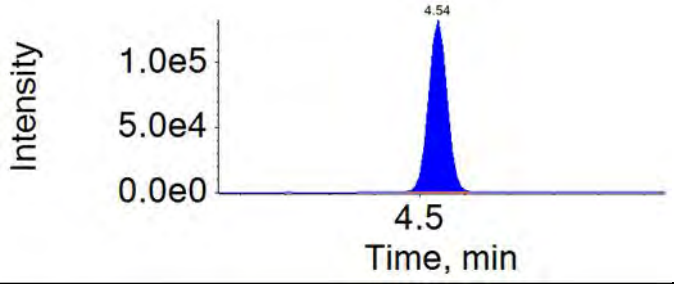
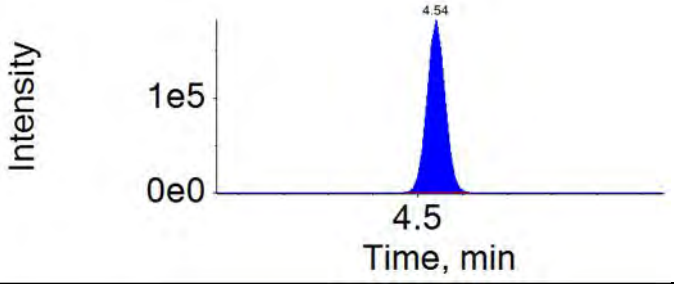
APPROVED
By JPT at 10:23 am, 11/13/18

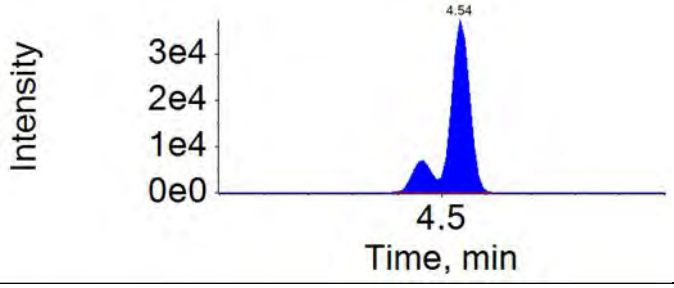
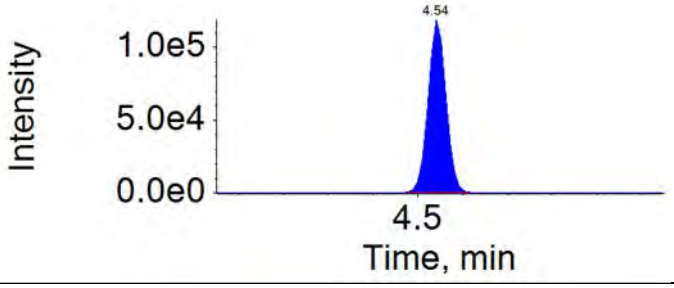
REVIEWED
By umar at 5:20 pm, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0
	

Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0
	

Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0
	

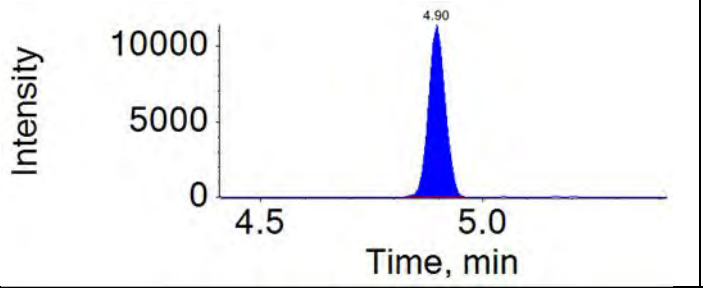
Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0
	

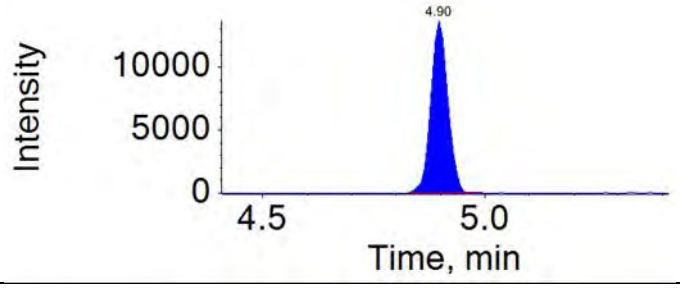
APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By umar at 5:20 pm, 11/13/18

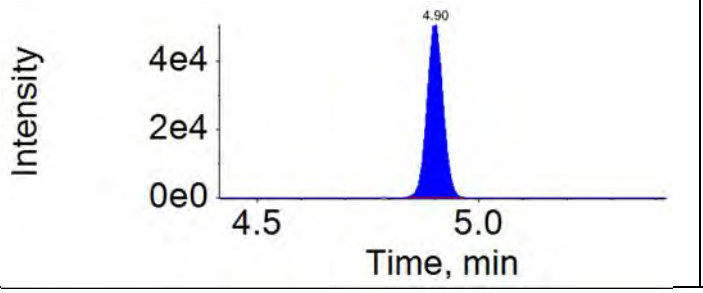
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

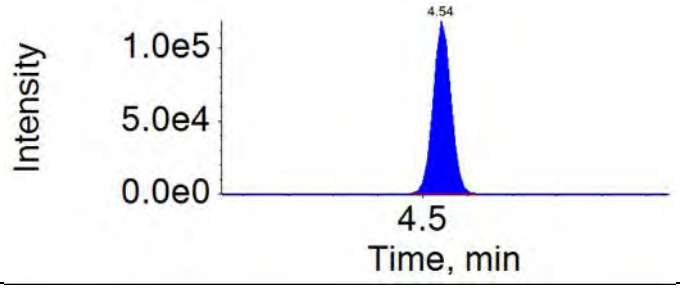
Analyte: 6:2-FTS	Extraction Standard: 13C2-6:2-FTS
427.0 / 407.0	429.0 / 81.0



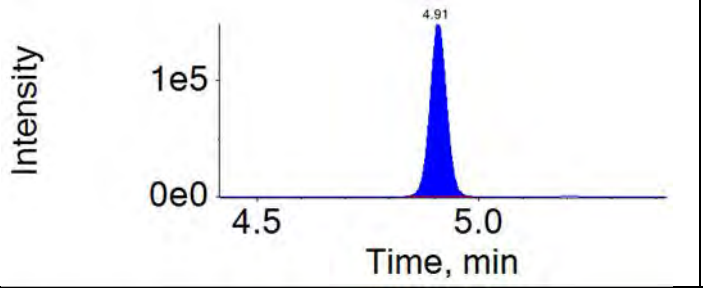


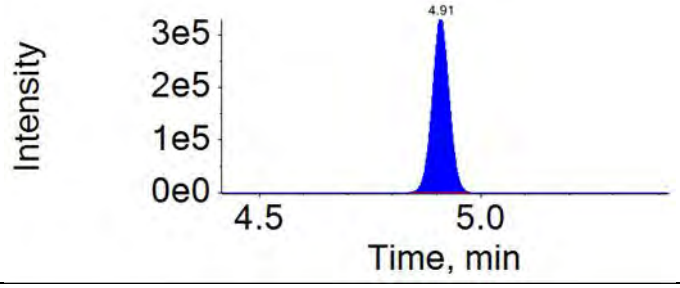
Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0



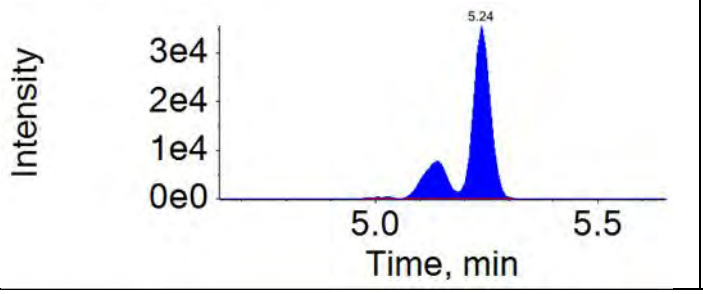


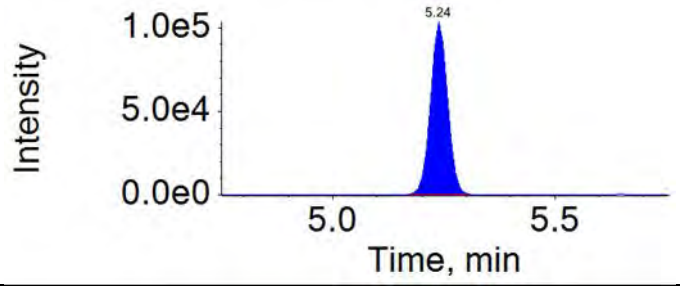
Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0





Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0



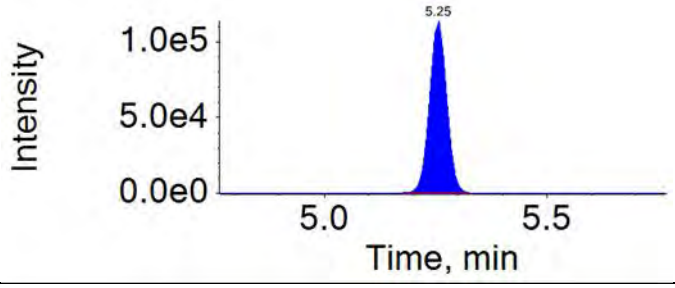


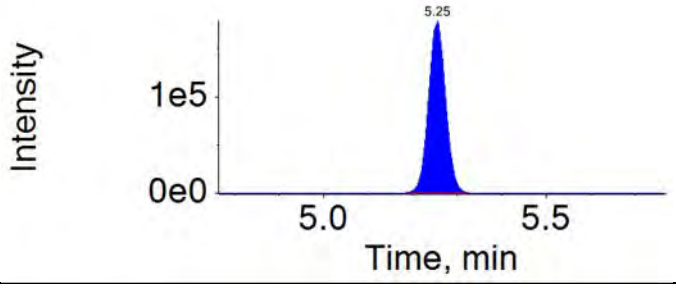
APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By umar at 5:20 pm, 11/13/18

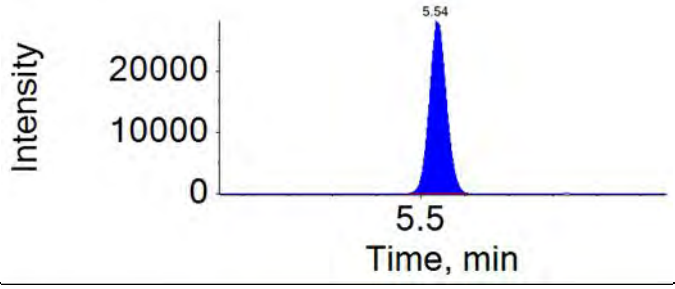
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

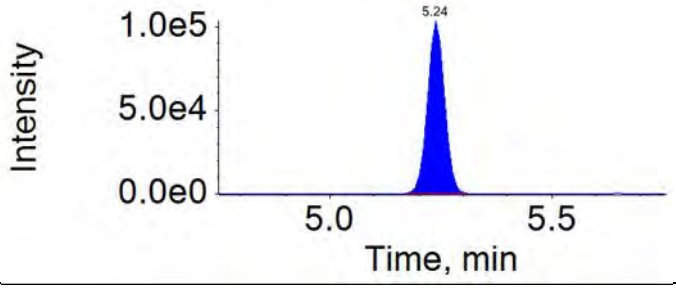
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



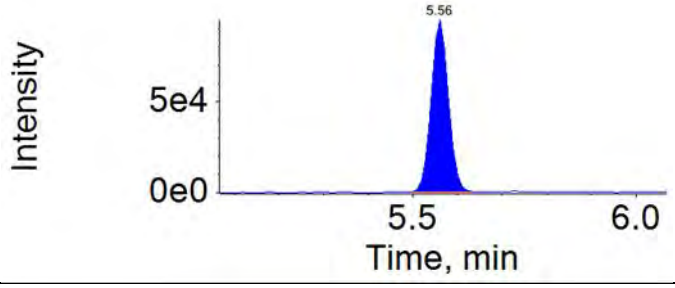


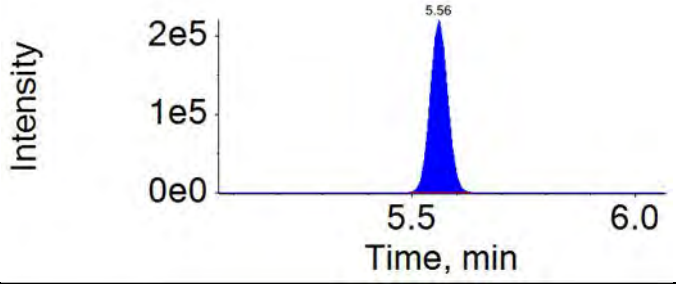
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



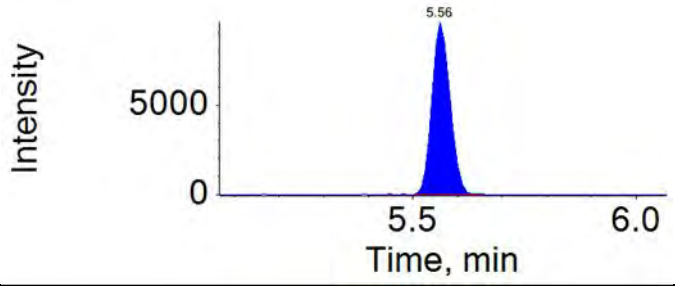


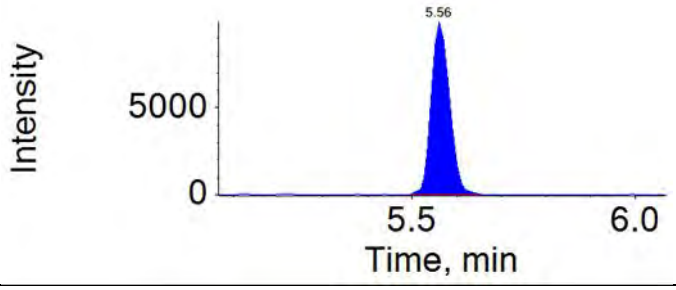
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





Analyte: 8:2-FTS	Extraction Standard: 13C2-8:2-FTS
527.0 / 507.0	529.0 / 81.0



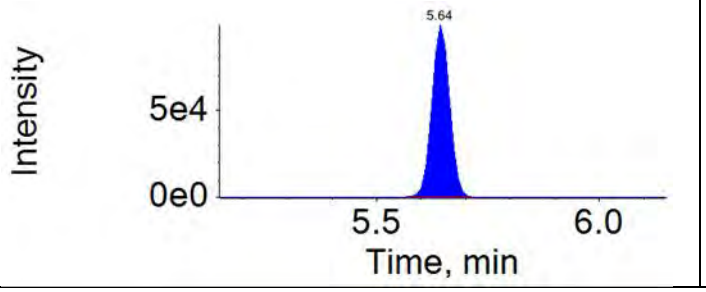


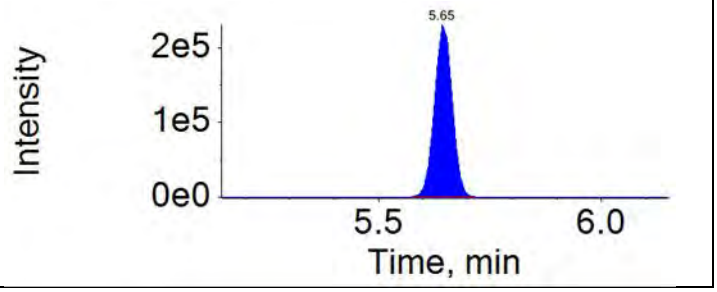
APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By umar at 5:20 pm, 11/13/18

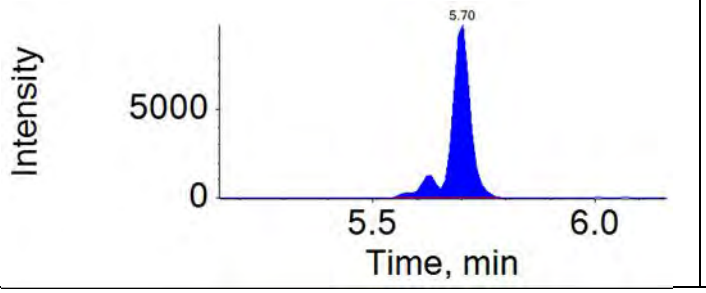
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

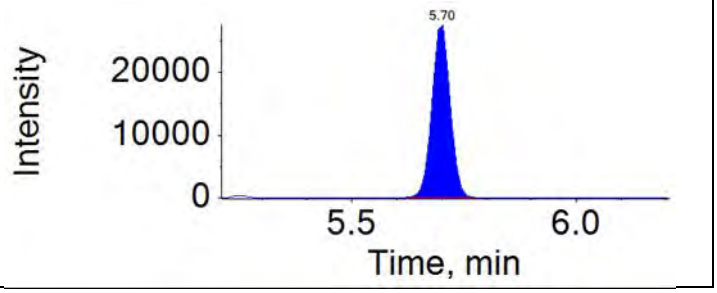
Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0



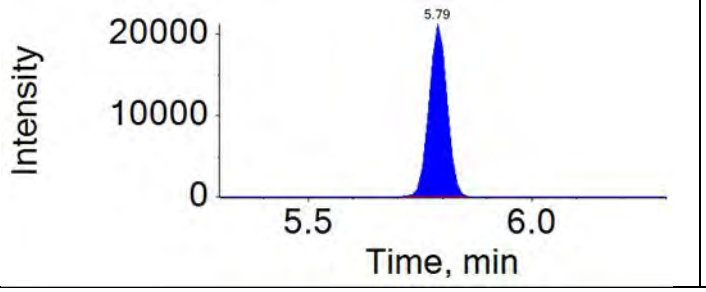


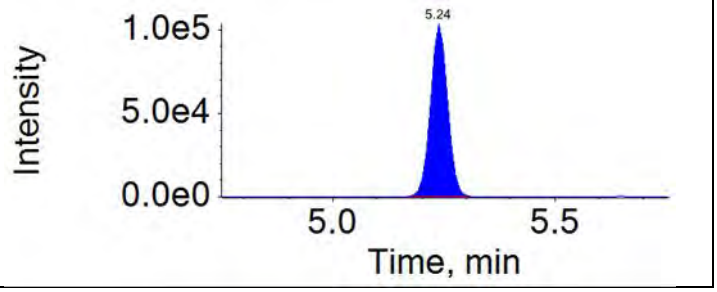
Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0



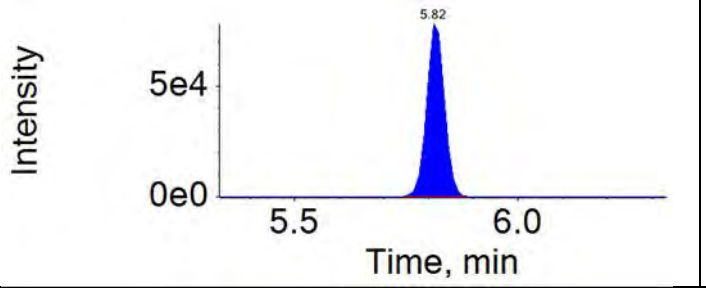


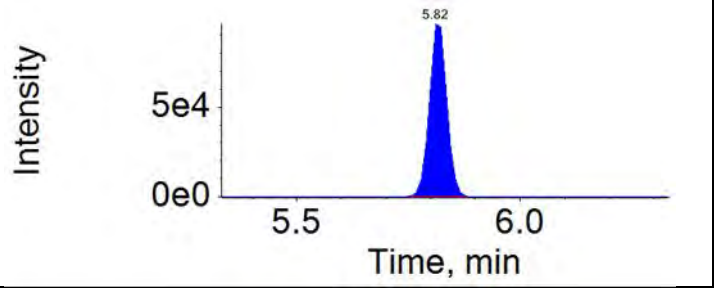
Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0





Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0



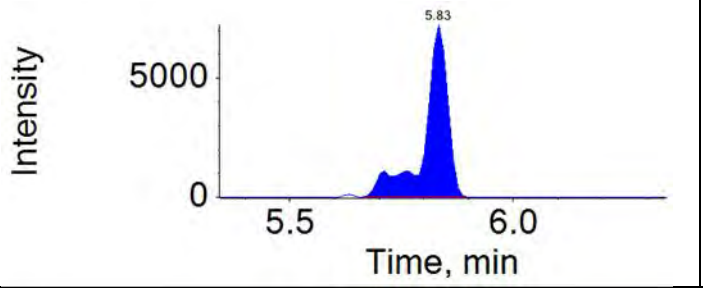


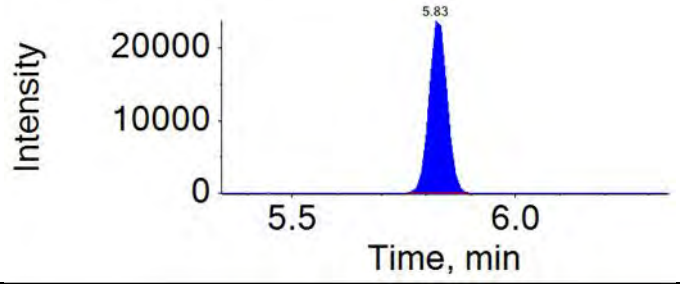
APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By umar at 5:20 pm, 11/13/18

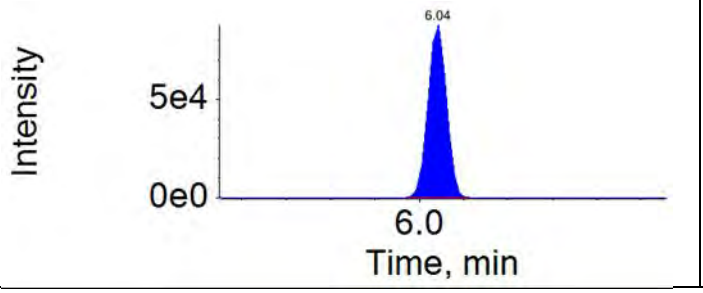
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

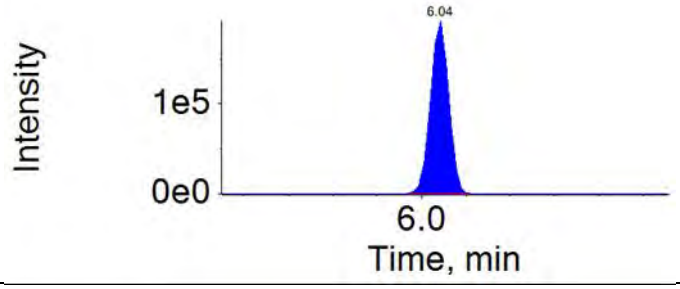
Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0



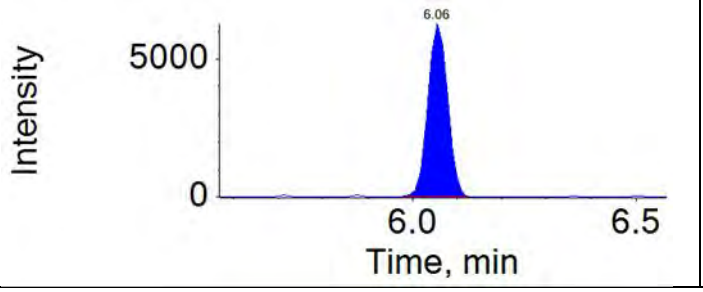


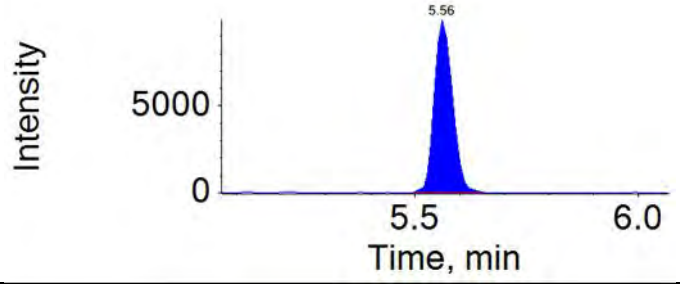
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0



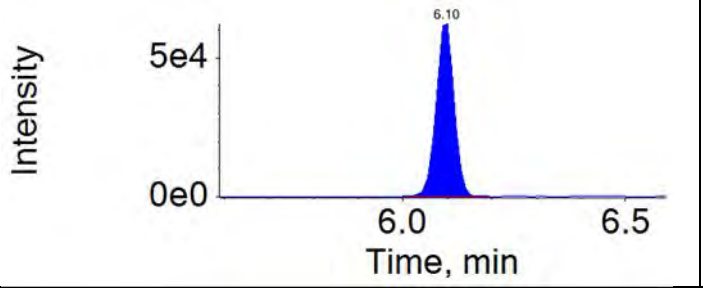


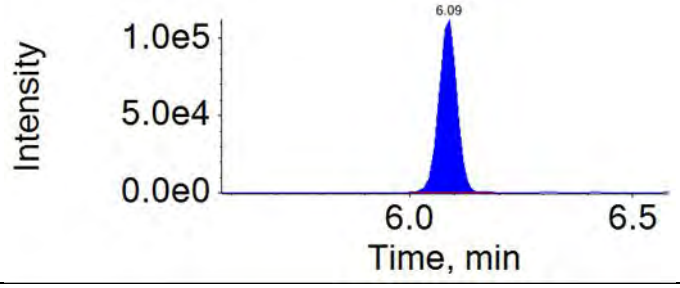
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0





Analyte: NMePFOSAE	Extraction Standard: d7-NMePFOSAE
616.0 / 59.0	623.0 / 59.0



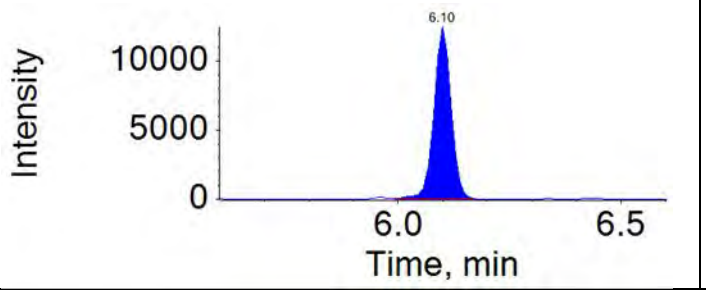


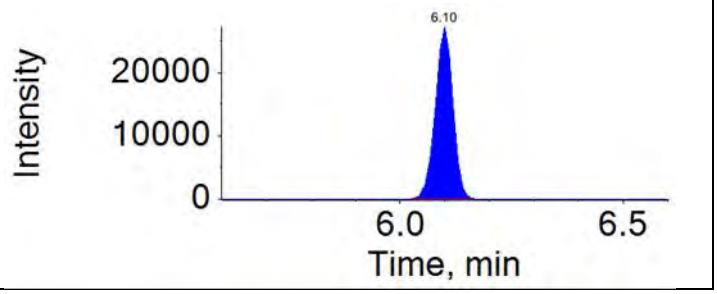
APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By umar at 5:20 pm, 11/13/18

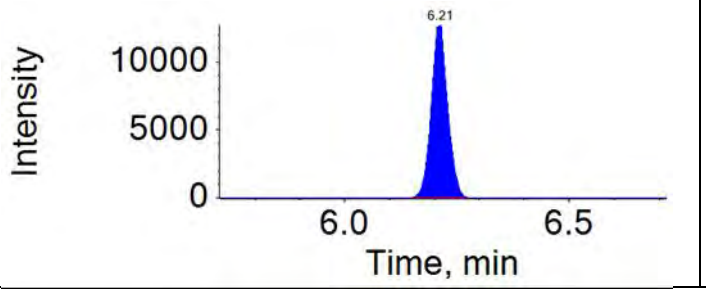
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

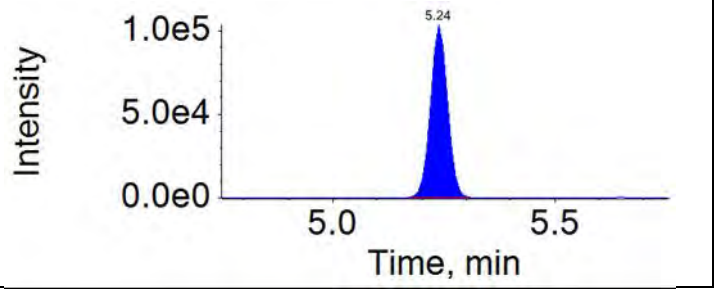
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



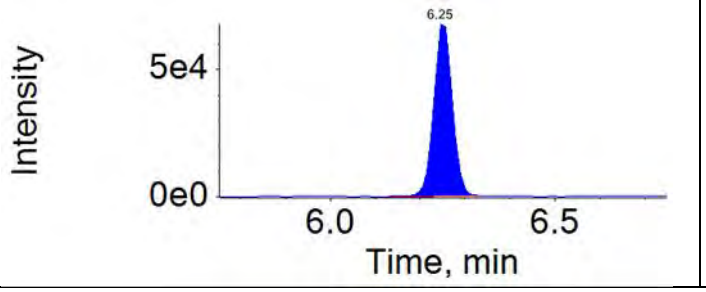


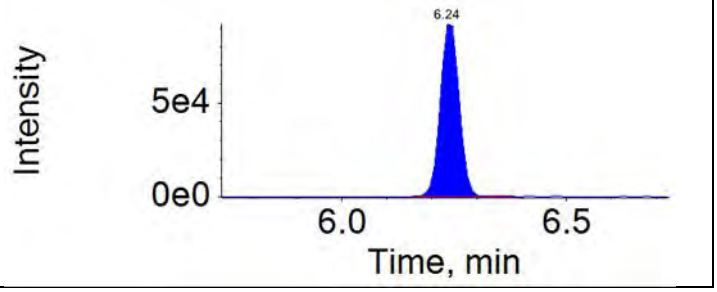
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



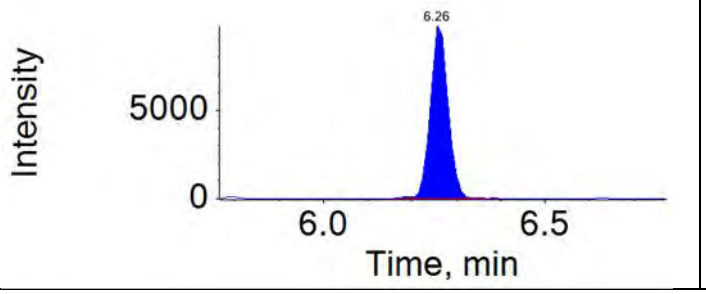


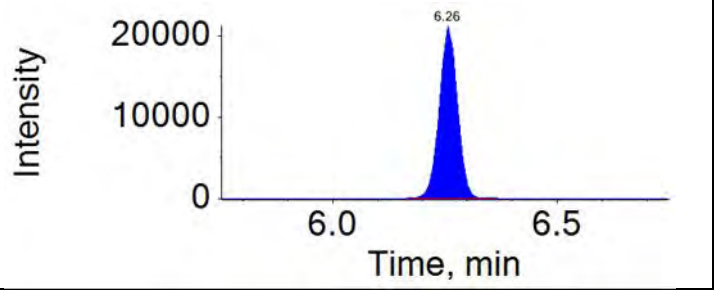
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





Analyte: NEtPFOSA	Extraction Standard: d5-NEtPFOSA
526.0 / 169.0	531.0 / 169.0

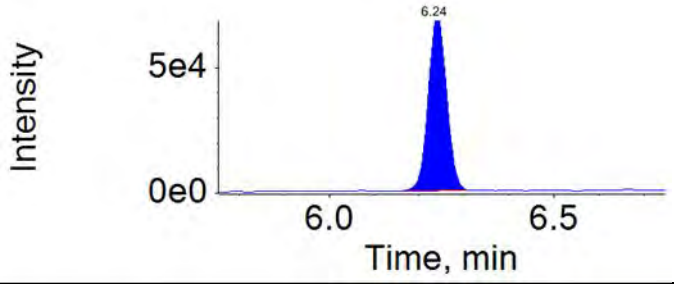
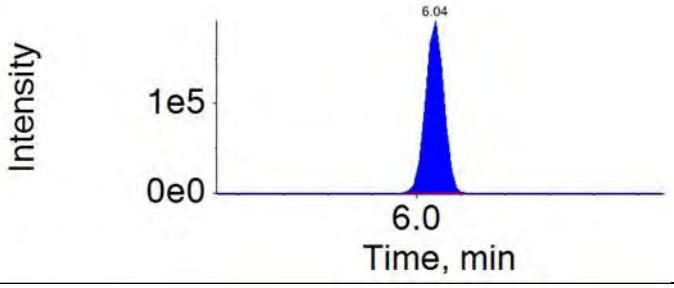


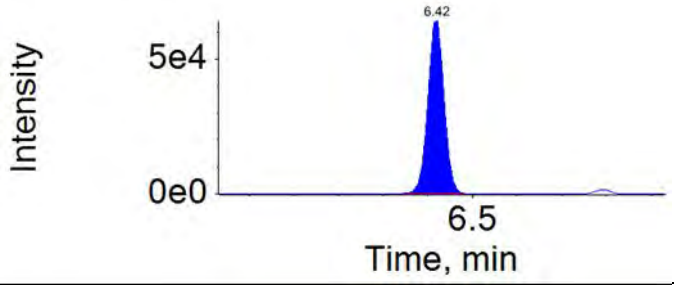
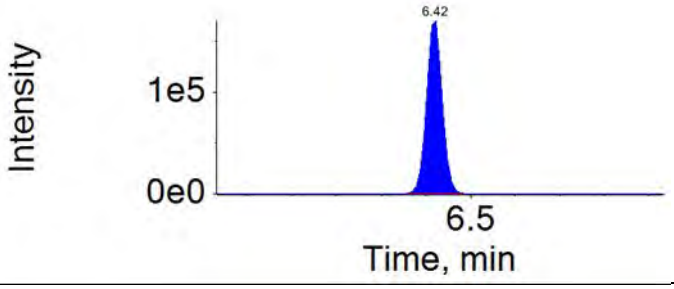


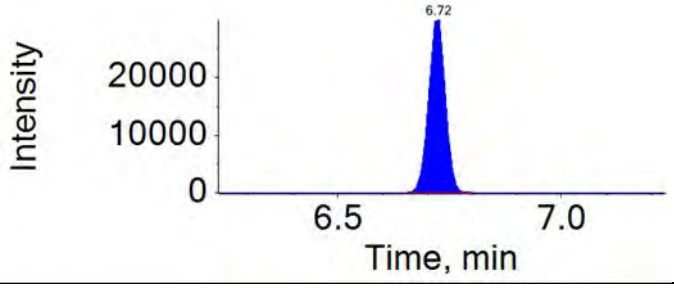
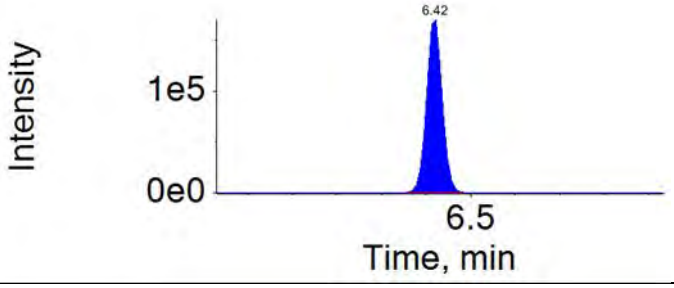
APPROVED
By JPT at 10:23 am, 11/13/18

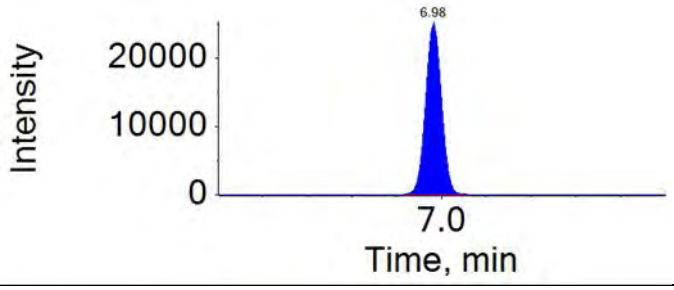
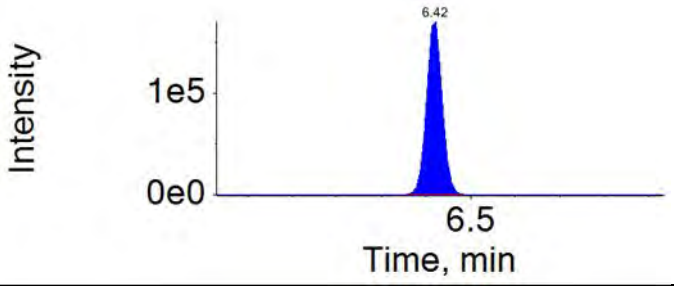
REVIEWED
By umar at 5:20 pm, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Analyte: PFTrDA	Extraction Standard: 13C2-PFDoDA
663.0 / 619.0	615.0 / 570.0
	

Analyte: PFTeDA	Extraction Standard: 13C2-PFTeDA
713.0 / 669.0	715.0 / 670.0
	

Analyte: PFHxDA	Extraction Standard: 13C2-PFTeDA
813.0 / 769.0	715.0 / 670.0
	

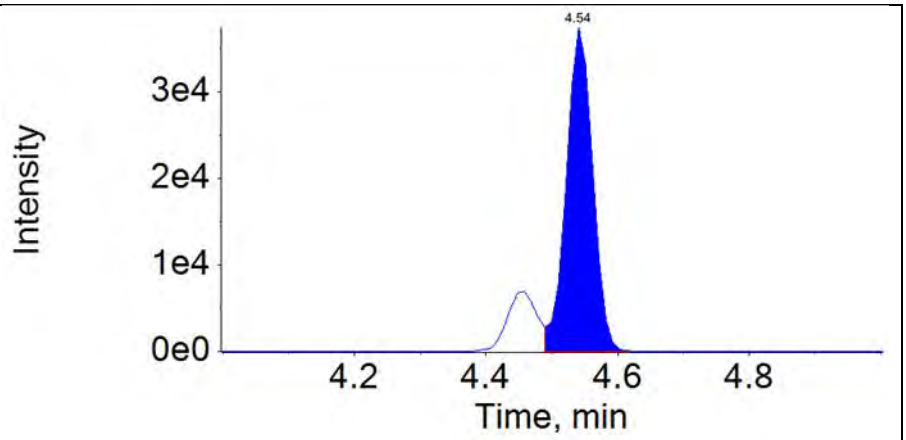
Analyte: PFODA	Extraction Standard: 13C2-PFTeDA
913.0 / 869.0	715.0 / 670.0
	

APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By umar at 5:20 pm, 11/13/18

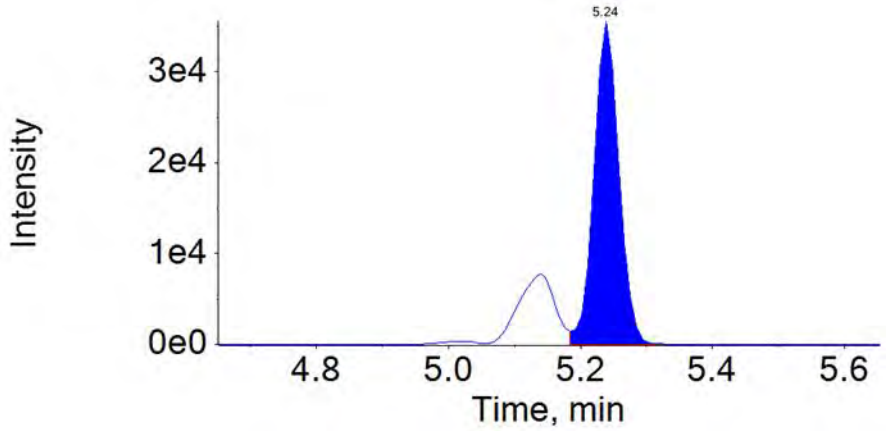
Results Table Name: 18NOV12DCCV3-11
Results Table Date: 11/13/2018 10:08:47 AM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFHxS
RT (min.):
4.54
Peak Area:
104761.0
Mass Range:
399.0 / 80.0
File Name:
18NOV12D-82.wiff
Sample Name:
CCV8_CAL3



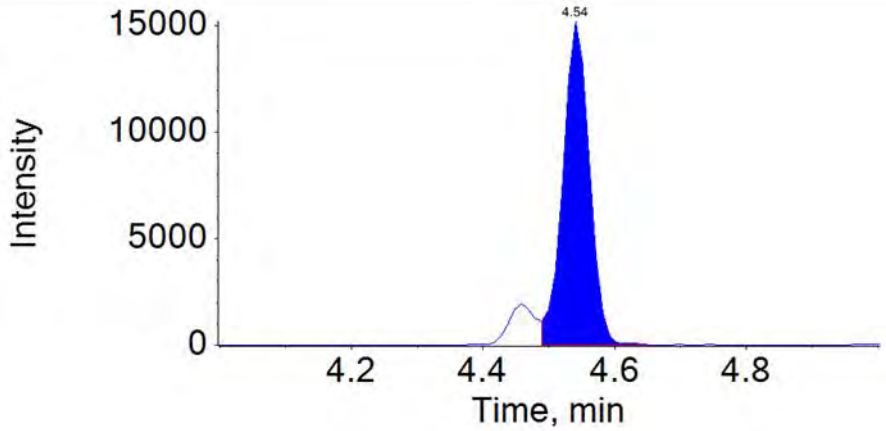
Integration Comment: incorrect integration

Component Name:
PFOS
RT (min.):
5.24
Peak Area:
93525.1
Mass Range:
499.0 / 80.0
File Name:
18NOV12D-82.wiff
Sample Name:
CCV8_CAL3



Integration Comment: incorrect integration

Component Name:
PFHxS_2
RT (min.):
4.54
Peak Area:
42787.8
Mass Range:
399.0 / 99.0
File Name:
18NOV12D-82.wiff
Sample Name:
CCV8_CAL3

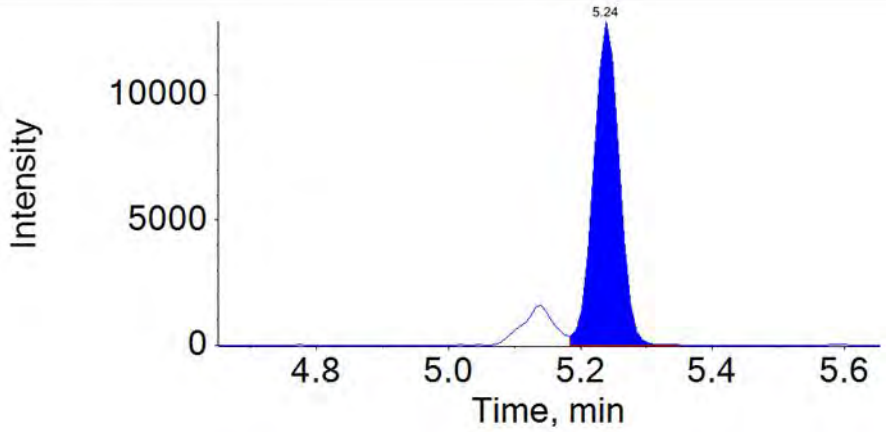


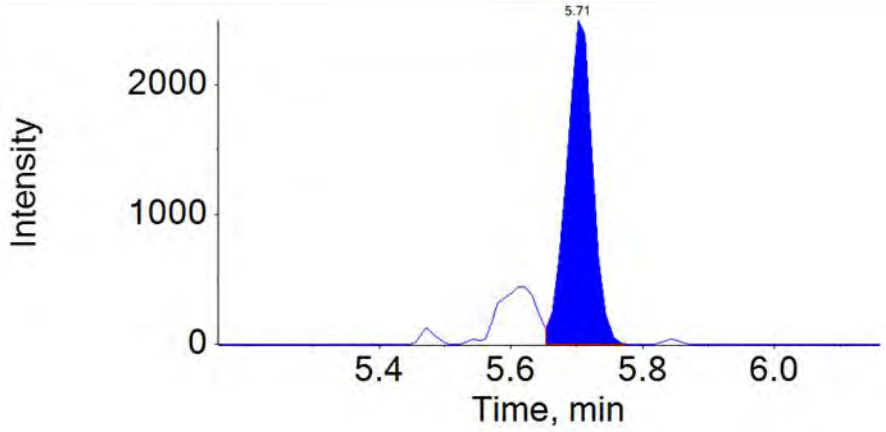
Integration Comment: incorrect integration

APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By umar at 5:20 pm, 11/13/18

Results Table Name: 18NOV12DCCV3-11
Results Table Date: 11/13/2018 10:08:47 AM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name: PFOS_2 **RT (min.):** 5.24 **Peak Area:** 34887.1 **Mass Range:** 499.0 / 99.0 **File Name:** 18NOV12D-82.wiff **Sample Name:** CCV8_CAL3	 **Integration Comment:** incorrect integration

Component Name: NMeFOSAA_2 **RT (min.):** 5.71 **Peak Area:** 6895.2 **Mass Range:** 570.0 / 483.0 **File Name:** 18NOV12D-82.wiff **Sample Name:** CCV8_CAL3	 **Integration Comment:** incorrect integration

APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By umar at 5:20 pm, 11/13/18

Results Table Name: 18NOV12DCCV3-11
Results Table Date: 11/13/2018 10:08:47 AM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Ion Ratio Report

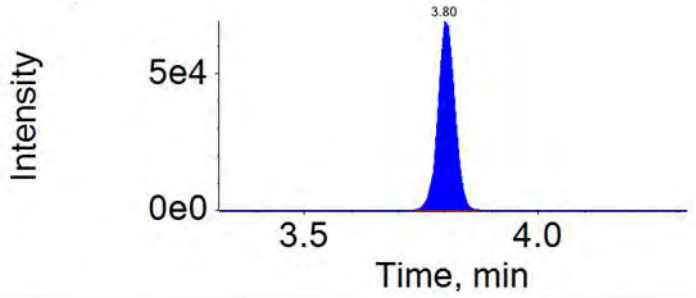
Sample Name: CCV8_CAL3 **Instrument Name:** LM27631 **File Name:** 18NOV12D-82.wiff

Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	3.80	1.00	174556.6	A	N/A	1.0000			
PFBS_2	3.80	1.00	64739.5	A	N/A	0.3709	2	50	
4:2-FTS	4.12	1.00	40895.9	A	N/A	1.0000			
4:2 FTS_2	4.12	1.00	22735.8	A	N/A	0.5559		#NA!	
PFHxA	4.15	1.00	370004.4	A	N/A	1.0000			
PFHxA_2	4.15	1.00	4252.5	A	N/A	0.0115	-2	50	
PFPeS	4.17	1.10	87020.0	A	N/A	1.0000			
PFPeS_2	4.17	1.10	43669.9	A	N/A	0.5018	-3	50	
PFHpA	4.54	1.00	376582.7	A	N/A	1.0000			
PFHpA_2	4.54	1.00	20517.6	A	N/A	0.0545	-3	50	
PFHxS	4.54	1.00	126141.7	M	N/A	1.0000			
PFHxS_2	4.54	1.00	48045.1	M	N/A	0.3809	10	50	
6:2-FTS	4.90	1.00	29590.6	A	N/A	1.0000			
6:2 FTS_2	4.90	1.00	20427.6	A	N/A	0.6903		#NA!	
PFHpS	4.90	1.08	129790.5	A	N/A	1.0000			
PFHpS_2	4.90	1.08	51129.8	A	N/A	0.3939	-3	50	
PFOA	4.91	1.00	391470.4	A	N/A	1.0000			
PFOA_2	4.91	1.00	20589.3	A	N/A	0.0526	-8	50	
PFOS	5.24	1.00	124465.3	M	N/A	1.0000			
PFOS_2	5.24	1.00	40271.6	M	N/A	0.3236	9	50	
PFNA	5.25	1.00	305412.4	A	N/A	1.0000			
PFNA_2	5.25	1.00	5417.6	A	N/A	0.0177	-22	50	
PFNS	5.54	1.06	74922.2	A	N/A	1.0000			
PFNS_2	5.54	1.06	34558.7	A	N/A	0.4613	-3	50	
PFDA	5.56	1.00	252739.7	A	N/A	1.0000			
PFDA_2	5.56	1.00	1779.7	A	N/A	0.0070	-11	50	
8:2-FTS	5.56	1.00	27233.9	A	N/A	1.0000			
8:2 FTS_2	5.56	1.00	15755.0	A	N/A	0.5785		#NA!	
NMeFOSAA	5.70	1.00	29635.8	A	N/A	1.0000			
NMeFOSAA_2	5.71	1.00	8696.0	M	N/A	0.2934	13	50	
PFDS	5.79	1.11	59015.9	A	N/A	1.0000			
PFDS_2	5.79	1.11	31929.9	A	N/A	0.5410	6	50	
PFUnDA	5.82	1.00	216603.5	A	N/A	1.0000			
PFUnDA_2	5.81	1.00	520.0	A	N/A	0.0024	-57	50	OOS
NEtFOSAA	5.83	1.00	26318.1	A	N/A	1.0000			
NEtFOSAA_2	5.83	1.00	20595.4	A	N/A	0.7826	9	50	
PFDoDA	6.04	1.00	256189.7	A	N/A	1.0000			
PFDoDA_2	6.04	1.00	3179.6	A	N/A	0.0124	-19	50	
10:2-FTS	6.06	1.09	19300.5	A	N/A	1.0000			
10:2 FTS_2	6.06	1.09	12710.3	A	N/A	0.6585		#NA!	
PFTrDA	6.24	1.03	195104.3	A	N/A	1.0000			
PFTrDA_2	6.24	1.03	1193.2	A	N/A	0.0061	-28	50	
PFTeDA	6.42	1.00	162073.2	A	N/A	1.0000			
PFTeDA_2	6.42	1.00	927.6	A	N/A	0.0057	-8	50	
PFHxDA	6.72	1.05	79275.5	A	N/A	1.0000			
PFHxDA_2	6.72	1.05	4542.2	A	N/A	0.0573	-15	50	
PFODA	6.98	1.09	61825.4	A	N/A	1.0000			
PFODA_2	6.98	1.09	1623.1	A	N/A	0.0263	-5	50	

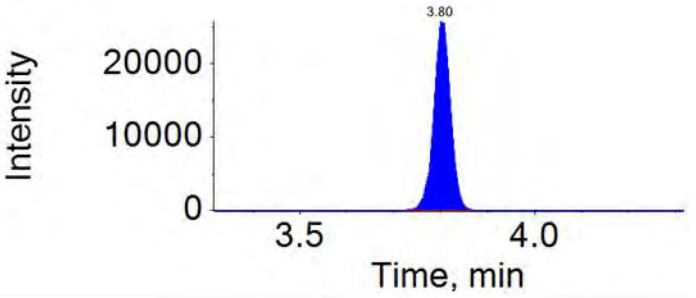
APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By umar at 5:20 pm, 11/13/18

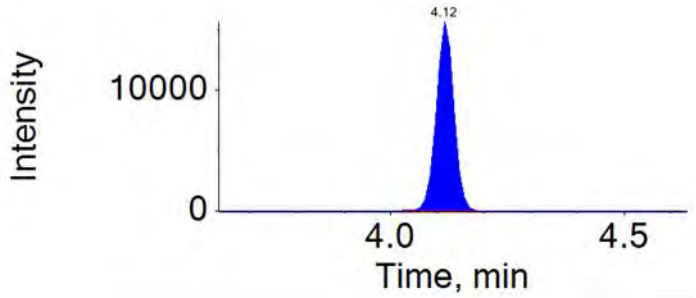
Component: PFBS
Primary Mass: 299.0 / 80.0



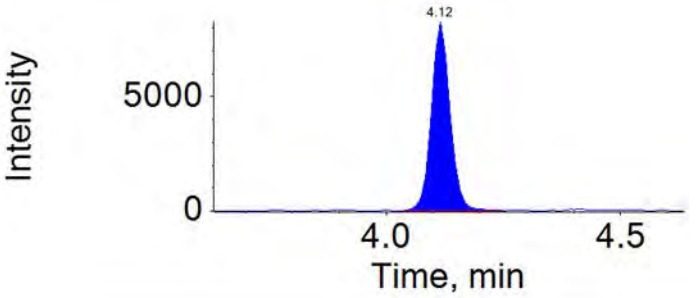
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



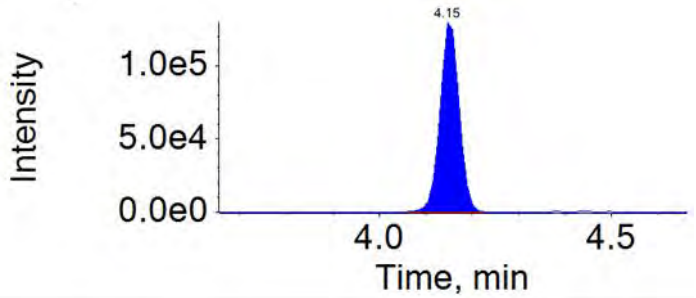
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



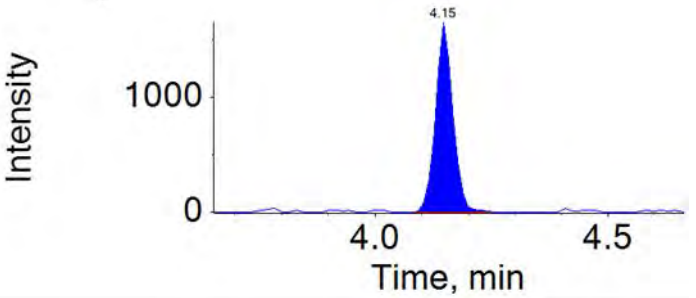
Component: 4:2 FTS_2
Secondary Mass: 327.0 / 81.0



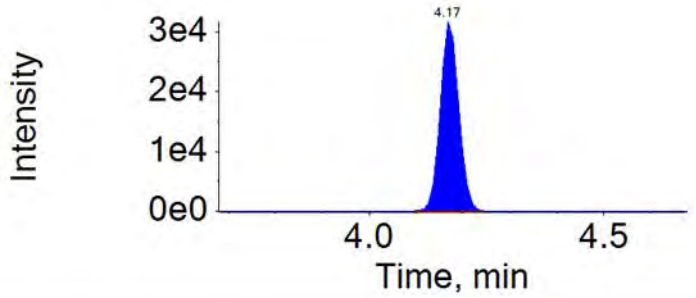
Component: PFHxA
Primary Mass: 313.0 / 269.0



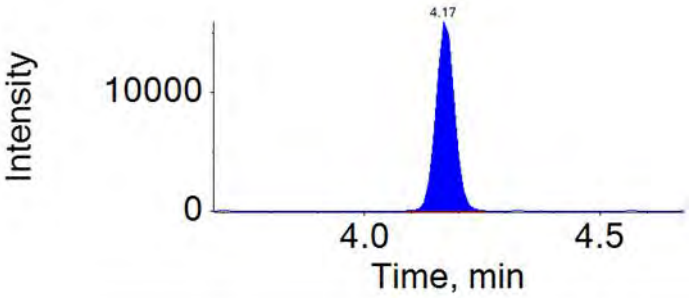
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



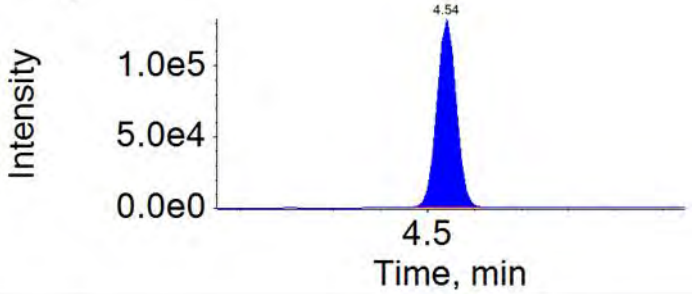
Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



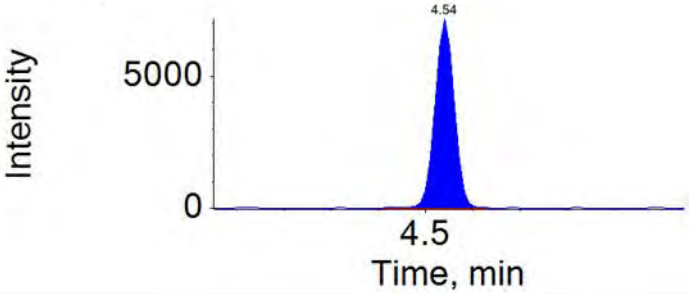
APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By umar at 5:20 pm, 11/13/18

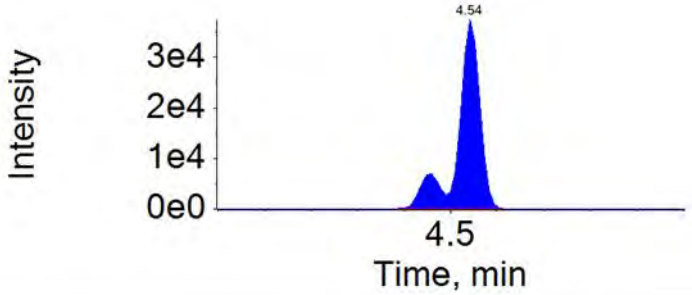
Component: PFHpA
Primary Mass: 363.0 / 319.0



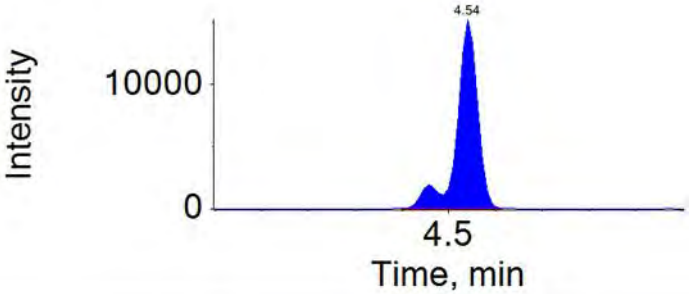
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



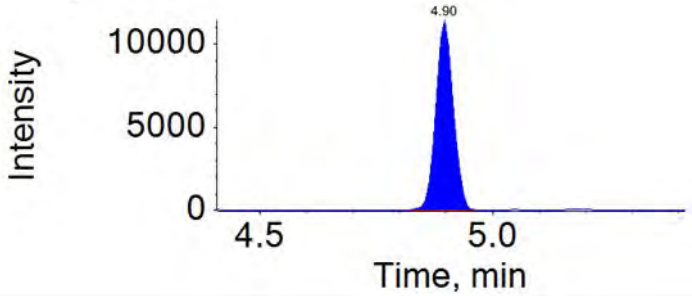
Component: PFHxS
Primary Mass: 399.0 / 80.0



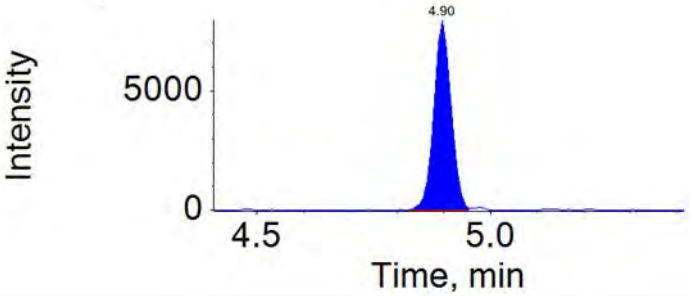
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



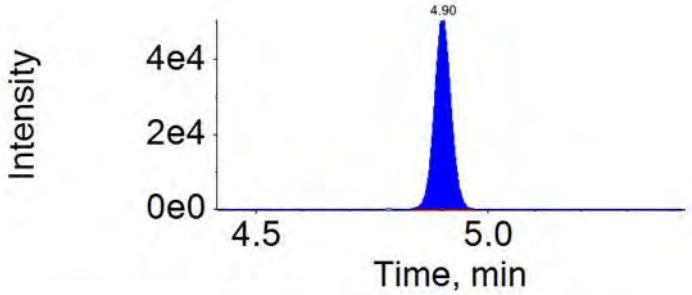
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



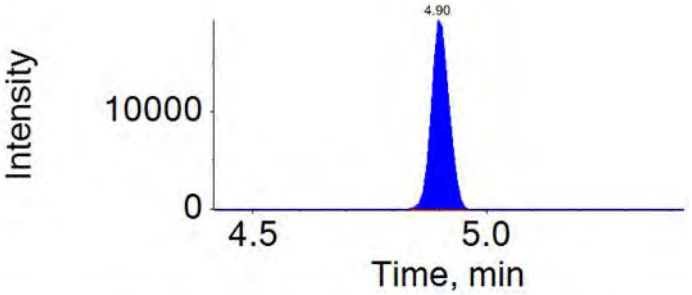
Component: 6:2 FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



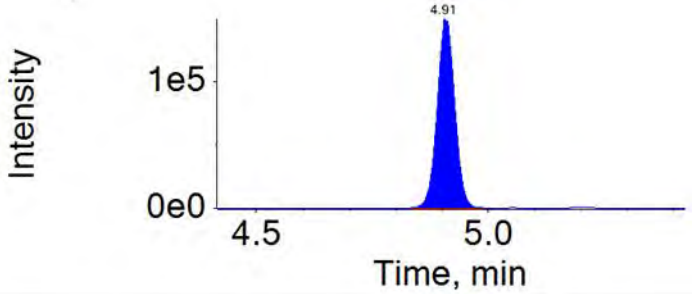
Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



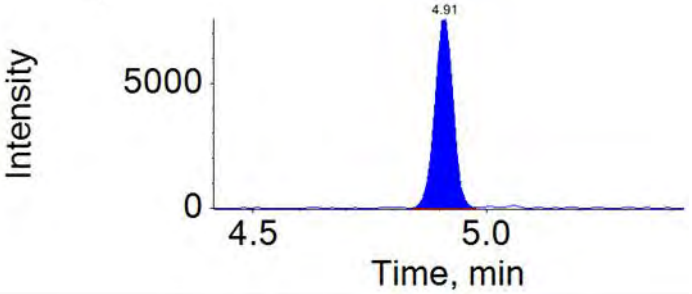
APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By umar at 5:20 pm, 11/13/18

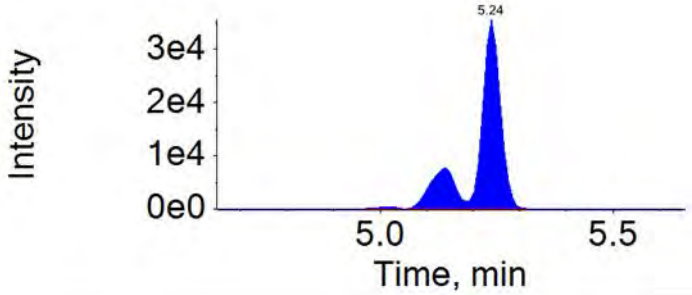
Component: PFOA
Primary Mass: 413.0 / 369.0



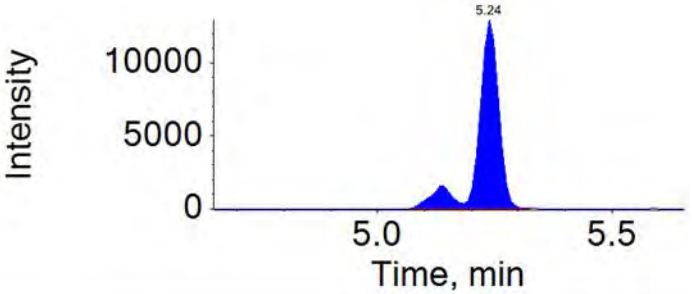
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



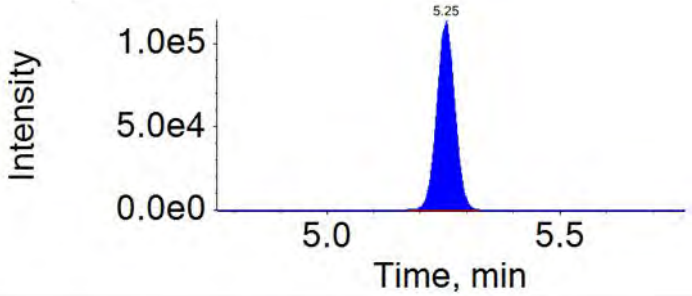
Component: PFOS
Primary Mass: 499.0 / 80.0



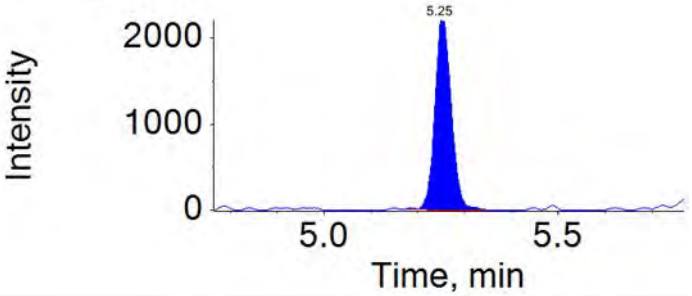
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



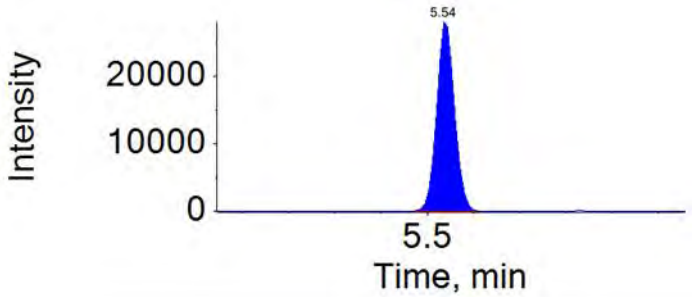
Component: PFNA
Primary Mass: 463.0 / 419.0



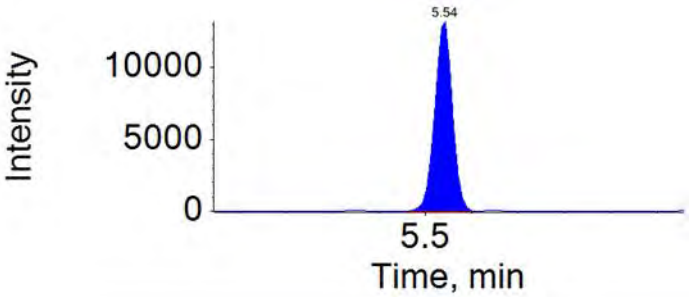
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



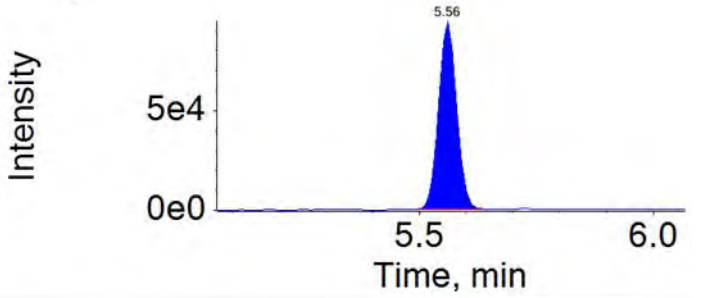
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



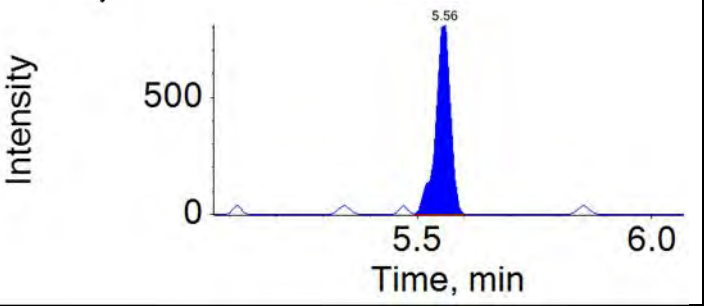
APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By umar at 5:20 pm, 11/13/18

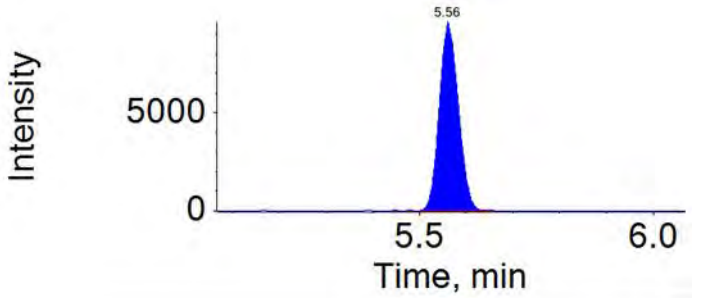
Component: PFDA
Primary Mass: 513.0 / 469.0



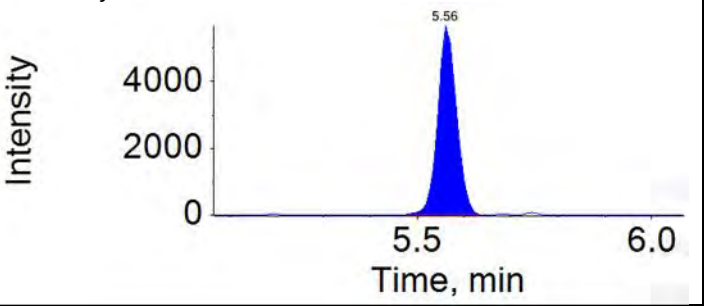
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



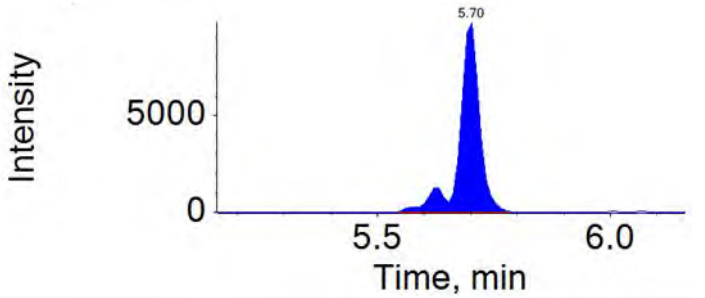
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



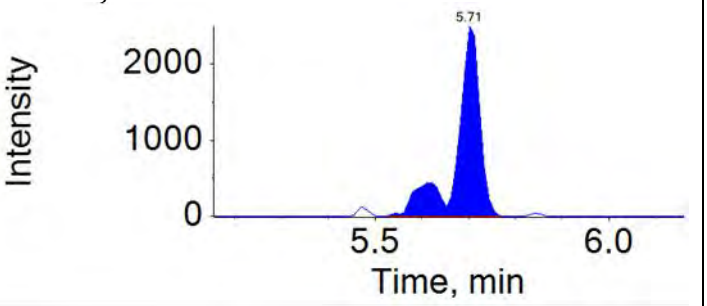
Component: 8:2 FTS_2
Secondary Mass: 527.0 / 81.0



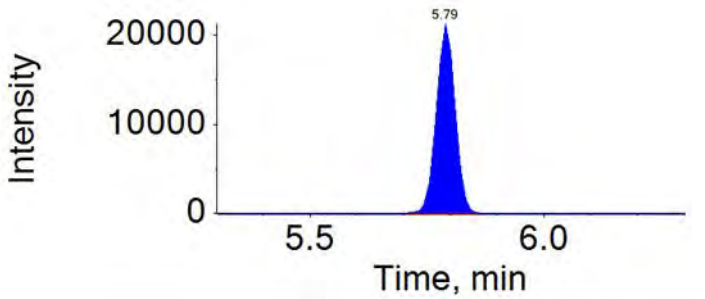
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



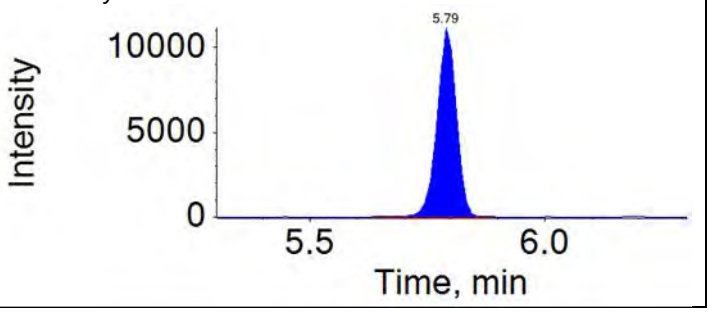
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



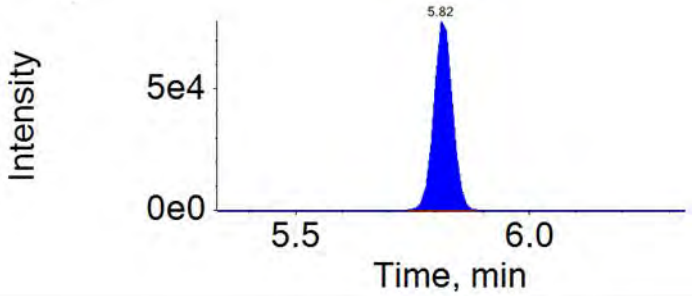
Component: PFDS_2
Secondary Mass: 599.0 / 99.0



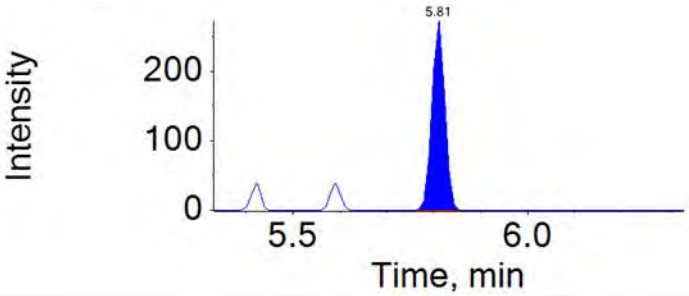
APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By umar at 5:20 pm, 11/13/18

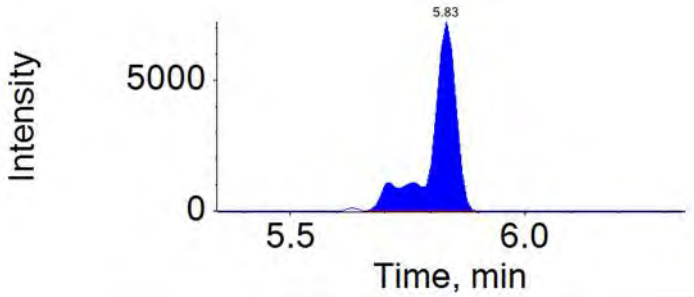
Component: PFUnDA
Primary Mass: 563.0 / 519.0



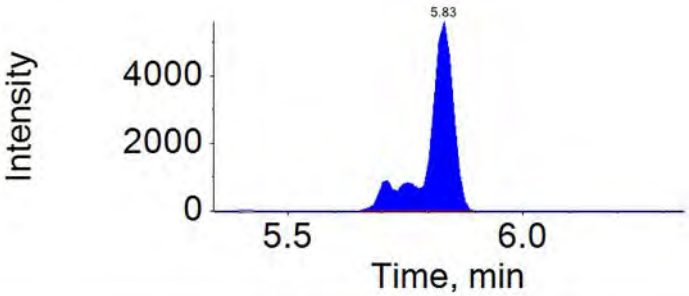
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



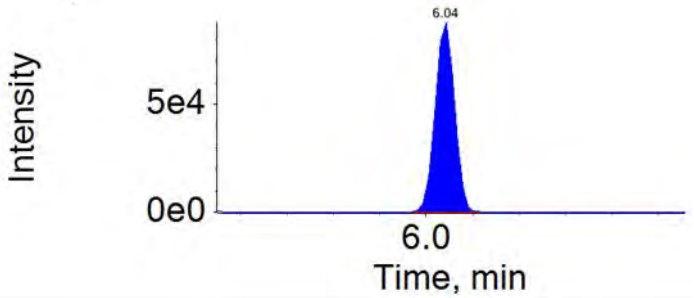
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



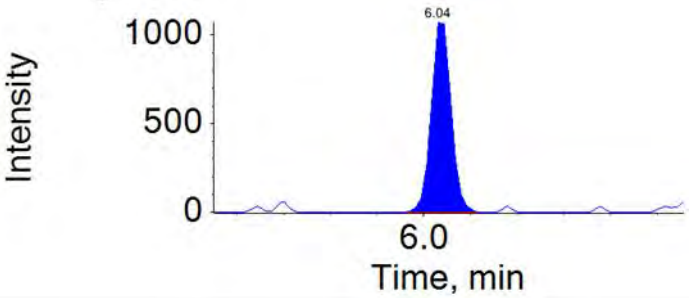
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



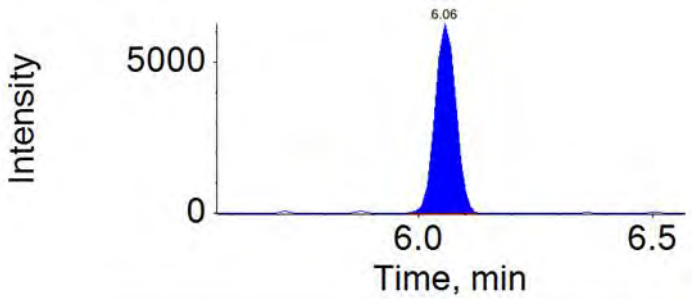
Component: PFDoDA
Primary Mass: 613.0 / 569.0



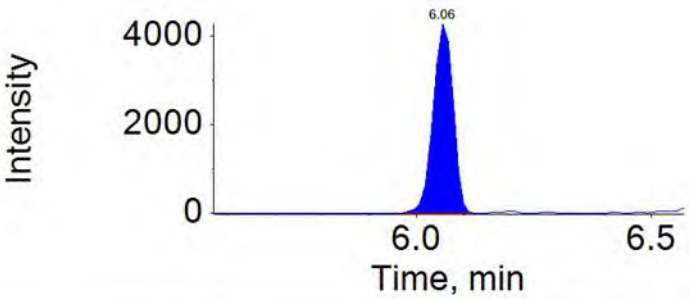
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



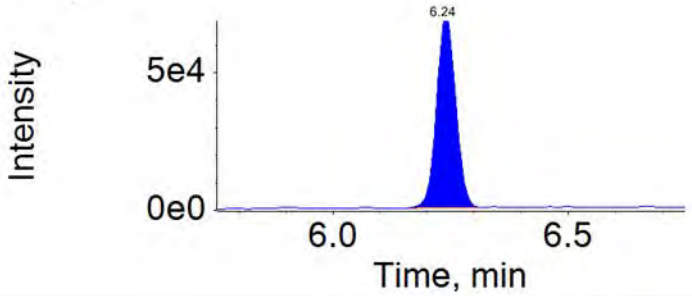
Component: 10:2 FTS_2
Secondary Mass: 627.0 / 81.0



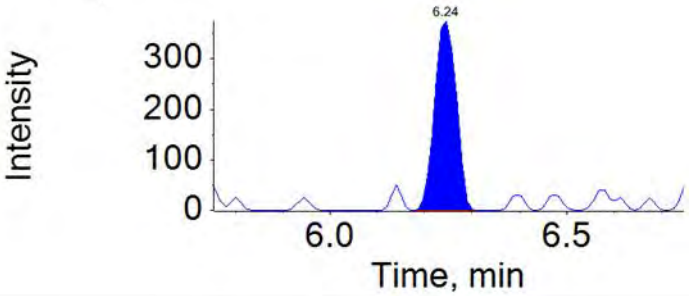
APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By umar at 5:20 pm, 11/13/18

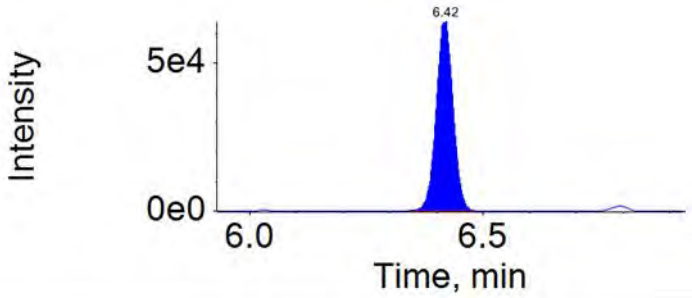
Component: PFTrDA
Primary Mass: 663.0 / 619.0



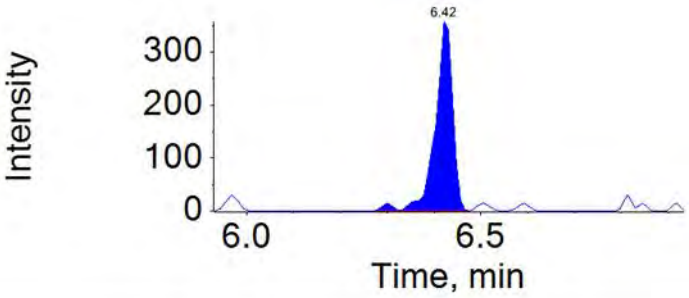
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



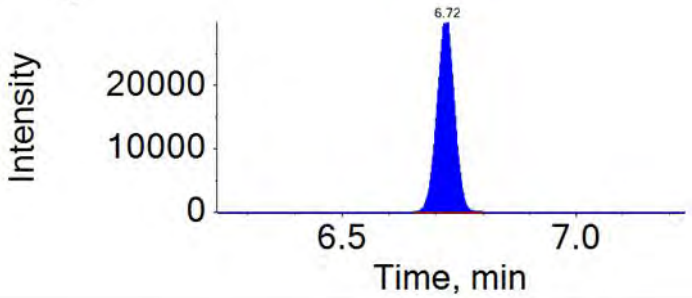
Component: PFTeDA
Primary Mass: 713.0 / 669.0



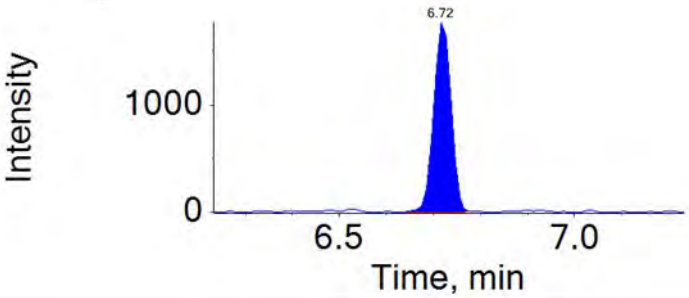
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



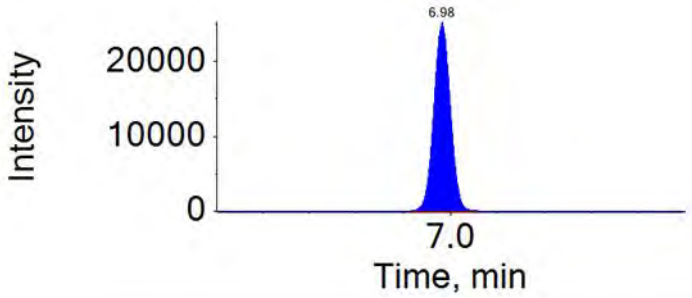
Component: PFHxDA
Primary Mass: 813.0 / 769.0



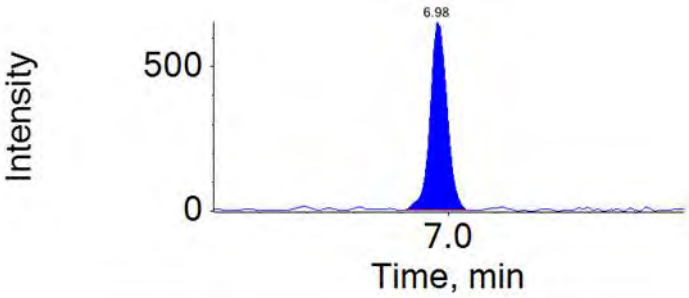
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



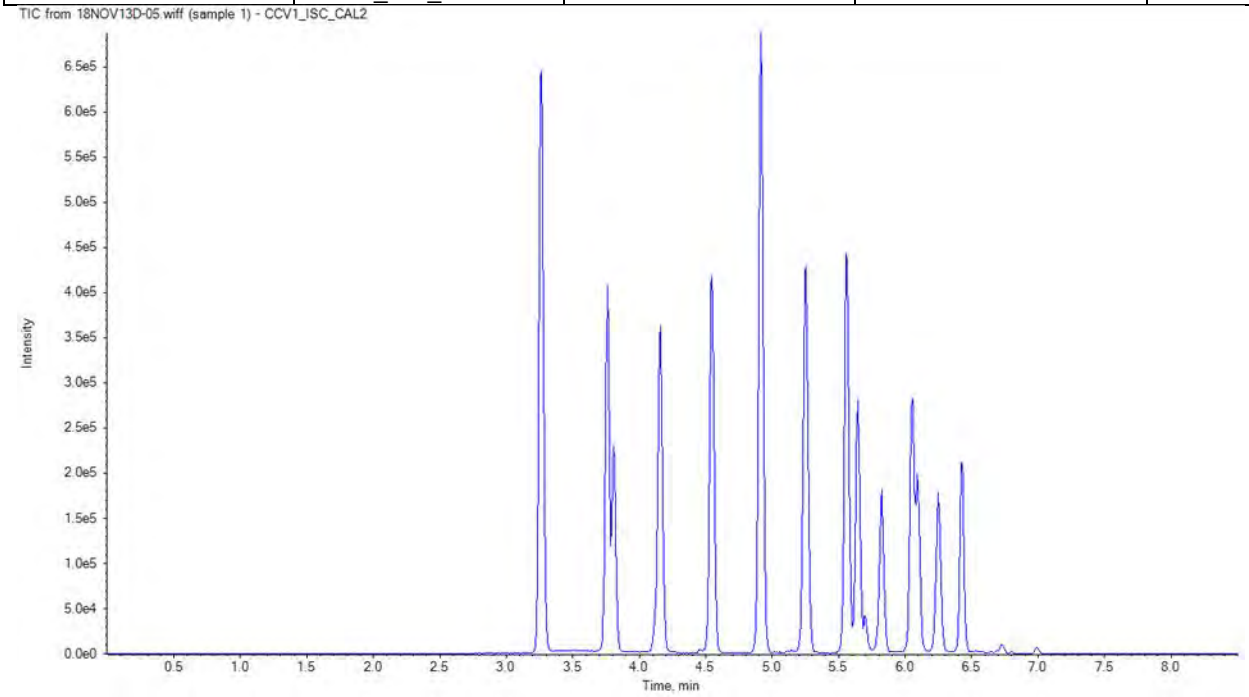
APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By umar at 5:20 pm, 11/13/18

Instrument Sensitivity Check/ Continuing Calibration Verfication

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV1-4 11/13/2018 4:25:30 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	CCV1_ISC_CAL2	CALBRN21833C	18NOV13D-05.wiff	2018-11-13T09:44:02



Injection Standard Area Reference File: 18NOV12DCAL-44

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Reference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	661126.9	659926.2	0	50	
13C2-PFOA	5.0	466902.6	450219.7	4	50	
13C4-PFOS	4.8	247446.9	249205.8	-1	50	
13C2-PFDA	5.0	295381.6	278743.9	6	50	

APPROVED
By JPT at 4:33 pm, 11/13/18

REVIEWED
By HMK at 1:48 pm, 11/14/18

Instrument Sensitivity Check/ Continuing Calibration Verfication

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV1-4 11/13/2018 4:25:30 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	CCV1_ISC_CAL2	CALBRN21833C	18NOV13D-05.wiff	2018-11-13T09:44:02

Analyte Name	Analyte Area	Sc /pk	Ext Std Name	Ext Std Area	Ext Std con	Area Ratio	RT (min)	RRT	Spec Amt	Calc Amt	% Diff	% Diff Lim	% Diff OOS
PFBA	80023.3	10	13C4-PFBA	766812.0	5.0	0.104	3.26	1.000	0.600	0.578	-4	30	
PFPeA	76472.6	11	13C5-PFPeA	751025.9	5.0	0.102	3.76	1.000	0.600	0.589	-2	30	
PFBS	41984.3	11	13C3-PFBS	427122.1	4.7	0.098	3.81	1.000	0.531	0.468	-12	30	
4:2-FTS	9629.9	12	13C2-4:2-FTS	54897.9	4.7	0.175	4.12	1.000	0.560	0.476	-15	30	
PFHxA	96444.0	12	13C5-PFHxA	705940.0	5.0	0.137	4.16	1.000	0.600	0.570	-5	30	
PFPeS	22297.9	11	13C3-PFBS	427122.1	4.7	0.052	4.18	1.100	0.563	0.507	-10	30	
PFHpA	93659.5	12	13C4-PFHpA	545224.8	5.0	0.172	4.55	1.000	0.600	0.569	-5	30	
PFHxS	34111.0	18	13C3-PFHxS	315188.2	4.7	0.108	4.55	1.000	0.547	0.525	-4	30	
6:2-FTS	9221.0	11	13C2-6:2-FTS	36348.0	4.8	0.254	4.90	1.000	0.569	0.614	8	30	
PFHpS	30798.1	11	13C3-PFHxS	315188.2	4.7	0.098	4.91	1.080	0.571	0.514	-10	30	
PFOA	100905.0	11	13C8-PFOA	916289.6	5.0	0.110	4.92	1.000	0.600	0.588	-2	30	
PFOS	34555.4	22	13C8-PFOS	283234.2	4.8	0.122	5.24	1.000	0.555	0.534	-4	30	
PFNA	70400.6	11	13C9-PFNA	459889.6	5.0	0.153	5.26	1.000	0.600	0.552	-8	30	
PFNS	17583.2	10	13C8-PFOS	283234.2	4.8	0.062	5.54	1.060	0.576	0.434	-25	30	
PFDA	68441.3	11	13C6-PFDA	633571.3	5.0	0.108	5.56	1.000	0.600	0.573	-5	30	
8:2-FTS	5551.6	11	13C2-8:2-FTS	28239.6	4.8	0.197	5.56	1.000	0.575	0.458	-20	30	
PFOSA	70097.0	12	13C8-PFOSA	581964.0	5.0	0.120	5.64	1.000	0.600	0.588	-2	30	
NMeFOSAA	7238.6	17	d3-NMeFOSAA	75677.4	5.0	0.096	5.71	1.000	0.600	0.541	-10	30	
PFDS	14746.9	12	13C8-PFOS	283234.2	4.8	0.052	5.80	1.110	0.578	0.472	-18	30	
PFUnDA	55065.8	12	13C7-PFUnDA	262614.2	5.0	0.210	5.82	1.000	0.600	0.548	-9	30	
NEtFOSAA	8391.3	19	d5-NEtFOSAA	67382.4	5.0	0.125	5.84	1.000	0.600	0.653	9	30	
PFDoDA	63306.6	12	13C2-PFDoDA	563416.3	5.0	0.112	6.05	1.000	0.600	0.572	-5	30	
10:2-FTS	4315.1	11	13C2-8:2-FTS	28239.6	4.8	0.153	6.07	1.090	0.578	0.509	-12	30	
NMePFOSAE	46107.4	12	d7-NMePFOSAE	315627.9	5.0	0.146	6.10	1.000	0.600	0.608	1	30	
NMePFOSA	7580.7	13	d3-NMePFOSA	81274.6	5.0	0.093	6.11	1.000	0.600	0.460	-23	30	
PFDoS	7907.3	11	13C8-PFOS	283234.2	4.8	0.028	6.22	1.190	0.581	0.489	-16	30	
NEtPFOSAE	46594.2	12	d9-NEtPFOSAE	264447.2	5.0	0.176	6.26	1.000	0.600	0.565	-6	30	
NEtPFOSA	7426.1	11	d5-NEtPFOSA	57059.6	5.0	0.130	6.27	1.000	0.600	0.598	0	30	
PFTrDA	52911.8	12	13C2-PFDoDA	563416.3	5.0	0.094	6.25	1.030	0.600	0.593	-1	30	
PFTeDA	38686.6	11	13C2-PFTeDA	412151.2	5.0	0.094	6.43	1.000	0.600	0.526	-12	30	
PFHxDA	18605.8	11	13C2-PFTeDA	412151.2	5.0	0.045	6.73	1.050	0.600	0.538	-10	30	
PFODA	15935.1	10	13C2-PFTeDA	412151.2	5.0	0.039	6.99	1.090	0.600	0.538	-10	30	

APPROVED
By JPT at 4:33 pm, 11/13/18

REVIEWED
By HMK at 1:48 pm, 11/14/18

Instrument Sensitivity Check/ Continuing Calibration Verfication

ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QM
Result Table: 18NOV13DCCV1-4 11/13/2018 4:25:30 PM
Acquisition Method: 18AUG13_3uL.dam

APPROVED
By JPT at 4:33 pm, 11/13/18

REVIEWED
By HMK at 1:48 pm, 11/14/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV1-4 11/13/2018 4:25:30 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Sample Name:	CCV1_ISC_CAL2			**Data File:**		18NOV13D-05.wiff
Sample ID:	CALBRN21833C			**Acquis Date:**		2018-11-13T09:44:02
Sample Type:	Quality Control			**Instrument:**		LM27631
Vial Position:	4			**Acquis Method:**		18AUG13_3uL.dam
Injection Vol:	3.00			**Result Table:**		18NOV13DCCV1-4
QMethod File:	18AUG20QM			**ICAL Name:**		18NOV12DCAL
Batch Number:	N/A			**Operator:**		JPT12262
Sample Wt.:	1.00000			**Dilution Factor:**		1.00
Sample Vol.:	1.000			**Prep Factor:**		1.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV12DCAL-44

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Rreference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	661126.9	659926.2	0	50	
13C2-PFOA	5.0	466902.6	450219.7	4	50	
13C4-PFOS	4.8	247446.9	249205.8	-1	50	
13C2-PFDA	5.0	295381.6	278743.9	6	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	766812.0	13C3-PFBA	661126.9	1.160	5.000	5.200	104	70-130	
E13C5-PFPeA	751025.9	13C3-PFBA	661126.9	1.136	5.000	5.095	102	70-130	
E13C3-PFBS	427122.1	13C3-PFBA	661126.9	0.646	4.650	4.561	98	70-130	
E13C2-4:2-FTS	54897.9	13C2-PFOA	466902.6	0.118	4.670	5.237	112	70-130	
E13C5-PFHxA	705940.0	13C2-PFOA	466902.6	1.512	5.000	5.462	109	70-130	
E13C3-PFHxS	315188.2	13C2-PFOA	466902.6	0.675	4.730	4.632	98	70-130	
E13C4-PFHpA	545224.8	13C2-PFOA	466902.6	1.168	5.000	5.261	105	70-130	
E13C2-6:2-FTS	36348.0	13C2-PFOA	466902.6	0.078	4.750	5.209	110	70-130	
E13C8-PFOA	916289.6	13C2-PFOA	466902.6	1.962	5.000	5.407	108	70-130	
E13C8-PFOS	283234.2	13C4-PFOS	247446.9	1.145	4.780	5.072	106	70-130	
E13C9-PFNA	459889.6	13C4-PFOS	247446.9	1.859	5.000	5.182	104	70-130	
E13C6-PFDA	633571.3	13C2-PFDA	295381.6	2.145	5.000	5.005	100	70-130	
E13C2-8:2-FTS	28239.6	13C2-PFDA	295381.6	0.096	4.790	4.768	100	70-130	
E13C8-PFOSA	581964.0	13C2-PFDA	295381.6	1.970	5.000	4.368	87	70-130	
Ed3-NMeFOSAA	75677.4	13C2-PFDA	295381.6	0.256	5.000	4.625	92	70-130	
E13C7-PFUnDA	262614.2	13C2-PFDA	295381.6	0.889	5.000	5.162	103	70-130	
Ed5-NEtFOSAA	67382.4	13C2-PFDA	295381.6	0.228	5.000	4.826	97	70-130	
E13C2-PFDoDA	563416.3	13C2-PFDA	295381.6	1.907	5.000	4.952	99	70-130	
Ed7-NMePFOSAE	315627.9	13C2-PFDA	295381.6	1.069	5.000	4.624	92	70-130	
Ed3-NMePFOSA	81274.6	13C2-PFDA	295381.6	0.275	5.000	4.999	100	70-130	
Ed9-NEtPFOSAE	264447.2	13C2-PFDA	295381.6	0.895	5.000	4.656	93	70-130	
Ed5-NEtPFOSA	57059.6	13C2-PFDA	295381.6	0.193	5.000	4.531	91	70-130	
E13C2-PFTeDA	412151.2	13C2-PFDA	295381.6	1.395	5.000	4.899	98	70-130	

APPROVED
By JPT at 4:33 pm, 11/13/18

REVIEWED
By HMK at 1:48 pm, 11/14/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV1-4 11/13/2018 4:25:30 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

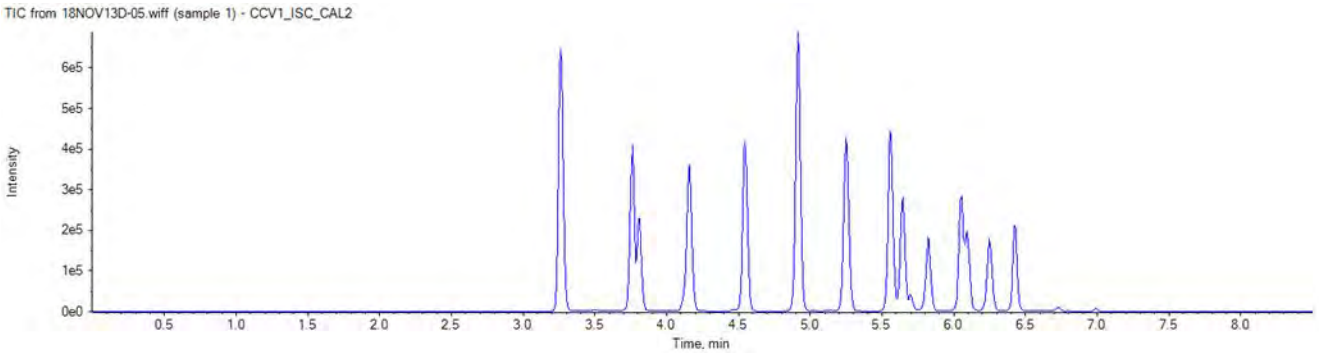
Analyte Quantitation Peak Table

Sample Name: CCV1_ISC_CAL2 **Instrument Name:** LM27631 **File Name:** 18NOV13D-05.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	1.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	3.26	1.000	80023.3		A	13C4-PFBA	3.26	766812.0	0.104	0.578
PFPeA	3.76	1.000	76472.6		A	13C5-PFPeA	3.76	751025.9	0.102	0.589
PFBS	3.81	1.000	41984.3		A	13C3-PFBS	3.81	427122.1	0.098	0.468
4:2-FTS	4.12	1.000	9629.9		M	13C2-4:2-FTS	4.12	54897.9	0.175	0.476
PFHxA	4.16	1.000	96444.0		A	13C5-PFHxA	4.16	705940.0	0.137	0.570
PFPeS	4.18	1.100	22297.9		A	13C3-PFBS	3.81	427122.1	0.052	0.507
PFHpA	4.55	1.000	93659.5		A	13C4-PFHpA	4.55	545224.8	0.172	0.569
PFHxS	4.55	1.000	34111.0		M	13C3-PFHxS	4.55	315188.2	0.108	0.525
6:2-FTS	4.90	1.000	9221.0		M	13C2-6:2-FTS	4.90	36348.0	0.254	0.614
PFHpS	4.91	1.080	30798.1		A	13C3-PFHxS	4.55	315188.2	0.098	0.514
PFOA	4.92	1.000	100905.0		A	13C8-PFOA	4.91	916289.6	0.110	0.588
PFOS	5.24	1.000	34555.4		M	13C8-PFOS	5.24	283234.2	0.122	0.534
PFNA	5.26	1.000	70400.6		A	13C9-PFNA	5.26	459889.6	0.153	0.552
PFNS	5.54	1.060	17583.2		A	13C8-PFOS	5.24	283234.2	0.062	0.434
PFDA	5.56	1.000	68441.3		A	13C6-PFDA	5.56	633571.3	0.108	0.573
8:2-FTS	5.56	1.000	5551.6		A	13C2-8:2-FTS	5.56	28239.6	0.197	0.458
PFOSA	5.64	1.000	70097.0		A	13C8-PFOSA	5.64	581964.0	0.120	0.588
NMeFOSAA	5.71	1.000	7238.6		A	d3-NMeFOSAA	5.70	75677.4	0.096	0.541
PFDS	5.80	1.110	14746.9		A	13C8-PFOS	5.24	283234.2	0.052	0.472
PFUnDA	5.82	1.000	55065.8		A	13C7-PFUnDA	5.82	262614.2	0.210	0.548
NEtFOSAA	5.84	1.000	8391.3		M	d5-NEtFOSAA	5.83	67382.4	0.125	0.653
PFDoDA	6.05	1.000	63306.6		A	13C2-PFDoDA	6.05	563416.3	0.112	0.572
10:2-FTS	6.07	1.090	4315.1		A	13C2-8:2-FTS	5.56	28239.6	0.153	0.509
NMePFOSAE	6.10	1.000	46107.4		A	d7-NMePFOSAE	6.09	315627.9	0.146	0.608
NMePFOSA	6.11	1.000	7580.7		A	d3-NMePFOSA	6.10	81274.6	0.093	0.460
PFDoS	6.22	1.190	7907.3		A	13C8-PFOS	5.24	283234.2	0.028	0.489
NEtPFOSAE	6.26	1.000	46594.2		A	d9-NEtPFOSAE	6.25	264447.2	0.176	0.565
NEtPFOSA	6.27	1.000	7426.1		A	d5-NEtPFOSA	6.26	57059.6	0.130	0.598
PFTrDA	6.25	1.030	52911.8		M	13C2-PFDoDA	6.05	563416.3	0.094	0.593
PFTeDA	6.43	1.000	38686.6		A	13C2-PFTeDA	6.43	412151.2	0.094	0.526
PFHxDA	6.73	1.050	18605.8		A	13C2-PFTeDA	6.43	412151.2	0.045	0.538
PFODA	6.99	1.090	15935.1		A	13C2-PFTeDA	6.43	412151.2	0.039	0.538

Total Ion Chromatogram

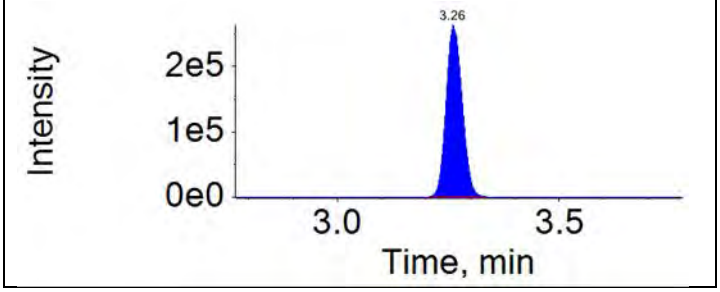


APPROVED
By JPT at 4:33 pm, 11/13/18

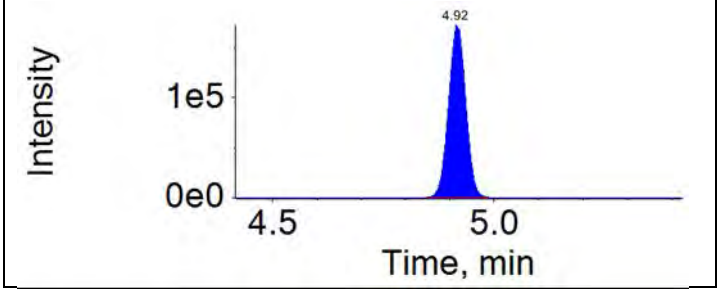
REVIEWED
By HMK at 1:48 pm, 11/14/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV1-4 11/13/2018 4:25:30 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

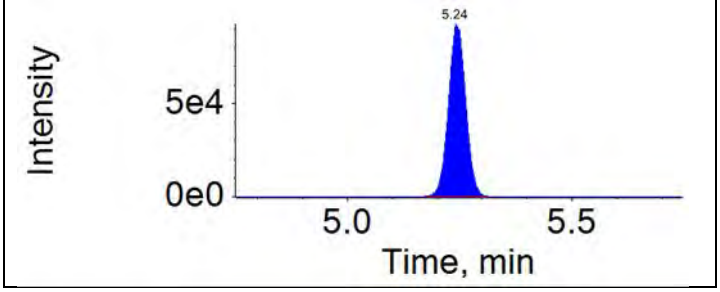
Injection Standard: 13C3-PFBA
216.0 / 172.0



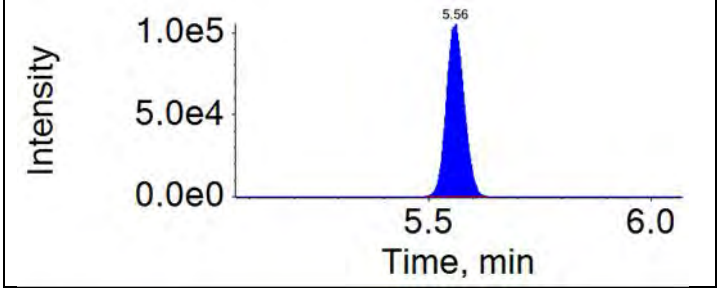
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0



Injection Standard: 13C2-PFDA
515.0 / 470.0

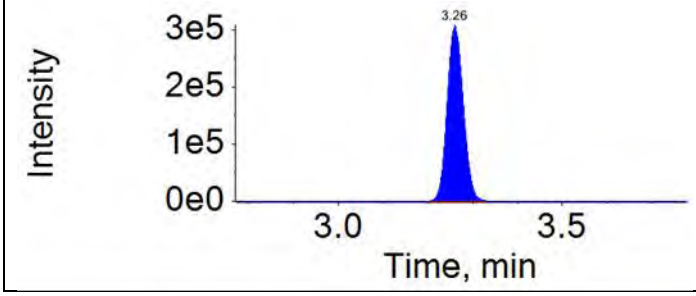


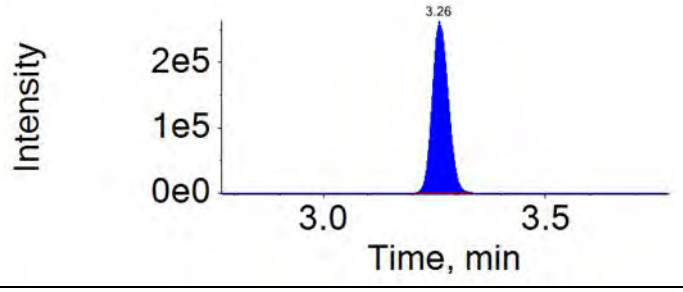
APPROVED
By JPT at 4:33 pm, 11/13/18

REVIEWED
By HMK at 1:48 pm, 11/14/18

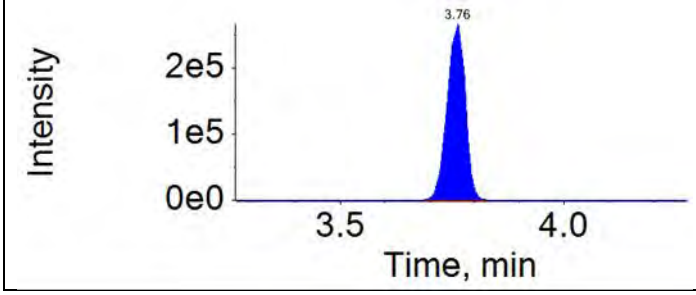
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV1-4 11/13/2018 4:25:30 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

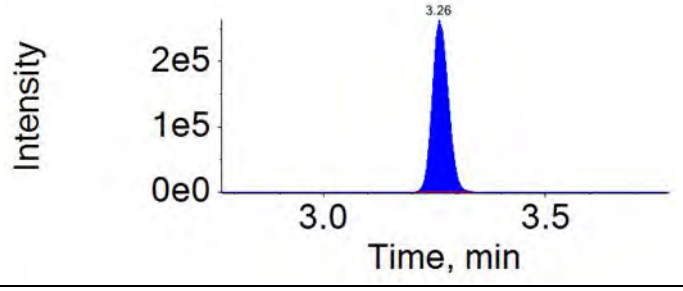
Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0



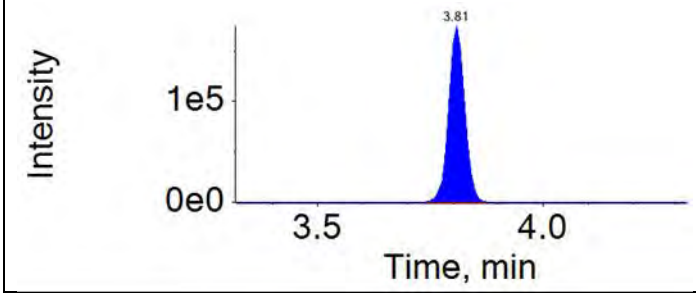


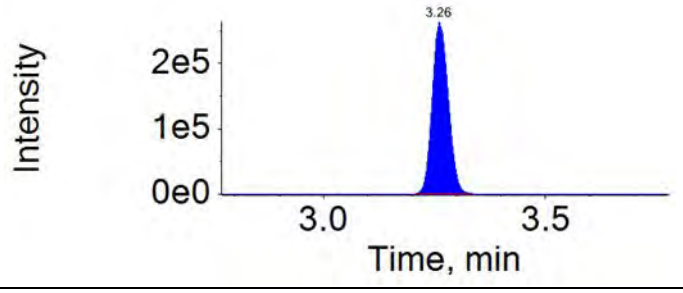
Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0



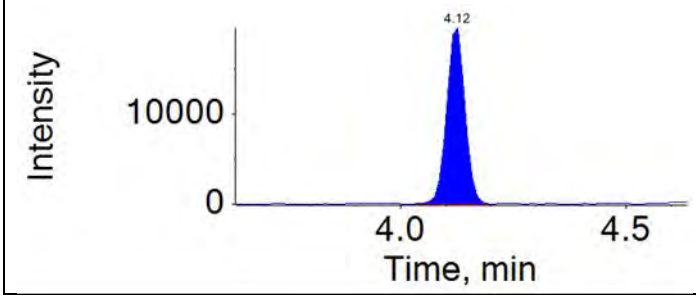


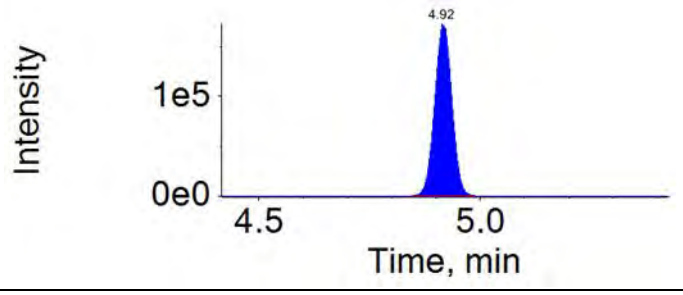
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0





Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0



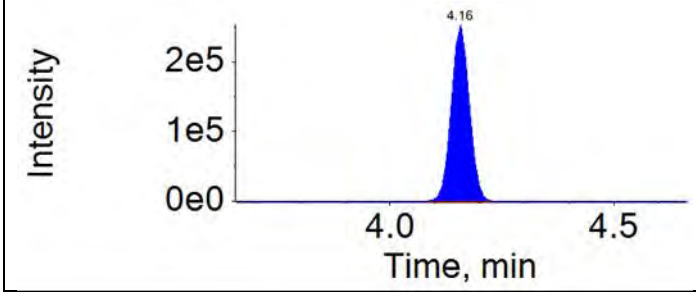


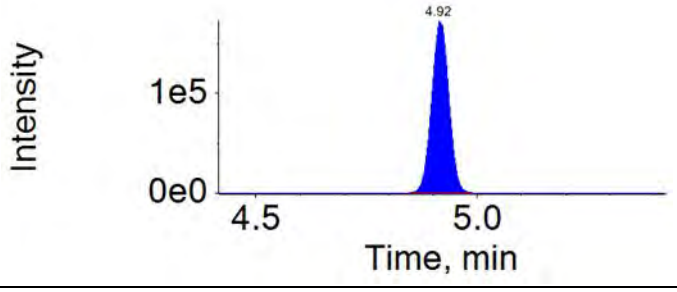
APPROVED
By JPT at 4:33 pm, 11/13/18

REVIEWED
By HMK at 1:48 pm, 11/14/18

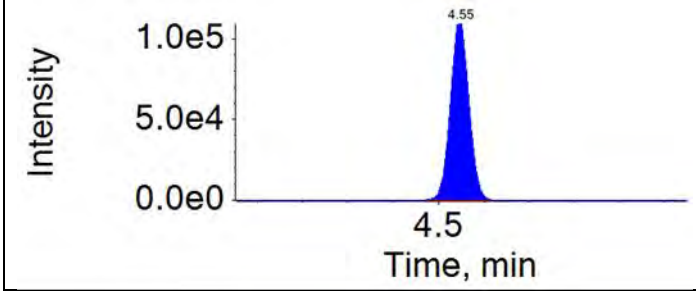
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV1-4 11/13/2018 4:25:30 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

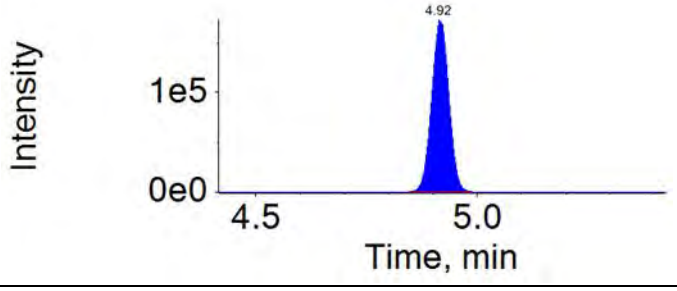
Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0



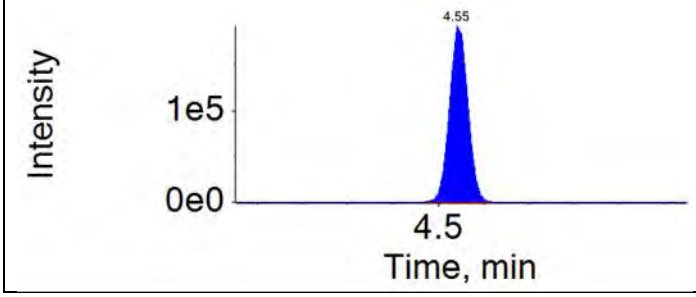


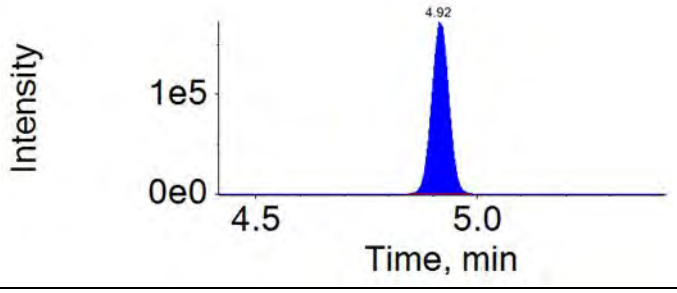
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0



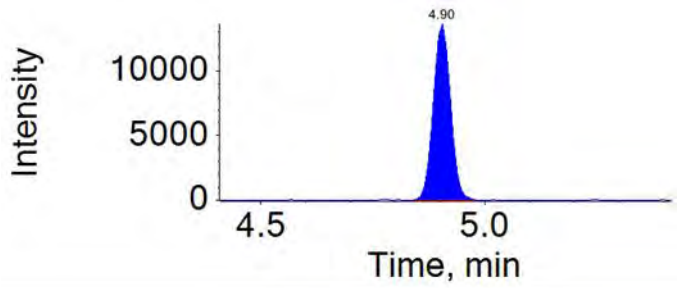


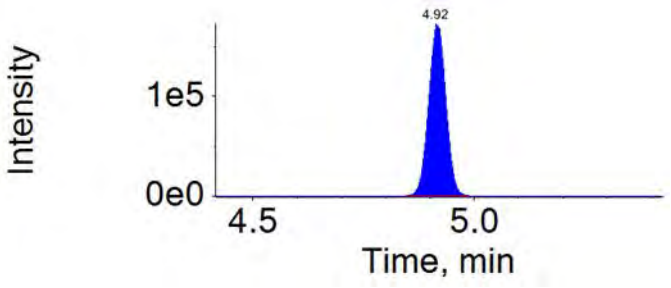
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0





Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0

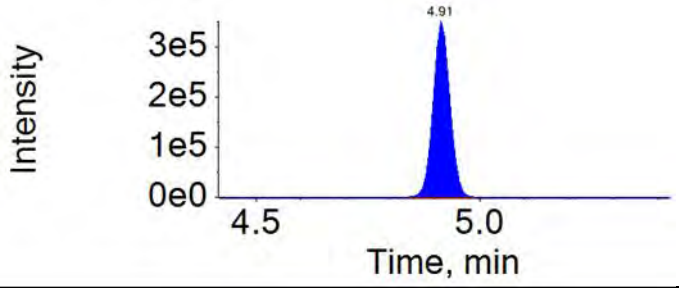
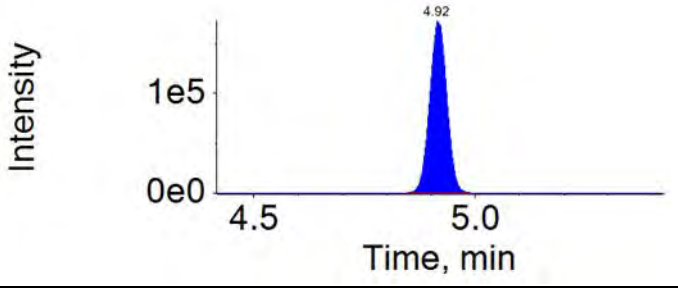


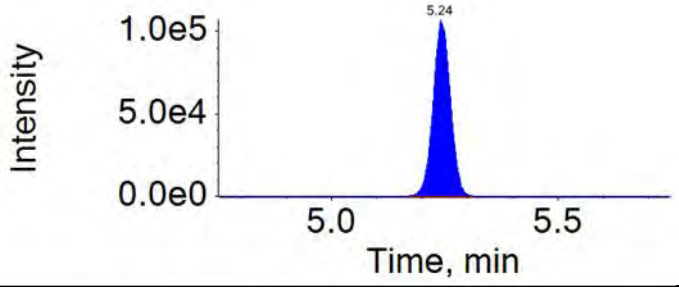
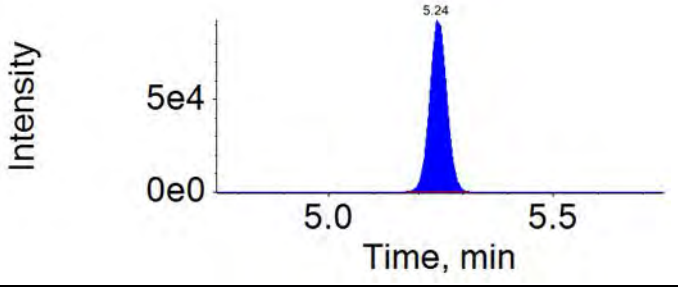


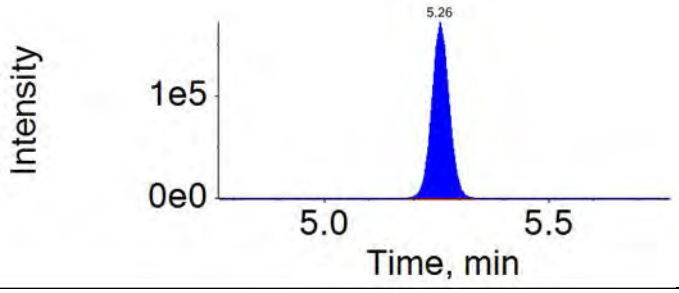
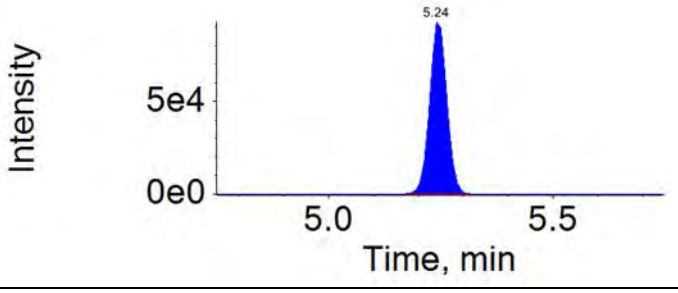
APPROVED
By JPT at 4:33 pm, 11/13/18

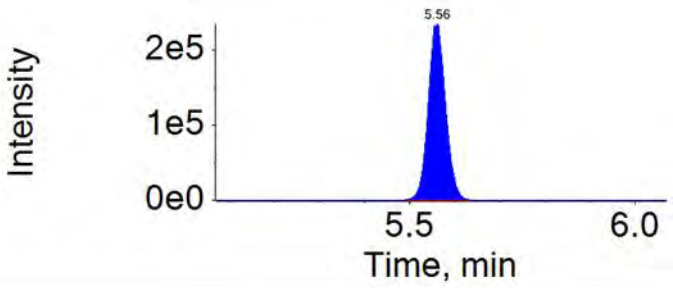
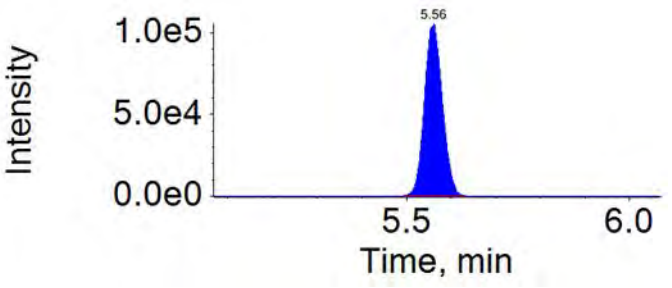
REVIEWED
By HMK at 1:48 pm, 11/14/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV1-4 11/13/2018 4:25:30 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: E13C8-PFOA	Injection Standard: 13C2-PFOA
421.0 / 376.0	415.0 / 370.0
	

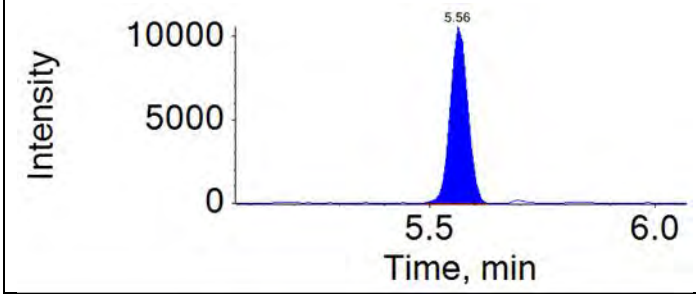
Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0
	

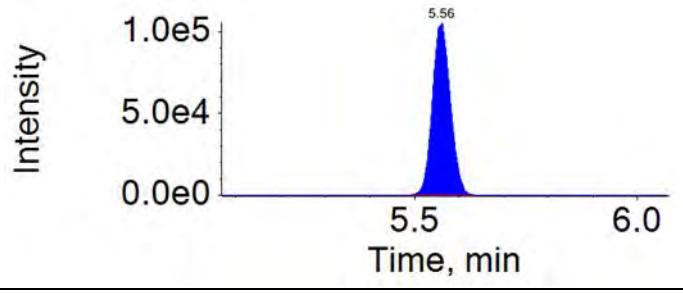
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0
	

Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0
	

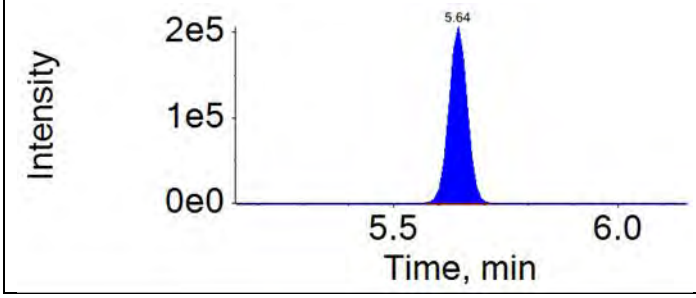
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV1-4 11/13/2018 4:25:30 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

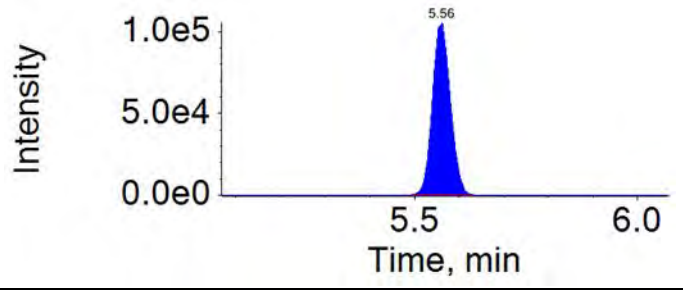
Extraction Standard: E13C2-8:2-FTS	Injection Standard: 13C2-PFDA
529.0 / 81.0	515.0 / 470.0



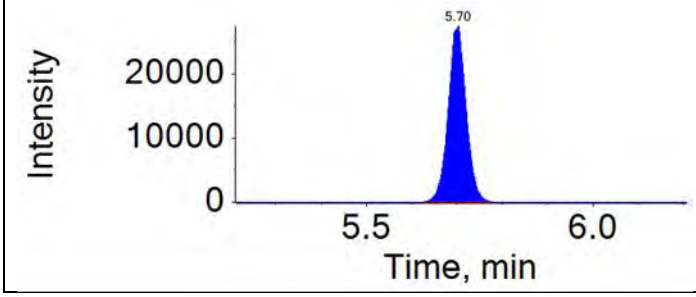


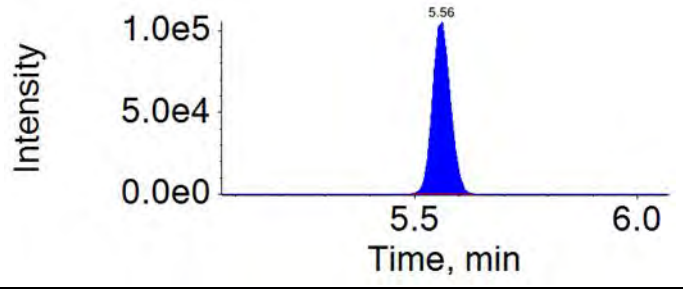
Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0



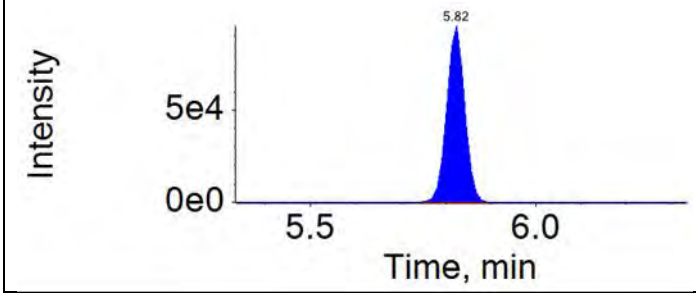


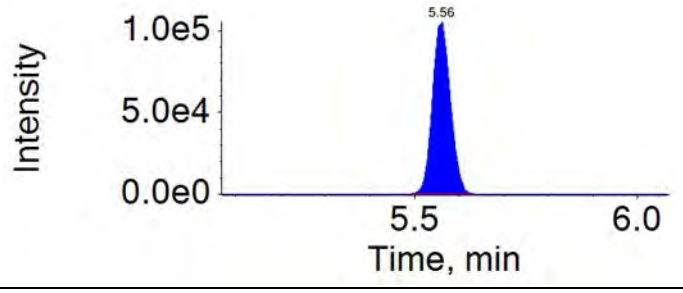
Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0





Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0



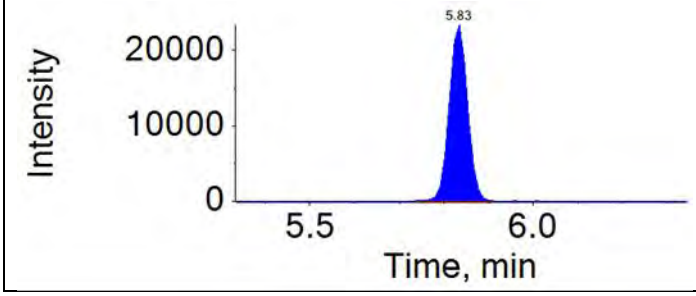


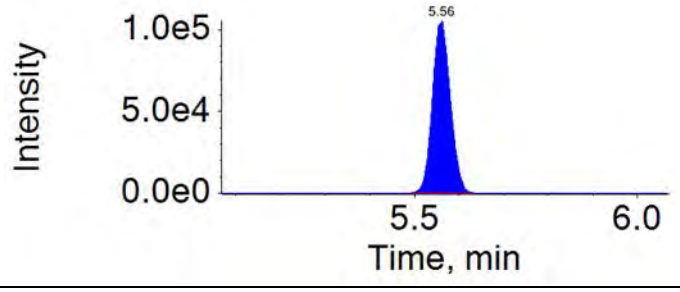
APPROVED
By JPT at 4:33 pm, 11/13/18

REVIEWED
By HMK at 1:48 pm, 11/14/18

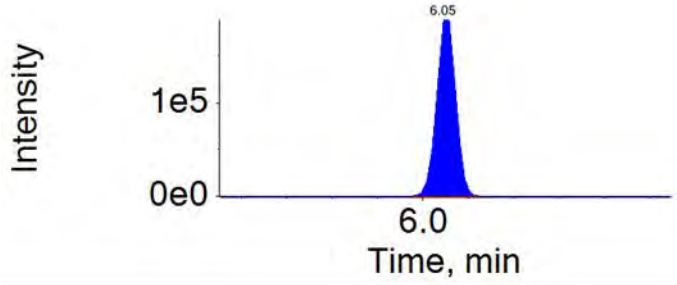
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV1-4 11/13/2018 4:25:30 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

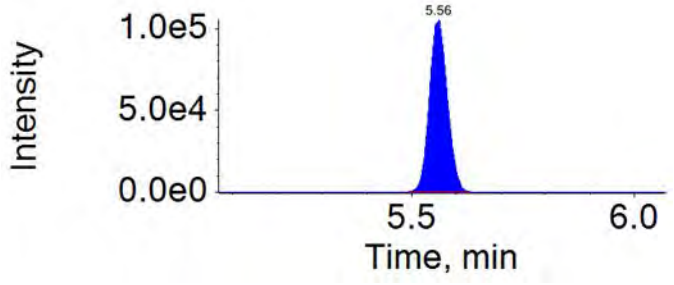
Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0



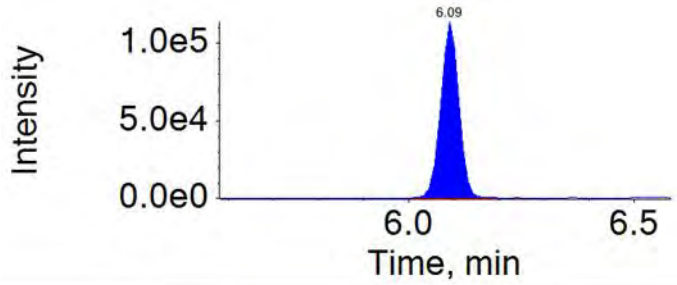


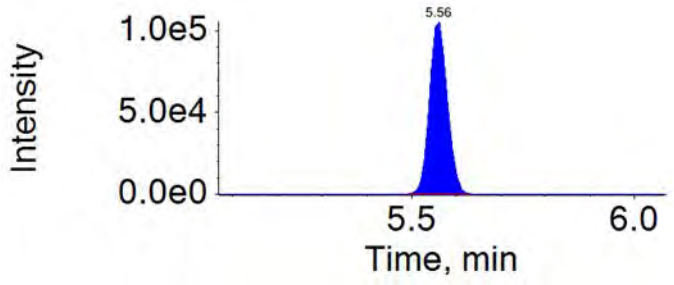
Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0



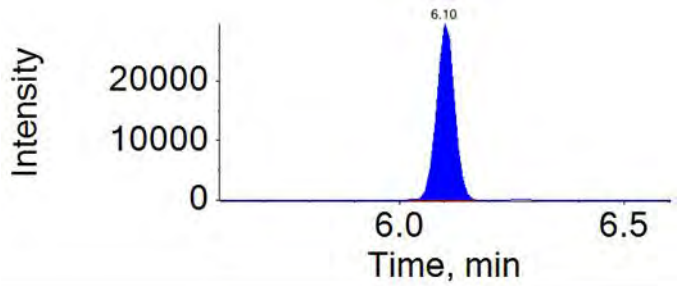


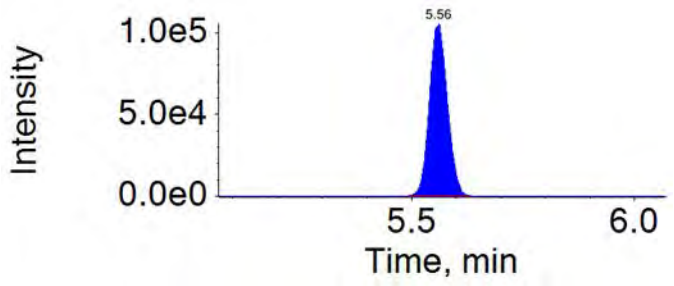
Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0





Extraction Standard: Ed3-NMePFOSA	Injection Standard: 13C2-PFDA
515.0 / 169.0	515.0 / 470.0



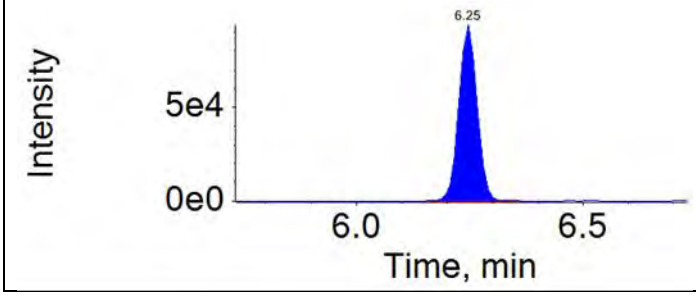


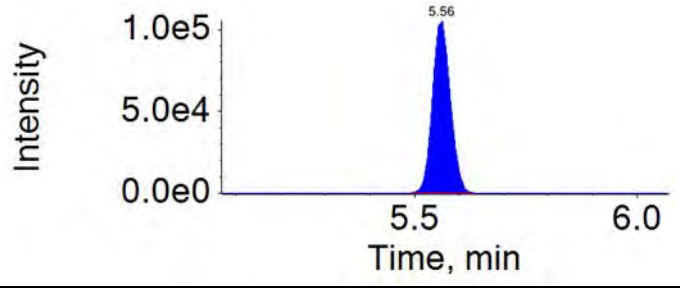
APPROVED
By JPT at 4:33 pm, 11/13/18

REVIEWED
By HMK at 1:48 pm, 11/14/18

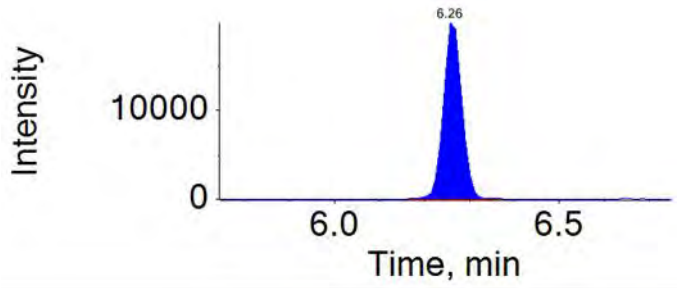
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV1-4 11/13/2018 4:25:30 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

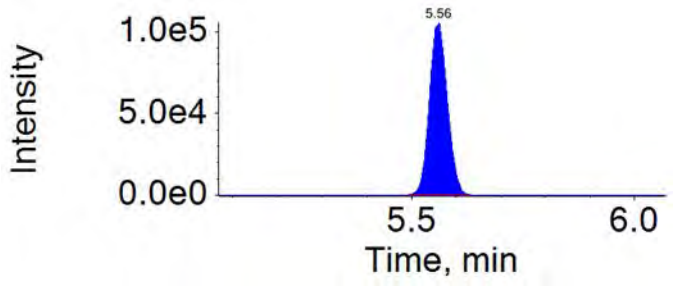
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



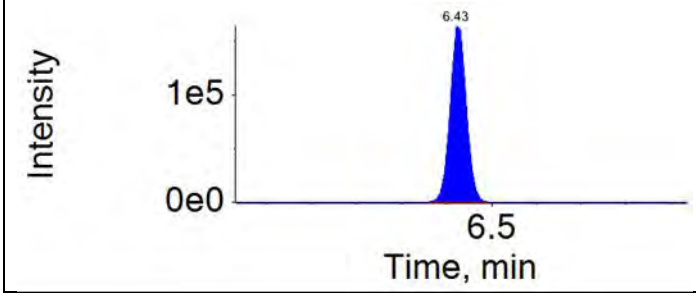


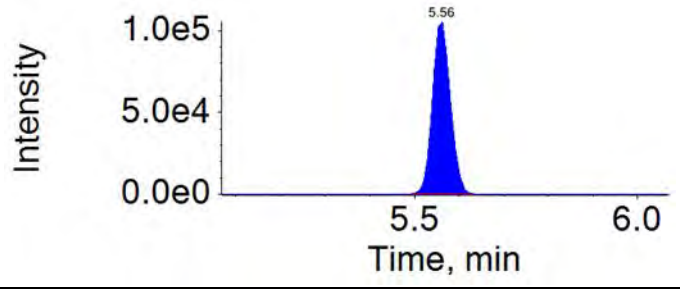
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0



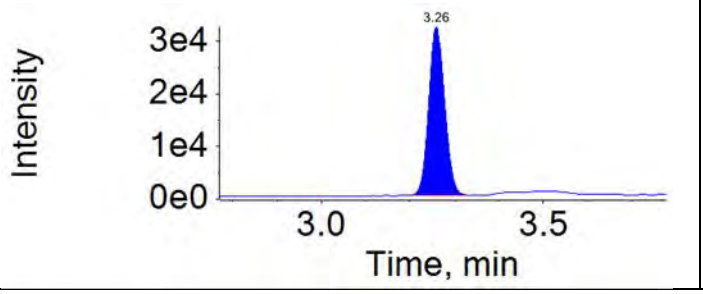


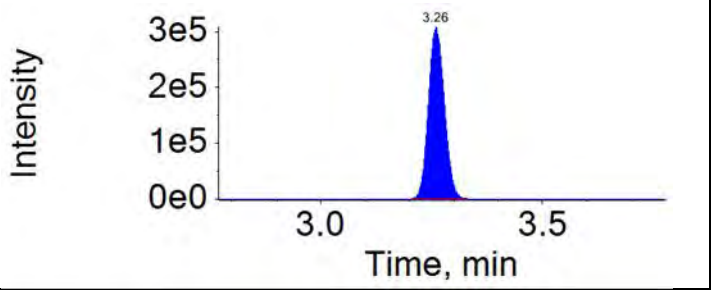
APPROVED
By JPT at 4:33 pm, 11/13/18

REVIEWED
By HMK at 1:48 pm, 11/14/18

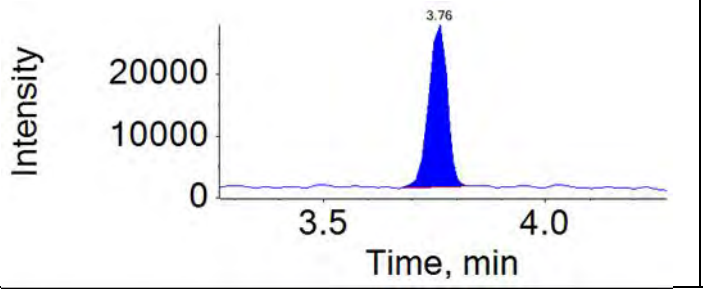
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV1-4 11/13/2018 4:25:30 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

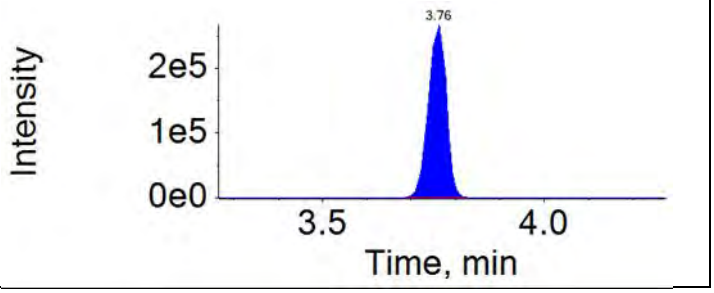
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



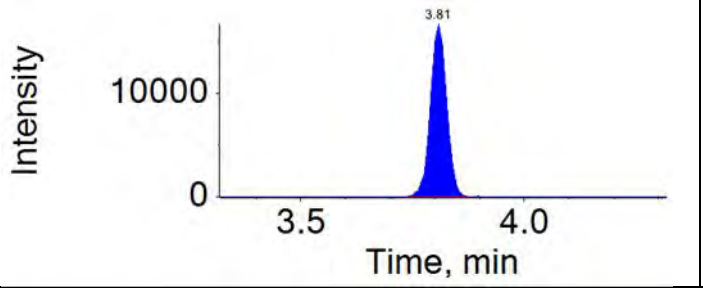


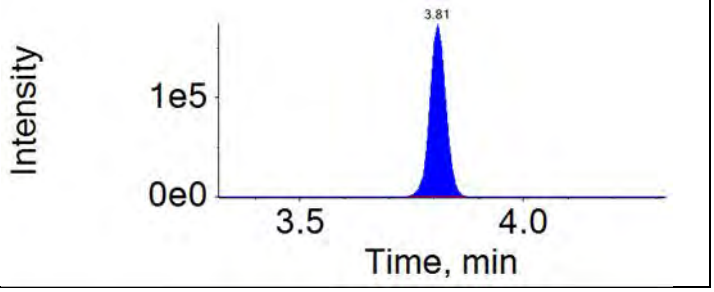
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



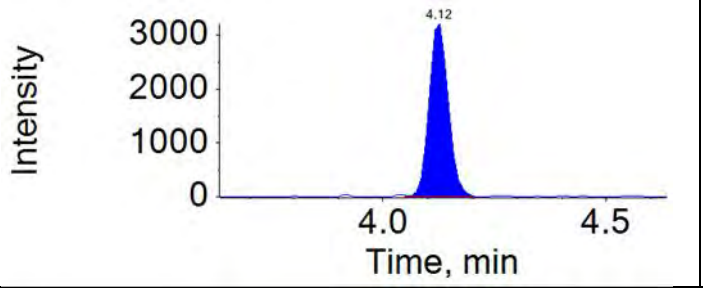


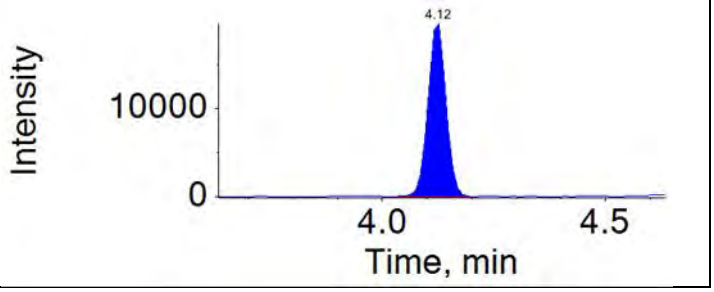
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





Analyte: 4:2-FTS	Extraction Standard: 13C2-4:2-FTS
327.0 / 307.0	329.0 / 81.0



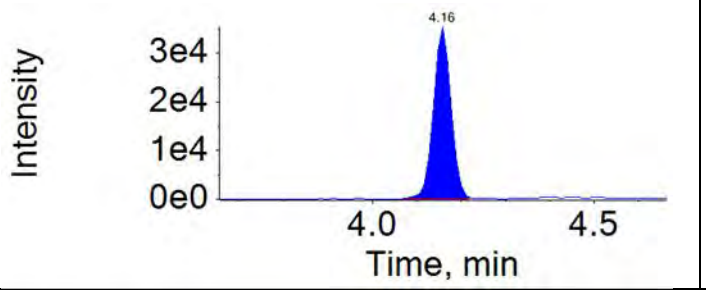


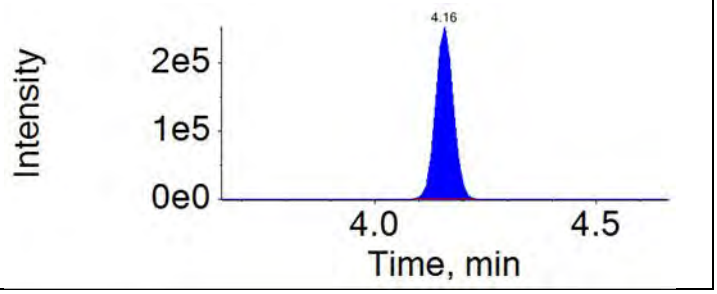
APPROVED
By JPT at 4:33 pm, 11/13/18

REVIEWED
By HMK at 1:48 pm, 11/14/18

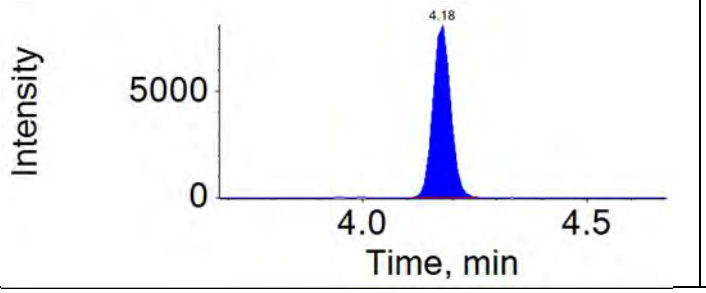
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV1-4 11/13/2018 4:25:30 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

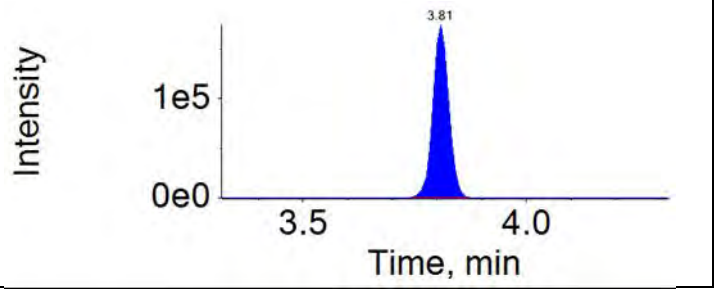
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



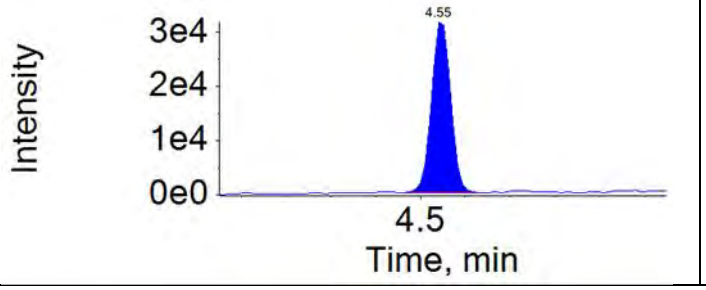


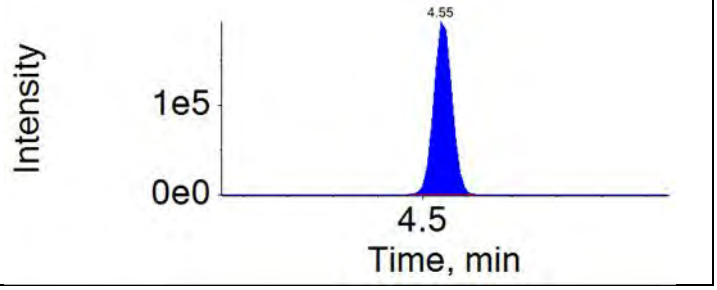
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



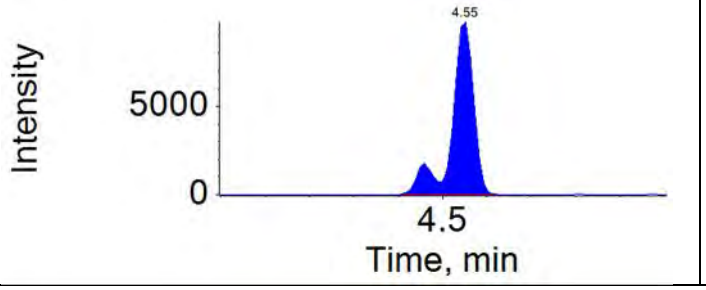


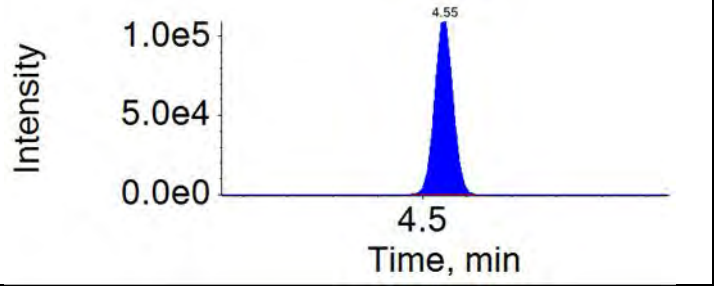
Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0





Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0

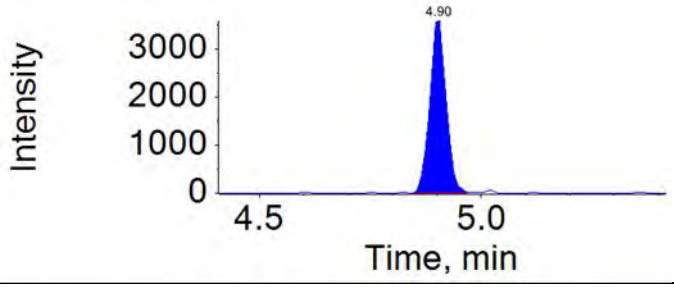
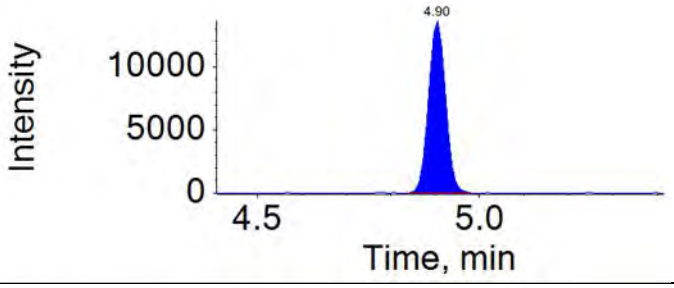


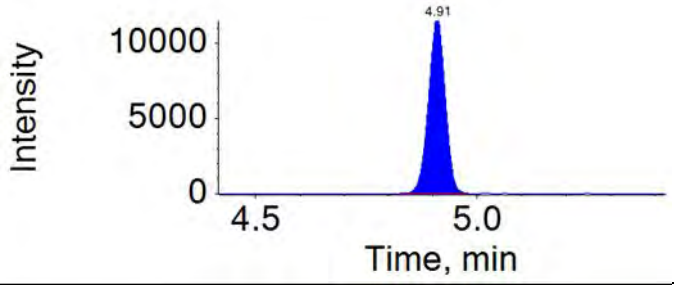
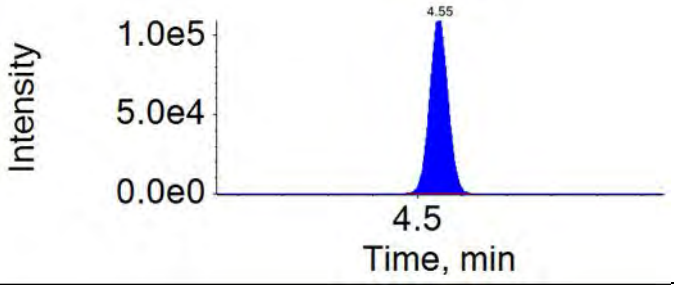


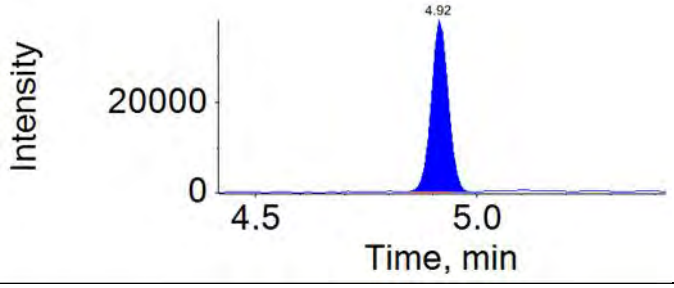
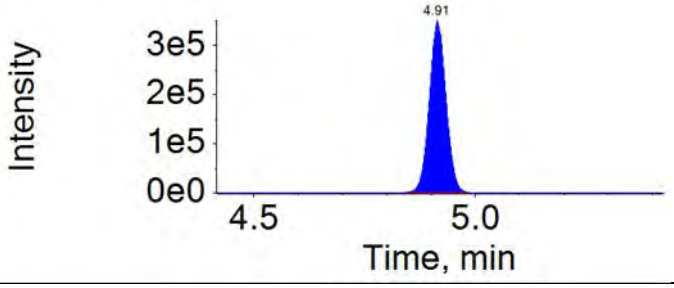
APPROVED
By JPT at 4:33 pm, 11/13/18

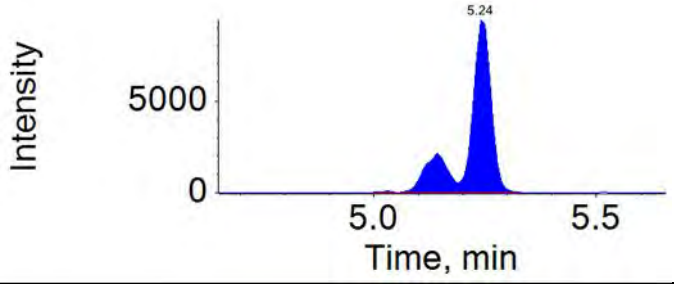
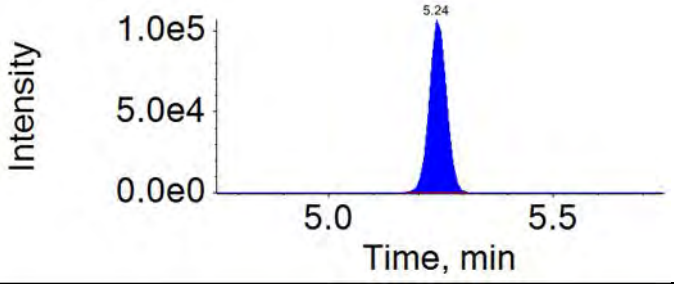
REVIEWED
By HMK at 1:48 pm, 11/14/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV1-4 11/13/2018 4:25:30 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Analyte: 6:2-FTS	Extraction Standard: 13C2-6:2-FTS
427.0 / 407.0	429.0 / 81.0
	

Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0
	

Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0
	

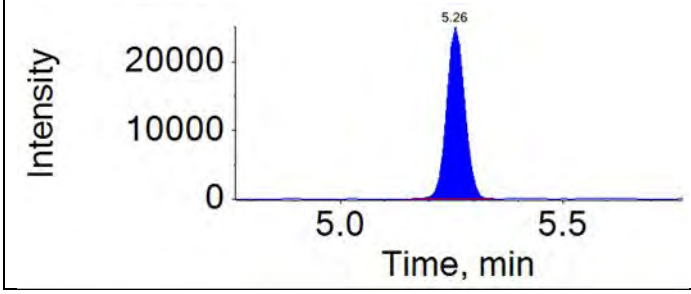
Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0
	

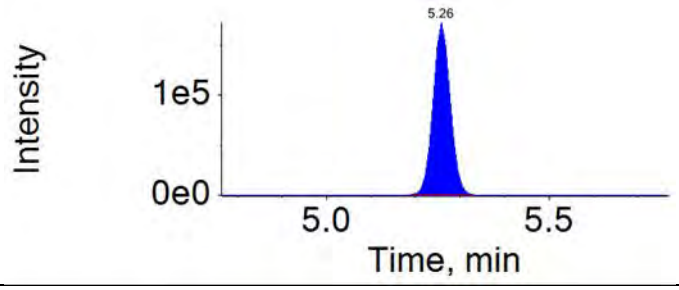
APPROVED
By JPT at 4:33 pm, 11/13/18

REVIEWED
By HMK at 1:48 pm, 11/14/18

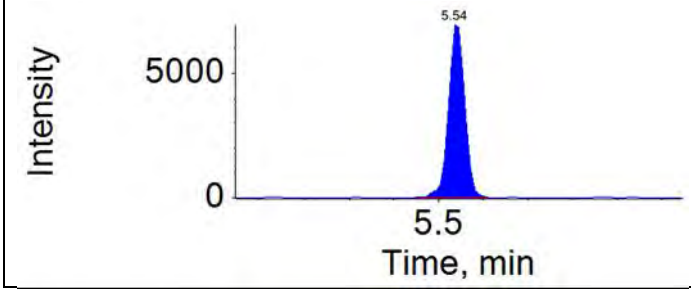
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV1-4 11/13/2018 4:25:30 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

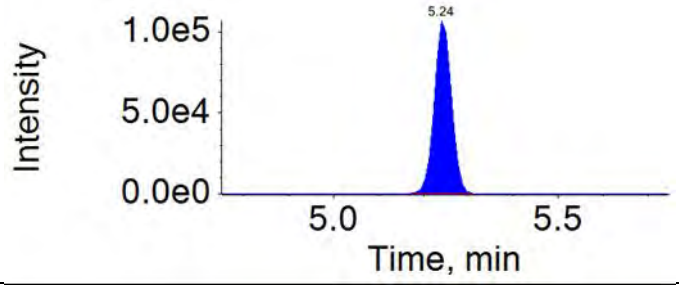
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



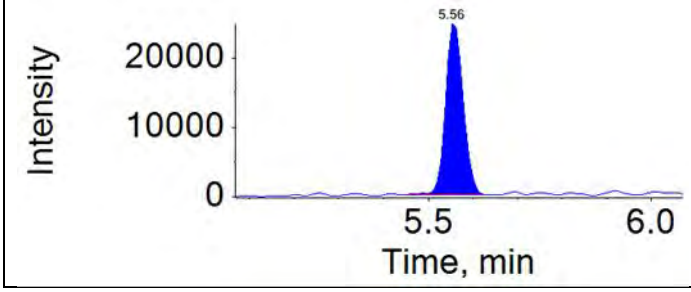


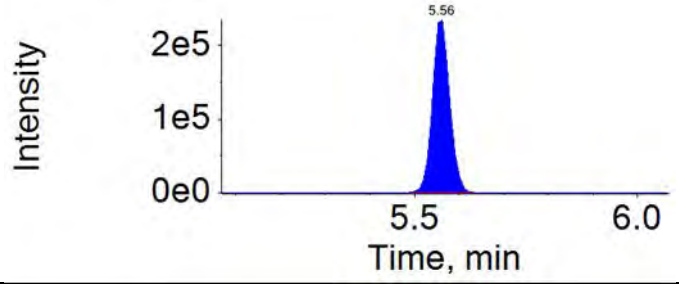
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



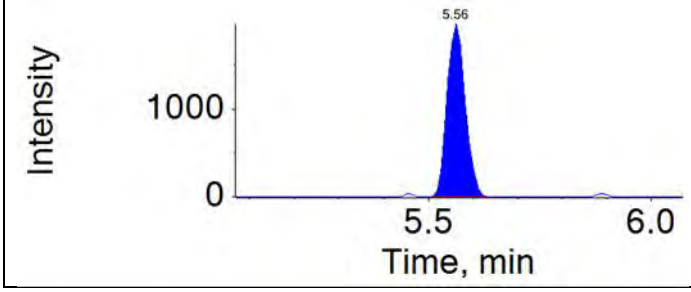


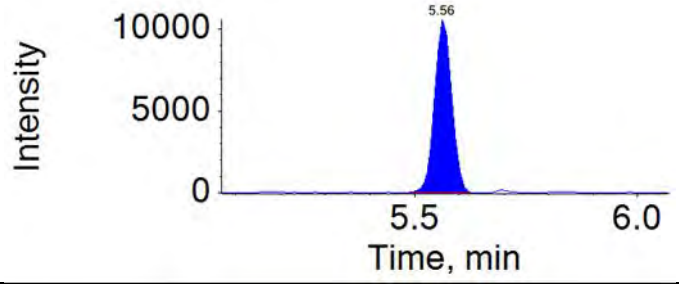
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





Analyte: 8:2-FTS	Extraction Standard: 13C2-8:2-FTS
527.0 / 507.0	529.0 / 81.0

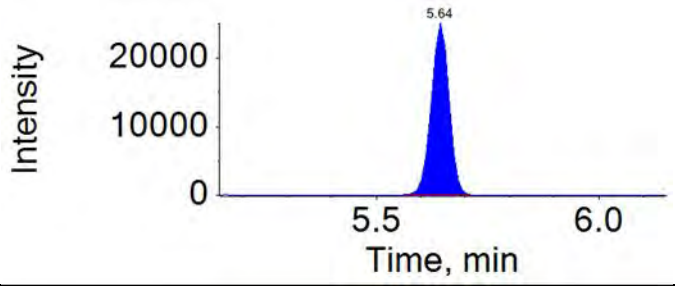
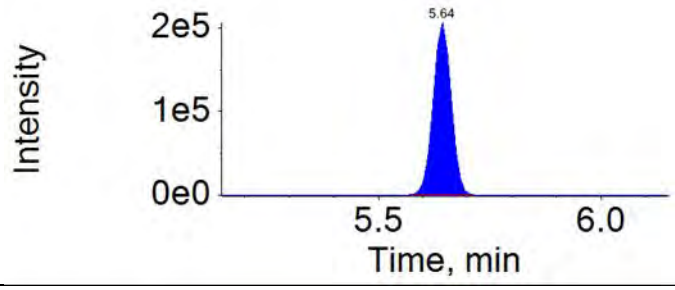


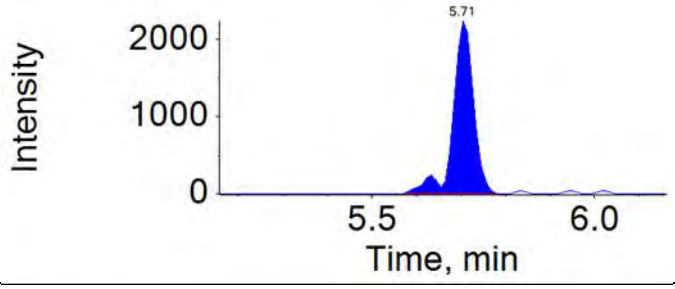
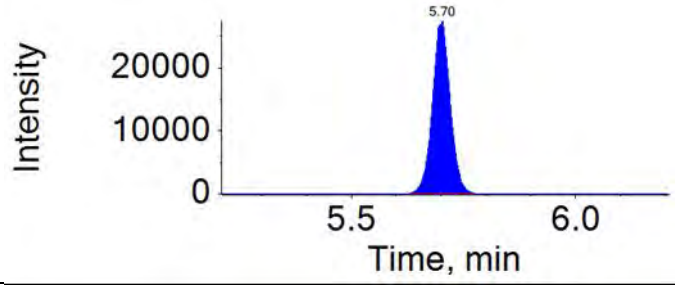


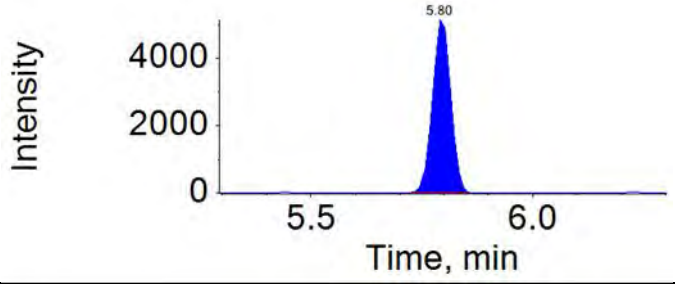
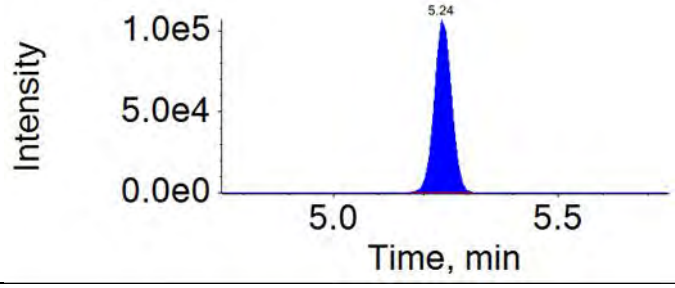
APPROVED
By JPT at 4:33 pm, 11/13/18

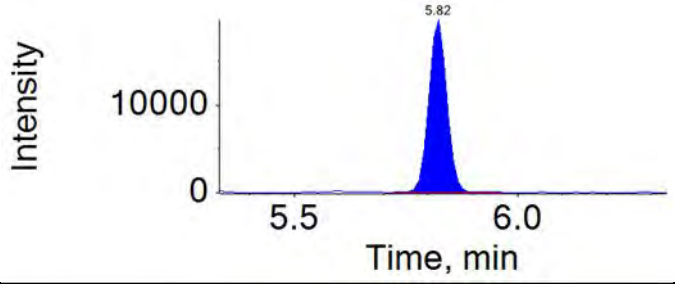
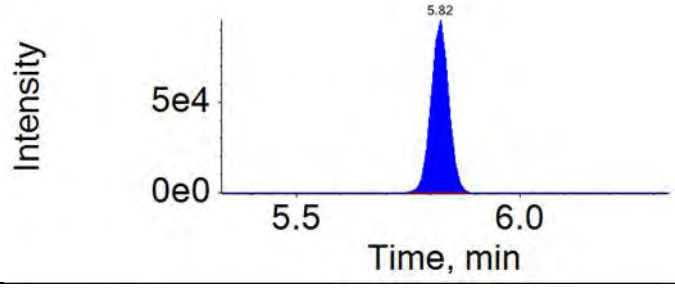
REVIEWED
By HMK at 1:48 pm, 11/14/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV1-4 11/13/2018 4:25:30 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0
	

Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0
	

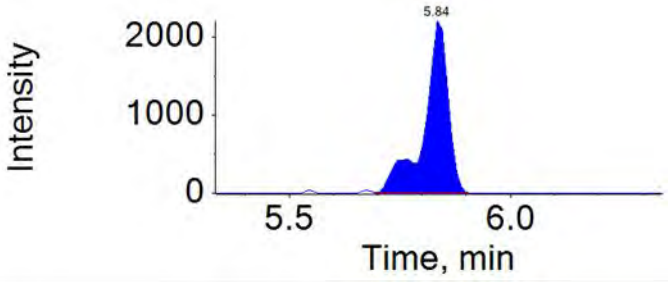
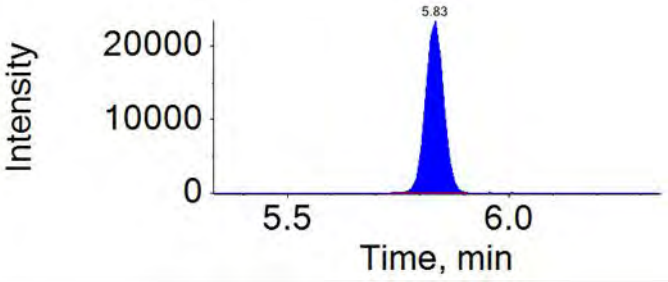
Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0
	

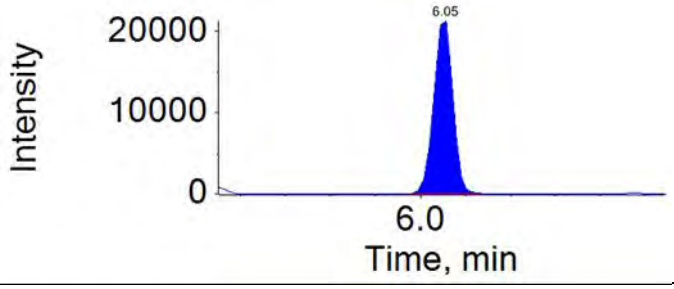
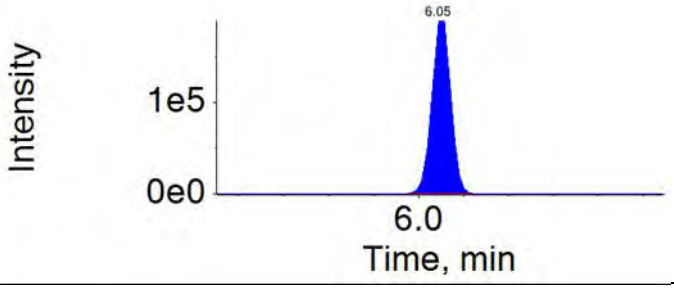
Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0
	

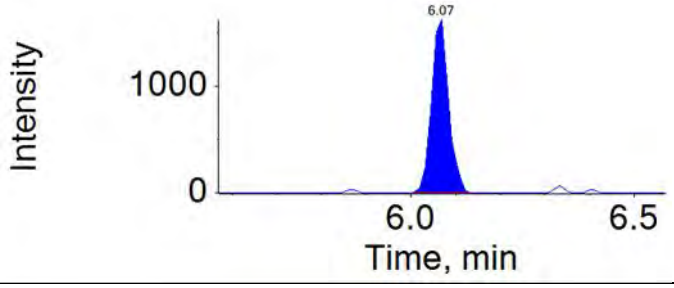
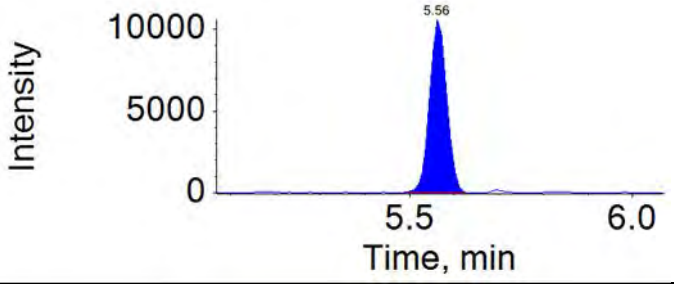
APPROVED
By JPT at 4:33 pm, 11/13/18

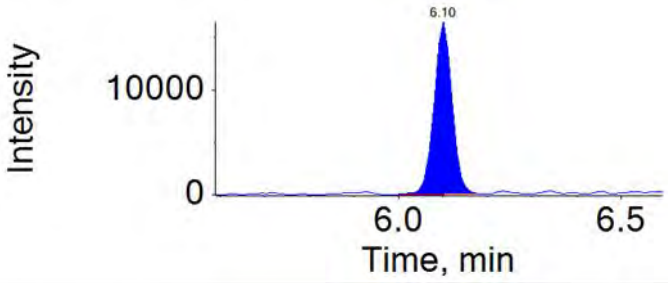
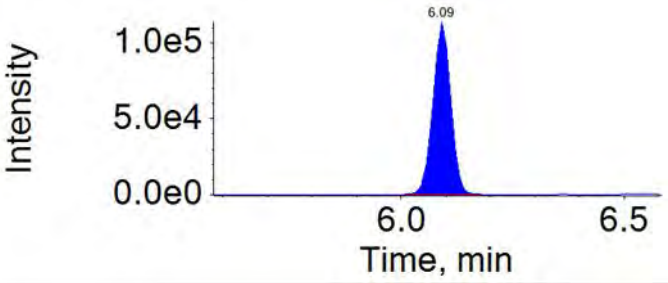
REVIEWED
By HMK at 1:48 pm, 11/14/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV1-4 11/13/2018 4:25:30 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0
	

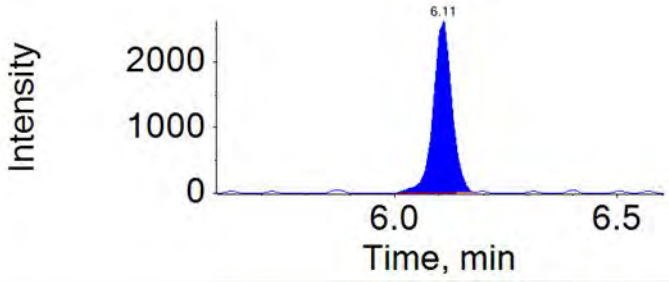
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0
	

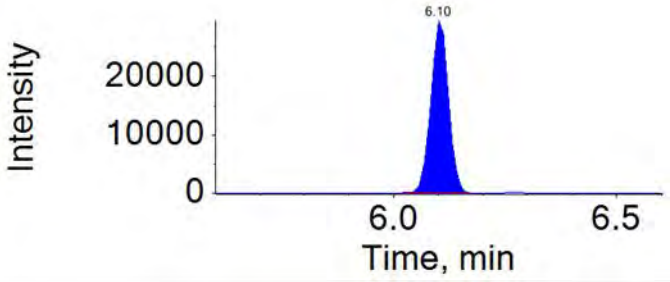
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0
	

Analyte: NMePFOSAE	Extraction Standard: d7-NMePFOSAE
616.0 / 59.0	623.0 / 59.0
	

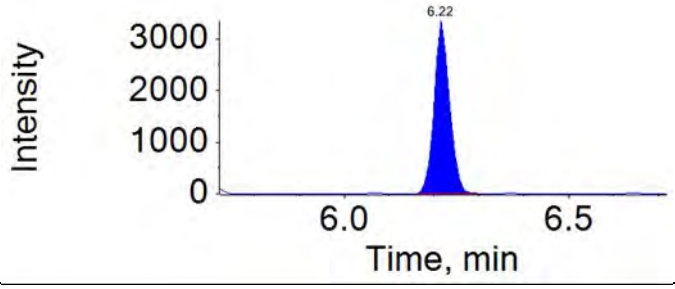
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV1-4 11/13/2018 4:25:30 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

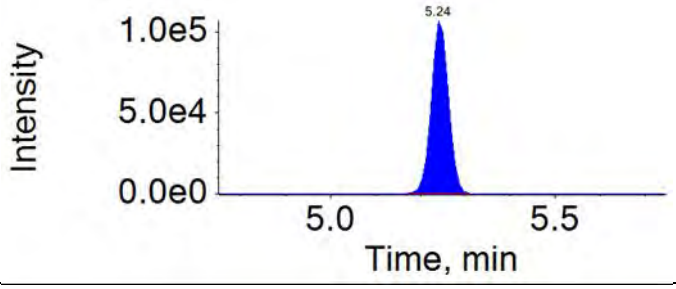
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



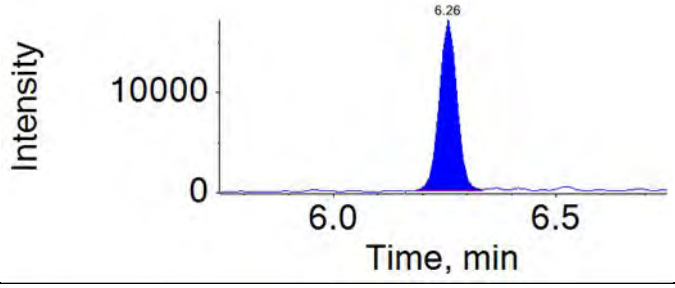


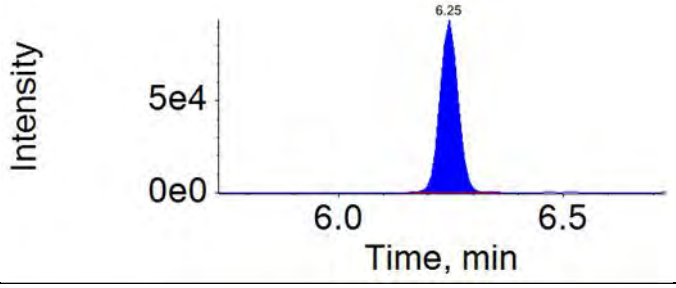
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



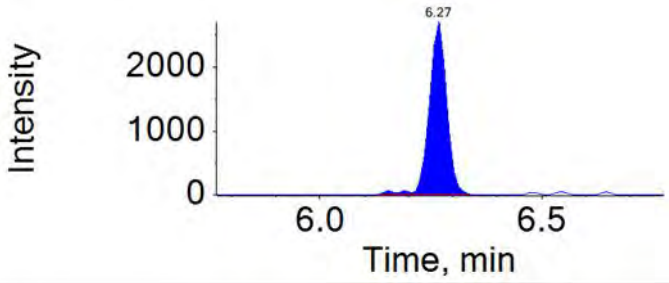


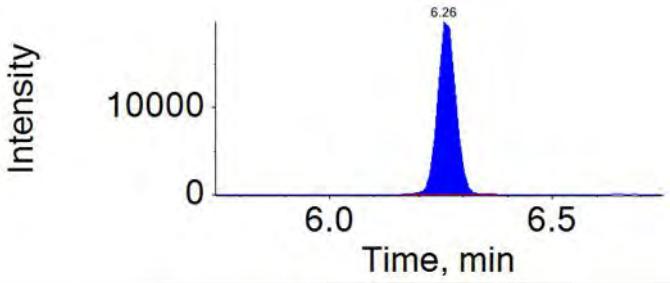
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





Analyte: NEtPFOSA	Extraction Standard: d5-NEtPFOSA
526.0 / 169.0	531.0 / 169.0

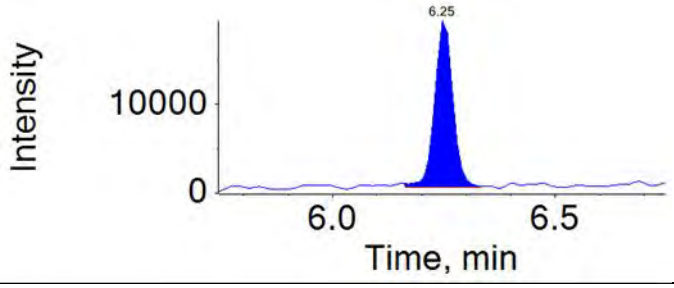
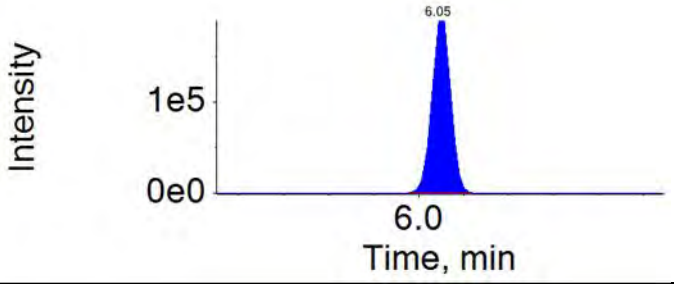


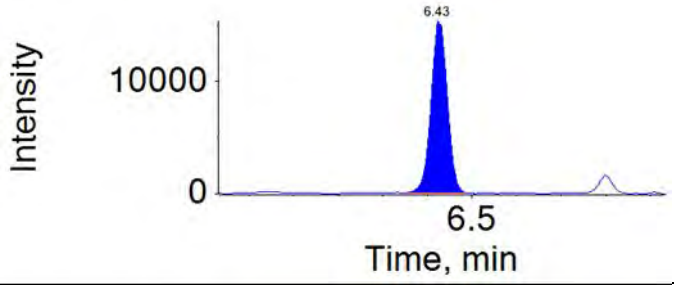
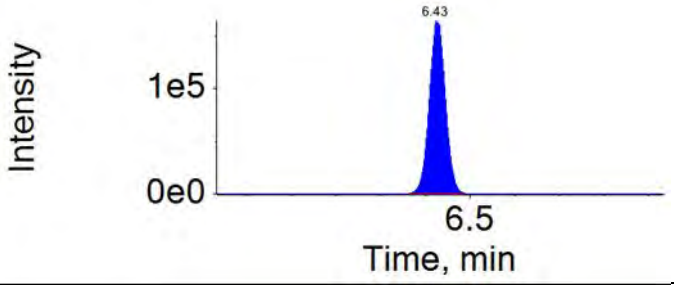


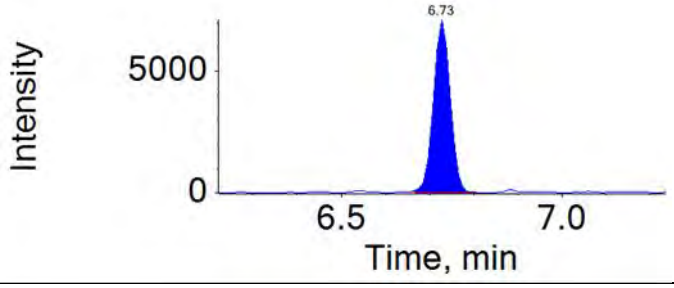
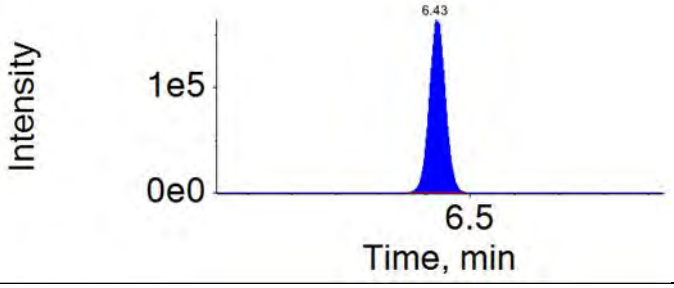
APPROVED
By JPT at 4:33 pm, 11/13/18

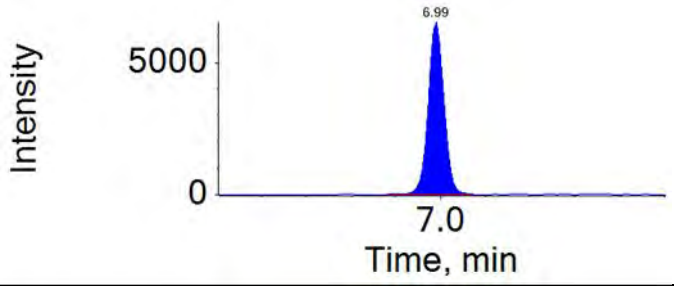
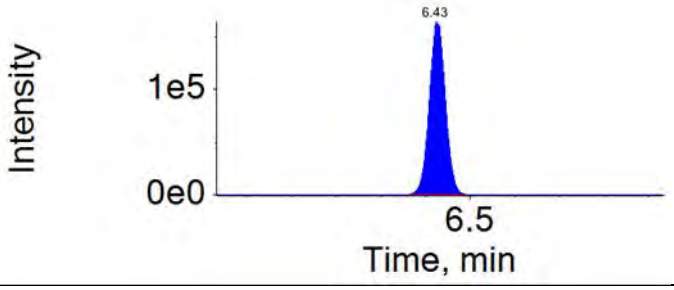
REVIEWED
By HMK at 1:48 pm, 11/14/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV1-4 11/13/2018 4:25:30 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Analyte: PFTrDA	Extraction Standard: 13C2-PFDoDA
663.0 / 619.0	615.0 / 570.0
	

Analyte: PFTeDA	Extraction Standard: 13C2-PFTeDA
713.0 / 669.0	715.0 / 670.0
	

Analyte: PFHxDA	Extraction Standard: 13C2-PFTeDA
813.0 / 769.0	715.0 / 670.0
	

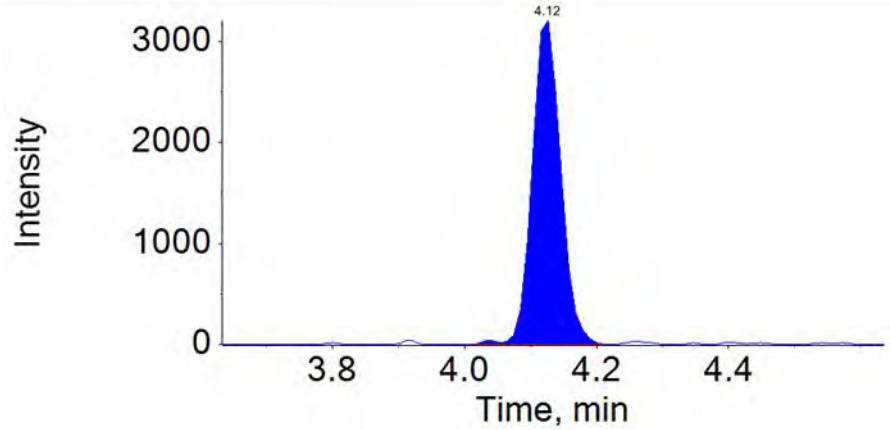
Analyte: PFODA	Extraction Standard: 13C2-PFTeDA
913.0 / 869.0	715.0 / 670.0
	

APPROVED
By JPT at 4:33 pm, 11/13/18

REVIEWED
By HMK at 1:48 pm, 11/14/18

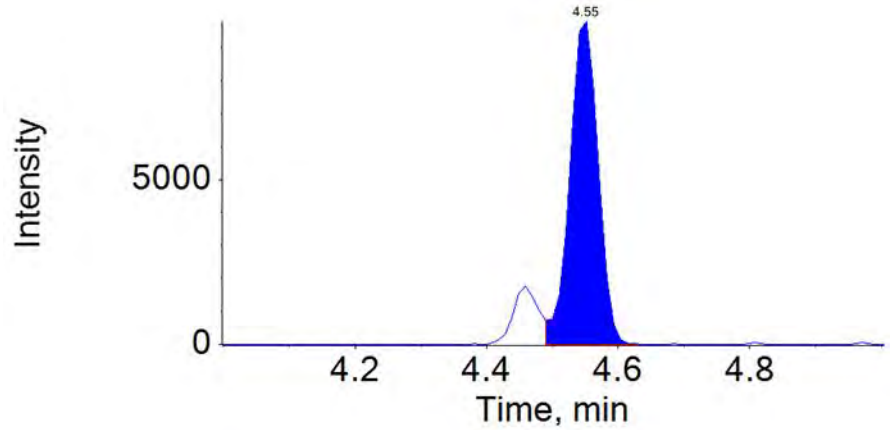
Results Table Name: 18NOV13DCCV1-4
Results Table Date: 11/13/2018 4:25:30 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
4:2-FTS
RT (min.):
4.12
Peak Area:
9681.3
Mass Range:
327.0 / 307.0
File Name:
18NOV13D-05.wiff
Sample Name:
CCV1_ISC_CAL2



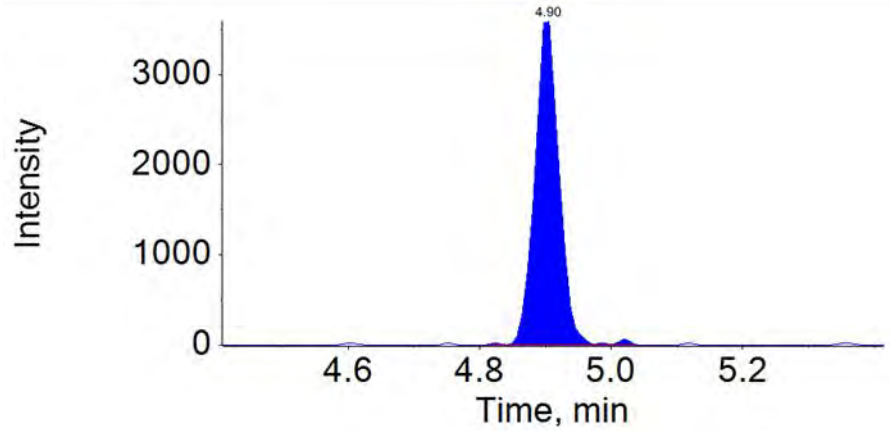
Integration Comment: incorrect integration

Component Name:
PFHxS
RT (min.):
4.55
Peak Area:
29488.0
Mass Range:
399.0 / 80.0
File Name:
18NOV13D-05.wiff
Sample Name:
CCV1_ISC_CAL2



Integration Comment: incorrect integration

Component Name:
6:2-FTS
RT (min.):
4.90
Peak Area:
9370.4
Mass Range:
427.0 / 407.0
File Name:
18NOV13D-05.wiff
Sample Name:
CCV1_ISC_CAL2



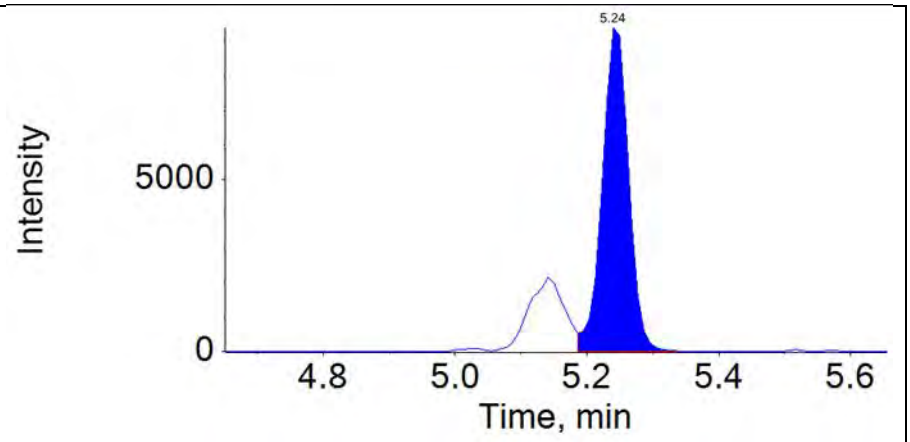
Integration Comment: incorrect integration

APPROVED
By JPT at 4:33 pm, 11/13/18

REVIEWED
By HMK at 1:48 pm, 11/14/18

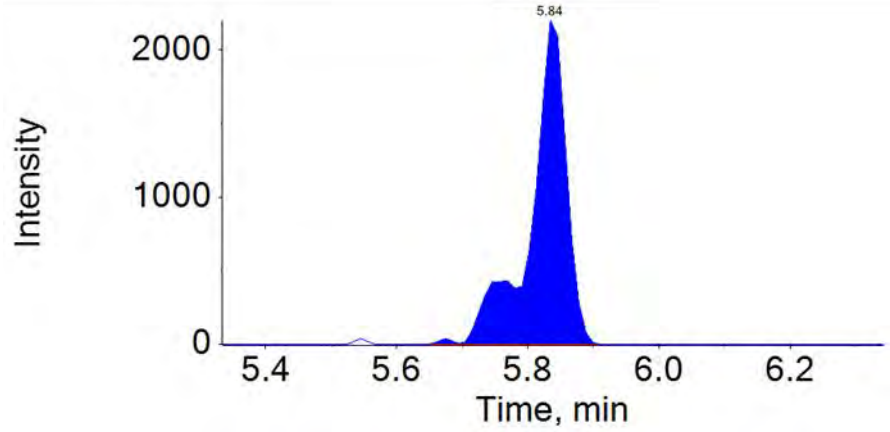
Results Table Name: 18NOV13DCCV1-4
Results Table Date: 11/13/2018 4:25:30 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFOS
RT (min.):
5.24
Peak Area:
26298.4
Mass Range:
499.0 / 80.0
File Name:
18NOV13D-05.wiff
Sample Name:
CCV1_ISC_CAL2



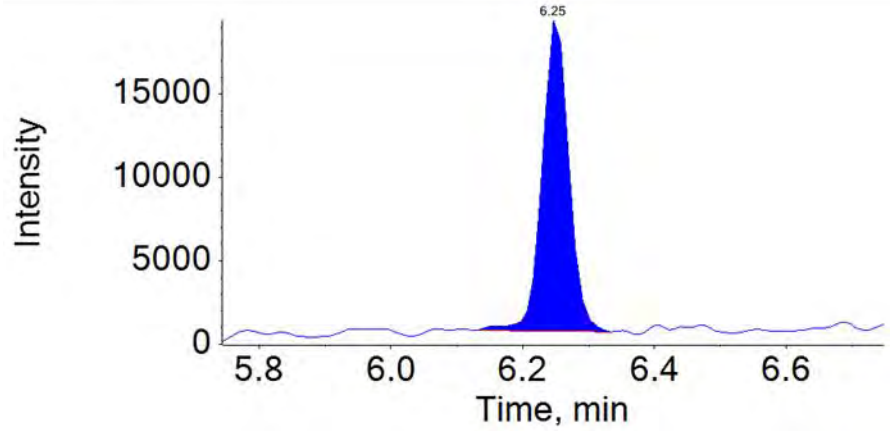
Integration Comment: incorrect integration

Component Name:
NEtFOSAA
RT (min.):
5.84
Peak Area:
8449.1
Mass Range:
584.0 / 419.0
File Name:
18NOV13D-05.wiff
Sample Name:
CCV1_ISC_CAL2



Integration Comment: incorrect integration

Component Name:
PFTrDA
RT (min.):
6.25
Peak Area:
52734.4
Mass Range:
663.0 / 619.0
File Name:
18NOV13D-05.wiff
Sample Name:
CCV1_ISC_CAL2

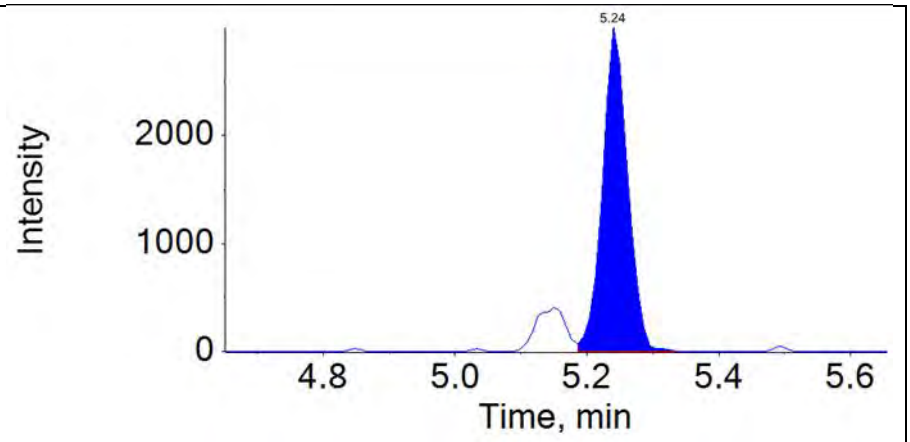


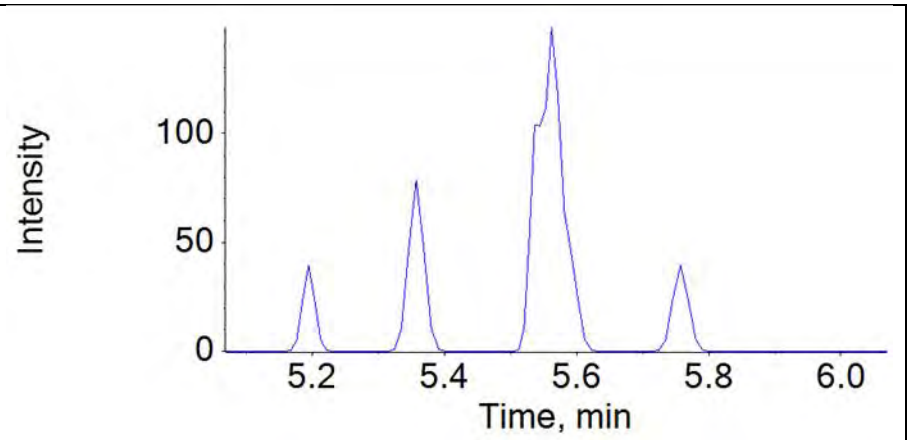
Integration Comment: incorrect integration

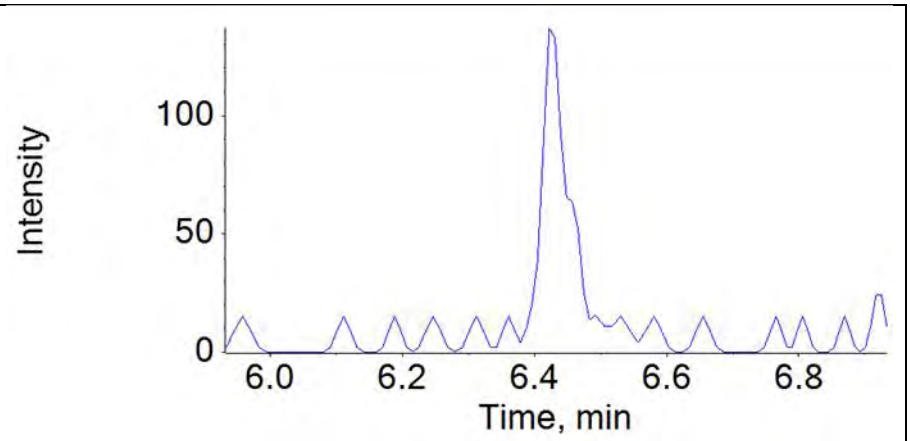
APPROVED
By JPT at 4:33 pm, 11/13/18

REVIEWED
By HMK at 1:48 pm, 11/14/18

Results Table Name: 18NOV13DCCV1-4
Results Table Date: 11/13/2018 4:25:30 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name: PFOS_2 **RT (min.):** 5.24 **Peak Area:** 7996.8 **Mass Range:** 499.0 / 99.0 **File Name:** 18NOV13D-05.wiff **Sample Name:** CCV1_ISC_CAL2	 **Integration Comment:** incorrect integration

Component Name: PFDA_2 **RT (min.):** N/A **Peak Area:** N/A **Mass Range:** 513.0 / 169.0 **File Name:** 18NOV13D-05.wiff **Sample Name:** CCV1_ISC_CAL2	 **Integration Comment:** incorrect integration

Component Name: PFTeDA_2 **RT (min.):** N/A **Peak Area:** N/A **Mass Range:** 713.0 / 169.0 **File Name:** 18NOV13D-05.wiff **Sample Name:** CCV1_ISC_CAL2	 **Integration Comment:** incorrect integration

APPROVED
By JPT at 4:33 pm, 11/13/18

REVIEWED
By HMK at 1:48 pm, 11/14/18

Results Table Name: 18NOV13DCCV1-4
Results Table Date: 11/13/2018 4:25:30 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

APPROVED
By JPT at 4:33 pm, 11/13/18

REVIEWED
By HMK at 1:48 pm, 11/14/18