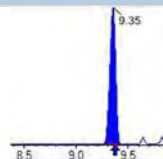
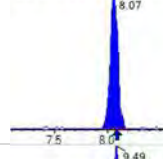
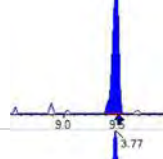
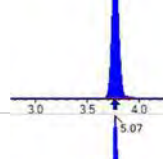
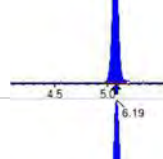
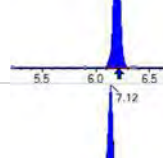
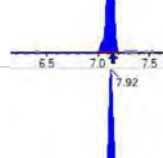
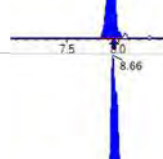
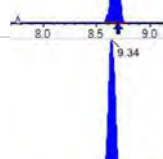
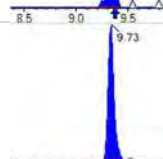
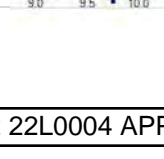
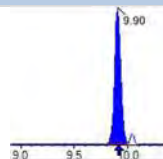
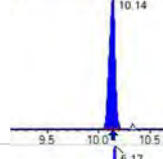
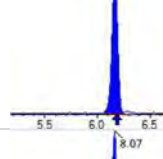
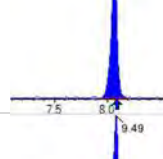
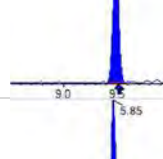
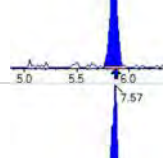
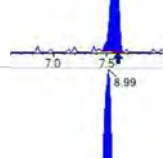
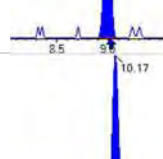
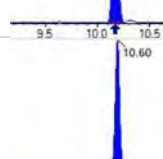
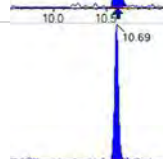
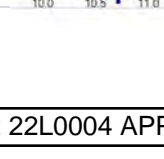
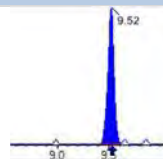
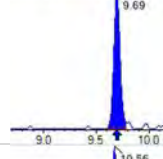
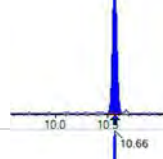
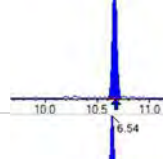
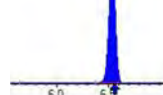


Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDA_IIS	(515.1 / 470.1) 9740	(9.35, N/A) (N/A, -0.02, N/A)	430.5	N/A	1.1822 [ 1.0000 ]	118.2% { 10.8% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 22704	(8.07, N/A) (N/A, -0.02, N/A)	311.5	N/A	1.0578 [ 1.0000 ]	105.8% { 10.8% }			
13C4_PFOS_IIS	(502.8 / 79.9) 20438	(9.49, N/A) (N/A, -0.02, N/A)	141.5	N/A	1.0981 [ 1.0000 ]	109.8% { 10.7% }			
13C4_PFBA_EIS	(217.0 / 172.0) 70708	(3.77, N/A) (N/A, 0.00, N/A)	1110.6	N/A	0.8720 [ 0.8000 ]	109.0% { 10.8% }			
13C5_PFPeA_EIS	(267.9 / 223.0) 36186	(5.07, N/A) (N/A, -0.01, N/A)	656.8	N/A	0.4239 [ 0.4000 ]	106.0% { 10.4% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 25837	(6.19, N/A) (N/A, -0.02, N/A)	376.8	N/A	0.2165 [ 0.2000 ]	108.2% { 9.8% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 22048	(7.12, N/A) (N/A, -0.02, N/A)	345.6	N/A	0.2046 [ 0.2000 ]	102.3% { 8.9% }			
13C8_PFOA_EIS	(421.0 / 376.0) 23796	(7.92, N/A) (N/A, -0.03, N/A)	376.3	N/A	0.2205 [ 0.2000 ]	110.2% { 9.1% }			
13C9_PFNA_EIS	(472.0 / 427.0) 8444	(8.66, N/A) (N/A, -0.03, N/A)	5391.5	N/A	0.0877 [ 0.1000 ]	87.7% { 10.1% }			
13C6_PFDA_EIS	(519.0 / 474.0) 10586	(9.34, N/A) (N/A, -0.03, N/A)	122.0	N/A	0.0748 [ 0.1000 ]	74.8% { 9.1% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 20521	(9.73, N/A) (N/A, -0.01, N/A)	4469.6	N/A	0.1081 [ 0.1000 ]	108.1% { 10.2% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDa_EIS	(615.0 / 570.0) 17618	(9.90, N/A) (N/A, -0.01, N/A)	3049.0	N/A	0.0764 [0.1000]	76.4% {9.1%}			
13C2_PFTeDA_EIS	(715.0 / 670.0) 14069	(10.14, N/A) (N/A, 0.00, N/A)	3961.9	N/A	0.0832 [0.1000]	83.2% {10.8%}			
13C3_PFBs_EIS	(302.0 / 80.0) 70075	(6.17, N/A) (N/A, -0.02, N/A)	490.2	N/A	0.2100 [0.2000]	105.0% {10.6%}			
13C3_PFHxS_EIS	(402.0 / 80.0) 35708	(8.07, N/A) (N/A, -0.02, N/A)	390.8	N/A	0.1880 [0.2000]	94.0% {10.1%}			
13C8_PFOS_EIS	(507.0 / 80.0) 75155	(9.49, N/A) (N/A, -0.02, N/A)	290.5	N/A	0.2412 [0.2000]	120.6% {12.5%}			
13C2_4:2FTS_EIS	(329.0 / 81.0) 6893	(5.85, N/A) (N/A, -0.02, N/A)	133.2	N/A	0.3663 [0.4000]	91.6% {9.6%}			
13C2_6:2FTS_EIS	(429.0 / 81.0) 10195	(7.57, N/A) (N/A, -0.02, N/A)	127.1	N/A	0.4038 [0.4000]	101.0% {11.3%}			
13C2_8:2FTS_EIS	(529.0 / 81.0) 7240	(8.99, N/A) (N/A, -0.03, N/A)	146.0	N/A	0.3304 [0.4000]	82.6% {8.4%}			
13C8_PFOsa_EIS	(506.0 / 78.0) 79825	(10.17, N/A) (N/A, -0.01, N/A)	403.3	N/A	0.1678 [0.2000]	83.9% {9.1%}			
D3_NMeFOSA_EIS	(515.0 / 169.0) 15451	(10.60, N/A) (N/A, -0.01, N/A)	176.6	N/A	0.1098 [0.2000]	54.9% {6.5%}			
D5_NEtFOSA_EIS	(531.1 / 169.0) 13628	(10.69, N/A) (N/A, -0.01, N/A)	242.3	N/A	0.1068 [0.2000]	53.4% {6.0%}			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT- CV[ $\mu$ min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
D3_MeFOSAA_EIS	(573.0 / 419.0) 29344	(9.52, N/A) (N/A, -0.02, N/A)	221.8	N/A	0.4233 [ 0.4000 ]	105.8% { 10.8% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 23322	(9.69, N/A) (N/A, -0.01, N/A)	128.8	N/A	0.3915 [ 0.4000 ]	97.9% { 10.6% }			
D7_NMeFOSE_EIS	(623.2 / 58.9) 25305	(10.56, N/A) (N/A, -0.01, N/A)	307.5	N/A	1.0526 [ 2.0000 ]	52.6% { 5.3% }			
D9_NEtFOSE_EIS	(639.2 / 58.9) 15486	(10.66, N/A) (N/A, 0.00, N/A)	361.9	N/A	1.2642 [ 2.0000 ]	63.2% { 6.5% }			
13C3_HFPODA_EIS	(287.0 / 169.0) 71253	(6.54, N/A) (N/A, -0.02, N/A)	536.1	N/A	0.9064 [ 0.8000 ]	113.3% { 10.6% }			

# FORM IR ANALYSIS DATA SHEET

MW-17-S2-112922-

Laboratory:	APPL, LLC-	Work Order:	22L0004-
Client:	Tidewater, Inc.-	Project:	NASA JPL SI-
Matrix:	Water-	Laboratory ID:	22L0004-10-
		File ID:	S2022-12-09B (34)-
Sampled:	11/29/22 13:30-	Prepared:	12/05/22 07:17
		Analyzed:	12/10/22 05:53
Solids:		Preparation:	Table B-15-
		Dilution:	1-
Initial/Final:	279.7 mL / 2 mL-	Instrument:	Saphira
Batch:	BBL0076-	Sequence:	SB03769
		Calibration:	2250016

COMPOUNDR	CONC. (ng/L)R	LOQ	LODR	DL	Q
PFBA-	0.18 U-	2.9-	0.18	0.045	
PFPEA-	0.18 U-	1.4-	0.18	0.055	
PFHXA-	0.18 U-	0.72-	0.18	0.057	
PFHPA-	0.18 U-	0.72-	0.18	0.045	
PFOA-	0.23 J-	0.72-	0.18	0.073	
PFNA-	0.18 U-	0.72-	0.18	0.045	
PFDA-	0.18 U-	0.72-	0.18	0.045	
PFUnA-	0.18 U-	0.72-	0.18	0.072	
PFDOA-	0.18 U-	0.72-	0.18	0.045	
PFTRDA-	0.18 U-	0.72-	0.18	0.052	
PFTEDA-	0.18 U-	0.72-	0.18	0.077	
PFBS-	1.3-	0.72-	0.18	0.045	
PFPEs-	0.18 U-	0.72-	0.18	0.052	
PFHXS-	0.54 J-	0.72-	0.18	0.045	
PFHPS-	0.18 U-	0.72-	0.18	0.050	
PFOS-	0.83-	0.72-	0.18	0.045	MI4-
PFNS-	0.36 U-	0.72-	0.36	0.22	
PFDS-	0.18 U-	0.72-	0.18	0.057	
4:2FTS-	0.36 U-	2.9-	0.36	0.097	
6:2FTS-	0.18 U-	2.9-	0.18	0.080	
8:2FTS-	0.54 U-	2.9-	0.54	0.18	
PFOSA-	0.18 U-	2.9-	0.18	0.045	
NMeFOSA-	1.8 U-	2.9-	1.8	0.88	
NEtFOSA-	1.8 U-	2.9-	1.8	0.88	
NMeFOSAA-	0.18 U-	0.72-	0.18	0.064	
NEtFOSAA-	0.18 U-	0.72-	0.18	0.045	
NMeFOSE-	1.1 U-	2.9-	1.1	0.54	
NEtFOSE-	1.1 U-	2.9-	1.1	0.54	
HFPO-DA-	0.89 U-	1.4-	0.89	0.44	
ADONA-	0.54 U-	1.4-	0.54	0.23	

# FORM IR ANALYSIS DATA SHEET

MW-17-S2-112922-

Laboratory:	APPL, LLC-	Work Order:	22L0004-		
Client:	Tidewater, Inc.-	Project:	NASA JPL SI-		
Matrix:	Water-	Laboratory ID:	22L0004-10-	File ID:	S2022-12-09B (34)-
Sampled:	11/29/22 13:30-	Prepared:	12/05/22 07:17-	Analyzed:	12/10/22 05:53-
Solids:		Preparation:	Table B-15-	Dilution:	1-
Initial/Final:	279.7 mL / 2 mL-			Instrument:	Saphira-
Batch:	BBL0076-	Sequence:	SB03769-	Calibration:	2250016-

COMPOUNDR	CONC. (ng/L)R	LOQ	LODR	DLR	Q
9CL-PF3ONS-	0.54 U-	1.4-	0.54-	0.21-	
11CL-PF3OUDS-	0.54 U-	1.4-	0.54-	0.21-	



Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: 22L0004-10  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-07.dam

Quant Method: 1633 - S2022-12-07A  
 Path: S2022-12-09B (34)  
 Acquired: 2022/12/10 - 05:53

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBA	(212.9 / 169.0) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A	N/A 0.0 0.0	0.0000	N/A			
PFPeA	(262.9 / 219.0) N/A (262.9 / 69.0) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHxA	(313.0 / 269.0) N/A (313.0 / 119.0) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHpA	(363.0 / 319.0) N/A (363.0 / 169.0) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFOA	(413.0 / 369.0) 4534 (413.0 / 169.0) 1184	( 7.94 , 1.00 ) ( -0.01 , N/A , -0.8 )	20.2 20.2	0.2612 80.7 80.7	0.0322	N/A			
PFNA	(463.0 / 419.0) N/A (463.0 / 169.0) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDA	(513.0 / 469.0) N/A (513.0 / 169.0) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFUnA	(563.0 / 519.0) N/A (563.0 / 169.0) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDoA	(613.0 / 569.0) N/A (613.0 / 169.0) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFTrDA	(663.0 / 619.0) N/A (663.0 / 169.0) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFTeDA	(713.0 / 669.0) N/A (713.0 / 169.0) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			



Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: 22L0004-10  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-07.dam

Quant Method: 1633 - S2022-12-07A  
 Path: S2022-12-09B (34)  
 Acquired: 2022/12/10 - 05:53

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBS	( 298.9 / 80.0 ) 38123 ( 298.9 / 99.0 ) 26144	( 6.17 , 1.00 ) ( 0.00 , N/A , 0.0 )	183.4 189.2	0.6858 101.2 101.3	0.1759	N/A			
PFPeS	( 349.0 / 80.0 ) N/A ( 349.0 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHxS	( 399.0 / 80.0 ) 23864 ( 399.0 / 99.0 ) 7176	( 8.09 , 1.00 ) ( 0.00 , N/A , -0.2 )	1523.1 506.6	0.3007 87.2 91.1	0.0750	N/A			
PFHpS	( 449.0 / 80.0 ) N/A ( 449.0 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFOS	( 499.0 / 80.0 ) 42573 ( 499.0 / 99.0 ) 6719	( 9.39 , 0.99 ) ( -0.12 , N/A , -6.6 )	21.2 80.6	0.1578 61.3 66.7	0.1158	N/A			RT,M4 ABK 12/29/22
PFNS	( 549.0 / 80.0 ) N/A ( 549.0 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDS	( 599.0 / 80.0 ) N/A ( 599.0 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDoS	( 698.9 / 80.0 ) N/A ( 698.9 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
4:2FTS	( 327.0 / 307.0 ) N/A ( 327.0 / 81.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
6:2FTS	( 427.0 / 407.0 ) N/A ( 427.0 / 81.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
8:2FTS	( 527.0 / 507.0 ) N/A ( 527.0 / 81.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			

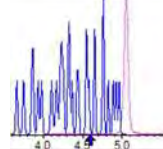
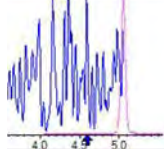
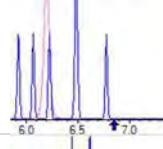
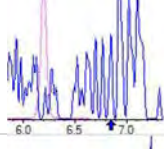
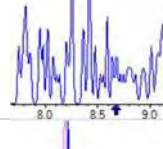
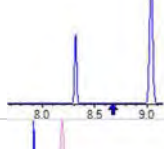
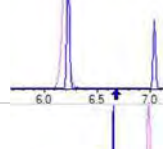
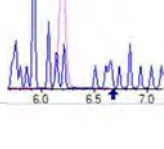
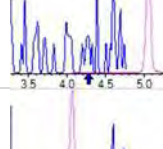
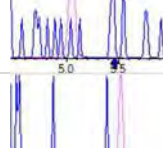
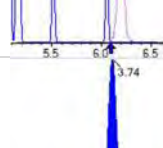
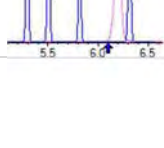
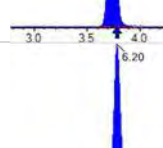
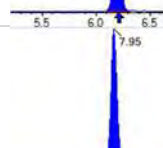
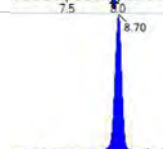
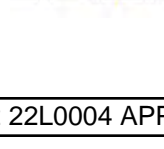


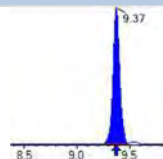
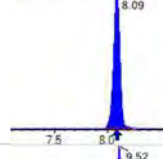
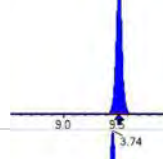
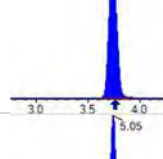
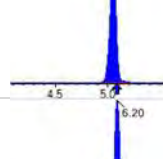
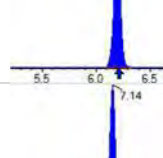
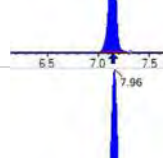
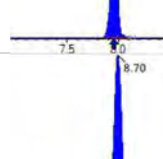
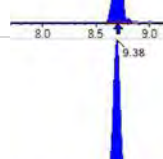
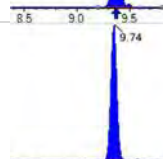
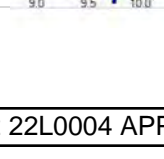
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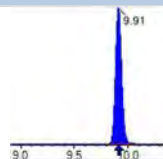
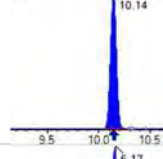
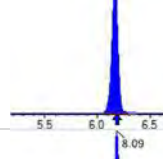
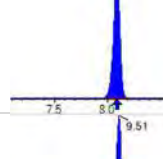
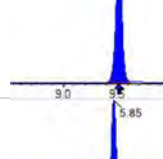
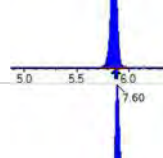
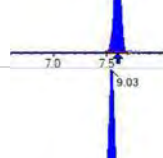
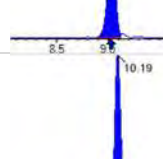
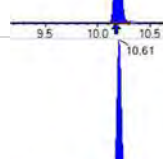
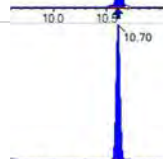
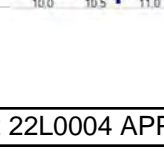
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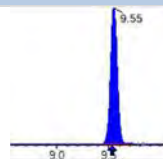
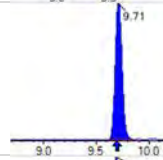
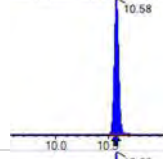
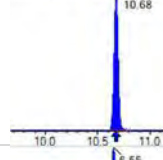
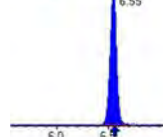
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 Path: S2022-12-09B (34)  
 Acquired: 2022/12/10 - 05:53

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFOSA	( 498.0 / 78.0 ) N/A ( 498.0 / 478.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSA	( 511.9 / 219.0 ) N/A ( 511.9 / 169.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NEtFOSA	( 526.0 / 219.0 ) N/A ( 526.0 / 169.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSAA	( 570.0 / 419.0 ) N/A ( 570.0 / 483.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NEtFOSAA	( 584.0 / 419.0 ) N/A ( 584.0 / 526.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSE	( 616.1 / 59.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A	N/A 0.0 0.0	0.0000	N/A			
NEtFOSE	( 630.0 / 59.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A	N/A 0.0 0.0	0.0000	N/A			
HFPO-DA	( 285.0 / 169.0 ) N/A ( 285.0 / 185.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
ADONA	( 377.0 / 85.0 ) N/A ( 377.0 / 251.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
9Cl-Pf3ONS	( 531.0 / 351.0 ) N/A ( 533.0 / 353.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
11Cl-Pf3OUDS	( 631.0 / 451.0 ) N/A ( 633.0 / 453.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
3:3FTCA	(241.0 / 177.0) N/A (241.0 / 117.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
5:3FTCA	(341.0 / 236.7) N/A (341.0 / 217.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
7:3FTCA	(441.0 / 317.0) N/A (441.0 / 337.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFEESA	(315.0 / 135.0) N/A (315.0 / 83.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFMPA	(229.0 / 85.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
PFMBA	(279.0 / 85.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
NFDHA	(201.0 / 85.0) N/A (295.0 / 201.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
13C3_PFBa_IIS	(216.0 / 172.0) 93793	(3.74, N/A) (N/A, -0.03, N/A)	807.1	N/A	0.9757 [ 1.0000 ]	97.6% { 107.2% }			
13C2_PFHxA_IIS	(315.1 / 270.0) 138385	(6.20, N/A) (N/A, -0.02, N/A)	435.5	N/A	1.1207 [ 1.0000 ]	112.1% { 106.7% }			
13C4_PFOA_IIS	(417.0 / 372.0) 135835	(7.95, N/A) (N/A, 0.00, N/A)	324.7	N/A	1.1458 [ 1.0000 ]	114.6% { 111.8% }			
13C5_PFNAl_IIS	(468.0 / 423.0) 106812	(8.70, N/A) (N/A, 0.01, N/A)	501.0	N/A	1.1215 [ 1.0000 ]	112.2% { 108.7% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDA_IIS	(515.1 / 470.1) 110061	(9.37, N/A) (N/A, 0.01, N/A)	349.8	N/A	1.3360 [ 1.0000 ]	133.6% { 122.1% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 216948	(8.09, N/A) (N/A, 0.00, N/A)	467.5	N/A	1.0108 [ 1.0000 ]	101.1% { 103.6% }			
13C4_PFOS_IIS	(502.8 / 79.9) 181928	(9.52, N/A) (N/A, 0.01, N/A)	469.5	N/A	0.9775 [ 1.0000 ]	97.7% { 95.2% }			
13C4_PFBA_EIS	(217.0 / 172.0) 733555	(3.74, N/A) (N/A, -0.03, N/A)	1054.7	N/A	8.3421 [ 8.0000 ]	104.3% { 112.0% }			
13C5_PFPeA_EIS	(267.9 / 223.0) 378748	(5.05, N/A) (N/A, -0.03, N/A)	934.7	N/A	3.7520 [ 4.0000 ]	93.8% { 108.9% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 291175	(6.20, N/A) (N/A, -0.02, N/A)	939.4	N/A	2.0629 [ 2.0000 ]	103.1% { 111.0% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 264297	(7.14, N/A) (N/A, 0.00, N/A)	522.0	N/A	2.0744 [ 2.0000 ]	103.7% { 106.5% }			
13C8_PFOA_EIS	(421.0 / 376.0) 273295	(7.96, N/A) (N/A, 0.01, N/A)	723.6	N/A	1.9781 [ 2.0000 ]	98.9% { 104.8% }			
13C9_PFNA_EIS	(472.0 / 427.0) 106500	(8.70, N/A) (N/A, 0.00, N/A)	348.3	N/A	1.0104 [ 1.0000 ]	101.0% { 127.8% }			
13C6_PFDA_EIS	(519.0 / 474.0) 129711	(9.38, N/A) (N/A, 0.00, N/A)	204.8	N/A	0.8114 [ 1.0000 ]	81.1% { 111.5% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 230606	(9.74, N/A) (N/A, 0.00, N/A)	310.0	N/A	1.0746 [ 1.0000 ]	107.5% { 114.6% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDa_EIS	(615.0 / 570.0) 219198	(9.91, N/A) (N/A, 0.00, N/A)	625.5	N/A	0.8416 [ 1.0000 ]	84.2% { 113.4% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 127355	(10.14, N/A) (N/A, 0.00, N/A)	319.5	N/A	0.6661 [ 1.0000 ]	66.6% { 98.1% }			
13C3_PFBs_EIS	(302.0 / 80.0) 709982	(6.17, N/A) (N/A, -0.01, N/A)	598.7	N/A	2.2268 [ 2.0000 ]	111.3% { 107.3% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 379655	(8.09, N/A) (N/A, 0.00, N/A)	859.2	N/A	2.0918 [ 2.0000 ]	104.6% { 107.6% }			
13C8_PFOS_EIS	(507.0 / 80.0) 654687	(9.51, N/A) (N/A, 0.01, N/A)	531.3	N/A	2.3606 [ 2.0000 ]	118.0% { 109.2% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 98042	(5.85, N/A) (N/A, -0.02, N/A)	642.1	N/A	5.4522 [ 4.0000 ]	136.3% { 137.0% }			
13C2_6:2FTS_EIS	(429.0 / 81.0) 119184	(7.60, N/A) (N/A, 0.00, N/A)	558.6	N/A	4.9402 [ 4.0000 ]	123.5% { 132.5% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 98796	(9.03, N/A) (N/A, 0.01, N/A)	222.8	N/A	4.7180 [ 4.0000 ]	118.0% { 114.0% }			
13C8_PFOsa_EIS	(506.0 / 78.0) 703668	(10.19, N/A) (N/A, 0.01, N/A)	763.3	N/A	1.6620 [ 2.0000 ]	83.1% { 80.2% }			
D3_NMeFOSA_EIS	(515.0 / 169.0) 127450	(10.61, N/A) (N/A, 0.01, N/A)	673.8	N/A	1.0173 [ 2.0000 ]	50.9% { 53.5% }			
D5_NeIFOSA_EIS	(531.1 / 169.0) 125133	(10.70, N/A) (N/A, 0.00, N/A)	688.9	N/A	1.1015 [ 2.0000 ]	55.1% { 55.0% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT- CV[ $\mu$ min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
D3_MeFOSAA_EIS	(573.0 / 419.0) 284105	(9.55, N/A) (N/A, 0.01, N/A)	289.5	N/A	4.6045 [ 4.0000 ]	115.1% { 104.8% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 229197	(9.71, N/A) (N/A, 0.01, N/A)	393.4	N/A	4.3218 [ 4.0000 ]	108.0% { 104.0% }			
D7_NMeFOSE_EIS	(623.2 / 58.9) 284789	(10.58, N/A) (N/A, 0.01, N/A)	934.9	N/A	13.3082 [ 20.0000 ]	66.5% { 59.9% }			
D9_NEtFOSE_EIS	(639.2 / 58.9) 146931	(10.68, N/A) (N/A, 0.01, N/A)	893.7	N/A	13.4754 [ 20.0000 ]	67.4% { 61.9% }			
13C3_HFPODA_EIS	(287.0 / 169.0) 736586	(6.55, N/A) (N/A, -0.01, N/A)	890.5	N/A	7.9234 [ 8.0000 ]	99.0% { 109.8% }			

# FORM IR ANALYSIS DATA SHEET

SB-2-112922-

Laboratory:-	APPL, LLC-	Work Order:-	22L0004-	
Client:-	Tidewater, Inc.-	Project:	NASA JPL SI-	
Matrix:-	Water-	Laboratory ID:-	22L0004-11-	File ID: S2022-12-09B (38)-
Sampled:-	11/29/22 13:50-	Prepared:-	12/05/22 07:17	Analyzed:- 12/10/22 06:44
Solids:-		Preparation:-	Table B-15-	Dilution:- 1-
Initial/Final:-	283.97 mL / 2 mL-			Instrument:- Saphira-
Batch:-	BBL0076-	Sequence:-	SB03769	Calibration:- 2250016

COMPOUNDR	CONC. (ng/L)	LOQ	LODR	DL	Q
PFBA-	0.18 U-	2.8	0.18	0.044	
PFPEA-	0.18 U-	1.4	0.18	0.055	
PFHXA-	0.18 U-	0.70	0.18	0.056	
PFHPA-	0.18 U-	0.70	0.18	0.044	
PFOA-	0.19 J-	0.70	0.18	0.072	
PFNA-	0.18 U-	0.70	0.18	0.044	
PFDA-	0.18 U-	0.70	0.18	0.044	
PFUnA-	0.18 U-	0.70	0.18	0.070	
PFDOA-	0.18 U-	0.70	0.18	0.044	
PFTRDA-	0.18 U-	0.70	0.18	0.051	
PFTEDA-	0.18 U-	0.70	0.18	0.076	
PFBS-	0.18 U-	0.70	0.18	0.044	
PFPEs-	0.18 U-	0.70	0.18	0.051	
PFHXS-	0.18 U-	0.70	0.18	0.044	
PFHPS-	0.18 U-	0.70	0.18	0.049	
PFOS-	0.059 J-	0.70-	0.18	0.044	IR2,
PFNS-	0.35 U-	0.70	0.35	0.22	
PFDS-	0.18 U-	0.70	0.18	0.056	
4:2FTS-	0.35 U-	2.8	0.35	0.095	
6:2FTS-	0.18 U-	2.8	0.18	0.079	
8:2FTS-	0.53 U-	2.8	0.53	0.18	
PFOSA-	0.18 U-	2.8	0.18	0.044	
NMeFOSA-	1.8 U-	2.8	1.8	0.87	
NEtFOSA-	1.8 U-	2.8	1.8	0.87	
NMeFOSAA-	0.18 U-	0.70	0.18	0.063	
NEtFOSAA-	0.18 U-	0.70	0.18	0.044	
NMeFOSE-	1.1 U-	2.8	1.1	0.53	
NEtFOSE-	1.1 U-	2.8	1.1	0.53	
HFPO-DA-	0.88 U-	1.4	0.88	0.43	
ADONA-	0.53 U-	1.4	0.53	0.23	

# FORM IR ANALYSIS DATA SHEET

SB-2-112922-

Laboratory:-	APPL, LLC-	Work Order:-	22L0004-	
Client:-	Tidewater, Inc.-	Project:-	NASA JPL SI-	
Matrix:-	Water-	Laboratory ID:-	22L0004-11-	File ID:- S2022-12-09B (38)-
Sampled:-	11/29/22 13:50-	Prepared:-	12/05/22 07:17-	Analyzed:- 12/10/22 06:44-
Solids:-		Preparation:-	Table B-15-	Dilution:- 1-
Initial/Final:-	283.97 mL / 2 mL-			Instrument:- Saphira-
Batch:-	BBL0076-	Sequence:-	SB03769-	Calibration:- 2250016-

COMPOUNDR	CONC. (ng/L)R	LOQ	LODR	DLR	Q
9CL-PF3ONS-	0.53 U-	1.4-	0.53-	0.21-	
11CL-PF3OUDS-	0.53 U-	1.4-	0.53-	0.21-	



Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: 22L0004-11  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-07.dam

Quant Method: 1633 - S2022-12-07A  
 Path: S2022-12-09B (38)  
 Acquired: 2022/12/10 - 06:44

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBA	(212.9 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
PFPeA	(262.9 / 219.0) N/A (262.9 / 69.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHxA	(313.0 / 269.0) N/A (313.0 / 119.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHpA	(363.0 / 319.0) N/A (363.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFOA	(413.0 / 369.0) 3639 (413.0 / 169.0) 1112	(7.95, 1.00) (0.01, N/A, 0.9)	15.4 35.2	0.3055 94.4 94.4	0.0272	N/A			
PFNA	(463.0 / 419.0) N/A (463.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDA	(513.0 / 469.0) N/A (513.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFUnA	(563.0 / 519.0) N/A (563.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDoA	(613.0 / 569.0) N/A (613.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFTrDA	(663.0 / 619.0) N/A (663.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFTeDA	(713.0 / 669.0) N/A (713.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			



Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: 22L0004-11  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-07.dam

Quant Method: 1633 - S2022-12-07A  
 Path: S2022-12-09B (38)  
 Acquired: 2022/12/10 - 06:44

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBS	( 298.9 / 80.0 ) N/A ( 298.9 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFPeS	( 349.0 / 80.0 ) N/A ( 349.0 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHxS	( 399.0 / 80.0 ) N/A ( 399.0 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHpS	( 449.0 / 80.0 ) N/A ( 449.0 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFOS	( 499.0 / 80.0 ) 3235 ( 499.0 / 99.0 ) 1322	( 9.50 , 1.00 ) ( 0.00 , N/A , 0.5 )	15.0 44.5	0.4085 158.6 172.6	0.0084	N/A			IR2,
PFNS	( 549.0 / 80.0 ) N/A ( 549.0 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDS	( 599.0 / 80.0 ) N/A ( 599.0 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDoS	( 698.9 / 80.0 ) N/A ( 698.9 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
4:2FTS	( 327.0 / 307.0 ) N/A ( 327.0 / 81.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
6:2FTS	( 427.0 / 407.0 ) N/A ( 427.0 / 81.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
8:2FTS	( 527.0 / 507.0 ) N/A ( 527.0 / 81.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			

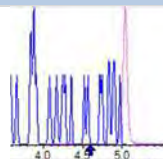
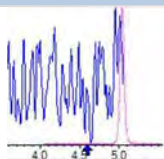
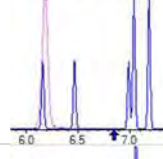
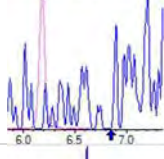
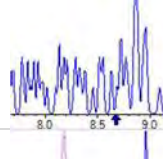
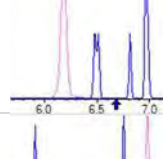
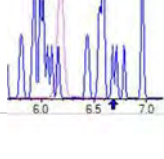
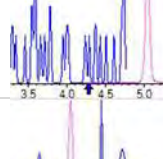
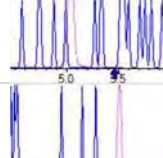
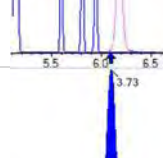
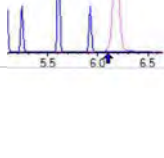
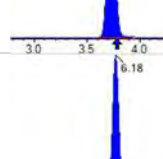
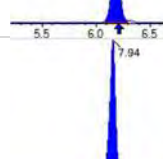
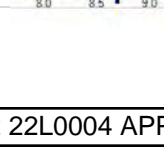


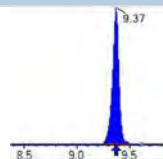
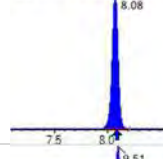
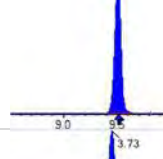
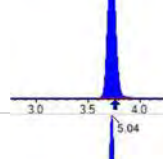
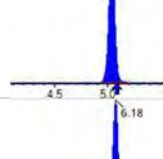
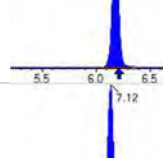
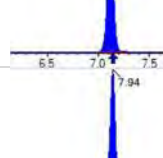
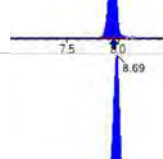
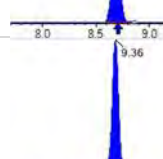
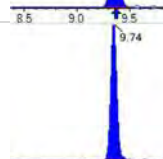
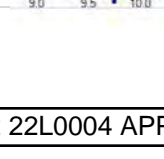
Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

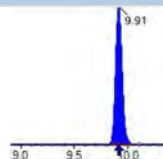
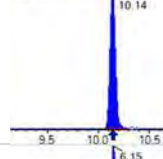
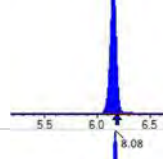
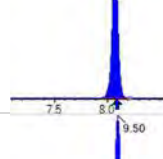
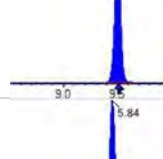
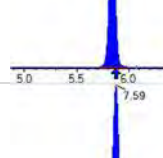
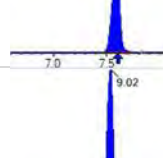
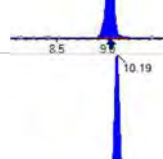
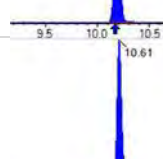
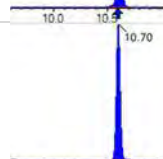
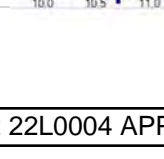
Sample I.D.: 22L0004-11  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-07.dam

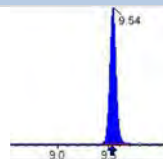
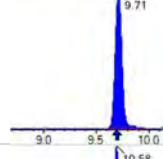
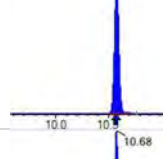
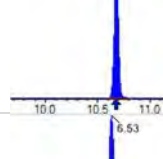
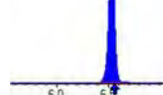
Quant Method: 1633 - S2022-12-07A  
 Path: S2022-12-09B (38)  
 Acquired: 2022/12/10 - 06:44

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFOSA	(498.0 / 78.0) N/A (498.0 / 478.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSA	(511.9 / 219.0) N/A (511.9 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NEtFOSA	(526.0 / 219.0) N/A (526.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSAA	(570.0 / 419.0) N/A (570.0 / 483.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NEtFOSAA	(584.0 / 419.0) N/A (584.0 / 526.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSE	(616.1 / 59.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
NEtFOSE	(630.0 / 59.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
HFPO-DA	(285.0 / 169.0) N/A (285.0 / 185.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
ADONA	(377.0 / 85.0) N/A (377.0 / 251.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
9CI-Pf3ONS	(531.0 / 351.0) N/A (533.0 / 353.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
11CI-PF3OUDS	(631.0 / 451.0) N/A (633.0 / 453.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
3:3FTCA	(241.0 / 177.0) N/A (241.0 / 117.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
5:3FTCA	(341.0 / 236.7) N/A (341.0 / 217.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
7:3FTCA	(441.0 / 317.0) N/A (441.0 / 337.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFEESA	(315.0 / 135.0) N/A (315.0 / 83.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFMPA	(229.0 / 85.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
PFMBA	(279.0 / 85.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
NFDHA	(201.0 / 85.0) N/A (295.0 / 201.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
13C3_PFBa_IIS	(216.0 / 172.0) 91362	(3.73, N/A) (N/A, -0.04, N/A)	690.1	N/A	0.9504 [ 1.0000 ]	95.0% { 104.4% }			
13C2_PFHxA_IIS	(315.1 / 270.0) 124632	(6.18, N/A) (N/A, -0.03, N/A)	354.4	N/A	1.0093 [ 1.0000 ]	100.9% { 96.1% }			
13C4_PFOA_IIS	(417.0 / 372.0) 139384	(7.94, N/A) (N/A, -0.01, N/A)	684.1	N/A	1.1757 [ 1.0000 ]	117.6% { 114.8% }			
13C5_PFNAl_IIS	(468.0 / 423.0) 102022	(8.69, N/A) (N/A, 0.00, N/A)	269.8	N/A	1.0712 [ 1.0000 ]	107.1% { 103.9% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDA_IIS	(515.1 / 470.1) 96914	(9.37, N/A) (N/A, 0.00, N/A)	642.6	N/A	1.1764 [ 1.0000 ]	117.6% { 107.5% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 236208	(8.08, N/A) (N/A, -0.01, N/A)	1016.2	N/A	1.1005 [ 1.0000 ]	110.1% { 112.8% }			
13C4_PFOS_IIS	(502.8 / 79.9) 229681	(9.51, N/A) (N/A, 0.00, N/A)	526.9	N/A	1.2340 [ 1.0000 ]	123.4% { 120.2% }			
13C4_PFBA_EIS	(217.0 / 172.0) 715150	(3.73, N/A) (N/A, -0.04, N/A)	1019.8	N/A	8.3492 [ 8.0000 ]	104.4% { 109.2% }			
13C5_PFPeA_EIS	(267.9 / 223.0) 357943	(5.04, N/A) (N/A, -0.05, N/A)	972.6	N/A	3.9372 [ 4.0000 ]	98.4% { 103.0% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 278327	(6.18, N/A) (N/A, -0.03, N/A)	752.9	N/A	2.1894 [ 2.0000 ]	109.5% { 106.1% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 239652	(7.12, N/A) (N/A, -0.02, N/A)	773.8	N/A	2.0885 [ 2.0000 ]	104.4% { 96.6% }			
13C8_PFOA_EIS	(421.0 / 376.0) 259400	(7.94, N/A) (N/A, -0.01, N/A)	633.9	N/A	1.8297 [ 2.0000 ]	91.5% { 99.4% }			
13C9_PFNA_EIS	(472.0 / 427.0) 112552	(8.69, N/A) (N/A, -0.01, N/A)	477.2	N/A	1.1179 [ 1.0000 ]	111.8% { 135.1% }			
13C6_PFDA_EIS	(519.0 / 474.0) 141900	(9.36, N/A) (N/A, -0.01, N/A)	327.3	N/A	1.0080 [ 1.0000 ]	100.8% { 122.0% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 193597	(9.74, N/A) (N/A, 0.00, N/A)	340.2	N/A	1.0245 [ 1.0000 ]	102.5% { 96.2% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT-CV[ $\mu$ min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDa_EIS	(615.0 / 570.0) 198953	(9.91, N/A) (N/A, 0.00, N/A)	287.4	N/A	0.8675 [ 1.0000 ]	86.8% { 103.0% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 135887	(10.14, N/A) (N/A, 0.00, N/A)	270.6	N/A	0.8072 [ 1.0000 ]	80.7% { 104.7% }			
13C3_PFBs_EIS	(302.0 / 80.0) 663821	(6.15, N/A) (N/A, -0.03, N/A)	839.3	N/A	1.9122 [ 2.0000 ]	95.6% { 100.3% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 418337	(8.08, N/A) (N/A, -0.01, N/A)	785.9	N/A	2.1170 [ 2.0000 ]	105.9% { 118.5% }			
13C8_PFOS_EIS	(507.0 / 80.0) 687839	(9.50, N/A) (N/A, -0.01, N/A)	599.6	N/A	1.9645 [ 2.0000 ]	98.2% { 114.7% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 86674	(5.84, N/A) (N/A, -0.03, N/A)	748.8	N/A	4.4269 [ 4.0000 ]	110.7% { 121.1% }			
13C2_6:2FTS_EIS	(429.0 / 81.0) 101464	(7.59, N/A) (N/A, -0.01, N/A)	601.0	N/A	3.8628 [ 4.0000 ]	96.6% { 112.8% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 86778	(9.02, N/A) (N/A, -0.01, N/A)	335.4	N/A	3.8062 [ 4.0000 ]	95.2% { 100.1% }			
13C8_PFOsa_EIS	(506.0 / 78.0) 676163	(10.19, N/A) (N/A, 0.01, N/A)	478.3	N/A	1.2650 [ 2.0000 ]	63.2% { 77.0% }			
D3_NMeFOSA_EIS	(515.0 / 169.0) 101588	(10.61, N/A) (N/A, 0.01, N/A)	788.3	N/A	0.6423 [ 2.0000 ]	32.1% { 42.6% }			
D5_NEtFOSA_EIS	(531.1 / 169.0) 111761	(10.70, N/A) (N/A, 0.01, N/A)	699.7	N/A	0.7793 [ 2.0000 ]	39.0% { 49.1% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT- CV[ $\mu$ min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
D3_MeFOSAA_EIS	(573.0 / 419.0) 286644	(9.54, N/A) (N/A, 0.00, N/A)	309.3	N/A	3.6797 [ 4.0000 ]	92.0% { 105.8% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 247403	(9.71, N/A) (N/A, 0.01, N/A)	380.3	N/A	3.6952 [ 4.0000 ]	92.4% { 112.3% }			
D7_NMeFOSE_EIS	(623.2 / 58.9) 271193	(10.58, N/A) (N/A, 0.01, N/A)	814.7	N/A	10.0381 [ 20.0000 ]	50.2% { 57.0% }			
D9_NEtFOSE_EIS	(639.2 / 58.9) 151528	(10.68, N/A) (N/A, 0.01, N/A)	926.3	N/A	11.0077 [ 20.0000 ]	55.0% { 63.9% }			
13C3_HFPODA_EIS	(287.0 / 169.0) 734509	(6.53, N/A) (N/A, -0.03, N/A)	655.8	N/A	8.7729 [ 8.0000 ]	109.7% { 109.4% }			

# FORM IR ANALYSIS DATA SHEET

SB-2-112922-

Laboratory:-	APPL, LLC-	Work Order:-	22L0004-		
Client:-	Tidewater, Inc.-	Project:-	NASA JPL SI-		
Matrix:-	Water-	Laboratory ID:-	22L0004-11RE1-	File ID:-	S2022-12-09B (39)-
Sampled:-	11/29/22 13:50-	Prepared:-	12/05/22 07:17-	Analyzed:-	12/10/22 06:56-
Solids:-		Preparation:-	Table B-15-	Dilution:-	10-
Initial/Final:-	283.97 mL / 2 mL-			Instrument:-	Saphira-
Batch:-	BBL0076-	Sequence:-	SB03769	Calibration:-	2250016-



Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: 22L0004-11RE1@10  
 DF, IV: 1, 1.0µL  
 Acquisition Method: 1633 2022-12-07.dam

Quant Method: 1633 - S2022-12-07A  
 Path: S2022-12-09B (39)  
 Acquired: 2022/12/10 - 06:56

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBA	(212.9 / 169.0) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A	N/A 0.0 0.0	0.0000	N/A			
PFPeA	(262.9 / 219.0) N/A (262.9 / 69.0) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHxA	(313.0 / 269.0) N/A (313.0 / 119.0) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHpA	(363.0 / 319.0) N/A (363.0 / 169.0) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFOA	(413.0 / 369.0) N/A (413.0 / 169.0) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFNA	(463.0 / 419.0) N/A (463.0 / 169.0) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDA	(513.0 / 469.0) N/A (513.0 / 169.0) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFUnA	(563.0 / 519.0) N/A (563.0 / 169.0) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDoA	(613.0 / 569.0) N/A (613.0 / 169.0) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFTrDA	(663.0 / 619.0) N/A (663.0 / 169.0) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFTeDA	(713.0 / 669.0) N/A (713.0 / 169.0) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			



Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: 22L0004-11RE1@10  
 DF, IV: 1, 1.0µL  
 Acquisition Method: 1633 2022-12-07.dam

Quant Method: 1633 - S2022-12-07A  
 Path: S2022-12-09B (39)  
 Acquired: 2022/12/10 - 06:56

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBS	( 298.9 / 80.0 ) N/A ( 298.9 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFPeS	( 349.0 / 80.0 ) N/A ( 349.0 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHxS	( 399.0 / 80.0 ) N/A ( 399.0 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHpS	( 449.0 / 80.0 ) N/A ( 449.0 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFOS	( 499.0 / 80.0 ) N/A ( 499.0 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFNS	( 549.0 / 80.0 ) N/A ( 549.0 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDS	( 599.0 / 80.0 ) N/A ( 599.0 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDoS	( 698.9 / 80.0 ) N/A ( 698.9 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
4:2FTS	( 327.0 / 307.0 ) N/A ( 327.0 / 81.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
6:2FTS	( 427.0 / 407.0 ) N/A ( 427.0 / 81.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
8:2FTS	( 527.0 / 507.0 ) N/A ( 527.0 / 81.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			

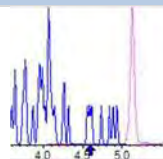
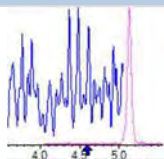
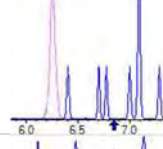
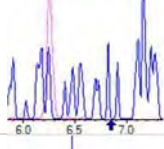
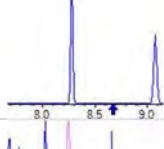
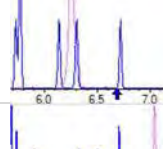
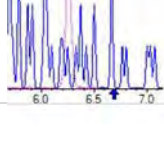
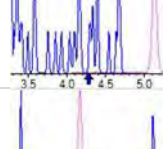
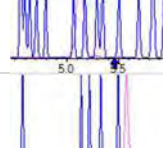
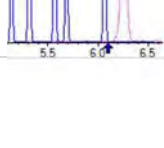
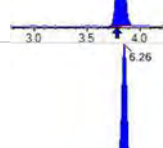
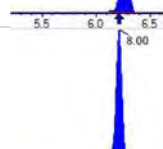
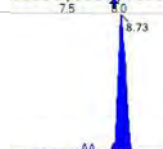
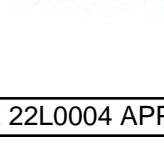


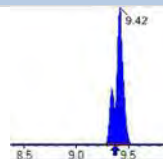
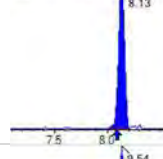
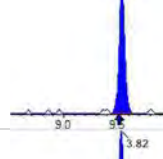
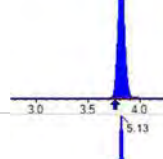
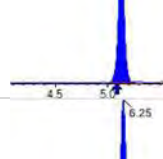
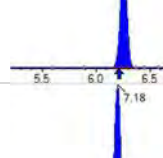
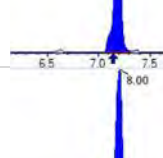
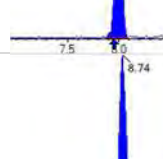
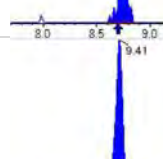
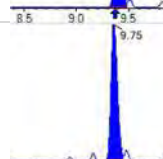
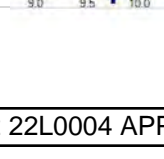
Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

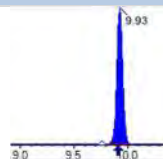
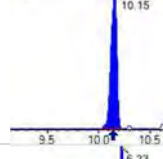
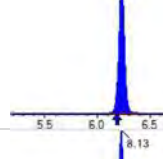
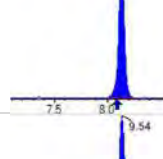
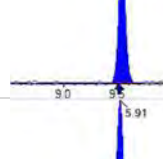
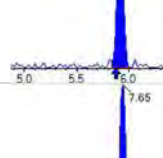
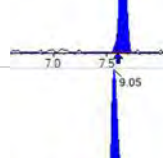
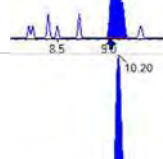
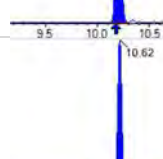
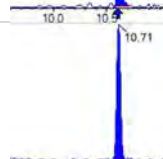
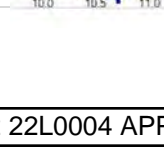
Sample I.D.: 22L0004-11RE1@10  
 DF, IV: 1, 1.0µL  
 Acquisition Method: 1633 2022-12-07.dam

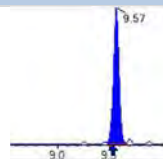
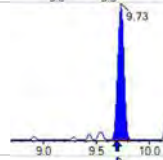
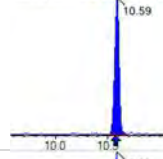
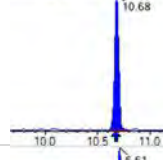
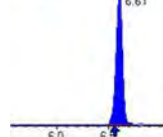
Quant Method: 1633 - S2022-12-07A  
 Path: S2022-12-09B (39)  
 Acquired: 2022/12/10 - 06:56

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFOSA	(498.0 / 78.0) N/A (498.0 / 478.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSA	(511.9 / 219.0) N/A (511.9 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NEtFOSA	(526.0 / 219.0) N/A (526.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSAA	(570.0 / 419.0) N/A (570.0 / 483.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NEtFOSAA	(584.0 / 419.0) N/A (584.0 / 526.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSE	(616.1 / 59.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
NEtFOSE	(630.0 / 59.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
HFPO-DA	(285.0 / 169.0) N/A (285.0 / 185.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
ADONA	(377.0 / 85.0) N/A (377.0 / 251.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
9Cl-Pf3ONS	(531.0 / 351.0) N/A (533.0 / 353.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
11Cl-Pf3OUDS	(631.0 / 451.0) N/A (633.0 / 453.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
3:3FTCA	(241.0 / 177.0) N/A (241.0 / 117.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
5:3FTCA	(341.0 / 236.7) N/A (341.0 / 217.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
7:3FTCA	(441.0 / 317.0) N/A (441.0 / 337.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFEESA	(315.0 / 135.0) N/A (315.0 / 83.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFMPA	(229.0 / 85.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
PFMBA	(279.0 / 85.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
NFDHA	(201.0 / 85.0) N/A (295.0 / 201.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
13C3_PFBA_IIS	(216.0 / 172.0) 9393	(3.82, N/A) (N/A, 0.05, N/A)	351.4	N/A	0.9772 [ 1.0000 ]	97.7% { 10.7% }			
13C2_PFHxA_IIS	(315.1 / 270.0) 13269	(6.26, N/A) (N/A, 0.05, N/A)	438.6	N/A	1.0746 [ 1.0000 ]	107.5% { 10.2% }			
13C4_PFOA_IIS	(417.0 / 372.0) 13820	(8.00, N/A) (N/A, 0.05, N/A)	1524.1	N/A	1.1658 [ 1.0000 ]	116.6% { 11.4% }			
13C5_PFNA_IIS	(468.0 / 423.0) 8472	(8.73, N/A) (N/A, 0.04, N/A)	535.1	N/A	0.8895 [ 1.0000 ]	89.0% { 8.6% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDA_IIS	(515.1 / 470.1) 8818	(9.42, N/A) (N/A, 0.05, N/A)	361216.5	N/A	1.0703 [ 1.0000 ]	107.0% { 9.8% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 22500	(8.13, N/A) (N/A, 0.04, N/A)	326.1	N/A	1.0483 [ 1.0000 ]	104.8% { 10.7% }			
13C4_PFOS_IIS	(502.8 / 79.9) 14574	(9.54, N/A) (N/A, 0.03, N/A)	115.5	N/A	0.7830 [ 1.0000 ]	78.3% { 7.6% }			
13C4_PFBA_EIS	(217.0 / 172.0) 71148	(3.82, N/A) (N/A, 0.05, N/A)	1166.1	N/A	0.8079 [ 0.8000 ]	101.0% { 10.9% }			
13C5_PFPeA_EIS	(267.9 / 223.0) 36874	(5.13, N/A) (N/A, 0.04, N/A)	520.1	N/A	0.3810 [ 0.4000 ]	95.2% { 10.6% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 26977	(6.25, N/A) (N/A, 0.04, N/A)	374.5	N/A	0.1993 [ 0.2000 ]	99.7% { 10.3% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 24035	(7.18, N/A) (N/A, 0.05, N/A)	271.3	N/A	0.1967 [ 0.2000 ]	98.4% { 9.7% }			
13C8_PFOA_EIS	(421.0 / 376.0) 29509	(8.00, N/A) (N/A, 0.05, N/A)	319.5	N/A	0.2099 [ 0.2000 ]	105.0% { 11.3% }			
13C9_PFNA_EIS	(472.0 / 427.0) 7171	(8.74, N/A) (N/A, 0.04, N/A)	609.0	N/A	0.0858 [ 0.1000 ]	85.8% { 8.6% }			
13C6_PFDA_EIS	(519.0 / 474.0) 12011	(9.41, N/A) (N/A, 0.04, N/A)	511.9	N/A	0.0938 [ 0.1000 ]	93.8% { 10.3% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 18286	(9.75, N/A) (N/A, 0.01, N/A)	147.1	N/A	0.1064 [ 0.1000 ]	106.4% { 9.1% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDa_EIS	(615.0 / 570.0) 19582	(9.93, N/A) (N/A, 0.02, N/A)	3831.5	N/A	0.0939 [0.1000]	93.9% {10.1%}			
13C2_PFTeDA_EIS	(715.0 / 670.0) 19152	(10.15, N/A) (N/A, 0.01, N/A)	236.5	N/A	0.1250 [0.1000]	125.0% {14.8%}			
13C3_PFBs_EIS	(302.0 / 80.0) 72920	(6.23, N/A) (N/A, 0.05, N/A)	736.4	N/A	0.2205 [0.2000]	110.3% {11.0%}			
13C3_PFHxS_EIS	(402.0 / 80.0) 39817	(8.13, N/A) (N/A, 0.04, N/A)	548.1	N/A	0.2115 [0.2000]	105.8% {11.3%}			
13C8_PFOS_EIS	(507.0 / 80.0) 56893	(9.54, N/A) (N/A, 0.03, N/A)	219.2	N/A	0.2561 [0.2000]	128.0% {9.5%}			
13C2_4:2FTS_EIS	(329.0 / 81.0) 8816	(5.91, N/A) (N/A, 0.04, N/A)	94.9	N/A	0.4727 [0.4000]	118.2% {12.3%}			
13C2_6:2FTS_EIS	(429.0 / 81.0) 12039	(7.65, N/A) (N/A, 0.05, N/A)	192.4	N/A	0.4812 [0.4000]	120.3% {13.4%}			
13C2_8:2FTS_EIS	(529.0 / 81.0) 7050	(9.05, N/A) (N/A, 0.03, N/A)	55.0	N/A	0.3247 [0.4000]	81.2% {8.1%}			
13C8_PFOsa_EIS	(506.0 / 78.0) 67451	(10.20, N/A) (N/A, 0.02, N/A)	220.2	N/A	0.1989 [0.2000]	99.4% {7.7%}			
D3_NMeFOSA_EIS	(515.0 / 169.0) 10610	(10.62, N/A) (N/A, 0.01, N/A)	154.5	N/A	0.1057 [0.2000]	52.9% {4.4%}			
D5_NEtFOSA_EIS	(531.1 / 169.0) 11758	(10.71, N/A) (N/A, 0.01, N/A)	207.1	N/A	0.1292 [0.2000]	64.6% {5.2%}			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT- CV[ $\mu$ min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
D3_MeFOSAA_EIS	(573.0 / 419.0) 23809	(9.57, N/A) (N/A, 0.03, N/A)	128.0	N/A	0.4817 [ 0.4000 ]	120.4% { 8.8% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 22422	(9.73, N/A) (N/A, 0.03, N/A)	127.7	N/A	0.5278 [ 0.4000 ]	131.9% { 10.2% }			
D7_NMeFOSE_EIS	(623.2 / 58.9) 29956	(10.59, N/A) (N/A, 0.01, N/A)	334.3	N/A	1.7474 [ 2.0000 ]	87.4% { 6.3% }			
D9_NEtFOSE_EIS	(639.2 / 58.9) 16704	(10.68, N/A) (N/A, 0.01, N/A)	349.6	N/A	1.9123 [ 2.0000 ]	95.6% { 7.0% }			
13C3_HFPODA_EIS	(287.0 / 169.0) 64719	(6.61, N/A) (N/A, 0.05, N/A)	536.6	N/A	0.7260 [ 0.8000 ]	90.8% { 9.6% }			

# FORM IR ANALYSIS DATA SHEET

MW-4-S5-112822-

Laboratory:-	APPL, LLC-	Work Order:-	22L0004-	
Client:-	Tidewater, Inc.-	Project:	NASA JPL SI-	
Matrix:-	Water-	Laboratory ID:-	22L0004-12-	File ID: S2022-12-09B (40)-
Sampled:-	11/28/22 09:35-	Prepared:-	12/05/22 07:17	Analyzed:- 12/10/22 07:09
Solids:-		Preparation:-	Table B-15-	Dilution:- 1-
Initial/Final:-	268.31 mL / 2 mL-			Instrument:- Saphira
Batch:-	BBL0076-	Sequence:-	SB03769	Calibration:- 2250016

COMPOUNDR	CONC. (ng/L)	LOQ	LODR	DL	Q
PFBA-	0.36 J-	3.0	0.19	0.047	
PFPEA-	0.72 J-	1.5	0.19	0.058	
PFHXA-	0.48 J-	0.75	0.19	0.060	
PFHPA-	0.28 J-	0.75	0.19	0.047	
PFOA-	0.27 J-	0.75	0.19	0.076	
PFNA-	0.19 U-	0.75	0.19	0.047	
PFDA-	0.19 U-	0.75	0.19	0.047	
PFUnA-	0.19 U-	0.75	0.19	0.075	
PFDOA-	0.19 U-	0.75	0.19	0.047	
PFTRDA-	0.19 U-	0.75	0.19	0.054	
PFTEDA-	0.19 U-	0.75	0.19	0.080	
PFBS-	0.79-	0.75	0.19	0.047	
PFPEs-	0.40 J-	0.75	0.19	0.054	
PFHXS-	0.42 J-	0.75	0.19	0.047	
PFHPS-	0.19 U-	0.75	0.19	0.052	
PFOS-	0.14 J-	0.75	0.19	0.047	
PFNS-	0.37 U-	0.75	0.37	0.23	
PFDS-	0.19 U-	0.75	0.19	0.060	
4:2FTS-	0.37 U-	3.0	0.37	0.10	
6:2FTS-	0.19 U-	3.0	0.19	0.084	
8:2FTS-	0.56 U-	3.0	0.56	0.19	
PFOSA-	0.19 U-	3.0	0.19	0.047	
NMeFOSA-	1.9 U-	3.0	1.9	0.92	
NEtFOSA-	1.9 U-	3.0	1.9	0.92	
NMeFOSAA-	0.19 U-	0.75	0.19	0.067	
NEtFOSAA-	0.19 U-	0.75	0.19	0.047	
NMeFOSE-	1.1 U-	3.0	1.1	0.56	
NEtFOSE-	1.1 U-	3.0	1.1	0.56	
HFPO-DA-	0.93 U-	1.5	0.93	0.46	
ADONA-	0.56 U-	1.5	0.56	0.24	

# FORM IR ANALYSIS DATA SHEET

MW-4-S5-112822-

Laboratory:-	APPL, LLC-	Work Order:-	22L0004-	
Client:-	Tidewater, Inc.-	Project:-	NASA JPL SI-	
Matrix:-	Water-	Laboratory ID:-	22L0004-12-	File ID:- S2022-12-09B (40)-
Sampled:-	11/28/22 09:35-	Prepared:-	12/05/22 07:17-	Analyzed:- 12/10/22 07:09-
Solids:-		Preparation:-	Table B-15-	Dilution:- 1-
Initial/Final:-	268.31 mL / 2 mL-			Instrument:- Saphira-
Batch:-	BBL0076-	Sequence:-	SB03769-	Calibration:- 2250016-

COMPOUNDR	CONC. (ng/L)R	LOQ	LODR	DLR	Q
9CL-PF3ONS-	0.56 U-	1.5-	0.56-	0.22-	
11CL-PF3OUDS-	0.56 U-	1.5-	0.56-	0.22-	



Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: 22L0004-12  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-07.dam

Quant Method: 1633 - S2022-12-07A  
 Path: S2022-12-09B (40)  
 Acquired: 2022/12/10 - 07:09

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBA	(212.9 / 169.0) 2903	(3.75, 1.00) (0.01, N/A, 0.0)	16.5	N/A 0.0 0.0	0.0488	N/A			
PFPeA	(262.9 / 219.0) 9145 (262.9 / 69.0) 111	(5.07, 1.00) (0.00, N/A, 0.2)	84.7 5.4	0.0121 104.0 109.5	0.0969	N/A			
PFHxA	(313.0 / 269.0) 10550 (313.0 / 119.0) 1368	(6.19, 1.00) (0.00, N/A, -0.7)	56.6 46.8	0.1296 144.2 132.4	0.0645	N/A			
PFHpA	(363.0 / 319.0) 5314 (363.0 / 169.0) 1409	(7.12, 1.00) (0.00, N/A, -0.6)	32.6 28.8	0.2652 92.4 93.8	0.0377	N/A			
PFOA	(413.0 / 369.0) 5328 (413.0 / 169.0) 1862	(7.94, 1.00) (0.00, N/A, 0.1)	19.6 57.7	0.3496 108.0 108.0	0.0359	N/A			
PFNA	(463.0 / 419.0) N/A (463.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDA	(513.0 / 469.0) N/A (513.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFUnA	(563.0 / 519.0) N/A (563.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDoA	(613.0 / 569.0) N/A (613.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFTrDA	(663.0 / 619.0) N/A (663.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFTeDA	(713.0 / 669.0) N/A (713.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			



Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: 22L0004-12  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-07.dam

Quant Method: 1633 - S2022-12-07A  
 Path: S2022-12-09B (40)  
 Acquired: 2022/12/10 - 07:09

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBS	(298.9 / 80.0) 23487 (298.9 / 99.0) 14800	(6.16, 1.00) (0.00, N/A, 0.2)	95.5 127.0	0.6301 93.0 93.1	0.1058	N/A			
PFPeS	(349.0 / 80.0) 19680 (349.0 / 99.0) 4786	(7.20, 0.89) (N/A, -0.02, -0.1)	1308.5 487420.1	0.2432 66.7 72.4	0.0534	N/A			
PFHxS	(399.0 / 80.0) 18316 (399.0 / 99.0) 5768	(8.07, 1.00) (0.00, N/A, -0.7)	7599.3 25472.9	0.3149 91.3 95.4	0.0561	N/A			M14 ABK 12/29/22
PFHpS	(449.0 / 80.0) N/A (449.0 / 99.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFOS	(499.0 / 80.0) 7491 (499.0 / 99.0) 2124	(9.49, 1.00) (0.00, N/A, -1.1)	14.5 64.8	0.2836 110.1 119.8	0.0183	N/A			
PFNS	(549.0 / 80.0) N/A (549.0 / 99.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDS	(599.0 / 80.0) N/A (599.0 / 99.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDoS	(698.9 / 80.0) N/A (698.9 / 99.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
4:2FTS	(327.0 / 307.0) N/A (327.0 / 81.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
6:2FTS	(427.0 / 407.0) N/A (427.0 / 81.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
8:2FTS	(527.0 / 507.0) N/A (527.0 / 81.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			

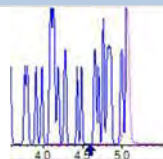
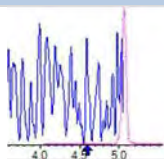
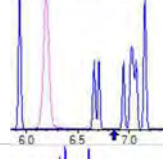
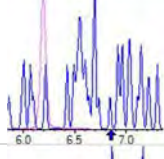
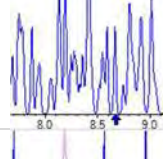
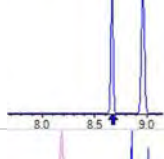
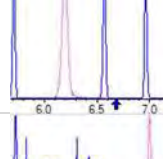
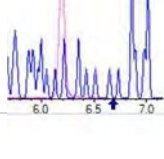
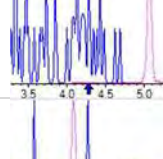
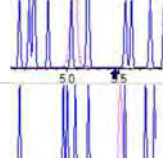
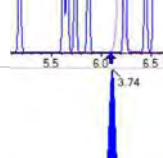
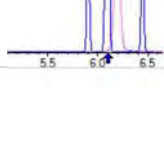
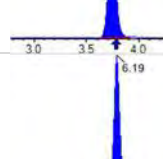
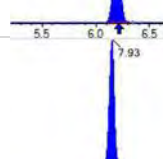
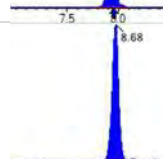
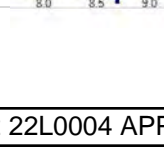


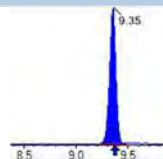
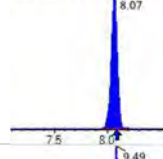
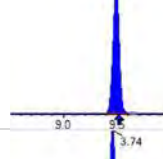
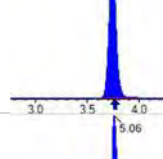
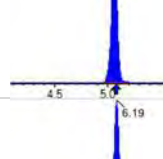
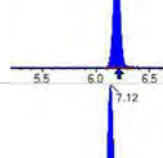
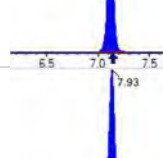
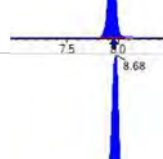
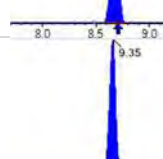
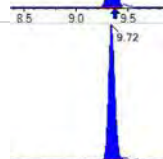
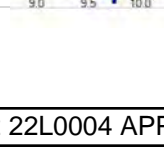
Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

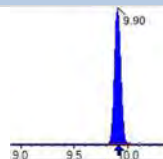
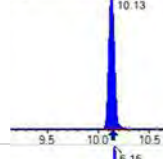
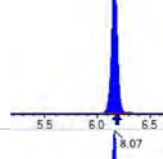
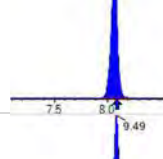
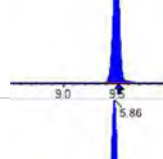
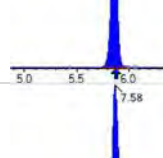
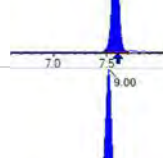
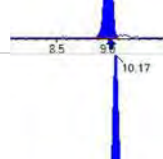
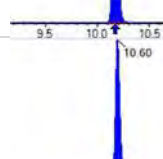
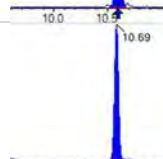
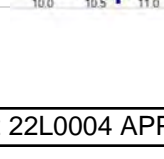
Sample I.D.: 22L0004-12  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-07.dam

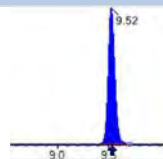
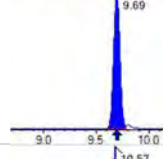
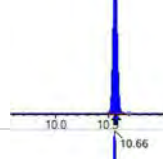
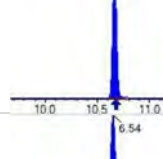
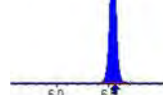
Quant Method: 1633 - S2022-12-07A  
 Path: S2022-12-09B (40)  
 Acquired: 2022/12/10 - 07:09

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT-CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFOSA	(498.0 / 78.0) N/A (498.0 / 478.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSA	(511.9 / 219.0) N/A (511.9 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NEtFOSA	(526.0 / 219.0) N/A (526.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSAA	(570.0 / 419.0) N/A (570.0 / 483.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NEtFOSAA	(584.0 / 419.0) N/A (584.0 / 526.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSE	(616.1 / 59.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
NEtFOSE	(630.0 / 59.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
HFPO-DA	(285.0 / 169.0) N/A (285.0 / 185.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
ADONA	(377.0 / 85.0) N/A (377.0 / 251.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
9Cl-Pf3ONS	(531.0 / 351.0) N/A (533.0 / 353.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
11Cl-Pf3OUDS	(631.0 / 451.0) N/A (633.0 / 453.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
3:3FTCA	(241.0 / 177.0) N/A (241.0 / 117.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
5:3FTCA	(341.0 / 236.7) N/A (341.0 / 217.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
7:3FTCA	(441.0 / 317.0) N/A (441.0 / 337.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFEESA	(315.0 / 135.0) N/A (315.0 / 83.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFMPA	(229.0 / 85.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
PFMBA	(279.0 / 85.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
NFDHA	(201.0 / 85.0) N/A (295.0 / 201.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
13C3_PFBA_IIS	(216.0 / 172.0) 79526	(3.74, N/A) (N/A, -0.03, N/A)	753.1	N/A	0.8273 [ 1.0000 ]	82.7% { 90.9% }			
13C2_PFHxA_IIS	(315.1 / 270.0) 140401	(6.19, N/A) (N/A, -0.02, N/A)	520.2	N/A	1.1370 [ 1.0000 ]	113.7% { 108.3% }			
13C4_PFOA_IIS	(417.0 / 372.0) 132553	(7.93, N/A) (N/A, -0.02, N/A)	569.5	N/A	1.1181 [ 1.0000 ]	111.8% { 109.1% }			
13C5_PFNA_IIS	(468.0 / 423.0) 102916	(8.68, N/A) (N/A, -0.02, N/A)	274.8	N/A	1.0806 [ 1.0000 ]	108.1% { 104.8% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDA_IIS	(515.1 / 470.1) 113104	(9.35, N/A) (N/A, -0.02, N/A)	356.0	N/A	1.3729 [ 1.0000 ]	137.3% { 125.5% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 240646	(8.07, N/A) (N/A, -0.02, N/A)	867.5	N/A	1.1212 [ 1.0000 ]	112.1% { 114.9% }			
13C4_PFOS_IIS	(502.8 / 79.9) 225637	(9.49, N/A) (N/A, -0.02, N/A)	527.7	N/A	1.2123 [ 1.0000 ]	121.2% { 118.1% }			
13C4_PFBA_EIS	(217.0 / 172.0) 624536	(3.74, N/A) (N/A, -0.03, N/A)	789.1	N/A	8.3765 [ 8.0000 ]	104.7% { 95.3% }			
13C5_PFPeA_EIS	(267.9 / 223.0) 392846	(5.06, N/A) (N/A, -0.02, N/A)	919.9	N/A	3.8357 [ 4.0000 ]	95.9% { 113.0% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 324784	(6.19, N/A) (N/A, -0.02, N/A)	744.9	N/A	2.2679 [ 2.0000 ]	113.4% { 123.8% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 278573	(7.12, N/A) (N/A, -0.02, N/A)	919.2	N/A	2.1550 [ 2.0000 ]	107.8% { 112.3% }			
13C8_PFOA_EIS	(421.0 / 376.0) 287612	(7.93, N/A) (N/A, -0.02, N/A)	534.3	N/A	2.1333 [ 2.0000 ]	106.7% { 110.2% }			
13C9_PFNA_EIS	(472.0 / 427.0) 121759	(8.68, N/A) (N/A, -0.02, N/A)	587.8	N/A	1.1989 [ 1.0000 ]	119.9% { 146.1% }			
13C6_PFDA_EIS	(519.0 / 474.0) 163398	(9.35, N/A) (N/A, -0.02, N/A)	281.4	N/A	0.9946 [ 1.0000 ]	99.5% { 140.5% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 144683	(9.72, N/A) (N/A, -0.02, N/A)	288.2	N/A	0.6561 [ 1.0000 ]	65.6% { 71.9% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDa_EIS	(615.0 / 570.0) 223033	(9.90, N/A) (N/A, -0.01, N/A)	432.0	N/A	0.8333 [ 1.0000 ]	83.3% { 115.4% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 150149	(10.13, N/A) (N/A, -0.01, N/A)	301.9	N/A	0.7642 [ 1.0000 ]	76.4% { 115.7% }			
13C3_PFBs_EIS	(302.0 / 80.0) 727223	(6.16, N/A) (N/A, -0.02, N/A)	936.1	N/A	2.0562 [ 2.0000 ]	102.8% { 109.9% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 389593	(8.07, N/A) (N/A, -0.02, N/A)	861.7	N/A	1.9352 [ 2.0000 ]	96.8% { 110.4% }			
13C8_PFOS_EIS	(507.0 / 80.0) 728241	(9.49, N/A) (N/A, -0.02, N/A)	564.0	N/A	2.1172 [ 2.0000 ]	105.9% { 121.5% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 98949	(5.86, N/A) (N/A, -0.01, N/A)	539.2	N/A	4.9607 [ 4.0000 ]	124.0% { 138.3% }			
13C2_6:2FTS_EIS	(429.0 / 81.0) 118016	(7.58, N/A) (N/A, -0.02, N/A)	450.7	N/A	4.4100 [ 4.0000 ]	110.3% { 131.2% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 103877	(9.00, N/A) (N/A, -0.02, N/A)	394.4	N/A	4.4721 [ 4.0000 ]	111.8% { 119.8% }			
13C8_PFOsa_EIS	(506.0 / 78.0) 696930	(10.17, N/A) (N/A, -0.01, N/A)	744.1	N/A	1.3272 [ 2.0000 ]	66.4% { 79.4% }			
D3_NMeFOSA_EIS	(515.0 / 169.0) 91220	(10.60, N/A) (N/A, -0.01, N/A)	376.1	N/A	0.5870 [ 2.0000 ]	29.4% { 38.3% }			
D5_NEtFOSA_EIS	(531.1 / 169.0) 114701	(10.69, N/A) (N/A, -0.01, N/A)	497.6	N/A	0.8141 [ 2.0000 ]	40.7% { 50.4% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT- CV[ $\mu$ min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
D3_MeFOSAA_EIS	(573.0 / 419.0) 340379	(9.52, N/A) (N/A, -0.02, N/A)	616.0	N/A	4.4479 [ 4.0000 ]	111.2% { 125.6% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 289849	(9.69, N/A) (N/A, -0.01, N/A)	455.1	N/A	4.4068 [ 4.0000 ]	110.2% { 131.6% }			
D7_NMeFOSE_EIS	(623.2 / 58.9) 249879	(10.57, N/A) (N/A, -0.01, N/A)	583.6	N/A	9.4149 [ 20.0000 ]	47.1% { 52.6% }			
D9_NEtFOSE_EIS	(639.2 / 58.9) 145731	(10.66, N/A) (N/A, 0.00, N/A)	748.8	N/A	10.7763 [ 20.0000 ]	53.9% { 61.4% }			
13C3_HFPODA_EIS	(287.0 / 169.0) 775953	(6.54, N/A) (N/A, -0.02, N/A)	879.8	N/A	8.2270 [ 8.0000 ]	102.8% { 115.6% }			

# FORM IR ANALYSIS DATA SHEET

MW-4-S5-112822-

Laboratory:-	APPL, LLC-	Work Order:-	22L0004-		
Client:-	Tidewater, Inc.-	Project:-	NASA JPL SI-		
Matrix:-	Water-	Laboratory ID:-	22L0004-12RE1-	File ID:-	S2022-12-09B (41)-
Sampled:-	11/28/22 09:35-	Prepared:-	12/05/22 07:17-	Analyzed:-	12/10/22 07:22-
Solids:-		Preparation:-	Table B-15-	Dilution:-	10-
Initial/Final:-	268.31 mL / 2 mL-			Instrument:-	Saphira-
Batch:-	BBL0076-	Sequence:-	SB03769	Calibration:-	2250016-



Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: 22L0004-12RE1@10  
 DF, IV: 1, 1.0µL  
 Acquisition Method: 1633 2022-12-07.dam

Quant Method: 1633 - S2022-12-07A  
 Path: S2022-12-09B (41)  
 Acquired: 2022/12/10 - 07:22

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBA	(212.9 / 169.0) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A	N/A 0.0 0.0	0.0000	N/A			
PFPeA	(262.9 / 219.0) N/A (262.9 / 69.0) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHxA	(313.0 / 269.0) N/A (313.0 / 119.0) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHpA	(363.0 / 319.0) N/A (363.0 / 169.0) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFOA	(413.0 / 369.0) N/A (413.0 / 169.0) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFNA	(463.0 / 419.0) N/A (463.0 / 169.0) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDA	(513.0 / 469.0) N/A (513.0 / 169.0) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFUnA	(563.0 / 519.0) N/A (563.0 / 169.0) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDoA	(613.0 / 569.0) N/A (613.0 / 169.0) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFTTrDA	(663.0 / 619.0) N/A (663.0 / 169.0) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFTeDA	(713.0 / 669.0) N/A (713.0 / 169.0) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			



Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: 22L0004-12RE1@10  
 DF, IV: 1, 1.0µL  
 Acquisition Method: 1633 2022-12-07.dam

Quant Method: 1633 - S2022-12-07A  
 Path: S2022-12-09B (41)  
 Acquired: 2022/12/10 - 07:22

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBS	( 298.9 / 80.0 ) N/A ( 298.9 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFPeS	( 349.0 / 80.0 ) N/A ( 349.0 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHxS	( 399.0 / 80.0 ) N/A ( 399.0 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHpS	( 449.0 / 80.0 ) N/A ( 449.0 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFOS	( 499.0 / 80.0 ) N/A ( 499.0 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFNS	( 549.0 / 80.0 ) N/A ( 549.0 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDS	( 599.0 / 80.0 ) N/A ( 599.0 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDoS	( 698.9 / 80.0 ) N/A ( 698.9 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
4:2FTS	( 327.0 / 307.0 ) N/A ( 327.0 / 81.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
6:2FTS	( 427.0 / 407.0 ) N/A ( 427.0 / 81.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
8:2FTS	( 527.0 / 507.0 ) N/A ( 527.0 / 81.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			

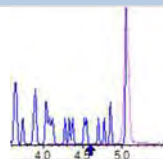
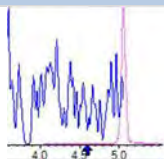
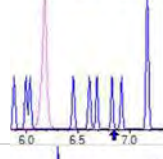
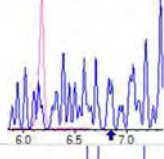
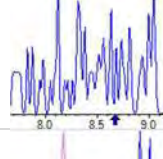
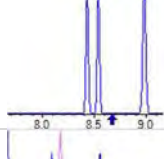
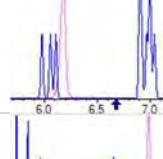
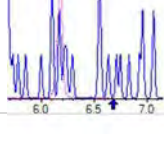
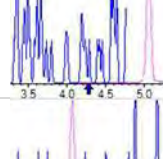
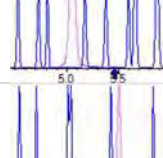
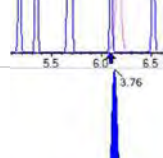
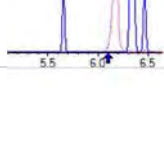
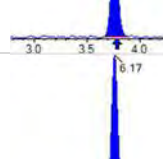
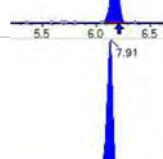
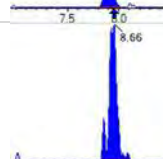
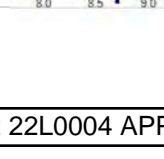


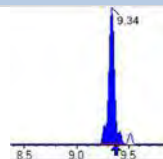
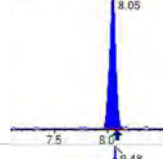
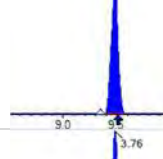
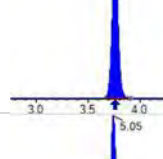
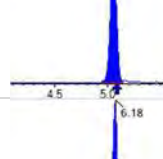
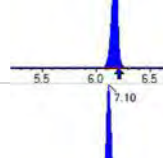
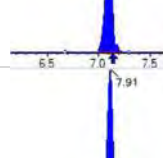
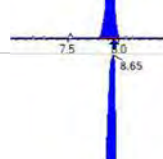
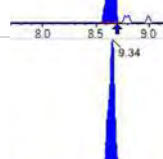
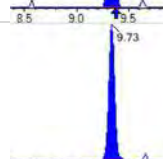
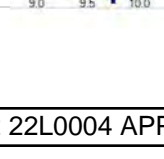
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 Instrument: Saphira  
 Type: Sciex Q3 5500

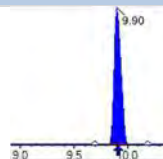
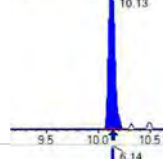
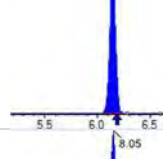
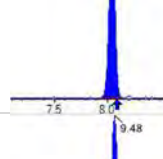
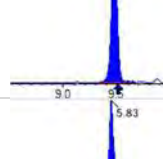
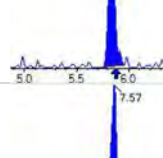
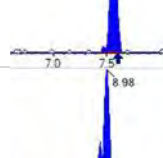
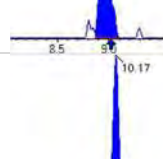
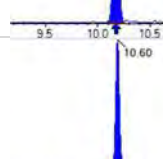
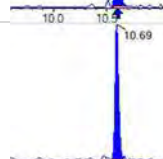
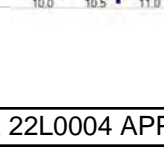
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 Acquisition Method: 1633 2022-12-07.dam

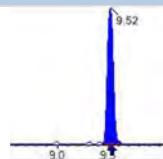
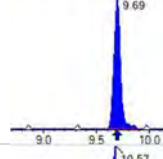
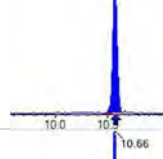
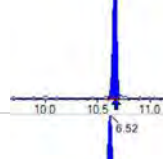
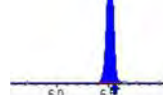
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 Path: S2022-12-09B (41)  
 Acquired: 2022/12/10 - 07:22

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFOSA	(498.0 / 78.0) N/A (498.0 / 478.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSA	(511.9 / 219.0) N/A (511.9 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NEtFOSA	(526.0 / 219.0) N/A (526.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSAA	(570.0 / 419.0) N/A (570.0 / 483.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NEtFOSAA	(584.0 / 419.0) N/A (584.0 / 526.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSE	(616.1 / 59.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
NEtFOSE	(630.0 / 59.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
HFPO-DA	(285.0 / 169.0) N/A (285.0 / 185.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
ADONA	(377.0 / 85.0) N/A (377.0 / 251.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
9Cl-Pf3ONS	(531.0 / 351.0) N/A (533.0 / 353.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
11Cl-Pf3OUDS	(631.0 / 451.0) N/A (633.0 / 453.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
3:3FTCA	(241.0 / 177.0) N/A (241.0 / 117.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
5:3FTCA	(341.0 / 236.7) N/A (341.0 / 217.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
7:3FTCA	(441.0 / 317.0) N/A (441.0 / 337.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFEESA	(315.0 / 135.0) N/A (315.0 / 83.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFMPA	(229.0 / 85.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
PFMBA	(279.0 / 85.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
NFDHA	(201.0 / 85.0) N/A (295.0 / 201.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
13C3_PFBA_IIS	(216.0 / 172.0) 8274	(3.76, N/A) (N/A, -0.01, N/A)	269.8	N/A	0.8607 [ 1.0000 ]	86.1% { 9.5% }			
13C2_PFHxA_IIS	(315.1 / 270.0) 15195	(6.17, N/A) (N/A, -0.04, N/A)	279.0	N/A	1.2305 [ 1.0000 ]	123.1% { 11.7% }			
13C4_PFOA_IIS	(417.0 / 372.0) 14423	(7.91, N/A) (N/A, -0.04, N/A)	513.1	N/A	1.2167 [ 1.0000 ]	121.7% { 11.9% }			
13C5_PFNA_IIS	(468.0 / 423.0) 8342	(8.66, N/A) (N/A, -0.04, N/A)	130.1	N/A	0.8759 [ 1.0000 ]	87.6% { 8.5% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDA_IIS	(515.1 / 470.1) 10638	(9.34, N/A) (N/A, -0.03, N/A)	534.5	N/A	1.2913 [ 1.0000 ]	129.1% { 11.8% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 21113	(8.05, N/A) (N/A, -0.04, N/A)	338.7	N/A	0.9837 [ 1.0000 ]	98.4% { 10.1% }			
13C4_PFOS_IIS	(502.8 / 79.9) 15681	(9.48, N/A) (N/A, -0.03, N/A)	24820.8	N/A	0.8425 [ 1.0000 ]	84.3% { 8.2% }			
13C4_PFBA_EIS	(217.0 / 172.0) 68456	(3.76, N/A) (N/A, -0.01, N/A)	1003.0	N/A	0.8825 [ 0.8000 ]	110.3% { 10.5% }			
13C5_PFPeA_EIS	(267.9 / 223.0) 34725	(5.05, N/A) (N/A, -0.03, N/A)	517.7	N/A	0.3133 [ 0.4000 ]	78.3% { 10.0% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 31847	(6.18, N/A) (N/A, -0.04, N/A)	749.9	N/A	0.2055 [ 0.2000 ]	102.7% { 12.1% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 25170	(7.10, N/A) (N/A, -0.04, N/A)	397.0	N/A	0.1799 [ 0.2000 ]	90.0% { 10.1% }			
13C8_PFOA_EIS	(421.0 / 376.0) 27843	(7.91, N/A) (N/A, -0.04, N/A)	376.0	N/A	0.1898 [ 0.2000 ]	94.9% { 10.7% }			
13C9_PFNA_EIS	(472.0 / 427.0) 8086	(8.65, N/A) (N/A, -0.05, N/A)	379.8	N/A	0.0982 [ 0.1000 ]	98.2% { 9.7% }			
13C6_PFDA_EIS	(519.0 / 474.0) 9548	(9.34, N/A) (N/A, -0.03, N/A)	794.5	N/A	0.0618 [ 0.1000 ]	61.8% { 8.2% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 19890	(9.73, N/A) (N/A, -0.01, N/A)	812.3	N/A	0.0959 [ 0.1000 ]	95.9% { 9.9% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDa_EIS	(615.0 / 570.0) 21437	(9.90, N/A) (N/A, -0.01, N/A)	575.1	N/A	0.0852 [0.1000]	85.2% {11.1%}			
13C2_PFTeDA_EIS	(715.0 / 670.0) 15190	(10.13, N/A) (N/A, -0.01, N/A)	193.5	N/A	0.0822 [0.1000]	82.2% {11.7%}			
13C3_PFBs_EIS	(302.0 / 80.0) 62843	(6.14, N/A) (N/A, -0.04, N/A)	579.4	N/A	0.2025 [0.2000]	101.3% {9.5%}			
13C3_PFHxS_EIS	(402.0 / 80.0) 39240	(8.05, N/A) (N/A, -0.04, N/A)	429.9	N/A	0.2222 [0.2000]	111.1% {11.1%}			
13C8_PFOS_EIS	(507.0 / 80.0) 72297	(9.48, N/A) (N/A, -0.03, N/A)	193.8	N/A	0.3024 [0.2000]	151.2% {12.1%}			S2,
13C2_4:2FTS_EIS	(329.0 / 81.0) 7446	(5.83, N/A) (N/A, -0.04, N/A)	80.0	N/A	0.4255 [0.4000]	106.4% {10.4%}			
13C2_6:2FTS_EIS	(429.0 / 81.0) 10311	(7.57, N/A) (N/A, -0.03, N/A)	180.3	N/A	0.4392 [0.4000]	109.8% {11.5%}			
13C2_8:2FTS_EIS	(529.0 / 81.0) 9253	(8.98, N/A) (N/A, -0.05, N/A)	125.4	N/A	0.4540 [0.4000]	113.5% {10.7%}			
13C8_PFOsa_EIS	(506.0 / 78.0) 66577	(10.17, N/A) (N/A, -0.01, N/A)	220.5	N/A	0.1824 [0.2000]	91.2% {7.6%}			
D3_NMeFOSA_EIS	(515.0 / 169.0) 13372	(10.60, N/A) (N/A, -0.01, N/A)	190.0	N/A	0.1238 [0.2000]	61.9% {5.6%}			
D5_NEtFOSA_EIS	(531.1 / 169.0) 11119	(10.69, N/A) (N/A, -0.01, N/A)	157.3	N/A	0.1136 [0.2000]	56.8% {4.9%}			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT- CV[ $\mu$ min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
D3_MeFOSAA_EIS	(573.0 / 419.0) 27112	(9.52, N/A) (N/A, -0.02, N/A)	480.8	N/A	0.5098 [ 0.4000 ]	127.4% { 10.0% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 18825	(9.69, N/A) (N/A, -0.01, N/A)	158.7	N/A	0.4118 [ 0.4000 ]	103.0% { 8.5% }			
D7_NMeFOSE_EIS	(623.2 / 58.9) 30503	(10.57, N/A) (N/A, -0.01, N/A)	292.2	N/A	1.6537 [ 2.0000 ]	82.7% { 6.4% }			
D9_NEtFOSE_EIS	(639.2 / 58.9) 14842	(10.66, N/A) (N/A, 0.00, N/A)	275.5	N/A	1.5792 [ 2.0000 ]	79.0% { 6.3% }			
13C3_HFPODA_EIS	(287.0 / 169.0) 75518	(6.52, N/A) (N/A, -0.04, N/A)	539.7	N/A	0.7398 [ 0.8000 ]	92.5% { 11.3% }			

# FORM IR ANALYSIS DATA SHEET

DUP-1-112822P

Laboratory:P	AP L, LLC	Work Order:P	22L0004P
Client:P	Tidewater, Inc.P	Project:P	NASA JPL SIP
Matrix:P	WaterP	Laboratory ID:P	22L0004-13P
		File ID:	S2022-12-09B (42)P
Sampled:P	11/28/22 09:45P	Prepared:P	12/05/22 07:17P
		Analyzed:	12/10/22 07:35P
Solids:P		Preparation:P	Table B-15P
		Dilution:P	1P
Initial/Final:P	284.32 mL / 2 mL	Instrument:	SaphiraP
Batch:P	BBL0076P	Sequence:P	SB03769
		Calibration:P	2250016P

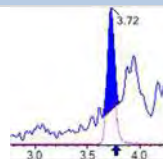
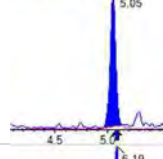
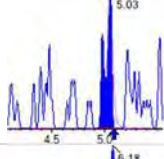
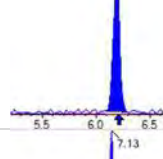
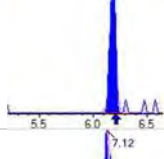
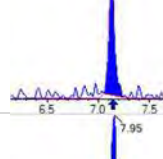
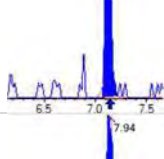
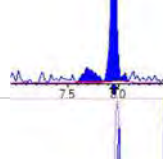
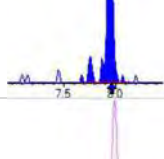
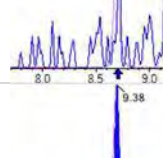
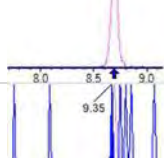
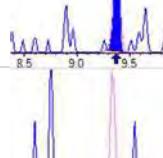
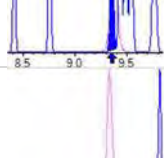
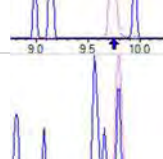
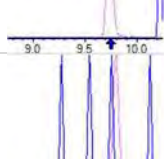
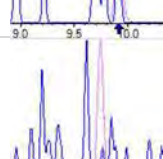
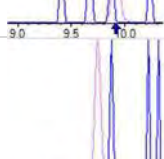
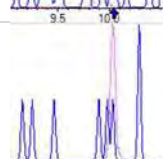
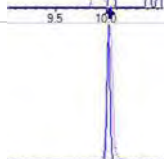
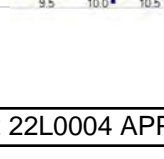
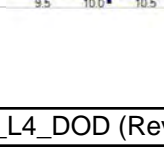
COMPOUNDR	CONC. (ng/L)R	LOQ	LODR	DL	Q
FBAP	0.61 JP	2.8	0.18	0.044	
FPEAP	1.0 JP	1.4	0.18	0.055	
FHXAP	0.97P	0.70	0.18	0.056	
PFHPAP	0.41 JP	0.70	0.18	0.044	
FOAP	0.94P	0.70	0.18	0.072	
FNAP	0.18 UP	0.70	0.18	0.044	
FDAP	0.17 JP	0.70	0.18	0.044	
FUnAP	0.18 UP	0.70	0.18	0.070	
FDOAP	0.18 UP	0.70	0.18	0.044	
FTRDAP	0.18 UP	0.70	0.18	0.051	
FTEDAP	0.18 UP	0.70	0.18	0.076	
FBSP	4.9P	0.70	0.18	0.044	
FPESP	0.29 JP	0.70	0.18	0.051	
FHXSP	0.44 JP	0.70	0.18	0.044	
FHPSP	0.18 UP	0.70	0.18	0.049	
FOSP	0.18 UP	0.70	0.18	0.044	
FNSP	0.35 UP	0.70	0.35	0.22	
FDSP	0.18 UP	0.70	0.18	0.056	
4:2FTSP	0.35 UP	2.8P	0.35	0.095	
6:2FTSP	0.18 UP	2.8P	0.18	0.079	
8:2FTSP	0.53 UP	2.8P	0.53	0.18	
FOSAP	0.18 UP	2.8	0.18	0.044	
NMeFOSAP	1.8 UP	2.8P	1.8	0.87	
NEtFOSAP	1.8 UP	2.8P	1.8	0.87	
NMeFOSAAP	0.18 UP	0.70P	0.18	0.063	
NEtFOSAAP	0.21 JP	0.70P	0.18	0.044	
NMeFOSEP	1.1 UP	2.8P	1.1	0.53	
NEtFOSEP	1.1 UP	2.8P	1.1	0.53	
HFPO-DAP	0.88 UP	1.4P	0.88	0.43	
ADONAP	0.53 UP	1.4P	0.53	0.23	

# FORM IR ANALYSIS DATA SHEET

DUP-1-112822P

Laboratory:P	AP L, LLC	Work Order:P	22L0004P	
Client:P	Tidewater, Inc.P	Project:P	NASA JPL SIP	
Matrix:P	WaterP	Laboratory ID:P	22L0004-13P	File ID: S2022-12-09B (42)P
Sampled:P	11/28/22 09:45P	Prepared:P	12/05/22 07:17P	Analyzed: 12/10/22 07:35P
Solids:P		Preparation:P	Table B-15P	Dilution:P 1P
Initial/Final:P	284.32 mL / 2 mL		Instrument:	SaphiraP
Batch:P	BBL0076P	Sequence:P	SB03769P	Calibration:P 2250016P

COMPOUND	CONC. (ng/L)R	LOQ	LODR	DLR	Q
9CL-PF3ONSP	0.53 UP	1.4P	0.53P	0.21P	
11CL-PF3OUDSP	0.53 UP	1.4P	0.53P	0.21P	

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBA	(212.9 / 169.0) 4944	(3.72, 1.00) (0.00, N/A, 0.0)	17.3	N/A 0.0 0.0	0.0865	N/A			
PFPeA	(262.9 / 219.0) 14046 (262.9 / 69.0) 282	(5.05, 1.00) (0.00, N/A, 0.9)	108.3 9.7	0.0201 172.3 181.4	0.1419	N/A			
PFHxA	(313.0 / 269.0) 23896 (313.0 / 119.0) 2050	(6.19, 1.00) (0.00, N/A, 0.4)	129.3 110.1	0.0858 95.4 87.6	0.1379	N/A			
PFHpA	(363.0 / 319.0) 8630 (363.0 / 169.0) 2290	(7.13, 1.00) (0.00, N/A, 0.6)	48.5 35.8	0.2654 92.5 93.9	0.0586	N/A			
PFOA	(413.0 / 369.0) 21969 (413.0 / 169.0) 5271	(7.95, 1.00) (0.00, N/A, 0.4)	117.0 494073.0	0.2399 74.2 74.1	0.1336	N/A			
PFNA	(463.0 / 419.0) N/A (463.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDA	(513.0 / 469.0) 4453 (513.0 / 169.0) 261	(9.38, 1.00) (0.01, N/A, 1.5)	24.1 13.1	0.0587 66.1 59.0	0.0245	N/A			
PFUnA	(563.0 / 519.0) N/A (563.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDoA	(613.0 / 569.0) N/A (613.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFTrDA	(663.0 / 619.0) N/A (663.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFTeDA	(713.0 / 669.0) N/A (713.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			



Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: 22L0004-13  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-07.dam

Quant Method: 1633 - S2022-12-07A  
 Path: S2022-12-09B (42)  
 Acquired: 2022/12/10 - 07:35

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBS	( 298.9 / 80.0 ) 176885 ( 298.9 / 99.0 ) 110381	( 6.16 , 1.00 ) ( 0.00 , N/A , -0.2)	246.5 6999.9	0.6240 92.1 92.2	0.6932	N/A			
PFPeS	( 349.0 / 80.0 ) 17070 ( 349.0 / 99.0 ) 6796	( 7.20 , 0.89 ) ( N/A , -0.02 , 0.2)	120.4 323058.3	0.3981 109.2 118.5	0.0405	N/A			
PFHxS	( 399.0 / 80.0 ) 23559 ( 399.0 / 99.0 ) 6958	( 8.09 , 1.00 ) ( 0.00 , N/A , 0.1)	172.7 263.9	0.2953 85.6 89.5	0.0631	N/A			M14 ABK 12/29/22
PFHpS	( 449.0 / 80.0 ) N/A ( 449.0 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFOS	( 499.0 / 80.0 ) N/A ( 499.0 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFNS	( 549.0 / 80.0 ) N/A ( 549.0 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDS	( 599.0 / 80.0 ) N/A ( 599.0 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDoS	( 698.9 / 80.0 ) N/A ( 698.9 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
4:2FTS	( 327.0 / 307.0 ) N/A ( 327.0 / 81.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
6:2FTS	( 427.0 / 407.0 ) N/A ( 427.0 / 81.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
8:2FTS	( 527.0 / 507.0 ) N/A ( 527.0 / 81.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			

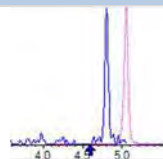
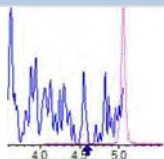
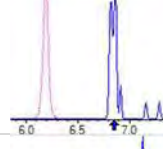
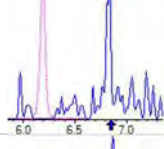
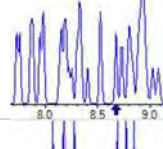
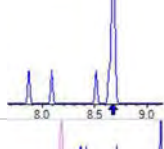
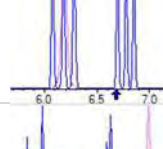
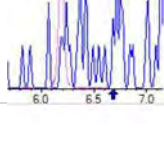
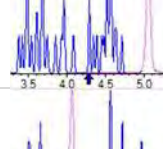
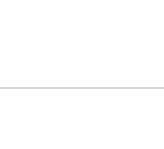
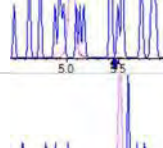
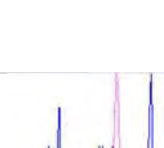
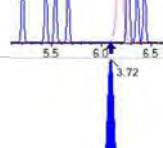
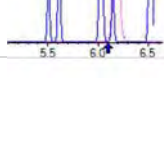
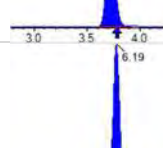
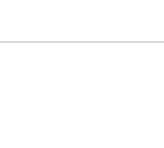
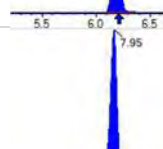
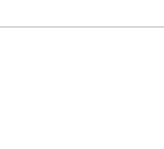
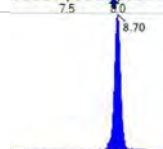
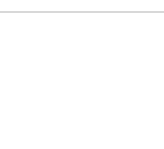
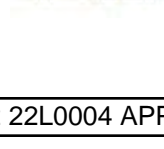


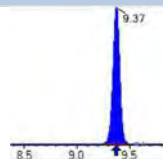
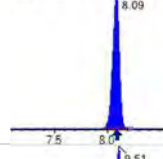
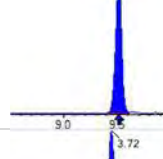
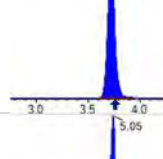
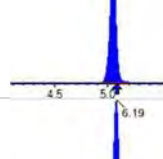
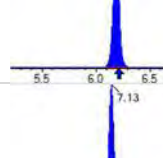
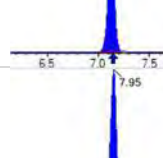
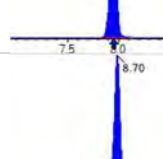
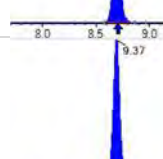
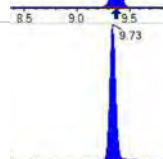
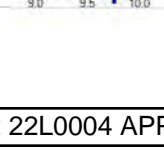
Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

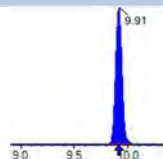
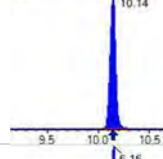
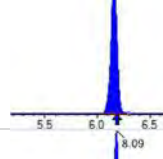
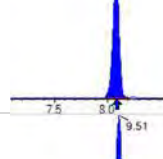
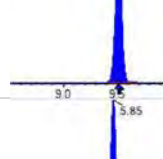
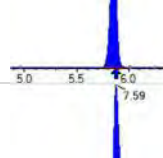
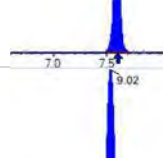
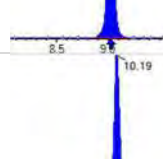
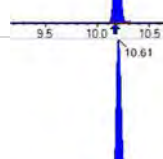
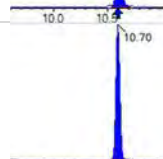
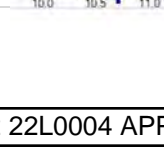
Sample I.D.: 22L0004-13  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-07.dam

Quant Method: 1633 - S2022-12-07A  
 Path: S2022-12-09B (42)  
 Acquired: 2022/12/10 - 07:35

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFOSA	(498.0 / 78.0) N/A (498.0 / 478.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSA	(511.9 / 219.0) N/A (511.9 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NEtFOSA	(526.0 / 219.0) N/A (526.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSAA	(570.0 / 419.0) N/A (570.0 / 483.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NEtFOSAA	(584.0 / 419.0) 1865 (584.0 / 526.0) 1262	(9.72, 1.00) (0.02, N/A, -3.0)	68.2 5563.9	0.6766 111.5 109.0	0.0296	N/A			
NMeFOSE	(616.1 / 59.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
NEtFOSE	(630.0 / 59.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
HFPO-DA	(285.0 / 169.0) N/A (285.0 / 185.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
ADONA	(377.0 / 85.0) N/A (377.0 / 251.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
9CI-Pf3ONS	(531.0 / 351.0) N/A (533.0 / 353.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
11CI-Pf3OUDS	(631.0 / 451.0) N/A (633.0 / 453.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
3:3FTCA	(241.0 / 177.0) N/A (241.0 / 117.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
5:3FTCA	(341.0 / 236.7) N/A (341.0 / 217.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
7:3FTCA	(441.0 / 317.0) N/A (441.0 / 337.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFEESA	(315.0 / 135.0) N/A (315.0 / 83.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFMPA	(229.0 / 85.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
PFMBA	(279.0 / 85.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
NFDHA	(201.0 / 85.0) N/A (295.0 / 201.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
13C3_PFBA_IIS	(216.0 / 172.0) 78797	(3.72, N/A) (N/A, -0.05, N/A)	714.1	N/A	0.8197 [ 1.0000 ]	82.0% { 90.0% }			
13C2_PFHxA_IIS	(315.1 / 270.0) 154803	(6.19, N/A) (N/A, -0.02, N/A)	540.1	N/A	1.2536 [ 1.0000 ]	125.4% { 119.4% }			
13C4_PFOA_IIS	(417.0 / 372.0) 141218	(7.95, N/A) (N/A, 0.00, N/A)	653.4	N/A	1.1912 [ 1.0000 ]	119.1% { 116.3% }			
13C5_PFNA_IIS	(468.0 / 423.0) 123245	(8.70, N/A) (N/A, 0.00, N/A)	222.0	N/A	1.2941 [ 1.0000 ]	129.4% { 125.5% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT-CV[ $\mu$ min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDA_IIS	(515.1 / 470.1) 128842	(9.37, N/A) (N/A, 0.01, N/A)	273.9	N/A	1.5639 [ 1.0000 ]	156.4% { 142.9% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 250774	(8.09, N/A) (N/A, 0.00, N/A)	848.1	N/A	1.1684 [ 1.0000 ]	116.8% { 119.7% }			
13C4_PFOS_IIS	(502.8 / 79.9) 284243	(9.51, N/A) (N/A, 0.00, N/A)	515.6	N/A	1.5272 [ 1.0000 ]	152.7% { 148.8% }			
13C4_PFBA_EIS	(217.0 / 172.0) 600435	(3.72, N/A) (N/A, -0.05, N/A)	828.3	N/A	8.1278 [ 8.0000 ]	101.6% { 91.7% }			
13C5_PFPeA_EIS	(267.9 / 223.0) 411992	(5.05, N/A) (N/A, -0.03, N/A)	1053.4	N/A	3.6484 [ 4.0000 ]	91.2% { 118.5% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 343770	(6.19, N/A) (N/A, -0.02, N/A)	838.0	N/A	2.1771 [ 2.0000 ]	108.9% { 131.0% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 290659	(7.13, N/A) (N/A, -0.01, N/A)	934.6	N/A	2.0393 [ 2.0000 ]	102.0% { 117.2% }			
13C8_PFOA_EIS	(421.0 / 376.0) 319076	(7.95, N/A) (N/A, 0.00, N/A)	479.3	N/A	2.2214 [ 2.0000 ]	111.1% { 122.3% }			
13C9_PFNA_EIS	(472.0 / 427.0) 131760	(8.70, N/A) (N/A, 0.00, N/A)	284.6	N/A	1.0833 [ 1.0000 ]	108.3% { 158.1% }			
13C6_PFDA_EIS	(519.0 / 474.0) 178918	(9.37, N/A) (N/A, 0.00, N/A)	338.3	N/A	0.9560 [ 1.0000 ]	95.6% { 153.8% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 146711	(9.73, N/A) (N/A, -0.01, N/A)	445.7	N/A	0.5840 [ 1.0000 ]	58.4% { 72.9% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDa_EIS	(615.0 / 570.0) 232449	(9.91, N/A) (N/A, 0.00, N/A)	512.1	N/A	0.7624 [ 1.0000 ]	76.2% { 120.3% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 162598	(10.14, N/A) (N/A, 0.00, N/A)	358.6	N/A	0.7265 [ 1.0000 ]	72.7% { 125.3% }			
13C3_PFBs_EIS	(302.0 / 80.0) 835914	(6.16, N/A) (N/A, -0.02, N/A)	844.6	N/A	2.2681 [ 2.0000 ]	113.4% { 126.3% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 445614	(8.09, N/A) (N/A, 0.00, N/A)	787.2	N/A	2.1241 [ 2.0000 ]	106.2% { 126.3% }			
13C8_PFOS_EIS	(507.0 / 80.0) 817183	(9.51, N/A) (N/A, 0.00, N/A)	703.6	N/A	1.8859 [ 2.0000 ]	94.3% { 136.3% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 117713	(5.85, N/A) (N/A, -0.02, N/A)	629.8	N/A	5.6631 [ 4.0000 ]	141.6% { 164.5% }			
13C2_6:2FTS_EIS	(429.0 / 81.0) 124538	(7.59, N/A) (N/A, -0.01, N/A)	615.4	N/A	4.4658 [ 4.0000 ]	111.6% { 138.5% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 108264	(9.02, N/A) (N/A, 0.00, N/A)	319.6	N/A	4.4728 [ 4.0000 ]	111.8% { 124.9% }			
13C8_PFOsa_EIS	(506.0 / 78.0) 835429	(10.19, N/A) (N/A, 0.01, N/A)	583.2	N/A	1.2629 [ 2.0000 ]	63.1% { 95.2% }			
D3_NMeFOSA_EIS	(515.0 / 169.0) 104431	(10.61, N/A) (N/A, 0.00, N/A)	380.1	N/A	0.5335 [ 2.0000 ]	26.7% { 43.8% }			
D5_NEiFOSA_EIS	(531.1 / 169.0) 139425	(10.70, N/A) (N/A, 0.00, N/A)	639.1	N/A	0.7855 [ 2.0000 ]	39.3% { 61.3% }			



Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: 22L0004-13  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-07.dam

Quant Method: 1633 - S2022-12-07A  
 Path: S2022-12-09B (42)  
 Acquired: 2022/12/10 - 07:35

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
D3_MeFOSAA_EIS	(573.0 / 419.0) 415003	(9.54, N/A) (N/A, 0.01, N/A)	271.9	N/A	4.3049 [ 4.0000 ]	107.6% { 153.2% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 274407	(9.71, N/A) (N/A, 0.00, N/A)	185.1	N/A	3.3118 [ 4.0000 ]	82.8% { 124.6% }			
D7_NMeFOSE_EIS	(623.2 / 58.9) 298423	(10.58, N/A) (N/A, 0.00, N/A)	672.3	N/A	8.9256 [ 20.0000 ]	44.6% { 62.8% }			
D9_NEtFOSE_EIS	(639.2 / 58.9) 166545	(10.67, N/A) (N/A, 0.00, N/A)	956.4	N/A	9.7762 [ 20.0000 ]	48.9% { 70.2% }			
13C3_HFPODA_EIS	(287.0 / 169.0) 829159	(6.54, N/A) (N/A, -0.02, N/A)	565.7	N/A	7.9732 [ 8.0000 ]	99.7% { 123.6% }			

# FORM IR ANALYSIS DATA SHEET

DUP-1-112822P

Laboratory:P	AP L, LLC	Work Order:P	22L0004P		
Client:P	Tidewater, Inc.P	Project:P	NASA JPL SIP		
Matrix:P	WaterP	Laboratory ID:P	22L0004-13RE1P	File ID:	S2022-12-09B (43)P
Sampled:P	11/28/22 09:45P	Prepared:P	12/05/22 07:17P	Analyzed:	12/10/22 07:47P
Solids:P		Preparation:P	Table B-15P	Dilution:P	10P
Initial/Final:P	284.32 mL / 2 mL			Instrument:	SaphiraP
Batch:P	BBL0076P	Sequence:P	SB03769	Calibration:P	2250016P



Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: 22L0004-13RE1@10  
 DF, IV: 1, 1.0µL  
 Acquisition Method: 1633 2022-12-07.dam

Quant Method: 1633 - S2022-12-07A  
 Path: S2022-12-09B (43)  
 Acquired: 2022/12/10 - 07:47

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBA	(212.9 / 169.0) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A	N/A 0.0 0.0	0.0000	N/A			
PFPeA	(262.9 / 219.0) N/A (262.9 / 69.0) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHxA	(313.0 / 269.0) N/A (313.0 / 119.0) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHpA	(363.0 / 319.0) N/A (363.0 / 169.0) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFOA	(413.0 / 369.0) N/A (413.0 / 169.0) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFNA	(463.0 / 419.0) N/A (463.0 / 169.0) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDA	(513.0 / 469.0) N/A (513.0 / 169.0) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFUnA	(563.0 / 519.0) N/A (563.0 / 169.0) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDoA	(613.0 / 569.0) N/A (613.0 / 169.0) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFTrDA	(663.0 / 619.0) N/A (663.0 / 169.0) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFTeDA	(713.0 / 669.0) N/A (713.0 / 169.0) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			



Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: 22L0004-13RE1@10  
 DF, IV: 1, 1.0µL  
 Acquisition Method: 1633 2022-12-07.dam

Quant Method: 1633 - S2022-12-07A  
 Path: S2022-12-09B (43)  
 Acquired: 2022/12/10 - 07:47

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBS	( 298.9 / 80.0 ) N/A ( 298.9 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFPeS	( 349.0 / 80.0 ) N/A ( 349.0 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHxS	( 399.0 / 80.0 ) N/A ( 399.0 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHpS	( 449.0 / 80.0 ) N/A ( 449.0 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFOS	( 499.0 / 80.0 ) N/A ( 499.0 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFNS	( 549.0 / 80.0 ) N/A ( 549.0 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDS	( 599.0 / 80.0 ) N/A ( 599.0 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDoS	( 698.9 / 80.0 ) N/A ( 698.9 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
4:2FTS	( 327.0 / 307.0 ) N/A ( 327.0 / 81.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
6:2FTS	( 427.0 / 407.0 ) N/A ( 427.0 / 81.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
8:2FTS	( 527.0 / 507.0 ) N/A ( 527.0 / 81.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			

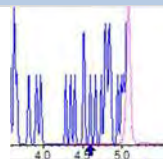
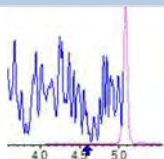
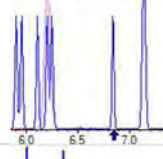
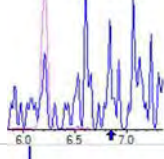
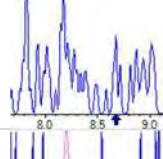
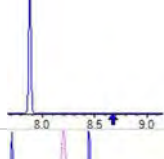
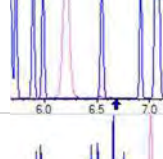
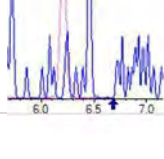
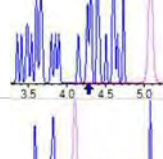
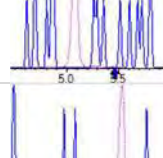
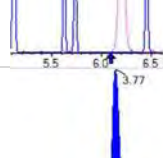
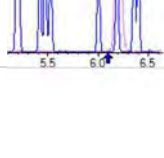
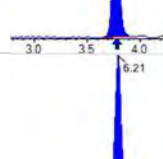
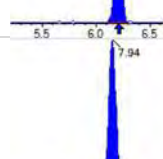
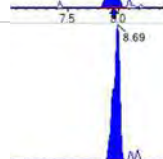
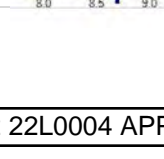


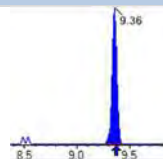
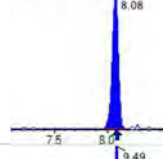
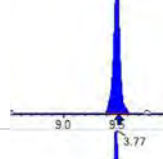
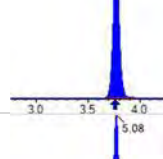
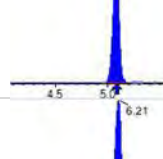
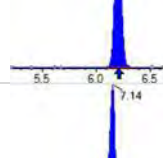
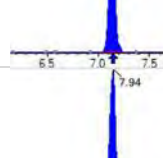
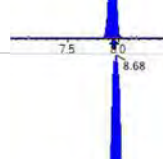
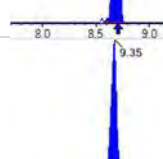
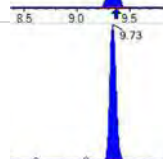
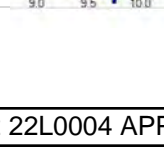
Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

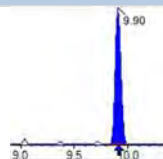
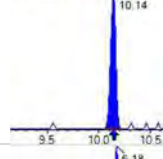
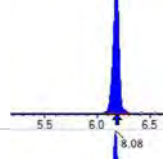
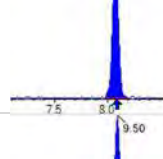
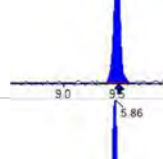
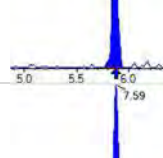
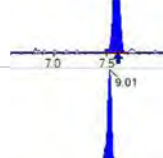
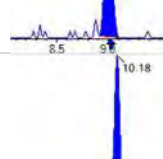
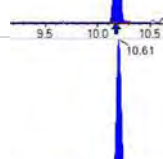
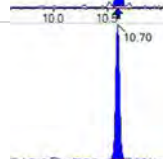
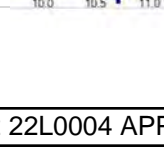
Sample I.D.: 22L0004-13RE1@10  
 DF, IV: 1, 1.0µL  
 Acquisition Method: 1633 2022-12-07.dam

Quant Method: 1633 - S2022-12-07A  
 Path: S2022-12-09B (43)  
 Acquired: 2022/12/10 - 07:47

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFOSA	(498.0 / 78.0) N/A (498.0 / 478.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSA	(511.9 / 219.0) N/A (511.9 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NEtFOSA	(526.0 / 219.0) N/A (526.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSAA	(570.0 / 419.0) N/A (570.0 / 483.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NEtFOSAA	(584.0 / 419.0) N/A (584.0 / 526.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSE	(616.1 / 59.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
NEtFOSE	(630.0 / 59.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
HFPO-DA	(285.0 / 169.0) N/A (285.0 / 185.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
ADONA	(377.0 / 85.0) N/A (377.0 / 251.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
9Cl-Pf3ONS	(531.0 / 351.0) N/A (533.0 / 353.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
11Cl-Pf3OUDS	(631.0 / 451.0) N/A (633.0 / 453.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
3:3FTCA	(241.0 / 177.0) N/A (241.0 / 117.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
5:3FTCA	(341.0 / 236.7) N/A (341.0 / 217.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
7:3FTCA	(441.0 / 317.0) N/A (441.0 / 337.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFEESA	(315.0 / 135.0) N/A (315.0 / 83.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFMPA	(229.0 / 85.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
PFMBA	(279.0 / 85.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
NFDHA	(201.0 / 85.0) N/A (295.0 / 201.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
13C3_PFBA_IIS	(216.0 / 172.0) 9422	(3.77, N/A) (N/A, 0.00, N/A)	288.1	N/A	0.9802 [ 1.0000 ]	98.0% { 10.8% }			
13C2_PFHxA_IIS	(315.1 / 270.0) 12837	(6.21, N/A) (N/A, -0.01, N/A)	320.3	N/A	1.0396 [ 1.0000 ]	104.0% { 9.9% }			
13C4_PFOA_IIS	(417.0 / 372.0) 12631	(7.94, N/A) (N/A, -0.02, N/A)	192.9	N/A	1.0655 [ 1.0000 ]	106.5% { 10.4% }			
13C5_PFNA_IIS	(468.0 / 423.0) 9770	(8.69, N/A) (N/A, 0.00, N/A)	451.6	N/A	1.0258 [ 1.0000 ]	102.6% { 9.9% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDA_IIS	(515.1 / 470.1) 7822	(9.36, N/A) (N/A, -0.01, N/A)	669.8	N/A	0.9495 [ 1.0000 ]	95.0% { 8.7% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 21314	(8.08, N/A) (N/A, -0.01, N/A)	271.4	N/A	0.9930 [ 1.0000 ]	99.3% { 10.2% }			
13C4_PFOS_IIS	(502.8 / 79.9) 20226	(9.49, N/A) (N/A, -0.01, N/A)	267.5	N/A	1.0867 [ 1.0000 ]	108.7% { 10.6% }			
13C4_PFBA_EIS	(217.0 / 172.0) 69430	(3.77, N/A) (N/A, 0.00, N/A)	1058.5	N/A	0.7860 [ 0.8000 ]	98.2% { 10.6% }			
13C5_PFPeA_EIS	(267.9 / 223.0) 36230	(5.08, N/A) (N/A, 0.00, N/A)	523.5	N/A	0.3869 [ 0.4000 ]	96.7% { 10.4% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 28441	(6.21, N/A) (N/A, -0.01, N/A)	387.1	N/A	0.2172 [ 0.2000 ]	108.6% { 10.8% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 24167	(7.14, N/A) (N/A, 0.00, N/A)	395.6	N/A	0.2045 [ 0.2000 ]	102.2% { 9.7% }			
13C8_PFOA_EIS	(421.0 / 376.0) 30005	(7.94, N/A) (N/A, -0.01, N/A)	857.2	N/A	0.2335 [ 0.2000 ]	116.8% { 11.5% }			
13C9_PFNA_EIS	(472.0 / 427.0) 13704	(8.68, N/A) (N/A, -0.02, N/A)	225016.0	N/A	0.1421 [ 0.1000 ]	142.1% { 16.4% }			
13C6_PFDA_EIS	(519.0 / 474.0) 7850	(9.35, N/A) (N/A, -0.02, N/A)	72.7	N/A	0.0691 [ 0.1000 ]	69.1% { 6.7% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 18639	(9.73, N/A) (N/A, -0.01, N/A)	744.5	N/A	0.1222 [ 0.1000 ]	122.2% { 9.3% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDa_EIS	(615.0 / 570.0) 23590	(9.90, N/A) (N/A, 0.00, N/A)	357.2	N/A	0.1274 [0.1000]	127.4% {12.2%}			
13C2_PFTeDA_EIS	(715.0 / 670.0) 10337	(10.14, N/A) (N/A, 0.00, N/A)	195.1	N/A	0.0761 [0.1000]	76.1% {8.0%}			
13C3_PFBs_EIS	(302.0 / 80.0) 75055	(6.18, N/A) (N/A, 0.00, N/A)	627.5	N/A	0.2396 [0.2000]	119.8% {11.3%}			
13C3_PFHxS_EIS	(402.0 / 80.0) 38053	(8.08, N/A) (N/A, -0.01, N/A)	369.6	N/A	0.2134 [0.2000]	106.7% {10.8%}			
13C8_PFOS_EIS	(507.0 / 80.0) 65175	(9.50, N/A) (N/A, -0.01, N/A)	235.5	N/A	0.2114 [0.2000]	105.7% {10.9%}			
13C2_4:2FTS_EIS	(329.0 / 81.0) 9579	(5.86, N/A) (N/A, -0.01, N/A)	158.5	N/A	0.5422 [0.4000]	135.6% {13.4%}			
13C2_6:2FTS_EIS	(429.0 / 81.0) 12770	(7.59, N/A) (N/A, -0.01, N/A)	202.7	N/A	0.5388 [0.4000]	134.7% {14.2%}			
13C2_8:2FTS_EIS	(529.0 / 81.0) 10921	(9.01, N/A) (N/A, -0.01, N/A)	71.1	N/A	0.5308 [0.4000]	132.7% {12.6%}			
13C8_PFOsa_EIS	(506.0 / 78.0) 74594	(10.18, N/A) (N/A, 0.00, N/A)	277.1	N/A	0.1585 [0.2000]	79.2% {8.5%}			
D3_NMeFOSA_EIS	(515.0 / 169.0) 15423	(10.61, N/A) (N/A, 0.00, N/A)	209.7	N/A	0.1107 [0.2000]	55.4% {6.5%}			
D5_NEtFOSA_EIS	(531.1 / 169.0) 15686	(10.70, N/A) (N/A, 0.00, N/A)	215.4	N/A	0.1242 [0.2000]	62.1% {6.9%}			



Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: 22L0004-13RE1@10  
 DF, IV: 1, 1.0µL  
 Acquisition Method: 1633 2022-12-07.dam

Quant Method: 1633 - S2022-12-07A  
 Path: S2022-12-09B (43)  
 Acquired: 2022/12/10 - 07:47

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT-CV[ $\mu$ min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
D3_MeFOSAA_EIS	(573.0 / 419.0) 26867	(9.53, N/A) (N/A, -0.01, N/A)	306.9	N/A	0.3917 [ 0.4000 ]	97.9% { 9.9% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 28631	(9.70, N/A) (N/A, 0.00, N/A)	83.8	N/A	0.4856 [ 0.4000 ]	121.4% { 13.0% }			
D7_NMeFOSE_EIS	(623.2 / 58.9) 32710	(10.57, N/A) (N/A, 0.00, N/A)	372.0	N/A	1.3749 [ 2.0000 ]	68.7% { 6.9% }			
D9_NEtFOSE_EIS	(639.2 / 58.9) 17523	(10.67, N/A) (N/A, 0.00, N/A)	419.3	N/A	1.4456 [ 2.0000 ]	72.3% { 7.4% }			
13C3_HFPODA_EIS	(287.0 / 169.0) 78472	(6.55, N/A) (N/A, -0.01, N/A)	434.2	N/A	0.9099 [ 0.8000 ]	113.7% { 11.7% }			

# FORM IR ANALYSIS DATA SHEET

MW-4-S4-112822-

Laboratory:	APPL, LLC-	Work Order:	22L0004-		
Client:	Tidewater, Inc.-	Project:	NASA JPL SI-		
Matrix:	Water-	Laboratory ID:	22L0004-14-	File ID:	S2022-12-09B (44)-
Sampled:	11/28/22 10:30-	Prepared:	12/05/22 07:17	Analyzed:	12/10/22 08:00
Solids:		Preparation:	Table B-15-	Dilution:	1-
Initial/Final:	274.47 mL / 2 mL-			Instrument:	Saphira
Batch:	BBL0076-	Sequence:	SB03769	Calibration:	2250016

COMPOUNDR	CONC. (ng/L)	LOQ	LODR	DL	Q
PFBA-	0.18 U-	2.9	0.18	0.046	
PFPEA-	0.46 J-	1.5	0.18	0.056	
PFHXA-	0.33 J-	0.73	0.18	0.058	
PFHPA-	0.18 J-	0.73	0.18	0.046	
PFOA-	0.40 J-	0.73-	0.18	0.075	MI4,
PFNA-	0.18 U-	0.73	0.18	0.046	
PFDA-	0.18 U-	0.73	0.18	0.046	
PFUnA-	0.18 U-	0.73	0.18	0.073	
PFDOA-	0.18 U-	0.73	0.18	0.046	
PFTRDA-	0.18 U-	0.73	0.18	0.053	
PFTEDA-	0.18 U-	0.73	0.18	0.078	
PFBS-	0.39 J-	0.73	0.18	0.046	
PFPEs-	0.24 J-	0.73	0.18	0.053	
PFHXS-	0.28 J-	0.73	0.18	0.046	
PFHPS-	0.18 U-	0.73	0.18	0.051	
PFOS-	0.15 J-	0.73	0.18	0.046	
PFNS-	0.36 U-	0.73	0.36	0.22	
PFDS-	0.18 U-	0.73	0.18	0.058	
4:2FTS-	0.36 U-	2.9	0.36	0.098	
6:2FTS-	0.40 J-	2.9	0.18	0.082	
8:2FTS-	0.55 U-	2.9	0.55	0.18	
PFOSA-	0.18 U-	2.9	0.18	0.046	
NMeFOSA-	1.8 U-	2.9	1.8	0.90	
NEtFOSA-	1.8 U-	2.9	1.8	0.90	
NMeFOSAA-	0.18 U-	0.73	0.18	0.066	
NEtFOSAA-	0.18 U-	0.73	0.18	0.046	
NMeFOSE-	1.1 U-	2.9	1.1	0.55	
NEtFOSE-	1.1 U-	2.9	1.1	0.55	
HFPO-DA-	0.91 U-	1.5	0.91	0.45	
ADONA-	0.55 U-	1.5	0.55	0.24	

# FORM IR ANALYSIS DATA SHEET

MW-4-S4-112822-

Laboratory:	APPL, LLC-	Work Order:	22L0004-
Client:	Tidewater, Inc.-	Project:	NASA JPL SI-
Matrix:	Water-	Laboratory ID:	22L0004-14-
Sampled:	11/28/22 10:30-	Prepared:	12/05/22 07:17-
Solids:		Preparation:	Table B-15-
Initial/Final:	274.47 mL / 2 mL-	Dilution:	1-
Batch:	BBL0076-	Instrument:	Saphira-
	Sequence:	SB03769-	Calibration:
			2250016-

COMPOUNDR	CONC. (ng/L)R	LOQ	LODR	DLR	Q
9CL-PF3ONS-	0.55 U-	1.5-	0.55-	0.21-	
11CL-PF3OUDS-	0.55 U-	1.5-	0.55-	0.22-	



Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: 22L0004-14  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-07.dam

Quant Method: 1633 - S2022-12-07A  
 Path: S2022-12-09B (44)  
 Acquired: 2022/12/10 - 08:00

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBA	(212.9 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
PFPeA	(262.9 / 219.0) 5731 (262.9 / 69.0) 98	(5.04, 1.00) (0.00, N/A, -1.5)	61.7 7.2	0.0170 146.4 154.1	0.0627	N/A			
PFHxA	(313.0 / 269.0) 6800 (313.0 / 119.0) 833	(6.17, 1.00) (0.00, N/A, 0.9)	41.8 47.3	0.1226 136.4 125.2	0.0446	N/A			
PFHpA	(363.0 / 319.0) 3439 (363.0 / 169.0) 1322	(7.12, 1.00) (0.01, N/A, 1.1)	25.5 21.7	0.3843 133.9 136.0	0.0248	N/A			
PFOA	(413.0 / 369.0) 7795 (413.0 / 169.0) 2591	(7.92, 1.00) (0.00, N/A, 0.0)	21.8 32.4	0.3324 102.7 102.7	0.0544	N/A			M14 ABK 12/29/22
PFNA	(463.0 / 419.0) N/A (463.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDA	(513.0 / 469.0) N/A (513.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFUnA	(563.0 / 519.0) N/A (563.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDoA	(613.0 / 569.0) N/A (613.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFTrDA	(663.0 / 619.0) N/A (663.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFTeDA	(713.0 / 669.0) N/A (713.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			



Chemist: ABK  
Instrument: Saphira  
Type: Sciex Q3 5500

Sample I.D.: 22L0004-14  
DF, IV: 1, 10.0µL  
Acquisition Method: 1633 2022-12-07.dam

Quant Method: 1633 - S2022-12-07A  
Path: S2022-12-09B (44)  
Acquired: 2022/12/10 - 08:00

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBS	(298.9 / 80.0) 12088 (298.9 / 99.0) 7385	(6.14, 1.00) (0.00, N/A, -0.1)	55.7 62.1	0.6110 90.2 90.2	0.0531	N/A			
PFPeS	(349.0 / 80.0) 11261 (349.0 / 99.0) 2802	(7.19, 0.89) (N/A, -0.03, 0.3)	676.4 29.0	0.2488 68.2 74.0	0.0328	N/A			
PFHxS	(399.0 / 80.0) 11875 (399.0 / 99.0) 4196	(8.06, 1.00) (0.00, N/A, -0.9)	436.5 1873.1	0.3533 102.5 107.0	0.0391	N/A			M14 ABK 12/29/22
PFHpS	(449.0 / 80.0) N/A (449.0 / 99.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFOS	(499.0 / 80.0) 7012 (499.0 / 99.0) 2131	(9.49, 1.00) (0.00, N/A, -0.2)	18.8 191.0	0.3039 118.0 128.4	0.0201	N/A			
PFNS	(549.0 / 80.0) N/A (549.0 / 99.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDS	(599.0 / 80.0) N/A (599.0 / 99.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDoS	(698.9 / 80.0) N/A (698.9 / 99.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
4:2FTS	(327.0 / 307.0) N/A (327.0 / 81.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
6:2FTS	(427.0 / 407.0) 2437 (427.0 / 81.0) 2361	(7.57, 1.00) (0.00, N/A, 0.0)	22.5 29.6	0.9691 134.7 136.5	0.0551	N/A			
8:2FTS	(527.0 / 507.0) N/A (527.0 / 81.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			

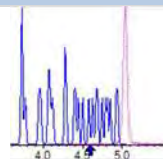
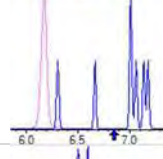
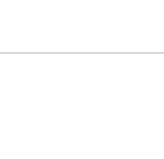
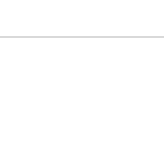
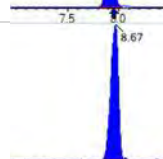
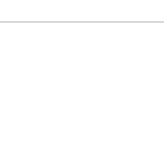


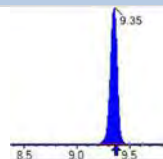
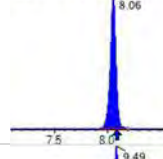
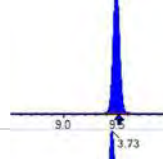
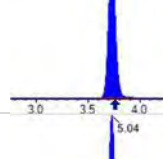
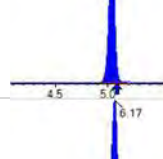
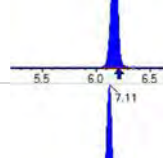
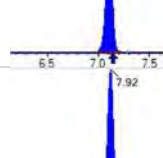
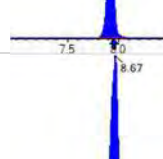
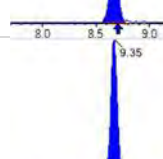
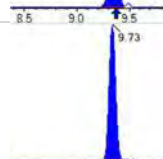
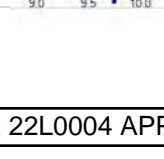
Chemist: ABK  
Instrument: Saphira  
Type: Sciex Q3 5500

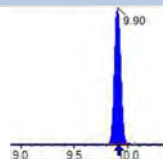
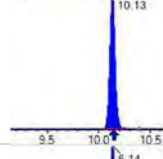
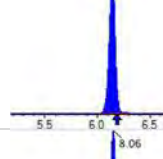
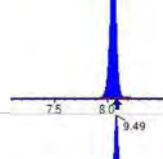
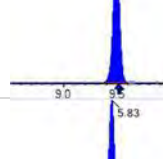
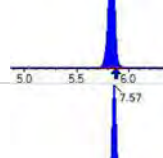
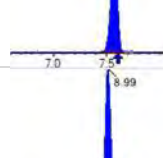
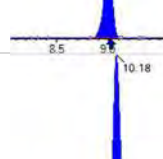
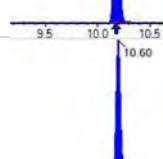
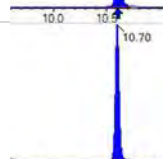
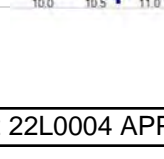
Sample I.D.: 22L0004-14  
DF, IV: 1, 10.0µL  
Acquisition Method: 1633 2022-12-07.dam

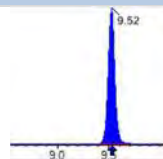
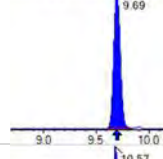
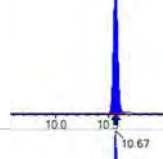
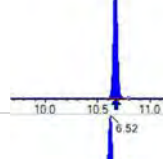
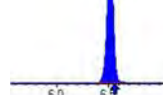
Quant Method: 1633 - S2022-12-07A  
Path: S2022-12-09B (44)  
Acquired: 2022/12/10 - 08:00

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFOSA	(498.0 / 78.0) N/A (498.0 / 478.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSA	(511.9 / 219.0) N/A (511.9 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NEtFOSA	(526.0 / 219.0) N/A (526.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSAA	(570.0 / 419.0) N/A (570.0 / 483.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NEtFOSAA	(584.0 / 419.0) N/A (584.0 / 526.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSE	(616.1 / 59.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
NEtFOSE	(630.0 / 59.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
HFPO-DA	(285.0 / 169.0) N/A (285.0 / 185.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
ADONA	(377.0 / 85.0) N/A (377.0 / 251.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
9Cl-Pf3ONS	(531.0 / 351.0) N/A (533.0 / 353.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
11Cl-Pf3OUDS	(631.0 / 451.0) N/A (633.0 / 453.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
3:3FTCA	(241.0 / 177.0) N/A (241.0 / 117.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
5:3FTCA	(341.0 / 236.7) N/A (341.0 / 217.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
7:3FTCA	(441.0 / 317.0) N/A (441.0 / 337.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFEESA	(315.0 / 135.0) N/A (315.0 / 83.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFMPA	(229.0 / 85.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
PFMBA	(279.0 / 85.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
NFDHA	(201.0 / 85.0) N/A (295.0 / 201.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
13C3_PFBA_IIS	(216.0 / 172.0) 81563	(3.73, N/A) (N/A, -0.04, N/A)	857.1	N/A	0.8485 [ 1.0000 ]	84.8% { 93.2% }			
13C2_PFHxA_IIS	(315.1 / 270.0) 139413	(6.17, N/A) (N/A, -0.04, N/A)	953.5	N/A	1.1290 [ 1.0000 ]	112.9% { 107.5% }			
13C4_PFOA_IIS	(417.0 / 372.0) 129238	(7.92, N/A) (N/A, -0.03, N/A)	539.1	N/A	1.0902 [ 1.0000 ]	109.0% { 106.4% }			
13C5_PFNA_IIS	(468.0 / 423.0) 112286	(8.67, N/A) (N/A, -0.02, N/A)	537.9	N/A	1.1790 [ 1.0000 ]	117.9% { 114.3% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDA_IIS	(515.1 / 470.1) 108249	(9.35, N/A) (N/A, -0.02, N/A)	312.9	N/A	1.3140 [ 1.0000 ]	131.4% { 120.1% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 230508	(8.06, N/A) (N/A, -0.03, N/A)	993.5	N/A	1.0740 [ 1.0000 ]	107.4% { 110.0% }			
13C4_PFOS_IIS	(502.8 / 79.9) 202171	(9.49, N/A) (N/A, -0.02, N/A)	615.8	N/A	1.0862 [ 1.0000 ]	108.6% { 105.8% }			
13C4_PFBA_EIS	(217.0 / 172.0) 615052	(3.73, N/A) (N/A, -0.04, N/A)	898.8	N/A	8.0432 [ 8.0000 ]	100.5% { 93.9% }			
13C5_PFPeA_EIS	(267.9 / 223.0) 380365	(5.04, N/A) (N/A, -0.04, N/A)	832.6	N/A	3.7402 [ 4.0000 ]	93.5% { 109.4% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 302360	(6.17, N/A) (N/A, -0.04, N/A)	789.4	N/A	2.1263 [ 2.0000 ]	106.3% { 115.3% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 273707	(7.11, N/A) (N/A, -0.03, N/A)	946.5	N/A	2.1324 [ 2.0000 ]	106.6% { 110.3% }			
13C8_PFOA_EIS	(421.0 / 376.0) 277867	(7.92, N/A) (N/A, -0.03, N/A)	1079.2	N/A	2.1138 [ 2.0000 ]	105.7% { 106.5% }			
13C9_PFNA_EIS	(472.0 / 427.0) 105340	(8.67, N/A) (N/A, -0.03, N/A)	299.7	N/A	0.9506 [ 1.0000 ]	95.1% { 126.4% }			
13C6_PFDA_EIS	(519.0 / 474.0) 136692	(9.35, N/A) (N/A, -0.02, N/A)	465.3	N/A	0.8693 [ 1.0000 ]	86.9% { 117.5% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 196764	(9.73, N/A) (N/A, -0.01, N/A)	527.8	N/A	0.9323 [ 1.0000 ]	93.2% { 97.8% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDa_EIS	(615.0 / 570.0) 226419	(9.90, N/A) (N/A, -0.01, N/A)	422.7	N/A	0.8839 [ 1.0000 ]	88.4% { 117.2% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 149399	(10.13, N/A) (N/A, -0.01, N/A)	383.6	N/A	0.7945 [ 1.0000 ]	79.5% { 115.1% }			
13C3_PFBs_EIS	(302.0 / 80.0) 745166	(6.14, N/A) (N/A, -0.04, N/A)	833.5	N/A	2.1996 [ 2.0000 ]	110.0% { 112.6% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 362596	(8.06, N/A) (N/A, -0.03, N/A)	742.9	N/A	1.8803 [ 2.0000 ]	94.0% { 102.7% }			
13C8_PFOS_EIS	(507.0 / 80.0) 620239	(9.49, N/A) (N/A, -0.02, N/A)	459.1	N/A	2.0125 [ 2.0000 ]	100.6% { 103.5% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 94823	(5.83, N/A) (N/A, -0.04, N/A)	655.4	N/A	4.9629 [ 4.0000 ]	124.1% { 132.5% }			
13C2_6:2FTS_EIS	(429.0 / 81.0) 111593	(7.57, N/A) (N/A, -0.03, N/A)	609.2	N/A	4.3534 [ 4.0000 ]	108.8% { 124.1% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 92521	(8.99, N/A) (N/A, -0.03, N/A)	436.4	N/A	4.1584 [ 4.0000 ]	104.0% { 106.7% }			
13C8_PFOsa_EIS	(506.0 / 78.0) 840269	(10.18, N/A) (N/A, 0.00, N/A)	640.9	N/A	1.7859 [ 2.0000 ]	89.3% { 95.7% }			
D3_NMeFOsa_EIS	(515.0 / 169.0) 116039	(10.60, N/A) (N/A, 0.00, N/A)	596.3	N/A	0.8334 [ 2.0000 ]	41.7% { 48.7% }			
D5_NEtFOsa_EIS	(531.1 / 169.0) 142867	(10.70, N/A) (N/A, 0.00, N/A)	896.8	N/A	1.1317 [ 2.0000 ]	56.6% { 62.8% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT- CV[ $\mu$ min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
D3_MeFOSAA_EIS	(573.0 / 419.0) 301564	(9.52, N/A) (N/A, -0.01, N/A)	304.1	N/A	4.3980 [ 4.0000 ]	110.0% { 111.3% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 298616	(9.69, N/A) (N/A, -0.01, N/A)	584.0	N/A	5.0670 [ 4.0000 ]	126.7% { 135.5% }			
D7_NMeFOSE_EIS	(623.2 / 58.9) 278024	(10.57, N/A) (N/A, 0.00, N/A)	1041.2	N/A	11.6912 [ 20.0000 ]	58.5% { 58.5% }			
D9_NEtFOSE_EIS	(639.2 / 58.9) 152585	(10.67, N/A) (N/A, 0.00, N/A)	746.0	N/A	12.5928 [ 20.0000 ]	63.0% { 64.3% }			
13C3_HFPODA_EIS	(287.0 / 169.0) 719638	(6.52, N/A) (N/A, -0.04, N/A)	810.1	N/A	7.6840 [ 8.0000 ]	96.0% { 107.2% }			

# FORM IR ANALYSIS DATA SHEET

MW-4-S4-112822-

Laboratory:	APPL, LLC-	Work Order:	22L0004-		
Client:	Tidewater, Inc.-	Project:	NASA JPL SI-		
Matrix:	Water-	Laboratory ID:	22L0004-14RE1-	File ID:	S2022-12-09B (45)-
Sampled:	11/28/22 10:30-	Prepared:	12/05/22 07:17-	Analyzed:	12/10/22 08:13-
Solids:		Preparation:	Table B-15-	Dilution:	10-
Initial/Final:	274.47 mL / 2 mL-			Instrument:	Saphira-
Batch:	BBL0076-	Sequence:	SB03769	Calibration:	2250016-



Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: 22L0004-14RE1@10  
 DF, IV: 1, 1.0µL  
 Acquisition Method: 1633 2022-12-07.dam

Quant Method: 1633 - S2022-12-07A  
 Path: S2022-12-09B (45)  
 Acquired: 2022/12/10 - 08:13

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBA	(212.9 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
PFPeA	(262.9 / 219.0) N/A (262.9 / 69.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHxA	(313.0 / 269.0) N/A (313.0 / 119.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHpA	(363.0 / 319.0) N/A (363.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFOA	(413.0 / 369.0) N/A (413.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFNA	(463.0 / 419.0) N/A (463.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDA	(513.0 / 469.0) N/A (513.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFUnA	(563.0 / 519.0) N/A (563.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDoA	(613.0 / 569.0) N/A (613.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFTrDA	(663.0 / 619.0) N/A (663.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFTeDA	(713.0 / 669.0) N/A (713.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			



Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: 22L0004-14RE1@10  
 DF, IV: 1, 1.0µL  
 Acquisition Method: 1633 2022-12-07.dam

Quant Method: 1633 - S2022-12-07A  
 Path: S2022-12-09B (45)  
 Acquired: 2022/12/10 - 08:13

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBS	(298.9 / 80.0) N/A (298.9 / 99.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFPeS	(349.0 / 80.0) N/A (349.0 / 99.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHxS	(399.0 / 80.0) N/A (399.0 / 99.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHpS	(449.0 / 80.0) N/A (449.0 / 99.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFOS	(499.0 / 80.0) N/A (499.0 / 99.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFNS	(549.0 / 80.0) N/A (549.0 / 99.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDS	(599.0 / 80.0) N/A (599.0 / 99.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDoS	(698.9 / 80.0) N/A (698.9 / 99.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
4:2FTS	(327.0 / 307.0) N/A (327.0 / 81.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
6:2FTS	(427.0 / 407.0) N/A (427.0 / 81.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
8:2FTS	(527.0 / 507.0) N/A (527.0 / 81.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			



Chemist: ABK  
Instrument: Saphira  
Type: Sciex Q3 5500

Sample I.D.: 22L0004-14RE1@10  
DF, IV: 1, 1.0µL  
Acquisition Method: 1633 2022-12-07.dam

Quant Method: 1633 - S2022-12-07A  
Path: S2022-12-09B (45)  
Acquired: 2022/12/10 - 08:13

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFOSA	(498.0 / 78.0) N/A (498.0 / 478.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSA	(511.9 / 219.0) N/A (511.9 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NEtFOSA	(526.0 / 219.0) N/A (526.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSAA	(570.0 / 419.0) N/A (570.0 / 483.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NEtFOSAA	(584.0 / 419.0) N/A (584.0 / 526.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSE	(616.1 / 59.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
NEtFOSE	(630.0 / 59.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
HFPO-DA	(285.0 / 169.0) N/A (285.0 / 185.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
ADONA	(377.0 / 85.0) N/A (377.0 / 251.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
9Cl-Pf3ONS	(531.0 / 351.0) N/A (533.0 / 353.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
11Cl-PF3OUDS	(631.0 / 451.0) N/A (633.0 / 453.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			

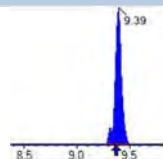
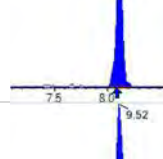
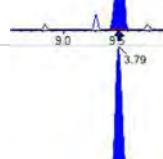
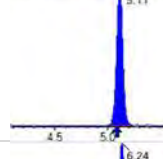
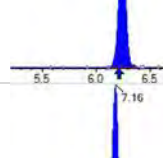
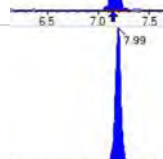
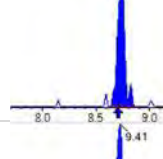
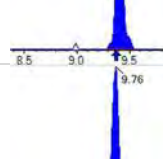
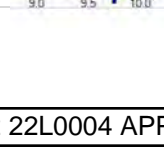
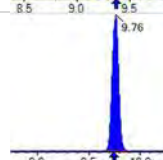
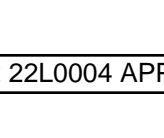


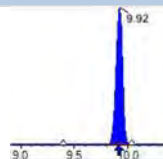
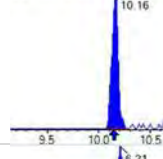
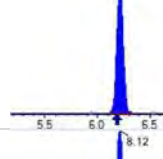
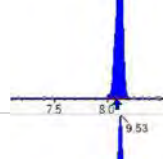
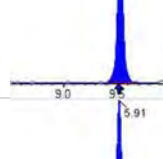
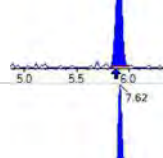
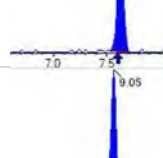
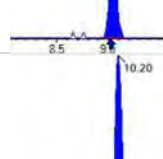
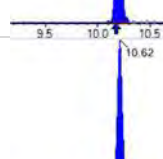
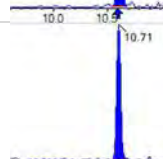
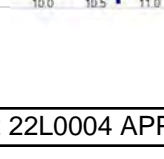
Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

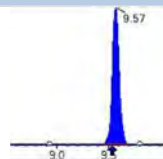
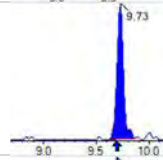
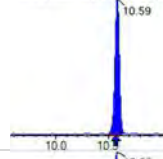
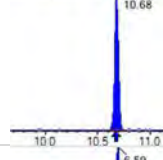
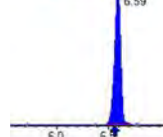
Sample I.D.: 22L0004-14RE1@10  
 DF, IV: 1, 1.0µL  
 Acquisition Method: 1633 2022-12-07.dam

Quant Method: 1633 - S2022-12-07A  
 Path: S2022-12-09B (45)  
 Acquired: 2022/12/10 - 08:13

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
3:3FTCA	(241.0 / 177.0) N/A (241.0 / 117.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
5:3FTCA	(341.0 / 236.7) N/A (341.0 / 217.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
7:3FTCA	(441.0 / 317.0) N/A (441.0 / 337.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFEESA	(315.0 / 135.0) N/A (315.0 / 83.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFMPA	(229.0 / 85.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
PFMBA	(279.0 / 85.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
NFDHA	(201.0 / 85.0) N/A (295.0 / 201.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
13C3_PFBa_IIS	(216.0 / 172.0) 8559	(3.80, N/A) (N/A, 0.03, N/A)	272.3	N/A	0.8904 [ 1.0000 ]	89.0% { 9.8% }			
13C2_PFHxA_IIS	(315.1 / 270.0) 12405	(6.24, N/A) (N/A, 0.03, N/A)	278.9	N/A	1.0046 [ 1.0000 ]	100.5% { 9.6% }			
13C4_PFOA_IIS	(417.0 / 372.0) 9707	(7.98, N/A) (N/A, 0.03, N/A)	122.7	N/A	0.8188 [ 1.0000 ]	81.9% { 8.0% }			
13C5_PFNAl_IIS	(468.0 / 423.0) 8307	(8.72, N/A) (N/A, 0.03, N/A)	316.3	N/A	0.8723 [ 1.0000 ]	87.2% { 8.5% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDA_IIS	(515.1 / 470.1) 8798	(9.39, N/A) (N/A, 0.02, N/A)	54.2	N/A	1.0679 [ 1.0000 ]	106.8% { 9.8% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 19788	(8.12, N/A) (N/A, 0.03, N/A)	311.5	N/A	0.9219 [ 1.0000 ]	92.2% { 9.4% }			
13C4_PFOS_IIS	(502.8 / 79.9) 14432	(9.52, N/A) (N/A, 0.01, N/A)	199.3	N/A	0.7754 [ 1.0000 ]	77.5% { 7.6% }			
13C4_PFBA_EIS	(217.0 / 172.0) 61920	(3.79, N/A) (N/A, 0.03, N/A)	854.7	N/A	0.7716 [ 0.8000 ]	96.5% { 9.5% }			
13C5_PFPeA_EIS	(267.9 / 223.0) 38037	(5.11, N/A) (N/A, 0.03, N/A)	490.8	N/A	0.4203 [ 0.4000 ]	105.1% { 10.9% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 25507	(6.24, N/A) (N/A, 0.03, N/A)	274.4	N/A	0.2016 [ 0.2000 ]	100.8% { 9.7% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 23691	(7.16, N/A) (N/A, 0.03, N/A)	367.6	N/A	0.2074 [ 0.2000 ]	103.7% { 9.6% }			
13C8_PFOA_EIS	(421.0 / 376.0) 24546	(7.99, N/A) (N/A, 0.04, N/A)	323.2	N/A	0.2486 [ 0.2000 ]	124.3% { 9.4% }			
13C9_PFNA_EIS	(472.0 / 427.0) 9724	(8.73, N/A) (N/A, 0.03, N/A)	156.3	N/A	0.1186 [ 0.1000 ]	118.6% { 11.7% }			
13C6_PFDA_EIS	(519.0 / 474.0) 14638	(9.41, N/A) (N/A, 0.03, N/A)	279.2	N/A	0.1145 [ 0.1000 ]	114.5% { 12.6% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 18327	(9.76, N/A) (N/A, 0.02, N/A)	160.7	N/A	0.1068 [ 0.1000 ]	106.8% { 9.1% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT- CV[ $\mu$ min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDa_EIS	(615.0 / 570.0) 17595	(9.92, N/A) (N/A, 0.01, N/A)	1047.1	N/A	0.0845 [0.1000]	84.5% {9.1%}			
13C2_PFTeDA_EIS	(715.0 / 670.0) 16207	(10.16, N/A) (N/A, 0.02, N/A)	82.4	N/A	0.1060 [0.1000]	106.0% {12.5%}			
13C3_PFBs_EIS	(302.0 / 80.0) 69218	(6.21, N/A) (N/A, 0.03, N/A)	540.4	N/A	0.2380 [0.2000]	119.0% {10.5%}			
13C3_PFHxS_EIS	(402.0 / 80.0) 37945	(8.12, N/A) (N/A, 0.03, N/A)	438.3	N/A	0.2292 [0.2000]	114.6% {10.8%}			
13C8_PFOS_EIS	(507.0 / 80.0) 59476	(9.53, N/A) (N/A, 0.02, N/A)	277.7	N/A	0.2703 [0.2000]	135.2% {9.9%}			
13C2_4:2FTS_EIS	(329.0 / 81.0) 7645	(5.91, N/A) (N/A, 0.04, N/A)	145.3	N/A	0.4661 [0.4000]	116.5% {10.7%}			
13C2_6:2FTS_EIS	(429.0 / 81.0) 9737	(7.62, N/A) (N/A, 0.03, N/A)	180.6	N/A	0.4425 [0.4000]	110.6% {10.8%}			
13C2_8:2FTS_EIS	(529.0 / 81.0) 12277	(9.05, N/A) (N/A, 0.03, N/A)	718.1	N/A	0.6428 [0.4000]	160.7% {14.2%}			S2,
13C8_PFOsa_EIS	(506.0 / 78.0) 77565	(10.20, N/A) (N/A, 0.01, N/A)	234.7	N/A	0.2309 [0.2000]	115.5% {8.8%}			
D3_NMeFOSA_EIS	(515.0 / 169.0) 14009	(10.62, N/A) (N/A, 0.01, N/A)	176.3	N/A	0.1409 [0.2000]	70.5% {5.9%}			
D5_NEiFOSA_EIS	(531.1 / 169.0) 12452	(10.71, N/A) (N/A, 0.01, N/A)	207.8	N/A	0.1382 [0.2000]	69.1% {5.5%}			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT- CV[ $\mu$ min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
D3_MeFOSAA_EIS	(573.0 / 419.0) 26728	(9.57, N/A) (N/A, 0.03, N/A)	352.3	N/A	0.5460 [ 0.4000 ]	136.5% { 9.9% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 21336	(9.73, N/A) (N/A, 0.02, N/A)	124.8	N/A	0.5072 [ 0.4000 ]	126.8% { 9.7% }			
D7_NMeFOSE_EIS	(623.2 / 58.9) 32117	(10.59, N/A) (N/A, 0.01, N/A)	322.9	N/A	1.8919 [ 2.0000 ]	94.6% { 6.8% }			
D9_NEtFOSE_EIS	(639.2 / 58.9) 18604	(10.68, N/A) (N/A, 0.01, N/A)	385.3	N/A	2.1508 [ 2.0000 ]	107.5% { 7.8% }			
13C3_HFPODA_EIS	(287.0 / 169.0) 72174	(6.59, N/A) (N/A, 0.03, N/A)	461.8	N/A	0.8661 [ 0.8000 ]	108.3% { 10.8% }			

# FORM IR ANALYSIS DATA SHEET

MW-4-S2-112822-

Laboratory:	APPL, LLC-	Work Order:	22L0004-		
Client:	Tidewater, Inc.-	Project:	NASA JPL SI-		
Matrix:	Water-	Laboratory ID:	22L0004-15-	File ID:	S2022-12-09B (46)-
Sampled:	11/28/22 10:55-	Prepared:	12/05/22 07:17	Analyzed:	12/10/22 08:25
Solids:		Preparation:	Table B-15-	Dilution:	1-
Initial/Final:	276.85 mL / 2 mL-			Instrument:	Saphira
Batch:	BBL0076-	Sequence:	SB03769	Calibration:	2250016

COMPOUNDR	CONC. (ng/L)	LOQ	LODR	DL	Q
PFBA-	2.0 J-	2.9	0.18	0.045	
PFPEA-	3.8-	1.4	0.18	0.056	
PFHXA-	2.3-	0.72	0.18	0.058	
PFHPA-	0.89-	0.72	0.18	0.045	
PFOA-	1.1-	0.72-	0.18	0.074	MI4
PFNA-	0.18 U-	0.72	0.18	0.045	
PFDA-	0.18 U-	0.72	0.18	0.045	
PFUnA-	0.18 U-	0.72	0.18	0.072	
PFDOA-	0.18 U-	0.72	0.18	0.045	
PFTRDA-	0.18 U-	0.72	0.18	0.052	
PFTEDA-	0.18 U-	0.72	0.18	0.078	
PFBS-	2.9-	0.72	0.18	0.045	
PFPEs-	1.2-	0.72	0.18	0.052	
PFHXS-	2.0-	0.72	0.18	0.045	
PFHPS-	0.18 U-	0.72	0.18	0.051	
PFOS-	0.20 J-	0.72-	0.18	0.045	MI4,
PFNS-	0.36 U-	0.72	0.36	0.22	
PFDS-	0.18 U-	0.72	0.18	0.058	
4:2FTS-	0.36 U-	2.9	0.36	0.098	
6:2FTS-	0.18 U-	2.9	0.18	0.081	
8:2FTS-	0.54 U-	2.9	0.54	0.18	
PFOSA-	0.18 U-	2.9	0.18	0.045	
NMeFOSA-	1.8 U-	2.9	1.8	0.89	
NEtFOSA-	1.8 U-	2.9	1.8	0.89	
NMeFOSAA-	0.18 U-	0.72	0.18	0.065	
NEtFOSAA-	0.18 U-	0.72	0.18	0.045	
NMeFOSE-	1.1 U-	2.9	1.1	0.54	
NEtFOSE-	1.1 U-	2.9	1.1	0.54	
HFPO-DA-	0.90 U-	1.4	0.90	0.44	
ADONA-	0.54 U-	1.4	0.54	0.23	

# FORM IR ANALYSIS DATA SHEET

MW-4-S2-112822-

Laboratory:	APPL, LLC-	Work Order:	22L0004-
Client:	Tidewater, Inc.-	Project:	NASA JPL SI-
Matrix:	Water-	Laboratory ID:	22L0004-15-
		File ID:	S2022-12-09B (46)-
Sampled:	11/28/22 10:55-	Prepared:	12/05/22 07:17-
		Analyzed:	12/10/22 08:25-
Solids:		Preparation:	Table B-15-
		Dilution:	1-
Initial/Final:	276.85 mL / 2 mL-	Instrument:	Saphira-
Batch:	BBL0076-	Sequence:	SB03769-
		Calibration:	2250016-

COMPOUNDR	CONC. (ng/L)R	LOQ	LODR	DLR	Q
9CL-PF3ONS-	0.54 U-	1.4-	0.54-	0.21-	
11CL-PF3OUDS-	0.54 U-	1.4-	0.54-	0.22-	



Chemist: ABK  
Instrument: Saphira  
Type: Sciex Q3 5500

Sample I.D.: 22L0004-15  
DF, IV: 1, 10.0µL  
Acquisition Method: 1633 2022-12-07.dam

Quant Method: 1633 - S2022-12-07A  
Path: S2022-12-09B (46)  
Acquired: 2022/12/10 - 08:25

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBA	(212.9 / 169.0) 16298	(3.74, 1.00) (0.00, N/A, 0.0)	30.4	N/A 0.0 0.0	0.2729	N/A			
PFPeA	(262.9 / 219.0) 54185 (262.9 / 69.0) 672	(5.04, 1.00) (0.00, N/A, 0.3)	338.4 28.2	0.0124 106.5 112.1	0.5281	N/A			
PFHxA	(313.0 / 269.0) 54133 (313.0 / 119.0) 4094	(6.17, 1.00) (0.00, N/A, 0.4)	171.0 60.2	0.0756 84.1 77.2	0.3214	N/A			
PFHpA	(363.0 / 319.0) 17477 (363.0 / 169.0) 4963	(7.10, 1.00) (0.00, N/A, -0.6)	71.2 86.0	0.2840 99.0 100.5	0.1230	N/A			
PFOA	(413.0 / 369.0) 23710 (413.0 / 169.0) 7152	(7.92, 1.00) (0.00, N/A, 1.3)	56.4 38.9	0.3017 93.2 93.2	0.1479	N/A			M14 ABK 12/29/22
PFNA	(463.0 / 419.0) N/A (463.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDA	(513.0 / 469.0) N/A (513.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFUnA	(563.0 / 519.0) N/A (563.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDoA	(613.0 / 569.0) N/A (613.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFTrDA	(663.0 / 619.0) N/A (663.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFTeDA	(713.0 / 669.0) N/A (713.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			



Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: 22L0004-15  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-07.dam

Quant Method: 1633 - S2022-12-07A  
 Path: S2022-12-09B (46)  
 Acquired: 2022/12/10 - 08:25

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBS	(298.9 / 80.0) 96050 (298.9 / 99.0) 64966	(6.14, 1.00) (0.00, N/A, 0.3)	174.0 284.4	0.6764 99.8 99.9	0.4000	N/A			
PFPeS	(349.0 / 80.0) 66719 (349.0 / 99.0) 21516	(7.18, 0.89) (N/A, -0.04, 0.0)	194.7 167.9	0.3225 88.4 96.0	0.1630	N/A			M14 ABK 12/29/22
PFHxS	(399.0 / 80.0) 100238 (399.0 / 99.0) 30315	(8.06, 1.00) (0.00, N/A, 0.0)	483.2 83742.2	0.3024 87.7 91.6	0.2762	N/A			
PFHpS	(449.0 / 80.0) N/A (449.0 / 99.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFOS	(499.0 / 80.0) 11668 (499.0 / 99.0) 2680	(9.50, 1.00) (0.01, N/A, 1.8)	15.6 126104.9	0.2297 89.2 97.0	0.0273	N/A			M14 ABK 12/29/22
PFNS	(549.0 / 80.0) N/A (549.0 / 99.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDS	(599.0 / 80.0) N/A (599.0 / 99.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDoS	(698.9 / 80.0) N/A (698.9 / 99.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
4:2FTS	(327.0 / 307.0) N/A (327.0 / 81.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
6:2FTS	(427.0 / 407.0) N/A (427.0 / 81.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
8:2FTS	(527.0 / 507.0) N/A (527.0 / 81.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			

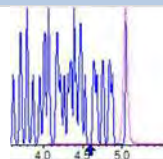
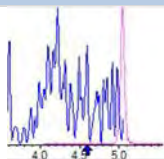
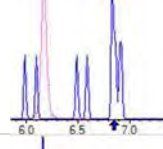
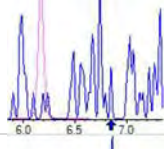
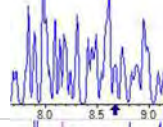
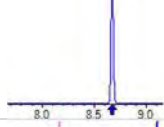
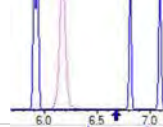
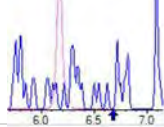
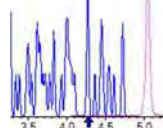
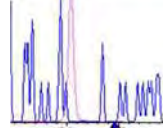

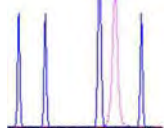
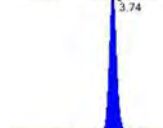
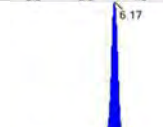
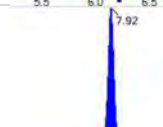
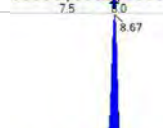


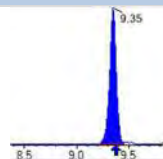
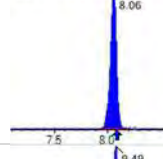
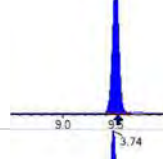
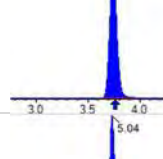
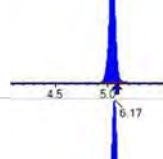
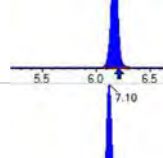
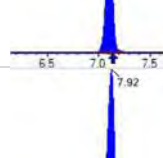
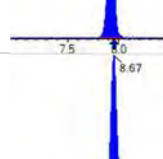
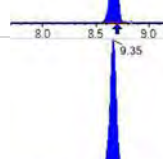
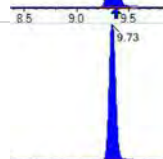
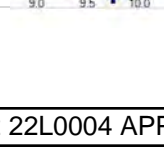
Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

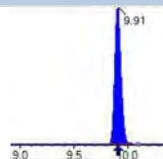
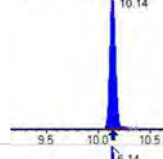
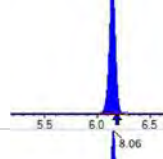
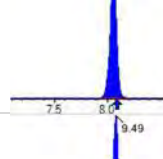
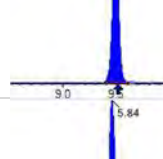
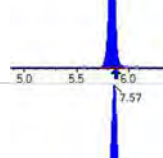
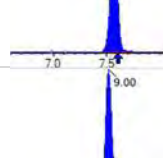
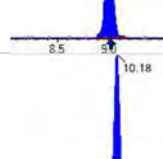
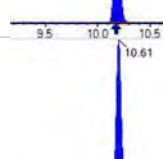
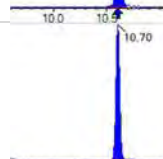
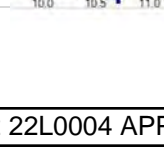
Sample I.D.: 22L0004-15  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-07.dam

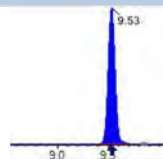
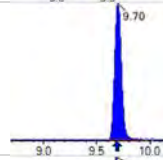
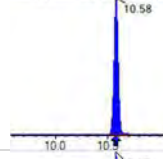
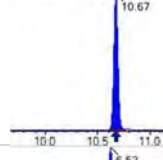
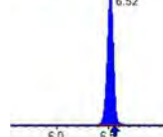
Quant Method: 1633 - S2022-12-07A  
 Path: S2022-12-09B (46)  
 Acquired: 2022/12/10 - 08:25

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFOSA	(498.0 / 78.0) N/A (498.0 / 478.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSA	(511.9 / 219.0) N/A (511.9 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NEtFOSA	(526.0 / 219.0) N/A (526.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSAA	(570.0 / 419.0) N/A (570.0 / 483.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NEtFOSAA	(584.0 / 419.0) N/A (584.0 / 526.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSE	(616.1 / 59.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
NEtFOSE	(630.0 / 59.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
HFPO-DA	(285.0 / 169.0) N/A (285.0 / 185.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
ADONA	(377.0 / 85.0) N/A (377.0 / 251.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
9CI-Pf3ONS	(531.0 / 351.0) N/A (533.0 / 353.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
11CI-PF3OUDS	(631.0 / 451.0) N/A (633.0 / 453.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
3:3FTCA	(241.0 / 177.0) N/A (241.0 / 117.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
5:3FTCA	(341.0 / 236.7) N/A (341.0 / 217.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
7:3FTCA	(441.0 / 317.0) N/A (441.0 / 337.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFEESA	(315.0 / 135.0) N/A (315.0 / 83.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFMPA	(229.0 / 85.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
PFMBA	(279.0 / 85.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
NFDHA	(201.0 / 85.0) N/A (295.0 / 201.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
13C3_PFBA_IIS	(216.0 / 172.0) 80487	(3.74, N/A) (N/A, -0.03, N/A)	795.1	N/A	0.8373 [ 1.0000 ]	83.7% { 92.0% }			
13C2_PFHxA_IIS	(315.1 / 270.0) 139550	(6.17, N/A) (N/A, -0.04, N/A)	545.0	N/A	1.1301 [ 1.0000 ]	113.0% { 107.6% }			
13C4_PFOA_IIS	(417.0 / 372.0) 140329	(7.92, N/A) (N/A, -0.03, N/A)	604.8	N/A	1.1837 [ 1.0000 ]	118.4% { 115.5% }			
13C5_PFNA_IIS	(468.0 / 423.0) 130024	(8.67, N/A) (N/A, -0.02, N/A)	317.9	N/A	1.3652 [ 1.0000 ]	136.5% { 132.4% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDA_IIS	(515.1 / 470.1) 91208	(9.35, N/A) (N/A, -0.02, N/A)	227.4	N/A	1.1071 [ 1.0000 ]	110.7% { 101.2% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 235394	(8.06, N/A) (N/A, -0.03, N/A)	732.2	N/A	1.0967 [ 1.0000 ]	109.7% { 112.4% }			
13C4_PFOS_IIS	(502.8 / 79.9) 233488	(9.49, N/A) (N/A, -0.02, N/A)	546.1	N/A	1.2545 [ 1.0000 ]	125.4% { 122.2% }			
13C4_PFBA_EIS	(217.0 / 172.0) 627574	(3.74, N/A) (N/A, -0.03, N/A)	987.8	N/A	8.3167 [ 8.0000 ]	104.0% { 95.8% }			
13C5_PFPeA_EIS	(267.9 / 223.0) 426946	(5.04, N/A) (N/A, -0.04, N/A)	873.8	N/A	4.1941 [ 4.0000 ]	104.9% { 122.8% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 334226	(6.17, N/A) (N/A, -0.04, N/A)	802.6	N/A	2.3481 [ 2.0000 ]	117.4% { 127.4% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 280620	(7.10, N/A) (N/A, -0.03, N/A)	545.9	N/A	2.1841 [ 2.0000 ]	109.2% { 113.1% }			
13C8_PFOA_EIS	(421.0 / 376.0) 311075	(7.92, N/A) (N/A, -0.03, N/A)	729.8	N/A	2.1794 [ 2.0000 ]	109.0% { 119.2% }			
13C9_PFNA_EIS	(472.0 / 427.0) 121035	(8.67, N/A) (N/A, -0.03, N/A)	460.0	N/A	0.9433 [ 1.0000 ]	94.3% { 145.3% }			
13C6_PFDA_EIS	(519.0 / 474.0) 138881	(9.35, N/A) (N/A, -0.02, N/A)	242.2	N/A	1.0483 [ 1.0000 ]	104.8% { 119.4% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 199702	(9.73, N/A) (N/A, 0.00, N/A)	309.1	N/A	1.1230 [ 1.0000 ]	112.3% { 99.3% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT- CV[ $\mu$ min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDa_EIS	(615.0 / 570.0) 218375	(9.91, N/A) (N/A, 0.00, N/A)	253.7	N/A	1.0118 [ 1.0000 ]	101.2% { 113.0% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 145029	(10.14, N/A) (N/A, 0.00, N/A)	318.8	N/A	0.9154 [ 1.0000 ]	91.5% { 111.7% }			
13C3_PFBs_EIS	(302.0 / 80.0) 786575	(6.14, N/A) (N/A, -0.04, N/A)	776.1	N/A	2.2737 [ 2.0000 ]	113.7% { 118.8% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 432861	(8.06, N/A) (N/A, -0.03, N/A)	901.2	N/A	2.1981 [ 2.0000 ]	109.9% { 122.6% }			
13C8_PFOS_EIS	(507.0 / 80.0) 761361	(9.49, N/A) (N/A, -0.02, N/A)	558.9	N/A	2.1390 [ 2.0000 ]	107.0% { 127.0% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 111364	(5.84, N/A) (N/A, -0.03, N/A)	539.5	N/A	5.7077 [ 4.0000 ]	142.7% { 155.6% }			
13C2_6:2FTS_EIS	(429.0 / 81.0) 107959	(7.57, N/A) (N/A, -0.03, N/A)	603.9	N/A	4.1242 [ 4.0000 ]	103.1% { 120.0% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 93305	(9.00, N/A) (N/A, -0.03, N/A)	365.5	N/A	4.1066 [ 4.0000 ]	102.7% { 107.6% }			
13C8_PFOsa_EIS	(506.0 / 78.0) 775148	(10.18, N/A) (N/A, 0.00, N/A)	643.8	N/A	1.4265 [ 2.0000 ]	71.3% { 88.3% }			
D3_NMeFOsa_EIS	(515.0 / 169.0) 132979	(10.61, N/A) (N/A, 0.00, N/A)	563.2	N/A	0.8270 [ 2.0000 ]	41.4% { 55.8% }			
D5_NEiFOsa_EIS	(531.1 / 169.0) 164632	(10.70, N/A) (N/A, 0.00, N/A)	545.6	N/A	1.1292 [ 2.0000 ]	56.5% { 72.4% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT- CV[ $\mu$ min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
D3_MeFOSAA_EIS	(573.0 / 419.0) 299307	(9.53, N/A) (N/A, -0.01, N/A)	424.1	N/A	3.7797 [ 4.0000 ]	94.5% { 110.5% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 304406	(9.70, N/A) (N/A, 0.00, N/A)	354.3	N/A	4.4725 [ 4.0000 ]	111.8% { 138.2% }			
D7_NMeFOSE_EIS	(623.2 / 58.9) 305761	(10.58, N/A) (N/A, 0.01, N/A)	800.9	N/A	11.1331 [ 20.0000 ]	55.7% { 64.3% }			
D9_NEtFOSE_EIS	(639.2 / 58.9) 176153	(10.67, N/A) (N/A, 0.00, N/A)	886.2	N/A	12.5879 [ 20.0000 ]	62.9% { 74.3% }			
13C3_HFPODA_EIS	(287.0 / 169.0) 823743	(6.52, N/A) (N/A, -0.04, N/A)	842.9	N/A	8.7869 [ 8.0000 ]	109.8% { 122.7% }			

# FORM IR ANALYSIS DATA SHEET

MW-4-S2-112822-

Laboratory:	APPL, LLC-	Work Order:	22L0004-		
Client:	Tidewater, Inc.-	Project:	NASA JPL SI-		
Matrix:	Water-	Laboratory ID:	22L0004-15RE1-	File ID:	S2022-12-09B (47)-
Sampled:	11/28/22 10:55-	Prepared:	12/05/22 07:17-	Analyzed:	12/10/22 08:38-
Solids:		Preparation:	Table B-15-	Dilution:	10-
Initial/Final:	276.85 mL / 2 mL-			Instrument:	Saphira-
Batch:	BBL0076-	Sequence:	SB03769	Calibration:	2250016-



Chemist: ABK  
Instrument: Saphira  
Type: Sciex Q3 5500

Sample I.D.: 22L0004-15RE1@10  
DF, IV: 1, 1.0µL  
Acquisition Method: 1633 2022-12-07.dam

Quant Method: 1633 - S2022-12-07A  
Path: S2022-12-09B (47)  
Acquired: 2022/12/10 - 08:38

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBA	(212.9 / 169.0) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A	N/A 0.0 0.0	0.0000	N/A			
PFPeA	(262.9 / 219.0) N/A (262.9 / 69.0) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHxA	(313.0 / 269.0) N/A (313.0 / 119.0) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHpA	(363.0 / 319.0) N/A (363.0 / 169.0) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFOA	(413.0 / 369.0) N/A (413.0 / 169.0) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFNA	(463.0 / 419.0) N/A (463.0 / 169.0) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDA	(513.0 / 469.0) N/A (513.0 / 169.0) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFUnA	(563.0 / 519.0) N/A (563.0 / 169.0) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDoA	(613.0 / 569.0) N/A (613.0 / 169.0) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFTrDA	(663.0 / 619.0) N/A (663.0 / 169.0) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFTeDA	(713.0 / 669.0) N/A (713.0 / 169.0) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			



Chemist: ABK  
Instrument: Saphira  
Type: Sciex Q3 5500

Sample I.D.: 22L0004-15RE1@10  
DF, IV: 1, 1.0µL  
Acquisition Method: 1633 2022-12-07.dam

Quant Method: 1633 - S2022-12-07A  
Path: S2022-12-09B (47)  
Acquired: 2022/12/10 - 08:38

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBS	( 298.9 / 80.0 ) N/A ( 298.9 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFPeS	( 349.0 / 80.0 ) N/A ( 349.0 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHxS	( 399.0 / 80.0 ) N/A ( 399.0 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHpS	( 449.0 / 80.0 ) N/A ( 449.0 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFOS	( 499.0 / 80.0 ) N/A ( 499.0 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFNS	( 549.0 / 80.0 ) N/A ( 549.0 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDS	( 599.0 / 80.0 ) N/A ( 599.0 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDoS	( 698.9 / 80.0 ) N/A ( 698.9 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
4:2FTS	( 327.0 / 307.0 ) N/A ( 327.0 / 81.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
6:2FTS	( 427.0 / 407.0 ) N/A ( 427.0 / 81.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
8:2FTS	( 527.0 / 507.0 ) N/A ( 527.0 / 81.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			



Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: 22L0004-15RE1@10  
 DF, IV: 1, 1.0µL  
 Acquisition Method: 1633 2022-12-07.dam

Quant Method: 1633 - S2022-12-07A  
 Path: S2022-12-09B (47)  
 Acquired: 2022/12/10 - 08:38

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFOSA	(498.0 / 78.0) N/A (498.0 / 478.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSA	(511.9 / 219.0) N/A (511.9 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NEtFOSA	(526.0 / 219.0) N/A (526.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSAA	(570.0 / 419.0) N/A (570.0 / 483.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NEtFOSAA	(584.0 / 419.0) N/A (584.0 / 526.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSE	(616.1 / 59.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
NEtFOSE	(630.0 / 59.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
HFPO-DA	(285.0 / 169.0) N/A (285.0 / 185.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
ADONA	(377.0 / 85.0) N/A (377.0 / 251.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
9CI-Pf3ONS	(531.0 / 351.0) N/A (533.0 / 353.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
11CI-PF3OUDS	(631.0 / 451.0) N/A (633.0 / 453.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			

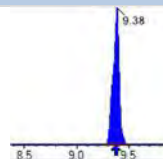
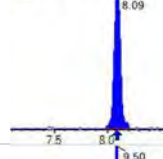
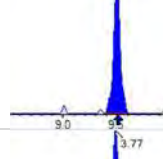
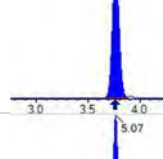
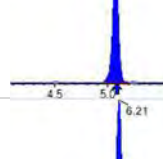
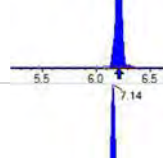
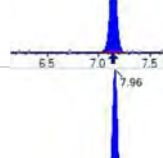
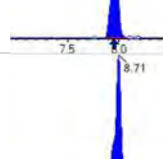
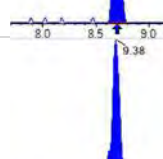
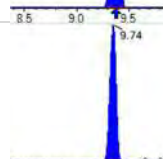
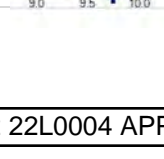


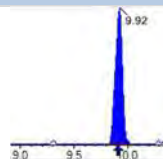
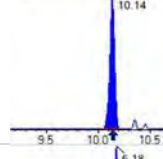
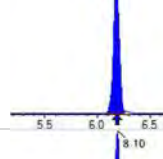
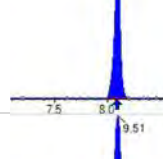
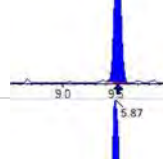
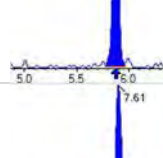
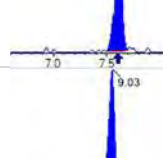
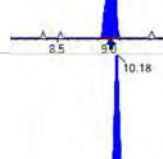
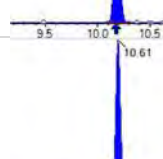
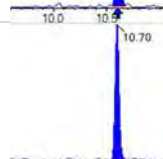
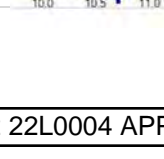
Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

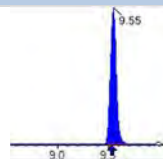
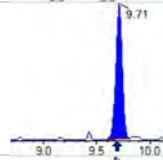
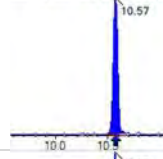
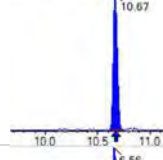
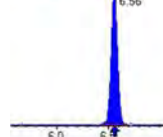
Sample I.D.: 22L0004-15RE1@10  
 DF, IV: 1, 1.0µL  
 Acquisition Method: 1633 2022-12-07.dam

Quant Method: 1633 - S2022-12-07A  
 Path: S2022-12-09B (47)  
 Acquired: 2022/12/10 - 08:38

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
3:3FTCA	(241.0 / 177.0) N/A (241.0 / 117.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
5:3FTCA	(341.0 / 236.7) N/A (341.0 / 217.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
7:3FTCA	(441.0 / 317.0) N/A (441.0 / 337.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFEESA	(315.0 / 135.0) N/A (315.0 / 83.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFMPA	(229.0 / 85.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
PFMBA	(279.0 / 85.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
NFDHA	(201.0 / 85.0) N/A (295.0 / 201.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
13C3_PFBA_IIS	(216.0 / 172.0) 9008	(3.77, N/A) (N/A, 0.00, N/A)	294.6	N/A	0.9371 [ 1.0000 ]	93.7% { 10.3% }			
13C2_PFHxA_IIS	(315.1 / 270.0) 14747	(6.21, N/A) (N/A, 0.00, N/A)	308.4	N/A	1.1943 [ 1.0000 ]	119.4% { 11.4% }			
13C4_PFOA_IIS	(417.0 / 372.0) 13399	(7.95, N/A) (N/A, 0.00, N/A)	354.2	N/A	1.1303 [ 1.0000 ]	113.0% { 11.0% }			
13C5_PFNA_IIS	(468.0 / 423.0) 12739	(8.70, N/A) (N/A, 0.01, N/A)	171.1	N/A	1.3376 [ 1.0000 ]	133.8% { 13.0% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDA_IIS	(515.1 / 470.1) 9388	(9.38, N/A) (N/A, 0.02, N/A)	130.8	N/A	1.1395 [ 1.0000 ]	114.0% { 10.4% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 25548	(8.09, N/A) (N/A, 0.00, N/A)	285.3	N/A	1.1903 [ 1.0000 ]	119.0% { 12.2% }			
13C4_PFOS_IIS	(502.8 / 79.9) 19187	(9.50, N/A) (N/A, -0.01, N/A)	164.0	N/A	1.0309 [ 1.0000 ]	103.1% { 10.0% }			
13C4_PFBA_EIS	(217.0 / 172.0) 66649	(3.77, N/A) (N/A, 0.00, N/A)	1009.3	N/A	0.7891 [ 0.8000 ]	98.6% { 10.2% }			
13C5_PFPeA_EIS	(267.9 / 223.0) 38787	(5.07, N/A) (N/A, -0.01, N/A)	532.0	N/A	0.3606 [ 0.4000 ]	90.1% { 11.2% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 32409	(6.21, N/A) (N/A, 0.00, N/A)	531.2	N/A	0.2155 [ 0.2000 ]	107.7% { 12.4% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 25496	(7.14, N/A) (N/A, 0.00, N/A)	374.8	N/A	0.1878 [ 0.2000 ]	93.9% { 10.3% }			
13C8_PFOA_EIS	(421.0 / 376.0) 24515	(7.96, N/A) (N/A, 0.01, N/A)	292.6	N/A	0.1799 [ 0.2000 ]	89.9% { 9.4% }			
13C9_PFNA_EIS	(472.0 / 427.0) 10165	(8.71, N/A) (N/A, 0.02, N/A)	317.6	N/A	0.0809 [ 0.1000 ]	80.9% { 12.2% }			
13C6_PFDA_EIS	(519.0 / 474.0) 12079	(9.38, N/A) (N/A, 0.00, N/A)	92.0	N/A	0.0886 [ 0.1000 ]	88.6% { 10.4% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 24008	(9.74, N/A) (N/A, 0.00, N/A)	843.5	N/A	0.1312 [ 0.1000 ]	131.2% { 11.9% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDa_EIS	(615.0 / 570.0) 21393	(9.92, N/A) (N/A, 0.01, N/A)	344.4	N/A	0.0963 [0.1000]	96.3% {11.1%}			
13C2_PFTeDA_EIS	(715.0 / 670.0) 11746	(10.14, N/A) (N/A, 0.00, N/A)	480.5	N/A	0.0720 [0.1000]	72.0% {9.0%}			
13C3_PFBs_EIS	(302.0 / 80.0) 76205	(6.18, N/A) (N/A, 0.00, N/A)	584.0	N/A	0.2030 [0.2000]	101.5% {11.5%}			
13C3_PFHxS_EIS	(402.0 / 80.0) 43049	(8.10, N/A) (N/A, 0.01, N/A)	363.7	N/A	0.2014 [0.2000]	100.7% {12.2%}			
13C8_PFOS_EIS	(507.0 / 80.0) 59096	(9.51, N/A) (N/A, 0.00, N/A)	186.9	N/A	0.2020 [0.2000]	101.0% {9.9%}			
13C2_4:2FTS_EIS	(329.0 / 81.0) 7664	(5.87, N/A) (N/A, 0.00, N/A)	84.5	N/A	0.3619 [0.4000]	90.5% {10.7%}			
13C2_6:2FTS_EIS	(429.0 / 81.0) 11092	(7.61, N/A) (N/A, 0.01, N/A)	146.8	N/A	0.3904 [0.4000]	97.6% {12.3%}			
13C2_8:2FTS_EIS	(529.0 / 81.0) 12854	(9.03, N/A) (N/A, 0.00, N/A)	312.6	N/A	0.5213 [0.4000]	130.3% {14.8%}			
13C8_PFOsa_EIS	(506.0 / 78.0) 76075	(10.18, N/A) (N/A, 0.00, N/A)	228.9	N/A	0.1704 [0.2000]	85.2% {8.7%}			
D3_NMeFOSA_EIS	(515.0 / 169.0) 17511	(10.61, N/A) (N/A, 0.00, N/A)	190.2	N/A	0.1325 [0.2000]	66.3% {7.3%}			
D5_NEiFOSA_EIS	(531.1 / 169.0) 16471	(10.70, N/A) (N/A, 0.00, N/A)	206.3	N/A	0.1375 [0.2000]	68.7% {7.2%}			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT- CV[ $\mu$ min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
D3_MeFOSAA_EIS	(573.0 / 419.0) 30320	(9.55, N/A) (N/A, 0.01, N/A)	1014.8	N/A	0.4659 [ 0.4000 ]	116.5% { 11.2% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 26380	(9.71, N/A) (N/A, 0.01, N/A)	145.6	N/A	0.4717 [ 0.4000 ]	117.9% { 12.0% }			
D7_NMeFOSE_EIS	(623.2 / 58.9) 33999	(10.57, N/A) (N/A, 0.00, N/A)	322.2	N/A	1.5065 [ 2.0000 ]	75.3% { 7.2% }			
D9_NEtFOSE_EIS	(639.2 / 58.9) 16148	(10.67, N/A) (N/A, 0.00, N/A)	337.9	N/A	1.4043 [ 2.0000 ]	70.2% { 6.8% }			
13C3_HFPODA_EIS	(287.0 / 169.0) 77027	(6.56, N/A) (N/A, 0.00, N/A)	613.9	N/A	0.7775 [ 0.8000 ]	97.2% { 11.5% }			

# FORM IR ANALYSIS DATA SHEET

MW-12-S5-112822-

Laboratory:	APPL, LLC-	Work Order:	22L0004-		
Client:	Tidewater, Inc.-	Project:	NASA JPL SI-		
Matrix:	Water-	Laboratory ID:	22L0004-16-	File ID:	S2022-12-09B (48)-
Sampled:	11/28/22 13:15-	Prepared:	12/05/22 07:17	Analyzed:	12/10/22 08:51
Solids:		Preparation:	Table B-15-	Dilution:	1-
Initial/Final:	280.28 mL / 2 mL-			Instrument:	Saphira
Batch:	BBL0076-	Sequence:	SB03769	Calibration:	2250016

COMPOUNDR	CONC. (ng/L)	LOQ	LODR	DL	Q
PFBA-	0.66 J-	2.9	0.18	0.045	
PFPEA-	0.66 J-	1.4	0.18	0.055	
PFHXA-	1.1-	0.71	0.18	0.057	
PFHPA-	0.56 J-	0.71	0.18	0.045	
PFOA-	3.5-	0.71-	0.18	0.073	MI4
PFNA-	0.45 J-	0.71	0.18	0.045	
PFDA-	1.1-	0.71-	0.18	0.045	IR2
PFUnA-	0.14 J-	0.71-	0.18	0.071	IR2,
PFDOA-	0.18 U-	0.71	0.18	0.045	
PFTRDA-	0.18 U-	0.71	0.18	0.052	
PFTEDA-	0.18 U-	0.71	0.18	0.077	
PFBS-	0.36 J-	0.71	0.18	0.045	
PFPEs-	0.18 U-	0.71	0.18	0.052	
PFHXS-	0.29 J-	0.71	0.18	0.045	
PFHPS-	0.18 U-	0.71	0.18	0.050	
PFOS-	2.0-	0.71-	0.18	0.045	MI4
PFNS-	0.36 U-	0.71	0.36	0.22	
PFDS-	0.18 U-	0.71	0.18	0.057	
4:2FTS-	0.36 U-	2.9	0.36	0.096	
6:2FTS-	0.18 U-	2.9	0.18	0.080	
8:2FTS-	0.54 U-	2.9	0.54	0.18	
PFOSA-	0.29 J-	2.9	0.18	0.045	
NMeFOSA-	1.8 U-	2.9	1.8	0.88	
NEtFOSA-	1.8 U-	2.9	1.8	0.88	
NMeFOSAA-	0.48 J-	0.71	0.18	0.064	
NEtFOSAA-	0.58 J-	0.71	0.18	0.045	
NMeFOSE-	1.1 U-	2.9	1.1	0.54	
NEtFOSE-	1.1 U-	2.9	1.1	0.54	
HFPO-DA-	0.89 U-	1.4	0.89	0.44	
ADONA-	0.54 U-	1.4	0.54	0.23	

# FORM IR ANALYSIS DATA SHEET

MW-12-S5-112822-

Laboratory:	APPL, LLC-	Work Order:	22L0004-		
Client:	Tidewater, Inc.-	Project:	NASA JPL SI-		
Matrix:	Water-	Laboratory ID:	22L0004-16-	File ID:	S2022-12-09B (48)-
Sampled:	11/28/22 13:15-	Prepared:	12/05/22 07:17-	Analyzed:	12/10/22 08:51-
Solids:		Preparation:	Table B-15-	Dilution:	1-
Initial/Final:	280.28 mL / 2 mL-			Instrument:	Saphira-
Batch:	BBL0076-	Sequence:	SB03769-	Calibration:	2250016-

COMPOUNDR	CONC. (ng/L)R	LOQ	LODR	DLR	Q
9CL-PF3ONS-	0.54 U-	1.4-	0.54-	0.21-	
11CL-PF3OUDS-	0.54 U-	1.4-	0.54-	0.21-	



Chemist: ABK  
Instrument: Saphira  
Type: Sciex Q3 5500

Sample I.D.: 22L0004-16  
DF, IV: 1, 10.0µL  
Acquisition Method: 1633 2022-12-07.dam

Quant Method: 1633 - S2022-12-07A  
Path: S2022-12-09B (48)  
Acquired: 2022/12/10 - 08:51

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBA	(212.9 / 169.0) 5981	(3.76, 1.00) (0.00, N/A, 0.0)	19.5	N/A 0.0 0.0	0.0925	N/A			
PFPeA	(262.9 / 219.0) 8509 (262.9 / 69.0) 149	(5.07, 1.00) (0.00, N/A, -0.6)	70.4 5.3	0.0175 150.5 158.5	0.0918	N/A			
PFHxA	(313.0 / 269.0) 23832 (313.0 / 119.0) 2729	(6.18, 1.00) (0.00, N/A, -0.3)	77.9 58.6	0.1145 127.4 116.9	0.1508	N/A			
PFHpA	(363.0 / 319.0) 11762 (363.0 / 169.0) 4242	(7.11, 1.00) (0.01, N/A, -0.3)	57.4 46.0	0.3607 125.7 127.6	0.0783	N/A			
PFOA	(413.0 / 369.0) 78392 (413.0 / 169.0) 24109	(7.92, 1.00) (0.00, N/A, 0.0)	173.6 116.7	0.3075 95.1 95.0	0.4855	N/A			M14 ABK 12/29/22
PFNA	(463.0 / 419.0) 8120 (463.0 / 169.0) 859	(8.66, 1.00) (0.00, N/A, -1.3)	34.3 76.4	0.1059 52.6 50.2	0.0624	N/A			
PFDA	(513.0 / 469.0) 29848 (513.0 / 169.0) 4066	(9.34, 1.00) (0.00, N/A, -0.5)	117.6 13397.3	0.1362 153.4 137.1	0.1479	N/A			IR2,
PFUnA	(563.0 / 519.0) 3433 (563.0 / 169.0) 631	(9.74, 1.00) (0.02, N/A, -1.5)	13.4 269.4	0.1838 171.0 184.8	0.0202	N/A			IR2,
PFDoA	(613.0 / 569.0) N/A (613.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFTrDA	(663.0 / 619.0) N/A (663.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFTeDA	(713.0 / 669.0) N/A (713.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			



Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: 22L0004-16  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-07.dam

Quant Method: 1633 - S2022-12-07A  
 Path: S2022-12-09B (48)  
 Acquired: 2022/12/10 - 08:51

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBS	(298.9 / 80.0) 11516 (298.9 / 99.0) 7044	(6.15, 1.00) (0.01, N/A, 0.0)	25.5 30.6	0.6117 90.3 90.3	0.0511	N/A			
PFPeS	(349.0 / 80.0) N/A (349.0 / 99.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHxS	(399.0 / 80.0) 15654 (399.0 / 99.0) 5177	(8.04, 1.00) (-0.01, N/A, -0.3)	46.4 2482.2	0.3307 95.9 100.2	0.0411	N/A			
PFHpS	(449.0 / 80.0) N/A (449.0 / 99.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFOS	(499.0 / 80.0) 141116 (499.0 / 99.0) 23091	(9.48, 1.00) (0.00, N/A, 0.1)	53.3 76.5	0.1636 63.5 69.1	0.2858	N/A			M14 ABK 12/29/22
PFNS	(549.0 / 80.0) N/A (549.0 / 99.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDS	(599.0 / 80.0) N/A (599.0 / 99.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDoS	(698.9 / 80.0) N/A (698.9 / 99.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
4:2FTS	(327.0 / 307.0) N/A (327.0 / 81.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
6:2FTS	(427.0 / 407.0) N/A (427.0 / 81.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
8:2FTS	(527.0 / 507.0) N/A (527.0 / 81.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			

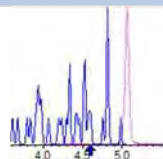
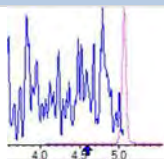
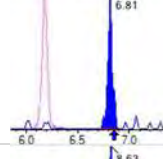
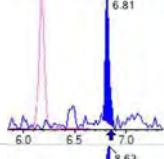
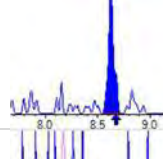
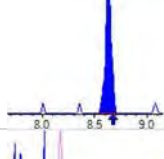
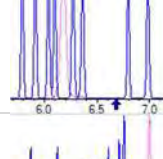
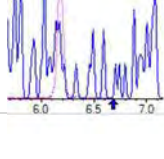
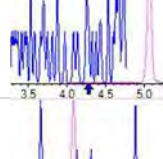
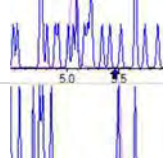
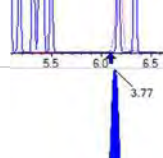
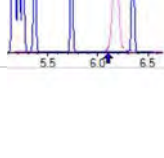
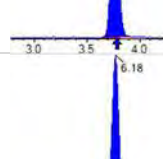
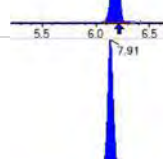
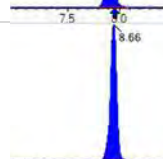
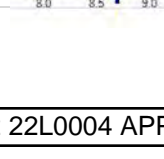


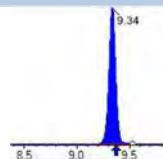
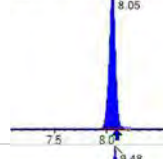
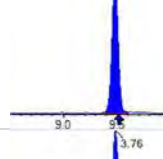
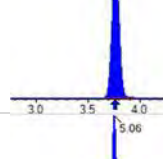
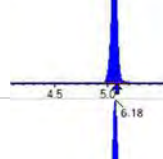
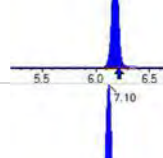
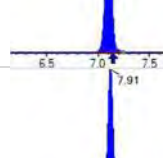
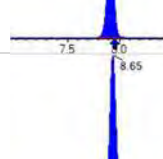
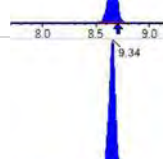
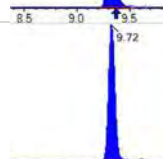
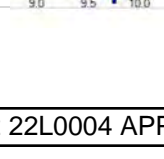
Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

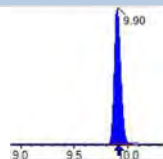
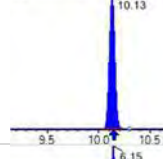
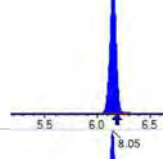
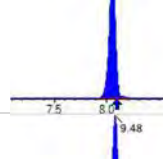
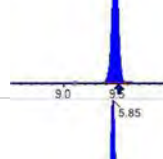
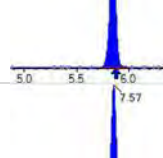
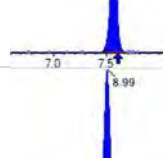
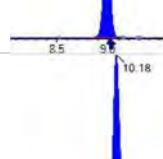
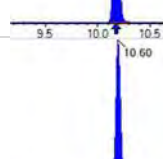
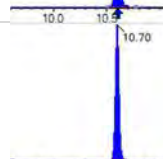
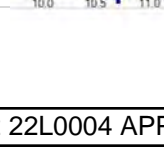
Sample I.D.: 22L0004-16  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-07.dam

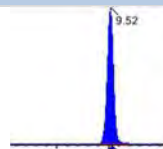
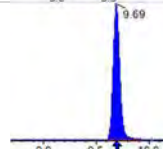
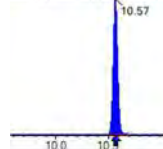
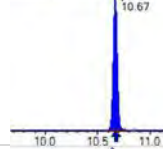
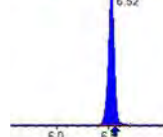
Quant Method: 1633 - S2022-12-07A  
 Path: S2022-12-09B (48)  
 Acquired: 2022/12/10 - 08:51

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFOSA	( 498.0 / 78.0 ) 19912 ( 498.0 / 478.0 ) 255	( 10.17 , 1.00 ) ( 0.00 , N/A , -1.3)	91.9 29.5	0.0128 53.7 50.7	0.0411	N/A			
NMeFOSA	( 511.9 / 219.0 ) N/A ( 511.9 / 169.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NEtFOSA	( 526.0 / 219.0 ) N/A ( 526.0 / 169.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSAA	( 570.0 / 419.0 ) 7206 ( 570.0 / 483.0 ) 4301	( 9.52 , 1.00 ) ( 0.01 , N/A , 1.4)	362.8 237159.9	0.5969 128.7 109.9	0.0676	N/A			
NEtFOSAA	( 584.0 / 419.0 ) 5937 ( 584.0 / 526.0 ) 2573	( 9.70 , 1.00 ) ( 0.02 , N/A , 9.4)	219.6 6129.0	0.4334 71.4 69.8	0.0807	N/A			
NMeFOSE	( 616.1 / 59.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
NEtFOSE	( 630.0 / 59.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
HFPO-DA	( 285.0 / 169.0 ) N/A ( 285.0 / 185.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
ADONA	( 377.0 / 85.0 ) N/A ( 377.0 / 251.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
9Cl-Pf3ONS	( 531.0 / 351.0 ) N/A ( 533.0 / 353.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
11Cl-Pf3OUDS	( 631.0 / 451.0 ) N/A ( 633.0 / 453.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
3:3FTCA	(241.0 / 177.0) N/A (241.0 / 117.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
5:3FTCA	(341.0 / 236.7) 3656 (341.0 / 217.0) 4873	(6.81, 1.10) (N/A, -0.04, 0.1)	92.4 39.8	1.3329 78.0 81.4	0.1089	N/A			
7:3FTCA	(441.0 / 317.0) 5788 (441.0 / 337.0) 5253	(8.63, 1.40) (N/A, -0.04, -0.2)	32.5 211.6	0.9076 110.0 114.1	0.1339	N/A			
PFEESA	(315.0 / 135.0) N/A (315.0 / 83.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFMPA	(229.0 / 85.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
PFMBA	(279.0 / 85.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
NFDHA	(201.0 / 85.0) N/A (295.0 / 201.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
13C3_PFBA_IIS	(216.0 / 172.0) 93017	(3.77, N/A) (N/A, -0.01, N/A)	637.5	N/A	0.9677 [ 1.0000 ]	96.8% { 106.3% }			
13C2_PFHxA_IIS	(315.1 / 270.0) 141642	(6.18, N/A) (N/A, -0.03, N/A)	497.2	N/A	1.1470 [ 1.0000 ]	114.7% { 109.2% }			
13C4_PFOA_IIS	(417.0 / 372.0) 152123	(7.91, N/A) (N/A, -0.04, N/A)	510.9	N/A	1.2832 [ 1.0000 ]	128.3% { 125.3% }			
13C5_PFNA_IIS	(468.0 / 423.0) 126574	(8.66, N/A) (N/A, -0.03, N/A)	561.5	N/A	1.3290 [ 1.0000 ]	132.9% { 128.9% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDA_IIS	(515.1 / 470.1) 152354	(9.34, N/A) (N/A, -0.03, N/A)	203.3	N/A	1.8493 [ 1.0000 ]	184.9% { 169.0% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 264087	(8.05, N/A) (N/A, -0.04, N/A)	738.2	N/A	1.2304 [ 1.0000 ]	123.0% { 126.1% }			
13C4_PFOS_IIS	(502.8 / 79.9) 283285	(9.48, N/A) (N/A, -0.03, N/A)	414.8	N/A	1.5220 [ 1.0000 ]	152.2% { 148.3% }			
13C4_PFBA_EIS	(217.0 / 172.0) 679398	(3.76, N/A) (N/A, 0.00, N/A)	1139.7	N/A	7.7907 [ 8.0000 ]	97.4% { 103.7% }			
13C5_PFPeA_EIS	(267.9 / 223.0) 385630	(5.06, N/A) (N/A, -0.02, N/A)	1030.4	N/A	3.7323 [ 4.0000 ]	93.3% { 110.9% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 313589	(6.18, N/A) (N/A, -0.03, N/A)	656.7	N/A	2.1706 [ 2.0000 ]	108.5% { 119.5% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 296636	(7.10, N/A) (N/A, -0.04, N/A)	849.4	N/A	2.2747 [ 2.0000 ]	113.7% { 119.6% }			
13C8_PFOA_EIS	(421.0 / 376.0) 313266	(7.91, N/A) (N/A, -0.04, N/A)	806.3	N/A	2.0246 [ 2.0000 ]	101.2% { 120.1% }			
13C9_PFNA_EIS	(472.0 / 427.0) 134910	(8.65, N/A) (N/A, -0.04, N/A)	656.9	N/A	1.0801 [ 1.0000 ]	108.0% { 161.9% }			
13C6_PFDA_EIS	(519.0 / 474.0) 198901	(9.34, N/A) (N/A, -0.04, N/A)	254.6	N/A	0.8988 [ 1.0000 ]	89.9% { 171.0% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 193464	(9.72, N/A) (N/A, -0.02, N/A)	532.7	N/A	0.6513 [ 1.0000 ]	65.1% { 96.2% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDa_EIS	(615.0 / 570.0) 224288	(9.90, N/A) (N/A, -0.01, N/A)	427.3	N/A	0.6221 [ 1.0000 ]	62.2% { 116.1% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 140646	(10.13, N/A) (N/A, -0.01, N/A)	341.3	N/A	0.5314 [ 1.0000 ]	53.1% { 108.4% }			
13C3_PFBs_EIS	(302.0 / 80.0) 738887	(6.15, N/A) (N/A, -0.03, N/A)	830.3	N/A	1.9038 [ 2.0000 ]	95.2% { 111.6% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 453863	(8.05, N/A) (N/A, -0.04, N/A)	885.0	N/A	2.0543 [ 2.0000 ]	102.7% { 128.6% }			
13C8_PFOS_EIS	(507.0 / 80.0) 879503	(9.48, N/A) (N/A, -0.03, N/A)	572.1	N/A	2.0366 [ 2.0000 ]	101.8% { 146.7% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 110599	(5.85, N/A) (N/A, -0.03, N/A)	462.2	N/A	5.0526 [ 4.0000 ]	126.3% { 154.6% }			
13C2_6:2FTS_EIS	(429.0 / 81.0) 157910	(7.57, N/A) (N/A, -0.03, N/A)	515.8	N/A	5.3771 [ 4.0000 ]	134.4% { 175.6% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 183081	(8.99, N/A) (N/A, -0.04, N/A)	527.3	N/A	7.1825 [ 4.0000 ]	179.6% { 211.2% }			S2,
13C8_PFOA_EIS	(506.0 / 78.0) 872672	(10.18, N/A) (N/A, -0.01, N/A)	751.1	N/A	1.3237 [ 2.0000 ]	66.2% { 99.4% }			
D3_NMeFOA_EIS	(515.0 / 169.0) 168672	(10.60, N/A) (N/A, 0.00, N/A)	585.7	N/A	0.8646 [ 2.0000 ]	43.2% { 70.7% }			
D5_NEtFOA_EIS	(531.1 / 169.0) 163739	(10.70, N/A) (N/A, 0.00, N/A)	911.2	N/A	0.9257 [ 2.0000 ]	46.3% { 72.0% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT- CV[ $\mu$ min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
D3_MeFOSAA_EIS	(573.0 / 419.0) 489046	(9.52, N/A) (N/A, -0.02, N/A)	517.3	N/A	5.0901 [ 4.0000 ]	127.3% { 180.5% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 320495	(9.69, N/A) (N/A, -0.01, N/A)	207.3	N/A	3.8811 [ 4.0000 ]	97.0% { 145.5% }			
D7_NMeFOSE_EIS	(623.2 / 58.9) 315863	(10.57, N/A) (N/A, 0.00, N/A)	990.9	N/A	9.4792 [ 20.0000 ]	47.4% { 66.4% }			
D9_NEtFOSE_EIS	(639.2 / 58.9) 152996	(10.67, N/A) (N/A, 0.00, N/A)	1011.2	N/A	9.0112 [ 20.0000 ]	45.1% { 64.5% }			
13C3_HFPODA_EIS	(287.0 / 169.0) 795794	(6.52, N/A) (N/A, -0.03, N/A)	801.9	N/A	8.3634 [ 8.0000 ]	104.5% { 118.6% }			

# FORM IR ANALYSIS DATA SHEET

MW-12-S5-112822-

Laboratory:	APPL, LLC-	Work Order:	22L0004-		
Client:	Tidewater, Inc.-	Project:	NASA JPL SI-		
Matrix:	Water-	Laboratory ID:	22L0004-16RE1-	File ID:	S2022-12-09B (49)-
Sampled:	11/28/22 13:15-	Prepared:	12/05/22 07:17-	Analyzed:	12/10/22 09:03-
Solids:		Preparation:	Table B-15-	Dilution:	10-
Initial/Final:	280.28 mL / 2 mL-			Instrument:	Saphira-
Batch:	BBL0076-	Sequence:	SB03769	Calibration:	2250016-



Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: 22L0004-16RE1@10  
 DF, IV: 1, 1.0µL  
 Acquisition Method: 1633 2022-12-07.dam

Quant Method: 1633 - S2022-12-07A  
 Path: S2022-12-09B (49)  
 Acquired: 2022/12/10 - 09:03

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBA	(212.9 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
PFPeA	(262.9 / 219.0) N/A (262.9 / 69.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHxA	(313.0 / 269.0) N/A (313.0 / 119.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHpA	(363.0 / 319.0) N/A (363.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFOA	(413.0 / 369.0) N/A (413.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFNA	(463.0 / 419.0) N/A (463.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDA	(513.0 / 469.0) N/A (513.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFUnA	(563.0 / 519.0) N/A (563.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDoA	(613.0 / 569.0) N/A (613.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFTrDA	(663.0 / 619.0) N/A (663.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFTeDA	(713.0 / 669.0) N/A (713.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			



Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: 22L0004-16RE1@10  
 DF, IV: 1, 1.0µL  
 Acquisition Method: 1633 2022-12-07.dam

Quant Method: 1633 - S2022-12-07A  
 Path: S2022-12-09B (49)  
 Acquired: 2022/12/10 - 09:03

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBS	( 298.9 / 80.0 ) N/A ( 298.9 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFPeS	( 349.0 / 80.0 ) N/A ( 349.0 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHxS	( 399.0 / 80.0 ) N/A ( 399.0 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHpS	( 449.0 / 80.0 ) N/A ( 449.0 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFOS	( 499.0 / 80.0 ) N/A ( 499.0 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFNS	( 549.0 / 80.0 ) N/A ( 549.0 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDS	( 599.0 / 80.0 ) N/A ( 599.0 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDoS	( 698.9 / 80.0 ) N/A ( 698.9 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
4:2FTS	( 327.0 / 307.0 ) N/A ( 327.0 / 81.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
6:2FTS	( 427.0 / 407.0 ) N/A ( 427.0 / 81.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
8:2FTS	( 527.0 / 507.0 ) N/A ( 527.0 / 81.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			

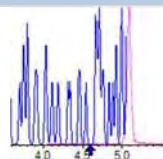
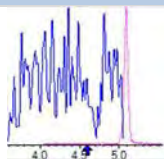
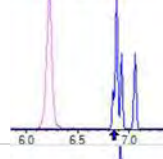
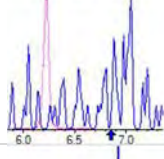
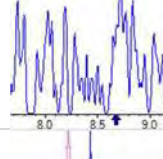
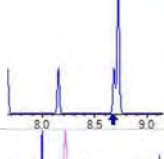
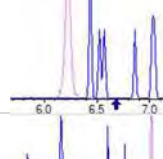
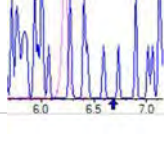
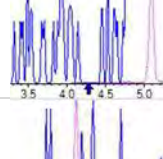
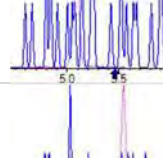
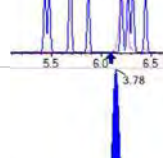
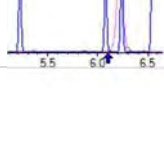
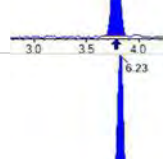
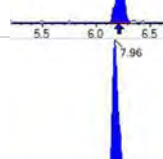
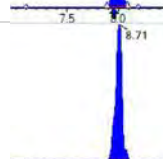
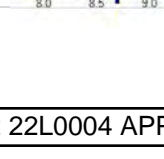


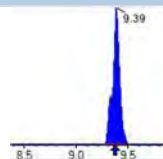
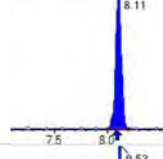
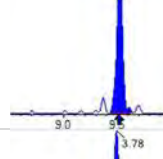
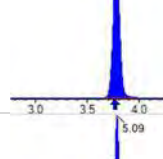
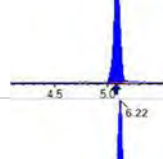
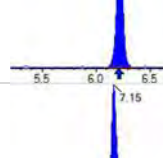
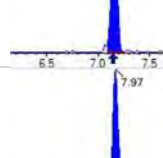
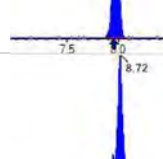
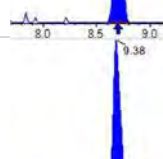
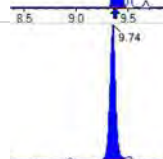
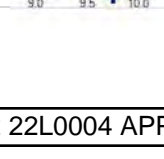
Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

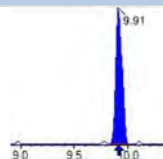
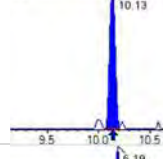
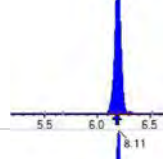
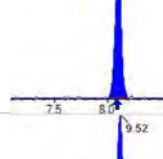
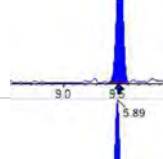
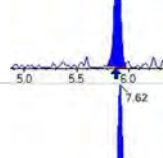
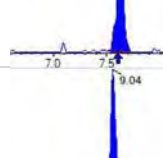
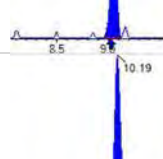
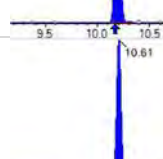
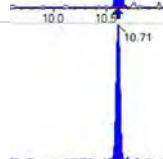
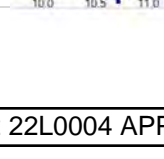
Sample I.D.: 22L0004-16RE1@10  
 DF, IV: 1, 1.0µL  
 Acquisition Method: 1633 2022-12-07.dam

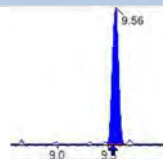
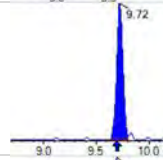
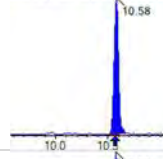
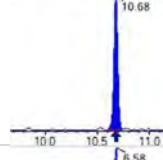
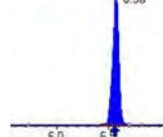
Quant Method: 1633 - S2022-12-07A  
 Path: S2022-12-09B (49)  
 Acquired: 2022/12/10 - 09:03

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFOSA	( 498.0 / 78.0 ) N/A ( 498.0 / 478.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSA	( 511.9 / 219.0 ) N/A ( 511.9 / 169.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NEtFOSA	( 526.0 / 219.0 ) N/A ( 526.0 / 169.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSAA	( 570.0 / 419.0 ) N/A ( 570.0 / 483.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NEtFOSAA	( 584.0 / 419.0 ) N/A ( 584.0 / 526.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSE	( 616.1 / 59.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A	N/A 0.0 0.0	0.0000	N/A			
NEtFOSE	( 630.0 / 59.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A	N/A 0.0 0.0	0.0000	N/A			
HFPO-DA	( 285.0 / 169.0 ) N/A ( 285.0 / 185.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
ADONA	( 377.0 / 85.0 ) N/A ( 377.0 / 251.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
9Cl-Pf3ONS	( 531.0 / 351.0 ) N/A ( 533.0 / 353.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
11Cl-Pf3OUDS	( 631.0 / 451.0 ) N/A ( 633.0 / 453.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
3:3FTCA	(241.0 / 177.0) N/A (241.0 / 117.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
5:3FTCA	(341.0 / 236.7) N/A (341.0 / 217.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
7:3FTCA	(441.0 / 317.0) N/A (441.0 / 337.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFEESA	(315.0 / 135.0) N/A (315.0 / 83.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFMPA	(229.0 / 85.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
PFMBA	(279.0 / 85.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
NFDHA	(201.0 / 85.0) N/A (295.0 / 201.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
13C3_PFBA_IIS	(216.0 / 172.0) 8061	(3.78, N/A) (N/A, 0.01, N/A)	282.5	N/A	0.8386 [ 1.0000 ]	83.9% { 9.2% }			
13C2_PFHxA_IIS	(315.1 / 270.0) 14046	(6.23, N/A) (N/A, 0.01, N/A)	260.9	N/A	1.1374 [ 1.0000 ]	113.7% { 10.8% }			
13C4_PFOA_IIS	(417.0 / 372.0) 10140	(7.96, N/A) (N/A, 0.01, N/A)	319.6	N/A	0.8553 [ 1.0000 ]	85.5% { 8.3% }			
13C5_PFNA_IIS	(468.0 / 423.0) 10659	(8.71, N/A) (N/A, 0.02, N/A)	60.7	N/A	1.1192 [ 1.0000 ]	111.9% { 10.9% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDA_IIS	(515.1 / 470.1) 8827	(9.39, N/A) (N/A, 0.02, N/A)	49.5	N/A	1.0714 [ 1.0000 ]	107.1% { 9.8% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 23812	(8.11, N/A) (N/A, 0.02, N/A)	316.9	N/A	1.1095 [ 1.0000 ]	110.9% { 11.4% }			
13C4_PFOS_IIS	(502.8 / 79.9) 21973	(9.52, N/A) (N/A, 0.01, N/A)	90.0	N/A	1.1806 [ 1.0000 ]	118.1% { 11.5% }			
13C4_PFBA_EIS	(217.0 / 172.0) 60709	(3.78, N/A) (N/A, 0.01, N/A)	938.8	N/A	0.8033 [ 0.8000 ]	100.4% { 9.3% }			
13C5_PFPeA_EIS	(267.9 / 223.0) 36805	(5.09, N/A) (N/A, 0.01, N/A)	583.1	N/A	0.3592 [ 0.4000 ]	89.8% { 10.6% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 24073	(6.22, N/A) (N/A, 0.01, N/A)	446.6	N/A	0.1680 [ 0.2000 ]	84.0% { 9.2% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 26623	(7.15, N/A) (N/A, 0.01, N/A)	285.1	N/A	0.2059 [ 0.2000 ]	102.9% { 10.7% }			
13C8_PFOA_EIS	(421.0 / 376.0) 27338	(7.97, N/A) (N/A, 0.02, N/A)	442.7	N/A	0.2651 [ 0.2000 ]	132.5% { 10.5% }			
13C9_PFNA_EIS	(472.0 / 427.0) 10357	(8.72, N/A) (N/A, 0.02, N/A)	152.2	N/A	0.0985 [ 0.1000 ]	98.5% { 12.4% }			
13C6_PFDA_EIS	(519.0 / 474.0) 10381	(9.38, N/A) (N/A, 0.01, N/A)	401.9	N/A	0.0810 [ 0.1000 ]	81.0% { 8.9% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 19844	(9.74, N/A) (N/A, 0.01, N/A)	312.6	N/A	0.1153 [ 0.1000 ]	115.3% { 9.9% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDa_EIS	(615.0 / 570.0) 23186	(9.91, N/A) (N/A, 0.00, N/A)	284.4	N/A	0.1110 [0.1000]	111.0% {12.0%}			
13C2_PFTeDA_EIS	(715.0 / 670.0) 9251	(10.13, N/A) (N/A, 0.00, N/A)	187.9	N/A	0.0603 [0.1000]	60.3% {7.1%}			
13C3_PFBs_EIS	(302.0 / 80.0) 70605	(6.19, N/A) (N/A, 0.01, N/A)	421.3	N/A	0.2017 [0.2000]	100.9% {10.7%}			
13C3_PFHxS_EIS	(402.0 / 80.0) 37174	(8.11, N/A) (N/A, 0.02, N/A)	400.7	N/A	0.1866 [0.2000]	93.3% {10.5%}			
13C8_PFOS_EIS	(507.0 / 80.0) 61404	(9.52, N/A) (N/A, 0.01, N/A)	150.2	N/A	0.1833 [0.2000]	91.7% {10.2%}			
13C2_4:2FTS_EIS	(329.0 / 81.0) 6628	(5.89, N/A) (N/A, 0.02, N/A)	80.3	N/A	0.3358 [0.4000]	83.9% {9.3%}			
13C2_6:2FTS_EIS	(429.0 / 81.0) 12426	(7.62, N/A) (N/A, 0.03, N/A)	178.8	N/A	0.4693 [0.4000]	117.3% {13.8%}			
13C2_8:2FTS_EIS	(529.0 / 81.0) 10902	(9.04, N/A) (N/A, 0.02, N/A)	200.9	N/A	0.4743 [0.4000]	118.6% {12.6%}			
13C8_PFOsa_EIS	(506.0 / 78.0) 76035	(10.19, N/A) (N/A, 0.01, N/A)	409.8	N/A	0.1487 [0.2000]	74.3% {8.7%}			
D3_NMeFOSA_EIS	(515.0 / 169.0) 16408	(10.61, N/A) (N/A, 0.01, N/A)	208.7	N/A	0.1084 [0.2000]	54.2% {6.9%}			
D5_NEiFOSA_EIS	(531.1 / 169.0) 16281	(10.71, N/A) (N/A, 0.01, N/A)	260.8	N/A	0.1187 [0.2000]	59.3% {7.2%}			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT- CV[ $\mu$ min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
D3_MeFOSAA_EIS	(573.0 / 419.0) 33474	(9.56, N/A) (N/A, 0.02, N/A)	197.4	N/A	0.4492 [ 0.4000 ]	112.3% { 12.4% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 31173	(9.72, N/A) (N/A, 0.02, N/A)	175.5	N/A	0.4867 [ 0.4000 ]	121.7% { 14.2% }			
D7_NMeFOSE_EIS	(623.2 / 58.9) 28244	(10.58, N/A) (N/A, 0.01, N/A)	273.9	N/A	1.0928 [ 2.0000 ]	54.6% { 5.9% }			
D9_NEtFOSE_EIS	(639.2 / 58.9) 13827	(10.68, N/A) (N/A, 0.01, N/A)	275.8	N/A	1.0500 [ 2.0000 ]	52.5% { 5.8% }			
13C3_HFPODA_EIS	(287.0 / 169.0) 70099	(6.58, N/A) (N/A, 0.02, N/A)	463.9	N/A	0.7429 [ 0.8000 ]	92.9% { 10.4% }			

# FORM IR ANALYSIS DATA SHEET

MW-12-S4-112822-

Laboratory:	APPL, LLC-	Work Order:	22L0004-
Client:	Tidewater, Inc.-	Project:	NASA JPL SI-
Matrix:	Water-	Laboratory ID:	22L0004-17-
Sampled:	11/28/22 13:50-	Prepared:	12/05/22 07:17
Solids:		Preparation:	Table B-15-
Initial/Final:	268.18 mL / 2 mL-	Dilution:	1-
Batch:	BBL0076-	Instrument:	Saphira
	Sequence: SB03769	Calibration:	2250016

COMPOUNDR	CONC. (ng/L)	LOQ	LODR	DL	Q
PFBA-	0.41 J-	3.0	0.19	0.047	
PFPEA-	0.58 J-	1.5	0.19	0.058	
PFHXA-	0.76-	0.75-	0.19	0.060	IR2
PFHPA-	0.34 J-	0.75	0.19	0.047	
PFOA-	2.1-	0.75-	0.19	0.076	MI4
PFNA-	0.19 U-	0.75	0.19	0.047	
PFDA-	0.80-	0.75-	0.19	0.047	IR2
PFUnA-	0.19 U-	0.75	0.19	0.075	
PFDOA-	0.19 U-	0.75	0.19	0.047	
PFTRDA-	0.19 U-	0.75	0.19	0.054	
PFTEDA-	0.19 U-	0.75	0.19	0.080	
PFBS-	0.23 J-	0.75	0.19	0.047	
PFPEs-	0.19 U-	0.75	0.19	0.054	
PFHXS-	0.25 J-	0.75	0.19	0.047	
PFHPS-	0.19 U-	0.75	0.19	0.052	
PFOS-	1.1-	0.75-	0.19	0.047	MI4
PFNS-	0.37 U-	0.75	0.37	0.23	
PFDS-	0.19 U-	0.75	0.19	0.060	
4:2FTS-	0.37 U-	3.0	0.37	0.10	
6:2FTS-	0.19 U-	3.0	0.19	0.084	
8:2FTS-	0.56 U-	3.0	0.56	0.19	
PFOSA-	0.21 J-	3.0	0.19	0.047	
NMeFOSA-	1.9 U-	3.0	1.9	0.92	
NEtFOSA-	1.9 U-	3.0	1.9	0.92	
NMeFOSAA-	0.26 J-	0.75-	0.19	0.067	IR1,
NEtFOSAA-	0.31 J-	0.75	0.19	0.047	
NMeFOSE-	1.1 U-	3.0	1.1	0.56	
NEtFOSE-	1.1 U-	3.0	1.1	0.56	
HFPO-DA-	0.93 U-	1.5	0.93	0.46	
ADONA-	0.56 U-	1.5	0.56	0.24	

# FORM IR ANALYSIS DATA SHEET

MW-12-S4-112822-

Laboratory:	APPL, LLC-	Work Order:	22L0004-
Client:	Tidewater, Inc.-	Project:	NASA JPL SI-
Matrix:	Water-	Laboratory ID:	22L0004-17-
		File ID:	S2022-12-09B (50)-
Sampled:	11/28/22 13:50-	Prepared:	12/05/22 07:17-
		Analyzed:	12/10/22 09:16-
Solids:		Preparation:	Table B-15-
		Dilution:	1-
Initial/Final:	268.18 mL / 2 mL-	Instrument:	Saphira-
Batch:	BBL0076-	Sequence:	SB03769-
		Calibration:	2250016-

COMPOUNDR	CONC. (ng/L)R	LOQ	LODR	DLR	Q
9CL-PF3ONS-	0.56 U-	1.5-	0.56-	0.22-	
11CL-PF3OUDS-	0.56 U-	1.5-	0.56-	0.22-	



Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: 22L0004-17  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-07.dam

Quant Method: 1633 - S2022-12-07A  
 Path: S2022-12-09B (50)  
 Acquired: 2022/12/10 - 09:16

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBA	(212.9 / 169.0) 3763	(3.72, 1.00) (0.00, N/A, 0.0)	15.8	N/A 0.0 0.0	0.0547	N/A			
PFPeA	(262.9 / 219.0) 7681 (262.9 / 69.0) 161	(5.03, 1.00) (0.00, N/A, -0.9)	75.3 7.9	0.0209 179.8 189.3	0.0774	N/A			
PFHxA	(313.0 / 269.0) 17827 (313.0 / 119.0) 2426	(6.16, 1.00) (0.00, N/A, 0.5)	83.8 73.8	0.1361 151.4 138.9	0.1021	N/A			IR2,
PFHpA	(363.0 / 319.0) 6982 (363.0 / 169.0) 2943	(7.09, 1.00) (-0.01, N/A, -0.3)	34.5 62.5	0.4215 146.9 149.1	0.0455	N/A			
PFOA	(413.0 / 369.0) 45994 (413.0 / 169.0) 16795	(7.91, 1.00) (0.00, N/A, 0.3)	99.0 1610.2	0.3652 112.9 112.8	0.2866	N/A			M14 ABK 12/29/22
PFNA	(463.0 / 419.0) N/A (463.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDA	(513.0 / 469.0) 18218 (513.0 / 169.0) 3001	(9.33, 1.00) (0.00, N/A, 0.3)	50.2 9.3	0.1648 185.6 165.8	0.1069	N/A			IR2,
PFUnA	(563.0 / 519.0) N/A (563.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDoA	(613.0 / 569.0) N/A (613.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFTTrDA	(663.0 / 619.0) N/A (663.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFTeDA	(713.0 / 669.0) N/A (713.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			



Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: 22L0004-17  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-07.dam

Quant Method: 1633 - S2022-12-07A  
 Path: S2022-12-09B (50)  
 Acquired: 2022/12/10 - 09:16

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBS	( 298.9 / 80.0 ) 7235 ( 298.9 / 99.0 ) 2735	( 6.13 , 1.00 ) ( 0.00 , N/A , -0.1)	20.0 23.6	0.3780 55.8 55.8	0.0310	N/A			
PFPeS	( 349.0 / 80.0 ) N/A ( 349.0 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHxS	( 399.0 / 80.0 ) 12216 ( 399.0 / 99.0 ) 2937	( 8.06 , 1.00 ) ( 0.01 , N/A , 2.4)	71.0 63.0	0.2404 69.7 72.8	0.0335	N/A			
PFHpS	( 449.0 / 80.0 ) N/A ( 449.0 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFOS	( 499.0 / 80.0 ) 72946 ( 499.0 / 99.0 ) 17414	( 9.48 , 1.00 ) ( 0.00 , N/A , 0.0)	35.7 58.8	0.2387 92.7 100.8	0.1473	N/A			M14 ABK 12/29/22
PFNS	( 549.0 / 80.0 ) N/A ( 549.0 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDS	( 599.0 / 80.0 ) N/A ( 599.0 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDoS	( 698.9 / 80.0 ) N/A ( 698.9 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
4:2FTS	( 327.0 / 307.0 ) N/A ( 327.0 / 81.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
6:2FTS	( 427.0 / 407.0 ) N/A ( 427.0 / 81.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
8:2FTS	( 527.0 / 507.0 ) N/A ( 527.0 / 81.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			

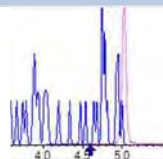
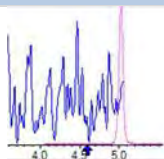
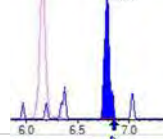
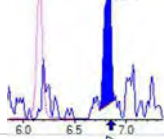
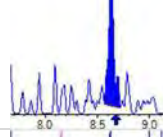
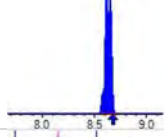
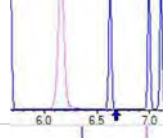
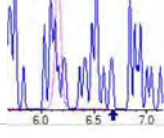
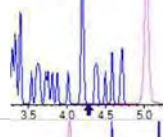
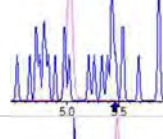
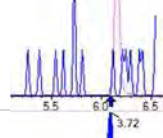
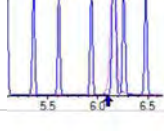
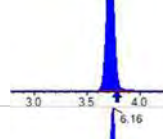
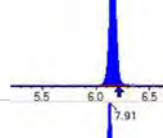
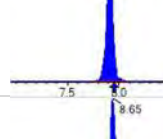
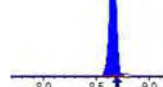


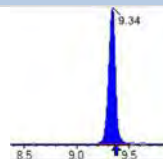
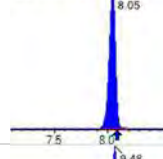
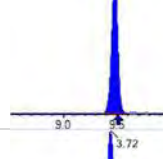
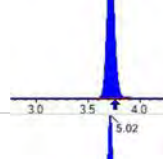
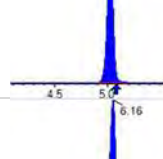
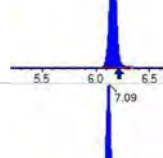
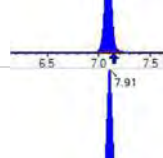
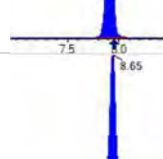
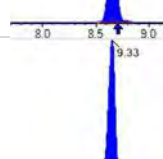
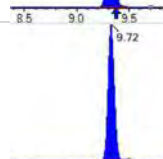
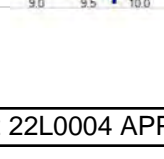
Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

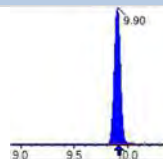
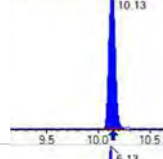
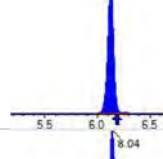
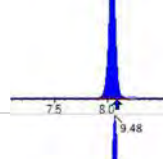
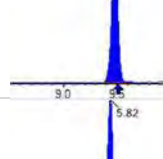
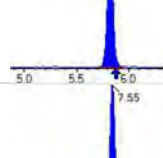
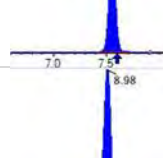
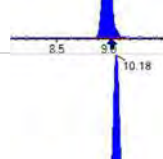
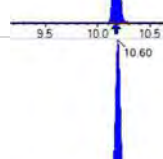
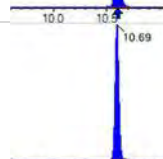
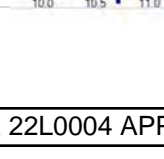
Sample I.D.: 22L0004-17  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-07.dam

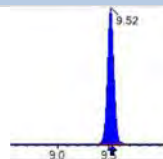
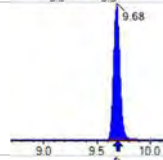
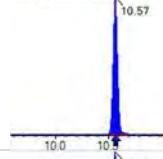
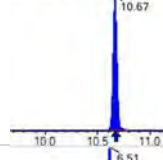
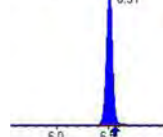
Quant Method: 1633 - S2022-12-07A  
 Path: S2022-12-09B (50)  
 Acquired: 2022/12/10 - 09:16

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFOSA	( 498.0 / 78.0 ) 12080 ( 498.0 / 478.0 ) 1034	( 10.15 , 1.00 ) ( -0.02 , N/A , -0.8)	61.4 170.5	0.0856 358.6 339.1	0.0275	N/A			
NMeFOSA	( 511.9 / 219.0 ) N/A ( 511.9 / 169.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NEtFOSA	( 526.0 / 219.0 ) N/A ( 526.0 / 169.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSAA	( 570.0 / 419.0 ) 3502 ( 570.0 / 483.0 ) 797	( 9.52 , 1.00 ) ( 0.01 , N/A , 1.5)	8608.7 451.5	0.2276 49.1 41.9	0.0347	N/A			IR1,
NEtFOSAA	( 584.0 / 419.0 ) 2977 ( 584.0 / 526.0 ) 2387	( 9.69 , 1.00 ) ( 0.01 , N/A , 1.7)	832.3 103.2	0.8017 132.1 129.1	0.0414	N/A			
NMeFOSE	( 616.1 / 59.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
NEtFOSE	( 630.0 / 59.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
HFPO-DA	( 285.0 / 169.0 ) N/A ( 285.0 / 185.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
ADONA	( 377.0 / 85.0 ) N/A ( 377.0 / 251.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
9Cl-Pf3ONS	( 531.0 / 351.0 ) N/A ( 533.0 / 353.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
11Cl-Pf3OUDS	( 631.0 / 451.0 ) N/A ( 633.0 / 453.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
3:3FTCA	(241.0 / 177.0) N/A (241.0 / 117.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
5:3FTCA	(341.0 / 236.7) 1700 (341.0 / 217.0) 3243	(6.78, 1.10) (N/A, -0.07, -2.2)	76.4 15.8	1.9079 111.7 116.5	0.0458	N/A			
7:3FTCA	(441.0 / 317.0) 3508 (441.0 / 337.0) 2486	(8.63, 1.40) (N/A, -0.04, 0.1)	16.0 88.9	0.7087 85.9 89.1	0.0734	N/A			
PFEESA	(315.0 / 135.0) N/A (315.0 / 83.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFMPA	(229.0 / 85.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
PFMBA	(279.0 / 85.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
NFDHA	(201.0 / 85.0) N/A (295.0 / 201.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
13C3_PFBA_IIS	(216.0 / 172.0) 102006	(3.72, N/A) (N/A, -0.05, N/A)	836.7	N/A	1.0612 [ 1.0000 ]	106.1% { 116.6% }			
13C2_PFHxA_IIS	(315.1 / 270.0) 152766	(6.16, N/A) (N/A, -0.06, N/A)	593.4	N/A	1.2371 [ 1.0000 ]	123.7% { 117.8% }			
13C4_PFOA_IIS	(417.0 / 372.0) 147962	(7.91, N/A) (N/A, -0.04, N/A)	711.6	N/A	1.2481 [ 1.0000 ]	124.8% { 121.8% }			
13C5_PFNA_IIS	(468.0 / 423.0) 133050	(8.65, N/A) (N/A, -0.04, N/A)	557.6	N/A	1.3970 [ 1.0000 ]	139.7% { 135.5% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDA_IIS	(515.1 / 470.1) 127232	(9.34, N/A) (N/A, -0.03, N/A)	314.0	N/A	1.5444 [ 1.0000 ]	154.4% { 141.2% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 259008	(8.05, N/A) (N/A, -0.04, N/A)	936.0	N/A	1.2068 [ 1.0000 ]	120.7% { 123.6% }			
13C4_PFOS_IIS	(502.8 / 79.9) 294923	(9.48, N/A) (N/A, -0.03, N/A)	458.7	N/A	1.5846 [ 1.0000 ]	158.5% { 154.4% }			
13C4_PFBA_EIS	(217.0 / 172.0) 722238	(3.72, N/A) (N/A, -0.05, N/A)	1097.5	N/A	7.5521 [ 8.0000 ]	94.4% { 110.3% }			
13C5_PFPeA_EIS	(267.9 / 223.0) 413131	(5.02, N/A) (N/A, -0.06, N/A)	838.0	N/A	3.7073 [ 4.0000 ]	92.7% { 118.8% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 346547	(6.16, N/A) (N/A, -0.05, N/A)	879.0	N/A	2.2240 [ 2.0000 ]	111.2% { 132.1% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 302896	(7.09, N/A) (N/A, -0.04, N/A)	745.9	N/A	2.1535 [ 2.0000 ]	107.7% { 122.1% }			
13C8_PFOA_EIS	(421.0 / 376.0) 311309	(7.91, N/A) (N/A, -0.04, N/A)	441.5	N/A	2.0686 [ 2.0000 ]	103.4% { 119.3% }			
13C9_PFNA_EIS	(472.0 / 427.0) 125112	(8.65, N/A) (N/A, -0.04, N/A)	351.9	N/A	0.9529 [ 1.0000 ]	95.3% { 150.2% }			
13C6_PFDA_EIS	(519.0 / 474.0) 167991	(9.33, N/A) (N/A, -0.04, N/A)	254.0	N/A	0.9090 [ 1.0000 ]	90.9% { 144.4% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 193827	(9.72, N/A) (N/A, -0.02, N/A)	348.3	N/A	0.7813 [ 1.0000 ]	78.1% { 96.3% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT-CV[ $\mu$ min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDa_EIS	(615.0 / 570.0) 208969	(9.90, N/A) (N/A, -0.01, N/A)	229.4	N/A	0.6941 [ 1.0000 ]	69.4% { 108.1% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 139934	(10.13, N/A) (N/A, -0.01, N/A)	318.9	N/A	0.6332 [ 1.0000 ]	63.3% { 107.8% }			
13C3_PFBs_EIS	(302.0 / 80.0) 763613	(6.13, N/A) (N/A, -0.05, N/A)	757.7	N/A	2.0060 [ 2.0000 ]	100.3% { 115.4% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 434956	(8.04, N/A) (N/A, -0.05, N/A)	737.5	N/A	2.0074 [ 2.0000 ]	100.4% { 123.2% }			
13C8_PFOS_EIS	(507.0 / 80.0) 882337	(9.48, N/A) (N/A, -0.03, N/A)	440.2	N/A	1.9625 [ 2.0000 ]	98.1% { 147.2% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 113933	(5.82, N/A) (N/A, -0.05, N/A)	512.0	N/A	5.3070 [ 4.0000 ]	132.7% { 159.2% }			
13C2_6:2FTS_EIS	(429.0 / 81.0) 149593	(7.55, N/A) (N/A, -0.04, N/A)	543.7	N/A	5.1937 [ 4.0000 ]	129.8% { 166.3% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 136570	(8.98, N/A) (N/A, -0.04, N/A)	411.8	N/A	5.4628 [ 4.0000 ]	136.6% { 157.5% }			
13C8_PFOsa_EIS	(506.0 / 78.0) 791373	(10.18, N/A) (N/A, 0.00, N/A)	749.2	N/A	1.1530 [ 2.0000 ]	57.7% { 90.2% }			
D3_NMeFOSA_EIS	(515.0 / 169.0) 161599	(10.60, N/A) (N/A, 0.00, N/A)	692.0	N/A	0.7956 [ 2.0000 ]	39.8% { 67.8% }			
D5_NEiFOSA_EIS	(531.1 / 169.0) 151012	(10.69, N/A) (N/A, 0.00, N/A)	731.1	N/A	0.8200 [ 2.0000 ]	41.0% { 66.4% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT- CV[ $\mu$ min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
D3_MeFOSAA_EIS	(573.0 / 419.0) 463549	(9.52, N/A) (N/A, -0.02, N/A)	543.3	N/A	4.6343 [ 4.0000 ]	115.9% { 171.1% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 313741	(9.68, N/A) (N/A, -0.02, N/A)	614.8	N/A	3.6494 [ 4.0000 ]	91.2% { 142.4% }			
D7_NMeFOSE_EIS	(623.2 / 58.9) 295893	(10.57, N/A) (N/A, 0.00, N/A)	873.9	N/A	8.5295 [ 20.0000 ]	42.6% { 62.2% }			
D9_NEtFOSE_EIS	(639.2 / 58.9) 155214	(10.67, N/A) (N/A, 0.00, N/A)	1019.4	N/A	8.7811 [ 20.0000 ]	43.9% { 65.4% }			
13C3_HFPODA_EIS	(287.0 / 169.0) 886214	(6.51, N/A) (N/A, -0.05, N/A)	1331.3	N/A	8.6355 [ 8.0000 ]	107.9% { 132.1% }			

# FORM IR ANALYSIS DATA SHEET

MW-12-S4-112822-

Laboratory:	APPL, LLC-	Work Order:	22L0004-		
Client:	Tidewater, Inc.-	Project:	NASA JPL SI-		
Matrix:	Water-	Laboratory ID:	22L0004-17RE1-	File ID:	S2022-12-09B (51)-
Sampled:	11/28/22 13:50-	Prepared:	12/05/22 07:17-	Analyzed:	12/10/22 09:29-
Solids:		Preparation:	Table B-15-	Dilution:	10-
Initial/Final:	268.18 mL / 2 mL-			Instrument:	Saphira-
Batch:	BBL0076-	Sequence:	SB03769	Calibration:	2250016-



Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: 22L0004-17RE1@10  
 DF, IV: 1, 1.0µL  
 Acquisition Method: 1633 2022-12-07.dam

Quant Method: 1633 - S2022-12-07A  
 Path: S2022-12-09B (51)  
 Acquired: 2022/12/10 - 09:29

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBA	(212.9 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
PFPeA	(262.9 / 219.0) N/A (262.9 / 69.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHxA	(313.0 / 269.0) N/A (313.0 / 119.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHpA	(363.0 / 319.0) N/A (363.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFOA	(413.0 / 369.0) N/A (413.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFNA	(463.0 / 419.0) N/A (463.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDA	(513.0 / 469.0) N/A (513.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFUnA	(563.0 / 519.0) N/A (563.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDoA	(613.0 / 569.0) N/A (613.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFTrDA	(663.0 / 619.0) N/A (663.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFTeDA	(713.0 / 669.0) N/A (713.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			



Chemist: ABK  
Instrument: Saphira  
Type: Sciex Q3 5500

Sample I.D.: 22L0004-17RE1@10  
DF, IV: 1, 1.0µL  
Acquisition Method: 1633 2022-12-07.dam

Quant Method: 1633 - S2022-12-07A  
Path: S2022-12-09B (51)  
Acquired: 2022/12/10 - 09:29

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBS	( 298.9 / 80.0 ) N/A ( 298.9 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFPeS	( 349.0 / 80.0 ) N/A ( 349.0 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHxS	( 399.0 / 80.0 ) N/A ( 399.0 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHpS	( 449.0 / 80.0 ) N/A ( 449.0 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFOS	( 499.0 / 80.0 ) N/A ( 499.0 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFNS	( 549.0 / 80.0 ) N/A ( 549.0 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDS	( 599.0 / 80.0 ) N/A ( 599.0 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDoS	( 698.9 / 80.0 ) N/A ( 698.9 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
4:2FTS	( 327.0 / 307.0 ) N/A ( 327.0 / 81.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
6:2FTS	( 427.0 / 407.0 ) N/A ( 427.0 / 81.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
8:2FTS	( 527.0 / 507.0 ) N/A ( 527.0 / 81.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			



Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: 22L0004-17RE1@10  
 DF, IV: 1, 1.0µL  
 Acquisition Method: 1633 2022-12-07.dam

Quant Method: 1633 - S2022-12-07A  
 Path: S2022-12-09B (51)  
 Acquired: 2022/12/10 - 09:29

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFOSA	(498.0 / 78.0) N/A (498.0 / 478.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSA	(511.9 / 219.0) N/A (511.9 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NEtFOSA	(526.0 / 219.0) N/A (526.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSAA	(570.0 / 419.0) N/A (570.0 / 483.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NEtFOSAA	(584.0 / 419.0) N/A (584.0 / 526.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSE	(616.1 / 59.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
NEtFOSE	(630.0 / 59.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
HFPO-DA	(285.0 / 169.0) N/A (285.0 / 185.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
ADONA	(377.0 / 85.0) N/A (377.0 / 251.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
9Cl-Pf3ONS	(531.0 / 351.0) N/A (533.0 / 353.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
11Cl-Pf3OUDS	(631.0 / 451.0) N/A (633.0 / 453.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			

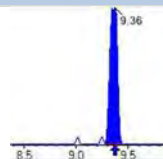
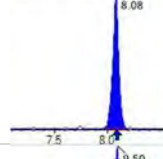
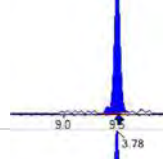
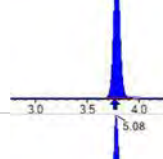
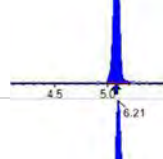
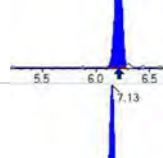
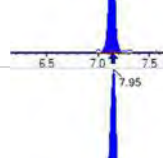
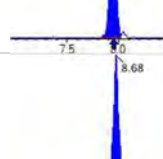
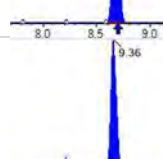
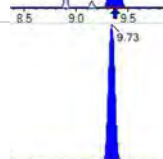
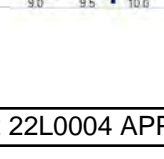


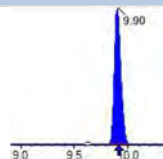
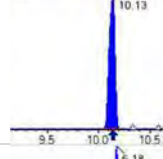
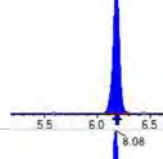
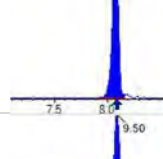
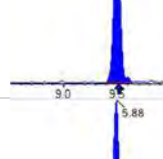
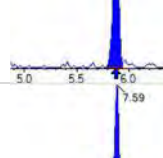
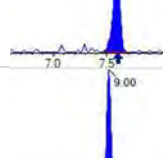
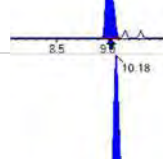
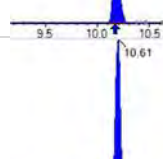
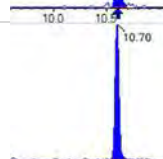
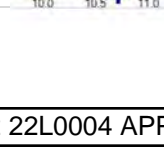
Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

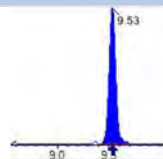
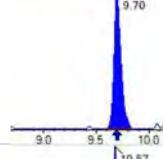
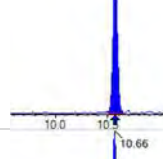
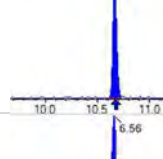
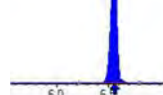
Sample I.D.: 22L0004-17RE1@10  
 DF, IV: 1, 1.0µL  
 Acquisition Method: 1633 2022-12-07.dam

Quant Method: 1633 - S2022-12-07A  
 Path: S2022-12-09B (51)  
 Acquired: 2022/12/10 - 09:29

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
3:3FTCA	(241.0 / 177.0) N/A (241.0 / 117.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
5:3FTCA	(341.0 / 236.7) N/A (341.0 / 217.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
7:3FTCA	(441.0 / 317.0) N/A (441.0 / 337.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFEESA	(315.0 / 135.0) N/A (315.0 / 83.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFMPA	(229.0 / 85.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
PFMBA	(279.0 / 85.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
NFDHA	(201.0 / 85.0) N/A (295.0 / 201.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
13C3_PFBA_IIS	(216.0 / 172.0) 9264	(3.78, N/A) (N/A, 0.01, N/A)	301.7	N/A	0.9638 [ 1.0000 ]	96.4% { 10.6% }			
13C2_PFHxA_IIS	(315.1 / 270.0) 11112	(6.21, N/A) (N/A, 0.00, N/A)	193.3	N/A	0.8999 [ 1.0000 ]	90.0% { 8.6% }			
13C4_PFOA_IIS	(417.0 / 372.0) 12944	(7.95, N/A) (N/A, 0.00, N/A)	200.7	N/A	1.0918 [ 1.0000 ]	109.2% { 10.7% }			
13C5_PFNA_IIS	(468.0 / 423.0) 8866	(8.68, N/A) (N/A, -0.01, N/A)	73.9	N/A	0.9309 [ 1.0000 ]	93.1% { 9.0% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDA_IIS	(515.1 / 470.1) 12941	(9.36, N/A) (N/A, -0.01, N/A)	558.1	N/A	1.5708 [ 1.0000 ]	157.1% { 14.4% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 21042	(8.08, N/A) (N/A, -0.01, N/A)	352.5	N/A	0.9804 [ 1.0000 ]	98.0% { 10.0% }			
13C4_PFOS_IIS	(502.8 / 79.9) 25504	(9.50, N/A) (N/A, -0.01, N/A)	123.9	N/A	1.3703 [ 1.0000 ]	137.0% { 13.4% }			
13C4_PFBA_EIS	(217.0 / 172.0) 69802	(3.78, N/A) (N/A, 0.01, N/A)	915.6	N/A	0.8037 [ 0.8000 ]	100.5% { 10.7% }			
13C5_PFPeA_EIS	(267.9 / 223.0) 41268	(5.08, N/A) (N/A, 0.00, N/A)	489.7	N/A	0.5091 [ 0.4000 ]	127.3% { 11.9% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 31270	(6.21, N/A) (N/A, 0.00, N/A)	339.7	N/A	0.2759 [ 0.2000 ]	137.9% { 11.9% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 27752	(7.13, N/A) (N/A, 0.00, N/A)	274.9	N/A	0.2713 [ 0.2000 ]	135.6% { 11.2% }			
13C8_PFOA_EIS	(421.0 / 376.0) 27920	(7.95, N/A) (N/A, 0.00, N/A)	476.4	N/A	0.2121 [ 0.2000 ]	106.0% { 10.7% }			
13C9_PFNA_EIS	(472.0 / 427.0) 12995	(8.68, N/A) (N/A, -0.01, N/A)	554.1	N/A	0.1485 [ 0.1000 ]	148.5% { 15.6% }			
13C6_PFDA_EIS	(519.0 / 474.0) 11311	(9.36, N/A) (N/A, -0.02, N/A)	174.7	N/A	0.0602 [ 0.1000 ]	60.2% { 9.7% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 29988	(9.73, N/A) (N/A, -0.01, N/A)	492.8	N/A	0.1188 [ 0.1000 ]	118.8% { 14.9% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT-CV[ $\mu$ min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDa_EIS	(615.0 / 570.0) 27173	(9.90, N/A) (N/A, -0.01, N/A)	4990.1	N/A	0.0887 [0.1000]	88.7% {14.1%}			
13C2_PFTeDA_EIS	(715.0 / 670.0) 15134	(10.13, N/A) (N/A, -0.01, N/A)	794.8	N/A	0.0673 [0.1000]	67.3% {11.7%}			
13C3_PFBs_EIS	(302.0 / 80.0) 71298	(6.18, N/A) (N/A, 0.00, N/A)	457.9	N/A	0.2306 [0.2000]	115.3% {10.8%}			
13C3_PFHxS_EIS	(402.0 / 80.0) 39782	(8.08, N/A) (N/A, -0.01, N/A)	293.3	N/A	0.2260 [0.2000]	113.0% {11.3%}			
13C8_PFOS_EIS	(507.0 / 80.0) 73238	(9.50, N/A) (N/A, -0.01, N/A)	238.1	N/A	0.1884 [0.2000]	94.2% {12.2%}			
13C2_4:2FTS_EIS	(329.0 / 81.0) 9049	(5.88, N/A) (N/A, 0.01, N/A)	117.6	N/A	0.5189 [0.4000]	129.7% {12.6%}			
13C2_6:2FTS_EIS	(429.0 / 81.0) 12143	(7.59, N/A) (N/A, 0.00, N/A)	134.0	N/A	0.5189 [0.4000]	129.7% {13.5%}			
13C2_8:2FTS_EIS	(529.0 / 81.0) 8076	(9.00, N/A) (N/A, -0.02, N/A)	492.6	N/A	0.3976 [0.4000]	99.4% {9.3%}			
13C8_PFOsa_EIS	(506.0 / 78.0) 78157	(10.18, N/A) (N/A, 0.00, N/A)	305.3	N/A	0.1317 [0.2000]	65.8% {8.9%}			
D3_NMeFOSA_EIS	(515.0 / 169.0) 15579	(10.61, N/A) (N/A, 0.00, N/A)	224.7	N/A	0.0887 [0.2000]	44.3% {6.5%}			
D5_NEtFOSA_EIS	(531.1 / 169.0) 15620	(10.70, N/A) (N/A, 0.00, N/A)	223.6	N/A	0.0981 [0.2000]	49.0% {6.9%}			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT- CV[ $\mu$ min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
D3_MeFOSAA_EIS	(573.0 / 419.0) 29097	(9.53, N/A) (N/A, -0.01, N/A)	182.4	N/A	0.3364 [ 0.4000 ]	84.1% { 10.7% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 29825	(9.70, N/A) (N/A, -0.01, N/A)	154.2	N/A	0.4012 [ 0.4000 ]	100.3% { 13.5% }			
D7_NMeFOSE_EIS	(623.2 / 58.9) 31063	(10.57, N/A) (N/A, 0.00, N/A)	262.3	N/A	1.0354 [ 2.0000 ]	51.8% { 6.5% }			
D9_NEtFOSE_EIS	(639.2 / 58.9) 16154	(10.66, N/A) (N/A, 0.00, N/A)	288.9	N/A	1.0568 [ 2.0000 ]	52.8% { 6.8% }			
13C3_HFPODA_EIS	(287.0 / 169.0) 76652	(6.56, N/A) (N/A, 0.00, N/A)	523.4	N/A	1.0269 [ 0.8000 ]	128.4% { 11.4% }			

# FORM IR ANALYSIS DATA SHEET

MW-12-S3-112822-

Laboratory:	APPL, LLC-	Work Order:	22L0004-		
Client:	Tidewater, Inc.-	Project:	NASA JPL SI-		
Matrix:	Water-	Laboratory ID:	22L0004-18-	File ID:	S2022-12-09B (52)-
Sampled:	11/28/22 14:20-	Prepared:	12/05/22 07:17	Analyzed:	12/10/22 09:42
Solids:		Preparation:	Table B-15-	Dilution:	1-
Initial/Final:	270.87 mL / 2 mL-			Instrument:	Saphira
Batch:	BBL0076-	Sequence:	SB03769	Calibration:	2250016

COMPOUNDR	CONC. (ng/L)	LOQ	LODR	DL	Q
PFBA-	0.87 J-	3.0	0.18	0.046	
PFPEA-	0.63 J-	1.5	0.18	0.057	
PFHXA-	0.53 J-	0.74	0.18	0.059	
PFHPA-	0.31 J-	0.74	0.18	0.046	
PFOA-	1.4-	0.74-	0.18	0.076	MI4
PFNA-	0.18 U-	0.74	0.18	0.046	
PFDA-	0.23 J-	0.74	0.18	0.046	
PFUnA-	0.18 U-	0.74	0.18	0.074	
PFDOA-	0.18 U-	0.74	0.18	0.046	
PFTRDA-	0.18 U-	0.74	0.18	0.054	
PFTEDA-	0.18 U-	0.74	0.18	0.079	
PFBS-	0.24 J-	0.74	0.18	0.046	
PFPEs-	0.087 J-	0.74	0.18	0.054	
PFHXS-	0.41 J-	0.74	0.18	0.046	
PFHPS-	0.18 U-	0.74	0.18	0.052	
PFOS-	0.62 J-	0.74-	0.18	0.046	MI4,
PFNS-	0.37 U-	0.74	0.37	0.23	
PFDS-	0.18 U-	0.74	0.18	0.059	
4:2FTS-	0.37 U-	3.0	0.37	0.10	
6:2FTS-	0.18 U-	3.0	0.18	0.083	
8:2FTS-	0.55 U-	3.0	0.55	0.19	
PFOSA-	0.18 U-	3.0	0.18	0.046	
NMeFOSA-	1.8 U-	3.0	1.8	0.91	
NEtFOSA-	1.8 U-	3.0	1.8	0.91	
NMeFOSAA-	0.18 U-	0.74	0.18	0.066	
NEtFOSAA-	0.18 U-	0.74	0.18	0.046	
NMeFOSE-	1.1 U-	3.0	1.1	0.55	
NEtFOSE-	1.1 U-	3.0	1.1	0.55	
HFPO-DA-	0.92 U-	1.5	0.92	0.45	
ADONA-	0.55 U-	1.5	0.55	0.24	

# FORM IR ANALYSIS DATA SHEET

MW-12-S3-112822-

Laboratory:	APPL, LLC-	Work Order:	22L0004-		
Client:	Tidewater, Inc.-	Project:	NASA JPL SI-		
Matrix:	Water-	Laboratory ID:	22L0004-18-	File ID:	S2022-12-09B (52)-
Sampled:	11/28/22 14:20-	Prepared:	12/05/22 07:17-	Analyzed:	12/10/22 09:42-
Solids:		Preparation:	Table B-15-	Dilution:	1-
Initial/Final:	270.87 mL / 2 mL-			Instrument:	Saphira-
Batch:	BBL0076-	Sequence:	SB03769-	Calibration:	2250016-

COMPOUNDR	CONC. (ng/L)R	LOQ	LODR	DLR	Q
9CL-PF3ONS-	0.55 U-	1.5-	0.55-	0.22-	
11CL-PF3OUDS-	0.55 U-	1.5-	0.55-	0.22-	



Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: 22L0004-18  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-07.dam

Quant Method: 1633 - S2022-12-07A  
 Path: S2022-12-09B (52)  
 Acquired: 2022/12/10 - 09:42

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBA	(212.9 / 169.0) 7026	(3.78, 1.00) (0.00, N/A, 0.0)	21.2	N/A 0.0 0.0	0.1176	N/A			
PFPeA	(262.9 / 219.0) 7817 (262.9 / 69.0) 111	(5.10, 1.00) (0.00, N/A, 0.0)	72.3 7.5	0.0142 121.9 128.3	0.0859	N/A			
PFHxA	(313.0 / 269.0) 12307 (313.0 / 119.0) 784	(6.24, 1.00) (0.00, N/A, -0.6)	50.0 115184.3	0.0637 70.9 65.1	0.0719	N/A			
PFHpA	(363.0 / 319.0) 5603 (363.0 / 169.0) 1622	(7.17, 1.00) (0.00, N/A, -0.3)	39.4 124.5	0.2895 100.9 102.4	0.0414	N/A			
PFOA	(413.0 / 369.0) 30741 (413.0 / 169.0) 10995	(7.98, 1.00) (0.00, N/A, 0.3)	95.5 98.0	0.3577 110.6 110.5	0.1934	N/A			M14 ABK 12/29/22
PFNA	(463.0 / 419.0) N/A (463.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDA	(513.0 / 469.0) 5357 (513.0 / 169.0) 531	(9.38, 1.00) (-0.01, N/A, -1.4)	29.8 82.4	0.0991 111.6 99.7	0.0307	N/A			
PFUnA	(563.0 / 519.0) N/A (563.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDoA	(613.0 / 569.0) N/A (613.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFTrDA	(663.0 / 619.0) N/A (663.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFTeDA	(713.0 / 669.0) N/A (713.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			



Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: 22L0004-18  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-07.dam

Quant Method: 1633 - S2022-12-07A  
 Path: S2022-12-09B (52)  
 Acquired: 2022/12/10 - 09:42

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBS	(298.9 / 80.0) 7116 (298.9 / 99.0) 5608	(6.21, 1.00) (0.01, N/A, -0.1)	46.2 57.8	0.7881 116.3 116.4	0.0324	N/A			
PFPeS	(349.0 / 80.0) 4818 (349.0 / 99.0) 1509	(7.24, 0.89) (N/A, 0.02, -0.3)	20.4 27.7	0.3133 85.9 93.2	0.0117	N/A			
PFHxS	(399.0 / 80.0) 20238 (399.0 / 99.0) 4648	(8.11, 1.00) (0.00, N/A, -1.3)	319.2 112.1	0.2297 66.6 69.6	0.0557	N/A			
PFHpS	(449.0 / 80.0) N/A (449.0 / 99.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFOS	(499.0 / 80.0) 40351 (499.0 / 99.0) 10924	(9.31, 0.98) (-0.21, N/A, -12.5)	17.9 45.6	0.2707 105.1 114.4	0.0839	N/A			RT.M4 ABK 12/29/22
PFNS	(549.0 / 80.0) N/A (549.0 / 99.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDS	(599.0 / 80.0) N/A (599.0 / 99.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDoS	(698.9 / 80.0) N/A (698.9 / 99.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
4:2FTS	(327.0 / 307.0) N/A (327.0 / 81.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
6:2FTS	(427.0 / 407.0) N/A (427.0 / 81.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
8:2FTS	(527.0 / 507.0) N/A (527.0 / 81.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			

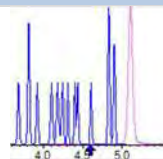
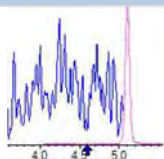
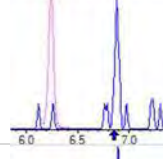
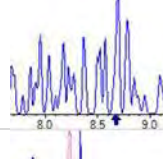
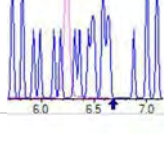
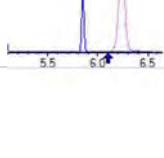
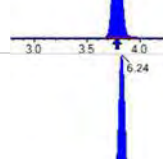
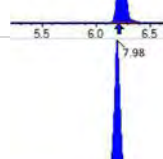
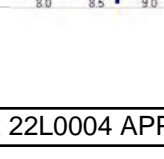


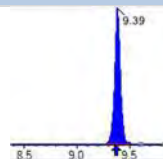
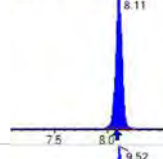
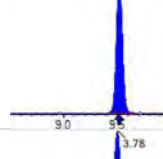
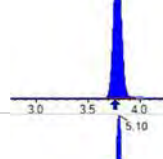
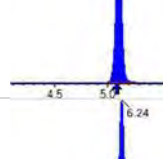
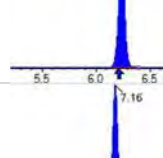
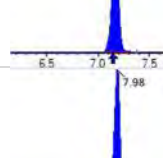

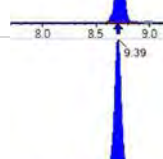
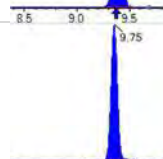
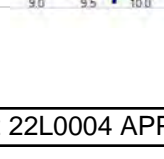
Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

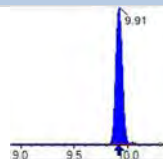
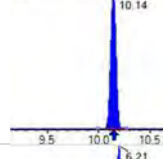
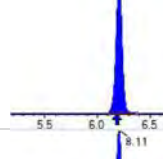
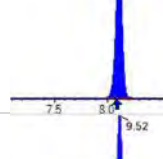
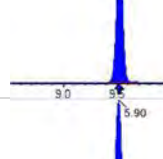
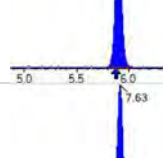
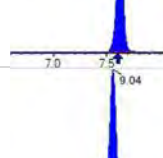
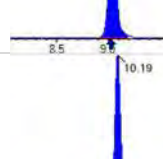
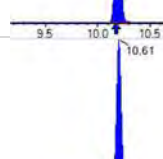
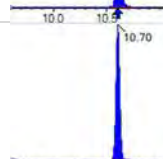
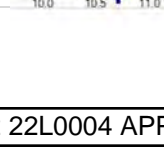
Sample I.D.: 22L0004-18  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-07.dam

Quant Method: 1633 - S2022-12-07A  
 Path: S2022-12-09B (52)  
 Acquired: 2022/12/10 - 09:42

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFOSA	( 498.0 / 78.0 ) N/A ( 498.0 / 478.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSA	( 511.9 / 219.0 ) N/A ( 511.9 / 169.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NEtFOSA	( 526.0 / 219.0 ) N/A ( 526.0 / 169.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSAA	( 570.0 / 419.0 ) N/A ( 570.0 / 483.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NEtFOSAA	( 584.0 / 419.0 ) N/A ( 584.0 / 526.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSE	( 616.1 / 59.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A	N/A 0.0 0.0	0.0000	N/A			
NEtFOSE	( 630.0 / 59.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A	N/A 0.0 0.0	0.0000	N/A			
HFPO-DA	( 285.0 / 169.0 ) N/A ( 285.0 / 185.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
ADONA	( 377.0 / 85.0 ) N/A ( 377.0 / 251.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
9Cl-Pf3ONS	( 531.0 / 351.0 ) N/A ( 533.0 / 353.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
11Cl-Pf3OUDS	( 631.0 / 451.0 ) N/A ( 633.0 / 453.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
3:3FTCA	(241.0 / 177.0) N/A (241.0 / 117.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
5:3FTCA	(341.0 / 236.7) N/A (341.0 / 217.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
7:3FTCA	(441.0 / 317.0) N/A (441.0 / 337.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFEESA	(315.0 / 135.0) N/A (315.0 / 83.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFMPA	(229.0 / 85.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
PFMBA	(279.0 / 85.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
NFDHA	(201.0 / 85.0) N/A (295.0 / 201.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
13C3_PFBA_IIS	(216.0 / 172.0) 85049	(3.78, N/A) (N/A, 0.01, N/A)	902.8	N/A	0.8848 [ 1.0000 ]	88.5% { 97.2% }			
13C2_PFHxA_IIS	(315.1 / 270.0) 147888	(6.24, N/A) (N/A, 0.03, N/A)	1109.5	N/A	1.1976 [ 1.0000 ]	119.8% { 114.0% }			
13C4_PFOA_IIS	(417.0 / 372.0) 139274	(7.98, N/A) (N/A, 0.03, N/A)	725.0	N/A	1.1748 [ 1.0000 ]	117.5% { 114.7% }			
13C5_PFNA_IIS	(468.0 / 423.0) 126678	(8.71, N/A) (N/A, 0.02, N/A)	650.4	N/A	1.3301 [ 1.0000 ]	133.0% { 129.0% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDA_IIS	(515.1 / 470.1) 129091	(9.39, N/A) (N/A, 0.02, N/A)	235.7	N/A	1.5670 [ 1.0000 ]	156.7% { 143.2% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 250750	(8.11, N/A) (N/A, 0.02, N/A)	631.0	N/A	1.1683 [ 1.0000 ]	116.8% { 119.7% }			
13C4_PFOS_IIS	(502.8 / 79.9) 254881	(9.52, N/A) (N/A, 0.01, N/A)	494.7	N/A	1.3694 [ 1.0000 ]	136.9% { 133.4% }			
13C4_PFBA_EIS	(217.0 / 172.0) 627976	(3.78, N/A) (N/A, 0.01, N/A)	971.6	N/A	7.8756 [ 8.0000 ]	98.4% { 95.9% }			
13C5_PFPeA_EIS	(267.9 / 223.0) 378660	(5.10, N/A) (N/A, 0.02, N/A)	942.3	N/A	3.5100 [ 4.0000 ]	87.8% { 108.9% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 339661	(6.24, N/A) (N/A, 0.03, N/A)	658.7	N/A	2.2517 [ 2.0000 ]	112.6% { 129.5% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 267491	(7.16, N/A) (N/A, 0.03, N/A)	664.3	N/A	1.9645 [ 2.0000 ]	98.2% { 107.8% }			
13C8_PFOA_EIS	(421.0 / 376.0) 308443	(7.98, N/A) (N/A, 0.03, N/A)	609.6	N/A	2.1773 [ 2.0000 ]	108.9% { 118.2% }			
13C9_PFNA_EIS	(472.0 / 427.0) 127340	(8.72, N/A) (N/A, 0.02, N/A)	432.6	N/A	1.0186 [ 1.0000 ]	101.9% { 152.8% }			
13C6_PFDA_EIS	(519.0 / 474.0) 172185	(9.39, N/A) (N/A, 0.02, N/A)	305.8	N/A	0.9183 [ 1.0000 ]	91.8% { 148.1% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 210264	(9.75, N/A) (N/A, 0.01, N/A)	501.4	N/A	0.8354 [ 1.0000 ]	83.5% { 104.5% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDa_EIS	(615.0 / 570.0) 192347	(9.91, N/A) (N/A, 0.01, N/A)	298.6	N/A	0.6297 [ 1.0000 ]	63.0% { 99.5% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 132818	(10.14, N/A) (N/A, 0.00, N/A)	395.9	N/A	0.5923 [ 1.0000 ]	59.2% { 102.3% }			
13C3_PFBs_EIS	(302.0 / 80.0) 718447	(6.21, N/A) (N/A, 0.02, N/A)	841.6	N/A	1.9495 [ 2.0000 ]	97.5% { 108.5% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 433796	(8.11, N/A) (N/A, 0.02, N/A)	839.2	N/A	2.0679 [ 2.0000 ]	103.4% { 122.9% }			
13C8_PFOS_EIS	(507.0 / 80.0) 856724	(9.52, N/A) (N/A, 0.01, N/A)	628.4	N/A	2.2049 [ 2.0000 ]	110.2% { 142.9% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 97143	(5.90, N/A) (N/A, 0.03, N/A)	466.7	N/A	4.6739 [ 4.0000 ]	116.8% { 135.8% }			
13C2_6:2FTS_EIS	(429.0 / 81.0) 124294	(7.63, N/A) (N/A, 0.03, N/A)	569.0	N/A	4.4575 [ 4.0000 ]	111.4% { 138.2% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 123942	(9.04, N/A) (N/A, 0.02, N/A)	601.3	N/A	5.1210 [ 4.0000 ]	128.0% { 143.0% }			
13C8_PFOsa_EIS	(506.0 / 78.0) 873396	(10.19, N/A) (N/A, 0.01, N/A)	553.9	N/A	1.4724 [ 2.0000 ]	73.6% { 99.5% }			
D3_NMeFOSA_EIS	(515.0 / 169.0) 151897	(10.61, N/A) (N/A, 0.00, N/A)	625.3	N/A	0.8654 [ 2.0000 ]	43.3% { 63.7% }			
D5_NeIFOSA_EIS	(531.1 / 169.0) 143503	(10.70, N/A) (N/A, 0.00, N/A)	754.4	N/A	0.9017 [ 2.0000 ]	45.1% { 63.1% }			



Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: 22L0004-18  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-07.dam

Quant Method: 1633 - S2022-12-07A  
 Path: S2022-12-09B (52)  
 Acquired: 2022/12/10 - 09:42

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
D3_MeFOSAA_EIS	(573.0 / 419.0) 380946	(9.55, N/A) (N/A, 0.02, N/A)	440.2	N/A	4.4068 [ 4.0000 ]	110.2% { 140.6% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 329161	(9.71, N/A) (N/A, 0.01, N/A)	442.9	N/A	4.4303 [ 4.0000 ]	110.8% { 149.4% }			
D7_NMeFOSE_EIS	(623.2 / 58.9) 277428	(10.58, N/A) (N/A, 0.01, N/A)	1333.0	N/A	9.2536 [ 20.0000 ]	46.3% { 58.4% }			
D9_NEtFOSE_EIS	(639.2 / 58.9) 162493	(10.67, N/A) (N/A, 0.00, N/A)	1086.4	N/A	10.6372 [ 20.0000 ]	53.2% { 68.5% }			
13C3_HFPODA_EIS	(287.0 / 169.0) 780864	(6.59, N/A) (N/A, 0.03, N/A)	930.0	N/A	7.8599 [ 8.0000 ]	98.2% { 116.4% }			

# FORM IR ANALYSIS DATA SHEET

MW-12-S3-112822-

Laboratory:	APPL, LLC-	Work Order:	22L0004-		
Client:	Tidewater, Inc.-	Project:	NASA JPL SI-		
Matrix:	Water-	Laboratory ID:	22L0004-18RE1-	File ID:	S2022-12-09B (53)-
Sampled:	11/28/22 14:20-	Prepared:	12/05/22 07:17-	Analyzed:	12/10/22 09:54-
Solids:		Preparation:	Table B-15-	Dilution:	10-
Initial/Final:	270.87 mL / 2 mL-			Instrument:	Saphira-
Batch:	BBL0076-	Sequence:	SB03769	Calibration:	2250016-



Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: 22L0004-18RE1@10  
 DF, IV: 1, 1.0µL  
 Acquisition Method: 1633 2022-12-07.dam

Quant Method: 1633 - S2022-12-07A  
 Path: S2022-12-09B (53)  
 Acquired: 2022/12/10 - 09:54

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBA	(212.9 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
PFPeA	(262.9 / 219.0) N/A (262.9 / 69.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHxA	(313.0 / 269.0) N/A (313.0 / 119.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHpA	(363.0 / 319.0) N/A (363.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFOA	(413.0 / 369.0) N/A (413.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFNA	(463.0 / 419.0) N/A (463.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDA	(513.0 / 469.0) N/A (513.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFUnA	(563.0 / 519.0) N/A (563.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDoA	(613.0 / 569.0) N/A (613.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFTTrDA	(663.0 / 619.0) N/A (663.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFTeDA	(713.0 / 669.0) N/A (713.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			



Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: 22L0004-18RE1@10  
 DF, IV: 1, 1.0µL  
 Acquisition Method: 1633 2022-12-07.dam

Quant Method: 1633 - S2022-12-07A  
 Path: S2022-12-09B (53)  
 Acquired: 2022/12/10 - 09:54

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBS	( 298.9 / 80.0 ) N/A ( 298.9 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFPeS	( 349.0 / 80.0 ) N/A ( 349.0 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHxS	( 399.0 / 80.0 ) N/A ( 399.0 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHpS	( 449.0 / 80.0 ) N/A ( 449.0 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFOS	( 499.0 / 80.0 ) N/A ( 499.0 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFNS	( 549.0 / 80.0 ) N/A ( 549.0 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDS	( 599.0 / 80.0 ) N/A ( 599.0 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDoS	( 698.9 / 80.0 ) N/A ( 698.9 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
4:2FTS	( 327.0 / 307.0 ) N/A ( 327.0 / 81.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
6:2FTS	( 427.0 / 407.0 ) N/A ( 427.0 / 81.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
8:2FTS	( 527.0 / 507.0 ) N/A ( 527.0 / 81.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			

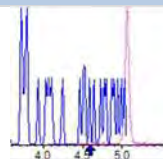
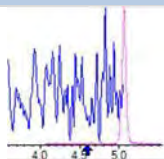
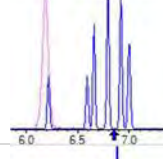
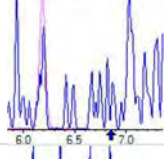
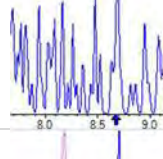
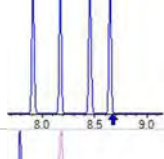
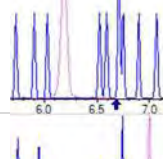
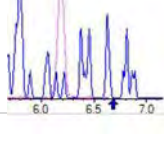
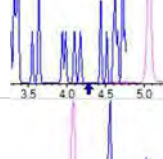
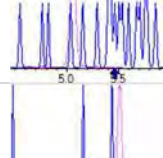
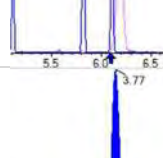
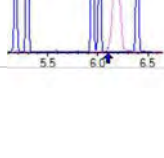
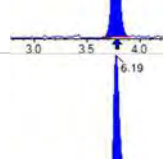
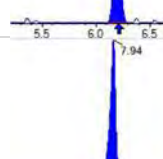
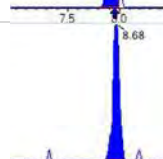
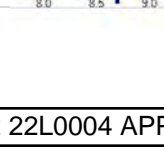


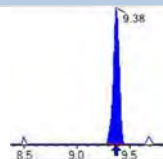
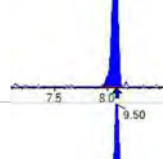
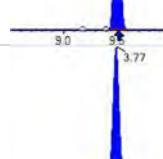
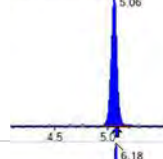
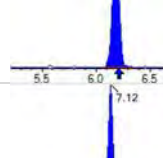
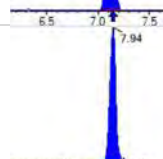
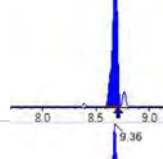
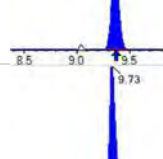
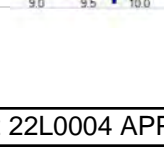
Chemist: ABK  
Instrument: Saphira  
Type: Sciex Q3 5500

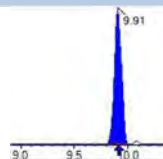
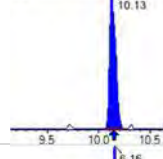
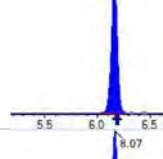
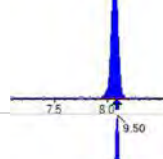
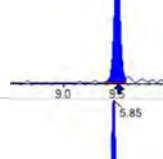
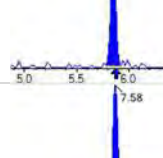
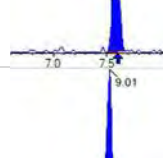
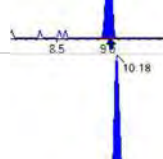
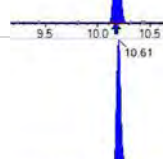
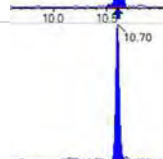
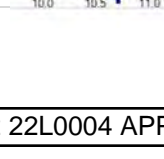
Sample I.D.: 22L0004-18RE1@10  
DF, IV: 1, 1.0µL  
Acquisition Method: 1633 2022-12-07.dam

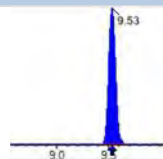
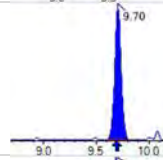
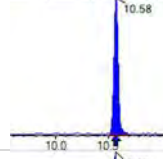
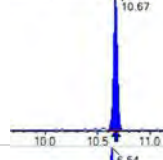
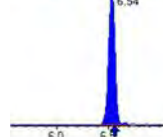
Quant Method: 1633 - S2022-12-07A  
Path: S2022-12-09B (53)  
Acquired: 2022/12/10 - 09:54

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFOSA	(498.0 / 78.0) N/A (498.0 / 478.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSA	(511.9 / 219.0) N/A (511.9 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NEtFOSA	(526.0 / 219.0) N/A (526.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSAA	(570.0 / 419.0) N/A (570.0 / 483.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NEtFOSAA	(584.0 / 419.0) N/A (584.0 / 526.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSE	(616.1 / 59.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
NEtFOSE	(630.0 / 59.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
HFPO-DA	(285.0 / 169.0) N/A (285.0 / 185.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
ADONA	(377.0 / 85.0) N/A (377.0 / 251.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
9Cl-Pf3ONS	(531.0 / 351.0) N/A (533.0 / 353.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
11Cl-Pf3OUDS	(631.0 / 451.0) N/A (633.0 / 453.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
3:3FTCA	(241.0 / 177.0) N/A (241.0 / 117.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
5:3FTCA	(341.0 / 236.7) N/A (341.0 / 217.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
7:3FTCA	(441.0 / 317.0) N/A (441.0 / 337.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFEESA	(315.0 / 135.0) N/A (315.0 / 83.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFMPA	(229.0 / 85.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
PFMBA	(279.0 / 85.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
NFDHA	(201.0 / 85.0) N/A (295.0 / 201.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
13C3_PFBA_IIS	(216.0 / 172.0) 7781	(3.77, N/A) (N/A, 0.00, N/A)	264.1	N/A	0.8095 [ 1.0000 ]	80.9% { 8.9% }			
13C2_PFHxA_IIS	(315.1 / 270.0) 9880	(6.19, N/A) (N/A, -0.02, N/A)	203.5	N/A	0.8001 [ 1.0000 ]	80.0% { 7.6% }			
13C4_PFOA_IIS	(417.0 / 372.0) 12030	(7.94, N/A) (N/A, -0.01, N/A)	661782.0	N/A	1.0147 [ 1.0000 ]	101.5% { 9.9% }			
13C5_PFNA_IIS	(468.0 / 423.0) 10097	(8.68, N/A) (N/A, -0.01, N/A)	447.6	N/A	1.0602 [ 1.0000 ]	106.0% { 10.3% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDA_IIS	(515.1 / 470.1) 9105	(9.38, N/A) (N/A, 0.01, N/A)	668.4	N/A	1.1053 [ 1.0000 ]	110.5% { 10.1% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 18399	(8.07, N/A) (N/A, -0.02, N/A)	261.5	N/A	0.8572 [ 1.0000 ]	85.7% { 8.8% }			
13C4_PFOS_IIS	(502.8 / 79.9) 19407	(9.50, N/A) (N/A, -0.01, N/A)	1047.8	N/A	1.0427 [ 1.0000 ]	104.3% { 10.2% }			
13C4_PFBA_EIS	(217.0 / 172.0) 66681	(3.77, N/A) (N/A, 0.00, N/A)	922.5	N/A	0.9140 [ 0.8000 ]	114.3% { 10.2% }			
13C5_PFPeA_EIS	(267.9 / 223.0) 35155	(5.06, N/A) (N/A, -0.02, N/A)	494.6	N/A	0.4878 [ 0.4000 ]	121.9% { 10.1% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 28081	(6.18, N/A) (N/A, -0.03, N/A)	413.4	N/A	0.2787 [ 0.2000 ]	139.3% { 10.7% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 24096	(7.12, N/A) (N/A, -0.02, N/A)	2520.7	N/A	0.2649 [ 0.2000 ]	132.5% { 9.7% }			
13C8_PFOA_EIS	(421.0 / 376.0) 24555	(7.94, N/A) (N/A, -0.02, N/A)	225.4	N/A	0.2007 [ 0.2000 ]	100.3% { 9.4% }			
13C9_PFNA_EIS	(472.0 / 427.0) 12320	(8.68, N/A) (N/A, -0.02, N/A)	883.2	N/A	0.1236 [ 0.1000 ]	123.6% { 14.8% }			
13C6_PFDA_EIS	(519.0 / 474.0) 13731	(9.36, N/A) (N/A, -0.01, N/A)	4048.7	N/A	0.1038 [ 0.1000 ]	103.8% { 11.8% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 20537	(9.73, N/A) (N/A, -0.01, N/A)	355.4	N/A	0.1157 [ 0.1000 ]	115.7% { 10.2% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDa_EIS	(615.0 / 570.0) 21849	(9.91, N/A) (N/A, 0.00, N/A)	2750.6	N/A	0.1014 [0.1000]	101.4% {11.3%}			
13C2_PFTeDA_EIS	(715.0 / 670.0) 16947	(10.13, N/A) (N/A, -0.01, N/A)	239.3	N/A	0.1071 [0.1000]	107.1% {13.1%}			
13C3_PFBs_EIS	(302.0 / 80.0) 68342	(6.16, N/A) (N/A, -0.02, N/A)	505.1	N/A	0.2527 [0.2000]	126.4% {10.3%}			
13C3_PFHxS_EIS	(402.0 / 80.0) 38074	(8.07, N/A) (N/A, -0.02, N/A)	413.8	N/A	0.2474 [0.2000]	123.7% {10.8%}			
13C8_PFOS_EIS	(507.0 / 80.0) 61507	(9.50, N/A) (N/A, -0.01, N/A)	183.7	N/A	0.2079 [0.2000]	103.9% {10.3%}			
13C2_4:2FTS_EIS	(329.0 / 81.0) 5710	(5.85, N/A) (N/A, -0.02, N/A)	99.4	N/A	0.3744 [0.4000]	93.6% {8.0%}			
13C2_6:2FTS_EIS	(429.0 / 81.0) 11031	(7.58, N/A) (N/A, -0.02, N/A)	135.2	N/A	0.5391 [0.4000]	134.8% {12.3%}			
13C2_8:2FTS_EIS	(529.0 / 81.0) 7518	(9.01, N/A) (N/A, -0.01, N/A)	213.6	N/A	0.4233 [0.4000]	105.8% {8.7%}			
13C8_PFOsa_EIS	(506.0 / 78.0) 81888	(10.18, N/A) (N/A, 0.00, N/A)	502.7	N/A	0.1813 [0.2000]	90.7% {9.3%}			
D3_NMeFOSA_EIS	(515.0 / 169.0) 17836	(10.61, N/A) (N/A, 0.00, N/A)	256.0	N/A	0.1335 [0.2000]	66.7% {7.5%}			
D5_NEiFOSA_EIS	(531.1 / 169.0) 15202	(10.70, N/A) (N/A, 0.00, N/A)	258.0	N/A	0.1254 [0.2000]	62.7% {6.7%}			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT- CV[ $\mu$ min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
D3_MeFOSAA_EIS	( 573.0 / 419.0 ) 32014	( 9.53 , N/A ) ( N/A , -0.01 , N/A )	820251.0	N/A	0.4864 [ 0.4000 ]	121.6% { 11.8% }			
D5_EtFOSAA_EIS	( 589.0 / 419.0 ) 28602	( 9.70 , N/A ) ( N/A , 0.00 , N/A )	181.7	N/A	0.5056 [ 0.4000 ]	126.4% { 13.0% }			
D7_NMeFOSE_EIS	( 623.2 / 58.9 ) 30034	( 10.58 , N/A ) ( N/A , 0.00 , N/A )	279.6	N/A	1.3157 [ 2.0000 ]	65.8% { 6.3% }			
D9_NEtFOSE_EIS	( 639.2 / 58.9 ) 15185	( 10.67 , N/A ) ( N/A , 0.00 , N/A )	405.7	N/A	1.3055 [ 2.0000 ]	65.3% { 6.4% }			
13C3_HFPODA_EIS	( 287.0 / 169.0 ) 67632	( 6.54 , N/A ) ( N/A , -0.02 , N/A )	493.7	N/A	1.0190 [ 0.8000 ]	127.4% { 10.1% }			

# FORM IR ANALYSIS DATA SHEET

MW-12-S2-112822-

Laboratory:-	APPL, LLC	Work Order:-	22L0004-	
Client:-	Tidewater, Inc.-	Project:	NASA JPL SI-	
Matrix:-	Water-	Laboratory ID:-	22L0004-19-	File ID: S2022-12-09B (54)-
Sampled:-	11/28/22 14:45-	Prepared:-	12/05/22 07:17	Analyzed:- 12/10/22 10:07
Solids:-		Preparation:-	Table B-15-	Dilution:- 1-
Initial/Final:-	273.34 mL / 2 mL-			Instrument:- Saphira
Batch:-	BBL0076-	Sequence:-	SB03769	Calibration:- 2250016

COMPOUNDR	CONC. (ng/L)	LOQ	LODR	DL	Q
PFBA-	8.1-	2.9	0.18	0.046	
PFPEA-	11-	1.5	0.18	0.057	
PFHXA-	9.2-	0.73	0.18	0.059	
PFHPA-	5.0-	0.73	0.18	0.046	
PFOA-	9.5-	0.73	0.18	0.075	
PFNA-	1.2-	0.73	0.18	0.046	
PFDA-	0.18 U-	0.73	0.18	0.046	
PFUnA-	0.18 U-	0.73	0.18	0.073	
PFDOA-	0.18 U-	0.73	0.18	0.046	
PFTRDA-	0.18 U-	0.73	0.18	0.053	
PFTEDA-	0.18 U-	0.73	0.18	0.079	
PFBS-	7.4-	0.73	0.18	0.046	
PFPEs-	0.19 J-	0.73	0.18	0.053	
PFHXS-	0.73-	0.73	0.18	0.046	
PFHPS-	0.18 U-	0.73	0.18	0.051	
PFOS-	3.8-	0.73	0.18	0.046	
PFNS-	0.37 U-	0.73	0.37	0.23	
PFDS-	0.18 U-	0.73	0.18	0.059	
4:2FTS-	0.37 U-	2.9	0.37	0.099	
6:2FTS-	0.18 U-	2.9	0.18	0.082	
8:2FTS-	0.55 U-	2.9	0.55	0.18	
PFOSA-	0.18 U-	2.9	0.18	0.046	
NMeFOSA-	1.8 U-	2.9	1.8	0.90	
NEtFOSA-	1.8 U-	2.9	1.8	0.90	
NMeFOSAA-	0.18 U-	0.73	0.18	0.066	
NEtFOSAA-	0.18 U-	0.73	0.18	0.046	
NMeFOSE-	1.1 U-	2.9	1.1	0.55	
NEtFOSE-	1.1 U-	2.9	1.1	0.55	
HFPO-DA-	0.91 U-	1.5	0.91	0.45	
ADONA-	0.55 U-	1.5	0.55	0.24	

# FORM IR ANALYSIS DATA SHEET

MW-12-S2-112822-

Laboratory:-	APPL, LLC	Work Order:-	22L0004-	
Client:-	Tidewater, Inc.-	Project:-	NASA JPL SI-	
Matrix:-	Water-	Laboratory ID:-	22L0004-19-	File ID:- S2022-12-09B (54)-
Sampled:-	11/28/22 14:45-	Prepared:-	12/05/22 07:17-	Analyzed:- 12/10/22 10:07-
Solids:-		Preparation:-	Table B-15-	Dilution:- 1-
Initial/Final:-	273.34 mL / 2 mL-			Instrument:- Saphira-
Batch:-	BBL0076-	Sequence:-	SB03769-	Calibration:- 2250016-

COMPOUNDR	CONC. (ng/L)R	LOQ	LODR	DLR	Q
9CL-PF3ONS-	0.55 U-	1.5-	0.55-	0.22-	
11CL-PF3OUDS-	0.55 U-	1.5-	0.55-	0.22-	



Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: 22L0004-19  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-07.dam

Quant Method: 1633 - S2022-12-07A  
 Path: S2022-12-09B (54)  
 Acquired: 2022/12/10 - 10:07

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBA	(212.9 / 169.0) 73081	(3.77, 1.00) (0.00, N/A, 0.0)	53.6	N/A 0.0 0.0	1.1113	N/A			
PFPeA	(262.9 / 219.0) 148672 (262.9 / 69.0) 1488	(5.08, 1.00) (0.00, N/A, 0.0)	634.5 65.5	0.0100 86.0 90.5	1.5656	N/A			
PFHxA	(313.0 / 269.0) 208646 (313.0 / 119.0) 18855	(6.20, 1.00) (0.00, N/A, 0.0)	496.2 207.4	0.0904 100.5 92.3	1.2534	N/A			
PFHpA	(363.0 / 319.0) 85278 (363.0 / 169.0) 22847	(7.13, 1.00) (0.00, N/A, 0.1)	230.2 141.6	0.2679 93.4 94.8	0.6844	N/A			
PFOA	(413.0 / 369.0) 197522 (413.0 / 169.0) 65239	(7.95, 1.00) (0.00, N/A, 0.0)	326.2 319.2	0.3303 102.1 102.0	1.2919	N/A			
PFNA	(463.0 / 419.0) 17992 (463.0 / 169.0) 4774	(8.69, 1.00) (0.00, N/A, -0.1)	66.2 32.3	0.2653 131.8 125.9	0.1669	N/A			
PFDA	(513.0 / 469.0) N/A (513.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFUnA	(563.0 / 519.0) N/A (563.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDoA	(613.0 / 569.0) N/A (613.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFTTrDA	(663.0 / 619.0) N/A (663.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFTeDA	(713.0 / 669.0) N/A (713.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			



Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: 22L0004-19  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-07.dam

Quant Method: 1633 - S2022-12-07A  
 Path: S2022-12-09B (54)  
 Acquired: 2022/12/10 - 10:07

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBS	(298.9 / 80.0) 217158 (298.9 / 99.0) 141246	(6.17, 1.00) (0.00, N/A, -0.3)	583.5 409.2	0.6504 96.0 96.1	1.0128	N/A			
PFPeS	(349.0 / 80.0) 9641 (349.0 / 99.0) 3117	(7.21, 0.89) (N/A, -0.01, 0.0)	44.9 44.4	0.3234 88.7 96.2	0.0264	N/A			
PFHxS	(399.0 / 80.0) 32474 (399.0 / 99.0) 11627	(8.09, 1.00) (0.01, N/A, 0.6)	1302.1 310.3	0.3580 103.8 108.5	0.1003	N/A			
PFHpS	(449.0 / 80.0) N/A (449.0 / 99.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFOS	(499.0 / 80.0) 194499 (499.0 / 99.0) 47153	(9.50, 1.00) (0.00, N/A, -0.1)	178.2 196.8	0.2424 94.1 102.4	0.5169	N/A			
PFNS	(549.0 / 80.0) N/A (549.0 / 99.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDS	(599.0 / 80.0) N/A (599.0 / 99.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDoS	(698.9 / 80.0) N/A (698.9 / 99.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
4:2FTS	(327.0 / 307.0) N/A (327.0 / 81.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
6:2FTS	(427.0 / 407.0) N/A (427.0 / 81.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
8:2FTS	(527.0 / 507.0) N/A (527.0 / 81.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			

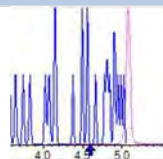
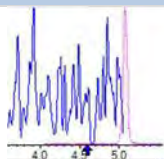
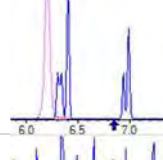
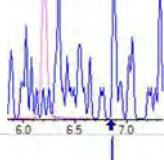
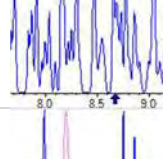
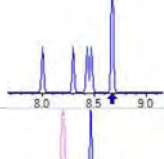
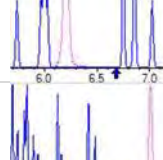
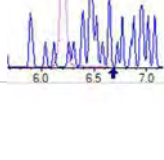
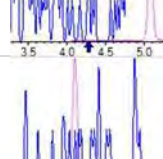
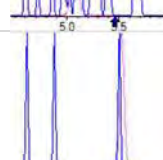
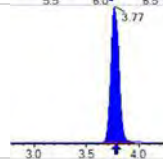

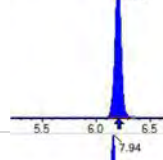
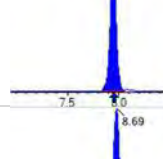
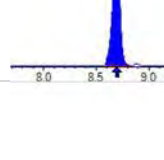
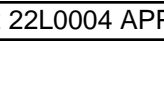


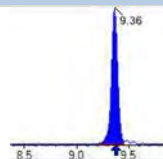
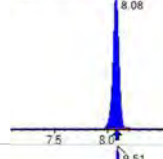
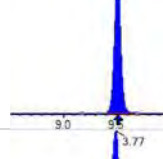
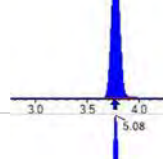
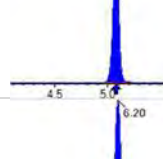
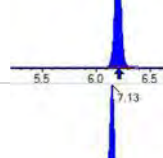
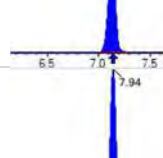
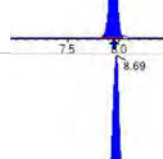
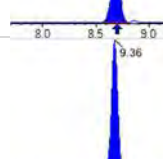
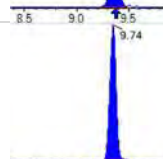
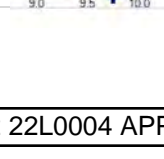
Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

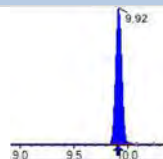
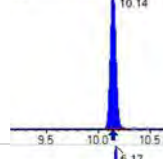
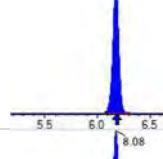
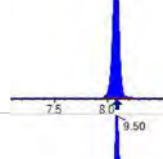
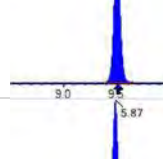
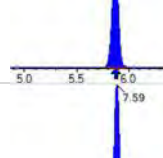
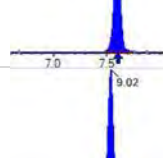
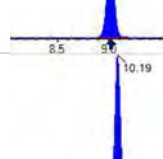
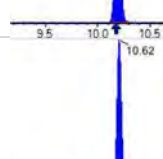
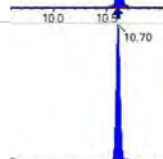
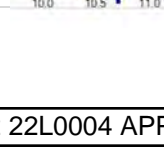
Sample I.D.: 22L0004-19  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-07.dam

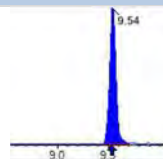
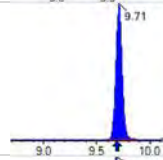
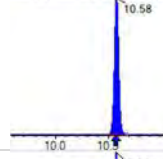
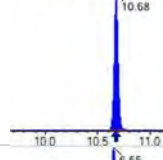
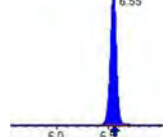
Quant Method: 1633 - S2022-12-07A  
 Path: S2022-12-09B (54)  
 Acquired: 2022/12/10 - 10:07

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFOSA	(498.0 / 78.0) N/A (498.0 / 478.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSA	(511.9 / 219.0) N/A (511.9 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NEtFOSA	(526.0 / 219.0) N/A (526.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSAA	(570.0 / 419.0) N/A (570.0 / 483.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NEtFOSAA	(584.0 / 419.0) N/A (584.0 / 526.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSE	(616.1 / 59.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
NEtFOSE	(630.0 / 59.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
HFPO-DA	(285.0 / 169.0) N/A (285.0 / 185.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
ADONA	(377.0 / 85.0) N/A (377.0 / 251.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
9Cl-Pf3ONS	(531.0 / 351.0) N/A (533.0 / 353.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
11Cl-Pf3OUDS	(631.0 / 451.0) N/A (633.0 / 453.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
3:3FTCA	(241.0 / 177.0) N/A (241.0 / 117.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
5:3FTCA	(341.0 / 236.7) N/A (341.0 / 217.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
7:3FTCA	(441.0 / 317.0) N/A (441.0 / 337.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFEESA	(315.0 / 135.0) N/A (315.0 / 83.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFMPA	(229.0 / 85.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
PFMBA	(279.0 / 85.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
NFDHA	(201.0 / 85.0) N/A (295.0 / 201.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
13C3_PFBA_IIS	(216.0 / 172.0) 88087	(3.77, N/A) (N/A, 0.00, N/A)	789.1	N/A	0.9164 [ 1.0000 ]	91.6% { 100.7% }			
13C2_PFHxA_IIS	(315.1 / 270.0) 151440	(6.20, N/A) (N/A, -0.01, N/A)	982.8	N/A	1.2264 [ 1.0000 ]	122.6% { 116.8% }			
13C4_PFOA_IIS	(417.0 / 372.0) 125075	(7.94, N/A) (N/A, -0.01, N/A)	396.1	N/A	1.0550 [ 1.0000 ]	105.5% { 103.0% }			
13C5_PFNA_IIS	(468.0 / 423.0) 103262	(8.69, N/A) (N/A, 0.00, N/A)	417.8	N/A	1.0842 [ 1.0000 ]	108.4% { 105.1% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDA_IIS	(515.1 / 470.1) 95999	(9.36, N/A) (N/A, 0.00, N/A)	383.9	N/A	1.1653 [ 1.0000 ]	116.5% { 106.5% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 246126	(8.08, N/A) (N/A, -0.01, N/A)	923.2	N/A	1.1467 [ 1.0000 ]	114.7% { 117.5% }			
13C4_PFOS_IIS	(502.8 / 79.9) 211516	(9.51, N/A) (N/A, 0.00, N/A)	282.8	N/A	1.1364 [ 1.0000 ]	113.6% { 110.7% }			
13C4_PFBA_EIS	(217.0 / 172.0) 690931	(3.77, N/A) (N/A, 0.00, N/A)	1045.9	N/A	8.3663 [ 8.0000 ]	104.6% { 105.5% }			
13C5_PFPeA_EIS	(267.9 / 223.0) 395124	(5.08, N/A) (N/A, -0.01, N/A)	835.6	N/A	3.5768 [ 4.0000 ]	89.4% { 113.7% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 330304	(6.20, N/A) (N/A, -0.01, N/A)	647.9	N/A	2.1383 [ 2.0000 ]	106.9% { 125.9% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 245994	(7.13, N/A) (N/A, -0.01, N/A)	660.2	N/A	1.7643 [ 2.0000 ]	88.2% { 99.2% }			
13C8_PFOA_EIS	(421.0 / 376.0) 296642	(7.94, N/A) (N/A, -0.01, N/A)	944.0	N/A	2.3318 [ 2.0000 ]	116.6% { 113.7% }			
13C9_PFNA_EIS	(472.0 / 427.0) 111826	(8.69, N/A) (N/A, -0.01, N/A)	333.9	N/A	1.0974 [ 1.0000 ]	109.7% { 134.2% }			
13C6_PFDA_EIS	(519.0 / 474.0) 154288	(9.36, N/A) (N/A, -0.01, N/A)	395.7	N/A	1.1065 [ 1.0000 ]	110.6% { 132.7% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 201030	(9.74, N/A) (N/A, 0.00, N/A)	100492.1	N/A	1.0740 [ 1.0000 ]	107.4% { 99.9% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDa_EIS	(615.0 / 570.0) 206020	(9.92, N/A) (N/A, 0.01, N/A)	321.0	N/A	0.9069 [ 1.0000 ]	90.7% { 106.6% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 144756	(10.14, N/A) (N/A, 0.00, N/A)	460.3	N/A	0.8681 [ 1.0000 ]	86.8% { 111.5% }			
13C3_PFBs_EIS	(302.0 / 80.0) 702391	(6.17, N/A) (N/A, -0.01, N/A)	1061.7	N/A	1.9418 [ 2.0000 ]	97.1% { 106.1% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 386243	(8.08, N/A) (N/A, -0.01, N/A)	864.2	N/A	1.8759 [ 2.0000 ]	93.8% { 109.4% }			
13C8_PFOS_EIS	(507.0 / 80.0) 670355	(9.50, N/A) (N/A, -0.01, N/A)	697.6	N/A	2.0790 [ 2.0000 ]	103.9% { 111.8% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 95697	(5.87, N/A) (N/A, 0.00, N/A)	588.0	N/A	4.6909 [ 4.0000 ]	117.3% { 133.7% }			
13C2_6:2FTS_EIS	(429.0 / 81.0) 108737	(7.59, N/A) (N/A, 0.00, N/A)	554.7	N/A	3.9728 [ 4.0000 ]	99.3% { 120.9% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 100599	(9.02, N/A) (N/A, -0.01, N/A)	492.3	N/A	4.2346 [ 4.0000 ]	105.9% { 116.0% }			
13C8_PFOsa_EIS	(506.0 / 78.0) 716460	(10.19, N/A) (N/A, 0.01, N/A)	911.5	N/A	1.4555 [ 2.0000 ]	72.8% { 81.6% }			
D3_NMeFOsa_EIS	(515.0 / 169.0) 138347	(10.62, N/A) (N/A, 0.01, N/A)	706.0	N/A	0.9498 [ 2.0000 ]	47.5% { 58.0% }			
D5_NeIFOSA_EIS	(531.1 / 169.0) 131622	(10.70, N/A) (N/A, 0.01, N/A)	647.9	N/A	0.9966 [ 2.0000 ]	49.8% { 57.9% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT- CV[ $\mu$ min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
D3_MeFOSAA_EIS	(573.0 / 419.0) 301504	(9.54, N/A) (N/A, 0.00, N/A)	446.9	N/A	4.2029 [ 4.0000 ]	105.1% { 111.3% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 305375	(9.71, N/A) (N/A, 0.01, N/A)	506.6	N/A	4.9528 [ 4.0000 ]	123.8% { 138.6% }			
D7_NMeFOSE_EIS	(623.2 / 58.9) 320557	(10.58, N/A) (N/A, 0.01, N/A)	993.8	N/A	12.8843 [ 20.0000 ]	64.4% { 67.4% }			
D9_NEtFOSE_EIS	(639.2 / 58.9) 162859	(10.68, N/A) (N/A, 0.01, N/A)	1322.2	N/A	12.8469 [ 20.0000 ]	64.2% { 68.7% }			
13C3_HFPODA_EIS	(287.0 / 169.0) 766965	(6.55, N/A) (N/A, -0.01, N/A)	607.4	N/A	7.5390 [ 8.0000 ]	94.2% { 114.3% }			

# FORM IR ANALYSIS DATA SHEET

MW-12-S2-112822-

Laboratory:-	APPL, LLC	Work Order:-	22L0004-		
Client:-	Tidewater, Inc.-	Project:-	NASA JPL SI-		
Matrix:-	Water-	Laboratory ID:-	22L0004-19RE1-	File ID:-	S2022-12-09B (55)-
Sampled:-	11/28/22 14:45-	Prepared:-	12/05/22 07:17-	Analyzed:-	12/10/22 10:20-
Solids:-		Preparation:-	Table B-15-	Dilution:-	10-
Initial/Final:-	273.34 mL / 2 mL-			Instrument:-	Saphira-
Batch:-	BBL0076-	Sequence:-	SB03769-	Calibration:-	2250016-



Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: 22L0004-19RE1@10  
 DF, IV: 1, 1.0µL  
 Acquisition Method: 1633 2022-12-07.dam

Quant Method: 1633 - S2022-12-07A  
 Path: S2022-12-09B (55)  
 Acquired: 2022/12/10 - 10:20

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBA	(212.9 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
PFPeA	(262.9 / 219.0) N/A (262.9 / 69.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHxA	(313.0 / 269.0) 16854 (313.0 / 119.0) 2105	(6.20, 1.00) (0.01, N/A, -0.3)	104.3 53.5	0.1249 138.9 127.5	0.1252	N/A			
PFHpA	(363.0 / 319.0) N/A (363.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFOA	(413.0 / 369.0) 21391 (413.0 / 169.0) 5495	(7.93, 1.00) (0.00, N/A, -0.1)	70.8 321.8	0.2569 79.4 79.4	0.1541	N/A			
PFNA	(463.0 / 419.0) N/A (463.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDA	(513.0 / 469.0) N/A (513.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFUnA	(563.0 / 519.0) N/A (563.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDoA	(613.0 / 569.0) N/A (613.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFTrDA	(663.0 / 619.0) N/A (663.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFTeDA	(713.0 / 669.0) N/A (713.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			



Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: 22L0004-19RE1@10  
 DF, IV: 1, 1.0µL  
 Acquisition Method: 1633 2022-12-07.dam

Quant Method: 1633 - S2022-12-07A  
 Path: S2022-12-09B (55)  
 Acquired: 2022/12/10 - 10:20

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBS	( 298.9 / 80.0 ) 17991 ( 298.9 / 99.0 ) 12738	( 6.16 , 1.00 ) ( 0.00 , N/A , 0.2)	180.1 109.5	0.7080 104.5 104.6	0.0885	N/A			
PFPeS	( 349.0 / 80.0 ) N/A ( 349.0 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHxS	( 399.0 / 80.0 ) N/A ( 399.0 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHpS	( 449.0 / 80.0 ) N/A ( 449.0 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFOS	( 499.0 / 80.0 ) N/A ( 499.0 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFNS	( 549.0 / 80.0 ) N/A ( 549.0 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDS	( 599.0 / 80.0 ) N/A ( 599.0 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDoS	( 698.9 / 80.0 ) N/A ( 698.9 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
4:2FTS	( 327.0 / 307.0 ) N/A ( 327.0 / 81.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
6:2FTS	( 427.0 / 407.0 ) N/A ( 427.0 / 81.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
8:2FTS	( 527.0 / 507.0 ) N/A ( 527.0 / 81.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			

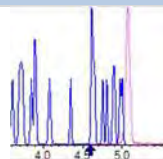
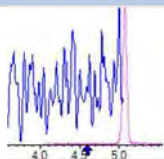
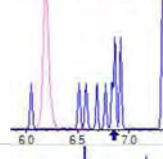
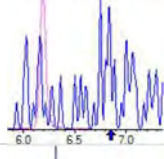
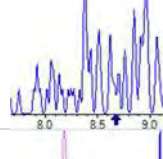
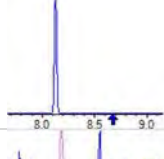
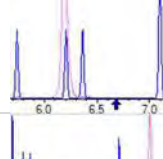
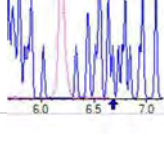
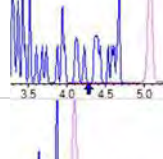
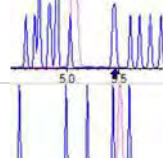
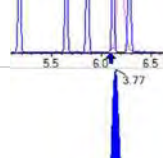
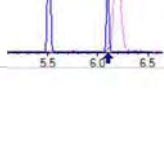
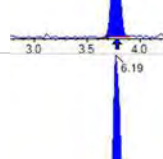
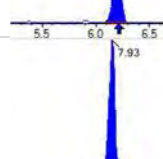
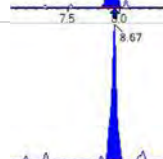
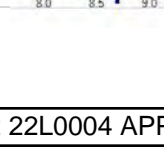


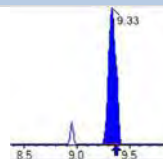
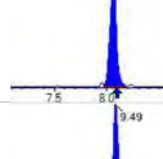
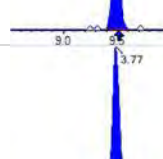
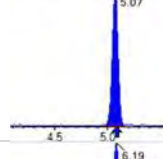
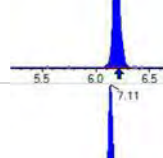
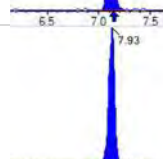
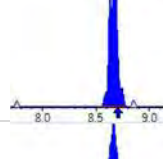
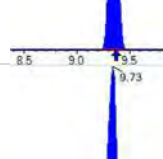
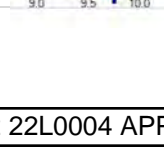
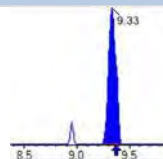
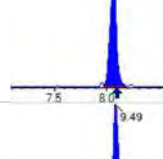
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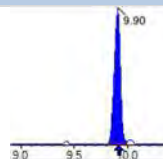
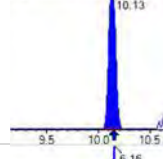
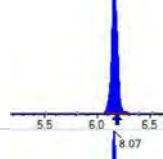
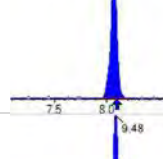
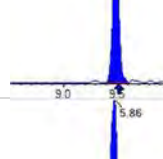
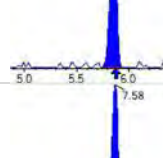
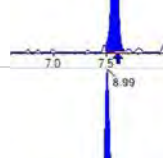
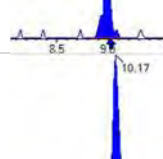
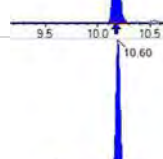
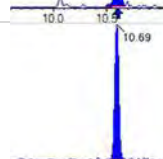
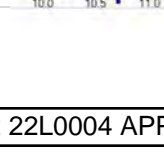
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Acquisition Method: 1633 2022-12-07.dam

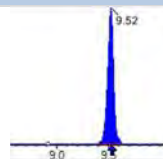
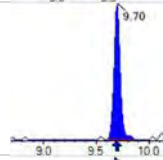
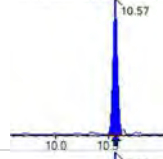
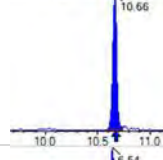
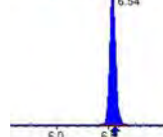
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Path: S2022-12-09B (55)  
Acquired: 2022/12/10 - 10:20

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFOSA	(498.0 / 78.0) N/A (498.0 / 478.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSA	(511.9 / 219.0) N/A (511.9 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NEtFOSA	(526.0 / 219.0) N/A (526.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSAA	(570.0 / 419.0) N/A (570.0 / 483.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NEtFOSAA	(584.0 / 419.0) N/A (584.0 / 526.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSE	(616.1 / 59.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
NEtFOSE	(630.0 / 59.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
HFPO-DA	(285.0 / 169.0) N/A (285.0 / 185.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
ADONA	(377.0 / 85.0) N/A (377.0 / 251.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
9CI-Pf3ONS	(531.0 / 351.0) N/A (533.0 / 353.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
11CI-PF3OUDS	(631.0 / 451.0) N/A (633.0 / 453.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
3:3FTCA	(241.0 / 177.0) N/A (241.0 / 117.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
5:3FTCA	(341.0 / 236.7) N/A (341.0 / 217.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
7:3FTCA	(441.0 / 317.0) N/A (441.0 / 337.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFEESA	(315.0 / 135.0) N/A (315.0 / 83.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFMPA	(229.0 / 85.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
PFMBA	(279.0 / 85.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
NFDHA	(201.0 / 85.0) N/A (295.0 / 201.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
13C3_PFBA_IIS	(216.0 / 172.0) 7676	(3.77, N/A) (N/A, 0.00, N/A)	235.3	N/A	0.7986 [ 1.0000 ]	79.9% { 8.8% }			
13C2_PFHxA_IIS	(315.1 / 270.0) 13300	(6.19, N/A) (N/A, -0.02, N/A)	554.2	N/A	1.0770 [ 1.0000 ]	107.7% { 10.3% }			
13C4_PFOA_IIS	(417.0 / 372.0) 11103	(7.93, N/A) (N/A, -0.02, N/A)	440.3	N/A	0.9366 [ 1.0000 ]	93.7% { 9.1% }			
13C5_PFNA_IIS	(468.0 / 423.0) 8531	(8.67, N/A) (N/A, -0.03, N/A)	152.6	N/A	0.8958 [ 1.0000 ]	89.6% { 8.7% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDA_IIS	(515.1 / 470.1) 8154	(9.33, N/A) (N/A, -0.04, N/A)	1737.8	N/A	0.9898 [ 1.0000 ]	99.0% { 9.0% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 21155	(8.06, N/A) (N/A, -0.03, N/A)	305.7	N/A	0.9857 [ 1.0000 ]	98.6% { 10.1% }			
13C4_PFOS_IIS	(502.8 / 79.9) 18874	(9.49, N/A) (N/A, -0.02, N/A)	170.4	N/A	1.0141 [ 1.0000 ]	101.4% { 9.9% }			
13C4_PFBA_EIS	(217.0 / 172.0) 66917	(3.77, N/A) (N/A, 0.00, N/A)	842.8	N/A	0.9298 [ 0.8000 ]	116.2% { 10.2% }			
13C5_PFPeA_EIS	(267.9 / 223.0) 33337	(5.07, N/A) (N/A, -0.01, N/A)	595.3	N/A	0.3436 [ 0.4000 ]	85.9% { 9.6% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 26719	(6.19, N/A) (N/A, -0.02, N/A)	425.3	N/A	0.1970 [ 0.2000 ]	98.5% { 10.2% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 22785	(7.11, N/A) (N/A, -0.02, N/A)	272.9	N/A	0.1861 [ 0.2000 ]	93.0% { 9.2% }			
13C8_PFOA_EIS	(421.0 / 376.0) 26936	(7.93, N/A) (N/A, -0.02, N/A)	337.1	N/A	0.2385 [ 0.2000 ]	119.3% { 10.3% }			
13C9_PFNA_EIS	(472.0 / 427.0) 10076	(8.66, N/A) (N/A, -0.04, N/A)	238.8	N/A	0.1197 [ 0.1000 ]	119.7% { 12.1% }			
13C6_PFDA_EIS	(519.0 / 474.0) 13800	(9.35, N/A) (N/A, -0.03, N/A)	55.1	N/A	0.1165 [ 0.1000 ]	116.5% { 11.9% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 15787	(9.73, N/A) (N/A, -0.01, N/A)	849.0	N/A	0.0993 [ 0.1000 ]	99.3% { 7.8% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDa_EIS	(615.0 / 570.0) 18624	(9.90, N/A) (N/A, -0.01, N/A)	510.3	N/A	0.0965 [0.1000]	96.5% {9.6%}			
13C2_PFTeDA_EIS	(715.0 / 670.0) 11950	(10.13, N/A) (N/A, -0.01, N/A)	144.0	N/A	0.0844 [0.1000]	84.4% {9.2%}			
13C3_PFBs_EIS	(302.0 / 80.0) 66599	(6.16, N/A) (N/A, -0.02, N/A)	443.0	N/A	0.2142 [0.2000]	107.1% {10.1%}			
13C3_PFHxS_EIS	(402.0 / 80.0) 36448	(8.07, N/A) (N/A, -0.02, N/A)	373.6	N/A	0.2059 [0.2000]	103.0% {10.3%}			
13C8_PFOS_EIS	(507.0 / 80.0) 52366	(9.48, N/A) (N/A, -0.03, N/A)	119.5	N/A	0.1820 [0.2000]	91.0% {8.7%}			
13C2_4:2FTS_EIS	(329.0 / 81.0) 7335	(5.86, N/A) (N/A, -0.02, N/A)	101.9	N/A	0.4183 [0.4000]	104.6% {10.3%}			
13C2_6:2FTS_EIS	(429.0 / 81.0) 10748	(7.58, N/A) (N/A, -0.02, N/A)	134.9	N/A	0.4569 [0.4000]	114.2% {12.0%}			
13C2_8:2FTS_EIS	(529.0 / 81.0) 8016	(8.99, N/A) (N/A, -0.04, N/A)	110.3	N/A	0.3926 [0.4000]	98.1% {9.2%}			
13C8_PFOsa_EIS	(506.0 / 78.0) 66045	(10.17, N/A) (N/A, -0.01, N/A)	263.7	N/A	0.1504 [0.2000]	75.2% {7.5%}			
D3_NMeFOSA_EIS	(515.0 / 169.0) 12300	(10.60, N/A) (N/A, 0.00, N/A)	150.0	N/A	0.0946 [0.2000]	47.3% {5.2%}			
D5_NEiFOSA_EIS	(531.1 / 169.0) 11401	(10.69, N/A) (N/A, -0.01, N/A)	201.0	N/A	0.0967 [0.2000]	48.4% {5.0%}			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT- CV[ $\mu$ min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
D3_MeFOSAA_EIS	(573.0 / 419.0) 28551	(9.52, N/A) (N/A, -0.02, N/A)	959.6	N/A	0.4460 [ 0.4000 ]	111.5% { 10.5% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 22570	(9.70, N/A) (N/A, -0.01, N/A)	139.6	N/A	0.4102 [ 0.4000 ]	102.6% { 10.2% }			
D7_NMeFOSE_EIS	(623.2 / 58.9) 26521	(10.57, N/A) (N/A, 0.00, N/A)	245.2	N/A	1.1946 [ 2.0000 ]	59.7% { 5.6% }			
D9_NEtFOSE_EIS	(639.2 / 58.9) 13633	(10.66, N/A) (N/A, 0.00, N/A)	274.0	N/A	1.2052 [ 2.0000 ]	60.3% { 5.7% }			
13C3_HFPODA_EIS	(287.0 / 169.0) 67853	(6.54, N/A) (N/A, -0.02, N/A)	524.3	N/A	0.7595 [ 0.8000 ]	94.9% { 10.1% }			

# FORM IR ANALYSIS DATA SHEET

SB-1-112822-

Laboratory:-	APPL, LLC-	Work Order:-	22L0004-	
Client:-	Tidewater, Inc.-	Project:	NASA JPL SI-	
Matrix:-	Water-	Laboratory ID:-	22L0004-20-	File ID: S2022-12-09B (56)-
Sampled:-	11/28/22 14:55-	Prepared:-	12/05/22 07:17	Analyzed:- 12/10/22 10:32
Solids:-		Preparation:-	Table B-15-	Dilution:- 1-
Initial/Final:-	270.33 mL / 2 mL-			Instrument:- Saphira
Batch:-	BBL0076-	Sequence:-	SB03769	Calibration:- 2250016

COMPOUNDR	CONC. (ng/L)	LOQ	LODR	DL	Q
PFBA-	0.18 U-	3.0	0.18	0.046	
PFPEA-	0.18 U-	1.5	0.18	0.057	
PFHXA-	0.18 U-	0.74	0.18	0.059	
PFHPA-	0.18 U-	0.74	0.18	0.046	
PFOA-	0.17 J-	0.74	0.18	0.076	
PFNA-	0.18 U-	0.74	0.18	0.046	
PFDA-	0.18 U-	0.74	0.18	0.046	
PFUnA-	0.18 U-	0.74	0.18	0.074	
PFDOA-	0.18 U-	0.74	0.18	0.046	
PFTRDA-	0.18 U-	0.74	0.18	0.054	
PFTEDA-	0.18 U-	0.74	0.18	0.080	
PFBS-	0.18 U-	0.74	0.18	0.046	
PFPEs-	0.18 U-	0.74	0.18	0.054	
PFHXS-	0.18 U-	0.74	0.18	0.046	
PFHPS-	0.18 U-	0.74	0.18	0.052	
PFOS-	0.12 J-	0.74-	0.18	0.046	MI4,
PFNS-	0.37 U-	0.74	0.37	0.23	
PFDS-	0.18 U-	0.74	0.18	0.059	
4:2FTS-	0.37 U-	3.0	0.37	0.10	
6:2FTS-	0.18 U-	3.0	0.18	0.083	
8:2FTS-	0.55 U-	3.0	0.55	0.19	
PFOSA-	0.18 U-	3.0	0.18	0.046	
NMeFOSA-	1.8 U-	3.0	1.8	0.91	
NEtFOSA-	1.8 U-	3.0	1.8	0.91	
NMeFOSAA-	0.18 U-	0.74	0.18	0.067	
NEtFOSAA-	0.18 U-	0.74	0.18	0.046	
NMeFOSE-	1.1 U-	3.0	1.1	0.55	
NEtFOSE-	1.1 U-	3.0	1.1	0.55	
HFPO-DA-	0.92 U-	1.5	0.92	0.45	
ADONA-	0.55 U-	1.5	0.55	0.24	

# FORM IR ANALYSIS DATA SHEET

SB-1-112822-

Laboratory:-	APPL, LLC-	Work Order:-	22L0004-	
Client:-	Tidewater, Inc.-	Project:-	NASA JPL SI-	
Matrix:-	Water-	Laboratory ID:-	22L0004-20-	File ID:- S2022-12-09B (56)-
Sampled:-	11/28/22 14:55-	Prepared:-	12/05/22 07:17-	Analyzed:- 12/10/22 10:32-
Solids:-		Preparation:-	Table B-15-	Dilution:- 1-
Initial/Final:-	270.33 mL / 2 mL-			Instrument:- Saphira-
Batch:-	BBL0076-	Sequence:-	SB03769-	Calibration:- 2250016-

COMPOUNDR	CONC. (ng/L)R	LOQ	LODR	DLR	Q
9CL-PF3ONS-	0.55 U-	1.5-	0.55-	0.22-	
11CL-PF3OUDS-	0.55 U-	1.5-	0.55-	0.22-	



Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: 22L0004-20  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-07.dam

Quant Method: 1633 - S2022-12-07A  
 Path: S2022-12-09B (56)  
 Acquired: 2022/12/10 - 10:32

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBA	(212.9 / 169.0) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A	N/A 0.0 0.0	0.0000	N/A			
PFPeA	(262.9 / 219.0) N/A (262.9 / 69.0) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHxA	(313.0 / 269.0) N/A (313.0 / 119.0) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHpA	(363.0 / 319.0) N/A (363.0 / 169.0) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFOA	(413.0 / 369.0) 3058 (413.0 / 169.0) 945	( 7.93 , 1.00 ) ( 0.00 , N/A , 0.0 )	17.5 28.4	0.3092 95.6 95.5	0.0223	N/A			
PFNA	(463.0 / 419.0) N/A (463.0 / 169.0) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDA	(513.0 / 469.0) N/A (513.0 / 169.0) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFUnA	(563.0 / 519.0) N/A (563.0 / 169.0) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDoA	(613.0 / 569.0) N/A (613.0 / 169.0) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFTTrDA	(663.0 / 619.0) N/A (663.0 / 169.0) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFTeDA	(713.0 / 669.0) N/A (713.0 / 169.0) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			



Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: 22L0004-20  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-07.dam

Quant Method: 1633 - S2022-12-07A  
 Path: S2022-12-09B (56)  
 Acquired: 2022/12/10 - 10:32

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBS	( 298.9 / 80.0 ) N/A ( 298.9 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFPeS	( 349.0 / 80.0 ) N/A ( 349.0 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHxS	( 399.0 / 80.0 ) N/A ( 399.0 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHpS	( 449.0 / 80.0 ) N/A ( 449.0 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFOS	( 499.0 / 80.0 ) 6643 ( 499.0 / 99.0 ) 1566	( 9.50 , 1.00 ) ( 0.01 , N/A , 0.5 )	19.5 35.5	0.2358 91.5 99.6	0.0159	N/A			M14 ABK 12/29/22
PFNS	( 549.0 / 80.0 ) N/A ( 549.0 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDS	( 599.0 / 80.0 ) N/A ( 599.0 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDoS	( 698.9 / 80.0 ) N/A ( 698.9 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
4:2FTS	( 327.0 / 307.0 ) N/A ( 327.0 / 81.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
6:2FTS	( 427.0 / 407.0 ) N/A ( 427.0 / 81.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
8:2FTS	( 527.0 / 507.0 ) N/A ( 527.0 / 81.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			



Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: 22L0004-20  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-07.dam

Quant Method: 1633 - S2022-12-07A  
 Path: S2022-12-09B (56)  
 Acquired: 2022/12/10 - 10:32

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFOSA	(498.0 / 78.0) N/A (498.0 / 478.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSA	(511.9 / 219.0) N/A (511.9 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NEtFOSA	(526.0 / 219.0) N/A (526.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSAA	(570.0 / 419.0) N/A (570.0 / 483.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NEtFOSAA	(584.0 / 419.0) N/A (584.0 / 526.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSE	(616.1 / 59.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
NEtFOSE	(630.0 / 59.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
HFPO-DA	(285.0 / 169.0) N/A (285.0 / 185.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
ADONA	(377.0 / 85.0) N/A (377.0 / 251.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
9Cl-Pf3ONS	(531.0 / 351.0) N/A (533.0 / 353.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
11Cl-Pf3OUDS	(631.0 / 451.0) N/A (633.0 / 453.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			

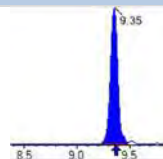
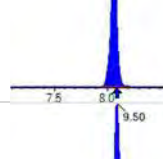
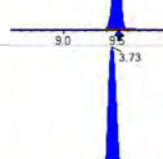
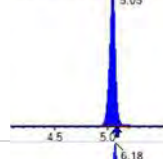
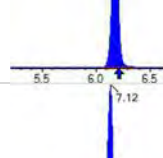
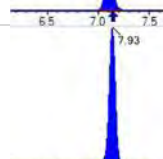
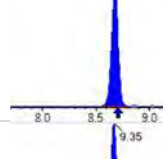
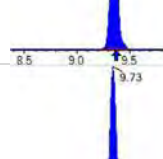
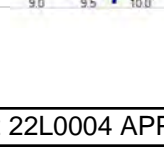
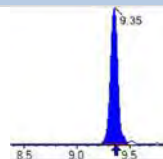
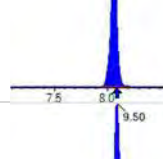


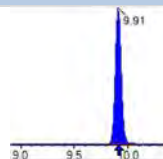
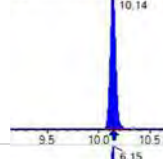
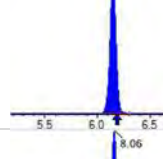
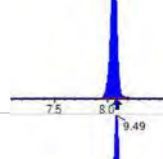
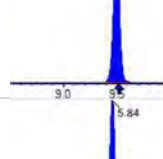
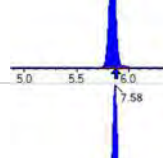
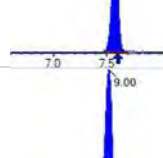
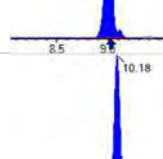
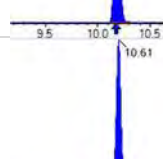
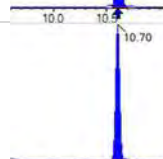
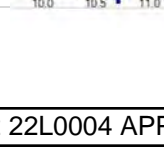
Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: 22L0004-20  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-07.dam

Quant Method: 1633 - S2022-12-07A  
 Path: S2022-12-09B (56)  
 Acquired: 2022/12/10 - 10:32

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
3:3FTCA	(241.0 / 177.0) N/A (241.0 / 117.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
5:3FTCA	(341.0 / 236.7) N/A (341.0 / 217.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
7:3FTCA	(441.0 / 317.0) N/A (441.0 / 337.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFEESA	(315.0 / 135.0) N/A (315.0 / 83.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFMPA	(229.0 / 85.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
PFMBA	(279.0 / 85.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
NFDHA	(201.0 / 85.0) N/A (295.0 / 201.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
13C3_PFBA_IIS	(216.0 / 172.0) 80106	(3.73, N/A) (N/A, -0.04, N/A)	818.3	N/A	0.8333 [ 1.0000 ]	83.3% { 91.5% }			
13C2_PFHxA_IIS	(315.1 / 270.0) 133738	(6.18, N/A) (N/A, -0.04, N/A)	484.3	N/A	1.0830 [ 1.0000 ]	108.3% { 103.1% }			
13C4_PFOA_IIS	(417.0 / 372.0) 126392	(7.93, N/A) (N/A, -0.02, N/A)	644.0	N/A	1.0662 [ 1.0000 ]	106.6% { 104.1% }			
13C5_PFNA_IIS	(468.0 / 423.0) 99479	(8.67, N/A) (N/A, -0.02, N/A)	557.1	N/A	1.0445 [ 1.0000 ]	104.5% { 101.3% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDA_IIS	(515.1 / 470.1) 94993	(9.35, N/A) (N/A, -0.02, N/A)	211.2	N/A	1.1531 [ 1.0000 ]	115.3% { 105.4% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 211360	(8.06, N/A) (N/A, -0.03, N/A)	789.9	N/A	0.9848 [ 1.0000 ]	98.5% { 100.9% }			
13C4_PFOS_IIS	(502.8 / 79.9) 226014	(9.50, N/A) (N/A, -0.01, N/A)	360.5	N/A	1.2143 [ 1.0000 ]	121.4% { 118.3% }			
13C4_PFBA_EIS	(217.0 / 172.0) 700653	(3.73, N/A) (N/A, -0.04, N/A)	1066.1	N/A	9.3293 [ 8.0000 ]	116.6% { 107.0% }			
13C5_PFPeA_EIS	(267.9 / 223.0) 343894	(5.05, N/A) (N/A, -0.04, N/A)	834.9	N/A	3.5251 [ 4.0000 ]	88.1% { 98.9% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 307679	(6.18, N/A) (N/A, -0.03, N/A)	685.0	N/A	2.2555 [ 2.0000 ]	112.8% { 117.3% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 271153	(7.12, N/A) (N/A, -0.02, N/A)	883.3	N/A	2.2021 [ 2.0000 ]	110.1% { 109.3% }			
13C8_PFOA_EIS	(421.0 / 376.0) 265591	(7.93, N/A) (N/A, -0.02, N/A)	594.8	N/A	2.0659 [ 2.0000 ]	103.3% { 101.8% }			
13C9_PFNA_EIS	(472.0 / 427.0) 116406	(8.68, N/A) (N/A, -0.02, N/A)	540.5	N/A	1.1857 [ 1.0000 ]	118.6% { 139.7% }			
13C6_PFDA_EIS	(519.0 / 474.0) 137868	(9.35, N/A) (N/A, -0.02, N/A)	13010.4	N/A	0.9992 [ 1.0000 ]	99.9% { 118.5% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 196394	(9.73, N/A) (N/A, 0.00, N/A)	712.3	N/A	1.0604 [ 1.0000 ]	106.0% { 97.6% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT-CV[ $\mu$ min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDa_EIS	(615.0 / 570.0) 235242	(9.91, N/A) (N/A, 0.00, N/A)	397.2	N/A	1.0465 [ 1.0000 ]	104.7% { 121.7% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 155821	(10.14, N/A) (N/A, 0.00, N/A)	796.9	N/A	0.9443 [ 1.0000 ]	94.4% { 120.0% }			
13C3_PFBs_EIS	(302.0 / 80.0) 731793	(6.15, N/A) (N/A, -0.03, N/A)	928.7	N/A	2.3558 [ 2.0000 ]	117.8% { 110.5% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 389134	(8.06, N/A) (N/A, -0.02, N/A)	767.0	N/A	2.2008 [ 2.0000 ]	110.0% { 110.3% }			
13C8_PFOS_EIS	(507.0 / 80.0) 742224	(9.49, N/A) (N/A, -0.02, N/A)	691.1	N/A	2.1542 [ 2.0000 ]	107.7% { 123.8% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 87502	(5.84, N/A) (N/A, -0.03, N/A)	653.4	N/A	4.9947 [ 4.0000 ]	124.9% { 122.3% }			
13C2_6:2FTS_EIS	(429.0 / 81.0) 114585	(7.58, N/A) (N/A, -0.02, N/A)	610.5	N/A	4.8751 [ 4.0000 ]	121.9% { 127.4% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 102900	(9.00, N/A) (N/A, -0.02, N/A)	459.8	N/A	5.0439 [ 4.0000 ]	126.1% { 118.7% }			
13C8_PFOsa_EIS	(506.0 / 78.0) 698680	(10.18, N/A) (N/A, 0.00, N/A)	728.6	N/A	1.3283 [ 2.0000 ]	66.4% { 79.6% }			
D3_NMeFOSA_EIS	(515.0 / 169.0) 98582	(10.61, N/A) (N/A, 0.00, N/A)	507.0	N/A	0.6334 [ 2.0000 ]	31.7% { 41.3% }			
D5_NEiFOSA_EIS	(531.1 / 169.0) 88515	(10.70, N/A) (N/A, 0.00, N/A)	676.4	N/A	0.6272 [ 2.0000 ]	31.4% { 38.9% }			



Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: 22L0004-20  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-07.dam

Quant Method: 1633 - S2022-12-07A  
 Path: S2022-12-09B (56)  
 Acquired: 2022/12/10 - 10:32

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT-CV[ $\mu$ min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
D3_MeFOSAA_EIS	(573.0 / 419.0) 302587	(9.53, N/A) (N/A, -0.01, N/A)	845.2	N/A	3.9474 [ 4.0000 ]	98.7% { 111.7% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 286715	(9.70, N/A) (N/A, 0.00, N/A)	432.9	N/A	4.3518 [ 4.0000 ]	108.8% { 130.1% }			
D7_NMeFOSE_EIS	(623.2 / 58.9) 272906	(10.57, N/A) (N/A, 0.00, N/A)	767.4	N/A	10.2654 [ 20.0000 ]	51.3% { 57.4% }			
D9_NEtFOSE_EIS	(639.2 / 58.9) 151650	(10.67, N/A) (N/A, 0.00, N/A)	929.5	N/A	11.1953 [ 20.0000 ]	56.0% { 63.9% }			
13C3_HFPODA_EIS	(287.0 / 169.0) 695938	(6.53, N/A) (N/A, -0.03, N/A)	928.1	N/A	7.7462 [ 8.0000 ]	96.8% { 103.7% }			

# FORM IR ANALYSIS DATA SHEET

SB-1-112822-

Laboratory:-	APPL, LLC-	Work Order:-	22L0004-		
Client:-	Tidewater, Inc.-	Project:-	NASA JPL SI-		
Matrix:-	Water-	Laboratory ID:-	22L0004-20RE1-	File ID:-	S2022-12-09B (57)-
Sampled:-	11/28/22 14:55-	Prepared:-	12/05/22 07:17-	Analyzed:-	12/10/22 10:45-
Solids:-		Preparation:-	Table B-15-	Dilution:-	10-
Initial/Final:-	270.33 mL / 2 mL-			Instrument:-	Saphira-
Batch:-	BBL0076-	Sequence:-	SB03769	Calibration:-	2250016-



Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: 22L0004-20RE1@10  
 DF, IV: 1, 1.0µL  
 Acquisition Method: 1633 2022-12-07.dam

Quant Method: 1633 - S2022-12-07A  
 Path: S2022-12-09B (57)  
 Acquired: 2022/12/10 - 10:45

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBA	(212.9 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
PFPeA	(262.9 / 219.0) N/A (262.9 / 69.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHxA	(313.0 / 269.0) N/A (313.0 / 119.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHpA	(363.0 / 319.0) N/A (363.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFOA	(413.0 / 369.0) N/A (413.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFNA	(463.0 / 419.0) N/A (463.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDA	(513.0 / 469.0) N/A (513.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFUnA	(563.0 / 519.0) N/A (563.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDoA	(613.0 / 569.0) N/A (613.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFTrDA	(663.0 / 619.0) N/A (663.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFTeDA	(713.0 / 669.0) N/A (713.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			



Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: 22L0004-20RE1@10  
 DF, IV: 1, 1.0µL  
 Acquisition Method: 1633 2022-12-07.dam

Quant Method: 1633 - S2022-12-07A  
 Path: S2022-12-09B (57)  
 Acquired: 2022/12/10 - 10:45

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBS	(298.9 / 80.0) N/A (298.9 / 99.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFPeS	(349.0 / 80.0) N/A (349.0 / 99.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHxS	(399.0 / 80.0) N/A (399.0 / 99.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHpS	(449.0 / 80.0) N/A (449.0 / 99.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFOS	(499.0 / 80.0) N/A (499.0 / 99.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFNS	(549.0 / 80.0) N/A (549.0 / 99.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDS	(599.0 / 80.0) N/A (599.0 / 99.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDoS	(698.9 / 80.0) N/A (698.9 / 99.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
4:2FTS	(327.0 / 307.0) N/A (327.0 / 81.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
6:2FTS	(427.0 / 407.0) N/A (427.0 / 81.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
8:2FTS	(527.0 / 507.0) N/A (527.0 / 81.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			



Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: 22L0004-20RE1@10  
 DF, IV: 1, 1.0µL  
 Acquisition Method: 1633 2022-12-07.dam

Quant Method: 1633 - S2022-12-07A  
 Path: S2022-12-09B (57)  
 Acquired: 2022/12/10 - 10:45

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFOSA	(498.0 / 78.0) N/A (498.0 / 478.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSA	(511.9 / 219.0) N/A (511.9 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NEtFOSA	(526.0 / 219.0) N/A (526.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSAA	(570.0 / 419.0) N/A (570.0 / 483.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NEtFOSAA	(584.0 / 419.0) N/A (584.0 / 526.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSE	(616.1 / 59.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
NEtFOSE	(630.0 / 59.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
HFPO-DA	(285.0 / 169.0) N/A (285.0 / 185.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
ADONA	(377.0 / 85.0) N/A (377.0 / 251.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
9CI-Pf3ONS	(531.0 / 351.0) N/A (533.0 / 353.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
11CI-PF3OUDS	(631.0 / 451.0) N/A (633.0 / 453.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			

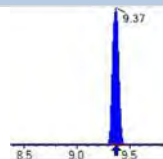
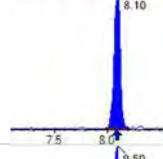
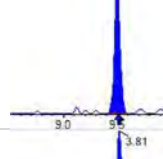
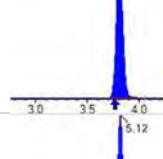
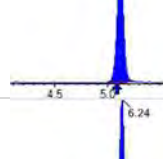
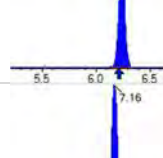
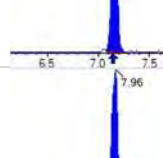
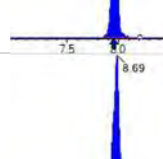
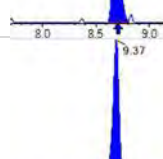
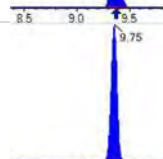
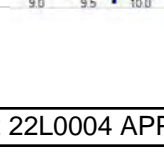


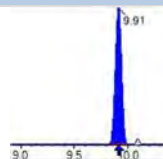
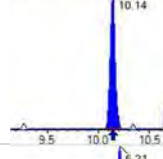
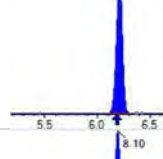
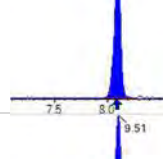
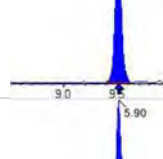
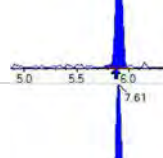
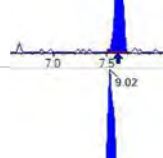
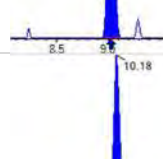
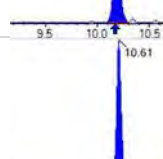
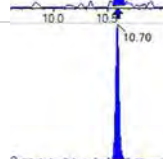
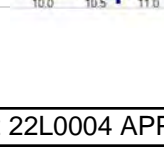
Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

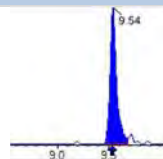
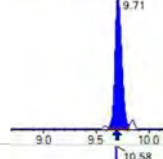
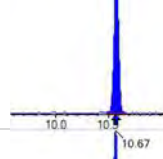
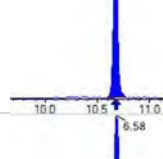
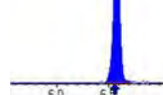
Sample I.D.: 22L0004-20RE1@10  
 DF, IV: 1, 1.0µL  
 Acquisition Method: 1633 2022-12-07.dam

Quant Method: 1633 - S2022-12-07A  
 Path: S2022-12-09B (57)  
 Acquired: 2022/12/10 - 10:45

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
3:3FTCA	(241.0 / 177.0) N/A (241.0 / 117.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
5:3FTCA	(341.0 / 236.7) N/A (341.0 / 217.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
7:3FTCA	(441.0 / 317.0) N/A (441.0 / 337.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFEESA	(315.0 / 135.0) N/A (315.0 / 83.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFMPA	(229.0 / 85.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
PFMBA	(279.0 / 85.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
NFDHA	(201.0 / 85.0) N/A (295.0 / 201.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
13C3_PFBA_IIS	(216.0 / 172.0) 8442	(3.81, N/A) (N/A, 0.04, N/A)	256.5	N/A	0.8782 [ 1.0000 ]	87.8% { 9.6% }			
13C2_PFHxA_IIS	(315.1 / 270.0) 12845	(6.24, N/A) (N/A, 0.03, N/A)	191.0	N/A	1.0402 [ 1.0000 ]	104.0% { 9.9% }			
13C4_PFOA_IIS	(417.0 / 372.0) 11241	(7.96, N/A) (N/A, 0.01, N/A)	348.5	N/A	0.9482 [ 1.0000 ]	94.8% { 9.3% }			
13C5_PFNA_IIS	(468.0 / 423.0) 9438	(8.69, N/A) (N/A, 0.00, N/A)	226.5	N/A	0.9909 [ 1.0000 ]	99.1% { 9.6% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDA_IIS	(515.1 / 470.1) 9125	(9.37, N/A) (N/A, 0.00, N/A)	415.4	N/A	1.1076 [ 1.0000 ]	110.8% { 10.1% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 25364	(8.10, N/A) (N/A, 0.01, N/A)	296.4	N/A	1.1817 [ 1.0000 ]	118.2% { 12.1% }			
13C4_PFOS_IIS	(502.8 / 79.9) 18606	(9.50, N/A) (N/A, -0.01, N/A)	117.4	N/A	0.9997 [ 1.0000 ]	100.0% { 9.7% }			
13C4_PFBA_EIS	(217.0 / 172.0) 72106	(3.81, N/A) (N/A, 0.04, N/A)	999.2	N/A	0.9110 [ 0.8000 ]	113.9% { 11.0% }			
13C5_PFPeA_EIS	(267.9 / 223.0) 35796	(5.12, N/A) (N/A, 0.04, N/A)	440.4	N/A	0.3820 [ 0.4000 ]	95.5% { 10.3% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 30130	(6.24, N/A) (N/A, 0.03, N/A)	881.5	N/A	0.2300 [ 0.2000 ]	115.0% { 11.5% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 28406	(7.16, N/A) (N/A, 0.02, N/A)	323.6	N/A	0.2402 [ 0.2000 ]	120.1% { 11.5% }			
13C8_PFOA_EIS	(421.0 / 376.0) 24580	(7.96, N/A) (N/A, 0.01, N/A)	234.9	N/A	0.2150 [ 0.2000 ]	107.5% { 9.4% }			
13C9_PFNA_EIS	(472.0 / 427.0) 11792	(8.69, N/A) (N/A, -0.01, N/A)	354.5	N/A	0.1266 [ 0.1000 ]	126.6% { 14.2% }			
13C6_PFDA_EIS	(519.0 / 474.0) 13132	(9.37, N/A) (N/A, 0.00, N/A)	73.0	N/A	0.0991 [ 0.1000 ]	99.1% { 11.3% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 18949	(9.75, N/A) (N/A, 0.01, N/A)	408.4	N/A	0.1065 [ 0.1000 ]	106.5% { 9.4% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDa_EIS	(615.0 / 570.0) 13734	(9.91, N/A) (N/A, 0.00, N/A)	3063.7	N/A	0.0636 [0.1000]	63.6% {7.1%}			
13C2_PFTeDA_EIS	(715.0 / 670.0) 10594	(10.14, N/A) (N/A, 0.00, N/A)	191.2	N/A	0.0668 [0.1000]	66.8% {8.2%}			
13C3_PFBs_EIS	(302.0 / 80.0) 68041	(6.21, N/A) (N/A, 0.03, N/A)	669.8	N/A	0.1825 [0.2000]	91.3% {10.3%}			
13C3_PFHxS_EIS	(402.0 / 80.0) 42098	(8.10, N/A) (N/A, 0.01, N/A)	372.3	N/A	0.1984 [0.2000]	99.2% {11.9%}			
13C8_PFOS_EIS	(507.0 / 80.0) 60993	(9.51, N/A) (N/A, 0.00, N/A)	242.2	N/A	0.2150 [0.2000]	107.5% {10.2%}			
13C2_4:2FTS_EIS	(329.0 / 81.0) 9197	(5.90, N/A) (N/A, 0.03, N/A)	172.7	N/A	0.4375 [0.4000]	109.4% {12.9%}			
13C2_6:2FTS_EIS	(429.0 / 81.0) 10444	(7.61, N/A) (N/A, 0.01, N/A)	139.9	N/A	0.3703 [0.4000]	92.6% {11.6%}			
13C2_8:2FTS_EIS	(529.0 / 81.0) 8404	(9.02, N/A) (N/A, 0.00, N/A)	586.4	N/A	0.3433 [0.4000]	85.8% {9.7%}			
13C8_PFOsa_EIS	(506.0 / 78.0) 58356	(10.18, N/A) (N/A, 0.00, N/A)	204.5	N/A	0.1348 [0.2000]	67.4% {6.6%}			
D3_NMeFOSA_EIS	(515.0 / 169.0) 9298	(10.61, N/A) (N/A, 0.00, N/A)	106.1	N/A	0.0726 [0.2000]	36.3% {3.9%}			
D5_NEiFOSA_EIS	(531.1 / 169.0) 9677	(10.70, N/A) (N/A, 0.00, N/A)	240.3	N/A	0.0833 [0.2000]	41.6% {4.3%}			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT- CV[ $\mu$ min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
D3_MeFOSAA_EIS	(573.0 / 419.0) 24309	(9.54, N/A) (N/A, 0.00, N/A)	144.1	N/A	0.3852 [ 0.4000 ]	96.3% { 9.0% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 25455	(9.71, N/A) (N/A, 0.00, N/A)	162.4	N/A	0.4693 [ 0.4000 ]	117.3% { 11.6% }			
D7_NMeFOSE_EIS	(623.2 / 58.9) 26149	(10.58, N/A) (N/A, 0.00, N/A)	307.7	N/A	1.1948 [ 2.0000 ]	59.7% { 5.5% }			
D9_NEtFOSE_EIS	(639.2 / 58.9) 13126	(10.67, N/A) (N/A, 0.00, N/A)	258.5	N/A	1.1770 [ 2.0000 ]	58.9% { 5.5% }			
13C3_HFPODA_EIS	(287.0 / 169.0) 69434	(6.58, N/A) (N/A, 0.02, N/A)	371.2	N/A	0.8047 [ 0.8000 ]	100.6% { 10.3% }			

# FORM IR ANALYSIS DATA SHEET

FB-1-112822-

Laboratory:-	APPL, LLC-	Work Order:-	22L0004-	
Client:-	Tidewater, Inc.-	Project:	NASA JPL SI-	
Matrix:-	Water-	Laboratory ID:-	22L0004-21-	File ID: S2022-12-15C (11)-
Sampled:-	11/28/22 15:15-	Prepared:-	12/13/22 09:44	Analyzed:- 12/16/22 02:07
Solids:-		Preparation:-	Table B-15-	Dilution:- 1-
Initial/Final:-	51.52 mL / 2 mL-			Instrument:- Saphira
Batch:-	BBL0249-	Sequence:-	SB03860	Calibration:- 2251019

COMPOUNDR	CONC. (ng/L)R	LOQ	LODR	DL	Q
PFBA-	0.97 U-	16-	0.97	0.24	
PFPEA-	0.97 U-	7.8-	0.97	0.30	
PFHXA-	0.97 U-	3.9-	0.97	0.31	
PFHPA-	0.97 U-	3.9-	0.97	0.24	
PFOA-	0.97 U-	3.9-	0.97	0.40	
PFNA-	0.97 U-	3.9-	0.97	0.24	
PFDA-	0.97 U-	3.9-	0.97	0.24	
PFUnA-	0.97 U-	3.9-	0.97	0.39	
PFDOA-	0.97 U-	3.9-	0.97	0.24	
PFTRDA-	0.97 U-	3.9-	0.97	0.28	
PFTEDA-	0.97 U-	3.9-	0.97	0.42	
PFBS-	0.97 U-	3.9-	0.97	0.24	
PFPEs-	0.97 U-	3.9-	0.97	0.28	
PFHXS-	0.97 U-	3.9-	0.97	0.24	
PFHPS-	0.97 U-	3.9-	0.97	0.27	
PFOS-	0.97 U-	3.9-	0.97	0.24	
PFNS-	1.9 U-	3.9-	1.9	1.2	
PFDS-	0.97 U-	3.9-	0.97	0.31	
4:2FTS-	1.9 U-	16-	1.9	0.52	
6:2FTS-	0.97 U-	16-	0.97	0.44	
8:2FTS-	2.9 U-	16-	2.9	0.98	
PFOSA-	0.97 U-	16-	0.97	0.24	
NMeFOSA-	9.7 U-	16-	9.7	4.8	
NEtFOSA-	9.7 U-	16-	9.7	4.8	
NMeFOSAA-	0.97 U-	3.9-	0.97	0.35	
NEtFOSAA-	0.97 U-	3.9-	0.97	0.24	
NMeFOSE-	5.8 U-	16-	5.8	2.9	
NEtFOSE-	5.8 U-	16-	5.8	2.9	
HFPO-DA-	4.9 U-	7.8-	4.9	2.4	
ADONA-	2.9 U-	7.8-	2.9	1.3	

# FORM IR ANALYSIS DATA SHEET

FB-1-112822-

Laboratory:-	APPL, LLC-	Work Order:-	22L0004-	
Client:-	Tidewater, Inc.-	Project:-	NASA JPL SI-	
Matrix:-	Water-	Laboratory ID:-	22L0004-21-	File ID:- S2022-12-15C (11)-
Sampled:-	11/28/22 15:15-	Prepared:-	12/13/22 09:44-	Analyzed:- 12/16/22 02:07-
Solids:-		Preparation:-	Table B-15-	Dilution:- 1-
Initial/Final:-	51.52 mL / 2 mL-			Instrument:- Saphira-
Batch:-	BBL0249-	Sequence:-	SB03860-	Calibration:- 2251019-

COMPOUNDR	CONC. (ng/L)R	LOQ	LODR	DLR	Q
9CL-PF3ONS-	2.9 U-	7.8-	2.9-	1.1-	
11CL-PF3OUDS-	2.9 U-	7.8-	2.9-	1.2-	



Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: 22L0004-21  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - S2022-12-15A  
 Path: S2022-12-15C (11)  
 Acquired: 2022/12/16 - 02:07

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBA	(212.9 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
PFPeA	(262.9 / 219.0) N/A (262.9 / 69.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHxA	(313.0 / 269.0) N/A (313.0 / 119.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHpA	(363.0 / 319.0) N/A (363.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFOA	(413.0 / 369.0) N/A (413.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFNA	(463.0 / 419.0) N/A (463.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDA	(513.0 / 469.0) N/A (513.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFUnA	(563.0 / 519.0) N/A (563.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDoA	(613.0 / 569.0) N/A (613.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFTTrDA	(663.0 / 619.0) N/A (663.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFTeDA	(713.0 / 669.0) N/A (713.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			



Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: 22L0004-21  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - S2022-12-15A  
 Path: S2022-12-15C (11)  
 Acquired: 2022/12/16 - 02:07

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBS	( 298.9 / 80.0 ) N/A ( 298.9 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFPeS	( 349.0 / 80.0 ) N/A ( 349.0 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHxS	( 399.0 / 80.0 ) N/A ( 399.0 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHpS	( 449.0 / 80.0 ) N/A ( 449.0 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFOS	( 499.0 / 80.0 ) N/A ( 499.0 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFNS	( 549.0 / 80.0 ) N/A ( 549.0 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDS	( 599.0 / 80.0 ) N/A ( 599.0 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDoS	( 698.9 / 80.0 ) N/A ( 698.9 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
4:2FTS	( 327.0 / 307.0 ) N/A ( 327.0 / 81.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
6:2FTS	( 427.0 / 407.0 ) N/A ( 427.0 / 81.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
8:2FTS	( 527.0 / 507.0 ) N/A ( 527.0 / 81.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			

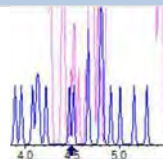
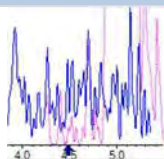
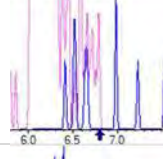
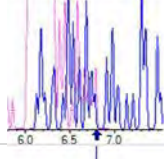
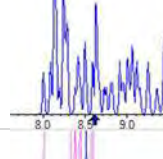
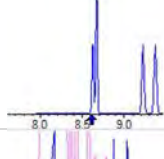
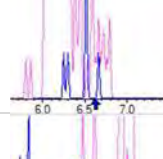
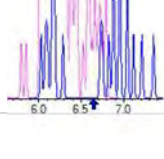
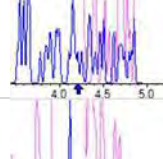
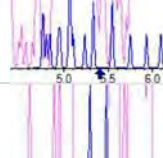
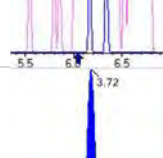
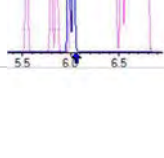
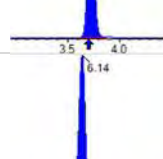
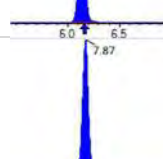
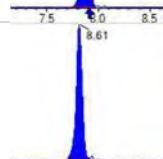
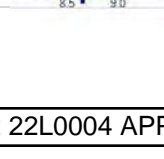


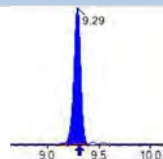
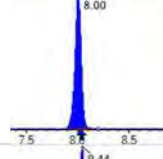
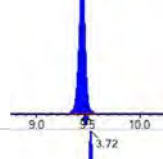
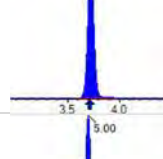
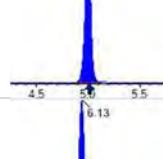
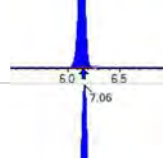
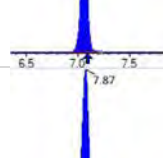
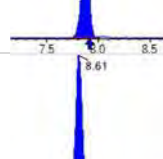
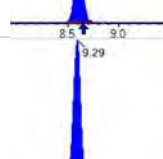
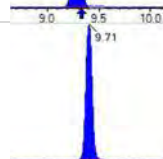

Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

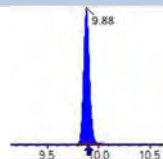
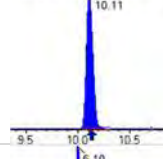
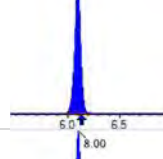
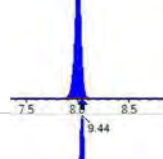
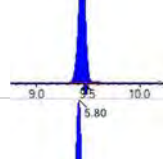
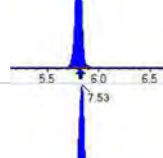

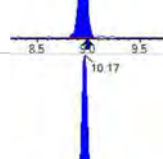
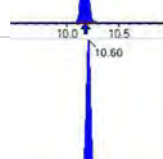
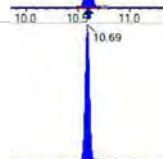
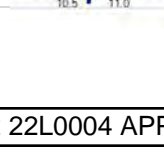
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 Acquisition Method: 1633 2022-12-13.dam

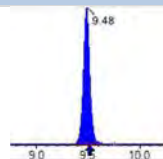
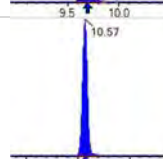
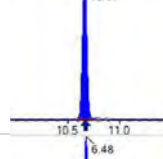
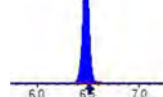

Quant Method: 1633 - S2022-12-15A  
 Path: S2022-12-15C (11)  
 Acquired: 2022/12/16 - 02:07

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFOSA	( 498.0 / 78.0 ) N/A ( 498.0 / 478.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSA	( 511.9 / 219.0 ) N/A ( 511.9 / 169.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NEtFOSA	( 526.0 / 219.0 ) N/A ( 526.0 / 169.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSAA	( 570.0 / 419.0 ) N/A ( 570.0 / 483.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NEtFOSAA	( 584.0 / 419.0 ) N/A ( 584.0 / 526.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSE	( 616.1 / 59.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A	N/A 0.0 0.0	0.0000	N/A			
NEtFOSE	( 630.0 / 59.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A	N/A 0.0 0.0	0.0000	N/A			
HFPO-DA	( 285.0 / 169.0 ) N/A ( 285.0 / 185.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
ADONA	( 377.0 / 85.0 ) N/A ( 377.0 / 251.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
9Cl-Pf3ONS	( 531.0 / 351.0 ) N/A ( 533.0 / 353.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
11Cl-Pf3OUDS	( 631.0 / 451.0 ) N/A ( 633.0 / 453.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
3:3FTCA	(241.0 / 177.0) N/A (241.0 / 117.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
5:3FTCA	(341.0 / 236.7) N/A (341.0 / 217.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
7:3FTCA	(441.0 / 317.0) N/A (441.0 / 337.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFEESA	(315.0 / 135.0) N/A (315.0 / 83.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFMPA	(229.0 / 85.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
PFMBA	(279.0 / 85.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
NFDHA	(201.0 / 85.0) N/A (295.0 / 201.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
13C3_PFBA_IIS	(216.0 / 172.0) 103693	(3.72, N/A) (N/A, 0.04, N/A)	735.1	N/A	1.1860 [ 1.0000 ]	118.6% { 124.6% }			
13C2_PFHxA_IIS	(315.1 / 270.0) 152754	(6.14, N/A) (N/A, 0.00, N/A)	785.5	N/A	1.1610 [ 1.0000 ]	116.1% { 115.7% }			
13C4_PFOA_IIS	(417.0 / 372.0) 148935	(7.87, N/A) (N/A, 0.00, N/A)	592.0	N/A	1.1899 [ 1.0000 ]	119.0% { 121.6% }			
13C5_PFNA_IIS	(468.0 / 423.0) 108510	(8.61, N/A) (N/A, 0.00, N/A)	422.1	N/A	1.0871 [ 1.0000 ]	108.7% { 112.8% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDA_IIS	(515.1 / 470.1) 137906	(9.29, N/A) (N/A, 0.00, N/A)	243.8	N/A	1.3298 [ 1.0000 ]	133.0% { 138.2% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 264804	(8.00, N/A) (N/A, 0.00, N/A)	1000.8	N/A	1.1193 [ 1.0000 ]	111.9% { 119.2% }			
13C4_PFOS_IIS	(502.8 / 79.9) 249860	(9.44, N/A) (N/A, 0.00, N/A)	563.5	N/A	1.2454 [ 1.0000 ]	124.5% { 126.4% }			
13C4_PFBA_EIS	(217.0 / 172.0) 746292	(3.72, N/A) (N/A, 0.04, N/A)	845.9	N/A	6.9515 [ 8.0000 ]	86.9% { 111.1% }			
13C5_PFPeA_EIS	(267.9 / 223.0) 409804	(5.00, N/A) (N/A, 0.01, N/A)	843.7	N/A	3.6449 [ 4.0000 ]	91.1% { 107.7% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 324139	(6.13, N/A) (N/A, 0.00, N/A)	659.7	N/A	1.8025 [ 2.0000 ]	90.1% { 113.7% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 290940	(7.06, N/A) (N/A, 0.00, N/A)	448.9	N/A	1.8313 [ 2.0000 ]	91.6% { 111.3% }			
13C8_PFOA_EIS	(421.0 / 376.0) 265901	(7.87, N/A) (N/A, 0.00, N/A)	575.5	N/A	1.6157 [ 2.0000 ]	80.8% { 105.5% }			
13C9_PFNA_EIS	(472.0 / 427.0) 102017	(8.61, N/A) (N/A, 0.00, N/A)	427.7	N/A	0.8607 [ 1.0000 ]	86.1% { 108.2% }			
13C6_PFDA_EIS	(519.0 / 474.0) 136809	(9.29, N/A) (N/A, 0.00, N/A)	254.0	N/A	0.7321 [ 1.0000 ]	73.2% { 104.7% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 213709	(9.71, N/A) (N/A, 0.00, N/A)	516.1	N/A	0.7943 [ 1.0000 ]	79.4% { 142.8% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDa_EIS	(615.0 / 570.0) 275159	(9.88, N/A) (N/A, 0.00, N/A)	504.1	N/A	0.9068 [ 1.0000 ]	90.7% { 113.7% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 149043	(10.11, N/A) (N/A, 0.00, N/A)	447.1	N/A	0.8082 [ 1.0000 ]	80.8% { 112.4% }			
13C3_PFBs_EIS	(302.0 / 80.0) 792259	(6.10, N/A) (N/A, 0.00, N/A)	826.0	N/A	1.8319 [ 2.0000 ]	91.6% { 106.4% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 437420	(8.00, N/A) (N/A, 0.00, N/A)	950.5	N/A	1.9503 [ 2.0000 ]	97.5% { 121.4% }			
13C8_PFOS_EIS	(507.0 / 80.0) 634160	(9.44, N/A) (N/A, 0.00, N/A)	557.2	N/A	1.5451 [ 2.0000 ]	77.3% { 102.3% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 102090	(5.80, N/A) (N/A, 0.00, N/A)	697.7	N/A	4.1864 [ 4.0000 ]	104.7% { 112.0% }			
13C2_6:2FTS_EIS	(429.0 / 81.0) 108542	(7.53, N/A) (N/A, 0.00, N/A)	740.5	N/A	3.4732 [ 4.0000 ]	86.8% { 97.9% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 101424	(8.94, N/A) (N/A, 0.00, N/A)	302.4	N/A	3.6200 [ 4.0000 ]	90.5% { 95.1% }			
13C8_PFOsa_EIS	(506.0 / 78.0) 1037575	(10.17, N/A) (N/A, 0.00, N/A)	757.0	N/A	1.7370 [ 2.0000 ]	86.9% { 113.4% }			
D3_NMeFOSA_EIS	(515.0 / 169.0) 165152	(10.60, N/A) (N/A, 0.00, N/A)	535.9	N/A	1.1098 [ 2.0000 ]	55.5% { 68.4% }			
D5_NEtFOSA_EIS	(531.1 / 169.0) 151683	(10.69, N/A) (N/A, 0.00, N/A)	977.3	N/A	1.0916 [ 2.0000 ]	54.6% { 64.6% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
D3_MeFOSAA_EIS	(573.0 / 419.0) 329480	(9.48, N/A) (N/A, 0.00, N/A)	534.3	N/A	3.4221 [ 4.0000 ]	85.6% { 120.0% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 290747	(9.67, N/A) (N/A, 0.00, N/A)	404.7	N/A	3.6336 [ 4.0000 ]	90.8% { 120.0% }			
D7_NMeFOSE_EIS	(623.2 / 58.9) 449160	(10.57, N/A) (N/A, 0.01, N/A)	953.2	N/A	15.6913 [ 20.0000 ]	78.5% { 97.6% }			
D9_NEtFOSE_EIS	(639.2 / 58.9) 245519	(10.67, N/A) (N/A, 0.01, N/A)	892.8	N/A	15.9279 [ 20.0000 ]	79.6% { 90.5% }			
13C3_HFPODA_EIS	(287.0 / 169.0) 761180	(6.48, N/A) (N/A, 0.00, N/A)	849.4	N/A	6.9523 [ 8.0000 ]	86.9% { 106.6% }			

# FORM IR ANALYSIS DATA SHEET

EQP-1-112822P

Laboratory:P	AP L, LLC	Work Order:P	22L0004P	
Client:P	Tidewater, Inc.P	Project:	NASA JPL SIP	
Matrix:P	WaterP	Laboratory ID:P	22L0004-22P	File ID: S2022-12-15B (27)P
Sampled:P	11/28/22 15:00P	repared:P	12/14/22 08:57	Analyzed: 12/15/22 20:49
Solids:P		reparation:P	Table B-15P	Dilution:P 1P
Initial/Final:P	276.59 mL / 2 mL			Instrument: Saphira
Batch:P	BBL0296P	Sequence:P	SB03858	Calibration:P 2251019

COMPOUNDR	CONC. (ng/L)	LOQ	LODR	DL	Q
FBAP	0.18 UP	2.9	0.18	0.045	
FPEAP	0.18 UP	1.4	0.18	0.056	
FHXAP	0.18 UP	0.72	0.18	0.058	
PFHPAP	0.18 UP	0.72	0.18	0.045	
FOAP	0.23 JP	0.72	0.18	0.074	
FNAP	0.18 UP	0.72	0.18	0.045	
FDAP	0.18 UP	0.72P	0.18	0.045	IR1,
FUnAP	0.18 UP	0.72	0.18	0.072	
FDOAP	0.18 UP	0.72	0.18	0.045	
FTRDAP	0.18 UP	0.72	0.18	0.052	
FTEDAP	0.18 UP	0.72	0.18	0.078	
FBSP	0.18 UP	0.72	0.18	0.045	
FPESP	0.18 UP	0.72	0.18	0.052	
FHXSP	0.18 UP	0.72	0.18	0.045	
FHPSP	0.18 UP	0.72	0.18	0.051	
FOSP	0.18 UP	0.72	0.18	0.045	
FNSP	0.36 UP	0.72	0.36	0.22	
FDSP	0.18 UP	0.72	0.18	0.058	
4:2FTSP	0.36 UP	2.9	0.36	0.098	
6:2FTSP	0.18 UP	2.9	0.18	0.081	
8:2FTSP	0.54 UP	2.9	0.54	0.18	
FOSAP	0.18 UP	2.9	0.18	0.045	
NMeFOSAP	1.8 UP	2.9	1.8	0.89	
NEtFOSAP	1.8 UP	2.9	1.8	0.89	
NMeFOSAAP	0.18 UP	0.72	0.18	0.065	
NEtFOSAAP	0.18 UP	0.72	0.18	0.045	
NMeFOSEP	1.1 UP	2.9	1.1	0.54	
NEtFOSEP	1.1 UP	2.9	1.1	0.54	
HFPO-DAP	0.90 UP	1.4	0.90	0.44	
ADONAP	0.54 UP	1.4	0.54	0.24	

# FORM IR ANALYSIS DATA SHEET

EQP-1-112822P

Laboratory:P	AP L, LLC	Work Order:P	22L0004P	
Client:P	Tidewater, Inc.P	Project:P	NASA JPL SIP	
Matrix:P	WaterP	Laboratory ID:P	22L0004-22P	File ID: S2022-12-15B (27)P
Sampled:P	11/28/22 15:00P	Prepared:P	12/14/22 08:57P	Analyzed: 12/15/22 20:49P
Solids:P		Preparation:P	Table B-15P	Dilution:P 1P
Initial/Final:P	276.59 mL / 2 mL		Instrument:	SaphiraP
Batch:P	BBL0296P	Sequence:P	SB03858P	Calibration:P 2251019P

COMPOUNDR	CONC. (ng/L)R	LOQ	LODR	DLR	Q
9CL-PF3ONSP	0.54 UP	1.4P	0.54P	0.21P	
11CL-PF3OUDSP	0.54 UP	1.4P	0.54P	0.22P	



Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: 22L0004-22  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - S2022-12-15A  
 Path: S2022-12-15B (27)  
 Acquired: 2022/12/15 - 20:49

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBA	(212.9 / 169.0) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A	N/A 0.0 0.0	0.0000	N/A			
PFPeA	(262.9 / 219.0) N/A (262.9 / 69.0) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHxA	(313.0 / 269.0) N/A (313.0 / 119.0) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHpA	(363.0 / 319.0) N/A (363.0 / 169.0) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFOA	(413.0 / 369.0) 4673 (413.0 / 169.0) 1196	( 7.90 , 1.00 ) ( 0.00 , N/A , 1.0 )	24.9 45.4	0.2559 76.0 81.5	0.0313	N/A			
PFNA	(463.0 / 419.0) N/A (463.0 / 169.0) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDA	(513.0 / 469.0) 268 (513.0 / 169.0) N/A	( 9.33 , 1.00 ) ( 0.01 , N/A , #Value! )	3.6 N/A	N/A 0.0 0.0	0.0018	N/A			IR1,
PFUnA	(563.0 / 519.0) N/A (563.0 / 169.0) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDoA	(613.0 / 569.0) N/A (613.0 / 169.0) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFTrDA	(663.0 / 619.0) N/A (663.0 / 169.0) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFTeDA	(713.0 / 669.0) N/A (713.0 / 169.0) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			



Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: 22L0004-22  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - S2022-12-15A  
 Path: S2022-12-15B (27)  
 Acquired: 2022/12/15 - 20:49

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBS	(298.9 / 80.0) N/A (298.9 / 99.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFPeS	(349.0 / 80.0) N/A (349.0 / 99.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHxS	(399.0 / 80.0) N/A (399.0 / 99.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHpS	(449.0 / 80.0) N/A (449.0 / 99.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFOS	(499.0 / 80.0) N/A (499.0 / 99.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFNS	(549.0 / 80.0) N/A (549.0 / 99.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDS	(599.0 / 80.0) N/A (599.0 / 99.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDoS	(698.9 / 80.0) N/A (698.9 / 99.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
4:2FTS	(327.0 / 307.0) N/A (327.0 / 81.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
6:2FTS	(427.0 / 407.0) N/A (427.0 / 81.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
8:2FTS	(527.0 / 507.0) N/A (527.0 / 81.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			



Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: 22L0004-22  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - S2022-12-15A  
 Path: S2022-12-15B (27)  
 Acquired: 2022/12/15 - 20:49

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFOSA	(498.0 / 78.0) N/A (498.0 / 478.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSA	(511.9 / 219.0) N/A (511.9 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NEtFOSA	(526.0 / 219.0) N/A (526.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSAA	(570.0 / 419.0) N/A (570.0 / 483.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NEtFOSAA	(584.0 / 419.0) N/A (584.0 / 526.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSE	(616.1 / 59.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
NEtFOSE	(630.0 / 59.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
HFPO-DA	(285.0 / 169.0) N/A (285.0 / 185.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
ADONA	(377.0 / 85.0) N/A (377.0 / 251.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
9Cl-Pf3ONS	(531.0 / 351.0) N/A (533.0 / 353.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
11Cl-Pf3OUDS	(631.0 / 451.0) N/A (633.0 / 453.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			



Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: 22L0004-22  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - S2022-12-15A  
 Path: S2022-12-15B (27)  
 Acquired: 2022/12/15 - 20:49

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
3:3FTCA	(241.0 / 177.0) N/A (241.0 / 117.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
5:3FTCA	(341.0 / 236.7) N/A (341.0 / 217.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
7:3FTCA	(441.0 / 317.0) N/A (441.0 / 337.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFEESA	(315.0 / 135.0) N/A (315.0 / 83.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFMPA	(229.0 / 85.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
PFMBA	(279.0 / 85.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
NFDHA	(201.0 / 85.0) N/A (295.0 / 201.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
13C3_PFBA_IIS	(216.0 / 172.0) 98271	(3.70, N/A) (N/A, -0.01, N/A)	755.5	N/A	1.1240 [ 1.0000 ]	112.4% { 112.4% }			
13C2_PFHxA_IIS	(315.1 / 270.0) 152589	(6.16, N/A) (N/A, -0.03, N/A)	535.2	N/A	1.1597 [ 1.0000 ]	116.0% { 121.1% }			
13C4_PFOA_IIS	(417.0 / 372.0) 143549	(7.90, N/A) (N/A, -0.04, N/A)	864.6	N/A	1.1468 [ 1.0000 ]	114.7% { 106.6% }			
13C5_PFNA_IIS	(468.0 / 423.0) 113999	(8.64, N/A) (N/A, -0.05, N/A)	440.8	N/A	1.1421 [ 1.0000 ]	114.2% { 112.8% }			

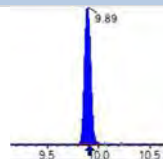
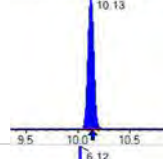
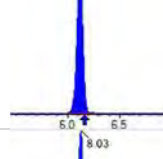
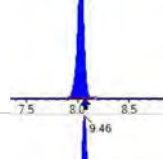
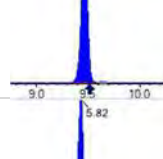
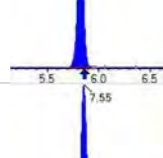
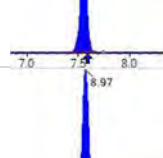
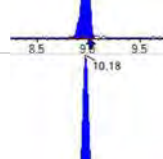
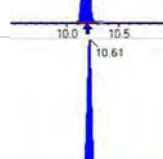
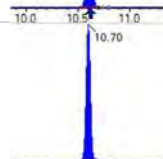
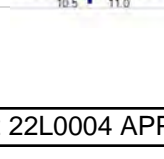


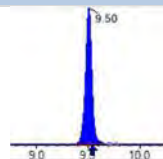
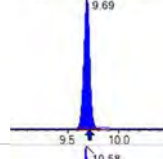
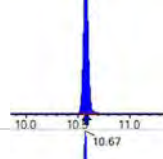
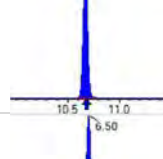
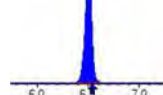
Chemist: ABK  
Instrument: Saphira  
Type: Sciex Q3 5500

Sample I.D.: 22L0004-22  
DF, IV: 1, 10.0µL  
Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - S2022-12-15A  
Path: S2022-12-15B (27)  
Acquired: 2022/12/15 - 20:49

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDA_IIS	(515.1 / 470.1) 110542	(9.32, N/A) (N/A, -0.05, N/A)	295.3	N/A	1.0660 [ 1.0000 ]	106.6% { 99.0% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 250966	(8.03, N/A) (N/A, -0.05, N/A)	800.4	N/A	1.0608 [ 1.0000 ]	106.1% { 102.3% }			
13C4_PFOS_IIS	(502.8 / 79.9) 281583	(9.46, N/A) (N/A, -0.04, N/A)	459.1	N/A	1.4036 [ 1.0000 ]	140.4% { 134.4% }			
13C4_PFBA_EIS	(217.0 / 172.0) 754469	(3.71, N/A) (N/A, -0.01, N/A)	903.5	N/A	7.4155 [ 8.0000 ]	92.7% { 101.2% }			
13C5_PFPeA_EIS	(267.9 / 223.0) 450855	(5.01, N/A) (N/A, -0.02, N/A)	1061.5	N/A	4.0134 [ 4.0000 ]	100.3% { 114.9% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 360934	(6.16, N/A) (N/A, -0.03, N/A)	828.6	N/A	2.0093 [ 2.0000 ]	100.5% { 124.0% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 292114	(7.08, N/A) (N/A, -0.04, N/A)	601.6	N/A	1.8407 [ 2.0000 ]	92.0% { 105.5% }			
13C8_PFOA_EIS	(421.0 / 376.0) 315103	(7.90, N/A) (N/A, -0.04, N/A)	564.4	N/A	1.9865 [ 2.0000 ]	99.3% { 117.5% }			
13C9_PFNA_EIS	(472.0 / 427.0) 123668	(8.64, N/A) (N/A, -0.05, N/A)	354.9	N/A	0.9931 [ 1.0000 ]	99.3% { 116.2% }			
13C6_PFDA_EIS	(519.0 / 474.0) 164047	(9.32, N/A) (N/A, -0.05, N/A)	316.1	N/A	1.0952 [ 1.0000 ]	109.5% { 122.9% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 253840	(9.72, N/A) (N/A, -0.02, N/A)	351.8	N/A	1.1769 [ 1.0000 ]	117.7% { 128.5% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDa_EIS	(615.0 / 570.0) 243008	(9.89, N/A) (N/A, -0.02, N/A)	412.9	N/A	0.9991 [ 1.0000 ]	99.9% { 94.4% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 153457	(10.13, N/A) (N/A, -0.02, N/A)	575.8	N/A	1.0381 [ 1.0000 ]	103.8% { 105.6% }			
13C3_PFBs_EIS	(302.0 / 80.0) 879963	(6.12, N/A) (N/A, -0.03, N/A)	890.0	N/A	2.1469 [ 2.0000 ]	107.3% { 123.3% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 457485	(8.03, N/A) (N/A, -0.05, N/A)	820.5	N/A	2.1522 [ 2.0000 ]	107.6% { 112.4% }			
13C8_PFOS_EIS	(507.0 / 80.0) 805981	(9.46, N/A) (N/A, -0.04, N/A)	577.0	N/A	1.7425 [ 2.0000 ]	87.1% { 141.3% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 100096	(5.82, N/A) (N/A, -0.03, N/A)	577.7	N/A	4.3309 [ 4.0000 ]	108.3% { 118.9% }			
13C2_6:2FTS_EIS	(429.0 / 81.0) 139759	(7.55, N/A) (N/A, -0.04, N/A)	687.3	N/A	4.7186 [ 4.0000 ]	118.0% { 127.2% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 125984	(8.97, N/A) (N/A, -0.05, N/A)	347.0	N/A	4.7445 [ 4.0000 ]	118.6% { 151.1% }			
13C8_PFOA_EIS	(506.0 / 78.0) 864507	(10.18, N/A) (N/A, -0.02, N/A)	828.3	N/A	1.2842 [ 2.0000 ]	64.2% { 93.5% }			
D3_NMeFOSA_EIS	(515.0 / 169.0) 142063	(10.61, N/A) (N/A, -0.01, N/A)	796.5	N/A	0.8471 [ 2.0000 ]	42.4% { 57.7% }			
D5_NEtFOSA_EIS	(531.1 / 169.0) 111477	(10.70, N/A) (N/A, -0.01, N/A)	877.0	N/A	0.7119 [ 2.0000 ]	35.6% { 45.3% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT- CV[ $\mu$ min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
D3_MeFOSAA_EIS	(573.0 / 419.0) 347338	(9.50, N/A) (N/A, -0.04, N/A)	513.0	N/A	3.2012 [ 4.0000 ]	80.0% { 116.2% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 400341	(9.69, N/A) (N/A, -0.02, N/A)	514.9	N/A	4.4396 [ 4.0000 ]	111.0% { 147.5% }			
D7_NMeFOSE_EIS	(623.2 / 58.9) 273398	(10.58, N/A) (N/A, -0.01, N/A)	906.3	N/A	8.4751 [ 20.0000 ]	42.4% { 54.5% }			
D9_NEtFOSE_EIS	(639.2 / 58.9) 143077	(10.67, N/A) (N/A, -0.01, N/A)	1230.8	N/A	8.2364 [ 20.0000 ]	41.2% { 51.4% }			
13C3_HFPODA_EIS	(287.0 / 169.0) 869601	(6.50, N/A) (N/A, -0.04, N/A)	827.9	N/A	7.9512 [ 8.0000 ]	99.4% { 109.6% }			

# FORM IR ANALYSIS DATA SHEET

EQP-1-112822P

Laboratory:P	AP L, LLC	Work Order:P	22L0004P		
Client:P	Tidewater, Inc.P	Project:P	NASA JPL SIP		
Matrix:P	WaterP	Laboratory ID:P	22L0004-22RE1P	File ID:	S2022-12-15B (28)P
Sampled:P	11/28/22 15:00P	Prepared:P	12/14/22 08:57P	Analyzed:	12/15/22 21:02P
Solids:P		Preparation:P	Table B-15P	Dilution:P	10P
Initial/Final:P	276.59 mL / 2 mL			Instrument:	SaphiraP
Batch:P	BBL0296P	Sequence:P	SB03858	Calibration:P	2251019P



Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: 22L0004-22RE1@10  
 DF, IV: 1, 1.0µL  
 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - S2022-12-15A  
 Path: S2022-12-15B (28)  
 Acquired: 2022/12/15 - 21:02

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBA	(212.9 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
PFPeA	(262.9 / 219.0) N/A (262.9 / 69.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHxA	(313.0 / 269.0) N/A (313.0 / 119.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHpA	(363.0 / 319.0) N/A (363.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFOA	(413.0 / 369.0) N/A (413.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFNA	(463.0 / 419.0) N/A (463.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDA	(513.0 / 469.0) N/A (513.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFUnA	(563.0 / 519.0) N/A (563.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDoA	(613.0 / 569.0) N/A (613.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFTrDA	(663.0 / 619.0) N/A (663.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFTeDA	(713.0 / 669.0) N/A (713.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			



Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: 22L0004-22RE1@10  
 DF, IV: 1, 1.0µL  
 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - S2022-12-15A  
 Path: S2022-12-15B (28)  
 Acquired: 2022/12/15 - 21:02

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBS	( 298.9 / 80.0 ) N/A ( 298.9 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFPeS	( 349.0 / 80.0 ) N/A ( 349.0 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHxS	( 399.0 / 80.0 ) N/A ( 399.0 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHpS	( 449.0 / 80.0 ) N/A ( 449.0 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFOS	( 499.0 / 80.0 ) N/A ( 499.0 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFNS	( 549.0 / 80.0 ) N/A ( 549.0 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDS	( 599.0 / 80.0 ) N/A ( 599.0 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDoS	( 698.9 / 80.0 ) N/A ( 698.9 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
4:2FTS	( 327.0 / 307.0 ) N/A ( 327.0 / 81.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
6:2FTS	( 427.0 / 407.0 ) N/A ( 427.0 / 81.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
8:2FTS	( 527.0 / 507.0 ) N/A ( 527.0 / 81.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			



Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: 22L0004-22RE1@10  
 DF, IV: 1, 1.0µL  
 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - S2022-12-15A  
 Path: S2022-12-15B (28)  
 Acquired: 2022/12/15 - 21:02

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFOSA	(498.0 / 78.0) N/A (498.0 / 478.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSA	(511.9 / 219.0) N/A (511.9 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NEtFOSA	(526.0 / 219.0) N/A (526.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSAA	(570.0 / 419.0) N/A (570.0 / 483.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NEtFOSAA	(584.0 / 419.0) N/A (584.0 / 526.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSE	(616.1 / 59.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
NEtFOSE	(630.0 / 59.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
HFPO-DA	(285.0 / 169.0) N/A (285.0 / 185.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
ADONA	(377.0 / 85.0) N/A (377.0 / 251.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
9CI-Pf3ONS	(531.0 / 351.0) N/A (533.0 / 353.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
11CI-PF3OUDS	(631.0 / 451.0) N/A (633.0 / 453.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			

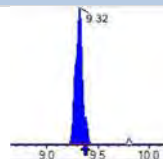
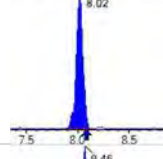
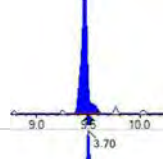
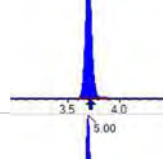
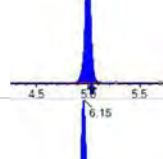
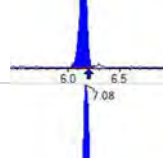
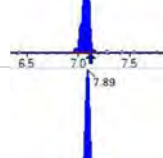
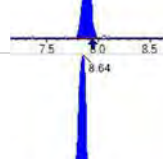
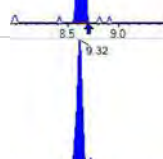
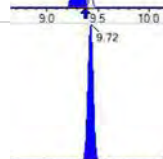
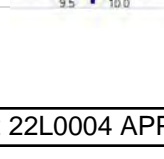


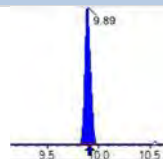
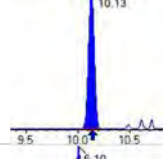
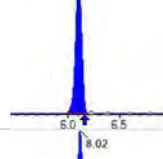
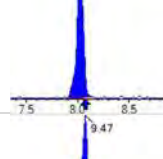
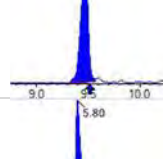
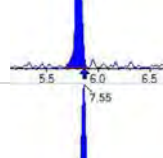
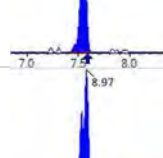
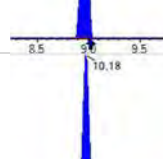
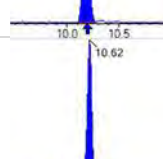
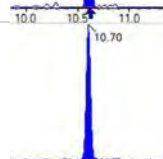
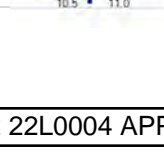
Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

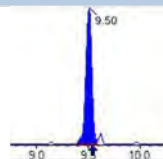
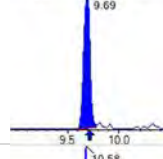
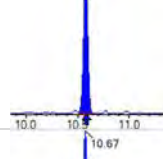
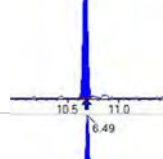
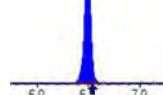
Sample I.D.: 22L0004-22RE1@10  
 DF, IV: 1, 1.0µL  
 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - S2022-12-15A  
 Path: S2022-12-15B (28)  
 Acquired: 2022/12/15 - 21:02

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
3:3FTCA	(241.0 / 177.0) N/A (241.0 / 117.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
5:3FTCA	(341.0 / 236.7) N/A (341.0 / 217.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
7:3FTCA	(441.0 / 317.0) N/A (441.0 / 337.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFEESA	(315.0 / 135.0) N/A (315.0 / 83.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFMPA	(229.0 / 85.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
PFMBA	(279.0 / 85.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
NFDHA	(201.0 / 85.0) N/A (295.0 / 201.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
13C3_PFBA_IIS	(216.0 / 172.0) 9755	(3.71, N/A) (N/A, -0.01, N/A)	265.6	N/A	1.1158 [ 1.0000 ]	111.6% { 11.2% }			
13C2_PFHxA_IIS	(315.1 / 270.0) 15160	(6.15, N/A) (N/A, -0.05, N/A)	262.9	N/A	1.1522 [ 1.0000 ]	115.2% { 12.0% }			
13C4_PFOA_IIS	(417.0 / 372.0) 11068	(7.89, N/A) (N/A, -0.05, N/A)	286.3	N/A	0.8842 [ 1.0000 ]	88.4% { 8.2% }			
13C5_PFNA_IIS	(468.0 / 423.0) 14536	(8.64, N/A) (N/A, -0.05, N/A)	375.9	N/A	1.4563 [ 1.0000 ]	145.6% { 14.4% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDA_IIS	(515.1 / 470.1) 13498	(9.32, N/A) (N/A, -0.05, N/A)	2272.5	N/A	1.3016 [ 1.0000 ]	130.2% { 12.1% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 26431	(8.02, N/A) (N/A, -0.06, N/A)	433.1	N/A	1.1172 [ 1.0000 ]	111.7% { 10.8% }			
13C4_PFOS_IIS	(502.8 / 79.9) 20731	(9.46, N/A) (N/A, -0.04, N/A)	163.9	N/A	1.0333 [ 1.0000 ]	103.3% { 9.9% }			
13C4_PFBA_EIS	(217.0 / 172.0) 78084	(3.70, N/A) (N/A, -0.01, N/A)	870.0	N/A	0.7731 [ 0.8000 ]	96.6% { 10.5% }			
13C5_PFPeA_EIS	(267.9 / 223.0) 43886	(5.00, N/A) (N/A, -0.04, N/A)	619.9	N/A	0.3932 [ 0.4000 ]	98.3% { 11.2% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 29333	(6.15, N/A) (N/A, -0.04, N/A)	300.7	N/A	0.1644 [ 0.2000 ]	82.2% { 10.1% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 31352	(7.08, N/A) (N/A, -0.05, N/A)	338.6	N/A	0.1988 [ 0.2000 ]	99.4% { 11.3% }			
13C8_PFOA_EIS	(421.0 / 376.0) 27119	(7.89, N/A) (N/A, -0.05, N/A)	412.4	N/A	0.2217 [ 0.2000 ]	110.9% { 10.1% }			
13C9_PFNA_EIS	(472.0 / 427.0) 10640	(8.64, N/A) (N/A, -0.04, N/A)	130.0	N/A	0.0670 [ 0.1000 ]	67.0% { 10.0% }			
13C6_PFDA_EIS	(519.0 / 474.0) 11842	(9.32, N/A) (N/A, -0.05, N/A)	27474.7	N/A	0.0647 [ 0.1000 ]	64.7% { 8.9% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 26992	(9.72, N/A) (N/A, -0.02, N/A)	64642.0	N/A	0.1025 [ 0.1000 ]	102.5% { 13.7% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT- CV[ $\mu$ min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDa_EIS	(615.0 / 570.0) 24177	(9.89, N/A) (N/A, -0.02, N/A)	6042.8	N/A	0.0814 [0.1000]	81.4% {9.4%}			
13C2_PFTeDA_EIS	(715.0 / 670.0) 15435	(10.13, N/A) (N/A, -0.01, N/A)	185.8	N/A	0.0855 [0.1000]	85.5% {10.6%}			
13C3_PFBs_EIS	(302.0 / 80.0) 85184	(6.10, N/A) (N/A, -0.05, N/A)	474.6	N/A	0.1973 [0.2000]	98.7% {11.9%}			
13C3_PFHxS_EIS	(402.0 / 80.0) 42601	(8.02, N/A) (N/A, -0.05, N/A)	281.4	N/A	0.1903 [0.2000]	95.1% {10.5%}			
13C8_PFOS_EIS	(507.0 / 80.0) 63146	(9.47, N/A) (N/A, -0.04, N/A)	161.3	N/A	0.1854 [0.2000]	92.7% {11.1%}			
13C2_4:2FTS_EIS	(329.0 / 81.0) 8948	(5.80, N/A) (N/A, -0.06, N/A)	96.7	N/A	0.3676 [0.4000]	91.9% {10.6%}			
13C2_6:2FTS_EIS	(429.0 / 81.0) 11094	(7.55, N/A) (N/A, -0.05, N/A)	209.3	N/A	0.3557 [0.4000]	88.9% {10.1%}			
13C2_8:2FTS_EIS	(529.0 / 81.0) 8920	(8.97, N/A) (N/A, -0.05, N/A)	47.7	N/A	0.3190 [0.4000]	79.7% {10.7%}			
13C8_PFOsa_EIS	(506.0 / 78.0) 91948	(10.18, N/A) (N/A, -0.02, N/A)	346.2	N/A	0.1855 [0.2000]	92.8% {9.9%}			
D3_NMeFOSA_EIS	(515.0 / 169.0) 12077	(10.62, N/A) (N/A, -0.01, N/A)	168.9	N/A	0.0978 [0.2000]	48.9% {4.9%}			
D5_NEtFOSA_EIS	(531.1 / 169.0) 11520	(10.70, N/A) (N/A, -0.01, N/A)	263.7	N/A	0.0999 [0.2000]	50.0% {4.7%}			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT- CV[ $\mu$ min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
D3_MeFOSAA_EIS	(573.0 / 419.0) 32422	(9.50, N/A) (N/A, -0.04, N/A)	211.3	N/A	0.4059 [ 0.4000 ]	101.5% { 10.8% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 30681	(9.69, N/A) (N/A, -0.02, N/A)	103.9	N/A	0.4621 [ 0.4000 ]	115.5% { 11.3% }			
D7_NMeFOSE_EIS	(623.2 / 58.9) 29413	(10.58, N/A) (N/A, -0.01, N/A)	254.8	N/A	1.2384 [ 2.0000 ]	61.9% { 5.9% }			
D9_NEtFOSE_EIS	(639.2 / 58.9) 11887	(10.67, N/A) (N/A, -0.01, N/A)	262.8	N/A	0.9294 [ 2.0000 ]	46.5% { 4.3% }			
13C3_HFPODA_EIS	(287.0 / 169.0) 79488	(6.49, N/A) (N/A, -0.05, N/A)	468.8	N/A	0.7315 [ 0.8000 ]	91.4% { 10.0% }			

# FORM IR ANALYSIS DATA SHEET

EQP-2-112922P

Laboratory:P	AP L, LLC	Work Order:P	22L0004P	
Client:P	Tidewater, Inc.P	Project:	NASA JPL SIP	
Matrix:P	WaterP	Laboratory ID:P	22L0004-23P	File ID: S2022-12-15B (29)P
Sampled:P	11/29/22 14:00P	Prepared:P	12/14/22 08:57	Analyzed: 12/15/22 21:14
Solids:P		Preparation:P	Table B-15P	Dilution:P 1P
Initial/Final:P	271.99 mL / 2 mL			Instrument: Saphira
Batch:P	BBL0296P	Sequence:P	SB03858	Calibration:P 2251019

COMPOUNDR	CONC. (ng/L)	LOQ	LODR	DL	Q
FBAP	0.18 UP	2.9	0.18	0.046	
FPEAP	0.18 UP	1.5	0.18	0.057	
FHXAP	0.18 UP	0.74	0.18	0.059	
PFHPAP	0.18 UP	0.74	0.18	0.046	
FOAP	0.18 UP	0.74	0.18	0.075	
FNAP	0.18 UP	0.74	0.18	0.046	
FDAP	0.18 UP	0.74	0.18	0.046	
FUnAP	0.18 UP	0.74	0.18	0.074	
FDOAP	0.18 UP	0.74	0.18	0.046	
FTRDAP	0.18 UP	0.74	0.18	0.053	
FTEDAP	0.18 UP	0.74	0.18	0.079	
FBSP	0.18 UP	0.74	0.18	0.046	
FPESP	0.18 UP	0.74	0.18	0.053	
FHXSP	0.18 UP	0.74	0.18	0.046	
FHPSP	0.18 UP	0.74	0.18	0.051	
FOSP	0.11 JP	0.74P	0.18	0.046	IR2,
FNSP	0.37 UP	0.74	0.37	0.23	
FDSP	0.18 UP	0.74	0.18	0.059	
4:2FTSP	0.37 UP	2.9	0.37	0.099	
6:2FTSP	0.18 UP	2.9	0.18	0.083	
8:2FTSP	0.55 UP	2.9	0.55	0.19	
FOSAP	0.18 UP	2.9	0.18	0.046	
NMeFOSAP	1.8 UP	2.9	1.8	0.91	
NEtFOSAP	1.8 UP	2.9	1.8	0.90	
NMeFOSAAP	0.18 UP	0.74	0.18	0.066	
NEtFOSAAP	0.18 UP	0.74	0.18	0.046	
NMeFOSEP	1.1 UP	2.9	1.1	0.55	
NEtFOSEP	1.1 UP	2.9	1.1	0.55	
HFPO-DAP	0.92 UP	1.5	0.92	0.45	
ADONAP	0.55 UP	1.5	0.55	0.24	

# FORM IR ANALYSIS DATA SHEET

EQP-2-112922P

Laboratory:P	AP L, LLC	Work Order:P	22L0004P	
Client:P	Tidewater, Inc.P	Project:P	NASA JPL SIP	
Matrix:P	WaterP	Laboratory ID:P	22L0004-23P	File ID: S2022-12-15B (29)P
Sampled:P	11/29/22 14:00P	Prepared:P	12/14/22 08:57P	Analyzed: 12/15/22 21:14P
Solids:P		Preparation:P	Table B-15P	Dilution:P 1P
Initial/Final:P	271.99 mL / 2 mL		Instrument:	SaphiraP
Batch:P	BBL0296P	Sequence:P	SB03858P	Calibration:P 2251019P

COMPOUNDR	CONC. (ng/L)R	LOQ	LODR	DLR	Q
9CL-PF3ONSP	0.55 UP	1.5P	0.55P	0.22P	
11CL-PF3OUDSP	0.55 UP	1.5P	0.55P	0.22P	



Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: 22L0004-23  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - S2022-12-15A  
 Path: S2022-12-15B (29)  
 Acquired: 2022/12/15 - 21:14

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBA	(212.9 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
PFPeA	(262.9 / 219.0) N/A (262.9 / 69.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHxA	(313.0 / 269.0) N/A (313.0 / 119.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHpA	(363.0 / 319.0) N/A (363.0 / 169.0) 93	(N/A, N/A) (N/A, N/A, N/A)	N/A 5.6	N/A 0.0 0.0	0.0000	N/A			
PFOA	(413.0 / 369.0) N/A (413.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFNA	(463.0 / 419.0) N/A (463.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDA	(513.0 / 469.0) N/A (513.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFUnA	(563.0 / 519.0) N/A (563.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDoA	(613.0 / 569.0) N/A (613.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFTrDA	(663.0 / 619.0) N/A (663.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFTeDA	(713.0 / 669.0) N/A (713.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			



Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: 22L0004-23  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - S2022-12-15A  
 Path: S2022-12-15B (29)  
 Acquired: 2022/12/15 - 21:14

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBS	(298.9 / 80.0) N/A (298.9 / 99.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFPeS	(349.0 / 80.0) N/A (349.0 / 99.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHxS	(399.0 / 80.0) N/A (399.0 / 99.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHpS	(449.0 / 80.0) N/A (449.0 / 99.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFOS	(499.0 / 80.0) 5239 (499.0 / 99.0) 2572	(9.46, 1.00) (0.01, N/A, 1.4)	16.0 22.4	0.4910 214.8 212.1	0.0151	N/A			IR2,
PFNS	(549.0 / 80.0) N/A (549.0 / 99.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDS	(599.0 / 80.0) N/A (599.0 / 99.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDoS	(698.9 / 80.0) N/A (698.9 / 99.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
4:2FTS	(327.0 / 307.0) N/A (327.0 / 81.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
6:2FTS	(427.0 / 407.0) N/A (427.0 / 81.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
8:2FTS	(527.0 / 507.0) N/A (527.0 / 81.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			

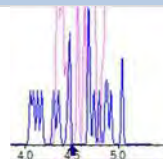
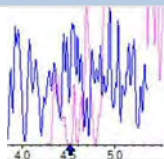
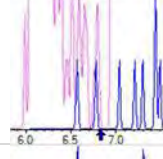
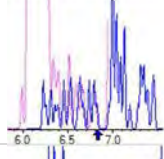
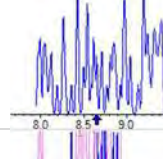
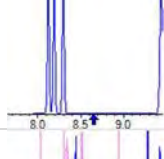
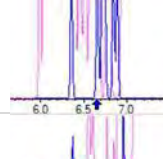
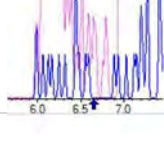
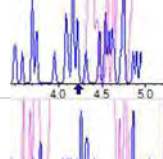
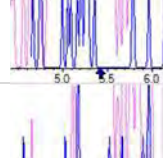
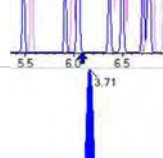
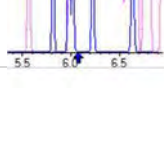
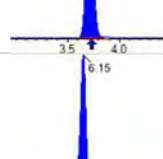
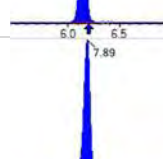
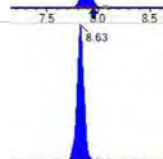
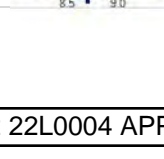


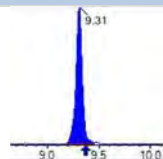
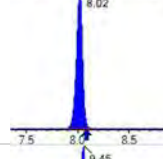
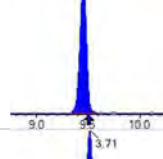
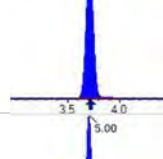
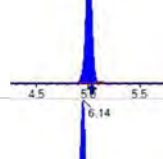
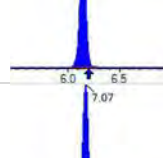
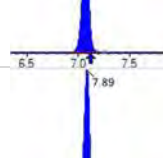
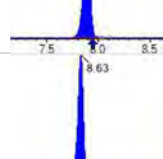
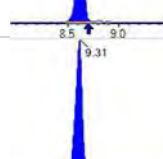
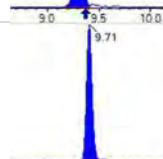

Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

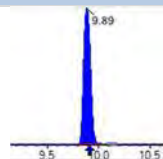
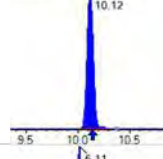
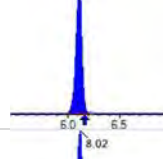
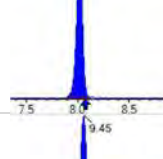
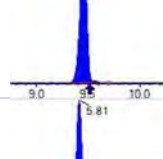
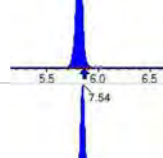
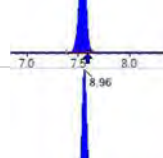
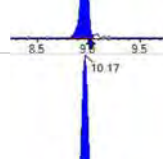
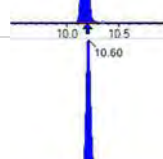
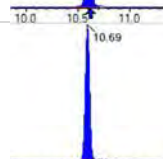
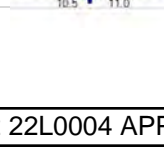
Sample I.D.: 22L0004-23  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-13.dam

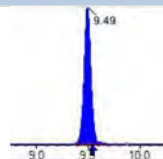
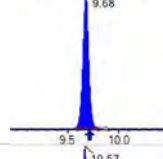
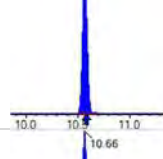
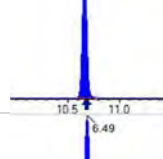
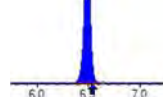
Quant Method: 1633 - S2022-12-15A  
 Path: S2022-12-15B (29)  
 Acquired: 2022/12/15 - 21:14

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFOSA	(498.0 / 78.0) N/A (498.0 / 478.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSA	(511.9 / 219.0) N/A (511.9 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NEtFOSA	(526.0 / 219.0) N/A (526.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSAA	(570.0 / 419.0) N/A (570.0 / 483.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NEtFOSAA	(584.0 / 419.0) N/A (584.0 / 526.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSE	(616.1 / 59.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
NEtFOSE	(630.0 / 59.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
HFPO-DA	(285.0 / 169.0) N/A (285.0 / 185.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
ADONA	(377.0 / 85.0) N/A (377.0 / 251.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
9CI-Pf3ONS	(531.0 / 351.0) N/A (533.0 / 353.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
11CI-PF3OUDS	(631.0 / 451.0) N/A (633.0 / 453.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
3:3FTCA	(241.0 / 177.0) N/A (241.0 / 117.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
5:3FTCA	(341.0 / 236.7) N/A (341.0 / 217.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
7:3FTCA	(441.0 / 317.0) N/A (441.0 / 337.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFEESA	(315.0 / 135.0) N/A (315.0 / 83.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFMPA	(229.0 / 85.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
PFMBA	(279.0 / 85.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
NFDHA	(201.0 / 85.0) N/A (295.0 / 201.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
13C3_PFBA_IIS	(216.0 / 172.0) 91240	(3.71, N/A) (N/A, 0.00, N/A)	758.0	N/A	1.0436 [ 1.0000 ]	104.4% { 104.3% }			
13C2_PFHxA_IIS	(315.1 / 270.0) 151387	(6.15, N/A) (N/A, -0.05, N/A)	589.7	N/A	1.1506 [ 1.0000 ]	115.1% { 120.2% }			
13C4_PFOA_IIS	(417.0 / 372.0) 131409	(7.89, N/A) (N/A, -0.05, N/A)	719.1	N/A	1.0498 [ 1.0000 ]	105.0% { 97.6% }			
13C5_PFNA_IIS	(468.0 / 423.0) 108493	(8.63, N/A) (N/A, -0.06, N/A)	488.0	N/A	1.0869 [ 1.0000 ]	108.7% { 107.4% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDA_IIS	(515.1 / 470.1) 102251	(9.31, N/A) (N/A, -0.06, N/A)	396.8	N/A	0.9860 [ 1.0000 ]	98.6% { 91.6% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 257003	(8.02, N/A) (N/A, -0.06, N/A)	916.7	N/A	1.0863 [ 1.0000 ]	108.6% { 104.7% }			
13C4_PFOS_IIS	(502.8 / 79.9) 223952	(9.45, N/A) (N/A, -0.05, N/A)	380.5	N/A	1.1163 [ 1.0000 ]	111.6% { 106.9% }			
13C4_PFBA_EIS	(217.0 / 172.0) 749292	(3.71, N/A) (N/A, 0.00, N/A)	938.3	N/A	7.9322 [ 8.0000 ]	99.2% { 100.5% }			
13C5_PFPeA_EIS	(267.9 / 223.0) 441585	(5.00, N/A) (N/A, -0.03, N/A)	950.3	N/A	3.9621 [ 4.0000 ]	99.1% { 112.6% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 357623	(6.14, N/A) (N/A, -0.05, N/A)	975.2	N/A	2.0067 [ 2.0000 ]	100.3% { 122.9% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 287402	(7.07, N/A) (N/A, -0.06, N/A)	675.2	N/A	1.8254 [ 2.0000 ]	91.3% { 103.8% }			
13C8_PFOA_EIS	(421.0 / 376.0) 316653	(7.89, N/A) (N/A, -0.05, N/A)	589.1	N/A	2.1807 [ 2.0000 ]	109.0% { 118.1% }			
13C9_PFNA_EIS	(472.0 / 427.0) 107357	(8.63, N/A) (N/A, -0.06, N/A)	353.0	N/A	0.9059 [ 1.0000 ]	90.6% { 100.9% }			
13C6_PFDA_EIS	(519.0 / 474.0) 141339	(9.31, N/A) (N/A, -0.06, N/A)	279.2	N/A	1.0201 [ 1.0000 ]	102.0% { 105.9% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 228119	(9.71, N/A) (N/A, -0.03, N/A)	374.5	N/A	1.1435 [ 1.0000 ]	114.3% { 115.5% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDa_EIS	(615.0 / 570.0) 216864	(9.89, N/A) (N/A, -0.02, N/A)	361.8	N/A	0.9639 [ 1.0000 ]	96.4% { 84.2% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 179804	(10.12, N/A) (N/A, -0.02, N/A)	408.6	N/A	1.3149 [ 1.0000 ]	131.5% { 123.7% }			
13C3_PFBs_EIS	(302.0 / 80.0) 883643	(6.11, N/A) (N/A, -0.04, N/A)	1012.7	N/A	2.1052 [ 2.0000 ]	105.3% { 123.8% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 430841	(8.02, N/A) (N/A, -0.06, N/A)	720.5	N/A	1.9793 [ 2.0000 ]	99.0% { 105.9% }			
13C8_PFOS_EIS	(507.0 / 80.0) 633246	(9.45, N/A) (N/A, -0.05, N/A)	360.9	N/A	1.7213 [ 2.0000 ]	86.1% { 111.0% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 93868	(5.81, N/A) (N/A, -0.05, N/A)	655.9	N/A	3.9661 [ 4.0000 ]	99.2% { 111.5% }			
13C2_6:2FTS_EIS	(429.0 / 81.0) 120154	(7.54, N/A) (N/A, -0.06, N/A)	689.6	N/A	3.9614 [ 4.0000 ]	99.0% { 109.4% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 97708	(8.96, N/A) (N/A, -0.06, N/A)	337.6	N/A	3.5932 [ 4.0000 ]	89.8% { 117.2% }			
13C8_PFOsa_EIS	(506.0 / 78.0) 919878	(10.17, N/A) (N/A, -0.02, N/A)	642.2	N/A	1.7181 [ 2.0000 ]	85.9% { 99.5% }			
D3_NMeFOSA_EIS	(515.0 / 169.0) 146480	(10.60, N/A) (N/A, -0.02, N/A)	767.0	N/A	1.0982 [ 2.0000 ]	54.9% { 59.5% }			
D5_NEiFOSA_EIS	(531.1 / 169.0) 150146	(10.69, N/A) (N/A, -0.02, N/A)	891.8	N/A	1.2055 [ 2.0000 ]	60.3% { 61.0% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT- CV[ $\mu$ min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
D3_MeFOSAA_EIS	(573.0 / 419.0) 287105	(9.49, N/A) (N/A, -0.05, N/A)	368.0	N/A	3.3270 [ 4.0000 ]	83.2% { 96.0% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 286018	(9.68, N/A) (N/A, -0.03, N/A)	373.8	N/A	3.9880 [ 4.0000 ]	99.7% { 105.4% }			
D7_NMeFOSE_EIS	(623.2 / 58.9) 323027	(10.57, N/A) (N/A, -0.02, N/A)	884.6	N/A	12.5903 [ 20.0000 ]	63.0% { 64.4% }			
D9_NEtFOSE_EIS	(639.2 / 58.9) 171511	(10.66, N/A) (N/A, -0.02, N/A)	963.7	N/A	12.4139 [ 20.0000 ]	62.1% { 61.6% }			
13C3_HFPODA_EIS	(287.0 / 169.0) 812770	(6.49, N/A) (N/A, -0.05, N/A)	651.5	N/A	7.4906 [ 8.0000 ]	93.6% { 102.5% }			

# FORM IR ANALYSIS DATA SHEET

FB-2-112922-

Laboratory:-	APPL, LLC-	Work Order:-	22L0004-	
Client:-	Tidewater, Inc.-	Project:	NASA JPL SI-	
Matrix:-	Water-	Laboratory ID:-	22L0004-24-	File ID: S2022-12-15C (13)-
Sampled:-	11/29/22 14:15-	Prepared:-	12/13/22 09:44	Analyzed:- 12/16/22 02:33
Solids:-		Preparation:-	Table B-15-	Dilution:- 1-
Initial/Final:-	47.64 mL / 2 mL-			Instrument:- Saphira
Batch:-	BBL0249-	Sequence:-	SB03860	Calibration:- 2251019

COMPOUNDR	CONC. (ng/L)R	LOQ	LODR	DL	Q
PFBA-	1.0 U-	17-	1.0	0.26	
PFPEA-	1.0 U-	8.4-	1.0	0.33	
PFHXA-	1.0 U-	4.2-	1.0	0.34	
PFHPA-	1.0 U-	4.2-	1.0	0.26	
PFOA-	1.0 U-	4.2-	1.0	0.43	
PFNA-	1.0 U-	4.2-	1.0	0.26	
PFDA-	1.0 U-	4.2-	1.0	0.26	
PFUnA-	1.0 U-	4.2-	1.0	0.42	
PFDOA-	1.0 U-	4.2-	1.0	0.26	
PFTRDA-	1.0 U-	4.2-	1.0	0.30	
PFTEDA-	1.0 U-	4.2-	1.0	0.45	
PFBS-	1.0 U-	4.2-	1.0	0.26	
PFPEs-	1.0 U-	4.2-	1.0	0.30	
PFHXS-	1.0 U-	4.2-	1.0	0.26	
PFHPS-	1.0 U-	4.2-	1.0	0.29	
PFOS-	1.0 U-	4.2-	1.0	0.26	
PFNS-	2.1 U-	4.2-	2.1	1.3	
PFDS-	1.0 U-	4.2-	1.0	0.34	
4:2FTS-	2.1 U-	17-	2.1	0.57	
6:2FTS-	1.0 U-	17-	1.0	0.47	
8:2FTS-	3.1 U-	17-	3.1	1.1	
PFOSA-	1.0 U-	17-	1.0	0.26	
NMeFOSA-	10 U-	17-	10	5.2	
NEtFOSA-	10 U-	17-	10	5.2	
NMeFOSAA-	1.0 U-	4.2-	1.0	0.38	
NEtFOSAA-	1.0 U-	4.2-	1.0	0.26	
NMeFOSE-	6.3 U-	17-	6.3	3.1	
NEtFOSE-	6.3 U-	17-	6.3	3.1	
HFPO-DA-	5.2 U-	8.4-	5.2	2.6	
ADONA-	3.1 U-	8.4-	3.1	1.4	

# FORM IR ANALYSIS DATA SHEET

FB-2-112922-

Laboratory:-	APPL, LLC-	Work Order:-	22L0004-	
Client:-	Tidewater, Inc.-	Project:-	NASA JPL SI-	
Matrix:-	Water-	Laboratory ID:-	22L0004-24-	File ID:- S2022-12-15C (13)-
Sampled:-	11/29/22 14:15-	Prepared:-	12/13/22 09:44-	Analyzed:- 12/16/22 02:33-
Solids:-		Preparation:-	Table B-15-	Dilution:- 1-
Initial/Final:-	47.64 mL / 2 mL-			Instrument:- Saphira-
Batch:-	BBL0249-	Sequence:-	SB03860-	Calibration:- 2251019-

COMPOUNDR	CONC. (ng/L)R	LOQ	LODR	DLR	Q
9CL-PF3ONS-	3.1 U-	8.4-	3.1-	1.2-	
11CL-PF3OUDS-	3.1 U-	8.4-	3.1-	1.3-	



Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: 22L0004-24  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - S2022-12-15A  
 Path: S2022-12-15C (13)  
 Acquired: 2022/12/16 - 02:33

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBA	(212.9 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
PFPeA	(262.9 / 219.0) N/A (262.9 / 69.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHxA	(313.0 / 269.0) N/A (313.0 / 119.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHpA	(363.0 / 319.0) N/A (363.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFOA	(413.0 / 369.0) N/A (413.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFNA	(463.0 / 419.0) N/A (463.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDA	(513.0 / 469.0) N/A (513.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFUnA	(563.0 / 519.0) N/A (563.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDoA	(613.0 / 569.0) N/A (613.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFTTrDA	(663.0 / 619.0) N/A (663.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFTeDA	(713.0 / 669.0) N/A (713.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			



Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: 22L0004-24  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - S2022-12-15A  
 Path: S2022-12-15C (13)  
 Acquired: 2022/12/16 - 02:33

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBS	( 298.9 / 80.0 ) N/A ( 298.9 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFPeS	( 349.0 / 80.0 ) N/A ( 349.0 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHxS	( 399.0 / 80.0 ) N/A ( 399.0 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHpS	( 449.0 / 80.0 ) N/A ( 449.0 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFOS	( 499.0 / 80.0 ) N/A ( 499.0 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFNS	( 549.0 / 80.0 ) N/A ( 549.0 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDS	( 599.0 / 80.0 ) N/A ( 599.0 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDoS	( 698.9 / 80.0 ) N/A ( 698.9 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
4:2FTS	( 327.0 / 307.0 ) N/A ( 327.0 / 81.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
6:2FTS	( 427.0 / 407.0 ) N/A ( 427.0 / 81.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
8:2FTS	( 527.0 / 507.0 ) N/A ( 527.0 / 81.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A )	N/A N/A	N/A 0.0 0.0	0.0000	N/A			

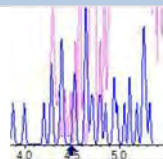
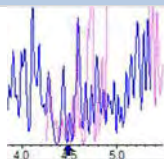
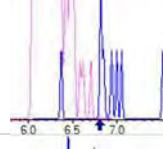
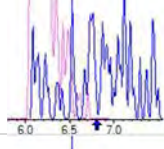
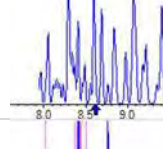
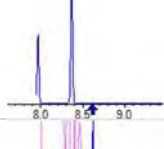
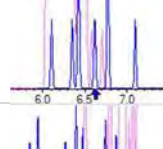
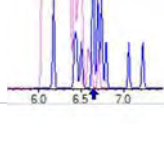
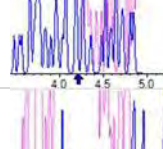
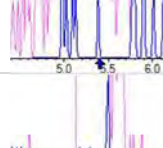
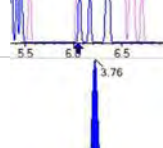
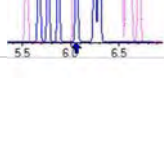
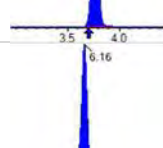
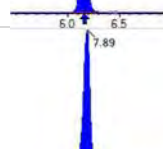
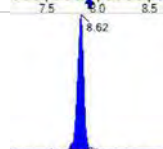
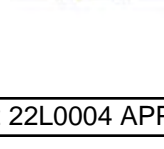


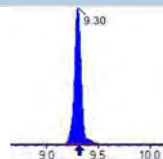
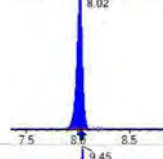
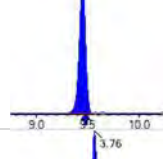
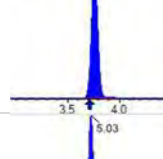
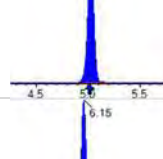
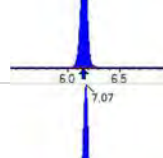
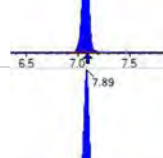
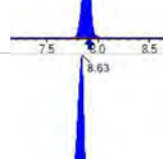
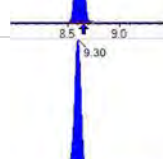
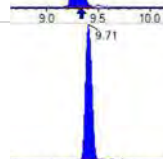
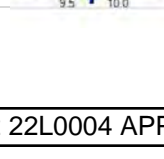
Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

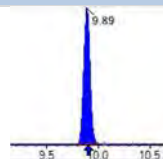
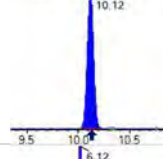
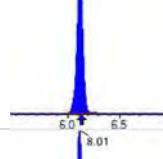
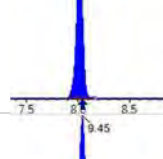
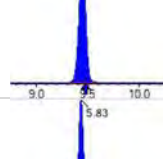
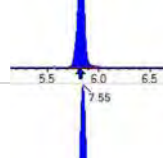
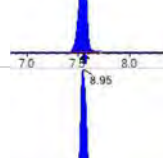
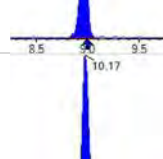
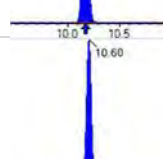
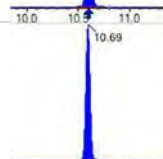
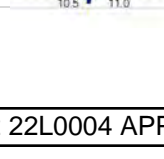
Sample I.D.: 22L0004-24  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-13.dam

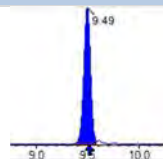
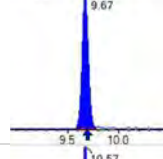
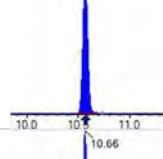
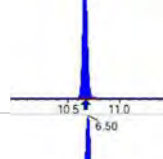
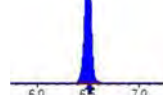
Quant Method: 1633 - S2022-12-15A  
 Path: S2022-12-15C (13)  
 Acquired: 2022/12/16 - 02:33

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFOSA	(498.0 / 78.0) N/A (498.0 / 478.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSA	(511.9 / 219.0) N/A (511.9 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NEtFOSA	(526.0 / 219.0) N/A (526.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSAA	(570.0 / 419.0) N/A (570.0 / 483.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NEtFOSAA	(584.0 / 419.0) N/A (584.0 / 526.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSE	(616.1 / 59.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
NEtFOSE	(630.0 / 59.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
HFPO-DA	(285.0 / 169.0) N/A (285.0 / 185.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
ADONA	(377.0 / 85.0) N/A (377.0 / 251.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
9Cl-Pf3ONS	(531.0 / 351.0) N/A (533.0 / 353.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
11Cl-Pf3OUDS	(631.0 / 451.0) N/A (633.0 / 453.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
3:3FTCA	(241.0 / 177.0) N/A (241.0 / 117.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
5:3FTCA	(341.0 / 236.7) N/A (341.0 / 217.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
7:3FTCA	(441.0 / 317.0) N/A (441.0 / 337.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFEESA	(315.0 / 135.0) N/A (315.0 / 83.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFMPA	(229.0 / 85.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
PFMBA	(279.0 / 85.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
NFDHA	(201.0 / 85.0) N/A (295.0 / 201.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
13C3_PFBA_IIS	(216.0 / 172.0) 102974	(3.76, N/A) (N/A, 0.08, N/A)	873.1	N/A	1.1778 [ 1.0000 ]	117.8% { 123.8% }			
13C2_PFHxA_IIS	(315.1 / 270.0) 147306	(6.16, N/A) (N/A, 0.03, N/A)	630.8	N/A	1.1196 [ 1.0000 ]	112.0% { 111.6% }			
13C4_PFOA_IIS	(417.0 / 372.0) 129330	(7.89, N/A) (N/A, 0.01, N/A)	445.3	N/A	1.0332 [ 1.0000 ]	103.3% { 105.6% }			
13C5_PFNA_IIS	(468.0 / 423.0) 103565	(8.62, N/A) (N/A, 0.01, N/A)	436.9	N/A	1.0375 [ 1.0000 ]	103.8% { 107.6% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDA_IIS	(515.1 / 470.1) 119395	(9.30, N/A) (N/A, 0.01, N/A)	378.3	N/A	1.1513 [ 1.0000 ]	115.1% { 119.6% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 258198	(8.02, N/A) (N/A, 0.01, N/A)	700.3	N/A	1.0914 [ 1.0000 ]	109.1% { 116.3% }			
13C4_PFOS_IIS	(502.8 / 79.9) 212234	(9.45, N/A) (N/A, 0.01, N/A)	334.8	N/A	1.0579 [ 1.0000 ]	105.8% { 107.4% }			
13C4_PFBA_EIS	(217.0 / 172.0) 733896	(3.76, N/A) (N/A, 0.08, N/A)	889.2	N/A	6.8838 [ 8.0000 ]	86.0% { 109.3% }			
13C5_PFPeA_EIS	(267.9 / 223.0) 408305	(5.03, N/A) (N/A, 0.04, N/A)	922.2	N/A	3.7649 [ 4.0000 ]	94.1% { 107.3% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 328363	(6.15, N/A) (N/A, 0.02, N/A)	794.2	N/A	1.8936 [ 2.0000 ]	94.7% { 115.2% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 267081	(7.07, N/A) (N/A, 0.02, N/A)	518.8	N/A	1.7433 [ 2.0000 ]	87.2% { 102.1% }			
13C8_PFOA_EIS	(421.0 / 376.0) 283859	(7.89, N/A) (N/A, 0.01, N/A)	659.9	N/A	1.9863 [ 2.0000 ]	99.3% { 112.6% }			
13C9_PFNA_EIS	(472.0 / 427.0) 98194	(8.63, N/A) (N/A, 0.01, N/A)	461.4	N/A	0.8680 [ 1.0000 ]	86.8% { 104.2% }			
13C6_PFDA_EIS	(519.0 / 474.0) 132223	(9.30, N/A) (N/A, 0.01, N/A)	297.5	N/A	0.8173 [ 1.0000 ]	81.7% { 101.2% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 230378	(9.71, N/A) (N/A, 0.00, N/A)	408.0	N/A	0.9890 [ 1.0000 ]	98.9% { 154.0% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDa_EIS	(615.0 / 570.0) 234437	(9.89, N/A) (N/A, 0.01, N/A)	437.7	N/A	0.8924 [ 1.0000 ]	89.2% { 96.9% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 152956	(10.12, N/A) (N/A, 0.01, N/A)	400.1	N/A	0.9580 [ 1.0000 ]	95.8% { 115.4% }			
13C3_PFBs_EIS	(302.0 / 80.0) 742227	(6.12, N/A) (N/A, 0.03, N/A)	616.0	N/A	1.7601 [ 2.0000 ]	88.0% { 99.7% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 401107	(8.01, N/A) (N/A, 0.01, N/A)	725.6	N/A	1.8342 [ 2.0000 ]	91.7% { 111.3% }			
13C8_PFOS_EIS	(507.0 / 80.0) 678376	(9.45, N/A) (N/A, 0.01, N/A)	570.1	N/A	1.9458 [ 2.0000 ]	97.3% { 109.4% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 93453	(5.83, N/A) (N/A, 0.03, N/A)	527.0	N/A	3.9302 [ 4.0000 ]	98.3% { 102.5% }			
13C2_6:2FTS_EIS	(429.0 / 81.0) 113636	(7.55, N/A) (N/A, 0.02, N/A)	568.4	N/A	3.7292 [ 4.0000 ]	93.2% { 102.5% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 115130	(8.95, N/A) (N/A, 0.01, N/A)	369.6	N/A	4.2143 [ 4.0000 ]	105.4% { 107.9% }			
13C8_PFOsa_EIS	(506.0 / 78.0) 1043063	(10.17, N/A) (N/A, 0.01, N/A)	713.6	N/A	2.0558 [ 2.0000 ]	102.8% { 114.0% }			
D3_NMeFOSA_EIS	(515.0 / 169.0) 161527	(10.60, N/A) (N/A, 0.00, N/A)	615.7	N/A	1.2779 [ 2.0000 ]	63.9% { 66.9% }			
D5_NEtFOSA_EIS	(531.1 / 169.0) 158652	(10.69, N/A) (N/A, 0.01, N/A)	1122.1	N/A	1.3441 [ 2.0000 ]	67.2% { 67.5% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT- CV[ $\mu$ min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
D3_MeFOSAA_EIS	(573.0 / 419.0) 342434	(9.49, N/A) (N/A, 0.01, N/A)	495.8	N/A	4.1872 [ 4.0000 ]	104.7% { 124.7% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 316474	(9.67, N/A) (N/A, 0.00, N/A)	375.1	N/A	4.6563 [ 4.0000 ]	116.4% { 130.6% }			
D7_NMeFOSE_EIS	(623.2 / 58.9) 471105	(10.57, N/A) (N/A, 0.00, N/A)	1187.3	N/A	19.3757 [ 20.0000 ]	96.9% { 102.3% }			
D9_NEtFOSE_EIS	(639.2 / 58.9) 246397	(10.66, N/A) (N/A, 0.00, N/A)	1154.4	N/A	18.8188 [ 20.0000 ]	94.1% { 90.9% }			
13C3_HFPODA_EIS	(287.0 / 169.0) 829638	(6.50, N/A) (N/A, 0.02, N/A)	1209.7	N/A	7.8579 [ 8.0000 ]	98.2% { 116.2% }			

# FORM IR ANALYSIS DATA SHEET

MW-15-113022-

Laboratory:	APPL, LLC-	Work Order:	22L0004-
Client:	Tidewater, Inc.-	Project:	NASA JPL SI-
Matrix:	Water-	Laboratory ID:	22L0004-25-
		File ID:	S2022-12-15B (31)-
Sampled:	11/30/22 09:40-	Prepared:	12/14/22 08:57
		Analyzed:	12/15/22 21:40
Solids:		Preparation:	Table B-15-
		Dilution:	1-
Initial/Final:	292.87 mL / 2 mL-	Instrument:	Saphira
Batch:	BBL0296-	Sequence:	SB03858
		Calibration:	2251019

COMPOUNDR	CONC. (ng/L)	LOQ	LODR	DL	Q
PFBA-	0.17 U-	2.7	0.17	0.043	
PFPEA-	2.7-	1.4	0.17	0.053	
PFHXA-	2.0-	0.68	0.17	0.055	
PFHPA-	1.5-	0.68	0.17	0.043	
PFOA-	2.5-	0.68	0.17	0.070	
PFNA-	0.88-	0.68	0.17	0.043	
PFDA-	0.17 U-	0.68	0.17	0.043	
PFUnA-	0.17 U-	0.68	0.17	0.068	
PFDOA-	0.17 U-	0.68	0.17	0.043	
PFTRDA-	0.17 U-	0.68	0.17	0.050	
PFTEDA-	0.17 U-	0.68	0.17	0.073	
PFBS-	0.97-	0.68	0.17	0.043	
PFPEs-	0.17 U-	0.68	0.17	0.050	
PFHXS-	0.32 J-	0.68	0.17	0.043	
PFHPS-	0.17 U-	0.68	0.17	0.048	
PFOS-	1.5-	0.68	0.17	0.043	
PFNS-	0.34 U-	0.68	0.34	0.21	
PFDS-	0.17 U-	0.68	0.17	0.055	
4:2FTS-	0.34 U-	2.7	0.34	0.092	
6:2FTS-	0.17 U-	2.7	0.17	0.077	
8:2FTS-	0.51 U-	2.7	0.51	0.17	
PFOSA-	0.17 U-	2.7	0.17	0.043	
NMeFOSA-	1.7 U-	2.7	1.7	0.84	
NEtFOSA-	1.7 U-	2.7	1.7	0.84	
NMeFOSAA-	0.17 U-	0.68	0.17	0.061	
NEtFOSAA-	0.17 U-	0.68	0.17	0.043	
NMeFOSE-	1.0 U-	2.7	1.0	0.51	
NEtFOSE-	1.0 U-	2.7	1.0	0.51	
HFPO-DA-	0.85 U-	1.4	0.85	0.42	
ADONA-	0.51 U-	1.4	0.51	0.22	

# FORM IR ANALYSIS DATA SHEET

MW-15-113022-

Laboratory:	APPL, LLC-	Work Order:	22L0004-
Client:	Tidewater, Inc.-	Project:	NASA JPL SI-
Matrix:	Water-	Laboratory ID:	22L0004-25-
Sampled:	11/30/22 09:40-	Prepared:	12/14/22 08:57-
Solids:		Preparation:	Table B-15-
Initial/Final:	292.87 mL / 2 mL-	Dilution:	1-
Batch:	BBL0296-	Instrument:	Saphira-
	Sequence:	SB03858-	Calibration:
			2251019-

COMPOUNDR	CONC. (ng/L)R	LOQ	LODR	DLR	Q
9CL-PF3ONS-	0.51 U-	1.4-	0.51-	0.20-	
11CL-PF3OUDS-	0.51 U-	1.4-	0.51-	0.20-	



Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: 22L0004-25  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - S2022-12-15A  
 Path: S2022-12-15B (31)  
 Acquired: 2022/12/15 - 21:40

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBA	(212.9 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
PFPeA	(262.9 / 219.0) 41989 (262.9 / 69.0) 315	(4.98, 1.00) (0.00, N/A, 0.5)	333.5 19.5	0.0075 8778.7 67.1	0.3911	N/A			
PFHxA	(313.0 / 269.0) 47771 (313.0 / 119.0) 5895	(6.12, 1.00) (0.00, N/A, -0.3)	199.2 108.3	0.1234 125.8 133.3	0.2957	N/A			
PFHpA	(363.0 / 319.0) 29618 (363.0 / 169.0) 8155	(7.04, 1.00) (0.00, N/A, -0.3)	118.2 128.8	0.2753 88.1 92.7	0.2178	N/A			
PFOA	(413.0 / 369.0) 50625 (413.0 / 169.0) 15552	(7.86, 1.00) (0.00, N/A, -0.1)	157.2 136.3	0.3072 91.2 97.9	0.3588	N/A			
PFNA	(463.0 / 419.0) 13411 (463.0 / 169.0) 1820	(8.61, 1.00) (0.01, N/A, 1.4)	38.1 104.0	0.1357 67.6 62.2	0.1290	N/A			
PFDA	(513.0 / 469.0) N/A (513.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFUnA	(563.0 / 519.0) N/A (563.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDoA	(613.0 / 569.0) N/A (613.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFTrDA	(663.0 / 619.0) N/A (663.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFTeDA	(713.0 / 669.0) N/A (713.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			



Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: 22L0004-25  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - S2022-12-15A  
 Path: S2022-12-15B (31)  
 Acquired: 2022/12/15 - 21:40

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBS	( 298.9 / 80.0 ) 34995 ( 298.9 / 99.0 ) 28237	( 6.08 , 1.00 ) ( 0.00 , N/A , 0.1)	294.8 163.8	0.8069 118.6 122.5	0.1413	N/A			
PFPeS	( 349.0 / 80.0 ) N/A ( 349.0 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHxS	( 399.0 / 80.0 ) 16613 ( 399.0 / 99.0 ) 6033	( 8.00 , 1.00 ) ( 0.01 , N/A , 0.6)	1536.8 431.7	0.3631 105.9 102.5	0.0464	N/A			
PFHpS	( 449.0 / 80.0 ) N/A ( 449.0 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFOS	( 499.0 / 80.0 ) 91458 ( 499.0 / 99.0 ) 27106	( 9.43 , 1.00 ) ( 0.00 , N/A , -0.2)	45.9 79.6	0.2964 129.7 128.0	0.2141	N/A			
PFNS	( 549.0 / 80.0 ) N/A ( 549.0 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDS	( 599.0 / 80.0 ) N/A ( 599.0 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDoS	( 698.9 / 80.0 ) N/A ( 698.9 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
4:2FTS	( 327.0 / 307.0 ) N/A ( 327.0 / 81.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
6:2FTS	( 427.0 / 407.0 ) N/A ( 427.0 / 81.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
8:2FTS	( 527.0 / 507.0 ) N/A ( 527.0 / 81.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			



Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: 22L0004-25  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - S2022-12-15A  
 Path: S2022-12-15B (31)  
 Acquired: 2022/12/15 - 21:40

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFOSA	(498.0 / 78.0) N/A (498.0 / 478.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSA	(511.9 / 219.0) N/A (511.9 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NEtFOSA	(526.0 / 219.0) N/A (526.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSAA	(570.0 / 419.0) N/A (570.0 / 483.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NEtFOSAA	(584.0 / 419.0) N/A (584.0 / 526.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSE	(616.1 / 59.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
NEtFOSE	(630.0 / 59.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
HFPO-DA	(285.0 / 169.0) N/A (285.0 / 185.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
ADONA	(377.0 / 85.0) N/A (377.0 / 251.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
9CI-Pf3ONS	(531.0 / 351.0) N/A (533.0 / 353.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
11CI-PF3OUDS	(631.0 / 451.0) N/A (633.0 / 453.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			

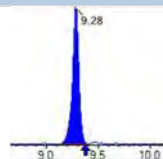
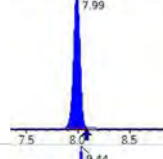
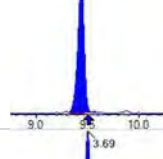
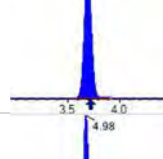
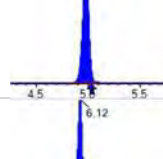
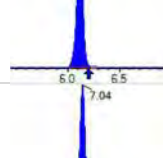
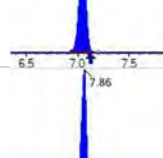
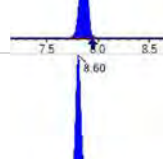
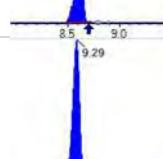
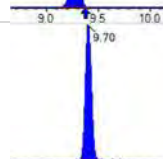
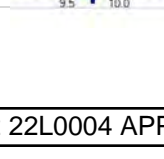


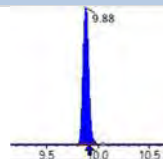
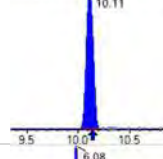
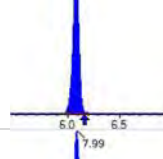
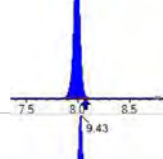
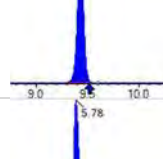
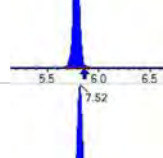
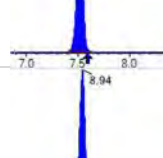
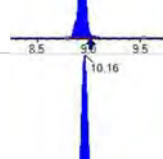
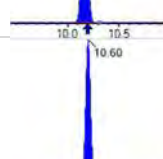
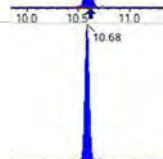
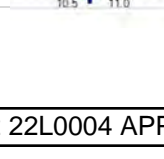
Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: 22L0004-25  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - S2022-12-15A  
 Path: S2022-12-15B (31)  
 Acquired: 2022/12/15 - 21:40

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
3:3FTCA	(241.0 / 177.0) N/A (241.0 / 117.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
5:3FTCA	(341.0 / 236.7) N/A (341.0 / 217.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
7:3FTCA	(441.0 / 317.0) N/A (441.0 / 337.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFEESA	(315.0 / 135.0) N/A (315.0 / 83.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFMPA	(229.0 / 85.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
PFMBA	(279.0 / 85.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
NFDHA	(201.0 / 85.0) N/A (295.0 / 201.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
13C3_PFBa_IIS	(216.0 / 172.0) 90237	(3.69, N/A) (N/A, -0.02, N/A)	775.8	N/A	1.0321 [ 1.0000 ]	103.2% { 103.2% }			
13C2_PFHxA_IIS	(315.1 / 270.0) 144249	(6.12, N/A) (N/A, -0.08, N/A)	555.3	N/A	1.0963 [ 1.0000 ]	109.6% { 114.5% }			
13C4_PFOA_IIS	(417.0 / 372.0) 132438	(7.86, N/A) (N/A, -0.08, N/A)	477.8	N/A	1.0581 [ 1.0000 ]	105.8% { 98.3% }			
13C5_PFNAl_IIS	(468.0 / 423.0) 108724	(8.60, N/A) (N/A, -0.09, N/A)	402.6	N/A	1.0892 [ 1.0000 ]	108.9% { 107.6% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDA_IIS	(515.1 / 470.1) 104218	(9.28, N/A) (N/A, -0.09, N/A)	312.7	N/A	1.0050 [ 1.0000 ]	100.5% { 93.4% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 244711	(7.99, N/A) (N/A, -0.09, N/A)	756.1	N/A	1.0344 [ 1.0000 ]	103.4% { 99.7% }			
13C4_PFOS_IIS	(502.8 / 79.9) 206027	(9.44, N/A) (N/A, -0.07, N/A)	227.4	N/A	1.0269 [ 1.0000 ]	102.7% { 98.3% }			
13C4_PFBA_EIS	(217.0 / 172.0) 716861	(3.69, N/A) (N/A, -0.02, N/A)	829.7	N/A	7.6731 [ 8.0000 ]	95.9% { 96.2% }			
13C5_PFPeA_EIS	(267.9 / 223.0) 474281	(4.98, N/A) (N/A, -0.05, N/A)	936.3	N/A	4.4660 [ 4.0000 ]	111.7% { 120.9% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 356181	(6.12, N/A) (N/A, -0.07, N/A)	695.2	N/A	2.0975 [ 2.0000 ]	104.9% { 122.4% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 301165	(7.04, N/A) (N/A, -0.08, N/A)	663.6	N/A	2.0074 [ 2.0000 ]	100.4% { 108.7% }			
13C8_PFOA_EIS	(421.0 / 376.0) 297753	(7.86, N/A) (N/A, -0.08, N/A)	1050.5	N/A	2.0346 [ 2.0000 ]	101.7% { 111.0% }			
13C9_PFNA_EIS	(472.0 / 427.0) 123046	(8.60, N/A) (N/A, -0.09, N/A)	345.6	N/A	1.0361 [ 1.0000 ]	103.6% { 115.6% }			
13C6_PFDA_EIS	(519.0 / 474.0) 158273	(9.29, N/A) (N/A, -0.08, N/A)	479.6	N/A	1.1208 [ 1.0000 ]	112.1% { 118.6% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 231017	(9.70, N/A) (N/A, -0.04, N/A)	342.6	N/A	1.1361 [ 1.0000 ]	113.6% { 116.9% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDa_EIS	(615.0 / 570.0) 198639	(9.88, N/A) (N/A, -0.03, N/A)	852.1	N/A	0.8662 [ 1.0000 ]	86.6% { 77.1% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 112210	(10.11, N/A) (N/A, -0.03, N/A)	365.6	N/A	0.8051 [ 1.0000 ]	80.5% { 77.2% }			
13C3_PFBs_EIS	(302.0 / 80.0) 906592	(6.08, N/A) (N/A, -0.07, N/A)	946.8	N/A	2.2684 [ 2.0000 ]	113.4% { 127.0% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 449992	(7.99, N/A) (N/A, -0.09, N/A)	791.5	N/A	2.1711 [ 2.0000 ]	108.6% { 110.6% }			
13C8_PFOS_EIS	(507.0 / 80.0) 777320	(9.43, N/A) (N/A, -0.08, N/A)	557.8	N/A	2.2968 [ 2.0000 ]	114.8% { 136.3% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 114386	(5.78, N/A) (N/A, -0.08, N/A)	655.2	N/A	5.0757 [ 4.0000 ]	126.9% { 135.9% }			
13C2_6:2FTS_EIS	(429.0 / 81.0) 144093	(7.52, N/A) (N/A, -0.08, N/A)	675.7	N/A	4.9893 [ 4.0000 ]	124.7% { 131.2% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 108525	(8.94, N/A) (N/A, -0.09, N/A)	318.8	N/A	4.1915 [ 4.0000 ]	104.8% { 130.1% }			
13C8_PFOsa_EIS	(506.0 / 78.0) 861369	(10.16, N/A) (N/A, -0.03, N/A)	662.6	N/A	1.7488 [ 2.0000 ]	87.4% { 93.2% }			
D3_NMeFOSA_EIS	(515.0 / 169.0) 127350	(10.60, N/A) (N/A, -0.03, N/A)	652.2	N/A	1.0379 [ 2.0000 ]	51.9% { 51.7% }			
D5_NEtFOSA_EIS	(531.1 / 169.0) 110710	(10.68, N/A) (N/A, -0.02, N/A)	992.4	N/A	0.9662 [ 2.0000 ]	48.3% { 45.0% }			



Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: 22L0004-25  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - S2022-12-15A  
 Path: S2022-12-15B (31)  
 Acquired: 2022/12/15 - 21:40

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
D3_MeFOSAA_EIS	(573.0 / 419.0) 316879	(9.48, N/A) (N/A, -0.07, N/A)	447.4	N/A	3.9915 [ 4.0000 ]	99.8% { 106.0% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 308656	(9.66, N/A) (N/A, -0.04, N/A)	427.0	N/A	4.6781 [ 4.0000 ]	117.0% { 113.8% }			
D7_NMeFOSE_EIS	(623.2 / 58.9) 297026	(10.56, N/A) (N/A, -0.03, N/A)	723.3	N/A	12.5842 [ 20.0000 ]	62.9% { 59.2% }			
D9_NEtFOSE_EIS	(639.2 / 58.9) 157415	(10.66, N/A) (N/A, -0.02, N/A)	978.7	N/A	12.3849 [ 20.0000 ]	61.9% { 56.5% }			
13C3_HFPODA_EIS	(287.0 / 169.0) 869728	(6.46, N/A) (N/A, -0.08, N/A)	876.6	N/A	8.4122 [ 8.0000 ]	105.2% { 109.7% }			

# FORM IR ANALYSIS DATA SHEET

MW-15-113022-

Laboratory:	APPL, LLC-	Work Order:	22L0004-		
Client:	Tidewater, Inc.-	Project:	NASA JPL SI-		
Matrix:	Water-	Laboratory ID:	22L0004-25RE1-	File ID:	S2022-12-15B (32)-
Sampled:	11/30/22 09:40-	Prepared:	12/14/22 08:57-	Analyzed:	12/15/22 21:53-
Solids:		Preparation:	Table B-15-	Dilution:	10-
Initial/Final:	292.87 mL / 2 mL-			Instrument:	Saphira-
Batch:	BBL0296-	Sequence:	SB03858-	Calibration:	2251019-



Chemist: ABK  
Instrument: Saphira  
Type: Sciex Q3 5500

Sample I.D.: 22L0004-25RE1@10  
DF, IV: 1, 1.0µL  
Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - S2022-12-15A  
Path: S2022-12-15B (32)  
Acquired: 2022/12/15 - 21:53

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBA	(212.9 / 169.0) 1725	(3.72, 1.00) (0.00, N/A, 0.0)	12.1	N/A 0.0 0.0	0.0313	N/A			
PFPeA	(262.9 / 219.0) 4173 (262.9 / 69.0) 33	(5.00, 1.00) (0.00, N/A, 0.0)	50.8 3.3	0.0080 9390.5 71.8	0.0427	N/A			
PFHxA	(313.0 / 269.0) N/A (313.0 / 119.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHpA	(363.0 / 319.0) N/A (363.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFOA	(413.0 / 369.0) N/A (413.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFNA	(463.0 / 419.0) N/A (463.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDA	(513.0 / 469.0) N/A (513.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFUnA	(563.0 / 519.0) N/A (563.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDoA	(613.0 / 569.0) N/A (613.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFTrDA	(663.0 / 619.0) N/A (663.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFTeDA	(713.0 / 669.0) N/A (713.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			



Chemist: ABK  
Instrument: Saphira

Sample I.D.: 22L0004-25RE1@10  
DF, IV: 1, 1.0µL

Quant Method: 1633 - S2022-12-15A  
Path: S2022-12-15B (32)

Type: Sciex Q3 5500

Acquisition Method: 1633 2022-12-13.dam

Acquired: 2022/12/15 - 21:53

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBS	( 298.9 / 80.0 ) 3658 ( 298.9 / 99.0 ) 2902	( 6.10 , 1.00 ) ( 0.00 , N/A , -0.8)	68.6 41.7	0.7933 116.7 120.5	0.0171	N/A			
PFPeS	( 349.0 / 80.0 ) N/A ( 349.0 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHxS	( 399.0 / 80.0 ) N/A ( 399.0 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHpS	( 449.0 / 80.0 ) N/A ( 449.0 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFOS	( 499.0 / 80.0 ) 10152 ( 499.0 / 99.0 ) 5091	( 9.45 , 1.00 ) ( -0.01 , N/A , -0.2)	18.8 6625.4	0.5014 219.4 216.6	0.0291	N/A			IR2,
PFNS	( 549.0 / 80.0 ) N/A ( 549.0 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDS	( 599.0 / 80.0 ) N/A ( 599.0 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDoS	( 698.9 / 80.0 ) N/A ( 698.9 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
4:2FTS	( 327.0 / 307.0 ) N/A ( 327.0 / 81.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
6:2FTS	( 427.0 / 407.0 ) N/A ( 427.0 / 81.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
8:2FTS	( 527.0 / 507.0 ) N/A ( 527.0 / 81.0 ) N/A	( N/A , N/A ) ( N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			



Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: 22L0004-25RE1@10  
 DF, IV: 1, 1.0µL  
 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - S2022-12-15A  
 Path: S2022-12-15B (32)  
 Acquired: 2022/12/15 - 21:53

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFOSA	(498.0 / 78.0) N/A (498.0 / 478.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSA	(511.9 / 219.0) N/A (511.9 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NEtFOSA	(526.0 / 219.0) N/A (526.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSAA	(570.0 / 419.0) N/A (570.0 / 483.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NEtFOSAA	(584.0 / 419.0) N/A (584.0 / 526.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSE	(616.1 / 59.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
NEtFOSE	(630.0 / 59.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
HFPO-DA	(285.0 / 169.0) N/A (285.0 / 185.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
ADONA	(377.0 / 85.0) N/A (377.0 / 251.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
9Cl-Pf3ONS	(531.0 / 351.0) N/A (533.0 / 353.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
11Cl-Pf3OUDS	(631.0 / 451.0) N/A (633.0 / 453.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			

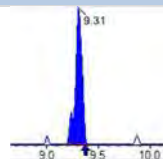
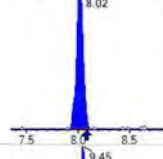
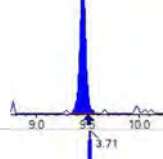
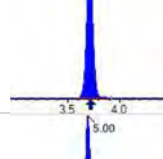
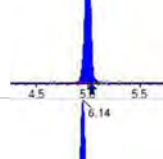
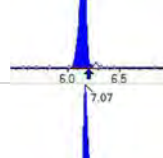
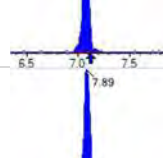
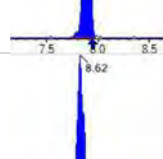
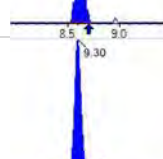
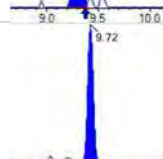
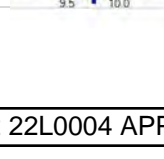


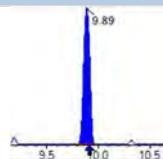
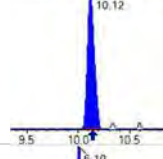
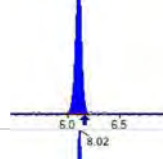
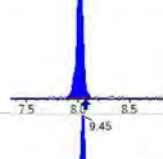
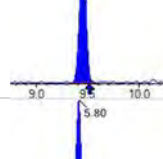
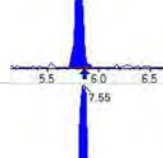
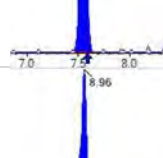
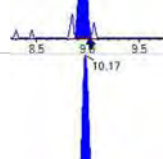
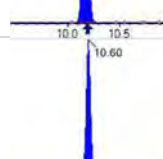
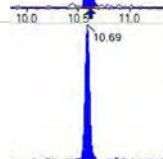
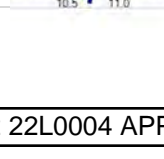
Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

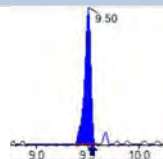
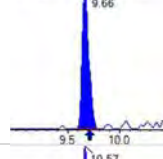
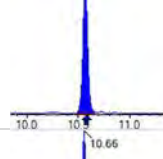
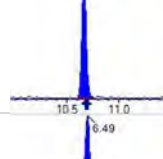
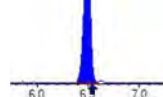
Sample I.D.: 22L0004-25RE1@10  
 DF, IV: 1, 1.0µL  
 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - S2022-12-15A  
 Path: S2022-12-15B (32)  
 Acquired: 2022/12/15 - 21:53

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
3:3FTCA	(241.0 / 177.0) N/A (241.0 / 117.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
5:3FTCA	(341.0 / 236.7) N/A (341.0 / 217.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
7:3FTCA	(441.0 / 317.0) N/A (441.0 / 337.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFEESA	(315.0 / 135.0) N/A (315.0 / 83.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFMPA	(229.0 / 85.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
PFMBA	(279.0 / 85.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
NFDHA	(201.0 / 85.0) N/A (295.0 / 201.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
13C3_PFBA_IIS	(216.0 / 172.0) 9337	(3.71, N/A) (N/A, -0.01, N/A)	350.2	N/A	1.0679 [ 1.0000 ]	106.8% { 10.7% }			
13C2_PFHxA_IIS	(315.1 / 270.0) 14349	(6.14, N/A) (N/A, -0.05, N/A)	249.5	N/A	1.0906 [ 1.0000 ]	109.1% { 11.4% }			
13C4_PFOA_IIS	(417.0 / 372.0) 10835	(7.88, N/A) (N/A, -0.06, N/A)	200.4	N/A	0.8656 [ 1.0000 ]	86.6% { 8.0% }			
13C5_PFNA_IIS	(468.0 / 423.0) 12501	(8.63, N/A) (N/A, -0.06, N/A)	363.1	N/A	1.2524 [ 1.0000 ]	125.2% { 12.4% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDA_IIS	(515.1 / 470.1) 9390	(9.31, N/A) (N/A, -0.06, N/A)	259.2	N/A	0.9054 [ 1.0000 ]	90.5% { 8.4% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 20489	(8.02, N/A) (N/A, -0.06, N/A)	339.4	N/A	0.8660 [ 1.0000 ]	86.6% { 8.3% }			
13C4_PFOS_IIS	(502.8 / 79.9) 18608	(9.45, N/A) (N/A, -0.05, N/A)	111.4	N/A	0.9275 [ 1.0000 ]	92.8% { 8.9% }			
13C4_PFBA_EIS	(217.0 / 172.0) 66377	(3.71, N/A) (N/A, 0.00, N/A)	813.0	N/A	0.6867 [ 0.8000 ]	85.8% { 8.9% }			
13C5_PFPeA_EIS	(267.9 / 223.0) 43149	(5.00, N/A) (N/A, -0.04, N/A)	569.0	N/A	0.4084 [ 0.4000 ]	102.1% { 11.0% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 32124	(6.14, N/A) (N/A, -0.05, N/A)	268.9	N/A	0.1902 [ 0.2000 ]	95.1% { 11.0% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 25976	(7.07, N/A) (N/A, -0.06, N/A)	330.6	N/A	0.1741 [ 0.2000 ]	87.0% { 9.4% }			
13C8_PFOA_EIS	(421.0 / 376.0) 30044	(7.89, N/A) (N/A, -0.05, N/A)	405.0	N/A	0.2510 [ 0.2000 ]	125.5% { 11.2% }			
13C9_PFNA_EIS	(472.0 / 427.0) 11498	(8.62, N/A) (N/A, -0.07, N/A)	1043.0	N/A	0.0842 [ 0.1000 ]	84.2% { 10.8% }			
13C6_PFDA_EIS	(519.0 / 474.0) 12029	(9.30, N/A) (N/A, -0.07, N/A)	86.2	N/A	0.0945 [ 0.1000 ]	94.5% { 9.0% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 26757	(9.72, N/A) (N/A, -0.02, N/A)	282.4	N/A	0.1461 [ 0.1000 ]	146.1% { 13.5% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDa_EIS	(615.0 / 570.0) 17955	(9.89, N/A) (N/A, -0.02, N/A)	289.2	N/A	0.0869 [0.1000]	86.9% {7.0%}			
13C2_PFTeDA_EIS	(715.0 / 670.0) 12691	(10.12, N/A) (N/A, -0.02, N/A)	658.4	N/A	0.1011 [0.1000]	101.1% {8.7%}			
13C3_PFBs_EIS	(302.0 / 80.0) 78353	(6.10, N/A) (N/A, -0.05, N/A)	516.1	N/A	0.2341 [0.2000]	117.1% {11.0%}			
13C3_PFHxS_EIS	(402.0 / 80.0) 41100	(8.02, N/A) (N/A, -0.06, N/A)	289.1	N/A	0.2368 [0.2000]	118.4% {10.1%}			
13C8_PFOS_EIS	(507.0 / 80.0) 63568	(9.45, N/A) (N/A, -0.05, N/A)	214.1	N/A	0.2080 [0.2000]	104.0% {11.1%}			
13C2_4:2FTS_EIS	(329.0 / 81.0) 11840	(5.80, N/A) (N/A, -0.05, N/A)	194.6	N/A	0.6275 [0.4000]	156.9% {14.1%}			S2,
13C2_6:2FTS_EIS	(429.0 / 81.0) 13040	(7.55, N/A) (N/A, -0.05, N/A)	163.4	N/A	0.5393 [0.4000]	134.8% {11.9%}			
13C2_8:2FTS_EIS	(529.0 / 81.0) 9030	(8.96, N/A) (N/A, -0.06, N/A)	92.4	N/A	0.4165 [0.4000]	104.1% {10.8%}			
13C8_PFOsa_EIS	(506.0 / 78.0) 68392	(10.17, N/A) (N/A, -0.02, N/A)	314.2	N/A	0.1537 [0.2000]	76.9% {7.4%}			
D3_NMeFOSA_EIS	(515.0 / 169.0) 13872	(10.60, N/A) (N/A, -0.02, N/A)	212.6	N/A	0.1252 [0.2000]	62.6% {5.6%}			
D5_NEiFOSA_EIS	(531.1 / 169.0) 11046	(10.69, N/A) (N/A, -0.01, N/A)	210.5	N/A	0.1067 [0.2000]	53.4% {4.5%}			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT- CV[ $\mu$ min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
D3_MeFOSAA_EIS	(573.0 / 419.0) 20812	(9.50, N/A) (N/A, -0.04, N/A)	119.2	N/A	0.2903 [ 0.4000 ]	72.6% { 7.0% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 21512	(9.66, N/A) (N/A, -0.04, N/A)	75.9	N/A	0.3610 [ 0.4000 ]	90.2% { 7.9% }			
D7_NMeFOSE_EIS	(623.2 / 58.9) 31716	(10.57, N/A) (N/A, -0.02, N/A)	321.7	N/A	1.4878 [ 2.0000 ]	74.4% { 6.3% }			
D9_NEtFOSE_EIS	(639.2 / 58.9) 15652	(10.66, N/A) (N/A, -0.02, N/A)	337.1	N/A	1.3635 [ 2.0000 ]	68.2% { 5.6% }			
13C3_HFPODA_EIS	(287.0 / 169.0) 82967	(6.49, N/A) (N/A, -0.05, N/A)	541.5	N/A	0.8067 [ 0.8000 ]	100.8% { 10.5% }			

# FORM IR ANALYSIS DATA SHEET

SB-3-113022-

Laboratory:-	APPL, LLC	Work Order:-	22L0004-	
Client:-	Tidewater, Inc.-	Project:	NASA JPL SI-	
Matrix:-	Water-	Laboratory ID:-	22L0004-26RE2-	File ID: S2022-12-29C (13)-
Sampled:-	11/30/22 09:50-	Prepared:-	12/19/22 12:17	Analyzed:- 12/30/22 06:37
Solids:-		Preparation:-	Table B-15-	Dilution:- 1-
Initial/Final:-	289.55 mL / 2 mL-			Instrument:- Saphira
Batch:-	BBL0371-	Sequence:-	SB04003	Calibration:- 2253011-

COMPOUNDR	CONC. (ng/L)	LOQ	LODR	DL	Q
PFBA-	0.17 U-	2.8	0.17	0.043	
PFPEA-	0.17 U-	1.4	0.17	0.054	
PFHXA-	0.17 U-	0.69	0.17	0.055	
PFHPA-	0.17 U-	0.69	0.17	0.043	
PFOA-	0.17 U-	0.69	0.17	0.071	
PFNA-	0.17 U-	0.69	0.17	0.043	
PFDA-	0.17 U-	0.69	0.17	0.043	
PFUnA-	0.17 U-	0.69	0.17	0.069	
PFDOA-	0.17 U-	0.69	0.17	0.043	
PFTRDA-	0.17 U-	0.69	0.17	0.050	
PFTEDA-	0.17 U-	0.69	0.17	0.074	
PFBS-	0.17 U-	0.69	0.17	0.043	
PFPEs-	0.17 U-	0.69	0.17	0.050	
PFHXS-	0.17 U-	0.69	0.17	0.043	
PFHPS-	0.17 U-	0.69	0.17	0.048	
PFOS-	0.17 U-	0.69	0.17	0.043	
PFNS-	0.35 U-	0.69	0.35	0.21	
PFDS-	0.17 U-	0.69	0.17	0.055	
4:2FTS-	0.35 U-	2.8	0.35	0.093	
6:2FTS-	0.17 U-	2.8	0.17	0.078	
8:2FTS-	0.52 U-	2.8	0.52	0.17	
PFOSA-	0.17 U-	2.8	0.17	0.043	
NMeFOSA-	1.7 U-	2.8	1.7	0.85	
NEtFOSA-	1.7 U-	2.8	1.7	0.85	
NMeFOSAA-	0.17 U-	0.69	0.17	0.062	
NEtFOSAA-	0.17 U-	0.69	0.17	0.043	
NMeFOSE-	1.0 U-	2.8	1.0	0.52	
NEtFOSE-	1.0 U-	2.8	1.0	0.52	
HFPO-DA-	0.86 U-	1.4	0.86	0.42	
ADONA-	0.52 U-	1.4	0.52	0.22	

# FORM IR ANALYSIS DATA SHEET

SB-3-113022-

Laboratory:-	APPL, LLC	Work Order:-	22L0004-	
Client:-	Tidewater, Inc.-	Project:-	NASA JPL SI-	
Matrix:-	Water-	Laboratory ID:-	22L0004-26RE2-	File ID:- S2022-12-29C (13)-
Sampled:-	11/30/22 09:50-	Prepared:-	12/19/22 12:17-	Analyzed:- 12/30/22 06:37-
Solids:-		Preparation:-	Table B-15-	Dilution:- 1-
Initial/Final:-	289.55 mL / 2 mL-			Instrument:- Saphira-
Batch:-	BBL0371-	Sequence:-	SB04003-	Calibration:- 2253011-

COMPOUNDR	CONC. (ng/L)R	LOQ	LODR	DLR	Q
9CL-PF3ONS-	0.52 U-	1.4-	0.52-	0.20-	
11CL-PF3OUDS-	0.52 U-	1.4-	0.52-	0.21-	



Chemist: HGH  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: 22L0004-26RE2  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-27.dam

Quant Method: 1633 - S2022-12-29A  
 Path: S2022-12-30A (13)  
 Acquired: 2022/12/30 - 06:37

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBA	(213.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
PFPeA	(263.0 / 219.0) N/A (263.0 / 69.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHxA	(313.0 / 269.0) N/A (313.0 / 119.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHpA	(363.0 / 319.0) N/A (363.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFOA	(413.0 / 369.0) N/A (413.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFNA	(463.0 / 419.0) N/A (463.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDA	(513.0 / 469.0) N/A (513.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFUnA	(563.0 / 519.0) N/A (563.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDoA	(613.0 / 569.0) N/A (613.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFTTrDA	(663.0 / 619.0) N/A (663.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFTeDA	(713.0 / 669.0) N/A (713.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			



Chemist: HGH  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: 22L0004-26RE2  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-27.dam

Quant Method: 1633 - S2022-12-29A  
 Path: S2022-12-30A (13)  
 Acquired: 2022/12/30 - 06:37

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT-CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBS	(299.0 / 80.0) N/A (299.0 / 99.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFPeS	(349.0 / 80.0) N/A (349.0 / 99.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHxS	(399.0 / 80.0) N/A (399.0 / 99.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHpS	(449.0 / 80.0) N/A (449.0 / 99.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFOS	(499.0 / 80.0) N/A (499.0 / 99.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFNS	(549.0 / 80.0) N/A (549.0 / 99.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDS	(599.0 / 80.0) N/A (599.0 / 99.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDoS	(699.0 / 80.0) N/A (699.0 / 99.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
4:2FTS	(327.0 / 307.0) N/A (327.0 / 81.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
6:2FTS	(427.0 / 407.0) N/A (427.0 / 81.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
8:2FTS	(527.0 / 507.0) N/A (527.0 / 81.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			



Chemist: HGH  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: 22L0004-26RE2  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-27.dam

Quant Method: 1633 - S2022-12-29A  
 Path: S2022-12-30A (13)  
 Acquired: 2022/12/30 - 06:37

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFOSA	(498.0 / 78.0) N/A (498.0 / 478.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSA	(512.0 / 219.0) N/A (512.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NEtFOSA	(526.0 / 219.0) N/A (526.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSAA	(570.0 / 419.0) N/A (570.0 / 483.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NEtFOSAA	(584.0 / 419.0) N/A (584.0 / 526.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSE	(616.0 / 59.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
NEtFOSE	(630.0 / 59.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
HFPO-DA	(285.0 / 169.0) N/A (285.0 / 185.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
ADONA	(377.0 / 85.0) N/A (377.0 / 251.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
9Cl-Pf3ONS	(531.0 / 351.0) N/A (533.0 / 353.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
11Cl-Pf3OUDS	(631.0 / 451.0) N/A (633.0 / 453.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			

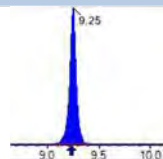
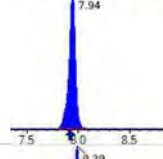
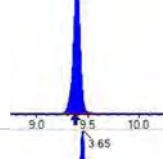
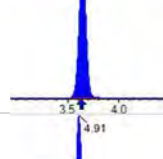
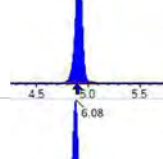
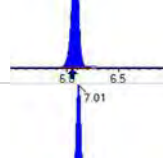
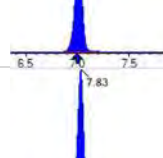
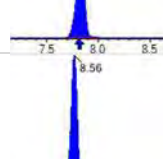
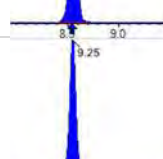
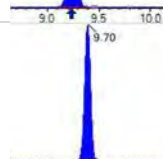
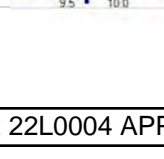


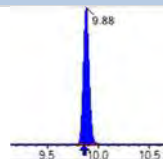
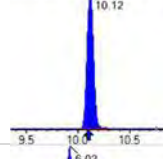
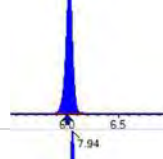
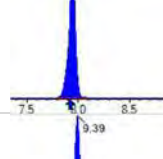
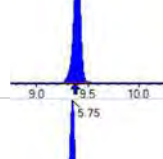
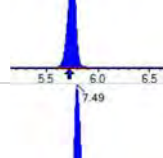
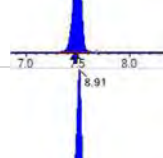
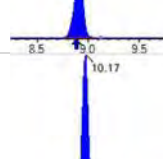
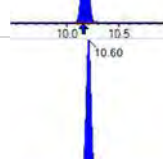
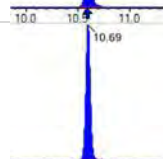
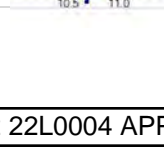
Chemist: HGH  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: 22L0004-26RE2  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-27.dam

Quant Method: 1633 - S2022-12-29A  
 Path: S2022-12-30A (13)  
 Acquired: 2022/12/30 - 06:37

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
3:3FTCA	(241.0 / 177.0) N/A (241.0 / 117.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
5:3FTCA	(341.0 / 236.7) N/A (341.0 / 217.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
7:3FTCA	(441.0 / 317.0) N/A (441.0 / 337.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFEESA	(315.0 / 135.0) N/A (315.0 / 83.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFMPA	(229.0 / 85.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
PFMBA	(279.0 / 85.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
NFDHA	(295.0 / 201.0) N/A (295.0 / 85.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
13C3_PFBA_IIS	(216.0 / 172.0) 289915	(3.65, N/A) (N/A, 0.03, N/A)	814.3	N/A	1.3462 [ 1.0000 ]	134.6% { 122.9% }			
13C2_PFHxA_IIS	(315.0 / 270.0) 566098	(6.08, N/A) (N/A, 0.02, N/A)	585.7	N/A	1.4912 [ 1.0000 ]	149.1% { 137.1% }			
13C4_PFOA_IIS	(417.0 / 372.0) 500974	(7.83, N/A) (N/A, 0.01, N/A)	614.4	N/A	1.3879 [ 1.0000 ]	138.8% { 127.4% }			
13C5_PFNA_IIS	(468.0 / 423.0) 404798	(8.57, N/A) (N/A, 0.02, N/A)	463.2	N/A	1.3766 [ 1.0000 ]	137.7% { 126.2% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDA_IIS	(515.0 / 470.1) 478366	(9.25, N/A) (N/A, 0.02, N/A)	381.6	N/A	1.4043 [ 1.0000 ]	140.4% { 135.8% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 738792	(7.94, N/A) (N/A, 0.02, N/A)	785.0	N/A	1.2210 [ 1.0000 ]	122.1% { 117.3% }			
13C4_PFOS_IIS	(503.0 / 79.9) 827918	(9.39, N/A) (N/A, 0.02, N/A)	471.5	N/A	1.2840 [ 1.0000 ]	128.4% { 126.6% }			
13C4_PFBA_EIS	(217.0 / 172.0) 2132348	(3.65, N/A) (N/A, 0.03, N/A)	781.7	N/A	7.3259 [ 8.0000 ]	91.6% { 114.6% }			
13C5_PFPeA_EIS	(268.0 / 223.0) 1463457	(4.91, N/A) (N/A, 0.02, N/A)	700.2	N/A	3.4266 [ 4.0000 ]	85.7% { 112.3% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 931531	(6.08, N/A) (N/A, 0.03, N/A)	457.7	N/A	1.6081 [ 2.0000 ]	80.4% { 114.9% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 776396	(7.01, N/A) (N/A, 0.02, N/A)	483.9	N/A	1.5428 [ 2.0000 ]	77.1% { 104.1% }			
13C8_PFOA_EIS	(421.0 / 376.0) 898430	(7.83, N/A) (N/A, 0.02, N/A)	545.5	N/A	1.7528 [ 2.0000 ]	87.6% { 113.6% }			
13C9_PFNA_EIS	(472.0 / 427.0) 358383	(8.56, N/A) (N/A, 0.02, N/A)	478.8	N/A	0.8521 [ 1.0000 ]	85.2% { 109.2% }			
13C6_PFDA_EIS	(519.0 / 474.0) 450535	(9.25, N/A) (N/A, 0.02, N/A)	361.3	N/A	0.7797 [ 1.0000 ]	78.0% { 101.5% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 661710	(9.70, N/A) (N/A, 0.02, N/A)	542.3	N/A	0.9312 [ 1.0000 ]	93.1% { 137.6% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDa_EIS	(615.0 / 570.0) 684940	(9.88, N/A) (N/A, 0.01, N/A)	405.8	N/A	0.9659 [ 1.0000 ]	96.6% { 119.2% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 402135	(10.12, N/A) (N/A, 0.01, N/A)	832.9	N/A	0.8950 [ 1.0000 ]	89.5% { 98.7% }			
13C3_PFBs_EIS	(302.0 / 80.0) 2275549	(6.02, N/A) (N/A, 0.03, N/A)	625.2	N/A	2.0351 [ 2.0000 ]	101.8% { 111.9% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 1033269	(7.94, N/A) (N/A, 0.02, N/A)	769.8	N/A	1.7067 [ 2.0000 ]	85.3% { 103.8% }			
13C8_PFOS_EIS	(507.0 / 80.0) 1849935	(9.39, N/A) (N/A, 0.02, N/A)	570.8	N/A	1.8542 [ 2.0000 ]	92.7% { 122.7% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 629388	(5.75, N/A) (N/A, 0.03, N/A)	538.9	N/A	4.9823 [ 4.0000 ]	124.6% { 121.2% }			
13C2_6:2FTS_EIS	(429.0 / 81.0) 684619	(7.49, N/A) (N/A, 0.02, N/A)	645.4	N/A	4.0960 [ 4.0000 ]	102.4% { 96.4% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 684804	(8.91, N/A) (N/A, 0.02, N/A)	410.7	N/A	3.2503 [ 4.0000 ]	81.3% { 111.9% }			
13C8_PFOsa_EIS	(506.0 / 78.0) 2313504	(10.17, N/A) (N/A, 0.01, N/A)	583.0	N/A	1.9867 [ 2.0000 ]	99.3% { 113.0% }			
D3_NMeFOSA_EIS	(515.0 / 169.0) 228127	(10.60, N/A) (N/A, 0.01, N/A)	766.1	N/A	1.0359 [ 2.0000 ]	51.8% { 57.4% }			
D5_NEtFOSA_EIS	(531.0 / 169.0) 217272	(10.69, N/A) (N/A, 0.01, N/A)	686.6	N/A	1.0772 [ 2.0000 ]	53.9% { 58.8% }			



Chemist: HGH  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: 22L0004-26RE2  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-27.dam

Quant Method: 1633 - S2022-12-29A  
 Path: S2022-12-30A (13)  
 Acquired: 2022/12/30 - 06:37

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT-CV[ $\mu$ min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
D3_MeFOSAA_EIS	(573.0 / 419.0) 1185647	(9.46, N/A) (N/A, 0.02, N/A)	312.8	N/A	3.7769 [ 4.0000 ]	94.4% { 118.9% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 890304	(9.65, N/A) (N/A, 0.02, N/A)	106.3	N/A	3.5670 [ 4.0000 ]	89.2% { 103.2% }			
D7_NMeFOSE_EIS	(623.0 / 58.9) 876490	(10.57, N/A) (N/A, 0.01, N/A)	788.9	N/A	18.2176 [ 20.0000 ]	91.1% { 95.4% }			
D9_NEtFOSE_EIS	(639.0 / 58.9) 434718	(10.67, N/A) (N/A, 0.01, N/A)	1432.5	N/A	19.5943 [ 20.0000 ]	98.0% { 91.3% }			
13C3_HFPODA_EIS	(287.0 / 169.0) 2107386	(6.42, N/A) (N/A, 0.02, N/A)	566.8	N/A	6.5029 [ 8.0000 ]	81.3% { 115.7% }			